GRE

APRIL 2017

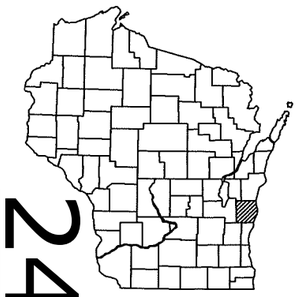
PROJECT ID: 1225-08-71

WITH:

COUNTY: SHEBOYGAN

ORDER OF SHEETS

TOTAL SHEETS = 142



24

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

SHEBOYGAN - MANITOWOC

STH 42 - NCL

IH 43

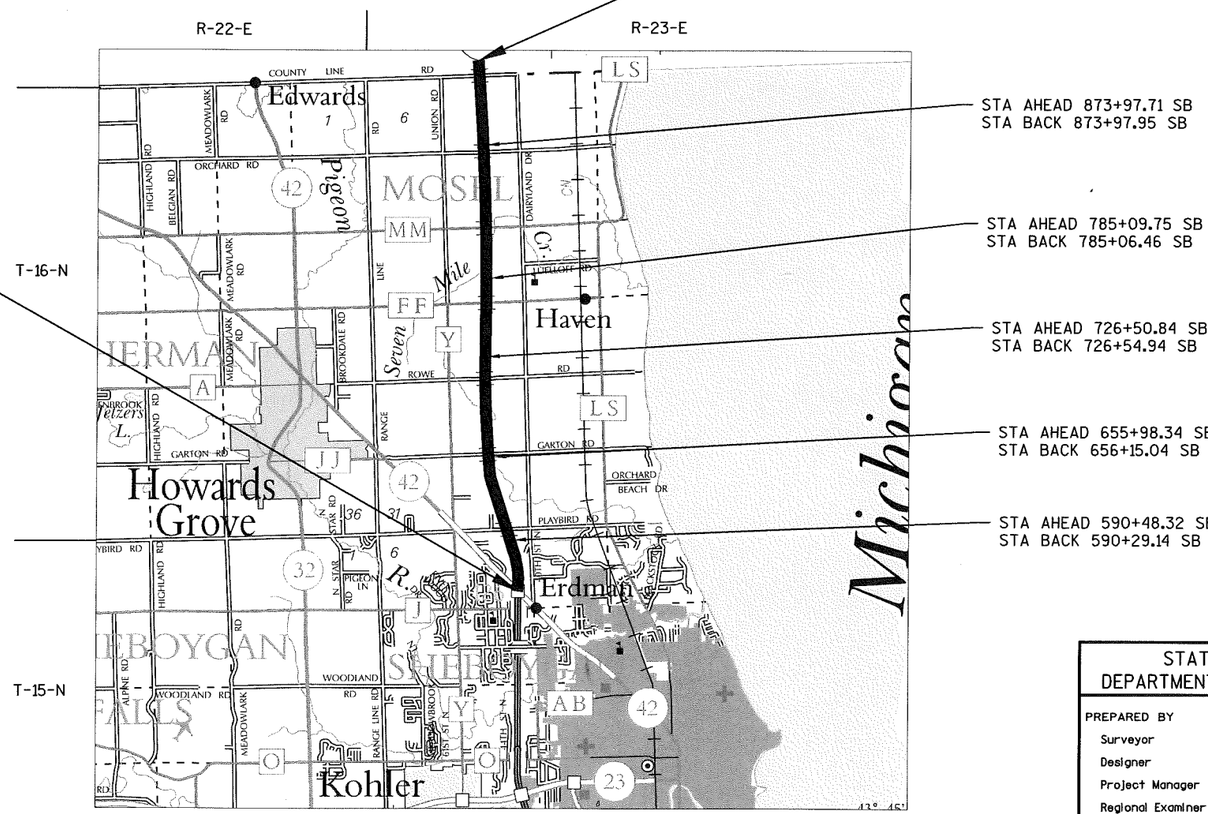
SHEBOYGAN COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1225-08-71	WISC 2017170	1

STATE PROJECT NUMBER
1225-08-71

END PROJECT 1225-08-71
STA 930+05.38'NB'
X = 203690.05
Y = 228171.20

BEGIN PROJECT 1225-08-71
STA 564+65.78'NB'
X = 205480.40
Y = 192097.31



LAYOUT
SCALE 0 2 MI.

TOTAL NET LENGTH OF CENTERLINE = 6.912 MI.

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.

DESIGN DESIGNATION

A.A.D.T.	2018	=	24,700
A.A.D.T.	2038	=	29,100
D.H.V.		=	3,300
D.D.		=	58/42
T.		=	16.2%
DESIGN SPEED		=	70 MPH
ESALS		=	12,000,000

CONVENTIONAL SYMBOLS

PLAN		PROFILE	
CORPORATE LIMITS		GRADE LINE	
PROPERTY LINE		ORIGINAL GROUND	
LOT LINE		MARSH OR ROCK PROFILE (To be noted as such)	ROCK
LIMITED HIGHWAY EASEMENT		SPECIAL DITCH	LABEL
EXISTING RIGHT OF WAY		GRADE ELEVATION	95.36
PROPOSED OR NEW R/W LINE		CULVERT (Profile View)	
SLOPE INTERCEPT		UTILITIES	
REFERENCE LINE		ELECTRIC	E
EXISTING CULVERT		FIBER OPTIC	FO
PROPOSED CULVERT (Box or Pipe)		GAS	G
COMBUSTIBLE FLUIDS	CAUTION	SANITARY SEWER	SAN
		STORM SEWER	SS
		TELEPHONE	T
MARSH AREA		WATER	W
		UTILITY PEDESTAL	
		POWER POLE	
WOODED OR SHRUB AREA		TELEPHONE POLE	

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NE REGION
Designer	K. WITTE
Project Manager	B. HAEN
Regional Examiner	
Regional Supervisor	C. KAROW

APPROVED FOR THE DEPARTMENT
DATE: 11/10/16 Brian Haen (Signature)

E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\010101_TI.DWG

PLOT DATE : 11/10/2016 8:32 AM PLOT BY : WITTE, KYLE J PLOT NAME :

GENERAL NOTES

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

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN ARE APPROXIMATE AND SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALL CONTINUOUSLY REINFORCED CONCRETE REPAIRS ARE SEVEN (7) FEET IN LENGTH UNLESS OTHERWISE NOTED IN THE PLANS.

COUNTY SURVEYOR OR SURVEYS CONTACT PERSON

CONTACT: CORMAC MCINNIS
WISDOT-NE REGION
944 VANDERPERREN WAY
GREEN BAY, WI 54304
920-492-5638
cormac.mcinnis@dot.wi.gov

DNR AREA LIAISON

JAY SCHIEFELBEIN
DNR NORTHEAST REGIONAL HEADQUARTERS
2984 SHAWANO AVE.
GREEN BAY, WI 54913
920-662-5119
JEREMIAH.SCHIEFELBEIN@WISCONSIN.GOV

UTILITIES

ALLIANT ENERGY - ELECTRIC
4902 N BILTMORE LANE
MADISON, WI 53718
ATTN: JASON HOGAN
PHONE (W): 608-458-4871
PHONE (M): 608-395-7395
EMAIL: JASONHOGAN@ALLIANTENERGY.COM

TDS TELECOM - COMMUNICATIONS
10 COLLEGE AVE.
APPLETON, WI 54911
ATTN: STEVE JAKUBIEC
PHONE (W): 920-882-4166
PHONE (M): 920-562-7221
EMAIL: STEVE.JAKUBIEC@TDSTELECOM.COM

TIME WARNER CABLE - COMMUNICATIONS
3520 E DESTINATION DR.
APPLETON, WI 54915
ATTN: STEVE STORM
PHONE (W): 414-908-4789
PHONE (M): 414-239-4106
EMAIL: STEVEN.STORM@TWCABLE.COM

TOWN OF SHEBOYGAN - SEWER
1512 NORTH 40TH ST.
SHEBOYGAN, WI 53081
ATTN: BILL BLASHKA
PHONE (W): 920-451-2320
EMAIL: WILLIAMBLASHKA@TOWNOFSHEBOYGAN.ORG

WINDSTREAM KDL - COMMUNICATIONS
13935 BISHOPS DR.
BROOKFIELD, WI 53005
ATTN: NATHAN BECKER
PHONE (M): 414-313-9032
EMAIL: NATHAN. BECKER@WINDSTREAM.COM

WISCONSIN DEPARTMENT OF TRANSPORTATION - COMMUNICATIONS
433 W. ST. PAUL AVE.
MILWAUKEE, WI 53203-3007
ATTN: JEFF MADSON
PHONE (W): 414-225-3723
EMAIL: JEFFERY.MADSON@DOT.WI.GOV

WISCONSIN PUBLIC SERVICE - GAS/PETROLEUM
700 N ADAMS ST.
P.O. BOX 19001
GREEN BAY, WI 54307-9001
ATTN: KEVIN KOLB
PHONE (W): 920-451-3733
EMAIL: KCKOLB@WISCONSINPUBLICSERVICE.COM

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

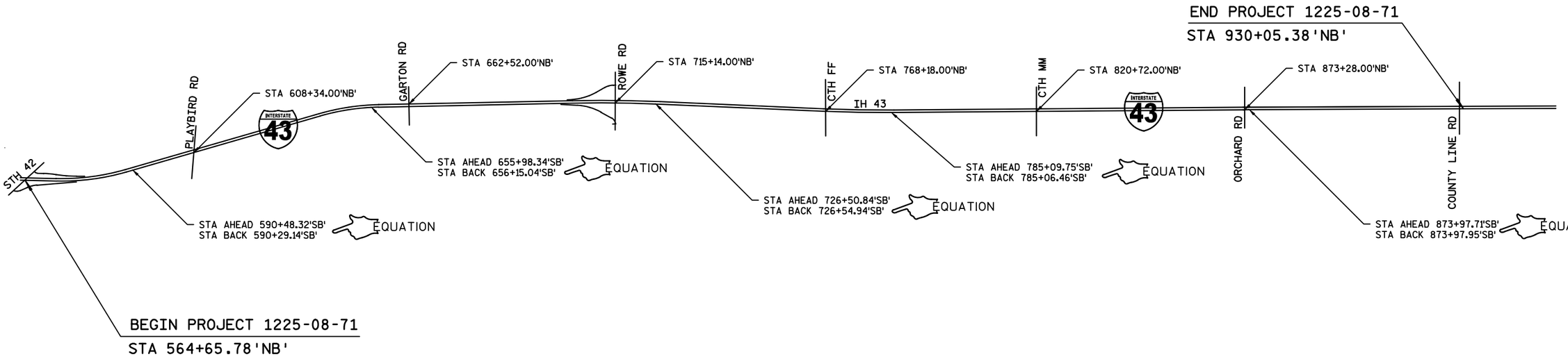
ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-450-7240
GAS 24 HOUR EMERGENCY SERVICE: 1-800-450-7280

EMERGENCY CONTACT NUMBERS FOR WE ENERGIES

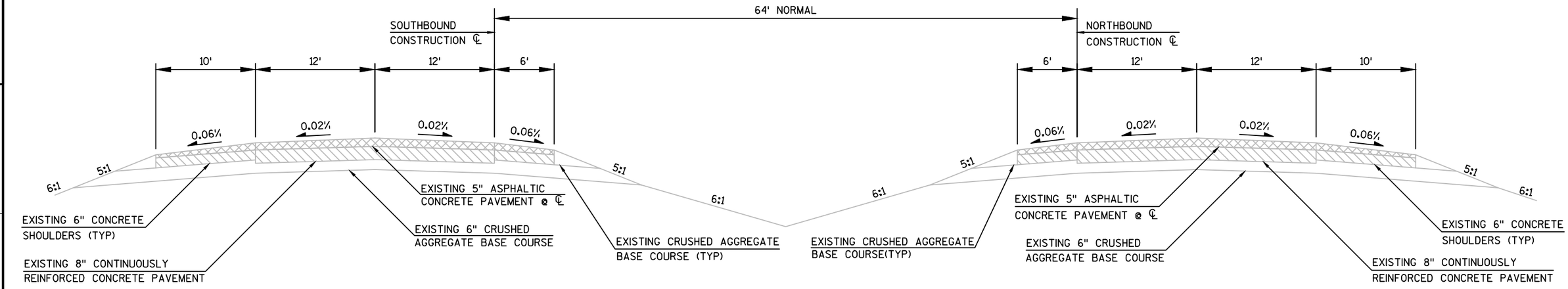
ELECTRIC 24 HOUR EMERGENCY SERVICE: 1-800-662-4797
GAS 24 HOUR EMERGENCY SERVICE: 1-800-261-5325

2

N



PROJECT NO:1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN OVERVIEW	SHEET 3	E



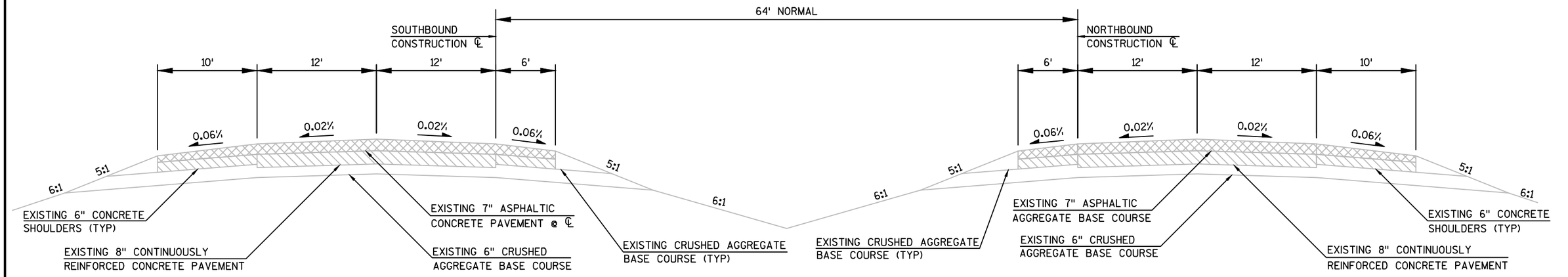
SOUTHBOUND

STA. 605+79'SB' - STA. 611+70'SB'
STA. 715+83'SB' - STA. 726+54.94'SB' BK
STA. 726+50.84'SB' AH - STA. 763+72'SB'
STA. 778+81'SB' - STA. 785+06.46'SB' BK
STA. 785+09.75'SB' AH - STA. 873+97.95'SB' BK
STA. 873+97.71'SB' AH - STA. 929+03.68'SB'

EXISTING TYPICAL SECTION FOR IH 43

NORTHBOUND

STA. 605+53'NB' - STA. 611+43'NB'
STA. 709+83'SB' - STA. 761+65'NB'
STA. 785+27'NB' - STA. 927+87.70'NB'



SOUTHBOUND

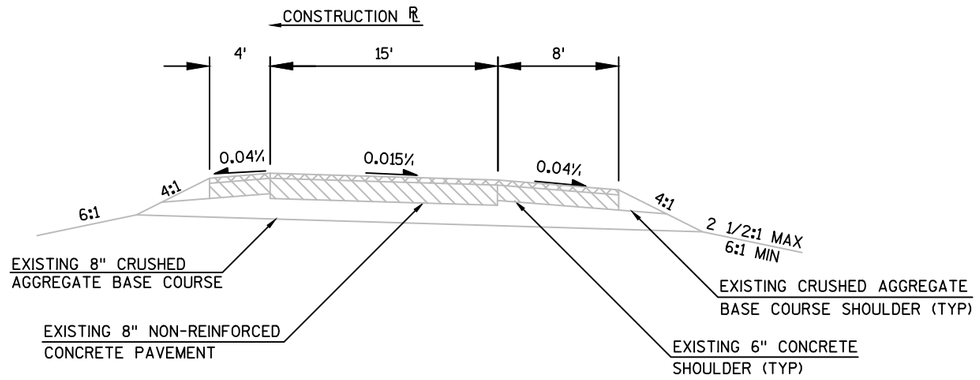
STA. 565+09.73'SB' - STA. 590+29.14'SB' BK
STA. 590+48.35'SB' AH - STA. 605+79'SB'
STA. 611+70'SB' - STA. 656+15.04'SB' BK
STA. 655+98.34'SB' AH - STA. 715+83'SB'
STA. 763+72'SB' - STA. 778+81'SB'

EXISTING TYPICAL SECTION FOR IH 43

NORTHBOUND

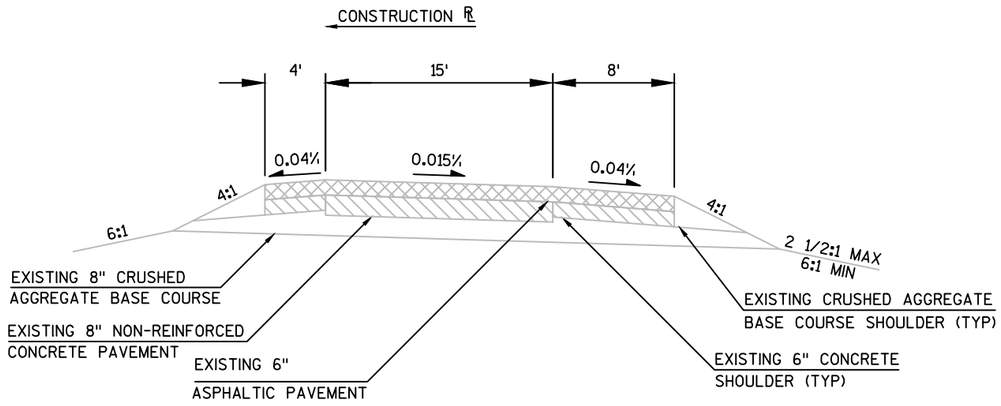
STA. 565+96.78'NB' - STA. 605+53'NB'
STA. 611+43'NB' - STA. 709+83'NB'
STA. 761+65'NB' - STA. 785+27'NB'

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN: EXISTING TYPICAL SECTIONS	SHEET 4	E



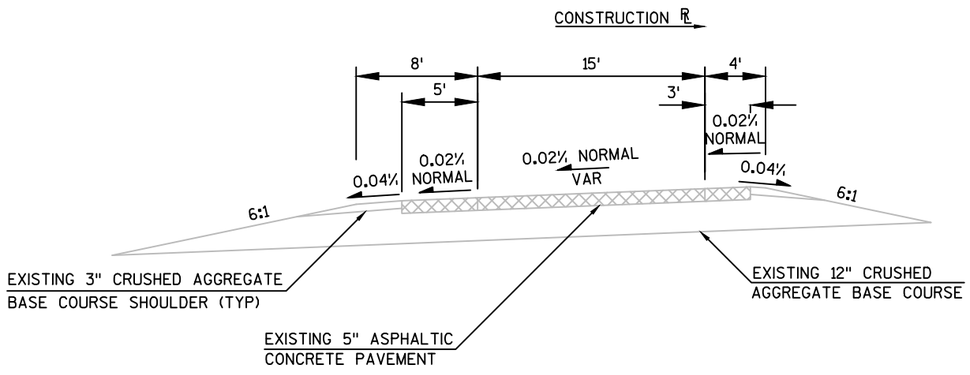
EXISTING TYPICAL SECTION FOR STH 42 RAMPS

STA. 568+56.03'NE' - STA. 572+54.03'NE'
STA. 573+99.67'NW' - STA. 576+13.67'NW'



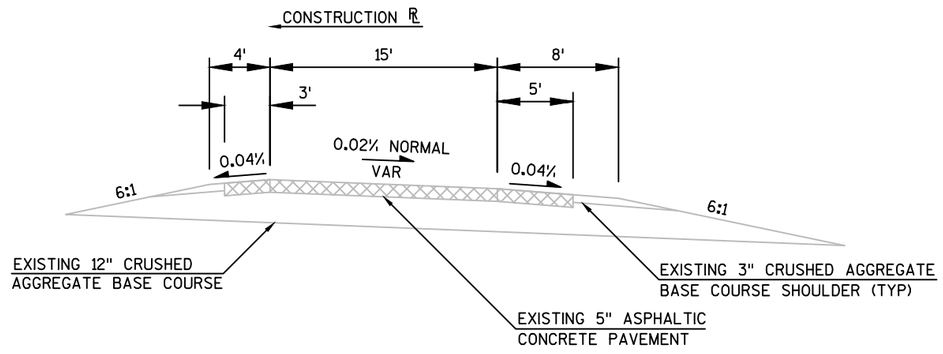
EXISTING TYPICAL SECTION FOR STH 42 RAMPS

STA. 572+54.03'NE' - STA. 577+75.16'NE'
STA. 576+13.67'NW' - STA. 579+85.74'NW'



EXISTING TYPICAL SECTION FOR ROWE ROAD RAMP

STA. 28+58.85'SW' - STA. 32+00.00'SW'

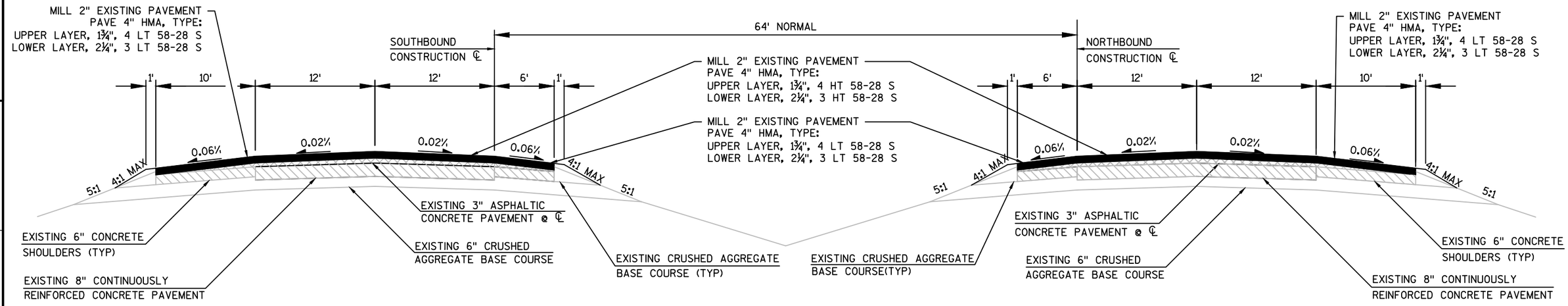


EXISTING TYPICAL SECTION FOR ROWE ROAD RAMP

STA. 50.00'SE' - STA. 54+00.03'SE'

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN: EXISTING TYPICAL SECTIONS	SHEET 5	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\020301_TS.DWG
LAYOUT NAME - ****
PLOT DATE : 11/11/2016 11:16 AM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



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STA. 726+50.84'SB' AH - STA. 763+72'SB'
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STA. 785+09.75'SB' AH - STA. 873+97.95'SB' BK
STA. 873+97.71'SB' AH - STA. 929+03.68'SB'

FINISHED TYPICAL SECTION FOR IH 43

NORTHBOUND

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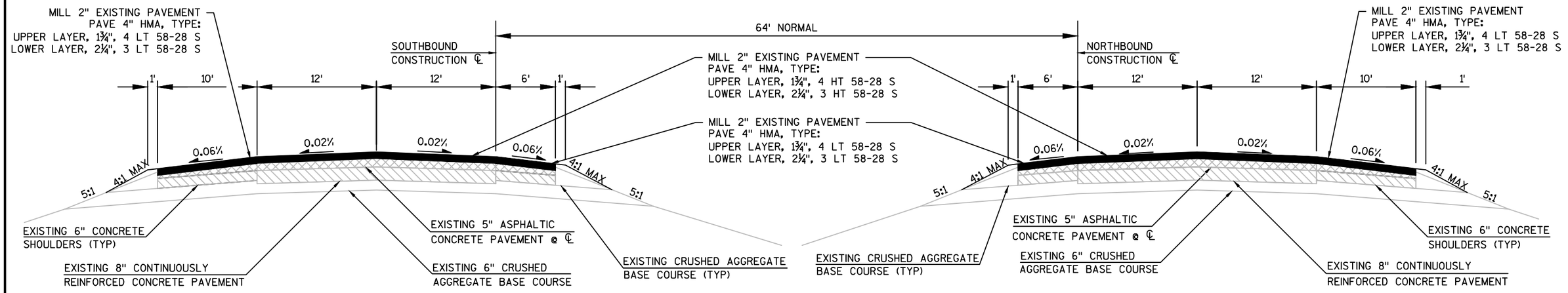

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STA. 590+48.35'SB' AH - STA. 605+79'SB'
STA. 611+70'SB' - STA. 656+15.04'SB' BK
STA. 655+98.34'SB' AH - STA. 715+83'SB'
STA. 763+72'SB' - STA. 778+81'SB'

FINISHED TYPICAL SECTION FOR IH 43

NORTHBOUND

STA. 565+96.78'NB' - STA. 605+53'NB'
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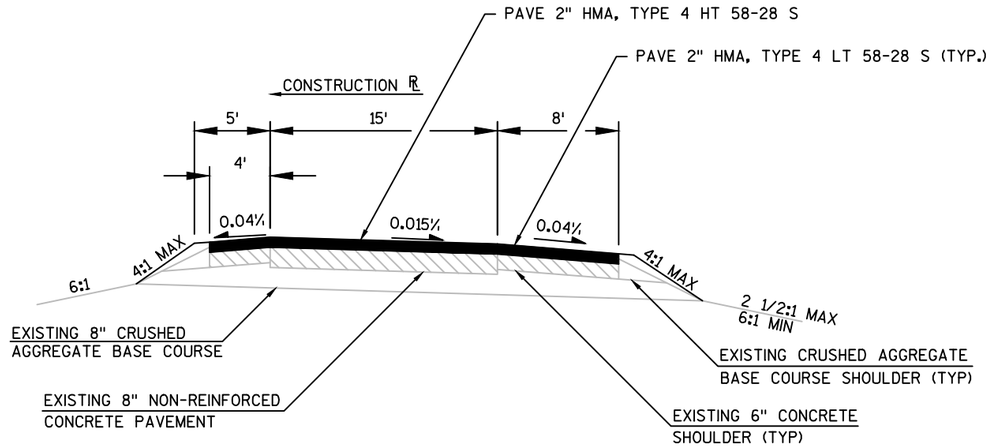
STA. 761+65'NB' - STA. 785+27'NB'

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 6	E



FINISHED TYPICAL SECTION FOR STH 42 RAMPS

STA. 568+56.03'NE' - STA. 572+54.03'NE'
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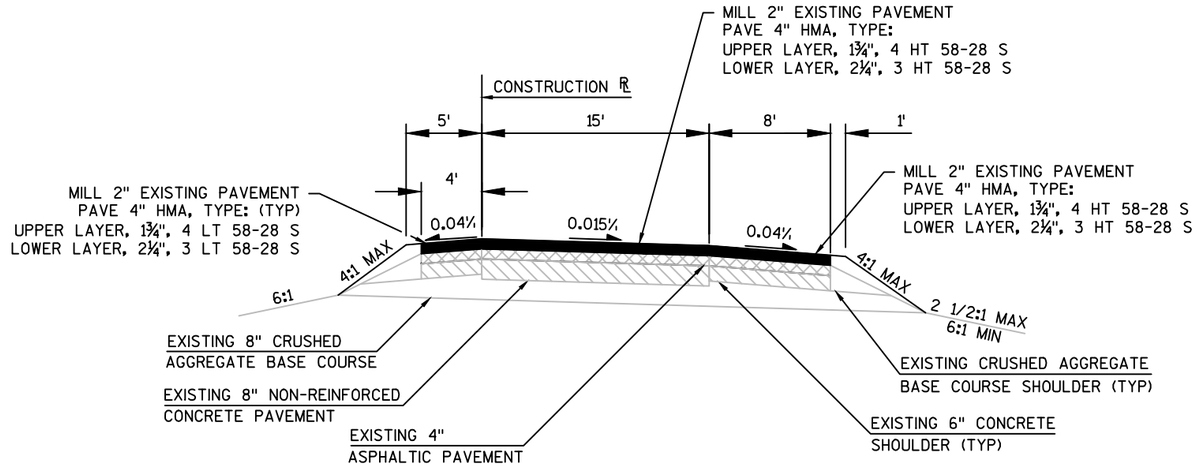

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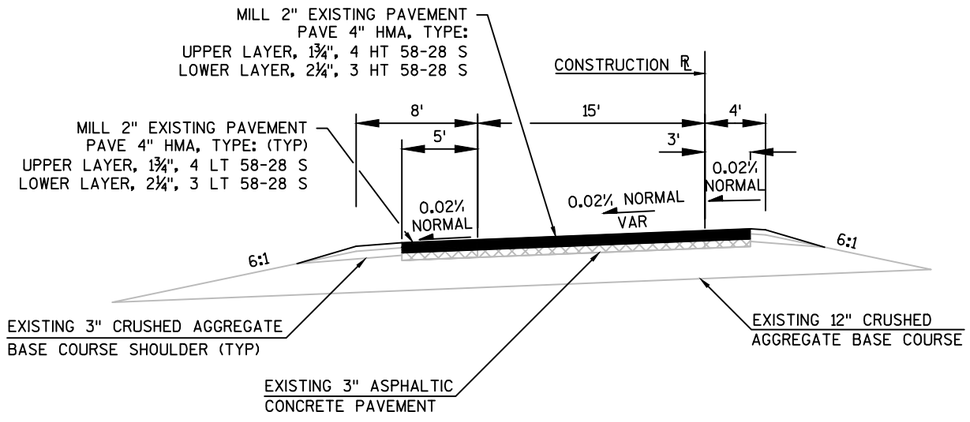

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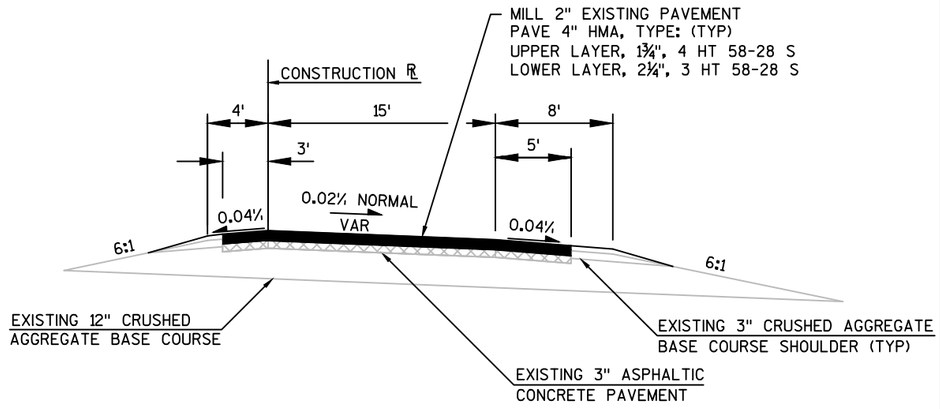
STA. 28+58.85'SW' - STA. 32+00.00'SW'

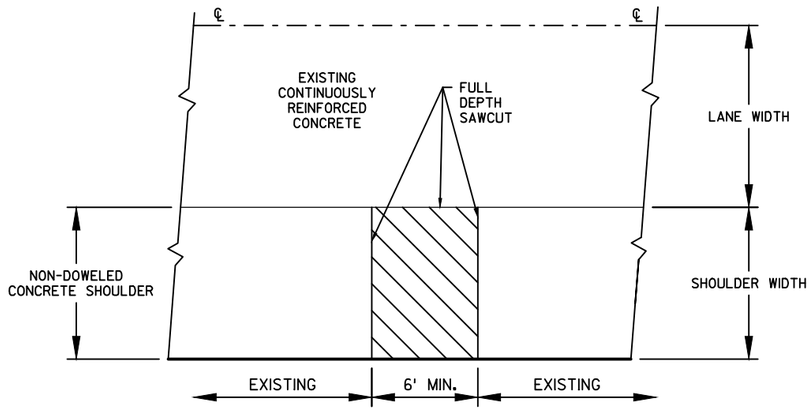


FINISHED TYPICAL SECTION FOR ROWE ROAD RAMP

STA. 50.00'SE' - STA. 54+00.03'SE'

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN: PROPOSED TYPICAL SECTIONS	SHEET 7	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\020302_TS.DWG
LAYOUT NAME - ****
PLOT DATE : 11/25/2016 7:39 AM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



FULL DEPTH CONCRETE PAVEMENT REMOVAL
PLAN VIEW
(SHOULDER ONLY)

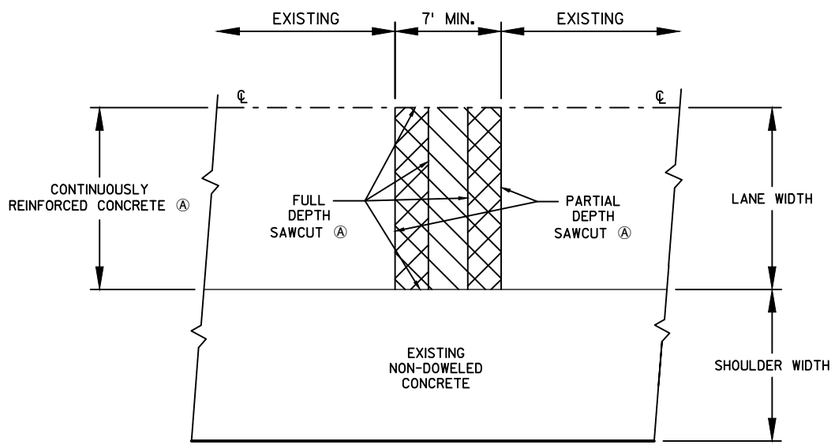
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES. THE DEPARTMENT WILL NOT MEASURE CUTS TO REDUCE REMOVAL SLABS TO A WIDTH LESS THAN 7 FEET.

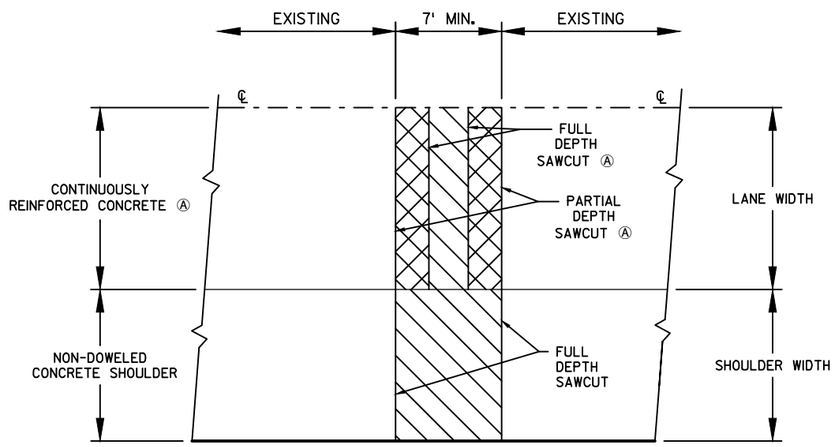
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGHTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS OVERLAID AFTER REPAIRING.

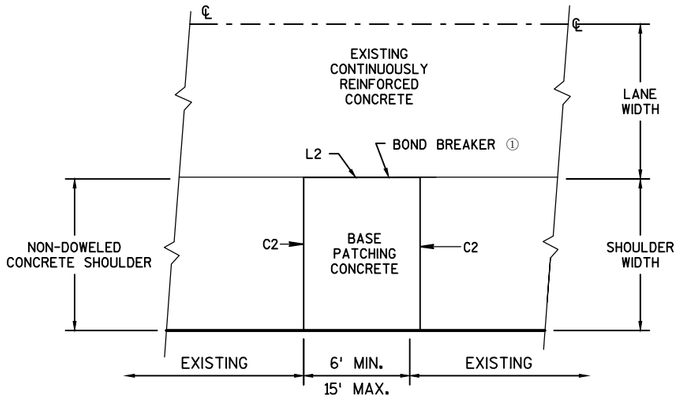
(A) REFER TO SDD 13A7: CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT FOR BASE PATCHING OF CONTINUOUSLY REINFORCED CONCRETE.



FULL DEPTH CONCRETE PAVEMENT REMOVAL
PLAN VIEW
(MAINLINE ONLY)



FULL DEPTH CONCRETE PAVEMENT REMOVAL
PLAN VIEW
(MAINLINE AND SHOULDER REPAIR)



SHOULDER BASE PATCH
PLAN VIEW
15' MAXIMUM LENGTH

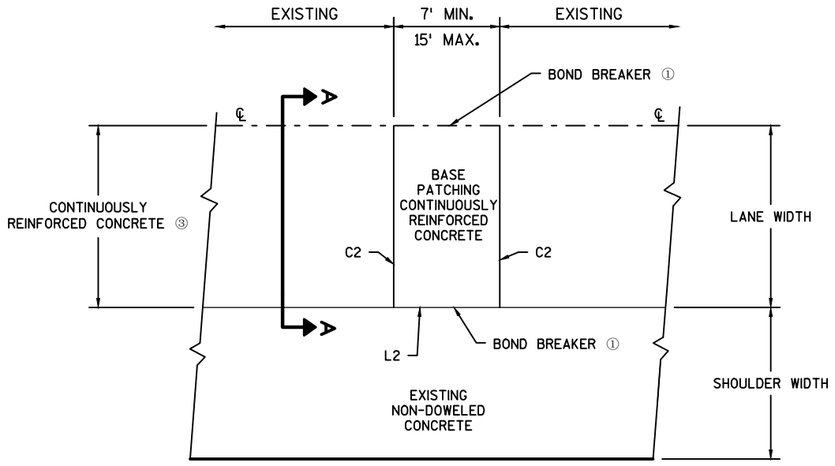
GENERAL NOTES

CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

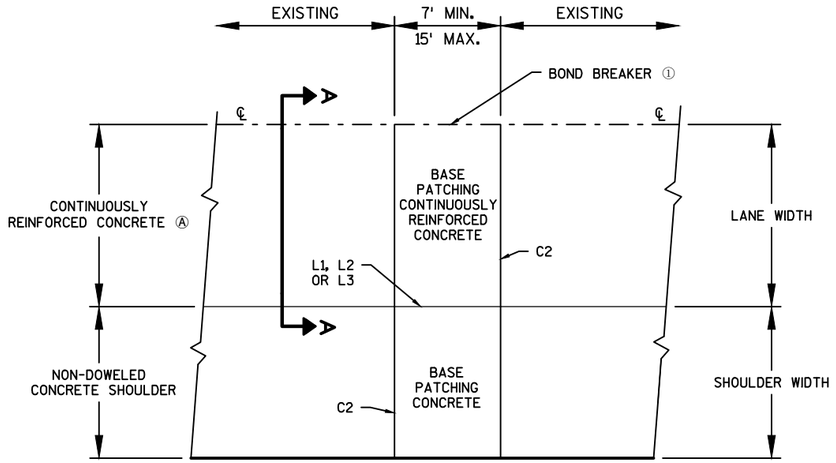
DO NOT SEAL OR FILL JOINTS.

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SHOULDER BASE PATCHES UP TO 15 FEET IN LENGTH.

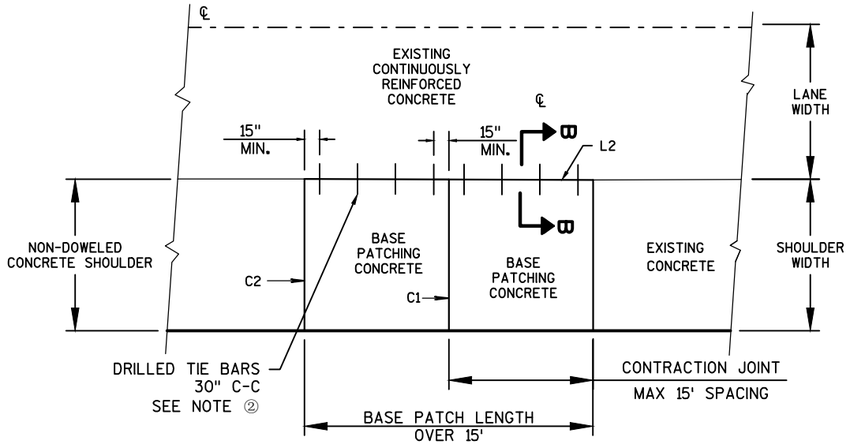
(A) REFER TO SDD 13A7: CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT FOR BASE PATCHING OF CONTINUOUSLY REINFORCED CONCRETE.



LANE AND SHOULDER BASE PATCH
PLAN VIEW
15' MAXIMUM LENGTH



LANE AND SHOULDER BASE PATCH
PLAN VIEW
15' MAXIMUM LENGTH



SHOULDER BASE PATCH
PLAN VIEW
GREATER THAN 15' IN LENGTH

NOTES

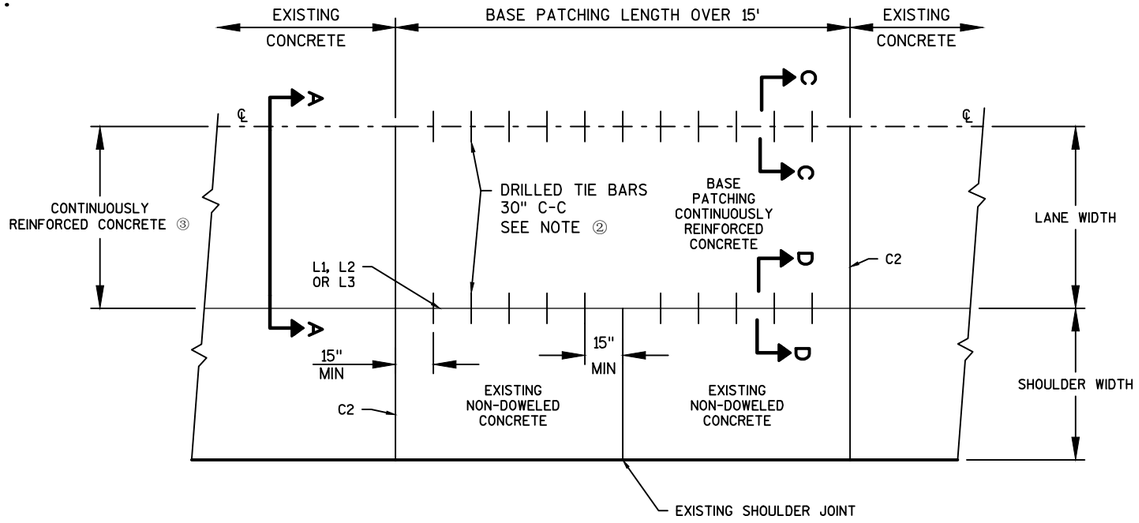
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DRILLED TIE BARS ARE 12" NO. 6 BAR SPACED AT 30" C-C INTO EXISTING CONCRETE. TIE BARS PLACED IN NEW CONCRETE ARE 30" NO. 4 BARS SPACED AT 36". DRILLED TIE BARS WILL BE PAID UNDER THE DRILLED TIE BAR ITEM. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

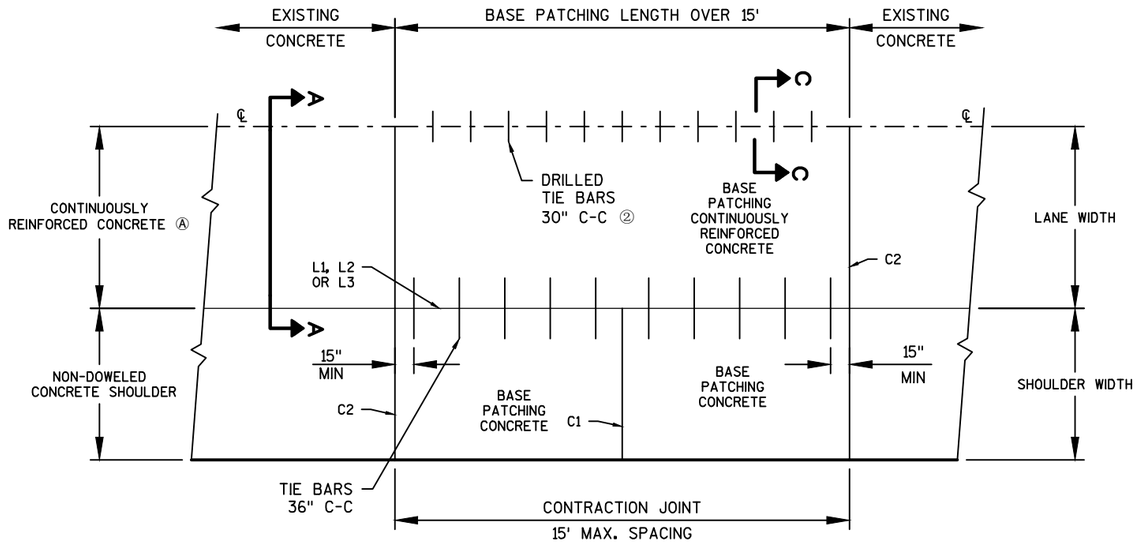
DO NOT SEAL OR FILL JOINTS.

WITH THE APPROVAL OF THE ENGINEER, FOR SHOULDER PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES AND TO SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

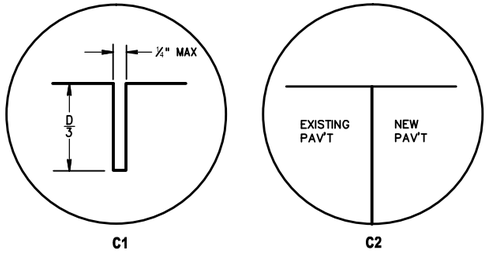
(A) REFER TO SDD 13A7: CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT FOR BASE PATCHING OF CONTINUOUSLY REINFORCED CONCRETE.



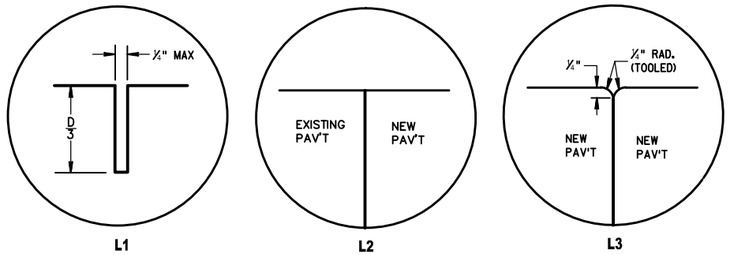
MAINLINE BASE PATCH
PLAN VIEW
GREATER THAN 15' IN LENGTH



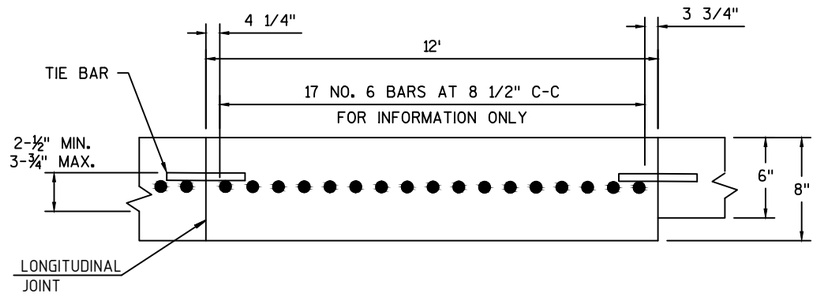
MAINLINE AND SHOULDER BASE PATCH
PLAN VIEW
GREATER THAN 15' IN LENGTH



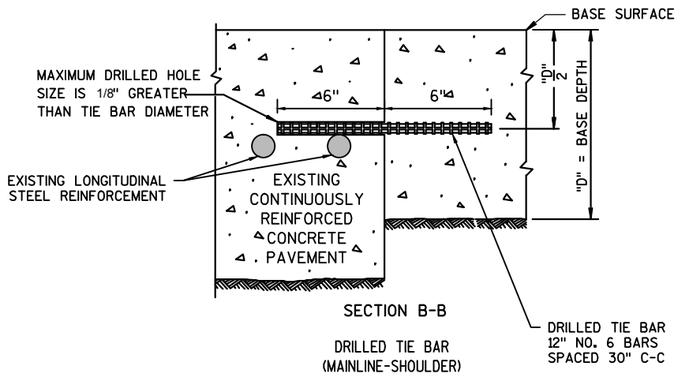
TRANSVERSE JOINTS



LONGITUDINAL JOINTS

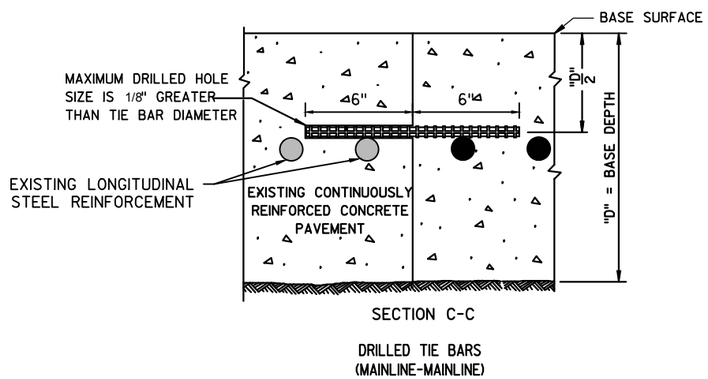


SECTION B-B
EXISTING LONGITUDINAL STEEL
PLACEMENT IN CRCP REPAIRS
FOR INFORMATION ONLY Ⓐ



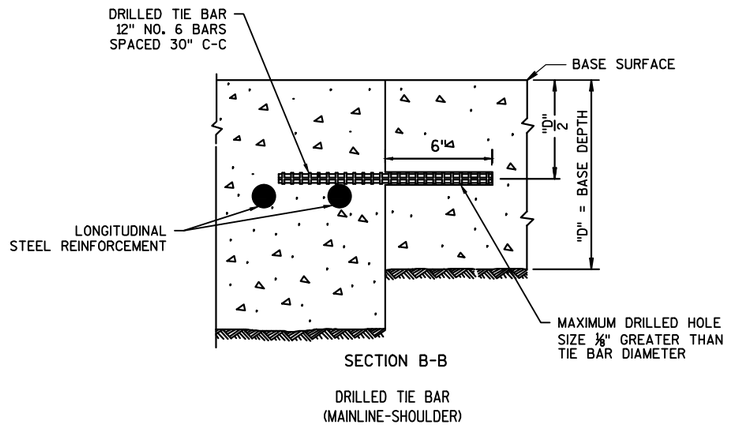
SECTION B-B

DRILLED TIE BAR
(MAINLINE-SHOULDER)



SECTION C-C

DRILLED TIE BARS
(MAINLINE-MAINLINE)

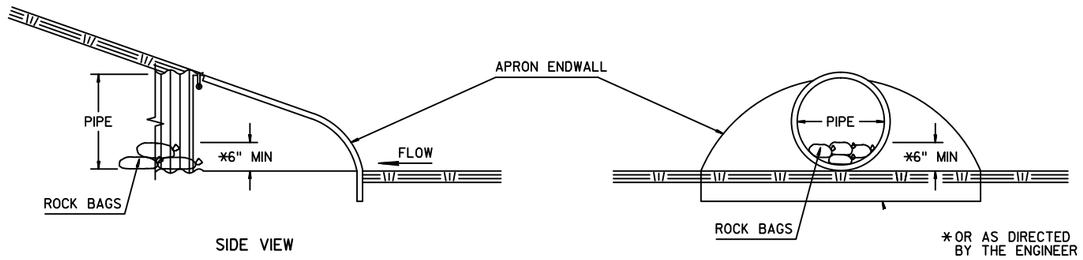


SECTION B-B

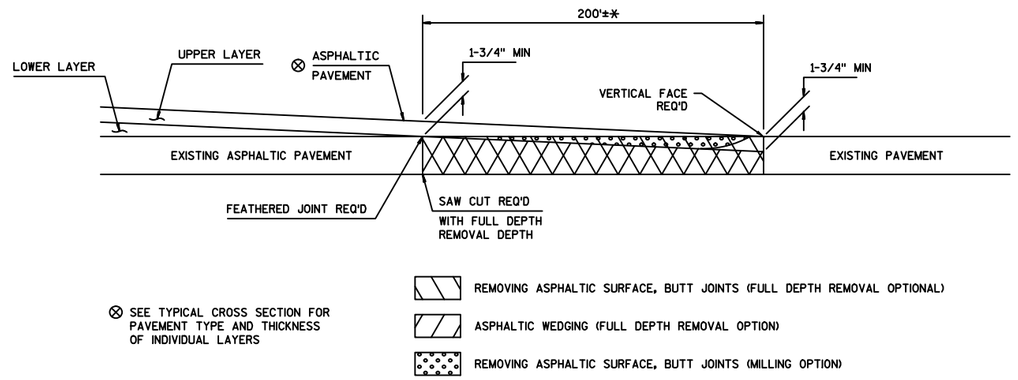
DRILLED TIE BAR
(MAINLINE-SHOULDER)

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CONSTRUCTION DETAILS: BASE PATCHING SHEET D	SHEET 11	E

2



CULVERT PIPE CHECKS

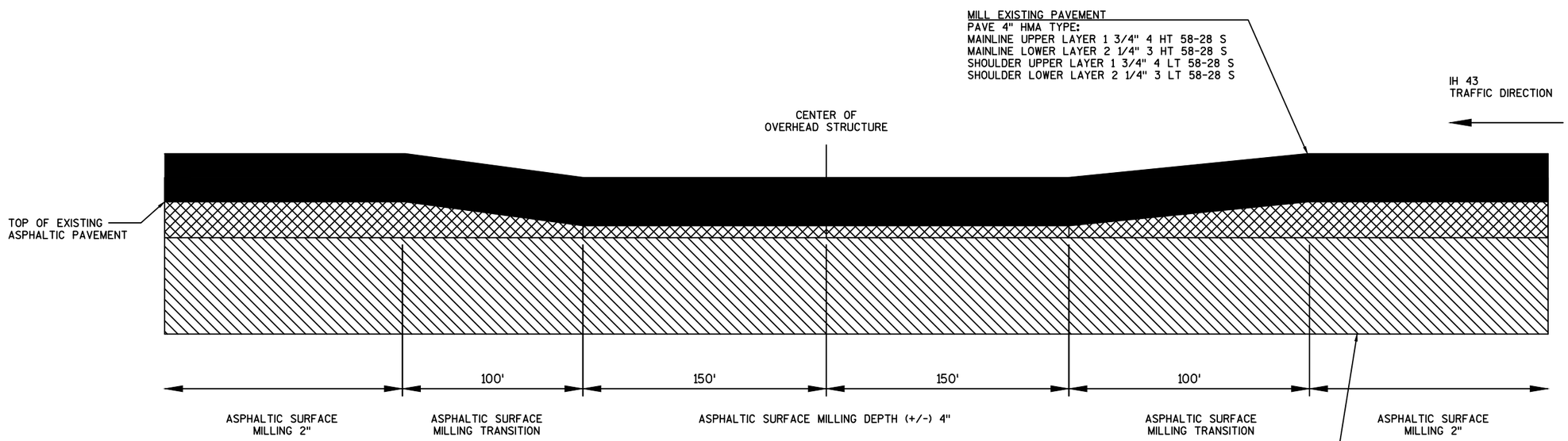


BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS

* MAINLINE/RAMPS

NOTES

MAINTAIN MINIMUM BRIDGE CLEARANCE OF 16 FT



IH 43 PAVING DETAIL AT OVERHEAD STRUCTURES

B-36-0067 PLAYBIRD ROAD OVER IH 43 NB & SB

B-36-0069 ROWE ROAD OVER IH 43 NB

B-36-0070 CTH FF OVER IH 43 NB

B-36-0072 CTH MM OVER IH 43 NB

EXISTING VERTICAL BRIDGE CLEARANCE DATA					
ROADWAY	BRIDGE	OVERPASS	CLEARANCE	APPROXIMATE ASPHALT DEPTHS NB	SB
IH 43 NB	B-36-0067	PLAYBIRD ROAD	16.04	5"	--
IH 43 SB	B-36-0067	PLAYBIRD ROAD	16.17	--	5"
IH 43 NB	B-36-0069	ROWE ROAD	16.27	5"	--
IH 43 NB	B-36-0070	CTH FF	16.21	7"	--
IH 43 NB	B-36-0072	CTH MM	16.08	5"	--

SIGNING NOTES

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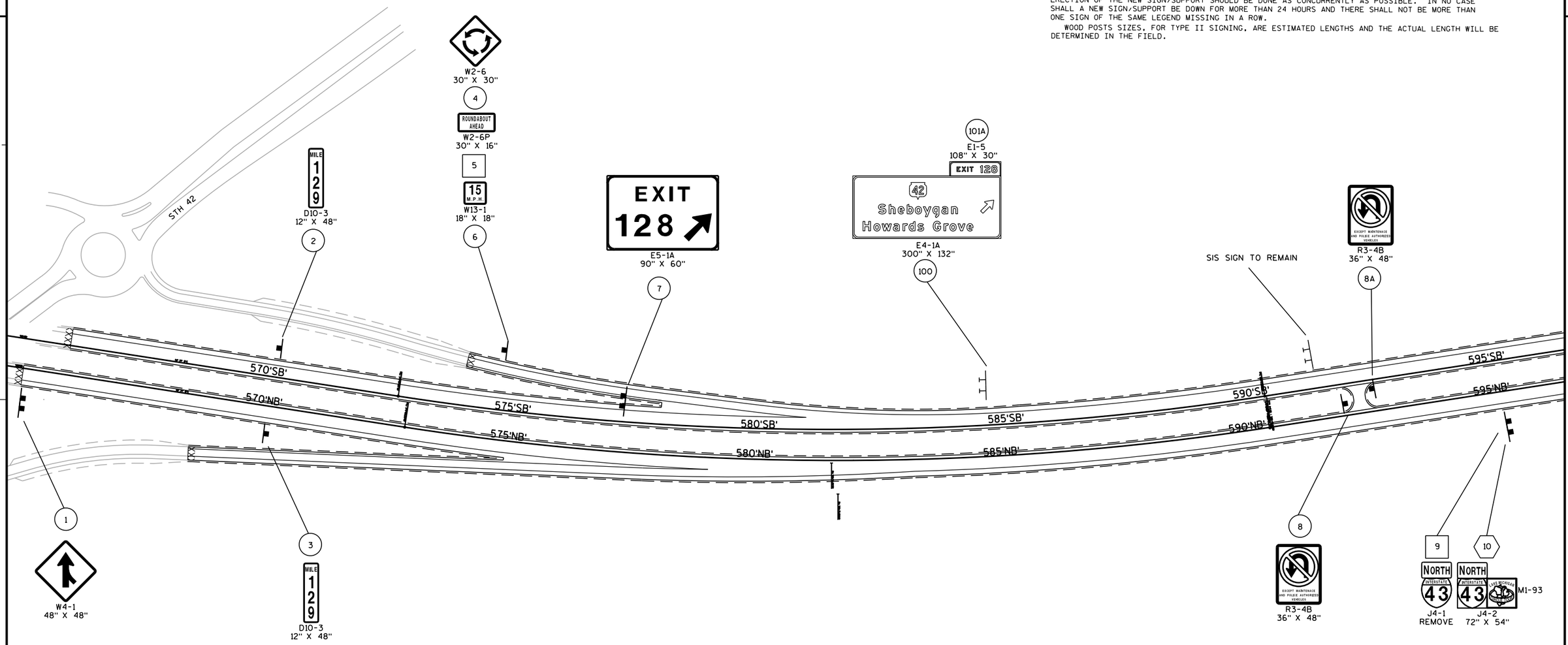

LEGEND

- BUTTERFLY
- CANTILEVER
- SIGN BRIDGE
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- STEEL POSTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 14	E

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SIS SIGN TO REMAIN

600'SB' 605'SB' 610'SB' 615'SB' 620'SB' 625'SB'

600'NB' 605'NB' 610'NB' 615'NB' 620'NB' 625'NB'

PLAYBIRD RD

11 M1-93 REMOVE

12 R2-1 48" X 60"

13 W11-3 REMOVE

NEXT XX MILES W57-51 REMOVE

14 15 PLAYBIRD RD M1-94 84" X 21"

16 TRAVEL INFO CALL 511 D12-5 60" X 66"

101 HOSPITAL EXIT 128 E10-61 144" X 54"

102 Cleveland 8 Manitowoc 22 Green Bay 56 E8-1 180" X 84"

17 SLOWER TRAFFIC KEEP RIGHT R4-3 48" X 60"

18 MILE 130 D10-3 12" X 48"

19 MILE 130 D10-3 12" X 48"

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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 15	E

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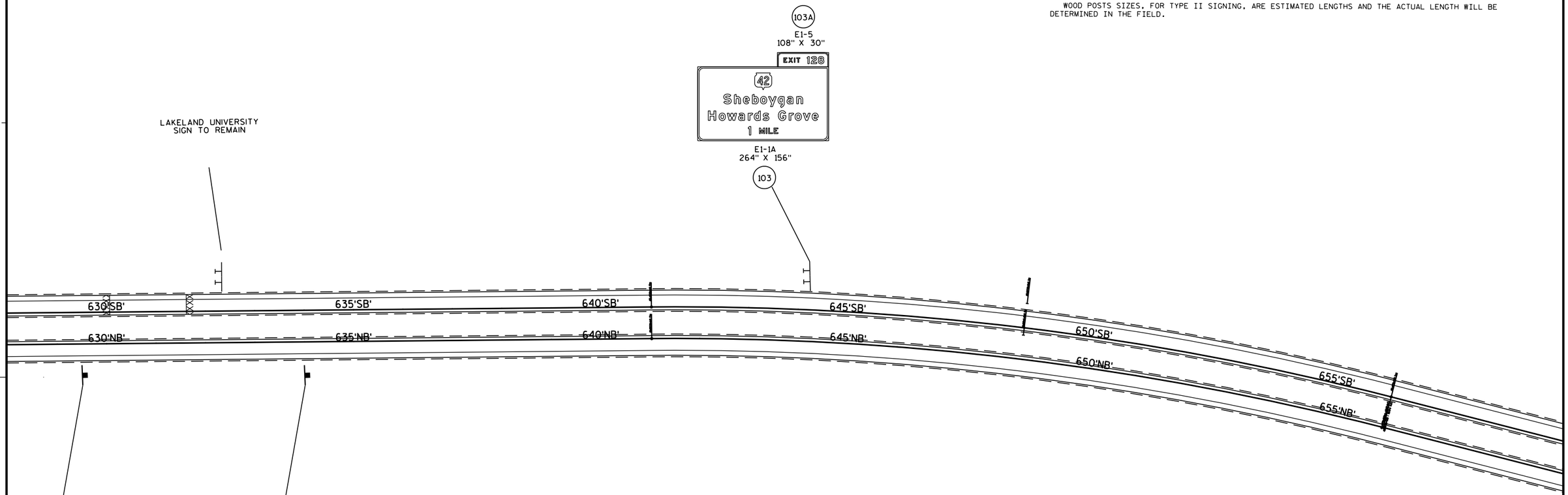

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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 16	E

2

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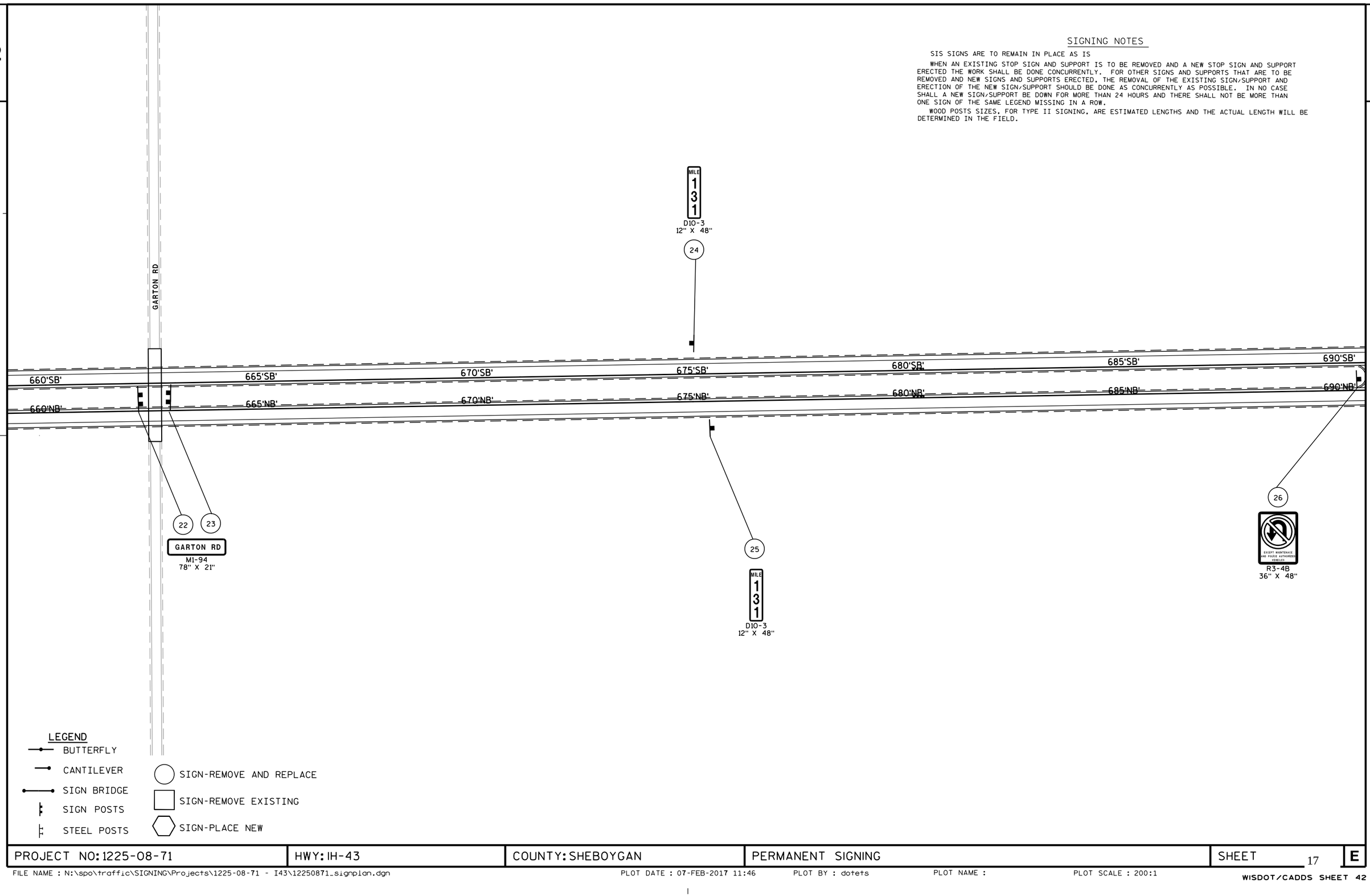

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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 17	E

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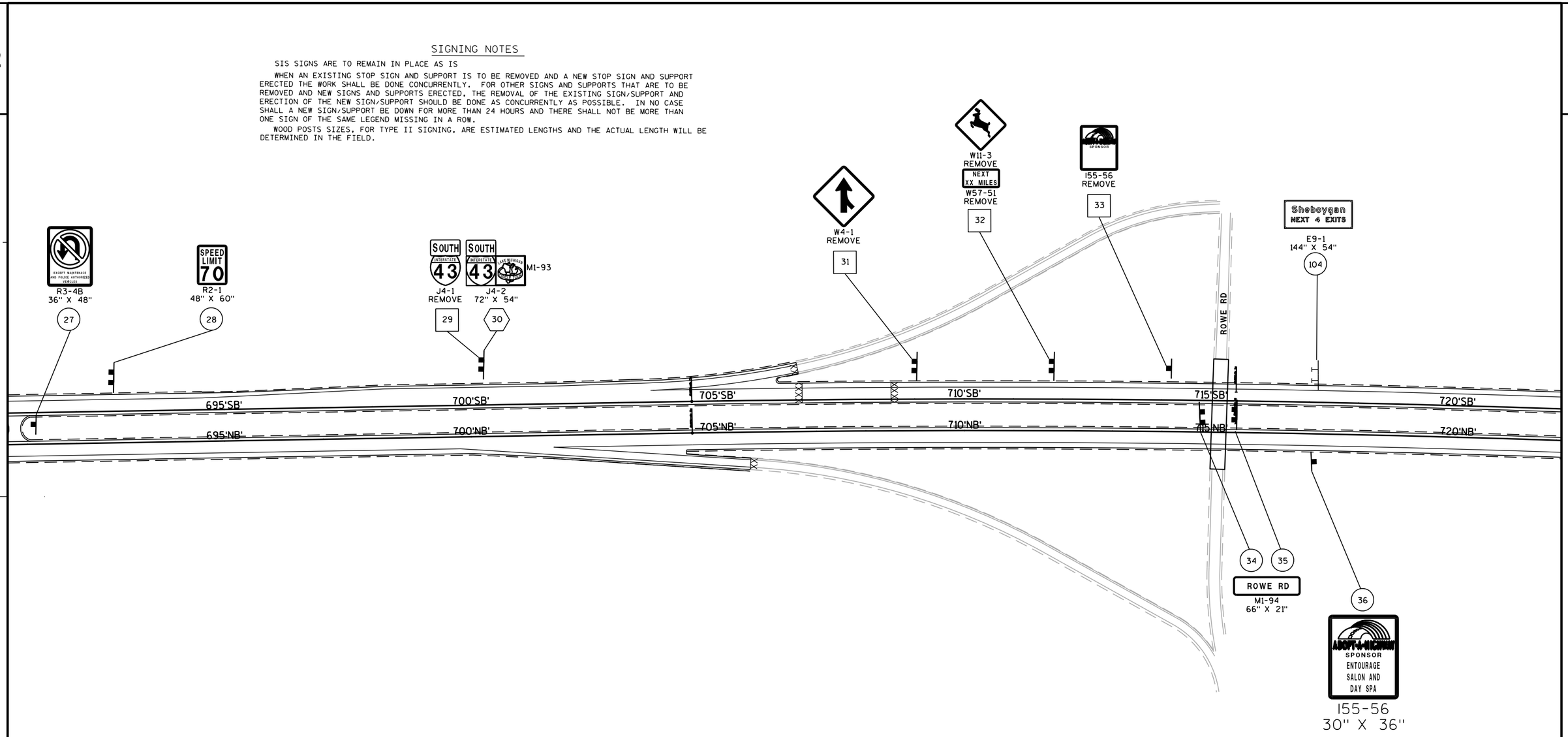

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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1225-08-71 - I43\12250871_signplan.dgn PLOT DATE : 07-FEB-2017 11:46 PLOT BY : dotets PLOT NAME : PLOT SCALE : 200.38147:1
WISDOT/CADDS SHEET 42

2

2

SIGNING NOTES

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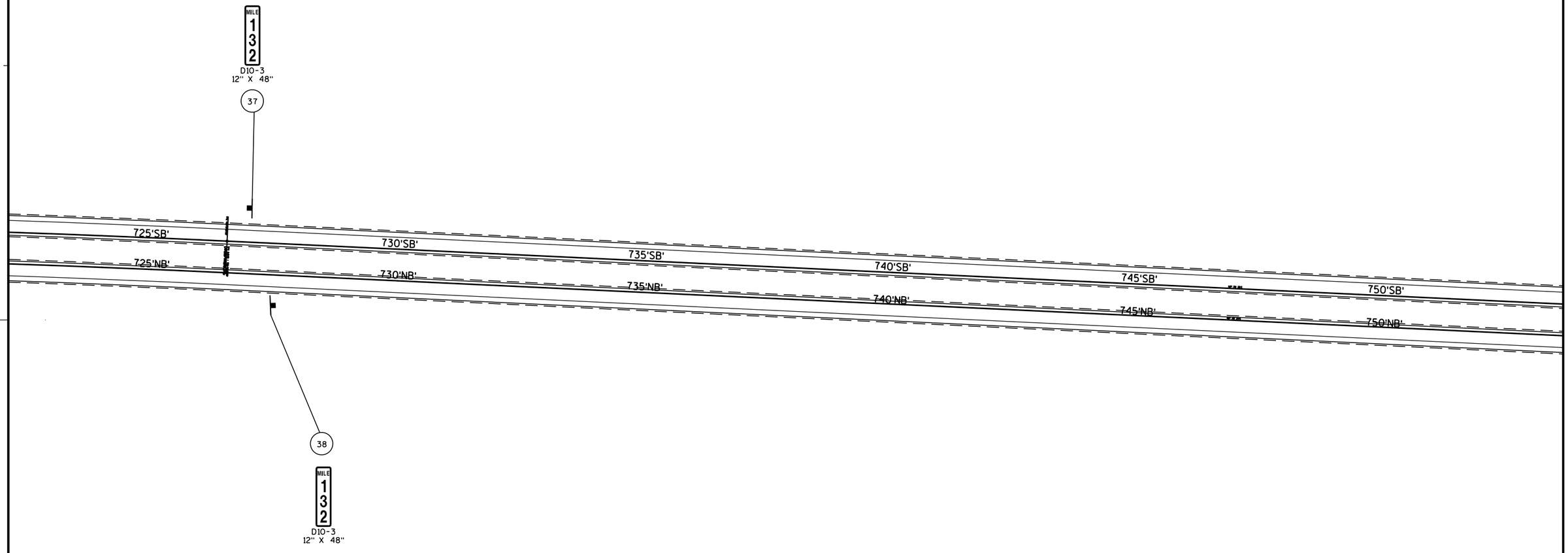

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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 19	E

2

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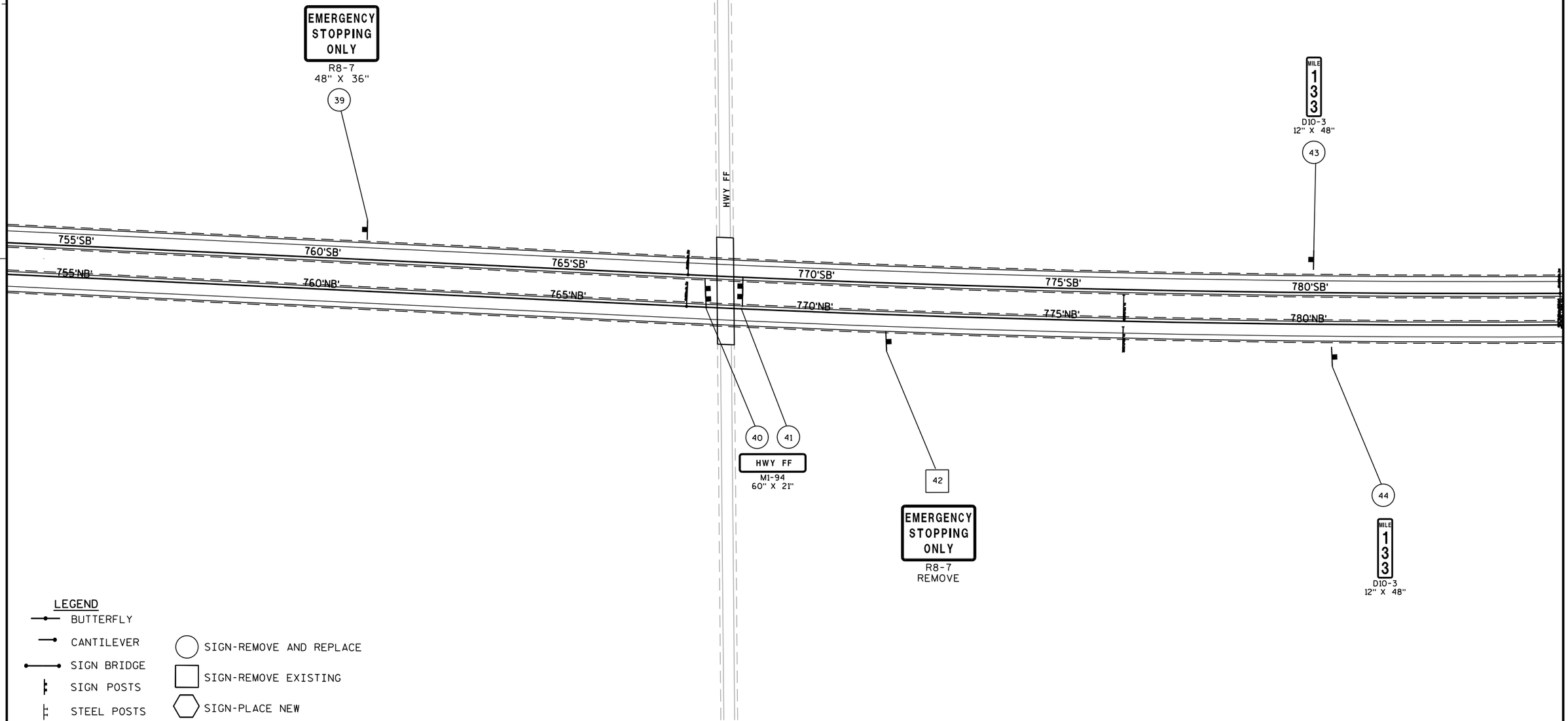

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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1225-08-71 - I43\12250871_signplan.dgn PLOT DATE : 07-FEB-2017 11:46 PLOT BY : dotets PLOT NAME : PLOT SCALE : 200.713237:1

WISDOT/CADDS SHEET 42

SIGNING NOTES

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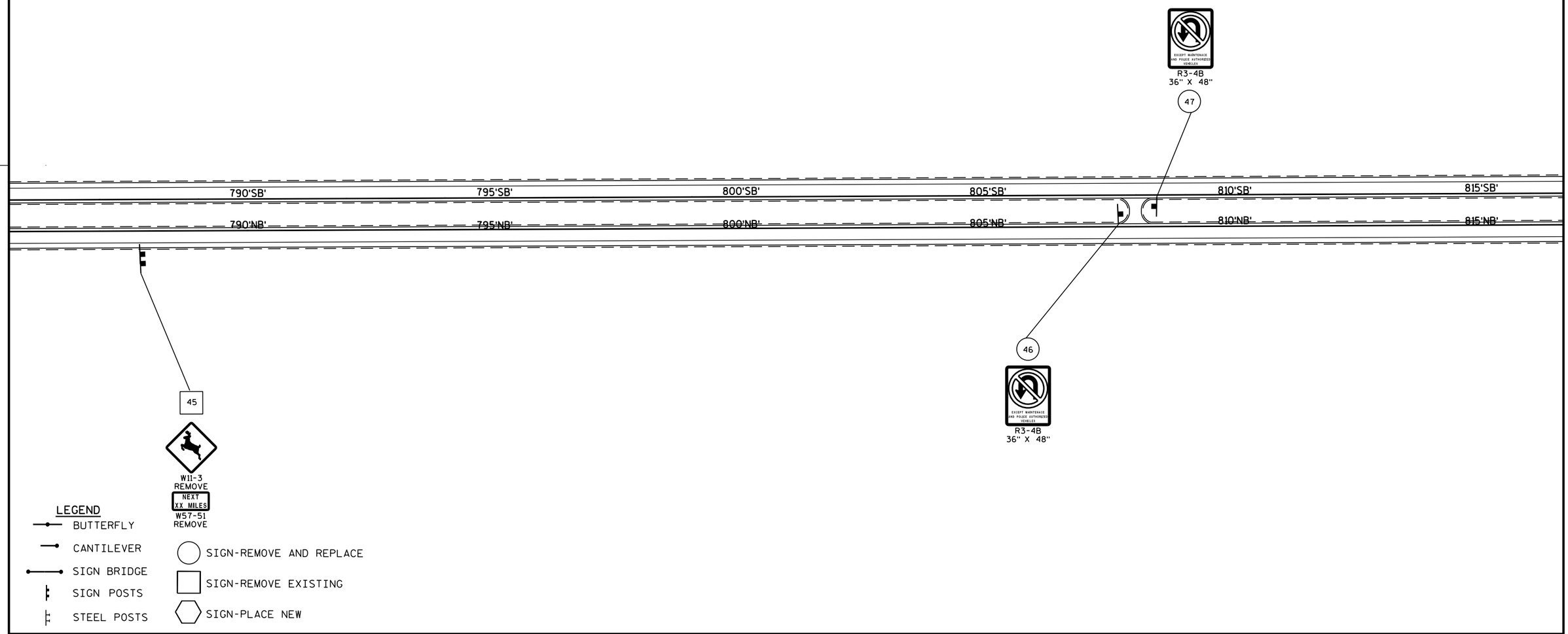

PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1225-08-71 - I43\12250871_signplan.dgn PLOT DATE : 07-FEB-2017 11:46 PLOT BY : dotets PLOT NAME : PLOT SCALE : 200.95381:1
WISDOT/CADDS SHEET 42

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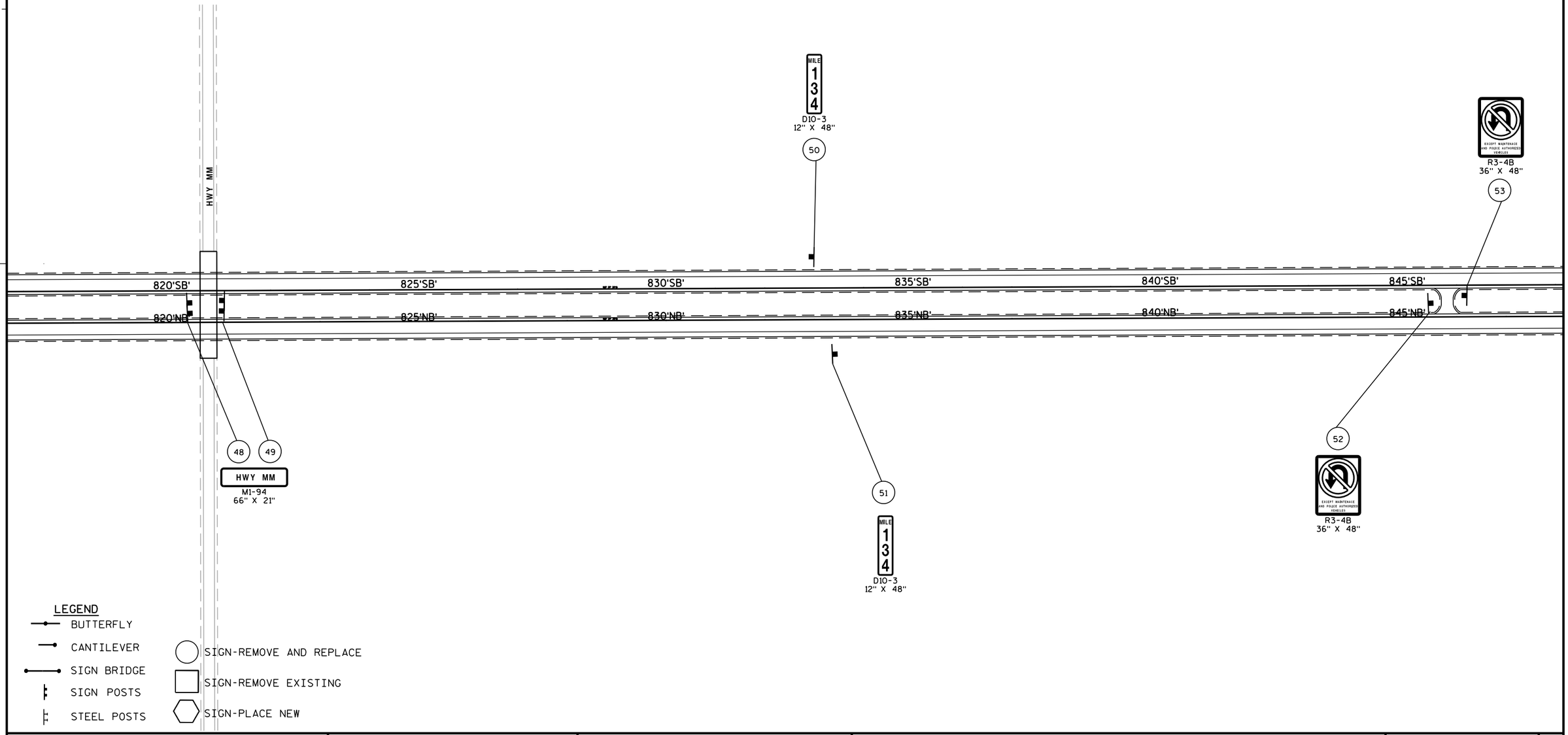

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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 22	E

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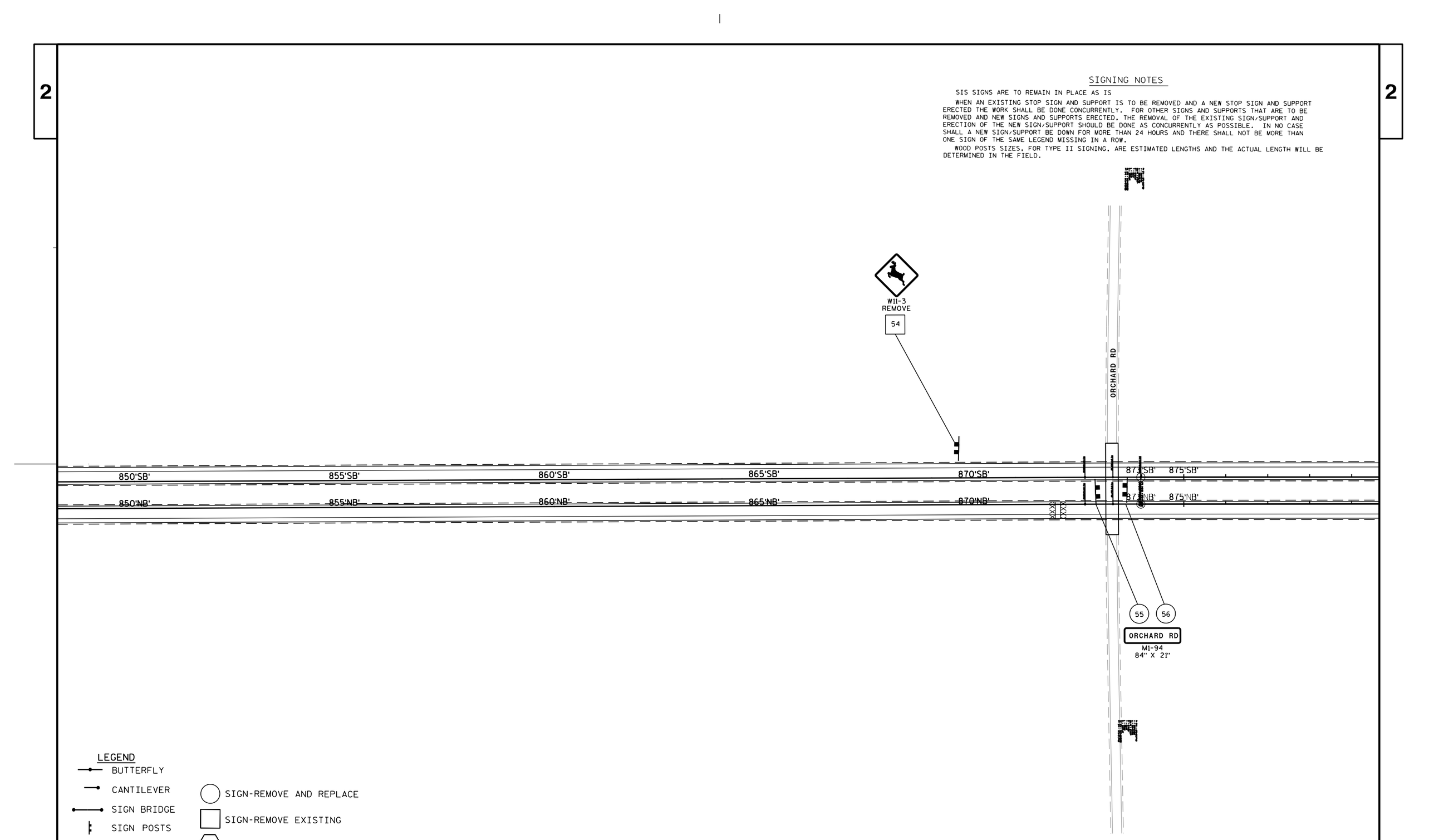

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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1225-08-71 - I43\12250871_signplan.dgn PLOT DATE : 07-FEB-2017 11:46 PLOT BY : dotets PLOT NAME : PLOT SCALE : 200.918733:1
WISDOT/CADDS SHEET 42

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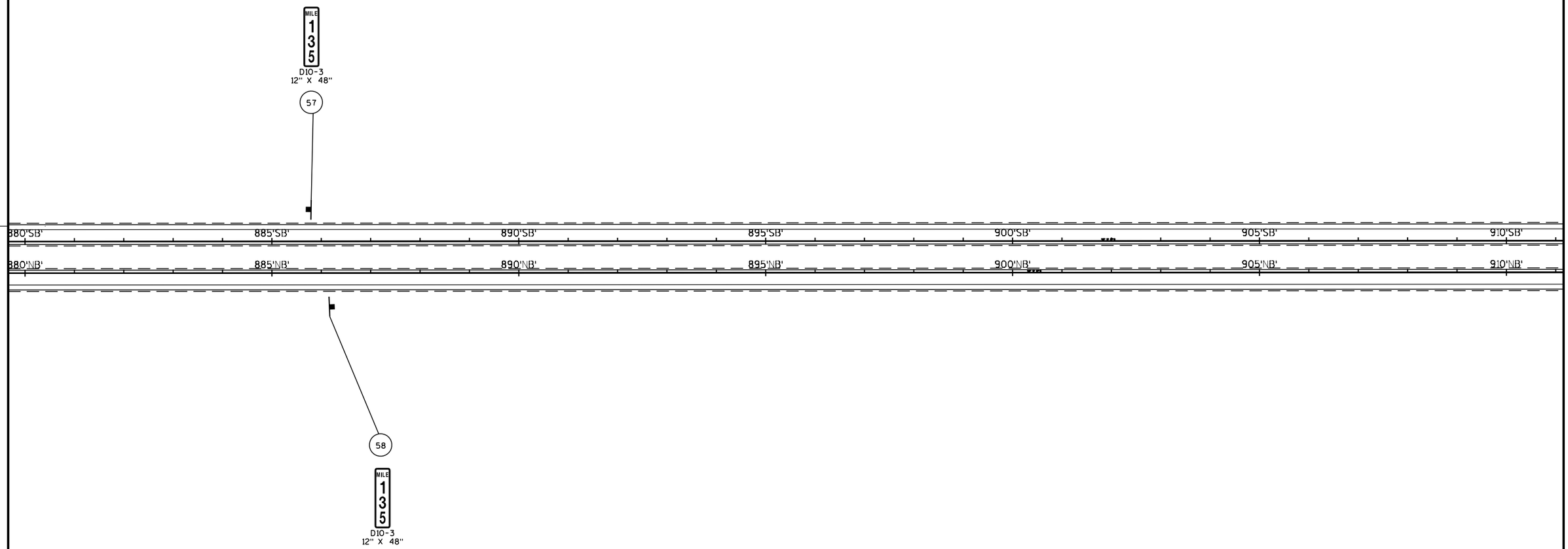

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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET E

FILE NAME : N:\spo\traffic\SIGNING\Projects\1225-08-71 - I43\12250871_signplan.dgn PLOT DATE : 07-FEB-2017 11:46 PLOT BY : dotets PLOT NAME : PLOT SCALE : 200.93011:1
WISDOT/CADDS SHEET 42

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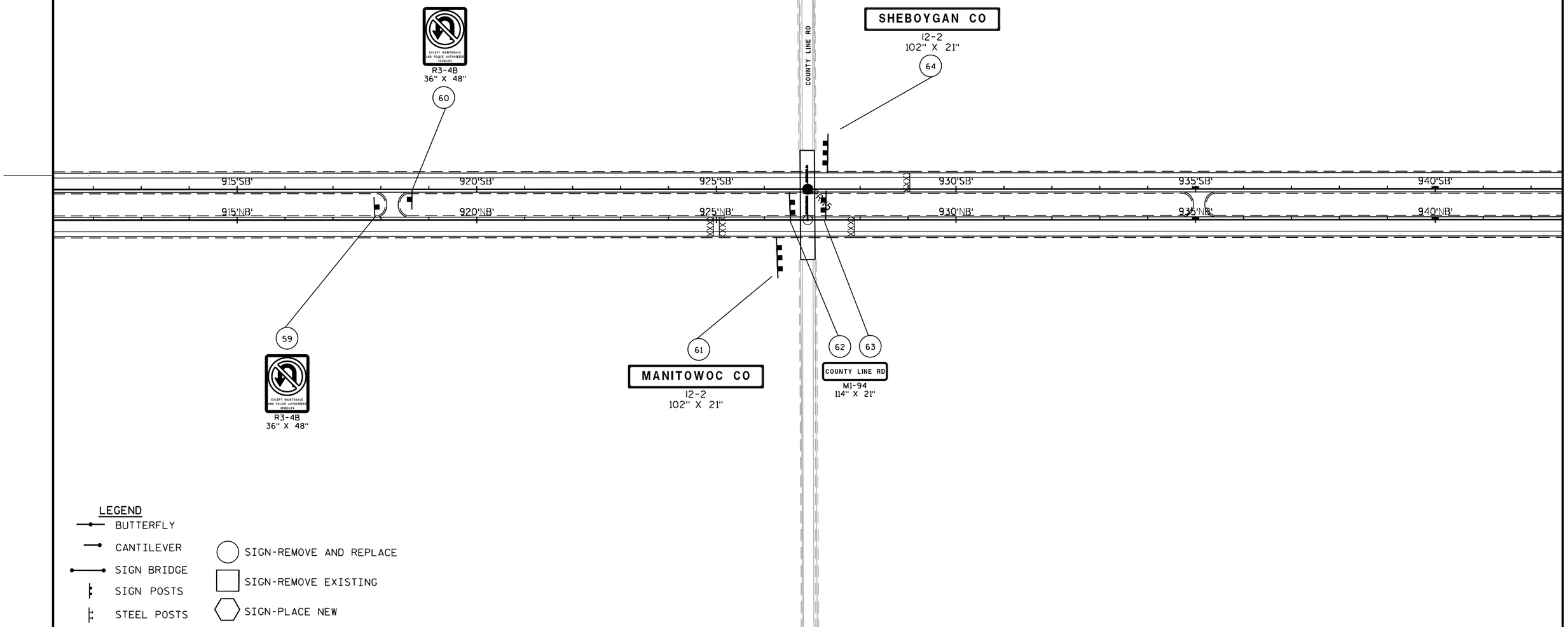

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PROJECT NO: 1225-08-71	HWY: IH-43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET 25 E

2

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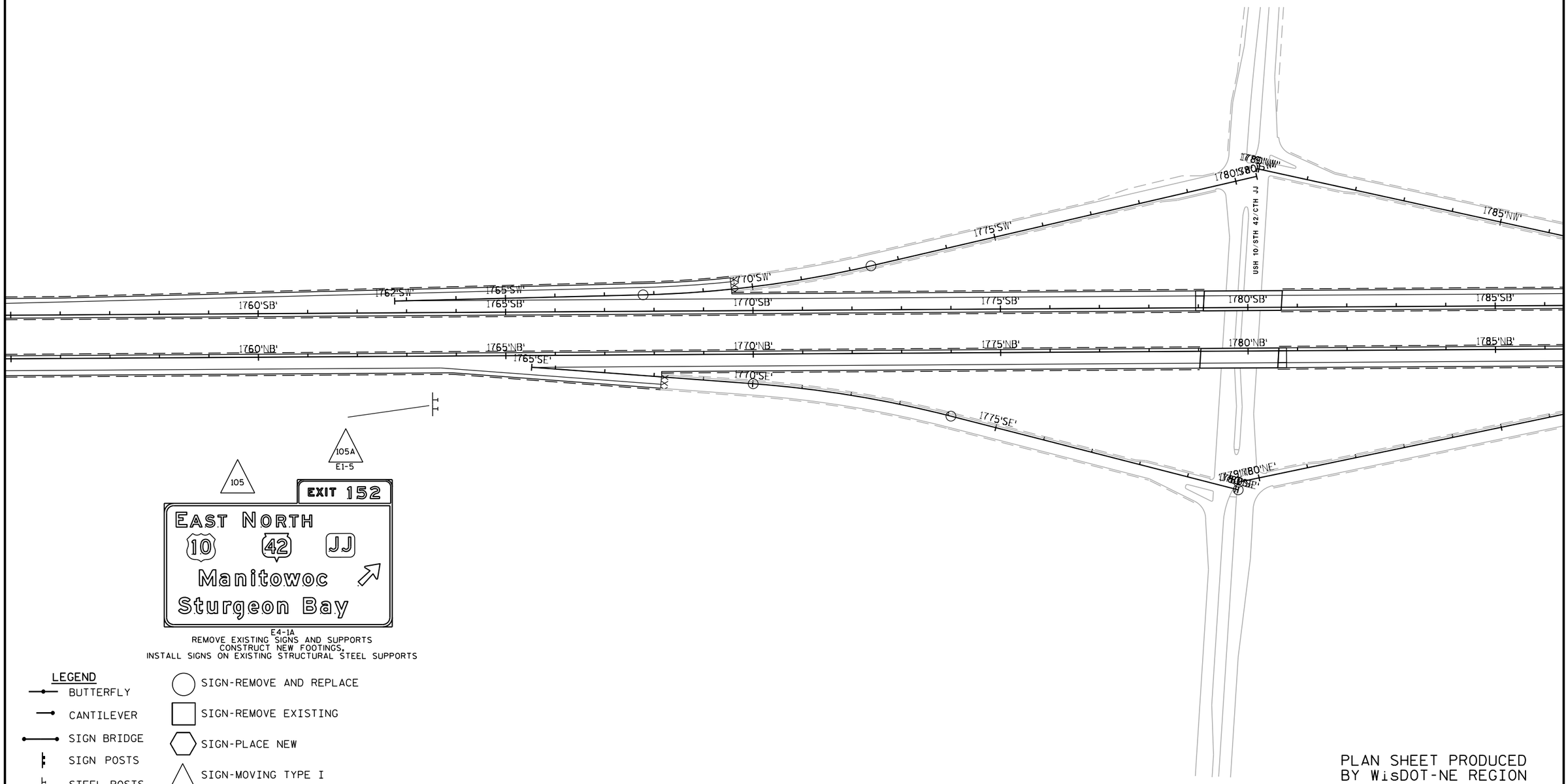


PLAN SHEET PRODUCED
BY WisDOT-NE REGION

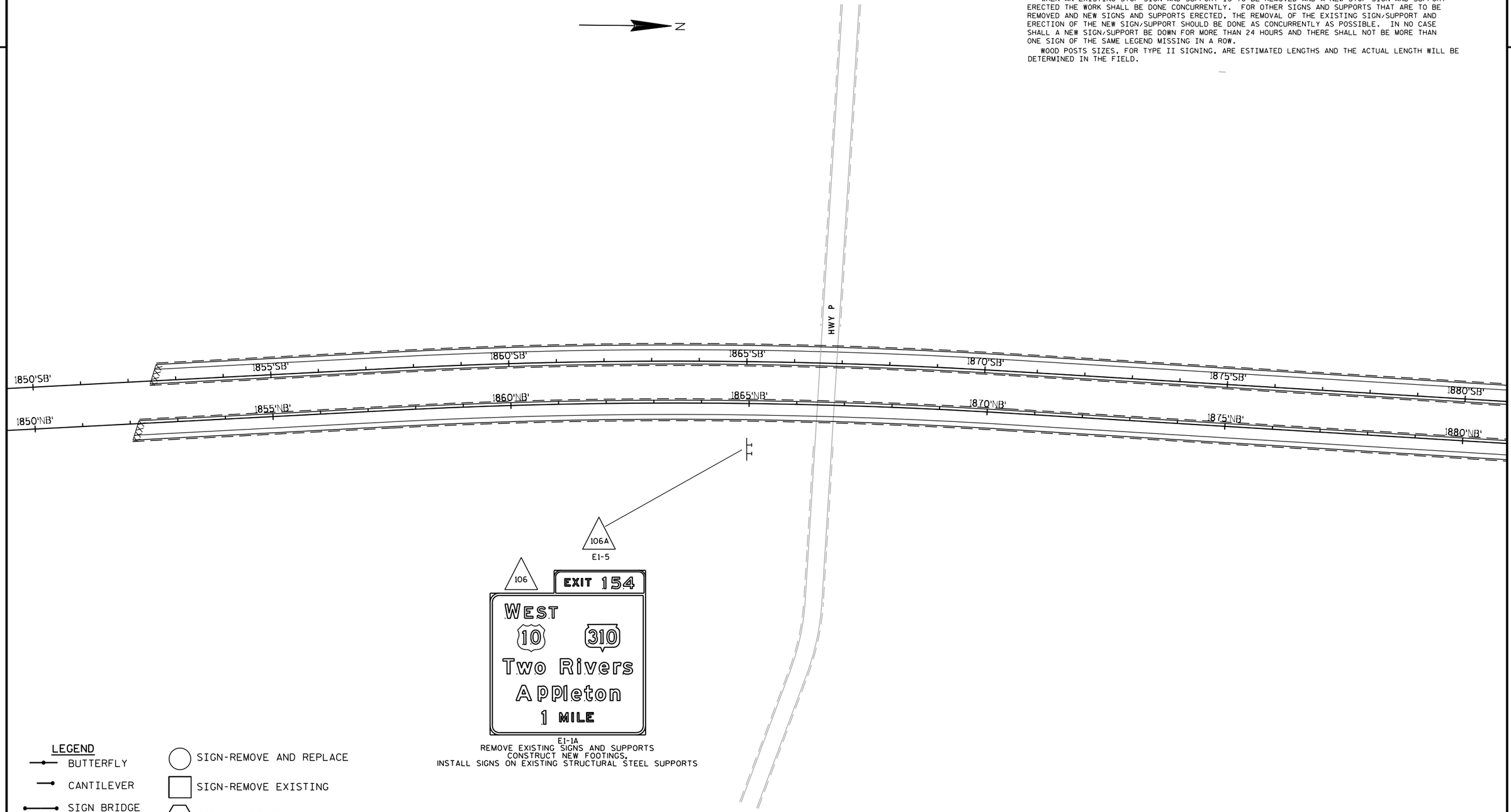
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET 26	E

2

SIGNING NOTES

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.



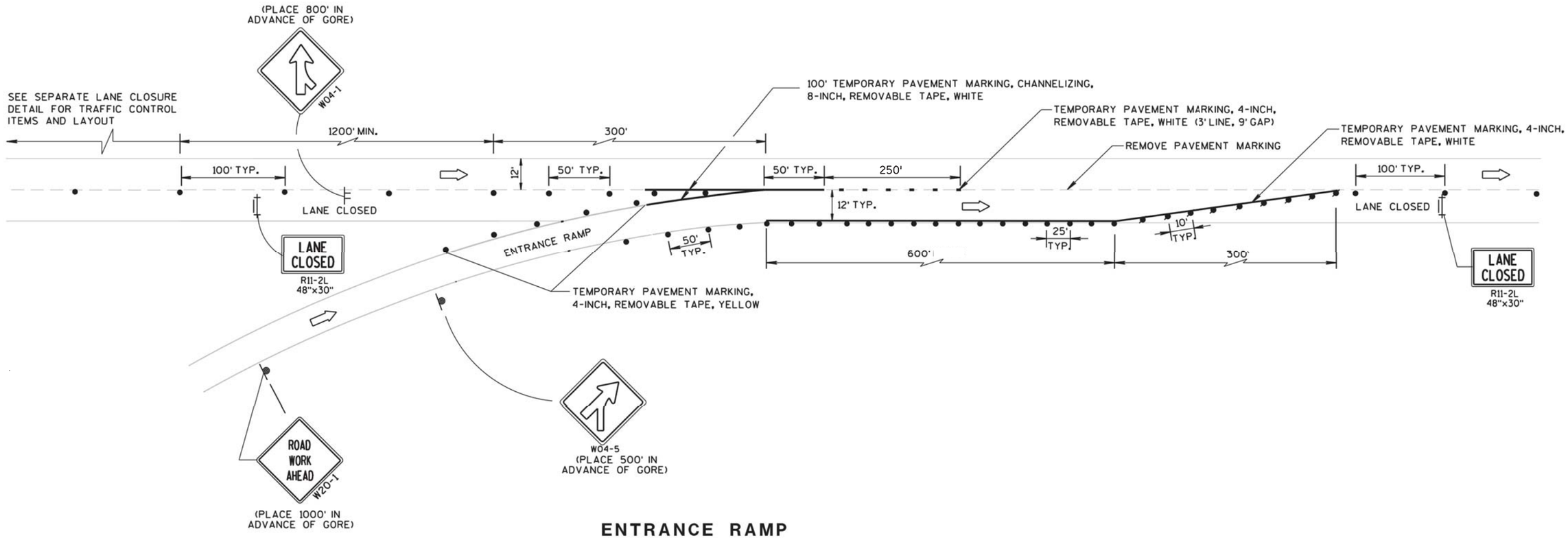
LEGEND

- BUTTERFLY
- CANTILEVER
- SIGN BRIDGE
- SIGN POSTS
- STEEL POSTS
- SIGN-REMOVE AND REPLACE
- SIGN-REMOVE EXISTING
- SIGN-PLACE NEW
- SIGN-MOVING TYPE I

PLAN SHEET PRODUCED
BY WisDOT-NE REGION

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: MANITOWOC	PERMANENT SIGNING	SHEET 27	E

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE



ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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.

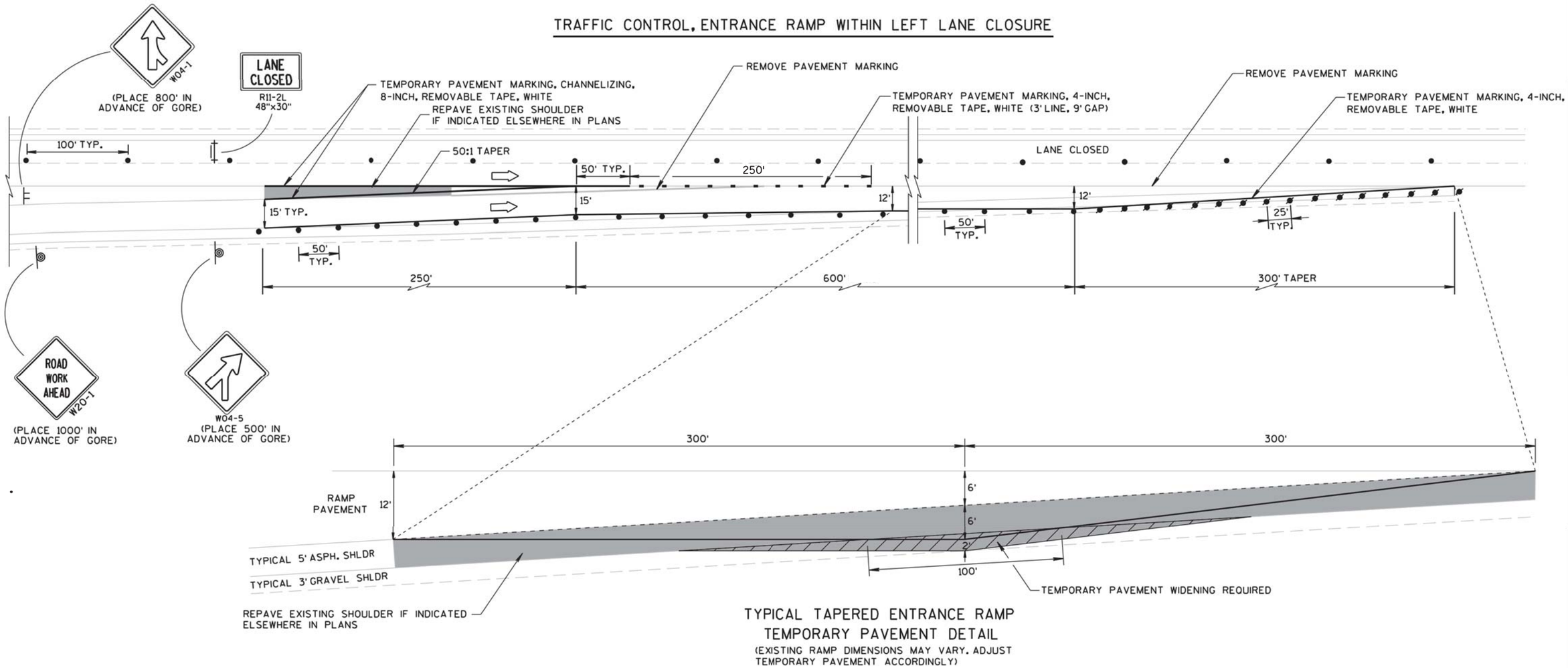
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LEFT LANE CLOSURE



TYPICAL TAPERED ENTRANCE RAMP TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY. ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

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.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 7 OR MORE CONTINUOUS DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	TRAFFIC CONTROL	SHEET	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\021001_CD.DWG PLOT DATE : 11/11/2016 12:50 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : **********
WISDOT/CADDS SHEET 42

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

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.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

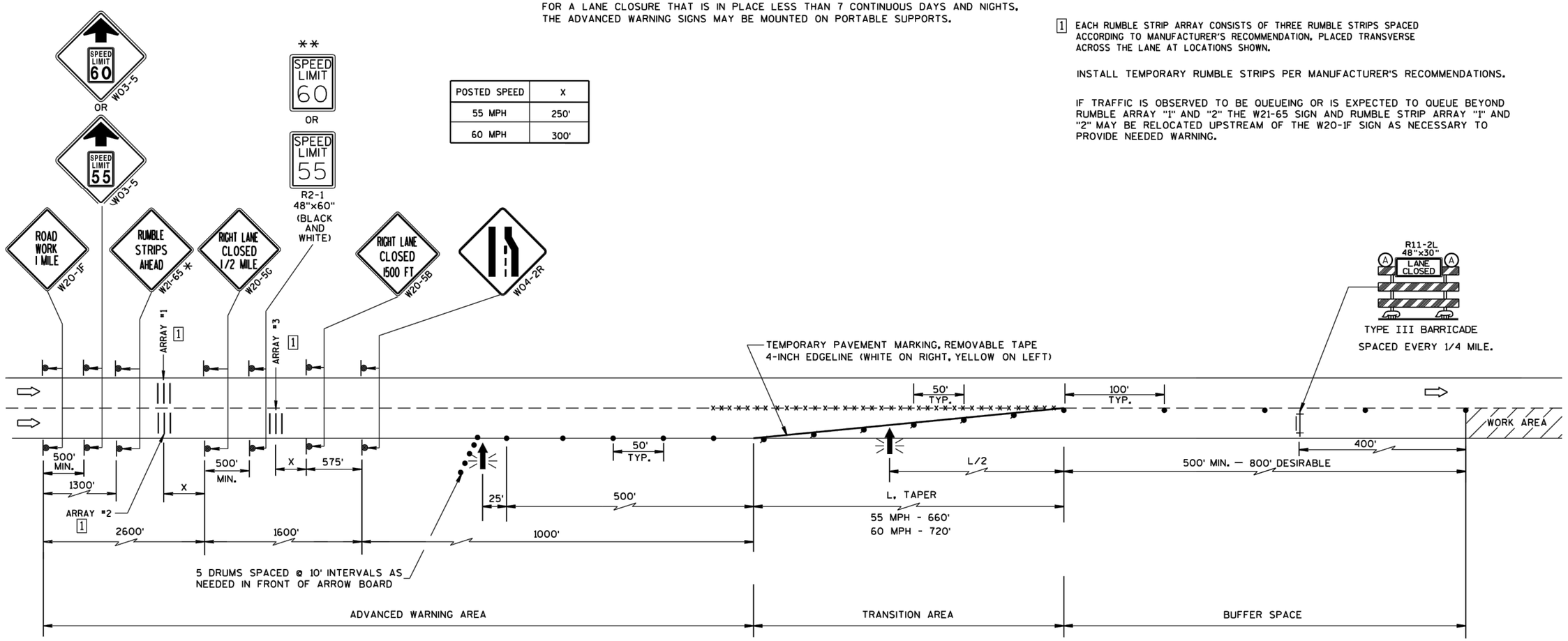
** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.

[1] EACH RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

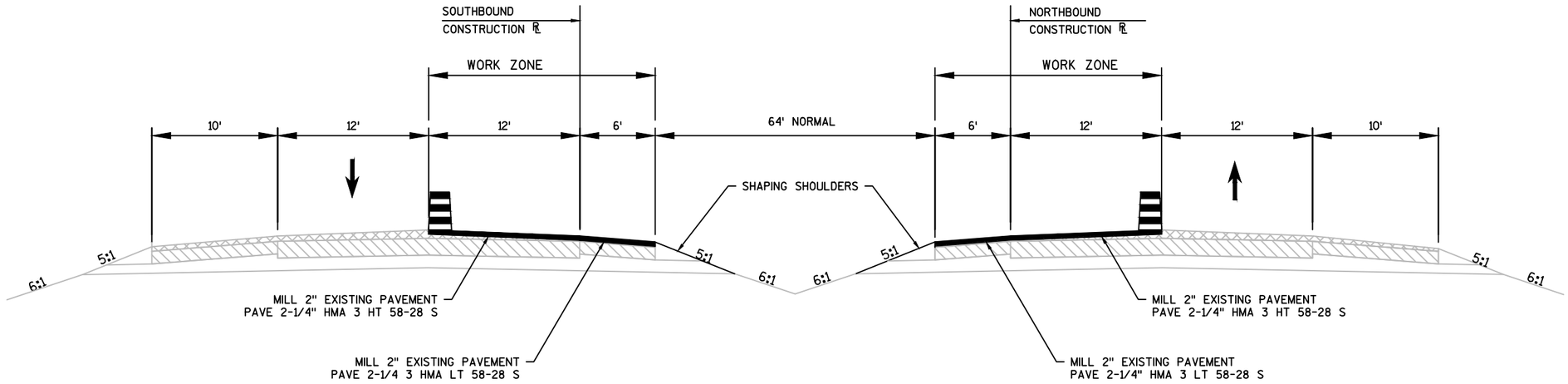
INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

IF TRAFFIC IS OBSERVED TO BE QUEUEING OR IS EXPECTED TO QUEUE BEYOND RUMBLE ARRAY "1" AND "2" THE W21-65 SIGN AND RUMBLE STRIP ARRAY "1" AND "2" MAY BE RELOCATED UPSTREAM OF THE W20-1F SIGN AS NECESSARY TO PROVIDE NEEDED WARNING.

POSTED SPEED	X
55 MPH	250'
60 MPH	300'

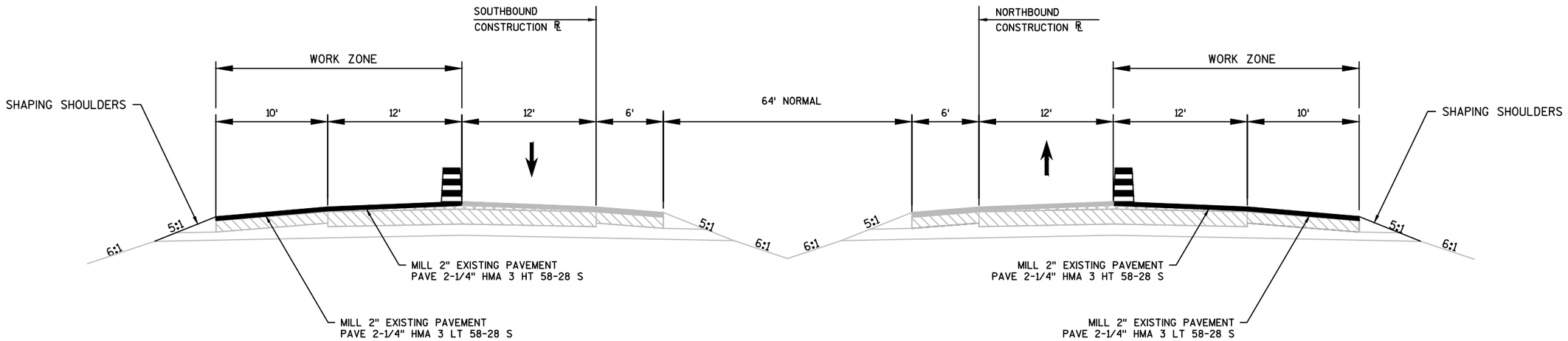


PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	TRAFFIC CONTROL	SHEET 30	E



STAGE 1A FOR IH 43 MAINLINE

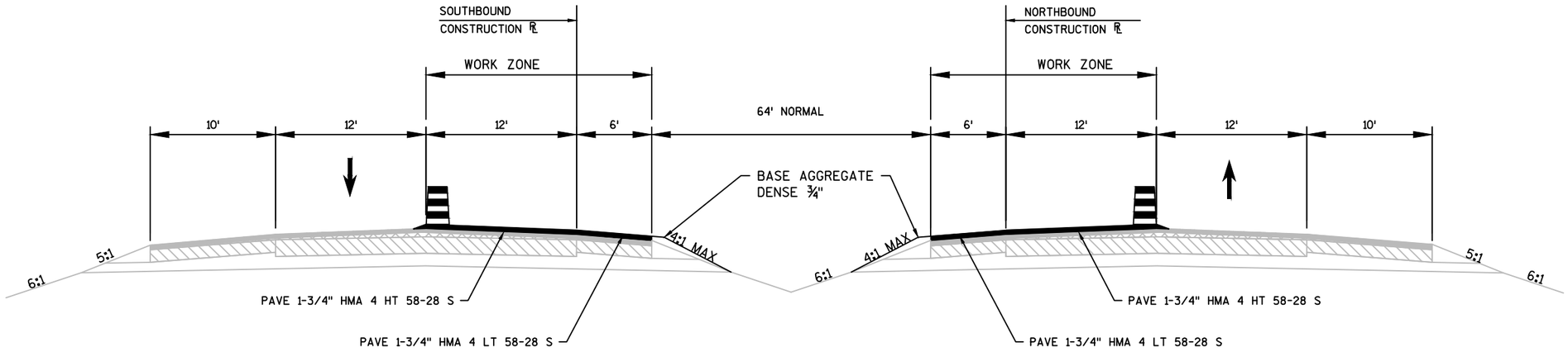
STA 565+09.71'NB' - STA 930+05.38'NB'
STA 565+09.71'SB' - STA 930+05.38'SB'



STAGE 1B FOR IH 43 MAINLINE

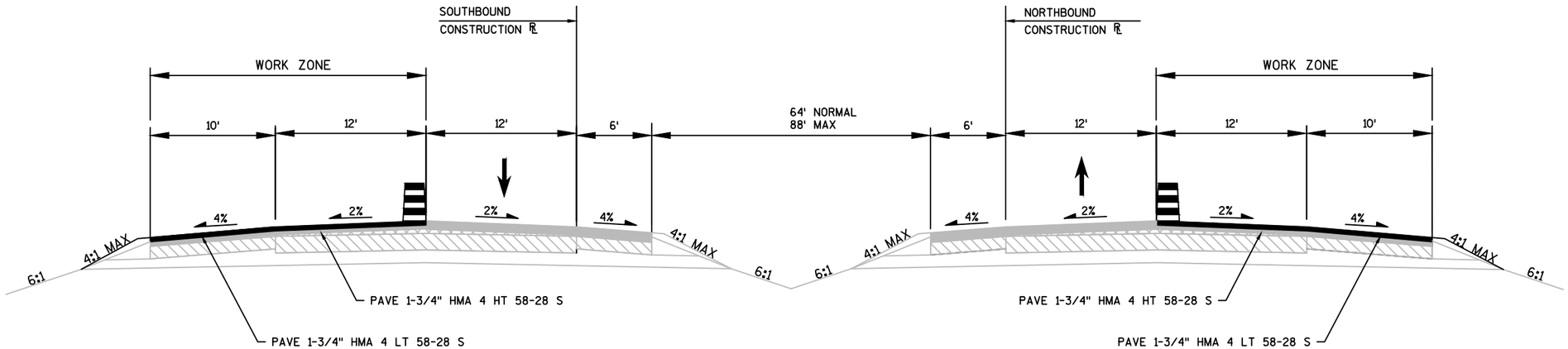
STA 565+09.71'NB' - STA 930+05.38'NB'
STA 565+09.71'SB' - STA 930+05.38'SB'

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	STAGE CONSTRUCTION - IH 43	SHEET 31	E



STAGE 1C FOR IH 43 MAINLINE

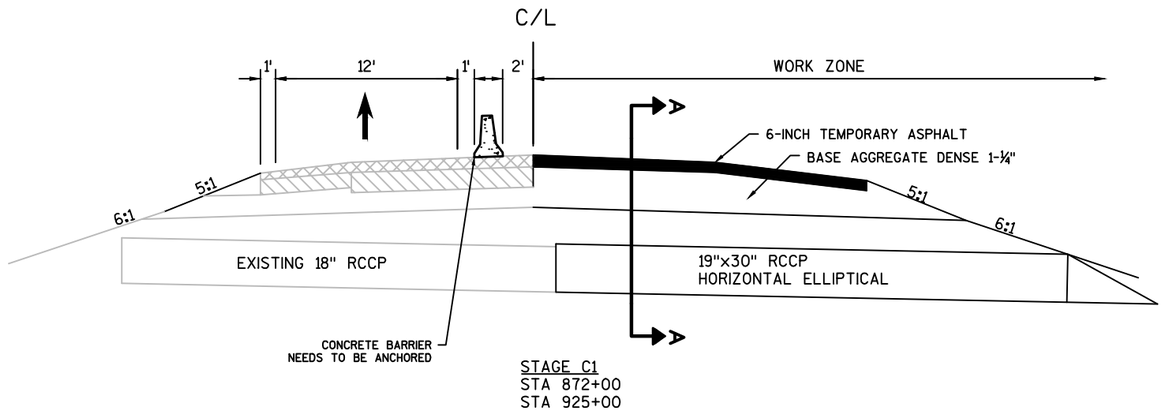
STA 565+09.71'NB' - STA 930+05.38'NB'
STA 565+09.71'SB' - STA 930+05.38'SB'



STAGE 1D FOR IH 43 MAINLINE

STA 565+09.71'NB' - STA 930+05.38'NB'
STA 565+09.71'SB' - STA 930+05.38'SB'

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	STAGE CONSTRUCTION - IH 43	SHEET 32	E



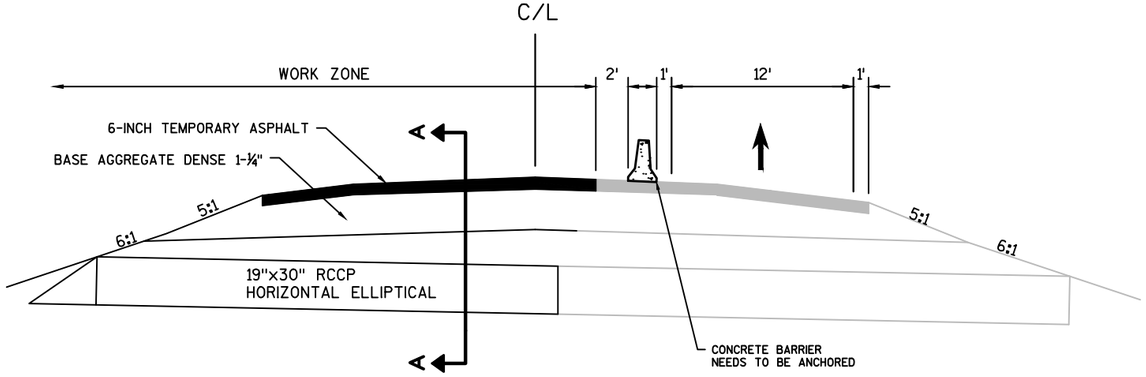
STAGE C1
STA 872+00
STA 925+00

GENERAL NOTES:

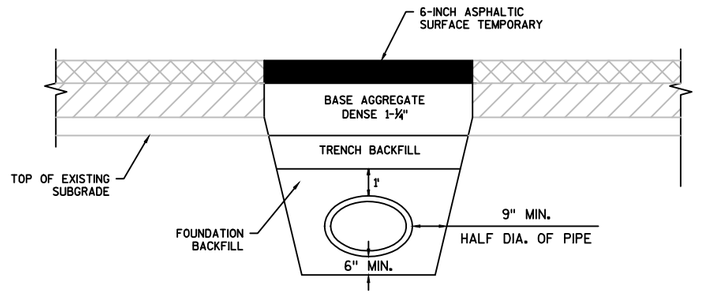
AFTER PIPE REPLACEMENT IS COMPLETE REMOVE ASPHALTIC SURFACE TEMPORARY AND REPLACE WITH BASE PATCHING DURING STAGES 1A/1B.

THE REMOVAL OF ASHPHALTIC SURFACE TEMPORARY AND ANY UNNEEDED BASE AGGREGATE 1-¼" IS INCEDENTAL TO BASE PATCHING.

NO CONCRETE COLLARS, UNLESS APPROVED BY ENGINEER.



STAGE C2
STA 872+00
STA 925+00



SECTION A-A
CULVERT PIPE REPLACEMENT

1225-08-71

Line	Item	Item Description	Unit	Total	Qty
0010	203.0100	Removing Small Pipe Culverts	EACH	2.000	2.000
0020	204.0115	Removing Asphaltic Surface Butt Joints	SY	4,156.000	4,156.000
0030	204.0120	Removing Asphaltic Surface Milling	SY	326,391.000	326,391.000
0040	204.0165	Removing Guardrail	LF	500.000	500.000
0050	204.0170	Removing Fence	LF	2,550.000	2,550.000
0060	204.9060.S	Removing (item description) 01. Culvert Endwalls	EACH	1.000	1.000
0070	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1225-08-71	LS	1.000	1.000
0080	213.0100	Finishing Roadway (project) 01. 1225-08-71	EACH	1.000	1.000
0090	305.0110	Base Aggregate Dense 3/4-Inch	TON	10,303.000	10,303.000
0100	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	118.000	118.000
0110	305.0500	Shaping Shoulders	STA	1,500.000	1,500.000
0120	390.0303	Base Patching Concrete	SY	978.000	978.000
0130	416.0610	Drilled Tie Bars	EACH	1,255.000	1,255.000
0140	440.4410	Incentive IRI Ride	DOL	55,310.000	55,310.000
0150	450.4000	HMA Cold Weather Paving	TON	2,292.000	2,292.000
0160	455.0605	Tack Coat	GAL	39,962.000	39,962.000
0170	460.2000	Incentive Density HMA Pavement	DOL	20,278.000	20,278.000
0180	460.2005	Incentive Density PWL HMA Pavement	DOL	44,787.000	44,787.000
0190	460.2010	Incentive Air Voids HMA Pavement	DOL	44,787.000	44,787.000
0200	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	152,570.000	152,570.000
0210	460.5223	HMA Pavement 3 LT 58-28 S	TON	17,784.000	17,784.000
0220	460.5224	HMA Pavement 4 LT 58-28 S	TON	12,936.000	12,936.000
0230	460.7223	HMA Pavement 3 HT 58-28 S	TON	26,632.000	26,632.000
0240	460.7224	HMA Pavement 4 HT 58-28 S	TON	19,131.000	19,131.000
0250	465.0125	Asphaltic Surface Temporary	TON	60.000	60.000
0260	465.0400	Asphaltic Shoulder Rumble Strips	LF	142,674.000	142,674.000
0270	520.8700	Cleaning Culvert Pipes	EACH	8.000	8.000
0280	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	1.000	1.000
0290	523.0419	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 19x30-Inch	LF	118.000	118.000
0300	523.0519	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 19x30-Inch	EACH	4.000	4.000
0310	603.8000	Concrete Barrier Temporary Precast Delivered	LF	600.000	600.000
0320	603.8125	Concrete Barrier Temporary Precast Installed	LF	2,225.000	2,225.000
0330	614.0010	Barrier System Grading Shaping Finishing	EACH	8.000	8.000
0340	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	8.000	8.000
0350	614.0230	Steel Thrie Beam	LF	500.000	500.000
0360	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
0370	616.0100	Fence Woven Wire (height) 01. 4-FT	LF	2,550.000	2,550.000

1225-08-71

Line	Item	Item Description	Unit	Total	Qty
0380	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1225-08-71	EACH	1.000	1.000
0390	619.1000	Mobilization	EACH	1.000	1.000
0400	624.0100	Water	MGAL	105.000	105.000
0410	625.0100	Topsoil	SY	30.000	30.000
0420	625.0500	Salvaged Topsoil	SY	114.000	114.000
0430	627.0200	Mulching	SY	30.000	30.000
0440	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0450	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0460	628.2004	Erosion Mat Class I Type B	SY	4,705.000	4,705.000
0470	628.7005	Inlet Protection Type A	EACH	11.000	11.000
0480	628.7504	Temporary Ditch Checks	LF	385.000	385.000
0490	628.7555	Culvert Pipe Checks	EACH	18.000	18.000
0500	629.0210	Fertilizer Type B	CWT	4.000	4.000
0510	630.0120	Seeding Mixture No. 20	LB	128.000	128.000
0520	630.0200	Seeding Temporary	LB	65.000	65.000
0530	633.5200	Markers Culvert End	EACH	22.000	22.000
0540	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	42.000	42.000
0550	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	24.000	24.000
0560	634.0618	Posts Wood 4x6-Inch X 18-FT	EACH	12.000	12.000
0570	635.0200	Sign Supports Structural Steel HS	LB	4,523.000	4,523.000
0580	635.0300	Sign Supports Replacing Base Connection Bolts	EACH	2.000	2.000
0590	636.0100	Sign Supports Concrete Masonry	CY	11.200	11.200
0600	636.0500	Sign Supports Steel Reinforcement	LB	658.000	658.000
0610	637.1220	Signs Type I Reflective SH	SF	819.000	819.000
0620	637.2210	Signs Type II Reflective H	SF	540.430	540.430
0630	637.2230	Signs Type II Reflective F	SF	24.500	24.500
0640	638.2101	Moving Signs Type I	EACH	2.000	2.000
0650	638.2601	Removing Signs Type I	EACH	7.000	7.000
0660	638.2602	Removing Signs Type II	EACH	47.000	47.000
0670	638.3000	Removing Small Sign Supports	EACH	76.000	76.000
0680	638.3100	Removing Structural Steel Sign Supports	EACH	11.000	11.000
0690	638.4100	Moving Structural Steel Sign Supports	EACH	4.000	4.000
0700	642.5401	Field Office Type D	EACH	1.000	1.000
0710	643.0100	Traffic Control (project) 01. 1225-08-71	EACH	1.000	1.000
0720	643.0300	Traffic Control Drums	DAY	115,100.000	115,100.000
0730	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0740	643.0420	Traffic Control Barricades Type III	DAY	8,547.000	8,547.000
0750	643.0705	Traffic Control Warning Lights Type A	DAY	17,094.000	17,094.000
0760	643.0715	Traffic Control Warning Lights Type C	DAY	3,989.000	3,989.000

1225-08-71

Line	Item	Item Description	Unit	Total	Qty
0770	643.0800	Traffic Control Arrow Boards	DAY	570.000	570.000
0780	643.0900	Traffic Control Signs	DAY	15,070.000	15,070.000
0790	643.1050	Traffic Control Signs PCMS	DAY	24.000	24.000
0800	646.0106	Pavement Marking Epoxy 4-Inch	LF	147,916.000	147,916.000
0810	646.0600	Removing Pavement Markings	LF	2,094.000	2,094.000
0820	646.0790.S	Removing Raised Pavement Markers	EACH	733.000	733.000
0830	646.0841.S	Pavement Marking Grooved Wet Reflective Contrast Tape 4-Inch	LF	18,232.000	18,232.000
0840	646.0843.S	Pavement Marking Grooved Wet Reflective Contrast Tape 8-Inch	LF	2,873.000	2,873.000
0850	647.0803	Pavement Marking Aerial Enforcement Bars Epoxy 24-Inch	LF	60.000	60.000
0860	649.0400	Temporary Pavement Marking Removable Tape 4-Inch	LF	6,232.000	6,232.000
0870	649.0402	Temporary Pavement Marking Paint 4-Inch	LF	169,138.000	169,138.000
0880	649.0801	Temporary Pavement Marking Removable Tape 8-Inch	LF	2,000.000	2,000.000
0890	650.6000	Construction Staking Pipe Culverts	EACH	2.000	2.000
0900	650.8000	Construction Staking Resurfacing Reference	LF	75,204.000	75,204.000
0910	650.9910	Construction Staking Supplemental Control (project) 01. 1225-08-71	LS	1.000	1.000
0920	690.0250	Sawing Concrete	LF	40,762.000	40,762.000
0930	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000
0940	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	3,040.000	3,040.000
0950	SPV.0060	Special 01. HMA Percent Within Limit (PWL) Test Strip	EACH	2.000	2.000
0960	SPV.0090	Special 01. Remove Rumble Strips	LF	6,250.000	6,250.000
0970	SPV.0090	Special 02. Concrete Barrier Temporary Precast Anchoring	LF	200.000	200.000
0980	SPV.0180	Special 01. Base Patching Continuously Reinforced Concrete	SY	6,210.000	6,210.000
0990	SPV.0180	Special 02. Grade and Shape Ditch	SY	4,561.000	4,561.000

3

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	SIZE LENGTH FT	x	DIA. IN	203.0100 REMOVING SMALL PIPE CULVERTS EACH	204.9060.S REMOVING CULVERT ENDWALLS EACH	MATERIAL
691+00.00 NB	IH 43 NB	106	x	18	--	1	CPRC
872+00.00 NB	IH 43 NB	62	x	18	1	--	CPRC
925+00.00 NB	IH 43 NB	80	x	18	1	--	CPRC
NORTHBOUND TOTALS					**2**	**1**	
		PROJECT TOTALS			**2**	**1**	

REMOVING GUARDRAIL SUMMARY

STATION	TO	STATION	LOCATION	204.0165 REMOVING GUARDRAIL LF
564+71.00 NB	-	567+38.00 NB	IH 43 NB LT	267
564+36.00 NB	-	566+69.00 NB	IH 43 NB RT	233
			PROJECT TOTALS	**500**

FINISHING ROADWAY PROJECT/PREPARE FOUNDATION FOR ASPHALT PAVING

LOCATION	211.0100 PREPARE FOUNDATION FOR ASPHALT PAVING LS	213.0100 FINISHING ROADWAY PROJECT EACH
PROJECT IH 43	1	1
PROJECT TOTAL	**1**	**1**

3

REMOVING PAVEMENT AND ASPHALTIC SURFACE

STATION	TO	STATION	LOCATION	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY	649.0790.S REMOVING RAISED PAVEMENT MARKERS EACH	REMARKS
			NORTHBOUND				
564+53.64 NB	-	566+53.64 NB	IH 43 NB	889	--	2	SOUTH PROJECT LIMITS
566+53.64 NB	-	622+90.30 NB	IH 43 NB	--	25,052	56	MAINLINE
624+95.30 NB	-	928+06.37 NB	IH 43 NB	--	134,716	303	MAINLINE
928+05.37 NB	-	930+05.37 NB	IH 43 NB	889	--	2	NORTH PROJECT LIMITS
			NORTHBOUND TOTALS	**1,778**	**159,768**	**363**	
			SOUTHBOUND				
565+45.08 SB	-	567+45.08 SB	IH 43 SB	889	--	2	SOUTH PROJECT LIMITS
567+45.08 SB	-	590+29.14 SB BK	IH 43 SB	--	10,151	23	MAINLINE
590+48.32 SB AH	-	656+15.04 SB BK	IH 43 SB	--	29,185	66	MAINLINE
655+98.34 SB AH	-	706+71.98 SB	IH 43 SB	--	22,550	51	MAINLINE
708+51.98 SB	-	726+55.94 SB BK	IH 43 SB	--	8,218	18	MAINLINE
726+50.84 SB AH	-	785+06.46 SB BK	IH 43 SB	--	26,025	59	MAINLINE
785+09.75 SB AH	-	873+97.95 SB BK	IH 43 SB	--	39,503	89	MAINLINE
873+97.71 SB AH	-	928+05.36 SB	IH 43 SB	--	24,034	54	MAINLINE
928+05.36 SB	-	930+05.36 SB	IH 43 SB	889	--	2	NORTH PROJECT LIMITS
			SOUTHBOUND TOTALS	**1,778**	**159,666**	**363**	
			RAMPS				
568+56.03 NE	-	569+06.03 NE	STH 42 NE RAMP	150	--	--	RAMP PROJECT LIMITS
569+06.03 NE	-	583+25.00 NE	STH 42 NE RAMP	--	3,006	--	RAMP MAINLINE
574+00.00 NW	-	574+50.00 NW	STH 42 NW RAMP	150	--	2	RAMP PROJECT LIMITS
574+50.00 NW	-	583+78.00 NW	STH 42 NW RAMP	--	2,072	5	RAMP MAINLINE
50+00.00 SE	-	53+50.00 SE	ROWE RD SE RAMP	--	920	--	RAMP MAINLINE
53+50.00 SE	-	54+00.00 SE	ROWE RD SE RAMP	150	--	--	RAMP PROJECT LIMITS
28+00.00 SW	-	31+50.00 SW	ROWE RD SW RAMP	--	960	--	RAMP MAINLINE
31+50.00 SW	-	32+00.00 SW	ROWE RD SW RAMP	150	--	--	RAMP PROJECT LIMITS
			RAMP TOTALS	**600**	**6957**	**7**	
				4,156	**326,391**	**733**	

BASE AGGREGATE SUMMARY

STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	305.0500 SHAPING SHOULDERS STA	624.0100 WATER MGAL
		NORTHBOUND					
564+53.64 NB	-	930+05.38 NB	IH 43 NB	5055	-	734	51
871+90.00 NB	-	872+10.00 NB	IH 43 NB	-	59	-	-
924+90.00 NB	-	925+10.00 NB	IH 43 NB	-	59	-	-
			NORTHBOUND TOTALS	**5,055**	**118**	**734**	**51**
		SOUTHBOUND					
565+45.08 SB AH	-	590+29.14 SB BK	IH 43 SB	344	-	50	3
590+48.32 SB AH	-	656+15.04 SB BK	IH 43 SB	908	-	132	9
655+98.34 SB AH	-	726+54.94 SB BK	IH 43 SB	976	-	142	10
726+50.84 SB AH	-	785+06.46 SB BK	IH 43 SB	810	-	118	8
785+09.75 SB AH	-	873+97.95 SB BK	IH 43 SB	1229	-	176	12
873+97.71 SB AH	-	930+05.38 SB	IH 43 SB	776	-	114	8
			SOUTHBOUND TOTALS	**5,042**	**0**	**732**	**50**
		RAMPS					
568+56.03 NE	-	574+93.39 NE	STH 42 NE RAMP	88	-	14	1
573+99.67 NW	-	578+01.64 NW	STH 42 NW RAMP	56	-	10	1
50+00.00 SE	-	54+00.03 SE	ROWE RD SE RAMP	55	-	8	1
31+52.95 SW	-	32+00.00 SW	ROWE RD SW RAMP	7	-	2	1
			RAMP TOTALS	206	0	34	4
			PROJECT TOTALS	**10,303**	**118**	**1,500**	**105**

BASE PATCHING SUMMARY

STATION	TO	STATION	LOCATION	390.0303 BASE PATCHING CONCRETE SY	416.0610 DRILLED TIE BARS EACH	690.0150 SAWING CONCRETE LF	SPV.0180.01 BASE PATCHING CONTINUOUSLY REINFORCED CONCRETE SY	REMARKS
		NORTHBOUND						
564+53.64 NB	-	571+84.20 NB	IH 43 NB	36	33	1256	192	BEGIN - MI. 129
571+84.20 NB	-	624+50.30 NB	IH 43 NB	115	83	3142	477	MI. 129 - MI. 130
624+50.30 NB	-	677+37.94 NB	IH 43 NB	28	77	2984	494	MI. 130 - MI. 131
677+37.94 NB	-	730+18.51 NB	IH 43 NB	62	86	3480	568	MI. 131 - MI. 132
730+18.51 NB	-	782+98.74 NB	IH 43 NB	83	109	4226	640	MI. 132 - MI. 133
782+98.74 NB	-	835+78.23 NB	IH 43 NB	45	70	2724	425	MI. 133 - MI. 134
835+78.23 NB	-	888+58.35 NB	IH 43 NB	47	60	1916	261	MI. 134 - MI. 135
888+58.35 NB	-	927+87.70 NB	IH 43 NB	12	54	1670	277	MI. 135 - END
			NORTHBOUND TOTALS	**428**	**572**	**21,398**	**3,334**	
		SOUTHBOUND						
565+45.08 SB	-	571+84.20 SB	IH 43 SB	4	6	478	91	BEGIN - MI. 129
571+84.20 SB	-	624+50.30 SB	IH 43 SB	41	47	1678	249	MI. 129 - MI. 130
624+50.30 SB	-	677+37.94 SB	IH 43 SB	115	100	2254	310	MI. 130 - MI. 131
677+37.94 SB	-	730+18.51 SB	IH 43 SB	72	44	2340	346	MI. 131 - MI. 132
730+18.51 SB	-	782+95.51 SB	IH 43 SB	57	100	3356	510	MI. 132 - MI. 133
782+95.51 SB	-	835+78.23 SB	IH 43 SB	57	66	2072	292	MI. 133 - MI. 134
835+78.23 SB	-	888+58.36 SB	IH 43 SB	71	51	1802	272	MI. 134 - MI. 135
888+58.36 SB	-	929+03.68 SB	IH 43 SB	44	60	1678	241	MI. 135 - END
			SOUTHBOUND TOTALS	**461**	**474**	**15,658**	**2,311**	
		UNDISTRIBUTED		**89**	**209**	**3,706**	**565**	
			PROJECT TOTALS	**978**	**1,255**	**40,762**	**6,210**	

HMA SUMMARY

STATION	TO	STATION	LOCATION	450.4000 HMA COLD WEATHER PAVING TON	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	460.7223 HMA PAVEMENT 3 HT 58-28 S TON	460.7224 HMA PAVEMENT 4 HT 58-28 S TON	460.4110.S REHEATING HMA PAVEMENT LONGITUDINAL JOINTS LF	INCENTIVE DENSITY HMA PAVEMENT* TON	INCENTIVE DENSITY PWL HMA PAVEMENT* TON	INCENTIVE AIR VOID HMA PAVEMENT* TON	REMARKS
NORTHBOUND														
564+53.64 NB	-	930+05.37 NB	IH 43 NB	1121	19494	8692	6255	13037	9382	73104	14947	22419	22419	MAINLINE
623+67.80 NB	-	624+17.80 NB	IH 43 NB	--	16	5	--	7	--	50	--	--	--	PAVEMENT WEDGE
592+02.00 NB	-	592+65.00 NB	IH 43 NB	--	24	--	22	--	--	--	22	--	--	MAINTENANCE CROSSOVER
690+44.00 NB	-	691+06.00 NB	IH 43 NB	--	24	--	22	--	--	--	22	--	--	MAINTENANCE CROSSOVER
807+69.00 NB	-	808+29.00 NB	IH 43 NB	--	24	--	22	--	--	--	22	--	--	MAINTENANCE CROSSOVER
845+54.00 NB	-	846+07.00 NB	IH 43 NB	--	23	--	21	--	--	--	21	--	--	MAINTENANCE CROSSOVER
917+95.00 NB	-	918+54.00 NB	IH 43 NB	--	23	--	22	--	--	--	22	--	--	MAINTENANCE CROSSOVER
			NORTHBOUND TOTALS	**1121**	**19626**	**8697**	**6364**	**13044**	**9382**	**73154**	**15056**	**22419**	**22419**	
SOUTHBOUND														
565+45.08 SB	-	590+29.14 SB BK	IH 43 SB	77	1325	591	426	886	638	4969	1017	1524	1524	MAINLINE
590+48.32 SB AH	-	656+15.04 SB BK	IH 43 SB	202	3502	1562	1124	2343	1686	13134	2686	4029	4029	MAINLINE
655+98.34 SB AH	-	726+54.94 SB BK	IH 43 SB	217	3764	1678	1208	2517	1812	14114	2886	4329	4329	MAINLINE
726+50.84 SB AH	-	785+06.46 SB BK	IH 43 SB	180	3123	1393	1002	2089	1503	11712	2395	3592	3592	MAINLINE
785+09.75 SB AH	-	873+97.95 SB BK	IH 43 SB	273	4740	2114	1521	3171	2282	17777	3635	5453	5453	MAINLINE
873+97.71 SB AH	-	930+05.36 SB	IH 43 SB	173	2991	1334	960	2001	1440	11216	2294	3441	3441	MAINLINE
			SOUTHBOUND TOTALS	**1122**	**19445**	**8672**	**6241**	**13007**	**9361**	**72922**	**14913**	**22368**	**22368**	
RAMP/OVERPASS ROADWAYS														
568+56.03 NE	-	583+25.00 NE	STH 42 NE RAMP	22	379	161	128	262	177	2938	728	--	--	
574+00.00 NW	-	583+78.00 NW	STH 42 NW RAMP	15	267	123	98	175	117	1956	513	--	--	
50+00.00 SE	-	54+00.00 SE	ROWE RD SE RAMP	6	126	69	55	72	47	800	243	--	--	
28+00.00 SW	-	32+00.00 SW	ROWE RD SE RAMP	6	120	62	50	72	47	800	231	--	--	
			NORTHBOUND TOTALS	**49**	**891**	**415**	**331**	**581**	**388**	**6,494**	**1,715**	**0**	**0**	
			PROJECT TOTALS	**2,292**	**39,962**	**17,784**	**12,936**	**26,632**	**19,131**	**152,570**	**31,684**	**44,787**	**44,787**	

NOTE: RAMPS AND SHOULDERS ARE NOT ELIGIBLE FOR PWL DENSITY INCENTIVE
* - FOR INFORMATION ONLY, SHOWS TONNAGES APPLICABLE TO INCENTIVES

3

ASPHALTIC SHOULDER RUMBLE STRIPS

STATION		TO	STATION		LOCATION	465.0400 ASPHALTIC SHOULDER RUMBLE STRIPS LF
		NORTHBOUND				
565+09.73	NB LT	-	930+05.38	NB LT	IH 43 NB	36496
565+09.73	NB RT	-	574+94.00	NB RT	IH 43 NB	984
583+24.00	NB RT	-	699+76.00	NB RT	IH 43 NB	11652
704+36.00	NB RT	-	930+05.38	NB RT	IH 43 NB	22569
						71,701
		SOUTHBOUND				
565+96.77	SB RT	-	590+29.14	SB RT BK	IH 43 SB	2432
565+96.77	SB LT	-	578+00.00	SB LT	IH 43 SB	1203
584+76.00	SB LT	-	590+29.14	SB LT	IH 43 SB	553
590+48.32	SB RT & LT AH	-	656+15.04	SB RT & LT BK	IH 43 SB	13133
655+98.34	SB RT AH	-	726+54.94	SB RT BK	IH 43 SB	7057
655+98.34	SB LT AH	-	694+55.00	SB LT	IH 43 SB	3857
706+21.00	SB LT	-	726+54.94	SB LT BK	IH 43 SB	2034
726+50.84	SB RT & LT AH	-	785+06.46	SB RT & LT BK	IH 43 SB	11711
785+09.75	SB RT & LT AH	-	873+97.95	SB RT & LT BK	IH 43 SB	17776
873+97.71	SB RT & LT AH	-	930+05.38	SB RT & LT	IH 43 SB	11215
						70,972
						142,674

ASPHALTIC SURFACE TEMPORARY

STATION		TO	STATION		LOCATION	465.0125 ASPHALTIC SURFACE TEMPORARY TON	REMARKS
871+90	-		872+10	NB	IH 43 NB	30	PIPE REPLACEMENT
924+90	-		925+10	NB	IH 43 NB	30	PIPE REPLACEMENT
						60	

CULVERT PIPE SUMMARY

STATION		TO	STATION		LOCATION	INLET ELEV.	DISCH. ELEV.	520.8700 CLEANING CULVERT PIPES EACH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH EACH	523.0419 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 19X30-INCH LF	523.0519 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 19X30-INCH EACH	633.5200 MARKERS CULVERT END EACH	REMARKS
			NORTHBOUND										
	691+00.00			NB	IH 43 NB RT	--	--	--	1	--	--	2	
714+75.00	NB	-	715+55.00	NB	IH 43 NB RT	--	--	1	--	--	--	2	
	717+00.00			NB	IH 43 NB	--	--	1	--	--	--	2	
	753+00.00			NB	IH 43 NB	--	--	1	--	--	--	2	
	766+48.00			NB	IH 43 NB	--	--	1	--	--	--	2	
	872+00.00			NB	IH 43 NB	658.7	658.3	--	--	58	2	2	REPLACEMENT
	925+00.00			NB	IH 43 NB	683.4	683.1	--	--	60	2	2	REPLACEMENT
926+40.00	NB	-	927+50.00	NB	IH 43 NB RT	--	--	1	--	--	--	2	
					NORTHBOUND TOTALS			**5**	**1**	**118**	**4**	**16**	
			SOUTHBOUND										
714+82.00	SB	-	715+48.00	SB	IH 43 SB LT	--	--	1	--	--	--	2	
767+62.00	SB	-	768+68.00	SB	IH 43 SB LT	--	--	1	--	--	--	2	
926+40.00	SB	-	927+50.00	SB	IH 43 SB LT	--	--	1	--	--	--	2	
					SOUTHBOUND TOTALS			**3**	**0**	**0**	**0**	**6**	
					PROJECT TOTALS			**8**	**1**	**118**	**4**	**22**	

TEMPORARY CONCRETE BARRIER SUMMARY

STATION	TO	STATION	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	SPV.0090.02 CONCRETE BARRIER TEMPORARY PRECAST ANCHORING LF	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHEILDS	REMARKS
NORTHBOUND														
870+31.50 NB	-	872+18.50 NB	IH 43 NB	300	300	1	50	2	OM-3R	TL-3	UNIDIRECTIONAL	LEFT	DROP OFF FROM	CULVERT PIPE REMOVAL
870+31.50 NB	-	872+18.50 NB	IH 43 NB	--	300	1	50	2	OM-3L	TL-3	UNIDIRECTIONAL	RIGHT	CULVERT PIPE	CULVERT PIPE REMOVAL
923+31.50 NB	-	925+18.50 NB	IH 43 NB	300	300	1	50	2	OM-3R	TL-3	UNIDIRECTIONAL	LEFT	STAGED	CULVERT PIPE REMOVAL
923+31.50 NB	-	925+18.50 NB	IH 43 NB	--	300	1	50	2	OM-3L	TL-3	UNIDIRECTIONAL	RIGHT	REPLACEMENT	CULVERT PIPE REMOVAL
				600	**1200**	**4**	**200**	--	--	--	--	--	--	
RAMPS														
699+42.00 SE	-	704+54.50 SE	ROWE RD	--	1025	--	--	--	--	--	--	--	--	MOVE & REINSTALL EXISTING WALL
				0	**1025**	**0**	**0**	--	--	--	--	--	--	
				600	**2225**	**4**	**200**	--	--	--	--	--	--	

BEAM GUARD SUMMARY

STATION	TO	STATION	LOCATION	614.0220 THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	REMARKS
NORTHBOUND						
607+62.10 NB	-	609+31.28 NB	IH 43 NB	2	125	B-59-0078
661+68.15 NB	-	663+37.30 NB	IH 43 NB	2	125	B-59-0068
714+31.25 NB	-	716+00.41 NB	IH 43 NB	2	125	B-59-0069
767+33.97 NB	-	769+93.35 NB	IH 43 NB	2	125	B-59-0070
		PROJECT TOTAL		**8**	**500**	

FENCE

STATION	TO	STATION	LOCATION	204.0170 REMOVING FENCE LF	616.0100 FENCE WOVEN WIRE (4-FT) LF
703+40 NB	-	704+84 NB	IH 43 NB RT	144	144
795+16 NB	-	796+39 NB	IH 43 NB RT	123	123
826+90 NB	-	829+93 NB	IH 43 NB RT	303	303
829+89 SB	-	832+02 SB	IH 43 SB LT	213	213
832+97 SB	-	834+75 SB	IH 43 SB LT	178	178
855+81 SB	-	867+25 SB	IH 43 SB LT	1144	1144
862+41 NB	-	865+24 NB	IH 43 NB RT	283	283
868+14 SB	-	868+62 SB	IH 43 SB LT	48	48
		UNDISTRIBUTED		114	114
			PROJECT TOTALS	**2,550**	**2,550**

3

BARRIER GRADING, SHAPING, AND FINISHING SUMMARY

STATION	TO	STATION	LOCATION	614.0010 BARRIER SYSTEM GRADING, SHAPING & FINISHING EACH	*205.0100 EXCAVATION COMMON CY	*208.0100 BORROW CY	*625.0500 SALVAGED TOPSOIL SY	*628.2004 EROSION MAT CLASS I TYPE B SY	*629.021 FERTILIZER TYPE B CWT	*630.012 SEEDING MIXTURE NO. 20 LB	*630.02 SEEDING TEMPORARY LB
NORTHBOUND											
607+62.10 NB	-	609+31.28 NB	IH 43 NB	2	68	-	24	24	0.015	0.65	0.32
661+68.15 NB	-	663+37.30 NB	IH 43 NB	2	-	158	29	29	0.018	0.78	0.39
714+31.25 NB	-	716+00.41 NB	IH 43 NB	2	-	45	30	30	0.019	0.81	0.41
767+33.97 NB	-	769+93.35 NB	IH 43 NB	2	63	-	35	35	0.022	0.95	0.47
			PROJECT TOTAL	**8**							

*FOR INFORMATION ONLY

EROSION CONTROL MOBILIZATIONS

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT IH 43	3	2
	PROJECT TOTAL	**3**	**2**

EROSION CONTROL SUMMARY

STATION		LOCATION	628.7005 INLET PROTECTION TYPE A EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH
NORTHBOUND					
581+80.00	NB	IH 43 NB LT	1	--	--
591+90.00	NB	IH 43 NB RT	--	15	--
606+00.00	NB	IH 43 NB LT	1	--	--
607+00.00	NB	IH 43 NB LT	--	20	--
610+20.00	NB	IH 43 NB LT	--	20	--
620+80.00	NB	IH 43 NB RT	--	15	--
631+10.00	NB	IH 43 NB LT	1	--	--
651+00.00	NB	IH 43 NB LT	1	--	--
652+60.00	NB	IH 43 NB RT	--	20	--
658+80.00	NB	IH 43 NB RT	--	20	--
660+00.00	NB	IH 43 NB LT	1	--	--
662+80.00	NB	IH 43 NB RT	--	15	--
664+00.00	NB	IH 43 NB LT	1	--	--
662+80.00	NB	IH 43 NB RT	--	20	--
681+40.00	NB	IH 43 NB RT	--	15	--
689+80.00	NB	IH 43 NB RT	--	15	--
713+50.00	NB	IH 43 NB LT	--	20	--
717+00.00	NB	IH 43 NB LT	1	--	--
766+48.00	NB	IH 43 NB LT	1	--	--
767+60.00	NB	IH 43 NB RT	--	20	--
769+80.00	NB	IH 43 NB LT	--	20	--
781+70.00	NB	IH 43 NB RT	--	20	--
819+00.00	NB	IH 43 NB LT	--	20	--
826+20.00	NB	IH 43 NB RT	--	15	--
829+30.00	NB	IH 43 NB RT	--	20	--
871+75.00	NB	IH 43 NB LT	--	20	--
872+00.00	NB	IH 43 NB LT	--	--	4
877+00.00	NB	IH 43 NB LT	1	--	--
897+00.00	NB	IH 43 NB LT	1	--	--
925+00.00	NB	IH 43 NB LT	--	--	4
925+20.00	NB	IH 43 NB LT	--	20	--
		NORTHBOUND TOTALS	**10**	**350**	**8**
SOUTHBOUND					
664+00.00	SB	IH 43 SB LT	--	--	8
		SOUTHBOUND TOTALS	**0**	**0**	**8**
		UNDISTRIBUTED	**1**	**35**	**2**
		PROJECT TOTALS	**11**	**385**	**18**

3

EROSTION CONTROL SUMMARY

STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	625.0500 SALVAGED TOPSOIL SY	627.0200 MULCHING SY	628.2004 EROSION MAT CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0120 SEEDING MIXTURE NO. 20 LB	630.0200 SEEDING TEMPORARY LB	SPV.0180.02 GRADE AND SHAPE DITCH SY	REMARKS
		NORTHBOUND										
		581+80.00 NB	IH 43 NB LT	4	--	4.0	4	0.003	0.11	0.05	--	PERIMETER RESTORATION
592+00.00 NB	-	594+00.00 NB	IH 43 NB RT	--	--	--	223	0.140	6.02	3.01	223	GRADE & SHAPE
621+00.00 NB	-	623+00.00 NB	IH 43 NB RT	--	--	--	223	0.140	6.02	3.01	223	GRADE & SHAPE
		631+10.00 NB	IH 43 NB LT	5	--	5.0	5	0.003	0.14	0.07	--	PERIMETER RESTORATION
649+50.00 NB	-	652+50.00 NB	IH 43 NB RT	--	--	--	500	0.315	13.50	6.75	500	GRADE & SHAPE
		651+00.00 NB	IH 43 NB LT	4	--	4.0	4	0.003	0.11	0.05	--	PERIMETER RESTORATION
659+00.00 NB	-	661+00.00 NB	IH 43 NB RT	--	--	--	334	0.210	9.02	4.51	334	GRADE & SHAPE
		664+00.00 NB	IH 43 NB LT	5	--	5.0	5	0.003	0.14	0.07	--	PERIMETER RESTORATION
663+00.00 NB	-	665+00.00 NB	IH 43 NB RT	--	--	--	223	0.140	6.02	3.01	223	GRADE & SHAPE
672+00.00 NB	-	674+50.00 NB	IH 43 NB RT	--	--	--	417	0.263	11.26	5.63	417	GRADE & SHAPE
681+50.00 NB	-	683+50.00 NB	IH 43 NB RT	--	--	--	223	0.140	6.02	3.01	223	GRADE & SHAPE
690+00.00 NB	-	692+00.00 NB	IH 43 NB RT	--	--	--	223	0.140	6.02	3.01	223	GRADE & SHAPE
		691+00.00 NB	IH 43 NB RT		10	0.0	10	0.006	0.27	0.14	--	ENDWALL REPLACEMENT
764+50.00 NB	-	767+50.00 NB	IH 43 NB RT	--	--	--	500	0.315	13.50	6.75	500	GRADE & SHAPE
778+50.00 NB	-	781+50.00 NB	IH 43 NB RT	--	--	--	500	0.315	13.50	6.75	500	GRADE & SHAPE
824+00.00 NB	-	826+00.00 NB	IH 43 NB RT	--	--	--	223	0.140	6.02	3.01	223	GRADE & SHAPE
829+50.00 NB	-	831+50.00 NB	IH 43 NB RT	--	--	--	334	0.210	9.02	4.51	334	GRADE & SHAPE
871+94.00 NB	-	872+06.00 NB	IH 43 NB LT & RT	--	40	--	40	0.025	1.08	0.54	--	PIPE REPLACEMENT
		877+00.00 NB	IH 43 NB LT	5	--	5.0	5	0.003	0.14	0.07	--	PERIMETER RESTORATION
		897+00.00 NB	IH 43 NB LT	4	--	4.0	4	0.003	0.11	0.05	--	PERIMETER RESTORATION
924+94.00 NB	-	925+06.00 NB	IH 43 NB LT & RT	--	54	--	54	0.034	1.46	0.73	--	PIPE REPLACEMENT
			NORTHBOUND TOTALS	**27**	**104**	**27**	**4,054**	**2.554**	**109**	**55**	**3,923**	
		SOUTHBOUND										
663+00.00 SB	-	665+00.00 SB	IH 43 SB LT	--	--	--	223	0.140	6.0	3.01	223	GRADE & SHAPE
			SOUTHBOUND TOTALS	**0**	**0**	**0**	**223**	**1.000**	**7**	**4**	**223**	
			UNDISTRIBUTED	**3**	**10**	**3**	**428**	**0.355**	**12**	**6**	**415**	
			PROJECT TOTALS	**30**	**114**	**30**	**4,705**	**4**	**128**	**65**	**4,561**	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	IH-43, N. OF STH 42	W4-1	48" X 48"	---	16.00	---	2	---	1	2	
2	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 129
3	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 129
4	"	W2-6	30" X 30"	---	6.25	---	---	---	1	1	
5	"	W2-6P	---	---	---	---	---	---	---	---	PART OF SIGN 4 REMOVAL
6	"	W13-1	18" X 18"	---	2.25	---	---	---	---	---	15 MPH, MOUNT BELOW SIGN 4, PART OF SIGN 4 REMOVAL
7	"	E5-1A	90" X 60"	37.50	---	---	---	2	1	2	EXIT 128
8	"	R3-4B	36" X 48"	12.00	---	---	1	---	1	1	
8A	"	R3-4B	36" X 48"	12.00	---	---	1	---	1	1	
9	"	J4-1	---	---	---	---	---	---	1	1	
10	"	J4-2	10" X 10"	0.69	---	---	---	2	---	---	NORTH 43, LAKE MICHIGAN CIRLCE TOUR (M1-93)
11	"	M1-93	---	---	---	---	---	---	1	1	
12	"	R2-1	48" X 60"	20.00	---	---	---	2	1	2	70 MPH
13	"	W11-3	---	---	---	---	---	---	1	2	
14	"	M1-94	84" X 21"	12.25	---	2	---	---	1	2	SEE DETAIL SHEETS
15	IH-43, N. OF PLAYBIRD RD	M1-94	84" X 21"	12.25	---	2	---	---	1	2	SEE DETAIL SHEETS
16	"	D12-5	60" X 66"	27.50	---	---	---	2	1	2	
17	"	R4-3	48" X 60"	20.00	---	---	2	---	1	2	
18	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 130
19	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 130
20	"	R5-53A	42" X 54"	15.75	---	---	1	---	1	1	
21	"	R8-7	48" X 36"	12.00	---	---	1	---	1	1	
22	"	M1-94	78" X 21"	11.38	---	2	---	---	1	2	SEE DETAIL SHEETS
23	IH-43, N. OF GARTON RD	M1-94	78" X 21"	11.38	---	2	---	---	1	2	SEE DETAIL SHEETS
24	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 131
25	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 131
26	"	R3-4B	36" X 48"	12.00	---	---	1	---	1	1	
27	"	R3-4B	36" X 48"	12.00	---	---	1	---	1	1	
28	"	R2-1	48" X 60"	20.00	---	---	---	2	1	2	70 MPH
29	"	J4-1	---	---	---	---	---	---	1	1	
30	"	J4-2	10" X 10"	0.69	---	---	---	2	---	---	SOUTH 43, LAKE MICHIGAN CIRLCE TOUR (M1-93)
31	"	W4-1	---	---	---	---	---	---	1	2	
32	"	W11-3	---	---	---	---	---	---	1	2	
33	"	I55-56	---	---	---	---	---	---	1	1	
34	"	M1-94	66" X 21"	9.63	---	2	---	---	1	2	SEE DETAIL SHEETS
35	IH-43, N. OF ROWE RD	M1-94	66" X 21"	9.63	---	2	---	---	1	2	SEE DETAIL SHEETS
36	"	I55-56	30" X 36"	7.50	---	---	1	---	1	1	ENTOURAGE SALON AND DAY SPA, SEE PLAN SHEET
37	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 132
38	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 132
39	"	R8-7	48" X 36"	12.00	---	---	1	---	1	1	
40	"	M1-94	60" X 21"	8.75	---	2	---	---	1	2	SEE DETAIL SHEETS
41	IH-43, N. OF CTH FF	M1-94	60" X 21"	8.75	---	2	---	---	1	2	SEE DETAIL SHEETS
	PAGE SUBTOTALS			337.65	24.50	24	12	12	30	47	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	634.0618 POSTS WOOD 4x6x18 EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
42	IH-43, N. OF CTH FF	R8-7	---	---	---	---	---	---	1	1	
43	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 133
44	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 133
45	"	W11-3	---	---	---	---	---	---	1	2	
46	"	R3-4B	36" X 48"	12.00	---	---	1	---	1	1	
47	"	R3-4B	36" X 48"	12.00	---	---	1	---	1	1	
48	"	M1-94	66" X 21"	9.63	---	2	---	---	1	2	SEE DETAIL SHEETS
49	IH-43, N. OF CTH MM	M1-94	66" X 21"	9.63	---	2	---	---	1	2	SEE DETAIL SHEETS
50	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 134
51	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 134
52	"	R3-4B	36" X 48"	12.00	---	---	1	---	1	1	
53	"	R3-4B	36" X 48"	12.00	---	---	1	---	1	1	
54	"	W11-3	---	---	---	---	---	---	1	2	
55	"	M1-94	84" X 21"	12.25	---	2	---	---	1	2	SEE DETAIL SHEETS
56	IH-43, N. OF ORCHARD RD	M1-94	84" X 21"	12.25	---	2	---	---	1	2	SEE DETAIL SHEETS
57	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 135
58	"	D10-3	12" X 48"	4.00	---	1	---	---	---	---	MILE 135
59	"	R3-4B	36" X 48"	12.00	---	---	1	---	1	1	
60	"	R3-4B	36" X 48"	12.00	---	---	1	---	1	1	
61	"	I2-2	102" X 21"	14.88	---	---	3	---	1	3	MANITOWOC CO
62	"	M1-94	114" X 21"	16.63	---	2	---	---	1	2	SEE DETAIL SHEETS
63	IH-43, N. OF ORCHARD RD	M1-94	114" X 21"	16.63	---	2	---	---	1	2	SEE DETAIL SHEETS
64	"	I2-2	102" X 21"	14.88	---	---	3	---	1	3	SHEBOYGAN CO
	PAGE SUBTOTALS			202.78	0.00	18	12	0	17	29	
	PROJECT TOTALS			**540.43**	**24.50**	**42**	**24**	**12**	**47**	**76**	

ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE I

SIGN NO.	LOCATION	SIGN CODE	W X H	637.1220 SIGNS TYPE I REFLECTIVE TYPE SH S.F.	638.2101 MOVING SIGNS TYPE I EACH	638.4100 MOVING STRUCTURAL STEEL SUPPORTS EACH	638.2601 REMOVING SIGNS TYPE I EACH	638.3100 REMOVING STRUCTURAL STEEL SUPPORTS EACH	TYPE/SIZE OF STEEL	636.0100 SIGN SUPPORTS CONCRETE MASONRY CY	636.0500 SIGN SUPPORTS STEEL REINFORCEMENT LB	635.0200 SIGN SUPPORTS STRUCT. STEEL HIGH-STRENGTH LB	635.0300 SIGN SUPPORTS REPLACING BASE CONNECTION BOLTS EACH	INFO ONLY - POST LENGTH TO BE VERIFIED BY CONTRACTOR			REMARKS
														POST NO. 1 LENGTH (ROAD SIDE) FT	POST NO. 2 LENGTH (DITCH) FT	DISTANCE BETWEEN POSTS (S) FT	
100	IH-43 N. OF STH 42	E4-1A	300" X 132"	275.0	---	---	1	3	2-TYPE C	1.8	100	1172	---	20.0	22.5	15.0	SEE SIGN DETAIL SHEET
100A	"	E1-5	108" X 30"	22.5	---	---	1	---	---	---	---	---	---	---	---	---	MOUNT TOP RIGHT OF SIGN 100, EXIT 128
101	IH-43 N. OF PLAYBIRD RD	E10-61	144" X 54"	54.0	---	---	1	2	2-TYPE A	1.2	68	505	---	13.8	15.6	9.0	
102	"	E8-1	180" X 84"	105.0	---	---	1	2	2-TYPE B	1.6	98	845	---	16.3	18.2	9.0	SEE SIGN DETAIL SHEET
103	"	E1-1A	264" X 156"	286.0	---	---	1	2	2-TYPE D	1.8	112	1484	---	22.8	25.5	13.2	SEE SIGN DETAIL SHEET
103A	"	E1-5	108" X 30"	22.5	---	---	1	---	---	---	---	---	---	---	---	---	MOUNT TOP RIGHT OF SIGN 103, EXIT 128
104	IH-43, N. OF ROWE RD	E9-1	144" X 54"	54.0	---	---	1	2	2-TYPE A	1.2	68	517	---	14.3	16.1	9.0	
105	IH-43, S. OF STH 42/USH 10/CTH JJ	E4-1A	---	---	1	2	---	---	2-TYPE D	1.8	112	---	1	---	---	---	OUTSIDE PROJECT LIMITS IN MANITOWOC COUNTY
105A	"	E1-5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	INCLUDED IN SIGN 105 MOVE
106	IH-43, S. OF CTH P	E1-1A	---	---	1	2	---	---	2-TYPE C	1.8	100	---	1	---	---	---	OUTSIDE PROJECT LIMITS IN MANITOWOC COUNTY
106A	"	E1-5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	INCLUDED IN SIGN 106 MOVE
	PROJECT TOTALS			**819.0**	**2**	**4**	**7**	**11**		**11.2**	**658**	**4523**	**2**				

3

TRAFFIC CONTROL SUMMARY

STATION	TO	STATION	LOCATION	STAGES	APPROX. SERVICE PERIOD DAYS	643.0300 DRUMS NO. IN SERVICE	643.0300 DRUMS DAY	643.0420 BARRICADES TYPE III NO. IN SERVICE	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A NO. IN SERVICE	643.0705 WARNING LIGHTS TYPE A DAY	643.0715 WARNING LIGHTS TYPE C NO. IN SERVICE	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO. IN SERVICE	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO. IN SERVICE	643.0900 SIGNS DAYS	643.1050 PCMS NO. IN SERVICE	643.1050 PCMS DAYS	REMARKS
NORTHBOUND																				
565+09 NB	-	930+05 NB	IH 43 NB	STAGE 1A	50	404	20200	30	1500	60	3000	14	700	2	100	50	2500	1	7	SOUTH ADVANCE WARNING
565+09 NB	-	930+05 NB	IH 43 NB	STAGE 1B	50	404	20200	30	1500	60	3000	14	700	2	100	50	2500	--	--	--
565+09 NB	-	930+05 NB	IH 43 NB	STAGE 2A	20	404	8080	30	600	60	1200	14	280	2	40	50	1000	--	--	--
565+09 NB	-	930+05 NB	IH 43 NB	STAGE 2B	20	404	8080	30	600	60	1200	14	280	2	40	50	1000	--	--	--
NORTHBOUND TOTALS							**56560**		**4200**		**8400**		**1960**		**280**		**7000**		**7**	
SOUTHBOUND																				
565+09 SB	-	930+05 SB	IH 43 SB	STAGE 1A	44	404	17776	30	1320	60	2640	14	616	2	88	50	2200	1	7	NORTH ADVANCE WARNING
565+09 SB	-	930+05 SB	IH 43 SB	STAGE 1B	45	404	18180	30	1350	60	2700	14	630	2	90	50	2250	--	--	--
565+09 SB	-	930+05 SB	IH 43 SB	STAGE 2A	15	404	6060	30	450	60	900	14	210	2	30	50	750	--	--	--
565+09 SB	-	930+05 SB	IH 43 SB	STAGE 2B	15	404	6060	30	450	60	900	14	210	2	30	50	750	--	--	--
SOUTHBOUND TOTALS							**48076**		**3570**		**7140**		**1666**		**238**		**5950**		**7**	
RAMPS																				
STH 42 NE RAMP					150	--	--	--	--	--	--	--	--	--	--	3	450	1	3	RAMP CLOSURE
STH 42 NW RAMP					150	--	--	--	--	--	--	--	--	--	--	2	300	1	3	RAMP CLOSURE
RAMP TOTALS							**0**		**0**		**0**		**0**		**0**		**750**		**6**	
UNDISTRIBUTED							**10,464**		**777**		**1,554**		**363**		**52**		**1,370**		**4**	
PROJECT TOTALS							**115,100**		**8,547**		**17,094**		**3,989**		**570**		**15,070**		**24**	

3

PAVEMENT MARKING SUMMARY

STATION	TO	STATION	LOCATION	646.0106 PAVEMENT MARKING EPOXY 4-INCH EDGELINE (WHITE) SOLID LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH DASHED (WHITE) 3' LINE, 9' GAP LF	646.0106 PAVEMENT MARKING EPOXY 4-INCH EDGELINE (YELLOW) SOLID LF	646.0841.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 4-INCH LF	646.0843.S PAVEMENT MARKING GROOVED WET REFLECTIVE CONTRAST TAPE 8-INCH LF	647.0803 PAVEMENT MARKING AERIAL ENFORCEMENT BARS EPOXY 24-INCH LF	REMARKS
		NORTHBOUND								
565+09.71 NB	-	574+45.18 NB	IH 43 NB	935	--	935	234	--	--	
574+45.18 NB	-	579+06.97 NB	IH 43 NB	462	--	462	116	924	--	MAINLINE & RAMP SECTION
579+06.97 NB	-	701+66.98 NB	IH 43 NB	12,260	--	12,260	3,066	--	--	
701+66.98 NB	-	704+86.09 NB	IH 43 NB	319	--	319	80	638	--	MAINLINE & RAMP SECTION
704+86.09 NB	-	930+05.38 NB	IH 43 NB	22,519	--	22,519	5,630	--	--	
		NORTHBOUND TOTALS			**72,991**		**9,126**	**1,562**	**0**	
		SOUTHBOUND								
565+96.77 SB	-	577+50.00 SB	IH 43 SB	1,153	--	1,153	289	--	--	
577+50.00 SB	-	580+94.99 SB	IH 43 SB	345	--	345	87	690	--	MAINLINE & RAMP SECTION
580+94.99 SB	-	583+94.99 SB	IH 43 SB	300	75	300	75	--	--	
583+94.99 SB	-	590+29.14 SB BK	IH 43 SB	634	--	634	159	--	12	AERIAL ENFORCEMENT BAR 585+95
590+48.32 SB AH	-	656+15.04 SB BK	IH 43 SB	6,567	--	6,567	1,642	--	48	AERIAL ENFORCEMENT BAR 592+55, 599+15, 605+75, 612+35
655+98.34 SB AH	-	703+64.85 SB	IH 43 SB	4,767	--	4,767	1,192	--	--	
703+64.85 SB	-	706+75.34 SB	IH 43 SB	310	--	310	78	621	--	MAINLINE & RAMP SECTION
706+75.34 SB	-	726+54.94 SB BK	IH 43 SB	1,980	--	1,980	495	--	--	
726+50.84 SB AH	-	785+06.46 SB BK	IH 43 SB	5,856	--	5,856	1,464	--	--	
785+09.75 SB AH	-	873+97.95 SB BK	IH 43 SB	8,888	--	8,888	2,223	--	--	
873+97.71 SB AH	-	930+05.38 SB	IH 43 SB	5,608	--	5,608	1,402	--	--	
		SOUTHBOUND TOTALS			**72,889**		**9,106**	**1,311**	**60**	
		RAMPS								
568+56.03 NE	-	574+42.48 NE	STH 42 NE RAMP	586	--	586	--	--	--	
573+99.67 NW	-	577+51.09 NW	STH 42 NW RAMP	351	--	351	--	--	--	
53+20.09 SE	-	54+00.03 SE	ROWE RD SE RAMP	80	--	80	--	--	--	
					2,036		**0**	**0**	**0**	
					147,916		**18,232**	**2,873**	**60**	

TEMPORARY PAVEMENT MARKING SUMMARY

STATION	TO	STATION		646.0600 REMOVING PAVEMENT MARKINGS LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH WHITE LF	649.0400 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 4-INCH YELLOW LF	649.0402 TEMPORARY PAVEMENT MARKING PAINT 4-INCH WHITE LF	649.0402 TEMPORARY PAVEMENT MARKING PAINT 4-INCH YELLOW LF	649.0801 TEMPORARY PAVEMENT MARKING REMOVABLE TAPE 8-INCH WHITE LF	REMARKS
NORTHBOUND										
565+09.71	'NB'	- 930+05.38	'NB'	--	--	--	48,174	36,496	--	EDGELINES LOWER LAYER AND SKIPS
571+75.00	'NB'	583+25.00	'NB'	850	1,250	--	--	--	550	STAGE 1A NB STH 42 RAMP
574+75.00	'NB'	591+41.00	'NB'	72	1,000	666	--	--	250	STAGE 1B NB STH 42 RAMP
571+75.00	'NB'	583+25.00	'NB'	850	1,250	--	--	--	550	STAGE 1C NB STH 42 RAMP
574+75.00	'NB'	591+41.00	'NB'	72	1,000	666	--	--	250	STAGE 1D NB STH 42 RAMP
					4,500	1,332	48,174	36,496		
				1,844	**5,832**		**84,670**		**1,600**	
SOUTHBOUND										
565+96.77	'SB'	- 930+05.38	'SB'	--	--	--	48,059	36,409	--	EDGELINES LOWER LAYER AND SKIPS
580+95.00	'SB'	584+75.00	'SB'	125	200	--	--	--	200	STAGE 1B SB STH 42 RAMP
580+95.00	'SB'	584+75.00	'SB'	125	200	--	--	--	200	STAGE 1D SB STH 42 RAMP
					400	0	48,059	36,409		
				250	**400**		**84,468**		**400**	
				2,094	**6,232**		**169,138**		**2,000**	

HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP

LOCATION	SPV.0060.01 HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP LF
HMA PAVEMENT 3 HT 58-28 S	1
HMA PAVEMENT 4 HT 58-28 S	1
	2

REMOVING RUMBLE STRIPS

STATION	TO	STATION	LOCATION	SPV.0090.01 REMOVE RUMBLE STRIPS LF
861+00 NB	-	877+00 NB	IH 43 NB LT	1600
919+00 NB	-	929+50 NB	IH 43 NB LT	1050
859+00 NB	-	880+00 NB	IH 43 NB RT	2100
917+00 NB	-	932+00 NB	IH 43 NB RT	1500
			PROJECT TOTALS	**6,250**

CONSTRUCTION STAKING SUMMARY

STATION	TO	STATION	LOCATION	650.6000 CONSTRUCTION STAKING PIPE CULVERTS EACH	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF
NORTHBOUND					
565+09.71	NB -	930+05.38	NB IH 43 NB	--	36496
		872+00.00	NB IH 43 NB	1	--
		925+00.00	NB IH 43 NB	1	--
			NORTHBOUND TOTALS	**2**	**36496**
SOUTHBOUND					
565+96.77	SB -	590+29.14	SB BK IH 43 SB	--	2432
590+48.32	SB AH -	656+15.04	SB BK IH 43 SB	--	6567
655+98.34	SB AH -	726+54.94	SB BK IH 43 SB	--	7057
726+50.84	SB AH -	785+06.46	SB BK IH 43 SB	--	5856
785+09.75	SB AH -	873+97.95	SB BK IH 43 SB	--	8888
873+97.71	SB AH -	930+05.36	SB IH 43 SB	--	5608
			SOUTHBOUND TOTALS	**0**	**36407**
RAMPS					
568+00.00	SE' -	577+75.00	SE' STH 42 NE RAMP	--	975
574+00.00	SW -	579+85.00	SW STH 42 NW RAMP	--	585
50+00.00	SE' -	54+00.00	SE' ROWE RD SE RAMP	--	400
28+59.00	SE' -	32+00.00	SE' ROWE RD SW RAMP	--	341
			RAMP TOTALS	**0**	**2301**
			PROJECT TOTALS	**2**	**75,204**

PI STA = 575+28.72'NW'
Y = 193156.040
X = 205382.690
DELTA = 9°28'04"
D = 1°49'18"
T = 260.44'
L = 519.69'
R = 3145.00'
PC STA = 572+68.28'NW'
PT STA = 577+87.97'NW'
SE = 0.038'/'

PI STA = 581+75.90'NB'
Y = 193806.910
X = 205523.640
DELTA = 17°35'16"
D = 1°00'00"
T = 886.36'
L = 1758.79'
R = 5729.58'
PC STA = 572+89.53'NB'
PT STA = 590+48.32'NB'
SE = 0.034'/'
(EXISTING = 0.038'/')

PI STA = 581+53.38'SB'
Y = 193785.920
X = 205463.090
DELTA = 17°35'16"
D = 1°00'00"
T = 886.37'
L = 1758.79'
R = 5729.58'
PC STA = 572+67.02'SB'
PT STA = 590+25.80'SB'
SE = 0.034'/'
(EXISTING = 0.038'/')

N

STH 42

BP: 563+79.44'SB'

BP: 563+79.44'NB'

563'SB'

563'NB'

565'SB'

565'NB'

565'NE'

567'NW'

570'NW'

IH 43 SB OFF RAMP

570'SB'

570'NB'

570'NE'

IH 43 NB ON RAMP

PC: 572+67.02'SB'

PC: 572+89.53'NB'

575'NW'

575'SB'

575'NB'

575'NE'

577'NE'

579'NW'

580'SB'

580'NB'

585'SB'

585'NB'

590'SB'

590'NB'

PT: 590+25.80'SB'

PT: 590+48.32'NB'

EQUATION

STA AHEAD = 590+48.32'SB'
STA BACK = 590+29.14'SB'

STA 581+80.0'NB'
3 FT PERIMETER RESTORATION
TOPSOIL, SEED, FERTILIZE, AND EMAT
INLET PROTECTION TYPE A

STA 592+00.00'NB' - STA 594+00.00'NB'
GRADE AND SHAPE DITCH
TEMPORARY DITCH CHECK

25'

25'

12'

8'

BEGIN PROJECT
STA 564+65.78'NB'

5

5

N

595'SB'

600'SB'

605'SB'

610'SB'

615'SB'

620'SB'

625'SB'

595'NB'

600'NB'

605'NB'

610'NB'

615'NB'

620'NB'

625'NB'

10'

10'

10'

STA 607+62.10'NB' - STA 609+31.28'NB'
STEEL THRIE BEAM AND BULLNOSE TERMINALS
BARRIER SYSTEM GRADING, SHAPING, & FINISHING
SEE CROSS SECTIONS

STA 606+00.00'NB'
INLET PROTECTION TYPE A

STRUCTURE B-59-0067

PLAYBIRD ROAD

STA 623+67.80'NB' - STA 624+17.80'NB'
PAVEMENT WEDGE NEEDED TO FILL DIP
50' × 3"

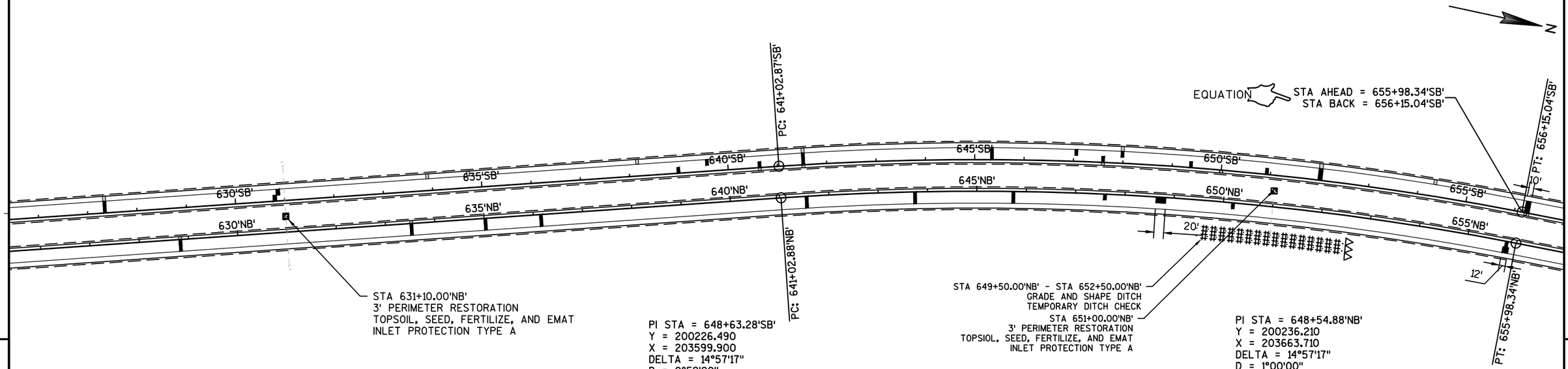
STA 621+00.00'NB' - STA 623+00.00'NB'
GRADE AND SHAPE DITCH

LEGEND

- BASE PATCHING CONTINUOUSLY REINFORCED CONCRETE
- BASE PATCHING CONCRETE
- EROSION MAT TYPE B, CL I
- INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECK
- WOVEN WIRE FENCE

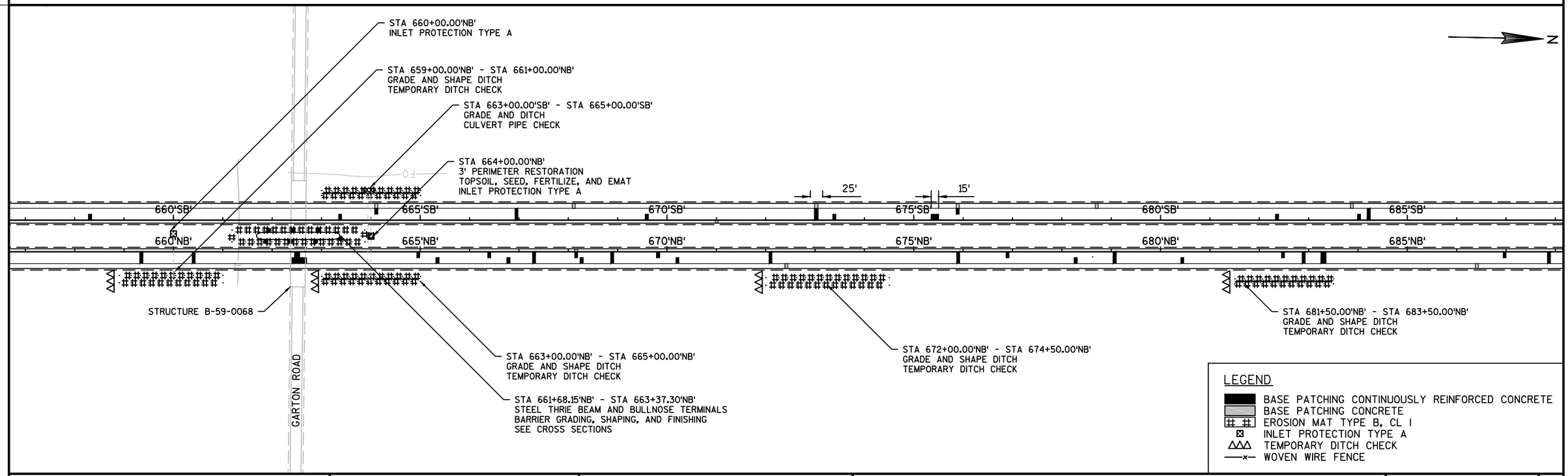
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 49	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\050201_PN.DWG
PLOT DATE : 11/18/2016 12:30 PM
PLOT BY : WITTE, KYLE J
PLOT NAME : A - 050201
PLOT SCALE : 1" = 200'_XREF



PI STA = 648+63.28'SB'
Y = 200226.490
X = 203599.900
DELTA = 14°57'17"
D = 0°59'20"
T = 760.41'
L = 1512.17'
R = 5793.58'
PC STA = 641+02.87'SB'
PT STA = 656+15.04'SB'
SE = 0.033'/'
(EXISTING = 0.038'/')

PI STA = 648+54.88'NB'
Y = 200236.210
X = 203663.710
DELTA = 14°57'17"
D = 1°00'00"
T = 752.00'
L = 1495.46'
R = 5729.58'
PC STA = 641+02.88'NB'
PT STA = 655+98.34'NB'
SE = 0.034'/'
(EXISTING = 0.038'/')



PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 50	E

PI STA = 30+38.93
Y = 205892.410
X = 203459.732
DELTA = 11°25'34"
D = 3°10'59"
T = 180.08'
L = 358.96'
R = 1800.00'
PC STA = 28+58.85
PT STA = 32+17.81

PC: 704+48.09'SB'

STA 32+00'SW'
CONSTRUCTION LIMITS

PI STA = 715+51.88'SB'
Y = 206939.011
X = 203461.640
DELTA = 3°40'16"
D = 0°09'59"
T = 1103.79'
L = 2206.82'
R = 34441.47'
PC STA = 704+48.09'SB'
PT STA = 726+54.91'SB'
SE = N.C.

ROWE ROAD

STA 714+82.00'SB' - STA 715+48.00'SB'
CLEAN CULVERT
30" CPRC X 66'

8'
690'SB'
695'SB'
700'SB'
705'SB'
710'SB'
715'SB'
690'NB'
695'NB'
700'NB'
705'NB'
710'NB'
28'SW'
30'SW'
35'SW'
40'SW'
41'SW'
50'SE'
55'SE'
60'SE'
15'
35'
10'

STA 691+00.00'NB'
REMOVING CULVERT ENDWALL
APRON ENDWALL FOR CPRC 18"

STA 699+42.00'NB' - STA 704+56.00'NB'
MOVE EXISTING TEMPRORAY CONCRETE PRECAST BARRIER
RE-INSTALL TEMPORARY CONCRETE PRECAST BARRIER

703+40NB, 105' RT
704+84NB, 88' RT
PC: 704+48.06'NB'

STA 54+00'SE'
CONSTRUCTION LIMITS

STA 714+31.25'NB' - STA 716+00.41'NB'
INSTALL STEEL THRIE BEAM AND BULLNOSE TERMINALS
BARRIER SYSTEM GRADING, SHAPING, AND FINISHING
SEE CROSS SECTIONS

STA 714+75.00'NB' -
STA 715+55.00'NB'
CLEAN CULVERT
30" CPRC X 66'

PI STA = 715+49.83'NB'
Y = 206938.282
X = 203525.660
DELTA = 3°40'17"
D = 0°10'00"
T = 1101.77'
L = 2202.78'
R = 34377.47'
PC STA = 704+48.06'NB'
PT STA = 726+50.84'NB'
SE = N.C.

STA 690+00.00'NB' - STA 692+00.00'NB'
GRADE AND SHAPE DITCH
TEMPORARY DITCH CHECK

PI STA = 57+25.65
Y = 206280.583
X = 203621.491
DELTA = 25°32'13"
D = 4°05'33"
T = 317.26'
L = 623.99'
R = 1400.00'
PC STA = 54+08.39
PT STA = 60+32.38

STA 717+00.00'NB'
INLET PROTECTION TYPE A
CLEAN CULVERT
18" CPRC X 80'

5

5

EQUATION
STA AHEAD = 726+50.84'SB'
STA BACK = 726+54.94'SB'

PT: 726+54.91'SB'
PT: 726+50.84'NB'

720'SB'
725'SB'
730'SB'
735'SB'
740'SB'
745'SB'
750'SB'
720'NB'
725'NB'
730'NB'
735'NB'
740'NB'
745'NB'
750'NB'
8'
10'
14'
17'
18'
12'

LEGEND

- BASE PATCHING CONTINUOUSLY REINFORCED CONCRETE
- BASE PATCHING CONCRETE
- EROSION MAT TYPE B, CL I
- INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECK
- WOVEN WIRE FENCE

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 51	E

PI STA = 776+25.56'NB'
Y = 213009.027
X = 203789.790
DELTA = 2°56'53"
D = 0°10'00"
T = 884.58'
L = 1768.77'
R = 34377.47'
PC STA = 767+40.98'NB'
PT STA = 785+09.75'NB'
SE = N.C.

PI STA = 776+23.91'SB'
Y = 213010.159
X = 203725.780
DELTA = 2°56'52"
D = 0°10'01"
T = 882.92'
L = 1765.45'
R = 34313.47'
PC STA = 767+40.99'SB'
PT STA = 785+06.44'SB'
SE = N.C.

N

STA 767+62.00'SB' - STA 768+68.00'SB'
CLEAN CULVERT
30" CPRC X 106'

STA 766+48.00'NB'
INLET PROTECTION TYPE A
CLEAN CULVERT
30" CPRC X 106'

PC: 767+40.99'SB'

8'
15'

755'SB' 760'SB' 765'SB' 770'SB' 775'SB' 780'SB'

12' 10' 10'

755'NB' 760'NB' 765'NB' 770'NB' 17' 775'NB' 780'NB'

STA 753+00.00'NB'
CLEAN CULVERT
18" CPRC X 84'

STA 767+33.97'NB' - STA 769+93.35'NB'
INSTALL STEEL THRIE BEAM AND BULLNOSE TERMINALS
BARRIER GRADING, SHAPING, AND FINISHING
TEMPORARY DITCH CHECK
SEE CROSS SECTIONS

8'

PC: 767+40.98'NB'

CTH FF

STA 764+50.00'NB' - STA 767+50.00'NB'
GRADE AND SHAPE DITCH
TEMPORARY DITCH CHECK

STRUCTURE B-59-0070

STA 778+50.00'NB - STA 781+50.00NB'
GRADE AND SHAPE DITCH
TEMPORARY DITCH CHECK

5

5

N

PT: 785+06.44'SB'

STA AHEAD = 785+09.75'SB'
STA BACK = 785+06.46'SB'
EQUATION

8'

785'SB' 790'SB' 795'SB' 800'SB' 805'SB' 810'SB'

785'NB' 790'NB' 795'NB' 800'NB' 805'NB' 810'NB'

15' 8'

PT: 785+09.75'NB'

795+16NB, 97' RT

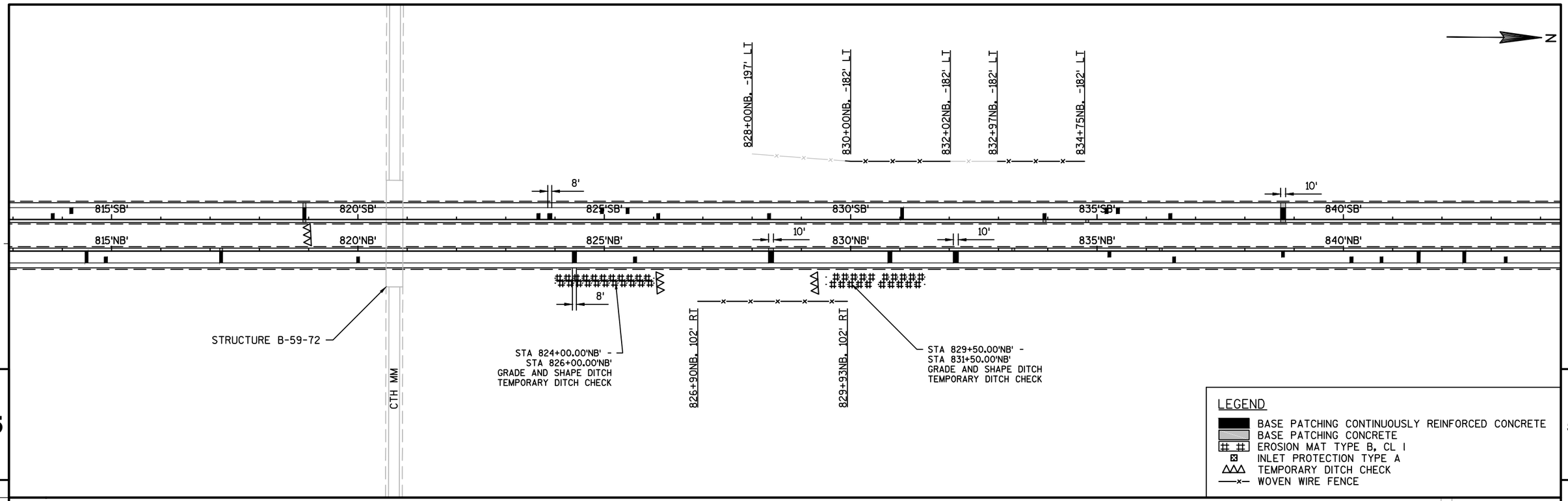
796+39NB, 97' RT

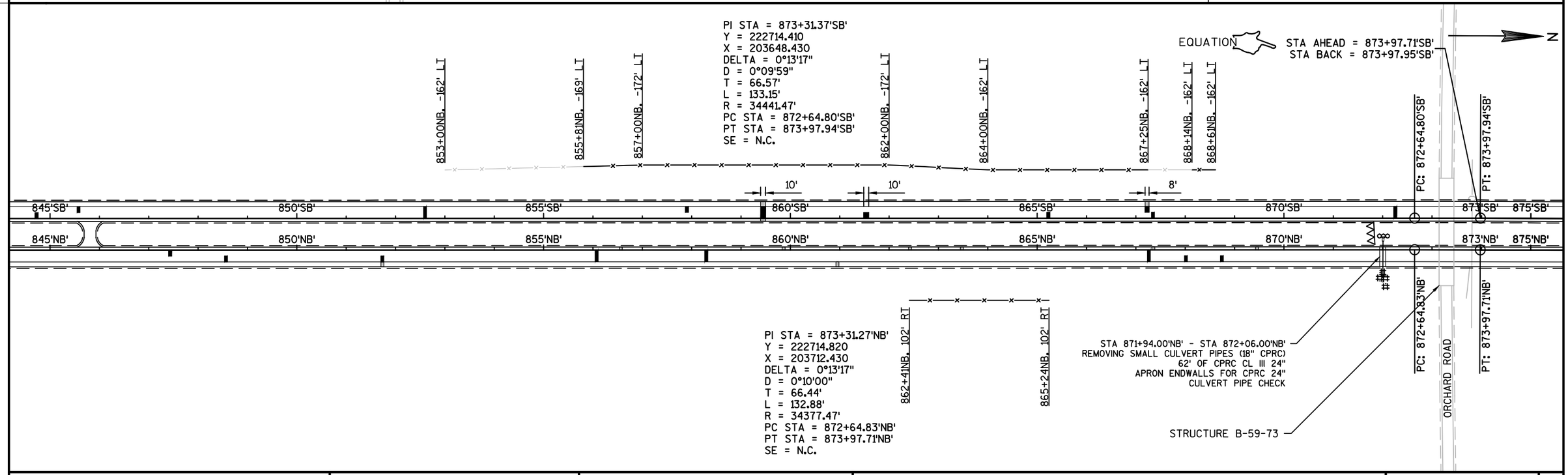
LEGEND

- BASE PATCHING CONTINUOUSLY REINFORCED CONCRETE
- BASE PATCHING CONCRETE
- EROSION MAT TYPE B, CL I
- INLET PROTECTION TYPE A
- TEMPORARY DITCH CHECK
- WOVEN WIRE FENCE

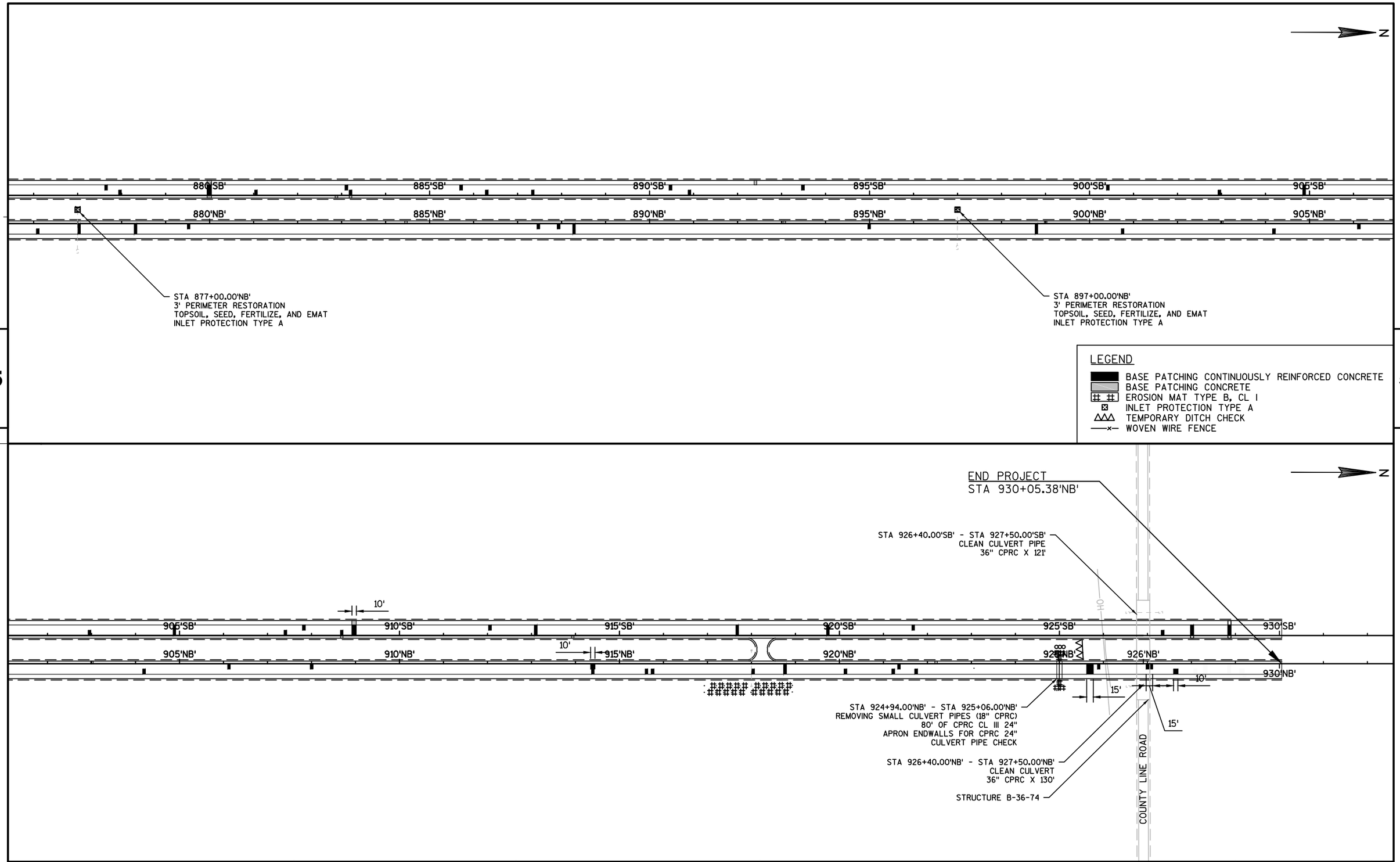
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 52	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\050201_PN.DWG PLOT DATE : 11/18/2016 12:30 PM PLOT BY : WITTE, KYLE J PLOT NAME : D - 050201 PLOT SCALE : 1" = 200'_XREF





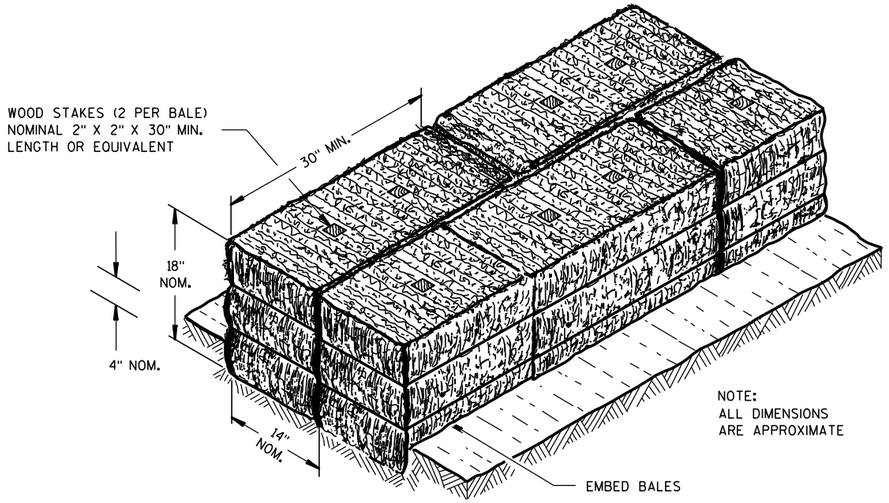
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 53	E



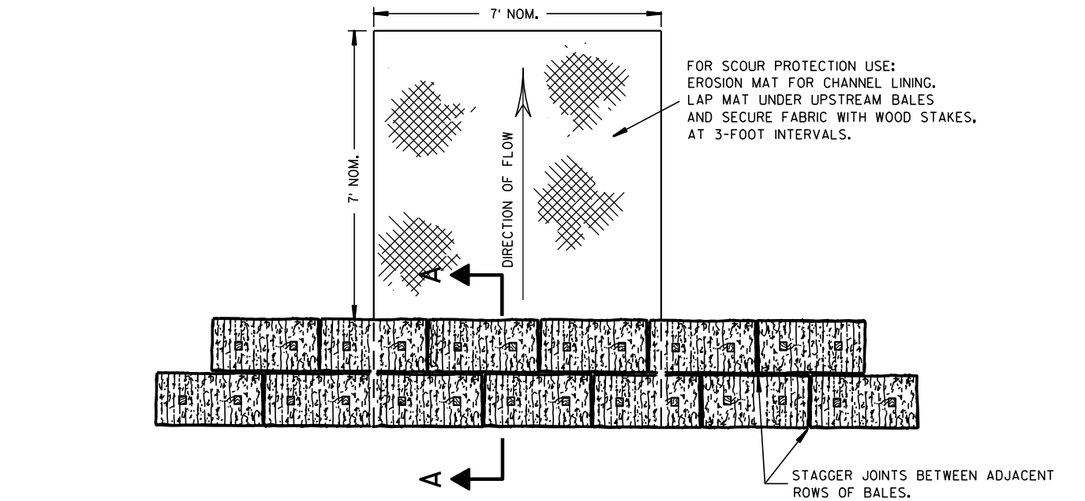
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PLAN	SHEET 54	E

Standard Detail Drawing List

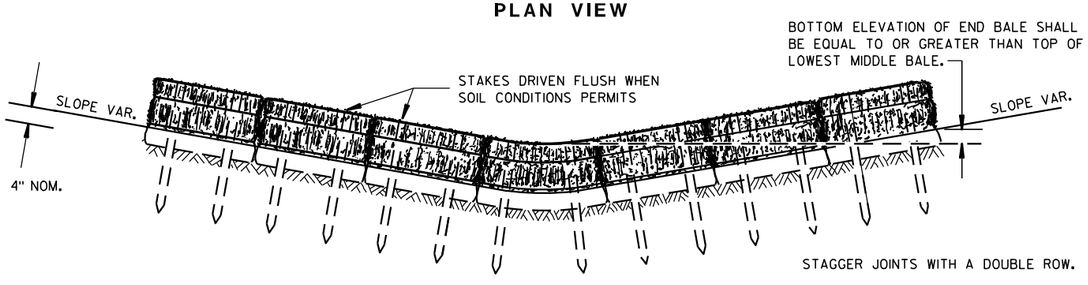
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
11A01-05	MAINTENANCE CROSSOVER FOR FREEWAYS
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
13A07-02	CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C14-06A	BASE PATCHING CONCRETE
13C14-06B	BASE PATCHING CONCRETE
13C14-06C	BASE PATCHING CONCRETE
14B07-14A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-14H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B26-03A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-03E	STEEL THRIE BEAM BULLNOSE TERMINAL
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15B01-08A	FENCE WOVEN WIRE
15B01-08B	FENCE WOVEN WIRE
15C08-16A	PAVEMENT MARKING (MAINLINE)
15C14-02	AERIAL ENFORCEMENT BARS PAVEMENT MARKING DETAILS
15C31-01A	PAVEMENT MARKING (RAMPS AND GORES)
15D03-03	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-06B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH



SECTION A-A



PLAN VIEW



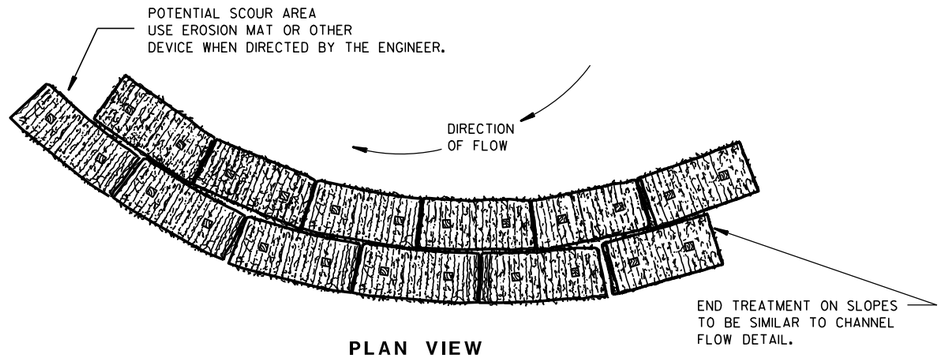
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

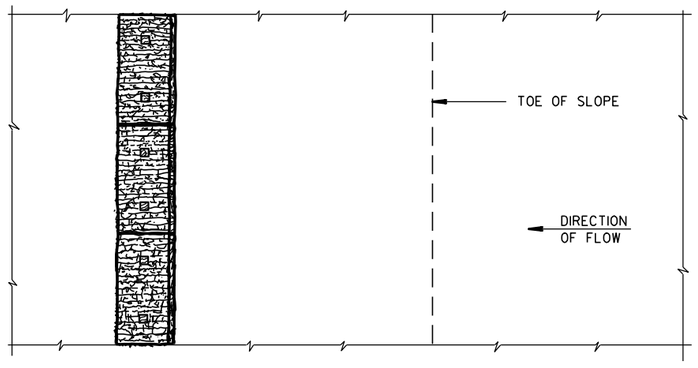
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

(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.

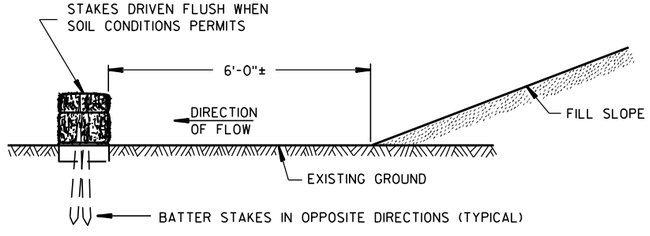


PLAN VIEW

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

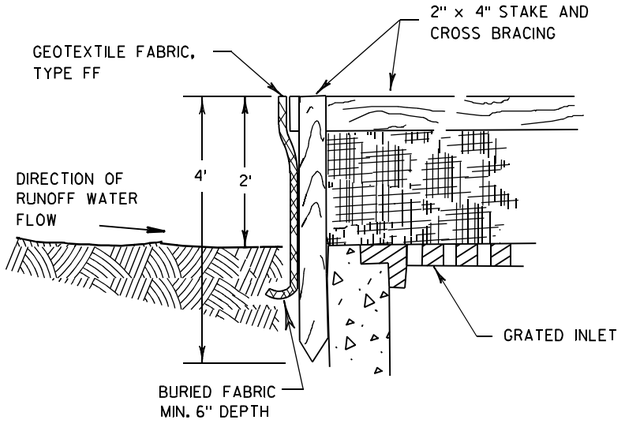
6/04/02 — DATE

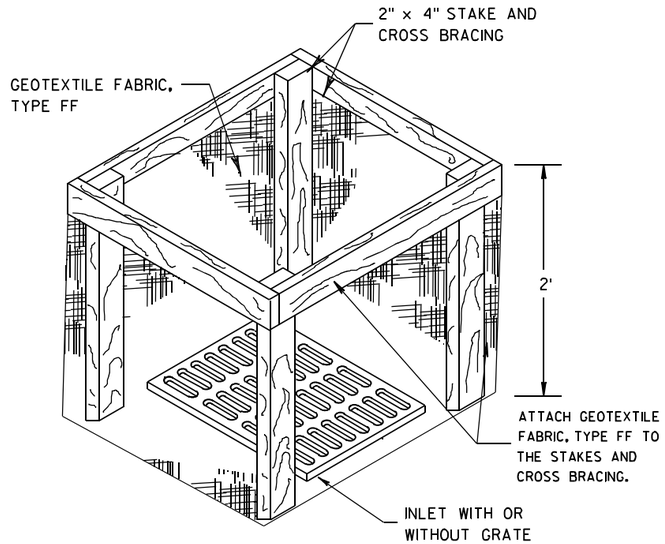
/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

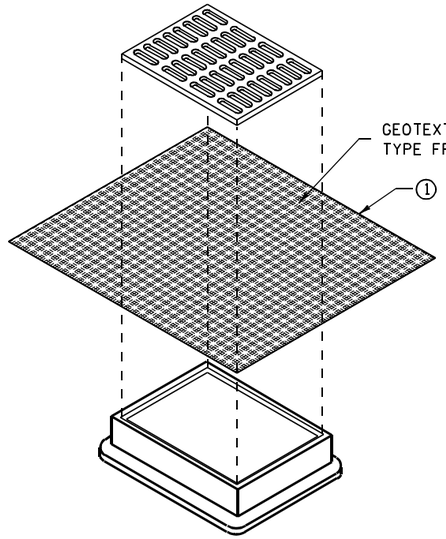
6

S.D.D. 8 E 8-3



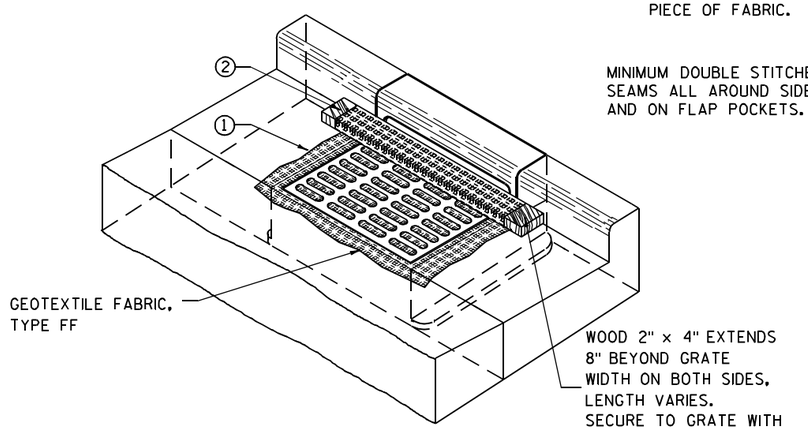


INLET PROTECTION, TYPE A

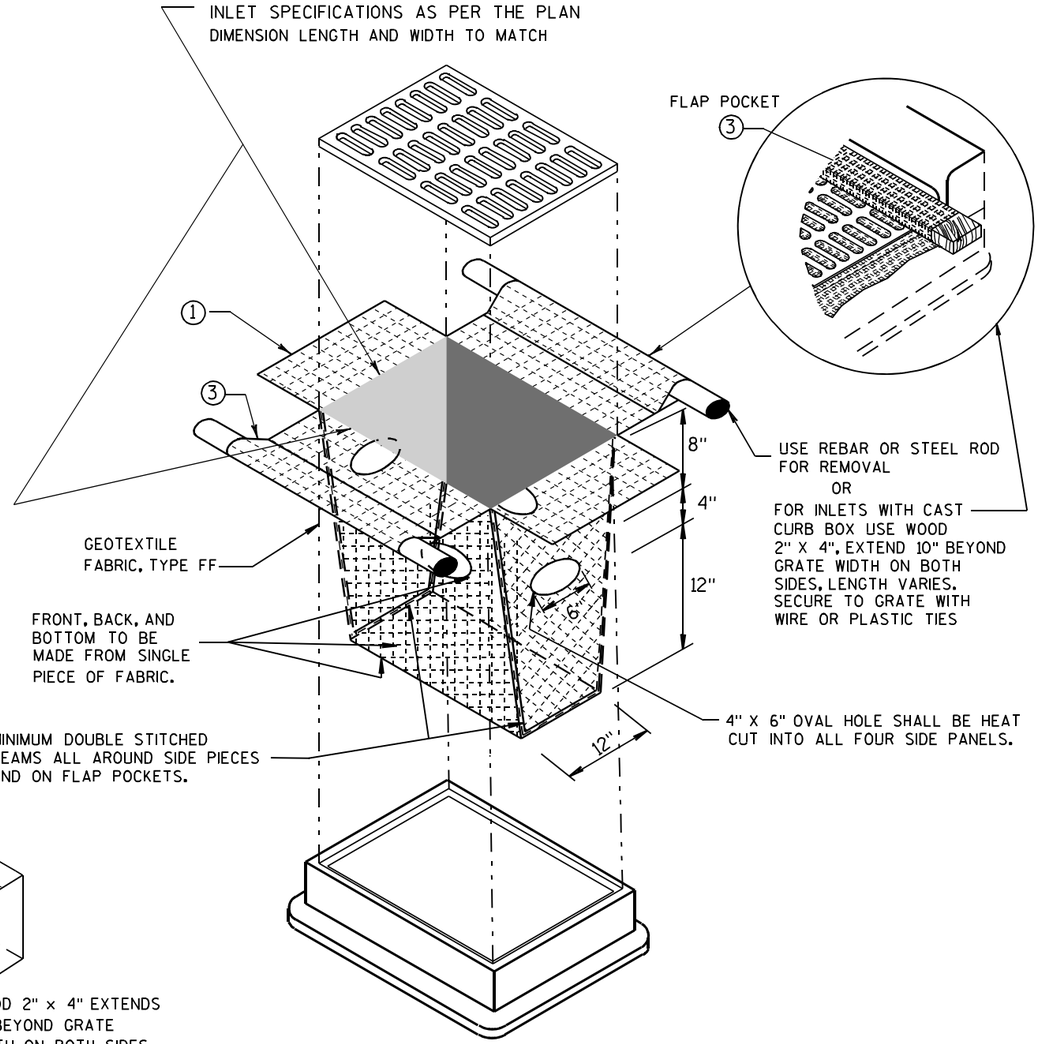


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(CAN BE INSTALLED IN ANY INLET WITHOUT A CURB BOX)



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

(CAN BE INSTALLED IN ANY INLET TYPE WITH
OR WITHOUT A CURB BOX AS PER NOTE ②)

GENERAL NOTES

INLET PROTECTION DEVICES SHALL BE MAINTAINED OR REPLACED AT THE DIRECTION OF THE ENGINEER.

MANUFACTURED ALTERNATIVES APPROVED AND LISTED ON THE DEPARTMENT'S EROSION CONTROL PRODUCT ACCEPTABILITY LIST MAY BE SUBSTITUTED.

WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.

② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.

③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.

INSTALLATION NOTES

TYPE B & C

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

DO NOT INSTALL INLET PROTECTION TYPE D IN INLETS SHALLOWER THAN 30", MEASURED FROM THE BOTTOM OF THE INLET TO THE TOP OF THE GRATE.

TRIM EXCESS FABRIC IN THE FLOW LINE TO WITHIN 3" OF THE GRATE.

THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE BOTTOM OF THE BAG.

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

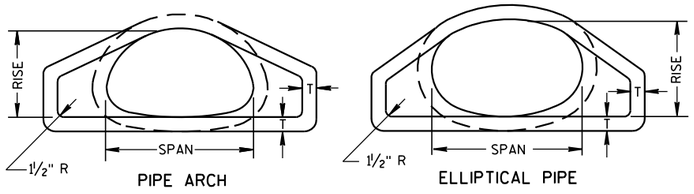
APPROVED

10/16/02
DATE

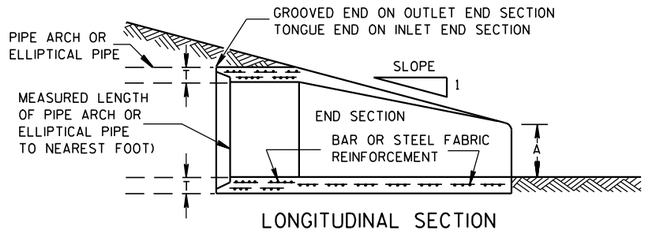
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA

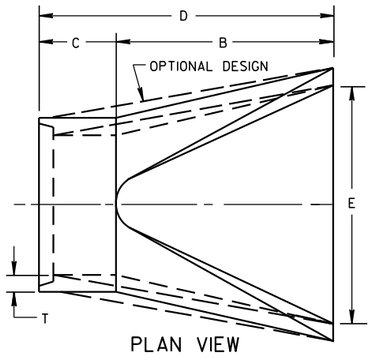
6
S.D.D. 8 E 10-2



END VIEW

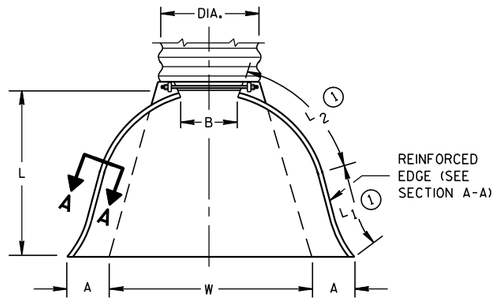


LONGITUDINAL SECTION

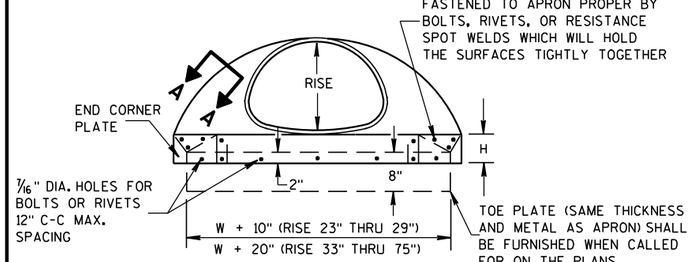


PLAN VIEW

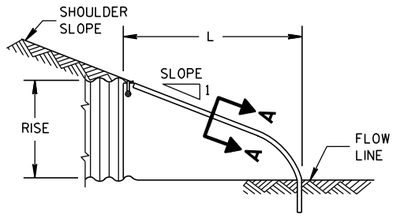
CONCRETE ENDWALLS



PLAN VIEW

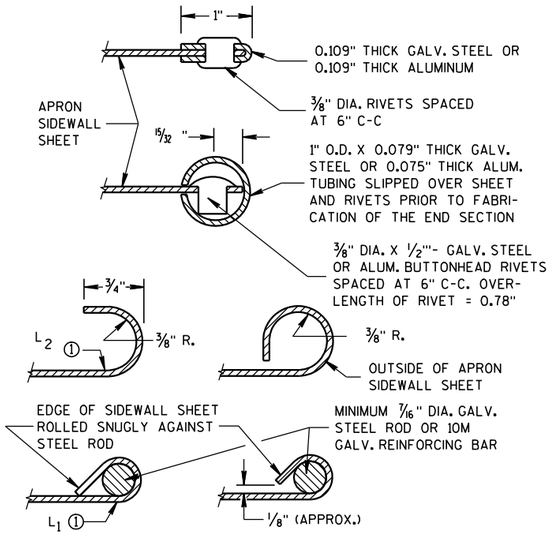


END VIEW



SIDE ELEVATION

METAL ENDWALLS



SECTION A-A

2- 2/3" X 1/2" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
15	17	13	.064	.060	7	9	6	19	14	16	30	2½ to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19⅜	36	2½ to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21¾	42	2½ to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27½	48	2½ to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37⅝	60	2½ to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45⅜	75	2½ to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54¾	85	2½ to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2½ to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72¾	102	2¼ to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82¼	114	2¼ to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches) SPAN	(Inches) RISE	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
48	53	41	.109	.105	18	26	12	63	24	72¾	90	2½ to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82¼	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1½ to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1½ to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1½ to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1½ to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1½ to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1½ to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED.

* EXCEPT CENTER PANEL SEE GENERAL NOTES

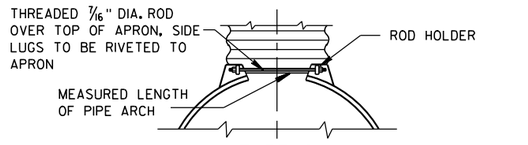
REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	29	18	3	8½	39	33	72	48	3 to 1
30	36	22	3½	9½	50	46	96	60	3 to 1
36	44	27	4	11⅛	60	36	96	72	3 to 1
42	51	31	4½	15 13/16	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5½	25½	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28½	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

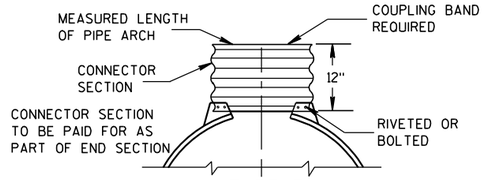
EQUIV. DIA. (Inches)	DIMENSIONS (Inches) ** SPAN	** RISE	T	A	B	C	D	E	APPROX. SLOPE
24	30	19	3¼	8½	39	33	72	48	3 to 1
30	38	24	3¾	9½	54	18	72	60	3 to 1
36	45	29	4½	11⅛	60	24	84	72	2½ to 1
42	53	34	5	15¾	60	36	96	78	2½ to 1
48	60	38	5½	21	60	36	96	84	2½ to 1
54	68	43	6	25½	60	36	96	90	2½ to 1
60	76	48	6½	30	60	36	96	96	2½ to 1

**NOMINAL SIZE



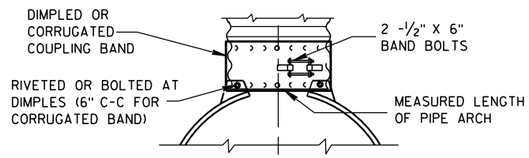
TYPE 2

FOR 17" X 13" THRU 112" X 75" PIPE ARCH



TYPE 3

FOR 64" X 43" THRU 112" X 75" PIPE ARCH



TYPE 5

ALTERNATE FOR:

ALL SIZES CORRUGATED PIPE ARCHES

NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

GENERAL NOTES

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

CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH 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 ARCH 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 77" X 52" THROUGH 112" X 75" 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 ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE

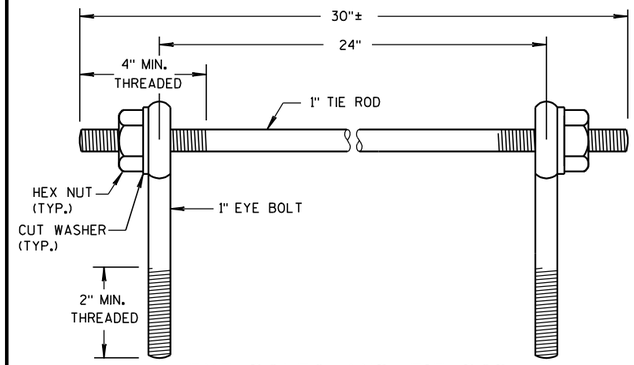
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

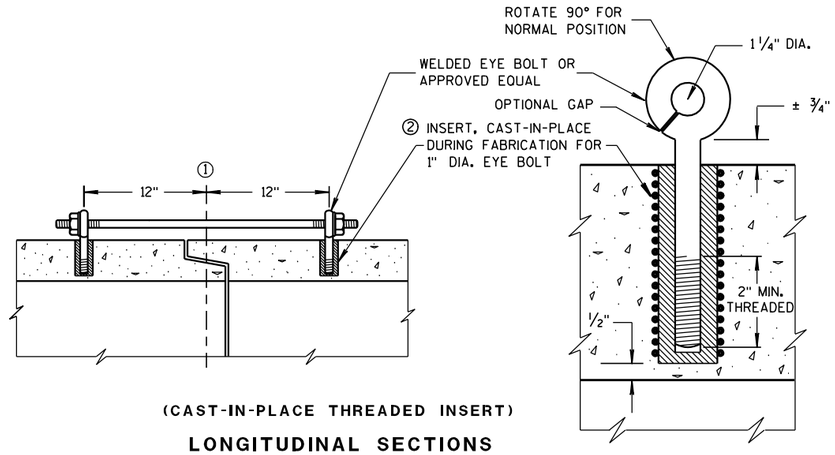
11/30/94 — DATE

/S/ Rory L. Rhinesmith — CHIEF ROADWAY DEVELOPMENT ENGINEER

FHWA



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.

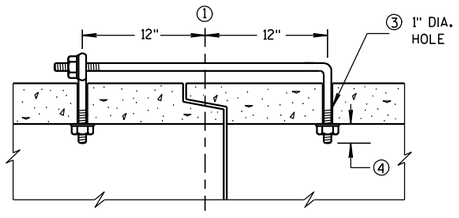
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

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

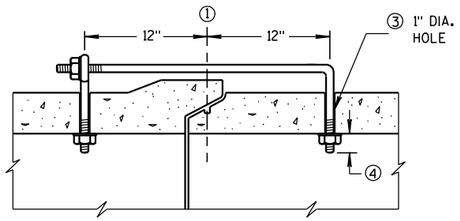
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

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)

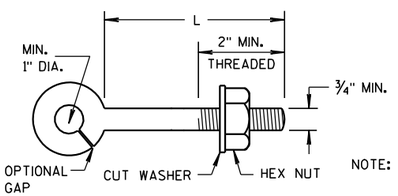


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

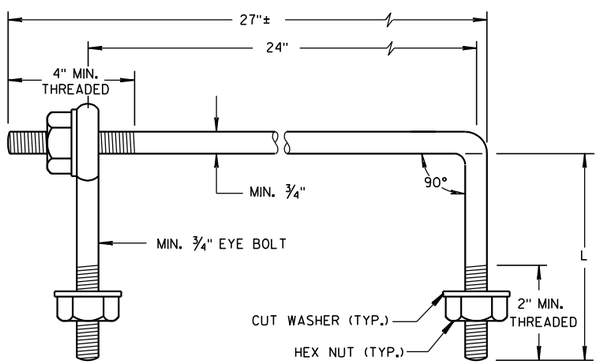
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



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

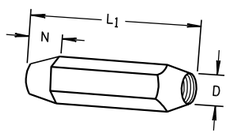
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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



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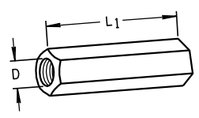
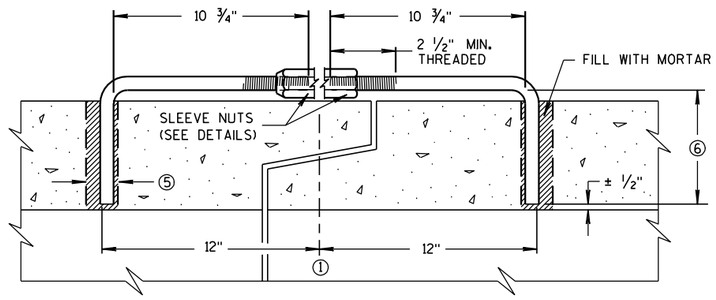


PLAIN

RIGHT AND LEFT THREADS

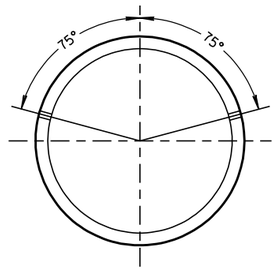
SLEEVE NUTS



LONGITUDINAL SECTION

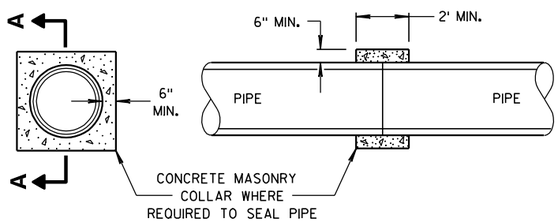
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

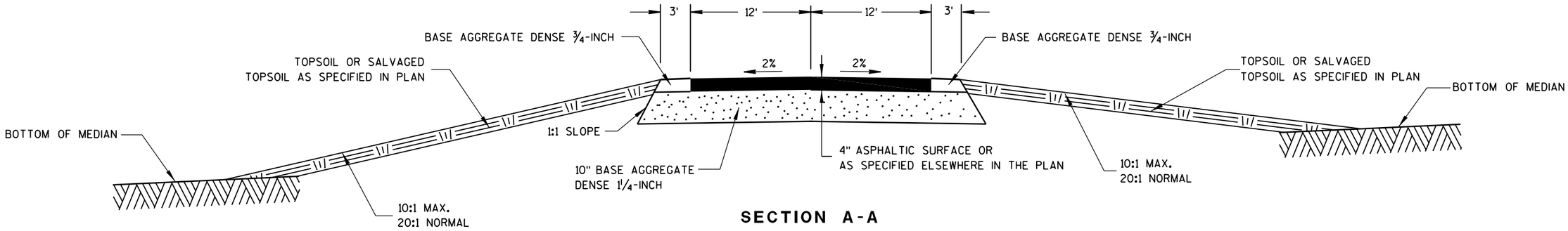
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

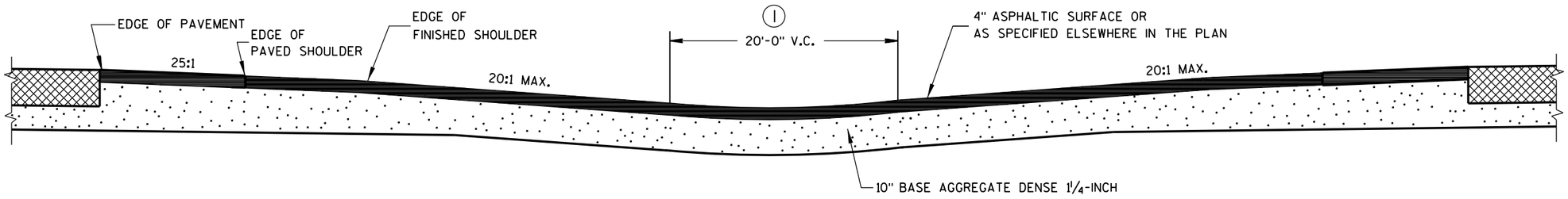
APPROVED
6/5/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
59
FHWA

6

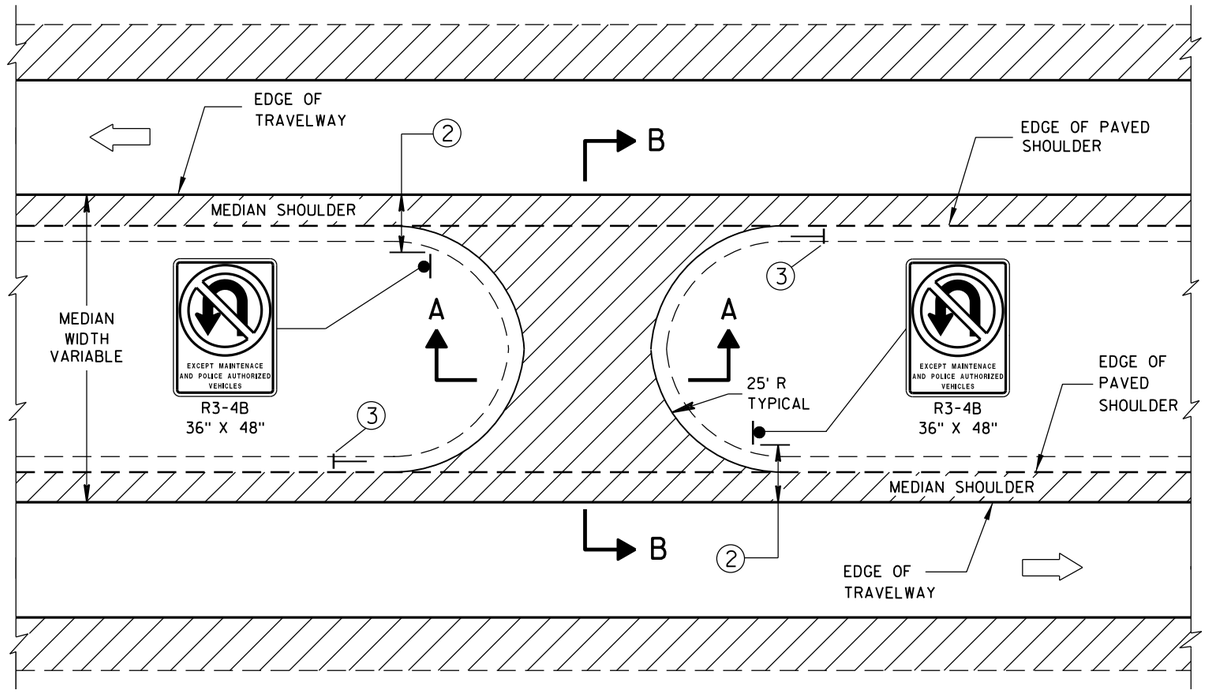
S.D.D. 8 F 4-7



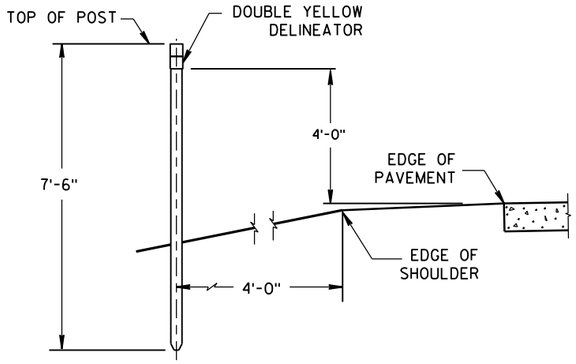
SECTION A-A



SECTION B-B



PLAN VIEW



DOUBLE YELLOW DELINEATOR INSTALLATION

GENERAL NOTES

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

① ADJUST VERTICAL CURVE LOCATION LATERALLY TO MAINTAIN 20:1 MAX.

② SIGNING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

③ INSTALL DOUBLE YELLOW DELINEATOR. SEE STANDARD DETAIL DRAWING 15A2.

MAINTENANCE CROSSOVER FOR FREEWAYS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/2013 — DATE

/S/ Jerry H. Zogg — ROADWAY STANDARDS DEVELOPMENT ENGINEER

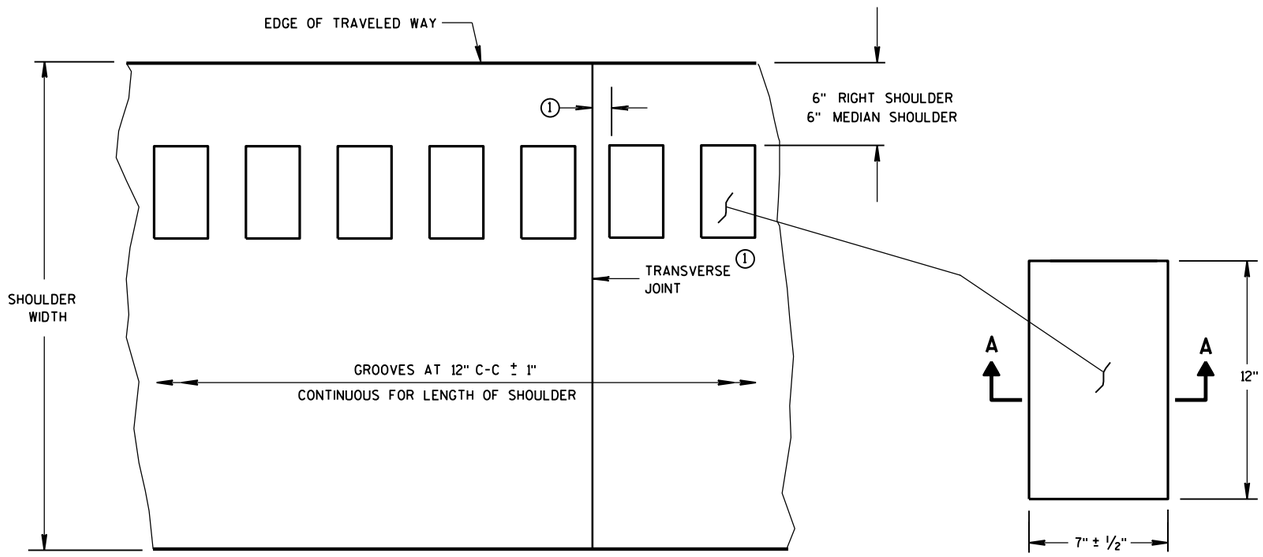
FHWA

6

S.D.D. 11 A 1-5

6

S.D.D. 11 A 1-5



PLAN VIEW
SHOULDER WITH GROOVES

PLAN VIEW
(SINGLE GROOVE)

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

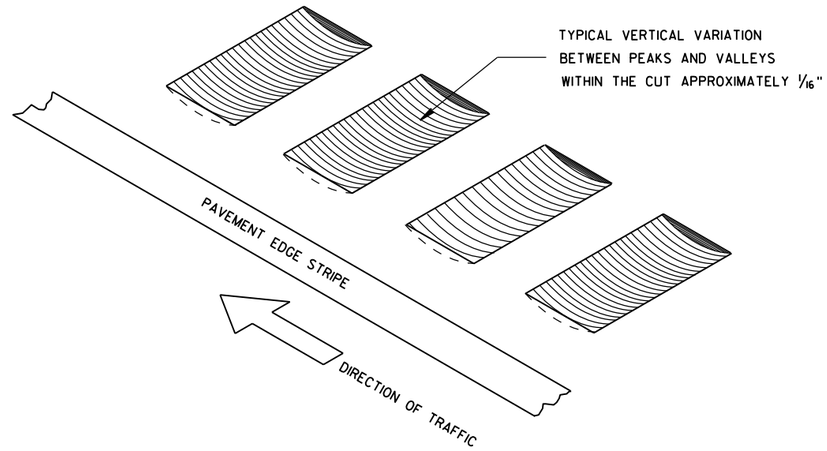
GENERAL NOTES

DETAILS OF CONSTRUCTION SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

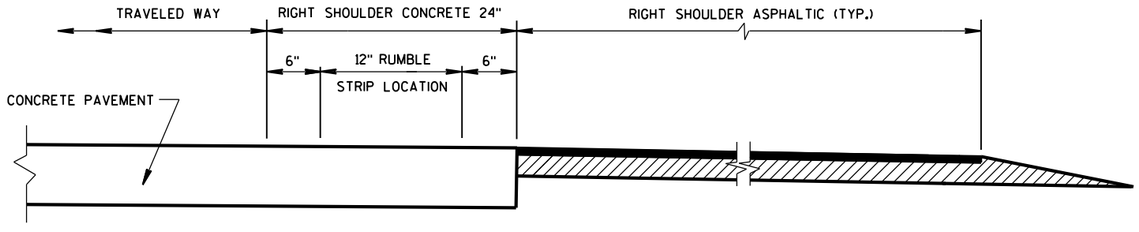
RUMBLE STRIPS ON EXPRESSWAYS

DO NOT INSTALL RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL DRIVEWAYS, PRIVATE DRIVEWAYS OR ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, BRIDGE DECKS, BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSING. THE ATTACHED STANDARD DETAIL DRAWING SHOWS THE LOCATION OF THE RUMBLE STRIPS AT INTERCHANGE AREAS.

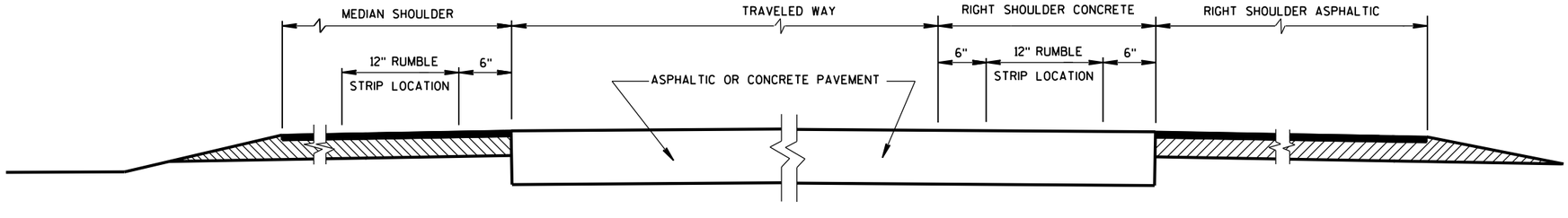
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



ISOMETRIC



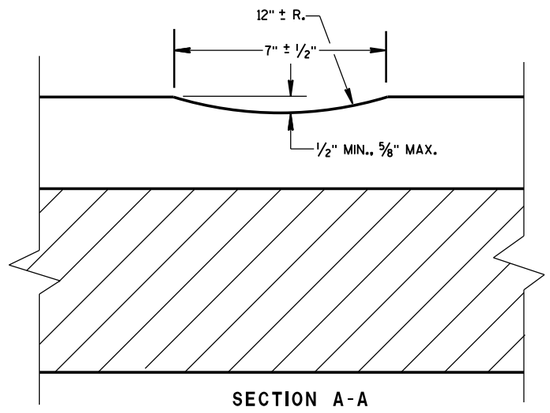
SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



SECTION VIEW

TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS IN RURAL DIVIDED HIGHWAYS

(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 13 A 5-5a

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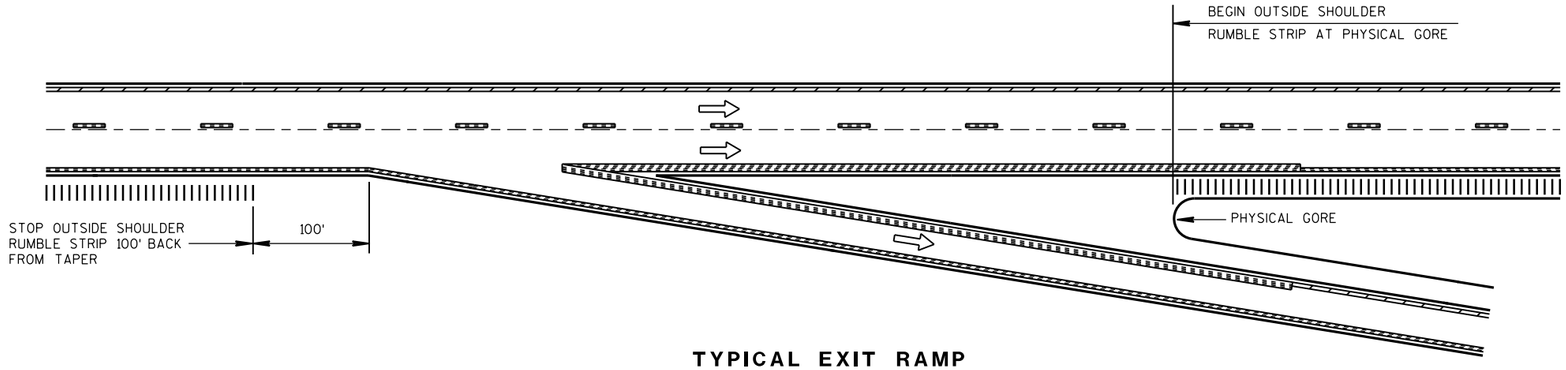
S.D.D. 13 A 5-5a



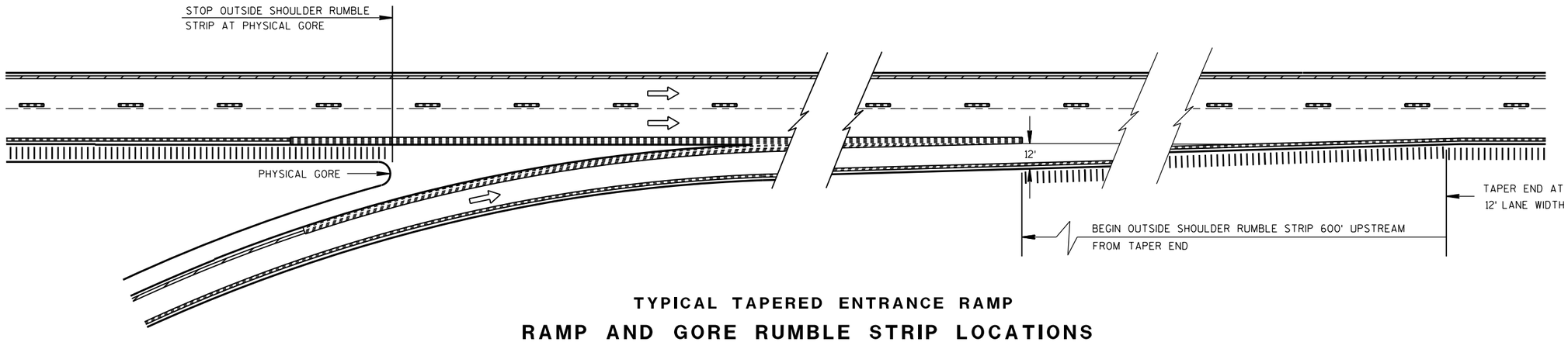
TYPICAL EXIT RAMP

NOTES:

NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

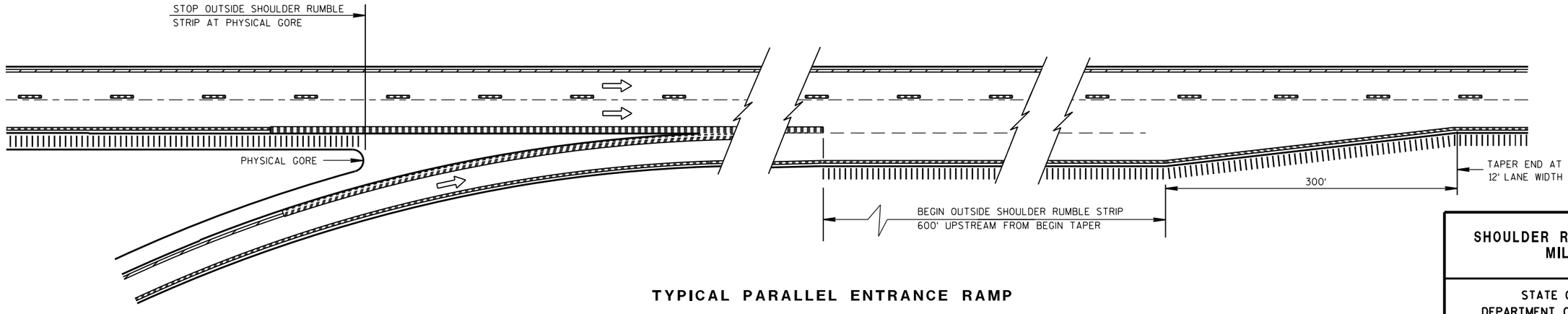
PAVEMENT MARKING DETAILS AND SPECIFICATIONS ARE PROVIDED ELSEWHERE IN THE CONTRACT.

NOTE:
ARROW SYMBOL (⇨)
SHOWS DIRECTION OF TRAVEL



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE RUMBLE STRIP LOCATIONS

SHOULDER RUMBLE STRIP, MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

12/17/2012
DATE

/S/ Jerry H. Zoga
ROADWAY STANDARDS ENGINEER

FHWA

6

S.D.D. 13 A 5-5b

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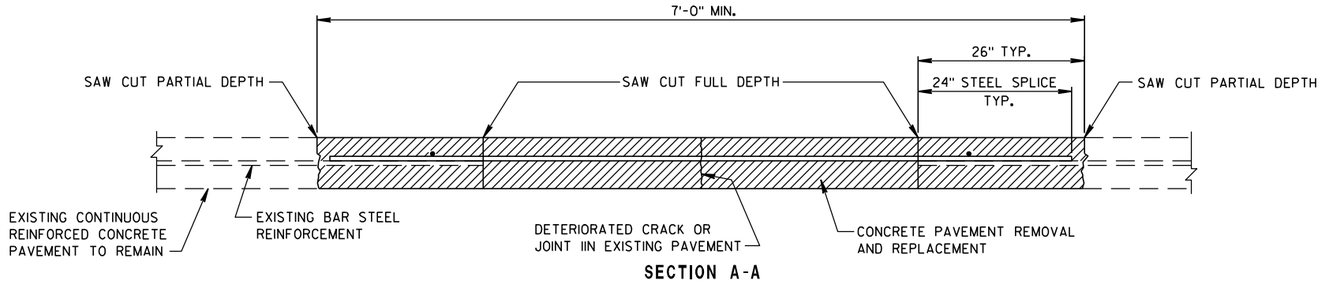
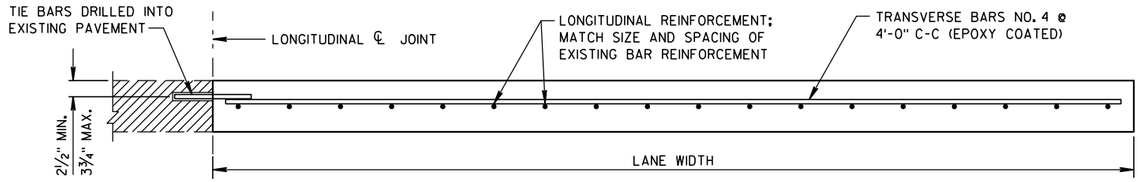
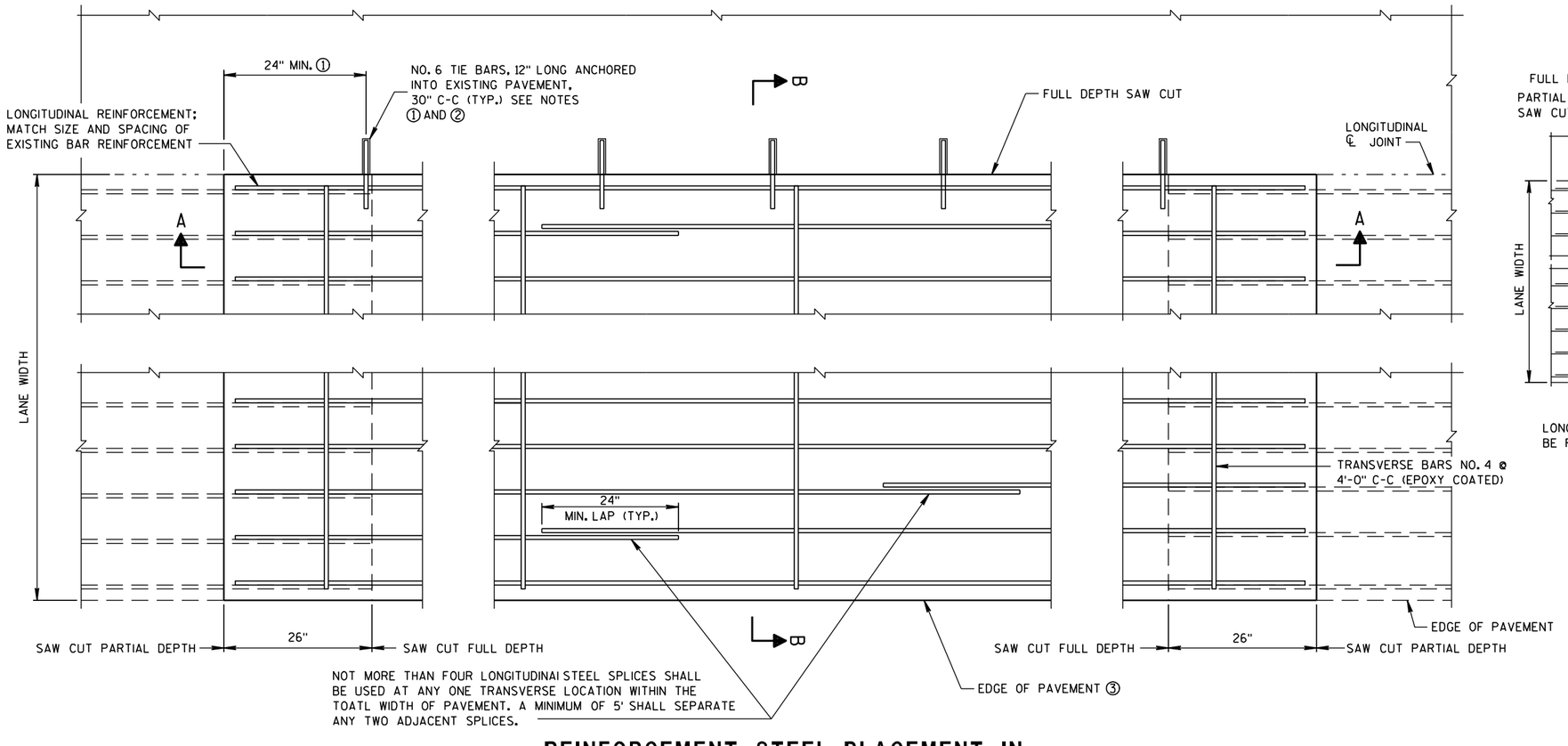
S.D.D. 13 A 5-5b



SECTION A-A



SECTION B-B



NOT MORE THAN FOUR LONGITUDINAI STEEL SPLICES SHALL BE USED AT ANY ONE TRANSVERSE LOCATION WITHIN THE TOATL WIDTH OF PAVEMENT. A MINIMUM OF 5' SHALL SEPARATE ANY TWO ADJACENT SPLICES.

REINFORCEMENT STEEL PLACEMENT IN CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPLACEMENT

GENERAL NOTES

PLACE ALL BAR STEEL REINFORCEMENT AT MID PAVEMENT DEPTH UNLESS OTHERWISE NOTED.

PAY FOR THE TRANSVERSE AND LONGITUDINAL JOINT SAW CUT AS LINEAR FEET OF "SAWING CONCRETE".

WHEN THE PASSING AND TRAVELING LANES ARE TO BE REPLACED, REPLACE THE PASSING LANE FIRST.

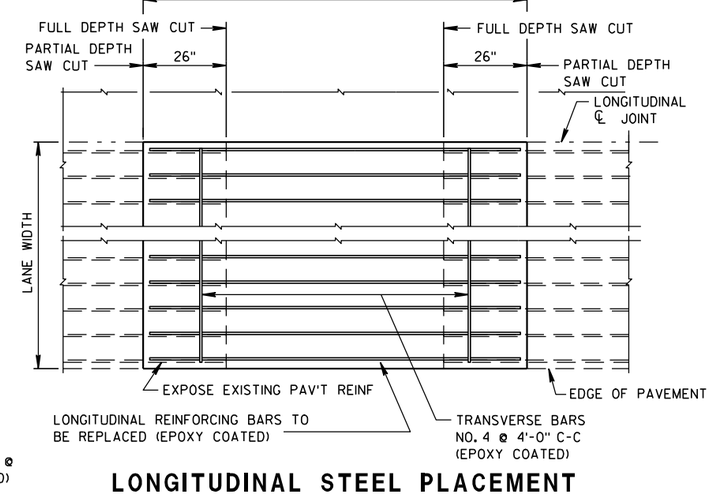
ADD TRANSVERSE STEEL BARS TO REPAIRS GREATER THAN 6'IN LENGTH, USE NO. 4 BARS PLACED TRANSVERSELY AND SPACED 4'C-C. PAYMENT SHALL BE INCIDENTAL TO "CONCRETE PAVEMENT CONTINUOUS REINFORCEMENT".

TIE ALL CONCRETE PAVEMENT REPAIRS WHICH ARE GREATER THAN 15'IN LENGTH, AND ARE ADJACENT TO EXISING CONCRETE PAVEMENT, TO THE EXISTING PAVEMENT USING TIE BARS. DETAILS FOR TIE BAR CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND STANDARD DETAIL DRAWINGS.

① PROVIDE A MINIMUM DISTANCE OF 24 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

② ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

③ SAW CUT THE LONGITUDINAL EDGE JOINT IF THE ADJACENT SHOULDER IS CONCRETE.



LONGITUDINAL STEEL PLACEMENT IN CRCP REPAIRS

PLAN VIEW

CONTINUOUSLY REINFORCED CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

11/1/2011 — DATE
/S/ Deb Bischoff — PAVEMENT POLICY & DE — NEER
FHWA

6

S.D.D. 13 A 7-2

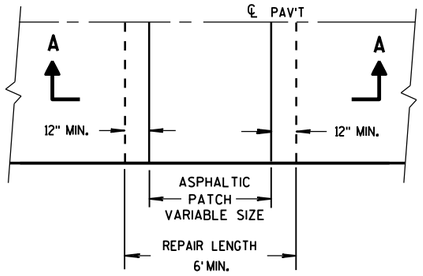
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

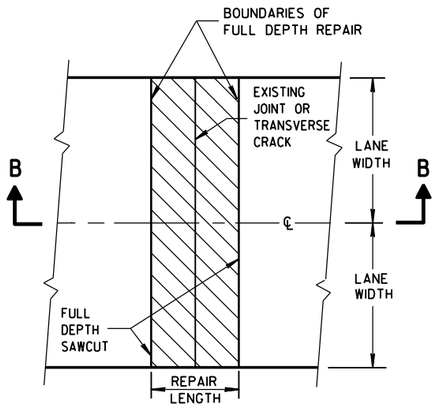
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

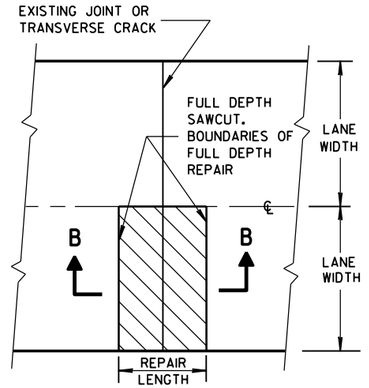
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

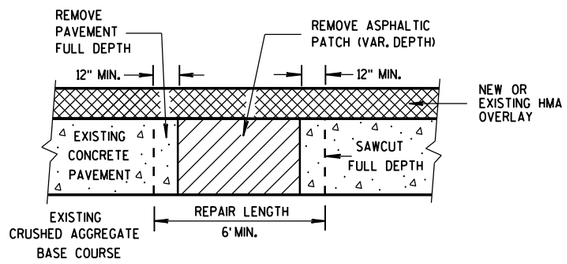


PLAN VIEW
(DOUBLE LANE REPAIR)



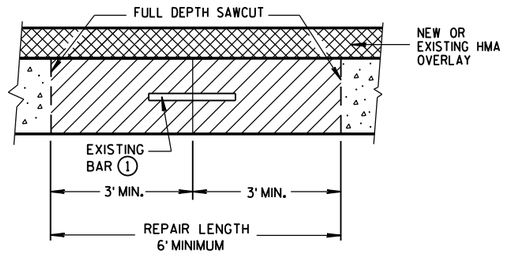
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 13 C 14-6a

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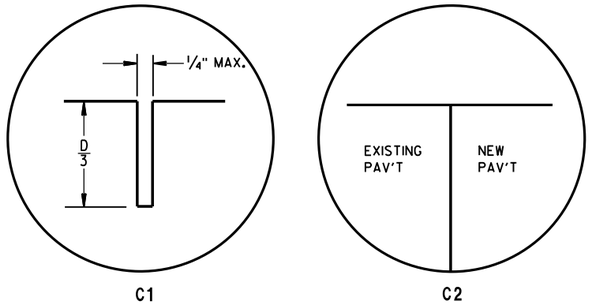
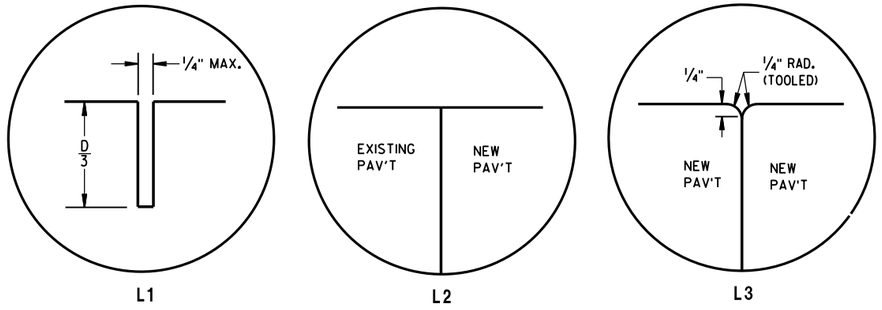
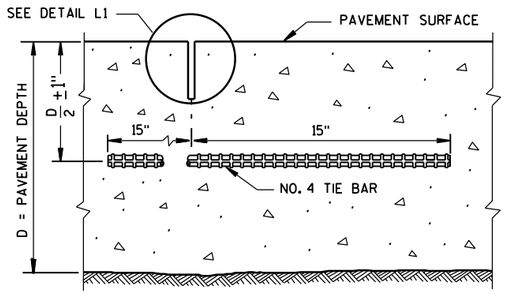
S.D.D. 13 C 14-6a



TRANSVERSE JOINTS

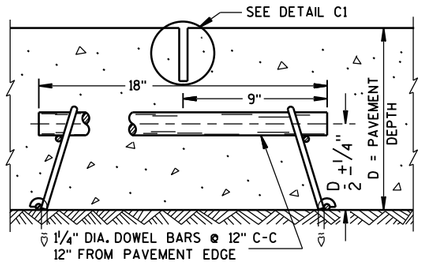


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

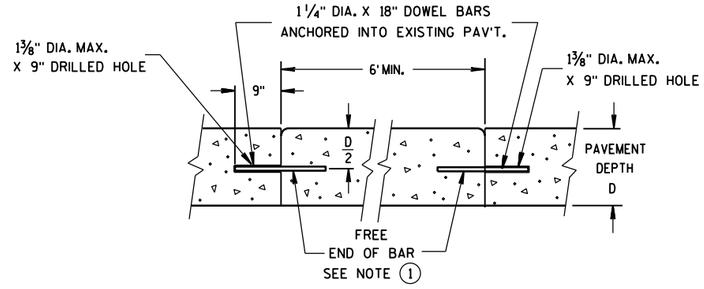
CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

DO NOT SEAL OR FILL JOINTS.

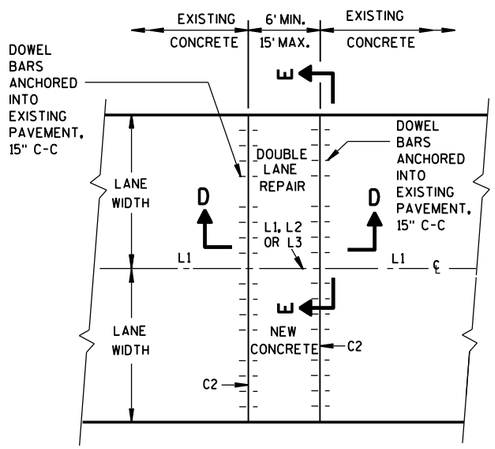
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

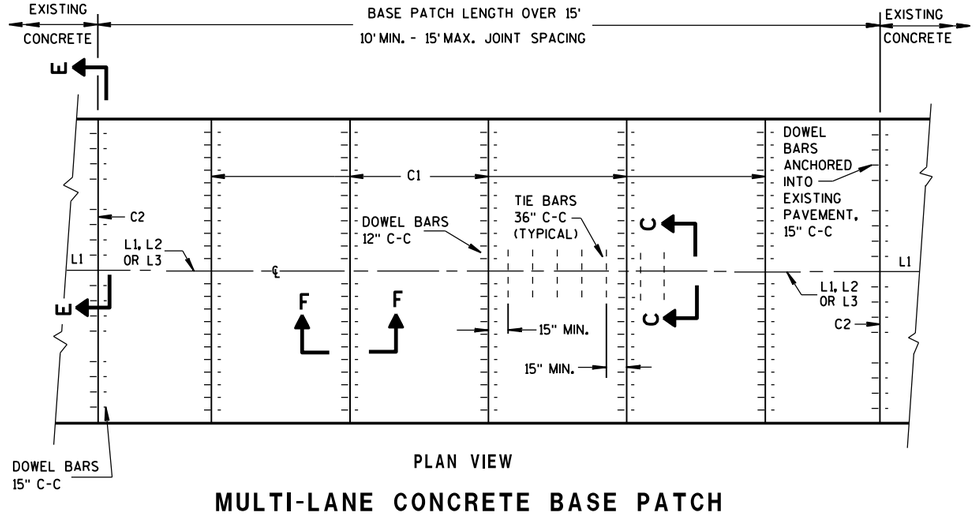


SECTION D-D



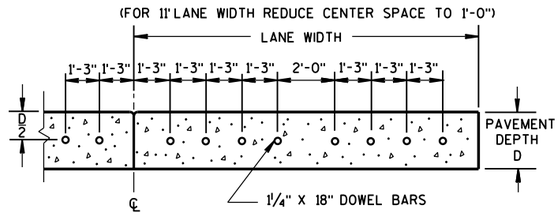
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH



SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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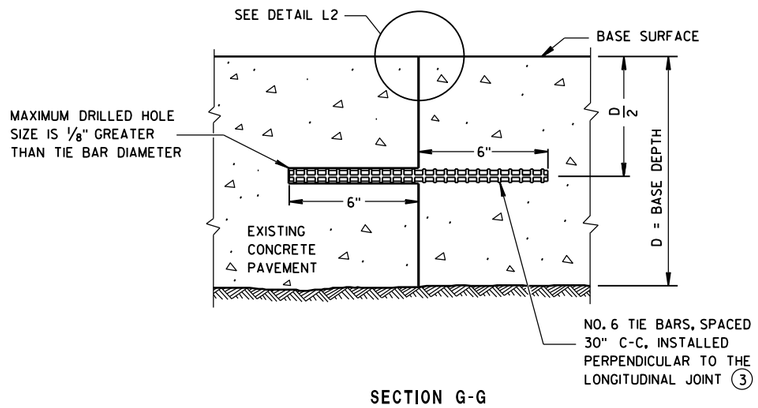
S.D.D. 13 C 14-6b



SECTION G-G

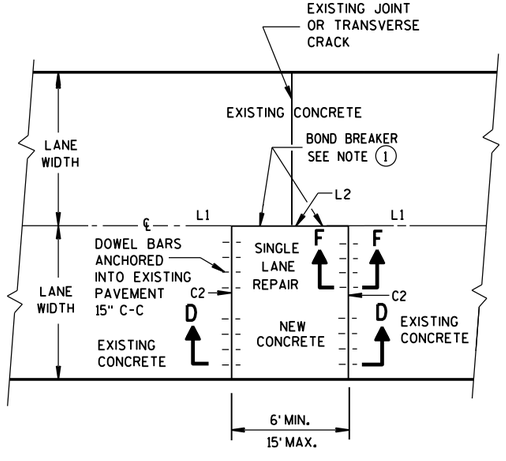
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

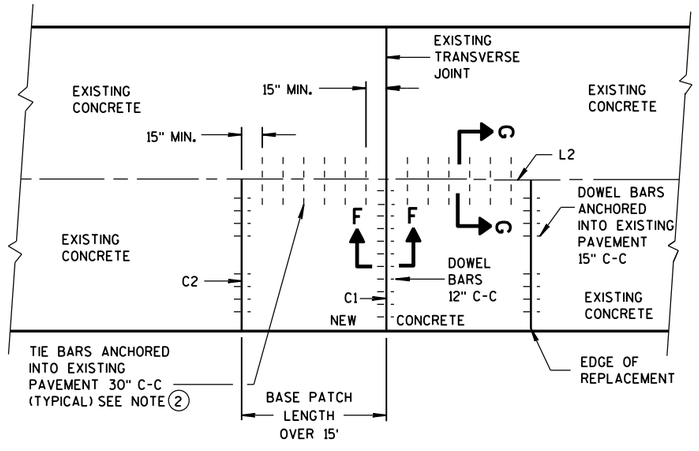
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

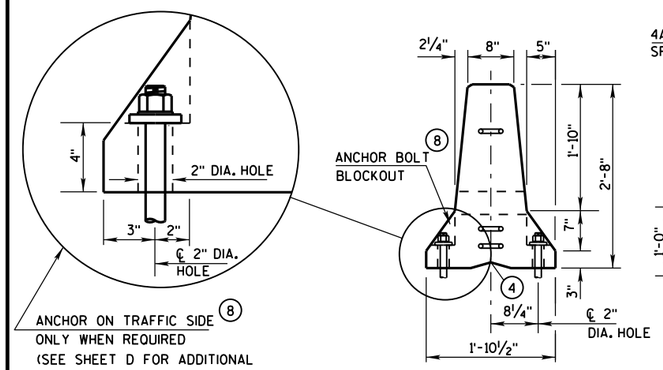
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

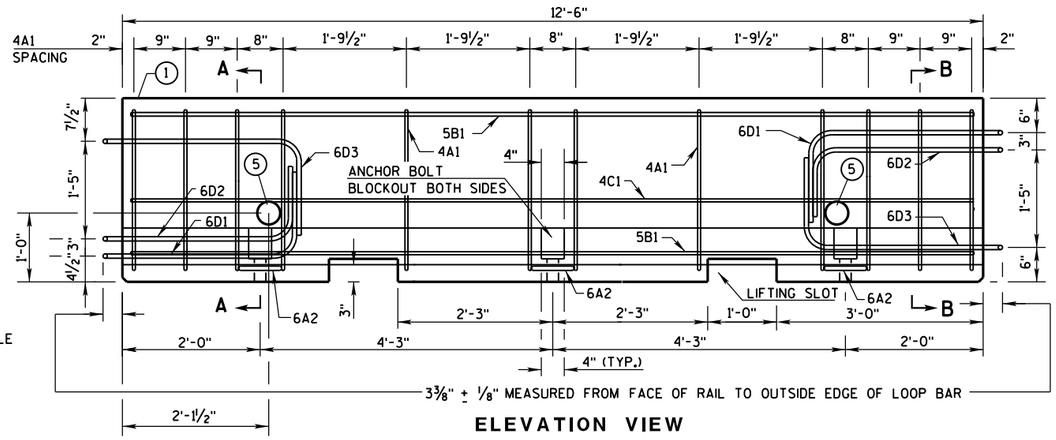
APPROVED
Sept., 2015 — DATE
/S/ Peter Kemp, P.E. — PAVEMENT SUPER
FHWA

6

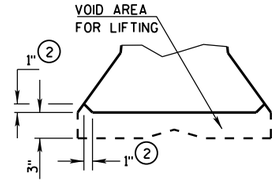
S.D.D. 13 C 14-6c



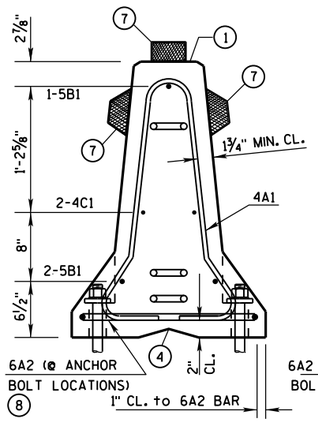
END VIEW



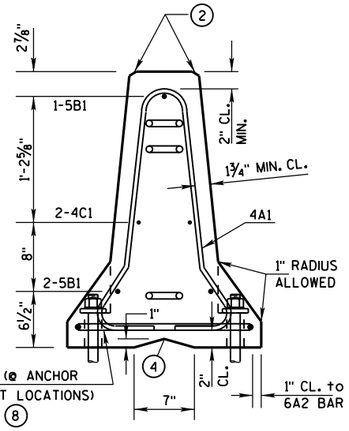
ELEVATION VIEW



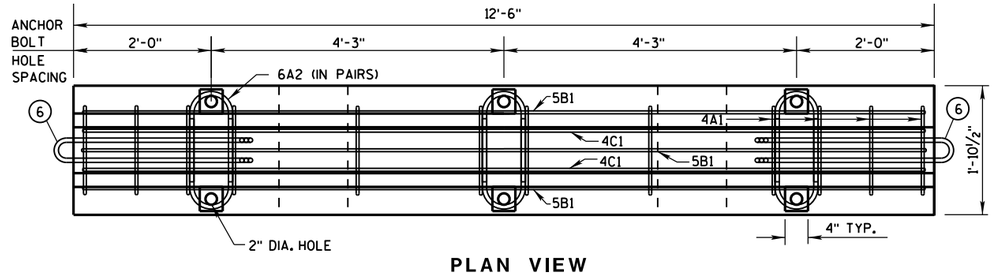
DETAIL "B"
LIFTING SLOT DETAIL



SECTION A-A
(STIRRUP PLACEMENT)

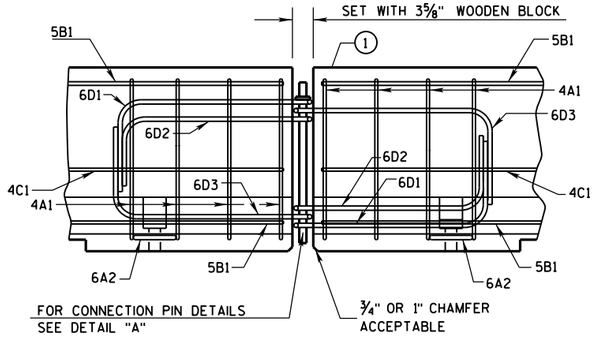


SECTION B-B
(STIRRUP PLACEMENT)

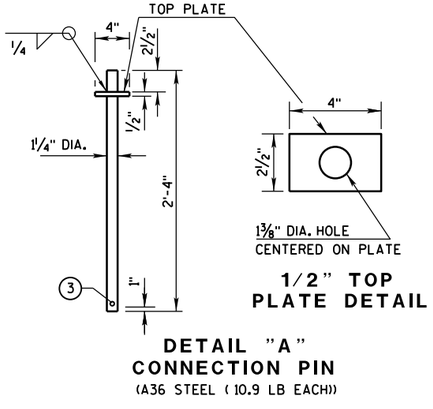


PLAN VIEW

DETAILS OF BARRIER SECTION

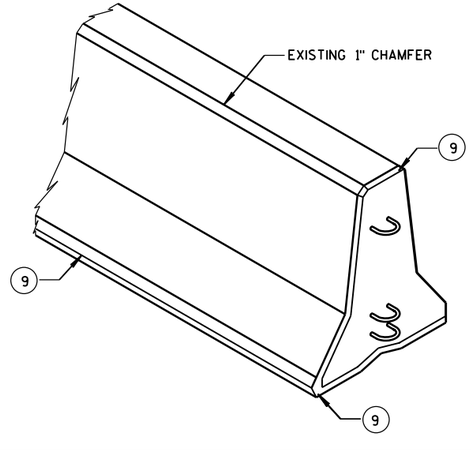


DETAILS OF BARRIER CONNECTION



1/2" TOP
PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-14(a) THRU 14B7-14(h).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

(8) SEE SHEET D FOR ANCHORING CRITERIA.

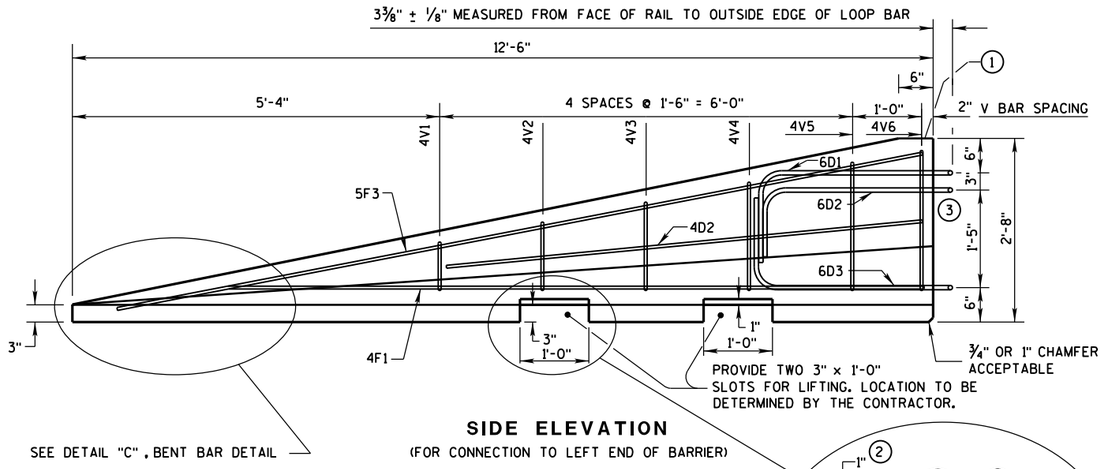
(9) 1" CHAMFER OPTIONAL.

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

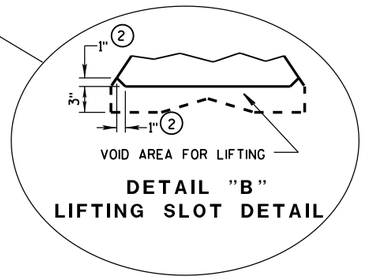
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

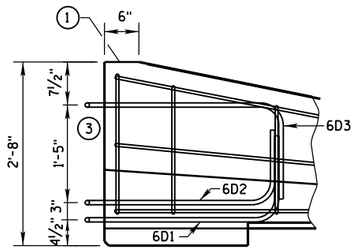
S.D.D. 14 B 7-14a



SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



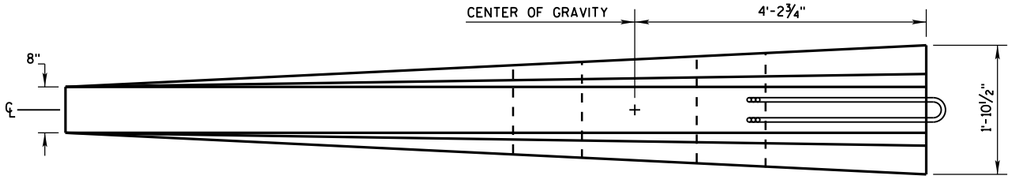
DETAIL "B"
LIFTING SLOT DETAIL



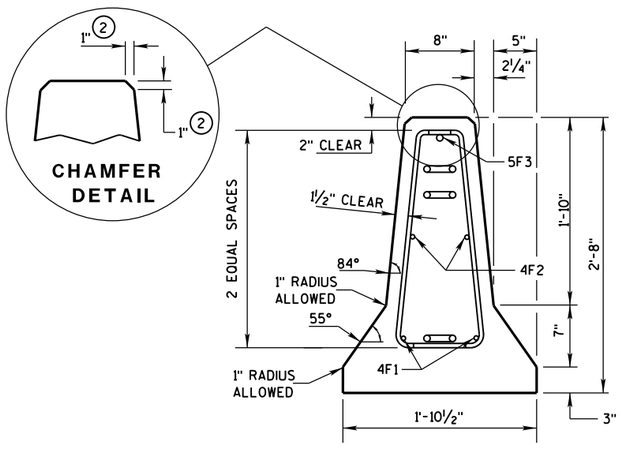
SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED
FOR OPPOSITE END.
(FOR CONNECTION TO RIGHT END OF BARRIER)

GENERAL NOTES

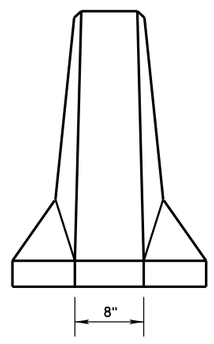
1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.



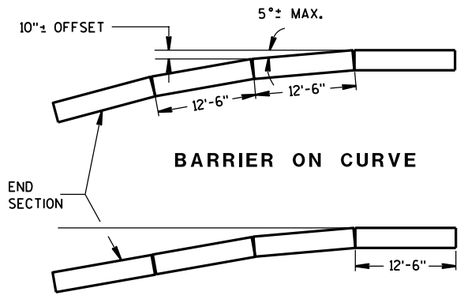
PLAN VIEW



END SECTION



FRONT ELEVATION



BARRIER ON CURVE

FLARE AT BARRIER END

POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

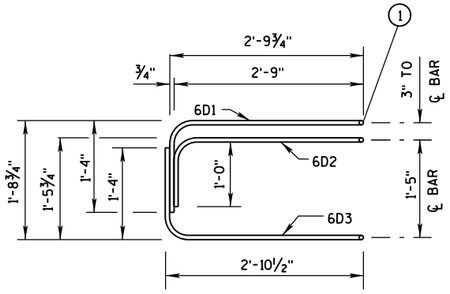
6

S.D.D. 14 B 7-14b

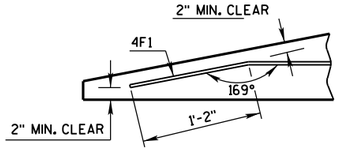
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

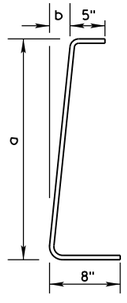
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

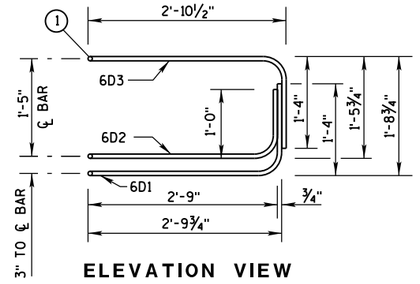
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

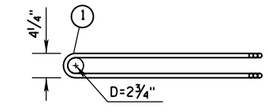
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

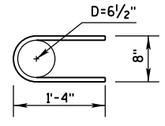
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



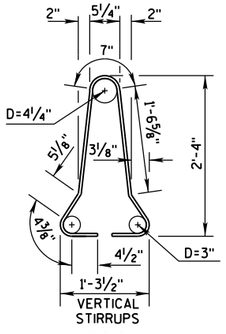
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



4A1

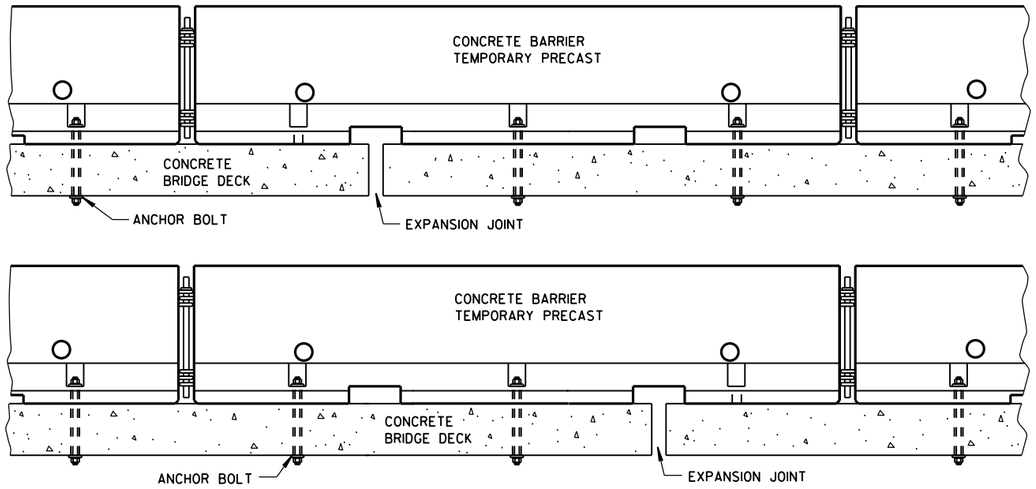
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

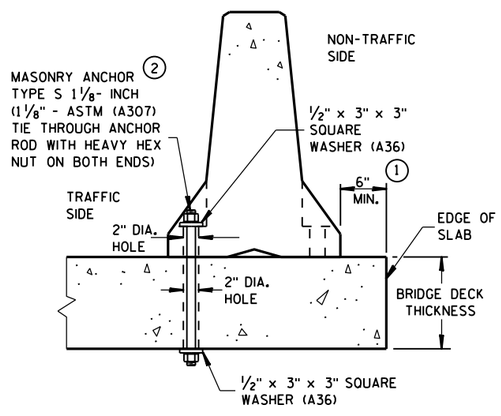
6

S.D.D. 14 B 7-14c



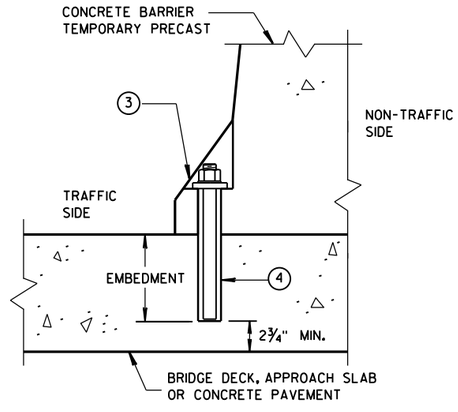
TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.)



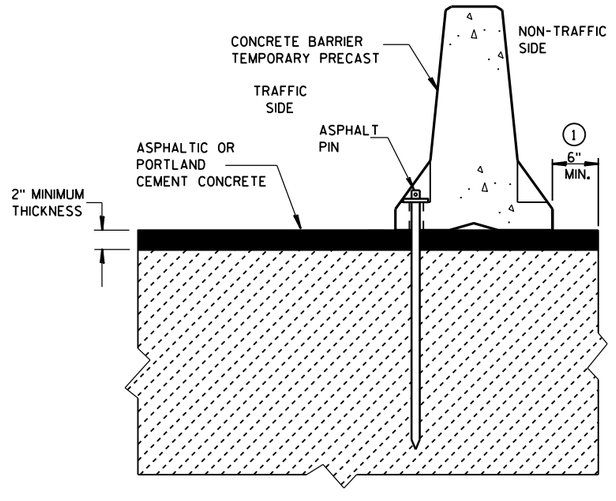
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)



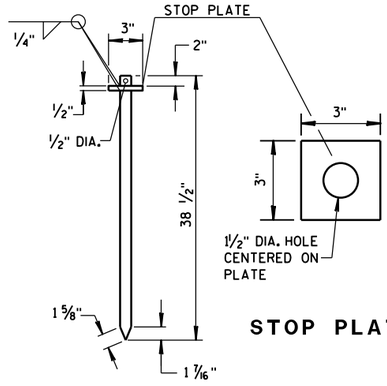
REMOVABLE ADHESIVE BONDED ANCHOR ② INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



STAKE DOWN INSTALLATION FOR ASPHALTIC OR PORTLAND CEMENT CONCRETE SURFACE

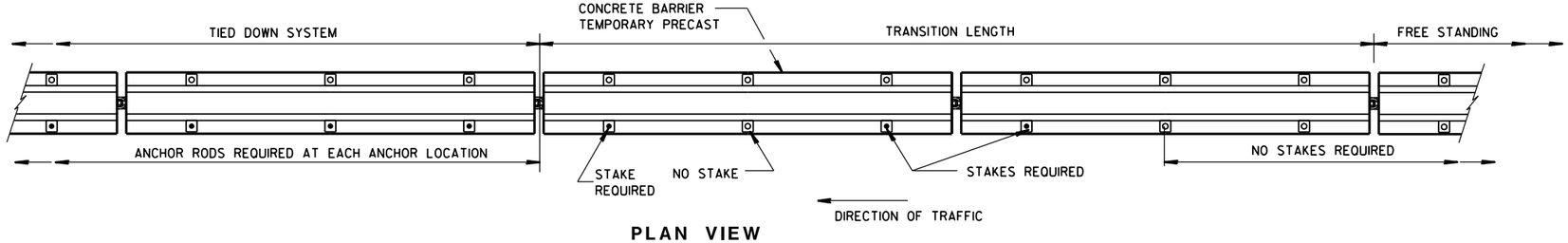
(STAKING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST)



STOP PLATE

ASPHALT PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

GENERAL NOTES

① CONCRETE BARRIER TEMPORARY PRECAST, 12'-6" SHALL BE ANCHORED IF:
THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 4 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 45 MPH OR GREATER, OR

THE DISTANCE TO A 2 FOOT OR GREATER DROPOFF THAT IS STEEPER THAN 3H : 1V, FOR EXAMPLE THE EDGE OF A BRIDGE DECK OR A DROPOFF AT THE EDGE OF PAVEMENT, IS LESS THAN 2 FEET FROM THE SIDE OF THE BARRIER CLOSEST TO THE DROPOFF AND THE POSTED SPEED IS 40 MPH OR LESS.

② ANCHORING IS INCIDENTAL TO CONCRETE BARRIER TEMPORARY PRECAST.

WITH THE APPROVAL OF THE ENGINEER, REMOVABLE ADHESIVE BONDED ANCHOR BOLT INSTALLATION MAY BE USED IN LIEU OF THROUGH BOLTED ANCHOR INSTALLATION. THE ADHESIVE BONDED ANCHOR BOLT MUST BE REMOVABLE. USE ASTM (A307) MASONRY ANCHORS TYPE S 1⅛-INCH, EMBEDDED TO A DEPTH SUFFICIENT TO DEVELOP THE ULTIMATE CAPACITY OF THE ANCHOR BOLT AND PROVIDE DOCUMENTATION TO CONFIRM THIS.

UPON REMOVAL OR RELOCATION OF THE BARRIER UNITS, REMOVE ALL ANCHOR BOLTS AND COMPLETELY FILL IN THE REMAINING HOLES IN CONCRETE BRIDGE DECKS, CONCRETE APPROACH SLABS AND CONCRETE PAVEMENTS THAT ARE TO REMAIN, WITH A NON-SHRINK COMMERICAL GROUT OR MATERIAL IDENTIFIED ON THE CURRENT WISDOT APPROVED PRODUCTS LIST.

③ 1⅛" DIAMENTER A307 THREADED ROD, ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL, ASTM A563A HEAVY HEX NUT.

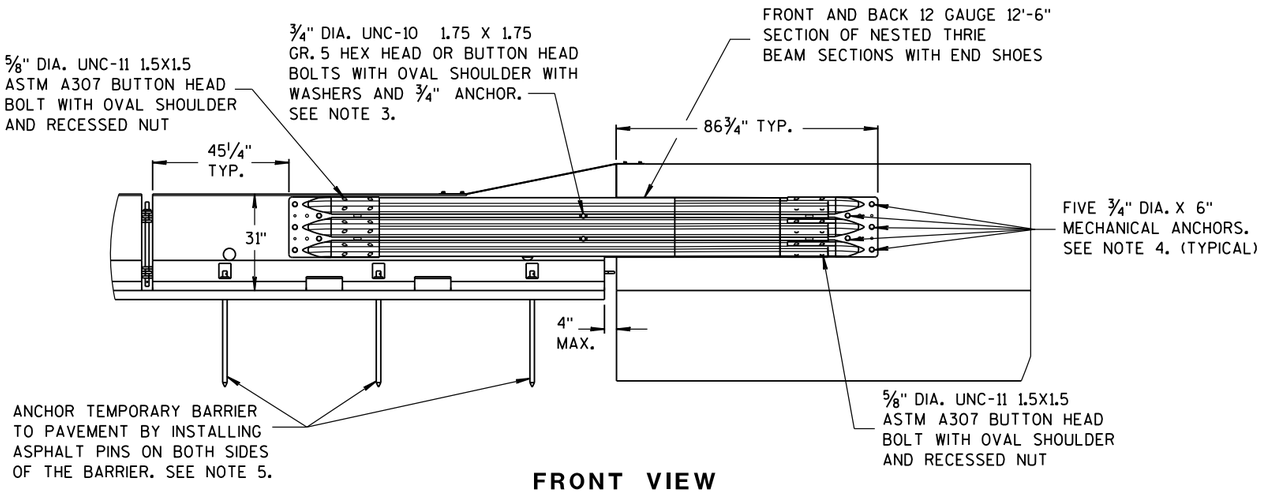
④ ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

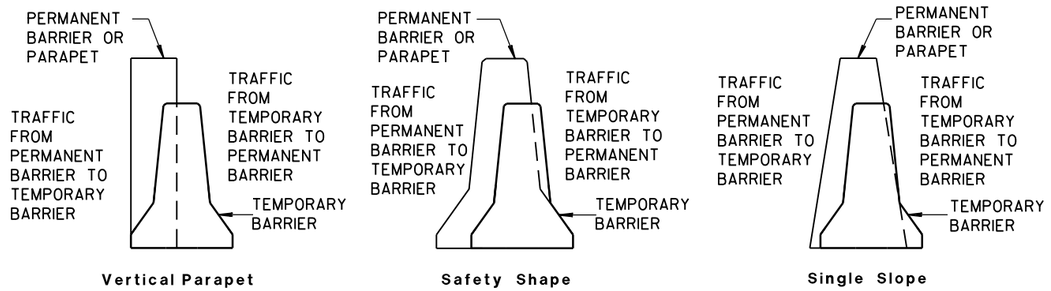
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-14d



FRONT VIEW



TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

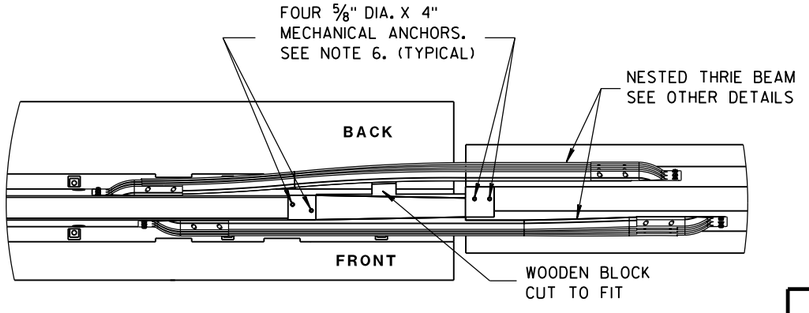
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.

BACK VIEW

FRONT VIEW



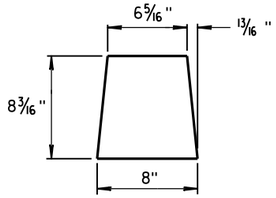
PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

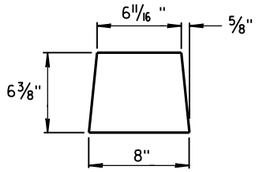
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

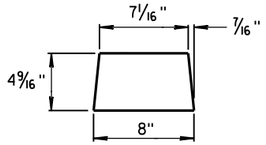
6
S.D.D. 14 B 7-14e



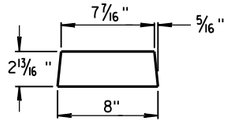
GUSSET 1



GUSSET 2

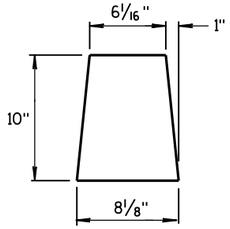


GUSSET 3

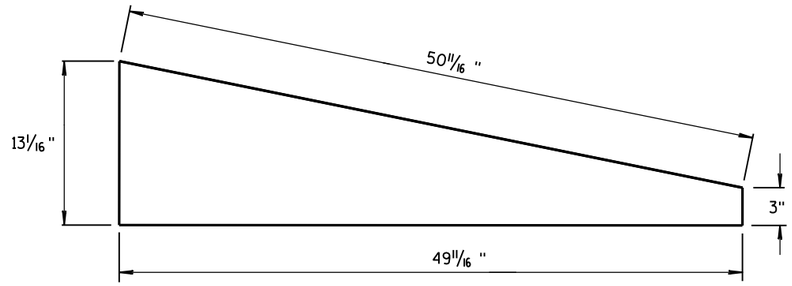


GUSSET 4

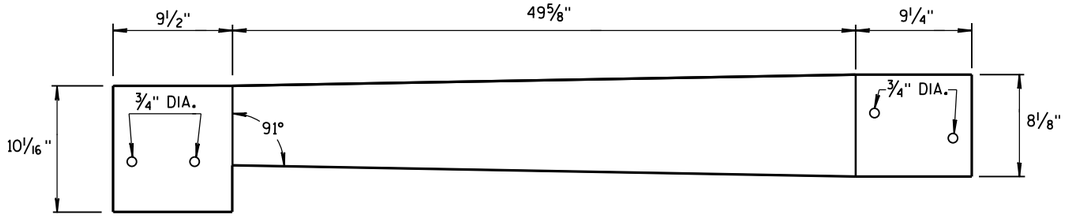
GUSSETS

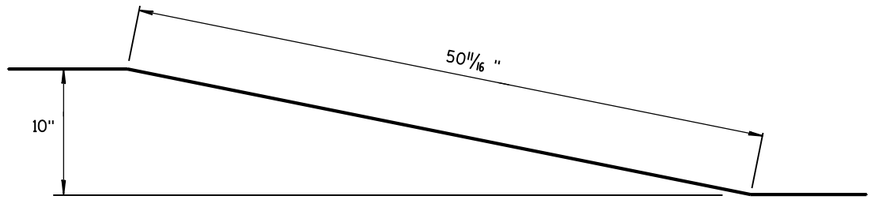


END PLATE



SIDE PLATE

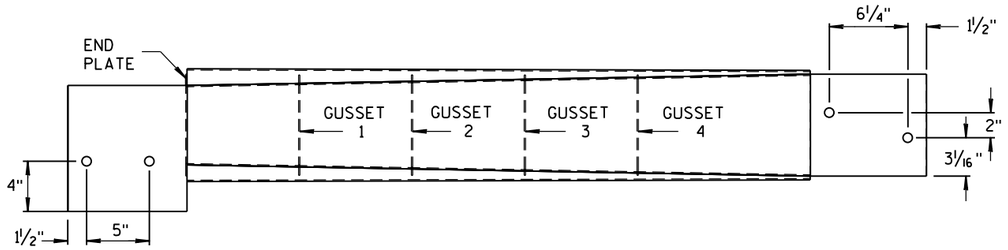


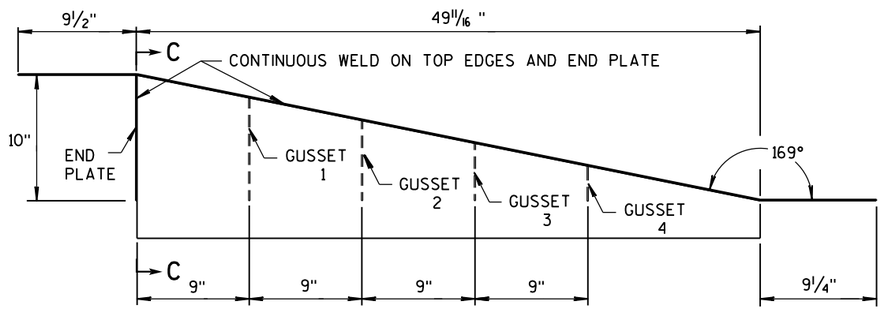


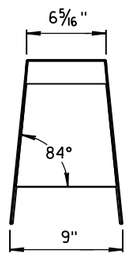
TOP PLATE

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.







SECTION C-C

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

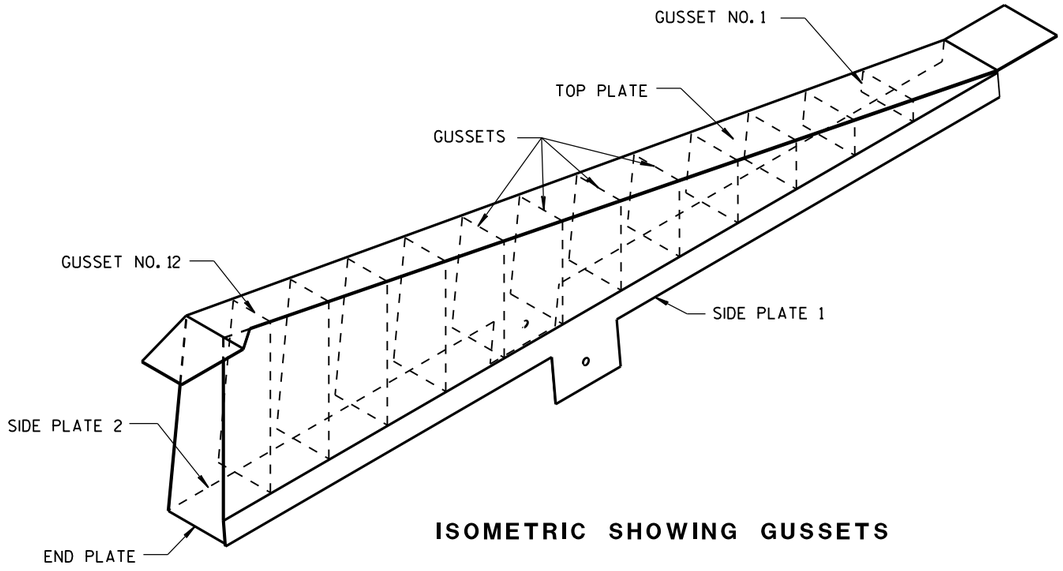
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

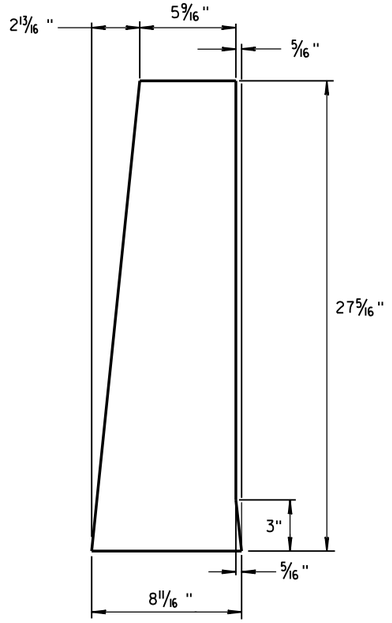
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-14f

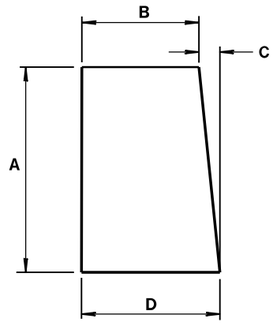


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



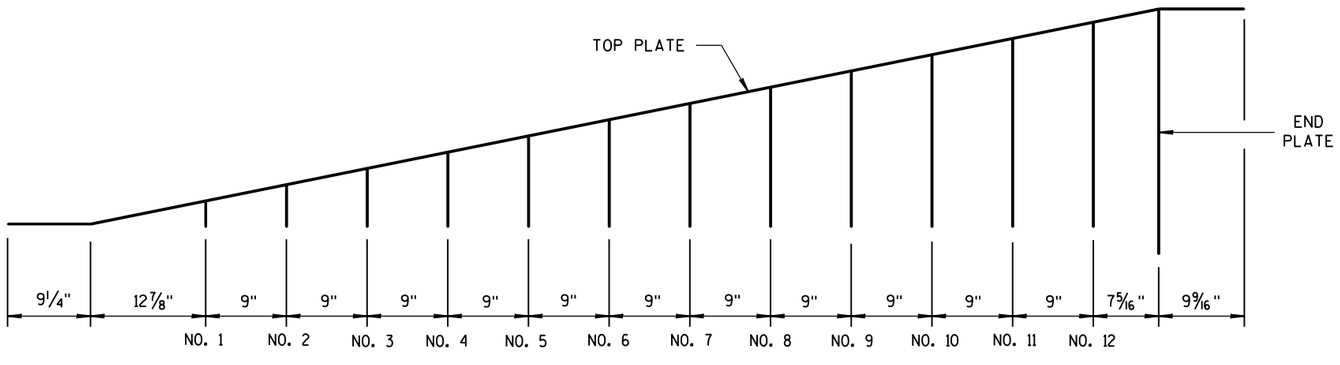
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



GUSSET LOCATION

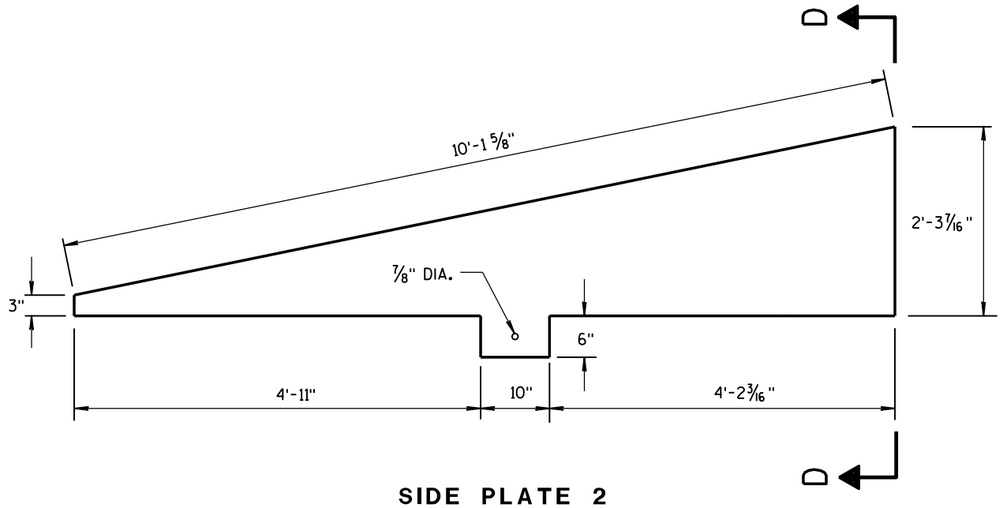
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

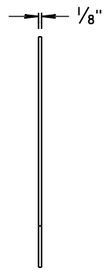
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

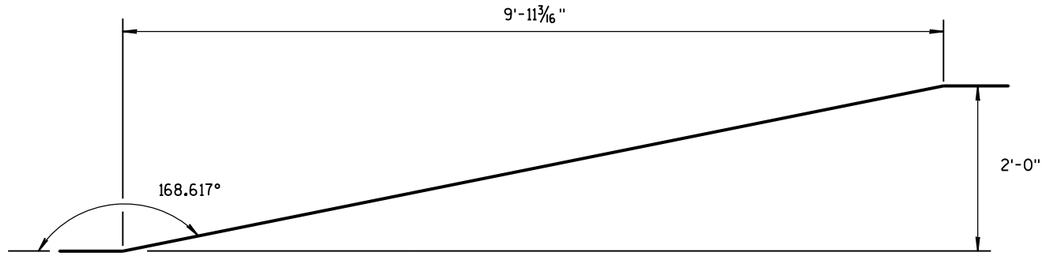
S.D.D. 14 B 7-14g



SIDE PLATE 2

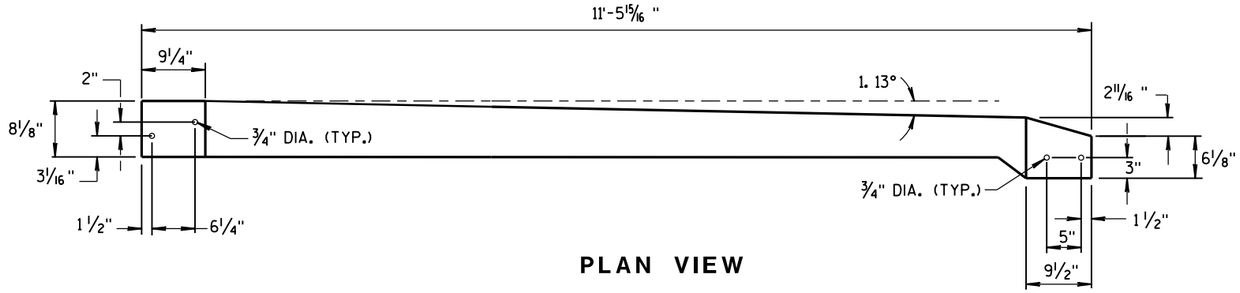


END VIEW



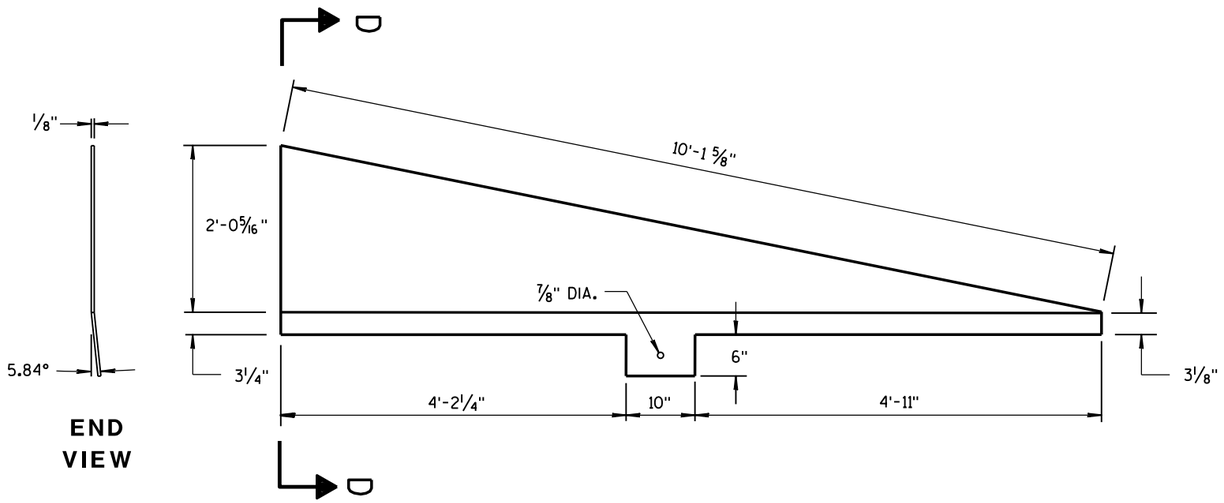
SIDE VIEW

TOP PLATE



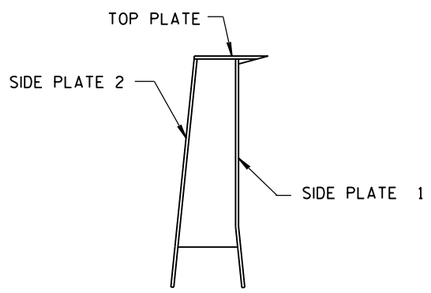
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

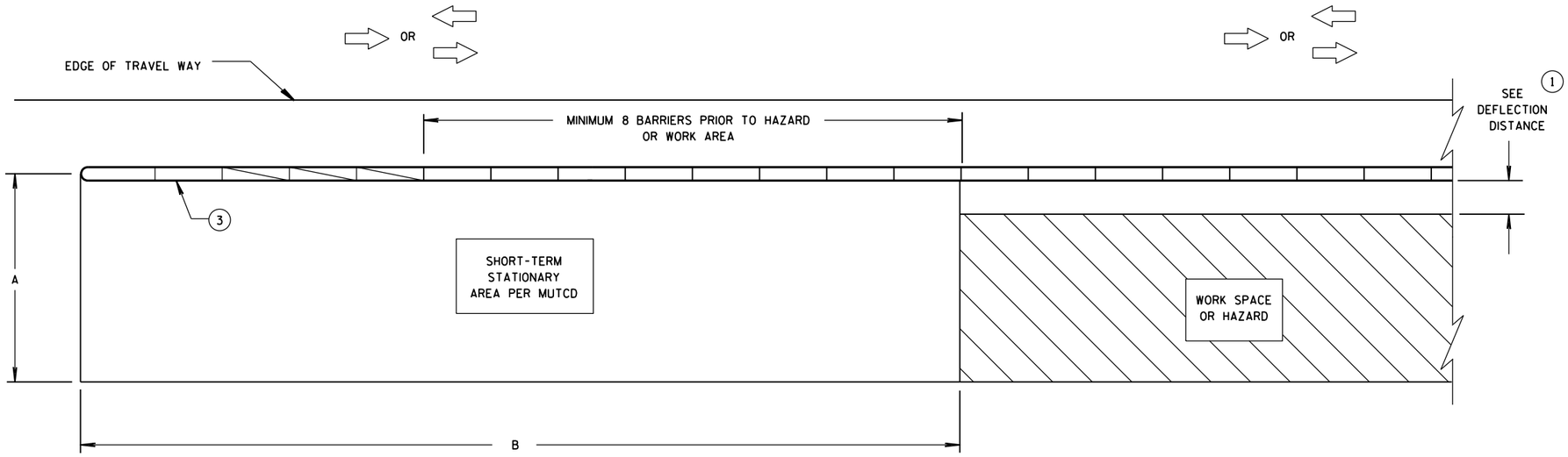
APPROVED
June 2014 — DATE
/S/ Jerry H. Zoda — ROADWAY STANDARD DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 14 B 7-14h

6

S.D.D. 14 B 7-14h



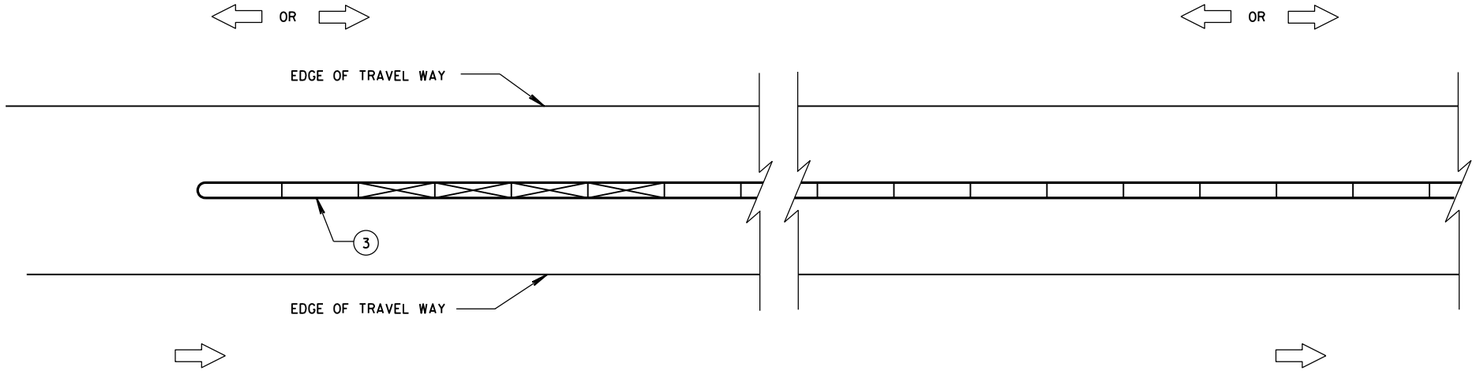
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

FACILITY	POSTED SPEED MPH	DIMENSION A	
		MIN. FT	MAX. FT
FREEWAY/EXPRESSWAY	ALL	15	20
NON-FREEWAY/EXPRESSWAY	GREATER THAN OR EQUAL TO 45	10	15
NON-FREEWAY/EXPRESSWAY	LESS THAN 45	8	10
AADT LESS THAN 1,500	ALL	8	10

DIMENSION B TABLE (2)

POSTED SPEEDS MPH	DIMENSION B FT
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON BOTH SIDES OF BARRIER

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

DETAILS PROVIDE A GENERAL LAYOUT OF TEMPORARY CONCRETE BARRIER, CRASH CUSHIONS, SAND BARREL ARRAYS AND TIE DOWN TRANSITIONS. DETAILS PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

ADDITIONAL TEMPORARY BARRIER MAY BE REQUIRED TO PROTECT TRAVELING PUBLIC FROM HAZARDS, CONTRACTOR'S OPERATIONS OR TO CONTROL TRAFFIC.

TEMPORARY BARRIER MAY BE REQUIRED TO BE ANCHORED TO PAVEMENT OR BRIDGE DECK.

FOR DETAILS ON CRASH CUSHION OR SAND BARREL ARRAYS SEE OTHER SECTIONS OF THE PLAN AND MANUFACTURE'S DETAILS.

SLOPES LEADING TO TEMPORARY BARRIER, CRASH CUSHION OR SAND BARREL ARRAY ARE 10:1 OR LESS.

(1) FOR DEFLECTION INFORMATION SEE STANDARD DETAIL DRAWING 14B7.

(2) VALUES PROVIDED MAY NOT FIT ALL POSSIBLE SITUATIONS OR SITE CONDITIONS. SEE OTHER SECTIONS OF THE CONTRACT OR PROJECT ENGINEER FOR MORE DETAILS.

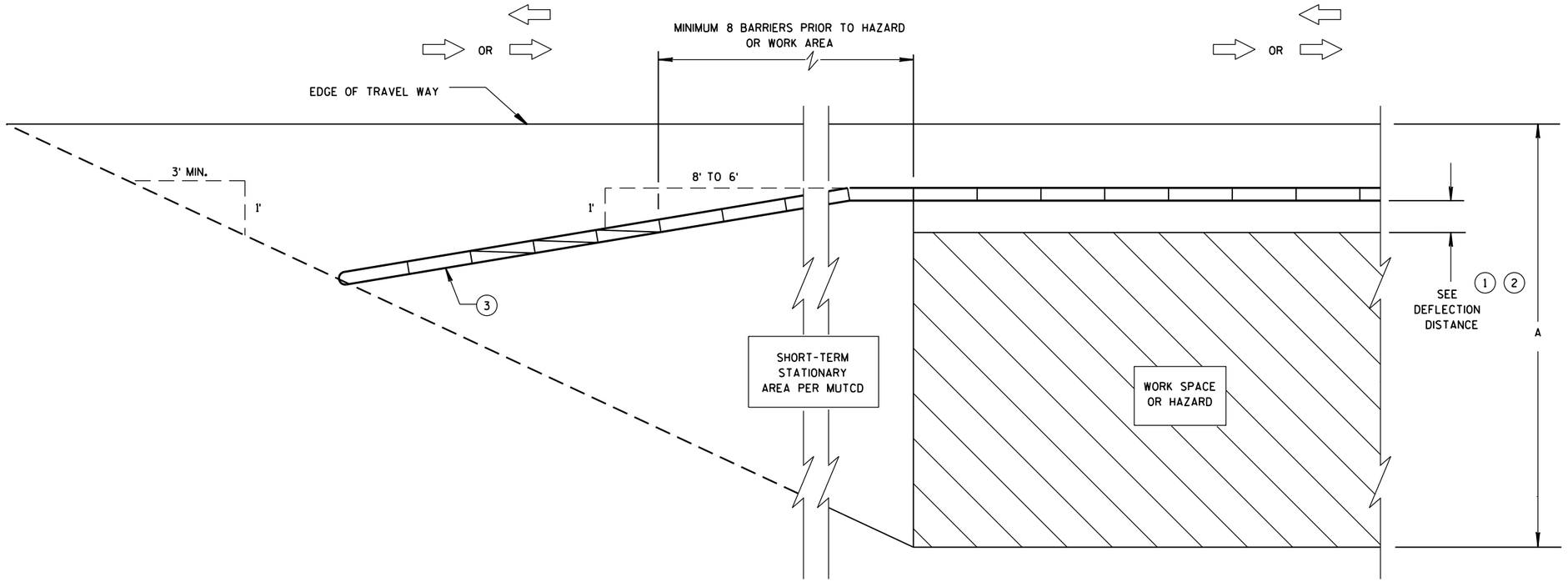
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

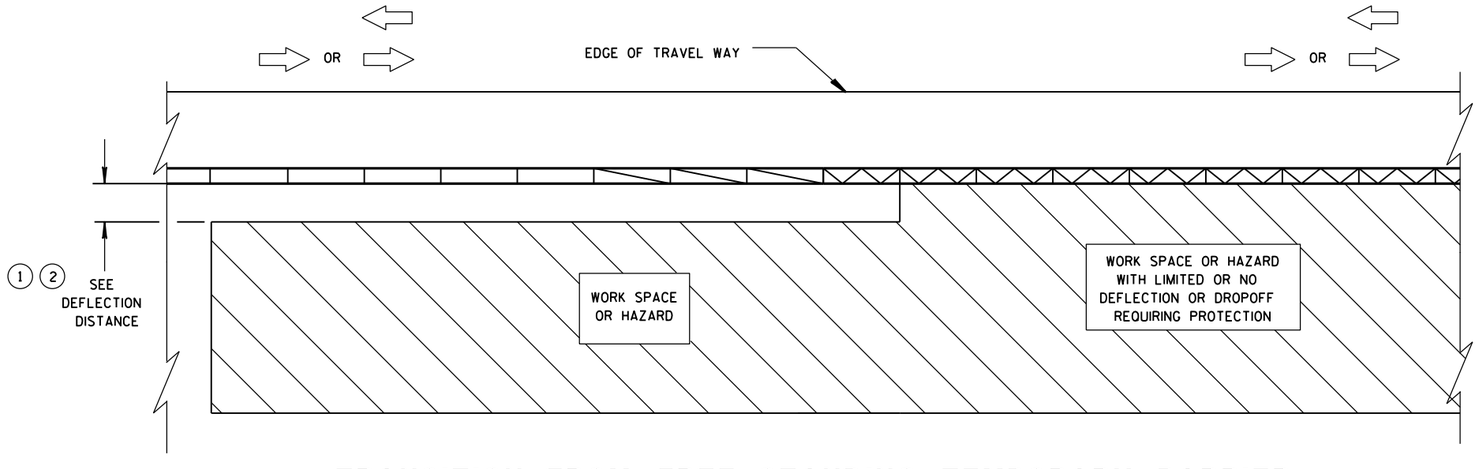
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2a



CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

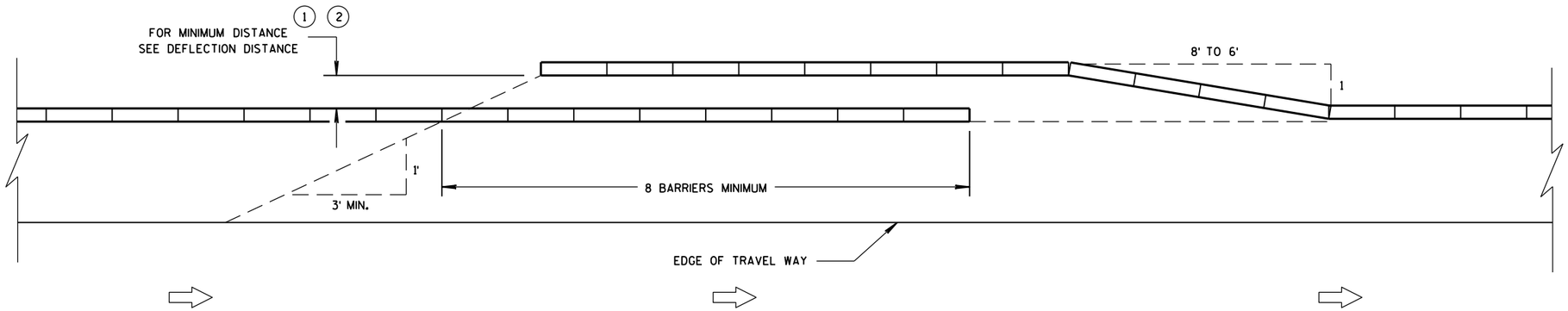
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

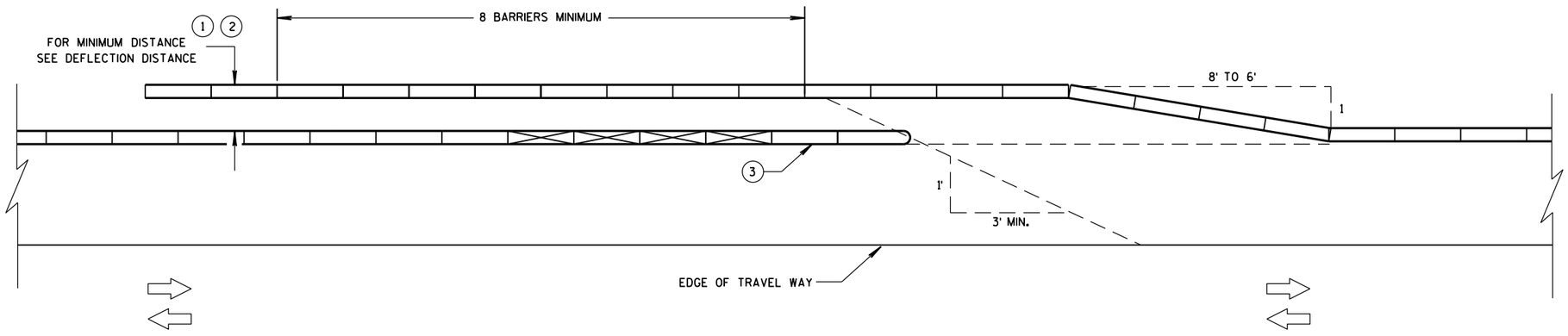
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

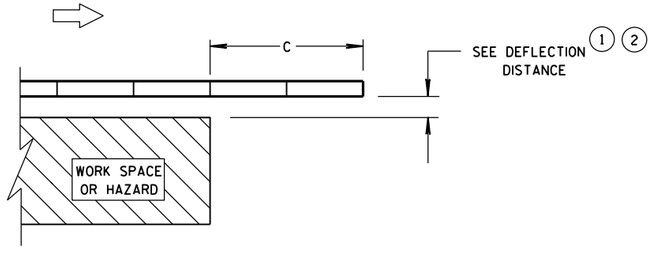
S.D.D. 14 B 8-2b



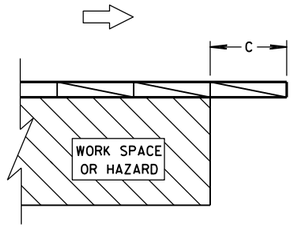
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

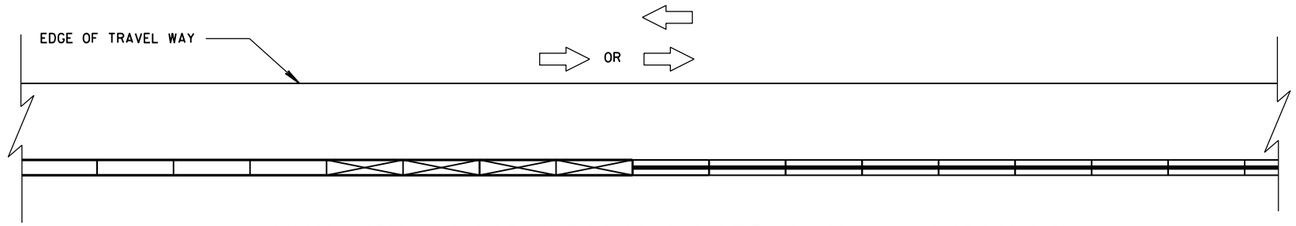
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

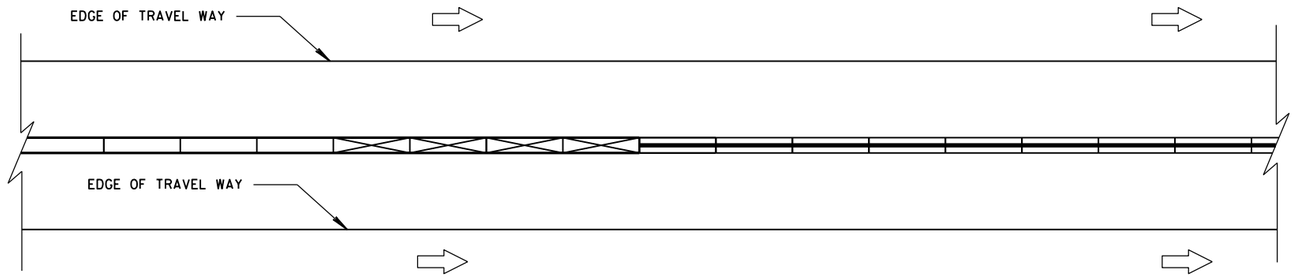
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2c



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON BOTH SIDES

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

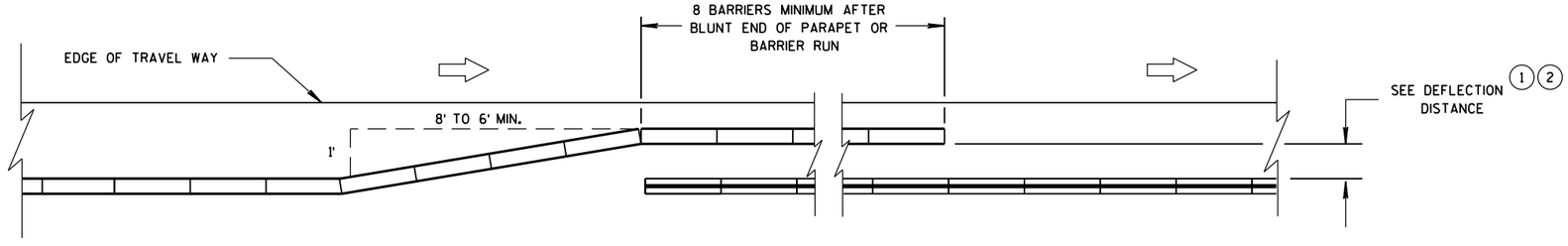
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

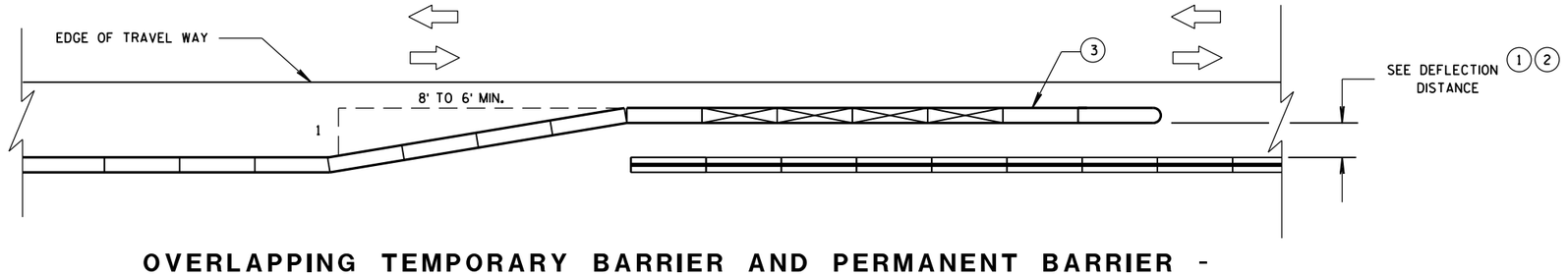
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

CRASH CUSHION/SAND BARREL
ARRAY AND OTHER TEMPORARY
BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 8-2d

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

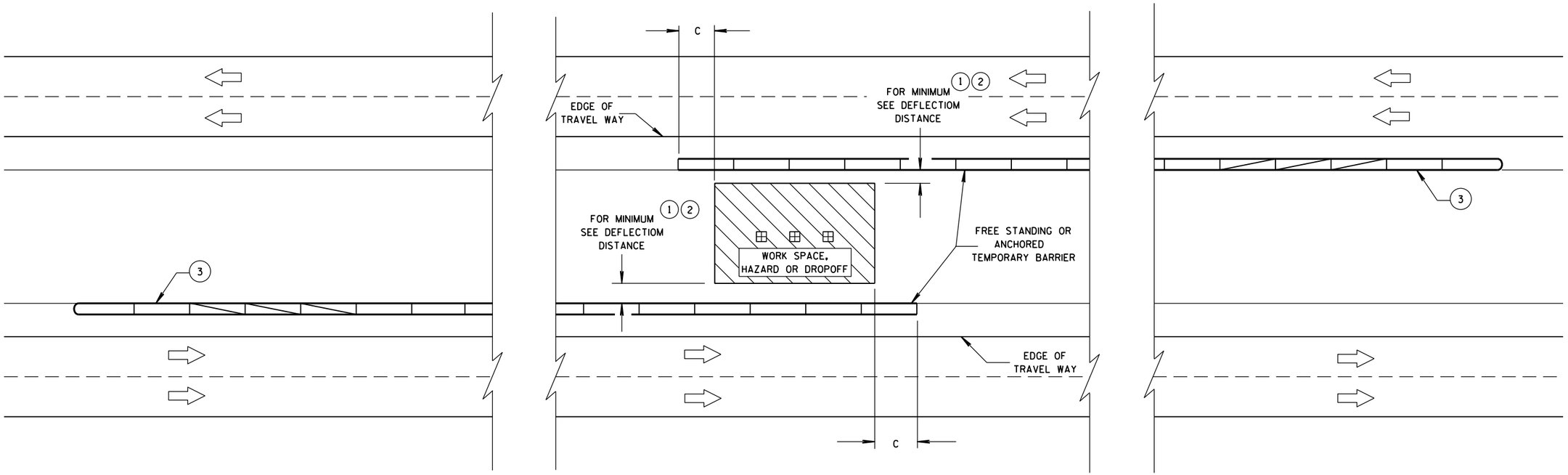
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

AVAILABLE DEFLECTION DISTANCE	MINIMUM LENGTH OF BARRIER BEYOND HAZARD FT
GREATER THAN 8'	12.5
LESS THAN OR EQUAL TO 8' BUT GREATER THAN 4'	50
LESS THAN OR EQUAL TO 4'	100



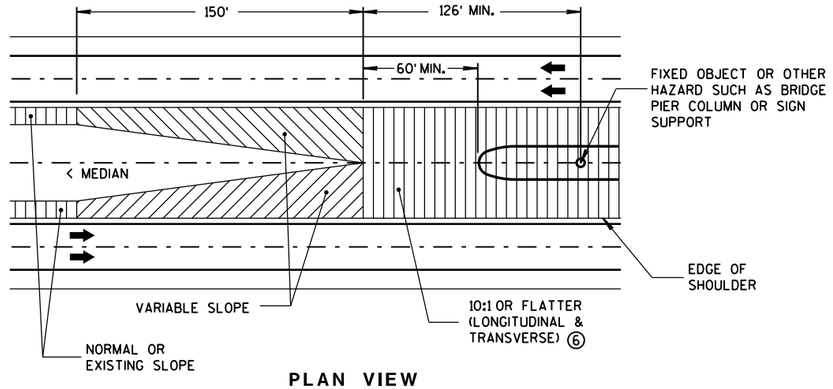
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINNER
FHWA

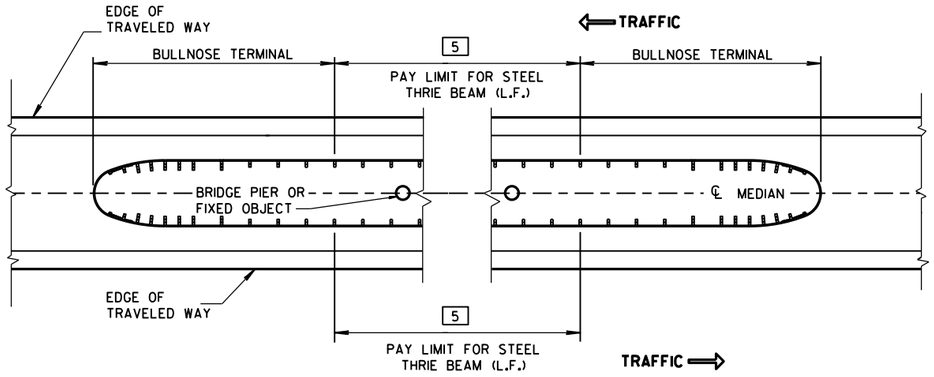
6

S.D.D. 14 B 8-2e

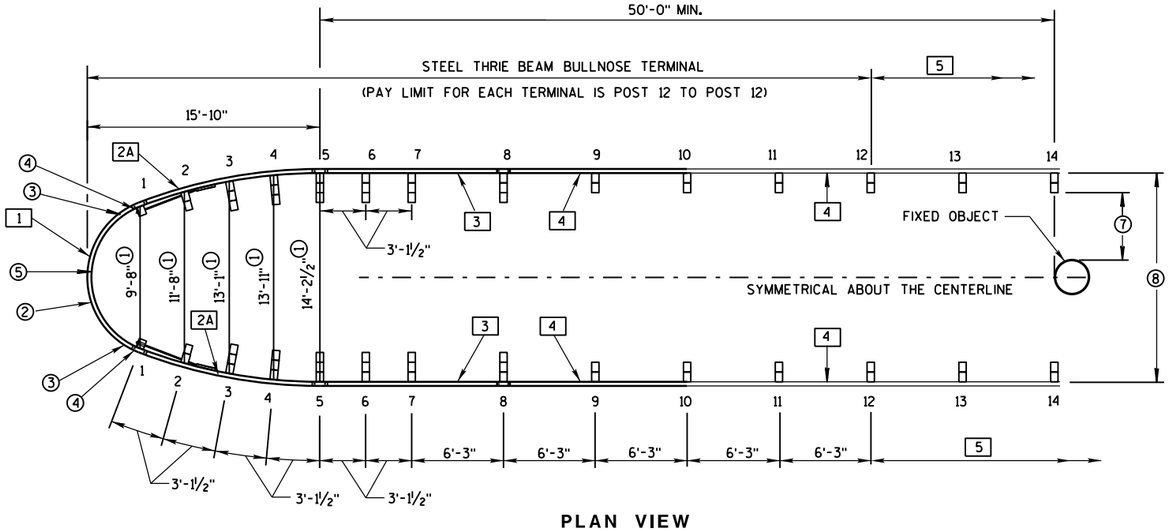


PLAN VIEW

GRADING AT BULLNOSE
(ALL INSTALLATIONS)

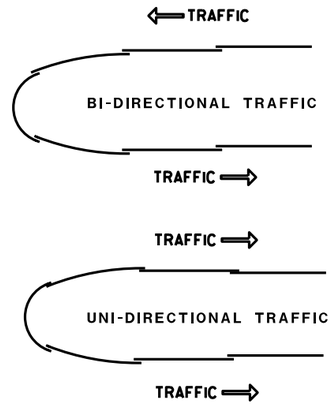


MEDIAN HAZARD PROTECTION PAY LIMITS



PLAN VIEW

TYPICAL BULLNOSE LAYOUT



LAPPING DETAIL
(ALL INSTALLATIONS)

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

PUNCHING, DRILLING, CUTTING OR WELDING IS NOT PERMITTED ON ANY GALVANIZED THRIE BEAM ACCESSORY OR TERMINAL ACCESSORY.

OTHER ANCHOR CABLE ASSEMBLIES HAVING 40,000 LBS. MIN. BREAKING STRENGTH MAY BE USED.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

THE USE OF STEEL POSTS ON THE BULLNOSE IS NOT ALLOWED.

BOLTS AND ALL NECESSARY HARDWARE SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A 153.

ALL THRIE BEAM SHALL BE 12-GAUGE.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2½" AND 12" DIAMETER AROUND POST. SEE SDD 14B15 OR SDD 14B42 FOR MORE INFORMATION.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A. (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

[4] UNBENT STANDARD THRIE-BEAM RAIL NO.4. (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.

② U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.

③ NOSE CABLE W/SWAGGED END BUTTONS.

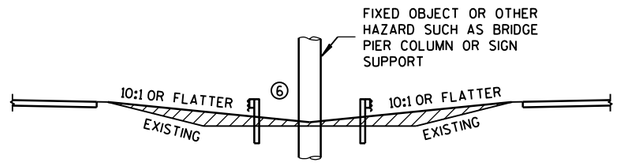
④ NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).

⑤ THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.

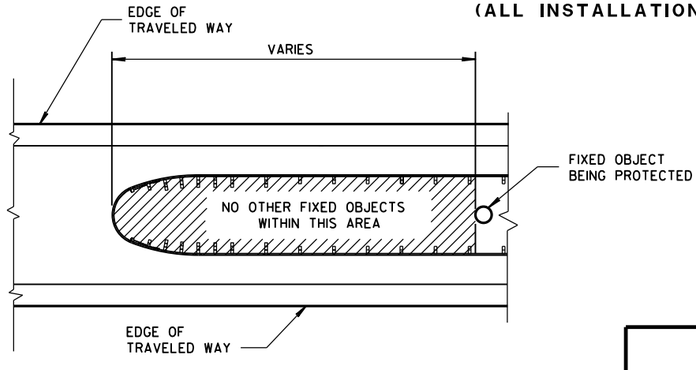
⑥ PROVIDE SUITABLE DRAINAGE WHEN MEDIAN GRADING IMPEDES NORMAL FLOW.

⑦ 2'-6" MINIMUM LATERAL DISTANCE BETWEEN BACK OF POST AND FACE OF FIXED OBJECT.

⑧ MAXIMUM WIDTH OF SYSTEM IS 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



MEDIAN GRADING SECTION
(ALL INSTALLATIONS)

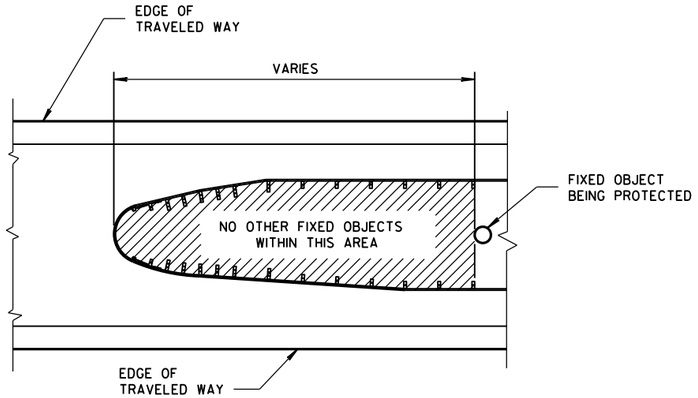


HAZARD FREE AREA INSIDE BULLNOSE

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6
S.D.D. 14 B 26-3a



HAZARD FREE
AREA INSIDE BULLNOSE

GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.

FOR POSTS 2 THROUGH 14, IF POST CANNOT BE INSTALLED AT SPECIFIED LOCATION 1 EXTRA STANDARD WOOD BLOCK MAY BE ADDED.

[1] SLOTTED THRIE BEAM RAIL NO. 1. (POST 1 TO POST 1)

[2A] SLOTTED THRIE BEAM RAIL NO. 2A, (POST 1 TO POST 5)

[2B] SLOTTED THRIE BEAM RAIL NO. 2B, (POST 1 TO POST 5)

[3] SLOTTED THRIE BEAM RAIL NO. 3. (POST 5 TO POST 8)

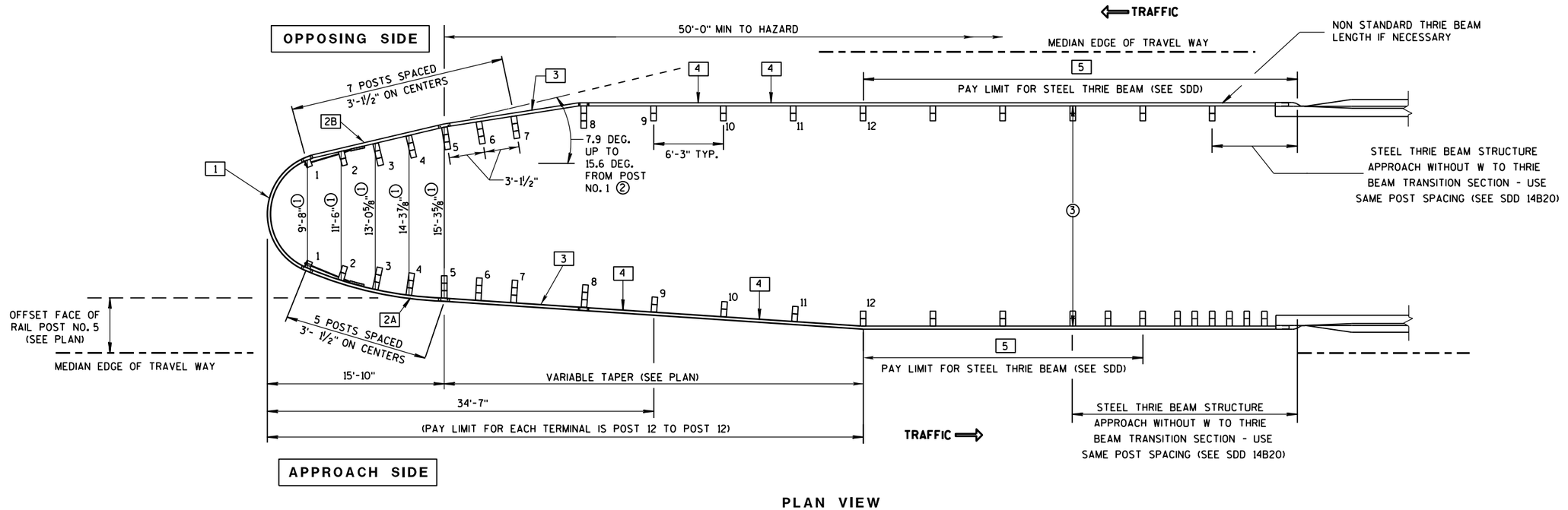
[4] UNBENT STANDARD THRIE-BEAM RAIL NO. 4, (POST 8 TO POST 10 & POST 10 TO POST 12)

[5] BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.

① DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST.

② TAPER BEGINNING AT POST NO. 1 MUST CONTINUE TO POST NO. 5. PAST POST NO. 5 TAPER MAY END OR BE EXTENDED UP TO 15.6 DEGREES TO FIT VARIABLE MEDIAN WIDTHS. (SEE PLAN)

③ FOR MEDIANS WIDER THAN 14'-2½" MEASURED FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.



PLAN VIEW

WIDENED BULLNOSE DESIGN

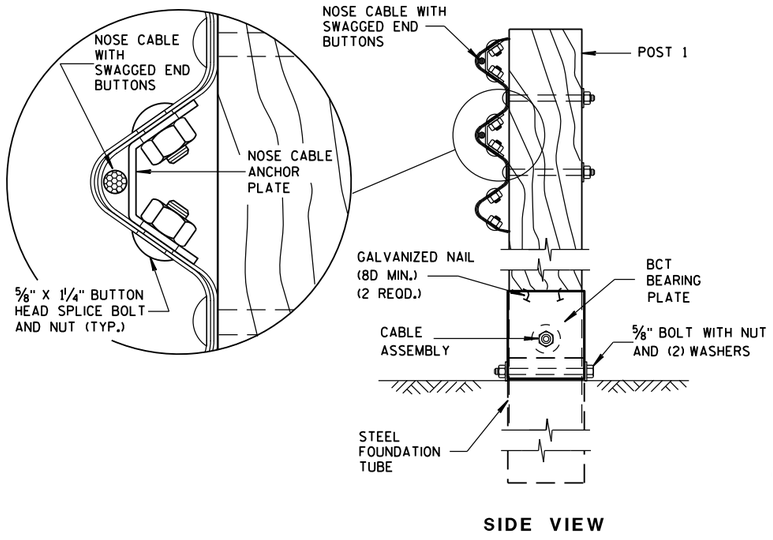
(INSTALLATION AT TWIN BRIDGES WITH BI-DIRECTIONAL TRAFFIC SHOWN)

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

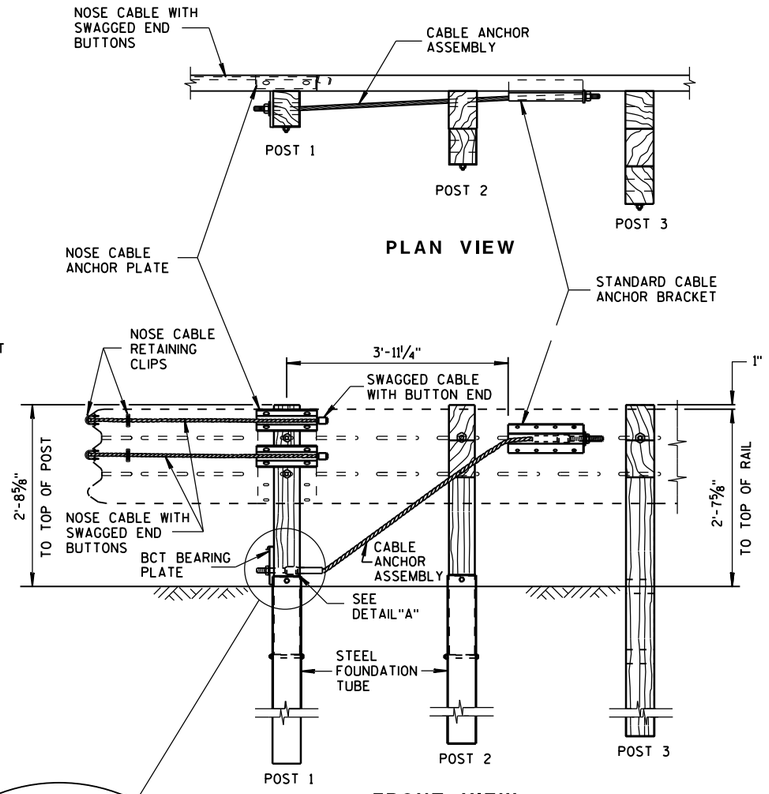
6

S.D.D. 14 B 26-3b



SIDE VIEW

NOSE CABLE ASSEMBLY AT POST NO. 1



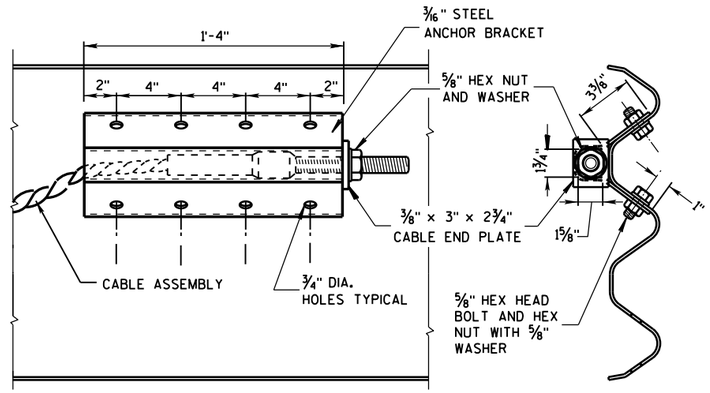
PLAN VIEW

FRONT VIEW

NOSE CABLE ANCHOR AND STANDARD BRACKET ASSEMBLY

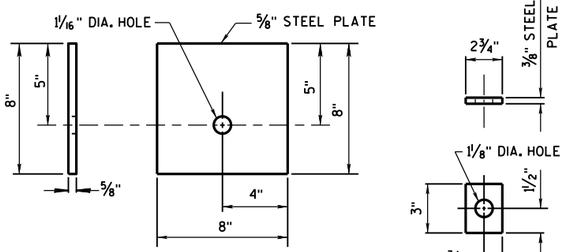
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



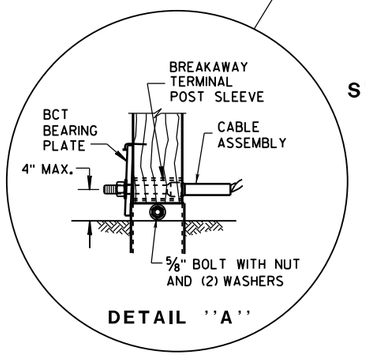
FRONT VIEW END VIEW

DETAILS OF CABLE ANCHOR BRACKET

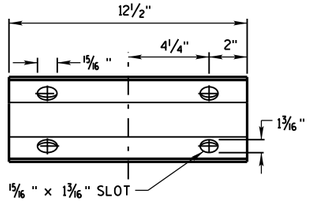


BCT BEARING PLATE

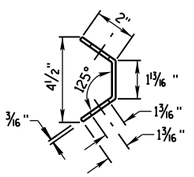
CABLE END PLATE



DETAIL ''A''



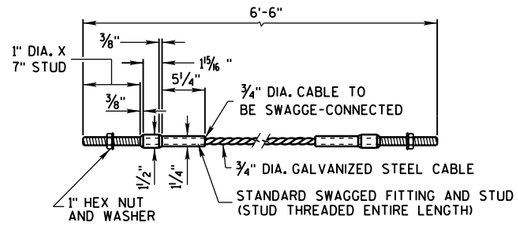
ELEVATION VIEW



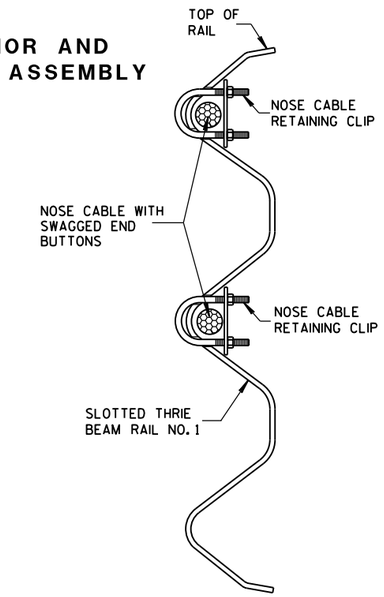
END VIEW

NOSE CABLE ANCHOR PLATE

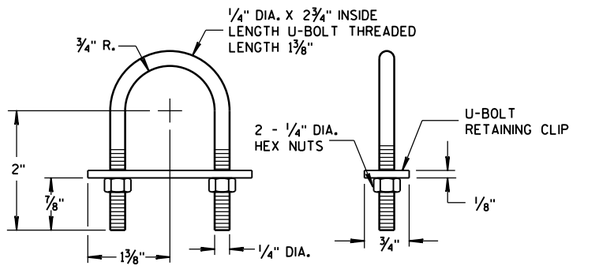
NOTE: 12 1/2" x 5 13/16" x 3/16" STEEL PLATE (A306)



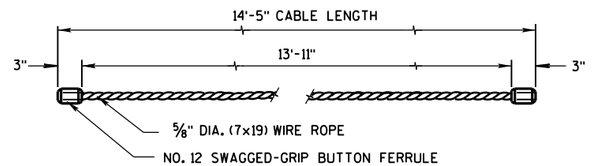
DETAILS OF CABLE ANCHOR ASSEMBLY



PLACEMENT OF NOSE CABLE RETAINING CLIP



NOSE CABLE RETAINING CLIP



NOSE CABLE WITH SWAGGED END BUTTONS

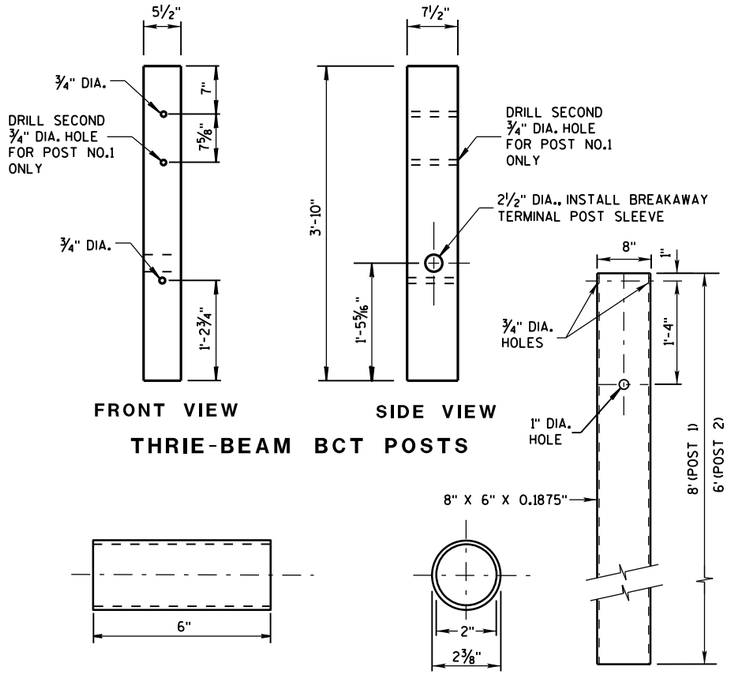
TO PULL OFF SWAGGED GRIP BUTTON FERRULE FROM WIRE ROPE REQUIRES A FORCE EQUAL TO 98% OF THE WIRE ROPE'S BREAKING STRENGHT.

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

6

S.D.D. 14 B 26-3c

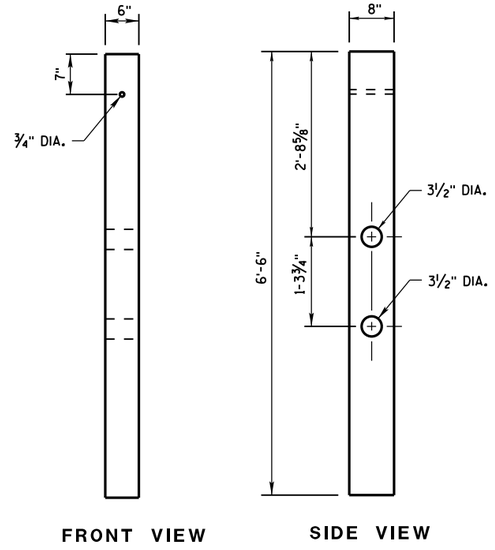


FRONT VIEW SIDE VIEW

THRIE-BEAM BCT POSTS

BREAKAWAY TERMINAL POST SLEEVE

STEEL FOUNDATION TUBE

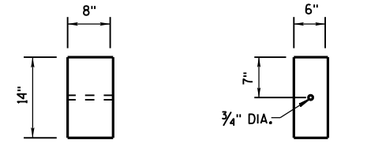


FRONT VIEW SIDE VIEW

THRIE-BEAM CRT WOOD POSTS

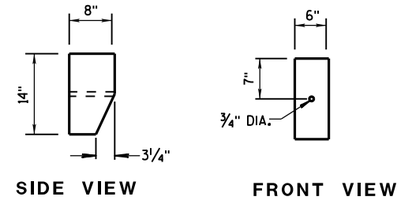
GENERAL NOTES

SEE STANDARD DETAIL DRAWINGS 14 B 26a-e.



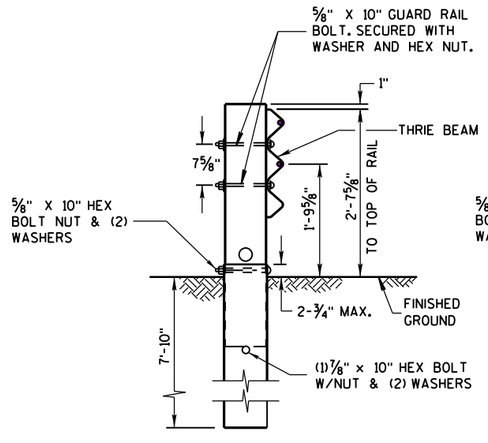
SIDE VIEW FRONT VIEW

STANDARD WOOD BLOCK



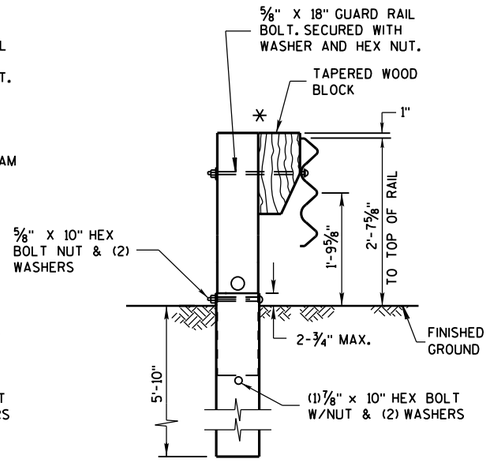
SIDE VIEW FRONT VIEW

TAPERED WOOD BLOCK



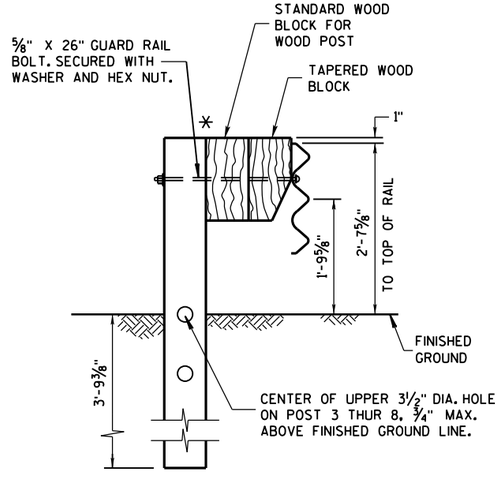
THRIE-BEAM BCT POST
(WITH 8'-0" FOUNDATION TUBE)

POST NO. 1



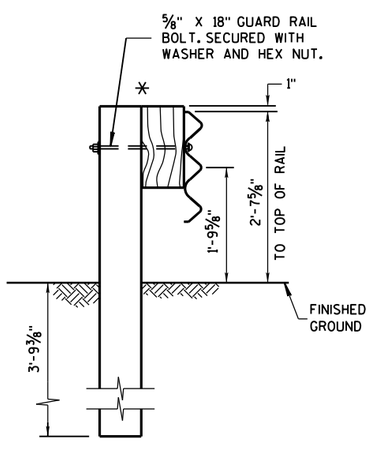
THRIE-BEAM BCT POST
(WITH 6'-0" FOUNDATION TUBE AND 1'-2" TAPERED BLOCK)

POST NO. 2



THRIE-BEAM CRT POST
(6'-6" LONG POST WITH 1'-2" BLOCK AND 1'-2" TAPERED BLOCK)

POST NO. 3,4,5,6,7, & 8



THRIE-BEAM POST
(6'-6" LONG POST WITH 1'-2" BLOCK)

POST NO. 9,10,11,& 12

(ALSO USE FOR STEEL THRIE BEAM BEYOND POST 12)

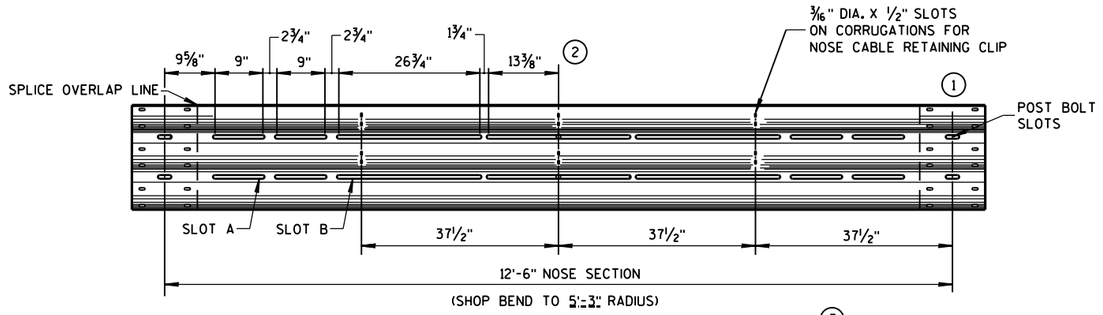
* IF NEEDED DUE TO AN UNDERGROUND OBSTACLE ADD 1 ADDITIONAL STANDARD BLOCKOUT TO POST.

STEEL THRIE BEAM BULLNOSE TERMINAL

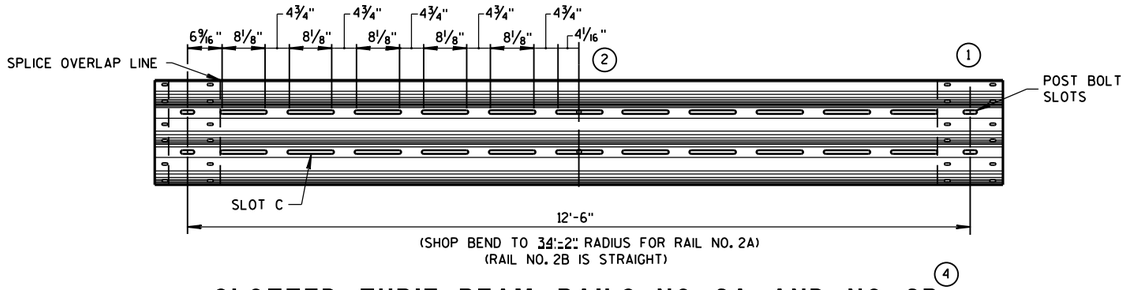
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

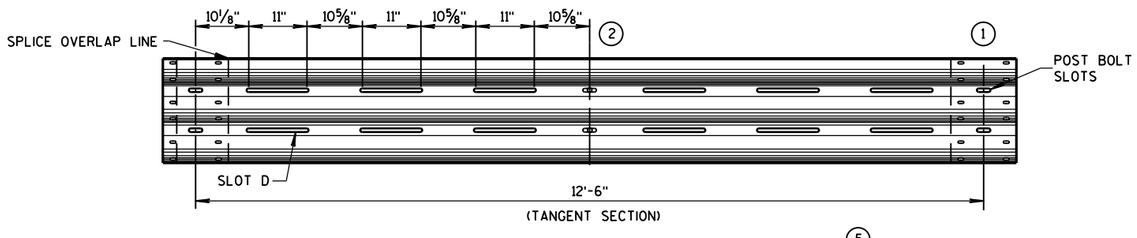
S.D.D. 14 B 26-3d



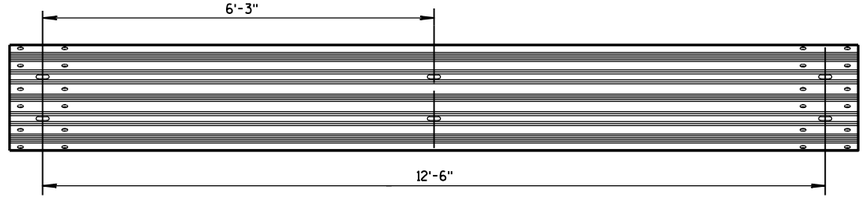
SLOTTED THRIE BEAM RAIL NO. 1 (3)



SLOTTED THRIE BEAM RAILS NO. 2A AND NO. 2B (4)



SLOTTED THRIE BEAM RAIL NO. 3 (5)



UNBENT STANDARD THRIE BEAM RAIL NO. 4 AND NO. 5

GENERAL NOTES

SEE STANADRD DETAIL DRAWINGS 14 B 26a-e.

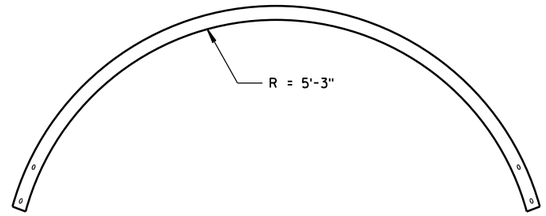
(1) SLOTTED THRIE BEAM RAIL DIMENSIONS SHOWN ARE BEFORE BENDING TO THE RADIUS SHOWN.

(2) SLOT SIZE AND SPACING SYMMETRIC.

(3) SLOTTED THRIE BEAM RAIL NO. 1, 12'-6", SHOP BEND TO R=5'-3".

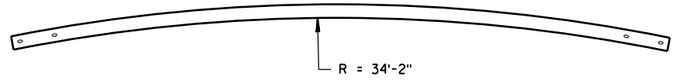
(4) SLOTTED THRIE BEAM RAIL NO. 2A, 12'-6", SHOP BEND TO R=34'-2".
SLOTTED THRIE BEAM RAIL NO. 2B, 12'-6", RAIL IS STRAIGHT.

(5) SLOTTED THRIE BEAM RAIL NO. 3, 12'-6", TANGENT.



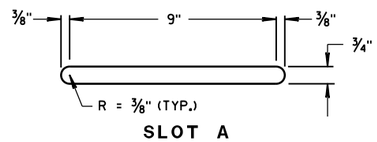
PLAN VIEW

SLOTTED THRIE BEAM RAIL NO. 1

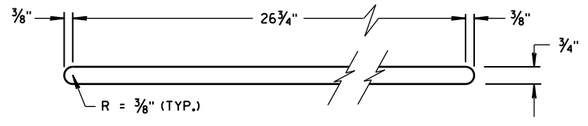


PLAN VIEW

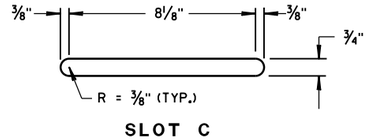
SLOTTED THRIE BEAM RAIL NO. 2A



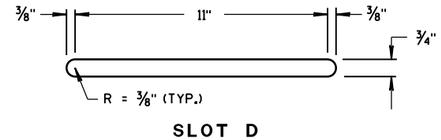
SLOT A



SLOT B



SLOT C



SLOT D

SLOT DETAILS

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

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6

S.D.D. 14 B 26-3e

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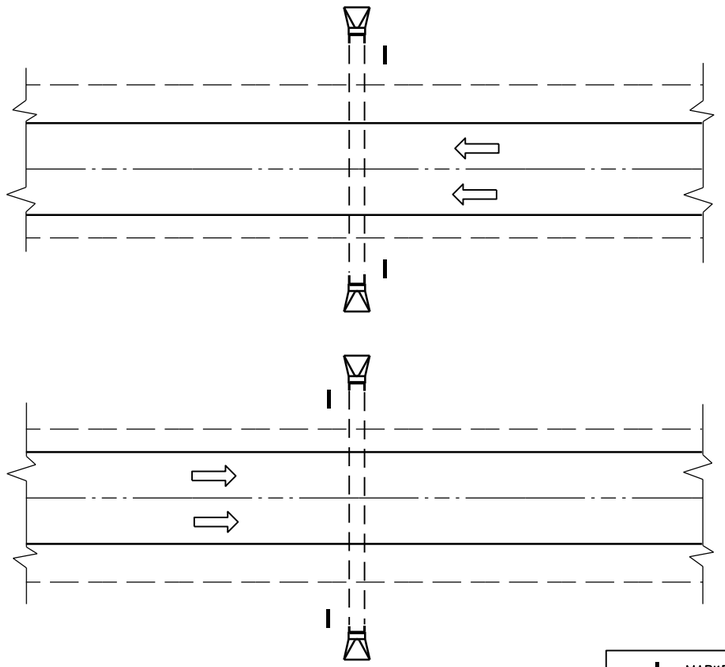
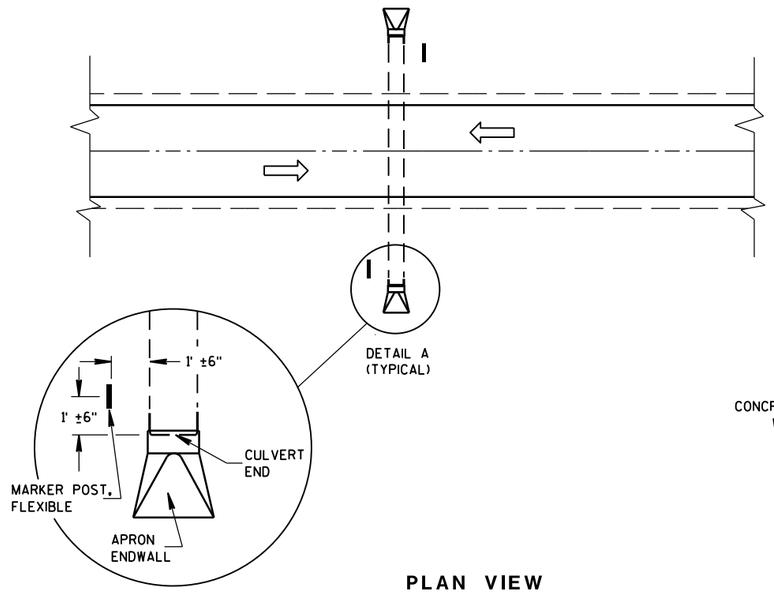
S.D.D. 14 B 26-3e



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

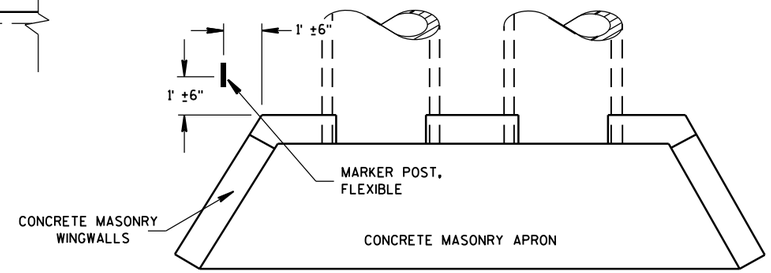
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

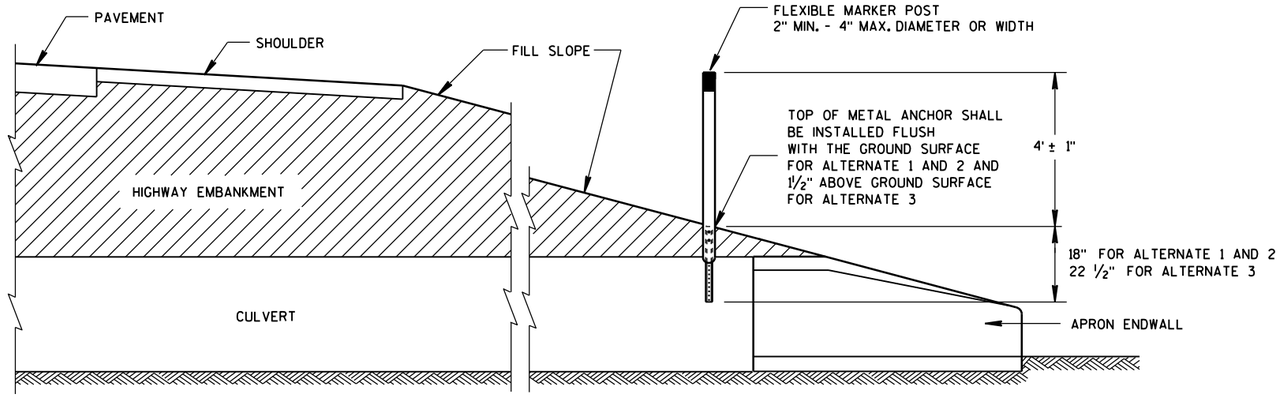
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

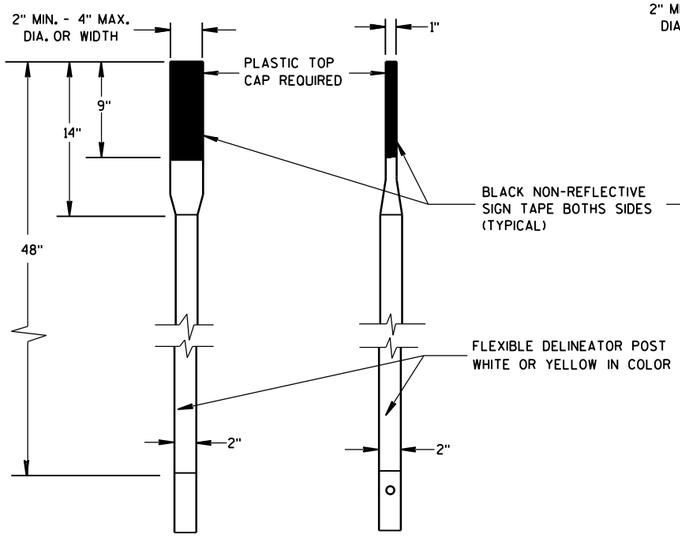
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

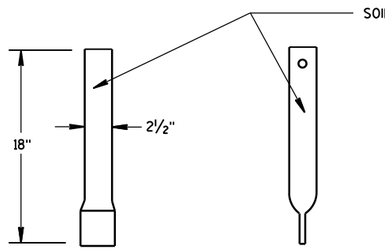
6

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

6

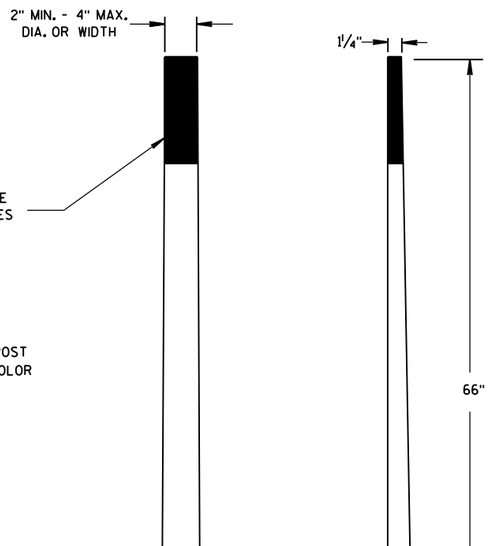
S.D.D. 15 A 3-2a





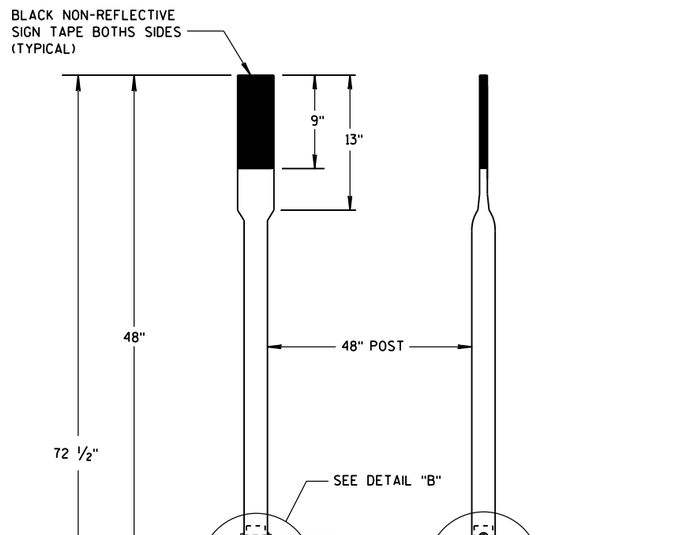
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

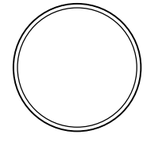
ALTERNATE 2



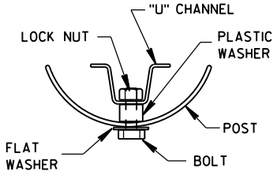
FRONT VIEW SIDE VIEW

ALTERNATE 3

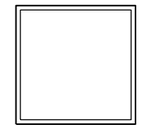
FLEXIBLE MARKER POSTS



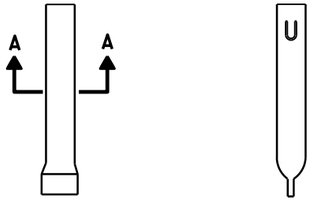
SECTION A-A



SECTION B-B

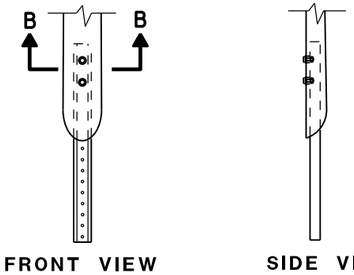


SECTION C-C



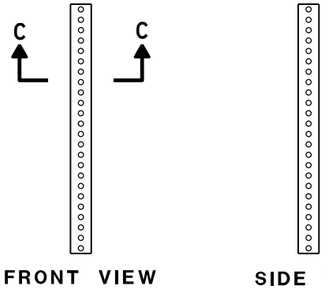
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

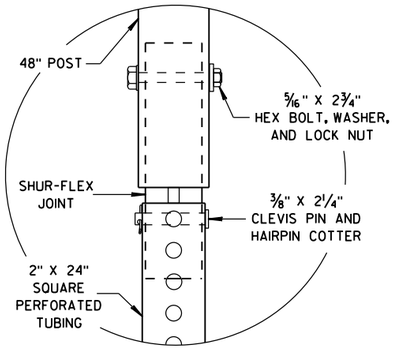
ALTERNATE 2



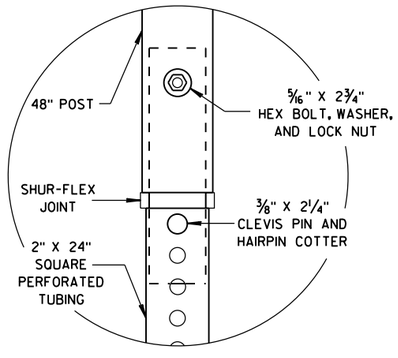
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

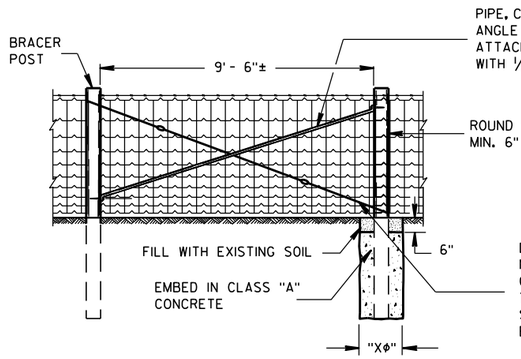
S.D.D. 15 A 3-2b

6

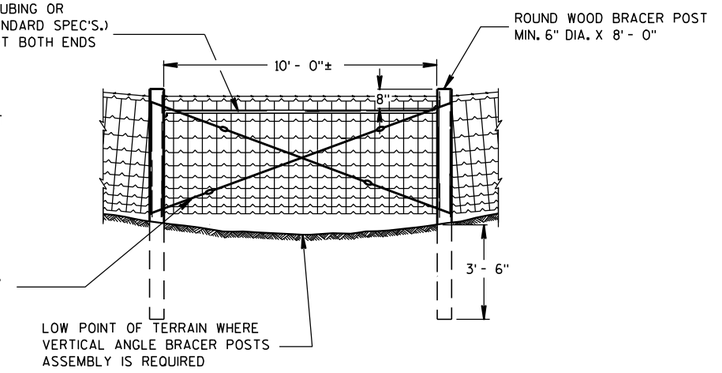
S.D.D. 15 A 3-2b

NOTE: PULL OR STRETCHER POST ASSEMBLIES SHALL BE PLACED MIDWAY BETWEEN END POSTS AND CORNER POSTS WHERE A RUN OF FENCE EXCEEDS 660' BUT IS LESS THAN 1,320'. FOR RUNS OF FENCE IN EXCESS OF 1,320' MAXIMUM SPACING OF PULL OR STRETCHER POST ASSEMBLIES SHALL BE 660'± C-C.

ILLUSTRATION SHOWS POSITION OF STANDARD STEEL BRACE, DOUBLE STRAND GALVANIZED WIRE, AND THE POST TO BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM LEFT TO RIGHT. THE BRACES SHALL BE POSITIONED ON THE OPPOSITE DIAGONALS AND THE OPPOSITE POST SHALL BE EMBEDDED IN CONCRETE WHEN WIRE FENCE IS INSTALLED FROM RIGHT TO LEFT.



PULL OR STRETCHER POSTS ASSEMBLY



VERTICAL ANGLE BRACER POSTS ASSEMBLY

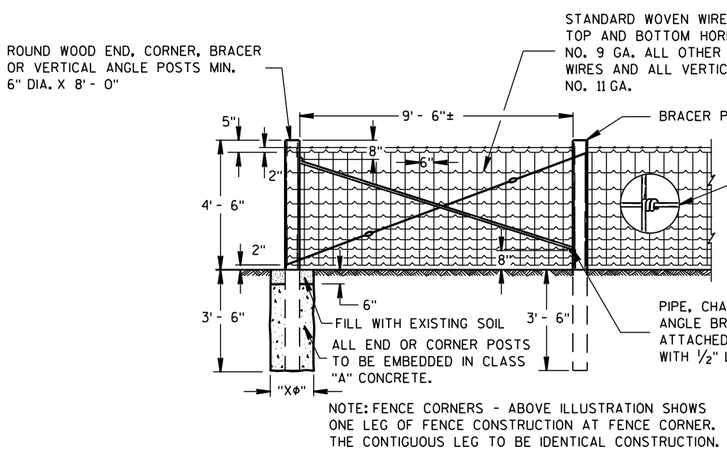
GENERAL NOTES

"XΦ" = DIAMETER OF THE POST PLUS 12".

FENCE STAPLES SHOULD NEVER BE DRIVEN VERTICALLY INTO WOOD POSTS (WITH BOTH LEGS PARALLEL WITH THE WOOD GRAIN). DOING SO CAN SEPARATE THE GRAIN AND SIGNIFICANTLY REDUCE THE HOLDING POWER. ROTATING THE STAPLES SLIGHTLY OFF VERTICAL STRADDLES THE GRAIN AND PROVIDES MORE RESISTANCE TO PULL-OUT.

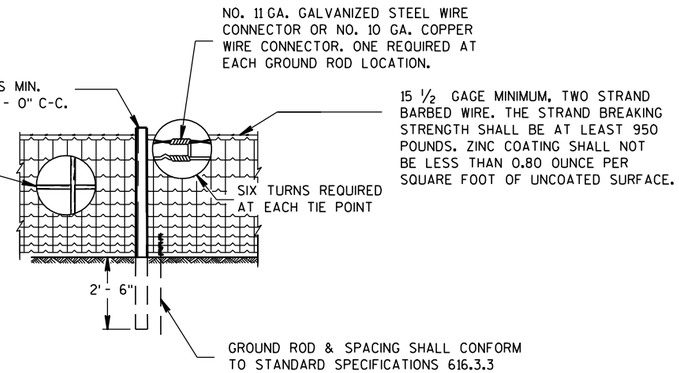
DO NOT STAPLE WIRE TIGHT TO THE LINE POSTS. ALLOW MOVEMENT OF WIRE FOR EXPANSION AND CONTRACTION. STAPLE ARRANGEMENT SHALL BE THE SAME FOR ALL OTHER POSTS EXCEPT THAT THEY SHALL BE DRIVEN TIGHT TO POSTS. ALL STAPLES SHALL BE 2" X 9 GAGE AND SHALL BE MANUFACTURED FROM GALVANIZED WIRE OR HOT DIP GALVANIZED AFTER FORMING. STAPLES SHALL HAVE SLASH-CUT POINTS.

FENCE SHALL BE LOCATED 3'-0" INSIDE THE RIGHT OF WAY LINE UNLESS OTHERWISE INDICATED ON THE PLANS.



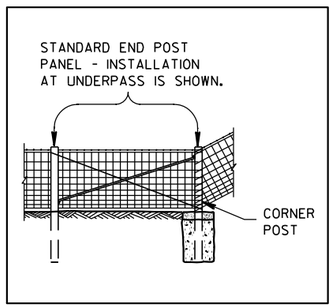
NOTE: FENCE CORNERS - ABOVE ILLUSTRATION SHOWS ONE LEG OF FENCE CONSTRUCTION AT FENCE CORNER. THE CONTIGUOUS LEG TO BE IDENTICAL CONSTRUCTION.

END OR CORNER POSTS ASSEMBLY

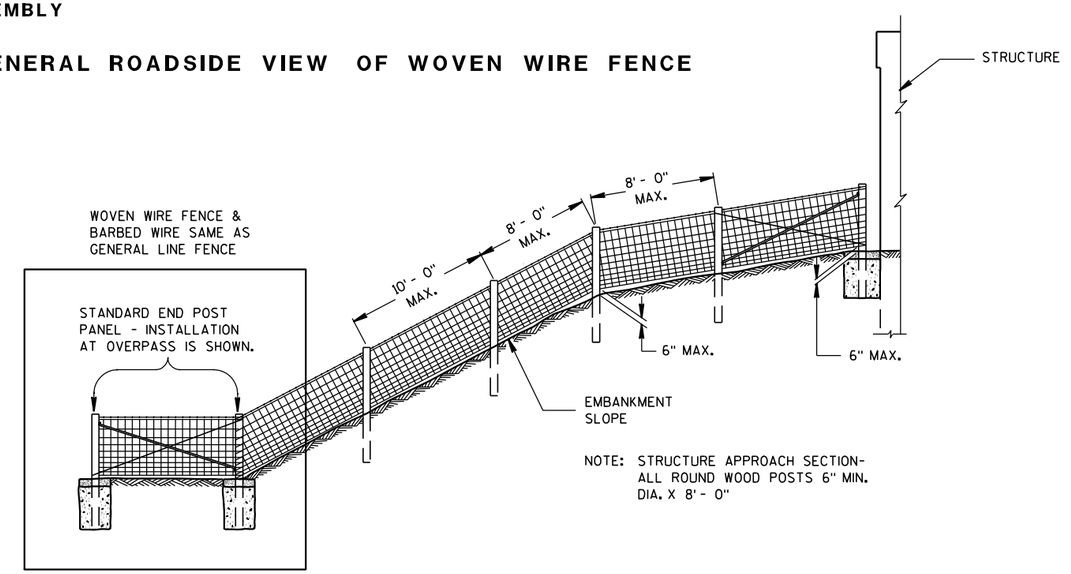


LINE FENCE CONSTRUCTION

GENERAL ROADSIDE VIEW OF WOVEN WIRE FENCE



ALTERNATE FENCE DESIGN AT STRUCTURE



NOTE: STRUCTURE APPROACH SECTION- ALL ROUND WOOD POSTS 6" MIN. DIA. X 8' - 0"

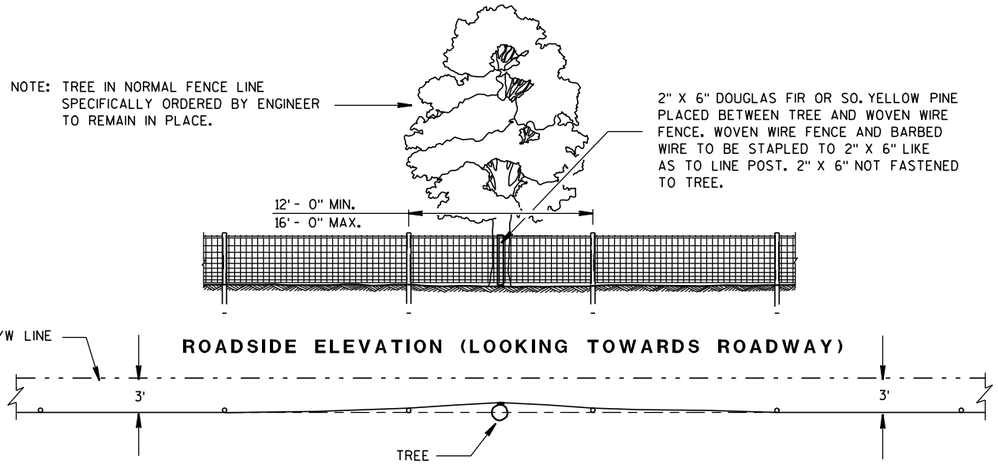
FENCE DESIGN AT STRUCTURE APPROACH

FENCE WOVEN WIRE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

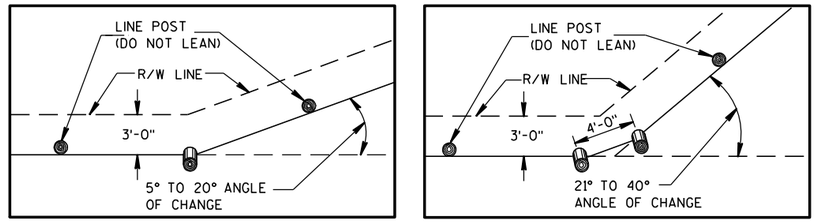
6

S.D.D. 15 B 1-8a



PLAN VIEW

FENCE DESIGN AT TREES REMAINING IN NORMAL FENCE LINE



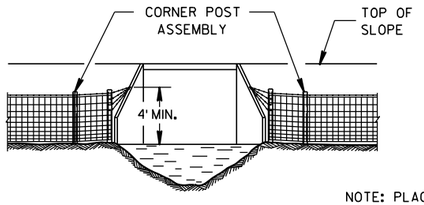
PLAN VIEW
SINGLE POST CORNER

PLAN VIEW
DOUBLE POST CORNER

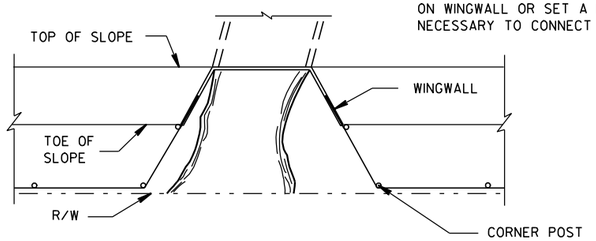
RIGHT OF WAY LINE CHANGE 40° AND LESS

NOTE: SINGLE AND DOUBLE POSTS SHALL BE A MIN. 6" DIA. X 8'-0" WITH A LEAN OF 4" TOWARD THE OUTSIDE OF THE CURVE.

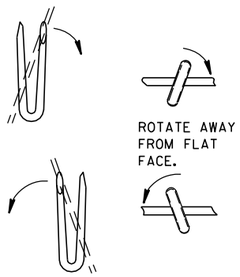
WHEN THE RIGHT OF WAY LINE CHANGE IS MORE THAN 40° USE THE CORNER OR STRETCHER POSTS ASSEMBLY.



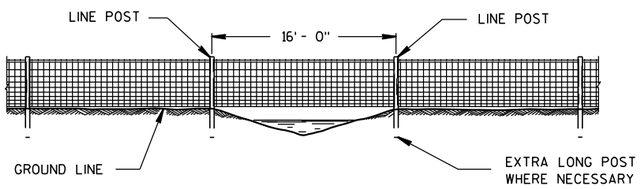
NOTE: PLACE A MINIMUM OF 4 STRANDS OF BARBED WIRE, 6" MAXIMUM CENTERS IN FAN SHAPE CONNECTED TO AN EYE BOLT ON WINGWALL OR SET A LONE POST WHEN NECESSARY TO CONNECT BARBED WIRE.



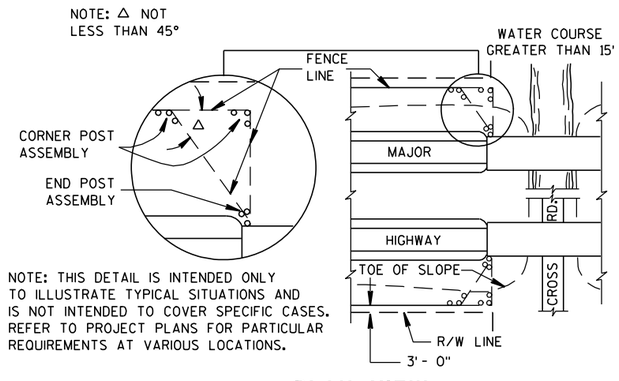
FENCE INSTALLATION TO WINGWALLS



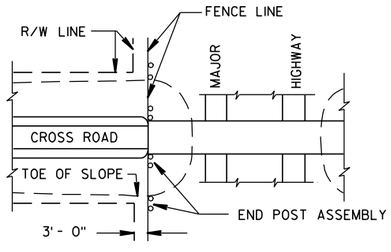
LINE POST



FENCE CONSTRUCTION OVER STREAM COURSES OF 15 FT. OR LESS IN WIDTH

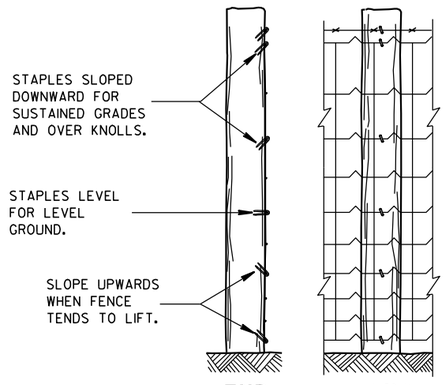


PLAN VIEW
MAJOR HIGHWAY OVERPASS OR STREAM COURSE CROSSING OF GREATER THAN 15 FT. IN WIDTH



PLAN VIEW
MAJOR HIGHWAY UNDERPASS

NOTE: WHEN POSTS ARE DRIVEN THE SMALL END SHALL BE DOWN.



END ELEVATION **FARM SIDE ELEVATION**

FENCE MOUNTING DETAIL

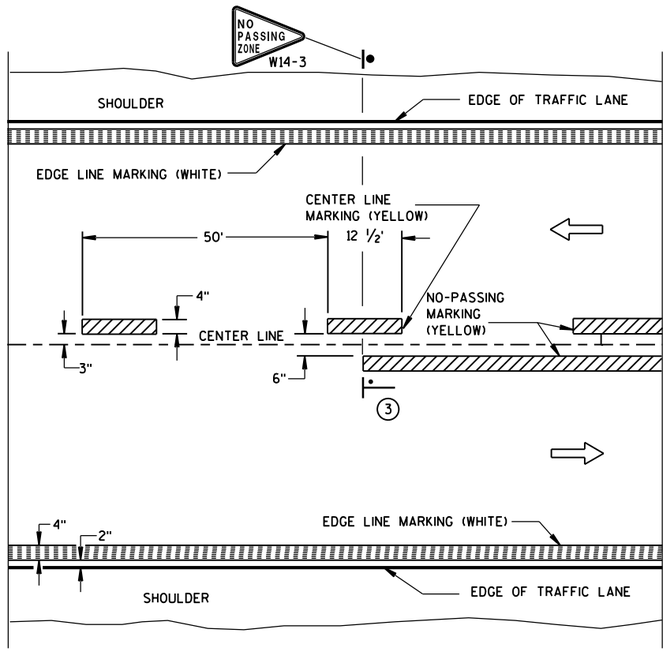
FENCE LOCATION AT STRUCTURES

FENCE WOVEN WIRE

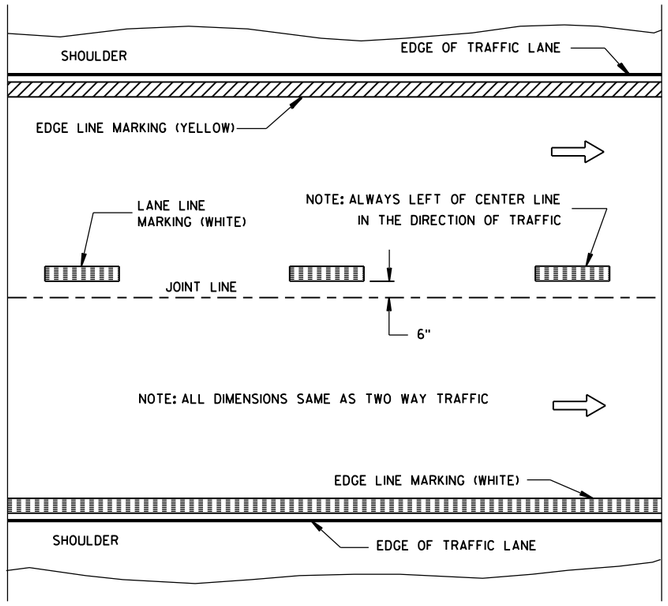
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/4/2008 — DATE
/S/ Jerry H. ---
ROADWAY STANDARDS [88 — ENGINEER
FHWA

6
S.D.D. 15 B 1-8b

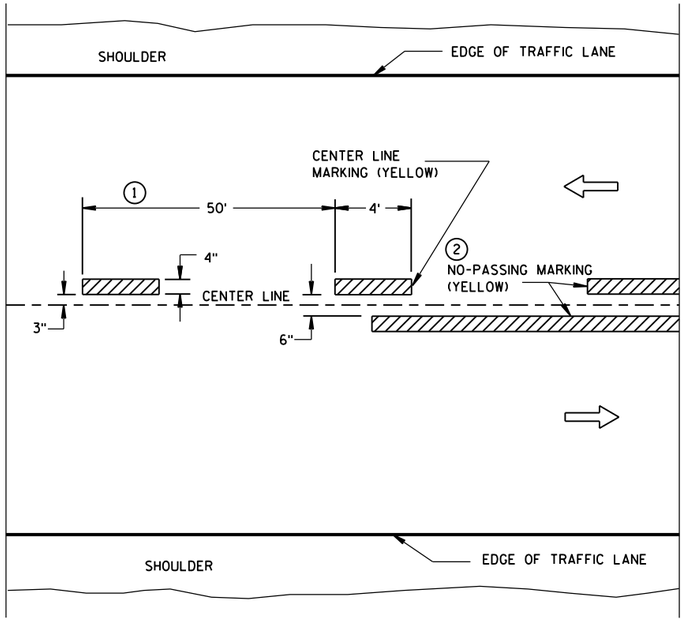


TWO WAY TRAFFIC

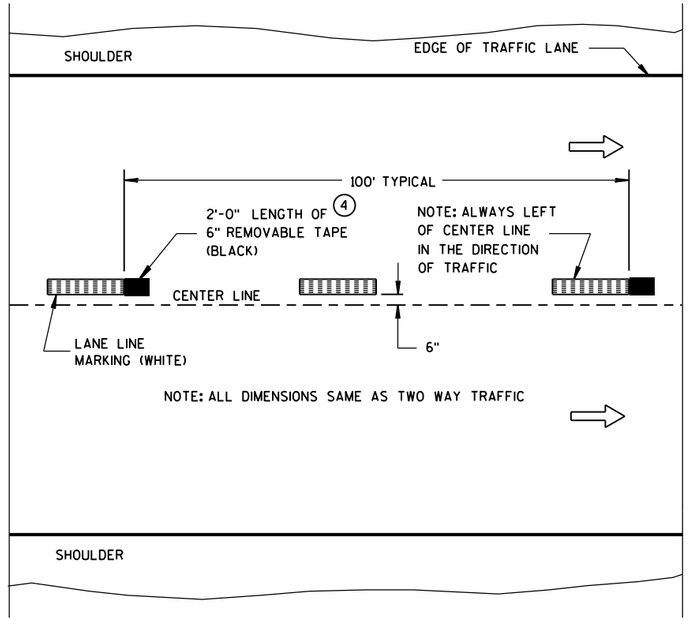


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY (INTERMEDIATE) PAVEMENT MARKING

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

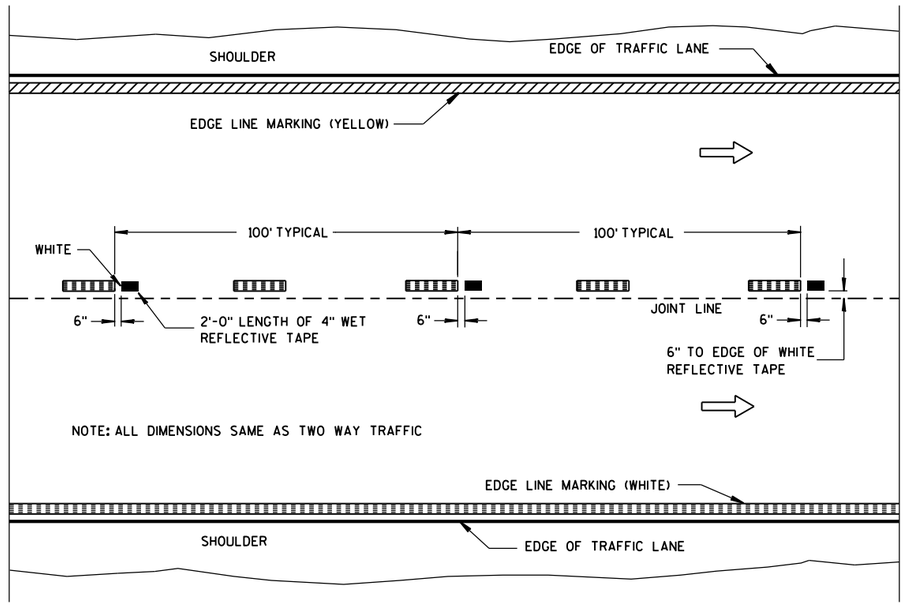
GENERAL NOTES

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

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

NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL



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

LEGEND

"T" MARKING

POST MOUNTED SIGN

PAVEMENT MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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

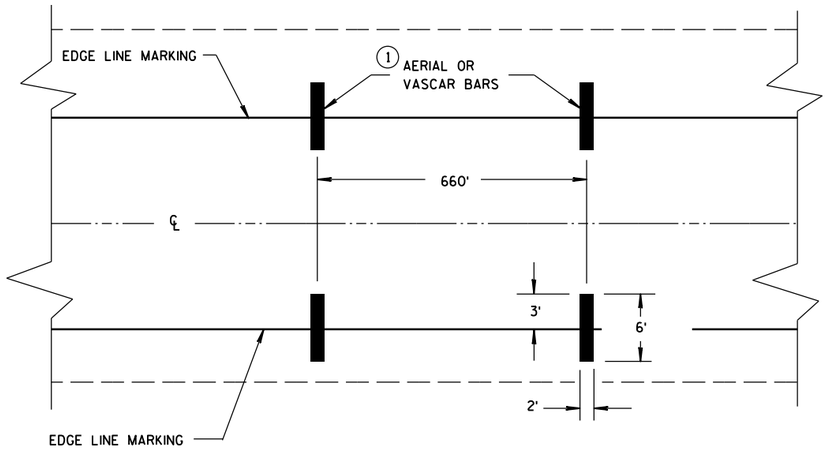
6

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

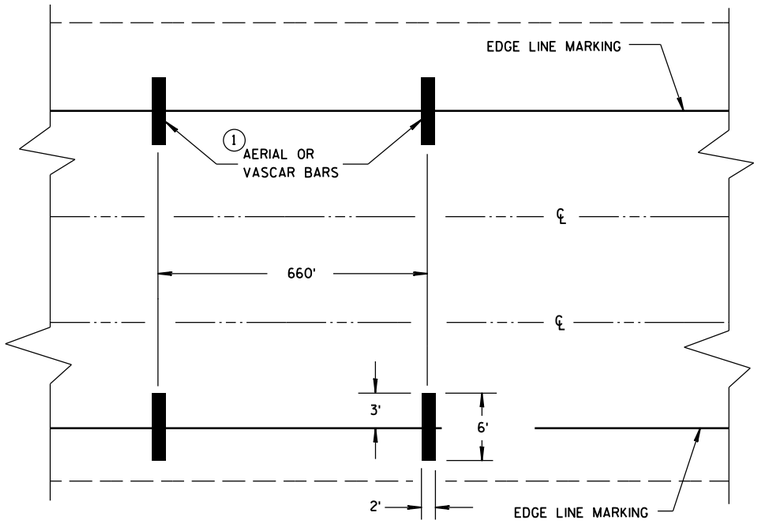
GENERAL NOTES

(1) NUMBER OF VASCAR OR AERIAL BARS SHALL BE A MINIMUM OF 2 OR A MAXIMUM OF 5 AT 660' SPACING.

A CAR CAN BE PROVIDED BY THE WISCONSIN STATE PATROL FOR TRAFFIC CONTROL.



TYPICAL FOR TWO WAY OR ONE WAY TRAFFIC



TYPICAL FOR MULTILANE TRAFFIC

SPEED ENFORCEMENT ZONE WITH AERIAL OR VASCAR BARS

6

S.D.D. 15 C 14-2

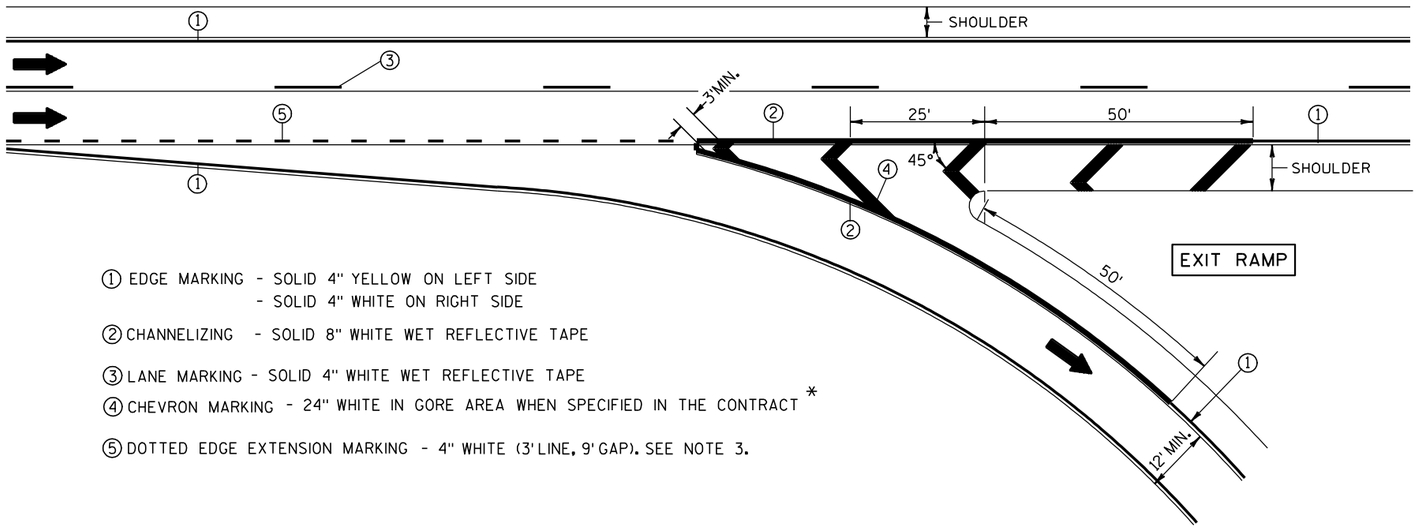
AERIAL ENFORCEMENT BARS
PAVEMENT MARKING DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/18/2016 — DATE
/S/ Matthew R. Rauch
STATE SIGNING AND MAR[illegible] GINEER
FHWA

6

S.D.D. 15 C 14-2



① EDGE MARKING - SOLID 4" YELLOW ON LEFT SIDE
- SOLID 4" WHITE ON RIGHT SIDE

② CHANNELIZING - SOLID 8" WHITE WET REFLECTIVE TAPE

③ LANE MARKING - SOLID 4" WHITE WET REFLECTIVE TAPE

④ CHEVRON MARKING - 24" WHITE IN GORE AREA WHEN SPECIFIED IN THE CONTRACT *

⑤ DOTTED EDGE EXTENSION MARKING - 4" WHITE (3' LINE, 9' GAP). SEE NOTE 3.

NOTES:

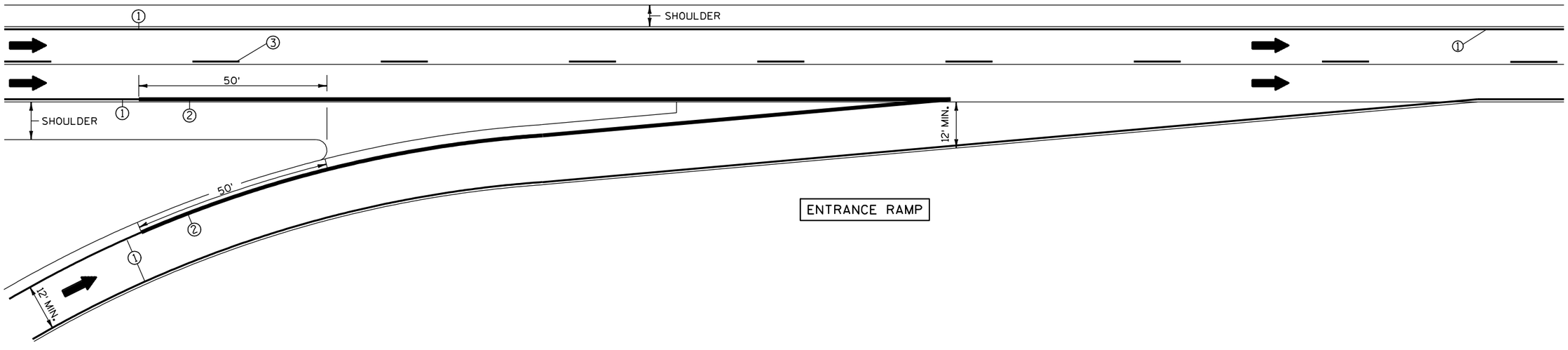
1. ARROWS SHOWN ON THIS MARKING PLAN DESIGNATE TRAFFIC FLOW, AND SHALL NOT BE TAKEN AS PROPOSED PAVEMENT MARKINGS.

2. PLACE WHITE EDGE OF TAPE 6" LEFT FROM JOINT.

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

4. RETRACE EXISTING DIAGONAL MARKINGS.

* REFER TO DESIGN NOTES.



6

6

S.D.D. 15 C 31-1a

S.D.D. 15 C 31-1a

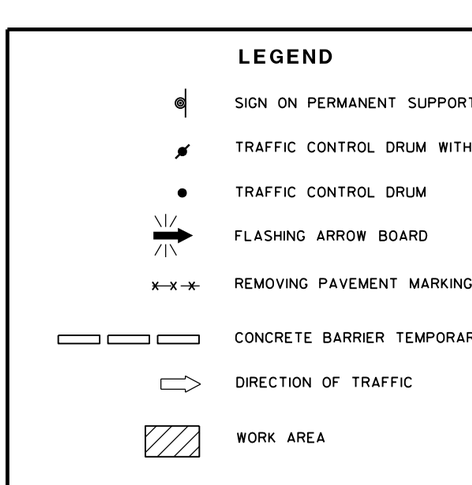
PAVEMENT MARKING
(RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA

L, TAPER LENGTH (MPH)									
SPEED (MPH)	W, LATERAL OFFSET (FT)								
	10	11	12	13	14	15	16	17	18
45	450	495	540	585	630	675	720	765	810
50	500	550	600	650	700	750	800	850	900
55	550	605	660	715	770	825	880	935	990
60	600	660	720	780	840	900	960	1020	1080
65	650	715	780	845	910	975	1040	1105	1170
70	700	770	840	910	980	1050	1120	1190	1260

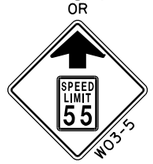


W12-52P 42"x36" EACH LANE

OR

INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET).

OR



LOCATED 2600 FEET IN ADVANCE OF R2-1 SIGN AND 500 FEET BEYOND THE "ROAD WORK 1 MILE" SIGN.

OR

R2-1 48"x60" (BLACK AND WHITE) LOCATED 500 FEET BEYOND W20-5G SIGN.

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

GENERAL NOTES

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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

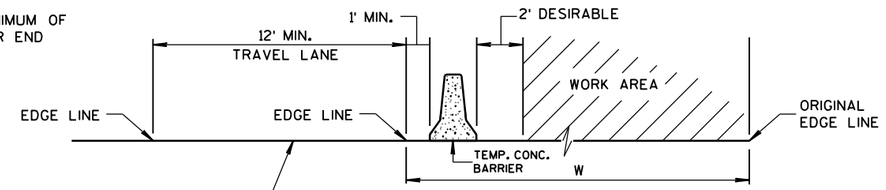
(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

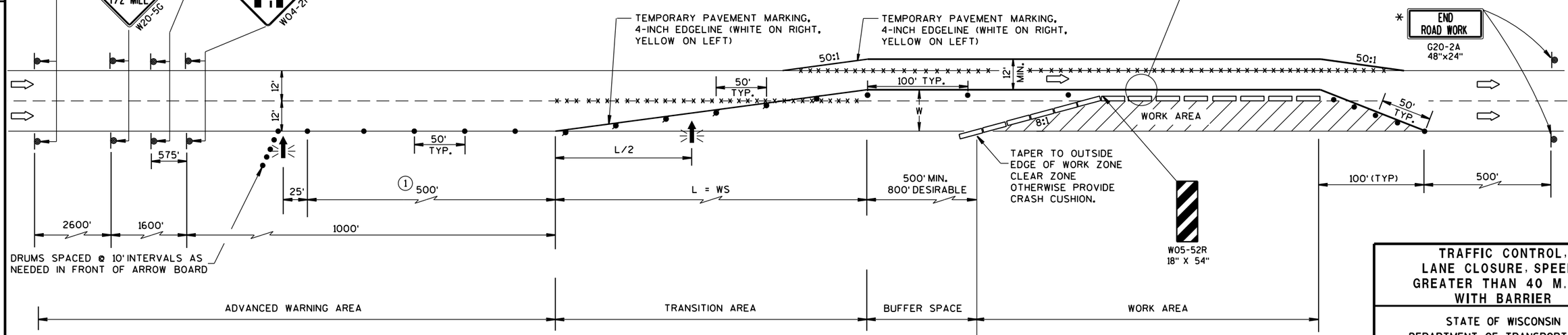
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP OR INTERSECTION. THE LANE CLOSURE MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.



TYPICAL SECTION



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 3-3

6

S.D.D. 15 D 3-3

LEGEND

- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON PERMENENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC
- WORK AREA

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.

THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A MINIMUM OF 200 FEET, (500 FEET DESIREABLE) DISTANCE TO EXISTING SIGNS.

THIS LANE CLOSURE IS TYPICAL FOR CLOSING RIGHT LANE - REVERSE FOR CLOSING LEFT LANE.

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

"WO" IS THE SAME AS "W" EXCEPT THE BACKGROUND IS ORANGE.

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. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUMS.

FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

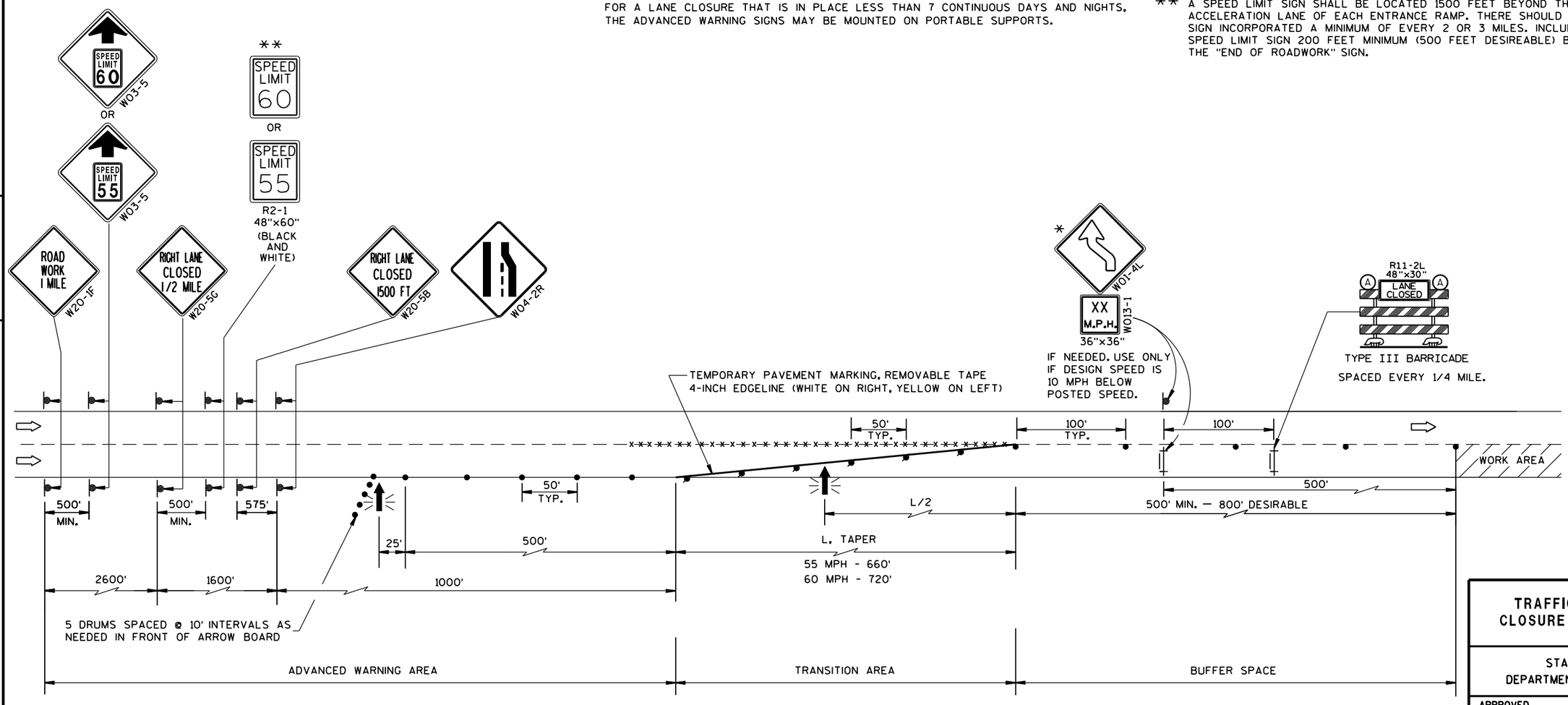
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE CLOSURE OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE CLOSURE MUST MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP SHOULD BE 1/2 THE LENGTH OF THE TRANSITION AREA. THE ENTRANCE RAMP SHOULD BE FOLLOWED BY THE ORIGINAL BUFFER SPACE LENGTH OF 800 FEET DESIRABLE PRIOR TO ANOTHER TRAFFIC CONTROL CHANGE SUCH AS A CROSSOVER MANEUVER.

* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 12-6b

6

S.D.D. 15 D 12-6b

LEGEND

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

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT SHOULDER. FOR CLOSING THE LEFT SHOULDER, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR DIVIDED ROADWAYS WITH ANY NUMBER OF TRAVEL LANES.

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.

SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL OF STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

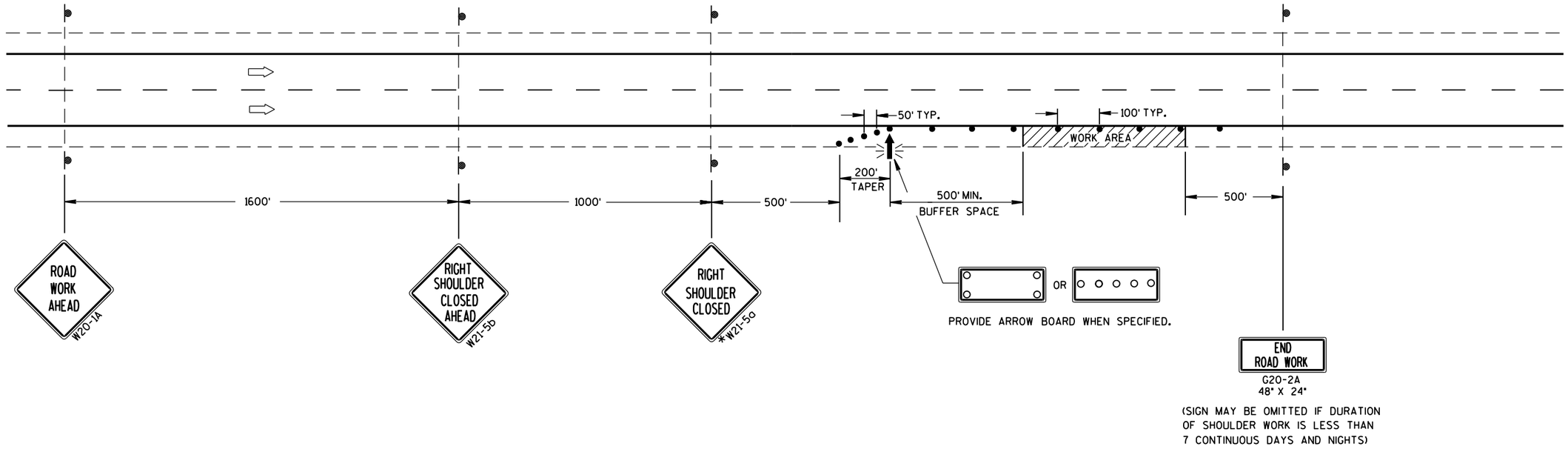
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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.

CHANNELIZING DEVICES PLACED ADJACENT TO THE WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

WHEN A 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.

*FOR SHORT DURATION SHOULDER WORK OF LESS THAN ONE HOUR, THE W21-5a SIGN MAY BE OMITTED.



TRAFFIC CONTROL SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

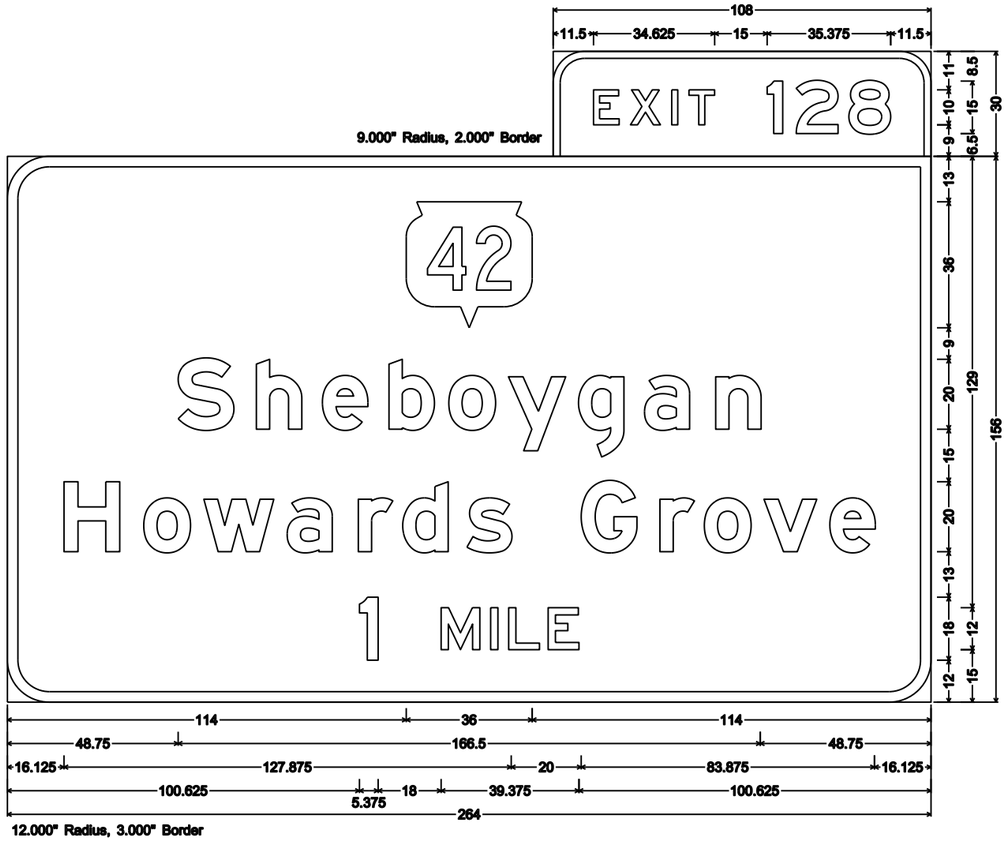
FHWA

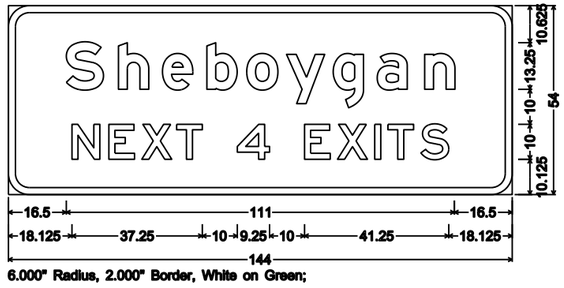
6

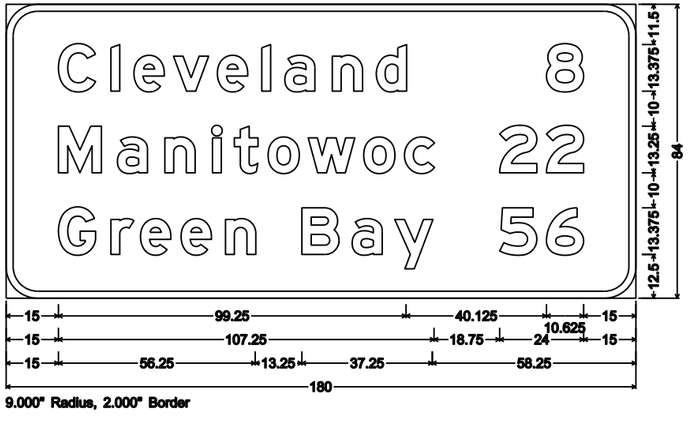
S.D.D. 15 D 27-3

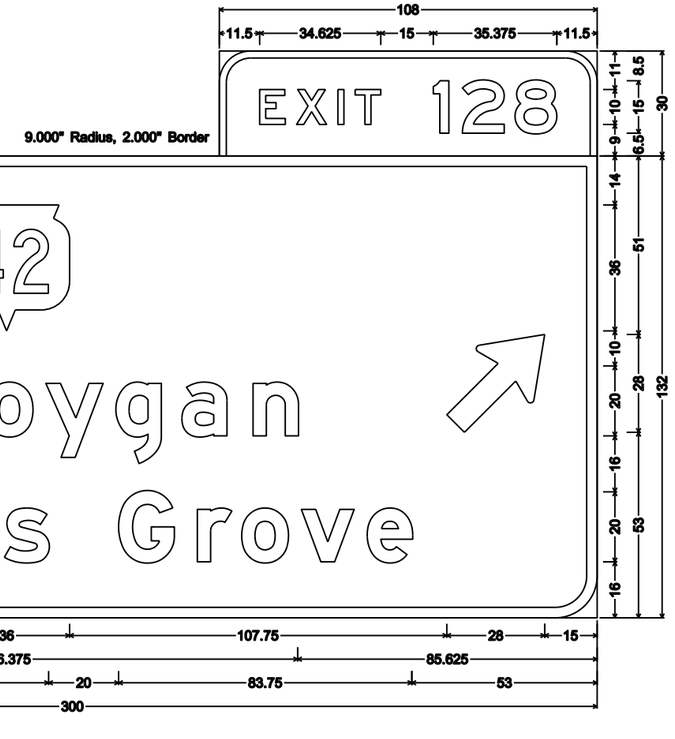
NOTES

1. All Signs are Type I - Type SH Reflective
2. Color:
   Background - Green
   Message - White
3. Message Series - E Modified except all cap Words are Series E









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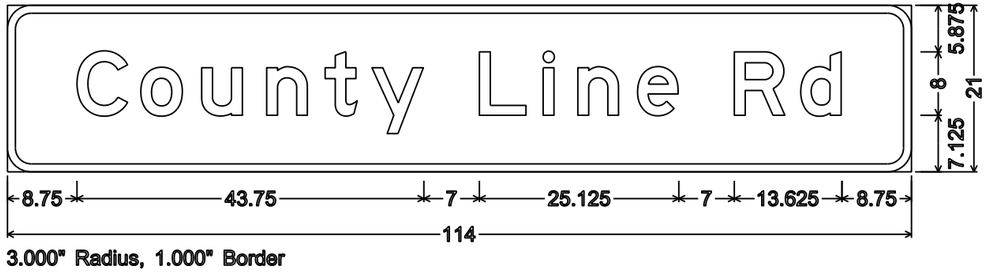
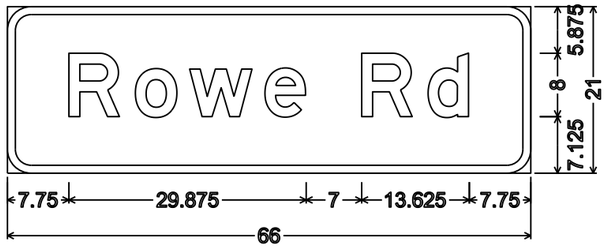
7

NOTES

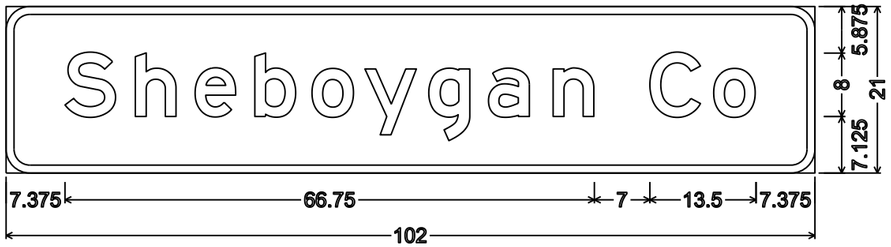
1. All Signs Type II - Type H Reflective
2. Color:
   Background - GREEN
   Message - WHITE
3. Message Series - E



3.000" Radius, 1.000" Border



3.000" Radius, 1.000" Border



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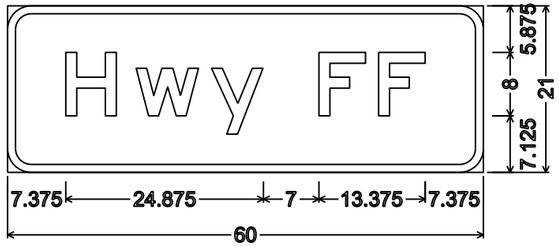

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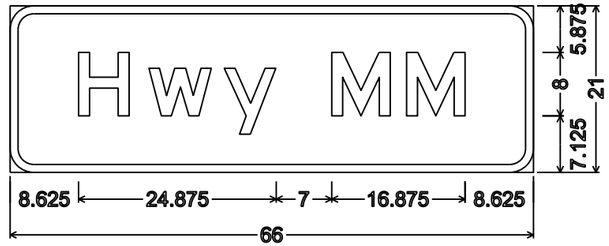

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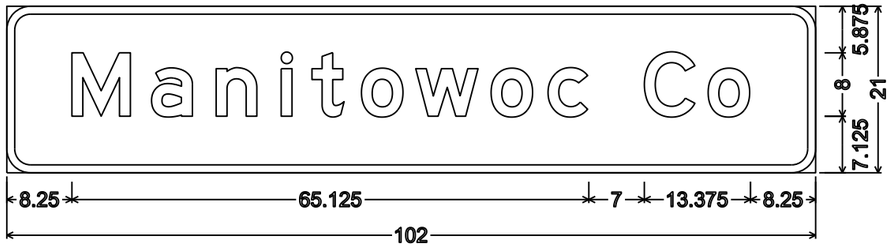

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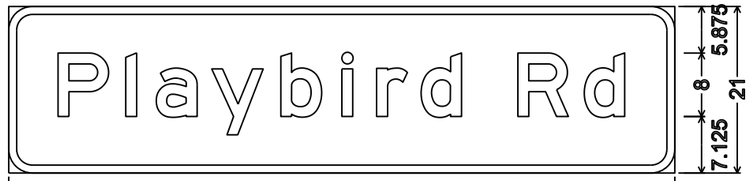

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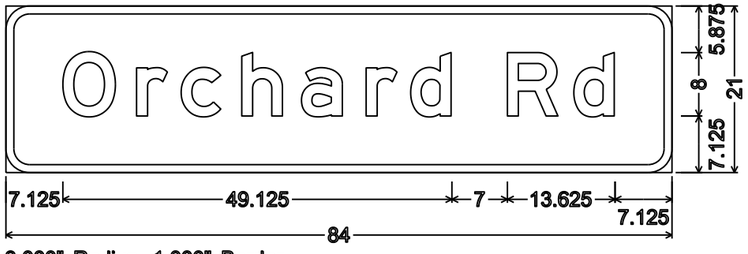

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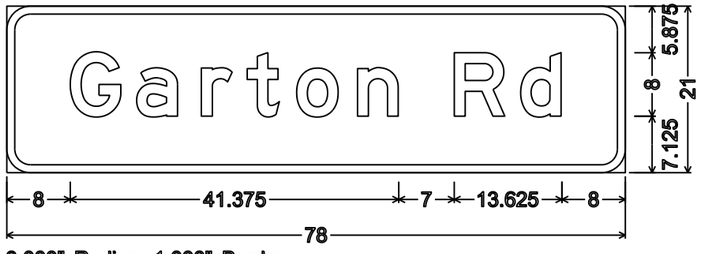


3.000" Radius, 1.000" Border

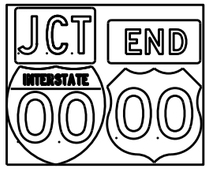
7

7

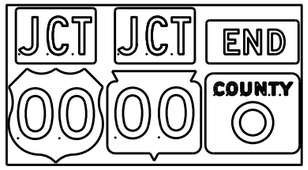
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	PERMANENT SIGNING	SHEET NO: 96	E

TYPICAL ASSEMBLIES

J1-1

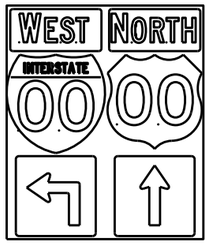


J1-2

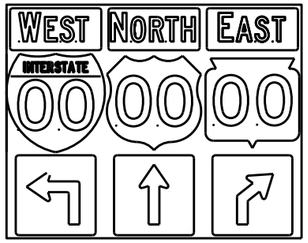


J1-3

J2-1



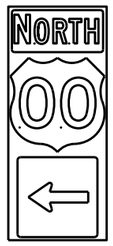
J2-2



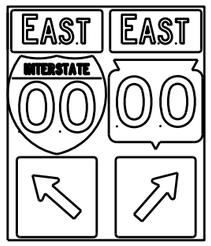
J2-3

JV

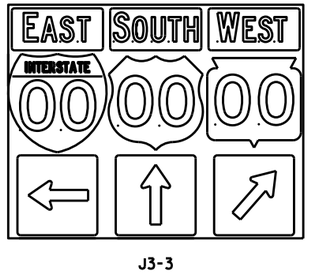
(Typical Vertical J-Assembly
See Note 10 and 11)



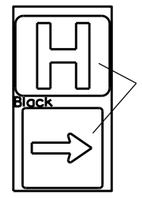
J3-1



J3-2



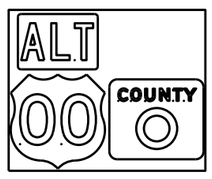
J3-3



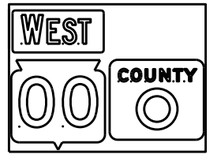
Blue Background

JH-1

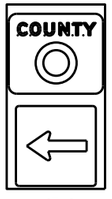
J4-1



J4-2



J4-2



J13-1

J12-1

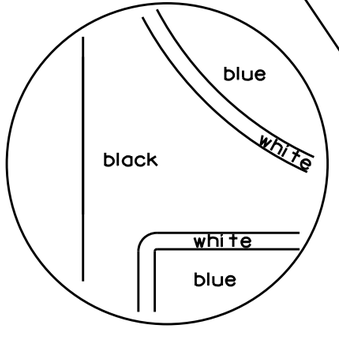
J32-1

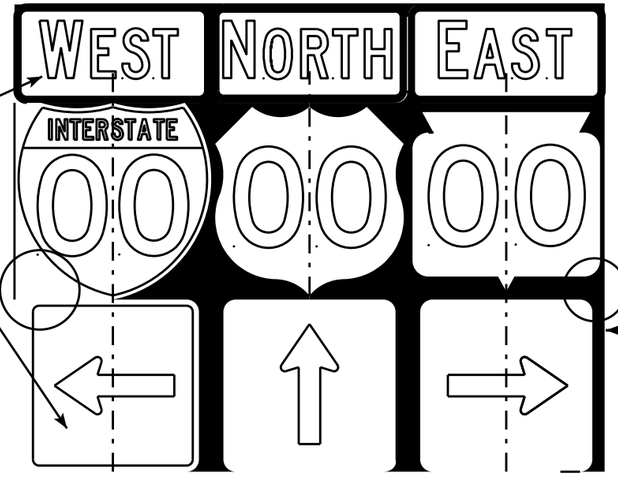
J33-1

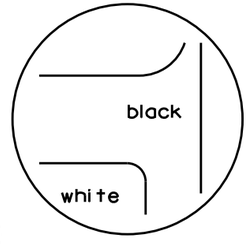
J23-1

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

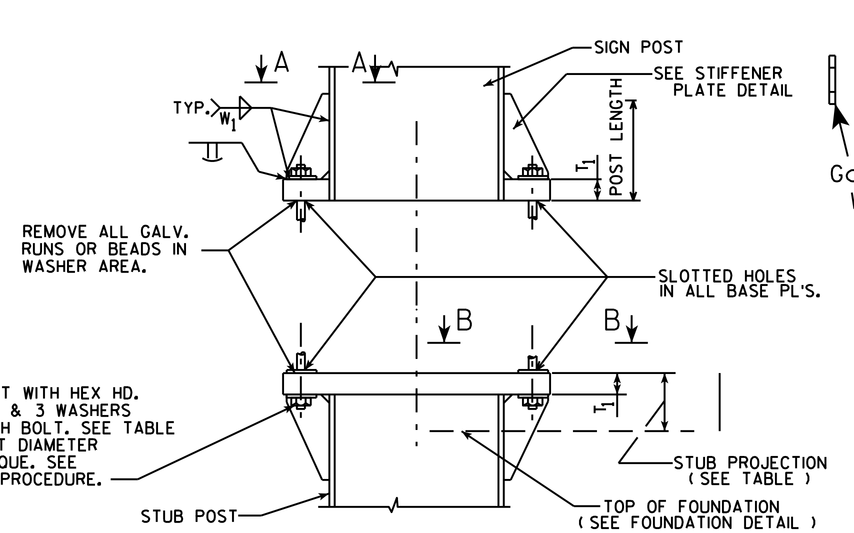
DATE 2/06/14 PL... A2-1S.8

PROJECT NO:

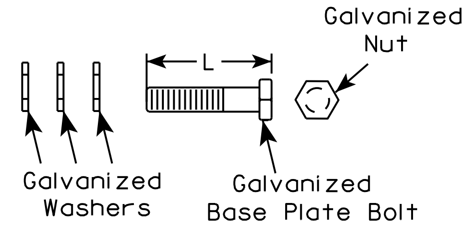
SHEET NO: E

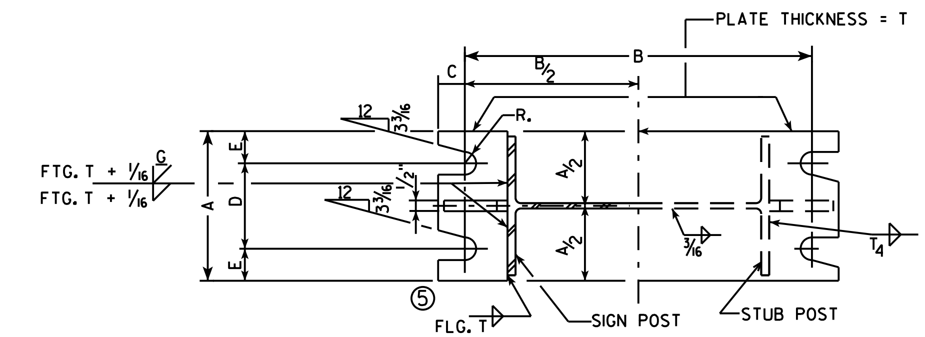
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A21S.DGN PLOT DATE : 06-FEB-2014 14:10 PLOT BY : mscsja PLOT NAME :

WISDOT/CADDS SHEET 42

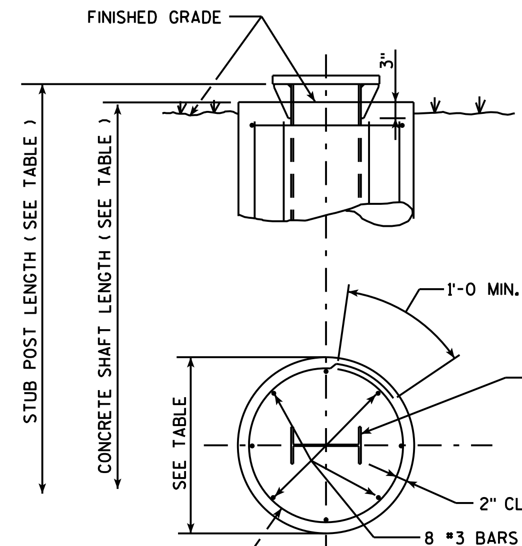

A
A
B
B
TYP.
W_1
SIGN POST
SEE STIFFENER PLATE DETAIL
POST LENGTH
T_1
REMOVE ALL GALV. RUNS OR BEADS IN WASHER AREA.
SLOTTED HOLES IN ALL BASE PL'S.
H. S. BOLT WITH HEX HD. HEX NUT & 3 WASHERS WITH EACH BOLT. SEE TABLE FOR BOLT DIAMETER AND TORQUE. SEE BOLTING PROCEDURE.
STUB PROJECTION (SEE TABLE)
TOP OF FOUNDATION (SEE FOUNDATION DETAIL)
STUB POST

SIGN POST AND STUB POST ELEVATION

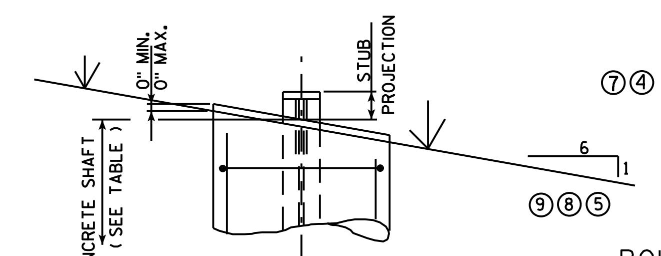




SECTION A-A SECTION B-B



SECTION



SHAFT PLACEMENT

DESIGN DATA

WIND PRESSURE = 75 M.P.H.
WIND COMPONENTS - NORMAL = 1.0 TRANSVERSE = 0.0
ICE LOAD = 3 P.S.F.

GROUP LOADS	PERCENT OF ALLOWABLE STRESS	
1. DEAD	100	
2. DEAD & WIND	140	
3. DEAD, ICE & 1/2 WIND▲	140	▲25 P.S.F. MIN.

ALLOWABLE SOIL PRESSURE = $1\frac{1}{2}$T / SQ. FT.
WIND LOAD WAS APPLIED TO THE AREA OF THE SIGN AND TO THE SUPPORTING MEMBERS.
ICE LOAD WAS APPLIED TO ONE FACE OF THE SIGN AND AROUND THE SURFACE OF THE SUPPORTING MEMBERS.

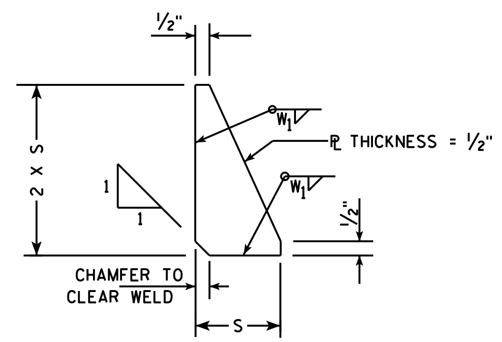
GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.
DESIGN CONFORMS WITH A.A.S.H.T.O. SPECIFICATIONS 1985.
ALL POSTS, POST STUBS & ATTACHMENTS SHALL BE A.S.T.M. A709 GRADE 50, GALVANIZED IN ACCORDANCE WITH ASTM A123. ⑨
THE POST, BASE PLATES, UPPER SIX INCHES OF STUB POST FLANGE SPLICE PLATE AND FUSE PLATE SHALL BE GALVANIZED AFTER FABRICATION. ⑦④
FURNISH STEEL BOLTS, NUTS, AND WASHERS IN ACCORDANCE WITH SECTION 635 OF THE STANDARD SPECIFICATIONS.

BOLTING PROCEDURE - BASE CONNECTION

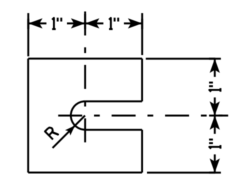
1. ASSEMBLE SIGN POST TO STUB POST WITH BOLTS AND ONE OF THE FLAT WASHERS ON EACH BOLT BETW. PLATES.
2. SHIM AS REQ'D. TO PLUMB POST.
3. PRIOR TO BOLT TIGHTENING LUBRICATE BASE CONNECTION BOLTS WITH BEESWAX OR OTHER HIGH-WAX LUBRICANT.
4. TIGHTEN ALL BOLTS THE MAXIMUM POSSIBLE WITH 12" OR 15" WRENCH TO BED WASHERS & SHIMS AND TO CLEAN BOLT THREADS, THEN LOOSEN EACH BOLT IN TURN AND RETIGHTEN IN A SYSTEMATIC ORDER TO THE PRESCRIBED TORQUE. (SEE TABLE)
5. BURR THREADS AT JUNCTION WITH NUT USING A CENTER PUNCH TO PREVENT NUT LOOSENING.

NOTE:
TIGHTEN THE HIGH STRENGTH BOLTS TO THE TORQUE SHOWN.
DO NOT OVERTIGHTEN.



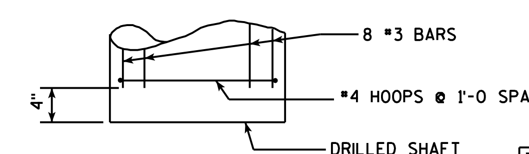
STIFFENER PLATE DETAIL

(SEE TABLE FOR DIMENSIONS)



FURNISH 2 @ .012" ± THICK AND 2 @ .032" ± THICK SHIMS PER POST. SHIMS SHALL BE FABRICATED FROM BRASS SHIM STOCK OR STRIP CONFORMING TO A.S.T.M.- B36.

SHIM DETAIL



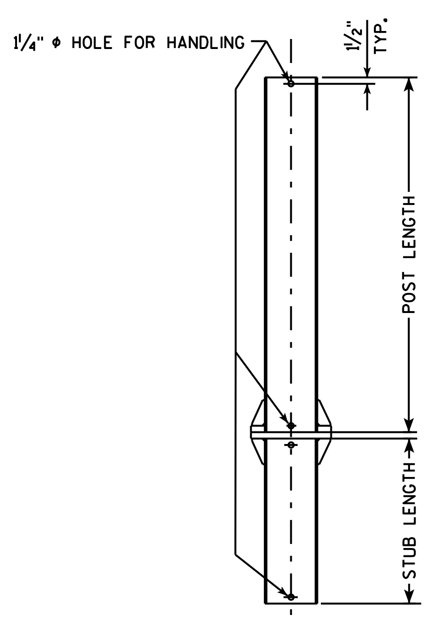
FOUNDATION DETAIL

⑦

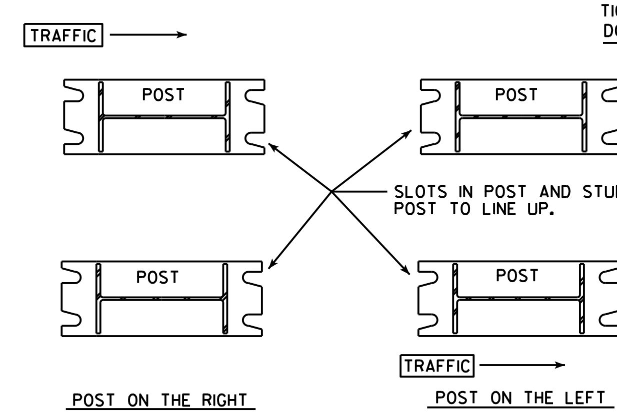
QUANTITIES FOR 1 FOOTING		
	CONC. MASONRY C.Y.	REINF. STEEL LBS.
A	0.6	34
B	0.8	49
C	0.9	50
D	0.9	56
E	1.0	62

⑦

	TYPE	#3	#4
REINF.	A	8 @ 4'-5	5 @ 6'-3
	B	8 @ 6'-5	7 @ 6'-3
	C	8 @ 6'-11	7 @ 6'-3
	D	8 @ 7'-5	8 @ 6'-3
	E	8 @ 7'-11	9 @ 6'-3



POST DETAIL



POST SLOT ORIENTATION ⑦

				BASE CONNECTION DATA TABLE											FOUNDATION DATA				②
L	X	TYPE	DIMENSION / POST SIZE	BOLT SIZE & TORQUE	A	B	C	D	E	T_1	T_4	W_1	R	S	STUB LENGTH	STUB PROJECTION	SHAFT DIAMETER	SHAFT LENGTH	K
3 3/4	④	A	W10"X12.0 #/FT.	3/4" φ @ 75#-FT.	5 1/4"	1'-0 3/8	7/8"	3 1/2"	7/8'	1"	3/16"	5/16"	13/32"	2 1/8"	3'-6	3"	2'-0 φ	5'-0	76.0# ④
4 3/4	④	B	W12"X16.0 #/FT.	7/8" φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/4"	1/4"	5/16"	15/32"	3"	5'-6	3"	2'-0 φ	7'-0	146.5# ④
5		C	W12"X19.0 #/FT.	7/8" φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	5/16"	5/16"	15/32"	3"	6'-0	3"	2'-0 φ	7'-6	182.1#
5		D	W12"X22.0 #/FT.	7/8" φ @ 85#-FT.	5 1/2"	1'-4 1/4	1"	3 1/2"	1"	1 1/2"	3/8"	5/16"	15/32"	3"	6'-6	3"	2'-0 φ	8'-0	210.5#
5	③	E	W12"X26.0 #/FT.	1" φ @ 90#-FT.	7"	1'-4 1/4	1 1/4"	4"	1 1/2"	1 1/2"	3/8"	5/16"	17/32"	3"	7'-0	3"	2'-0 φ	8'-6	293.0# ③

① ⑥ ①

STRUCTURAL CARBON STEEL PAY WTS. (1 POST) = K+ (POST LENGTH X POST WT.)
" K " INCLUDES STUB, BASE PLATES, STIFFS., BOLTS, AND WASHERS.

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 11/12/15 PLATE NO. A3-1.16

NO.	DATE	REVISION
⑩	1-21-14	LUBRICATION OF BASE BOLTS
⑨	4-26-11	REMOVE NON-GALVANIZED
⑧	10-30-96	NOT GALVANIZED/GALVANIZED
⑦	10-30-92	QUANT., A588 EXCEPT., ADD SLOT VIEW
⑥	8-24-87	BASE CONN. WELD
⑤	10-13-81	BASE CONN. WELD & FUSE PL WASHERS
④	10-19-79	POST A & B, A572 GR. 50, & K
②	11-28-78	"K" ③ 4-23-79 TYPE "E"
①	5-4-78	T_1 , T_2 & W_1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

TYPE A, B, C, D, & E

CONST. SPEC. 2011 DRAWN BY JPH PLANS CK'D.

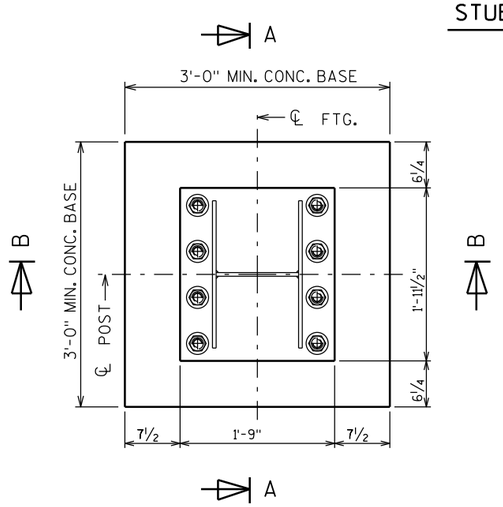
FTG. & SIGN SUPPORT DETAILS GROUND MOUNT BREAK-AWAY SIGNS

SHEET

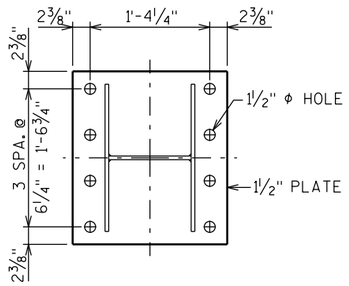
PROJECT NO: HWY: COUNTY: SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31.DGN PLOT DATE : 01-DEC-2015 18:20 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.351066:1.000000

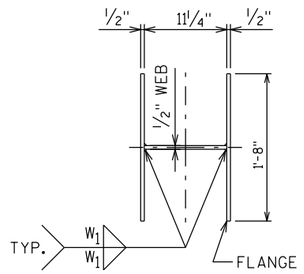
STUB AND MASONRY ANCHOR DETAILS



STUB SECTION



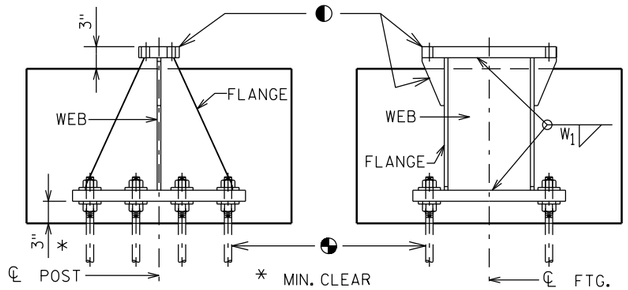
BASE PLATE



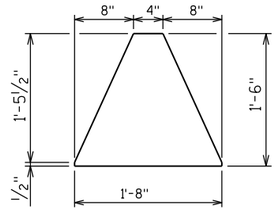
STUB

◐ SEE PLATE NO. A3-1 FOR DETAILS

◒ MASONRY ANCHORS TYPE S 1¼-INCHES (ADHESIVE). ALLOWABLE PULL OUT CAPACITY 14,995 KIPS. EMBED 1'-3" IN ROCK.



SECTION A SECTION B



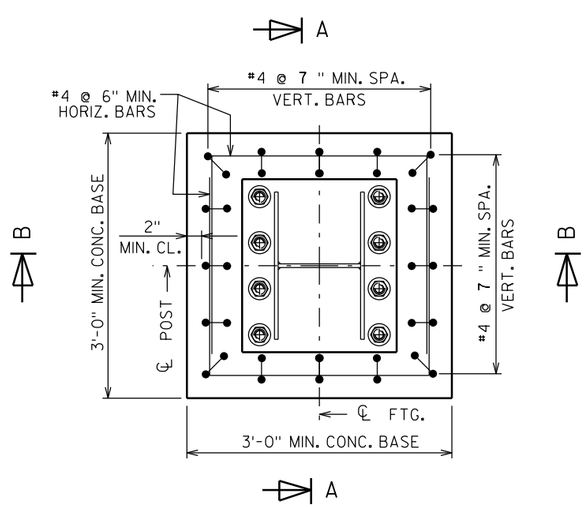
FLANGE

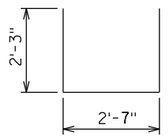
GENERAL NOTES

1. Quantities per Base:
   - REINFORCING BAR STEEL = 62 LBS
   - CONCRETE = 0.6 C.Y.
   - STEEL WEIGHT = 335 LBS
2. All materials, except anchor rod, nuts and washers, are to be A.S.T.M. A709 grade 50. All materials to be galvanized after fabrication.
3. If the contractor encounters rock before reaching the footing depth, per the A3-1 Sign Detail, determine the pull-out capacity of a test adhesive anchor installed in the rock. If the test result equals or exceeds the pull-out capacity of 14,995 KIPS, the contractor may install the breakaway stub for rock, according to this detail.

CONCRETE BASE AND REINFORCING STEEL DETAILS

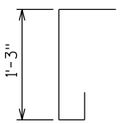
CONCRETE BASE SECTION





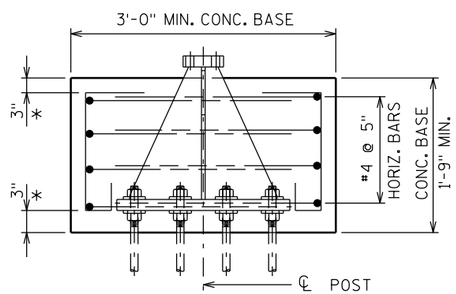
HORIZONTAL BAR

8 BARS @ 6'-11" LENGTH



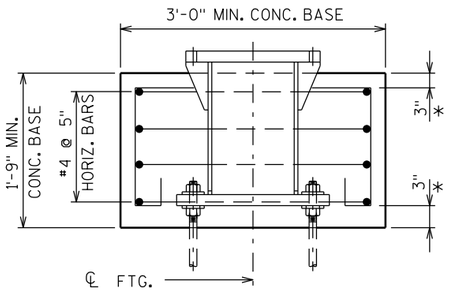
VERTICAL BARS

16 BARS @ 2'-4" LENGTH
MAY BE PLACED IN SKEW
FOR CLEARANCE NEED



SECTION A

* MIN. CLEAR



SECTION B

ALTERNATE BREAK-AWAY BASE ON ROCK
A3-1M

WISCONSIN DEPT OF TRANSPORTATION

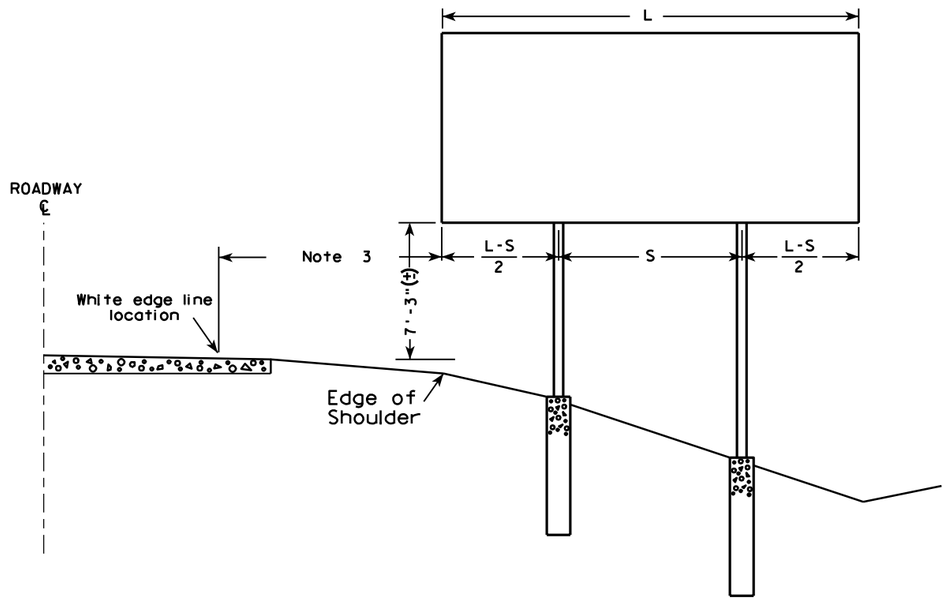
APPROVED Matthew R Rauch
for State Traffic Engineer

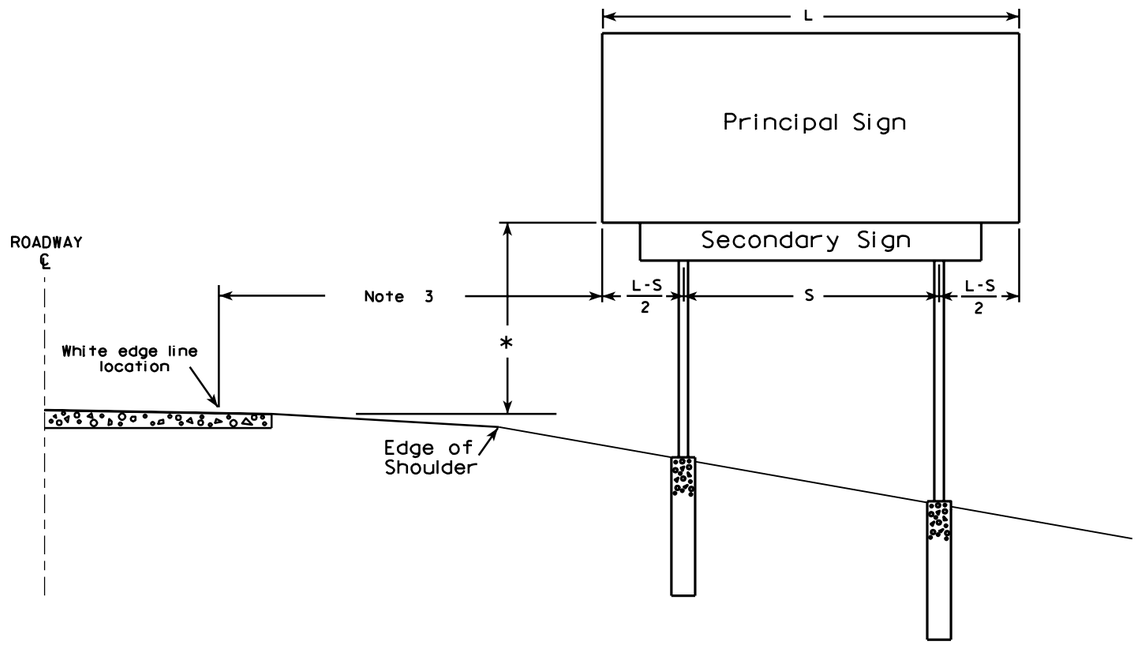
DATE 2/06/2014 PLAN A3-1M.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A31M.DGN PLOT DATE : 10-MAR-2014 15:16 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.556674:1.000000

WISDOT/CADDS SHEET 42





GENERAL NOTES

1. For a 2 post installation, S equals 3L/5, but shall not be less than 9 ft.
2. For a 3 post installation, S equals 5L/7, but shall not be less than 18 ft., and the space between any two posts shall not be less than 9 ft.
3. Unless noted in the plan, the sign offset distance shall be a minimum of 17'-6", desirable 30'-0".
4. The (±) tolerance shown on this sheet is 3 in.
5. The vertical sign height clearance detailed is measured from the bottom of the sign to the near edge of pavement.
6. Post lengths shown in the miscellaneous quantities are estimated lengths. The contractor shall verify post lengths at the time of final grading.
7. Refer to the Traffic Guidelines Manual for further guidance on minimum vertical clearance requirements.

* Clearance is 8'-3"(±) when the secondary sign is 3 ft. or less in height. For secondary signs larger than 3 ft., the clearance to the bottom of the secondary sign shall be 5'-3"(±).

7

7

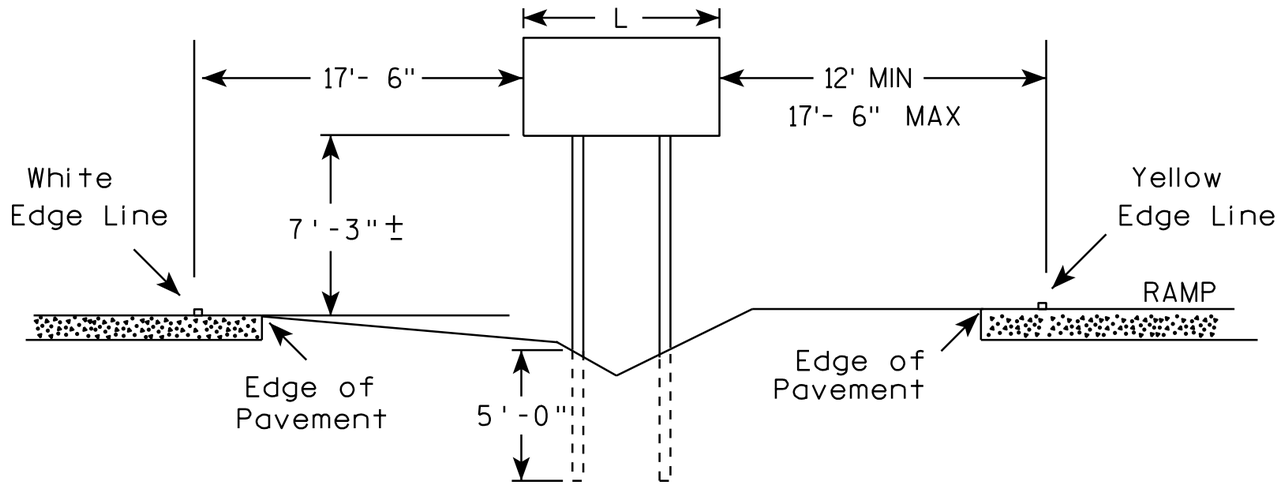
TYPICAL INSTALLATION
OF TYPE I SIGNS

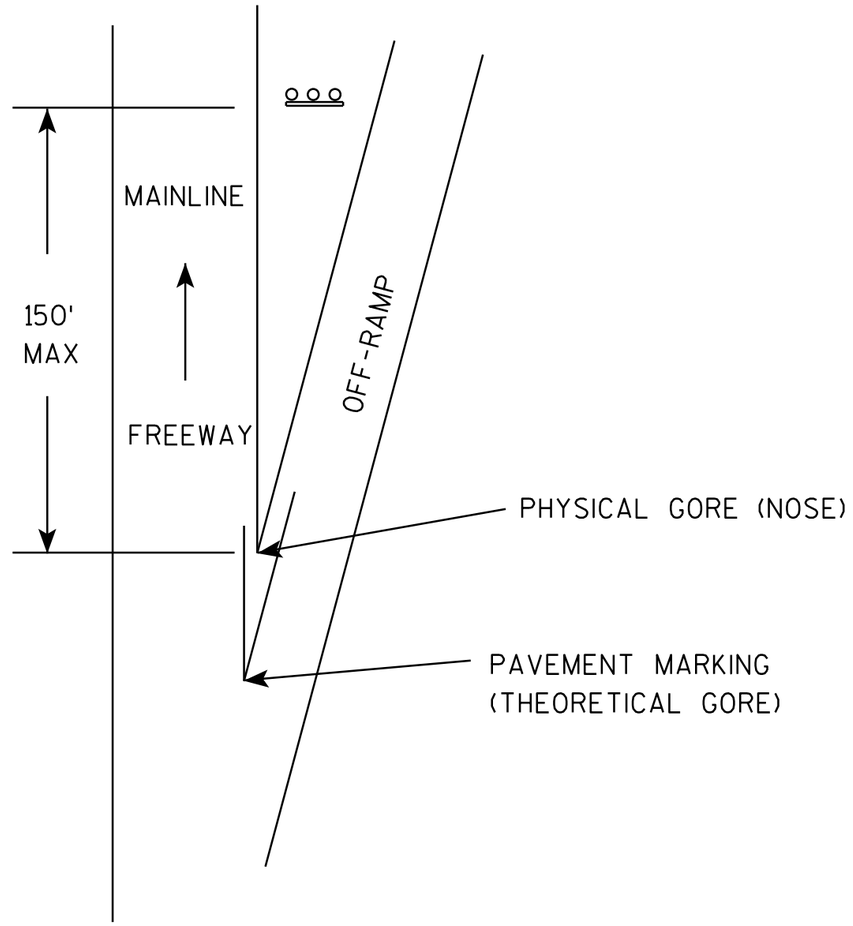
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/02/08 PLATE NO. A4-1.9

PROJECT NO:				SHEET NO: 100	E





GENERAL NOTES

1. The 150 foot distance from the physical gore (where pavement ends) will normally provide the offsets as shown.
2. If roadway geometrics permit, the sign may be closer than the 150 foot distance as long as the offsets are maintained.
3. At no time shall the location be greater than 150 feet. If the normal offsets cannot be maintained, they can be reduced to 6 feet from the edge of the paved shoulder (both freeway and ramp).
4. The offset from edge of sign to the yellow edge line on the ramp is shown as a minimum of 12 feet and a maximum of 17 feet, 6 inches. Preference is adhering to the maximum rather than the minimum dimension.
5. When L is equal to or exceeds 10 feet, use 3 posts as per A4-4.
6. The (∓) tolerance for the mounting height is 3 inches.

7

7

TYPICAL INSTALLATION
OF TYPE II SIGNS ON
WOOD POSTS IN GORE

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

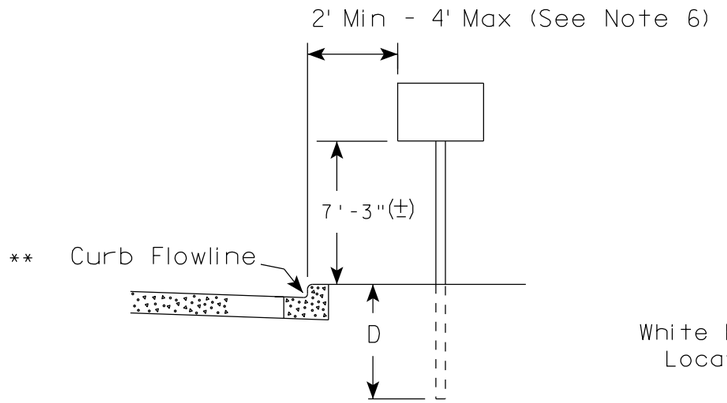
DATE 2/06/14 PLA... A4-2.3

PROJECT NO: | SHEET NO: E

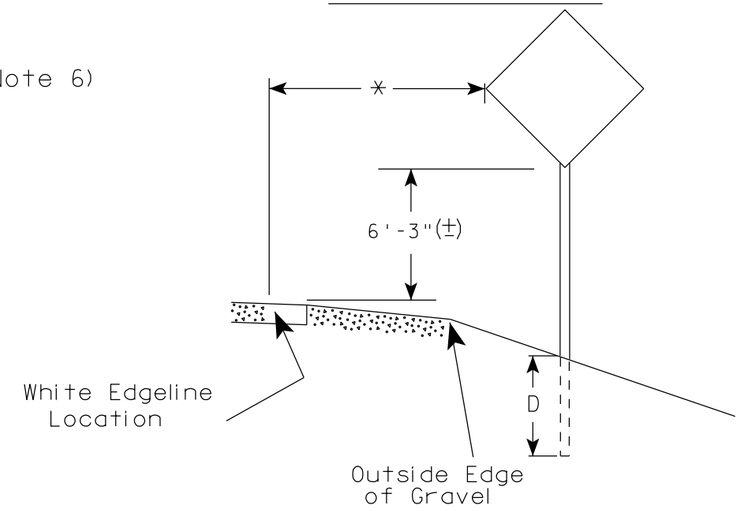
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A42.DGN PLOT DATE : 06-FEB-2014 12:36 PLOT BY : mscsja

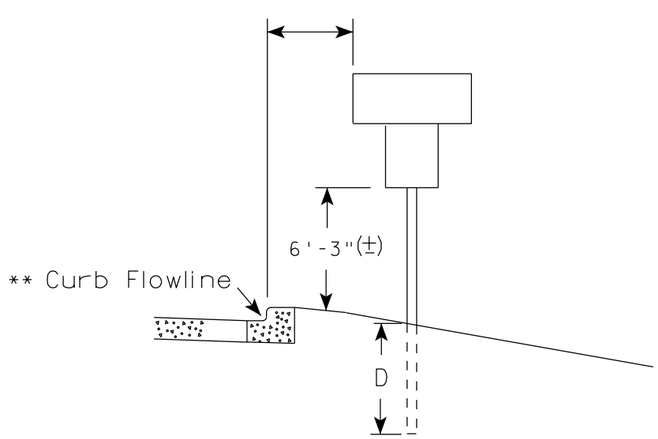
WISDOT/CADDS SHEET 42

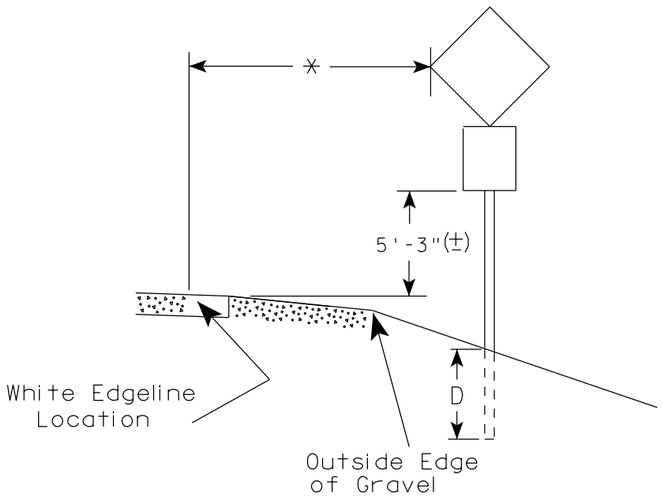
URBAN AREA



RURAL AREA (See Note 2)







GENERAL NOTES

1. Signs wider than 4 feet or 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" (±).

POST EMBEDMENT DEPTH

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

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

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

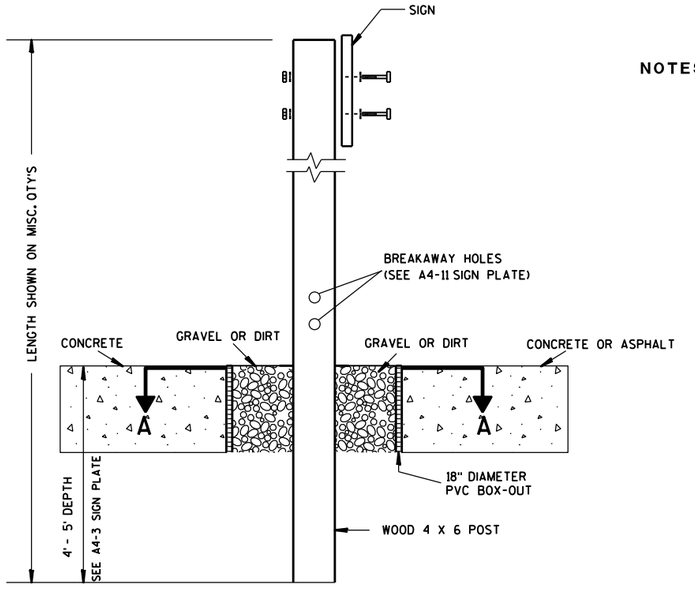
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-3.20

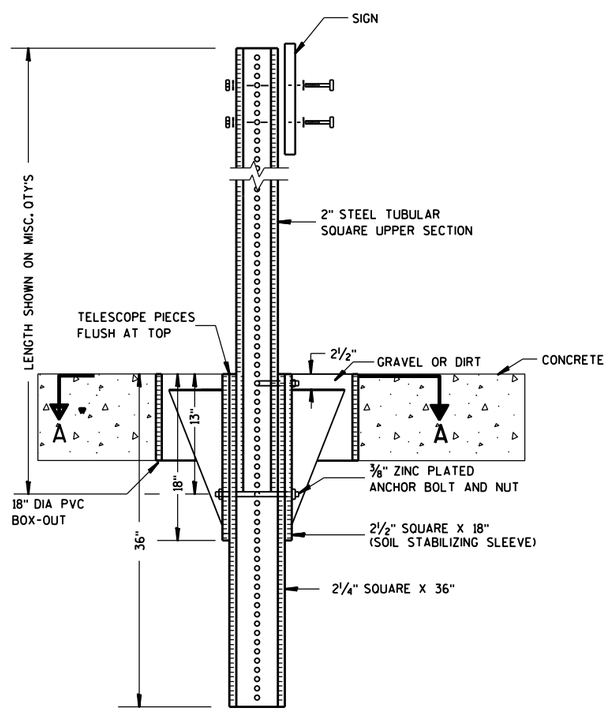
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



ELEVATION VIEW

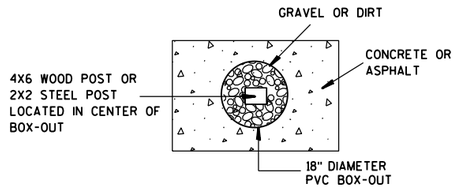
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

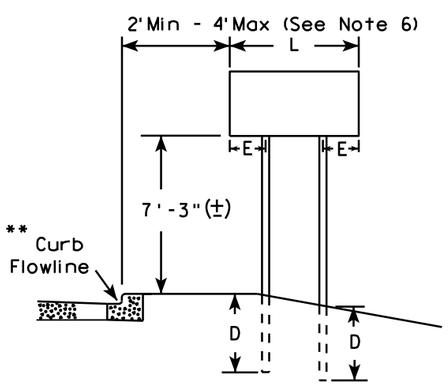
APPROVED Matthew R Rauch
for State Traffic Engineer

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

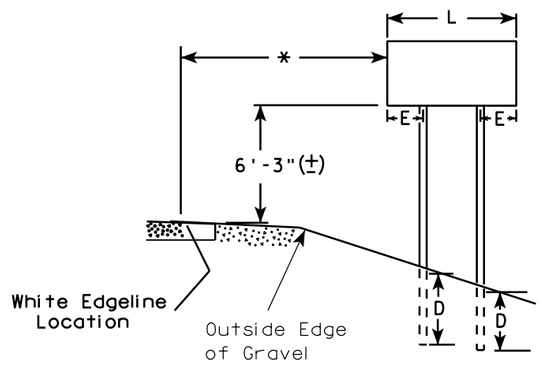
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

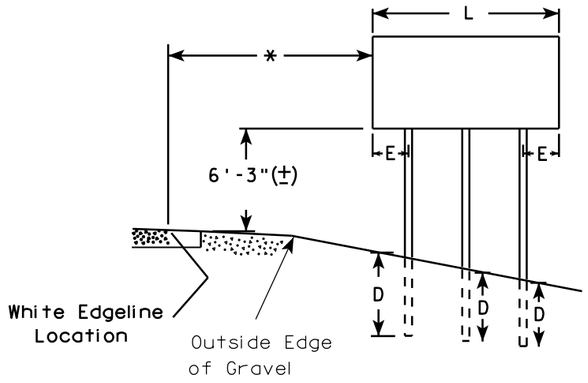
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

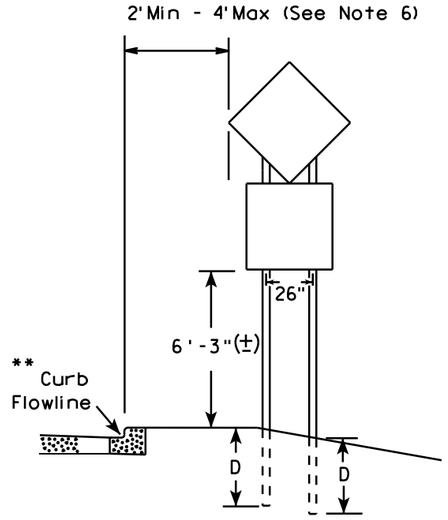
URBAN AREA



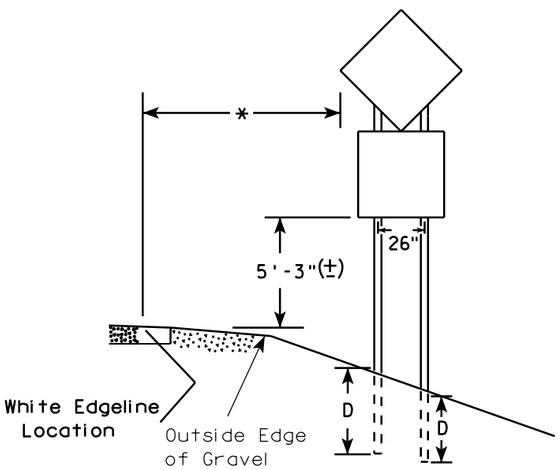
RURAL AREA (See Note 3)







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 and 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

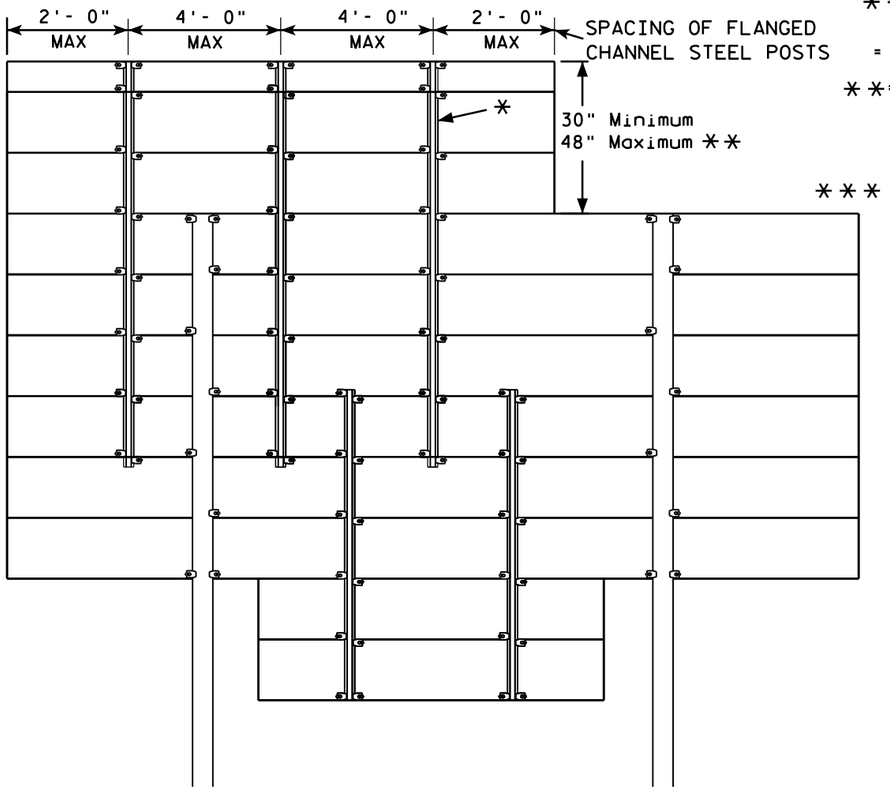
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 7/23/15 PLATE NO. A4-4 14

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A44.DGN PLOT DATE : 23-JUL-2015 15:23 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 107.021305:1.000000 WISDOT/CADDS SHEET 42

GROUND MOUNTED SIGN

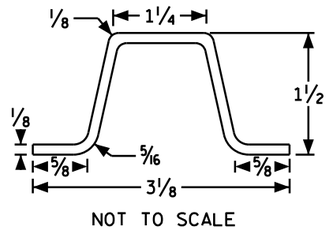


* =2.00 lb/ft FLANGED CHANNEL, MIN. YIELD STRENGTH = 60,000 PSI (GRADE 60) GALVANIZED

** =FOR 48" HEIGHT PANELS ON OVERHEAD STRUCTURES, ENTIRE SIGN SHALL BE CENTERED VERTICALLY ABOUT THE DEPTH OF THE TRUSS.

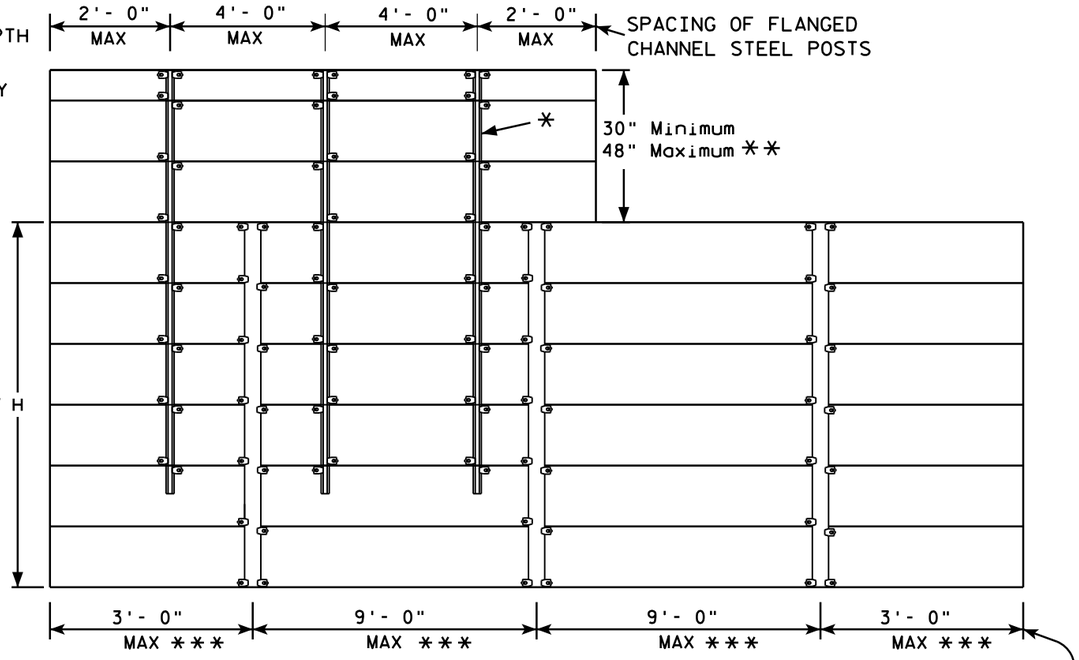
*** THESE SPACING DISTANCES SHALL ONLY BE USED WHEN THE MAIN SIGN HAS A MAXIMUM HEIGHT (DIMENSION H) OF 16 FT OR LESS. FOR SIGNS WITH A HEIGHT OF GREATER THAN 16 FT, STRUCTURAL CALCULATIONS SHALL BE PERFORMED.

FLANGE CHANNEL DETAIL



NOT TO SCALE

SIGN BRIDGE MOUNTED SIGN



GENERAL NOTES

1. Flanged channel steel posts shall conform to size and material above, and shall be considered as incidental to other items in the contract.
2. Number of Flanged channel steel supports varies with length of panel and shall be spaced as shown:

   PANEL LENGTH 8'-0" OR LESS = 2 CHANNELS
   PANEL LENGTH 9'- 0" - 12'- 0" = 3 CHANNELS
   PANEL LENGTH 13'- 0" OR MORE = 4 CHANNELS

   If the flanged channel steel posts can not be horizontally spaced as shown, they can be moved so as to securely hold the sign.
3. The EXIT NUMBER PANEL shall normally be positioned above the guide sign aligned with the right edge of the guide sign. If the guide sign indicates a left exit, the EXIT NUMBER PANEL shall be aligned with the left edge of the guide sign.
4. If the bolt holes in the top panel (EXIT NUMBER), or sub panel (NEXT EXIT) line up with holes in main sign panel, stitch bolts shall be used in addition to the channels.
5. Provide post clips for each sign as shown. (Please note the differences between a ground mounted versus Sign bridge mounted sign as far as number of clips required on the main supports or beams)
6. Structural steel sign supports shall extend to the top of the main signs, as shown on the above details.

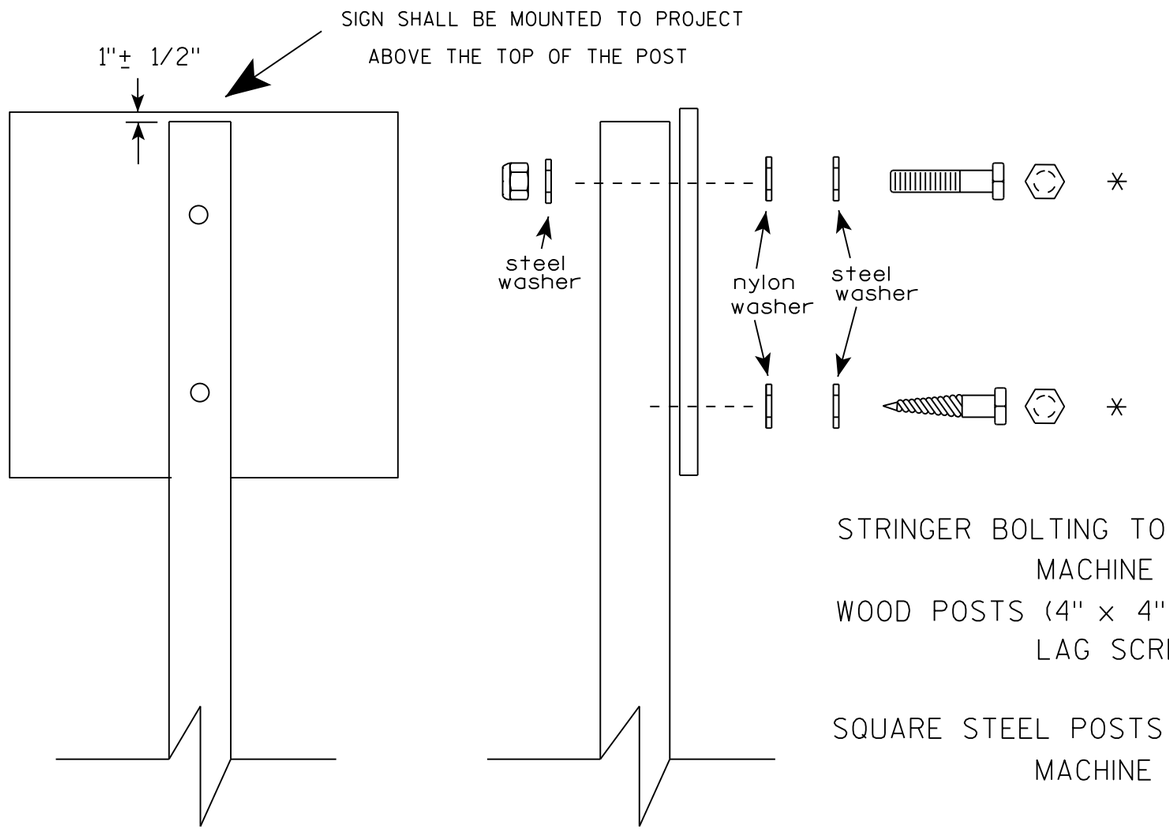
ATTACHMENT OF GUIDE SIGNS TO SUPPORTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/05/13 PLAT 105 A4-6.12

PROJECT NO:				SHEET NO:	E



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

a. Hot dip galvanized in accordance with ASTM Designation: A 153, Class D, or SC 3
b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts
WOOD POSTS (4" x 4" or 4" x 6")
LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)
SQUARE STEEL POSTS (2" x 2")
MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
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

* 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

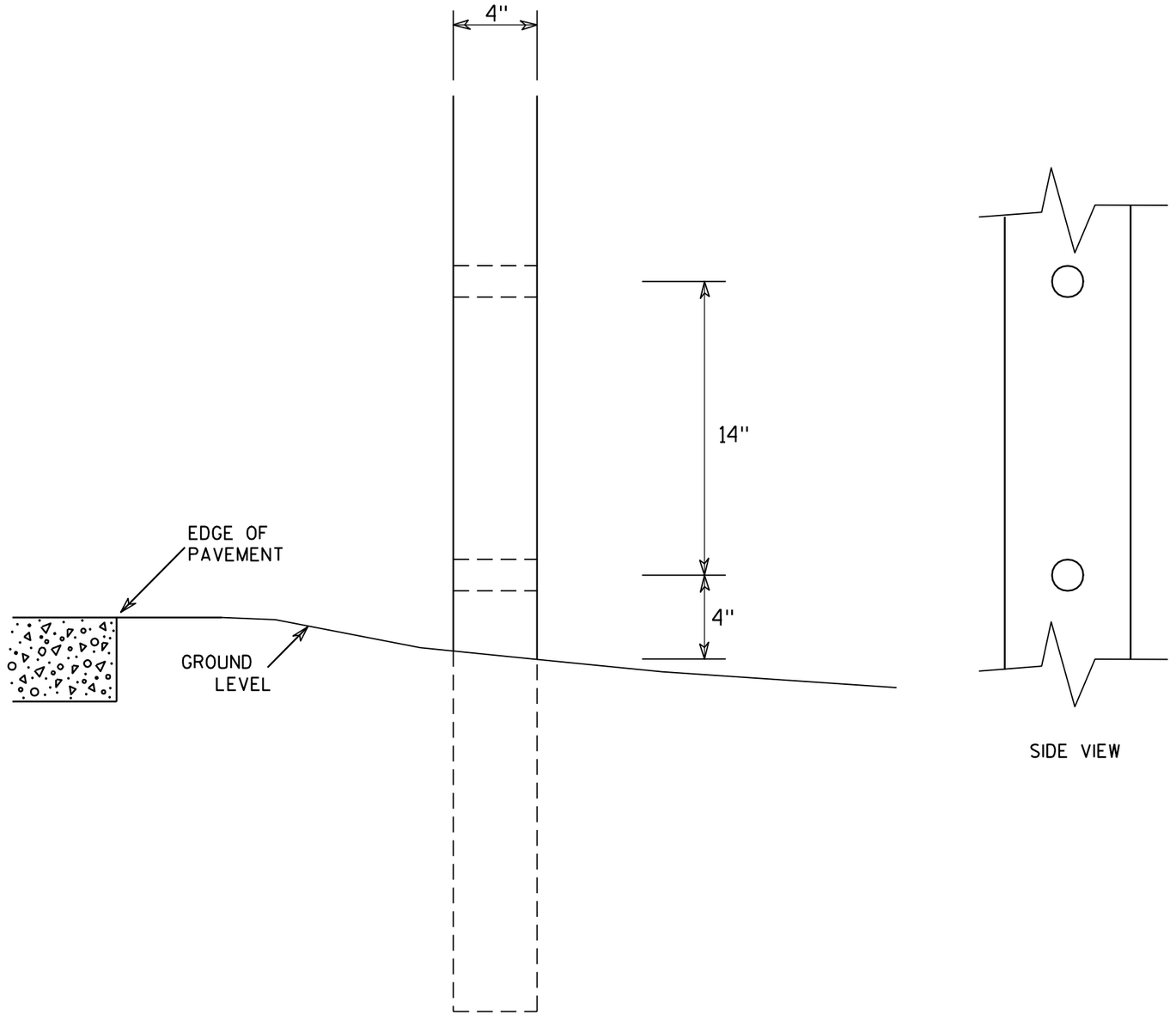
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$



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

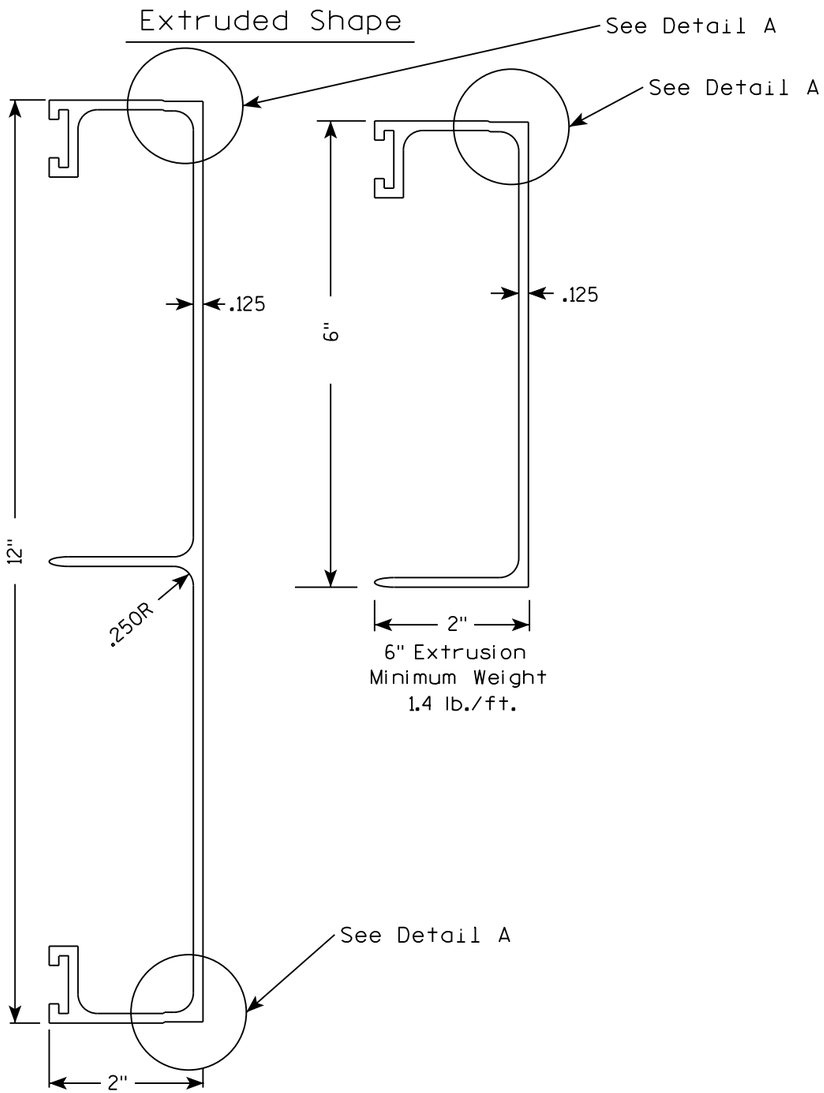
WISCONSIN DEPT OF TRANSPORTATION

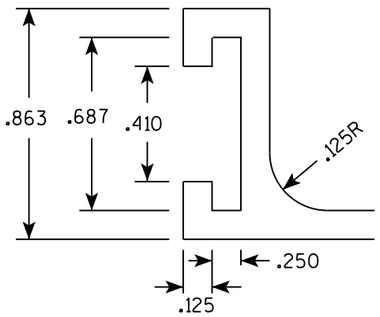
APPROVED Chester J Spang
for State Traffic Engineer

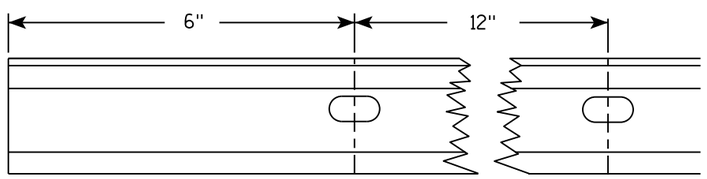
DATE 3/27/97 PLATE NO. A4-11.2

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

Extruded Shape







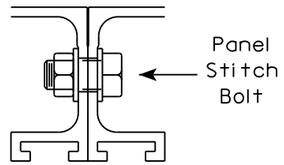
Punch 7/16" x 7/8" oval holes beginning 6" in from end of extrusion 12" CC on both edges of 6" and 12" panels.

Hardware

STITCH BOLT, WASHER & NUT

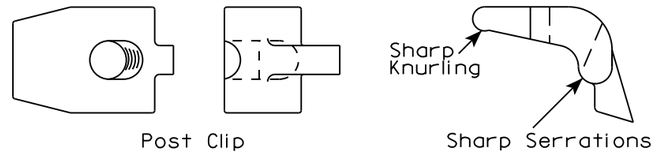
The hardware includes:

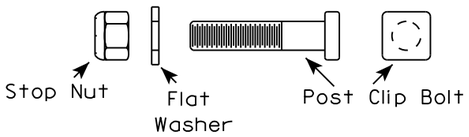
3/8 " - 16 X 3/4 " Economy Bolt 2024-T4 alloy
3/8 " - Stainless steel stop nut
3/8" X .064 Flat Washers, Alclad 2024-T4 alloy



POST CLIP, POST CLIP BOLT, WASHER & NUT

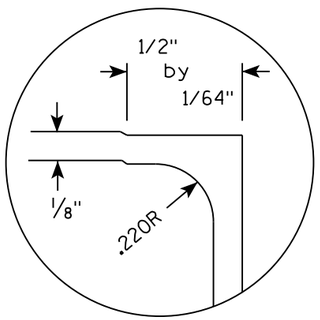
Post Clip shall be Alum. Alloy 356-T6
Post Clip Bolt shall be Stainless Steel.
Flat washer shall be 3/8" X .091, Stainless Steel.
Stop nut shall be stainless steel.





NOTES

1. The contractor may select any brand of extrusion that conforms to the illustrations or meets with the approval of the engineer, but all extrusions used on this contract shall be of the same brand.
2. Panel Stitch Bolts shall be used to assemble adjacent panels. Maximum stitch bolt spacing shall be 24" C-C, and a minimum of 4 bolts shall be used to connect any two extrusions.
3. Post Clips shall be used to attach the sign panel to the sign support.
4. Edge wrapping of sign sheeting required on all extrusions joints shown in Detail A.



DETAIL A (EDGE WRAP JOINT)

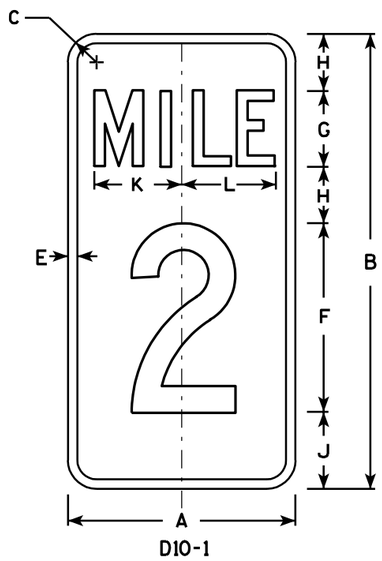
ALUMINUM EXTRUSIONS FOR TYPE I SIGNS

WISCONSIN DEPT OF TRANSPORTATION

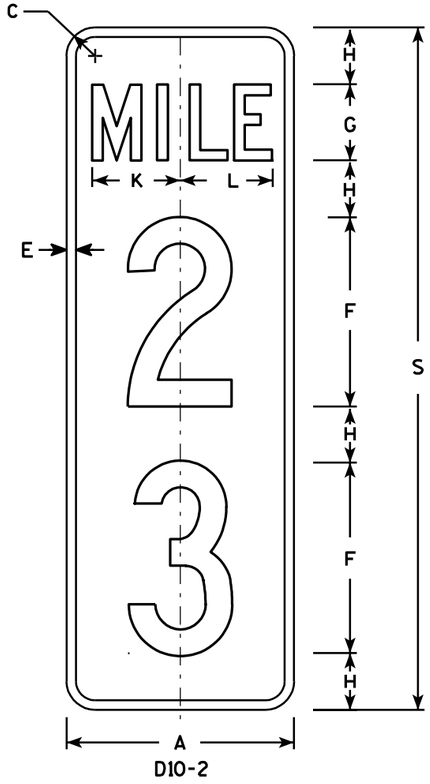
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/30/16 PLATE NO. A5-2.10

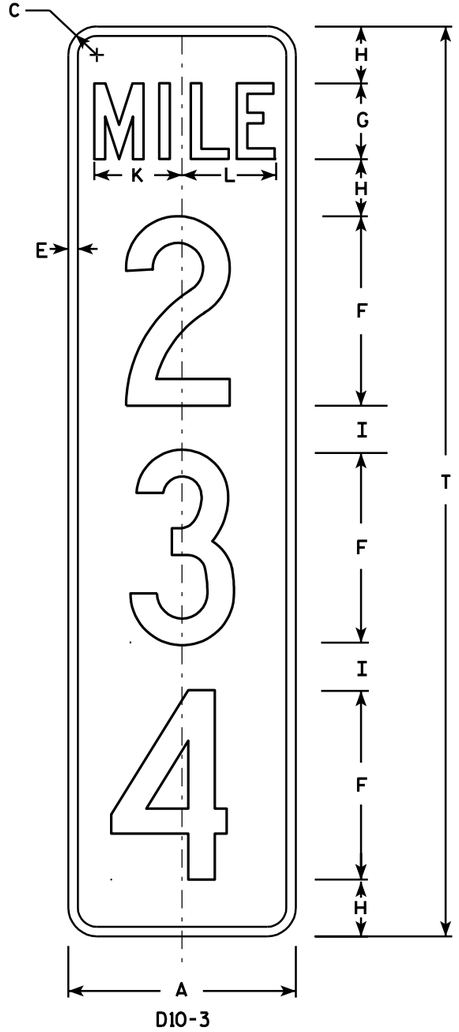
PROJECT NO:				SHEET NO: 108	E



D10-1



D10-2



D10-3

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White - Type H Reflective
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. Optically adjust numerals about the centerline of the sign to achieve proper balance.

Metric equivalent for this sign is:

PHY. SIZE	
12 X 24	300 mm X 600 mm
12 X 36	300 mm X 900 mm
12 X 48	300 mm X 1200 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
1																										
2																										
3																										
4	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						
5	12	24	1 ½		½	10	4	3	2 ½	4	4 ⅝	4 ⅞							36	48						

D10-1	D10-2	D10-3
Area sq. ft.	Area sq. ft.	Area sq. ft.
2.0	3.0	4.0
Area m2	Area m2	Area m2
.19	.28	.38

STANDARD SIGN
D10-1 , D10-2 & D10-3

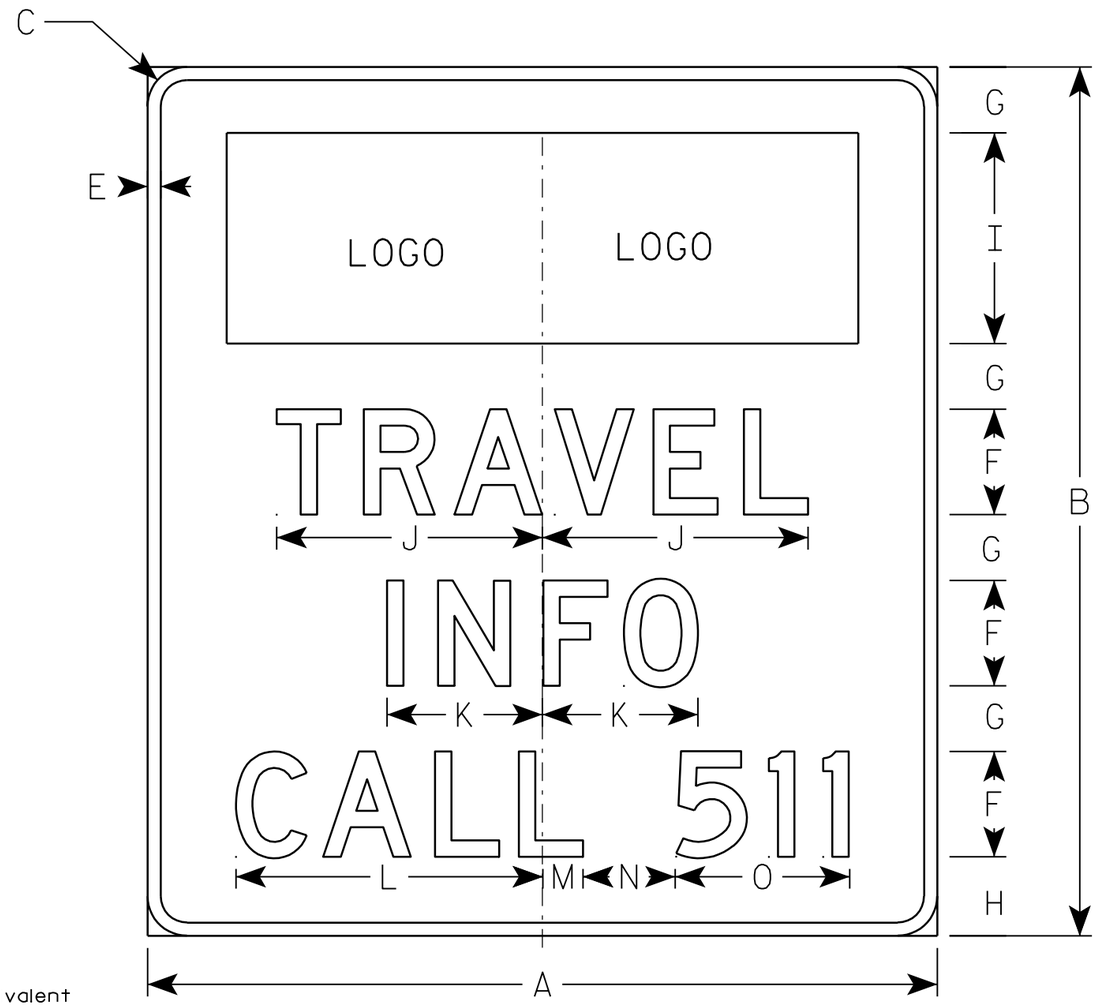
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Chester J Spang for Director, Office of Traffic

DATE 1/16/02 PLATE NO. D10-3.2

PROJECT NO:

SHEET NO: 109 E



D12-5

NOTES

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

Metric equivalent for this sign is:

SIZE	
1	
2	1500 mm X 1650 mm
3	
4	
5	

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1																												
2	60	66	2 1/4		1	8	5	6	16	20 1/4	11 7/8	23 3/8	3 1/8	7	13 1/4												27.5	2.48
3																												
4																												
5																												

STANDARD SIGN
D12-5

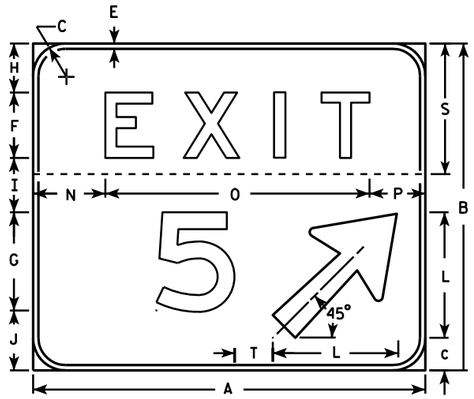
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

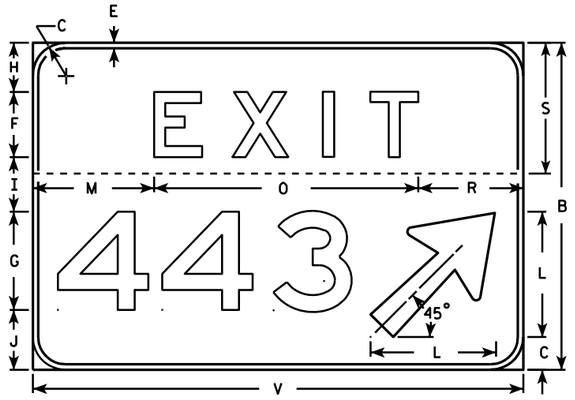
DATE 12/5/08 PLATE NO. D12-5.2

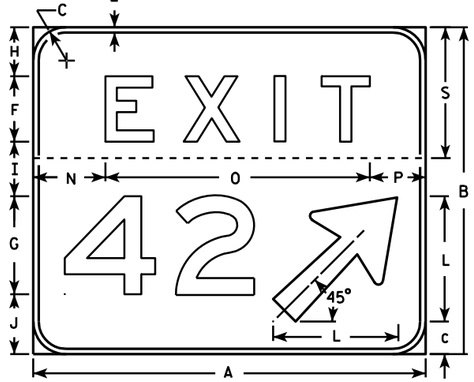
PROJECT NO:

SHEET NO: 110 E

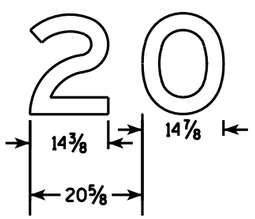


NOTE: T diminision shall be measured from the back of the number to the front of the arrow





EXAMPLE FOR USING SPACING CHART



NOTES

1. Sign is Type II - Type H reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Green
   Message - White (Type H reflective)
3. Message Series - E
4. Corners may be square or rounded but the border shall be rounded as shown.
5. Base material for this sign shall be plywood and shall be split into two seperate pieces as shown on each detail by the dashed line (----------).
6. Arrow is Type "A" from sign plate A1-1.
7. Substitute appropriate message, space per the table and adjust placement on sign to achieve proper balance.
8. As per the Standard Spec's, these signs shall not have a vertical joint.

SPACING CHART FOR 18" NUMERALS

NUMBERS	WIDTH	0	1	2	3	4	5	6	7	8	9	A	B	C
0	14 7/8	21 5/8	21 5/8	21 1/4	20 3/8	21 1/4	21 1/4	21 5/8	19 7/8	22 1/8	21 5/8			
1	5 7/8	14	14	14	13 1/8	12 1/8	14	14	12 1/4	14	14			
2	14 3/8	20 5/8	21 1/8	20 5/8	19 3/4	20 1/4	20 5/8	20 5/8	18 7/8	21 1/8	20 5/8			
3	14 3/8	20 3/4	21 1/8	20 3/4	20 1/4	19 3/4	20 3/4	20 3/4	19 3/8	21 1/8	20 3/4			
4	16 5/8	22 7/8	22	22 1/2	21 5/8	21 5/8	22 7/8	22 7/8	20 5/8	23 3/8	22 7/8			
5	14 1/4	20 5/8	20 5/8	20 1/8	18 3/4	18 3/4	20 5/8	20 5/8	18 3/8	20 5/8	20 5/8			
6	14 1/2	21 1/4	20 3/4	20 3/4	19 7/8	19 1/2	20 3/8	20 3/4	19	20 3/4	20 3/8			
7	14 3/8	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4			
8	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8			
9	14 1/2	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4			
A	18	19 3/4	19 3/4	20 1/4	19 3/4	17	19 3/4	20 5/8	18 7/8	20 5/8	19 3/4	21 5/8	23 7/8	23
B	14 1/4	21 1/2	21 1/2	20 5/8	19 1/4	19 3/4	20 5/8	21 1/2	19 5/8	21 1/2	20 5/8	19 1/2	22 3/8	21 1/2
C	14 1/4	21 1/4	21 1/4	20 7/8	20	20 7/8	20 7/8	21 1/4	19 1/2	21 3/4	21 1/4	18 3/8	21	19 3/4

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
2																										
3																										
4																										
5	72	60	6		1	12	18	9	10	11	8 7/8	23	22 1/4	13 1/4	48 1/2	10 1/4		19 1/4	24	7		90		96	7 1/2	

1-2 Digit Bid Area	3 Digit Bid Area
Sq. Ft.	
30	37.5

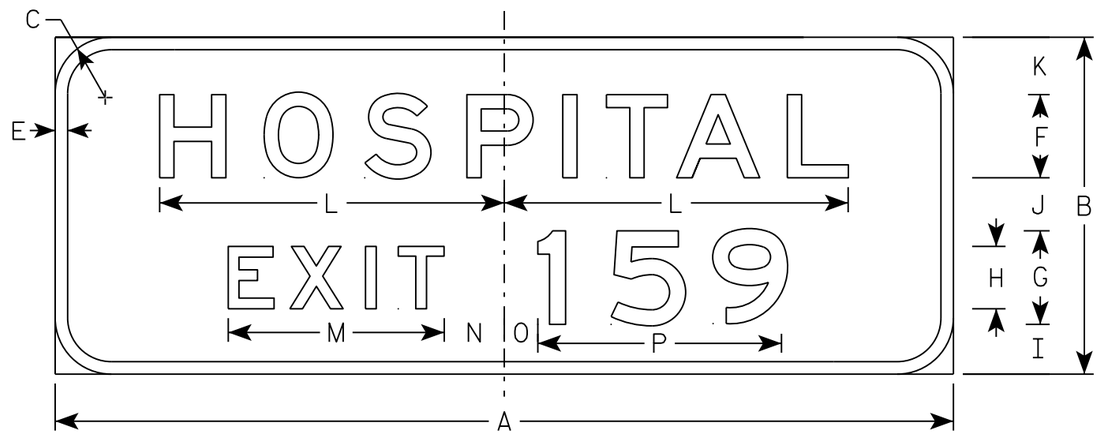
STANDARD SIGN
E5-1A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/11/10 PLATE NO. E5-1A.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 111 | E



E10-61

NOTES

1. Sign is Type I - Type SH Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Blue
   Message - White
3. Message Series - E
4. Apply proper Exit Numbers and letters, 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																											
2																											
3																											
4	144	54	9		2	13 3/8	15	10	8	8 1/2	9 1/4	55 1/4	34 5/8	9 5/8	5 3/8	39											54
5	144	54	9		2	13 3/8	15	10	8	8 1/2	9 1/4	55 1/4	34 5/8	9 5/8	5 3/8	39											54

TYPICAL SIGNS
E10-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/24/15 PLATE NO E10-61.3

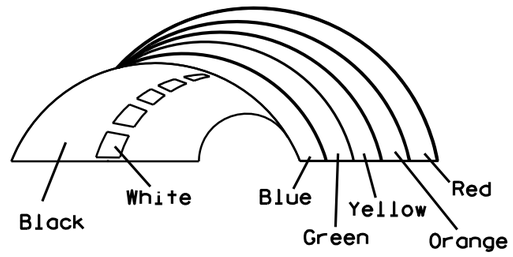
PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

* VARIES

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - (See Note 5)
3. Message Series - (See Note 6)
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Border - Blue
   Line 1 - Red
   Line 2 - Black
   Line 3-5 - Blue
6. Line 1 - Dutch 8011L
   Line 2 - Series E
   Line 3-5 - Series C
7. Contractor shall provide and install a new post bracket in accordance with the I55-56B sign detail.

Background Colors of Symbol*



*1/4" Black Border between each color of rainbow and border of rainbow

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	36	1 1/2	1/2	5/8	3	2	3 1/2	2 7/8	1	8	2 1/8	11 1/4	11 1/8	9 3/8	1 1/4		3/4	12 5/8	7 1/2							7.5
3																											
4																											
5																											

STANDARD SIGN
I55-56

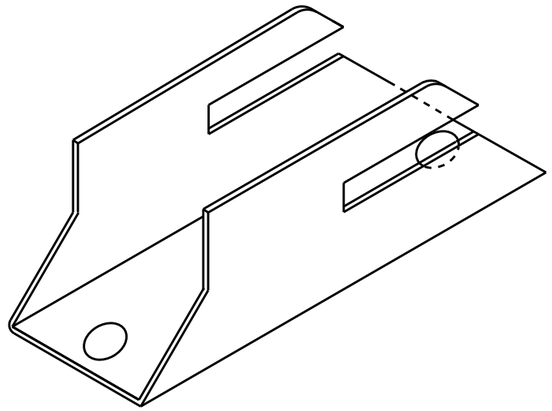
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

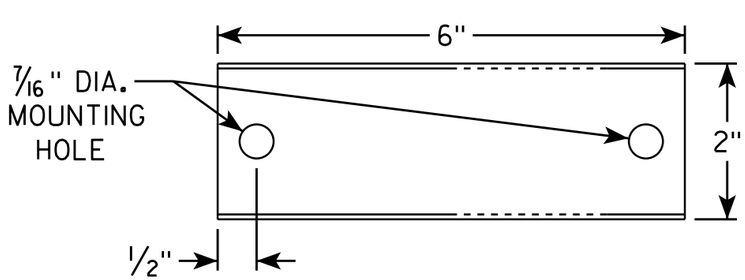
DATE 4/27/11 PLATE NO. 155-56.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 113

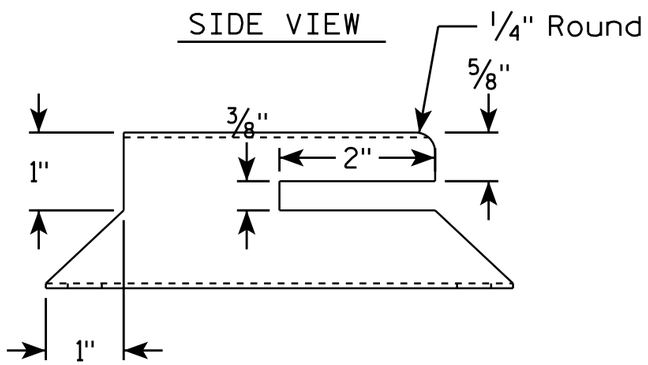
ISOMETRIC VIEW



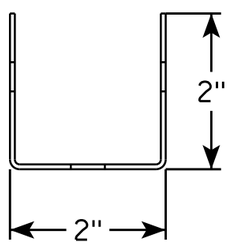
TOP VIEW



SIDE VIEW



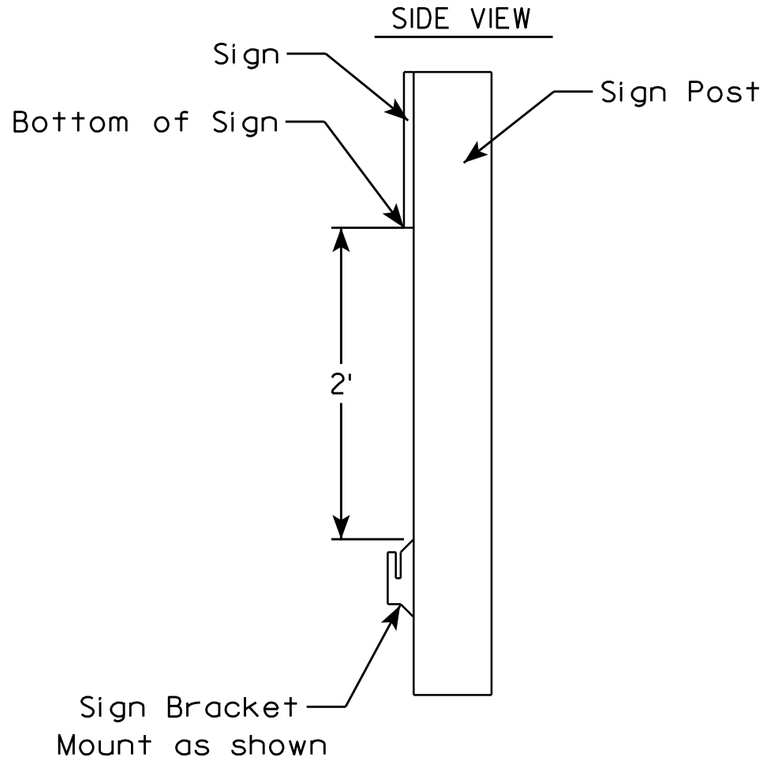
END VIEW



NOTES

1. Must be capable of permanent attachment to a wood or steel channel sign post utilizing the fastening hardware specified on the A4-8 sign plate.
2. Shall be entirely primed and painted with two coats of a black powder coated enamel paint.
3. Shall be made with 12 gauge steel, and incorporate no welds, no hinged components, no threaded lock-type components, and no parts which are loose or can be separated from the main body.
4. Shall have rounded edges with at least 1/8" radii.
5. Shall not have unrounded and uncoated metal edges which can contact the back surface of the roll-up sign.
6. Top of bracket shall be mounted 2' below the bottom of the I55-56 sign.
7. Cost of bracket and fastening hardware shall be incidental to the I55-56 sign.

SIDE VIEW



ROLLUP SIGN BRACKET
I55-56B

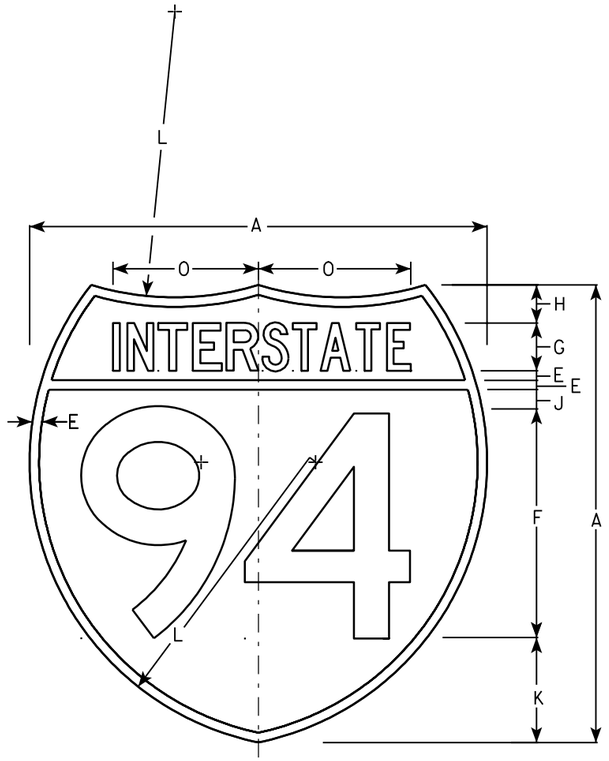
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

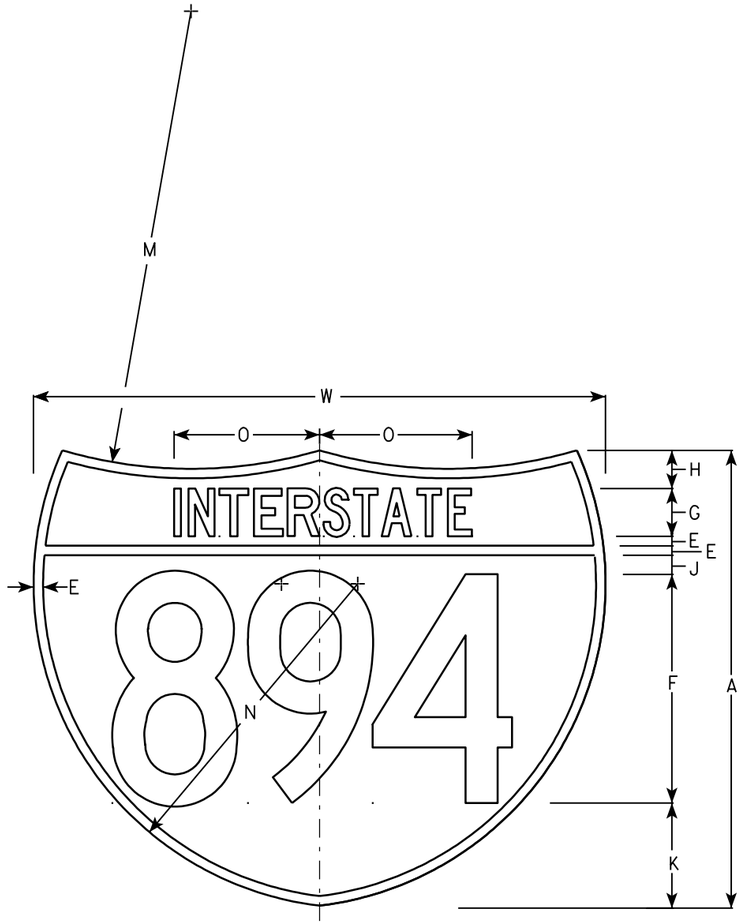
DATE 4/26/16 PLATE I55-56B.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\I5556B.DGN PLOT DATE : 26-APR-2016 17:29 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 1.945842:1.000000
WISDOT/CADDS SHEET 42



M1-1



M1-1A

NOTES

1. Sign is Type II - See Note 6 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Top Red - Bottom Blue (See Note 6)
   Message - White - See Note 6
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C
6. Permanent Signs
   Message - Type H Reflective
   Detour or other temporary signs
   Background - Reflective
   Message - Reflective

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 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	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 08/23/05 PLATE NO. M1-1.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 115	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 - Green
   Message - White - Graphics - White
   Circle Tour Message is Green
3. Message Series - Special
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.	Area m2
1																												
2	24			1 1/8	1/2																						4.0	.36
3																												
4	36			1 5/8	3/4																						9.0	.81
5																												

STANDARD SIGN
M1-93

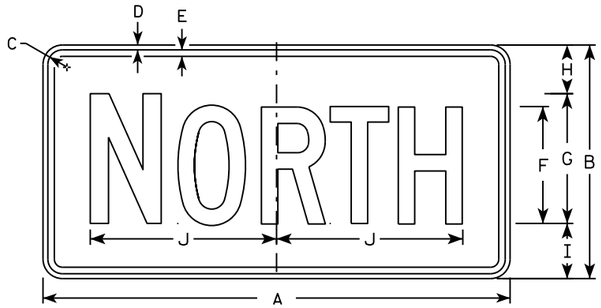
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

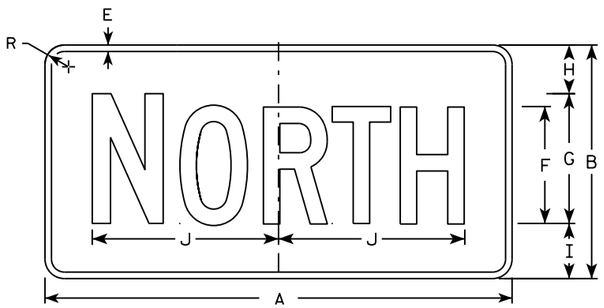
DATE 11/5/15 PLATE NO. M1-93.2

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M193.DGN PLOT DATE : 01-DEC-2015 18:00 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 5.837526:1.000000



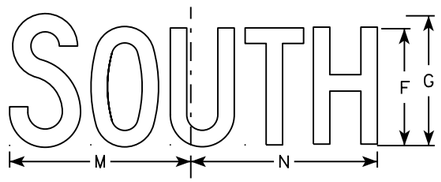
M3-1
MM3-1
MP3-1



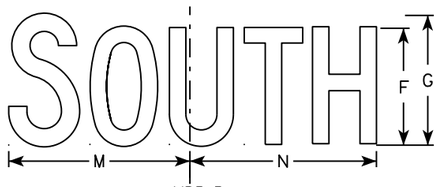
MB3-1
MK3-1
MN3-1

M3-2
MM3-2
MP3-2

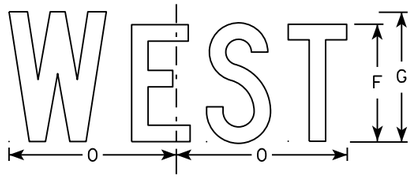
MB3-2
MK3-2
MN3-2



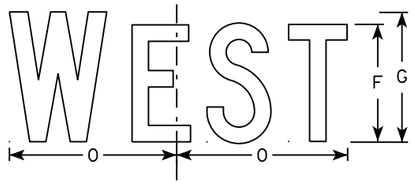
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

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
   MP3-1 thru MP3-4 Background - White
   Message - Blue
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

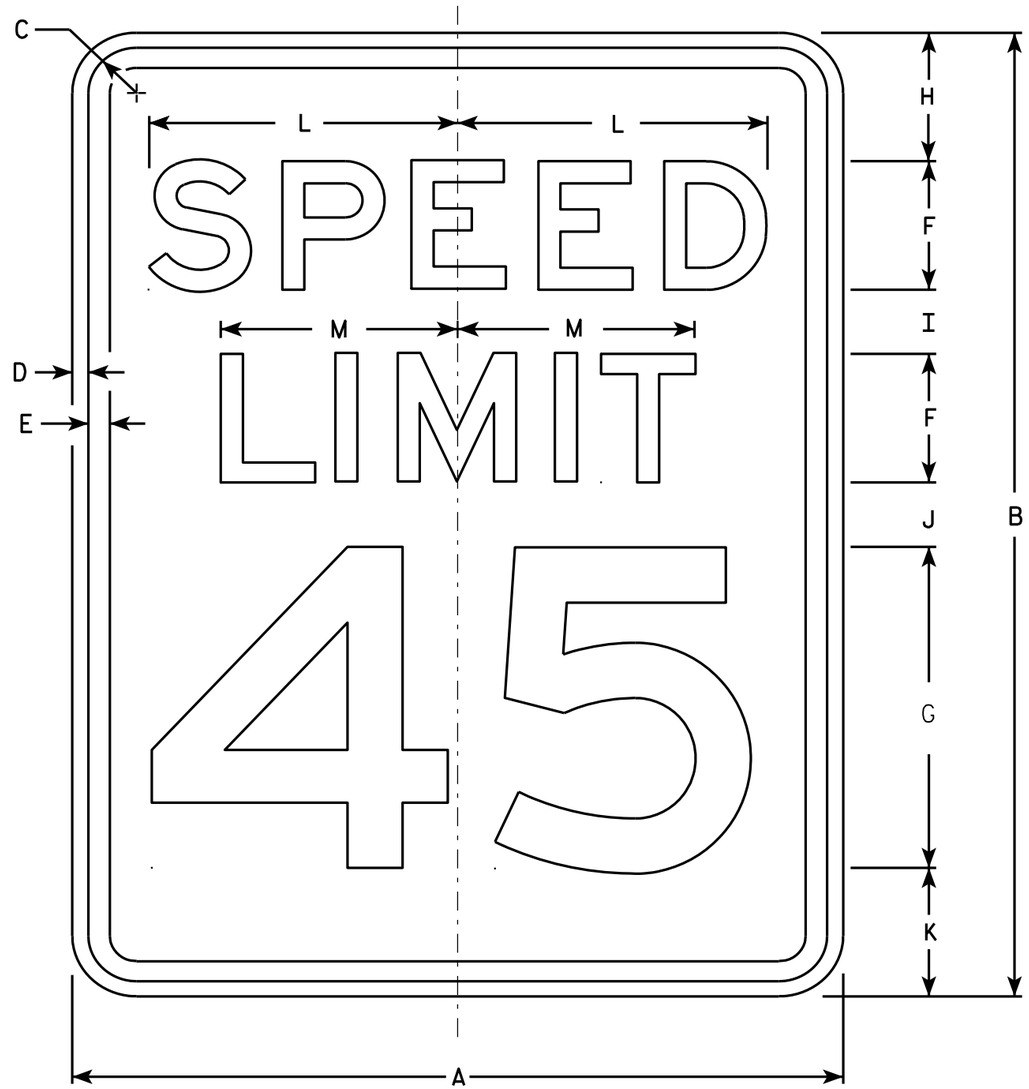
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



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

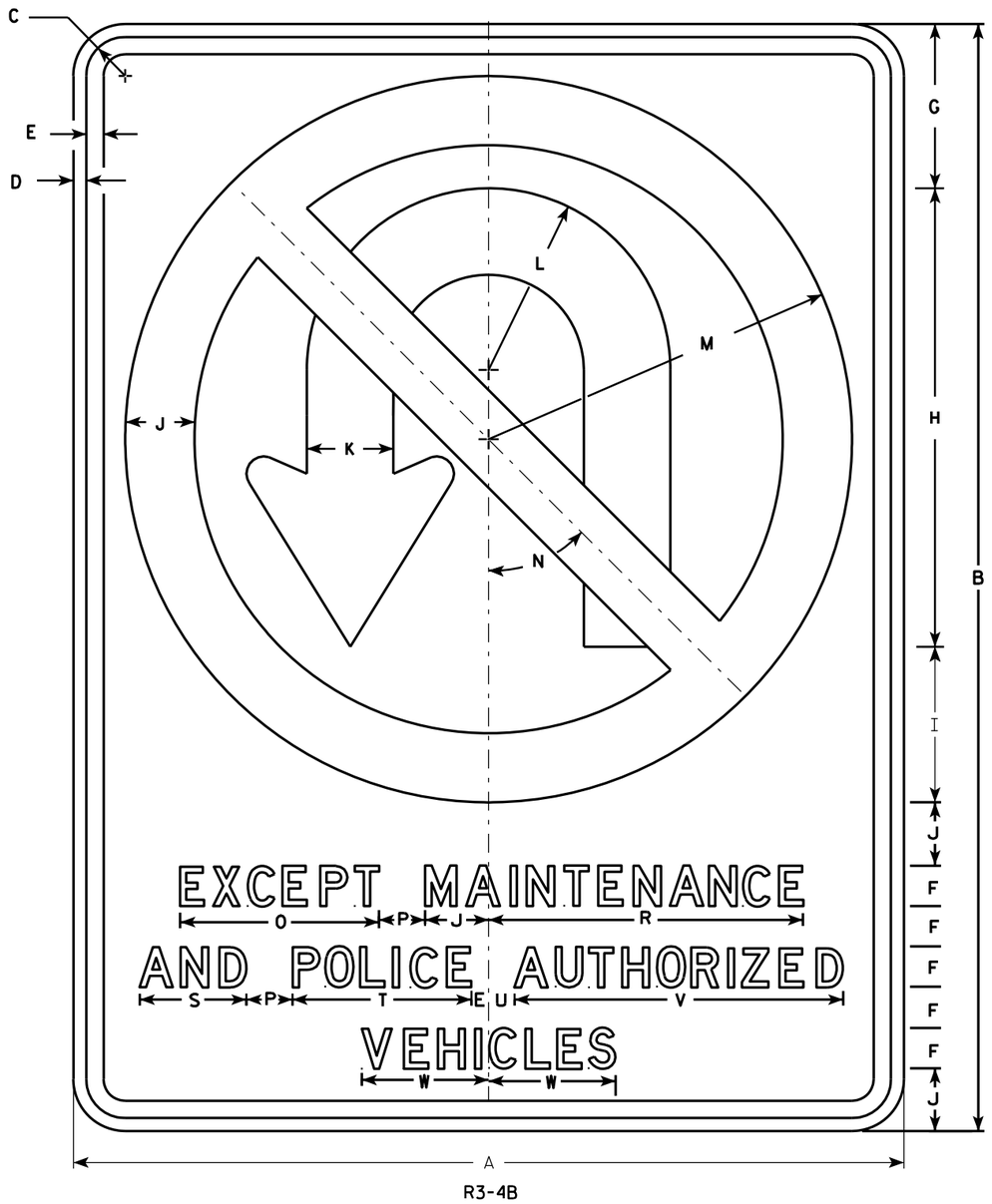
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

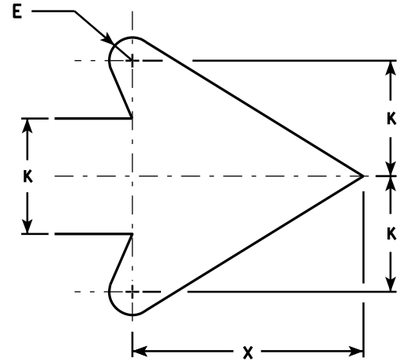
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 118 | E



R3-4B

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 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. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



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																											
2M																											
3																											
4	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0
5	36	48	1 5/8	5/8	3/4	1 3/4	7 1/8	19 7/8	6 3/4	2 3/4	3 3/4	7 7/8	15 3/4	45°	8 5/8	2		13 5/8	4 5/8	7 3/4	1 1/8	14 1/4	5 1/2	7 5/8			12.0

STANDARD SIGN
R3-4B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/17/2011 PLATE NO. R3-4B.2

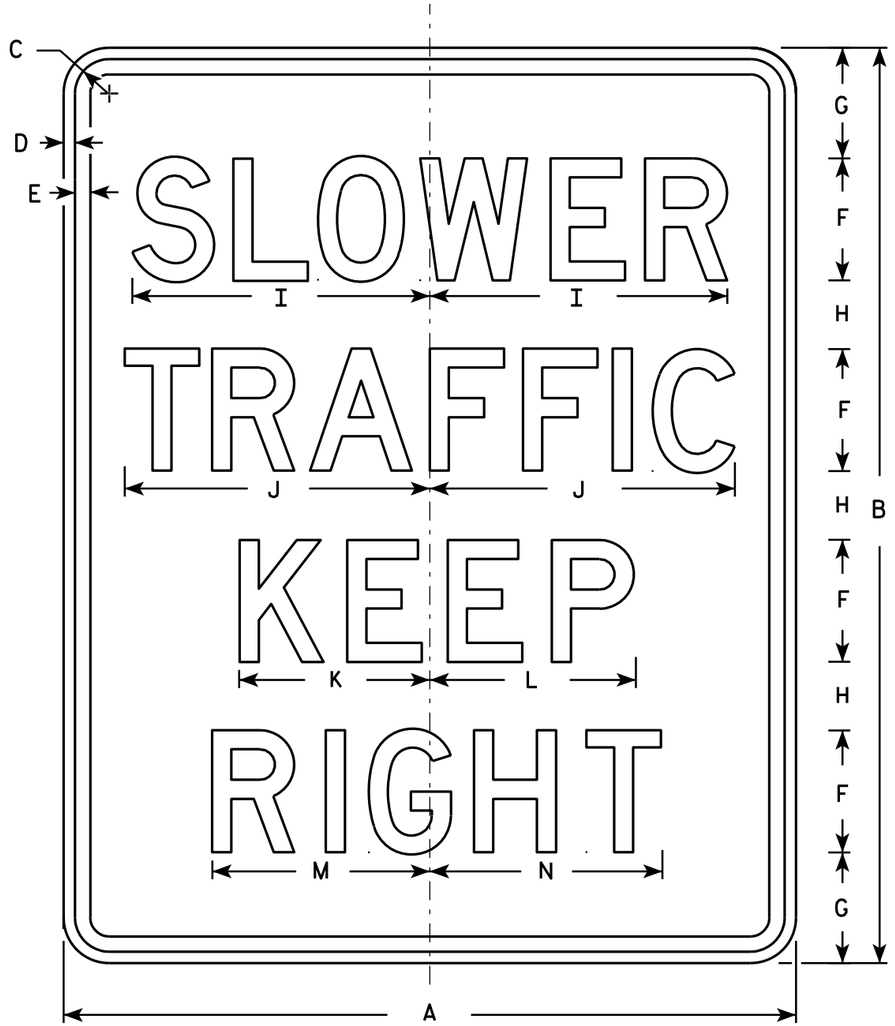
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 119	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R34B.DGN PLOT DATE : 17-MAR-2011 14:27 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 6.554949:1.000000

WISDOT/CADDS SHEET 42

7

7



R4-3

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
2M	24	30	1 1/8	3/8	1/2	4	3 5/8	2 1/4	9 3/4	10	6 1/4	6 3/4	7 1/8	7 5/8													5.0
3	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
4	36	48	1 5/8	5/8	3/4	6	6	4	14 5/8	15	9 3/8	10	10 3/4	11 3/8													12.0
5	48	60	2 1/4	3/4	1	8	7 1/4	4 1/2	19 1/2	20	12 1/2	13 1/2	14 1/4	15 1/4													20.0

STANDARD SIGN
R4-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-3.8

PROJECT NO:

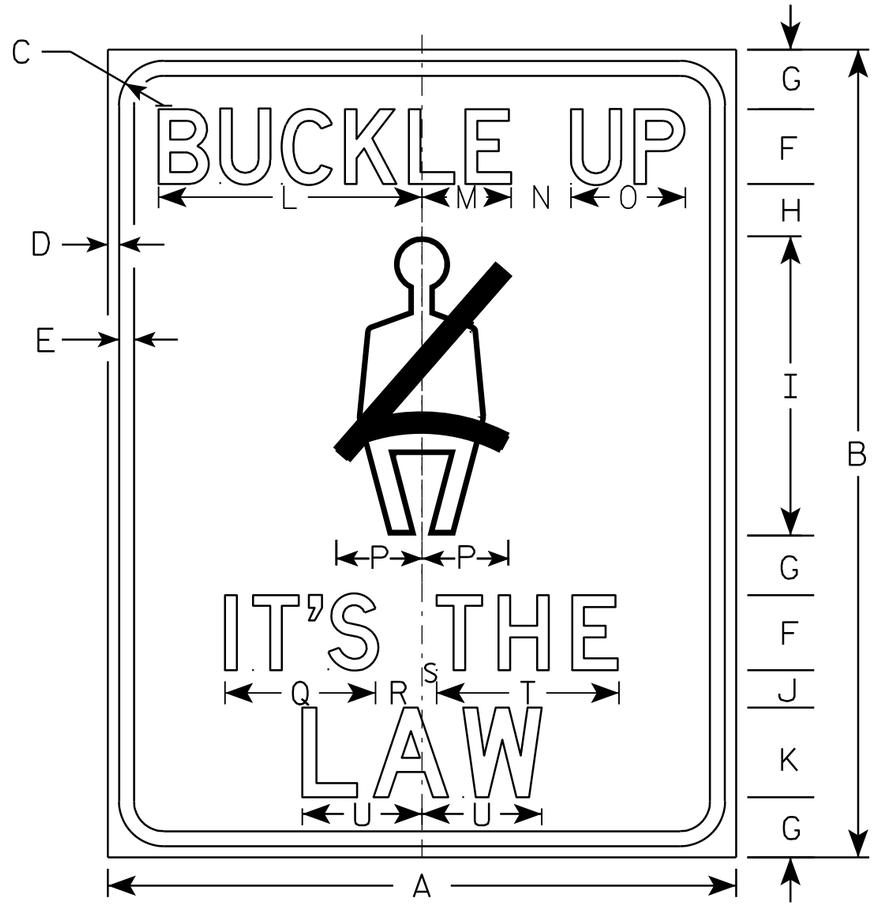
SHEET NO: 120 E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\R43.DGN PLOT DATE : 25-MAR-2011 13:40 PLOT BY : mscsja

WISDOT/CADDS SHEET 42

7

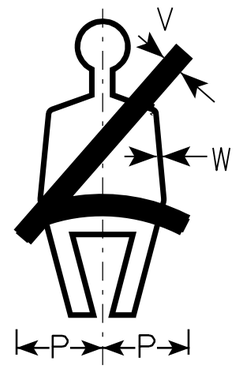
7



R5-53A

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	18	24	1 1/8	3/8	3/8	2	1 3/4	1 1/2	9	1 1/4	3	6 3/4	2 1/4	1 1/2	2 7/8	2 1/2	3 7/8	1 1/4	3/8	4 5/8	3 7/8	5/8	1/8				3.00
2M	18	24	1 1/8	3/8	3/8	2	1 3/4	1 1/2	9	1 1/4	3	6 3/4	2 1/4	1 1/2	2 7/8	2 1/2	3 7/8	1 1/4	3/8	4 5/8	3 7/8	5/8	1/8				3.00
3																											
4																											
5	42	54	2 1/4	3/4	1	5	4	3 1/2	20	2 1/2	6	17 5/8	6	4	7 5/8	5 3/4	10	3 1/2	1	12 1/4	8	1 1/2	3/8				15.75

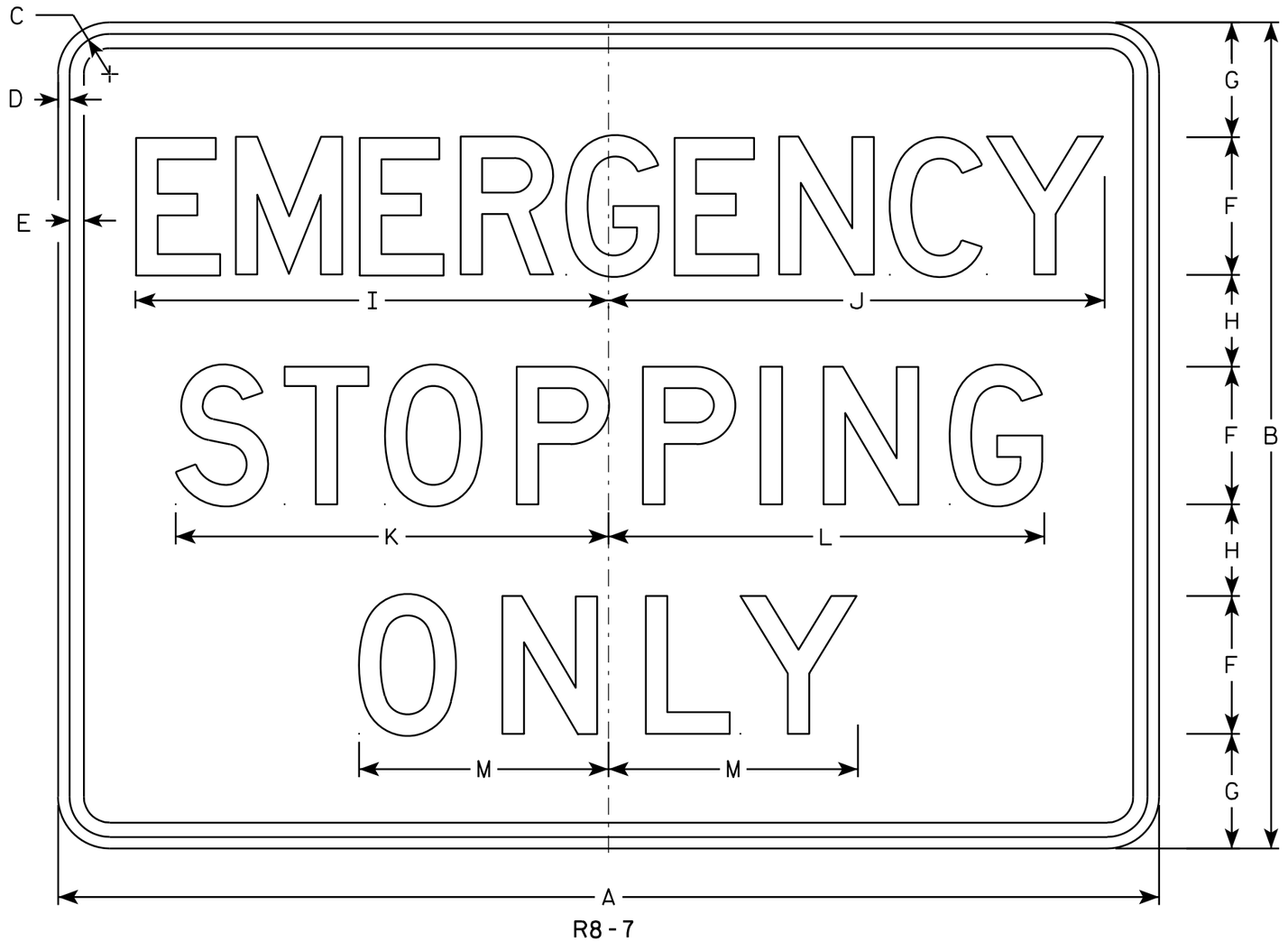
STANDARD SIGN
R5-53A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2011 PLATE NO. R5-53A.5

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 121 | E



R8 - 7

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 - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S																											
2M																											
3																											
4	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0
5	48	36	1 3/4	1/2	5/8	6	5	4	20 5/8	21 5/8	18 7/8	19	10 7/8														12.0

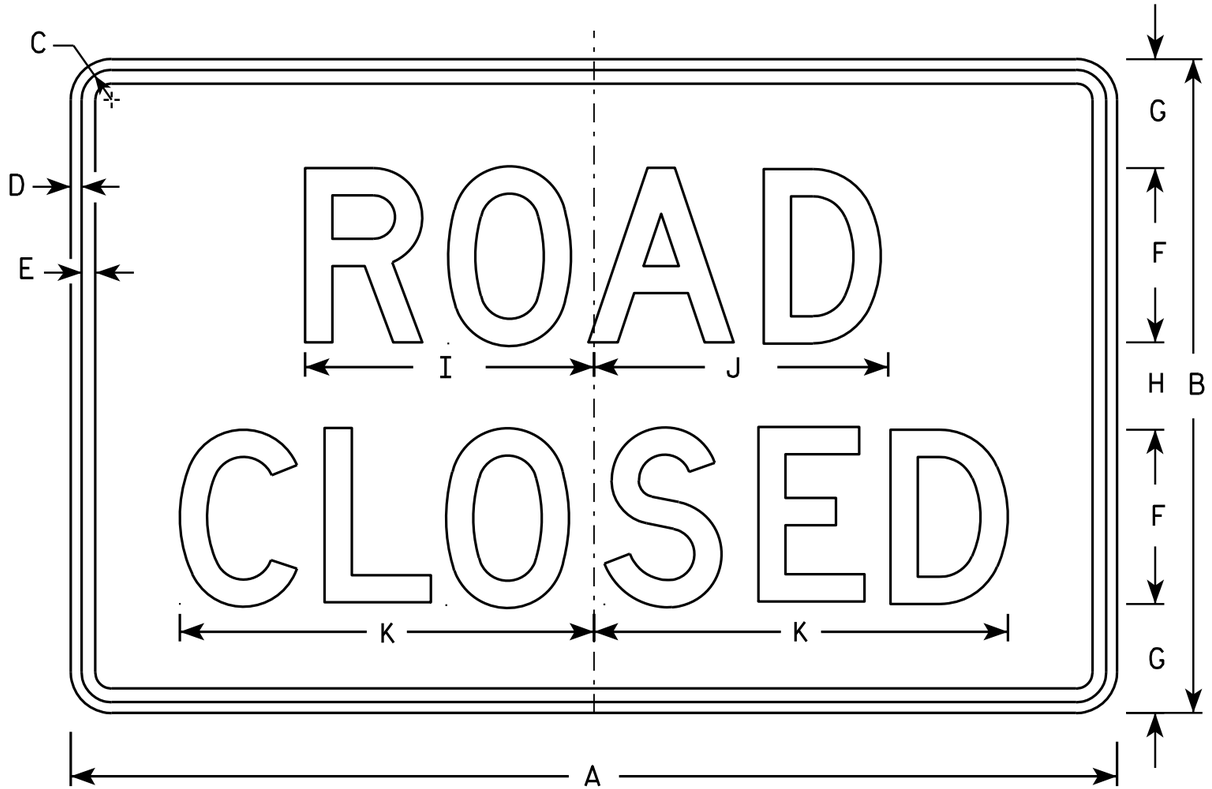
STANDARD SIGN
R8 - 7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2011 PLATE NO. R8-7.6

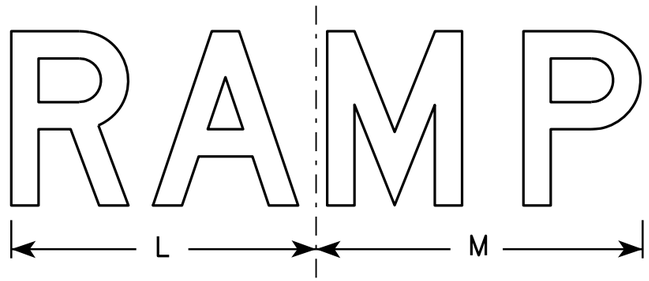
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 122 | E



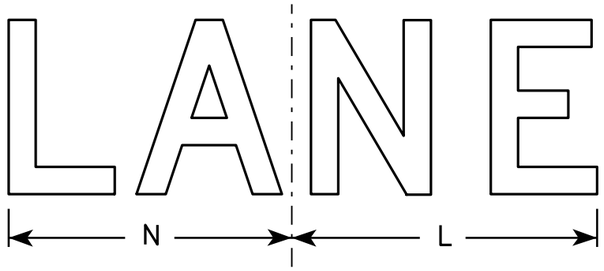
R11-2

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 - 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. Modify the message as required.



R11-2R



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

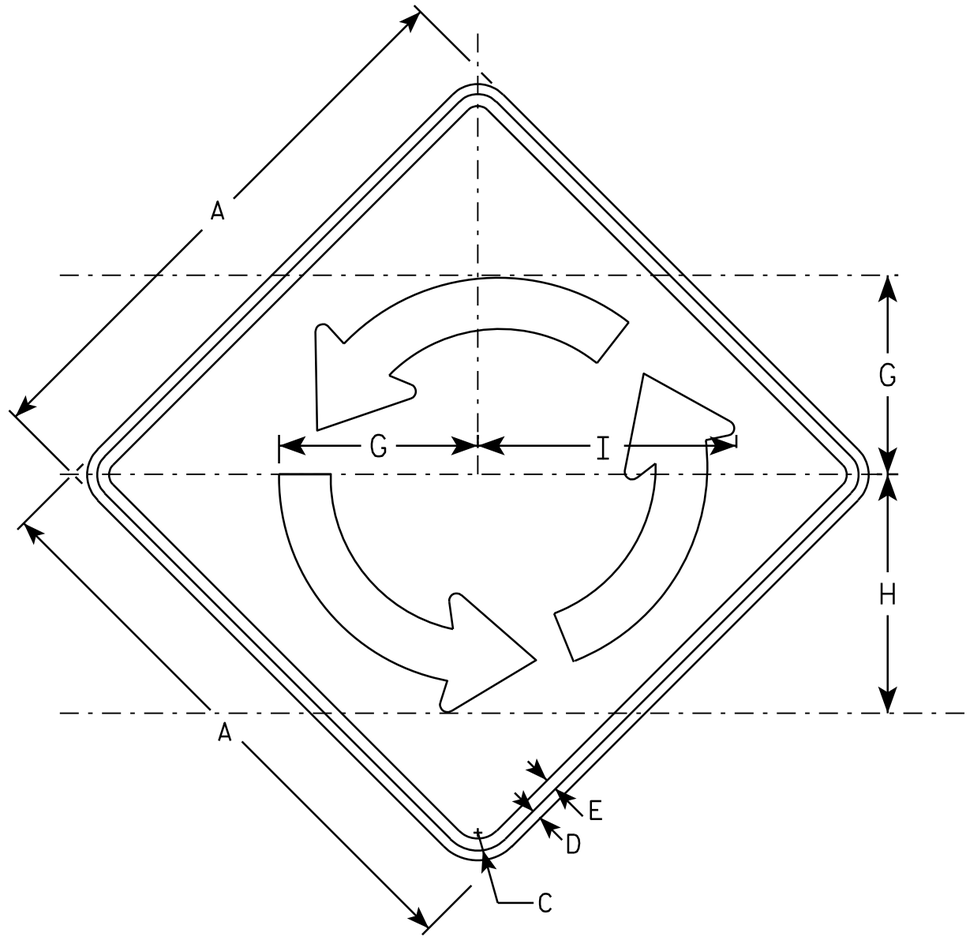
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2.10

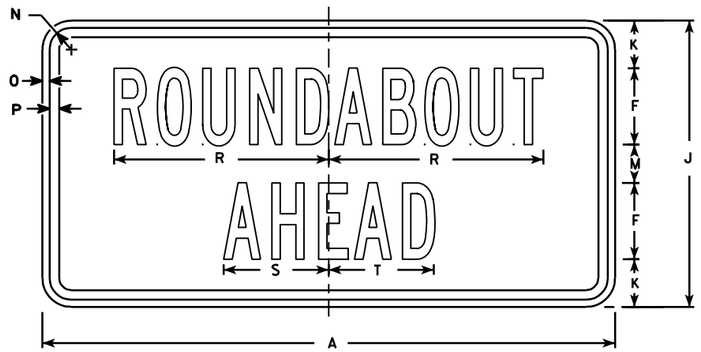
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 123	E



W2-6

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 - 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.



W2-6P

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	W2-6 Area sq. ft.	W2-6P Area sq. ft.
1																										
2S	30		1 3/8	1/2	5/8	4	10 3/8	12 1/2	13 1/2	15	2 1/2		2	1 1/8	3/8	1/2		11 1/4	5 1/2	5 1/2					6.25	3.12
2M	30		1 3/8	1/2	5/8	4	10 3/8	12 1/2	13 1/2	15	2 1/2		2	1 1/8	3/8	1/2		11 1/4	5 1/2	5 1/2					6.25	3.12
3	36		1 5/8	5/8	3/4	5	12 1/2	15	16 1/4	18	2 5/8		2 3/4	1 1/8	3/8	1/2		14	7	6 3/4					9.00	4.50
4	48		2 1/4	3/4	1	6	16 5/8	20	16 1/4	24	4 3/8		3 5/8	1 3/8	1/2	5/8		17	8 1/4	8 1/4					16.0	8.0
5																										

STANDARD SIGN
W2-6

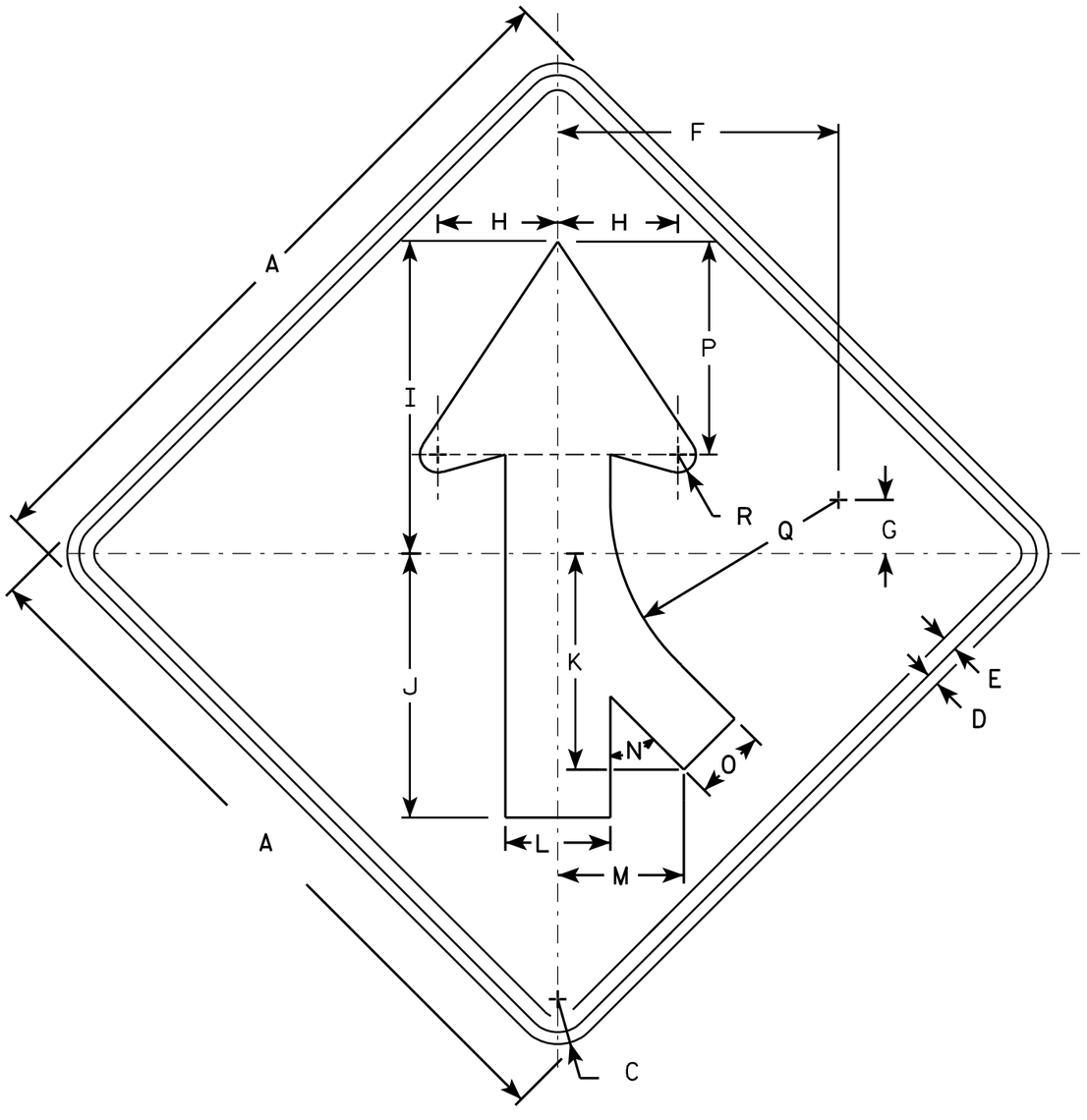
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/29/12 PLATE NO. W2-6.5

PROJECT NO:

SHEET NO: 124 E



W4-1 R

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. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 3/8	1/2	5/8	11 5/8	2 1/2	5	13	11	9	4 3/8	5 1/4	45°	3	8 7/8	9 1/2	3/4									6.25
2S	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2M	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
3	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

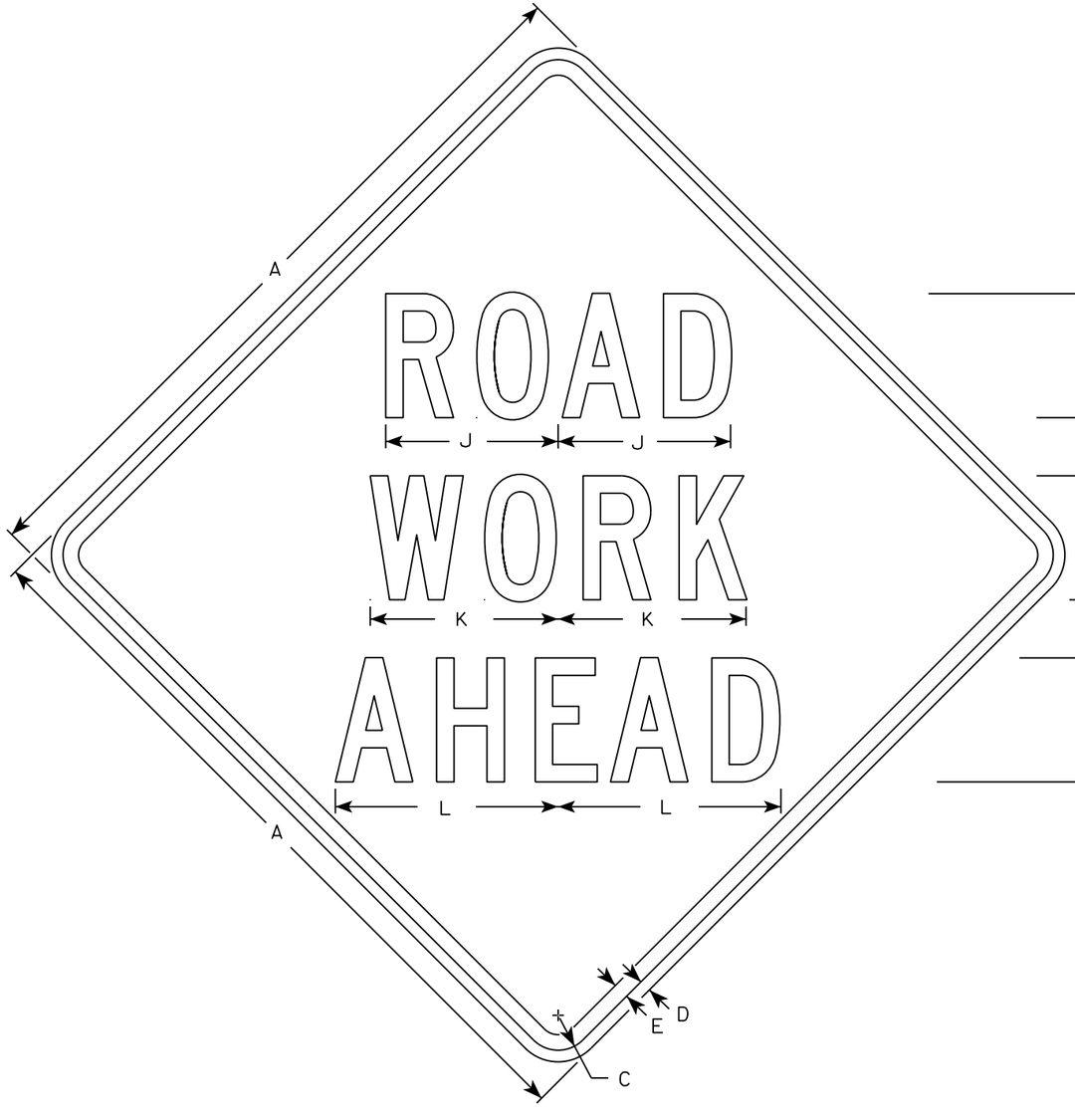
STANDARD SIGN
W4-1

WISCONSIN DEPT OF TRANSPORTATION

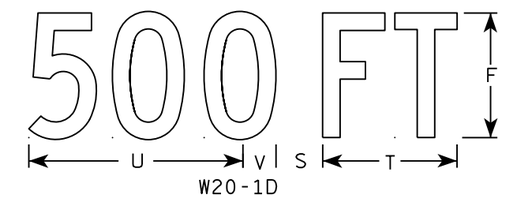
APPROVED Matthew R Rauch for State Traffic Engineer

DATE 03/12/13 PLATE NO. W4-1.14

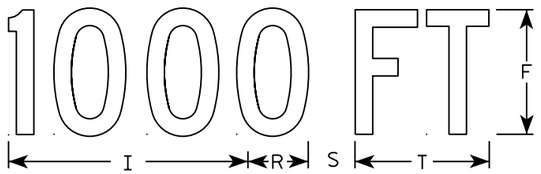
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 125	E



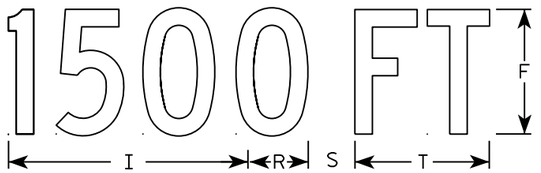
W20-1A



W20-1D

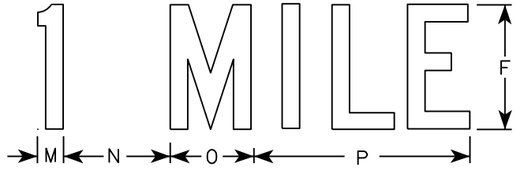


W20-1C

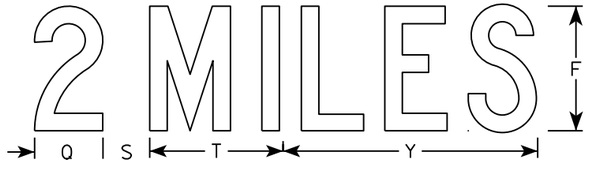


W20-1B

W20-1G



W20-1F



W20-1E

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   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.

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 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

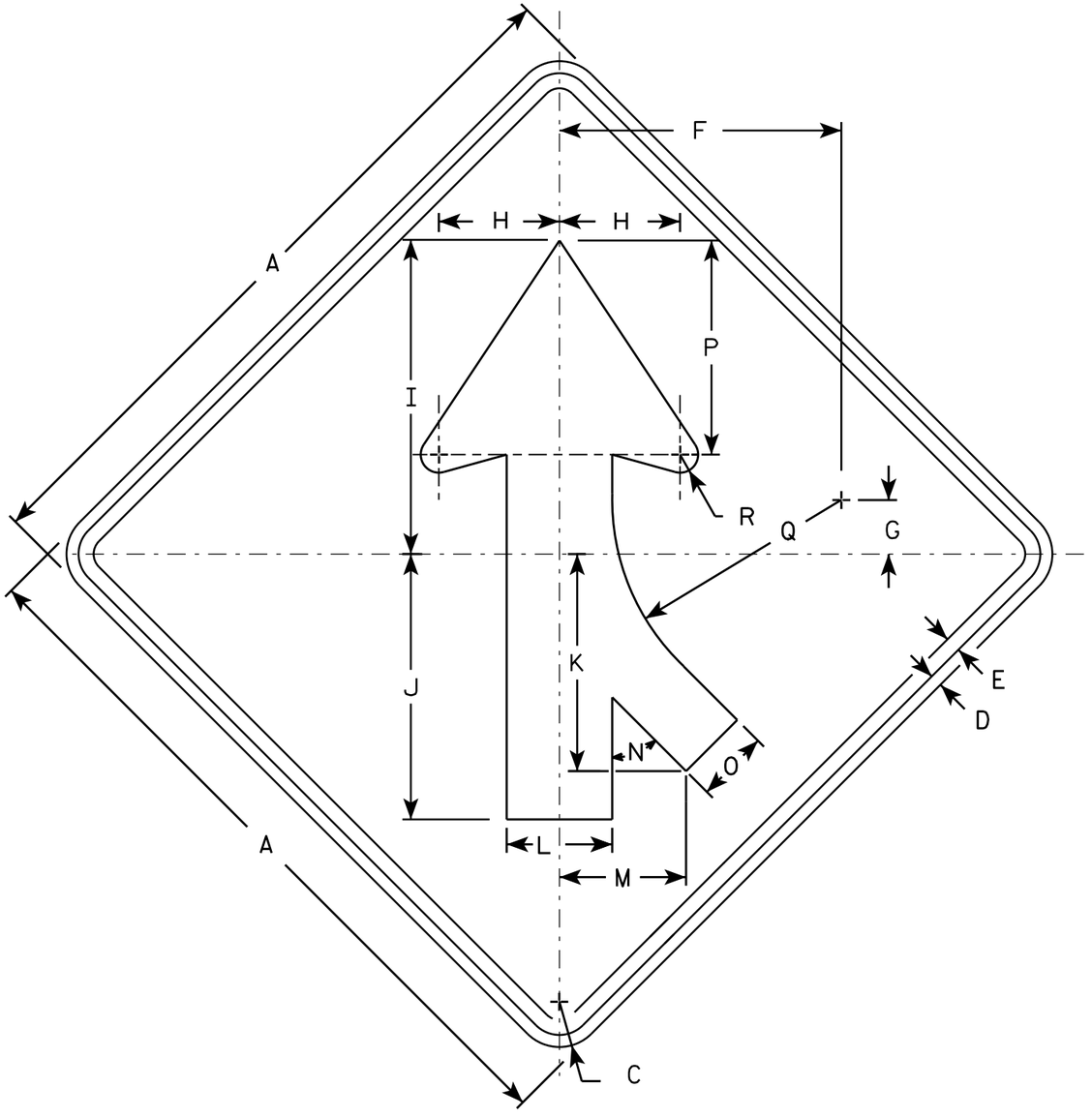
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

PROJECT NO:

SHEET NO: E



W04-1R

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. 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. W4-1L is the same as W4-1R except the arrow is reversed along the vertical centerline.

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	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8									9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4									16.0

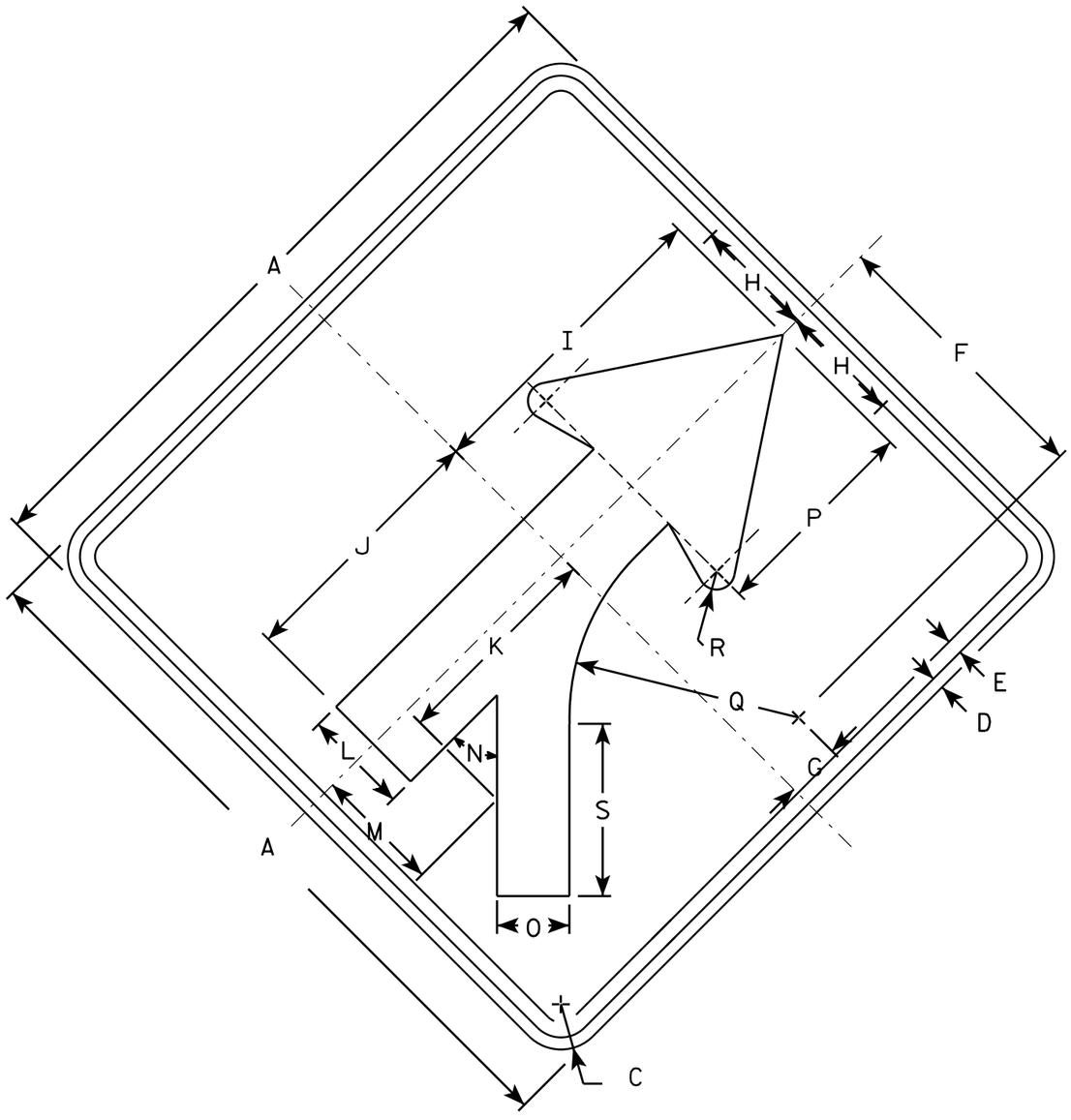
STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO W04-1.1

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



W04-5

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	14	2 3/4	6	15 3/4	13 1/4	10 1/4	5 1/4	6 3/8	45°	3 5/8	10 5/8	11 3/8	7/8	8 1/2								9.0
2S	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
2M	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
3	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
4	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0
5	48		2 1/4	3/4	1	18 3/4	3 5/8	8	20 1/2	17 1/2	14 3/8	7	8 3/8	45°	4 3/4	14 1/4	15 1/4	1 1/4	11 3/8								16.0

STANDARD SIGN
W04-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 4/28/16 PLATE NO W04-5.1

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W045.DGN PLOT DATE : 28-APR-2016 13:30 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.080757:1.000000 WISDOT/CADDS SHEET 42

PLAYBIRD ROAD

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.00	Mass Ordinate
607+09.64	60709.64	0.00	0.19	0.00	14.42	0	0	0	0	0	0.00
607+64.01	60764.01	54.37	10.91	0.00	12.25	11	0	27	11	27	-15.68
607+77.93	60777.93	13.92	16.83	0.00	10.99	7	0	6	18	33	-14.52
608+34.75	60834.75	56.82	35.64	0.00	6.39	55	0	18	74	51	22.41
608+58.80	60858.80	24.05	34.56	0.00	5.76	31	0	5	105	57	48.26
609+15.45	60915.45	56.65	17.25	0.00	10.67	54	0	17	159	74	85.38
609+27.95	60927.95	12.50	8.39	0.00	11.95	6	0	5	165	79	86.07
609+64.38	60964.38	36.43	0	0.00	22.82	6	0	23	171	102	68.28

GARTON ROAD

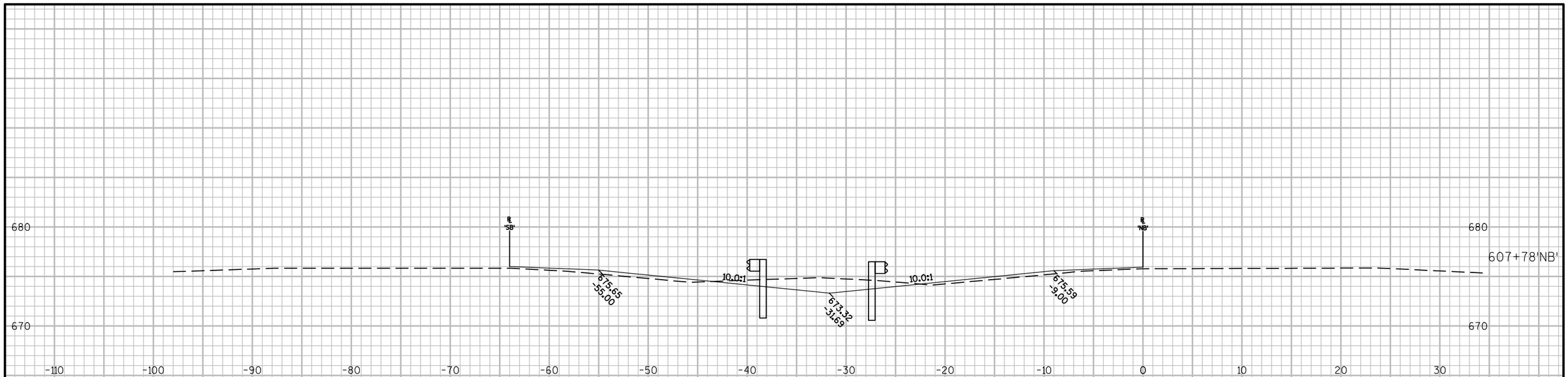
STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 1	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material Note 2	Incremental Vol (CY) (Unadjusted) Fill Note 3	Cumulative Vol (CY) Cut 1.00 Note 1	Cumulative Vol (CY) Expanded Fill 1.00	Mass Ordinate
661+37.57	66137.57	0.00	1.87	0.00	22.92	0	0	0	0	0	0.00
661+71.48	66171.48	33.91	5.97	0.00	20.67	5	0	27	5	27	-22.45
661+83.98	66183.98	12.50	7.39	0.00	20.04	3	0	9	8	37	-28.78
662+40.75	66240.75	56.77	14.71	0.00	13.52	23	0	35	31	72	-40.83
662+64.84	66264.84	24.09	10.15	0.00	19.01	11	0	15	42	87	-44.25
663+21.45	66321.45	56.61	1.81	0.00	31.35	13	0	53	55	139	-84.51
663+33.96	66333.96	12.51	0.13	0.00	37.37	0	0	16	55	155	-99.98
663+67.45	66367.45	33.49	0	0.00	56.13	0	0	58	55	213	-157.88

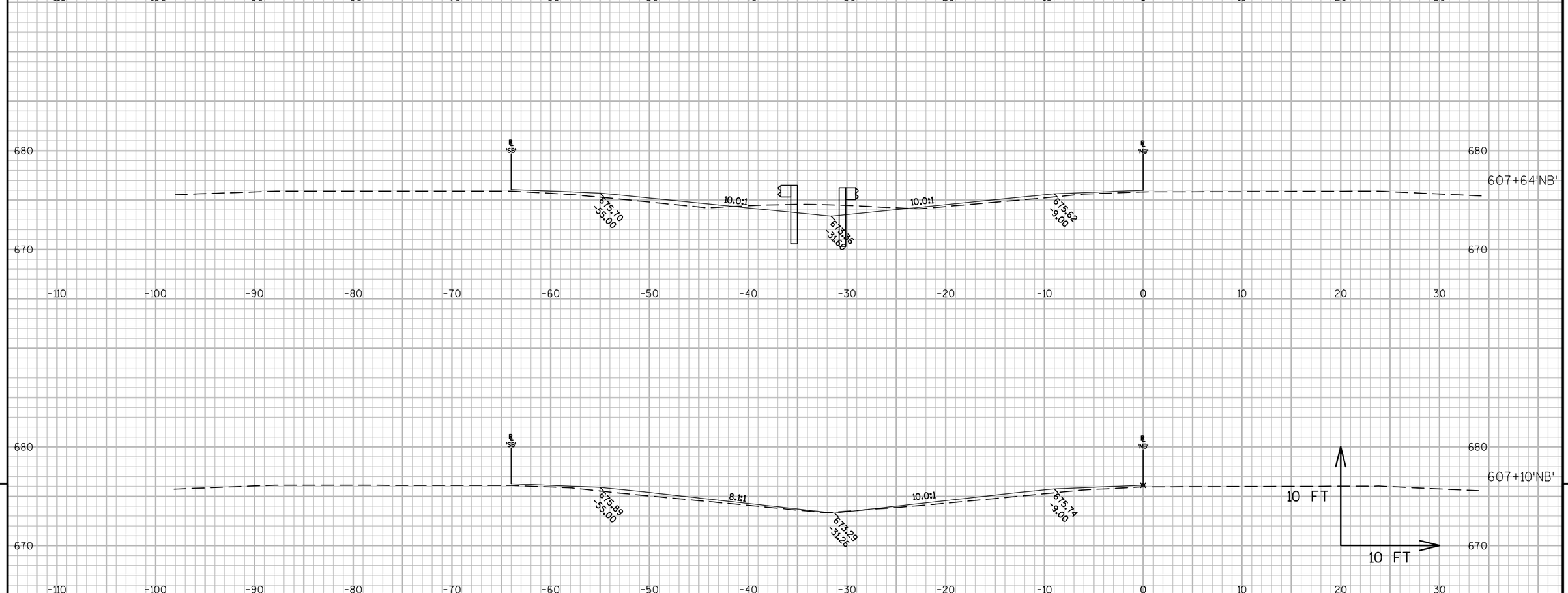
ROWE ROAD

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 2	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material Note 4	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 2	Cumulative Vol (CY) Expanded Fill 1.00	Mass Ordinate Note 6
714+03.61	71403.61	0.00	0	0.00	36.26	0	0	0	0	0	0.00
714+34.58	71434.58	30.97	1.84	0.00	29.2	1	0	38	1	38	-36.49
714+47.08	71447.08	12.50	5.03	0.00	26.67	2	0	13	3	50	-47.83
715+03.96	71503.96	56.88	27	0.00	13.23	34	0	42	36	93	-56.12
715+27.82	71527.82	23.86	27.02	0.00	12.49	24	0	11	60	104	-43.61
715+84.58	71584.58	56.76	17.93	0.00	14.85	47	0	29	108	133	-25.10
715+97.08	71597.08	12.50	12.15	0.00	17.02	7	0	7	114	140	-25.52
716+31.99	71631.99	34.91	1.26	0.00	27.17	9	0	29	123	169	-45.42

CTH FF

STATION	Real Station	Distance	AREA (SF) Cut	AREA (SF) Salvaged / Unusable Pavement Material	AREA (SF) Fill	Incremental Vol (CY) (Unadjusted) Cut Note 2	Incremental Vol (CY) (Unadjusted) Salvaged / Unusable Pavement Material Note 4	Incremental Vol (CY) (Unadjusted) Fill	Cumulative Vol (CY) Cut 1.00 Note 2	Cumulative Vol (CY) Expanded Fill 1.00	Mass Ordinate Note 6
76700	76700.00	0.00	7.79	0.00	19.36	0	0	0	0	0	0.00
767+37.29	76737.29	37.29	24.39	0.00	14.84	22	0	24	22	24	-1.39
767+49.80	76749.80	12.51	30.4	0.00	13.39	13	0	7	35	30	4.76
768+03.07	76803.07	53.27	41.87	0.00	9.96	71	0	23	106	53	53.02
768+33.99	76833.99	30.92	39.29	0.00	10.77	46	0	12	153	65	87.62
768+87.43	76887.43	53.44	12.66	0.00	15.17	51	0	26	204	91	113.36
768+99.96	76899.96	12.53	6.21	0.00	20.31	4	0	8	208	99	109.50
769+39.23	76939.23	39.27	0	0.00	50.38	5	0	51	213	150	62.61





9

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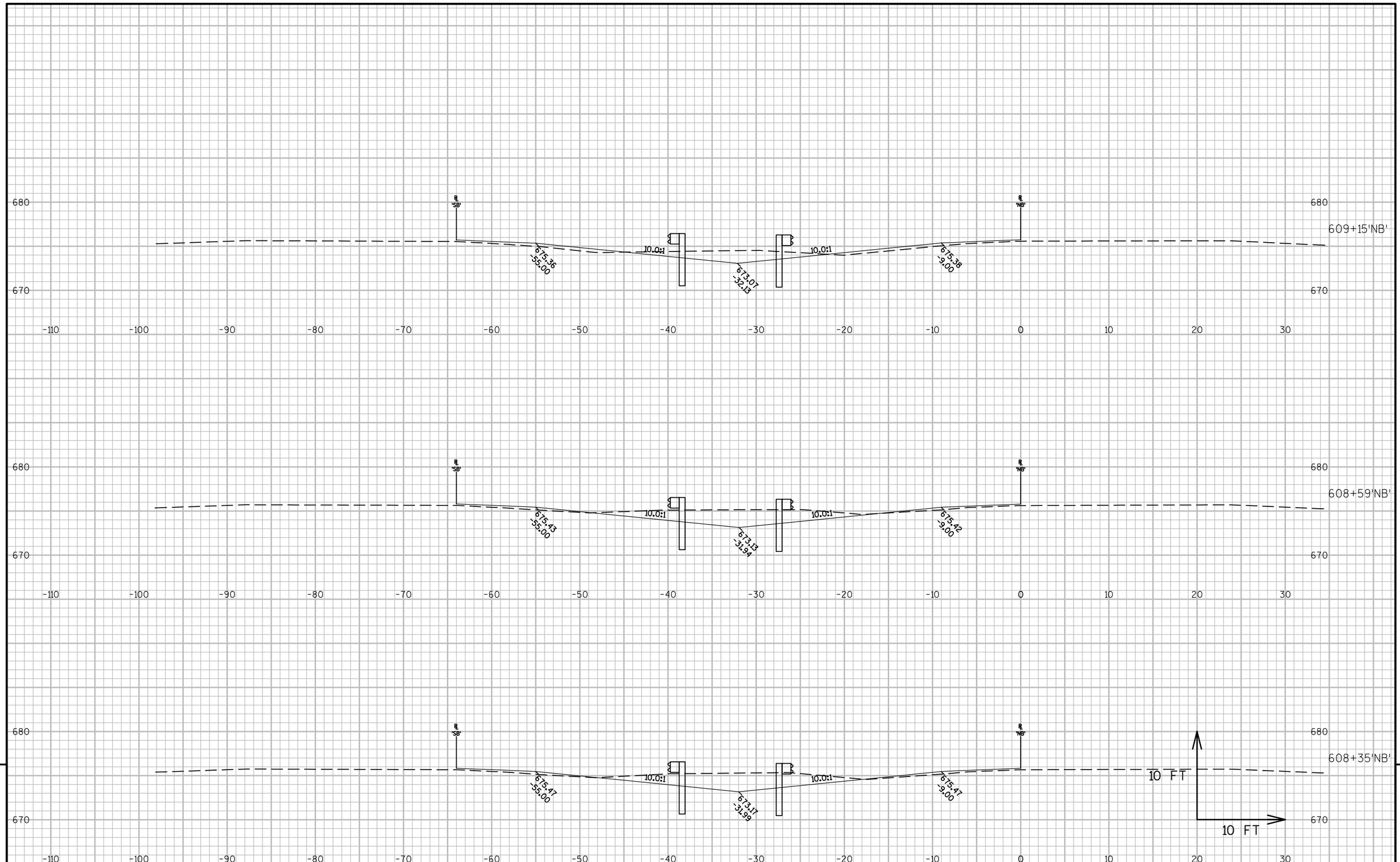
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 50 131	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSA

PLOT DATE : 8/8/2016 1:01 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT



9

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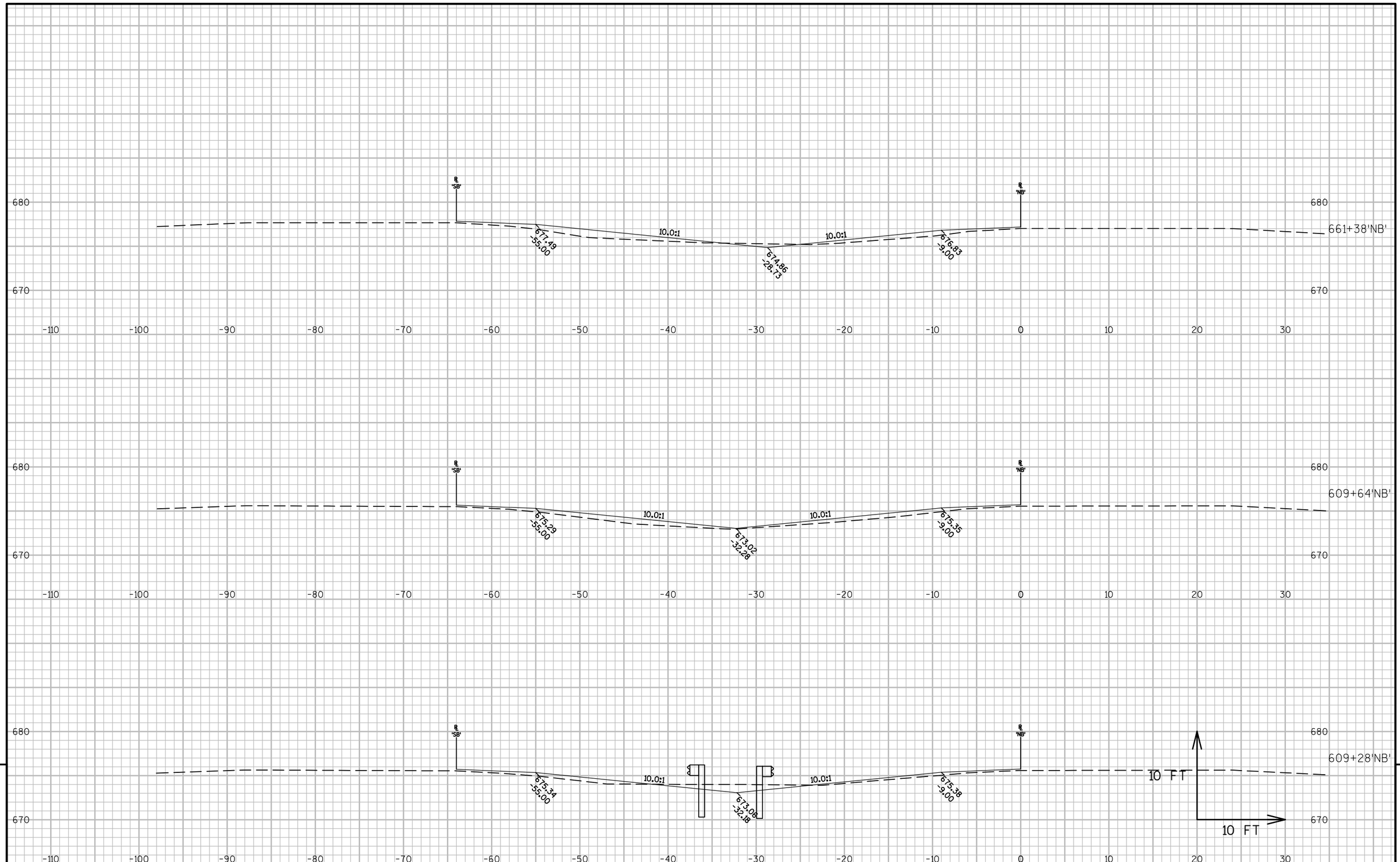
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 51 132	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSB

PLOT DATE : 8/8/2016 1:01 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

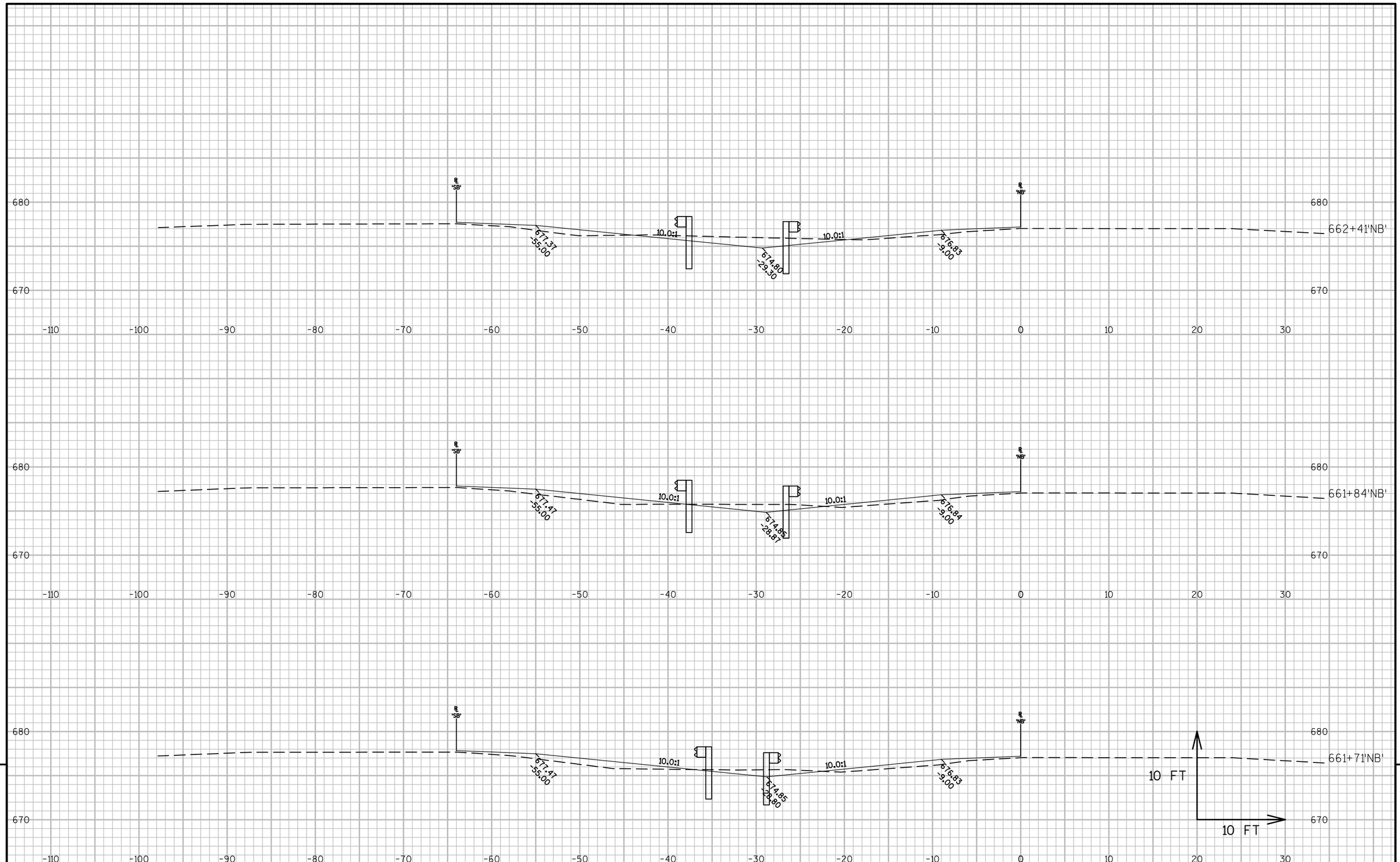


PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 52 133	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSC

PLOT DATE : 8/8/2016 1:01 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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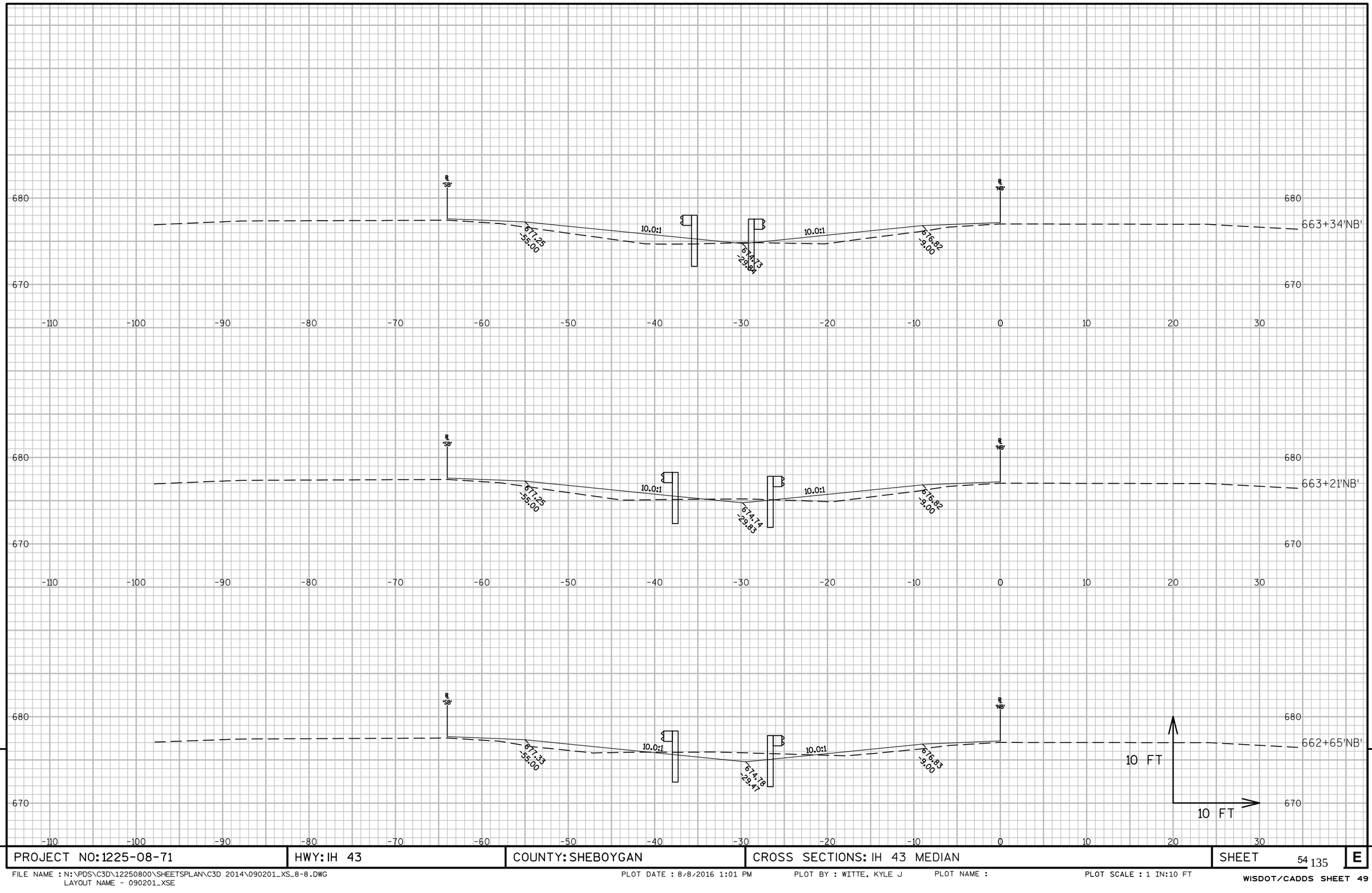
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 53 134	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSD

PLOT DATE : 8/8/2016 1:01 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49

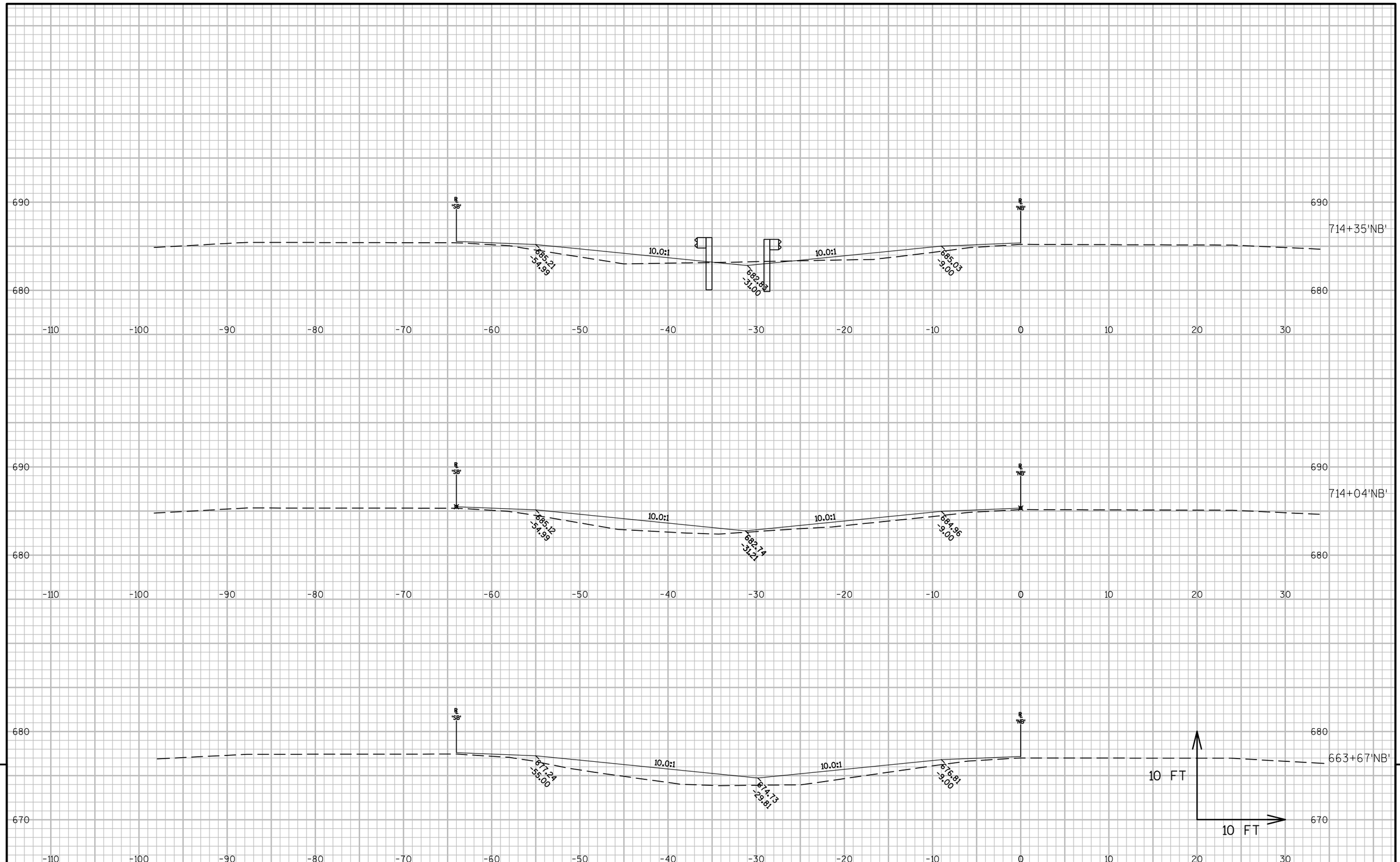


PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 54 135	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSE

PLOT DATE : 8/8/2016 1:01 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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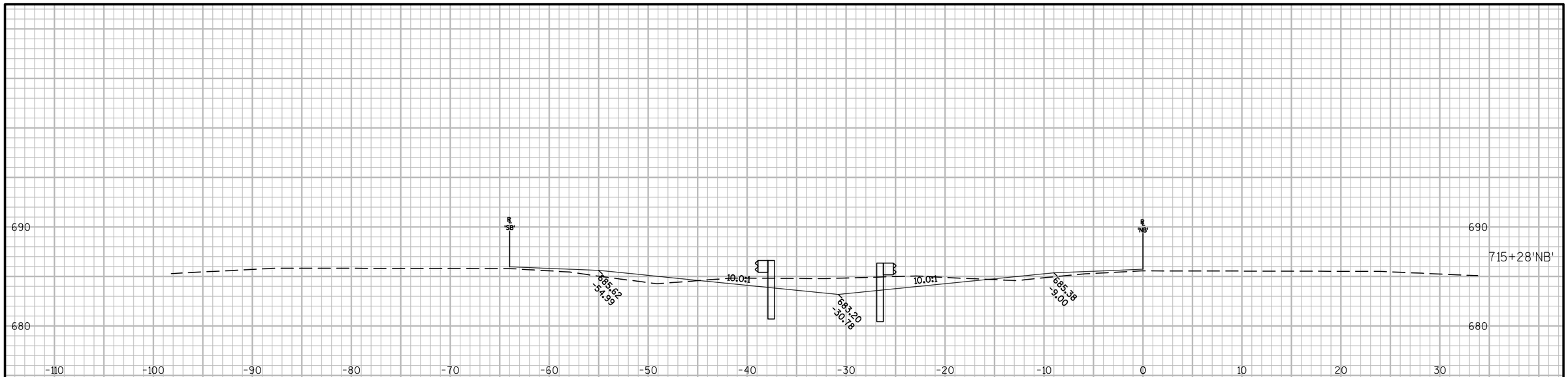
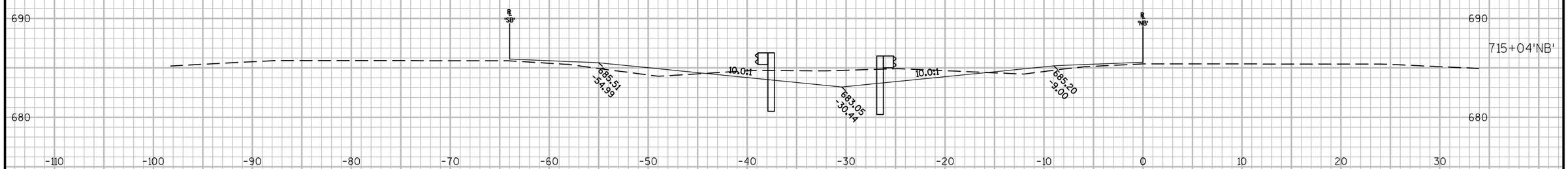
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 55 136	E

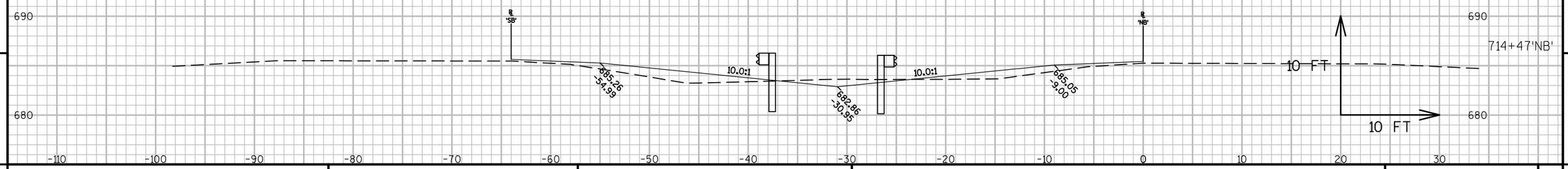
FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSF

PLOT DATE : 8/8/2016 1:02 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49







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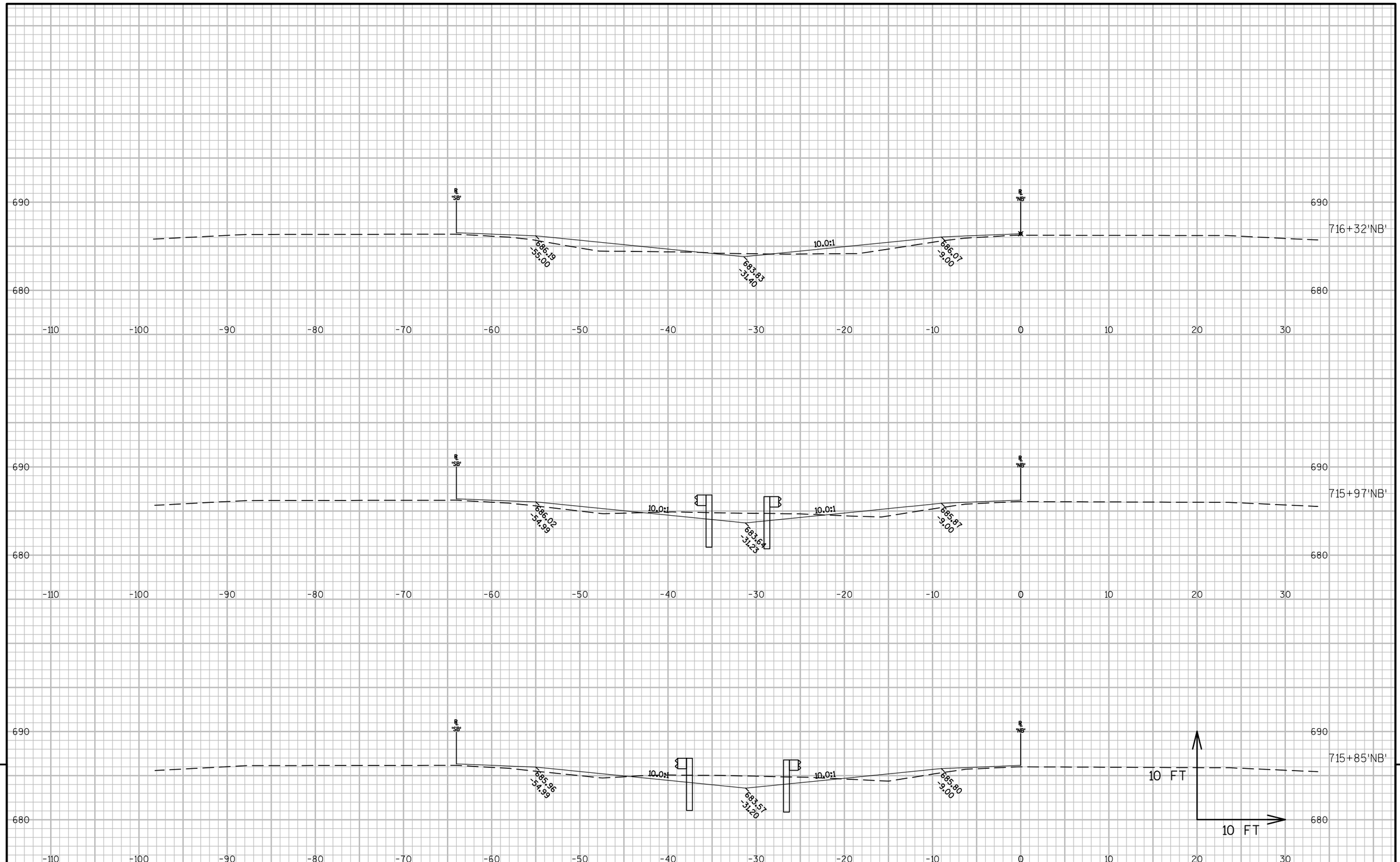
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 56 137	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSG

PLOT DATE : 8/8/2016 1:02 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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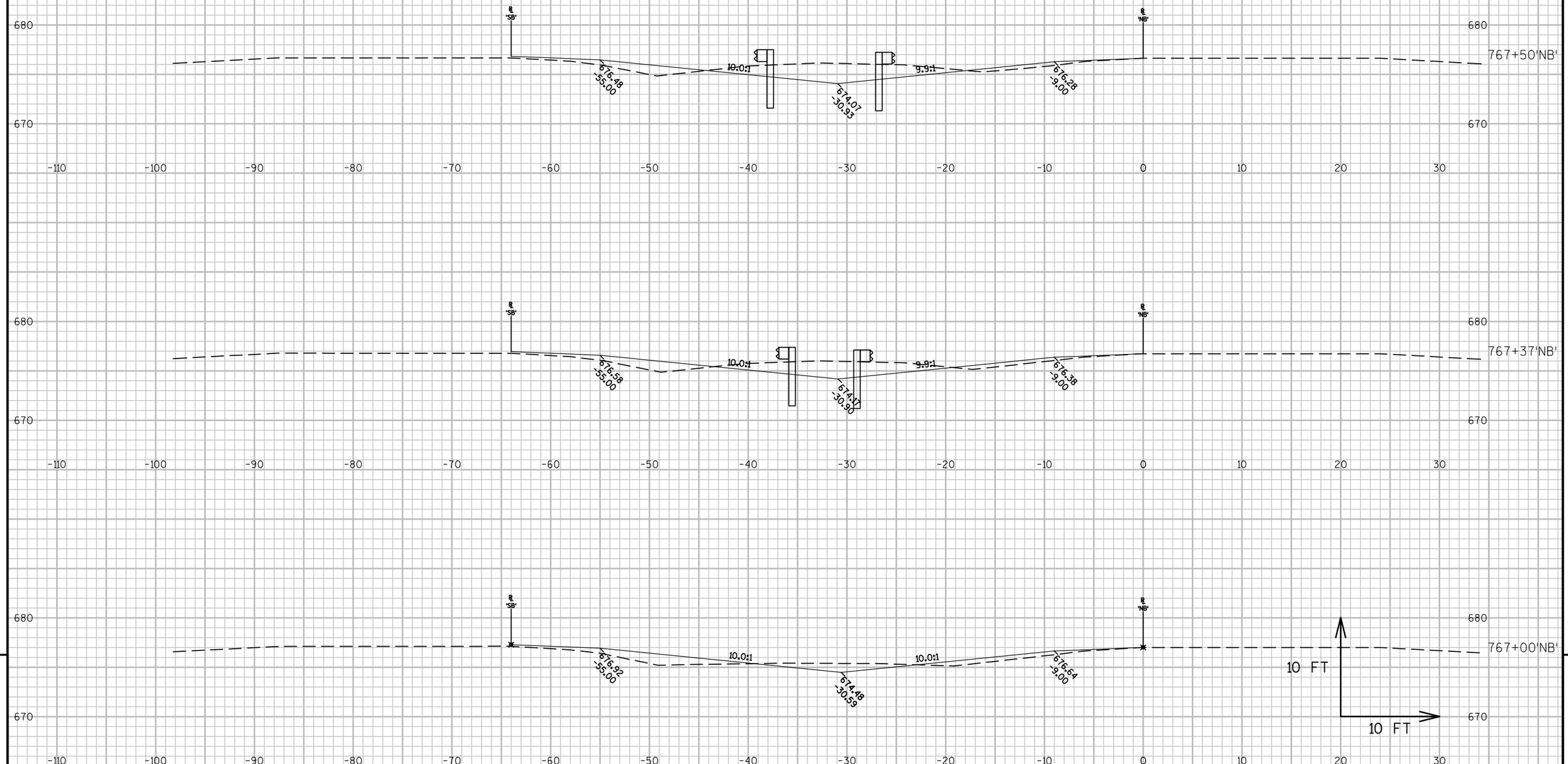
9

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 57 138	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSH

PLOT DATE : 8/8/2016 1:02 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



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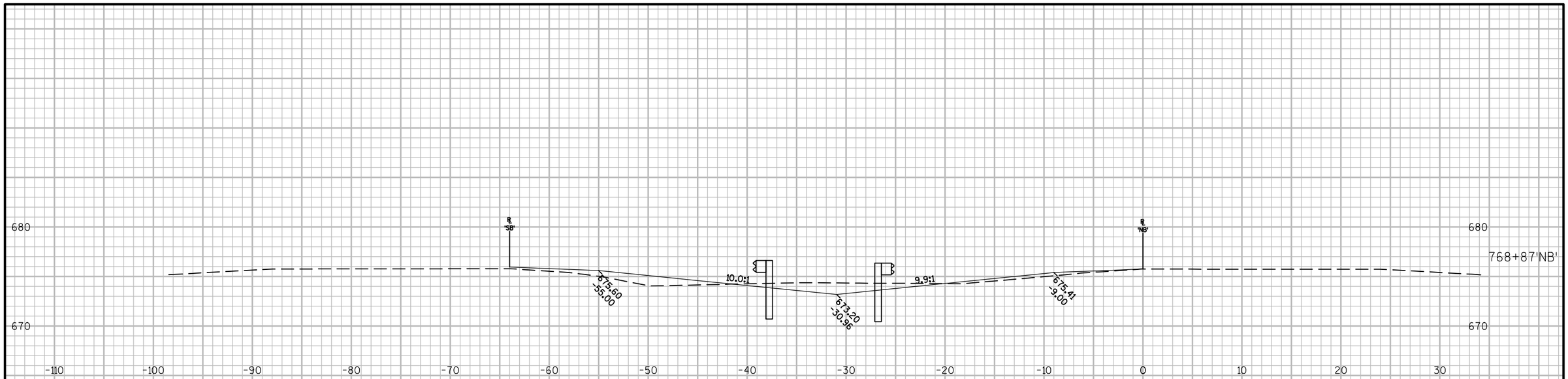
9

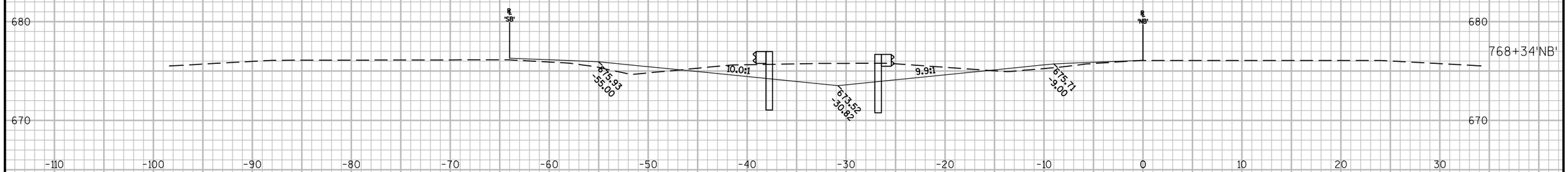
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 58 139	E

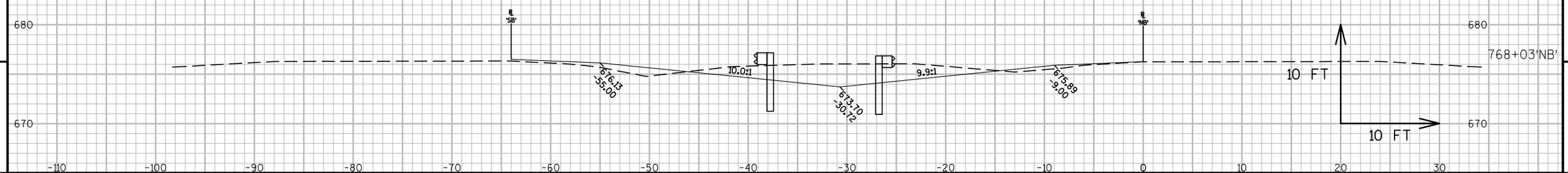
FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSI

PLOT DATE : 8/8/2016 1:02 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49







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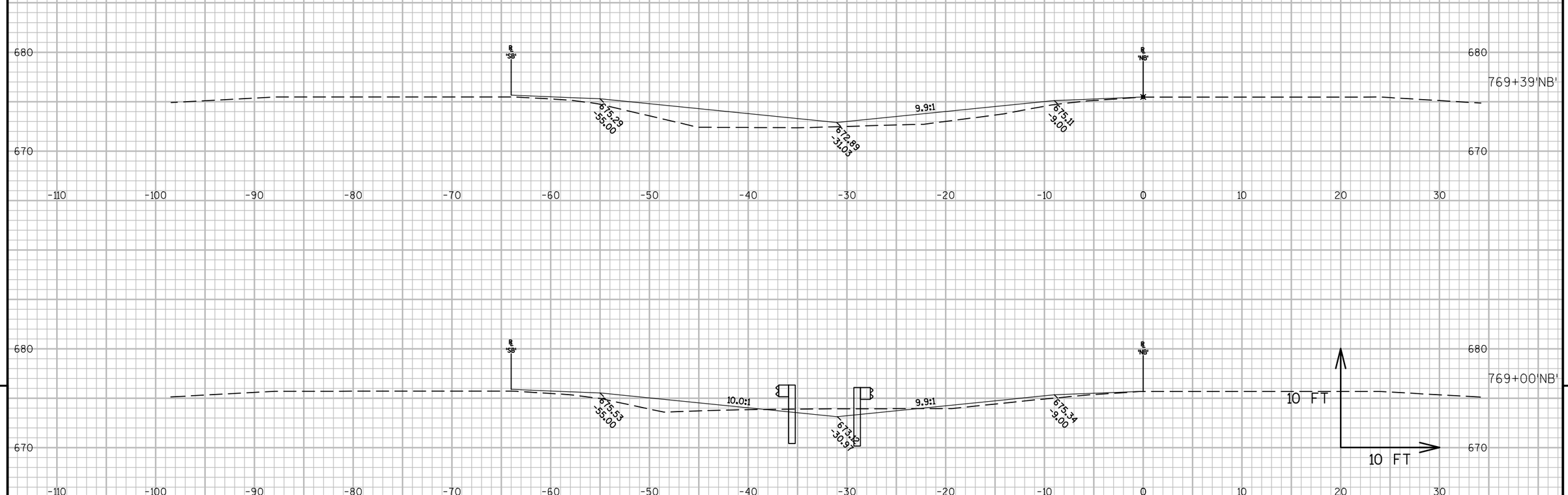
PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 59 140	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSJ

PLOT DATE : 8/8/2016 1:02 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1225-08-71	HWY: IH 43	COUNTY: SHEBOYGAN	CROSS SECTIONS: IH 43 MEDIAN	SHEET 60 141	E

FILE NAME : N:\PDS\C3D\12250800\SHEETSPLAN\C3D 2014\090201_XS_8-8.DWG
LAYOUT NAME - 090201_XSK

PLOT DATE : 8/8/2016 1:02 PM PLOT BY : WITTE, KYLE J PLOT NAME : PLOT SCALE : 1 IN:10 FT

Wisconsin Department of Transportation

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