EAU DECEMBER 2013

PROJECT ID: 8110-02-71

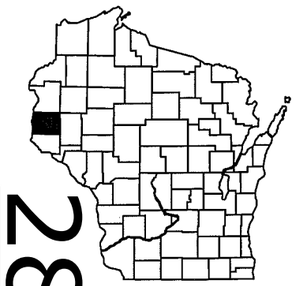
WITH:

COUNTY: St. Croix

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 = 330



28

N

DESIGN DESIGNATION

A.A.D.T.	2015	= 36,900
A.A.D.T.	2025	= 44,300
D.H.V.		= 6,125
D.D.		= 68/32
T.		= 9.2%
DESIGN SPEED		= 70 MPH
ESALS		= 12,300,500

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

STILLWATER - SOMERSET

ST CROIX RIVER TO CTH E, B-55-0225

STH 64

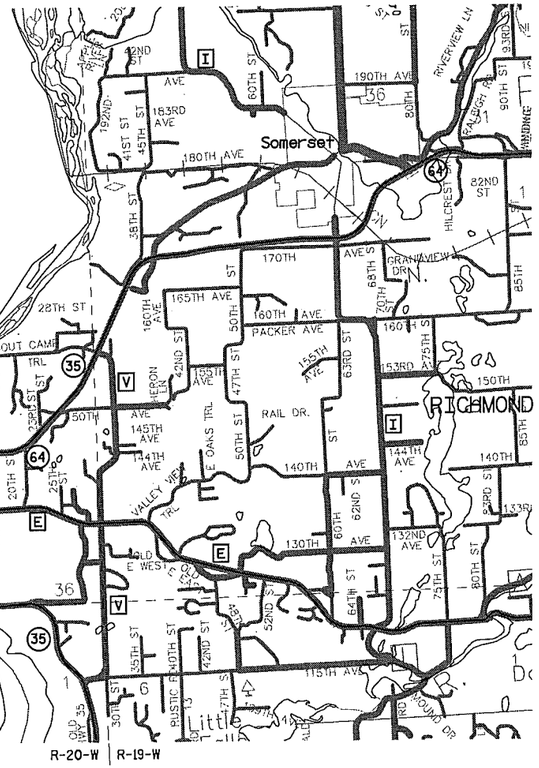
St. Croix

STATE PROJECT NUMBER
8110-02-71

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
8110-02-71	———	—

END PROJECT 8110-02-72
STA 200+00.00
X=504726.9571
Y=375097.3562

BEGIN PROJECT 8110-02-72
STA 130+75.18
X=504805.6663
Y=368373.7862



LAYOUT
SCALE 0 1 MI.

TOTAL NET LENGTH OF CENTERLINE = 1.3 MILES

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, ST. CROIX COUNTY, NAD83 (91), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NW REGION EAU CLAIRE
Designer	ERIC ANDRITSCH
Project Manager	BETH CUNNINGHAM P.E.
Regional Examiner	DANIEL OJIBWAY
Regional Supervisor	DAVID SOLBERG P.E.
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 10/3/2013 (Signature)

E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\010101_TI_71.DWG

PLOT DATE : 10/3/2013 7:37 AM

PLOT BY : ANDRITSCH, ERIC R PLOT NAME :

LIST OF STANDARD ABBREVIATIONS

ABUT.	ABUTMENT
AGG.	AGGREGATE
AH.	AHEAD
APPROX.	APPROXIMATE
A.E.W.	APRON ENDWALL
ASPH.	ASPHALTIC
A.D.T.	AVERAGE DAILY TRAFFIC
AZ.	AZIMUTH
BK.	BACK
BEG.	BEGIN
B.M.	BENCH MARK
C/L	CENTER LINE
CONC.	CONCRETE
CONST.	CONSTRUCTION
CO.	COUNTY
C.T.H.	COUNTY TRUNK HIGHWAY
X-SEC.	CROSS SECTION
CR.	CRUSHED
CFS	CUBIC FEET/SECOND
C.Y., CU. YD.	CUBIC YARD
CULV.	CULVERT
C.P.	CULVERT PIPE
D.O.T.	DEPARTMENT OF TRANSPORTATION
D.H.V.	DESIGN HOUR VOLUME
DIA.	DIAMETER
D.	DIRECTIONAL DISTRIBUTION
DISCH. OR DIS.	DISCHARGE
EA.	EACH
ELECT.	ELECTRIC
EL. OR ELEV.	ELEVATION
EMB.	EMBANKMENT
E.B.S.	EXCAVATION BELOW SUBGRADE
EXIST.	EXISTING
FERT.	FERTILIZE
F.E.	FIELD ENTRANCE
FIN.	FINISHED
FT.	FOOT
F.L.	FLOW LINE
GA.	GAUGE
HORIZ.	HORIZONTAL
CWT.	HUNDREDWEIGHT
INL.	INLET
LT.	LEFT
L.H.F.	LEFT-HAND FORWARD
LIN.	LINEAR
LIN. FT.	LINEAR FOOT
L.S.	LUMP SUM
MAX.	MAXIMUM
MI.	MILE
MISC.	MISCELLANEOUS
N.E.	NORTH EAST
N.W.	NORTH WEST
PAV'T	PAVEMENT
P.C.	POINT OF CURVATURE
P.I.	POINT OF INTERSECTION
P.T.	POINT OF TANGENCY
P.O.T.	POINT ON TANGENT
LB.	POUND
P.E.	PRIVATE ENTRANCE
PROJ.	PROJECT
R.	RANGE
REQ'D	REQUIRED
RT.	RIGHT
R.H.F.	RIGHT-HAND FORWARD
R/W	RIGHT OF WAY
RD.	ROAD
SHR.	SHRINKAGE
SL.	SLOPE
STD.	STANDARD
S.D.D.	STANDARD DETAIL DRAWINGS
S.T.H.	STATE TRUNK HIGHWAY
STA.	STATION
S.P.P.A.	STRUCTURAL PLATE PIPE ARCH
STRUCT.	STRUCTURE
SURF.	SURFACE
TEL.	TELEPHONE
TN.	TOWN
T.	TRUCKS (PERCENT OF)
UNCL.	UNCLASSIFIED
U.G.	UNDERGROUND
V.	VELOCITY OR DESIGN SPEED
V.C.	VERTICAL CURVE

UTILTIES

RICK PODOLAK
AT&T WI DESIGN ENGINEERING
AT&T WISCONSIN - COMMUNICATION LINE
304 S. DEWEY ST
EAU CLAIRE, WI 54701
(715) 839-5801

DARREN NORDSKOG
XCEL ENERGY - ELECTRIC
1201 LIVINGSTONE ROAD
HUDSON, WI 54016
(715) 386-4798

ROB DOOLEY
ST. CROIX ELECTRIC COOPERATIVE - ELECTRIC
1925 RIDGEWAY ST
HAMMOND, WI 54015
(715) 796-7000

MIDWEST NATURAL GAS
611 SHAY STREET
SOMERSET, WI 54025
(715) 247-5279

WISCONSIN DOT

DEPARTMENT OF TRANSPORTATION
NORTH WEST REGION
718 WEST CLAIREMONT AVE
EAU CLAIRE WI 54701
ATTN.: DAVE SOLBERG
(715) 833-5366

MINNESOTA DOT

DEPARTMENT OF TRANSPORTATION
CENTRAL OFFICE
395 JOHN IRELAND BLVD
ST. PAUL, MN 55155-1899
ATTN.: PAUL KIVISTO
(651) 366-4306

WISCONSIN DNR - LIASON

DEPARTMENT OF NATURAL RESOURCES
WEST CENTRAL REGION
1300 WEST CLAIREMONT AVE
EAU CLAIRE WI 54701
ATTN.: NICK SCHAFF
(715) 839-1609

ST. CROIX COUNTY HIGHWAY DEPARTMENT

TIM RAMBERG, HIGHWAY COMMISSIONER
ST. CROIX COUNTY HIGHWAY DEPARTMENT
920 THIRD STREET
PO BOX 108
HAMMOND WI 54015
(715) 796-2227

GENERAL NOTES

ELEVATIONS SHOWN ON THE PLAN ARE REFERENCED TO THE USC&GS DATUM.

EROSION CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY GRUBBING OR TOPSOIL STRIPPING OPERATIONS.

NO TREES OR SHRUBS ARE TO BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO CALL DIGGERS HOTLINE PRIOR TO BEGINNING WORK OPERATIONS.

THE LOCATIONS OF EXISTING AND 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, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE SALVAGE TOPSOILED, FERTILIZED, SEEDED, AND MULCHED AS DIRECTED BY THE ENGINEER.

A VERTICAL SAWCUT SHALL BE MADE THROUGH EXISTING PAVEMENTS AT REMOVAL LIMITS.

REMOVAL OF GRAVEL DRIVEWAY AND APRONS SHALL BE PAID FOR AS COMMON EXCAVATION.

THE LOCATION OF DRIVEWAYS WILL BE DETERMINED BY THE ENGINEER.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE YARDAGE BUT IS MEASURED AND PAID FOR AS COMMON (OR ROCK) EXCAVATION.

WHERE SOFT SILTS ARE ENCOUNTERED AND NOT EXCAVATED BELOW SUBGRADE, THE ROADWAY SHALL BE BUILT FROM SLOPE INTERCEPT TO SLOPE INTERCEPT IN A CONTINUOUS GRADING OPERATION. CONSTRUCTION OF THE ROAD CORE (1H:1V) FIRST WITH SLOPES CONSTRUCTED LATER WILL NOT BE ACCEPTED UNLESS OTHERWISE APPROVED BY THE ENGINEER IN THE FIELD.

ALL REINFORCED CONCRETE PIPE AND STORM SEWER PIPE SHALL HAVE THE END SECTIONS TIED TOGETHER. THE TIE SHALL CONSIST OF A MINIMUM OF 12-FEET OF PIPE PLUS AEW AND ARE INCIDENTAL TO THE BID ITEM. THE EXACT NUMBER OF TIES ARE CONTAINED IN THE MISCELLANEOUS QUANTITIES SHEETS.

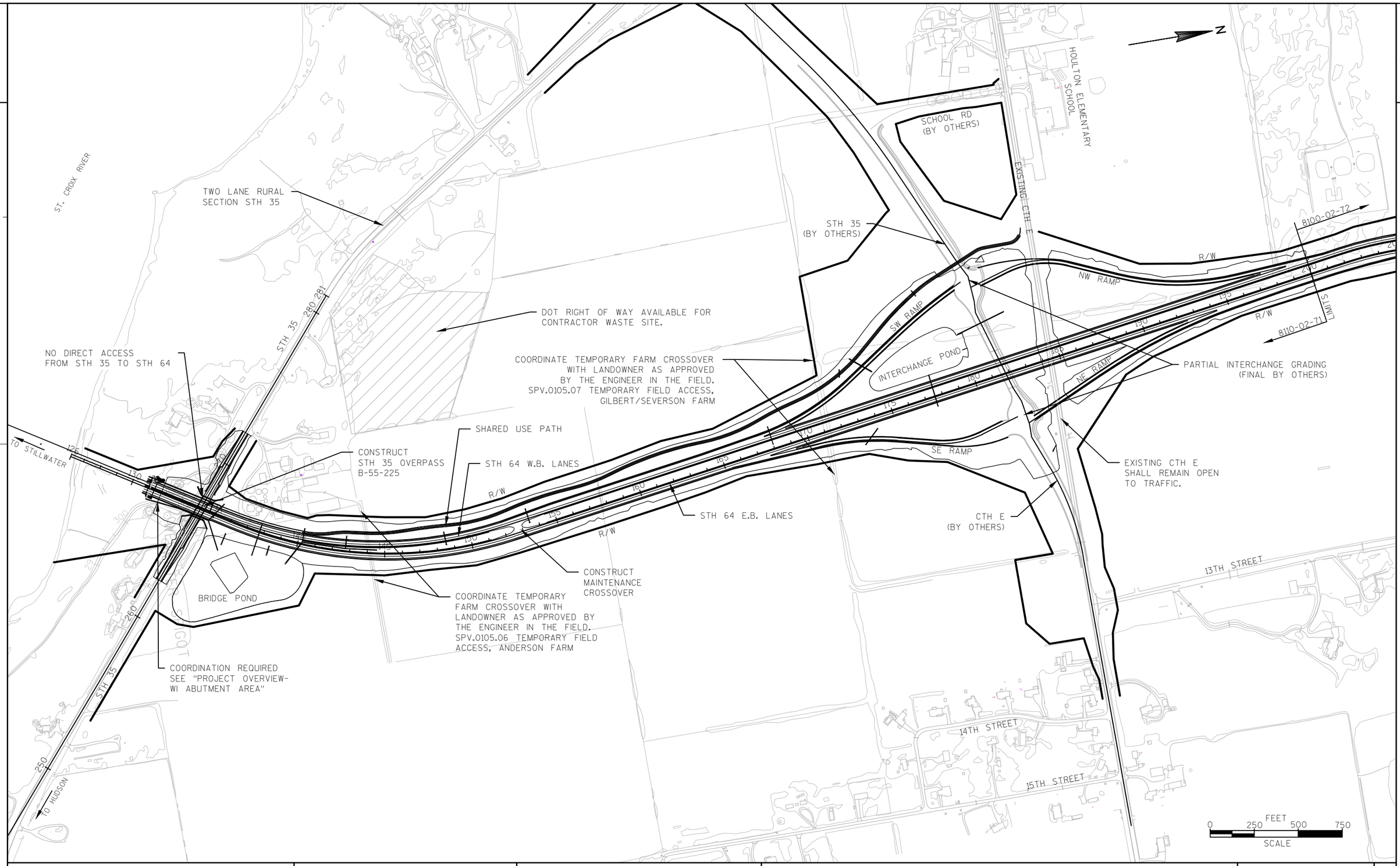
WHEN THE QUANTITY OF ITEMS OF BASE AGGREGATE OR HMA PAVEMENT IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLANS IS APPROXIMATE. THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF MATERIAL AS DIRECTED BY THE ENGINEER.

6.75-INCH HMA PAVEMENT SHALL BE CONSTRUCTED IN 3 LAYERS; 2.5-INCH (BOTTOM) 2.25-INCH (MIDDLE) AND 2-INCH (UPPER). THE SHOULDER SHALL BE PLACED CONCURRENT WITH THE MAINLINE PAVEMENT.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS ARE APPROXIMATE AND MAY BE ADJUSTED TO FIT FIELD CONDITIONS.



2



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PROJECT OVERVIEW	SHEET 3	E

2

SLOPE INTERCEPT

CONSTRUCTION COORDINATION
REQUIRED WITH MNDOT
S.P. 8221-01W CONTRACTOR.
STA 130+75 - STA 132+60

CONSTRUCT
STH 35 OVERPASS
B-55-225

APPROACH PANEL LIMITS
STA 130+75.18 - STA 130+95.18
CONSTRUCTED BY OTHERS.
MNDOT S.P. 8221-01W

PROJECT BEGINS AT
WI ABUTMENT OF NEW
ST. CROIX RIVER BRIDGE
MNDOT S.P. 8221-82045
STA 130+75.18.

TO STILLWATER

STORM SEWER, GRIT CHAMBER
AND DROP SHAFT CONSTRUCTED
UNDER MNDOT S.P. 8221-01W.

INSTALL AND CONNECT STORM
SEWER FROM BRIDGE POND TO
DROP SHAFT IN STAGE 1.

PRIVATE RIVER
ACCESS TRAIL
(BY OTHERS)

ANDERSON FARM
AREA SHALL REMAIN
UNDISTURBED UNTIL
JUNE 2014 OR AS
DIRECTED BY THE ENGINEER.

BRIDGE POND
(TO BE COMPLETED
IN STAGE 1)

SLOPE INTERCEPT

NO DIRECT ACCESS FROM
STH 35 TO STH 64

STH 35

STH 64 WB LANES

STH 64 EB LANES

SHARED USE PATH

R/W

ST. CROIX RIVER

TO HUDSON

P1 P2 P3 P4 P5

126 130 140

ANDERSON FARM R/W AREA

Point	Station	Offset
P1	135+89	-165
P2	136+18	-37
P3	137+02	-30
P4	137+72	-46
P5	138+14	-156

0 50 100 150 FEET
SCALE

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PROJECT OVERVIEW - WI ABUTMENT AREA	SHEET 4	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\020201_OV_71.DWG PLOT DATE : 10/2/2013 7:50 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:100_XREF

2

N

ST. CROIX RIVER

T-30-N

SCOUT CAMP TRL

TWIN SPRINGS RD

15TH ST

23RD ST

42ND ST

155TH AVE

HERON LN

WIDOT WASTE SITE.
CURRENT CONTOURS
NOT AVALABLE.

150TH AVE

64

300 290 280 270 260 250 240 230 220 210 200 190 180 170 160 150 140 130 126

145TH AVE

144TH AVE

142ND AVE

20TH ST

25TH ST

41ST ST

E OAKS TRL

VALLEY VIEW TRL

PERCH LK RD

Houlton

E

14TH ST

15TH ST

STH 64
8110-02-71 GRADING PROJECT

WIDOT WASTE SITE.
SEE "WIDOT STH 35 R/W - POTENTIAL
WASTE SITE - CONTOUR MAP"

ST. CROIX RIVER

35

36

31

OLD E WEST ST.

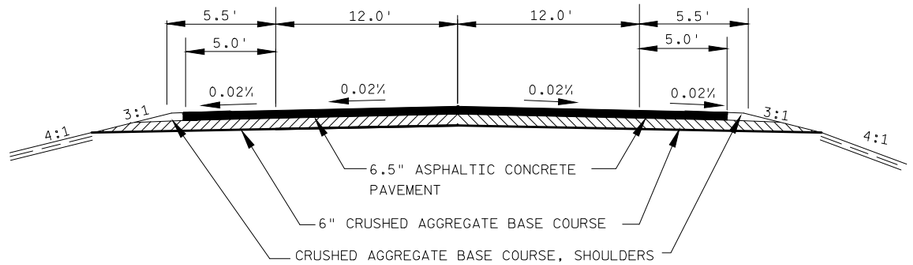
OLD E EAST

V

2

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	WASTE SITE OVERVIEW	SHEET 5	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\020202_OV_NORTH WASTE SITE71.DWG PLOT DATE : 10/2/2013 2:41 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1 IN:2000 FT

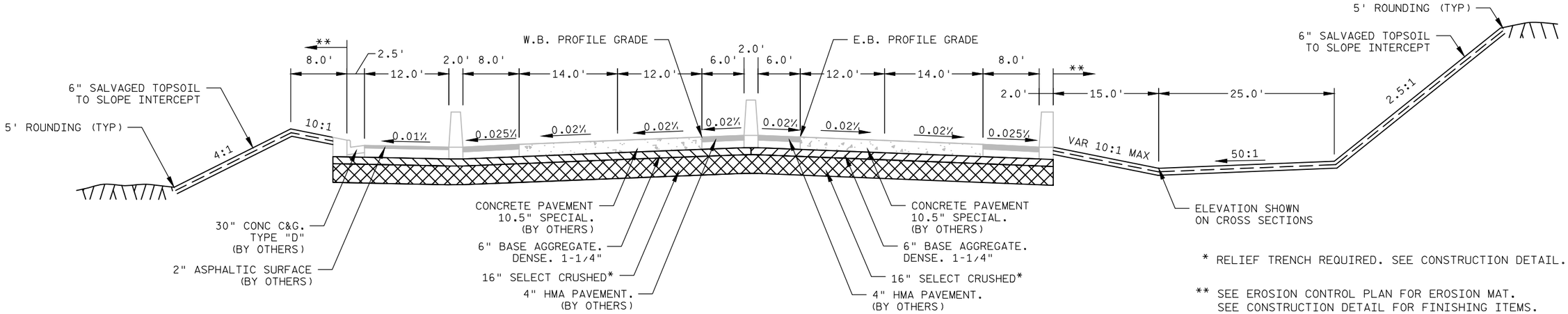


EXISTING TYPICAL SECTION
STH 35

(OVERPASS AREA)

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EXISTING TYPICAL SECTIONS: STH 35	SHEET 6	E

FILE NAME : M:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\020301_TS_EX_71.DWG PLOT DATE : 7/22/2013 3:30 PM PLOT BY : MORGAN, CHELSEA D PLOT NAME : ---------- PLOT SCALE : 1 IN:20 FT
WISDOT/CADDS SHEET 42



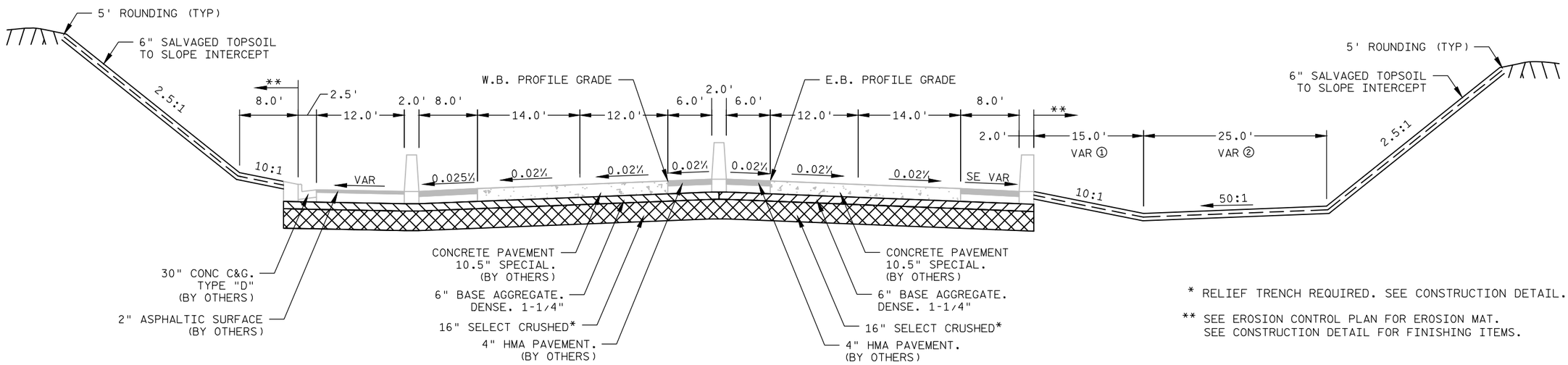
* RELIEF TRENCH REQUIRED. SEE CONSTRUCTION DETAIL.

** SEE EROSION CONTROL PLAN FOR EROSION MAT.
SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

NOTE: BUILD TO TOP OF AGGREGATE
BASE. OVERBUILD AGG BASE, 1-1/4",
BY 0.1'. PAVEMENT AND SHOULDERS
TO BE CONSTRUCTED BY OTHERS
UNDER SEPARATE CONTRACT.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 130+70 - STA 131+07



* RELIEF TRENCH REQUIRED. SEE CONSTRUCTION DETAIL.

** SEE EROSION CONTROL PLAN FOR EROSION MAT.
SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

NOTE: BUILD TO TOP OF AGGREGATE
BASE. OVERBUILD AGG BASE, 1-1/4",
BY 0.1'. PAVEMENT AND SHOULDERS
TO BE CONSTRUCTED BY OTHERS
UNDER SEPARATE CONTRACT.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 131+07 - STA 132+00

VAR ①

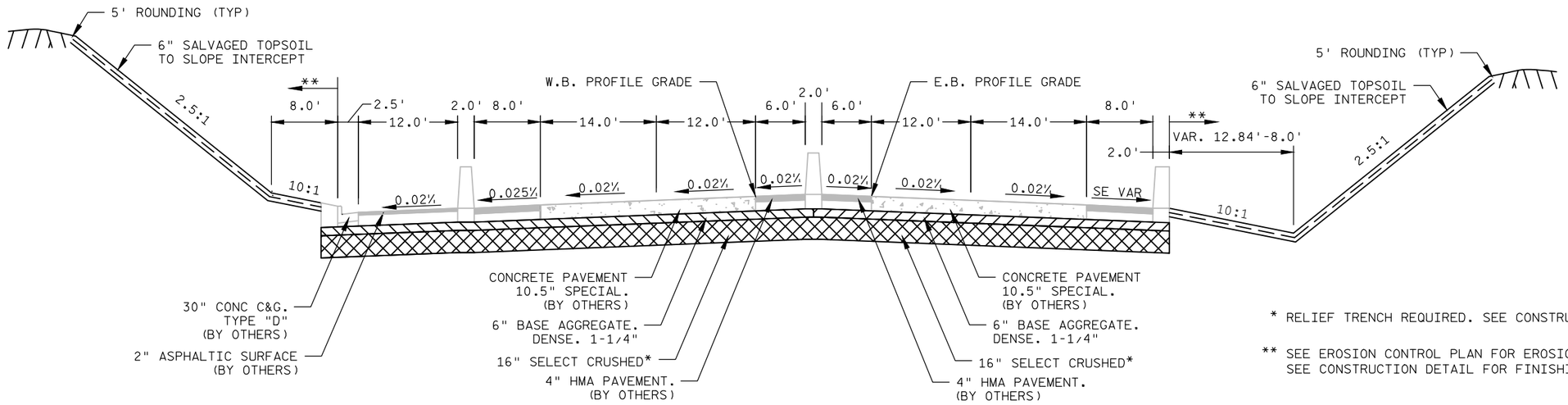
STA	WIDTH
131+07	15'
131+27	15'
131+57	14.2'
132+00	12.8'

VAR ②

STA	WIDTH
131+07	25'
131+27	25'
131+57	0'
132+00	0'

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	FINISHED TYPICAL SECTION: STH 64	SHEET 7	E

FILE NAME : M:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\020310_TS_FIN_71.DWG PLOT DATE : 7/25/2013 1:57 PM PLOT BY : MORGAN, CHELSEA D PLOT NAME : ---------- PLOT SCALE : 1IN:15 FT
WISDOT/CADDS SHEET 42



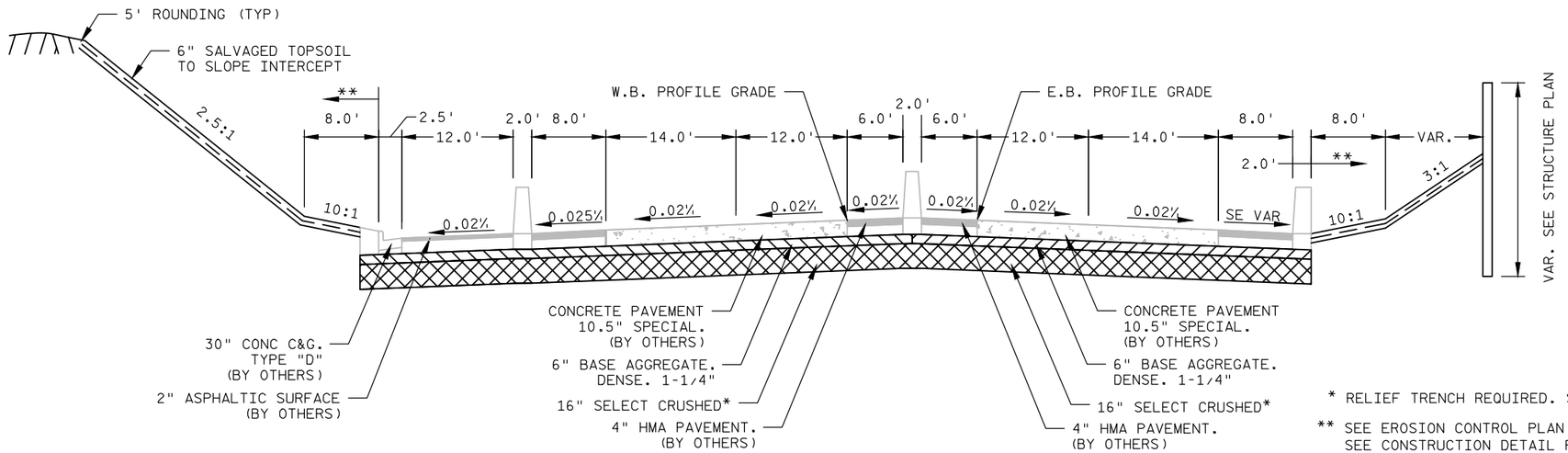
FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 132+00 - STA 133+18

* RELIEF TRENCH REQUIRED. SEE CONSTRUCTION DETAIL.

** SEE EROSION CONTROL PLAN FOR EROSION MAT.
SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.



FINISHED TYPICAL SECTION
STH 64

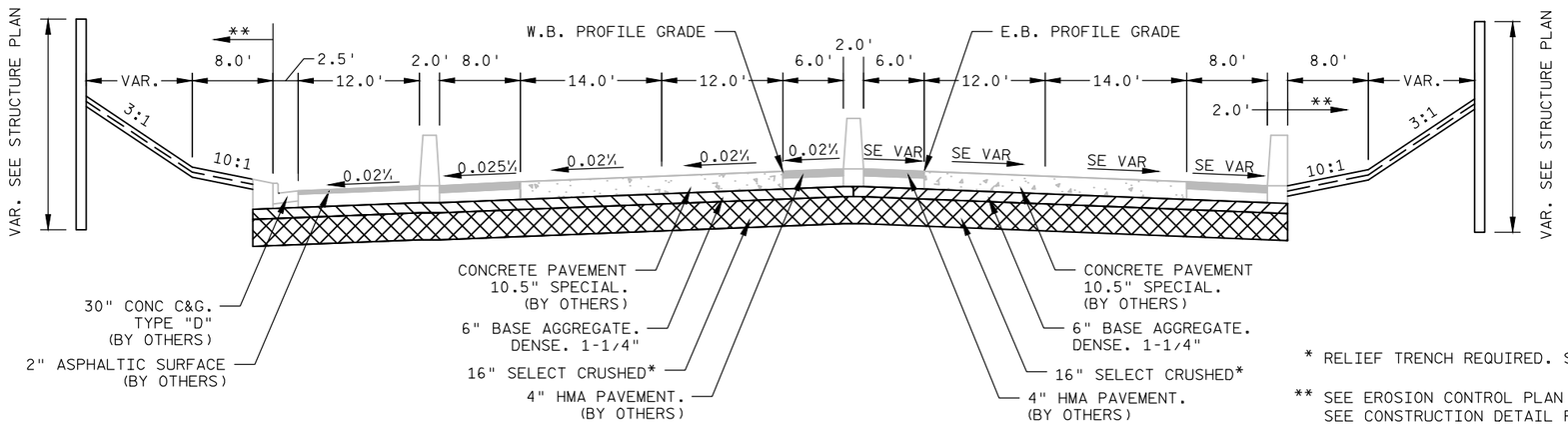
APPROXIMATE LIMITS
STA 133+18 - STA 133+45

* RELIEF TRENCH REQUIRED. SEE CONSTRUCTION DETAIL.

** SEE EROSION CONTROL PLAN FOR EROSION MAT.
SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	FINISHED TYPICAL SECTION: STH 64	SHEET 8	E



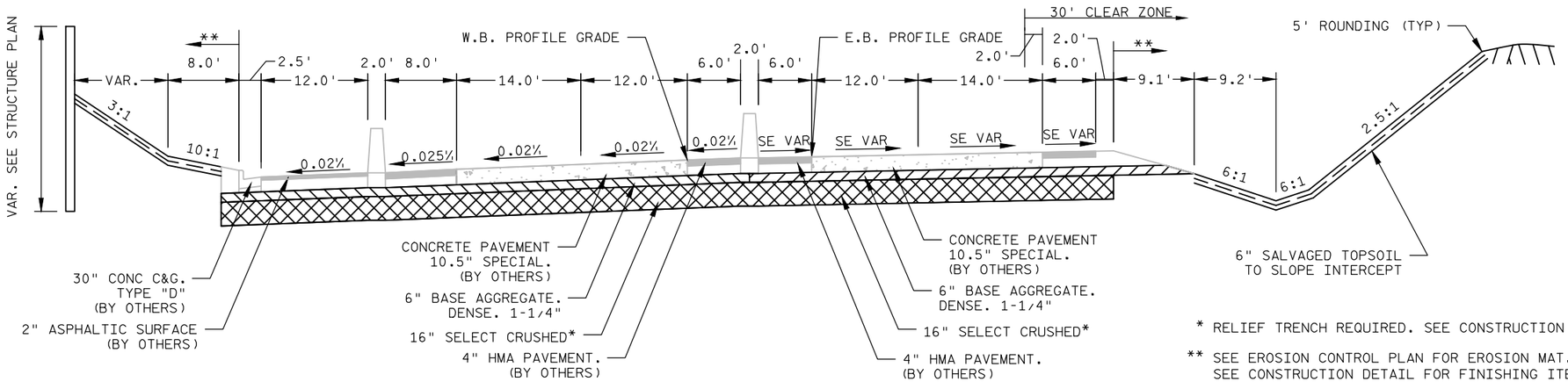
* RELIEF TRENCH REQUIRED. SEE CONSTRUCTION DETAIL.

** SEE EROSION CONTROL PLAN FOR EROSION MAT.
SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 133+45 - STA 134+89



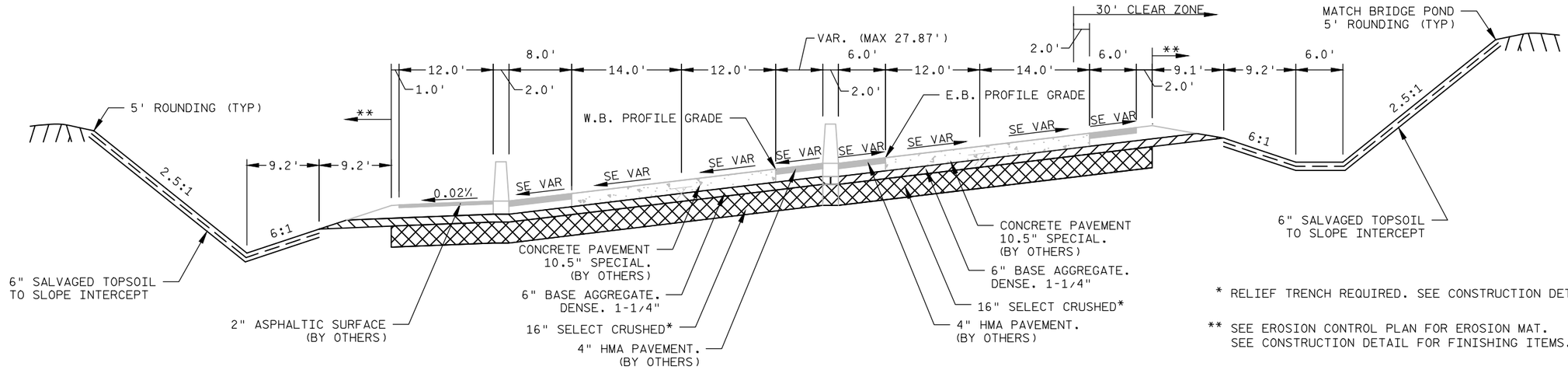
* RELIEF TRENCH REQUIRED. SEE CONSTRUCTION DETAIL.

** SEE EROSION CONTROL PLAN FOR EROSION MAT.
SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 134+89 - STA 135+16



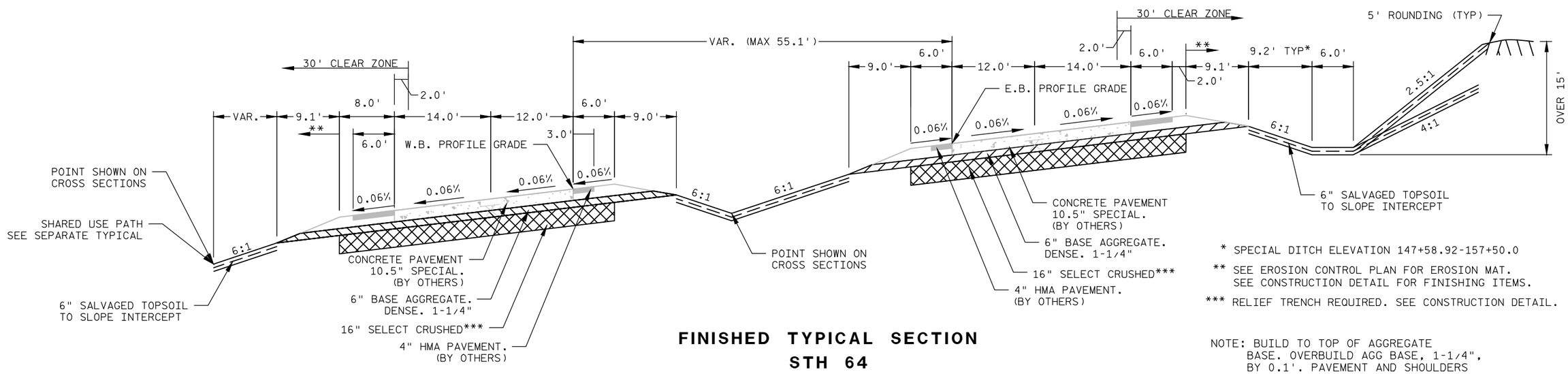
* RELIEF TRENCH REQUIRED. SEE CONSTRUCTION DETAIL.

** SEE EROSION CONTROL PLAN FOR EROSION MAT.
SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 135+16 - STA 140+25



* SPECIAL DITCH ELEVATION 147+58.92-157+50.0

** SEE EROSION CONTROL PLAN FOR EROSION MAT.
SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

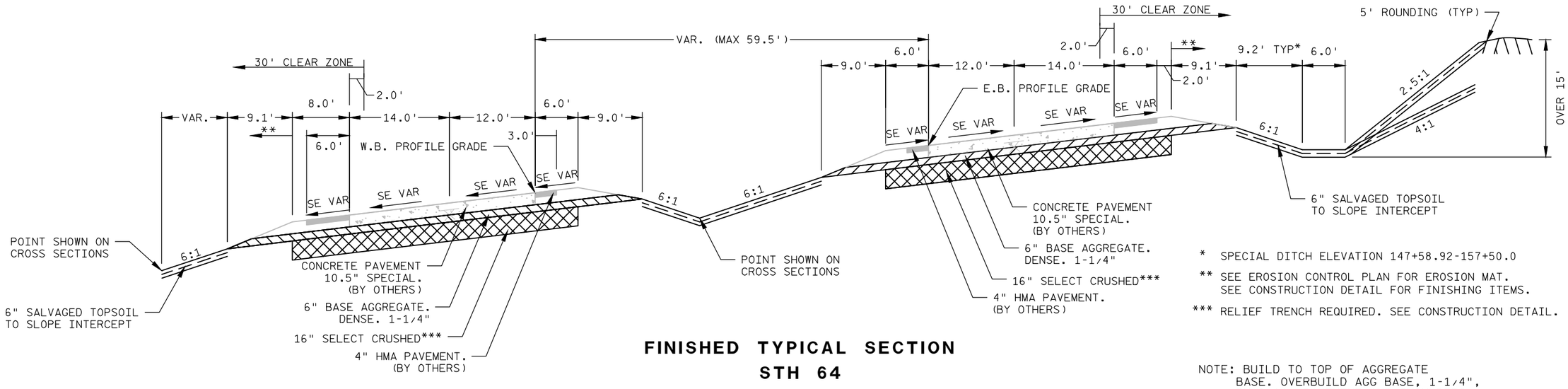
*** RELIEF TRENCH REQUIRED. SEE CONSTRUCTION DETAIL.

NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 140+25 - STA 151+53

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	FINISHED TYPICAL SECTION: STH 64	SHEET 10	E



* SPECIAL DITCH ELEVATION 147+58.92-157+50.0

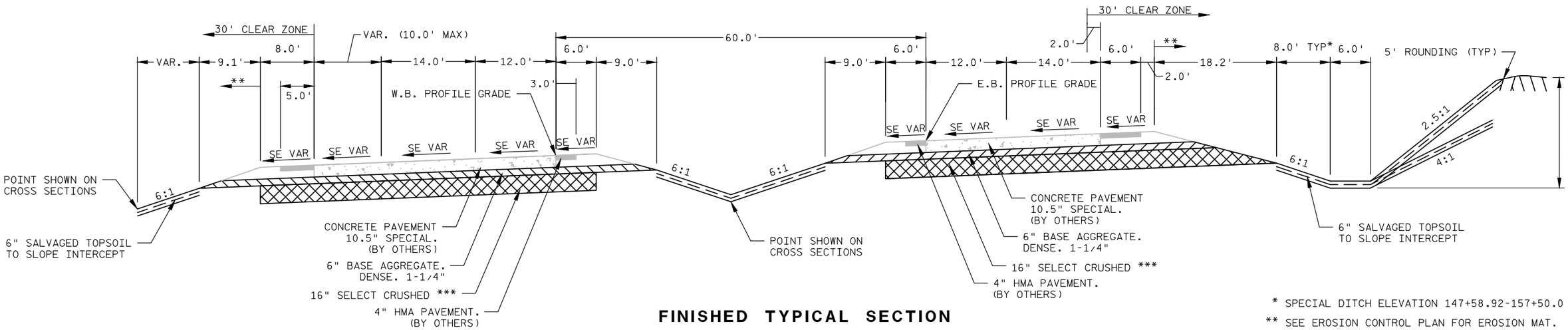
** SEE EROSION CONTROL PLAN FOR EROSION MAT. SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

*** RELIEF TRENCH REQUIRED. SEE CONSTRUCTION DETAIL.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 151+53 - STA 151+94

NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.



* SPECIAL DITCH ELEVATION 147+58.92-157+50.0

** SEE EROSION CONTROL PLAN FOR EROSION MAT. SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

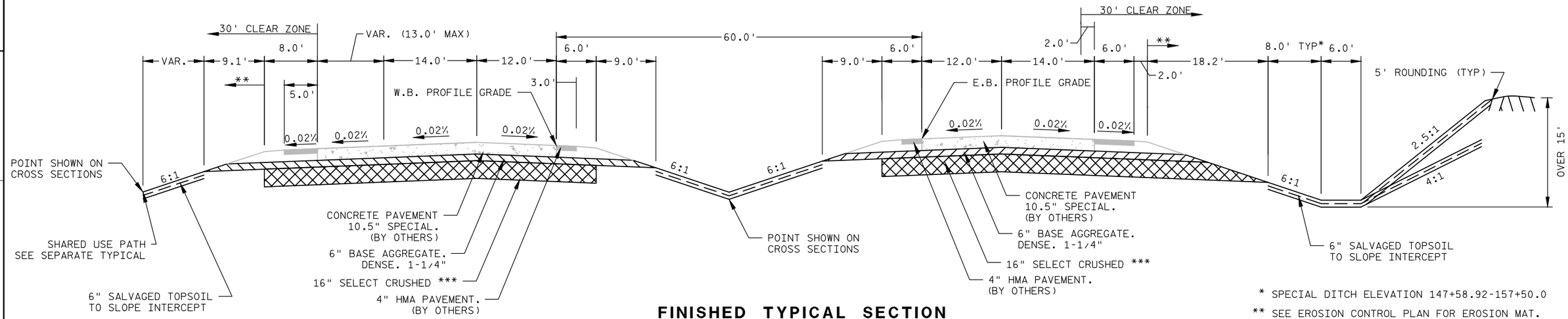
*** SELECT CRUSHED MATERIAL SHALL BE PLACED WITHIN TOP OF SHOULDER POINTS WHEN IN CUT. SEE CONSTRUCTION DETAIL FOR RELIEF TRENCH.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 151+94 - STA 155+13

NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	FINISHED TYPICAL SECTION: STH 64	SHEET 11	E



NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

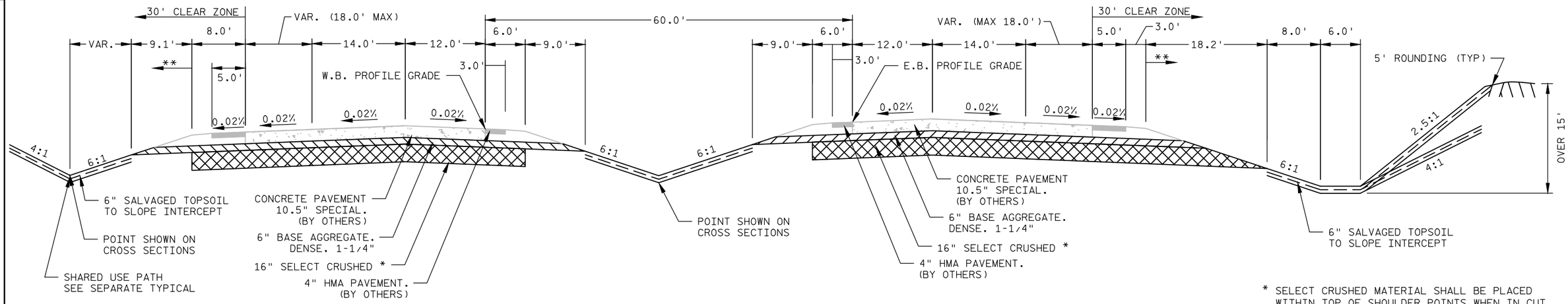
FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 155+13 - STA 165+41

* SPECIAL DITCH ELEVATION 147+58.92-157+50.0

** SEE EROSION CONTROL PLAN FOR EROSION MAT. SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

*** SELECT CRUSHED MATERIAL SHALL BE PLACED WITHIN TOP OF SHOULDER POINTS WHEN IN CUT. SEE CONSTRUCTION DETAIL FOR RELIEF TRENCH.



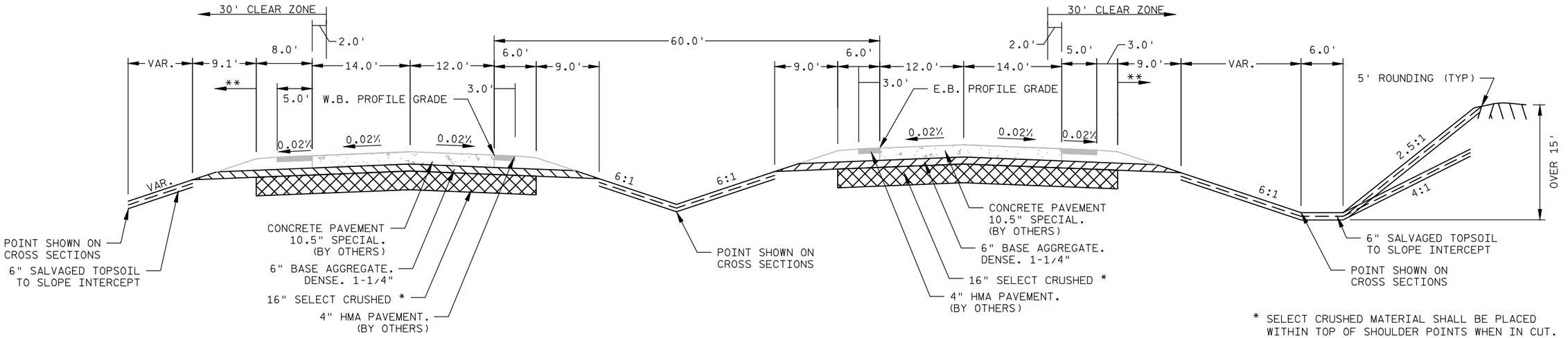
NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 165+41 - STA 167+67

* SELECT CRUSHED MATERIAL SHALL BE PLACED WITHIN TOP OF SHOULDER POINTS WHEN IN CUT. SEE CONSTRUCTION DETAIL FOR RELIEF TRENCH.

** SEE EROSION CONTROL PLAN FOR EROSION MAT. SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.



NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

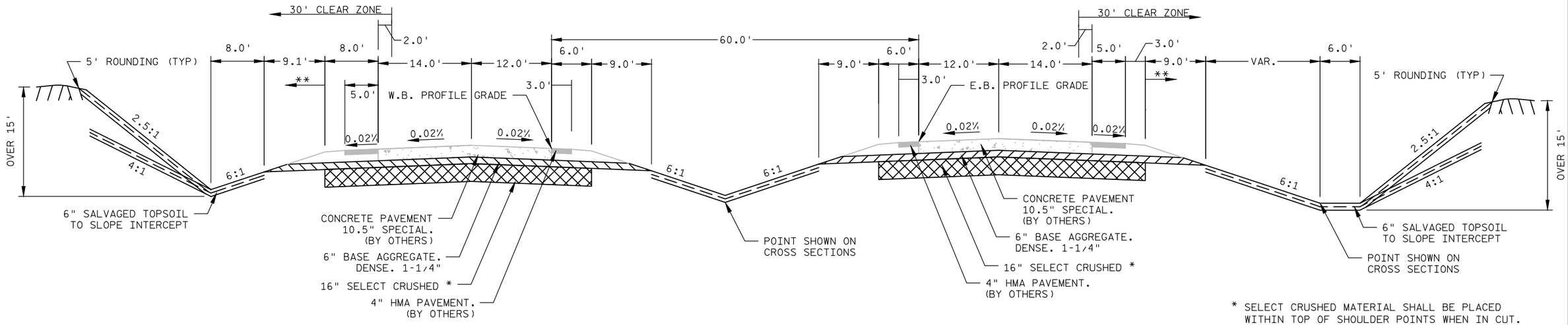
* SELECT CRUSHED MATERIAL SHALL BE PLACED WITHIN TOP OF SHOULDER POINTS WHEN IN CUT. SEE CONSTRUCTION DETAIL FOR RELIEF TRENCH.

** SEE EROSION CONTROL PLAN FOR EROSION MAT. SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 167+67 - STA 180+00
STA 185+25 - STA 194+25

STH 64 STA 183+50 - 185+25
NOT CONSTRUCTED UNDER THIS CONTRACT



NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

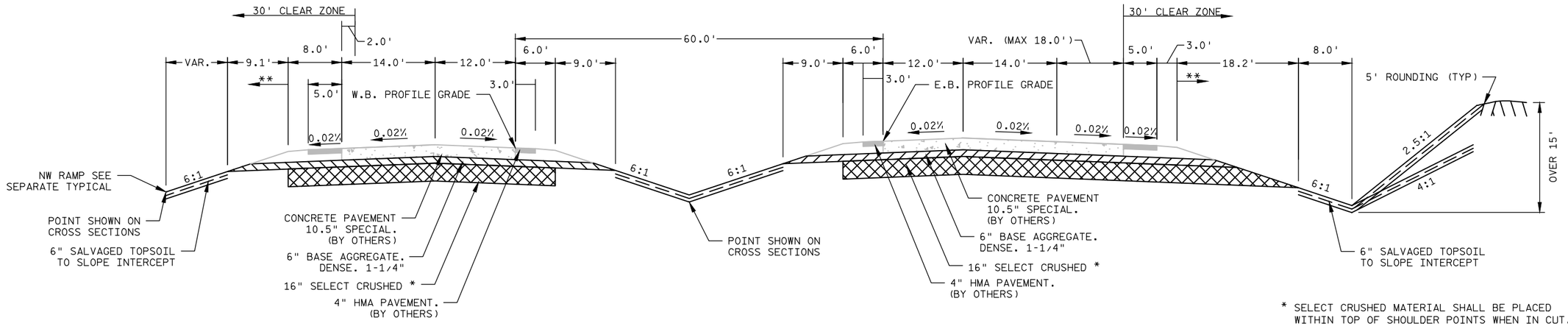
* SELECT CRUSHED MATERIAL SHALL BE PLACED WITHIN TOP OF SHOULDER POINTS WHEN IN CUT. SEE CONSTRUCTION DETAIL FOR RELIEF TRENCH.

** SEE EROSION CONTROL PLAN FOR EROSION MAT. SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 180+00 - STA 183+50

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	FINISHED TYPICAL SECTION: STH 64	SHEET 13	E



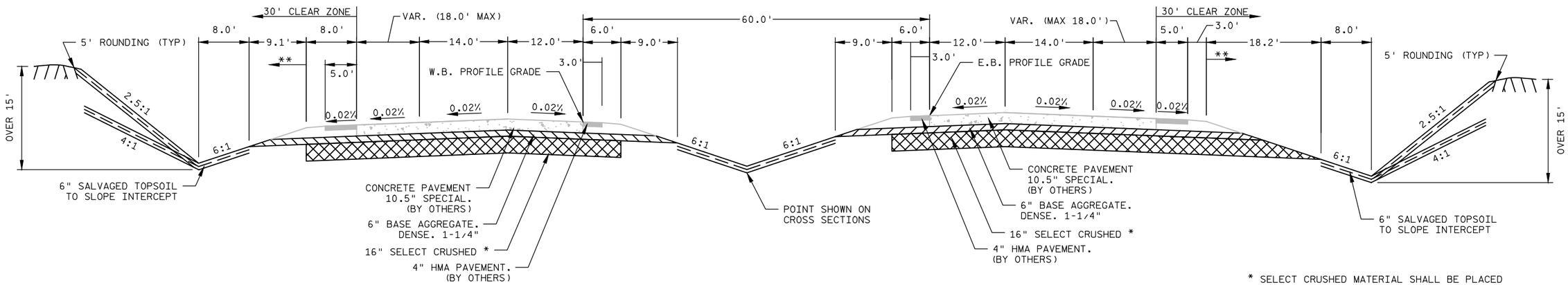
FINISHED TYPICAL SECTION
STH 64

APPROXIMATE LIMITS
STA 194+25 - STA 197+00

NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

* SELECT CRUSHED MATERIAL SHALL BE PLACED WITHIN TOP OF SHOULDER POINTS WHEN IN CUT. SEE CONSTRUCTION DETAIL FOR RELIEF TRENCH.

** SEE EROSION CONTROL PLAN FOR EROSION MAT. SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.



FINISHED TYPICAL SECTION
STH 64

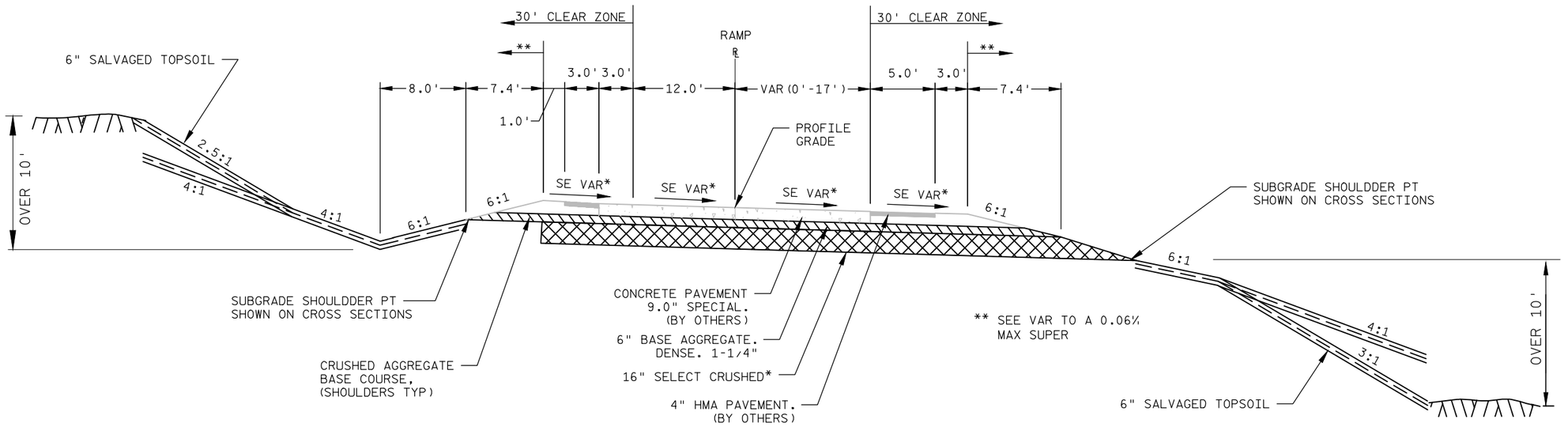
APPROXIMATE LIMITS
STA 197+00 - STA 200+00

NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

* SELECT CRUSHED MATERIAL SHALL BE PLACED WITHIN TOP OF SHOULDER POINTS WHEN IN CUT. SEE CONSTRUCTION DETAIL FOR RELIEF TRENCH.

** SEE EROSION CONTROL PLAN FOR EROSION MAT. SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS.

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	FINISHED TYPICAL SECTION: STH 64	SHEET 14	E



* RELIEF TRENCH REQUIRED. SEE CONSTRUCTION DETAIL.

** SEE EROSION CONTROL PLAN FOR EROSION MAT.
SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS

FINISHED TYPICAL SECTION

STH 35 SE RAMP

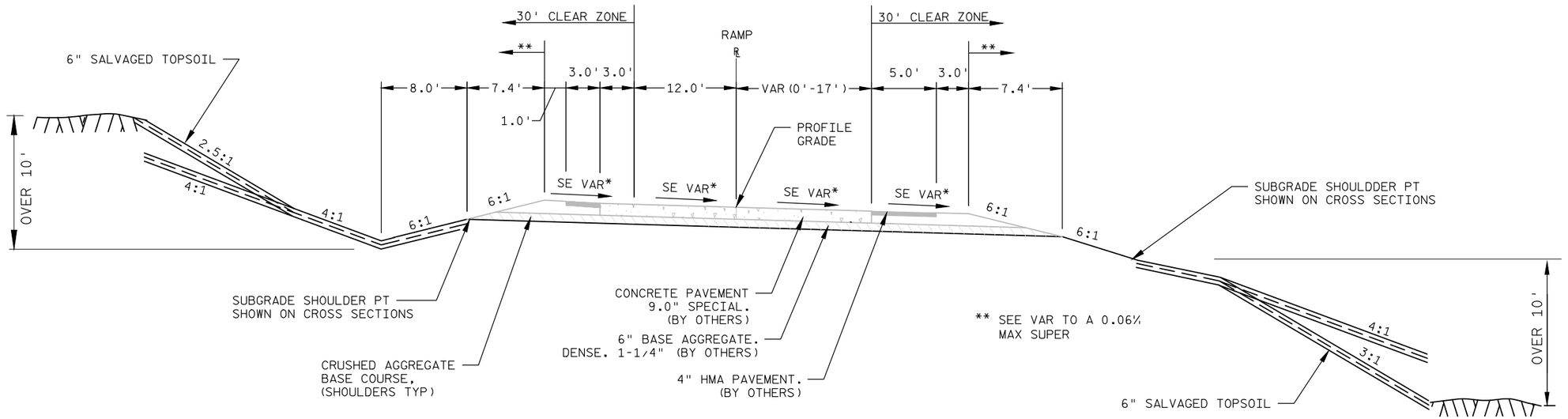
APPROXIMATE LIMITS:
STA 167+67 - STA 175+75

STH 35 SW RAMP

APPROXIMATE LIMITS:
STA 166+75 - STA 176+00

STH 35 NW RAMP

APPROXIMATE LIMITS:
STA 194+00 - STA 198+77



** SEE EROSION CONTROL PLAN FOR EROSION MAT.
SEE CONSTRUCTION DETAIL FOR FINISHING ITEMS

FINISHED TYPICAL SECTION

STH 35 SE RAMP

APPROXIMATE LIMITS:
STA 175+75 - STA 182+33

STH 35 NE RAMP

APPROXIMATE LIMITS:
STA 186+75 - STA 194+30

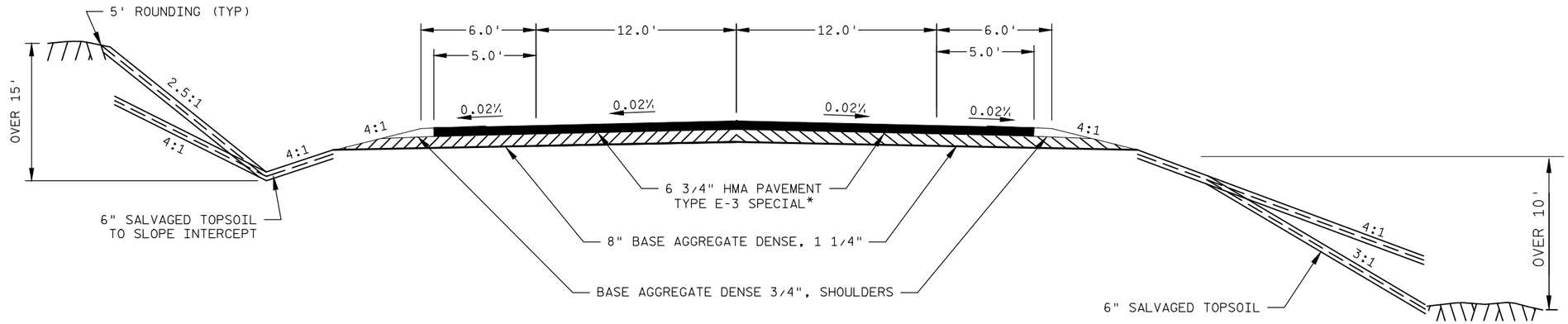
STH 35 SW RAMP

APPROXIMATE LIMITS:
STA 176+00 - STA 181+40

STH 35 NW RAMP

APPROXIMATE LIMITS:
STA 182+50 - STA 194+00

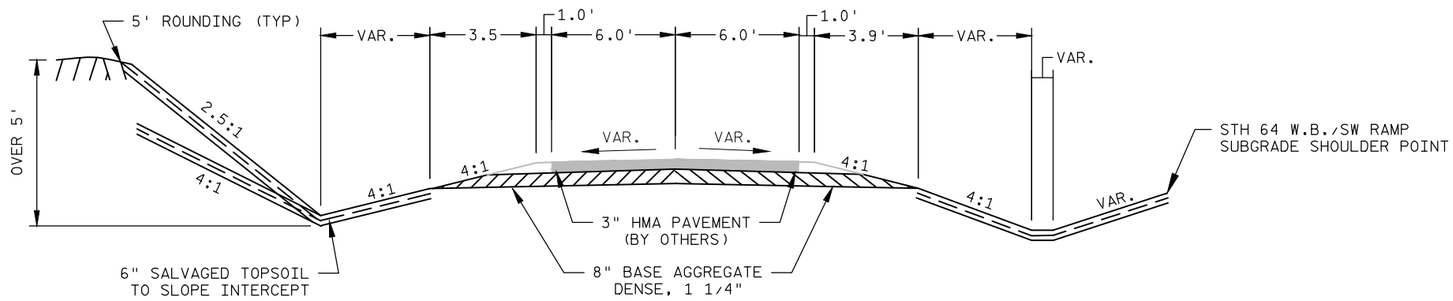
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	FINISHED TYPICAL SECTION: RAMPS	SHEET 16	E



FINISHED TYPICAL SECTION
STH 35

(OVERPASS AREA)

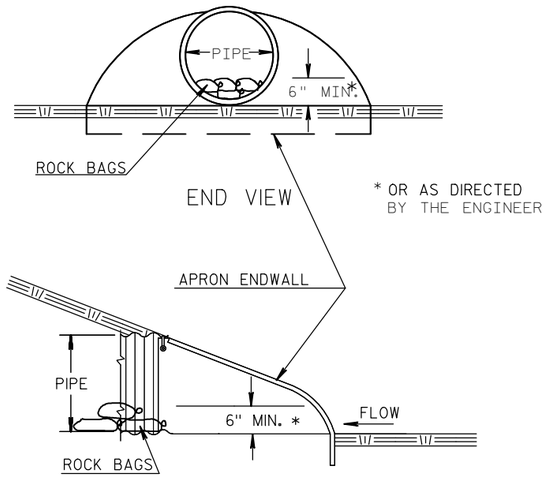
* CONSTRUCT AS DESCRIBED IN THE GENERAL NOTES USING THE 19 MM MIX FOR THE LOWER 4-3/4" AND THE 12.5 MM MIX FOR THE UPPER 2".



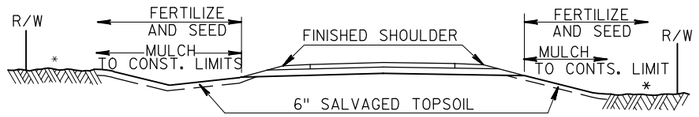
NOTE: BUILD TO TOP OF AGGREGATE BASE. OVERBUILD AGG BASE, 1-1/4", BY 0.1'. PAVEMENT AND SHOULDERS TO BE CONSTRUCTED BY OTHERS UNDER SEPARATE CONTRACT.

FINISHED TYPICAL SECTION
SHARED USE PATH

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	FINISHED TYPICAL SECTION: STH 35, SHARED USE PATH	SHEET 17	E

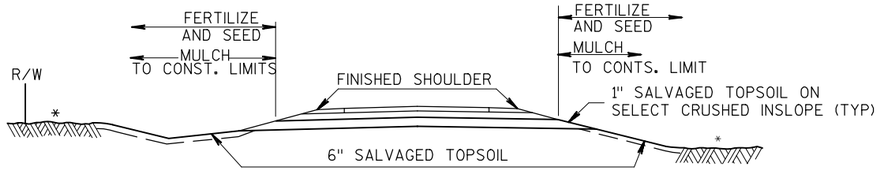


CULVERT PIPE CHECK



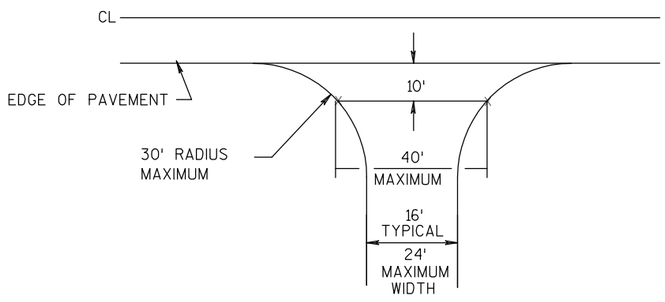
* DISTURBED AREAS TO BE FERTILIZED & SEEDED

ROADWAYS WITHOUT SUBGRADE TREATMENT
DETAIL FOR FINISHING ITEMS

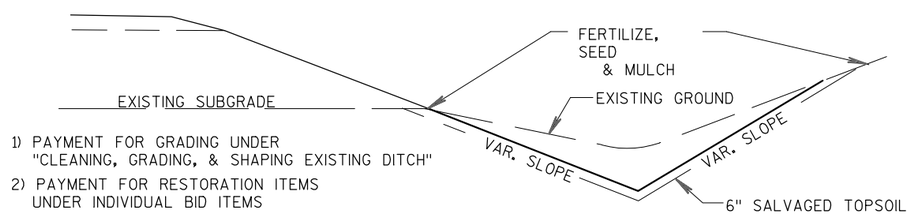


* DISTURBED AREAS TO BE FERTILIZED & SEEDED

ROADWAYS WITH SUBGRADE TREATMENT
DETAIL FOR FINISHING ITEMS



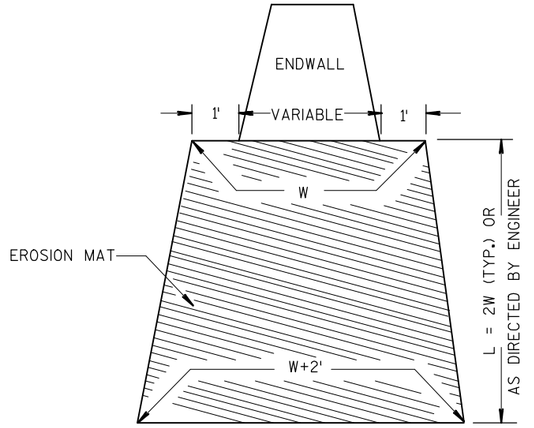
TYPICAL DRIVEWAY DETAIL
(NON-COMMERCIAL RURAL)



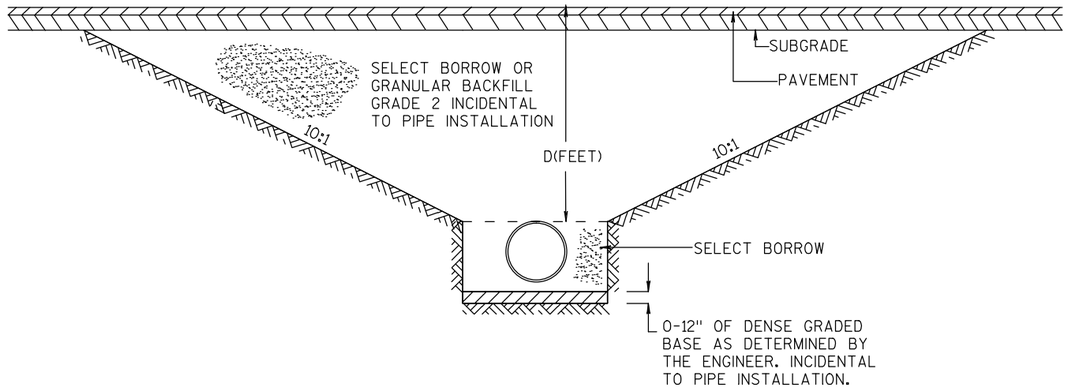
1) PAYMENT FOR GRADING UNDER "CLEANING, GRADING, & SHAPING EXISTING DITCH"
2) PAYMENT FOR RESTORATION ITEMS UNDER INDIVIDUAL BID ITEMS

CLEANING, GRADING, & SHAPING EXISTING DITCH
STH 35

FILE NAME = C:\WISDOT\DESIGN(3D)_1100201\SHEETSPLANS_110-02-71\021001_CD_71.DW PLOT DATE = 8/19/2010 11:26 PM PLOT BY = ANDRTISCH FBTC P PLOT NAME = PLOT SCALE = 1" = 200' YPFF

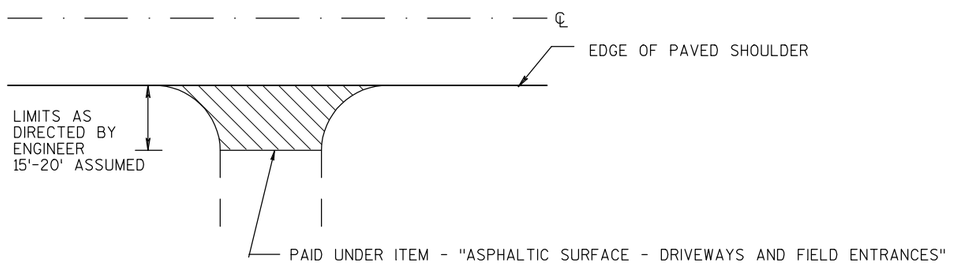


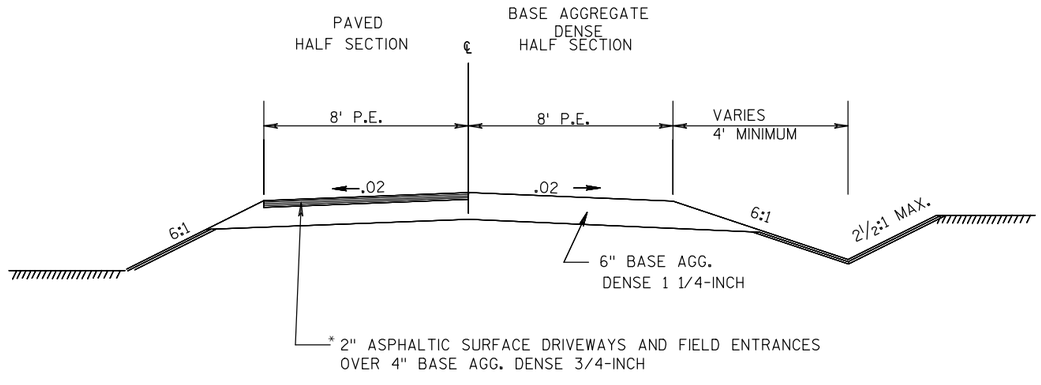
EROSION MAT TREATMENT AT CULVERTS



PIPE INSTALLATION CONSTRUCTION DETAIL
FOR D < 5'

RURAL DRIVEWAY DETAIL - ASPHALT

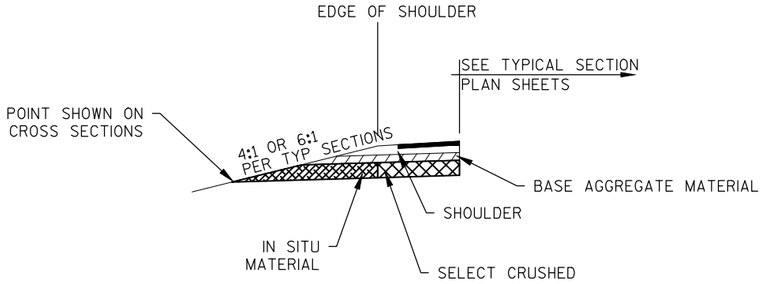




* OR MATCH EXISTING
ASPHALT DEPTH

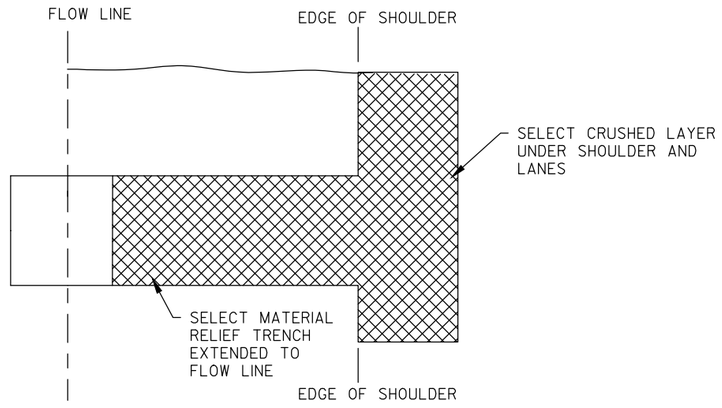
NOTE:
DRIVEWAY PROFILES NOT EXPECTED TO EXCEED
10%. PLACE LOW POINT OF DRIVEWAY PROFILE
OVER DITCH FLOW LINE.

TYPICAL SECTION
FOR PRIVATE ENTRANCES



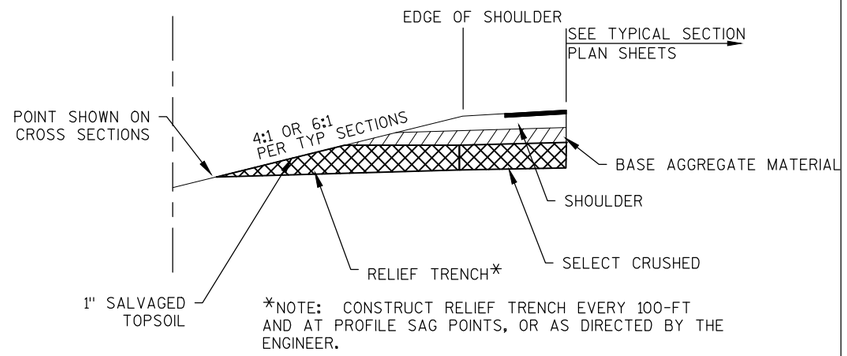
*NOTE: CONSTRUCT RELIEF TRENCH EVERY 100-FT AND AT PROFILE SAG POINTS, OR AS DIRECTED BY THE ENGINEER.

TYPICAL HALF SECTION WITH SELECT MATERIALS



PLAN VIEW

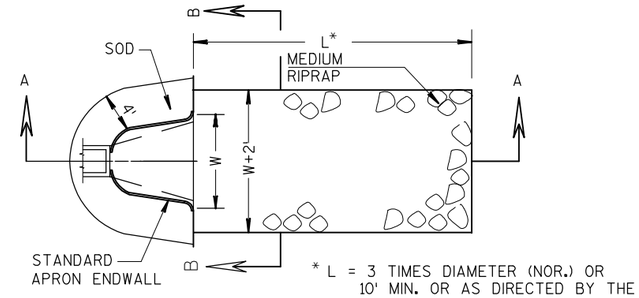
NOTE: CROSS SECTIONS DO NOT DIFFERENTIATE AREAS WHERE RELIEF TRENCH REQUIRED.



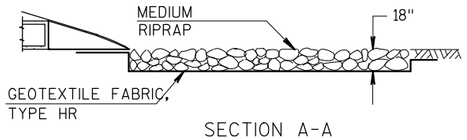
*NOTE: CONSTRUCT RELIEF TRENCH EVERY 100-FT AND AT PROFILE SAG POINTS, OR AS DIRECTED BY THE ENGINEER.

PROFILE VIEW

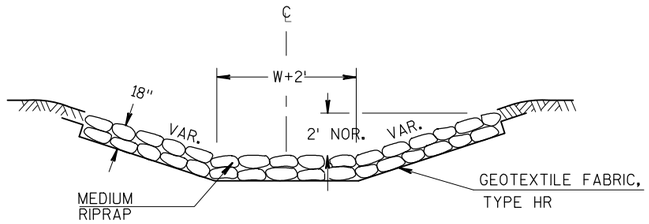
RELIEF TRENCH DETAIL



* L = 3 TIMES DIAMETER (NOR.) OR 10' MIN. OR AS DIRECTED BY THE ENGINEER

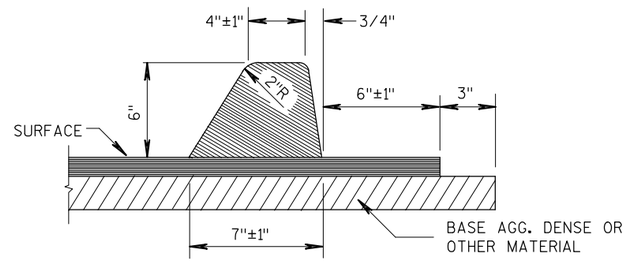


SECTION A-A



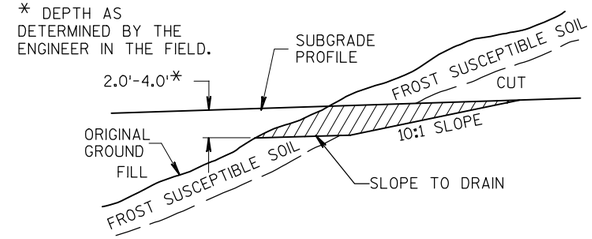
SECTION B-B

MEDIUM RIPRAP AND GEOTEXTILE FABRIC DETAIL AT APRON ENDWALLS



ASPHALTIC CURB DETAIL

* DEPTH AS DETERMINED BY THE ENGINEER IN THE FIELD.



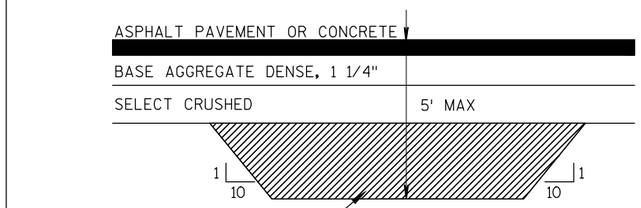
NOTE: EXACT LOCATIONS AND EXTENT OF E.B.S. SECTIONS SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

E.B.S. AREA TO BE BACKFILLED WITH MATERIAL ACCEPTABLE TO THE ENGINEER

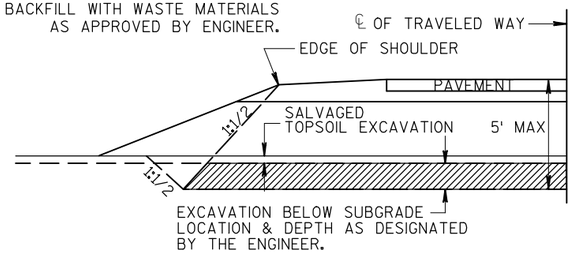
BACKFILL MUST BE HOMOGENEOUS WITH ADJOINING FILL MATERIAL.

THE FILL SECTION WITHIN 100' OF THE MOUTH OF THE CUT MUST BE KEPT 2'BELOW SUBGRADE UNTIL E.B.S. IS COMPLETED.

DETAIL FOR EXCAVATION BELOW SUBGRADE AT TRANSITION AREAS

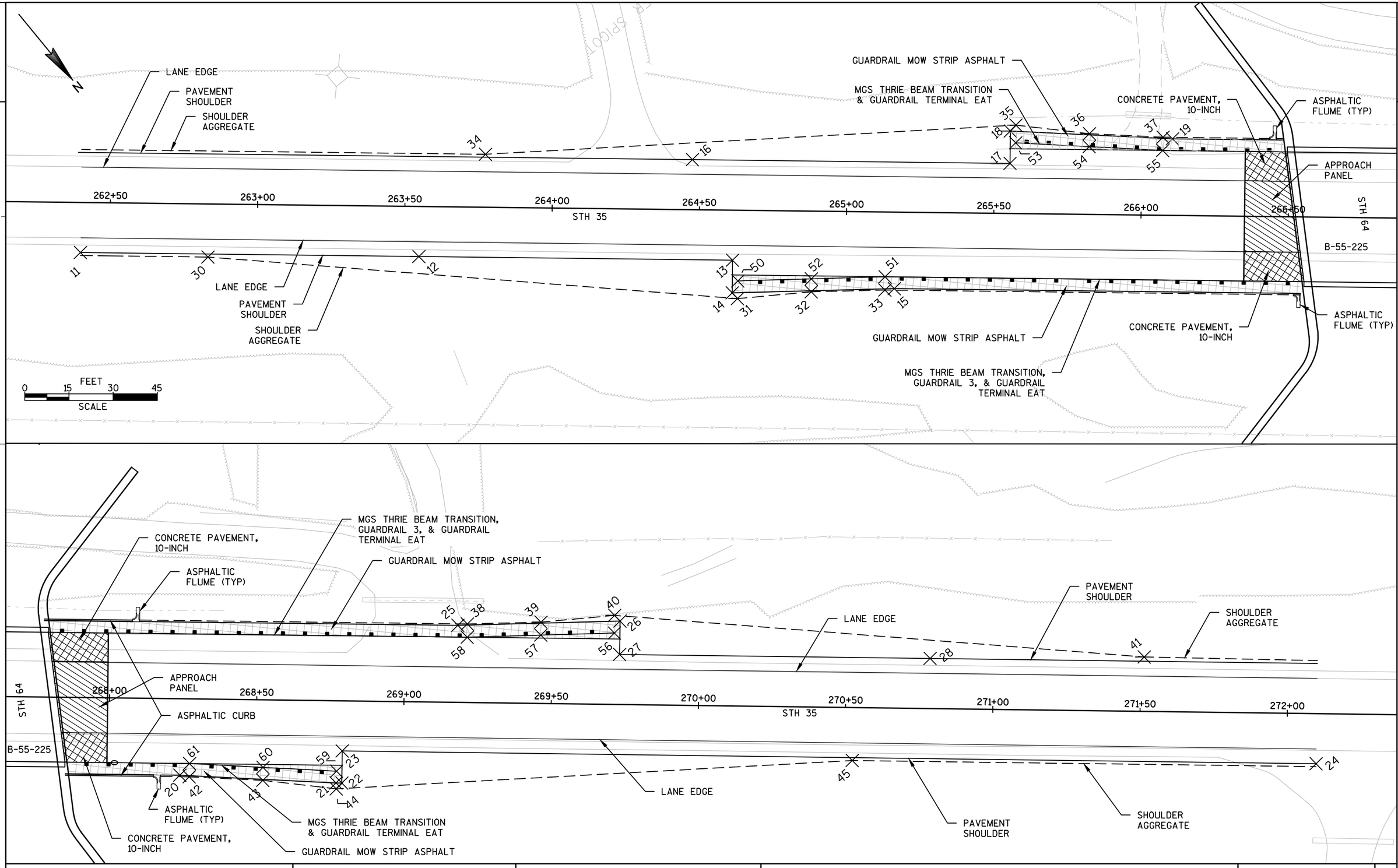


PROFILE VIEW



CROSS SECTION VIEW

DETAIL FOR EXCAVATION BELOW SUBGRADE



PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	PLAN DETAIL - STH 35	SHEET 21	E

PAVED SHOULDER POINTS						
POINT	STATION STH 35	OFFSET STH 35	STATION STH 64	OFFSET STH 64	NORTH COORDS	EAST COORDS
11	262+40.00	17.00 RT	133+66.34	460.86 RT	368377.18	505350.78
12	263+54.93	17.00 RT	133+82.61	347.08 RT	368451.16	505262.82
13	264+61.47	17.00 RT	133+97.69	241.62 RT	368519.73	505181.29
14	264+61.47	28.07 RT	134+08.65	243.18 RT	368528.20	505188.41
15	265+16.53	26.00 RT	134+14.39	188.39 RT	368562.05	505144.95
16	264+47.43	17.00 LT	133+62.04	250.70 RT	368484.67	505170.15
17	265+55.29	17.00 LT	133+77.31	143.93 RT	368554.09	505087.60
18	265+55.29	28.00 LT	133+66.42	142.37 RT	368545.68	505080.52
19	266+10.35	26.00 LT	133+76.19	88.16 RT	368582.64	505039.67
20	268+24.21	25.98 RT	134+57.94	116.16 LT	368760.07	504909.50
21	268+77.27	27.91 RT	134+67.42	168.40 LT	368795.75	504870.18
22	268+79.27	27.90 RT	134+67.70	170.38 LT	368797.03	504868.65
23	268+79.25	17.03 RT	134+56.94	171.92 LT	368788.71	504861.65
24	272+10.00	17.00 RT	135+04.17	499.28 LT	369001.92	504608.79
25	269+17.96	26.15 LT	134+19.74	216.40 LT	368780.66	504804.22
26	269+73.01	28.29 LT	134+25.48	271.19 LT	368814.51	504760.76
27	269+73.02	16.98 LT	134+36.68	269.59 LT	368823.17	504768.04
28	270+78.47	16.99 LT	134+51.74	373.95 LT	368891.14	504687.43

AGGREGATE SHOULDER POINTS						
POINT	STATION STH 35	OFFSET STH 35	STATION STH 64	OFFSET STH 64	NORTH COORDS	EAST COORDS
30	262+83.32	18.00 RT	133+73.46	418.12 RT	368405.83	505318.27
31	264+63.32	30.00 RT	134+10.82	241.63 RT	368530.87	505188.24
32	264+88.32	27.40 RT	134+11.78	216.51 RT	368544.97	505167.43
33	265+13.32	26.50 RT	134+14.43	191.64 RT	368560.37	505147.72
34	263+77.14	18.00 LT	133+51.10	320.15 RT	368438.66	505223.30
35	265+57.14	30.00 LT	133+64.70	140.26 RT	368545.33	505077.82
36	265+82.14	27.40 LT	133+70.81	115.88 RT	368563.42	505060.36
37	266+07.14	26.50 LT	133+75.24	91.26 RT	368580.20	505041.81
38	269+21.16	26.65 LT	134+19.70	219.64 LT	368782.34	504801.45
39	269+46.16	27.58 LT	134+22.34	244.52 LT	368797.74	504781.74
40	269+71.16	30.22 LT	134+23.31	269.63 LT	368811.84	504760.93
41	271+51.18	18.46 LT	134+60.67	446.12 LT	368936.88	504630.90
42	268+27.42	26.48 RT	134+58.88	119.26 LT	368762.51	504907.36
43	268+52.42	27.34 RT	134+63.31	143.88 LT	368779.29	504888.81
44	268+77.42	29.91 RT	134+69.43	168.26 LT	368797.38	504871.35
45	270+52.48	18.00 RT	134+82.65	343.23 LT	368901.13	504729.85

MGS GUARDRAIL - POSTS 1, 5 AND 9						
POINT	STATION STH 35	OFFSET STH 35	STATION STH 64	OFFSET STH 64	NORTH COORDS	EAST COORDS
50	264+63.32	24.00 RT	134+04.88	240.78 RT	368526.28	505184.38
51	265+13.32	22.00 RT	134+09.98	191.00 RT	368556.93	505144.82
52	264+88.30	23.00 RT	134+07.43	215.91 RT	368541.59	505164.62
53	265+57.14	24.00 LT	133+70.64	141.11 RT	368549.93	505081.68
54	265+82.12	23.00 LT	133+75.17	116.52 RT	368566.77	505063.21
55	266+07.10	22.00 LT	133+79.69	91.93 RT	368583.61	505044.73
56	269+71.17	24.22 LT	134+29.25	268.78 LT	368816.44	504764.79
57	269+46.19	23.18 LT	134+26.70	243.91 LT	368801.12	504784.55
58	269+21.21	22.15 LT	134+24.16	219.04 LT	368785.81	504804.31
59	268+77.41	23.91 RT	134+63.49	169.11 LT	368792.78	504867.49
60	268+52.43	22.94 RT	134+58.96	144.53 LT	368775.94	504885.96
61	268+27.45	21.98 RT	134+54.44	119.94 LT	368759.10	504904.44

2

MATCH STH 64 E.B.
DITCH BACKSLOPE

BRIDGE POND
SEDIMENTATION BASIN
BOTTOM: 844.0'
NWL: 847.00'
HWL: 847.16'

BRIDGE POND
INFILTRATION BASIN
BOTTOM: 844.0'
HWL: 847.00'

EXISTING GROUND
UNDISTURBED

3:1
10:1
3:1

NOTE: SEE 'CONTOUR POINT
TABLE' FOR POINT DATA

MATCH EXISTING GROUND

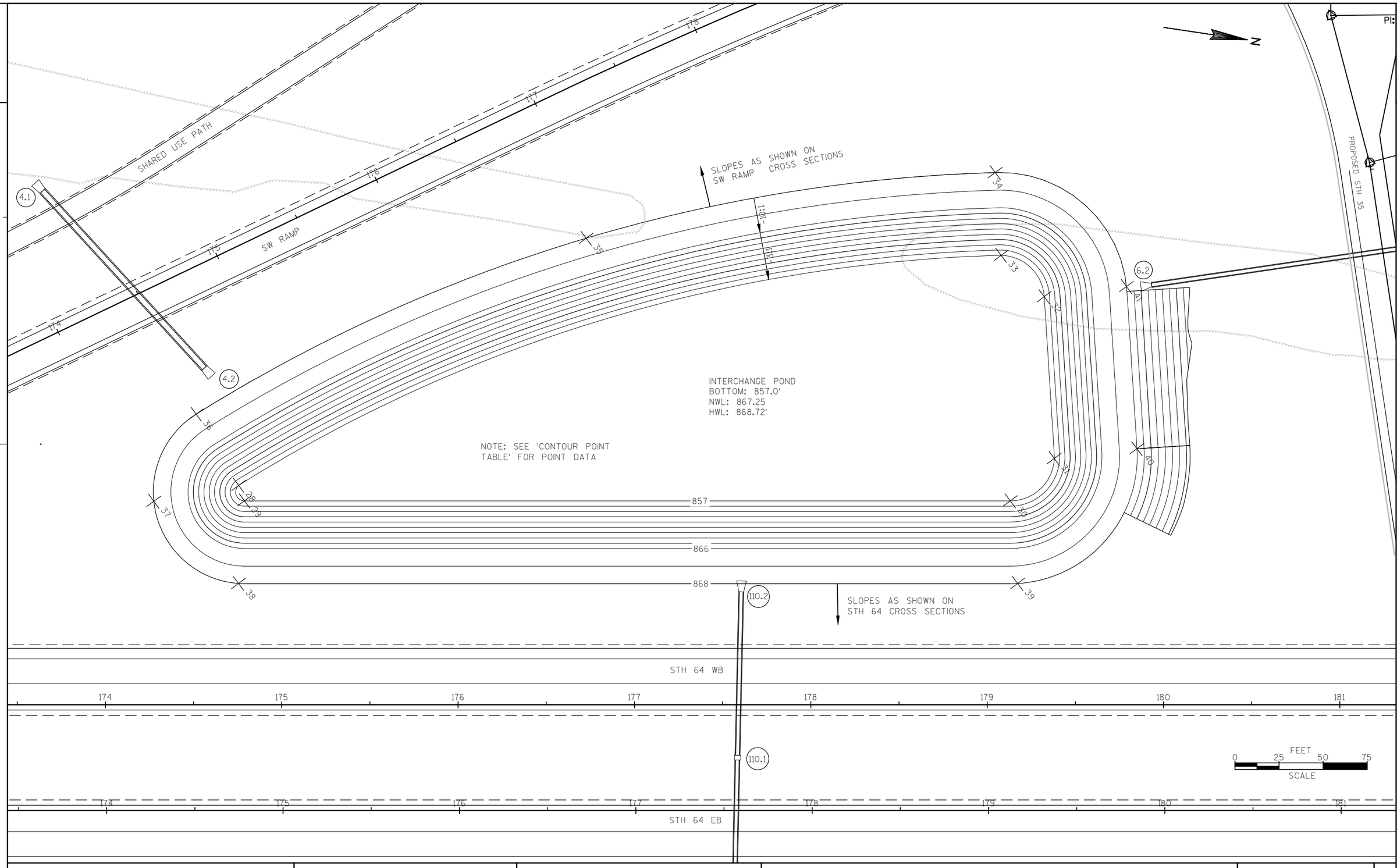
R/W

STH 35

WATER SPIGOT

FEET
0 30 60 90
SCALE

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST CROIX	CONTOUR MAP - BRIDGE POND	SHEET 23	E



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST CROIX	CONTOUR MAP - INTERCHANGE POND	SHEET 24	E

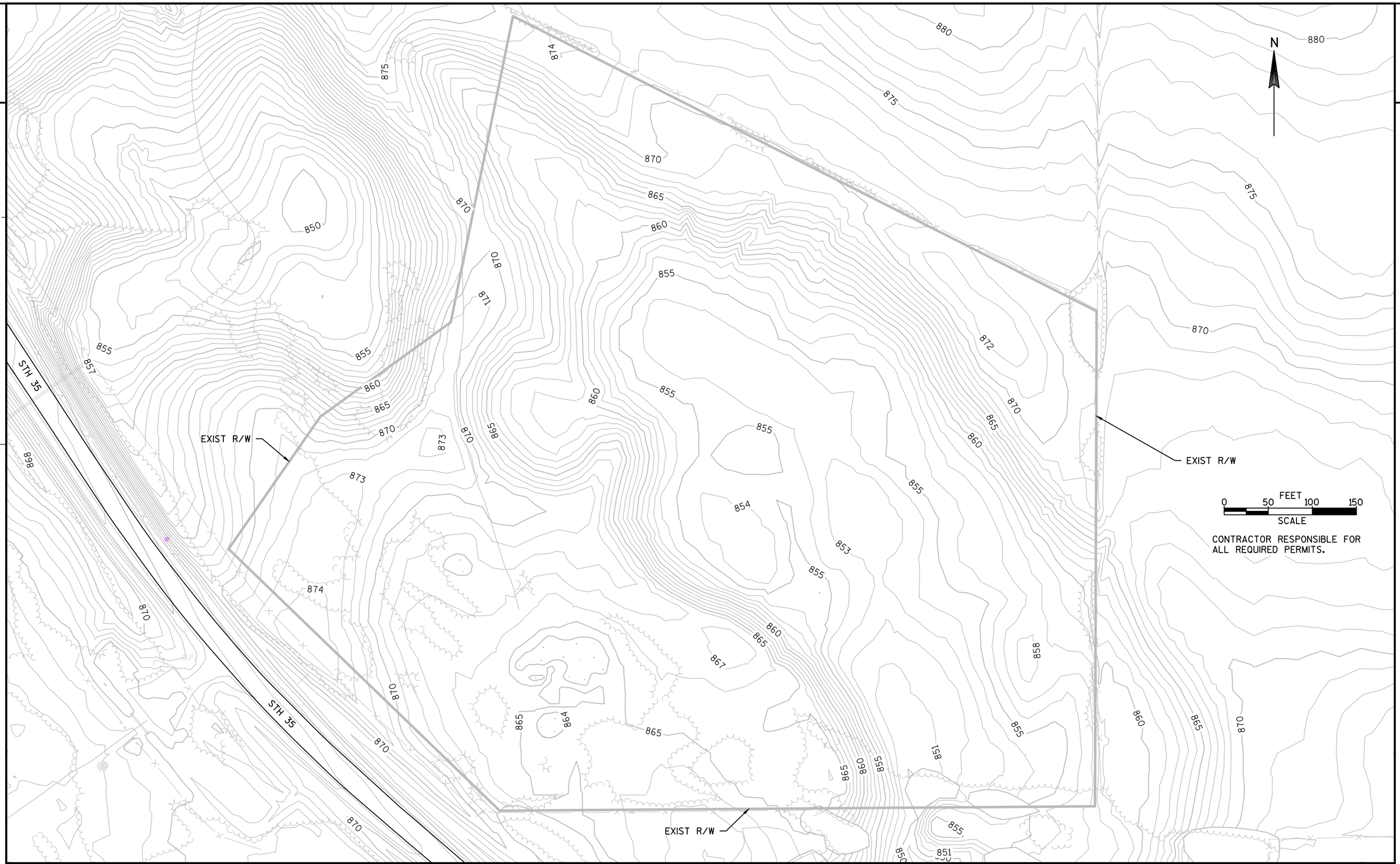
BRIDGE POND					
Point	Station	Offset	Elevation	Northing	Easting
1	136+00.15	178.127'	844.000'	368725.14	505234.47
2	136+20.50	159.795'	844.000'	368752.10	505229.67
3	137+36.61	148.977'	844.000'	368863.58	505283.31
4	137+85.35	193.485'	844.000'	368888.19	505347.48
5	137+94.07	293.528'	844.000'	368849.83	505440.38
6	137+74.25	348.094'	844.000'	368804.21	505477.88
7	135+77.35	500.432'	844.000'	368535.34	505495.96
8	135+55.31	487.063'	844.000'	368523.70	505472.96
9	138+47.31	238.956'	844.000'	368927.62	505418.97
10	138+90.75	269.173'	844.000'	368957.77	505467.26
11	139+45.48	236.398'	844.000'	369026.68	505462.92
12	139+31.35	145.324'	844.000'	369050.08	505373.59
13	138+74.93	144.294'	844.000'	368996.21	505347.20
14	138+43.53	181.572'	844.000'	368949.58	505365.79
15	138+08.78	159.096'	848.000'	368926.54	505328.80
16	138+23.16	291.034'	848.000'	368880.08	505453.30
17	136+31.00	575.075'	870.000'	368541.51	505587.75
18	139+84.48	317.373'	870.000'	369034.37	505554.61
19	139+31.18	77.130'	861.994'	369078.10	505311.41
20	135+10.03	158.505'	870.000'	368659.03	505170.16
21	134+63.70	478.451'	870.005'	368450.51	505417.20
22	135+23.12	584.534'	870.000'	368444.84	505538.66
23	140+53.27	185.037'	870.000'	369155.06	505460.98
24	136+00.00	99.635'	860.316'	368766.52	505167.78
25	135+39.88	161.784'	860.000'	368682.63	505188.73
26	139+68.30	191.527'	844.000'	369067.59	505431.91

NOTE: STATION OFFSET BASED ON LINE A - STH 64 E.B.

INTERCHANGE POND					
Point	Station	Offset	Elevation	Northing	Easting
28	174+74.80	-184.332'	857.000'	372572.31	504913.30
29	174+78.10	-175.574'	857.000'	372576.85	504921.48
30	179+12.32	-175.574'	857.000'	373006.42	504858.08
31	179+37.30	-199.604'	857.000'	373027.62	504830.66
32	179+31.60	-291.374'	857.000'	373008.58	504740.71
33	179+07.15	-314.782'	857.000'	372980.97	504721.12
34	179+03.78	-361.734'	868.000'	372970.79	504675.17
35	176+71.87	-324.485'	867.996'	372746.80	504745.88
36	174+50.68	-224.756'	868.000'	372542.54	504876.83
37	174+26.68	-175.333'	867.998'	372526.02	504929.23
38	174+74.71	-128.712'	867.998'	372580.33	504968.34
39	179+16.51	-128.705'	868.000'	373017.40	504903.84
40	179+84.18	-205.145'	868.000'	373073.18	504818.34
41	179+78.26	-297.141'	868.000'	373053.90	504728.19

NOTE: STATION OFFSET BASED ON LINE A - STH 64 E.B.

2



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	WIDOT STH 35 R/W - POTENTIAL WASTE SITE - CONTOUR MAP	SHEET 26	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\021605_CM_WASTE SITE_71.DWG PLOT DATE : 10/2/2013 12:59 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

2

STH 64 SUPERELEVATION TABLE

NO.	Description	START STATION STH 64 EB	END STATION STH 64 EB	LEFT OUTSIDE SHOULDER	LEFT OUTSIDE LANE	LEFT INSIDE LANE	WB REF LINE	LEFT INSIDE SHOULDER	MEDIAN	RIGHT INSIDE SHOULDER	EB REF LINE	RIGHT INSIDE LANE	RIGHT OUTSIDE LANE	RIGHT OUTSIDE SHOULDER
1	Transition In Region	130+00.00'	137+20.45'											
2	End Bridge	130+75.18'		-2.50%	-2.00%	-2.00%		2.00%		2.00%		-2.00%	-2.00%	-2.50%
3	End Approach Slab	131+05.18		-2.50%	-2.00%	-2.00%		2.00%		2.00%		-2.00%	-2.00%	-2.50%
4	End Normal Crown (Opposing)	133+60.45'		-2.00%	-2.00%	-2.00%		2.00%		2.00%		-2.00%	-2.00%	-2.50%
6	Level Crown	134+50.45'		-2.50%	-2.00%	-2.00%		2.00%		0.00%		0.00%	0.00%	0.00%
9	End Normal Crown (Continuing)	135+40.45'		-2.50%	-2.00%	-2.00%		2.00%		-2.00%		2.00%	2.00%	2.00%
10	Begin Curve	136+30.45'												
11	Begin Full Super	137+20.45'		-6.00%	-6.00%	-6.00%		6.00%		-6.00%		6.00%	6.00%	6.00%
12	Transition Out Region	151+53.37'	199+30.65'											
13	Runoff	151+53.37'	154+23.37'											
14	End Full Super	151+53.37'		-6.00%	-6.00%	-6.00%		6.00%		-6.00%		6.00%	6.00%	6.00%
15	End Curve	152+43.37'												
16	Reverse Crown	153+33.37'		-2.00%	-2.00%	-2.00%		2.00%		-4.00%		2.00%	2.00%	2.00%
17	Level Crown	154+23.37'		-2.00%	-2.00%	0.00%		0.00%		-4.00%		2.00%	0.00%	0.00%
18	Runout	154+23.37'	155+13.37'											
19	Level Crown	154+23.37'		-2.00%	-2.00%	0.00%		0.00%		-4.00%		2.00%	0.00%	0.00%
20	Begin Normal Crown	155+13.37'		-2.00%	-2.00%	2.00%		-2.00%		-4.00%		2.00%	-2.00%	-2.00%
21	Begin Normal Shoulder	155+13.37'		-4.00%	-2.00%	2.00%		-4.00%		-4.00%		2.00%	-2.00%	-4.00%
22	Standard SE	199+30.65'		-4.00%	-2.00%	2.00%		-4.00%		-4.00%		2.00%	-2.00%	-4.00%
23	Transition In Region	199+30.66'	202+90.66'											
24	Runout	199+30.66'	200+20.66'											
25	End Normal Shoulder	199+30.66'		-4.00%	-2.00%	2.00%		-4.00%		-4.00%		2.00%	-2.00%	-4.00%
26	End Normal Crown	199+30.66'		-2.00%	-2.00%	2.00%		-4.00%		-2.00%		2.00%	-2.00%	-4.00%
27	Level Crown	200+20.66'		0.00%	0.00%	2.00%		-4.00%		0.00%		0.00%	-2.00%	-4.00%
28	Runoff	200+20.66'	202+90.66'											
29	Level Crown	200+20.66'		0.00%	0.00%	2.00%		-4.00%		0.00%		0.00%	-2.00%	-4.00%
30	Reverse Crown	201+10.66'		2.00%	2.00%	2.00%		-4.00%		2.00%		-2.00%	-2.00%	-4.00%
31	Begin Curve	202+00.66'												
32	Begin Full Super	202+90.66'		6.00%	6.00%	6.00%		-6.00%		6.00%		-6.00%	-6.00%	-6.00%

Note: Superelevation rates rotated around reference lines

SW RAMP SUPERELEVATION						
NO.	DESCRIPTION	START STATION	END STATION	LEFT OUTSIDE SHOULDER	RIGHT OUTSIDE LANE	RIGHT OUTSIDE SHOULDER
1	TRANSITION IN REGION	166+76.68'	167+71.45'			
2	RUNOFF	166+76.68'	167+71.45'			
3	END NORMAL CROWN	166+76.68'		-2.00%	2.00%	2.00%
4	BEGIN CURVE	167+23.27'				
5	BEGIN FULL SUPER	167+71.45'		-5.70%	5.70%	5.70%
6	TRANSITION OUT REGION	173+05.64'	174+00.41'			
7	RUNOFF	173+05.64'	174+00.41'			
8	END FULL SUPER	173+05.64'		-5.70%	5.70%	5.70%
9	END CURVE	173+53.82'				
10	BEGIN NORMAL CROWN	174+00.41'		-2.00%	2.00%	2.00%
11	TRANSITION IN REGION	174+73.59'	175+75.59'			
12	RUNOUT	174+73.59'	175+07.59'			
13	END NORMAL CROWN	174+73.59'		-2.00%	2.00%	2.00%
14	LEVEL CROWN	175+07.59'		0.00%	0.00%	0.00%
15	RUNOFF	175+07.59'	175+75.59'			
16	LEVEL CROWN	175+07.59'		0.00%	0.00%	0.00%
17	BEGIN CURVE	175+53.15'				
18	BEGIN FULL SUPER	175+75.59'		3.50%	-3.50%	-3.50%
19	TRANSITION OUT REGION	179+82.28'	180+84.28'			
20	RUNOFF	179+82.28'	180+50.28'			
21	END FULL SUPER	179+82.28'		3.50%	-3.50%	-3.50%
22	END CURVE	180+04.72'				
23	LEVEL CROWN	180+50.28'		0.00%	0.00%	0.00%
24	RUNOUT	180+50.28'	180+84.28'			
25	LEVEL CROWN	180+50.28'		0.00%	0.00%	0.00%
26	BEGIN NORMAL CROWN	180+84.28'		-2.00%	2.00%	2.00%

2

SE RAMP SUPERELEVATION						
NO.	DESCRIPTION	START STATION	END STATION	LEFT OUTSIDE SHOULDER	LEFT OUTSIDE LANE	RIGHT OUTSIDE SHOULDER
1	TRANSITION IN REGION	170+01.76'	170+96.53'			
2	RUNOFF	170+01.76'	170+96.53'			
3	END NORMAL CROWN	170+01.76'		2.00%	2.00%	-2.00%
4	BEGIN CURVE	170+48.34'				
5	BEGIN FULL SUPER	170+96.53'		5.70%	5.70%	-5.70%
6	TRANSITION OUT REGION	174+42.77'	175+37.54'			
7	RUNOFF	174+42.77'	175+37.54'			
8	END FULL SUPER	174+42.77'		5.70%	5.70%	-5.70%
9	END CURVE	174+90.95'				
10	BEGIN NORMAL CROWN	175+37.54'		2.00%	2.00%	-2.00%
11	TRANSITION IN REGION	176+66.08'	177+22.30'			
12	RUNOFF	176+66.08'	177+22.30'			
13	END NORMAL CROWN	176+66.08'		-2.00%	-2.00%	2.00%
14	BEGIN CURVE	176+90.95'				
15	BEGIN FULL SUPER	177+22.30'		-4.90%	-4.90%	4.90%
16	TRANSITION OUT REGION	180+41.89'	180+98.12'			
17	RUNOFF	180+41.89'	180+98.12'			
18	END FULL SUPER	180+41.89'		-4.90%	-4.90%	4.90%
19	END CURVE	180+73.24'				
20	BEGIN NORMAL CROWN	180+98.12'		-2.00%	-2.00%	2.00%

NW RAMP SUPERELEVATION						
NO.	DESCRIPTION	START STATION	END STATION	LEFT OUTSIDE SHOULDER	RIGHT OUTSIDE LANE	RIGHT OUTSIDE SHOULDER
1	Rounabout	180+38.27		-2.00%	1.00%	2.00%
2	Transition In Region	180+38.27'	182+97.43'			
3	Runoff	182+29.98'	182+97.43'			
4	End Normal Crown	182+29.98'		2.00%	-2.00%	-4.00%
5	Begin Curve	182+62.11'				
6	Begin Full Super	182+97.43'		5.50%	-5.50%	-5.50%
7	Transition Out Region	185+89.46'	186+56.92'			
8	Runoff	185+89.46'	186+56.92'			
9	End Full Super	185+89.46'		5.50%	-5.50%	-5.50%
10	End Curve	186+24.79'				
11	Begin Normal Crown	186+56.92'		2.00%	-2.00%	-4.00%
12	Transition In Region	187+65.66'	189+62.89'			
13	Runout	187+65.66'	188+16.89'			
14	End Normal Crown	187+65.66'		2.00%	-2.00%	-4.00%
15	Level Crown	188+16.89'		0.00%	0.00%	0.00%
16	Runoff	188+16.89'	189+62.89'			
17	Level Crown	188+16.89'		0.00%	0.00%	0.00%
18	Begin Curve	189+14.22'				
19	Begin Full Super	189+62.89'		5.70%	5.70%	5.70%
20	Transition Out Region	195+46.51'	197+43.74'			
21	Runoff	195+46.51'	196+92.51'			
22	End Full Super	195+46.51'		5.70%	5.70%	5.70%

NE RAMP SUPERELEVATION						
NO.	DESCRIPTION	START STATION	END STATION	LEFT OUTSIDE SHOULDER	LEFT OUTSIDE LANE	RIGHT OUTSIDE SHOULDER
1	Transition In Region	189+81.28'	189+83.24'			
2	Runoff	189+81.28'	189+83.24'			
3	End Normal Crown	189+81.28'		4.00%	2.00%	-4.00%
4	Begin Full Super	189+83.24'		4.00%	2.10%	-4.00%
5	Transition Out Region	195+21.44'	195+23.39'			
6	Runoff	195+21.44'	195+23.39'			
7	End Full Super	195+21.44'		4.00%	2.10%	-4.00%
8	Begin Normal Crown	195+23.39'		4.00%	2.00%	-4.00%
9	Transition In Region	202+04.88'	202+22.77'			
10	Runoff	202+04.88'	202+22.77'			
11	End Normal Crown	202+04.88'			2.00%	-4.00%
12	Begin Full Super	202+22.77'			2.70%	-4.00%
13	Transition Out Region	205+77.23'	205+95.12'			
14	Runoff	205+77.23'	205+95.12'			
15	End Full Super	205+77.23'			2.70%	-4.00%
16	Begin Normal Crown	205+95.12'			2.00%	-4.00%

MEDIUM RIPRAP
FROM ASPHALT FLUME
10' X 50' X 18"

SLOPE INTERCEPT

STRUCTURES 102.2, 102.3
INSTALL BW GRATES
DIRECTLY ON INLET
(NO ADJUSTING RINGS)

STRUCTURES 103.0, 103.1
INSTALL BW GRATES
DIRECTLY ON INLET
(NO ADJUSTING RINGS)

EROSION CONTROL
COORDINATION REQUIRED WITH
MN S.P. 8221-01/8221-82045
CONTRACTORS.

STH 35

R/W

SHARED USE PATH

STH 64 WB

STH 64 EB

DS95 DS95A DS92 DS92A

998 999 1000 1001 1002 1003

101.1 102.1 102.2 102.3 103.0 103.1 103.2 104.0 104.1 104.2 105.0 105.1 106.0

130 135 140 145

STORM SEWER, GRIT CHAMBER &
DROP SHAFT CONSTRUCTED UNDER
MNDOT S.P. 8221-01.
COMPLETED BY JUNE 2014.

ACCESS TRAIL

PRIVATE RIVER

CONSTRUCTED
BY OTHERS

265+00

MEDIUM RIPRAP
FROM ASPHALT FLUME
5' X 15' X 18"

OVERFLOW OUTLET

BRIDGE POND
INFILTRATION BASIN
BOTTOM: 844.0'
HWL: 847.0'

BRIDGE POND
SEDIMENTATION BASIN
BOTTOM: 844.0'
NWL: 847.00'
HWL: 847.16'

844 848 860 870

SEE COUNTOUR PLAN FOR
GRADING INFORMATION

BRIDGE POND TO BE CONSTRUCTED
DURING STAGE 1 TO ALLOW FOR
SOIL STABILIZATION PRIOR TO STORMWATER
DISCHARGE INTO BRIDGE POND. INTERMITTENT
CLEANING OF SEDIMENT, AS NEEDED, SHALL
BE PAID FOR AS COMMON EXCAVATION.

PLACE ADDITIONAL AGGREGATE
BASE UPSTREAM OF ROADWAY
INLETS TO ENSURE DRAINAGE UNTIL
FUTURE PAVING BY OTHERS.

OVERFLOW OUTLET (STRC.-999) AND
CONNECTING STORM SEWER TO
STRC.-1003 SHALL BE COMPLETED IN
STAGE 1.

NOTE: SEE STORMSEWER PLAN
SHEETS FOR STORMSEWER &
CULVERT PIPE INFORMATION

0 50 100 150 FEET
SCALE

LEGEND

- EROSION MAT CLASS II TYPE B
- EROSION MAT CLASS III TYPE A
- SILT FENCE
- EROSION BALE, BARRIER
- DITCH DIKE
- RIP RAP
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EROSION CONTROL	SHEET 32	E

2

N

104.0

104.1

140

105.0

105.1

106.0

145

SLOPE INTERCEPT

R/W

SHARED USE PATH

107.1

107.0

108.1

108.0

155

STH 64 WB

150

STH 64 EB

EXISTING FIELD ACCESS

R/W

SLOPE INTERCEPT

LEGEND

######	EROSION MAT CLASS II TYPE B
	EROSION MAT CLASS III TYPE A
	SILT FENCE
	EROSION BALE, BARRIER
	DITCH DIKE
	RIP RAP
	SLOPE INTERCEPT
ASPH	ASPHALTIC FLUME
	INLET PROTECTION
	TEMPORARY DITCH CHECK
	CULVERT PIPE CHECK
	SURFACE WATER FLOW

DO NOT PLACE TOPSOIL STOCK PILES IN THE FARMER ACCESS PATH. PRIOR TO CONSTRUCTING FARMER ACCESS, COORDINATE WITH PROPERTY OWNER.

NOTE: SEE STORMSEWER PLAN SHEETS FOR STORMSEWER & CULVERT PIPE INFORMATION

0 50 100 150 FEET

SCALE

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EROSION CONTROL	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\022001_EC_71.DWG PLOT DATE : 10/3/2013 8:15 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1:100_XREF

2

2

LEGEND

- EROSION MAT CLASS II TYPE B
- EROSION MAT CLASS III TYPE A
- SILT FENCE
- EROSION BALE, BARRIER
- DITCH DIKE
- RIP RAP
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

N

SLOPE INTERCEPT

R/W

SHARED USE PATH

108.1

108.0

109.1

109.0

155

160

165

STH 64 WB

SW RAMP

STH 64 EB

SE RAMP

SLOPE INTERCEPT

R/W

NOTE: SEE STORMSEWER PLAN SHEETS FOR STORMSEWER & CULVERT PIPE INFORMATION

DO NOT PLACE TOPSOIL STOCK PILES IN THE FARMER ACCESS PATH. PRIOR TO CONSTRUCTING FARMER ACCESS, COORDINATE WITH PROPERTY OWNER.

FEET 0 50 100 150

SCALE

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EROSION CONTROL	SHEET 34	E

LEGEND

- EROSION MAT CLASS II TYPE B
- EROSION MAT CLASS III TYPE A
- SILT FENCE
- EROSION BALE, BARRIER
- DITCH DIKE
- RIP RAP
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

R/W

SLOPE INTERCEPT

SHARED USE PATH

SW RAMP

SE RAMP

INTERCHANGE POND
NWL: 867.25'
HWL: 868.72'

INTERMITTENT CLEANING OF SEDIMENT SHALL BE PAID FOR AS COMMON EXCAVATION

SEE CONTOUR PLAN FOR GRADING INFORMATION

STH 35 BY OTHERS

STH 64 WB

STH 64 EB

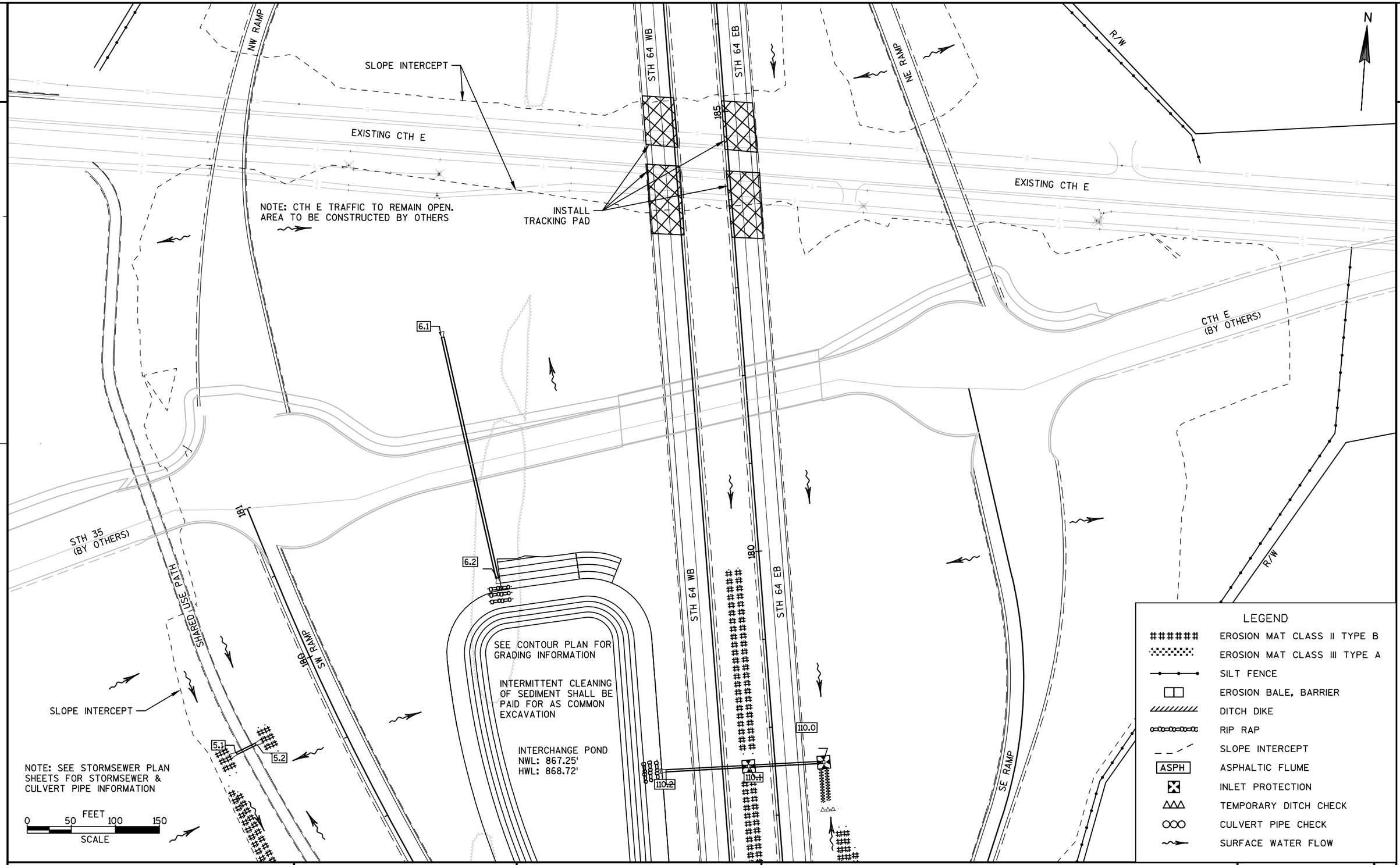
EXISTING FIELD ACCESS

NOTE: SEE STORMSEWER PLAN SHEETS FOR STORMSEWER & CULVERT PIPE INFORMATION

0 50 100 150 FEET
SCALE

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EROSION CONTROL	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\022001_EC_71.DWG PLOT DATE : 10/3/2013 8:16 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1:100_XREF



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EROSION CONTROL	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\022001_EC_71.DWG PLOT DATE : 10/3/2013 8:15 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1:100_XREF
WISDOT/CADDS SHEET 42

2

LEGEND

- EROSION MAT CLASS II TYPE B
- EROSION MAT CLASS III TYPE A
- SILT FENCE
- EROSION BALE, BARRIER
- DITCH DIKE
- RIP RAP
- SLOPE INTERCEPT
- ASPH — ASPHALTIC FLUME
- INLET PROTECTION
- TEMPORARY DITCH CHECK
- CULVERT PIPE CHECK
- SURFACE WATER FLOW

181

STH 35
BY OTHERS

SLOPE INTERCEPT

R/W

EXISTING CTH E

SLOPE INTERCEPT

NW RAMP

NOTE: CTH E TRAFFIC TO REMAIN OPEN. AREA TO BE CONSTRUCTED BY OTHERS

INSTALL TRACKING PAD

INSTALL TRACKING PAD

STH 64 WB

STH 64 WB

185

190

195

STH 64 EB

STH 64 EB

INSTALL TRACKING PAD

INSTALL TRACKING PAD

EXISTING CTH E

NE RAMP

R/W

SLOPE INTERCEPT

STH 35
BY OTHERS

SE RAMP

N

NOTE: SEE STORMSEWER PLAN SHEETS FOR STORMSEWER & CULVERT PIPE INFORMATION

0 50 100 150 FEET
SCALE

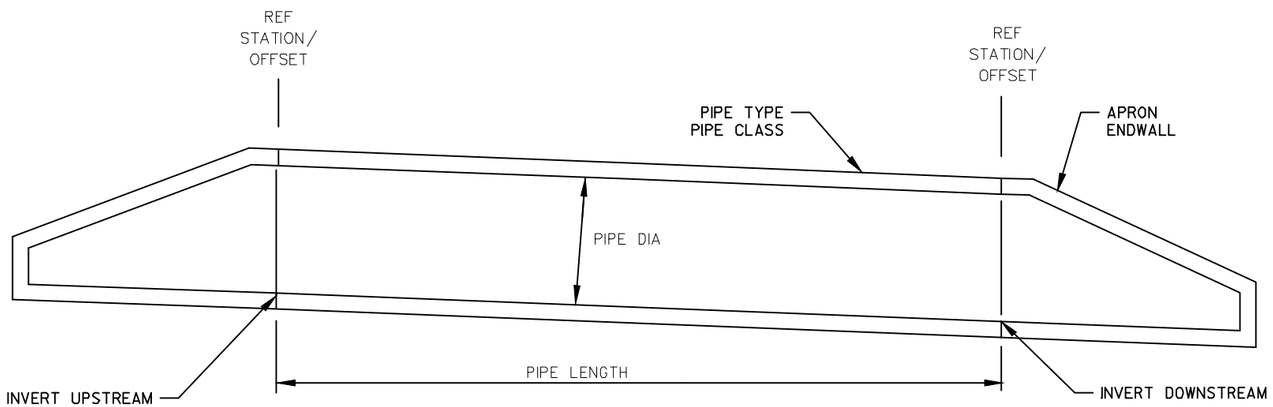
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FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\022001_EC_71.DWG PLOT DATE : 10/3/2013 8:16 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1:100_XREF

WISDOT/CADDS SHEET 42

CULVERT PIPES CHART

PIPE NO	STR NO	ROAD NAME	REF LINE	REF STATION	OFFSET	NORTHING	EASTING	COORD POINT NO	STR TYPE	INVERT (UPSTREAM)	PIPE DIA.	PIPE TYPE (CLASS OR THICKNESS)	PIPE LENGTH (FT)	SLOPE (%)	DRAINS TO / FROM	INVERT (DOWNSTREAM)	REQUIRED NUMBER OF JOINT TIES
2	2.1	SW RAMP	LINE G	173+15.13	-49.18	N372176.66	E504936.46	STRM1.1	24-INCH RC AE	869.86	24"	RCCP III	32	1.22%	2.2	869.47	6
	2.2	SW RAMP	LINE G	173+37.66	-72.66	N372193.84	E504897.01	STRM1.2	24-INCH RC AE						2.1		6
3	3.1	SE RAMP	LINE G	173+14.17	21.70	N372437.32	E505262.73	STRM1.1	24-INCH RC AE	871.13	24"	RCCP III	104	0.42%	3.2	870.70	6
	3.2	SE RAMP	LINE G	173+77.39	-60.24	N372532.10	E505171.53	STRM1.2	24-INCH RC AE						3.1		6
4	4.1	SW RAMP	LINE G	174+26.60	-75.97	N372431.09	E504756.55	STRM1.1	36-INCH RC AE	868.79	36"	RCCP III	136	0.51%	4.2	868.10	6
	4.2	SW RAMP	LINE G	174+65.94	54.21	N372551.60	E504862.68	STRM1.2	36-INCH RC AE						4.1		6
5	5.1	SW RAMP	LINE G	179+36.95	-121.20	N372984.47	E504406.05	STRM1.1	24-INCH RC AE	871.96	24"	RCCP III	24	1.25%	5.2	871.66	6
	5.2	SW RAMP	LINE G	179+37.19	-97.19	N372988.19	E504677.36	STRM1.2	24-INCH RC AE						5.1		6
6	6.1	STH 64	182+39.	182+69.54	-338.61	N373317.12	E504722.34	869.98	30-INCH RC AE	869.93	30"	RCCP III	280	0.40%	868.50	868.82	6
	6.2	STH 64	179+86.	179+92.49	-298.01	N373067.74	E504767.34		30-INCH RC AE								6
8	8.1	STH 64	136+00.	136+00.00	77.38'	N368778.29	E505148.89	848.05	24-INCH RC AE	848.05	24"	RCCP III	56	0.75%	847.63	847.63	6
	8.2	STH 64	136+00.	136+00.00	133.38'	N368748.67	E505196.42		24-INCH RC AE								6

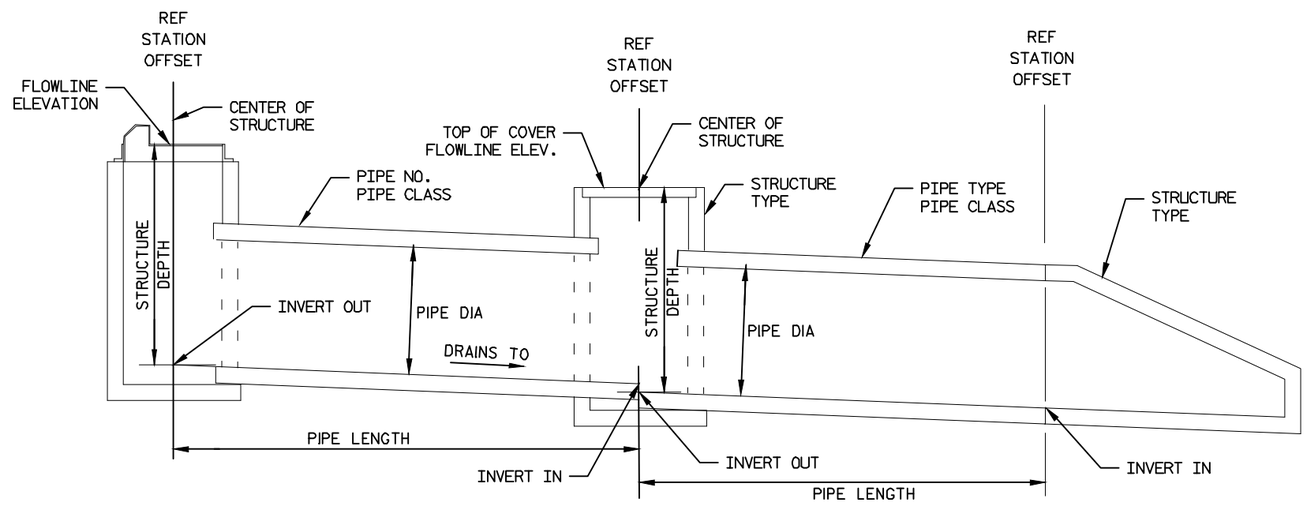


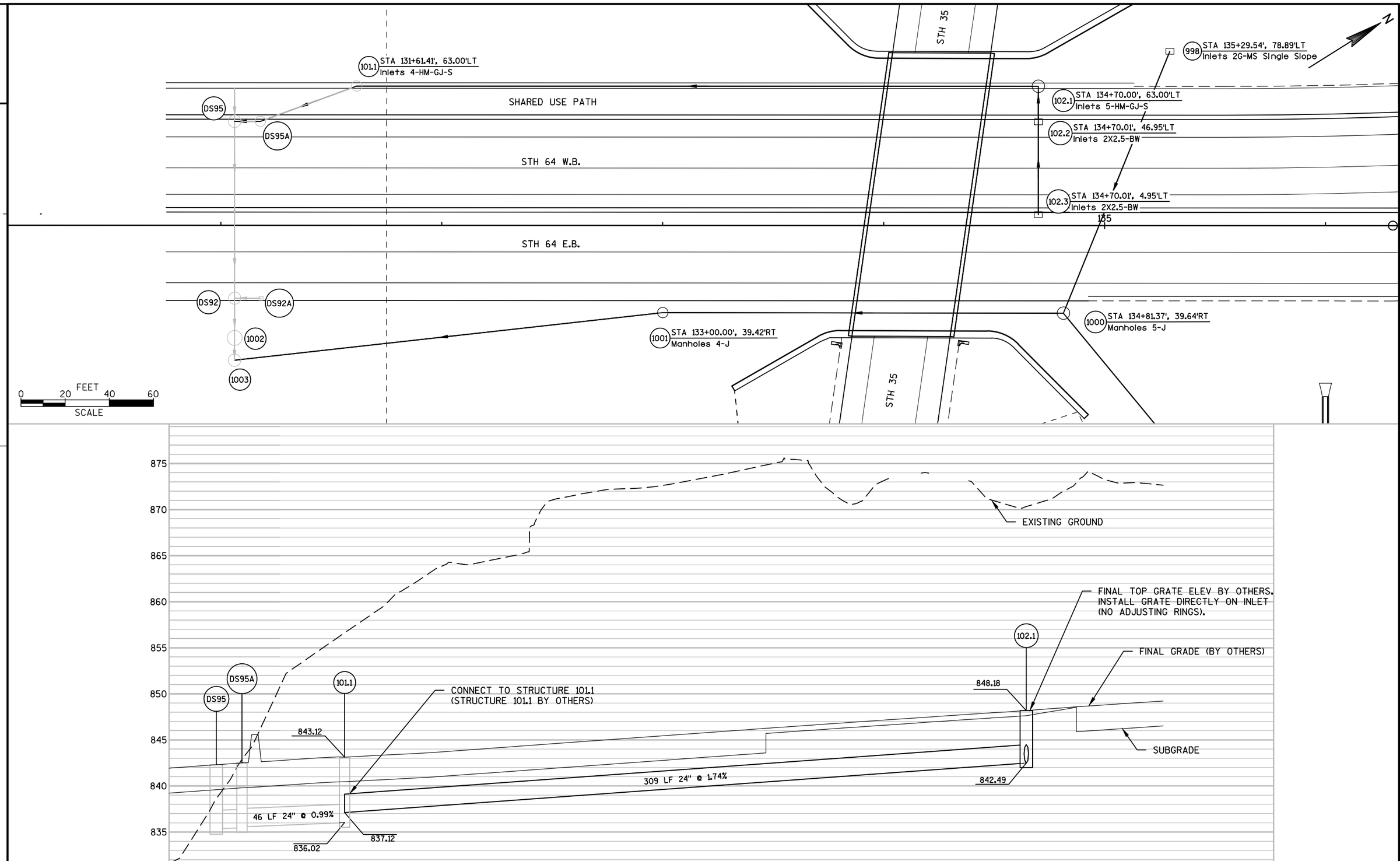
2

STORM SEWER CHART

STR NO	ROAD NAME	REF STATION	OFFSET	STR TYPE	GRATE ELEV	INVERT OUT	RCP PIPE DIA (IN)	PIPE CLASS	PIPE LENGTH (LF)	SLOPE (%)	DRAINS TO	INVERT IN	STR DEPTH (FT)	COVER TYPE	JOINT TIES REQ'D
1.1	STH 64	138+50	55.23 RT	INLET 2G	855.63	851.00	30"	III	46	1	1.2	850.5	4.63	MS - 2 EA	
1.2	STH 64	138+50	101.23 RT	30-INCH RC AE											6
998	STH 64	135+29.54	78.89' LT	INLET 2G	845.65	842.04	24"	III	128	-0.30%	1000	841.66	3.60	MS - 2 EA	
999	STH 64	135+81.53	151.30' RT	INLET 2G	847.16	842.41	24"	III	176	-0.43%	1000	841.66	4.75	MS -2 EA	
1000	STH 64	134+81.37	39.64' RT	MANHOLE 5 FT DIA	850.12	841.56	24"	III	181	-0.50%	1001	840.65	8.57	J	
1001	STH 64	133+00.00	39.42' RT	MANHOLE 4 FT DIA	845.34	840.57	24"	III	195	-2.15%	1003	836.38	4.78	J	
102.1	STH 64	134+70.00	63.00' LT	INLET 5 FT DIA	848.18	842.49	24"	III	309	-1.74%	101.1	837.12	5.70	HM-GJ-S	
102.2	STH 64	134+70.01	46.95' LT	INLET 2X2.5-FT	848.51	842.76	24"	III	16	-1.69%	102.1	842.49	5.75	BW	
102.3	STH 64	134+70.01	4.95' LT	INLET 2X2.5-FT	849.31	843.60	24"	III	42	-2.00%	102.2	842.76	5.70	BW	
103.0	STH 64	137+74.99	52.98' LT	INLET 2X2.5-FT	851.59	847.75	18"	III	48	-0.29%	103.1	847.61	3.83	BW	
103.1	STH 64	137+75.00	4.95' LT	INLET 2X2.5-FT	854.34	847.61	18"	III	133	-0.29%	103.2	847.22	6.73	BW	
103.2	STH 64	137+75.00	128.00' RT	18-INCH RC AE											6
104.0	STH 64	140+22.80	92.85' LT	INLET 2G	852.03	848.60	24"	III	78	-0.50%	104.1	848.21	3.43	MS - 2 EA	
104.1	STH 64	140+25.20	14.51' LT	INLET 6 FT DIA	857.28	847.22	36"	III	149	-0.49%	104.2	846.49	10.05	C	
104.2	STH 64	139+63.24	120.35' RT	36-INCH RC AE											6
105.0	STH 64	142+74.02	89.44' LT	INLET 2G	855.87	852.37	24"	III	71	-0.51%	105.1	852.01	3.50	MS - 2 EA	
105.1	STH 64	142+74.46	18.47' LT	MANHOLE 5 FT DIA	860.64	851.53	30"	III	247	-0.42%	104.1	850.50	9.11	J	
106.0	STH 64	144+52.07	22.11' LT	INLET 2G	862.96	858.44	24"	III	176	-1.74%	105.1	855.38	4.51	MS - 2 EA	
107.0	STH 64	148+55.00	29.87' LT	INLET 2G	868.89	863.85	24"	III	68	-1.75%	107.1	862.66	5.03	MS - 2 EA	
107.1	STH 64	148+50.27	97.76' LT	24-INCH RC AE											6
108.0	STH 64	153+50.00	35.09' LT	INLET 2G	875.38	871.93	18"	III	76	-0.49%	108.1	871.56	3.45	MS - 2 EA	
108.1	STH 64	153+49.49	111.09' LT	18-INCH RC AE											6
109.0	STH 64	168+00.00	30.01' LT	INLET 2G	873.67	872.00	12"	III	98	-0.36%	109.1	871.65	1.67	MS - 2 EA	
109.1	STH 64	168+00.10	128.01' LT	12-INCH RC AE											6

STR NO	ROAD NAME	REF STATION	OFFSET	STR TYPE	GRATE ELEV	INVERT OUT	RCP PIPE DIA (IN)	PIPE CLASS	PIPE LENGTH (LF)	SLOPE (%)	DRAINS TO	INVERT IN	STR DEPTH (FT)	COVER TYPE	JOINT TIES REQ'D
110.0	STH 64	177+55.77	55.20' RT	INLET 2G	869.96	866.55	24"	III	85	-0.35%	110.1	866.25	3.41	MS - 2 EA	
110.1	STH 64	177+57.67	30.01' LT	INLET 2G	869.16	866.25	24"	III	94	-0.36%	110.2	865.91	2.92	MS - 2 EA	
110.2	STH 64	177+59.81	123.98' LT	24-INCH RC AE											6
6.1	STH 64	182+39.52	264.49' LT	30-INCH RC AE		869.98	30"	III	253	-0.58%	6.2	868.50			6
6.2	STH 64	179+86.24	256.39' LT	30-INCH RC AE											6
8.1	STH 64	136+00.00	77.38' RT	24-INCH RC AE	848.60	848.05	24"	III	56	-0.75%	8.2	847.63	1.00		6
8.2	STH 64	136+00.00	133.38' RT	24-INCH RC AE											6





PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	STORM SEWER: STH 64 - STR 102.1 TO 101.1	SHEET 41	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\022501_SS_71.DWG PLOT DATE : 10/2/2013 6:00 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1:40_XREF

2

STH 64 E.B.

DS92

DS92A

1002

1003

1001 STA 133+00.00', 39.42'RT
Manholes 4-J

1000 STA 134+81.37', 39.64'RT
Manholes 5-J

STH 35

STA 135+93.57', 175.23'RT
Inlets 2G-MS Level Slope 999

N

0 20 FEET 40 60
SCALE

2

FINAL GRADE (BY OTHERS)

1000
850.12

850

1001
845.34

999

1003
CONNECT TO STRUCTURE 1003
(STRUCTURE 1003 BY OTHERS)

845

841.00

840

195 LF 24" @ 2.15%

181 LF 24" @ 0.50%

176 LF 24" @ 0.43%

840.56

840.65

841.56

841.66

842.41

836.38

835

BOTTOM BRIDGE POND = 844.0

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	STORM SEWER: STH 64 - STR 999 TO 1003	SHEET 42	E

61.41', 63.00'LT
-HM-GJ-S

SHARED USE PATH

STH 64 W.B.

STH 64 E.B.

STH 35

STH 35

998 STA 135+29.54', 78.89'LT
Inlets 2G-MS Single Slope

102.1 STA 134+70.00', 63.00'LT
Inlets 5-HM-GJ-S

102.2 STA 134+70.01', 46.95'LT
Inlets 2X2.5-BW

102.3 STA 134+70.01', 4.95'LT
Inlets 2X2.5-BW

135

1000 STA 134+81.37', 39.64'RT
Manholes 5-J

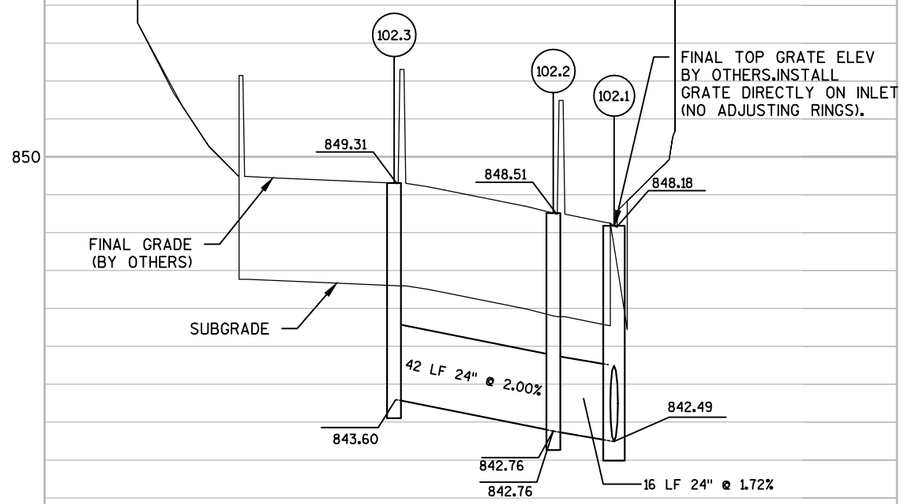
1001 STA 133+00.00', 39.42'RT
Manholes 4-J

103.0 STA 137+74.99'
Inlets 2X2.5-B

103.1 STA 137+75.0
Inlets 2X2.5

0 20 FEET 40 60
SCALE

N



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	STORM SEWER: STH 64 - STR 102.3 TO 102.1	SHEET 43	E

61.41', 63.00'LT
-HM-GJ-S

SHARED USE PATH

STH 64 W.B.

STH 64 E.B.

STH 35

STH 35

998 STA 135+29.54', 78.89'LT
Inlets 2G-MS Single Slope

102.1 STA 134+70.00', 63.00'LT
Inlets 5-HM-GJ-S

102.2 STA 134+70.01', 46.95'LT
Inlets 2X2.5-BW

102.3 STA 134+70.01', 4.95'LT
Inlets 2X2.5-BW

103.0 STA 137+74.99'
Inlets 2X2.5-B

103.1 STA 137+75.0
Inlets 2X2.5

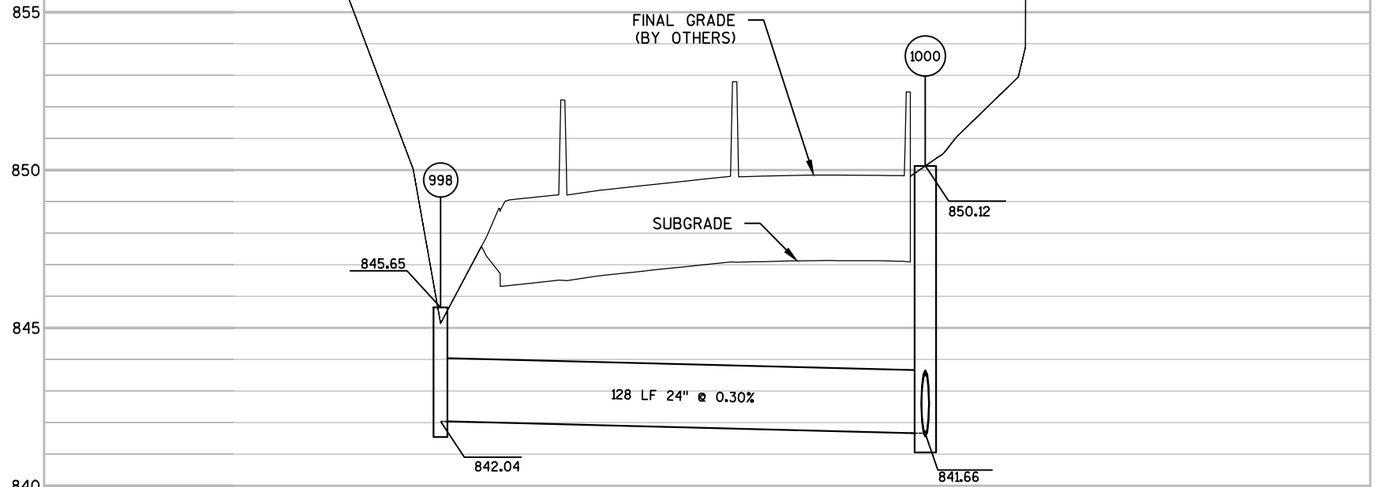
135

1000 STA 134+81.37', 39.64'RT
Manholes 5-J

1001 STA 133+00.00', 39.42'RT
Manholes 4-J

0 20 40 60 FEET
SCALE

N



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	STORM SEWER: STH 64 - STR 998 TO 1000	SHEET 44	E

2

102.1 STA 134+70.00', 63.00'LT
Inlets 5-HM-GJ-S

102.2 STA 134+70.01', 46.95'LT
Inlets 2X2.5-BW

102.3 STA 134+70.01', 4.95'LT
Inlets 2X2.5-BW

103.0 STA 137+74.99', 52.98'LT
Inlets 2X2.5-BW

103.1 STA 137+75.00', 4.95'LT
Inlets 2X2.5-BW

STA 140+25.20', 14.50'LT 104.1
Inlets 6-C

1000 STA 134+81.37', 39.64'RT
Manholes 5-J

104.2 STA 139+63.24', 120.35'RT
36 Inch RCAE

STH 64 W.B.

STH 64 E.B.

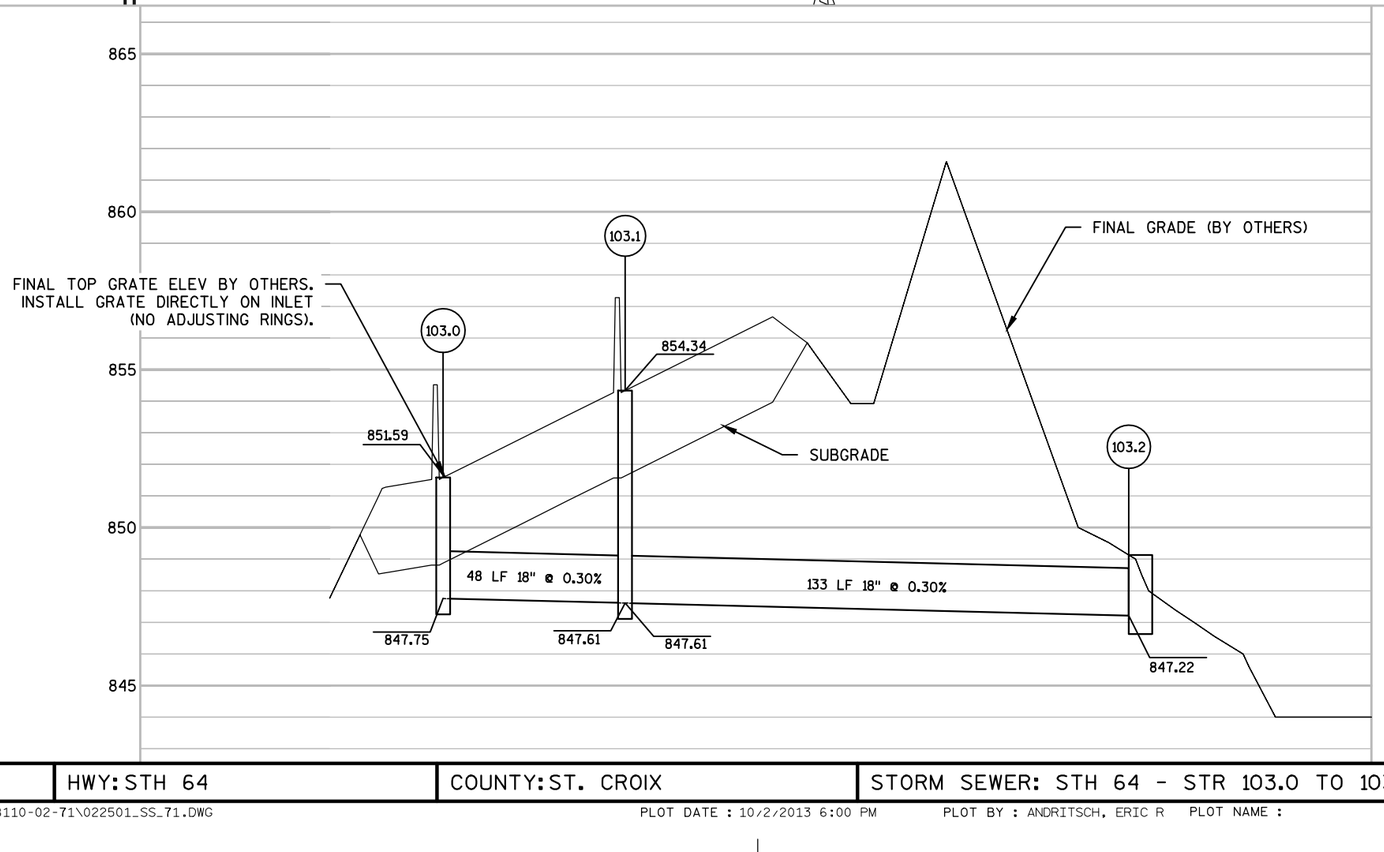
135

140

BRIDGE POND

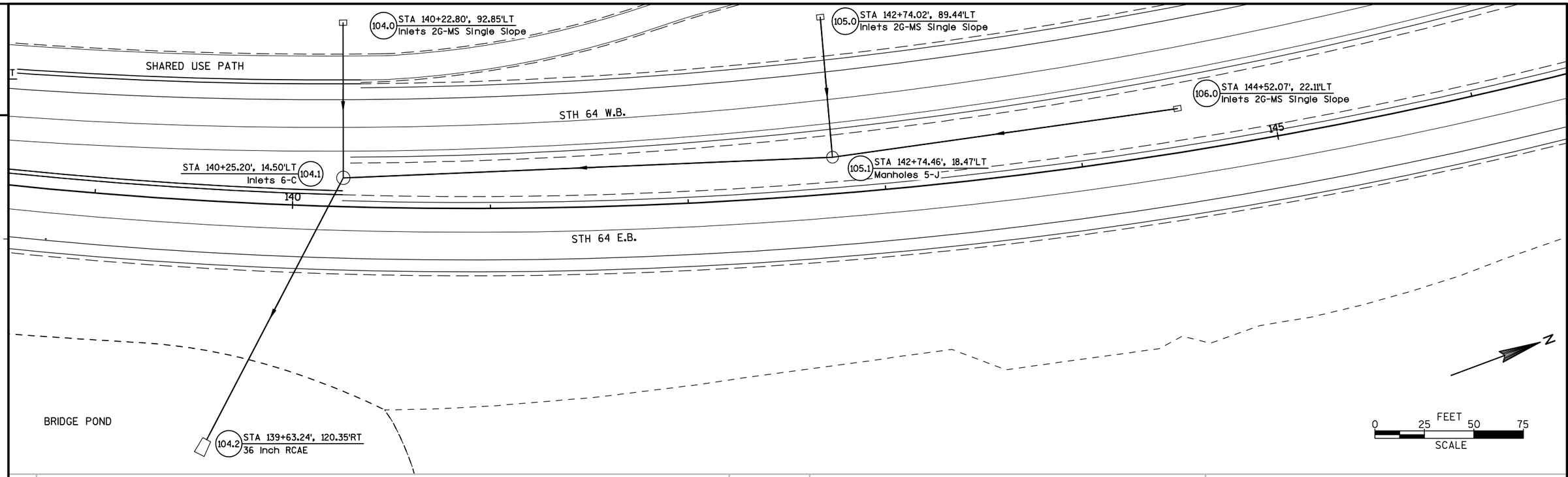
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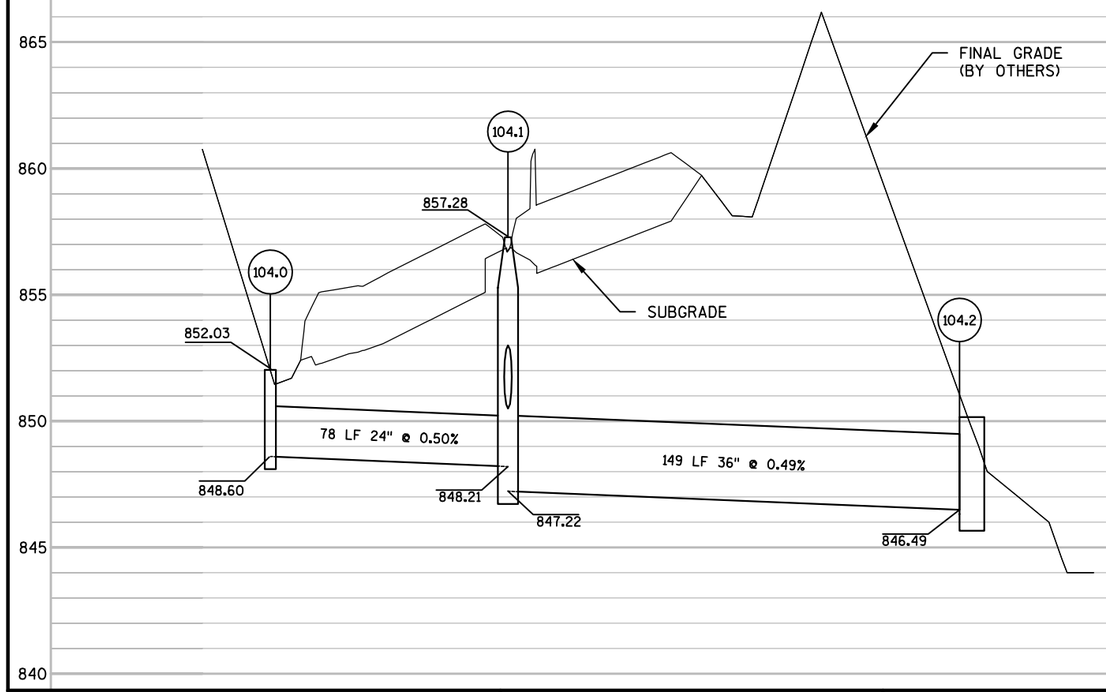
0 20 40 60 FEET
SCALE

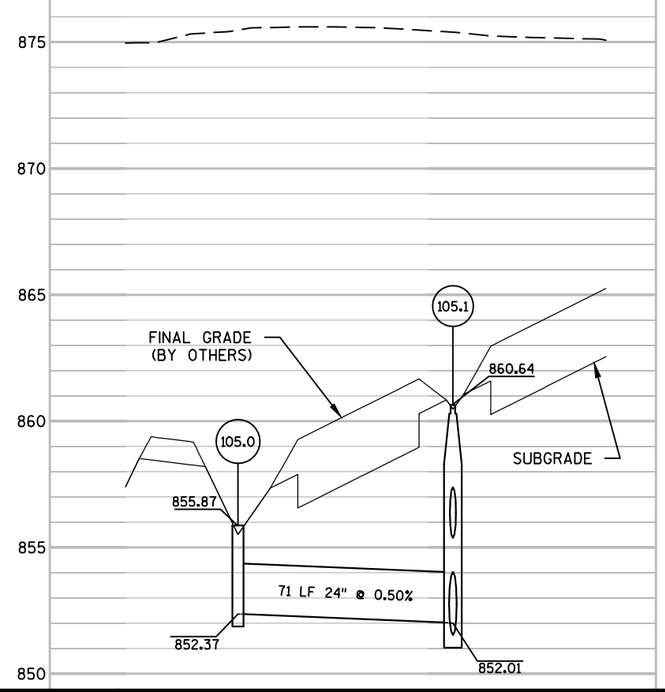


PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	STORM SEWER: STH 64 - STR 103.0 TO 103.2	SHEET	E

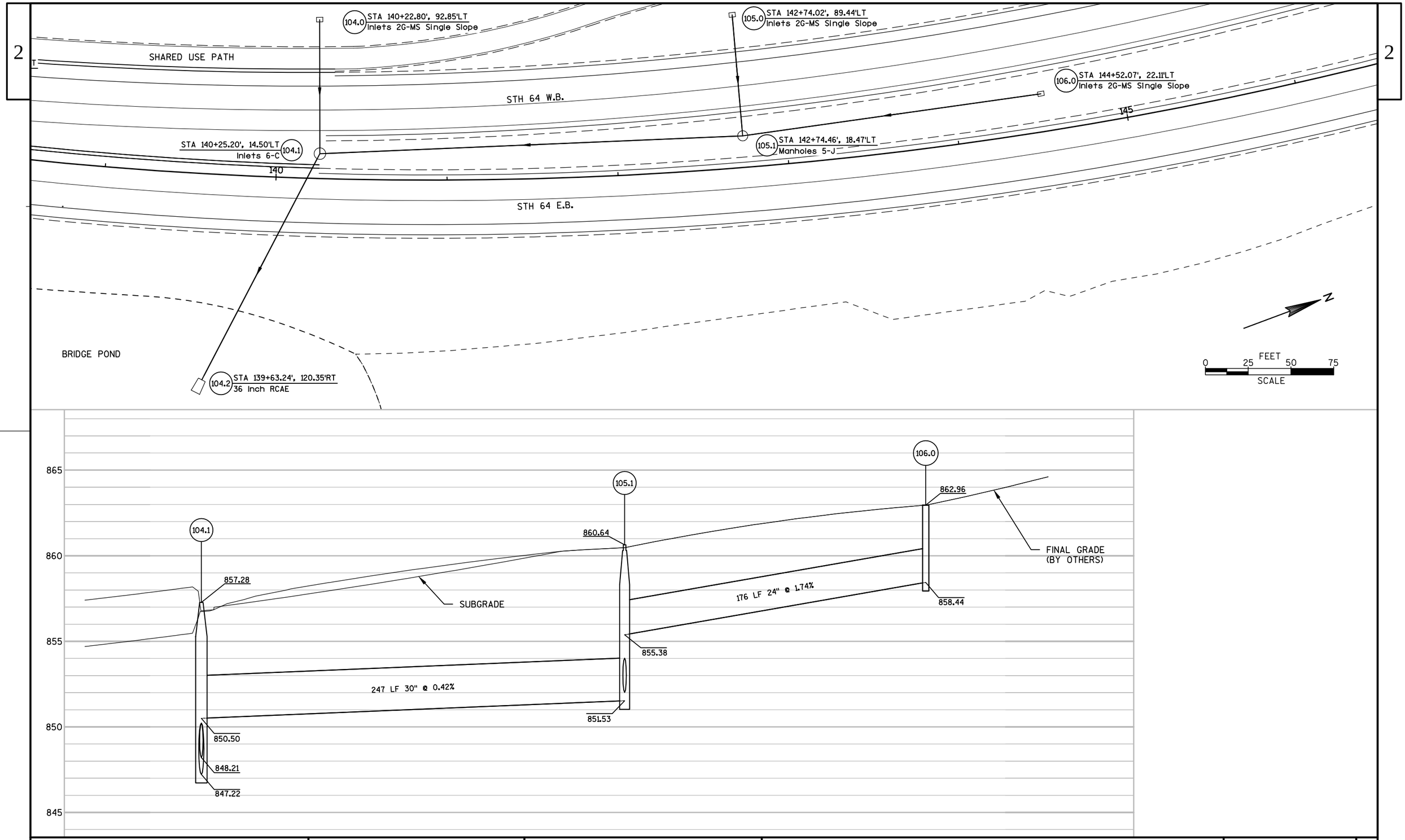
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WISDOT/CADDS SHEET 41







PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	STORM SEWER: STH 64 - STR 104.0 TO 104.2, STR 105.0 TO 105.1	SHEET 46	E



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	STORM SEWER: STH 64 - STR 106.0 TO 104.1	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\022501_SS_71.DWG PLOT DATE : 10/2/2013 6:00 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1:50_XREF
WISDOT/CADDS SHEET 41

2

SHARED USE PATH

107.1 STA 148+50.27', 97.76'LT
24 Inch RCAE

107.0 STA 148+55.00', 29.87'LT
Inlets 2G-MS Single Slope

108.1 STA 153+49.49', 111.09'LT
18 Inch RCAE

108.0 STA 153+50.00', 35.09'LT
Inlets 2G-MS Single Slope

STH 64 W.B.

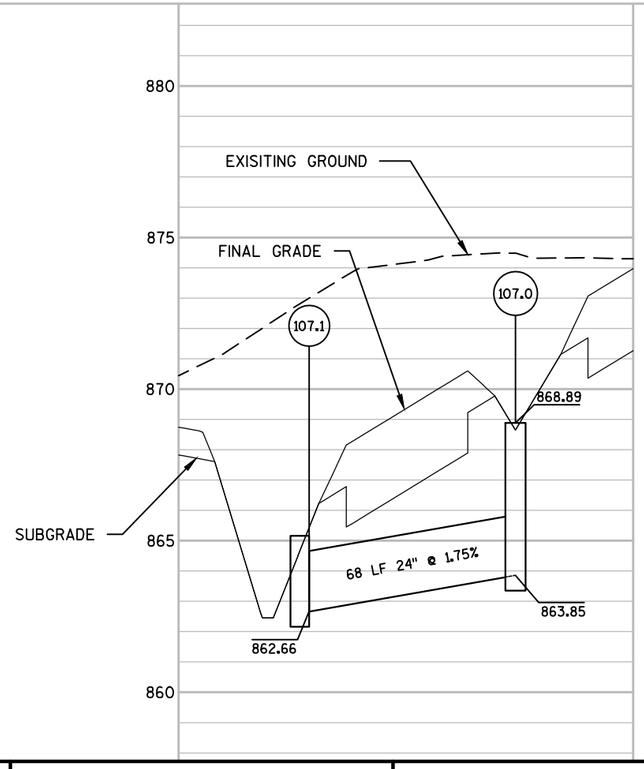
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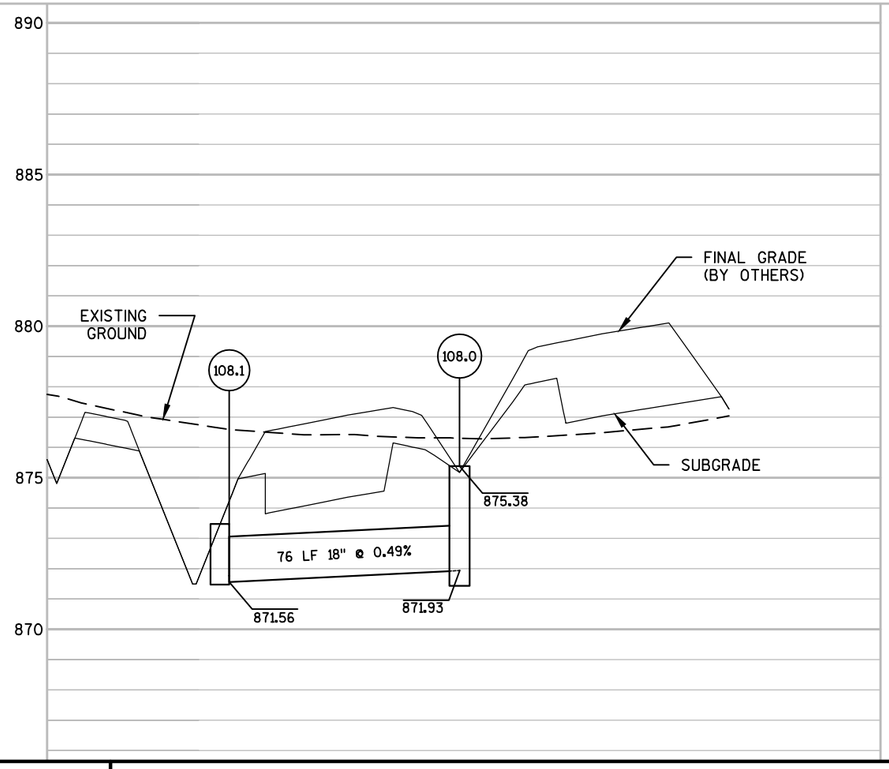
155

STH 64 E.B.

0 25 50 75 FEET
SCALE

N





PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	STORM SEWER: STH 64 - STR 107.0 TO 107.1, STR 108.0 TO 108.1	SHEET 48	E

2

SHARED USE PATH

SW RAMP

N

109.1 STA 168+00.10', 128.01'LT
12 inch RCAE

STH 64 W.B.

0 25 FEET 50 75
SCALE

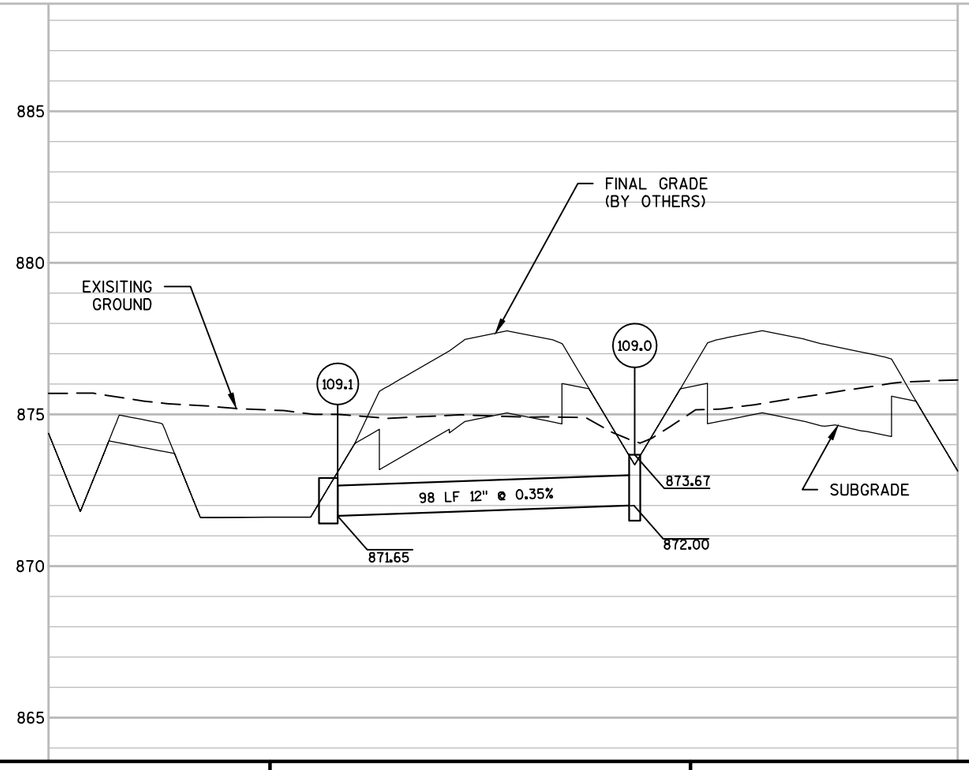
109.0 STA 168+00.00', 30.01'LT
Inlets 2G-MS Single Slope

165

170

STH 64 E.B.

2



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	STORM SEWER: STH 64 - STR 109.0 TO 109.1	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\022501_SS_71.DWG PLOT DATE : 10/2/2013 6:01 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1:50_XREF

WISDOT/CADDS SHEET 41

2

N

858

866

868

INTERCHANGE POND

110.2 STA 177+59.81', 123.98'LT
24 Inch RCAE

STH 64 W.B.

110.1 STA 177+57.67', 30.01'LT
Inlets 2G-MS Different Slopes

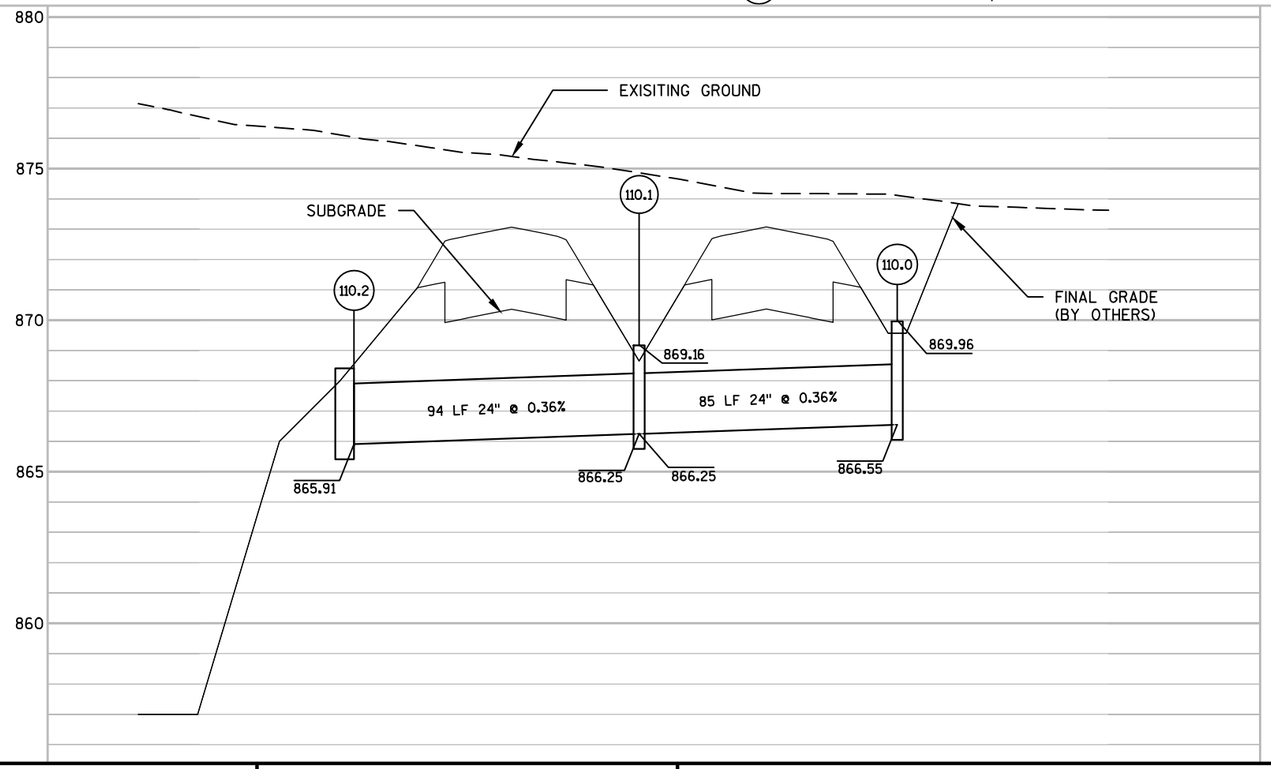
175

180

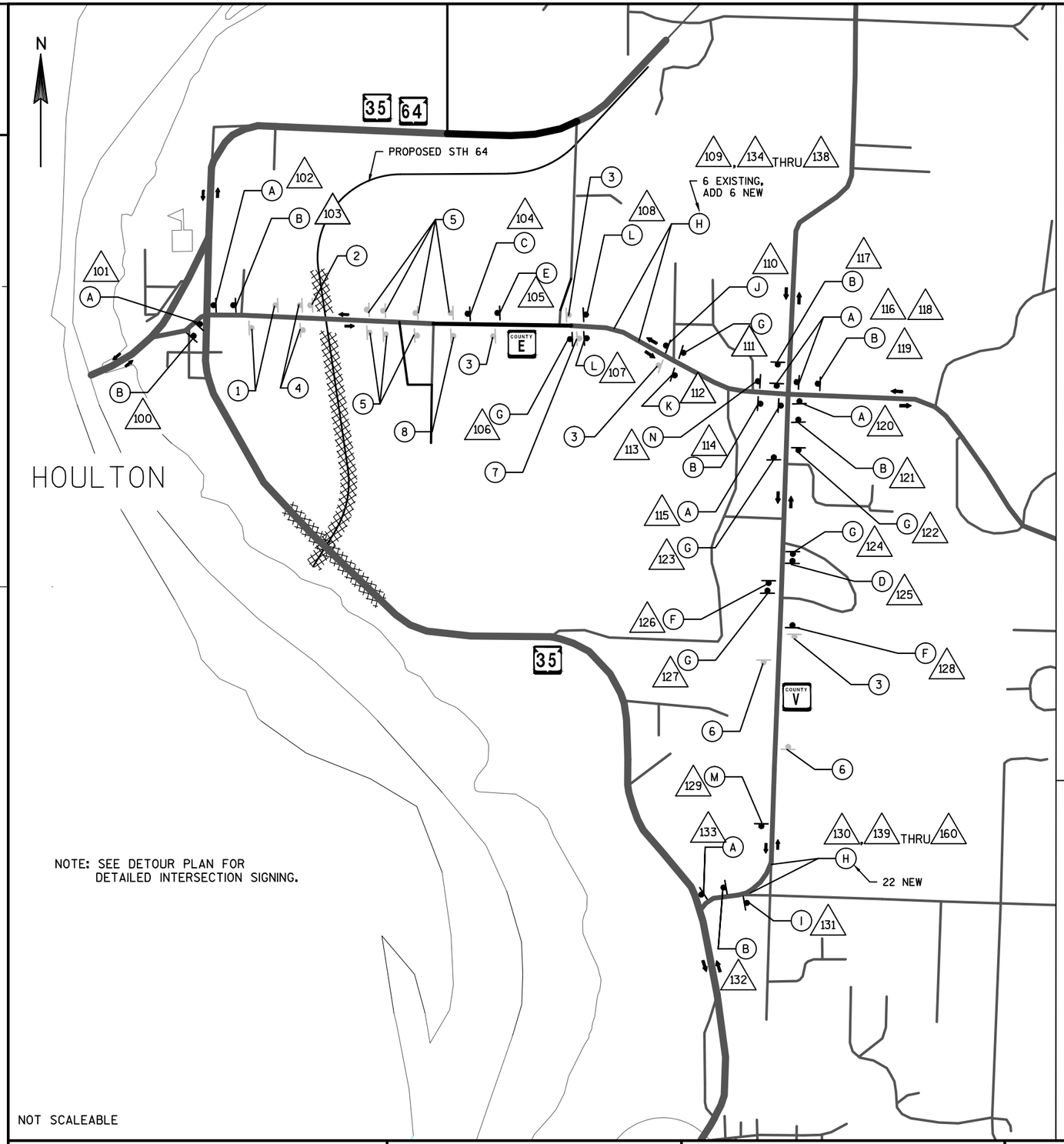
STH 64 E.B.

110.0 STA 177+55.77', 55.20'RT
Inlets 2G-MS Different Slopes

0 25 50 75 FEET
SCALE



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	STORM SEWER: STH 64 - STR 110.0 TO 110.2	SHEET 50	E



WORK ZONE

A 101 NEW SIGN

2 EXISTING SIGN TO REMAIN

DIRECTION OF TRAFFIC

A — STOP — R1-1, 36"X36"

B — W3-1, 36" X 36"

C — W2-2, 30" X 30"

D — W2-7R, 30" X 30"

E — SPEED LIMIT 45 — W3-5, 36" X 36"

F — S3-1, 36"X36"

G — NO PASSING ZONE — W14-3, 48" X 36"

H — W1-8, 18" X 24"

I — W1-2L, 30" X 30"; 45 M.P.H. — W13-1, 18" X 18"

J — W1-2L, 36" X 36"; 45 M.P.H. — W13-1, 24" X 24"

K — W1-2L, 36" X 36"; 50 M.P.H. — W13-1, 24" X 24"

L — W1-2R, 36" X 36"; 40 M.P.H. — W13-1, 24" X 24"

M — W1-2R, 36" X 36"; 45 M.P.H. — W13-1, 24" X 24"

N — W1-2R, 36" X 36"; 50 M.P.H. — W13-1, 24" X 24"

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

ALL SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

ALL REPLACED SIGNS SHOULD BE RETURNED TO ST. CROIX COUNTY.

1 — SCHOOL SPEED LIMIT 15 WHEN CHILDREN ARE PRESENT — S4-51, 24"X48"

2 — S1-1, 36"X36"

3 — NO PASSING ZONE — W14-3, 48" X 36"

4 — SPEED LIMIT 35 — R2-1, 24"X30"

5 — SPEED LIMIT 45 — R2-1, 24"X30"

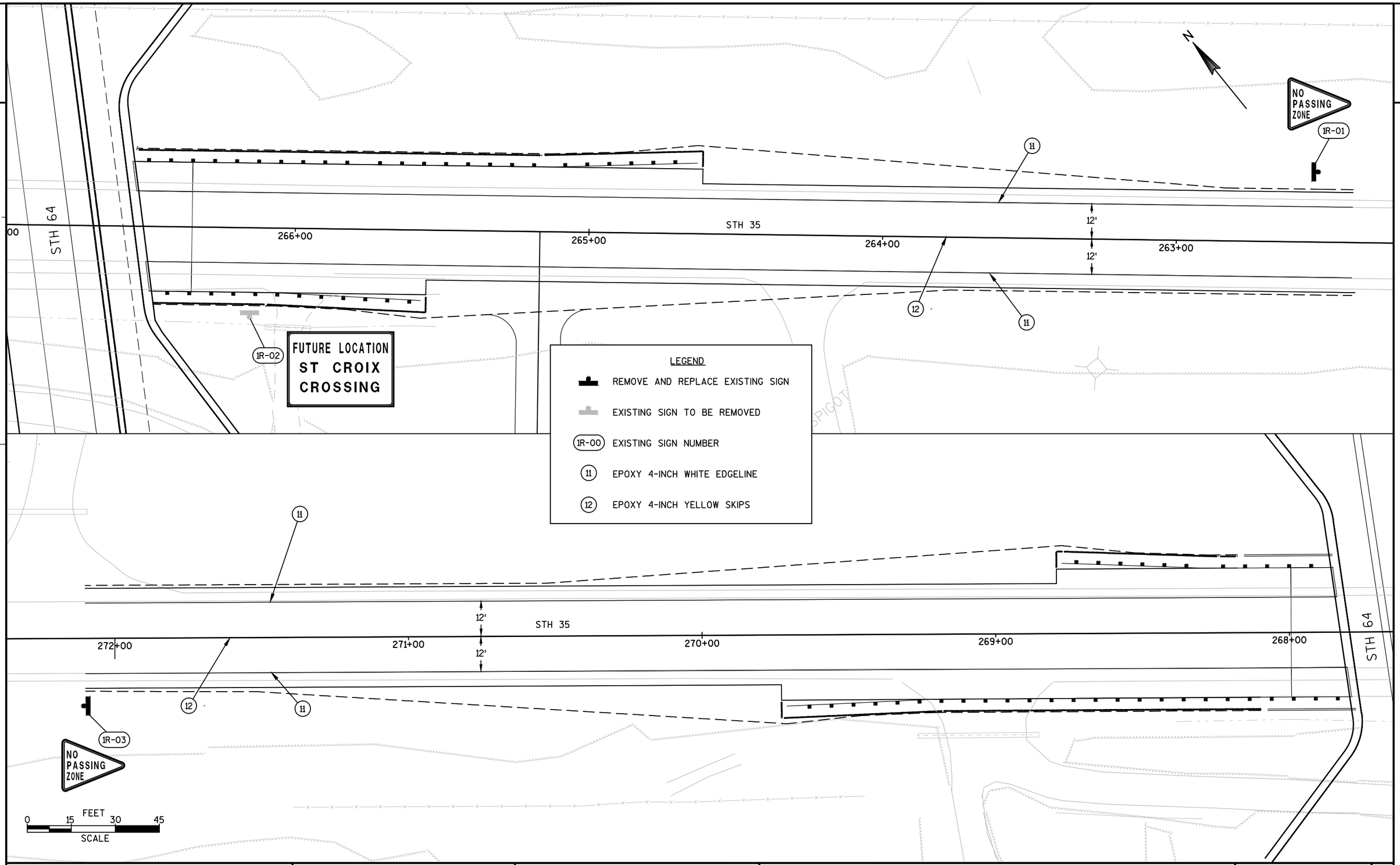
6 — SCHOOL BUS STOP AHEAD — S3-1, 36"X36"

7 — W7-1, 30"X30"

8 — SPEED LIMIT 55 — R2-1, 24"X30"

PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST CROIX	PERMANENT SIGNING DETOUR ROUTE - REPLACEMENT PLAN	SHEET 51 E

2



PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	SIGNING AND MARKING - STH 35	SHEET 52	E

2

2

POST MOUNTED SIGN

TYPE III BARRICADE WITH SIGN

DRUM

A



B



C

* D



* ROAD CLOSURE BARRICADE:
SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

SEE S.D.D. "TRAFFIC CONTROL, VEHICLE ENTRANCE, EXIT OR HAUL ROAD" FOR SIGNING/FLAGGING OPERATIONS REQUIRED. INSTALL SIGNS NOT SHOWN ON ADVANCE WARNING PLAN SHEET ACCORDING TO S.D.D. MAINTAIN CTH E WITH ASPHALTIC PAVEMENT. GRAVEL SURFACE ALLOWED FOR A MAXIMUM OF 5 DAYS.

INSTALL PERMANENT TRAFFIC CONTROL BARRICADE UPON GRADING COMPLETION.

SHOULDER CLOSURE:
SEE S.D.D. "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY"

EXISTING STH 35

EXISTING CTH E

PROPOSED STH 35 (BY OTHERS)

NW RAMP

NE RAMP

SW RAMP

SE RAMP

INTERCHANGE POND

PROPOSED CTH E (BY OTHERS)

THELEN FARM RD

STH 64 WB LANES

STH 64 EB LANES

SHARED USE PATH

EXISTING STH 35

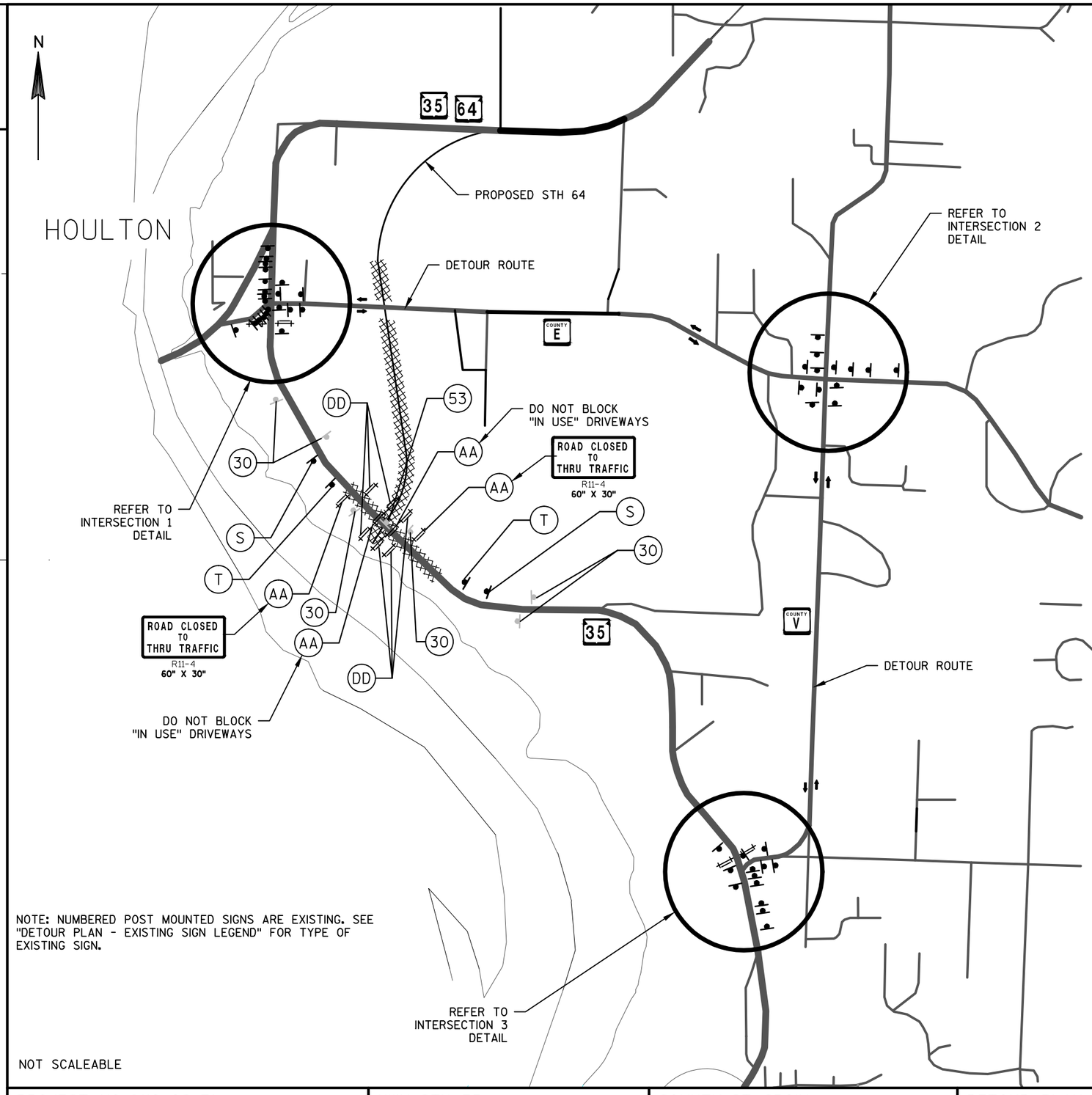
ST. CROIX RIVER

N

0 300 600 900
FEET
SCALE

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	TRAFFIC CONTROL: ADVANCE WARNING	SHEET 53	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\023301_AW_71.DWG PLOT DATE : 10/1/2013 10:13 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1 " = 600'



NOTE: NUMBERED POST MOUNTED SIGNS ARE EXISTING. SEE "DETOUR PLAN - EXISTING SIGN LEGEND" FOR TYPE OF EXISTING SIGN.

NOT SCALEABLE

WORK ZONE

(A) INSTALL DETOUR SIGN

(2) EXISTING SIGN

TYPE III BARRICADE WITH SIGN

DIRECTION OF TRAFFIC

(WL) TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)

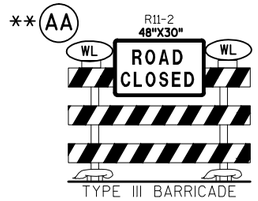
* (S)



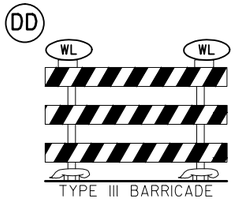
(T)



** (AA)



(DD)



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

*SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR GUIDANCE ON SIGN LAYOUT AND SPACING.

**SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B, C, D FOR GUIDANCE ON SIGN LAYOUT AND SPACING.

ALL SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST CROIX	DETOUR PLAN OVERVIEW	SHEET 54	E

NOTE: NUMBERED POST MOUNTED SIGNS ARE EXISTING. SEE "DETOUR PLAN - EXISTING SIGN LEGEND" FOR TYPE OF EXISTING SIGN.

A — INSTALL POST MOUNTED SIGN

2 — EXISTING SIGN TO REMAIN

N

HOULTON

64

35

COUNTY E

DETOUR ROUTE

ROAD CLOSED
1 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3
60" X 30"

NOT SCALEABLE

WORK ZONE

TYPE III BARRICADE WITH SIGN

DIRECTION OF TRAFFIC

WL — TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)

A — DETOUR M4-8 24" X 12" / NORTH M3-1 24"X12" / 35 M1-6 24"X24" / M5-1R 21"X21"

D — DETOUR M4-8 24" X 12" / SOUTH M3-3 24"X12" / 35 M1-6 24"X24" / M5-1L 21"X21"

E — DETOUR M4-8 24" X 12" / NORTH M3-1 24"X12" / 35 M1-6 24"X24" / M6-1 21"X21"

H — DETOUR M4-8 24" X 12" / SOUTH M3-3 24"X12" / 35 M1-6 24"X24" / M6-1 21"X21"

I — DETOUR M4-8 24" X 12" / SOUTH M3-3 24"X12" / 35 M1-6 24"X24" / M6-1 21"X21"

J — NORTH M3-1 24"X12" / 35 M1-6 24"X24" / M5-1L 21"X21"

K — NORTH M3-1 24"X12" / 35 M1-6 24"X24" / M6-1 21"X21"

M — DETOUR M4-8 24" X 12" / SOUTH M3-3 24"X12" / 35 M1-6 24"X24"

N — END DETOUR M4-8A 24" X 18" / NORTH M3-1 24"X12" / 35 M1-6 24"X24"

*P — SOUTH M3-3 24"X12" / 35 M1-6 24"X24"

Q — DETOUR AHEAD W20-2

R — ROAD CLOSED AHEAD W20-3

T — ROAD CLOSED 500 FT W20-3

DETOUR AHEAD W20-2

U — STOP AHEAD W03-1 30"X30"

V — STOP R1-1 30"X30"

W — DETOUR NEXT 4.5 MILES G20-51 60" X 24"

**AA — R11-2 48"X30" ROAD CLOSED (WL) — TYPE III BARRICADE

BB — W01-6 48"X24" (WL) — TYPE III BARRICADE

X — HUDSON D1-56L 90" X 15"

Y — HUDSON D1-56L 90" X 15"

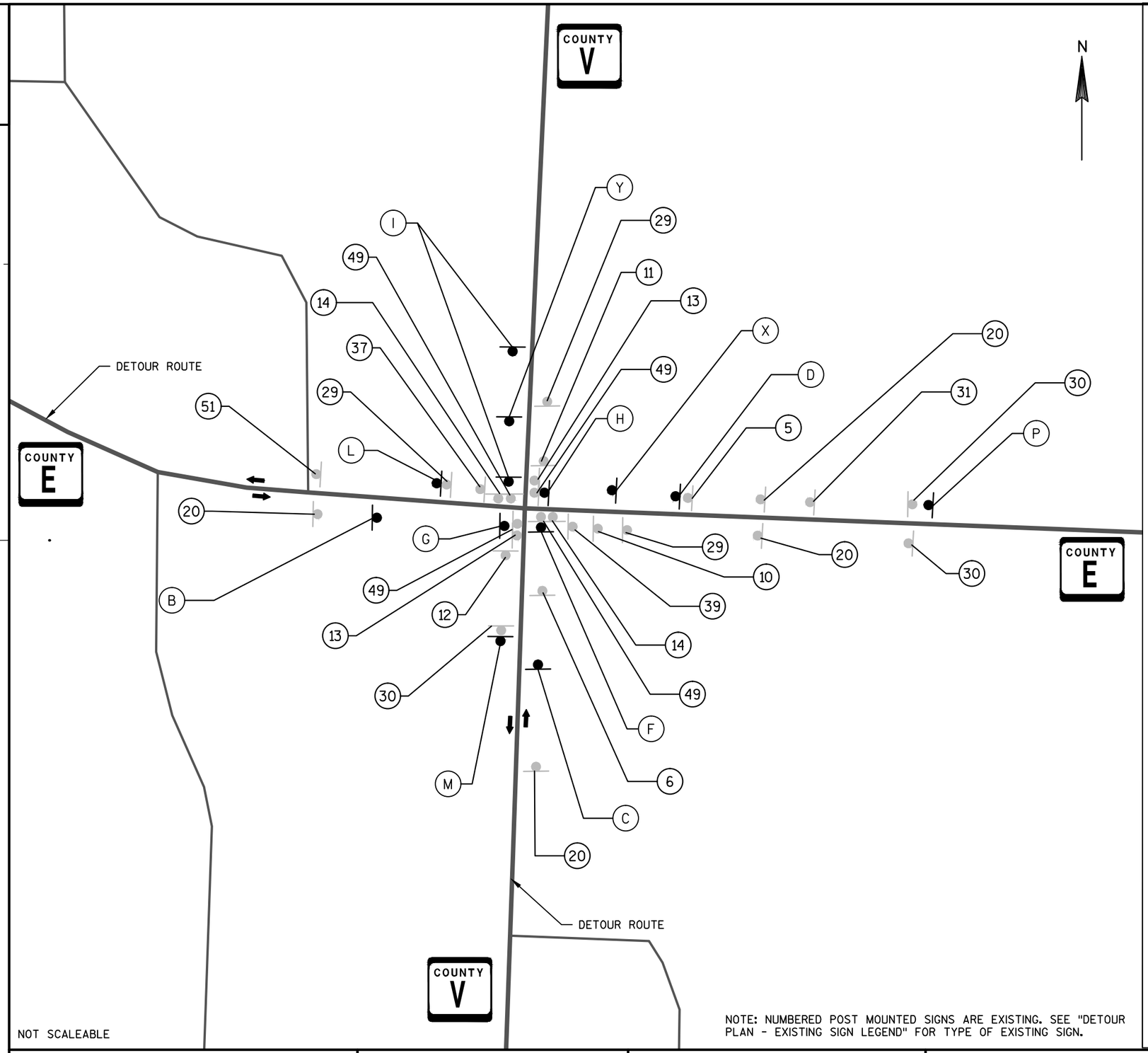
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

*SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR GUIDANCE ON SIGN LAYOUT AND SPACING.

**SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL B FOR GUIDANCE ON SIGN LAYOUT AND SPACING.

ALL SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST CROIX	DETOUR PLAN - INTERSECTION 1 DETAIL	SHEET 55	E



NOTE: NUMBERED POST MOUNTED SIGNS ARE EXISTING. SEE "DETOUR PLAN - EXISTING SIGN LEGEND" FOR TYPE OF EXISTING SIGN.

WORK ZONE

DIRECTION OF TRAFFIC

(A) INSTALL POST MOUNTED SIGN

(2) EXISTING SIGN TO REMAIN

(B)
DETOUR M4-8 24" X 12"
SOUTH M3-3 24"X12"
35 M1-6 24"X24"
M5-1R 21"X21"

(C)
DETOUR M4-8 24" X 12"
NORTH M3-1 24"X12"
35 M1-6 24"X24"
M5-1L 21"X21"

(D)
DETOUR M4-8 24" X 12"
SOUTH M3-3 24"X12"
35 M1-6 24"X24"
M5-1L 21"X21"

(F)
DETOUR M4-8 24" X 12"
NORTH M3-1 24"X12"
35 M1-6 24"X24"
M6-1 21"X21"

(G)
DETOUR M4-8 24" X 12"
SOUTH M3-3 24"X12"
35 M1-6 24"X24"
M6-1 21"X21"

(H)
DETOUR M4-8 24" X 12"
SOUTH M3-3 24"X12"
35 M1-6 24"X24"
M6-1 21"X21"

(I)
DETOUR M4-8 24" X 12"
SOUTH M3-3 24"X12"
35 M1-6 24"X24"
M6-1 21"X21"

(L)
DETOUR M4-8 24" X 12"
NORTH M3-1 24"X12"
35 M1-6 24"X24"

(M)
DETOUR M4-8 24" X 12"
SOUTH M3-3 24"X12"
35 M1-6 24"X24"

*** (P)**
SOUTH M3-3 24"X12"
35 M1-6 24"X24"
DETOUR AHEAD W20-2

(X)
HUDSON D1-56L 90" X 15"

(Y)
HUDSON D1-56L 90" X 15"

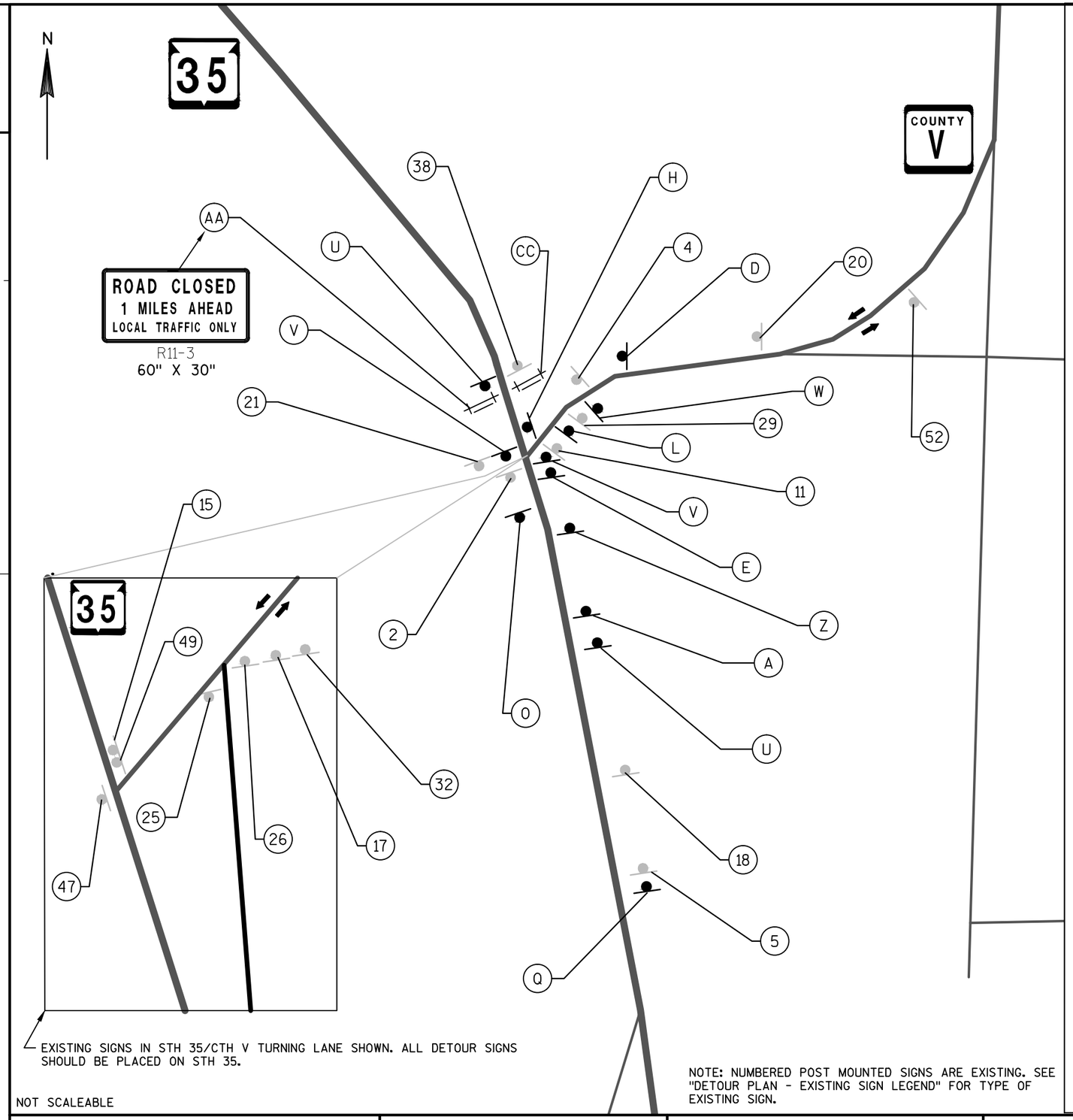
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

* SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR GUIDANCE ON SIGN LAYOUT AND SPACING.

ALL SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST CROIX	DETOUR PLAN - INTERSECTION 2 DETAIL	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\027001_DT_71.DWG PLOT DATE : 10/1/2013 10:17 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 0.002323
WISDOT/CADDS SHEET 42



EXISTING SIGNS IN STH 35/CTH V TURNING LANE SHOWN. ALL DETOUR SIGNS SHOULD BE PLACED ON STH 35.

NOT SCALEABLE

NOTE: NUMBERED POST MOUNTED SIGNS ARE EXISTING. SEE "DETOUR PLAN - EXISTING SIGN LEGEND" FOR TYPE OF EXISTING SIGN.

WORK ZONE

TYPE III BARRICADE WITH SIGN

DIRECTION OF TRAFFIC

WL TYPE "A" LOW INTENSITY FLASHING WARNING LIGHT (FOR NIGHT USE)

A INSTALL POST MOUNTED SIGN

2 EXISTING SIGN TO REMAIN

A
DETOUR
M4-8
24" X 12"
NORTH
M3-1
24"X12"
35
M1-6
24"X24"
M5-1R
21"X21"

D
DETOUR
M4-8
24" X 12"
SOUTH
M3-3
24"X12"
35
M1-6
24"X24"
M5-1L
21"X21"

E
DETOUR
M4-8
24" X 12"
NORTH
M3-1
24"X12"
35
M1-6
24"X24"
M6-1
21"X21"

H
DETOUR
M4-8
24" X 12"
SOUTH
M3-3
24"X12"
35
M1-6
24"X24"
M6-1
21"X21"

L
DETOUR
M4-8
24" X 12"
NORTH
M3-1
24"X12"
35
M1-6
24"X24"

O
END DETOUR
M4-8A
24" X 18"
SOUTH
M3-3
24"X12"
35
M1-6
24"X24"

* **Q**
DETOUR AHEAD
W20-2

U
STOP AHEAD
W03-1
30"X30"

V
STOP
R1-1
30"X30"

W
DETOUR NEXT 4.5 MILES
G20-51
60" X 24"

Z
HOULTON
D1-56L
90" X 15"

** **AA**
R11-2
48"X30"
WL ROAD CLOSED WL
TYPE III BARRICADE

CC
W01-6
48"X24"
WL WL
TYPE III BARRICADE

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

* SEE S.D.D. "DETOUR SIGNING FOR MAINLINE CLOSURES" FOR GUIDANCE ON SIGN LAYOUT AND SPACING.

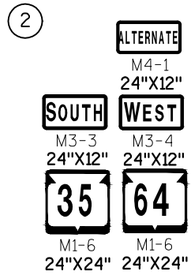
** SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" DETAIL A FOR GUIDANCE ON SIGN LAYOUT AND SPACING.

ALL SIGNS, TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

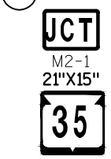
PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST CROIX	DETOUR PLAN - INTERSECTION 3 DETAIL	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\027001_DT_71.DWG PLOT DATE : 10/1/2013 10:17 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 0.002338
WISDOT/CADDS SHEET 42

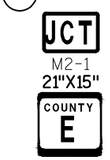
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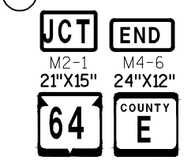

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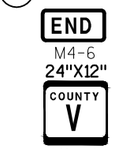
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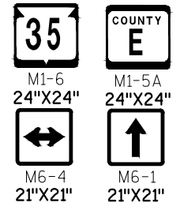

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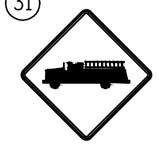

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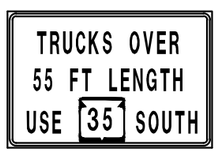

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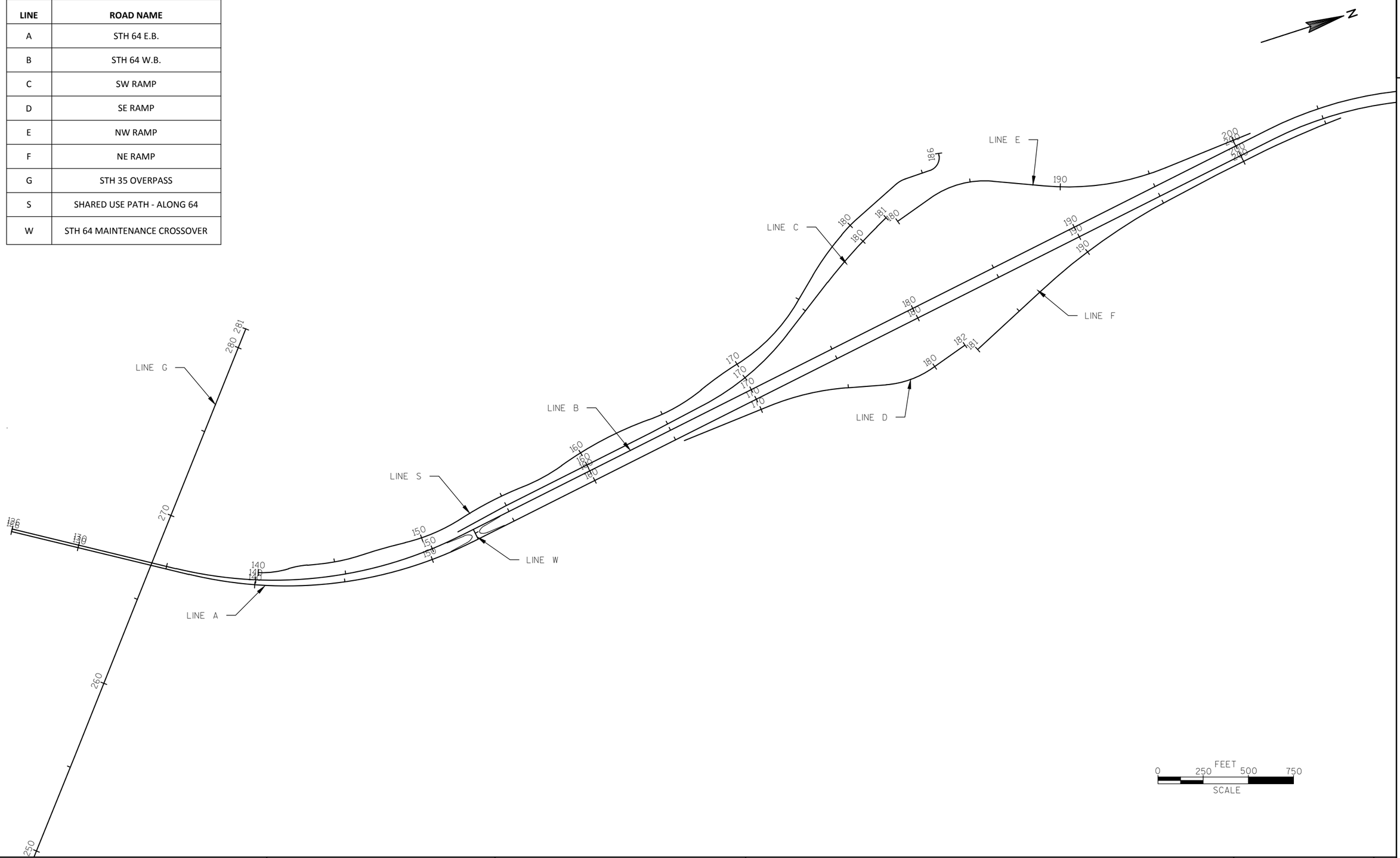

52


53


PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST CROIX	DETOUR PLAN - EXISTING SIGN LEGEND	SHEET 58	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\027001_DT_71.DWG
PLOT DATE : 10/1/2013 10:17 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : ********
WISDOT/CADDS SHEET 42

LINE	ROAD NAME
A	STH 64 E.B.
B	STH 64 W.B.
C	SW RAMP
D	SE RAMP
E	NW RAMP
F	NE RAMP
G	STH 35 OVERPASS
S	SHARED USE PATH - ALONG 64
W	STH 64 MAINTENANCE CROSSOVER



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN: ALIGNMENT DETAILS	SHEET 59	E

ALIGNMENT: STH 64 EB
DESCRIPTION: LINE A

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	126+21.690	367988.9	504565.842
END:	136+30.454	368845.06	505099.318

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	1008.764	COURSE:	N 31° 55' 37.9445" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	136+30.454	368845.06	505099.318
RP:		370057.07	503154.195
PT:	152+43.368	370391.7	505421.464

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	40° 19' 22.3401"	TYPE:	LEFT
RADIUS:	2291.83		
LENGTH:	1612.914	TANGENT:	841.478
MID-ORD:	140.431	EXTERNAL:	149.598
CHORD:	1579.834	COURSE:	N 11° 45' 56.7744" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	152+43.368	370391.7	505421.464
END:	202+00.663	375295.87	504697.659

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	4957.295	COURSE:	N 08° 23' 44.3956" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	202+00.663	375295.87	504697.659
RP:		375595.19	506725.69
PT:	237+08.403	377645.15	506712.906

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	98° 02' 18.1378"	TYPE:	RIGHT
RADIUS:	2050		
LENGTH:	3507.739	TANGENT:	2359.851
MID-ORD:	705.597	EXTERNAL:	1075.923
CHORD:	3095.21	COURSE:	N 40° 37' 24.6733" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	237+08.403	377645.15	506712.906
END:	263+70.679	377661.75	509375.13

LINE A, ALIGNMENT: STH 64 EB CONTINUED

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	2662.276	COURSE:	N 89° 38' 33.7422" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	263+70.679	377661.75	509375.13
RP:		379958.73	509360.806
PT:	282+37.223	378389.68	511038.429

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	46° 33' 28.9265"	TYPE:	LEFT
RADIUS:	2297.027		
LENGTH:	1866.544	TANGENT:	988.259
MID-ORD:	186.998	EXTERNAL:	203.571
CHORD:	1815.612	COURSE:	N 66° 21' 49.2790" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	282+37.223	378389.68	511038.429
END:	305+20.549	380057.3	512598.12

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	2283.326	COURSE:	N 43° 05' 04.8157" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	305+20.549	380057.3	512598.12
END:	308+38.071	380289.2	512815.014

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	317.522	COURSE:	N 43° 05' 06.2966" E

ALIGNMENT: STH 64 WB
DESCRIPTION: LINE B

STATION EQUATIONS

INTERNAL STATION	BACK STATION	AHEAD STATION	
152+15.44	152+15.44	152+43.37	
237+83.90	238+11.83	237+08.40	
282+93.81	282+18.31	282+67.42	

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	126+21.690	367996.303	504553.959
END:	135+54.225	368787.764	505047.123

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	932.535	COURSE:	N 31° 55' 38.1443" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	135+54.225	368787.764	505047.123
RP:		369999.781	503102
PT:	151+67.142	370334.408	505369.27

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	40° 19' 22.6397"	TYPE:	LEFT
RADIUS:	2291.83		
LENGTH:	1612.917	TANGENT:	841.48
MID-ORD:	140.432	EXTERNAL:	149.599
CHORD:	1579.837	COURSE:	N 11° 45' 56.8244" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	151+67.142	370334.408	505369.27
END:	152+15.437	370382.185	505362.218

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	48.295	COURSE:	N 08° 23' 44.4954" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	152+15.437	370382.185	505362.218
END:	202+01.422	375287.106	504638.298

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	4958.055	COURSE:	N 08° 23' 44.5531" W

LINE B, ALIGNMENT: STH 64 WB CONT

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	202+01.422	375287.106	504638.298
RP:		375595.185	506725.685
PT:	238+11.830	377705.144	506712.528

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	98° 02' 18.3878"	TYPE:	RIGHT
RADIUS:	2110		
LENGTH:	3610.407	TANGENT:	2428.923
MID-ORD:	726.25	EXTERNAL:	1107.416
CHORD:	3185.803	COURSE:	N 40° 37' 24.6408" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	238+11.830	377705.144	506712.528
END:	263+53.058	377721.635	509357.135

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	2644.658	COURSE:	N 89° 38' 33.8347" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	263+53.058	377721.635	509357.135
RP:		380018.786	509342.811
PT:	282+68.850	378449.622	511020.557

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	46° 33' 29.0900"	TYPE:	LEFT
RADIUS:	2297.196		
LENGTH:	1866.683	TANGENT:	988.333
MID-ORD:	187.012	EXTERNAL:	203.586
CHORD:	1815.748	COURSE:	N 66° 21' 49.2897" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	282+68.850	378449.622	511020.557
END:	306+64.025	380198.927	512656.649

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	2395.175	COURSE:	N 43° 05' 04.7447" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	306+64.025	380198.927	512656.649
END:	308+38.266	380326.395	512775.442

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	174.241	COURSE:	N 42° 58' 56.2949" E

NOTE: WB STH 64 ALIGNMENT TO BE USED FOR HORIZONTAL LAYOUT AND VERTICAL PROFILE ONLY. CROSS SECTIONS, SUPERELEVATIONS, AND STORM SEWER LAYOUT BASED ON STH 64 EB ALIGNMENT.

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ALIGNMENT: STH 35 SW RAMP
DESCRIPTION: LINE C

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	151+47.350	370284.638	505351.975
END:	154+93.947	370625.63	505289.899

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	346.597	COURSE:	N 10° 19' 03.0218" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	154+93.947	370625.63	505289.899
END:	163+93.947	371515.985	505158.491

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	900	COURSE:	N 08° 23' 44.4167" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	163+93.947	371515.985	505158.491
End:	167+22.978	371840.465	505103.95

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	329.031	Course:	N 09° 32' 29.6223" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	167+22.978	371840.465	505103.95
RP:		371603.027	503691.376
PT:	173+34.239	372403.846	504878.992

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	24° 27' 01.9365"	Type:	LEFT
Radius:	1432.39		
Length:	611.262	Tangent:	310.355
Mid-Ord:	32.483	External:	33.237
Chord:	606.634	Course:	N 21° 46' 00.5906" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	173+34.239	372403.846	504878.992
End:	177+00.937	372707.88	504673.979

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	366.697	Course:	N 33° 59' 31.5589" W

LINE C, ALIGNMENT: STH 35 SW RAMP CONT

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	177+00.937	372707.88	504673.979
RP:		374385.096	507161.293
PT:	181+09.550	373061.155	504469.274

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	07° 48' 14.5470"	Type:	RIGHT
Radius:	2999.964		
Length:	408.614	Tangent:	204.623
Mid-Ord:	6.954	External:	6.97
Chord:	408.298	Course:	N 30° 05' 24.2853" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	181+09.550	373061.155	504469.274
End:	181+82.819	373126.903	504436.939

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	73.269	Course:	N 26° 11' 17.0118" W

ALIGNMENT: STH 35 SE RAMP
DESCRIPTION: LINE D

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	165+16.650	371654.84	505259.297
END:	170+48.344	372185.35	505223.858

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	531.694	COURSE:	N 03° 49' 18.2924" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	170+48.344	372185.35	505223.858
RP:		372280.82	506653.063
PT:	174+90.950	372624.5	505262.513

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	17° 42' 15.4609"	TYPE:	RIGHT
RADIUS:	1432.39		
LENGTH:	442.606	TANGENT:	223.081
MID-ORD:	17.062	EXTERNAL:	17.267
CHORD:	440.847	COURSE:	N 05° 01' 49.4381" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	174+90.950	372624.5	505262.513
End:	177+08.975	372836.15	505314.825

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	218.025	Course:	N 13° 52' 57.1686" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	177+08.975	372836.15	505314.825
RP:		372959.72	504814.868
PT:	179+85.969	373109.73	505307.538

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	30° 49' 00.2047"	Type:	LEFT
Radius:	515		
Length:	276.994	Tangent:	141.936
Mid-Ord:	18.511	External:	19.201
Chord:	273.668	Course:	N 01° 31' 32.9338" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	179+85.969	373109.73	505307.538
End:	182+05.272	373319.52	505243.661

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	219.303	Course:	N 16° 56' 03.0362" W

ALIGNMENT: STH 35 NW RAMP
DESCRIPTION: LINE E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	180+38.271	373180.97	504476.07
END:	182+62.106	373395.1	504410.876

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	223.835	Course:	N 16° 56' 00.3037" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	182+62.106	373395.1	504410.876
RP:		373545.1	504903.548
PT:	186+24.788	373749.77	504430.963

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	40° 20' 59.1515"	Type:	RIGHT
Radius:	515		
Length:	362.682	Tangent:	189.227
Mid-Ord:	31.598	External:	33.664
Chord:	355.233	Course:	N 03° 14' 29.2721" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	186+24.788	373749.77	504430.963
End:	189+14.225	374015.37	504545.988

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	289.437	Course:	N 23° 24' 58.8478" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	189+14.225	374015.37	504545.988
RP:		374584.61	503231.567
PT:	195+95.176	374680.09	504660.772

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	27° 14' 17.2220"	Type:	LEFT
Radius:	1432.39		
Length:	680.951	Tangent:	347.036
Mid-Ord:	40.275	External:	41.44
Chord:	674.557	Course:	N 09° 47' 50.2368" E

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	195+95.176	374680.09	504660.772
End:	201+26.870	375210.6	504625.333

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	531.694	Course:	N 03° 49' 18.3742" W

ALIGNMENT: STH 35 NE RAMP
DESCRIPTION: LINE F

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	181+86.627	373378.42	505288.714
End:	186+72.015	373820.32	505087.905

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	485.389	Course:	N 24° 26' 16.9607" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	186+72.015	373820.32	505087.905
RP:		375193.84	508110.463
PT:	195+34.971	374643.29	504836.43

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	14° 53' 33.6407"	Type:	RIGHT
Radius:	3320		
Length:	862.955	Tangent:	433.923
Mid-Ord:	27.999	External:	28.237
Chord:	860.528	Course:	N 16° 59' 30.1403" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	195+34.971	374643.29	504836.43
End:	198+34.070	374938.24	504786.83

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	299.1	Course:	N 09° 32' 43.4298" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	198+34.070	374938.24	504786.83
End:	201+35.126	375236.09	504742.969

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	301.056	Course:	N 08° 22' 38.2105" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	201+35.126	375236.09	504742.969
End:	202+00.156	375300.65	504735.187

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	65.03	Course:	N 06° 52' 24.8860" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	202+00.156	375300.65	504735.187
RP:		375897.31	509684.842
PT:	206+00.156	375699.27	504703.289

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	04° 35' 49.2179"	Type:	RIGHT
Radius:	4985.488		
Length:	400	Tangent:	200.107
Mid-Ord:	4.011	External:	4.014
Chord:	399.893	Course:	N 04° 34' 30.2771" W

ALIGNMENT: STH 35 OVERPASS
DESCRIPTION: LINE G

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	242+89.390	367104.2	506828.913
END:	255+65.975	367930.33	505855.689

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	1276.585	COURSE:	N 49° 40' 23.4908" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	255+65.975	367930.33	505855.689
END:	268+10.461	368731.34	504903.256

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	1244.486	COURSE:	N 49° 56' 08.4355" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	268+10.461	368731.34	504903.256
END:	275+09.995	369182.32	504368.498

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	699.534	COURSE:	N 49° 51' 28.8958" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	275+09.995	369182.32	504368.498
END:	281+11.833	369570.67	503908.723

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	601.839	COURSE:	N 49° 48' 49.2358" W

ALIGNMENT: SHARED USE PATH

DESCRIPTION: LINE S

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
START:	140+72.950	369212.832	505210.252
END:	140+78.165	369217.722	505212.064

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
LENGTH:	5.215	COURSE:	N 20° 20' 02.4136" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	140+78.165	369217.722	505212.064
RP:		369391.468	504743.223
PCC:	142+43.004	369378.86	505243.064

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	18° 53' 20.8921"	TYPE:	LEFT
RADIUS:	500		
LENGTH:	164.839	TANGENT:	83.174
MID-ORD:	6.778	EXTERNAL:	6.871
CHORD:	164.093	COURSE:	N 10° 53' 21.9676" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	142+43.004	369378.86	505243.064
RP:		369366.253	505742.905
PCC:	143+48.116	369482.889	505256.699

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	12° 02' 41.9834"	TYPE:	RIGHT
RADIUS:	500		
LENGTH:	105.112	TANGENT:	52.751
MID-ORD:	2.76	EXTERNAL:	2.775
CHORD:	104.919	COURSE:	N 07° 28' 02.5132" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	143+48.116	369482.889	505256.699
RP:		369999.744	503102.167
PCC:	144+66.137	369598.333	505281.161

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	03° 03' 07.0196"	TYPE:	LEFT
RADIUS:	2215.66		
LENGTH:	118.021	TANGENT:	59.024
MID-ORD:	0.786	EXTERNAL:	0.786
CHORD:	118.007	COURSE:	N 11° 57' 49.9951" E

LINE S, ALIGNMENT: SHARED USE PATH CONT

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	144+66.137	369598.333	505281.161
RP:		369779.503	504297.71
PCC:	146+49.611	369780.801	505297.709

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	10° 30' 44.2195"	TYPE:	LEFT
RADIUS:	1000		
LENGTH:	183.474	TANGENT:	91.995
MID-ORD:	4.205	EXTERNAL:	4.223
CHORD:	183.217	COURSE:	N 05° 10' 54.3756" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	146+49.611	369780.801	505297.709
RP:		369784.695	508297.706
PCC:	149+05.639	370036.532	505308.295

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	04° 53' 23.2136"	TYPE:	RIGHT
RADIUS:	3000		
LENGTH:	256.028	TANGENT:	128.092
MID-ORD:	2.731	EXTERNAL:	2.733
CHORD:	255.951	COURSE:	N 02° 22' 13.8726" E

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	149+05.639	370036.532	505308.295
RP:		370120.478	504311.825
PCC:	152+43.336	370371.419	505279.827

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	19° 20' 54.8789"	TYPE:	LEFT
RADIUS:	1000		
LENGTH:	337.696	TANGENT:	170.471
MID-ORD:	14.221	EXTERNAL:	14.426
CHORD:	336.094	COURSE:	N 04° 51' 31.9600" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	152+43.336	370371.419	505279.827
RP:		370873.299	507215.833
PCC:	156+30.588	370753.321	505219.435

LINE S, ALIGNMENT: SHARED USE PATH CONT

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	11° 05' 38.2671"	TYPE:	RIGHT
RADIUS:	2000		
LENGTH:	387.252	TANGENT:	194.233
MID-ORD:	9.365	EXTERNAL:	9.41
CHORD:	386.648	COURSE:	N 08° 59' 10.2659" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	156+30.588	370753.321	505219.435
RP:		370693.331	504221.236
PCC:	158+72.761	370990.951	505175.92

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	13° 52' 31.8259"	TYPE:	LEFT
RADIUS:	1000		
LENGTH:	242.173	TANGENT:	121.682
MID-ORD:	7.322	EXTERNAL:	7.376
CHORD:	241.582	COURSE:	N 10° 22' 37.0454" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	158+72.761	370990.951	505175.92
RP:		371586.191	507085.289
PCC:	164+19.255	371528.296	505086.127

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	15° 39' 21.2270"	TYPE:	RIGHT
RADIUS:	2000		
LENGTH:	546.494	TANGENT:	274.96
MID-ORD:	18.637	EXTERNAL:	18.812
CHORD:	544.795	COURSE:	N 09° 29' 12.3448" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	164+19.255	371528.296	505086.127
RP:		371499.348	504086.546
PCC:	167+54.966	371855.982	505020.79

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	19° 14' 05.3594"	TYPE:	LEFT
RADIUS:	1000		
LENGTH:	335.711	TANGENT:	169.45
MID-ORD:	14.055	EXTERNAL:	14.255
CHORD:	334.137	COURSE:	N 11° 16' 34.4110" W

2

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LINE S, ALIGNMENT: SHARED USE PATH CONT

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	167+54.966	371855.982	505020.79
RP:		372569.251	506889.278
PCC:	170+00.512	372090.175	504947.504

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
DELTA:	07° 02' 03.7314"	TYPE:	RIGHT
RADIUS:	2000		
LENGTH:	245.546	TANGENT:	122.927
MID-ORD:	3.767	EXTERNAL:	3.774
CHORD:	245.392	COURSE:	N 17° 22' 35.2250" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PCC:	170+00.512	372090.175	504947.504
RP:		371850.637	503976.617
PT:	174+78.705	372510.084	504728.368

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	27° 23' 54.3563"	Type:	LEFT
Radius:	1000		
Length:	478.193	Tangent:	243.759
Mid-Ord:	28.448	External:	29.281
Chord:	473.65	Course:	N 27° 33' 30.5375" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	174+78.705	372510.084	504728.368
End:	176+53.326	372641.356	504613.215

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	174.622	Course:	N 41° 15' 27.7156" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	176+53.326	372641.356	504613.215
RP:		373630.526	505740.842
PT:	178+75.464	372818.565	504479.604

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	08° 29' 06.0924"	Type:	RIGHT
Radius:	1500		
Length:	222.137	Tangent:	111.272
Mid-Ord:	4.11	External:	4.122
Chord:	221.935	Course:	N 37° 00' 54.6694" W

LINE S, ALIGNMENT: SHARED USE PATH CONT

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	178+75.464	372818.565	504479.604
End:	179+27.890	372862.646	504451.226

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	52.426	Course:	N 32° 46' 21.6232" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	179+27.890	372862.646	504451.226
RP:		373268.627	505081.844
PT:	180+51.943	372972.019	504392.987

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	09° 28' 37.0985"	Type:	RIGHT
Radius:	750		
Length:	124.053	Tangent:	62.168
Mid-Ord:	2.563	External:	2.572
Chord:	123.912	Course:	N 28° 02' 03.0739" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	180+51.943	372972.019	504392.987
End:	183+39.251	373235.905	504279.364

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	287.309	Course:	N 23° 17' 44.5247" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	183+39.251	373235.905	504279.364
RP:		373295.227	504417.135
PT:	183+98.253	373293.24	504267.148

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	22° 32' 12.9423"	Type:	RIGHT
Radius:	150		
Length:	59.002	Tangent:	29.887
Mid-Ord:	2.892	External:	2.948
Chord:	58.622	Course:	N 12° 01' 38.0535" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	183+98.253	373293.24	504267.148
End:	185+44.038	373439.013	504265.218

LINE S, ALIGNMENT: SHARED USE PATH CONT

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	145.785	Course:	N 00° 45' 31.5823" W

CURVE POINT DATA

DESCRIPTION	STATION	NORTHING	EASTING
PC:	185+44.038	373439.013	504265.218
RP:		373438.02	504190.224
PT:	186+46.603	373511.67	504204.391

CIRCULAR CURVE DATA

PARAMETER	VALUE	PARAMETER	VALUE
Delta:	78° 21' 11.9444"	Type:	LEFT
Radius:	75		
Length:	102.564	Tangent:	61.118
Mid-Ord:	16.86	External:	21.749
Chord:	94.757	Course:	N 39° 56' 07.5545" W

TANGENT DATA

DESCRIPTION	PT STATION	NORTHING	EASTING
Start:	186+46.603	373511.67	504204.391
End:	186+60.406	373514.277	504190.836

TANGENT DATA

PARAMETER	VALUE	PARAMETER	VALUE
Length:	13.803	Course:	N 79° 06' 43.5268" W

ALIGNMENT: STH 64 MAINTENANCE CROSSOVER

DESCRIPTION: LINE W

Tangent Data

Description	PT Station	Northing	Easting
Start:	0+00.000	370406.067	505281.201
End:	2+11.311	370436.921	505490.248

Tangent Data

Parameter	Value	Parameter	Value
Length:	211.311	Course:	N 81° 36' 15.4469" E

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8110-02-71 QUANTITY
0010	201.0105	CLEARING	STA	48.000	48.000
0020	201.0205	GRUBBING	STA	48.000	48.000
0030	203.0100	REMOVING SMALL PIPE CULVERTS	EACH	2.000	2.000
0040	204.0170	REMOVING FENCE	LF	4,655.000	4,655.000
0050	205.0100	EXCAVATION COMMON	CY	682,523.000	682,523.000
0060	206.1000	EXCAVATION FOR STRUCTURES BRIDGES (STRUCTURE) 01.B-55-225	LS	1.000	1.000
0070	210.0100	BACKFILL STRUCTURE	CY	9,986.000	9,986.000
0080	213.0100	FINISHING ROADWAY (PROJECT) 01. 8110-02-71	EACH	1.000	1.000
0090	214.0100	OBLITERATING OLD ROAD	STA	1.000	1.000
0100	305.0110	BASE AGGREGATE DENSE 3/4-INCH	TON	375.000	375.000
0110	305.0120	BASE AGGREGATE DENSE 1 1/4-INCH	TON	38,603.000	38,603.000
0120	312.0110	SELECT CRUSHED MATERIAL	TON	60,117.000	60,117.000
0130	312.0115	SELECT CRUSHED MATERIAL	CY	200.000	200.000
0140	415.0100	CONCRETE PAVEMENT 10-INCH	SY	78.000	78.000
0150	415.0410	CONCRETE PAVEMENT APPROACH SLAB	SY	92.000	92.000
0160	440.4410.S	INCENTIVE IRI RIDE	DOL	500.000	500.000
0170	455.0605	TACK COAT	GAL	175.000	175.000
0180	460.2000	INCENTIVE DENSITY HMA PAVEMENT	DOL	1,009.000	1,009.000
0190	465.0110	ASPHALTIC SURFACE PATCHING	TON	100.000	100.000
0200	465.0120	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	TON	6.000	6.000
0210	465.0310	ASPHALTIC CURB	LF	60.000	60.000
0220	465.0315	ASPHALTIC FLUMES	SY	48.000	48.000
0230	502.0100	CONCRETE MASONRY BRIDGES	CY	1,646.000	1,646.000
0240	502.3200	PROTECTIVE SURFACE TREATMENT	SY	730.000	730.000
0250	503.0172	PRESTRESSED GIRDER TYPE I 72W-INCH	LF	640.000	640.000
0260	505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	72,440.000	72,440.000
0270	505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	170,490.000	170,490.000
0280	506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	10.000	10.000
0290	506.4000	STEEL DIAPHRAGMS (STRUCTURE) 01. B-55-0225	EACH	8.000	8.000
0300	516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	52.000	52.000
0310	517.1010.S	CONCRETE STAINING (STRUCTURE) 01. B-55-225	SF	3,460.000	3,460.000
0320	517.1015.S	CONCRETE STAINING MULTI-COLOR (STRUCTURE) 01.B-55-0225	SF	5,270.000	5,270.000
0330	517.1050.S	ARCHITECTURAL SURFACE TREATMENT (STRUCTURE) 01.B-55-0225	SF	5,270.000	5,270.000
0340	522.0124	CULVERT PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	216.000	216.000
0350	522.0130	CULVERT PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	280.000	280.000
0360	522.0136	CULVERT PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	136.000	136.000
0370	522.1012	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH	EACH	1.000	1.000
0380	522.1018	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 18-INCH	EACH	2.000	2.000
0390	522.1024	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	EACH	12.000	12.000
0400	522.1030	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 30-INCH	EACH	4.000	4.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8110-02-71 QUANTITY
0410	522.1036	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH	EACH	3.000	3.000
0420	606.0200	RIPRAP MEDIUM	CY	93.000	93.000
0430	608.0312	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 12-INCH	LF	98.000	98.000
0440	608.0318	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 18-INCH	LF	257.000	257.000
0450	608.0324	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 24-INCH	LF	1,547.000	1,547.000
0460	608.0330	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 30-INCH	LF	500.000	500.000
0470	608.0336	STORM SEWER PIPE REINFORCED CONCRETE CLASS III 36-INCH	LF	149.000	149.000
0480	611.0530	MANHOLE COVERS TYPE J	EACH	3.000	3.000
0490	611.0610	INLET COVERS TYPE BW	EACH	4.000	4.000
0500	611.0612	INLET COVERS TYPE C	EACH	1.000	1.000
0510	611.0633	INLET COVERS TYPE HM-GJ-S	EACH	1.000	1.000
0520	611.0642	INLET COVERS TYPE MS	EACH	18.000	18.000
0530	611.2004	MANHOLES 4-FT DIAMETER	EACH	1.000	1.000
0540	611.2005	MANHOLES 5-FT DIAMETER	EACH	2.000	2.000
0550	611.3225	INLETS 2X2.5-FT	EACH	4.000	4.000
0560	611.3902	INLETS MEDIAN 2 GRATE	EACH	9.000	9.000
0570	612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	430.000	430.000
0580	614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4.000	4.000
0590	614.0396	GUARDRAIL MOW STRIP ASPHALT	SY	248.000	248.000
0600	614.2300	MGS GUARDRAIL 3	LF	200.000	200.000
0610	614.2500	MGS THRIE BEAM TRANSITION	LF	157.600	157.600
0620	614.2610	MGS GUARDRAIL TERMINAL EAT	EACH	4.000	4.000
0630	618.0100	MAINTENANCE AND REPAIR OF HAUL ROADS (PROJECT) 01.8110-02-71	EACH	1.000	1.000
0640	619.1000	MOBILIZATION	EACH	1.000	1.000
0650	623.0200	DUST CONTROL SURFACE TREATMENT	SY	60,017.000	60,017.000
0660	624.0100	WATER	MGAL	200.000	200.000
0670	625.0500	SALVAGED TOPSOIL	SY	202,472.000	202,472.000
0680	627.0200	MULCHING	SY	219,792.000	219,792.000
0690	628.1104	EROSION BALES	EACH	30.000	30.000
0700	628.1504	SILT FENCE	LF	11,765.000	11,765.000
0710	628.1520	SILT FENCE MAINTENANCE	LF	11,765.000	11,765.000
0720	628.1905	MOBILIZATIONS EROSION CONTROL	EACH	2.000	2.000
0730	628.1910	MOBILIZATIONS EMERGENCY EROSION CONTROL	EACH	5.000	5.000
0740	628.1920	CLEANING SEDIMENT BASINS	CY	50.000	50.000
0750	628.2023	EROSION MAT CLASS II TYPE B	SY	16,342.290	16,342.290
0760	628.2031	EROSION MAT CLASS III TYPE A	SY	585.000	585.000
0770	628.7005	INLET PROTECTION TYPE A	EACH	16.000	16.000
0780	628.7504	TEMPORARY DITCH CHECKS	LF	720.000	720.000
0790	628.7555	CULVERT PIPE CHECKS	EACH	24.000	24.000
0800	628.7560	TRACKING PADS	EACH	4.000	4.000
0810	628.7570	ROCK BAGS	EACH	20.000	20.000
0820	629.0210	FERTILIZER TYPE B	CWT	138.000	138.000
0830	630.0120	SEEDING MIXTURE NO. 20	LB	3,780.000	3,780.000
0840	630.0200	SEEDING TEMPORARY	LB	574.000	574.000
0850	630.0300	SEEDING BORROW PIT	LB	980.000	980.000
0860	630.0400	SEEDING NURSE CROP	LB	496.000	496.000
0870	633.5200	MARKERS CULVERT END	EACH	19.000	19.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8110-02-71 QUANTITY
0880	634.0616	POSTS WOOD 4X6-INCH X 16-FT	EACH	56.000	56.000
0890	637.2210	SIGNS TYPE II REFLECTIVE H	SF	325.500	325.500
0900	637.2230	SIGNS TYPE II REFLECTIVE F	SF	52.220	52.220
0910	638.2602	REMOVING SIGNS TYPE II	EACH	51.000	51.000
0920	638.3000	REMOVING SMALL SIGN SUPPORTS	EACH	52.000	52.000
0930	642.5401	FIELD OFFICE TYPE D	EACH	1.000	1.000
0940	643.0100	TRAFFIC CONTROL (PROJECT) 01.8110-02-71	EACH	1.000	1.000
0950	643.0300	TRAFFIC CONTROL DRUMS	DAY	3,600.000	3,600.000
0960	643.0420	TRAFFIC CONTROL BARRICADES TYPE III	DAY	2,420.000	2,420.000
0970	643.0453	TRAFFIC CONTROL BARRICADES PERMANENT TYPE III	EACH	8.000	8.000
0980	643.0705	TRAFFIC CONTROL WARNING LIGHTS TYPE A	DAY	2,960.000	2,960.000
0990	643.0900	TRAFFIC CONTROL SIGNS	DAY	1,880.000	1,880.000
1000	643.1000	TRAFFIC CONTROL SIGNS FIXED MESSAGE	SF	31.250	31.250
1010	643.2000	TRAFFIC CONTROL DETOUR (PROJECT) 01. 8110-02-71	EACH	1.000	1.000
1020	643.3000	TRAFFIC CONTROL DETOUR SIGNS	DAY	11,520.000	11,520.000
1030	645.0120	GEOTEXTILE FABRIC TYPE HR	SY	327.000	327.000
1040	646.0103	PAVEMENT MARKING PAINT 4-INCH	LF	88,637.000	88,637.000
1050	646.0106	PAVEMENT MARKING EPOXY 4-INCH	LF	2,180.000	2,180.000
1060	646.0123	PAVEMENT MARKING PAINT 8-INCH	LF	590.000	590.000
1070	648.0100	LOCATING NO-PASSING ZONES	MI	1.000	1.000
1080	650.4000	CONSTRUCTION STAKING STORM SEWER	EACH	27.000	27.000
1090	650.4500	CONSTRUCTION STAKING SUBGRADE	LF	23,470.000	23,470.000
1100	650.5000	CONSTRUCTION STAKING BASE	LF	20,149.000	20,149.000
1110	650.6000	CONSTRUCTION STAKING PIPE CULVERTS	EACH	26.000	26.000
1120	650.6500	CONSTRUCTION STAKING STRUCTURE LAYOUT (STRUCTURE) 01.B-55-225	LS	1.000	1.000
1130	650.9910	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (PROJECT) 01.8110-02-71	LS	1.000	1.000
1140	650.9920	CONSTRUCTION STAKING SLOPE STAKES	LF	23,470.000	23,470.000
1150	652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	80.000	80.000
1160	652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	242.000	242.000
1170	690.0150	SAWING ASPHALT	LF	60.000	60.000
1180	715.0502	INCENTIVE STRENGTH CONCRETE STRUCTURES	DOL	13,168.000	13,168.000
1190	SPV.0060	SPECIAL 01.INLETS 5-FT DIAMETER	EACH	1.000	1.000
1200	SPV.0060	SPECIAL 02.INLETS 6-FT DIAMETER	EACH	1.000	1.000
1210	SPV.0060	SPECIAL 03.CONSTRUCTION STAKING STORMWATER POND	EACH	2.000	2.000
1220	SPV.0085	SPECIAL 01. NATIVE BUTTERFLY SEED MIX	LB	248.000	248.000
1230	SPV.0090	SPECIAL 02. CONSTRUCTION STAKING SELECT SUBGRADE	LF	15,309.000	15,309.000
1240	SPV.0105	SPECIAL 04. RAILING PIPE GALVANIZED B-55-225	LS	1.000	1.000
1250	SPV.0105	SPECIAL 05. RAILING TUBULAR SPECIAL GALVANIZED B-55-225	LS	1.000	1.000
1260	SPV.0105	SPECIAL 06. TEMPORARY FIELD ACCESS ANDERSON FARM	LS	1.000	1.000
1270	SPV.0105	SPECIAL 07. TEMPORARY FIELD ACCESS GILBERT/SEVERSON FARM	LS	1.000	1.000
1280	SPV.0180	SPECIAL 15. CLEANING, GRADING, & SHAPING EXISTING DITCH	SY	200.000	200.000
1290	SPV.0195	SPECIAL 17. BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION	TON	38,603.000	38,603.000

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LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	8110-02-71 QUANTITY
1300	SPV.0195	SPECIAL 19. HMA PAVEMENT TYPE E-3 SPECIAL	TON	1,260.000	1,260.000

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CLEARING

GRUBBING

CATEGORY	STATION TO	STATION	LOCATION	CLEARING 201.0105 STA	GRUBBING 201.0205 STA	REMARKS
0010	131+00	- 134+00	STH 64 EB	3	3	
0010	131+00	- 134+00	STH 64 WB	3	3	
0010	157+00	- 158+00	STH 64 EB	1	1	
0010	157+00	- 158+00	STH 64 WB	1	1	
0010	171+00	- 172+00	SE RAMP	1	1	
0010	171+00	- 172+00	STH 64 EB	1	1	
0010	171+00	- 172+00	STH 64 WB	1	1	
0010	171+00	- 172+00	SW RAMP	1	1	
0010	175+00	- 177+00	SW RAMP	2	2	
0010	178+00	- 183+00	STH 64 WB	5	5	
0010	185+00	- 200+00	STH 64 WB	15	15	
0010	197+00	- 200+00	STH 64 EB	3	3	
0010	263+00	- 266+00	STH 35 LT	3	3	
0010	261+00	- 266+00	STH 35 RT	5	5	INCLUDES BRIDGE POND
0010	171+00	- 172+00	SHARED USE PATH LT/RT	1	1	
0010	175+00	- 177+00	SHARED USE PATH LT/RT	2	2	
			TOTAL 0010	48	48	

REMOVING SMALL PIPE CULVERTS

CATEGORY	STATION	LOCATION	203.0100 EACH	REMARKS
0010	266+00	STH 35 LT	1	18"X18 LF CMP
0010	269+00	STH 35 LT	1	18"X42 LF CMP
		TOTAL 0010	2	

REMOVING FENCE

CATEGORY	STATION TO	STATION	LOCATION	204.0170 LF
0010	261+00	- 269+00	STH 35 RT	800
0010	269+50	- 271+50	STH 35 LT	200
0010	135+00	- 140+00	STH 64 EB & WB	620
0010	144+05		STH 64 EB & WB	330
0010	144+25		STH 64 EB & WB	330
0010	157+80		STH 64 EB & WB	350
0010	171+20		STH 64 EB & WB	600
0010	185+00	- 200+00	STH 64 WB	1,350
0010	198+00		STH 64 WB	75
			TOTAL 0010	4,655

Division	From / To Station	Common Excavation (1,7)		Reduced EBS in Fill (3)	Expanded EBS Backfill (4)	Unexpanded Fill	Expanded Fill (5)	Mass Ordinate + / - (6)	Waste	Borrow (7)
Division 1		Cut	EBS Excavation (2)	Factor 0.80	Factor 1.30		Factor 1.25			
STH 64 - South	131+75/184+32	337,157	9,491	7,593	12,338	34,814	43,518	298,385	298,385	0
Interchange - West	29+28/32+86	1,298	0	0	0	47,340	59,175	-57,878	0	-57,878
Interchange - East	37+08/41+92	0	1,806	1,444	2,347	65,293	81,617	-80,714	0	-80,714
SE Ramp	167+75/181+00	10,461	13	10	17	51,422	64,278	-53,811	0	-53,811
SW Ramp	167+64/181+00	67,620	30	24	39	13,919	17,399	50,237	50,237	0
NW Ramp - South	181+75/183+75	13,465	0	0	0	14,578	18,223	-4,758	0	-4,758
STH 35 Overpass	167+64/272+10	3,946	0	0	0	1,947	2,433	1,512	1,512	0
Bridge Pond	00+00/06+62	175,077	0	0	0	0	0	175,077	175,077	0
Division 1 Subtotal		609,024	11,339	9,072	14,741	229,314	286,642	328,051	525,211	-197,160
Division 2										
STH 64 - North	185+06/200+00	28,724	6,118	4,894	7,953	1,706	2,133	29,650	29,650	0
NE Ramp	184+50/194+27	23	732	585	951	14,411	18,014	-17,625	0	-17,625
NW Ramp	185+00/198+76	25,834	729	583	947	10,650	13,312	12,886	12,886	0
Division 2 Subtotal		54,581	7,578	6,062	9,851	26,768	33,459	24,911	42,536	-17,625
Grand Total		663,604.96	18,917.46	15,133.97	24,592.70	256,081.51	320,101.88	352,961.81	567,746.73	-214,784.93
		Total Common Exc	682,522.42							

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) EBS Excavation to be backfilled with Cut material.
3) Reduced EBS in Fill - Excavated EBS material is usuable in Fills outside the 1:1 slope. EBS in Fill Reduction factor = 0.8
4) Expanded EBS Backfill - This is to be filled with Select Borrow material. EBS Backfill Factor = 1.3.
5) Expanded Fill. Factor = 1.25

Expanded Fill = (Unexpanded Fill - Reduced EBS) * Fill Factor

6) 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.
7) Use 214,785 CY of waste material on site for borrow material.

FINISHING ROADWAY (01.8110-02-71)

CATEGORY	LOCATION	213.0100 EACH
0010	STH 64	1
	TOTAL 0010	1

OBLITERATING OLD ROAD

CATEGORY	STATION	LOCATION	214.0100 STA
0010	269+00	STH 35 DRIVEWAY	1
		TOTAL 0010	1

BASE AGGREGATE DENSE 3/4-INCH

CATEGORY	STATION TO	STATION	LOCATION	305.0110 TON
0010	262+40	- 266+52	STH 35	188
0010	267+82	- 272+10	STH 35 LEFT	187
			TOTAL 0010	375

BASE AGGREGATE DENSE 1 1/4-INCH
SPECIAL (17. BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION)

CATEGORY	STATION TO	STATION	LOCATION	BASE AGGREGATE DENSE 1 1/4-INCH 305.0120 TON	SPECIAL (17. BASE AGGREGATE DENSE 1 1/4-INCH COMPACTION) SPV.0195.17 TON
0010	132+50	- 140+25	STH 64 EB/WB	3,262	3262
0010	140+25	- 151+95	STH 64 WB	2,448	2448
0010	140+25	- 165+39	STH 64 EB	5,261	5261
0010	151+95	- 154+95	STH 64 WB	683	683
0010	154+95	- 163+95	STH 64 WB	2,217	2217
0010	163+95	- 169+15	STH 64 WB	1,505	1505
0010	165+39	- 169+55	STH 64 EB	1,127	1127
0010	169+15	- 183+50	STH 64 WB	3,003	3003
0010	169+55	- 183+50	STH 64 EB	2,919	2919
0010	185+50	- 198+34	STH 64 EB	3,693	3693
0010	183+50	- 198+34	STH 64 WB	3,105	3105
0010	198+34	- 200+00	STH 64 WB	475	475
0010	198+34	- 200+00	STH 64 EB	409	409
0010	262+40	- 266+52	STH 35	1,056	1056
0010	267+82	- 272+10	STH 35	1,090	1090
0010	169+15	- 175+00	SW RAMP	995	995
0010	169+55	- 175+75	SE RAMP	900	900
0010	194+00	- 196+90	NW RAMP	421	421
0010	140+00	- 180+00	SHARED USE PATH	3,766	3766
0010	9+75	- 21+65	ANDERSON FARM CROSSOVER	134	134
0010	6+78	- 16+51	SEVERSON FARM CROSSOVER	134	134
			TOTAL 0010	38,603	38,603

3

SELECT CRUSHED MATERIAL

CATEGORY	STATION TO STATION	LOCATION	312.0110 TON
0010	132+50 - 140+25	STH 64 EB/WB	7,273
0010	140+25 - 151+94	STH 64 WB	4,179
0010	140+25 - 151+94	STH 64 EB	4,176
0010	151+13 - 167+67	STH 64 WB	6,322
0010	151+94 - 165+41	STH 64 EB	6,053
0010	151+95 - 155+13	STH 64 WB	1,411
0010	165+41 - 167+67	STH 64 EB	1,191
0010	167+67 - 183+50	STH 64 WB	5,655
0010	167+67 - 183+50	STH 64 EB	5,655
0010	185+50 - 194+25	STH 64 EB	3,126
0010	194+25 - 200+00	STH 64 WB	3,031
0010	185+25 - 197+00	STH 64 EB	4,197
0010	197+00 - 200+00	STH 64 EB	1,515
0010	169+15 - 176+00	SW RAMP	2,720
0010	169+55 - 175+75	SE RAMP	2,462
0010	194+00 - 196+90	NW RAMP	1,151
		TOTAL 0010	60,117

CONCRETE PAVEMENT APPROACH SLAB

CATEGORY	STATION TO STATION	LOCATION	415.0410 SY
0010	266+35 - 266+52	STH 35	46
0010	267+82 - 267+99	STH 35	46
		TOTAL 0010	92

TACK COAT

CATEGORY	STATION TO STATION	LOCATION	455.0605 GAL
0010	262+40 - 266+40	STH 35	85
0010	267+94 - 272+10	STH 35	90
		TOTAL 0010	175

CONCRETE PAVEMENT 10-INCH

CATEGORY	STATION TO STATION	LOCATION	415.0100 SY	REMARKS
0010	266+35.15 - 266+50.81	STH 35	17.0	SHLD LT AT APPROACH PANEL
0010	266+35.15 - 266+55.59	STH 35	22.0	SHLD RT AT APPROACH PANEL
0010	267+78.93 - 267+99.38	STH 35	22.0	SHLD LT AT APPROACH PANEL
0010	267+83.72 - 267+99.38	STH 35	17.0	SHLD RT AT APPROACH PANEL
		TOTAL 0010	78	

ASPHALTIC SURFACE PATCHING

CATEGORY	LOCATION	465.0110 TON
0010	CTH E/CTH V DETOUR	100
	TOTAL 0010	100

3

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

CATEGORY	STATION	LOCATION	465.0120 TON	REMARKS
0010	264+25	STH 35 LT	6	P.E.
		TOTAL 0010	6	

ASPHALTIC CURB

CATEGORY	STATION TO	STATION	LOCATION	465.0310 LF
0010	267+77 -	268+07	STH 35 LT	30
0010	267+85	268+15	STH 35 RT	30
			TOTAL 0010	60

ASPHALTIC FLUMES

CATEGORY	STATION	LOCATION	465.0315 SY
0010	266+46	STH 35 LT	12
0010	266+53	STH 35 RT	12
0010	268+09	STH 35 LT	12
0010	268+17	STH 35 RT	12
		TOTAL 0010	48

RIPRAP MEDIUM
GEOTEXTILE FABRIC TYPE HR

CATEGORY	STATION	LOCATION	RIPRAP MEDIUM 606.0200 CY	GEOTEXTILE FABRIC TYPE HR 645.0120 SY	REMARKS/RIPRAP DIMENSIONS
0010	136+00	STH 64 EB	4	16	#8.2, 24" AE, 7'X10'
0010	137+75	STH 64 EB	3	15	#103.2, 18" AE, 5'X10'
0010	138+50	STH 64 EB	4	18	#1.2, 30" AE, 8'X10'
0010	139+63	STH 64 EB	5	20	#104.2, 36" AE, 9'X10'
0010	177+60	STH 64 EB	4	16	#110.2, 24" AE, 7'X10'
0010	173+37	SW RAMP	4	16	#2.2, 24" AE, 7'X10'
0010	174+66	SW RAMP	5	20	#4.2, 36" AE, 9'X10'
0010	266+53	STH 35 RT	4	19	5'X15'
0010	266+46	STH 35 LT	4	19	5'X15'
0010	268+09	STH 35 LT	28	84	10'X50'
0010	268+17	STH 35 RT	28	84	10'X50'
		TOTAL 0010	93	327	

3

CULVERT PIPES CHART											
PIPE NO	STR NO	ROAD NAME	REF STATION	OFFSET	REQUIRED NUMBER OF JOINT TIES	522.0124 RCCP III 24-INCH	522.0130 RCCP III 30-INCH	522.0136 RCCP III 36-INCH	522.1024 AEW RC 24-INCH*	522.1030 AEW RC 30-INCH*	522.1036 AEW RC 36-INCH*
2	2.1	SW RAMP	173+15.13	-49.18	6	32			1		
	2.2	SW RAMP	173+37.66	-72.66	6				1		
3	3.1	SE RAMP	173+14.17	21.70	6	104			1		
	3.2	SE RAMP	173+77.39	-60.24	6				1		
4	4.1	SW RAMP	174+26.60	-75.97	6			136			1
	4.2	SW RAMP	174+65.94	54.21	6						1
5	5.1	SW RAMP	179+36.95	-121.20	6	24			1		
	5.2	SW RAMP	179+37.19	-97.19	6				1		
6	6.1	STH 64	182+69.54	-338.61	6		280			1	
	6.2	STH 64	179+92.49	-298.01	6					1	
8	8.1	STH 64	136+00.00	77.38'	6	56			1		
	8.2	STH 64	136+00.00	133.38'	6				1		
TOTALS:						**216**	**280**	**136**	**8**	**2**	**2**
						522.0124 RCCP III 24-INCH	**522.0130 RCCP III 30-INCH**	**522.0136 RCCP III 36-INCH**	**522.1024 AEW RC 24-INCH***	**522.1030 AEW RC 30-INCH***	**522.1036 AEW RC 36-INCH***

***ADDITIONAL QUANTITIES FOUND ELSEWHERE**

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STORM SEWER CHART

STR NO	ROAD NAME	REF STATION	OFFSET	JOINT TIES REQ'D	522.1012 APRON ENDWALL RC 12-INCH	522.1018 APRON ENDWALL RC 18-INCH	522.1024 APRON ENDWALL RC 24-INCH*	522.1030 APRON ENDWALL RC 30-INCH*	522.1036 APRON ENDWALL RC 36-INCH*	608.0312 SS RC III 12-INCH	608.0318 SS RC III 18-INCH	608.0324 SS RC III 24-INCH	608.0330S S RC III 30-INCH	608.0336 SS RC III 36-INCH	611.0530 MANHOLE COVER TYPE J	611.0610 INLET COVER TYPE BW	611.0612 INLET COVER TYPE C	611.0633 INLET COVER TYPE HM-GJ-S	611.0642 INLET COVER TYPE MS	611.2004 MANHOLE 4-FT DIAMETER	611.2005 MANHOLE 5-FT DIAMETER	611.3225 INLETS 2X2.5-FT	611.3902 INLET MEDIAN 2 GRATE	SPV.0060.01 SPECIAL (01. INLETS 5-FT DIAMETER)	SPV.0060.02 SPECIAL (02. INLETS 6-FT DIAMETER)
1.1	STH 64	138+50	55.23 RT	6									46						2				1		
1.2	STH 64	138+50	101.23 RT					1																	
998	STH 64	135+29.54	78.89' LT									128							2				1		
999	STH 64	135+81.53	151.30' RT									176							2				1		
1000	STH 64	134+81.37	39.64' RT									181			1						1				
1001	STH 64	133+00.00	39.42' RT									195			1					1					
102.1	STH 64	134+70.00	63.00' LT									309						1						1	
102.2	STH 64	134+70.01	46.95' LT									16				1						1			
102.3	STH 64	134+70.01	4.95' LT									42				1						1			
103.0	STH 64	137+74.99	52.98' LT								48					1						1			
103.1	STH 64	137+75.00	4.95' LT								133					1						1			
103.2	STH 64	137+75.00	128.00' RT	6		1																			
104.0	STH 64	140+22.80	92.85' LT									78							2				1		
104.1	STH 64	140+25.20	14.51' LT											149			1								1
104.2	STH 64	139+63.24	120.35' RT	6					1																
105.0	STH 64	142+74.02	89.44' LT									71							2				1		
105.1	STH 64	142+74.46	18.47' LT										247		1						1				
106.0	STH 64	144+52.07	22.11' LT									176							2				1		
107.0	STH 64	148+55.00	29.87' LT									68							2				1		
107.1	STH 64	148+50.27	97.76' LT	6			1																		
108.0	STH 64	153+50.00	35.09' LT								76								2				1		
108.1	STH 64	153+49.49	111.09' LT	6		1																			
109.0	STH 64	168+00.00	30.01' LT							98									2				1		
109.1	STH 64	168+00.10	128.01' LT	6	1																				
110.0	STH 64	177+55.77	55.20' RT									85							2				1		
110.1	STH 64	177+57.67	30.01' LT									94							2				1		
110.2	STH 64	177+59.81	123.98' LT	6			1																		
6.1	STH 64	182+39.52	264.49' LT	6				1					253												
6.2	STH 64	179+86.24	256.39' LT	6				1																	
8.1	STH 64	136+00.00	77.38' RT	6			1					56													
8.2	STH 64	136+00.00	133.38' RT	6			1																		
TOTALS:					1	2	4	2	1	98	257	1547	500	149	3	4	1	1	18	1	2	4	9	1	1

***ADDITIONAL QUANTITIES FOUND ELSEWHERE**

522.1012 APRON ENDWALL RC 12-INCH | 522.1018 APRON ENDWALL RC 18-INCH | 522.1024 APRON ENDWALL RC 24-INCH* | 522.1030 APRON ENDWALL RC 30-INCH* | 522.1036 APRON ENDWALL RC 36-INCH* | 608.0312 SS RC III 12-INCH | 608.0318 SS RC III 18-INCH | 608.0324 SS RC III 24-INCH | 608.0330S S RC III 30-INCH | 608.0336 SS RC III 36-INCH | 611.0530 MANHOLE COVER TYPE J | 611.0610 INLET COVER TYPE BW | 611.0612 INLET COVER TYPE C | 611.0633 INLET COVER TYPE HM-GJ-S | 611.0642 INLET COVER TYPE MS | 611.2004 MANHOLE 4-FT DIAMETER | 611.2005 MANHOLE 5-FT DIAMETER | 611.3225 INLETS 2X2.5-FT | 611.3902 INLET MEDIAN 2 GRATE | SPV.0060.01 SPECIAL (01. INLETS 5-FT DIAMETER) | SPV.0060.02 SPECIAL (02. INLETS 6-FT DIAMETER)

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MGS GUARDRAIL 3

CATEGORY	STATION	TO STATION	LOCATION	GUARDRAIL MOW STRIP ASPHALT 614.0396 SY	MGS GUARDRAIL 3 614.2300 LF	MGS THRIE BEAM TRANSITION 614.2500 LF	MGS GUARDRAIL TERMINAL EAT 614.2610 EACH
0010	264+63	265+55	STH 35 RT	59	100	39.4	1
0010	265+57	266+49	STH 35 LT	48		39.4	1
0010	267+78	268+72	STH 35 LT	93	100	39.4	1
0010	267+85	268+77	STH 35 RT	48		39.4	1
			TOTAL 0010	248	200	157.6	4

MAINTENANCE AND REPAIR OF HAUL ROADS (01.8110-02-71)

CATEGORY	LOCATION	618.0100 EACH
0010	STH 64	1
	TOTAL 0010	1

DUST CONTROL SURFACE TREATMENT

CATEGORY	STATION	TO STATION	LOCATION	623.0200 SY
0010	130+75 -	200+00	STH 64	60017
			TOTAL 0010	60017

MOBILIZATION

CATEGORY	LOCATION	619.1000 EACH
0010	STH 64	0.9
0010	B-55-225	0.1
	TOTAL 0010	1

WATER

CATEGORY	STATION	TO STATION	LOCATION	624.0100 MGAL
0010	130+75 -	200+00	PROJECT	200
			TOTAL 0010	200

FINISHING ITEMS

CATEGORY	STATION TO	STATION	LOCATION	SALVAGED TOPSOIL 625.0500 SY	MULCHING 627.0200 SY	FERTILIZER TYPE B 629.0210 CWT	SEEDING MIXTURE NO. 20 630.0120 LB	SEEDING TEMPORARY 630.0200 LB	SEEDING NURSE CROP 630.0400 LB	SPECIAL (01. NATIVE BUTTERFLY SEED MIX) SPV.0085.01 LB	REMARKS
0010	130+70	- 134+00	RT	2171	2171	1			16	8	STH 64 EB
0010	130+70	- 134+00	LT	1272	1272	1			10	5	STH 64 WB
0010	134+00	- 140+75	RT	22420	22420	14	605				STH 64 EB/BRIDGE POND
0010	134+00	- 140+23	LT	3381	3381	2			26	13	STH 64 WB
0010	140+25	- 155+00	MEDIAN	9331	9331	6	252				STH 64 EB/WB
0010	140+75	- 155+00	RT	7978	7978	5	215				STH 64 EB
0010	141+00	- 155+00	LT	4680	4680	3			34	17	SHARED USE PATH
0010	141+36	- 151+20	LT	4580	4580	3			34	17	STH 64 WB
0010	151+47	- 155+00	LT	1655	1655	1			12	6	SW RAMP
0010	155+00	- 165+17	RT	1793	1793	1	48				STH 64 EB
0010	155+00	- 183+50	MEDIAN	18974	18974	12	512				STH 64 EB/WB
0010	155+00	- 181+25	LT	15420	15420	10			112	56	SW RAMP
0010	155+00	- 181+11	LT	6275	6275	4			46	23	SHARED USE PATH
0010	165+16	- 182+05	RT	7966	7966	5			58	29	SE Ramp
0010	169+09	- 183+50	LT	27922	27922	18	754		60	30	STH 64 WB NATIVE SEED MIX ON SW RAMP RT
0010	171+00	- 183+50	RT	8210	8210	5	222				STH 64 EB
0010	173+50	- 182+05	LT	2918	2918	2	79				SE RAMP
0010	185+50	- 191+79	RT	4258	4258	3	115				STH 64 EB
0010	185+50	- 200+00	MEDIAN	9879	9879	6	267				STH 64 EB/WB
0010	185+50	- 196+00	LT	11218	11218	7	303		58	29	STH 64 WB NATIVE SEED MIX ON NW RAMP RT
0010	185+50	- 186+56	LT	393	393	1	11				NE RAMP
0010	185+50	- 200+00	RT	2460	2460	2			18	9	NE RAMP
0010	185+50	- 200+00	LT	4079	4079	3	110				NW RAMP
0010	262+40	- 266+17	RT	498	498	1	13				STH 35
0010	262+40	- 266+17	LT	434	434	1	12				STH 35
0010	267+88	- 272+10	RT	1008	1008	1	27				STH 35
0010	267+80	- 272+10	LT	1299	1299	1	35				STH 36
0010			TOPSOIL STOCK PILES		17320	13		574			WITHIN RIGHT OF WAY
0010	UNDISTRIBUTED			20000	20000	6	200		12	6	
			TOTAL 0010	202,472	219,792	138	3,780	574	496	248	

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EROSION BALES

CATEGORY	LOCATION	628.1104 EACH
0010	UNDISTRIBUTED	30
	TOTAL 0010	30

SILT FENCE

628.1504 SILT FENCE
628.1520 SILT FENCE MAINTENANCE

CATEGORY	STATION TO STATION	LOCATION	628.1504 LF	628.1520 LF	REMARKS
0010	261+93 - 264+50	STH 35 LT	320	320	
0010	269+95 - 272+50	STH 35 LT	260	260	
0010	130+05 - 133+75	STH 64 LT	430	430	
0010	133+98 - 138+50	STH 64 RT	550	550	AT BRIDGE POND
0010	139+50 - 145+50	STH 64 RT	790	790	
0010	135+12 - 153+60	STH 64 LT	1,705	1,705	
0010	156+05 - 165+96	STH 64 RT	990	990	
0010	162+05 - 173+35	STH 64 LT	1,195	1,195	
0010	174+93 - 182+00	SE RAMP RT	975	975	
0010	184+00 - 200+00	NE RAMP RT	2,000	2,000	
0010	186+00 - 200+00	NW RAMP LT	1,550	1,550	
0010	UNDISTRIBUTED		1,000	1,000	
		TOTAL 0010	11765	11765	

EROSION CONTROL MOBILIZATION

628.1905 MOBILIZATIONS EROSION CONTROL
628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL

CATEGORY	STATION TO STATION	LOCATION	628.1905 EACH	628.1910 EACH
0010	130+75 - 200+00	STH 64	2	5
		TOTAL 0010	2	5

CLEANING SEDIMENT BASINS

CATEGORY	LOCATION	628.1920 CY
0010	BRIDGE POND	50
	TOTAL 0010	50

EROSION MAT CLASS II TYPE B

CATEGORY	STATION TO STATION	OFFSET	LOCATION	628.2023 SY	REMARKS
0010	136+00	77 RT	STH 64 EB	10.83	#8.1, 24-INCH
0010	148+50	97.8 LT	STH 64 EB	10.83	#107.1, 24-INCH
0010	153+49	111 LT	STH 64 EB	7.72	#108.1, 18-INCH
0010	168+00	128 LT	STH 64 EB	5.13	#109.1, 12-INCH
0010	173+15	49 LT	SW RAMP	10.83	#2.1, 24-INCH
0010	174+26	76 LT	SW RAMP	18.63	#4.1, 36-INCH
0010	173+14	22 RT	SE RAMP	10.83	#3.1, 24-INCH
0010	173+77	60 LT	SE RAMP	10.83	#3.2, 24-INCH
0010			SW RAMP	10.83	
0010			SW RAMP	10.83	
0010	131+31 - 133+16		STH 64 EB RT	1755	
0010	135+03 - 145+03		STH 64 EB RT	2675	
0010	135+18 - 144+75		STH 64 EB LT	4910	
0010	175+00 - 176+90		STH 64 EB RT	750	
0010	175+51 - 179+89		STH 64 EB LT	1400	
0010	265+38 - 266+53		STH 35 RT	490	
0010	265+45 - 266+40		STH 35 LT	390	
0010	267+87 - 268+82		STH 35 RT	380	
0010	267+84 - 268+86		STH 35 LT	445	
0010	268+23 - 269+26		STH 35 LT	315	
0010	173+27 - 179+04		SW RAMP	1225	
0010	UNDISTRIBUTED			1500	
			TOTAL 0010	16342.29	

EROSION MAT CLASS III TYPE A

CATEGORY	STATION TO STATION	OFFSET	LOCATION	628.2031 SY	REMARKS
0010	138+50	55 RT	STH 64 EB	20	#1.1
0010	140+22	93 LT	STH 64 EB	20	#104
0010	142+74	90 LT	STH 64 EB	20	#105
0010	177+55	55 RT	STH 64 EB	20	#110
0010	173+90 - 174+60			120	
0010	173+22 - 174+57		SW RAMP	235	
0010	UNDISTRIBUTED			150	
			TOTAL 0010	585	

INLET PROTECTION TYPE A

CATEGORY	STRUCTURE	STATION	LOCATION	628.7005 EACH
0010	1.1	138+50	STH 64 EB	1
0010	998	135+30	STH 64 EB	1
0010	102.1	134+70	STH 64 EB	1
0010	102.2	134+70	STH 64 EB	1
0010	102.3	134+70	STH 64 EB	1
0010	103.0	137+75	STH 64 EB	1
0010	103.1	137+75	STH 64 EB	1
0010	104.0	140+23	STH 64 EB	1
0010	104.1	140+25	STH 64 EB	1
0010	105.0	142+74	STH 64 EB	1
0010	106.0	144+52	STH 64 EB	1
0010	107.0	148+55	STH 64 EB	1
0010	108.0	153+50	STH 64 EB	1
0010	109.0	168+00	STH 64 EB	1
0010	110.0	177+56	STH 64 EB	1
0010	110.1	177+58	STH 64 EB	1
			TOTAL 0010	16

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TEMPORARY DITCH CHECKS

CATEGORY	STATION	LOCATION	628.7504 LF
0010	136+61	STH 64 EB	12
0010	137+20	STH 64 EB	12
0010	138+35	STH 64 EB	12
0010	139+50	STH 64 EB	12
0010	140+57	MEDIAN	12
0010	140+62	STH 64 EB	12
0010	141+79	STH 64 EB	12
0010	141+92	MEDIAN	12
0010	142+94	STH 64 EB	12
0010	143+37	MEDIAN	12
0010	143+33	SHARED USE PATH	12
0010	144+10	STH 64 EB	12
0010	144+81	MEDIAN	12
0010	145+23	STH 64 EB	12
0010	146+25	MEDIAN	12
0010	146+41	STH 64 EB	12
0010	146+10	SHARED USE PATH	12
0010	147+57	STH 64 EB	12
0010	147+68	MEDIAN	12
0010	147+46	SHARED USE PATH	12
0010	148+75	STH 64 EB	12
0010	148+79	SHARED USE PATH	12
0010	149+14	MEDIAN	12
0010	149+85	SHARED USE PATH	12
0010	150+74	MEDIAN	12
0010	150+74	STH 64 EB	12
0010	151+04	SHARED USE PATH	12
0010	152+38	SHARED USE PATH	12
0010	152+75	STH 64 EB	12
0010	153+84	SHARED USE PATH	12
0010	154+50	MEDIAN	12
0010	154+75	STH 64 EB	12
0010	155+32	SHARED USE PATH	12
0010	163+00	STH 64 EB	12
0010	165+00	STH 64 EB	12
0010	167+00	SE RAMP	12
0010	169+00	SE RAMP	12
0010	170+00	SHARED USE PATH	12
0010	170+94	SE RAMP	12
0010	171+54	SHARED USE PATH	12
0010	172+38	SHARED USE PATH	12
0010	173+06	SE RAMP	12
0010	173+27	SE RAMP	12
0010	173+84	SE RAMP	12
0010	174+39	SE RAMP	12
0010	174+46	SHARED USE PATH	12
0010	174+90	SE RAMP	12
0010	174+98	STH 64 EB	12
0010	174+98	STH 64 EB	12
0010	177+02	STH 64 EB	12
0010	UNDISTRIBUTED		120
		TOTAL 0010	720

CULVERT PIPE CHECKS

CATEGORY	STATION	LOCATION	628.7555 EACH	REMARKS
0010	135+98	STH 64 EB RT	3	#8.1
0010	135+87	STH 64 EB RT	3	#999
0010	172+84	SHARED USE PATH RT	3	#2.1
0010	173+98	SHARED USE PATH LT	3	#4.1
0010	173+10	SE RAMP RT	3	#3.1
0010	179+23	SHARED USE PATH LT	3	#5.1
0010	UNDISTRIBUTED		6	
		TOTAL 0010	24	

TRACKING PADS

CATEGORY	LOCATION	628.7560 EACH
0010	STH 64 AND EXISTING CTH E	4
	TOTAL 0010	4

3

ROCK BAGS

628.7570

CATEGORY	LOCATION	EACH
0010	UNDISTRIBUTED	20
	TOTAL 0010	20

SEEDING BORROW PIT

630.0300

CATEGORY	LOCATION	LB
0010	DETERMINED BY CONTRACTOR	980
	TOTAL 0010	980

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MARKERS CULVERT END

633.5200

CATEGORY	STRUCTURE	LOCATION	EACH
0010	1.2	STH 64 EB	1
0010	2.1	SHARED USE PATH	1
0010	2.2	SHARED USE PATH	1
0010	3.1	SE RAMP	1
0010	3.2	SE RAMP	1
0010	4.1	SW RAMP	1
0010	4.2	SW RAMP	1
0010	5.1	SHARED USE PATH	1
0010	5.2	SHARED USE PATH	1
0010	6.1	STH 64 WB	1
0010	6.2	STH 64 WB	1
0010	8.1	STH 64 EB	1
0010	8.2	STH 64 EB	1
0010	103.2	STH 64 EB	1
0010	104.2	STH 64 EB	1
0010	107.1	STH 64 WB	1
0010	108.1	STH 64 WB	1
0010	109.1	SW RAMP	1
0010	110.2	STH 64 WB	1
		TOTAL 0010	19

3

SIGNING

CATEGORY	NO.	CODE	SIZE	SIGN DESCRIPTION	POSTS WOOD 4X6-INCH X 16-FT 634.0616 EACH	SIGNS TYPE II REFLECTIVE H 637.2210 SF	SIGNS TYPE II REFLECTIVE F 637.2230 SF	REMOVING SIGNS TYPE II 638.2602 EACH	REMOVING SMALL SIGN SUPPORTS 638.3000 EACH	REMARKS
0010	100	W3-1	36" X 36"	STOP AHEAD	1	9.00		1	1	
0010	101	R1-1	36" X 36"	STOP	1		7.46	1	1	
0010	102	R1-1	36" X 36"	STOP	1		7.46	1	1	
0010	103	W3-1	36" X 36"	STOP AHEAD	1	9.00		1	1	
0010	104	W2-2	30" X 30"	SIDE ROAD	1	6.25		1	1	
0010	105	W3-5	36" X 36"	SPEED REDUCTION AHEAD	1	9.00		1	1	45 MPH
0010	106	W14-3	48" X 36"	NO PASSING ZONE		6.00				
0010	107	W1-2R	36" X 36"	ROAD CURVES RIGHT	1	9.00		1	1	
0010	107	W13-1	24" X 24"	ADVISORY SPEED		4.00				40 MPH
0010	108	W1-2R	36" X 36"	ROAD CURVES RIGHT	1	9.00		1	1	
0010	108	W13-1	24" X 24"	ADVISORY SPEED		4.00				40 MPH
0010	109,134-138	W1-8	18" X 24"	CHEVRONS	6	18.00				6 EXISTING, ADD 6 NEW
0010	110	W1-2L	36" X 36"	ROAD CURVES LEFT	1	9.00		1	1	
0010	110	W13-1	24" X 24"	ADVISORY SPEED		4.00				45 MPH
0010	111	W14-3	48" X 36"	NO PASSING ZONE	1	6.00		1	1	
0010	112	W1-2L	36" X 36"	ROAD CURVES LEFT	1	9.00		1	1	
0010	112	W13-1	24" X 24"	ADVISORY SPEED		4.00				50 MPH
0010	113	W1-2R	36" X 36"	ROAD CURVES RIGHT	1	9.00		1	1	
0010	113	W13-1	24" X 24"	ADVISORY SPEED		4.00				50 MPH
0010	114	W3-1	36" X 36"	STOP AHEAD	1	9.00		1	1	
0010	115	R1-1	36" X 36"	STOP	1		7.46	1	1	
0010	116	R1-1	36" X 36"	STOP	1		7.46	1	1	
0010	117	W3-1	36" X 36"	STOP AHEAD		9.00				
0010	118	R1-1	36" X 36"	STOP	1		7.46	1	1	
0010	119	W3-1	36" X 36"	STOP AHEAD	1	9.00		1	1	
0010	120	R1-1	36" X 36"	STOP	1		7.46	1	1	
0010	121	W3-1	36" X 36"	STOP AHEAD	1	9.00		1	1	
0010	122	W14-3	48" X 36"	NO PASSING ZONE	1	6.00		1	1	
0010	123	W14-3	48" X 36"	NO PASSING ZONE		6.00				
0010	124	W14-3	48" X 36"	NO PASSING ZONE		6.00				
0010	125	W2-7R	30" X 30"	TWO SPLIT SIDE ROADS	1	6.25		1	1	
0010	126	S3-1	36" X 36"	SCHOOL BUS STOP AHEAD		9.00				
0010	127	W14-3	48" X 36"	NO PASSING ZONE	1	6.00		1	1	
0010	128	S3-1	36" X 36"	SCHOOL BUS STOP AHEAD		9.00				
0010	129	W1-2R	36" X 36"	ROAD CURVES RIGHT	1	9.00		1	1	
0010	129	W13-1	24" X 24"	ADVISORY SPEED		4.00				45 MPH
0010	130,139-160	W1-8	18" X 24"	CHEVRONS	22	66.00		22	22	22 NEW
0010	131	W1-2L	36" X 36"	ROAD CURVES LEFT	1	9.00		1	1	
0010	131	W13-1	24" X 24"	ADVISORY SPEED		4.00				45 MPH
0010	132	W3-1	36" X 36"	STOP AHEAD	1	9.00		1	1	
0010	133	R1-1	36" X 36"	STOP	1		7.46	1	1	
0010	1R-01	W14-3	48" X 36"	NO PASSING ZONE	1	6.00		1	1	
0010	1R-02			FUTURE LOCATION OF ST.CROIX CROSSING				1	2	
0010	1R-03	W14-3	48" X 36"	NO PASSING ZONE	1	6.00		1	1	
				TOTAL 0010	56	325.50	52.22	51	52	

3

FIELD OFFICE TYPE D

CATEGORY	LOCATION	642.5401 EACH
0010	STH 64	1
	TOTAL 0010	1

TRAFFIC CONTROL (01.8110-02-71)

CATEGORY	LOCATION	643.01 EACH
0010	STH 64	1
	TOTAL 0010	1

TRAFFIC CONTROL DRUMS

CATEGORY	STATION TO	STATION	LOCATION	643.0300 DAY	REMARKS
0010	PROJECT		CTH E	3,600	20 EA
			TOTAL 0010	3,600	

TRAFFIC CONTROL BARRICADES TYPE III

CATEGORY	LOCATION	643.0420 DAY	REMARKS
0010	STH 35	1,620	DETOUR ROUTE, 18 EA, 90 DAYS
0010	EXISTING CTH E AT STH 64	800	8 EA, 100 DAYS
	TOTAL 0010	2,420	

TRAFFIC CONTROL BARRICADES PERMANENT TYPE III

CATEGORY	STA	LOCATION	643.0453 EACH
0010	184+00	EXISTING CTH E AT STH 64	8
		TOTAL 0010	8

TRAFFIC CONTROL WARNING LIGHTS TYPE A

CATEGORY	LOCATION	643.0705 DAY	REMARKS
0010	EXISTING CTH E AT STH 64	800	100 DAYS, 8 EA
0010	STH 35 DETOUR ROUTE	2,160	90 DAYS, 24 EA
	TOTAL 0010	2,960	

3

TRAFFIC CONTROL SIGNS

CATEGORY	LOCATION	643.0900 DAY	REMARKS
0010	CTH E ADVANCE WARNING	1,080	6 EA, 180 DAYS
0010	EXITING CTH E AT PROPOSED STH 64	800	8 EA, 100 DAYS - ENTER/EXIT HAUL ROAD
	TOTAL 0010	1,880	

TRAFFIC CONTROL SIGNS FIXED MESSAGE

CATEGORY	CODE	SIGN DESCRIPTION	643.1000 SF	NO. OF SIGNS
0010	D1-56L	LT TO COMMUNITY, HUDSON	13	2
0010	D1-56L	STRAIGHT TO COMMUNITY, HUDSON	13	2
0010	D1-56L	RT TO COMMUNITY, HOULTON	6	1
		TOTAL 0010	31	

TRAFFIC CONTROL DETOUR (01.8110-02-71)

CATEGORY	LOCATION	643.2000 EACH	REMARKS
0010	STH 35 DETOUR	1	CTH E, CTH V
	TOTAL 0010	1	

TRAFFIC CONTROL DETOUR SIGNS

CATEGORY	CODE	SIGN DESCRIPTION	643.3000 DAY	NO. OF SIGNS
0010	MO1-6	STH 35	2,520	28
0010	M3-1	NORTH	990	11
0010	M3-3	SOUTH	1,530	17
0010	M4-8	DETOUR	1,980	22
0010	M4-8A	END DETOUR	180	2
0010	MO5-1L	LEFT TURN AHEAD	450	5
0010	MO5-1R	RIGHT TURN AHEAD	270	3
0010	MO6-1	LT/RT TURN	1,080	12
0010	W20-2	DETOUR AHEAD	360	4
0010	G20-51	DETOUR NEXT X MILES, 4.5	180	2
0010	W20-3	ROAD CLOSED AHEAD	90	1
0010	W20-3C	ROAD CLOSED 1000 FT	180	2
0010	W20-3D	ROAD CLOSED 500 FT	270	3
0010	WO3-1	STOP AHEAD	360	4
0010	R1-1	STOP	360	4
0010	T3R11-1	ROAD CLOSED, PLACED ON TY III BARRICADE	180	2
0010	T3R11-3	ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY, PLACED ON TY III BARRICADE	180	2
0010	T3R11-4	ROAD CLOSED TO THRU TRAFFIC, PLACED ON TY III BARRICADE	180	2
0010	T3WO1-6	LT/RT TURN, PLACED ON TY III BARRICADE	180	2
		TOTAL 0010	11520	

DETOUR ROUTE-90 CALENDAR DAYS

3

3

PAVEMENT MARKING PAINT 4-INCH

CATEGORY	STATION TO STATION	LOCATION	646.0103 LF	REMARKS
0010	CTH V - STH 35	CTH E - DETOUR ROUTE	15,126	DOUBLE YELLOW
0010	CTH V - STH 35	CTH E - DETOUR ROUTE	4,849	SOLID YELLOW
0010	CTH V - STH 35	CTH E - DETOUR ROUTE	1,462	YELLOW SKIPS
0010	CTH V - STH 35	CTH E - DETOUR ROUTE	25,764	WHITE EDGELINE
0010	CTH E - STH 35	CTH V - DETOUR ROUTE	13,962	DOUBLE YELLOW
0010	CTH E - STH 35	CTH V - DETOUR ROUTE	3,005	SOLID YELLOW
0010	CTH E - STH 35	CTH V - DETOUR ROUTE	1,210	YELLOW SKIPS
0010	CTH E - STH 35	CTH V - DETOUR ROUTE	22,931	WHITE EDGELINE
0010	CTH E - STH 35	CTH V - DETOUR ROUTE	328	WHITE SKIPS (26)
		TOTAL 0010	88637	

PAVEMENT MARKING EPOXY 4-INCH

CATEGORY	STATION TO STATION	LOCATION	646.0106 LF	REMARKS
0010	262+40 - 272+10	STH 35	1,940	WHITE EDGELINE
0010	262+40 - 272+10	STH 35	240	YELLOW SKIPS
		TOTAL 0010	2180	

PAVEMENT MARKING PAINT 8-INCH

CATEGORY	STATION TO STATION	LOCATION	646.0123 LF	REMARKS
0010	CTH V - STH 35	CTH E - DETOUR ROUTE	357	WHITE CHANNILIZING
0010	CTH E - STH 35	CTH V - DETOUR ROUTE	233	WHITE CHANNILIZING
		TOTAL 0010	590	

LOCATING NO-PASSING ZONES

CATEGORY	LOCATION	648.0100 MI	REMARKS
0010	STH 35	1	0.5 MILES NORTH & SOUTH OF B-55-225
	TOTAL 0010	1	

CONSTRUCTION STAKING

CATEGORY	STATION TO STATION	LOCATION	CONSTRUCTION STAKING SUBGRADE 650.4500 LF	CONSTRUCTION STAKING BASE 650.5000 LF	CONSTRUCTION STAKING SLOPE STAKES 650.9920 LF	SPECIAL (02. CONSTRUCTION STAKING SELECT SUBGRADE) SPV.0090.02 LF
0010	132+50 - 183+50	STH 64 EB	5100	5100	5100	5100
0010	185+50 - 200+00	STH 64 EB	1450	1450	1450	1450
0010	132+50 - 183+50	STH 64 WB	5100	5100	5100	5100
0010	185+50 - 200+00	STH 64 WB	1450	1450	1450	1450
0010	140+00 - 180+00	SHARED USE PATH	4000	4000	4000	
0010	166+76 - 181+75	SW RAMP	1501	924	1501	924
0010	167+66 - 182+33	SE RAMP	1467	809	1467	809
0010	180+67 - 198+76	NW RAMP	1809	476	1809	476
0010	186+75 - 194+28	NE RAMP	753		753	
0010	262+40 - 266+52	STH 35	410	410	410	
0010	267+82 - 272+10	STH 35	430	430	430	
		TOTAL 0010	23,470	20,149	23,470	15,309

3

CONSTRUCTION STAKING STORM SEWER

CATEGORY	PIPE NETWORK	LOCATION	650.4000 EACH
0010	1.1-1.2	STH 64	2
0010	998-1001	STH 64	4
0010	102.1-102.3	STH 64	3
0010	103.0-103.2	STH 64	3
0010	104.0-104.2	STH 64	3
0010	105.0-106.0	STH 64	3
0010	107.1-107.1	STH 64	2
0010	108.0-108.1	STH 64	2
0010	109.0-109.1	STH 64	2
0010	110.0-110.2	STH 64	3
		TOTAL 0010	27

CONSTRUCTION STAKING PIPE CULVERTS

CATEGORY	PIPE NO.	LOCATION	650.6000 EACH
0010	2	STH 64	2
0010	3	STH 64	2
0010	4	STH 64	2
0010	5	STH 64	2
0010	6	STH 64	2
0010	8	STH 64	2
0010	T-1	STH 64	2
0010	T-2	STH 64	2
0010	T-3	STH 64	2
0010	T-4	STH 64	2
0010	T-5a	STH 64	2
0010	T-5b	STH 64	2
0010	T-6	STH 64	2
		TOTAL 0010	26

CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (01.8110-02-71)

CATEGORY	LOCATION	650.9910 LS
0010	PROJECT	1
	TOTAL 0010	1

SAWING ASPHALT

CATEGORY	STATION	LOCATION	690.0150 LF
0010	242+89.39	STH 35	30
0010	281+11.84	STH 36	30
		TOTAL 0010	60

SPECIAL (03. CONSTRUCTION STAKING STORMWATER POND)

CATEGORY	LOCATION	SPV.0060.03 EACH
0010	BRIDGE INTERCHANGE	2
	TOTAL 0010	2

3

TEMPORARY FARM ACCESS

CATEGORY	LOCATION	SPV.0105.06 LS	SPV.0105.07 LS
0010	ANDERSON FARM	1	
0010	GILBERT/SEVERSON FARM		1
	TOTAL 0010	1	1

SPECIAL (15. CLEANING, GRADING, & SHAPING EXISTING DITCH)

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0180.15 SY	REMARKS
0010	262+50	-	266+50	STH 35	50	LEFT
0010	262+50	-	266+50	STH 35	50	RIGHT
0010	268+00	-	272+00	STH 35	50	LEFT
0010	268+00	-	272+00	STH 35	50	RIGHT
				TOTAL 0010	200	

SPECIAL (19. HMA PAVEMENT TYPE E-3 SPECIAL)

CATEGORY	STATION	TO	STATION	LOCATION	SPV.0195.19 TON	REMARKS
0010	262+40	-	266+57	STH 35	435	LOWER 4.75"
0010	267+81	-	272+10	STH 35	452	USE 19mm MIX
0010	262+40	-	266+57	STH 35	183	UPPER 2"
0010	267+81	-	272+10	STH 35	190	USE 12.5mm MIX
				TOTAL 0010	1260	

3

TRANSPORTATION PROJECT PLAT NO: 8110-02-20-4.01 AMENDMENT NO. 1

AMENDS PARCEL 1, 2 AND 3 OF TRANSPORTATION PROJECT PLAT 8110-02-20-4.01 RECORDED IN VOLUME 1, PAGE 79 OF TRANSPORTATION PROJECT PLATS, AS DOCUMENT NUMBER 963269, BEING PART OF LOTS 1&2 C.S.M. 1-139, GOV'T LOT 1, SECTION 34 AND PART OF GOV'T LOT 1, SECTION 35, ALL IN T 30 N, R 20 W, TOWN OF ST. JOSEPH, ST. CROIX COUNTY, WISCONSIN.

RELOCATION ORDER STH 64 STILLWATER-SOMERSET (ST. CROIX RIVER BRIDGE (WI ABUTMENT)) ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY, WISCONSIN AT 2:25PM ON 01/10/2013 AS DOCUMENT # 971168 AND FILED IN VOL.1TPP 1,PG.88

BETH PABST
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8110-02-20-4.01
AMENDMENT NO: 1

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES OR (S.F.) REQUIRED			PLE, TLE ACRES OR (SF)
			NEW	EXISTING	TOTAL	
1	DAVID & JUDITH SONSTEGARD	FEE	2.82	0.00	2.82	0.00
2	JOSEPH & JUDITH CARLSON	FEE	1.28	0.00	1.28	0.00
3	RICHARD B. ATLAS	FEE	0.92	0.00	0.92	0.00
4	DAVID R. & LYNN M. ROBSON	FEE	0.05	0.00	0.05	0.00

POINT TABLE - STATION AND OUT		
POINT #	STATION	DIST.
STH 35		
TIE105	264+00.00	0.00'
ERW109	264+00.00	-75.00'
ERW107	264+51.31	-75.00'
TIE106	267+03.11	0.00'
TIE107	268+10.46	0.00'
TIE108	270+68.05	0.00'
PRW157	271+00.00	-90.00'
ERW158	272+00.00	-65.29'
TIE109	272+00.00	0.00'

POINT TABLE - STATION AND OUT		
POINT #	STATION	DIST.
STH 64 EB		
PRW152	126+79.43	-75.00'
PRW102	126+98.50	120.00'
PRW101	127+12.42	105.00'
PRW103	127+37.63	282.63'
PRW153	130+25.00	-75.00'
PRW104	130+25.00	103.28'
PRW105	130+25.00	220.00'
PRW154	131+25.00	-130.00'
PRW106	132+25.00	255.00'
PRW156	133+50.00	-180.00'
TIE106	134.15.06	0.00'

NOTES:

COORDINATES AND BEARINGS SHOWN ON THIS PLAT ARE REFERENCED TO THE WISCONSIN COUNTY COORDINATE SYSTEM, ST. CROIX COUNTY ZONE, NAD83 (91) ADJUSTMENT. THE COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT-OF-WAY MONUMENTS ARE TYPE 2 (TYPICALLY ¾" X 24" REBAR WITH A WDOT CAP) AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS OF PUBLIC RECORD".

THE POINTS ALONG RIGHT OF WAY OR SHEET BOUNDARIES, WHICH ARE DESIGNATED WITH A 'TIE' PREFIX NUMBER HAVE BEEN CREATED FOR THE PURPOSE OF SHOWING A CLOSED TRAVERSE. THE POINTS ARE INTENDED TO BE ON PLSS LINES OR REFERENCE LINES, BUT ARE NOT INTENDED TO DEFINE THESE LINES AND THESE POINTS WILL NOT BE MONUMENTED IN THE FIELD.

PROPERTY LINES AND EASEMENTS SHOWN ON THIS PLAT ARE DRAWN FROM DATA DERIVED FROM MAPS AND DOCUMENTS OF PUBLIC RECORD AND/OR EXISTING OCCUPATIONAL LINES. THIS PLAT MAY NOT BE A TRUE REPRESENTATION OF EXISTING PROPERTY LINES, EXCLUDING RIGHT-OF-WAY LINES, AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING HIGHWAY RIGHT-OF-WAY SHOWN HEREIN IS BASED ON THE FOLLOWING POINTS OF REFERENCE: EXISTING HIGHWAY RIGHT-OF-WAY FOR STH 35 ESTABLISHED FROM PREVIOUS PROJECTS DJ NO. 6031 (1930), NO. 6189 (1932), AND NO. 6425 (1942). EXISTING HIGHWAY RIGHT-OF-WAY FOR SIDE ROADS ESTABLISHED FROM CENTERLINE OF EXISTING PAVEMENTS AND WISCONSIN STATE STATUTE 80.01(2).

DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO NEW REFERENCE LINES.

CONVENTIONAL ABBREVIATIONS

ACCESS POINT/ DRIVEWAY CONNECTION	AP	RECORDED AS	(100')
ACCESS RIGHTS	AR	REFERENCE LINE	R/L
ACRES	AC.	RELEASE OF RIGHTS	ROR
AND OTHERS	ET.AL.	REMAINING	REM.
CENTERLINE	C/L	RIGHT-OF-WAY	R/W
CERTIFIED SURVEY MAP	CSM	SECTION	SEC.
CORNER	COR.	STATION	STA.
DOCUMENT	DOC.	TEMPORARY LIMITED EASEMENT	TLE
EASEMENT	EASE.	VOLUME	V.
HIGHWAY EASEMENT	H.E.	**CURVE DATA**	
LAND CONTRACT	LC	LONG CHORD	LCH
MONUMENT	MON.	LONG CHORD BEARING	LCB
PAGE	P.	RADIUS	R
PERMANENT LIMITED EASEMENT	PLE	DEGREE OF CURVE	D
PROPERTY LINE	PL	CENTRAL ANGLE OR DELTA	DELTA
PUBLIC LAND SURVEY SYSTEM	PLSS	LENGTH OF CURVE	L
		TANGENT	TAN

CONVENTIONAL SYMBOLS

FOUND IRON PIPE/PIN	LIP (1" UNLESS NOTED)	PROPOSED R/W LINE	
R/W MONUMENT	•(SET)	EXISTING H.E. LINE	
R/W STANDARD	▲(SET)	PROPERTY LINE	
SIGN	ISIGN	LOT & TIE LINES	
SECTION CORNER MONUMENT		SLOPE INTERCEPTS	
SECTION CORNER SYMBOL		CORPORATE LIMITS	
FEE (HATCH VARIES)		RESTRICTED ACCESS (BY PREVIOUS ACQUISITION/CONTROL)	
TEMPORARY LIMITED EASEMENT		RESTRICTED ACCESS (BY ACQUISITION)	
PERMANENT LIMITED EASEMENT		NO ACCESS (BY STATUTORY AUTHORITY)	
R/W BOUNDARY POINT	RWB20	SECTION LINE	
PARCEL NUMBER	102	QUARTER LINE	
UTILITY INTEREST	40	SIXTEENTH LINE	
SIGN NUMBER (OFF PREMISE)	21	EXISTING CENTERLINE	
BUILDING		PROPOSED REFERENCE LINE	
REFERENCE LINE		PARALLEL OFFSET	

MEANDER LINE AND CSM I-139 EDGE OF WATER SEPARATION	
RW BOUNDARY PT	DISTANCE
PRW101	41'
PRW152	42'
DISTANCES ARE PERPENDICULAR TO THE EDGE OF WATER ON TPP SHEET AND ROUNDED TO THE NEAREST FOOT.	

EXISTING PROPERTY PIPES		
POINT NO. (PROPxx)	NORTH (Y)	EAST (X)
PROP10	367754.99	504944.94
PROP12	368994.72	504706.39
PROP14	367572.63	506161.31

CONVENTIONAL UTILITY SYMBOLS

	NON COMPENSABLE	COMPENSABLE
WATER	W	
GAS	G	
TELEPHONE	T	
OVERHEAD	OH	
TRANSMISSION LINES ELECTRIC	E	
CABLE TELEVISION	TV	
FIBER OPTIC	FO	
SANITARY SEWER	SAN	
STORM SEWER	SS	
POWER POLE		
TELEPHONE POLE		
TELEPHONE PEDESTAL		
ELECTRIC TOWER		

SEC2621 ALUM. CAP ST. CROIX CO. SURVEYOR Y = 369580.10 X = 504705.84

OTR2623 1" IRON PIPE ST. CROIX CO. SURVEYOR Y = 369582.80 X = 507349.06

PLSS TIE TABLE			
FROM	TO	BEARING	DIST.
SEC2621	QTR2623	N 89°56'30" E	2643.22'
SEC2621	TIE108	S 00°02'29" E	682.69'

COURSE TABLE			
FROM	TO	BEARING	DIST.
TIE109	TIE108	S 49°51'29" E	131.95'
TIE108	TIE107	S 49°51'29" E	257.59'
TIE107	TIE106	S 49°56'08" E	107.35'
TIE106	TIE105	S 49°56'08" E	303.11'
TIE105	ERW109	S 40°03'52" W	75.00'
ERW109	ERW107	N 49°56'08" W	51.31'
ERW107	PRW106	S 20°23'54" W	81.83'
PRW106	PRW105	S 41°51'12" W	203.04'
PRW105	PRW104	N 58°04'22" W	116.72'
PRW104	PRW103	S 00°02'27" E	338.74'
PRW103	PRW102	N 71°36'04" W	167.27'
PRW102	PRW101	N 15°12'46" W	20.46'
PRW101	PRW152	N 68°27'30" W	183.00'
PRW152	PRW153	N 31°55'38" E	345.57'
PRW153	PRW154	N 03°06'59" E	114.13'
PRW154	PRW156	N 19°23'54" E	230.49'
PRW156	PRW157	N 49°51'58" W	228.03'
PRW157	ERW158	N 35°58'42" W	103.01'
ERW158	TIE109	N 40°08'31" E	65.29'

UTILITY EASEMENTS	
PARCEL	DOCUMENT/V&PG
4	392581 / V 686, PG 91

OTHER DOCUMENT INFORMATION	
PARCEL	TYPE/DOCUMENT OR VOL & PAGE
3&4	SERVICE RD EASEMENT / DOC#390010
4	SERVICE RD EASEMENT / DOC#607533
NA	ACCESS COVENANT / DOC#353567
NA	ACCESS RESERVATIONS / DOC#351949
2	ACCESS RD EASEMENT / DOC#314066

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

DANIEL ANDERSON (PRINTED NAME) — SIGNATURE — 01/04/2013 (DATE)

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

MICHAEL PILLER (PRINTED NAME) — SIGNATURE — 01/04/2013 (DATE)

SCALE, FEET 0 100 200

NOT TO SCALE

SHEET LOCATION

TRANSPORTATION PROJECT PLAT NO: 8110-02-21-4.01 AMENDMENT NO. 1

AMENDS PARCELS 2 AND 3 OF TRANSPORTATION PROJECT PLAT 8110-02-21-4.01 RECORDED IN VOLUME 1, PAGE 80 OF TRANSPORTATION PROJECT PLATS, AS DOCUMENT NUMBER 963270, BEING PART OF LOT 1 C.S.M. 20-5108 AND PART OF GOV'T LOT 1, ALL IN SECTION 35, T 30 N, R 20 W, TOWN OF ST. JOSEPH, ST. CROIX COUNTY, WISCONSIN.

RELOCATION ORDER STH 64 STILLWATER-SOMERSET (ST. CROIX RIVER BRIDGE APPROACH (WI)) ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY, WISCONSIN AT 11:25 AM ON 11/12/2012 AS DOCUMENT # 967247 AND FILED IN VOL. TPP 1, PG. 85

BETH PABST
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8110-02-21-4.01
AMENDMENT NO: 1

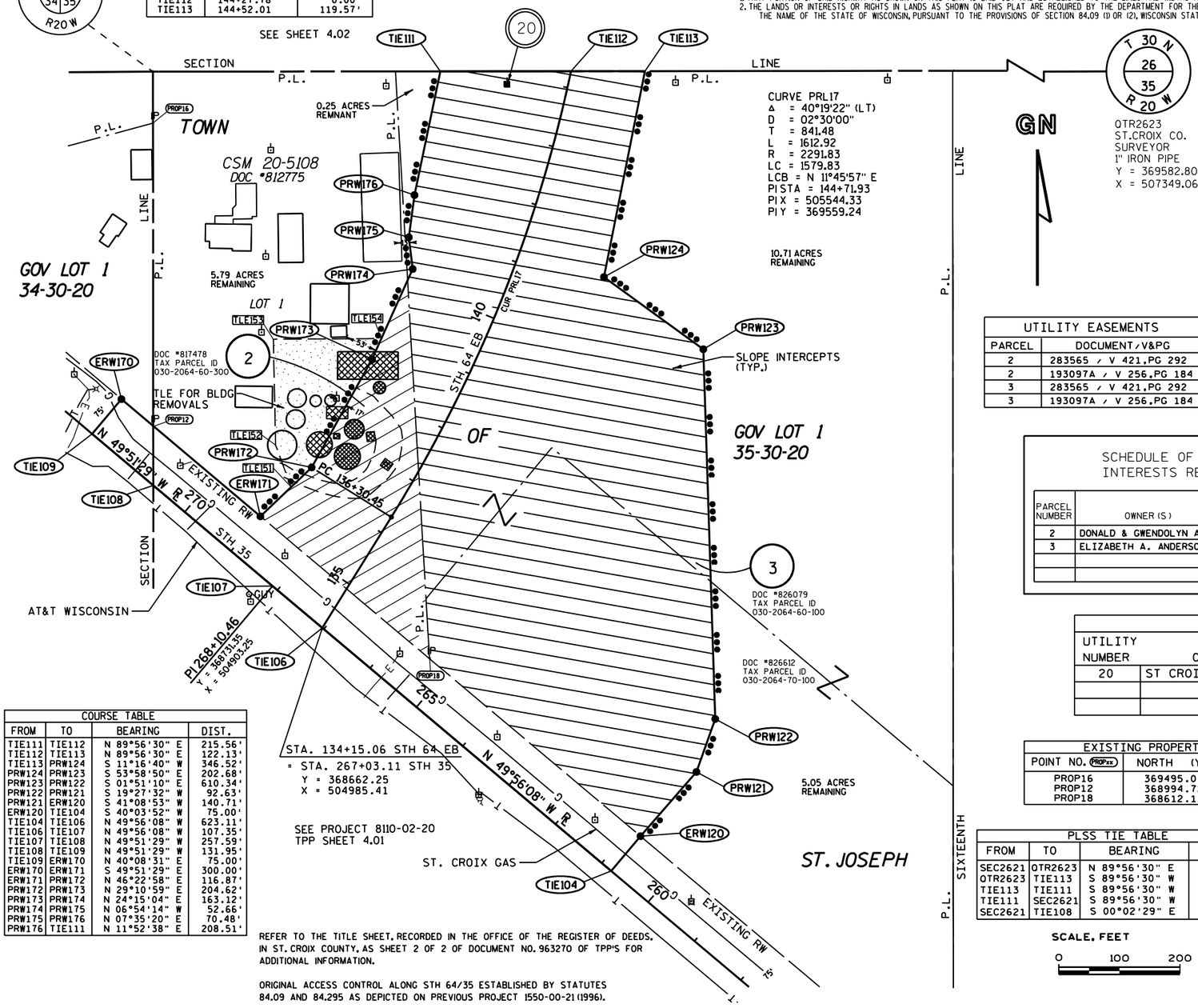
POINT TABLE - STATION AND OUT		
POINT #	STATION	DIST.
STH 64 EB		
PRW121	135+40.00	650.00'
TLE151	135+85.00	-166.72'
PRW172	136+30.45	-155.00'
TLE152	136+30.45	-225.00'
PRW122	136+30.45	630.00'
TLE153	138+00.00	-315.00'
PRW173	138+50.00	-155.00'
TLE154	138+90.00	-156.10'
PRW174	140+25.00	-155.00'
PRW175	140+75.00	-180.00'
PRW123	140+75.00	340.00'
PRW124	141+25.00	145.00'
PRW176	141+50.00	-195.00'
TIE111	143+78.21	-210.32'
TIE112	144+27.78	0.00'
TIE113	144+52.01	119.57'

POINT TABLE - STATION AND OUT		
POINT #	STATION	DIST.
STH 35		
TIE104	260+80.00	0.00'
ERW120	260+80.00	75.00'
TIE106	267+03.11	0.00'
TIE107	268+10.46	0.00'
ERW171	269+00.00	75.00'
TIE108	270+68.05	0.00'
TIE109	272+00.00	0.00'
ERW170	272+00.00	75.00'

SEC2621
ST.CROIX CO.
SURVEYOR
ALUM. CAP
Y = 369580.10
X = 504705.84

T 30 N
27 26
34 35
R 20 W

SEE SHEET 4.02



COURSE TABLE			
FROM	TO	BEARING	DIST.
TIE111	TIE112	N 89°56'30" E	215.56'
TIE112	TIE113	N 89°56'30" E	122.13'
TIE113	PRW124	S 11°16'40" W	346.52'
PRW124	PRW123	S 53°58'50" E	202.68'
PRW123	PRW122	S 01°51'10" E	610.34'
PRW122	PRW121	S 19°27'32" W	92.63'
PRW121	ERW120	S 41°08'53" W	140.71'
ERW120	TIE104	S 40°03'52" W	75.00'
TIE104	TIE106	N 49°56'08" W	623.11'
TIE106	TIE107	N 49°56'08" W	107.35'
TIE107	TIE108	N 49°51'29" W	257.59'
TIE108	TIE109	N 49°51'29" W	131.95'
TIE109	ERW170	N 40°08'31" E	75.00'
ERW170	ERW171	S 49°51'29" E	300.00'
ERW171	PRW172	N 46°22'58" E	116.87'
PRW172	PRW173	N 29°10'59" E	204.62'
PRW173	PRW174	N 24°15'04" E	163.12'
PRW174	PRW175	N 06°54'14" W	52.66'
PRW175	PRW176	N 07°35'20" E	70.48'
PRW176	TIE111	N 11°52'38" E	208.51'

REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN ST. CROIX COUNTY, AS SHEET 2 OF 2 OF DOCUMENT NO. 963270 OF TPP'S FOR ADDITIONAL INFORMATION.

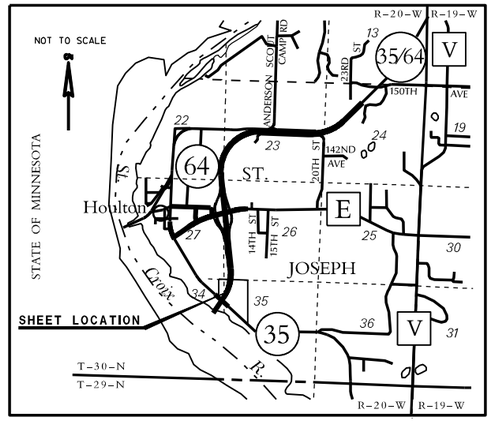
ORIGINAL ACCESS CONTROL ALONG STH 64/35 ESTABLISHED BY STATUTES 84.09 AND 84.295 AS DEPICTED ON PREVIOUS PROJECT 1550-00-21 (1996).

T 30 N
26
35
R 20 W

GN

OTR2623
ST.CROIX CO.
SURVEYOR
1" IRON PIPE
Y = 369582.80
X = 507349.06

UTILITY EASEMENTS	
PARCEL	DOCUMENT / V&PG
2	283565 / V 421, PG 292
2	193097A / V 256, PG 184
3	283565 / V 421, PG 292
3	193097A / V 256, PG 184



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES OR (S.F.) REQUIRED			PLE, TLE ACRES OR (SF)
			NEW	EXISTING	TOTAL	
2	DONALD & GWENDOLYN ANDERSON	FEE,TLE	1.72	0.00	1.72	0.59
3	ELIZABETH A. ANDERSON REV.TRUST	FEE	11.07	0.00	11.07	-.--

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	OWNERS	INTEREST REQUIRED
20	ST CROIX ELECTRIC COOPERATIVE	RELEASE OF RIGHTS

EXISTING PROPERTY PIPES		
POINT NO. (PROPxx)	NORTH (Y)	EAST (X)
PROP16	369495.07	504705.95
PROP12	368994.72	504706.39
PROP18	368612.13	505162.50

OTHER DOCUMENT INFORMATION	
PARCEL	TYPE/DOCUMENT OR VOL & PAGE
2	ACCESS EASEMENT / DOC#812570
2&3	ACCESS EASEMENT / DOC#503349

PLSS TIE TABLE			
FROM	TO	BEARING	DIST.
SEC2621	OTR2623	N 89°56'30" E	2643.22'
OTR2623	TIE113	S 89°56'30" W	1830.95'
TIE113	TIE111	S 89°56'30" W	337.69'
TIE111	SEC2621	S 89°56'30" W	474.59'
SEC2621	TIE108	S 00°02'29" E	682.69'

SCALE, FEET
0 100 200

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

DANIEL ANDERSON — PRINTED NAME
SIGNATURE
11/06/2012 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

MICHAEL PILLER — PRINTED NAME
SIGNATURE
11/06/2012 — DATE

FILE NAME : p:\PDS\Projects\81100201_STH64_Stillwater Bridge\RW PLATS\DGN_PDF\TPP Sheets\81100201RODATE.dgn
PLOT DATE : 31-JUL-2013 18:29
PLOT BY : dotcxm
PLOT NAME :
PLOT SCALE : 200.000000:1.000000
APPRAISAL PLAT DATE :

TRANSPORTATION PROJECT PLAT NO: 8110-02-21-4.02 AMENDMENT NO. 1

AMENDS PARCEL 4 OF TRANSPORTATION PROJECT PLAT 8110-02-21-4.02, RECORDED AS DOCUMENT NUMBER 964032 IN VOLUME 1, PAGE 81 OF TRANSPORTATION PROJECT PLATS, BEING PART OF THE SW 1/4 OF THE SW 1/4 OF SECTION 26, T 30 N, R 20 W, TOWN OF ST. JOSEPH, ST. CROIX COUNTY, WISCONSIN.

RELOCATION ORDER STH 64 STILLWATER-SOMERSET (ST. CROIX RIVER BRIDGE APPROACH (WI)) ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY, WISCONSIN AT 12:57PM ON February 1, 2013 AS DOCUMENT # 972503 AND FILED IN VOL. TPP 1, PG. 89.

BETH PABST
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8110-02-21-4.02
AMENDMENT NO: 1

OTR2611
ALUM. CAP
ST. CROIX CO.
SURVEYOR
Y = 372233.34
X = 504718.30

T 30 N
27 26
R 20 W

SEE SHEET 4.04

TIE206 TIE207 TIE208

SIXTEENTH LINE P.L. P.L.

SIX2616

TOWN

LINE P.L.

PRW256

SLOPE INTERCEPTS (TYP.)

SW-SW 26-30-20

OF

PRW254

PT 152+43.37

PRW253

PRW252

PRW251

TIE111

155 N 08°23'44" W RL

4

DOC #821453
TAX PARCEL ID
030-2044-70-000

PRW204

PRW203

PRW202

PRW201

150

145

CUR PRL17

STH 64 EB

TIE112 TIE113

GN

LINE

SECTION

ST. JOSEPH

SIXTEENTH

SECTION P.L. P.L. LINE

SEE SHEET 4.01

SEC2621
ALUM. CAP
ST. CROIX CO.
SURVEYOR
Y = 369580.10
X = 504705.84

T 30 N
27 26
34 35
R 20 W

CURVE PRL17
Δ = 40°19'22" (LT)
D = 2°30'00"
T = 841.48
L = 1612.92
R = 2291.83
LC = 1579.83
LCB = N 11°45'57" E
P.I STA = 144+71.93
P.I X = 505544.33
P.I Y = 369559.24

NOT TO SCALE

R-20-W R-19-W

STATE OF MINNESOTA

Houlton

JOSEPH

St. Croix

SHEET LOCATION

T-30-N
T-29-N

35/64 64 35 V E V

ANDERSON CAMP RD
142ND ST
150TH AVE
20TH ST
142ND AVE
14TH ST
15TH ST

13 19 22 23 24 25 26 27 30 31 34 35 36

COURSE TABLE			
FROM	TO	BEARING	DIST.
TIE111	PRW251	N 11°52'38" E	110.61'
PRW251	PRW252	N 09°34'35" E	227.74'
PRW252	PRW253	N 01°41'58" W	227.74'
PRW253	PRW254	N 06°38'58" W	220.76'
PRW254	PRW256	N 11°44'27" W	257.07'
PRW256	TIE206	N 08°23'44" W	299.09'
TIE206	TIE207	N 89°50'02" E	232.39'
TIE207	TIE208	N 89°50'02" E	115.95'
TIE208	PRW204	S 07°51'25" E	505.88'
PRW204	PRW203	S 06°28'28" E	255.25'
PRW203	PRW202	S 04°05'26" W	262.03'
PRW202	PRW201	S 02°42'09" W	262.63'
PRW201	TIE113	S 11°16'40" W	50.50'
TIE113	TIE112	S 89°56'30" W	122.13'
TIE112	TIE111	S 89°56'30" W	215.56'

POINT TABLE - STATION AND OUT		
POINT #	STATION	DIST.
TIE111	143+78.21	-210.32'
TIE112	144+27.78	0.00'
TIE113	144+52.01	119.57'
PRW251	145+00.00	-210.00'
PRW201	145+00.00	120.00'
PRW252	147+50.00	-200.00'
PRW202	147+50.00	100.00'
PRW253	150+00.00	-210.00'
PRW203	150+00.00	115.00'
PRW254	152+43.37	-215.00'
PRW204	152+43.37	110.00'
PRW256	155+00.00	-230.00'
TIE208	157+49.23	114.76'
TIE207	157+65.82	0.00'
TIE206	157+99.09	-230.00'

PLSS TIE TABLE			
FROM	TO	BEARING	DIST.
SEC2621	TIE111	N 89°56'30" E	474.59'
SEC2621	OTR2611	N 00°16'08" E	2653.27'
OTR2611	SIX2616	S 00°16'08" W	1326.63'
SIX2616	TIE206	N 89°50'02" E	400.72'
SEC2621	SIX2616	N 00°16'08" E	1326.63'

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES OR (S.F.) REQUIRED			PLE, TLE ACRES OR (SF)
			NEW	EXISTING	TOTAL	
4	LAVERNE ANDERSON FAMILY TRUST	FEE	10.03	0.00	10.03	-.--

UTILITY EASEMENTS	
PARCEL	DOCUMENT / V&PG
4	283565 / V 421, PG 292
4	193097A / V 256, PG 184

REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN ST. CROIX COUNTY, AS SHEET 2 OF 2 OF DOCUMENT NO. 963270 OF TPP'S FOR ADDITIONAL INFORMATION.

ORIGINAL ACCESS CONTROL ALONG STH 64/35 ESTABLISHED BY STATUTES 84.09 AND 84.295 AS DEPICTED ON PREVIOUS PROJECT 1550-00-21 (1996).

0 100 200

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

DANIEL ANDERSON — PRINTED NAME — SIGNATURE — 01/29/2013 DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

MICHAEL PILLER — PRINTED NAME — SIGNATURE — 01/29/2013 DATE

FILE NAME : p:\PDS\Projects\81100201_STH64_Stillwater Bridge\RW PLATS\DGN_PDF\TPP Sheets\81100201_TPP_PLAT.dgn 31-JUL-2013 18:31 PLOT BY : dotcxm PLOT NAME : PLOT SCALE : 200.000000:1.000000

APPRAISAL PLAT DATE :

4.

TRANSPORTATION PROJECT PLAT NO: 8110-02-21 - 4.04

PART OF THE NW 1/4 OF THE SW 1/4 OF SECTION 26, T 30 N, R 20 W,
TOWN OF ST. JOSEPH, ST. CROIX COUNTY, WISCONSIN.

RELOCATION ORDER STH 64 STILLWATER-SOMERSET (ST. CROIX RIVER BRIDGE APPROACH (WI)) ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY, WISCONSIN AT 2:37PM ON 09/24/2012 AS DOCUMENT # 964033 AND FILED IN VOL. TPP 1 PG. 82

BETH PABST
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8110-02-21-4.04
AMENDMENT NO:

PLS TIE TABLE			
FROM	TO	BEARING	DIST.
SEC2621	OTR2611	N 00°16'08" E	2653.27'
OTR2611	SIX2616	S 00°16'08" W	1326.63'
SIX2616	TIE206	N 89°50'02" E	400.72'

OTR2611
ALUM. CAP
ST. CROIX CO. SURVEYOR
Y = 372233.34
X = 504718.30

T 30 N
27 26
R 20 W

SEE SHEET 4.08

TIE402 PRW454 TIE403 TIE404 TIE401 P.L. QUARTER LINE P.L. PRW406 LINE LINE

NTS
TIE402
QUARTER LINE
LINE
1550-00-21 RW
ACQUIRED IN 1996
TIE401
SECTION
DETAIL

TOWN

101

STH 64 EB

6
DOC #835574
TAX PARCEL ID
030-2044-60-000

PRW404

NW-SW
26-30-20

PRW453 PRW403

OF

SLOPE INTERCEPTS (TYP.)

N 08°23'44" W R.

165

PRW452 PRW402

160

PRW451 PRW401

SIX2616

SECTION

SIXTEENTH P.L. P.L. LINE

TIE206 TIE207 TIE208

SEE SHEET 4.02

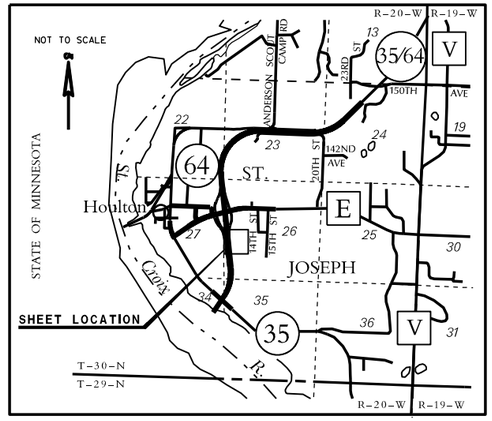
GN

ST. JOSEPH

SIXTEENTH LINE

2 3TP
09/24/2012
964033
VOL. TPP 1, PG. 82
BETH PABST

NOT TO SCALE



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER(S)	INTEREST REQUIRED	R/W ACRES OR (S.F.) REQUIRED			PLE, TLE ACRES OR (SF)
			NEW	EXISTING	TOTAL	
6	MARY M. GILBERT	FEE	11.41	0.00	11.41	-.--

COURSE TABLE			
FROM	TO	BEARING	DIST.
OTR2611	PRW454	N 89°43'34" E	102.77'
PRW454	TIE403	N 89°43'34" E	328.29'
TIE403	TIE404	N 89°43'34" E	166.41'
TIE404	PRW406	S 01°44'28" E	84.10'
PRW406	PRW404	S 00°08'06" W	404.47'
PRW404	PRW403	S 11°49'45" E	250.45'
PRW403	PRW402	S 09°32'29" E	250.05'
PRW402	PRW401	S 08°23'44" E	325.00'
PRW401	TIE208	S 07°51'25" E	25.77'
TIE208	TIE207	S 89°50'02" W	115.95'
TIE207	TIE206	S 89°50'02" W	232.39'
TIE206	PRW451	N 08°23'44" W	100.91'
PRW451	PRW452	N 11°15'29" W	300.37'
PRW452	PRW453	N 03°37'55" W	301.04'
PRW453	PRW454	N 17°31'29" W	661.80'
PRW454	TIE402	S 89°43'34" W	88.35'
TIE402	TIE401	S 29°30'48" W	29.50'
TIE401	OTR2611	N 00°16'08" E	25.61'

POINT TABLE - STATION AND OUT		
POINT #	STATION	DIST.
TIE208	157+49.23	114.76'
TIE207	157+65.82	0.00'
PRW401	157+75.00	115.00'
TIE206	157+99.09	-230.00'
PRW451	159+00.00	-230.00'
PRW402	161+00.00	115.00'
PRW452	162+00.00	-245.00'
PRW403	163+50.00	110.00'
PRW453	165+00.00	-220.00'
PRW404	166+00.00	95.00'
PRW406	170+00.00	155.00'
TIE404	170+83.53	164.75'
TIE403	171+07.04	0.00'
TIE401	171+42.63	-430.60'
PRW454	171+53.42	-325.00'
TIE402	171+65.90	-412.47'
OTR2611	171+67.94	-426.74'

SEC2621
ALUM. CAP
ST. CROIX CO. SURVEYOR
Y = 369580.10
X = 504705.84

T 30 N
27 26
34 35
R 20 W

REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN ST. CROIX COUNTY, AS SHEET 2 OF 2 OF DOCUMENT NO. 963270 OF TPP'S FOR ADDITIONAL INFORMATION.

ORIGINAL ACCESS CONTROL ALONG STH 64/35 ESTABLISHED BY STATUTES 84.09 AND 84.295 AS DEPICTED ON PREVIOUS PROJECT 1550-00-21 (1996).

SCALE, FEET
0 100 200

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

DANIEL ANDERSON — PRINTED NAME — SIGNATURE — 09/19/2012 — DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

MICHAEL PILLER — PRINTED NAME — SIGNATURE — 09/19/2012 — DATE

Michael Piller 09/19/2012
09/19/2012

FILE NAME : p:\PDS\Projects\81100201_STH64_Stillwater Bridge\RW PLATS\DGN_PDF\TPP Sheets\81100221704.dgn
APPRAISAL PLAT DATE :
PLOT DATE : 31-JUL-2013 18:33
PLOT BY : dotcxm
PLOT NAME :
PLOT SCALE : 200.000000:1.000000

4.

TRANSPORTATION PROJECT PLAT NO: 8110-02-21 - 4.08 AMENDMENT NO. 1

AMENDS PARCEL 13 OF TPP 8110-02-21-4.08, RECORDED AS DOCUMENT 964034. BEING PART OF THE SW 1/4 OF THE NW 1/4 OF SECTION 26, T 30 N, R 20 W, TOWN OF ST. JOSEPH, ST. CROIX COUNTY, WISCONSIN.

RELOCATION ORDER STH 64 STILLWATER-SOMERSET (ST. CROIX RIVER BRIDGE APPROACH (WI)) ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY, WISCONSIN AT 3:12 PM ON 12/17/2012 AS DOCUMENT # 969636 AND FILED IN VOL. TPP1, PG. 86

BETH PABST
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8110-02-21-4.08
AMENDMENT NO: 1

SEC2225
ALUM. CAP
ST. CROIX CO. SURVEYOR
Y = 374892.46
X = 504719.00

T 30 N
22 23
27 26
R 20 W

GN

AT&T WISCONSIN

SEE SHEET 4.12

TIE801 SIX2606 SIXTEENTH LINE SIX2607 TIE802

CUR PRL2

CTH "E" EB 40

P.C. 41+28.52

TLE FOR DRIVEWAY

TIE803

TLE801 TLE802 TLE803

EXISTING RW

LINE

TOWN

N 73°17'57" E R

STH 35 EB 35

STA. 181+79.18 STH 64 EB
= STA. 35+67.86 CTH "E"
Y = 373296.05
X = 504992.81

TIE702

PRW806 PRW807

SEE SHEET 4.09

180

N 08°23'44" W R

EXISTING RW

PRW803

OF

SLOPE INTERCEPTS (TYP.)

SW-NW
26-30-20

PRW802

175 STH 64 EB

13

DOC #368215
TAX PARCEL ID
030-2043-60-000

SECTION

PRW757

PRW801

ST. JOSEPH

SIXTEENTH

P.L.

SEE SHEET 4.07

OTR2611
ALUM. CAP
ST. CROIX CO.
SURVEYOR
X = 504718.30
Y = 372233.34

T 30 N
27 26
R 20 W

QUARTER

P.L.

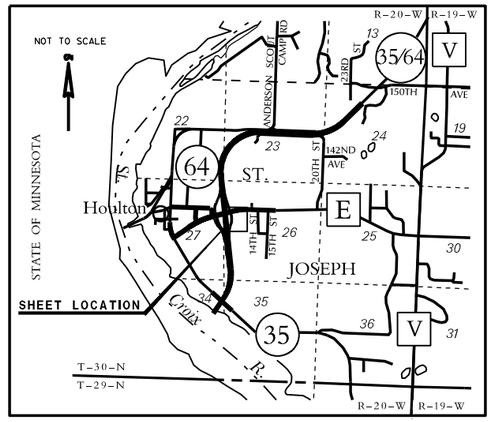
LINE

SEE SHEET 4.04

TIE403 TIE404

CURVE PRL2
Δ = 16°12'48" (RT)
D = 2°30'00"
T = 326.45
L = 648.53
R = 2291.83
LC = 646.37
LCB = N 81°24'20" E
PI STA = 44+54.97
PI X = 505842.50
PI Y = 373550.98

POINT TABLE - STATION AND OUT		
POINT #	STATION	DIST.
STH 64 EB		
TIE404	170+83.53	164.75'
TIE403	171+07.04	0.00'
OTR2611	171+67.94	-426.74'
PRW801	173+00.00	190.00'
PRW757	173+48.76	-400.00'
PRW802	175+00.00	295.00'
PRW803	177+06.31	371.41'
TIE801	184+49.27	0.00'
SIX2606	184+83.20	-232.26'
CTH E		
TIE702	32+81.52	0.00'
PRW806	42+27.46	201.70'
PRW807	44+54.97	189.10'
TIE803	46+39.63	162.87'
TIE802	46+51.20	0.00'
SIX2607	46+52.22	-15.56
TLE801	46+05.00	168.89'
TLE802	46+05.00	215.00'
TLE803	46+35.54	215.00'



SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES OR (S.F.) REQUIRED			PLE, TLE ACRES OR (SF)
			NEW	EXISTING	TOTAL	
13	RICHARD E. & VERONICA DURAND	FEE,AR,TLE	9.22	0.00	9.22	0.03

COURSE TABLE			
FROM	TO	BEARING	DIST.
OTR2611	PRW757	N 00°00'54" E	182.78'
PRW757	TIE702	N 00°00'54" E	797.64'
TIE702	SIX2606	N 00°00'54" E	349.14'
SIX2606	TIE801	N 89°54'59" E	234.73'
TIE801	SIX2607	N 89°54'59" E	1089.85'
SIX2607	TIE802	S 00°08'31" W	15.59'
TIE802	TIE803	S 00°08'31" W	163.25'
TIE803	PRW807	S 75°01'38" W	172.44'
PRW807	PRW806	S 75°09'13" W	208.40'
PRW806	PRW803	S 31°11'04" W	474.06'
PRW803	PRW802	S 11°55'38" W	220.00'
PRW802	PRW801	S 19°18'14" W	225.89'
PRW801	TIE404	S 01°44'28" E	217.94'
TIE404	TIE403	S 89°43'34" W	166.41'
TIE403	OTR2611	S 89°43'34" W	431.06'

PLS TIE TABLE			
FROM	TO	BEARING	DIST.
OTR2611	SEC2225	N 00°00'54" E	2659.13'
SEC2225	SIX2606	S 00°00'54" W	1329.56'

SCALE, FEET
0 100 200

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

DANIEL ANDERSON — PRINTED NAME — SIGNATURE — 12/12/2012 DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

MICHAEL PILLER — PRINTED NAME — SIGNATURE — 12/12/2012 DATE

REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN ST. CROIX COUNTY, AS SHEET 2 OF 2 OF DOCUMENT NO. 963270 OF TPP'S FOR ADDITIONAL INFORMATION.

ORIGINAL ACCESS CONTROL ALONG STH 64/35 ESTABLISHED BY STATUTES 84.09 AND 84.295 AS DEPICTED ON PREVIOUS PROJECT 1550-00-21 (1996).

GN

REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN ST. CROIX COUNTY, AS SHEET 2 OF 2 OF DOCUMENT NO. 963270 OF TPP'S FOR ADDITIONAL INFORMATION.

ORIGINAL ACCESS CONTROL ALONG STH 64/35 ESTABLISHED BY STATUTES 84.09 AND 84.295 AS DEPICTED ON PREVIOUS PROJECT 1550-00-21 (1996).

*NON-MONUMENTED RIGHT OF WAY PURCHASED ON PREVIOUS PROJECT 1550-00-21 IN 1996 AND IS RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN ST. CROIX COUNTY, AS DOCUMENT 549027. EXISTING RIGHT OF WAY IS ADJUSTED TO FIT PLSS LINES AND HIGHWAY EASEMENTS ON RECORD.

EXISTING RIGHT OF WAY DIMENSIONS FOR CTH "E" ARE MEASURED FROM THE EAST-WEST SIXTEENTH LINE.

TRANSPORTATION PROJECT PLAT NO: 8110-02-21 - 4.11

LOCATED IN THE NE 1/4 OF THE NE 1/4 OF SECTION 27, T 30 N, R 20 W, TOWN OF ST. JOSEPH, ST. CROIX COUNTY, WISCONSIN.

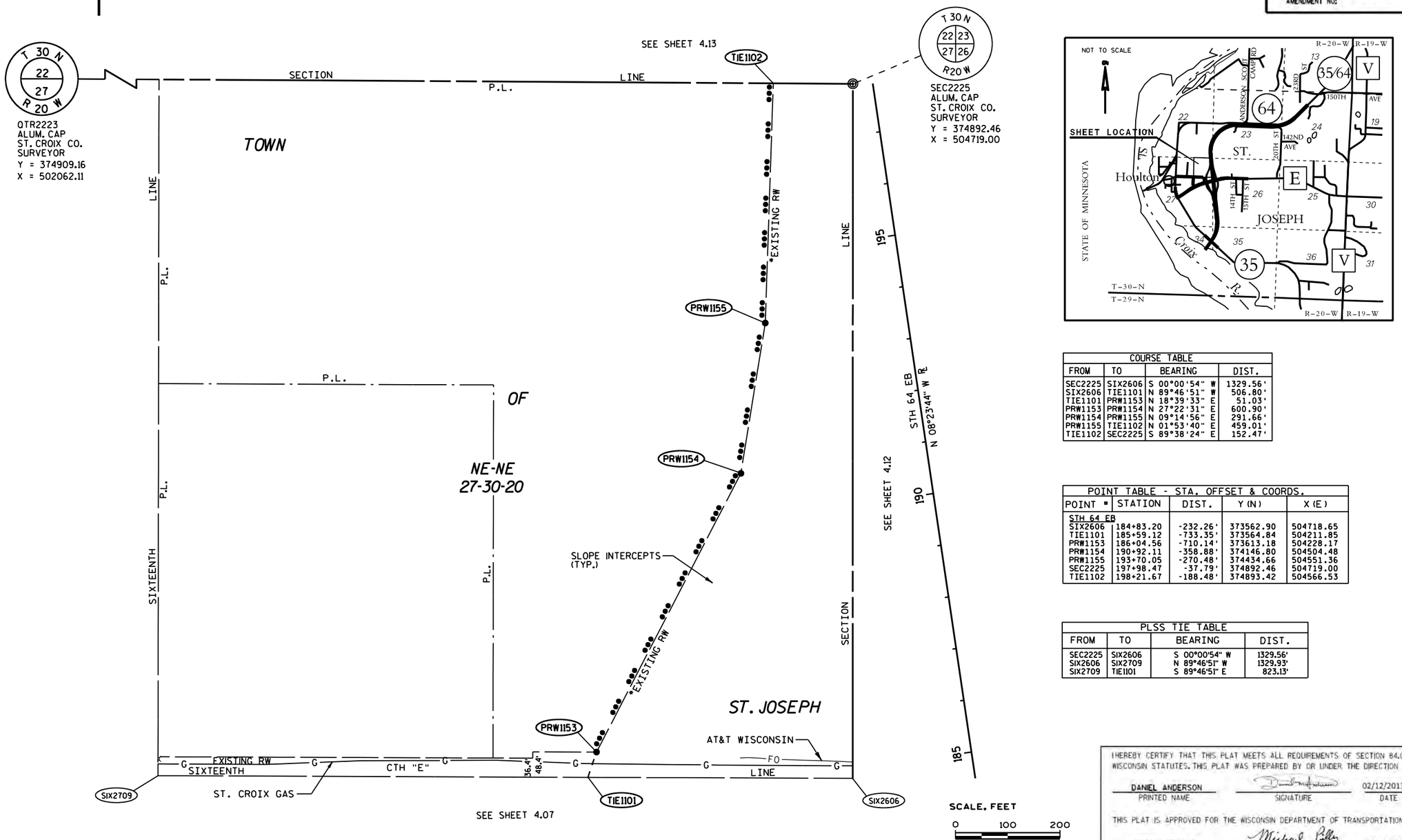
STH 64 STILLWATER-SOMERSET (ST. CROIX RIVER BRIDGE APPROACH (WI)) ST. CROIX COUNTY

THE STATE OF WISCONSIN HAS DEEMED IT NECESSARY TO MONUMENT RIGHT-OF-WAY INTERESTS PREVIOUSLY ACQUIRED UNDER SECTIONS 82.01, 82.31(1), 82.31(2), AND 84.09 OF THE WISCONSIN STATE STATUTES AND DOES HEREBY CERTIFY THE DEPARTMENT OF TRANSPORTATION HAS SURVEYED THE HIGHWAY RIGHT-OF-WAY; THAT THIS PLAT IS A TRUE AND CORRECT REPRESENTATION OF THE EXTERIOR BOUNDARIES OF THE LAND SURVEYED AND SHOWS ACCURATE MEASUREMENTS THEREOF.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY, WISCONSIN AT 2:49PM ON February 19, 2013 AS DOCUMENT # 973554 AND FILED IN VOL. TPP 1, PG. 90

BETH PABST
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8110-02-21-4.11
AMENDMENT NO:



COURSE TABLE			
FROM	TO	BEARING	DIST.
SEC2225	SIX2606	S 00°00'54" W	1329.56'
SIX2606	TIE1101	N 89°46'51" W	506.80'
TIE1101	PRW1153	N 18°39'33" E	51.03'
PRW1153	PRW1154	N 27°22'31" E	600.90'
PRW1154	PRW1155	N 09°14'56" E	291.66'
PRW1155	TIE1102	N 01°53'40" E	459.01'
TIE1102	SEC2225	S 89°38'24" E	152.47'

POINT TABLE - STA, OFFSET & COORDS.				
POINT #	STATION	DIST.	Y (N)	X (E)
STH 64 EB				
SIX2606	184+83.20	-232.26'	373562.90	504718.65
TIE1101	185+59.12	-733.35'	373564.84	504211.85
PRW1153	186+04.56	-710.14'	373613.18	504228.17
PRW1154	190+92.11	-358.88'	374146.80	504504.48
PRW1155	193+70.05	-270.48'	374434.66	504551.36
SEC2225	197+98.47	-37.79'	374892.46	504719.00
TIE1102	198+21.67	-188.48'	374893.42	504566.53

PLSS TIE TABLE			
FROM	TO	BEARING	DIST.
SEC2225	SIX2606	S 00°00'54" W	1329.56'
SIX2606	SIX2709	N 89°46'51" W	1329.93'
SIX2709	TIE1101	S 89°46'51" E	823.13'

SCALE, FEET
0 100 200

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

DANIEL ANDERSON — PRINTED NAME
SIGNATURE — 02/12/2013 DATE

THIS PLAT IS APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

MICHAEL PILLER — PRINTED NAME
Michael Piller — SIGNATURE — 02/12/2013 DATE

FILE NAME : p:\PDS\Projects\81100201_STH64_Stillwater Bridge\RW PLATS\DGN_PDF\TPP Sheets\81100201-4.11.dgn
PLOTTED ON: 31-JUL-2013 18:37
PLOT BY : dotcxm
PLOT NAME :
PLOT SCALE : 200.000000:1.000000
APPRAISAL PLAT DATE :

TRANSPORTATION PROJECT PLAT NO: 8110-02-21-4.12 AMENDMENT NO. 1

AMENDS PARCEL 18 OF TRANSPORTATION PROJECT PLAT 8110-02-21-4.12, RECORDED AS DOCUMENT NUMBER 964035 IN VOLUME 1, PAGE 84 OF TRANSPORTATION PROJECT PLATS.

PART OF THE NW 1/4 OF THE NW 1/4 OF SECTION 26, T 30 N, R 20 W,
TOWN OF ST. JOSEPH, ST. CROIX COUNTY, WISCONSIN.

RELOCATION ORDER STH 64 STILLWATER-SOMERSET (ST. CROIX RIVER BRIDGE APPROACH (WI)) ST. CROIX COUNTY

TO PROPERLY ESTABLISH, LAY OUT, WIDEN, ENLARGE, EXTEND, CONSTRUCT, RECONSTRUCT, IMPROVE, OR MAINTAIN A PORTION OF THE HIGHWAY DESIGNATED ABOVE, THE STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION DEEMS IT NECESSARY TO RELOCATE OR CHANGE SAID HIGHWAY AND ACQUIRE CERTAIN LANDS AND INTERESTS OR RIGHTS IN LANDS FOR THE ABOVE PROJECT.

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3) AND 84.09, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

ACCEPTED FOR RECORDING AND FILING IN THE OFFICE OF THE REGISTER OF DEEDS IN ST. CROIX COUNTY, WISCONSIN AT 3:17 PM ON 12/17/2012 AS DOCUMENT # 969537 AND FILED IN VOL TPP1, PG. 87

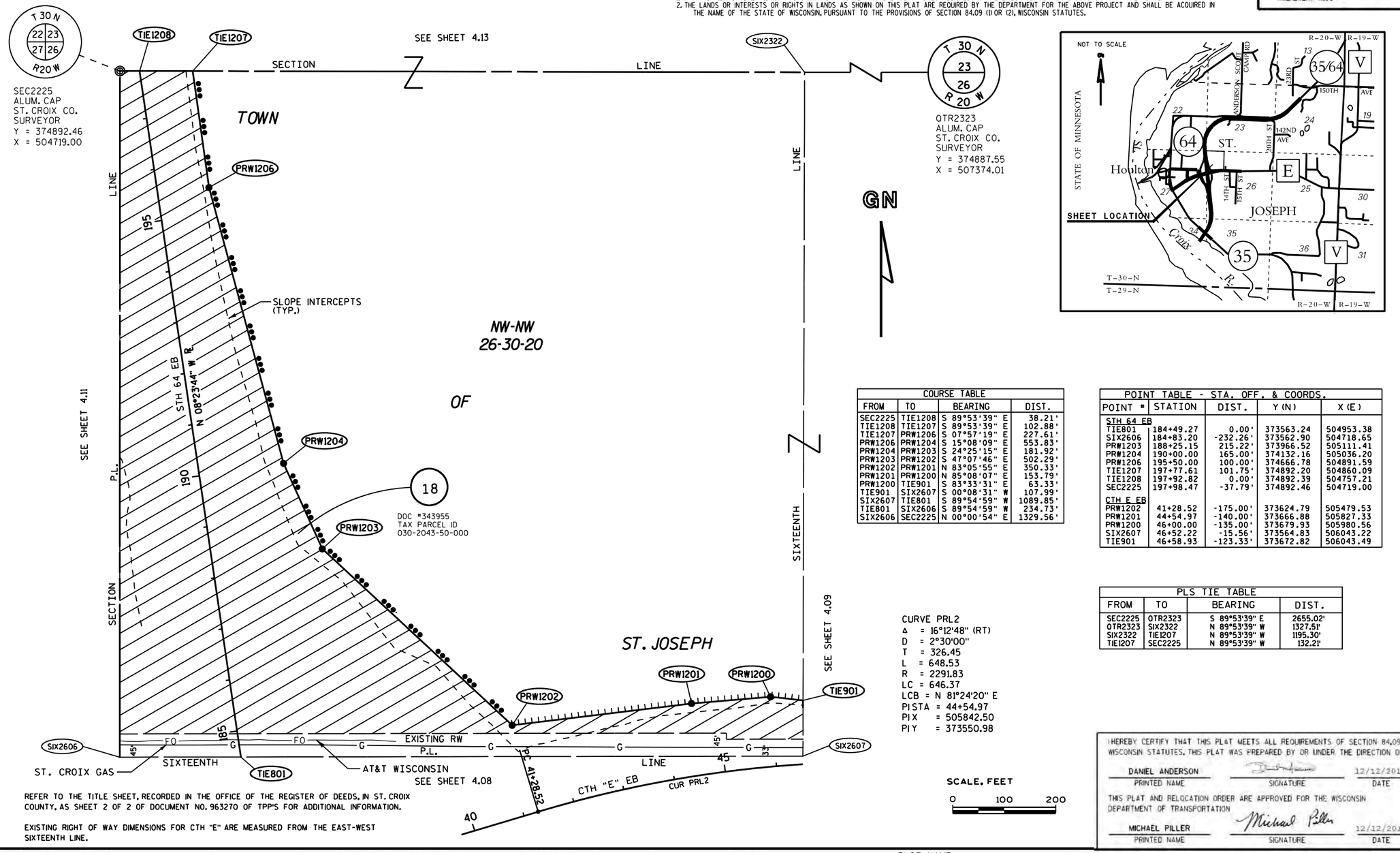
BETH PABST
SIGNATURE OF REGISTER OF DEEDS

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER 8110-02-21-4.12
AMENDMENT NO: 1

SCHEDULE OF LANDS & INTERESTS REQUIRED

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

PARCEL NUMBER	OWNER (S)	INTEREST REQUIRED	R/W ACRES OR (S.F.) REQUIRED			PLE, TLE ACRES OR (SF)
			NEW	EXISTING	TOTAL	
18	EDWARD & MARY GILLSTROM	FEE, AR	10.63	0.32	10.95	-.--



COURSE TABLE			
FROM	TO	BEARING	DIST.
SEC2225	TIE1208	S 89°53'39" E	38.21'
TIE1208	TIE1207	S 89°53'39" E	102.88'
TIE1207	PRW1206	S 07°57'19" E	227.61'
PRW1206	PRW1204	S 15°08'09" E	553.83'
PRW1204	PRW1203	S 24°25'15" E	181.92'
PRW1203	PRW1202	S 47°07'46" E	502.29'
PRW1202	PRW1201	N 83°05'55" E	350.33'
PRW1201	PRW1200	N 85°08'07" E	153.79'
PRW1200	TIE901	S 83°33'31" E	63.33'
TIE901	SIX2607	S 00°08'31" W	107.99'
SIX2607	TIE801	S 89°54'59" W	1089.85'
TIE801	SIX2606	S 89°54'59" W	234.73'
SIX2606	SEC2225	N 00°00'54" E	1329.56'

POINT TABLE - STA. OFF. & COORDS.				
POINT #	STATION	DIST.	Y (N)	X (E)
STH 64 EB				
TIE801	184+49.27	0.00'	373563.24	504953.38
SIX2606	184+83.20	-232.26'	373562.90	504718.65
PRW1203	188+25.15	215.22'	373966.52	505111.41
PRW1204	190+00.00	165.00'	374132.16	505036.20
PRW1206	195+50.00	100.00'	374666.78	504891.59
TIE1207	197+77.61	101.75'	374892.20	504860.09
TIE1208	197+92.82	0.00'	374892.39	504757.21
SEC2225	197+98.47	-37.79'	374892.46	504719.00
CTH E EB				
PRW1202	41+28.52	-175.00'	373624.79	505479.53
PRW1201	44+54.97	-140.00'	373666.88	505827.33
PRW1200	46+00.00	-135.00'	373679.93	505980.56
SIX2607	46+52.22	-15.56'	373564.83	506043.22
TIE901	46+58.93	-123.33'	373672.82	506043.49

CURVE PRL2
Δ = 16°12'48" (RT)
D = 2°30'00"
T = 326.45
L = 648.53
R = 2291.83
LC = 646.37
LCB = N 81°24'20" E
PISTA = 44+54.97
PIX = 505842.50
PIY = 373550.98

PLS TIE TABLE			
FROM	TO	BEARING	DIST.
SEC2225	QTR2323	S 89°53'39" E	2655.02'
QTR2323	SIX2322	N 89°53'39" W	1327.51'
SIX2322	TIE1207	N 89°53'39" W	1195.30'
TIE1207	SEC2225	N 89°53'39" W	132.21'

SCALE, FEET
0 100 200

REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS, IN ST. CROIX COUNTY, AS SHEET 2 OF 2 OF DOCUMENT NO. 963270 OF TPP'S FOR ADDITIONAL INFORMATION.

EXISTING RIGHT OF WAY DIMENSIONS FOR CTH "E" ARE MEASURED FROM THE EAST-WEST SIXTEENTH LINE.

I HEREBY CERTIFY THAT THIS PLAT MEETS ALL REQUIREMENTS OF SECTION 84.095, WISCONSIN STATUTES. THIS PLAT WAS PREPARED BY OR UNDER THE DIRECTION OF

DANIEL ANDERSON — PRINTED NAME — SIGNATURE — 12/12/2012 DATE

THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

MICHAEL PILLER — PRINTED NAME — SIGNATURE — 12/12/2012 DATE

FILE NAME : p:\PDS\Projects\81100201_STH64_Stillwater Bridge\RW PLATS\DGN_PDF\TPP Sheets\81100201_RW_PLAT_4.dgn
PLOT DATE : 31-JUL-2013 18:40
PLOT BY : dotcxm
PLOT NAME :
PLOT SCALE : 200.000000:1.000000
APPRAISAL PLAT DATE :

NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.

RESIDENTIAL WELLS PREVIOUSLY ABANDONED ACCORDING TO WISCONSIN ADMIN CODE NR 812. CASING PIPE TO BE CUT DURING EXCAVATION, INCIDENTAL TO COMMON EXCAVATION.

BP: 126+21.69

STH 64 EB

OBLITERATE ROADWAY

PC: 136+30.45

PROPOSED STRUCTURE B-55-225

R/W

SLOPE INTERCEPT

SHARED USE PATH

STH64 WB

STH64 EB

PT: 152+37.37

INSTALL MAINTENANCE CROSSOVER

SLOPE INTERCEPT

R/W

N

0 100 200 300 FEET

SCALE

5

5

STH64 E.B.

TEMPORARY GRADING BY MNDOT 8110-21 CONTRACTOR

EXISTING GROUND

STA 130+75.18 - STA 132+68.32 BY OTHERS. DIRECT COORDINATION REQUIRED DURING CONSTRUCTION.

PROPOSED PROFILE ON REF LINE

1.74%

FINISHED PROFILE GRADE BY OTHERS CONTRUCT ROADWAY TO 0.10' ABOVE BASE AGG DENSE, 1-1/4".

VPC STA 147+97.00S
VPC EL 872.42

VPI STA 154+72.00S
VPI EL 884.16

VCL = 1350.00

K = 602.63

STA 126+21.69
EL 834.57

END BRIDGE
STA 130+75.18

STA 132+30.18
EL 845.16

GRADING BEGINS
STA 131+75

EXISTING ELEVATION

PROPOSED ELEVATION

910.00 900.00 890.00 880.00 870.00 860.00 850.00 840.00 834.00

126 127 128 129 130 131 132 133 134 135 136 137 138 139 140 141 142 143 144 145 146 147 148 149 150 151 152 153 154 155 156

| | | |

NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.

EXISTING CTH E SHALL REMAIN OPEN TO TRAFFIC.

SHARED USE PATH

SW RAMP

STH64 WB

STH64 EB

SE RAMP

NE RAMP

PROPOSED STH 35

OLD CTH E

SLOPE INTERCEPT

R/W

SLOPE INTERCEPT

SEVERSON FARM
TEMPORARY FARM CROSSOVER

0 100 200 300 FEET
SCALE

STH64 E.B.

VPT STA 161+47.00S
VPT EL 880.79

HIGH POINT
Station=158+45.38
elev = 881.473

PROPOSED PROFILE ON REF LINE

EXISTING GROUND

FINISHED PROFILE GRADE BY OTHERS
CONTRUCT ROADWAY TO 0.10 ABOVE
BASE AGG DENSE, 1-1/4".

VCL = 1350.00
K = 602.63

VCL = 400.00
K = 363.57

CONSTRUCTION GAP. CTH E TO REMAIN OPEN AT ALL TIMES ON EXISTING ROADWAY.

LOW POINT
Station=178+53.49
elev = 872.764

-0.50%

0.60%

VPC STA 176+72.00S
VPC EL 873.16

VPI STA 178+72.00S
VPI EL 872.16

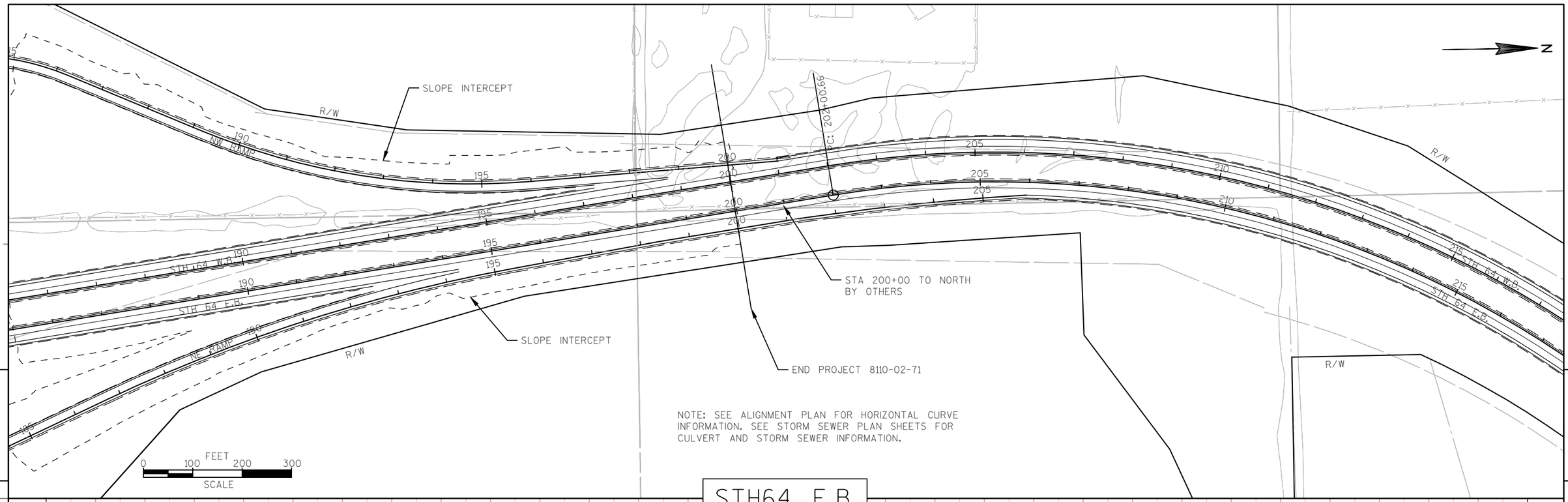
VPT STA 180+72.00S
VPT EL 873.36

EXISTING ELEVATION

PROPOSED ELEVATION

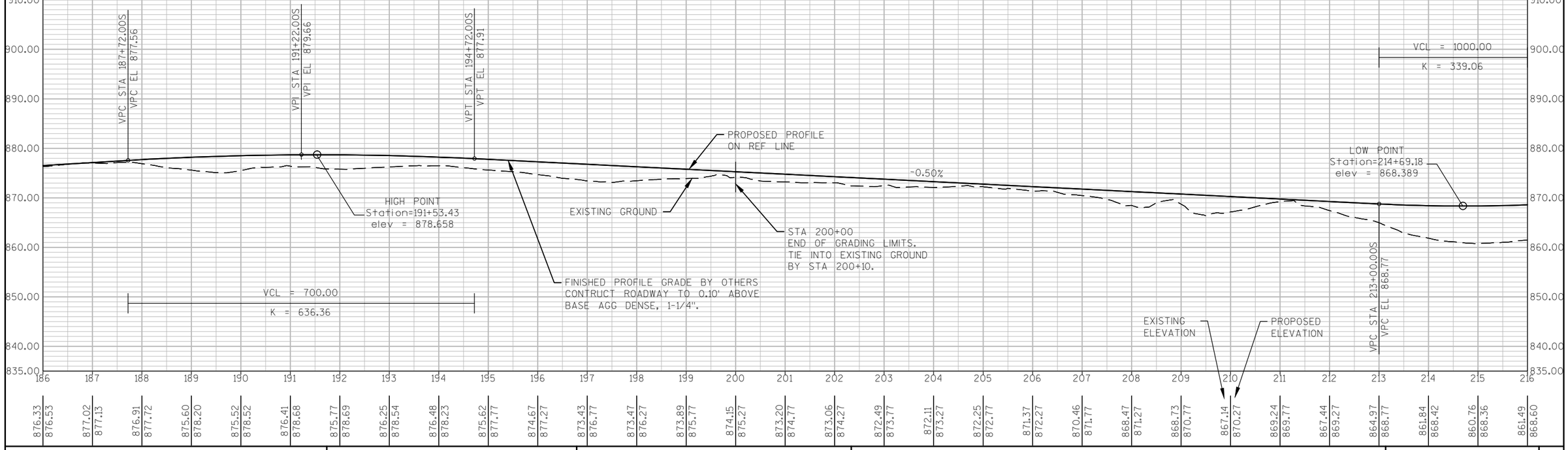
876.05	881.04
875.57	881.37
875.68	881.52
877.37	881.52
878.11	881.34
877.50	881.01
877.40	880.52
877.20	880.02
877.30	879.52
877.11	879.02
875.21	878.52
874.58	878.02
875.20	877.52
876.95	877.02
878.38	876.52
881.64	876.02
881.17	875.52
880.71	875.02
880.04	874.52
879.42	874.02
879.39	873.52
876.36	873.03
874.69	872.75
875.39	872.73
874.30	873.00
875.82	873.53
877.61	874.13
877.41	874.73
876.50	875.33
876.99	875.93
876.33	876.53

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN AND PROFILE: STH 64 EB	SHEET 97	E



NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.

STH64 E.B.



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN AND PROFILE: STH 64 EB	SHEET 98	E

NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.

N

BP: 126+21.69

STH35

272

270

258

266

264

PC: 135+54.22

SLOPE INTERCEPT

R/W

SHARED USE PATH

PROPOSED STRUCTURE B-55-225

STH64 WB

STH64 EB

PI: 152+15.44

PT: 151+67.14

152+43.37 = 152+15.44 AHEAD
152+15.44 = BACK

MAINTENANCE CROSSOVER

SLOPE INTERCEPT

R/W

R/W

STH35

0 100 200 300 FEET
SCALE

STH64 W.B.

EXISTING GROUND

TEMPORARY GRADING BY MNDOT 8110-21 CONTRACTOR

VPC STA 133+31.85
VPC EL 846.93

VPI STA 135+11.73
VPI EL 850.05

VPC STA 136+91.61
VPC EL 852.36

VPT STA 136+91.61
VPT EL 852.36

VPI STA 137+21.61
VPI EL 852.74

VPT STA 137+51.61
VPT EL 853.21

VPC STA 150+55.72
VPC EL 873.69

1.74%

1.74%

1.57%

VCL = 359.76
K = 783.80

VCL = 60.00
K = 207.01

VCL = 1200.00
K = 579.64

PROPOSED PROFILE

FINISHED PROFILE GRADE BY OTHERS CONTRUCT ROADWAY TO 0.10' ABOVE BASE AGG DENSE, 1-1/4".

EXISTING ELEVATION

PROPOSED ELEVATION

126	127	128	129	130	131	132	133	134	135	136	137	138	139	140	141	142	143	144	145	146	147	148	149	150	151	152	153	154	155	156
684.06	733.81	765.41	797.56	838.16	865.90	874.64	873.75	874.19	870.36	870.10	871.25	872.79	874.90	875.80	874.74	876.10	875.74	875.36	873.03	872.15	873.41	877.09	879.05	878.43	877.50	876.86	876.24	876.77	876.62	
835.92	837.67	839.41	841.15	842.89	844.63	846.37	848.08	849.67	851.13	852.47	853.97	855.54	857.11	858.68	860.25	861.82	863.39	864.96	866.53	868.10	869.67	871.24	872.81	874.37	875.77	876.68	877.79	878.73	879.49	

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN AND PROFILE: STH 64 WB	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\050102_PP_64WB_71.DWG
PLOT DATE : 10/2/2013 9:18 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.

N

SLOPE INTERCEPT

R/W

SHARED USE PATH

SW RAMP

NOTE: CTH E TRAFFIC TO REMAIN OPEN. AREA TO BE CONSTRUCTED BY OTHERS.

PROPOSED STH 35

SLOPE INTERCEPT

STH64 WB

STH64 EB

STH 35 STRUCTURE BY OTHERS

SLOPE INTERCEPT

R/W

SE RAMP

0 100 FEET 200 300
SCALE

5

5

STH64 W.B.

VPI STA 156+83.65
VPI EL 883.11

VPT STA 162+83.65
VPT EL 880.11

PROPOSED PROFILE ON REF LINE

VCL = 400.00
K = 363.55

CONSTRUCTION GAP. STH E TO REMAIN OPEN AT ALL TIMES ON EXISTING ROADWAY.

LOW POINT
Station=178+53.49
elev = 872.741

HIGH POINT
Station=159+93.47
elev = 880.784

-0.50%

0.60%

EXISTING GROUND

FINISHED PROFILE GRADE BY OTHERS CONTRUCT ROADWAY TO 0.10' ABOVE BASE AGG DENSE, 1-1/4".

VPC STA 176+72.00
VPC EL 873.16

VPT STA 180+72.00
VPT EL 873.36

VPI STA 178+72.00
VPI EL 872.16

VCL = 1200.00
K = 579.64

EXISTING ELEVATION

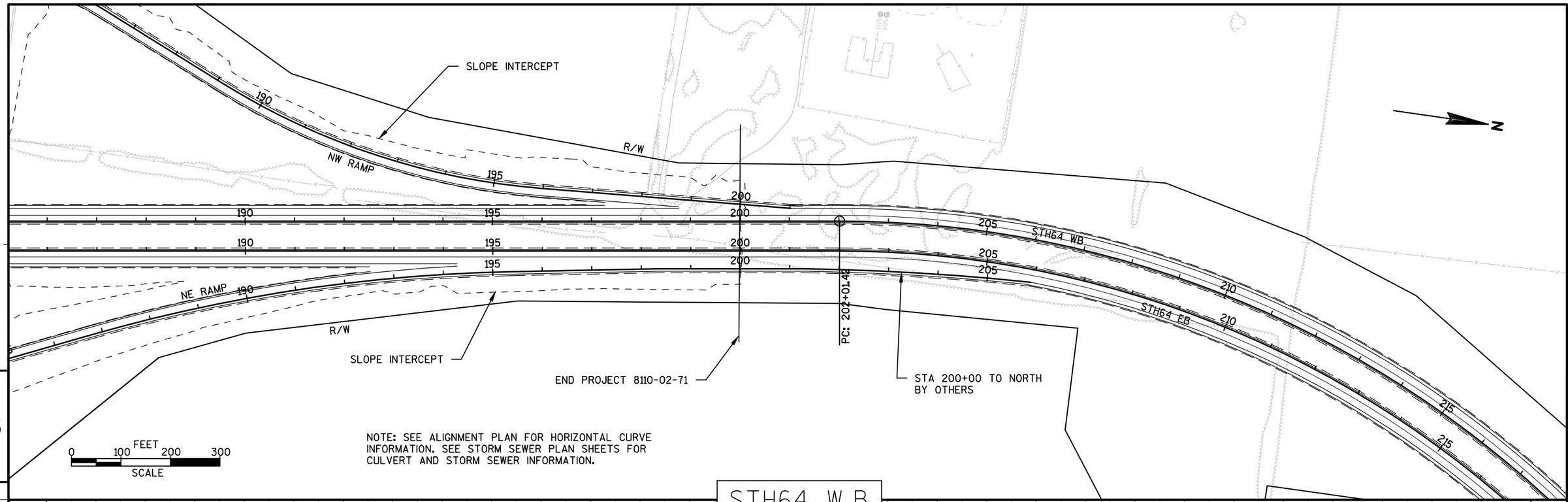
PROPOSED ELEVATION

910.00 900.00 890.00 880.00 870.00 860.00 850.00 840.00

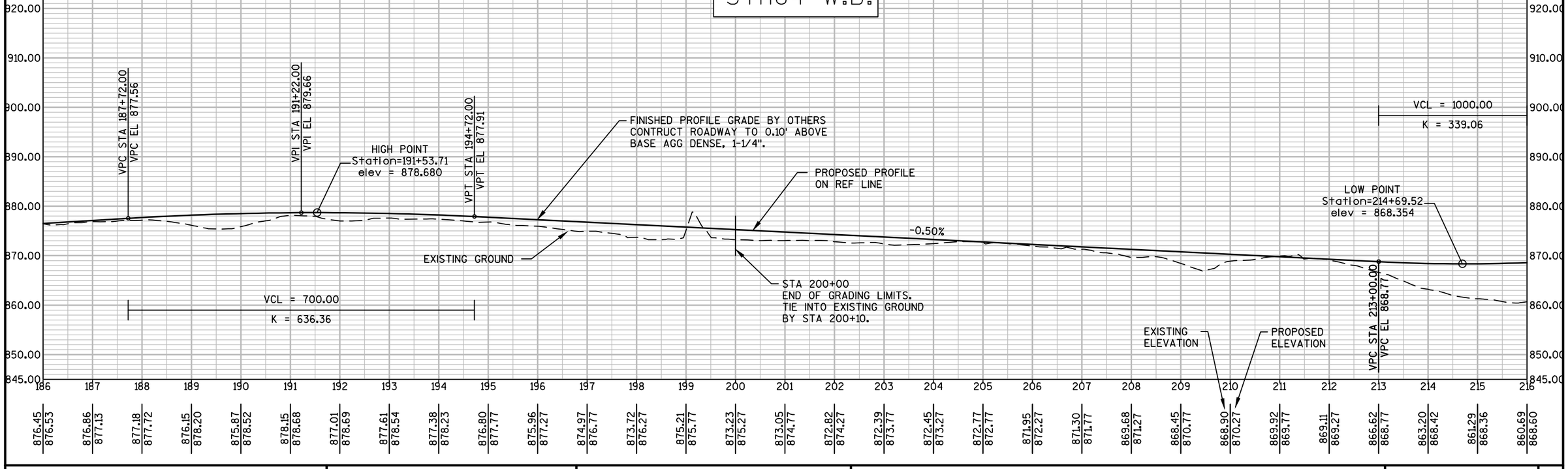
156	157	158	159	160	161	162	163	164	165	166	167	168	169	170	171	172	173	174	175	176	177	178	179	180	181	182	183	184	185	186
876.62	876.23	875.02	876.27	877.84	877.62	877.08	876.47	876.41	877.00	875.79	874.62	874.91	876.12	878.01	880.27	880.99	881.74	881.74	880.30	879.71	878.12	875.40	875.73	874.82	876.11	877.60	877.59	876.92	877.35	876.45
879.49	880.09	880.51	880.76	880.83	880.73	880.46	880.02	879.52	879.02	878.52	878.02	877.52	877.02	876.52	876.02	875.52	875.02	874.52	874.02	873.52	873.03	872.75	872.73	873.00	873.53	874.13	874.73	875.33	875.93	876.53

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN AND PROFILE: STH64 WB	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\050102_PP_64WB_71.DWG PLOT DATE : 10/2/2013 9:18 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44



STH64 W.B.



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN AND PROFILE: STH 64 WB	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\SHEETSPLAN\8110-02-71\050102_PP_64WB_71.DWG PLOT DATE : 10/2/2013 9:18 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 44

NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.

STH 35 (BY OTHERS)
R/W
EXISTING CTH E
PC: 182+32.11
BP: 180+38.27
PI: 186+24.79
PC: 189+14.22
PT: 195+95.18
SLOPE INTERCEPT
R/W
NW RAMP
SLOPE INTERCEPT CONSTRUCTION GAP
SHARED USE PATH
SW RAMP
STH 64 W.B.
STH 64 E.B.
NE RAMP
SLOPE INTERCEPT
R/W
N
0 100 200 300 FEET
SCALE

NW RAMP

STA 180+38.27
EL 892.19
VPC STA 183+61.00
VPC EL 889.92
VPI STA 185+11.00
VPI EL 888.86
VPT STA 186+61.00
VPT EL 887.09
-0.70%
CONSTRUCTION GAP (BY OTHERS)
TEMPORARY SLOPE 2:1
EXISTING CTH E TO REMAIN UNDISTURBED
TEMPORARY SLOPE 2:1
VCL = 300.00
K = 628.24
PROPOSED PROFILE ON REF LINE
EXISTING GROUND
-1.18%
ALIGNMENT BEGIN TO STA 194+00, CONSTRUCT TO TOP OF DATUM.
VCL = 240.00
K = 351.95
STA 194+00 TO ALIGNMENT END.INSTALL SELECT CRUSHED MATERIAL AND AGG BASE.
VPC STA 193+60.00
VPC EL 878.83
VPI STA 194+80.00
VPI EL 877.41
VPT STA 196+00.00
VPT EL 876.81
-0.50%
STA 198+76.58
EL 875.42
FINISHED PROFILE GRADE BY OTHERS CONTRUCT ROADWAY TO 0.10' ABOVE BASE AGG DENSE, 1-1/4".
EXISTING ELEVATION
PROPOSED ELEVATION

920.00 910.00 900.00 890.00 880.00 870.00 860.00 850.00 845.00

178 179 180 181 182 183 184 185 186 187 188 189 190 191 192 193 194 195 196 197 198 199 200 201 202 203 204

| | | |

NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.

N

SLOPE INTERCEPT

R/W

SLOPE INTERCEPT

R/W

SHARED USE PATH

SW RAMP

SE RAMP

STH64 WB

STH64 EB

PROPOSED STH 35

PI: 154+93.95

PI: 163+93.95

PC: 167+22.98

MH: 170+28.61

HH: 173+34.24

PC: 177+00.94

MH: 179+05.24

PI: 181+60.55

155+00

160+00

165+00

170+00

175+00

180+00

0 100 200 300 FEET

SCALE

5

5

SW RAMP

VCL = 782.41

K = 228.26

STA 176+00
TO ALIGNMENT END
CONSTRUCT TO TOP
OF DATUM SURFACE.

VPC STA 177+87.41
VPC EL 885.06

VPI STA 178+62.41
VPI EL 886.68

VPT STA 179+37.41
VPT EL 887.80

STA 181+82.82
EL 891.49

1.50%

2.16%

-1.27%

LOW POINT
Station=170+62.35
elev = 875.491

EXISTING GROUND

PROPOSED PROFILE
ON REF LINE

STA 165+76.68
EL 877.78

FINISHED PROFILE GRADE BY OTHERS
CONTRUCT ROADWAY TO 0.10' ABOVE
BASE AGG DENSE, 1-1/4".

VPC STA 167+71.45
VPC EL 876.58

VPI STA 171+62.65
VPI EL 871.60

VPT STA 175+53.86
VPT EL 880.03

ALIGNMENT BEGIN TO
STA 176+00 INSTALL
SELECT CRUSHED MATERIAL
AND AGG BASE.

VCL = 150.00

K = 229.64

EXISTING
ELEVATION

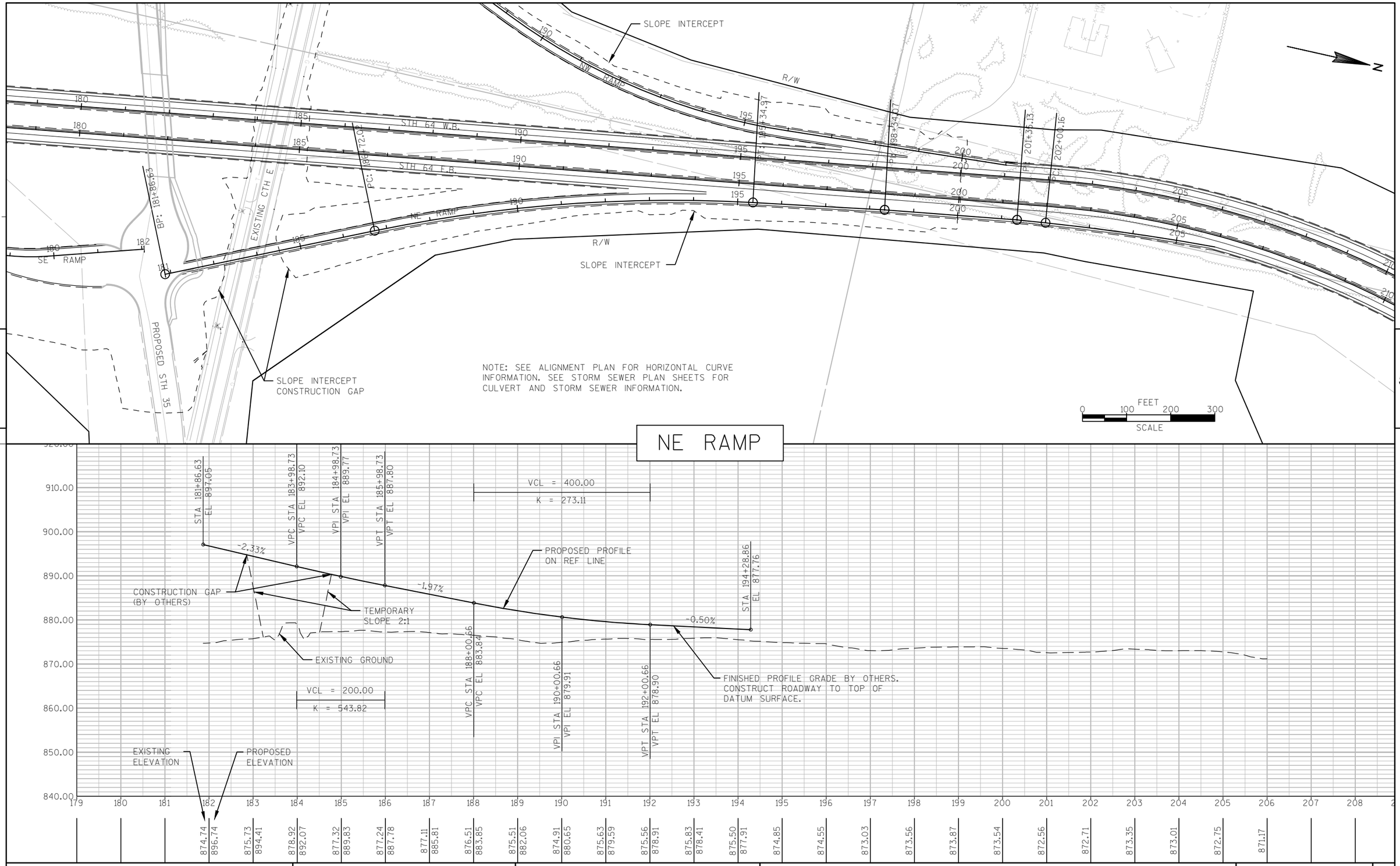
PROPOSED
ELEVATION

910.00
900.00
890.00
880.00
870.00
860.00
850.00
840.00
835.00

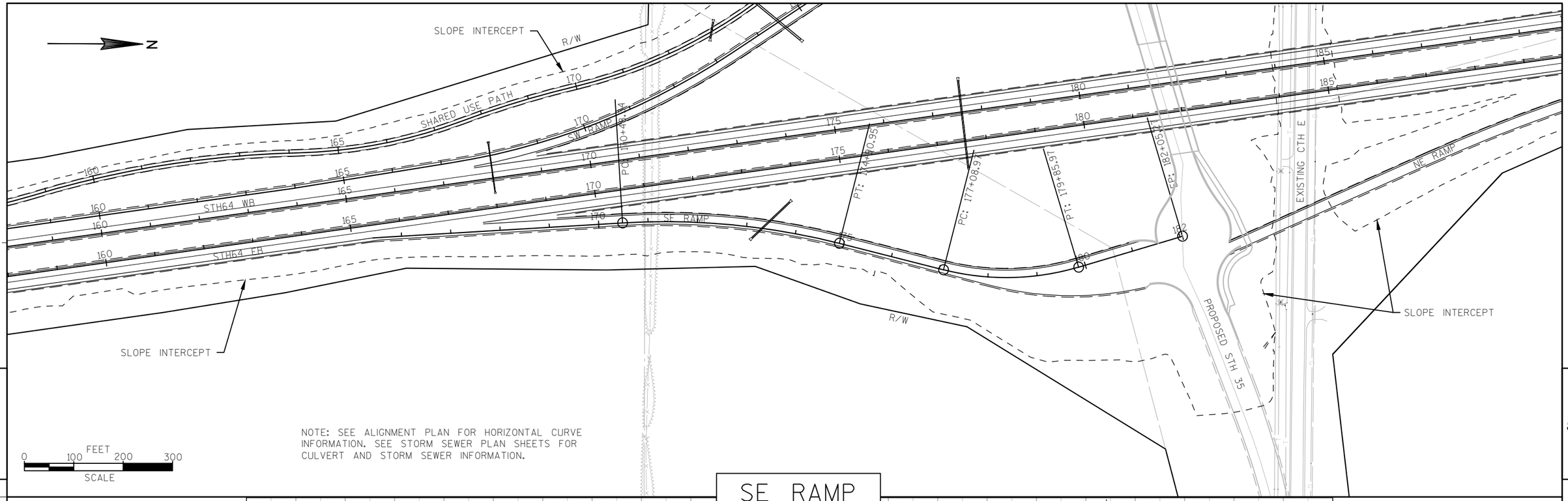
153 154 155 156 157 158 159 160 161 162 163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183

877.03 876.19 876.62 877.15 877.22 875.18 876.18 876.70 877.19 876.82 876.39 876.17 877.53 877.00 875.42 877.49 874.90 876.23 875.42 875.30 876.51 874.81 877.61 874.76 878.30 875.15 877.39 875.97 877.59 877.23 878.01 878.93 877.87 881.02 876.52 883.18 876.53 885.33 875.67 887.21 875.56 888.74 874.59 890.25

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN AND PROFILE: STH 64 SW RAMP	SHEET 103 E



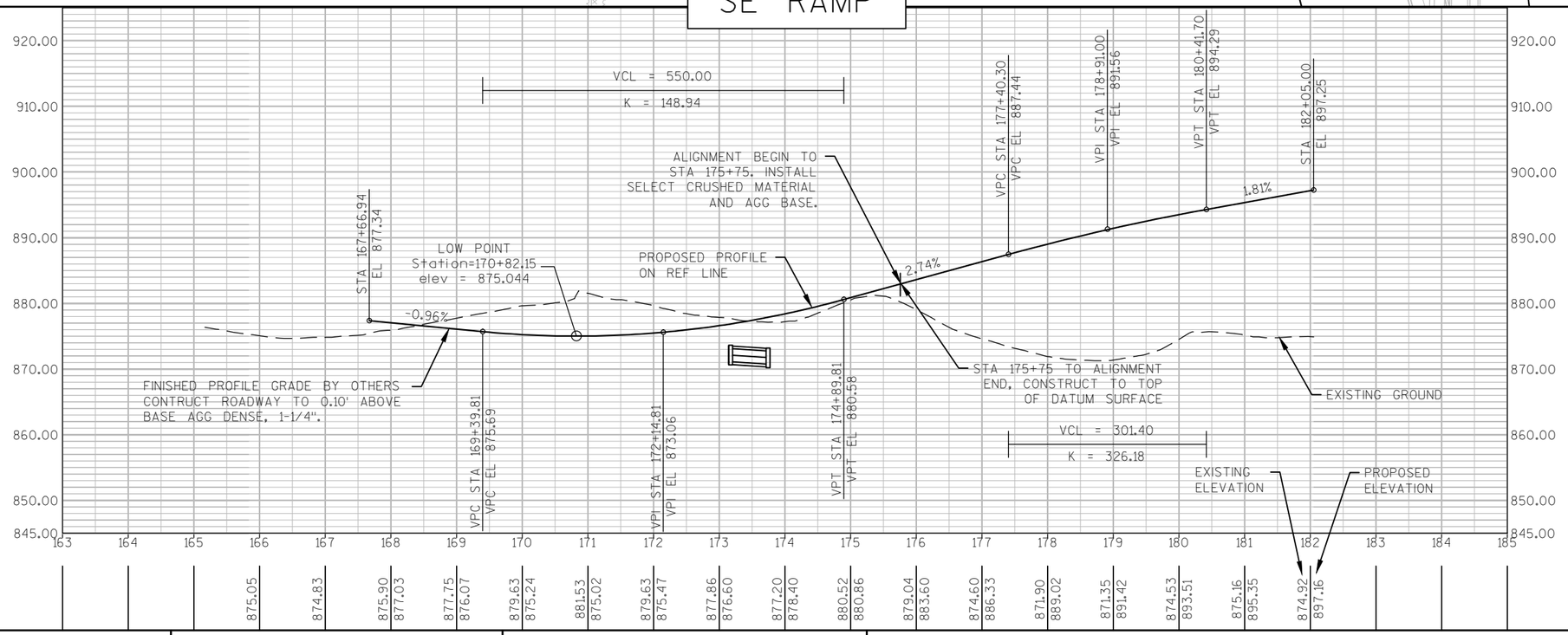
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN AND PROFILE: STH 64 NE RAMP	SHEET 104 E



5

5

SE RAMP



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN AND PROFILE: STH 64 SE RAMP	SHEET 105	E

NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.

PRIVATE RIVER ACCESS TRAIL BY OTHERS

CONCRETE APPROACH SLAB STA. 266+35.15 - 266+50.81

ASPHALTIC FUMES & RIP RAPPED

OBLITERATE OLD ROADWAY

CONCRETE APPROACH SLAB STA. 267+78.93 - 267+99.38

NOTE: SEE STH 35 PLAN FOR BEAM GUARD INFORMATION.

ASPHALT SAW CUT REQUIRED

ASPHALT SAW CUT REQUIRED

REMOVE SMALL CULVERT PIPE 18" CMP X 18 LF

CONCRETE SHOULDER

CONCRETE SHOULDER

REMOVE SMALL CULVERT PIPE 18" CMP X 42 LF

EXISTING 12" CMP TO REMAIN

B-55-225

STH 64 EB

STH 64 WB

BRIDGE POND

0 50 100 150 FEET

SCALE

STH 35

STA 262+40.00 EL 879.05

STA 264+31.00 EL 877.21

VPC STA 269+88.01 VPC EL 871.73

VPI STA 270+88.01 VPI EL 870.75

VPT STA 271+88.01 VPT EL 869.60

STA 272+10.00 EL 869.34

-0.96%

-0.98%

-1.15%

EXISTING GROUND

MATCH EXISTING STH 35 PROFILE GRADE

PROPOSED PROFILE ON REF LINE

MATCH EXISTING STH 35 PROFILE GRADE

VCL = 200.00

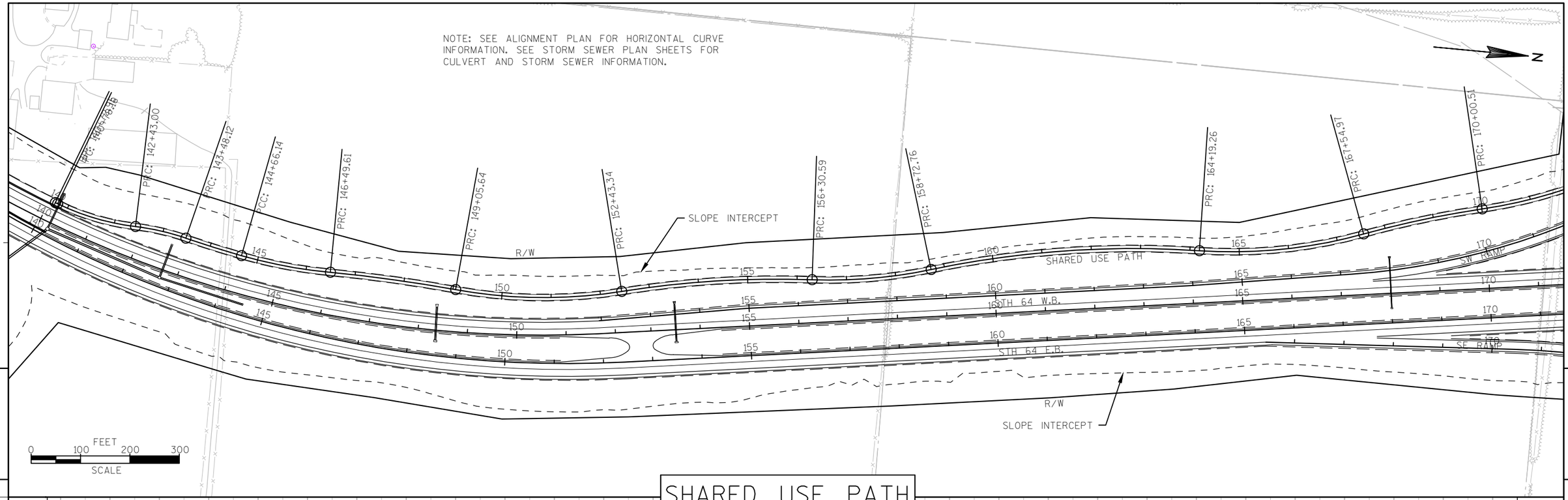
K = 1165.83

EXISTING ELEVATION

PROPOSED ELEVATION

| | | |

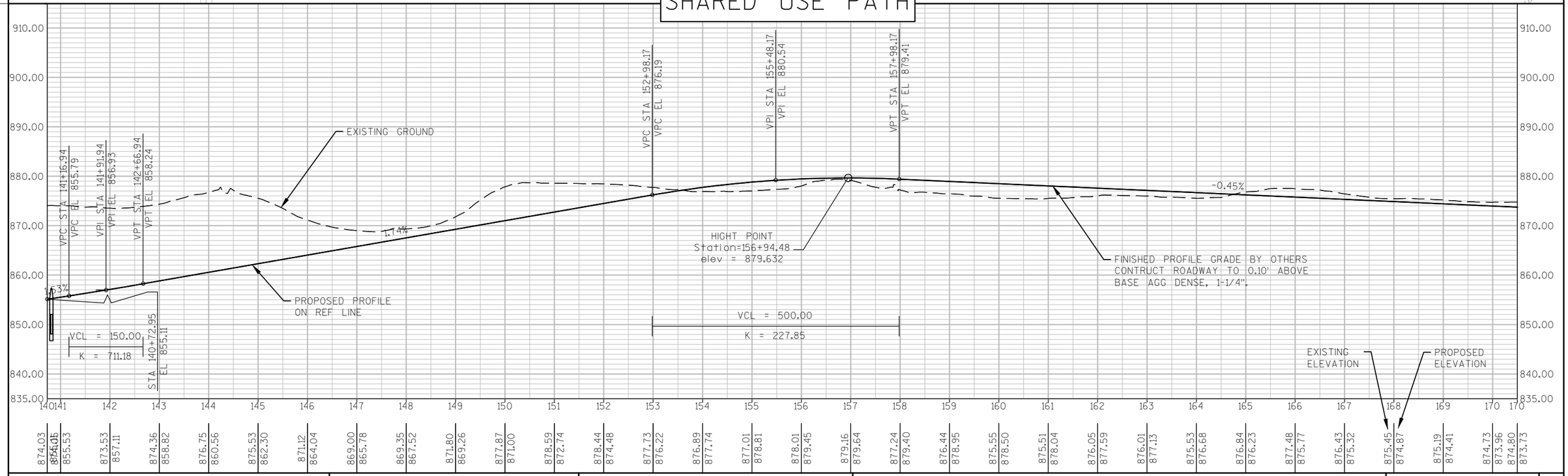
NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.



5

5

SHARED USE PATH



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN AND PROFILE: SHARED USE PATH	SHEET 107 E

NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.

N

PRC: 164+19.26
PRC: 167+54.97
PRC: 170+00.51
PT: 174+78.70
PC: 176+53.33
SLOPE INTERCEPT
PT: 178+75.46
PC: 179+27.89
PT: 180+51.94
PROPOSED STH 35
PC: 183+39.25
PT: 183+98.25
PC: 185+44.04
PT: 186+60.41
R/W
SHARED USE PATH
END CONSTRUCTION
STA 180+88 - 186+60
BY OTHERS
SLOPE INTERCEPT
R/W
STH 64 W.B.
STH 64 E.B.
SLOPE INTERCEPT
R/W
0 100 FEET 200 300
SCALE

5

5

SHARED USE PATH

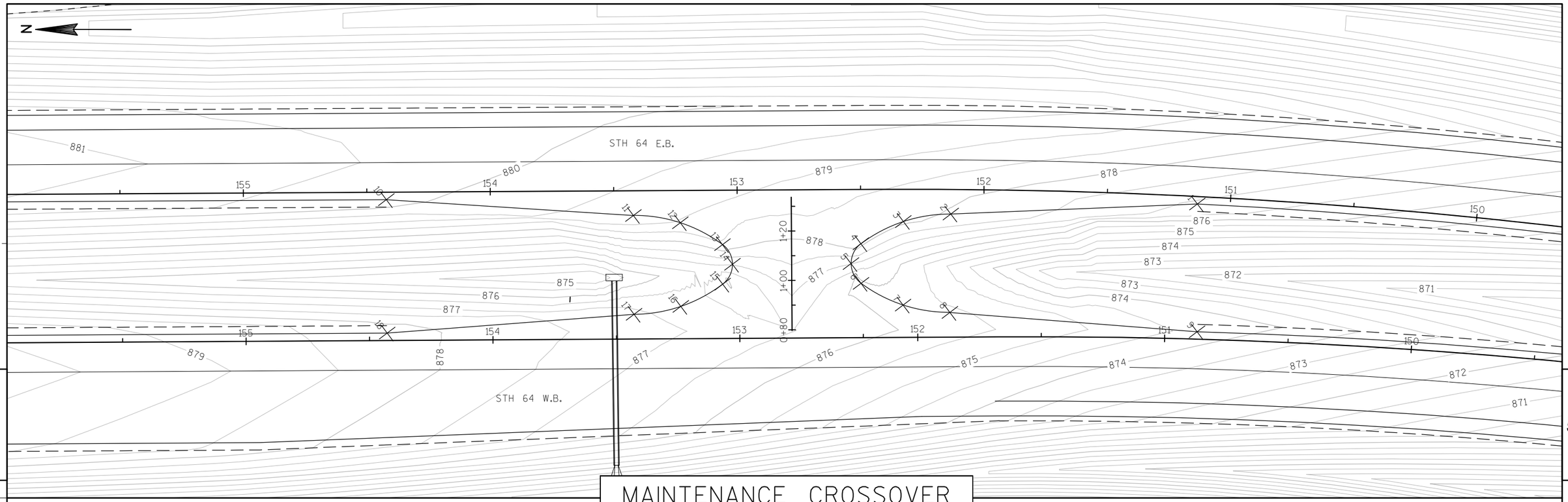
VCL = 300.00
K = 119.22
VCL = 200.00
K = 69.34
STA 180+88 - 186+60
GRADING & FINAL CONSTRUCTION
BY OTHERS
VPC STA 171+29.56
VPC EL 873.37
VPC STA 174+30.00
VPC EL 875.80
VPC STA 182+70.00
VPC EL 873.03
VPI STA 183+70.00
VPI EL 872.18
VPT STA 184+70.00
VPT EL 874.21
STA 186+00.00
EL 876.86
STA 186+66.99
EL 878.22
EXISTING GROUND
HIGH POINT
Station=176+42.30
elev = 877.946
-0.45%
2.03%
-0.85%
2.03%
PROPOSED PROFILE
ON REF LINE
LOW POINT
Station=171+82.80
elev = 873.265
VPI STA 172+79.56
VPI EL 872.69
VPT STA 174+29.56
VPT EL 875.79
VPI STA 175+80.00
VPI EL 878.89
VPT STA 177+30.00
VPT EL 877.62
STA 180+88
GRADING LIMITS
FINISHED PROFILE GRADE BY OTHERS
CONTRUCT ROADWAY TO 0.10' ABOVE
BASE AGG DENSE, 1-1/4".
LOW POINT
Station=183+28.99
elev = 872.892
VCL = 300.00
K = 103.01
EXISTING ELEVATION
PROPOSED ELEVATION

910.00 900.00 890.00 880.00 870.00 860.00 850.00 840.00 835.00

163 164 165 166 167 168 169 170 171 172 173 174 175 176 177 178 179 180 181 182 183 184 185 186 187

875.76	876.91	875.53	876.68	876.84	876.23	877.48	875.77	876.43	875.32	875.45	874.87	875.19	874.41	874.73	873.96	875.26	873.51	876.47	873.26	875.89	873.82	876.13	875.21	877.74	877.00	876.92	877.90	877.17	877.83	876.87	877.02	876.13	876.17	875.65	875.32	874.11	874.47	874.31	873.62	873.52	872.84	873.22	873.14	873.40	874.83	875.37	876.86

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	PLAN AND PROFILE: SHARED USE PATH	SHEET 108	E

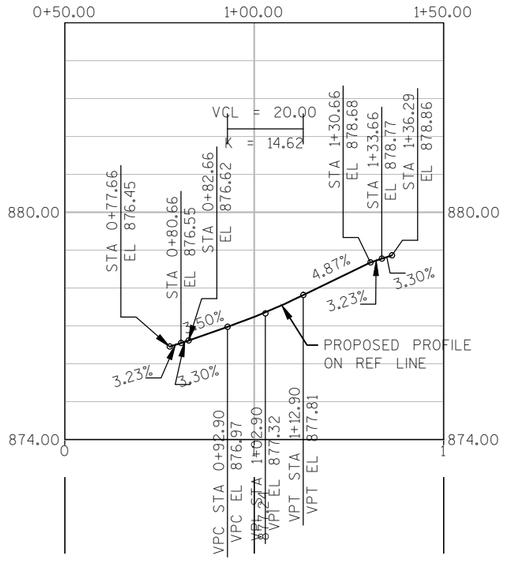


5

5

MAINTENANCE CROSSOVER

Point	STH 64 EB		STH 64 WB	
	Station	Offset	Station	Offset
1	151+13.37	-3.000'	150+88.31	54.707'
2	152+13.37	-10.000'	151+86.33	49.805'
3	152+32.67	-13.070'	152+05.56	46.905'
4	152+50.02	-21.992'	152+50.78	38.009'
5	152+54.06	-30.001'	152+54.82	29.999'
6	152+50.06	-38.030'	152+50.82	21.971'
7	152+32.83	-46.905'	152+05.88	13.071'
8	152+13.44	-49.809'	151+86.93	10.000'
9	151+10.78	-54.663'	150+86.93	3.000'
10	154+42.07	-3.000'	154+42.83	57.001'
11	153+42.07	-10.000'	153+42.83	50.001'
12	153+23.09	-13.081'	153+23.85	46.920'
13	153+06.06	-22.006'	153+06.82	37.994'
14	153+02.06	-30.007'	153+02.82	29.994'
15	153+06.06	-38.006'	153+06.82	21.994'
16	153+23.09	-46.923'	153+23.85	13.078'
17	153+42.06	-50.001'	153+42.82	10.000'
18	154+42.06	-57.000'	154+42.82	3.000'



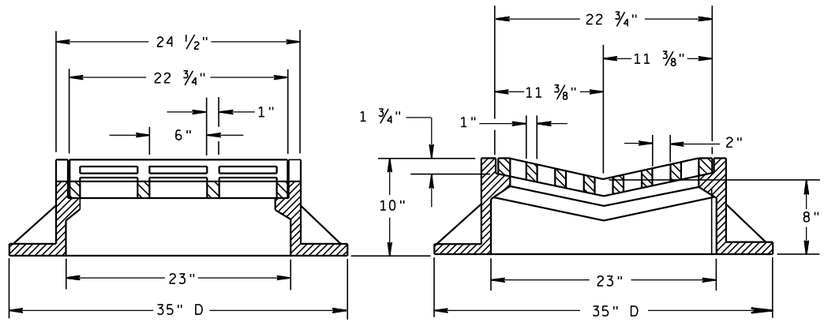


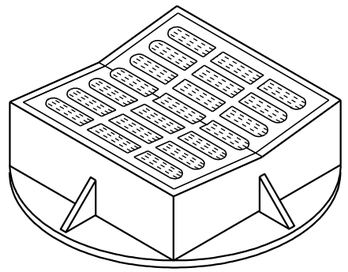
NOTE: SEE ALIGNMENT PLAN FOR HORIZONTAL CURVE INFORMATION. SEE STORM SEWER PLAN SHEETS FOR CULVERT AND STORM SEWER INFORMATION.

Standard Detail Drawing List

08A05-18B	INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM
08A05-18C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08A05-18D	INLET COVER, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08C08-01	INLETS MEDIAN 1 AND 2 GRATE
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
11A01-04	MAINTENANCE CROSSOVER FOR FREEWAYS
12A03-10	NAME PLATE (STRUCTURES)
13A03-05	CONCRETE PAVEMENT SHOULDERS
13B02-06	CONCRETE PAVEMENT APPROACH SLAB
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
15C04-01	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15D28-01	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D29-02	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

6

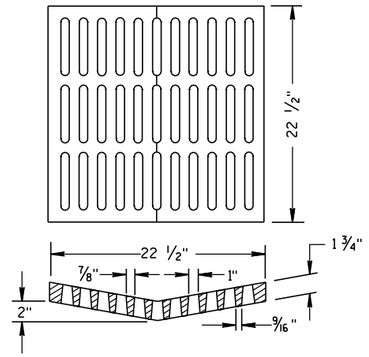




TYPE "B"

(APPROXIMATE WEIGHT 405 LBS.)

FRAME..... 294 LBS.
GRATE..... 111 LBS.

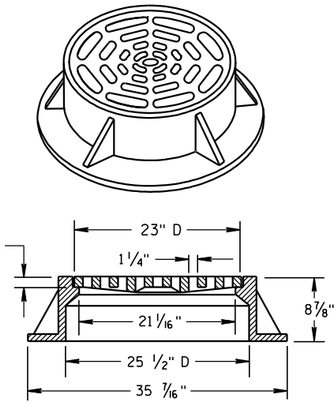


ALTERNATIVE GRATE FOR TYPE "B" COVER

(APPROXIMATE GRATE WEIGHT 134 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS POSSIBLE.

NOTED AS TYPE B-A ON THE DRAINAGE TABLE



TYPE "C"

(APPROXIMATE WEIGHT 259 LBS.)

FRAME..... 152 LBS.
GRATE..... 107 LBS.

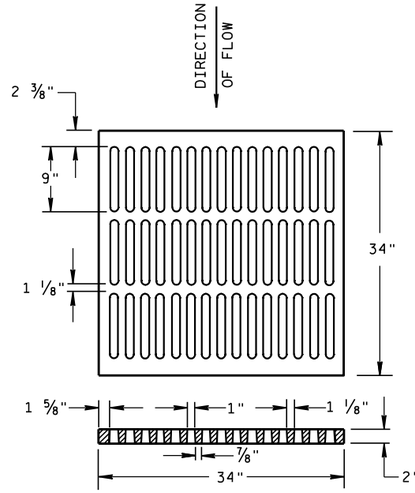
GENERAL NOTES

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 CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

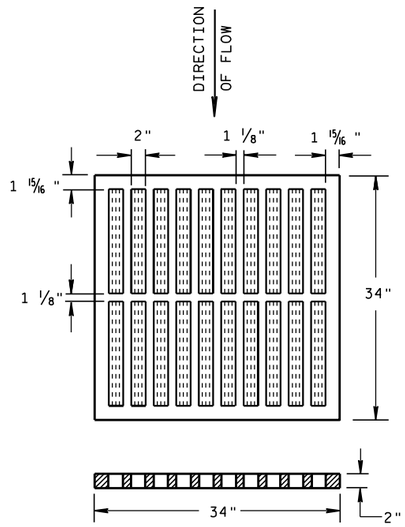


ALTERNATIVE TYPE "MS"

(APPROXIMATE GRATE WEIGHT 329 LBS.)

USE WHERE PEDESTRIAN OR BICYCLE TRAFFIC IS PERMITTED

NOTED AS TYPE MS-A ON THE DRAINAGE TABLE

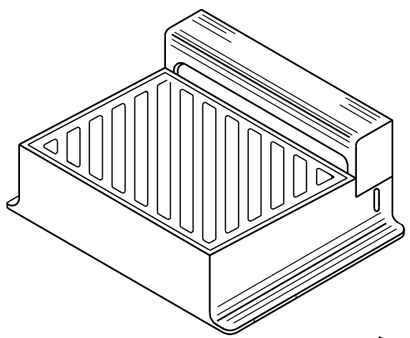


TYPE "MS"

(APPROXIMATE GRATE WEIGHT 268 LBS.)

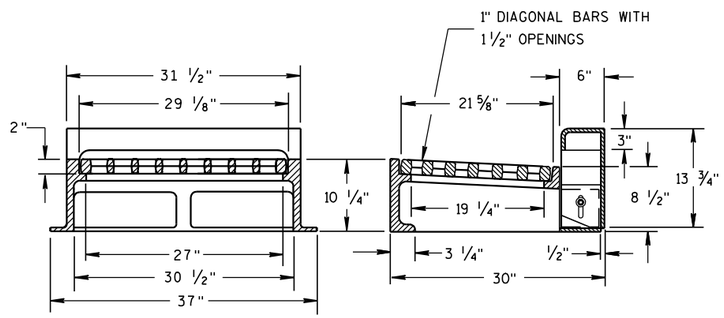
USE ON FREEWAYS AND EXPRESSWAYS

NOTED AS TYPE MS ON DRAINAGE TABLE



DIRECTION OF FLOW

DIAGONAL SLOTS, SHALL BE ORIENTED TO THE DIRECTION OF FLOW AS ILLUSTRATED. GRATES ARE MANUFACTURED TO BE REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

TYPE "WM"

(APPROXIMATE WEIGHT 648 LBS.)

FRAME..... 355 LBS.
GRATE..... 156 LBS.
CURB BOX..... 137 LBS.

INLET COVERS TYPE B, B-A, C, MS, MS-A, & WM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012 DATE

/S/ Jerry H. Zaas
ROADWAY STANDARDS ENGINEER

111 ENT

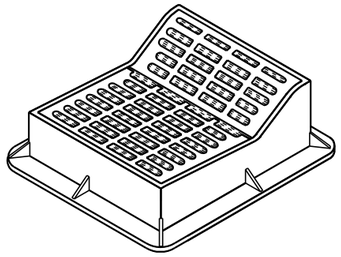
FHWA

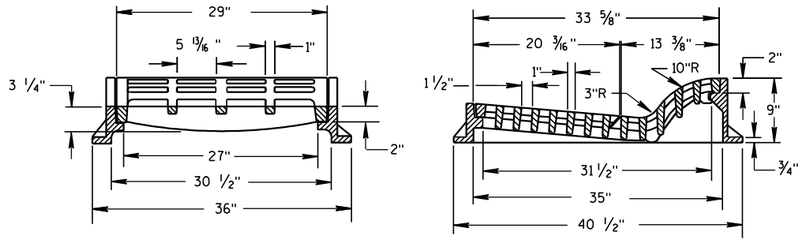
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S.D.D. 8 A 5-18b

6

S.D.D. 8 A 5-18b



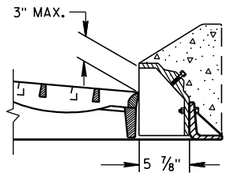


TYPE "F"

(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

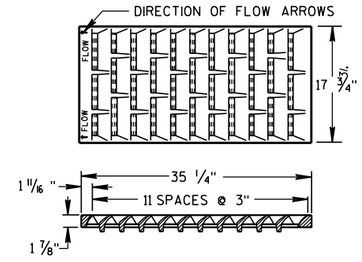
NOTE:
SPECIAL GRATE FOR THE
TYPE "H" COVER MAY ALSO BE
USED FOR THE TYPE "HM-GJ" COVER
NOTED AS TYPE HM-GJ-S ON DRAINAGE TABLE

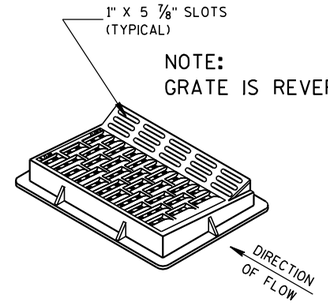
GENERAL NOTES

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.

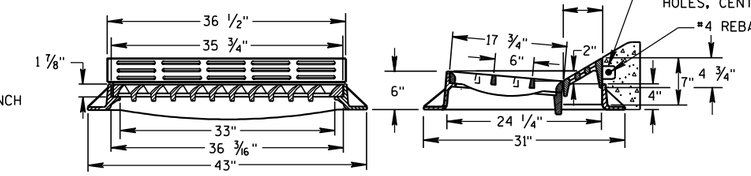
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

THE ACTUAL WEIGHT OF COVERS MAY VARY WITHIN 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.





NOTE:
GRATE IS REVERSIBLE.

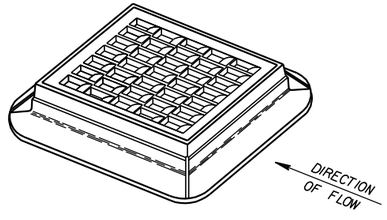


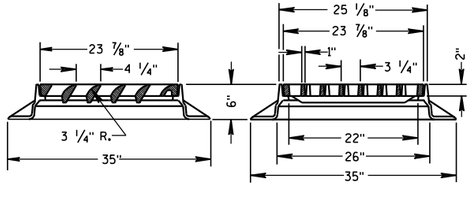
TYPE "HM"

(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

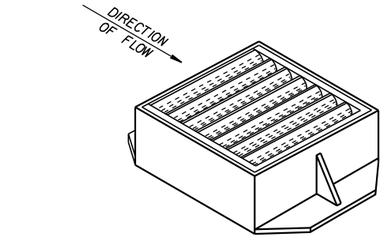


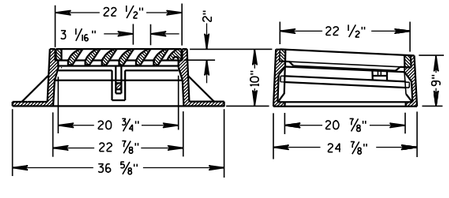


TYPE "S"

(APPROXIMATE WEIGHT 333 LBS.)

FRAME.....164 LBS.
GRATE..... 169 LBS.

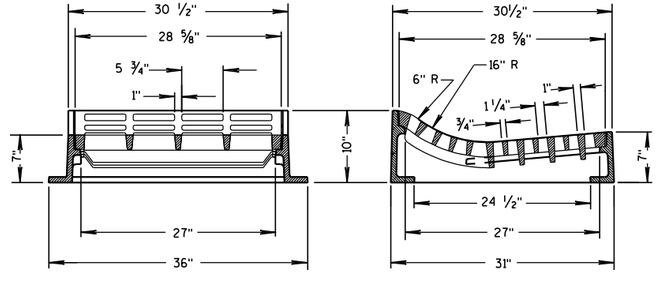




TYPE "V"

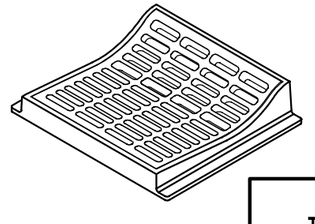
(APPROXIMATE WEIGHT 410 LBS.)

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

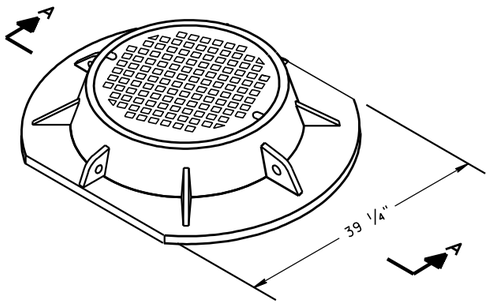
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

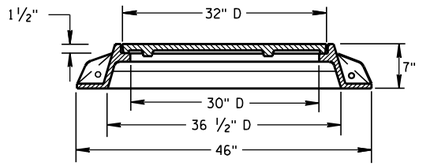
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S.D.D. 8 A 5-18c

6

S.D.D. 8 A 5-18c



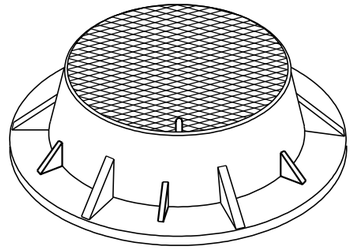


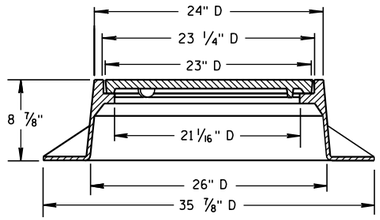
SECTION A-A

TYPE "K"

(APPROXIMATE WEIGHT 439 LBS.)

FRAME.....216 LBS.
LID.....223 LBS.

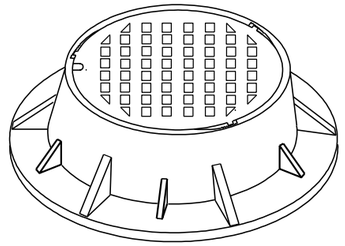


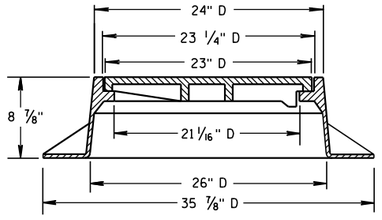


TYPE "J"

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....152 LBS.
LID.....115 LBS.





TYPE "J" SPECIAL

TYPE "B" NON-ROCKING SELF-SEAL LID

(APPROXIMATE WEIGHT 267 LBS.)

FRAME.....158 LBS.
LID.....109 LBS.

(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

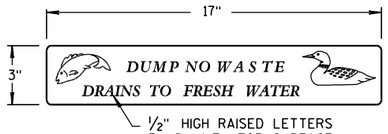
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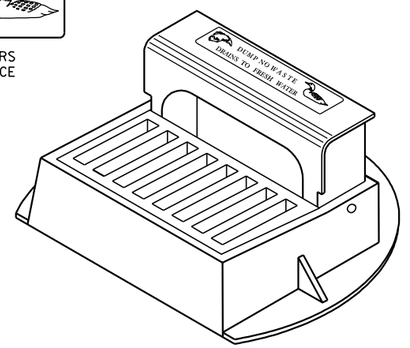
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

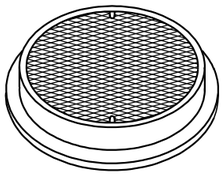
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

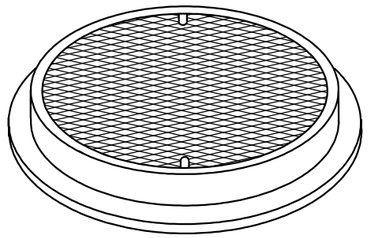
THE ACTUAL WEIGHT OF COVERS MAY VARY WITH 5 PERCENT, PLUS OR MINUS, OF THE APPROXIMATE WEIGHT.

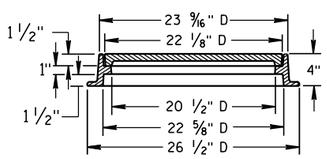


LOGO DETAIL





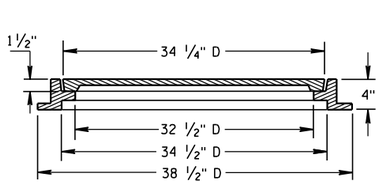




TYPE "L"

(APPROXIMATE WEIGHT 158 LBS.)

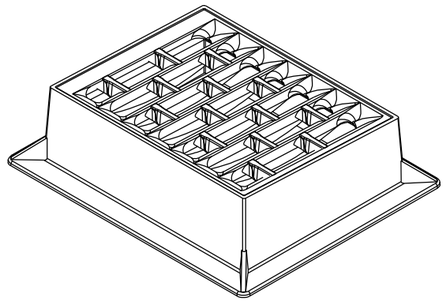
FRAME.....81 LBS.
LID.....77 LBS.

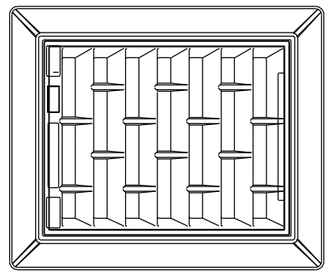


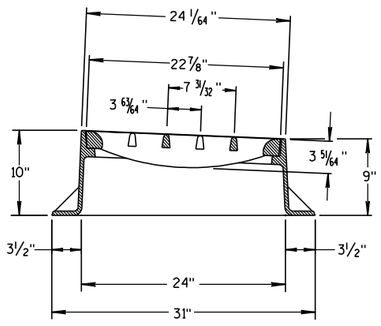
TYPE "M"

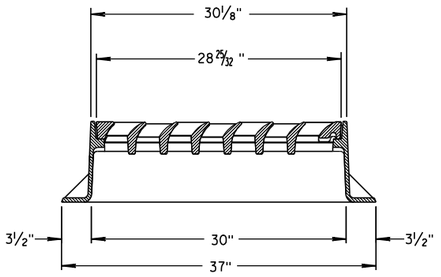
(APPROXIMATE WEIGHT 377 LBS.)

FRAME..... 125 LBS.
LID..... 252 LBS.

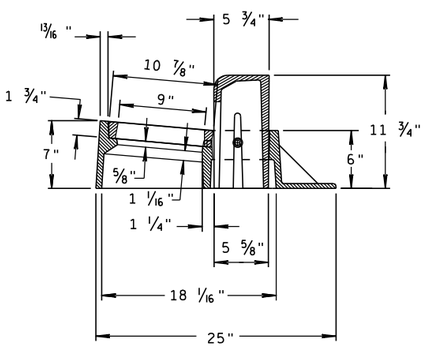


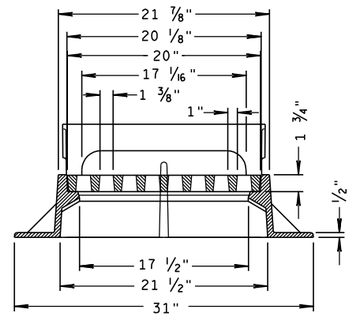






INLET COVER TYPE "BW"





INLET COVER TYPE "Z"

(APPROXIMATE WEIGHT 344 LBS.)

FRAME.....206 LBS.
GRATE..... 46 LBS.
CURB BOX..... 92 LBS.

INLET COVERS, TYPE BW, Z MANHOLE COVERS, TYPE K, J, J-S, L & M

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER

FHWA

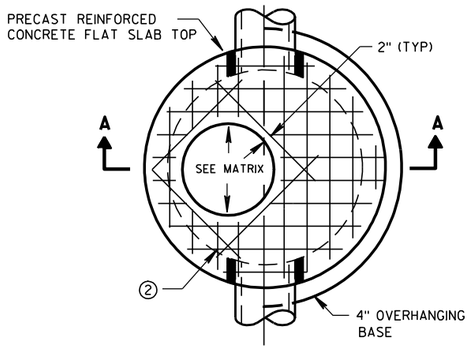
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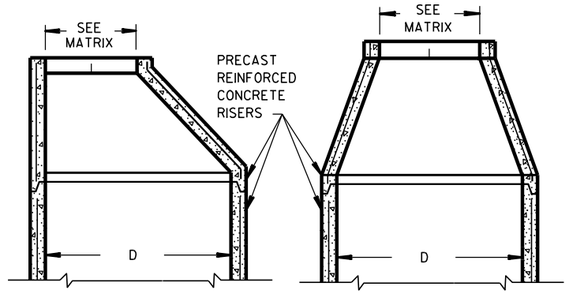
S.D.D. 8 A 5-18d

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S.D.D. 8 A 5-18d

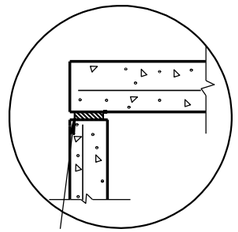


PLAN VIEW CIRCULAR OPENING

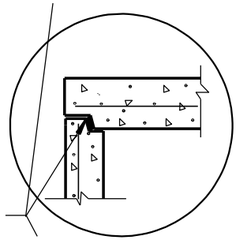


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

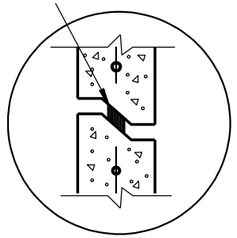


TOP WITH PLAIN END JOINT



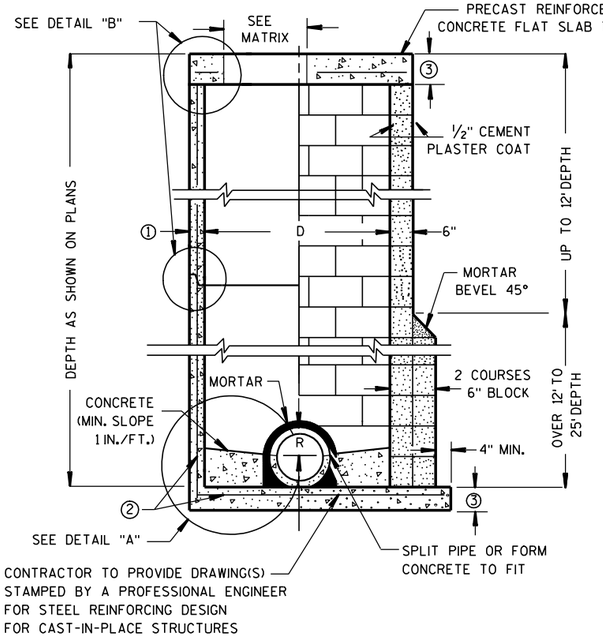
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



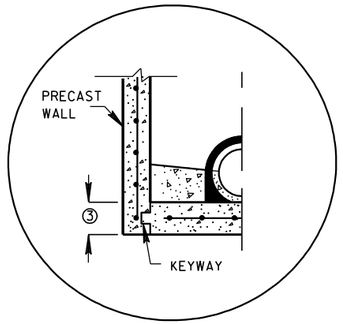
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

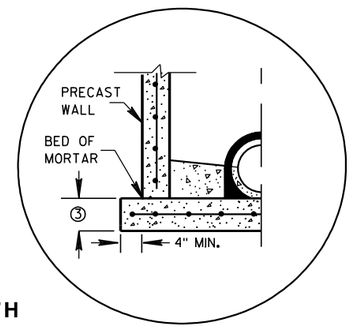


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST-IN-PLACE OR PRECAST REINFORCED CONCRETE BASE ②

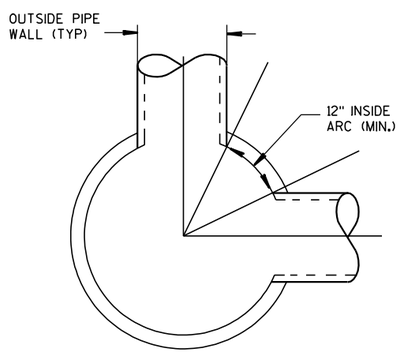


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPERATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "A"



DETAIL "C"

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 MANHOLE 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 DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATE 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.

PRECAST REINFORCED CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE CONE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES, AND CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½" AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

CONCRETE BLOCK WILL NOT BE PERMITED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M 199.

4" OVERHANGING BASES ARE REQUIRED FOR ALL 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.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "C".

① MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT, 7 INCHES FOR 6-FT, 8 INCHES FOR 7-FT AND 9 INCHES FOR 8-FT DIAMETER PRECAST MANHOLES.

② FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

③ PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

MANHOLE COVER OPENING MATRIX

MANHOLE COVER TYPE	C	ALL J'S	K	L	M
OPENING SIZE (FT)					
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

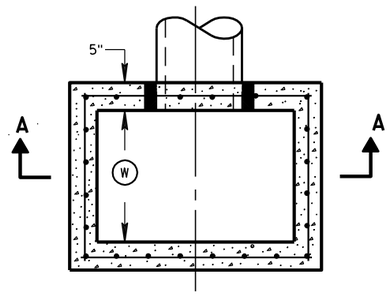
APPROVED

6/5/2012
DATE

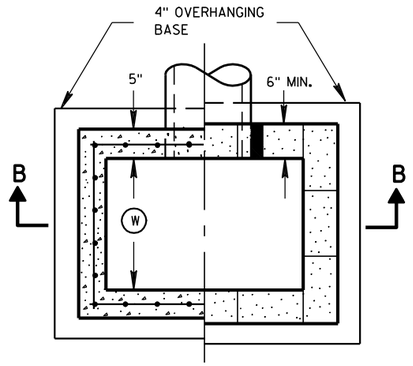
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

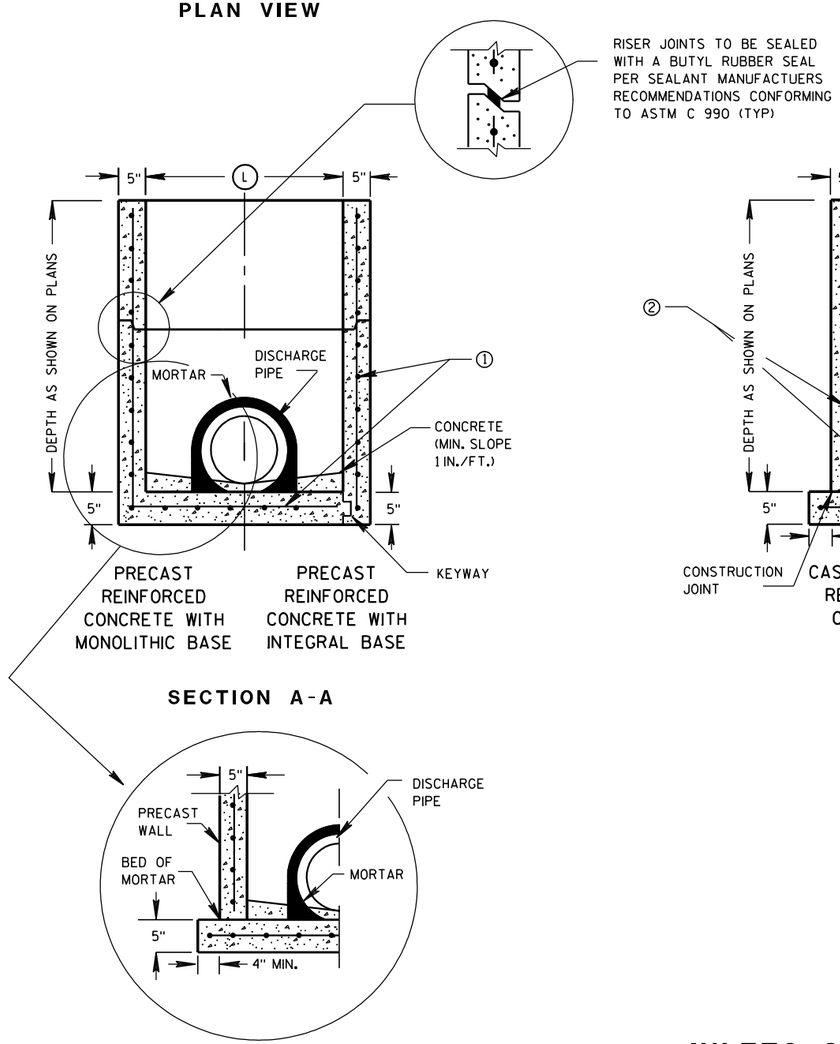
S.D.D. 8 B 9-1



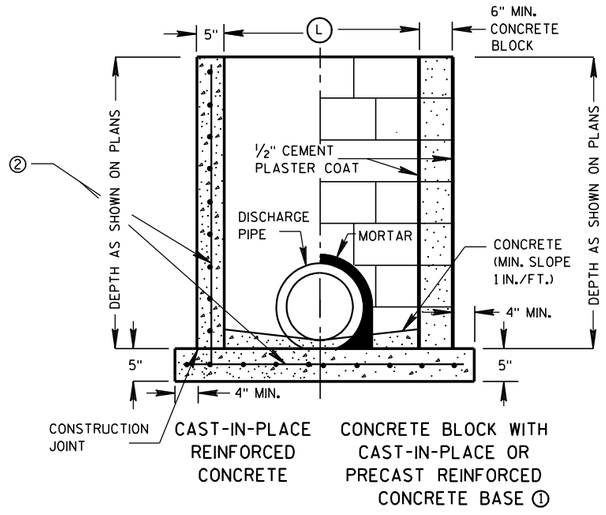
PLAN VIEW



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.

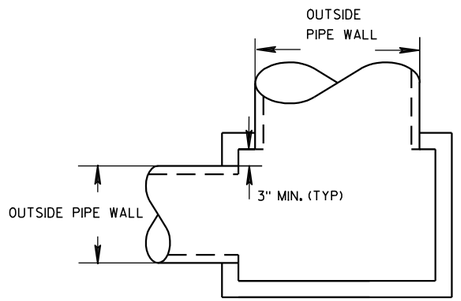
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

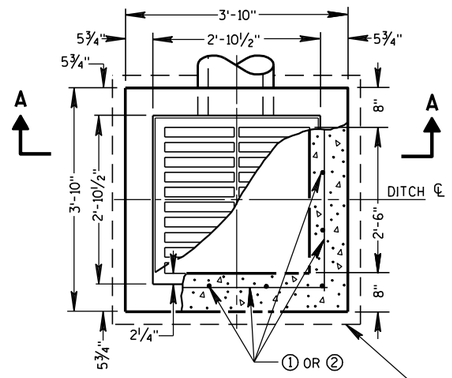
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zoda
ROADWAY STANDARDS D ENGINEER
FHWA

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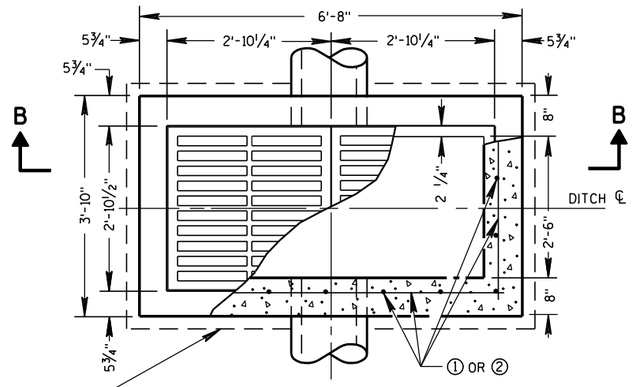
S.D.D. 8 C 7-1

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S.D.D. 8 C 7-1

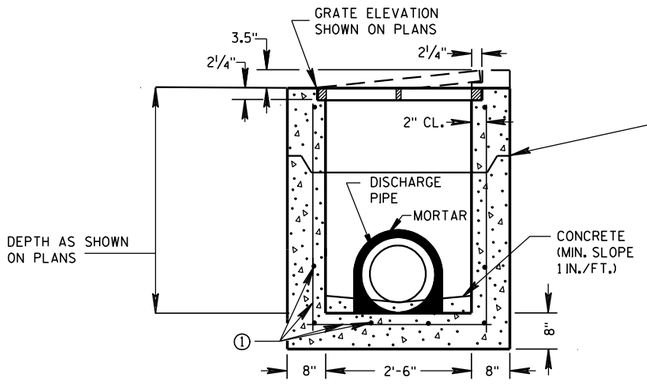


PLAN VIEW

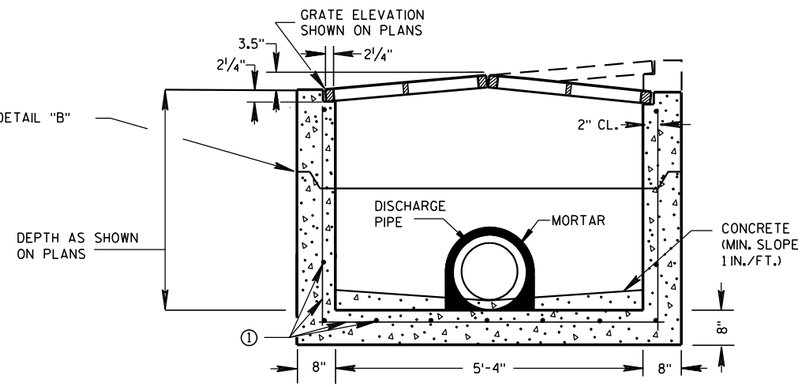


PLAN VIEW

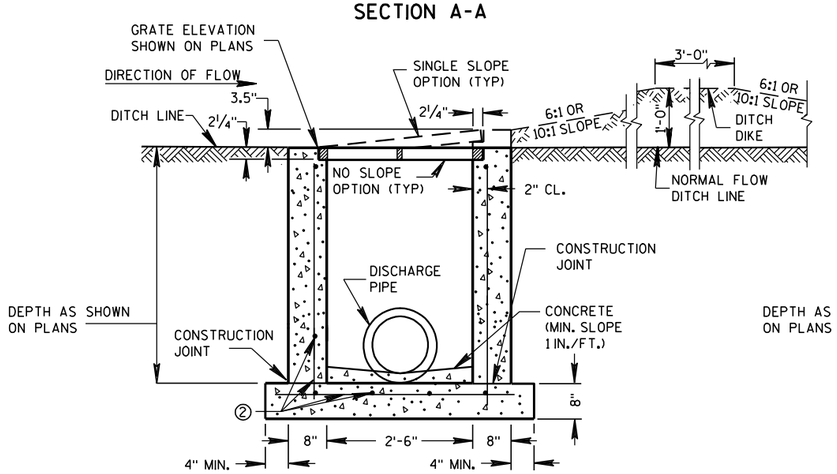
4" OVERHANGING BASE ON REINFORCED CAST-IN-PLACE CONCRETE INLETS



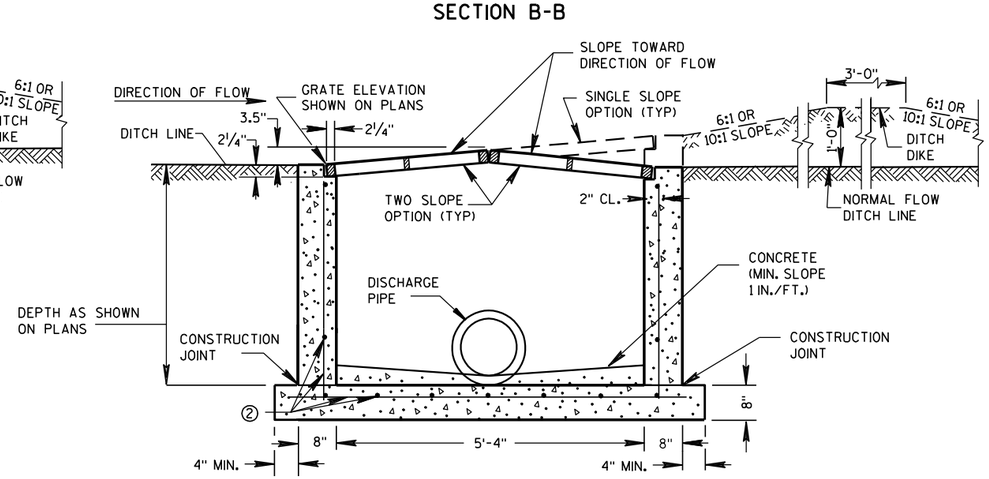
PRECAST REINFORCED CONCRETE SECTION A-A



PRECAST REINFORCED CONCRETE SECTION B-B



REINFORCED CAST-IN-PLACE CONCRETE SECTION A-A



REINFORCED CAST-IN-PLACE CONCRETE SECTION B-B

INLETS MEDIAN 1 GRATE

INLETS MEDIAN 2 GRATE

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 INLETS WHICH MAY INCLUDE PRECAST REINFORCED CONCRETE INLETS, SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL MEDIAN INLETS ARE DESIGNATED ON THE PLANS AS "INLETS, 1G-MS", ETC. THE FIRST NUMBER AND LETTER DESIGNATE THE TYPE OF STRUCTURE, AND THE FOLLOWING LETTERS DESIGNATE THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

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.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

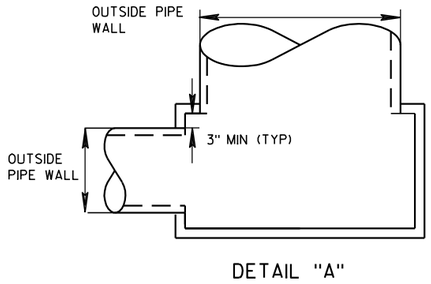
MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3" CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

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.

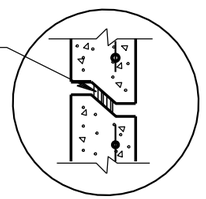
PIPE MATRIX

	MAXIMUM INSIDE PIPE DIAMETER	
INLET SIZE	WIDTH (IN)	LENGTH (IN)
1 GRATE	18	18
2 GRATE	18	42



DETAIL "A"

JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 (TYP)



DETAIL "B"

INLETS MEDIAN 1 AND 2 GRATE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

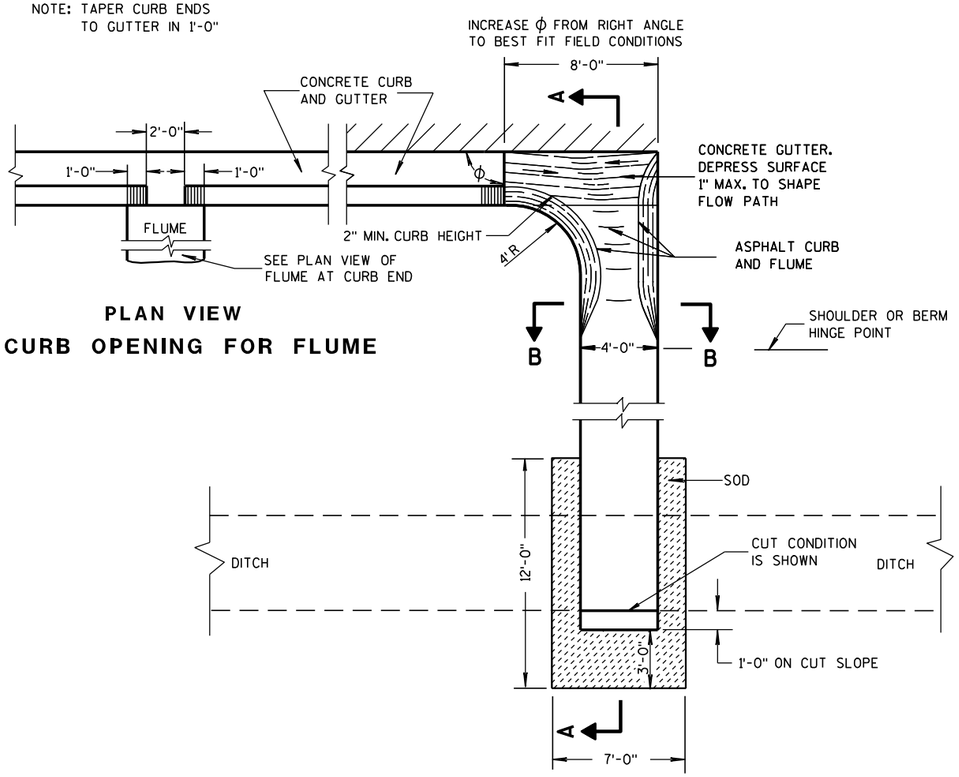
6/5/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

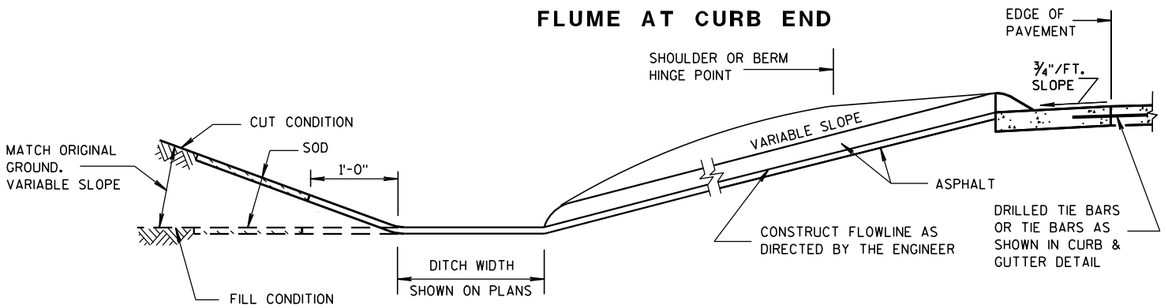
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S.D.D. 8 C 8-1

ASPHALTIC FLUME

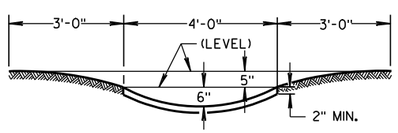


PLAN VIEW
CURB OPENING FOR FLUME

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.

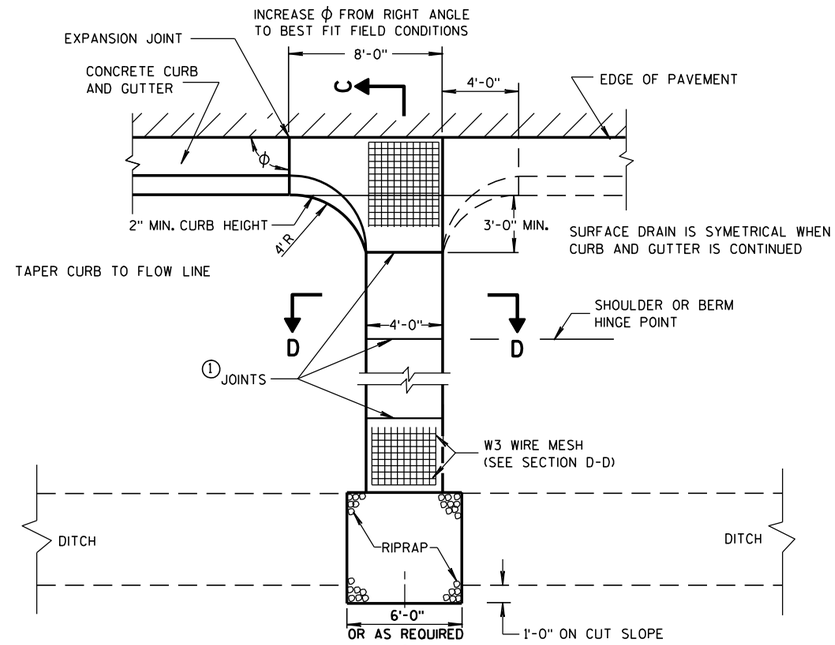
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

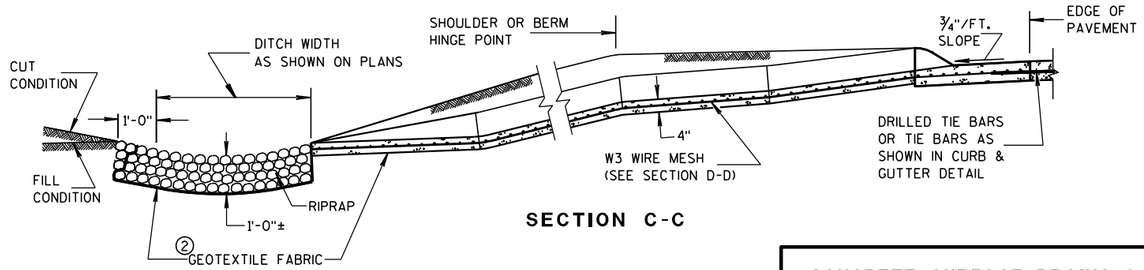
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

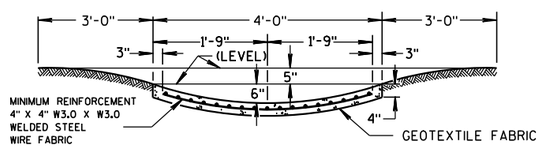
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

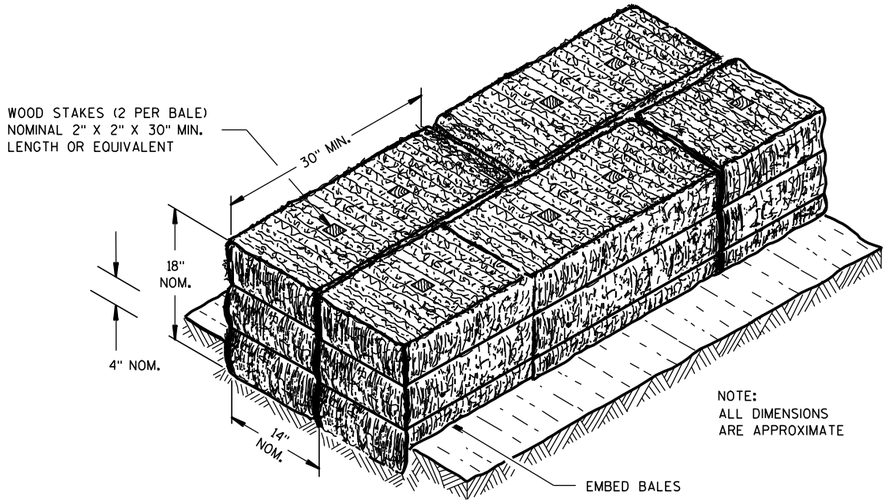
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
MENT
FHWA

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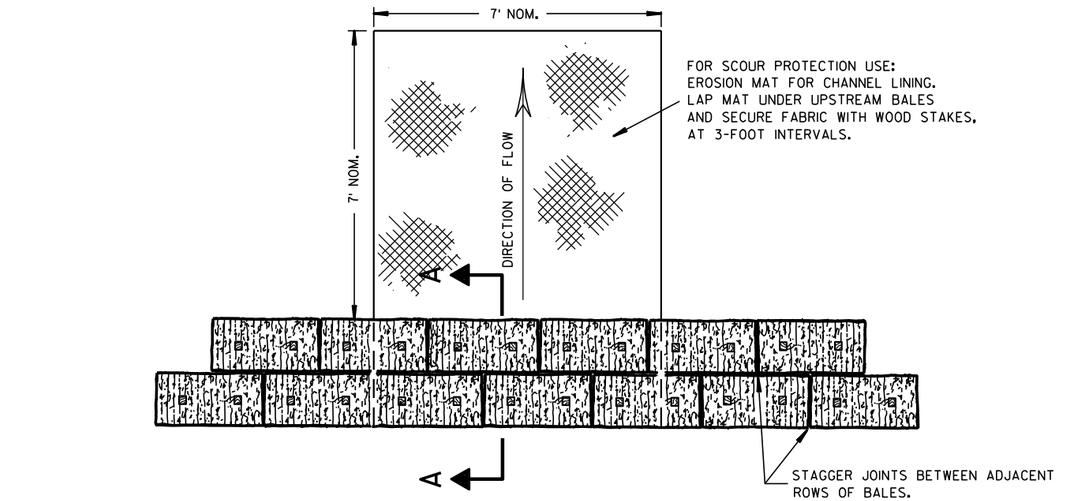
S.D.D. 8 D 4-5

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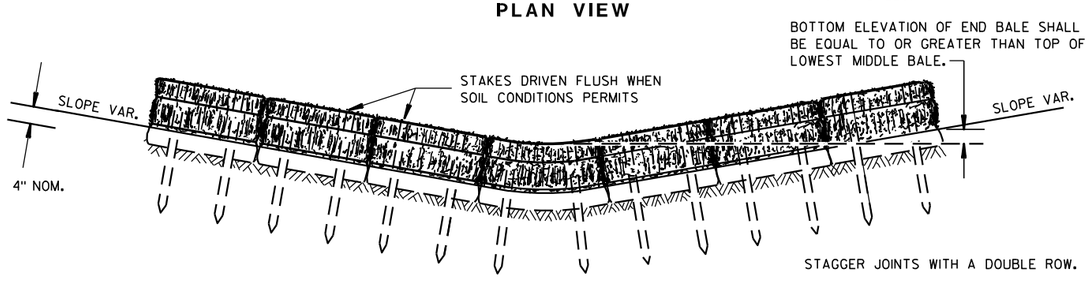
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



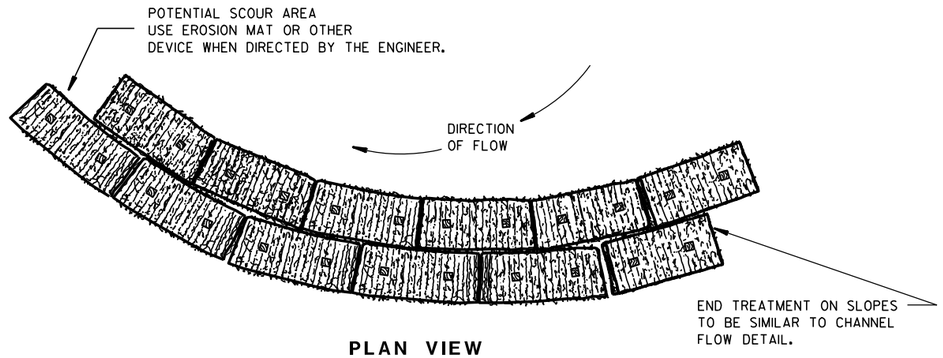
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

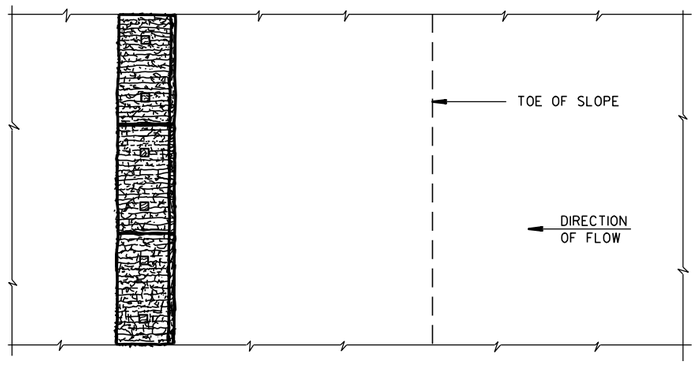
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.

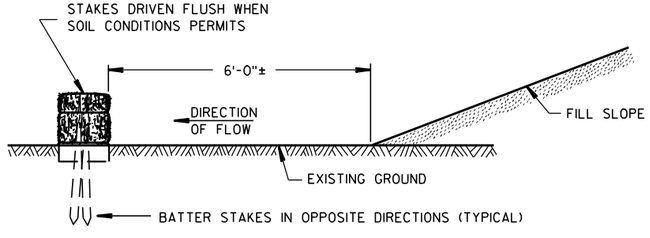


PLAN VIEW

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

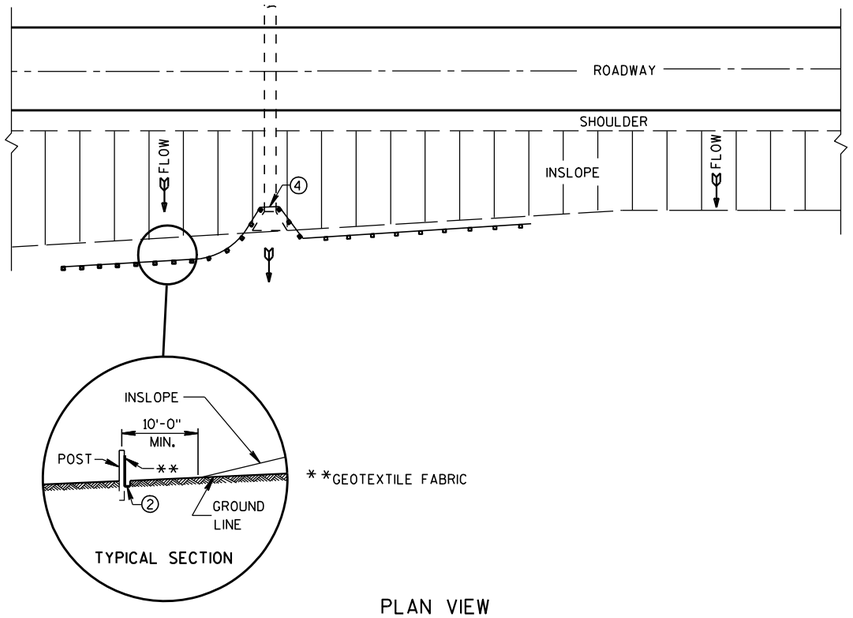
APPROVED
6/04/02 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 8-3

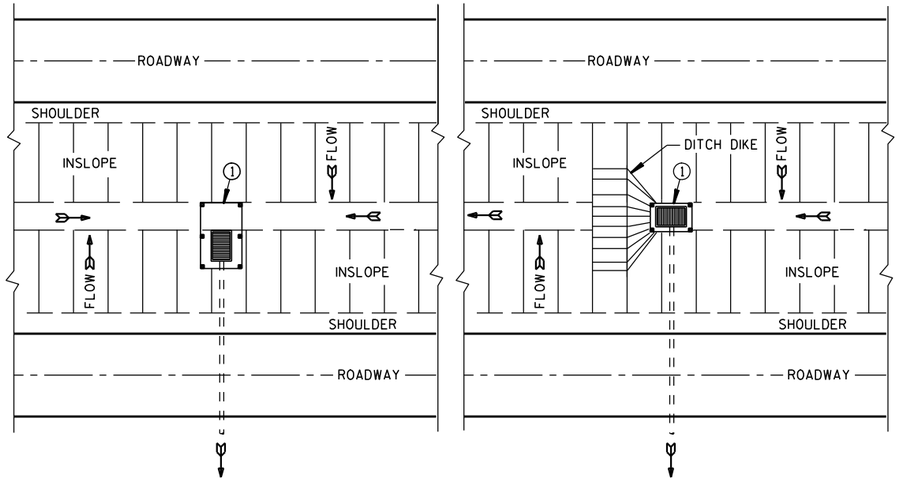
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S.D.D. 8 E 8-3



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.

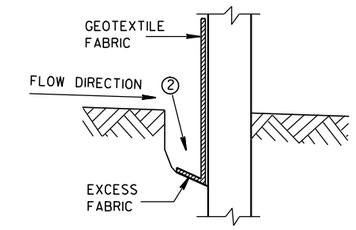
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

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.

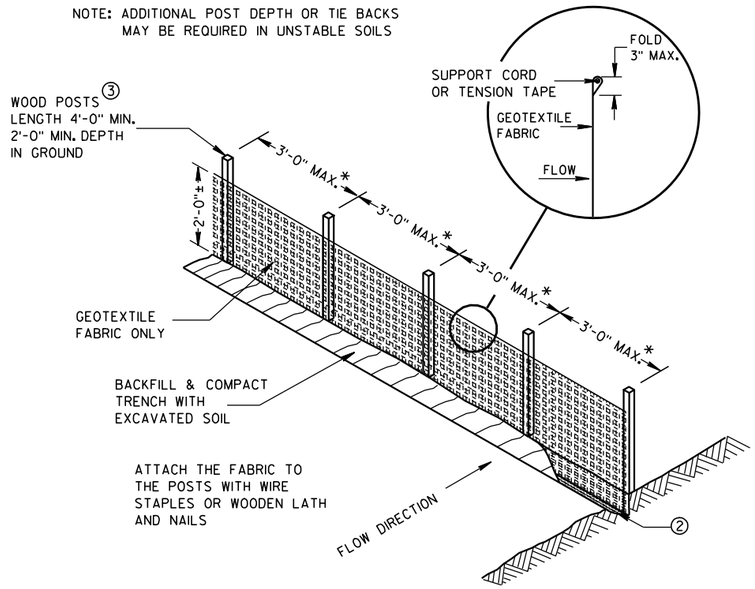
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

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

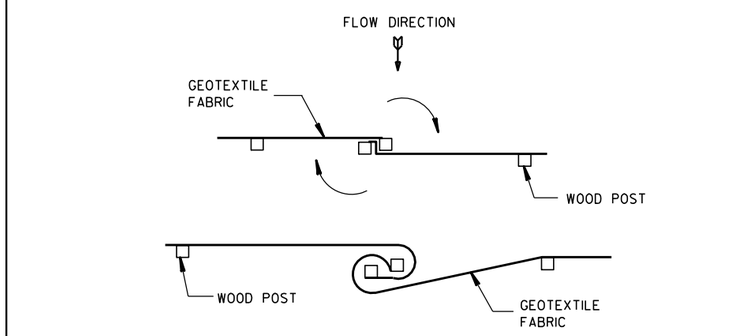
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



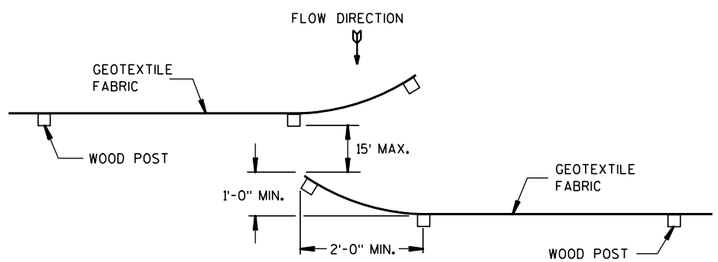
TRENCH DETAIL



SILT FENCE

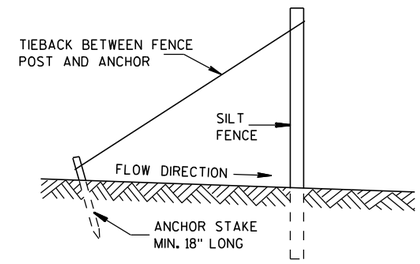


TWIST METHOD



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

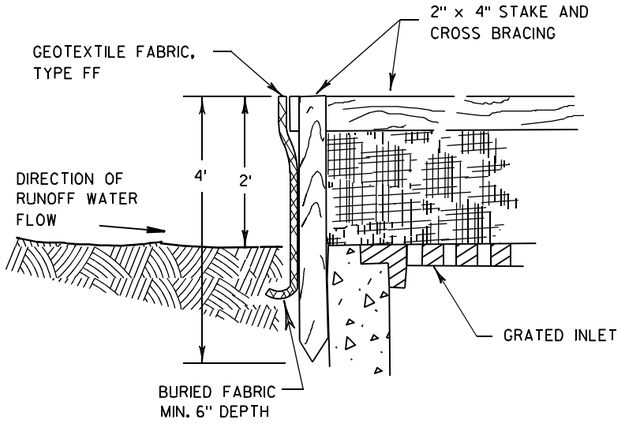
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

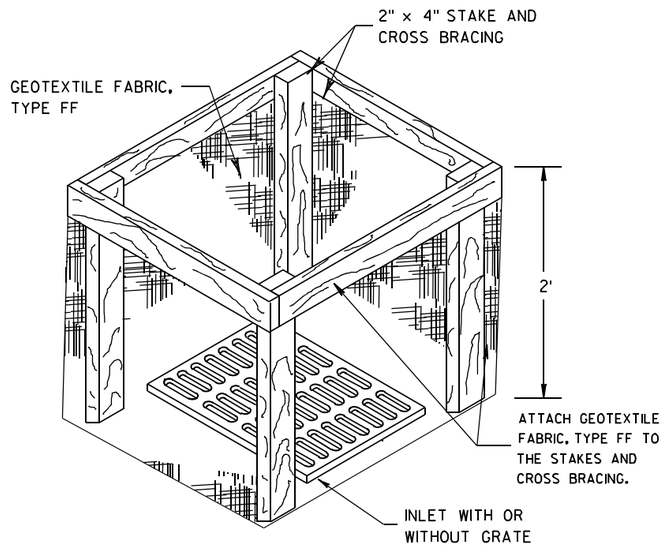
6

S.D.D. 8 E 9-6

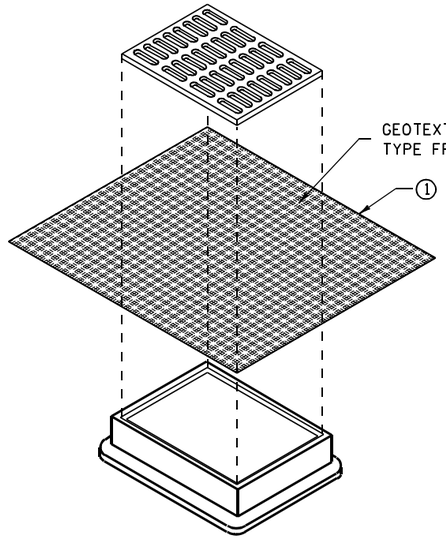
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S.D.D. 8 E 9-6



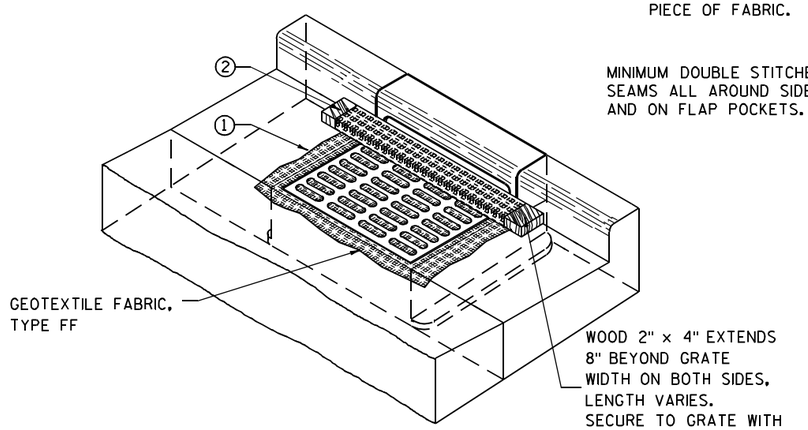


INLET PROTECTION, TYPE A

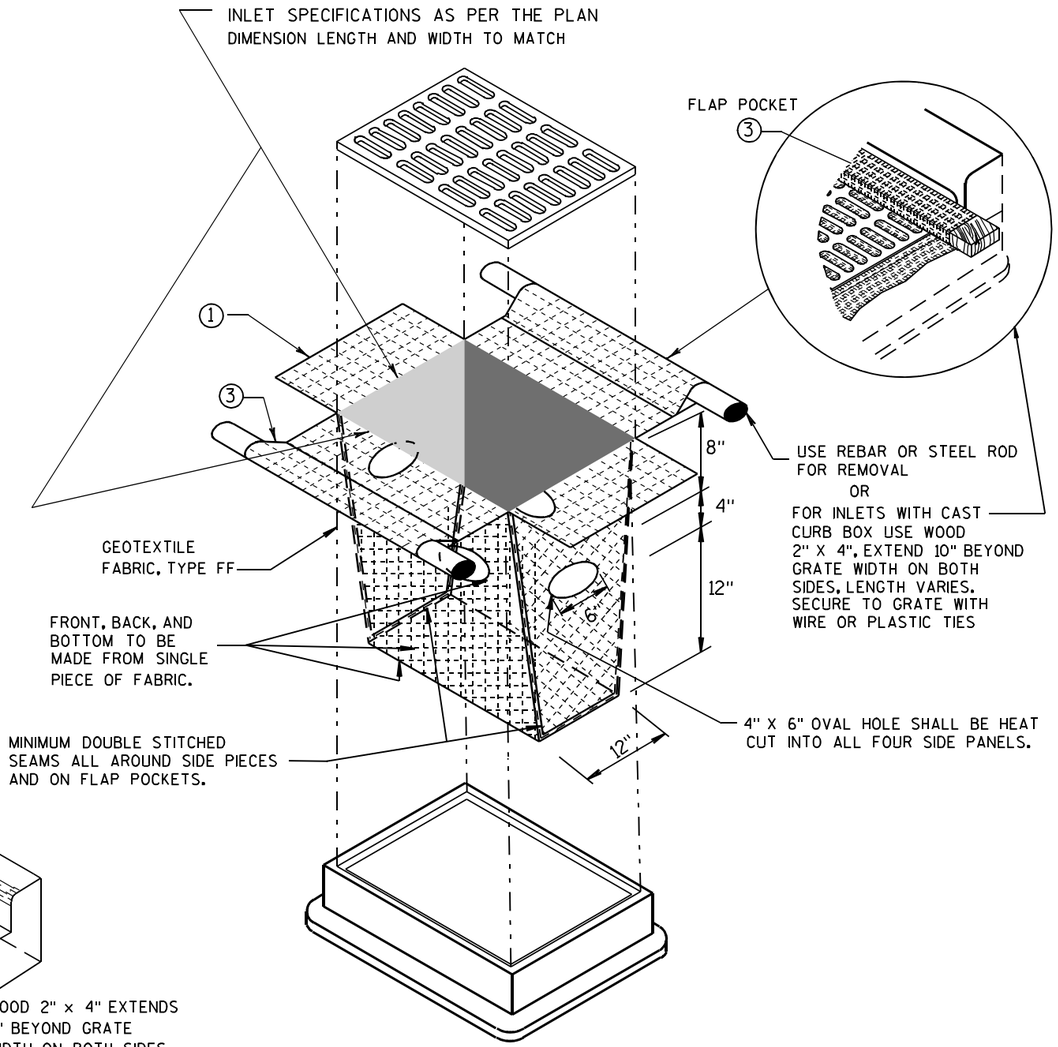


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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.

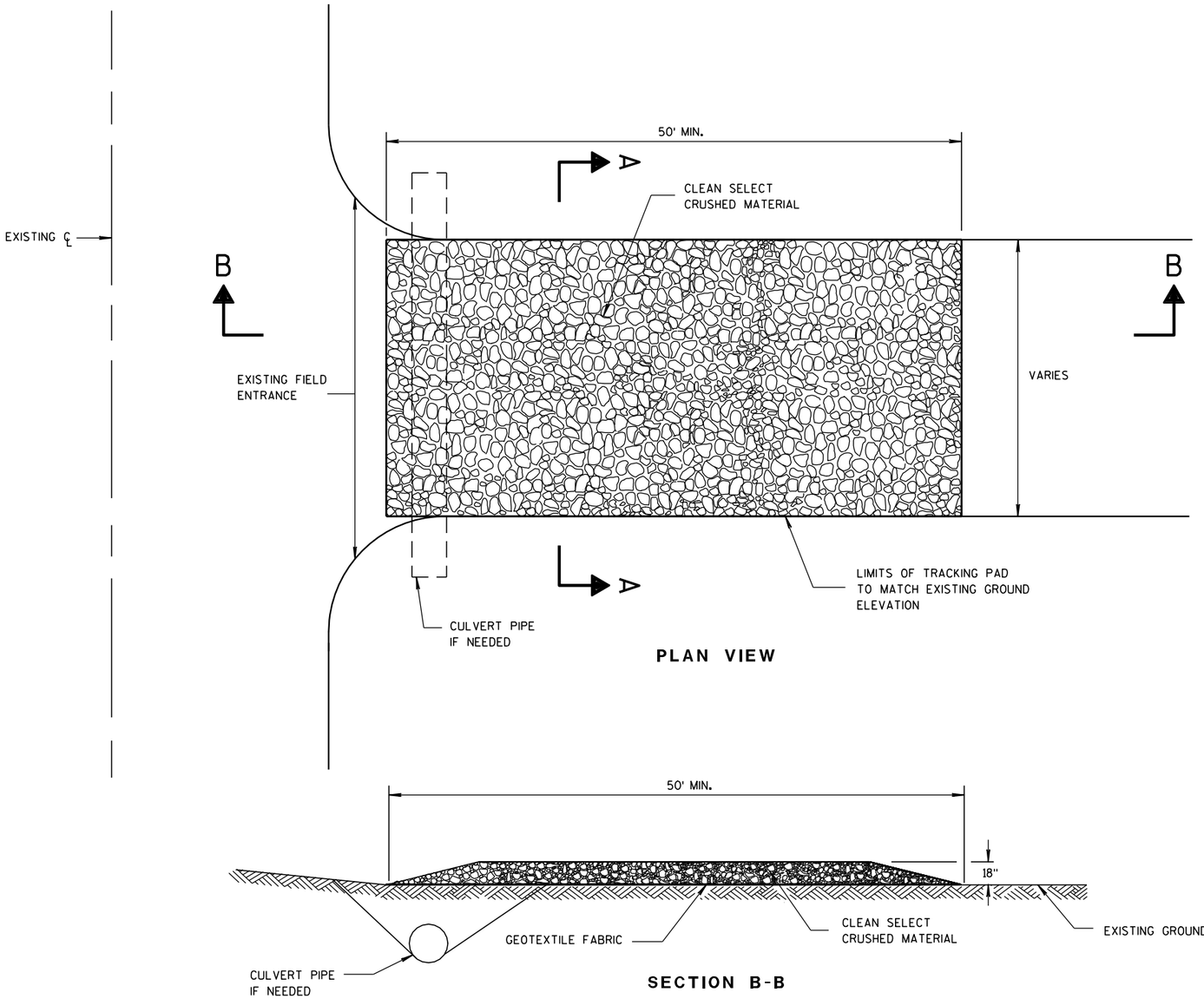
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE 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



PLAN VIEW

SECTION B-B

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.

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

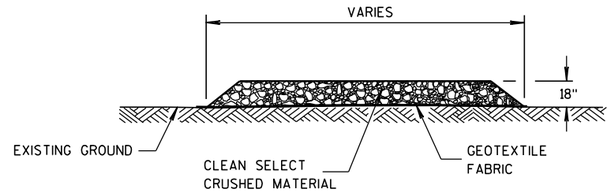
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



SECTION A-A

TRACKING PAD

TRACKING PAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED 3/24/2011 DATE FHWA	/S/ Jerry H. Zoda ROADWAY STANDARDS ENGINEER

6

S.D.D. 8 E 14-1

6

S.D.D. 8 E 14-1

METAL APRON ENDWALLS

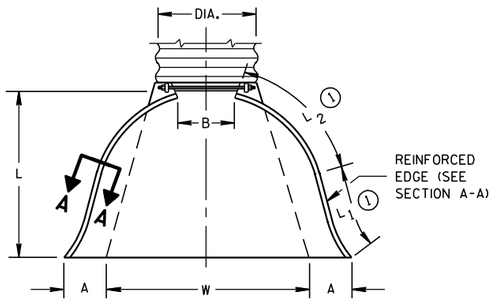
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

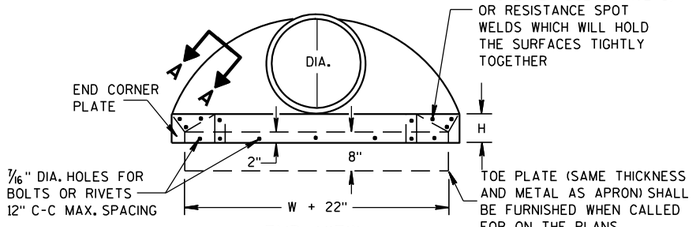
REINFORCED CONCRETE APRON ENDWALLS

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
90	8 1/2	41	87 1/2	24	111 1/2	132	6 1/2	1 1/2 to 1

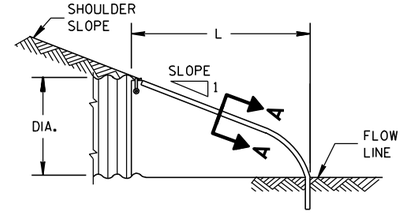
*MINIMUM
**MAXIMUM



PLAN VIEW

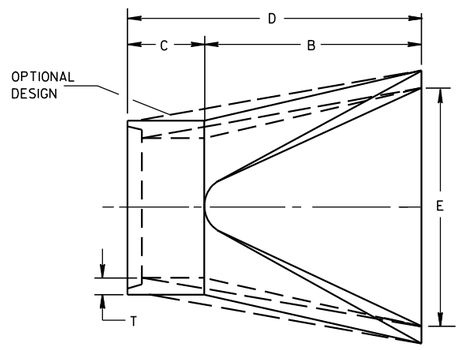


END VIEW

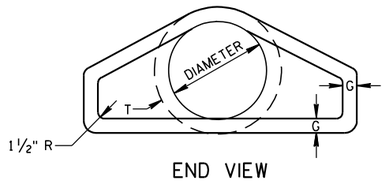


SIDE ELEVATION

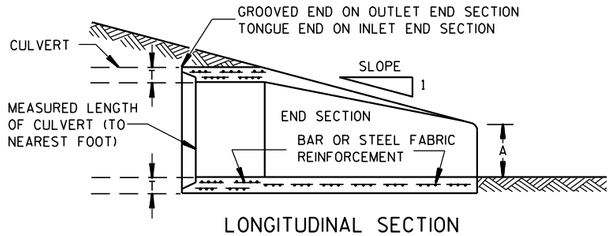
METAL ENDWALLS



PLAN

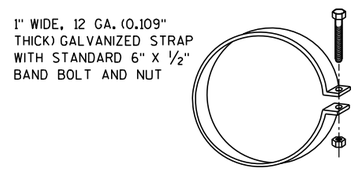


END VIEW



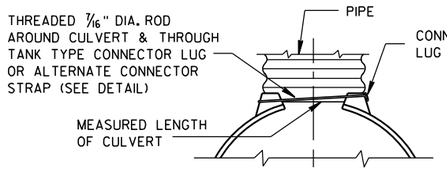
LONGITUDINAL SECTION

CONCRETE ENDWALLS

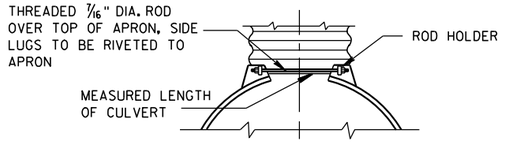


ALTERNATE FOR TYPE 1 CONNECTION

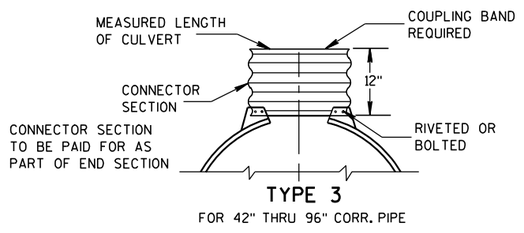
END SECTION CONNECTOR STRAP



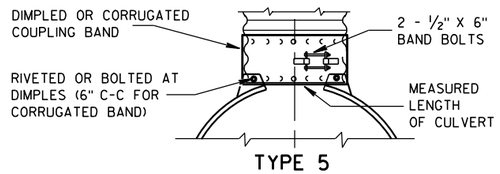
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

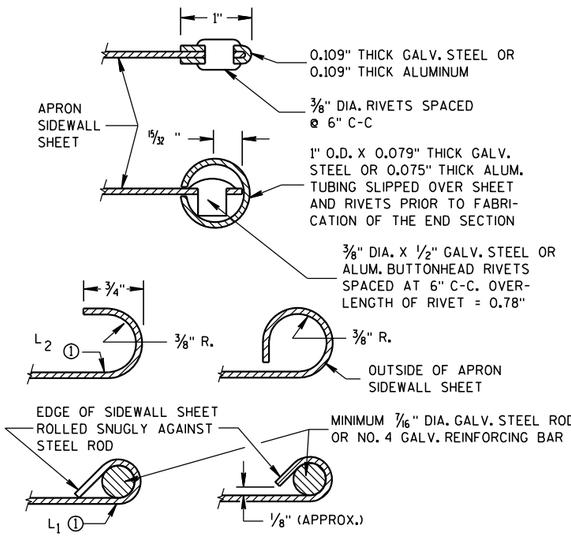
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

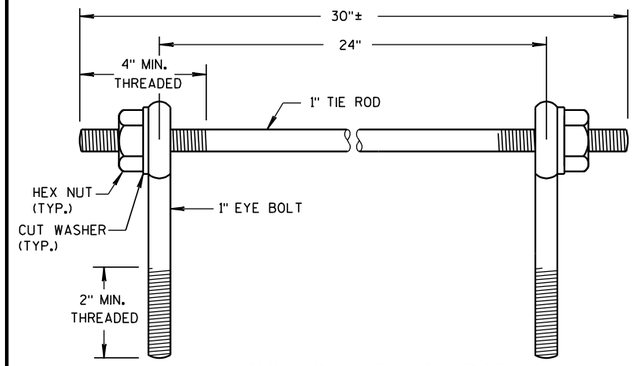
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

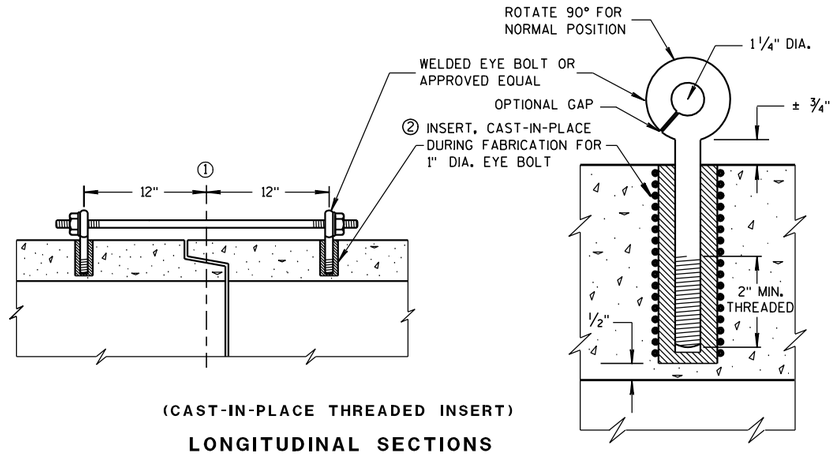
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

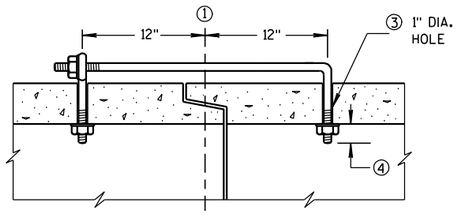
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

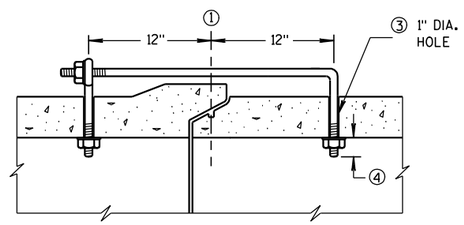
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

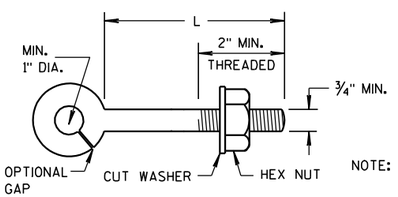


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

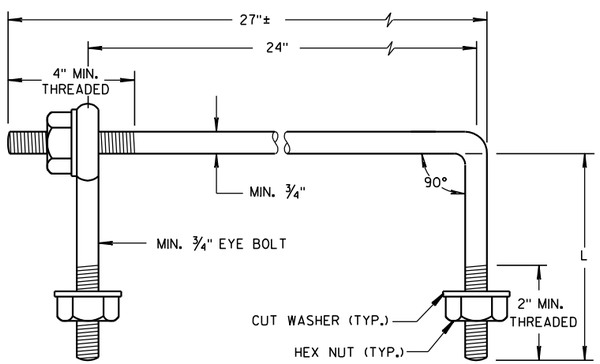
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

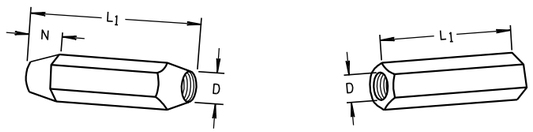
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

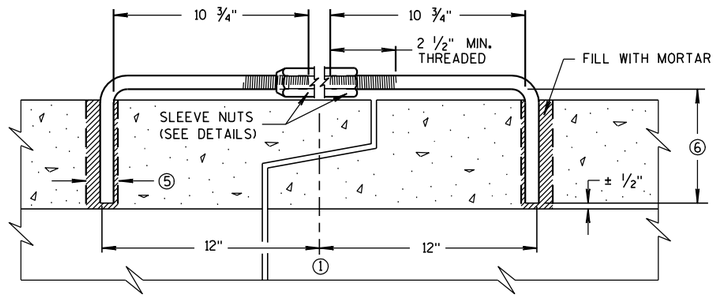
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

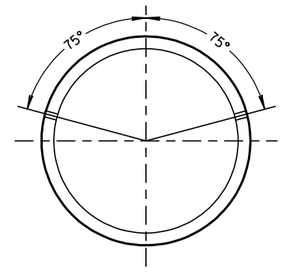
SLEEVE NUTS



LONGITUDINAL SECTION

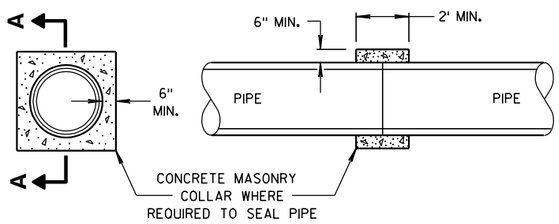
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

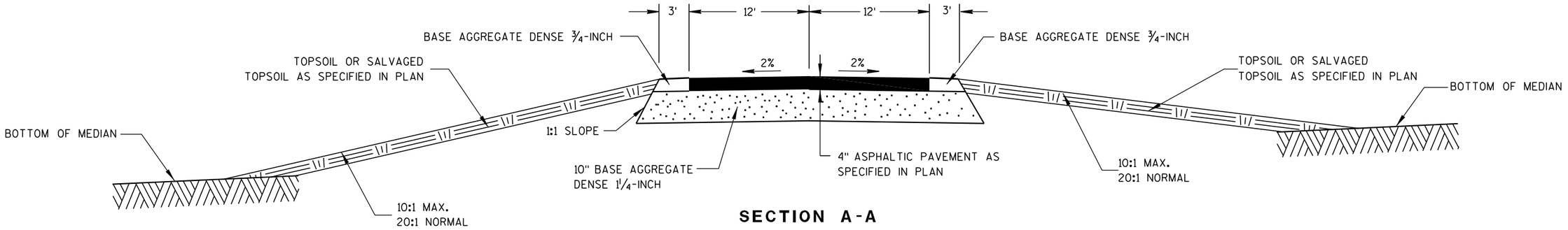
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

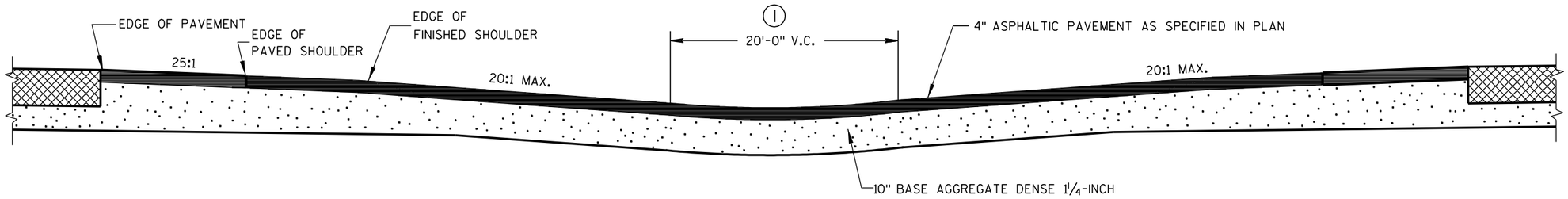
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
123
FHWA

6

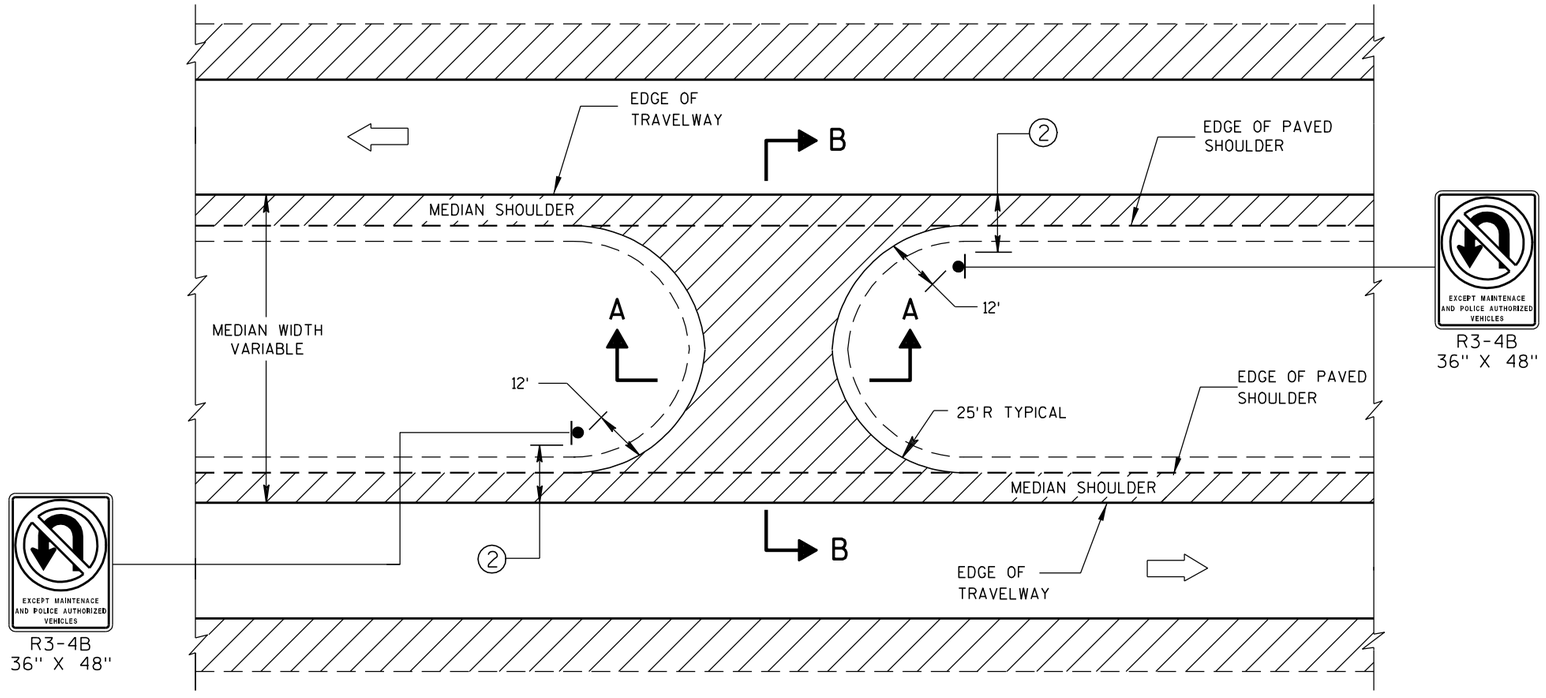
S.D.D. 8 F 4-7



SECTION A-A



SECTION B-B



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.

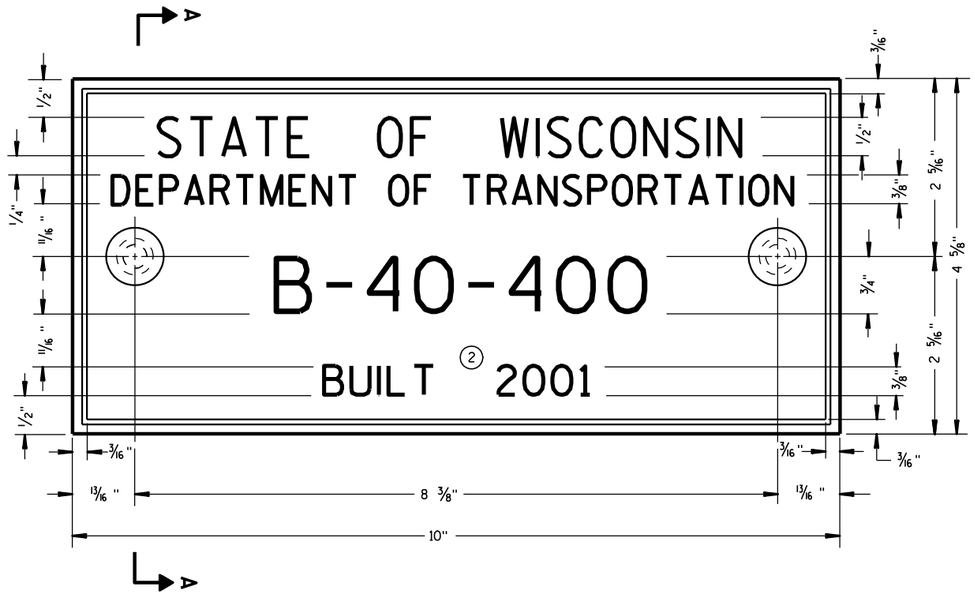
(1) ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

(2) SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/01/2011
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES

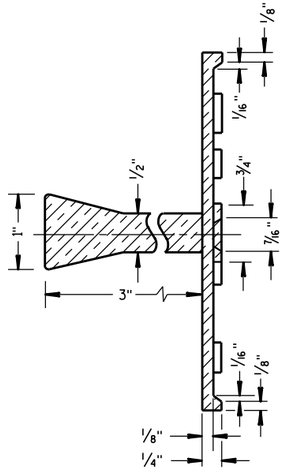
GENERAL NOTES

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.

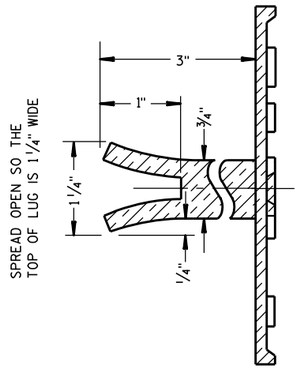
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

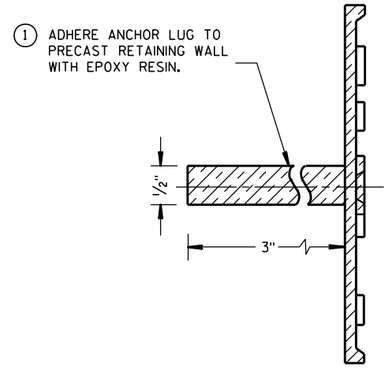
(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

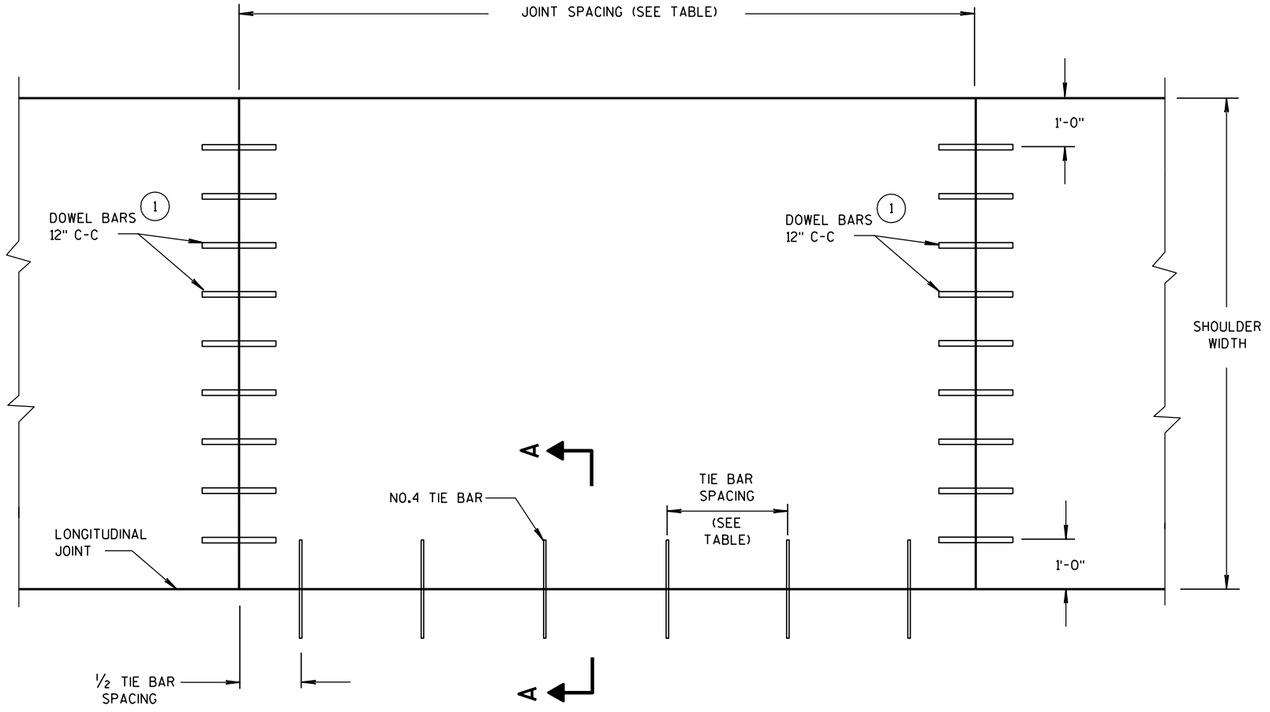
3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

6

S.D.D. 12 A 3-10



PLAN VIEW

CONCRETE PAVEMENT SHOULDER

PAVEMENT TYPE OF TRAFFIC LANES	TIE BAR SPACING	SHOULDER JOINT SPACING
NON-REINFORCED	30"	MATCH JOINT SPACING OF ADJACENT TRAFFIC LANE
CONTINUOUSLY REINFORCED	30"	15' FOR 6' TO 10' WIDE SHOULDERS
CONTINUOUSLY REINFORCED	36"	12' FOR 3' WIDE SHOULDERS

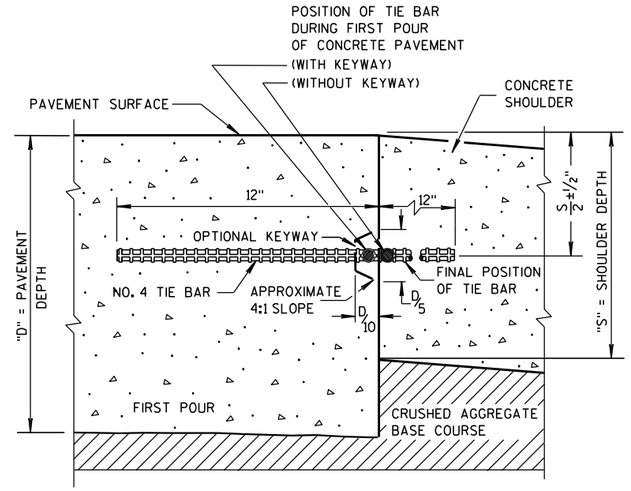
GENERAL NOTES

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.

TRANSVERSE JOINT DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.

FINISH THE SHOULDER PAVEMENT CONFORMING TO SUBSECTION 415.3.8 OF THE STANDARD SPECIFICATIONS.

TIE BARS SHALL CONFORM TO SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.



SECTION A-A

LONGITUDINAL CONSTRUCTION JOINT

(1) **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'

FOR DOWELED CONCRETE SHOULDERS WITH TRAPEZOIDAL CROSS SECTIONS, CHOSE THE APPROPRIATE DOWEL BAR DIAMETER BASED ON THE SMALLER PAVEMENT DEPTH (LIKELY THE OUTSIDE EDGE OF THE SHOULDER). IF USING BASKETS, USE BASKETS FOR THE AVERAGE THICKNESS OF THE CROSS SECTION.

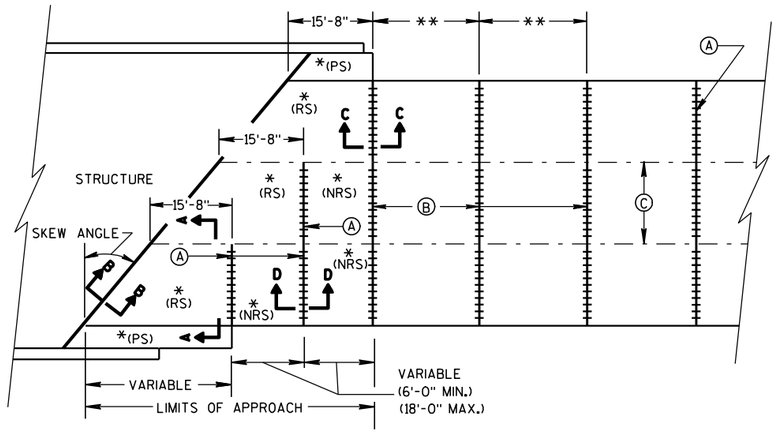
CONCRETE PAVEMENT SHOULDERS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

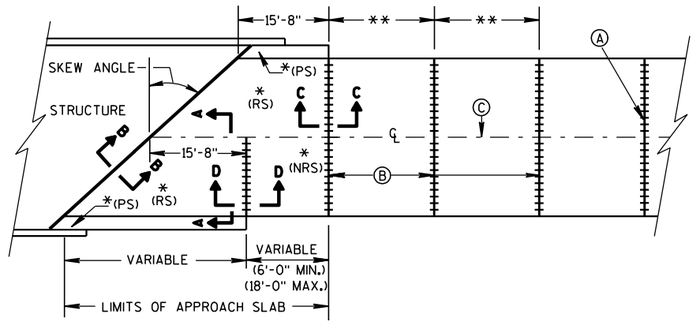
APPROVED
8/15/2011 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & D — INEER
FHWA

6

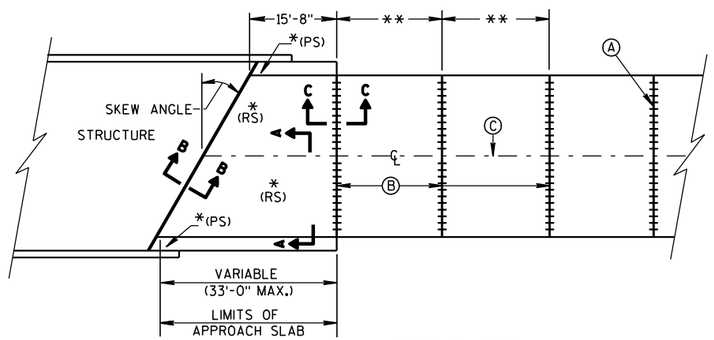
S.D.D. 13 A 3-5



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >30°
(PAVEMENT WIDTH ≤30')



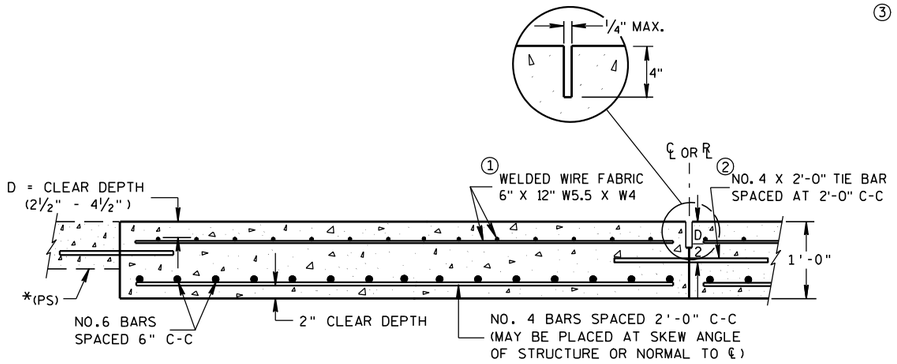
SKEWS ≤30°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

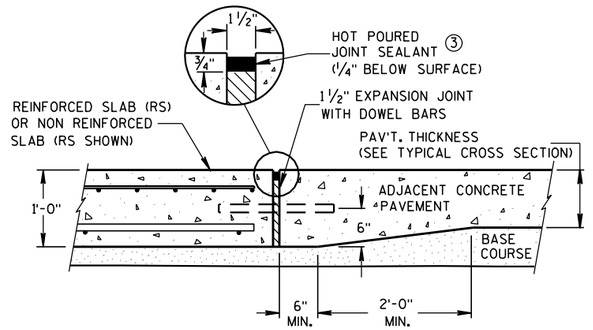
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER: CONCRETE PAVEMENT, OR CONCRETE SURFACE DRAIN
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

**STANDARD TRANSVERSE JOINT SPACING
(SEE SDD 13C4, SDD 13C11, & SDD 13C13)

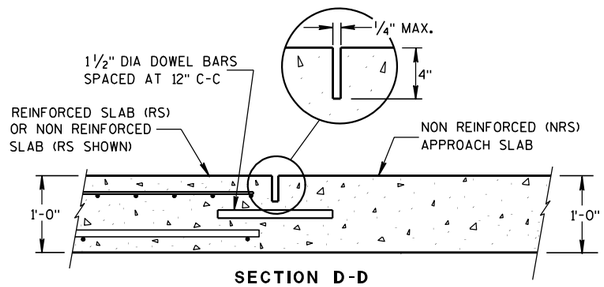
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄
(B) 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄
(C) STANDARD LONGITUDINAL JOINT AND TIE BARS.



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



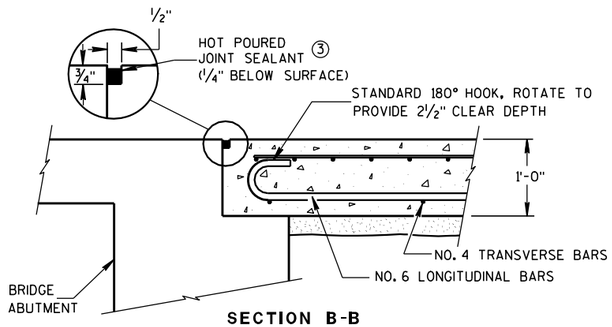
SECTION D-D
CONTRACTION JOINT

GENERAL NOTES

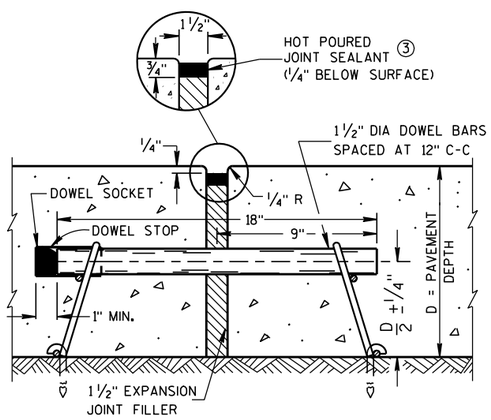
APPROACH SLABS ABUTTING AN HMA PAVEMENT OVER BASE COURSE DO NOT NEED TO BE DOWELED.

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
ENGINEER
FHWA

6
S.D.D. 13 B 2-6

GENERAL NOTES

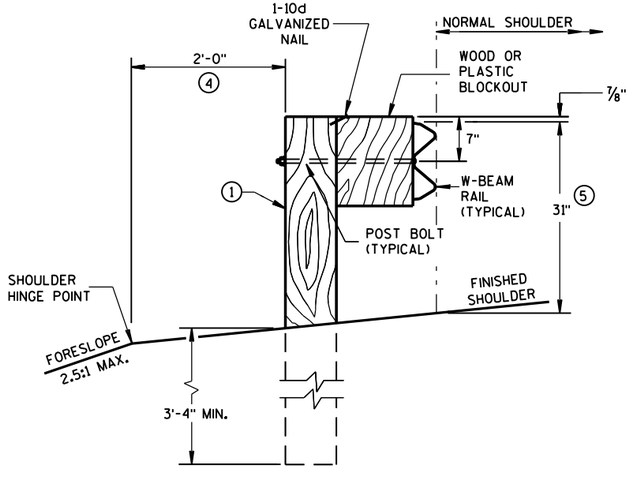
1. WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

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.

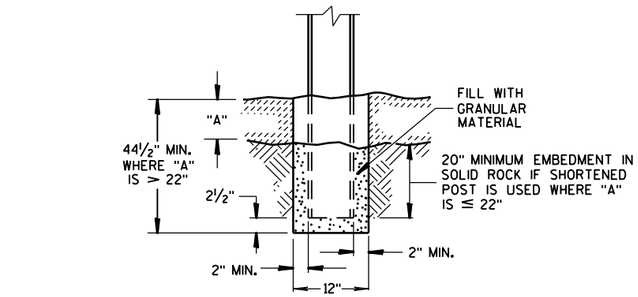
4. WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).

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".



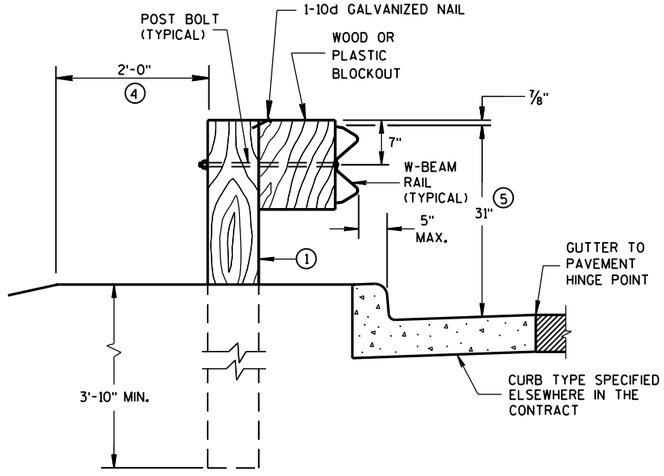
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



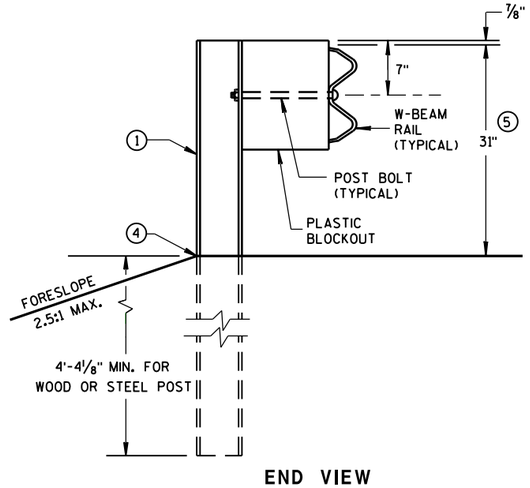
END VIEW

SETTING STEEL OR WOOD POST IN ROCK ③



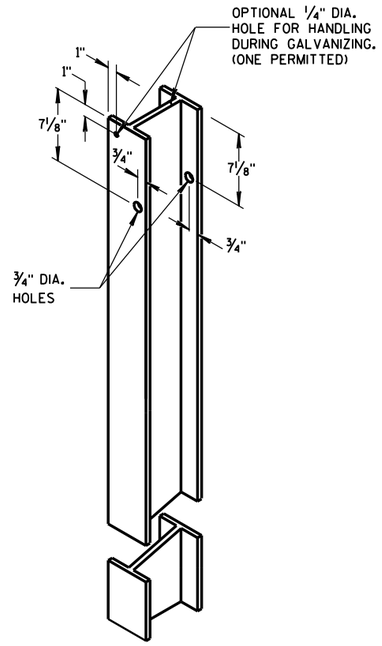
END VIEW

LOCATED ALONG A CURBED ROADWAY

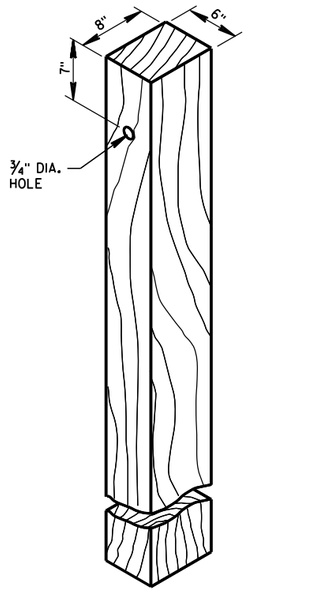


END VIEW

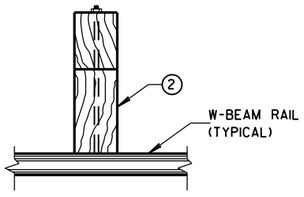
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



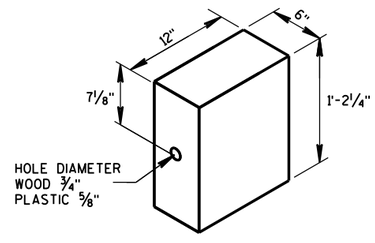
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) ①



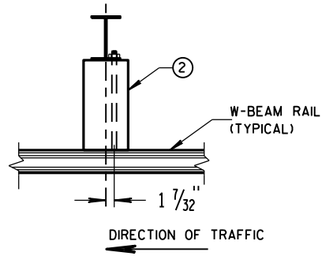
WOOD POST
(6" X 8") NOMINAL ①



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT ②

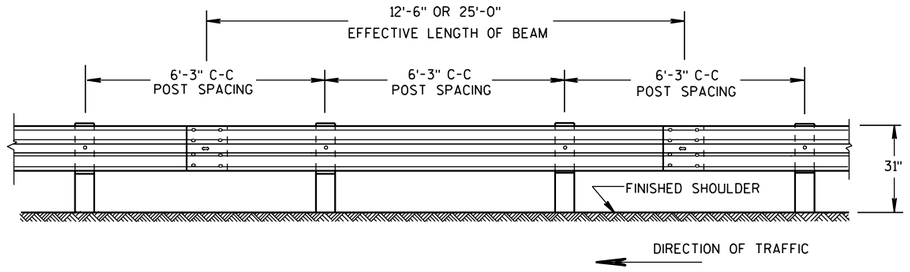


PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

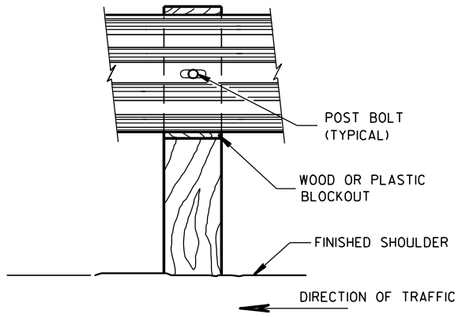
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 42-2a



FRONT VIEW

POST SPACING STANDARD INSTALLATION



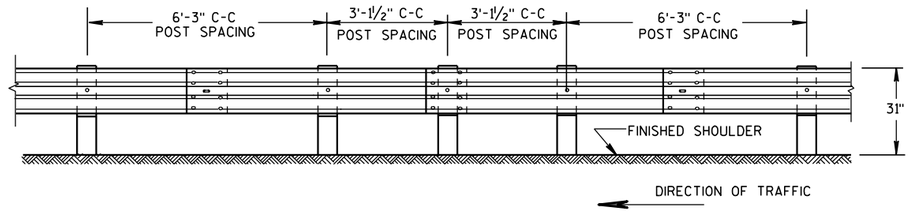
FRONT VIEW AT WOOD POST

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.

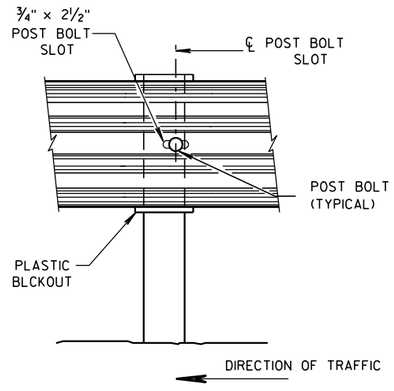
POST BOLTS ARE A 5/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 5/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

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.

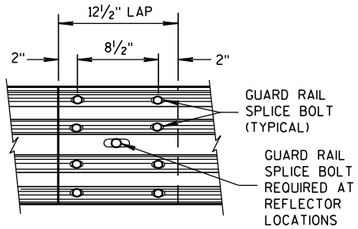


FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

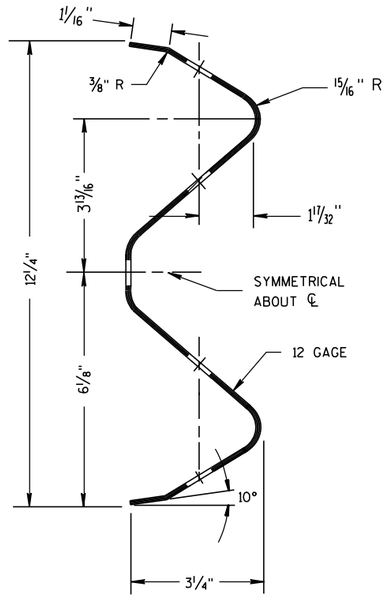


FRONT VIEW AT STEEL POST

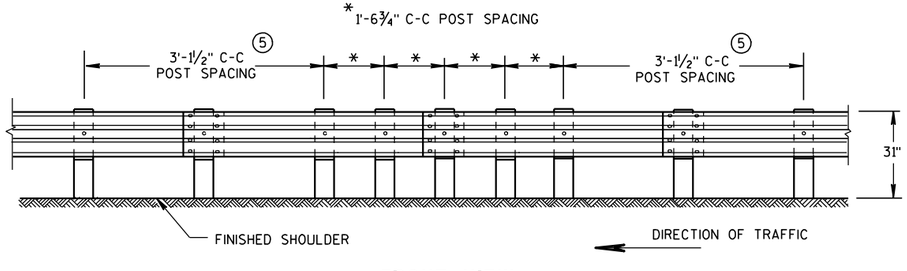


FRONT VIEW

MID-SPAN BEAM SPLICE

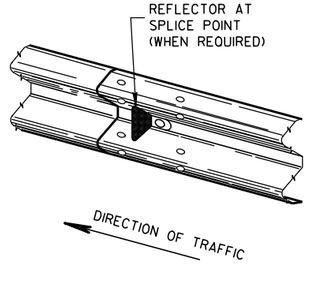


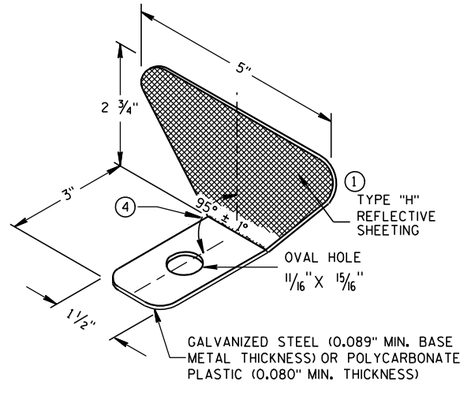
SECTION THRU W-BEAM RAIL



FRONT VIEW

QUARTER POST SPACING (QS)





ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ①

REFLECTOR SPACING ②

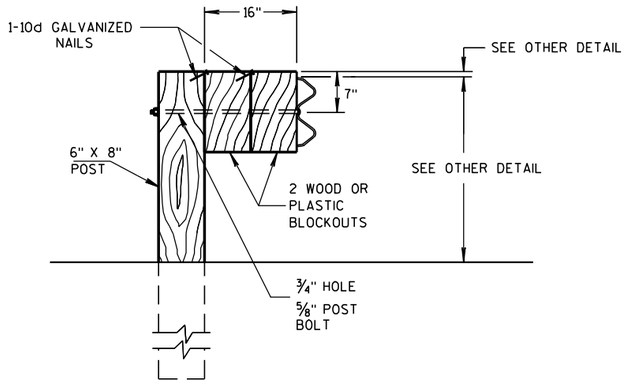
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ③	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2 ④	3
	> 200'	100' C-C	2	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

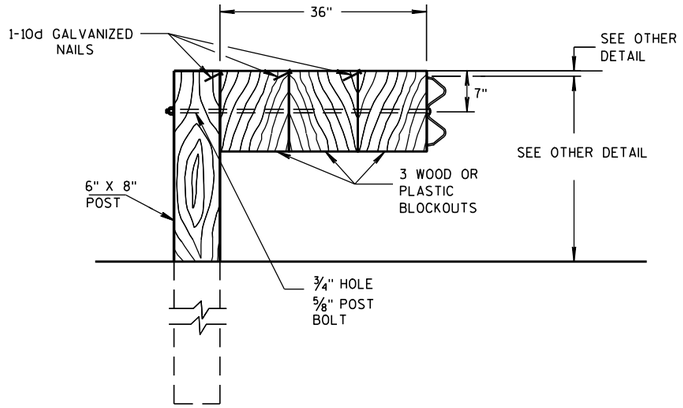
S.D.D. 14 B 42-2b

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.

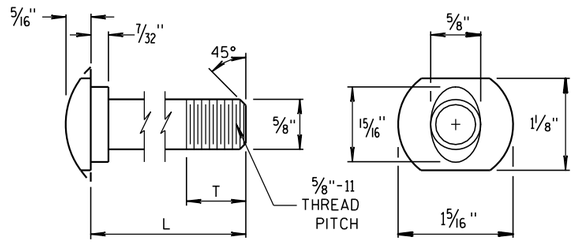


DETAIL FOR 36" BLOCKOUT DEPTH

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.

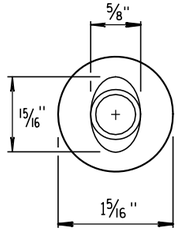
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

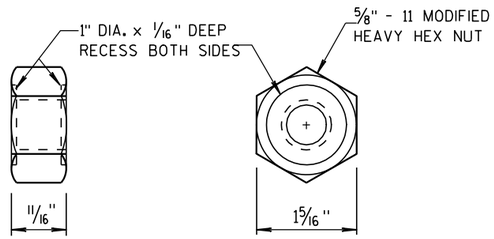


POST BOLT TABLE

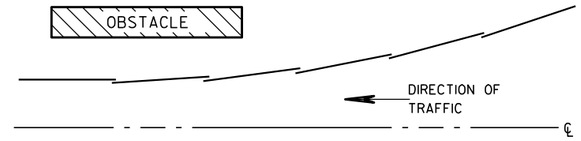
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

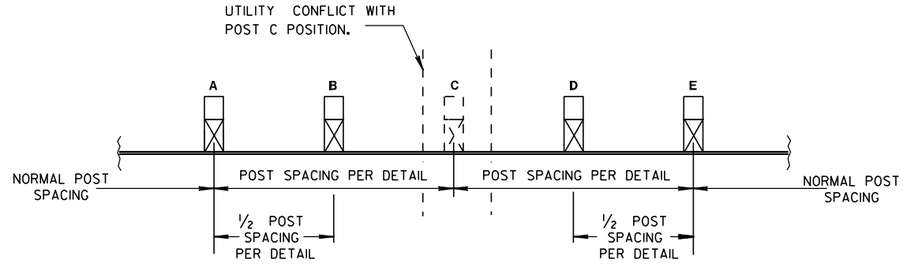


POST BOLT AND RECESS NUT

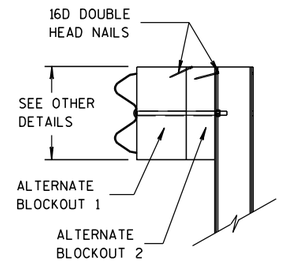


PLAN VIEW

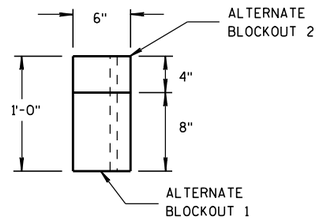
BEAM LAPPING DETAIL



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

ENT

6

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.

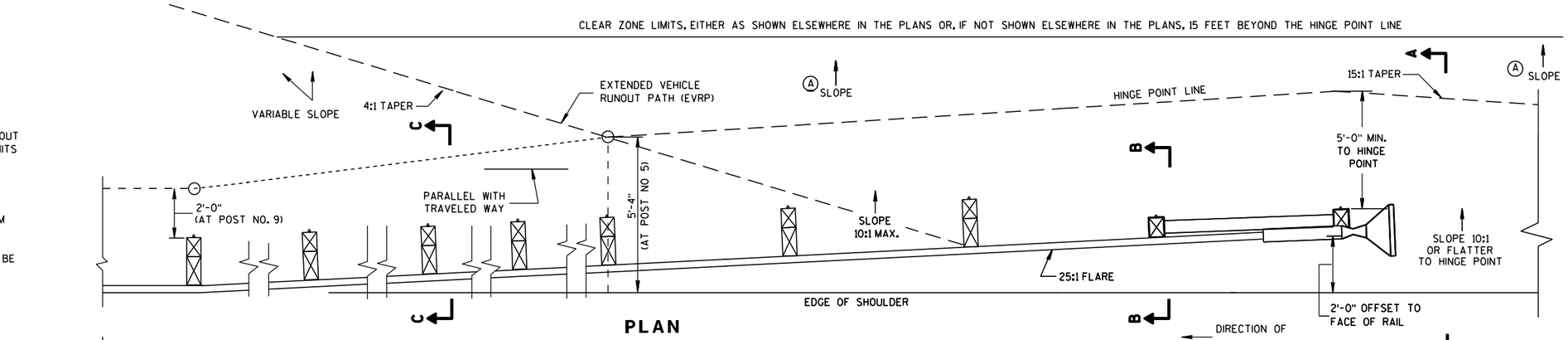
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

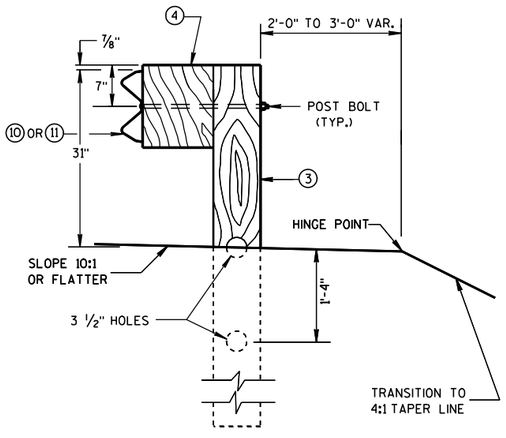
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

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.

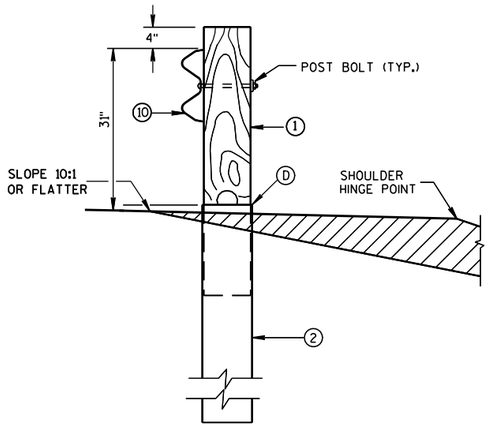
PATTERN AND COLORS ON REFLECTIVE SHEETING TYPE H ARE TO CONFORM TO OM3-L OR OM3-R OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE (± ¾")

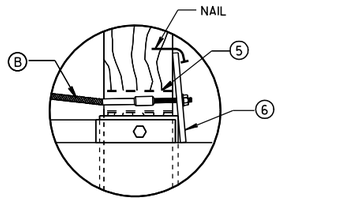


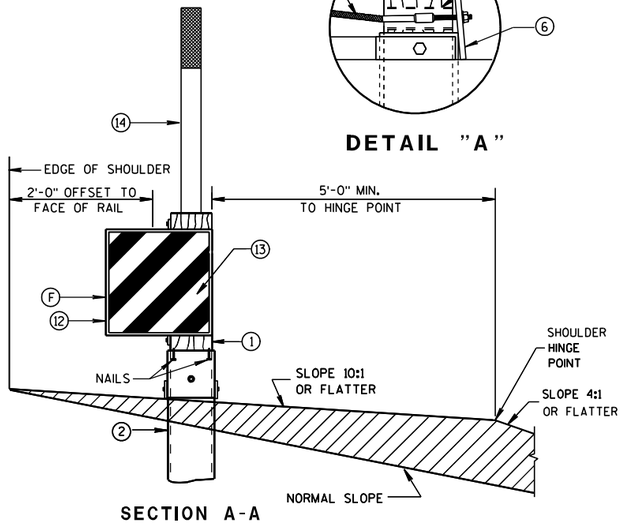


SECTION C-C
TYPICAL AT POST NOS. 3-9

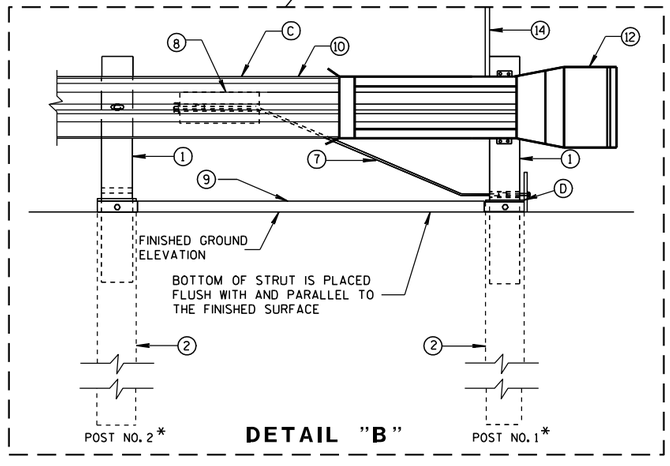


SECTION B-B
TYPICAL AT POST NO. 2*





SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

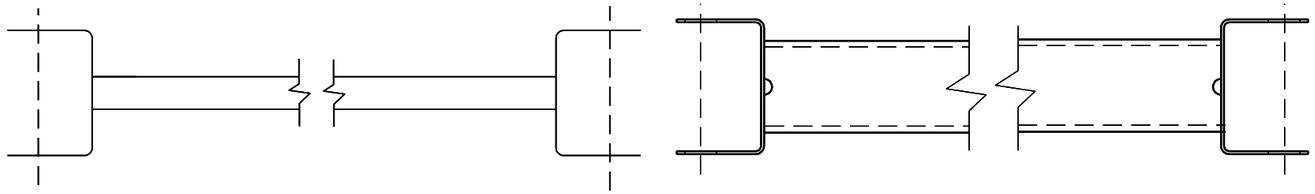
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 44-1a

6

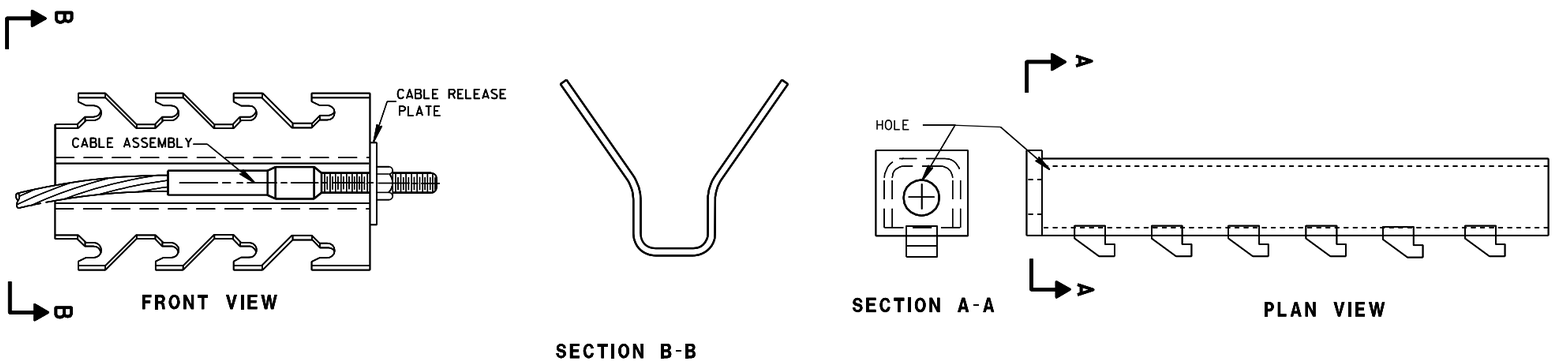
S.D.D. 14 B 44-1a



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)



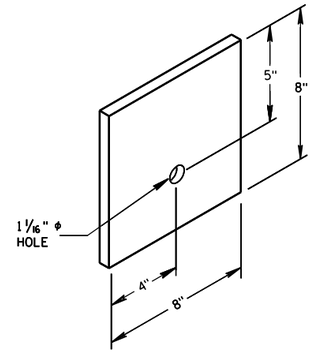
FRONT VIEW

SECTION B-B

SECTION A-A

PLAN VIEW

GENERIC ANCHOR CABLE BOX (8) (H)



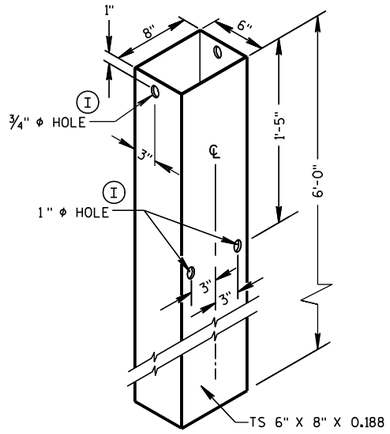
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

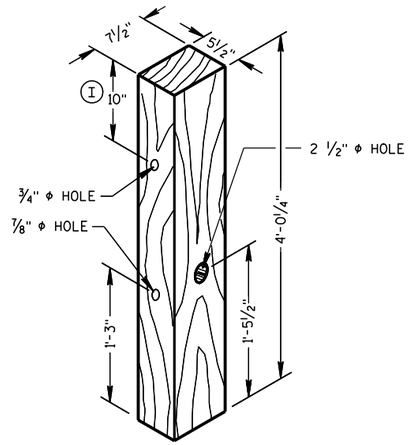
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 14 B 44-1b

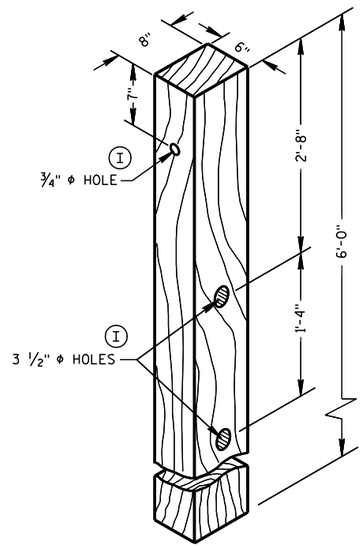


FOUNDATION TUBE (2)



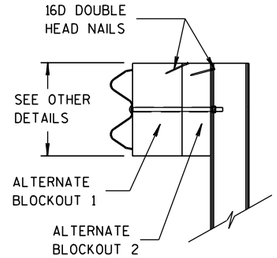
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

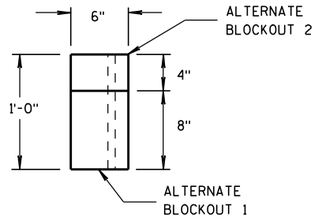


POSTS NUMBER 3-9

WOOD CRT POST (3)

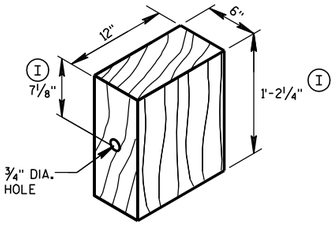


SIDE VIEW



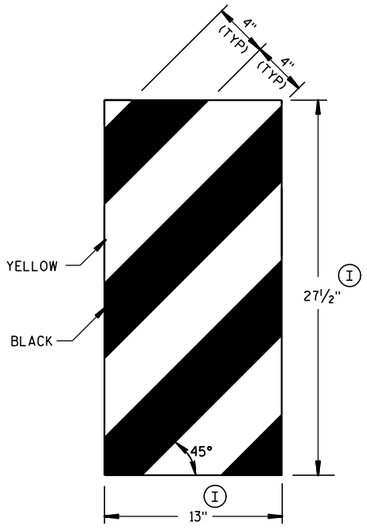
TOP VIEW

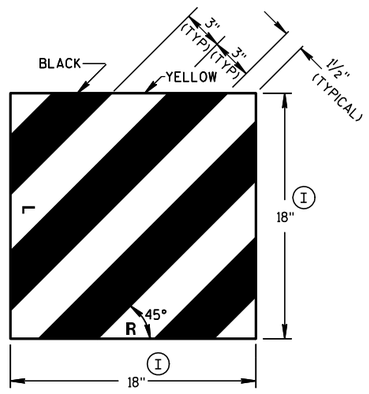
ALTERNATE WOOD BLOCKOUT DETAIL



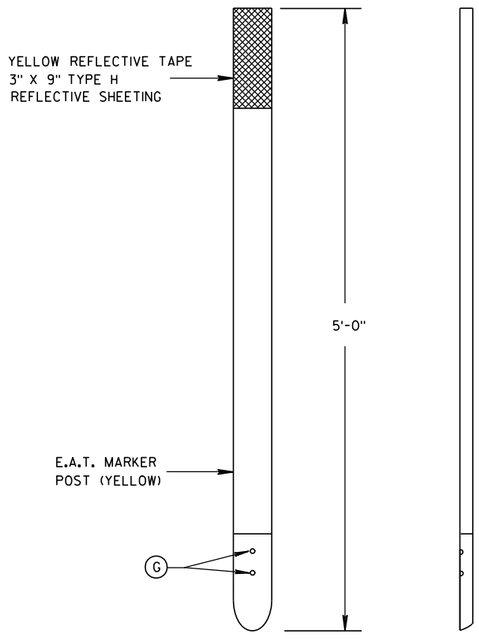
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





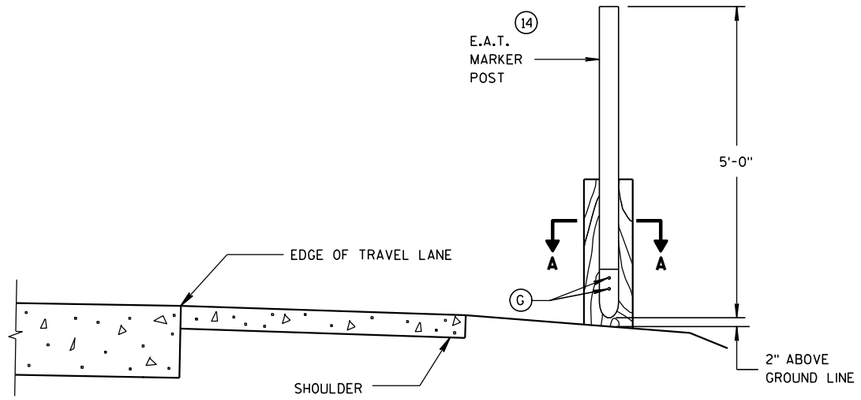
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

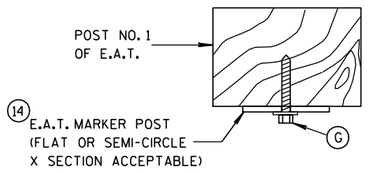
SIDE VIEW

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

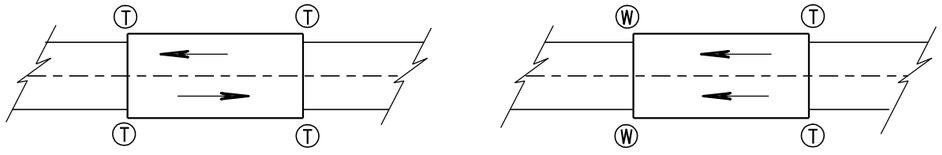
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
5/23/2011
DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

6

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

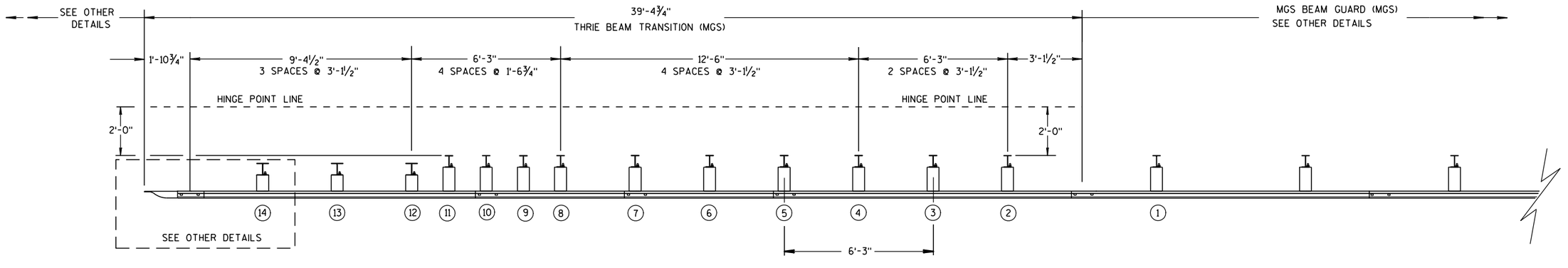
BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

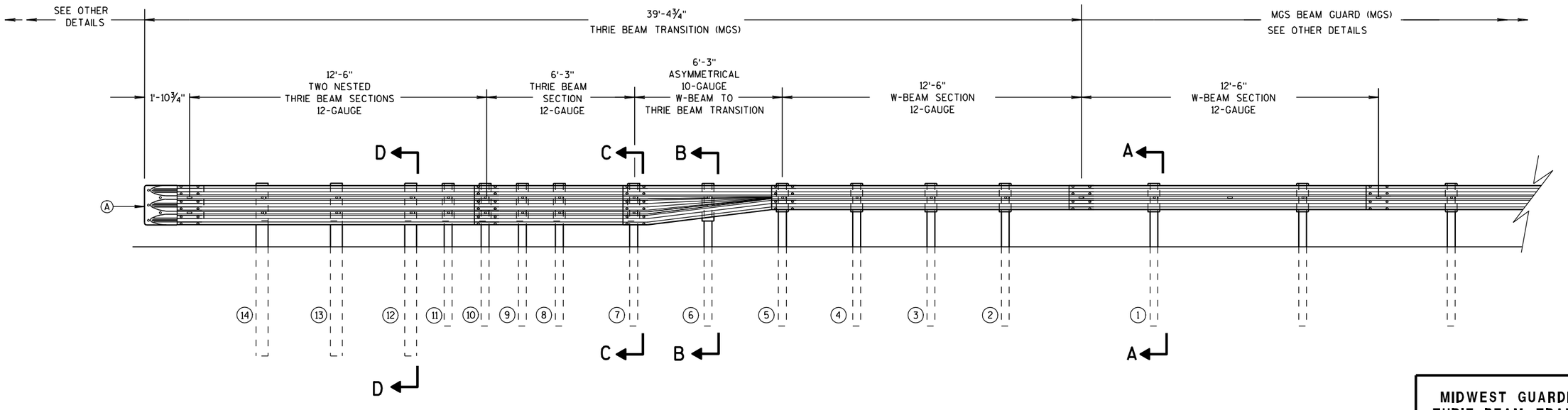
TRANSITION USES STEEL POSTS ONLY.

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)

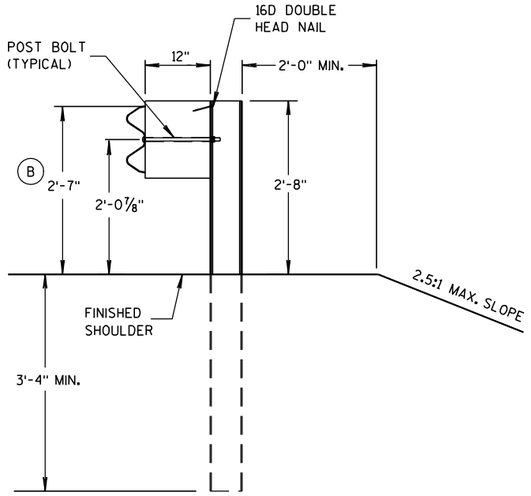
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

S.D.D. 14 B 45-3a

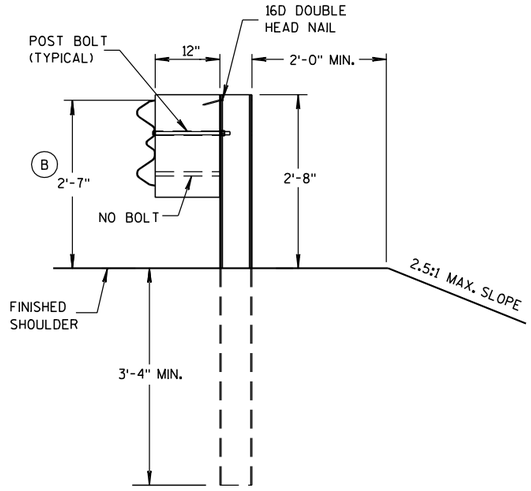
GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



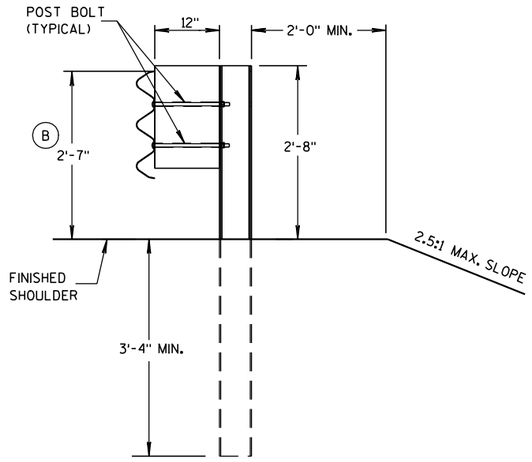
SECTION A-A

POSTS 1-5



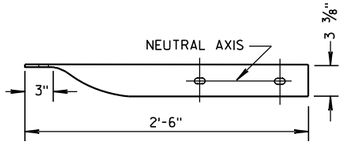
SECTION B-B

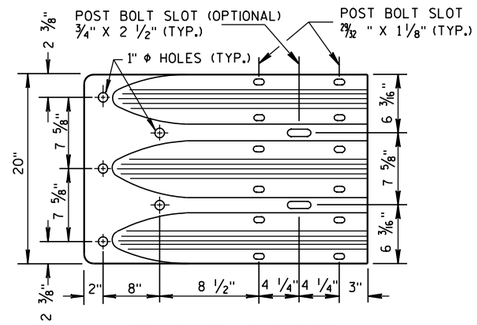
POST 6



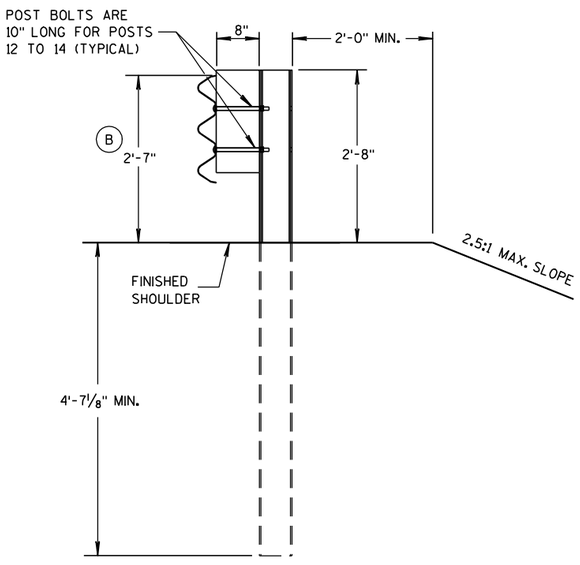
SECTION C-C

POSTS 7-11





THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-14

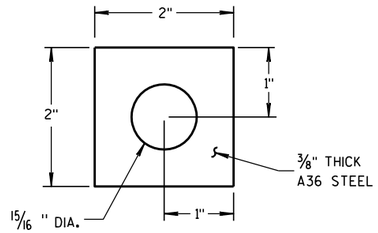
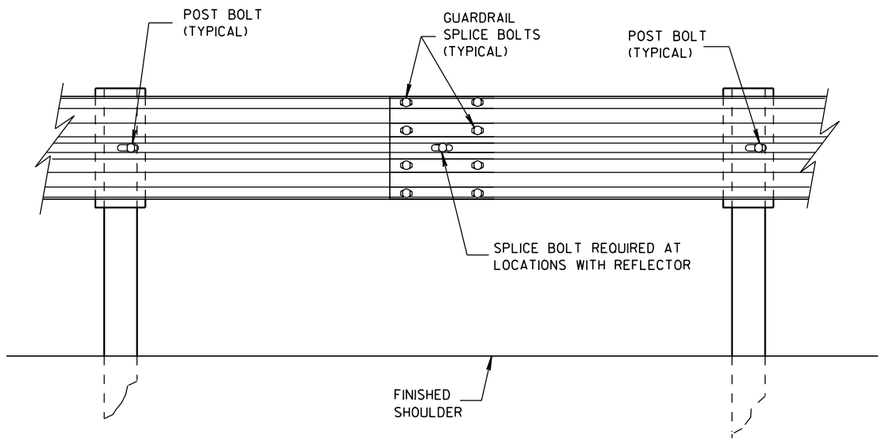
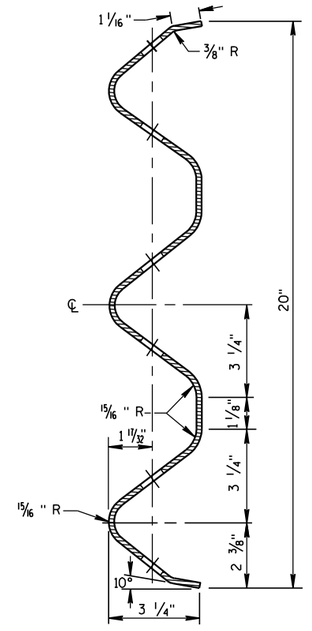


PLATE WASHER DETAIL



SPLICE DETAIL



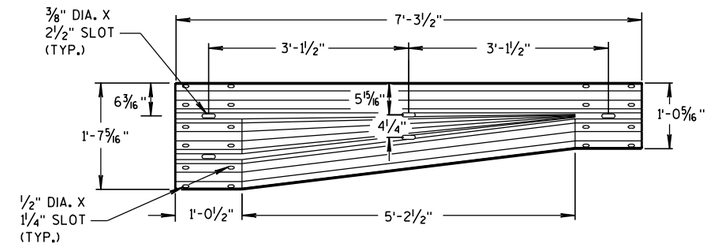
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

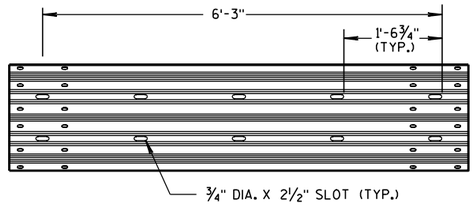
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

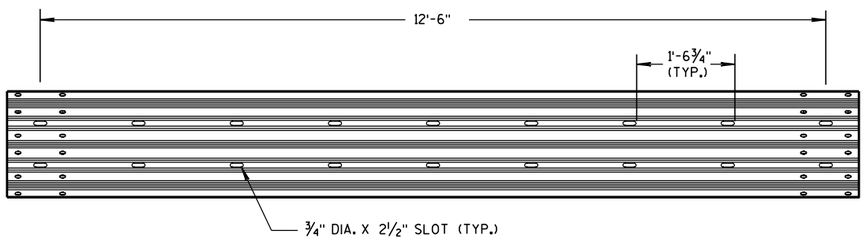
S.D.D. 14 B 45-3b



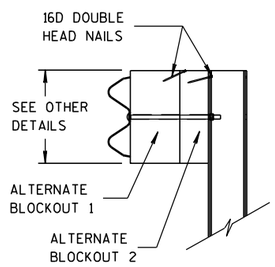
W-BEAM TO THRIE BEAM TRANSITION SECTION



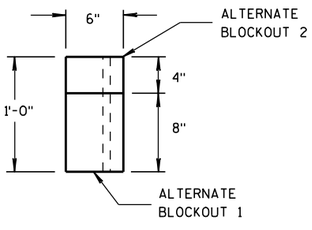
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

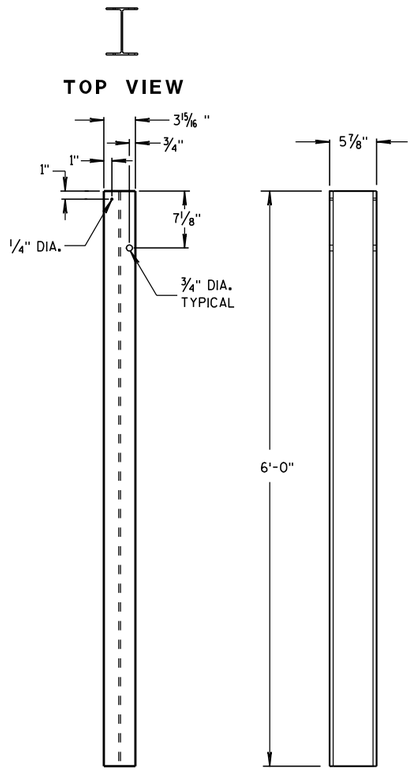


SIDE VIEW

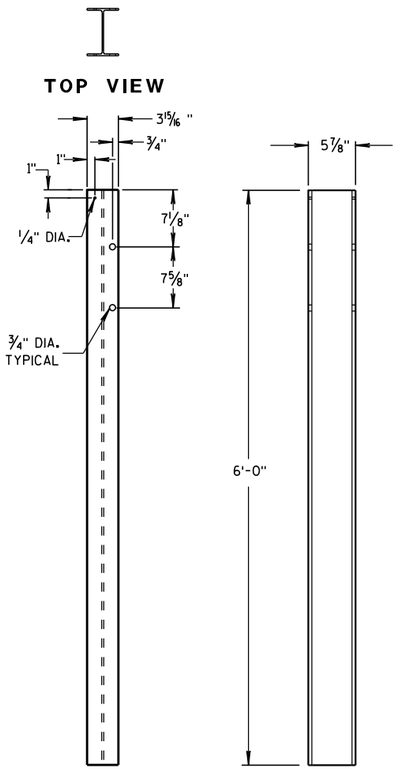


TOP VIEW

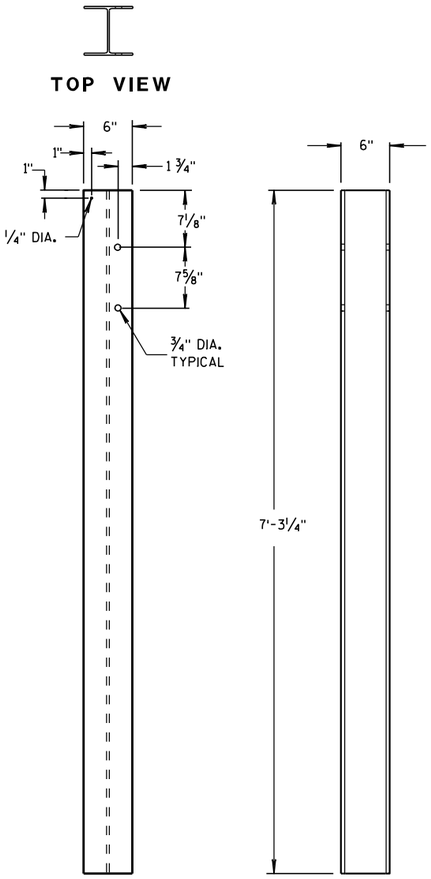
ALTERNATE WOOD BLOCKOUT DETAIL



STEEL POSTS 1-5

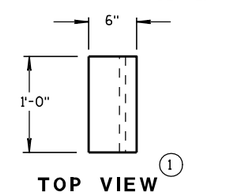


STEEL POSTS 6-11

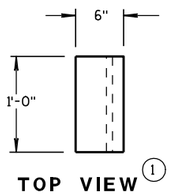


STEEL POSTS 12-14

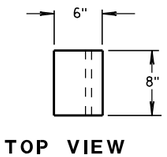
1 WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.



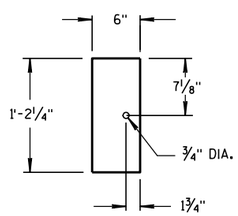
TOP VIEW (1)



TOP VIEW (1)

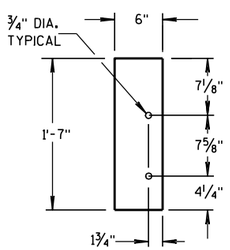


TOP VIEW



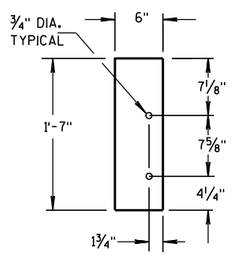
FRONT VIEW

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)

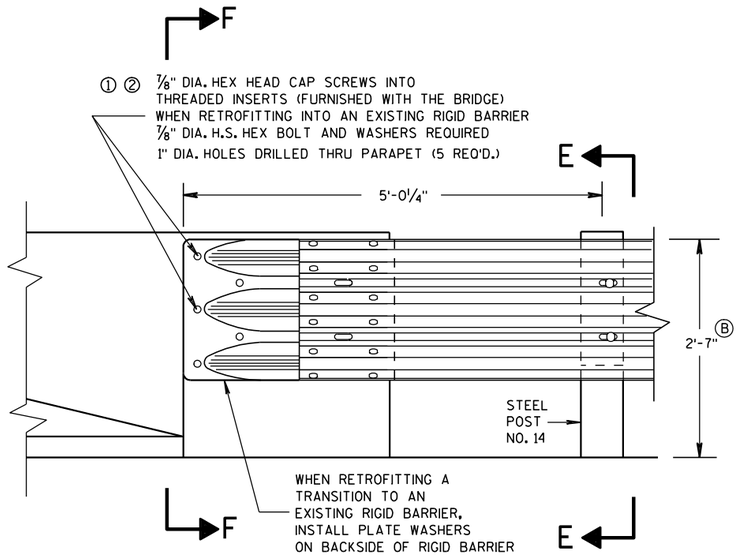
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

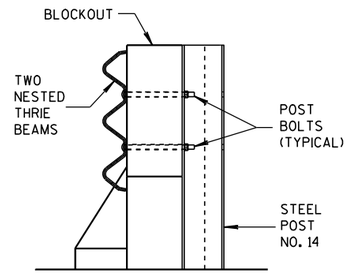
S.D.D. 14 B 45-3c

6

S.D.D. 14 B 45-3c



FRONT VIEW



SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

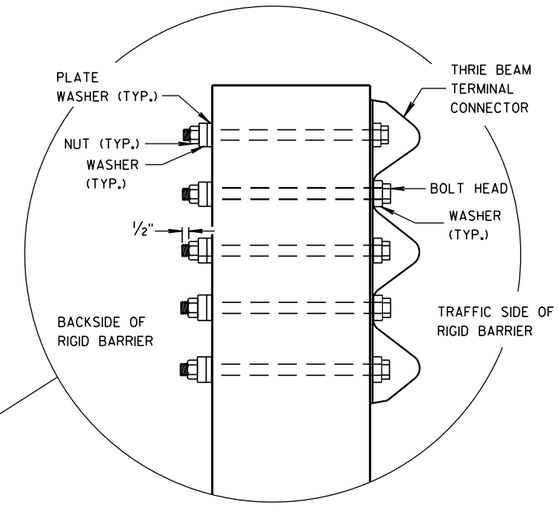
THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

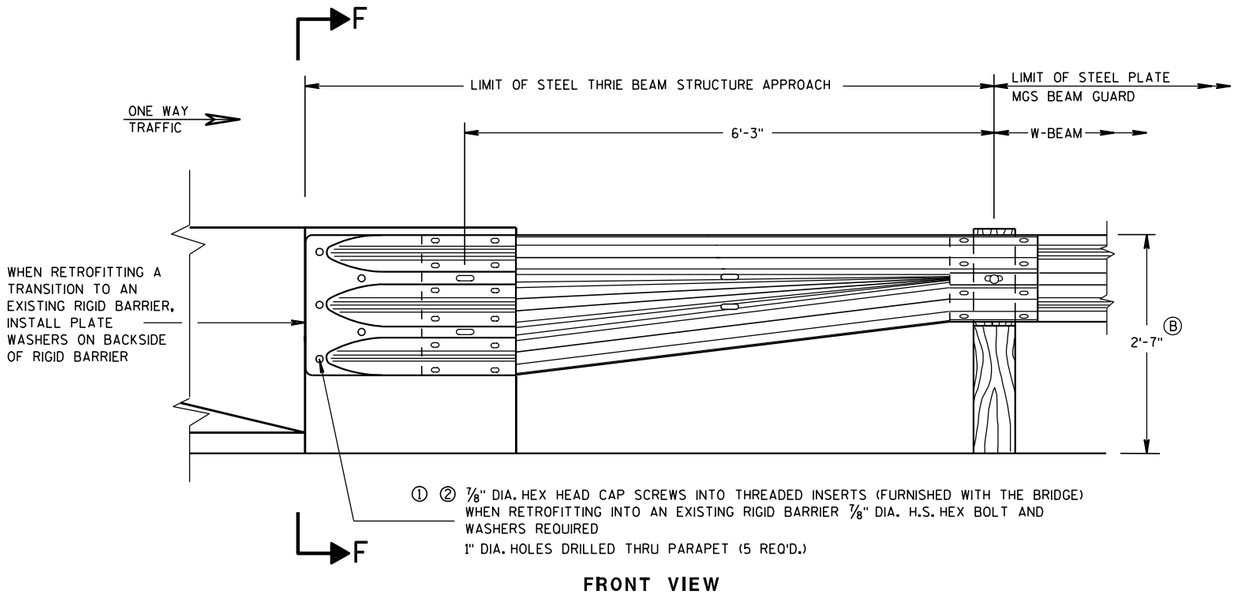
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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.

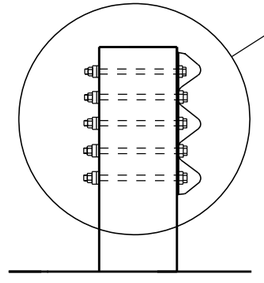
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".





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 ENGINEER

FHWA

6

S.D.D. 14 B 45-3d

6

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.

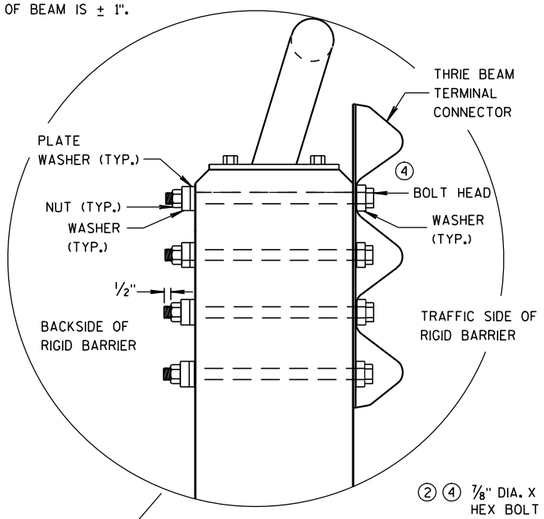
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

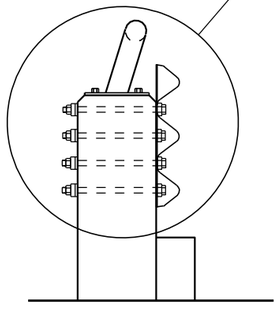
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. 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.

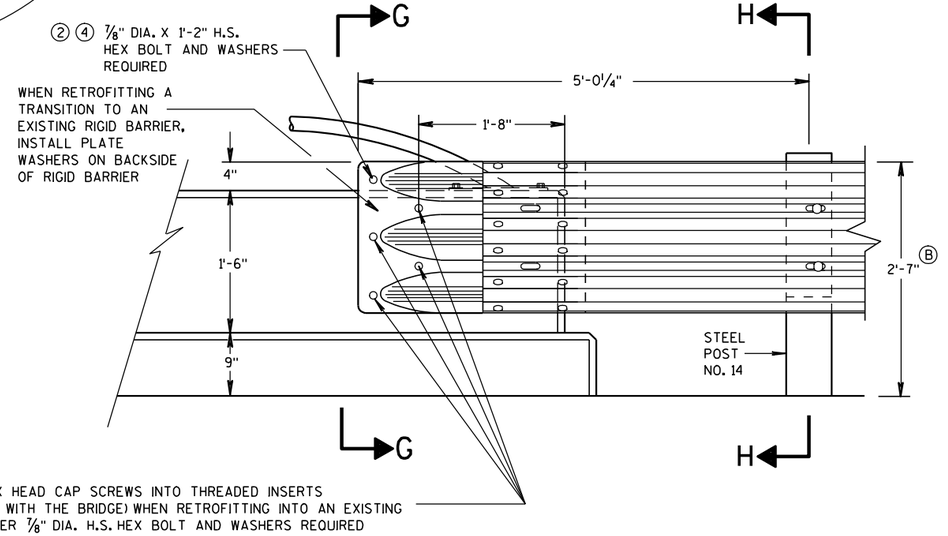
④ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".

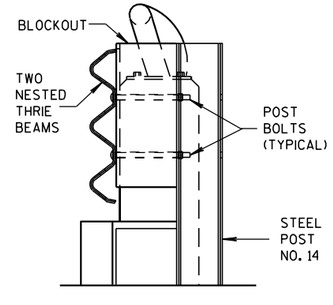




SECTION G-G

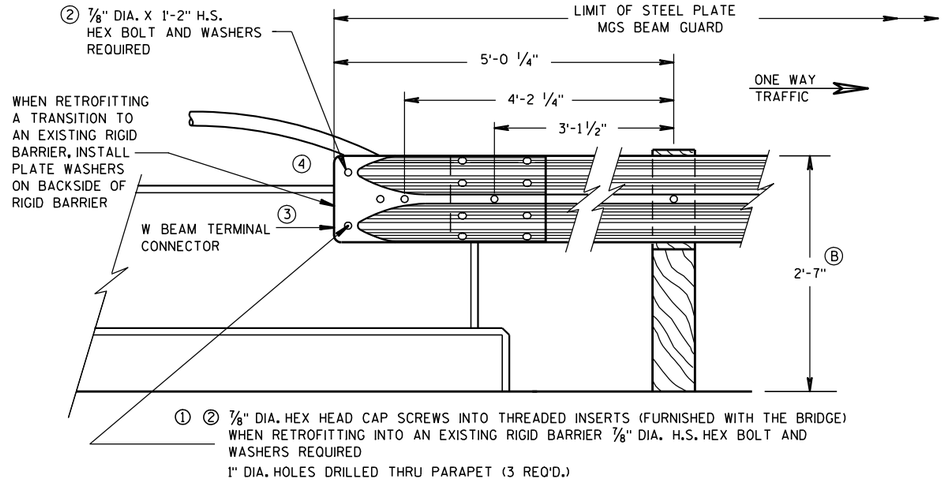


FRONT VIEW



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

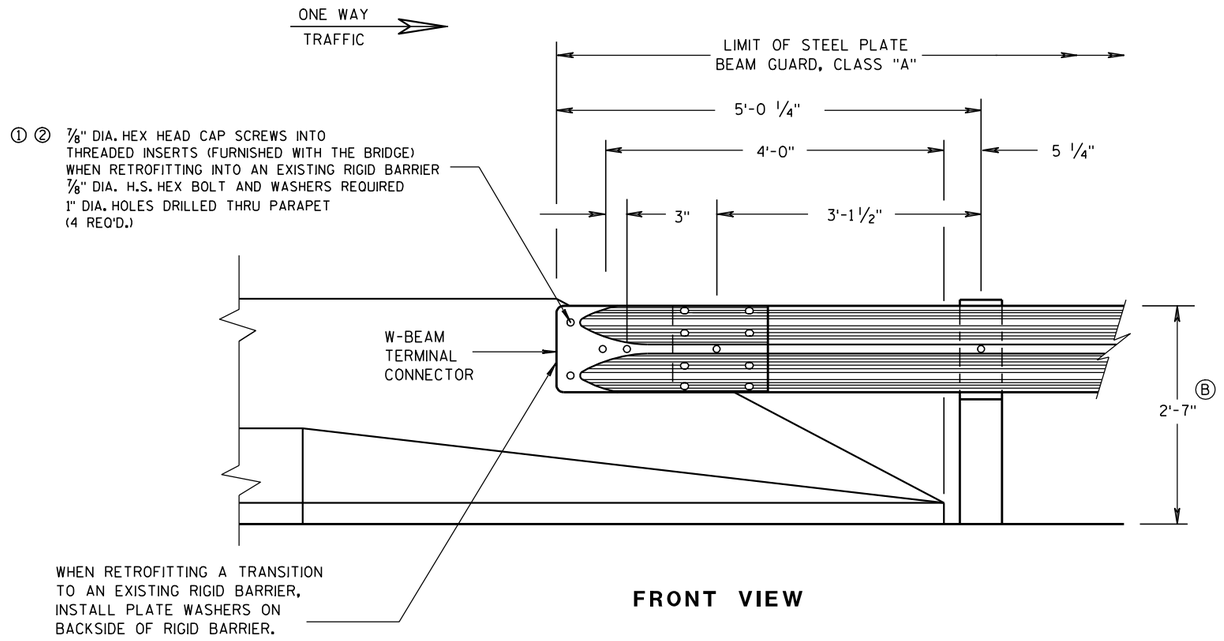
FHWA

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S.D.D. 14 B 45-3e

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S.D.D. 14 B 45-3e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

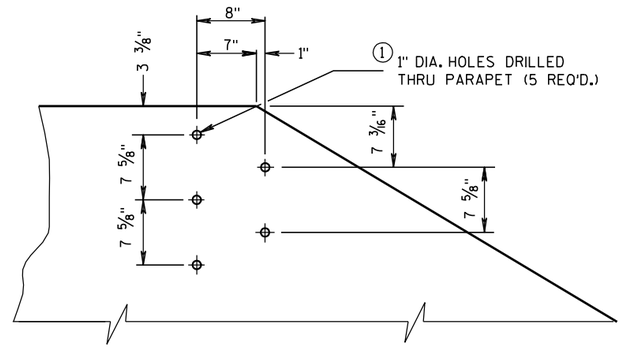
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

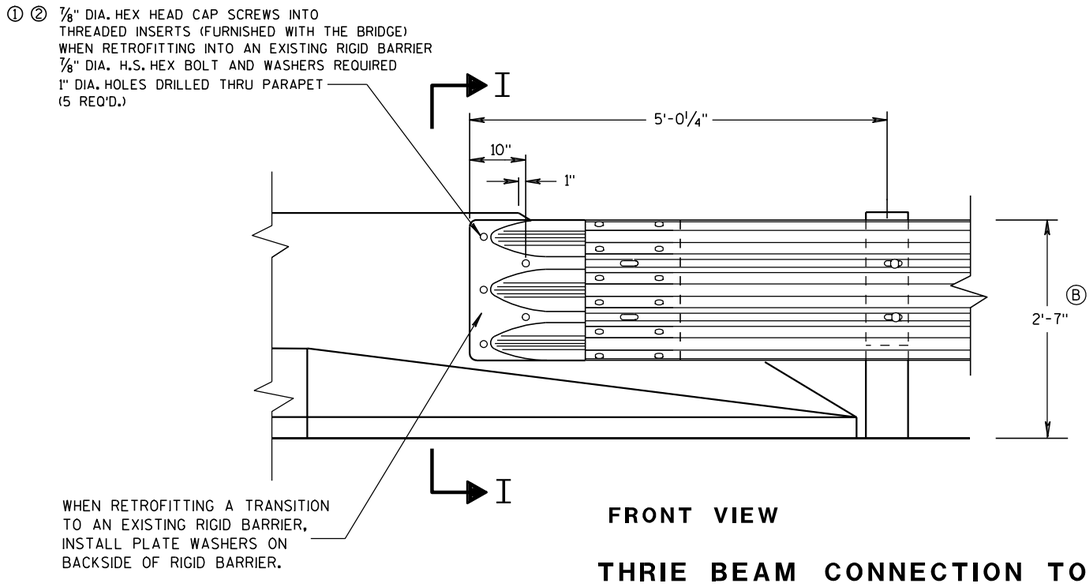
① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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.

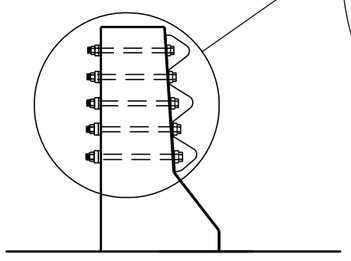
Ⓑ TOLERANCE FOR TOP OF BEAM IS ± 1".



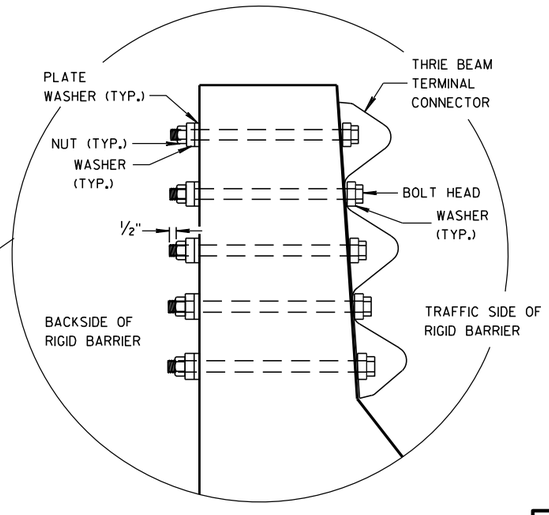
DRILL HOLE LOCATION AND PATTERN FOR THRIE BEAM CONNECTION



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

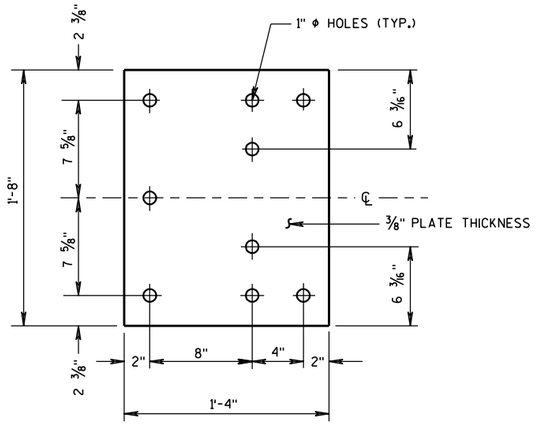
FHWA

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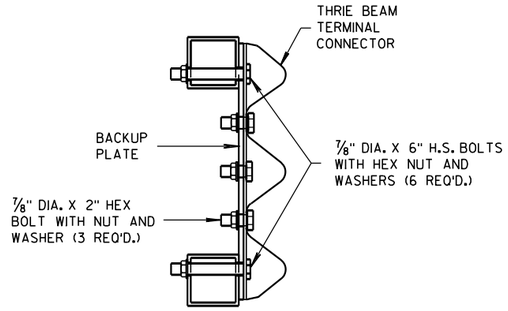
S.D.D. 14 B 45-3f

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S.D.D. 14 B 45-3f



BACK-UP PLATE DETAIL

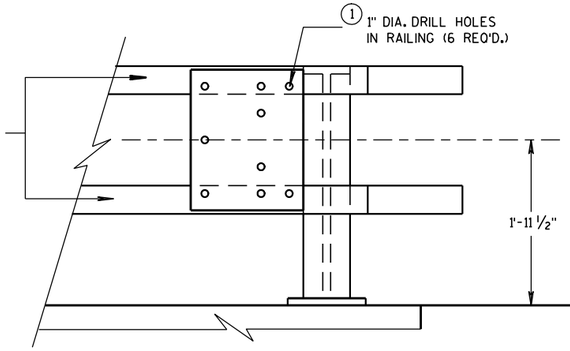


SECTION J-J

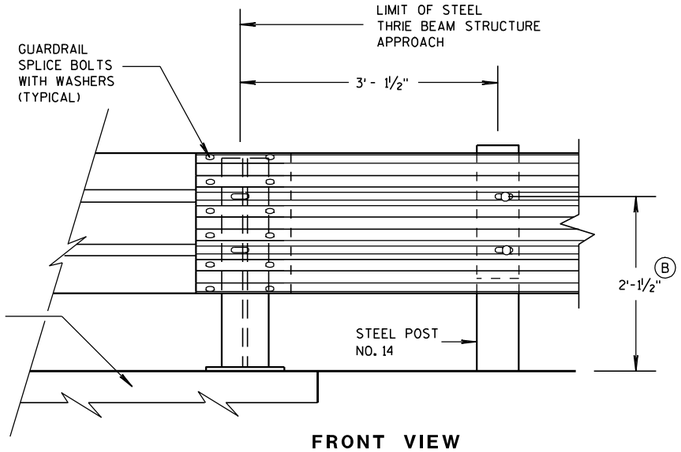
GENERAL NOTES

(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".

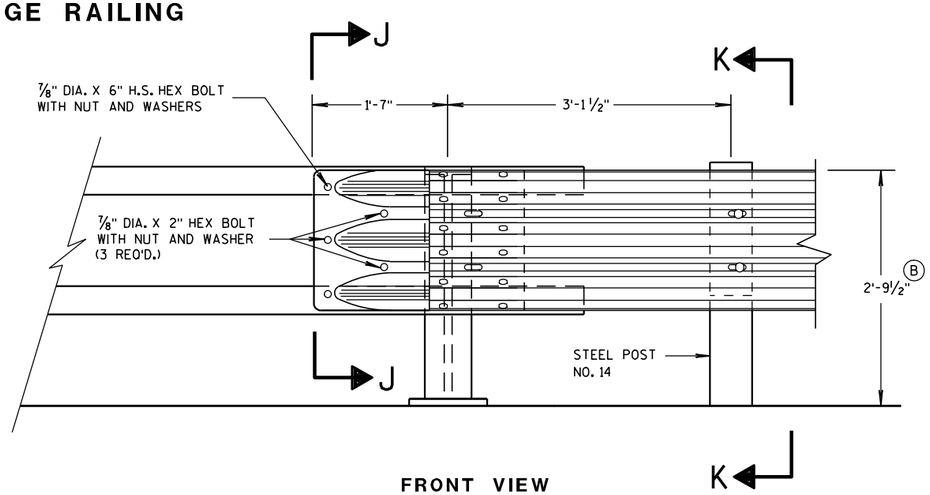


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

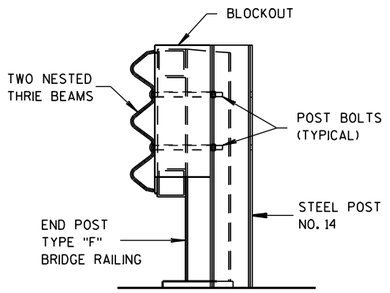


FRONT VIEW

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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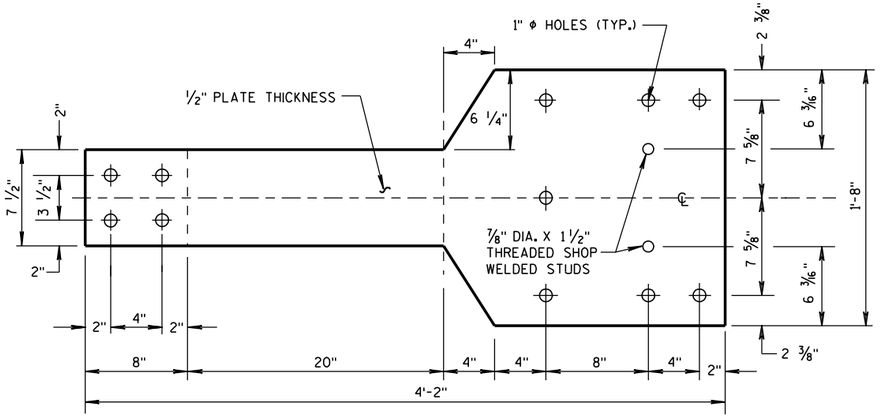
S.D.D. 14 B 45-3g

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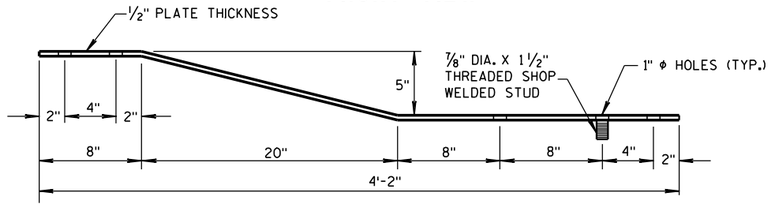
S.D.D. 14 B 45-3g

GENERAL NOTES

(B) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

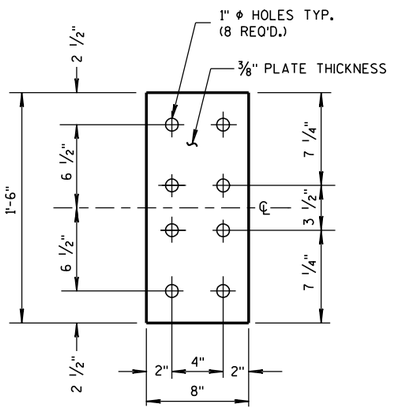


FRONT VIEW



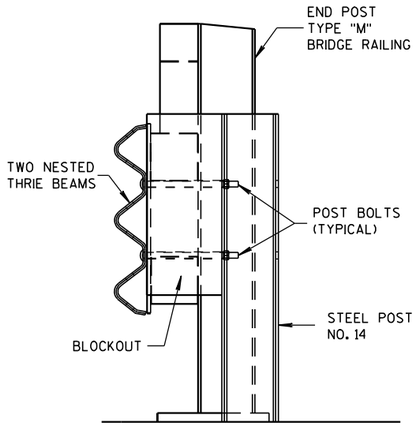
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

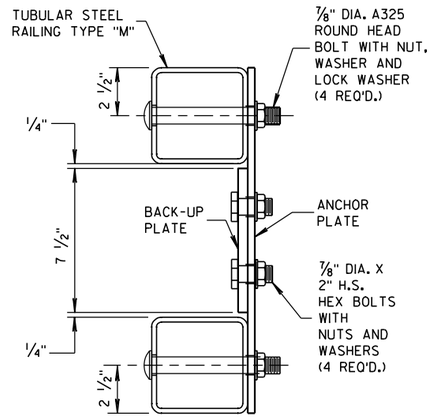


FRONT VIEW

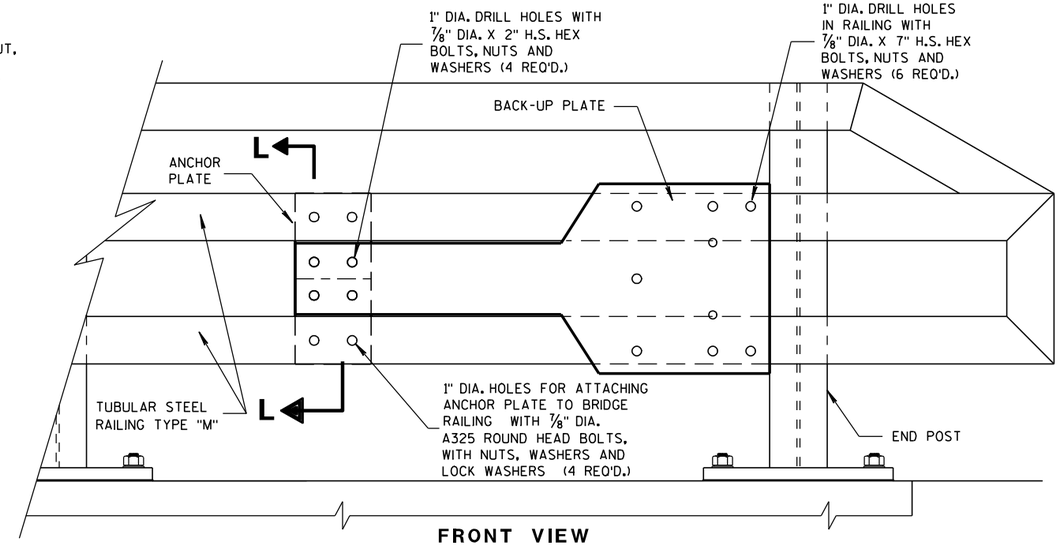
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

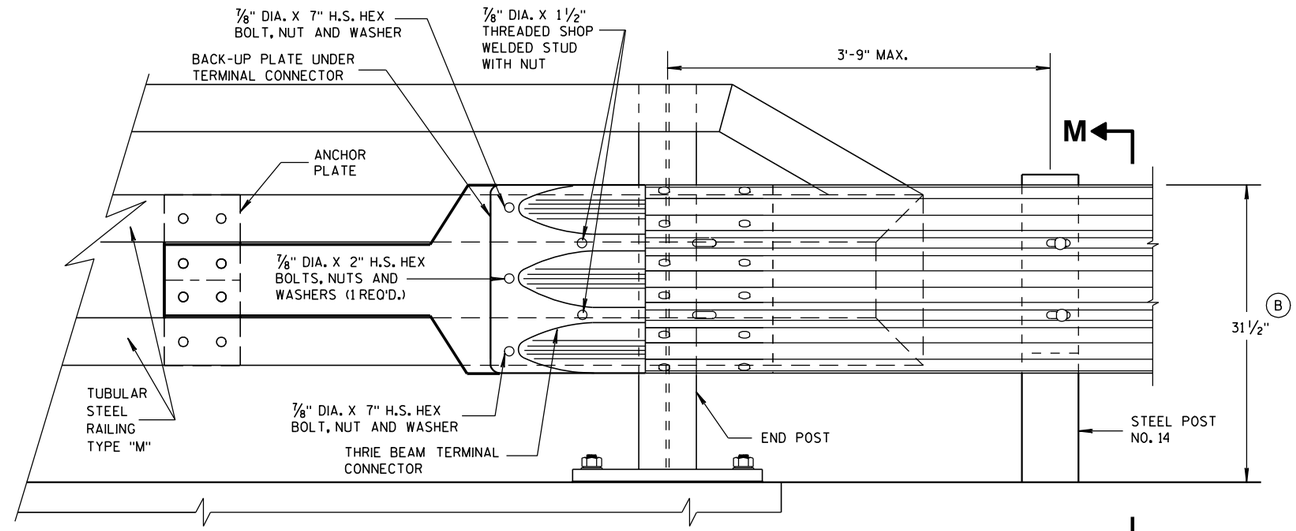


SECTION L-L

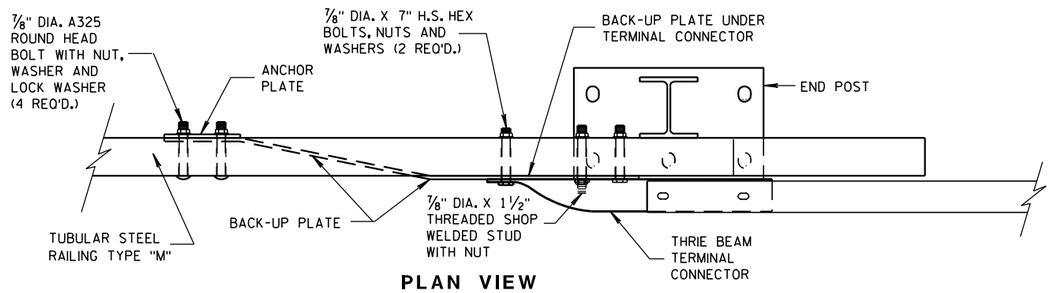


FRONT VIEW

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

6

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.

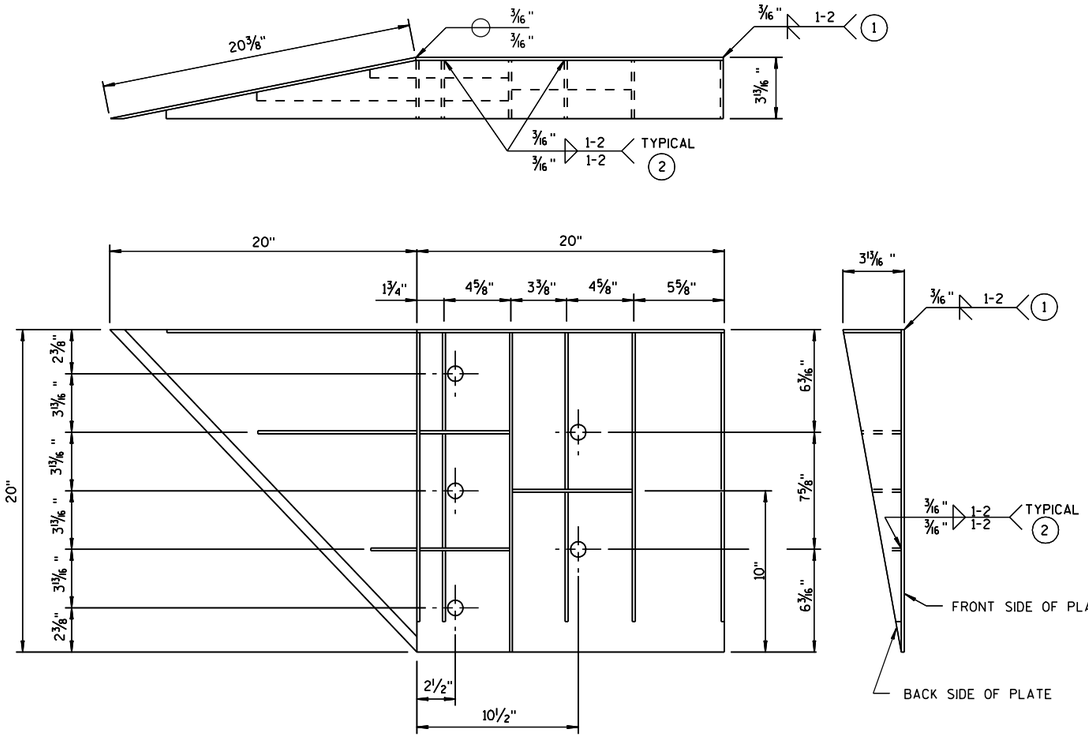
FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.

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)

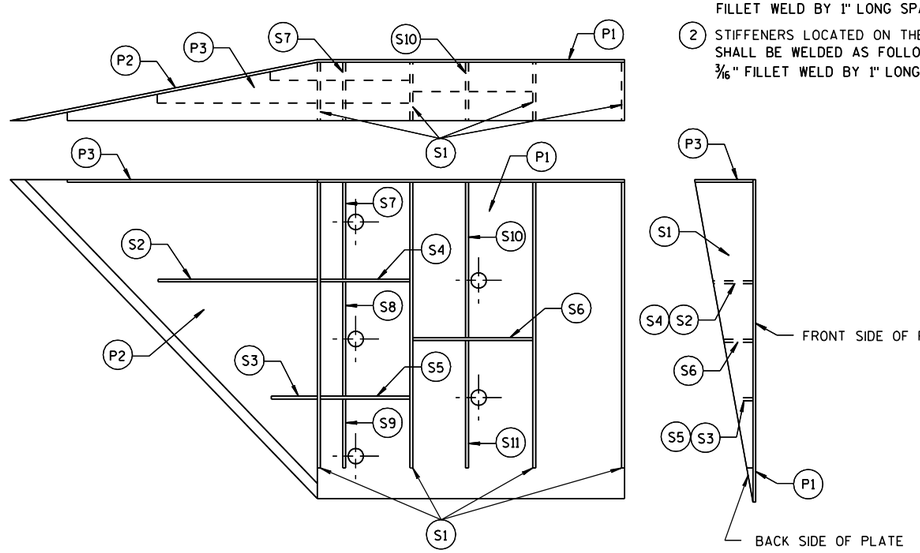


PLATE AND STIFFENER IDENTIFICATION

(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

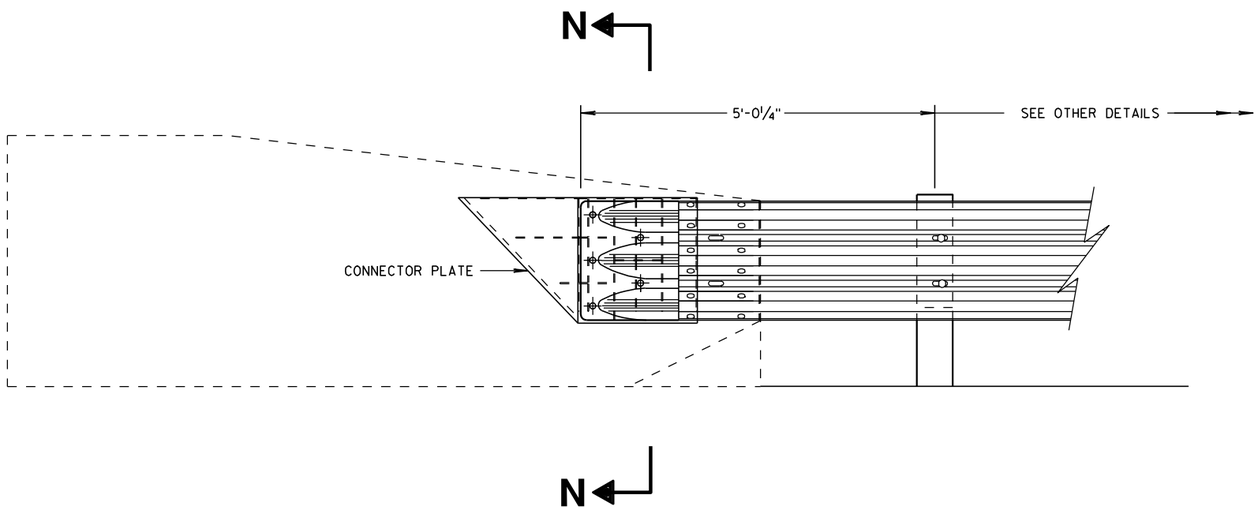
APPROVED
8/31/2012 DATE
/S/ Jerry H ____
ROADWAY STANDARDS ENGINEER
142
FHWA

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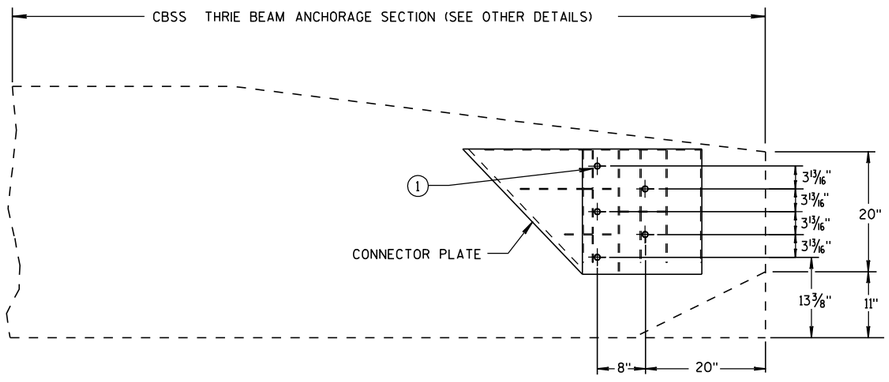
S.D.D. 14 B 45-3i

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S.D.D. 14 B 45-3i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER

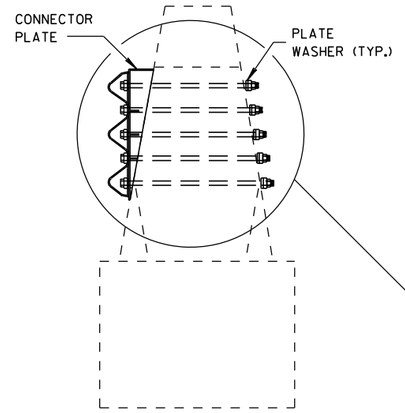


SINGLE SLOPE CONNECTION PLATE PLACEMENT

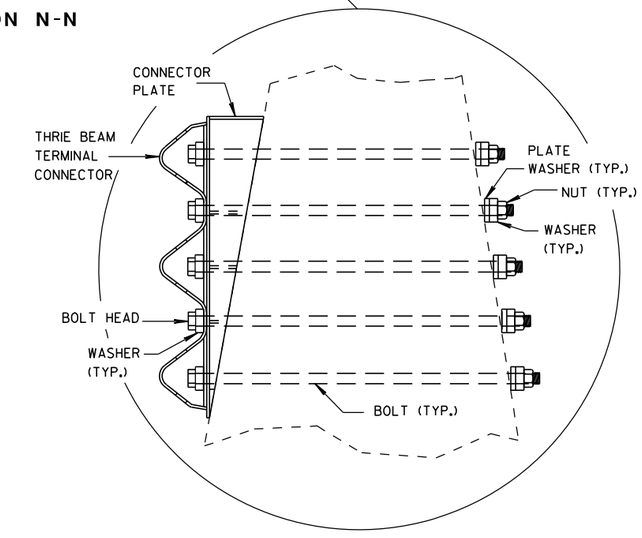
GENERAL NOTES

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

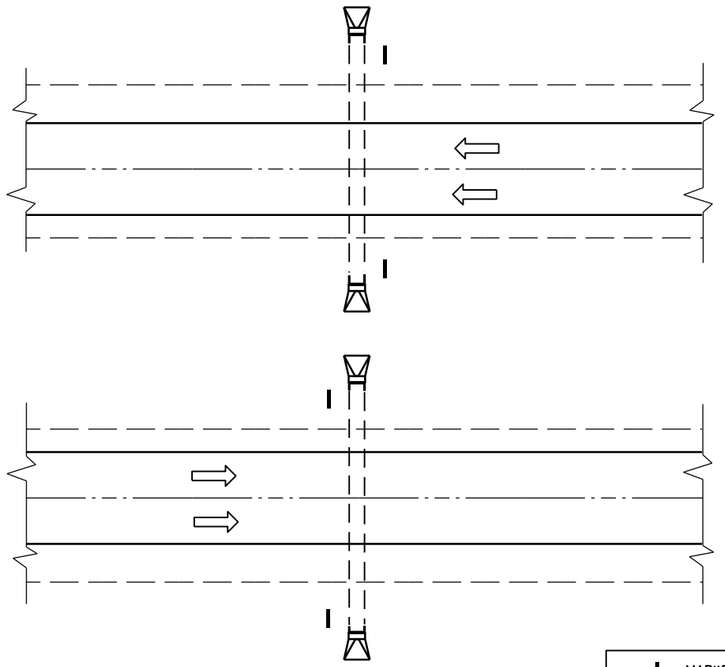
APPROVED
8/31/2012 — DATE
/S/ Jerry H. [illegible] — ROADWAY STANDARDS ENGINEER
FHWA

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S.D.D. 14 B 45-3j

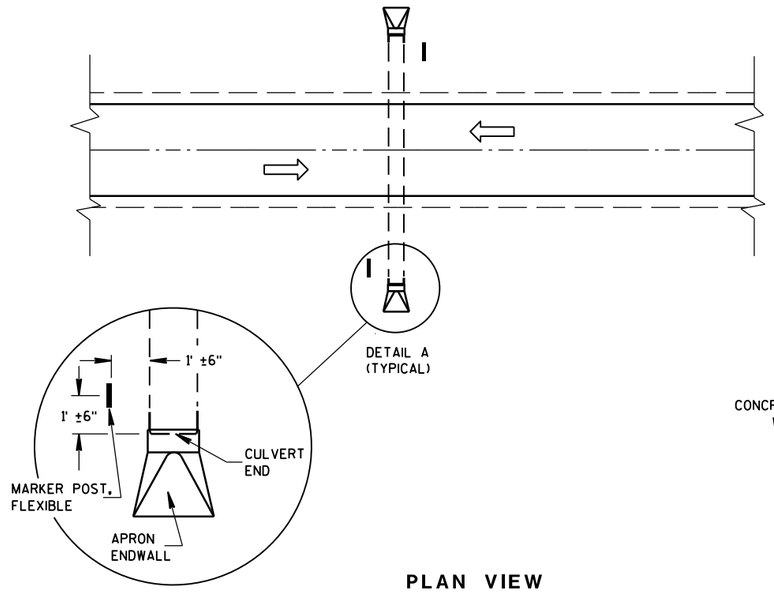
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S.D.D. 14 B 45-3j



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

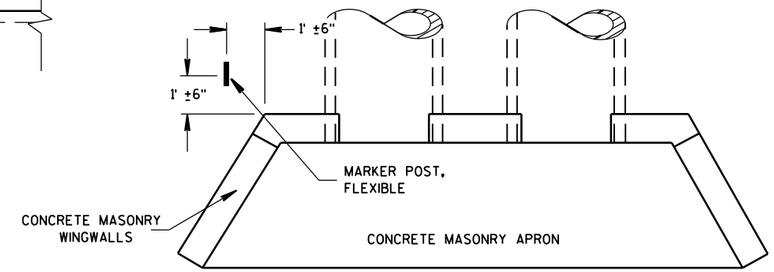
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

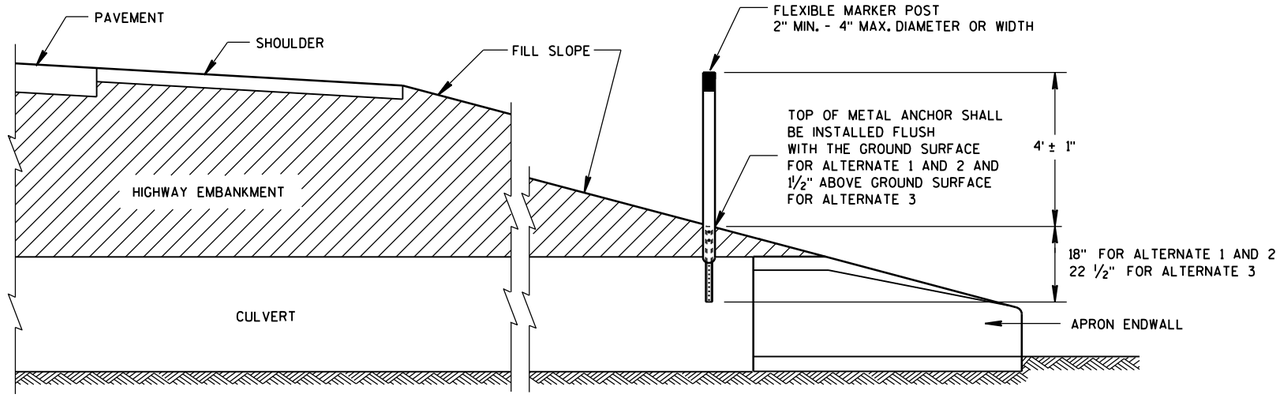
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

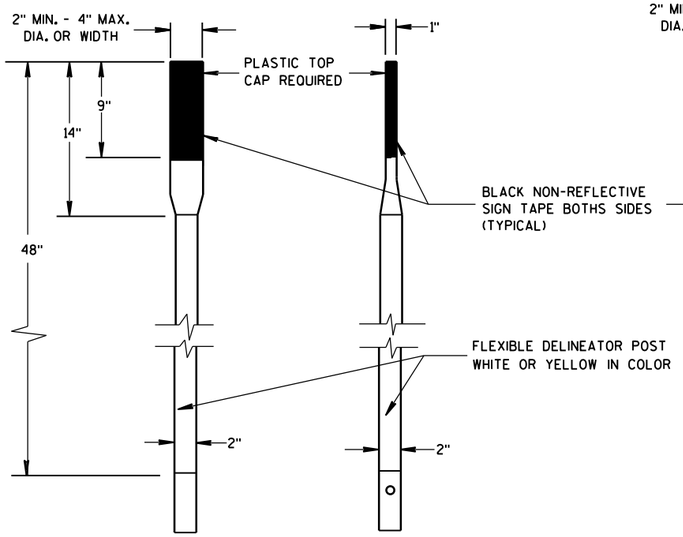
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

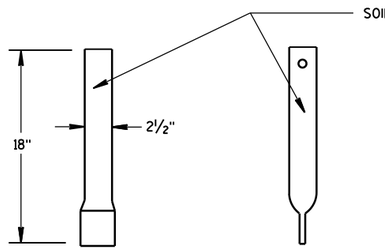
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S.D.D. 15 A 3-2a

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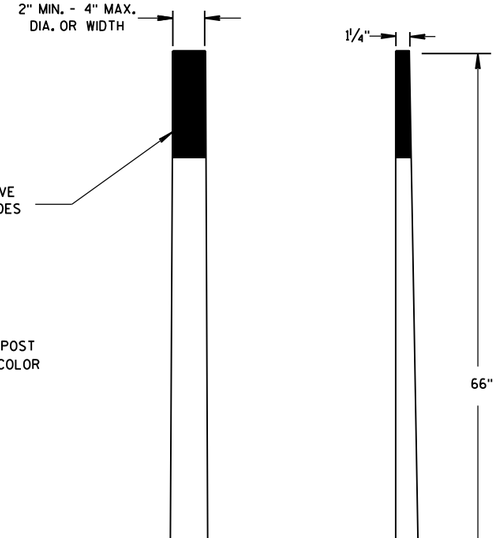
S.D.D. 15 A 3-2a





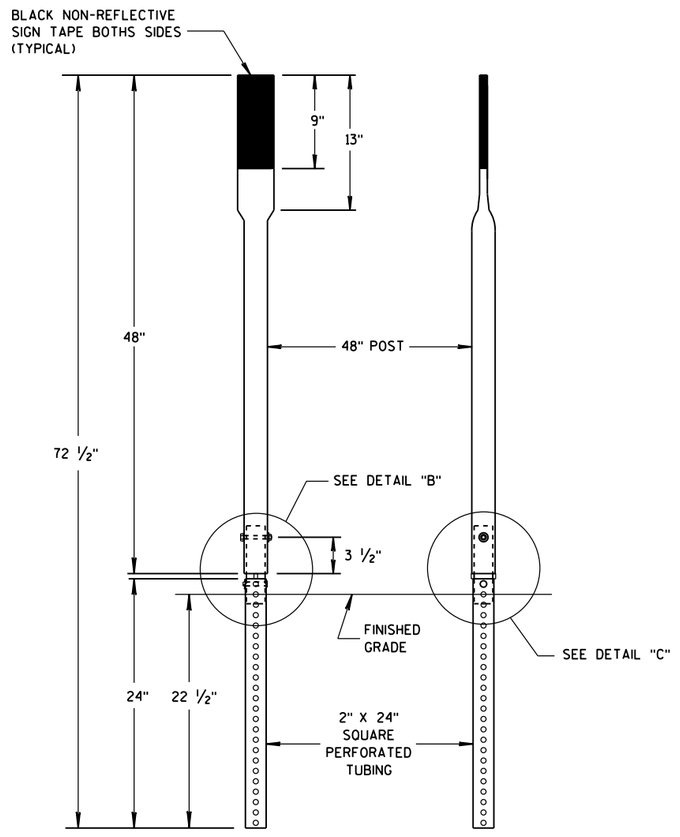
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

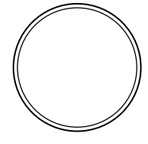
ALTERNATE 2



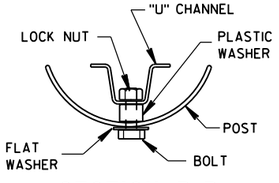
FRONT VIEW SIDE VIEW

ALTERNATE 3

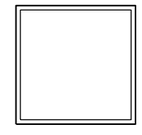
FLEXIBLE MARKER POSTS



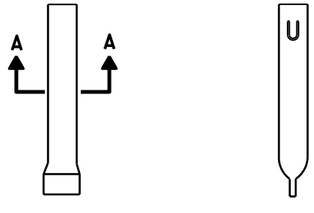
SECTION A-A



SECTION B-B

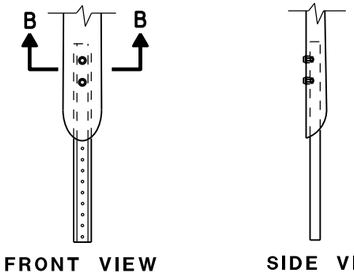


SECTION C-C



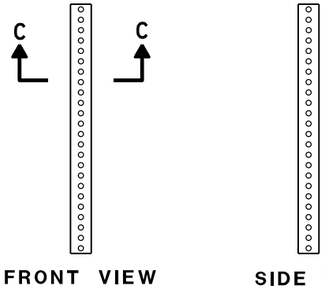
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

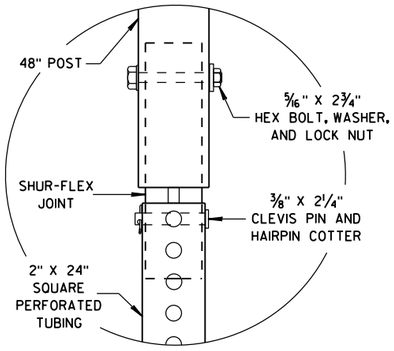
ALTERNATE 2



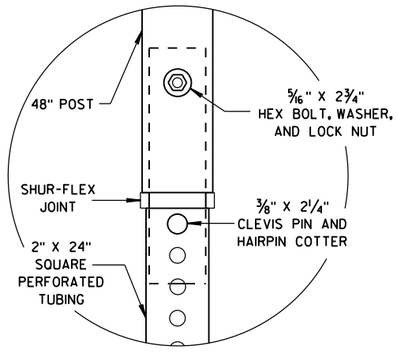
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

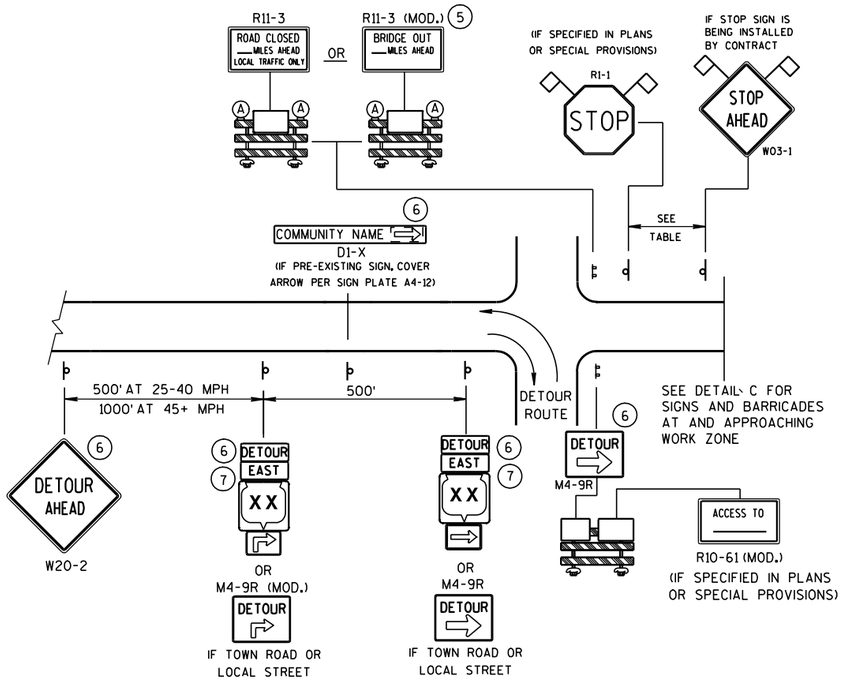
APPROVED
10/1/2012
DATE
/S/ Travis Feltes
STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 A 3-2b

6

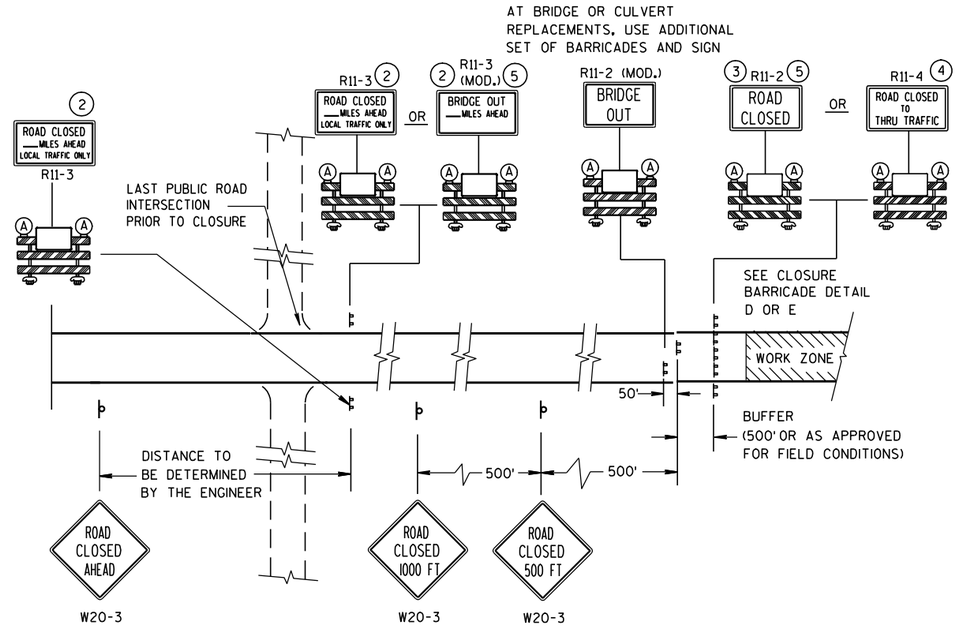
S.D.D. 15 A 3-2b



DETAIL A

MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

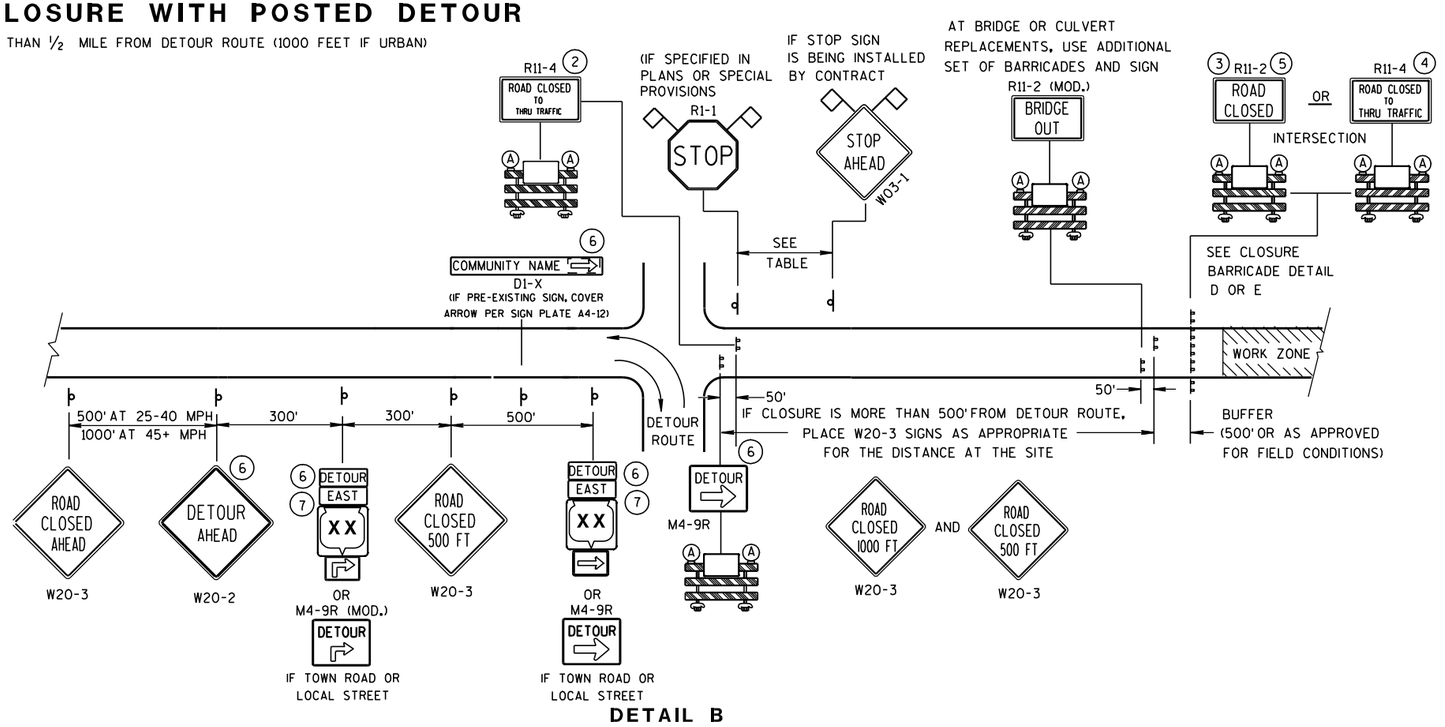


DETAIL C

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)

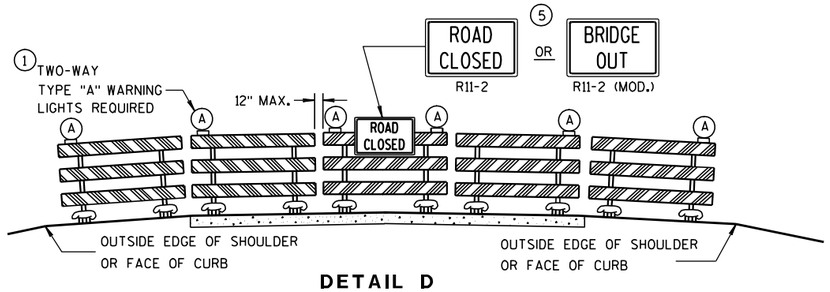
LEGEND

- 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; M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

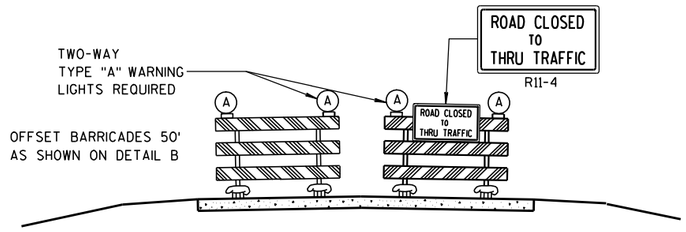
S.D.D. 15 C 2-4a
6



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

6

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.

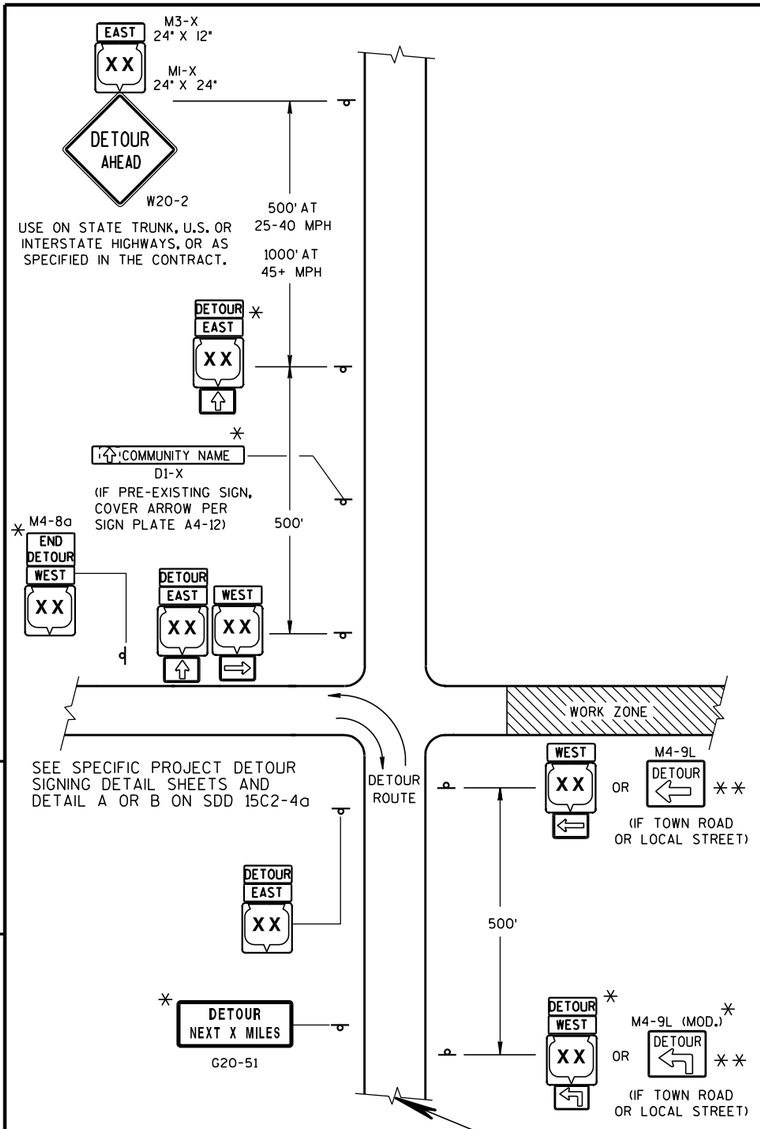
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

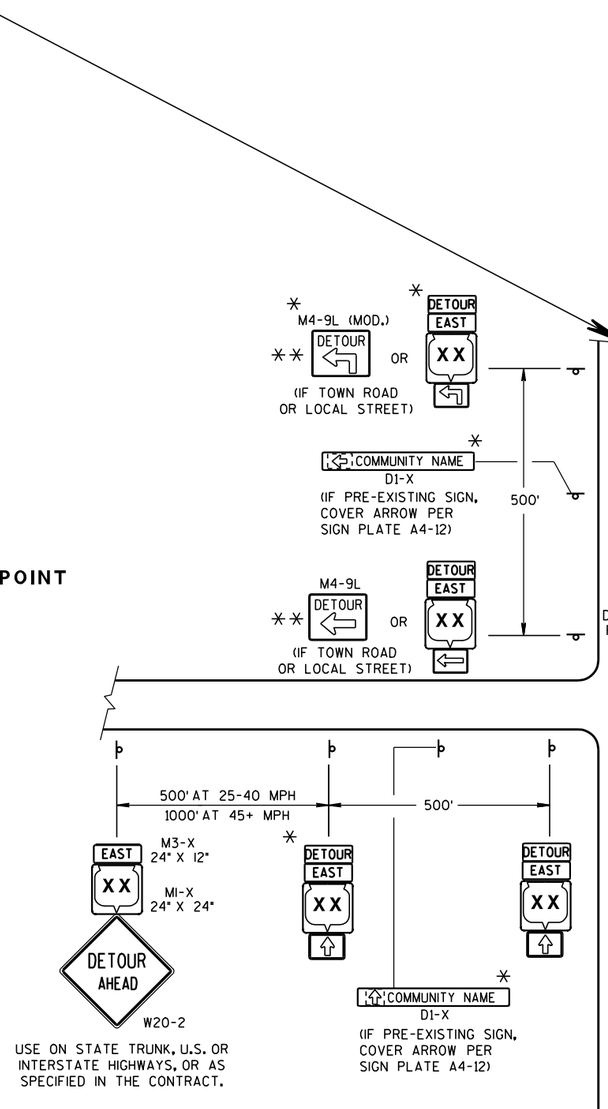
M3-X AND M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
M4-9 SHALL BE 30" X 24".
M4-8a SHALL BE 24" X 18".
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.

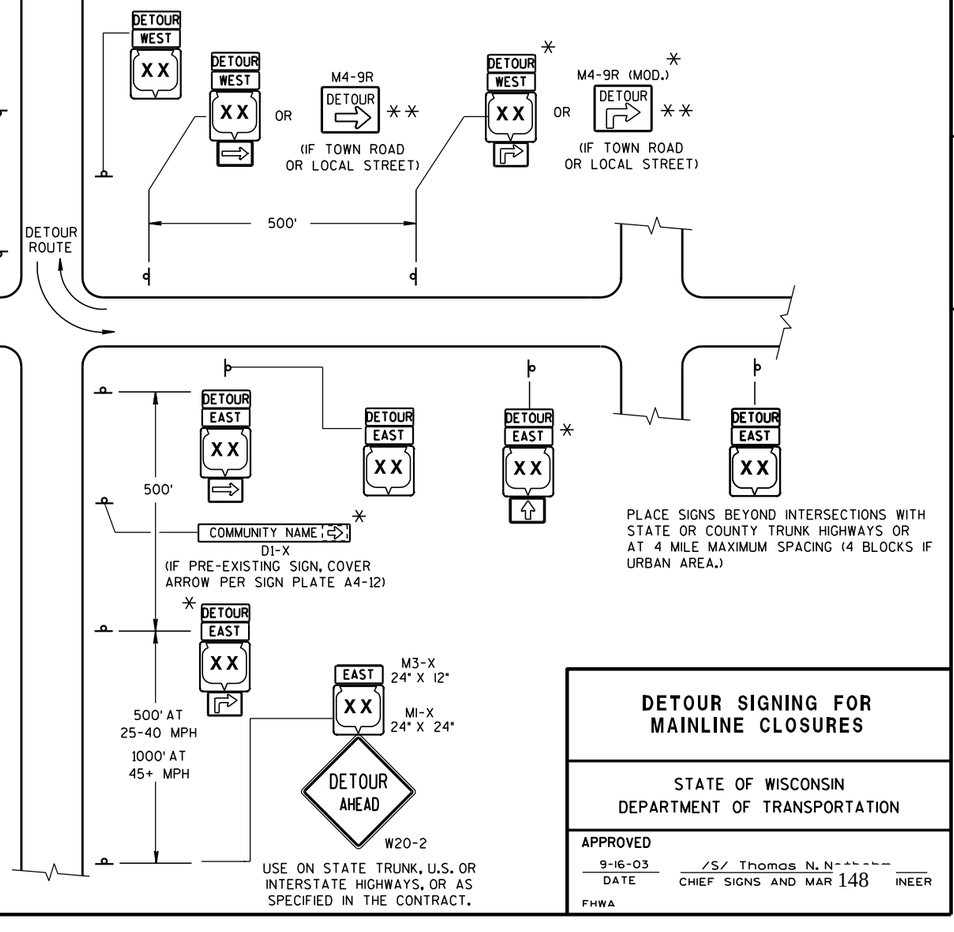
* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** 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.



MATCH POINT





LEGEND

- POST MOUNTED SIGN
- WORK ZONE
- DETOUR EAST — M4-8 / M3-X
- XX OR COUNTY XX OR XX — M1-4 / M1-5A / M1-6
- MO5-1 OR MO6-1 OR MO6-1

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

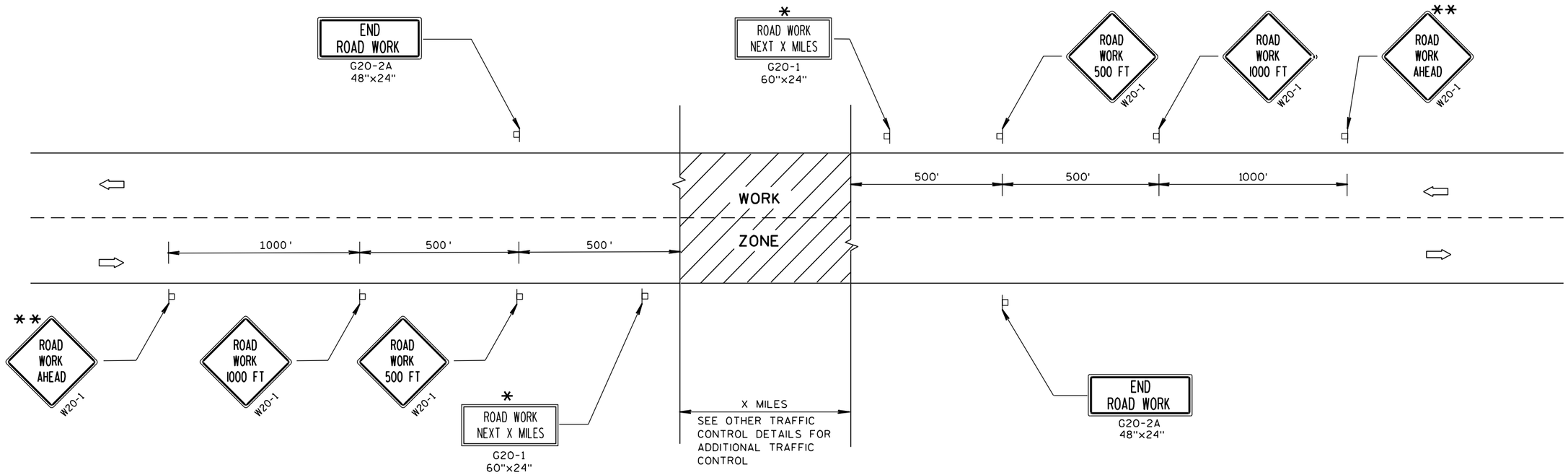
APPROVED
9-16-03 DATE
/S/ Thomas N. Nabholz
CHIEF SIGNS AND MAR 148 INEER
FHWA

6

S.D.D. 15 C 2-4c

6

S.D.D. 15 C 2-4c



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.

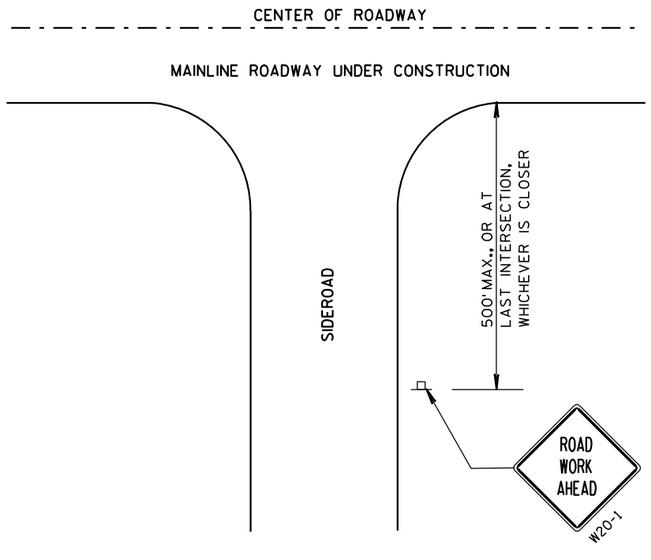
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

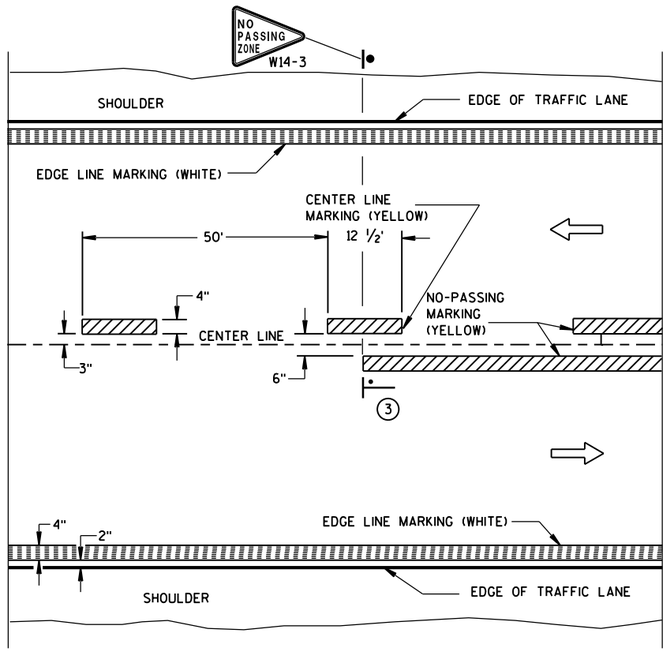
5/23/00 DATE

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

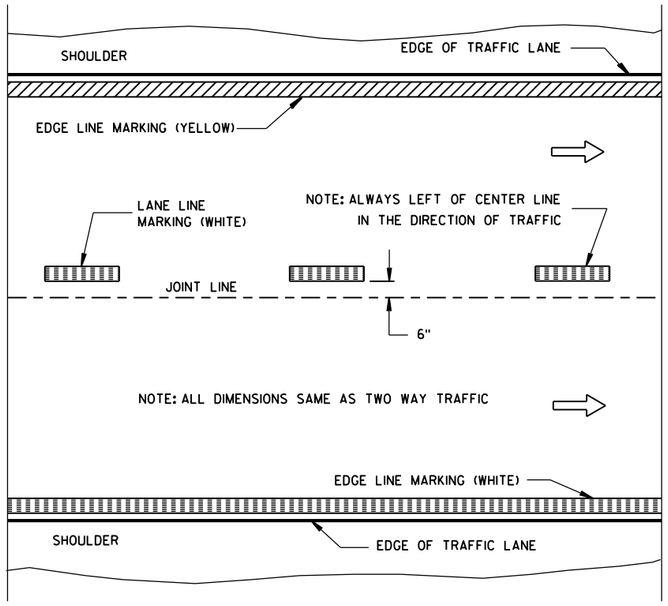
FHWA

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S.D.D. 15 C 4-1

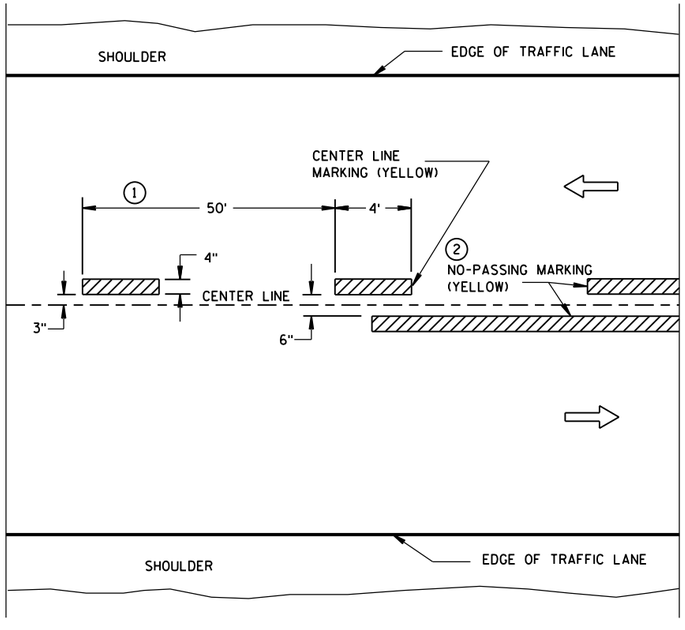


TWO WAY TRAFFIC

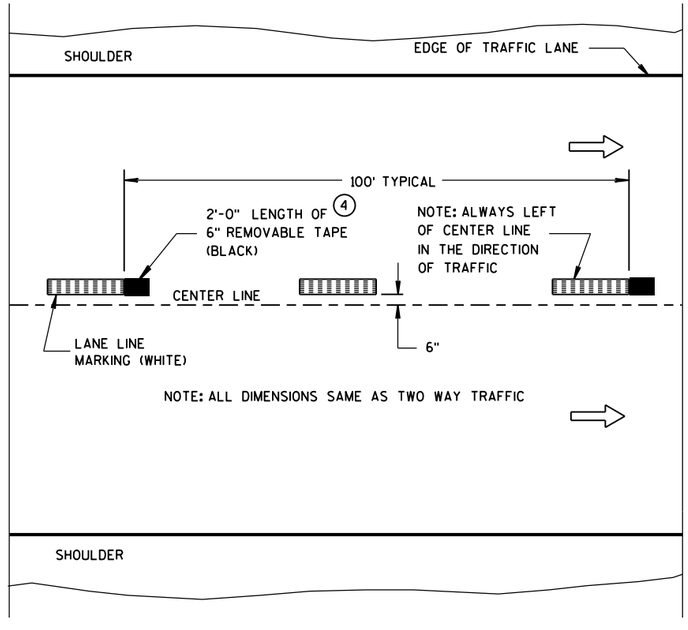


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

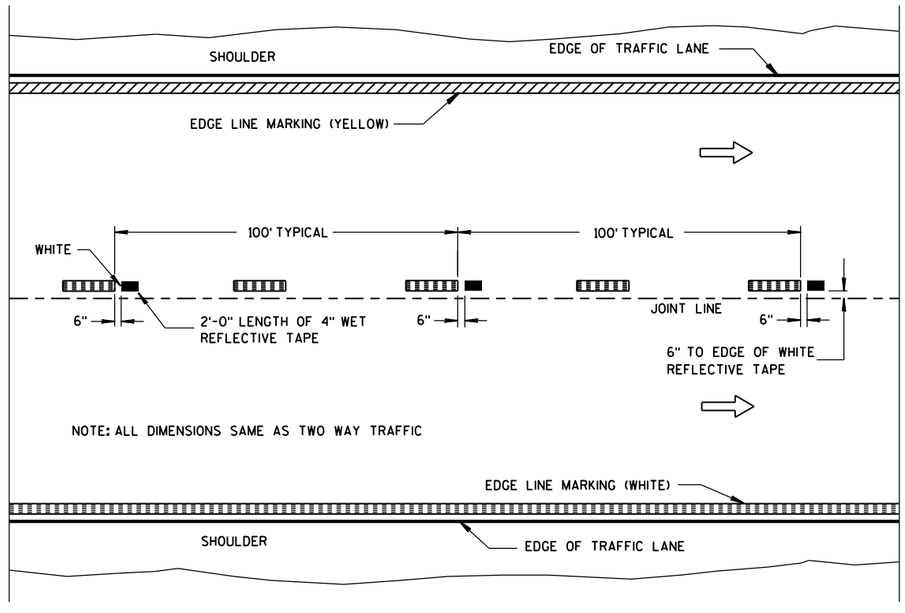
GENERAL NOTES

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

6

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

6

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

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.

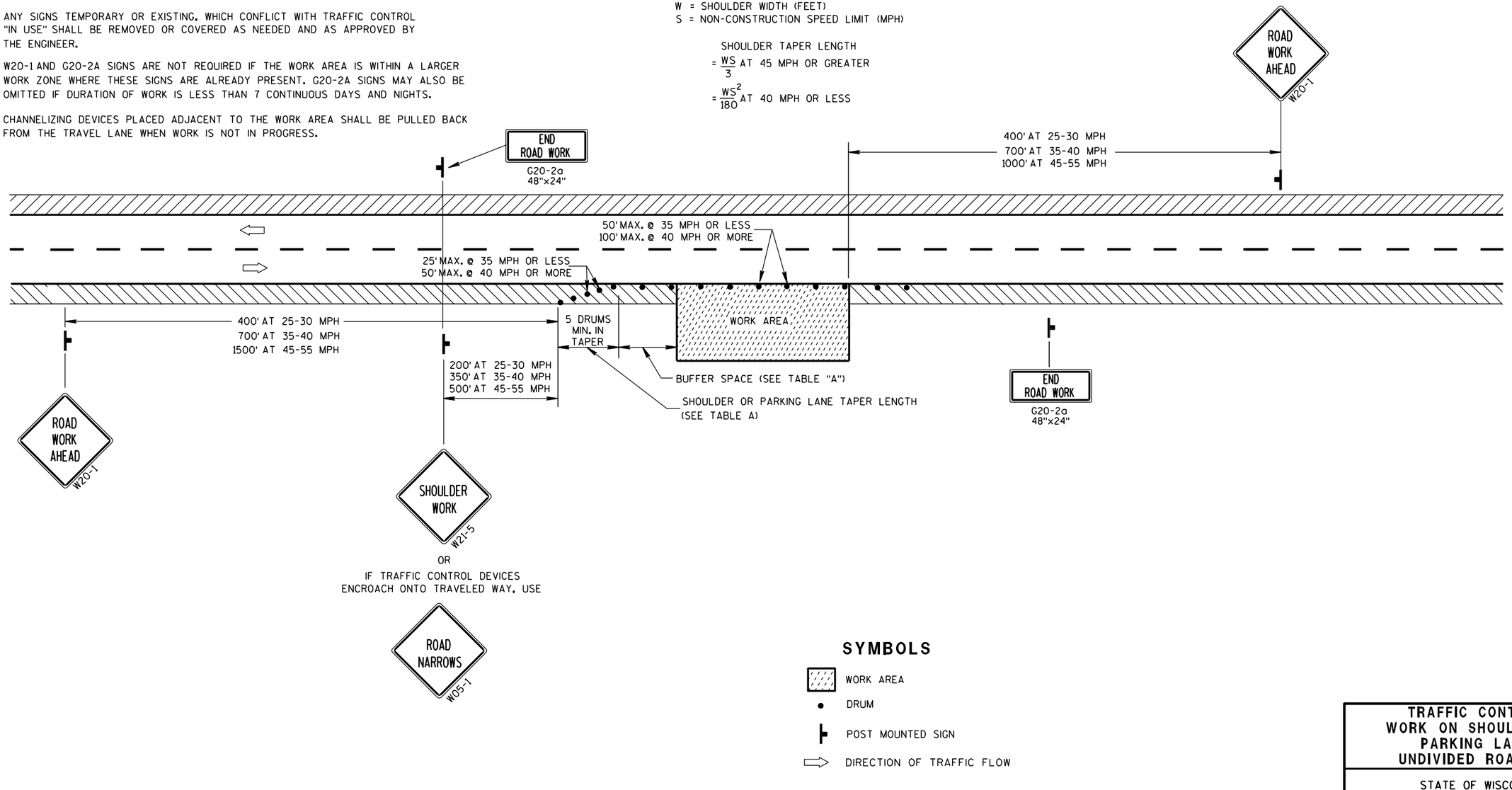
CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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

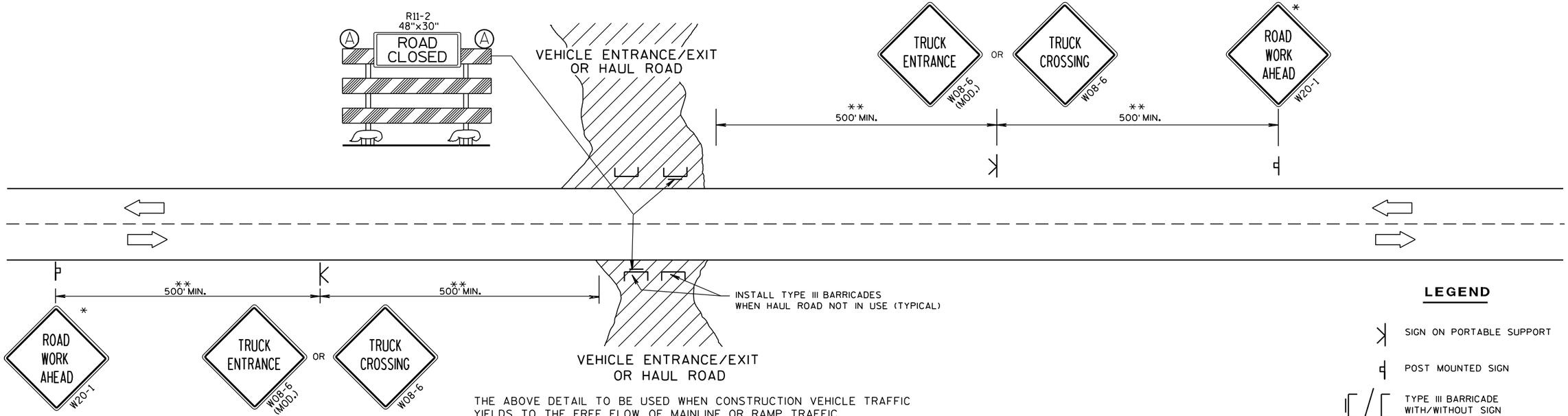
- WORK AREA
- DRUM
- POST MOUNTED SIGN
- DIRECTION OF TRAFFIC FLOW

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



THE ABOVE DETAIL TO BE USED WHEN CONSTRUCTION VEHICLE TRAFFIC YIELDS TO THE FREE FLOW OF MAINLINE OR RAMP TRAFFIC

GENERAL NOTES

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

WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.

WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

* THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE **ENTRANCE/EXIT CONDITIONS ARE SEPARATED BY MORE THAN 2 MILES** FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

** 500' SHOWN IS FOR ROADWAYS WITH A NON-CONSTRUCTION REGULATORY SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350'. FOR 25-30 MPH, USE 200'. USE 1000'/1500' FOR EXPRESSWAY/FREEWAY.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.

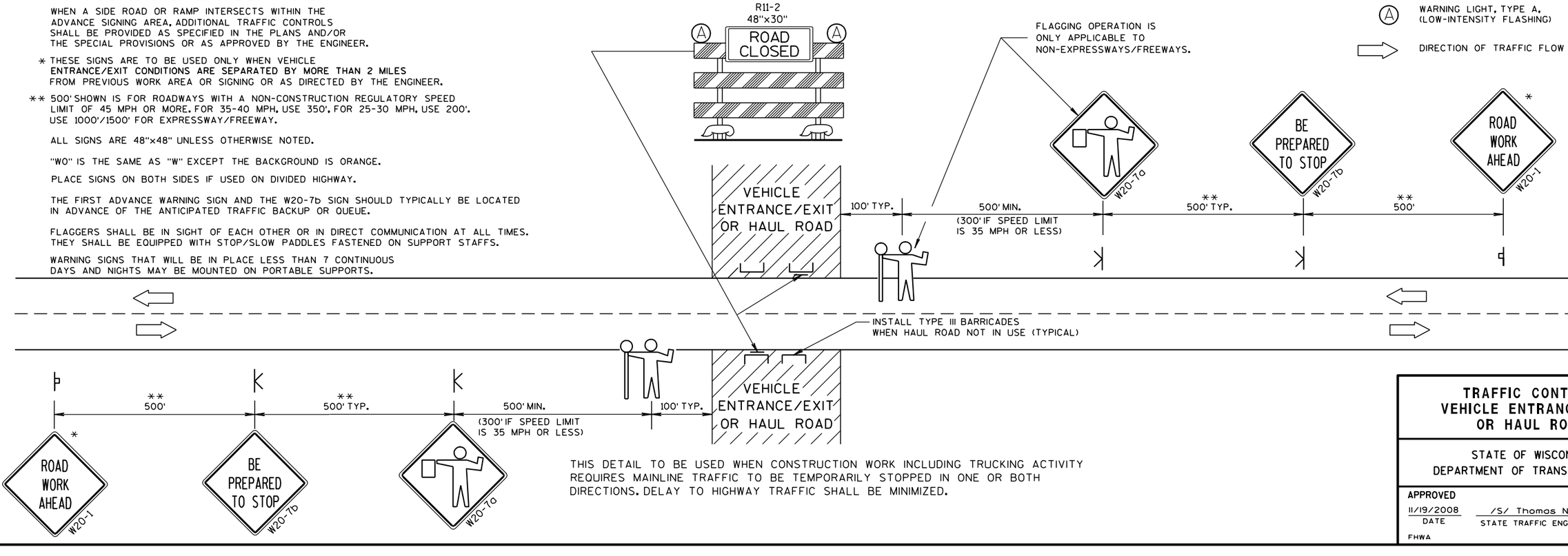
THE FIRST ADVANCE WARNING SIGN AND THE W20-7b SIGN SHOULD TYPICALLY BE LOCATED IN ADVANCE OF THE ANTICIPATED TRAFFIC BACKUP OR QUEUE.

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.

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

LEGEND

- SIGN ON PORTABLE SUPPORT
- POST MOUNTED SIGN
- TYPE III BARRICADE WITH/WITHOUT SIGN
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- (A) WARNING LIGHT, TYPE A, (LOW-INTENSITY FLASHING)
- DIRECTION OF TRAFFIC FLOW



THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD

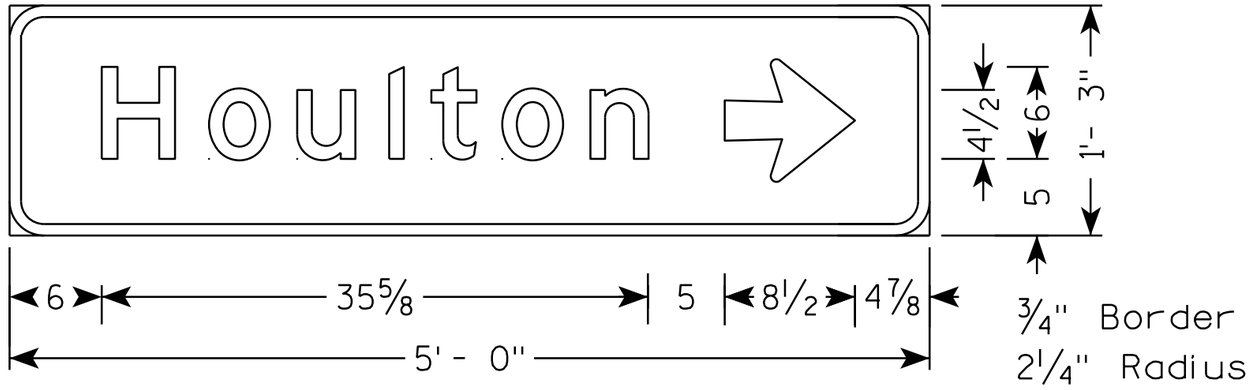
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/19/2008 DATE
/S/ Thomas N. N[illegible]
STATE TRAFFIC ENGINE[illegible] 152 SIGN
FHWA

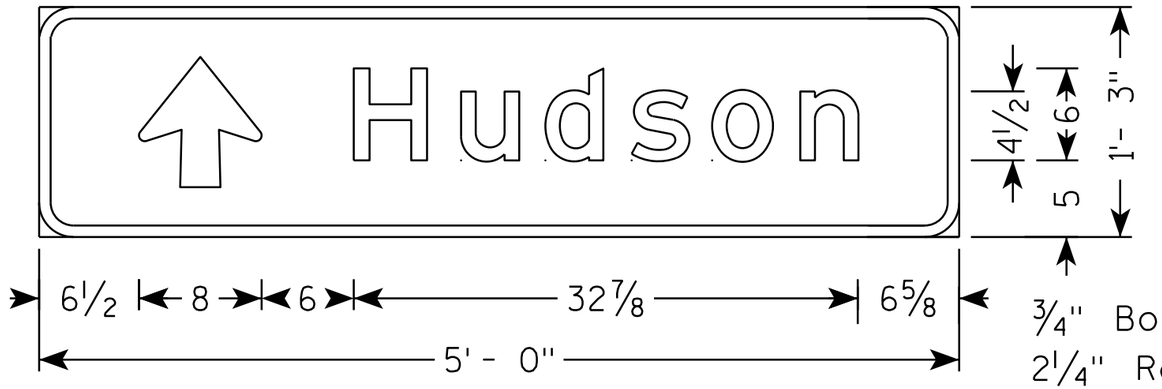
6
S.D.D. 15 D 29-2

NOTES

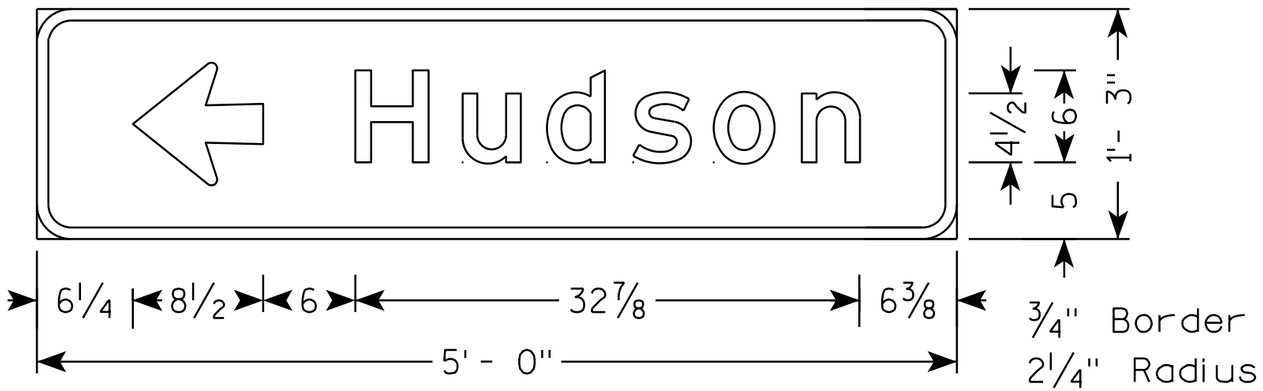
1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White
3. Message Series - E



D1-1



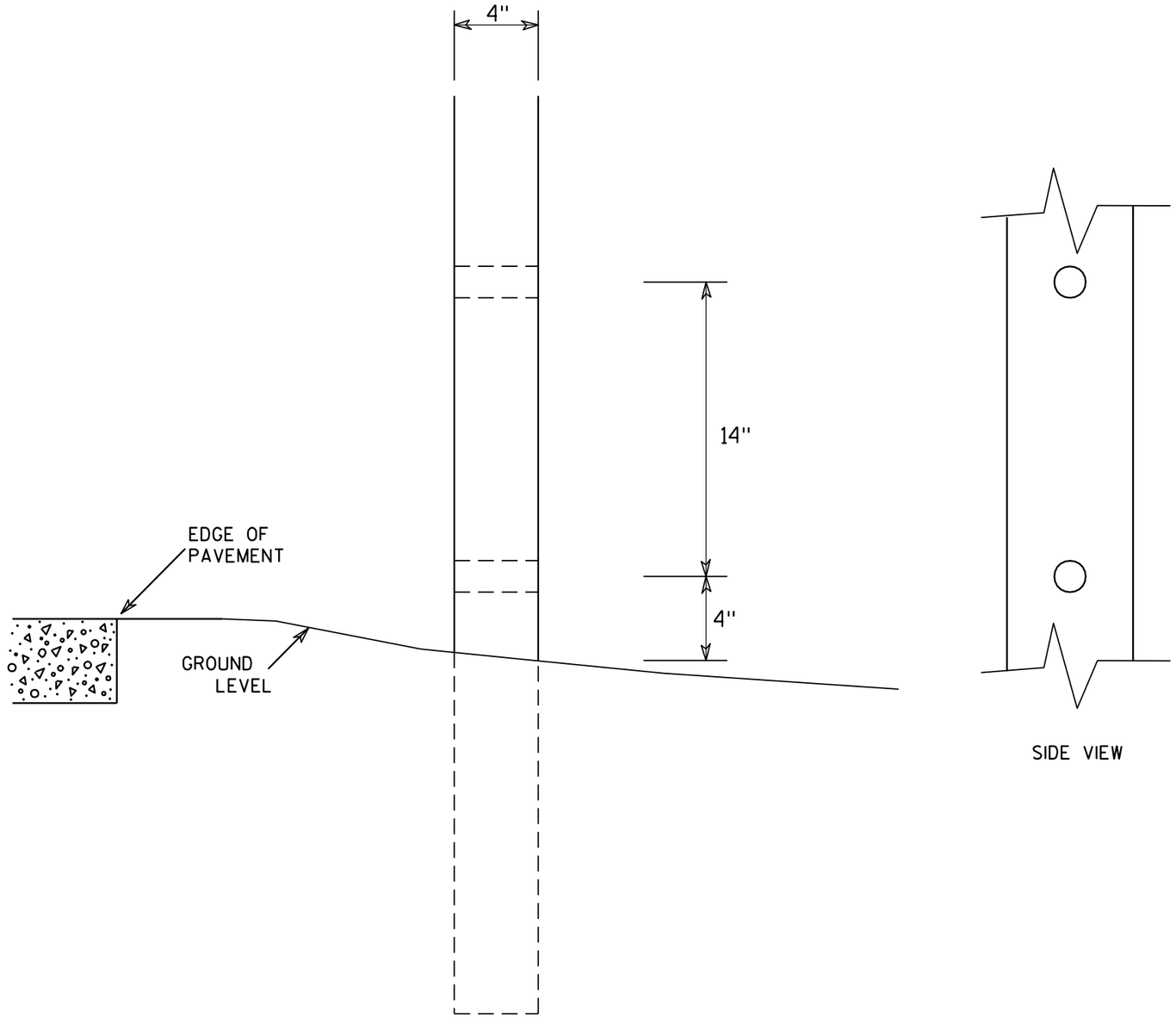
D1-1



D1-1

PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST CROIX	PERMANENT SIGNING	SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_d6\6556A013.dgn PLOT DATE : 02-OCT-2013 14:53 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 9.882145:1.000000 WISDOT/CADDS SHEET 42



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

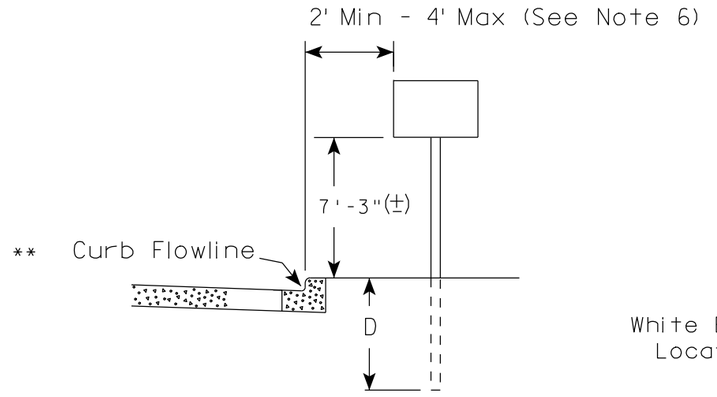
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

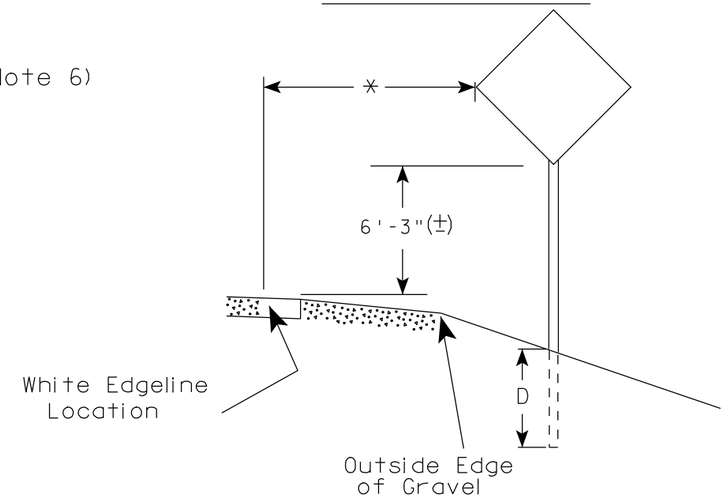
DATE 3/27/97 PLATE NO. A4-11.2

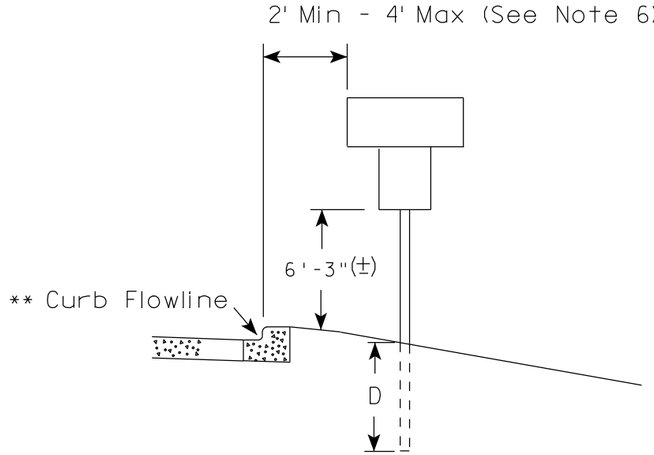
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 154	E

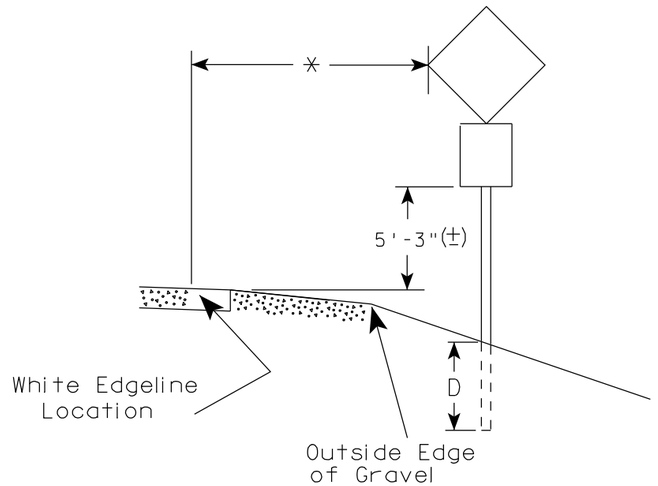
URBAN AREA



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

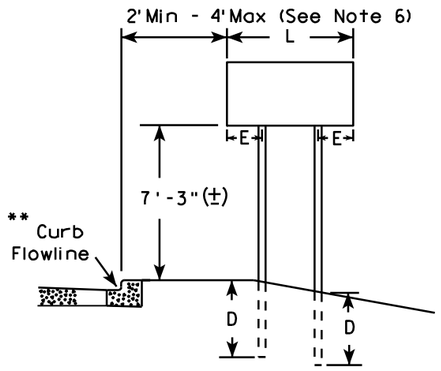
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

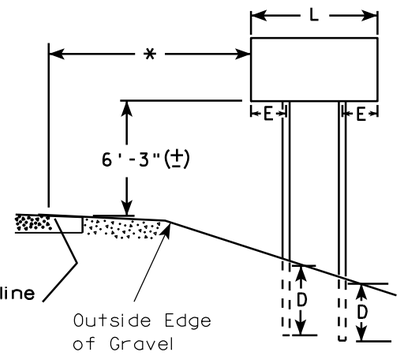
DATE 5/24/2013 PLATE NO. A4-3.17

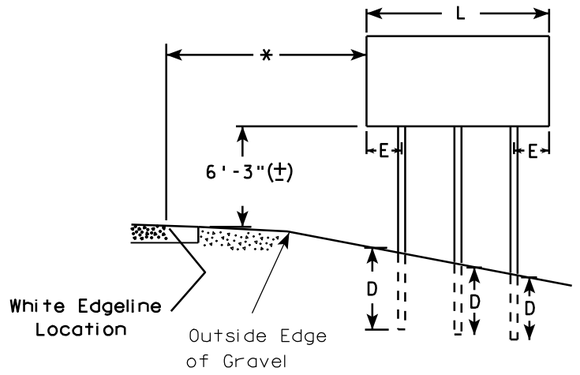
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 155	E

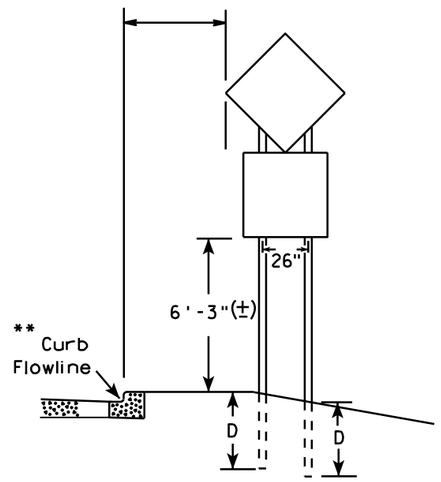
URBAN AREA



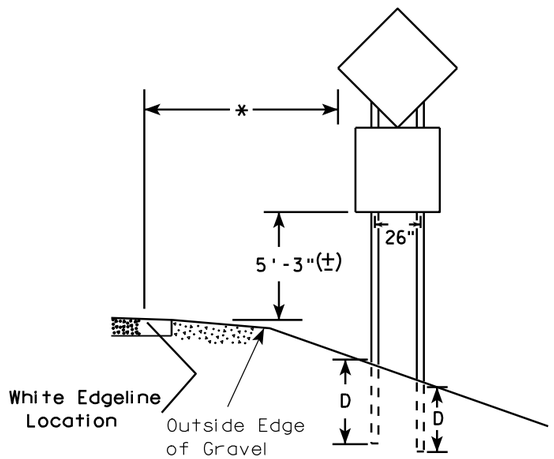
RURAL AREA (See Note 3)







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.

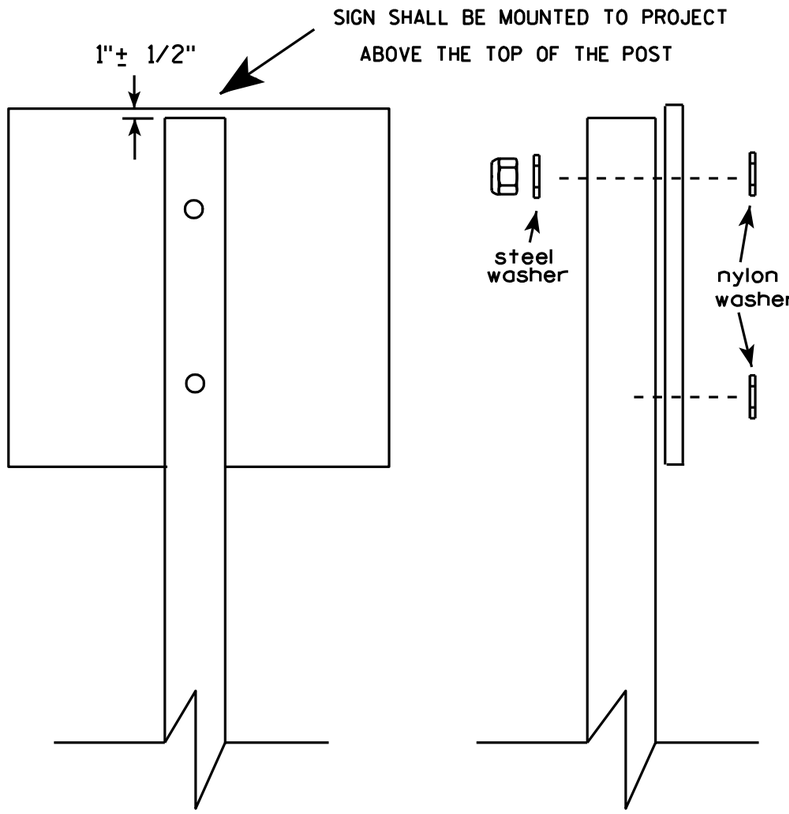
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

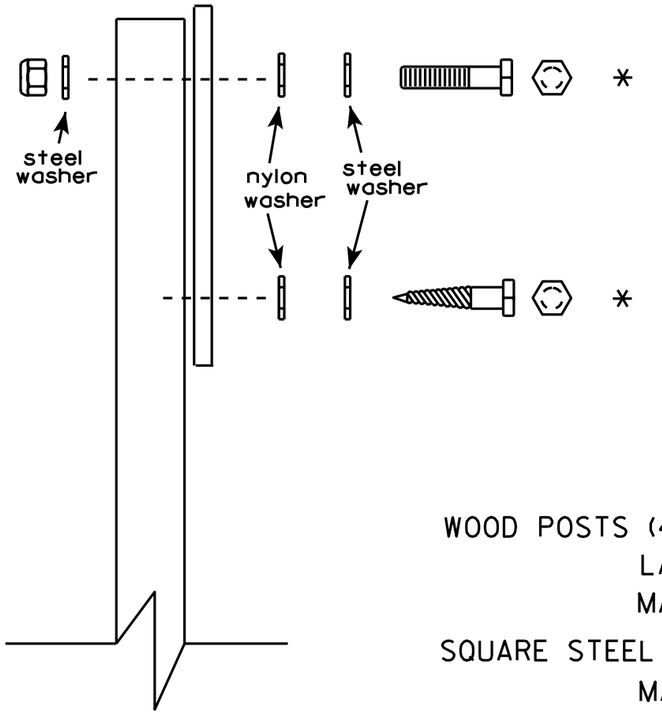
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 156	E





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

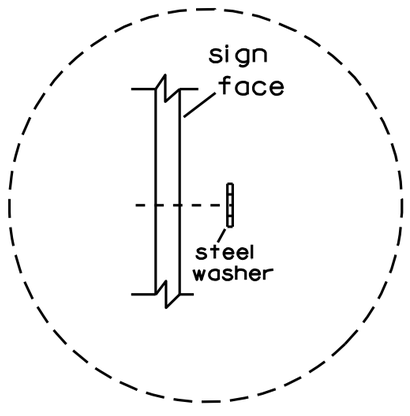
a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

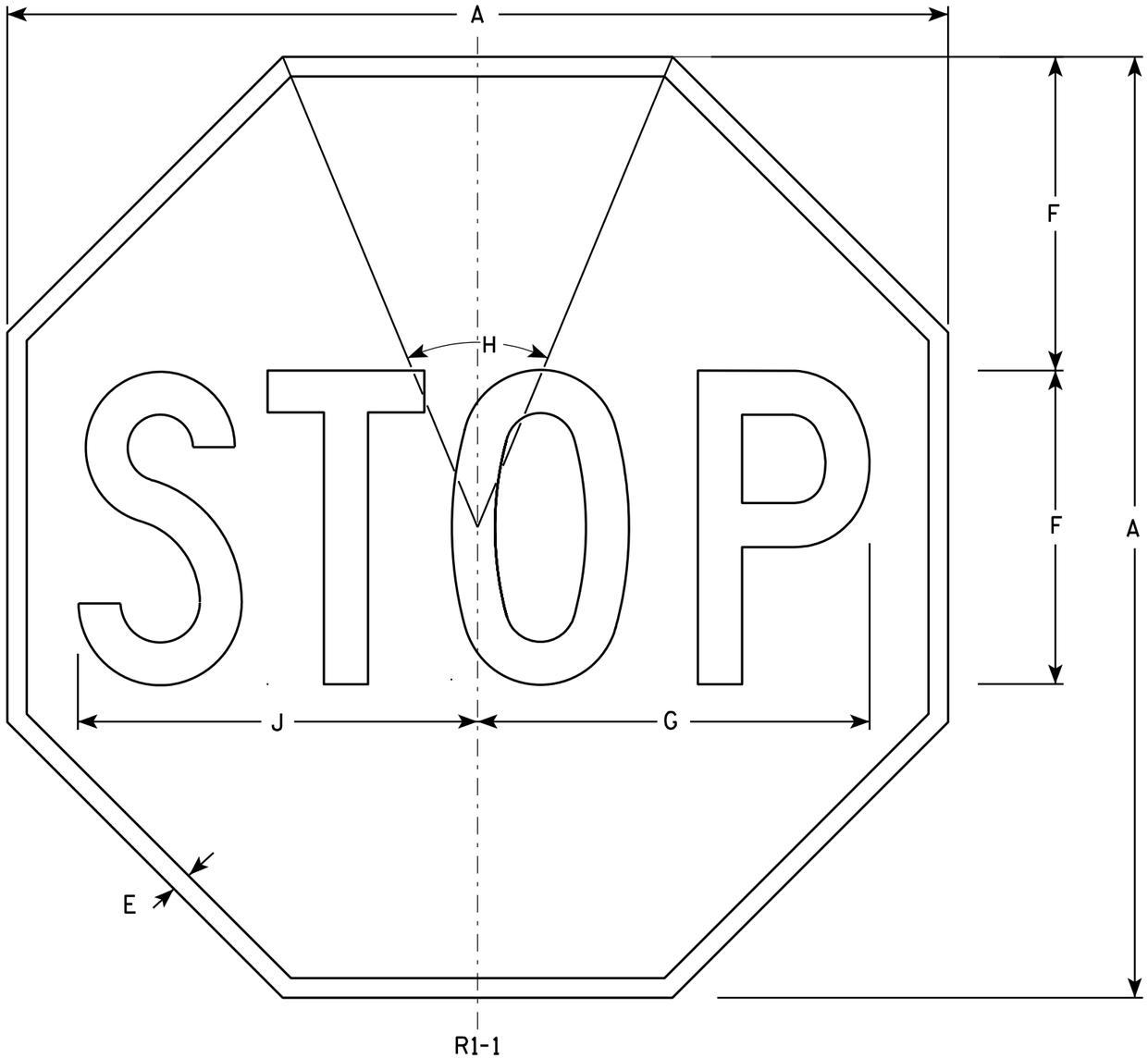
DATE 3/23/10 PLATE NO. A4-8.7

7

7

PROJECT NO:

SHEET NO: 157 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

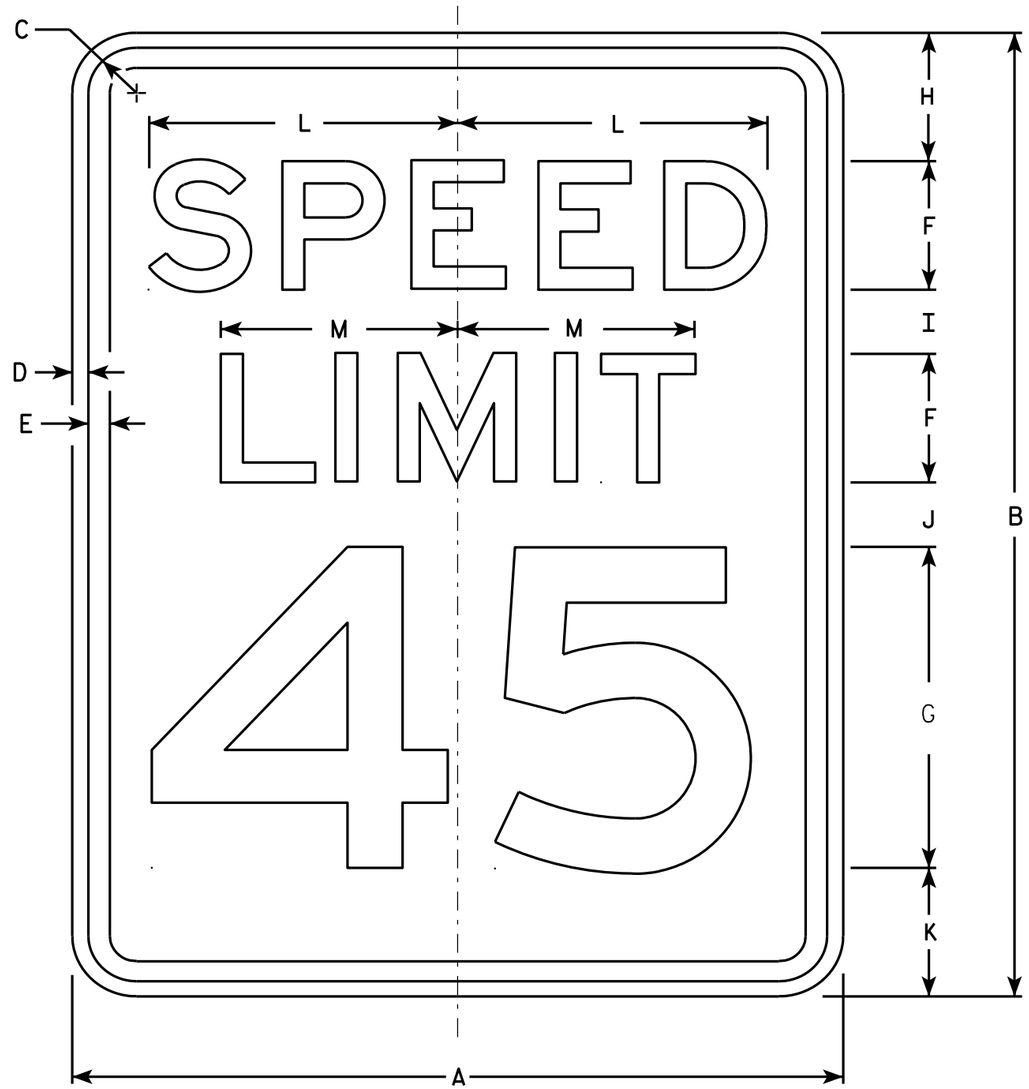
STANDARD SIGN
R1-1

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: 158	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

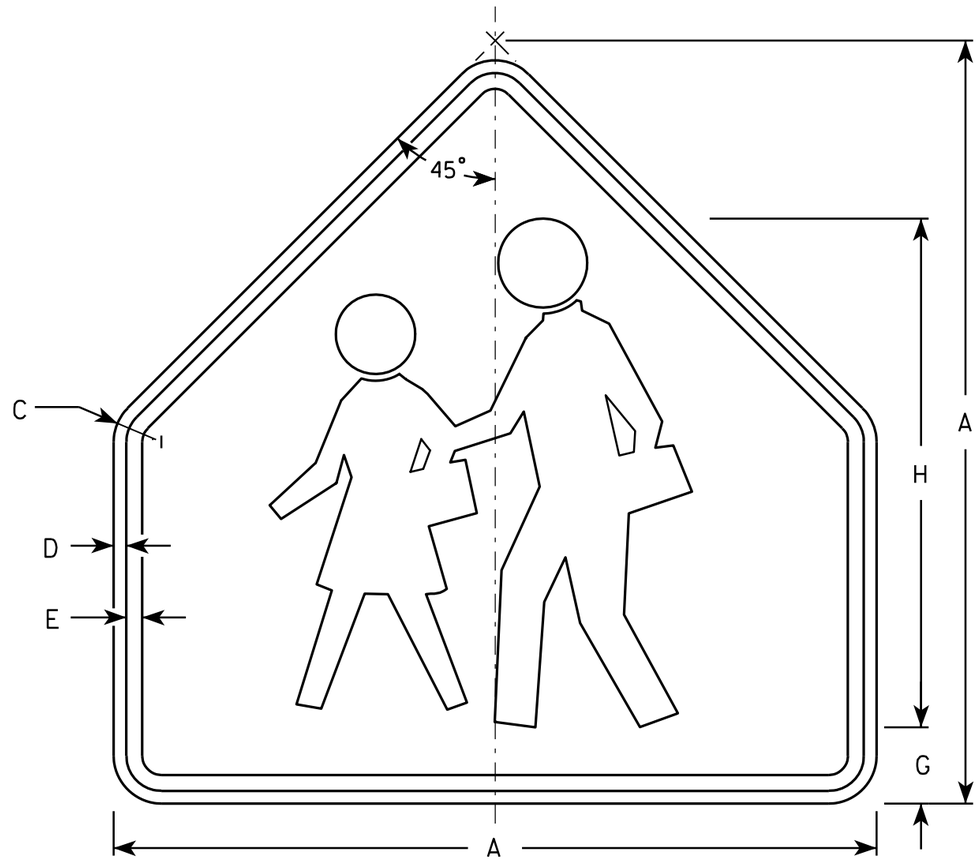
STANDARD SIGN
R2-1

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: 159 | E



S1-1

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-Green
   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	30		1 3/8	1/2	5/8		3	20																			4.69
2	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
3	36		1 5/8	5/8	3/4		3 1/2	24																			6.75
4	48		2 1/4	3/4	1		4 3/4	32																			12
5																											

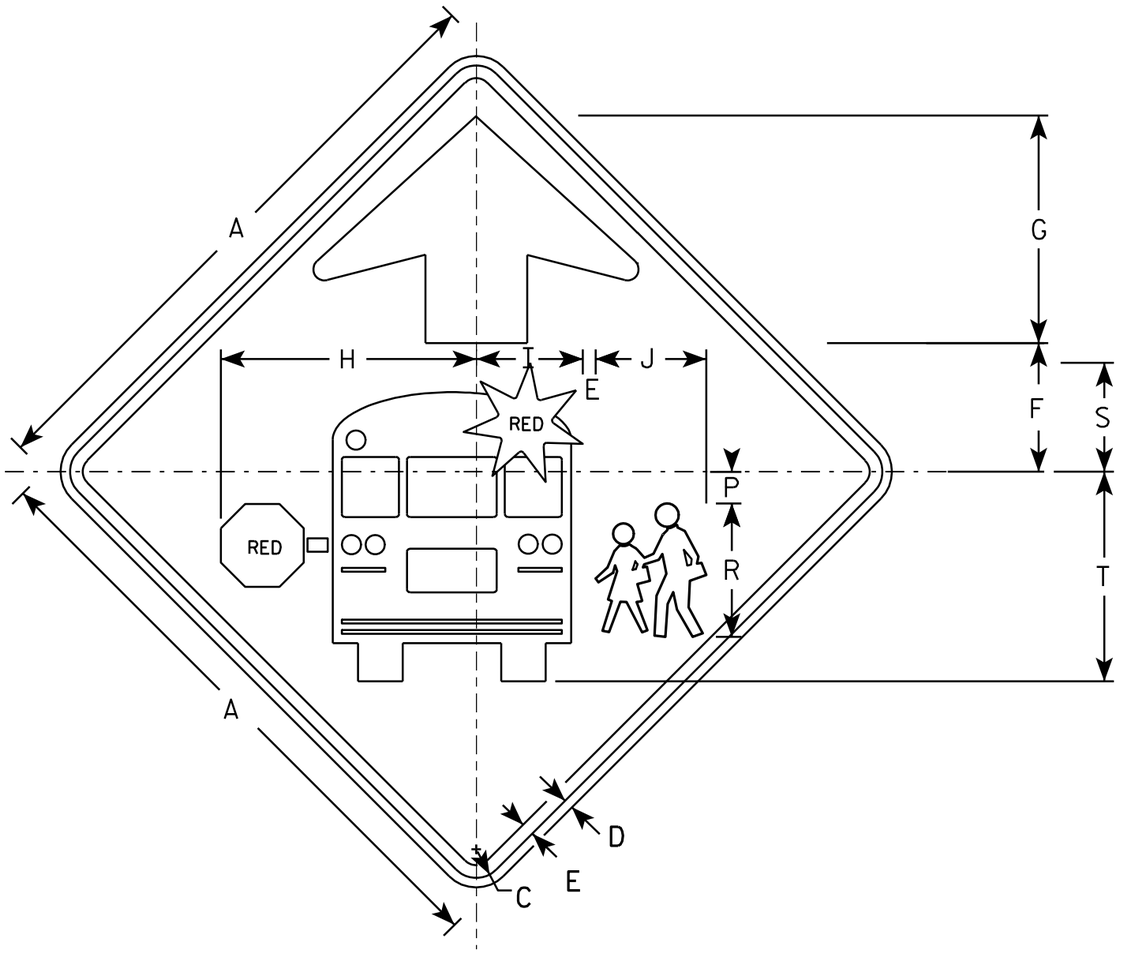
STANDARD SIGN
S1-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/30/05 PLATE NO. S1-1.8

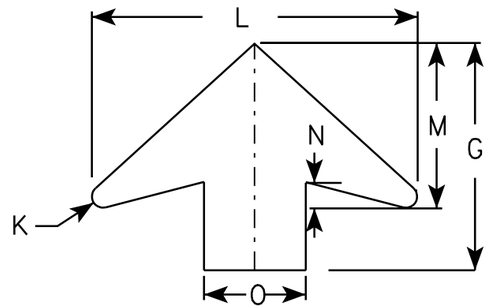
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 160	E



S3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW-GREEN
   Message - BLACK except as noted
   Circles except PEDS- RED BACKGROUND
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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	12 1/2	5 1/4	5 1/2	1/2	16	8	1 1/4	5	1 1/2		6 5/8	5 3/8	10 3/8							6.25
2	36		1 5/8	5/8	3/4	7 1/2	13 1/2	15 1/8	6 1/4	6 1/2	5/8	19 1/4	9 3/4	1 5/8	6	1 7/8		7 7/8	6 3/8	12 3/8							9.0
3	48		2 1/4	3/4	1	10	17 7/8	20 1/8	8 3/8	8 3/4	7/8	25 5/8	13	2	8	2 1/2		10 1/2	8 1/2	16 1/2							16.0
4	48		2 1/4	3/4	1	10	17 7/8	20 1/8	8 3/8	8 3/4	7/8	25 5/8	13	2	8	2 1/2		10 1/2	8 1/2	16 1/2							16.0
5																											

STANDARD SIGN
S3-1

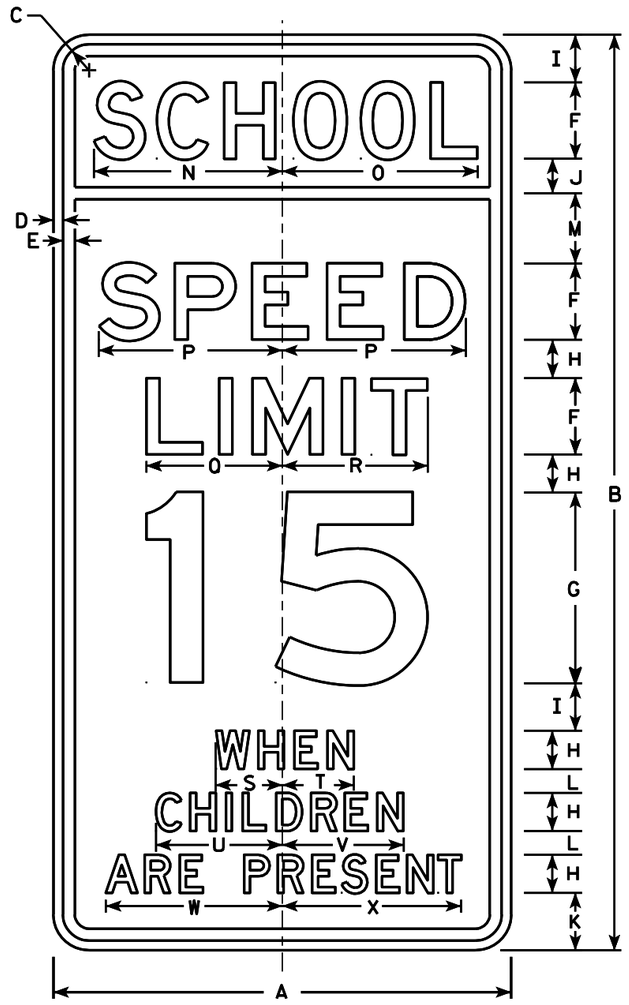
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/8/10 PLATE NO. S3-1.6

PROJECT NO:

SHEET NO: 161 E



S4-51

NOTES

1. Sign is Type II - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. (See note 5).
2. Color:
   Background - See note 5
   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. Top panel (SCHOOL) background - Yellow Green -Type F Reflective.
   Lower panel background - White -Type H Reflective.
6. From top to bottom:
   Lines 1, 5, 6 & 7 are series D
   Lines 2, 3 & 4 are series E
7. Line 4 substitute appropriate numerals and adjust spacing to achieve proper balance.

Metric equivalent for this sign is:

SIZE	
1	
2	600 mm X 1200 mm
3	900 mm X 1800 mm
4	
5	

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	48	1 3/8	1/2	5/8	4	10	2	2 1/2	1 3/4	3	1 1/4	3 3/4	9 7/8	10 1/4	9 5/8	7 1/8	7 5/8	3 1/2	3 3/8	6 5/8	6 3/8	9 1/4	9 3/8			8.00	0.72
3	36	72	2 1/4	3/4	1	6	15	3	3 3/4	2 3/4	4 1/2	1 7/8	5 1/2	15	15 1/4	14 1/2	11 1/4	11 1/2	5 1/2	5 3/4	10	9 3/4	14	14 1/8			18.00	1.62
4																												
5																												

STANDARD SIGN
S4-51

WISCONSIN DEPT OF TRANSPORTATION

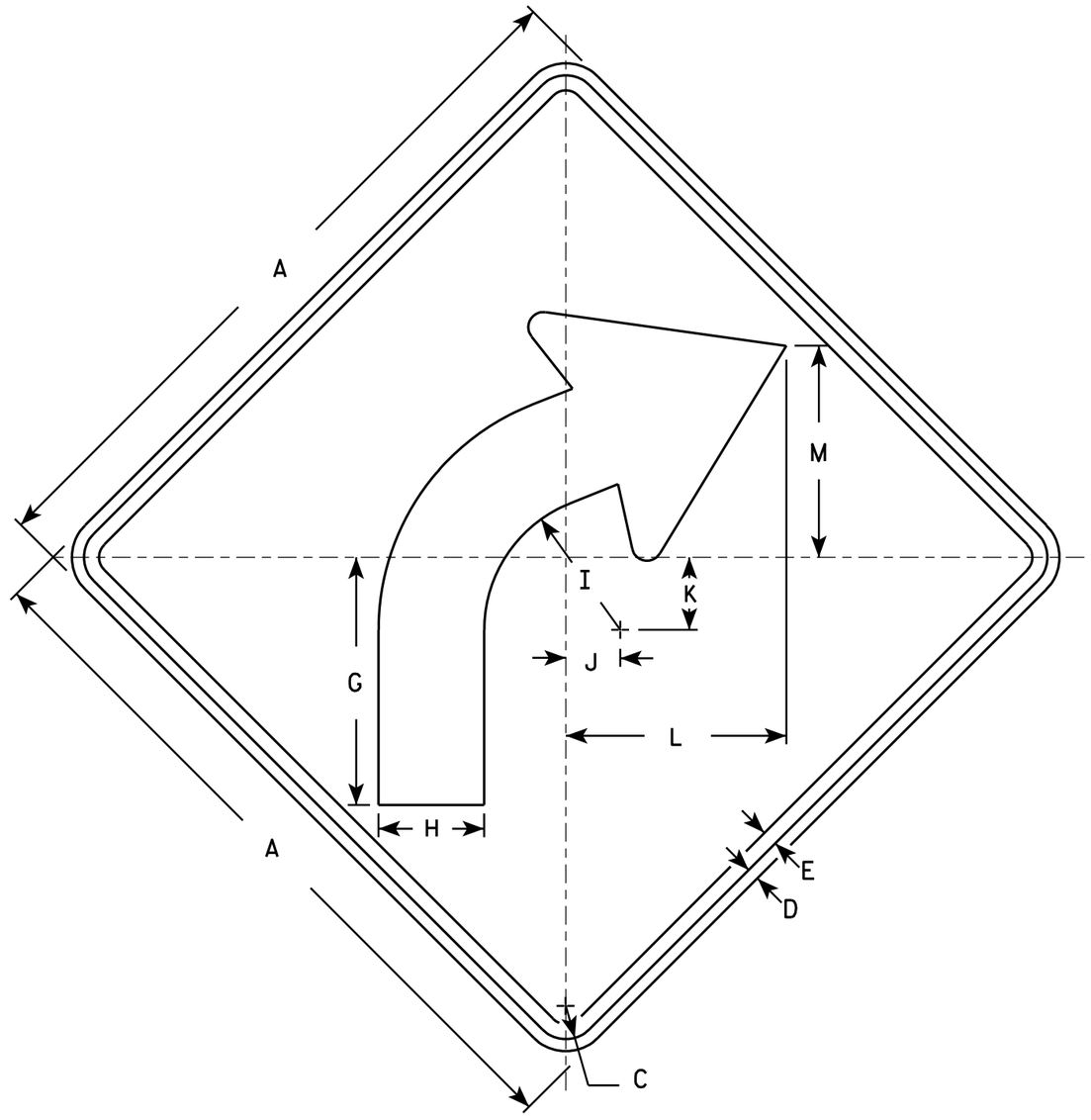
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/26/10 PLATE NO. S4-51.9

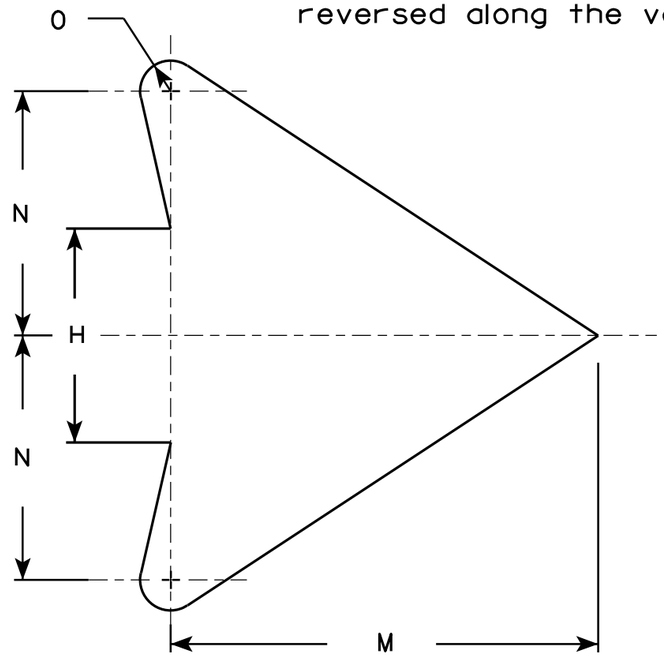
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 162	E

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.
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

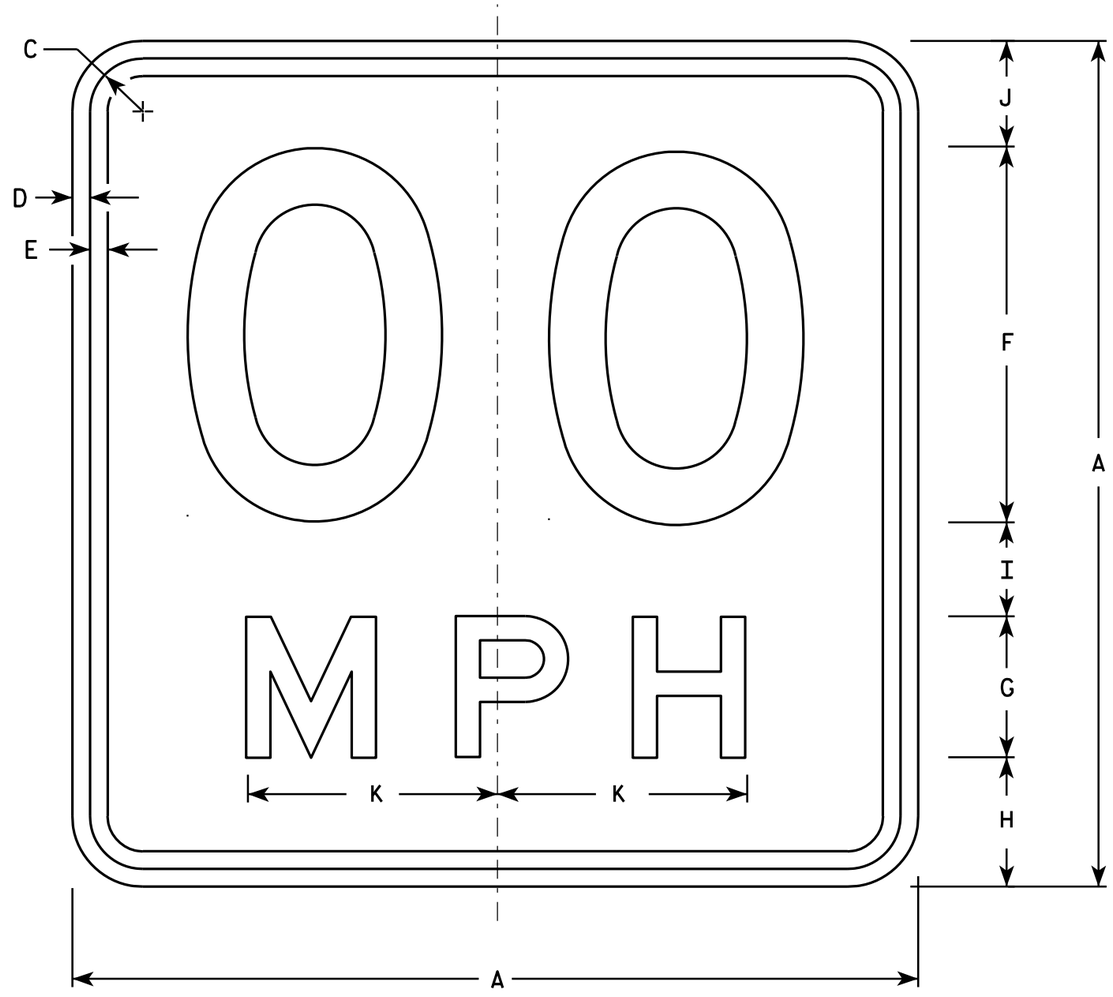
STANDARD SIGN
W1-2

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: 163	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

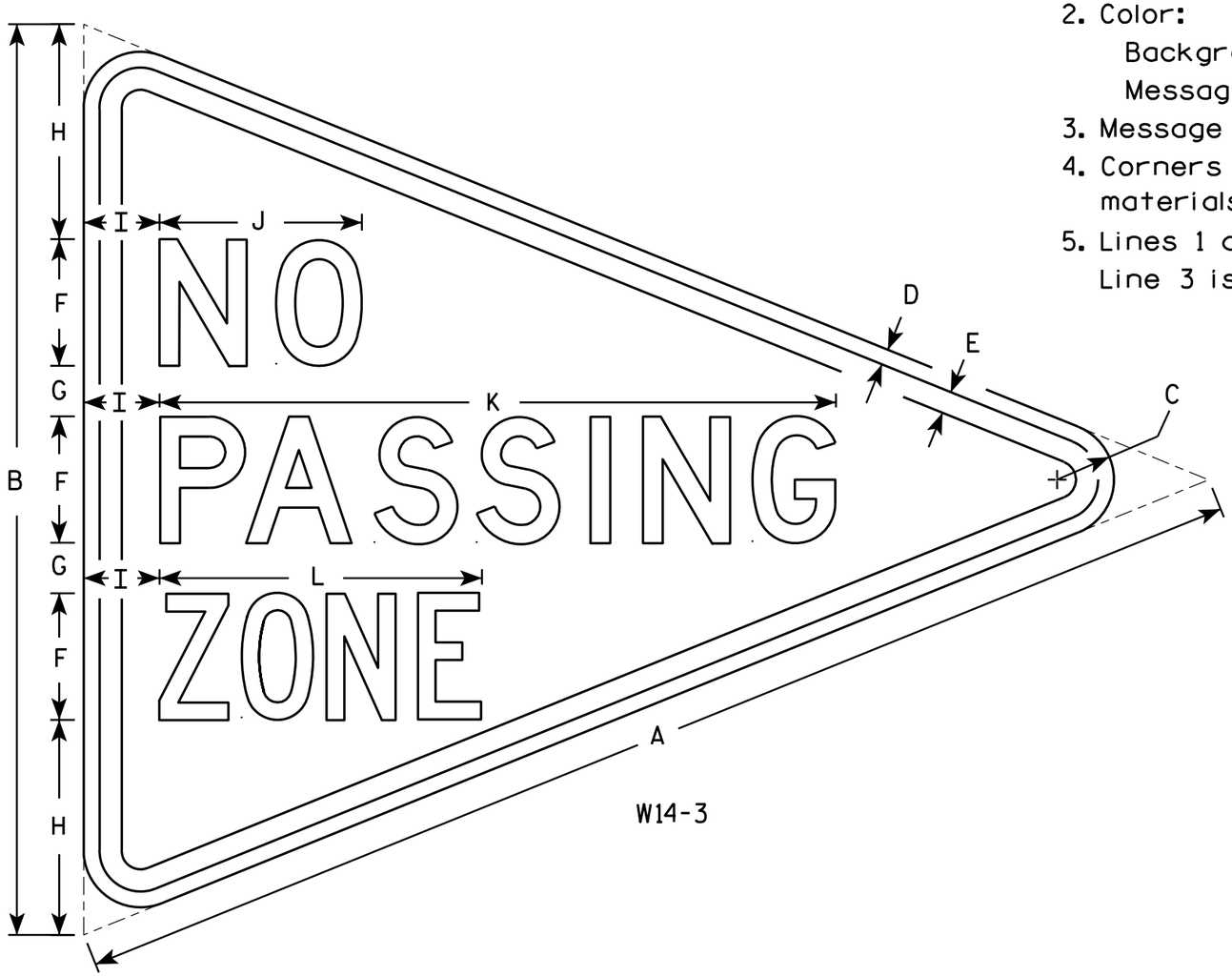
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 164 | 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	O	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																											

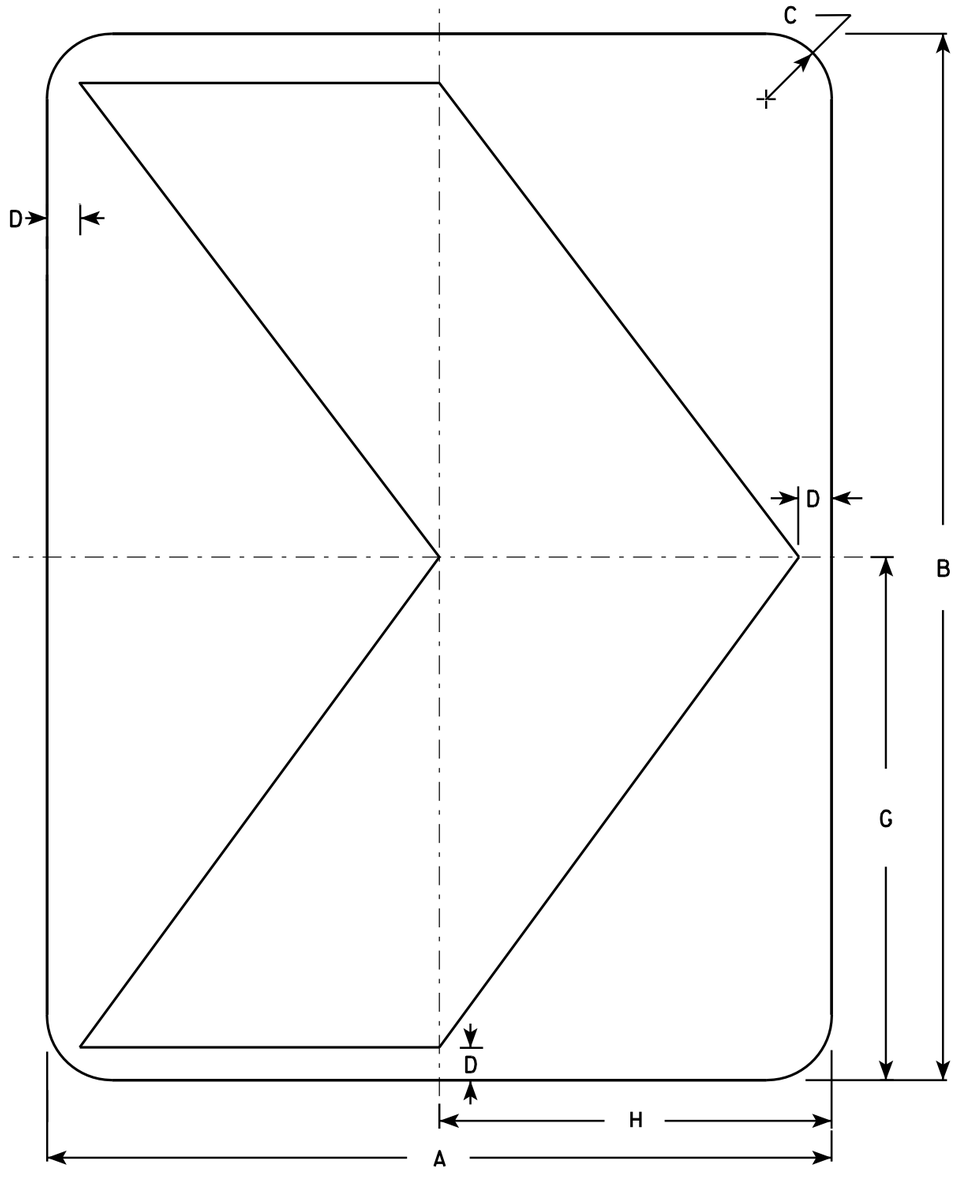
STANDARD SIGN
W14-3

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: 165	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.

W1-8

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 ½	½			9	6																			1.5
2S	18	24	1 ½	¾			12	9																			3.0
2M	18	24	1 ½	¾			12	9																			3.0
3	24	30	1 ½	1			15	12																			5.0
4	30	36	1 ⅞	1 ¼			18	15																			7.5
5	36	48	2 ¼	1 ½			24	18																			12.0

STANDARD SIGN
W1-8

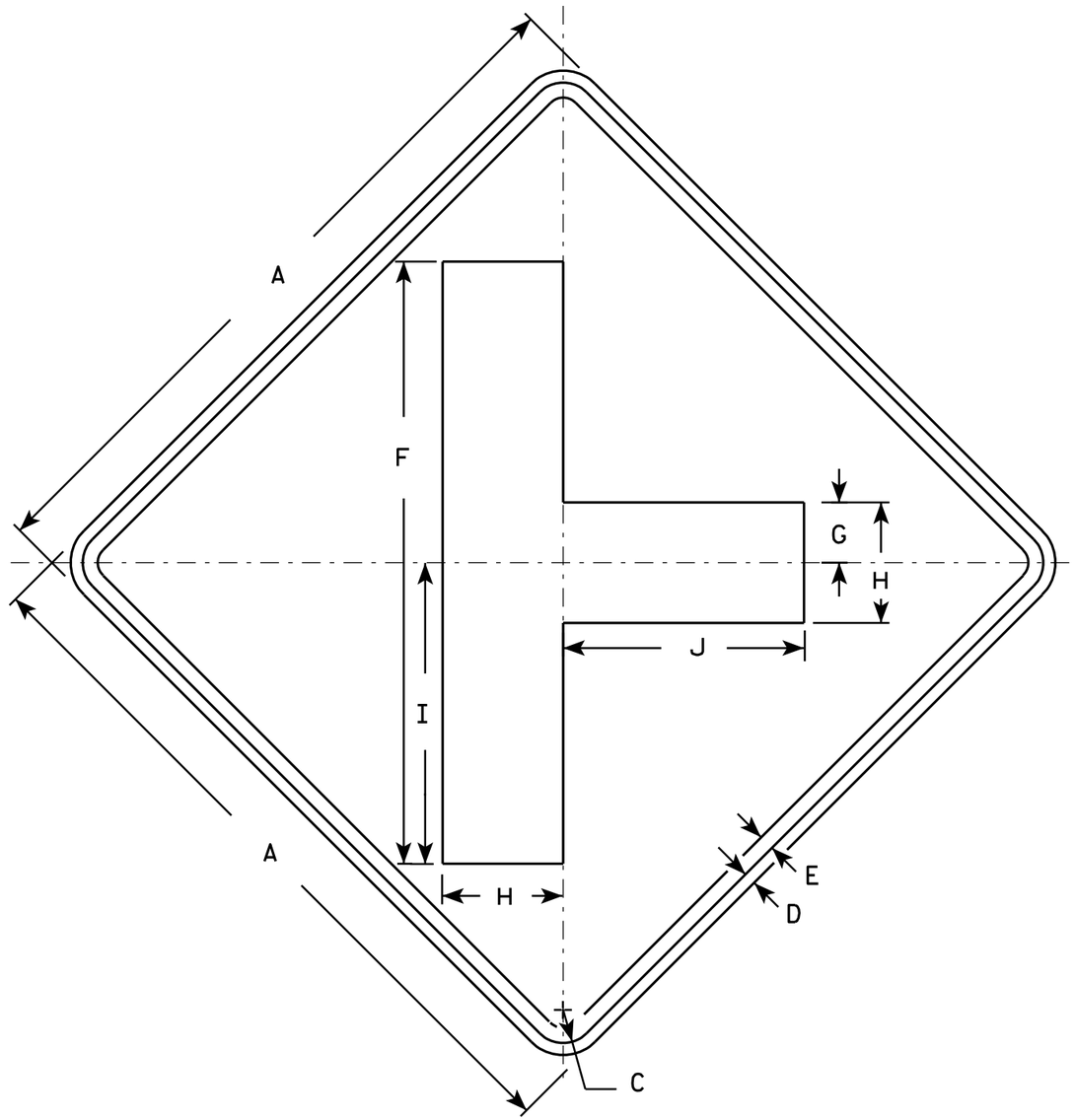
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W1-8.6

PROJECT NO:

SHEET NO: 166 E



W2-2

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	24		1 1/8	3/8	1/2	20	2	4	10	8																	4.0
2S	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
2M	30		1 3/8	1/2	5/8	25	2 1/2	5	12 1/2	10																	6.25
3	36		1 5/8	5/8	3/4	30	3	6	15	12																	9.0
4	48		2 1/4	3/4	1	40	4	8	20	16																	16.0
5																											

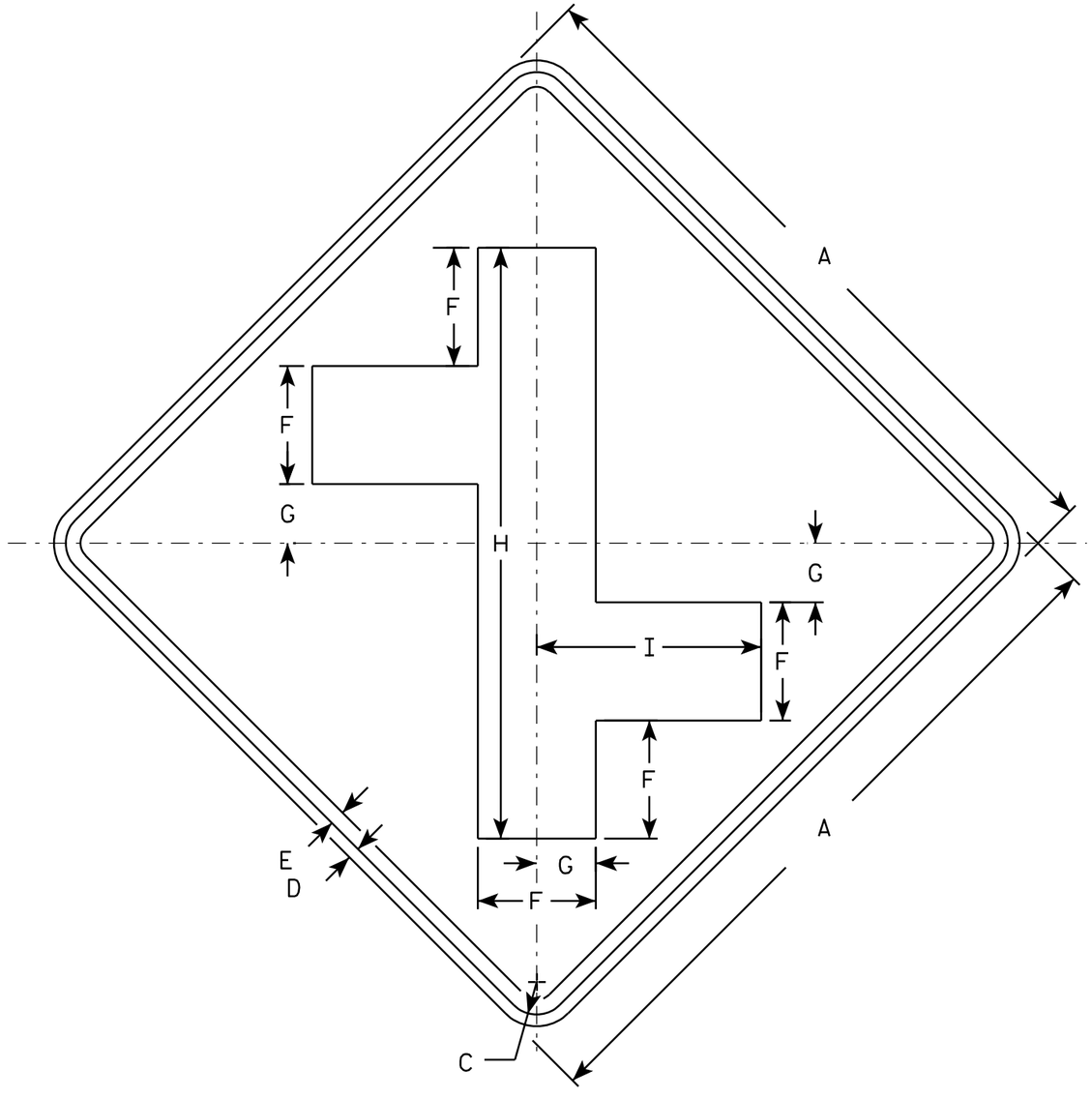
STANDARD SIGN
W2-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-2.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 167 | E



W2-7R

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																											
2S	30		1 3/8	1/2	5/8	5	2 1/2	25	9 1/2																		6.25
2M	30		1 3/8	1/2	5/8	5	2 1/2	25	9 1/2																		6.25
3	36		1 5/8	5/8	3/4	6	3	30	11 3/8																		9.0
4	48		2 1/4	3/4	1	8	4	40	15 1/4																		16.0
5																											

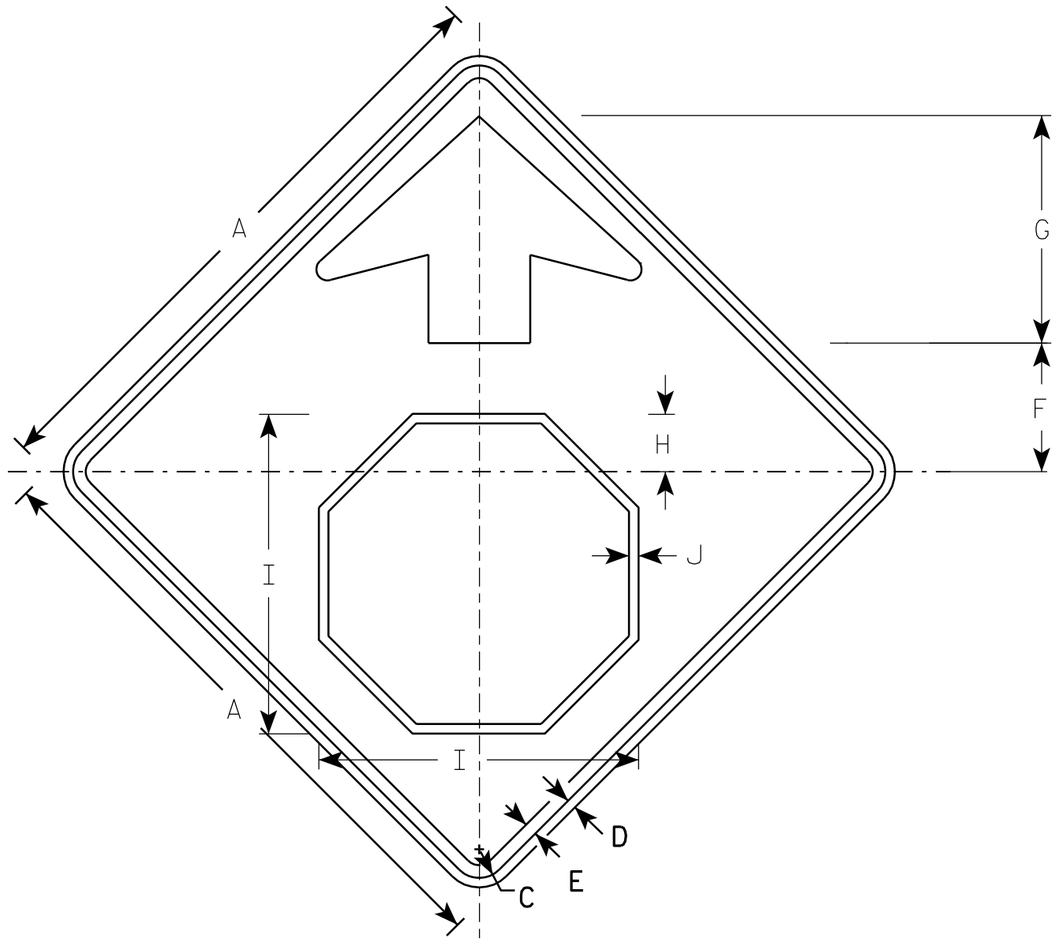
STANDARD SIGN
W2-7R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W2-7R.2

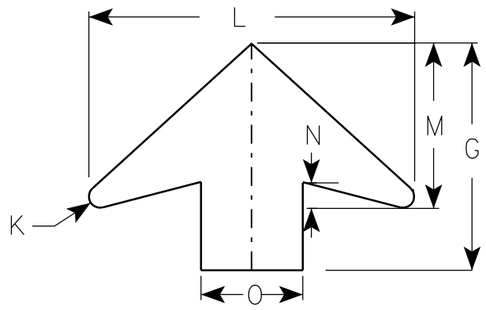
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 168	E



W3-1

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - YELLOW
   Arrow & Border - BLACK
   Stop Symbol - WHITE BORDER ON RED 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	30		1 3/8	1/2	5/8	6 1/4	11 1/4	2 7/8	15 3/4	1/2	1/2	16	8	1 1/4	5												6.25
2S	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
2M	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
3	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 1/2	19	5/8	5/8	19 1/4	9 3/4	1 5/8	6												9.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	25 1/8	3/4	7/8	25 5/8	13	2	8												16.0

STANDARD SIGN
W3-1

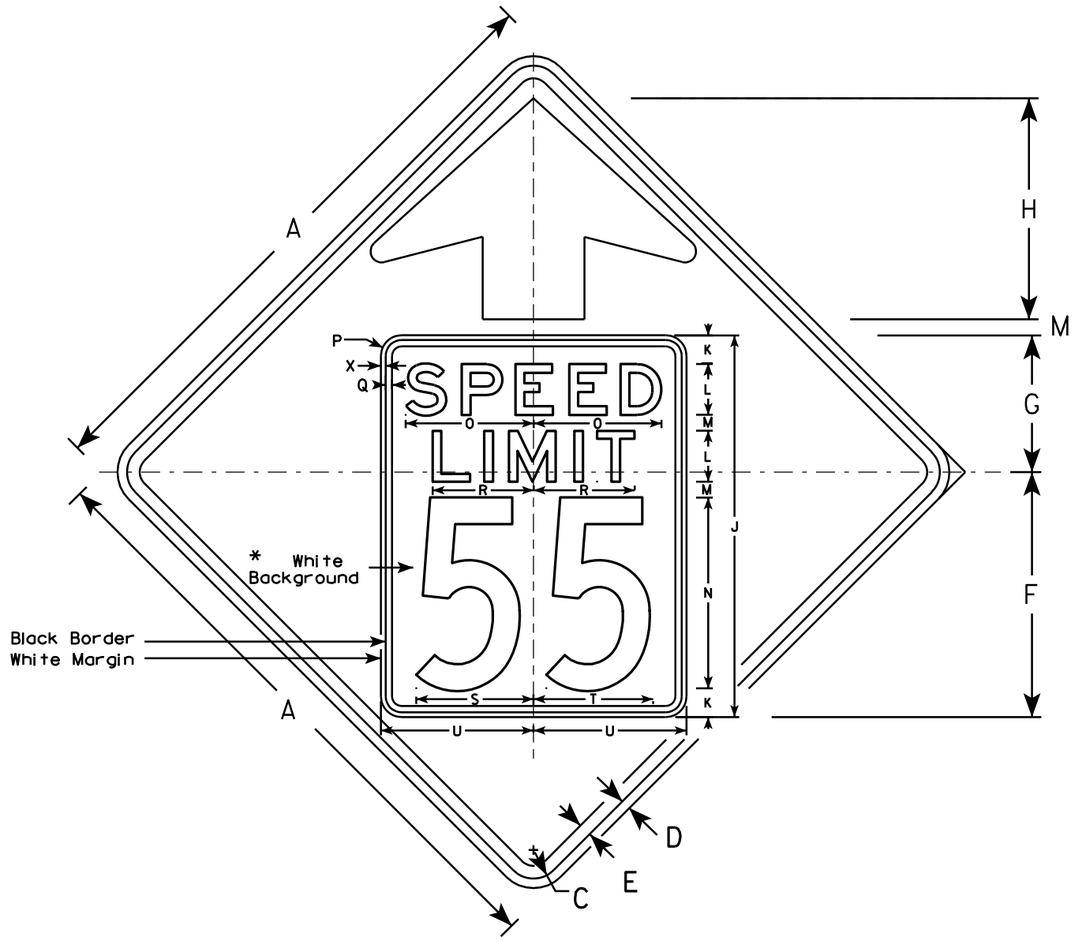
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/10 PLATE NO. W3-1.12

PROJECT NO:

SHEET NO: 169 E

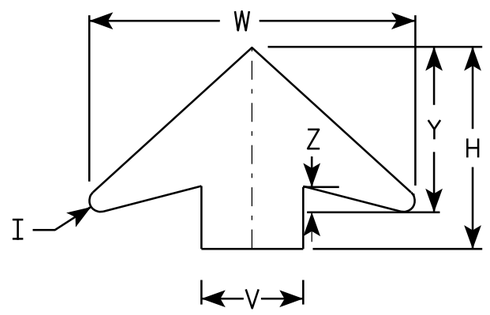


W3-5

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

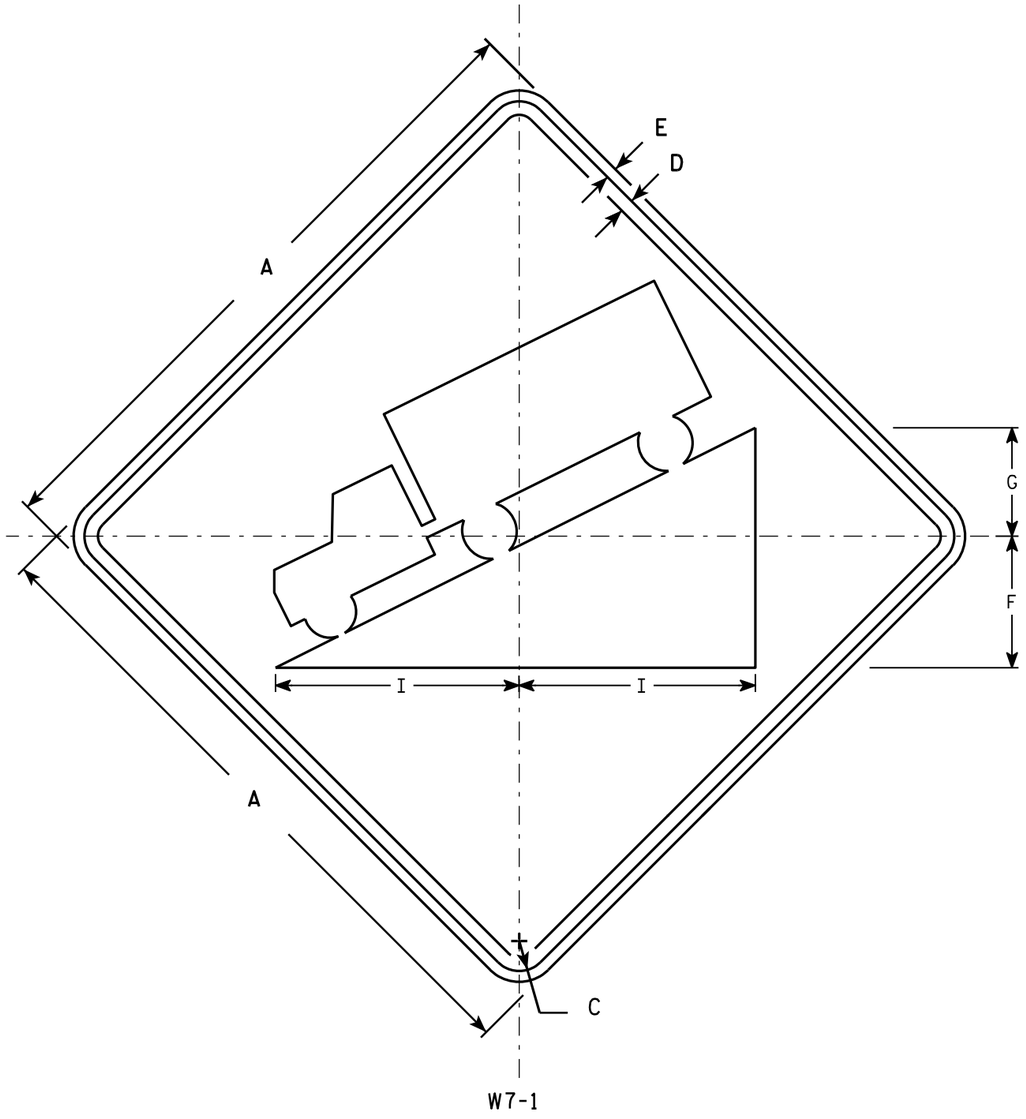
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/29/12 PLATE NO. W3-5.5

PROJECT NO:

SHEET NO: 170 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 - 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	3/8	5	4		8 3/4																		4.0
2S	30		1 3/8	1/2	5/8	6	5		11																		6.25
2M	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
3	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
4	36		1 5/8	5/8	3/4	7 1/4	6		13 1/4																		9.0
5	48		2 1/4	3/4	1	9 3/4	8		17 1/2																		16.0

STANDARD SIGN
W7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 03/12/13 PLATE NO. W7-1.13

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 171	E

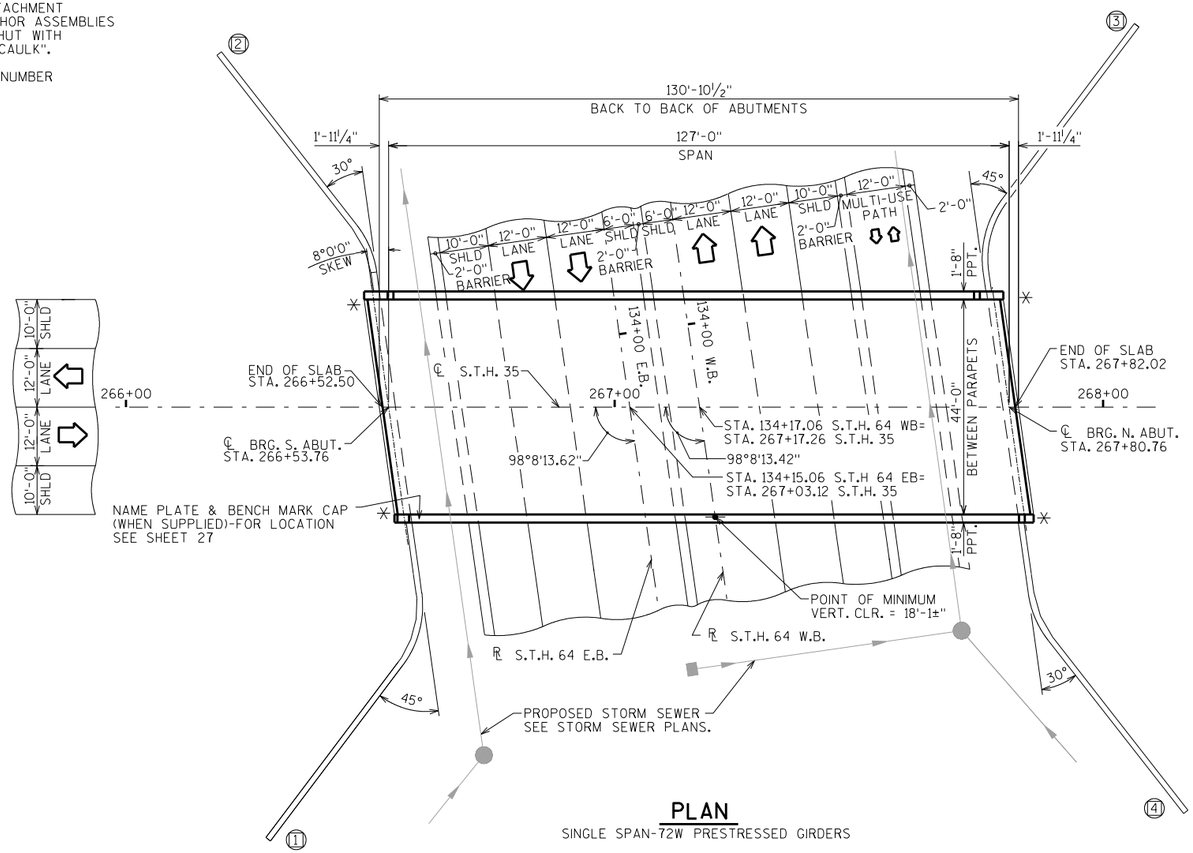
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W71.DGN PLOT DATE : 12-MAR-2013 14:38 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.946657:1.000000
WISDOT/CADDS SHEET 42

STATE PROJECT NUMBER

8110-02-71

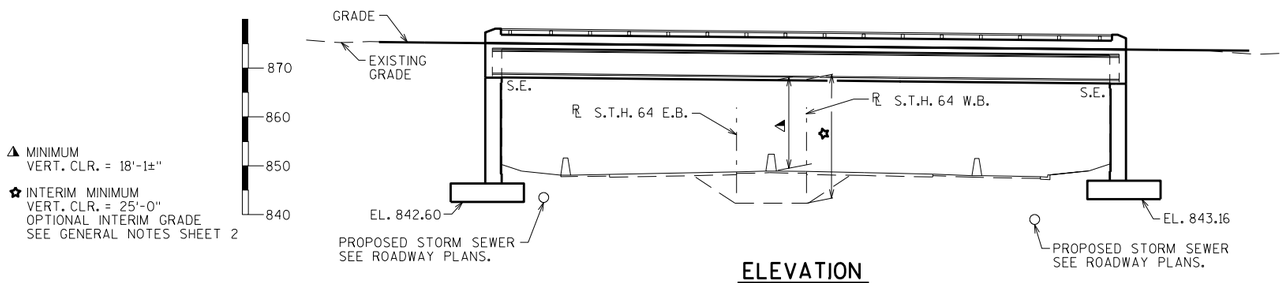
✳ PROVIDE FOR THRIE BEAM GUARD RAIL ATTACHMENT AT UNUSED ANCHOR ASSEMBLIES CAULK HOLES SHUT WITH "100% SILICONE CAULK".

◯ INDICATES WING NUMBER



PLAN

SINGLE SPAN-72W PRESTRESSED GIRDERS

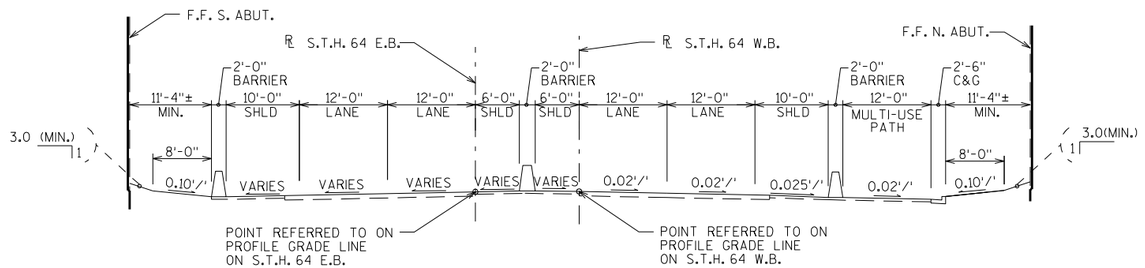


▲ MINIMUM VERT. CLR. = 18'-1±"

✿ INTERIM MINIMUM VERT. CLR. = 25'-0" OPTIONAL INTERIM GRADE SEE GENERAL NOTES SHEET 2

ELEVATION

NORMAL TO S.T.H 64



TYPICAL SECTION THRU S.T.H. 64

NORMAL TO S.T.H 64

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING FACTOR: RF=1.16
OPERATING RATING FACTOR: RF=1.50
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.

72W" 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.

STRUCTURAL CARBON STEEL ASTM A709 GRADE 36 — Fy = 36,000 P.S.I.

HIGH STRENGTH STRUCTURAL STEEL ASTM A709 GRADE 50 — Fy = 50,000 P.S.I.

FOUNDATION DATA

WALL FOOTINGS TO BE SUPPORTED BY UNDERLYING NATIVE SOILS WITH A REQUIRED FACTORED BEARING RESISTANCE OF 6000 PSF ***. A GEOTECHNICAL ENGINEER WILL DETERMINE THE FACTORED BEARING RESISTANCE BY VISUAL INSPECTION PRIOR TO CONSTRUCTION OF THE WALL FOOTING.

***THE FACTORED BEARING RESISTANCE IS THE VALUE USED FOR DESIGN.

THE NORTHWEST REGION, EAU CLAIRE OFFICE SOILS ENGINEER SHOULD REVIEW THE FILL SUBSURFACE CONDITIONS PRIOR TO CONSTRUCTION OF THE WALL.

TRAFFIC VOLUME

S.T.H. 35
A.D.T.=5500 (2035)
R.D.S.=60 M.P.H.

S.T.H. 64
A.D.T.=48,750 (2035)
R.D.S.=70 M.P.H.

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTION & QUANTITIES
3. SUBSURFACE EXPLORATION
4. SOUTH ABUTMENT LAYOUT
5. SOUTH ABUTMENT HORIZ. FOOTING & VERT. WALL REINF.
6. SOUTH ABUTMENT WING 1 ELEVATION
7. SOUTH ABUTMENT BEAM SEAT ELEVATIONS
8. SOUTH ABUTMENT WING 2 ELEVATION
9. SOUTH ABUTMENT SECTIONS (WING 1)
10. SOUTH ABUTMENT SECTIONS (ABUTMENT)
11. SOUTH ABUTMENT SECTIONS (WING 2)
12. SOUTH ABUTMENT BAR DETAILS
13. NORTH ABUTMENT LAYOUT
14. NORTH ABUTMENT HORIZ. FOOTING & VERT. WALL REINF.
15. NORTH ABUTMENT WING 3 ELEVATION
16. NORTH ABUTMENT BEAM SEAT ELEVATIONS
17. NORTH ABUTMENT WING 4 ELEVATION
18. NORTH ABUTMENT SECTIONS (WING 3)
19. NORTH ABUTMENT SECTIONS (ABUTMENT)
20. NORTH ABUTMENT SECTIONS (WING 4)
21. NORTH ABUTMENT BAR DETAILS
22. 72W" PRESTRESSED GIRDER DETAILS 1
23. 72W" PRESTRESSED GIRDER DETAILS 2
24. STEEL DIAPHRAGM
25. SUPERSTRUCTURE
26. SUPERSTRUCTURE DETAILS
27. MODIFIED 'MN' PARAPET
28. MODIFIED 'MN' PARAPET DETAILS
29. MODIFIED 'MN' PARAPET (SPECIAL)
30. MODIFIED 'MN' PARAPET (SPECIAL) DETAILS
31. RAIL POST SPACING
32. PIPE RAILING DETAILS
33. AESTHETIC DETAILS
34. MISCELLANEOUS DETAILS

STRUCTURE DESIGN CONTACTS:

JAMES LUEBKE (608) 266-5098
LAURA SHADEWALD (608) 267-9592

NO.	DATE	REVISION	BY

Plans Prepared By WISDOT
BUREAU OF STRUCTURES

ACCEPTED William C. Dreher LLS 9/16/13
CHIEF STRUCTURES DESIGN ENGINEER DATE

STRUCTURE B-55-225

S.T.H. 35 OVER S.T.H. 64

COUNTY ST. CROIX
TOWN/~~CITY/VILLAGE~~ ST. JOSEPH

DESIGN SPEC. AASHTO LRFD DESIGN SPECIFICATIONS

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
JDL	ARC	WWR	JDL

GENERAL PLAN

SHEET 1 OF 34

172

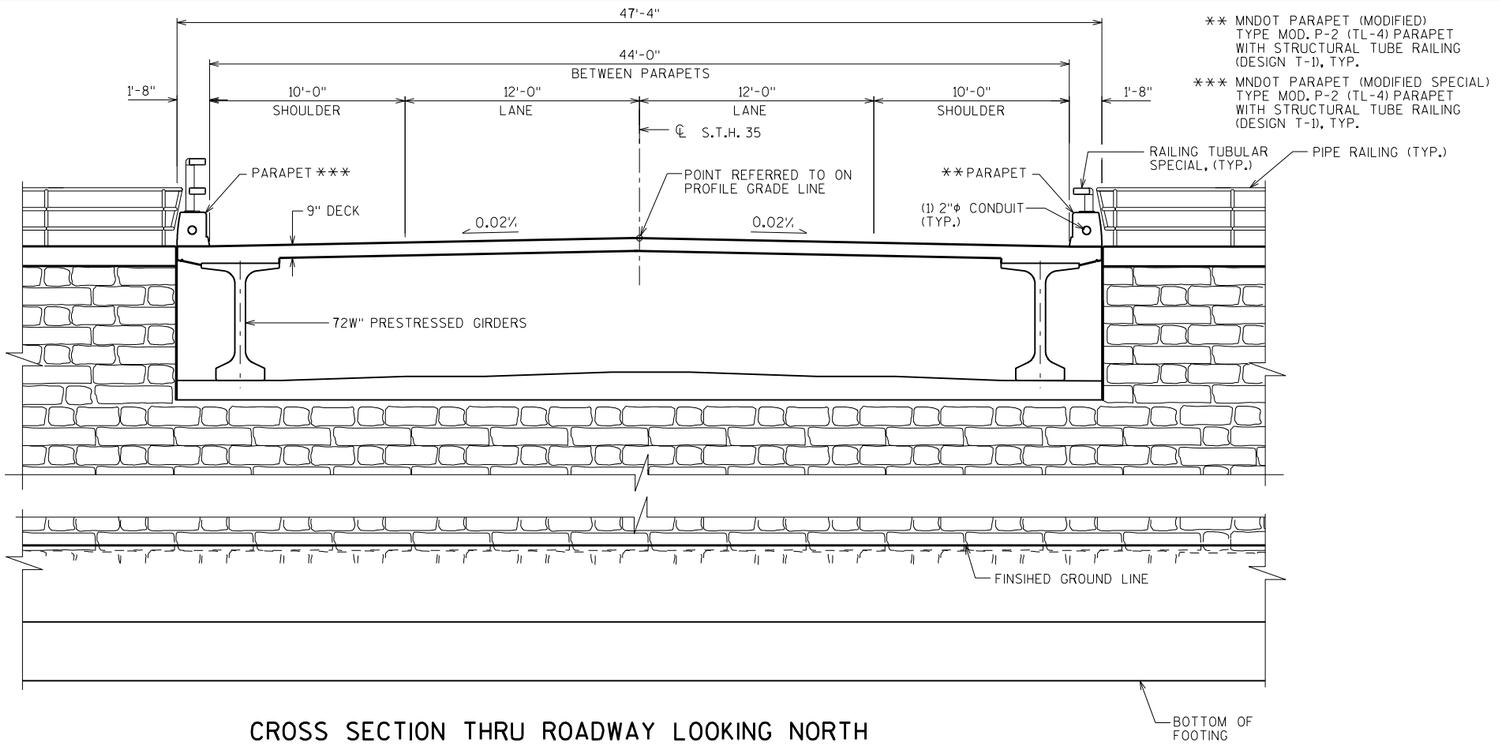
I.D. 8110-02-01A

DATE: JULY 2013

SCALE =

8

8



** MNDOT PARAPET (MODIFIED) TYPE MOD. P-2 (TL-4) PARAPET WITH STRUCTURAL TUBE RAILING (DESIGN T-1), TYP.

*** MNDOT PARAPET (MODIFIED SPECIAL) TYPE MOD. P-2 (TL-4) PARAPET WITH STRUCTURAL TUBE RAILING (DESIGN T-1), TYP.

CROSS SECTION THRU ROADWAY LOOKING NORTH

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEMS	UNIT	SUPER.	SOUTH ABUT.	NORTH ABUT.	TOTALS
206.1000	EXCAVATION FOR STRUCTURES BRIDGES B-55-225	LS	———	———	———	1
210.0100	BACKFILL STRUCTURE	CY	———	5,270	4,630	9,900
312.0115	SELECT CRUSHED MATERIAL	CY	———	100	100	200
502.0100	CONCRETE MASONRY BRIDGES	CY	300	687	659	1,646
502.3200	PROTECTIVE SURFACE TREATMENT	SY	730	———	———	730
503.0172	PRESSTRESSED GIRDER TYPE I 72W-INCH	LF	640	———	———	640
505.0405	BAR STEEL REINFORCEMENT HS BRIDGES	LB	———	36,220	36,220	72,440
505.0605	BAR STEEL REINFORCEMENT HS COATED BRIDGES	LB	47,350	63,700	59,440	170,490
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	10	———	———	10
506.4000	STEEL DIAPHRAGMS B-55-225	EACH	8	———	———	8
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	———	26	26	52
517.1010.S	CONCRETE STAINING B-55-225	EACH	3,460	———	———	3,460
517.1015.S	CONCRETE STAINING MULTI-COLOR B-55-225	EACH	———	2,710	2,560	5,270
517.1050.S	ARCHITECTURAL SURFACE TREATMENT B-55-225	EACH	———	2,710	2,560	5,270
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	———	215	215	430
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	4	———	———	4
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	80	———	———	80
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	242	———	———	242
SPV.0105	RAILING PIPE GALVANIZED B-55-225	LS	1	———	———	1
SPV.0105	RAILING TUBULAR SPECIAL GALVANIZED B-55-225	LS	1	———	———	1
	NON-BID ITEMS					
	FILLER	SIZE	———	———	———	1/2" & 3/4"
	PLASTIC OR ZINC PLATE	SIZE	———	———	———	1/16" - 1/8"
	NON-BITUMINOUS JOINT SEALER		———	———	———	———

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 DIAPHRAGMS SHALL BE PLACED WITH THE DECK CONCRETE.

THE GRADATION OF THE STRUCTURE BACKFILL SHALL MEET THE REQUIREMENTS OF SECTION 209.2.2 OF THE STANDARD SPECIFICATIONS FOR GRADE 1 MATERIAL.

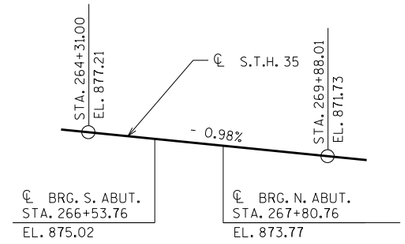
PROTECTIVE SURFACE TREATMENT TO BE APPLIED TO THE ENTIRE TOP OF DECK SURFACE AND THE INSIDE FACE AND THE TOP OF THE PARAPET.

AN OPTIONAL INTERIM GRADE IS PROVIDED FOR ADJACENT CONSTRUCTION HAULING CLEARANCE. COORDINATE THE CONSTRUCTION OF B-55-225 WITH THE CONSTRUCTION OF THE WEST ABUTMENT OF THE BRIDGE B-55-224.

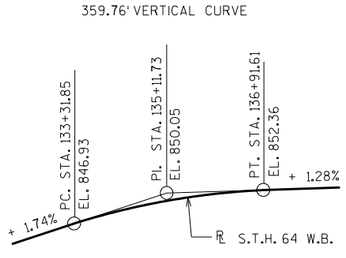
BACKFILL UNIFORMILY AND SIMULTANEOUSLY BOTH FACES OF THE WINGS AND ABUTMENTS.

ALL COSTS ASSOCIATED WITH THE STEEL RAILING, ATTACHMENT DETAILS, AND MISCELLANOUS DETAILS FOR THE "MODIFIED 'MN' PARAPET" AND "MODIFIED 'MN' (SPECIAL) PARAPET" SHALL BE INCLUDED IN THE "RAILING TUBULAR SPECIAL GALVANIZED B-55-225" LUMP SUM BID ITEM.

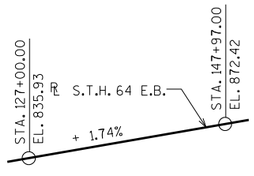
ALL COSTS ASSOCIATED WITH THE CONCRETE AND REBAR FOR THE "MODIFIED 'MN' PARAPET" AND "MODIFIED 'MN' (SPECIAL) PARAPET" SHALL BE INCLUDED IN THE "CONCRETE MASONRY BRIDGES" AND "BAR STEEL REINFORCEMENT HS COATED BRIDGES" RESPECTIVE BID ITEMS.



PROFILE GRADE LINE ON S.T.H. 35



PROFILE GRADE LINE ON S.T.H. 64 W.B.



PROFILE GRADE LINE ON S.T.H. 64 E.B.

STATE PROJECT NUMBER

8110-02-71

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

CROSS SECTION & QUANTITIES

SHEET 2

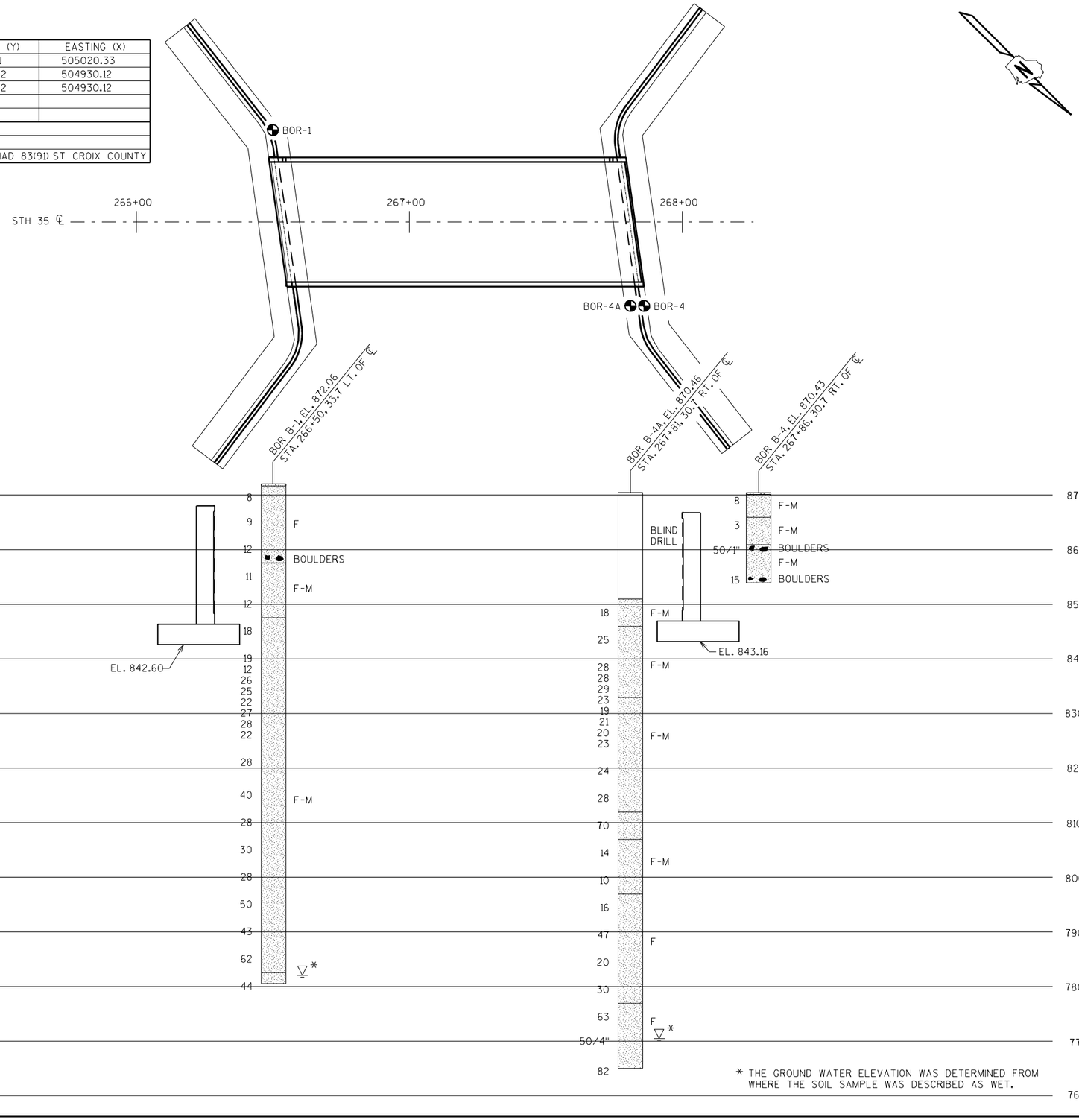
173

SCALE = 3.75

STILLWATER - SOMERSET
ST. CROIX RIVER BRIDGE

BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
1	3/19/2013	368581.81	505020.33
4	3/14/2013	368727.82	504930.12
4A	3/14/2013	368727.82	504930.12

BORINGS COMPLETED BY: AET
REPORT COMPLETED BY: WISDOT
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) ST CROIX COUNTY



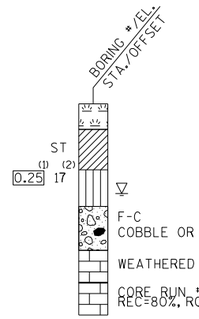
STATE PROJECT NUMBER

8110-02-71

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-55-225

DRAWN BY PR/WWR | PLANS CK'D. JDL

SUBSURFACE EXPLORATION

SHEET 3

174

8

8

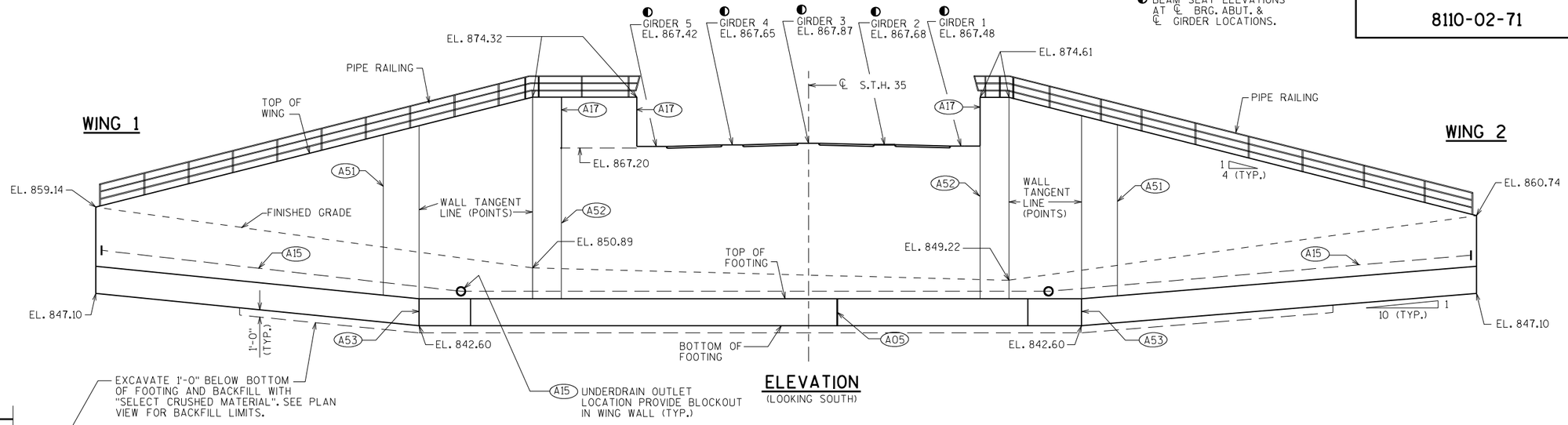
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STATE PROJECT NUMBER

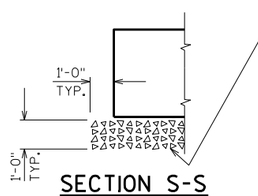
8110-02-71

BEAM SEAT ELEVATIONS AT ℄ BRG. ABUT. & ℄ GIRDER LOCATIONS.

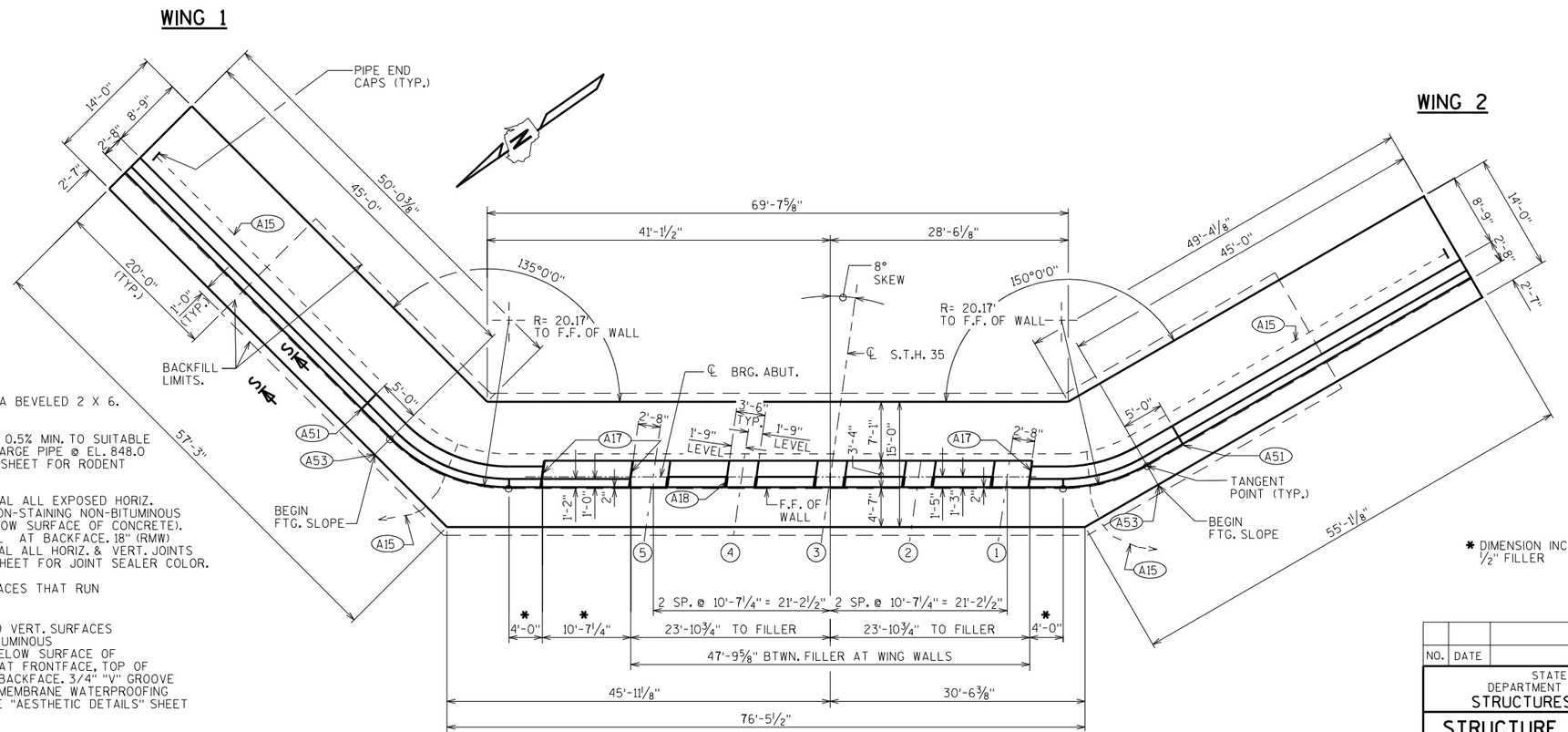
GIRDER 5 EL. 867.42 | GIRDER 4 EL. 867.65 | GIRDER 3 EL. 867.87 | GIRDER 2 EL. 867.68 | GIRDER 1 EL. 867.48



ELEVATION
(LOOKING SOUTH)



SECTION S-S



PLAN

* DIMENSION INCLUDES 1/2" FILLER

(A05) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. REINFORCEMENT EXTENDS THROUGH JOINT.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. DISCHARGE PIPE @ EL. 848.0 OR BELOW. SEE "MISCELLANEOUS DETAILS" SHEET FOR RODENT SHIELD DETAIL.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 2'-0" BELOW TOP OF WALL AT BACKFACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT SEALER COLOR.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A51) VERT. EXPANSION JOINT: SEAL ALL EXPOSED VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER FULL HEIGHT AT FRONTFACE, TOP OF WALL AND 2'-0" BELOW TOP OF WALL AT BACKFACE. 3/4" "V" GROOVE @ THE FRONT FACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FORJOINT SEALER COLOR.

(A52) 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 DETAILS SEE "MISCELLANEOUS DETAILS" SHEET.

(A53) OPTIONAL HORIZ. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. 3/4" "V" GROOVE AND 18" R.M.W. @ TOP AND SIDES. RUN BAR STEEL THRU JOINT. DISPLACE TRANSVERSE BARS 3" FROM JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

SOUTH ABUTMENT LAYOUT

SHEET 4

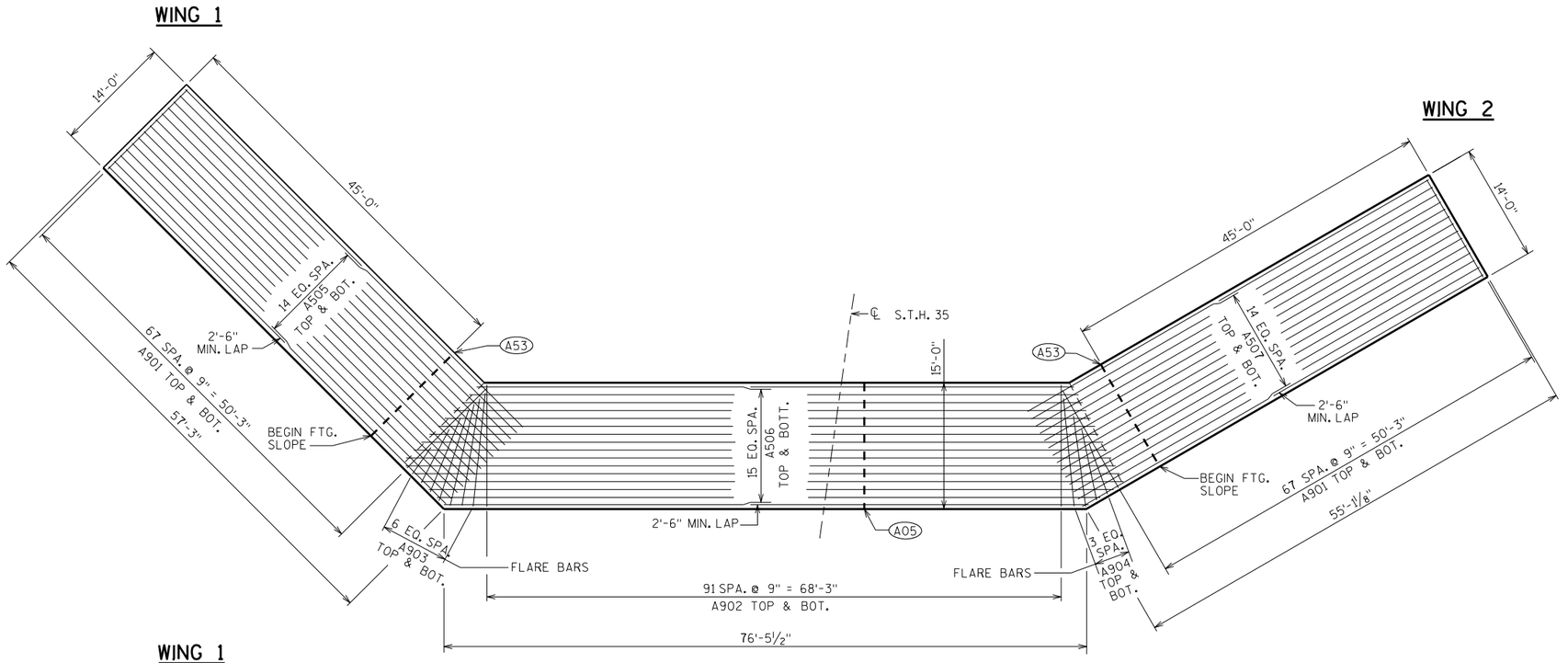
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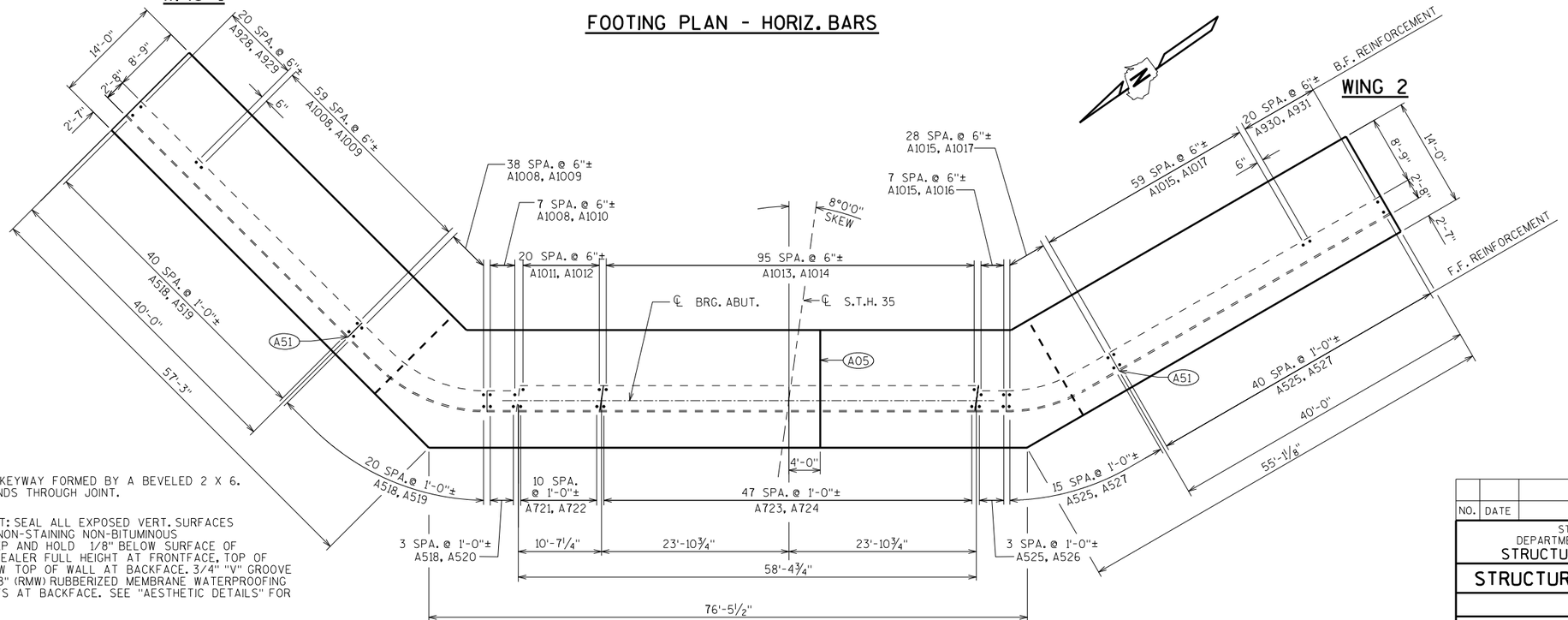
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STATE PROJECT NUMBER
8110-02-71



FOOTING PLAN - HORIZ. BARS



FOOTING PLAN - DOWEL & VERT. WALL BARS

(A05) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. REINFORCEMENT EXTENDS THROUGH JOINT.

(A51) VERT. EXPANSION JOINT: SEAL ALL EXPOSED VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER FULL HEIGHT AT FRONTFACE, TOP OF WALL AND 2'-0" BELOW TOP OF WALL AT BACKFACE. 3/4" "V" GROOVE @ THE FRONT FACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" FOR JOINT SEALER COLOR.

(A53) OPTIONAL HORIZ. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. 3/4" "V" GROOVE AND 18" R.M.W. @ TOP AND SIDES. RUN BAR STEEL THRU JOINT. DISPLACE TRANSVERSE BARS 3" FROM JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

SOUTH ABUTMENT HORIZ. FOOTING & VERT. WALL REINF.

SHEET 5

176

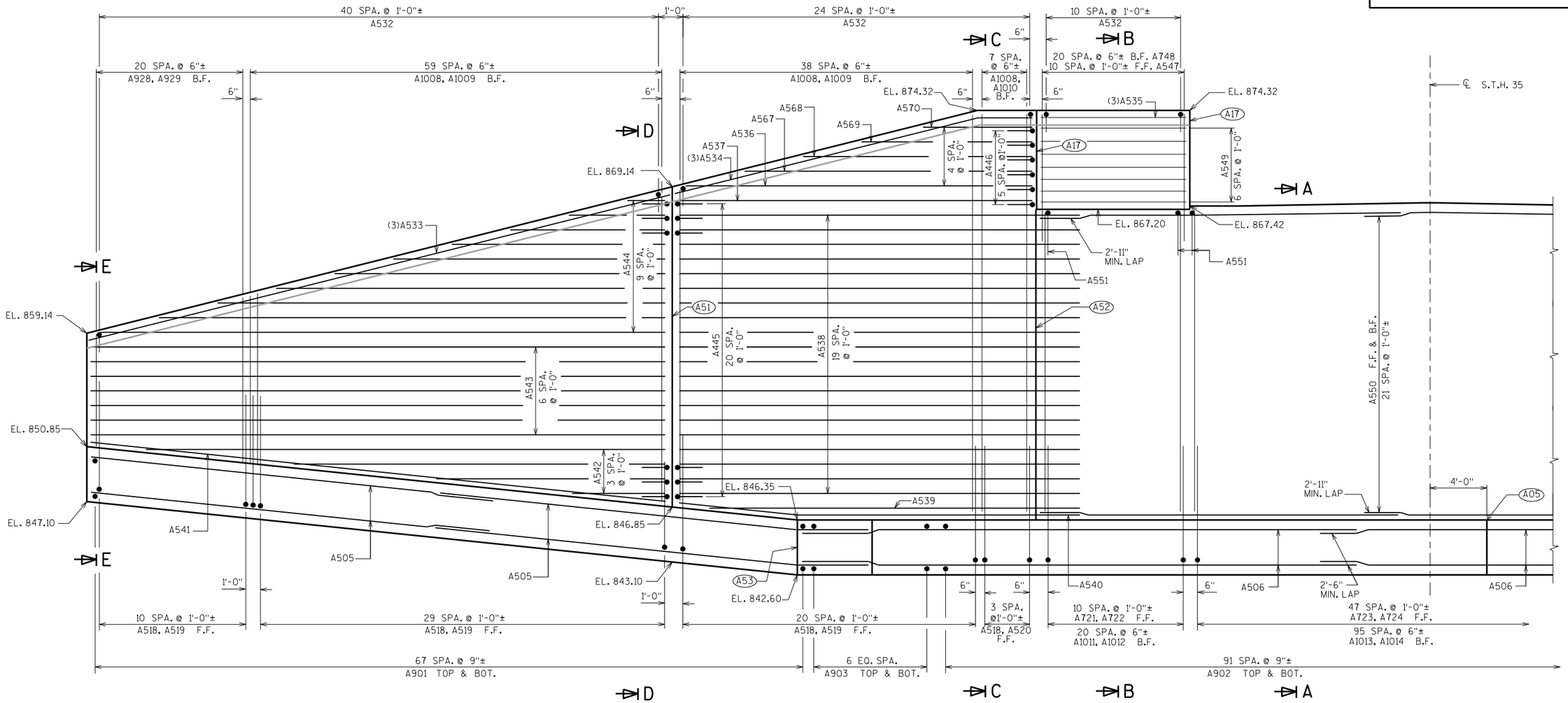
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SCALE =

STATE PROJECT NUMBER

8110-02-71



ELEVATION

(LOOKING SOUTH AT F.F.)

NOTE: SEE SHEETS 9 & 10 FOR SECTIONS.

(A05) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. REINFORCEMENT EXTENDS THROUGH JOINT.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 2'-0" BELOW TOP OF WALL AT BACKFACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT SEALER COLOR.

(A51) VERT. EXPANSION JOINT: SEAL ALL EXPOSED VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER FULL HEIGHT AT FRONTFACE, TOP OF WALL AND 2'-0" BELOW TOP OF WALL AT BACKFACE. 3/4" "V" GROOVE @ THE FRONT FACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT SEALER COLOR.

(A52) 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 DETAILS SEE "MISCELLANEOUS DETAILS" SHEET.

(A53) OPTIONAL HORIZ. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. 3/4" "V" GROOVE AND 18" R.M.W. @ TOP AND SIDES. RUN BAR STEEL THRU JOINT. DISPLACE TRANSVERSE BARS 3" FROM JOINT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

SOUTH ABUTMENT WING 1 ELEVATION

SHEET 6

177

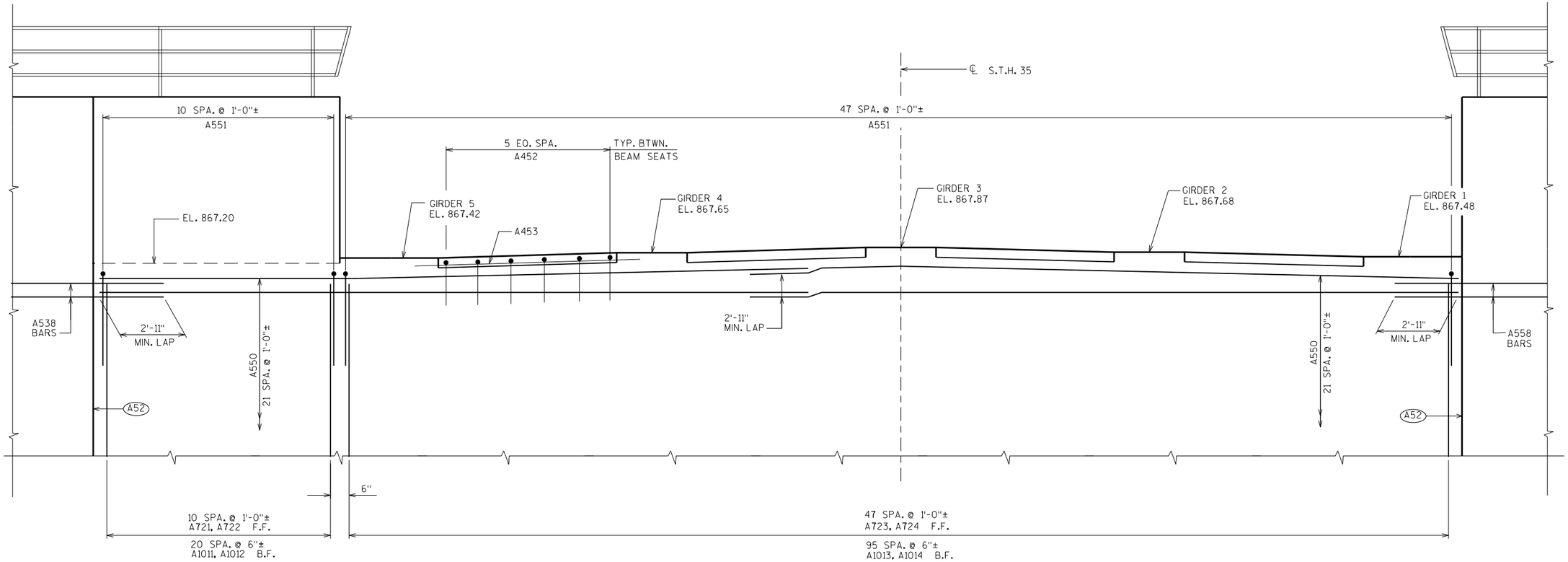
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8

STATE PROJECT NUMBER

8110-02-71



ELEVATION
(LOOKING SOUTH)

8

8

(A52) 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 DETAILS SEE "MISCELLANEOUS DETAILS" SHEET.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

SOUTH ABUTMENT BEAM SEAT ELEVATIONS

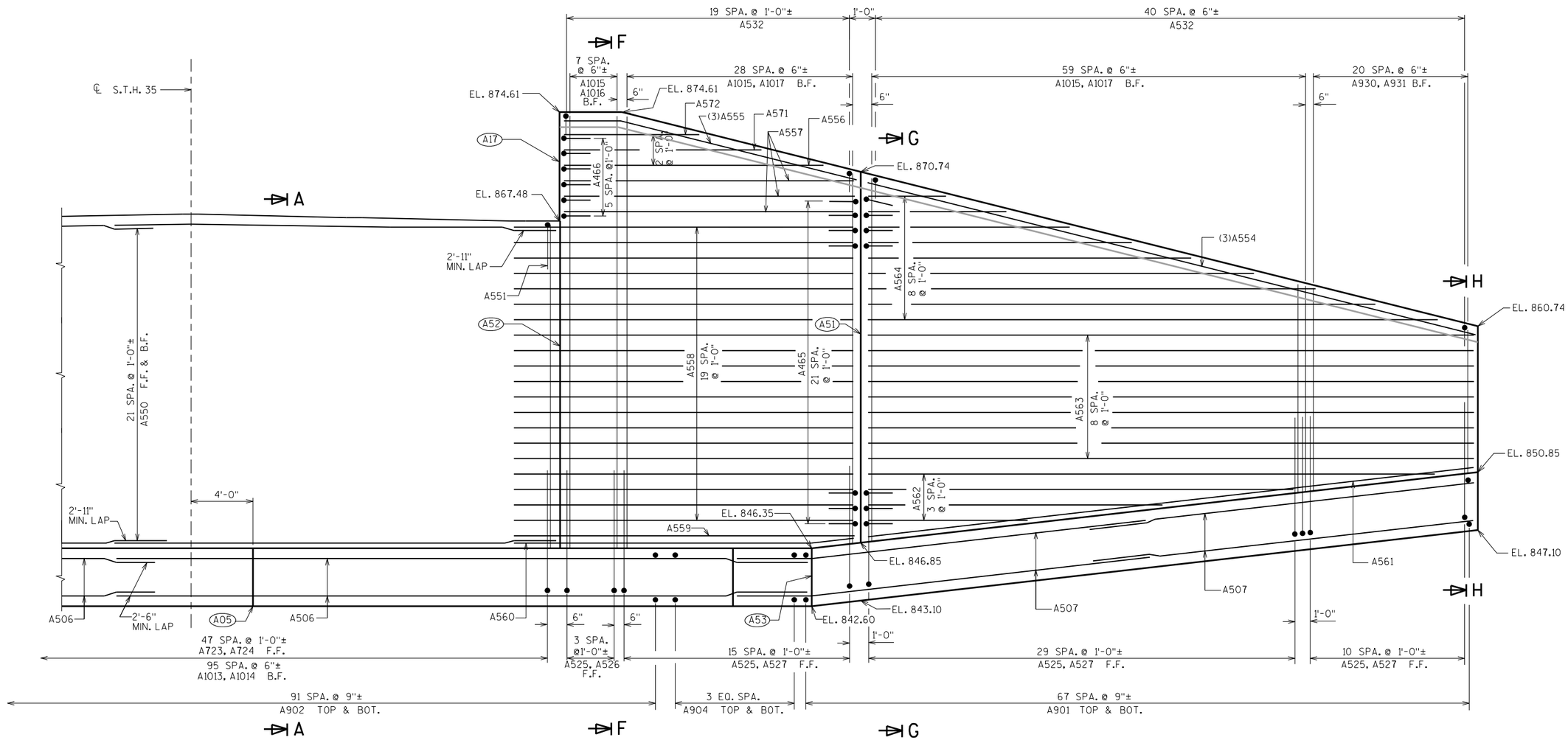
SHEET 7

178

SCALE = 2.25

STATE PROJECT NUMBER

8110-02-71



(A05) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. REINFORCEMENT EXTENDS THROUGH JOINT.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 2'-0" BELOW TOP OF WALL AT BACKFACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT SEALER COLOR.

(A51) VERT. EXPANSION JOINT: SEAL ALL EXPOSED VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER FULL HEIGHT AT FRONTFACE, TOP OF WALL AND 2'-0" BELOW TOP OF WALL AT BACKFACE. 3/4" "V" GROOVE @ THE FRONT FACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT SEALER COLOR.

(A52) 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 DETAILS SEE "MISCELLANEOUS DETAILS" SHEET.

(A53) OPTIONAL HORIZ. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. 3/4" "V" GROOVE AND 18" R.M.W. @ TOP AND SIDES. RUN BAR STEEL THRU JOINT. DISPLACE TRANSVERSE BARS 3" FROM JOINT.

ELEVATION

(LOOKING SOUTH AT F.F.)

NOTE: SEE SHEETS 9 & 11 FOR SECTIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

SOUTH ABUTMENT WING 2 ELEVATION

SHEET 8

179

SCALE = 3.5

8

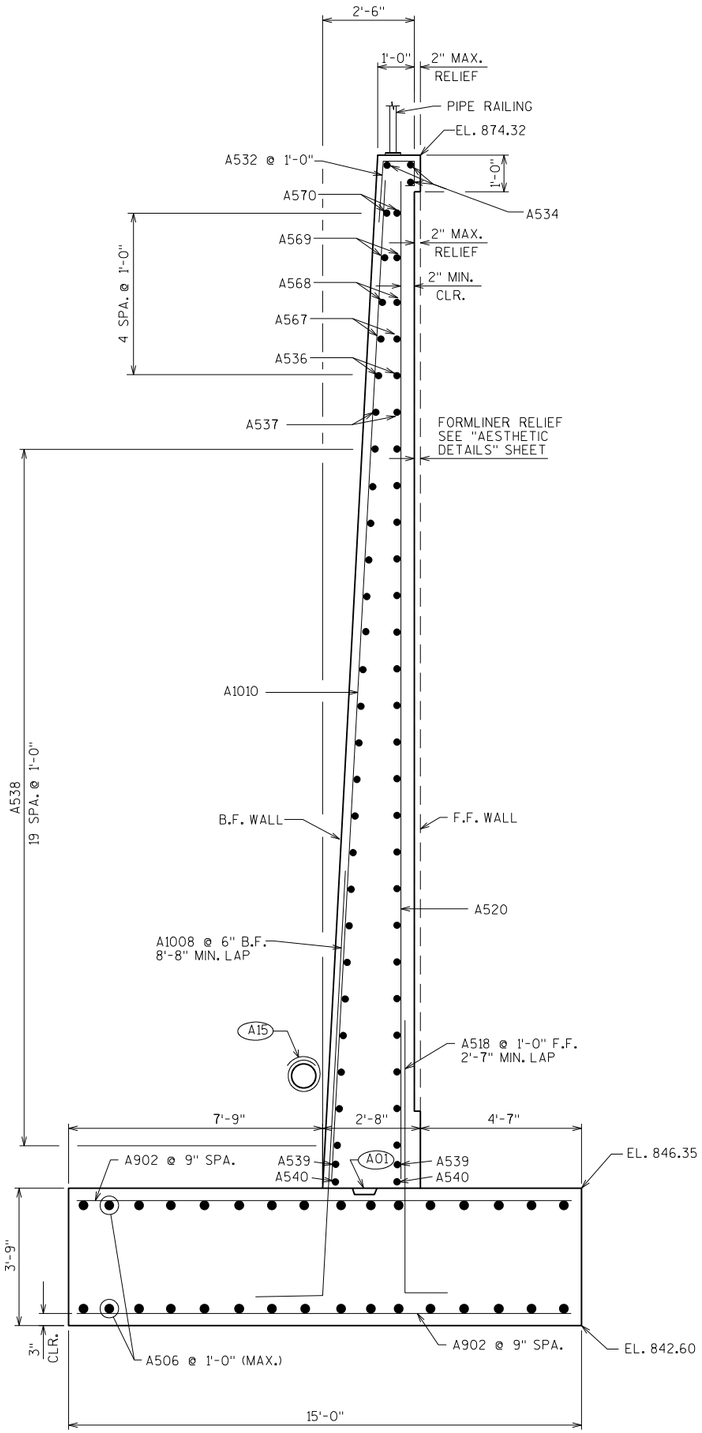
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STATE PROJECT NUMBER
8110-02-71

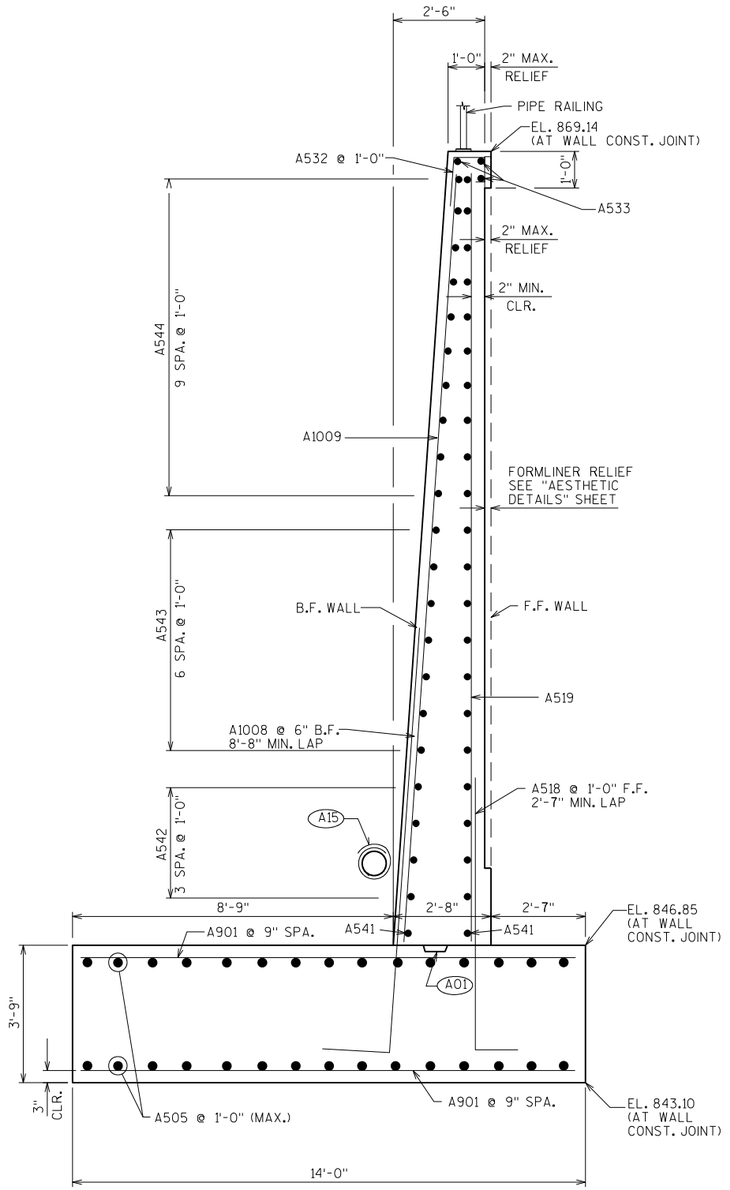
(A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. DISCHARGE PIPE @ EL. 848.0 OR BELOW. SEE "MISCELLANEOUS DETAILS" SHEET FOR RODENT SHIELD DETAIL.

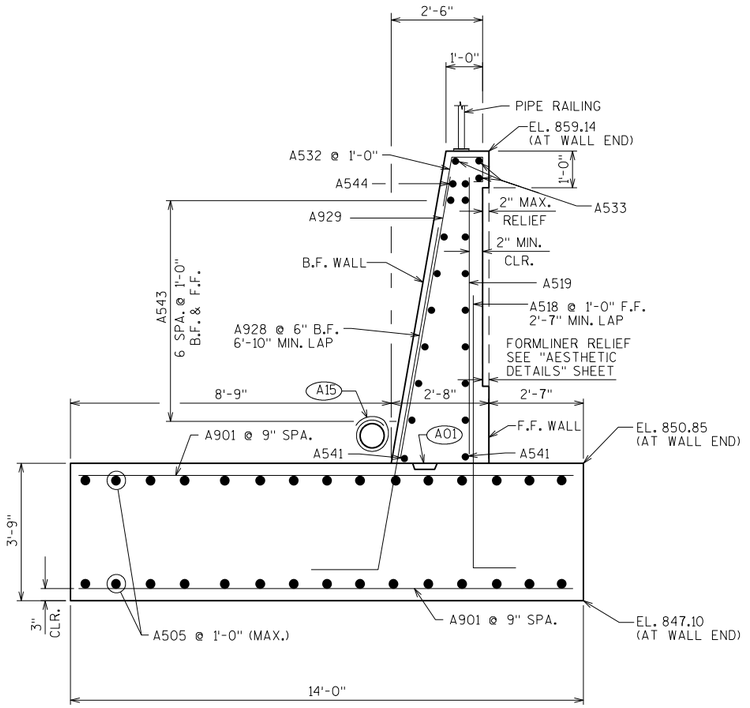
NOTE: SEE "SOUTH ABUTMENT LAYOUT" FOR ELEVATIONS



SECTION C-C



SECTION D-D



SECTION E-E

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

SOUTH ABUTMENT SECTIONS (WING 1)

SHEET 9

180

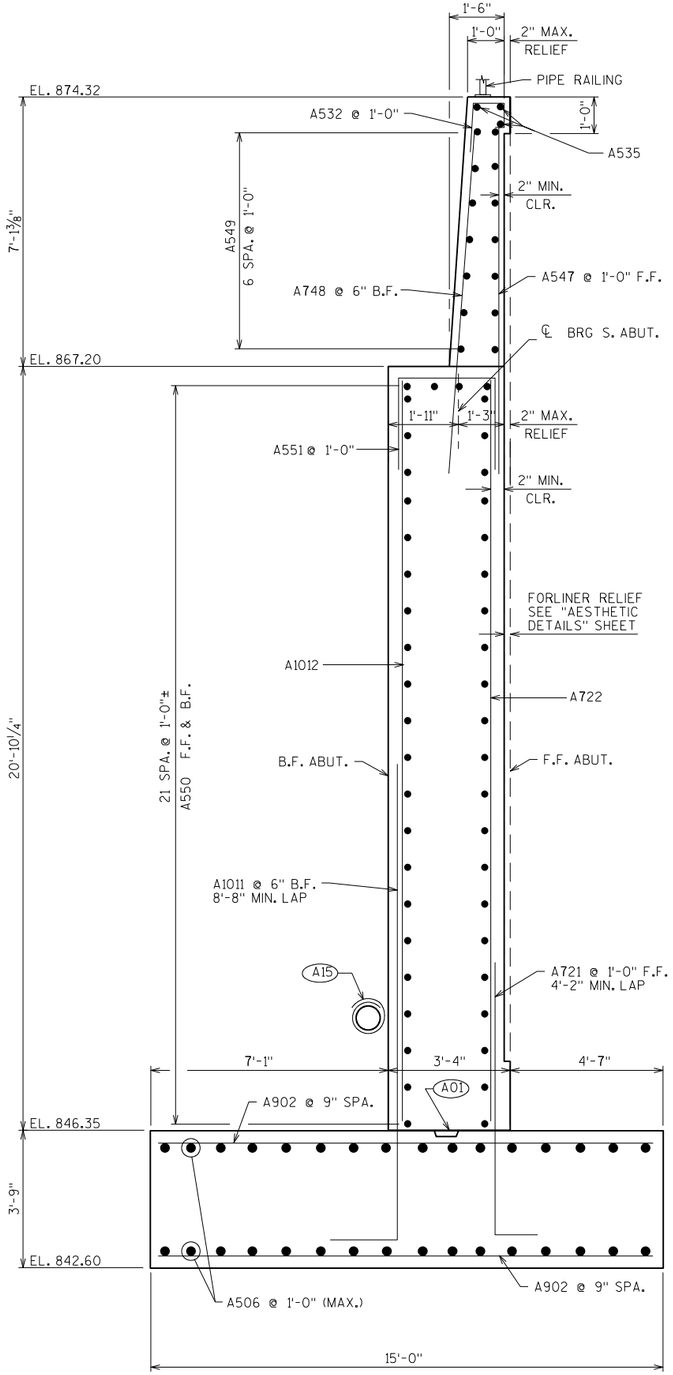
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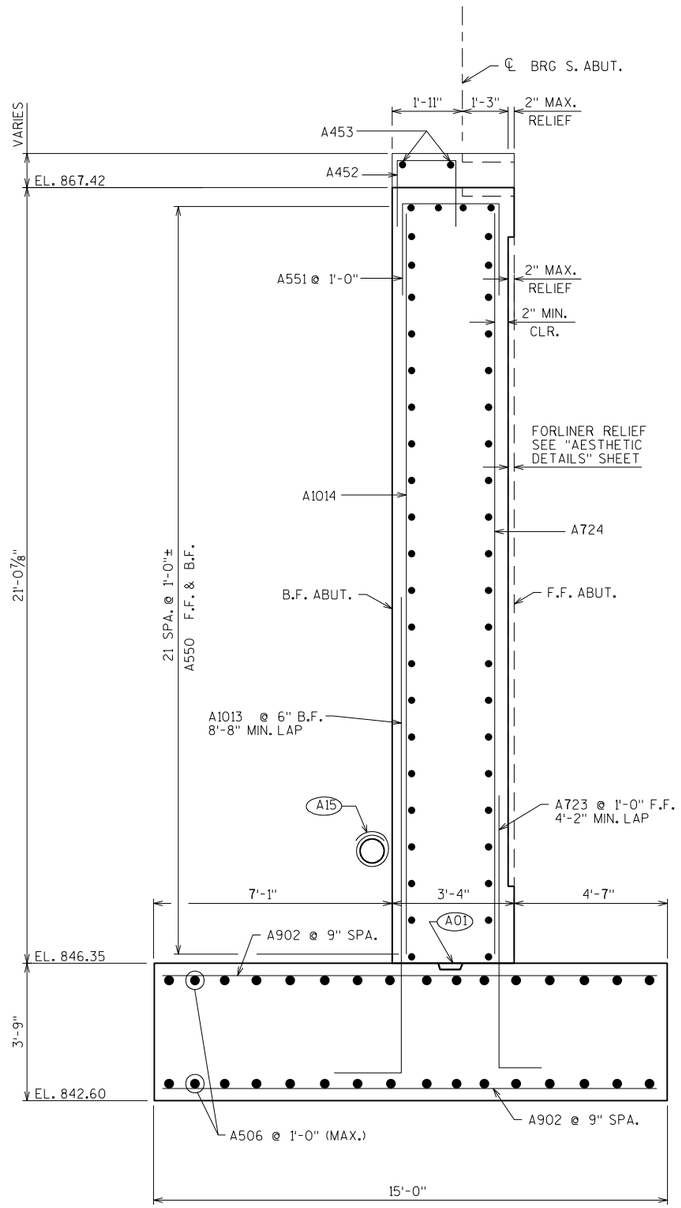
SCALE =

STATE PROJECT NUMBER

8110-02-71

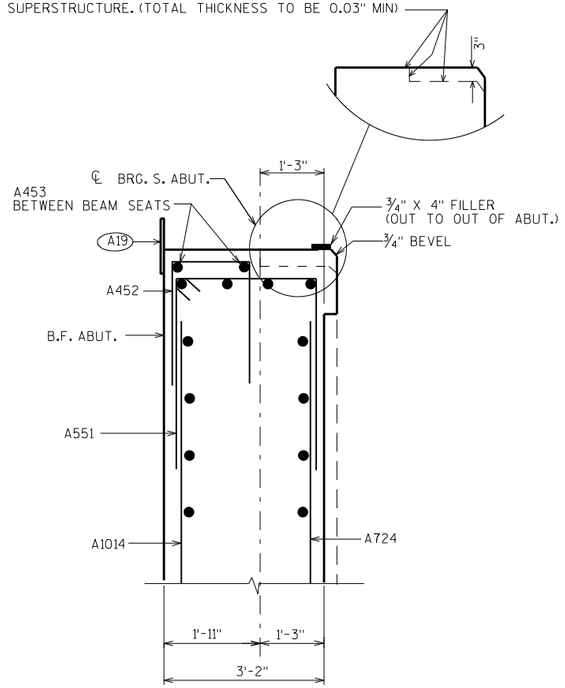


SECTION B-B



SECTION A-A

STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETING OVER ENTIRE ABUTMENT BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. (TOTAL THICKNESS TO BE 0.03" MIN)



SECTION THRU BODY

SEE "SOUTH ABUTMENT LAYOUT" FOR BEAM SEAT ELEVATIONS

(A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. DISCHARGE PIPE @ EL. 848.0 OR BELOW. SEE "MISCELLANEOUS DETAILS" SHEET FOR RODENT SHIELD DETAIL.

(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-55-225

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SOUTH ABUTMENT SECTIONS (ABUTMENT)

SHEET 10

181

SCALE =

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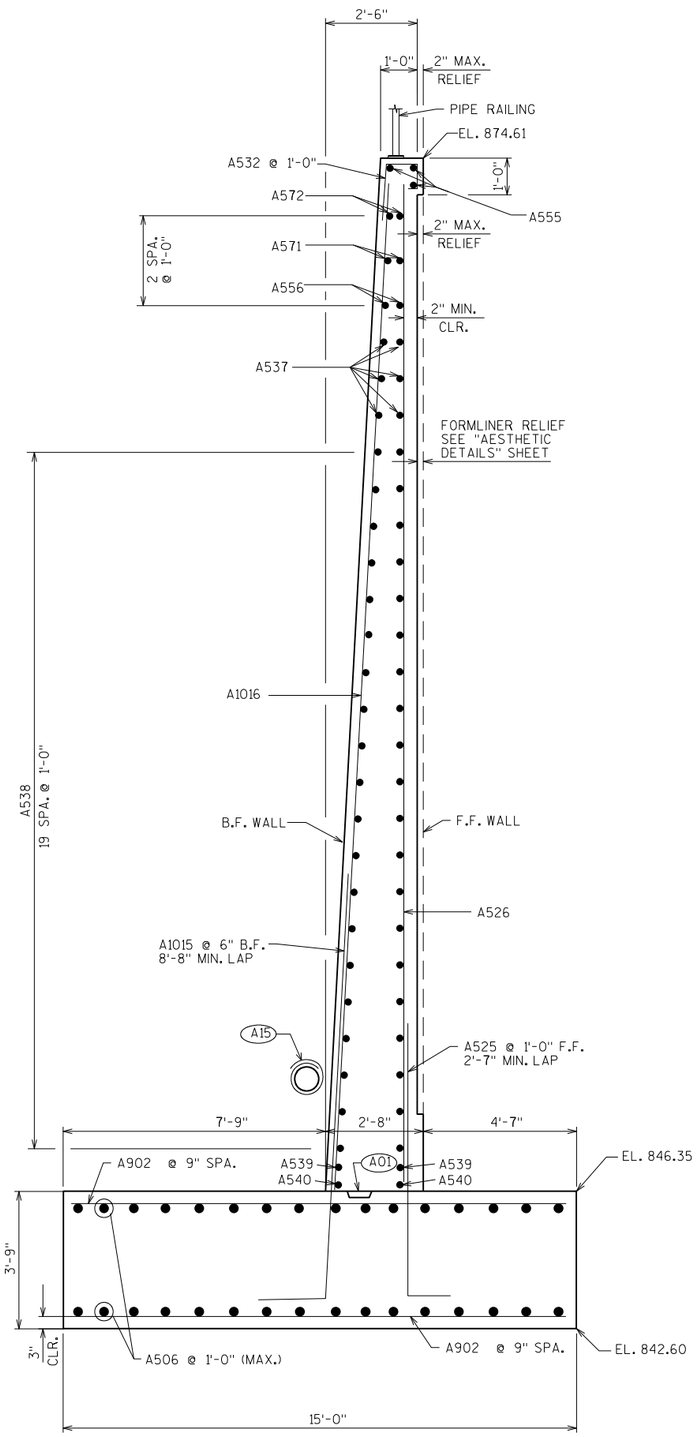
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STATE PROJECT NUMBER
8110-02-71

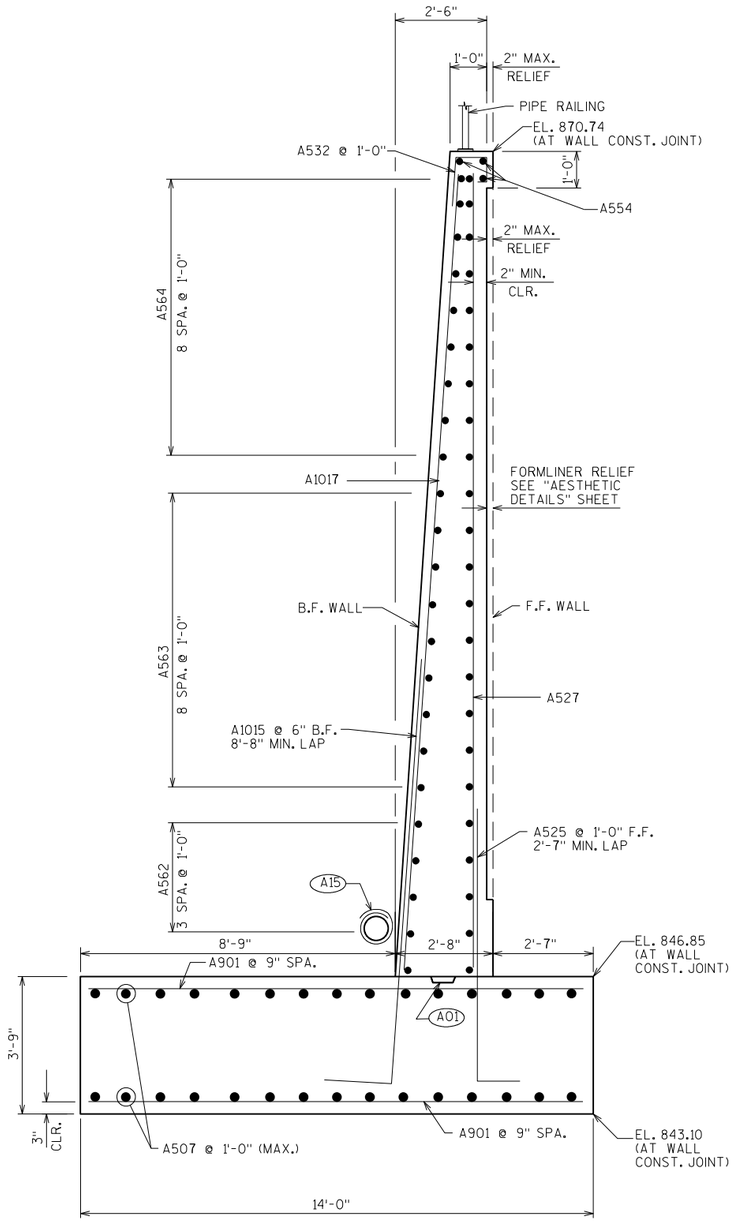
(A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. DISCHARGE PIPE @ EL. 848.0 OR BELOW. SEE "MISCELLANEOUS DETAILS" SHEET FOR RODENT SHIELD DETAIL.

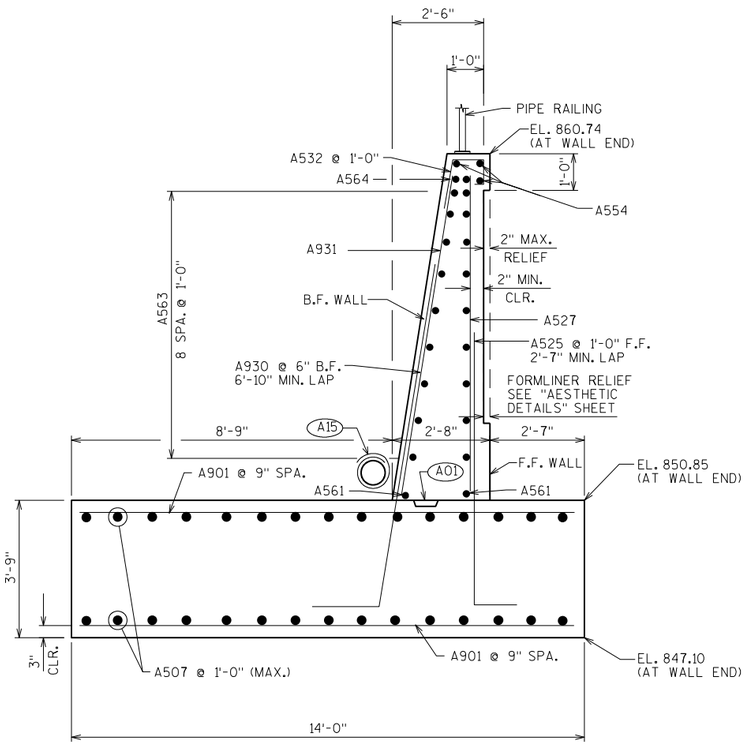
NOTE: SEE "SOUTH ABUTMENT LAYOUT" FOR ELEVATIONS



SECTION F-F



SECTION G-G



SECTION H-H

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

SOUTH ABUTMENT SECTIONS (WING 2)

SHEET 11

182

8

8

SCALE =

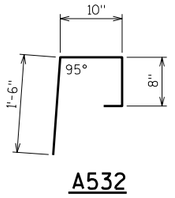
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

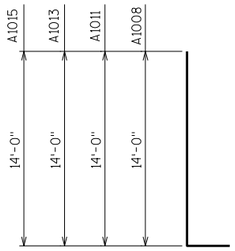
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A901		272	13'-8"			FOOTING-HORIZ.-TRANS.
A902		184	14'-8"			FOOTING-HORIZ.-TRANS.
A903		14	9'-1"		⚠	FOOTING-HORIZ.-TRANS.
A904		8	10'-3"		⚠	FOOTING-HORIZ.-TRANS.
A505		60	29'-9"			FOOTING-HORIZ.-LONGIT.
A506		64	43'-5"			FOOTING-HORIZ.-LONGIT.
A507		60	28'-8"			FOOTING-HORIZ.-LONGIT.
A1008		107	15'-6"	X		FOOTING-DOWEL-VERT.
A1009	X	99	19'-6"		⚠	WING 1-VERT.
A1010	X	8	27'-9"			WING 1-VERT.
A1011	X	21	15'-6"	X		FOOTING-DOWEL-VERT.
A1012	X	21	20'-7"			WING 1-VERT.
A1013	X	96	15'-6"	X		FOOTING-DOWEL-VERT.
A1014	X	96	20'-7"			BODY-VERT.
A1015	X	97	15'-6"	X		FOOTING-DOWEL-VERT.
A1016	X	8	28'-0"			WING 2-VERT.
A1017	X	89	20'-7"		⚠	WING 2-VERT.
A518	X	66	8'-0"	X		FOOTING-DOWEL-VERT.
A519	X	62	17'-7"		⚠	WING 1-VERT.
A520	X	4	27'-9"			WING 1-VERT.
A721	X	11	9'-6"	X		FOOTING-DOWEL-VERT.
A722	X	11	20'-7"			WING 1-VERT.
A723	X	48	9'-6"	X		FOOTING-DOWEL-VERT.
A724	X	48	20'-7"			BODY-VERT.
A525	X	61	8'-0"	X		FOOTING-DOWEL-VERT.
A526	X	4	28'-0"			WING 2-VERT.
A527	X	57	18'-10"		⚠	WING 2-VERT.
A928	X	21	11'-10"	X		FOOTING-DOWEL-VERT.
A929	X	21	9'-5"		⚠	WING 1-VERT.
A930	X	21	11'-10"	X		FOOTING-DOWEL-VERT.
A931	X	21	11'-3"		⚠	WING 2-VERT.
A532	X	138	3'-3"	X		WALL-TOP-VERT.
A533	X	3	40'-9"			WALL-TOP-HORIZ.
A534	X	3	24'-2"	X		WALL-TOP-HORIZ.
A535	X	3	10'-2"			WALL-TOP-HORIZ.
A536	X	2	23'-1"	X		WING 1-HORIZ.
A537	X	2	23'-8"	X		WING 1-HORIZ.
A538	X	40	27'-1"	X		WING 1-HORIZ.
A539	X	2	25'-1"	X		WING 1-HORIZ.
A540	X	2	27'-1"	X		WING 1-BOT.-HORIZ.
A541	X	2	39'-8"			WING 1-BOT.-HORIZ.
A542	X	8	20'-10"		⚠	WING 1-HORIZ.
A543	X	14	39'-7"			WING 1-HORIZ.
A544	X	20	20'-10"		⚠	WING 1-HORIZ.
A445	X	42	3'-7"	X	⚠	WALL JOINT-HORIZ. U-BAR
A446	X	6	3'-2"	X	⚠	WALL JOINT-HORIZ. U-BAR
A547	X	11	8'-6"			WALL SECTION TOP-VERT.
A748	X	21	9'-6"			WALL SECTION TOP-VERT.
A549	X	14	10'-2"			WALL SECTION TOP-HORIZ.
A550	X	88	30'-6"			BODY-HORIZ.
A551	X	59	9'-1"	X		BODY-VERT. U-BAR
A452	X	24	5'-10"	X		BODY-BTWN. BEAM SEATS-VERT.
A453	X	8	9'-0"			BODY-BTWN. BEAM SEATS-HORIZ.
A554	X	3	40'-9"			WALL-TOP-HORIZ.
A555	X	3	19'-1"	X		WALL-TOP-HORIZ.
A556	X	2	16'-8"	X		WING 2-HORIZ.
A557	X	6	18'-8"	X		WING 2-HORIZ.
A558	X	40	21'-10"	X		WING 2-HORIZ.
A559	X	2	21'-10"	X		WING 2-HORIZ.
A560	X	2	21'-10"	X		WING 2-BOT.-HORIZ.
A561	X	2	39'-8"			WING 2-BOT.-HORIZ.
A562	X	8	23'-10"		⚠	WING 2-HORIZ.
A563	X	18	39'-7"			WING 2-HORIZ.
A564	X	18	21'-3"		⚠	WING 2-HORIZ.
A465	X	44	3'-6"	X	⚠	WALL JOINT-HORIZ. U-BAR
A466	X	6	3'-1"	X	⚠	WALL JOINT-HORIZ. U-BAR

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
A567	X	2	19'-1"	X		WING 1-HORIZ.
A568	X	2	15'-1"	X		WING 1-HORIZ.
A569	X	2	11'-1"	X		WING 1-HORIZ.
A570	X	2	7'-1"	X		WING 1-HORIZ.
A571	X	2	12'-8"	X		WING 2-HORIZ.
A572	X	2	8'-8"	X		WING 2-HORIZ.



A532



A1008, A1011, A1013, A1015

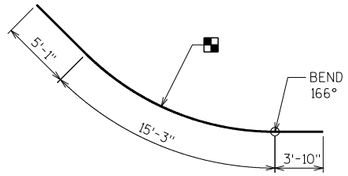
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

■ R=19'-5" (FIELD BEND AS NEEDED)

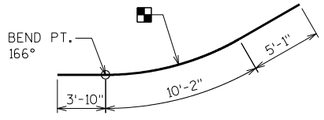
BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
A903	2 SERIES OF 7	4'-4" TO 13'-9"
A904	2 SERIES OF 4	7'-0" TO 13'-6"
A1009	1 SERIES OF 99	11'-4" TO 27'-7"
A1017	1 SERIES OF 89	13'-1" TO 28'-0"
A519	1 SERIES OF 62	7'-7" TO 27'-6"
A527	1 SERIES OF 57	9'-8" TO 28'-0"
A929	1 SERIES OF 21	7'-7" TO 11'-2"
A931	1 SERIES OF 21	9'-6" TO 13'-0"
A542	2 SERIES OF 4	6'-4" TO 35'-5"
A544	2 SERIES OF 10	2'-10" TO 38'-10"
A445	2 SERIES OF 21	2'-10" TO 4'-4"
A446	1 SERIES OF 6	2'-11" TO 3'-5"
A562	2 SERIES OF 4	10'-7" TO 37'-0"
A564	2 SERIES OF 9	5'-4" TO 37'-2"
A465	2 SERIES OF 22	2'-10" TO 4'-4"
A466	1 SERIES OF 6	2'-10" TO 3'-3"

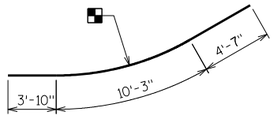
BUNDLE AND TAG EACH SERIES SEPARATELY.



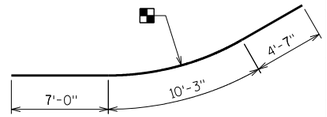
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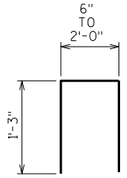
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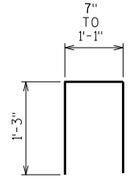
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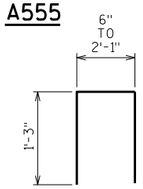
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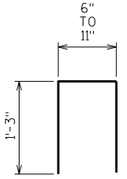
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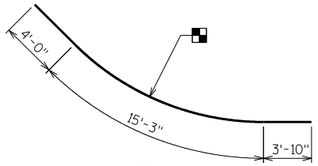
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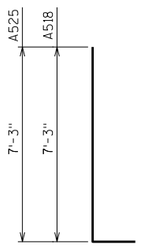
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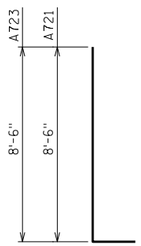
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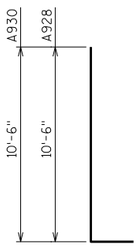
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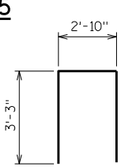
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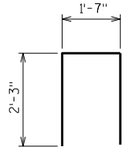
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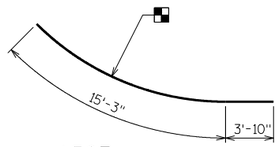
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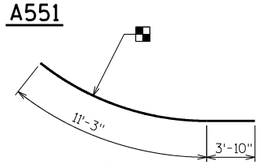
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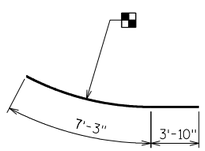
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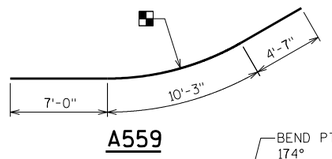
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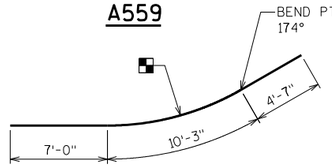
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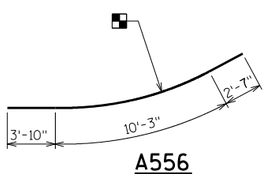
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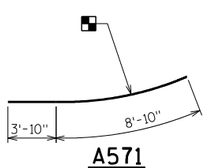
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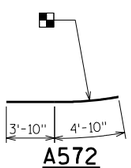
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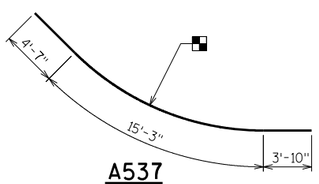
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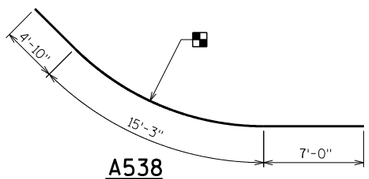
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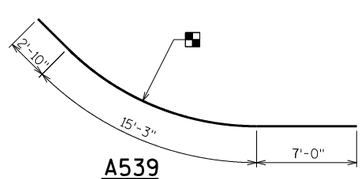
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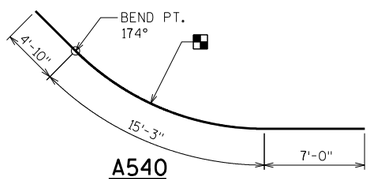
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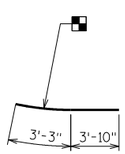
A538



A539



A540



A570

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

SOUTH ABUTMENT BAR DETAILS

SHEET 12

183

STATE PROJECT NUMBER

8110-02-71

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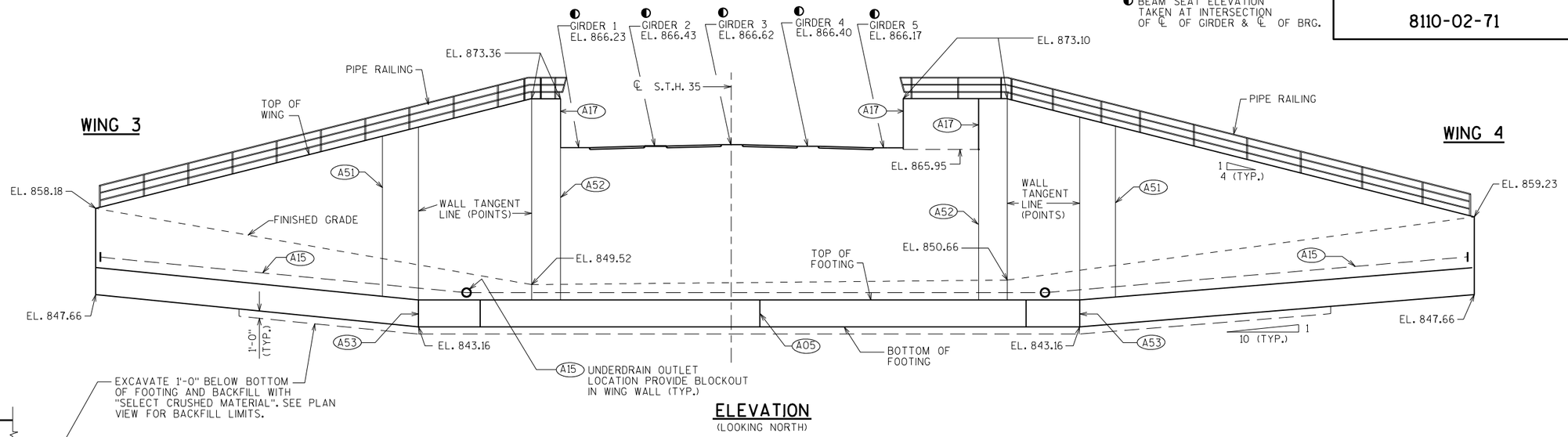
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SCALE =

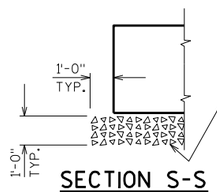
STATE PROJECT NUMBER

8110-02-71

● BEAM SEAT ELEVATION TAKEN AT INTERSECTION OF ℄ OF GIRDER & ℄ OF BRG.

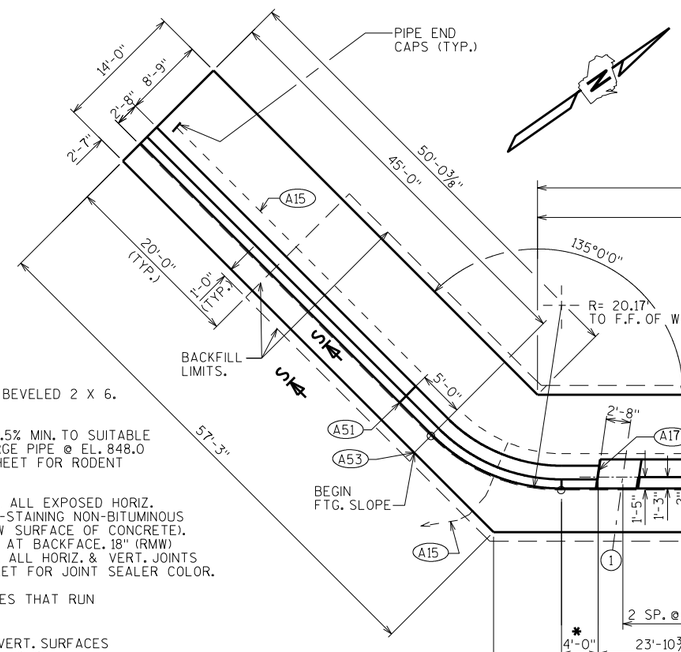


ELEVATION
(LOOKING NORTH)

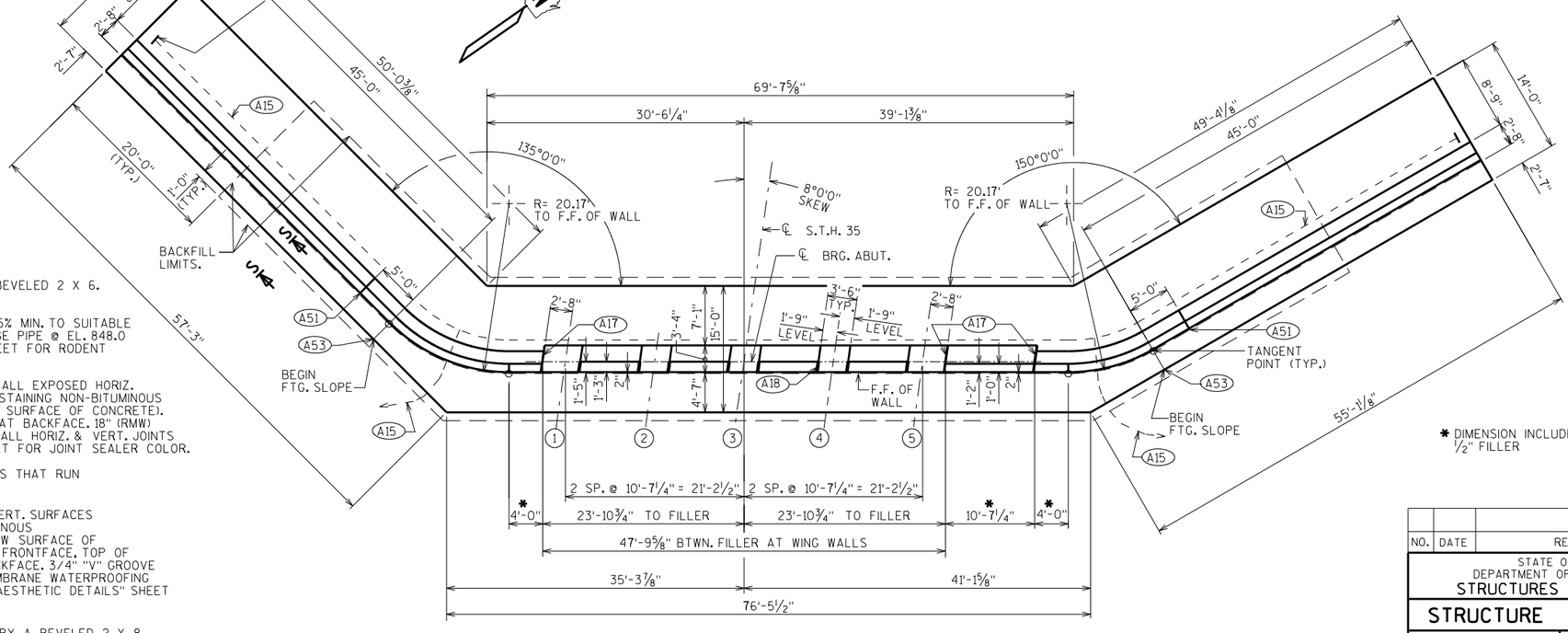


SECTION S-S

WING 3



WING 4



PLAN

* DIMENSION INCLUDES 1/2" FILLER

(A05) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. REINFORCEMENT EXTENDS THROUGH JOINT.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. DISCHARGE PIPE @ EL. 848.0 OR BELOW. SEE "MISCELLANEOUS DETAILS" SHEET FOR RODENT SHIELD DETAIL.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 2'-0" BELOW TOP OF WALL AT BACKFACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT SEALER COLOR.

(A18) 3/4" CORK FILLER UP VERT. BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDER.

(A51) VERT. EXPANSION JOINT: SEAL ALL EXPOSED VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER FULL HEIGHT AT FRONTFACE, TOP OF WALL AND 2'-0" BELOW TOP OF WALL AT BACKFACE. 3/4" "V" GROOVE @ THE FRONT FACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT SEALER COLOR.

(A52) 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 DETAILS SEE "MISCELLANEOUS DETAILS" SHEET.

(A53) OPTIONAL HORIZ. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. 3/4" "V" GROOVE AND 18" R.M.W. @ TOP AND SIDES. RUN BAR STEEL THRU JOINT. DISPLACE TRANSVERSE BARS 3" FROM JOINT.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

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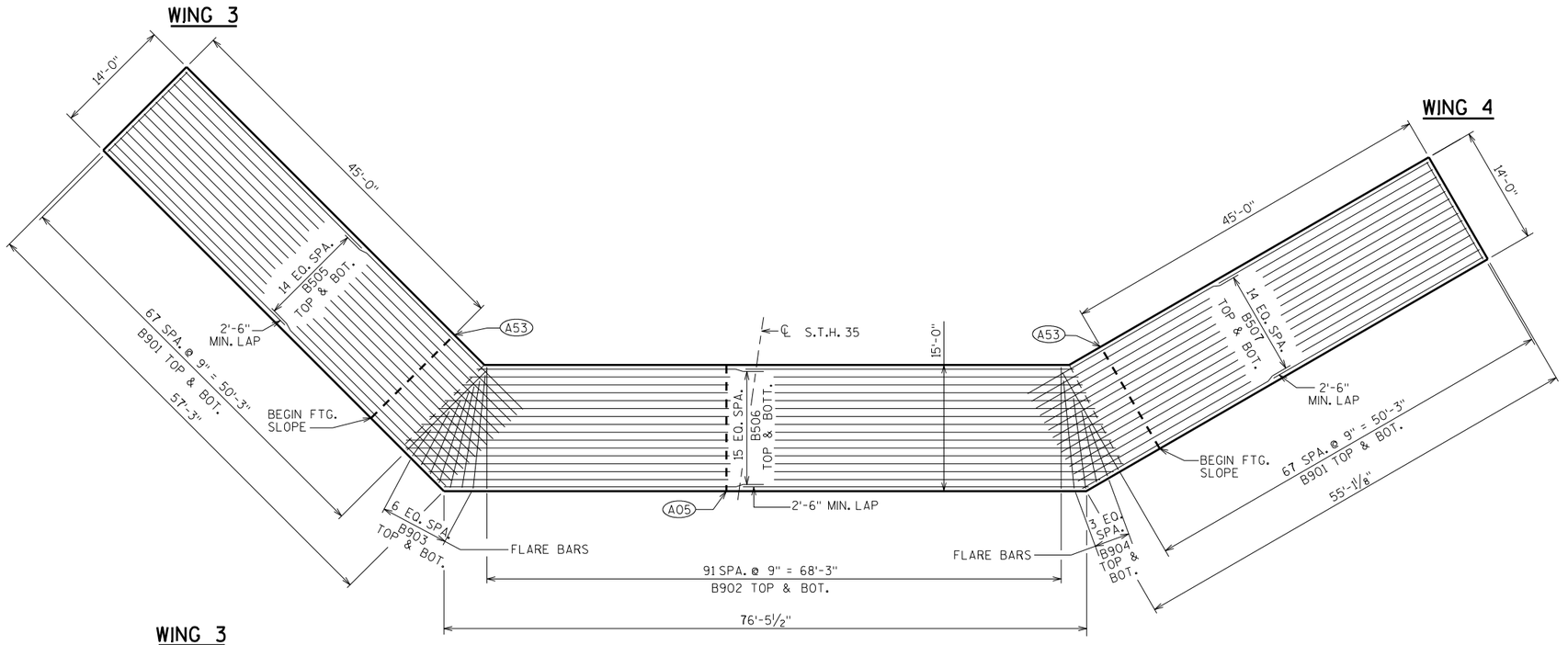
NORTH ABUTMENT LAYOUT

SHEET 13

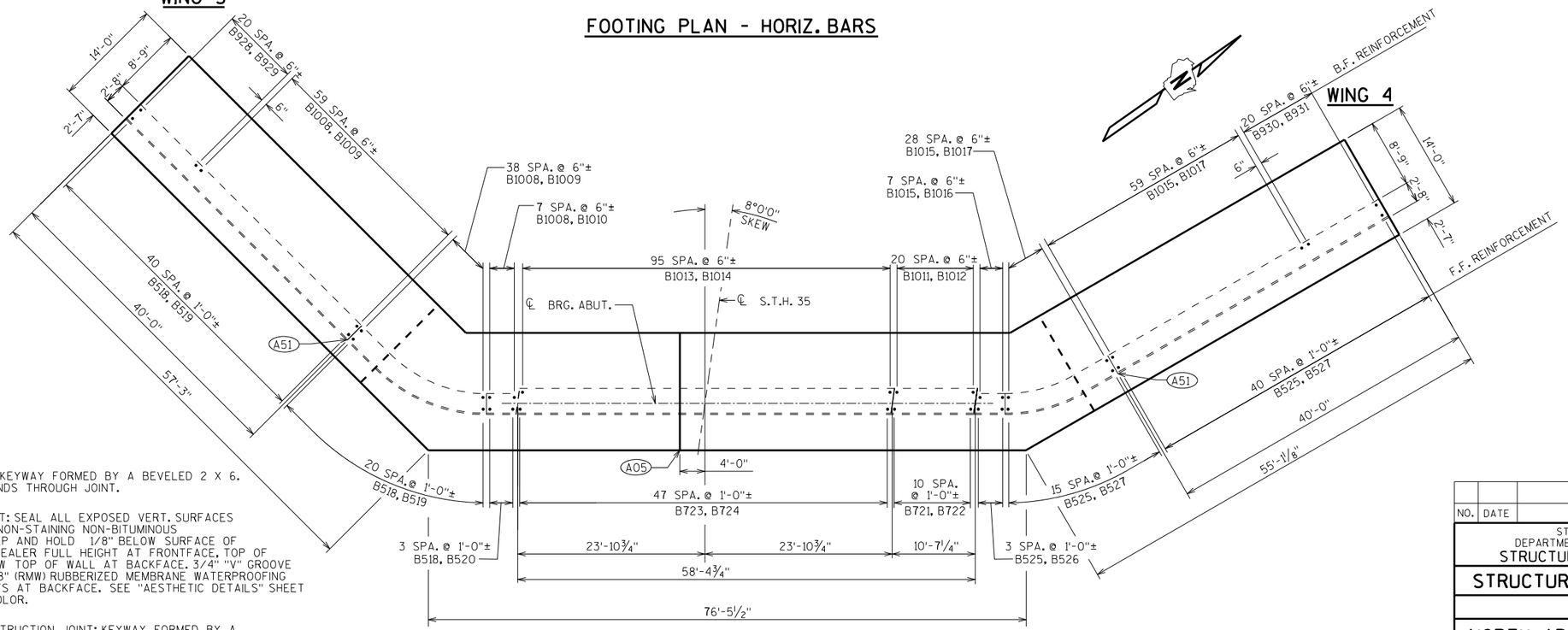
184

SCALE = 8

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FOOTING PLAN - HORIZ. BARS



FOOTING PLAN - DOWEL & VERT. WALL BARS

(A05) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. REINFORCEMENT EXTENDS THROUGH JOINT.

(A51) VERT. EXPANSION JOINT: SEAL ALL EXPOSED VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER FULL HEIGHT AT FRONTFACE, TOP OF WALL AND 2'-0" BELOW TOP OF WALL AT BACKFACE. 3/4" "V" GROOVE @ THE FRONT FACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT SEALER COLOR.

(A53) OPTIONAL HORIZ. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. 3/4" "V" GROOVE AND 18" R.M.W. @ TOP AND SIDES. RUN BAR STEEL THRU JOINT. DISPLACE TRANSVERSE BARS 3" FROM JOINT.

NO.	DATE	REVISION	BY

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NORTH ABUTMENT HORIZ. FOOTING & VERT. WALL REINF.

SHEET 14

185

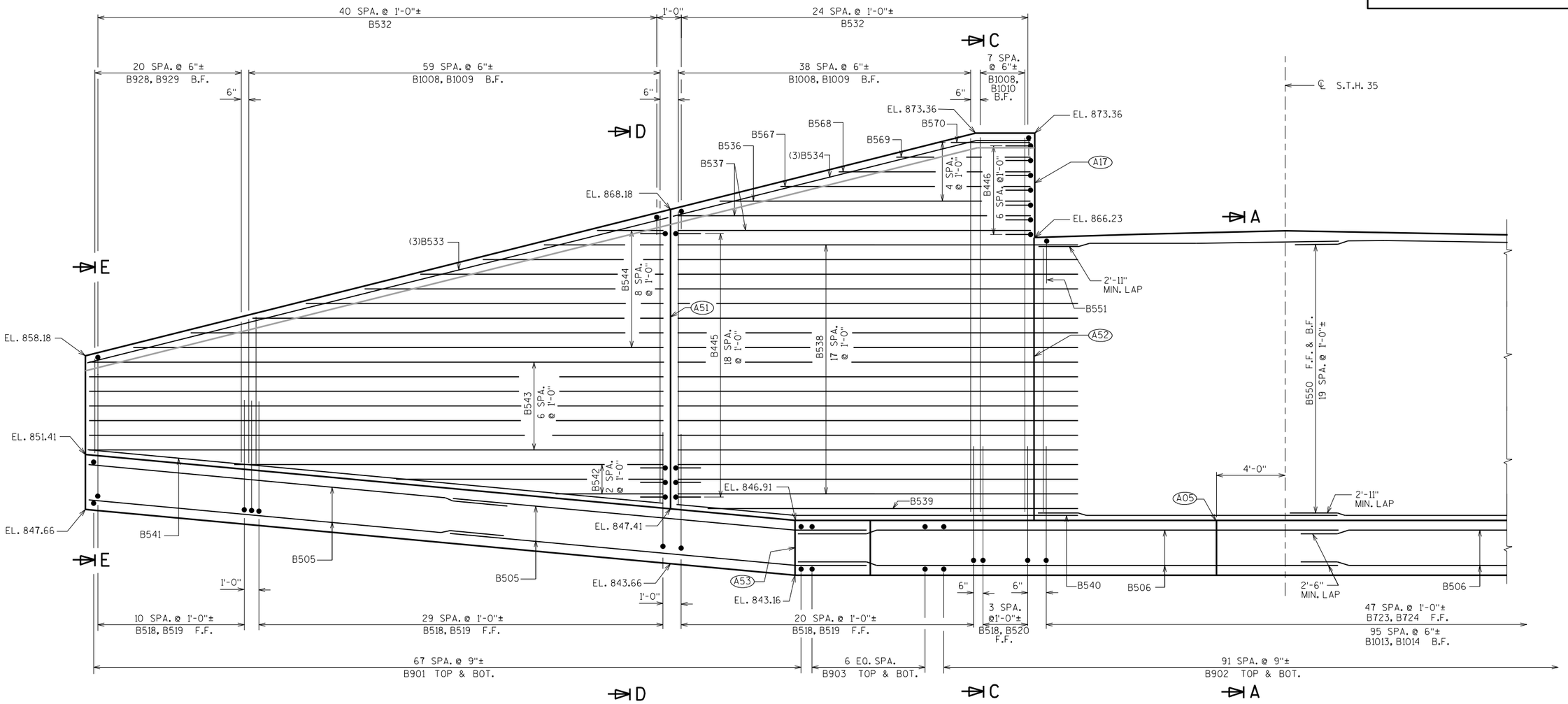
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8

SCALE =

STATE PROJECT NUMBER

8110-02-71



ELEVATION

(LOOKING NORTH AT F.F.)

(A05) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. REINFORCEMENT EXTENDS THROUGH JOINT.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 2'-0" BELOW TOP OF WALL AT BACKFACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT SEALER COLOR.

(A51) VERT. EXPANSION JOINT: SEAL ALL EXPOSED VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER FULL HEIGHT AT FRONTFACE, TOP OF WALL AND 2'-0" BELOW TOP OF WALL AT BACKFACE. 3/4" "V" GROOVE @ THE FRONT FACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT SEALER COLOR.

(A52) 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 DETAILS SEE "MISCELLANEOUS DETAILS" SHEET.

(A53) OPTIONAL HORIZ. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. 3/4" "V" GROOVE AND 18" R.M.W. @ TOP AND SIDES. RUN BAR STEEL THRU JOINT. DISPLACE TRANSVERSE BARS 3" FROM JOINT.

NOTE: SEE SHEETS 18 & 19 FOR SECTIONS.

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STRUCTURE B-55-225

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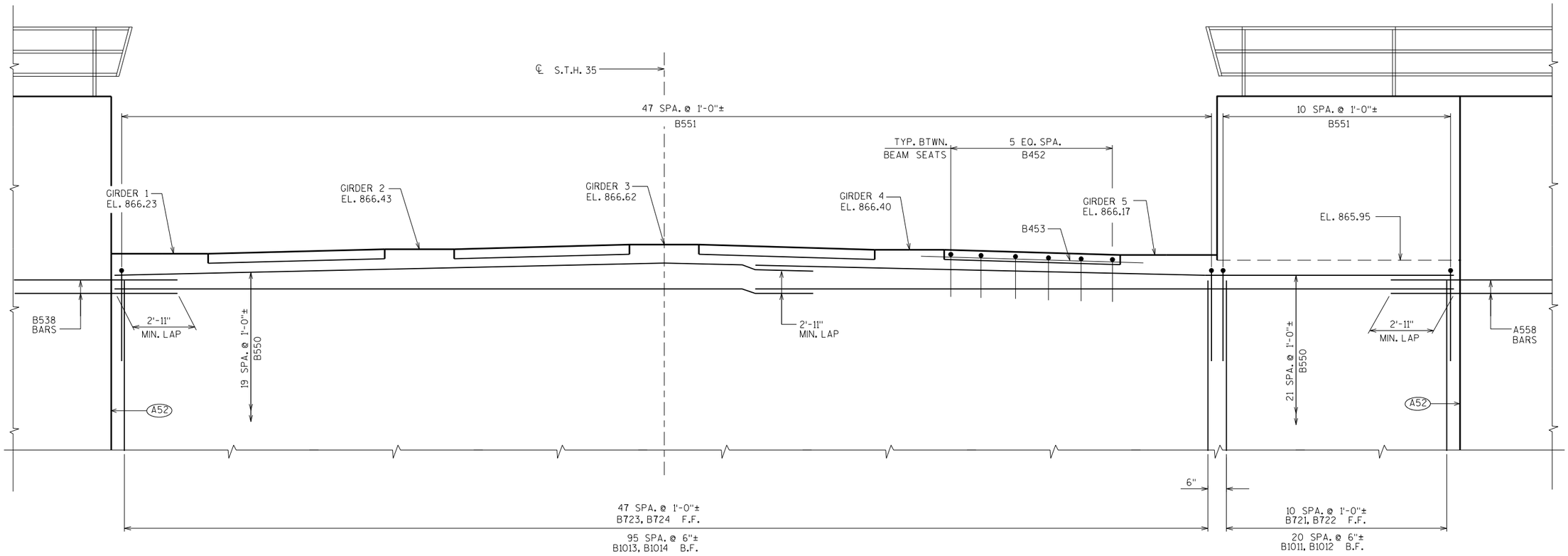
NORTH ABUTMENT WING 3 ELEVATION

SHEET 15

186

SCALE = 3.5

STATE PROJECT NUMBER
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ELEVATION

(LOOKING NORTH AT F.F.)

(A52) 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 DETAILS SEE "MISCELLANEOUS DETAILS" SHEET.

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STATE OF WISCONSIN
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STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

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NORTH ABUTMENT BEAM SEAT ELEVATIONS

SHEET 16

187

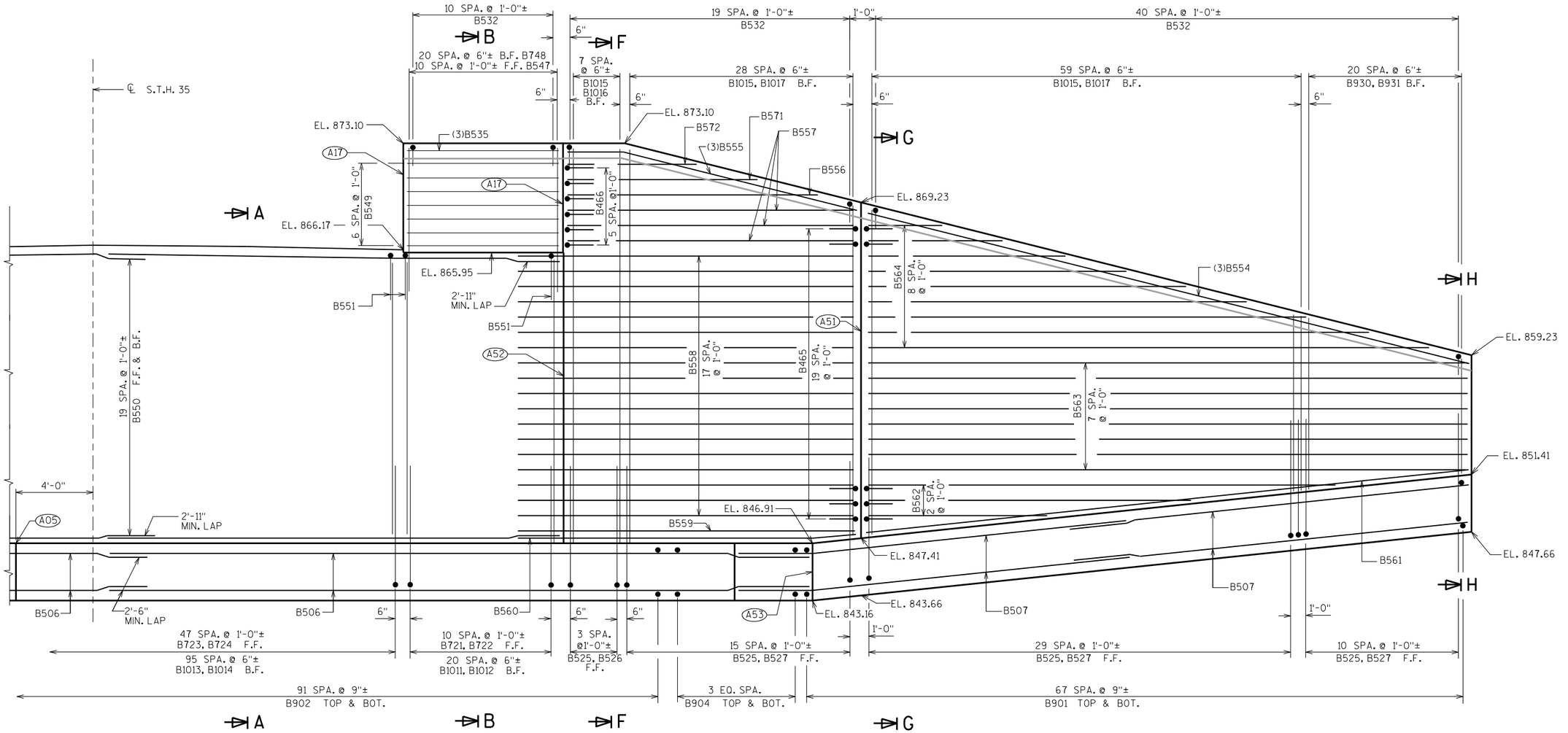
SCALE = 2.25

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STATE PROJECT NUMBER

8110-02-71



ELEVATION

(LOOKING NORTH AT F.F.)

NOTE: SEE SHEETS 19 & 20 FOR SECTIONS.

(A05) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6. REINFORCEMENT EXTENDS THROUGH JOINT.

(A17) 1/2" FILLER (INCLUDED IN WING LENGTH): SEAL ALL EXPOSED HORIZ. & VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER 2'-0" BELOW TOP OF WALL AT BACKFACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT FILLER COLOR.

(A51) VERT. EXPANSION JOINT: SEAL ALL EXPOSED VERT. SURFACES OF 1/2" FILLER WITH NON-STAINING NON-BITUMINOUS JOINT SEALER. (1" DEEP AND HOLD 1/8" BELOW SURFACE OF CONCRETE). EXTEND SEALER FULL HEIGHT AT FRONTFACE, TOP OF WALL AND 2'-0" BELOW TOP OF WALL AT BACKFACE. 3/4" "V" GROOVE @ THE FRONT FACE. 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL VERT. JOINTS AT BACKFACE. SEE "AESTHETIC DETAILS" SHEET FOR JOINT FILLER COLOR.

(A52) 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 DETAILS SEE "MISCELLANEOUS DETAILS" SHEET.

(A53) OPTIONAL HORIZ. CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 8. 3/4" "V" GROOVE AND 18" R.M.W. @ TOP AND SIDES. RUN BAR STEEL THRU JOINT. DISPLACE TRANSVERSE BARS 3" FROM JOINT.

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STRUCTURE B-55-225

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NORTH ABUTMENT WING 4 ELEVATION

SHEET 17

188

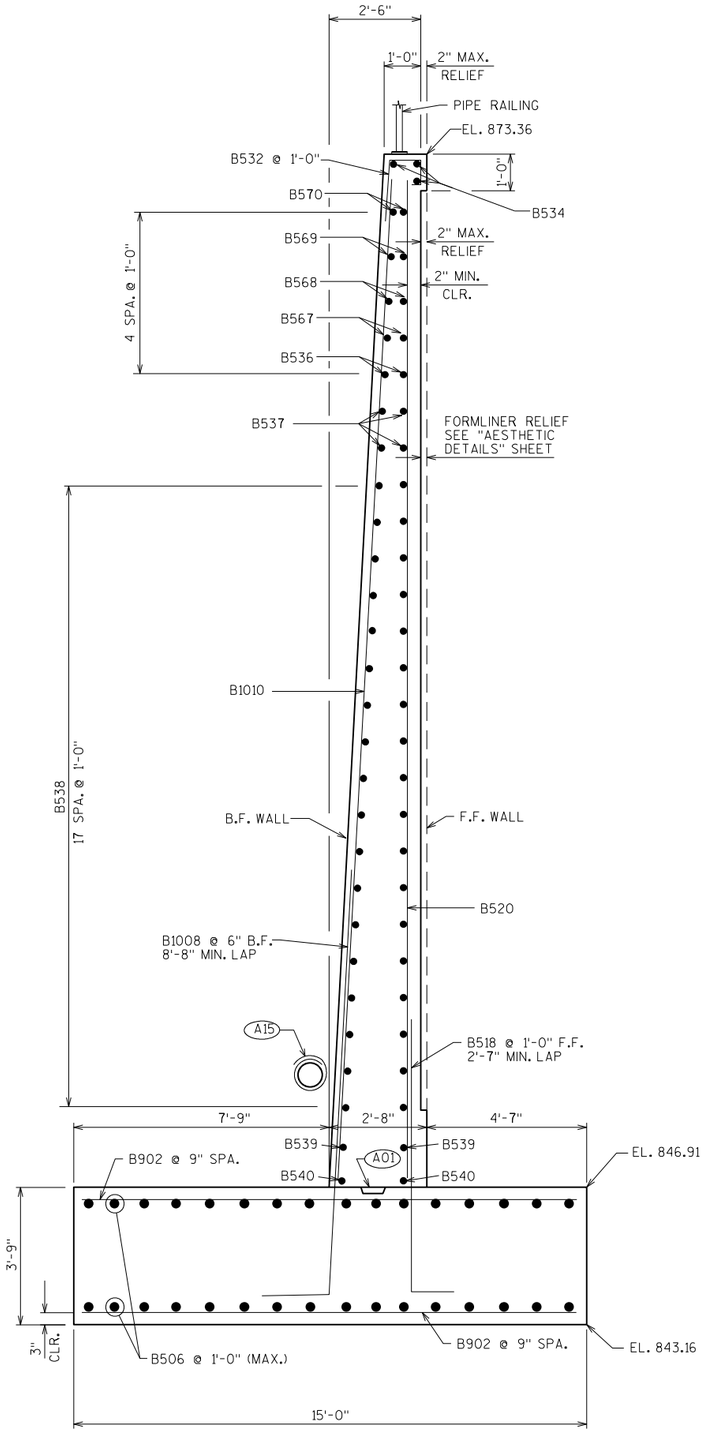
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STATE PROJECT NUMBER
8110-02-71

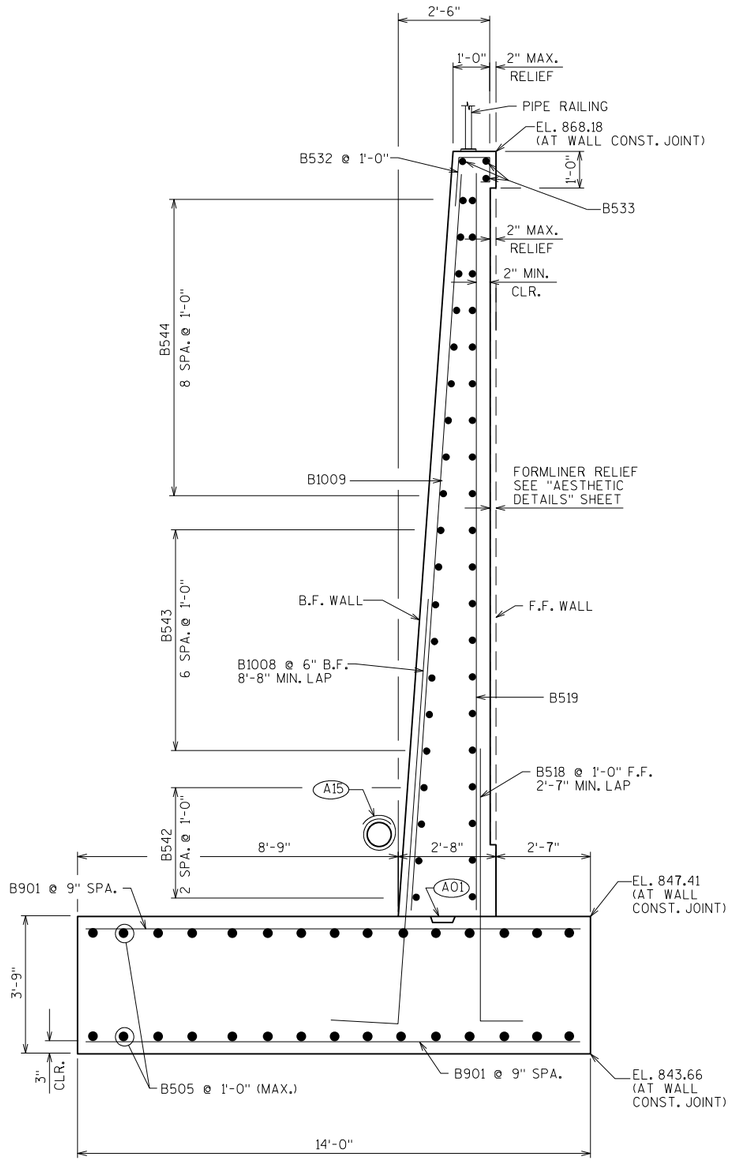
(A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH), SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. DISCHARGE PIPE @ EL. 848.0 OR BELOW. SEE "MISCELLANEOUS DETAILS" SHEET FOR RODENT SHIELD DETAIL.

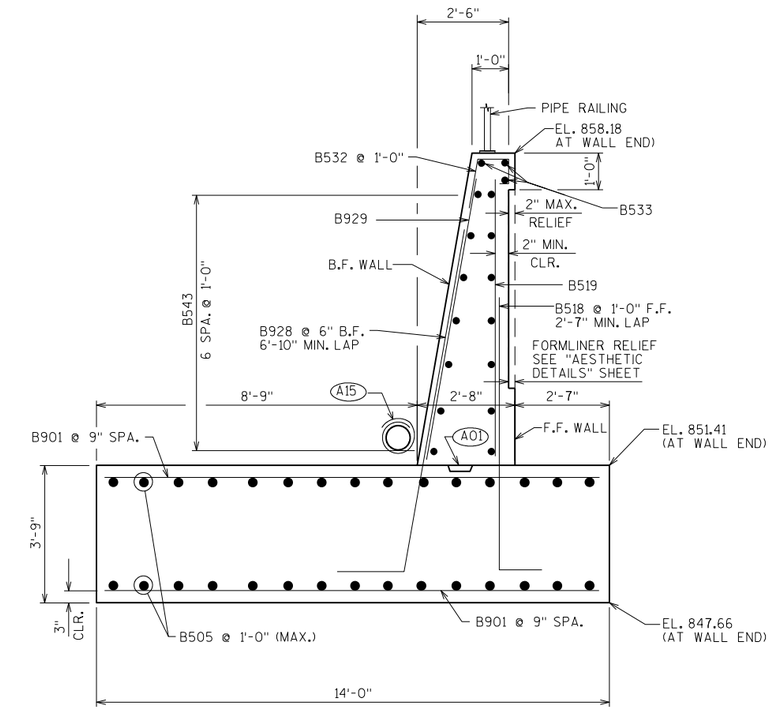
NOTE: SEE "NORTH ABUTMENT LAYOUT" FOR ELEVATIONS



SECTION C-C



SECTION D-D



SECTION E-E

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

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NORTH ABUTMENT SECTIONS (WING 3)

SHEET 18

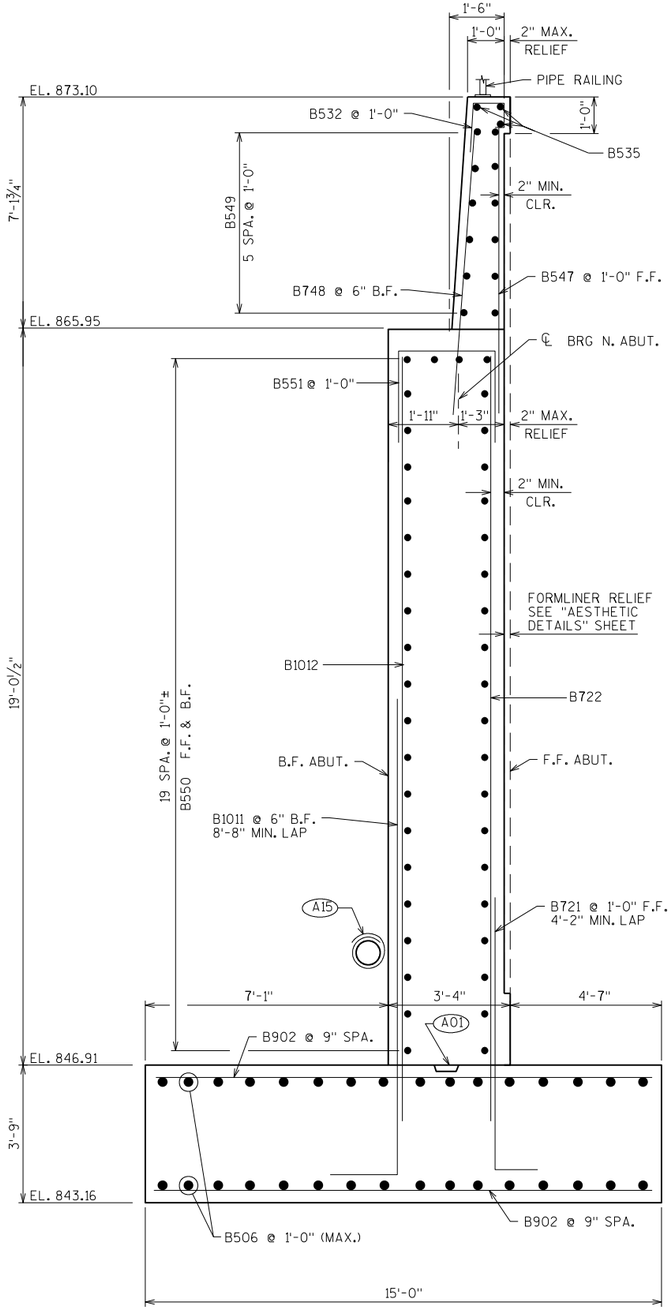
189

8

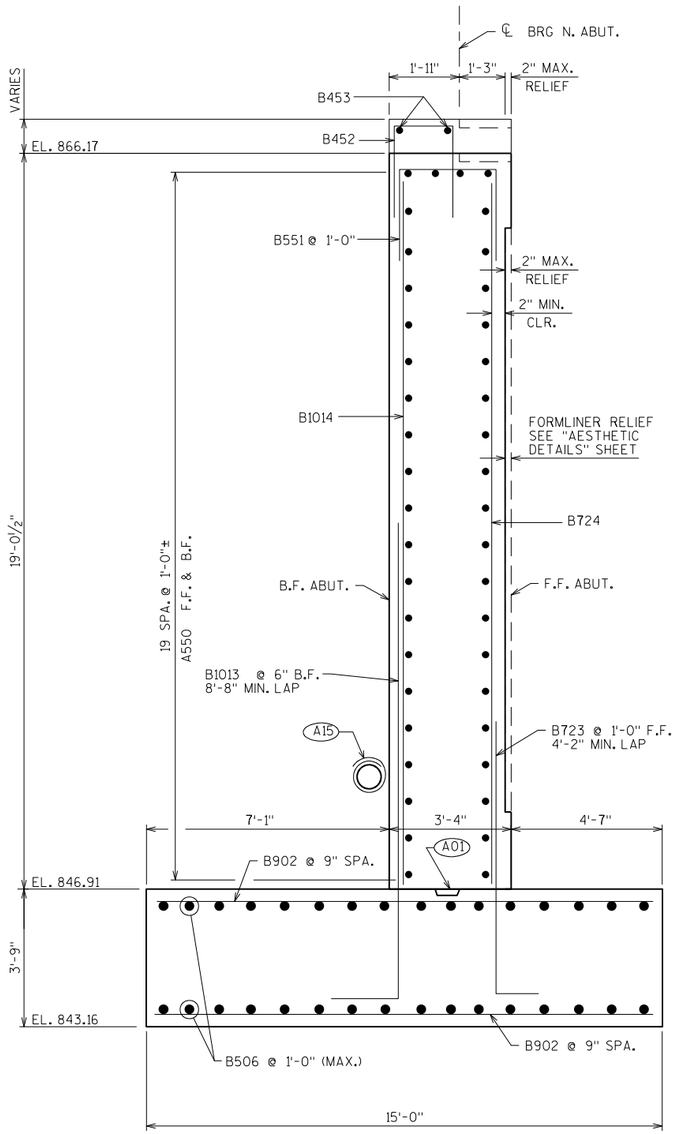
SCALE =

STATE PROJECT NUMBER

8110-02-71

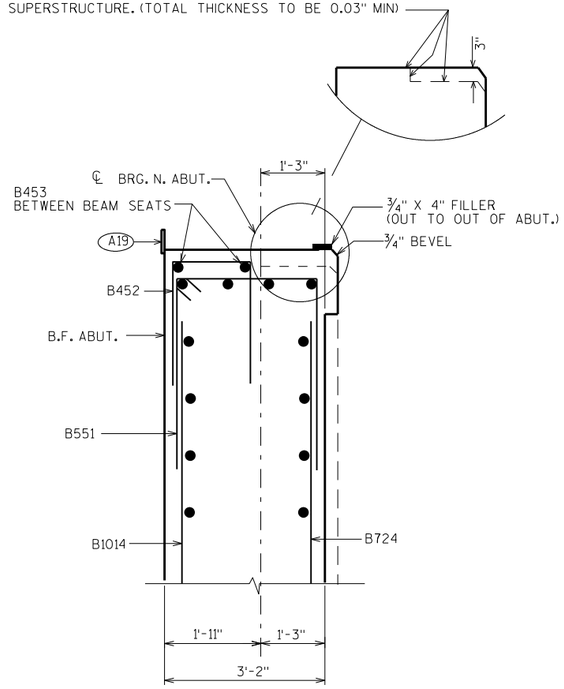


SECTION B-B



SECTION A-A

STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETING OVER ENTIRE ABUTMENT BEFORE PLACING BEARING PADS AND/OR SUPERSTRUCTURE. (TOTAL THICKNESS TO BE 0.03" MIN)



SECTION THRU BODY

SEE "NORTH ABUTMENT LAYOUT" FOR BEAM SEAT ELEVATIONS

(A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. DISCHARGE PIPE @ EL. 848.0 OR BELOW. SEE "MISCELLANEOUS DETAILS" SHEET FOR RODENT SHIELD DETAIL.

(A19) 18" (RMW) RUBBERIZED MEMBRANE WATERPROOFING SEAL ALL HORIZ. & VERT. JOINTS AT BACKFACE.

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STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

NORTH ABUTMENT SECTIONS (ABUTMENT)

SHEET 19

190

8

8

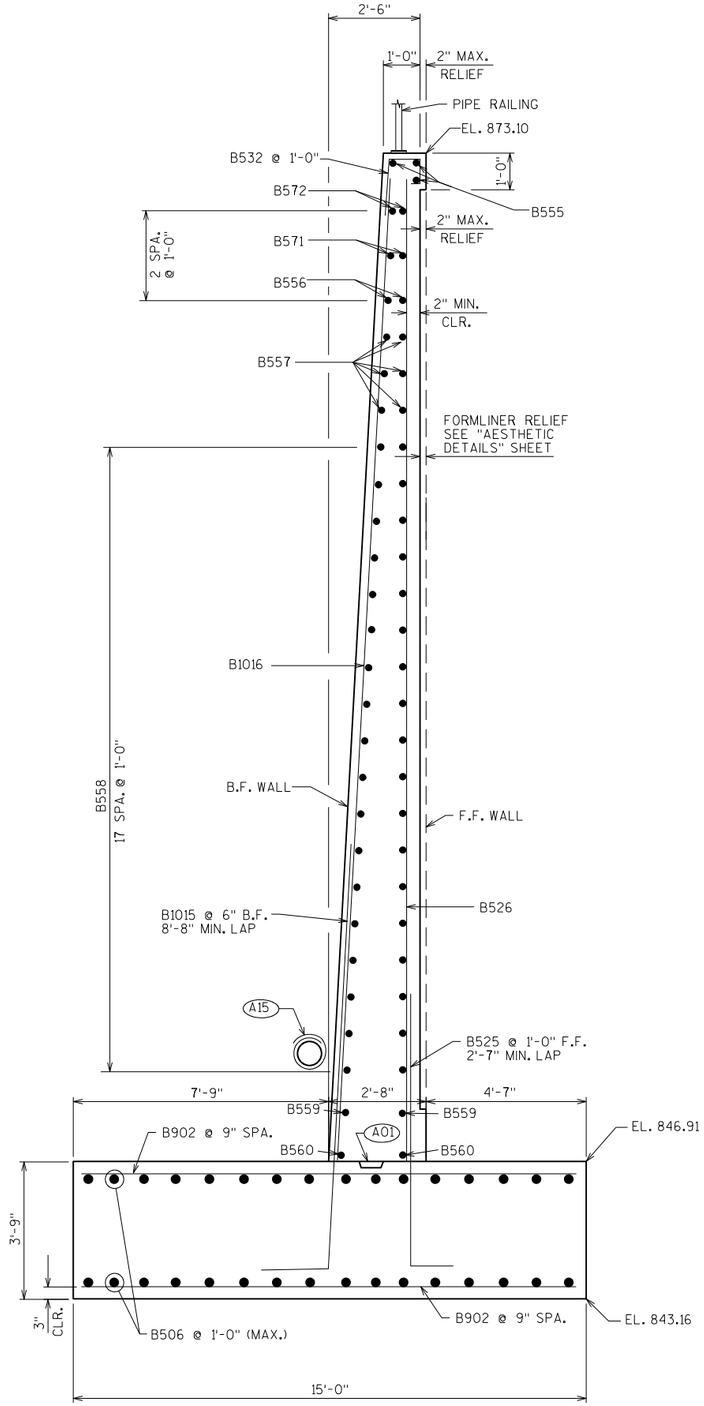
SCALE =

STATE PROJECT NUMBER
8110-02-71

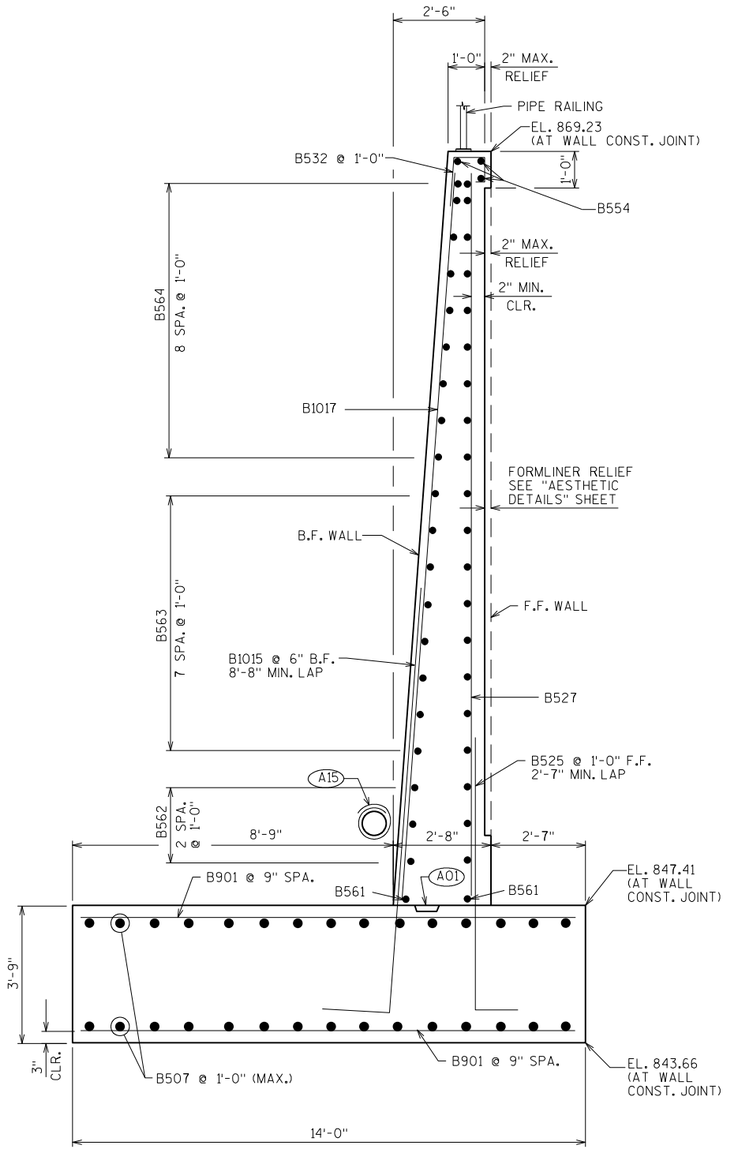
(A01) CONSTRUCTION JOINT: KEYWAY FORMED BY A BEVELED 2 X 6.

(A15) PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. RODENT SCREEN REQUIRED. DISCHARGE PIPE @ EL. 848.0 OR BELOW. SEE "MISCELLANEOUS DETAILS" SHEET FOR RODENT SHIELD DETAIL.

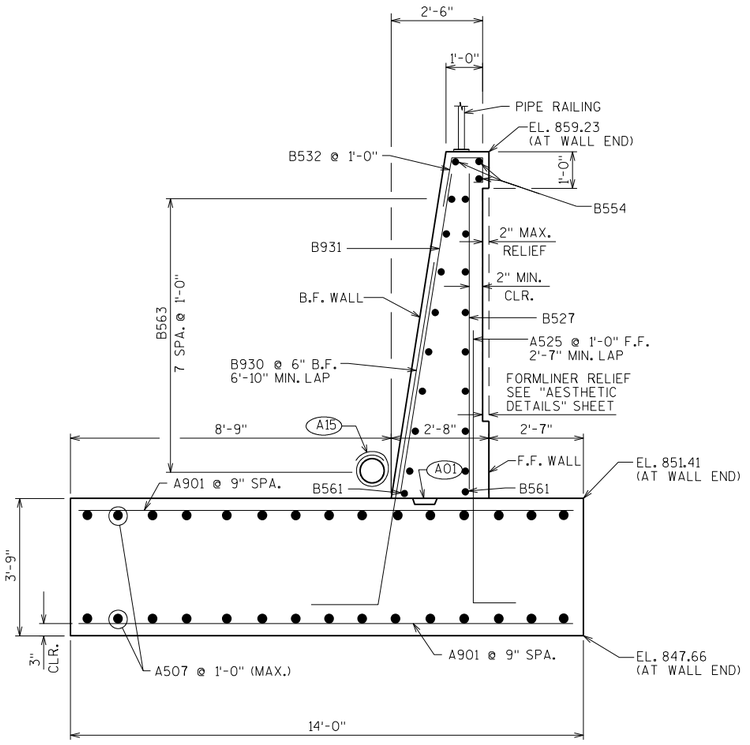
NOTE: SEE "NORTH ABUTMENT LAYOUT" FOR ELEVATIONS



SECTION F-F



SECTION G-G



SECTION H-H

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

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NORTH ABUTMENT SECTIONS (WING 4)

SHEET 20

191

8

8

SCALE =

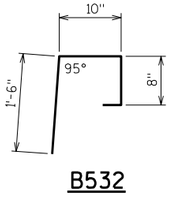
BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

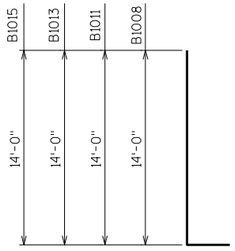
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B901		272	13'-8"			FOOTING-HORIZ.-TRANS.
B902		184	14'-8"			FOOTING-HORIZ.-TRANS.
B903		14	9'-1"		⚠	FOOTING-HORIZ.-TRANS.
B904		8	10'-3"		⚠	FOOTING-HORIZ.-TRANS.
B505		60	29'-9"			FOOTING-HORIZ.-LONGIT.
B506		64	43'-5"			FOOTING-HORIZ.-LONGIT.
B507		60	28'-8"			FOOTING-HORIZ.-LONGIT.
B1008		107	15'-6"	X		FOOTING-DOWEL-VERT.
B1009	X	99	17'-10"		⚠	WING 3-VERT.
B1010	X	8	26'-1"			WING 3-VERT.
B1011	X	21	15'-6"	X		FOOTING-DOWEL-VERT.
B1012	X	21	18'-7"			WING 4-VERT.
B1013	X	96	15'-6"	X		FOOTING-DOWEL-VERT.
B1014	X	96	18'-7"			BODY-VERT.
B1015	X	97	15'-6"	X		FOOTING-DOWEL-VERT.
B1016	X	8	25'-9"			WING 4-VERT.
B1017	X	89	17'-11		⚠	WING 4-VERT.
B518	X	66	8'-0"	X		FOOTING-DOWEL-VERT.
B519	X	62	16'-2"		⚠	WING 3-VERT.
B520	X	4	26'-1"			WING 3-VERT.
B721	X	11	9'-6"	X		FOOTING-DOWEL-VERT.
B722	X	11	18'-10"			WING 4-VERT.
B723	X	48	9'-6"	X		FOOTING-DOWEL-VERT.
B724	X	48	18'-10"			BODY-VERT.
B525	X	61	8'-0"	X		FOOTING-DOWEL-VERT.
B526	X	4	25'-9"			WING 4-VERT.
B527	X	57	16'-8"		⚠	WING 4-VERT.
B928	X	21	11'-6"	X		FOOTING-DOWEL-VERT.
B929	X	21	8'-4"		⚠	WING 3-VERT.
B930	X	21	11'-10	X		FOOTING-DOWEL-VERT.
B931	X	21	9'-4"		⚠	WING 4-VERT.
B532	X	138	3'-3"	X		WALL-TOP-VERT.
B533	X	3	40'-9"			WALL-TOP-HORIZ.
B534	X	3	24'-2"	X		WALL-TOP-HORIZ.
B535	X	3	10'-2"			WALL-TOP-HORIZ.
B536	X	2	22'-5"	X		WING 3-HORIZ.
B537	X	4	23'-11	X		WING 3-HORIZ.
B538	X	36	27'-1"	X		WING 3-HORIZ.
B539	X	2	25'-1"	X		WING 3-HORIZ.
B540	X	2	27'-1"	X		WING 3-BOT.-HORIZ.
B541	X	2	39'-8"			WING 3-BOT.-HORIZ.
B542	X	6	18'-4"		⚠	WING 3-HORIZ.
B543	X	14	39'-7"			WING 3-HORIZ.
B544	X	18	20'-4"		⚠	WING 3-HORIZ.
B445	X	38	3'-7"	X	⚠	WALL JOINT-HORIZ. U-BAR
B446	X	7	3'-2"	X	⚠	WALL JOINT-HORIZ. U-BAR
B547	X	11	8'-6"			WALL SECTION TOP-VERT.
B748	X	21	9'-6"			WALL SECTION TOP-VERT.
B549	X	14	10'-2"			WALL SECTION TOP-HORIZ.
B550	X	80	30'-6"			BODY-HORIZ.
B551	X	59	9'-1"	X		BODY-VERT. U-BAR
B452	X	24	5'-10"	X		BODY-BTWN. BEAM SEATS-VERT.
B453	X	8	9'-0"			BODY-BTWN. BEAM SEATS-HORIZ.
B554	X	3	40'-9"			WALL-TOP-HORIZ.
B555	X	3	19'-1"	X		WALL-TOP-HORIZ.
B556	X	2	16'-8"	X		WING 4-HORIZ.
B557	X	6	18'-8"	X		WING 4-HORIZ.
B558	X	36	21'-10"	X		WING 4-HORIZ.
B559	X	2	21'-10"	X		WING 4-HORIZ.
B560	X	2	21'-10"	X		WING 2-BOT.-HORIZ.
B561	X	2	39'-8"			WING 4-BOT.-HORIZ.
B562	X	6	21'-2"		⚠	WING 4-HORIZ.
B563	X	16	39'-7"			WING 4-HORIZ.
B564	X	18	20'-9"		⚠	WING 4-HORIZ.
B465	X	40	3'-6"	X	⚠	WALL JOINT-HORIZ. U-BAR
B466	X	6	3'-1"	X	⚠	WALL JOINT-HORIZ. U-BAR

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
B567	X	2	19'-1"	X		WING 3-HORIZ.
B568	X	2	15'-1"	X		WING 3-HORIZ.
B569	X	2	11'-1"	X		WING 3-HORIZ.
B570	X	2	7'-1"	X		WING 3-HORIZ.
B571	X	2	12'-8"	X		WING 4-HORIZ.
B572	X	2	8'-8"	X		WING 4-HORIZ.



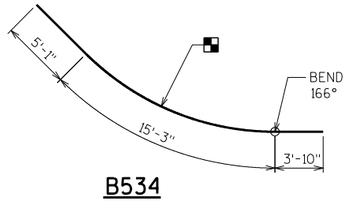
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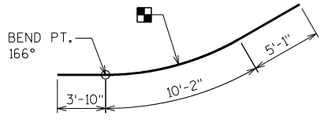
B1008, B1011, B1013, B1015

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

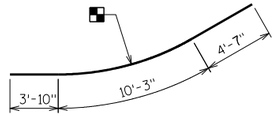
■ R=19'-5" (FIELD BEND AS NEEDED)



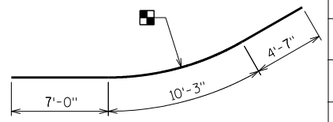
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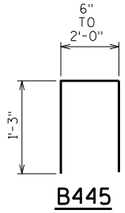
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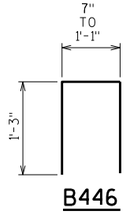
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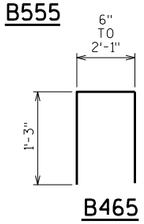
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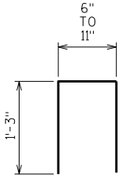
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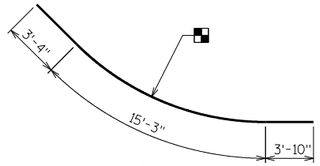
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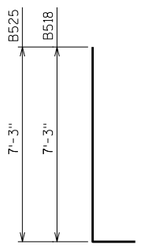
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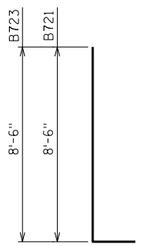


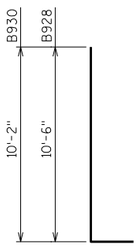
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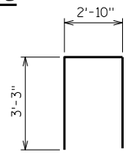
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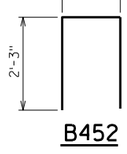




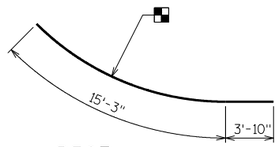
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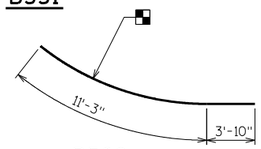
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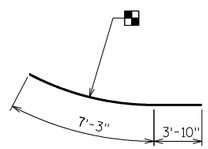
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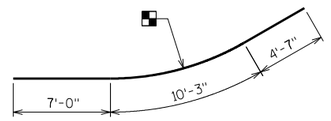
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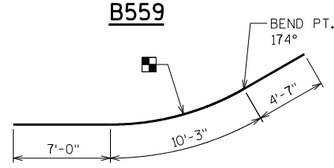
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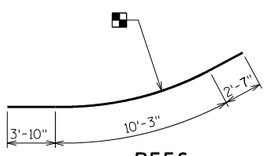
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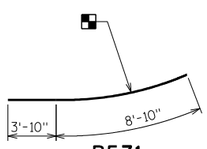
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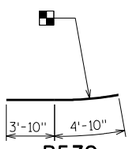
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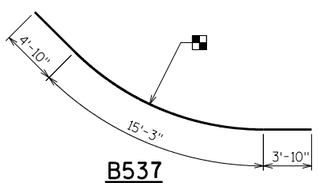
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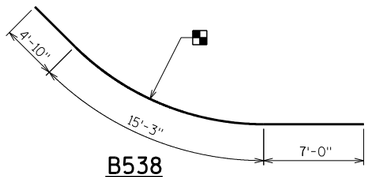
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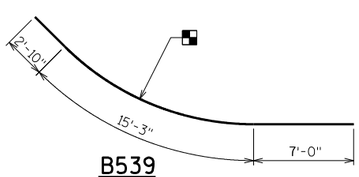
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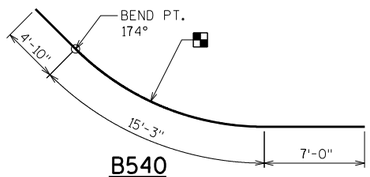
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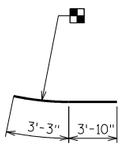
B538



B539



B540



B570

BAR SERIES TABLE

MARK	NO. REQD.	LENGTH
B903	2 SERIES OF 7	4'-4" TO 13'-9"
B904	2 SERIES OF 4	7'-0" TO 13'-6"
B1009	1 SERIES OF 99	9'-10" TO 25'-9"
B1017	1 SERIES OF 89	10'-0" TO 25'-9"
B519	1 SERIES OF 62	6'-6" TO 25'-9"
B527	1 SERIES OF 57	7'-7" TO 25'-9"
B929	1 SERIES OF 21	6'-6" TO 10'-1"
B931	1 SERIES OF 21	7'-7" TO 11'-1"
B542	2 SERIES OF 3	7'-4" TO 29'-4"
B544	2 SERIES OF 9	4'-6" TO 36'-2"
B445	2 SERIES OF 19	2'-10" TO 4'-4"
B446	1 SERIES OF 7	2'-11" TO 3'-5"
B562	2 SERIES OF 3	11'-8" TO 30'-7"
B564	2 SERIES OF 9	4'-10" TO 36'-8"
B465	2 SERIES OF 20	2'-10" TO 4'-4"
B466	1 SERIES OF 6	2'-10" TO 3'-3"

BUNDLE AND TAG EACH SERIES SEPARATELY.

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DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

NORTH ABUTMENT BAR DETAILS

SHEET 21

192

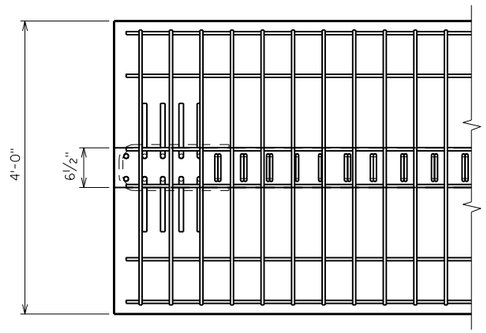
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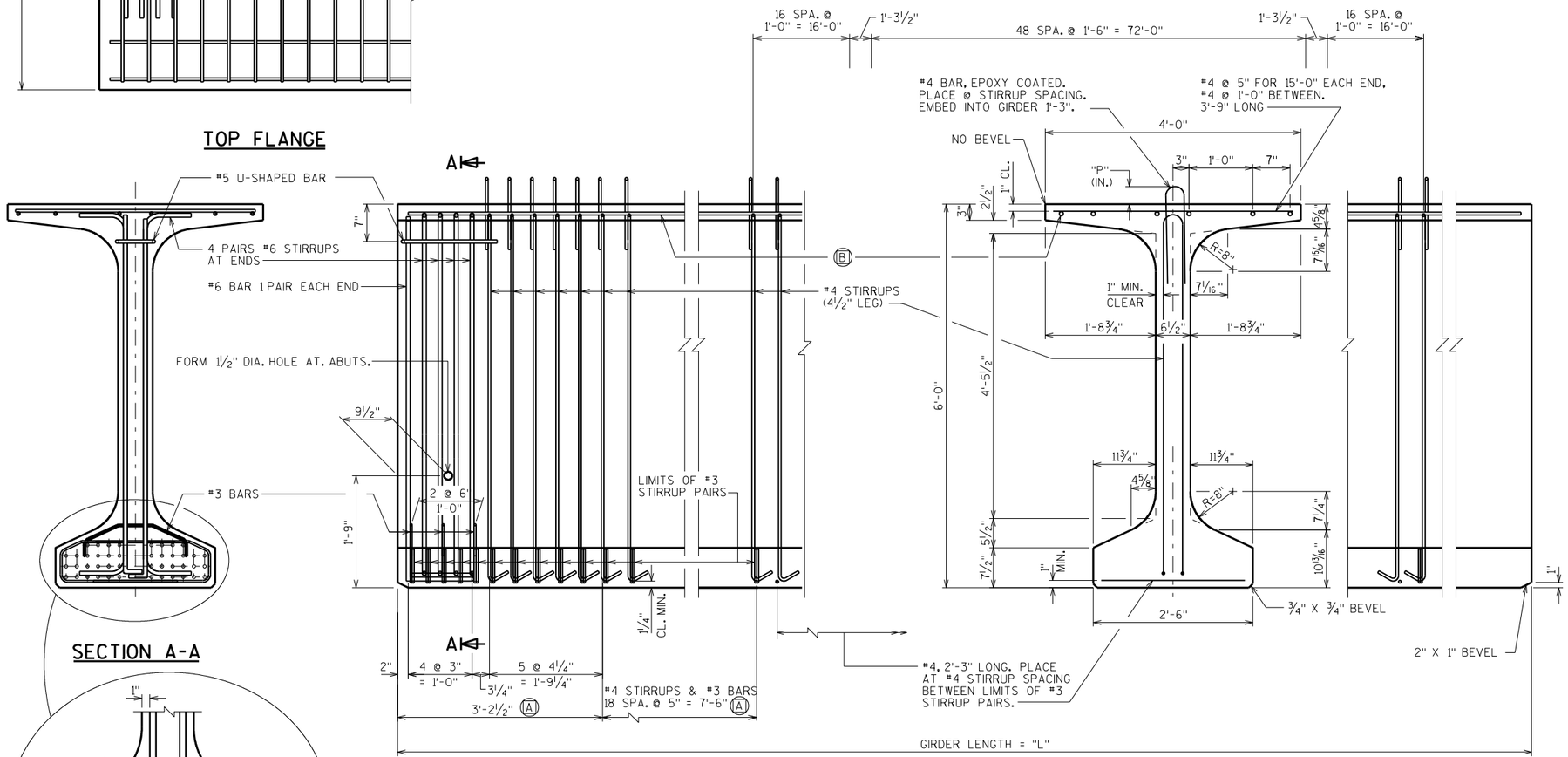
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STATE PROJECT NUMBER

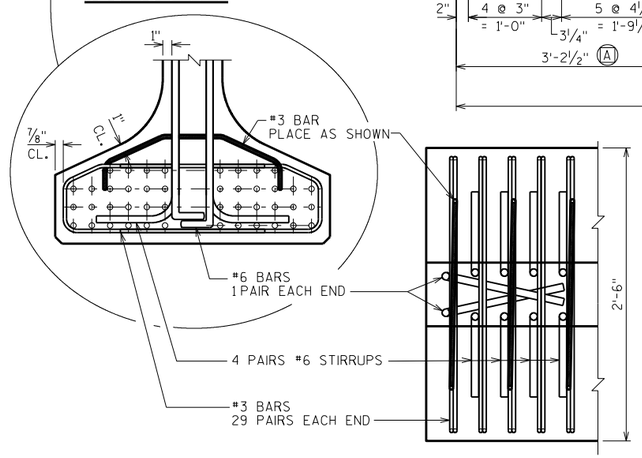
8110-02-71



TOP FLANGE



SECTION A-A

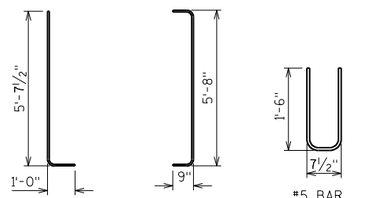


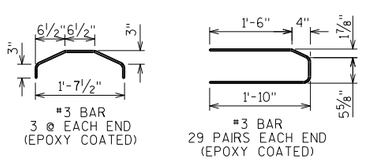
BOTTOM FLANGE

SIDE VIEW & TYP. SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 #4 BARS, FULL LENGTH, MIN. LAP = 1'-11"





NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 15" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 15" 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.) ✳	("A"	"B" MIN.	"B" MAX.	"C") (IN.)	UNDRAPED PATTERN TOTAL NO. OF STRANDS	f'ci (P.S.I.) ✳
1	ALL	128.00	0.6	1.2	1.7	1.9	2.0	1.9	1.7	1.2	0.6	8000	8.0	8.0	8.0	0.6	42	6400	66	20¼	23¼	5		

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STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

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72W" PRESTRESSED GIRDER DETAILS 1

SHEET 22

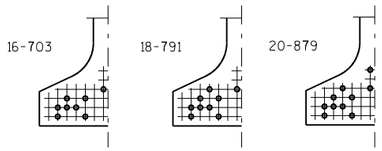
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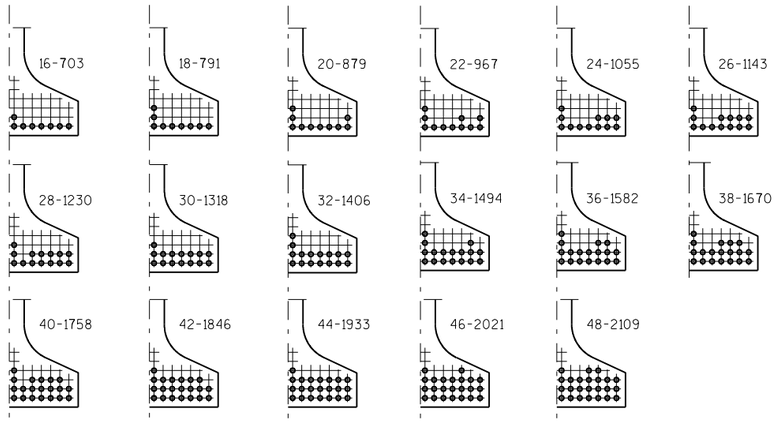
STATE PROJECT NUMBER

8110-02-71



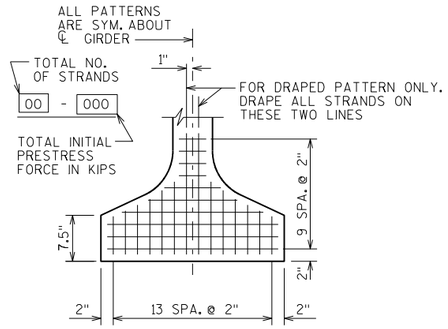
STANDARD ARRANGEMENTS TO RAISE CENTER OF GRAVITY TO AVOID DRAPING OF STRANDS

0.6"Φ STRANDS

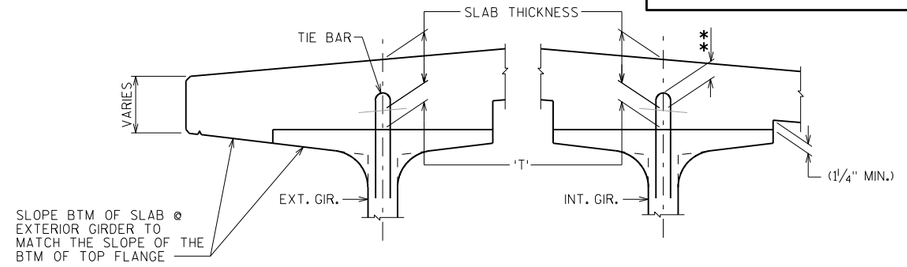


ARRANGEMENT AT ℄ SPAN - FOR GIRDERS WITH DRAPED STRANDS

0.6"Φ STRANDS



TYP. STRAND PATTERN



SLAB HAUNCH DETAIL

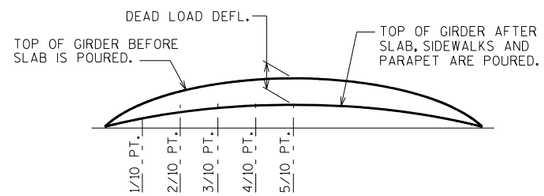
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN SLAB THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

** IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

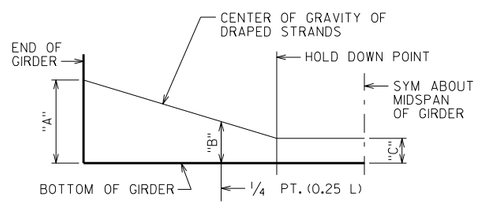
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT ℄ OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

TOP OF DECK ELEV. AT FINAL GRADE
- TOP OF GIRDER ELEVATION
+ DEAD LOAD DEFLECTION
- SLAB THICKNESS
= HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3.4" 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	3.7

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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STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

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72W" PRESTRESSED GIRDER DETAILS 2

SHEET 23

194

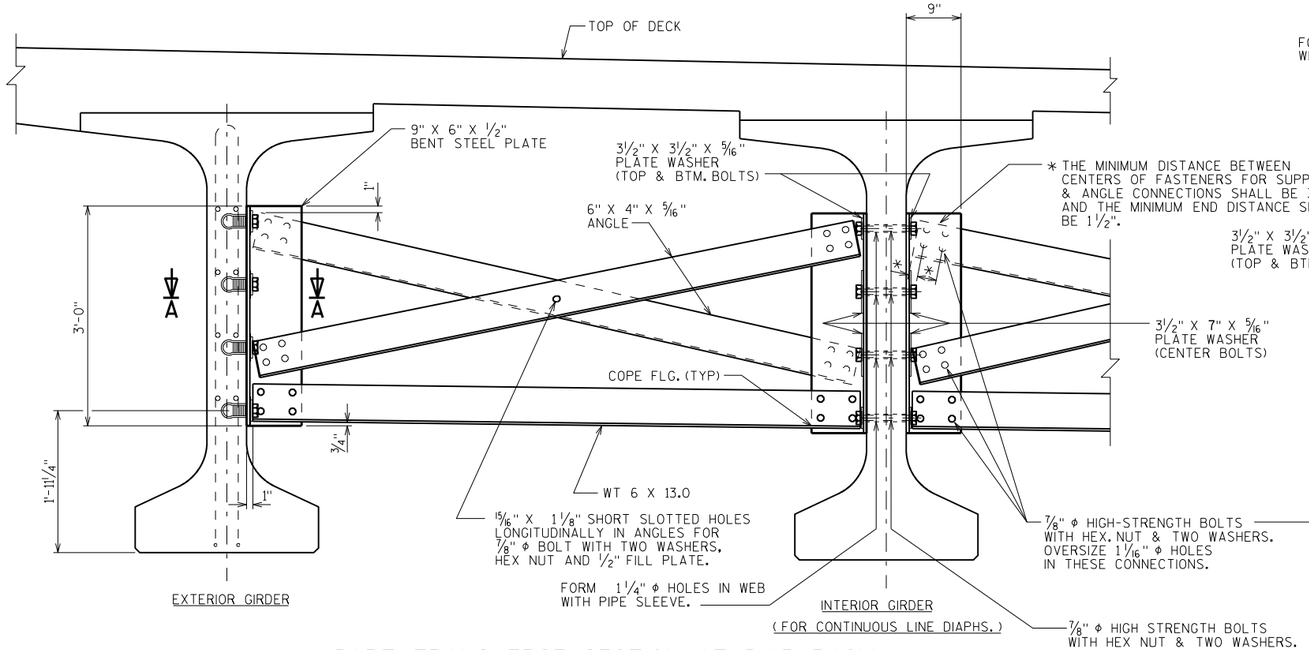
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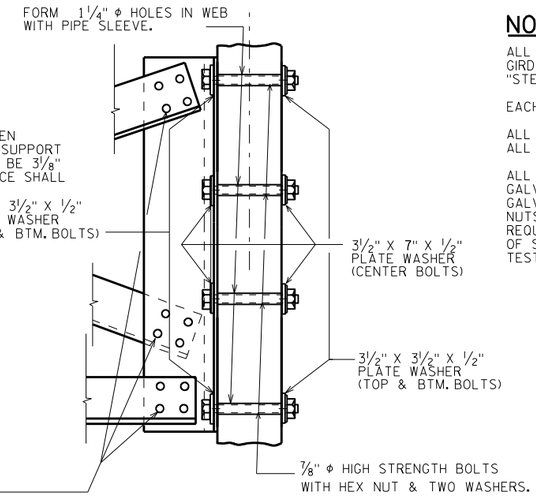
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PART TRANSVERSE SECTION AT DIAPHRAGM



SECTION AT INTERIOR GIRDERS (FOR STAGGERED DIAPHRAGMS)

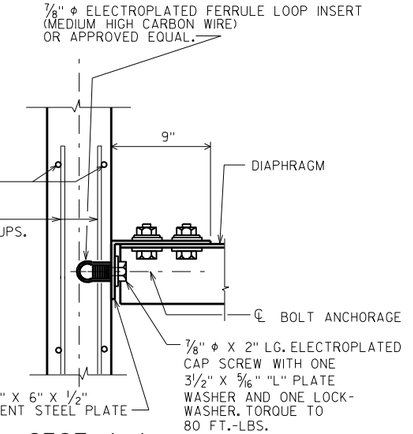
NOTES

ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-55-225", 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.

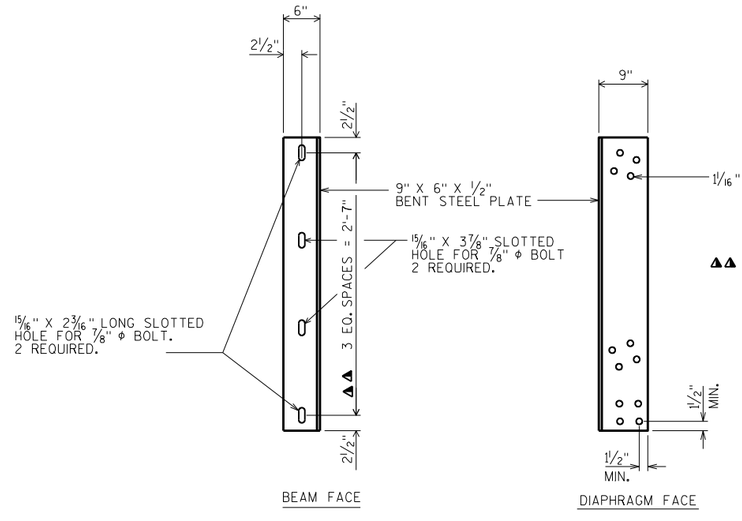
ALL DIAPHRAGM STRUCTURAL STEEL SHOWN SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.



SECT. A-A

(FOR EXTERIOR ATTACHMENT)

"L" = 3 1/2"; TOP AND BOTTOM BOLTS
"L" = 7"; CENTER BOLTS



DIAPHRAGM SUPPORT

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

STEEL DIAPHRAGM

SHEET 24

195

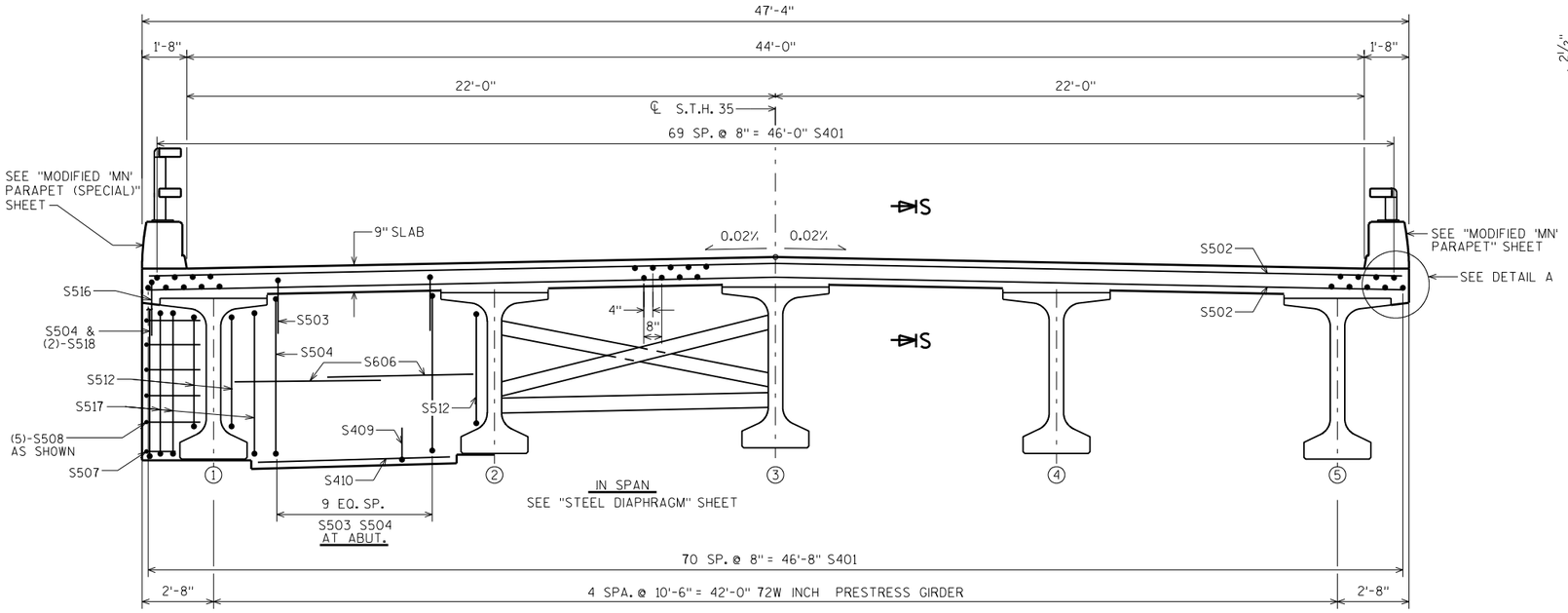
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8

SCALE =

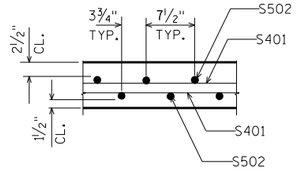
STATE PROJECT NUMBER

8110-02-71

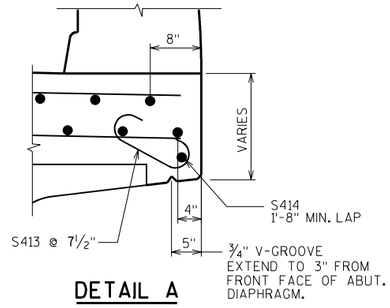


CROSS SECTION THRU ROADWAY

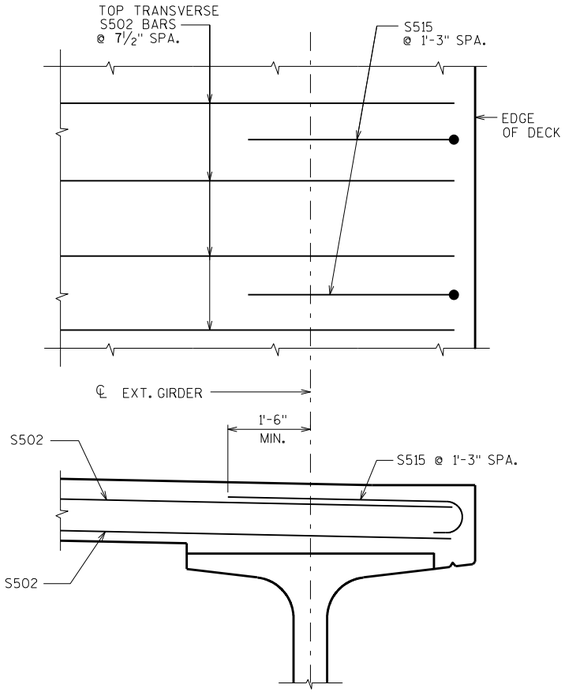
(LOOKING NORTH)



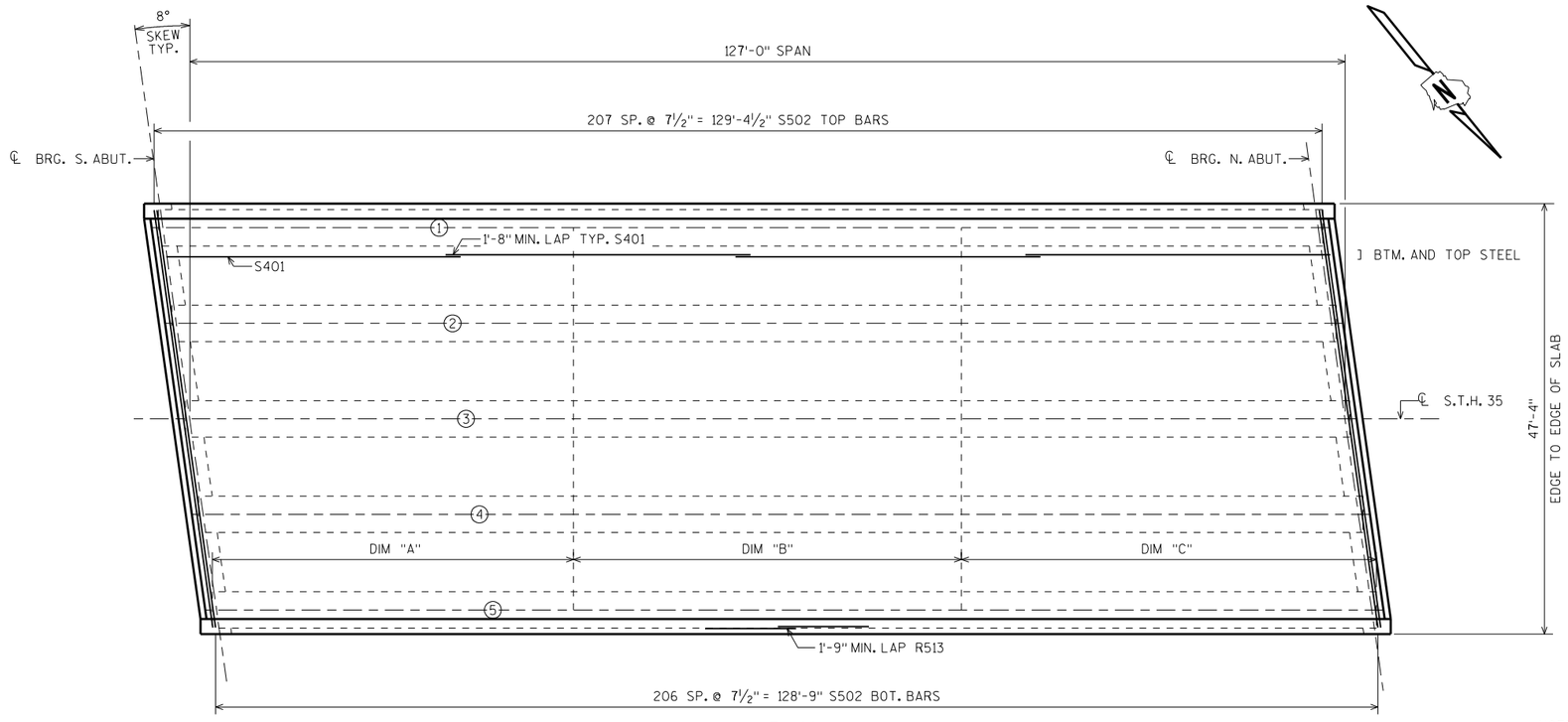
SECTION S-S



DETAIL A



ADDITIONAL REINF. @ EXT. GIRDERS



PLAN

	DIM "A"	DIM "B"	DIM "C"
①	45'-7⅜"	42'-8"	39'-8⅝"
②	44'-1¾"	42'-8"	41'-2¼"
③	42'-8"	42'-8"	42'-8"
④	41'-2¼"	42'-8"	44'-1¾"
⑤	39'-8⅝"	42'-8"	45'-7⅜"

DIAPHRAGM DIMENSIONS

NOTE: ALL DIMENSIONS REFERENCE GIRDER ENDS AND 1/3 GIRDER LENGTH LOCATIONS.

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STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR PLANS CK'D. JDL

SUPERSTRUCTURE

SHEET 25

196

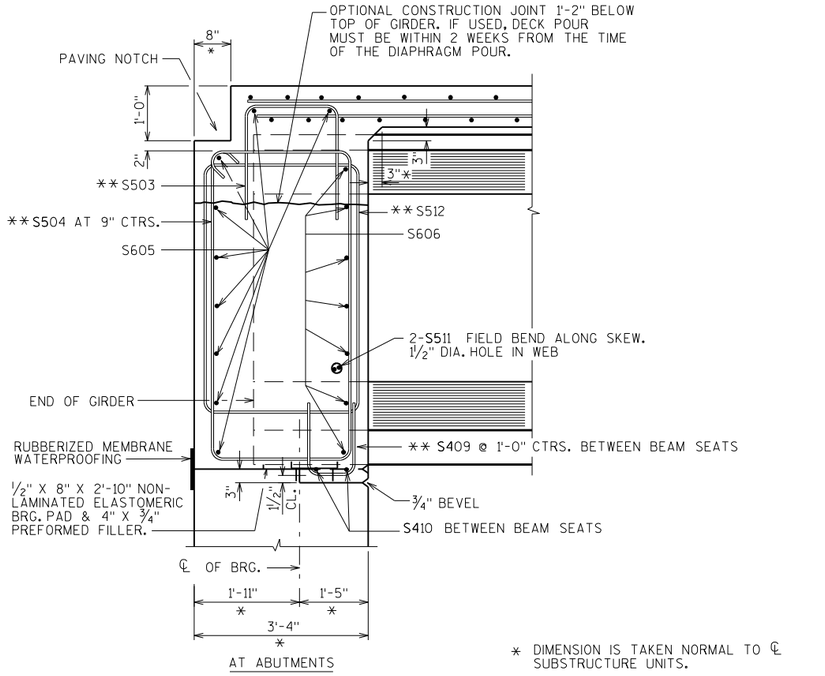
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STATE PROJECT NUMBER

8110-02-71



PART LONGIT. SECTION

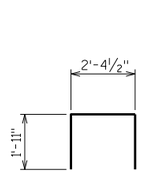
* DIMENSION IS TAKEN NORMAL TO ℄ SUBSTRUCTURE UNITS.

** BARS PLACED PARALLEL TO GIRDERS SPACING PERPENDICULAR TO ℄ GIRDERS

BILL OF BARS

NOTE: THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

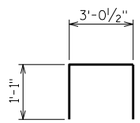
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
S401	X	564	33'-6"			DECK-LONGITUDINAL TOP & BOTTOM
S502	X	415	47'-5"			DECK-TRANSVERSE TOP AND BOTTOM
S503	X	80	5'-11"	X		ABUT. DIAPHRAGM
S504	X	84	18'-1"	X		ABUT. DIAPHRAGM
S605	X	36	25'-6"			ABUT. DIAPHRAGM
S606	X	112	5'-11"			ABUT. DIAPHRAGM
S507	X	4	4'-11"	X		ABUT. DIAPHRAGM-HORIZ.
S508	X	20	6'-9"	X		ABUT. DIAPHRAGM-HORIZ.
S409	X	64	3'-5"	X		ABUT. DIAPHRAGM
S410	X	16	6'-9"			ABUT. DIAPHRAGM
S511	X	20	6'-0"			ABUT. DIAPHRAGM
S512	X	20	15'-1"	X		ABUT. DIAPHRAGM
S413	X	416	2'-2"	X		DECK-TRANSVERSE-EDGE
S414	X	8	33'-6"			DECK-LONGITUDINAL-EDGE
S515	X	208	4'-7"	X		DECK-TRANSVERSE-OVERHANG
S516	X	4	6'-9"	X		ABUT. DIAPHRAGM-VERT. EDGE
S517	X	12	17'-5"	X		ABUT. DIAPHRAGM-VERT.
S518	X	8	5'-8"			ABUT. DIAPHRAGM-VERT.
S519	X	401	5'-7"	X		PARAPET DOWEL
S520	X	8	5'-9"	X		PARAPET DOWEL



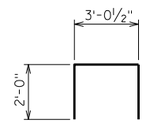
S503



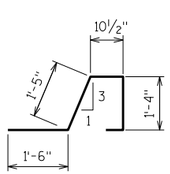
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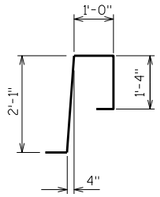
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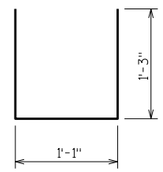
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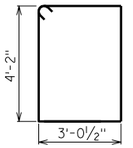
S519



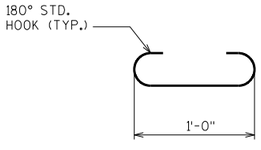
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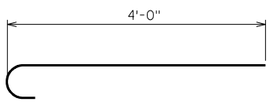
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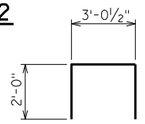
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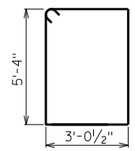
S413



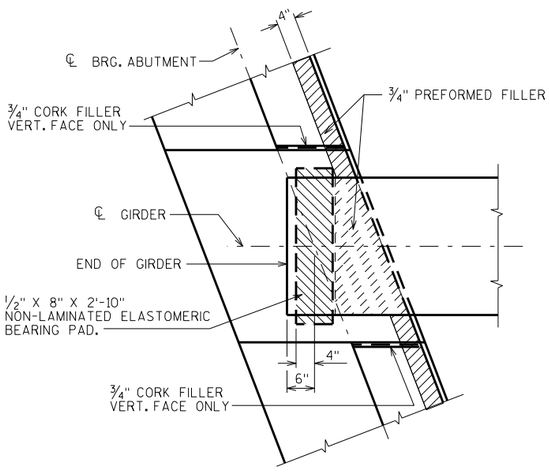
S515



S516



S517



BEARING PAD DETAIL

TOP OF DECK ELEVATIONS

	S. ABUT.	1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10	N. ABUT.
EOD	874.61	874.48	874.36	874.23	874.11	873.98	873.86	873.73	873.61	873.48	873.36
GIR. 1	874.63	874.50	874.38	874.25	874.13	874.00	873.88	873.75	873.63	873.50	873.38
GIR. 2	874.82	874.70	874.57	874.45	874.32	874.20	874.07	873.95	873.82	873.70	873.57
GIR. 3	875.02	874.89	874.77	874.64	874.52	874.39	874.27	874.14	874.02	873.89	873.77
GIR. 4	874.79	874.67	874.54	874.42	874.29	874.17	874.04	873.92	873.79	873.67	873.54
GIR. 5	874.57	874.44	874.32	874.19	874.07	873.94	873.82	873.69	873.57	873.44	873.32
EOD	874.55	874.42	874.30	874.17	874.05	873.92	873.80	873.67	873.55	873.42	873.30

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

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SUPERSTRUCTURE DETAILS

SHEET 26

197

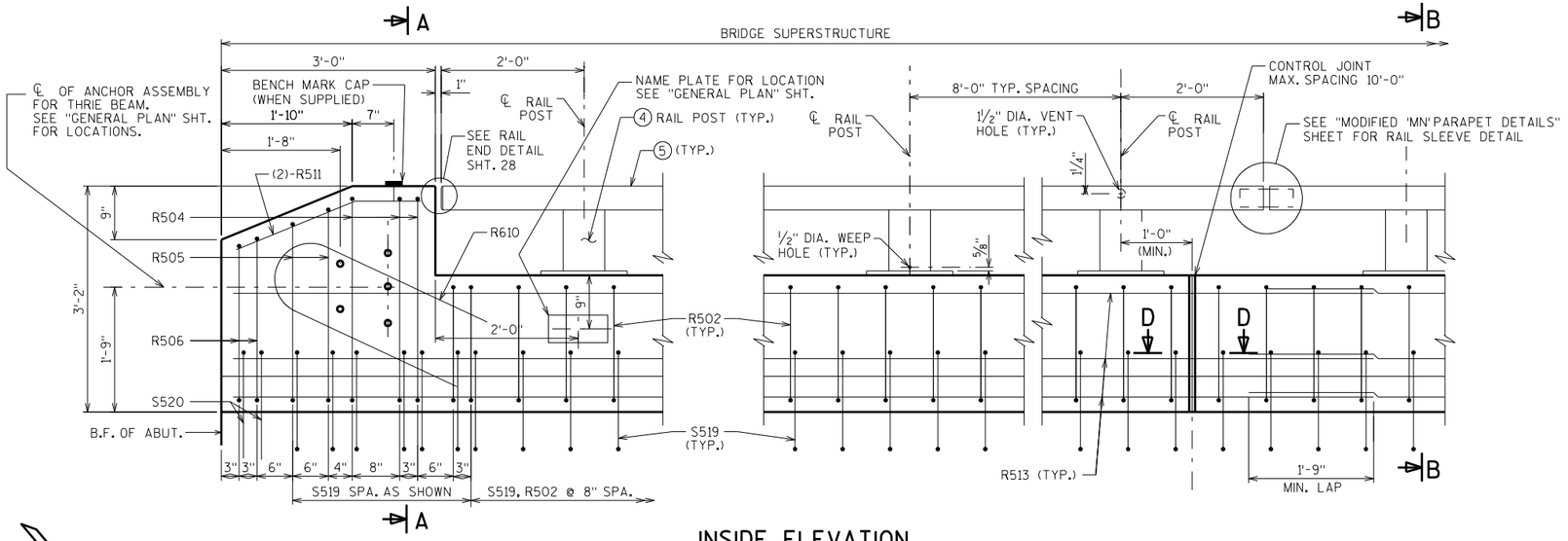
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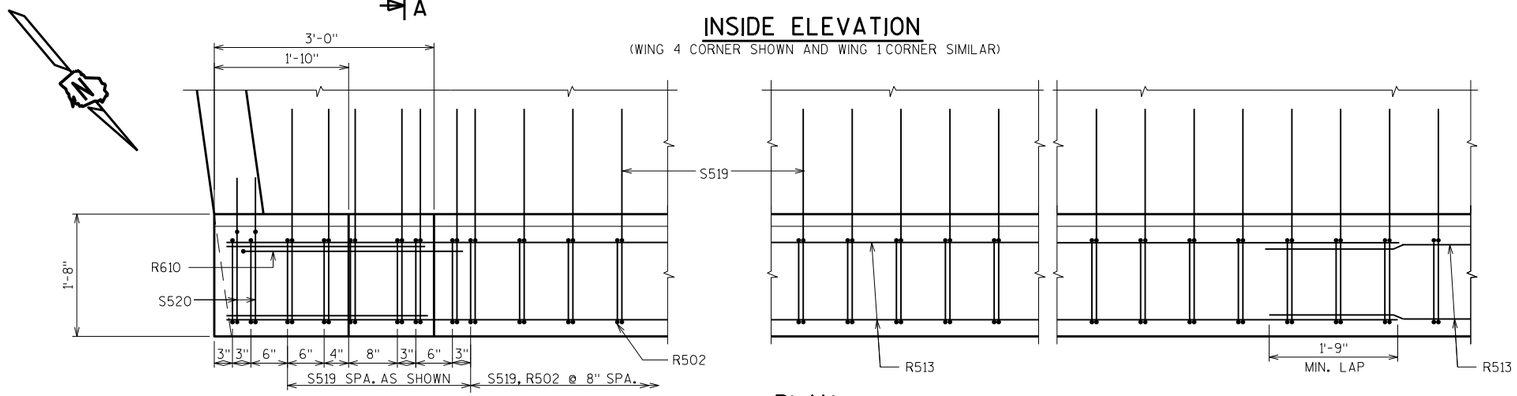
STATE PROJECT NUMBER

8110-02-71



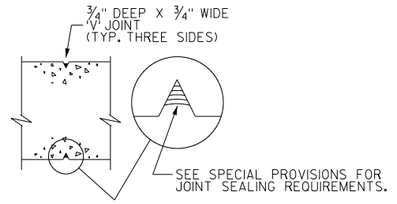
INSIDE ELEVATION

(WING 4 CORNER SHOWN AND WING 1 CORNER SIMILAR)



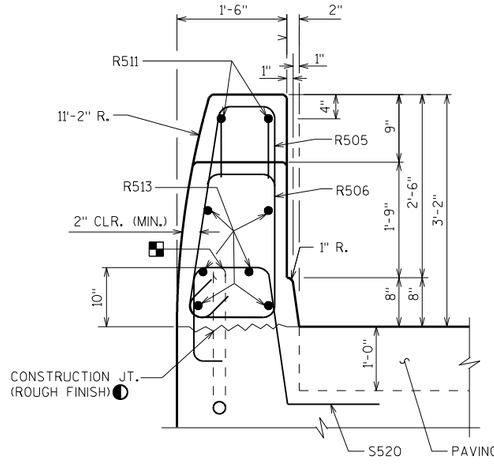
PLAN

(WING 1 CORNER SHOWN AND WING 4 CORNER SIMILAR)

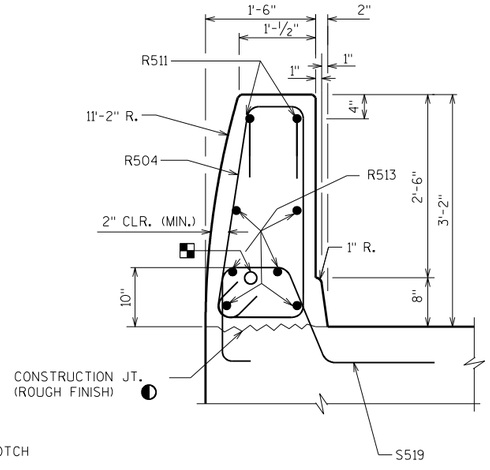


SECTION D-D

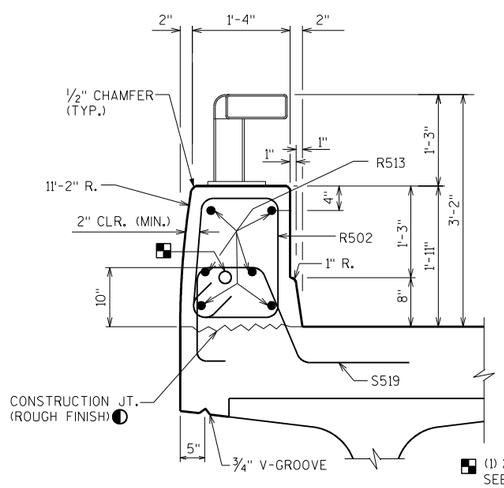
(CONTROL JOINT DETAILS)



END VIEW



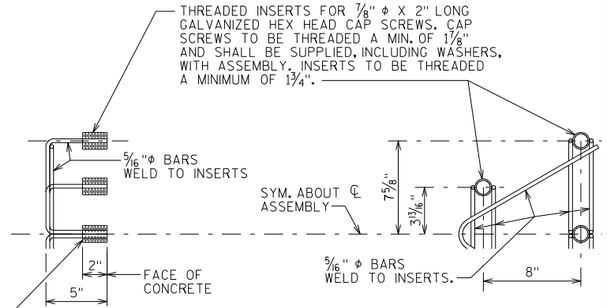
SECTION A-A



SECTION B-B

(1) 2'ϕ CONDUIT. SEE "MISCELLANEOUS DETAILS" SHEET.

◐ CONST. JOINT - STRIKE OFF AS SHOWN.



DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY JDL | PLANS CK'D. JDL

MODIFIED 'MN' PARAPET

SHEET 27

198

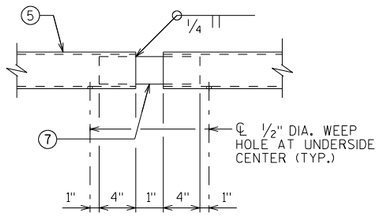
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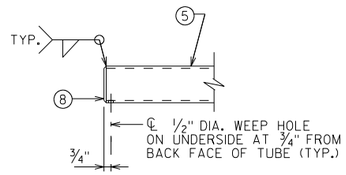
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STATE PROJECT NUMBER

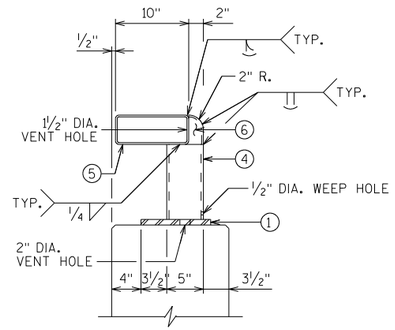
8110-02-71



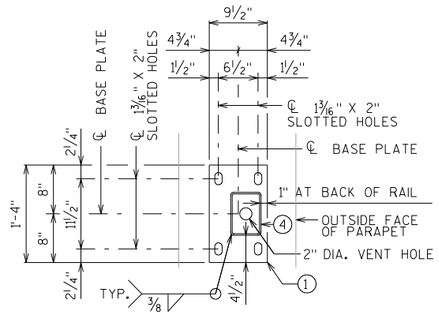
RAIL SLEEVE DETAIL



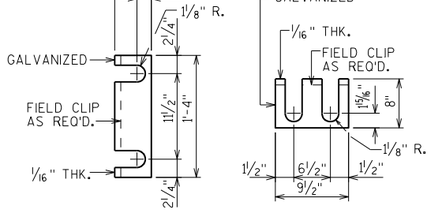
RAIL END DETAIL



STRUCTURAL TUBE RAIL DETAIL

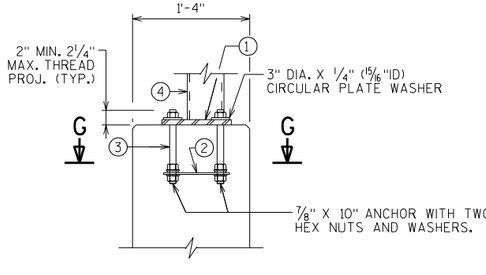


RAIL POST BASE PLATE

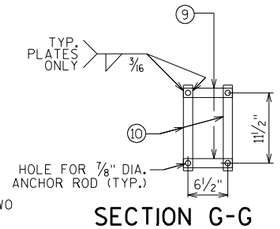


RAIL POST SHIM DETAIL

(2 SETS PER POST)

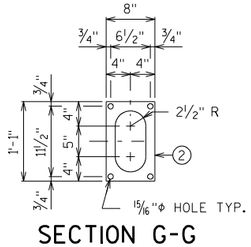


ANCHORAGE FOR RAIL POST



SECTION G-G

ANCHOR BAR ALTERNATE



SECTION G-G

ANCHOR PLATE ALTERNATE

LEGEND

1. PLATE 1'-4" X 9 1/2" X 3/4" WITH 1 3/16" X 2" SLOTTED HOLES.
2. 1/4" X 8" X 1'-1" ANCHOR PLATE WITH 15/16"Φ HOLES FOR THR'D ROD'S NO. 3
3. 7/8" X 10" LONG, ANCHOR RODS SHALL MEET REQUIREMENTS OF ASTM F 1554, GRADE 105, TYPE 2A, WITH SUPPLEMENTARY REQUIREMENTS S3 FOR PERMANENT GRADE IDENTIFICATION AND SUPPLEMENTARY REQUIREMENTS S5 FOR CHARPY IMPACT TESTING. NUTS AND WASHERS SHALL BE AS RECOMMENDED IN ASTM F1554 FOR GRADE 105 ANCHOR RODS. ANCHOR RODS SHALL NOT BE TACK WELDED OR WELDED TO OTHER MATERIAL TO MAKE UP AN ANCHORAGE CAGE, BUT SHALL BE HELD IN PLACE MECHANICALLY BY A MEANS SUBJECT TO APPROVAL BY THE ENGINEER. SUBSTITUTION OF CHEMICAL ANCHOR RODS FOR CAST-IN-PLACE ANCHORAGE IS NOT PERMITTED.
4. HSS7" X 5" X 5/16". PLACE VERTICAL. WELD TO NO. 1, NO. 5 & NO. 6.
5. HSS 10" X 4" X 1/4". WELD TO NO. 4, NO. 6, NO. 7 & NO. 8.
6. PLATE 1/4" THICK. WELD TO NO.4 & NO. 5.
7. HSS 9" X 3" X 1/4". PLATED TO 9 3/8" X 3 3/8" FINISHED SIZE OR FORMED TUBE 9 3/8" X 3 3/8" X 1/4". WELD TO NO. 5.
8. PLATE 1/4" THICK. WELD TO NO. 5
9. BAR 1/4" X 1 1/2" X 8" WITH 7/8" DIA. HOLES FOR THR'D RODS NO.3. WELD TO NO. 10.
10. BAR 1/4" X 1 1/2" X 1'-2" WITH 7/8" DIA. HOLES FOR THR'D RODS NO.3. WELD TO NO. 9.

RAILING NOTES

BID ITEM SHALL BE "RAILING TUBULAR SPECIAL GALVANIZED B-55-225" WHICH SHALL INCLUDE ALL ANCHORAGE AND ALL MATERIALS ABOVE TOP OF CONCRETE PARAPET.

RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.

THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.

RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.

ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

FINISH ALL EDGES OF RAIL WITH 1/2" CHAMFER, EXCEPT WHERE OTHERWISE NOTED.

MAX. SPACING OF CONCRETE CONTROL JOINTS SHALL BE 10 FT.

PROVIDE CORRECT ALIGNMENT FOR ANCHORAGES BY PLACING THEM ACCURATELY AND NORMAL TO GRADE.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

ALL MATERIAL (EXCEPT NO. 3) SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE "BRIDGE SPECIAL PROVISIONS". THE RAILING SHALL BE PAINTED FEDERAL COLOR NO. 27038 (BLACK).

VENT HOLES SHALL BE DRILLED IN POST AND RAIL MEMBERS AS REQUIRED TO FACILITATE GALVANIZING AND DRAINAGE.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY JDL | PLANS CK'D. JDL

MODIFIED 'MN' PARAPET DETAILS

SHEET 28

199

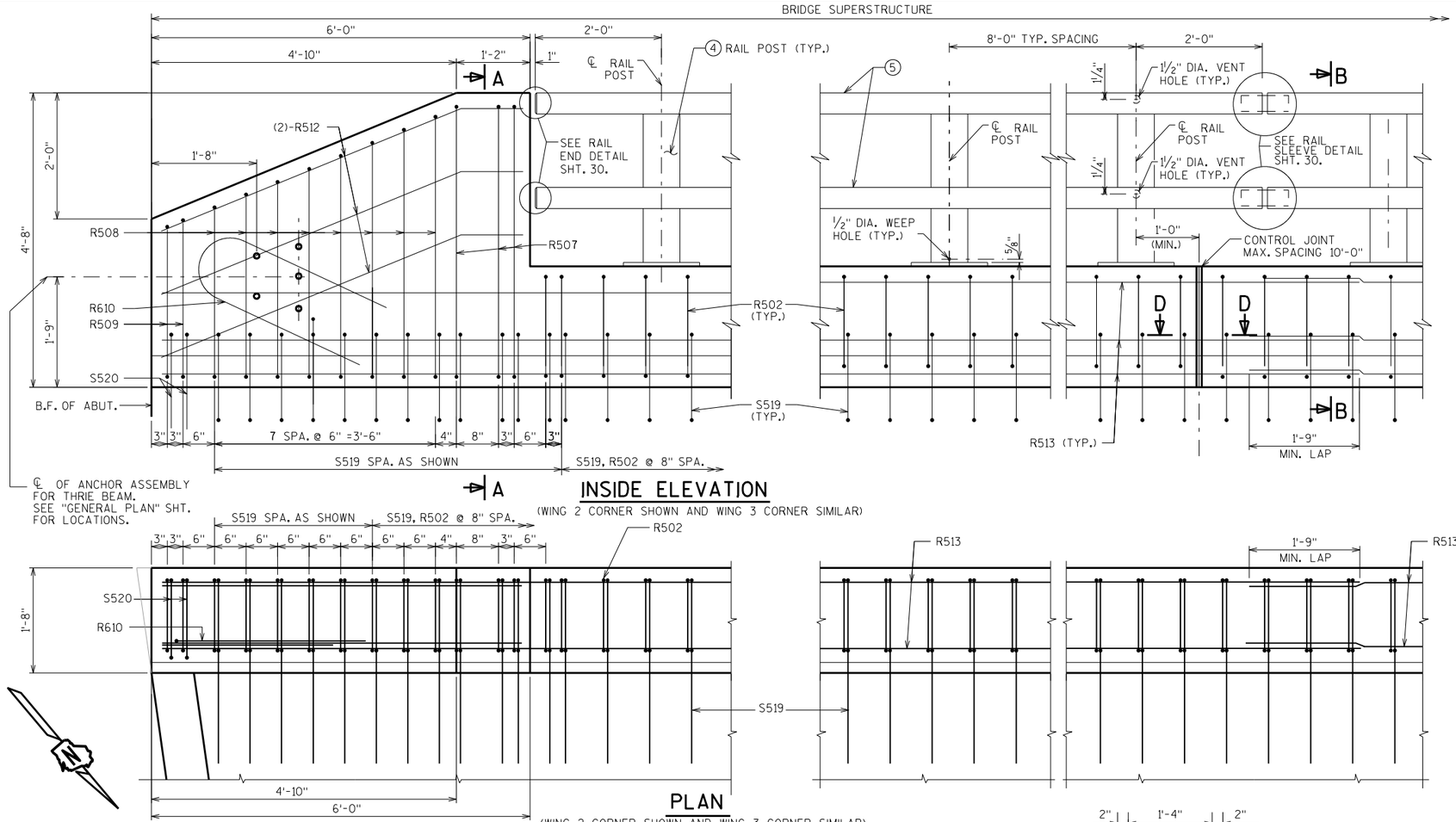
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SCALE =

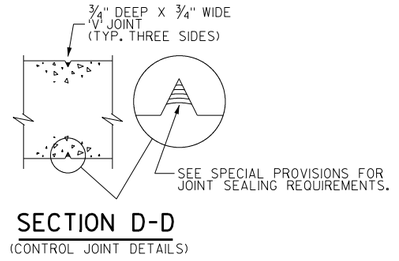
STATE PROJECT NUMBER

8110-02-71



INSIDE ELEVATION

(WING 2 CORNER SHOWN AND WING 3 CORNER SIMILAR)

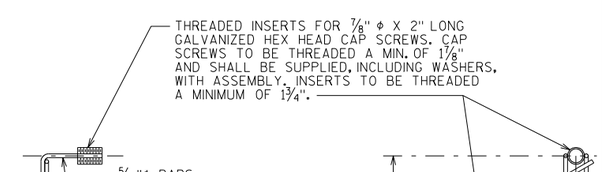


SECTION D-D

(CONTROL JOINT DETAILS)

PLAN

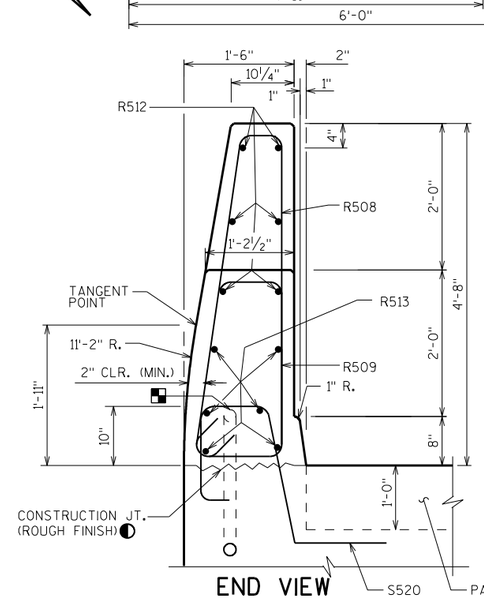
(WING 2 CORNER SHOWN AND WING 3 CORNER SIMILAR)



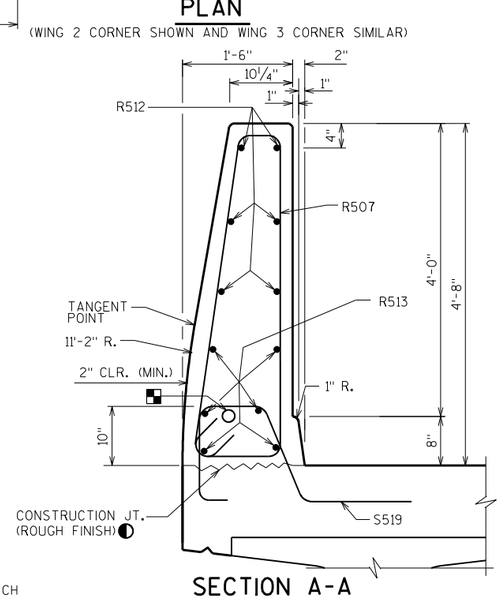
DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

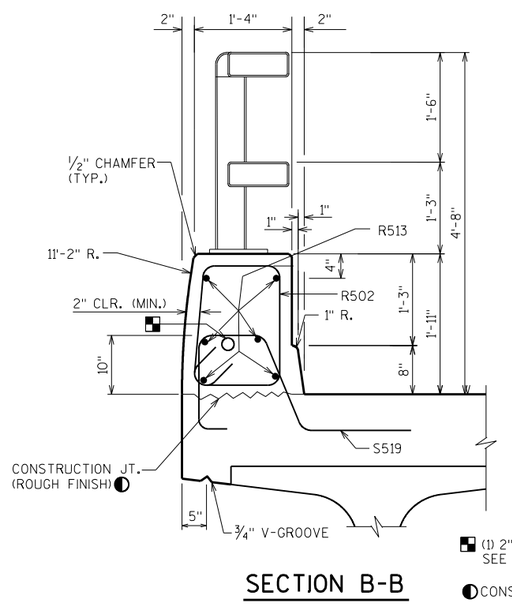
ASSEMBLY BID ITEM SHALL BE "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



END VIEW



SECTION A-A



SECTION B-B

(1) 2"ϕ CONDUIT. SEE "MISCELLANEOUS DETAILS" SHEET.

◐CONST. JOINT - STRIKE OFF AS SHOWN.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

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MODIFIED 'MN' PARAPET (SPECIAL)

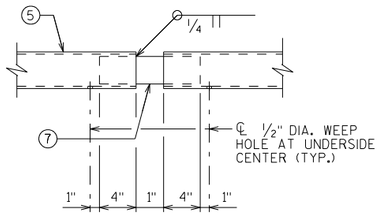
SHEET 29

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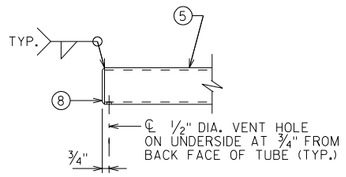
SCALE =

STATE PROJECT NUMBER

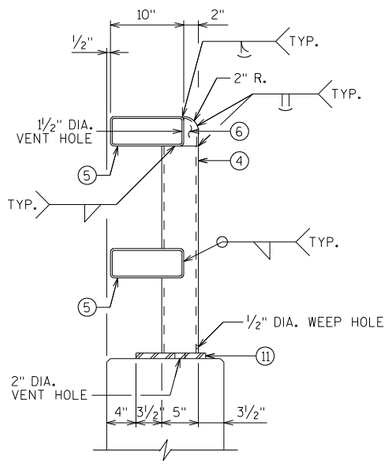
8110-02-71



RAIL SLEEVE DETAIL



RAIL END DETAIL



STRUCTURAL TUBE RAIL DETAIL

BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	BAR SERIES	LOCATION
		NOT	USED			
R502	X	369	6'-0"	X		PARAPET VERT.
		NOT	USED			
R504	X	6	8'-2"	X		PARAPET END-VERT.
R505	X	4	7'-7"	X	⚠	PARAPET END-VERT.
R506	X	4	7'-0"	X		PARAPET END-VERT.
R507	X	6	11'-0"	X		PARAPET END-VERT.
R508	X	16	9'-3"	X	⚠	PARAPET END-VERT.
R509	X	4	7'-6"	X		PARAPET END-VERT.
R610	X	4	6'-8"	X		PARAPET END-VERT.
R511	X	4	3'-2"	X		PARAPET END-TOP
R512	X	12	5'-10"	X		PARAPET END-TOP
R513	X	48	34'-0"			PARAPET LONGIT.

⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.

LEGEND

1. NOT USED
2. NOT USED
3. 7/8" X 10" LONG, ANCHOR RODS SHALL MEET REQUIREMENTS OF ASTM F 1554, GRADE 105, TYPE 2A, WITH SUPPLEMENTARY REQUIREMENTS S3 FOR PERMANENT GRADE IDENTIFICATION AND SUPPLEMENTARY REQUIREMENTS S5 FOR CHARPY IMPACT TESTING. NUTS AND WASHERS SHALL BE AS RECOMMENDED IN ASTM F1554 FOR GRADE 105 ANCHOR RODS. ANCHOR RODS SHALL NOT BE TACK WELDED OR WELDED TO OTHER MATERIAL TO MAKE UP AN ANCHORAGE CAGE, BUT SHALL BE HELD IN PLACE MECHANICALLY BY A MEANS SUBJECT TO APPROVAL BY THE ENGINEER. SUBSTITUTION OF CHEMICAL ANCHOR RODS FOR CAST-IN-PLACE ANCHORAGE IS NOT PERMITTED.
4. HSS7" X 5" X 5/16". PLACE VERTICAL. WELD TO NO. 11, NO. 5 & NO. 6.
5. HSS 10" X 4" X 1/4". WELD TO NO. 4, NO. 6, NO. 7 & NO. 8.
6. PLATE 1/4" THICK. WELD TO NO.4 & NO. 5.
7. HSS 9" X 3" X 1/4". PLATED TO 9 3/8" X 3 3/8" FINISHED SIZE OR FORMED TUBE 9 3/8" X 3 3/8" X 1/4". WELD TO NO. 5.
8. PLATE 1/4" THICK. WELD TO NO. 5
9. NOT USED
10. NOT USED
11. PLATE 1'-5 1/2" X 11" X 1 7/8" WITH 1 3/16" X 2" SLOTTED HOLES.
12. 1/4" X 9 1/2" X 1'-5 1/2" ANCHOR PLATE WITH 15/16"Φ HOLES FOR THR'D ROD'S NO. 3
13. BAR 1/4" X 1 1/2" X 9 1/2" WITH 7/8" DIA. HOLES FOR THR'D RODS NO.3. WELD TO NO. 14.
14. BAR 1/4" X 1 1/2" X 1'-7" WITH 7/8" DIA. HOLES FOR THR'D RODS NO.3. WELD TO NO. 13.

RAILING NOTES

BID ITEM SHALL BE "RAILING TUBULAR SPECIAL GALVANIZED B-55-225" WHICH SHALL INCLUDE ALL ANCHORAGE AND ALL MATERIALS ABOVE TOP OF CONCRETE PARAPET.

RAIL POST AND BASE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 50. HOLLOW RAILING STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A500 GRADE B OR C WITH A CERTIFIED FY = 50 KSI. ANCHOR PLATES, AND SPLICE TUBE PLATES SHALL CONFORM TO THE REQUIREMENTS OF ASTM A709 GRADE 36.

THE NUT SECURING THE POST BASE PLATE TO THE CONCRETE SHALL BE TIGHTENED TO A SNUG FIT AND GIVEN AN ADDITIONAL 1/8 TURN.

RAILS SHALL BE CONTINUOUS OVER A MINIMUM OF THREE (3) POSTS WITHOUT SPLICES WHERE POSSIBLE.

ENDS OF TUBE SECTIONS SHALL BE SAWED. GRIND SMOOTH EXPOSED EDGES. ALL CUT ENDS SHALL BE TRUE AND SMOOTH.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

FINISH ALL EDGES OF RAIL WITH 1/2" CHAMFER, EXCEPT WHERE OTHERWISE NOTED.

MAX. SPACING OF CONCRETE CONTROL JOINTS SHALL BE 10 FT.

PROVIDE CORRECT ALIGNMENT FOR ANCHORAGES BY PLACING THEM ACCURATELY AND NORMAL TO GRADE.

STEEL SHIMS SHALL BE PROVIDED & USED UNDER BASE PLATES WHERE REQUIRED FOR ALIGNMENT, AND SHALL BE GALVANIZED.

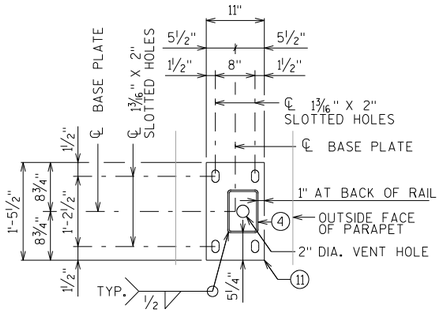
CAULK AROUND PERIMETER OF BASE PLATES, NO. 1, AND FILL BOLT SLOT OPENINGS IN SHIMS AND BASE PLATES WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

ALL JOINTS AND RECESSES IN CONCRETE PARAPET ARE TO BE VERTICAL.

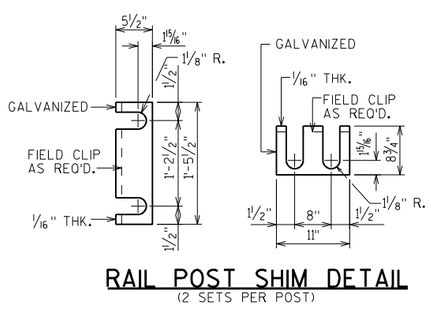
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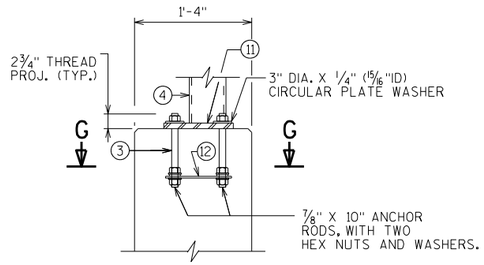
TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.



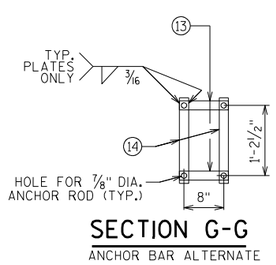
RAIL POST BASE PLATE



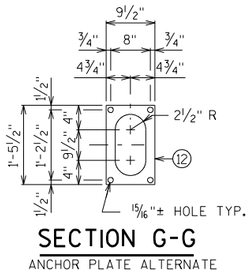
RAIL POST SHIM DETAIL
(2 SETS PER POST)



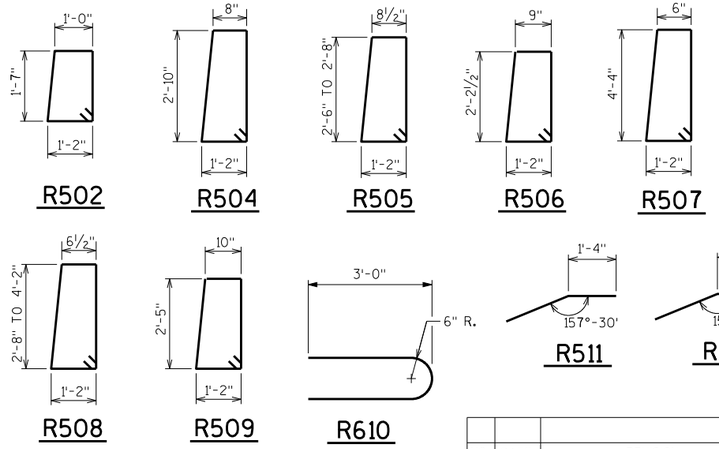
ANCHORAGE FOR RAIL POST



SECTION G-G
ANCHOR BAR ALTERNATE



SECTION G-G
ANCHOR PLATE ALTERNATE



NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

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MODIFIED 'MN' PARAPET (SPECIAL) DETAILS

SHEET 30

201

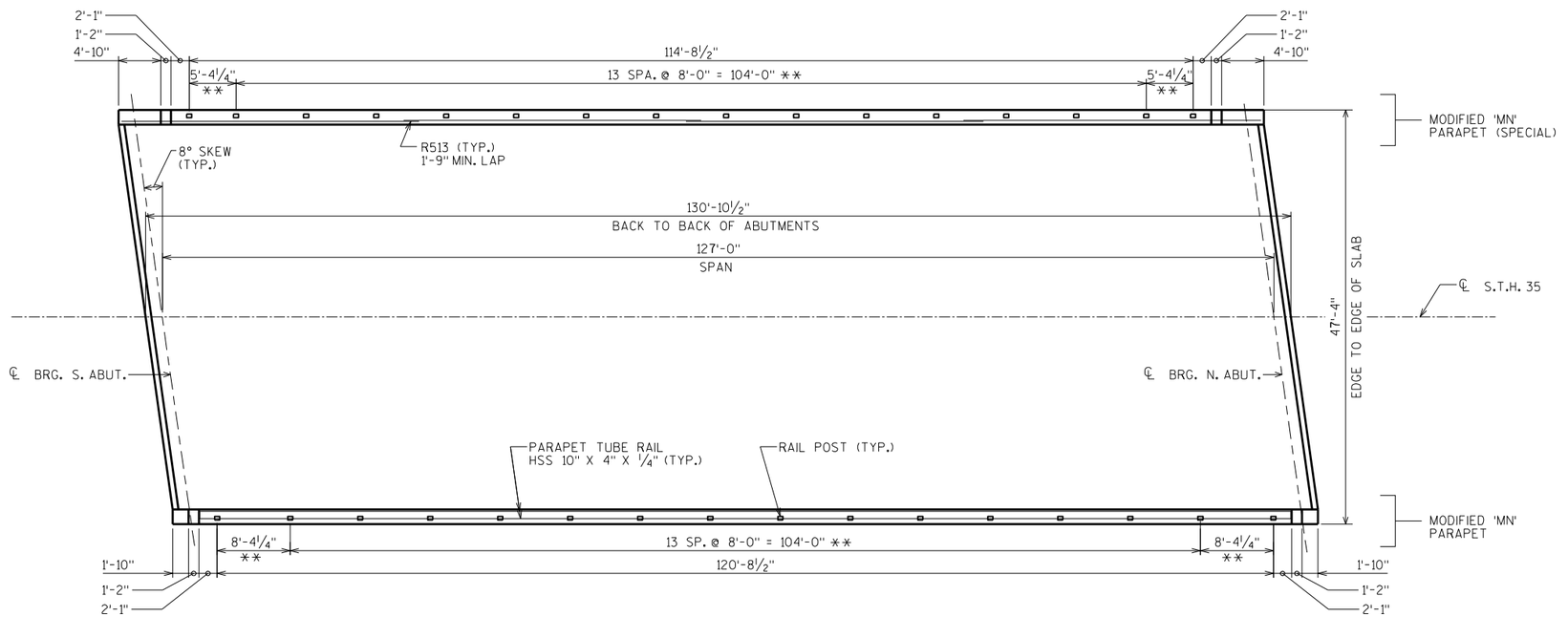
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SCALE =

STATE PROJECT NUMBER

8110-02-71



PLAN

** = RAIL POST SPACING

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

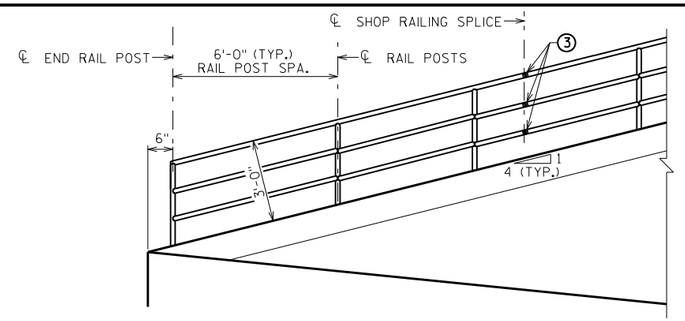
DRAWN BY WWR | PLANS CK'D. JDL

RAIL POST SPACING

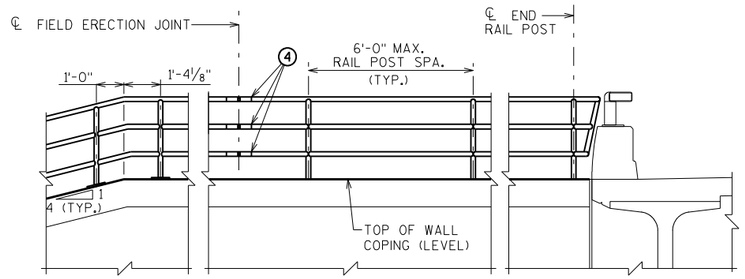
SHEET 31

202

SCALE =



PARTIAL ELEVATION OF WALL RAILING @ WING ENDS



PARTIAL ELEVATION OF WALL RAILING @ ABUTMENT

STATE PROJECT NUMBER

8110-02-71

LEGEND

① 2"Φ NOMINAL STEEL PIPE FOR POSTS: CUT BOTTOM OF POST TO MATCH TOP OF CONCRETE. POSTS ARE TO BE SET VERTICAL.

② 2"Φ NOMINAL STEEL PIPE FOR RAILS: WELD TO NO. 1

③ 1½"Φ PIPE SLEEVE FOR NO. 2. PROVIDE "SLIDING FIT" WITH A MINIMUM OUT TO OUT DIMENSION OF 2 1/16".

④ 1½"Φ PIPE SLEEVE x 1'-10" LONG FOR NO. 2. PROVIDE ½"Φ SURFACE WELDS ON ALL SIDES AS SHOWN. GRIND WELDS TO FIT FREE INTO I.D. OF NO. 2. PROVIDE ⅜"Φ x ½" WELDING STUDS ON TOP AND BOTTOM SURFACES AT CENTERLINE.

⑤ PLATE ¾" x 5" x 8", WITH ⅝"Φ HOLE FOR ANCHOR BOLTS NO. 6. WELD TO NO. 1. OR PIPE SLEEVE AS SHOWN.

⑥ ½" DIA. X 6⅞" LONG GALVANIZED HEX BOLT WITH NUT & WASHER. TYPE "S", ½" DIA. CONCRETE MASONRY ANCHORS MAY BE SUBSTITUTED FOR ½" DIA. BOLTS. ANCHOR PLATE NOT REQUIRED WHEN TYPE "S" ANCHORS ARE USED. SEE ☆

☆ ½" DIA. CONCRETE MASONRY ANCHOR, TYPE "S", 6" MIN. EMBEDMENT (EPOXY ANCHORED) INTO CONCRETE AND MINIMUM PULLOUT CAPACITY OF 10 KIPS. ANCHOR, WASHER AND NUT SHALL BE GALVANIZED.

⑦ ¼" x 2" x 8" FLAT BAR, WITH ⅝"Φ HOLES FOR ANCHOR BOLTS NO. 6.

NOTES

BID ITEM SHALL BE "RAILING PIPE GALVANIZED B-55-225", WHICH INCLUDES ALL ITEMS SHOWN.

RAILING SHALL BE FABRICATED IN LENGTHS THAT INCLUDE 3 OR 4 POSTS.

FIELD ERECTION JOINTS MUST BE PLACED IN BETWEEN RAIL POSTS WHERE THERE IS ALSO A CONCRETE COPING EXPANSION JOINT IN BETWEEN RAIL POSTS.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

ALL MATERIAL SHALL BE GALVANIZED AFTER FABRICATION. PRIOR TO GALVANIZING, THE STEEL RAILING SHALL BE GIVEN A NO. 6 BLAST CLEANING PER SSPC SPECIFICATIONS. PAINT OVER GALVANIZING WITH AN APPROVED TIE COAT AND TOP COAT AS SPECIFIED IN THE SPECIAL PROVISIONS. THE RAILING SHALL BE PAINTED FEDERAL COLOR NO. 27038.

DRILL DRAIN HOLES PRIOR TO GALVANIZING.

ALL MATERIALS USED IN FABRICATION SHALL BE MADE FROM MATERIALS CONFORMING TO A.S.T.M. DESIGNATION A709 GRADE 36 UNLESS NOTED OTHERWISE.

STEEL POST SHIMS MAY BE USED UNDER POSTS WHERE REQ'D. FOR ALIGNMENT.

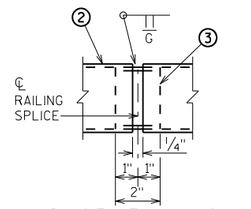
ALL RAILS, POSTS AND SLEEVES ARE STANDARD WEIGHT PIPE, SCHEDULE 40.

PLACE ALL NUTS ON OUTSIDE OF POSTS.

ANCHORAGES SHALL BE ACCURATELY PLACED TO PROVIDE CORRECT ALIGNMENT OF RAILING.

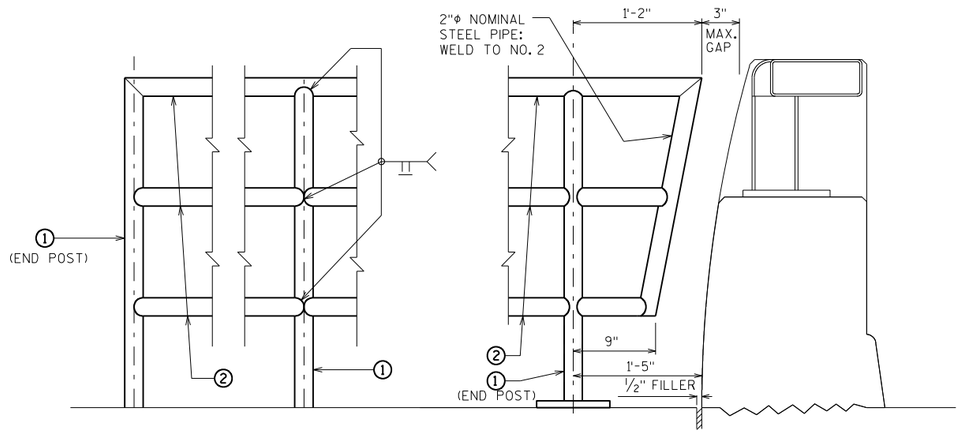
▪ CAULK AROUND PERIMETER OF BASE PLATES AND FILL PORTION OF SLOTTED HOLES AROUND ANCHOR BOLTS IN POST SHIMS AND BASE PLATES WITH NON-STAINING, GRAY, NON-BITUMINOUS JOINT SEALER.

TOUCH-UP PAINTING TO BE DONE AT COMPLETION OF STEEL RAILING INSTALLATION TO THE SATISFACTION OF THE ENGINEER AT NO EXTRA COST.

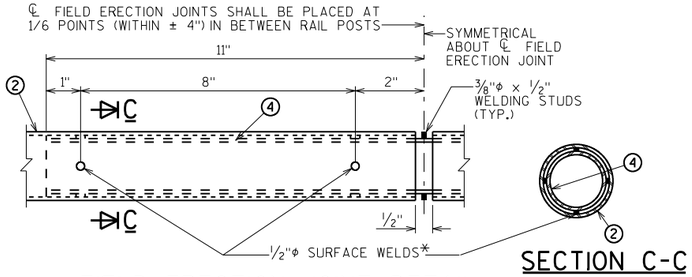


SHOP RAILING SPLICE DETAIL

(LOCATION MUST BE SHOWN ON THE SHOP DRAWINGS)



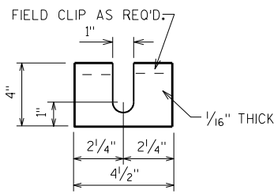
PART ELEVATION OF RAILING



FIELD ERECTION JOINT DETAIL

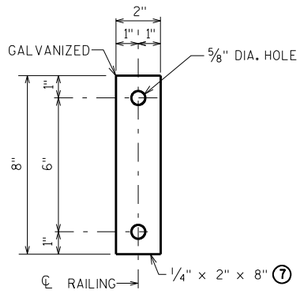
SECTION C-C

*MIN. ⅝" FLAT SURFACE DIA. PUNCHINGS OR STUDS MAY BE USED AS AN ALTERNATE.

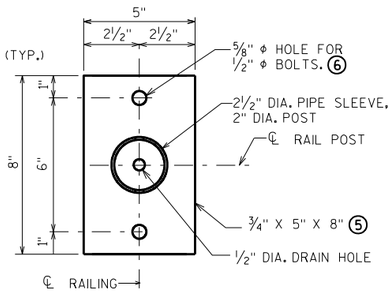


POST SHIM DETAILS

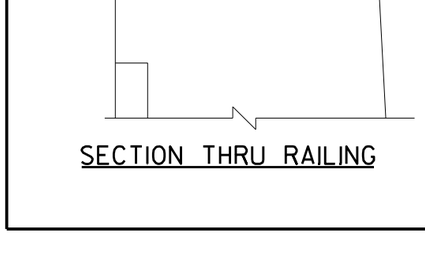
SHIMS REQUIRED ONLY WHEN POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST.



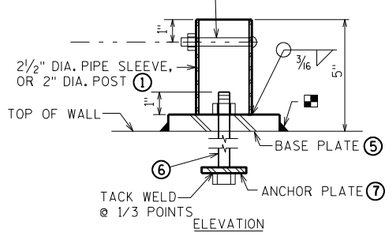
ANCHOR PLATE



BASE PLATE



SECTION THRU RAILING



POST ATTACHMENT

UNIT SHALL BE GALV. AFTER FABRICATION

NOTE:
IN LIEU OF USING THE 2½"Φ SLEEVE, THE 2"Φ RAIL POST MAY BE WELDED TO THE BASE PLATE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

PIPE RAILING DETAILS

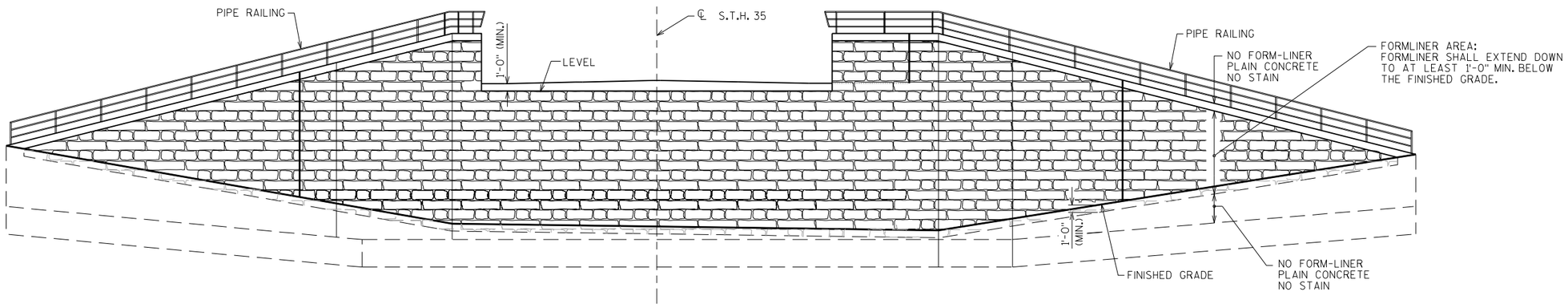
SHEET 32

203

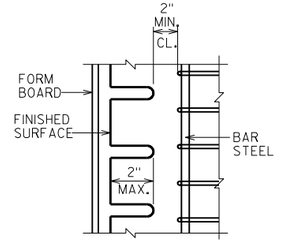
SCALE =

STATE PROJECT NUMBER

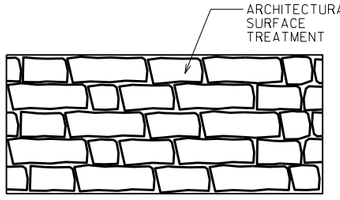
8110-02-71



ELEVATION
(LOOKING NORTH)



SECTION THRU FORMLINER



RECTANGULAR CUT STONE

COURSE HEIGHT = 16 ± 2"
MAX RELIEF = 2"
MIN RELIEF = 1½"

FORMLINER DETAILS AT ABUTMENT AND WALLS

ARCHITECTURAL SURFACE TREATMENT NOTES:

FORMLINER COURSING ON ABUTMENT AND WALLS SHALL BE LEVEL.

THE FORMLINER COURSING SHALL BE VERTICALLY ALIGNED.

WRAP AROUND/MATCH FORMLINER PATTERN AT WALL RADI.

ALL FORMLINER WORK SHALL BE COVERED UNDER THE BID ITEM "ARCHITECTURAL SURFACE TREATMENT B-55-225".

FORMLINER SHALL EXTEND TO AT LEAST 1'-0" MIN. BELOW THE FINISHED GRADE.

ALL ARCHITECTURAL SURFACE TREATMENT FORMLINER AREAS SHALL BE STAINED IN A RANDOMLY MIXED COLOR ARRANGEMENT TO ACHIEVE A TEXTURED LOOK AS DIRECTED BY THE ENGINEER. APPLY A MULTI-COLOR STAIN USING A BASE COLOR AND ACCENT COLORS (A MINIMUM OF FIVE STAIN COLORS WILL BE REQUIRED).

FORMLINER RECTANGULAR CUT STONE SHALL BE SIMILAR TO MILESTONES, INCORPORATED, PATTERN MS-1018, REDUCED RELIEF WEATHERED LIMESTONE.

AESTHETIC DETAILS SHALL MATCH ADJACENT PROJECT (B-55-224 STATE PROJECT #8110-02-70) AESTHETICS OR AS DIRECTED BY THE DEPARTMENT.

STAINING NOTES:

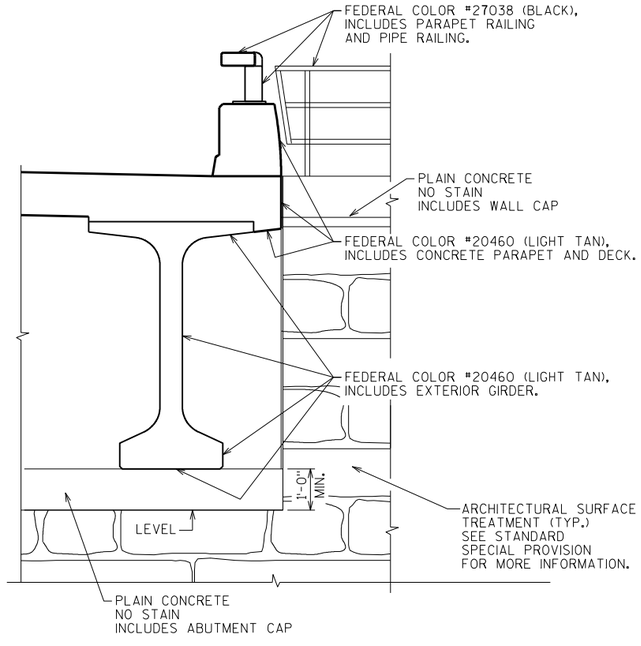
STAINING OF NON-ARCHITECTURAL SURFACE TREATMENT AREAS SHALL BE PAID FOR UNDER THE BID ITEM "CONCRETE STAINING B-55-225".

STAINING OF ARCHITECTURAL SURFACE TREATMENT AREAS SHALL BE PAID FOR UNDER THE BID ITEM "CONCRETE STAINING MULTI-COLOR B-55-225".

IF TOUCH UP PAINTING IS REQUIRED, IT SHALL BE DONE TO THE SATISFACTION OF THE ENGINEER AT NO ADDITIONAL COST.

JOINT FILLER NOTES:

JOINT FILLER COLOR SHALL MATCH ADJACENT PROJECT (B-55-224 STATE PROJECT #8110-02-70) AESTHETICS OR AS DIRECTED BY THE DEPARTMENT.



PARTIAL ABUTMENT ELEVATION
(TYPICAL AT ALL CORNERS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

AESTHETIC DETAILS

SHEET 33

204

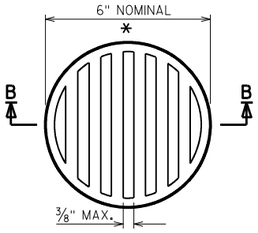
8

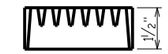
8

SCALE =

STATE PROJECT NUMBER

8110-02-71





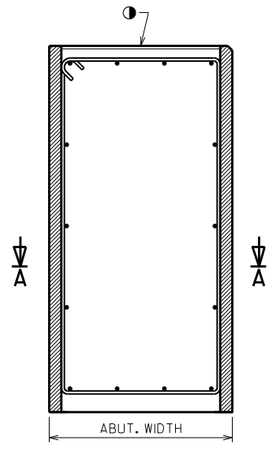
SECTION B-B

RODENT SHIELD DETAIL

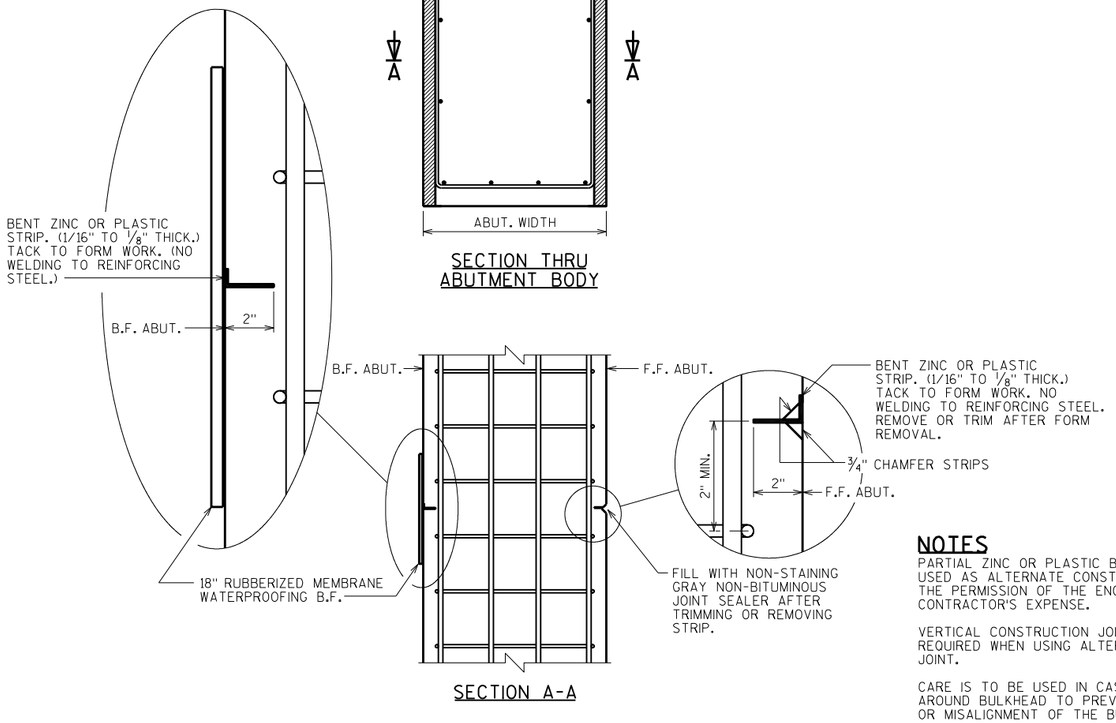
* DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

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.



SECTION THRU ABUTMENT BODY



SECTION A-A

CONSTRUCTION JOINT AT ABUTMENT

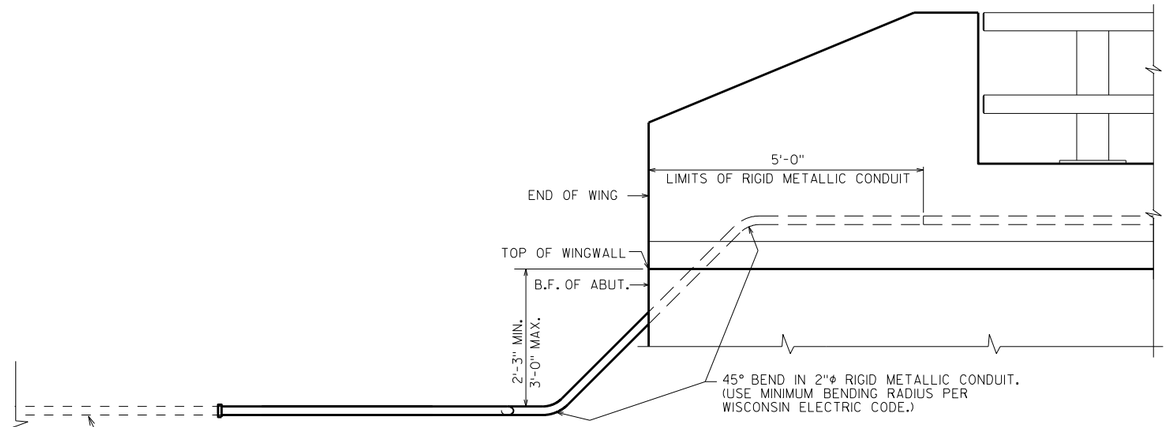
NOTES

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.

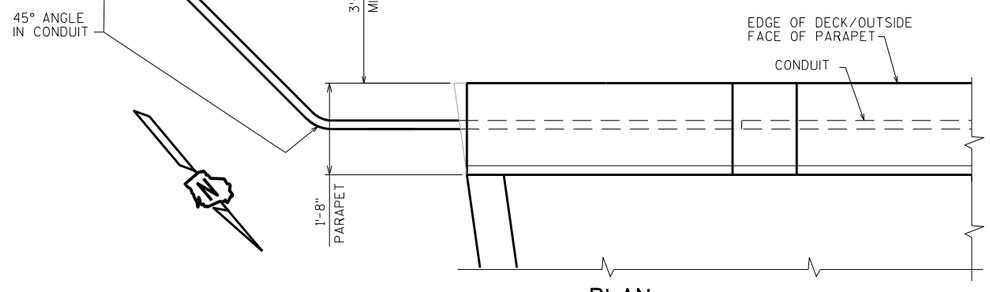
CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

◑ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY 1/2" DEEP.



INSIDE ELEVATION

(WING 2 CORNER SHOWN AND WINGS 1,3&4 CORNERS SIMILIAR)



PLAN

(WING 2 CORNER SHOWN AND WINGS 1,3&4 CORNERS SIMILIAR)

NOTES

BID ITEMS SHALL BE:
"CONDUIT RIGID METALLIC 2-INCH".
"CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH"

ADAPTER FITTINGS TO BE INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

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

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
STRUCTURES DESIGN SECTION

STRUCTURE B-55-225

DRAWN BY WWR | PLANS CK'D. JDL

MISCELLANEOUS DETAILS

SHEET 34

205

SCALE = 1.0

8

8

1 2 3

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
131+75	0.00	-	-	-	-	-	-	-	-	-	-	0.00
132+00	25.00	563.76	-	-	261	-	-	261	-	-	-	261.00
132+25	25.00	2,082.92	-	-	1,225	-	-	1,486	-	-	-	1,486.31
132+50	25.00	4,028.85	-	-	2,830	-	-	4,316	-	-	-	4,315.84
132+75	25.00	5,509.62	0.44	-	4,416	0	-	8,732	0	-	-	8,731.54
133+00	25.00	5,793.55	-	-	5,233	0	-	13,965	1	-	-	13,964.23
133+25	25.00	5,706.24	-	-	5,324	-	-	19,289	1	-	-	19,288.21
133+50	25.00	4,976.25	-	-	4,946	-	-	24,234	1	-	-	24,233.81
133+51.16	1.16	4,944.64	-	-	213	-	-	24,447	1	-	-	24,446.88
133+60	8.84	4,608.92	-	-	1,564	-	-	26,011	1	-	-	26,010.87
133+60.45	0.45	4,587.21	-	-	77	-	-	26,089	1	-	-	26,088.24
133+70	9.55	4,037.12	-	-	1,525	-	-	27,613	1	-	-	27,612.78
133+80	10.00	3,441.67	-	-	1,385	-	-	28,998	1	-	-	28,997.74
133+90	10.00	3,268.13	-	-	1,243	-	-	30,241	1	-	-	30,240.30
134+00	10.00	3,382.89	-	-	1,232	-	-	31,472	1	-	-	31,471.97
134+10	10.00	3,434.10	-	-	1,262	-	-	32,735	1	-	-	32,734.37
134+20	10.00	3,425.99	-	-	1,270	-	-	34,005	1	-	-	34,004.76
134+30	10.00	3,368.15	-	-	1,258	-	-	35,263	1	-	-	35,262.93
134+40	10.00	3,252.05	-	-	1,226	-	-	36,489	1	-	-	36,488.90
134+50	10.00	3,062.02	0.67	-	1,169	0	-	37,659	1	-	-	37,658.01
134+50.45	0.45	3,056.68	0.82	-	51	0	-	37,710	1	-	-	37,709.47
134+60	9.55	3,126.49	-	-	1,093	0	-	38,803	1	-	-	38,802.30
134+70	10.00	3,452.17	4.80	-	1,218	1	-	40,021	2	-	-	40,019.46
134+80	10.00	3,924.20	-	-	1,366	1	-	41,387	3	-	-	41,384.35
134+90	10.00	4,432.69	-	-	1,548	-	-	42,935	3	-	-	42,931.92
135+00	10.00	4,949.79	-	-	1,737	-	-	44,673	3	-	-	44,669.41
135+10	10.00	4,941.58	-	-	1,832	-	-	46,504	3	-	-	46,501.15
135+18.44	8.44	5,166.65	-	-	1,580	-	-	48,084	3	-	-	48,081.23
135+25	6.56	5,118.44	-	-	1,249	-	-	49,334	3	-	-	49,330.47
135+40.45	15.45	5,055.96	-	-	2,912	-	-	52,245	3	-	-	52,242.29
135+50	9.55	4,997.87	-	-	1,777	-	-	54,023	3	-	-	54,019.53
135+75	25.00	4,708.93	-	-	4,494	-	-	58,517	3	-	-	58,513.42
136+00	25.00	4,481.53	-	-	4,255	-	-	62,771	3	-	-	62,768.26
136+25	25.00	4,311.25	-	-	4,071	-	-	66,842	3	-	-	66,838.99
136+30.45	5.45	4,284.07	-	-	868	-	-	67,710	3	-	-	67,707.16
136+50	19.55	4,174.96	-	-	3,062	-	-	70,772	3	-	-	70,768.97
136+75	25.00	4,062.30	-	-	3,814	-	-	74,586	3	-	-	74,582.52
137+00	25.00	3,951.71	-	-	3,710	-	-	78,296	3	-	-	78,292.72
137+20.45	20.45	3,896.36	-	-	2,973	-	-	81,269	3	-	-	81,265.43
137+25	4.55	3,883.71	-	-	655	-	-	81,923	3	-	-	81,920.36
137+50	25.00	3,804.30	-	-	3,559	-	-	85,483	3	-	-	85,479.62
137+75	25.00	3,736.89	-	-	3,491	-	-	88,974	3	-	-	88,970.91
138+00	25.00	3,694.92	-	-	3,441	-	-	92,415	3	-	-	92,411.56
138+25	25.00	3,710.97	-	-	3,429	-	-	95,843	3	-	-	95,840.21
138+50	25.00	3,699.39	-	-	3,431	-	-	99,274	3	-	-	99,270.93

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
138+75	25.00	3,710.92	-	-	3,431	-	-	102,705	3	-	-	102,701.63
139+00	25.00	3,744.39	-	-	3,452	-	-	106,156	3	-	-	106,153.16
139+25	25.00	3,798.15	-	-	3,492	-	-	109,648	3	-	-	109,645.08
139+50	25.00	3,856.56	-	-	3,544	-	-	113,192	3	-	-	113,188.93
139+75	25.00	3,892.52	-	-	3,588	-	-	116,780	3	-	-	116,776.46
140+00	25.00	3,908.72	-	-	3,612	-	-	120,391	3	-	-	120,388.15
140+25	25.00	3,807.77	-	-	3,572	-	-	123,964	3	-	-	123,960.59
140+50	25.00	3,832.42	-	-	3,537	-	-	127,501	3	-	-	127,497.72
140+75	25.00	3,770.59	-	-	3,520	-	-	131,021	3	-	-	131,017.63
141+00	25.00	3,721.26	-	-	3,468	-	-	134,489	3	-	-	134,486.08
141+25	25.00	3,670.74	-	-	3,422	-	-	137,911	3	-	-	137,908.30
141+46.64	21.64	3,620.83	-	-	2,922	-	-	140,833	3	-	-	140,830.07
141+75	28.36	3,576.00	-	-	3,780	-	-	144,613	3	-	-	144,610.00
142+00	25.00	3,539.41	-	-	3,294	-	-	147,907	3	-	-	147,904.16
142+25	25.00	3,531.10	-	-	3,273	-	-	151,181	3	-	-	151,177.55
142+50	25.00	3,545.83	-	-	3,276	-	-	154,457	3	-	-	154,453.90
142+75	25.00	3,587.21	-	-	3,302	-	-	157,759	3	-	-	157,756.24
143+00	25.00	3,587.39	-	-	3,322	-	-	161,081	3	-	-	161,077.81
143+25	25.00	3,582.68	-	-	3,319	-	-	164,400	3	-	-	164,397.29
143+50	25.00	3,616.65	-	-	3,333	-	-	167,733	3	-	-	167,730.31
143+75	25.00	3,548.48	-	-	3,317	-	-	171,051	3	-	-	171,047.50
144+00	25.00	3,490.11	-	-	3,259	-	-	174,309	3	-	-	174,306.11
144+25	25.00	3,294.90	-	-	3,141	-	-	177,450	3	-	-	177,447.32
144+50	25.00	3,202.54	-	-	3,008	-	-	180,458	3	-	-	180,455.40
144+75	25.00	2,993.03	-	-	2,868	-	-	183,327	3	-	-	183,323.71
145+00	25.00	2,801.26	-	-	2,683	-	-	186,009	3	-	-	186,006.25
145+25	25.00	2,558.82	-	-	2,482	-	-	188,491	3	-	-	188,487.77
145+50	25.00	2,315.69	0.14	-	2,257	0	-	190,748	3	-	-	190,744.41
145+75	25.00	2,083.27	-	-	2,037	0	-	192,784	3	-	-	192,780.88
146+00	25.00	1,842.15	-	-	1,817	-	-	194,601	3	-	-	194,598.21
146+25	25.00	1,657.84	-	-	1,620	-	-	196,222	3	-	-	196,218.57
146+50	25.00	1,497.10	-	-	1,461	-	-	197,682	3	-	-	197,679.19
146+75	25.00	1,329.17	-	-	1,308	-	-	198,991	3	-	-	198,987.65
147+00	25.00	1,220.36	-	-	1,180	-	-	200,171	3	-	-	200,167.99
147+25	25.00	1,191.95	-	-	1,117	-	-	201,288	3	-	-	201,284.80
147+50	25.00	1,115.20	-	-	1,068	-	-	202,356	3	-	-	202,352.93
147+75	25.00	1,055.44	-	-	1,005	-	-	203,361	3	-	-	203,357.86
148+00	25.00	1,005.17	-	-	954	-	-	204,315	3	-	-	204,311.84
148+25	25.00	1,017.71	0.39	-	937	0	-	205,252	3	-	-	205,248.14
148+50	25.00	1,074.92	0.99	-	969	1	-	206,220	4	-	-	206,216.15
148+75	25.00	1,157.61	0.62	-	1,034	1	-	207,254	5	-	-	207,248.80
149+00	25.00	1,294.13	-	-	1,135	0	-	208,389	6	-	-	208,383.50
149+25	25.00	1,451.47	-	-	1,271	-	-	209,660	6	-	-	209,654.61
149+50	25.00	1,567.86	-	-	1,398	-	-	211,058	6	-	-	211,052.45
149+75	25.00	1,631.16	-	-	1,481	-	-	212,539	6	-	-	212,533.47

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
150+00	25.00	1,685.23	-	-	1,535	-	-	214,074	6	-	-	214,068.84
150+25	25.00	1,657.21	-	-	1,547	-	-	215,622	6	-	-	215,616.27
150+50	25.00	1,592.16	-	-	1,504	-	-	217,126	6	-	-	217,120.61
150+75	25.00	1,511.13	-	-	1,437	-	-	218,563	6	-	-	218,557.32
151+00	25.00	1,422.41	0.66	-	1,358	0	-	219,921	6	-	-	219,915.05
151+25	25.00	1,332.36	2.17	-	1,275	1	-	221,196	8	-	-	221,188.78
151+50	25.00	1,221.64	6.18	-	1,182	4	-	222,379	12	-	-	222,366.35
151+53.37	3.37	1,204.23	7.08	-	151	1	-	222,530	13	-	-	222,516.64
151+75	21.63	1,094.39	1.09	-	921	3	-	223,451	18	-	-	223,433.34
152+00	25.00	987.62	1.88	-	964	1	-	224,415	19	-	-	224,395.52
152+25	25.00	888.46	2.66	-	869	2	-	225,283	22	-	-	225,261.45
152+43.37	18.37	807.79	5.12	-	577	3	-	225,860	25	-	-	225,835.13
152+50	6.63	776.21	6.20	-	195	1	-	226,055	27	-	-	226,027.92
152+75	25.00	667.88	7.37	66.37	669	6	31	226,723	35	40	24.58	226,624.09
153+00	25.00	547.79	22.16	84.86	563	14	70	227,286	52	131	80.59	227,022.79
153+25	25.00	435.02	40.58	90.68	455	29	81	227,741	88	237	145.61	227,270.82
153+33.37	8.37	402.51	46.43	92.44	130	13	28	227,871	105	274	168.31	227,324.17
153+50	16.63	354.50	56.21	98.58	233	32	59	228,104	145	350	215.38	227,394.26
153+75	25.00	288.84	67.83	128.24	298	57	105	228,402	216	487	299.39	227,399.79
154+00	25.00	248.49	70.55	146.76	249	64	127	228,651	296	652	401.24	227,301.11
154+23.37	23.37	253.27	58.70	159.97	217	56	133	228,868	366	825	507.43	227,169.58
154+25	1.63	253.32	57.10	160.83	15	3	10	228,883	371	837	515.18	227,160.16
154+50	25.00	244.76	55.59	172.73	231	52	154	229,114	436	1,038	638.72	227,001.24
154+75	25.00	223.94	63.91	182.00	217	55	164	229,331	505	1,251	770.10	226,804.20
155+00	25.00	169.07	89.62	192.38	182	71	173	229,513	594	1,477	908.76	226,533.32
155+13.37	13.37	141.58	105.17	192.06	77	48	95	229,590	654	1,600	984.90	226,350.08
155+25	11.63	126.42	122.21	189.67	58	49	82	229,647	715	1,707	1,050.68	226,173.91
155+50	25.00	110.61	156.70	169.07	110	129	166	229,757	877	1,923	1,183.55	225,773.47
155+75	25.00	79.55	211.28	152.44	88	170	149	229,845	1,090	2,117	1,302.63	225,335.98
156+00	25.00	62.95	234.46	150.07	66	206	140	229,911	1,348	2,299	1,414.67	224,849.89
156+25	25.00	74.70	258.53	122.97	64	228	126	229,975	1,633	2,463	1,515.79	224,362.87
156+50	25.00	86.27	277.47	111.57	75	248	109	230,049	1,943	2,604	1,602.65	223,899.19
156+75	25.00	95.56	298.63	107.77	84	267	102	230,134	2,277	2,736	1,683.89	223,436.73
157+00	25.00	67.52	343.89	112.83	76	297	102	230,209	2,648	2,869	1,765.59	222,925.94
157+25	25.00	37.35	399.97	113.85	49	344	105	230,258	3,079	3,006	1,849.55	222,323.64
157+50	25.00	39.38	443.68	102.71	36	391	100	230,293	3,567	3,136	1,929.76	221,660.39
157+75	25.00	34.87	472.14	93.14	34	424	91	230,327	4,097	3,254	2,002.29	220,974.36
158+00	25.00	22.70	514.60	72.16	27	457	77	230,354	4,668	3,353	2,063.51	220,269.27
158+25	25.00	16.85	505.27	83.03	18	472	72	230,372	5,258	3,447	2,120.99	219,546.49
158+50	25.00	19.09	442.10	97.59	17	439	84	230,389	5,807	3,555	2,187.89	218,839.28
158+75	25.00	22.59	391.13	129.25	19	386	105	230,408	6,289	3,692	2,271.91	218,155.84
159+00	25.00	24.42	330.15	171.15	22	334	139	230,430	6,706	3,873	2,383.17	217,468.14
159+25	25.00	18.51	290.09	200.73	20	287	172	230,450	7,065	4,096	2,520.90	216,767.53
159+50	25.00	27.47	272.30	208.14	21	260	189	230,471	7,391	4,343	2,672.33	216,065.85
159+75	25.00	33.56	256.56	215.80	28	245	196	230,500	7,697	4,598	2,829.35	215,375.88

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
160+00	25.00	39.30	245.26	220.98	34	232	202	230,533	7,987	4,861	2,991.12	214,694.56
160+25	25.00	42.97	231.50	230.74	38	221	209	230,571	8,263	5,132	3,158.42	214,017.57
160+50	25.00	54.13	225.55	232.25	45	212	214	230,616	8,527	5,411	3,329.90	213,347.89
160+75	25.00	56.08	223.26	235.19	51	208	216	230,667	8,787	5,692	3,503.03	212,684.72
161+00	25.00	61.79	204.50	242.85	55	198	221	230,722	9,035	5,980	3,680.08	212,026.99
161+25	25.00	72.68	196.06	241.19	62	185	224	230,784	9,267	6,271	3,859.35	211,386.85
161+50	25.00	80.82	179.54	241.38	71	174	223	230,855	9,484	6,562	4,038.08	210,771.39
161+75	25.00	96.38	162.86	240.39	82	159	223	230,937	9,682	6,852	4,216.51	210,186.89
162+00	25.00	108.91	143.70	235.63	95	142	220	231,032	9,859	7,138	4,392.81	209,641.73
162+25	25.00	118.61	129.81	235.29	105	127	218	231,138	10,018	7,422	4,567.23	209,130.95
162+50	25.00	126.58	125.56	230.82	114	118	216	231,251	10,166	7,702	4,739.86	208,643.52
162+75	25.00	130.00	122.58	226.63	119	115	212	231,370	10,309	7,978	4,909.29	208,173.96
163+00	25.00	147.26	121.20	219.34	128	113	206	231,498	10,450	8,246	5,074.46	207,727.66
163+25	25.00	152.75	113.74	208.29	139	109	198	231,637	10,586	8,503	5,232.84	207,314.85
163+50	25.00	164.46	102.71	199.97	147	100	189	231,784	10,711	8,749	5,384.05	206,939.52
163+75	25.00	170.20	93.57	196.38	155	91	183	231,939	10,825	8,988	5,530.85	206,595.53
164+00	25.00	174.97	79.65	194.12	160	80	181	232,099	10,925	9,223	5,675.48	206,275.43
164+25	25.00	184.94	41.64	186.11	167	56	176	232,265	10,995	9,451	5,816.31	206,002.19
164+50	25.00	210.42	18.49	160.79	183	28	161	232,448	11,030	9,660	5,944.79	205,813.17
164+75	25.00	281.02	5.21	116.74	228	11	128	232,676	11,044	9,827	6,047.58	205,757.16
165+00	25.00	318.83	3.68	89.95	278	4	96	232,954	11,049	9,952	6,124.13	205,828.77
165+25	25.00	327.77	8.73	100.26	299	6	88	233,253	11,056	10,066	6,194.57	205,936.02
165+50	25.00	344.31	20.97	119.68	311	14	102	233,564	11,073	10,199	6,276.03	206,016.15
165+75	25.00	335.89	49.16	134.57	315	32	118	233,879	11,114	10,352	6,370.19	206,043.29
166+00	25.00	315.59	81.34	156.88	302	60	135	234,181	11,190	10,527	6,478.14	205,986.02
166+25	25.00	302.89	110.33	99.28	286	89	119	234,467	11,301	10,681	6,573.02	205,912.39
166+50	25.00	291.73	119.75	162.35	275	107	121	234,742	11,434	10,839	6,669.92	205,800.16
166+75	25.00	272.90	116.68	205.81	261	109	170	235,004	11,570	11,060	6,806.27	205,566.82
167+00	25.00	268.88	110.65	211.22	251	105	193	235,255	11,702	11,311	6,960.72	205,280.65
167+25	25.00	287.76	94.36	208.29	258	95	194	235,512	11,821	11,564	7,116.10	205,011.86
167+50	25.00	322.41	67.25	197.45	282	75	188	235,795	11,914	11,808	7,266.37	204,806.36
167+56.61	6.61	328.97	61.40	194.70	80	16	48	235,874	11,934	11,870	7,304.74	204,765.64
167+75	18.39	8.02	45.80	132.38	115	37	111	235,989	11,980	12,015	7,393.87	204,600.81
168+00	25.00	26.78	27.63	116.67	16	34	115	236,005	12,022	12,165	7,486.11	204,332.29
168+25	25.00	68.29	14.56	85.32	44	20	94	236,049	12,046	12,287	7,560.92	204,155.52
168+50	25.00	123.68	2.17	-	89	8	39	236,138	12,056	12,338	7,592.52	204,151.77
168+75	25.00	194.05	-	-	147	1	-	236,285	12,057	12,338	7,592.52	204,297.61
169+00	25.00	270.27	-	-	215	-	-	236,500	12,057	12,338	7,592.52	204,512.57
169+25	25.00	337.62	-	-	281	-	-	236,782	12,057	12,338	7,592.52	204,794.00
169+50	25.00	426.54	-	-	354	-	-	237,136	12,057	12,338	7,592.52	205,147.78
169+75	25.00	518.74	-	-	438	-	-	237,573	12,057	12,338	7,592.52	205,585.41
170+00	25.00	611.15	-	-	523	-	-	238,096	12,057	12,338	7,592.52	206,108.51
170+25	25.00	695.25	-	-	605	-	-	238,701	12,057	12,338	7,592.52	206,713.33
170+50	25.00	780.26	-	-	683	-	-	239,384	12,057	12,338	7,592.52	207,396.43
170+75	25.00	885.86	-	-	771	-	-	240,156	12,057	12,338	7,592.52	208,167.79

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PROJECT: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EARTHWORK DETAILS: STH 64 – SOUTH OF CTH E	SHEET:	E

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
171+00	25.00	1,112.58	-	-	925	-	-	241,081	12,057	12,338	7,592.52	209,092.99
171+25	25.00	1,255.16	-	-	1,096	-	-	242,177	12,057	12,338	7,592.52	210,189.16
171+50	25.00	1,258.85	-	-	1,164	-	-	243,341	12,057	12,338	7,592.52	211,353.06
171+75	25.00	1,302.41	-	-	1,186	-	-	244,527	12,057	12,338	7,592.52	212,538.83
172+00	25.00	1,396.72	-	-	1,250	-	-	245,776	12,057	12,338	7,592.52	213,788.42
172+25	25.00	1,465.12	-	-	1,325	-	-	247,101	12,057	12,338	7,592.52	215,113.35
172+50	25.00	1,540.37	-	-	1,391	-	-	248,493	12,057	12,338	7,592.52	216,504.78
172+75	25.00	1,635.51	-	-	1,470	-	-	249,963	12,057	12,338	7,592.52	217,975.09
173+00	25.00	1,748.24	-	-	1,567	-	-	251,529	12,057	12,338	7,592.52	219,541.65
173+25	25.00	1,839.78	-	-	1,661	-	-	253,191	12,057	12,338	7,592.52	221,202.77
173+50	25.00	1,951.69	-	-	1,755	-	-	254,946	12,057	12,338	7,592.52	222,958.08
173+75	25.00	2,088.67	-	-	1,871	-	-	256,816	12,057	12,338	7,592.52	224,828.61
174+00	25.00	2,230.05	-	-	1,999	-	-	258,816	12,057	12,338	7,592.52	226,828.02
174+25	25.00	2,399.42	-	-	2,143	-	-	260,959	12,057	12,338	7,592.52	228,971.30
174+50	25.00	2,553.21	-	-	2,293	-	-	263,252	12,057	12,338	7,592.52	231,264.18
174+75	25.00	2,760.58	0.63	-	2,460	0	-	265,712	12,058	12,338	7,592.52	233,723.90
175+00	25.00	2,810.77	0.75	-	2,579	1	-	268,291	12,059	12,338	7,592.52	236,302.43
175+25	25.00	2,852.81	-	-	2,622	0	-	270,913	12,059	12,338	7,592.52	238,924.03
175+50	25.00	2,904.79	-	-	2,666	-	-	273,579	12,059	12,338	7,592.52	241,589.59
175+75	25.00	2,984.89	-	-	2,727	-	-	276,306	12,059	12,338	7,592.52	244,316.29
176+00	25.00	3,074.31	-	-	2,805	-	-	279,111	12,059	12,338	7,592.52	247,121.47
176+25	25.00	3,147.99	1.19	-	2,881	1	-	281,991	12,060	12,338	7,592.52	250,001.48
176+50	25.00	3,149.83	3.56	-	2,916	2	-	284,907	12,062	12,338	7,592.52	252,914.38
176+75	25.00	3,057.97	0.81	-	2,874	2	-	287,781	12,065	12,338	7,592.52	255,785.83
177+00	25.00	2,855.78	0.50	-	2,738	1	-	290,519	12,066	12,338	7,592.52	258,522.92
177+25	25.00	2,643.13	-	-	2,546	0	-	293,065	12,066	12,338	7,592.52	261,068.43
177+50	25.00	2,472.14	0.26	-	2,368	0	-	295,433	12,066	12,338	7,592.52	263,436.46
177+75	25.00	2,425.11	0.24	-	2,267	0	-	297,700	12,066	12,338	7,592.52	265,703.41
178+00	25.00	2,506.54	-	-	2,283	0	-	299,983	12,067	12,338	7,592.52	267,986.44
178+25	25.00	2,675.79	5.03	-	2,399	2	-	302,383	12,069	12,338	7,592.52	270,382.75
178+50	25.00	2,805.54	8.05	-	2,538	6	-	304,920	12,077	12,338	7,592.52	272,912.84
178+75	25.00	2,885.15	9.29	-	2,635	8	-	307,555	12,087	12,338	7,592.52	275,537.38
179+00	25.00	2,930.22	9.64	-	2,692	9	-	310,247	12,098	12,338	7,592.52	278,218.73
179+25	25.00	2,940.73	4.78	-	2,718	7	-	312,965	12,106	12,338	7,592.52	280,928.41
179+50	25.00	2,459.57	5.91	-	2,500	5	-	315,465	12,113	12,338	7,592.52	283,422.36
179+75	25.00	1,776.48	4.49	-	1,961	5	-	317,426	12,119	12,338	7,592.52	285,377.48
180+00	25.00	1,183.77	-	-	1,370	2	-	318,797	12,121	12,338	7,592.52	286,745.37
180+25	25.00	849.33	186.89	-	941	87	-	319,738	12,229	12,338	7,592.52	287,578.47
180+50	25.00	943.73	1,021.26	-	830	559	-	320,568	12,929	12,338	7,592.52	287,709.43
180+75	25.00	928.45	1,947.52	-	867	1,374	-	321,435	14,647	12,338	7,592.52	286,858.14
181+00	25.00	845.44	3,054.87	-	821	2,316	-	322,256	17,541	12,338	7,592.52	284,784.48
181+25	25.00	726.81	3,262.58	-	728	2,925	-	322,984	21,197	12,338	7,592.52	281,856.44
181+50	25.00	702.48	3,722.46	-	662	3,234	-	323,646	25,240	12,338	7,592.52	278,475.88
181+75	25.00	753.01	3,861.36	-	674	3,511	-	324,320	29,628	12,338	7,592.52	274,760.93
182+00	25.00	798.17	3,655.63	-	718	3,480	-	325,038	33,979	12,338	7,592.52	271,128.96
182+25	25.00	835.53	2,771.46	-	756	2,976	-	325,794	37,698	12,338	7,592.52	268,165.92
182+50	25.00	902.95	1,798.02	-	805	2,116	-	326,599	40,342	12,338	7,592.52	266,326.39
182+75	25.00	1,188.61	990.33	-	968	1,291	-	327,567	41,956	12,338	7,592.52	265,681.08
183+00	25.00	1,862.61	582.47	-	1,413	728	-	328,980	42,866	12,338	7,592.52	266,183.50
183+25	25.00	2,357.93	246.27	-	1,954	384	-	330,934	43,346	12,338	7,592.52	267,657.86
183+50	25.00	2,273.62	25.11	-	2,144	126	-	333,078	43,503	12,338	7,592.52	269,645.05
183+75	25.00	2,167.07	-	-	2,056	12	-	335,134	43,517	12,338	7,592.52	271,686.39
184+00	25.00	1,053.25	-	-	1,491	-	-	336,625	43,517	12,338	7,592.52	273,177.28
184+25	25.00	75.23	-	-	522	-	-	337,147	43,517	12,338	7,592.52	273,699.72
184+32.22	7.22	0.12	-	-	10	-	-	337,157	43,517	12,338	7,592.52	273,709.79
					337,157	34,814	9,491					

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
29+28.54	0.00	4.14	3,036.29	-	-	-	-	-	-	-	-	0.00
29+50	21.46	-	3,631.51	-	2	2,650	-	2	3,313	-	-	-3,311.19
29+69.67	19.67	-	3,852.86	-	-	2,726	-	2	6,721	-	-	-6,718.94
29+75	5.33	-	3,848.50	-	-	760	-	2	7,671	-	-	-7,669.20
30+00	25.00	-	3,827.19	-	-	3,554	-	2	12,113	-	-	-12,111.15
30+25	25.00	-	3,829.61	-	-	3,545	-	2	16,544	-	-	-16,542.17
30+50	25.00	-	4,173.22	-	-	3,705	-	2	21,175	-	-	-21,173.44
30+75	25.00	-	4,348.54	-	-	3,945	-	2	26,107	-	-	-26,105.02
31+00	25.00	1.27	4,245.93	-	1	3,979	-	2	31,080	-	-	-31,078.08
31+09.81	9.81	13.39	4,110.38	-	3	1,518	-	5	32,978	-	-	-32,972.86
31+25	15.19	7.89	2,266.07	-	6	1,794	-	11	35,220	-	-	-35,209.07
31+50	25.00	13.32	3,837.72	-	10	2,826	-	21	38,752	-	-	-38,731.54
31+75	25.00	136.52	3,519.63	-	69	3,406	-	90	43,010	-	-	-42,919.90
31+96.01	21.01	240.77	3,242.39	-	147	2,631	-	237	46,299	-	-	-46,061.68
32+00	3.99	293.12	3,168.99	-	39	474	-	276	46,891	-	-	-46,614.47
32+25	25.00	318.05	3,132.60	-	283	2,917	-	559	50,538	-	-	-49,978.27
32+50	25.00	332.18	2,941.26	-	301	2,812	-	860	54,053	-	-	-53,192.20
32+75	25.00	318.04	3,065.31	-	301	2,781	-	1,161	57,529	-	-	-56,367.20
32+86.63	11.63	315.38	3,053.63	-	136	1,317	-	1,298	59,175	-	-	-57,877.62
					1,298	47,340	0					

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
37+07.96	0.00	-	3,160.75	-	-	-	-	-	-	-	-	0.00
37+25	17.04	-	4,914.31	-	-	2,548	-	-	3,184	-	-	-3,184.49
37+40.91	15.91	-	5,248.24	-	-	2,994	-	-	6,927	-	-	-6,927.31
37+50	9.09	-	5,437.60	-	-	1,799	-	-	9,176	-	-	-9,175.71
37+75	25.00	-	5,674.83	-	-	5,145	-	-	15,607	-	-	-15,606.51
38+00	25.00	-	5,515.59	-	-	5,181	-	-	22,082	-	-	-22,082.45
38+25	25.00	-	5,327.84	-	-	5,020	-	-	28,358	-	-	-28,357.59
38+50	25.00	-	5,275.37	-	-	4,909	-	-	34,494	-	-	-34,493.70
38+75	25.00	-	4,876.74	-	-	4,700	-	-	40,369	-	-	-40,368.76
38+84.26	9.26	-	4,661.43	-	-	1,636	-	-	42,414	-	-	-42,414.08
39+00	15.74	-	2,680.09	-	-	2,139	-	-	45,088	-	-	-45,088.37
39+25	25.00	-	3,671.91	-	-	2,941	-	-	48,764	-	-	-48,764.30
39+50	25.00	-	3,929.28	-	-	3,519	-	-	53,163	-	-	-53,163.14
39+75	25.00	-	3,266.17	-	-	3,331	-	-	57,327	-	-	-57,327.17
39+92.94	17.94	-	3,054.46	-	-	2,100	-	-	59,953	-	-	-59,952.61
40+00	7.06	-	3,031.50	-	-	795	-	-	60,947	-	-	-60,946.61
40+22.58	22.58	-	2,894.33	137.64	-	2,478	58	-	64,044	75	46.05	-64,165.13
40+25	2.42	-	2,880.76	154.18	-	259	13	-	64,367	92	56.50	-64,515.78
40+50	25.00	-	2,734.98	326.72	-	2,600	223	-	67,617	381	234.61	-68,233.17
40+75	25.00	-	2,646.03	325.97	-	2,491	302	-	70,731	774	476.35	-71,981.74
40+94.51	19.51	-	2,450.35	307.74	-	1,841	229	-	73,032	1,072	659.47	-74,763.51
41+00	5.49	-	2,483.56	301.79	-	502	62	-	73,660	1,152	709.09	-75,521.31
41+25	25.00	-	2,268.55	287.34	-	2,200	273	-	76,410	1,507	927.28	-78,844.14
41+50	25.00	-	2,098.51	269.82	-	2,022	258	-	78,937	1,842	1,133.64	-81,913.06
41+75	25.00	-	1,357.88	255.88	-	1,600	243	-	80,937	2,159	1,328.34	-84,424.38
41+91.96	16.96	-	372.04	206.29	-	543	145	-	81,617	2,347	1,444.46	-85,408.28
					0	65,293	1,806					

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
167+75	0.00	100.77	-	17.39	-	-	-	-	-	-	-	0.00
168+00	25.00	113.55	-	5.39	99	-	11	99	-	14	8.44	77.07
168+25	25.00	156.04	-	-	125	-	2	224	-	17	10.44	196.64
168+50	25.00	199.52	-	-	165	-	-	389	-	17	10.44	361.25
168+75	25.00	247.21	-	-	207	-	-	595	-	17	10.44	568.07
169+00	25.00	296.61	-	-	252	-	-	847	-	17	10.44	819.84
169+25	25.00	336.92	-	-	293	-	-	1,141	-	17	10.44	1,113.14
169+50	25.00	400.20	-	-	341	-	-	1,482	-	17	10.44	1,454.40
169+75	25.00	452.15	-	-	395	-	-	1,876	-	17	10.44	1,849.00
170+00	25.00	497.91	-	-	440	-	-	2,316	-	17	10.44	2,288.85
170+01.76	1.76	500.59	-	-	32	-	-	2,349	-	17	10.44	2,321.31
170+25	23.24	523.03	-	-	441	-	-	2,789	-	17	10.44	2,761.93
170+48.34	23.34	542.09	-	-	460	-	-	3,250	-	17	10.44	3,222.38
170+50	1.66	543.28	-	-	33	-	-	3,283	-	17	10.44	3,255.67
170+75	25.00	588.29	-	-	524	-	-	3,807	-	17	10.44	3,779.54
170+96.53	21.53	713.36	-	-	519	-	-	4,326	-	17	10.44	4,298.46
171+00	3.47	708.70	-	-	91	-	-	4,417	-	17	10.44	4,389.91
171+25	25.00	643.14	-	-	626	-	-	5,043	-	17	10.44	5,015.76
171+50	25.00	603.61	-	-	577	-	-	5,620	-	17	10.44	5,592.97
171+75	25.00	589.82	-	-	553	-	-	6,173	-	17	10.44	6,145.48
172+00	25.00	552.52	-	-	529	-	-	6,702	-	17	10.44	6,674.33
172+25	25.00	507.61	-	-	491	-	-	7,193	-	17	10.44	7,165.13
172+50	25.00	466.23	-	-	451	-	-	7,643	-	17	10.44	7,615.99
172+75	25.00	444.60	-	-	422	-	-	8,065	-	17	10.44	8,037.67
173+00	25.00	438.11	-	-	409	-	-	8,474	-	17	10.44	8,446.33
173+25	25.00	407.76	-	-	392	-	-	8,865	-	17	10.44	8,837.94
173+50	25.00	317.77	-	-	336	-	-	9,201	-	17	10.44	9,173.83
173+75	25.00	227.47	4.68	-	252	2	-	9,454	3	17	10.44	9,423.55
174+00	25.00	162.89	18.29	-	181	11	-	9,634	16	17	10.44	9,590.98
174+25	25.00	174.93	29.53	-	156	22	-	9,791	44	17	10.44	9,719.71
174+42.77	17.77	136.12	18.92	-	102	16	-	9,893	64	17	10.44	9,802.12
174+50	7.23	141.55	19.11	-	37	5	-	9,930	70	17	10.44	9,832.94
174+75	25.00	125.60	8.55	-	124	13	-	10,054	86	17	10.44	9,940.62
174+90.95	15.95	138.78	3.76	-	78	4	-	10,132	91	17	10.44	10,014.16
175+00	9.05	136.81	8.50	-	46	2	-	10,178	93	17	10.44	10,057.78
175+25	25.00	118.35	3.67	-	118	6	-	10,296	100	17	10.44	10,168.87
175+37.54	12.54	104.17	3.73	-	52	2	-	10,348	102	17	10.44	10,218.39
175+50	12.46	82.28	1.90	-	43	1	-	10,391	104	17	10.44	10,259.79
175+75	25.00	23.89	62.02	-	49	30	-	10,440	141	17	10.44	10,271.95
176+00	25.00	-	253.91	-	11	146	-	10,451	324	17	10.44	10,100.18
176+25	25.00	-	470.77	-	-	335	-	10,451	743	17	10.44	9,680.81
176+50	25.00	0.18	691.23	-	0	538	-	10,451	1,416	17	10.44	9,008.44
176+66.08	16.08	-	850.89	-	0	459	-	10,451	1,989	17	10.44	8,434.58
176+75	8.92	-	932.64	-	-	295	-	10,451	2,358	17	10.44	8,066.20
177+00	25.00	1.45	1,169.48	-	1	973	-	10,452	3,574	17	10.44	6,850.37

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PROJECT: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EARTHWORK DETAILS: SE RAMP	SHEET:	E

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
177+08.97	8.97	2.01	1,261.34	-	1	404	-	10,453	4,079	17	10.44	6,345.95
177+22.3	13.33	2.61	1,364.00	-	1	648	-	10,454	4,889	17	10.44	5,537.18
177+25	2.70	2.44	1,392.70	-	0	138	-	10,454	5,061	17	10.44	5,365.25
177+50	25.00	3.44	1,609.10	-	3	1,390	-	10,457	6,799	17	10.44	3,630.82
177+75	25.00	2.37	1,865.67	-	3	1,609	-	10,459	8,809	17	10.44	1,622.64
178+00	25.00	-	2,224.88	-	1	1,894	-	10,461	11,177	17	10.44	-743.48
178+25	25.00	-	2,643.51	-	-	2,254	-	10,461	13,994	17	10.44	-3,560.83
178+50	25.00	-	3,038.98	-	-	2,631	-	10,461	17,283	17	10.44	-6,849.31
178+75	25.00	-	3,422.34	-	-	2,991	-	10,461	21,022	17	10.44	-10,588.51
179+00	25.00	-	3,757.14	-	-	3,324	-	10,461	25,177	17	10.44	-14,743.30
179+25	25.00	-	3,965.23	-	-	3,575	-	10,461	29,645	17	10.44	-19,212.26
179+50	25.00	-	4,107.06	-	-	3,737	-	10,461	34,317	17	10.44	-23,883.73
179+75	25.00	-	4,125.27	-	-	3,811	-	10,461	39,081	17	10.44	-28,647.81
179+85.97	10.97	-	4,109.67	-	-	1,673	-	10,461	41,172	17	10.44	-30,738.77
180+00	14.03	-	4,097.91	-	-	2,133	-	10,461	43,838	17	10.44	-33,404.52
180+25	25.00	-	4,181.42	-	-	3,833	-	10,461	48,629	17	10.44	-38,195.80
180+41.89	16.89	-	4,316.26	-	-	2,658	-	10,461	51,952	17	10.44	-41,518.41
180+50	8.11	-	4,385.47	-	-	1,307	-	10,461	53,585	17	10.44	-43,151.74
180+75	25.00	-	4,616.59	-	-	4,168	-	10,461	58,794	17	10.44	-48,361.26
180+98.12	23.12	-	4,840.31	-	-	4,048	-	10,461	63,855	17	10.44	-53,421.54
181+00	1.88	-	4,857.91	-	-	338	-	10,461	64,278	17	10.44	-53,844.54
					10,461	51,422	13					

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
167+64.23	0.00	251.20	-	29.43	-	-	-	-	-	-	-	0.00
167+71.16	6.93	256.99	-	19.38	65	-	6	65	-	8	5.01	52.09
167+75	3.84	261.04	-	18.38	37	-	3	102	-	12	7.16	83.28
168+00	25.00	296.50	-	10.05	258	-	13	360	-	29	17.69	313.76
168+25	25.00	332.44	-	3.67	291	-	6	651	-	37	22.78	591.60
168+50	25.00	364.24	-	-	323	-	2	974	-	39	24.13	910.57
168+75	25.00	399.65	-	-	354	-	-	1,328	-	39	24.13	1,264.23
169+00	25.00	427.57	-	-	383	-	-	1,711	-	39	24.13	1,647.21
169+25	25.00	451.02	-	-	407	-	-	2,117	-	39	24.13	2,053.96
169+50	25.00	480.97	-	-	431	-	-	2,549	-	39	24.13	2,485.44
169+75	25.00	504.10	-	-	456	-	-	3,005	-	39	24.13	2,941.49
170+00	25.00	519.79	-	-	474	-	-	3,479	-	39	24.13	3,415.51
170+25	25.00	550.81	-	-	496	-	-	3,975	-	39	24.13	3,911.16
170+28.61	3.61	553.21	-	-	74	-	-	4,048	-	39	24.13	3,984.94
170+50	21.39	578.90	-	-	448	-	-	4,497	-	39	24.13	4,433.41
170+75	25.00	629.78	-	-	560	-	-	5,056	-	39	24.13	4,992.98
171+00	25.00	698.85	-	-	615	-	-	5,671	-	39	24.13	5,608.09
171+25	25.00	836.82	-	-	711	-	-	6,382	-	39	24.13	6,319.04
171+50	25.00	950.05	-	-	827	-	-	7,210	-	39	24.13	7,146.30
171+75	25.00	989.79	-	-	898	-	-	8,108	-	39	24.13	8,044.37
172+00	25.00	965.54	-	-	905	-	-	9,013	-	39	24.13	8,949.62
172+25	25.00	960.85	-	-	892	-	-	9,905	-	39	24.13	9,841.47
172+50	25.00	938.47	-	-	879	-	-	10,784	-	39	24.13	10,720.78
172+75	25.00	933.78	-	-	867	-	-	11,651	-	39	24.13	11,587.56
172+86.06	11.06	935.62	-	-	383	-	-	12,034	-	39	24.13	11,970.30
173+00	13.94	939.00	-	-	484	-	-	12,518	-	39	24.13	12,454.37
173+25	25.00	959.49	-	-	879	-	-	13,397	-	39	24.13	13,333.30
173+34.24	9.24	979.57	-	-	332	-	-	13,728	-	39	24.13	13,665.07
173+50	15.76	1,010.53	-	-	581	-	-	14,309	-	39	24.13	14,245.91
173+75	25.00	1,080.44	-	-	968	-	-	15,277	-	39	24.13	15,213.95
173+80.83	5.83	1,103.15	-	-	236	-	-	15,513	-	39	24.13	15,449.61
174+00	19.17	1,241.56	-	-	832	-	-	16,345	-	39	24.13	16,282.08
174+25	25.00	1,447.19	-	-	1,245	-	-	17,590	-	39	24.13	17,526.87
174+50	25.00	1,799.84	-	-	1,503	-	-	19,093	-	39	24.13	19,030.12
174+75	25.00	2,016.79	-	-	1,767	-	-	20,860	-	39	24.13	20,797.08
175+00	25.00	2,167.08	0.24	-	1,937	0	-	22,797	0	39	24.13	22,733.91
175+25	25.00	2,256.92	-	-	2,048	0	-	24,846	0	39	24.13	24,781.92
175+50	25.00	2,293.17	-	-	2,107	-	-	26,952	0	39	24.13	26,888.44
175+75	25.00	2,343.28	5.17	-	2,147	2	-	29,099	3	39	24.13	29,031.95
176+00	25.00	2,393.83	72.58	-	2,193	36	-	31,292	48	39	24.13	31,180.06
176+21.38	21.38	2,489.68	160.85	-	1,933	92	-	33,225	164	39	24.13	32,997.75
176+25	3.62	2,503.00	170.35	-	335	22	-	33,560	192	39	24.13	33,304.98
176+50	25.00	2,591.14	232.91	-	2,358	187	-	35,918	425	39	24.13	35,430.01
176+55.38	5.38	2,610.49	246.11	-	518	48	-	36,436	485	39	24.13	35,888.31
176+75	19.62	2,680.53	297.04	-	1,923	197	-	38,359	731	39	24.13	37,564.32

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut	Fill	EBS	Cut 1.00	Expanded Fill 1.25	Expanded EBS Backfill 1.30	Reduced EBS In Fill 0.80	
					Note 1	Note 3		Note 1		Note 5	Note 7	Note 8
177+00	25.00	2,763.59	359.77	-	2,520	304	-	40,879	1,111	39	24.13	39,704.64
177+00.94	0.94	2,765.58	362.28	-	96	13	-	40,975	1,127	39	24.13	39,784.89
177+23.38	22.44	2,803.39	411.57	-	2,314	322	-	43,289	1,529	39	24.13	41,697.14
177+25	1.62	2,803.02	415.51	-	169	25	-	43,458	1,560	39	24.13	41,834.60
177+50	25.00	2,767.30	470.98	-	2,579	410	-	46,037	2,073	39	24.13	43,900.43
177+75	25.00	2,686.76	529.22	-	2,525	463	-	48,562	2,652	39	24.13	45,846.64
178+00	25.00	2,603.12	610.45	-	2,449	528	-	51,011	3,311	39	24.13	47,636.13
178+25	25.00	2,520.34	694.57	-	2,372	604	-	53,383	4,067	39	24.13	49,252.87
178+50	25.00	2,438.86	800.51	-	2,296	692	-	55,679	4,932	39	24.13	50,683.59
178+75	25.00	2,386.44	912.47	-	2,234	793	-	57,913	5,923	39	24.13	51,926.21
179+00	25.00	2,432.11	987.23	-	2,231	879	-	60,144	7,023	39	24.13	53,057.66
179+05.24	5.24	2,441.76	988.97	-	473	192	-	60,617	7,262	39	24.13	53,291.05
179+25	19.76	2,414.33	1,003.10	-	1,777	729	-	62,393	8,173	39	24.13	54,156.68
179+50	25.00	1,838.26	1,025.74	-	1,969	939	-	64,362	9,348	39	24.13	54,951.37
179+75	25.00	1,486.78	1,048.31	-	1,539	960	-	65,902	10,548	39	24.13	55,290.48
180+00	25.00	809.12	1,116.73	-	1,063	1,002	-	66,965	11,801	39	24.13	55,100.48
180+01.81	1.81	750.96	1,116.45	-	52	75	-	67,017	11,895	39	24.13	55,059.11
180+25	23.19	131.64	1,159.66	-	379	977	-	67,396	13,116	39	24.13	54,216.47
180+50	25.00	89.83	1,250.33	-	103	1,116	-	67,498	14,511	39	24.13	52,924.33
180+75	25.00	64.45	1,263.69	-	71	1,164	-	67,570	15,966	39	24.13	51,540.88
180+87.11	12.11	54.51	1,249.56	-	27	564	-	67,597	16,670	39	24.13	50,863.02
181+00	12.89	45.61	1,192.23	-	24	583	-	67,620	17,399	39	24.13	50,158.36

67,620 13,919 30

PROJECT: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EARTHWORK DETAILS: SW RAMP	SHEET:	E

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
181+75	0.00	1,857.09	2,731.56	-	-	-	-	-	-	-	-	0.00
181+87.88	12.88	1,914.74	2,657.21	-	900	1,285	-	900	1,607	-	-	-706.95
182+00	12.12	1,967.69	2,585.76	-	871	1,177	-	1,771	3,078	-	-	-1,306.55
182+25	25.00	2,065.77	2,440.23	-	1,867	2,327	-	3,638	5,986	-	-	-2,347.77
182+44.1	19.10	2,134.88	2,327.30	-	1,486	1,687	-	5,124	8,094	-	-	-2,969.97
182+50	5.90	2,155.26	2,295.68	-	468	505	-	5,593	8,725	-	-	-3,132.51
182+62.11	12.11	2,201.90	2,218.29	-	977	1,012	-	6,570	9,990	-	-	-3,420.66
182+75	12.89	2,226.45	2,106.04	-	1,057	1,033	-	7,627	11,281	-	-	-3,653.96
183+00	25.00	2,152.17	1,890.68	-	2,027	1,850	-	9,654	13,594	-	-	-3,939.74
183+25	25.00	1,812.66	1,605.97	-	1,836	1,619	-	11,490	15,618	-	-	-4,127.69
183+50	25.00	1,161.25	1,319.87	-	1,377	1,355	-	12,867	17,311	-	-	-4,444.07
183+75	25.00	130.73	256.00	-	598	730	-	13,465	18,223	-	-	-4,757.89
					13,465	14,578	0					

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PROJECT: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EARTHWORK DETAILS: NW RAMP - SOUTH	SHEET:	E

ESTIMATE FILE NAME: N:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\AD.HTML
PLOT DATE: 10/3/2013 8:24:02 AM PLOT BY: DOTERA PLOT NAME: ALI DETAILS PLOT SCALE: NONE
MISCELLANEOUSE QUANTITIES FILE NAME: N:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\8110-02-71_ALI.PPTX

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
00+00	0.00	-	-	-	-	-	-	-	-	-	-	0.00
00+25	25.00	822.56	-	-	381	-	-	381	-	-	-	380.81
00+50	25.00	4,418.24	-	-	2,426	-	-	2,807	-	-	-	2,807.11
00+75	25.00	8,366.87	-	-	5,919	-	-	8,726	-	-	-	8,726.14
01+00	25.00	11,363.75	-	-	9,135	-	-	17,861	-	-	-	17,860.69
01+25	25.00	12,803.44	-	-	11,189	-	-	29,049	-	-	-	29,049.20
01+50	25.00	12,850.39	-	-	11,877	-	-	40,926	-	-	-	40,925.98
01+75	25.00	12,575.13	-	-	11,771	-	-	52,697	-	-	-	52,697.05
02+00	25.00	12,097.85	-	-	11,423	-	-	64,120	-	-	-	64,119.73
02+25	25.00	11,533.69	-	-	10,941	-	-	75,060	-	-	-	75,060.25
02+50	25.00	10,985.59	-	-	10,426	-	-	85,486	-	-	-	85,485.85
02+75	25.00	10,428.07	-	-	9,914	-	-	95,400	-	-	-	95,399.58
03+00	25.00	9,857.80	-	-	9,392	-	-	104,791	-	-	-	104,791.19
03+25	25.00	9,171.03	-	-	8,810	-	-	113,601	-	-	-	113,600.83
03+50	25.00	8,417.58	-	-	8,143	-	-	121,744	-	-	-	121,743.70
03+75	25.00	7,938.80	-	-	7,572	-	-	129,316	-	-	-	129,316.10
04+00	25.00	7,723.40	-	-	7,251	-	-	136,567	-	-	-	136,567.12
04+25	25.00	7,464.65	-	-	7,032	-	-	143,599	-	-	-	143,598.63
04+50	25.00	7,123.12	-	-	6,754	-	-	150,352	-	-	-	150,352.22
04+75	25.00	6,634.70	-	-	6,369	-	-	156,722	-	-	-	156,721.58
05+00	25.00	5,940.05	-	-	5,822	-	-	162,543	-	-	-	162,543.23
05+25	25.00	4,875.06	-	-	5,007	-	-	167,550	-	-	-	167,550.22
05+50	25.00	3,403.15	-	-	3,833	-	-	171,383	-	-	-	171,382.73
05+75	25.00	1,829.43	-	-	2,422	-	-	173,805	-	-	-	173,805.22
06+00	25.00	458.86	-	-	1,059	-	-	174,865	-	-	-	174,864.61
06+25	25.00	-	-	-	212	-	-	175,077	-	-	-	175,077.05
06+50	25.00	-	-	-	-	-	-	175,077	-	-	-	175,077.05
06+62.92	12.92	-	-	-	-	-	-	175,077	-	-	-	175,077.05
					175,077	0	0					

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PROJECT: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EARTHWORK DETAILS: BRIDGE POND	SHEET:	E

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
262+40	0.00	14.41	11.90	-	-	-	-	-	-	-	-	0.00
262+50	10.00	15.12	10.41	-	5	4	-	5	5	-	-	0.31
262+75	25.00	17.21	4.91	-	15	7	-	20	14	-	-	6.41
263+00	25.00	19.80	5.87	-	17	5	-	38	20	-	-	17.30
263+25	25.00	23.34	9.54	-	20	7	-	58	29	-	-	28.36
263+50	25.00	47.45	12.54	-	33	10	-	90	42	-	-	48.35
263+75	25.00	51.95	13.80	-	46	12	-	136	57	-	-	79.13
264+00	25.00	55.94	15.18	-	50	13	-	186	74	-	-	112.31
264+25	25.00	71.68	16.65	-	59	15	-	245	92	-	-	152.97
264+50	25.00	55.86	20.05	-	59	17	-	304	114	-	-	190.78
264+75	25.00	58.83	22.42	-	53	20	-	358	138	-	-	219.30
265+00	25.00	56.71	18.67	-	53	19	-	411	162	-	-	249.02
265+25	25.00	76.02	11.50	-	61	14	-	472	179	-	-	293.00
265+50	25.00	52.63	22.92	-	60	16	-	532	199	-	-	332.64
265+75	25.00	69.50	26.77	-	57	23	-	589	228	-	-	360.42
266+00	25.00	217.86	12.23	-	133	18	-	722	251	-	-	470.89
266+25	25.00	472.69	23.96	-	320	17	-	1,041	272	-	-	769.65
266+50	25.00	82.72	58.31	-	257	38	-	1,298	319	-	-	979.18
268+00	150.00	286.04	44.02	-	1,024	284	-	2,323	675	-	-	1,648.22
268+10.46	10.46	499.01	30.36	-	152	14	-	2,475	693	-	-	1,782.29
268+25	14.54	516.30	25.91	-	273	15	-	2,748	711	-	-	2,036.71
268+50	25.00	194.15	28.59	-	329	25	-	3,077	743	-	-	2,334.08
268+75	25.00	94.01	32.01	-	133	28	-	3,211	778	-	-	2,432.43
269+00	25.00	70.34	28.93	-	76	28	-	3,287	813	-	-	2,473.26
269+25	25.00	57.23	24.72	-	59	25	-	3,346	844	-	-	2,501.28
269+50	25.00	48.93	35.40	-	49	28	-	3,395	879	-	-	2,515.64
269+75	25.00	54.26	53.89	-	48	41	-	3,443	931	-	-	2,511.74
270+00	25.00	55.14	149.03	-	51	94	-	3,493	1,048	-	-	2,444.96
270+25	25.00	55.23	261.43	-	51	190	-	3,544	1,286	-	-	2,258.52
270+50	25.00	54.99	267.40	-	51	245	-	3,595	1,592	-	-	2,003.52
270+75	25.00	53.79	223.27	-	50	227	-	3,646	1,876	-	-	1,769.92
271+00	25.00	55.06	112.40	-	50	155	-	3,696	2,070	-	-	1,626.06
271+25	25.00	58.99	124.54	-	53	110	-	3,749	2,207	-	-	1,541.75
271+50	25.00	62.74	77.19	-	56	93	-	3,805	2,324	-	-	1,481.36
271+75	25.00	58.29	49.21	-	56	59	-	3,861	2,397	-	-	1,464.24
272+00	25.00	66.87	9.79	-	58	27	-	3,919	2,431	-	-	1,488.04
272+10	10.00	75.59	-	-	26	2	-	3,946	2,433	-	-	1,512.16
					3,946	1,947	0					

PROJECT: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EARTHWORK DETAILS: STH 35	SHEET:	E

ESTIMATE FILE NAME: N:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\AD.HTML PLOT DATE: 10/3/2013 8:24:02 AM PLOT BY: DOTERA PLOT NAME: ALI DETAILS PLOT SCALE: NONE
MISCELLANEOUSE QUANTITIES FILE NAME: N:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\8110-02-71_ALI.PPTX

STATION	Distance	AREA (SF) Cut	AREA (SF) Fill	AREA (SF) EBS	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Fill Note 3	Incremental Vol (CY) (Unadjusted) EBS	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.25	Cumulative Vol (CY) Expanded EBS Backfill 1.30 Note 5	Cumulative Vol (CY) Reduced EBS In Fill 0.80 Note 7	Mass Ordinate Note 8
185+06.46	0.00	-	-	-	-	-	-	-	-	-	-	0.00
185+25	18.54	1,283.14	-	-	441	-	-	441	-	-	-	440.58
185+50	25.00	1,951.04	-	-	1,497	-	-	1,938	-	-	-	1,937.89
185+75	25.00	1,856.38	-	-	1,763	-	-	3,701	-	-	-	3,700.58
186+00	25.00	1,762.34	-	-	1,675	-	-	5,376	-	-	-	5,375.92
186+25	25.00	1,689.38	-	-	1,598	-	-	6,974	-	-	-	6,973.94
186+50	25.00	1,671.42	-	-	1,556	-	-	8,530	-	-	-	8,529.86
186+75	25.00	1,675.26	-	-	1,549	-	-	10,079	-	-	-	10,079.25
187+00	25.00	1,705.65	-	-	1,565	-	-	11,644	-	-	-	11,644.49
187+25	25.00	1,668.84	-	-	1,562	-	-	13,207	-	-	-	13,206.75
187+50	25.00	1,615.84	0.29	-	1,521	0	-	14,727	0	-	-	14,727.27
187+75	25.00	1,529.84	2.24	-	1,456	1	-	16,184	2	-	-	16,182.14
188+00	25.00	1,365.09	6.38	-	1,340	4	-	17,524	7	-	-	17,517.40
188+25	25.00	1,099.72	14.69	-	1,141	10	-	18,665	19	-	-	18,646.32
188+50	25.00	885.02	25.19	102.59	919	18	47	19,584	42	62	38.00	19,442.36
188+75	25.00	725.08	49.77	137.13	745	35	111	20,329	85	206	126.78	19,911.34
189+00	25.00	605.04	50.20	176.98	616	46	145	20,945	143	395	243.12	20,163.90
189+25	25.00	525.54	111.72	213.67	523	75	181	21,469	237	630	387.80	20,213.82
189+50	25.00	354.44	147.35	108.12	407	120	149	21,876	387	824	506.98	20,158.44
189+75	25.00	192.01	153.69	105.02	253	139	99	22,129	561	952	585.92	20,029.99
190+00	25.00	121.95	115.78	116.32	145	125	102	22,274	717	1,085	667.90	19,804.21
190+25	25.00	175.49	80.36	136.05	138	91	117	22,412	830	1,237	761.37	19,583.05
190+50	25.00	254.69	65.03	202.00	199	67	157	22,611	915	1,441	886.58	19,369.41
190+75	25.00	380.11	56.09	140.98	294	56	159	22,905	985	1,647	1,013.61	19,259.75
191+00	25.00	532.18	50.84	121.38	422	50	121	23,327	1,047	1,805	1,110.78	19,365.14
191+25	25.00	310.96	47.89	129.09	390	46	116	23,718	1,104	1,956	1,203.55	19,454.84
191+50	25.00	264.63	45.08	127.45	266	43	119	23,984	1,157	2,110	1,298.56	19,418.10
191+75	25.00	206.42	44.90	158.27	218	42	132	24,202	1,210	2,282	1,404.38	19,306.34
192+00	25.00	174.29	49.76	166.23	176	44	150	24,379	1,264	2,477	1,524.57	19,112.33
192+25	25.00	143.16	45.89	163.98	147	44	153	24,526	1,320	2,676	1,646.86	18,882.92
192+50	25.00	144.93	36.97	157.97	133	38	149	24,659	1,368	2,870	1,766.10	18,655.33
192+75	25.00	157.90	25.99	137.69	140	29	137	24,799	1,404	3,048	1,875.61	18,471.64
193+00	25.00	168.73	17.31	125.74	151	20	122	24,950	1,429	3,206	1,973.17	18,341.69
193+25	25.00	168.19	11.09	117.19	156	13	112	25,106	1,446	3,353	2,063.15	18,245.06
193+50	25.00	165.90	6.57	108.45	155	8	104	25,261	1,456	3,488	2,146.72	18,170.13
193+75	25.00	163.59	4.01	97.31	153	5	95	25,414	1,462	3,612	2,222.92	18,116.51
194+00	25.00	163.00	2.31	92.04	151	3	88	25,565	1,466	3,726	2,293.05	18,079.96
194+25	25.00	155.54	2.67	86.87	147	2	83	25,712	1,468	3,834	2,359.31	18,050.62
194+50	25.00	174.74	3.87	153.62	153	3	111	25,865	1,472	3,979	2,448.38	17,965.93
194+75	25.00	155.74	7.01	176.21	153	5	153	26,018	1,479	4,177	2,570.54	17,791.97
195+00	25.00	146.48	9.28	186.22	140	8	168	26,158	1,488	4,395	2,704.78	17,570.10
195+25	25.00	143.58	9.28	44.18	134	9	107	26,292	1,499	4,534	2,790.11	17,469.64
195+50	25.00	149.06	5.84	176.23	135	7	102	26,428	1,507	4,667	2,871.75	17,382.09
195+75	25.00	133.59	6.73	186.88	131	6	168	26,559	1,515	4,885	3,006.23	17,152.65
196+00	25.00	118.86	11.46	201.11	117	8	180	26,676	1,525	5,119	3,149.93	16,881.79

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PROJECT: 8110-02-71 | HWY: STH 64 | COUNTY: ST. CROIX | EARTHWORK DETAILS: STH 64 – NORTH OF CTH E | SHEET: E

ESTIMATE FILE NAME: N:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\AD.HTML PLOT DATE: 10/3/2013 8:24:02 AM PLOT BY: DOTERA PLOT NAME: ALI DETAILS PLOT SCALE: NONE
MISCELLANEOUSE QUANTITIES FILE NAME: N:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\8110-02-71_ALI.PPTX

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
196+25	25.00	97.14	20.56	213.97	100	15	192	26,776	1,544	5,368	3,303.67	16,559.71
196+50	25.00	91.25	40.80	199.20	87	28	191	26,863	1,579	5,617	3,456.69	16,209.74
196+75	25.00	79.30	58.37	197.95	79	46	184	26,942	1,637	5,856	3,603.78	15,845.18
197+00	25.00	83.33	77.72	174.73	75	63	173	27,017	1,715	6,080	3,741.81	15,479.38
197+25	25.00	72.84	78.42	181.14	72	72	165	27,089	1,806	6,295	3,873.62	15,115.33
197+50	25.00	63.33	66.16	201.26	63	67	177	27,152	1,889	6,525	4,015.25	14,722.92
197+75	25.00	62.61	45.16	215.97	58	52	193	27,211	1,954	6,776	4,169.79	14,311.16
198+00	25.00	52.54	36.28	230.49	53	38	207	27,264	2,001	7,045	4,335.14	13,883.28
198+25	25.00	73.77	25.75	211.13	58	29	204	27,322	2,037	7,310	4,498.71	13,476.50
198+50	25.00	92.44	21.83	193.24	77	22	187	27,399	2,064	7,554	4,648.48	13,132.76
198+75	25.00	116.62	8.96	176.95	97	14	171	27,496	2,082	7,777	4,785.59	12,851.82
199+00	25.00	273.34	3.20	58.03	181	6	109	27,677	2,089	7,918	4,872.62	12,796.86
199+25	25.00	286.50	15.40	-	259	9	27	27,936	2,100	7,953	4,894.11	12,988.86
199+30.65	5.65	301.53	15.44	-	62	3	-	27,997	2,104	7,953	4,894.11	13,046.35
199+30.66	0.01	301.61	15.44	-	0	0	-	27,998	2,104	7,953	4,894.11	13,046.49
199+50	19.34	265.18	12.96	-	203	10	-	28,201	2,117	7,953	4,894.11	13,236.74
199+75	25.00	286.72	4.94	-	256	8	-	28,456	2,127	7,953	4,894.11	13,481.89
200+00	25.00	291.16	5.00	-	268	5	-	28,724	2,133	7,953	4,894.11	13,743.67
					28,724	1,706	6,118					

9

9

PROJECT: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EARTHWORK DETAILS: STH 64 – NORTH OF CTH E	SHEET:	E

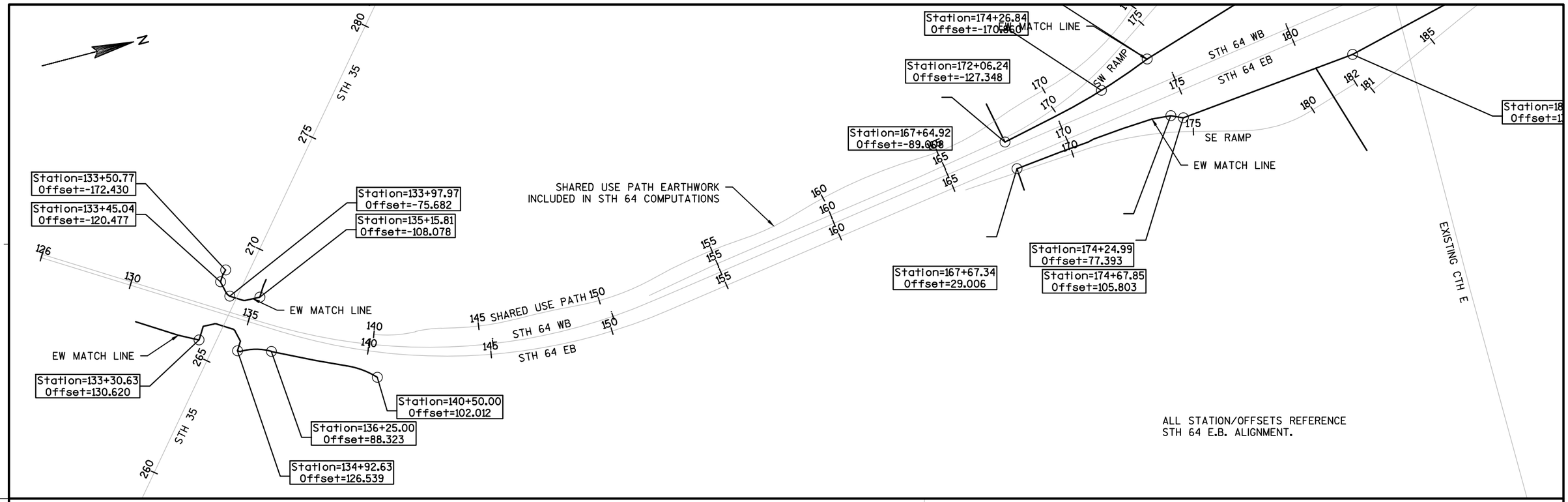
ESTIMATE FILE NAME: N:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\AD.HTML PLOT DATE: 10/3/2013 8:24:02 AM PLOT BY: DOTERA PLOT NAME: ALI DETAILS PLOT SCALE: NONE

MISCELLANEOUSE QUANTITIES FILE NAME: N:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\8110-02-71_ALI.PPTX

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
184+50	0.00	-	1.74	-	-	-	-	-	-	-	-	0.00
184+75	25.00	-	1,211.24	-	-	562	-	-	702	-	-	-701.96
185+00	25.00	-	1,121.03	-	-	1,080	-	-	2,052	-	-	-2,051.64
185+25	25.00	-	1,023.40	-	-	993	-	-	3,293	-	-	-3,292.63
185+50	25.00	-	990.69	-	-	932	-	-	4,458	-	-	-4,458.20
185+75	25.00	-	925.37	-	-	887	-	-	5,567	-	-	-5,567.03
186+00	25.00	-	868.04	-	-	830	-	-	6,605	-	-	-6,604.88
186+25	25.00	-	809.00	-	-	776	-	-	7,575	-	-	-7,575.39
186+50	25.00	-	751.42	-	-	722	-	-	8,478	-	-	-8,478.41
186+72.02	22.02	-	701.92	-	-	593	-	-	9,219	-	-	-9,219.06
186+75	2.98	-	695.45	-	-	77	-	-	9,316	-	-	-9,315.60
187+00	25.00	-	646.04	-	-	621	-	-	10,092	-	-	-10,091.92
187+25	25.00	-	596.68	-	-	575	-	-	10,811	-	-	-10,811.09
187+50	25.00	-	557.18	-	-	534	-	-	11,479	-	-	-11,478.84
187+75	25.00	-	525.40	-	-	501	-	-	12,105	-	-	-12,105.34
188+00	25.00	-	494.23	-	-	472	-	-	12,695	-	-	-12,695.40
188+25	25.00	-	462.75	-	-	443	-	-	13,249	-	-	-13,249.21
188+50	25.00	-	429.45	-	-	413	-	-	13,766	-	-	-13,765.53
188+75	25.00	-	399.17	-	-	384	-	-	14,245	-	-	-14,245.05
189+00	25.00	-	366.41	-	-	354	-	-	14,688	-	-	-14,688.10
189+25	25.00	-	361.36	-	-	337	-	-	15,109	-	-	-15,109.26
189+50	25.00	-	341.17	-	-	325	-	-	15,516	-	-	-15,515.82
189+75	25.00	-	305.94	-	-	300	-	-	15,890	-	-	-15,890.31
189+81.28	6.28	-	295.97	-	-	70	-	-	15,978	-	-	-15,977.86
189+83.24	1.95	-	292.83	-	-	21	-	-	16,004	-	-	-16,004.47
190+00	16.76	-	263.06	-	-	173	-	-	16,220	-	-	-16,220.18
190+25	25.00	-	220.82	-	-	224	-	-	16,500	-	-	-16,500.20
190+50	25.00	-	183.74	16.85	-	187	8	-	16,734	10	6.24	-16,750.71
190+75	25.00	-	155.08	28.79	-	157	21	-	16,930	38	23.15	-16,991.16
191+00	25.00	-	126.04	38.47	-	130	31	-	17,093	78	48.06	-17,219.24
191+25	25.00	-	100.39	45.88	-	105	39	-	17,224	129	79.30	-17,432.29
191+50	25.00	-	86.22	47.11	-	86	43	-	17,332	185	113.74	-17,630.69
191+75	25.00	-	79.13	46.96	-	77	44	-	17,428	241	148.58	-17,817.83
192+00	25.00	-	75.80	38.47	-	72	40	-	17,517	293	180.22	-17,990.55
192+25	25.00	-	69.22	59.49	-	67	45	-	17,601	352	216.50	-18,169.71
192+50	25.00	-	60.26	60.36	-	60	55	-	17,676	424	260.89	-18,361.15
192+75	25.00	-	51.13	60.38	-	52	56	-	17,741	497	305.61	-18,542.99
193+00	25.00	5.63	42.30	60.44	3	43	56	3	17,795	569	350.35	-18,711.91
193+25	25.00	5.84	35.23	59.19	5	36	55	8	17,840	641	394.66	-18,867.78
193+50	25.00	5.89	31.44	59.92	5	31	55	13	17,878	713	438.78	-19,016.74
193+75	25.00	-	35.72	62.38	3	31	57	16	17,917	787	484.07	-19,171.77
194+00	25.00	-	39.98	64.74	-	35	59	16	17,961	863	531.16	-19,339.17
194+25	25.00	13.02	43.13	67.18	6	38	61	22	18,009	943	580.01	-19,509.50
194+27.62	2.62	14.34	43.49	67.04	1	4	7	23	18,014	951	585.23	-19,527.11
					23	14,411	732					

STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
185+00	0.00	6.87	-	-	-	-	-	-	-	-	-	0.00
185+25	25.00	867.15	516.52	-	405	239	-	405	299	-	-	105.72
185+50	25.00	1,784.43	512.53	-	1,228	476	-	1,632	894	-	-	737.79
185+75	25.00	2,254.08	522.37	-	1,870	479	-	3,502	1,493	-	-	2,008.57
186+00	25.00	2,354.64	521.91	-	2,134	483	-	5,636	2,098	-	-	3,537.91
186+24.79	24.79	1,776.25	494.67	-	1,896	467	-	7,532	2,681	-	-	4,850.84
186+25	0.21	2,303.67	494.32	-	16	4	-	7,548	2,686	-	-	4,862.00
186+50	25.00	2,193.10	444.86	-	2,082	435	-	9,630	3,229	-	-	6,400.32
186+75	25.00	2,078.65	416.89	-	1,978	399	-	11,607	3,728	-	-	7,879.29
186+82.87	7.87	2,035.26	414.23	-	599	121	-	12,207	3,879	-	-	8,327.17
187+00	17.13	1,935.34	424.94	-	1,260	266	-	13,466	4,212	-	-	9,254.24
187+25	25.00	1,780.02	436.09	-	1,720	399	-	15,187	4,710	-	-	10,476.04
187+39.09	14.09	1,681.43	463.01	-	903	235	-	16,090	5,004	-	-	11,085.96
187+50	10.91	1,587.13	470.30	-	660	189	-	16,750	5,239	-	-	11,510.63
187+75	25.00	1,357.21	416.72	-	1,363	411	-	18,113	5,753	-	-	12,360.43
188+00	25.00	1,088.18	432.32	-	1,132	393	-	19,245	6,244	-	-	13,001.22
188+25	25.00	822.60	400.54	-	885	386	-	20,130	6,726	-	-	13,403.86
188+34.66	9.66	698.04	393.43	-	272	142	-	20,402	6,904	-	-	13,498.33
188+50	15.34	529.05	384.45	-	349	221	-	20,751	7,180	-	-	13,570.70
188+68.66	18.66	414.18	378.25	-	326	264	-	21,076	7,509	-	-	13,567.20
188+75	6.34	377.81	383.44	-	93	89	-	21,169	7,621	-	-	13,548.39
189+00	25.00	266.91	370.23	-	298	349	-	21,468	8,057	-	-	13,410.72
189+14.22	14.22	240.63	354.50	-	134	191	-	21,602	8,296	-	-	13,305.78
189+25	10.78	219.06	351.13	-	92	141	-	21,693	8,472	-	-	13,221.50
189+36.66	11.66	198.54	351.29	-	90	152	-	21,784	8,661	-	-	13,122.10
189+50	13.34	169.70	367.69	-	91	178	-	21,874	8,883	-	-	12,991.03
189+75	25.00	109.06	400.43	-	129	356	-	22,004	9,328	-	-	12,675.57
190+00	25.00	58.45	428.36	-	78	384	-	22,081	9,808	-	-	12,273.50
190+25	25.00	33.10	434.90	-	42	400	-	22,123	10,307	-	-	11,816.31
190+50	25.00	17.59	455.98	-	23	412	-	22,147	10,823	-	-	11,324.22
190+75	25.00	13.85	443.15	-	15	416	-	22,161	11,343	-	-	10,818.45
191+00	25.00	39.67	393.13	-	25	387	-	22,186	11,827	-	-	10,359.28
191+25	25.00	41.01	328.12	-	37	334	-	22,224	12,244	-	-	9,979.24
191+50	25.00	24.45	251.16	11.80	30	268	5	22,254	12,580	7	4.37	9,662.84
191+75	25.00	18.88	164.35	72.91	20	192	39	22,274	12,820	58	35.74	9,360.09
192+00	25.00	20.76	89.61	97.67	18	118	79	22,292	12,967	161	98.92	9,065.63
192+25	25.00	32.05	52.87	86.56	24	66	85	22,317	13,050	272	167.15	8,828.52
192+50	25.00	37.73	51.37	80.00	32	48	77	22,349	13,110	372	228.84	8,638.57
192+75	25.00	46.73	44.98	68.79	39	45	69	22,388	13,166	461	283.95	8,477.26
193+00	25.00	54.04	31.73	51.91	47	36	56	22,435	13,210	534	328.65	8,362.18
193+25	25.00	61.23	21.67	42.64	53	25	44	22,488	13,241	591	363.67	8,292.72
193+50	25.00	73.69	15.44	30.06	62	17	34	22,551	13,262	635	390.60	8,263.02
193+75	25.00	79.30	15.62	24.47	71	14	25	22,622	13,280	668	410.79	8,262.86
194+00	25.00	92.78	7.97	23.25	80	11	22	22,701	13,294	696	428.46	8,282.50
194+25	25.00	116.26	5.84	19.56	97	6	20	22,798	13,302	722	444.32	8,329.67

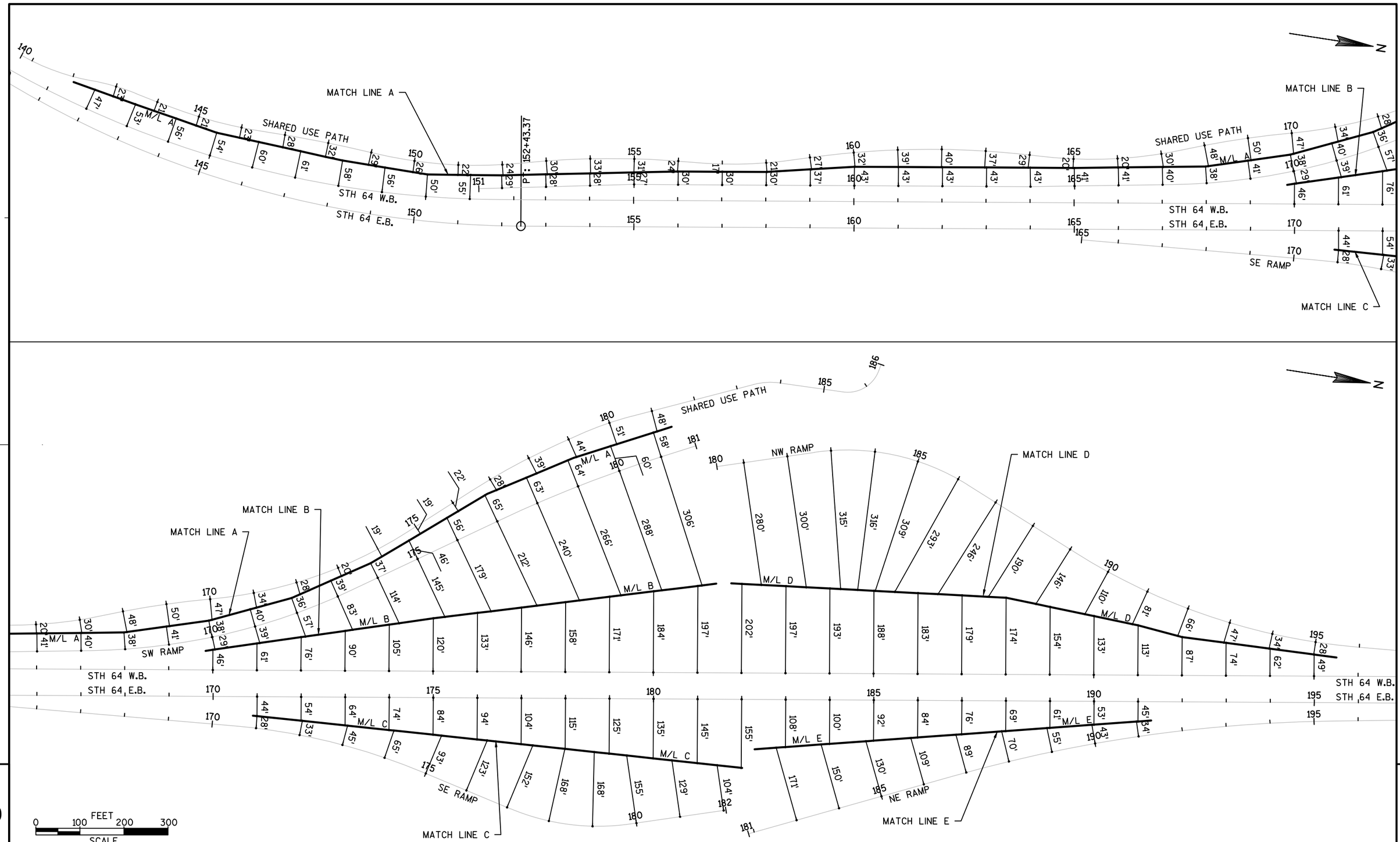
STATION	Distance	AREA (SF)			Incremental Vol (CY) (Unadjusted)			Cumulative Vol (CY)				Mass Ordinate
		Cut	Fill	EBS	Cut Note 1	Fill Note 3	EBS	Cut 1.00 Note 1	Expanded Fill 1.25	Expanded EBS Backfill 1.30 Note 5	Reduced EBS In Fill 0.80 Note 7	Note 8
194+50	25.00	242.22	2.53	17.81	166	4	17	22,964	13,307	745	458.16	8,454.45
194+75	25.00	239.17	1.73	14.96	223	2	15	23,187	13,309	764	470.29	8,643.00
195+00	25.00	228.15	0.96	11.44	216	1	12	23,403	13,311	780	480.07	8,832.13
195+25	25.00	223.68	0.22	6.98	209	1	9	23,612	13,312	791	486.89	9,022.72
195+50	25.00	225.85	-	2.76	208	0	5	23,820	13,312	797	490.50	9,221.24
195+72.73	22.73	251.18	-	1.07	201	-	2	24,021	13,312	799	491.79	9,418.64
195+75	2.27	253.95	-	0.81	21	-	0	24,042	13,312	799	491.85	9,439.72
195+95.18	20.18	260.69	-	-	192	-	0	24,235	13,312	800	492.09	9,631.36
196+00	4.82	261.85	-	-	47	-	-	24,281	13,312	800	492.09	9,678.05
196+01.88	1.88	261.79	-	-	18	-	-	24,300	13,312	800	492.09	9,696.28
196+25	23.12	261.18	-	-	224	-	-	24,524	13,312	800	492.09	9,920.19
196+50	25.00	253.32	-	0.17	238	-	0	24,762	13,312	800	492.15	10,158.22
196+75	25.00	244.34	-	0.89	230	-	0	24,992	13,312	800	492.54	10,387.59
197+00	25.00	162.39	-	-	188	-	0	25,180	13,312	801	492.87	10,575.03
197+25	25.00	141.56	-	-	141	-	-	25,321	13,312	801	492.87	10,715.74
197+50	25.00	120.44	-	2.73	121	-	1	25,442	13,312	803	493.89	10,834.38
197+75	25.00	105.62	-	9.95	105	-	6	25,547	13,312	810	498.58	10,926.71
198+00	25.00	87.99	-	23.69	90	-	16	25,637	13,312	830	511.04	10,983.64
198+25	25.00	87.06	-	23.55	81	-	22	25,718	13,312	859	528.54	11,018.76
198+50	25.00	50.26	0.41	40.27	64	0	30	25,781	13,312	897	552.17	11,020.04
198+75	25.00	56.36	0.12	38.92	49	0	37	25,831	13,312	945	581.50	10,992.10
198+76.77	1.77	45.24	0.14	21.13	3	0	2	25,834	13,312	947	583.08	10,991.29
					25,834	10,650	729					



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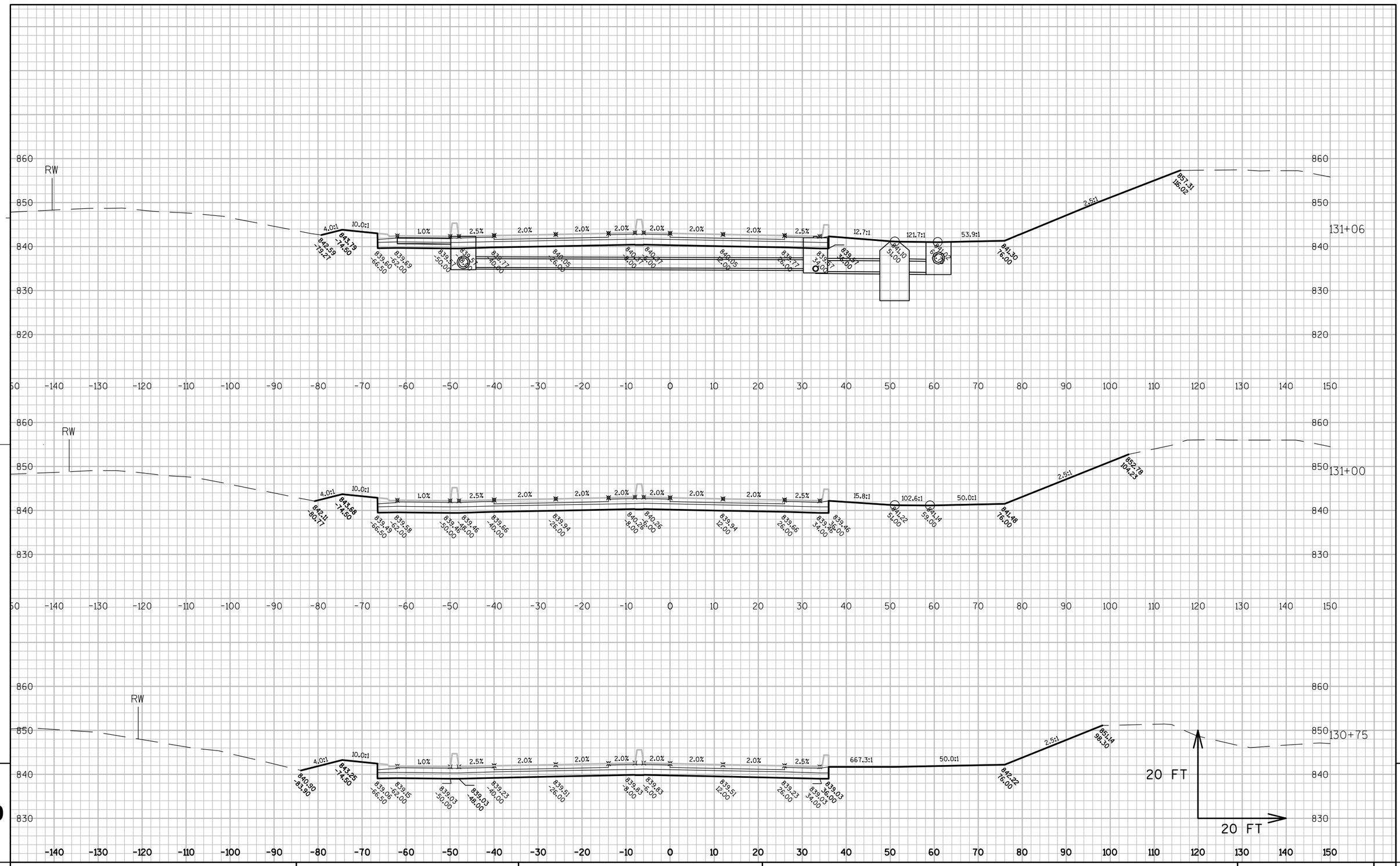
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	EARTHWORK MATCH LINES	SHEET 225	E



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTION MATCH LINES	SHEET 226	E

FILE NAME : N:\PDS\C3D\81100201\SHEETSPLAN\8110-02-71\021701_XM_71.DWG PLOT DATE : 8/1/2013 12:56 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : PLOT SCALE : 1 IN:200 FT

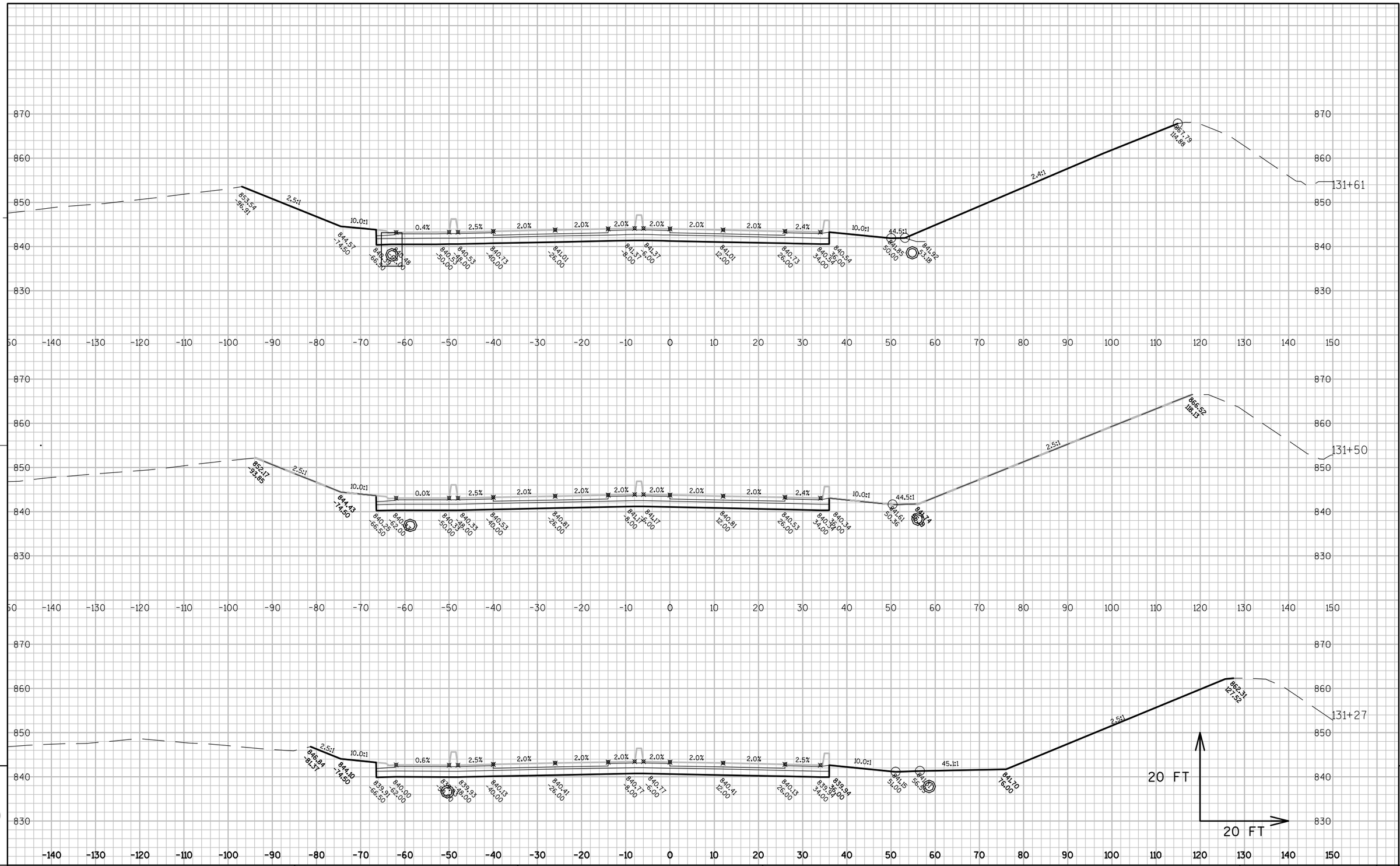
WISDOT/CADDS SHEET 42



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 227 E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090101_XS_STH64_131TO140_EXPLODE.DWG PLOT DATE : 10/2/2013 9:32 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

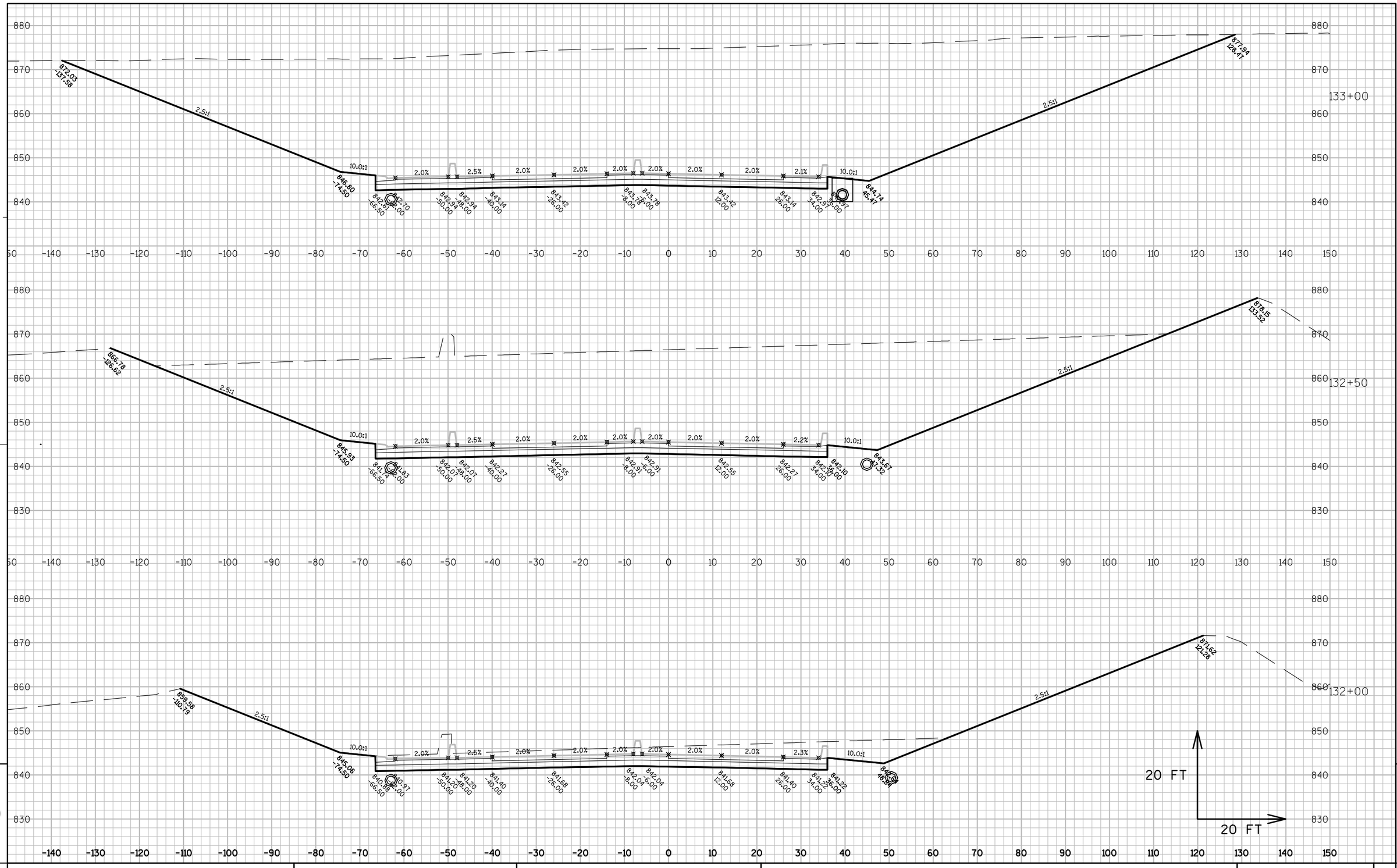
WISDOT/CADDS SHEET 49



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 228	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090101_XS_STH64_131TO140_EXPLODE.DWG PLOT DATE : 10/2/2013 9:32 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

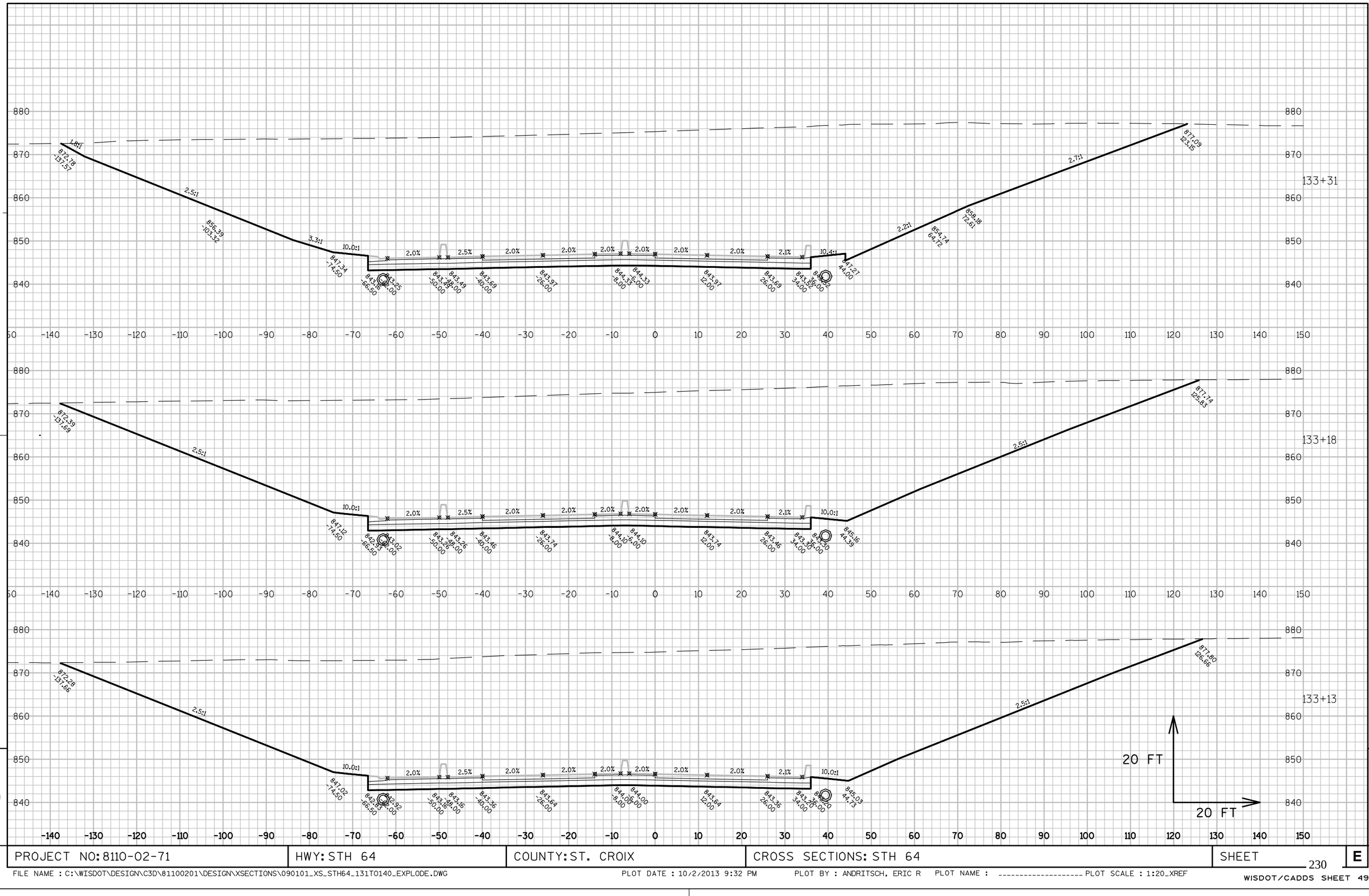
WISDOT/CADDS SHEET 49



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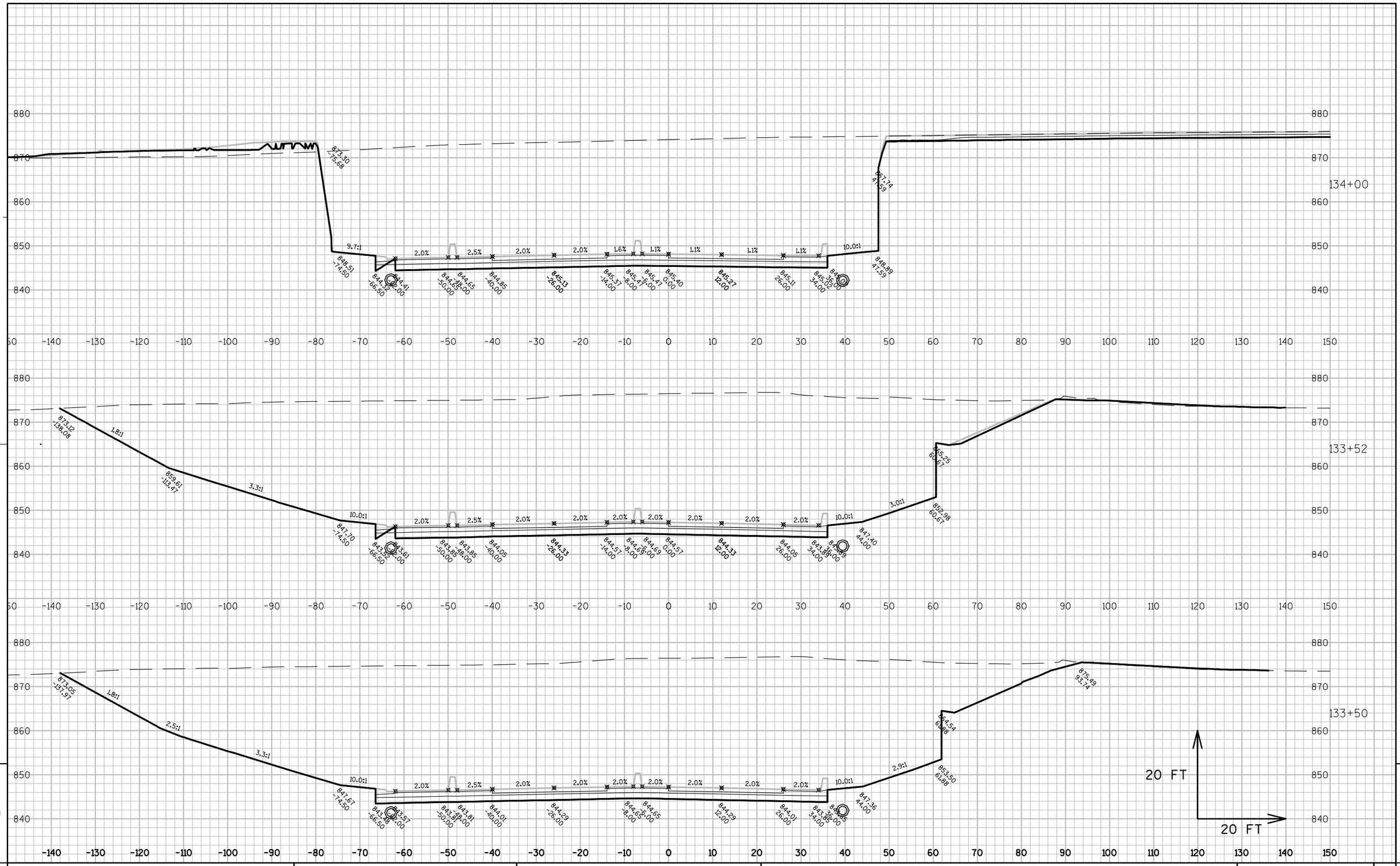
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 229	E



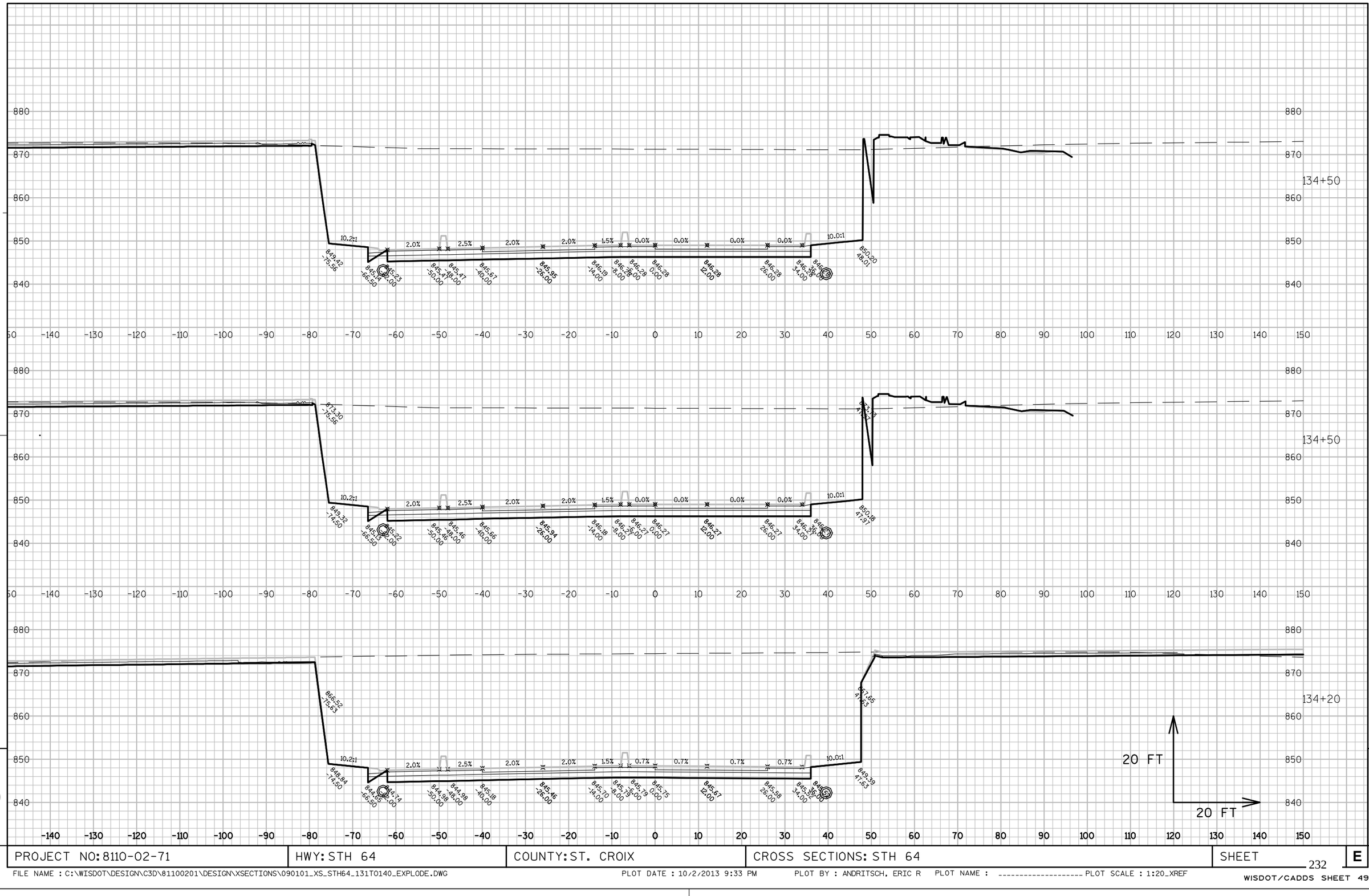
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 230	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090101_XS_STH64_131TO140_EXPLODE.DWG PLOT DATE : 10/2/2013 9:32 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

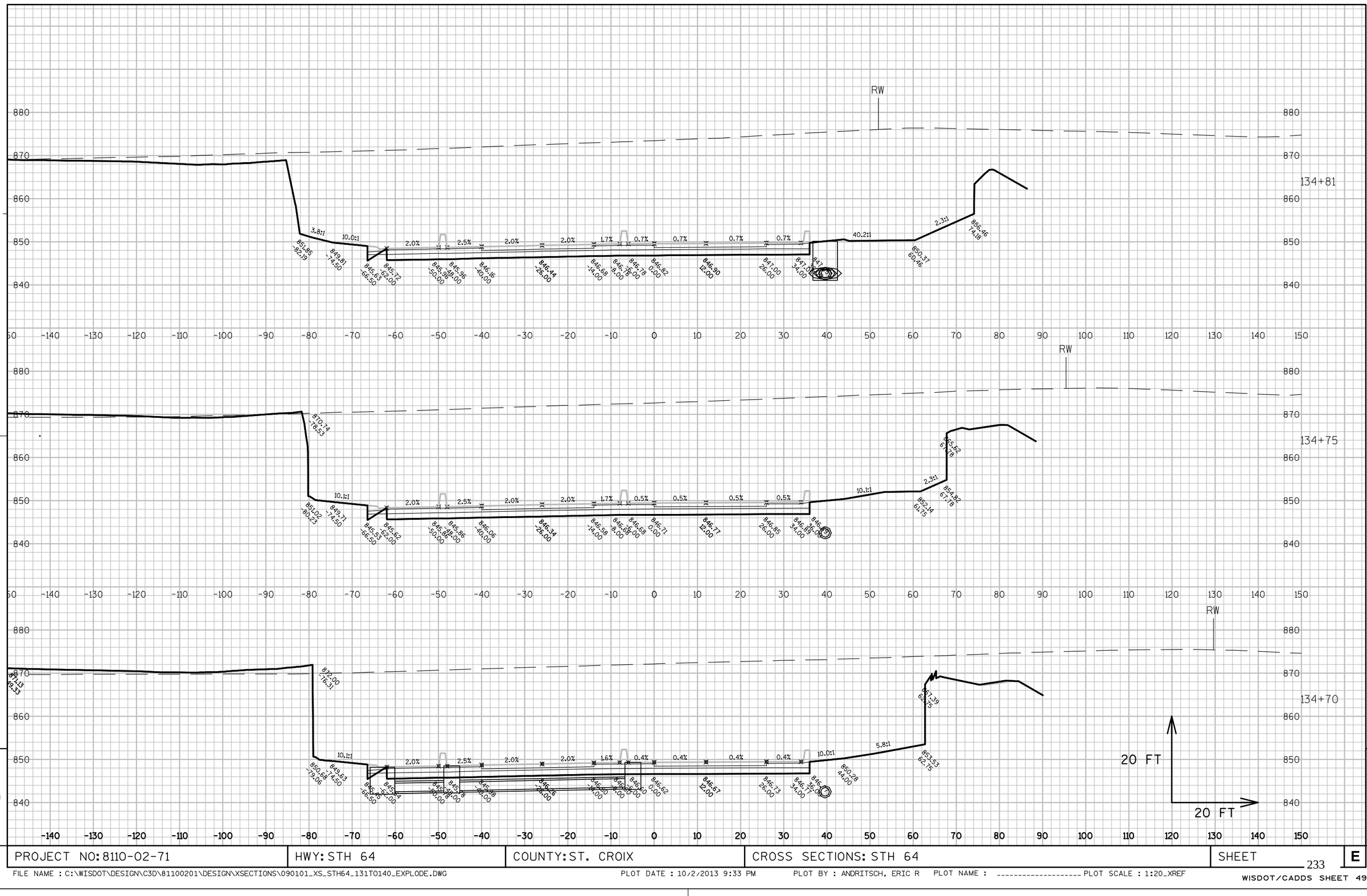


PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 231	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090101_XS_STH64_131TO140_EXPLODE.DWG PLOT DATE : 10/2/2013 9:33 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



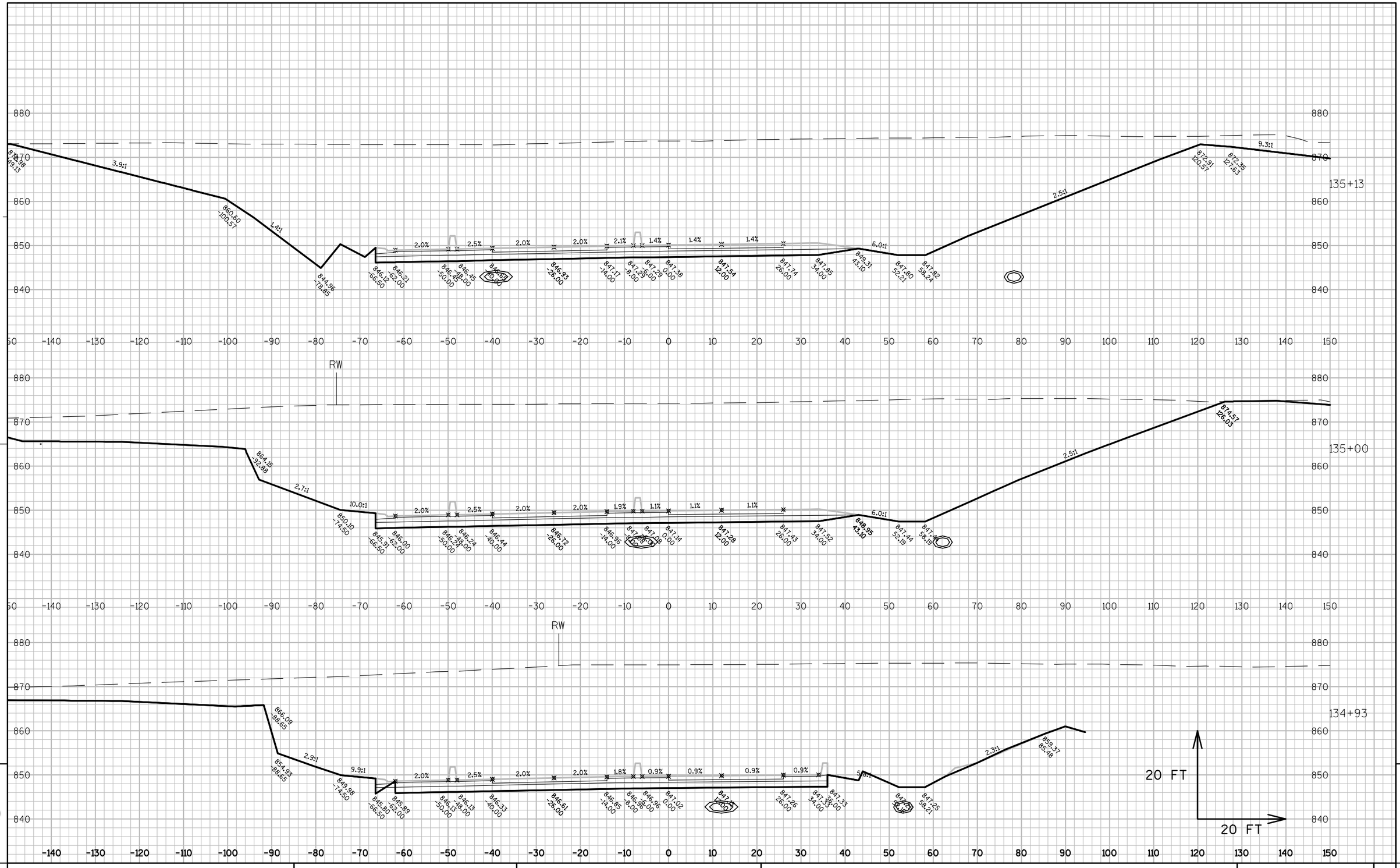
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 232	E



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 233	E

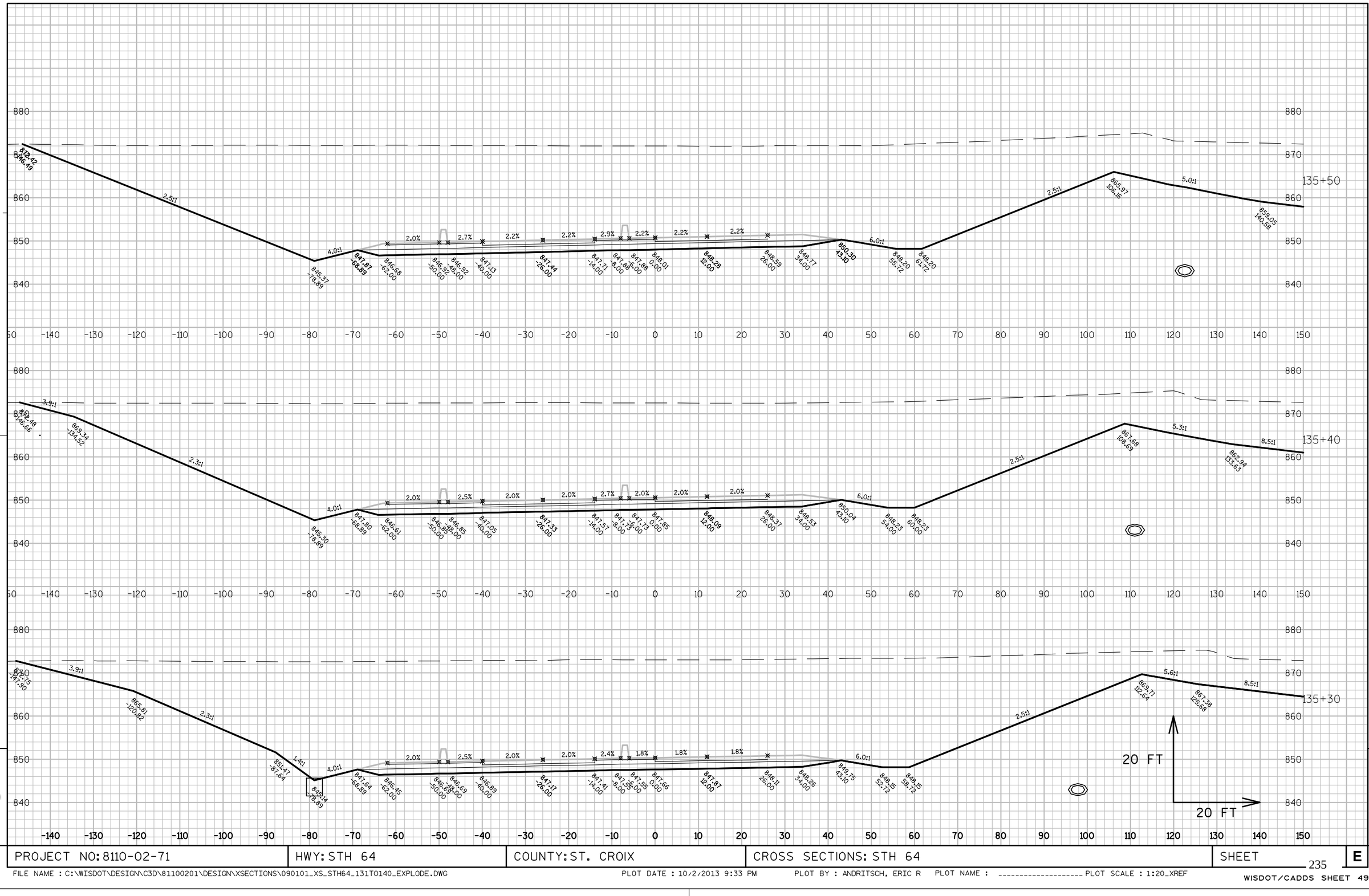
FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090101_XS_STH64_131TO140_EXPLODE.DWG PLOT DATE : 10/2/2013 9:33 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



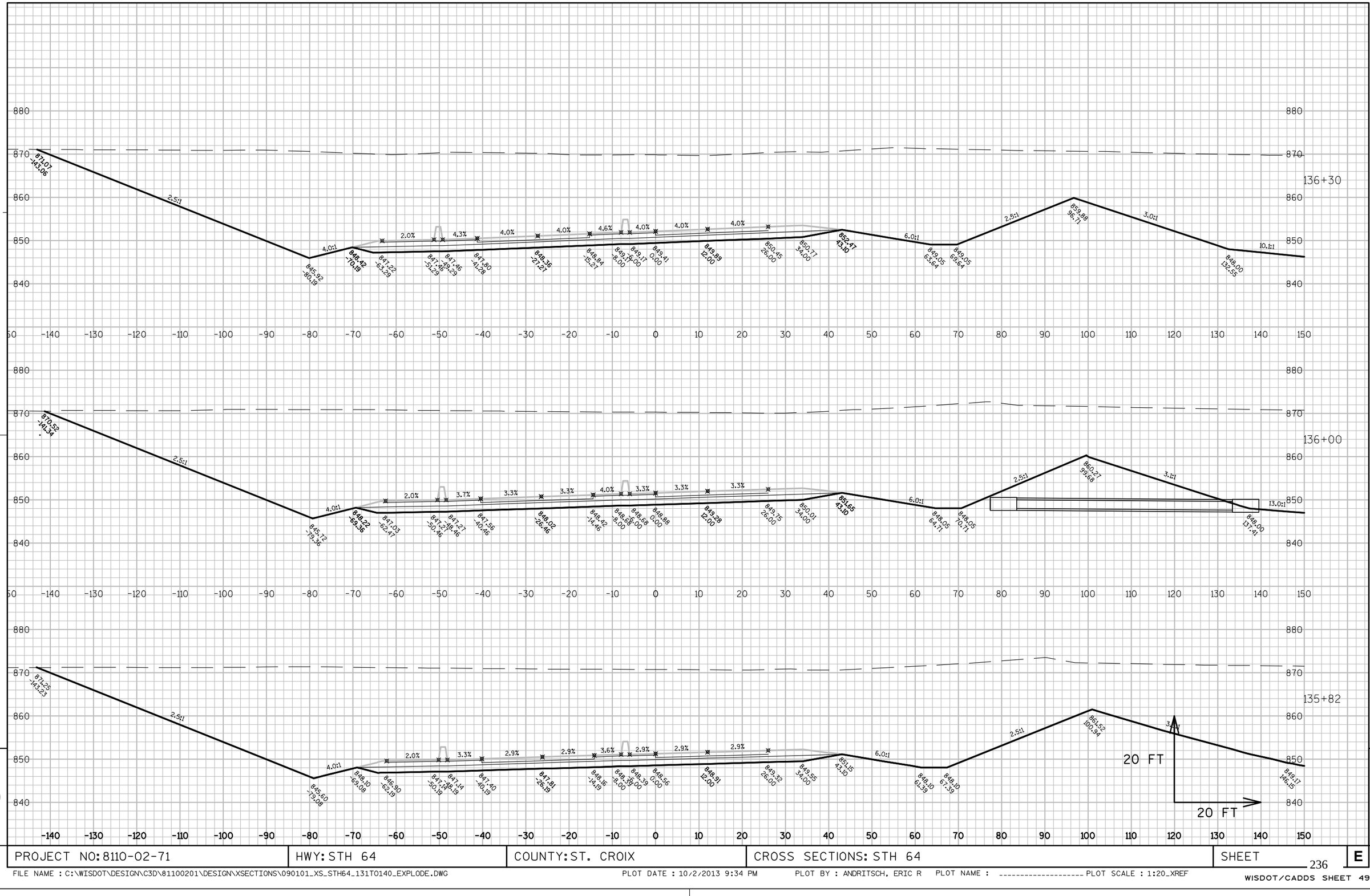
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 234	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090101_XS_STH64_131TO140_EXPLODE.DWG PLOT DATE : 10/2/2013 9:33 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 235	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090101_XS_STH64_131TO140_EXPLODE.DWG PLOT DATE : 10/2/2013 9:33 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

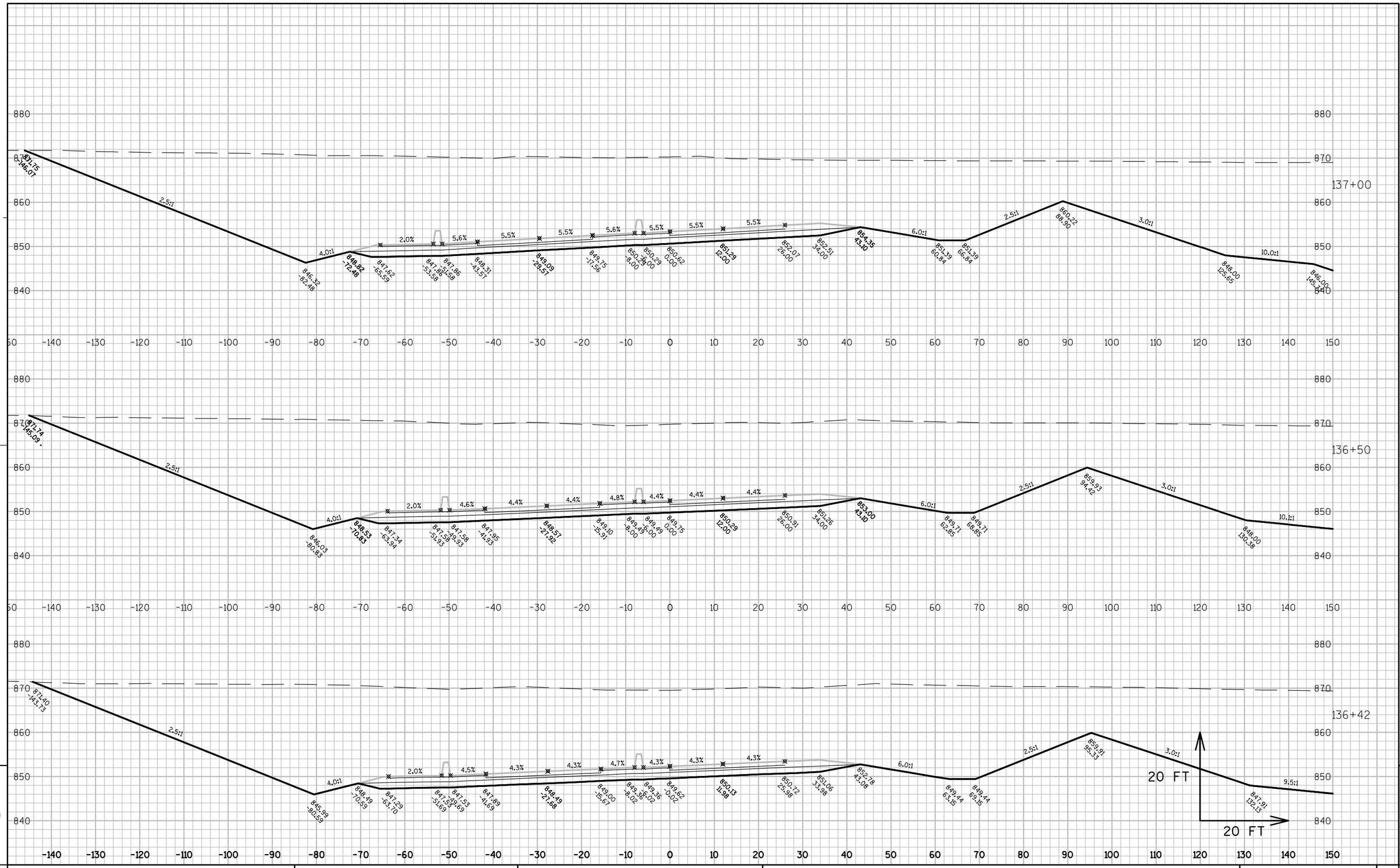


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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 236	E

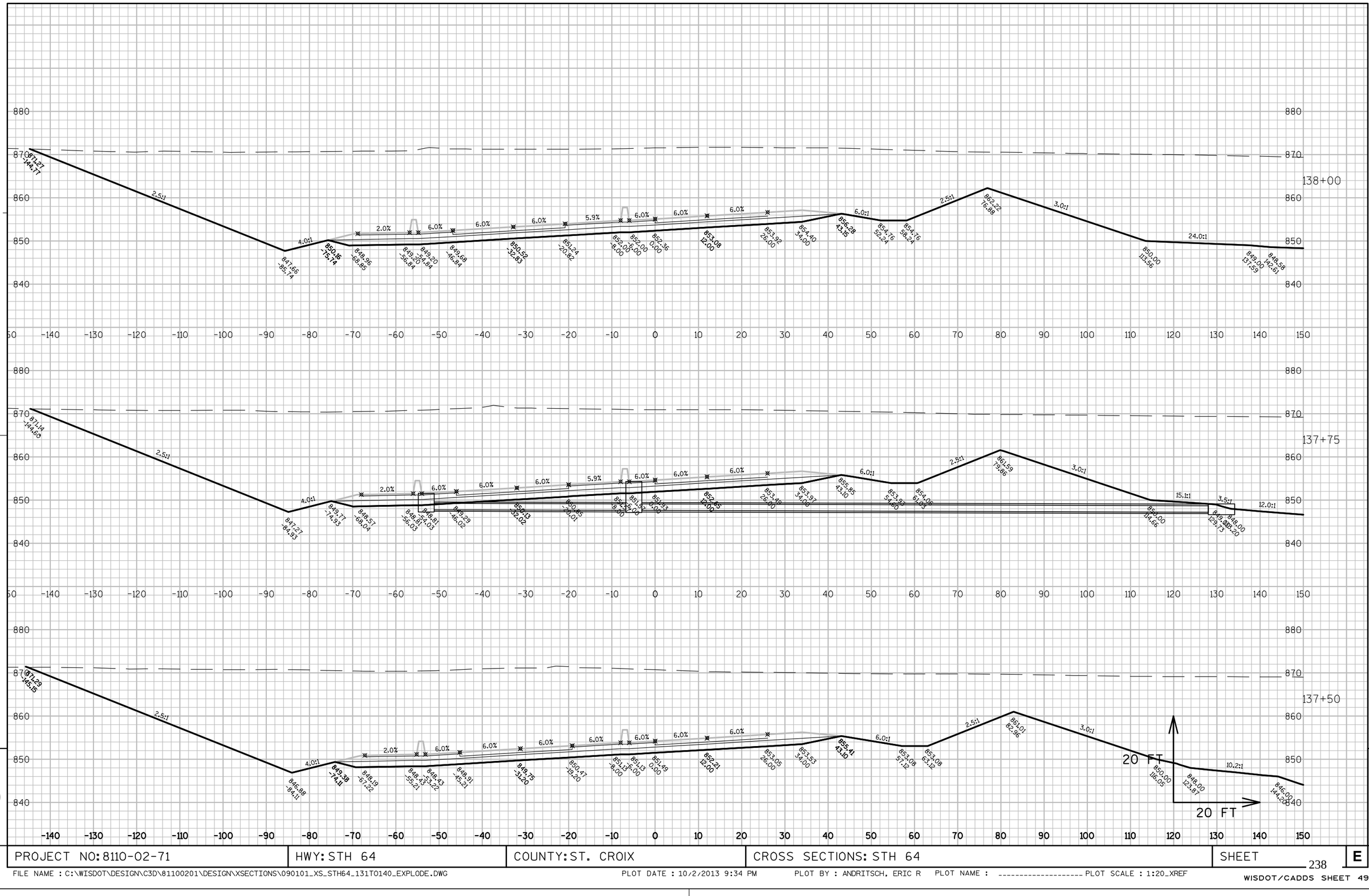
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 237	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090101_XS_STH64_131TO140_EXPLODE.DWG PLOT DATE : 10/2/2013 9:34 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

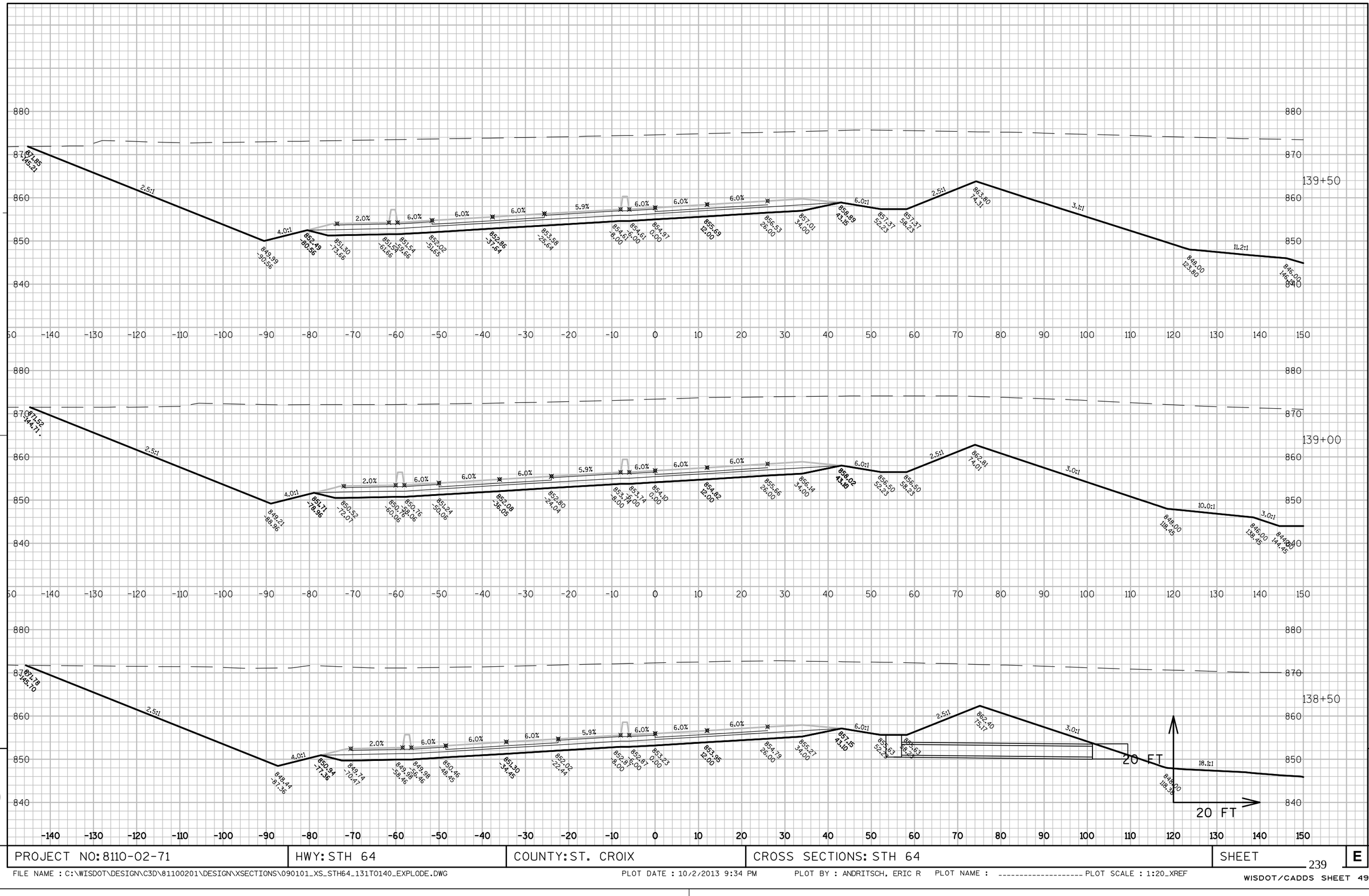


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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET	E

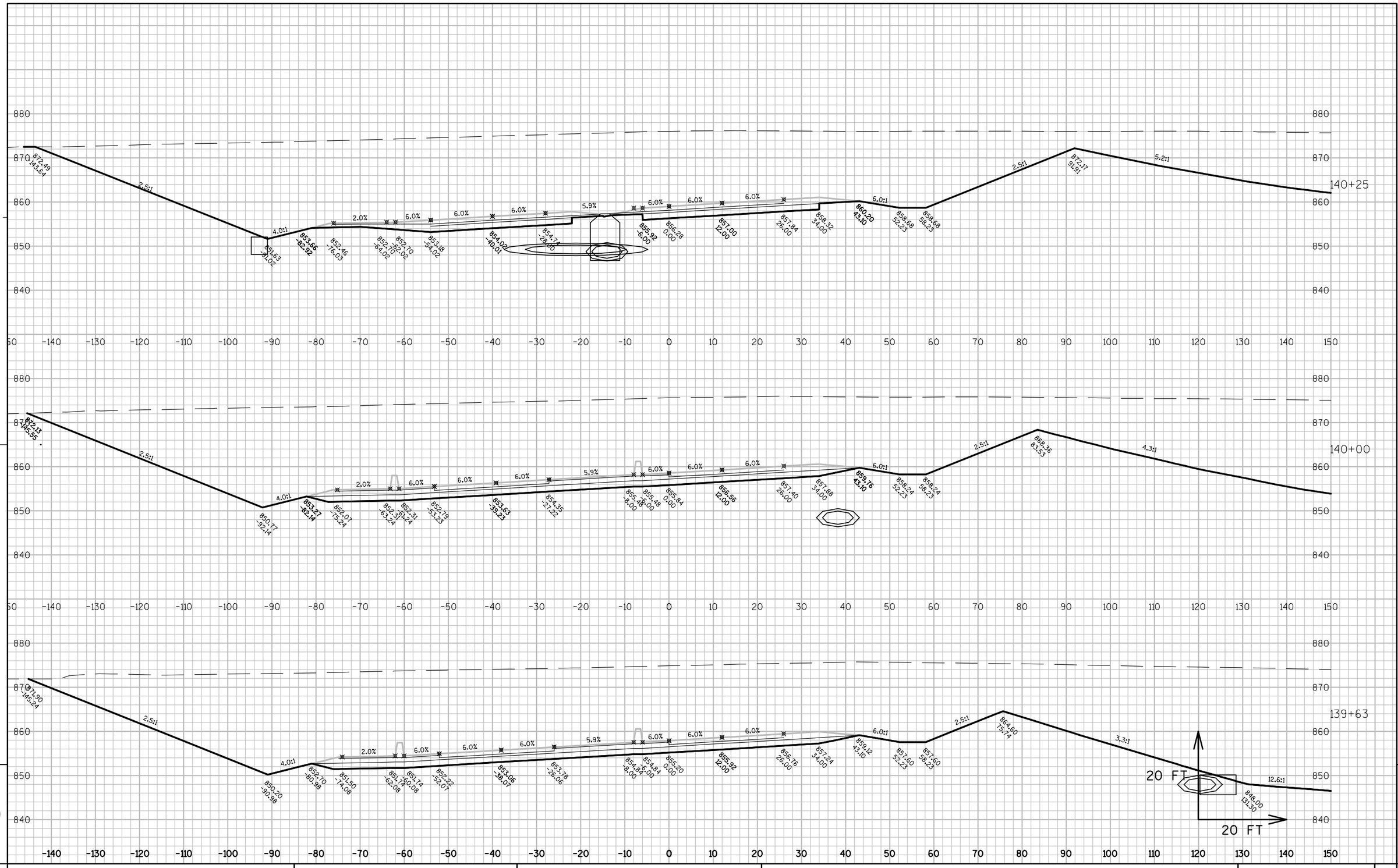
FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090101_XS_STH64_131TO140_EXPLODE.DWG PLOT DATE : 10/2/2013 9:34 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



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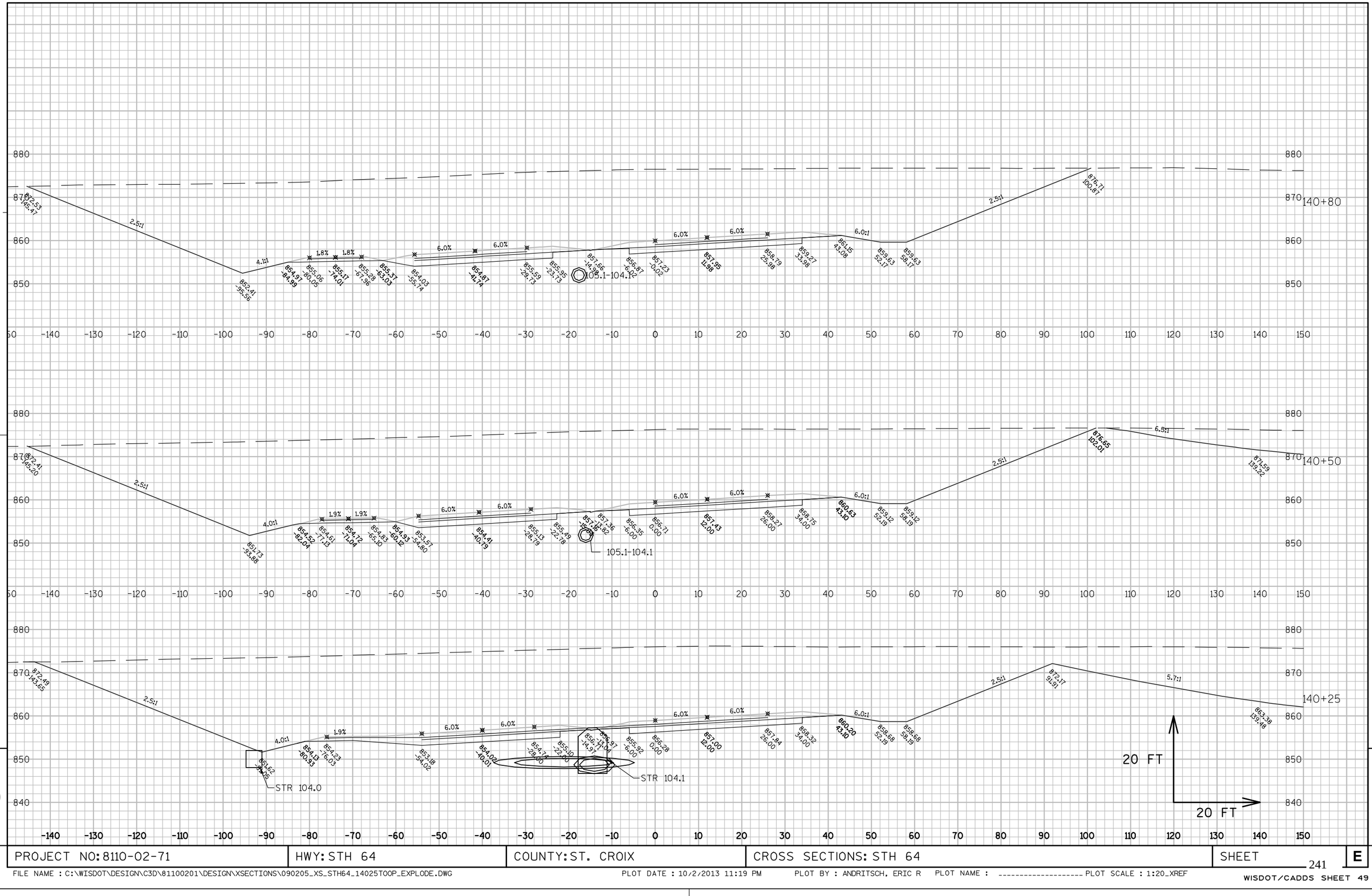
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 239	E



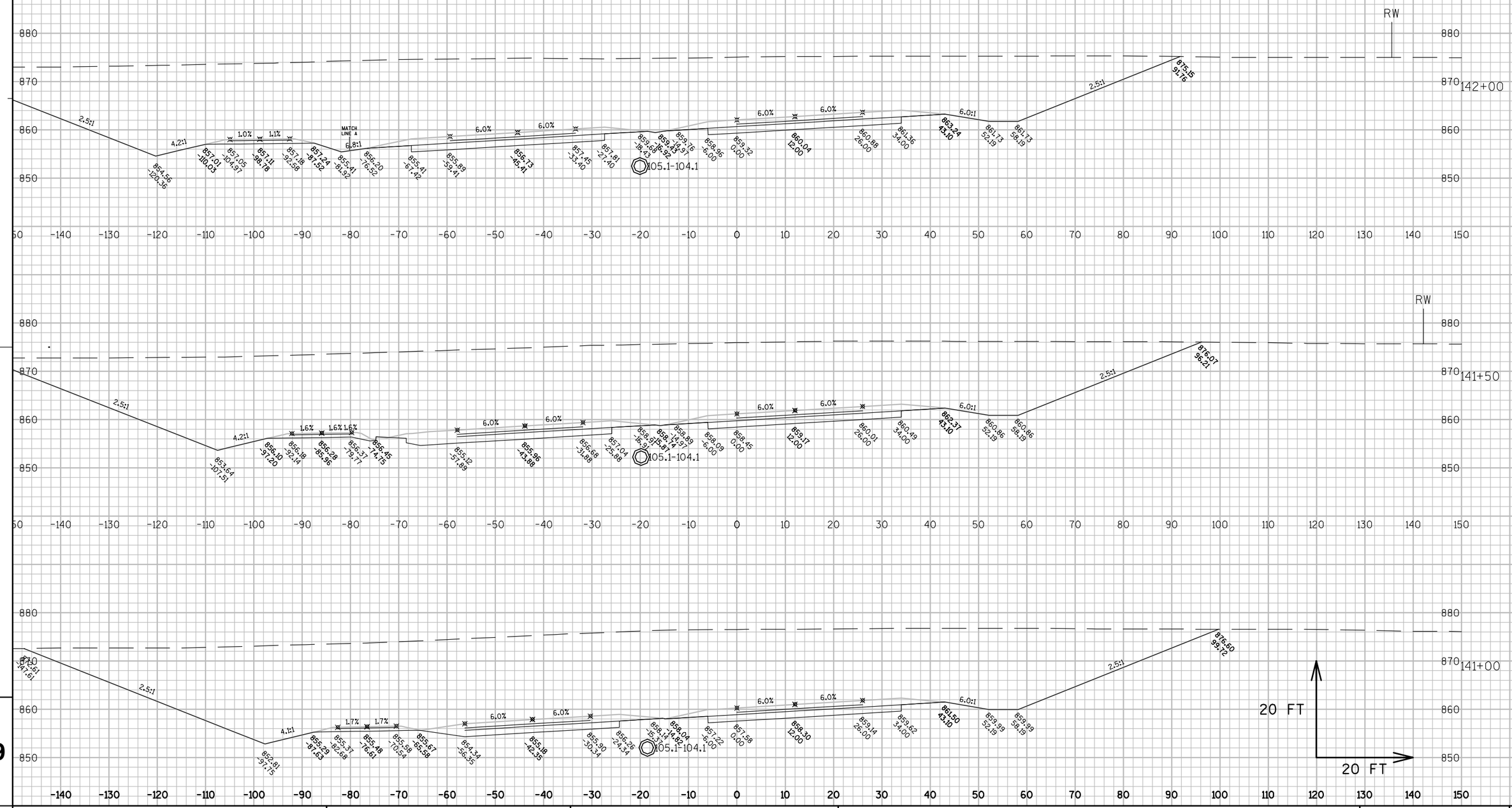
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 240	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090101_XS_STH64_131TO140_EXPLODE.DWG PLOT DATE : 10/2/2013 9:34 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



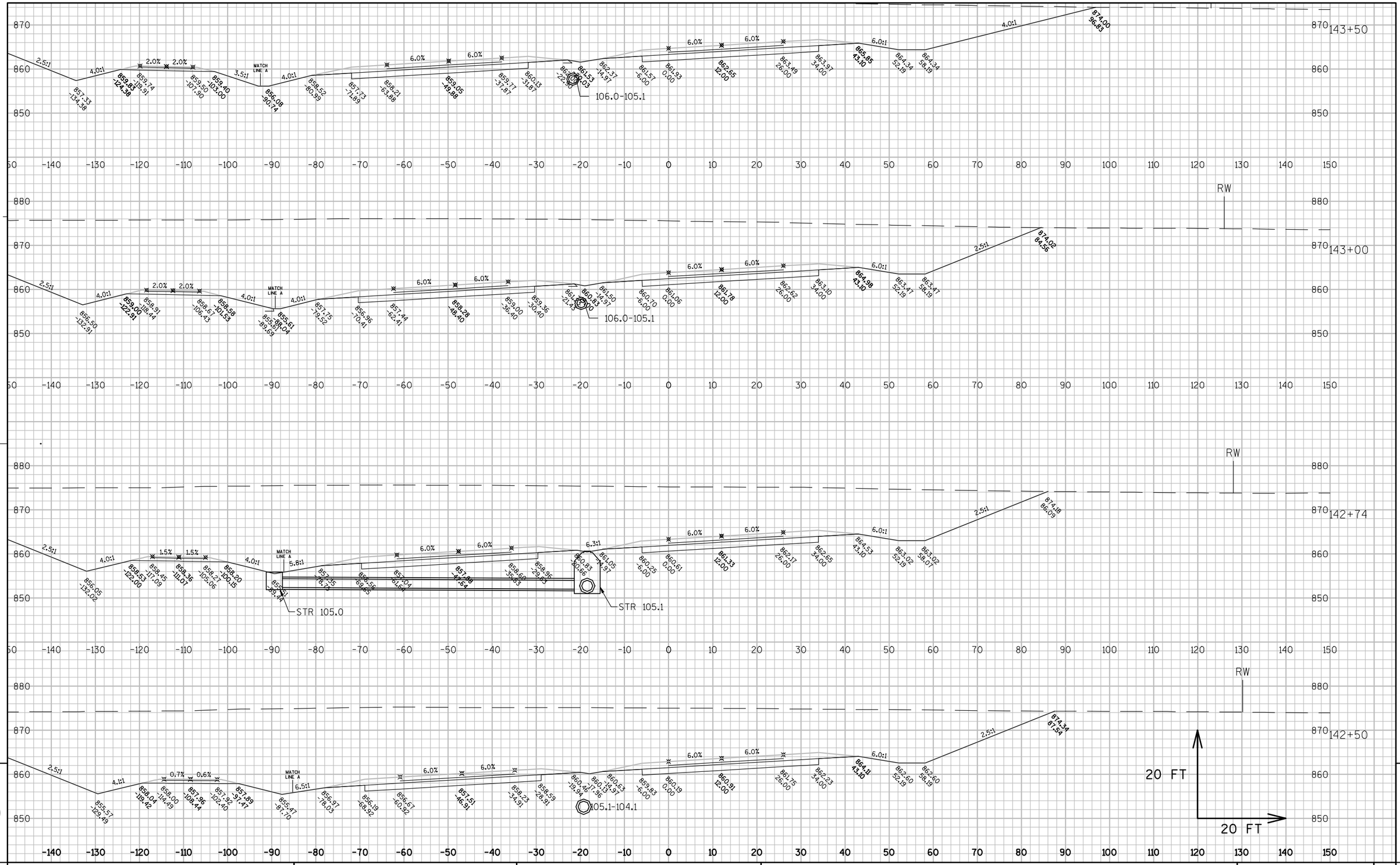
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 241	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:19 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



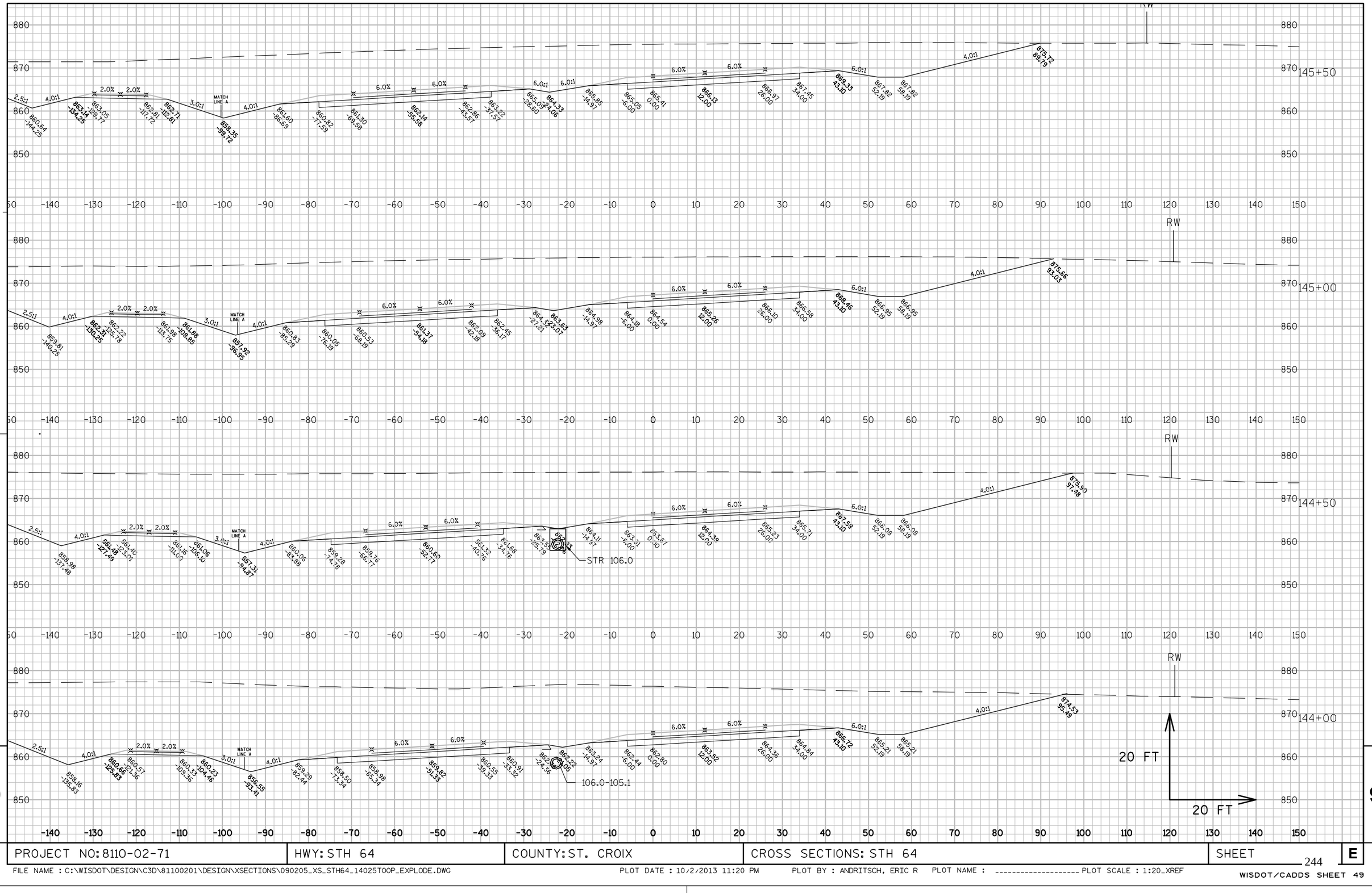
FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:19 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 243	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:20 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

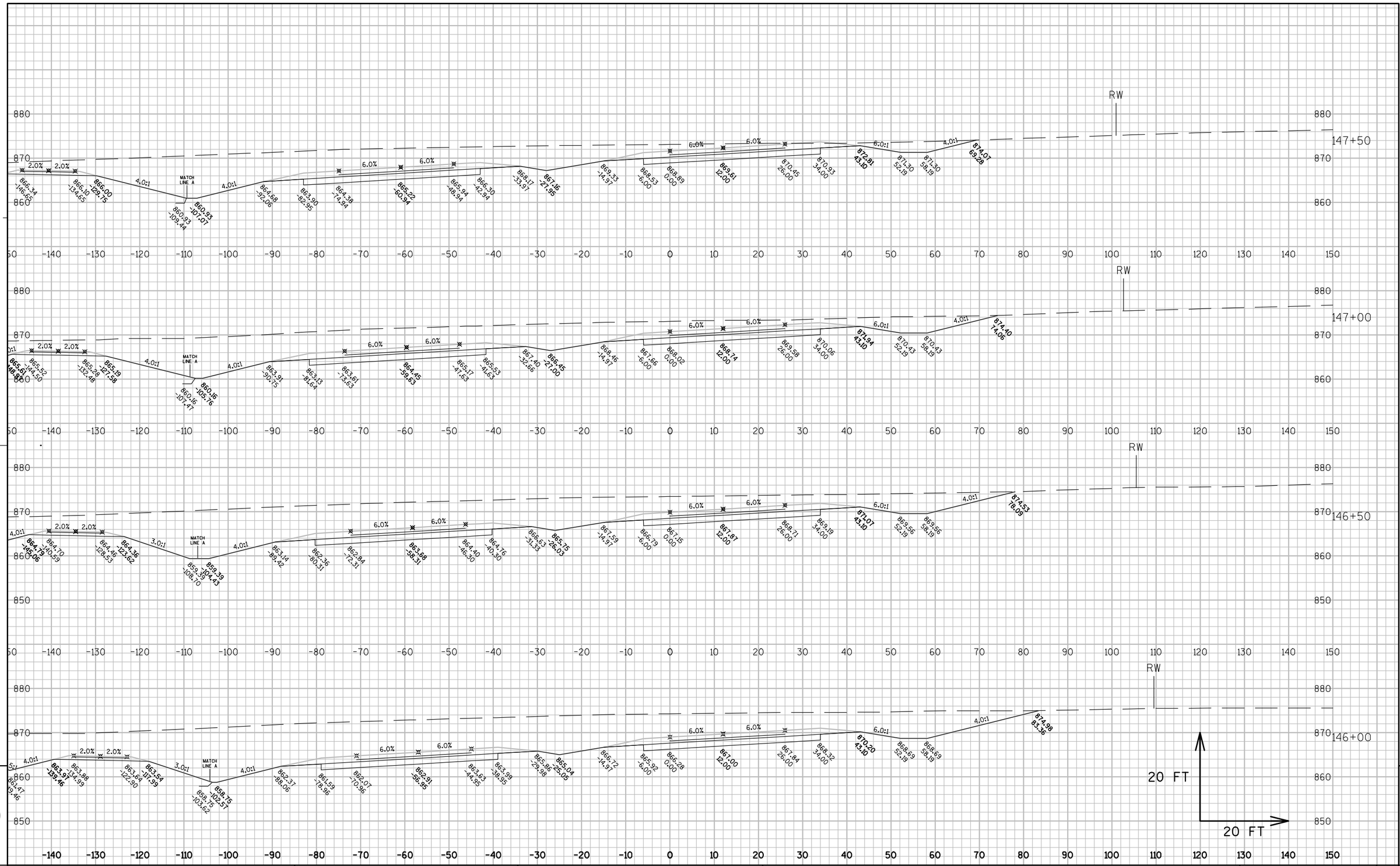


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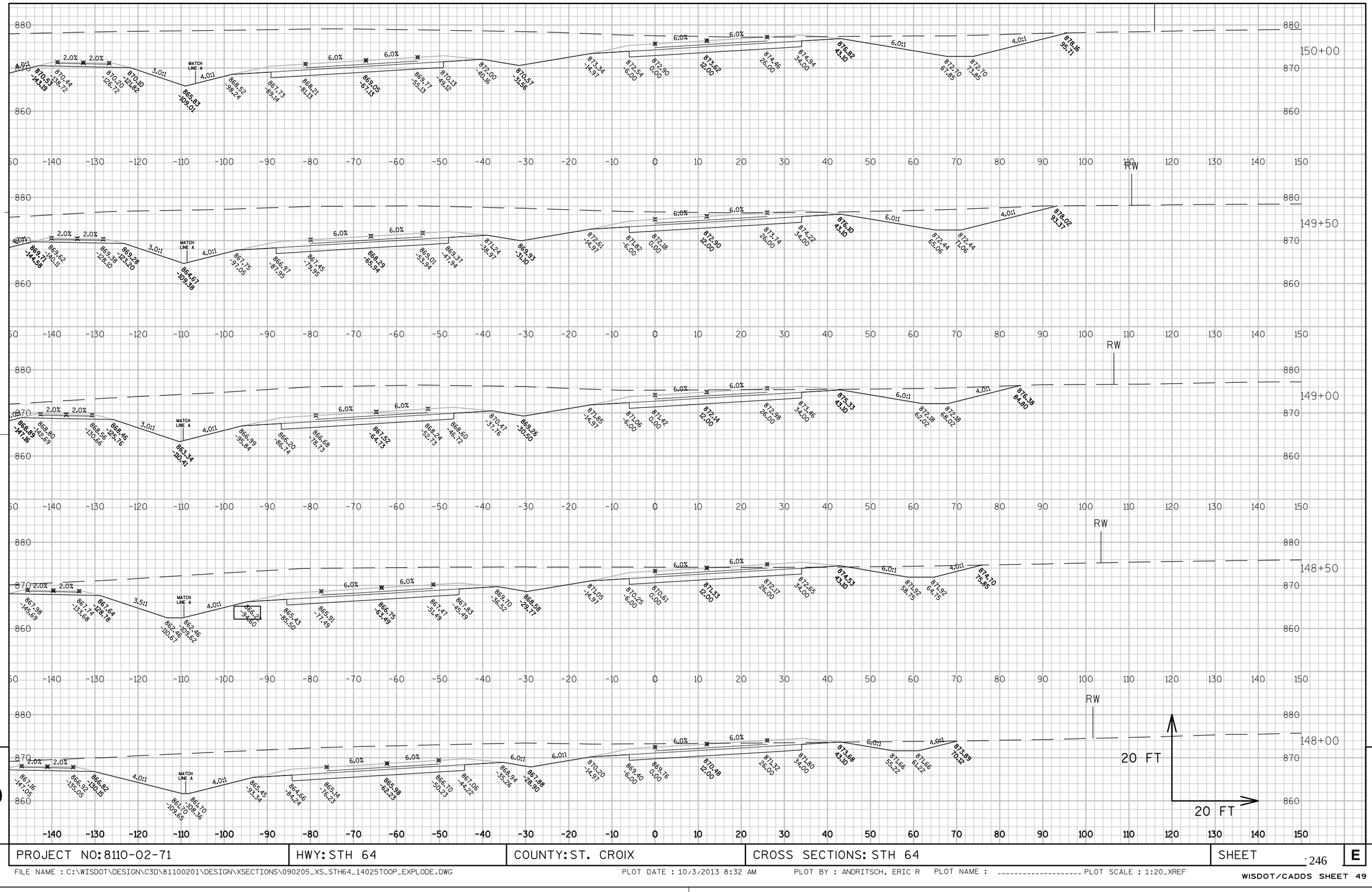
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 244	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:20 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



9

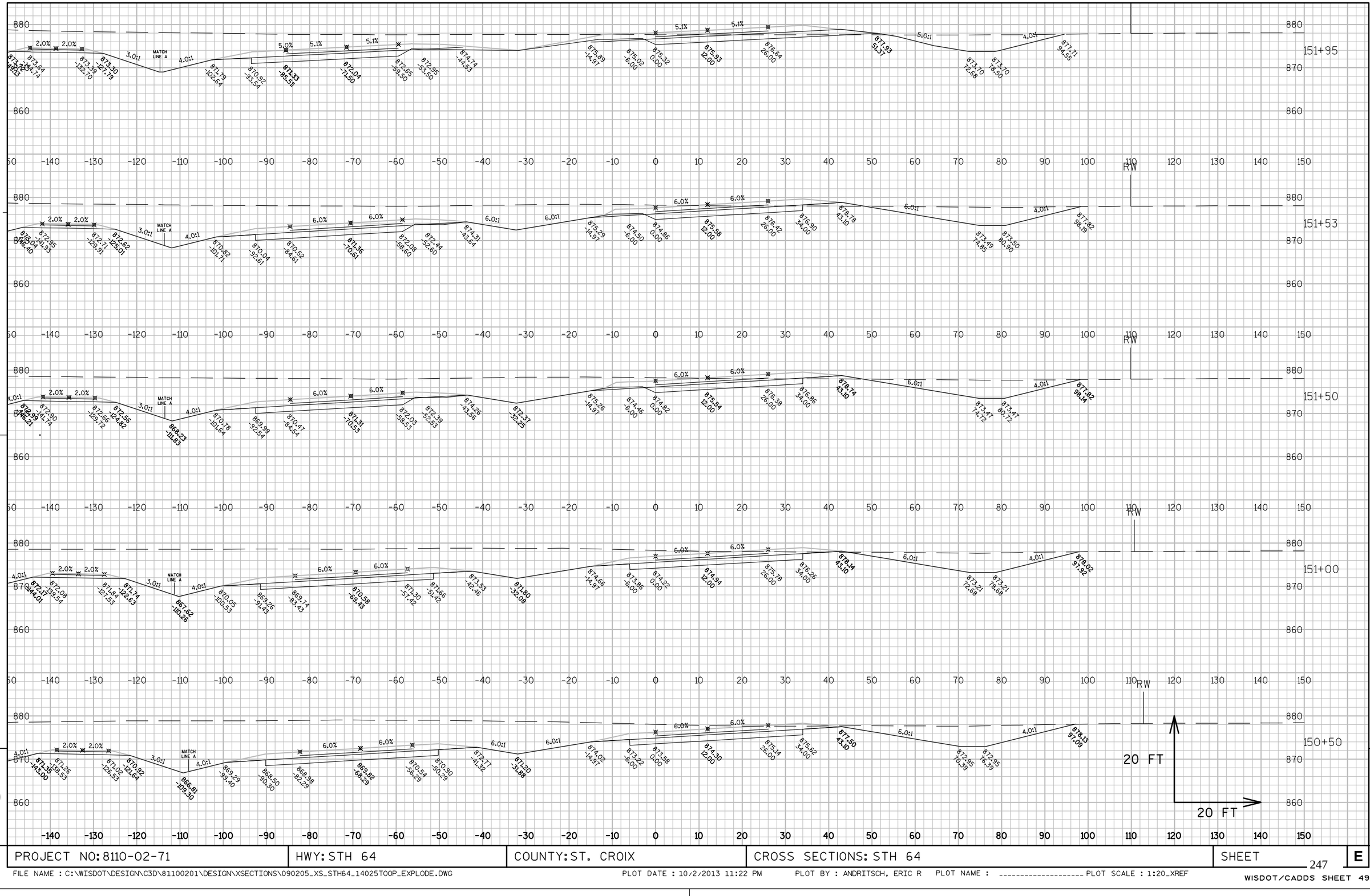
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 245	E



9

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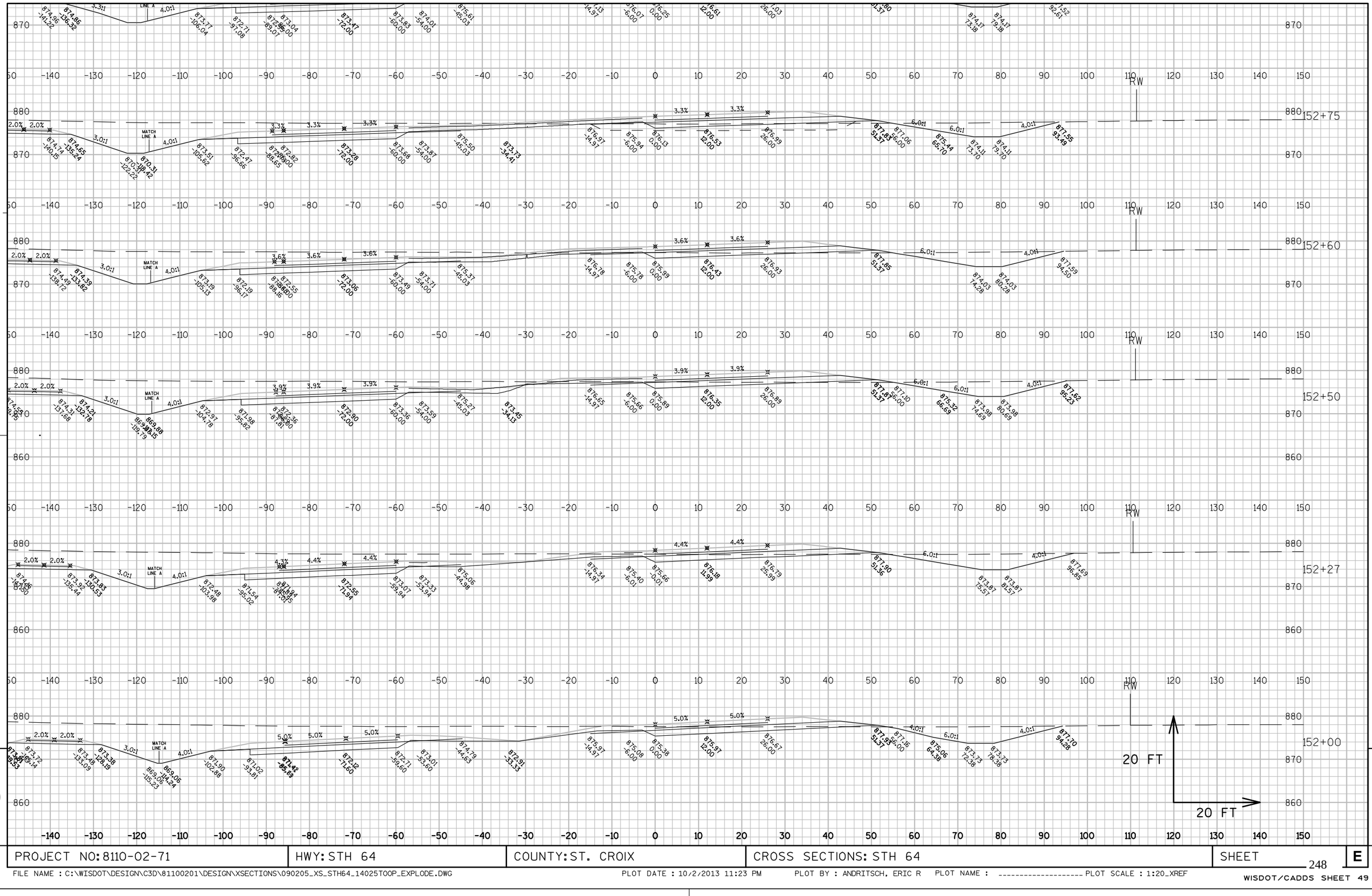
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 246	E



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 247	E

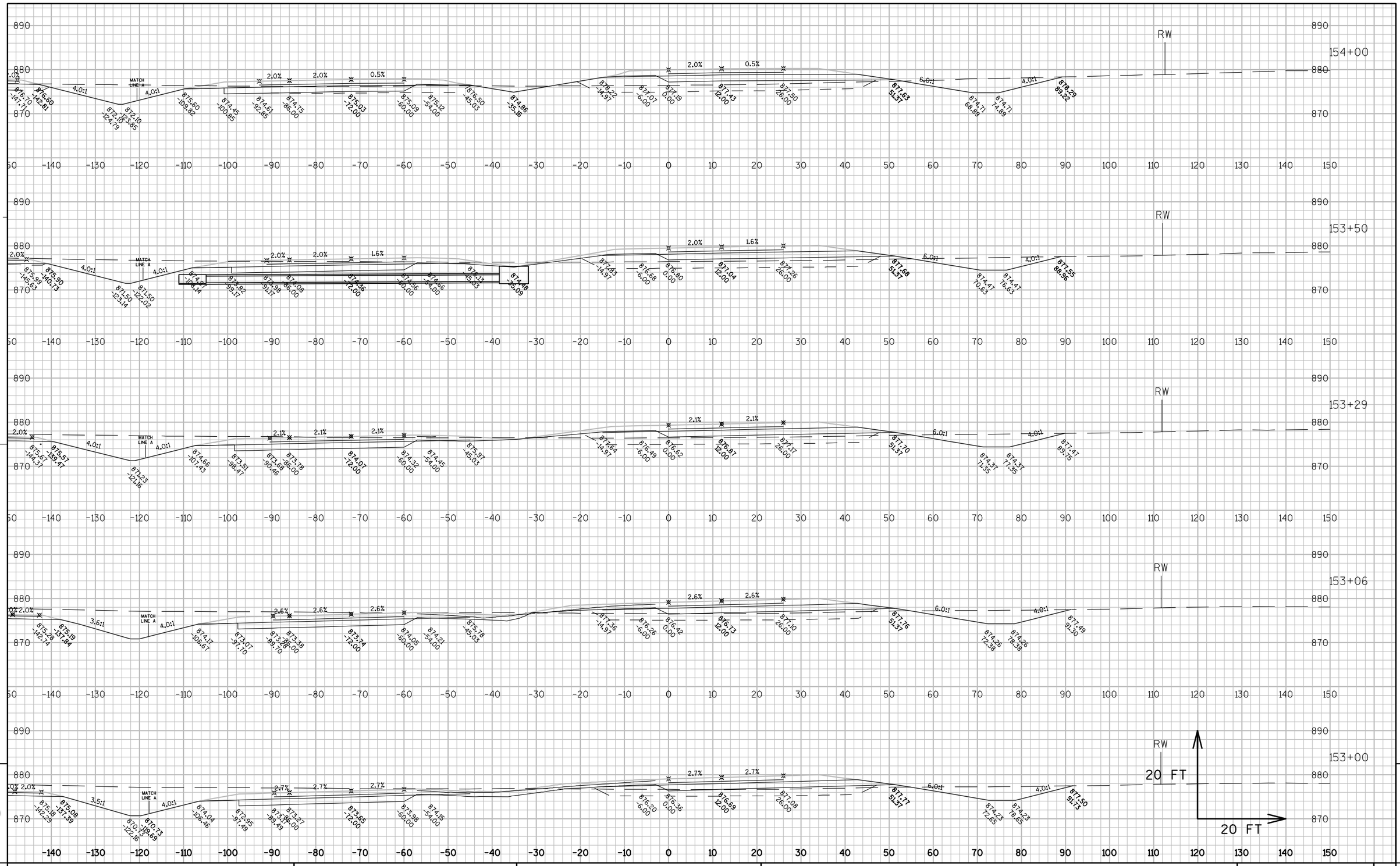
FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:22 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49



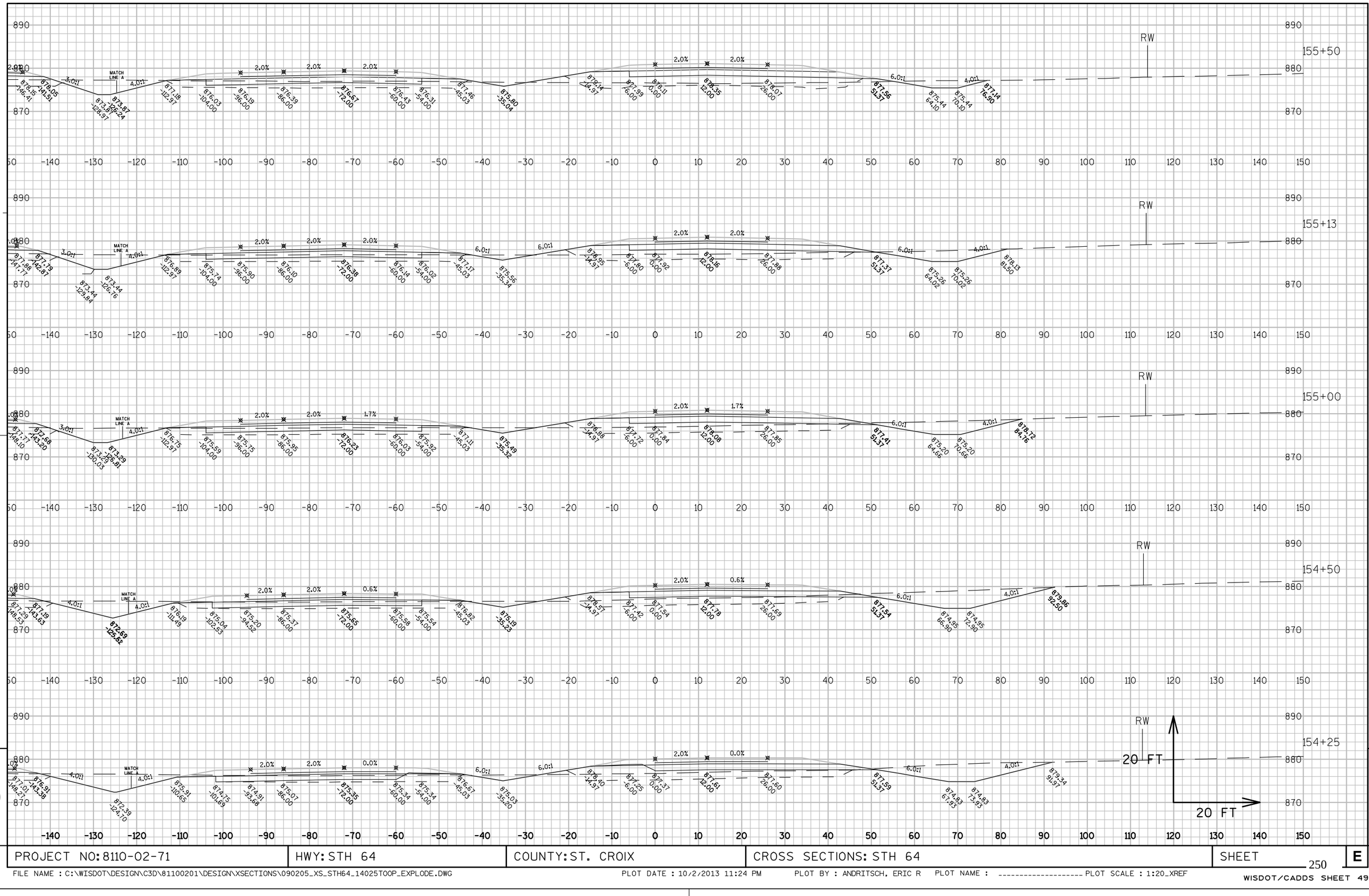
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 248	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:23 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



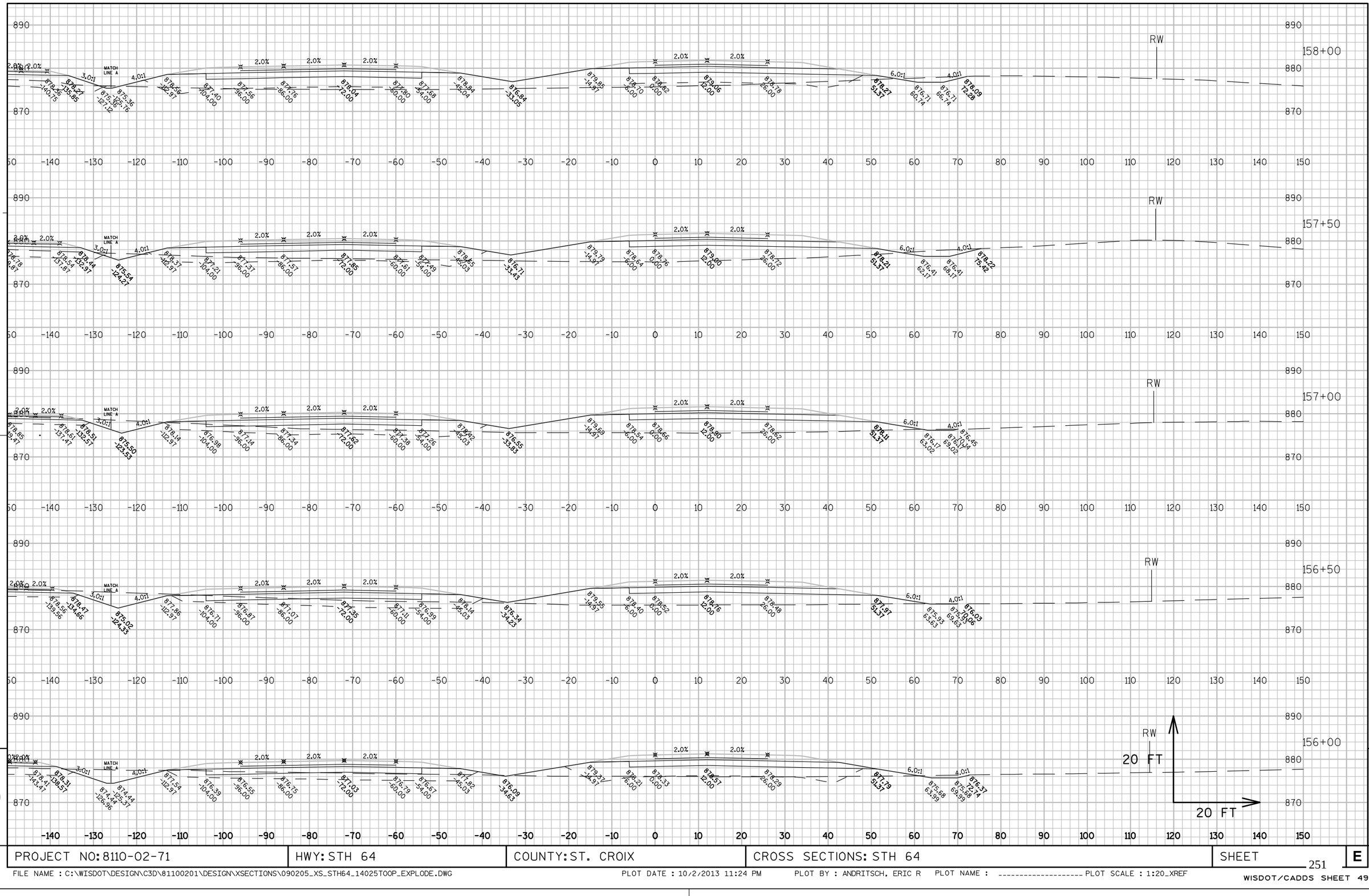
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 249	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:23 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 250	E

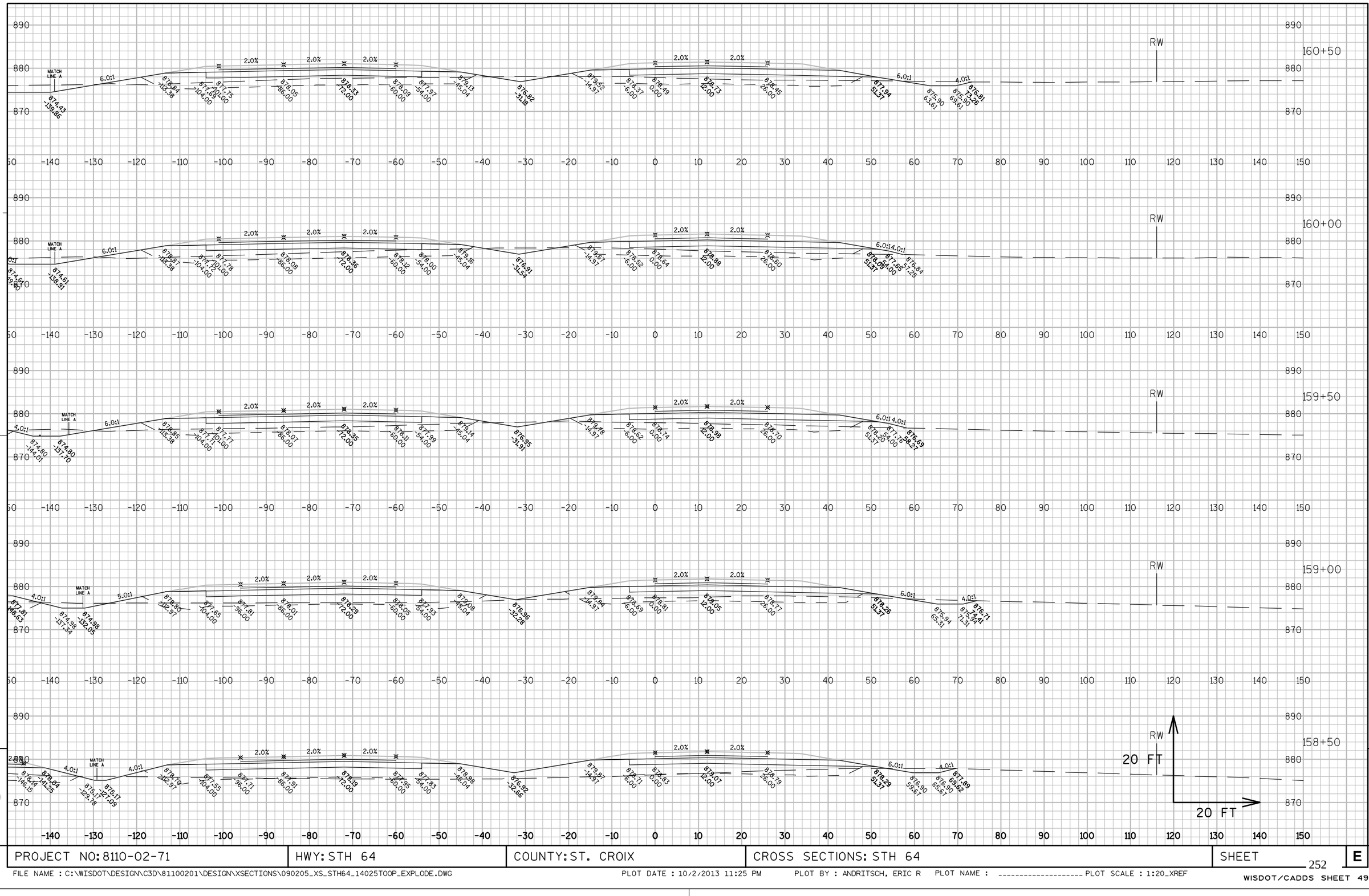
FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:24 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF



9

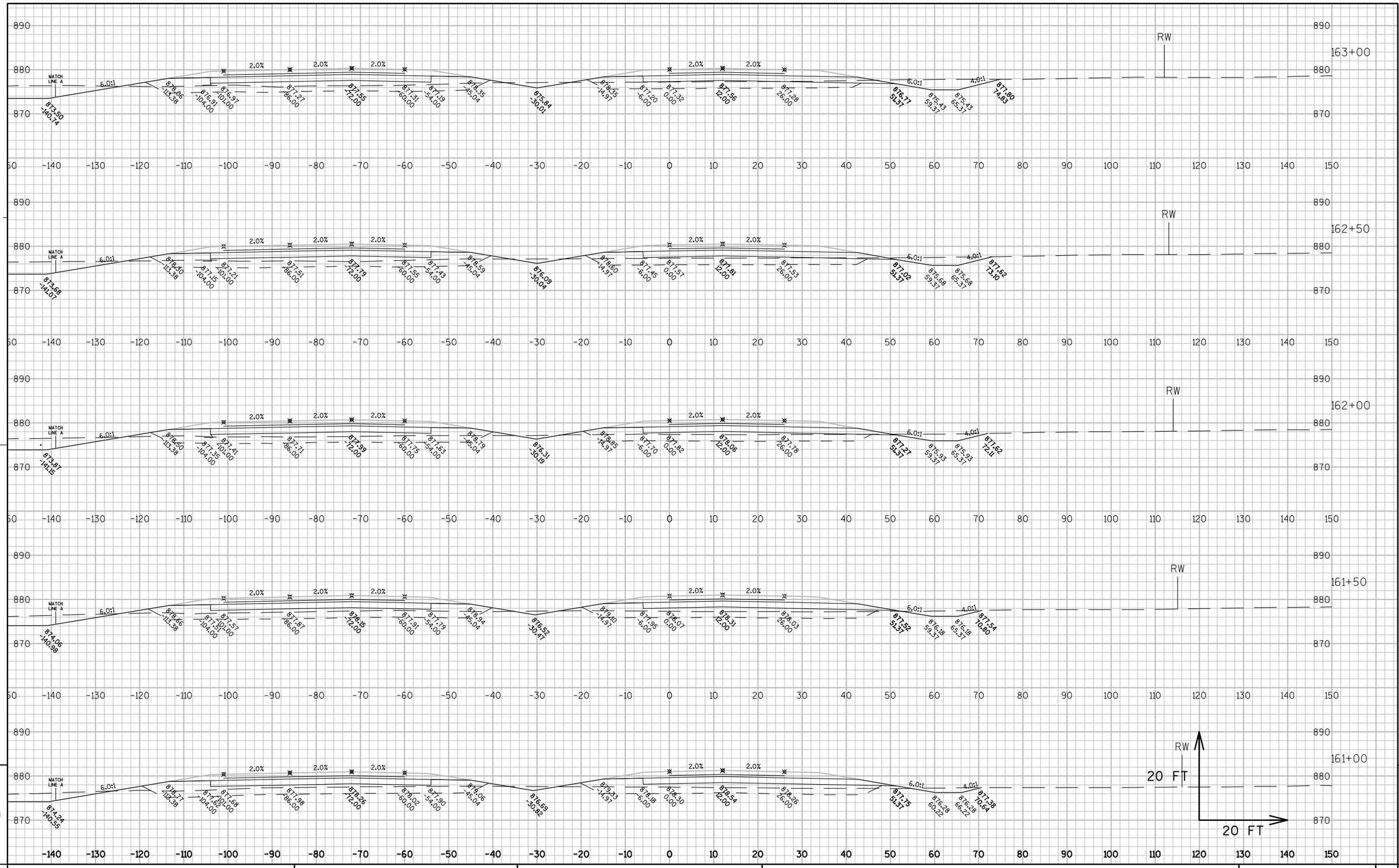
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 251	E



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 252	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:25 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

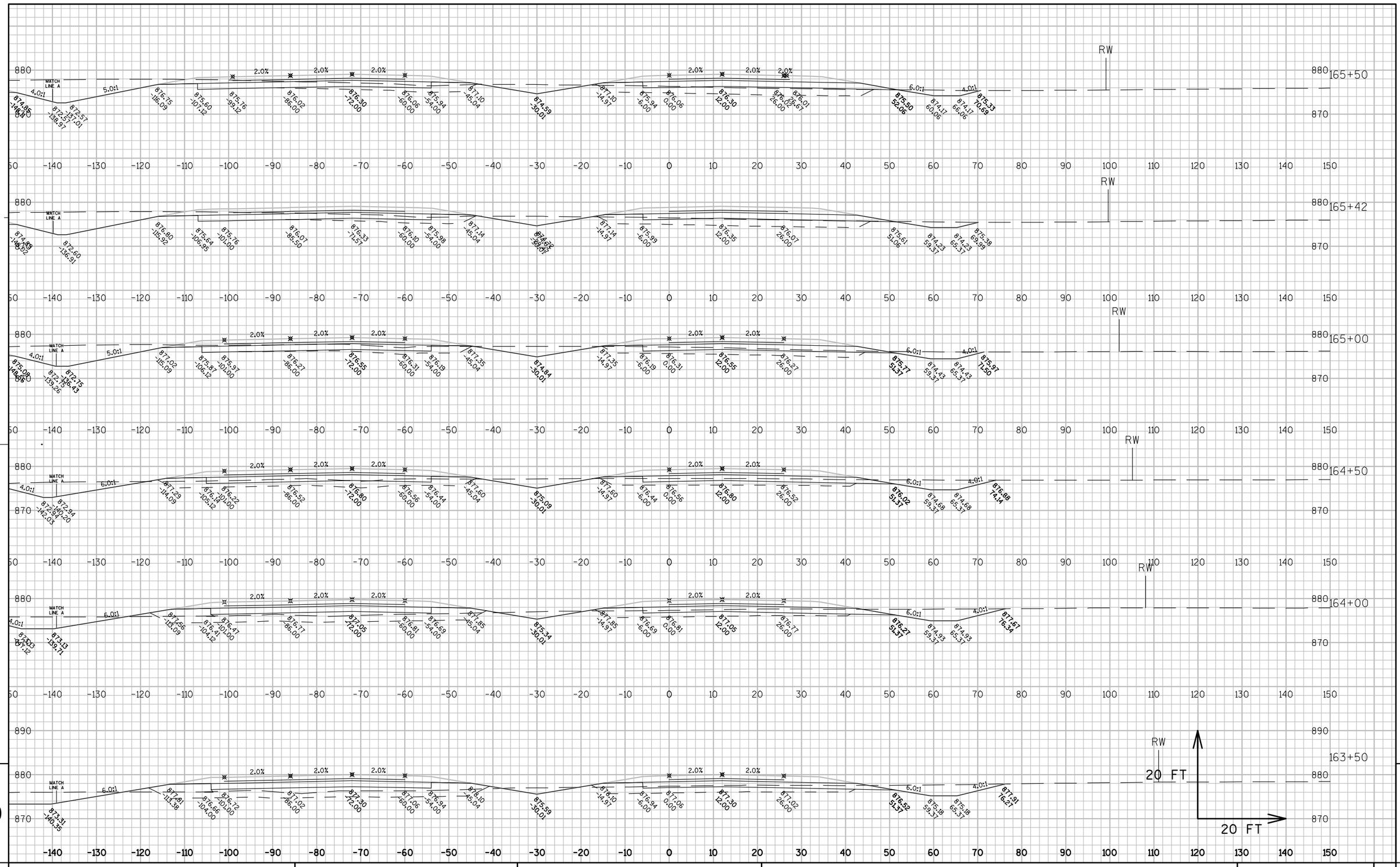


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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 253	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:25 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

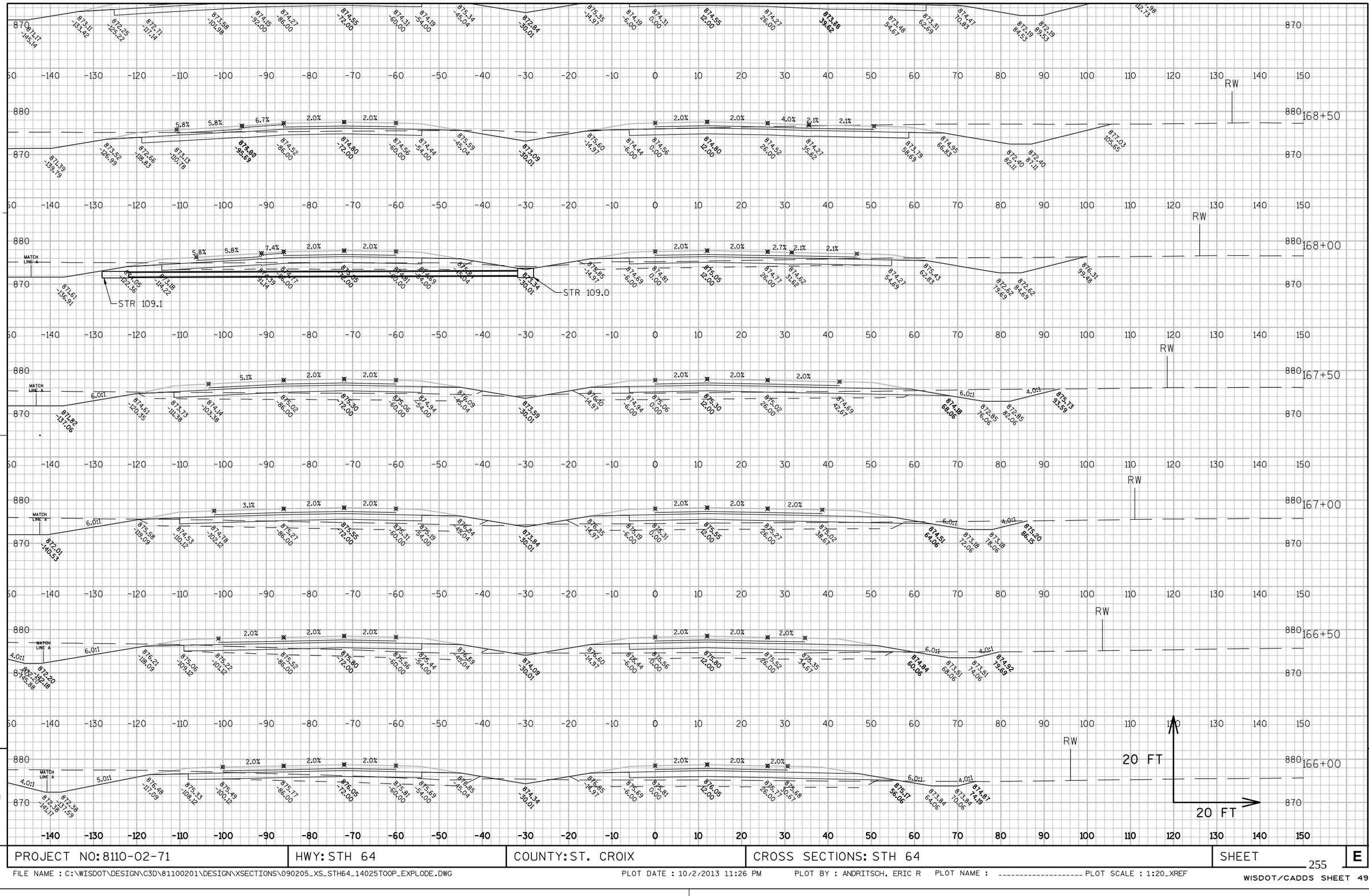


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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 254	E

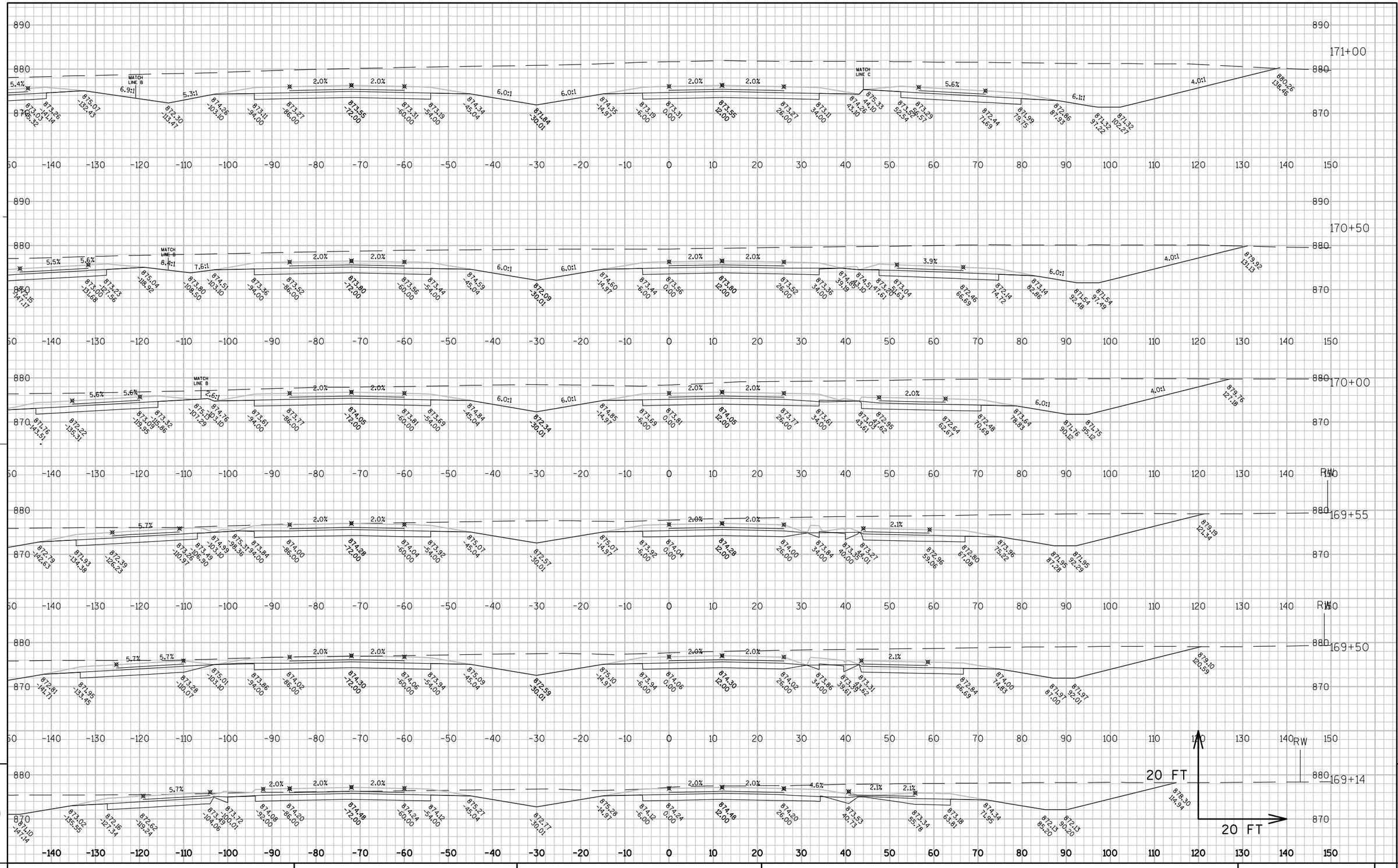
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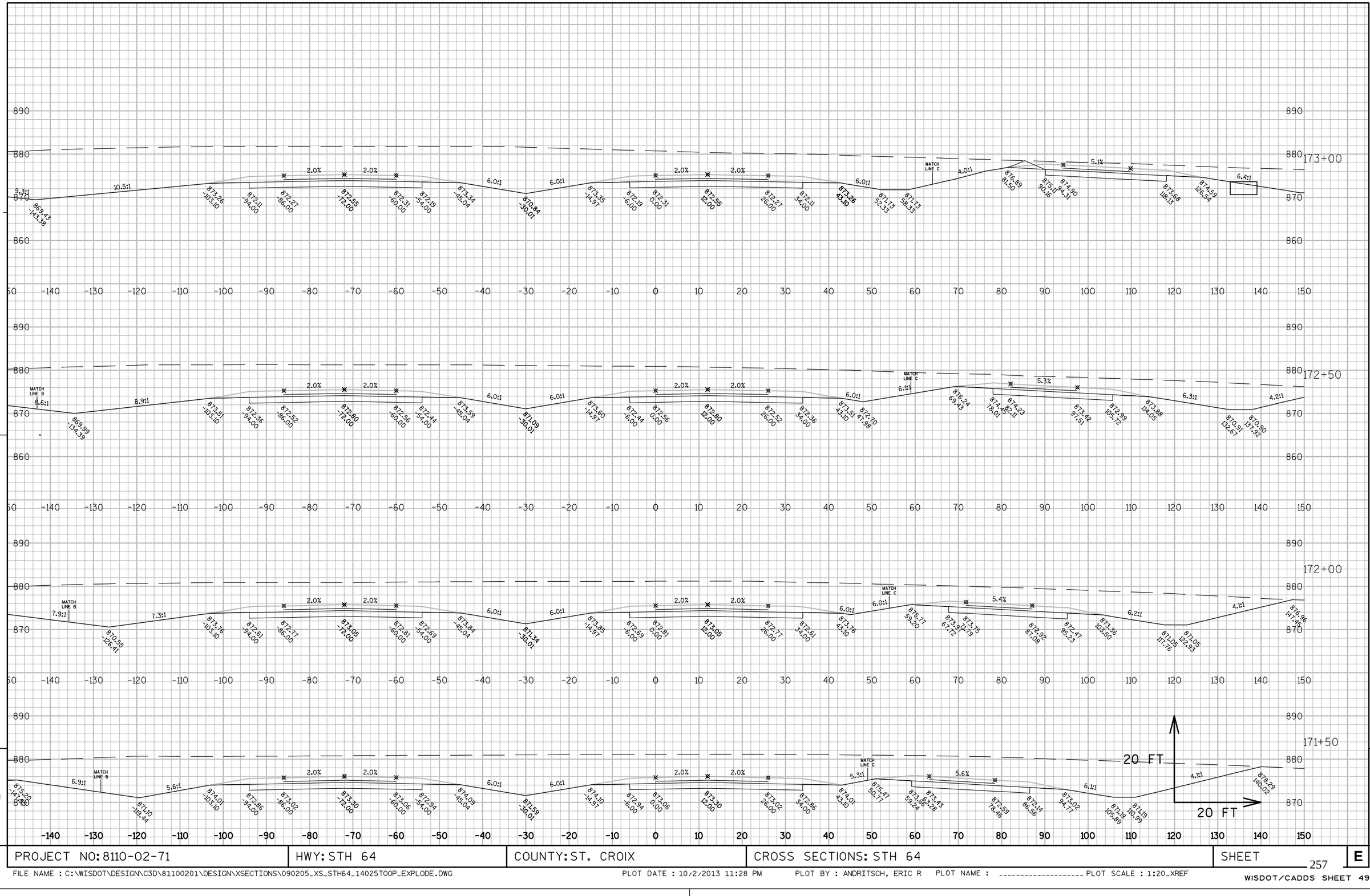


PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 255	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:26 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

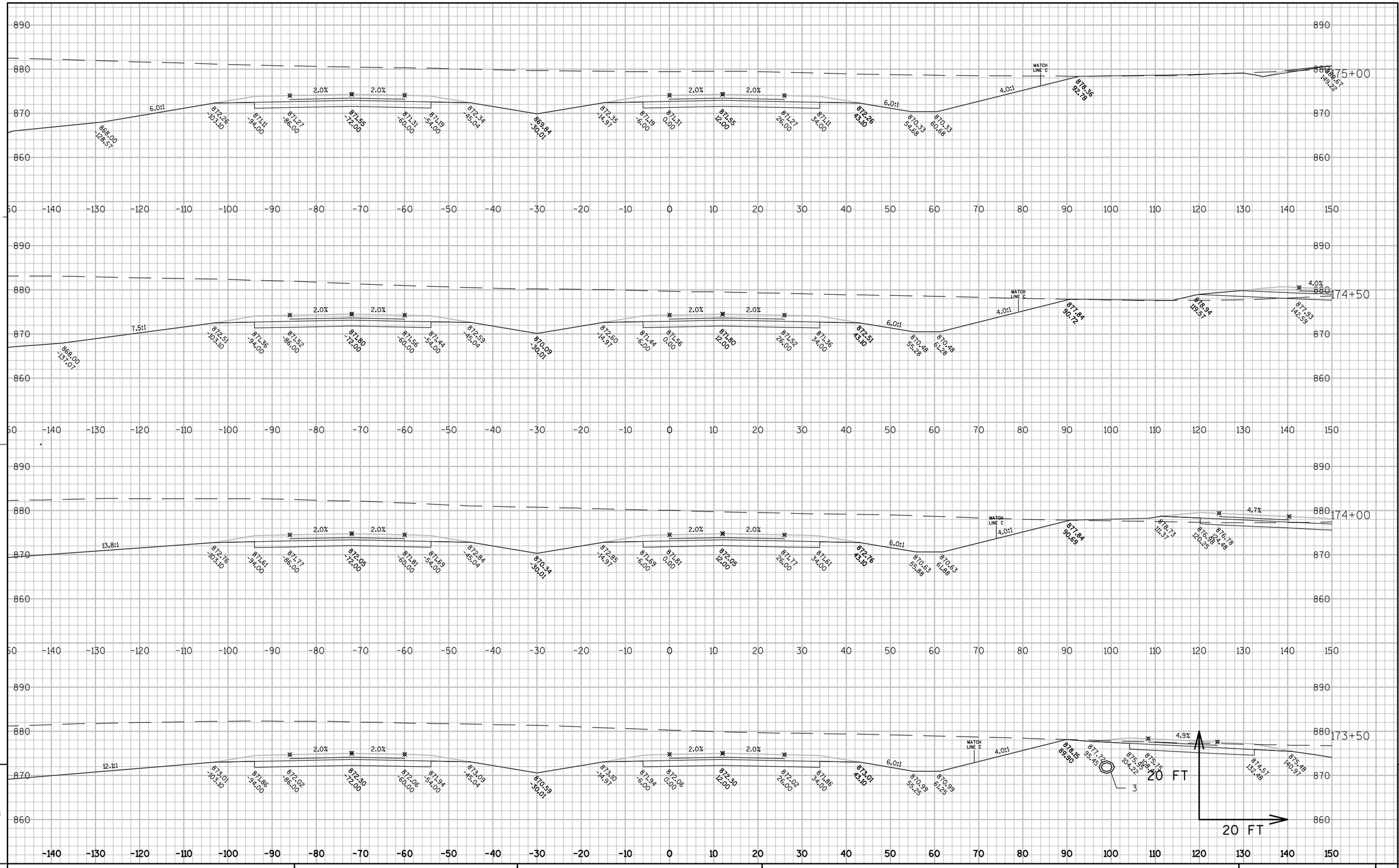


PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 256	E

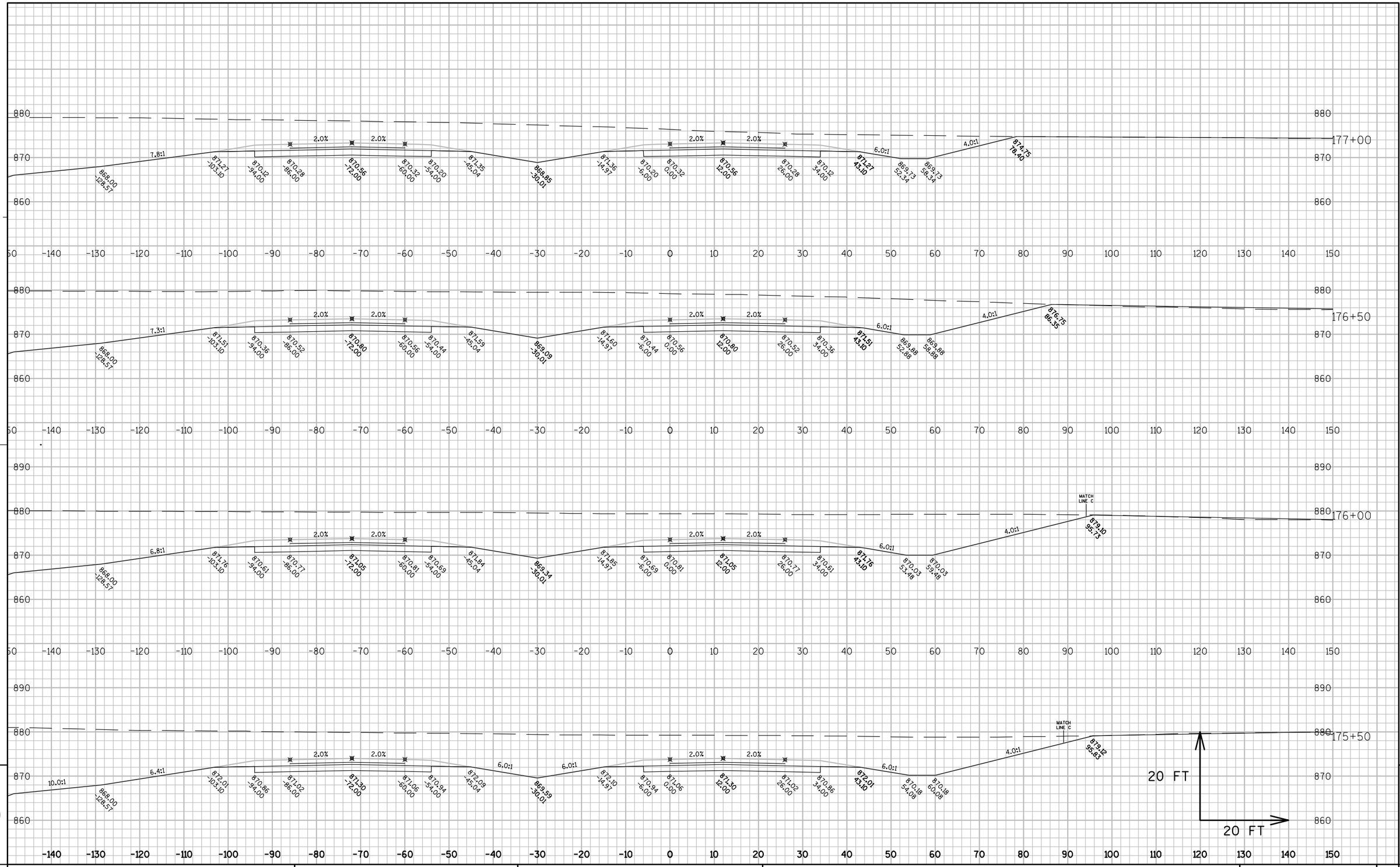


PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 257	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:28 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 258 E

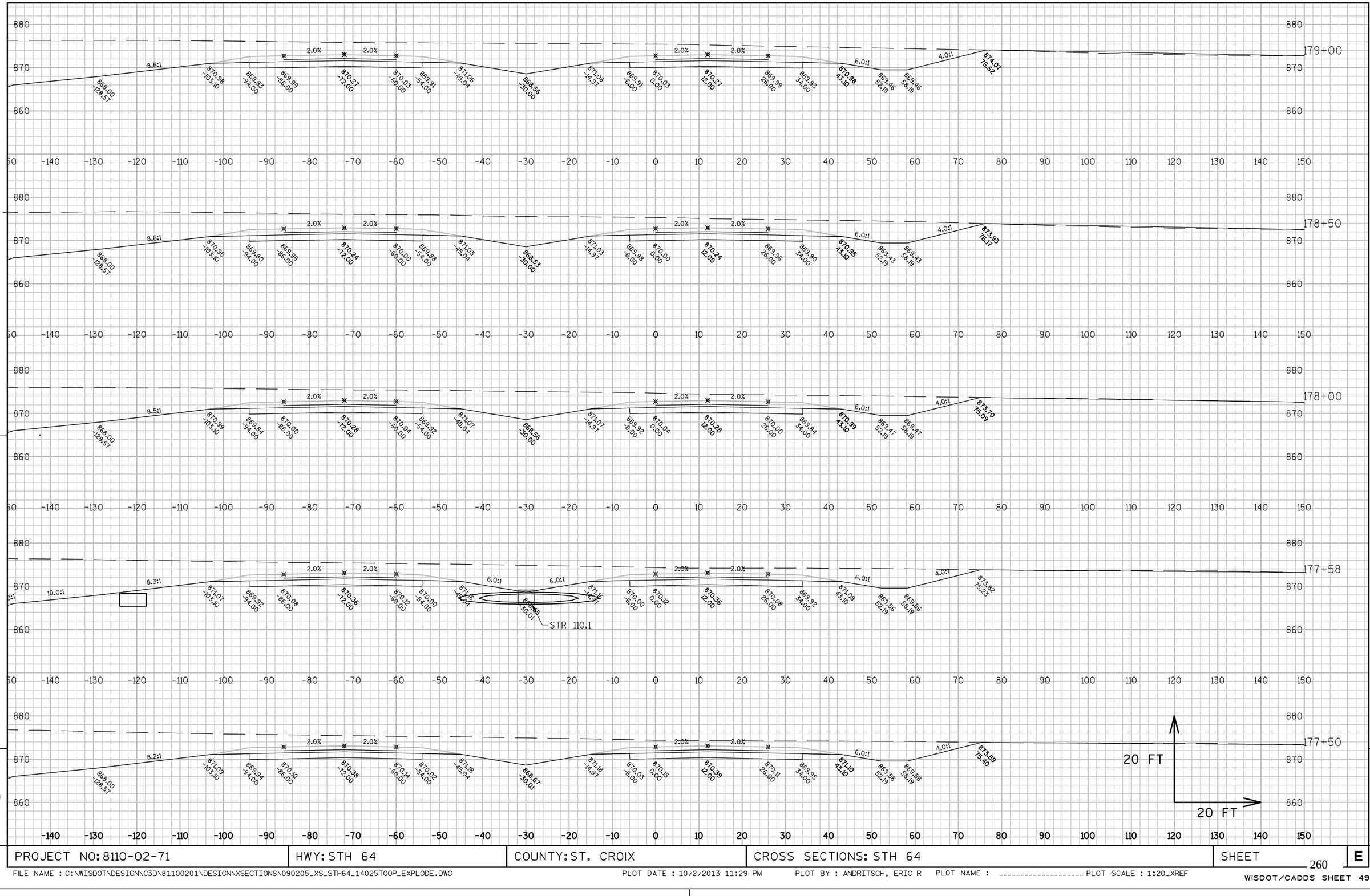


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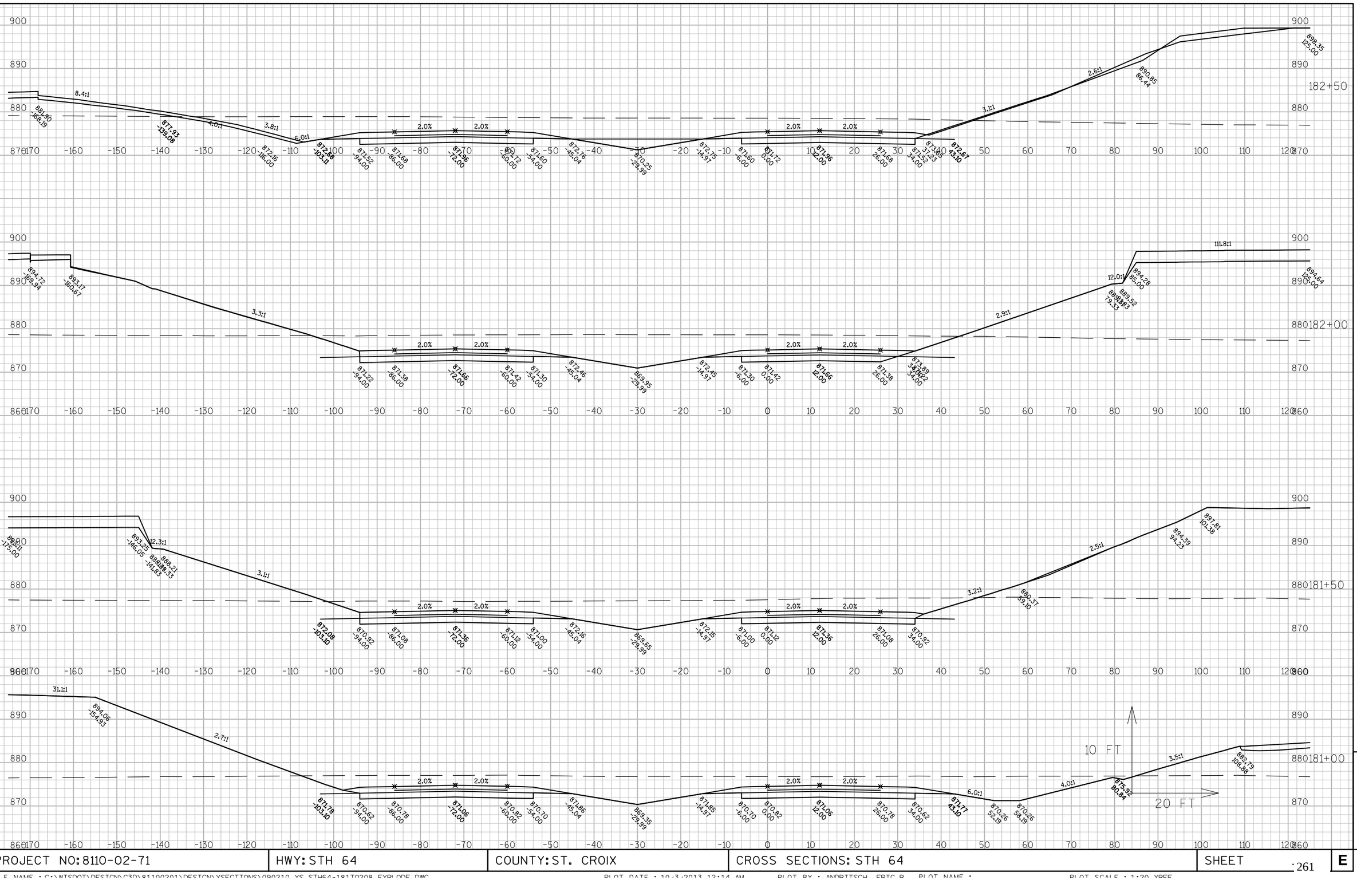
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 259	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:29 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

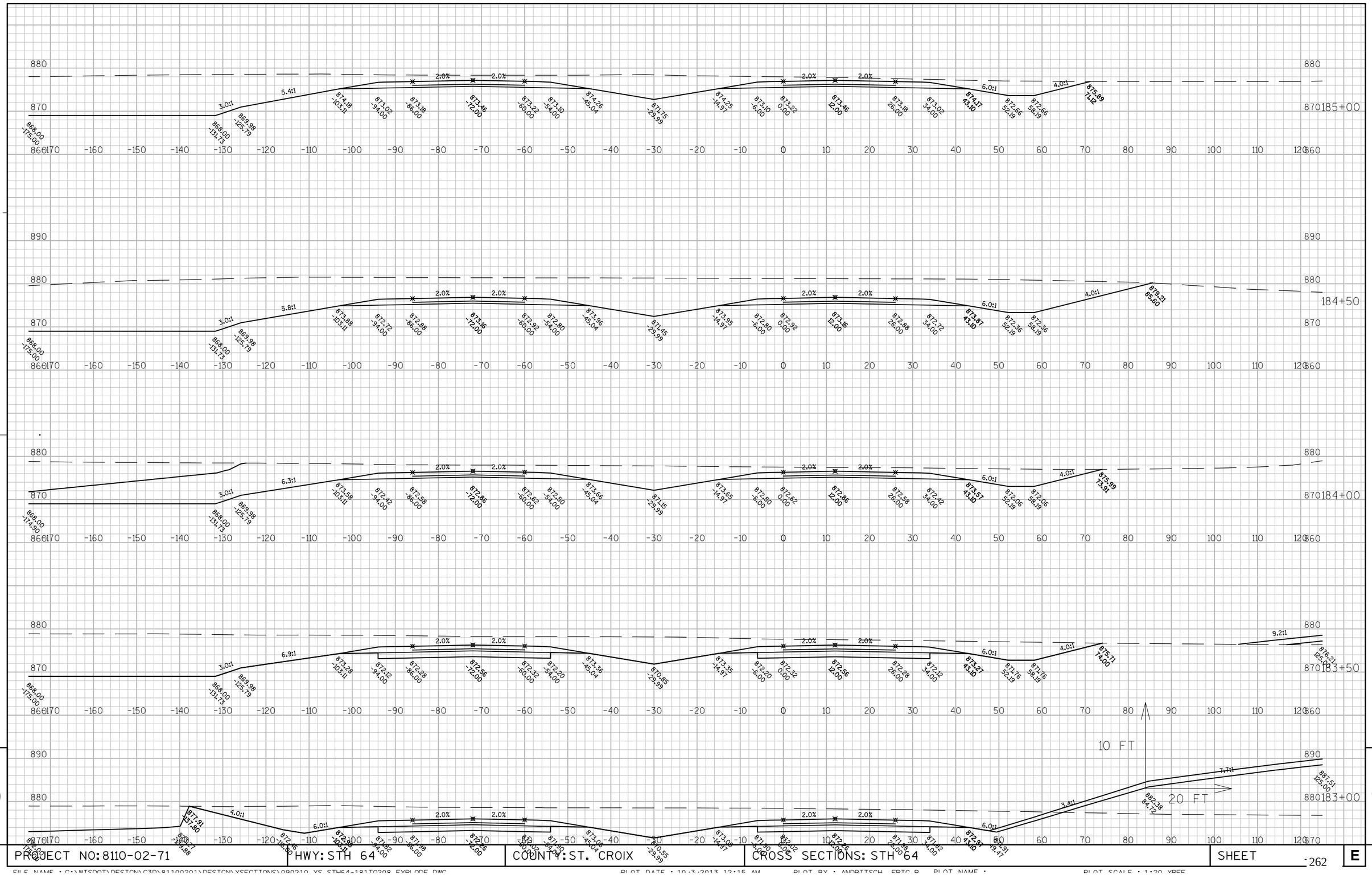


PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 260	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090205_XS_STH64_14025TOOP_EXPLODE.DWG PLOT DATE : 10/2/2013 11:29 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

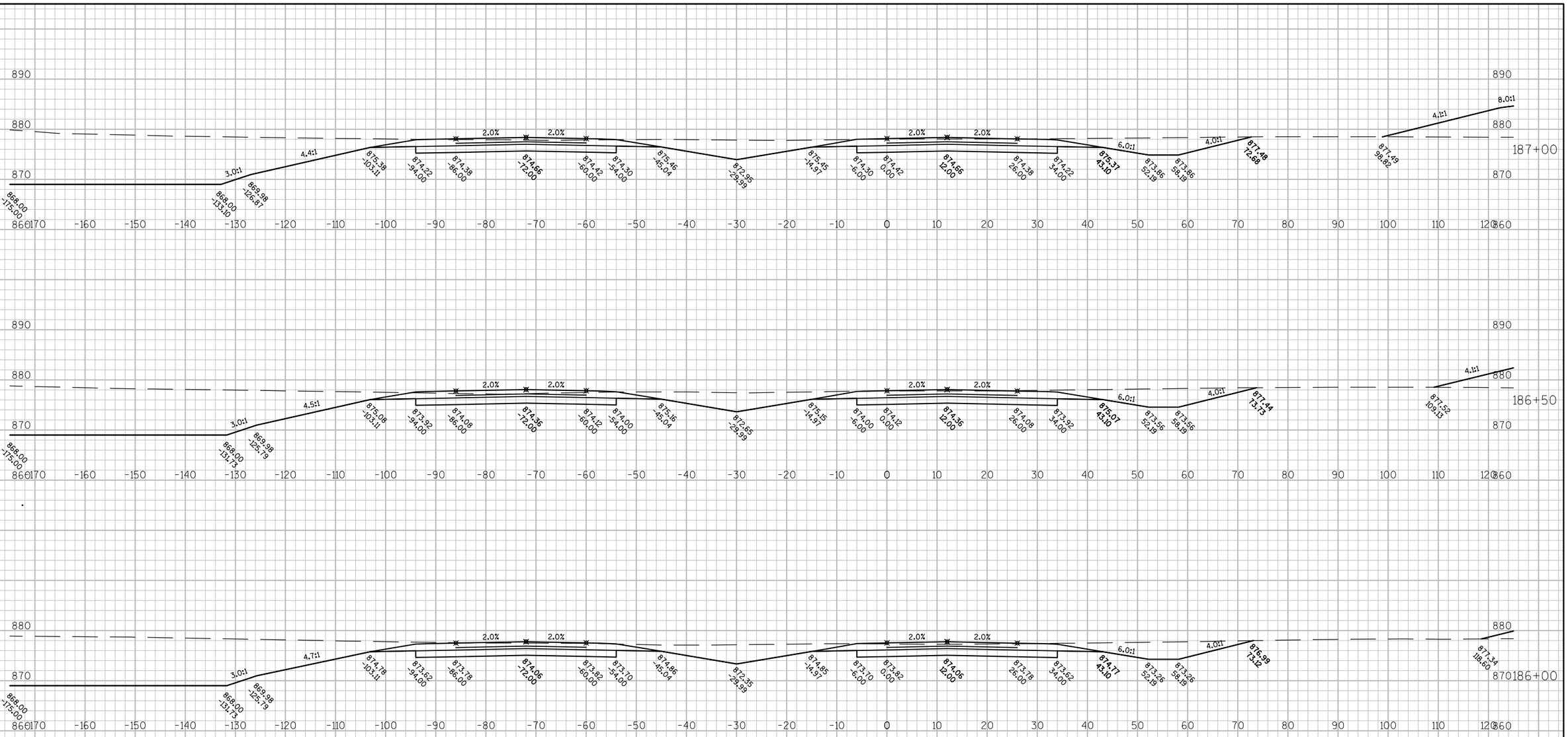


PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 261	E



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET	E

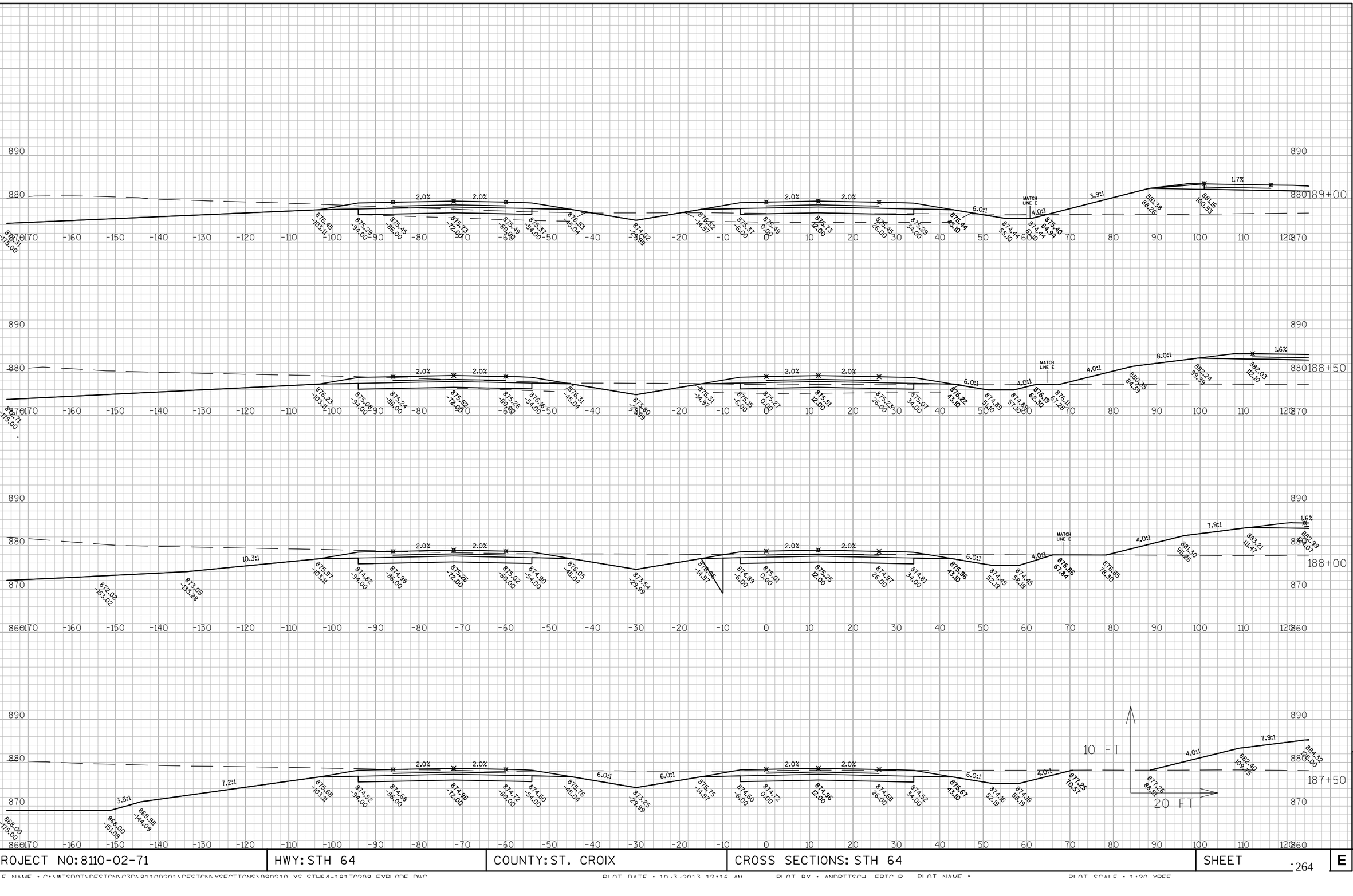
FILE NAME: C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\080210_XS_STH64-181T0208_EXPLODE.DWG PLOT DATE: 10/3/2013 12:15 AM PLOT BY: ANDRITSCH, ERIC R PLOT NAME: PLOT SCALE: 1:20 XREF



9

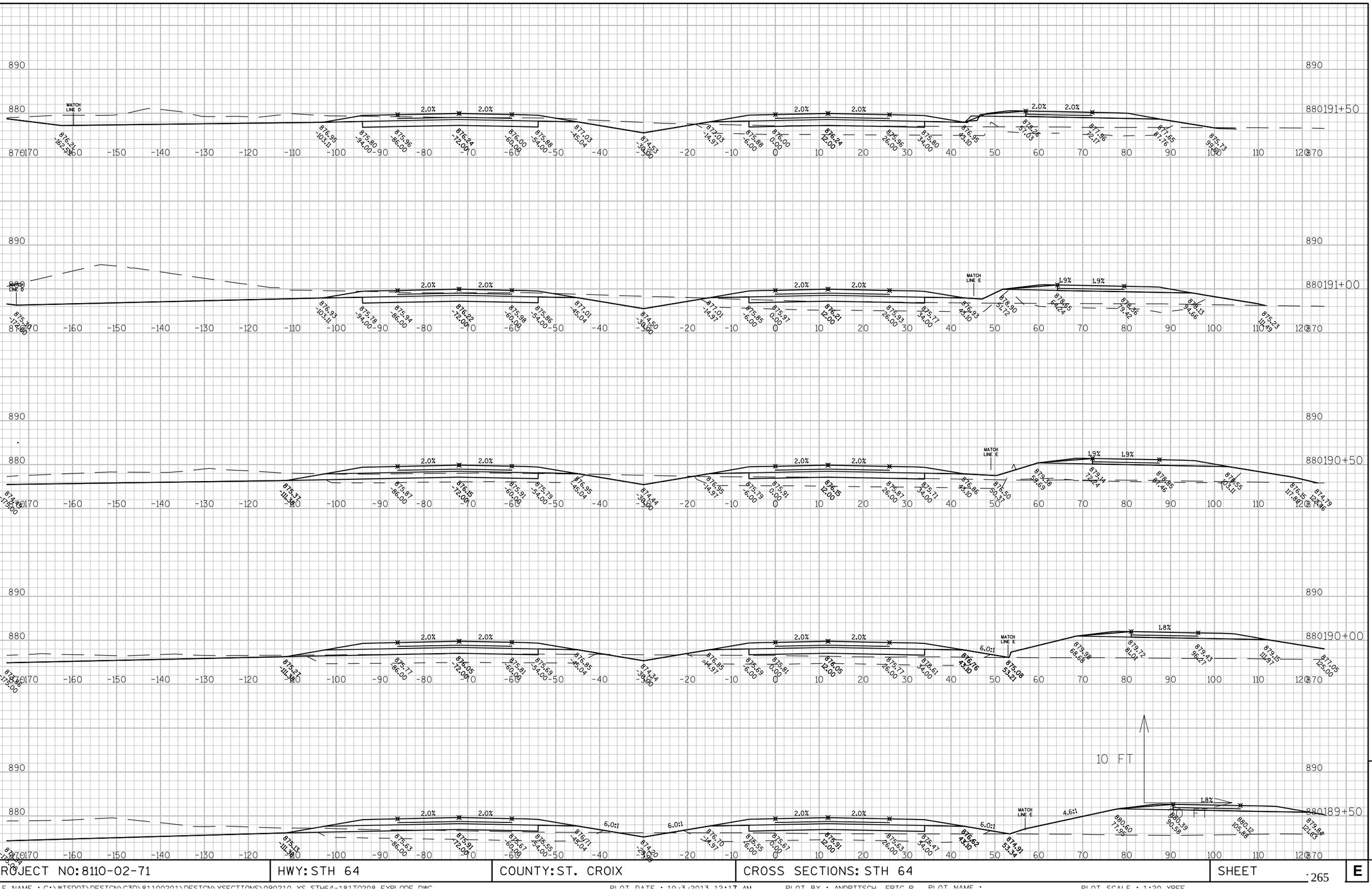
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 263	E



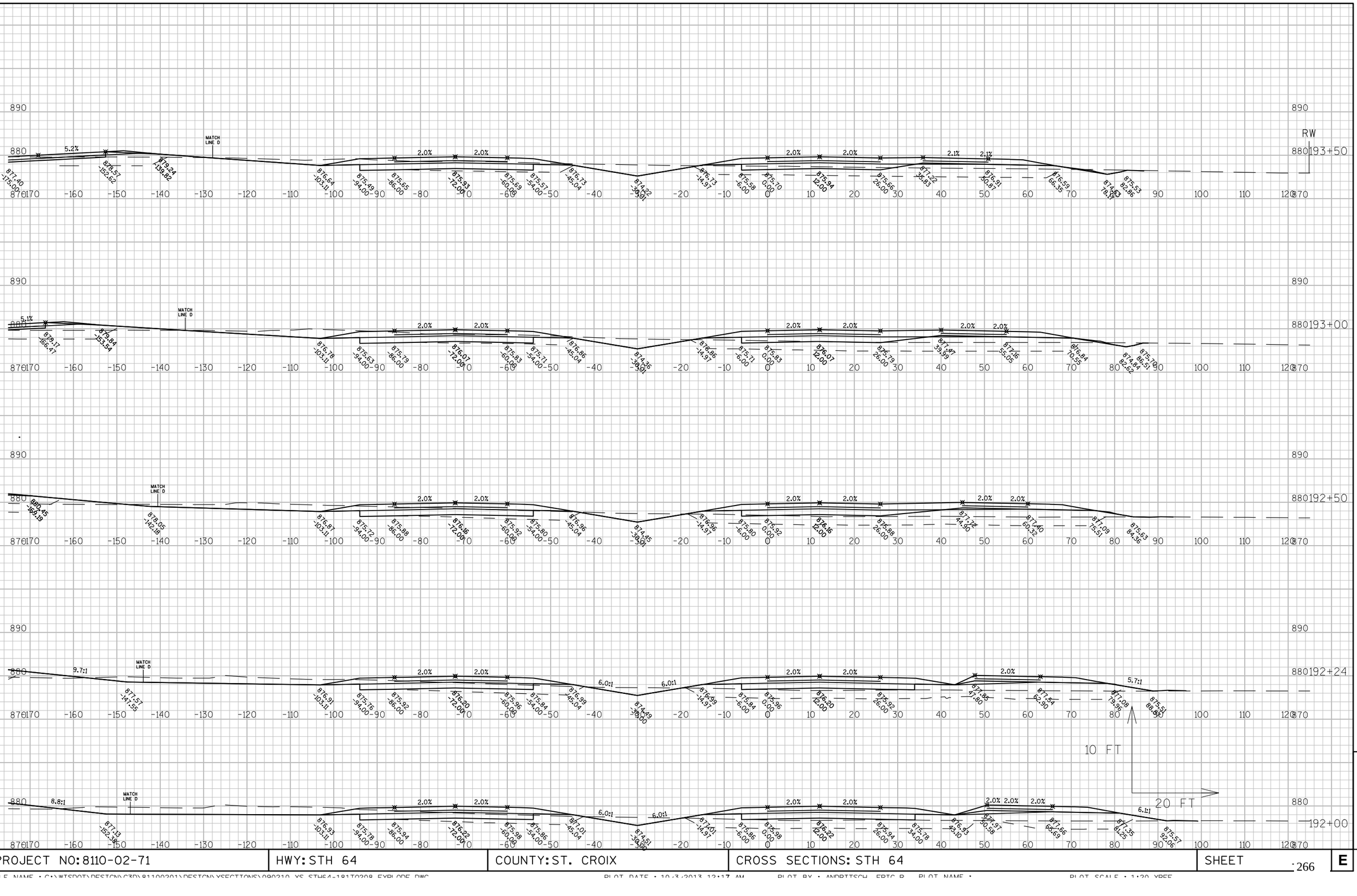
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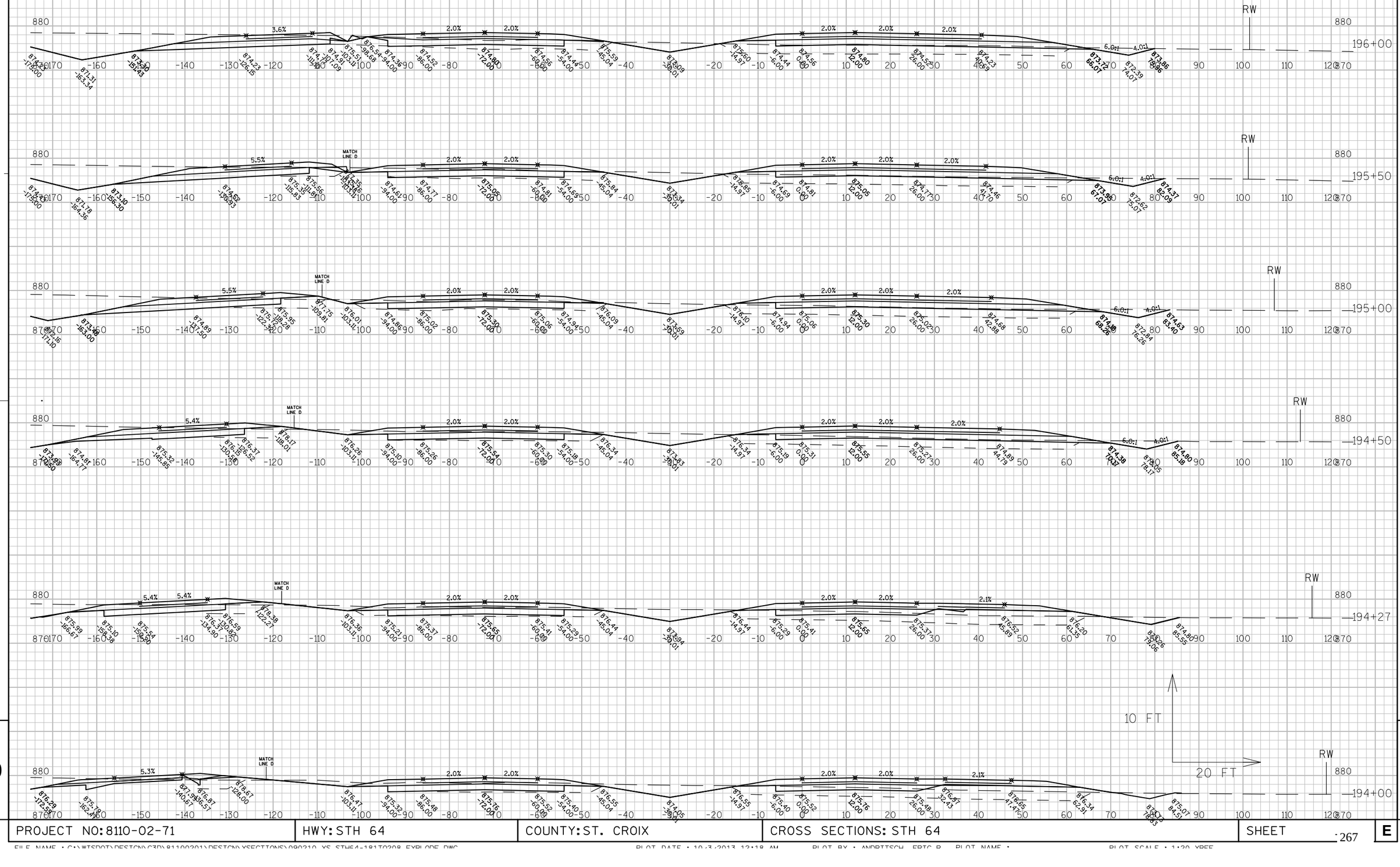
FILE NAME = C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090210_XS_STH64-181T0208_EXPLODE.DWG PLOT DATE = 10/3/2013 12:16 AM PLOT BY = ANDRITSCH, ERIC R PLOT NAME = PLOT SCALE = 1:20 XREF



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 265 E

FILE NAME: C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\080210_XS_STH64-181T0208_EXPLODE.DWG PLOT DATE: 10/3/2013 12:17 AM PLOT BY: ANDRITSCH, ERIC R PLOT NAME: PLOT SCALE: 1:20 XREF

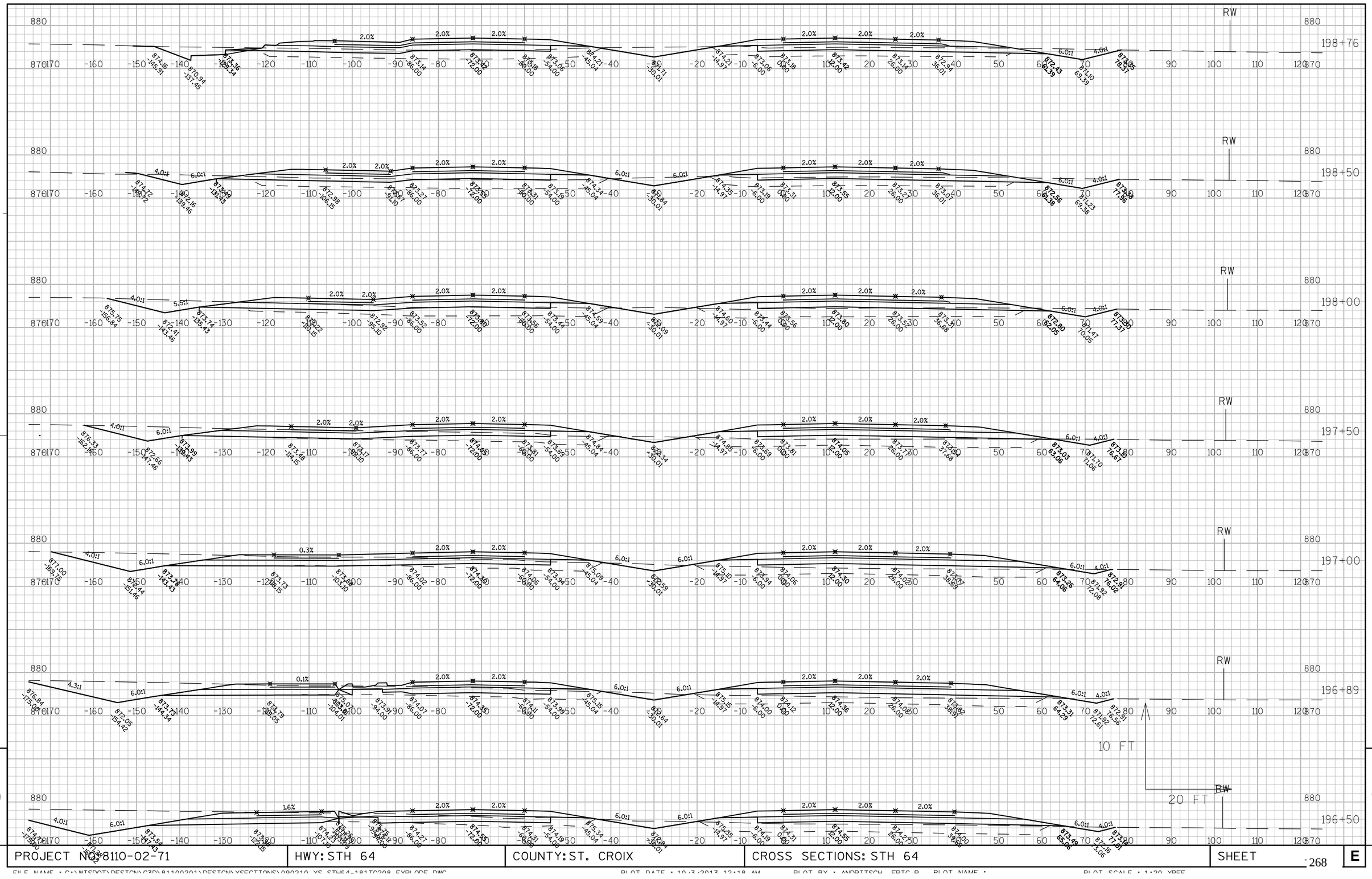

RW
880193+50
880193+00
880192+50
880192+24
880192+00
MATCH LINE D
5.2%
5.1%
9.7:1
8.8:1
6.0:1
5.7:1
6.1:1
2.0%
2.1%
10 FT
20 FT



9

9

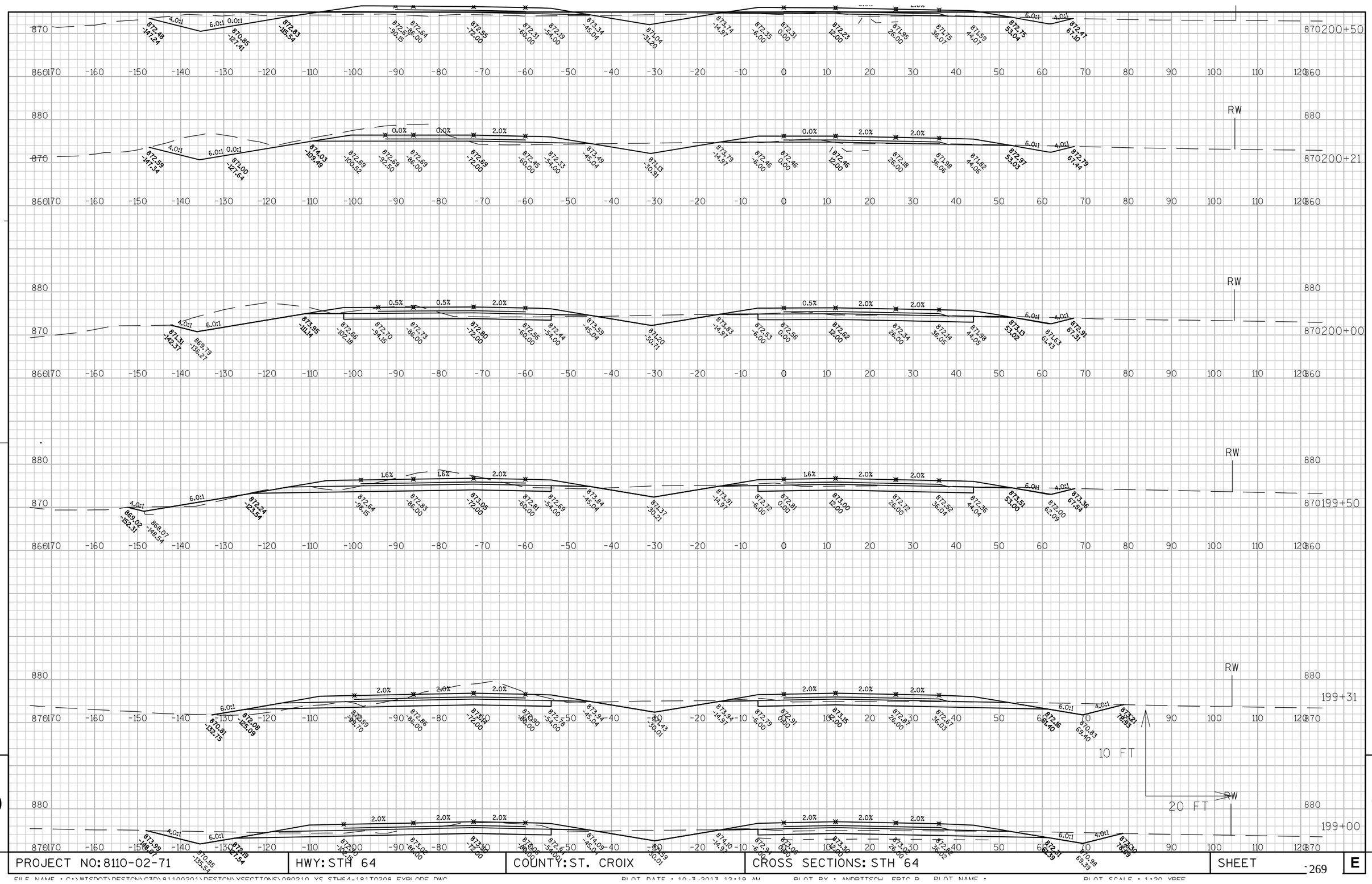
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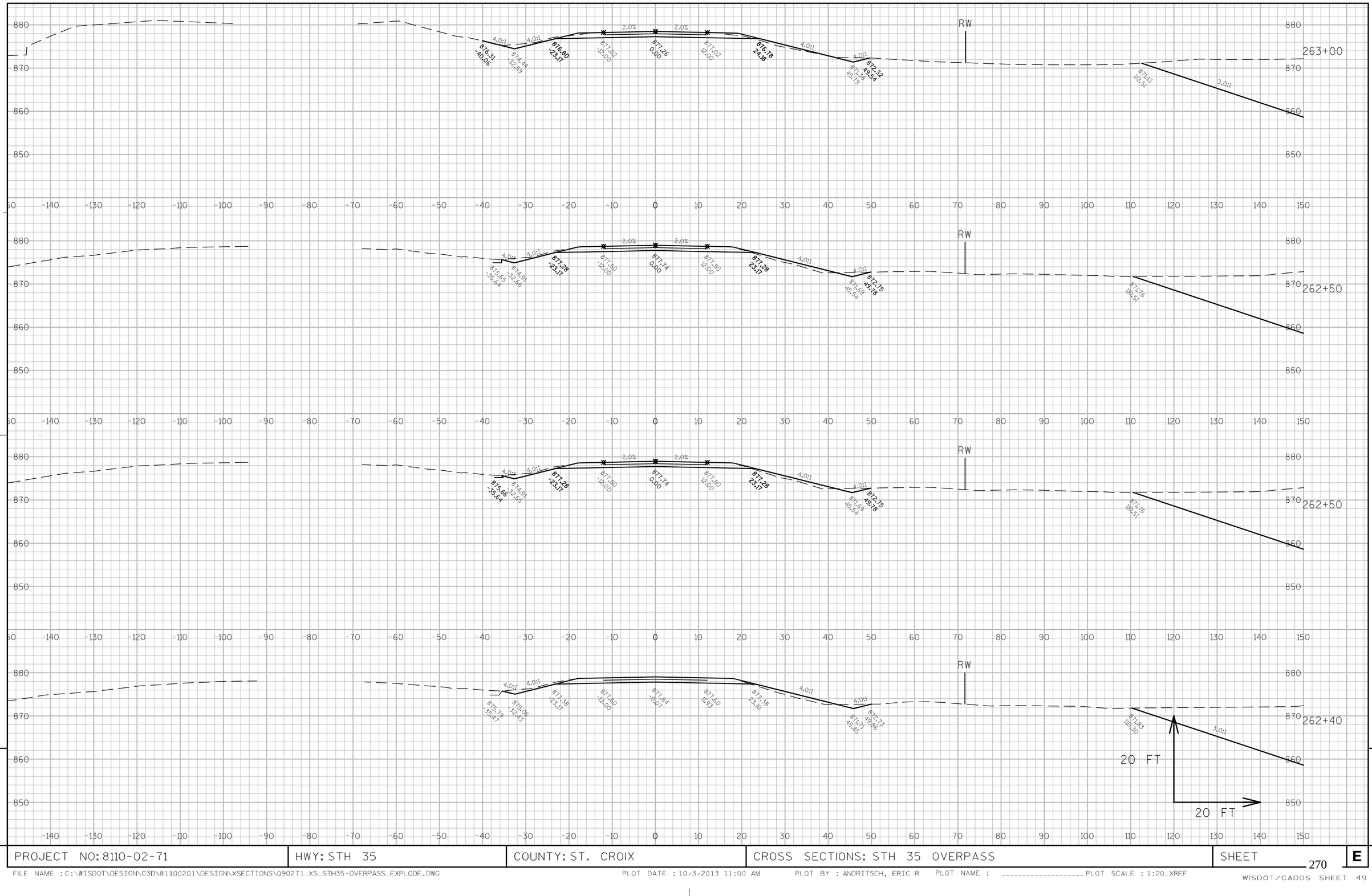


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9

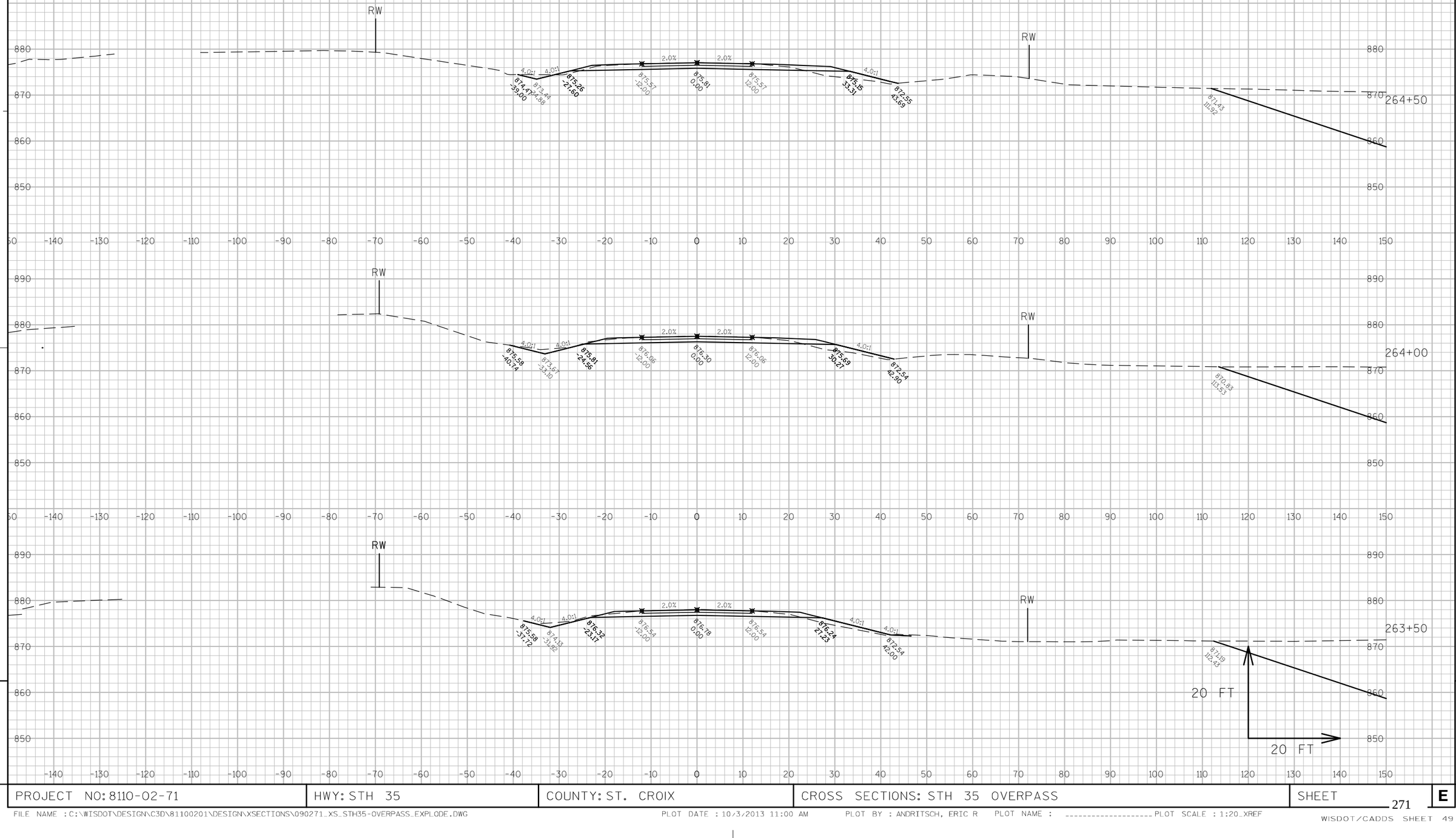
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: STH 64	SHEET 268	E


870200+50
870200+21
870200+00
870199+50
199+31
199+00
RW
10 FT
20 FT
4.0:1
6.0:1
0.0:1
0.0%
0.5%
1.6%
2.0%
872.48 -147.24
870.85 -127.41
872.83 -105.54
872.64 -96.15
872.64 -86.00
872.55 -72.00
872.31 -60.00
872.19 -54.00
873.34 -45.04
871.04 -30.20
873.74 -14.97
872.35 -6.00
872.31 0.00
872.23 12.00
871.95 26.00
871.75 36.07
871.59 44.07
872.75 53.04
872.47 67.10
872.59 -147.34
871.00 -127.64
874.03 -105.49
872.69 -100.52
872.69 -92.50
872.69 -86.00
872.69 -72.00
872.45 -60.00
872.33 -54.00
873.49 -45.04
871.13 -30.31
873.79 -14.97
872.46 -6.00
872.46 0.00
872.46 12.00
872.48 26.00
871.98 36.06
871.82 44.06
872.97 53.03
872.79 67.44
871.31 -142.37
869.73 -136.27
873.95 -111.14
872.66 -102.18
872.70 -94.19
872.73 -86.00
872.80 -72.00
872.56 -60.00
872.44 -54.00
873.59 -45.04
871.20 -30.71
873.83 -14.97
872.53 -6.00
872.56 0.00
872.62 12.00
872.34 26.00
872.14 36.05
871.98 44.05
873.13 53.02
871.63 61.43
872.91 67.31
869.02 -152.31
868.07 -148.54
872.24 -123.54
872.64 -96.15
872.83 -86.00
873.05 -72.00
872.81 -60.00
872.69 -54.00
873.84 -45.04
871.37 -30.21
873.91 -14.97
872.72 -6.00
872.81 0.00
873.00 12.00
872.72 26.00
872.52 36.04
872.36 44.04
873.51 53.00
872.00 62.09
873.36 67.54
870.91 -132.75
872.08 -125.08
872.59 -98.70
872.85 -86.00
873.05 -72.00
872.90 -60.00
872.78 -54.00
873.94 -45.04
871.43 -30.01
873.94 -14.97
872.79 -6.00
872.91 0.00
873.15 12.00
872.87 26.00
872.67 36.03
872.46 44.40
870.83 69.20
873.21 78.93
873.99 -168.67
870.85 -135.54
872.49 -127.54
873.00 -108.15
872.91 -96.00
873.05 -86.00
873.05 -72.00
873.08 -60.00
872.91 -54.00
874.09 -45.04
871.59 -30.01
874.40 -14.97
872.94 -6.00
873.08 0.00
873.30 12.00
873.02 26.00
872.82 36.02
872.31 44.39
870.98 59.39
873.30 78.98



PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET	E

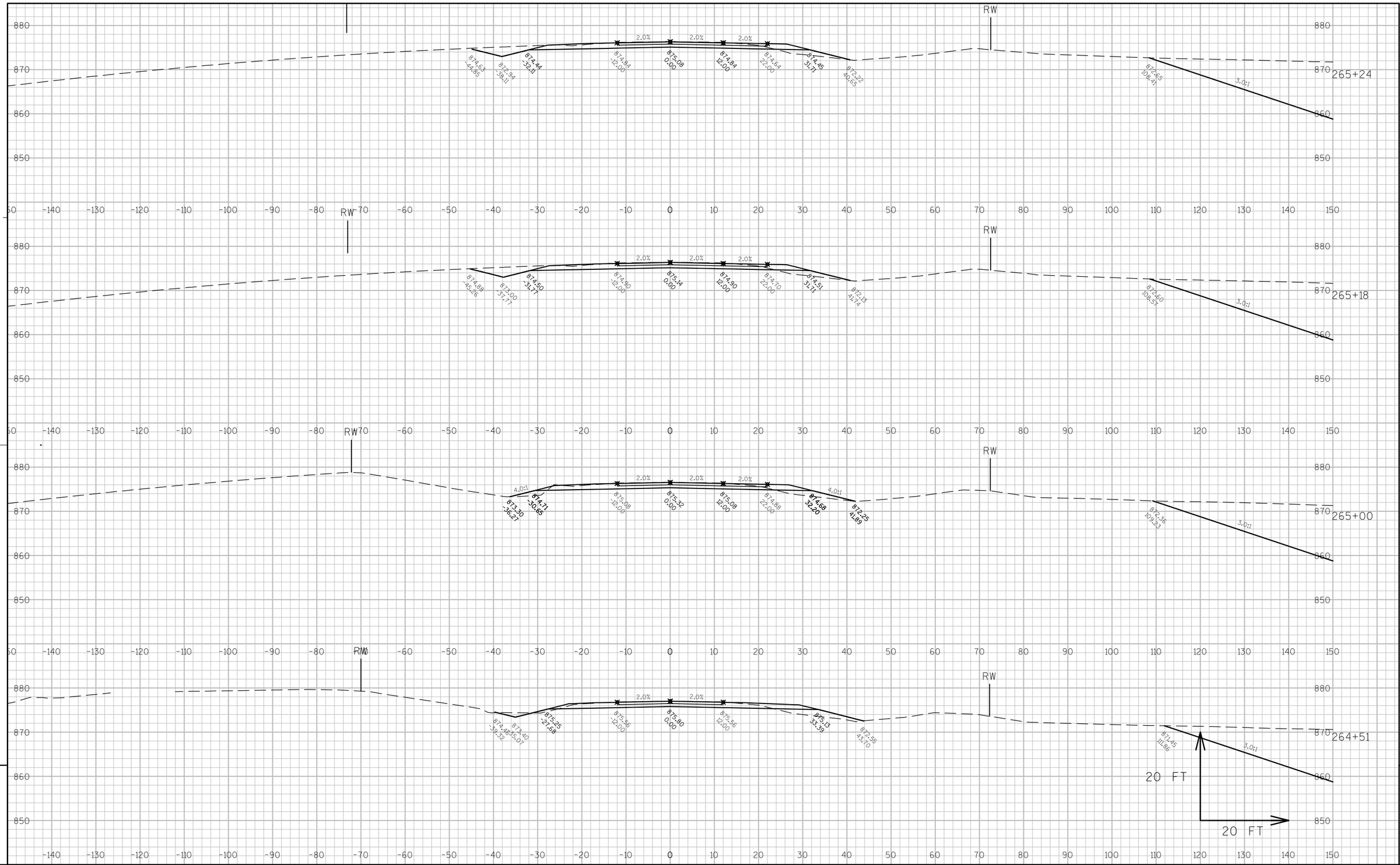
FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090271_XS_STH35-OVERPASS_EXPLODE.DWG PLOT DATE : 10/3/2013 11:00 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



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PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET 271	E



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PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090271_XS_STH35-OVERPASS_EXPLODE.DWG PLOT DATE : 10/3/2013 11:00 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49

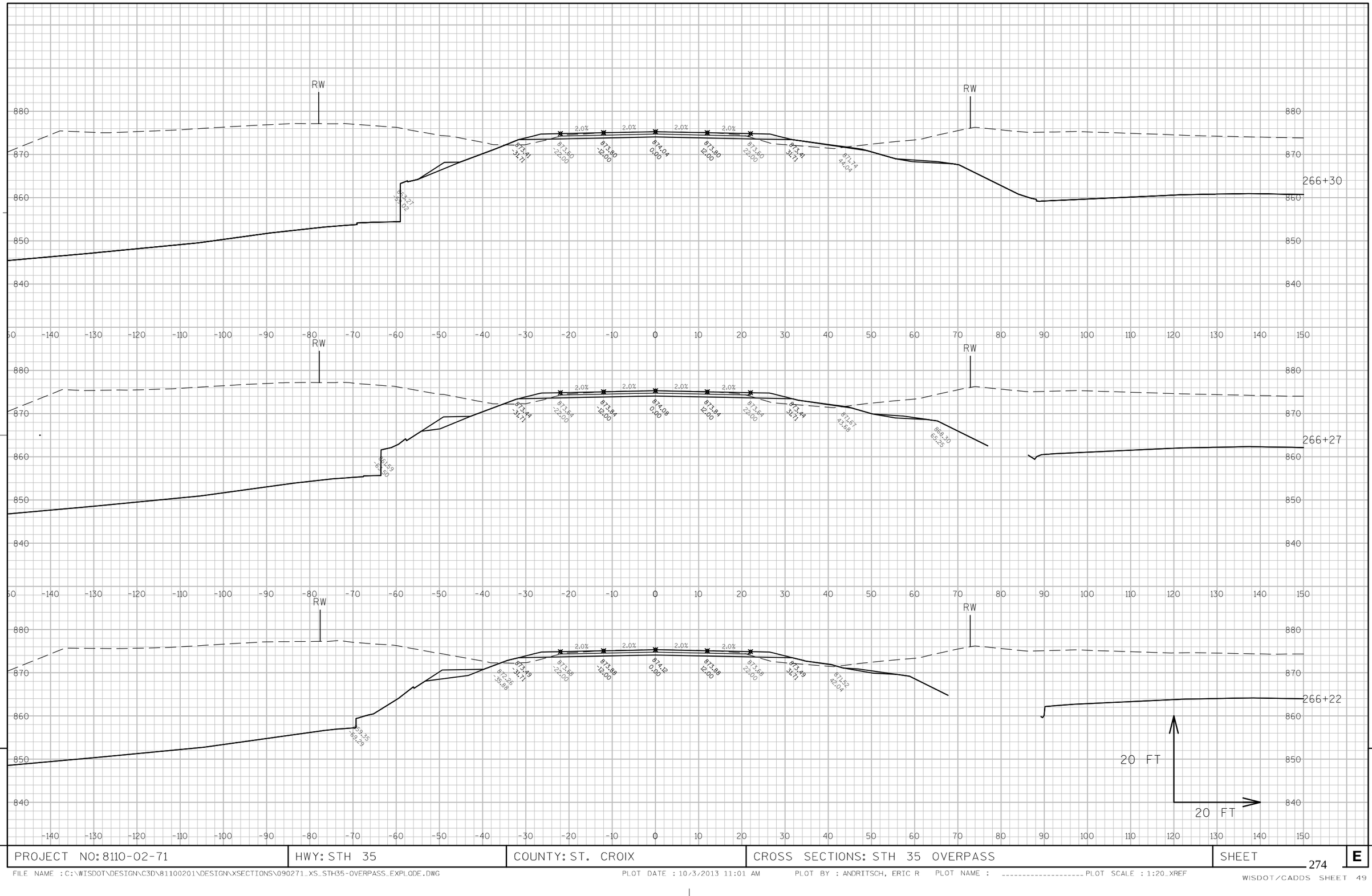


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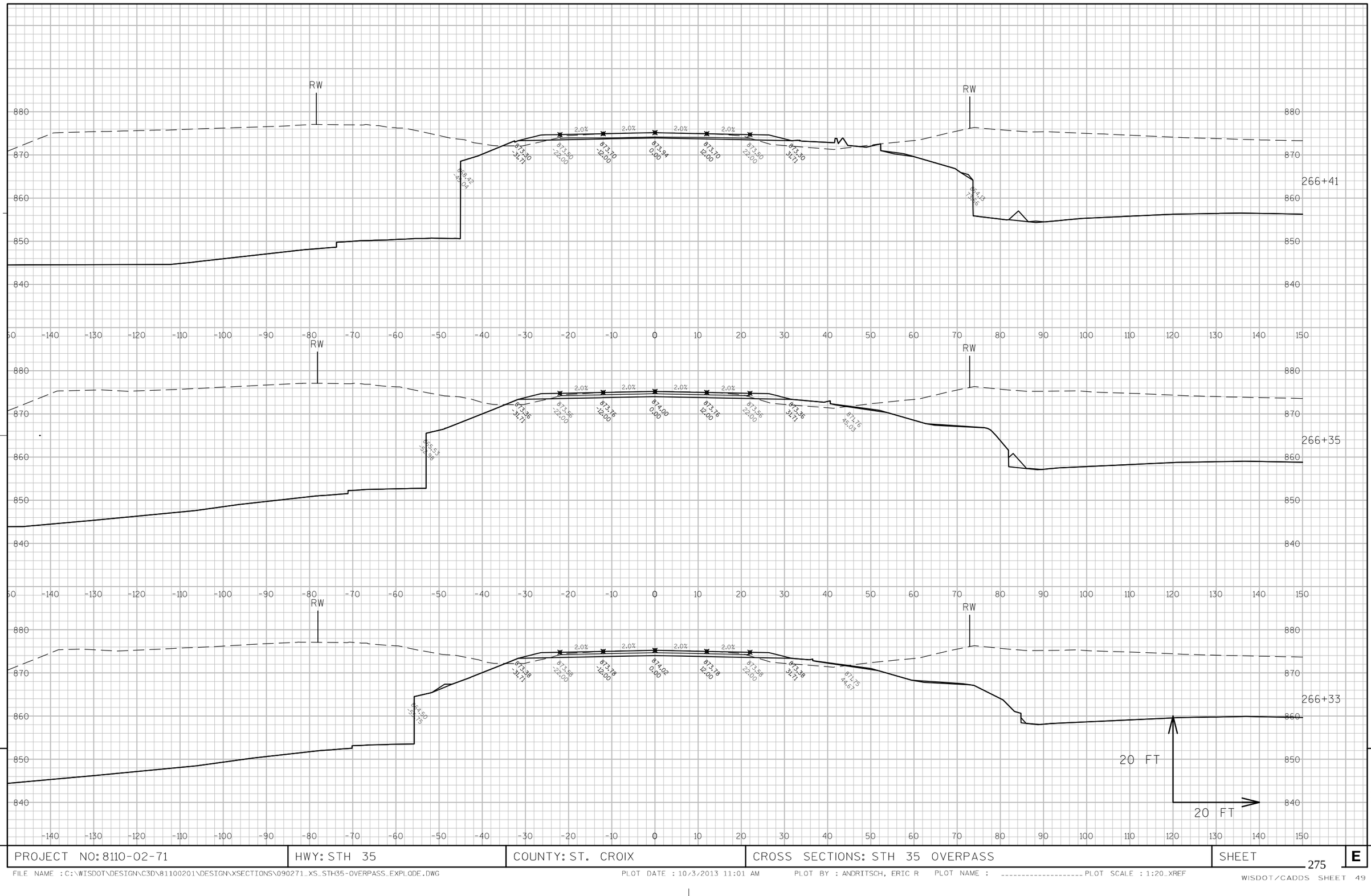
PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET	E

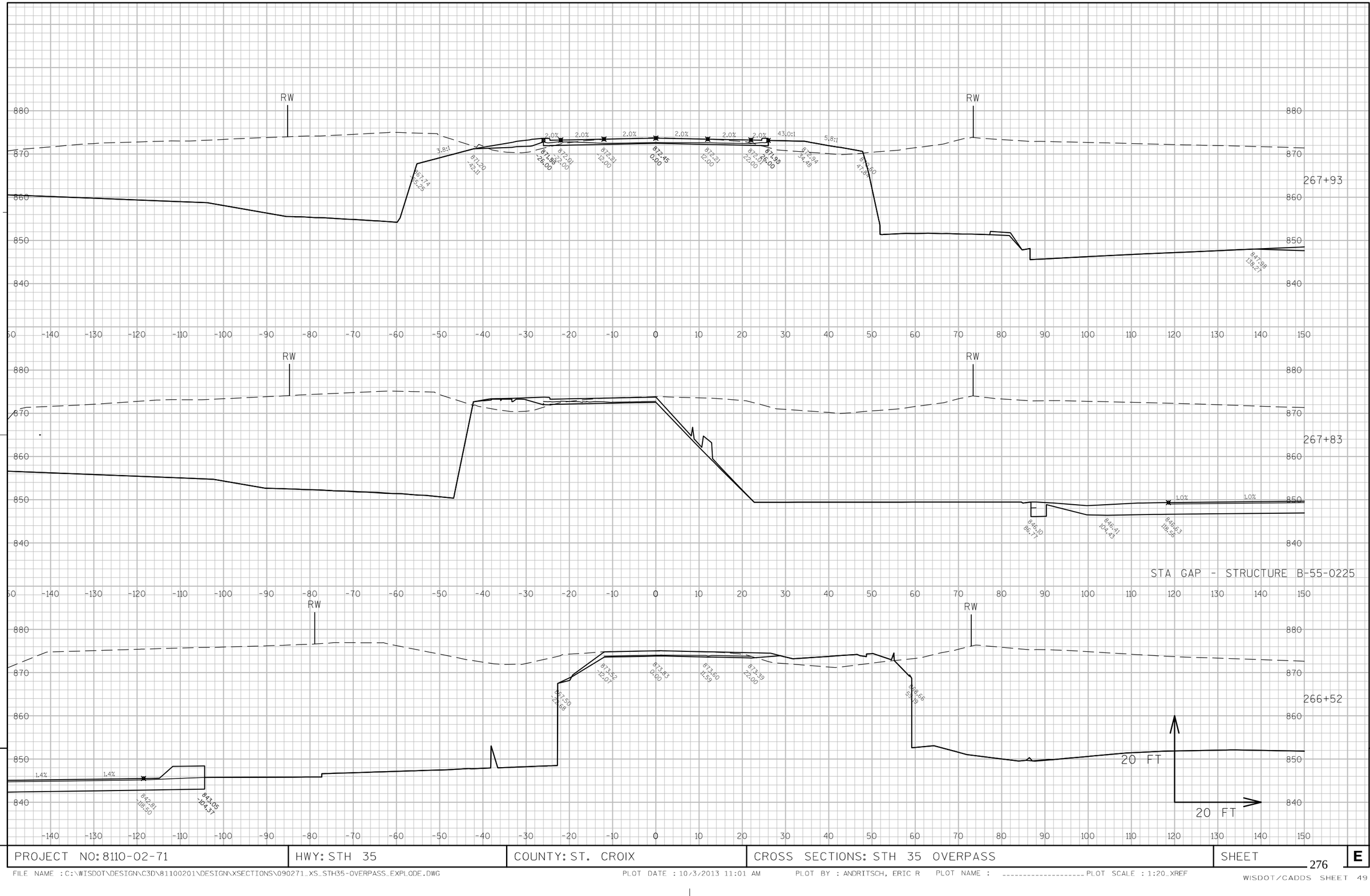
FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090271_XS_STH35-OVERPASS_EXPLODE.DWG PLOT DATE : 10/3/2013 11:00 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET 274 E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090271_XS_STH35-OVERPASS_EXPLODE.DWG PLOT DATE : 10/3/2013 11:01 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF

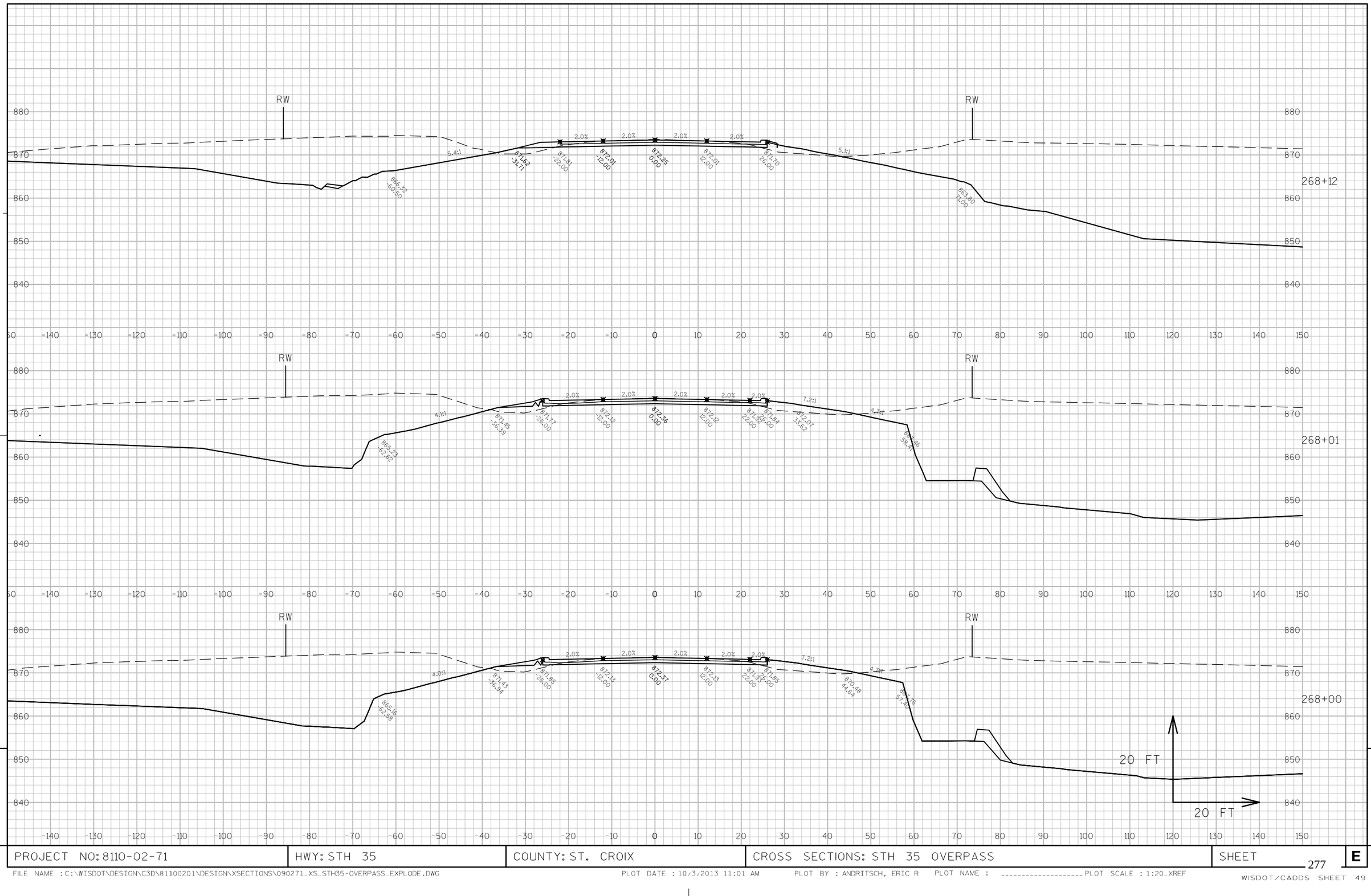

RW
RW
266+41
873.30
-31.71
873.30
-22.00
873.70
-12.00
873.94
0.00
873.70
12.00
873.30
22.00
873.30
31.71
868.42
-45.04
874.13
77.96
RW
RW
266+35
873.36
-31.71
873.56
-22.00
873.76
-12.00
874.00
0.00
873.76
12.00
873.56
22.00
873.36
31.71
871.76
45.03
865.53
-52.98
RW
RW
266+33
873.38
-31.71
873.58
-22.00
873.78
-12.00
874.02
0.00
873.78
12.00
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44.67
864.50
-57.75
20 FT
20 FT
2.0%



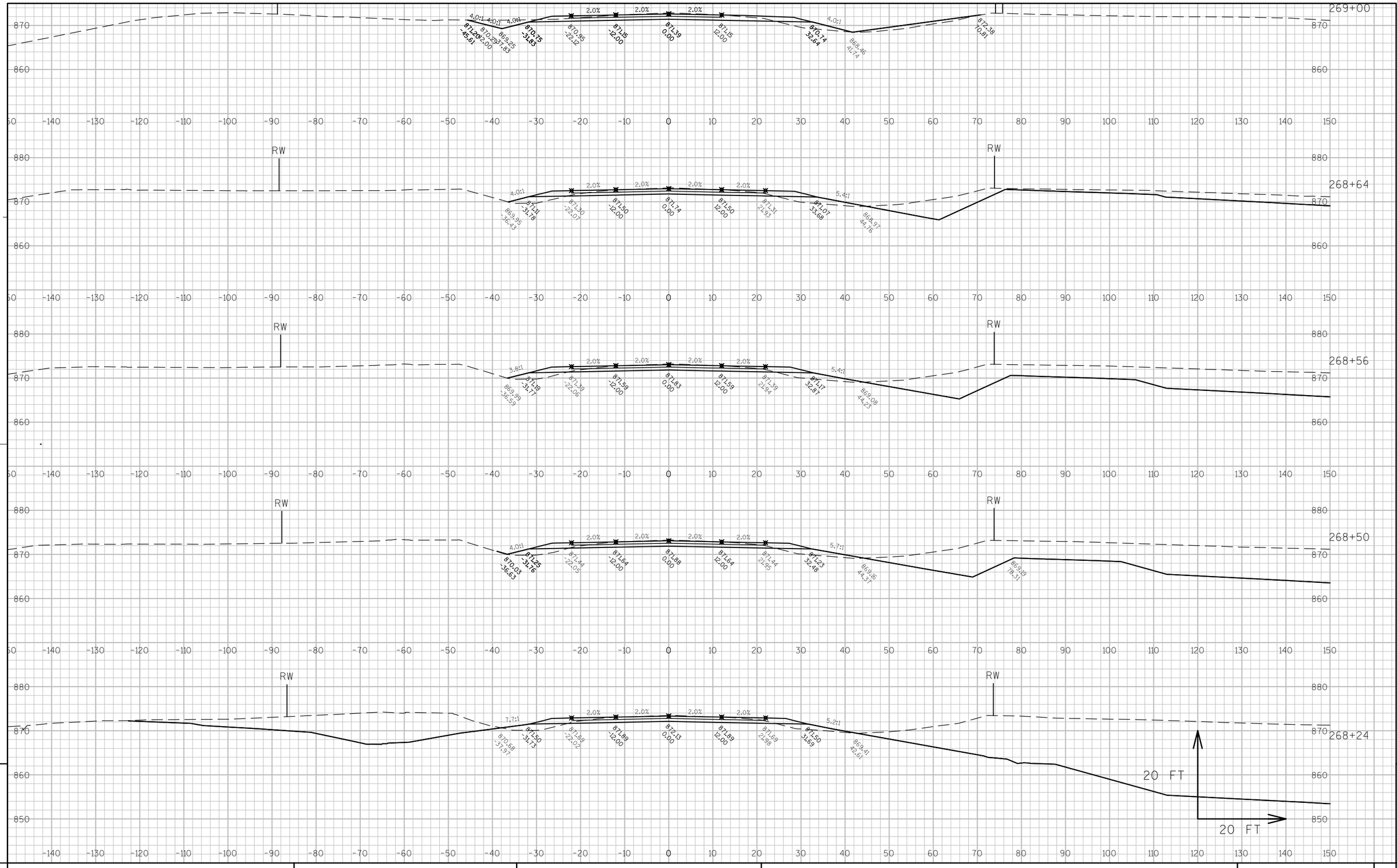
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PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET 276	E



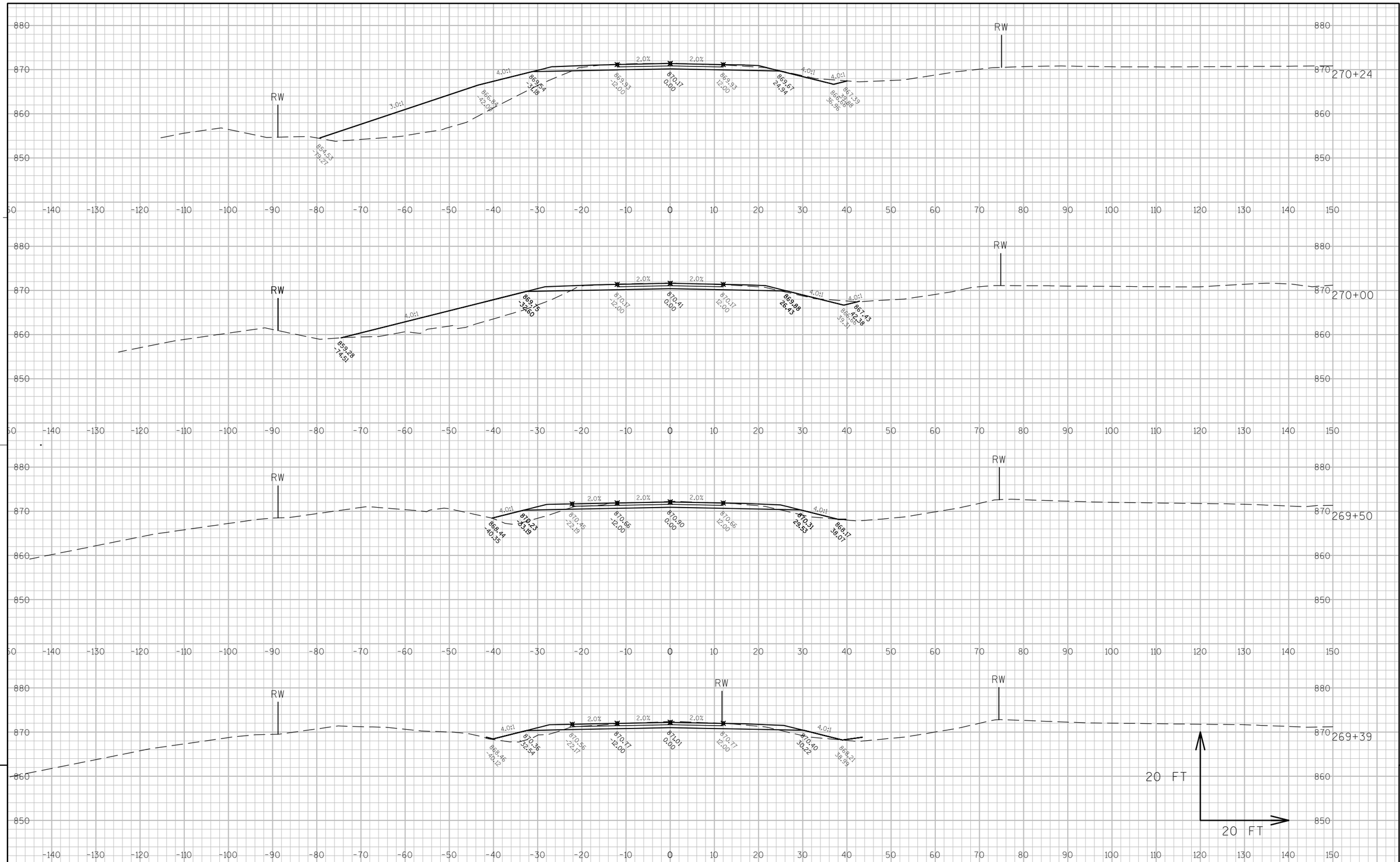
PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET 277 E



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PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET 278 E

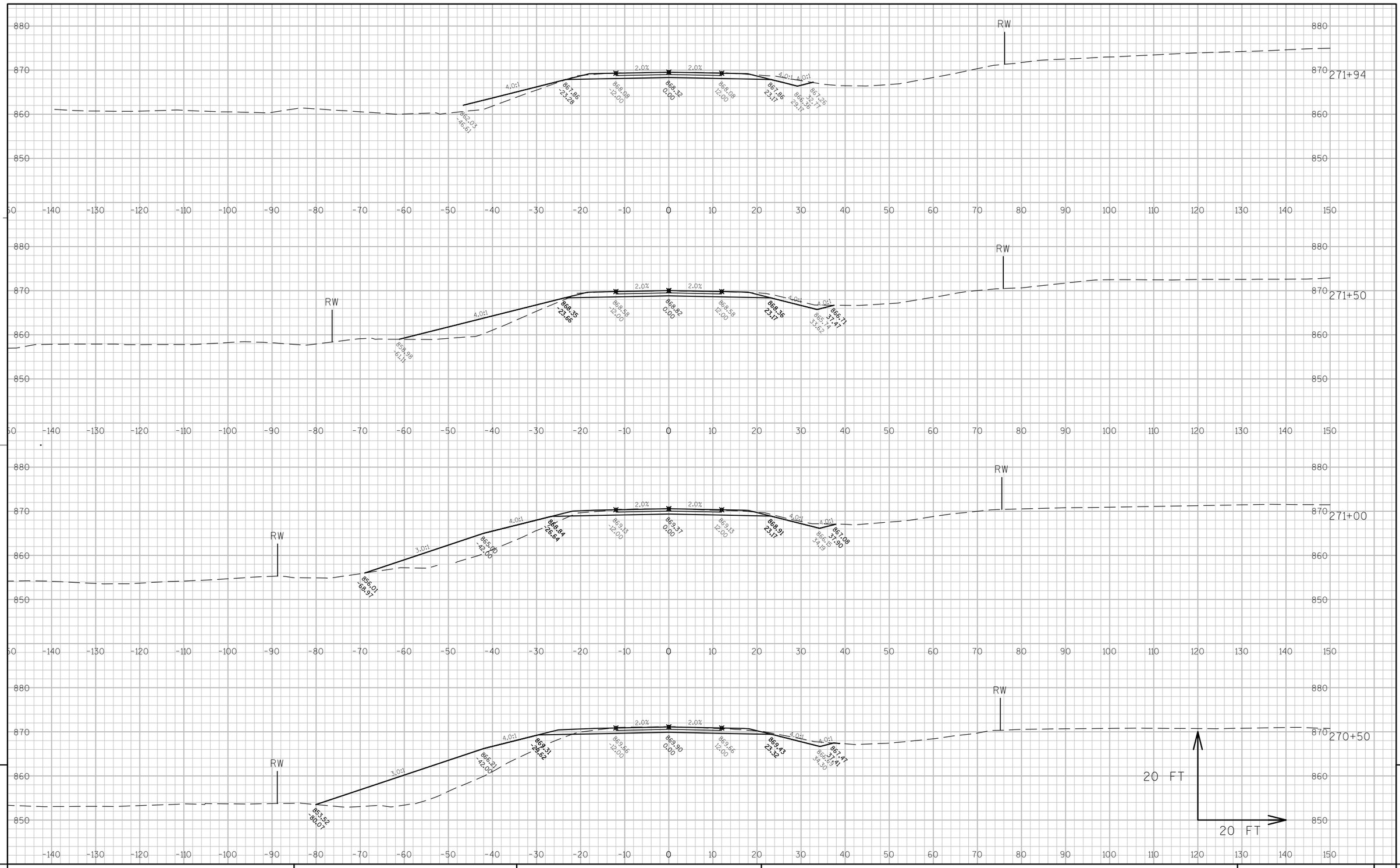


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PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET	E

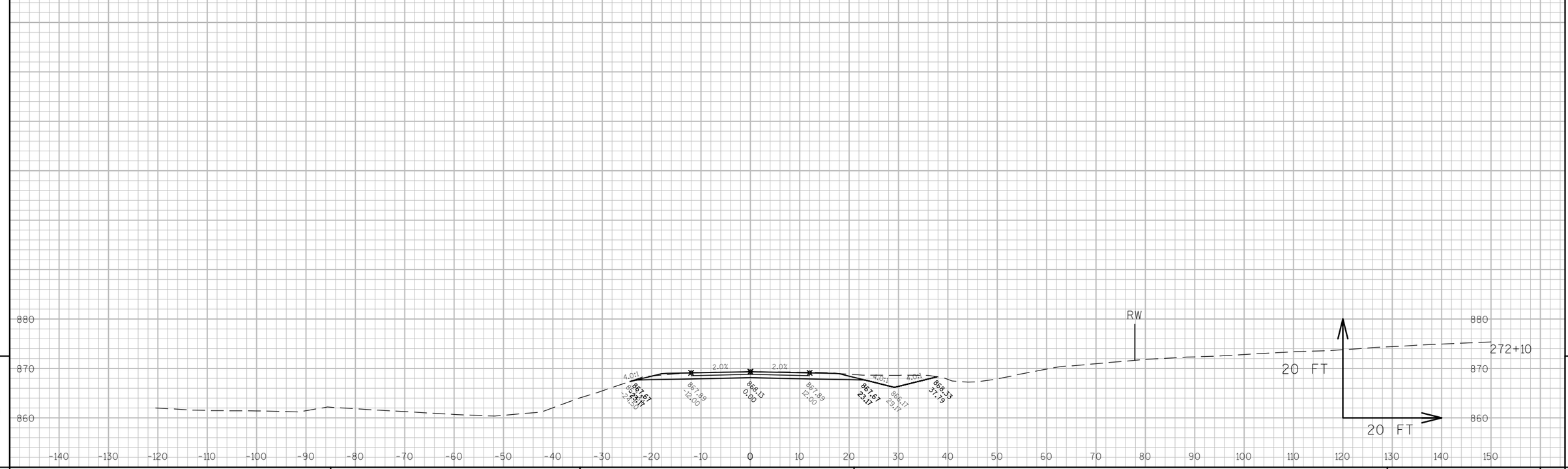
FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090271_XS_STH35-OVERPASS_EXPLODE.DWG PLOT DATE : 10/3/2013 11:02 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF



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PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET 280	E

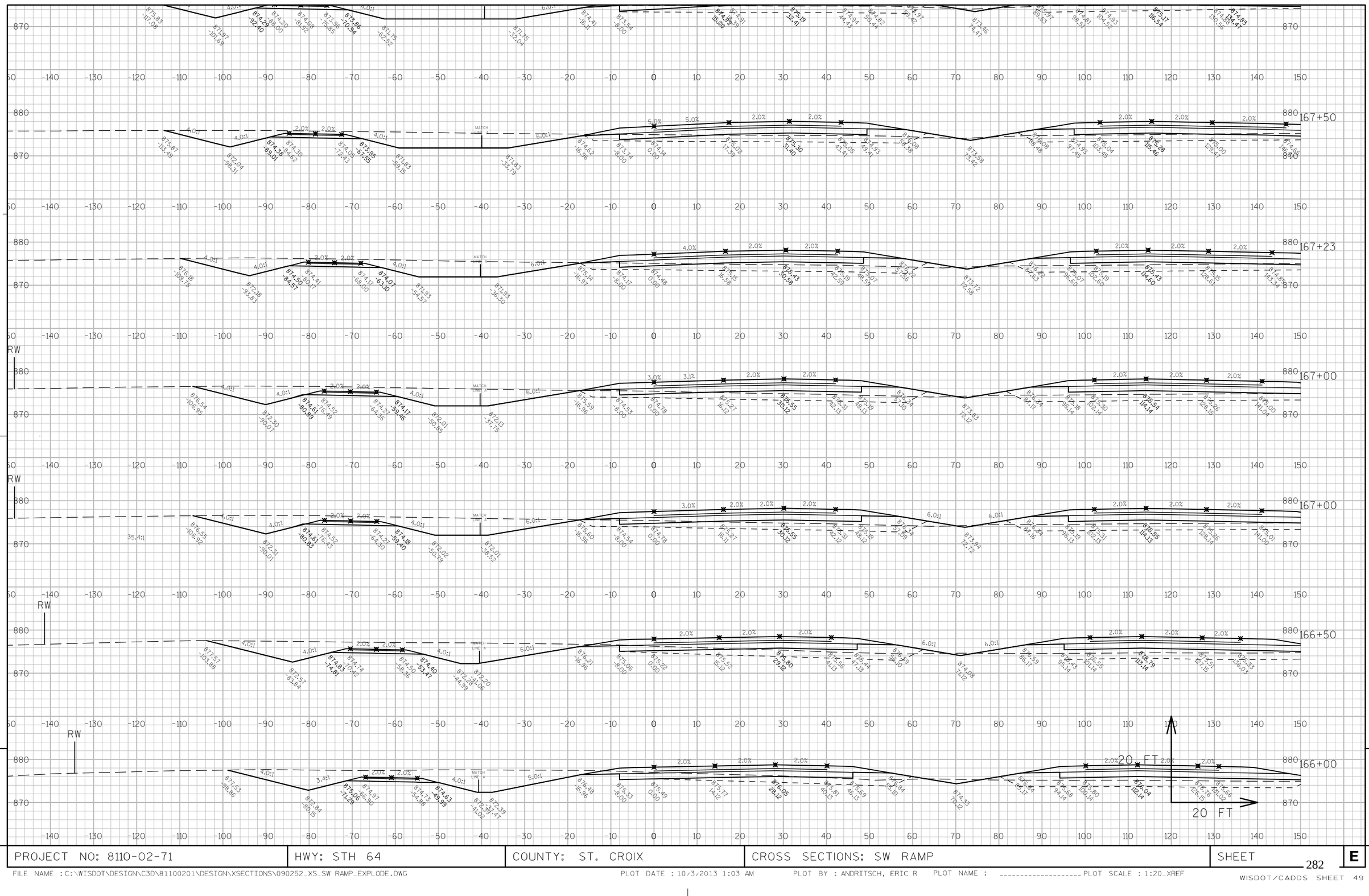


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PROJECT NO: 8110-02-71	HWY: STH 35	COUNTY: ST. CROIX	CROSS SECTIONS: STH 35 OVERPASS	SHEET 281	E

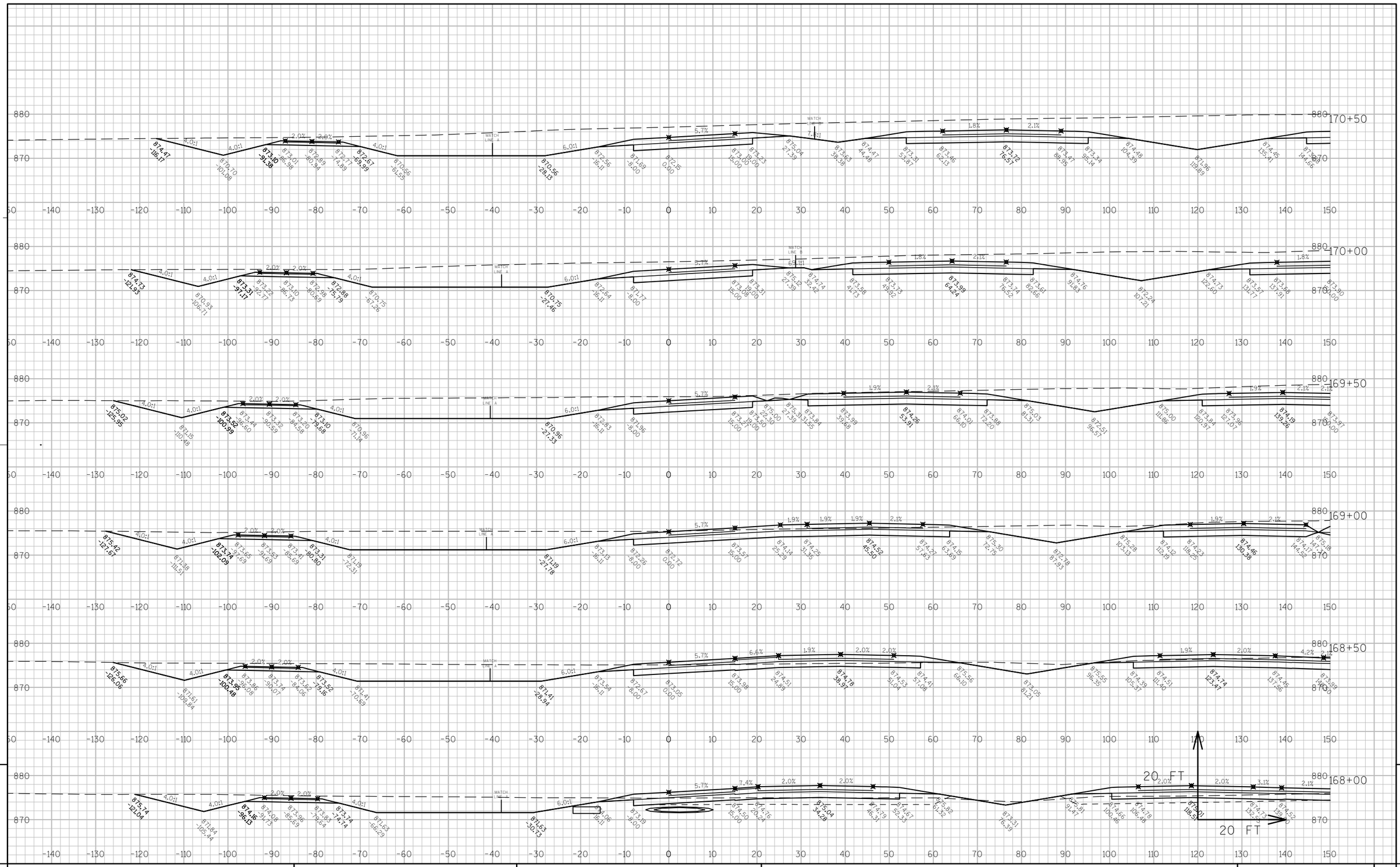
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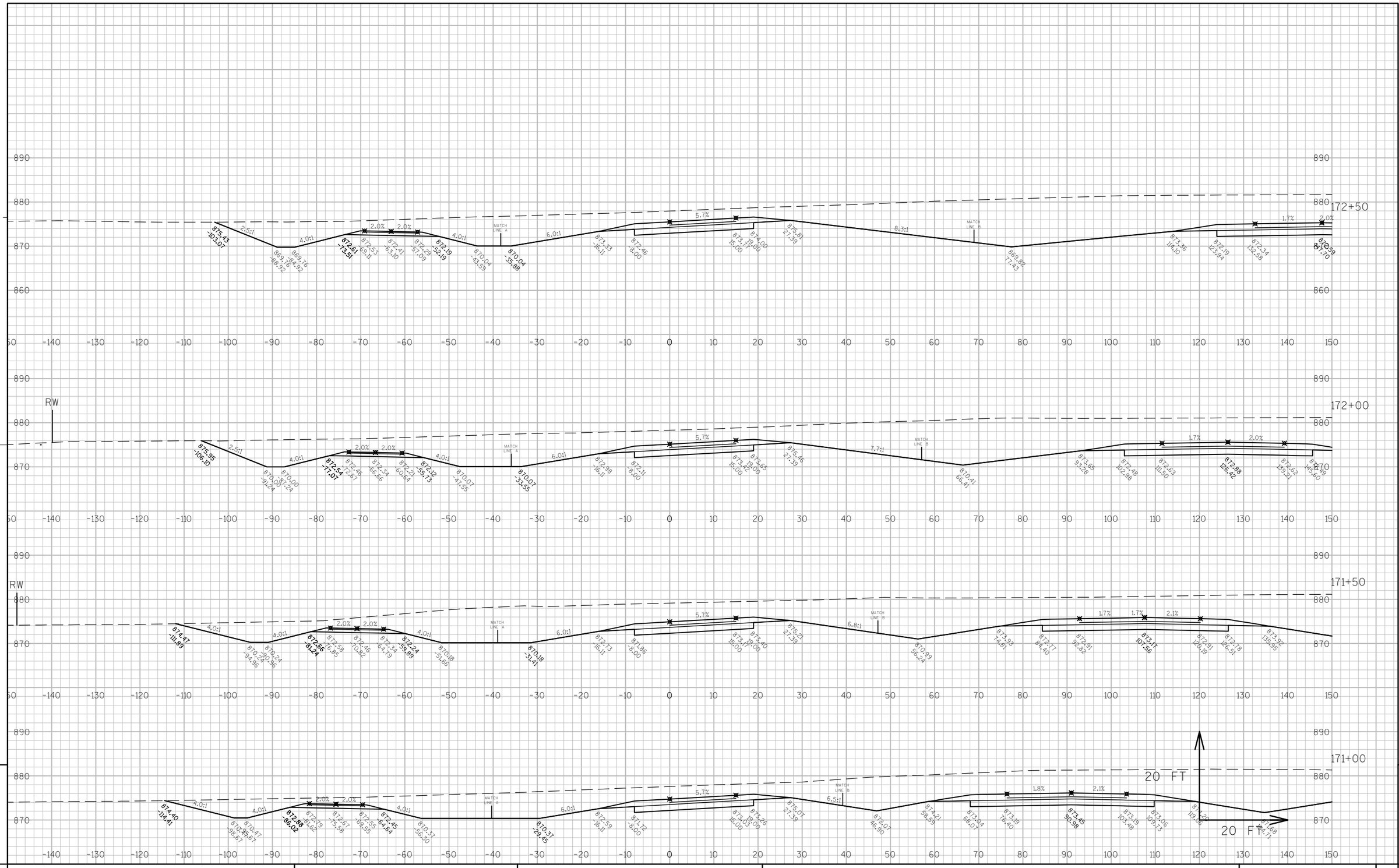
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET 282	E



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET 283 E

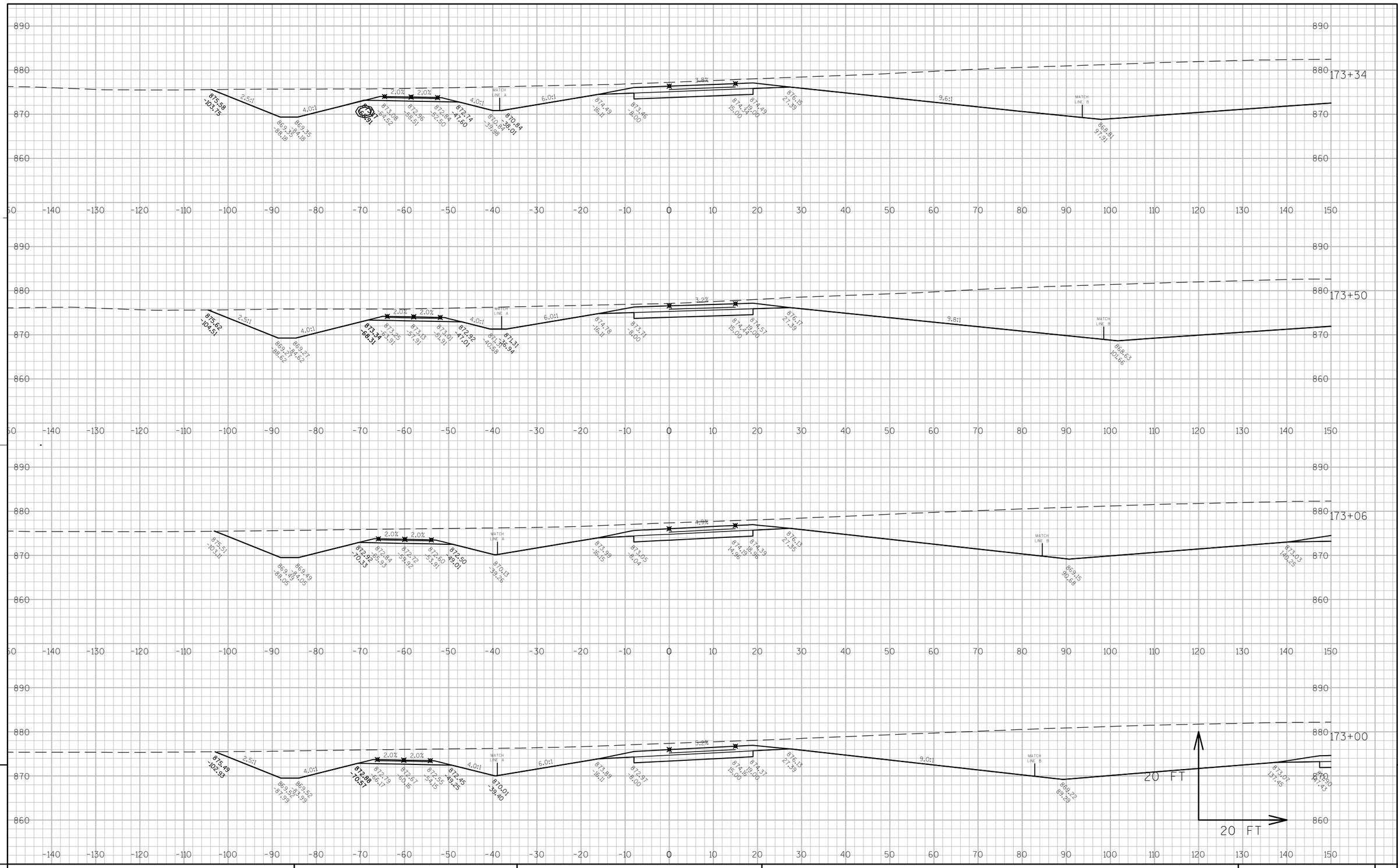
FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090252_XS_SW RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 1:03 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF



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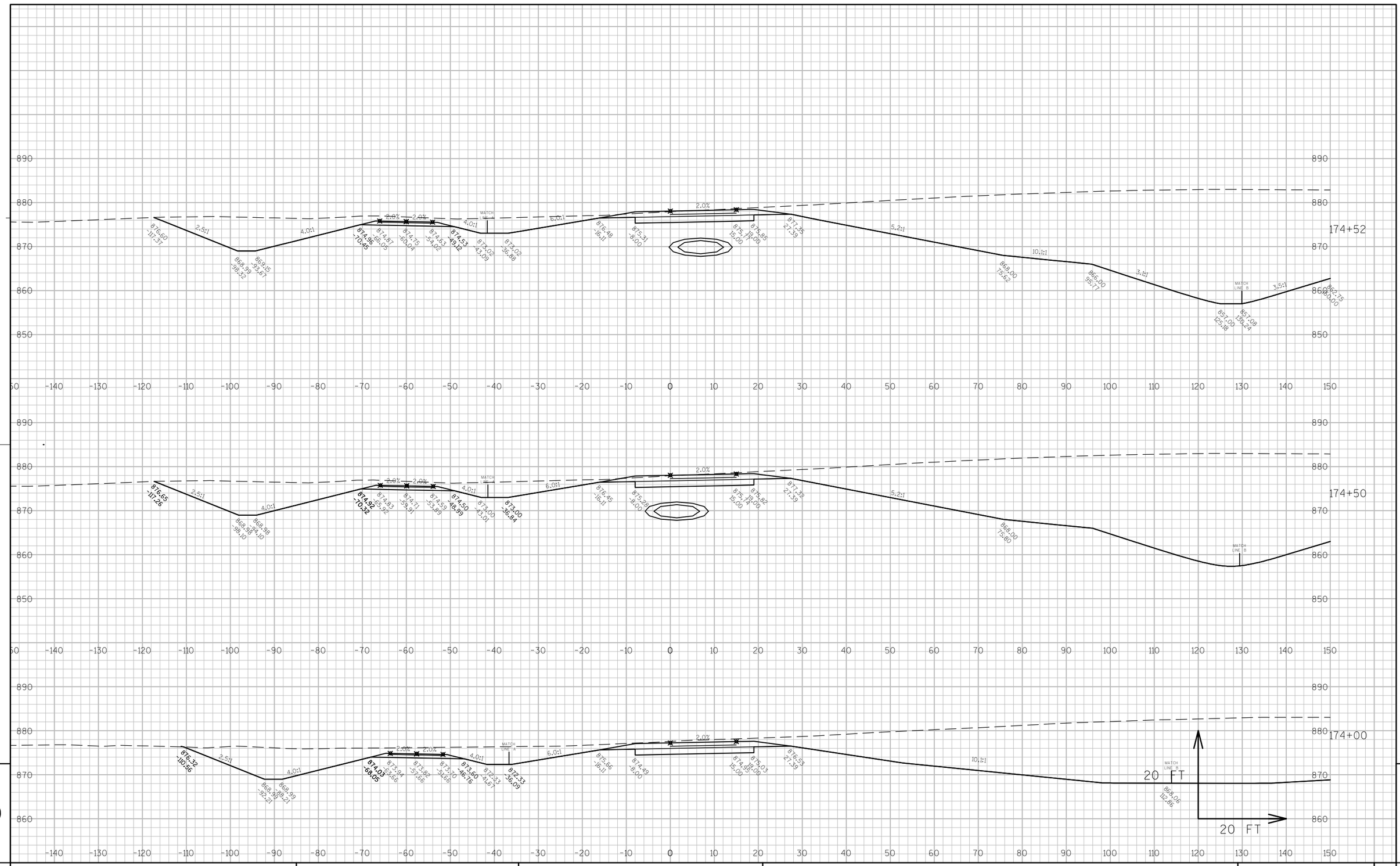
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET 284	E

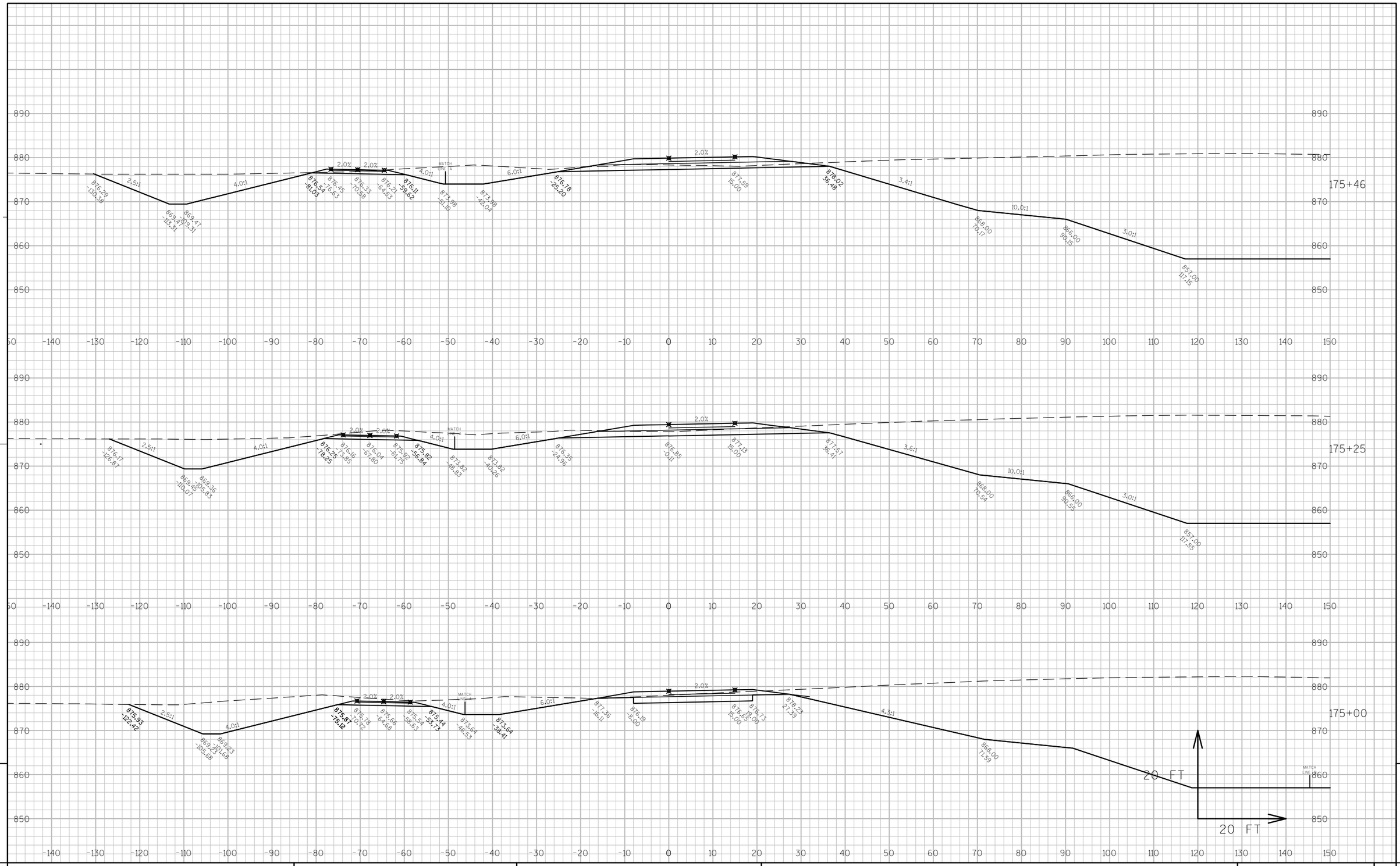


PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET 285	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090252_XS_SW RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 1:04 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF

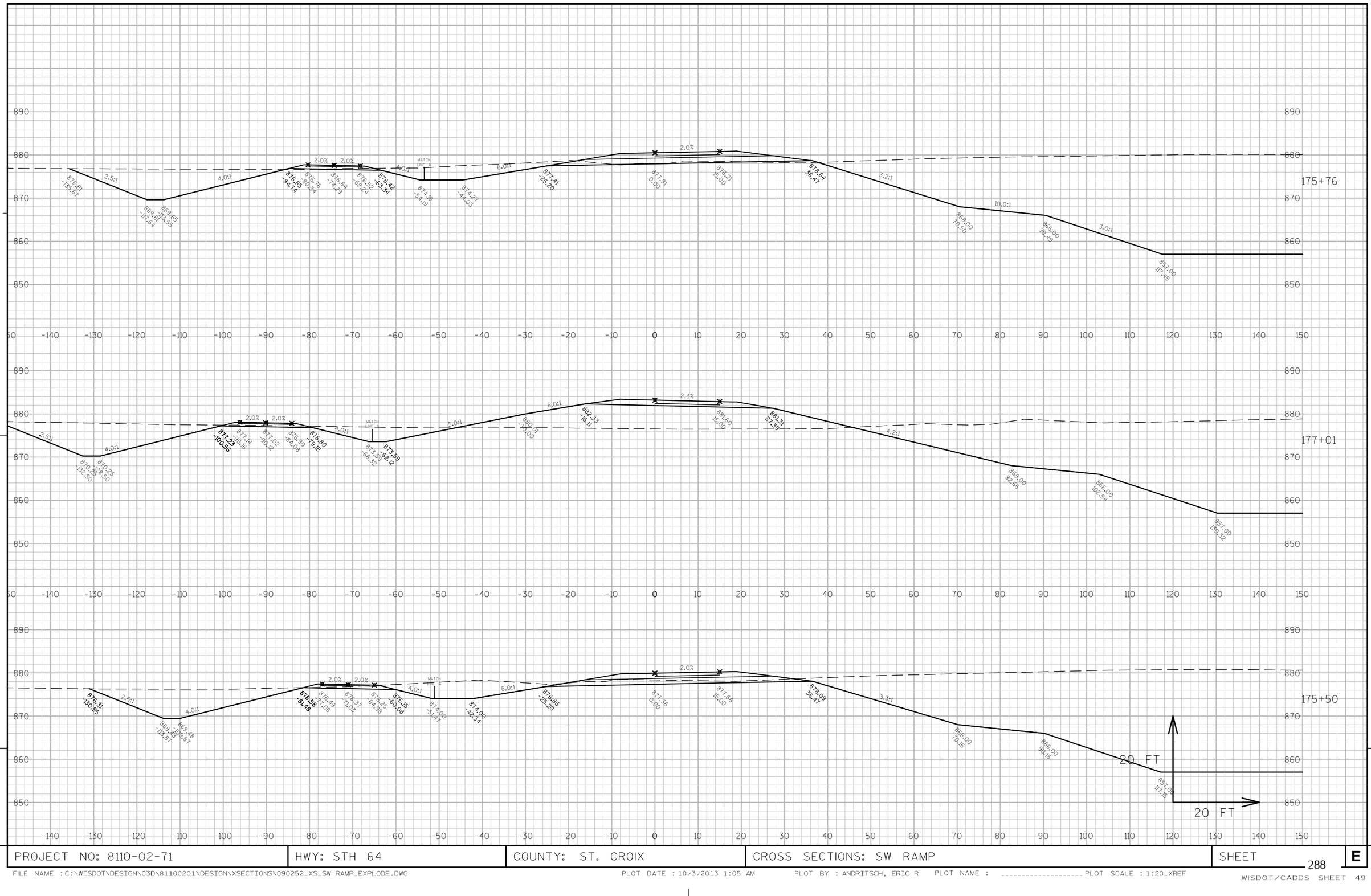


PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET E



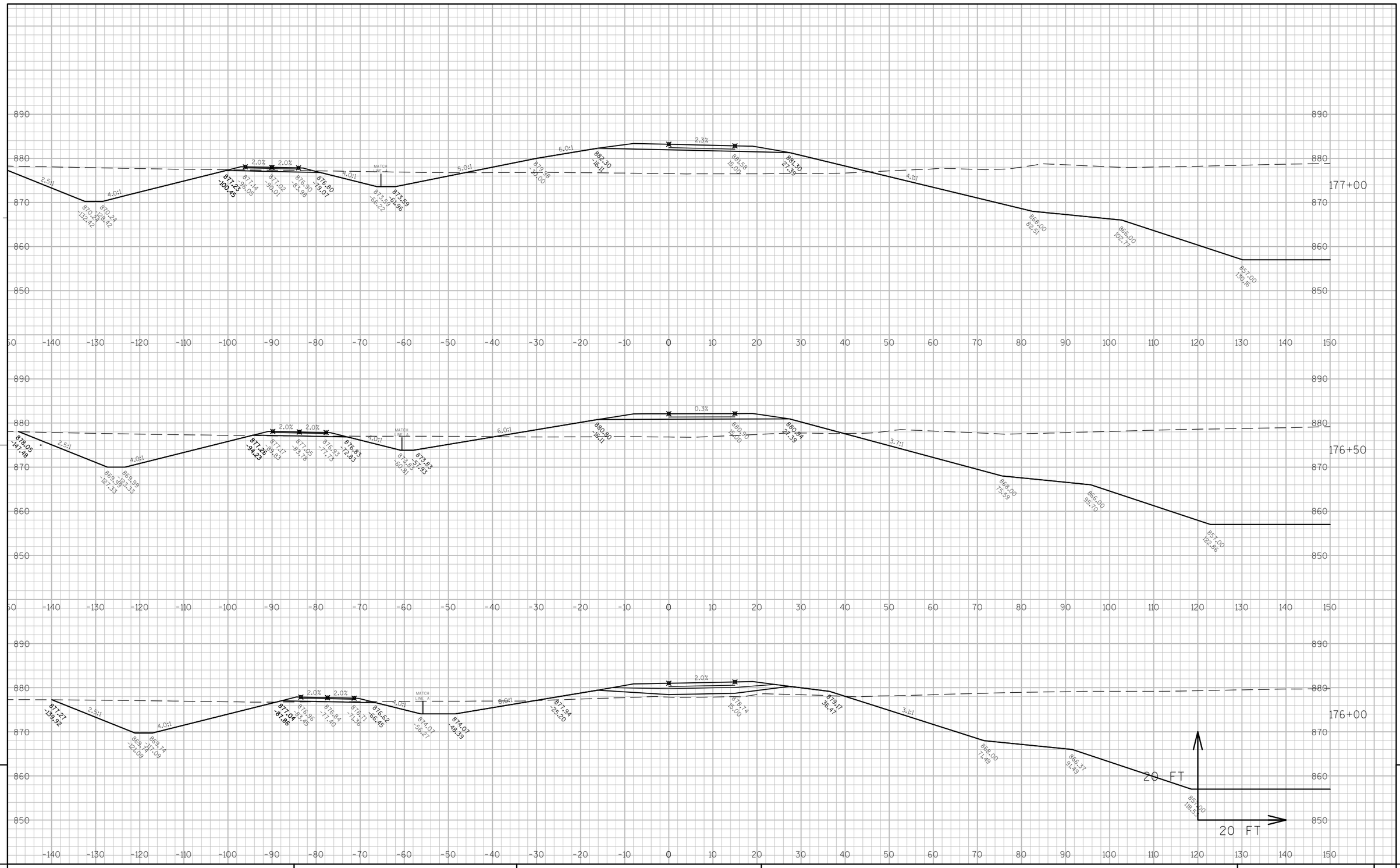
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090252_XS_SW RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 1:04 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF



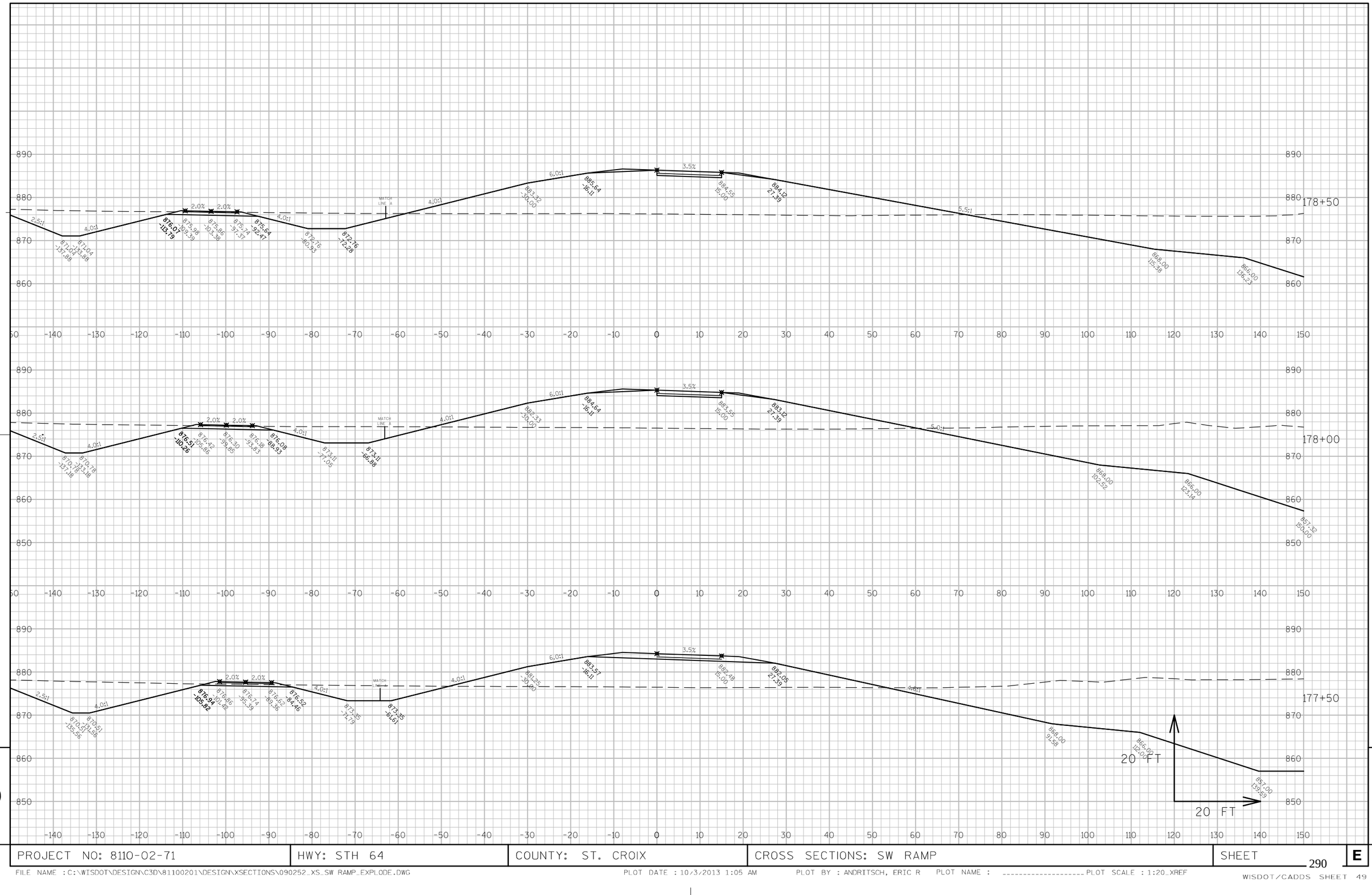
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET 288 E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090252_XS_SW RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 1:05 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET 289	E

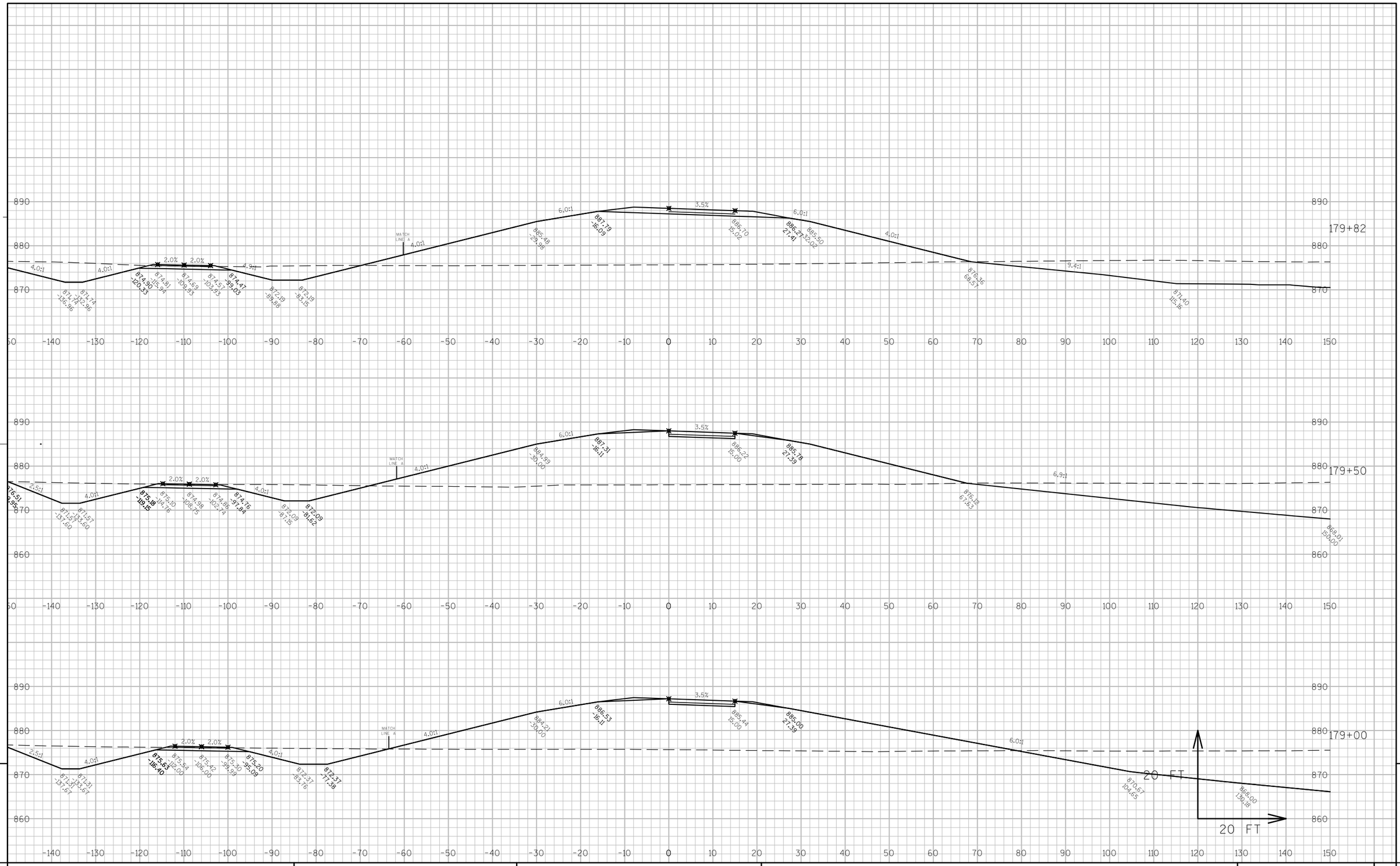
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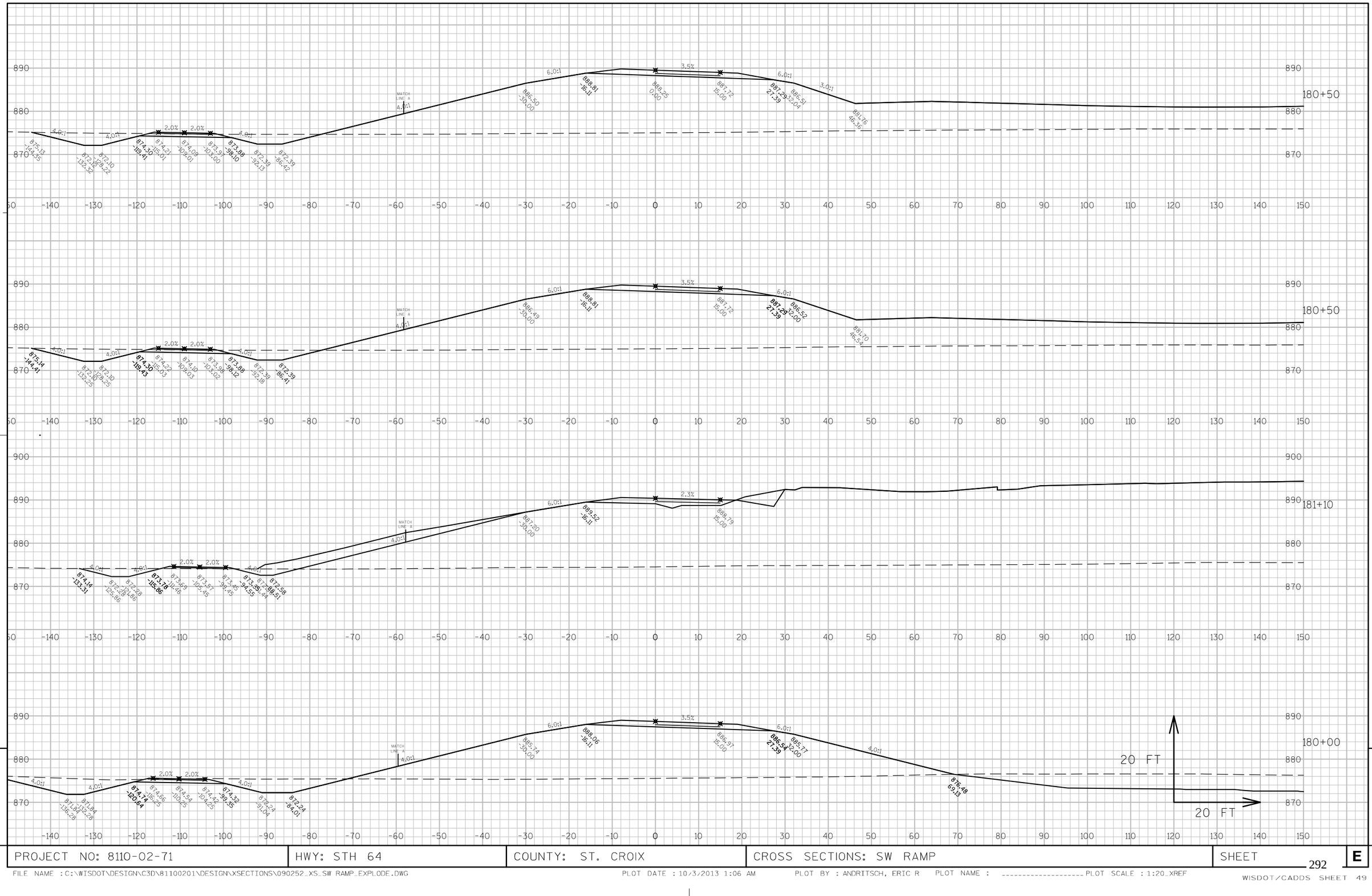
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET 290	E



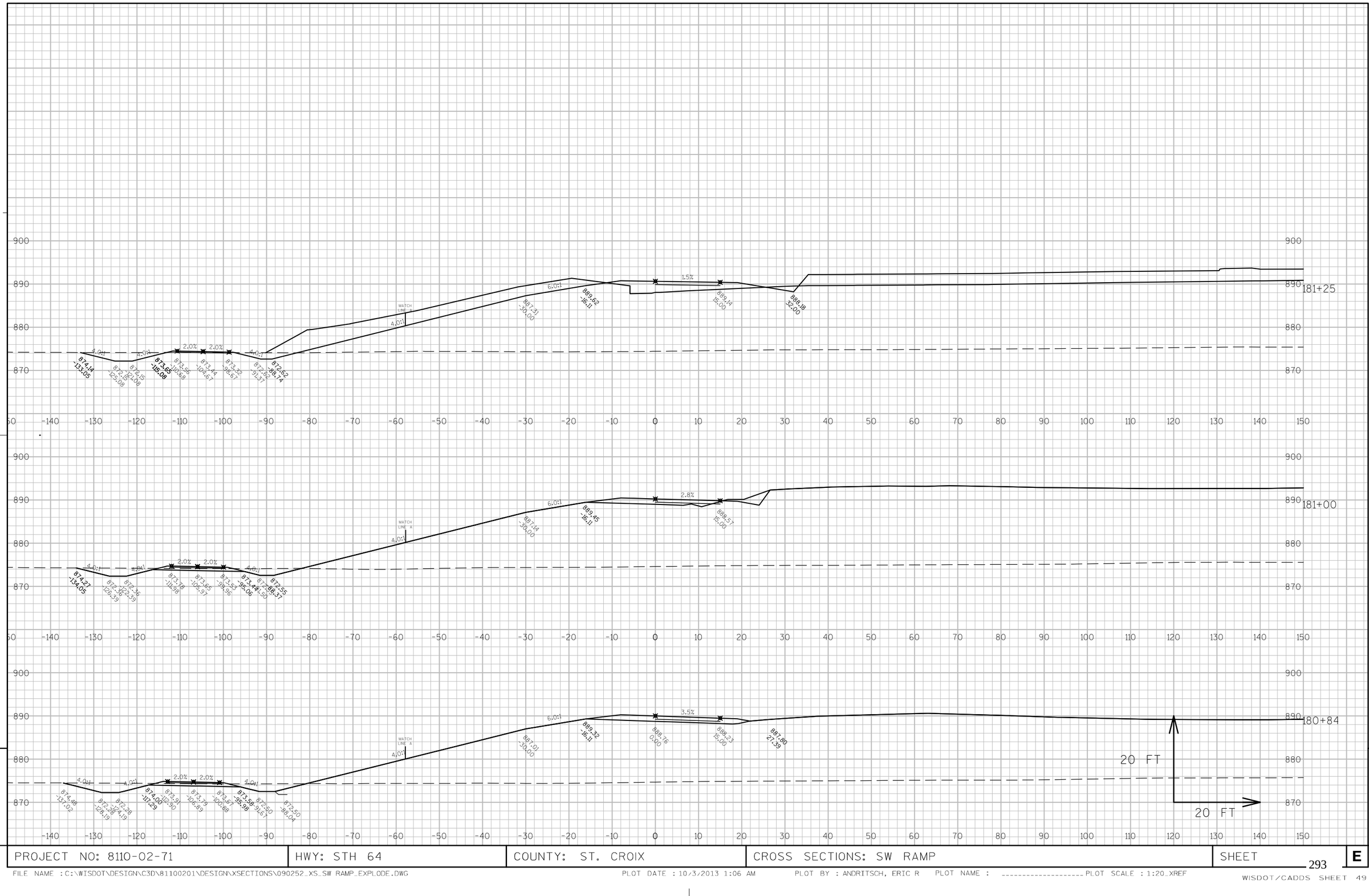
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090252_XS_SW RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 1:06 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF
WISDOT/CADDS SHEET 49



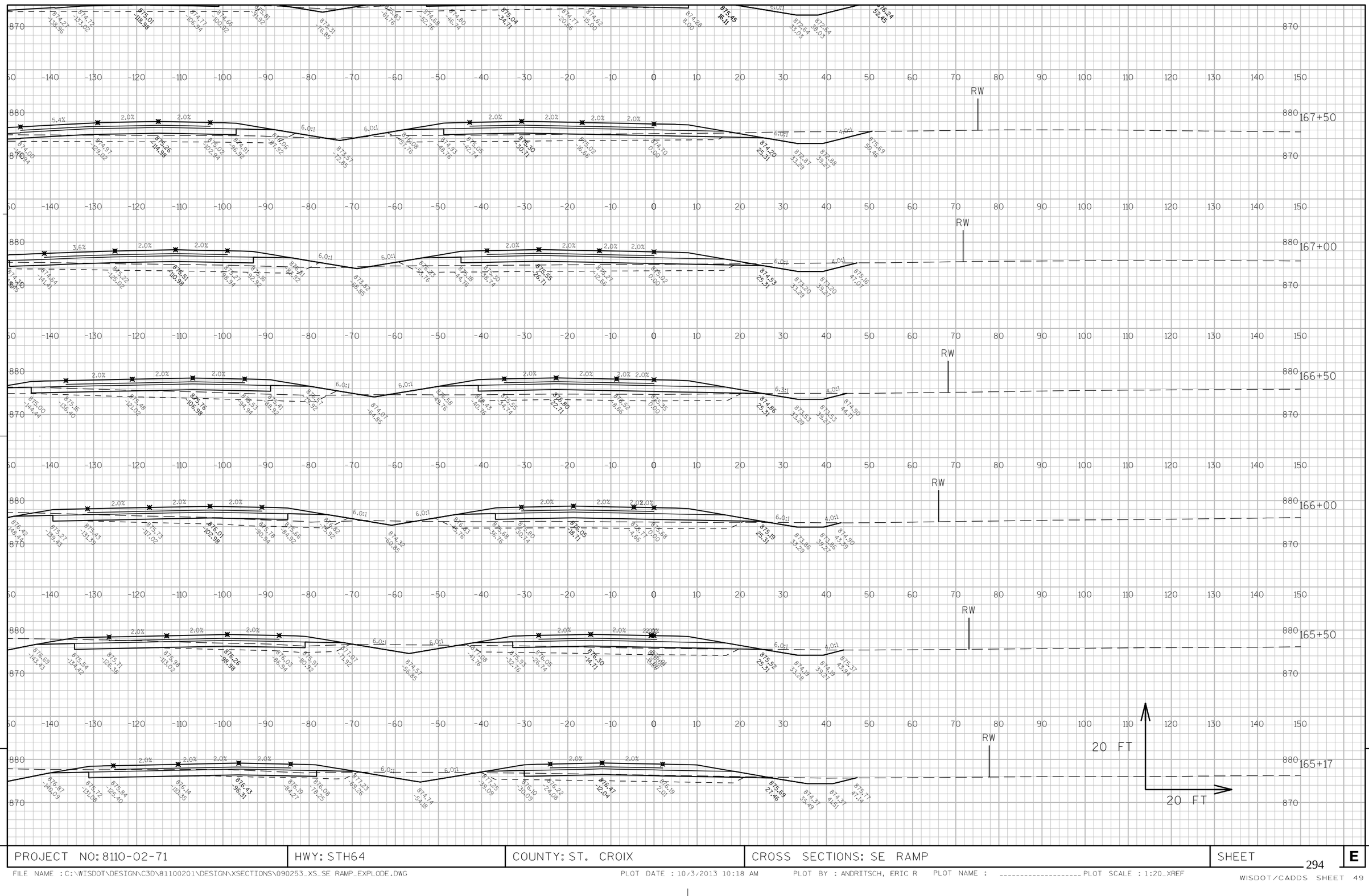
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET 292	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090252_XS_SW RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 1:06 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF



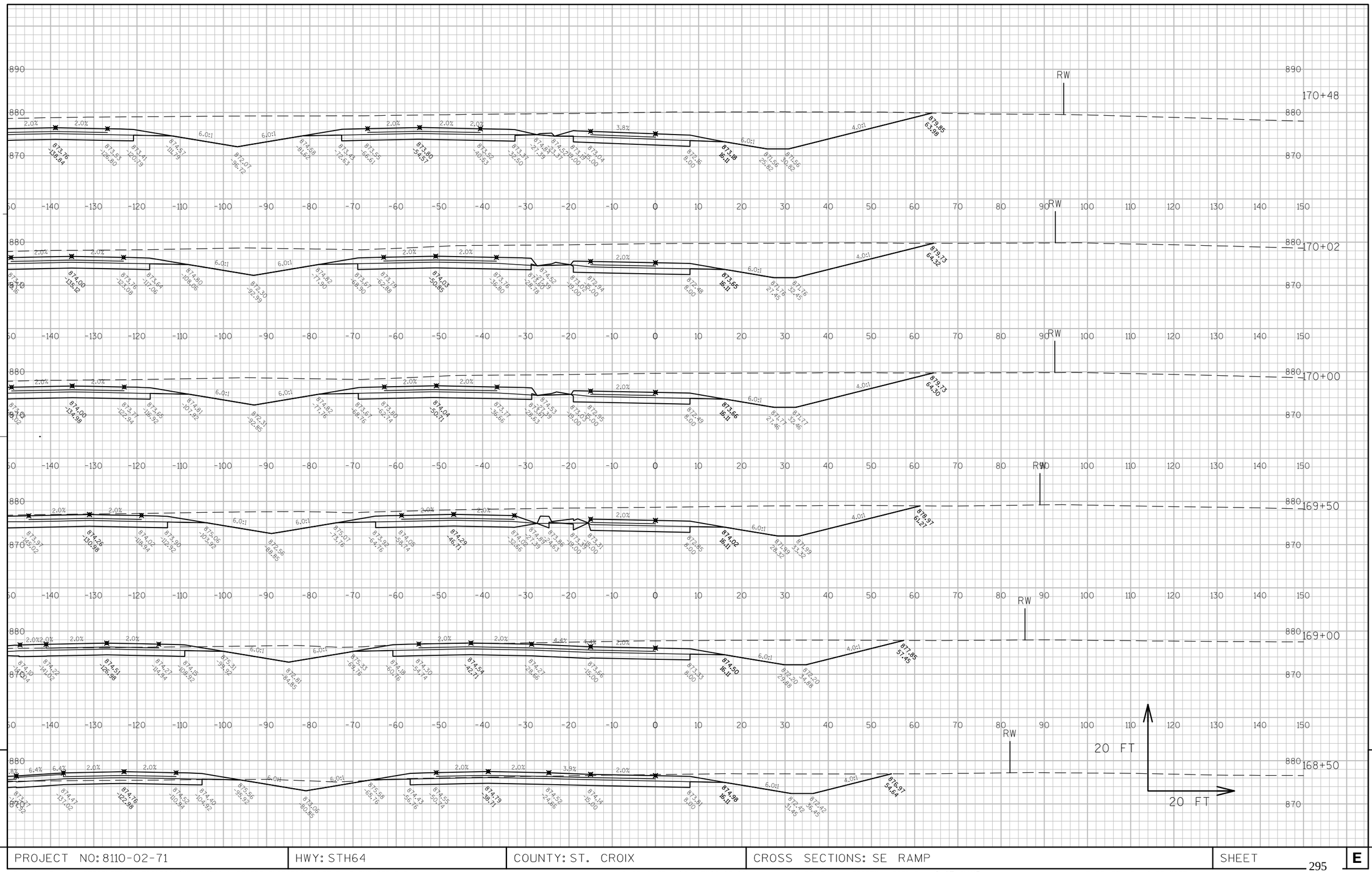
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SW RAMP	SHEET 293	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090252_XS_SW RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 1:06 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF



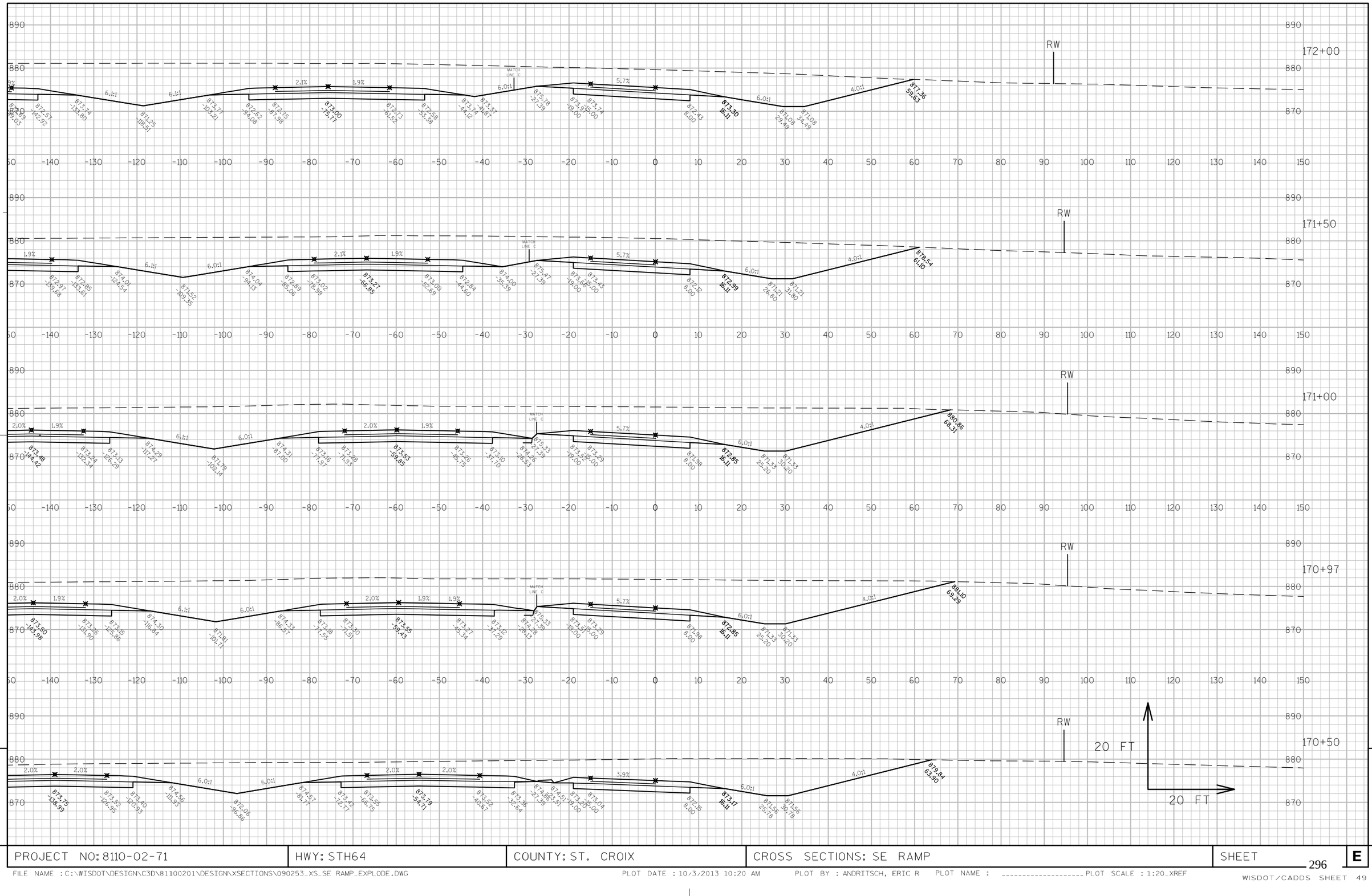
PROJECT NO: 8110-02-71	HWY: STH64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET 294 E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090253_XS_SE RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 10:18 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF



PROJECT NO: 8110-02-71	HWY: STH64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET 295	E

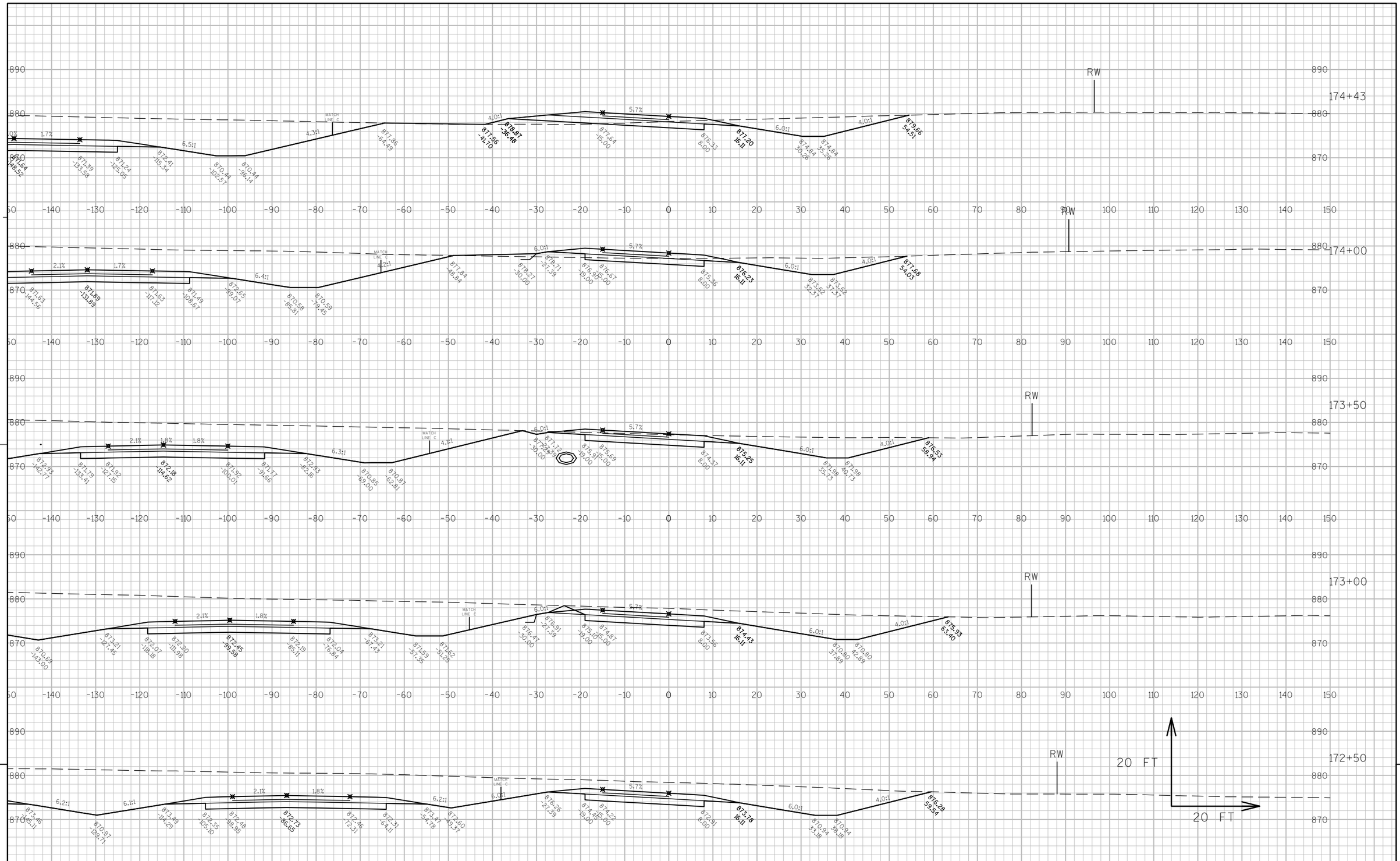
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PROJECT NO: 8110-02-71	HWY: STH64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET 296 E

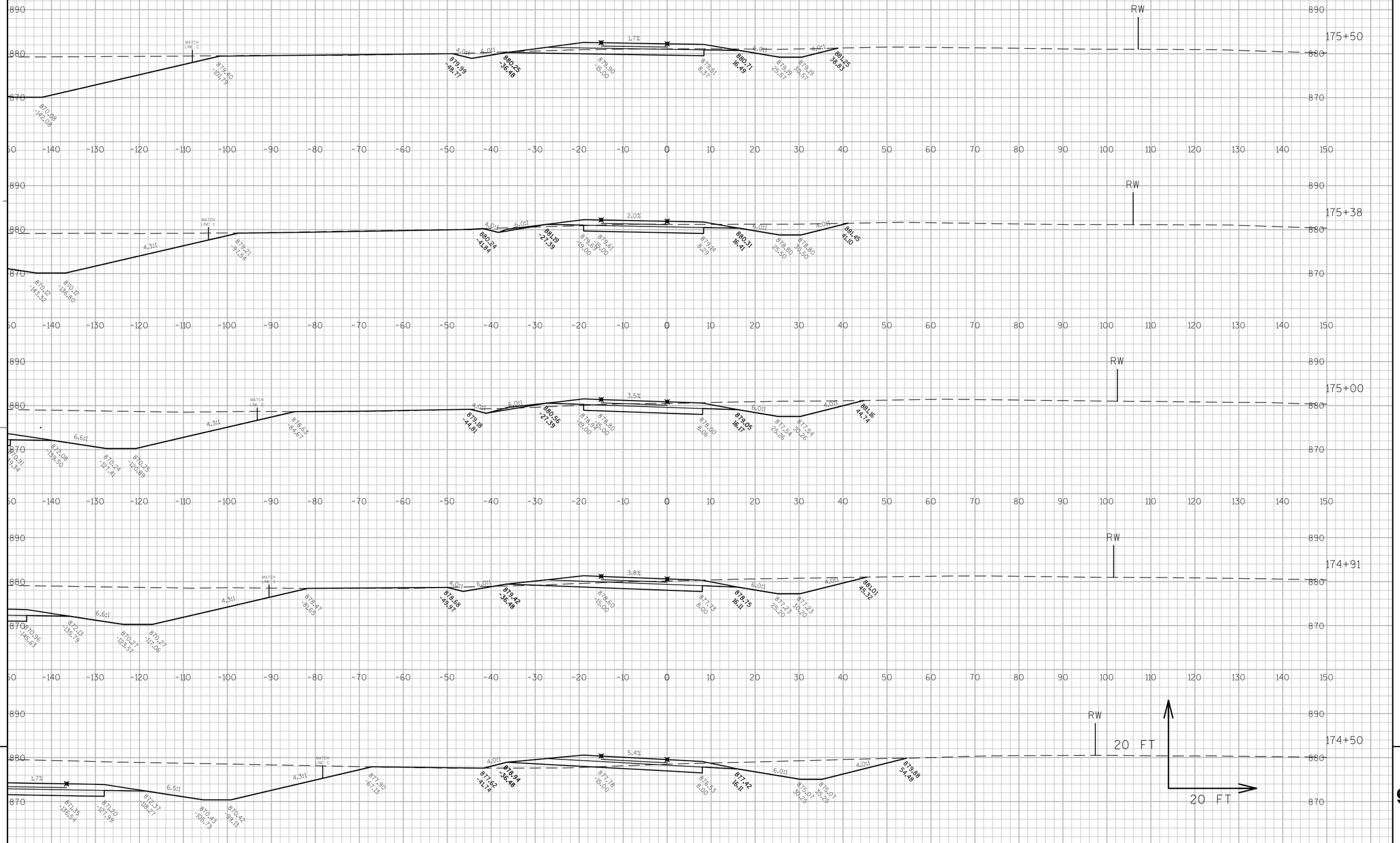
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WISDOT/CADDS SHEET 49



PROJECT NO: 8110-02-71	HWY: STH64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET 297	E

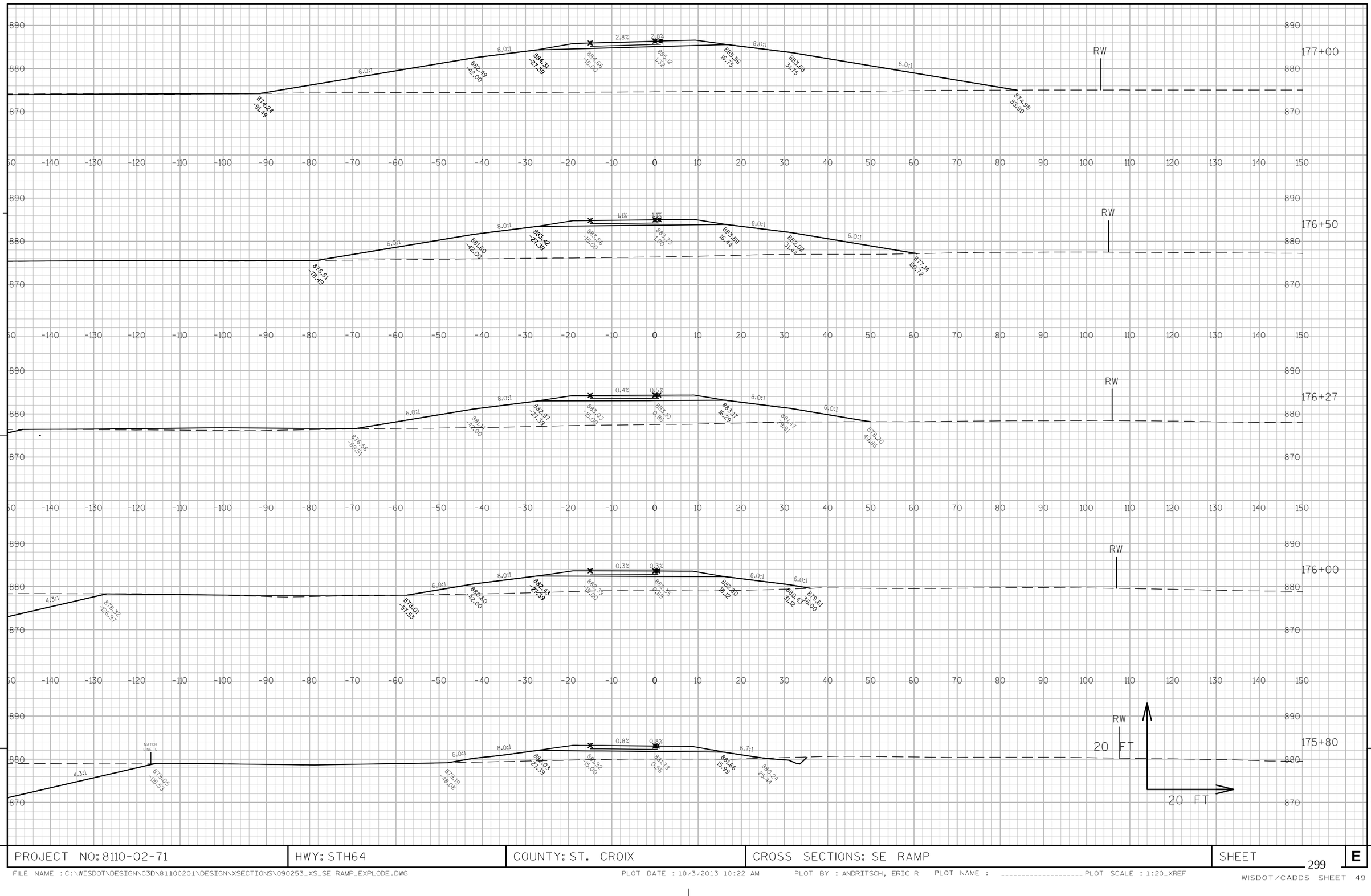
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PROJECT NO: 8110-02-71	HWY: STH64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090253_XS_SE RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 10:21 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : ---------- PLOT SCALE : 1:20_XREF

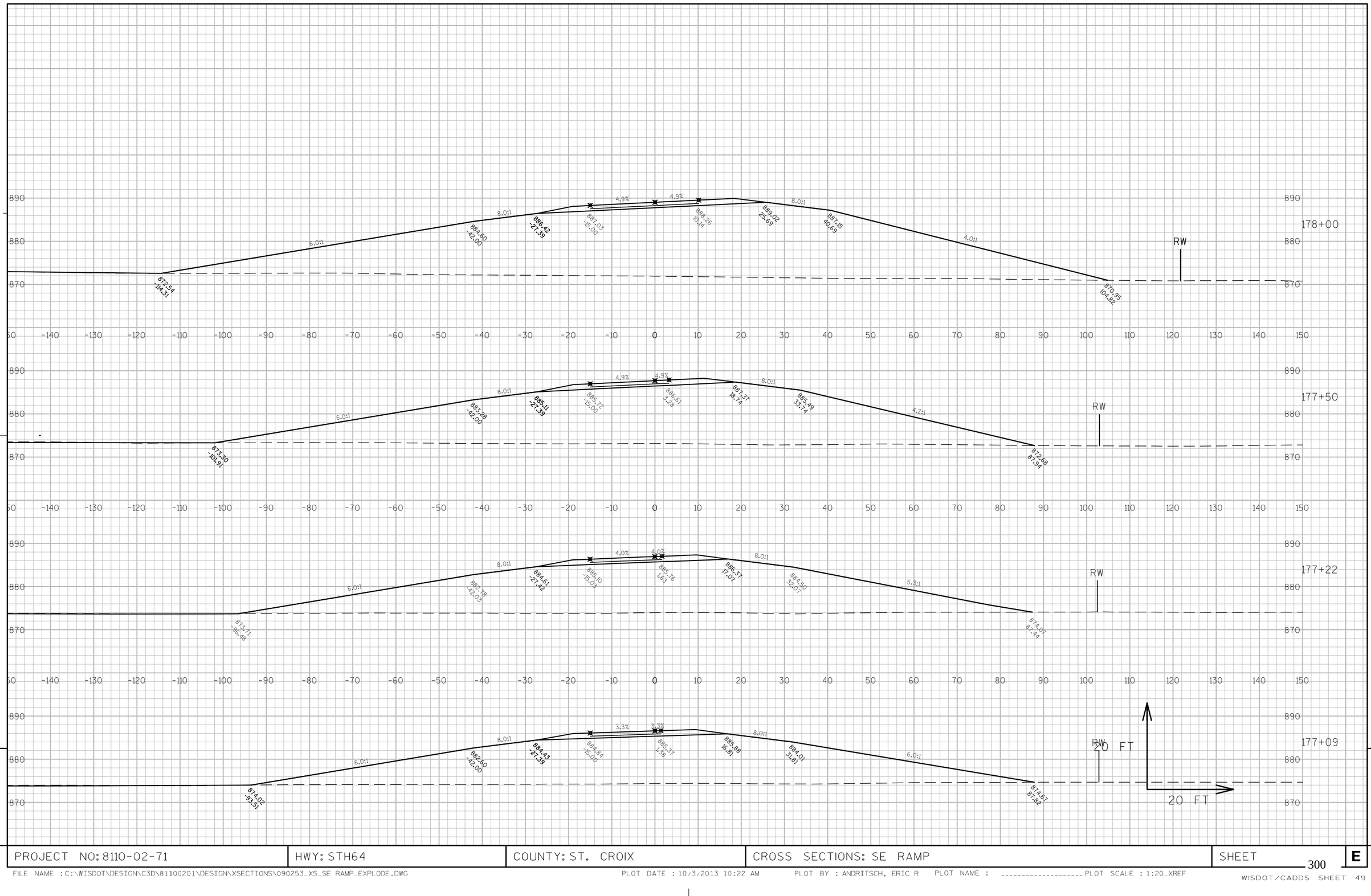


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PROJECT NO: 8110-02-71	HWY: STH64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET 299	E

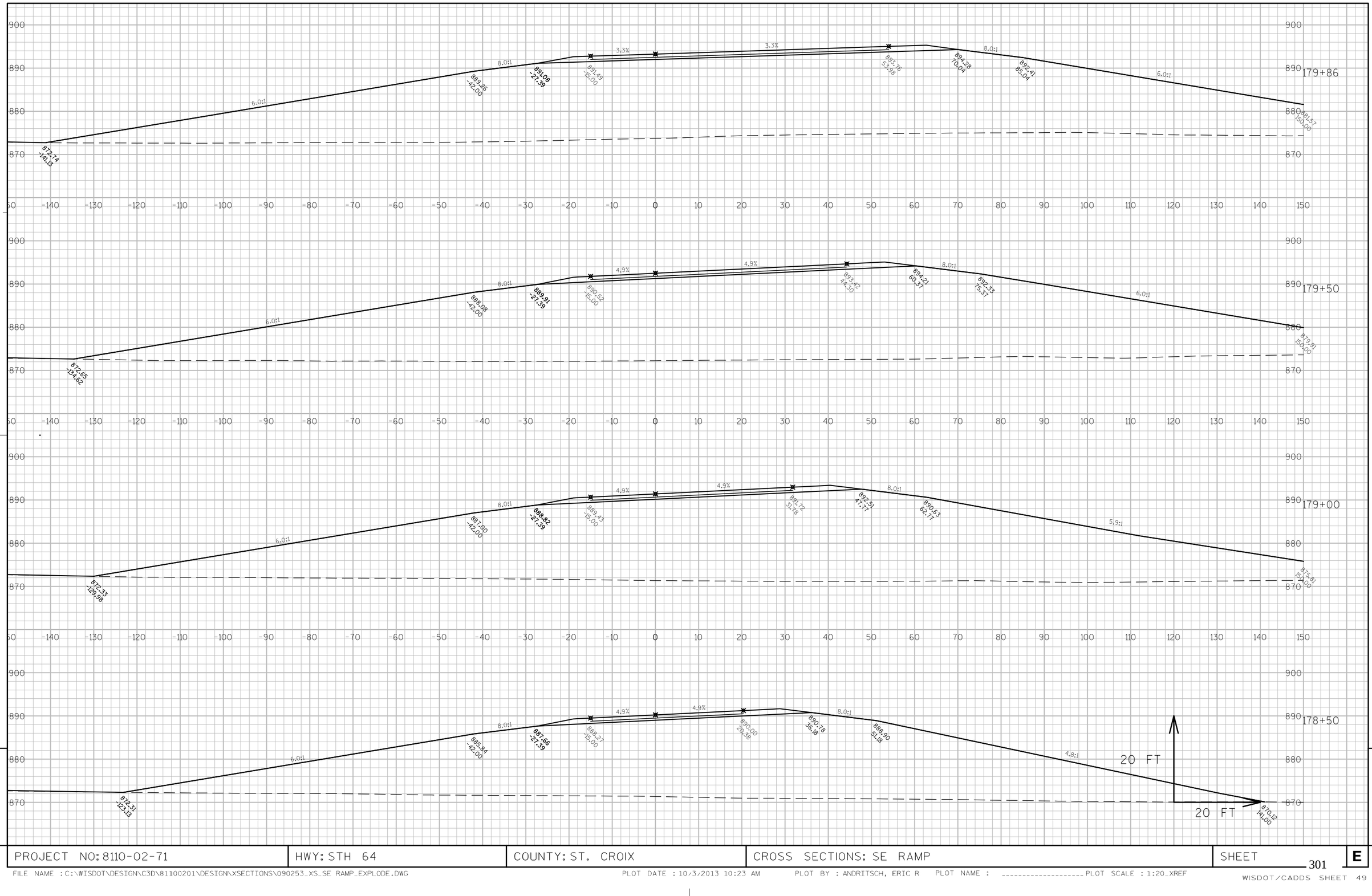
FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090253_XS_SE RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 10:22 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF



PROJECT NO: 8110-02-71	HWY: STH64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET 300	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090253_XS_SE RAMP_EXPLODE.DWG PLOT DATE : 10/3/2013 10:22 AM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF

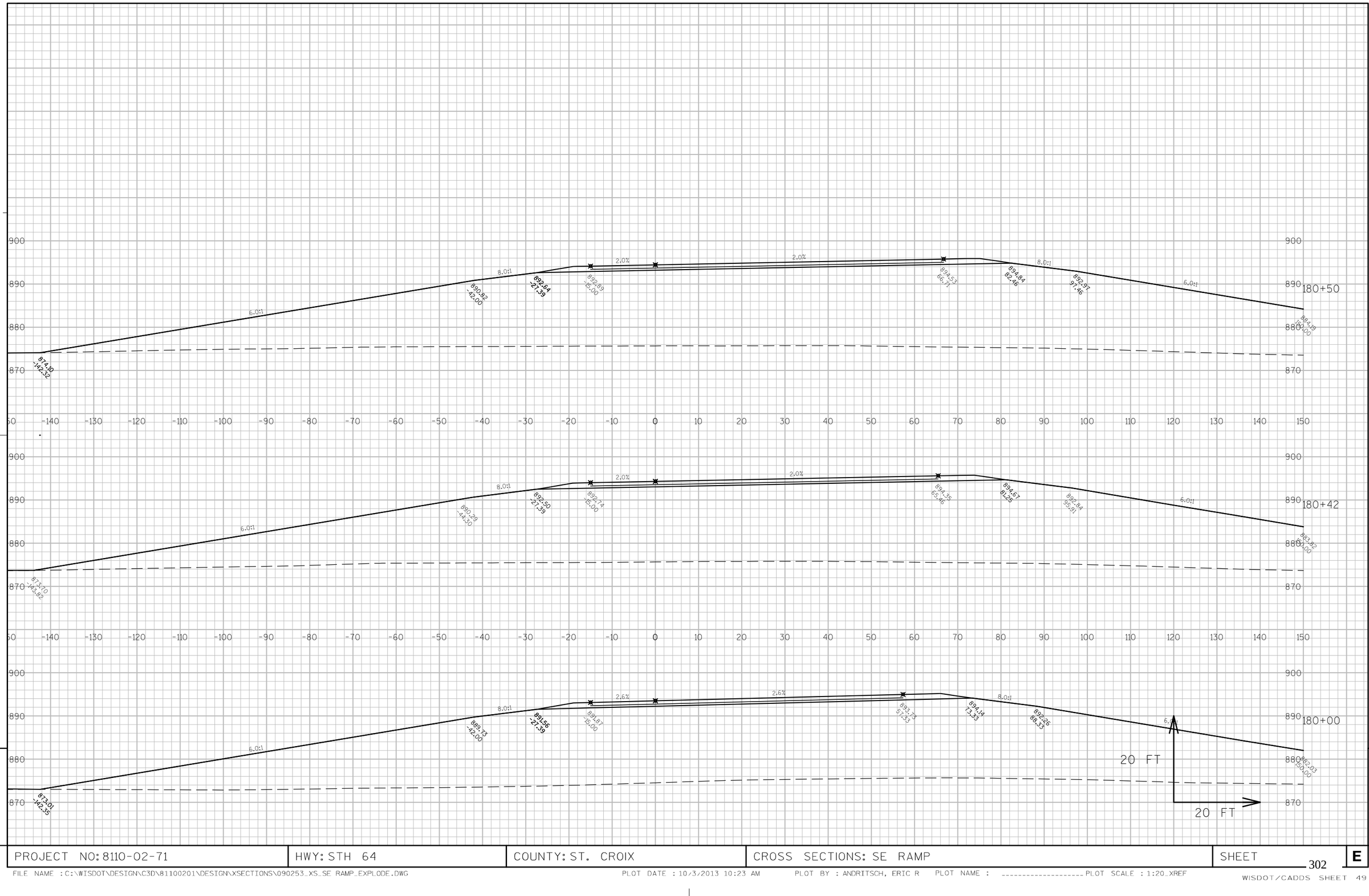
WISDOT/CADDS SHEET 49



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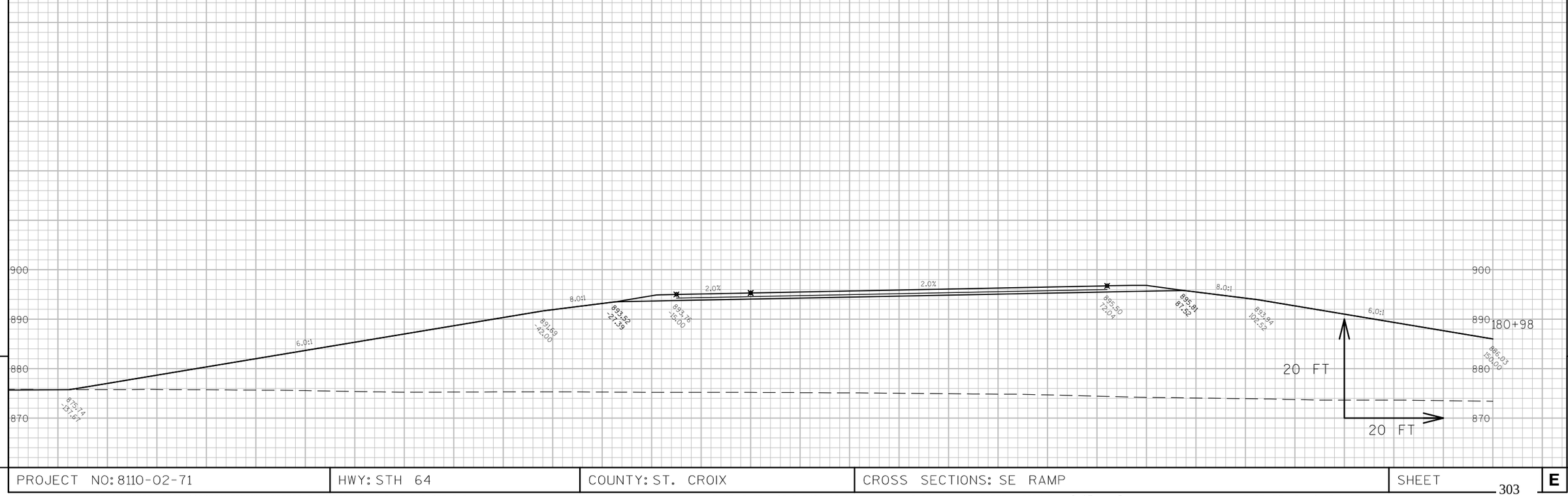
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET 301	E



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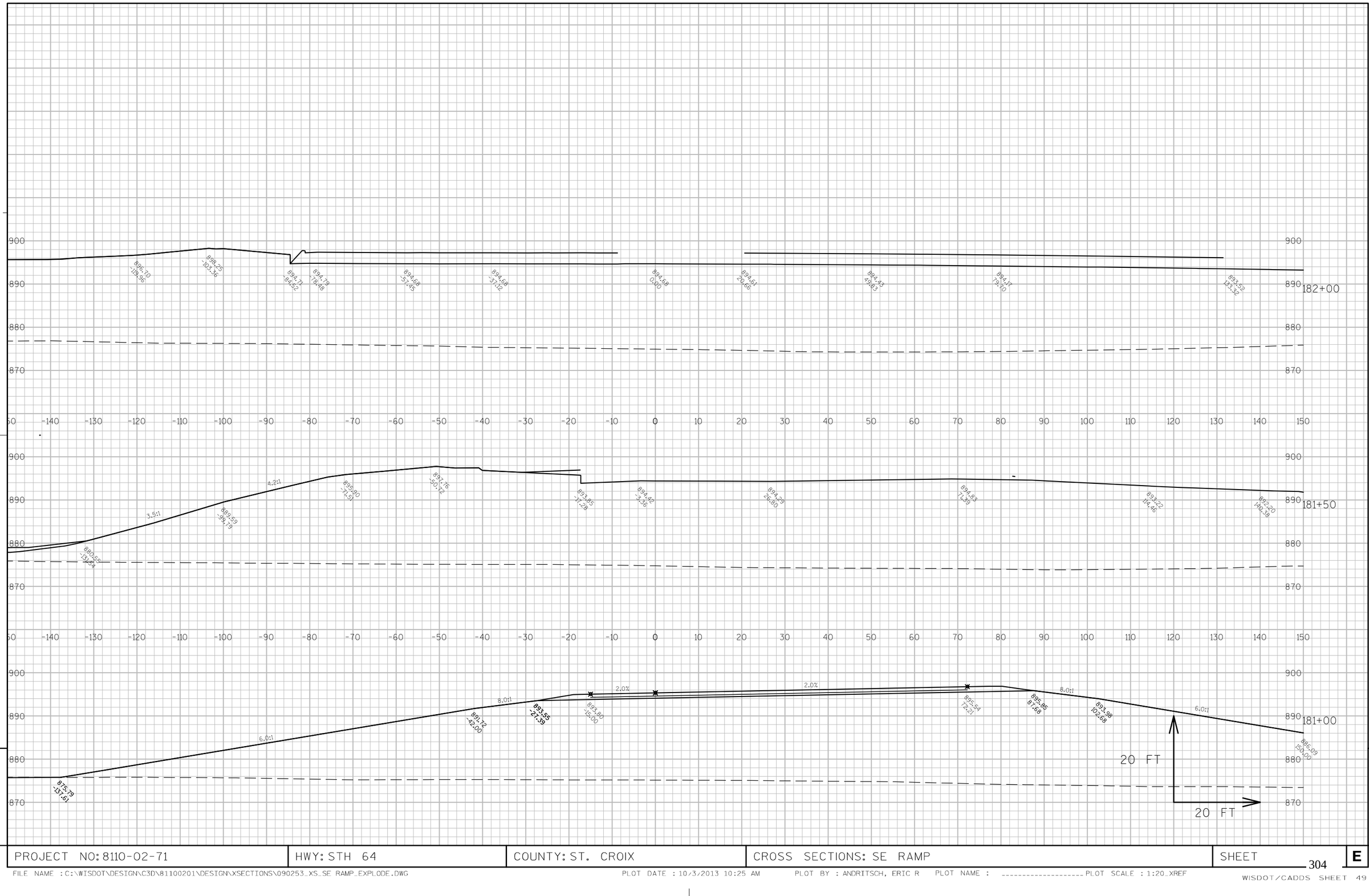
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET 302	E



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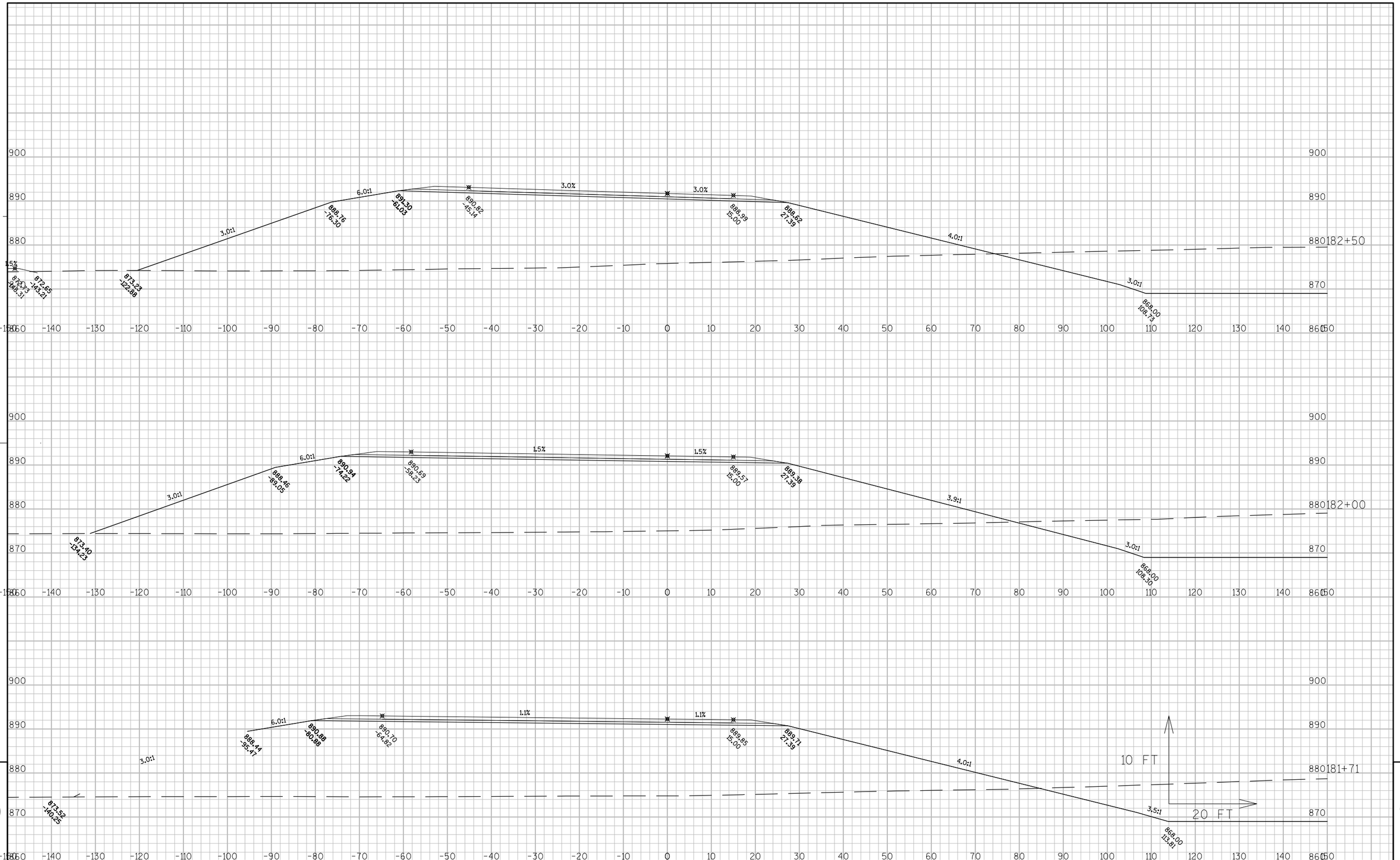
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET 303	E



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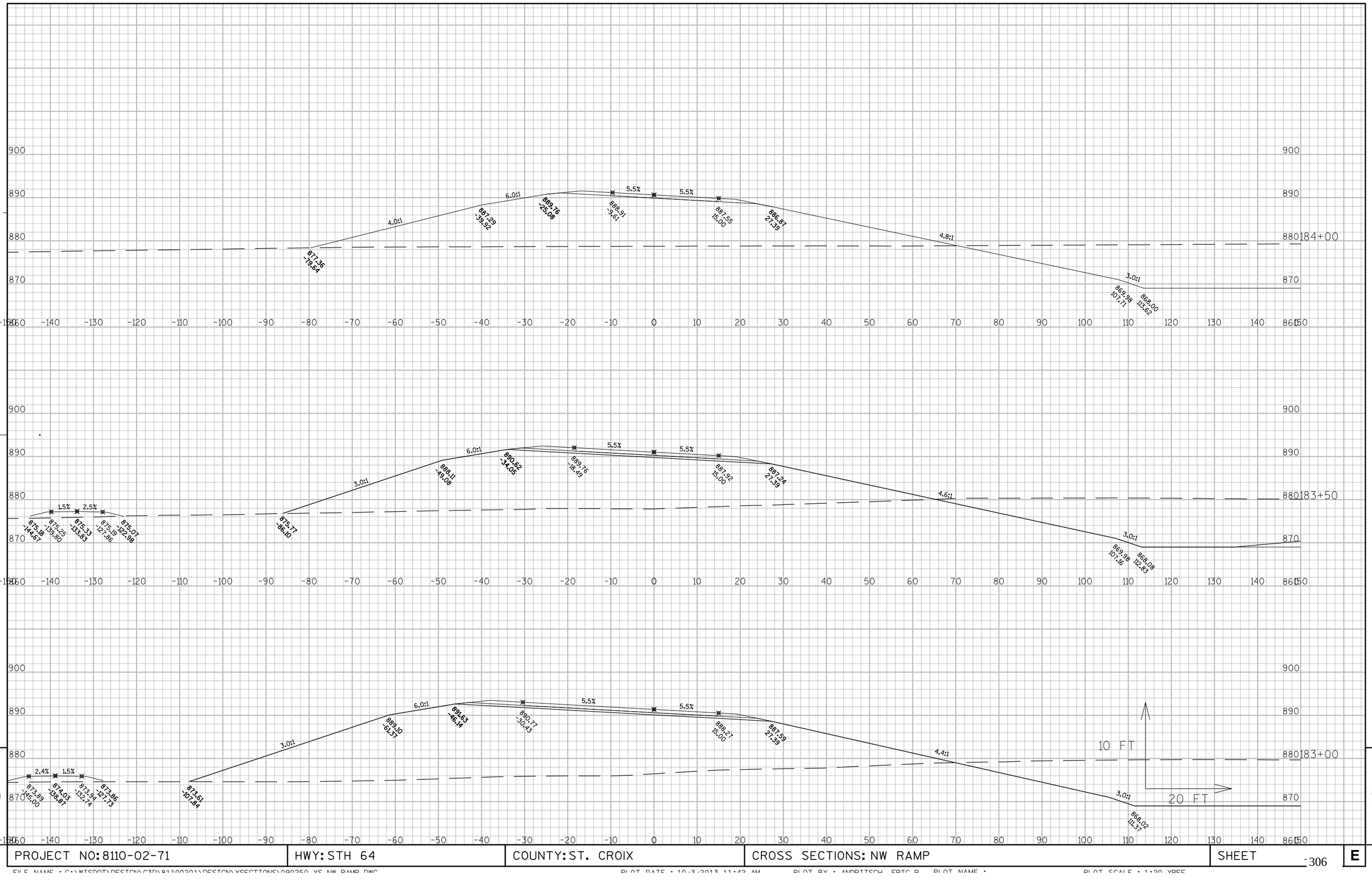
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SE RAMP	SHEET 304	E



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: NW RAMP	SHEET 305

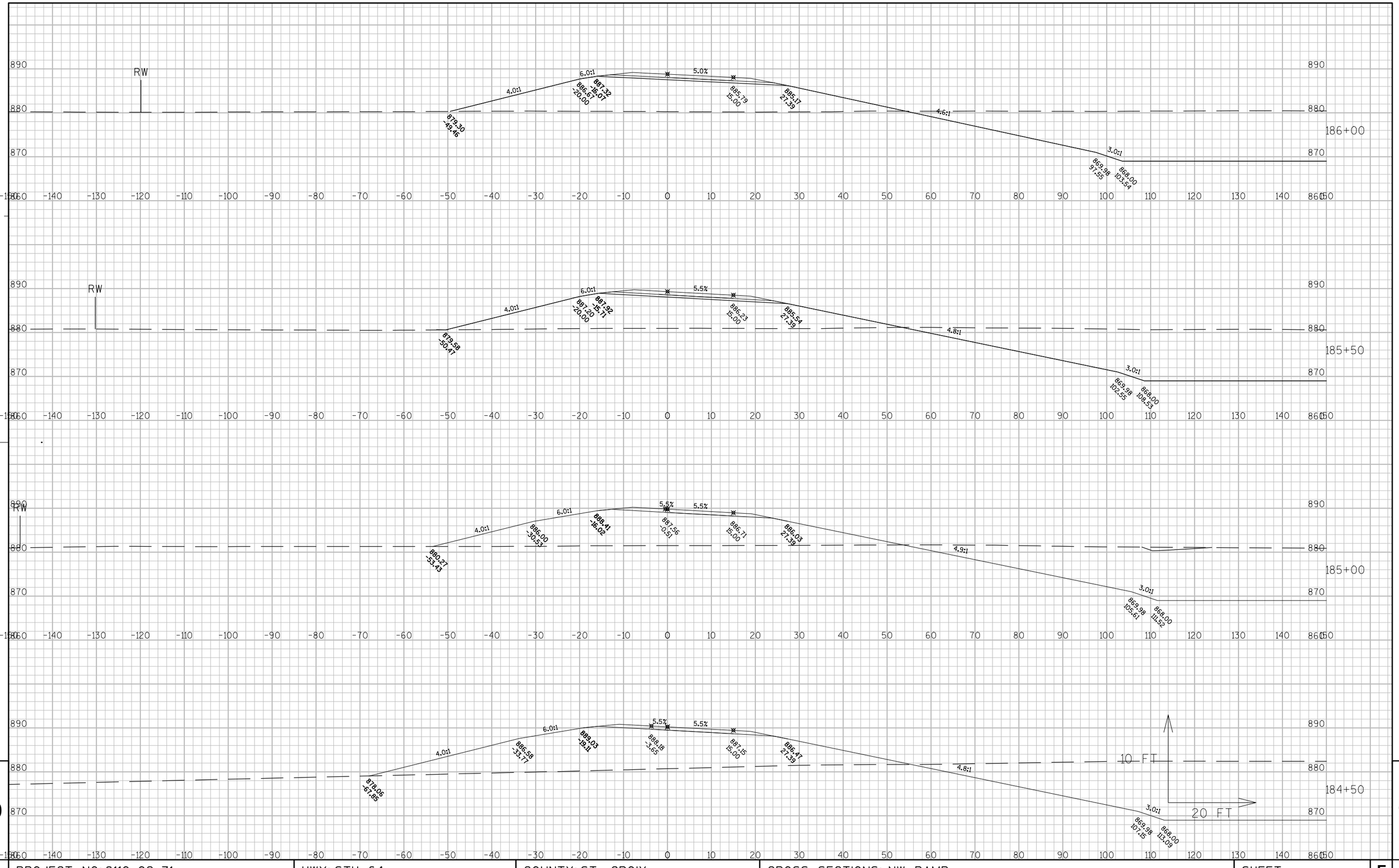
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9 9 E



PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: NW RAMP	SHEET 306	E

FILE NAME: C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\080250_XS_NW_RAMP.DWG PLOT DATE: 10/3/2013 11:42 AM PLOT BY: ANDRITSCH, ERIC R PLOT NAME: PLOT SCALE: 1:20 XREF

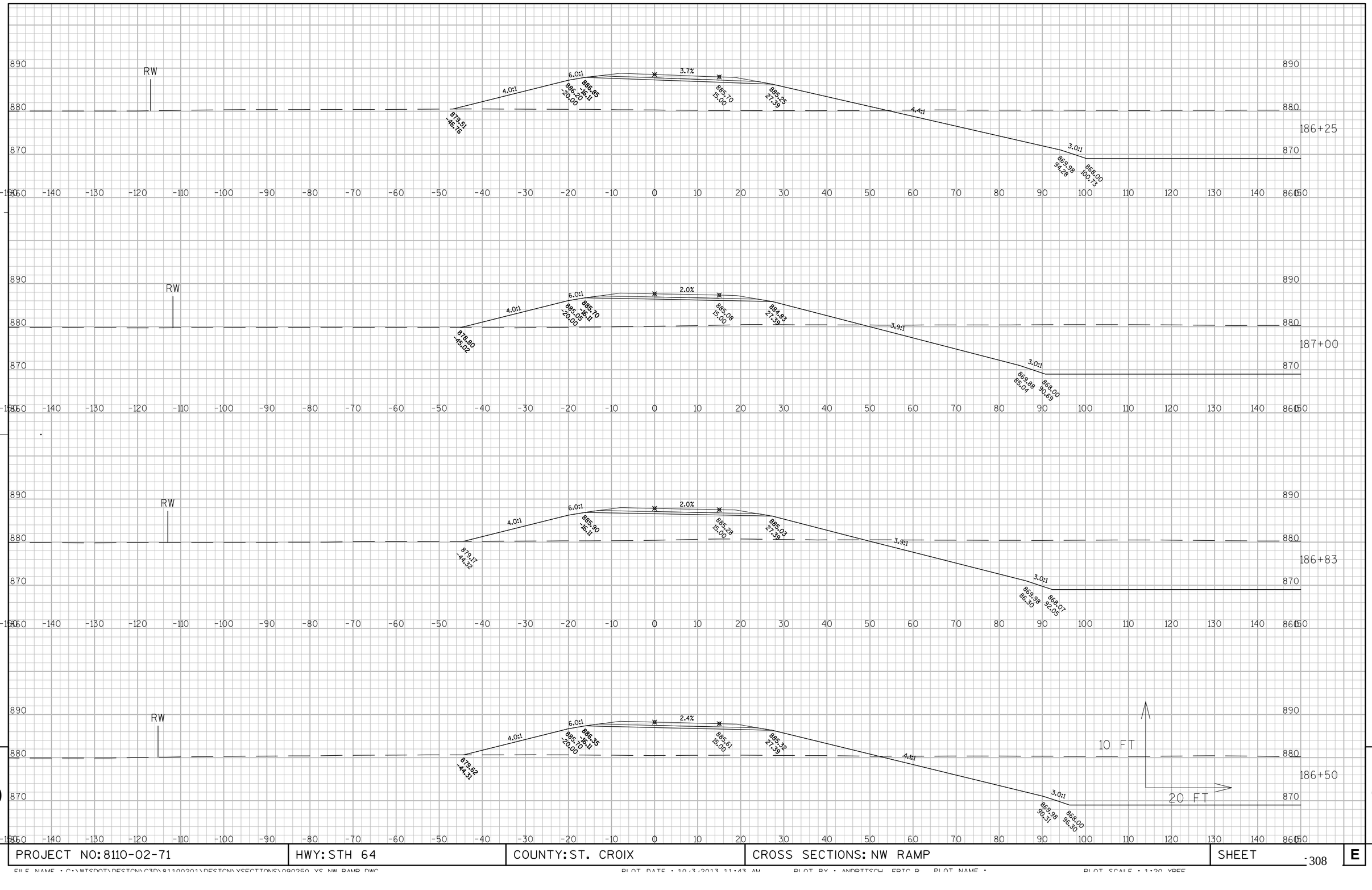


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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: NW RAMP	SHEET 307	E

FILE NAME: C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\080250_XS_NW_RAMP.DWG PLOT DATE: 10/3/2013 11:42 AM PLOT BY: ANDRITSCH, ERIC R PLOT NAME: PLOT SCALE: 1:20 XREF

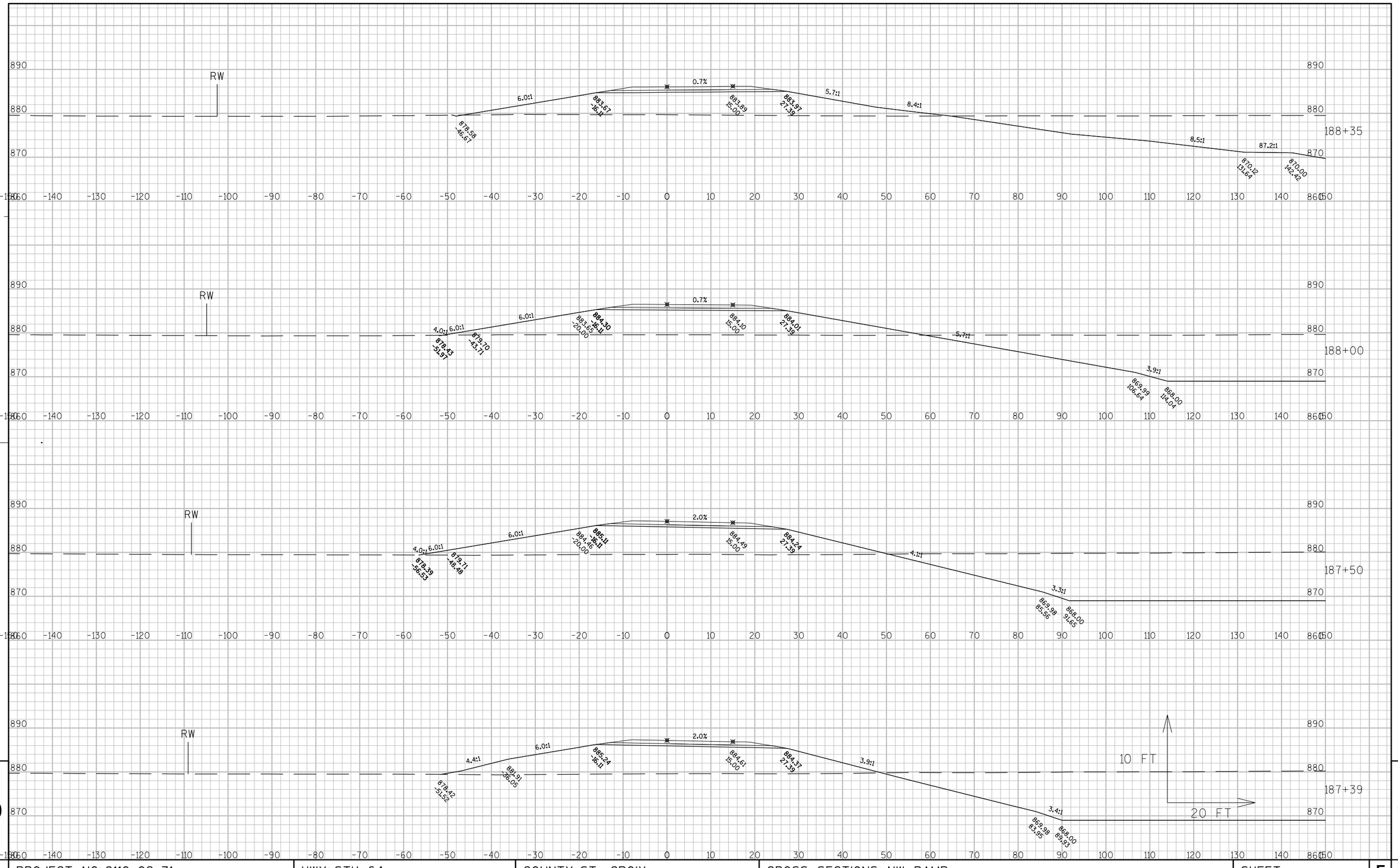


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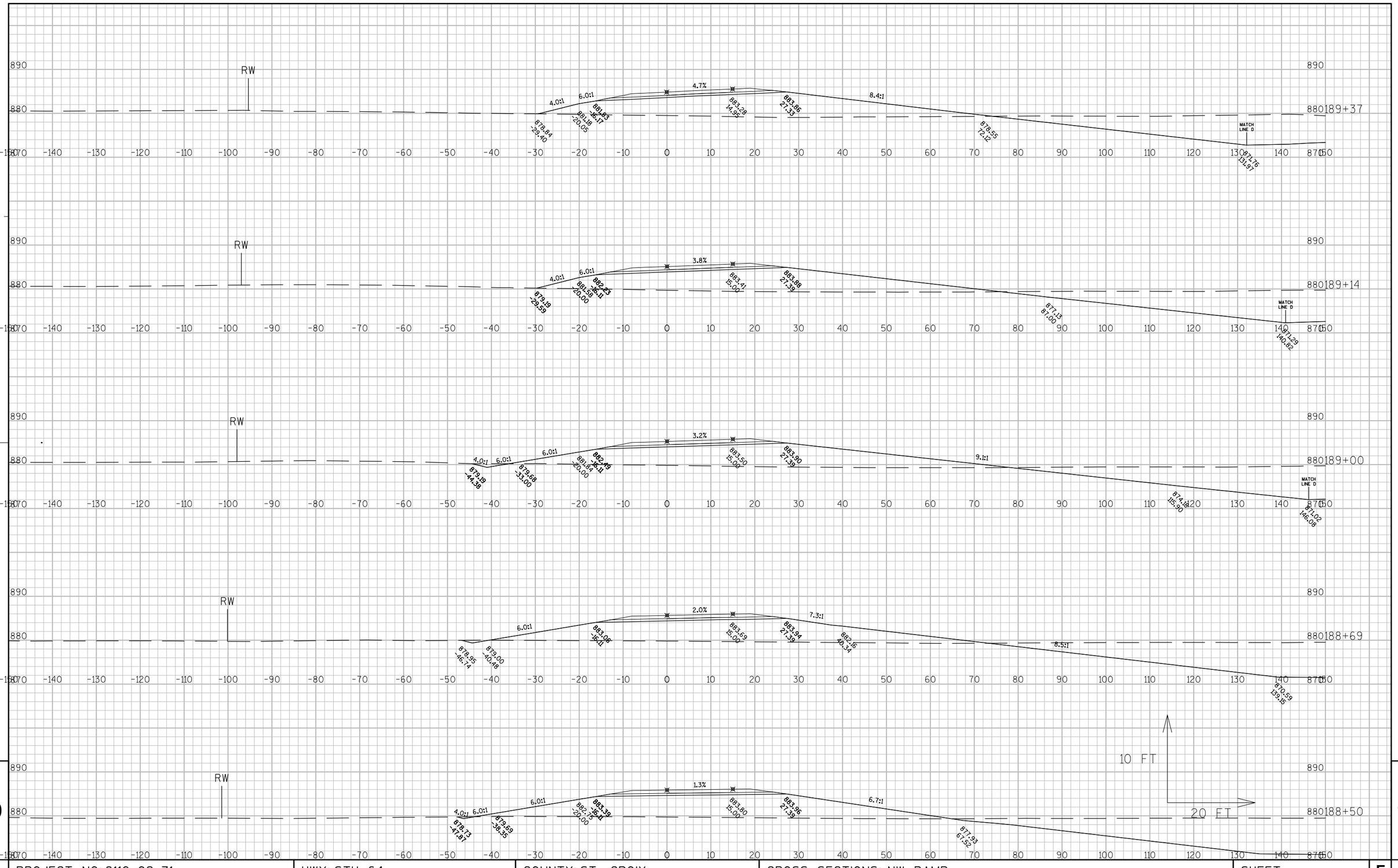
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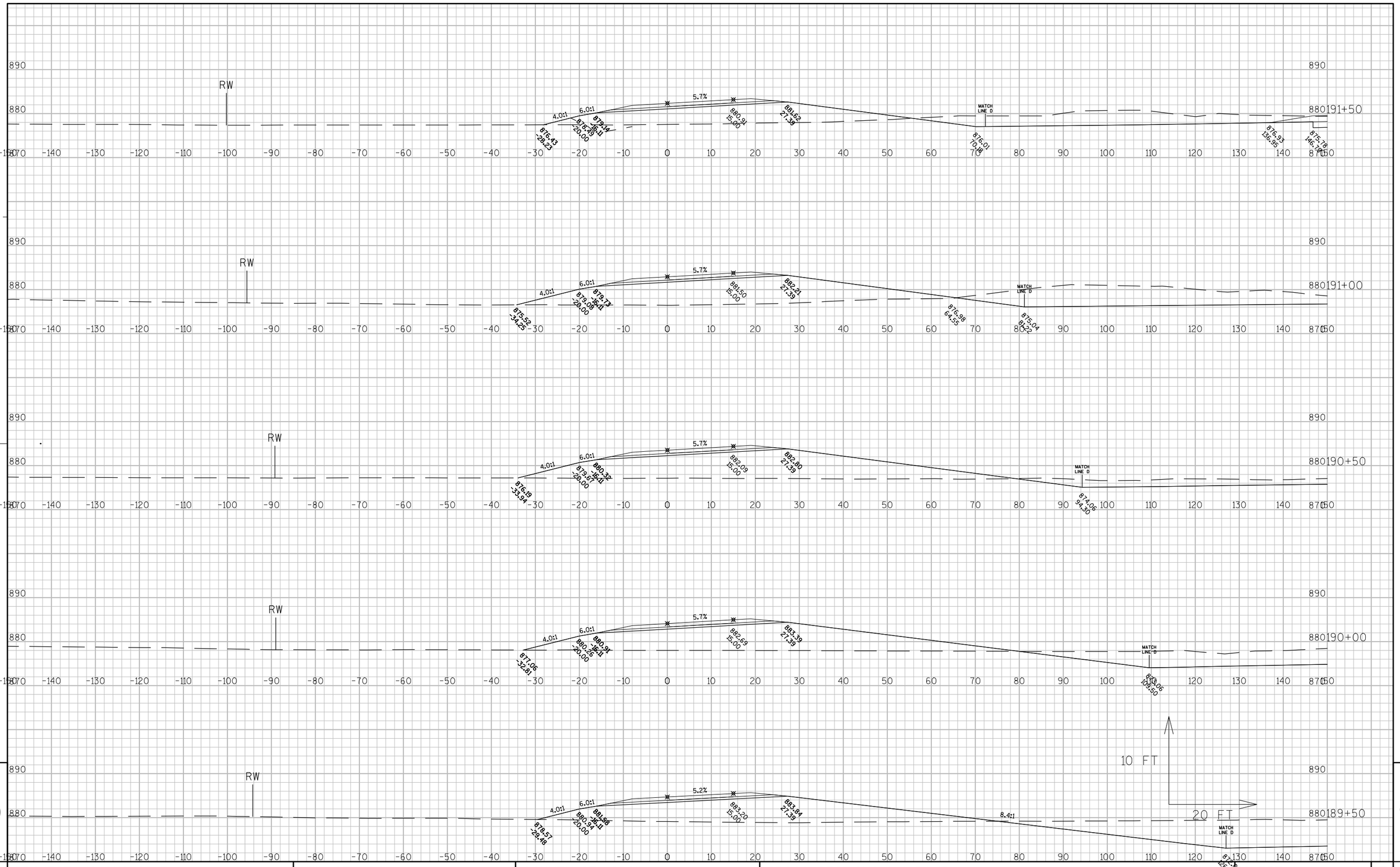
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: NW RAMP	SHEET	E

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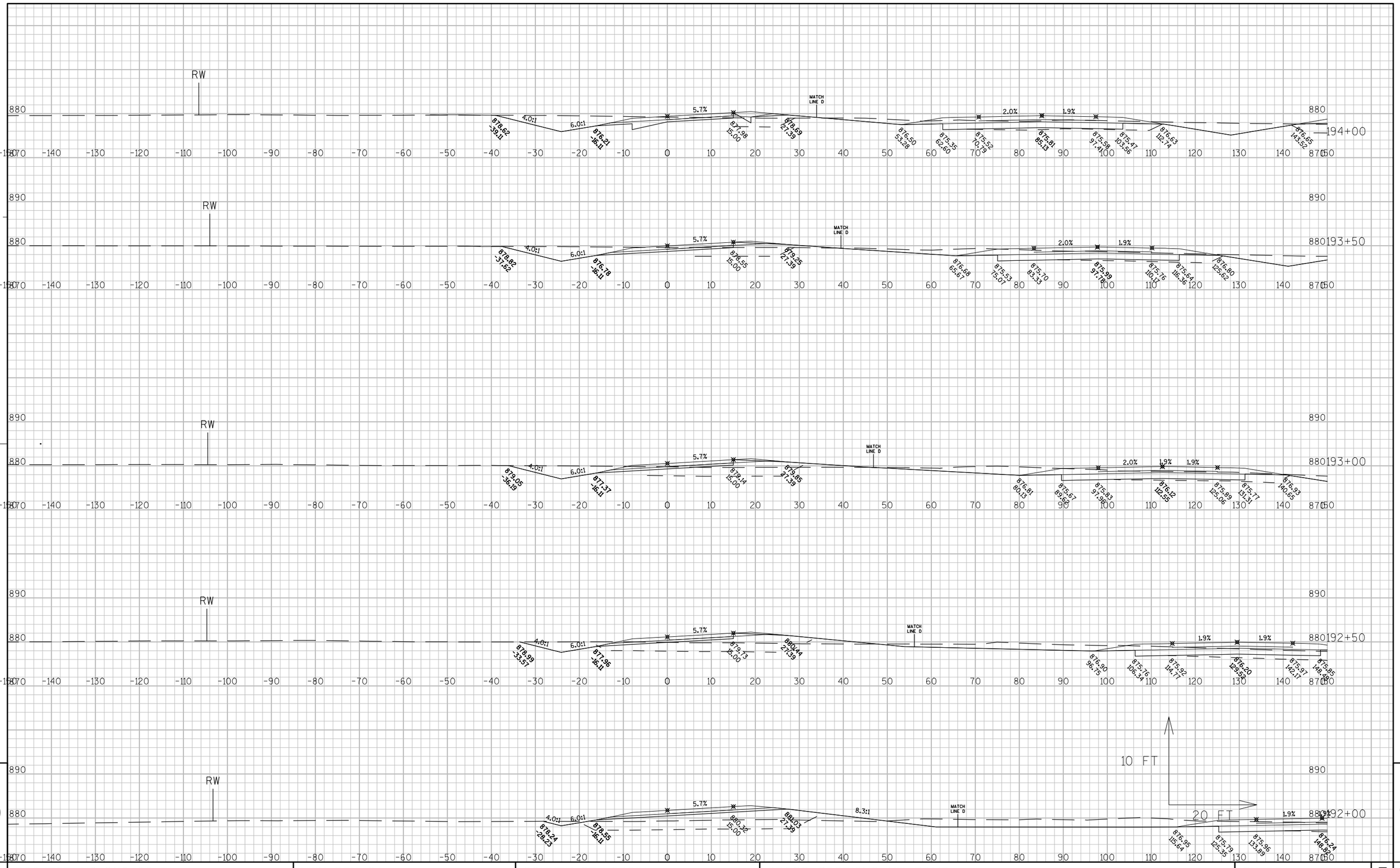


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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: NW RAMP	SHEET	E

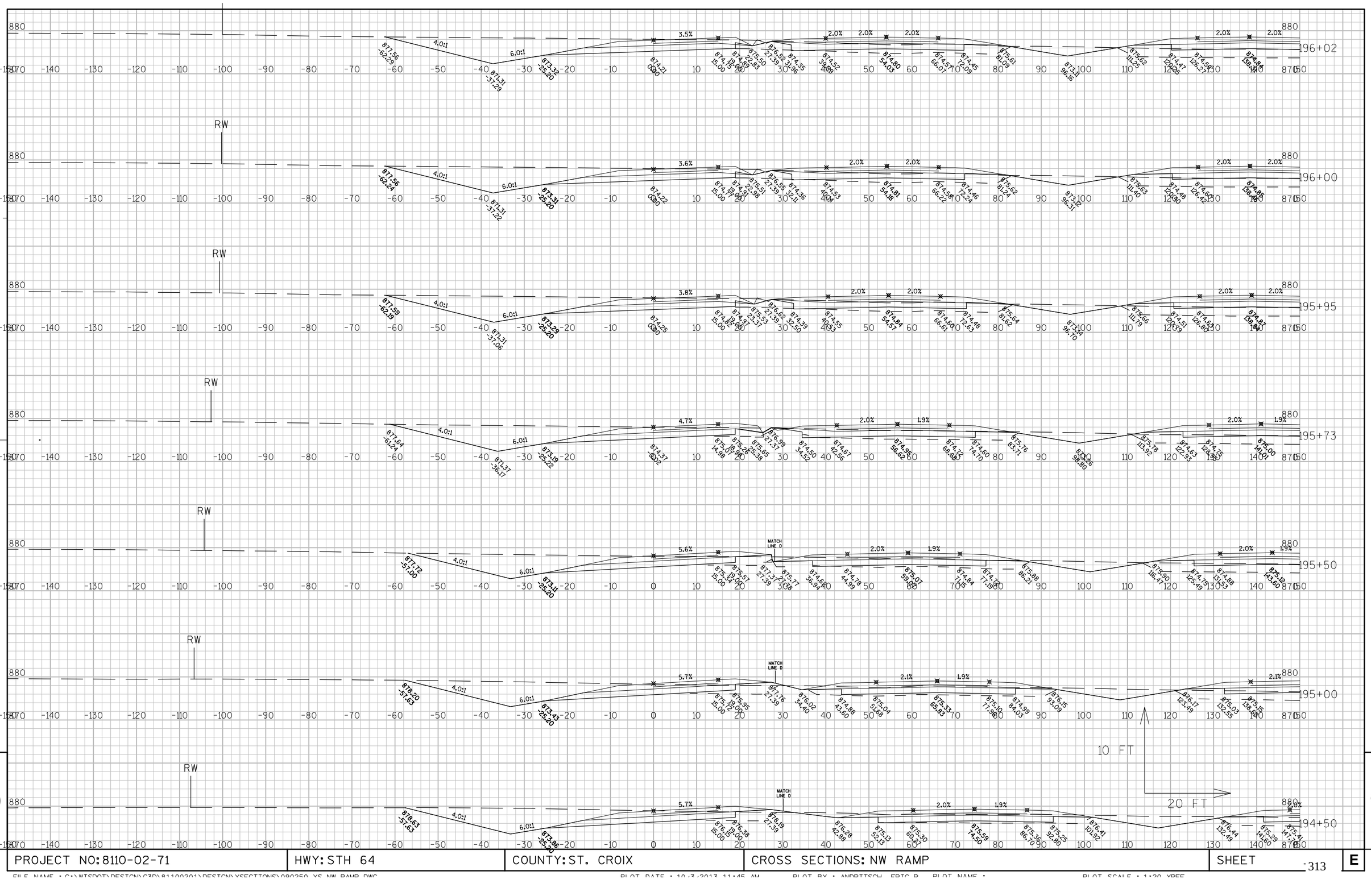
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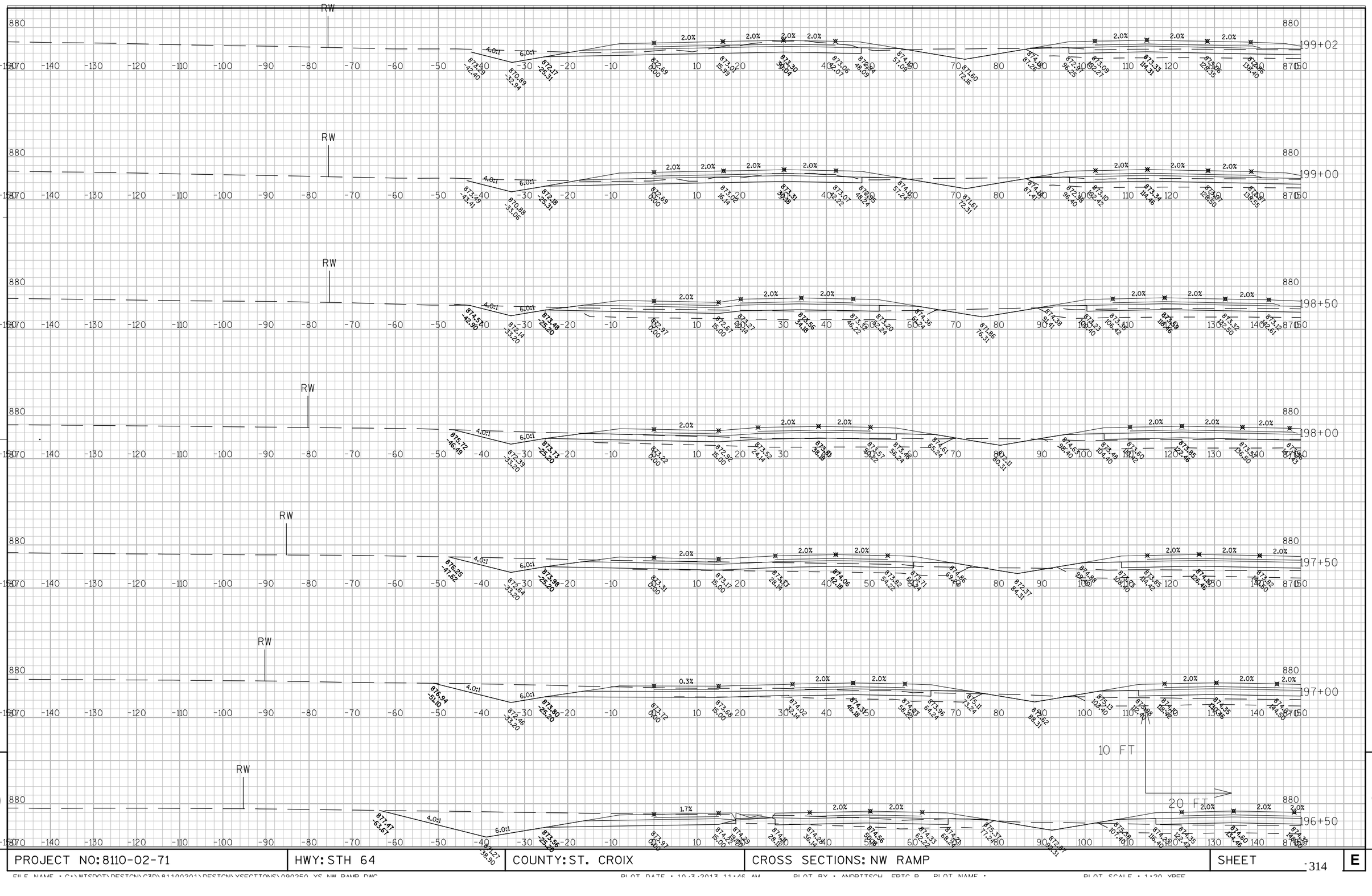
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: NW RAMP	SHEET 313 E

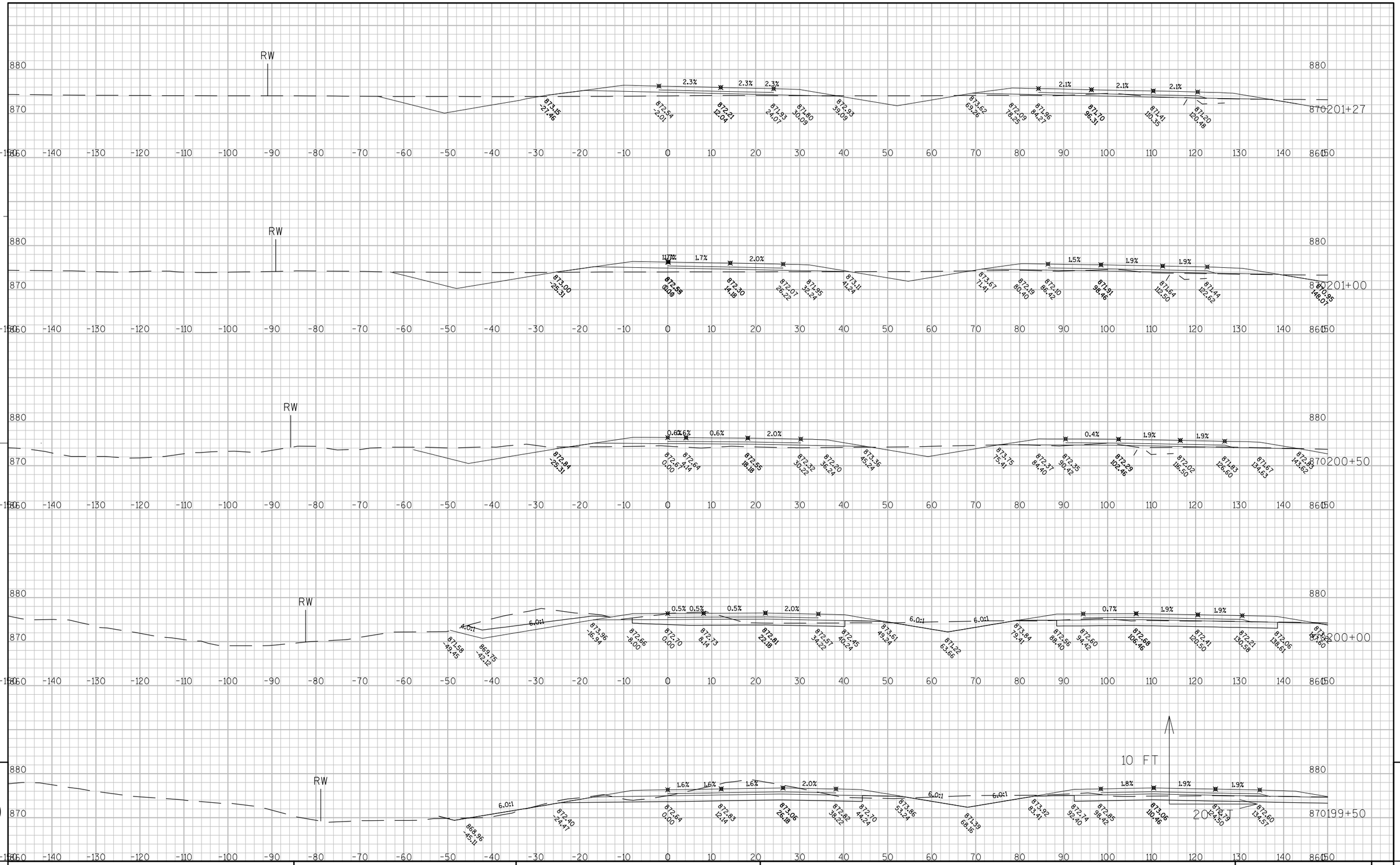
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: NW RAMP	SHEET 314	E

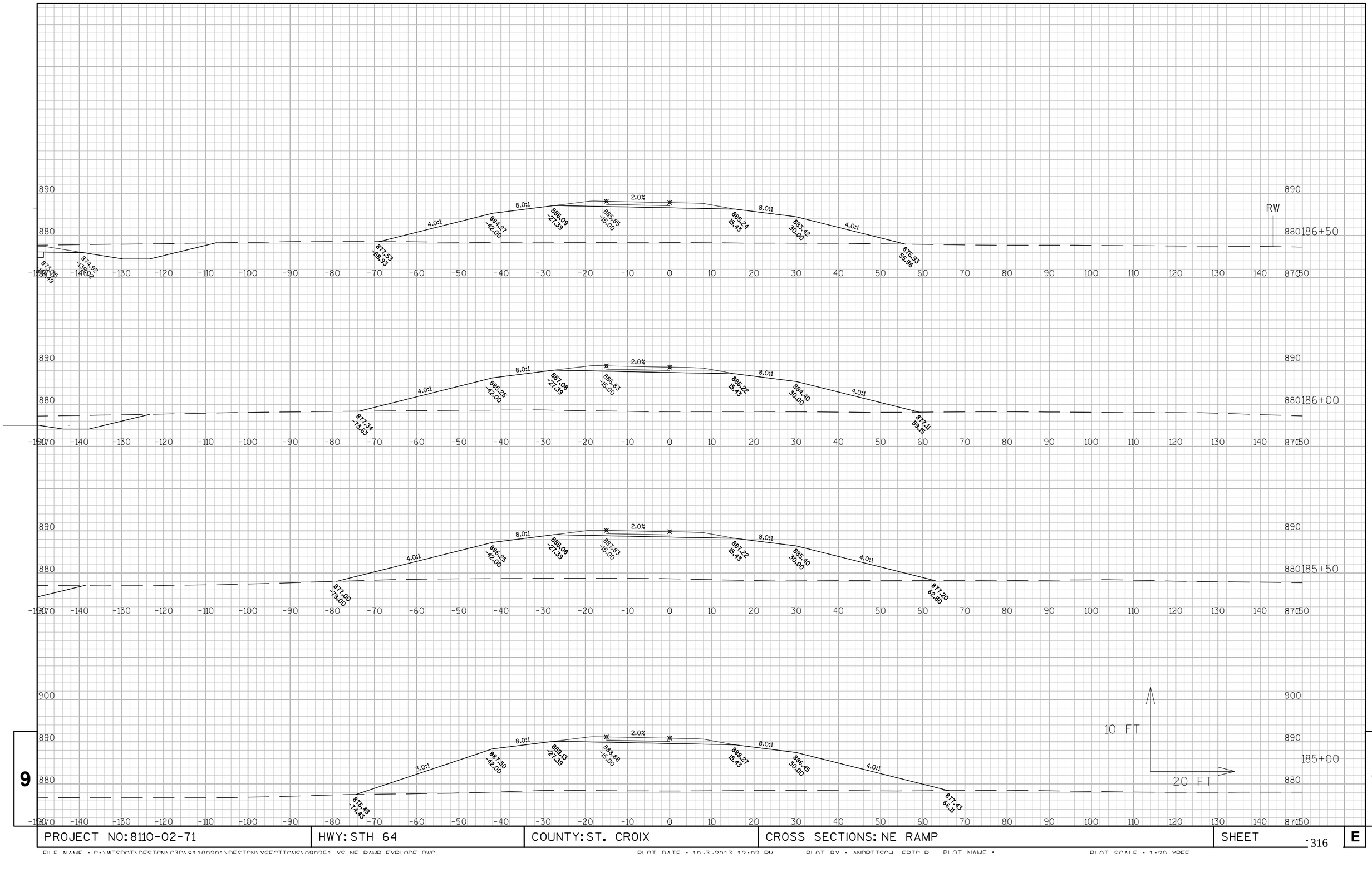


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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: NW RAMP	SHEET 315	E

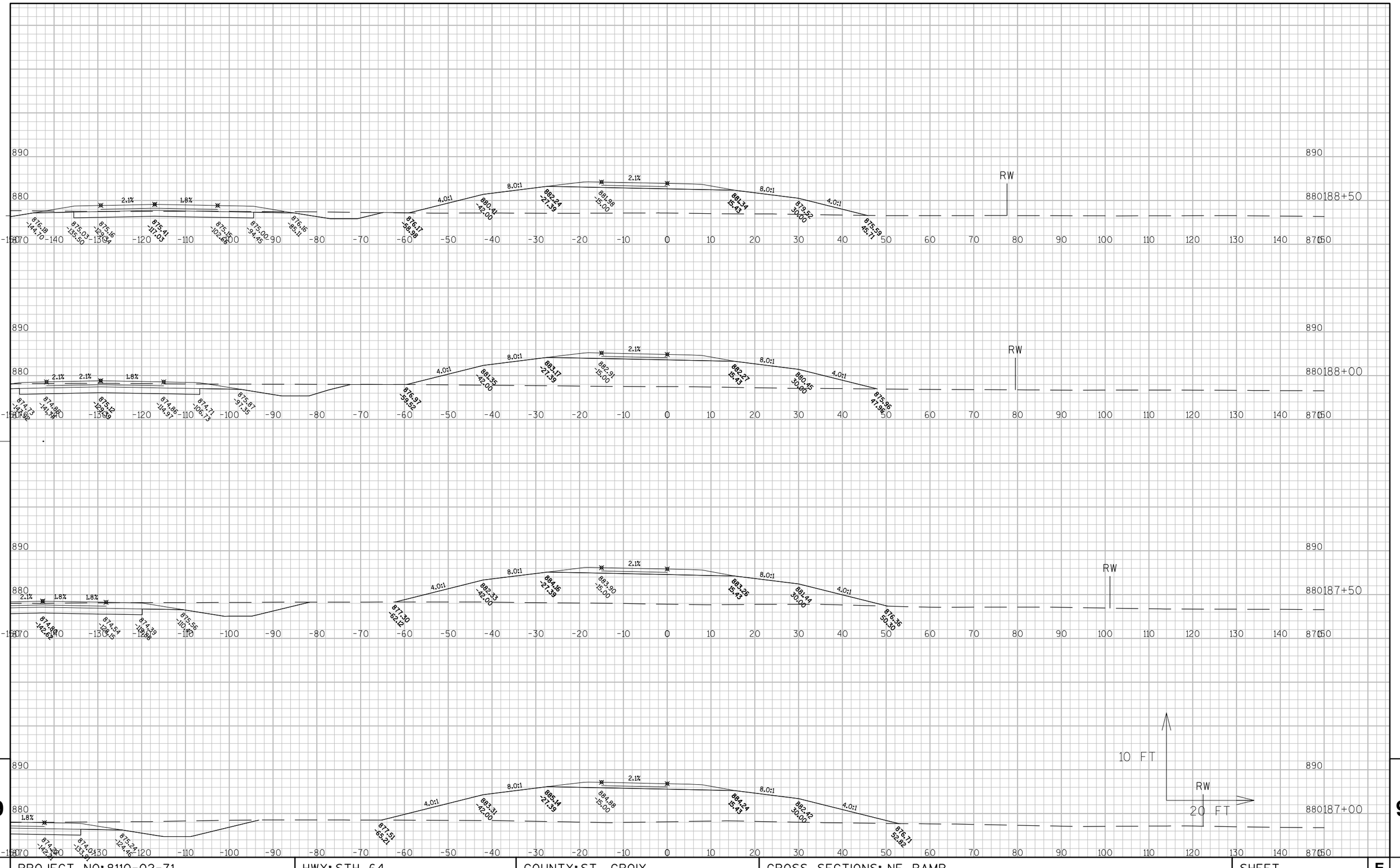
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: NE RAMP	SHEET 316

FILE NAME = C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090251_XS_NE_RAMP_EXPLODE.DWG PLOT DATE = 10/3/2013 12:02 PM PLOT BY = ANDRITSCH, ERIC R PLOT NAME = PLOT SCALE = 1:20 XREF

9 9 E

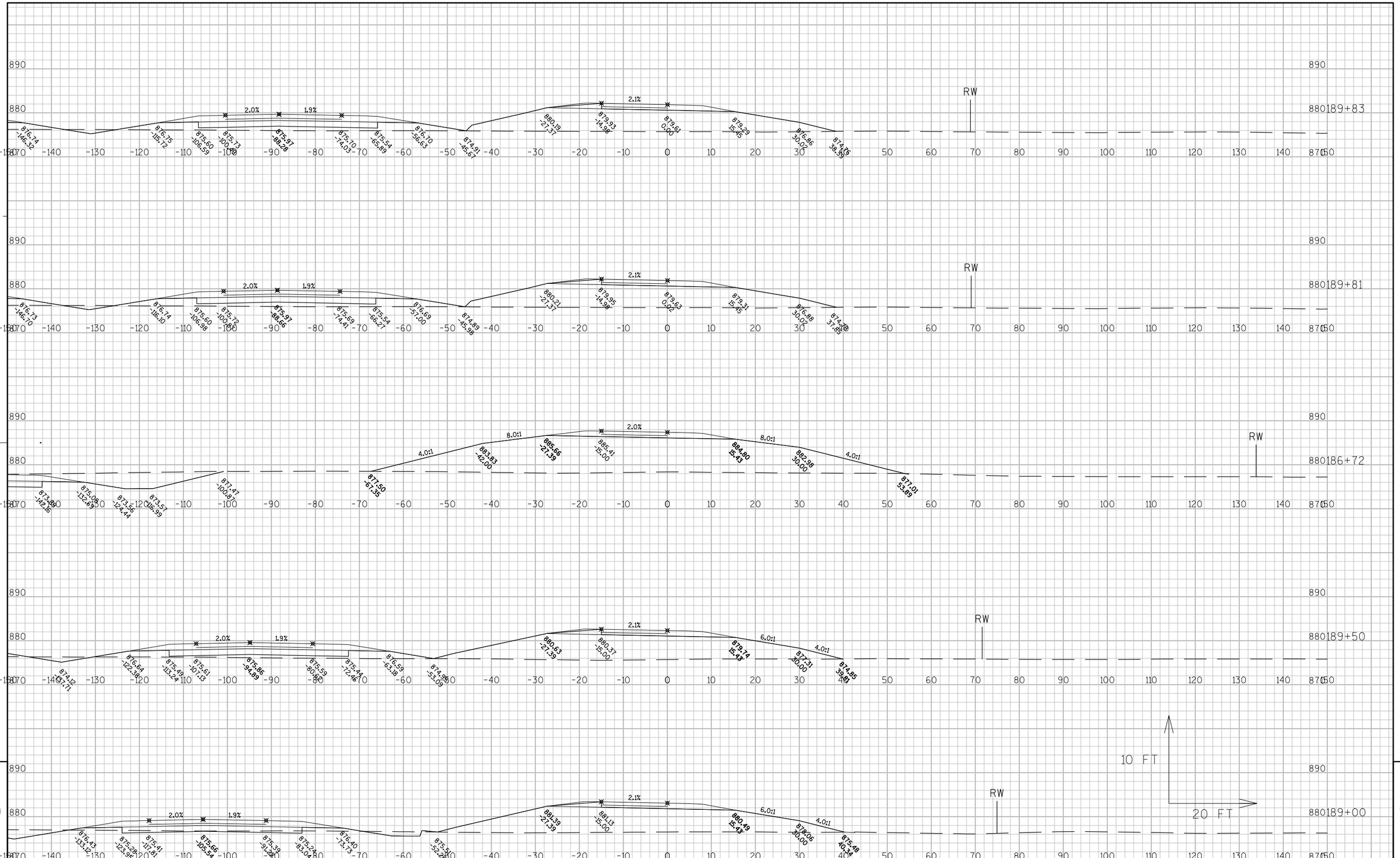


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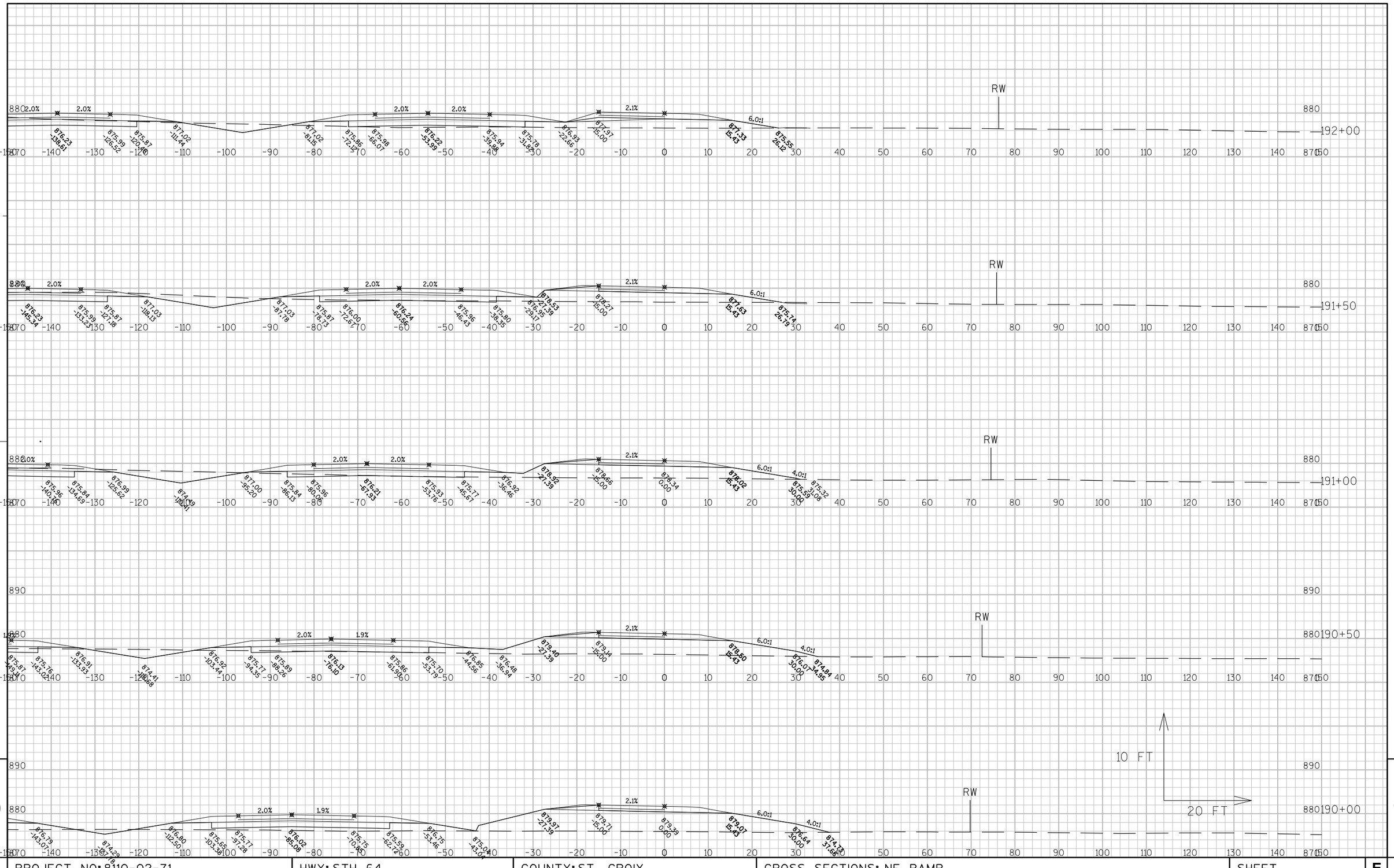
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PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: NE RAMP	SHEET 317	E

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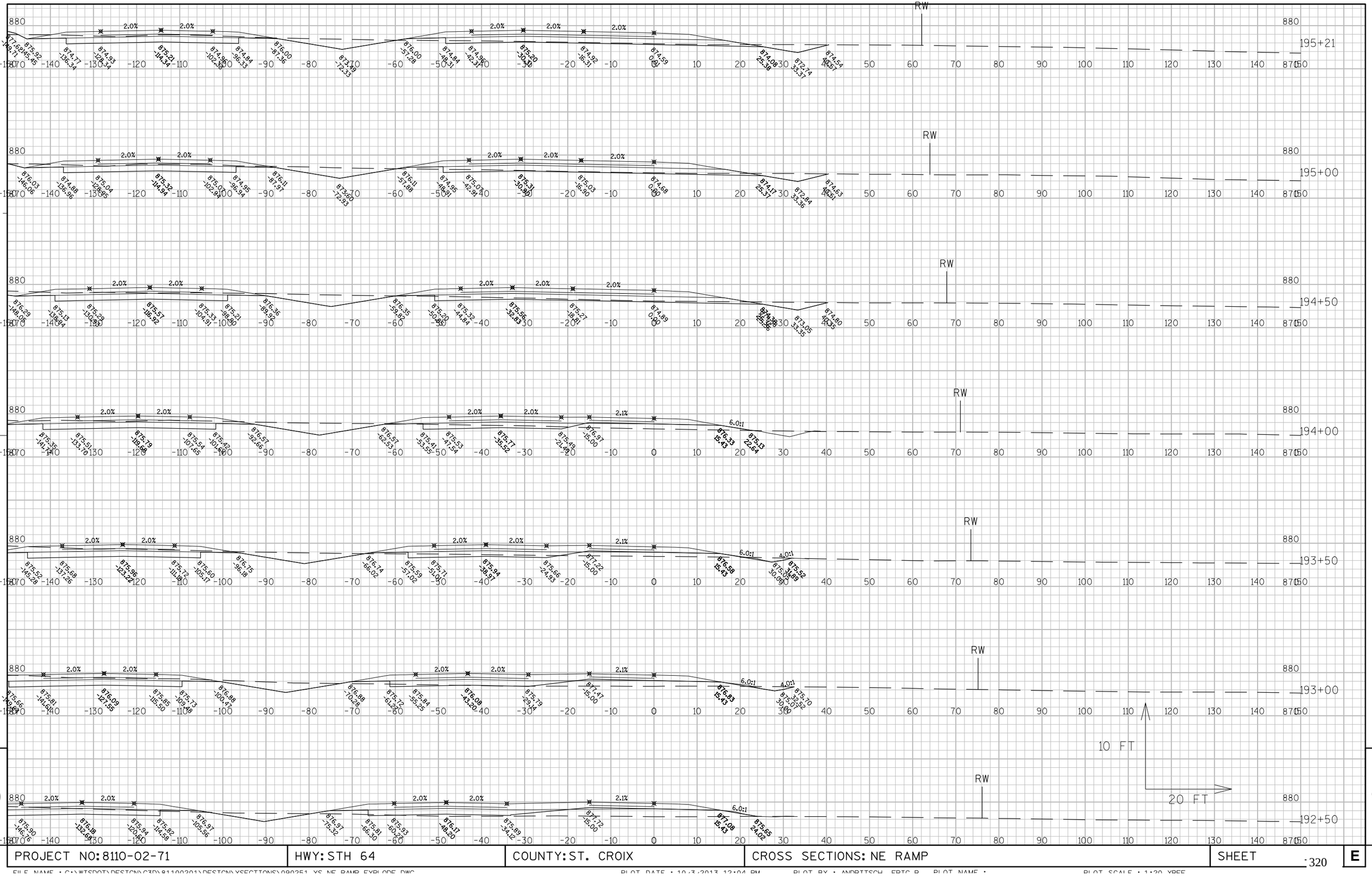
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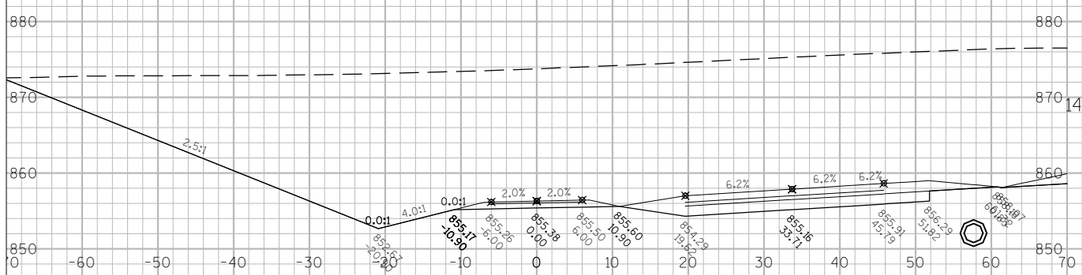
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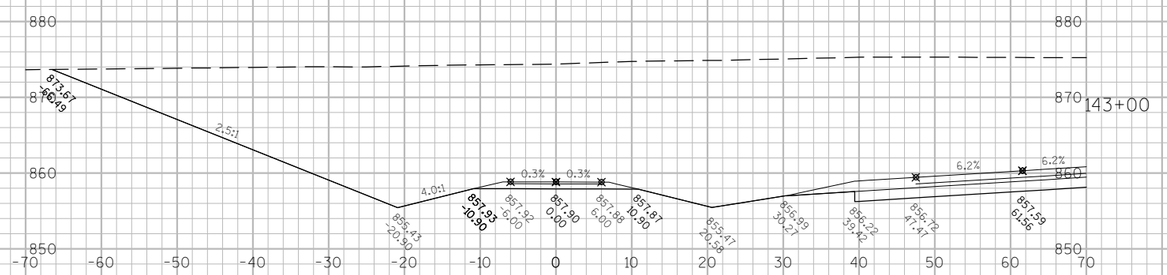


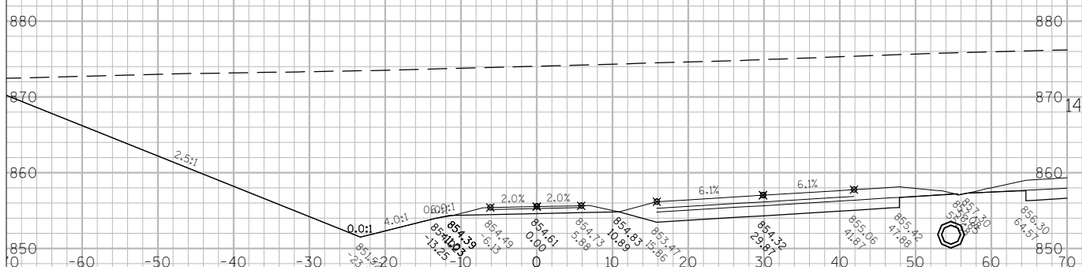
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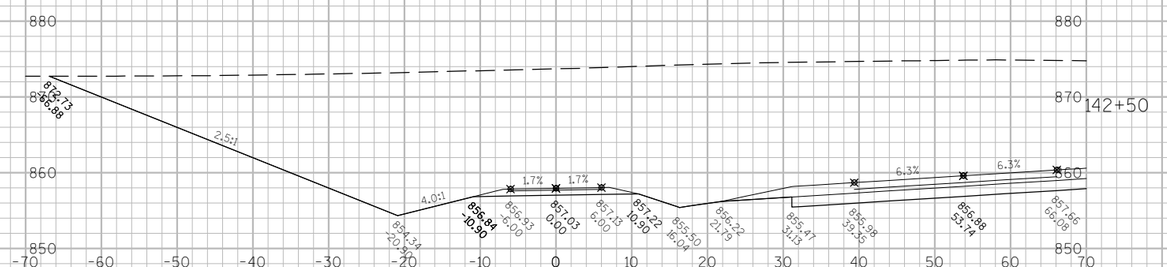
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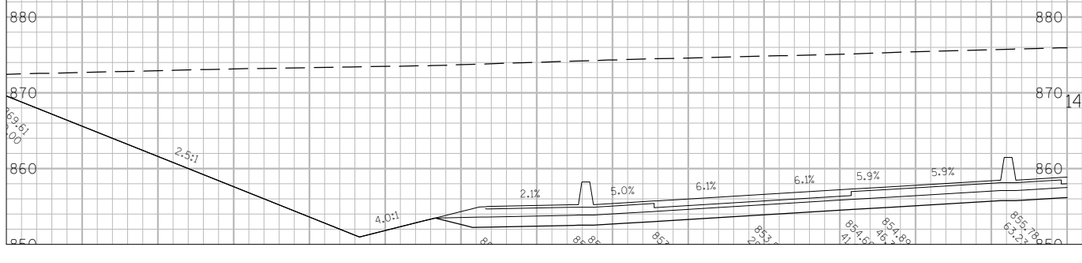
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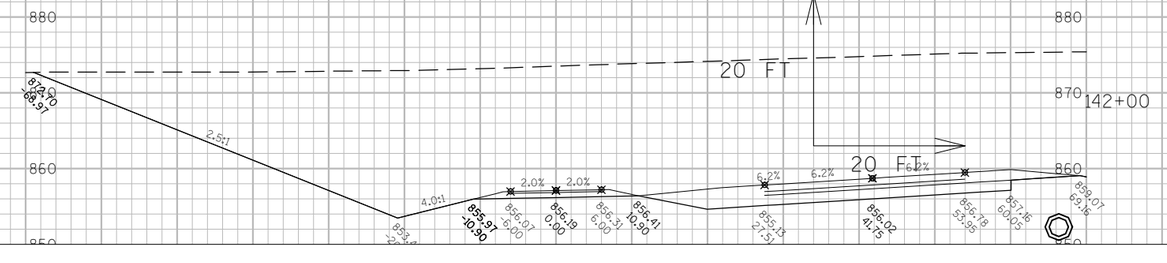






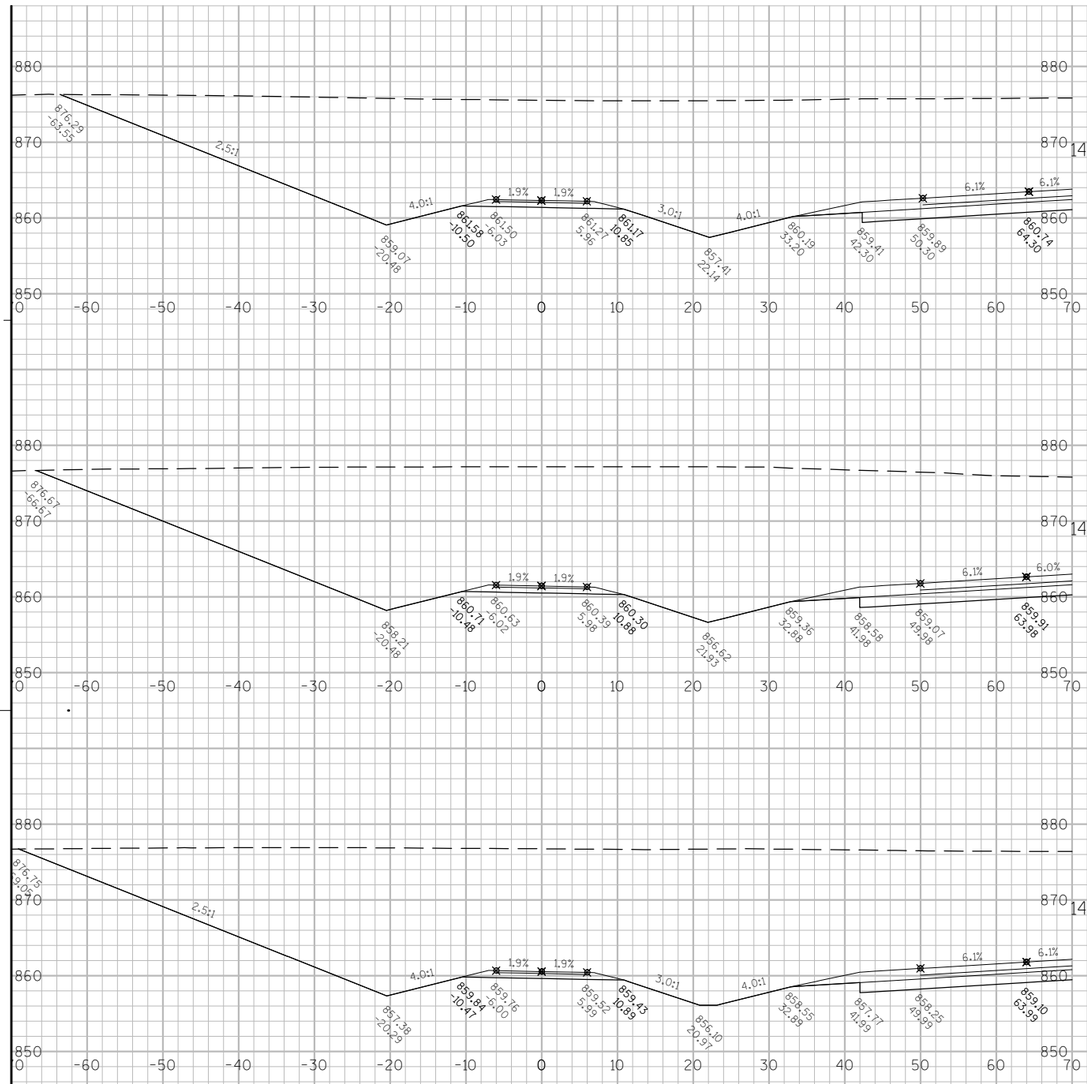


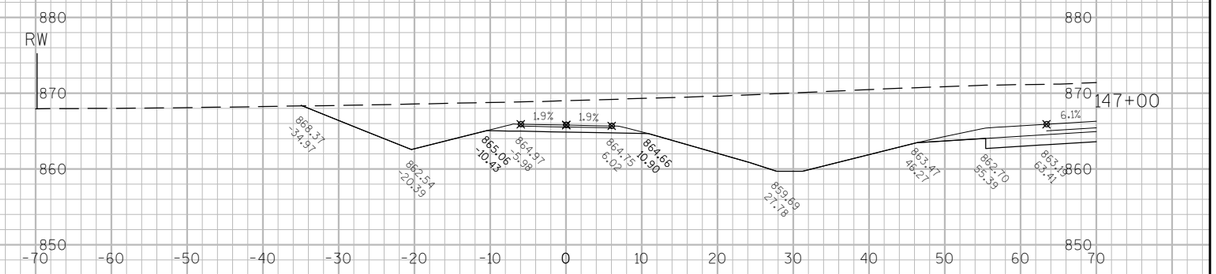


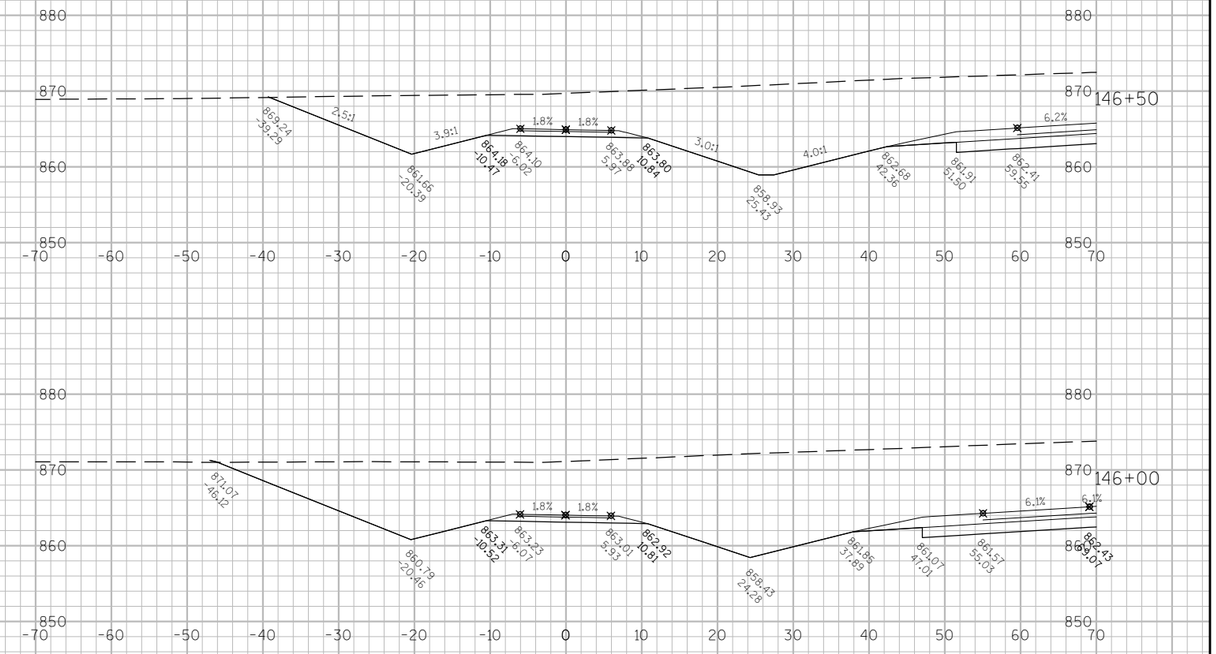


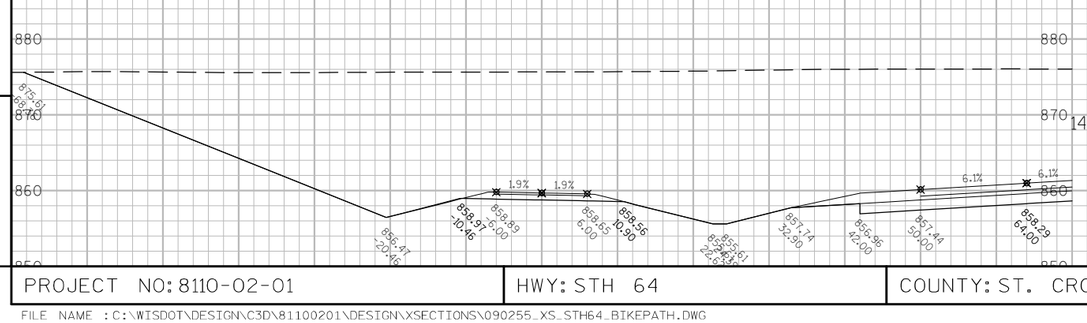
PROJECT NO: 8110-02-71	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SHARED USE PATH	PLOT SCALE : 1:20_XREF	SHEET _____	E

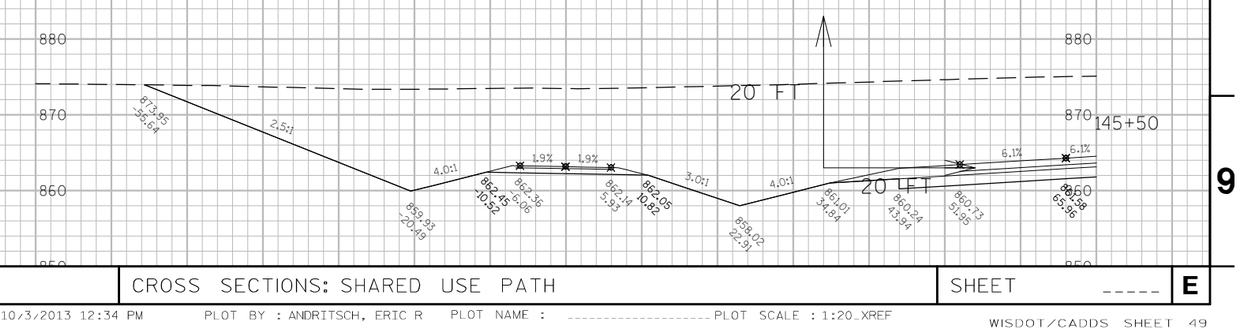
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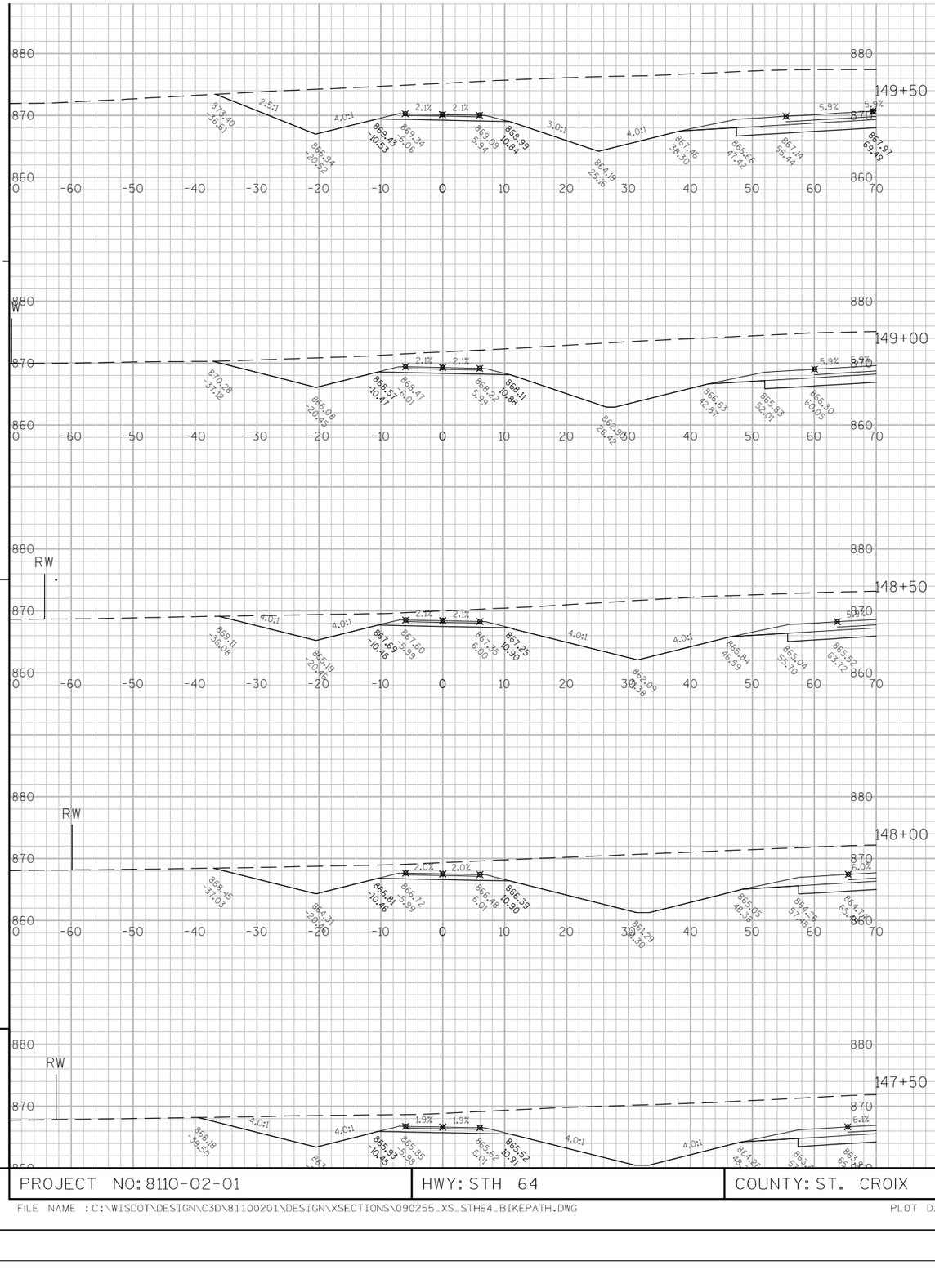
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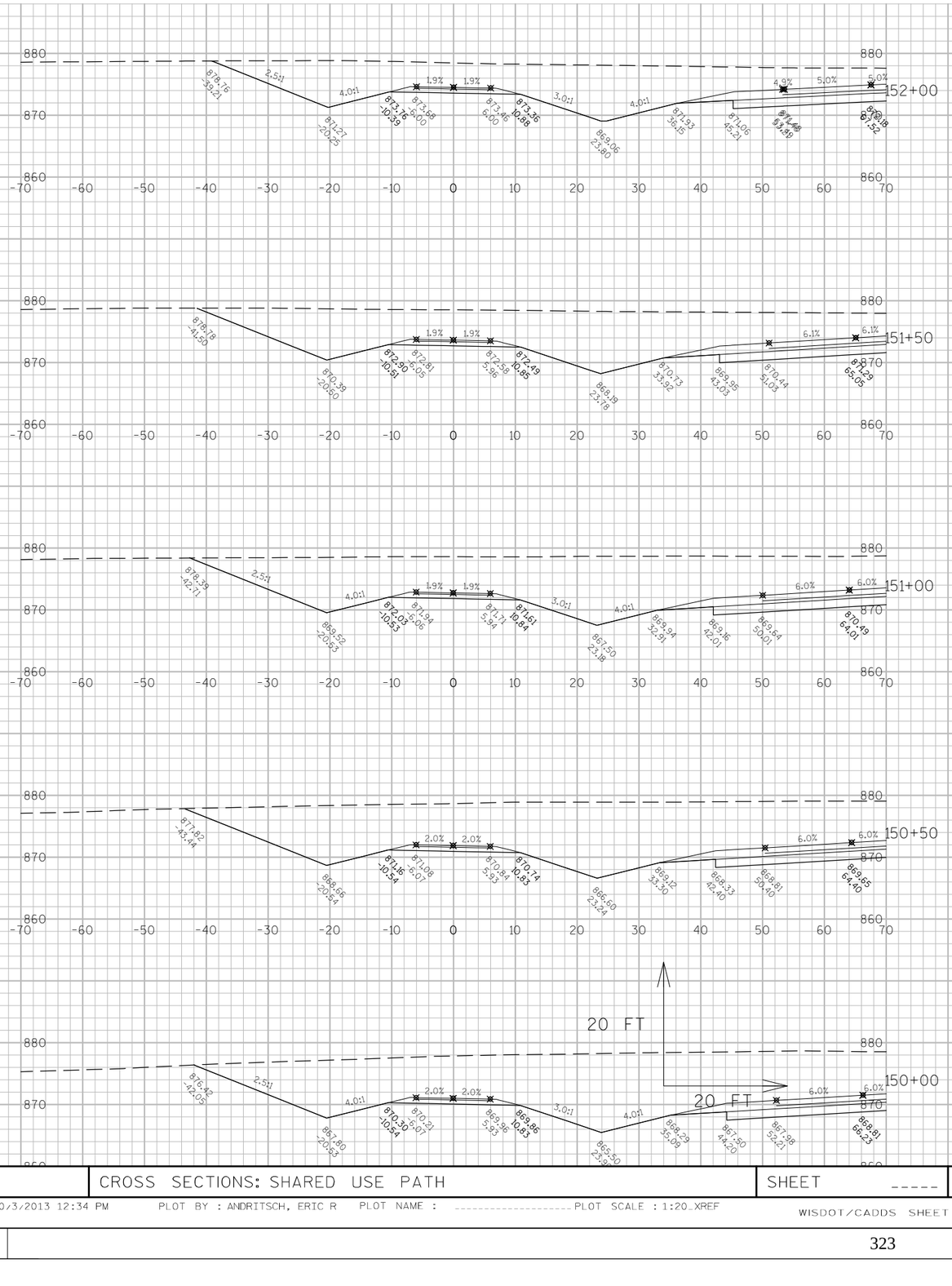
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PROJECT NO: 8110-02-01	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SHARED USE PATH	SHEET _____	E

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WISDOT/CADDS SHEET 49



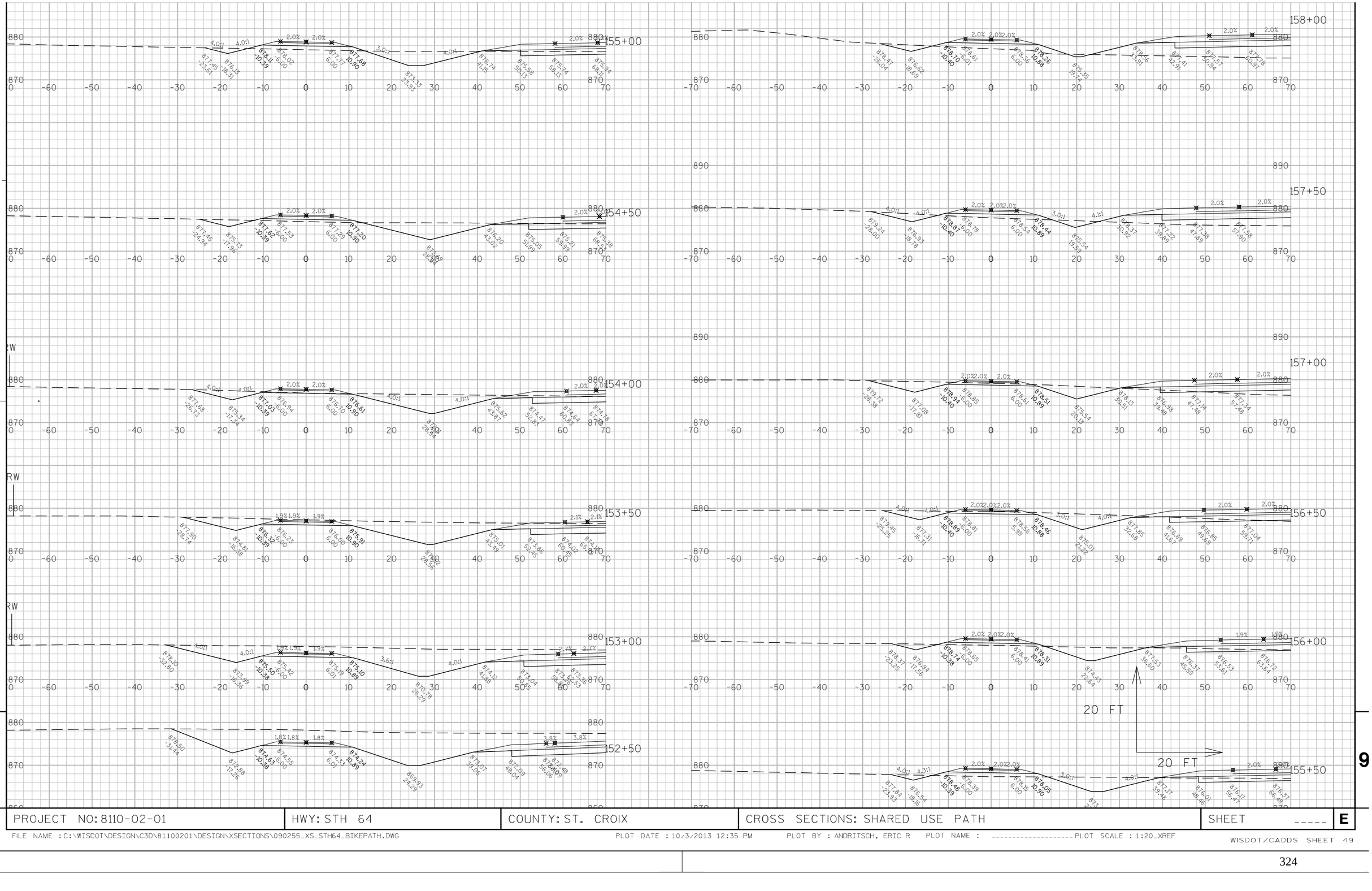


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PROJECT NO: 8110-02-01	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SHARED USE PATH	SHEET _____	E

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WISDOT/CADDS SHEET 49



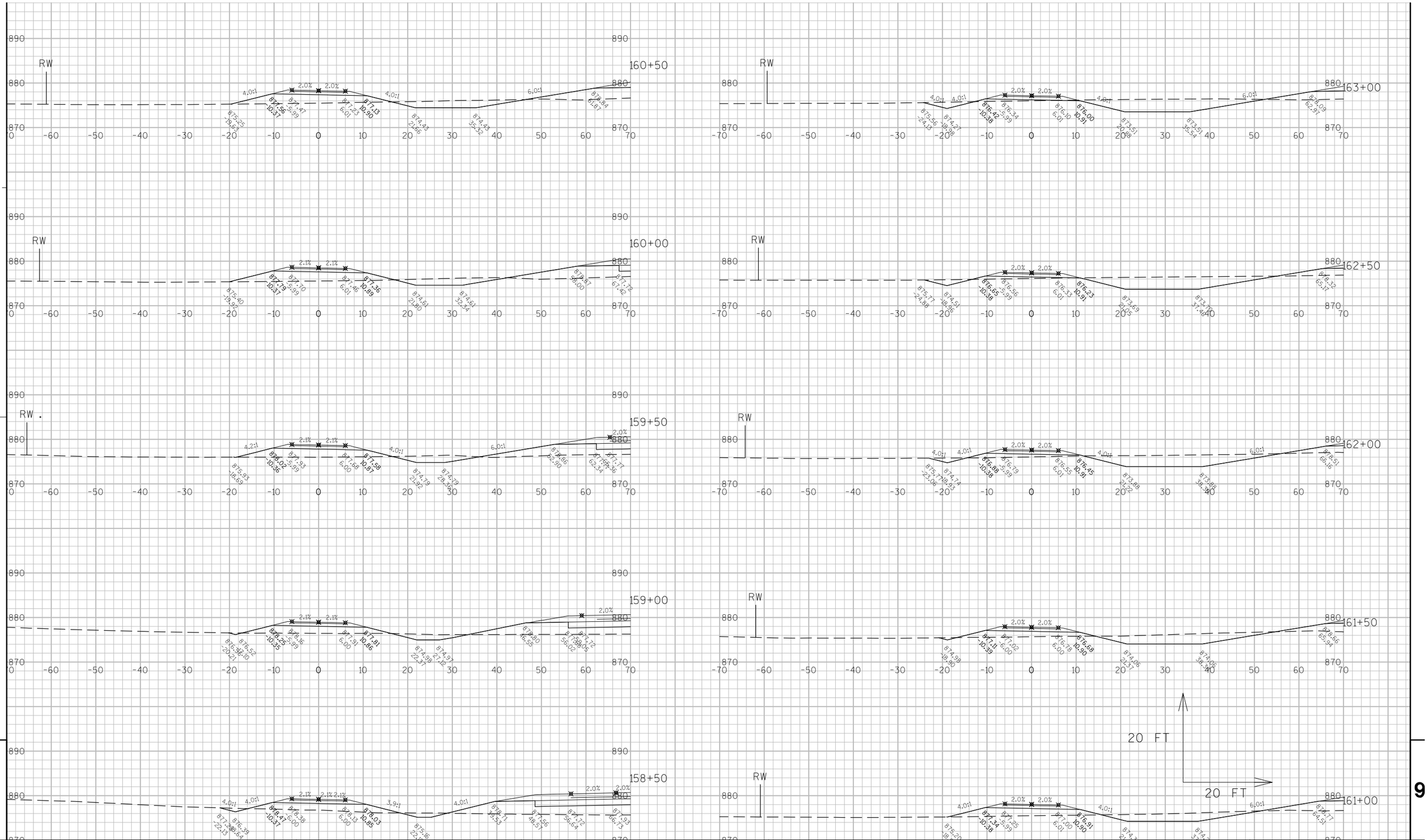
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PROJECT NO: 8110-02-01	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SHARED USE PATH	SHEET _____	E

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WISDOT/CADDS SHEET 49



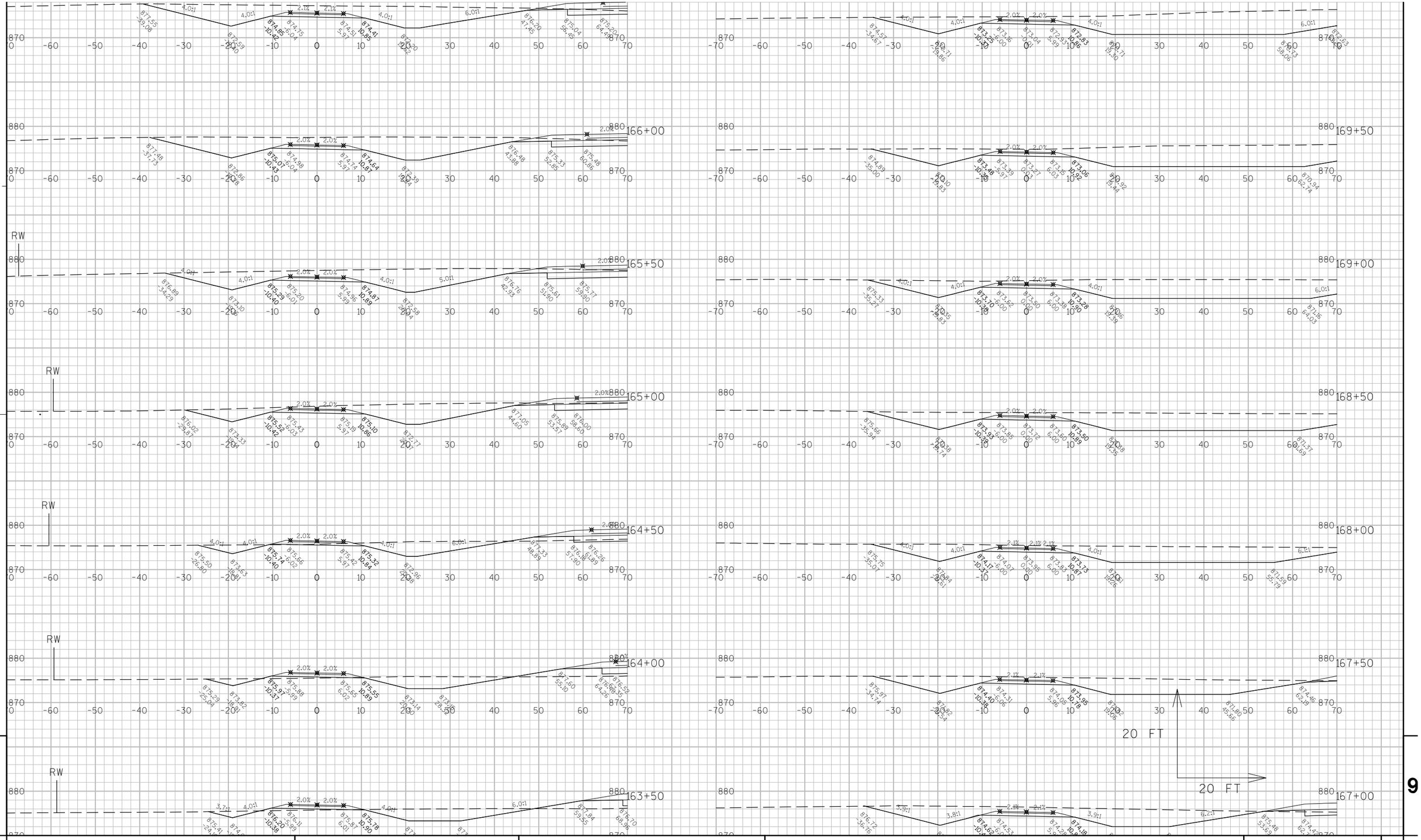
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PROJECT NO: 8110-02-01	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SHARED USE PATH	SHEET -----	E

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WISDOT/CADDS SHEET 49



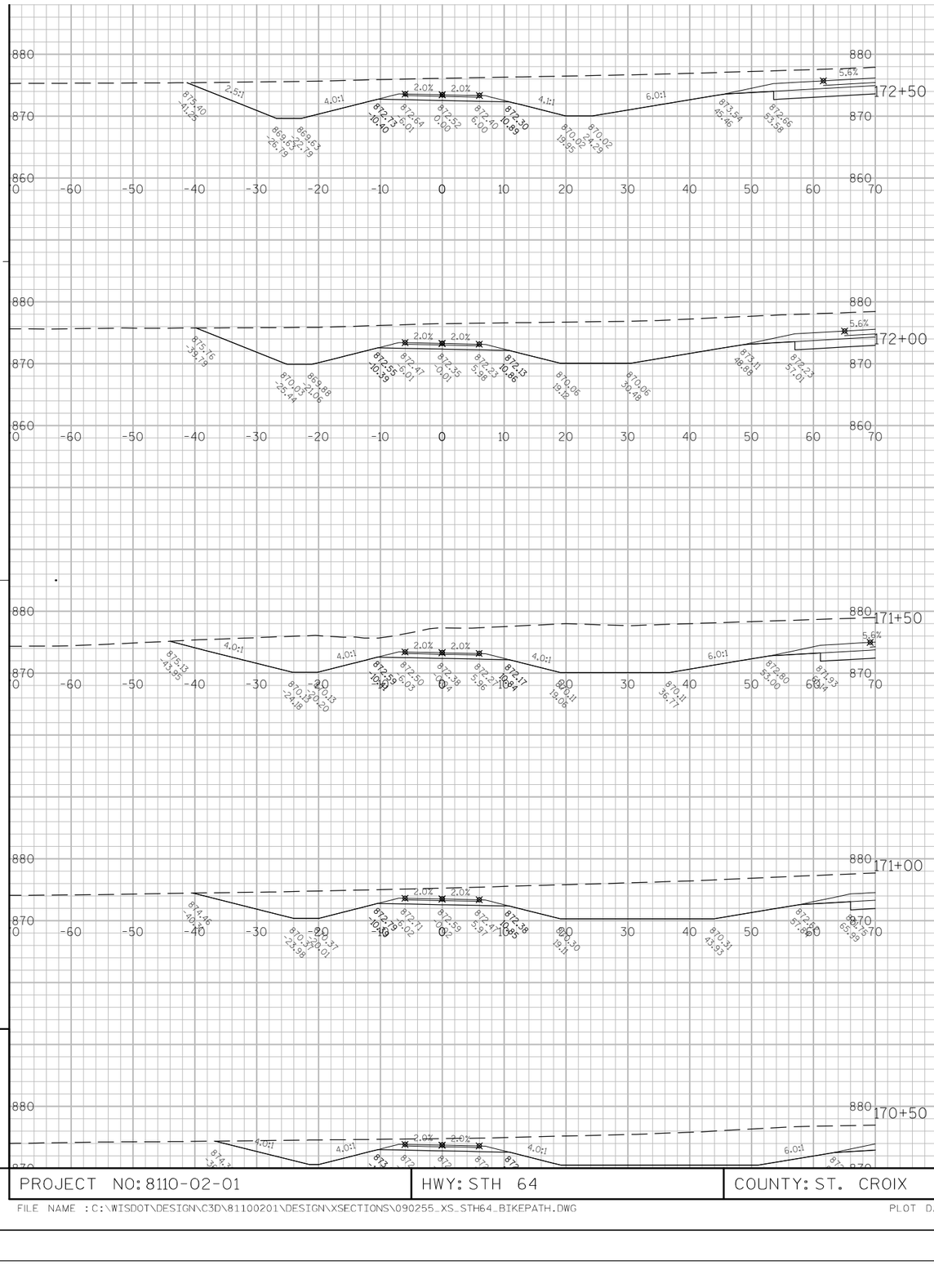
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PROJECT NO: 8110-02-01	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SHARED USE PATH	SHEET _____	E

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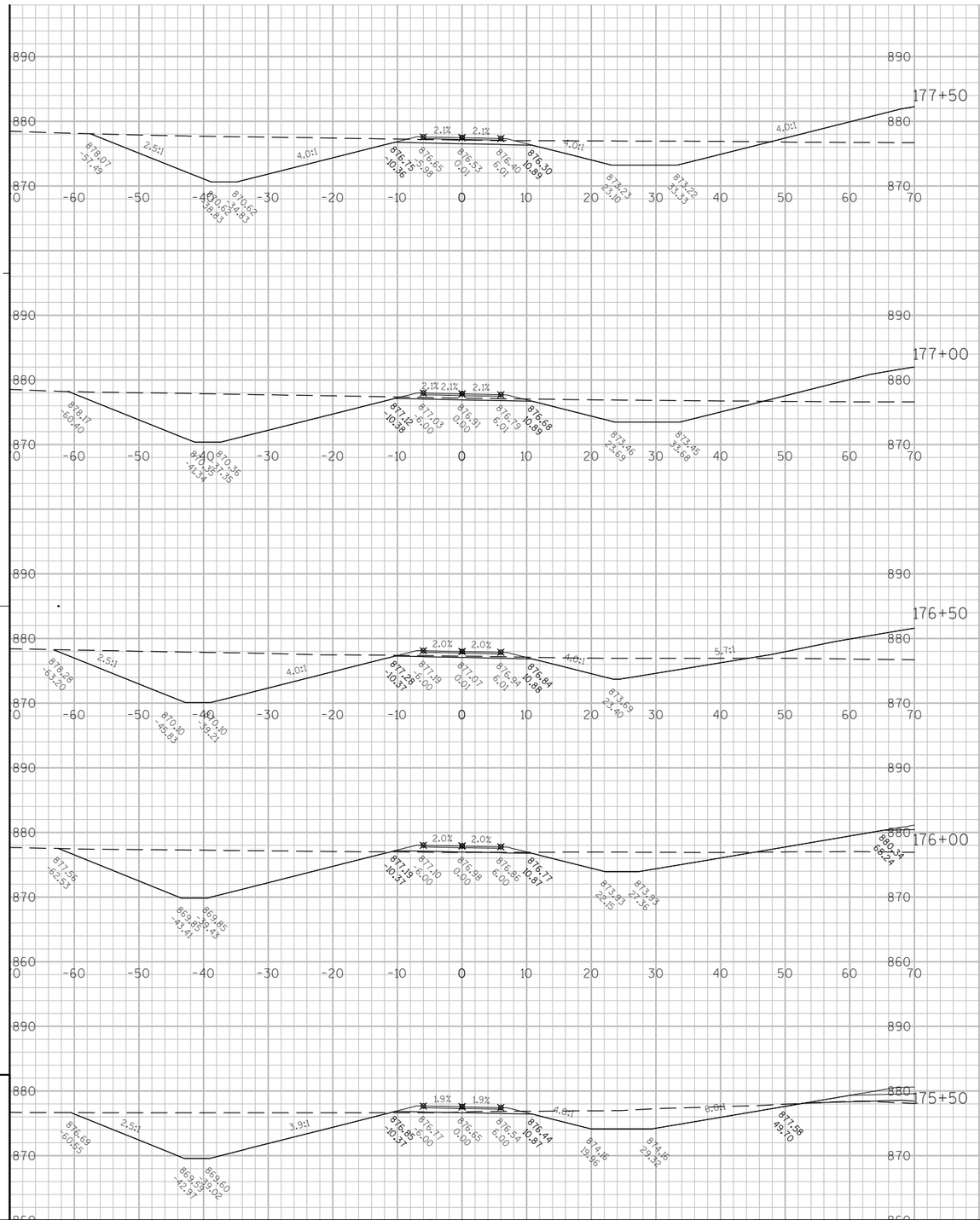
WISDOT/CADDS SHEET 49

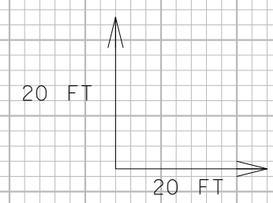


PROJECT NO: 8110-02-01	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SHARED USE PATH	SHEET _____	E

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WISDOT/CADDS SHEET 49





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PROJECT NO: 8110-02-01	HWY: STH 64	COUNTY: ST. CROIX	CROSS SECTIONS: SHARED USE PATH	SHEET _____	E

FILE NAME : C:\WISDOT\DESIGN\C3D\81100201\DESIGN\XSECTIONS\090255_XS_STH64_BIKEPATH.DWG PLOT DATE : 10/3/2013 12:36 PM PLOT BY : ANDRITSCH, ERIC R PLOT NAME : _____ PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov