GRE

MAR 2015

PROJECT ID: 4550-06-71
WITH: 4560-05-73

COUNTY: SHEBOYGAN

ORDER OF SHEETS

TOTAL SHEETS = 150

29

N

DESIGN DESIGNATION

		4550-06-71	4560-05-73
A.A.D.T.	2015	= 4,300	4,740
A.A.D.T.	2035	= 5,600	5,540
D.H.V.	2035	= 672	665
D.D.		= 60/40	50/50
T.		= 6.8%	6.4%
DESIGN SPEED		= 60MPH	50MPH
ESALS		= 824,900	511,000

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

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
4550-06-71	WISC 2015142	1
4560-05-73	WISC 2015143	1

CITY OF PLYMOUTH

STH 67 & CTH PP INTERSECTION

STH 67

SHEBOYGAN COUNTY

STATE PROJECT NUMBER
4550-06-71

CITY OF PLYMOUTH

CTH PP - RIVERBEND DRIVE

STH 67

SHEBOYGAN COUNTY

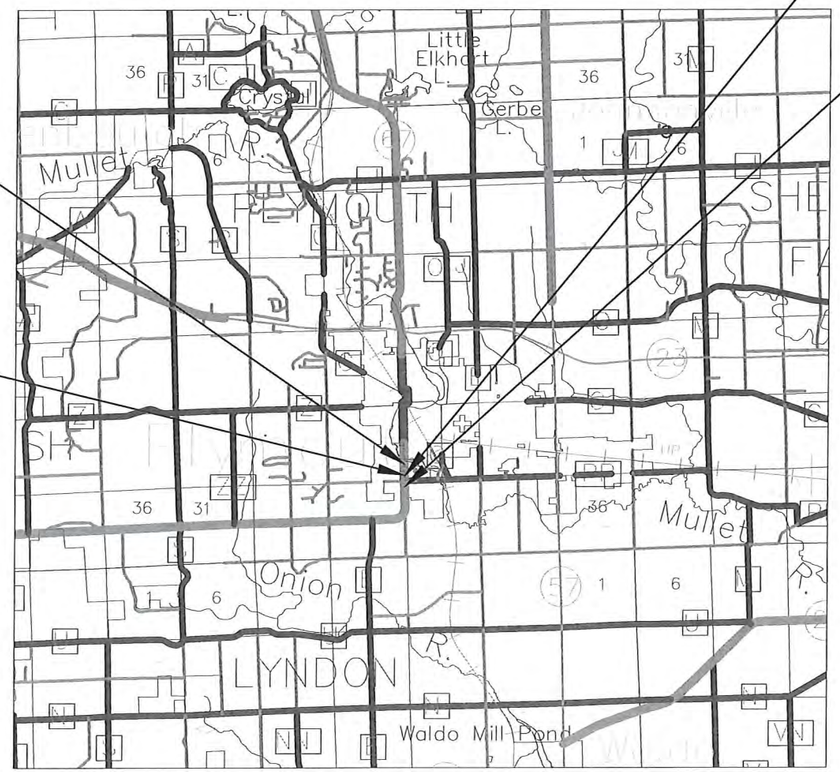
STATE PROJECT NUMBER
4560-05-73

END PROJECT 4560-05-73
STA 127+77.00
X=148050.88
Y=172736.14

BEGIN PROJECT 4560-05-73
STA 106+67.00
X=148049.29
Y=170626.07

END PROJECT 4550-06-71
STA 106+67.00
X=148049.29
Y=170626.07

BEGIN PROJECT 4550-06-71
STA 93+60.00
X=148046.61
Y=169319.07



LAYOUT
SCALE 0 2

TOTAL NET LENGTH OF CENTERLINE FOR 4550-06-71 = 0.25 MILE
TOTAL NET LENGTH OF CENTERLINE FOR 4560-05-73 = 0.40 MILE

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, SHEBOYGAN COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

4560-05-73 PLANS PREPARED BY

WISCONSIN
TIMOTHY J. MOYER
E-39623
SHEBOYGAN
WI
PROFESSIONAL ENGINEER

DATE: 10-30-14 (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NE REGION
Designer	KASSAB/FOUST/MOYER
Project Manager	P BRAUER
Regional Examiner	
Regional Supervisor	R WAGNER

APPROVED FOR THE DEPARTMENT
DATE: 11/3/2014 (Signature)

E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\TITLEPAGE(NONCOLOR).DWG

PLOT DATE : 10/30/2014 11:30 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME :

WISDOT/CADDS SHEET 10

GENERAL NOTES

THE LOCATIONS OF EXISTING UTILITY FACILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE. THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND ALL UTILITIES IN THE VICINITY OF THE PROJECT TO LOCATE THEIR FACILITIES AT LEAST THREE WORKING DAYS PRIOR TO BEGINNING WORK.

DRIVEWAY CULVERTS ARE TO BE PLACED AS TO MAINTAIN DRAINAGE.

FRENCH DRAINS ARE TO BE PLACED AT LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

THE SALVAGED RAIL SHALL BE NEATLY STACKED ON SITE AND GREG SCHNELL (920-459-3822) AT SHEBOYGAN COUNTY SHALL BE CONTACTED WHEN IT IS READY TO BE PICKED UP.

UTILITIES

Ryan Osness
Frontier Communications of WI LLC -
Communication Line
118 Division Street
Plymouth, WI 53073
(920) 893-7455
ryan.d.osness@ftr.com

James Peterson
Plymouth Utilities Co -
Communication Line, Electricity
900 CTH PP
P.O. Box 277
Plymouth, WI 53073-0277
(920) 893-1471
jpeterson@plymouthutilities.com

Steven Cramer
Time Warner Cable, a Delaware Limited Partnership-
Communication Line
1320 N Martin Luther King Jr Dr
Milwaukee, WI 53212-4002
(414) 277-4045
wis.engineering@twcable.com

Lori Butry
Wisconsin Public Service Corporation -
Gas/Petroleum
700 N Adams St
P.O. Box 19001
Green Bay, WI 54307-9001
(920) 433-1703
LAButry@integrysgroup.com

William Immich
Plymouth Utilities -
Sewer, Water
900 CTH PP
P.O. Box 277
Plymouth, WI 53073-0277
(920) 893-1471
wimmich@plymouthutilities.com

Kim Hackelberg
ATC Management, Inc. -
Electricity
801 O'Keefe Rd
P.O. Box 6113
De Pere, WI 54115-6113
(920) 338-6556
khackelberg@atcllc.com

COUNTY SURVEYOR OR SURVEYS CONTACT PERSON

CONTACT: CORMAC MCINNIS
NORTHEAST REGIONAL SURVEY COORDINATOR
944 VANDERPERREN WAY
GREEN BAY, WI 54304
920-492-5638
Cormac.McInnis@dot.wi.gov

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DNR AREA LIAISON

Jay Schiefelbein
Department of Natural Resources
DNR Northeast Regional Headquarters
2984 Shawano Ave
Green Bay, WI 54313
(920) 662-5407
Jeremiah.Schiefelbein@wisconsin.gov

DIGGERS HOTLINE
Dial 811 or (800) 242-8511
www.DiggersHotline.com

EMERGENCY CONTACT NUMBERS FOR WISCONSIN POWER AND LIGHT COMPANY

ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-862-6261
GAS 24 HOUR EMERGENCY SERVICE: 1-800-862-6263

EMERGENCY CONTACT NUMBERS FOR WISCONSIN PUBLIC SERVICE

ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-450-7240
GAS 24 HOUR EMERGENCY SERVICE: 1-800-450-7280

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N

BEGIN PROJECT 4550-06-71
STA. 93+60

CONSTRUCTION LIMITS
STA. 7+28.01

END PROJECT 4550-06-71
STA. 106+67
MATCH PROJECT ID 4560-05-73

RECONSTRUCT
5½" ASPHALTIC PAVEMENT OVER
15" BASE COURSE OVER
16" BREAKER RUN

ADD RIGHT TURN LANE

101+40.07 STH 67=
10+00.00 HILL & DALE

92+00 93+00 94+00 95+00 96+00 97+00 98+00 99+00 100+00 101+00 102+00 103+00 104+00 105+00 106+00 107+00

STH 67

Hill and Dale Road

7+35 8+00 9+00 10+00

EXTEND RIGHT TURN LANE

101+37.82 STH 67=
10+00.00 CTH PP

CTH PP

11+00 12+00 12+71

CONSTRUCTION LIMITS
STA. 12+70.66

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	PROJECT OVERVIEW	SHEET 3	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\PROJECTOVERVIEW.DWG PLOT DATE : 9/2/2014 8:35 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1:100_XREF

2

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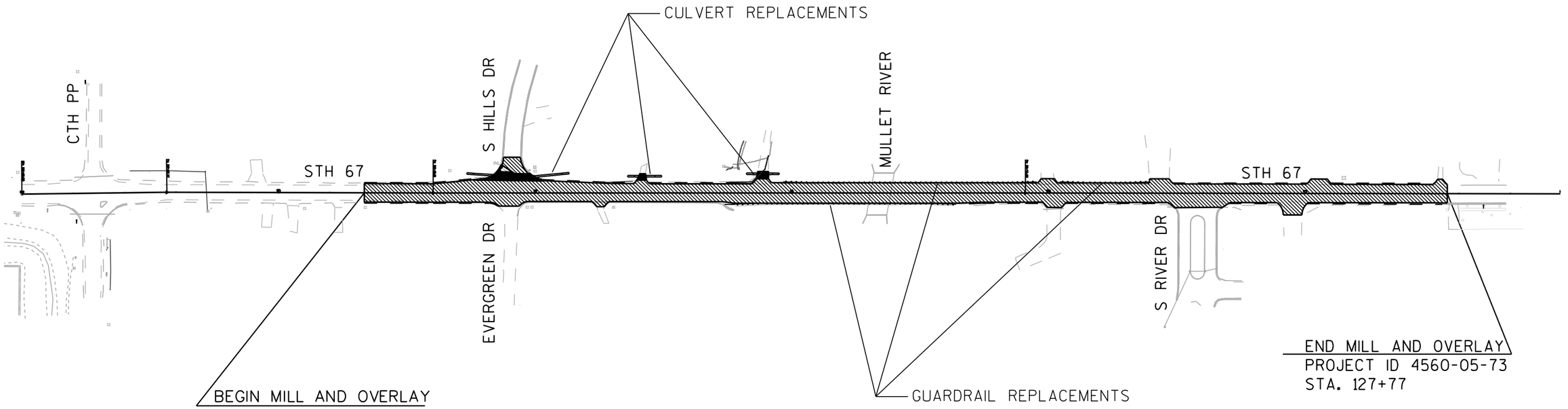
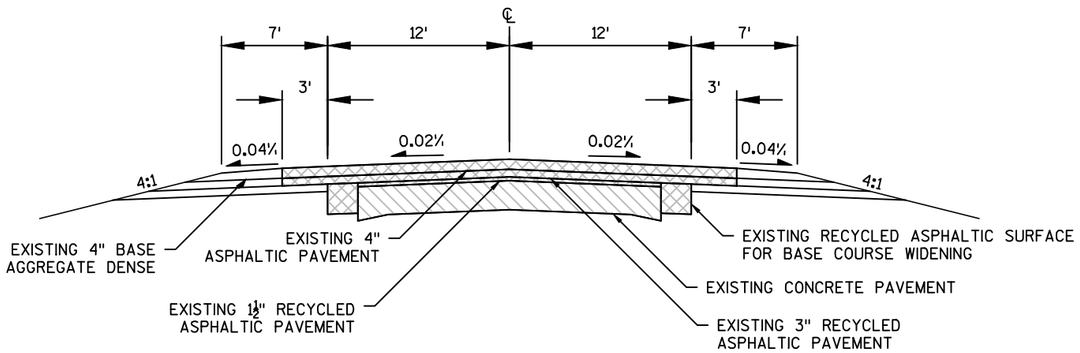
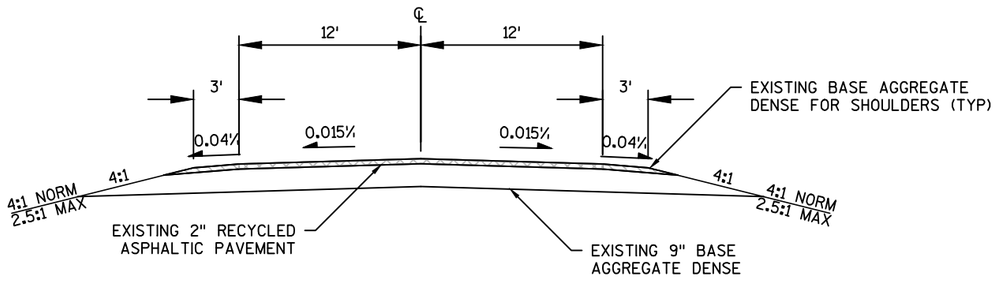


PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	PROJECT OVERVIEW	SHEET 4	E



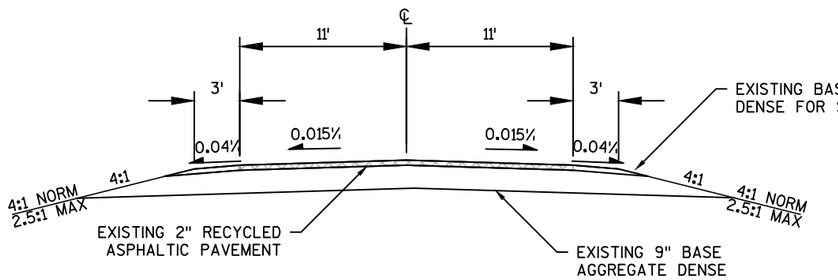
EXISTING TYPICAL CROSS SECTION FOR STH 67

STA 93+60 - STA 106+67



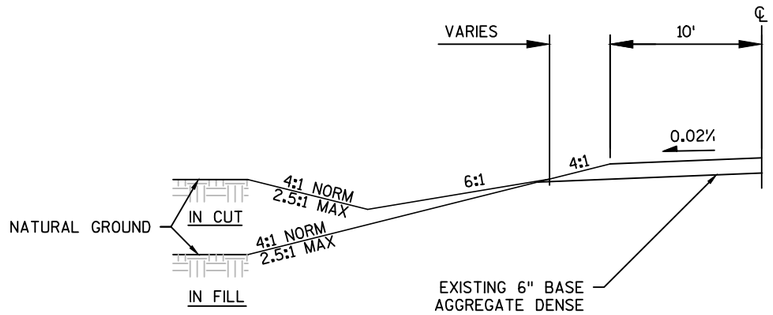
EXISTING TYPICAL CROSS SECTION FOR CTH PP

STA 10+00 - STA 12+25



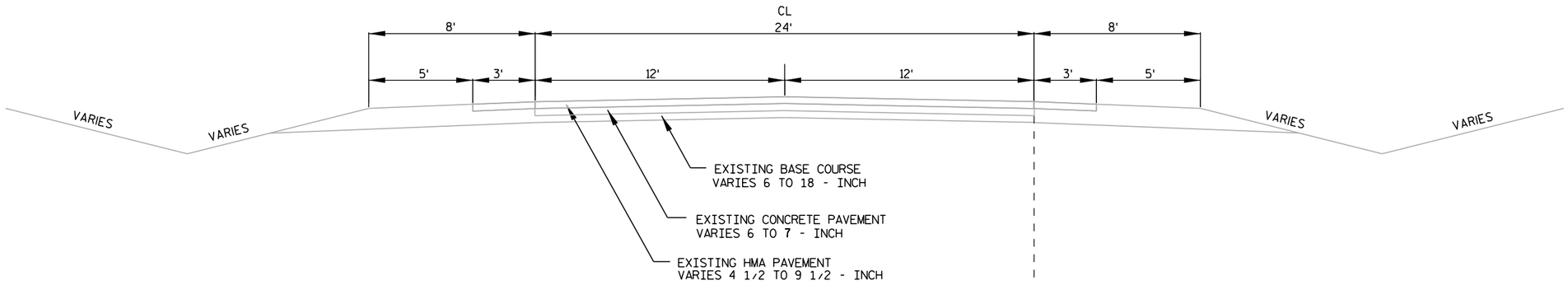
EXISTING TYPICAL CROSS SECTION FOR HILL & DALE RD

STA 7+75 - STA 10+00



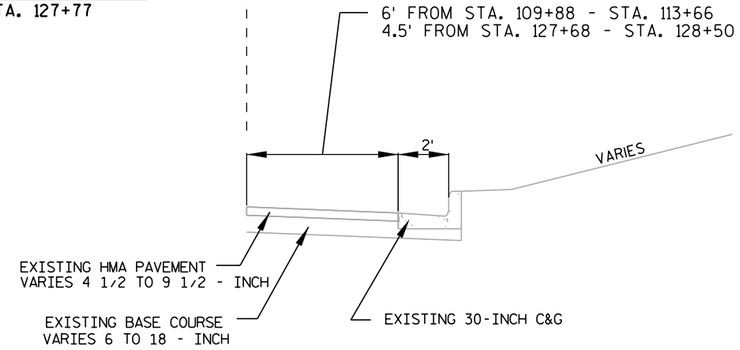
EXISTING TYPICAL CROSS SECTION FOR PRIVATE AND FIELD ENTRANCES

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 5	E



EXISTING TYPICAL SECTION

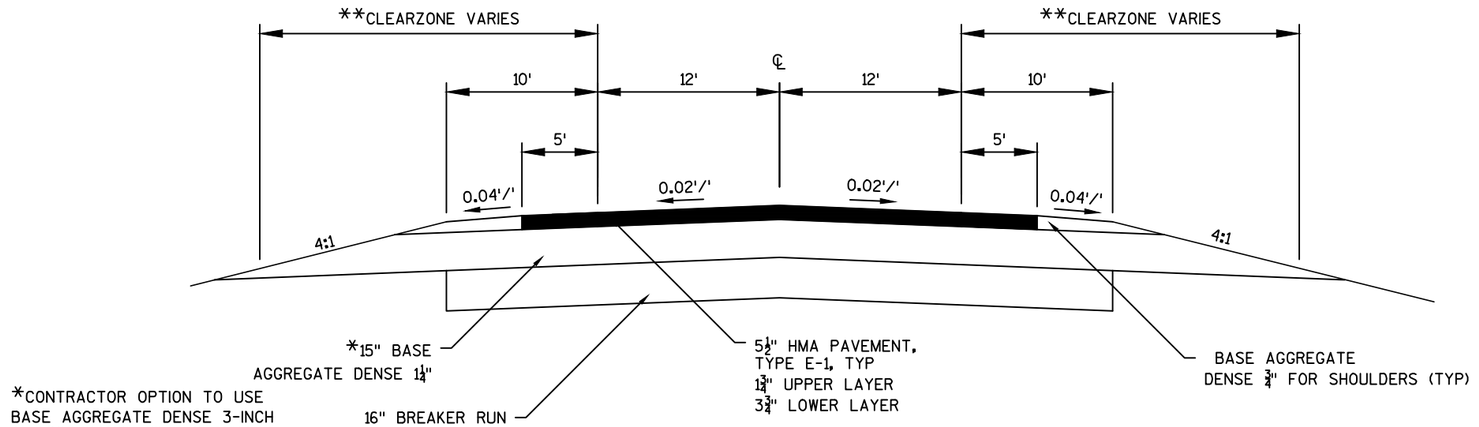
STA. 106+67 - STA. 127+77



EXISTING HALF TYPICAL SECTION

STA. 109+88 - STA. 113+66
STA. 127+68 - STA. 128+50

PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	EXISTING TYPICAL SECTION	SHEET 6	E

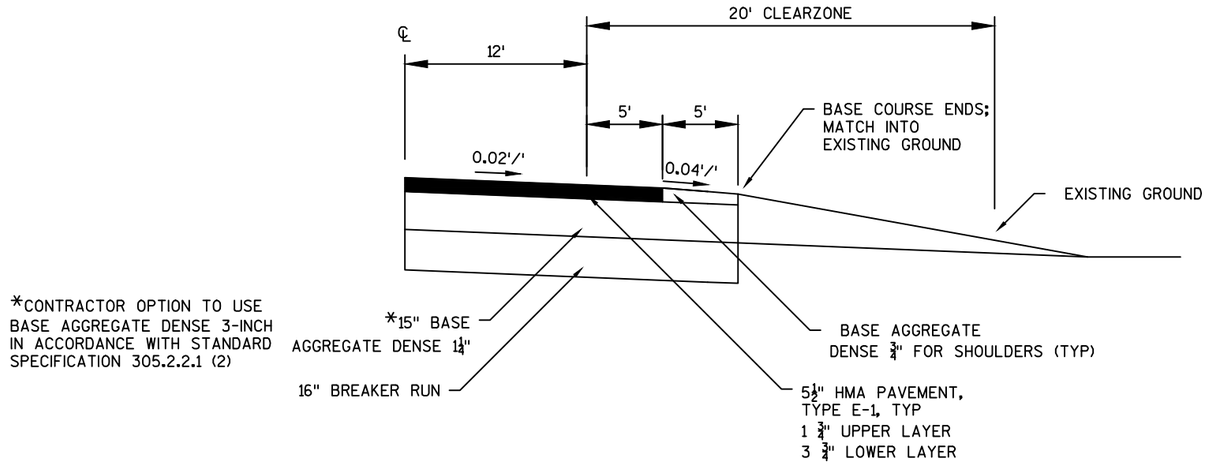


*CONTRACTOR OPTION TO USE
BASE AGGREGATE DENSE 3-INCH
IN ACCORDANCE WITH STANDARD
SPECIFICATION 305.2.2.1 (2)

**STA 93+60 TO STA 96+13 CLEARZONE = 30'
STA 106+61 TO STA 106+67 CLEARZONE = 20'

FINISHED TYPICAL CROSS SECTION FOR STH 67

STA 93+60 TO STA 96+13
STA 106+61 TO STA 106+67

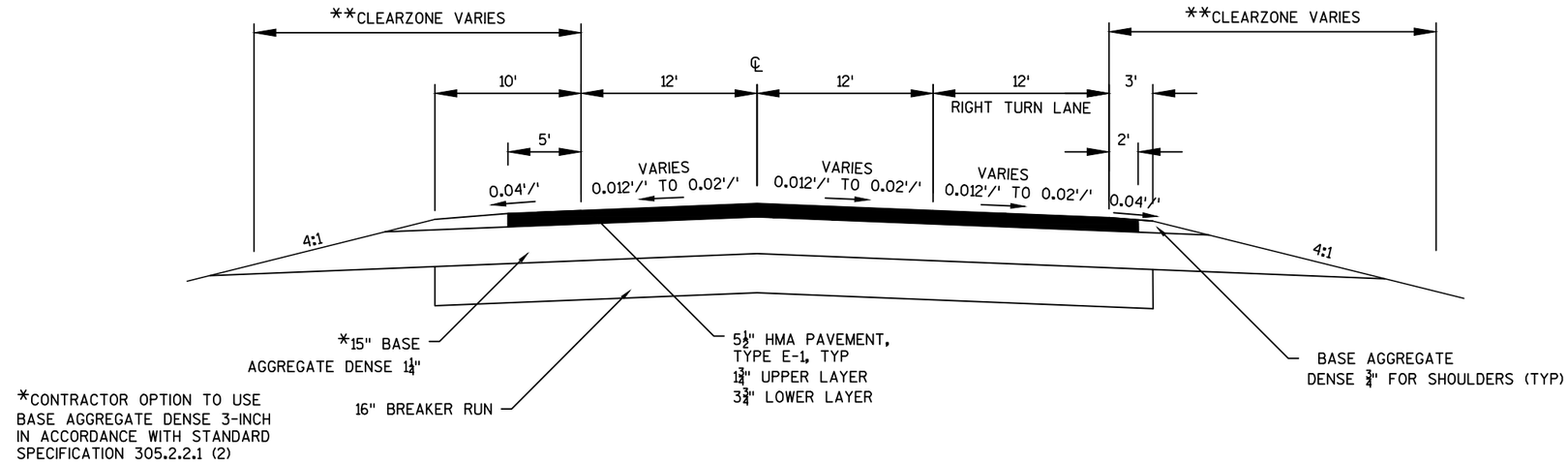


*CONTRACTOR OPTION TO USE
BASE AGGREGATE DENSE 3-INCH
IN ACCORDANCE WITH STANDARD
SPECIFICATION 305.2.2.1 (2)

FINISHED TYPICAL 1/2 CROSS SECTION FOR STH 67

104+00 TO 106+67

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 7	E

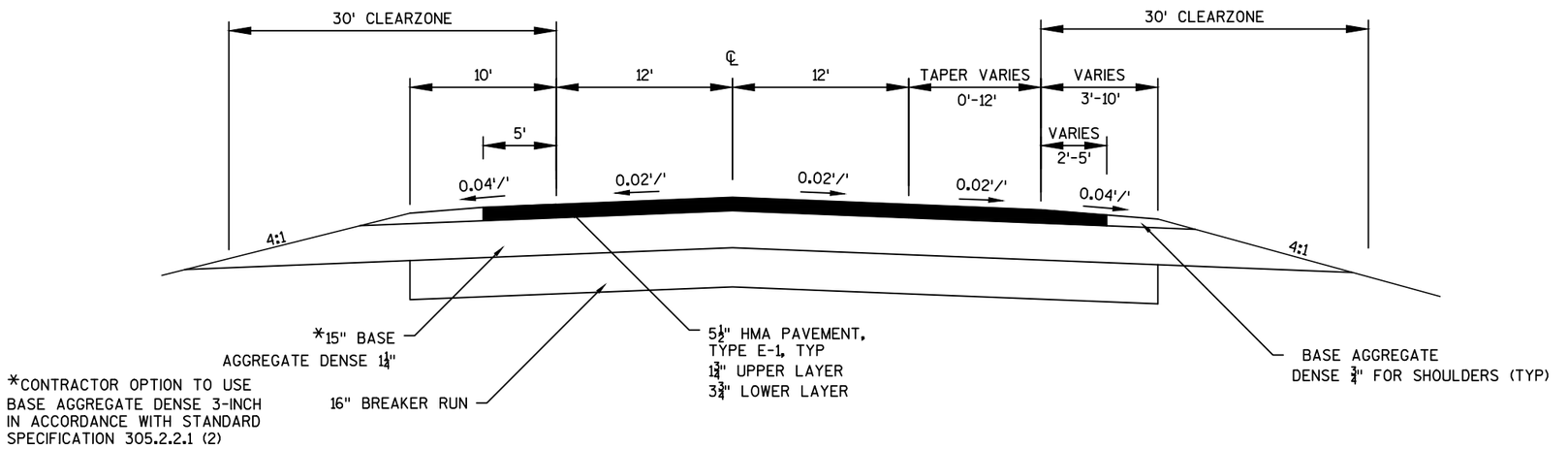


*CONTRACTOR OPTION TO USE
BASE AGGREGATE DENSE 3-INCH
IN ACCORDANCE WITH STANDARD
SPECIFICATION 305.2.2.1 (2)

**STA 97+63 TO STA 98+00 CLEARZONE = 30'
STA 98+00 TO STA 100+53 CLEARZONE = 20'

FINISHED TYPICAL CROSS SECTION FOR STH 67

STA 97+63 TO STA 100+53

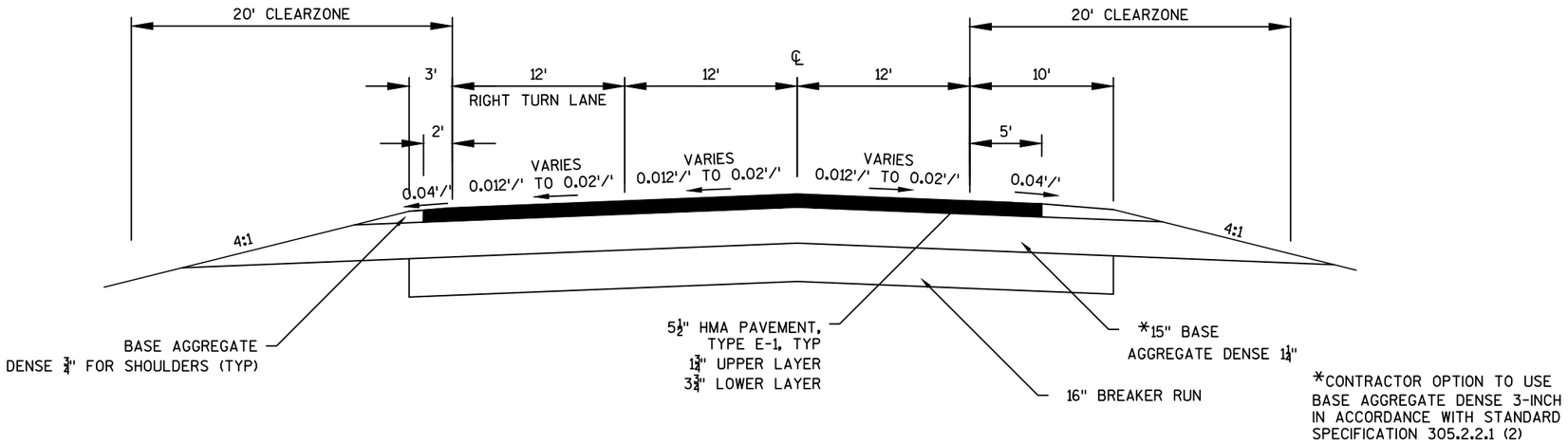


*CONTRACTOR OPTION TO USE
BASE AGGREGATE DENSE 3-INCH
IN ACCORDANCE WITH STANDARD
SPECIFICATION 305.2.2.1 (2)

FINISHED TYPICAL CROSS SECTION FOR STH 67

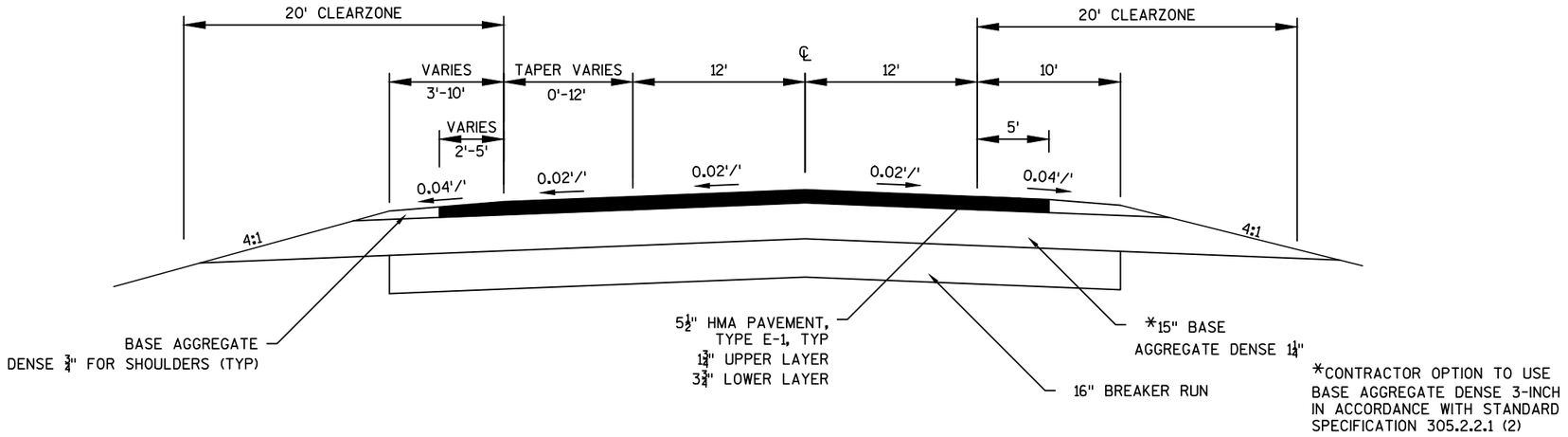
STA 96+13 TO STA 97+63

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 8	E



FINISHED TYPICAL CROSS SECTION FOR STH 67

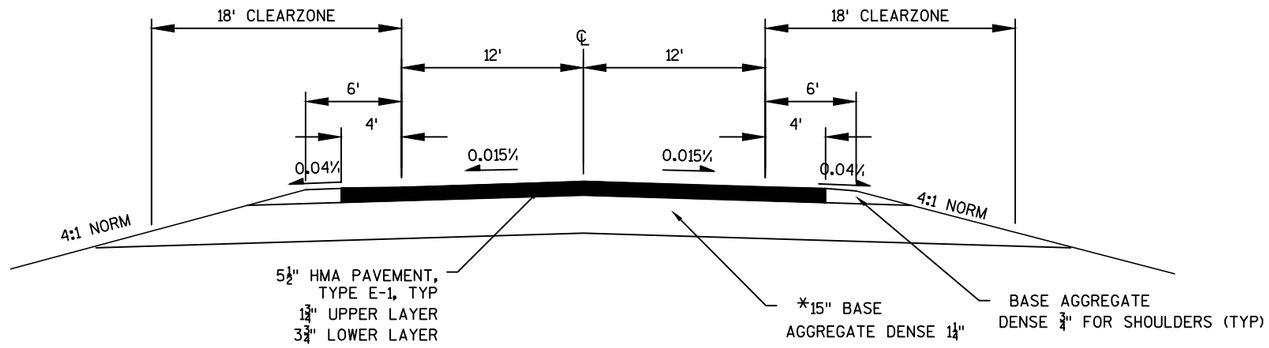
STA 102+25 TO STA 105+11



FINISHED TYPICAL CROSS SECTION FOR STH 67

STA 105+11 TO STA 106+61

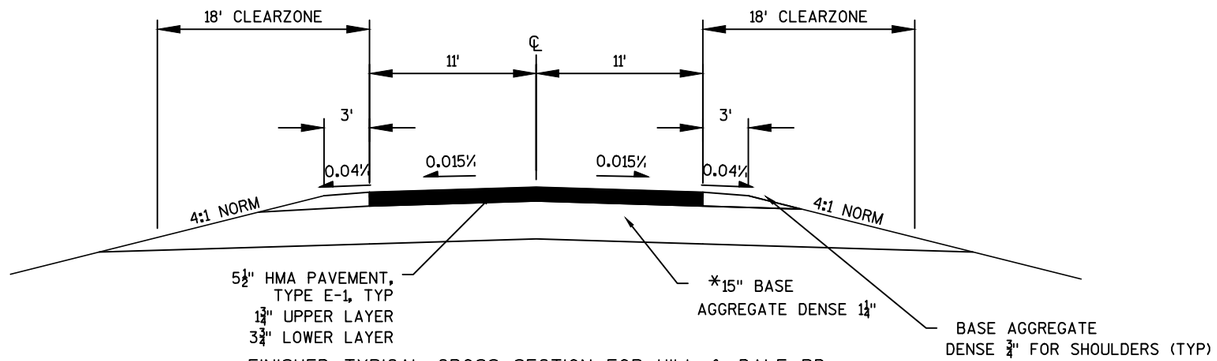
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 9	E



FINISHED TYPICAL CROSS SECTION FOR CTH PP

STA 10+00 TO STA 12+25

*CONTRACTOR OPTION TO USE BASE AGGREGATE DENSE 3-INCH IN ACCORDANCE WITH STANDARD SPECIFICATION 305.2.2.1 (2)

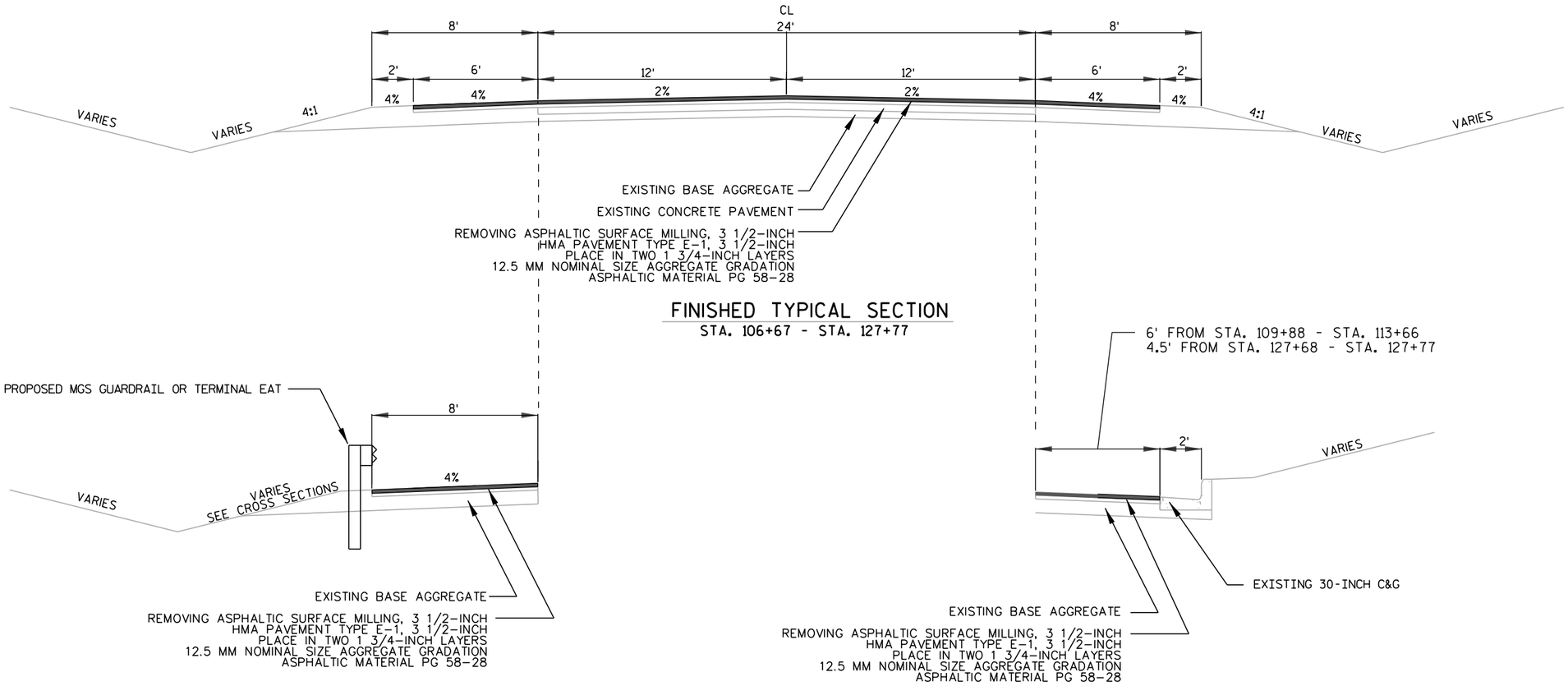


FINISHED TYPICAL CROSS SECTION FOR HILL & DALE RD

STA 7+75 TO STA 10+00

*CONTRACTOR OPTION TO USE BASE AGGREGATE DENSE 3-INCH IN ACCORDANCE WITH STANDARD SPECIFICATION 305.2.2.1 (2)

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	TYPICAL SECTIONS	SHEET 10	E



FINISHED TYPICAL SECTION

STA. 106+67 - STA. 127+77

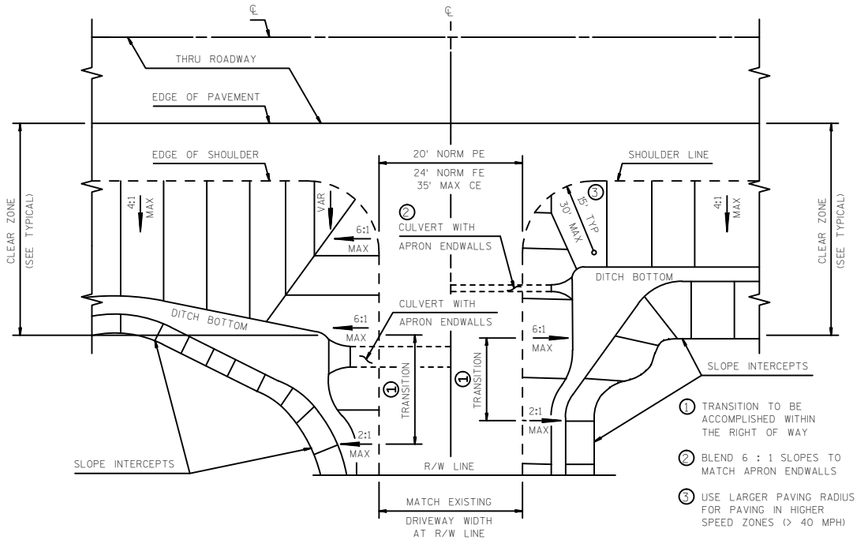
FINISHED HALF TYPICAL SECTION

STA. 113+89 - STA. 118+20, RT
STA. 114+83 - STA. 119+77, LT
STA. 120+22 - STA. 121+97, LT

FINISHED HALF TYPICAL SECTION

STA. 109+88 - STA. 113+66
STA. 127+68 - STA. 127+77

PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	FINISHED TYPICAL SECTION	SHEET 11	E

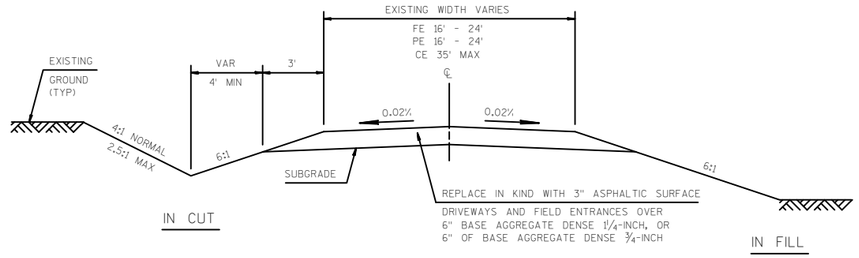


FOR CULVERTS OVER 24" DIAMETER

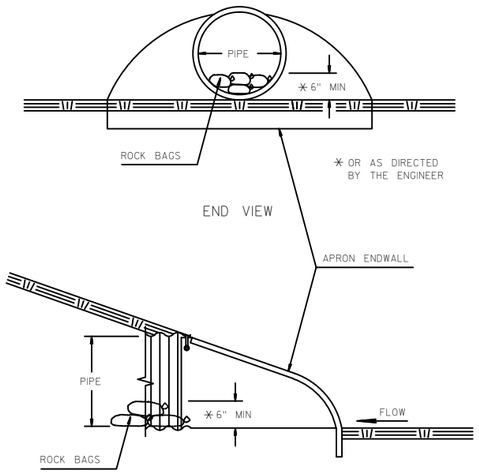
FOR CULVERTS 24" DIAMETER & LESS

PLAN VIEW

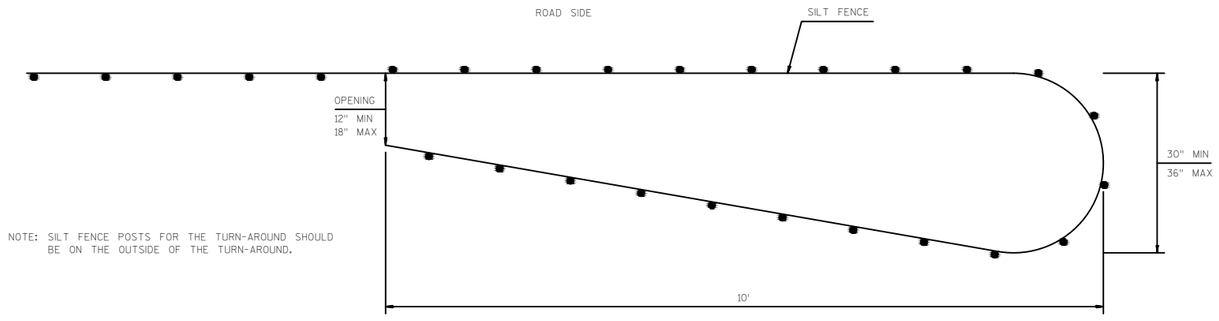
RURAL DRIVEWAY GRADING AND/OR PAVING DETAIL



TYPICAL CROSS SECTION FOR PRIVATE DRIVE OR FIELD ENTRANCE

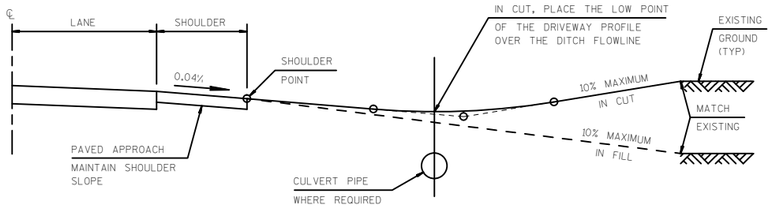


CULVERT PIPE CHECKS

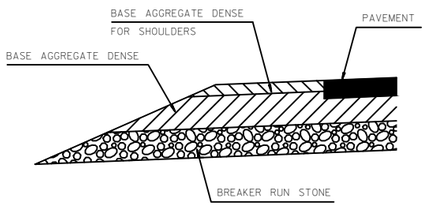


SILT FENCE TURN-AROUND DETAIL

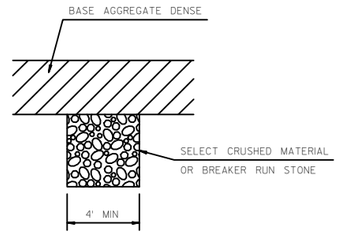
PROJECT NO: 4550-06-71/05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CONSTRUCTION DETAILS	SHEET 12	E



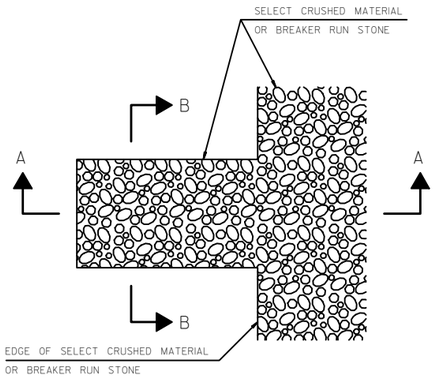
TYPICAL DRIVEWAY PROFILES



SECTION A-A



SECTION B-B

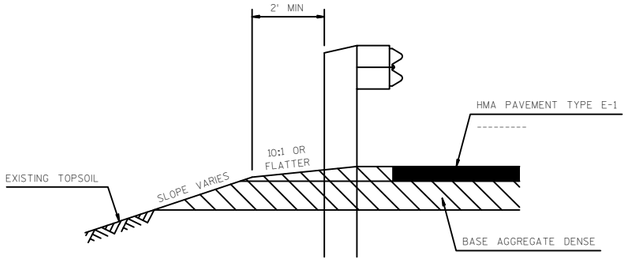


DETAIL FOR FRENCH DRAINS

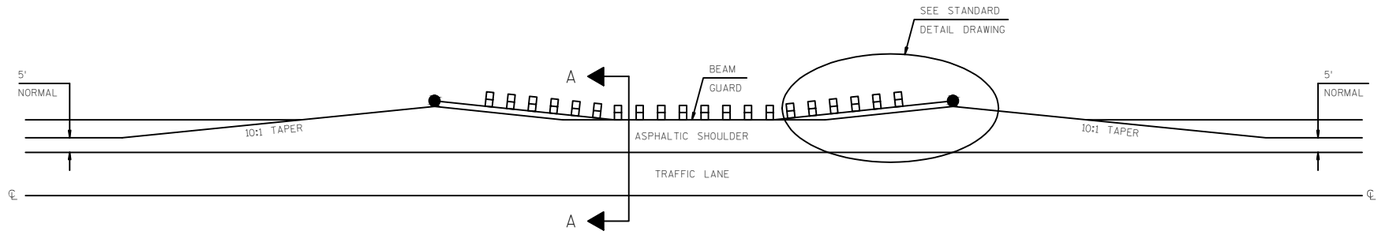
DRAINS ARE TO BE CONSTRUCTED AT LEAST EVERY 250'
AND AT EACH SAG VERTICAL CURVE IN THE PROFILE.

LOCATIONS TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

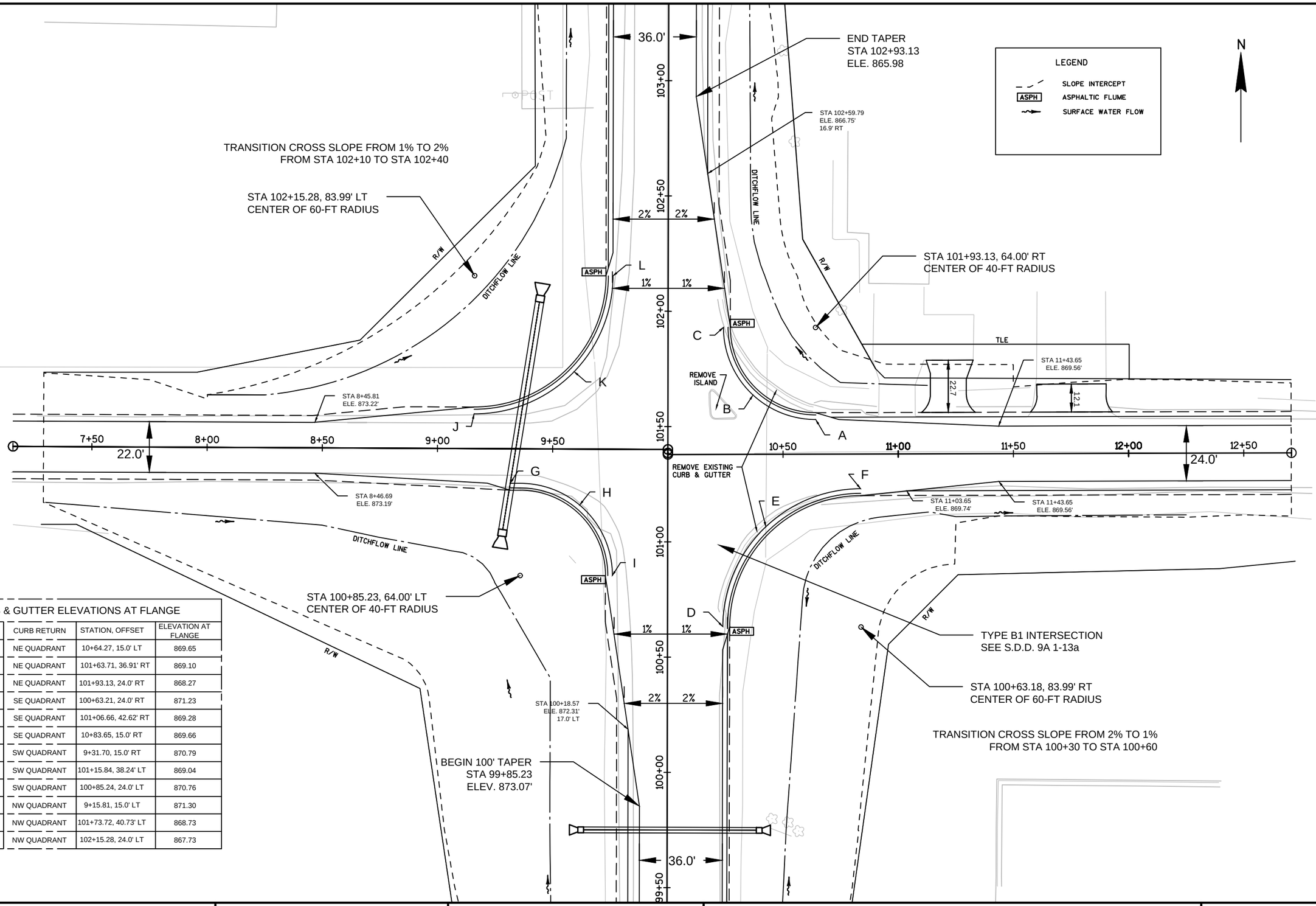
EXCAVATION REQUIRED TO CONSTRUCT FRENCH DRAINS SHALL
BE CONSIDERED INCIDENTAL TO THE ITEM BREAKER RUN STONE.



SECTION A-A



DETAIL FOR ASPHALTIC SHOULDER AT GUARDRAIL

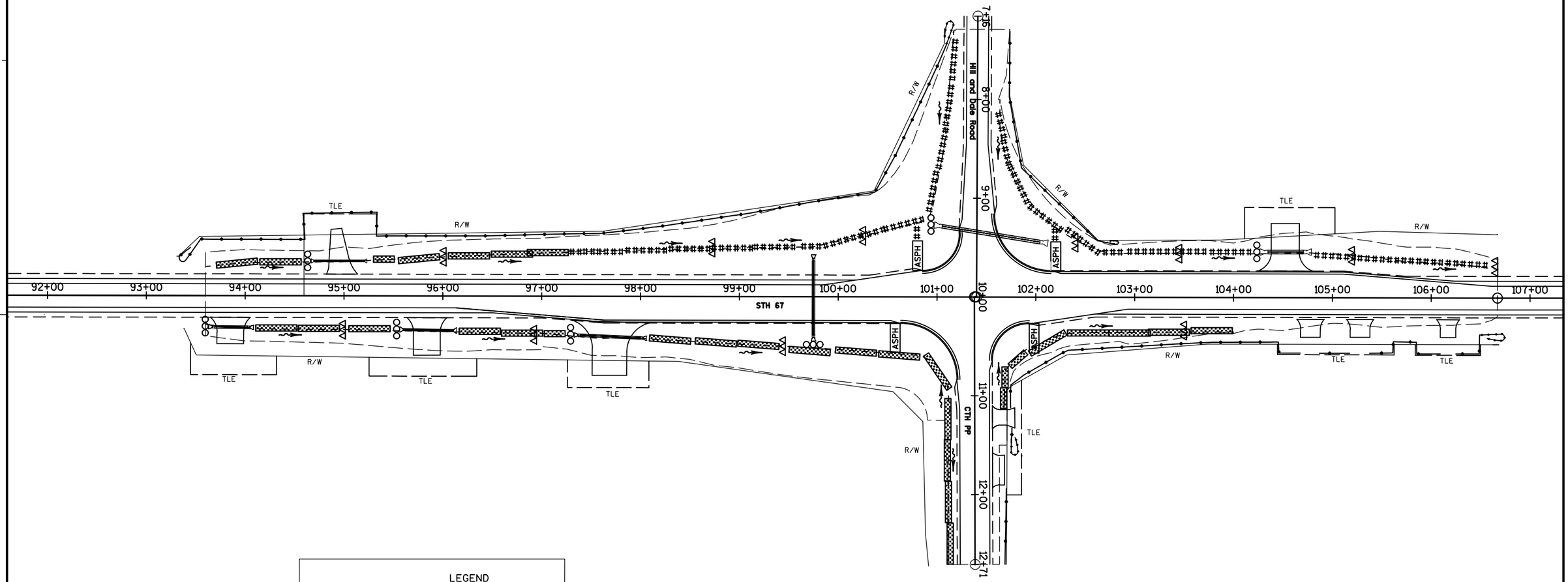


CURB & GUTTER ELEVATIONS AT FLANGE			
POINT CODE	CURB RETURN	STATION, OFFSET	ELEVATION AT FLANGE
A	NE QUADRANT	10+64.27, 15.0' LT	869.65
B	NE QUADRANT	101+63.71, 36.91' RT	869.10
C	NE QUADRANT	101+93.13, 24.0' RT	868.27
D	SE QUADRANT	100+63.21, 24.0' RT	871.23
E	SE QUADRANT	101+06.66, 42.62' RT	869.28
F	SE QUADRANT	10+83.65, 15.0' RT	869.66
G	SW QUADRANT	9+31.70, 15.0' RT	870.79
H	SW QUADRANT	101+15.84, 38.24' LT	869.04
I	SW QUADRANT	100+85.24, 24.0' LT	870.76
J	NW QUADRANT	9+15.81, 15.0' LT	871.30
K	NW QUADRANT	101+73.72, 40.73' LT	868.73
L	NW QUADRANT	102+15.28, 24.0' LT	867.73

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	INTERSECTION CONSTRUCTION DETAIL	SHEET 14	E

2

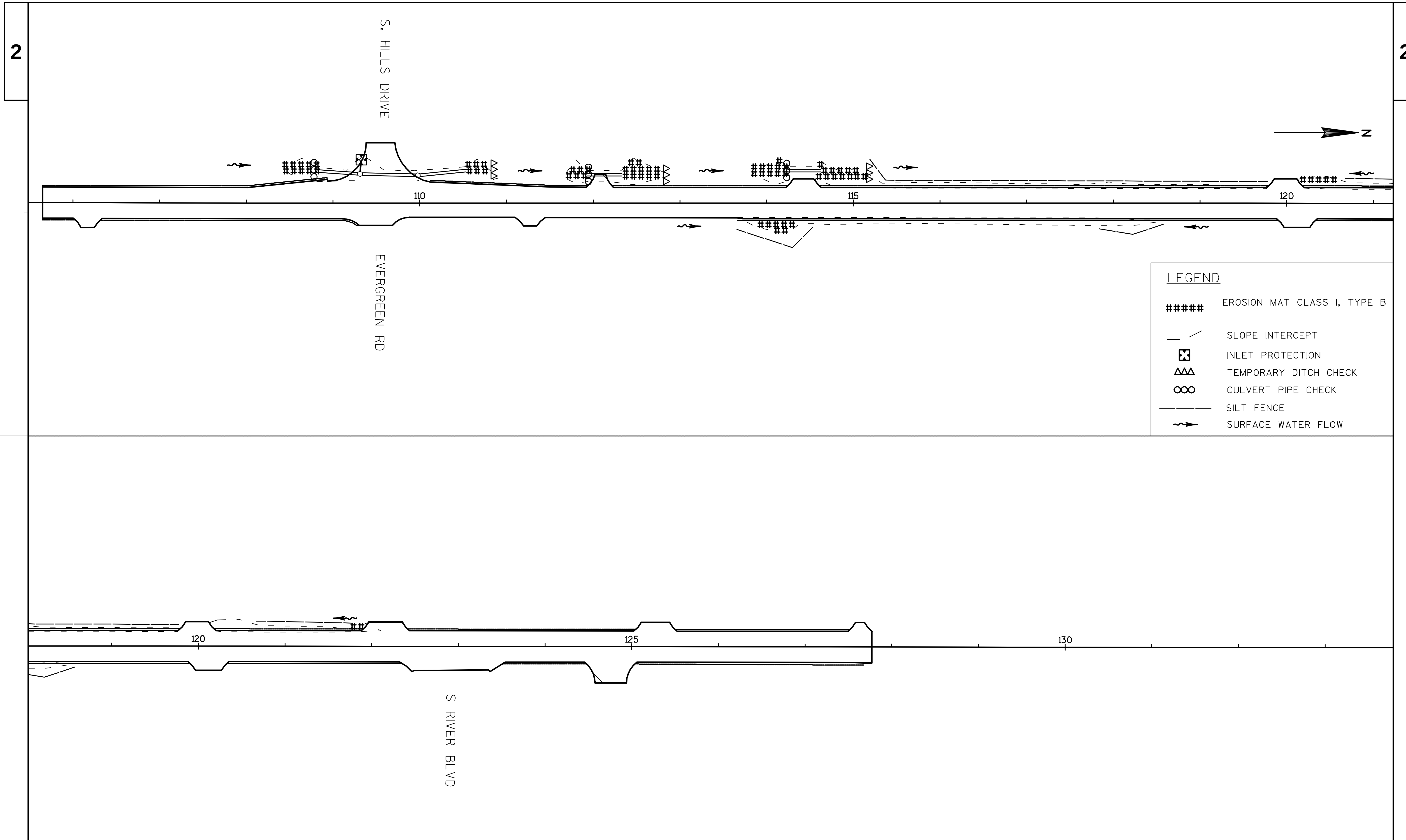
N



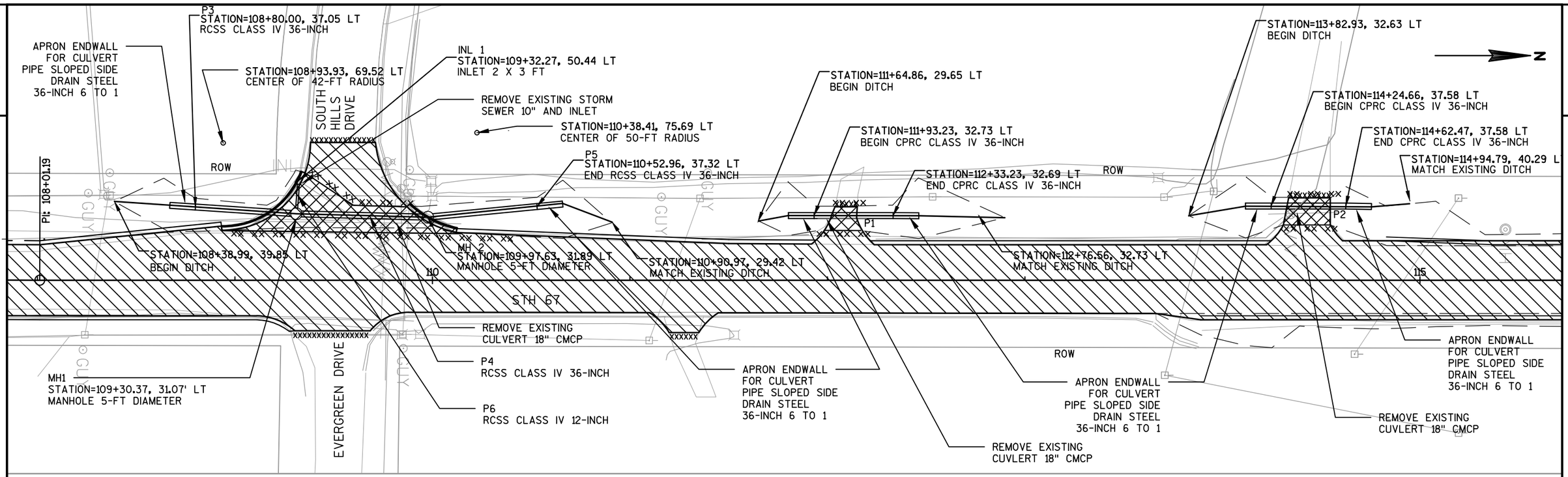
LEGEND

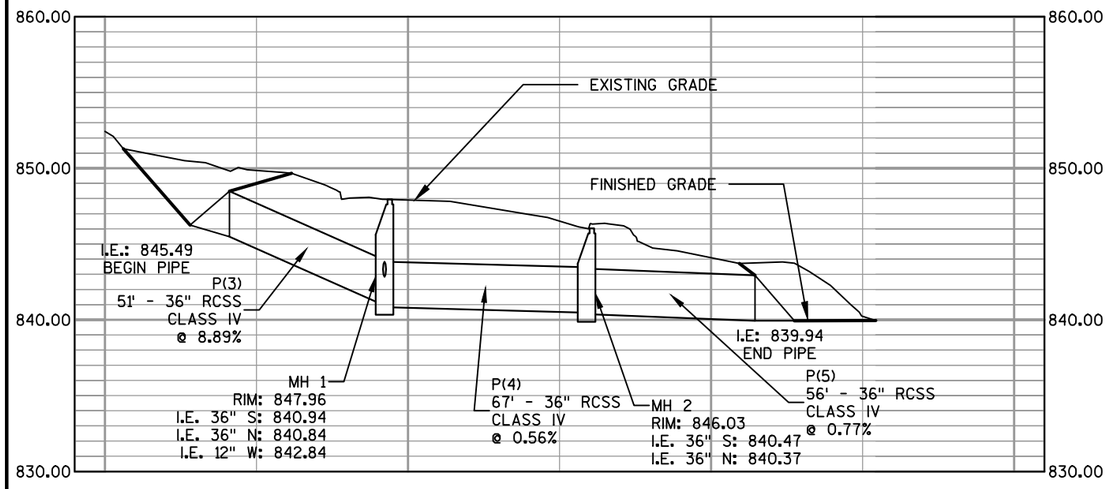
######	EROSION MAT CLASS I TYPE B
	EROSION MAT URBAN CLASS I TYPE B
	SILT FENCE
	SLOPE INTERCEPT
ASPH	ASPHALTIC FLUME
	TEMPORARY DITCH CHECK
	CULVERT PIPE DITCH CHECK
	SURFACE WATER FLOW
	SILT FENCE TURN-AROUND

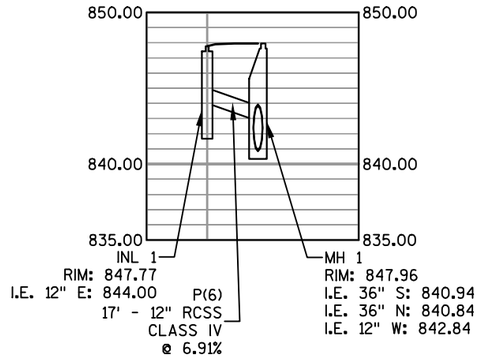
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	EROSION CONTROL	SHEET 15	E

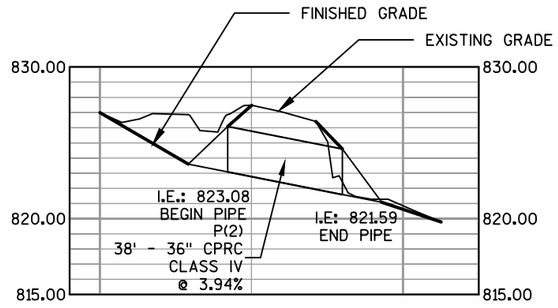


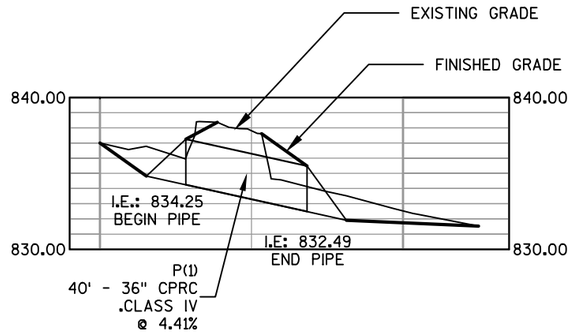
PROJECT NO:4560-05-73	HWY:STH 67	COUNTY:SHEBOYGAN	EROSION CONTROL	SHEET 16	E











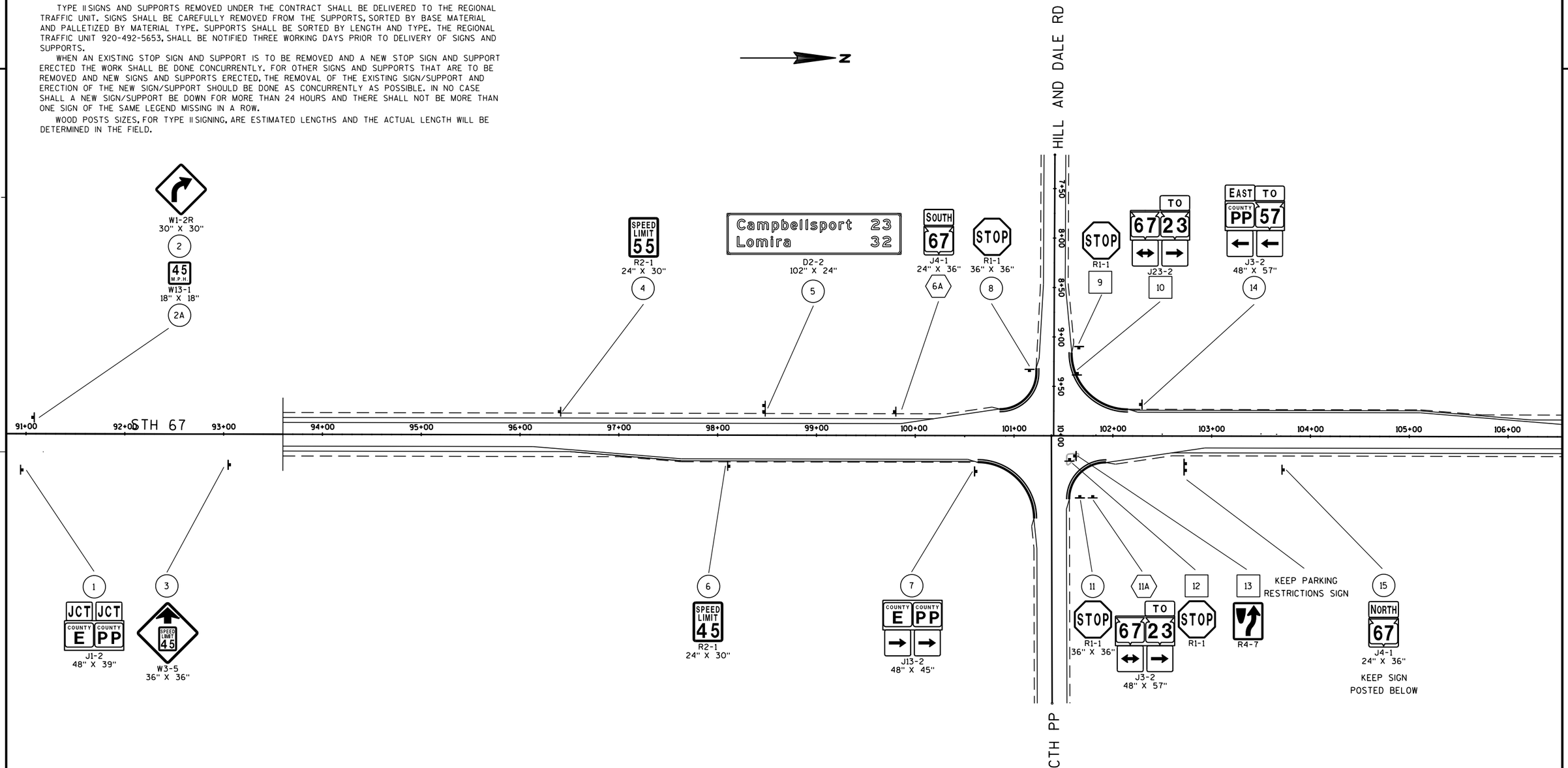
PROJECT NO: 4560-05-71/72	HWY: STH 67	COUNTY: SHEBOYGAN	STORM SEWER	SHEET 17	E

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

WHEN AN EXISTING STOP SIGN AND SUPPORT IS TO BE REMOVED AND A NEW STOP SIGN AND SUPPORT ERECTED THE WORK SHALL BE DONE CONCURRENTLY. FOR OTHER SIGNS AND SUPPORTS THAT ARE TO BE REMOVED AND NEW SIGNS AND SUPPORTS ERECTED, THE REMOVAL OF THE EXISTING SIGN/SUPPORT AND ERECTION OF THE NEW SIGN/SUPPORT SHOULD BE DONE AS CONCURRENTLY AS POSSIBLE. IN NO CASE SHALL A NEW SIGN/SUPPORT BE DOWN FOR MORE THAN 24 HOURS AND THERE SHALL NOT BE MORE THAN ONE SIGN OF THE SAME LEGEND MISSING IN A ROW.

WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 18	E

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

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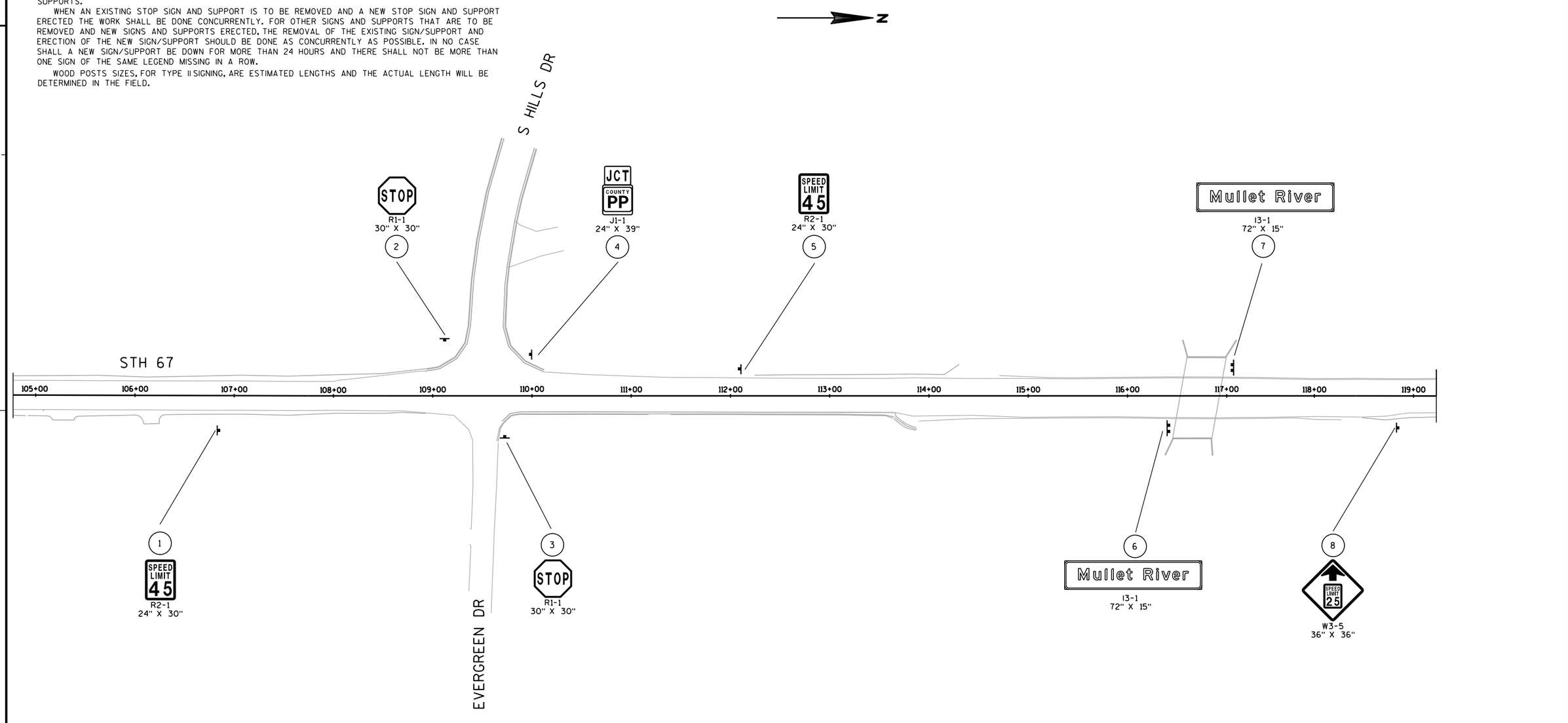
WOOD POSTS SIZES, FOR TYPE II SIGNING, ARE ESTIMATED LENGTHS AND THE ACTUAL LENGTH WILL BE DETERMINED IN THE FIELD.



SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 19	E

2

SIGNING NOTES

TYPE II SIGNS AND SUPPORTS REMOVED UNDER THE CONTRACT SHALL BE DELIVERED TO THE REGIONAL TRAFFIC UNIT. SIGNS SHALL BE CAREFULLY REMOVED FROM THE SUPPORTS, SORTED BY BASE MATERIAL AND PALLETIZED BY MATERIAL TYPE. SUPPORTS SHALL BE SORTED BY LENGTH AND TYPE. THE REGIONAL TRAFFIC UNIT 920-492-5653, SHALL BE NOTIFIED THREE WORKING DAYS PRIOR TO DELIVERY OF SIGNS AND SUPPORTS.

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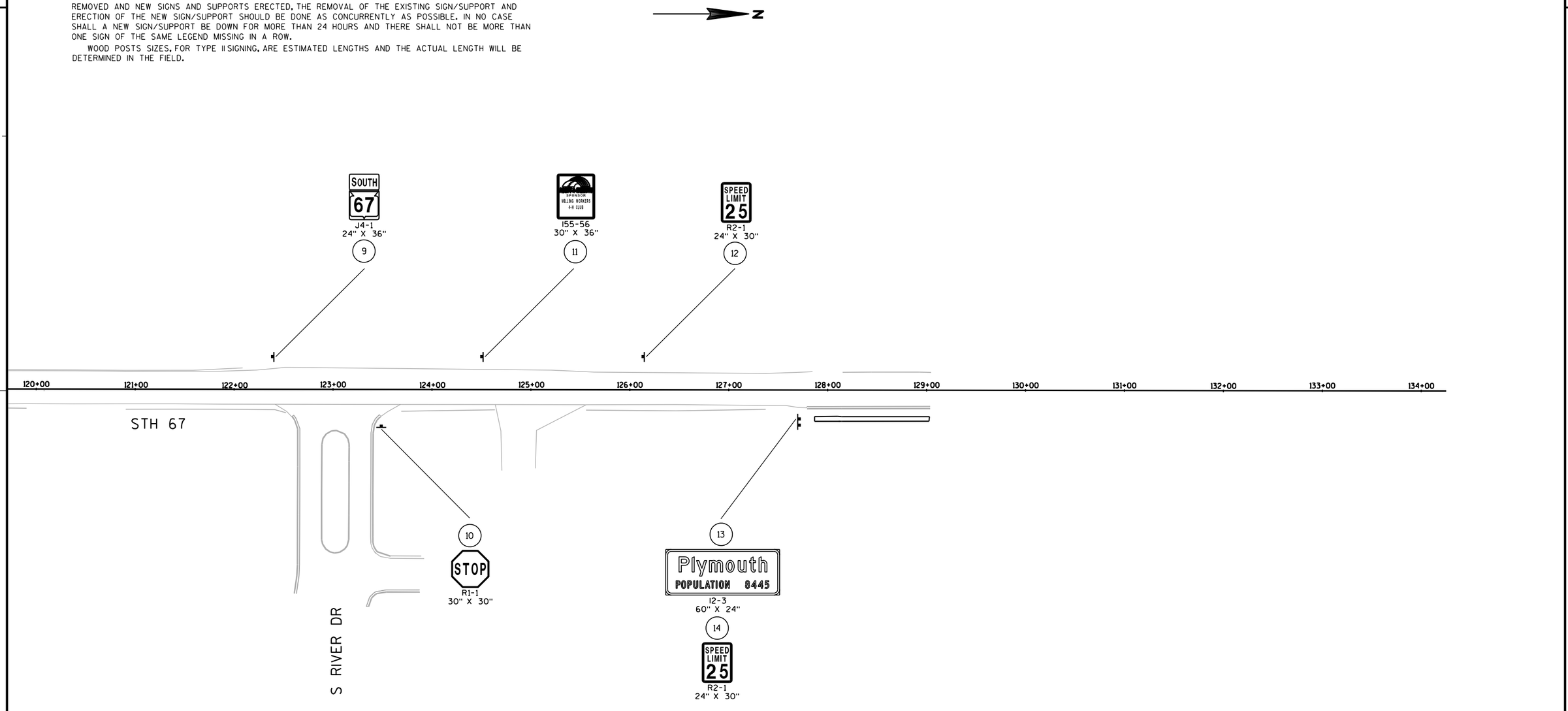


SIGN-REMOVE AND REPLACE

SIGN-REMOVE EXISTING

SIGN-PLACE NEW

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 20	E

FILE NAME : N:\spo\traffic\SIGNING\Projects\4560-05-73 STH 67 Rural Area CTH PP - Riverbend Dr\023203_ps.dgn PLOT DATE : 17-JUL-2014 07:40 PLOT BY : dotj1f PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

SOUTH HILLS DR

N

PAVEMENT MARKING
EPOXY 4-INCH WHITE

PI: 108+01.19

PAVEMENT MARKING
EPOXY 4-INCH WHITE
(3' SKIP, 9' GAP)

PAVEMENT MARKING
EPOXY 4-INCH WHITE

STH 67

5

110

PAVEMENT MARKING EPOXY 4-INCH
DOUBLE YELLOW CENTERLINE

PAVEMENT MARKING EPOXY 4-INCH
DOUBLE YELLOW CENTERLINE

EVERGREEN DRIVE

2

N

MULLET RIVER

PAVEMENT MARKING
EPOXY 4-INCH WHITE

PI: 119+55.09

STH 67

115

120

PAVEMENT MARKING EPOXY 4-INCH
DOUBLE YELLOW CENTERLINE

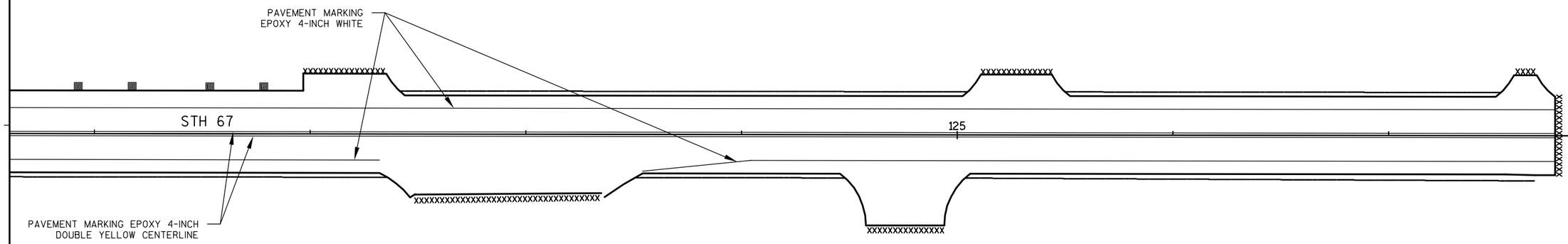
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	PAVEMENT MARKING	SHEET	E

FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\024501_PM.DWG PLOT DATE : 8/5/2014 12:31 PM PLOT BY : MOYER, TIM PLOT NAME : ---------- PLOT SCALE : 0.015903

WISDOT/CADDS SHEET 44

2

N

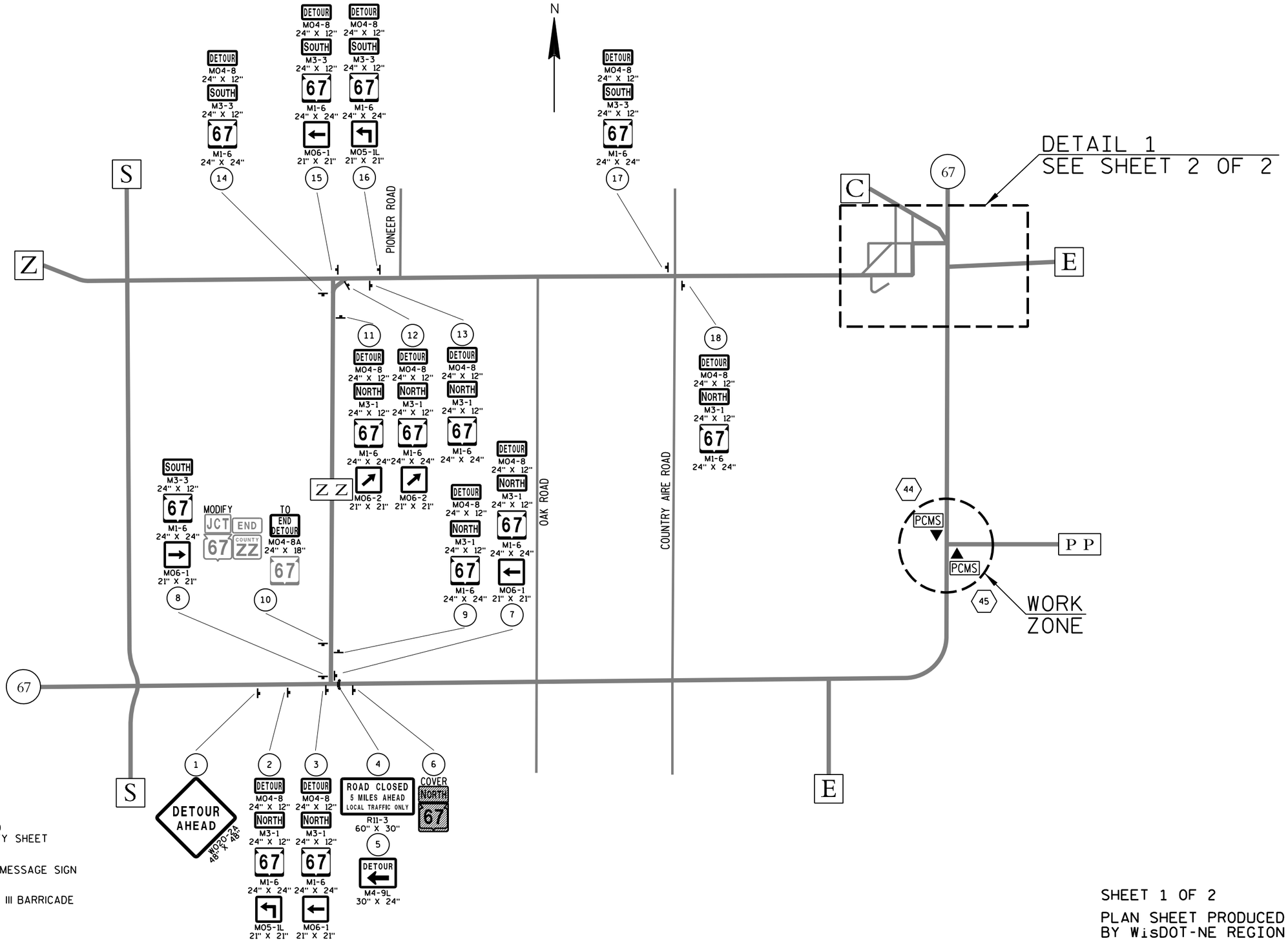


S. RIVER DRIVE

PROJECT NO:4560-05-73	HWY:STH 67	COUNTY:SHEBOYGAN	PAVEMENT MARKING	SHEET 22	E

FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\024501_PM.DWG PLOT DATE : 8/5/2014 12:31 PM PLOT BY : MOYER, TIM PLOT NAME : ---------- PLOT SCALE : 1" = 50'_XREF

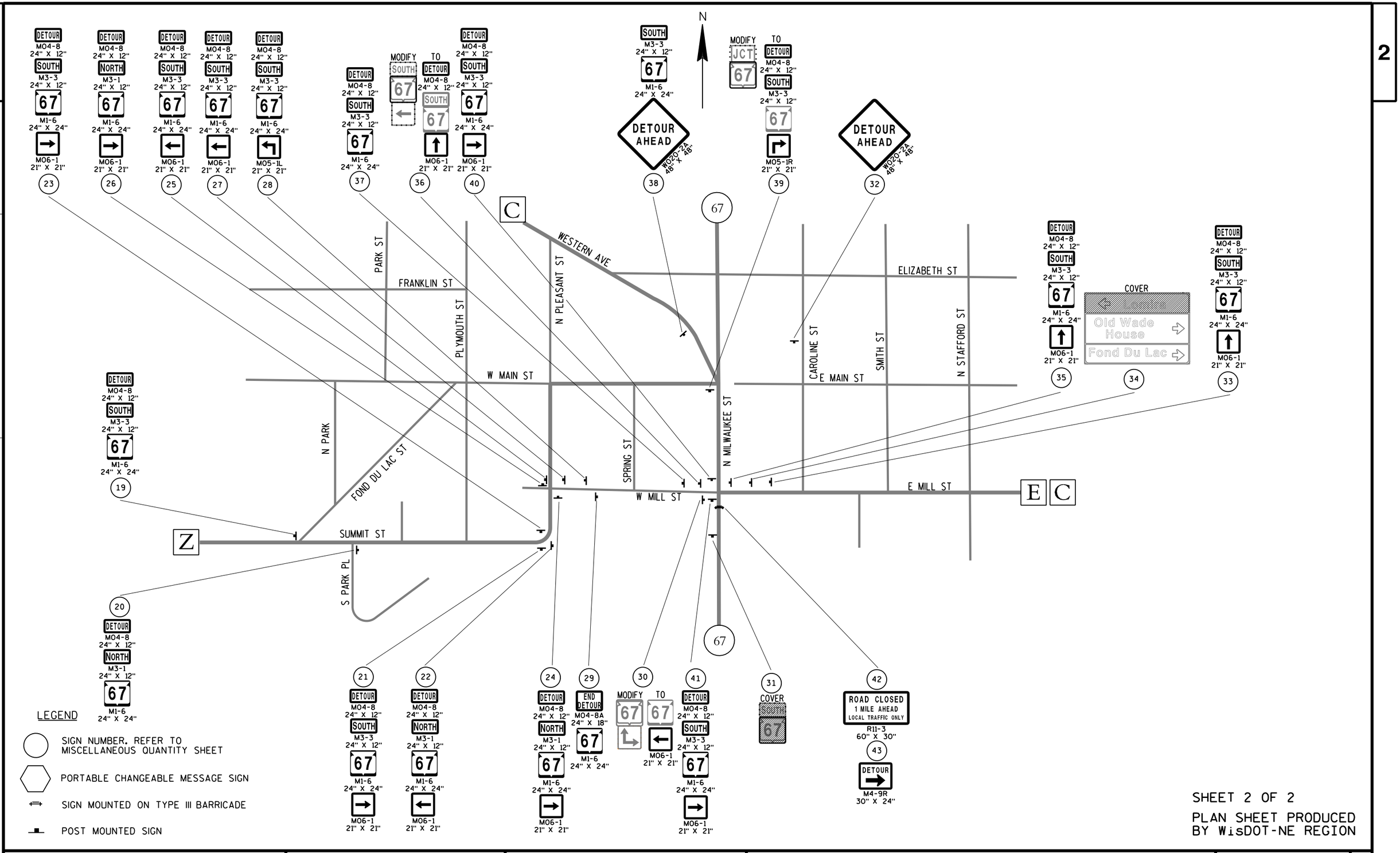
WISDOT/CADDS SHEET 44



SHEET 1 OF 2

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	DETOUR SIGNING DETAIL	SHEET 23	E



LEGEND

- SIGN NUMBER. REFER TO MISCELLANEOUS QUANTITY SHEET
- PORTABLE CHANGEABLE MESSAGE SIGN
- SIGN MOUNTED ON TYPE III BARRICADE
- POST MOUNTED SIGN

SHEET 2 OF 2

PLAN SHEET PRODUCED BY WisDOT-NE REGION

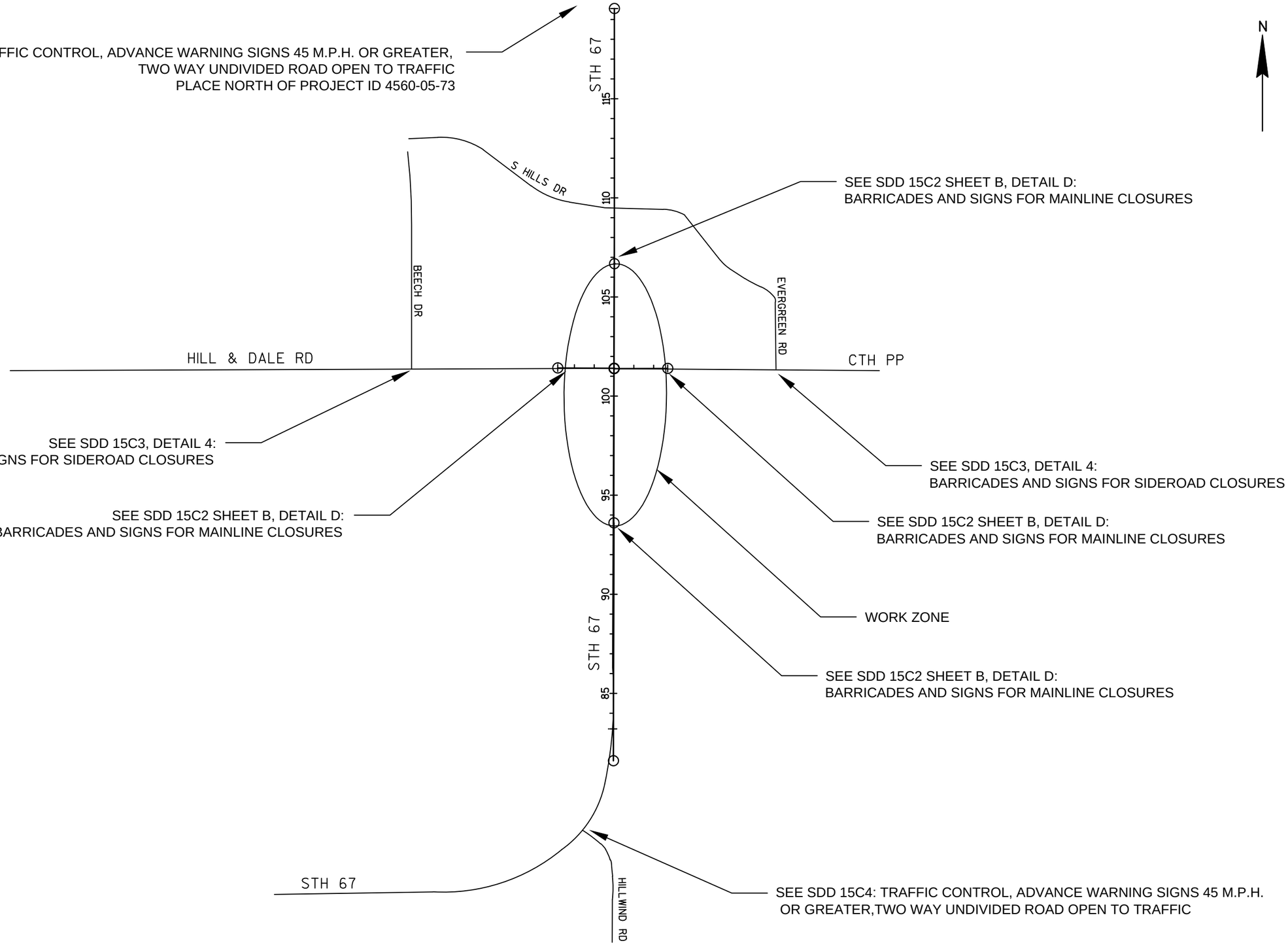
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	DETOUR SIGNING DETAIL	SHEET	E

FILE NAME : $$....designfile....$$ PLOT DATE : $$...plottingdate...$$ PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

2

2

SEE SDD 15C4: TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER,
TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC
PLACE NORTH OF PROJECT ID 4560-05-73



SEE SDD 15C2 SHEET B, DETAIL D:
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

SEE SDD 15C3, DETAIL 4:
BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

SEE SDD 15C2 SHEET B, DETAIL D:
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

SEE SDD 15C3, DETAIL 4:
BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

SEE SDD 15C2 SHEET B, DETAIL D:
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

WORK ZONE

SEE SDD 15C2 SHEET B, DETAIL D:
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

SEE SDD 15C4: TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H.
OR GREATER,TWO WAY UNDIVIDED ROAD OPEN TO TRAFFIC

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	TRAFFIC CONTROL OVERVIEW SHEET	SHEET 25	E

DATE 20JAN15 — E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4550-06-71 QUANTITY	4560-05-73 QUANTITY
0010	201.0120	Clearing	ID	26.000	26.000	
0020	201.0220	Grubbing	ID	26.000	26.000	
0030	203.0100	Removing Small Pipe Culverts	EACH	11.000	8.000	3.000
0040	204.0100	Removing Pavement	SY	3,280.000	3,280.000	
0050	204.0120	Removing Asphaltic Surface Milling	SY	8,920.000		8,920.000
0060	204.0150	Removing Curb & Gutter	LF	264.300	174.300	90.000
0070	204.0170	Removing Fence	LF	656.000	656.000	
0080	205.0100	Excavation Common	CY	20,124.000	20,124.000	
0090	213.0100	Finishing Roadway (project) 01. 4550-06-71	EACH	1.000	1.000	
0100	213.0100	Finishing Roadway (project) 02. 4560-05-73	EACH	1.000		1.000
0110	305.0110	Base Aggregate Dense 3/4-Inch	TON	501.000	486.000	15.000
0120	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	9,097.000	8,967.000	130.000
0130	305.0500	Shaping Shoulders	STA	42.000		42.000
0140	311.0110	Breaker Run	TON	5,361.300	5,361.300	
0150	416.0160	Concrete Driveway 6-Inch	SY	85.700	85.700	
0160	440.4410.S	Incentive IRI Ride	DOL	1,600.000		1,600.000
0170	455.0105	Asphaltic Material PG58-28	TON	231.000	133.000	98.000
0180	455.0605	Tack Coat	GAL	1,049.000	464.000	585.000
0190	460.1101	HMA Pavement Type E-1	TON	4,200.000	2,417.000	1,783.000
0200	460.2000	Incentive Density HMA Pavement	DOL	2,700.000	1,550.000	1,150.000
0210	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	3,417.000	1,307.000	2,110.000
0220	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	214.000	116.000	98.000
0230	465.0315	Asphaltic Flumes	SY	28.400	28.400	
0240	521.0118	Culvert Pipe Corrugated Steel 18-Inch	LF	46.000	46.000	
0250	521.0124	Culvert Pipe Corrugated Steel 24-Inch	LF	52.000	52.000	
0260	521.1518	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 18-Inch 6 to 1	EACH	2.000	2.000	
0270	521.1524	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 24-Inch 6 to 1	EACH	4.000	4.000	
0280	521.1536	Apron Endwalls for Culvert Pipe Sloped Side Drains Steel 36-Inch 6 to 1	EACH	8.000	2.000	6.000
0290	522.0324	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	76.000	76.000	
0300	522.0336	Culvert Pipe Reinforced Concrete Class IV 36-Inch	LF	214.000	136.000	78.000
0310	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	2.000	2.000	
0320	522.1036	Apron Endwalls for Culvert Pipe Reinforced Concrete 36-Inch	EACH	2.000	2.000	
0330	523.0414	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 14x23-Inch	LF	34.000	34.000	
0340	523.0514	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 14x23-Inch	EACH	2.000	2.000	
0350	524.0124	Culvert Pipe Salvaged 24-Inch	LF	82.500	82.500	
0360	601.0409	Concrete Curb & Gutter 30-Inch Type A	LF	90.000		90.000
0370	601.0553	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type D	LF	306.000	306.000	
0380	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	17.000		17.000
0390	608.0436	Storm Sewer Pipe Reinforced Concrete Class IV 36-Inch	LF	174.000		174.000

3

DATE 20JAN15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4550-06-71 QUANTITY	4560-05-73 QUANTITY
0400	611.0530	Manhole Covers Type J	EACH	1.000		1.000
0410	611.0624	Inlet Covers Type H	EACH	2.000		2.000
0420	611.2005	Manholes 5-FT Diameter	EACH	2.000		2.000
0430	611.3230	Inlets 2x3-FT	EACH	1.000		1.000
0440	614.0010	Barrier System Grading Shaping Finishing	EACH	6.000		6.000
0450	614.0920	Salvaged Rail	LF	1,100.000		1,100.000
0460	614.2300	MGS Guardrail 3	LF	781.500		781.500
0470	614.2610	MGS Guardrail Terminal EAT	EACH	6.000		6.000
0480	618.0100	Maintenance And Repair of Haul Roads (project) 01. 4550-06-71	EACH	1.000	1.000	
0490	618.0100	Maintenance And Repair of Haul Roads (project) 02. 4560-05-73	EACH	1.000		1.000
0500	619.1000	Mobilization	EACH	1.000	0.670	0.330
0510	624.0100	Water	MGAL	129.200	129.200	
0520	625.0500	Salvaged Topsoil	SY	13,874.000	13,874.000	
0530	627.0200	Mulching	SY	10,952.000	10,952.000	
0540	628.1504	Silt Fence	LF	3,021.000	2,261.000	760.000
0550	628.1520	Silt Fence Maintenance	LF	3,021.000	2,261.000	760.000
0560	628.1905	Mobilizations Erosion Control	EACH	5.000	4.000	1.000
0570	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	2.000	1.000
0580	628.2004	Erosion Mat Class I Type B	SY	1,949.000	1,299.000	650.000
0590	628.2008	Erosion Mat Urban Class I Type B	SY	1,739.000	1,739.000	
0600	628.7005	Inlet Protection Type A	EACH	3.000		3.000
0610	628.7015	Inlet Protection Type C	EACH	1.000		1.000
0620	628.7504	Temporary Ditch Checks	LF	279.000	243.000	36.000
0630	628.7555	Culvert Pipe Checks	EACH	92.000	62.000	30.000
0640	628.7560	Tracking Pads	EACH	2.000	2.000	
0650	629.0210	Fertilizer Type B	CWT	8.750	8.750	
0660	630.0130	Seeding Mixture No. 30	LB	250.000	250.000	
0670	630.0200	Seeding Temporary	LB	125.000	125.000	
0680	633.5200	Markers Culvert End	EACH	4.000	4.000	
0690	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	24.000	10.000	14.000
0700	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	6.000	4.000	2.000
0710	637.2210	Signs Type II Reflective H	SF	200.460	119.920	80.540
0720	637.2230	Signs Type II Reflective F	SF	26.500	17.500	9.000
0730	638.2602	Removing Signs Type II	EACH	28.000	15.000	13.000
0740	638.3000	Removing Small Sign Supports	EACH	32.000	16.000	16.000
0750	642.5001	Field Office Type B	EACH	1.000	0.670	0.330
0760	643.0100	Traffic Control (project) 01. 4550-06-71	EACH	1.000	1.000	
0770	643.0100	Traffic Control (project) 02. 4560-05-73	EACH	1.000		1.000
0780	643.0300	Traffic Control Drums	DAY	1,100.000		1,100.000
0790	643.0420	Traffic Control Barricades Type III	DAY	2,064.000	2,064.000	
0800	643.0705	Traffic Control Warning Lights Type A	DAY	2,519.000	2,519.000	
0810	643.0715	Traffic Control Warning Lights Type C	DAY	1.000		1.000
0820	643.0900	Traffic Control Signs	DAY	1,512.000	1,072.000	440.000
0830	643.0920	Traffic Control Covering Signs Type II	EACH	3.000	3.000	
0840	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000	
0850	643.2000	Traffic Control Detour (project) 01. 4550-06-71	EACH	1.000	1.000	
0860	643.3000	Traffic Control Detour Signs	DAY	8,174.000	8,174.000	
0870	646.0106	Pavement Marking Epoxy 4-Inch	LF	14,972.000	6,800.000	8,172.000
0880	646.0126	Pavement Marking Epoxy 8-Inch	LF	596.000	596.000	
0890	648.0100	Locating No-Passing Zones	MI	0.650	0.250	0.400
0900	650.4000	Construction Staking Storm Sewer	EACH	3.000		3.000

3

DATE 20JAN15 E S T I M A T E O F Q U A N T I T I E S

LINE NUMBER	ITEM	ITEM DESCRIPTION	UNIT	TOTAL	4550-06-71 QUANTITY	4560-05-73 QUANTITY
0910	650.4500	Construction Staking Subgrade	LF	1,749.000	1,749.000	
0920	650.5000	Construction Staking Base	LF	1,749.000	1,749.000	
0930	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	396.000	306.000	90.000
0940	650.6000	Construction Staking Pipe Culverts	EACH	4.000	2.000	2.000
0950	650.8000	Construction Staking Resurfacing Reference	LF	2,110.000		2,110.000
0960	650.9910	Construction Staking Supplemental Control (project) 01. 4550-06-71	LS	1.000	1.000	
0970	650.9910	Construction Staking Supplemental Control (project) 02. 4560-05-73	LS	1.000		1.000
0980	650.9920	Construction Staking Slope Stakes	LF	1,749.000	1,749.000	
0990	690.0150	Sawing Asphalt	LF	846.000	208.000	638.000
1000	690.0250	Sawing Concrete	LF	85.000	80.000	5.000
1010	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	300.000	300.000	
1020	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	600.000	600.000	
1030	SPV.0105	Special 01. Removing Boulder	LS	1.000	1.000	

Division	From / To Station	Common Excavation (1)		Salvaged / Unusable Pavement Material (4)	Available Material (5)	Unexpanded Fill	Expanded Fill (13)	Mass Ordinate + / - (14)	Waste	Comment:
		Cut (2)	EBS Excavation (3)				Factor			
Division 1							1.33			
STH 67	93+60/106+67	13,340	3,035	0	13,340	198	264	13,076	13,076	
Hill and Dale Rd	7+28/9+75	2,892	0	0	2,892	43	57	2,835	2,835	
CTH PP	10+25/12+70	858	0	0	858	19	25	832	832	
Division 1 Subtotal		17,089	3,035	0	17,089	261	347	16,743	16,743	
Grand Total		17,089	3,035	0	17,089	261	347	16,743	16,743	
		Total Common Exc	20,124							

1) Common Excavation is the sum of the Cut and EBS Excavation columns. Item number 205.0100
2) Salvaged/Unsuable Pavement Material is included in Cut.
4) Salvaged/Unusable Pavement Material
5) Available Material = Cut - Salvaged/Unusuable Pavement Material
13) Expanded Fill. Factor = 1.33
14) The Mass Ordinate + or - Qty calculated for the Division. Plus quantity indicates an excess of material within the Division.
Minus indicates a shortage of material within the Division.

CLEARING AND GRUBBING

STATION	LOCATION	201.0120 CLEARING ID	201.0220 GRUBBING ID	REMARKS
102+00	STH 67 RIGHT	26	26	REMOVE FOR VISION
	TOTAL	26	26	

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.0100 EACH
95+00	STH 67, LEFT	1
93+80	STH 67, RIGHT	1
95+80	STH 67, RIGHT	1
10+43	CTH PP, CROSSDRAIN	1
11+00	CTH PP, LEFT	1
9+70	HILL & DALE RD, CROSSDRAIN	1
103+83	STH 67, 41' LEFT	1*
104+50	STH 67, LEFT	1
	TOTAL	8

* SEE PLAN & PROFILE SHEETS. WILL NEED
TO SAW CUT TO MATCH NEW FIELD CONDITIONS.

REMOVING CURB & GUTTER

LOCATION	204.0150 LF
NE QUADRANT	64.6
SE QUADRANT	69.2
ISLAND	40.5
TOTAL	174.3

REMOVING BOULDER

STATION	LOCATION	SPV.0105.01 LS
105+10	STH 67, RIGHT	1
	TOTAL	1

REMOVING FENCE

STATION	TO	STATION	LOCATION	204.0150 LF
7+28	-	105+74	NW QUADRANT	656
			TOTAL	656

REMOVING PAVEMENT

STATION	TO	STATION	LOCATION	204.0100 SY	REMARKS
93+60	-	106+67	(2,11'lanes)	3195	
		11+00	CTH PP DRIVEWAY, LEFT	42	
		105+30	STH 67 DRIVEWAY, RIGHT	43	
			TOTAL	3280	

BASE AGGREGATE DENSE 3/4-INCH

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4 INCH TON	624.0100 *WATER MGAL
93+60	-	100+55	STH 67, RIGHT	98	1.0
101+93	-	106+67	STH 67, RIGHT	90	0.9
93+60	-	100+85	STH 67, LEFT	151	1.5
102+16	-	106+67	STH 67, LEFT	45	0.5
10+84	-	12+70	CTH PP, RIGHT	21	0.2
10+64	-	12+70	CTH PP, LEFT	24	0.2
7+28	-	9+31	HILL & DALE, RIGHT	30	0.3
7+28	-	9+15	HILL & DALE, LEFT	27	0.3
			TOTAL	486	4.9

*WATER LISTED ELSEWHERE IN PLAN

BREAKER RUN

STATION	TO	STATION	LOCATION	311.0110 TON	REMARKS
93+60	-	106+67	STH 67	5330.5	
NEAR		95+25	STH 67, LEFT, RIGHT	7.0	FRENCH DRAINS
NEAR		98+25	STH 67, LEFT, RIGHT	7.0	FRENCH DRAINS
NEAR		100+50	STH 67, LEFT, RIGHT	8.8	FRENCH DRAINS
NEAR		104+00	STH 67, LEFT, RIGHT	5.9	FRENCH DRAINS
NEAR		106+65	STH 67, LEFT	2.1	FRENCH DRAIN
			TOTAL	5361.3	

BASE AGGREGATE DENSE 1-1/4-INCH

STATION	TO	STATION	LOCATION	305.0120 BASE AGGREGATE DENSE 1-1/4 INCH TON	624.0100 *WATER MGAL
93+60	-	100+60		3611	36.1
102+15	-	106+67		2246	22.5
10+83	-	12+70		772	7.7
7+28	-	9+15		664	6.6
			INTERSECTION	1365	13.7
		11+25	CTH PP DRIVEWAY, LEFT	14	0.1
		105+30	STH 67 DRIVEWAY, RIGHT	14	0.1
		93+86	STH 67 DRIVEWAY, RIGHT	30	0.3
		95+85	STH 67 DRIVEWAY, RIGHT	38	0.4
		97+70	STH 67 DRIVEWAY, RIGHT	86	0.9
		94+95	STH 67 DRIVEWAY, LEFT	31	0.3
		104+50	STH 67 DRIVEWAY, LEFT	57	0.6
		104+77	STH 67 DRIVEWAY, RIGHT	14	0.1
		106+16	STH 67 DRIVEWAY, RIGHT	11	0.1
		11+75	CTH PP DRIVEWAY, LEFT	14	0.1
			TOTAL	8967	89.7

*WATER LISTED ELSEWHERE IN PLAN

*WATER LISTED ELSEWHERE IN PLAN

CONCRETE DRIVEWAY 6-INCH

STATION	LOCATION	ITEM 416.0160 SY
11+25	CTH PP, LEFT	42.9
105+30	STH 67, RIGHT	42.8
	TOTAL	85.7

3

HMA SUMMARY

STATION	TO	STATION	LOCATION	455.0105 ASPHALTIC MATERIAL PG58-28 TON	455.0605 TACK COAT GAL	460.1101 HMA PAVEMENT TYPE E-1 TON	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF	REMARKS
93+60	-	106+67	STH 67	108	378	1972	1307	
7+28	-	9+50	HILL & DALE RD	11	38	197	-	
10+50	-	12+70	CTH PP	14	48	249	-	
			TOTAL	133	464	2417	1307	

ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES

STATION	LOCATION	465.0120 ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON
93+86	STH 67 RIGHT	25
95+85	STH 67 RIGHT	33
97+70	STH 67 RIGHT	45
106+16	STH 67 RIGHT	6
11+75	CTH PP LEFT	7
	TOTAL	116

ASPHALTIC FLUMES

STATION	LOCATION	465.0315 SY
100+60	28' RIGHT	7.1
101+93	28' RIGHT	7.1
100+84	28' LEFT	7.1
102+15	28' LEFT	7.1
	TOTAL	28.4

CULVERT PIPE SUMMARY

STATION	LOCATION	521.0118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	521.0124 CULVERT PIPE CORRUGATED STEEL 24-INCH LF	522.0324 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH LF	522.0336 CULVERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH LF	524.0124 CULVERT PIPE SALVAGED 24-INCH LF	521.1518 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 18-INCH 6:1 EACH	521.1524 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 24-INCH 6:1 EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	522.1036 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 36-INCH EACH	521.1536 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 36-INCH 6:1 EACH	523.0414 CULVERT PIPE REINF CONC HE-IV 14X23-INCH LF	523.0514 APRON ENDWALLS FOR CULVERT PIPE REINF CONC HE 14X23-INCH EACH
93+85	STH 67, RIGHT	-	-	-	-	-	-	-	-	-	-	34	2
95+00	STH 67, LEFT	46	-	-	-	-	2	-	-	-	-	-	-
95+85	STH 67, RIGHT	-	52	-	-	-	-	2	-	-	-	-	-
97+70	STH 67, RIGHT	-	-	-	-	**82.5	-	2	-	-	-	-	-
99+75	STH 67	-	-	*76	-	-	-	-	2	-	-	-	-
104+50	STH 67, LEFT	-	-	-	36	-	-	-	-	-	*2	-	-
9+34	HILL & DALE RD	-	-	-	*100	-	-	-	-	2	-	-	-
	TOTAL	46	52	76	136	82.5	2	4	2	2	2	34	2

*SEE PLAN & PROFILE SHEETS FOR LOCATIONS AND ELEVATIONS
**REMOVE EXISTING 82.5', REPLACE ANTICIPATED 62'. DISPOSE OF REMAINING PIPE.

CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE D

STATION	TO	STATION	LOCATION	601.0553 LF
100+85	-	9+31	SW QUAD	64
9+15	-	102+15	NW QUAD	91
10+64	-	101+93	NE QUAD	60
100+63	-	10+84	SE QUAD	91
			TOTAL	306

3

SILT FENCE SUMMARY

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF
93+30	-	101+09	STH 67, LEFT	939	939
101+73	-	102+70	STH 67, LEFT	254	254
11+10	-	12+70	CTH PP, LEFT	135	135
101+74	-	106+67	STH 67, RIGHT	483	483
			UNDISTRUBUTED AMOUNT	450	450
			TOTAL	2261	2261

MOBILIZATIONS EROSION CONTROL AND MOBILIZATIONS EMERGENCY EROSION CONTROL

STATION	TO	STATION	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
93+60	-	106+67	PROJECT	4	2
			TOTAL	4	2

CULVERT PIPE CHECKS

STATION	LOCATION	628.7555 EACH
93+60	STH 67, RIGHT	6
94+70	STH 67, LEFT	6
95+60	STH 67, RIGHT	6
97+30	STH 67, RIGHT	6
99+75	STH 67, 42' RIGHT	6
9+28	HILL & DALE RD, 40' RIGHT	10
104+30	STH 67, LEFT	10
	UNDISTRIBUTED AMOUNT	12
	TOTAL	62

EROSION MAT CLASS I TYPE B

STATION	TO	STATION	LOCATION	628.2004 SY
97+33	-	101+23	STH 67, LEFT	509
101+61	-	106+67	STH 67, LEFT	542
			UNDISTRIBUTED AMOUNT	248
			TOTAL	1299

EROSION MAT URBAN CLASS I TYPE B

STATION	TO	STATION	LOCATION	628.2008 SY
93+60	-	97+33	STH 67, LEFT	323
93+60	-	101+23	STH 67, RIGHT	726
101+61	-	106+67	STH 67, RIGHT	347
			UNDISTRIBUTED AMOUNT	343
			TOTAL	1739

TEMPORARY DITCH CHECKS

LOCATION	628.7504 LF
96+00, STH 67 LEFT	15
98+75, STH 67 LEFT	25
100+50, STH 67 LEFT	25
102+25, STH 67 LEFT	15
103+50, STH 67 LEFT	15
105+25, STH 67 LEFT	15
106+67, STH 67 LEFT	15
95+00, STH 67 RIGHT	15
97+00, STH 67, RIGHT	15
99+50, STH 67, RIGHT	25
103+50, STH 67 RIGHT	15
UNDISTRIBUTED AMOUNT	48
TOTAL	243

3

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LANDSCAPING SUMMARY

STATION	TO	STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	REMARKS
93+60	-	101+23	STH 67, LEFT	4518	3718	2.85	81	41	
93+60	-	101+23	STH 67, RIGHT	3334	2623	2.10	60	30	
101+61	-	106+67	STH 67, LEFT	2277	1764	1.43	41	20	
101+61	-	106+67	STH 67, RIGHT	995	657	0.62	18	9	
			UNDISTRIBUTED	2750	2190	1.75	50	25	
			TOTAL	13874	10952	8.75	250	125	

TRACKING PADS

LOCATION	628.7560 EACH
PROJECT	2
TOTAL	2

*WATER

STATION	TO	STATION	LOCATION	624.0100 MGAL	REMARKS
93+60	-	100+60	STH 67	14.4	FOR DUST CONTROL
102+15	-	106+67	STH 67	9.0	FOR DUST CONTROL
10+83	-	12+70	CTH PP	3.1	FOR DUST CONTROL
7+28	-	9+15	HILL & DALE RD	2.7	FOR DUST CONTROL
			INTERSECTION	5.5	FOR DUST CONTROL
			TOTAL	34.6	

*WATER LISTED ELSEWHERE IN PLAN

MARKERS CULVERT END

STATION	LOCATION	633.5200 EACH
99+75	STH 67 LT & RT	2
9+33	HILL & DALE RD LT & RT	2
	TOTAL	4

PAVEMENT MARKING EPOXY 4-INCH

STATION	TO	STATION	LOCATION	646.0106 LF	WHITE LF	YELLOW LF
93+50	-	106+75	STH 67	5000	2350	2650
7+25	-	9+50	HILL & DALE RD	900	450	450
10+50	-	12+75	CTH PP	900	450	450
			TOTAL	6800	3250	3550

PAVEMENT MARKING EPOXY 8-INCH

STATION	TO	STATION	LOCATION	646.0126 LF
97+63	-	100+63	STH 67, RIGHT	300
102+15	-	105+11	STH 67, LEFT	296
			TOTAL	596

LOCATING NO-PASSING ZONES

STATION	TO	STATION	LOCATION	648.0100 MI	REMARKS
93+60	-	127+77	STH 67	0.65	CONTRACT LIMITS
			TOTAL	0.65	

CONSTRUCTION STAKING

STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.5500 CURB & GUTTER LF	650.6000 PIPE CULVERTS EACH	650.9920 SLOPE STAKES LF
93+60 - 106+67	STH 67	1307	1307	-	-	1307
99+75	STH 67	-	-	-	1	-
9+31 - 100+85	SW QUAD	-	-	64	-	-
9+15 - 102+15	NW QUAD	-	-	91	-	-
10+64 - 101+93	NE QUAD	-	-	60	-	-
10+83 - 100+63	SE QUAD	-	-	91	-	-
7+28 - 9+50	HILL & DALE RD	222	222	-	-	222
9+33	HILL & DALE RD	-	-	-	1	-
10+50 - 12+70	CTH PP	220	220	-	-	220
	TOTAL	1749	1749	306	2	1749

TRAFFIC CONTROL

LOCATION	643.0900 TRAFFIC CONTROL SIGNS NUMBER	DAYS	643.0420 *TRAFFIC CONTROL BARRICADES TYPE III NUMBER	DAYS	643.0705 *TRAFFIC CONTROL WARNING LIGHTS TYPE A NUMBER	DAYS	643.0300 TRAFFIC CONTROL DRUMS NUMBER	DAYS
STH 67, SOUTH OF CTH PP	4	67	5	67	6	67		
STH 67, NORTH OF CTH PP	4	67	5	67	6	67		
CTH PP	4	67	7	67	8	67		
HILL & DALE RD	4	67	7	67	8	67		
WITHIN PROJECT 4560-05-73	2	10					25	10
UNDISTRIBUTED AMOUNT (20%)				322		375		50
TOTAL		1092		1930		2251		300

*ADDITIONAL BARRICADES AND WARNING LIGHTS LISTED ELSEWHERE IN PLAN

SAWING ASPHALT

STATION	LOCATION	690.0150 LF	REMARKS
93+60	STH 67	10	PROJECT LIMITS
106+67	STH 67	10	PROJECT LIMITS
7+28	HILL & DALE RD	22	PROJECT LIMITS
12+71	CTH PP	30	PROJECT LIMITS
93+85	STH 67 RT	28	DRIVEWAY
95+85	STH 67 RT	27	DRIVEWAY
97+73	STH 67 RT	35	DRIVEWAY
11+75	CTH PP LT	30	DRIVEWAY
106+20	STH 67 RT	16	DRIVEWAY
	TOTAL	208	

SAWING CONCRETE

STATION	LOCATION	690.0250 LF	REMARKS
93+60	STH 67	20	PROJECT LIMITS
160+67	STH 67	20	PROJECT LIMITS
11+00	CTH PP LT	20	DRIVEWAY
105+27	STH 67 RT	20	DRIVEWAY
	TOTAL	80	

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 67 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 *BARRICADES TYPE III DAYS	643.0705 *WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PCMS DAYS	643.0920 COVERING SIGNS EACH	NUMBER OF CYCLES	REMARKS
1	700' W OF J1-1 (JCT ZZ)	WO 20-2-A	48"x48"	1	67	67						
2	LT OF J1-1 (JCT ZZ)	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 5-1-L	21"x21"	1	67	67						
3	LT OF J13-1 (ZZ-LT)	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						LEFT
4	SE QUAD OF STH 67 & CTH ZZ INTERSECTION	R 11-3	60"x30"	1	67	67	67	134				5 MILES
5	ON BARRICADE BELOW SIGN # 4	M4-9-L	30"x24"	1	67	67						
6	J4-1 (NORTH 67)									1	1	NORTH 67
7	ON BACK OF J13-1 (ZZ-RT) FOR EB TRAFFIC	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						LEFT
8	RT OF STOP SIGN @ STH 67 & CTH ZZ INTERSECTION	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						RIGHT
9	250' N OF STH 67 INTERSECTION ON CTH ZZ	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
10	MODIFY J1-2 (JCT 67; END ZZ)	MO 4-8-A	24"x18"	1	67	67						
	"	M 1-6	EXISTING									
11	LT OF J1-2 (JCT Z; END ZZ)	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-2	21"x21"	1	67	67						RIGHT
12	RT OF STOP SIGN @ CTH ZZ & CTH Z INTERSECTION	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-2	21"x21"	1	67	67						AHEAD
13	250' E OF CTH ZZ INTERSECTION ON CTH Z	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
14	250' S OF CTH Z INTERSECTION ON CTH ZZ	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						LEFT
15	RT OF J13-1 (ZZ-LT)	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						LEFT
16	RT OF J1-1 (JCT ZZ)	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 5-1-L	21"x21"	1	67	67						
17	250' W OF COUNTRY AIRE RD INTERSECTION ON CTH ZZ	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 67 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 *BARRICADES TYPE III DAYS	643.0705 *WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PCMS DAYS	643.0920 COVERING SIGNS EACH	NUMBER OF CYCLES	REMARKS
18	250' E OF COUNTRY AIRE RD INTERSECTION ON CTH ZZ	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
19	50' W OF FOND DU LAC ST INTERSECTION ON SUMMIT ST	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
20	50' E OF S PARK PLACE INTERSECTION ON SUMMIT ST	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
21	@ SOUTH INTERSECTION OF PLEASANT ST INTERSECTION ON SUMMIT ST	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						RIGHT
22	ABOVE LT-NIGHT ARROW ON SUMMIT ST CURVE	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						LEFT
23	NW QUAD OF PLEASANT ST & SUMMIT ST INTERSECTION	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						LEFT
24	100' S OF STOP SIGN @ PLEASANT ST & SUMMIT ST	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						RIGHT
25	@ END OF W MILL ST FACING WB TRAFFIC	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						LEFT
26	LT OF BACK SIDE OF STOP SIGN	MO 4-8	24"x12"	1	67	67						
	"	M 3-1	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						RIGHT
27	NE QUAD OF W MILL ST AND PLEASANT ST INTERSECTION	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						LEFT
28	300' E OF SIGN # 27	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 5-1-L	21"x21"	1	67	67						
29	250' E PLEASANT ST INTERSECTION ON W MILL ST	MO 4-8-A	24"x18"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
30	MODIFY J4-1 (67-AH & RT)	M 1-6	EXISTING									
31	J4-1 (SOUTH 67)	MO 6-1	21"x21"	1	67	67						LEFT
31	J4-1 (SOUTH 67)									1	1	SOUTH 67
32	200' N OF MAIN ST INTERSECTION ON CAROLINE ST	WO 20-2-A	48"x48"	1	67	67						
33	150' W OF CAROLINE ST INTERSECTION ON MILL ST	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 67 DAYS	643.3000 DETOUR SIGNS DAYS	643.0420 *BARRICADES TYPE III DAYS	643.0705 *WARNING LIGHTS TYPE A DAYS	643.1050 SIGNS PCMS DAYS	643.0920 COVERING SIGNS EACH	NUMBER OF CYCLES	REMARKS
	"	MO 6-1	21"x21"	1	67	67						AHEAD
34	D1-3 (LT-LOMIRA; OLD WADE HOUSE RT; FOND DU LAC-RT)									1	1	LT - LOMIRA
35	RT OF STOP SIGN @ E MILL ST & MILWAUKEE ST	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						AHEAD
36	MODIFY J3-1 (S-67-LT)	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	EXISTING									
	"	M 1-6	EXISTING									67
	"	MO 6-1	21"x21"	1	67	67						AHEAD
37	200' W OF S MILWAUKEE ST INTERSECTION ON W MILL ST	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
38	500' N OF J1-1 (JCT 67)	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	WO 20-2-A	48"x48"	1	67	67						
39	MODIFY J1-1 (JCT 67)	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	EXISTING									67
	"	MO 5-1-R	21"x21"	1	67	67						
40	RT OF STOP SIGN @ MILWAUKEE ST & MILL ST	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						RIGHT
41	RT OF J3-1 (N-67-LT)	MO 4-8	24"x12"	1	67	67						
	"	M 3-3	24"x12"	1	67	67						
	"	M 1-6	24"x24"	1	67	67						67
	"	MO 6-1	21"x21"	1	67	67						RIGHT
42	SW QUAD OF STH 67 & W MILL ST INTERSECTION	R 11-3	60"x30"	1	67	67	67	134				1 MILES
43	ON BARRICADE BELOW SIGN # 42	M4-9-R	30"x24"	1	67	67						
44	FOR SB TRAFFIC - 1 WEEK PRIOR TO CONTRSUCTION			1					7			
45	FOR NB TRAFFIC - 1 WEEK PRIOR TO CONTRSUCTION			1					7			
	TOTAL			*124*		*8,174*	*134*	*268*	*14*	*3*		

*ADDITIONAL QUANTITIES FOR BARRICADES AND WARNING LIGHTS LISTED ELSEWHERE IN PLAN

3

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	S. OF CTH PP	J1-2	48" X 39"	13.00	---	1	---	1	1	JCT CTH E, JCT CTH PP, SEE PLAN SHEET
2	"	W1-2R	30" X 30"	---	6.25	---	1	1	1	
2A	"	W13-1	18" X 18"	---	2.25	---	---	---	---	45 MPH, MOUNT BELOW SIGN #2, PART OF REMOVAL FOR SIGN #2
3	"	W3-5	36" X 36"	---	9.00	1	---	1	1	45 MPH
4	"	R2-1	24" X 30"	5.00	---	1	---	1	1	55 MPH
5	"	D2-2	102" X 24"	17.00	---	1	1	1	2	CAMPBELLSPORT 23, LOMIRA 32, SEE SIGN DETAIL
6	"	R2-1	24" X 30"	5.00	---	1	---	1	1	45 MPH
6A	"	J4-1	24" X 36"	6.00	---	1	---	---	---	SOUTH STH 67
7	"	J13-1	48" X 45"	15.00	---	1	---	1	1	CTH E, CTH PP, SEE PLAN SHEET
8	HILL AND DALE RD	R1-1	36" X 36"	7.46	---	1	---	1	1	
9	"	R1-1	---	---	---	---	---	1	1	
10	"	J23-2	---	---	---	---	---	1	1	
11	CTH PP	R1-1	36" X 36"	7.46	---	1	---	1	1	
11A	"	J3-2	48" X 57"	19.00	---	---	1	---	---	STH 67, TO STH 23, SEE PLAN SHEET
12	CTH PP ISLAND @ STH 67	R1-1	---	---	---	---	---	1	1	
13	"	R4-7	---	---	---	---	---	1	1	
14	N. OF CTH PP	J3-2	48" X 57"	19.00	---	---	1	1	1	EAST CTH PP, TO STH 57, SEE PLAN SHEET
15	"	J4-1	24" X 36"	6.00	---	1	---	1	1	NORTH STH 67, SEE PLAN SHEET
PROJECT TOTALS				**119.92**	**17.50**	**10**	**4**	**15**	**16**	

3

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

CATEGORY NO.	SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
0010	1	S. OF EVERGREEN DR/S. HILLS DR	R2-1	24" X 30"	5.00		1		1	1	45 MPH
0010	2	S. HILLS DRIVE	R1-1	30" X 30"	5.18		1		1	1	
0010	3	EVERGREEN DR	R1-1	30" X 30"	5.18		1		1	1	
0010	4	N. OF S. HILLS DR	J1-1	24" X 39"	6.50		1		1	1	JCT CTH PP, SEE PLAN SHEET
0010	5	N. OF EVERGREEN DR/S. HILLS DR	R2-1	24" X 30"	5.00		1		1	1	45 MPH
0010	6	"	I3-1	72" X 15"	7.50		2		1	2	MULLET RIVER, SEE SIGN DETAIL
0010	7	"	I3-1	72" X 15"	7.50		2		1	2	MULLET RIVER, SEE SIGN DETAIL
0010	8	S. OF S. RIVER DRIVE	W3-5	36" X 36"		9.00	1		1	1	25 MPH
0010	9	"	J4-1	24" X 36"	6.00		1		1	1	SOUTH STH 67, SEE PLAN SHEET
0010	10	S. RIVER DRIVE	R1-1	30" X 30"	5.18		1		1	1	
0010	11	N. OF S. RIVER RD	I55-56	30" X 36"	7.50		1		1	1	
0010	12	"	R2-1	24" X 30"	5.00		1		1	1	45 MPH
0010	13	"	I2-3	60" X 24"	10.00			2	1	2	PLYMOUTH, SEE SIGN DETAIL
0010	14	"	R2-1	24" X 30"	5.00						25 MPH, MOUNT BELOW SIGN #25, PART OF REMOVAL FOR SIGN #13
CATEGORY 0010 TOTALS					**80.54**	**9.00**	**14**	**2**	**13**	**16**	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

REMOVING SMALL PIPE CULVERTS

LOCATION	ITEM NO. 203.0100 EACH
S. HILL DRIVE	1
112+08, LT	1
114+43, LT	1
TOTAL	**3**

AGGREGATE QUANTITIES

LOCATION	ITEM NO. 305.0110 BASE AGGREGATE DENSE 3/4-INCH TONS	ITEM NO. 305.0125 BASE AGGREGATE DENSE 1 1/4-INCH TONS
SHAPING SHOULDERS	15	---
SOUTH HILLS DRIVE	---	90
DRIVEWAY	---	25
SHOULDER PAVING AT GUARDRAIL	---	15
TOTAL	**15**	**130**

REMOVING ASPHALTIC SURFACE MILLING, ITEM NO. 204.0120

LOCATION	DEPTH	SY
106+67 - 112+00	3.5-INCH	2250
112+00 - 118+00	3.5-INCH	2430
118+00 - 124+00	3.5-INCH	2600
124+00 - 127+77	3.5-INCH	1640
TOTAL		**8920**

SHAPING SHOULDERS, ITEM NO. 305.0500

LOCATION	STA
106+67 - 112+00	10.5
112+00 - 118+00	12
118+00 - 124+00	12
124+00 - 127+77	7.5
TOTAL	**42**

CURB AND GUTTER QUANTITIES

LOCATION	DESCRIPTION	ITEM. NO. 204.0150 REMOVING CURB AND GUTTER LF	ITEM NO. 601.0409 CONCRETE CURB AND GUTTER 30-INCH TYPE A LF	ITEM NO. 650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF
SOUTH HILLS DRIVE	SW RADIUS	53	53	53
SOUTH HILLS DRIVE	NW RADIUS	37	37	37
TOTAL		**90**	**90**	**90**

ASPHALT QUANTITIES

LOCATION	ITEM NO. 455.0605 TACK COAT (0.06 GAL/SY) GAL	ITEM NO. 455.0105 ASPHALTIC MATERIAL PG58-28 TONS	ITEM NO. 460.1101 HMA PAVEMENT E-1.0 TONS	ITEM NO. 460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF	ITEM NO. 465.0120 ASPHALTIC SURFACE FIELD ENTRANCES AND DRIVEWAYS TONS
106+67 - 112+00	170	30	543	533	12
112+00 - 118+00	150	25	460	600	26
118+00 - 124+00	160	27	485	600	25
124+00 - 127+77	105	16	295	377	35
TOTAL	**585**	**98**	**1783**	**2110**	**98**

CULVERT PIPE AND ENDWALL SUMMARY

PIPE NUMBER	FROM	TO	ITEM NO. 522.0336 CUVLERT PIPE REINFORCED CONCRETE CLASS IV 36-INCH L.F.	ITEM NO. 521.1536 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 36-INCH 6 TO 1 EACH	INVERT ELEVATION	DISCHARGE ELEVATION	PIPE SLOPE %
P(1)	EW	EW	**40**	2	834.25	832.49	4.41%
P(2)	EW	EW	**38**	2	823.08	821.59	3.94%
TOTALS			**78**	**4**			

STORM SEWER PIPE AND ENDWALL SUMMARY

PIPE NUMBER	FROM	TO	ITEM NO. 608.0412 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH L.F.	ITEM NO. 608.0436 STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 36-INCH L.F.	ITEM NO. 521.1536 APRON ENDWALLS FOR CULVERT PIPE SLOPED SIDE DRAINS STEEL 36-INCH 6 TO 1 EACH	INVERT ELEVATION	DISCHARGE ELEVATION	PIPE SLOPE %
P(3)	EW	MH 1	---	51	1	845.49	842.40	6.04%
P(4)	MH 1	MH 2	---	67	---	842.40	841.80	0.90%
P(5)	MH 2	EW	---	56	1	841.80	839.94	3,35%
P(6)	INL 1	MH 1	17	---	---	844.00	842.40	0.95%
TOTALS			**17**	**174**	**2**			

DRAINAGE STRUCTURES

STRUCTURE NUMBER	STATION	OFFSET	STRUCTURE	TYPE	COVER TYPE	RIM OR RIM/FLANGE ELEVATION	STRUCTURE INVERT ELEVATION	DEPTH	REMARKS
INL 1	109+32.27	50.44 LT	INLET	2 X 3	H	847.77	844.00	4.6	2' SUMP
MH 1	109+30.37	31.07 LT	MH	5-FT DIA.	J	847.96	842.40	4.17	
MH 2	109+67.63	31.89 LT	MH	5-FT DIA.	H	846.03	841.80	3.06	

DEPTH OF STRUCTURE IS GUTTER FLANGE OR RIM ELEVATION MINUS THE DEPTH OF FRAME AND RINGS MINUS THE FLOWLINE ELEVATION.
DEPTH OF STRUCTURE FOR ALL INLETS INCLUDES 2' FOR SUMP.

DEPTH FOR FRAME AND RINGS FOR:
- TYPE J = 1.39' (INCLUDES 0.64' FOR ADJUSTING RINGS.)
- INLET COVERS TYPE H = 1.17' (INCLUDES 0.67' FOR FLAT TOP SLAB.)

DRAINAGE STRUCTURE SUMMARY TABLE

ITEM NO.	DESCRIPTION	EACH
611.3230	INLETS 2 X 3	1
611.2005	MANHOLES 5-FT DIAMETER	2
611.0530	MANHOLE COVERS TYPE J	1
611.0624	INLET COVERS TYPE H	2

MGS GUARDRAIL QUANTITIES

LOCATION	ITEM NO. 614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	ITEM NO. 614.2300 MGS GUARDRAIL 3 LF	ITEM NO. 614.2610 MGS GUARDRAIL TERMINAL EAT EACH	ITEM NO. 614.0920 SALVAGE RAIL LF
113+89 - 118+20, RT	2	325	2	430
114+83 - 119+77, LT	2	387.5	2	495
120+22 - 121+97, LT	2	69	2	175
TOTAL	**6**	**781.5**	**6**	**1100**

TEMPORARY EROSION CONTROL

LOCATION	ITEM NO. 628.1504 SILT FENCE L.F.	ITEM NO. 628.1520 SILT FENCE MAINTENANCE L.F.	ITEM NO. 628.2004 EROSION MAT CLASS I TYPE B S.Y.	ITEM NO 628.7005 INLET PROTECTION TYPE A EACH	ITEM NO. 628.7015 INLET PROTECTION TYPE C EACH	ITEM NO. 628.7504 TEMPORARY DITCH CHECK L.F.	ITEM NO. 628.7555 CULVERT PIPE CHECKS EACH
PROJECT	760	760	650	3	1	36	30
TOTALS	**760**	**760**	**650**	**3**	**1**	**36**	**30**

TRAFFIC CONTROL

LOCATION	APPROX. SERVICE DAYS	643.0300 DRUMS NO. IN SERVICE	643.0300 DRUMS DAYS	643.0715 WARNING LIGHTS TYPE C NO. IN SERVICE	643.0715 WARNING LIGHTS TYPE C DAYS	643.0900 SIGNS NO. IN SERVICE	643.0900 SIGNS DAYS
STAGE 1							
MAINLINE ADVANCED WARNING	20	---	---	---	---	8	160
SIDEROAD ADVANCED WARNING	20	---	---	---	---	8	160
UNDISTRIBUTED	20	40	800	15	300	5	100
STAGE 1 SUBTOTAL			800		300		420

PAVEMENT MARKING EPOXY 4-INCH, ITEM NO. 646.0106

LOCATION		L.F.	DESCRIPTION
106+67 - 112+00	CL	1066	DOUBLE YELLOW CENTERLINE
106+67 - 112+00	LT	458	WHITE EDGELINE
106+67 - 112+00	RT	458	WHITE EDGELINE
112+00 - 118+00	CL	1200	DOUBLE YELLOW CENTERLINE
112+00 - 118+00	LT	600	WHITE EDGELINE
112+00 - 118+00	RT	600	WHITE EDGELINE
118+00 - 124+00	CL	1200	DOUBLE YELLOW CENTERLINE
118+00 - 124+00	LT	600	WHITE EDGELINE
118+00 - 124+00	RT	480	WHITE EDGELINE
124+00 - 127+77	CL	756	DOUBLE YELLOW CENTERLINE
124+00 - 127+77	LT	377	WHITE EDGELINE
124+00 - 127+77	RT	377	WHITE EDGELINE
TOTAL		**8172**	

CONSTRUCTION STAKING

LOCATION	ITEM NO. 650.4000 STORM SEWER EACH	ITEM NO. 650.6000 PIPE CULVERTS EACH	ITEM NO. 650.8000 RESURFACING REFERENCE LINE LF
106+67 - 112+00	3	2	533
112+00 - 118+00			600
118+00 - 124+00			600
124+00 - 127+77			377
TOTAL	**3**	**2**	**2110**

SAWING

LOCATION	ITEM NO. 690.0150 SAWING ASPHALT L.F.	ITEM NO. 690.0250 SAWING CONCRETE L.F.
S HILLS DRIVE	210	5
EVERGREEN DRIVE	38	---
111+28, RT	15	---
112+08, LT	29	---
114+43, LT	45	---
120+00, LT	30	---
120+12, RT	30	---
122+16, LT	40	---
S RIVER DRIVE	86	---
124+76, RT	36	---
125+27, LT	32	---
127+63, LT	12	---
127+77	35	---
TOTALS	**638**	**5**

TRANSPORTATION PROJECT PLAT NO: 4550-06-21-4.01

PART OF UNPLATTED LANDS IN THE SOUTHEAST 1/4 OF THE SOUTHEAST 1/4 OF SECTION 28, AND PART OF LOT 1, OF CSM VOL. 17. PGS. 55-57 WITHIN AND INCLUDING UNPLATTED LANDS IN THE NORTHEAST 1/4 OF THE NORTHEAST 1/4 OF SECTION 33, AND PART OF UNPLATTED LANDS IN THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 27, WITHIN THE TOWN OF PLYMOUTH; PART OF LOT 1, OF BILGO'S SCENIC SUBDIVISION, VOL. 12 OF PLATS PG. 81 WITHIN AND INCLUDING UNPLATTED LANDS IN THE SOUTHWEST 1/4 OF THE SOUTHWEST 1/4 OF SECTION 27, AND PART OF LOT 1 OF CSM VOL. 12, PGS. 148-50, AND PART OF LOT 1, OF CSM VOL. 12, PGS. 61-63 WITHIN THE NORTHWEST 1/4 OF THE NORTHWEST 1/4 OF SECTION 34, WITHIN THE CITY OF PLYMOUTH; ALL LOCATED IN T15N-R21E, SHEBOYGAN COUNTY, WISCONSIN.

RELOCATION ORDER STH 67 SHEBOYGAN COUNTY
CITY OF PLYMOUTH, STH 67

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.

CONVENTIONAL ABBREVIATIONS AND SYMBOLS

ACCESS POINT	AP	SECTION CORNER	
ACCESS RIGHTS	AR	(MATERIAL AS NOTED)	
ACRES	AC	SET R/W MONUMENT W/CAP	
CHORD BEARING	CH BRG	(1-¼" OUTSIDE DIA.x18"	○
CHORD DISTANCE	CH DIS	IRON PIPE 1.13 LBS/FT)	
DEED	(D)	SET P.K. NAIL	△
DOCUMENT	DOC		
EAST BOUND	EB	PROPOSED R/W	PRW000
GAS VALVE	GV	BOUNDARY POINT	
INLET	IL		
LENGTH OF CURVE	L	CORPORATE LIMITS	
MANHOLE	MH	EXISTING R/W	
MONUMENT	MON	SECTION LINE	
NORTH BOUND	NB	QUARTER LINE	
PAGE	PG	SIXTEENTH LINE	
PERMANENT	PERM	PROPOSED OR NEW R/W LINE	
PERMANENT LIMITED EASEMENT	PLE	PROPOSED EASEMENT LINE	
PRIVATE DRIVEWAY	PD		
PROPERTY LINE	PL	PARCEL NUMBER	00
RADIUS	RAD		
REFERENCE LINE	℄		
REMAINING	REM	UTILITY NUMBER	100
RIGHT OF WAY	R/W		
SECTION	SEC		
SECTION LINE	S	SIGN NUMBER	3-1
FOUND IRON PIPE	IP		
STATION	STA		
TEMPORARY LIMITED EASEMENT	TLE	PROPERTY LINE	PL
TIE POINT	DB1	LOT, TIE AND OTHER MINOR DASHED LINES	
VOLUME	VOL	ACCESS RESTRICTED (By Previous Project Control)	
ADJOINING LANDS WITH SAME OWNER		ACCESS RESTRICTED (By Acquisition)	
PARALLEL TO LINE	.00'	NO ACCESS (By Statutory Authority)	
BUILDING TO BE RAZED		LIMITED EASEMENT (Temporary)	
FEE ACQUISITION	VARIOUS HATCHING	LIMITED EASEMENT (Permanent)	
BEGIN POINT	BP		
END POINT	EP		

CONVENTIONAL UTILITY SYMBOLS

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

RESERVE FOR CLAUSES AND NOTE INFORMATION

RIGHT OF WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS AND ARE REFERENCED TO THE US PUBLIC LAND SURVEY OR OTHER SURVEYS OF PUBLIC RECORD.

RIGHT OF WAY MONUMENTS ARE TYPE 2 AND WILL BE PLACED PRIOR TO OR AT THE TIME OF LAND TITLE TRANSFER.

AREAS SHOWN IN THE TOTAL ACRES COLUMN OF THE SCHEDULE OF LANDS & INTEREST TABLE MAY BE APPROXIMATE AND ARE DERIVED FROM TAX ROLLS OR OTHER AVAILABLE SOURCES AND MAY NOT INCLUDE LANDS OF THE OWNER WHICH ARE NOT CONTIGUOUS TO THE AREA TO BE ACQUIRED.

COORDINATES AS SHOWN ARE NOT INTENDED TO BE USED FOR RETRACEMENT PURPOSES AND MUST BE VERIFIED WITH THE COUNTY SURVEY DEPARTMENT.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COUNTY COORDINATES, SHEBOYGAN COUNTY, NAD 83 (1991) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

PROPERTY LINES 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 AND SHOULD NOT BE USED AS A SUBSTITUTE FOR AN ACCURATE FIELD SURVEY.

EXISTING RIGHT OF WAY WAS ACQUIRED FROM PROJECT(S): SAP2094, 4532-01-21, CSMs, SUBDIVISION PLATS, MISC. SURVEYS & OTHER DOCUMENTS

EXISTING ACCESS CONTROL WAS ACQUIRED UNDER PROJECT(S)/DOC.#: LOT 1 OF BILGO'S SCENIC SUBDIVISION

RIGHT OF WAY REFERENCE LINE MAY NOT BE THE SAME AS THE CONSTRUCTION REFERENCE LINE.

A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL. ALL TLEs ON THIS PLAT EXPIRE AT THE COMPLETION OF THE CONSTRUCTION PROJECT FOR WHICH THIS INSTRUMENT IS GIVEN.

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM NECESSARY OR DESIRABLE TO PREVENT EROSION OF THE SOIL, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHT TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

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

FEE SIMPLE TO ALL THOSE EXISTING LANDS OF THE GRANTOR CURRENTLY USED FOR HIGHWAY PURPOSES, DESIGNATED AS EXISTING RIGHT OF WAY, WHETHER ACQUIRED BY SEPARATE CONVEYANCE OR OTHERWISE, BOUND BY THE TRAVERSE OF THE COURSE TABLE OF NEW RIGHT OF WAY AS SHOWN ON THE SAID TRANSPORTATION PROJECT PLAT.

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

JON L. HERBEL	Jon L. Herbel	04/23/2014
PRINTED NAME	SIGNATURE	DATE

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

CURT VAN EREM	Curt Van Erem	04/23/2014
PRINTED NAME	SIGNATURE	DATE

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER	INTEREST REQUIRED	FEE ACRES	T.L.E. ACRES	P.L.E. ACRES	EXISTING ACRES
1	S.M.S.R, LLC	FEE & TLE	0.244	0.085	-	-
2	LINDA E. NOWICKI	FEE & TLE	0.226	0.035	-	-
3	MASTER GALLERY FOODS, INC.	FEE & TLE	0.291	0.052	-	-
4	PLYMOUTH JOINT SCHOOL DISTRICT	FEE	0.497	-	-	-
5	THOMAS J. STROBEL	TLE	-	0.014	-	-
6	MICHAEL J. FISCHER	TLE & PLE	-	0.024	0.032	-
7	MILLER & BOELDT, INC.	FEE & TLE	0.402	0.061	-	-
8	MICHEAL A. & KRISTI L. BACHAR	TLE	-	0.024	-	-
9	ROBERT A. SCHRANK	TLE	-	0.021	-	-

POINT	STATION	OFFSET	COORDINATE
TLE "A"			
TLE27	308+09.59	79.85'	Y 169303.989 X 148126.596
TLE26	308+09.59	47.89'	Y 169304.053 X 148094.643
TLE28	308+96.72	79.85'	Y 169391.115 X 148126.770
TLE29	308+96.72	60.98'	Y 169391.152 X 148107.904
TLE "B"			
TLE30	309+24.10	-61.57'	Y 169418.775 X 147985.411
TLE31	309+24.10	-83.10'	Y 169418.818 X 147963.879
TLE33	309+97.36	-62.66'	Y 169492.038 X 147984.464
TLE32	309+97.36	-83.10'	Y 169492.079 X 147964.025
TLE "C"			
TLE35	309+90.15	81.00'	Y 169484.542 X 148128.110
TLE34	309+90.15	62.03'	Y 169484.579 X 148109.142
TLE36	310+99.19	81.00'	Y 169593.585 X 148128.328
TLE37	310+99.19	63.26'	Y 169593.621 X 148110.586
TLE "D"			
TLE39	311+91.04	92.18'	Y 169685.405 X 148139.690
TLE38	311+91.04	64.30'	Y 169685.461 X 148111.803
TLE40	312+73.38	92.18'	Y 169767.745 X 148139.855
TLE41	312+73.38	65.22'	Y 169767.799 X 148112.894
TLE "E"			
TLE42	316+35.66	200.03'	Y 170129.806 X 148248.417
TLE44	316+50.42	83.89'	Y 170144.806 X 148132.315
TLE43	316+50.66	200.00'	Y 170144.806 X 148248.417
TLE "F"			
TLE45	318+75.76	-59.77'	Y 170370.429 X 147989.103
TLE46	318+75.76	-91.36'	Y 170370.496 X 147957.511
TLE48	319+67.22	-64.92'	Y 170461.899 X 147984.131
TLE47	319+67.22	-91.35'	Y 170461.955 X 147957.704
TLE "G"			
TLE50	319+09.33	57.50'	Y 170403.763 X 148106.443
TLE49	319+09.33	47.01'	Y 170403.786 X 148095.947
TLE51	320+27.31	57.52'	Y 170521.748 X 148106.693
TLE52	320+27.35	47.01'	Y 170521.809 X 148096.186
TLE "H"			
TLE54	320+48.68	57.89'	Y 170543.115 X 148107.108
TLE53	320+48.71	47.01'	Y 170543.163 X 148096.229
TLE55	321+14.68	57.90'	Y 170609.115 X 148107.247
TLE56	321+14.71	47.01'	Y 170609.163 X 148096.363

SCHEDULE OF UTILITIES & INTERESTS REQUIRED

UTILITY NUMBER	OWNER	INTEREST REQUIRED
100	FRONTIER COMMUNICATIONS	RELEASE OF RIGHTS
101	PLYMOUTH UTILITY-COMMUNICATION	RELEASE OF RIGHTS
102	PLYMOUTH UTILITY-ELECTRIC	RELEASE OF RIGHTS
103	PLYMOUTH UTILITY-SEWER	RELEASE OF RIGHTS
104	TIME WARNER CABLE	RELEASE OF RIGHTS
105	WISCONSIN PUBLIC SERVICE-GAS	RELEASE OF RIGHTS

SCHEDULE OF SIGNS

SIGN NUMBER	OWNER
3-1	CITY OF PLYMOUTH

SEC269 RR SPIKE Y=170100.689 X=145402.568

SEC59 Y=172731.738 X=148053.604

SEC58 1" IP Y=170099.570 X=148048.329

SEC222 PK NAIL Y=170109.877 X=150689.453

SEC60 PK NAIL Y=167459.807 X=148043.085

GRAPHIC SCALE, FEET (0, 100, 200)

POINT	STATION	OFFSET	COORDINATE
DB14	307+95.99	0.00'	Y 169290.540 X 148046.722
PRW15	307+96.98	-40.00'	Y 169291.612 X 148006.724
PRW12	308+02.83	33.00'	Y 169297.316 X 148079.735
DB13	308+03.06	0.00'	Y 169297.612 X 148046.736
PRW11	308+15.12	60.06'	Y 169309.558 X 148106.823
PRW16	308+18.16	-59.98'	Y 169312.829 X 147986.781
PRW17	312+26.95	-66.08'	Y 169721.615 X 147981.495
PRW10	313+03.04	65.56'	Y 169797.465 X 148113.287
PRW18	315+00.71	-107.56'	Y 169995.475 X 147940.558
PRW9	315+20.31	95.84'	Y 170014.669 X 148144.002
PRW8	315+50.47	125.85'	Y 170044.768 X 148174.073
PRW7	315+53.36	239.65'	Y 170047.434 X 148287.872
PRW19	315+71.62	-256.80'	Y 170066.679 X 147791.463
SEC58	316+05.02	0.00'	Y 170099.570 X 148048.329
DB57	316+05.55	90.15'	Y 170099.922 X 148138.477
DB6	316+06.43	239.33'	Y 170100.504 X 148287.665
PRW20	316+37.70	-204.47'	Y 170132.656 X 147845.925
PLE5	316+39.73	89.95'	Y 170134.101 X 148138.344
PRW21	316+51.77	-133.82'	Y 170146.593 X 147914.599
PLE4	316+95.84	58.19'	Y 170190.278 X 148106.703
PRW22	317+27.45	-57.94'	Y 170222.113 X 147990.634
PLE3	318+38.28	47.01'	Y 170332.738 X 148095.805
DB2	318+38.30	0.00'	Y 170332.850 X 148048.797
PRW23	318+51.24	-58.39'	Y 170345.904 X 147990.436
PRW24	320+12.25	-67.46'	Y 170506.940 X 147981.683
DB1	321+47.32	0.00'	Y 170641.869 X 148049.416
PRW25	321+47.32	-63.80'	Y 170641.997 X 147985.620

COURSE TABLE

POINT TO POINT		BEARING	DISTANCE
SEC58	DB6	N89° 46' 35"E	239.34'
DB6	PRW7	S00° 13' 25"E	53.07'
PRW7	PRW8	S88° 39' 29"W	113.83'
PRW8	PRW9	S44° 58' 25"W	42.55'
PRW9	PRW10	S08° 02' 56"W	219.36'
PRW10	PRW11	S00° 45' 32"W	487.95'
PRW11	PRW12	S65° 40' 51"W	29.73'
PRW12	DB13	N89° 29' 10"W	33.00'
DB13	DB14	S00° 06' 50"W	7.07'
DB14	PRW15	N88° 27' 56"W	40.01'
PRW15	PRW16	N43° 13' 33"W	29.12'
PRW16	PRW17	N00° 44' 27"W	408.82'
PRW17	PRW18	N08° 30' 06"W	276.90'
PRW18	PRW19	N64° 28' 20"W	165.23'
PRW19	PRW20	N38° 29' 24"E	84.29'
PRW20	PRW21	N78° 50' 41"E	72.04'
PRW21	PRW22	N45° 11' 40"E	107.17'
PRW22	PRW23	N00° 05' 30"W	123.79'
PRW23	PRW24	N03° 06' 40"W	161.27'
PRW24	PRW25	N01° 40' 11"E	135.11'
PRW25	DB1	S89° 53' 07"E	63.80'
DB1	SEC58	S00° 06' 53"W	542.30'

POINT TO POINT		BEARING	DISTANCE
PLE "A"			
SEC58	DB2	N00° 06' 53"E	233.28'
DB2	PLE3	S89° 51' 49"E	47.01'
PLE3	PLE4	S04° 22' 28"E	142.88'
PLE4	PLE5	S29° 23' 22"E	64.47'
PLE5	DB57	S00° 13' 25"E	34.18'
DB57	SEC58	S89° 46' 35"W	90.15'

R/W REFERENCE LINE COURSE TABLE

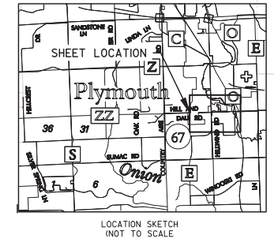
STATION	NORTHING	EASTING	DIRECTION	DISTANCE
BP=300+00.00	168494.555	148045.141		
			N00° 06' 50"E	1,605.02'
PI=316+05.02	170099.570	148048.329		
			N00° 06' 53"E	1,316.09'
EP=329+21.10	171415.654	148050.966		

1985381
SHEBOYGAN COUNTY WI
RECORDED ON
04/28/2014 10:52 AM
ELLEN R. SCHLEICHER
REGISTER OF DEEDS
PLAT FEE: 25.00
Cashier ID: 9
Vol.: 1Page(s): 138

RESERVE FOR REGISTER OF DEEDS
PROJECT NUMBER 4550-06-21 - 4.01
AMENDMENT NUMBER:_

SW 1/4 - SW 1/4
SE 1/4 - SE 1/4
NE 1/4 - NE 1/4
NW 1/4 - NW 1/4

SW 1/4 - SW 1/4 OF SEC. 27, AND NW 1/4 - NW 1/4 OF SEC. 34, CITY OF PLYMOUTH; SE 1/4 - SE 1/4 OF SEC. 28, SW 1/4 - SW 1/4 OF SECTION 27, AND NE 1/4 - NE 1/4 OF SEC. 33, TOWN OF PLYMOUTH; ALL IN T15N-R21E, SHEBOYGAN COUNTY, WISCONSIN.

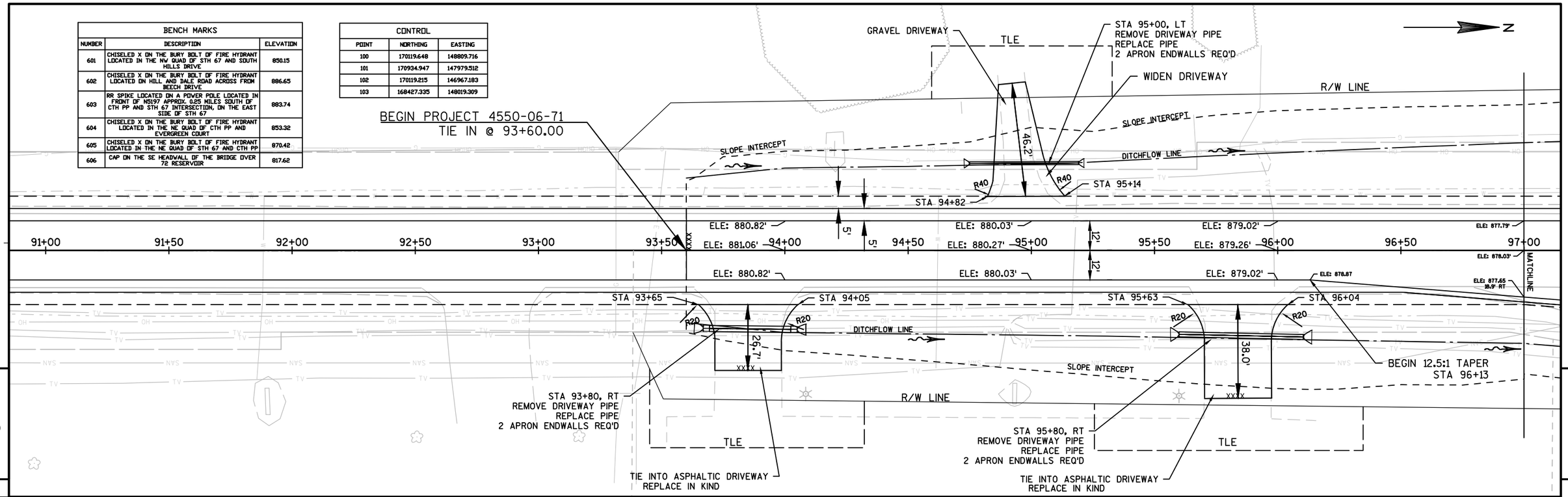


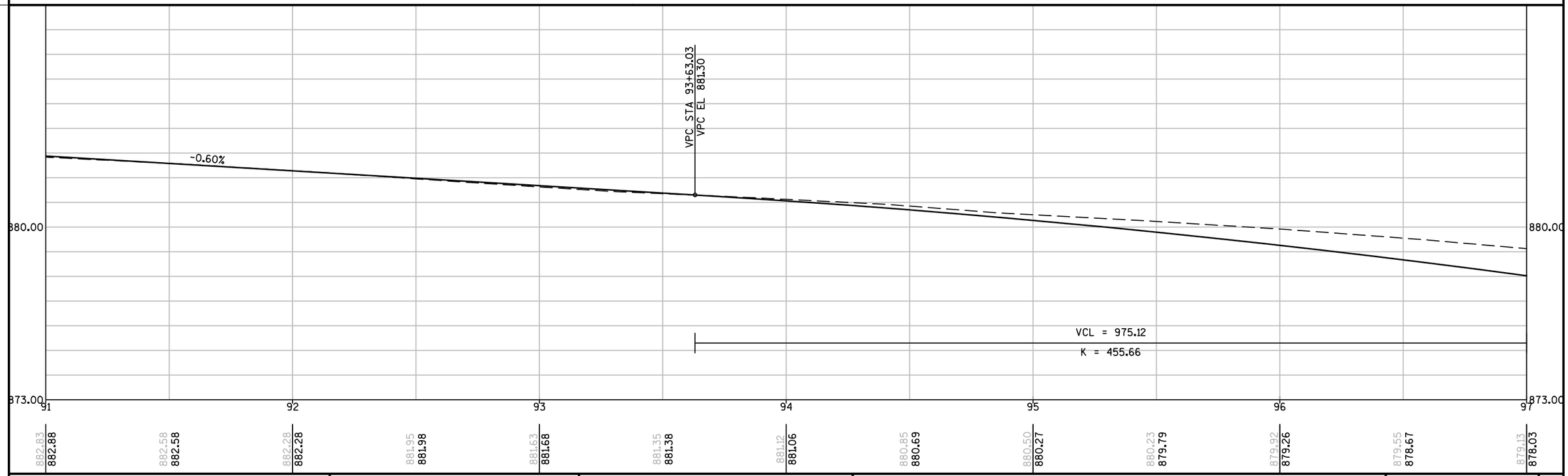
LOCATION SKETCH (NOT TO SCALE)

C:\WisDOT\rw\45500621\RW\DWG\040401_RW.dwg, 4/24/2014 3:35:03 PM, 1:100

BENCH MARKS		
NUMBER	DESCRIPTION	ELEVATION
601	CHISELED X ON THE BURY BOLT OF FIRE HYDRANT LOCATED IN THE NW QUAD OF STH 67 AND SOUTH HILLS DRIVE	850.15
602	CHISELED X ON THE BURY BOLT OF FIRE HYDRANT LOCATED ON HILL AND DALE ROAD ACROSS FROM BEECH DRIVE	886.65
603	RR SPIKE LOCATED ON A POWER POLE LOCATED IN FRONT OF N5197 APPROX. 0.25 MILES SOUTH OF CTH PP AND STH 67 INTERSECTION, ON THE EAST SIDE OF STH 67	883.74
604	CHISELED X ON THE BURY BOLT OF FIRE HYDRANT LOCATED IN THE NE QUAD OF CTH PP AND EVERGREEN COURT	853.32
605	CHISELED X ON THE BURY BOLT OF FIRE HYDRANT LOCATED IN THE NE QUAD OF STH 67 AND CTH PP	870.42
606	CAP ON THE SE HEADWALL OF THE BRIDGE OVER 72 RESERVOIR	817.62

CONTROL		
POINT	NORTHING	EASTING
100	170119.648	148809.716
101	170934.947	147979.512
102	170119.215	146967.183
103	168427.335	148019.309





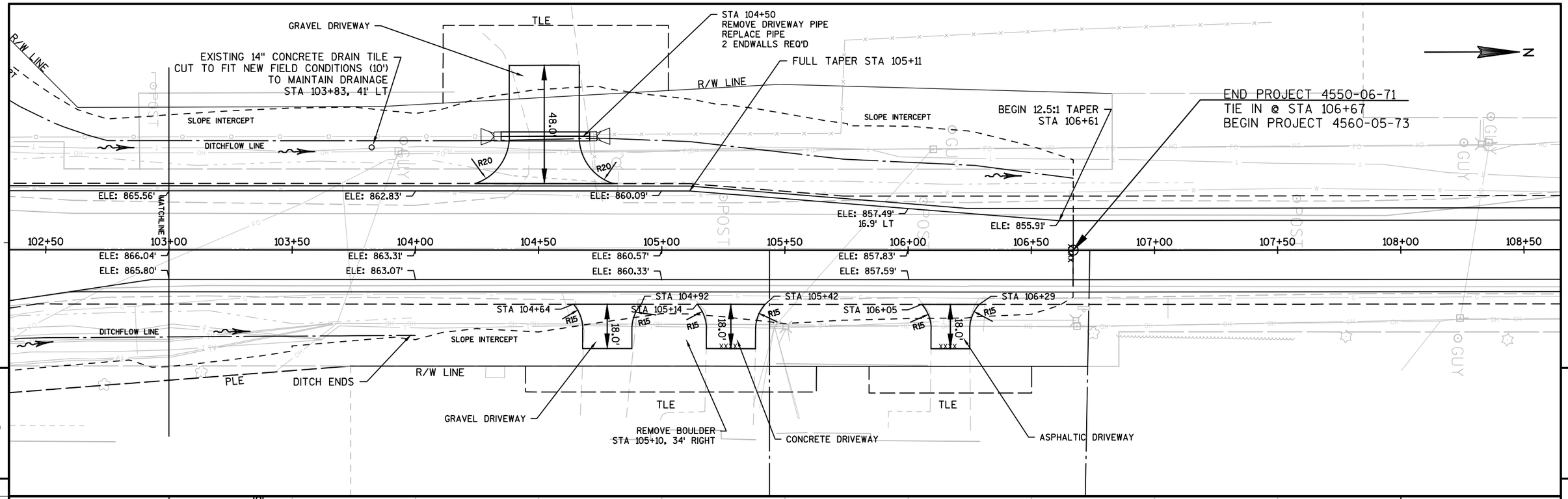
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	PLAN AND PROFILE: STH 67	SHEET 47	E

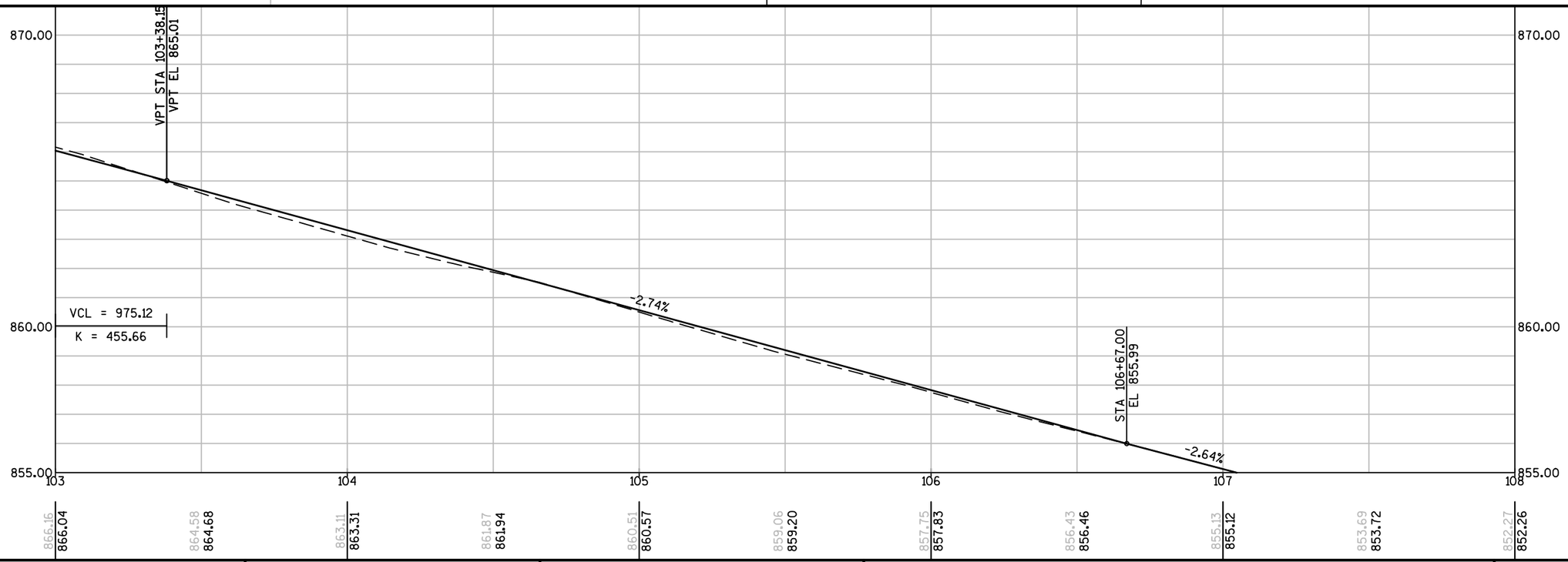
R/W LINE
SLOPE INTERCEPT
DITCHFLOW LINE
NEW CULVERT
STA 101+05.20
71.6' LT
SKEW
9.15 DEG
STA 102+03.86
55.9' LT
36.3' LT
ASPH
ELE: 876.34'
ELE: 876.58'
ELE: 874.67'
ELE: 874.91'
ELE: 872.74
14.31' LT
ELE: 873.02'
97+00
97+50
98+00
98+50
99+00
99+50
100+00
100+50
101+00
101+50
102+00
102+50
103+00
MATCHLINE
ELE: 880.03'
STA 97+31
ELE: 876.66'
ELE: 876.10'
STA 98+09
ELE: 874.43'
ELE: 872.54'
R30
FULL TAPER
STA 97+63
53.0'
38.7' RT
STA 99+75
24" CLASS IV CPRC REQ'D
2 APRON ENDWALLS REQ'D
TYPE B1 INTERSECTION
SEE S.D.D. 9A 1-13a
STA 97+70
SALVAGE 24" CPRC
REMOVE 82.5' AND REPLACE 60.8'
2 APRON ENDWALLS REQ'D
TLE
ASPHALTIC DRIVEWAY
REMOVE TREE
STA 102+00, 75' RT
PLE
N
9+50
10+00
10+50
11+

VPI STA 98+50.59
VPI EL 878.371
VCL = 975.12
K = 455.66
STA 99+75
24" CLASS IV CPRC
STARTING INVERT ELEVATION: 866.879'
ENDING INVERT ELEVATION: 866.104'
880.00
870.00
865.00
97
98
99
100
101
102
103
879.13 878.03
878.68 877.33
878.09 876.58
877.34 875.77
876.46 874.91
875.45 873.99
874.30 873.02
872.91 871.99
871.49 870.91
870.15 869.78
868.80 868.58
867.50 867.34
866.46 866.04

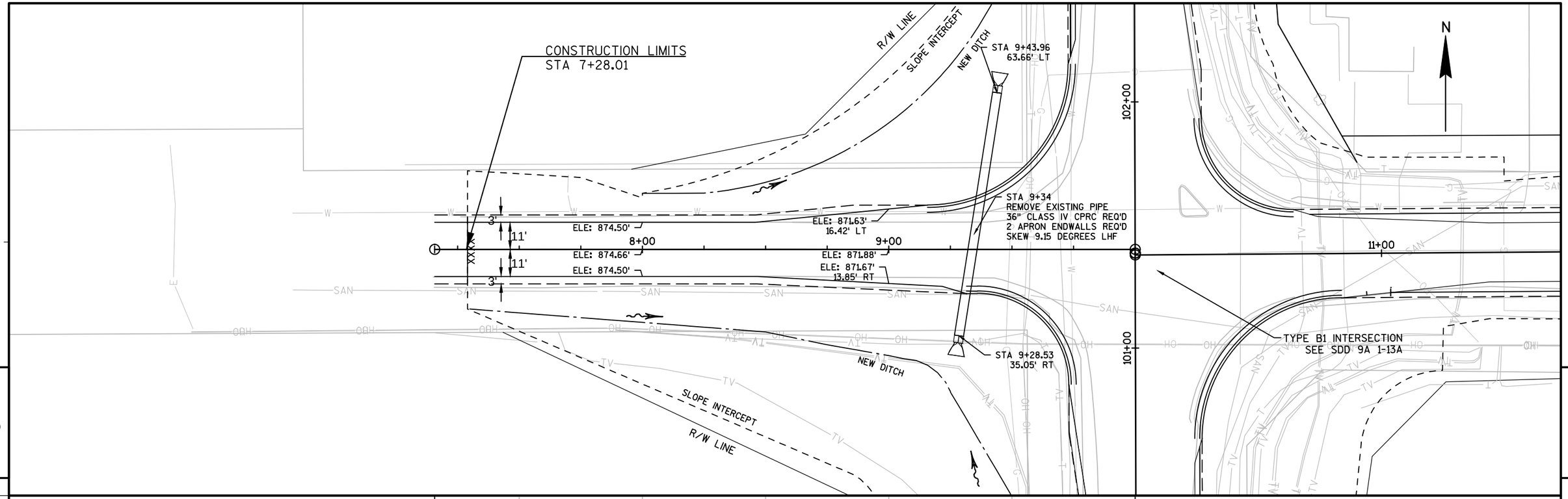
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	PLAN AND PROFILE: STH 67	SHEET	E

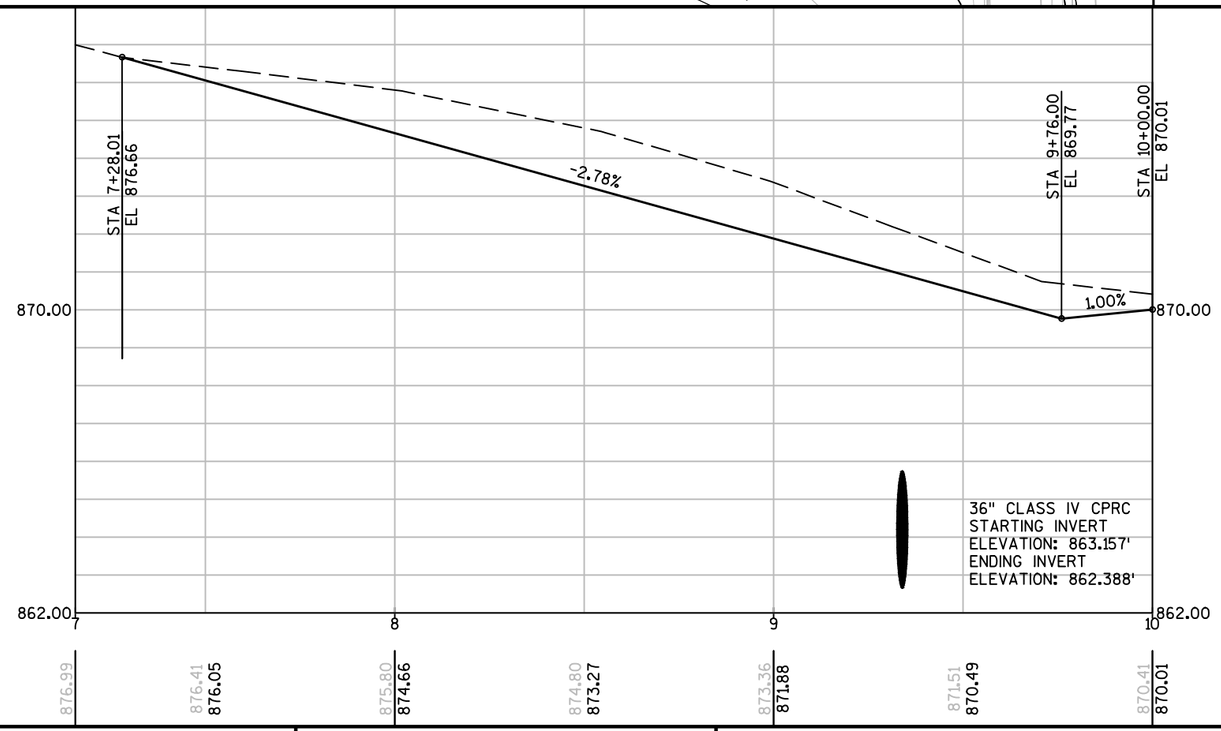
FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\050201_STH67.DWG PLOT DATE : 9/2/2014 7:21 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1:40_XREF



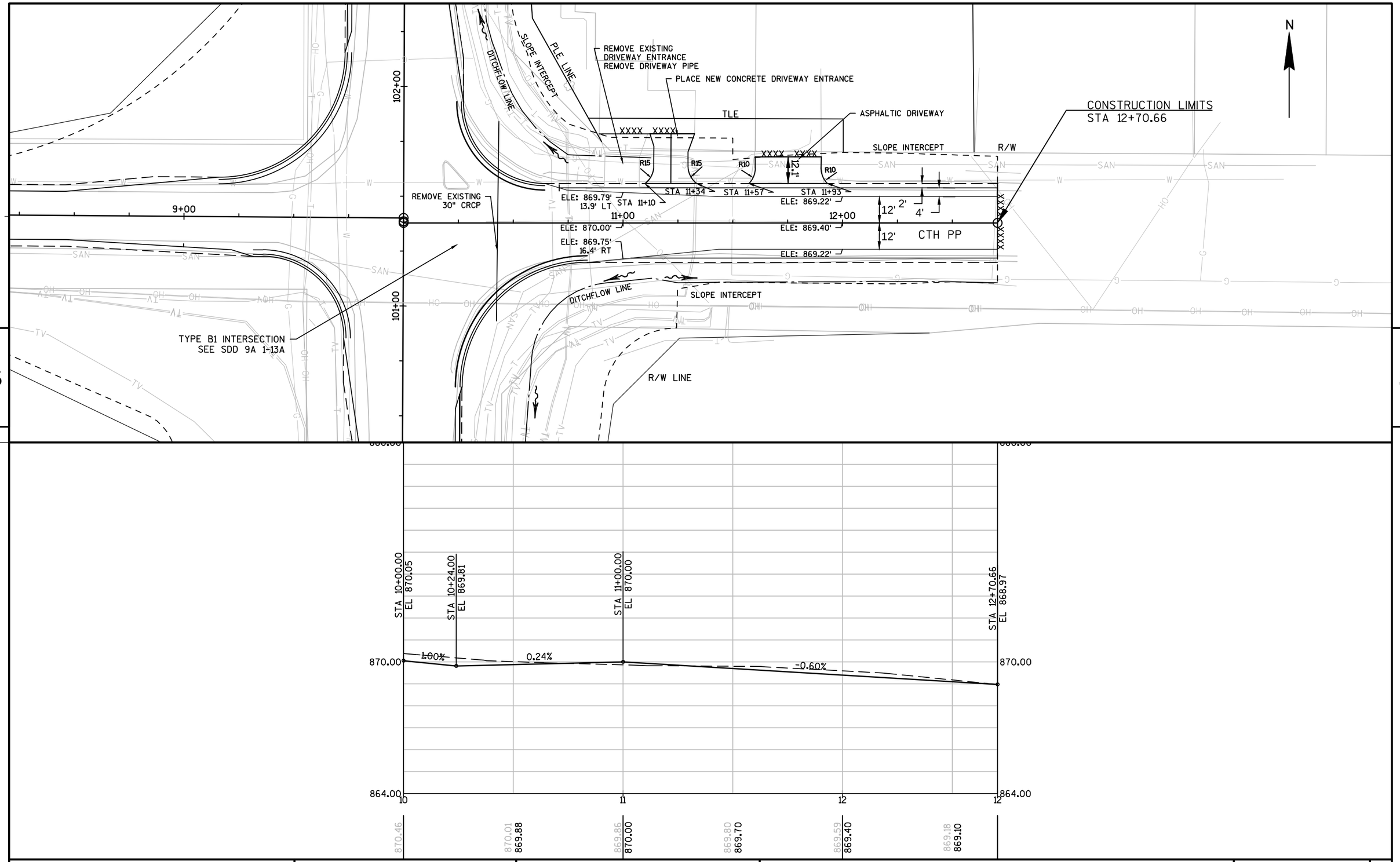


PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	PLAN AND PROFILE: STH 67	SHEET 49	E



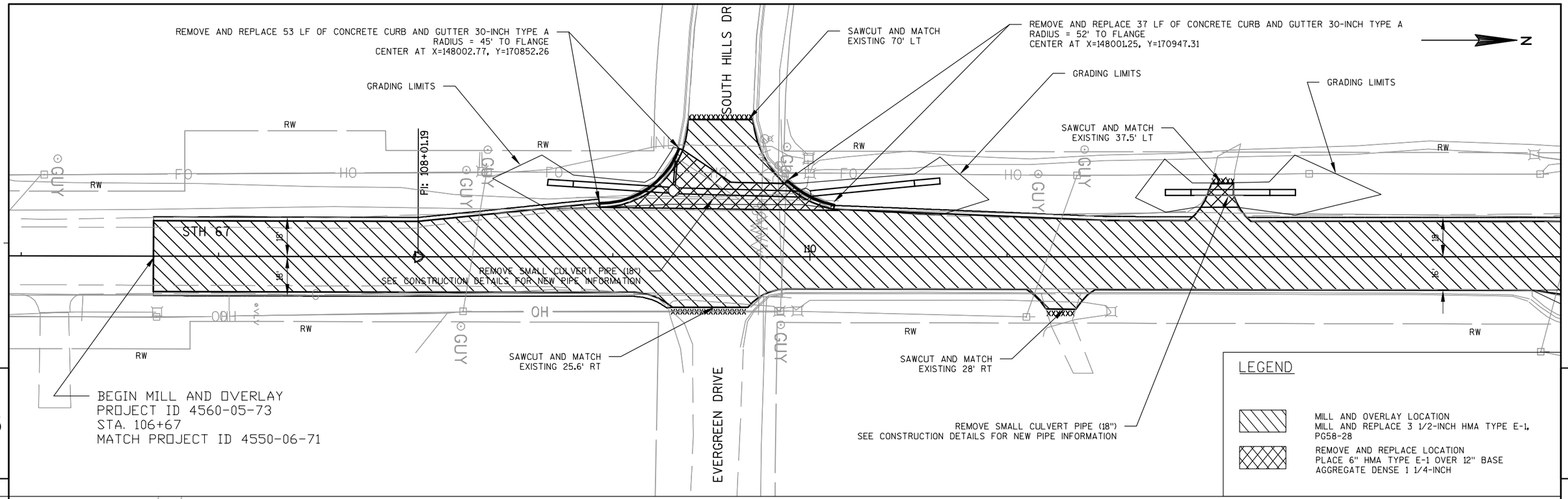


PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	PLAN AND PROFILE: HILL AND DALE RD	SHEET 50	E



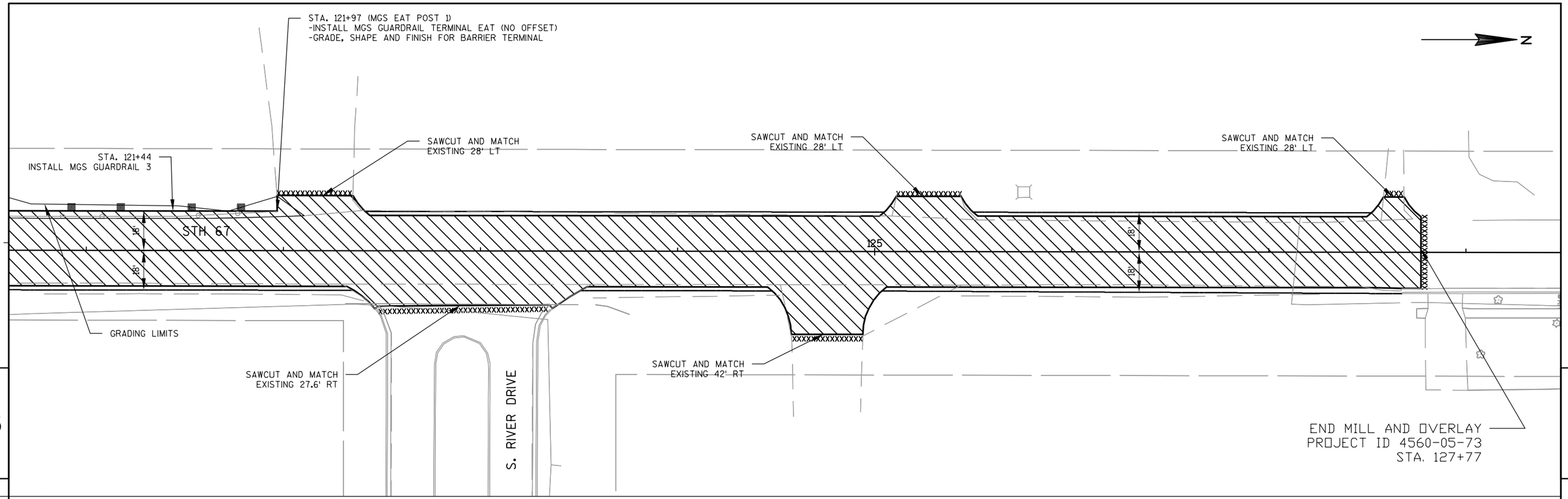
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	PLAN AND PROFILE: CTH PP	SHEET 51	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\J_050201_CTHPP_PLANPROF.DWG PLOT DATE : 9/2/2014 7:52 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 40'_XREF



PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	PLAN	SHEET	E

FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\050101_PP.DWG PLOT DATE : 8/5/2014 12:29 PM PLOT BY : MOYER, TIM PLOT NAME : ---------- PLOT SCALE : 1" = 50'_XREF



LEGEND

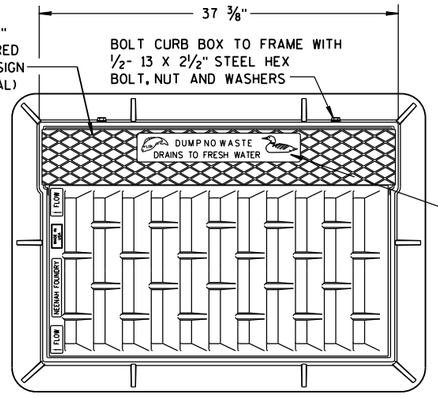
MILL AND OVERLAY LOCATION
MILL AND REPLACE 3 1/2-INCH HMA TYPE E-1,
PG58-28

PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	PLAN	SHEET 53	E

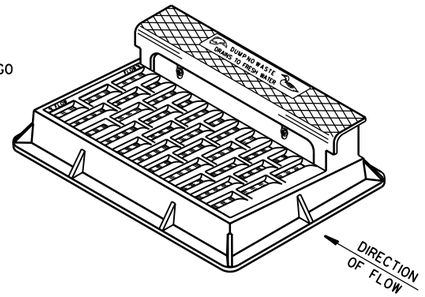
FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\050101_PP.DWG PLOT DATE : 8/5/2014 12:29 PM PLOT BY : MOYER, TIM PLOT NAME : ---------- PLOT SCALE : 1" = 50'_XREF

Standard Detail Drawing List

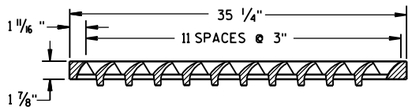
08A05-19A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-19D	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08B09-01	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT AND 8-FT DIAMETER
08B10-01	MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT
08C07-01	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-17	CONCRETE CURB, CONCRETE CURB AND GUTTER AND TIES
08D04-05	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
08F07-05	STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE FRAINS
09A01-13A	AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND D AND TEE INTERSECTION BYPASS LANE
14B42-03A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-03C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B43-03A	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-03B	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B43-03C	MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
14B44-02A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-02C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-05A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-05C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-02	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-02	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C08-16B	PAVEMENT MARKING (INTERSECTIONS)
15C12-04	TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)
15C19-02A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15D28-02	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

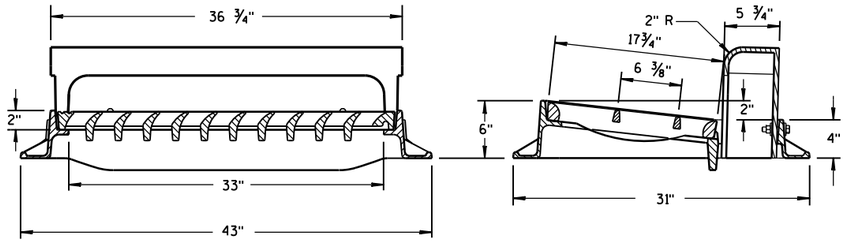


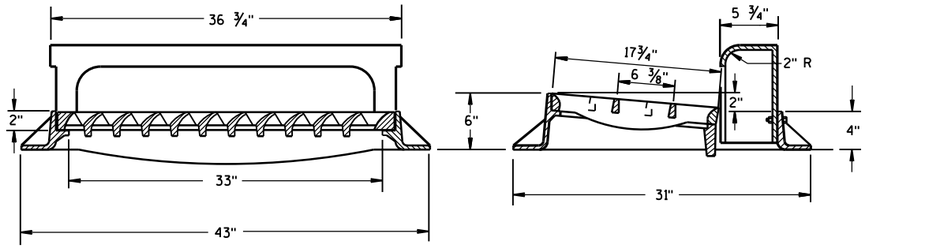
NOTE:
GRATE IS REVERSIBLE.



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" TO 9"

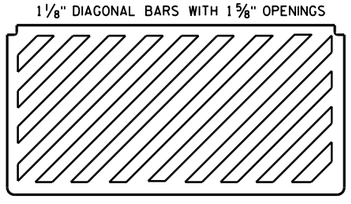






TYPE "H"

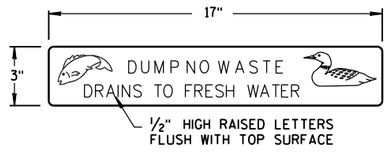
NOTE: EITHER CASTING IS ACCEPTABLE



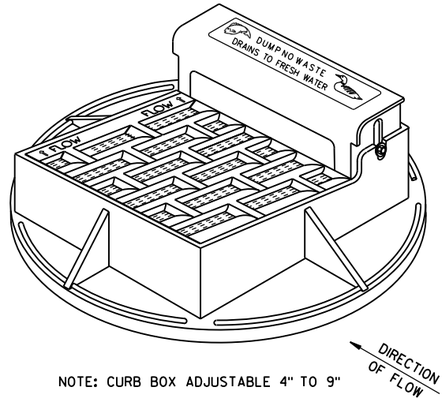
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35 1/4" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

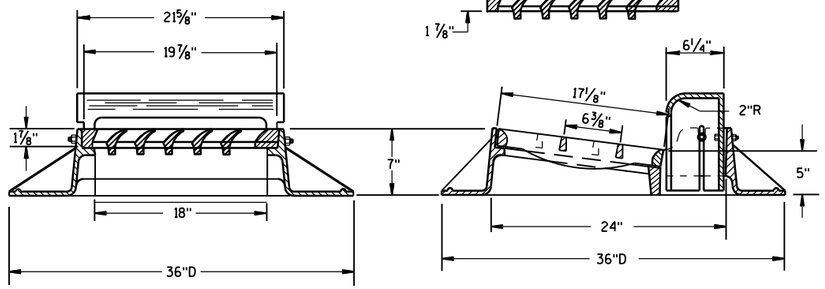


LOGO DETAIL



NOTE: CURB BOX ADJUSTABLE 4" TO 9"

NOTE:
GRATE IS REVERSIBLE.



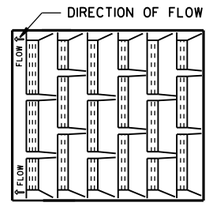
TYPE "A"

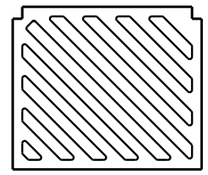
GENERAL NOTES

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.

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.

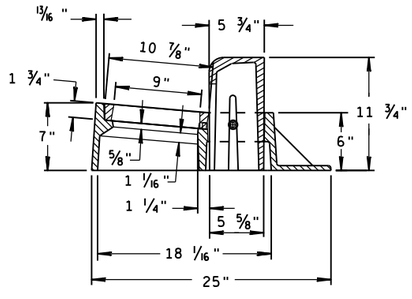


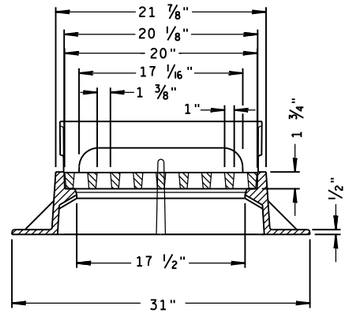


SPECIAL GRATE FOR TYPE "A" COVER

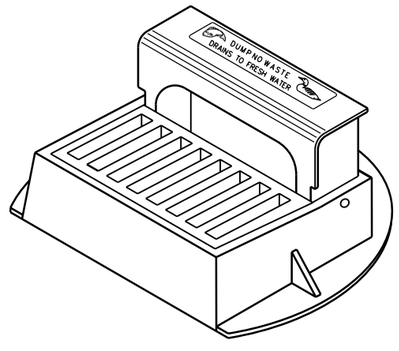
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)





TYPE "Z"



INLET COVERS TYPE A, H, A-S, H-S & Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11-27-13 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

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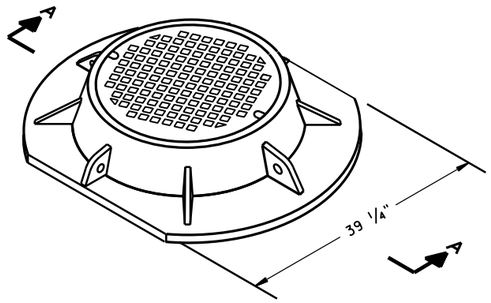
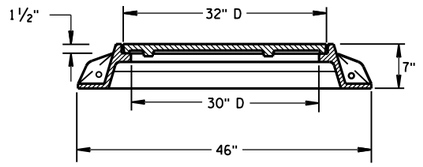
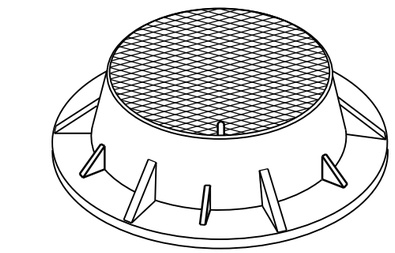
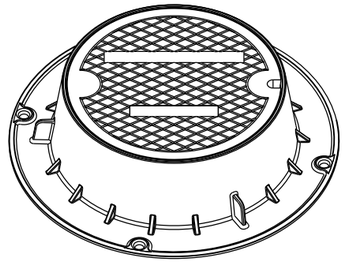
S.D.D. 8 A 5-19a

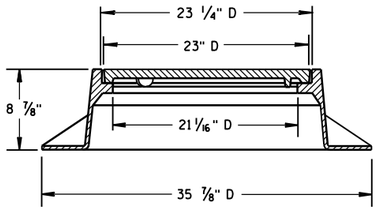


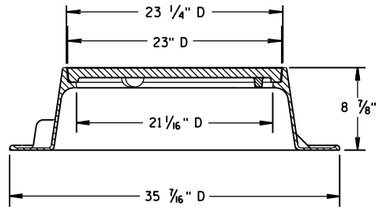


SECTION A-A
TYPE "K"









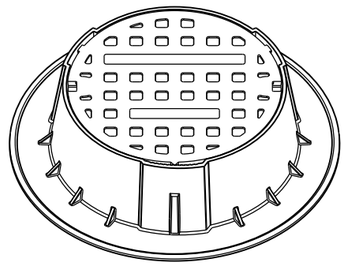
TYPE "J"
NOTE: EITHER CASTING IS ACCEPTABLE

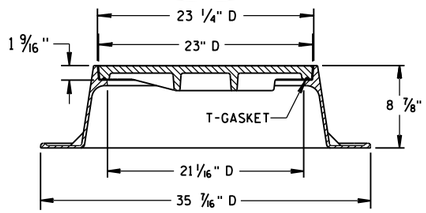
GENERAL NOTES

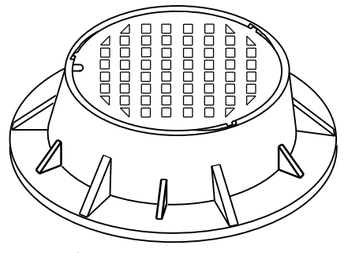
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

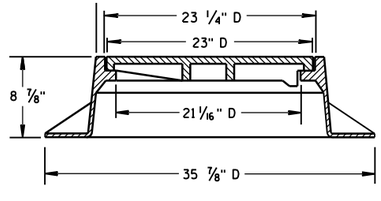
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR MANHOLE COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

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

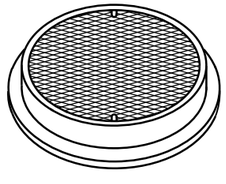


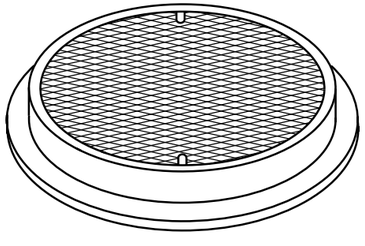


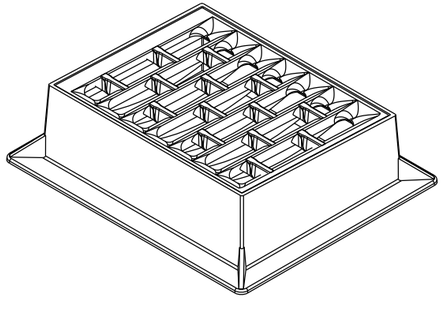


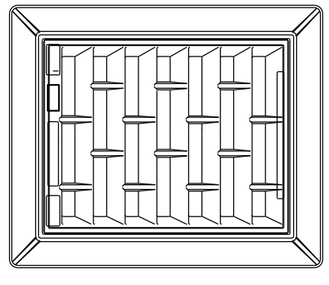


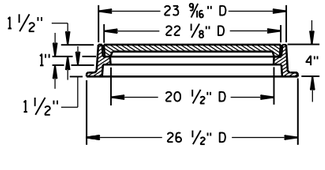
TYPE "J" SPECIAL
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)
NOTE: EITHER CASTING IS ACCEPTABLE



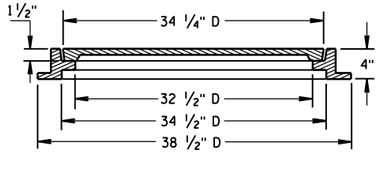




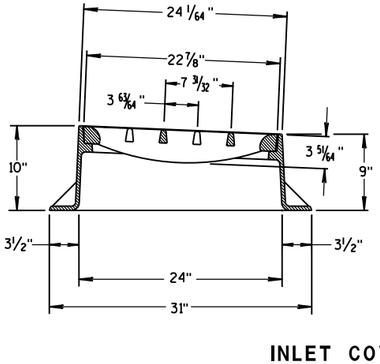


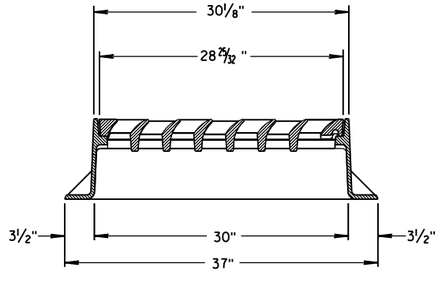


TYPE "L"



TYPE "M"





INLET COVER TYPE "BW"

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/27/2013
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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S.D.D. 8 A 5-19d

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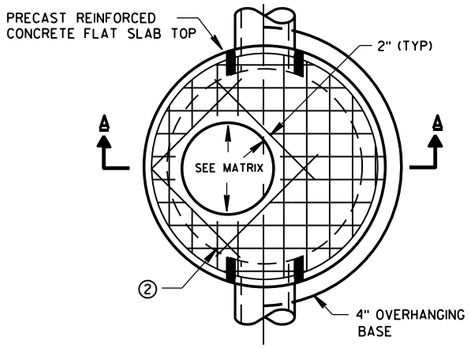
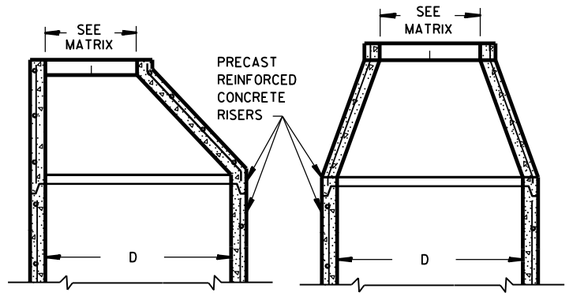
S.D.D. 8 A 5-19d

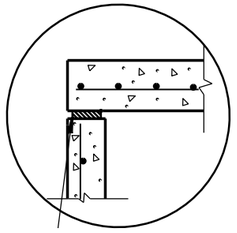


PLAN VIEW CIRCULAR OPENING

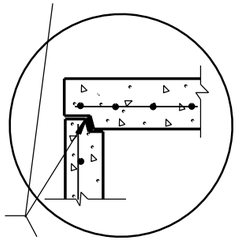


OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP

OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

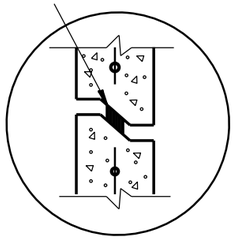


TOP WITH PLAIN END JOINT



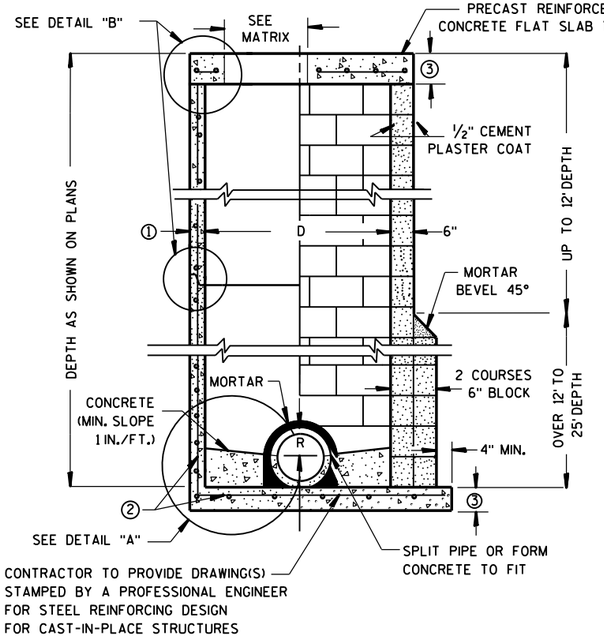
JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C990 (TYP)

TOP WITH TONGUE AND GROOVE JOINT



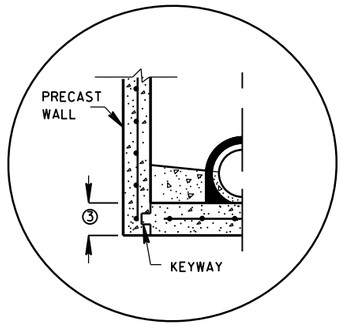
RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"

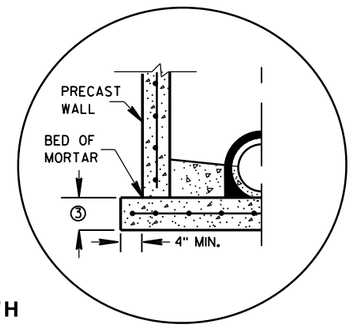


PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

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

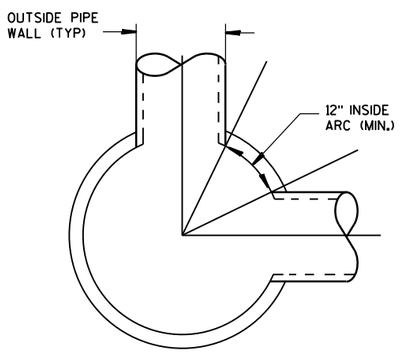


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION



SEPARATE 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 SEPARATE 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

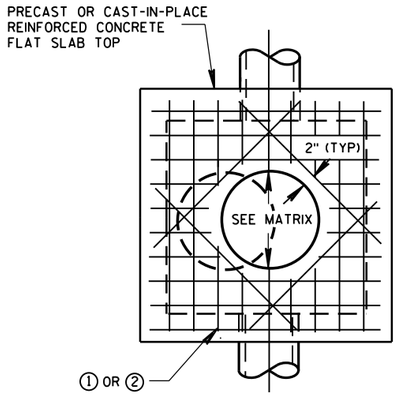
MANHOLE SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	36
7-FT	48	36
8-FT	60	42

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

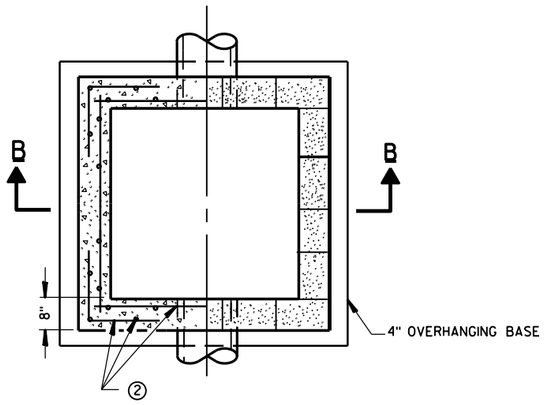
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

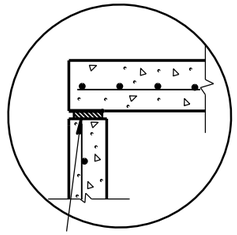
6
S.D.D. 8 B 9-1



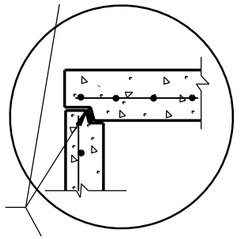
PLAN VIEW
CIRCULAR OPENING



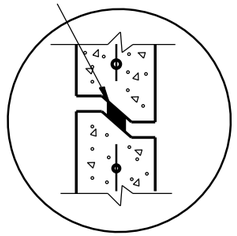
SECTION A-A
PLAN VIEW



TOP WITH PLAIN END JOINT

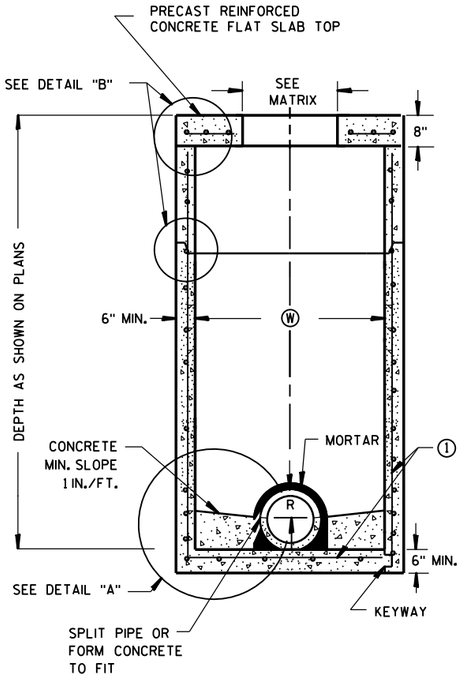


TOP WITH TONGUE AND GROOVE JOINT

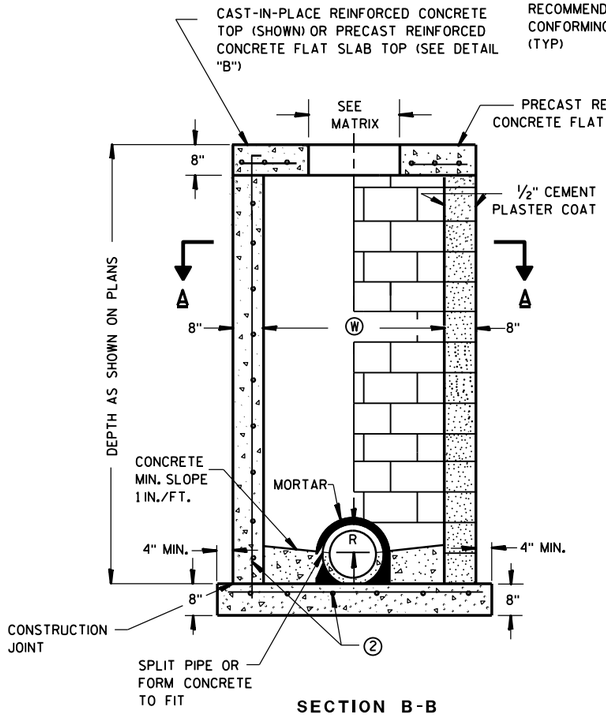


RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B"



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

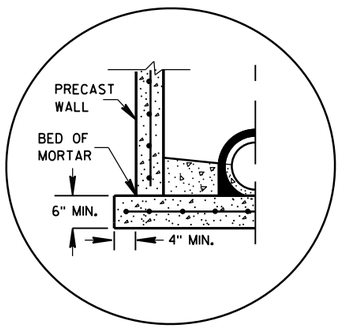


SECTION B-B

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

CAST-IN-PLACE REINFORCED CONCRETE

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



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "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.

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 FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES. THE TOPS SHALL BE INSTALLED ON A BED OF MORTAR.

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 INCH 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 WIDTH.

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 ASTM C 913.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

① FOR PRECAST MANHOLES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

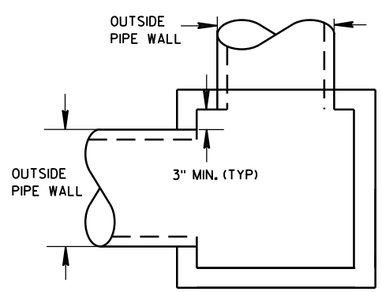
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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	
	WIDTH (W) (IN)	LENGTH (L) (IN)
3X3-FT	24	24
4X4-FT	30	30
5X5-FT	42	42
6X6-FT	54	54



DETAIL "C"

SQUARE MANHOLES W/ FLAT TOP

MANHOLES 3X3-FT, 4X4-FT, 5X5-FT AND 6X6-FT

MANHOLES 3X3-FT, 4X4-FT 5X5-FT AND 6X6-FT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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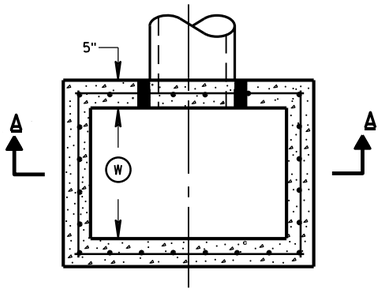
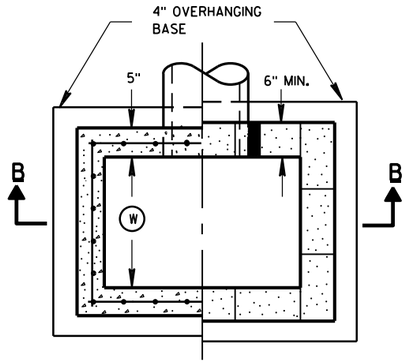
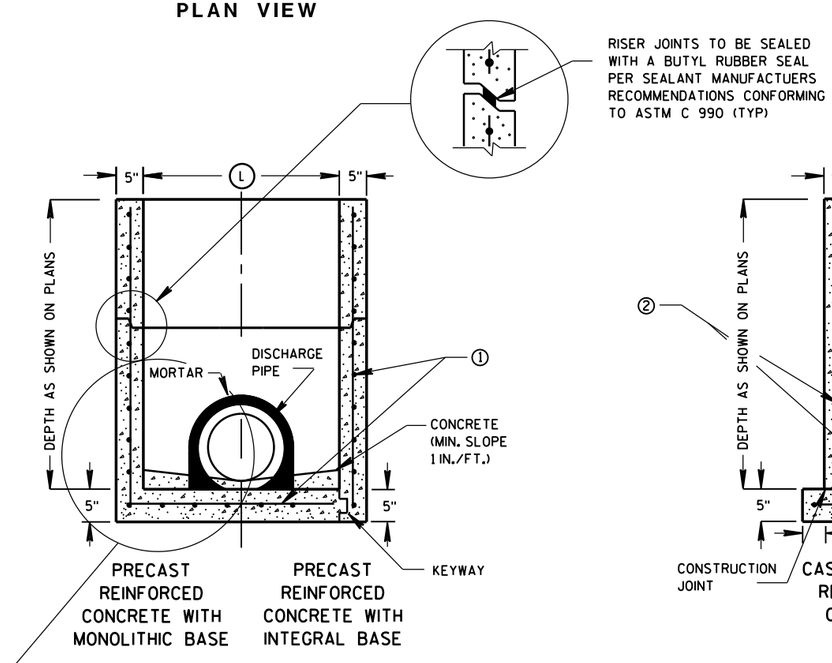


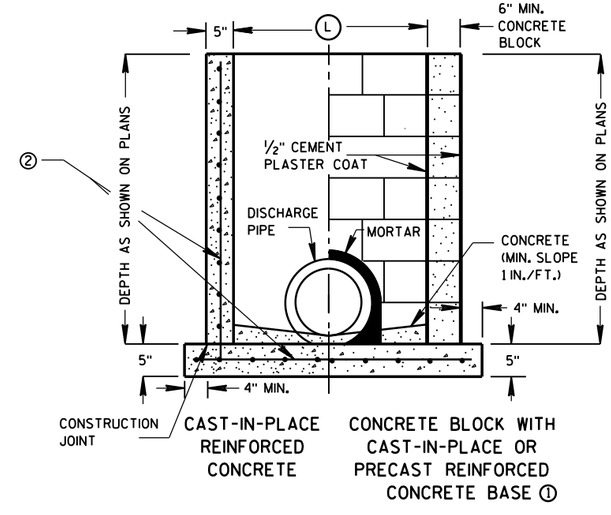
PLAN VIEW



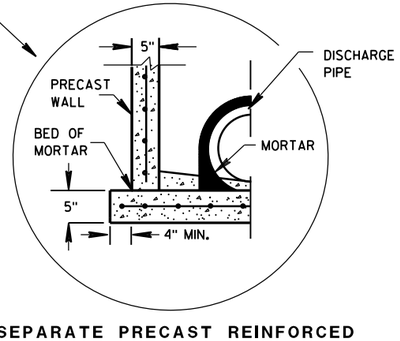
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE 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.

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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.

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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 SEPARATE 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.

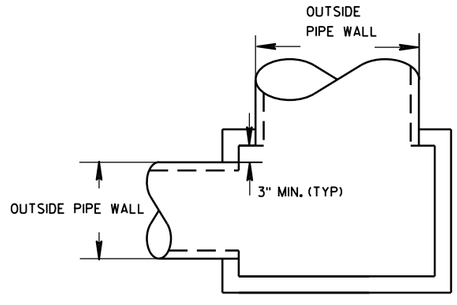
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

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

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6/5/2012
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DE ENGINEER
FHWA

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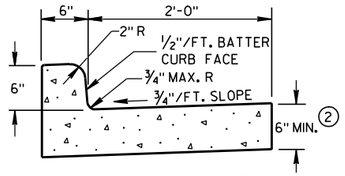
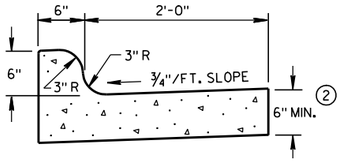
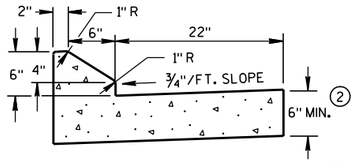


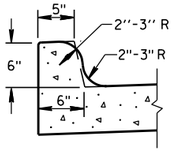
TYPES A & D (1)



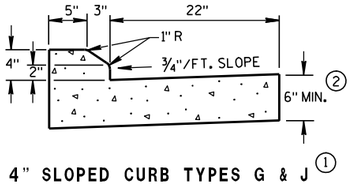
TYPES K & L (1)



6" SLOPED CURB TYPES G & J (1)

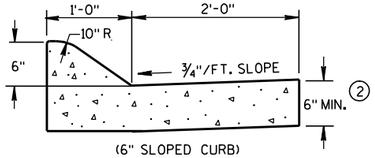


OPTIONAL CURB SHAPE FOR TYPES K & L (1)

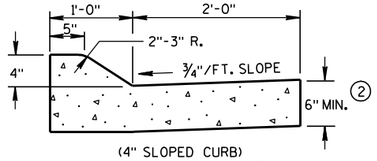


4" SLOPED CURB TYPES G & J (1)

CONCRETE CURB & GUTTER 30"

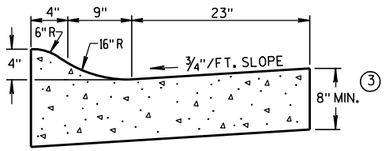


(6" SLOPED CURB)



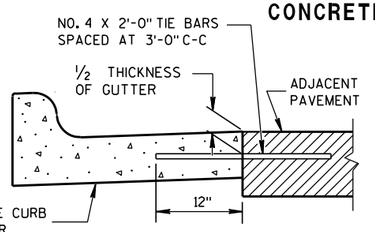
(4" SLOPED CURB)

TYPES A & D (1)

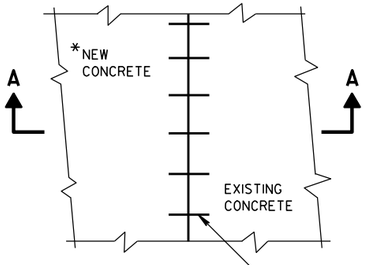


4" SLOPED CURB TYPES R & T (1) (4)

CONCRETE CURB & GUTTER 36"

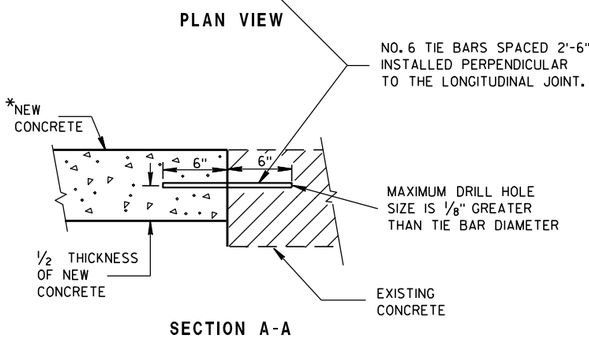


TYPICAL TIE BAR LOCATION (1)



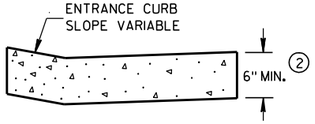
PLAN VIEW

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



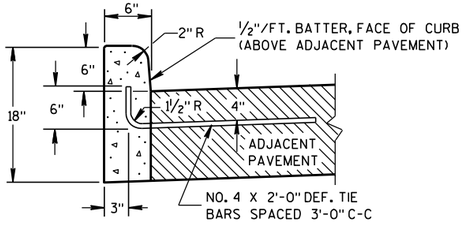
SECTION A-A

TIE BARS DRILLED INTO EXISTING PAVEMENT



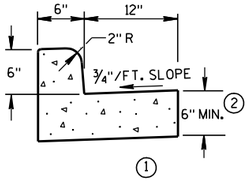
DRIVEWAY ENTRANCE CURB

(WHEN DIRECTED BY THE ENGINEER)



(1)

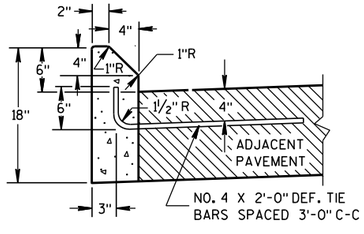
TYPES A & D



(1)

TYPES A & D

CONCRETE CURB & GUTTER 18"



(1)

TYPES G & J

CONCRETE CURB

(5)

REVERSE SLOPE GUTTER

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

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

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

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

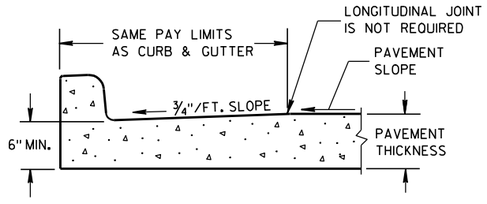
(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTER TYPES A, G, K AND R.

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

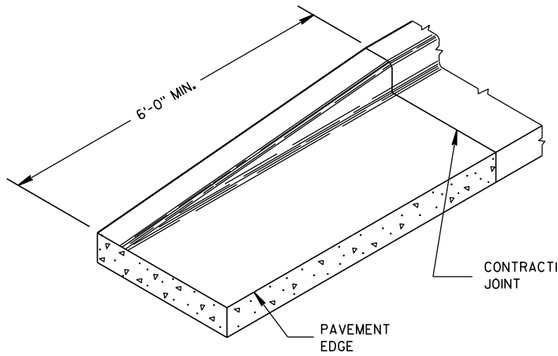
(3) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

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

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB & GUTTER



END SECTION CURB & GUTTER

CONCRETE CURB, CONCRETE CURB & GUTTER AND TIES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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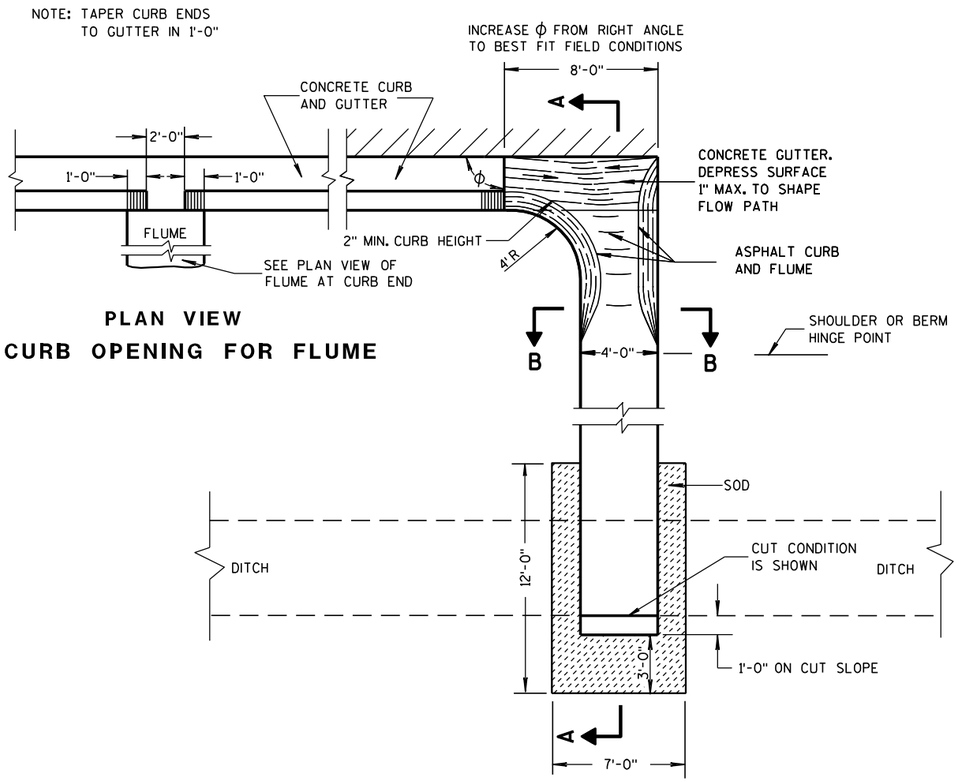
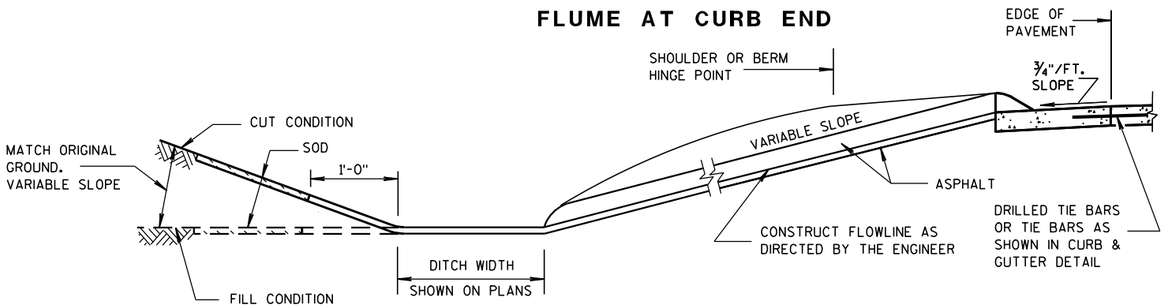
ASPHALTIC FLUME

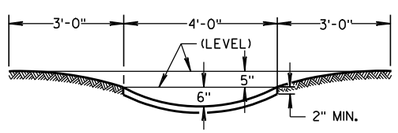


PLAN VIEW
CURB OPENING FOR FLUME

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.

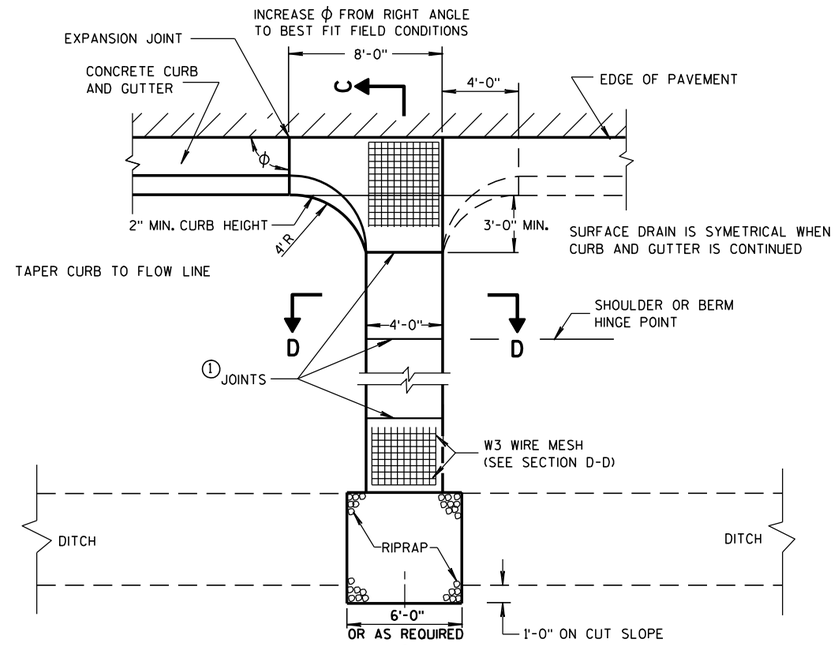
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

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.

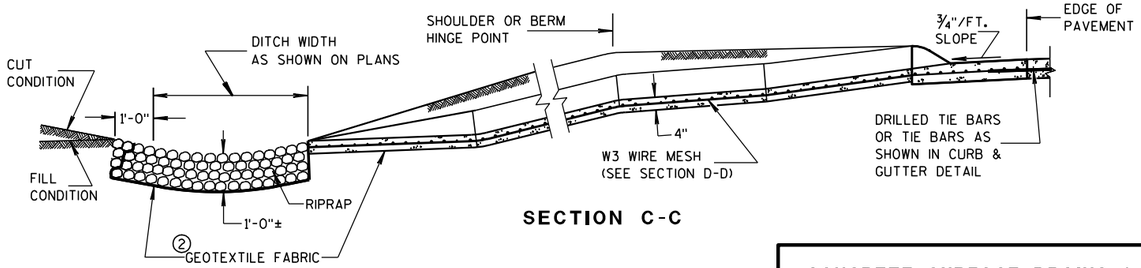
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

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

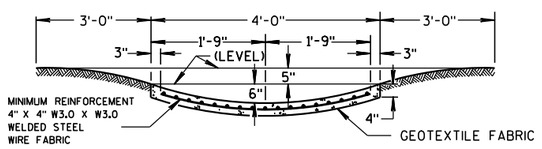
③ CONCRETE SURFACE DRAIN



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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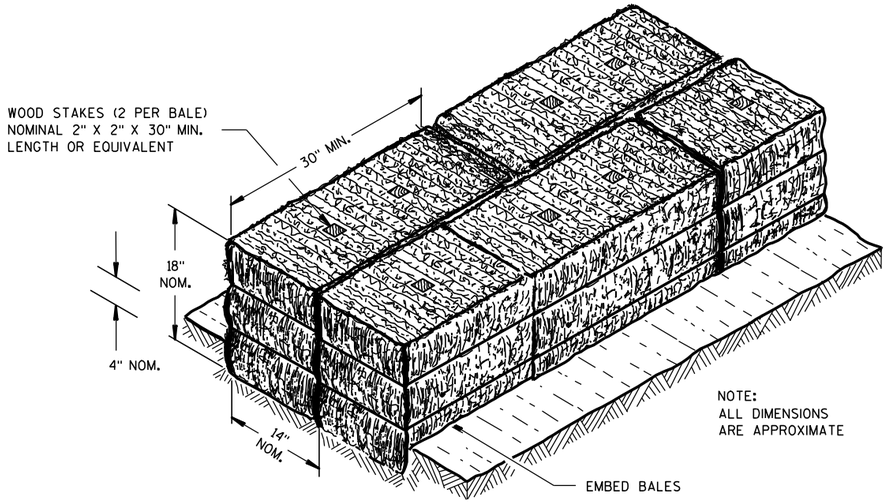
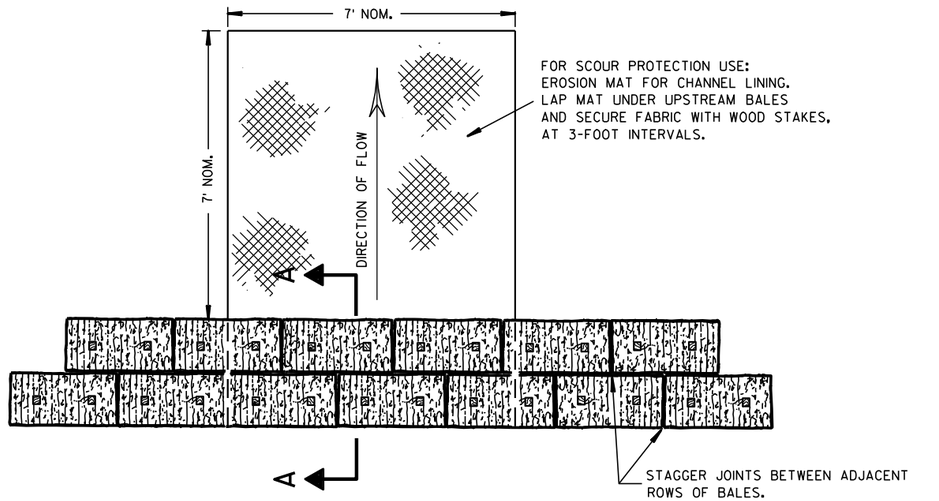
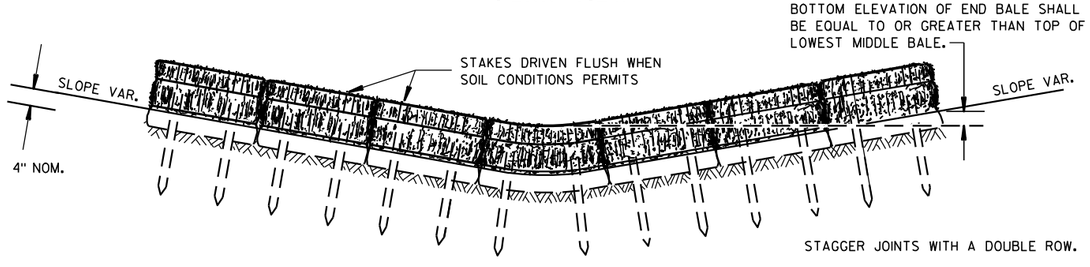


SECTION A-A



PLAN VIEW



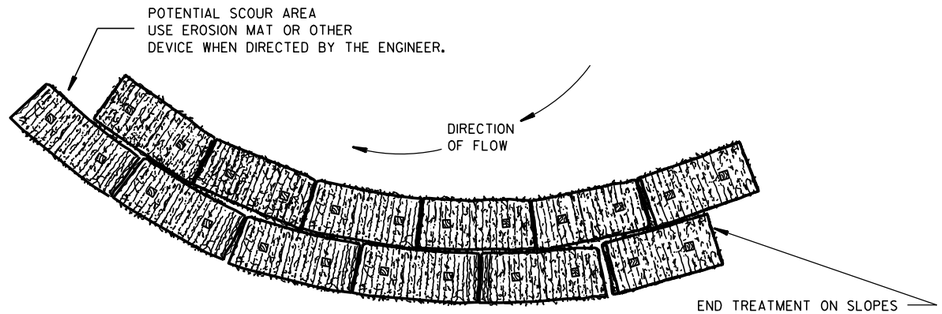
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

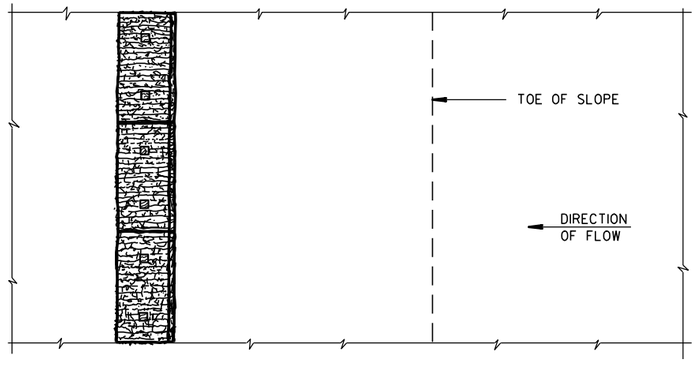
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

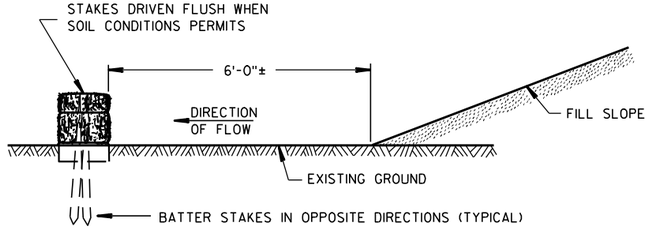


PLAN VIEW

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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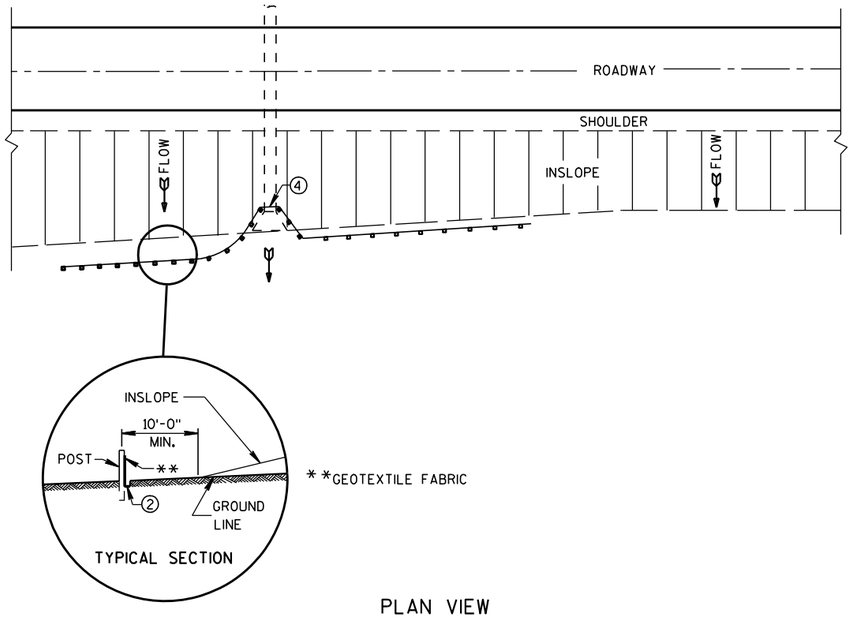
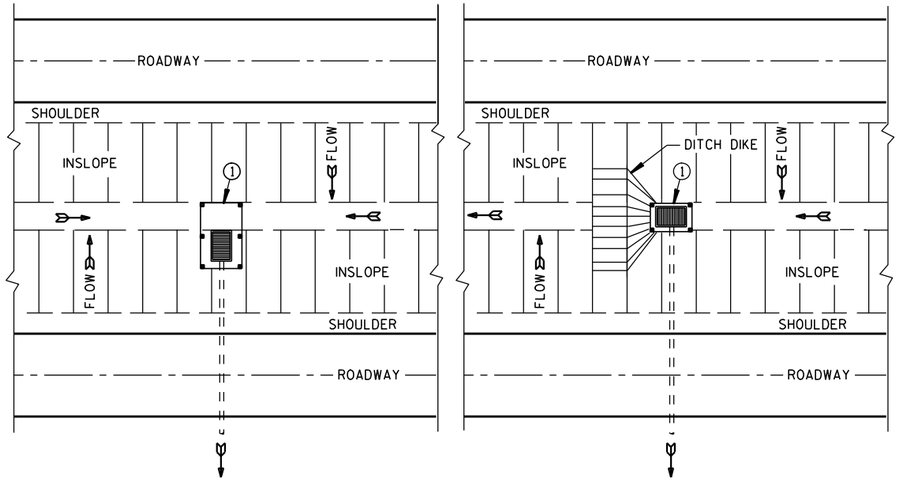
S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



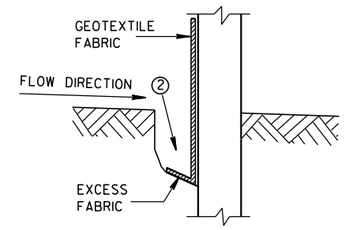
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

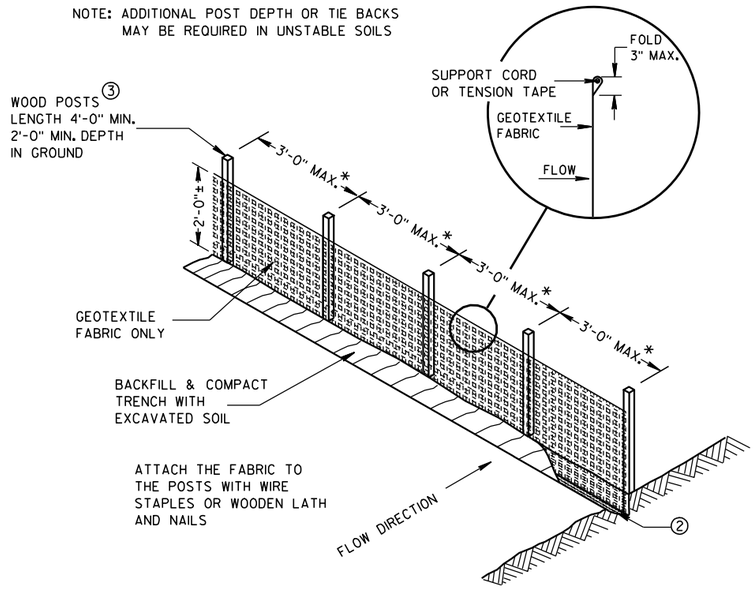
GENERAL NOTES

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

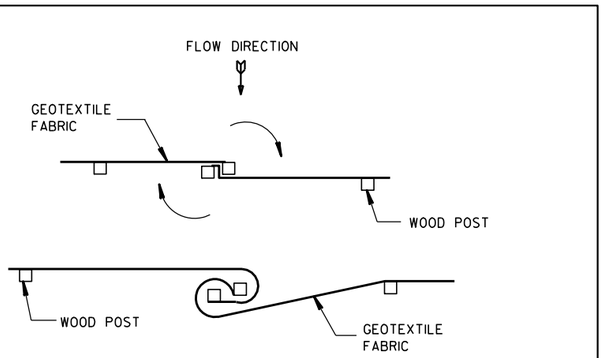
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL 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.



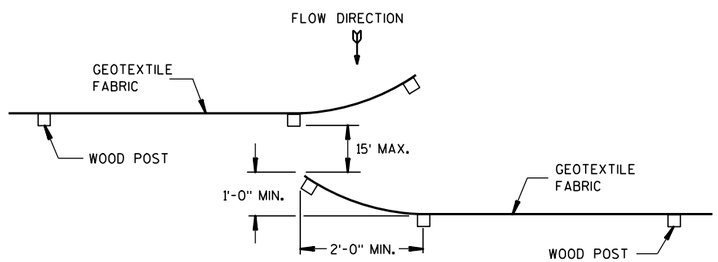
TRENCH DETAIL



SILT FENCE

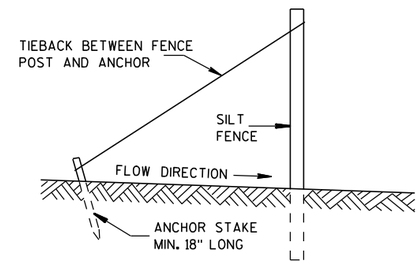


TWIST METHOD



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

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S.D.D. 8 E 9-6

METAL APRON ENDWALLS

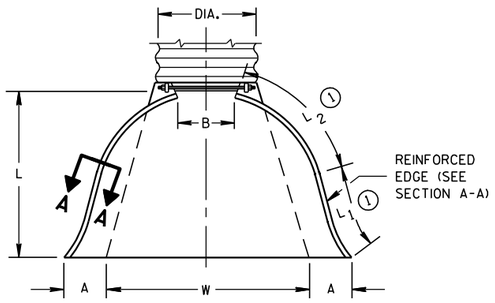
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

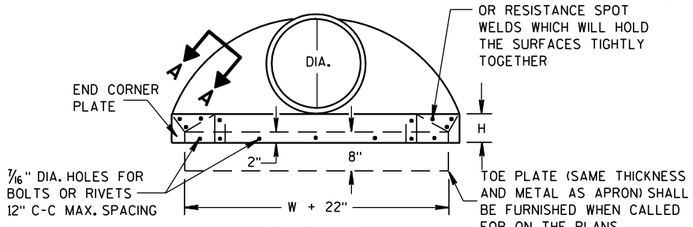
REINFORCED CONCRETE APRON ENDWALLS

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

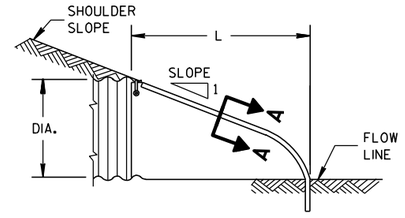
*MINIMUM
**MAXIMUM



PLAN VIEW

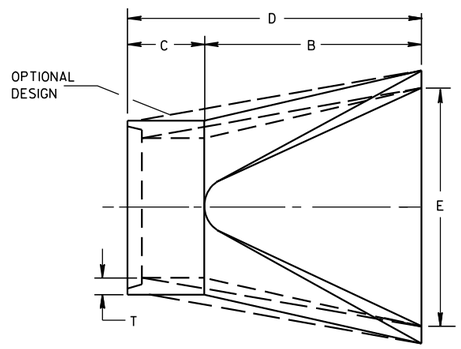


END VIEW

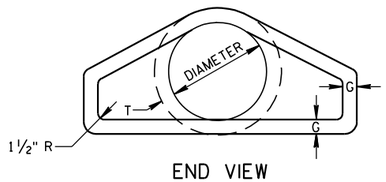


SIDE ELEVATION

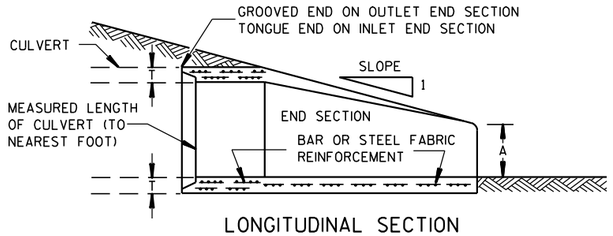
METAL ENDWALLS



PLAN

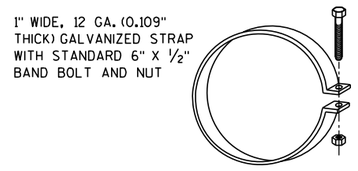


END VIEW



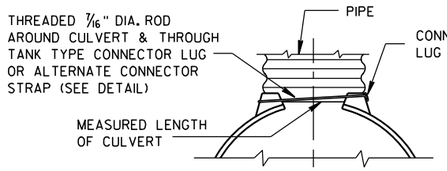
LONGITUDINAL SECTION

CONCRETE ENDWALLS

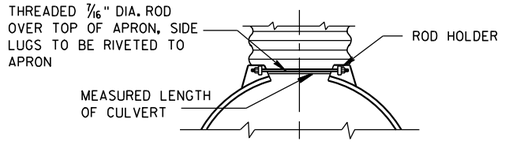


ALTERNATE FOR TYPE 1 CONNECTION

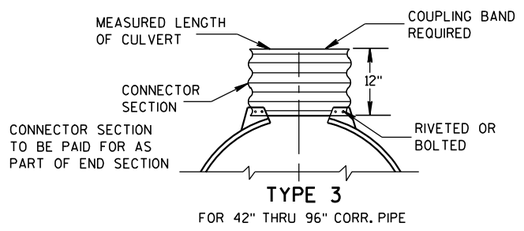
END SECTION CONNECTOR STRAP



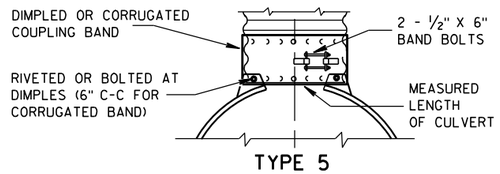
TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

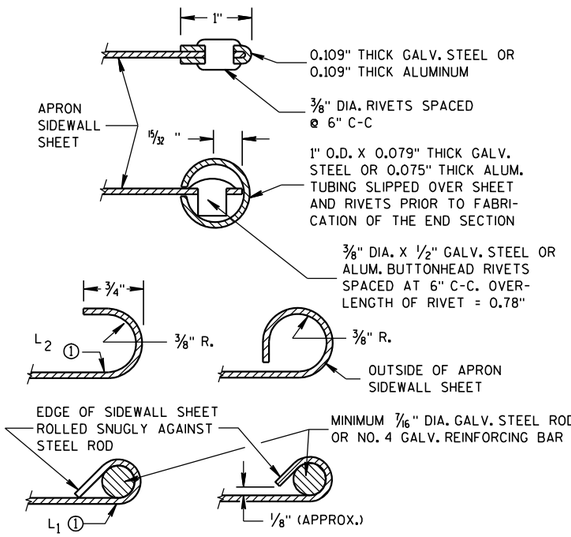
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

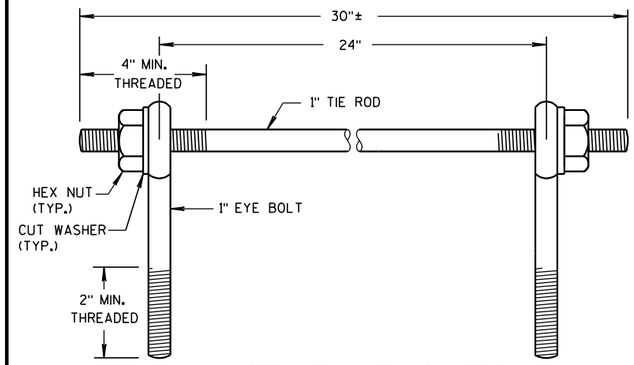
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

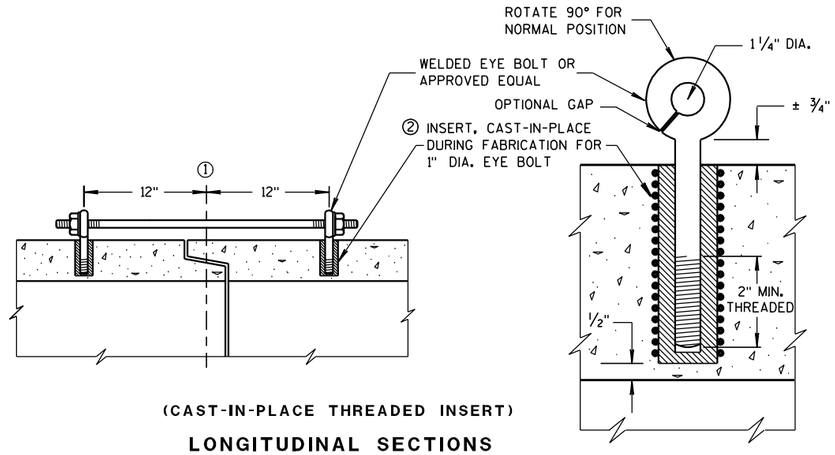
APPROVED
11/30/94 — DATE
/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENGINEER
FHWA

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.

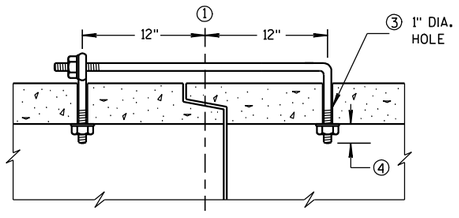
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

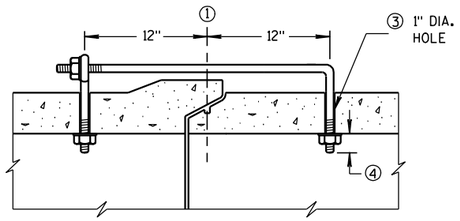
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

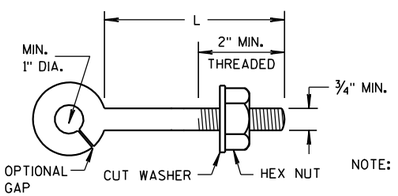


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

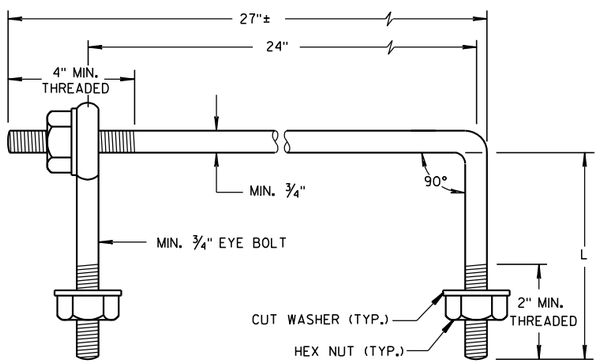
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

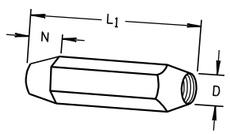
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 2)

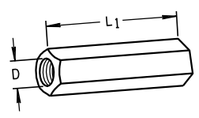
ADJUSTABLE TIE ROD TABLE

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



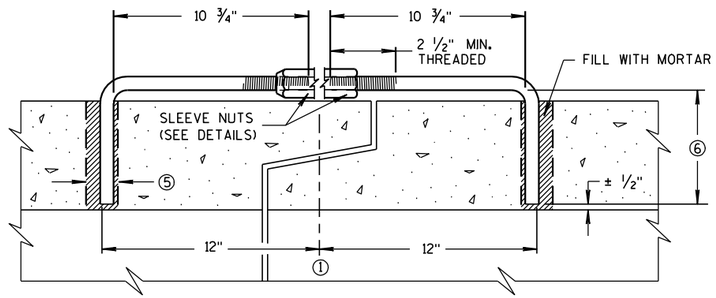
TAPERED



PLAIN

RIGHT AND LEFT THREADS

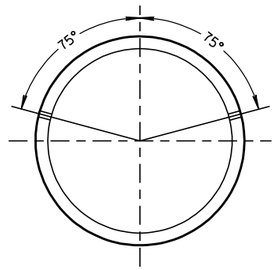
SLEEVE NUTS



LONGITUDINAL SECTION

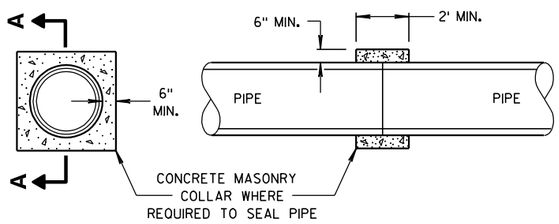
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

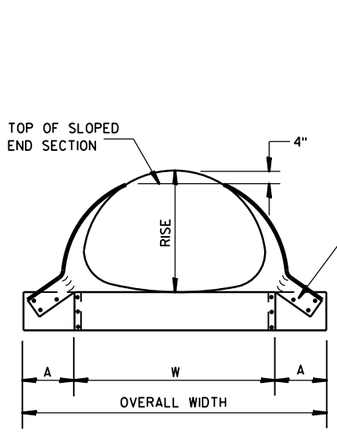
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

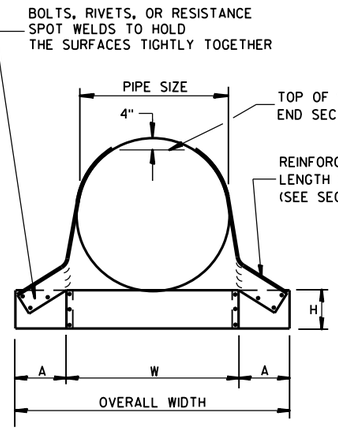
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
65
FHWA

6

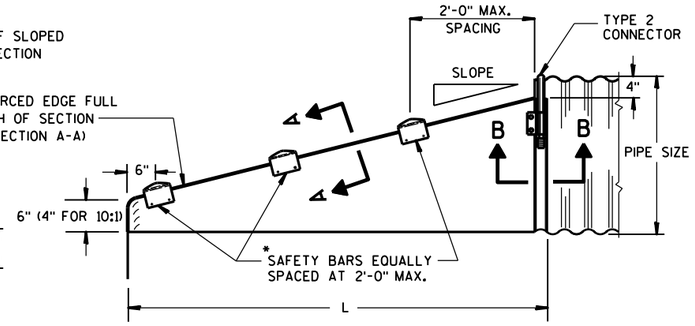
S.D.D. 8 F 4-7



FRONT VIEW



FRONT VIEW



SIDE VIEW

GENERAL NOTES

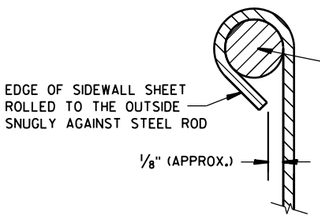
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

SLOPED END SECTIONS SHALL CONFORM TO THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS, SECTION 521 FOR STEEL APRON ENDWALLS.

SAFETY BARS SHALL BE FABRICATED FROM GALVANIZED STEEL PIPE MEETING THE REQUIREMENTS OF ASTM A-53, GRADE B, SCHEDULE 40 OR APPROVED EQUAL.

STEEL APRON ENDWALLS FOR CULVERT PIPE
SLOPED SIDE DRAINS

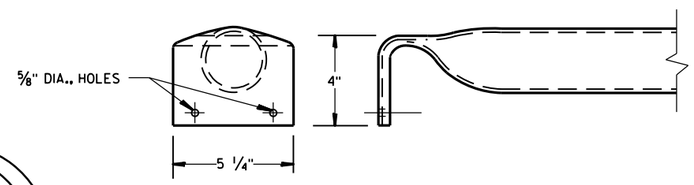
PIPE DIA. (IN.)	MIN. THICK. (Inches)	DIMENSIONS (Inches)				L DIMENSIONS					
		A	H	W	OVERALL WIDTH	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	.064	8	6	21	37	4:1	20	6:1	30	10:1	70
18	.064	8	6	24	40	4:1	32	6:1	48	10:1	100
21	.064	8	6	27	43	4:1	44	6:1	66	10:1	130
24	.064	8	6	30	46	4:1	56	6:1	84	10:1	160
30	.109	12	9	36	60	4:1	80	6:1	120	10:1	220
36	.109	12	9	42	66	4:1	104	6:1	156	10:1	280
42	.109	16	12	48	80	4:1	128	6:1	192	——	——
48	.109	16	12	54	86	4:1	152	6:1	228	——	——
54	.109	16	12	60	92	4:1	176	6:1	264	——	——
60	.109	16	12	66	98	4:1	200	6:1	300	——	——



SECTION A-A

*NOTE:
THREE SAFETY BARS ARE SHOWN. ACTUAL NUMBER OF BARS REQUIRED AT A 2'-0" C-C MAX. SPACING WILL VARY DEPENDING ON THE LENGTH OF THE END SECTION.

3" GALVANIZED PIPE. FLATTEN ENDS, THEN BEND OUTSIDE 4" TO MATCH END SECTION SIDES.

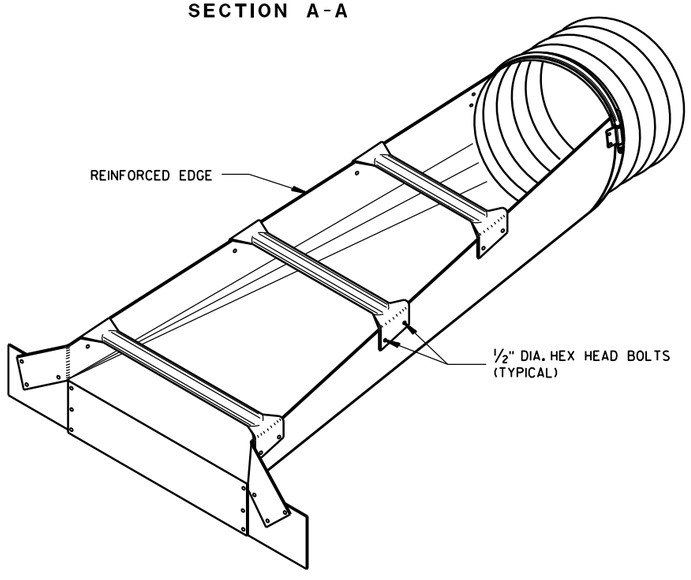


DETAIL OF SAFETY BAR

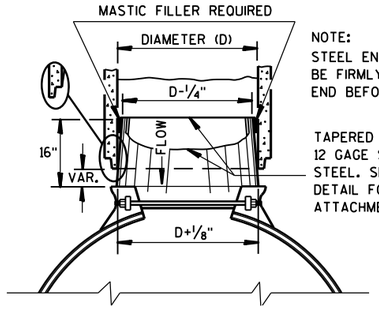
STEEL APRON ENDWALLS FOR PIPE ARCH
SLOPED SIDE DRAINS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	MIN. THICK. (Inches) ①	DIMENSIONS (Inches) A	H	W	OVERALL WIDTH	L DIMENSIONS SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES	SLOPE	LENGTH INCHES
15	17	13	.064 *	7	6	30	44	4:1	19	6:1	30	10:1 ②	70
18	21	15	.064 *	8	6	27	43	4:1	20	6:1	30	10:1	70
21	24	18	.064 *	8	6	30	46	4:1	32	6:1	48	10:1	100
24	28	20	.064 *	8	6	34	50	4:1	40	6:1	60	10:1	120
30	35	24	.079 *	12	9	41	65	4:1	56	6:1	84	10:1	160
36	42	29	.109 *	12	9	48	72	4:1	76	6:1	114	10:1	210
42	49	33	.109	16	12	55	87	4:1	92	6:1	138	——	——
48	57	38	.109	16	12	63	95	4:1	112	6:1	168	——	——
54	64	43	.109	16	12	70	102	4:1	132	6:1	198	——	——

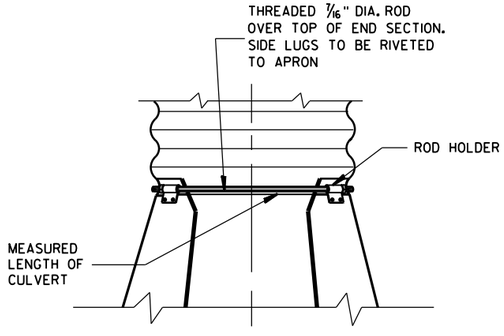
① * MINIMUM THICKNESS OF ALL 10:1 SLOPED SIDE DRAINS IS 0.109".
② ACTUAL SLOPE GREATER THAN 10:1.



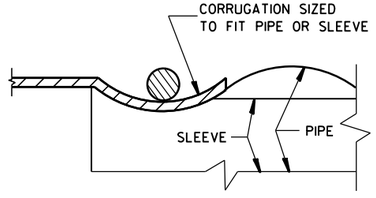
ISOMETRIC VIEW



STEEL ADAPTER SLEEVE FOR CONCRETE PIPE



TYPE 2
CONNECTION DETAIL



SECTION B-B

STEEL APRON ENDWALLS FOR CULVERT PIPE AND PIPE ARCH SLOPED SIDE DRAINS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
9/14/2012 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA

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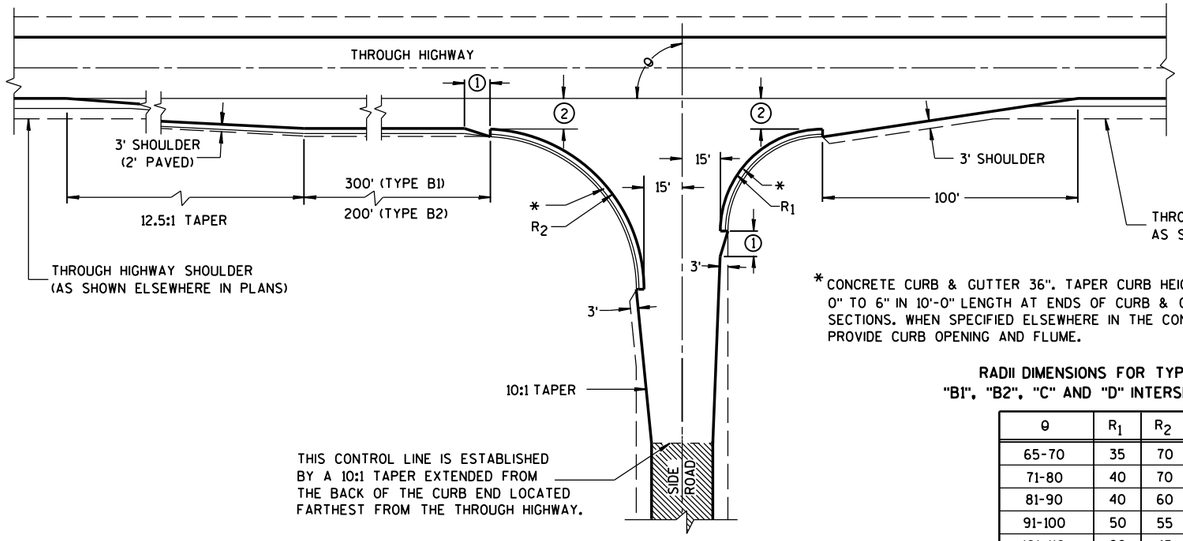
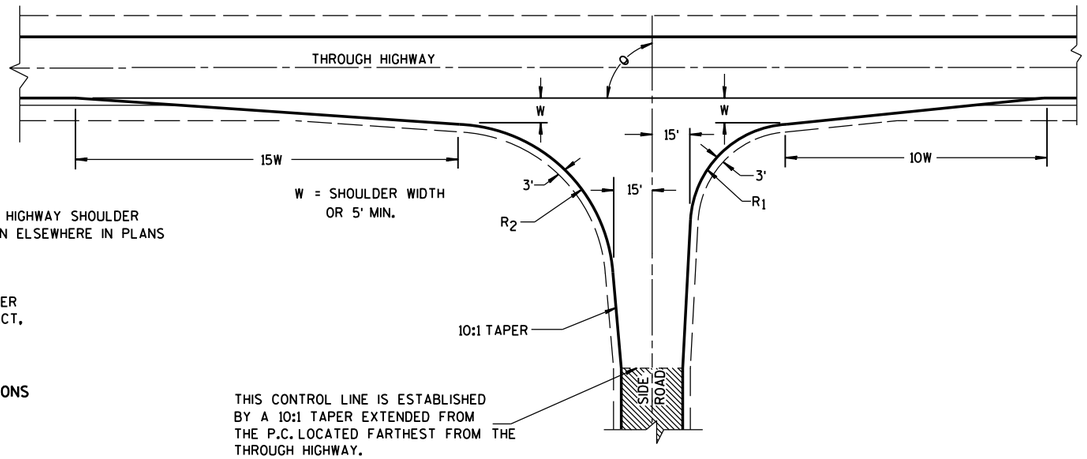


TYPE "B1" AND "B2"

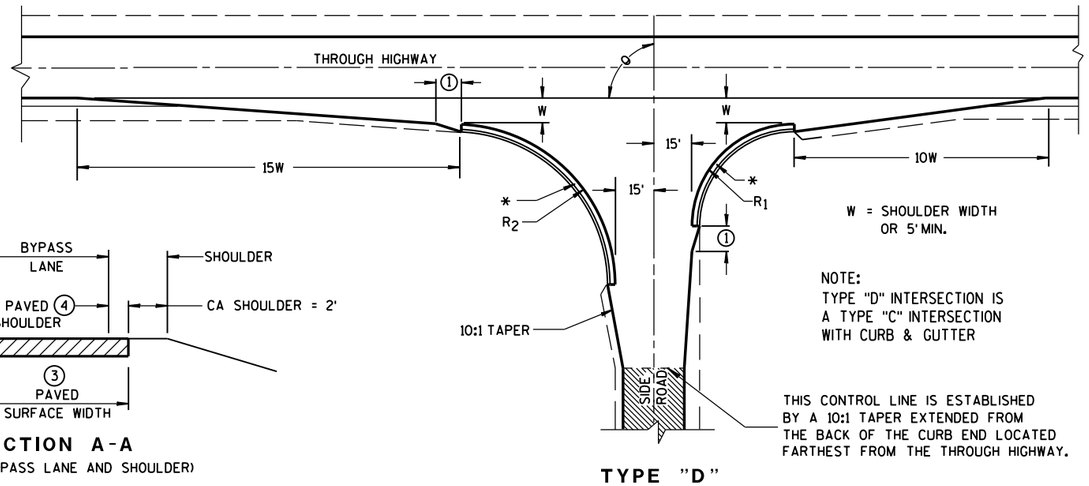
*CONCRETE CURB & GUTTER 36". TAPER CURB HEIGHT 0" TO 6" IN 10'-0" LENGTH AT ENDS OF CURB & GUTTER SECTIONS. WHEN SPECIFIED ELSEWHERE IN THE CONTRACT, PROVIDE CURB OPENING AND FLUME.

RADII DIMENSIONS FOR TYPES "B1", "B2", "C" AND "D" INTERSECTIONS

θ	R_1	R_2
65-70	35	70
71-80	40	70
81-90	40	60
91-100	50	55
101-110	60	45



TYPE "C"



TYPE "D"

GENERAL NOTES

DESIGNS MAY BE USED INTERCHANGEABLY IN COMBINATION OR SEPARATELY FOR ANY ONE COMPLETE INTERSECTION DEPENDING UPON INTERSECTION ANGLE AND SURFACING OF EACH APPROACH ROADWAY.

SIDE ROAD SURFACING NOTE

WHEN THE SIDE ROAD IS NOT PRESENTLY PAVED, PAVEMENT SHALL BE PLACED TO THE LIMITS SHOWN UNLESS OTHERWISE PROVIDED IN THE CONTRACT. WHERE THE CONSTRUCTION LIMITS ARE BEYOND THE PAVING LIMITS, CRUSHED AGGREGATE SURFACING SHALL BE PLACED BETWEEN THE PAVING LIMITS AND CONSTRUCTION LIMITS.

WHEN THE SIDE ROAD IS PRESENTLY PAVED, NEW PAVEMENT SHALL BE PLACED TO THE LIMITS OF DESIGN AS SHOWN AND BEYOND, IF NECESSARY, TO MEET EXISTING PAVEMENT.

WHEN THE SIDE ROAD IS THE CONSTRUCTION PROJECT, THE INTERSECTION SURFACING SHALL BE THE SAME AS FOR THE PROJECT.

EXISTING PAVED SURFACE

BYPASS LANE

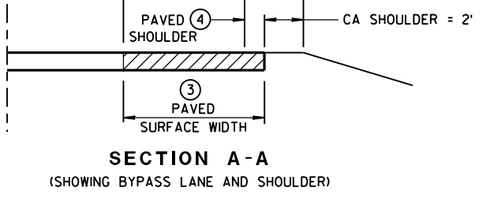
(1) 10-FT TYPICAL.

(2) 12-FT** PLUS ADDITIONAL WIDTH FOR BIKE LANE IF SHOWN ELSEWHERE IN THE PLAN.

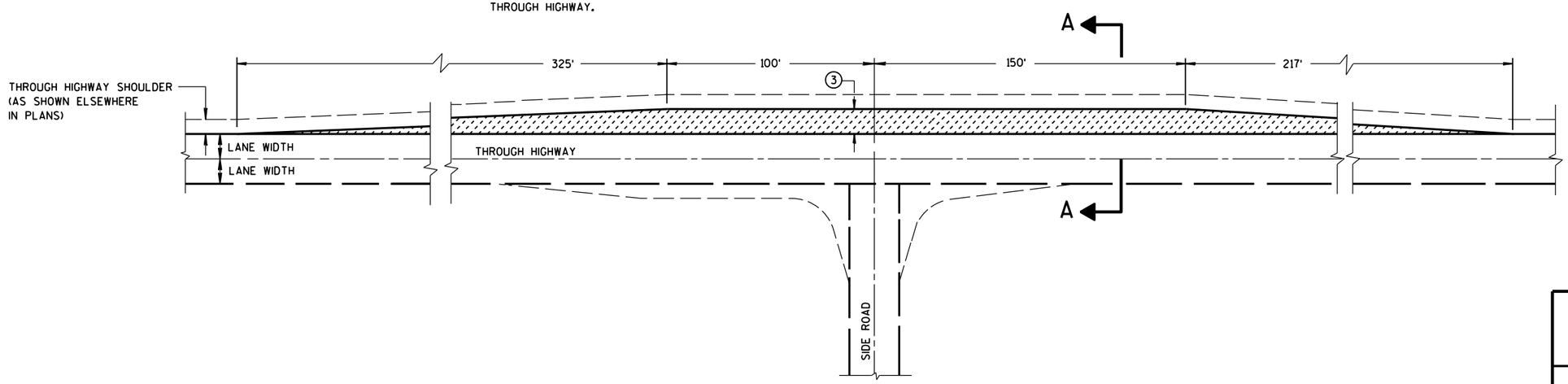
**10-FT MAY BE USED ON TYPE B2 ON RESURFACING PROJECTS IF SPECIFIED IN THE CONTRACT.

(3) BYPASS LANE PAVED SURFACE WIDTH OUTSIDE OF TRAVEL LANE
-ASPHALT = 12-FT PLUS PAVED SHOULDER WIDTH.
-PC CPNCRETE = 13-FT PLUS PAVED SHOULDER WIDTH.

(4) BYPASS LANE PAVED SHOULDER WIDTH = THE GREATER OF 1-FT OR THE PAVED SHOULDER WIDTH OF THE THROUGH HIGHWAY.



SECTION A-A
(SHOWING BYPASS LANE AND SHOULDER)



TEE INTERSECTION BYPASS LANE DETAIL

AT-GRADE SIDE ROAD INTERSECTION, TYPES "B1", "B2", "C" AND "D" AND TEE INTERSECTION BYPASS LANE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6
S.D.D. 9 A 1-13a

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.

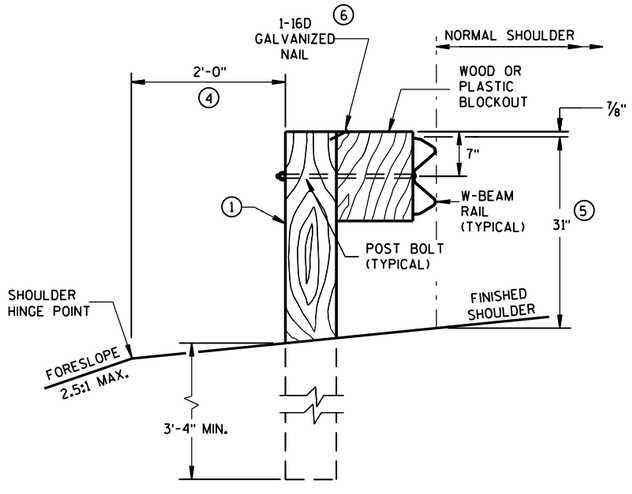
(2) USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.

(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2½ INCHES 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).

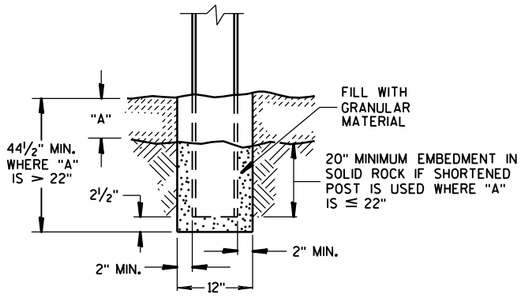
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ± 1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27¾" TO 32".

(6) WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



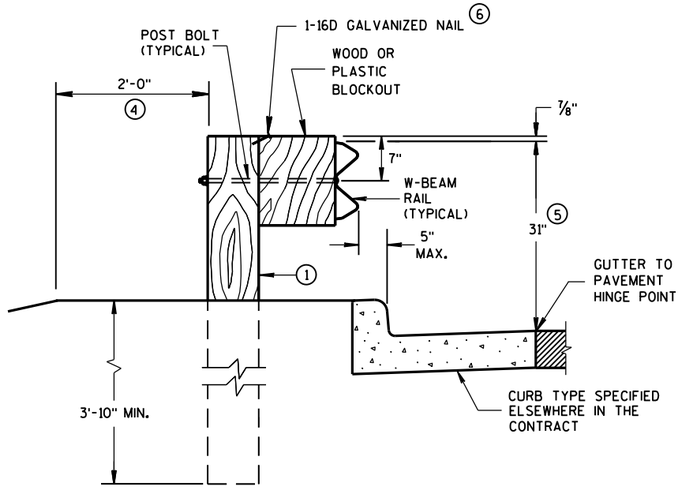
END VIEW

LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



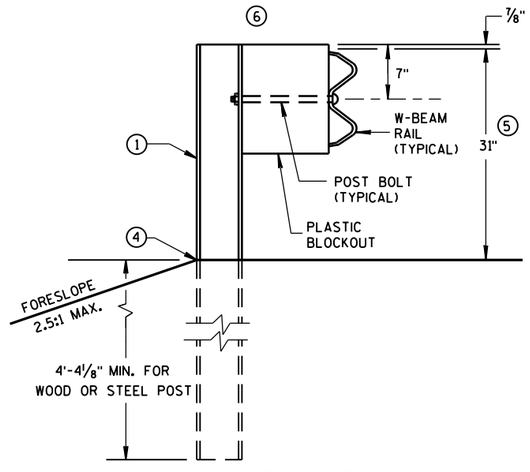
END VIEW

SETTING STEEL OR WOOD POST IN ROCK (3)



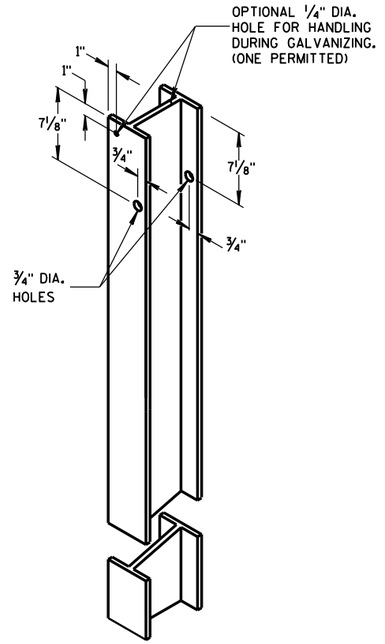
END VIEW

LOCATED ALONG A CURBED ROADWAY

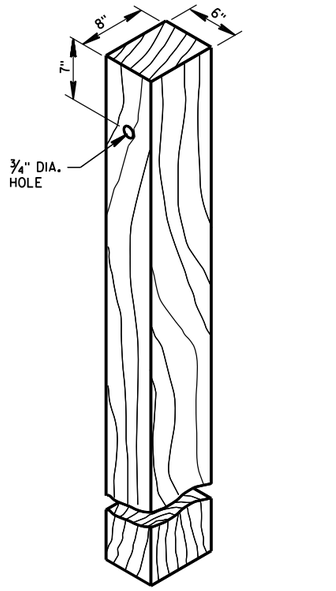


END VIEW

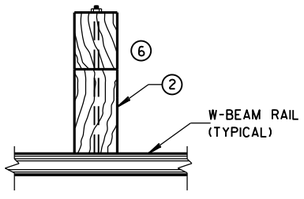
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



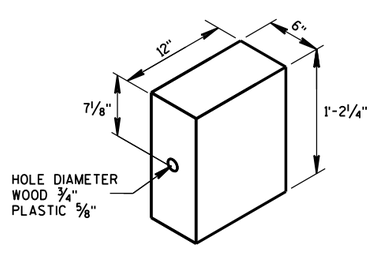
STEEL POST &
HOLE PUNCHING DETAIL
(w6X9) (1)



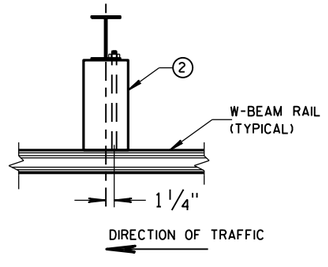
WOOD POST
(6" X 8") NOMINAL (1)



PLAN VIEW
WOOD POST,
BLOCKOUT & BEAM



WOOD OR
PLASTIC BLOCKOUT (2)



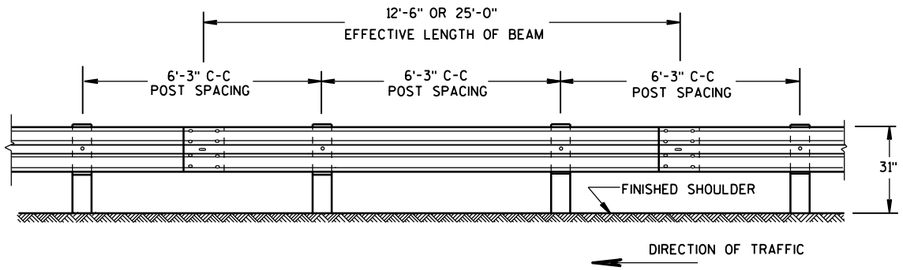
PLAN VIEW
STEEL POST,
PLASTIC BLOCKOUT & BEAM

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

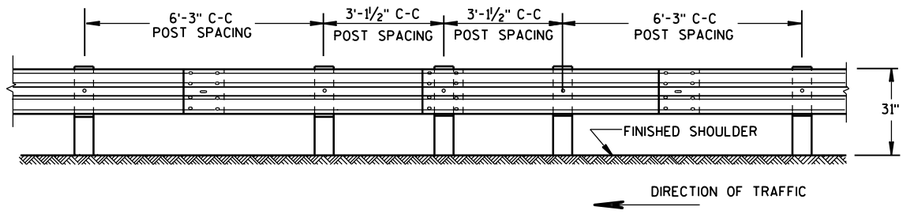
6

S.D.D. 14 B 42-3a



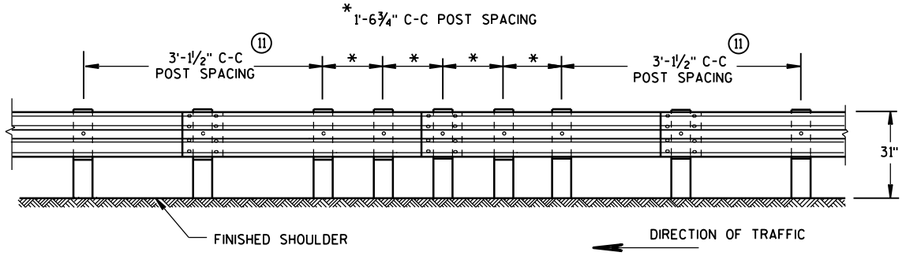
FRONT VIEW

POST SPACING STANDARD INSTALLATION



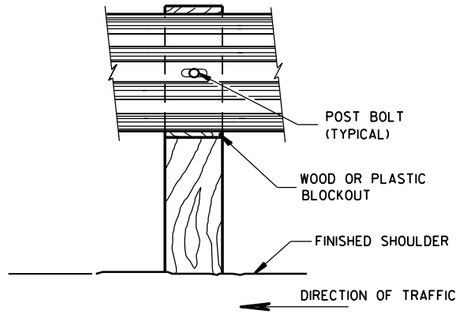
FRONT VIEW

HALF POST SPACING (HS) AND HALF POST SPACING WITH LONGER POSTS (K)

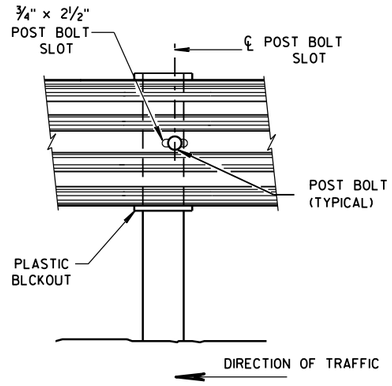


FRONT VIEW

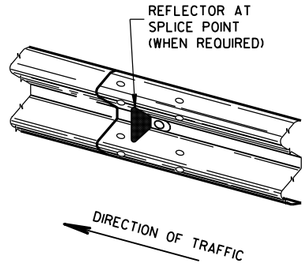
QUARTER POST SPACING (QS)

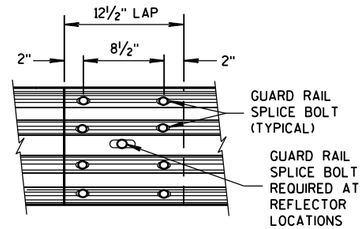


FRONT VIEW AT WOOD POST



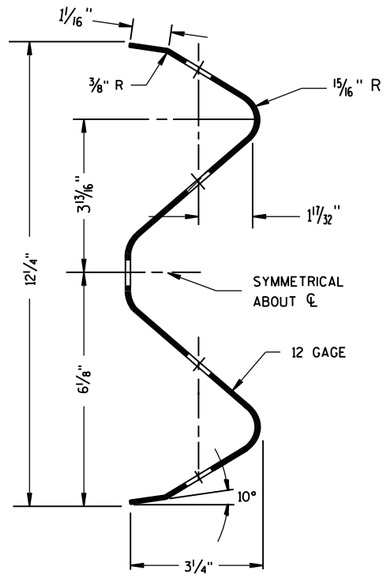
FRONT VIEW AT STEEL POST



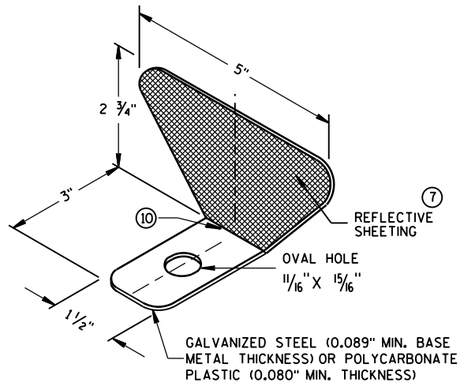


FRONT VIEW

MID-SPAN BEAM SPLICE



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION ⑦

GENERAL NOTES

⑦ PROVIDE SILVER REFLECTIVE SHEETING ON ALL REFLECTORS EXCEPT THOSE LOCATED ALONG THE LEFT EDGE OF ONE-WAY ROADWAYS, WHICH SHALL BE PROVIDED WITH YELLOW REFLECTIVE SHEETING. SHEETING IS TYPE H. SEE STANDARD SPECIFICATION 637.

⑧ 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.

⑨ REVERSE EVERY OTHER REFLECTOR FOR 2-WAY VISIBILITY. THE CONTRACTOR MAY FURNISH TWO-SIDED REFLECTORS IN LIEU OF ONE-SIDED REFLECTORS.

⑩ PROVIDE AN ANGLE OF BEND OF 90° ± 1° FOR TWO-SIDED REFLECTORS.

⑪ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

REFLECTOR SPACING ⑧

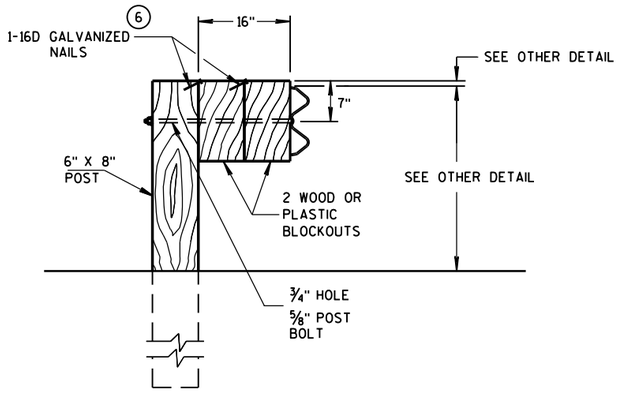
	BEAM GUARD LENGTH	REFLECTOR SPACING	NO. SURFACES REFLECTORIZED	MIN. NO. REFLECTORS
ONE WAY TRAFFIC	< 200'	50' C-C	1	3
	> 200'	100' C-C	1	
TWO WAY TRAFFIC	< 200'	25' C-C	1 ⑨	6
	> 200'	50' C-C	1	
TWO WAY TRAFFIC	< 200'	50' C-C	2	3
	> 200'	100' C-C	2 ⑩	

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

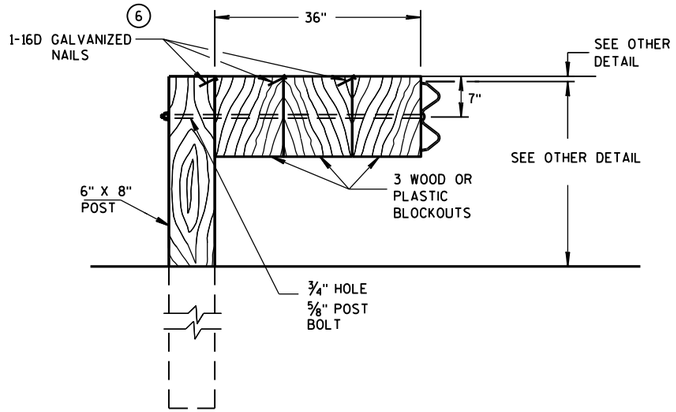
6

S.D.D. 14 B 42-3b



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.

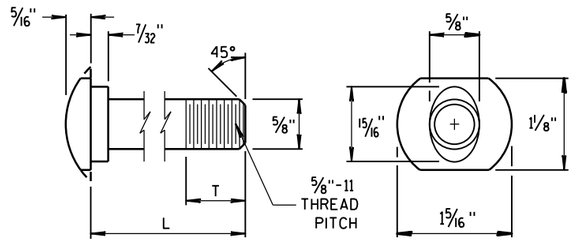


DETAIL FOR 36" BLOCKOUT DEPTH

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.

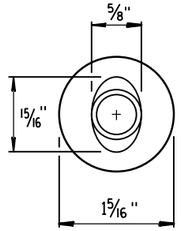
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

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.

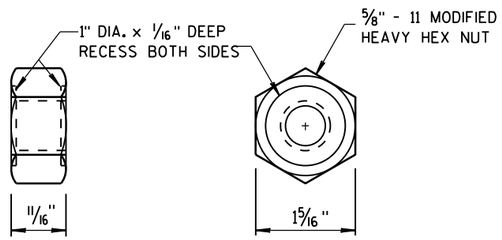


POST BOLT TABLE

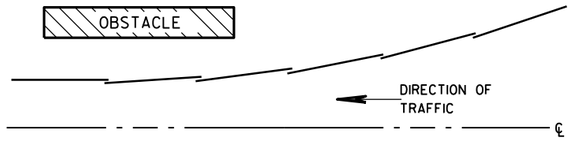
L	T (MIN.)
1 1/4"	1 1/8"
2"	1 3/4"
10"	4"
14"	4 1/16"
18"	4"
21"	4 1/16"
25"	4"



ALTERNATE BOLT HEAD

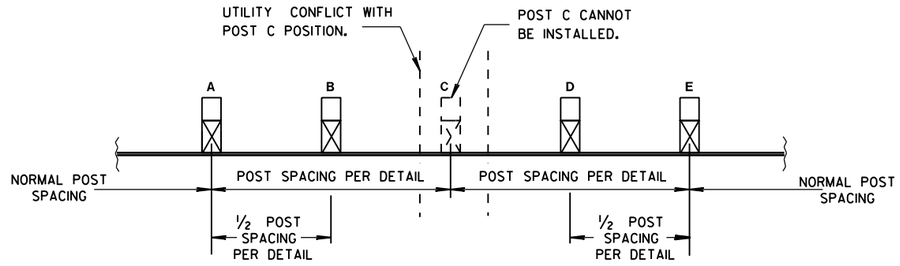


POST BOLT AND RECESS NUT

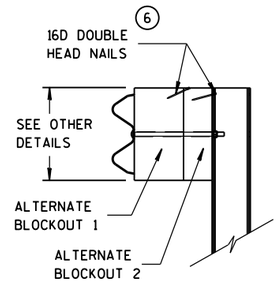


PLAN VIEW

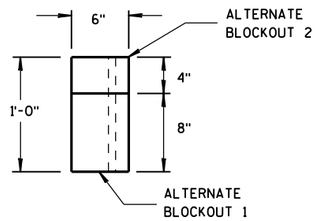
BEAM LAPPING DETAIL



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
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

6
S.D.D. 14 B 42-3c

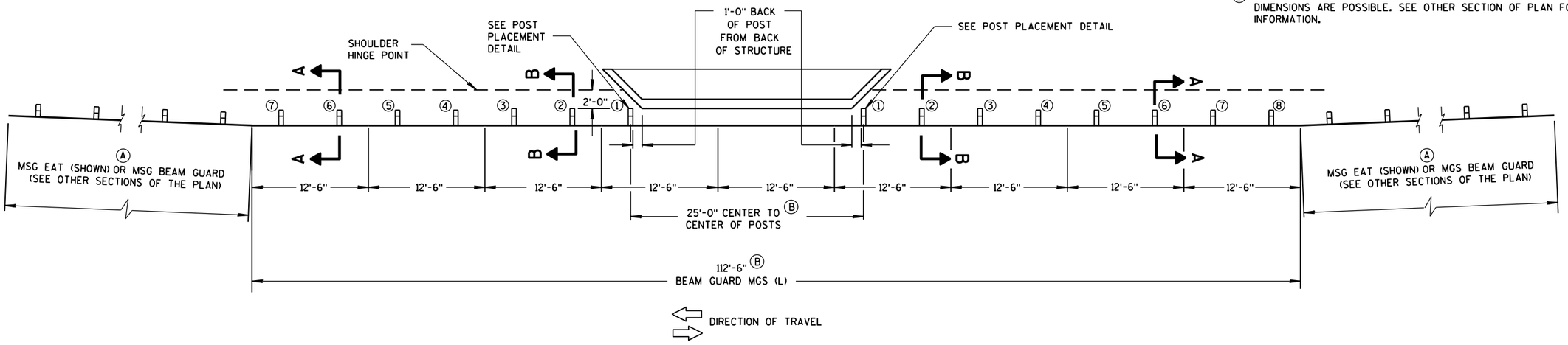
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

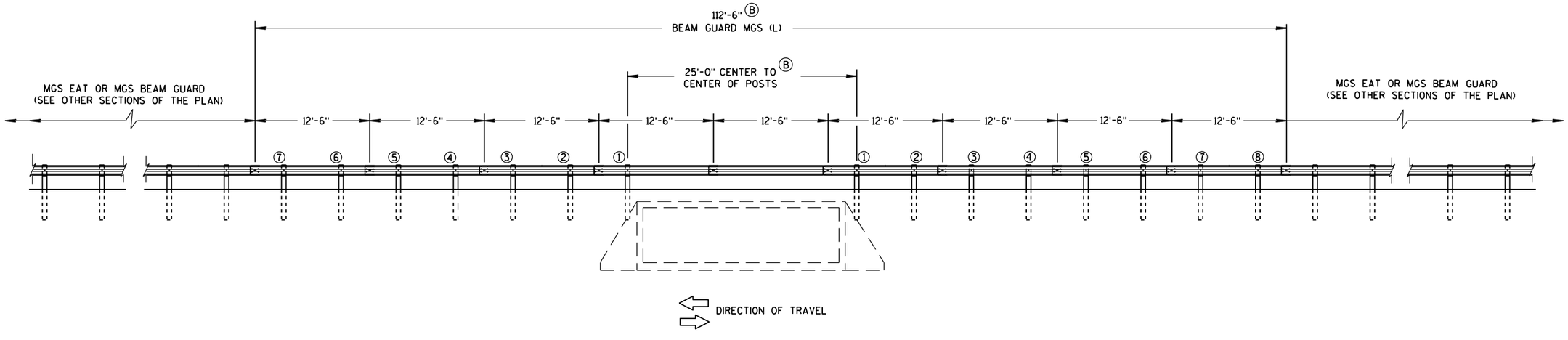
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) TWO-WAY TRAFFIC

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
STATE OF WISCONSIN DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 43-3a

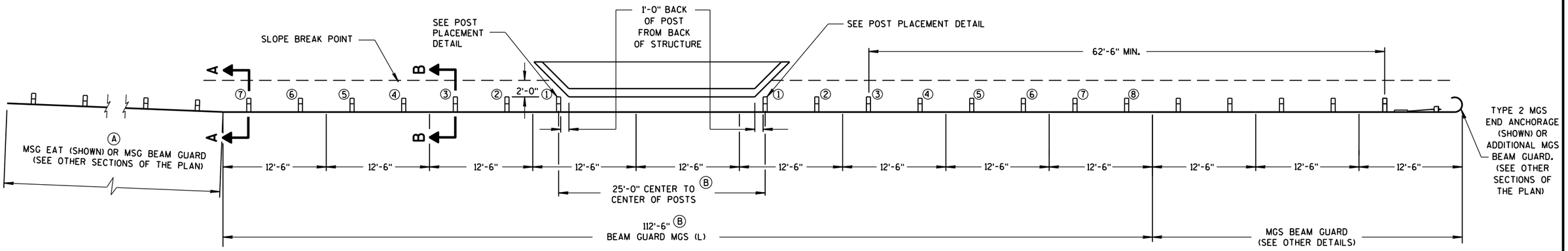
GENERAL NOTES

POSTS 1 THROUGH 3 ARE CRT POSTS.
ALL OTHER POSTS SHALL BE WOOD OR STEEL.

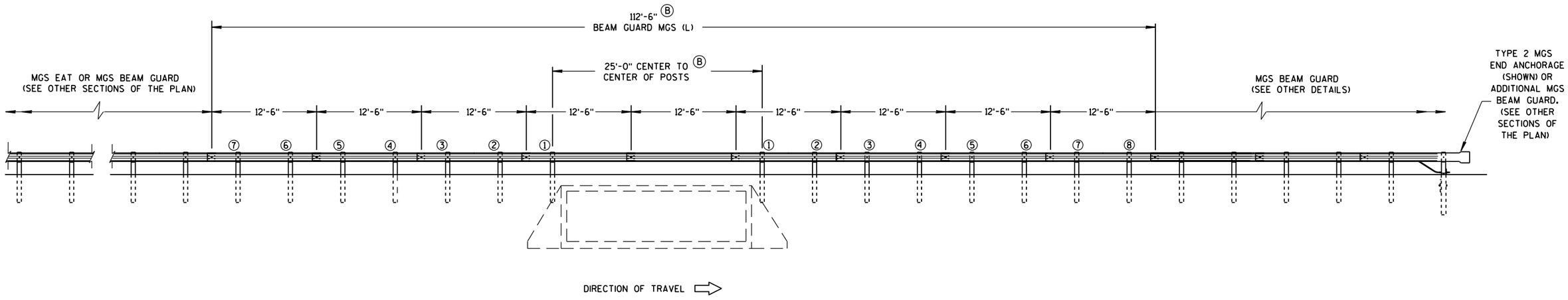
SEE SDD 14 B 42 FOR MORE DETAILS.

(A) FLARE FOR MGS EAT SHOWN. IF INSTALLING MGS NO FLARE NEEDED.

(B) VALUES SHOWN ON DRAWING REPRESENT THE MAXIMUM LENGTH. SHORTER DIMENSIONS ARE POSSIBLE. SEE OTHER SECTION OF PLAN FOR MORE INFORMATION.



PLAN VIEW



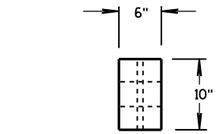
ELEVATION VIEW

MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L) ONE-WAY TRAFFIC

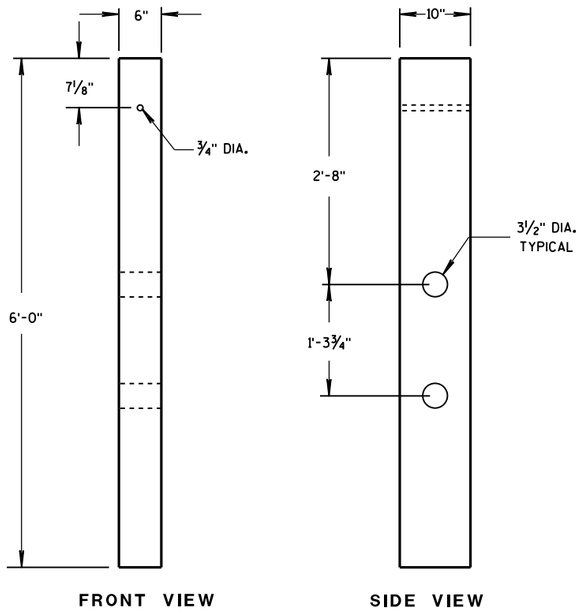
MIDWEST GUARDRAIL SYSTEM LONG SPAN MGS (L)
STATE OF WISCONSIN DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 43-3b

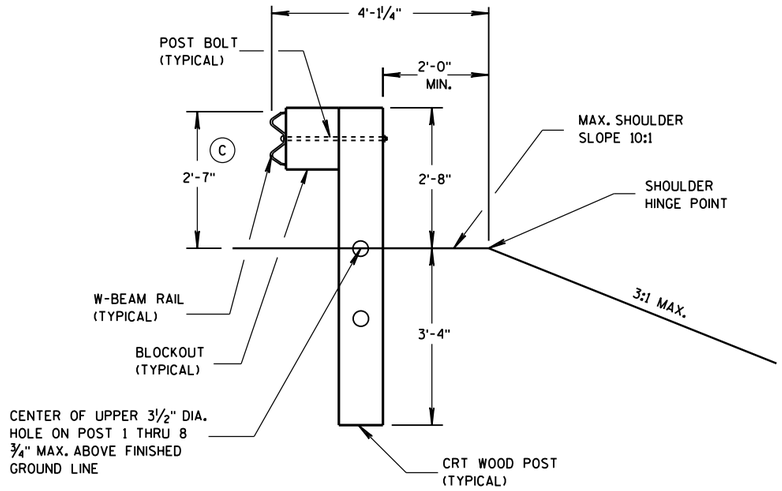


PLAN VIEW



FRONT VIEW SIDE VIEW

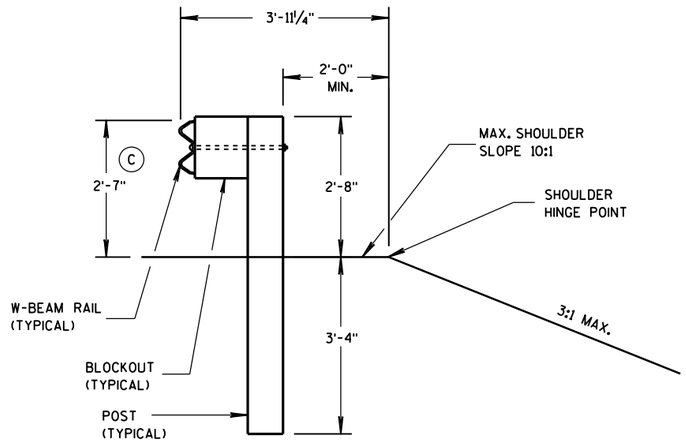
CRT WOOD POST



SECTION B-B

POSTS NO. 1-3

SEE OTHER DETAILS



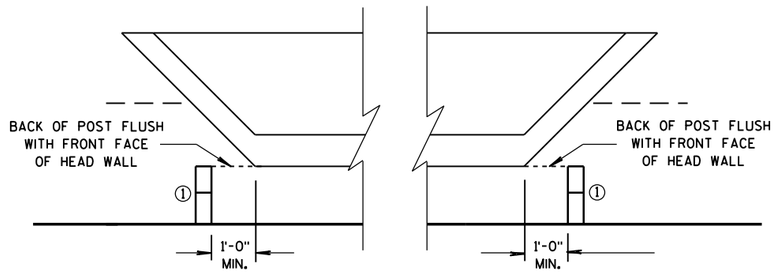
SECTION A-A

POSTS NO. 4-8

SEE OTHER DETAILS

GENERAL NOTES

(C) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".



POST PLACEMENT DETAIL

MIDWEST GUARDRAIL SYSTEM
LONG SPAN MGS (L)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

5/10/2013
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

6

S.D.D. 14 B 43-3c

6

S.D.D. 14 B 43-3c

GENERAL NOTES

(A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, 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) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS. ONE SCREW PER CORNER.

(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.

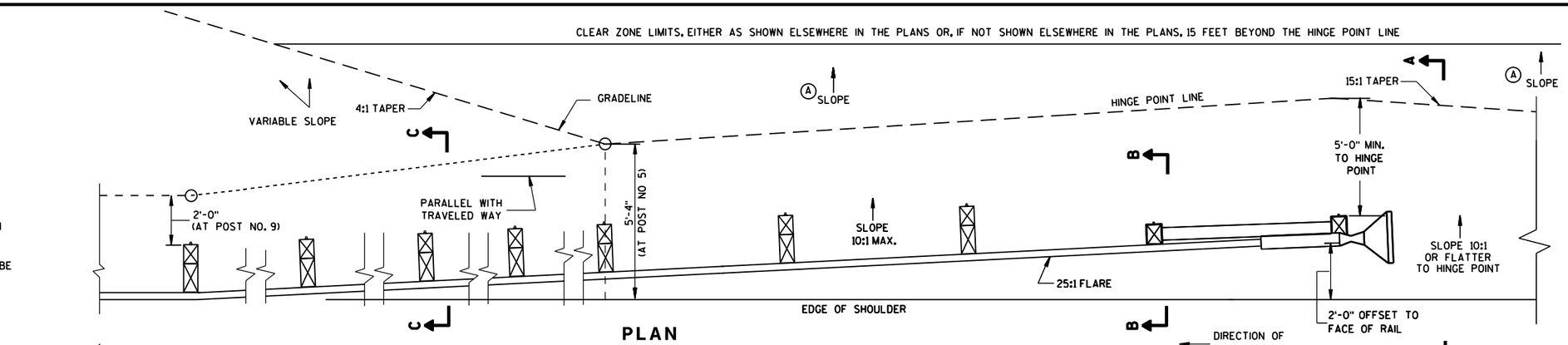
SEE SDD 14B42 FOR MORE INFORMATION.

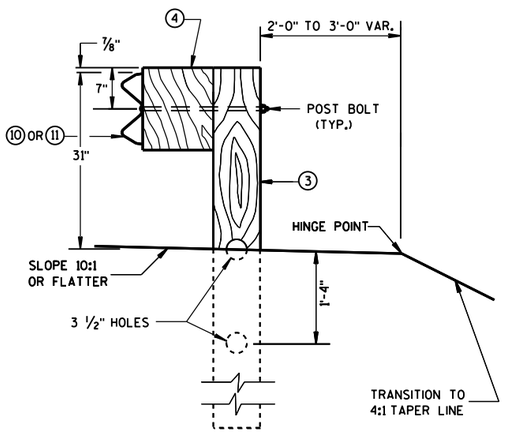
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

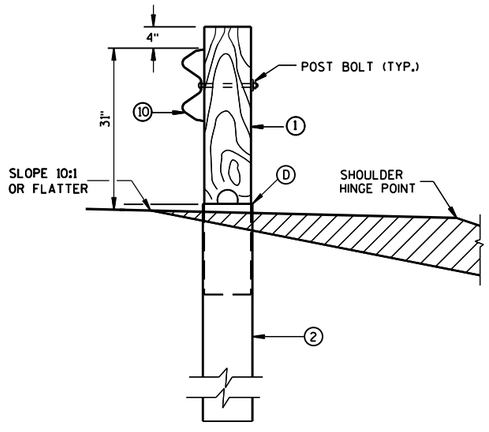
W-BEAM RAIL SPLICES ARE LOCATED AT POST NUMBER 3, AND BETWEEN POST 5 AND 6, BETWEEN POSTS 7 AND 8, AND MIDDLE OF THE SPAN AFTER POST 9.

THE CENTER OF THE UPPER 3½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE.

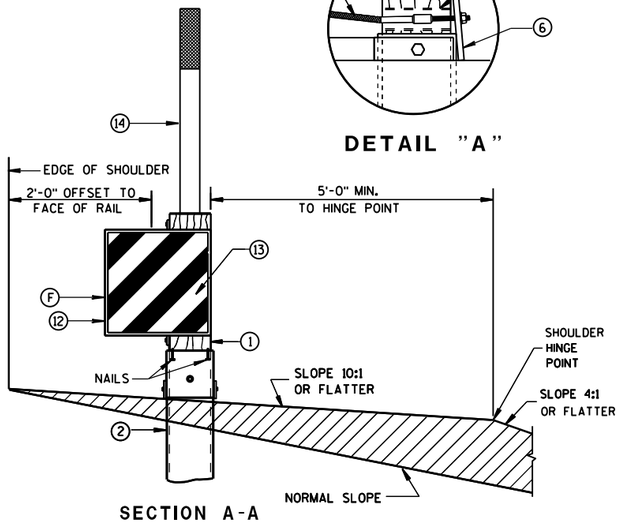




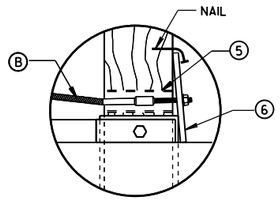
SECTION C-C
TYPICAL AT POST NOS. 3-9



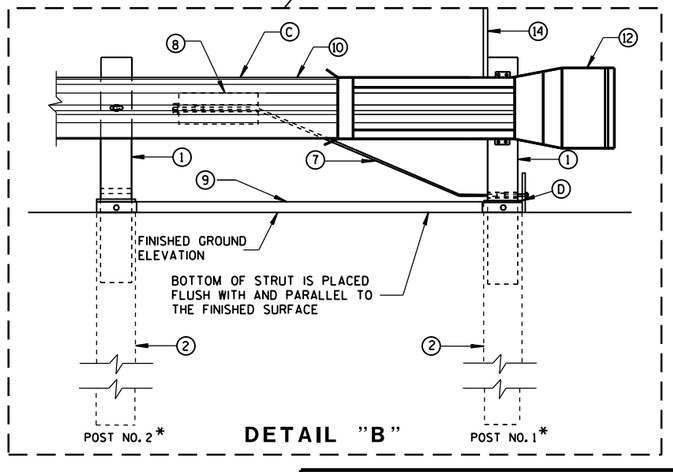
SECTION B-B
TYPICAL AT POST NO. 2*



SECTION A-A
TYPICAL AT POST NO. 1*



DETAIL "A"



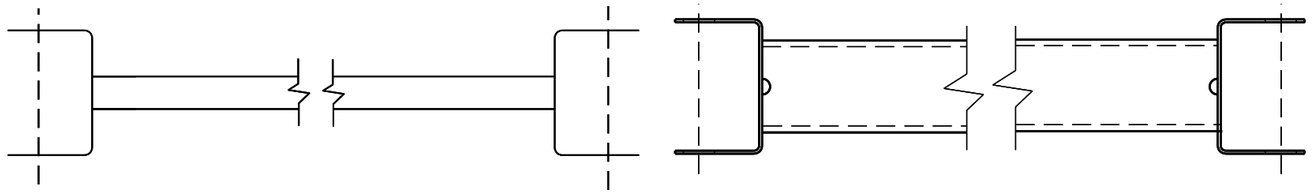
DETAIL "B"

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

S.D.D. 14 B 44-2a

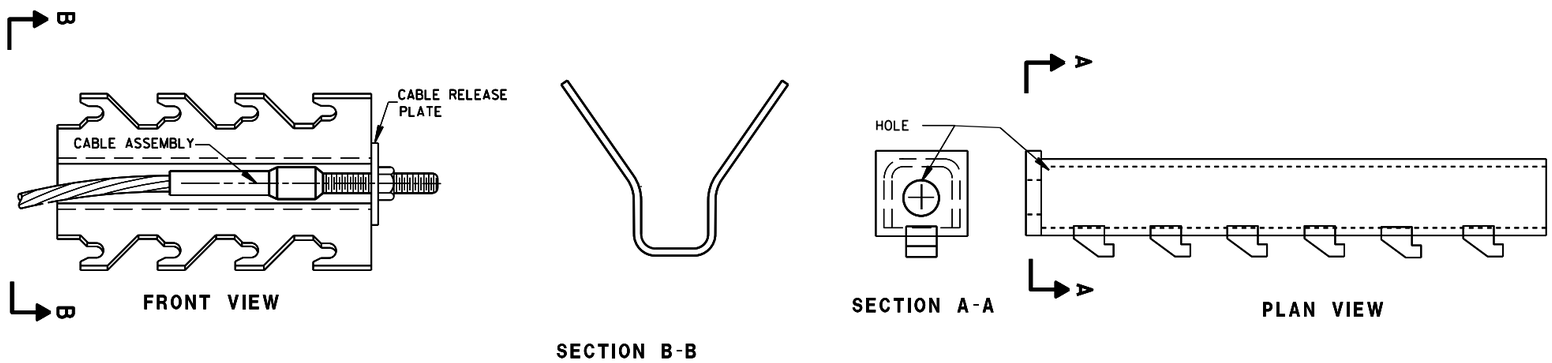
S.D.D. 14 B 44-2a



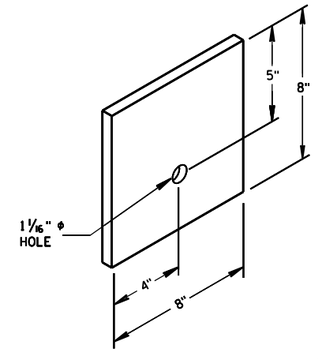
GENERIC GROUND STRUT (9) (H)

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 F PER SECTION 637 OF THE STANDARD SPECIFICATIONS
(14)	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)



GENERIC ANCHOR CABLE BOX (8) (H)



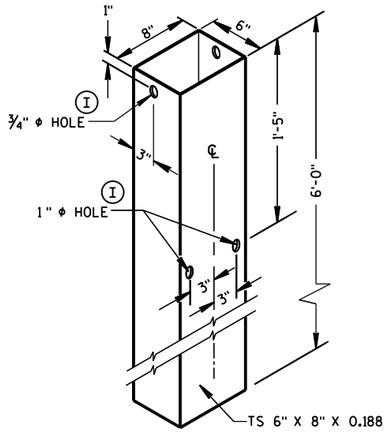
BEARING PLATE (6)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

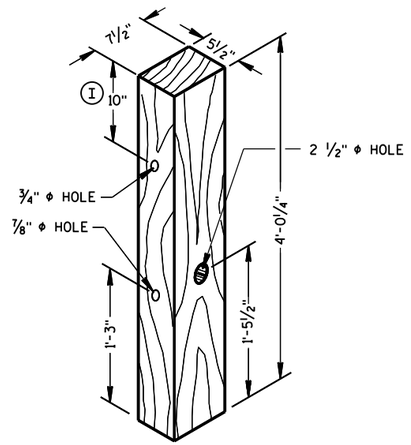
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 14 B 44-2b

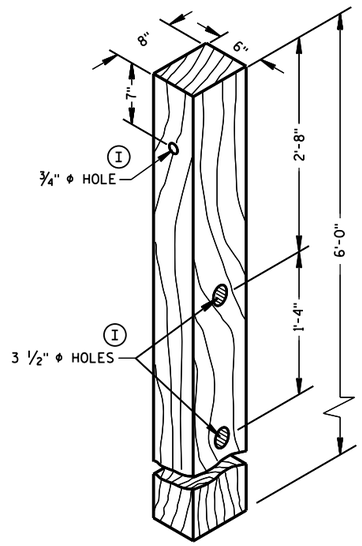


FOUNDATION TUBE (2)



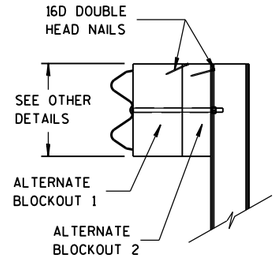
POSTS NUMBER 1 AND 2

WOOD BREAKAWAY POST (1)

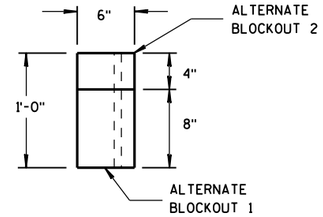


POSTS NUMBER 3-9

WOOD CRT POST (3)

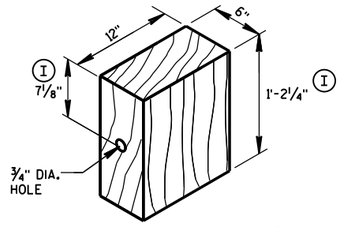


SIDE VIEW



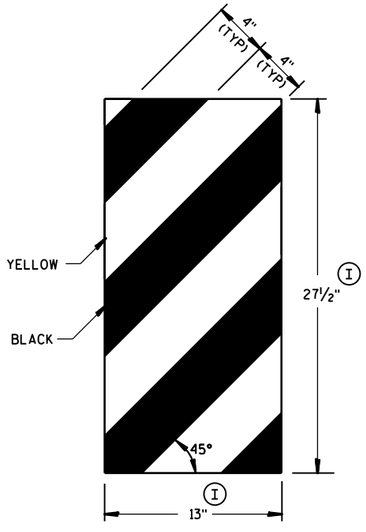
TOP VIEW

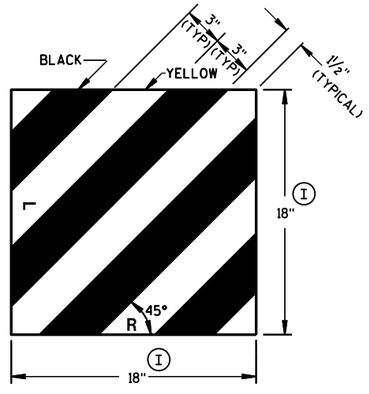
ALTERNATE WOOD BLOCKOUT DETAIL



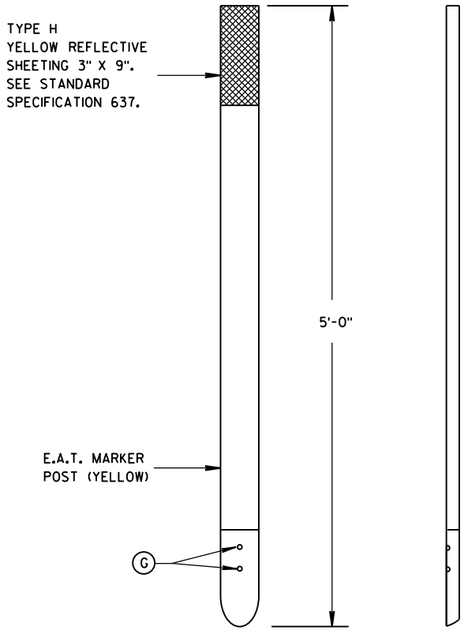
WOOD BLOCKOUT (4)

REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2





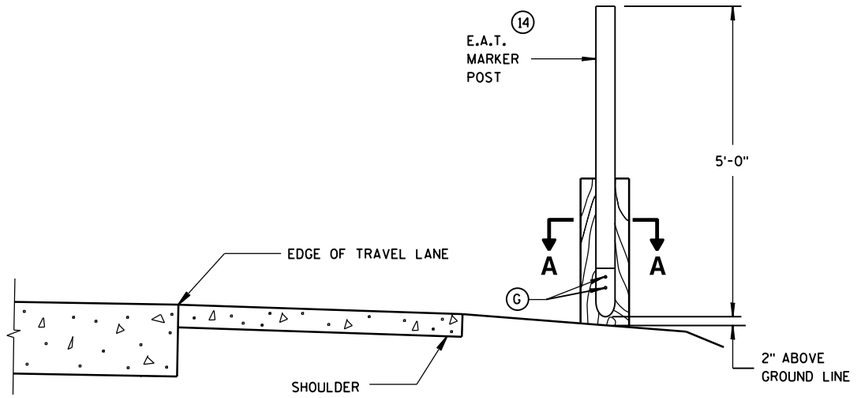
GENERIC REFLECTIVE SHEETING (13) (H)



FRONT VIEW

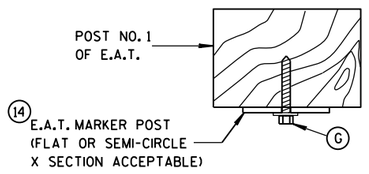
SIDE VIEW

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

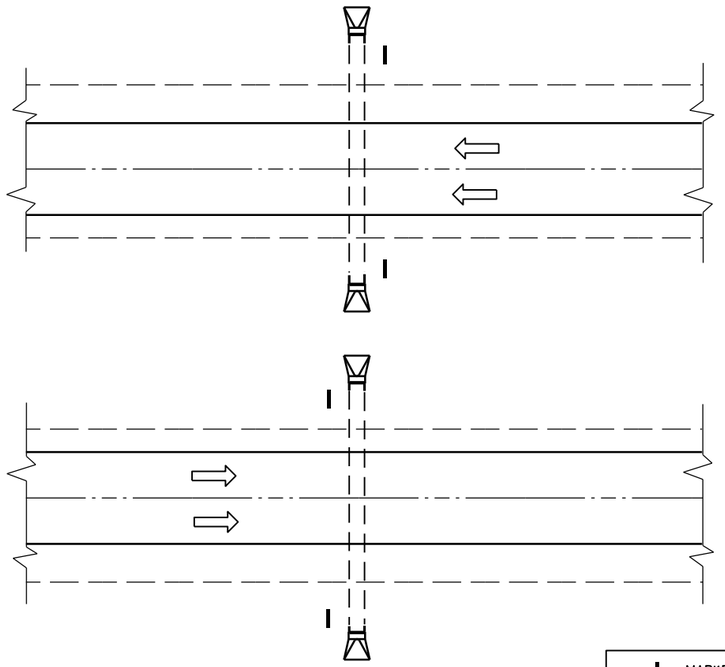
MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2014 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
FHWA

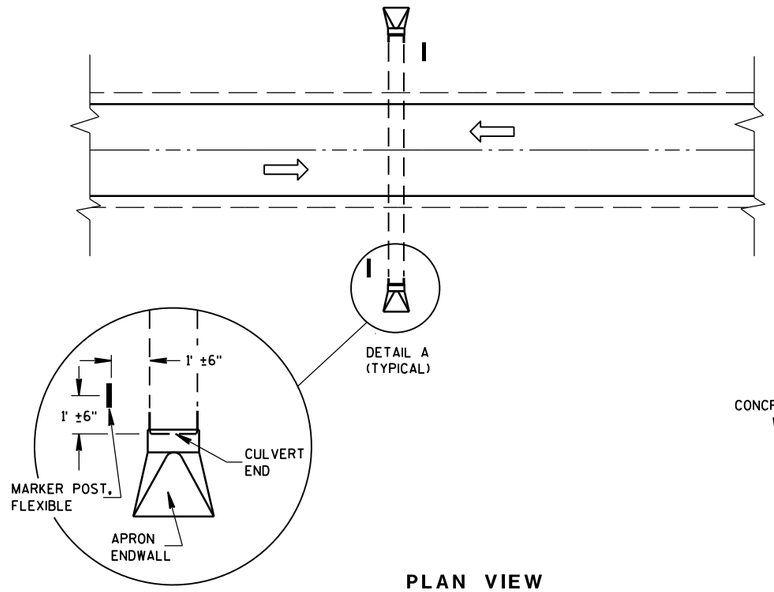
6

S.D.D. 14 B 44-2c



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

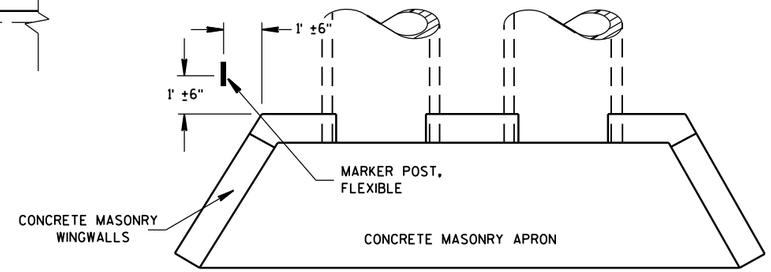
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

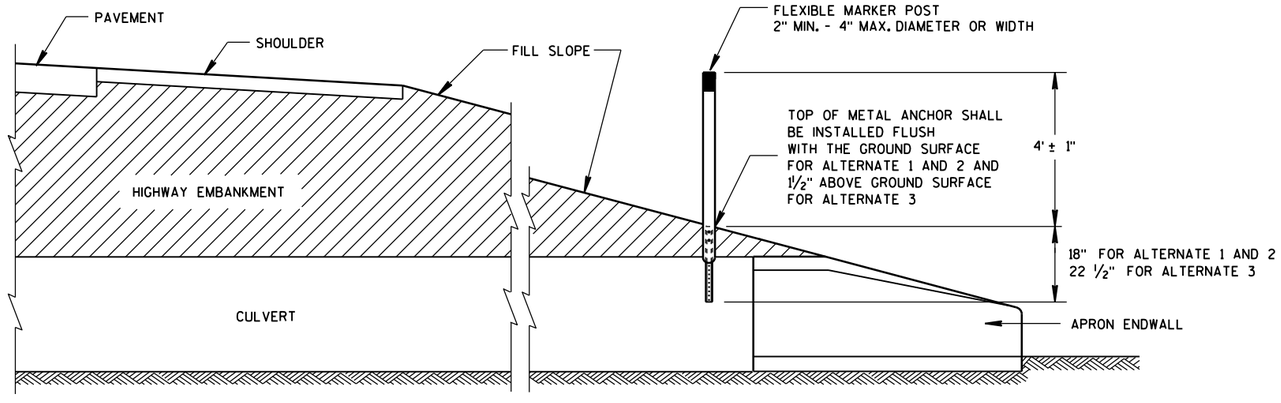
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 15 A 3-2a

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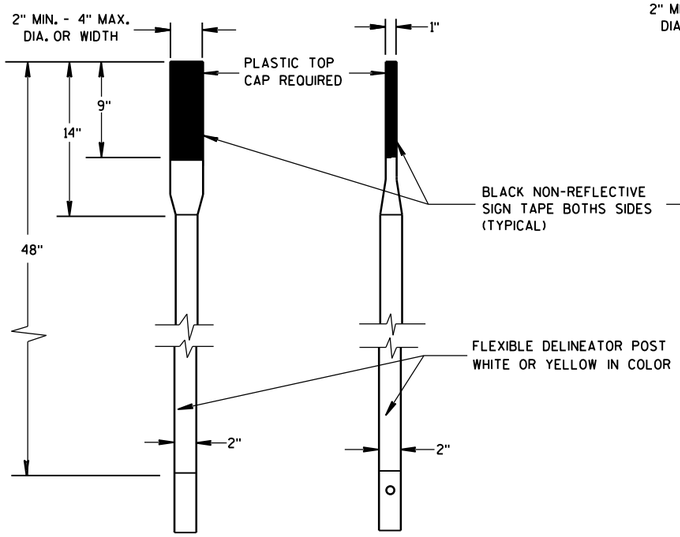
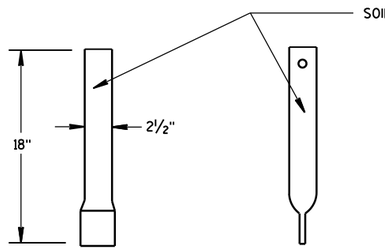
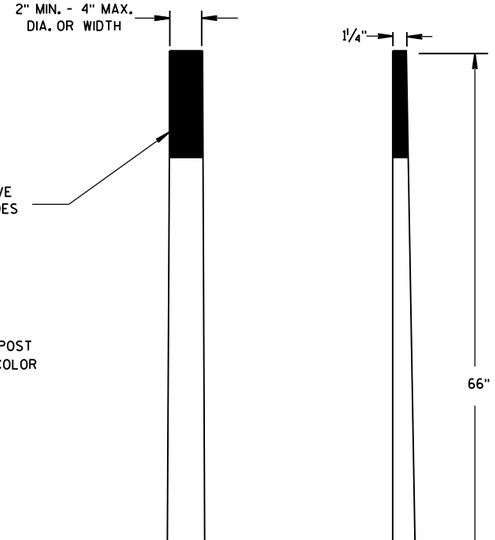
S.D.D. 15 A 3-2a





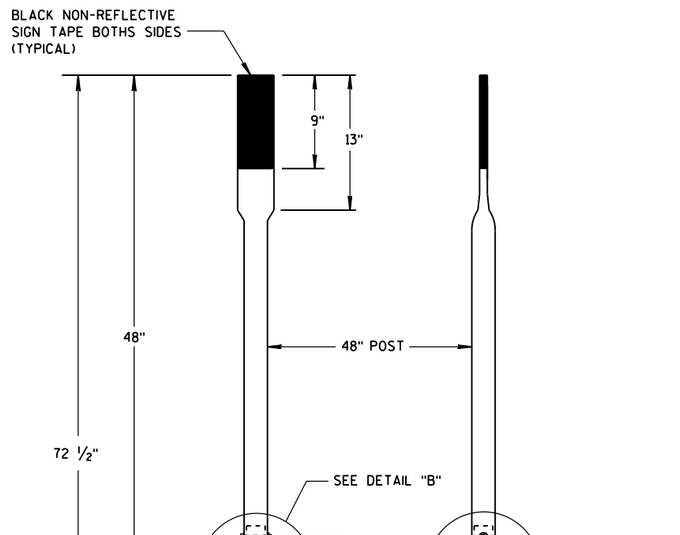
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

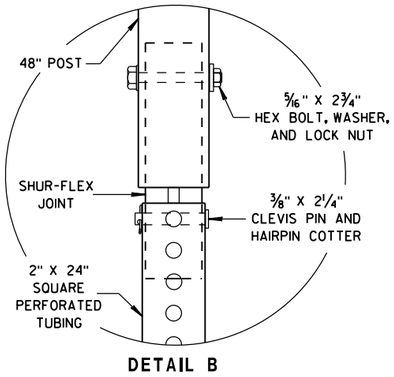
ALTERNATE 2



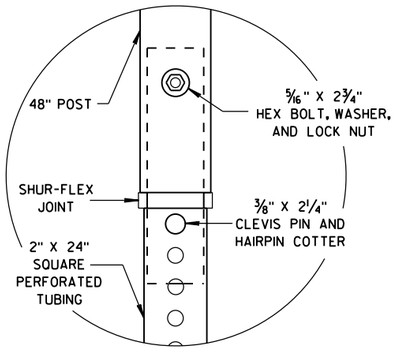
FRONT VIEW SIDE VIEW

ALTERNATE 3

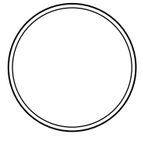
FLEXIBLE MARKER POSTS



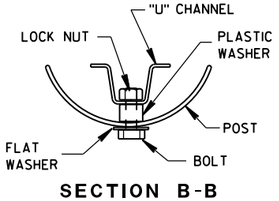
DETAIL B



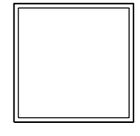
DETAIL C



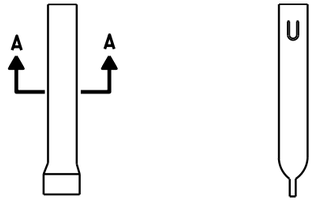
SECTION A-A



SECTION B-B

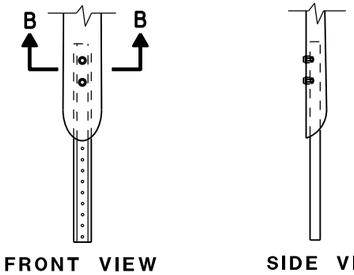


SECTION C-C



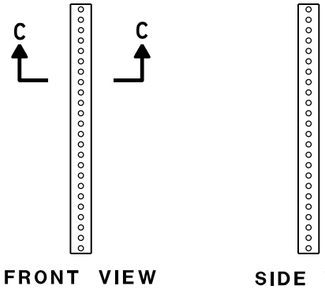
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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S.D.D. 15 A 3-2b

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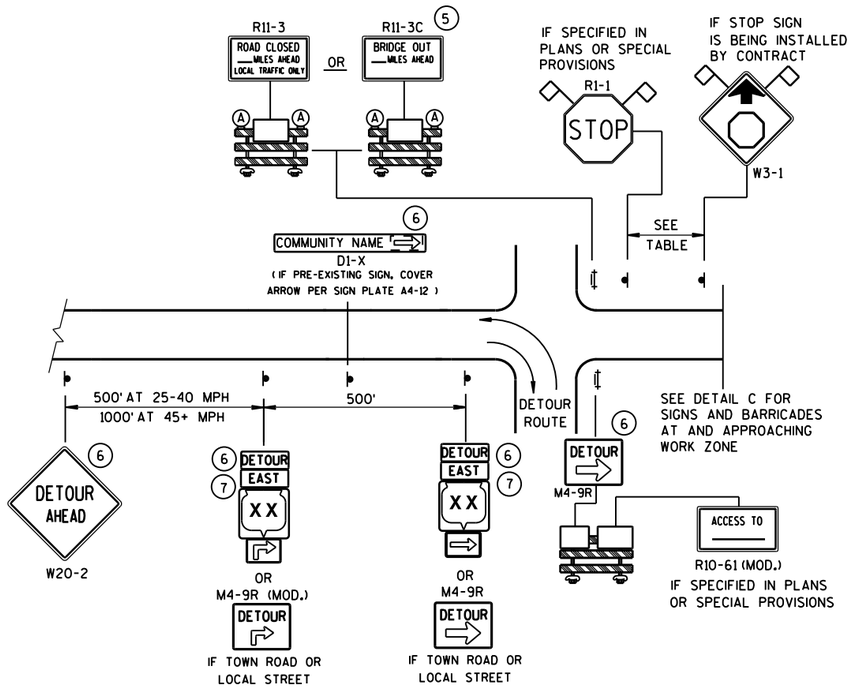
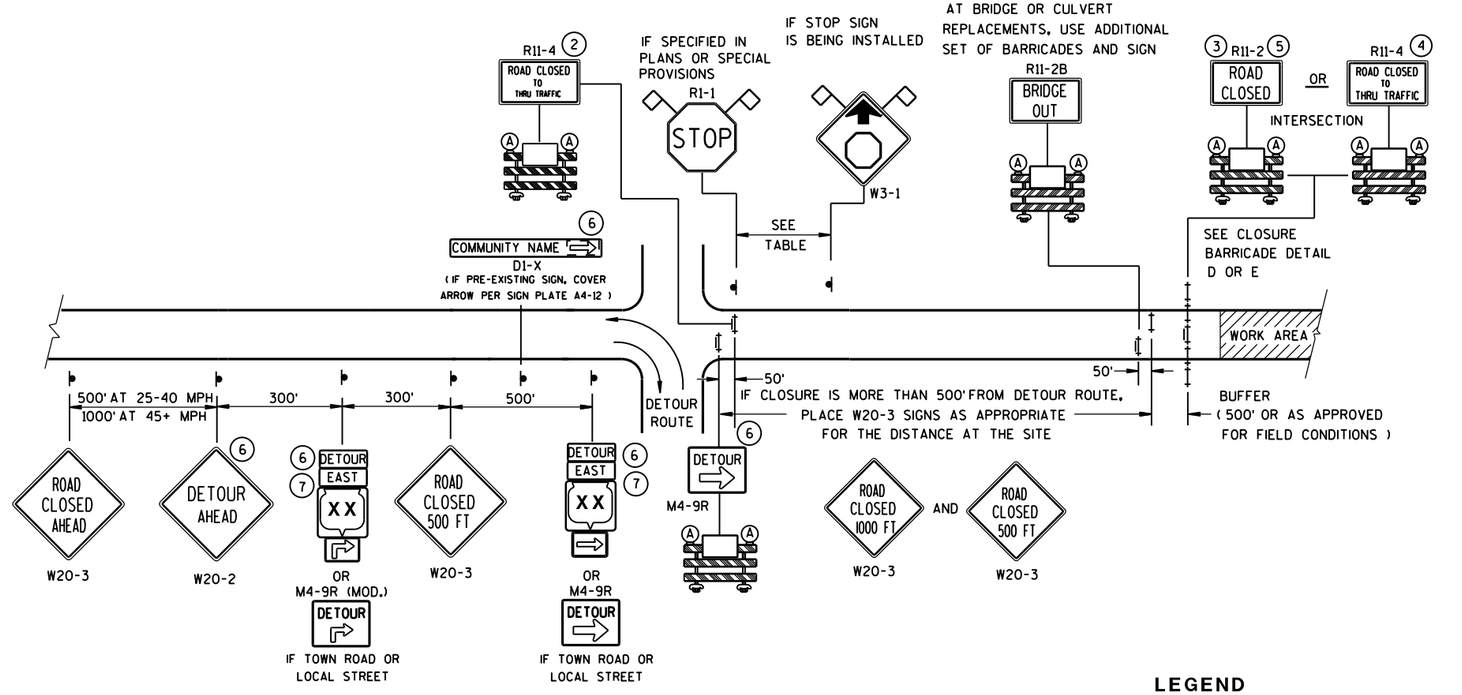
S.D.D. 15 A 3-2b



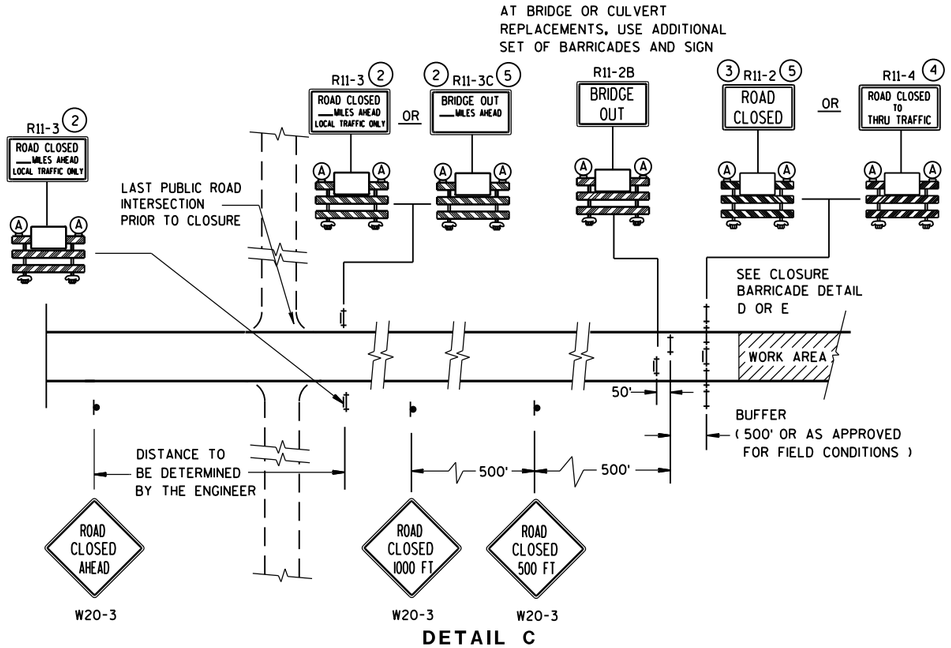
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS 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-SHEET "**b**"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- DETOUR / EAST — M4-8 / M3-X
- XX — M1-4; COUNTY XX — M1-5A; XX — M1-6
- M05-1 OR M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

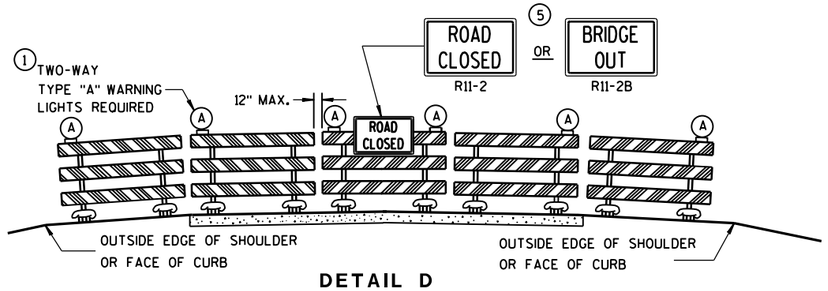
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

8/2013 DATE — /S/ Travis Feltes STATE TRAFFIC ENGINEER — DESIGN

FHWA

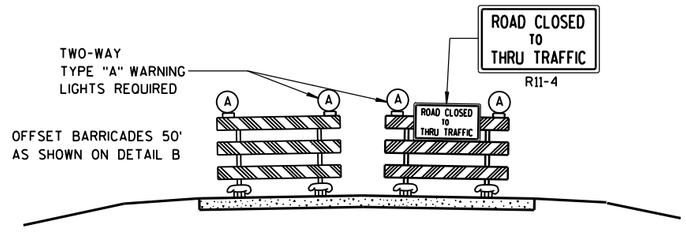
6
S.D.D. 15 C 2-5a



DETAIL D

ROAD CLOSURE BARRICADE DETAIL

APPROACH VIEW



DETAIL E

LANE CLOSURE BARRICADE DETAIL

APPROACH VIEW

SEE SDD 15C2-SHEET "**a**" 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.

"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 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- 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

8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
DESIGN
FHWA

6

S.D.D. 15 C 2-5b

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.

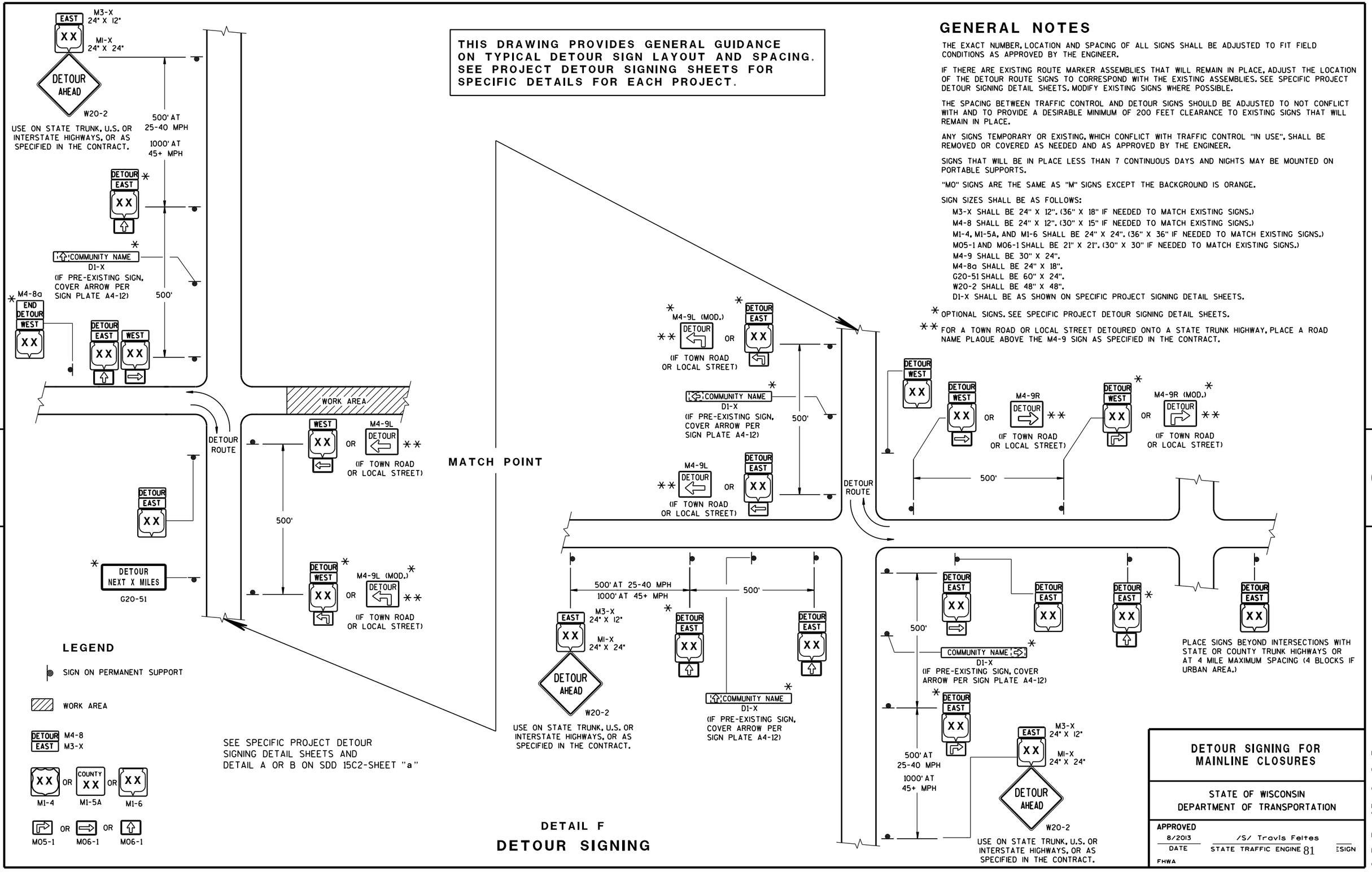
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- 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.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

* OPTIONAL SIGNS. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS.

** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- 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

SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

DETAIL F

DETOUR SIGNING

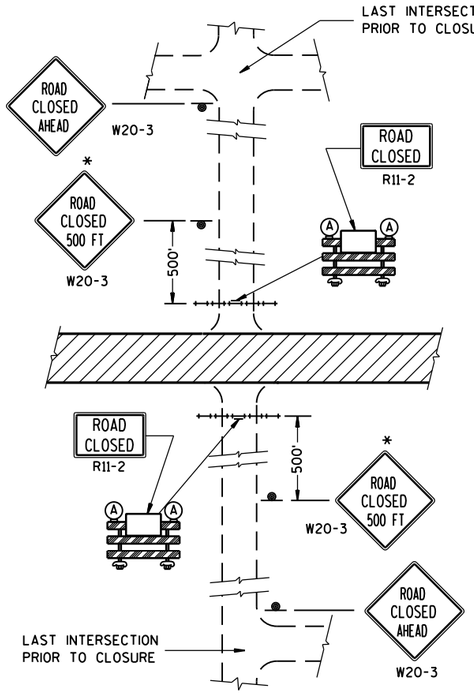
DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER

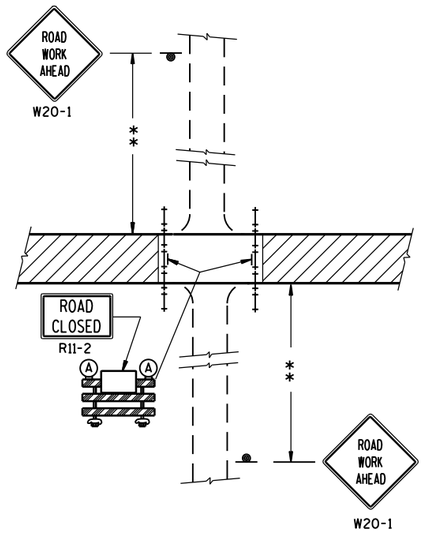
FHWA

S.D.D. 15 C 2-5c



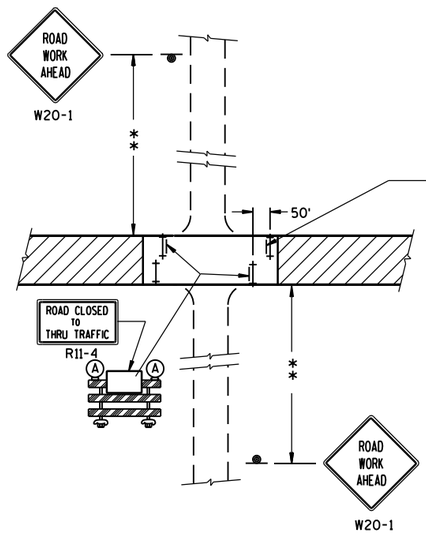
DETAIL 1

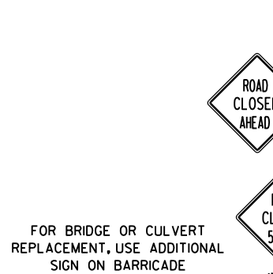
(NO ACCESS TO PROJECT)



DETAIL 2

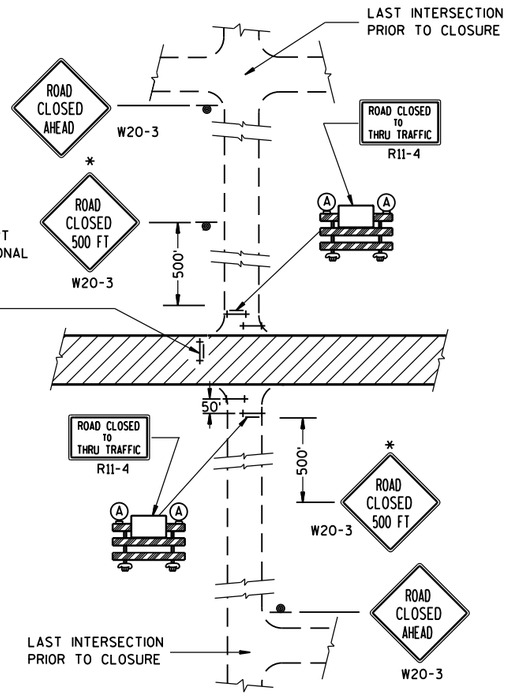
(PUBLIC CROSS-TRAFFIC MAINTAINED. NO ACCESS TO PROJECT).





DETAIL 3

(PUBLIC CROSS-TRAFFIC MAINTAINED. CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS).



DETAIL 4

(CONTRACTOR, LOCAL BUSINESS AND RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

BARRICADES THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY RE-ESTABLISHED UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

ALL TYPE III BARRICADES SHALL HAVE RAILS REFLECTORIZED ON BOTH FACES. STRIPES SHALL BE PROPERLY SLOPED DOWN TOWARD THE TRAFFIC SIDE OR AS SHOWN IN THE ROAD CLOSURE BARRICADE DETAIL D FOR FULL ROAD CLOSURES.

TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

THE R11-2, R11-3 AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
R11-2 SHALL BE 48" X 30".
R11-4 AND R11-3 SHALL BE 60" X 30".

*OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FT. OR LESS FROM THE WORK ZONE.

**500' MAX. OR AT LAST INTERSECTION WHICHEVER IS CLOSER.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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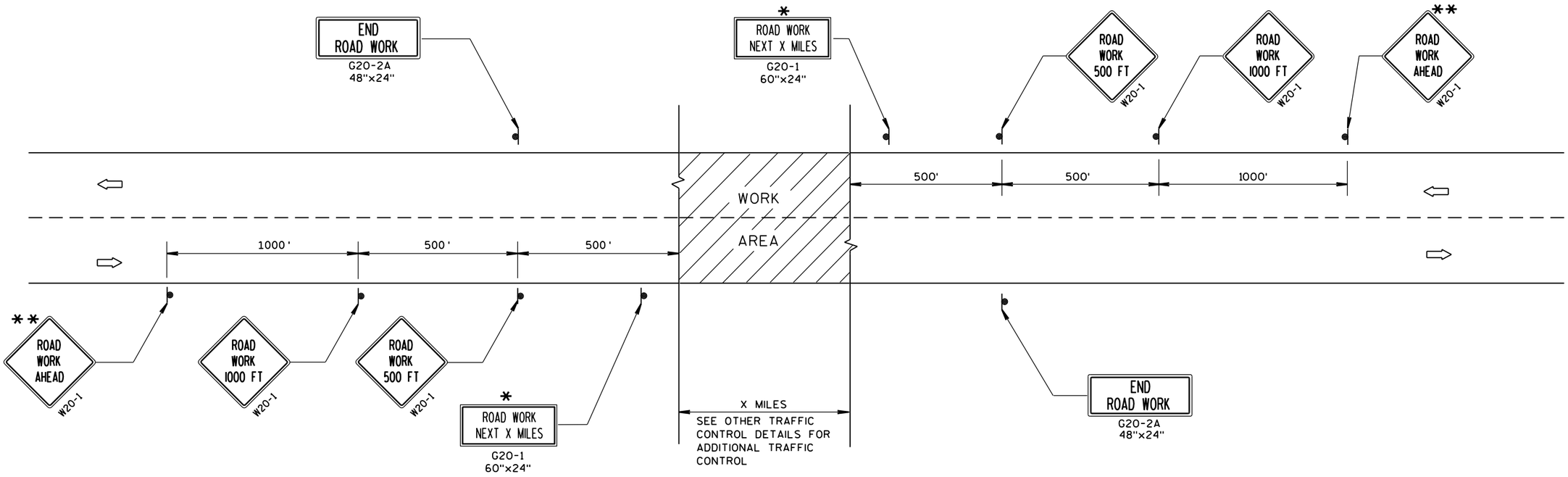
S.D.D. 15 C 3-2

6

S.D.D. 15 C 3-2



TYPICAL SIDEROAD APPROACH WARNING SIGN DETAIL

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.

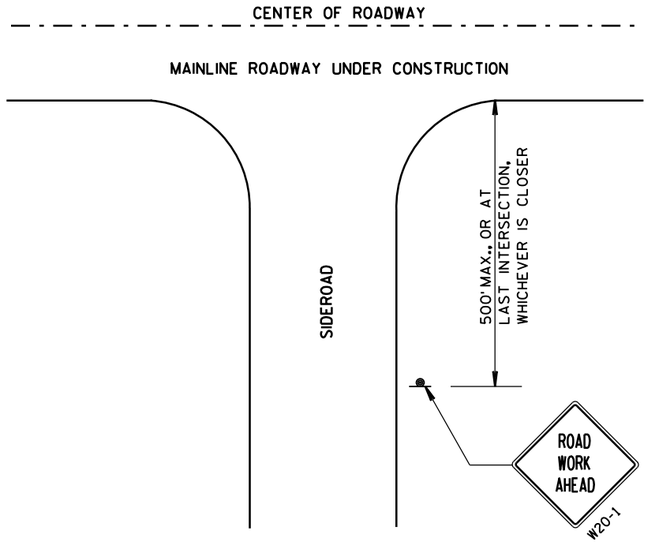
ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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.



LEGEND

- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

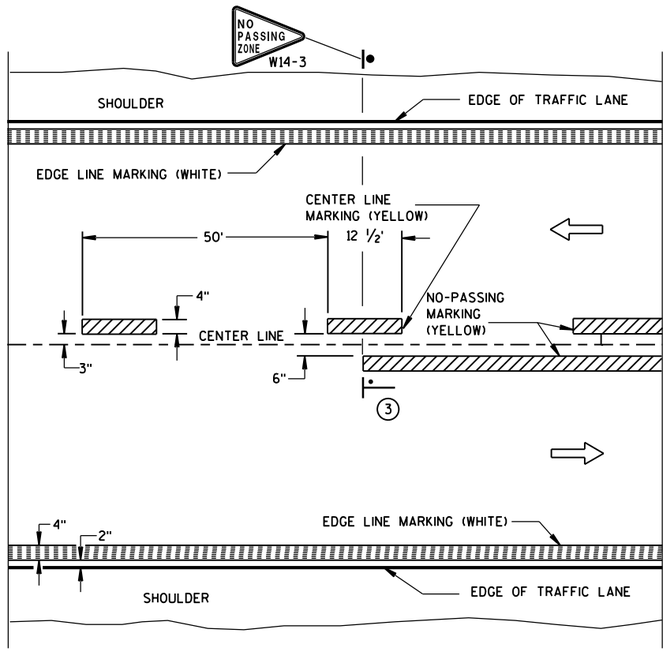
APPROVED

8/2013	/S/ Travis Feltes	
DATE	STATE TRAFFIC ENGINEER	SIGN

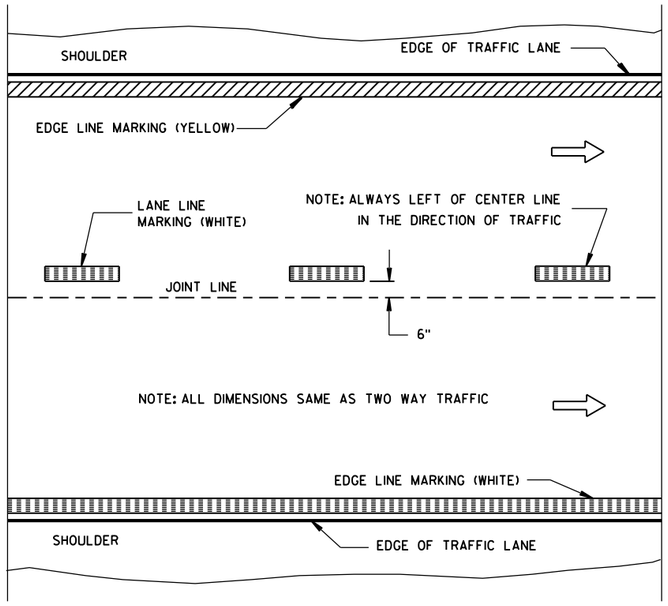
FHWA

6

S.D.D. 15 C 4-2

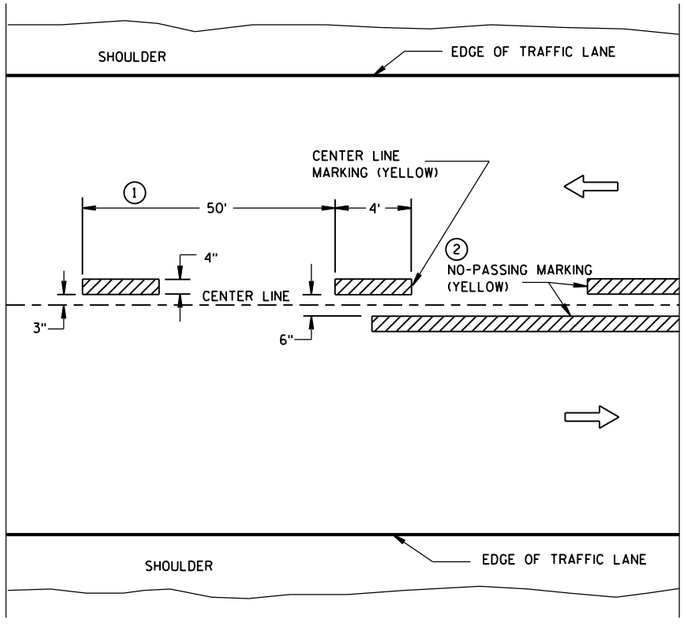


TWO WAY TRAFFIC

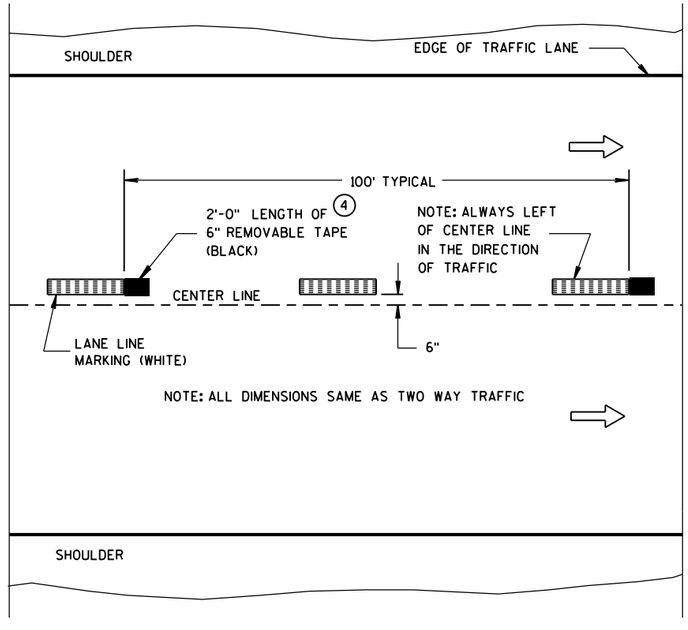


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

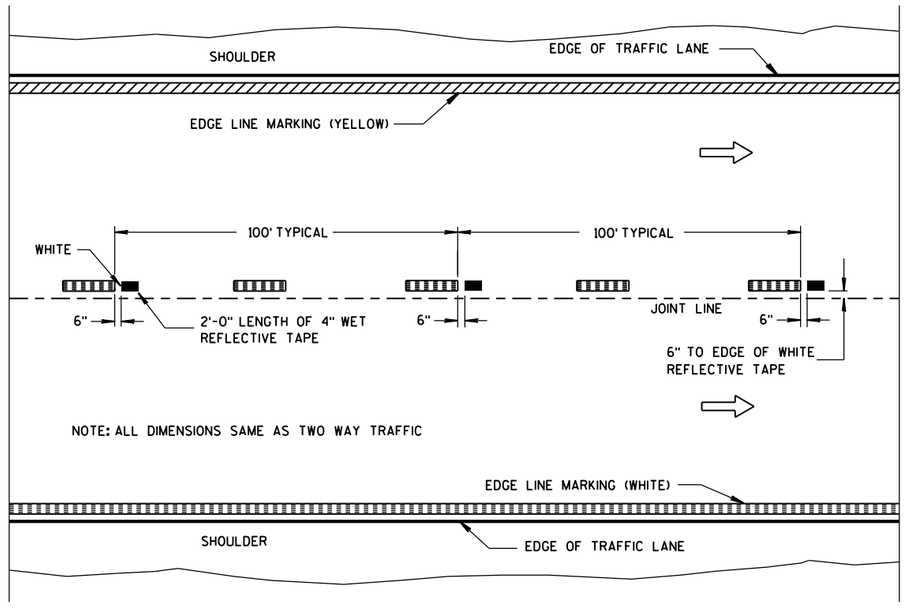
GENERAL NOTES

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

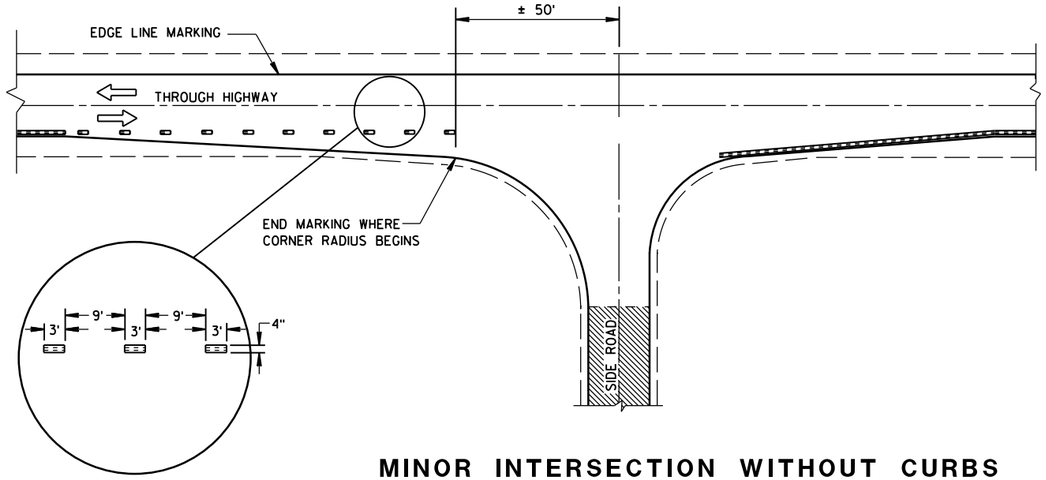
APPROVED
5-13-2013 DATE
/S/ Travis Feltes STATE TRAFFIC E
FHWA

6

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

6

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



MINOR INTERSECTION WITHOUT CURBS

GENERAL NOTES

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

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

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

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

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

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

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

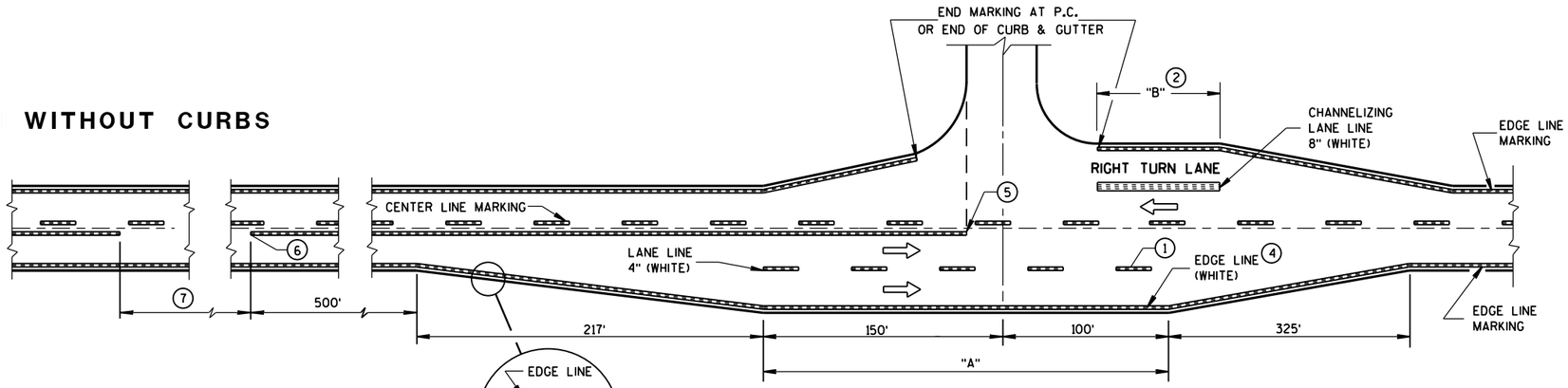
(7) IF THE DISTANCE BETWEEN 2 SUCCESSIVE NO-PASSING ZONES IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES, CONNECT THE 2 ZONES.

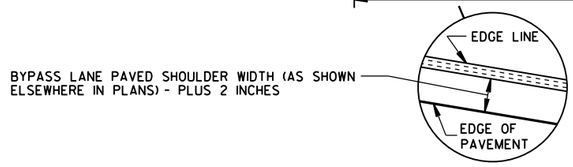
(8) 3' LINE 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

(7)

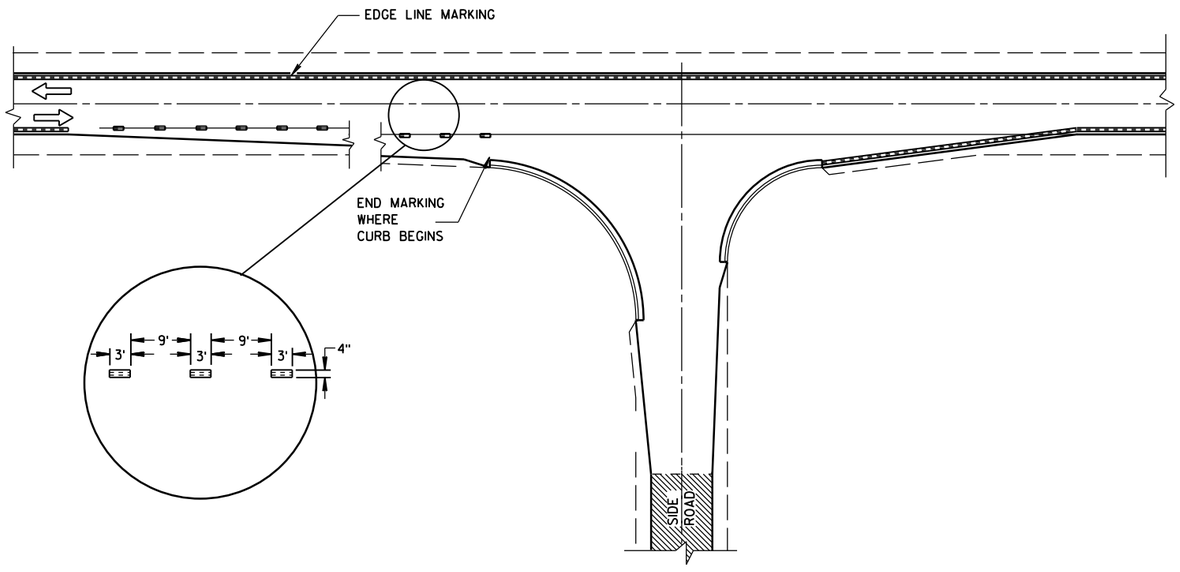
POSTED SPEED (MPH)	MINIMUM DISTANCE BETWEEN ZONES (FEET)
25 - 30	528
35 - 40	528
45 - 50	686
55	792





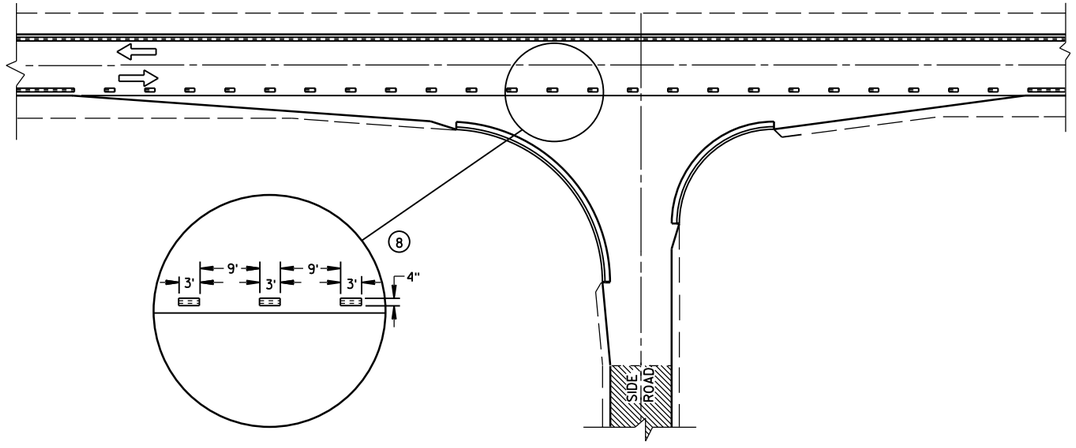
MAJOR INTERSECTIONS

(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANES)



MINOR INTERSECTION WITH CURBS

(TYPICAL MARKING)



MINOR INTERSECTION WITH CURBS

(3) (FOR SPECIAL CONDITIONS AS SPECIFIED)

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

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

6

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

LEGEND

SIGN ON PORTABLE OR PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA

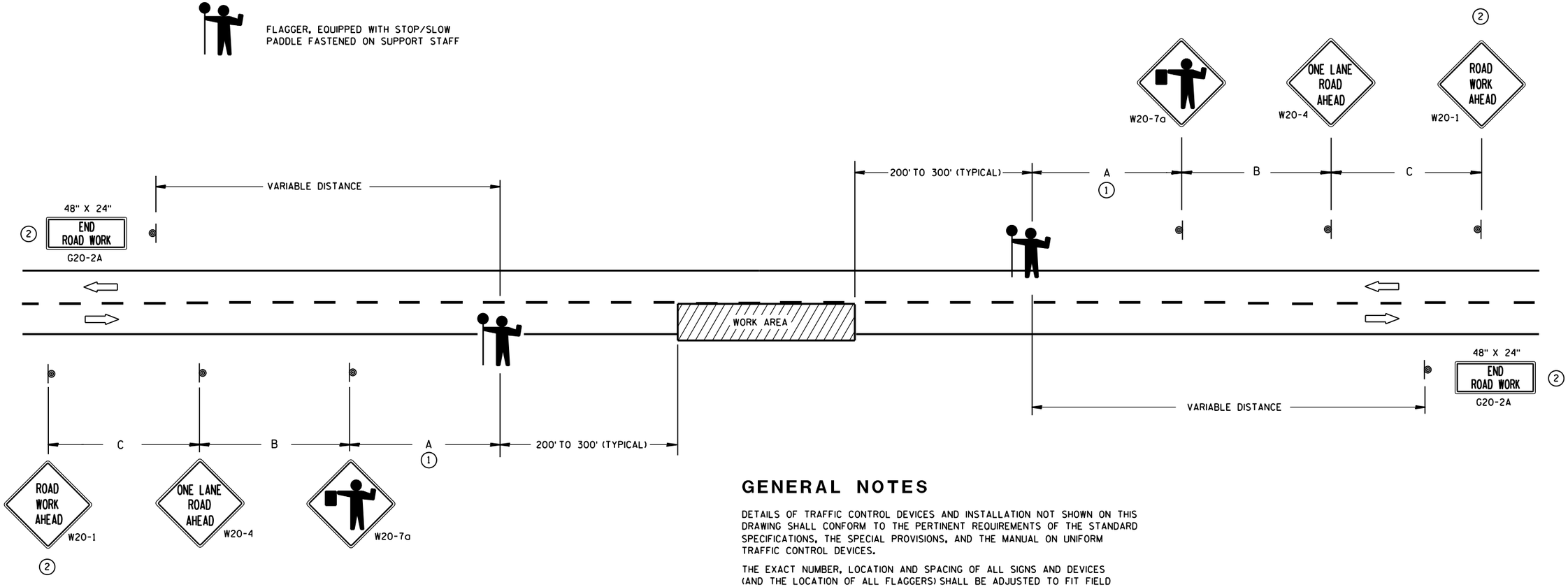
FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

SIGN SPACING TABLE

SPEED LIMIT	SIGN SPACING A,B,C
25-35 MPH	200'
35-40 MPH	350'
45-55 MPH	500'

W3-4

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



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

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

GENERAL NOTES

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

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

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

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

FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.

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

TRAFFIC CONTROL FOR LANE CLOSURE (SUITABLE FOR MOVING OPERATIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

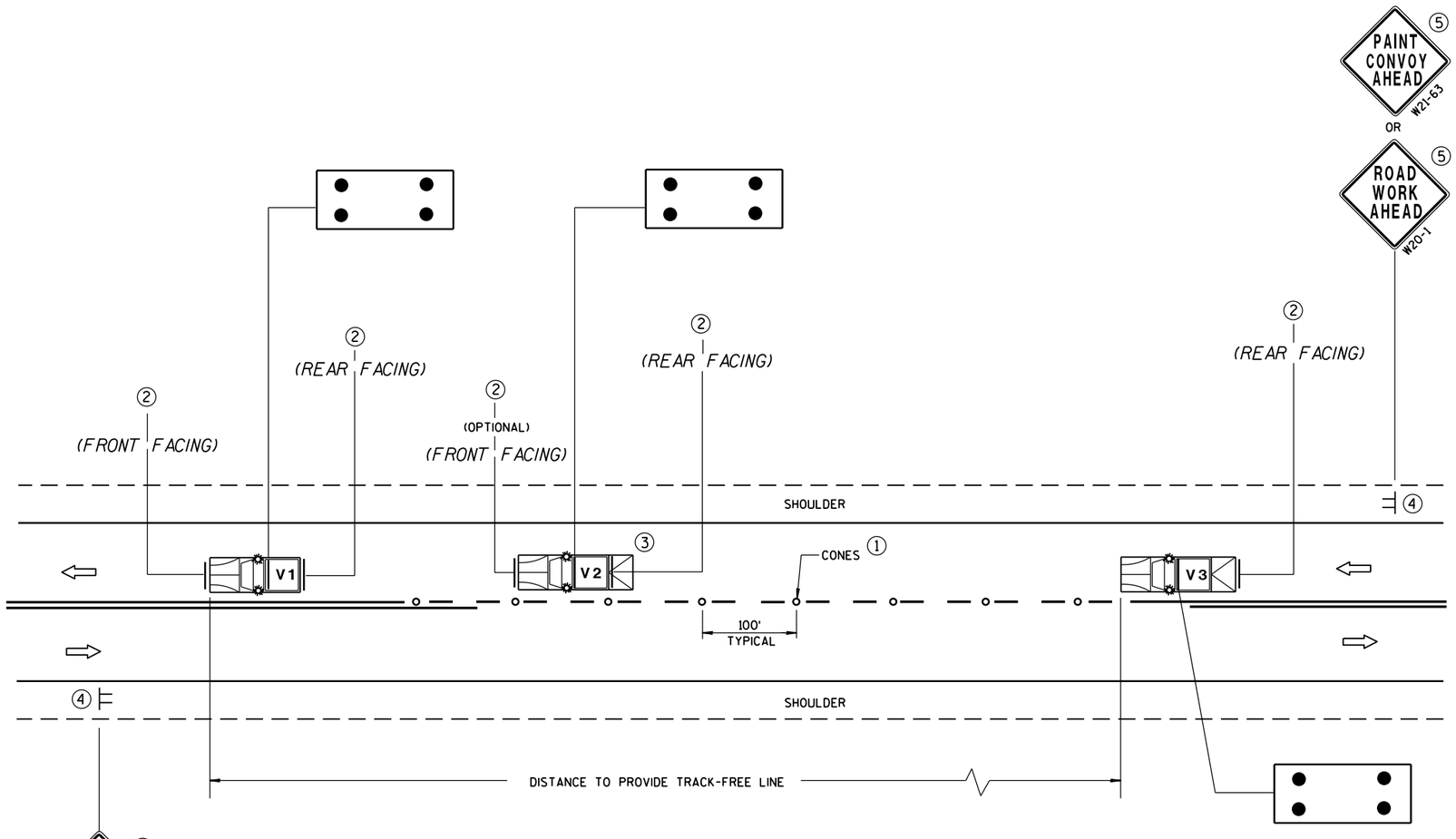
APPROVED
8/2013 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

S.D.D. 15 C 12-4

6

S.D.D. 15 C 12-4



MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY

GENERAL NOTES

ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL OPERATING IN CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

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

IF SPEED LIMIT IS 40 MPH OR LESS STATIONARY SIGNS MAY BE OMITTED IF CONES ARE USED.

ALTERNATE SIGN MESSAGES, SUCH AS "PAINT CREW AHEAD" OR "ROAD PAINTING AHEAD" MAY BE USED.

DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE, PAINT DRYING TIME, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

THE WORK AND SHADOW VEHICLES SHOULD PULL OVER PERIODICALLY TO ALLOW TRAFFIC TO PASS.

THIS DRAWING SHALL BE USED FOR CENTERLINE OR EDGELINE MARKING.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR TURN THE STATIONARY WARNING SIGNS AWAY FROM TRAFFIC.

(1) CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

(2) USE STANDARD SIGN W21-64 WITH APPROPRIATE ARROW.

WET PAINT W21-64 OR WET PAINT W21-64

(3) OPTIONAL TRUCK-MOUNTED ATTENUATOR.

(4) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.

(5) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1 OR W21-63 ARE NOT REQUIRED.

LEGEND

V1	LEAD VEHICLE
V2	SHADOW VEHICLE
V3	TRAIL VEHICLE WITH TMA
TMA	TRUCK-MOUNTED ATTENUATOR
	SIGN ON TEMPORARY SUPPORT
	DIRECTION OF TRAFFIC
	CONES
	FLASHING ARROW PANEL (CAUTION)

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED	
5/3/2013 DATE	/S/ Travis Feltes STATE TRAFFIC E
FHWA	

6

S.D.D. 15 C 19-2a

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.

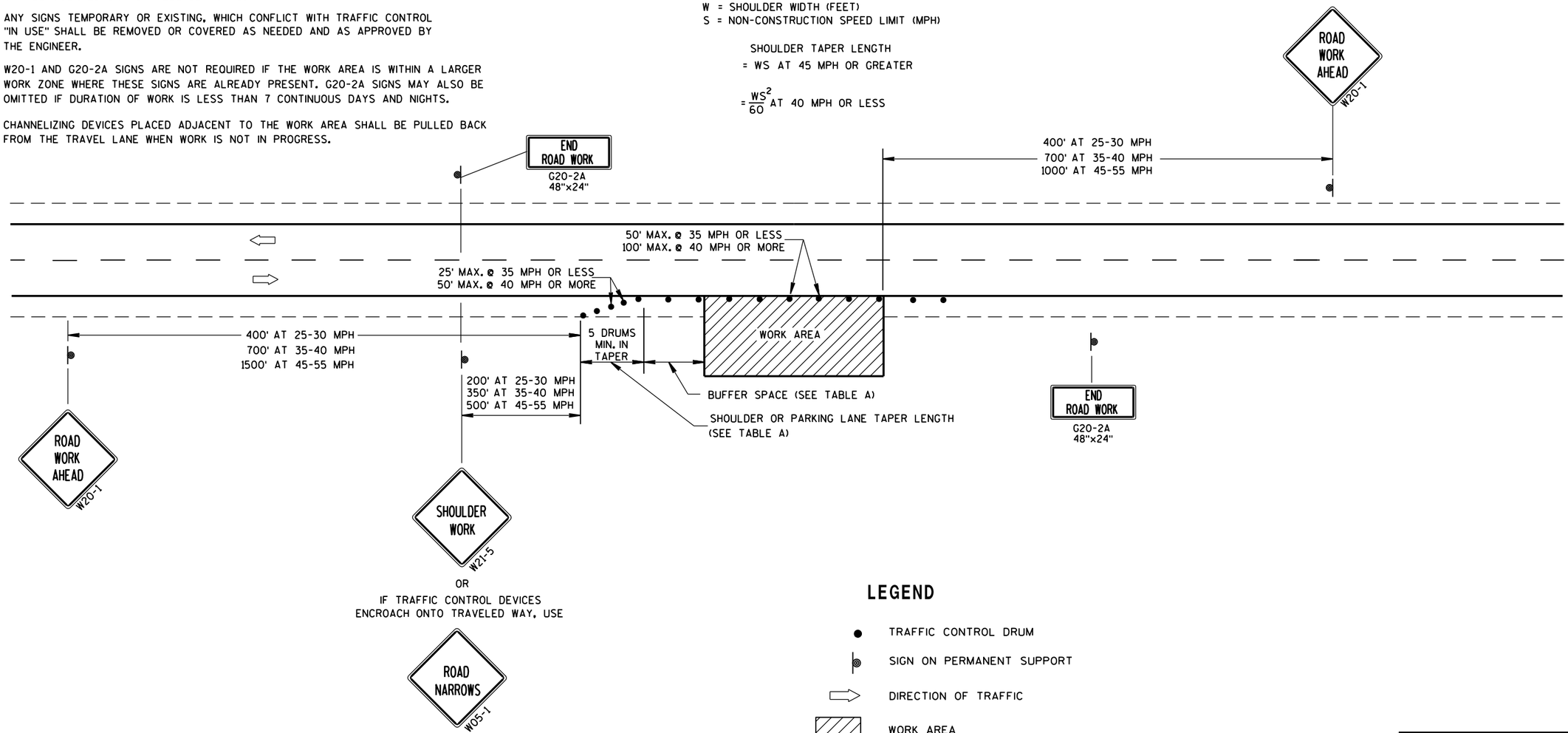
TABLE A

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
= WS AT 45 MPH OR GREATER

$= \frac{WS^2}{60}$ AT 40 MPH OR LESS



LEGEND

- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC
- WORK AREA

TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 DATE

/S/ Travis Feltes
STATE TRAFFIC ENGINEER

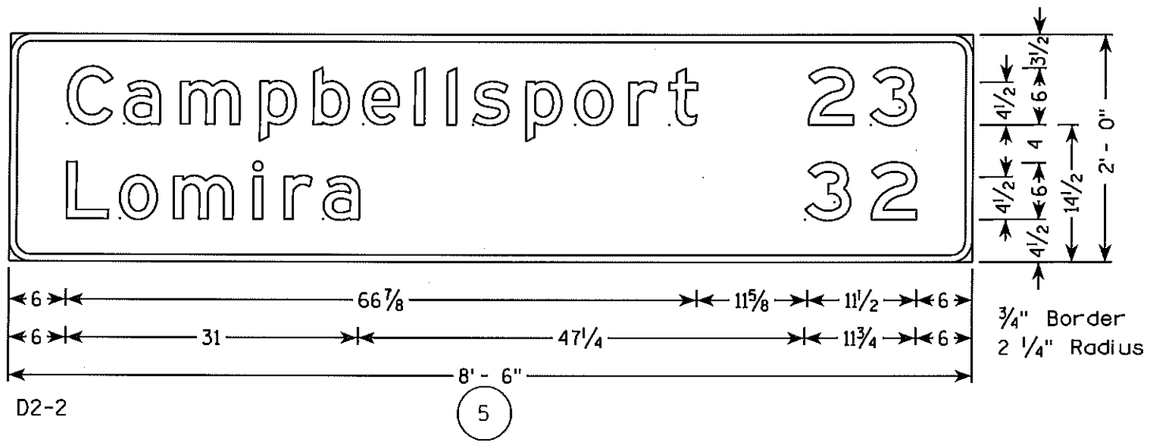
FHWA

6

S.D.D. 15 D 28-2

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 except as Noted
   Message - WHITE
3. Message Series - E Except as Noted



D2-2

5

7

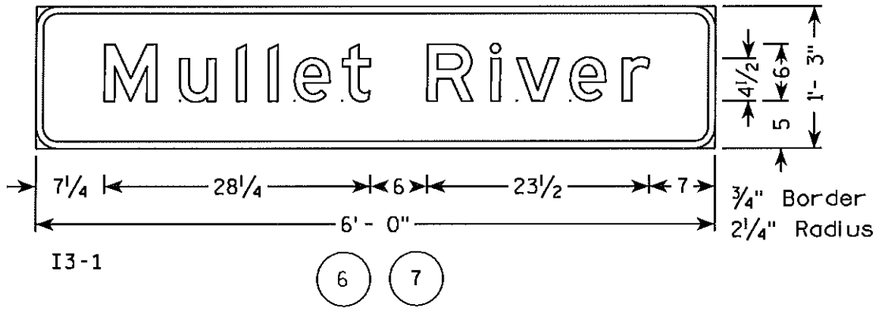
7

PLAN SHEET PRODUCED BY WisDOT-NE REGION

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	SIGN DETAILS	SHEET NO: 89

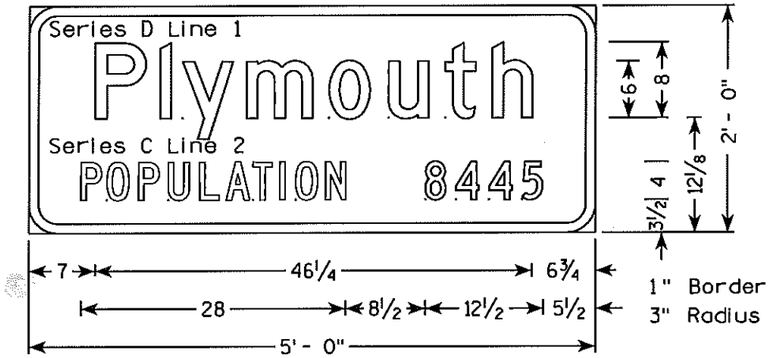
NOTES

1. All Signs Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - GREEN except as Noted
   Message - WHITE
3. Message Series - E Except as Noted



I3-1

6 7



I2-3

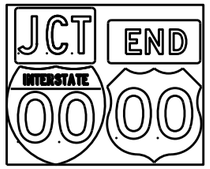
13

PLAN SHEET PRODUCED BY WisDOT-NE REGION

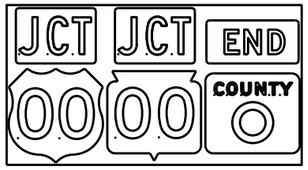
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	SIGN DETAILS	SHEET NO: 90 E

TYPICAL ASSEMBLIES

J1-1

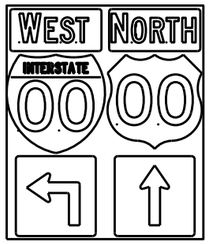


J1-2

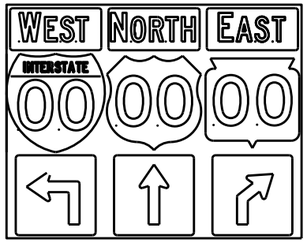


J1-3

J2-1



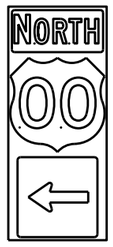
J2-2



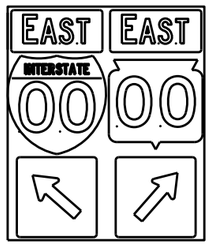
J2-3

JV

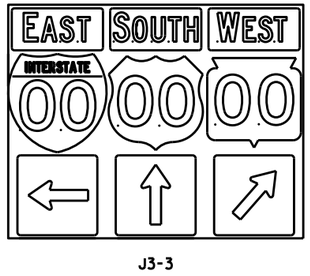
(Typical Vertical J-Assembly
See Note 10 and 11)



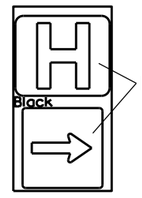
J3-1



J3-2



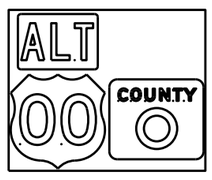
J3-3



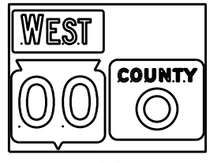
Blue Background

JH-1

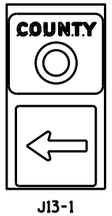
J4-1



J4-2



J4-2



J13-1

J12-1

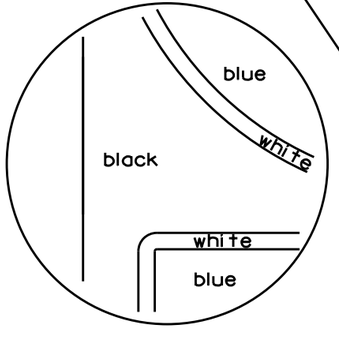
J32-1

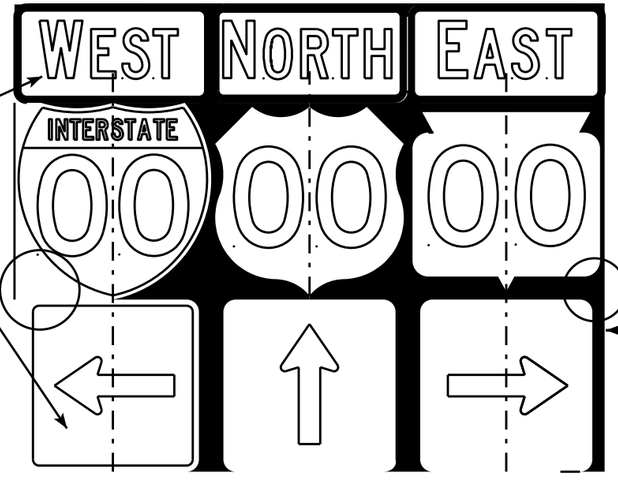
J33-1

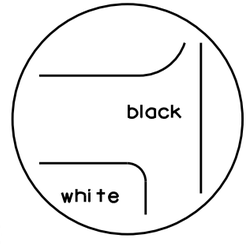
J23-1

J22-1

[blue background with interstate]







[black background]

NOTES

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

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

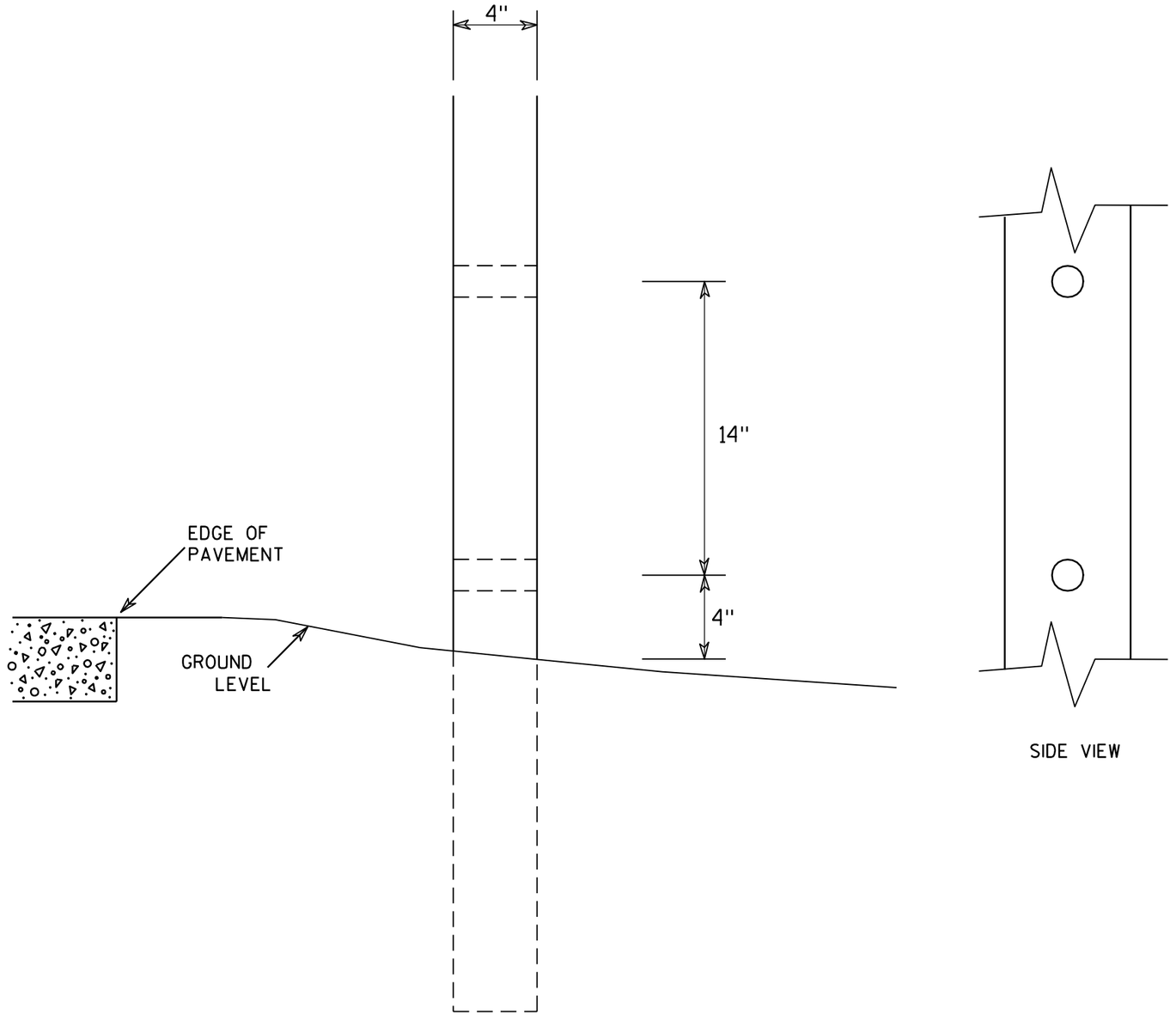
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/06/14 PL... A2-1S.8

PROJECT NO: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

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.

7

7

4 X 6 WOOD POST MODIFICATIONS

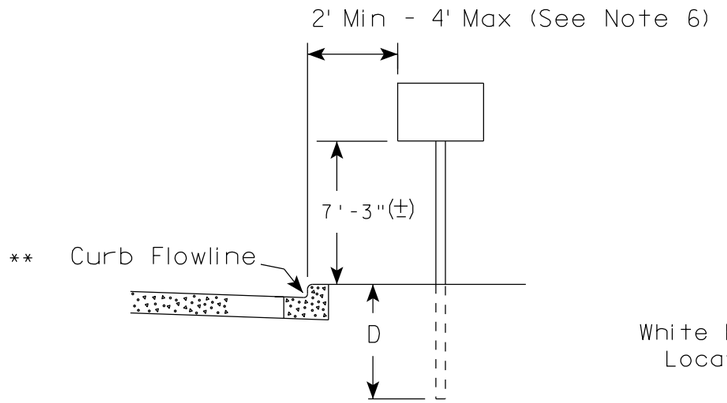
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for State Traffic Engineer

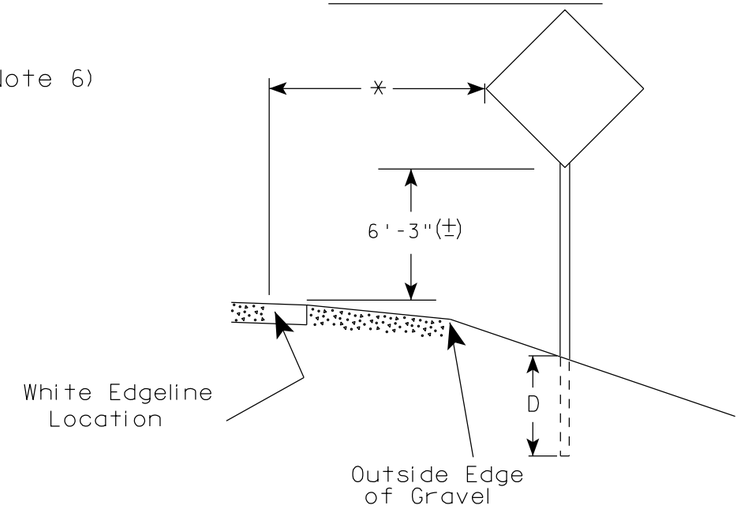
DATE 3/27/97 PLATE NO. A4-11.2

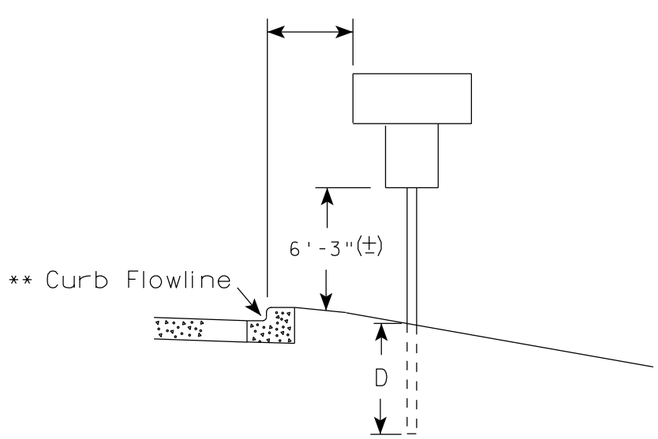
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 92	E

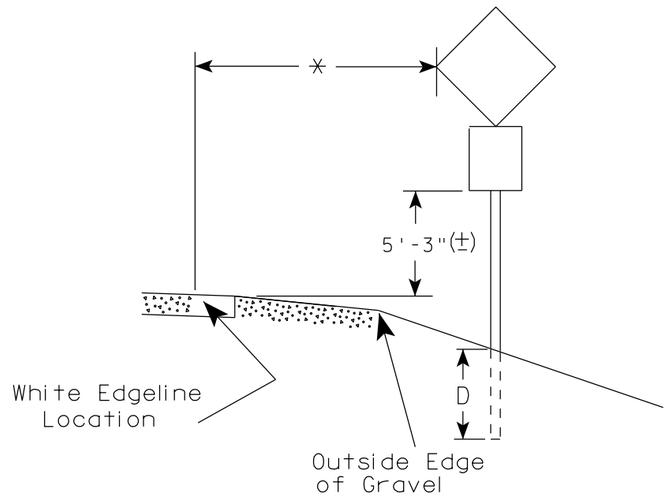
URBAN AREA



RURAL AREA (See Note 2)







** 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.

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet, 20 sq.ft or larger, 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 (A2-1S) 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 signs shall be mounted at a height of 5'-3" (±) or as directd 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

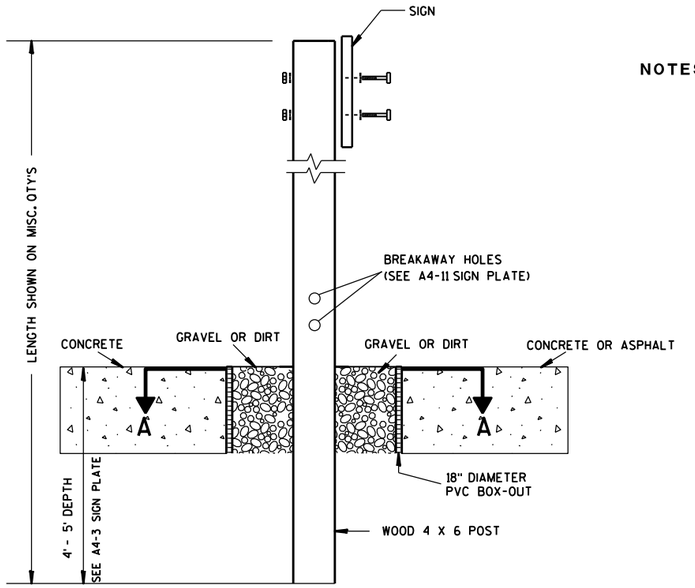
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-3.19

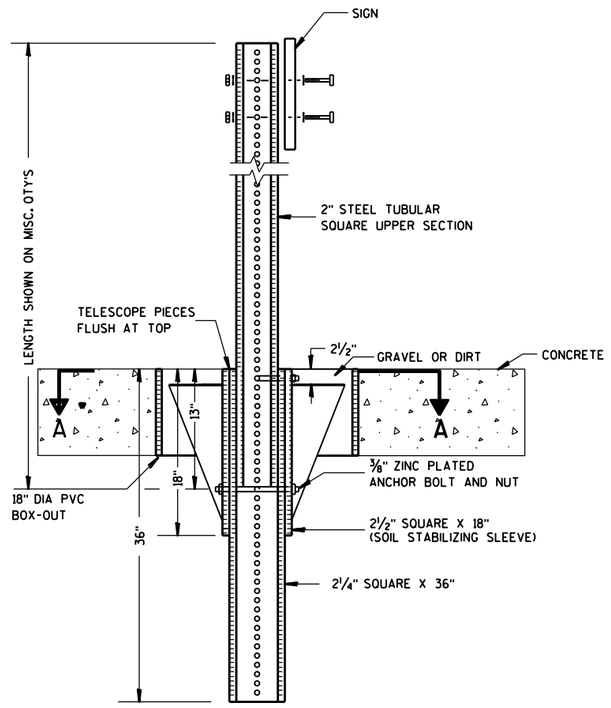
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

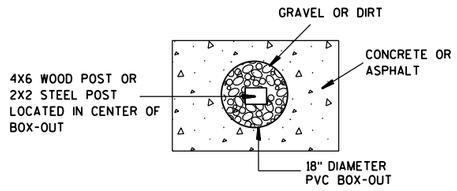
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

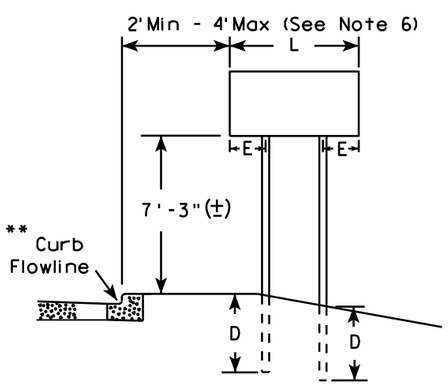
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

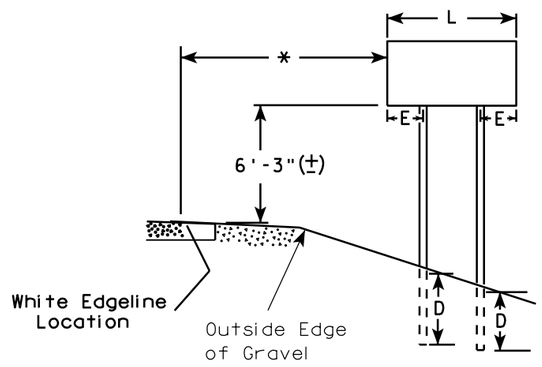
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

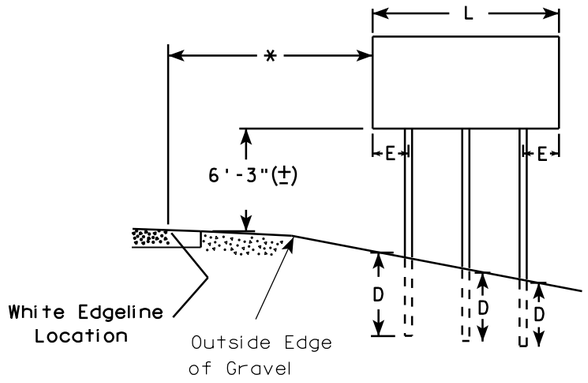
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

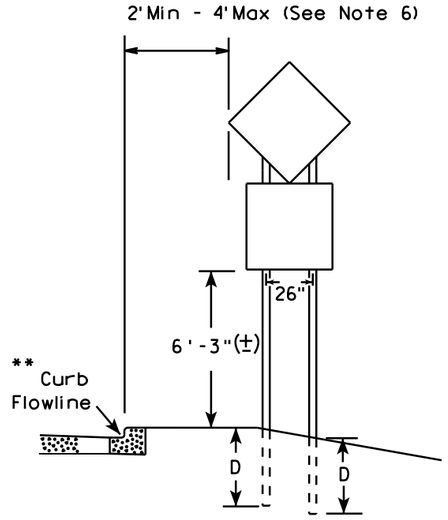
URBAN AREA



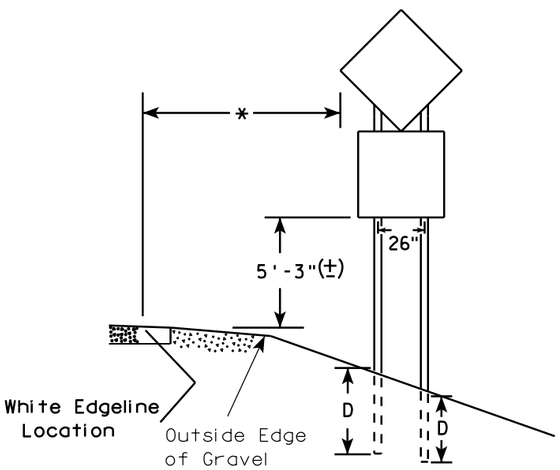
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

GENERAL NOTES

1. For 3 or 4 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 (A2-1S) 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 signs 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), In Road Object Markers (W5-54) & End of Road Markers (W5-56) 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 less than 20 S.F. in area.

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'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

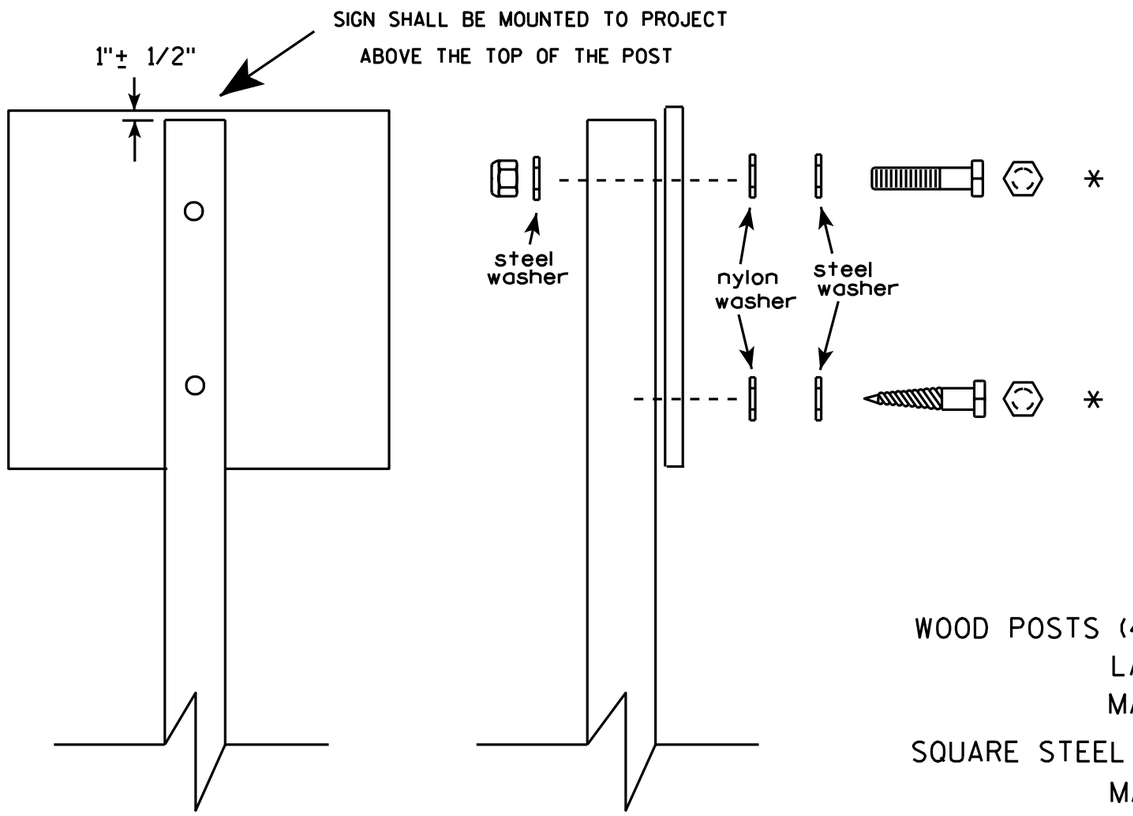
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/14 PLATE NO. A4-4 13

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 12-NOV-2014 14:01 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42



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

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

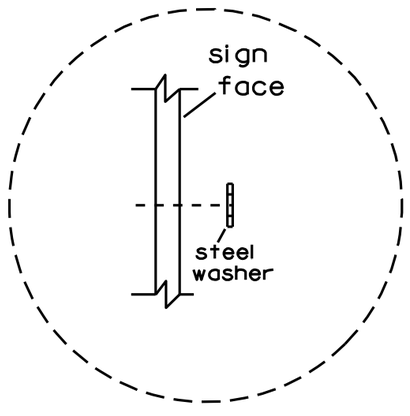
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

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

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

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



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

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

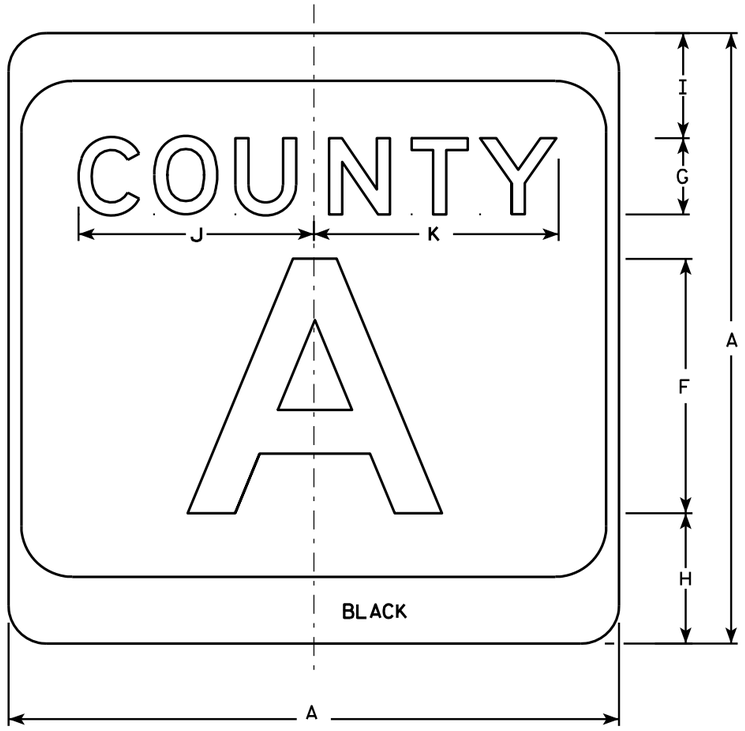
DATE 3/23/10 PLATE NO. A4-8.7

7

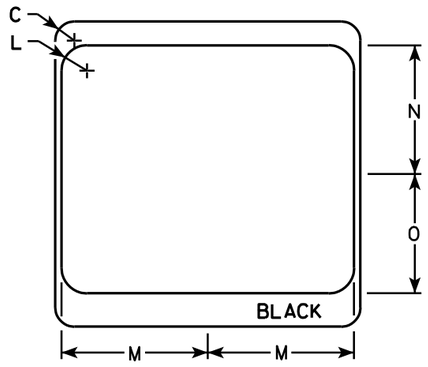
7

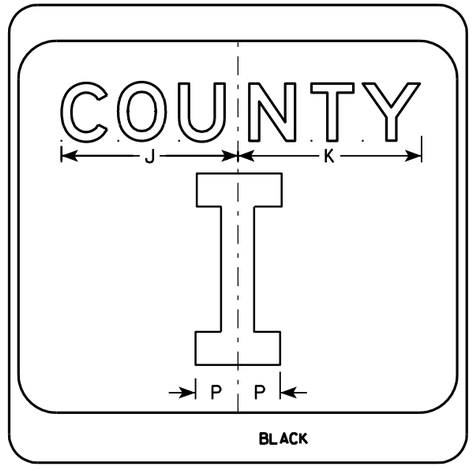
PROJECT NO:

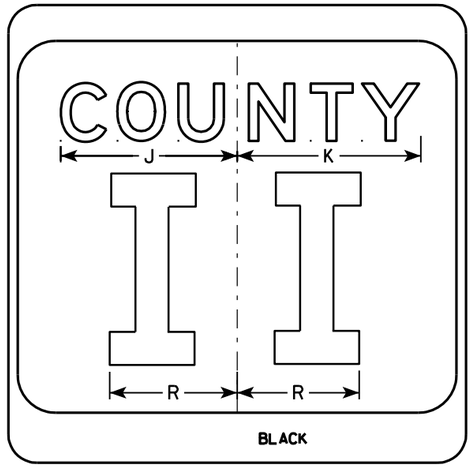
SHEET NO: 96 E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   Message - Black
3. Message Series - see Note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

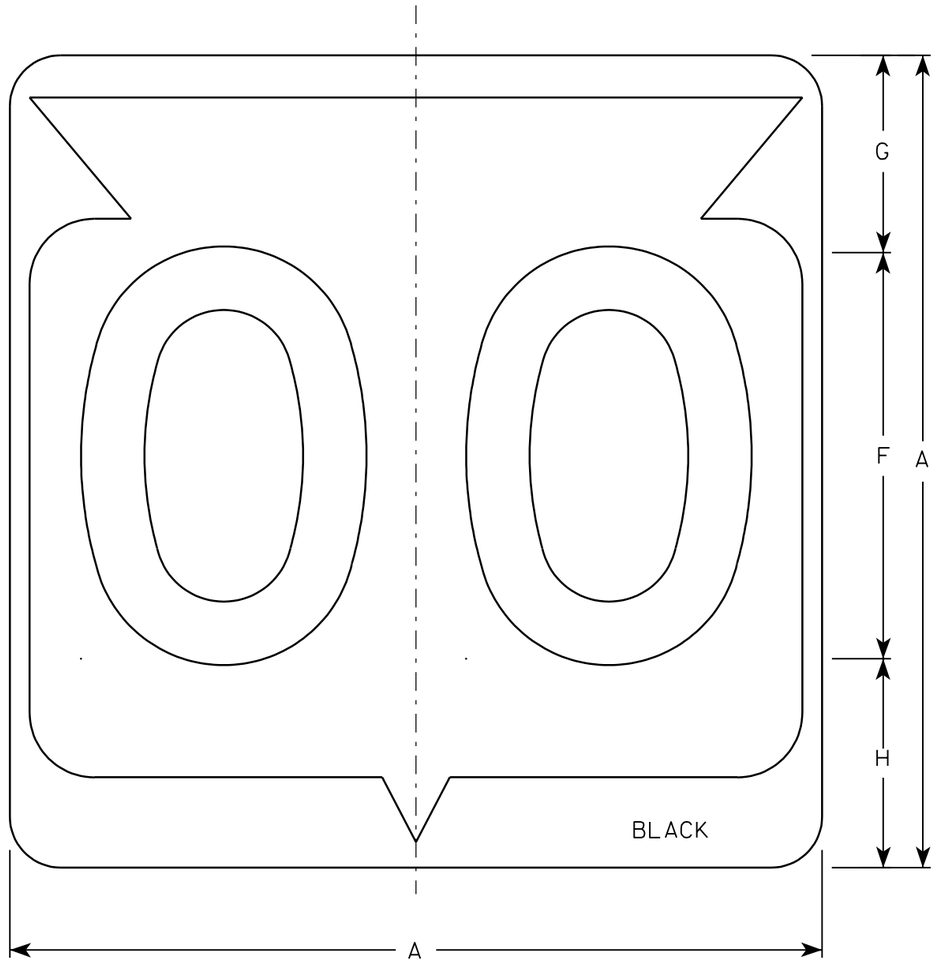
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 97 | E

7

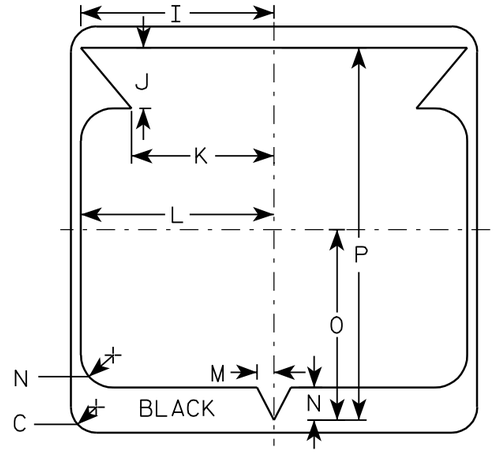
FILE NAME : C:\Users\PROJECTS\tr_stdplate\M15A.DGN PLOT DATE : 29-SEP-2011 11:25 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.959043:1.000000
WISDOT/CADDS SHEET 42



M1-6

NOTES

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



Metric equivalent for this sign is:

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

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

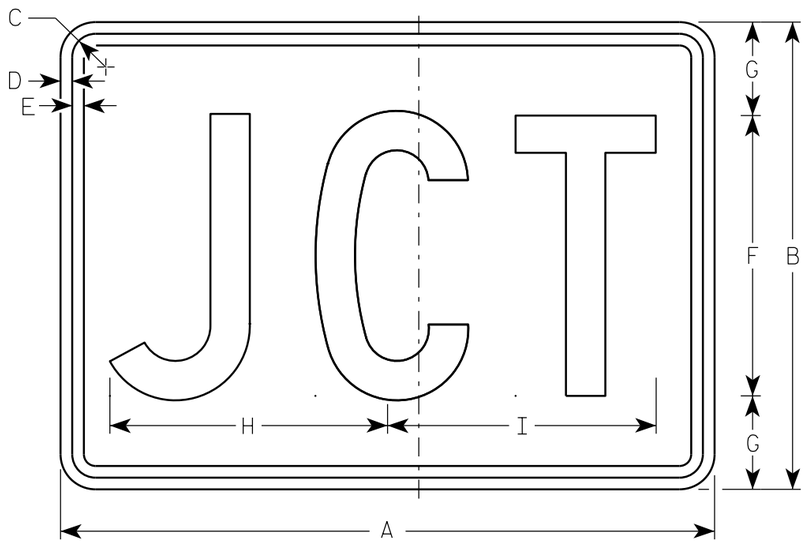
STATE ROUTE MARKER M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

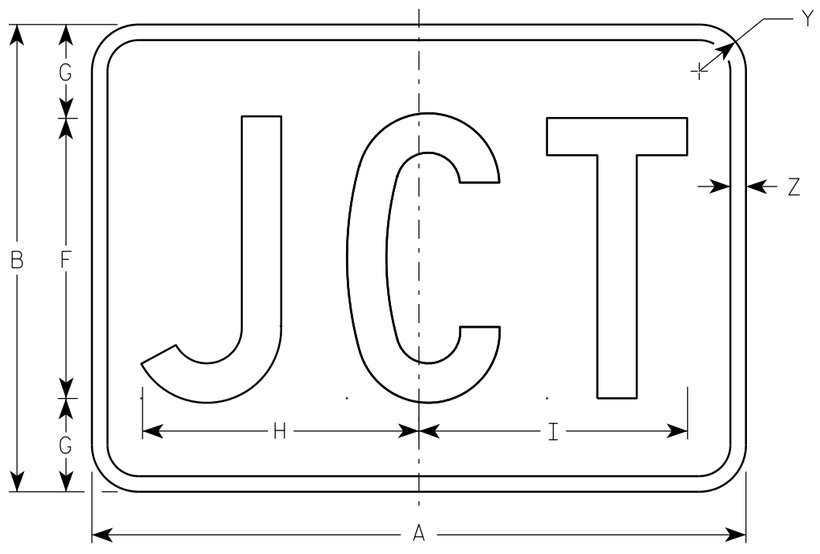
APPROVED Chester J Spang for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 98	E



M2-1
MK2-1
MM2-1
MN2-1
MR2-1



MB2-1

NOTES

1. Sign is Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M2-1 Background - White
   Message - Black
   MB2-1 Background - Blue
   Message - White
   MK2-1 Background - Green
   Message - White
   MM2-1 Background - White
   Message - Green
   MN2-1 Background - Brown
   Message - White
   MR2-1 Background - Brown
   Message - Yellow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21	15	1 1/8	3/8	3/8	9	3	8 7/8	8 5/8																1 1/2	1/2	2.20
3	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
4	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40
5	30	21	1 1/8	3/8	3/8	13	4	12 7/8	12 3/8																1 1/2	1/2	4.40

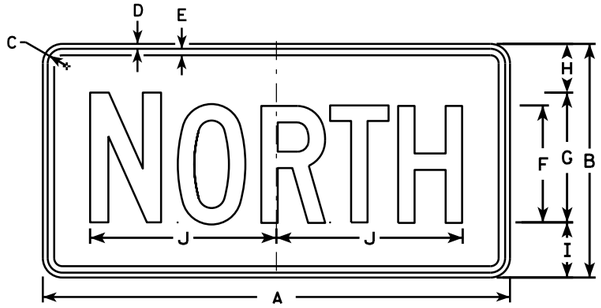
STANDARD SIGN
M2-1

WISCONSIN DEPT OF TRANSPORTATION

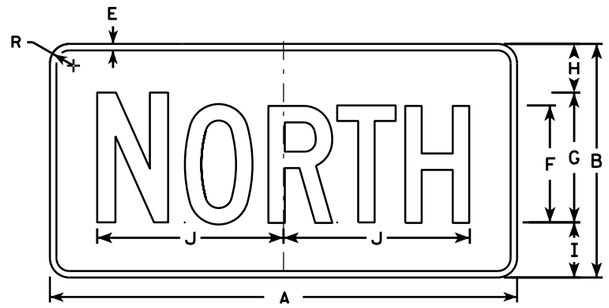
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/30/14 PLATE 99 12-1.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

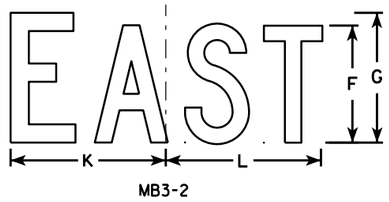


M3-1
MK3-1
MM3-1
MN3-1

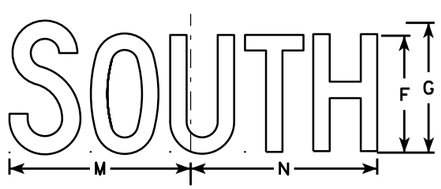


MB3-1

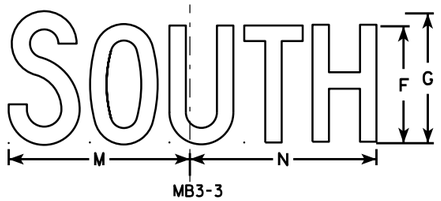
M3-2
MK3-2
MM3-2
MN3-2



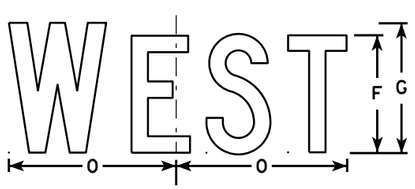
MB3-2



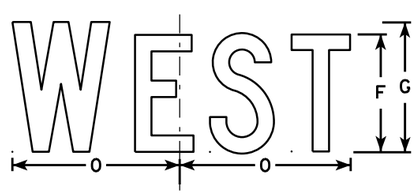
M3-3
MK3-3
MM3-3
MN3-3



MB3-3



M3-4
MK3-4
MM3-4
MN3-4



MB3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
6. Note the first letter of each direction is larger than the remainder of the message.

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

STANDARD SIGNS
M3-1 thur M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

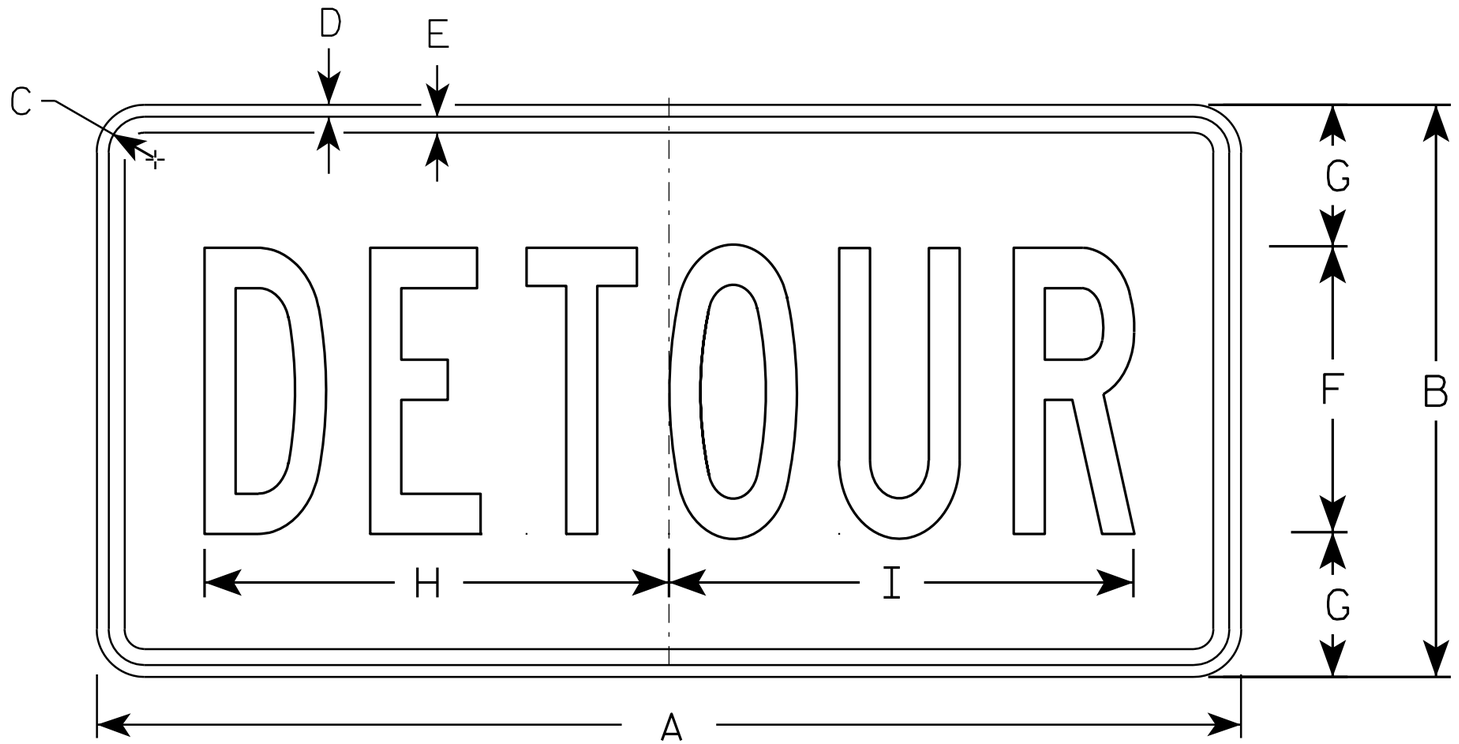
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 6/30/14 PLATE NO M3-1.13

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

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 30-JUN-2014 12:53 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000

7



M4-8

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
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																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

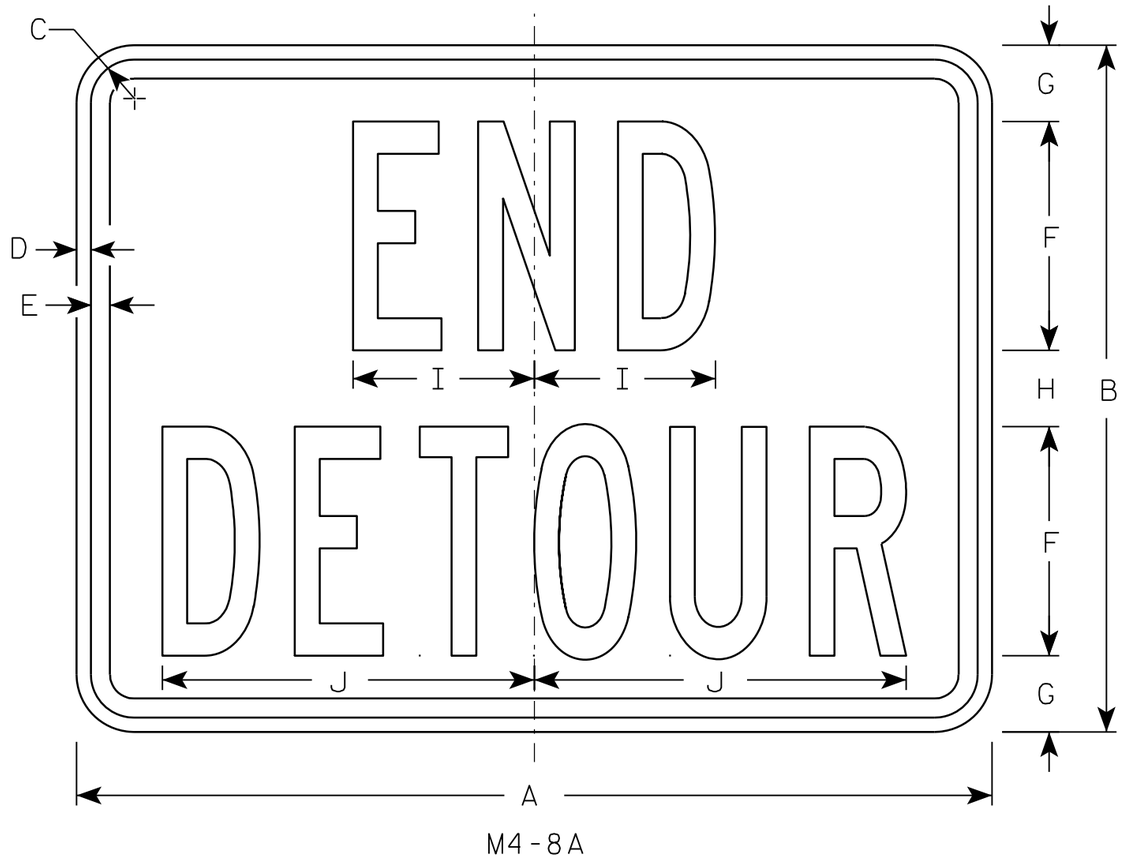
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/10/10 PLATE NO. M4-8.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 101	E



M4-8A

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - B
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																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

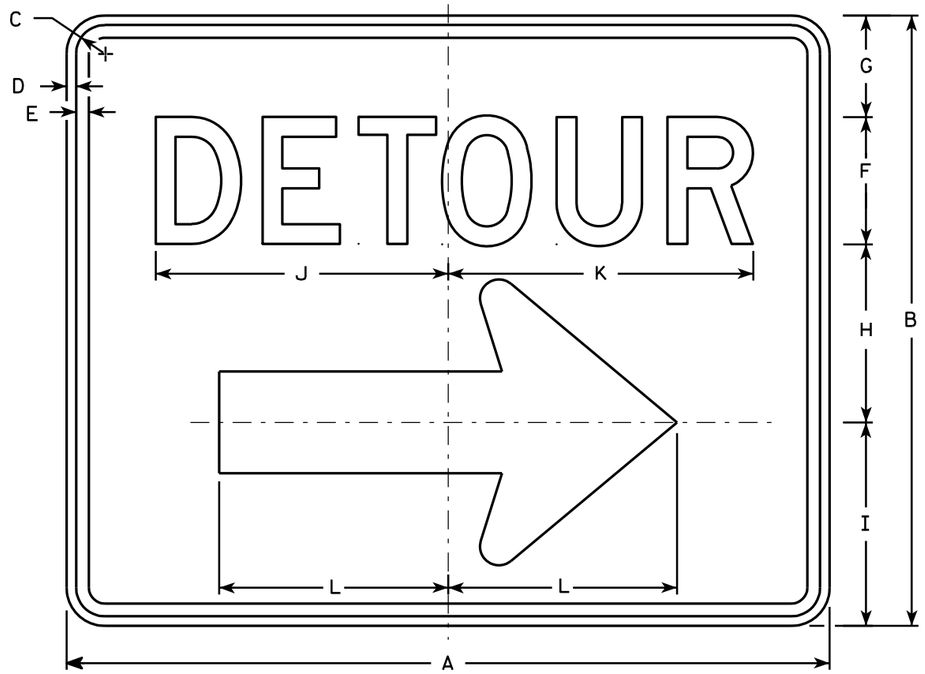
STANDARD SIGN
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-8A.2

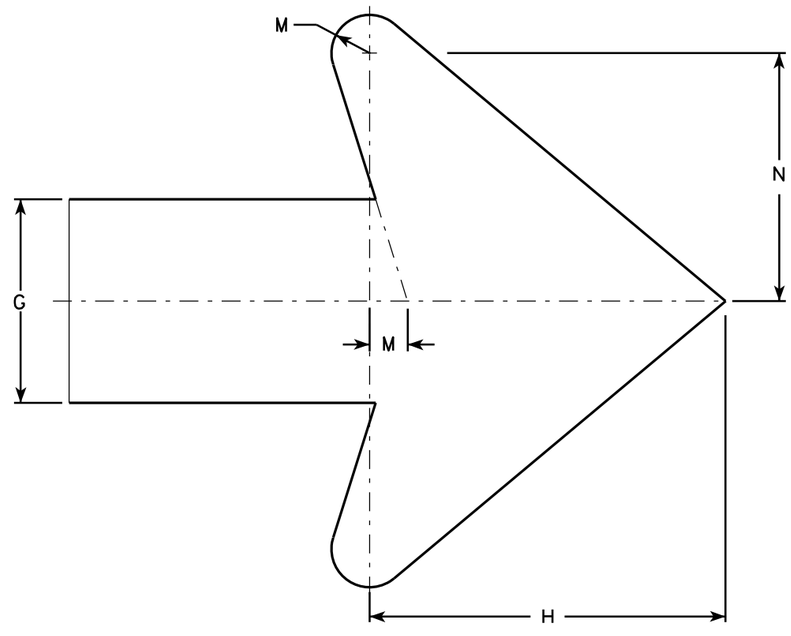
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 102	E



M4-9R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   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.
5. M4-9L is the same as M4-9R except the arrow is reversed.



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																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

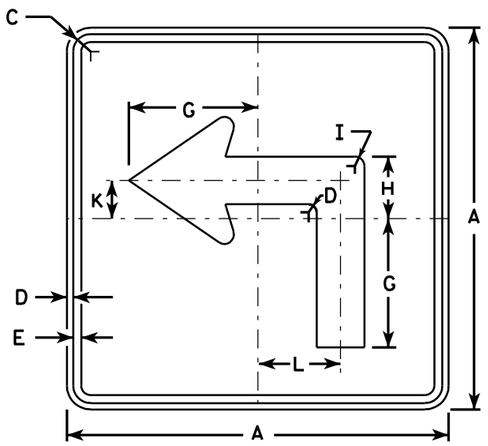
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

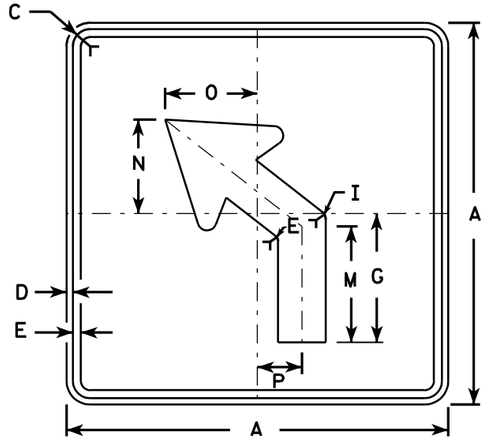
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/9/11 PLATE NO. M4-9R.4

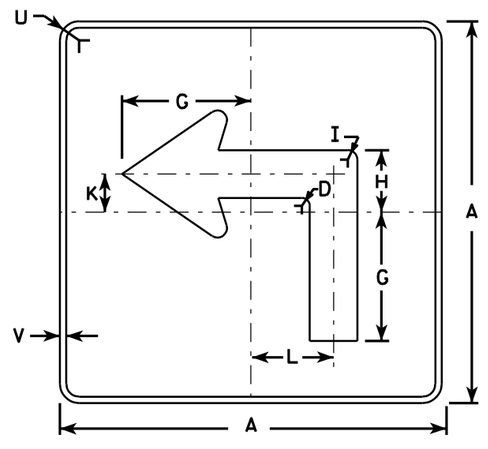
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 103	E



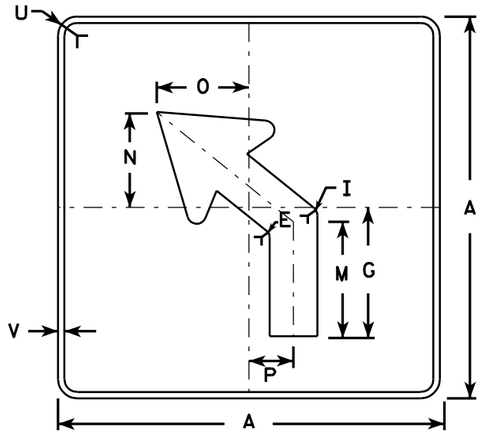
M5-1L
MK5-1L
MM5-1L
MO5-1L
MP5-1L
MR5-1L



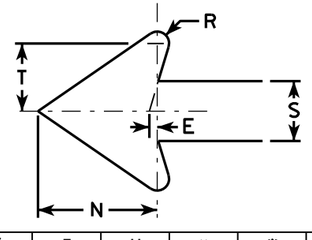
M5-2L
MK5-2L
MM5-2L
MO5-2L
MP5-2L
MR5-2L



MB5-1L
MG5-1L
MN5-1L



MB5-2L
MG5-2L
MN5-2L



NOTES

1. Signs are Type II - See Note 4 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White - Type H Reflective
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White - Type H Reflective
   MG5-1 and MG5-2 Background - Green
   Message - White - Type H Reflective
   MK5-1 and MK5-2 Background - Green
   Message - White Type H Reflective
   MM5-1 and MM5-2 Background - White - Type H Reflective
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White - Type H Reflective
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow - Type H Reflective
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 1/8	4 1/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25

STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

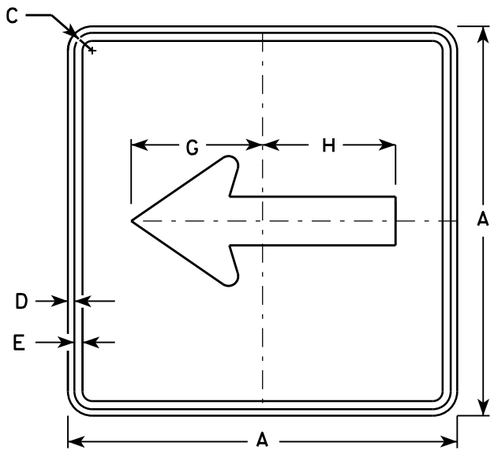
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/29/13 PLATE NO. M5-1.12

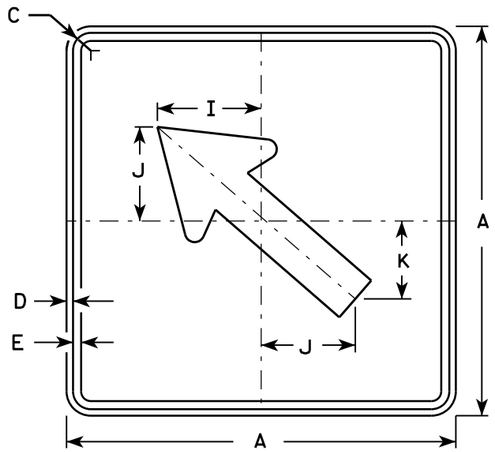
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 104	E

7

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 29-JUL-2013 13:34 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.908552:1.000000
WISDOT/CADDS SHEET 42



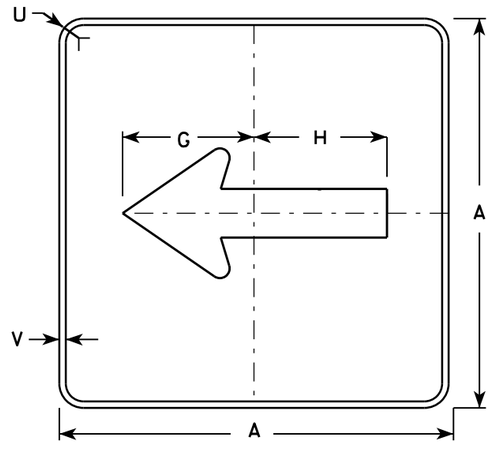
M6-1
MK6-1
MM6-1
MN6-1
MO6-1
MP6-1
MR6-1



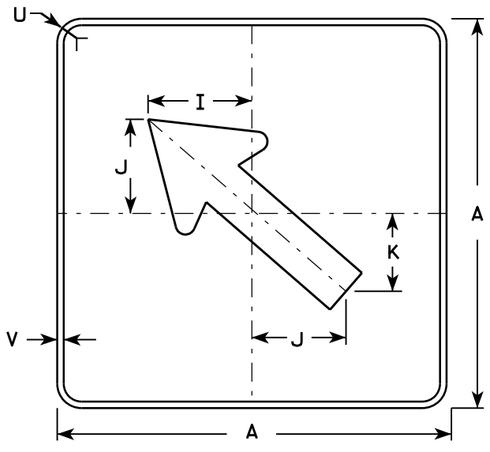
M6-2
MK6-2
MM6-2
MN6-2
MO6-2
MP6-2
MR6-2

NOTES

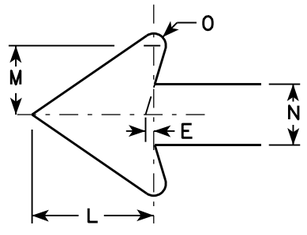
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MG6-1 and MG6-2 Background - Green
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow



MB6-1



MB6-2



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

STANDARD SIGN
M6-1 & M6-2
SERIES

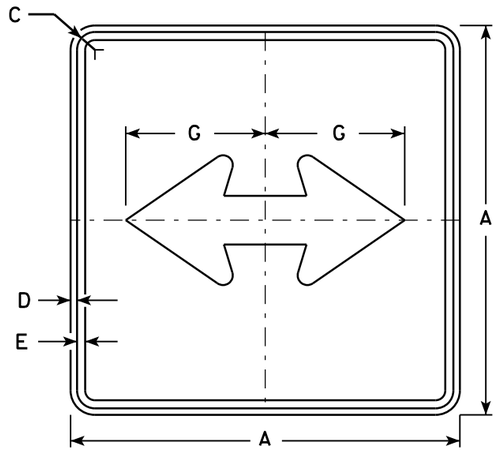
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

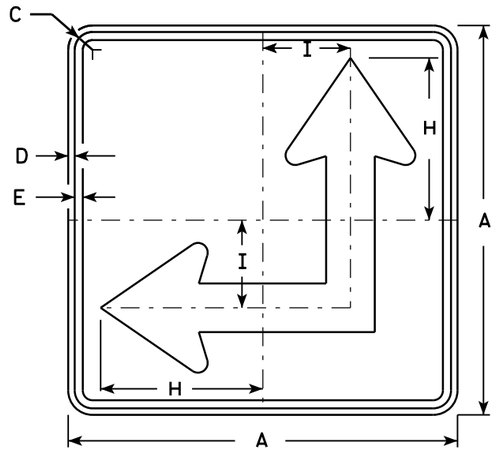
DATE 7/03/14 PLATE 105 M6-1.14

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

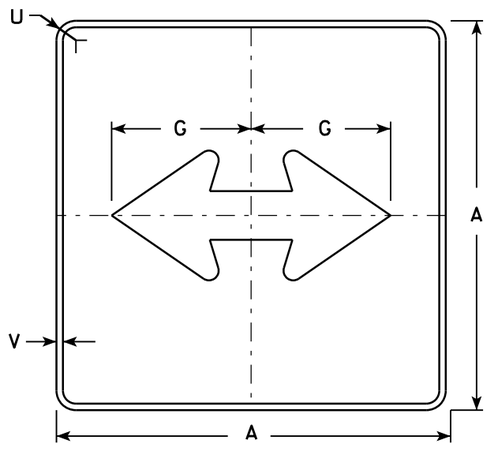
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 03-JUL-2014 14:28 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 11.675051:1.000000
WISDOT/CADDS SHEET 42



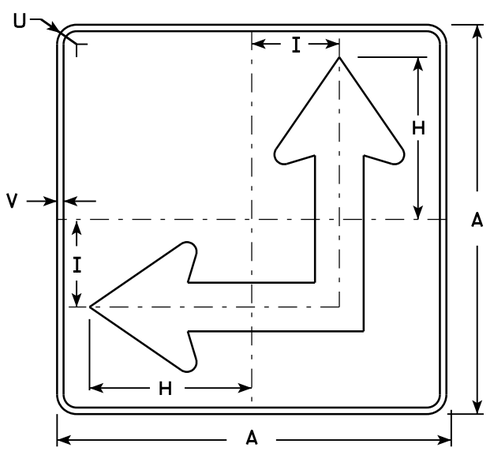
M6-4
MK6-4
MM6-4
MN6-4
MO6-4
MP6-4
MR6-4



M6-6
MK6-6
MM6-6
MN6-6
MO6-6
MP6-6
MR6-6



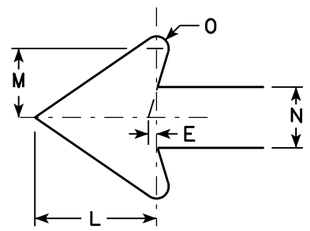
MB6-4



MB6-6

NOTES

1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See Note 4
   Message - See Note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-4 and M6-6 Background - White
   Message - Black
   MB6-4 and MB6-6 Background - Blue
   Message - White
   MK6-4 and MK6-6 Background - Green
   Message - White
   MM6-4 and MM6-6 Background - White
   Message - Green
   MN6-4 and MN6-6 Background - Brown
   Message - White
   MO6-4 and MO6-6 Background - Orange - Type F Reflective
   Message - Black
   MP6-4 and MP6-6 Background - White
   Message - Blue
   MR6-4 and MR6-6 Background - Brown
   Message - Yellow
5. M6-6R same as M6-6L except arrow points ahead and right.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7 1/2	8 3/4	4 1/4			5 1/4	3	2 5/8	1/2						1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
4	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25
5	30		1 3/8	1/2	5/8		10 3/4	12 1/2	6 3/4			7 1/2	4 1/4	3 3/4	3/4						1 7/8	1/2					6.25

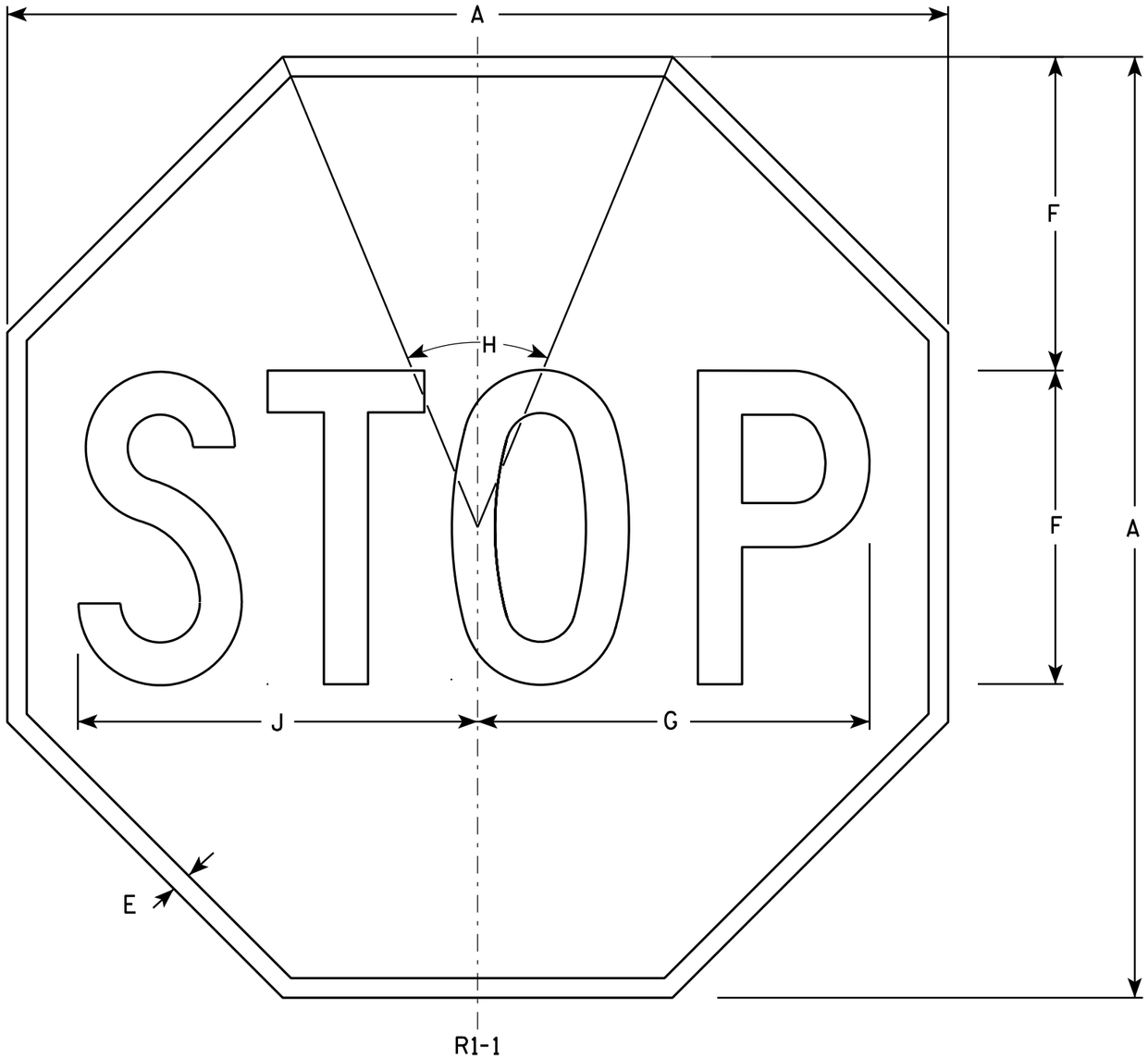
STANDARD SIGN M6-4 & M6-6 SERIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 7/03/14 PLATE M6-4.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 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 L Rauch
for State Traffic Engineer

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

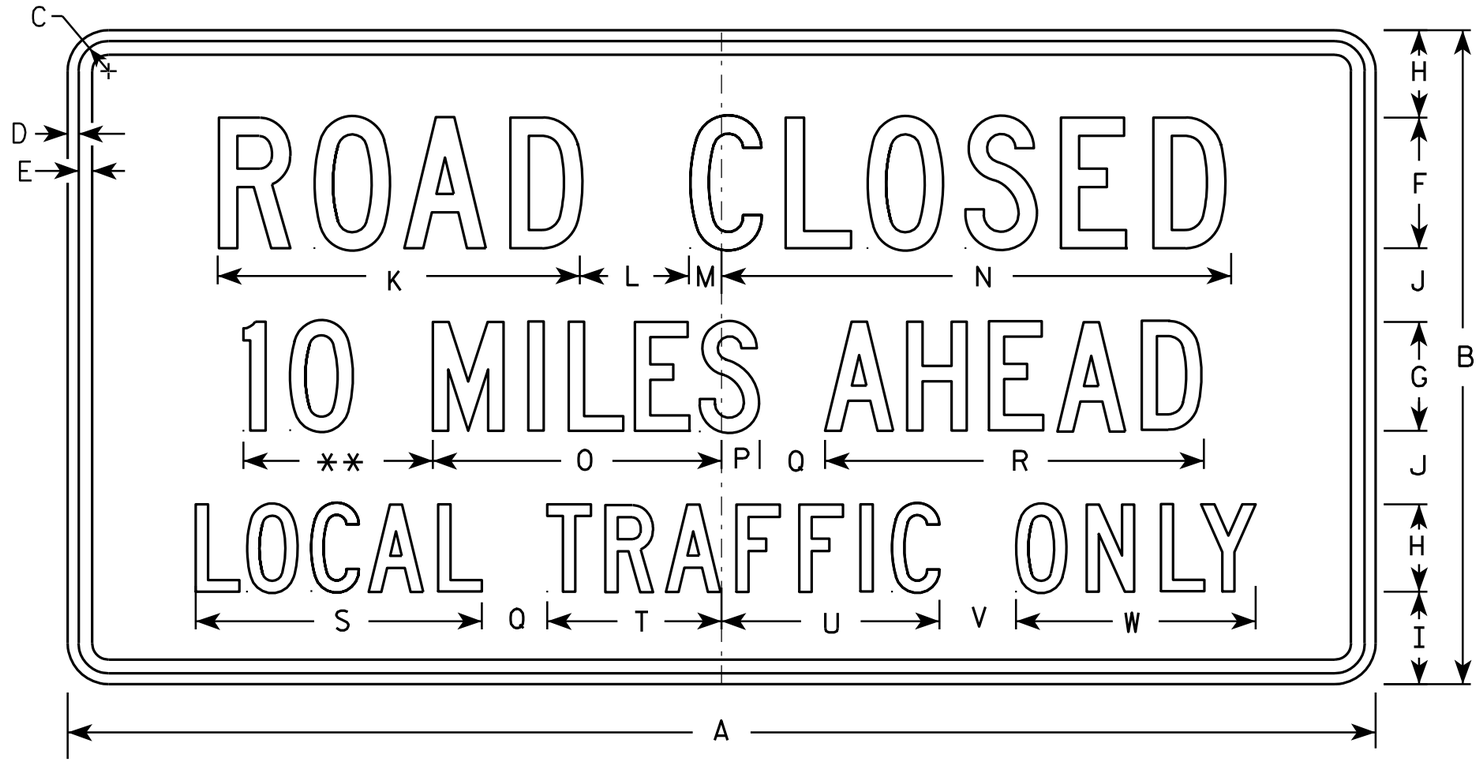
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 107	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R11.DGN PLOT DATE : 02-DEC-2010 15:09 PLOT BY : dotsja PLOT NAME : PLOT SCALE : 4.469282:1.000000

WISDOT/CADDS SHEET 42

7

7



R11-3

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 - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

** See Note 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.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4				4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11				12.5
3																											
4																											
5																											

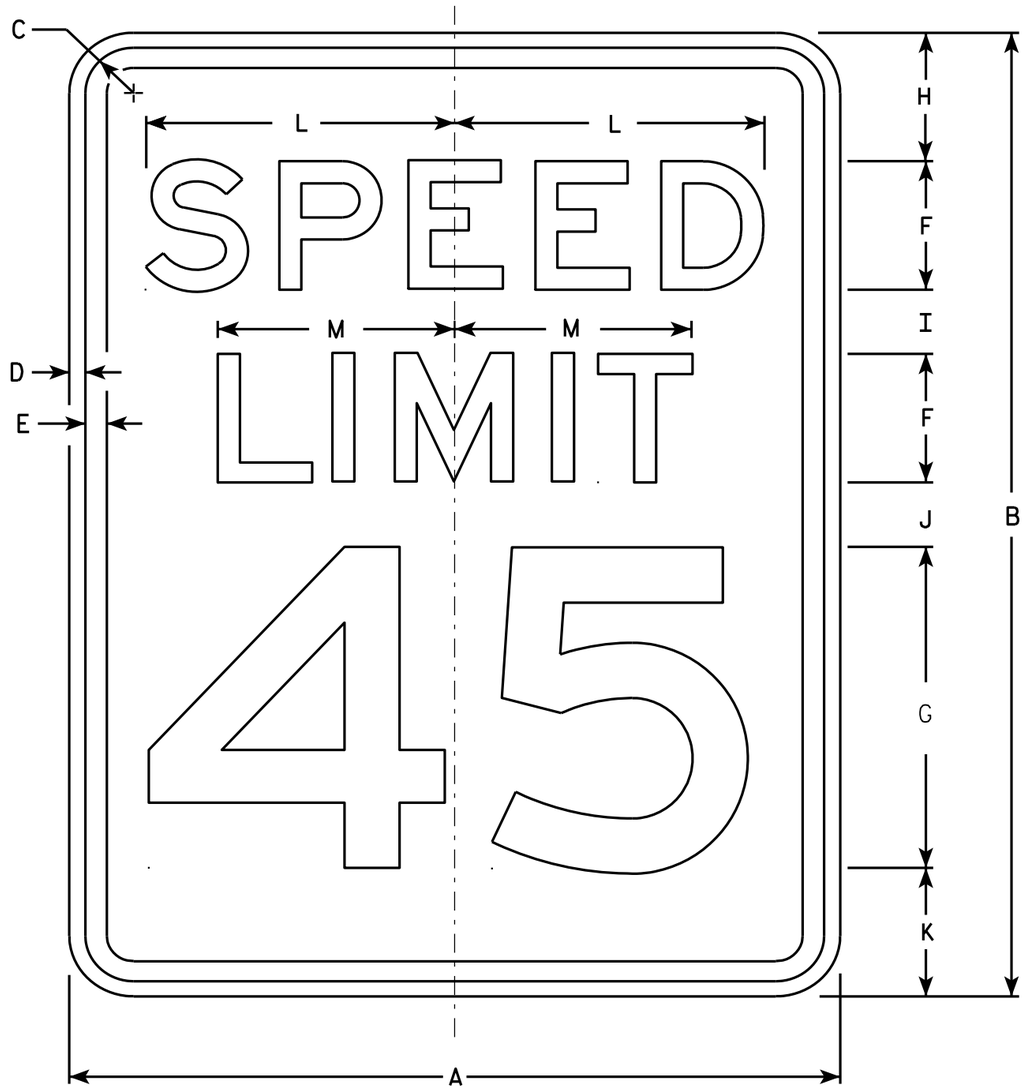
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-3.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 108	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

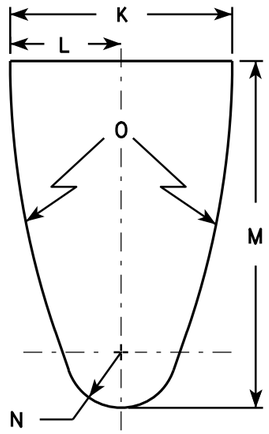
STANDARD SIGN
R2-1

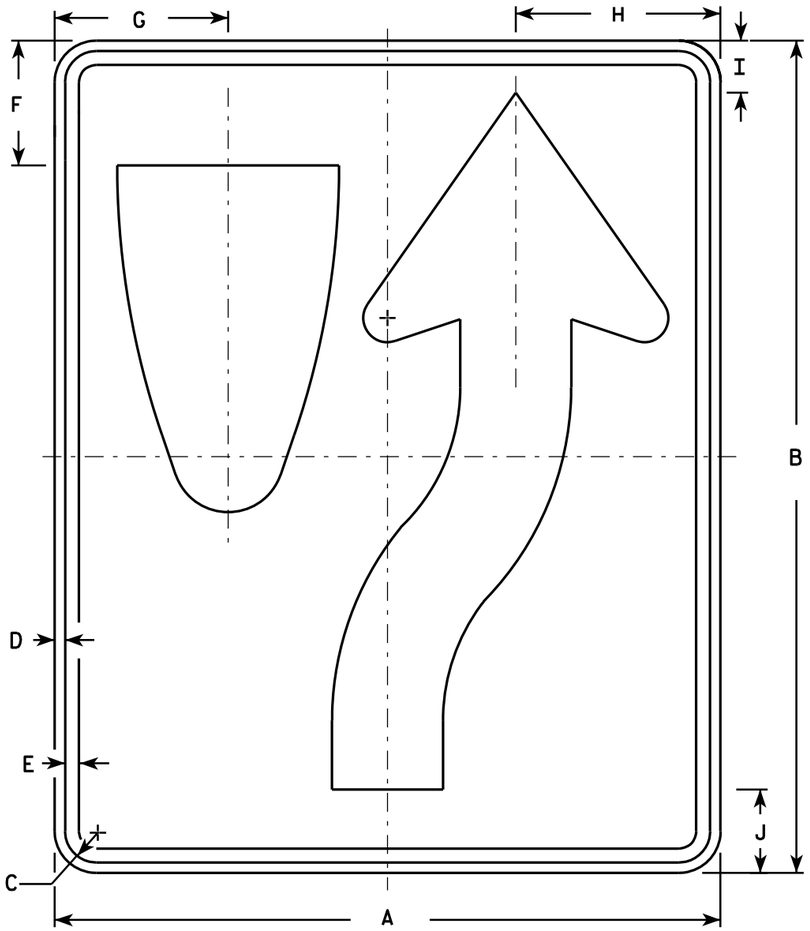
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 109	E

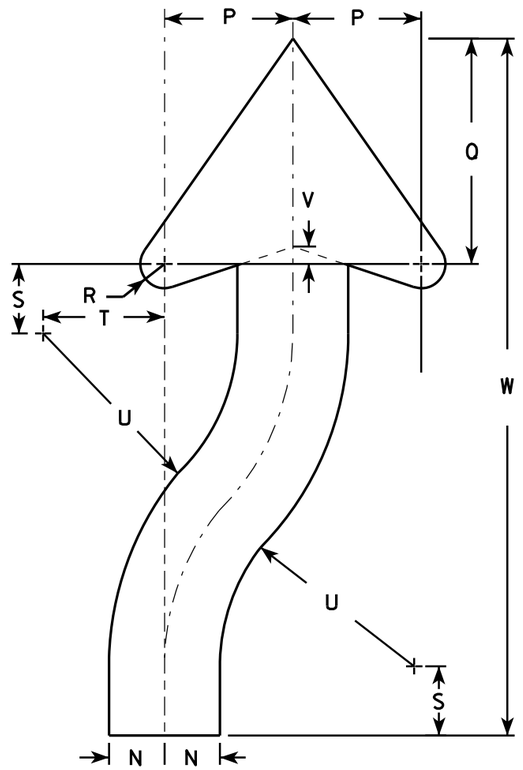




R4-7

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition. material is plywood but borders shall be rounded
2. Color:
   Background - White
   Message - Black
3. Corners may be square or rounded when base as shown. When base material is metal, the corners and borders shall be rounded.
4. R4-8 is the same as R4-7 except Legend is reversed.



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	18	24	1 1/8	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/8	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 3/4	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	2 1/4	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

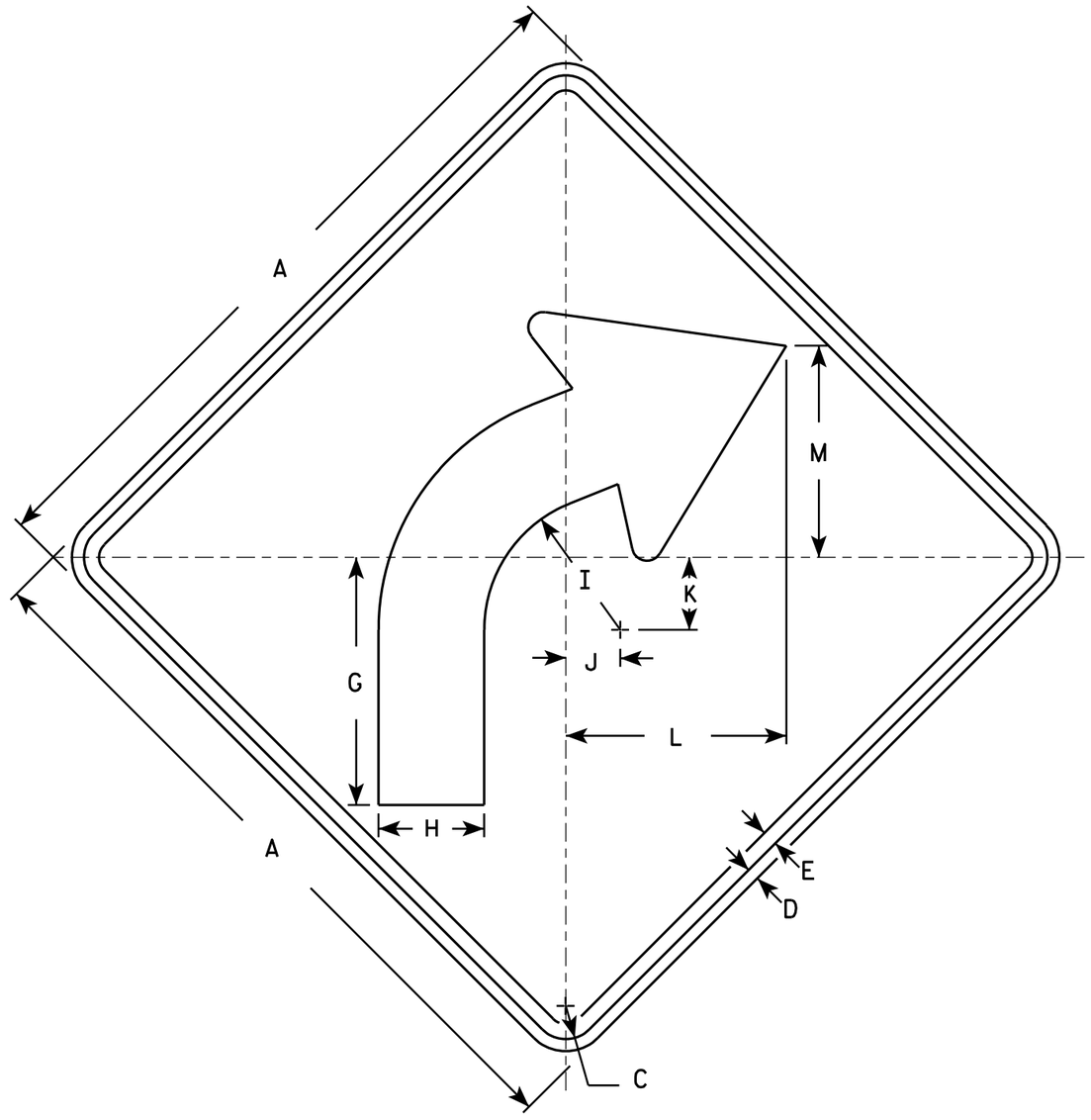
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-7.8

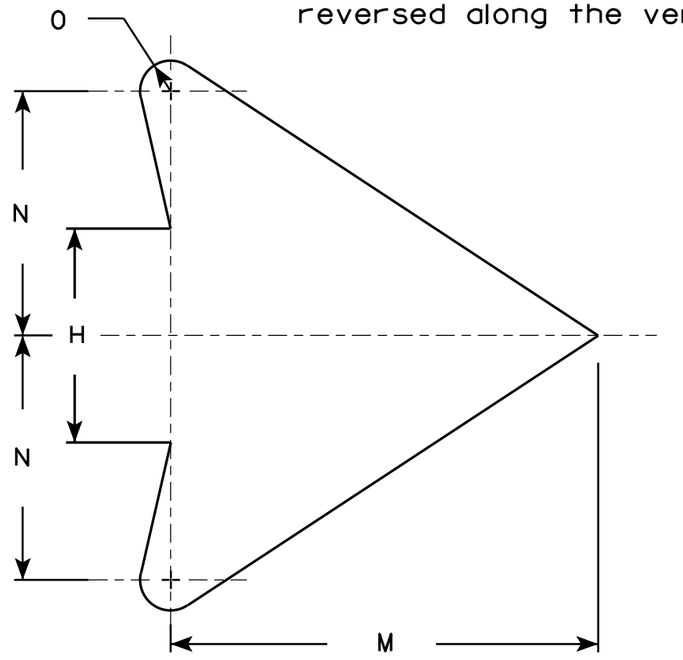
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 110	E

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

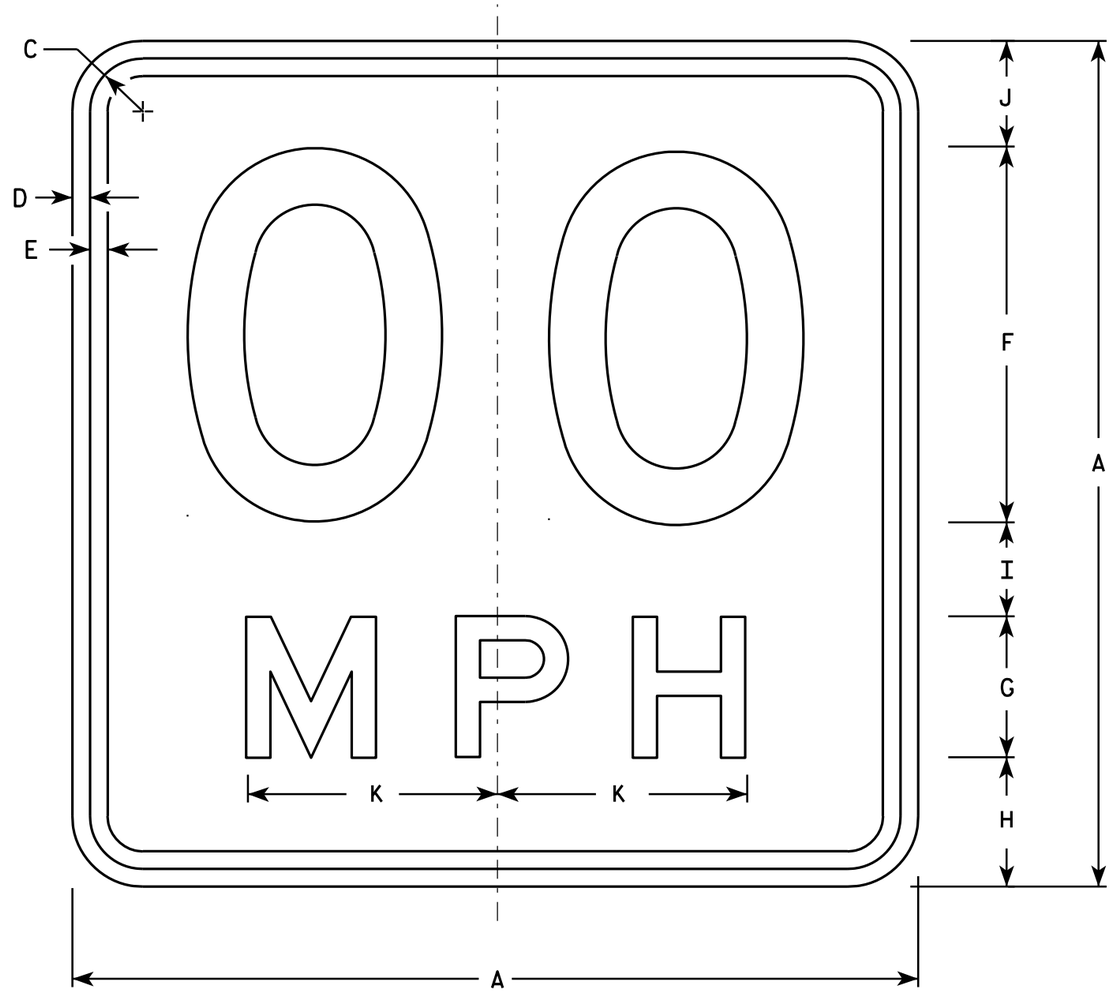
STANDARD SIGN
W1-2

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: 111	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

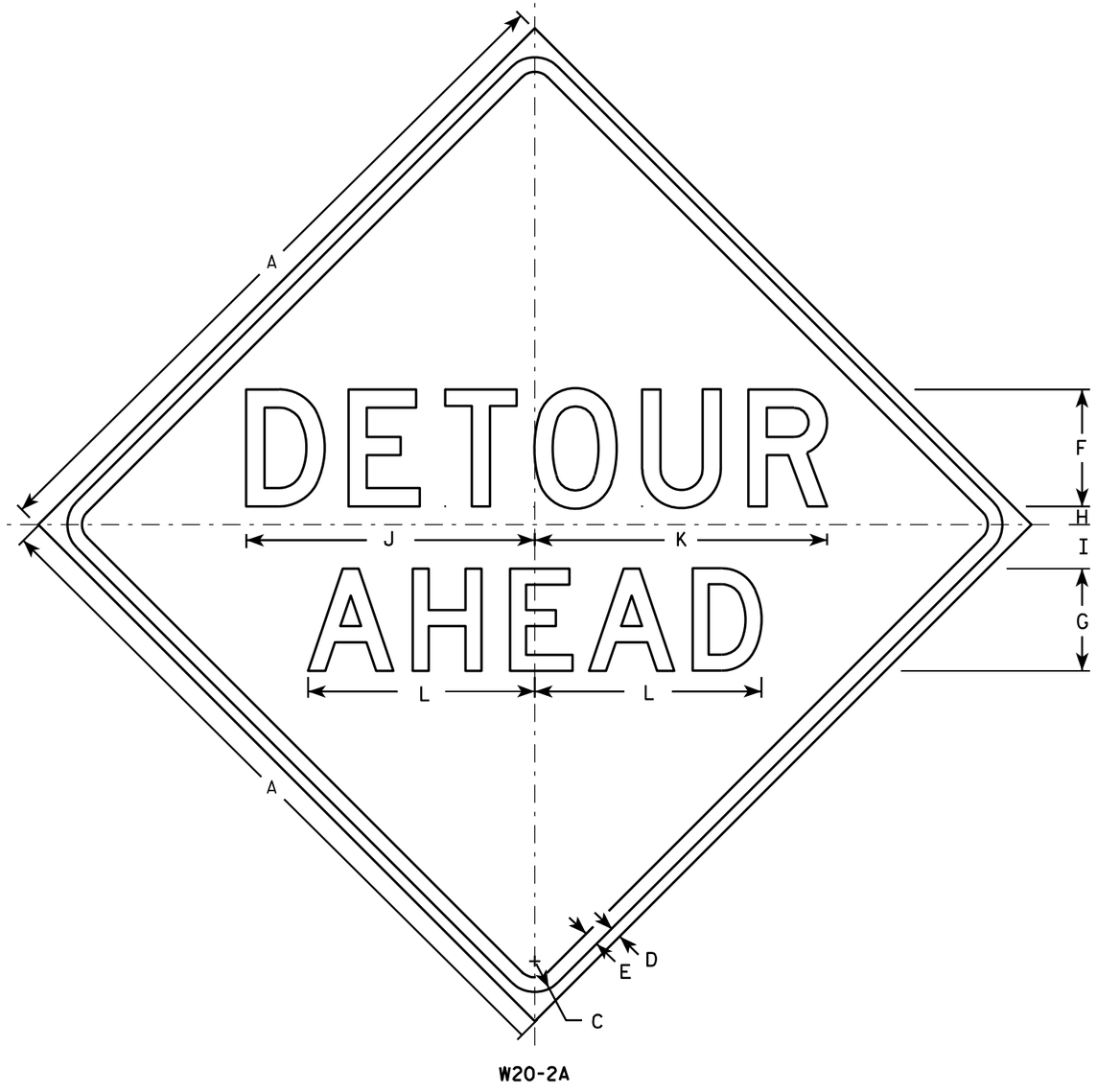
STANDARD SIGN
W13-1

WISCONSIN DEPT OF TRANSPORTATION

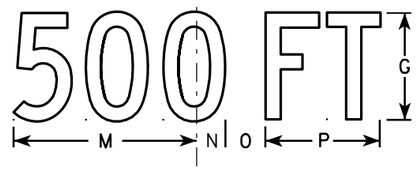
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 5/31/12 PLATE NO. W13-1.16

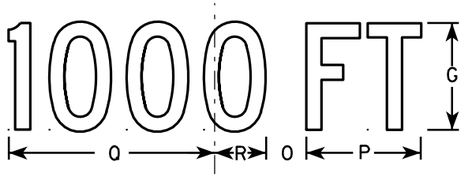
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 112 | E



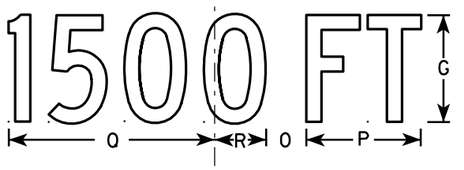
W20-2A



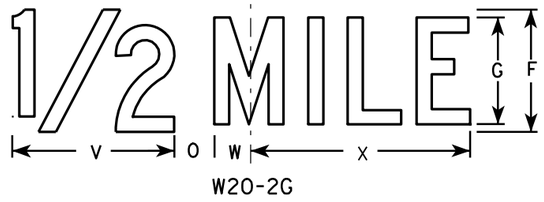
W20-2D



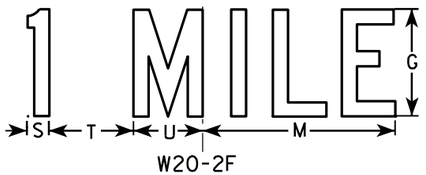
W20-2C



W20-2B



W20-2G



W20-2F

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series D.
   Line 2 is Series D for AHEAD and Series C for all other distances.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	6	5	1	2 1/4	14 3/4	15	11 5/8	9	1 3/8	1 7/8	5 5/8	10 1/8	2 1/2	1 1/8	4 1/2	3 1/2	8	1 3/4	10 3/4			9.0
2S	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
2M	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
3	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
4	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0
5	48		2 1/4	3/4	1	8	7	1 1/4	3	19 3/4	20	15 1/2	12	1 7/8	2 5/8	7 1/2	13 1/2	3 3/8	1 1/2	6	4 5/8	10 5/8	2 3/8	14 3/8			16.0

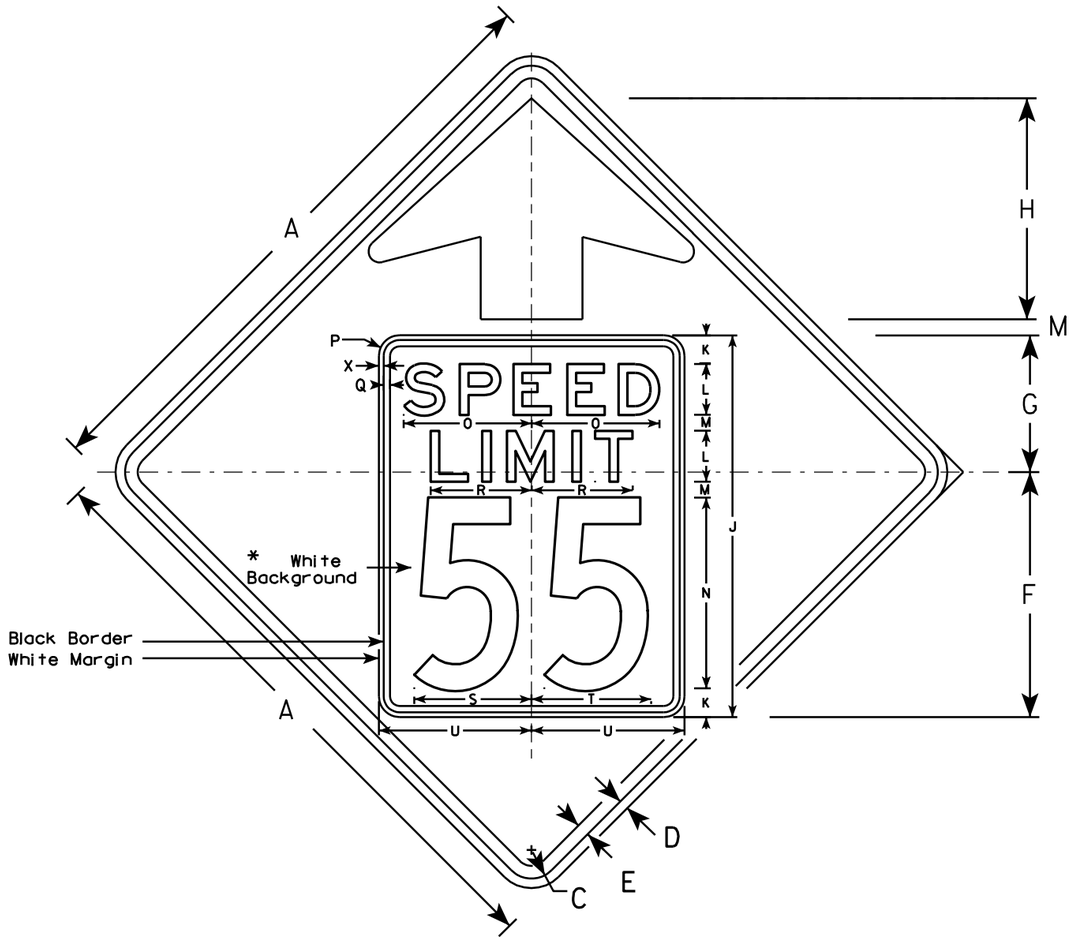
STANDARD SIGN
W20-2A,B,C,D,F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 113	E

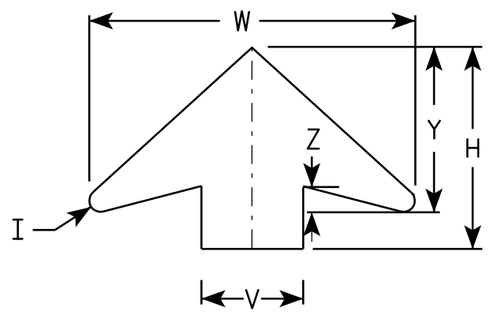


W3-5

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

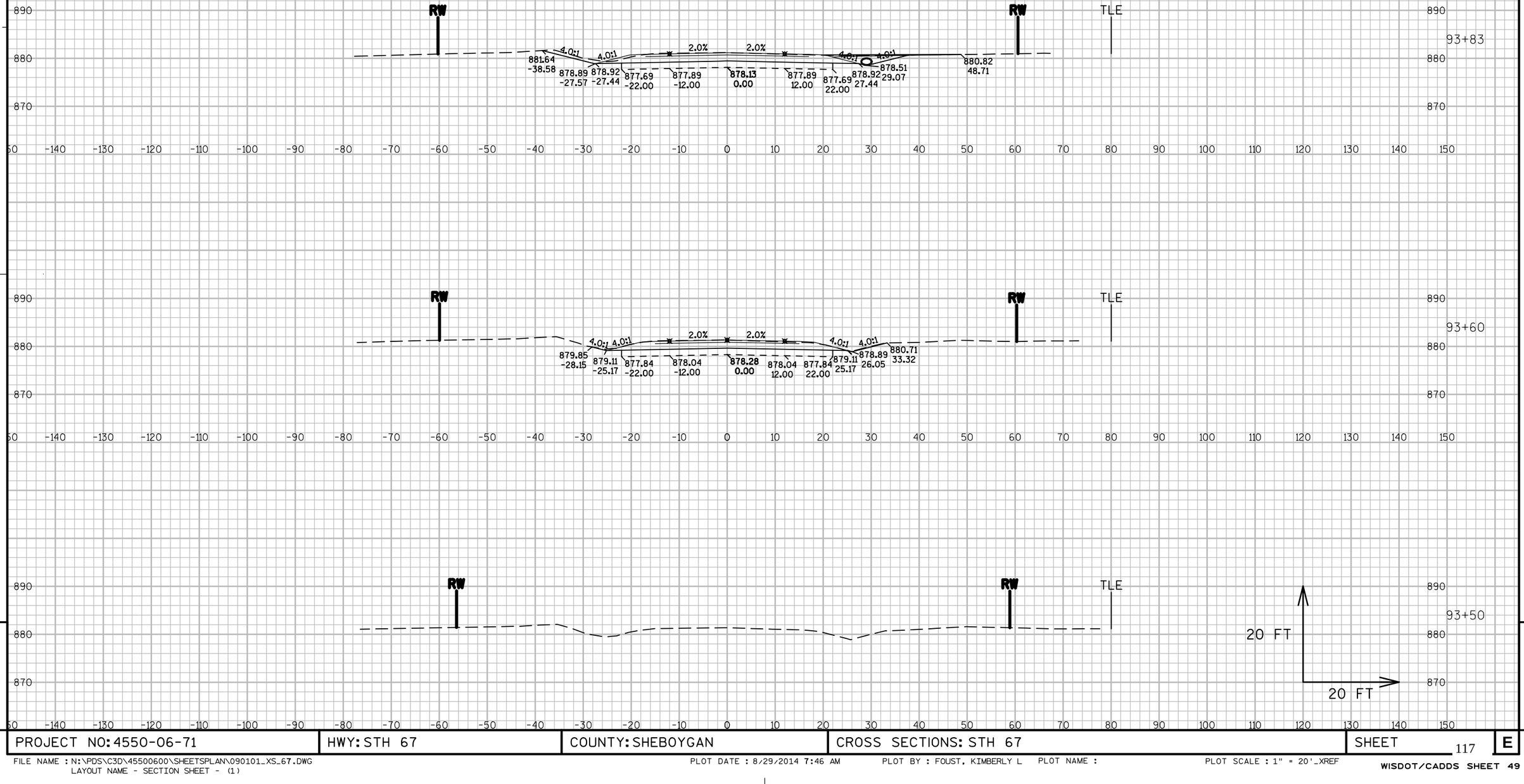
PROJECT NO:

SHEET NO: 114 E

STATION	Real Station	Distance	AREA (SF) Cut	Fill	Exc Breaker Run	Incremental Vol (CY) (Unadjusted) Cut Note 1	Fill	Exc Breaker Run	Cumulative Vol (CY) Cut 1.00 Note 1	Expanded Fill 1.33	Mass Ordinate
93+60	9360.00	0.00	73.30	0.07	58.68	0	0	0	0	0	0.00
94+00	9400.00	40.00	110.65	0.00	58.68	136	0	87	136	0	66.65
94+50	9450.00	50.00	112.12	0.07	58.68	206	0	109	343	0	185.89
95+00	9500.00	50.00	178.50	0.00	58.68	269	0	109	612	0	367.96
95+50	9550.00	50.00	199.74	0.00	58.68	350	0	109	962	0	631.24
96+00	9600.00	50.00	255.04	0.00	58.68	421	0	109	1,383	0	965.39
96+50	9650.00	50.00	263.51	0.00	58.68	480	0	109	1,863	0	1,358.59
97+00	9700.00	50.00	258.70	0.00	58.68	484	0	109	2,347	0	1,755.17
97+50	9750.00	50.00	354.20	0.00	63.93	567	0	114	2,914	0	2,231.85
98+00	9800.00	50.00	390.64	0.00	65.35	690	0	120	3,604	0	2,825.75
98+50	9850.00	50.00	417.36	0.00	65.35	748	0	121	4,352	0	3,477.09
99+00	9900.00	50.00	556.00	0.00	65.35	901	0	121	5,253	0	4,281.53
99+50	9950.00	50.00	751.67	0.00	65.35	1,211	0	121	6,464	0	5,395.52
100+00	10000.00	50.00	854.60	0.00	65.35	1,487	0	121	7,951	0	6,786.00
100+35.05	10035.05	35.05	848.10	0.00	65.98	1,105	0	85	9,056	0	7,822.86
100+40	10040.00	4.95	861.81	0.00	66.97	157	0	12	9,213	0	7,969.97
100+45	10045.00	5.00	869.70	0.00	67.97	160	0	12	9,374	0	8,120.30
100+50	10050.00	5.00	859.94	0.00	68.97	160	0	13	9,534	0	8,270.31
100+55	10055.00	5.00	846.46	0.13	69.97	158	0	13	9,692	0	8,418.00
100+60	10060.00	5.00	804.41	5.89	70.98	153	1	13	9,845	1	8,559.68
100+65	10065.00	5.00	759.60	12.60	69.37	145	2	13	9,989	3	8,691.82
100+70	10070.00	5.00	713.89	13.04	67.45	136	2	13	10,126	6	8,814.96
100+75	10075.00	5.00	644.97	15.39	68.02	126	3	13	10,252	10	8,927.25
100+80	10080.00	5.00	566.48	18.04	67.82	112	3	13	10,364	14	9,025.24
100+85	10085.00	5.00	475.19	21.24	66.14	96	4	12	10,460	19	9,106.93
100+90	10090.00	5.00	373.33	29.53	64.19	79	5	12	10,539	25	9,169.59
100+95	10095.00	5.00	305.92	27.27	64.01	63	5	12	10,602	32	9,216.00
101+00	10100.00	5.00	264.53	10.62	64.01	53	4	12	10,655	37	9,254.67
101+05	10105.00	5.00	243.62	0.00	64.02	47	1	12	10,702	38	9,290.93
101+10	10110.00	5.00	221.63	0.00	64.02	43	0	12	10,745	38	9,324.52
101+15	10115.00	5.00	212.81	0.00	64.02	40	0	12	10,785	38	9,355.26
101+20	10120.00	5.00	195.56	0.00	64.02	38	0	12	10,823	38	9,383.59
101+25	10125.00	5.00	173.55	0.00	64.01	34	0	12	10,857	38	9,408.29
101+30	10130.00	5.00	150.18	0.00	64.01	30	0	12	10,887	38	9,428.78
101+35	10135.00	5.00	125.66	0.00	64.01	26	0	12	10,912	38	9,444.83
101+40	10140.00	5.00	109.61	0.00	64.02	22	0	12	10,934	38	9,457.14
101+45	10145.00	5.00	123.89	0.00	64.02	22	0	12	10,956	38	9,469.27
101+50	10150.00	5.00	138.27	0.00	64.01	24	0	12	10,980	38	9,484.06
101+55	10155.00	5.00	156.38	0.00	64.01	27	0	12	11,007	38	9,501.86
101+60	10160.00	5.00	166.65	0.00	64.02	30	0	12	11,037	38	9,522.29
101+65	10165.00	5.00	167.21	2.55	64.02	31	0	12	11,068	38	9,543.40
101+70	10170.00	5.00	160.85	6.09	64.02	30	1	12	11,099	39	9,563.23
101+75	10175.00	5.00	141.91	16.68	64.01	28	2	12	11,127	42	9,578.98
101+80	10180.00	5.00	123.21	32.54	64.01	25	5	12	11,151	48	9,587.98
101+85	10185.00	5.00	133.90	47.94	64.01	24	7	12	11,175	58	9,592.39
101+90	10190.00	5.00	141.01	47.67	64.01	25	9	12	11,200	70	9,596.59
101+95	10195.00	5.00	147.13	41.36	66.96	27	8	12	11,227	81	9,602.61
102+00	10200.00	5.00	141.01	39.39	68.01	27	7	12	11,254	91	9,609.34
102+05	10205.00	5.00	145.39	37.27	68.02	27	7	13	11,280	100	9,616.34
102+10	10210.00	5.00	154.89	35.72	68.02	28	7	13	11,308	109	9,625.08
102+15	10215.00	5.00	163.51	24.44	68.99	29	6	13	11,338	117	9,637.01
102+20	10220.00	5.00	174.49	0.01	70.65	31	2	13	11,369	120	9,654.95
102+25	10225.00	5.00	164.29	0.00	69.64	31	0	13	11,400	120	9,675.92
102+30	10230.00	5.00	176.99	0.00	68.64	32	0	13	11,432	120	9,697.28
102+35	10235.00	5.00	175.06	0.00	67.64	33	0	13	11,464	120	9,719.78
102+40	10240.00	5.00	158.52	0.00	66.64	31	0	12	11,495	120	9,740.72
102+50	10250.00	10.00	148.31	0.05	65.35	57	0	24	11,552	120	9,777.97
103+00	10300.00	50.00	118.51	3.37	65.35	247	3	121	11,799	124	9,924.00
103+50	10350.00	50.00	90.36	11.75	64.84	193	14	121	11,993	143	10,002.33
104+00	10400.00	50.00	71.95	18.99	64.35	150	28	120	12,143	180	10,019.07
104+50	10450.00	50.00	159.32	5.22	65.36	214	22	120	12,357	210	10,107.33
105+00	10500.00	50.00	143.64	5.32	63.31	281	10	119	12,638	223	10,279.57
105+50	10550.00	50.00	124.47	7.24	61.23	248	12	115	12,886	239	10,420.12
106+00	10600.00	50.00	112.56	3.97	58.69	219	10	111	13,105	253	10,536.97
106+50	10650.00	50.00	86.40	3.77	55.62	184	7	106	13,289	262	10,626.99
106+67	10667.00	17.00	72.81	0.72	53.36	50	1	34	13,340	264	10,647.79
						13,340	198	3,035			

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Expanded Fill	Mass Ordinate
							1.00	1.33	
					Note 1		Note 1		
07+28	728.00	0.00	0.00	0.00	0	0	0	0	0.00
07+50	750.00	22.00	83.39	4.76	34	2	34	3	31.40
08+00	800.00	50.00	212.00	0.00	274	4	307	8	299.04
08+50	850.00	50.00	399.88	0.00	567	0	874	8	865.60
08+94.71	894.71	44.71	645.30	0.00	865	0	1,739	8	1,731.02
09+00	900.00	5.29	691.74	0.00	131	0	1,870	8	1,861.94
09+05	905.00	5.00	714.37	0.00	130	0	2,001	8	1,992.13
09+10	910.00	5.00	710.69	13.80	132	1	2,133	10	2,122.38
09+15	915.00	5.00	699.43	28.89	131	4	2,263	15	2,247.69
09+20	920.00	5.00	656.28	30.27	126	5	2,389	23	2,365.94
09+25	925.00	5.00	569.46	30.60	113	6	2,502	30	2,471.93
09+30	930.00	5.00	442.21	30.00	94	6	2,596	38	2,558.15
09+35	935.00	5.00	342.28	28.78	73	5	2,668	45	2,623.54
09+40	940.00	5.00	268.68	22.79	57	5	2,725	51	2,673.76
09+45	945.00	5.00	212.27	12.24	45	3	2,770	56	2,713.98
09+50	950.00	5.00	169.92	1.64	35	1	2,805	57	2,747.66
09+55	955.00	5.00	146.62	0.00	29	0	2,834	57	2,776.77
09+60	960.00	5.00	117.11	0.00	24	0	2,859	57	2,801.19
09+65	965.00	5.00	77.88	0.00	18	0	2,877	57	2,819.24
09+70	970.00	5.00	40.51	0.00	11	0	2,888	57	2,830.20
09+75	975.00	5.00	6.67	0.00	4	0	2,892	57	2,834.57
09+75.98	975.98	0.98	0.09	0.00	0	0	2,892	57	2,834.70
					2,892	43			

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut	Cumulative Vol (CY) Expanded Fill	Mass Ordinate
							1.00	1.33	
					Note 1		Note 1		
10+24.01	1024.01	0.00	0.00	0.00	0	0	0	0	0.00
10+25	1025.00	0.99	5.26	0.00	0	0	0	0	0.10
10+30	1030.00	5.00	31.84	0.00	3	0	4	0	3.53
10+35	1035.00	5.00	57.57	0.00	8	0	12	0	11.81
10+40	1040.00	5.00	81.29	0.00	13	0	25	0	24.67
10+45	1045.00	5.00	97.99	1.46	17	0	41	0	41.09
10+50	1050.00	5.00	100.53	4.11	18	1	60	1	58.78
10+55	1055.00	5.00	87.08	13.55	17	2	77	3	73.98
10+60	1060.00	5.00	107.79	12.92	18	2	95	6	88.76
10+65	1065.00	5.00	151.19	11.36	24	2	119	9	109.75
10+70	1070.00	5.00	162.36	5.80	29	2	148	11	136.67
10+75	1075.00	5.00	165.35	3.78	30	1	178	13	165.83
10+80	1080.00	5.00	165.16	4.11	31	1	209	14	195.46
10+85	1085.00	5.00	150.50	1.55	29	1	238	14	223.99
10+90	1090.00	5.00	142.86	0.12	27	0	265	14	250.95
10+95	1095.00	5.00	127.78	0.59	25	0	290	15	275.93
11+00	1100.00	5.00	116.78	1.01	23	0	313	15	298.37
11+05.71	1105.71	5.71	110.43	2.02	24	0	337	15	321.99
11+50	1150.00	44.29	87.37	1.26	162	3	499	19	480.63
12+00	1200.00	50.00	83.92	0.51	159	2	658	21	637.05
12+25	1225.00	25.00	82.02	1.30	77	1	735	22	712.76
12+70	1270.00	45.00	65.34	1.54	123	2	858	25	832.43
					858	19			

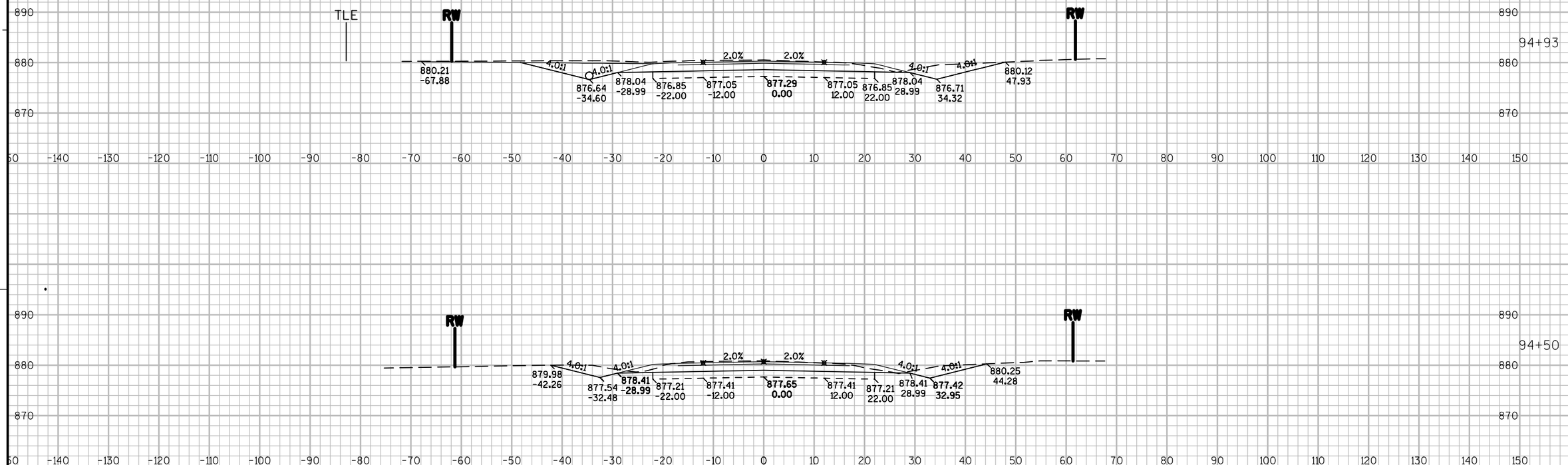


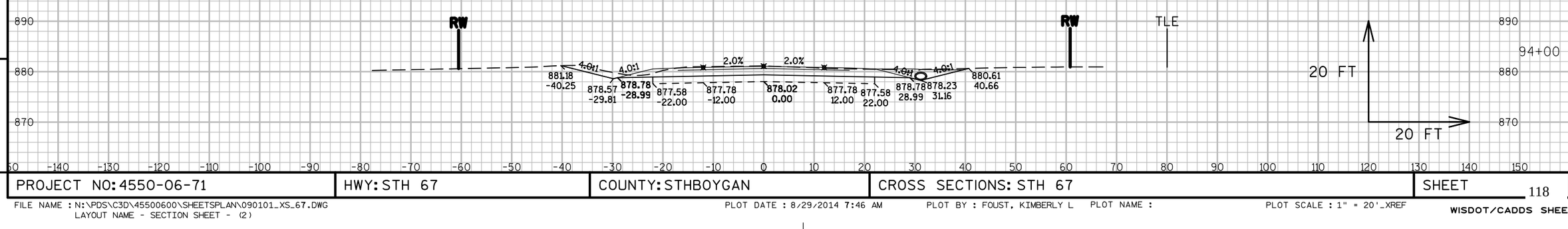
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 117 E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (1)

PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49





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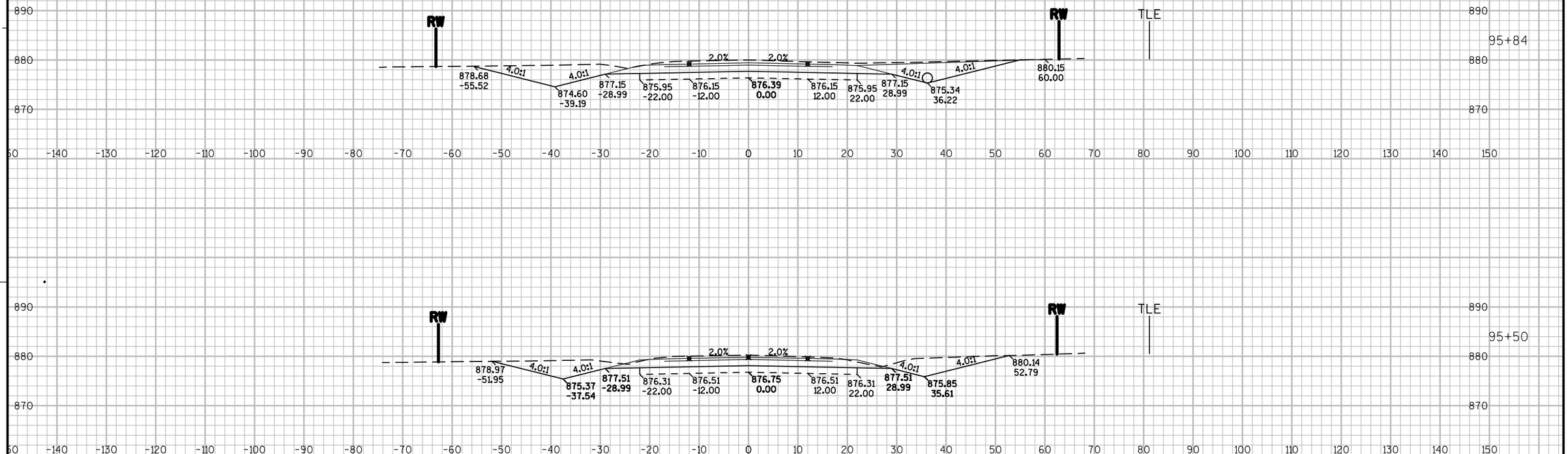
9

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: STHBOYGAN	CROSS SECTIONS: STH 67	SHEET 118	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (2)

PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



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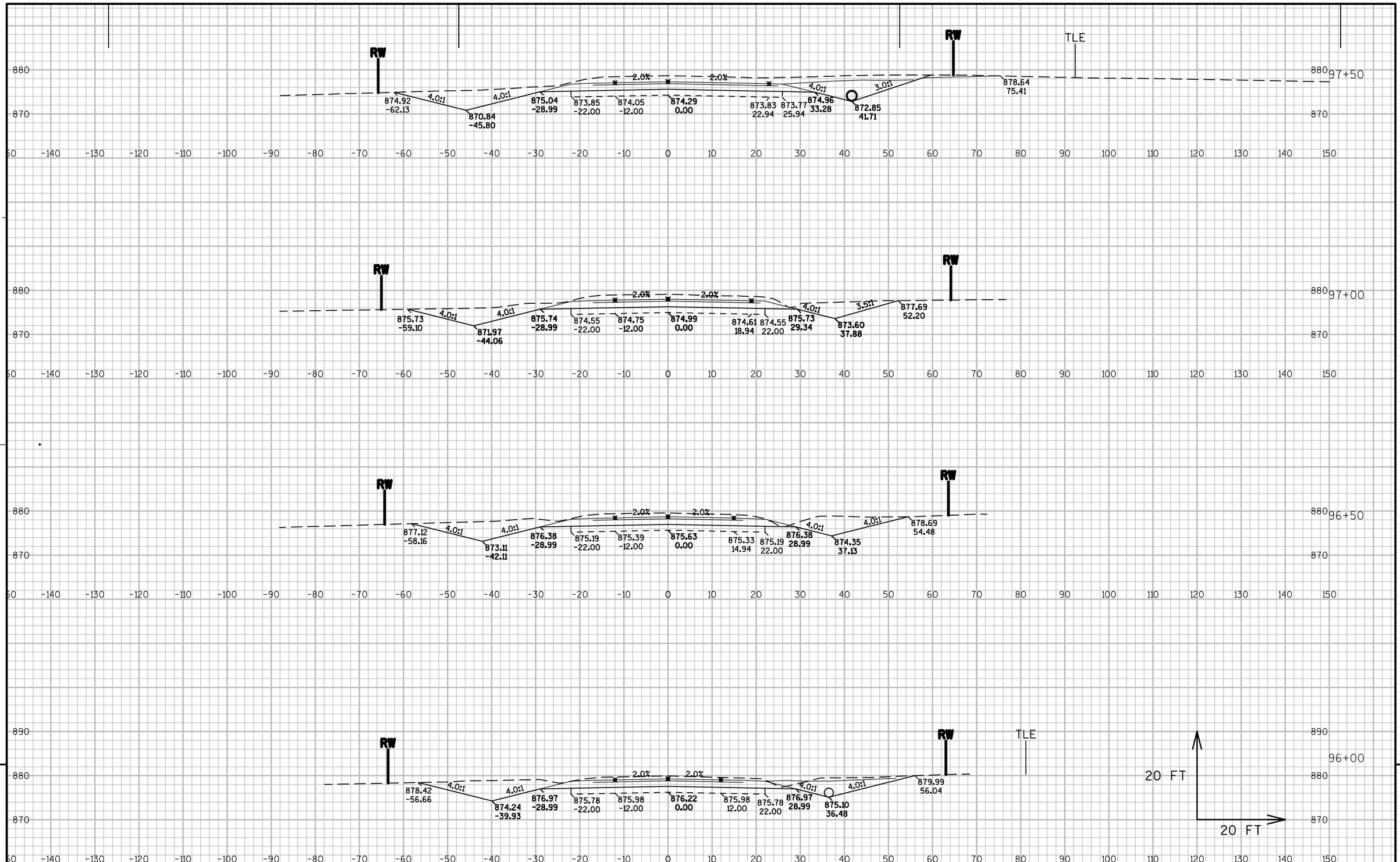
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 119	E



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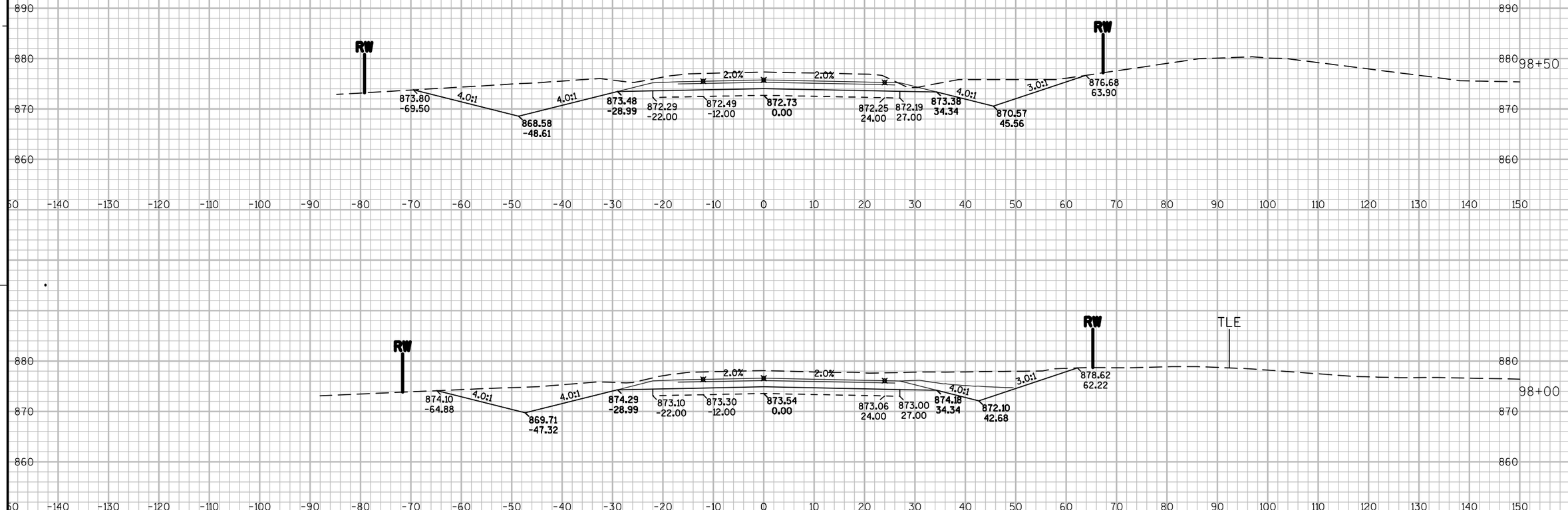
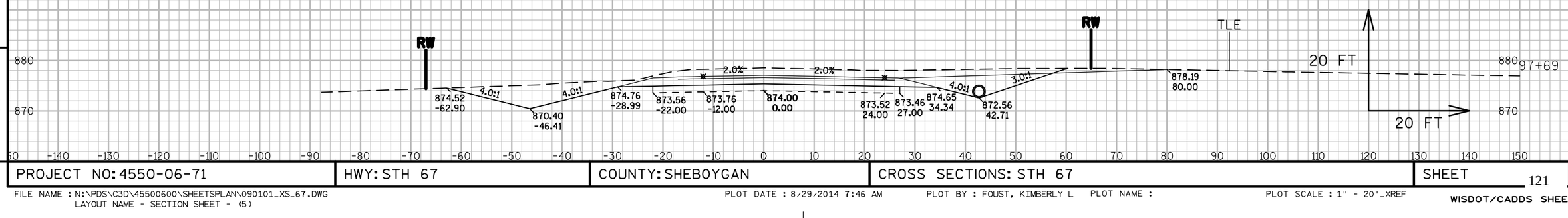
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 120	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (4)

PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49





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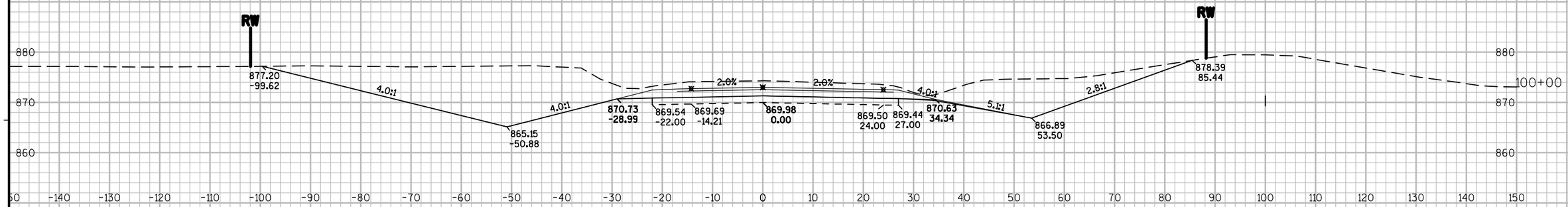
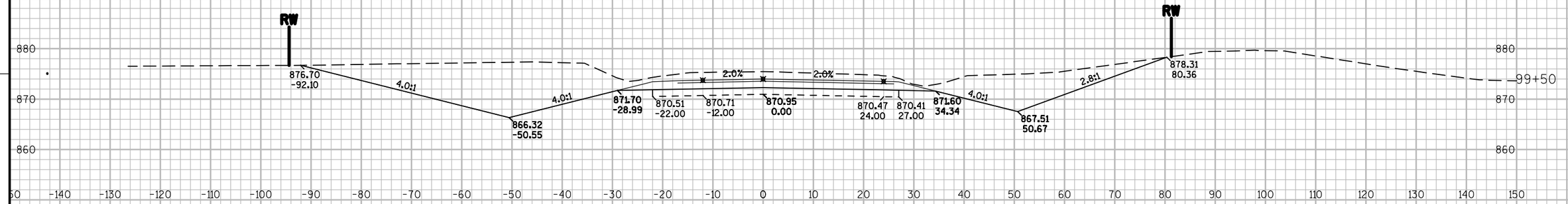
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 121	E

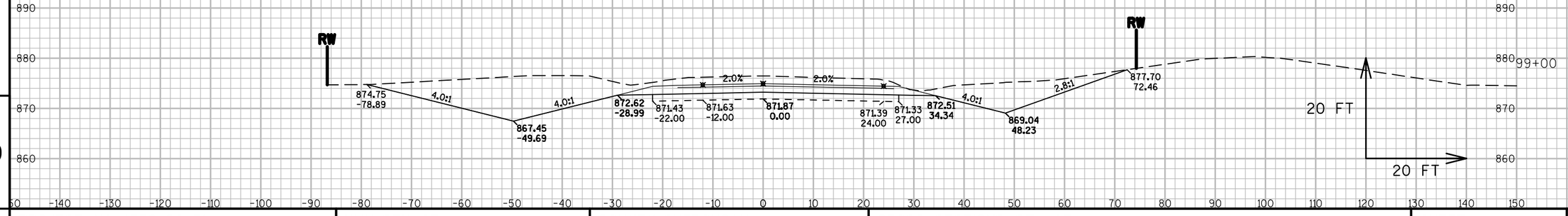
FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (5)

PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49







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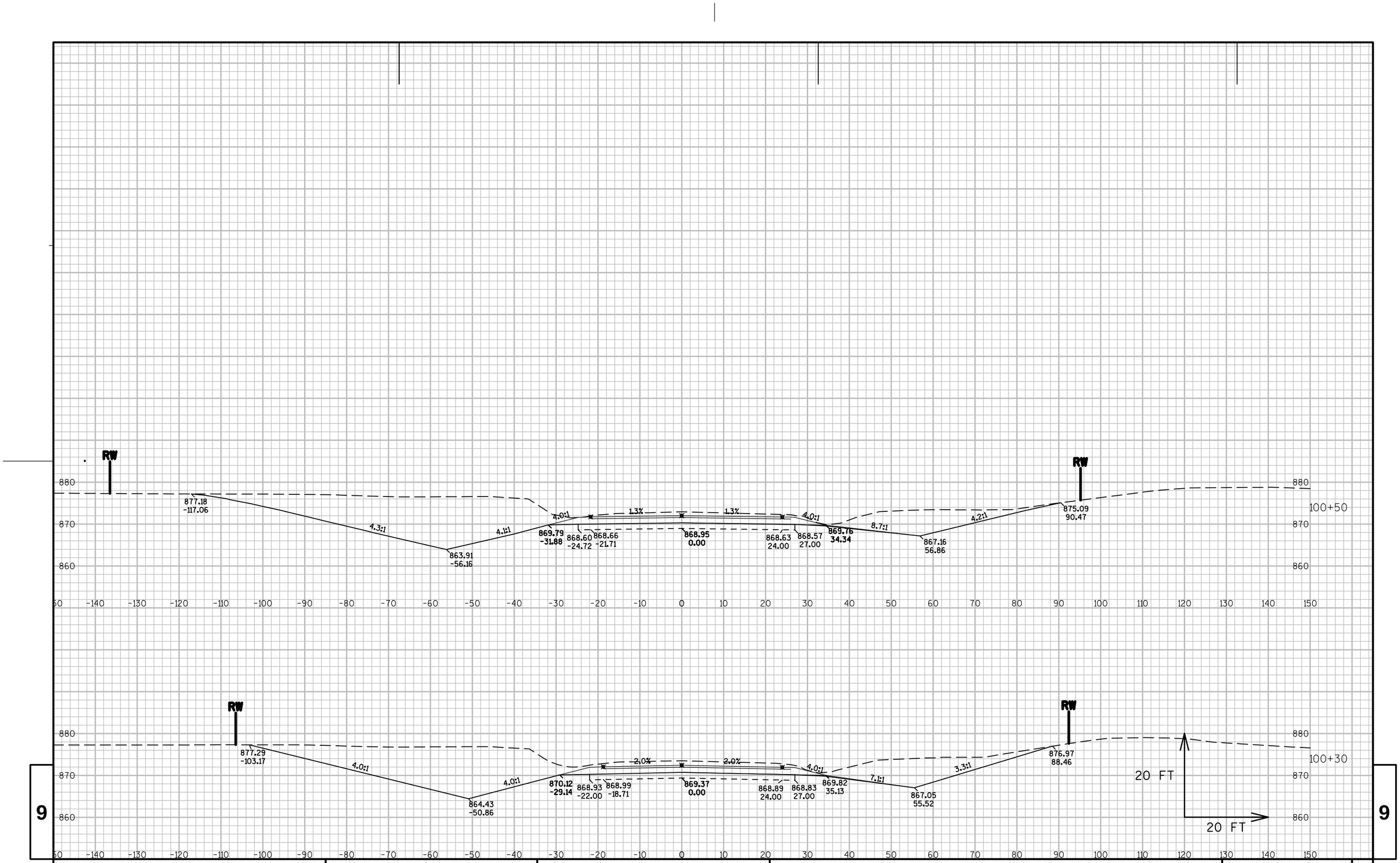
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (6)

PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF



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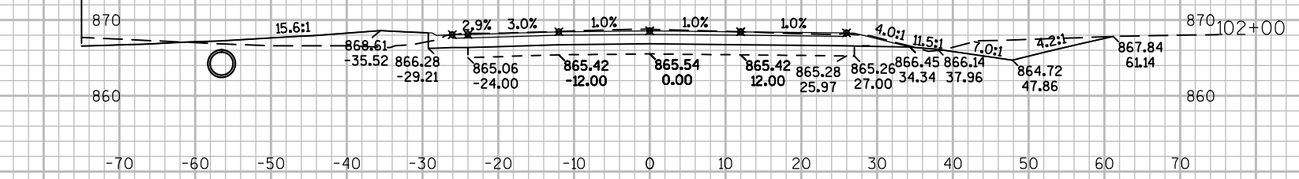
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 123	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (7)

PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF

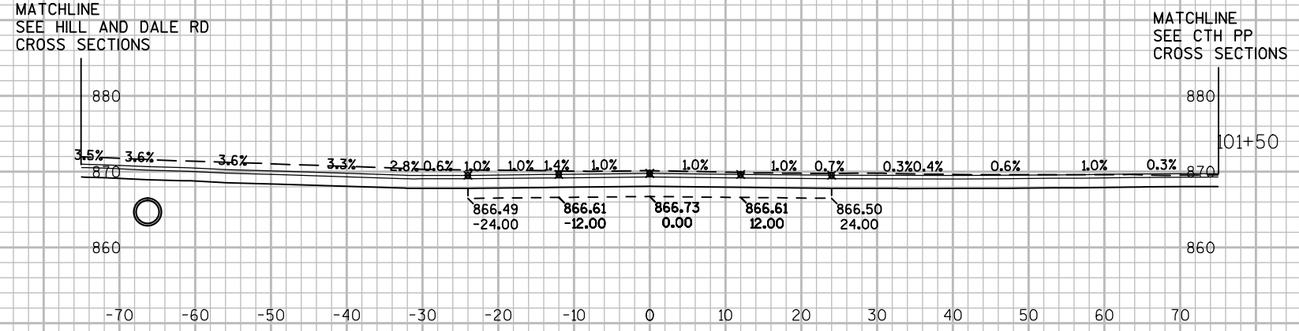
WISDOT/CADDS SHEET 49

MATCHLINE
SEE HILL AND DALE RD
CROSS SECTIONS



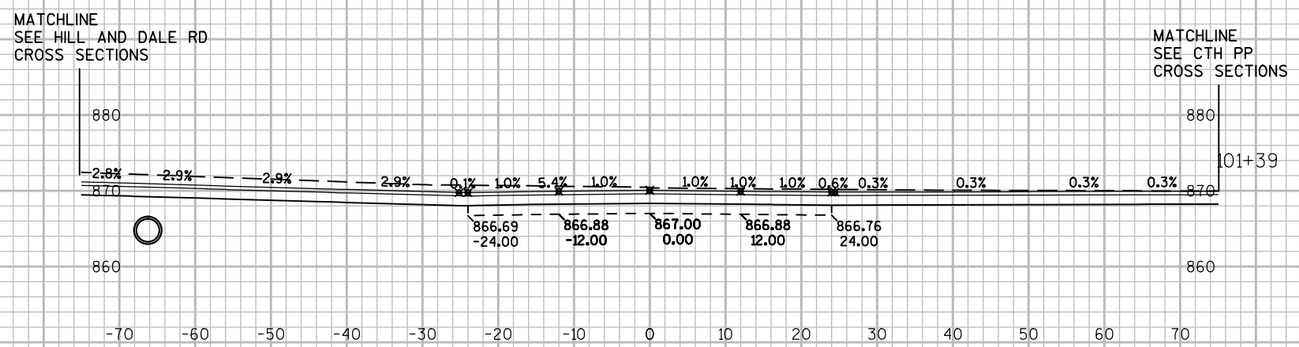
MATCHLINE
SEE HILL AND DALE RD
CROSS SECTIONS

MATCHLINE
SEE CTH PP
CROSS SECTIONS



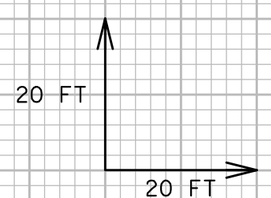
MATCHLINE
SEE HILL AND DALE RD
CROSS SECTIONS

MATCHLINE
SEE CTH PP
CROSS SECTIONS



MATCHLINE
SEE HILL AND DALE RD
CROSS SECTIONS

MATCHLINE
SEE CTH PP
CROSS SECTIONS



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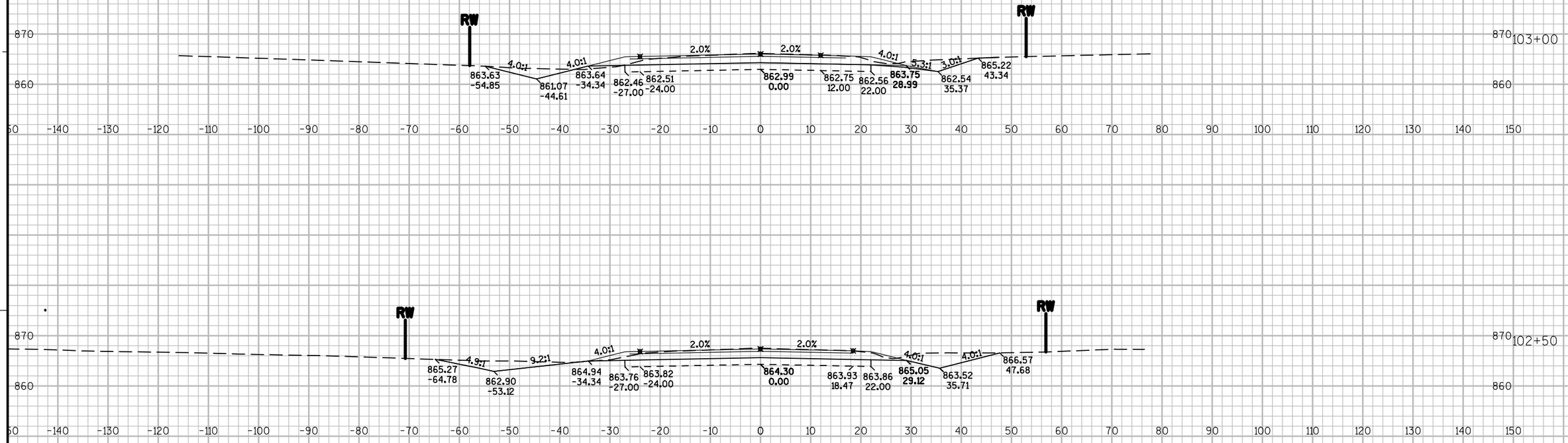
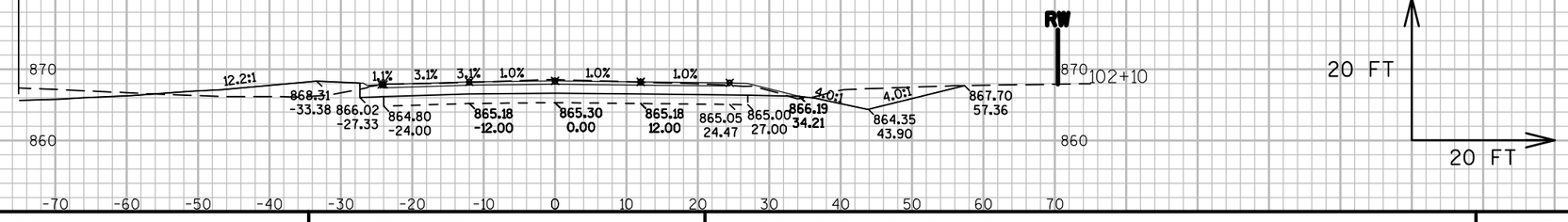
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 124	E



MATCHLINE
SEE HILL AND DALE RD
CROSS SECTIONS



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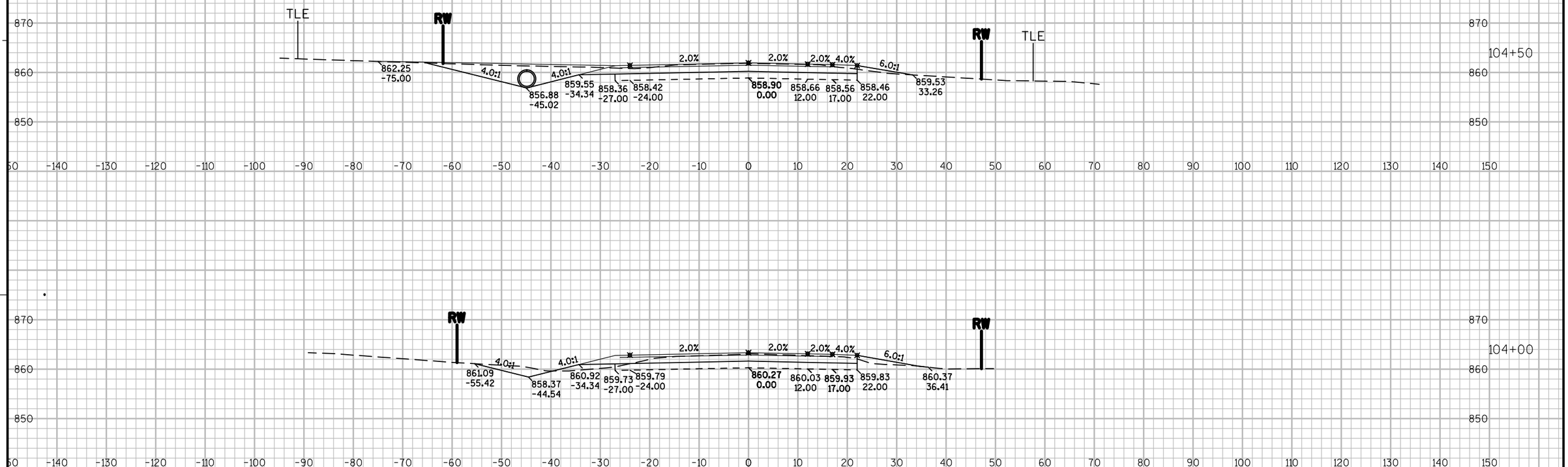
9

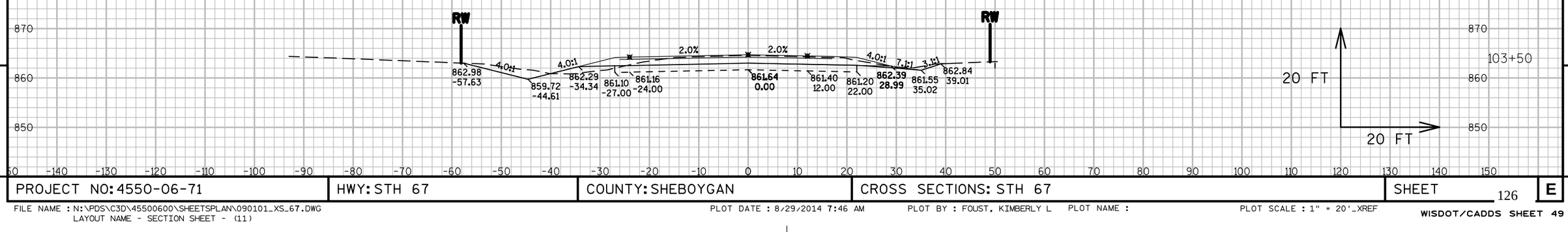
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 125	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (10)

PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49





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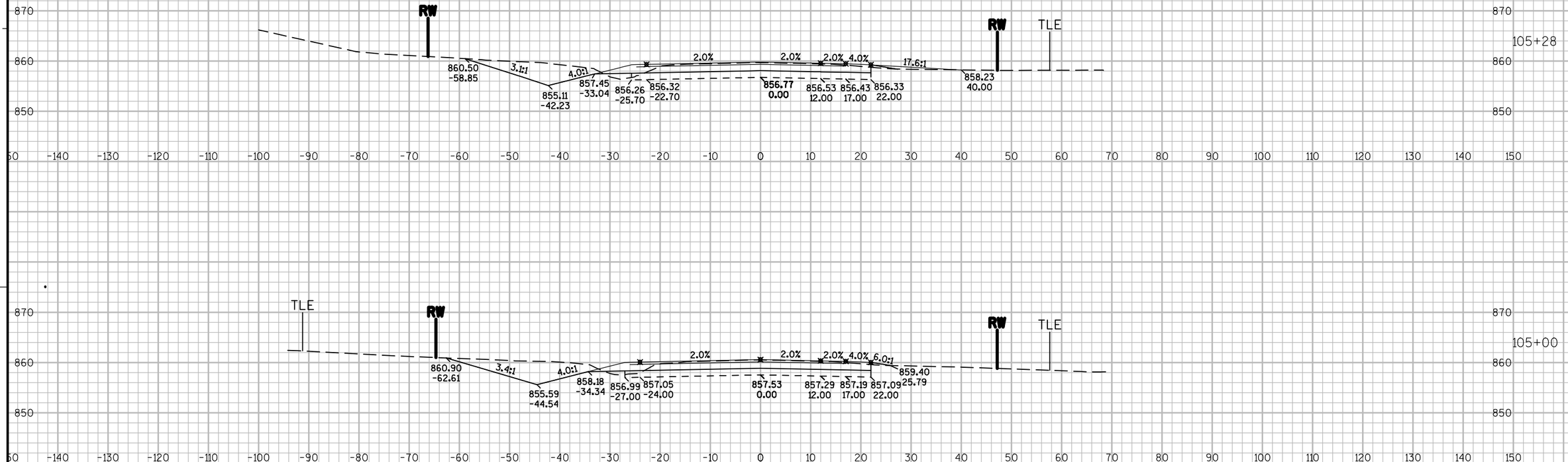
9

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 126	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (11)

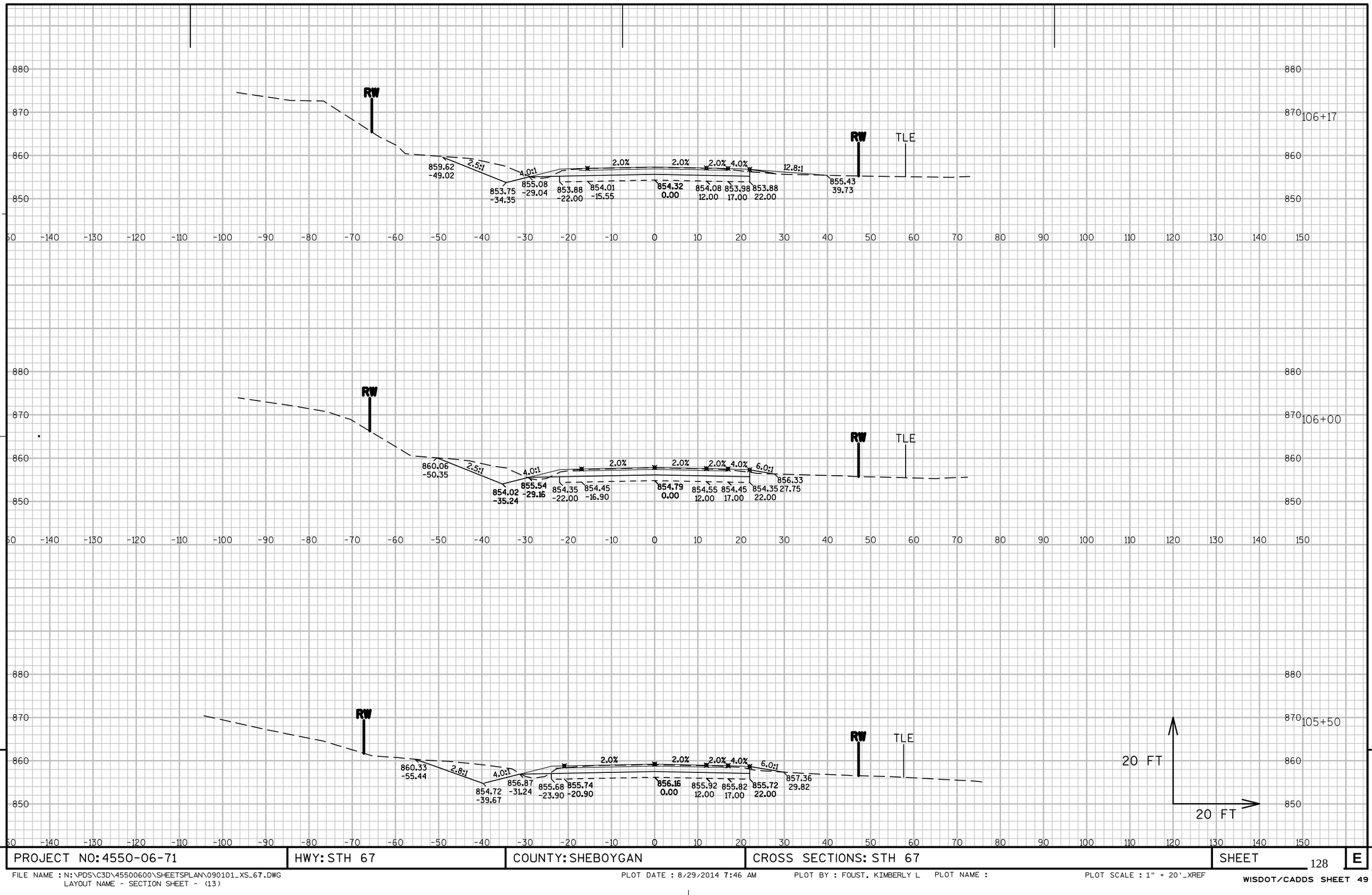
PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 127	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (12)
PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF
WISDOT/CADDS SHEET 49



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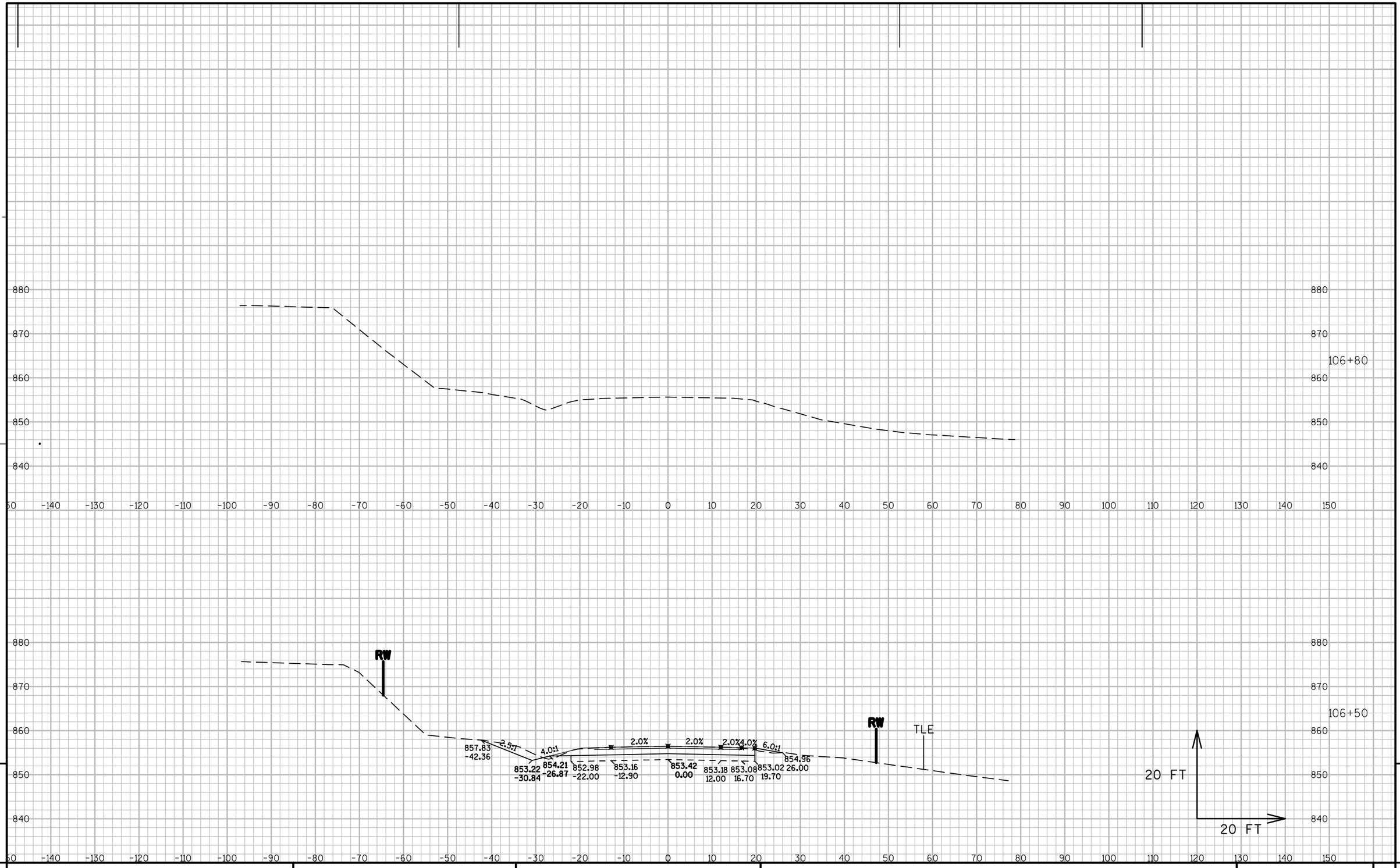
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 128	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (13)

PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49



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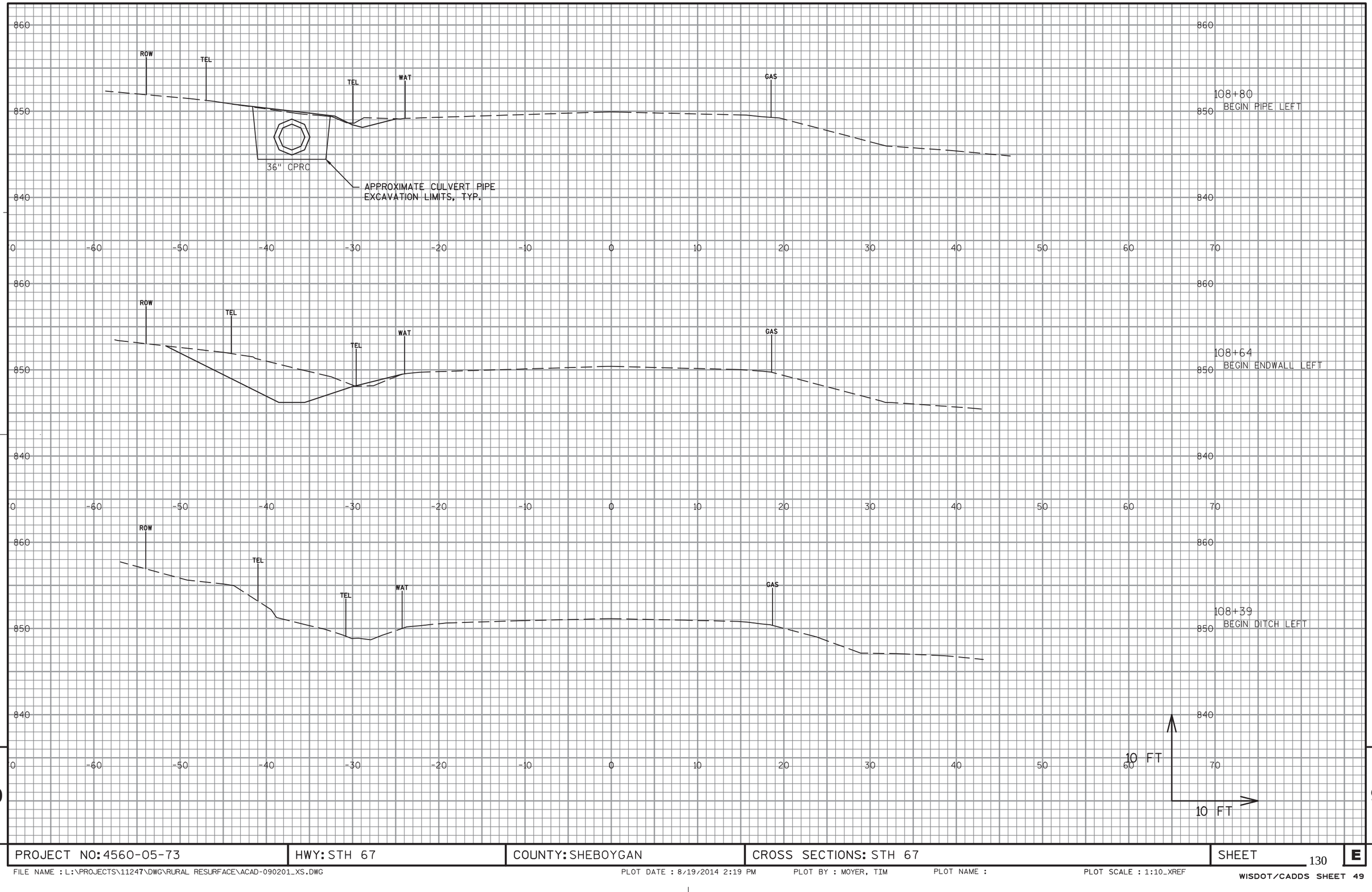
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 129	E

FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_67.DWG
LAYOUT NAME - SECTION SHEET - (14)

PLOT DATE : 8/29/2014 7:46 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF



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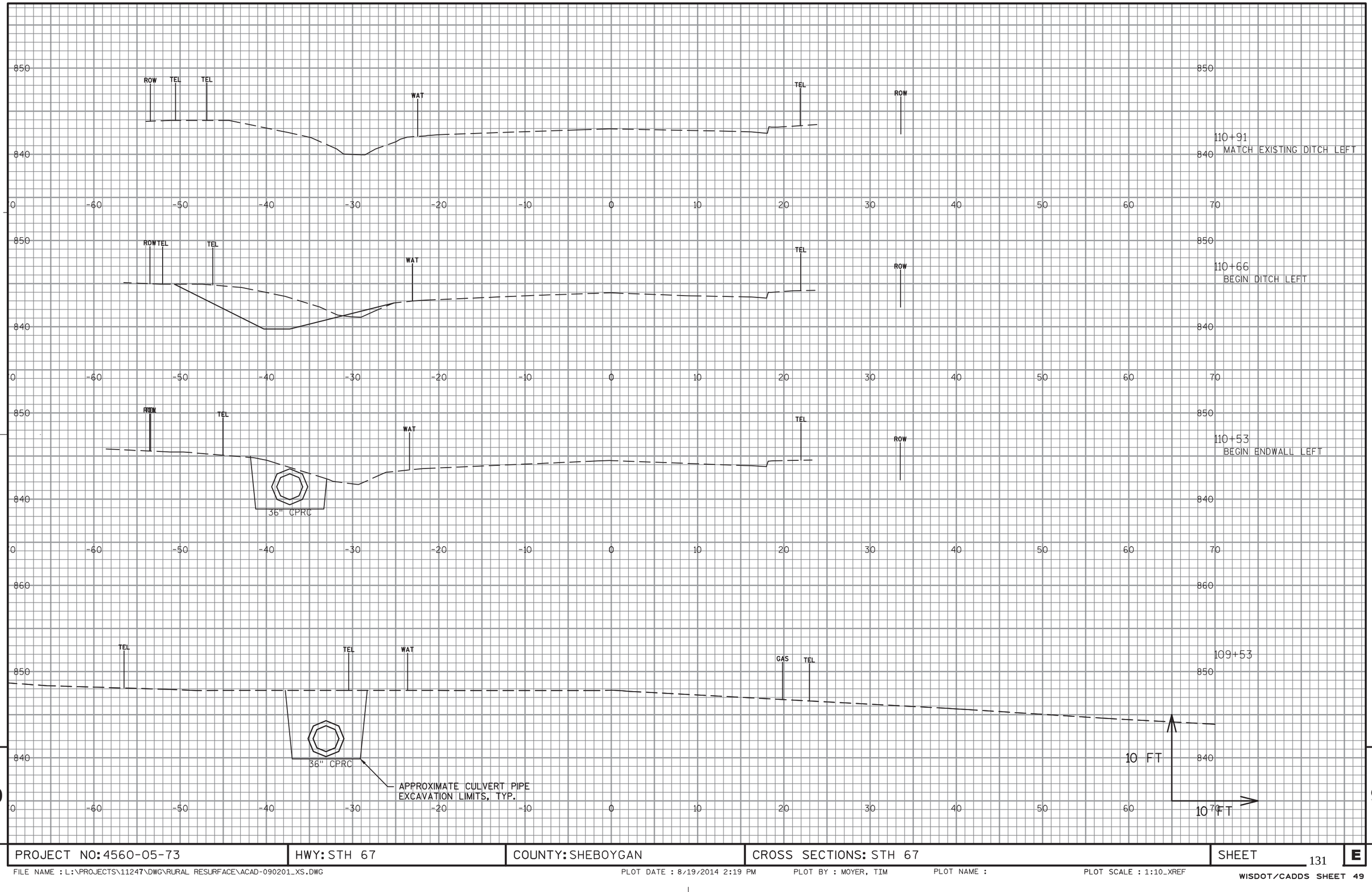
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 130	E

FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\ACAD-090201_XS.DWG PLOT DATE : 8/19/2014 2:19 PM PLOT BY : MOYER, TIM PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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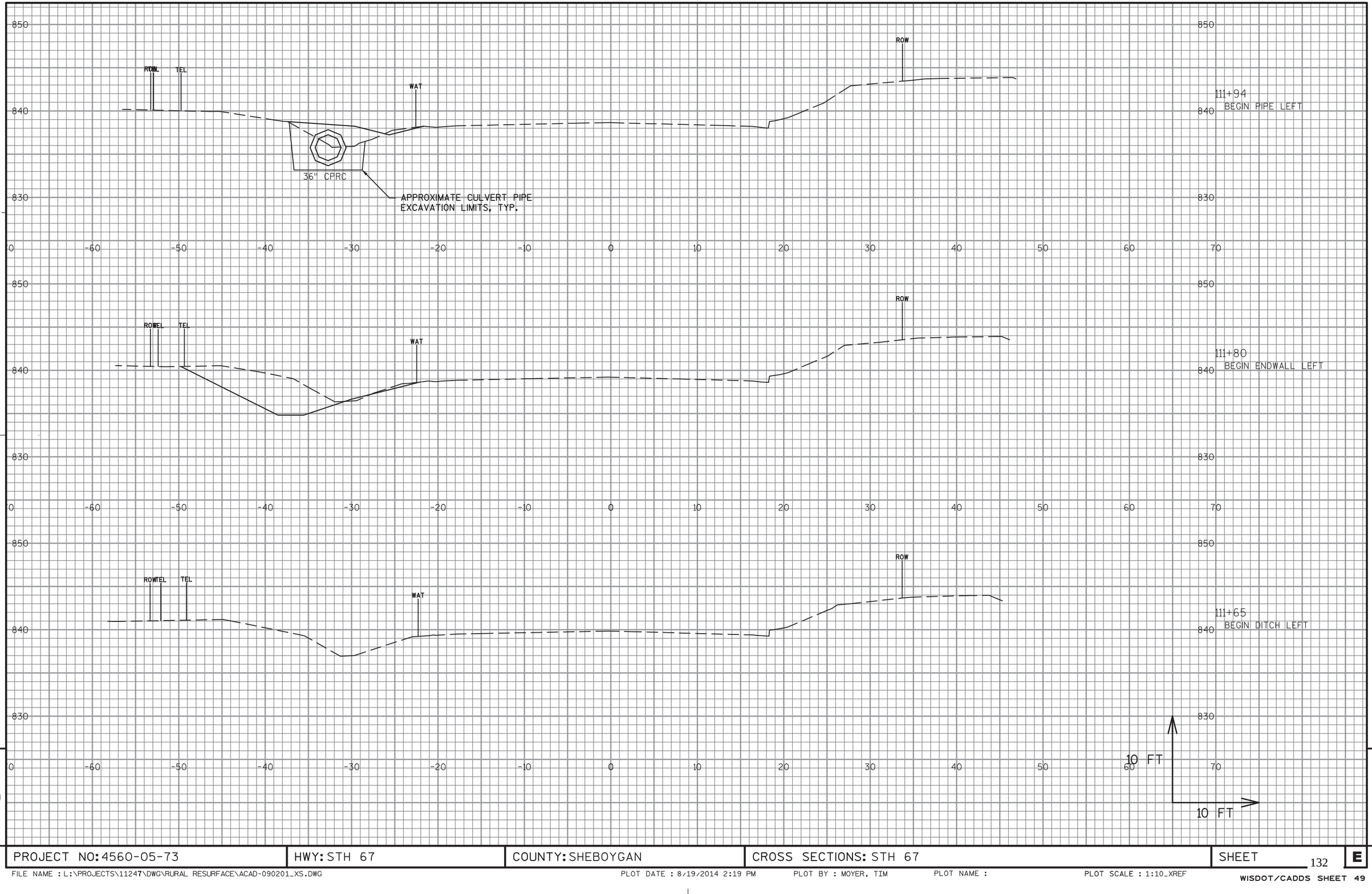
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 131	E

FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\ACAD-090201_XS.DWG PLOT DATE : 8/19/2014 2:19 PM PLOT BY : MOYER, TIM PLOT NAME : PLOT SCALE : 1:10_XREF



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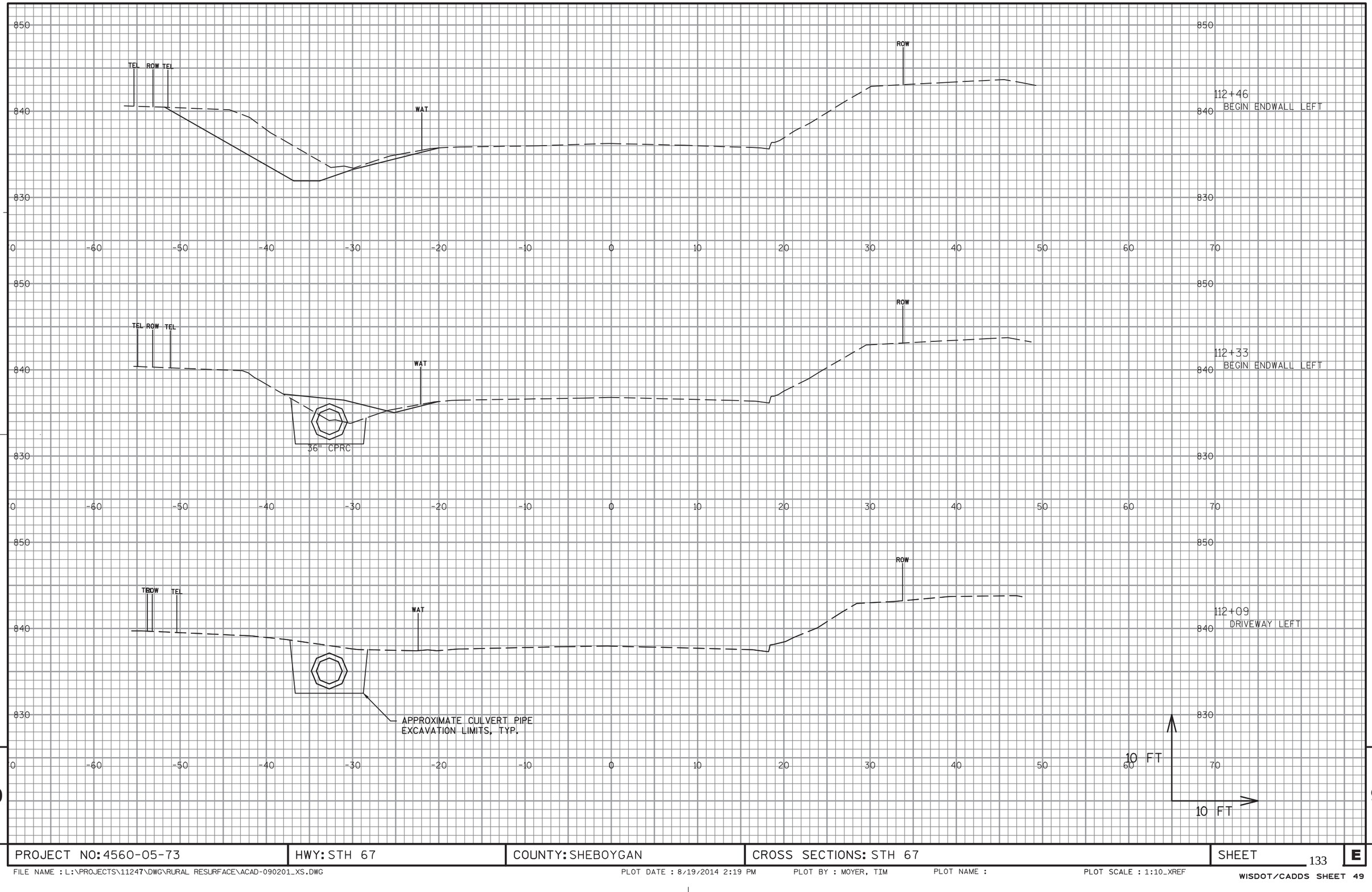
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 132	E

FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\ACAD-090201_XS.DWG PLOT DATE : 8/19/2014 2:19 PM PLOT BY : MOYER, TIM PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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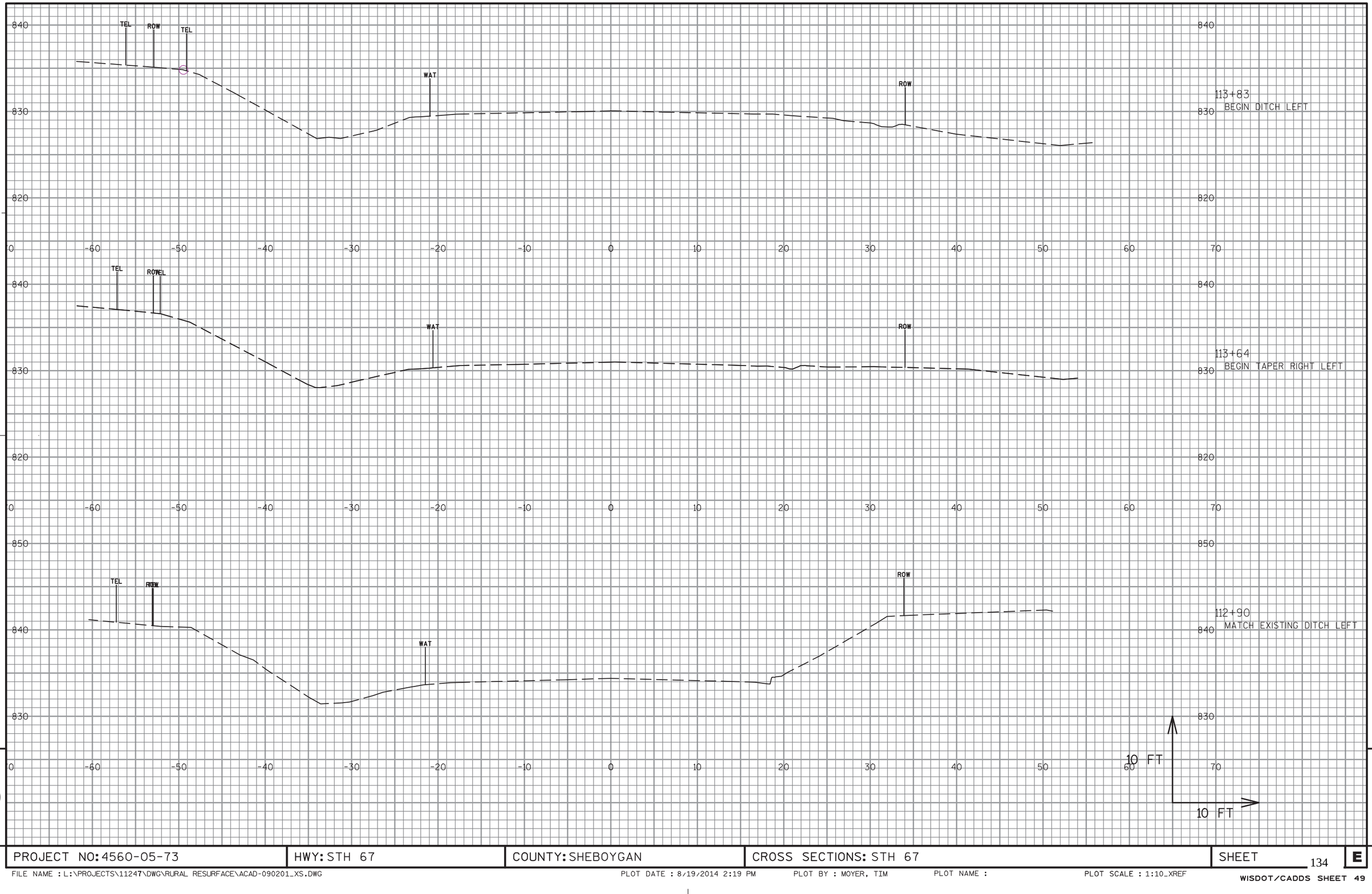
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 133	E

FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\ACAD-090201_XS.DWG PLOT DATE : 8/19/2014 2:19 PM PLOT BY : MOYER, TIM PLOT NAME : PLOT SCALE : 1:10_XREF



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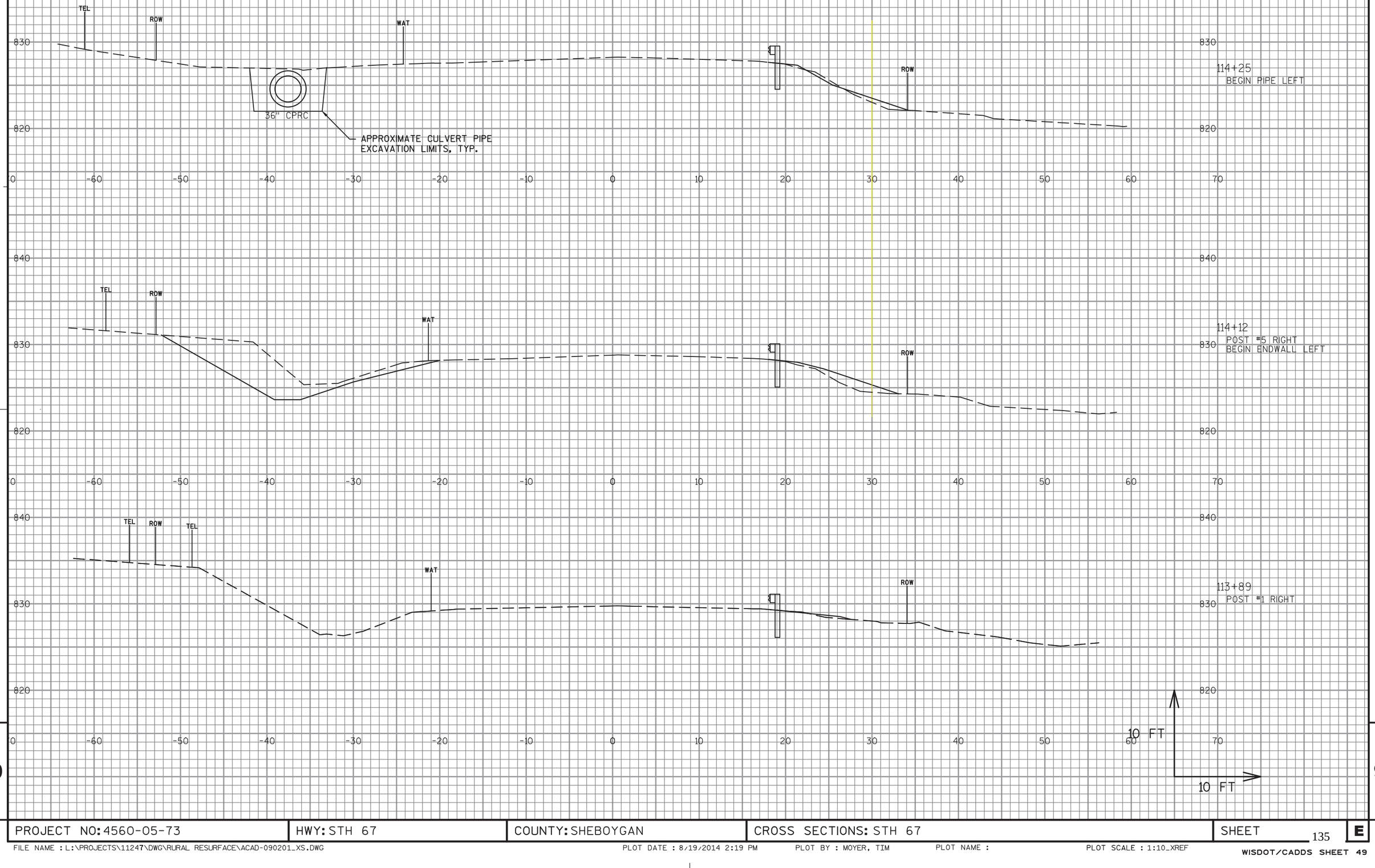
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 134	E



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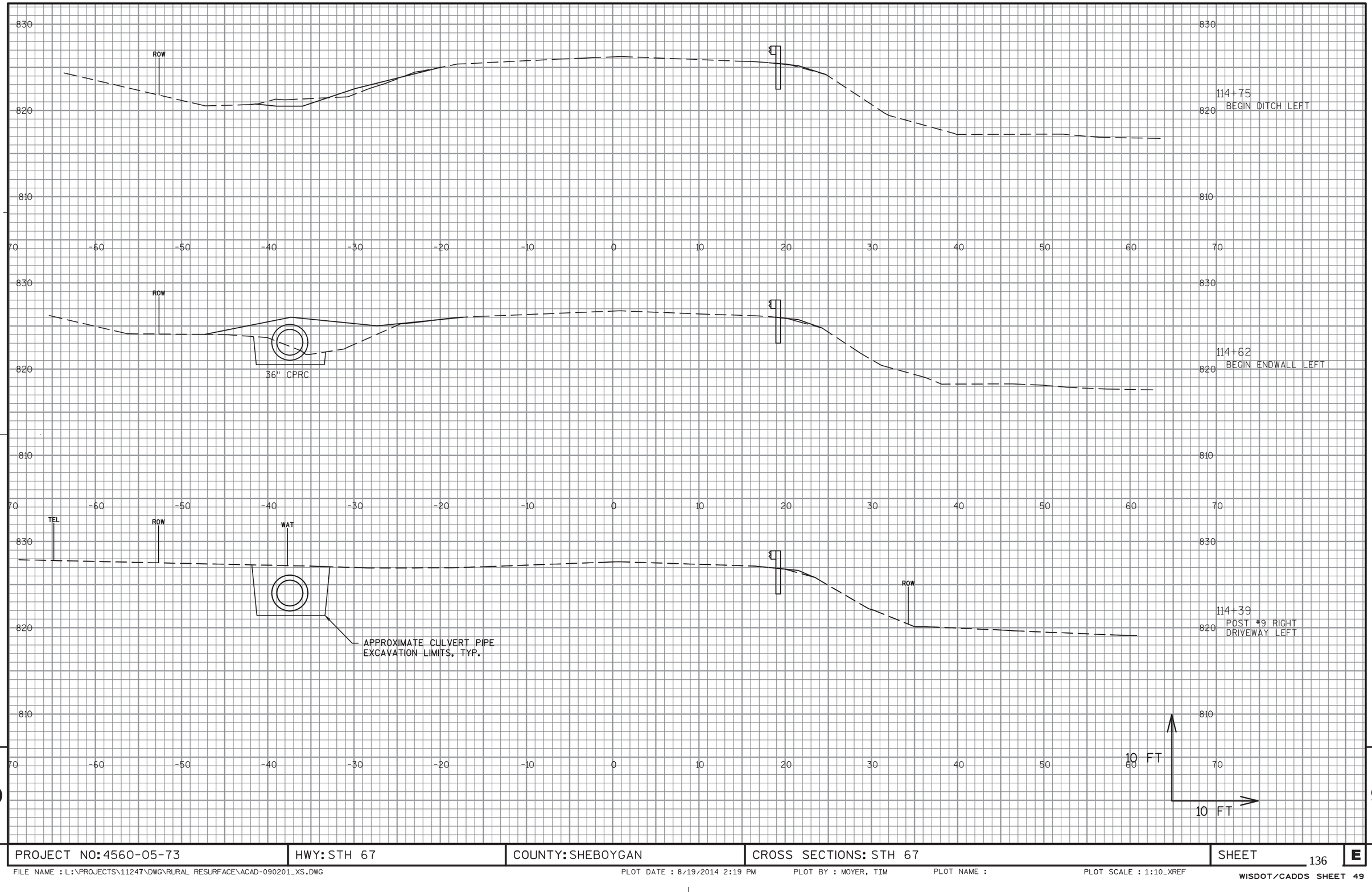
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 135	E

FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\ACAD-090201_XS.DWG PLOT DATE : 8/19/2014 2:19 PM PLOT BY : MOYER, TIM PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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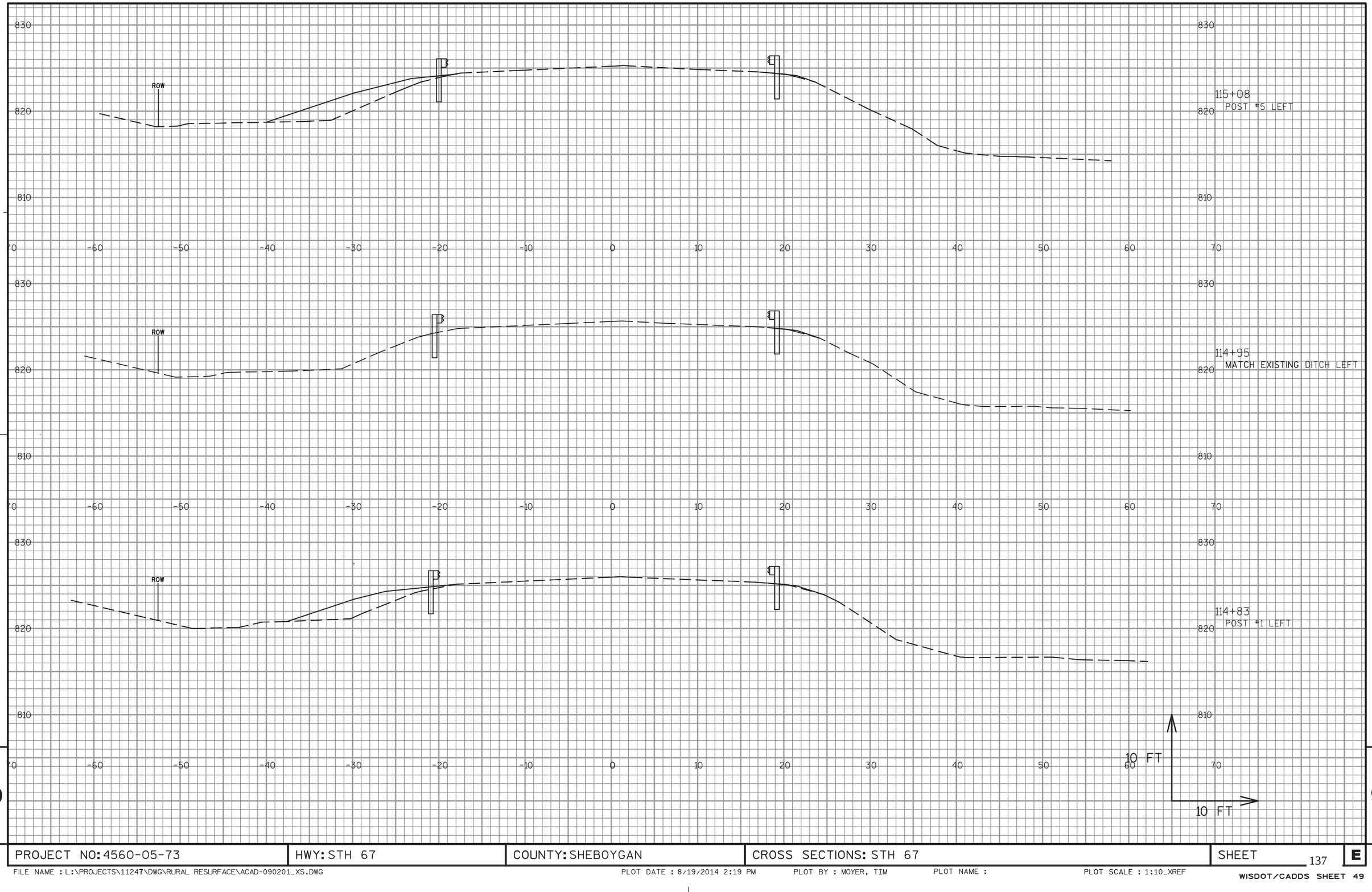
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 136	E



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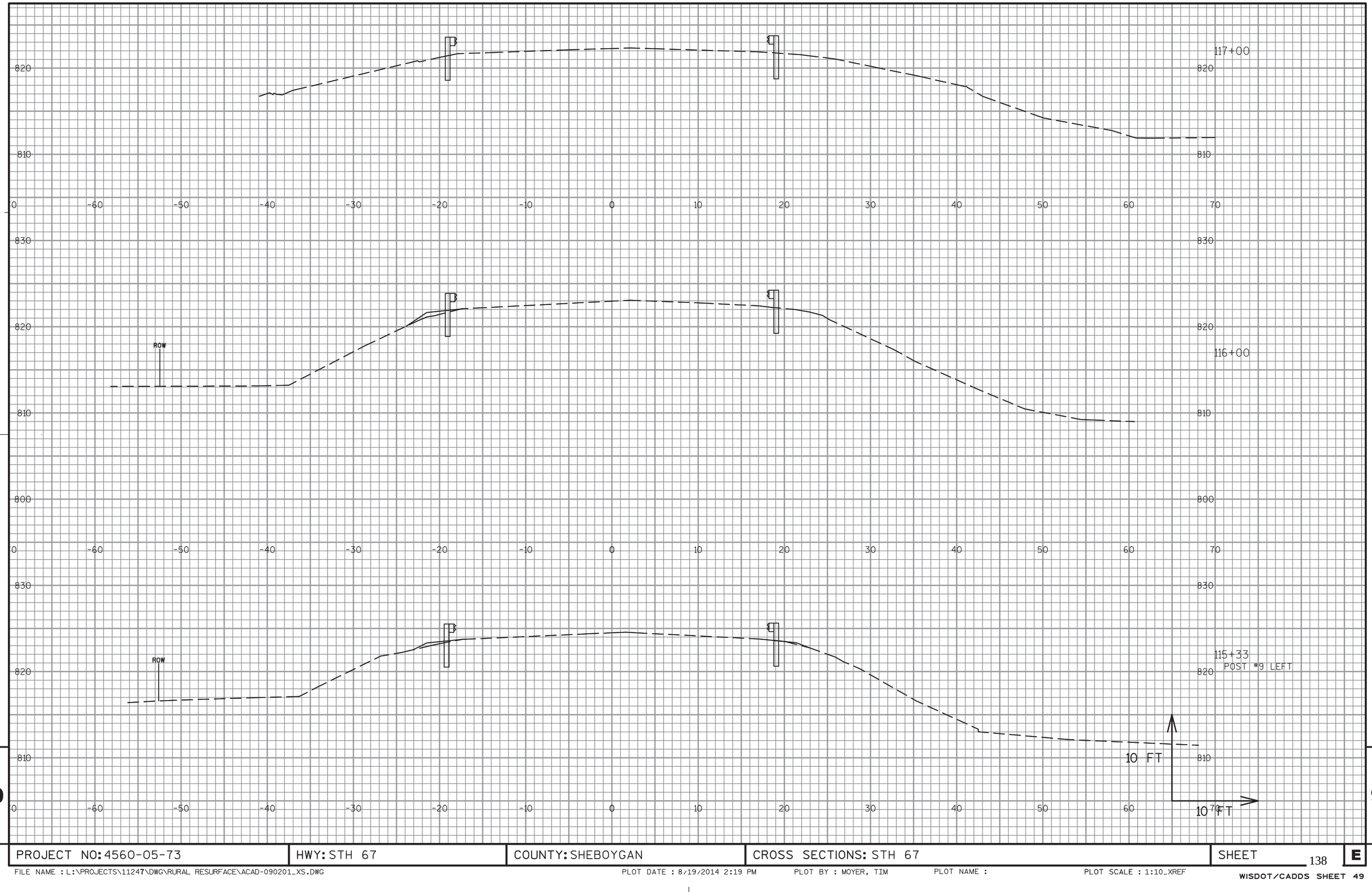
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 137	E

FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\ACAD-090201_XS.DWG PLOT DATE : 8/19/2014 2:19 PM PLOT BY : MOYER, TIM PLOT NAME : PLOT SCALE : 1:10_XREF



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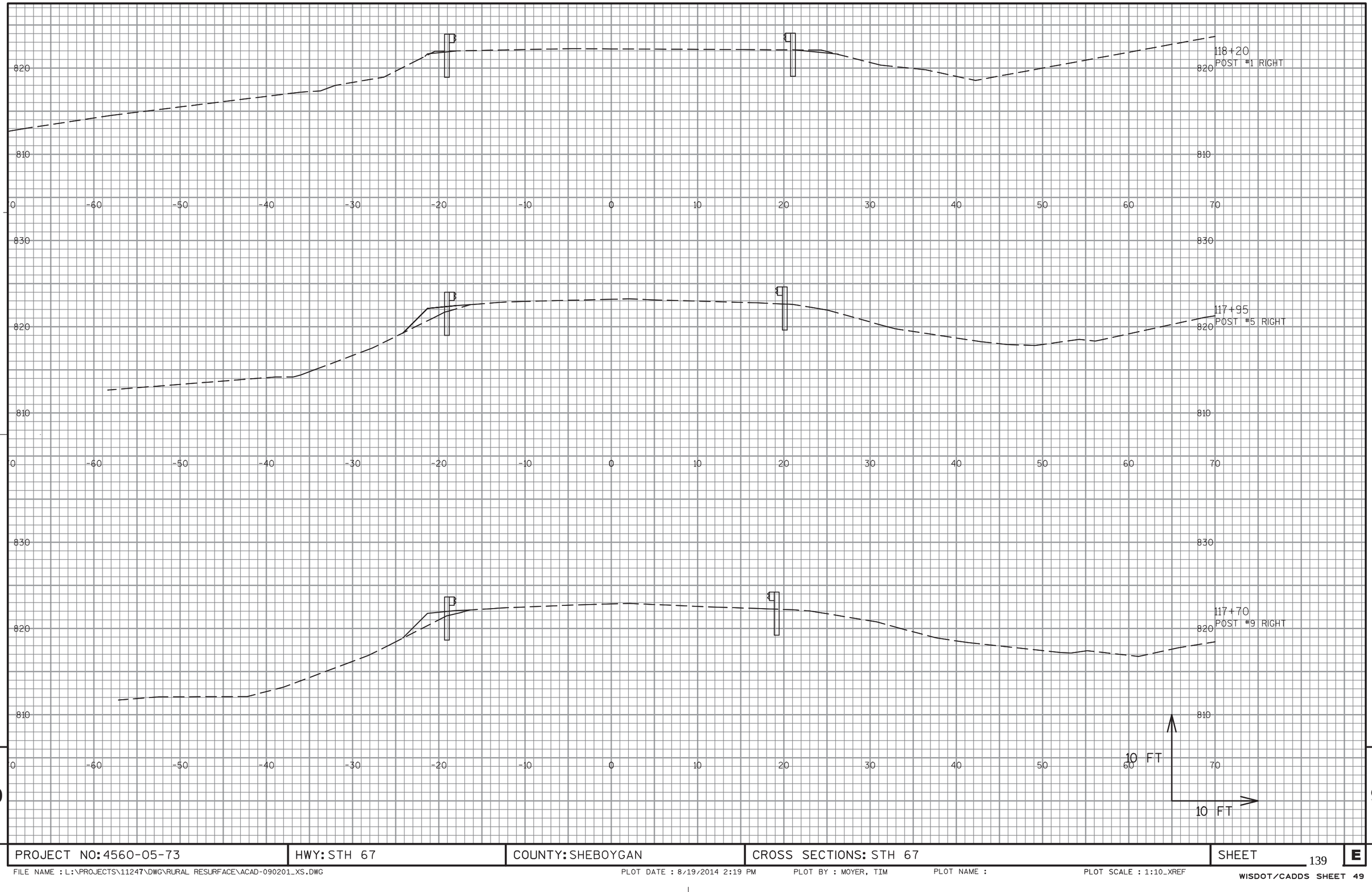
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 138	E



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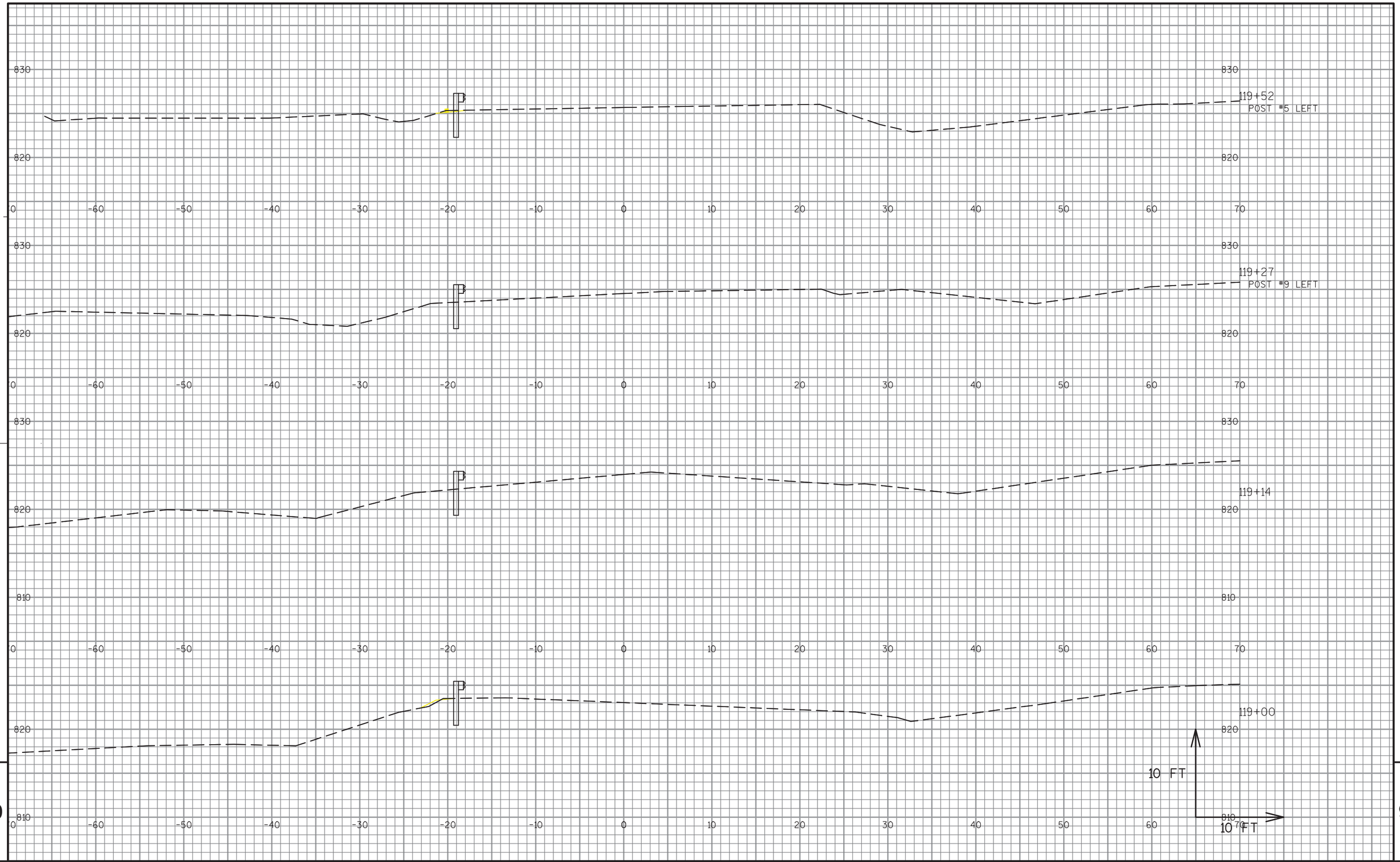
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 139	E



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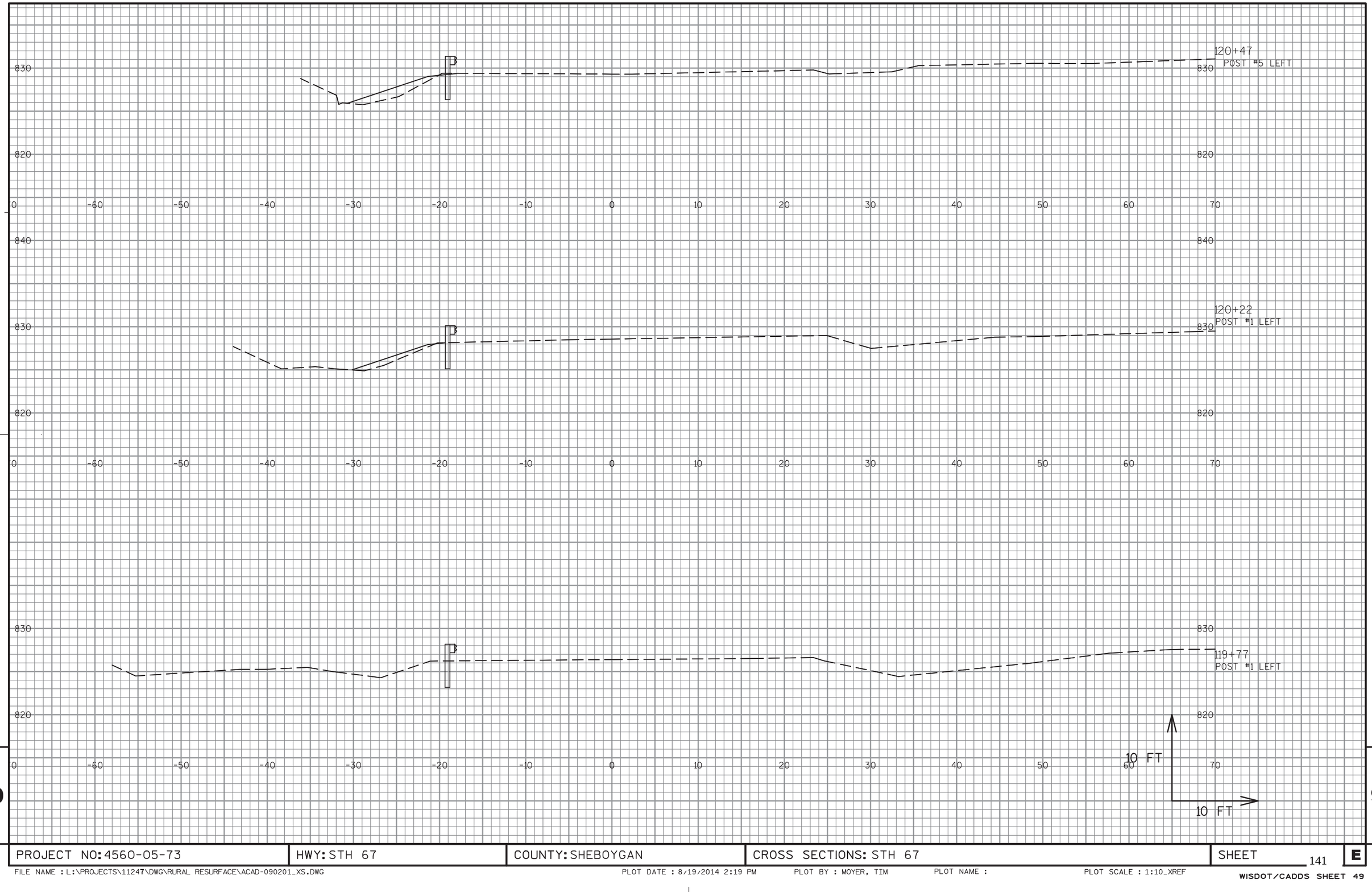
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 140	E

FILE NAME : L:\PROJECTS\11247\DWG\RURAL RESURFACE\ACAD-090201_XS.DWG PLOT DATE : 8/19/2014 2:19 PM PLOT BY : MOYER, TIM PLOT NAME : PLOT SCALE : 1:10_XREF

WISDOT/CADDS SHEET 49



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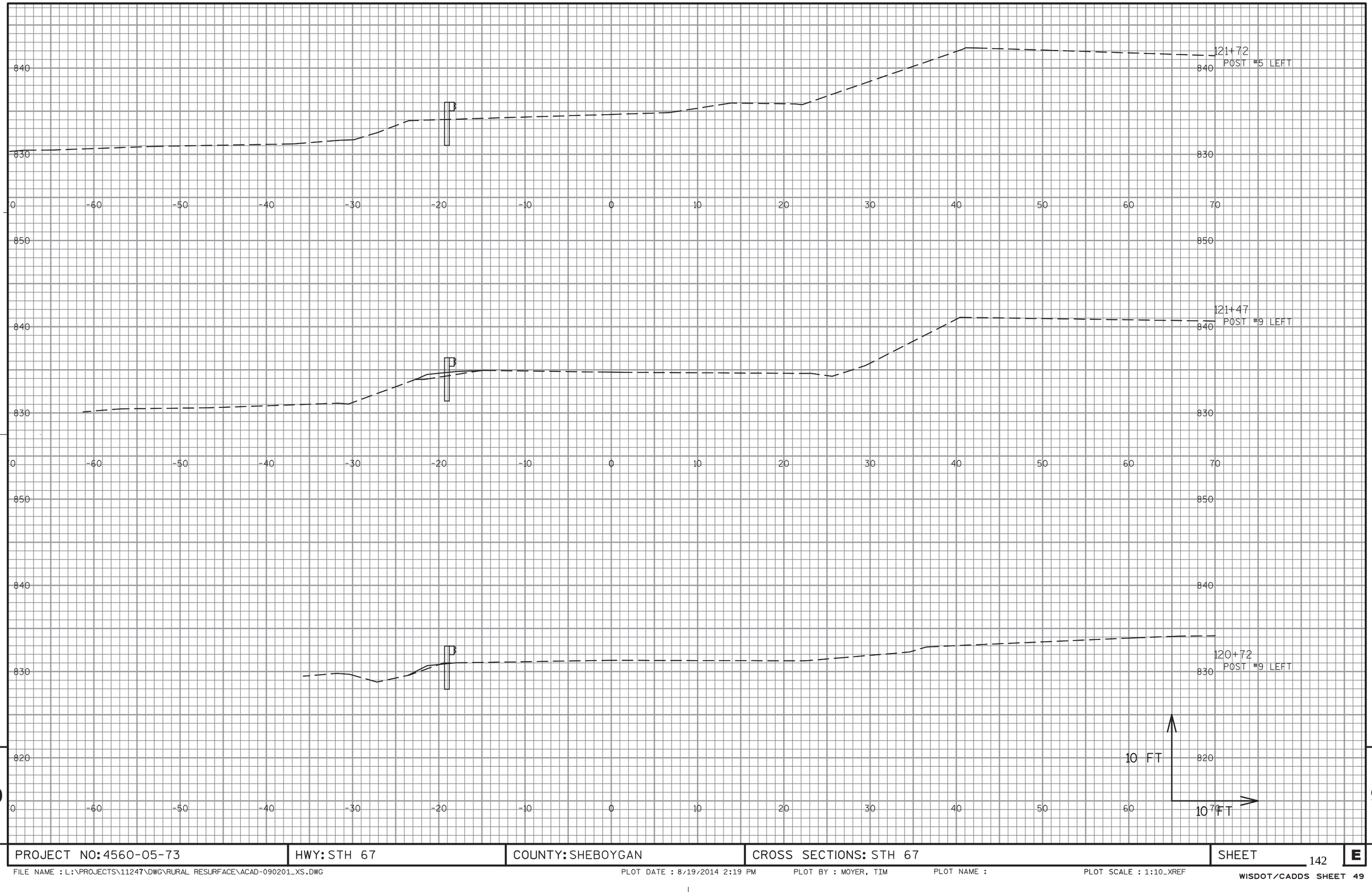
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 141	E



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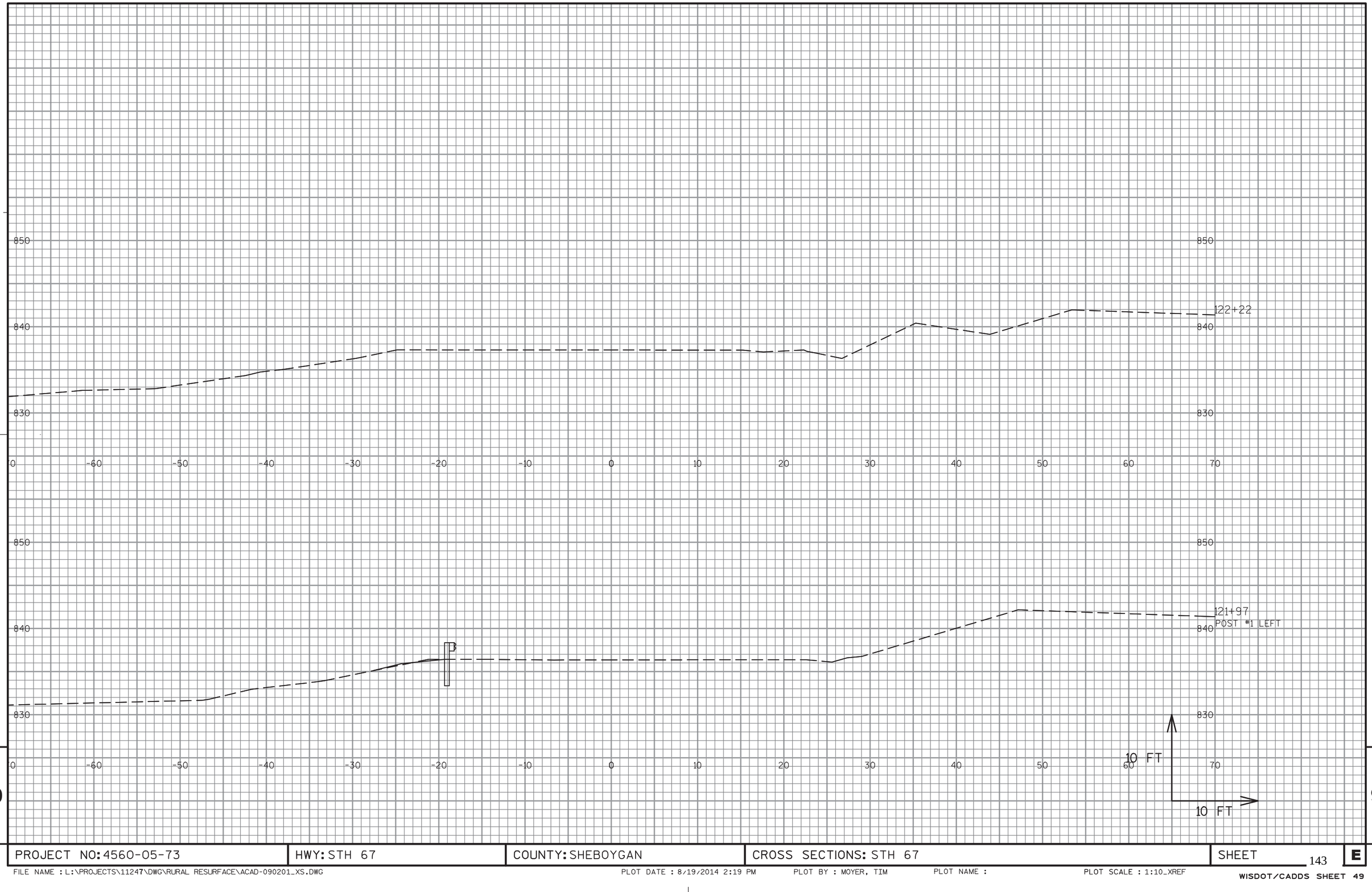
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 142	E



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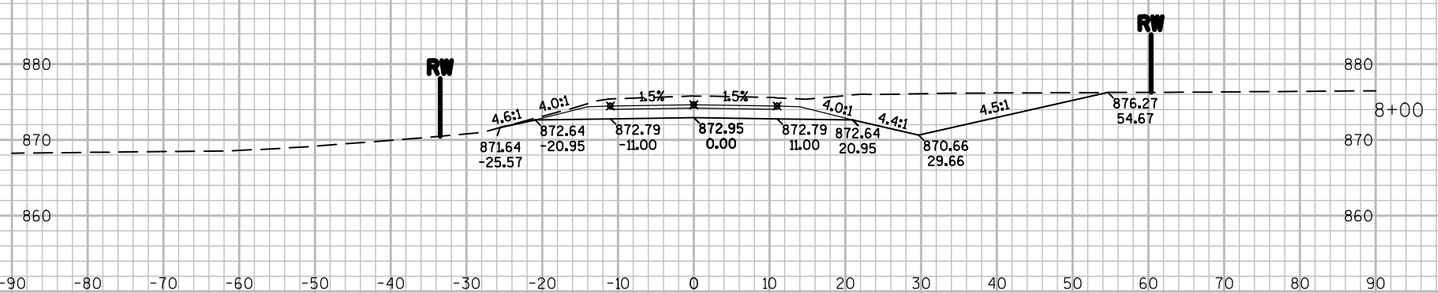
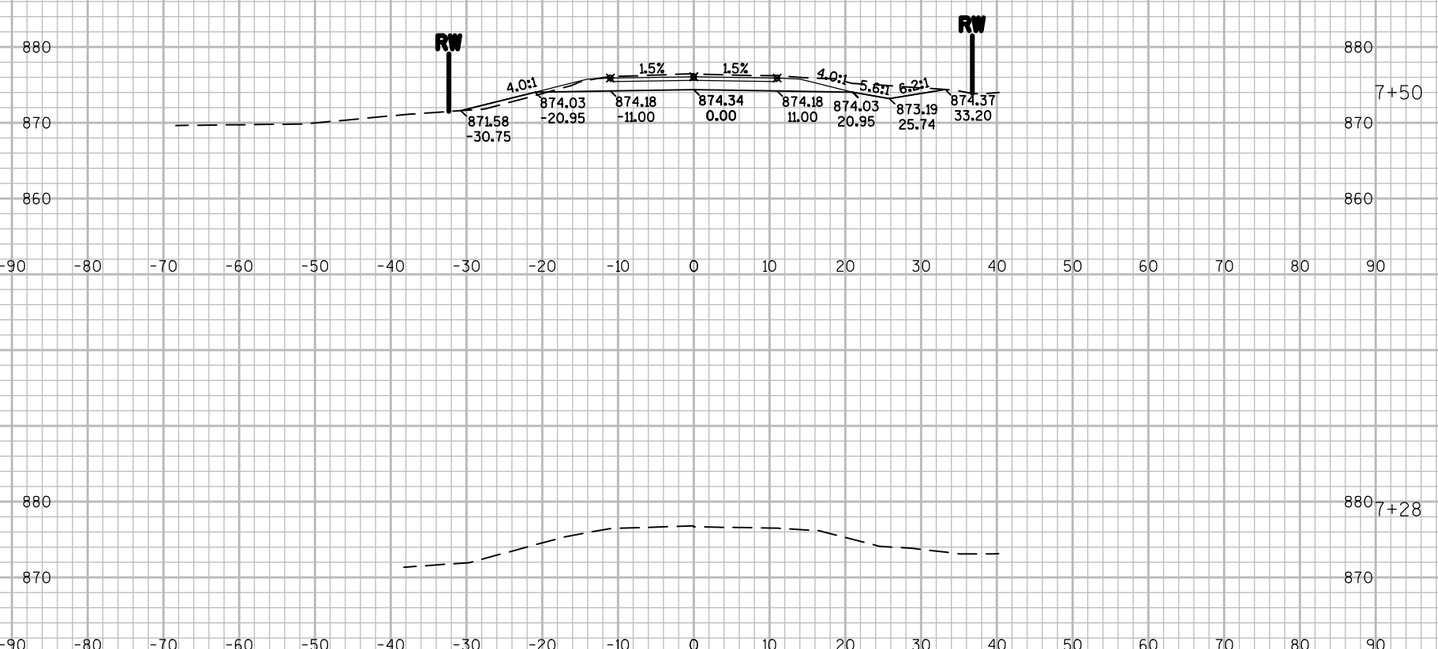
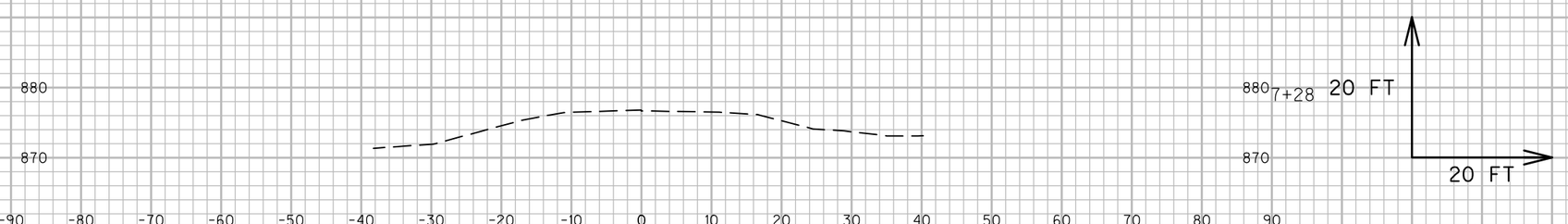
PROJECT NO: 4560-05-73	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: STH 67	SHEET 143	E







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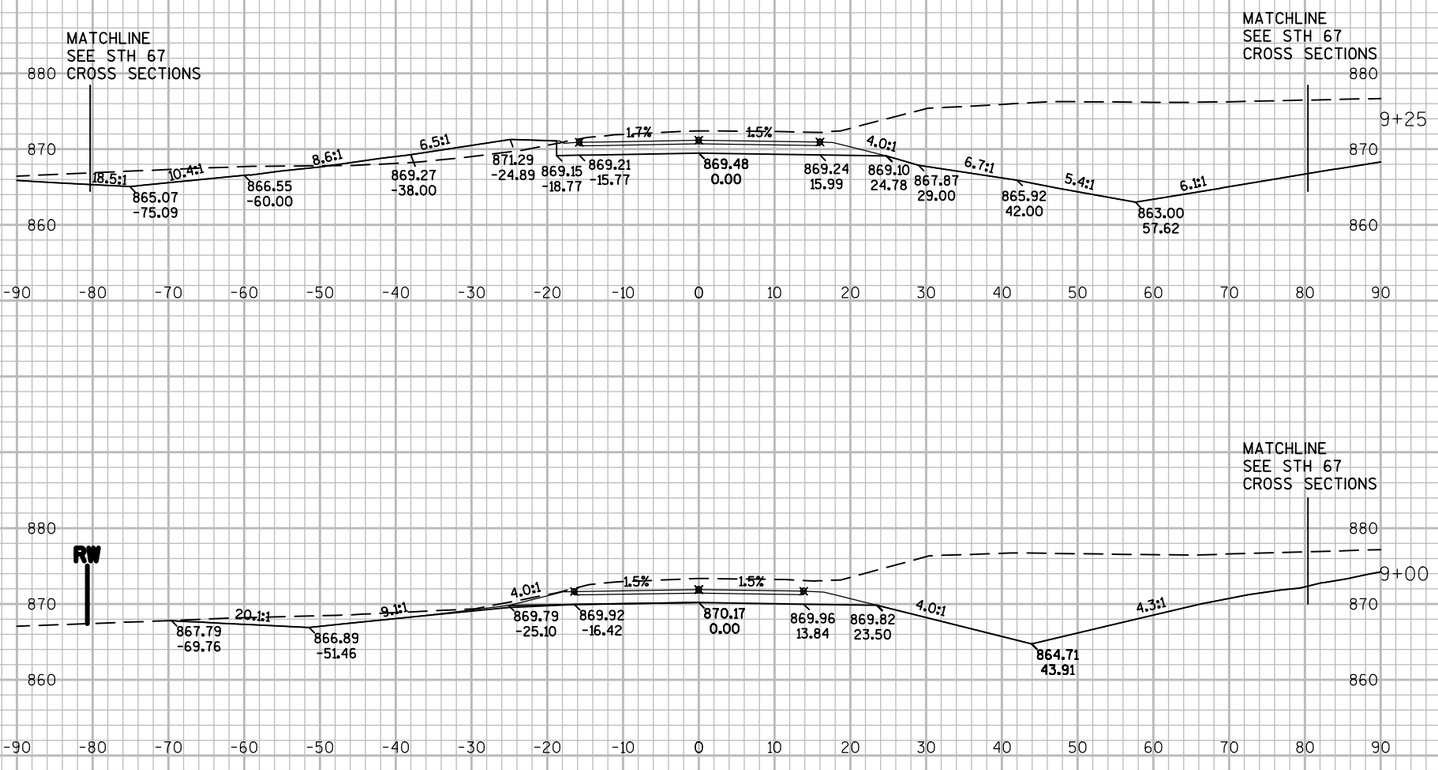
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: HILL AND DALE RD	SHEET 144	E

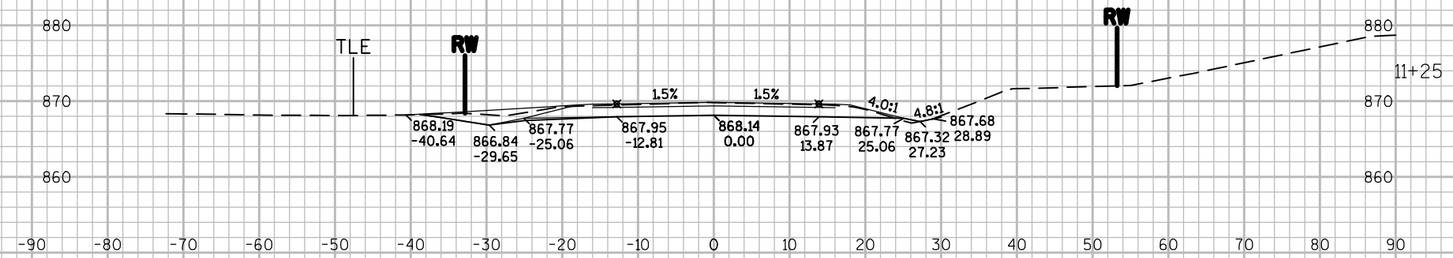


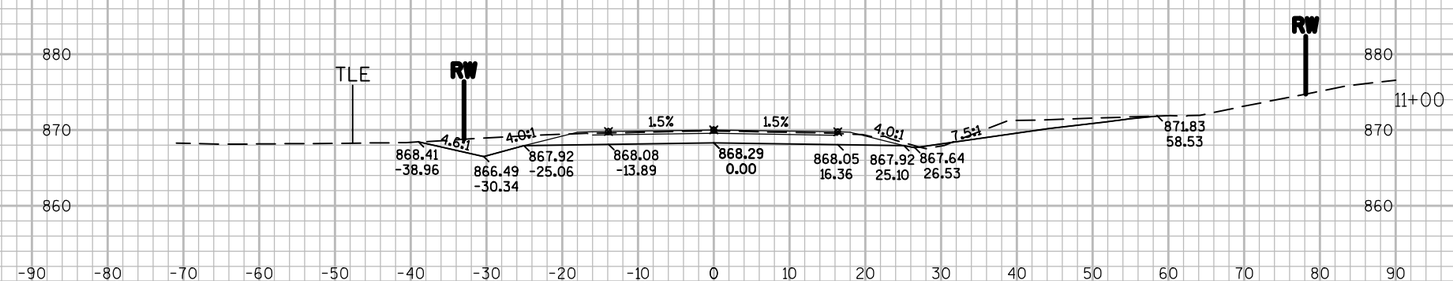
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: HILL AND DALE RD	SHEET	E

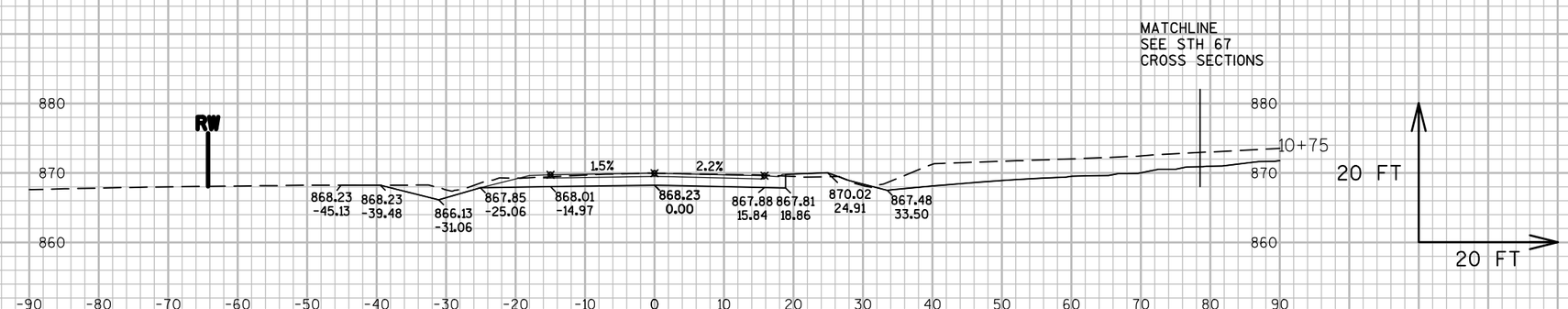
FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_HD.DWG
LAYOUT NAME - SECTION SHEET - (2)

PLOT DATE : 8/26/2014 3:44 PM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1:20_XREF

WISDOT/CADDS SHEET 49







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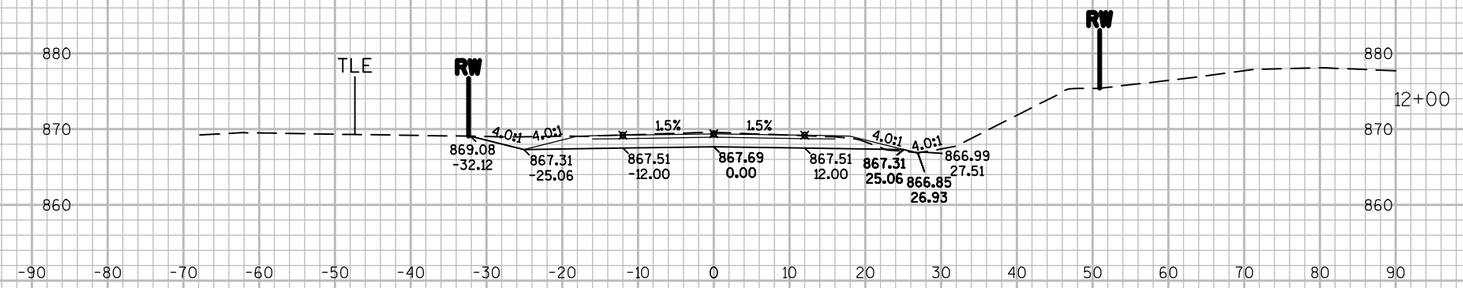
9

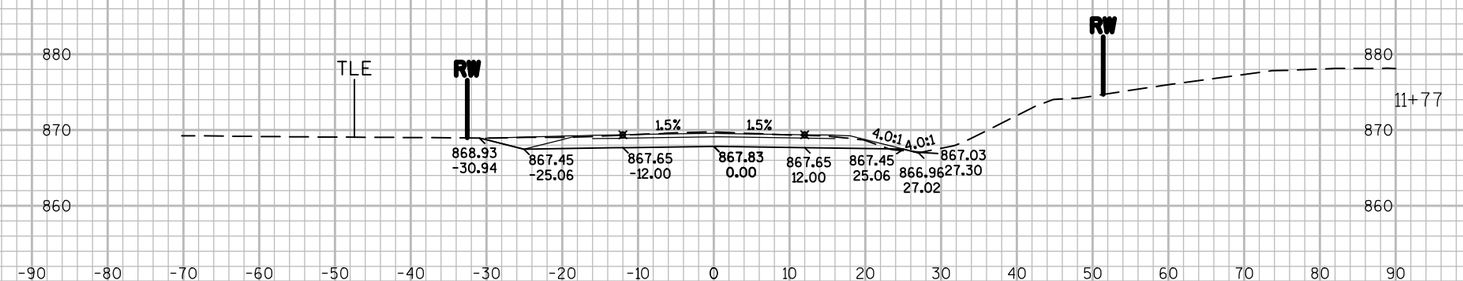
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: CTH PP	SHEET 146	E

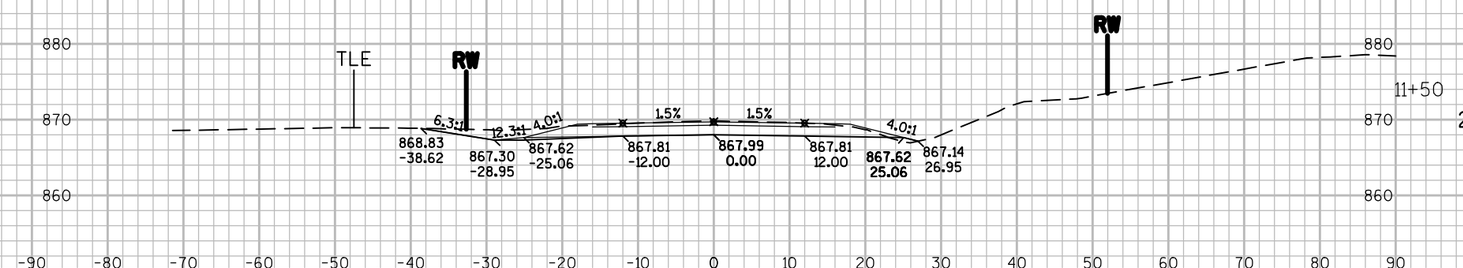
FILE NAME : N:\PDS\C3D\45500600\SHEETSPLAN\090101_XS_PP.DWG
LAYOUT NAME - SECTION SHEET - (1)

PLOT DATE : 8/29/2014 8:33 AM PLOT BY : FOUST, KIMBERLY L PLOT NAME : PLOT SCALE : 1" = 20'_XREF

WISDOT/CADDS SHEET 49







9

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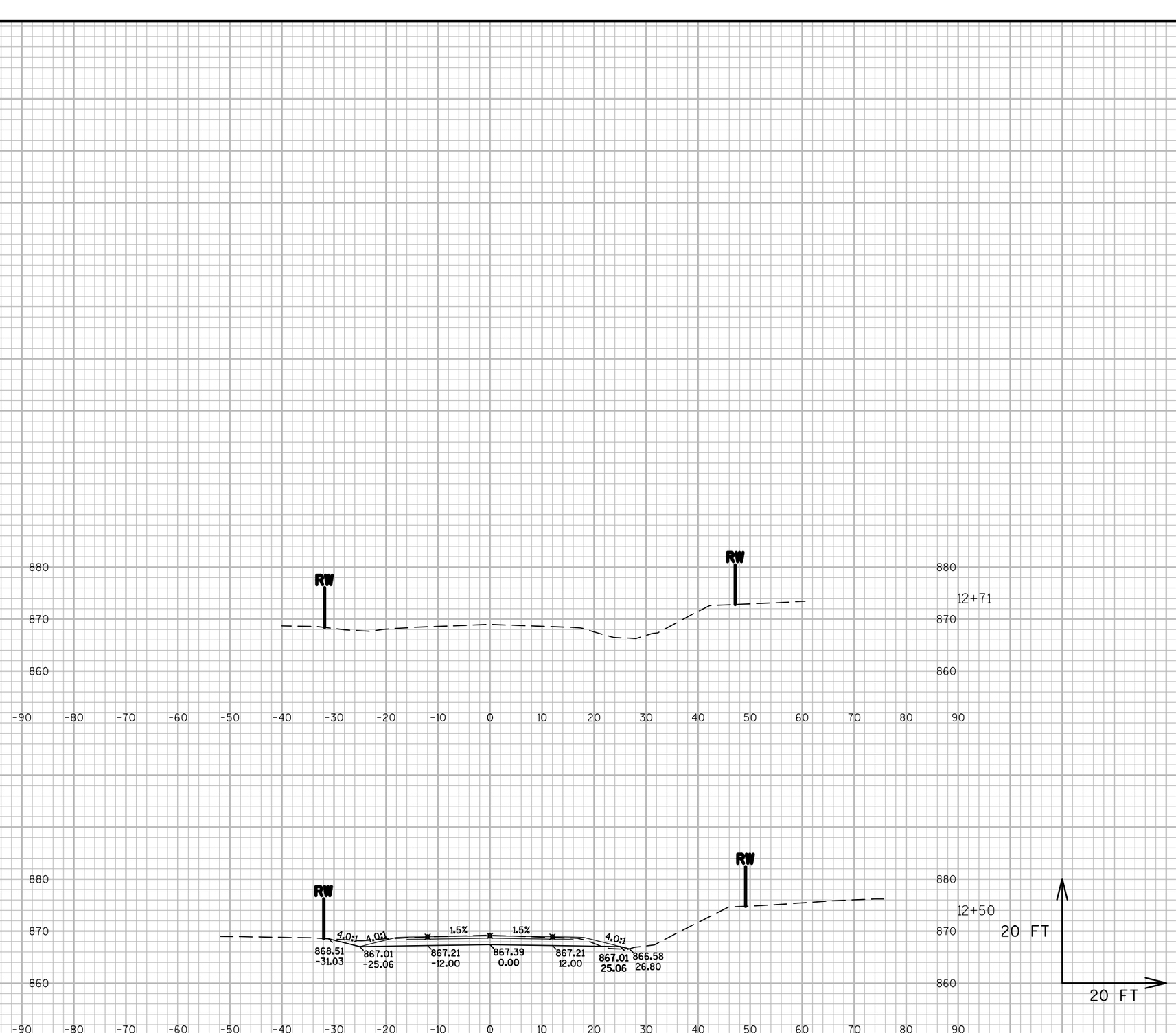
PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: CTH PP	SHEET 147	E



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9

PROJECT NO: 4550-06-71	HWY: STH 67	COUNTY: SHEBOYGAN	CROSS SECTIONS: CTH PP	SHEET 148	E

Notes

Wisconsin Department of Transportation

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