

WKE

WITH:

PROJECT ID:

1000-54-72

COUNTY:

SE REGION

SEPTEMBER 2018
ORDER OF SHEETS

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

TOTAL SHEETS = 94

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

VARIOUS HIGHWAYS

VARIOUS BRIDGES IN SE REGION

VAR HWY

WAUKESHA COUNTY

STATE PROJECT NUMBER

1000-54-72

STATE PROJECT

1000-54-72

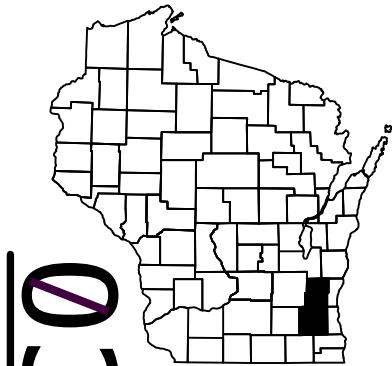
FEDERAL PROJECT

PROJECT

WISC 2018373

CONTRACT

1



DESIGN DESIGNATION

A.A.D.T.	=	SEE GENERAL NOTES FOR INFORMATION
A.A.D.T.	=	
D.H.V.	=	
D.D.	=	
T.	=	
DESIGN SPEED	=	
ESALS	=	

CONVENTIONAL SYMBOLS

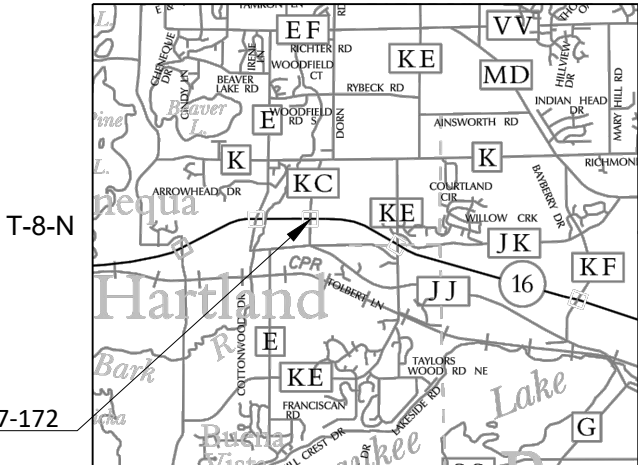
PLAN

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

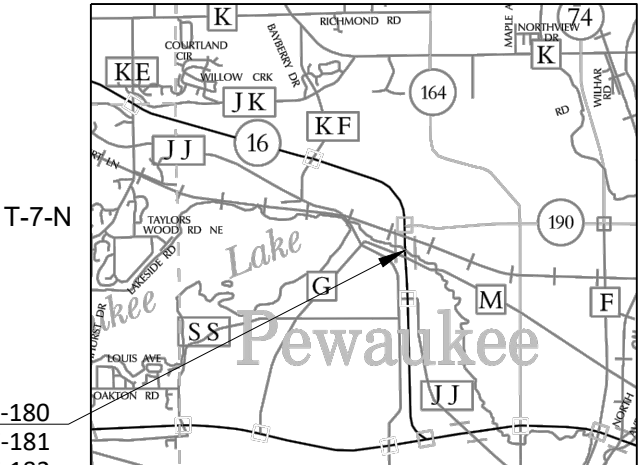
PROFILE

GRADE LINE	
ORIGINAL GROUND	
MARSH OR ROCK PROFILE (To be noted as such)	
SPECIAL DITCH	
GRADE ELEVATION	
CULVERT (Profile View)	
UTILITIES	
ELECTRIC	
FIBER OPTIC	
GAS	
SANITARY SEWER	
STORM SEWER	
TELEPHONE	
WATER	
UTILITY PEDESTAL	
POWER POLE	
TELEPHONE POLE	

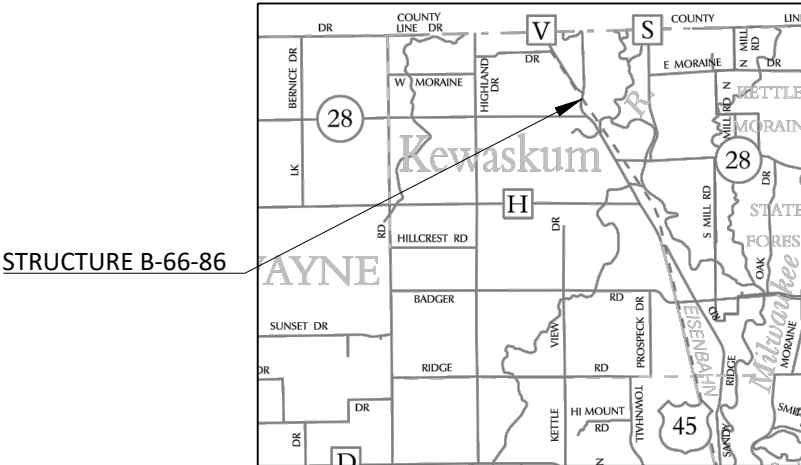
WAUKESHA



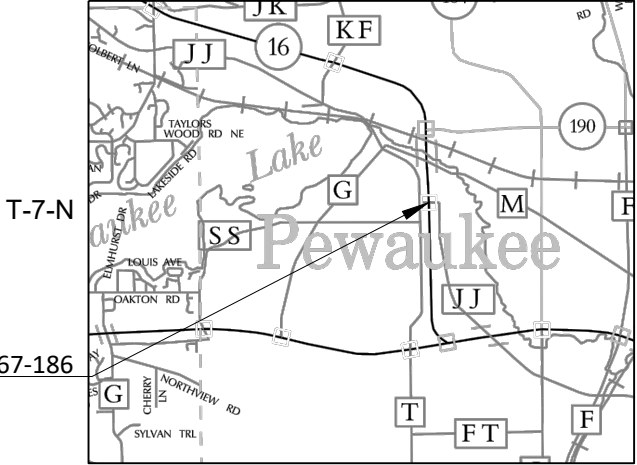
R-19-E
WAUKESHA



WASHINGTON



WAUKESHA



LAYOUT
SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 0.000

ALIGNMENT IS FOR REFERENCE ONLY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	WISDOT
Designer	MALATHI KARRI
Project Manager	GARY METZER
Regional Examiner	
Regional Supervisor	JANET CANNON

APPROVED FOR THE DEPARTMENT

DATE: 02/01/2018

(Signature)

E

GENERAL NOTES

NO TREES OR SHRUBS ARE TO BE REMOVED UNLESS INDICATED FOR REMOVAL BY THE ENGINEER.

SILT FENCE SHALL BE INSTALLED IN THE LOCATIONS SHOWN ON THE PLANS, OR AS DIRECTED BY THE ENGINEER.

THE CONTRACTOR SHALL NOTIFY DIGGERS HOTLINE AND AFFECTED UTILITIES PRIOR TO THE START OF WORK. ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE MUST BE CONTACTED SEPARATELY.

TRAFFIC CONTROL DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

NO UTILITY FACILITIES ARE IDENTIFIED IN THE PLAN. IDENTIFY ALL UTILITIES IN THE AREA BY CONTACTING DIGGERS HOTLINE OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA, AS REQUIRED PER STATUTES.

THE CONTRACTOR IS RESPONSIBLE FOR RESHAPING AND FINISHING ANY PREVIOUSLY GRASSY AREAS WHICH ARE DISTURBED BY THEIR OPERATIONS.

STANDARD ABBREVIATIONS

AEW	APRON END WALL	PE	PRIVATE ENTRANCE
AGG	AGGREGATE	PI	POINT OF INTERSECTION
BAD	BASE AGGREGATE DENSE	PLE	PERMANENT LIMITED EASEMENT
BM	BENCH MARK	PT	POINT OF TANGENT
C&G	CURB AND GUTTER	PVC	POINT OF VERTICAL CURVE
C/L	CENTER OR CONSTRUCTION LINE	PVI	POINT OF VERTICAL INTERSECTION
CONC	CONCRETE	PVT	POINT OF VERTICAL TANGENT
CP	CULVERT PIPE	R	RADIUS OF CURVE
CPCM	CULVERT PIPE CORRUGATED METAL	R/L	REFERENCE LINE
CPRC	CULVERT PIPE REINFORCED CONCRETE	R/W	RIGHT OF WAY
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	RAD	RADIUS
CSCP	CORRUGATED STEEL CULVERT PIPE	RC	REVERSE CROWN
CSPA	CORRUGATED STEEL PIPE ARCH	RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN	RCHES	REINFORCED CONCRETE HORIZONTAL ELLIPTICAL STORM SEWER
CY	CUBIC-YARD	RCPS	REINFORCED CONCRETE PIPE - STORM SEWER
D	DEGREE OF CURVE	REQD	REQUIRED
Δ	DELTA	RHF	RIGHT HAND FORWARD
DISCH	DISCHARGE	RO	RUN OFF LENGTH
FE	FIELD ENTRANCE	RT	RIGHT
HERCP	HORIZONTAL ELLIPTICAL REINFORCED CONCRETE PIPE	SALV	SALVAGED
HMA	HOT MIX ASPHALT	SB	SIGNAL BASE
INV	INVERT	SDD	STANDARD DETAIL DRAWING
L	LENGTH OF CURVE	SE	SUPER ELEVATION
LHF	LEFT HAND FORWARD	SF	SQUARE FOOT
LT	LEFT	STA	STATION
MIN	MINIMUM	SY	SQUARE YARD
M/L	MATCHLINE	T	TANGENT LENGTH
NB	NORTHBOUND	TC	TOP OF CURB
NC	NORMAL CROWN	TLE	TEMPORARY LIMITED EASEMENT
NTS	NOT TO SCALE		
PAVT	PAVEMENT		
PB	PULL BOX		
PC	POINT-OF-CURVE		

MUNICIPALITIES

MR. DANIEL NAZE
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RAILROAD CONTACT

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MANAGER PUBLIC WORKS
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WISDOT CONTACT

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WAUKESHA, WI 53187-0798
(262) 548-5685
GARY.METZER@DOT.WI.GOV

DESIGN CONTACT

FOR B-66-86, B-67-172, B-67-186

KL ENGINEERING, INC
MR. CHAD HALVERSON
5400 KING JAMES WAY, SUITE 200
MADISON, WI 53719
(608) 663-1218 EXT. 289
CHALVERSON@KLENGINEERING.COM

FOR B-67-180, B-67-181, B-67-182, B-67-183

GRAEF
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FOR WASHINGTON COUNTY

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AADT DATA

Bridge	B-66-86	B-67-172	B-67-180 through B-67-183	B-67-186
Road On	US 45	CTH KC	STH 16	CTH JJ
AADT	7200 :2017□	5,800 :2017□	SB Ramp□6,800 :2017□ NB Ramp□6,700 :2017□ STH 16□27,800 :2017□	12,300 :2017□
Road Under	Eisen□ahn Trail	STH 16	Hickory Street	STH 16
AADT	N/A	29,100 :2017□	□1,000 :assumed□	26,500 :2017□

UTILITY CONTACTS

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DIGGERS



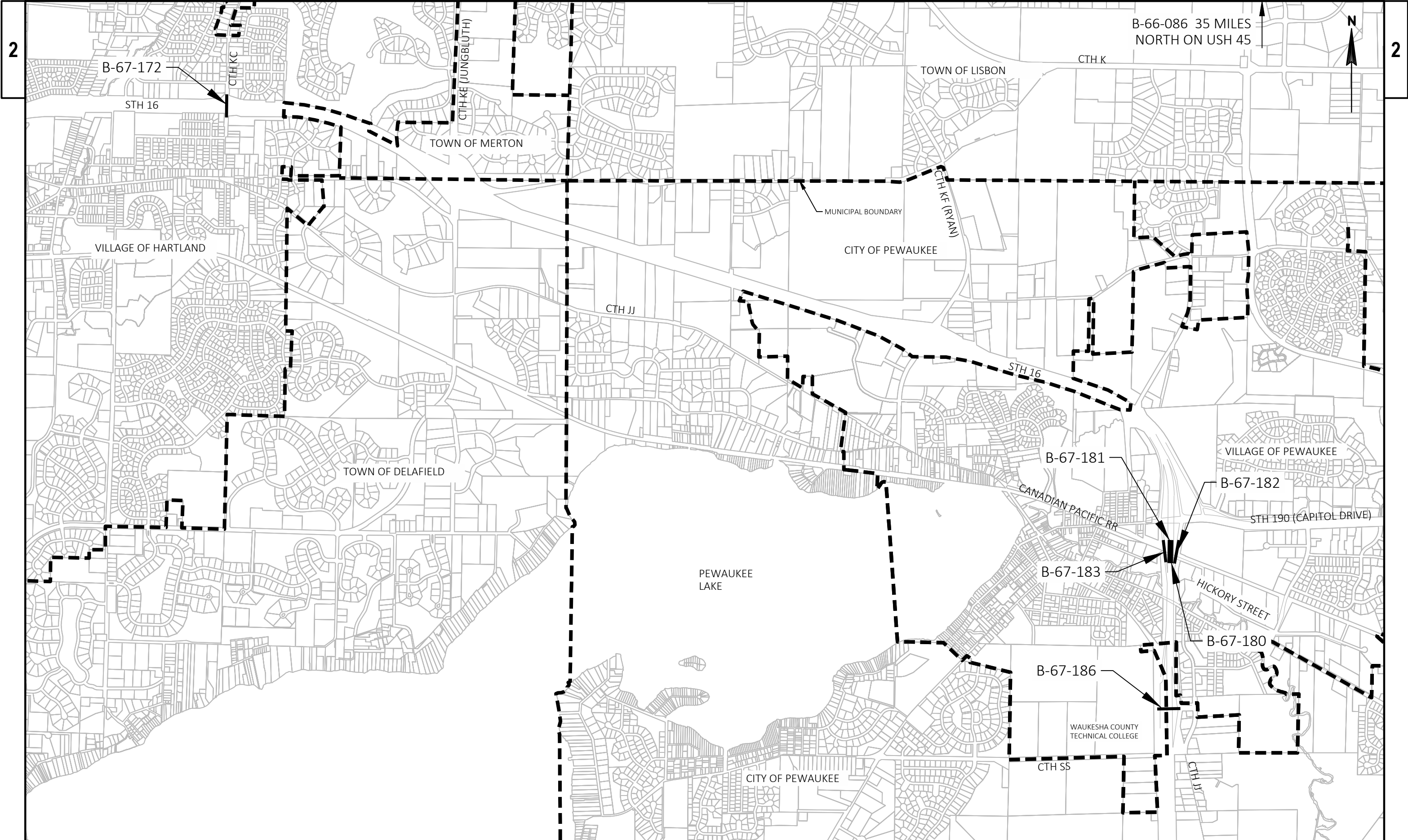
HOTLINE

Dial

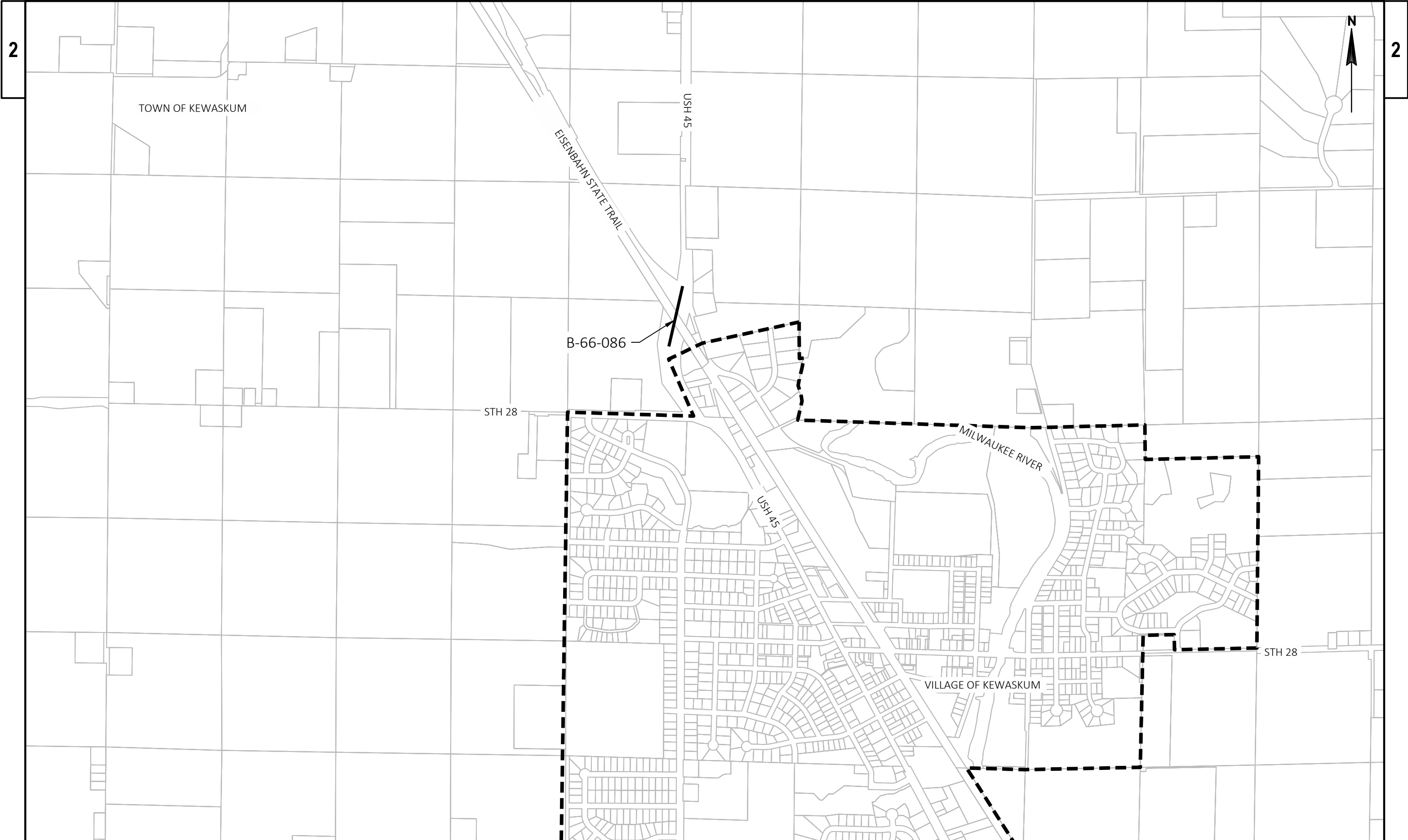


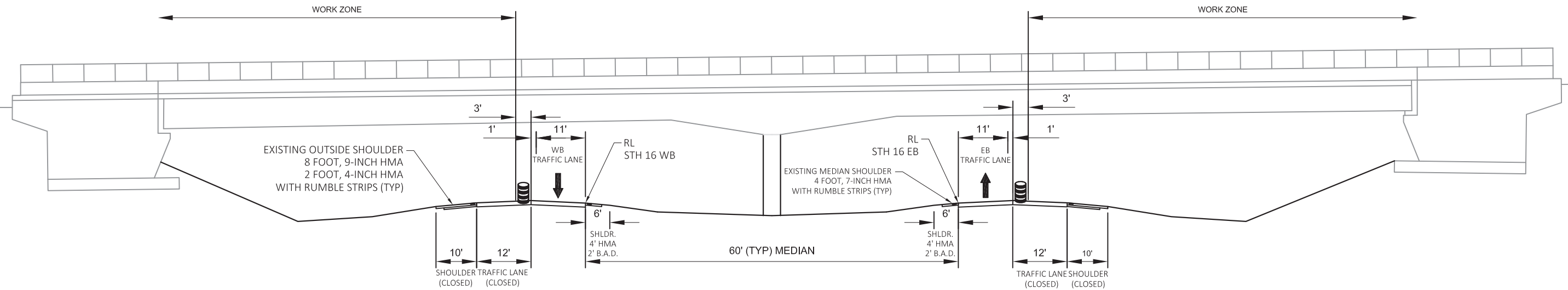
or (800) 242-8511

www.DiggersHotline.com



PROJECT NO: 1000-54-72	HWY: STH 16 & USH 45	COUNTY: WASHINGTON & WAUKESHA	PROJECT OVERVIEW - STH 16 SEGMENTS	SHEET	E
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STAGE 1 & STAGE 3

- STAGE 1:
- EB & WB TRAFFIC ON EXISTING MEDIAN LANE
 - PAINT OUTSIDE PORTIONS OF STRUCTURE B-67-172 DURING OFF PEAK HOURS WITH OUTSIDE LANE CLOSURES
 - FILL OUTSIDE SHOULDER RUMBLE STRIPS

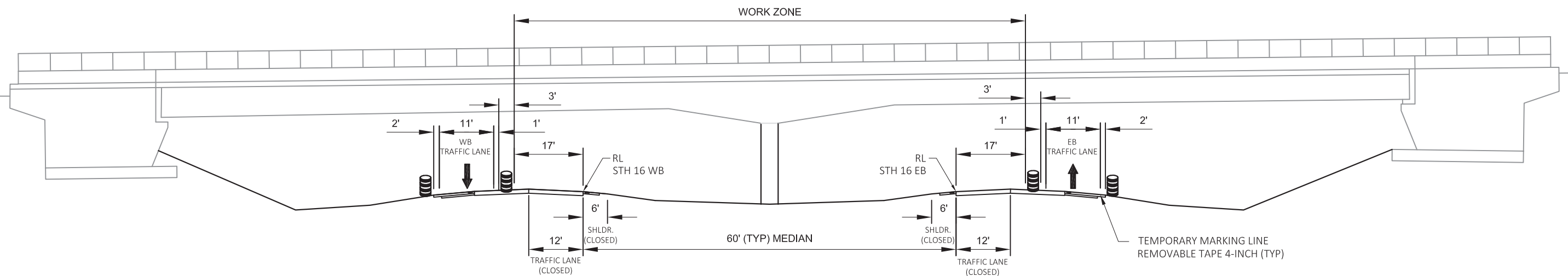
- STAGE 3
- EB & WB TRAFFIC ON EXISTING MEDIAN LANE
 - MILL OUTSIDE ASPHALTIC SHOULDER RUMBLE STRIPS. LOCATE NEW RUMBLE STRIPS IN LOCATION OF THE PREVIOUSLY FILLED RUMBLE STRIPS.



DIRECTION OF TRAFFIC



TRAFFIC CONTROL DRUMS



STAGE 2

- STAGE 2:
- EB & WB TRAFFIC ON EXISTING OUTSIDE LANE AND SHOULDER.
 - PAINT MEDIAN PORTIONS OF STRUCTURE B-67-172 DURING OFF PEAK HOURS WITH MEDIAN LANE CLOSURES





PCMS-TO BE PLACED 5 CALENDAR DAYS
PRIOR TO LANE CLOSURES AT LOCATION
TO BE DETERMINED BY THE ENGINEER.



INSTALL EB ADVANCED WARNING SIGNING
AND LANE CLOSURE IN ACCORDANCE WITH
SDD "TRAFFIC CONTROL, LANE CLOSURE"

LEGEND

-  STAGE 1 & 3 CLOSURE
-  STAGE 2 CLOSURE

ALL STAGES:
- ALL LANE CLOSURES SHALL TAKE
PLACE DURING NON-PEAK HOURS AS
DEFINED BY THE SPECIAL PROVISIONS.

PROJECT NO:1000-54-72

HWY:STH 16

COUNTY:WAUKESHA

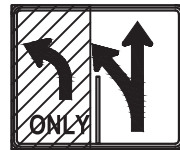
TRAFFIC CONTROL OVERVIEW B-67-172

SHEET

E



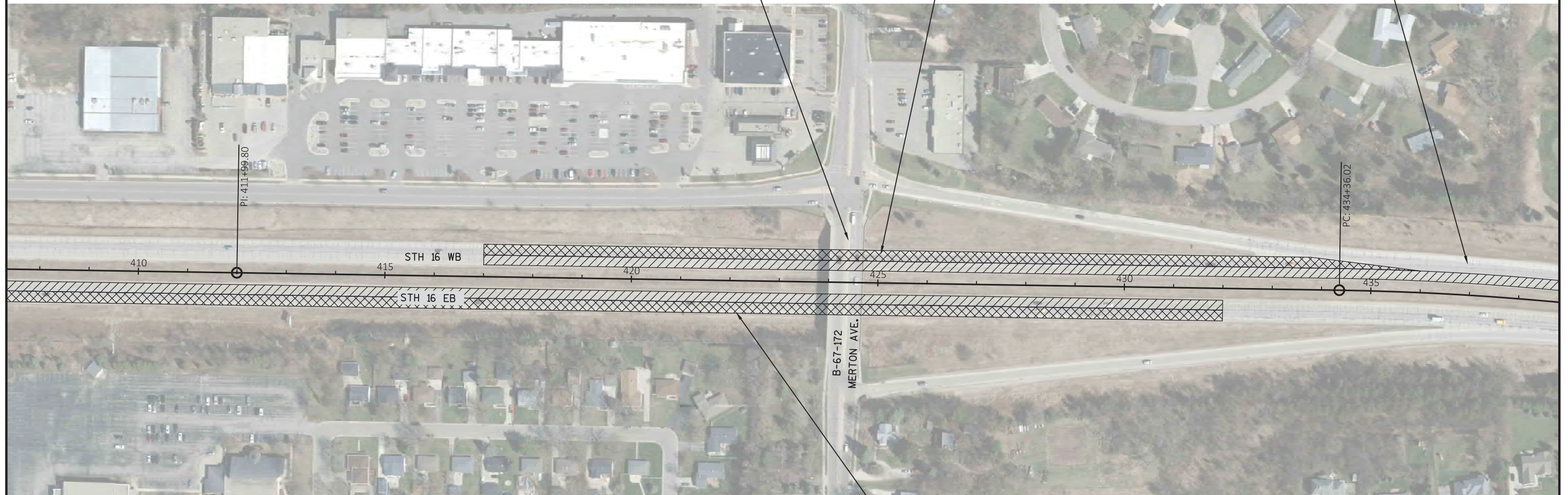
INSTALL NB AND SB RIGHT LANE CLOSURE ON B-67-172 IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/ EXPRESSWAY"
TO BE USED FOR CONTAINMENT SET UP AND REMOVAL.
SUPPLEMENT LANE CLOSURE SIGNING WITH SIGN R3-8B, COVER LEFT ONLY SIGN.
NB AND SB CLOSURE SHALL NOT TAKE PLACE SIMULTANEOUSLY.



R3-8B
36"X30"

STAGE 2 - SHIFT WB TRAFFIC TO OUTSIDE SHOULDER,
REFER TO CONSTRUCTION DETAIL FOR MORE INFORMATION.

STAGE 1 & 3 - MAINTAIN WB EXIT RAMP IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE"



LEGEND

- ▨ STAGE 1 & 3 CLOSURE
▨ STAGE 2 CLOSURE

ALL STAGES:
- ALL LANE CLOSURES SHALL TAKE
PLACE DURING NON-PEAK HOURS AS
DEFINED BY THE SPECIAL PROVISIONS.



STAGE 1 & 3 - MAINTAIN WB EXIT RAMP IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE"

STAGE 1 & 3 - MAINTAIN WB ENTRANCE RAMP IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE"

STAGE 2 - MAINTAIN WB ENTRANCE RAMP IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE"



LEGEND

- STAGE 1 & 3 CLOSURE
- STAGE 2 CLOSURE

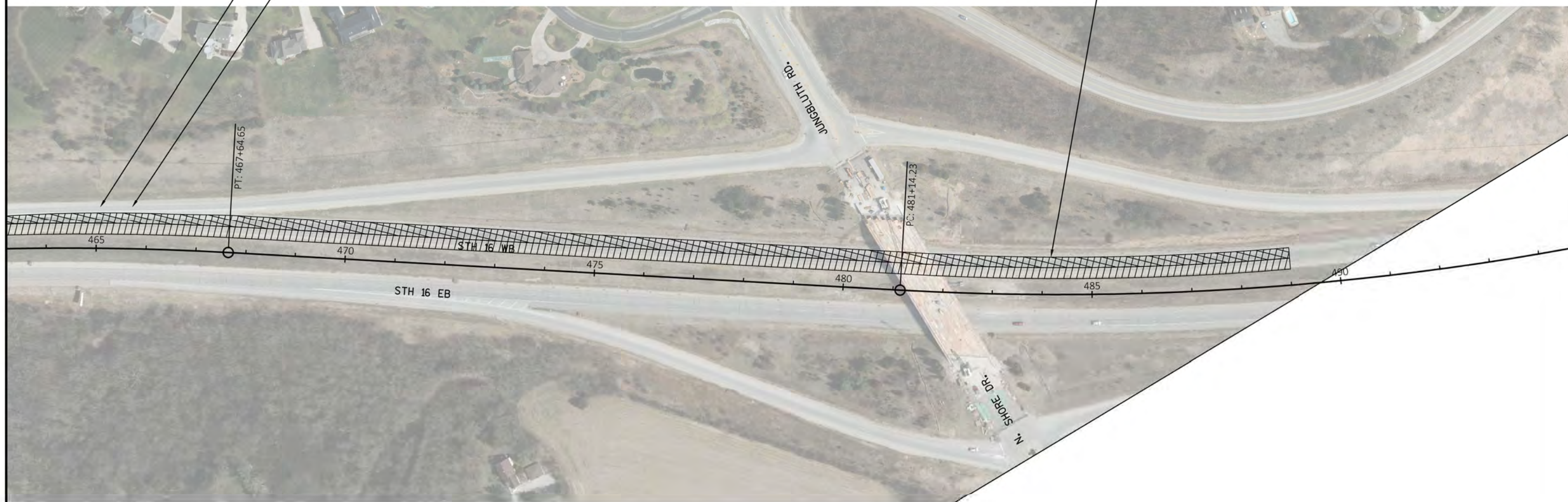
ALL STAGES:
- ALL LANE CLOSURES SHALL TAKE
PLACE DURING NON-PEAK HOURS AS
DEFINED BY THE SPECIAL PROVISIONS.



STAGE 1 & 3 - MAINTAIN WB ENTRANCE RAMP IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE"

STAGE 2 - MAINTAIN WB ENTRANCE RAMP IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE"

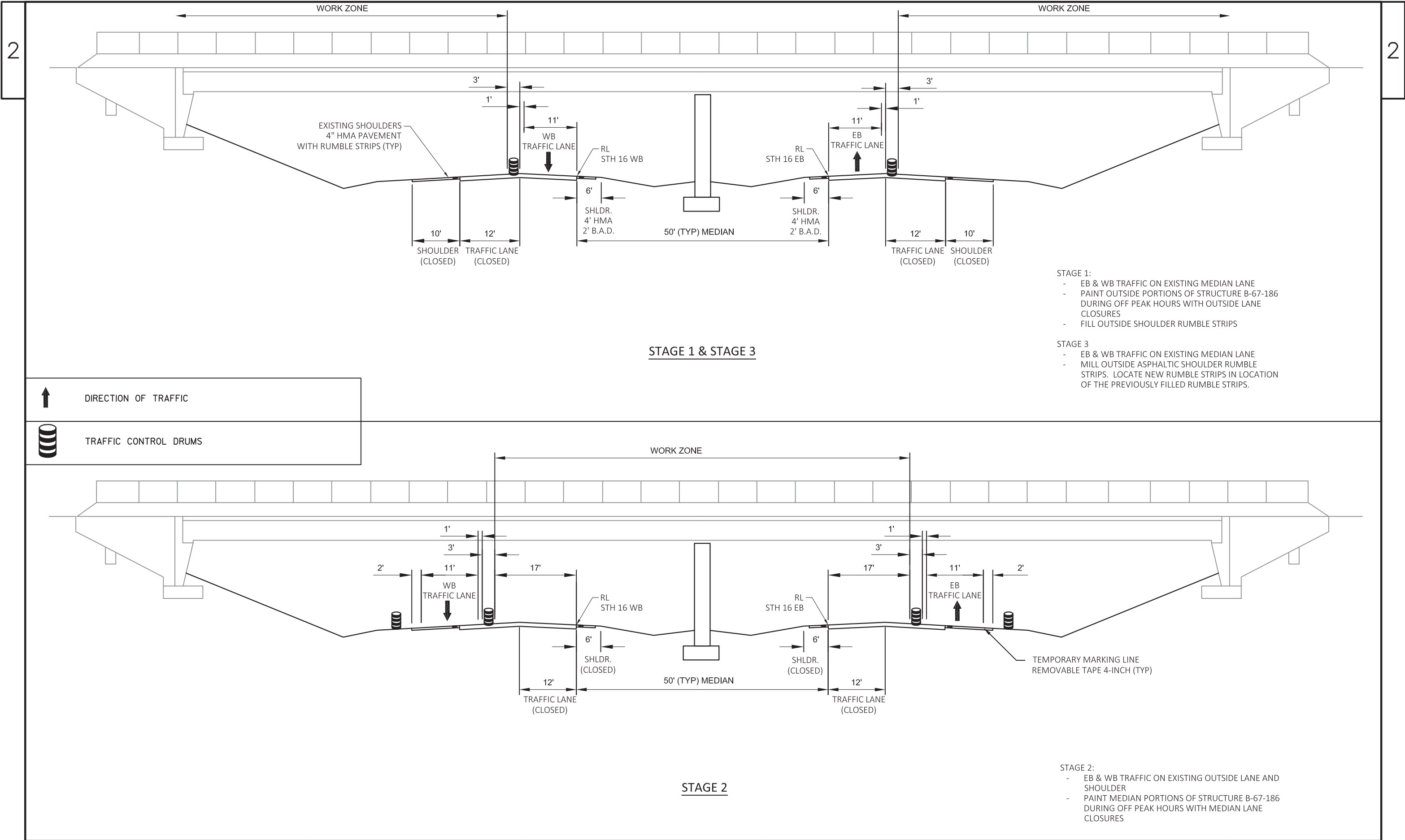
INSTALL WB ADVANCED WARNING SIGNING
AND LANE CLOSURE IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, LANE CLOSURE"



LEGEND

- STAGE 1 & 3 CLOSURE
- STAGE 2 CLOSURE

ALL STAGES:
- ALL LANE CLOSURES SHALL TAKE
PLACE DURING NON-PEAK HOURS AS
DEFINED BY THE SPECIAL PROVISIONS.



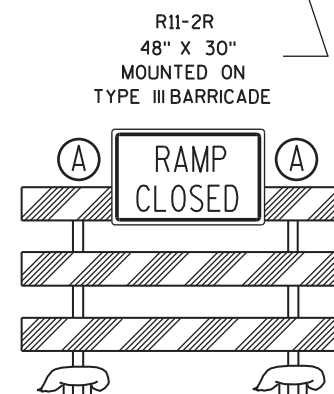


INSTALL EB ADVANCED WARNING SIGNING
AND LANE CLOSURE IN ACCORDANCE WITH
SDD "TRAFFIC CONTROL, LANE CLOSURE"

STAGE 1 & 3 - CLOSE STH 190 (CAPITOL DRIVE)
WB LEFT TURN LANE AND EB RIGHT TURN LANE DURING RAMP CLOSURES.
REFER TO SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURE"
AND DETOUR ROUTE DETAIL FOR FURTHER INFORMATION

LEGEND

- ▨ STAGE 1 & 3 CLOSURE
▨ STAGE 2 CLOSURE



STAGE 1 & 3 - CLOSE EB ON RAMP
DURING CONSTRUCTION AND INSTALL DETOUR

ALL STAGES:
- ALL LANE CLOSURES SHALL TAKE
PLACE DURING NON-PEAK HOURS AS
DEFINED BY THE SPECIAL PROVISIONS.



STAGE 1 & 3 - CLOSE EB ON RAMP
DURING CONSTRUCTION AND INSTALL DETOUR

STAGE 1 & 3 - MAINTAIN EB EXIT RAMP IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE"

STAGE 2 - MAINTAIN EB ENTRANCE RAMP IN ACCORDANCE WITH SDD
"TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE"

LEGEND

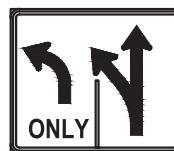
- STAGE 1 & 3 CLOSURE
- STAGE 2 CLOSURE

ALL STAGES:
- ALL LANE CLOSURES SHALL TAKE
PLACE DURING NON-PEAK HOURS AS
DEFINED BY THE SPECIAL PROVISIONS.



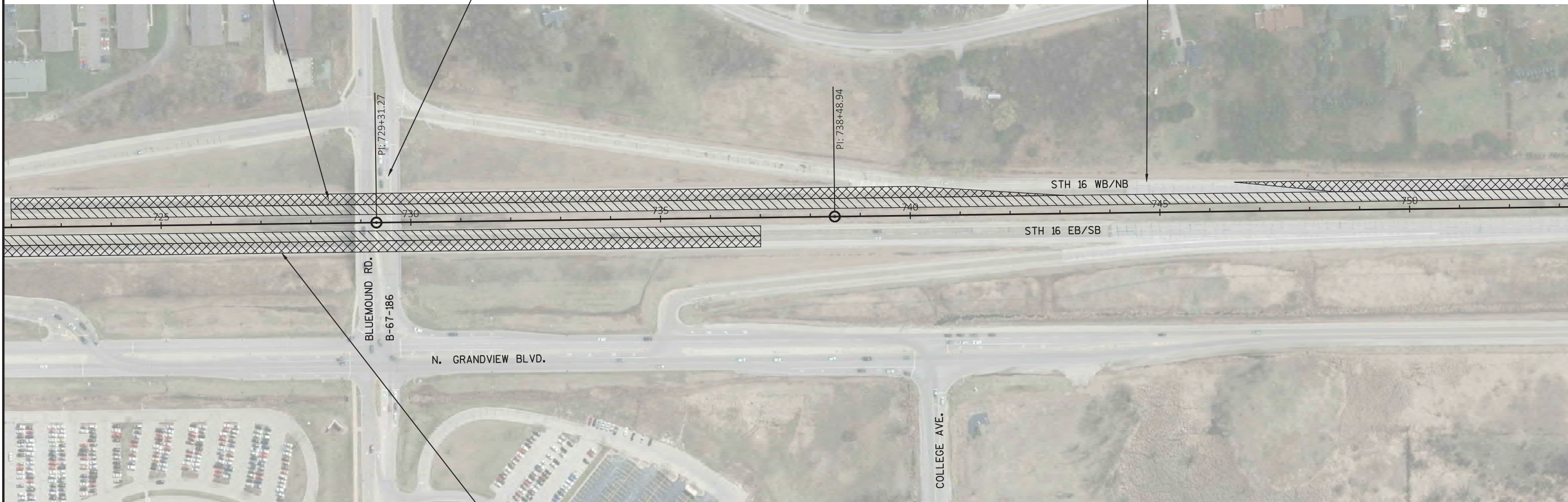
STAGE 2 - SHIFT WB TRAFFIC TO OUTSIDE SHOULDER, REFER TO CONSTRUCTION DETAIL FOR MORE INFORMATION.

INSTALL EB & WB RIGHT LANE CLOSURE ON B-67-186 IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY" TO BE USED FOR CONTAINMENT SET UP AND REMOVAL. SUPPLEMENT LANE CLOSURE SIGNING WITH SIGN R3-8B.



R3-8B
36"X30"

STAGE 1 & 3 - MAINTAIN WB EXIT RAMP IN ACCORDANCE WITH SDD "TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE" MAINTAIN 16' CLEAR WIDTH THROUGH RAMP MOVEMENT.



STAGE 2 - SHIFT EB TRAFFIC TO OUTSIDE SHOULDER. REFER TO CONSTRUCTION DETAIL FOR MORE INFORMATION.

LEGEND

- STAGE 1 & 3 CLOSURE
- STAGE 2 CLOSURE

ALL STAGES:
- ALL LANE CLOSURES SHALL TAKE PLACE DURING NON-PEAK HOURS AS DEFINED BY THE SPECIAL PROVISIONS.



INSTALL WB ADVANCED WARNING SIGNING
AND LANE CLOSURE IN ACCORDANCE WITH
SDD "TRAFFIC CONTROL, LANE CLOSURE"

PCMS - TO BE PLACED 5 CALENDAR DAYS
PRIOR TO LANE CLOSURE AT LOCATION
TO BE DETERMINED BY THE ENGINEER.

LEGEND

- STAGE 1 & 3 CLOSURE
- STAGE 2 CLOSURE

ALL STAGES:
- ALL LANE CLOSURES SHALL TAKE
PLACE DURING NON-PEAK HOURS AS
DEFINED BY THE SPECIAL PROVISIONS.

2

NOTES

WESTBOUND DIRECTION SHOWN. REVERSE FOR EASTBOUND.

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY 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" x 48" UNLESS OTHERWISE NOTED.

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

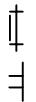
SEE SDD "TRAFFIC CONTROL, LANE CLOSURE" FOR ADDITIONAL DETAILS AND TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS 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, INCIDENTAL TO TRAFFIC CONTROL.

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

LEGEND



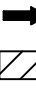
BARRICADE TYPE III WITH SIGN



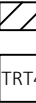
SIGN ON PORTABLE SUPPORT

TRAFFIC CONTROL DRUM WITH WARNING
LIGHT TYPE C

TRAFFIC CONTROL DRUM



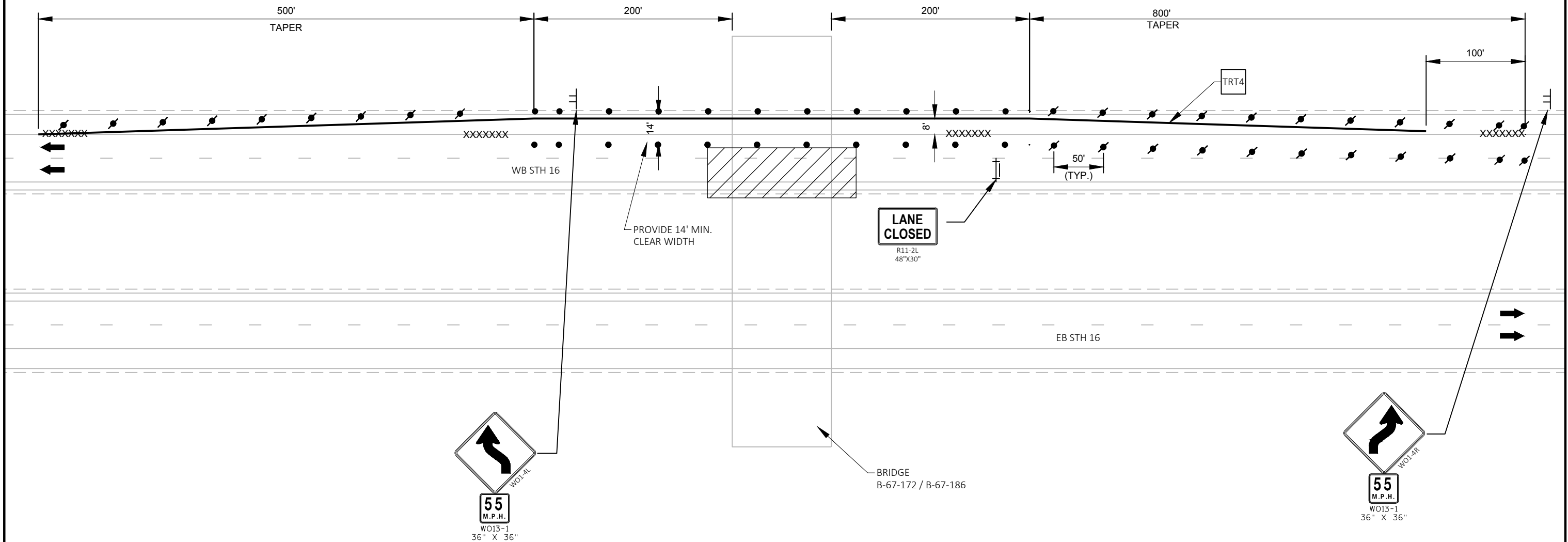
DIRECTION OF TRAFFIC



WORK AREA

TEMPORARY MARKING LINE REMOVABLE TAPE
4-INCH

XXXXXXX TEMPORARY MARKING REMOVABLE
MASK OUT TAPE 6-INCH



2

PROJECT NO: 1000-54-72

HWY: STH 16

COUNTY: WAUKESHA

TRAFFIC CONTROL DETAIL STAGE 2 LANE SHIFT B-67-172/186

SHEET

E

FILE NAME : G:\WDOTCO\16048 (2016-2018 DESIGN WO)\16048-011\CIVIL 3D\SHEETSPLAN\PLAN DETAILS\LANE SHIFT DETAIL.DWG
LAYOUT NAME - Plan 1 IN 100 FT

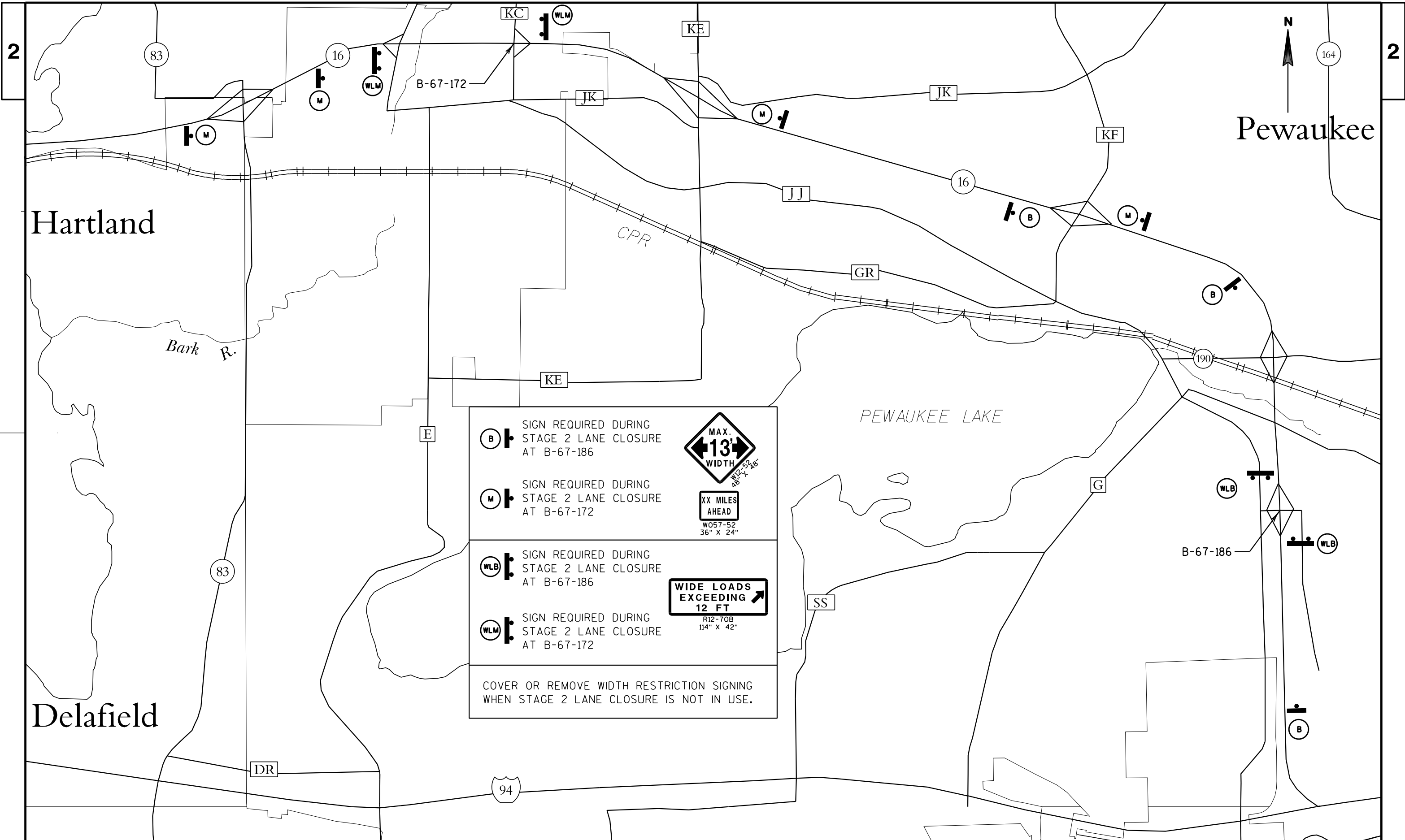
PLOT DATE : 2/28/2018 2:27 PM

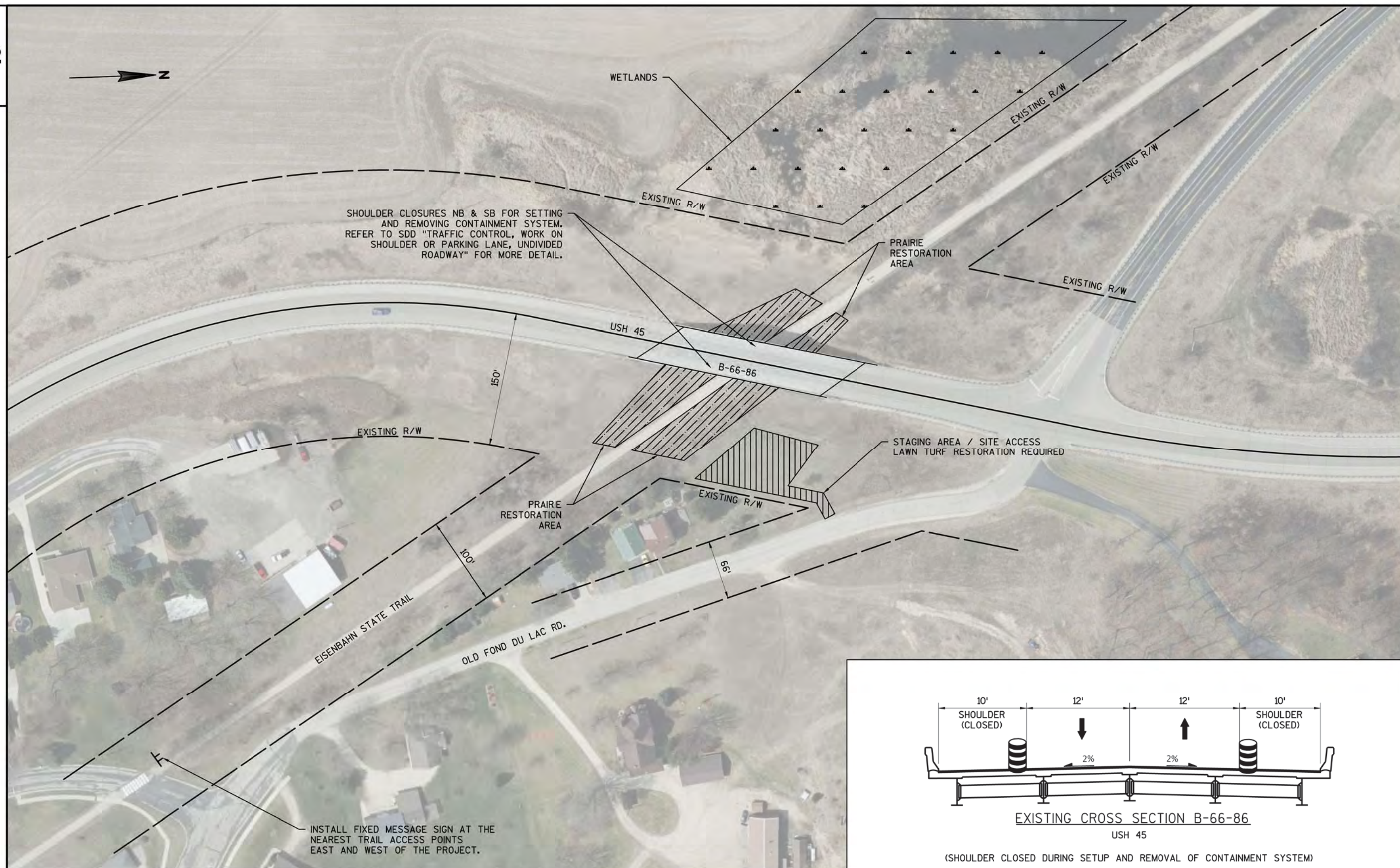
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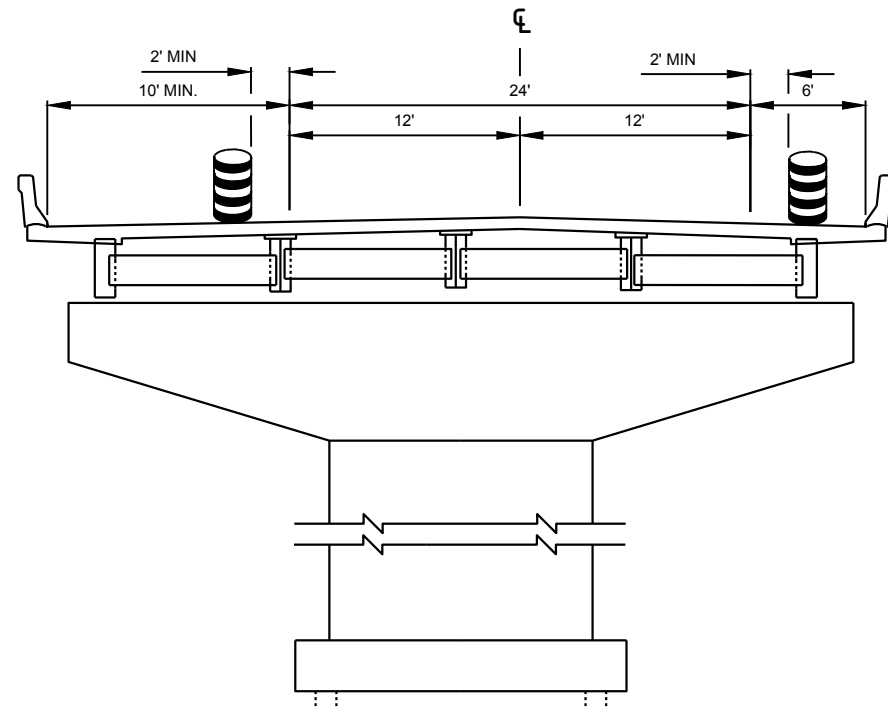
PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



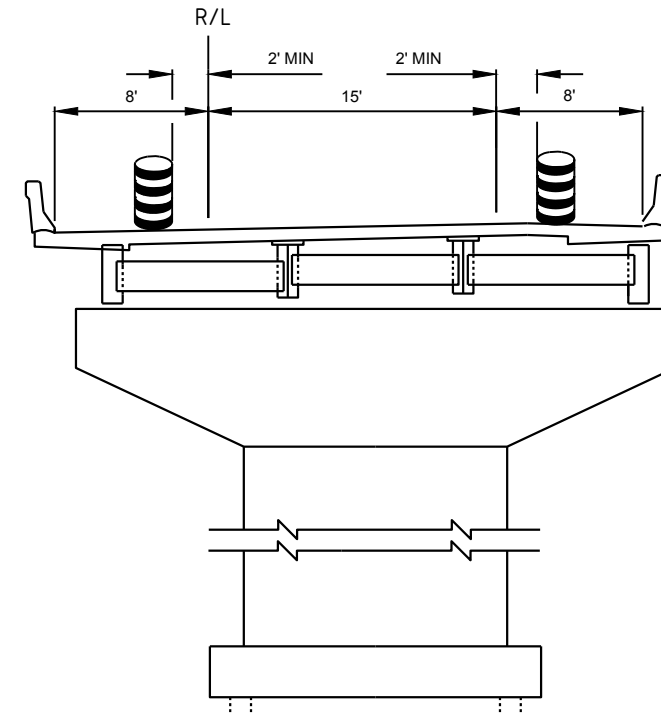




STH 16 - MAINLINE B-67-180 & B-67-181

SHOULDERS CLOSED TO PROTECT ATTACHMENTS
ON PARAPETS NEEDED TO SUPPORT PAINT
CONTAINMENT SYSTEM UNDERNEATH BRIDGE

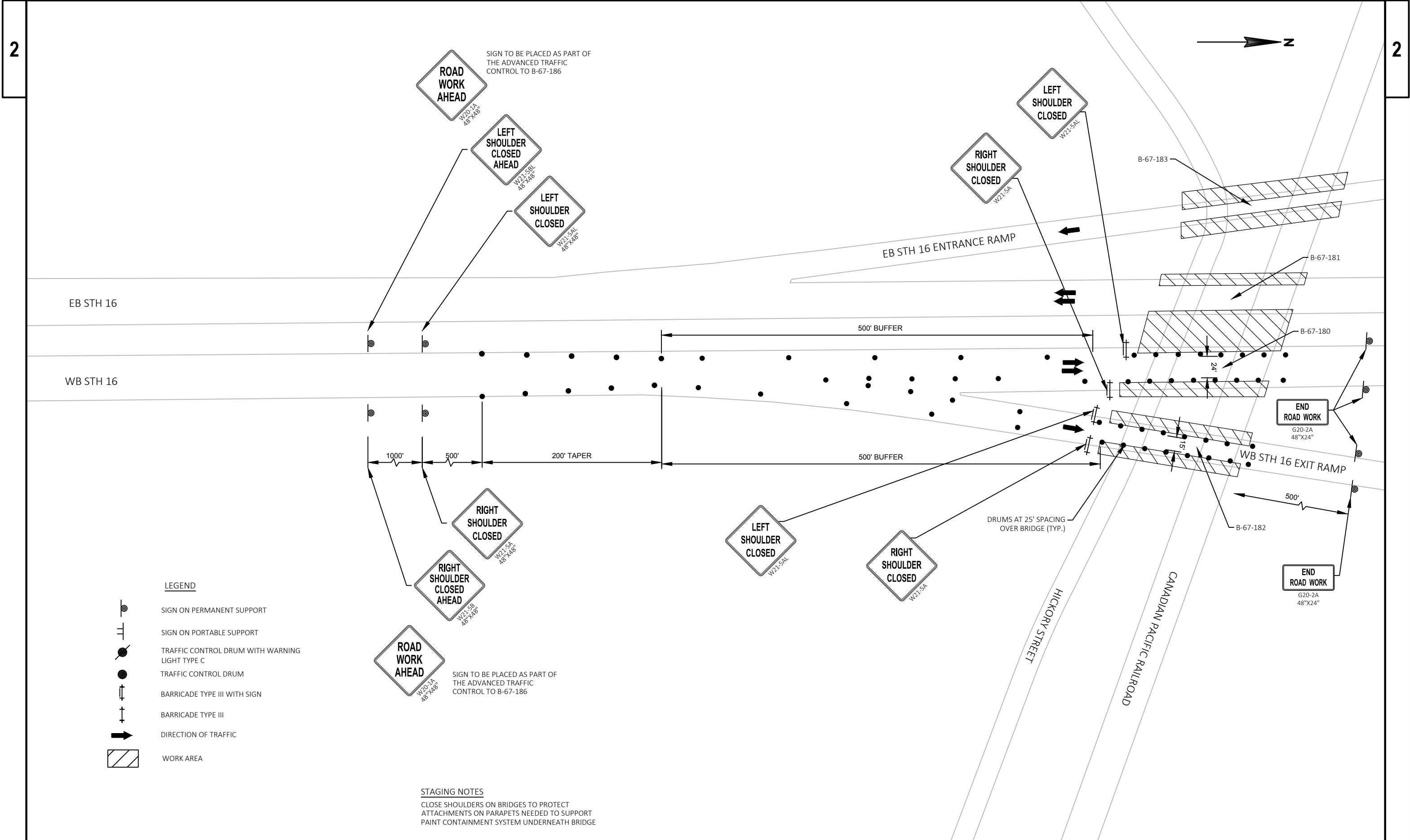
FOLLOW SDD "TRAFFIC CONTROL, LANE CLOSURE" TO CLOSE LANES AS NEEDED
FOR INITIAL SETUP OF ATTACHMENTS



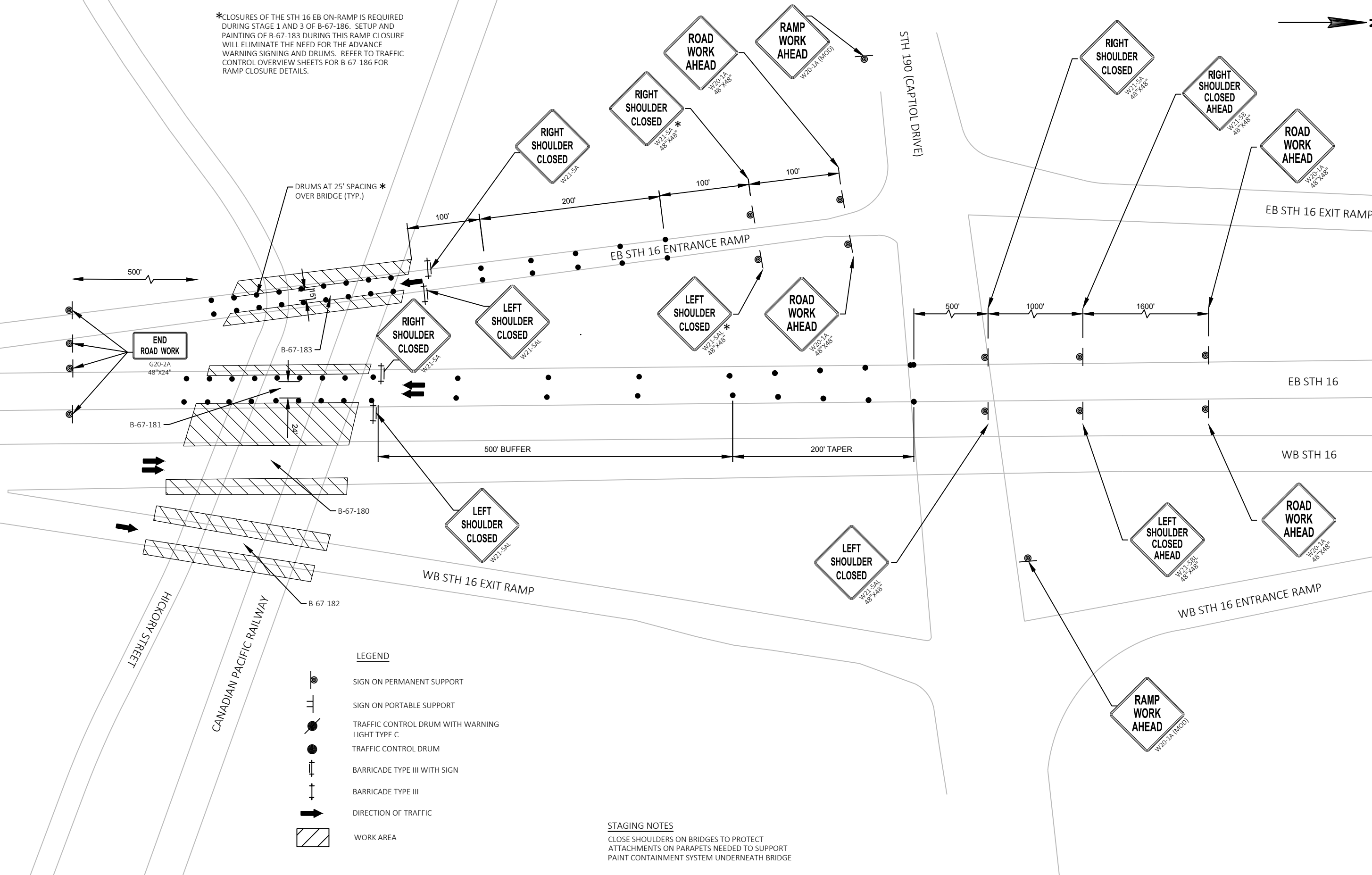
STH 16 - RAMPS B-67-182 & B-67-183

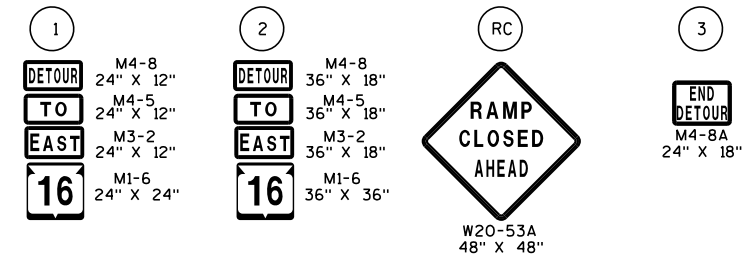
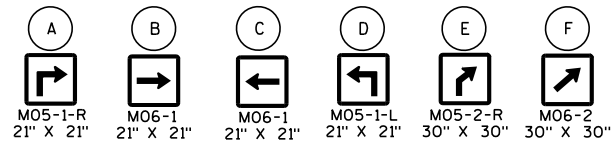
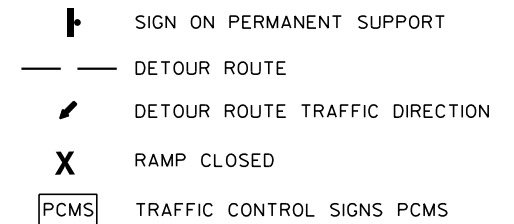
SHOULDERS CLOSED TO PROTECT ATTACHMENTS
ON PARAPETS NEEDED TO SUPPORT PAINT
CONTAINMENT SYSTEM UNDERNEATH BRIDGE

FOLLOW SDD "TRAFFIC CONTROL, LANE CLOSURE" TO SHIFT LANE TO ALLOW FOR
INITIAL SETUP OF ATTACHMENTS



*CLOSURES OF THE STH 16 EB ON-RAMP IS REQUIRED DURING STAGE 1 AND 3 OF B-67-186. SETUP AND PAINTING OF B-67-183 DURING THIS RAMP CLOSURE WILL ELIMINATE THE NEED FOR THE ADVANCE WARNING SIGNING AND DRUMS. REFER TO TRAFFIC CONTROL OVERVIEW SHEETS FOR B-67-186 FOR RAMP CLOSURE DETAILS.



**LEGEND**

Pewaukee

NOTES

ALL SIGNS SHALL BE PLACED IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

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

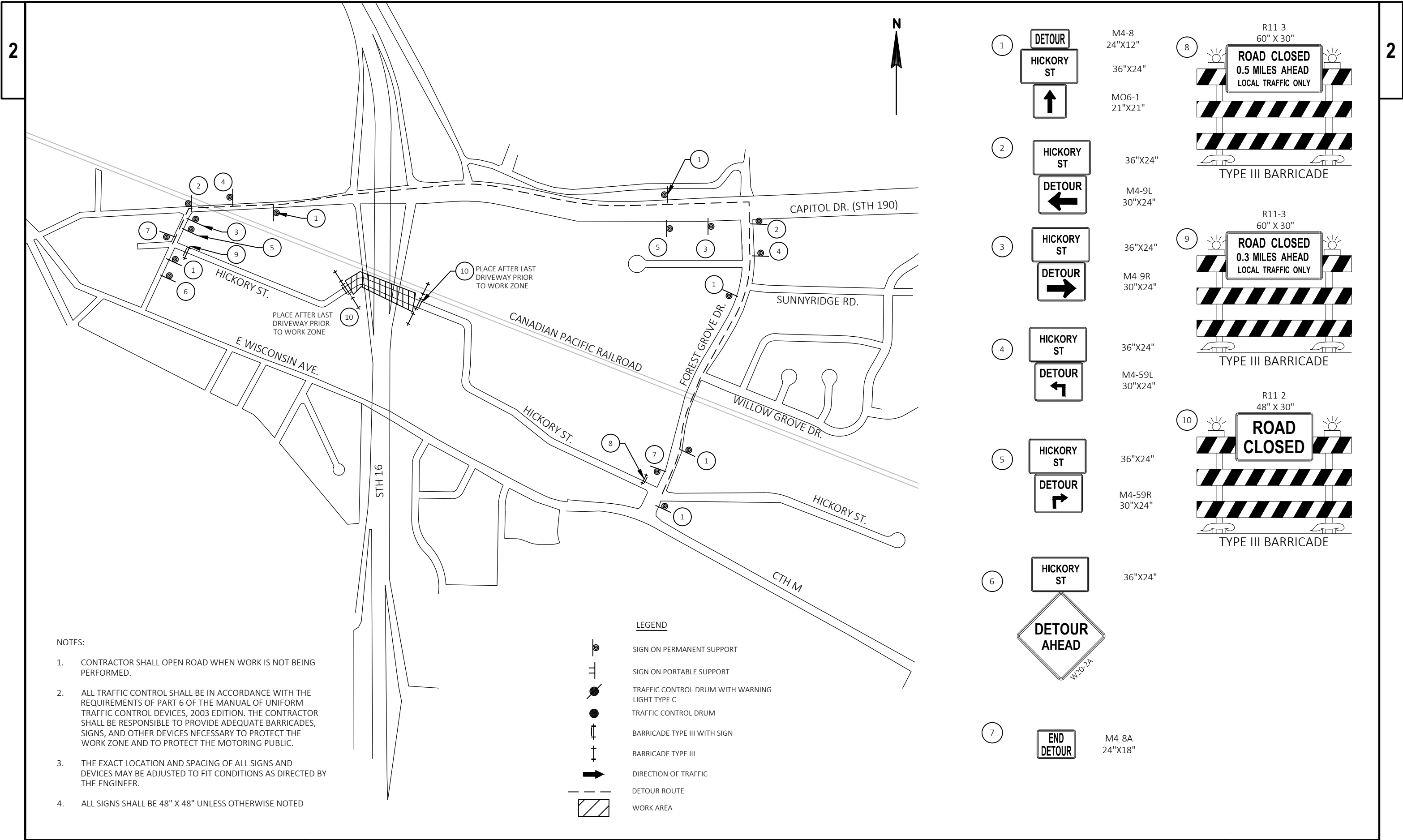
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER, INCIDENTAL TO TRAFFIC CONTROL.

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE.

CLOSE STH 190 (CAPITOL DR.) WESTBOUND LEFT TURN LANE AND EASTBOUND RIGHT TURN LANES DURING RAMP CLOSURES.

FOR A SIGN THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE SIGN MAY BE MOUNTED ON PORTABLE SUPPORTS.

PCMS TO BE PLACED 5 CALENDAR DAYS PRIOR TO LANE CLOSURES AT LOCATION TO BE DETERMINED BY THE ENGINEER.



- NOTES:
1. CONTRACTOR SHALL OPEN ROAD WHEN WORK IS NOT BEING PERFORMED.
 2. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE REQUIREMENTS OF PART 6 OF THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES, 2003 EDITION. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ADEQUATE BARRICADES, SIGNS, AND OTHER DEVICES NECESSARY TO PROTECT THE WORK ZONE AND TO PROTECT THE MOTORING PUBLIC.
 3. THE EXACT LOCATION AND SPACING OF ALL SIGNS AND DEVICES MAY BE ADJUSTED TO FIT CONDITIONS AS DIRECTED BY THE ENGINEER.
 4. ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED

- LEGEND
- SIGN ON PERMANENT SUPPORT
 - SIGN ON PORTABLE SUPPORT
 - TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C
 - TRAFFIC CONTROL DRUM
 - BARRICADE TYPE III WITH SIGN
 - BARRICADE TYPE III
 - DIRECTION OF TRAFFIC
 - DETOUR ROUTE
 - WORK AREA

1	DETOUR HICKORY ST ↑	M4-8 24"X12" 36"X24" MO6-1 21"X21"	8	R11-3 60" X 30" ROAD CLOSED 0.5 MILES AHEAD LOCAL TRAFFIC ONLY TYPE III BARRICADE
2	HICKORY ST DETOUR ←	36"X24" M4-9L 30"X24"		
3	HICKORY ST DETOUR →	36"X24" M4-9R 30"X24"	9	R11-3 60" X 30" ROAD CLOSED 0.3 MILES AHEAD LOCAL TRAFFIC ONLY TYPE III BARRICADE
4	HICKORY ST DETOUR ↙	36"X24" M4-59L 30"X24"		
5	HICKORY ST DETOUR ↘	36"X24" M4-59R 30"X24"	10	R11-2 48" X 30" ROAD CLOSED TYPE III BARRICADE
6	HICKORY ST DETOUR AHEAD W20-2A	36"X24"		
7	END DETOUR	M4-8A 24"X18"		

Estimate Of Quantities

1000-54-72

Line	Item	Item Description	Unit	Total	Qty
0002	203.0225.S	Debris Containment (structure) 01. B-66-0086	LS	1.000	1.000
0004	465.0400	Asphaltic Shoulder Rumble Strips	LF	7,200.000	7,200.000
0006	495.1000.S	Cold patch	TON	4.000	4.000
0008	517.1800.S	Structure Repainting Recycled Abrasive (structure) 01. B-66-0086	LS	1.000	1.000
0010	517.1800.S	Structure Repainting Recycled Abrasive (structure) 02. B-67-0172	LS	1.000	1.000
0012	517.1800.S	Structure Repainting Recycled Abrasive (structure) 03. B-67-0180	LS	1.000	1.000
0014	517.1800.S	Structure Repainting Recycled Abrasive (structure) 04. B-67-0181	LS	1.000	1.000
0016	517.1800.S	Structure Repainting Recycled Abrasive (structure) 05. B-67-0182	LS	1.000	1.000
0018	517.1800.S	Structure Repainting Recycled Abrasive (structure) 06. B-67-0183	LS	1.000	1.000
0020	517.1800.S	Structure Repainting Recycled Abrasive (structure) 07. B-67-0186	LS	1.000	1.000
0022	517.3000.S	Structure Overcoating Cleaning and Priming (structure) 01. B-67-0180	LS	1.000	1.000
0024	517.3000.S	Structure Overcoating Cleaning and Priming (structure) 02. B-67-0181	LS	1.000	1.000
0026	517.3000.S	Structure Overcoating Cleaning and Priming (structure) 03. B-67-0182	LS	1.000	1.000
0028	517.3000.S	Structure Overcoating Cleaning and Priming (structure) 04. B-67-0183	LS	1.000	1.000
0030	517.4000.S	Containment and Collection of Waste Materials (structure) 01. B-67-0180	LS	1.000	1.000
0032	517.4000.S	Containment and Collection of Waste Materials (structure) 02. B-67-0181	LS	1.000	1.000
0034	517.4000.S	Containment and Collection of Waste Materials (structure) 03. B-67-0182	LS	1.000	1.000
0036	517.4000.S	Containment and Collection of Waste Materials (structure) 04. B-67-0183	LS	1.000	1.000
0038	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 01. B-66-0086	LS	1.000	1.000
0040	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 02. B-67-0172	LS	1.000	1.000
0042	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 03. B-67-0180	LS	1.000	1.000
0044	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 04. B-67-0181	LS	1.000	1.000
0046	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 05. B-67-0182	LS	1.000	1.000

Estimate Of Quantities

1000-54-72					
Line	Item	Item Description	Unit	Total	Qty
0048	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 06. B-67-0183	LS	1.000	1.000
0050	517.4500.S	Negative Pressure Containment and Collection of Waste Materials (structure) 07. B-67-0186	LS	1.000	1.000
0052	517.6001.S	Portable Decontamination Facility	EACH	7.000	7.000
0054	619.1000	Mobilization	EACH	1.000	1.000
0056	627.0200	Mulching	SY	1,100.000	1,100.000
0058	628.1504	Silt Fence	LF	200.000	200.000
0060	628.1520	Silt Fence Maintenance	LF	200.000	200.000
0062	628.7560	Tracking Pads	EACH	1.000	1.000
0064	629.0210	Fertilizer Type B	CWT	0.700	0.700
0066	630.0140	Seeding Mixture No. 40	LB	20.000	20.000
0068	642.5001	Field Office Type B	EACH	1.000	1.000
0070	643.0300	Traffic Control Drums	DAY	14,036.000	14,036.000
0072	643.0420	Traffic Control Barricades Type III	DAY	1,308.000	1,308.000
0074	643.0705	Traffic Control Warning Lights Type A	DAY	2,440.000	2,440.000
0076	643.0715	Traffic Control Warning Lights Type C	DAY	4,134.000	4,134.000
0078	643.0800	Traffic Control Arrow Boards	DAY	224.000	224.000
0080	643.0900	Traffic Control Signs	DAY	6,613.000	6,613.000
0082	643.1000	Traffic Control Signs Fixed Message	SF	98.000	98.000
0084	643.1050	Traffic Control Signs PCMS	DAY	181.000	181.000
0086	643.5000	Traffic Control	EACH	1.000	1.000
0088	646.1020	Marking Line Epoxy 4-Inch	LF	7,200.000	7,200.000
0090	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	6,800.000	6,800.000
0092	649.0960	Temporary Marking Removable Mask Out Tape 6-Inch	LF	7,200.000	7,200.000
0094	801.0117	Railroad Flagging Reimbursment	DOL	40,000.000	40,000.000
0096	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0098	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	1,500.000	1,500.000
0100	SPV.0060	Special 01. Cleaning and Painting Bearings	EACH	116.000	116.000
0102	SPV.0090	Special 01. Fill Existing Rumble strips	LF	7,200.000	7,200.000
0104	SPV.0105	Special 01. Safety Spotter	LS	1.000	1.000

3

RUMBLE STRIPS		
	ASPHALTIC SHOULDER 465.0400	FILL EXISTING SPV.0090.01
LOCATION	LF	LF
STH 16 B-67-172 STAGE 2 EB, OUTSIDE SHOULDER	1800	1800
STH 16 B-67-172 STAGE 2 WB, OUTSIDE SHOULDER	1800	1800
STH 16 B-67-186 STAGE 2 EB, OUTSIDE SHOULDER	1800	1800
STH 16 B-67-186 STAGE 2 EB, OUTSIDE SHOULDER	1800	1800
PROJECT TOTAL	7200	7200

COLD PATCH	
LOCATION	495.1000.S TON
STH 16 B-67-172 UNDISTRIBUTED FOR SHOULDER REPAIRS	2
STH 16 B-67-186 UNDISTRIBUTED FOR SHOULDER REPAIRS	2
PROJECT TOTAL	4

3

EROSION CONTROL & RESTORATION						
	MULCHING 627.0200	SILT FENCE 628.1504	SILT FENCE MAINTENANCE 628.1520	TRACKING PAD 628.7560	FERTILIZER TYPE B 629.0210	SEEDING MIX 40 630.0140
LOCATION	SY	LF	LF	EA	CWT	LB
B-66-86 ACCESS/STAGING UNDISTRIBUTED	1100	200	200	1	0.7	20
PROJECT TOTAL	1100	200	200	1	0.7	20

FIELD OFFICE TYPE B	
LOCATION	642.5001 EACH
PROJECT 1000-54-72	1
PROJECT TOTAL	1

TRAFFIC CONTROL SIGNS FIXED MESSAGE		
LOCATION	EACH	643.1000 SF
USH 45, B-66-86 TRAIL OPEN (12" X 18")	2	3
USH 45, B-66-86 BRIDGE WORK AHEAD (18" X 18")	2	5
HICKORY STREET DETOUR (36" X 24")	15	90
PROJECT TOTAL		98

TRAFFIC CONTROL	
LOCATION	643.5000 EACH
PROJECT 1000-54-72	1
PROJECT TOTAL	1

MARKING LINE EPOXY	
LOCATION	646.1020 4-INCH LF
STH 16 B-67-172 STAGE 2 EB, OUTSIDE SHOULDER (WHITE)	1800
STH 16 B-67-172 STAGE 2 WB, OUTSIDE SHOULDER (WHITE)	1800
STH 16 B-67-186 STAGE 2 EB, OUTSIDE SHOULDER (WHITE)	1800
STH 16 B-67-186 STAGE 2 EB, OUTSIDE SHOULDER (WHITE)	1800
PROJECT TOTAL	7200

TEMPORARY MARKING LINE REMOVABLE TAPE		
	649.0150 4-INCH LF	649.0960 MASK OUT 6-INCH LF
STH 16 B-67-172 STAGE 2 EB, OUTSIDE SHOULDER (WHITE)	1700	1800
STH 16 B-67-172 STAGE 2 WB, OUTSIDE SHOULDER (WHITE)	1700	1800
STH 16 B-67-186 STAGE 2 EB, OUTSIDE SHOULDER (WHITE)	1700	1800
STH 16 B-67-186 STAGE 2 EB, OUTSIDE SHOULDER (WHITE)	1700	1800
PROJECT TOTAL	6800	7200

ALL CATEGORY 0010

3

3

TRAFFIC CONTROL																		
STAGE	STRUCTURE	STREET	DESCRIPTION	STAGE DURATION (DAYS)	643.0300 TRAFFIC CONTROL DRUMS		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C		643.0800 TRAFFIC CONTROL ARROW BOARDS		643.0900 TRAFFIC CONTROL SIGNS		643.1050 TRAFFIC CONTROL SIGNS PCMS	
					EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS
SETUP	B-66-086	USH 45	NB/SB SHOULDER CLOSURE	1	30	30	0	0	0	0	0	0	0	0	6	6	0	0
PAINTING	B-66-086	USH 45	NB/SB SHOULDER CLOSURE	20	10	200	0	0	0	0	0	0	0	0	4	80	0	0
TAKEDOWN	B-66-086	USH 45	NB/SB SHOULDER CLOSURE	1	30	30	0	0	0	0	0	0	0	0	6	6	0	0
PREWARN	B-67-172	STH 16 (WB)	ADVANCE WARNING LANE CLOSURES	5	5	25	0	0	0	0	0	0	0	0	0	0	1	5
PREWARN	B-67-172	STH 16 (EB)	ADVANCE WARNING LANE CLOSURES	5	5	25	0	0	0	0	0	0	0	0	0	0	1	5
STAGE 1	B-67-172		MERTON AVE	2	50	100	6	12	12	24	10	20	2	4	14	28	0	0
	B-67-172	STH 16 (WB)	OFF PEAK LANE CLOSURE	12	122	1,464	4	48	8	96	29	348	2	24	13	156	1	12
	B-67-172	STH 16 (EB)	OFF PEAK LANE CLOSURE	12	55	660	2	24	4	48	17	204	2	24	10	120	1	12
STAGE 2	B-67-172	STH 16 (WB)	OFF PEAK LANE CLOSURE	12	110	1,320	6	72	12	144	43	516	2	24	12	144	1	12
	B-67-172	STH 16 (EB)	OFF PEAK LANE CLOSURE	12	43	516	3	36	6	72	43	516	2	24	15	180	1	12
	B-67-172	STH 16	WIDTH RESTRICTION	12	0	0	0	0	0	0	0	0	0	0	10	120	0	0
	B-67-172		MERTON AVE	2	50	100	6	12	12	24	10	20	2	4	14	28	0	0
STAGE 3	B-67-172	STH 16 (WB)	OFF PEAK LANE CLOSURE	1	122	122	4	4	8	8	29	29	2	2	13	13	1	1
	B-67-172	STH 16 (EB)	OFF PEAK LANE CLOSURE	1	55	55	2	2	4	4	17	17	2	2	10	10	1	1
SETUP	B-67-180	STH 16 (WB)	OFF PEAK LANE CLOSURE	1	36	36	1	1	2	2	16	16	2	2	9	9	0	0
PAINTING	B-67-180	STH 16 (WB)	SHOULDER CLOSURE	22	45	990	2	44	2	44	0	0	0	0	6	132	0	0
TAKEDOWN	B-67-180	STH 16 (WB)	OFF PEAK LANE CLOSURE	1	36	36	1	1	2	2	16	16	2	2	9	9	0	0
SETUP	B-67-181	STH 16 (EB)	OFF PEAK LANE CLOSURE	1	36	36	1	1	2	2	16	16	2	2	9	9	0	0
PAINTING	B-67-181	STH 16 (EB)	SHOULDER CLOSURE	22	40	880	2	44	2	44	0	0	0	0	8	176	0	0
TAKEDOWN	B-67-181	STH 16 (EB)	OFF PEAK LANE CLOSURE	1	36	36	1	1	2	2	16	16	2	2	9	9	0	0
SETUP	B-67-182	STH 190 OFF	OFF PEAK LANE SHIFT	1	28	28	0	0	0	0	0	0	0	0	5	5	0	0
PAINTING	B-67-182	STH 190 OFF	SHOULDER CLOSURE	22	40	880	2	44	2	44	0	0	0	0	7	154	0	0
TAKEDOWN	B-67-182	STH 190 OFF	OFF PEAK LANE SHIFT	1	28	28	0	0	0	0	0	0	0	0	5	5	0	0
SETUP	B-67-183	STH 190 ON	OFF PEAK LANE SHIFT	1	22	22	0	0	0	0	0	0	0	0	4	4	0	0
PAINTING	B-67-183	STH 190 ON	SHOULDER CLOSURE	22	34	748	2	44	2	44	0	0	0	0	8	176	0	0
TAKEDOWN	B-67-183	STH 190 ON	OFF PEAK LANE SHIFT	1	22	22	0	0	0	0	0	0	0	0	4	4	0	0
DETOUR		HICKORY		80	0	0	8	640	16	1,280	0	0	0	0	42	3,360	0	0
PREWARN	B-67-186	STH 16 (WB)	ADVANCE WARNING LANE CLOSURES	5	5	25	0	0	0	0	0	0	0	0	0	0	1	5
PREWARN	B-67-186	STH 16 (EB)	ADVANCE WARNING LANE CLOSURES	5	5	25	0	0	0	0	0	0	0	0	0	0	1	5
STAGE 1	B-67-186		BLUEMOUND ROAD	1	50	50	4	4	8	8	10	10	2	2	12	12	0	0
	B-67-186	STH 16 (WB)	OFF PEAK LANE CLOSURE	17	94	1,598	3	51	6	102	29	493	2	34	13	221	1	17
	B-67-186	STH 16 (EB)	OFF PEAK LANE CLOSURE	17	106	1,802	3	51	6	102	39	663	2	34	13	221	1	17
	B-67-186	STH 16 (EB)	ADVANCE WARNING RAMP CLOSURE	5	5	25	0	0	0	0	0	0	0	0	0	0	1	5
	B-67-186	STH 16 (EB)	RAMP CLOSURE FROM STH 190	17	24	408	5	85	10	170	26	442	0	0	45	765	3	51
STAGE 2	B-67-186	STH 16 (WB)	OFF PEAK LANE CLOSURE	8	81	648	4	32	8	64	43	344	2	16	16	128	1	8
	B-67-186	STH 16 (EB)	OFF PEAK LANE CLOSURE	8	99	792	5	40	10	80	43	344	2	16	18	144	1	8
	B-67-186	STH 16	WIDTH RESTRICTION	12	0	0	0	0	0	0	0	0	0	0	8	96	0	0
	B-67-186		BLUEMOUND ROAD	1	50	50	4	4	8	8	10	10	2	2	12	12	0	0
STAGE 3	B-67-186	STH 16 (WB)	OFF PEAK LANE CLOSURE	1	94	94	3	3	6	6	29	29	2	2	13	13	1	1
	B-67-186	STH 16 (EB)	OFF PEAK LANE CLOSURE	1	106	106	3	3	6	6	39	39	2	2	13	13	1	1
	B-67-186	STH 16 (EB)	RAMP CLOSURE FROM STH 190	1	24	24	5	5	10	10	26	26	0	0	45	45	3	3
PROJECT TOTAL					14,036		1,308		2,440		4,134		224		6,613		181	
ALL CATEGORY 0010																		
PROJECT NO: 1000-54-72			HWY: STH 16 & USH 45			COUNTY: WASHINGTON & WAUKESHA			MISCELLANEOUS QUANTITIES						SHEET:		E	

Standard Detail Drawing List

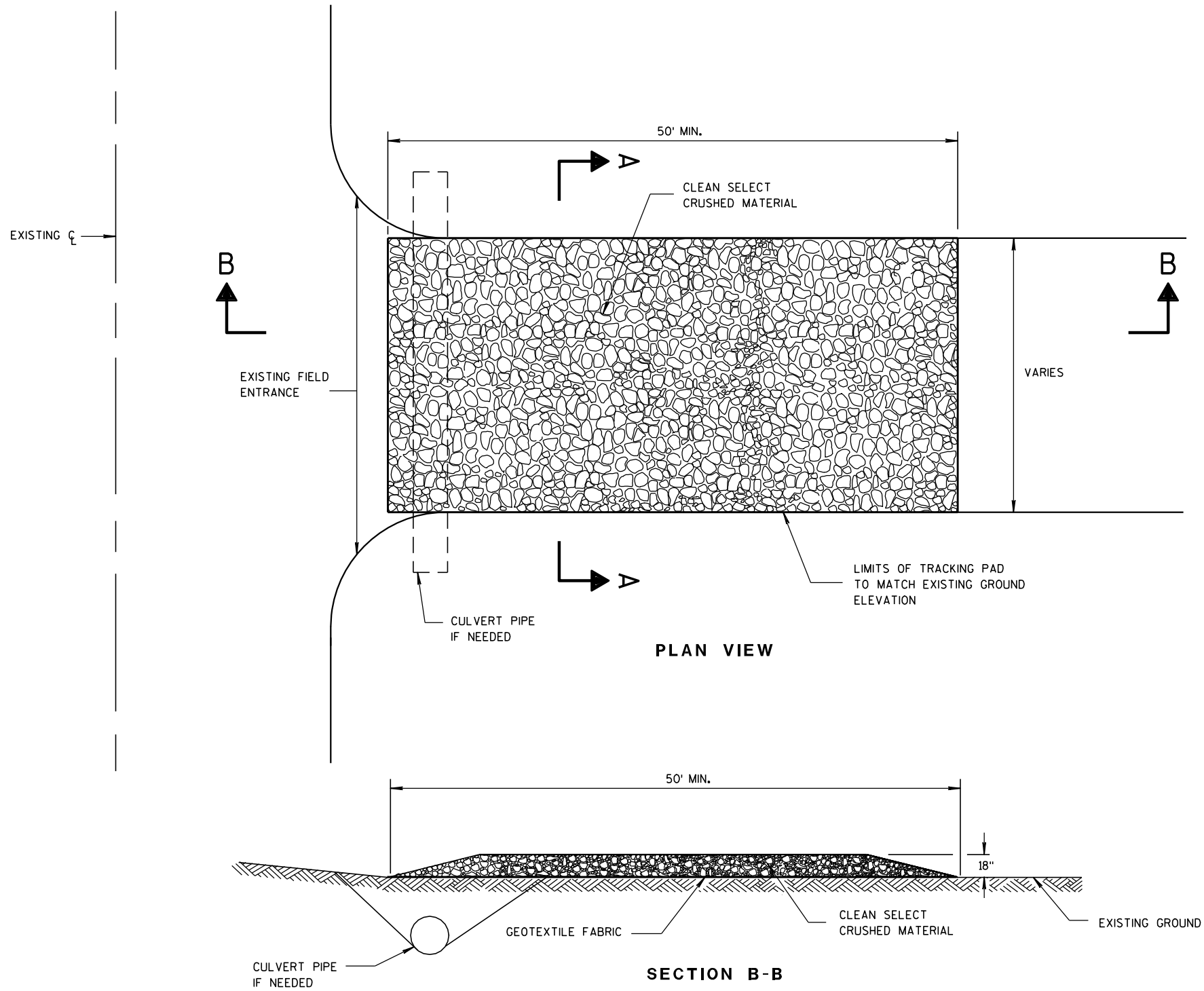
08E09-06	SILT FENCE
08E14-01	TRACKING PAD
13A05-05A	SHOULDER RUMBLE STRIP, MILLING
13A05-05B	SHOULDER RUMBLE STRIP, MILLING
15C02-06A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06B	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-18A	LONGITUDINAL MARKING (MAINLINE)
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15D03-04	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-06A	TRAFFIC CONTROL, LANE CLOSURE
15D15-04A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-04D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-04E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D20-04	TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D28-03	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS



- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1½" X 1½" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



<div style="text-align: center;">SILT FENCE</div>	
<div style="text-align: center;">STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION</div>	
<div>APPROVED <u>4-29-05</u> DATE</div>	<div><u>/S/ Beth Cannestra</u> CHIEF ROADWAY DEVELOPMENT ENGINEER</div>



TRACKING PAD

GENERAL NOTES

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

TRACKING PAD SHALL BE INSPECTED DAILY. DEFICIENT AREAS SHALL BE REPAIRED OR REPLACED IMMEDIATELY.

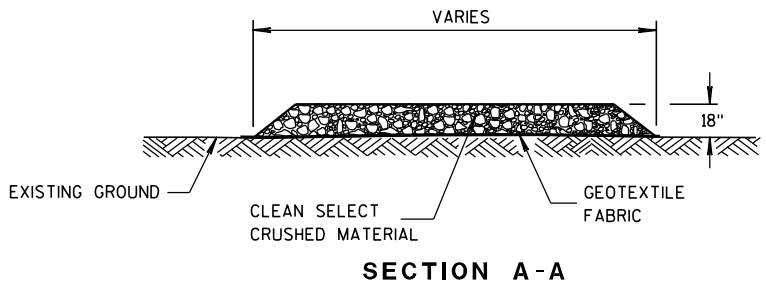
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

TRACKING PAD SHALL BE THE FULL WIDTH OF THE EGRESS POINT.

SURFACE WATER MUST BE PREVENTED FROM PASSING THROUGH THE TRACKING PAD. FLOWS SHALL BE DIVERTED AWAY, AROUND OR CONVEYED UNDER THE TRACKING PAD.

CULVERT PIPE OR OTHER BMP USED TO DIVERT WATER AWAY, AROUND OR UNDER THE TRACKING PAD SHALL BE DESIGNED TO CONVEY THE 2 YEAR - 24 HOUR EVENT.

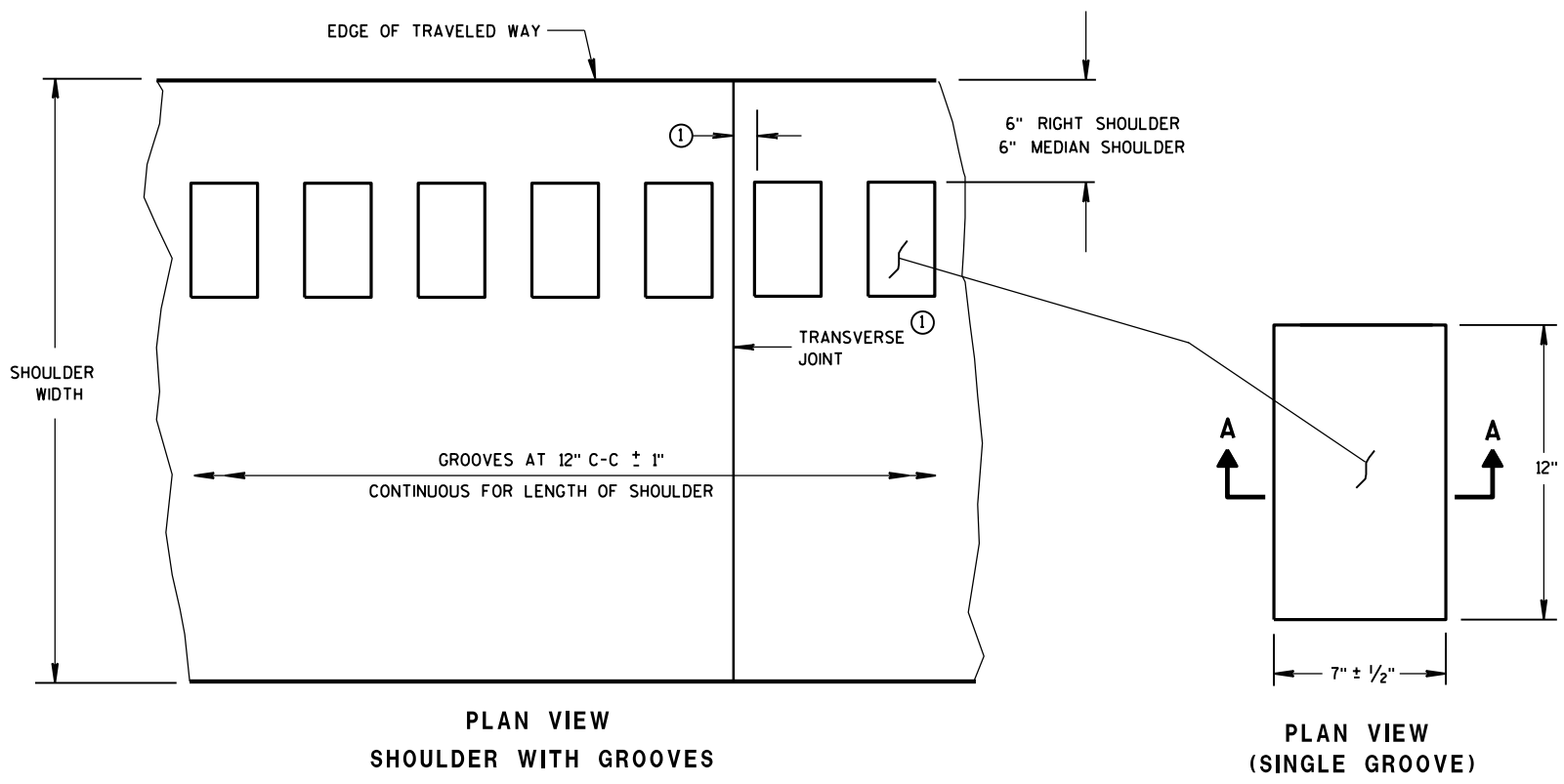
THE COST OF ADDITIONAL BMP TO DIVERT WATER ARE INCIDENTAL TO THE TRACKING PAD BID ITEM.



TRACKING PAD

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
3/24/2011
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
FHWA



6

PLACEMENT DETAIL FOR MILLED RUMBLE STRIP

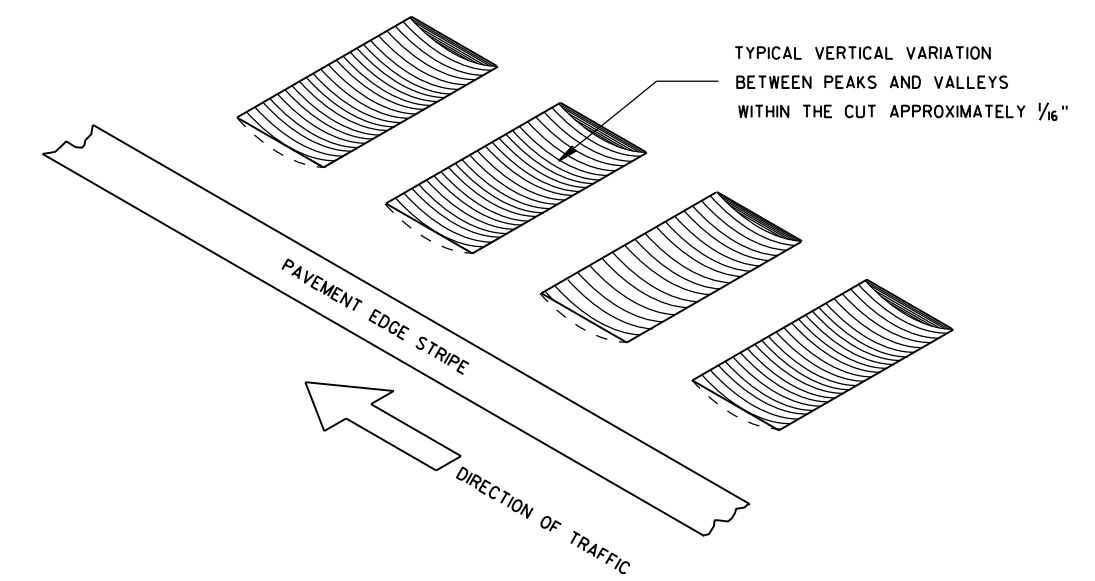
GENERAL NOTES

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

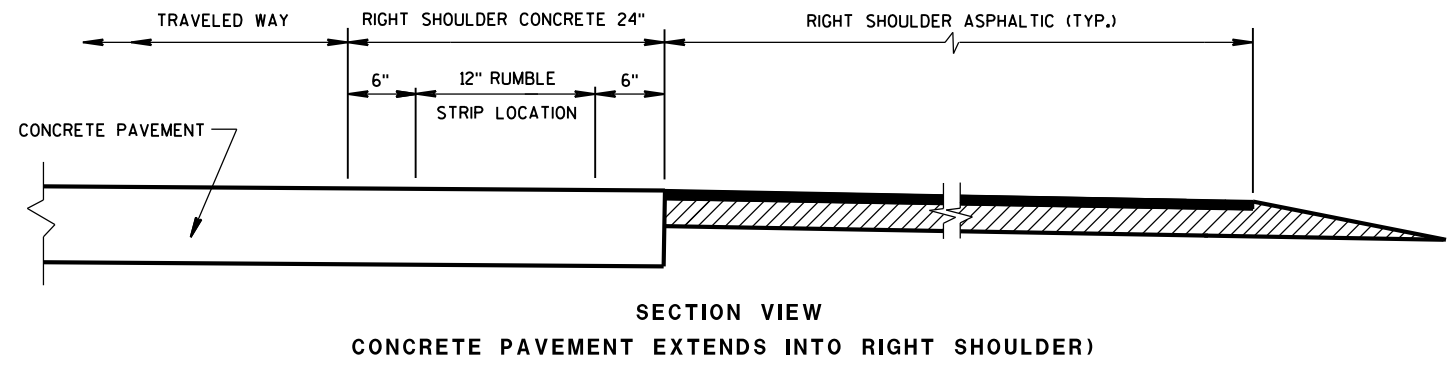
RUMBLE STRIPS ON EXPRESSWAYS

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.

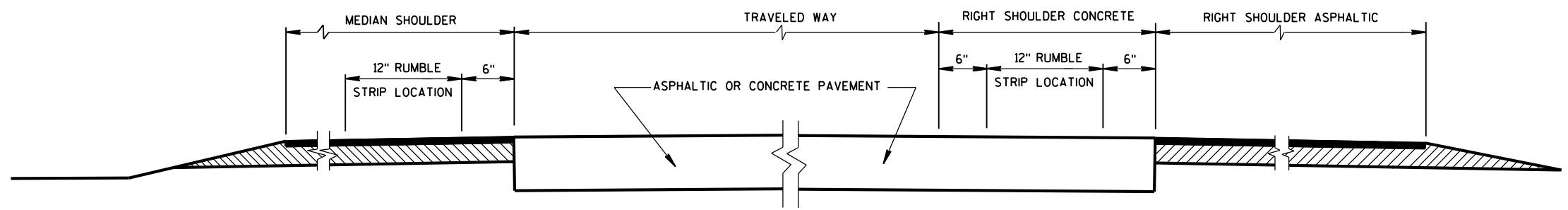
① CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6" AWAY FROM TRANSVERSE JOINTS.



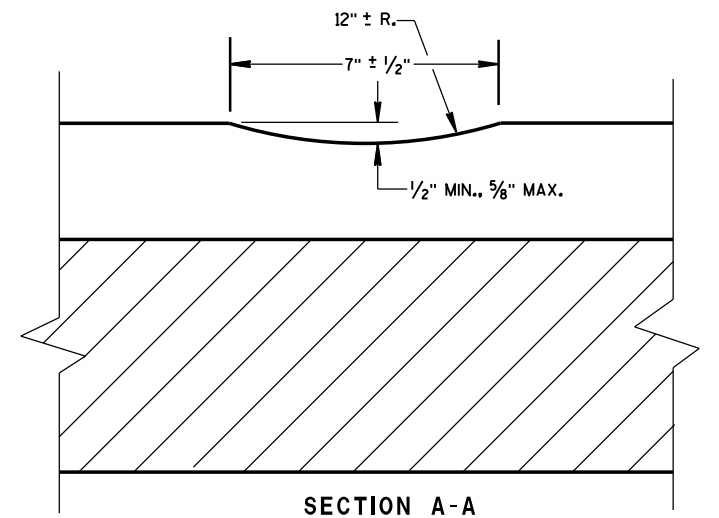
ISOMETRIC



SECTION VIEW
CONCRETE PAVEMENT EXTENDS INTO RIGHT SHOULDER)



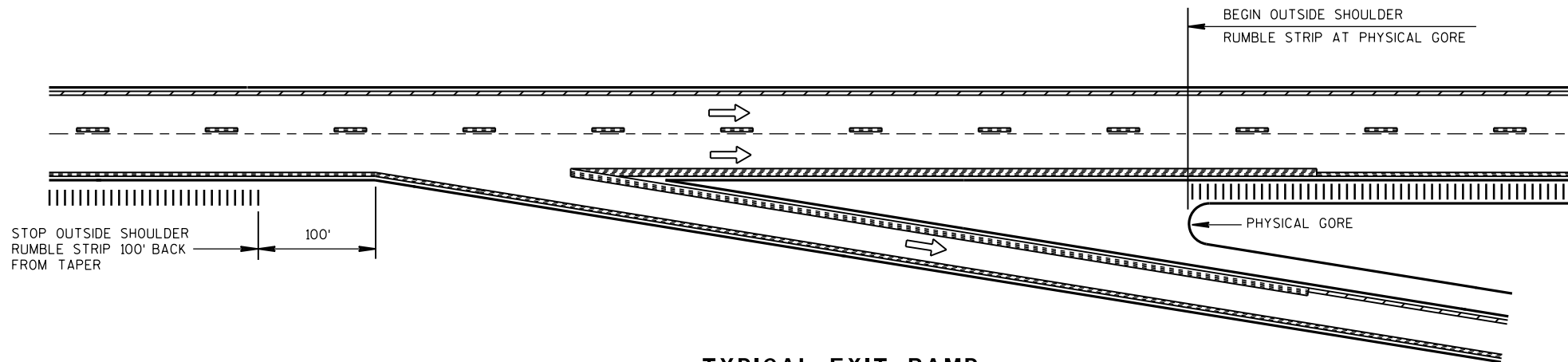
SECTION VIEW
TYPICAL LOCATIONS OF SHOULDER RUMBLE STRIPS
IN RURAL DIVIDED HIGHWAYS
(ONE ROADWAY IS SHOWN)



SECTION A-A

SHOULDER RUMBLE STRIP,
MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



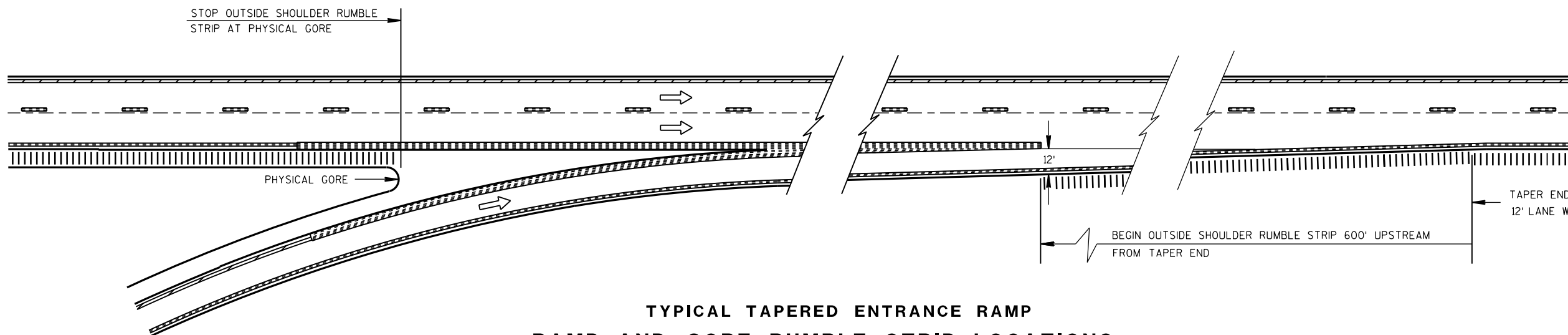
TYPICAL EXIT RAMP

NOTES:

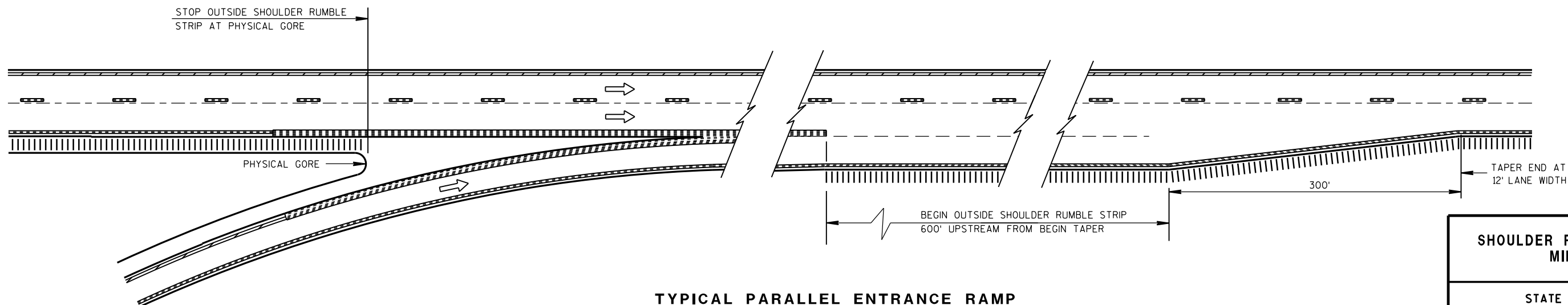
NO RUMBLE STRIP ON EXIT, DIRECTIONAL, OR ENTRANCE RAMPS, EXCEPT NEAR THE ENTRANCE TAPER END AND ALONG THE PARALLEL RAMP AREA AS SHOWN.

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**



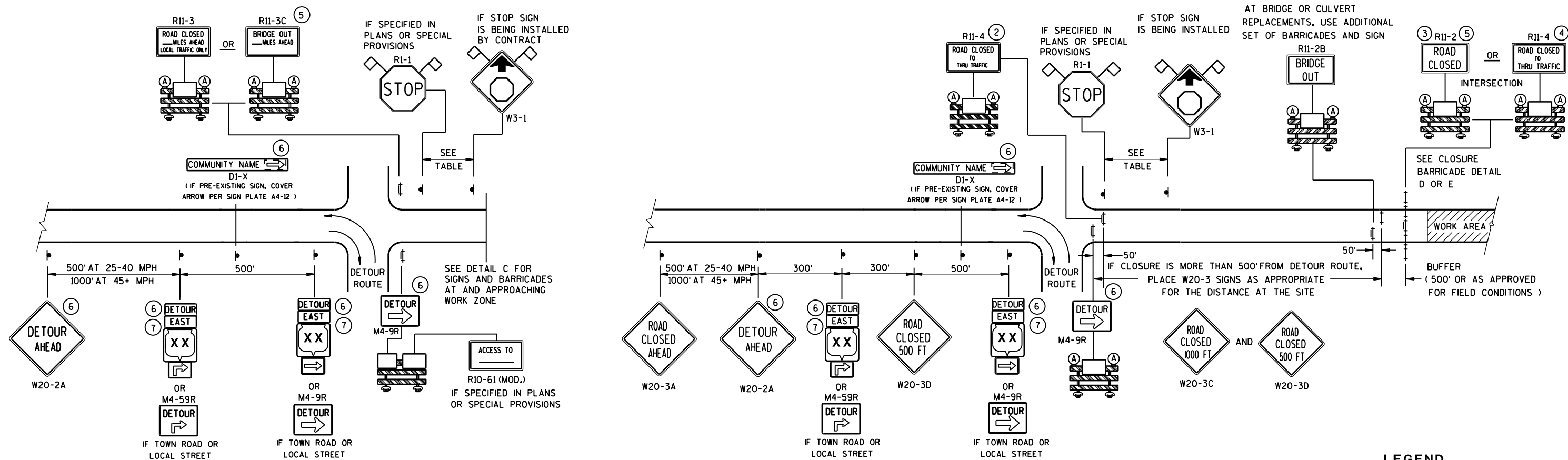
**TYPICAL PARALLEL ENTRANCE RAMP
RAMP AND GORE RUMBLE STRIP LOCATIONS**

**SHOULDER RUMBLE STRIP,
MILLING**

**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION**

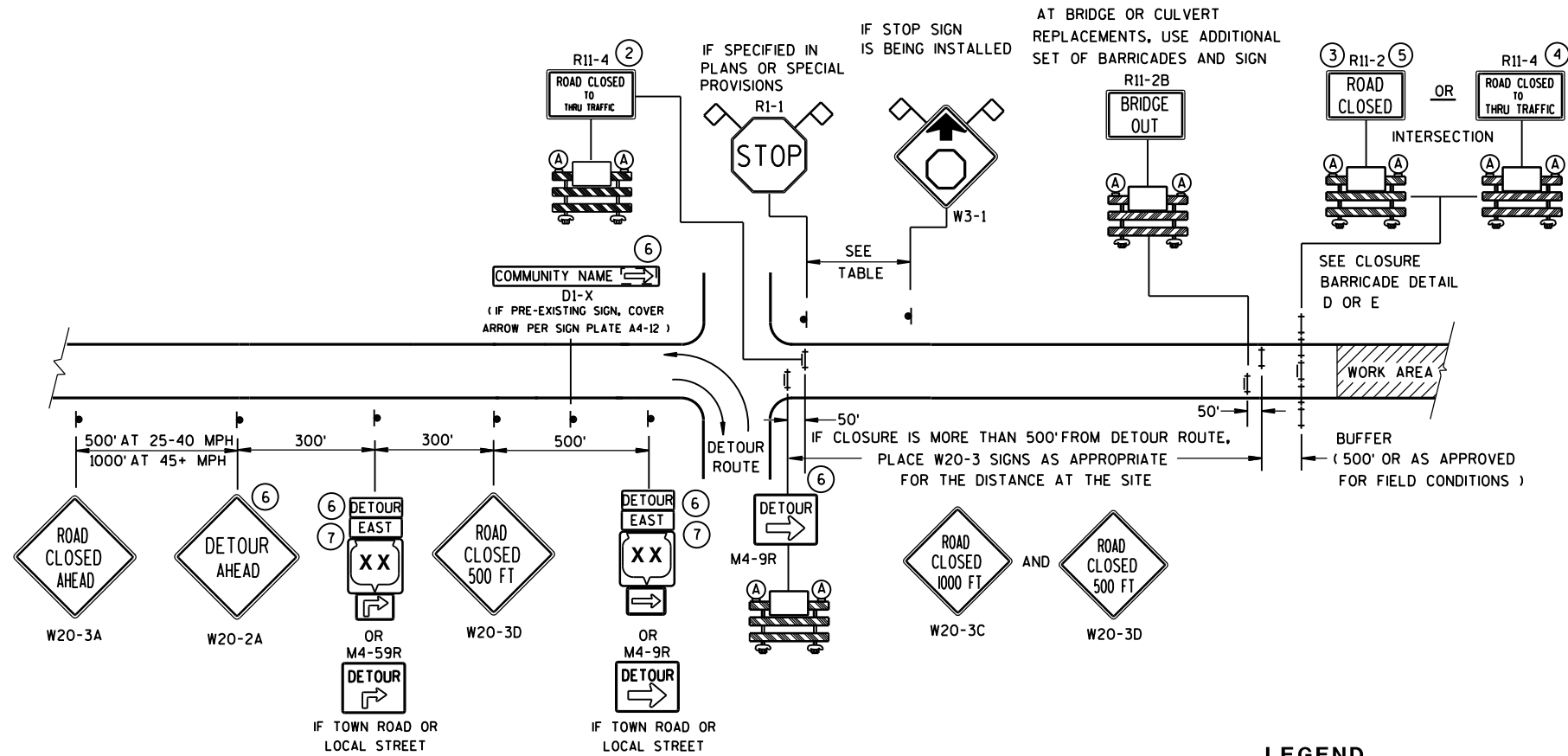
APPROVED
12/17/2012
DATE
FHWA

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT
ENGINEER



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

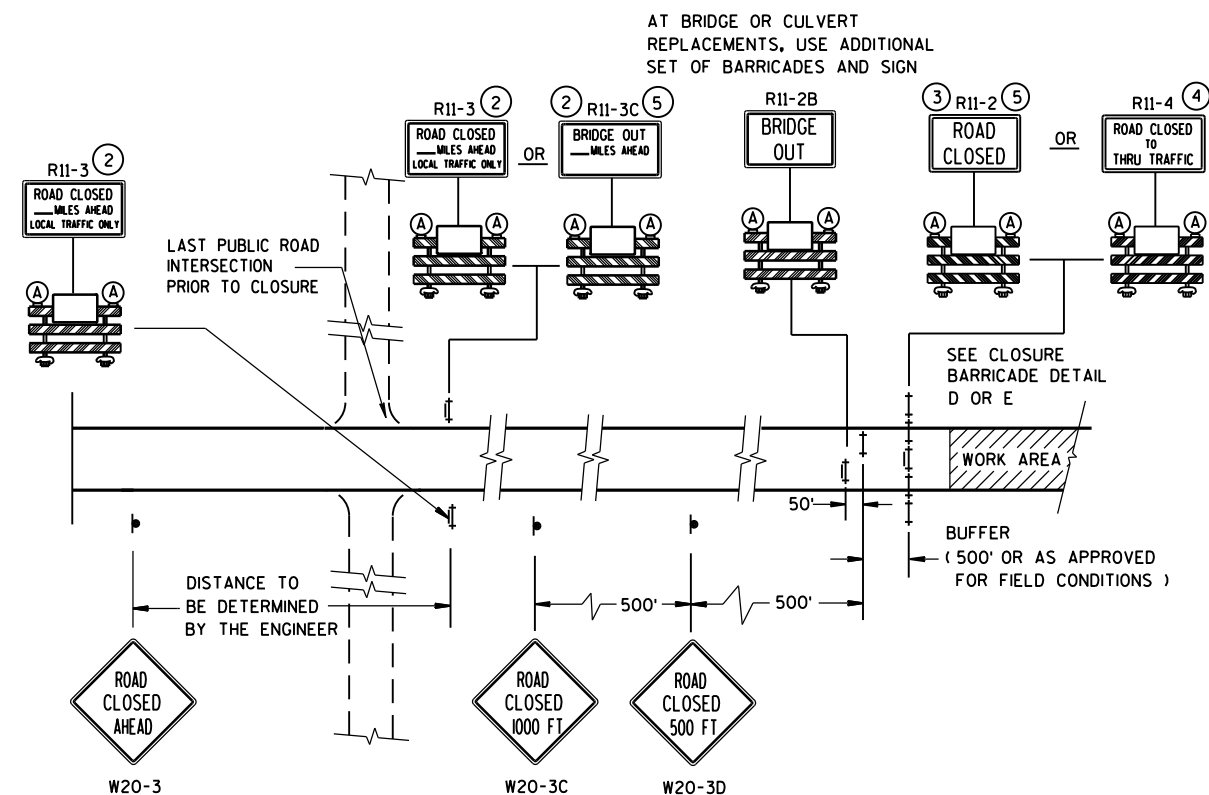
WORK ZONE GREATER THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL B













MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN 1/2 MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

SPEED LIMIT (MPH)	"STOP AHEAD" ADVANCE WARNING DISTANCE (FT)
25	200
30	200
35	350
40	350
45	500
50	550
55	750

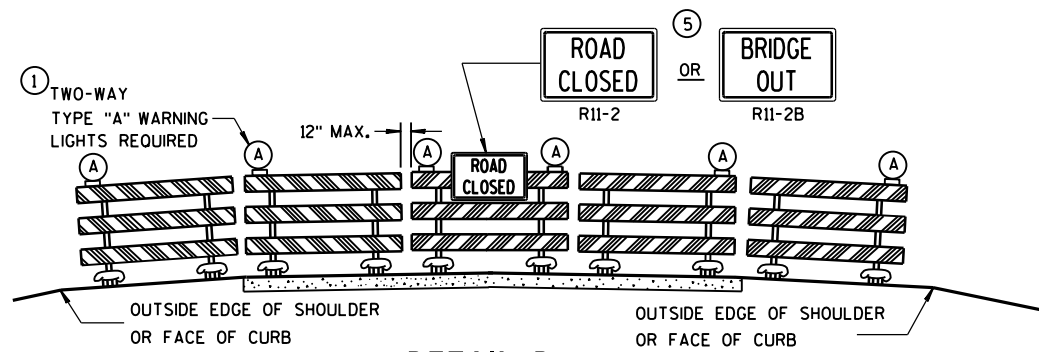
- # LEGEND
-  SIGN ON PERMANENT SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  WORK AREA
-  M4-8
-  M3-X
-  M1-4
-  M1-5A
-  M1-6
-  M05-1
-  M06-1
- FLAGS, 16" X 16" MIN., (ORANGE)

SEE SDD 15C2-SHEET "b"
FOR GENERAL NOTES
AND FOOTNOTES ① THROUGH ⑦

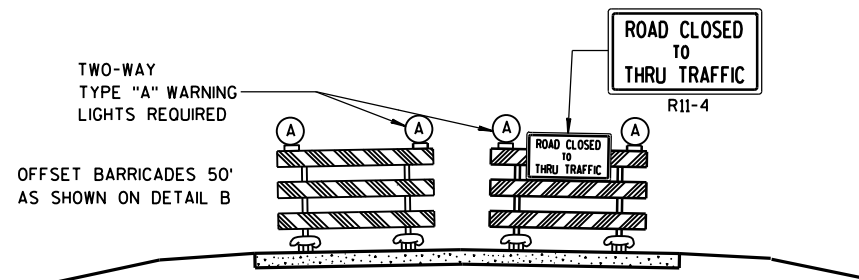
BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015	/S/ Peter Amakobe Atepe
DATE	STATEWIDE WORK ZONE TRAFFIC
FHWA	SAFETY ENGINEER



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2-SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11-2, R11-3, M4-9, R11-4 AND R10-61 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:

R11-2 SHALL BE 48" X 30".

R11-3, R11-4 AND R10-61 SHALL BE 60" X 30".

M4-9 SHALL BE 30" X 24".

M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)

M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)

M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)

M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)

D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

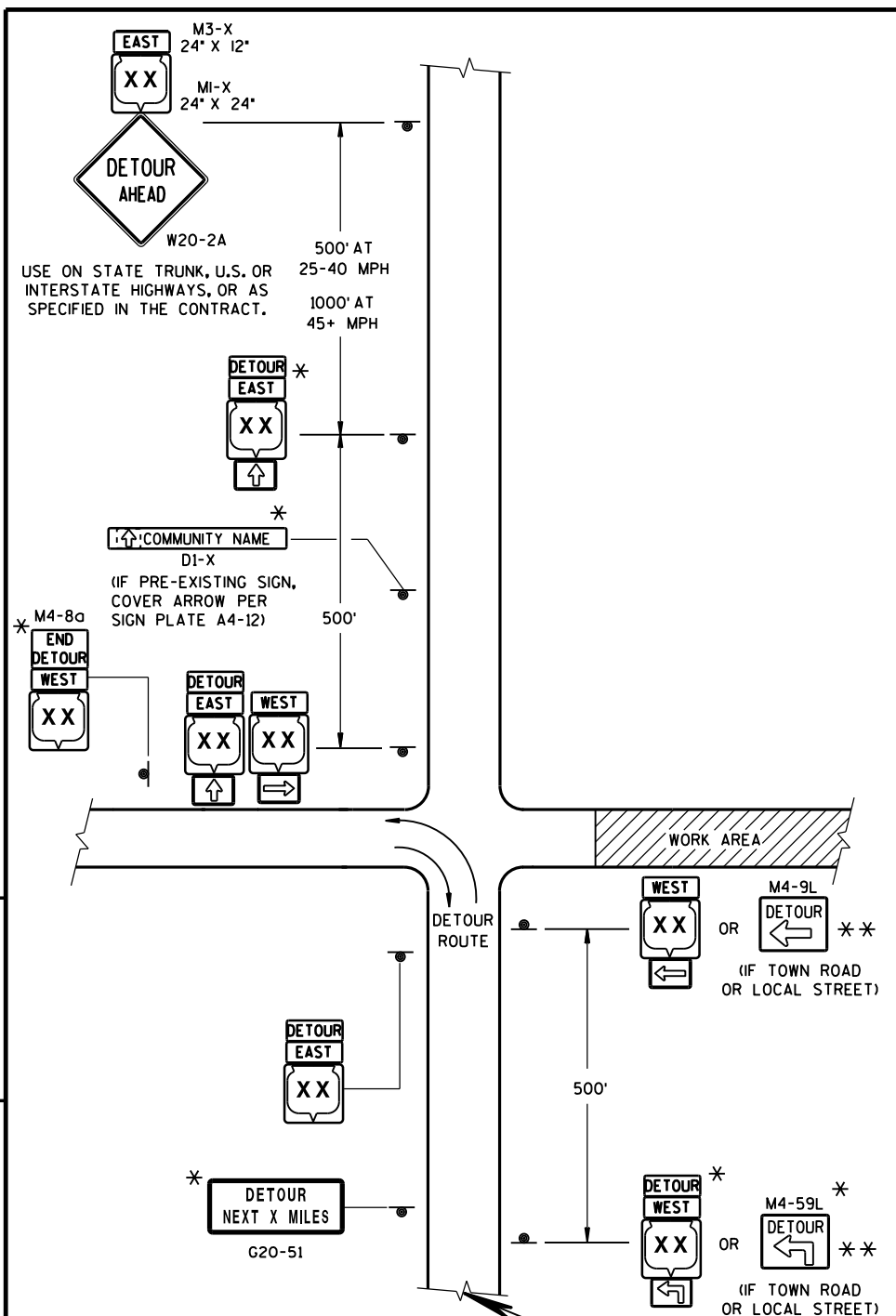
R1-1 SHALL BE 36" X 36".

- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8-FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT INTERSECTION.
- ③ FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL D.
- ④ FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE LANE CLOSURE BARRICADE DETAIL E.
- ⑤ FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11-2 AND R11-3 SIGNS.
- ⑥ INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.
- ⑦ "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

Sept. 2015 /S/ Peter Amokobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER



THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL DETOUR SIGN LAYOUT AND SPACING. SEE PROJECT DETOUR SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT

DETAIL F
DETOUR SIGNING

GENERAL NOTES

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

IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS, MODIFY EXISTING SIGNS WHERE POSSIBLE.

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

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

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

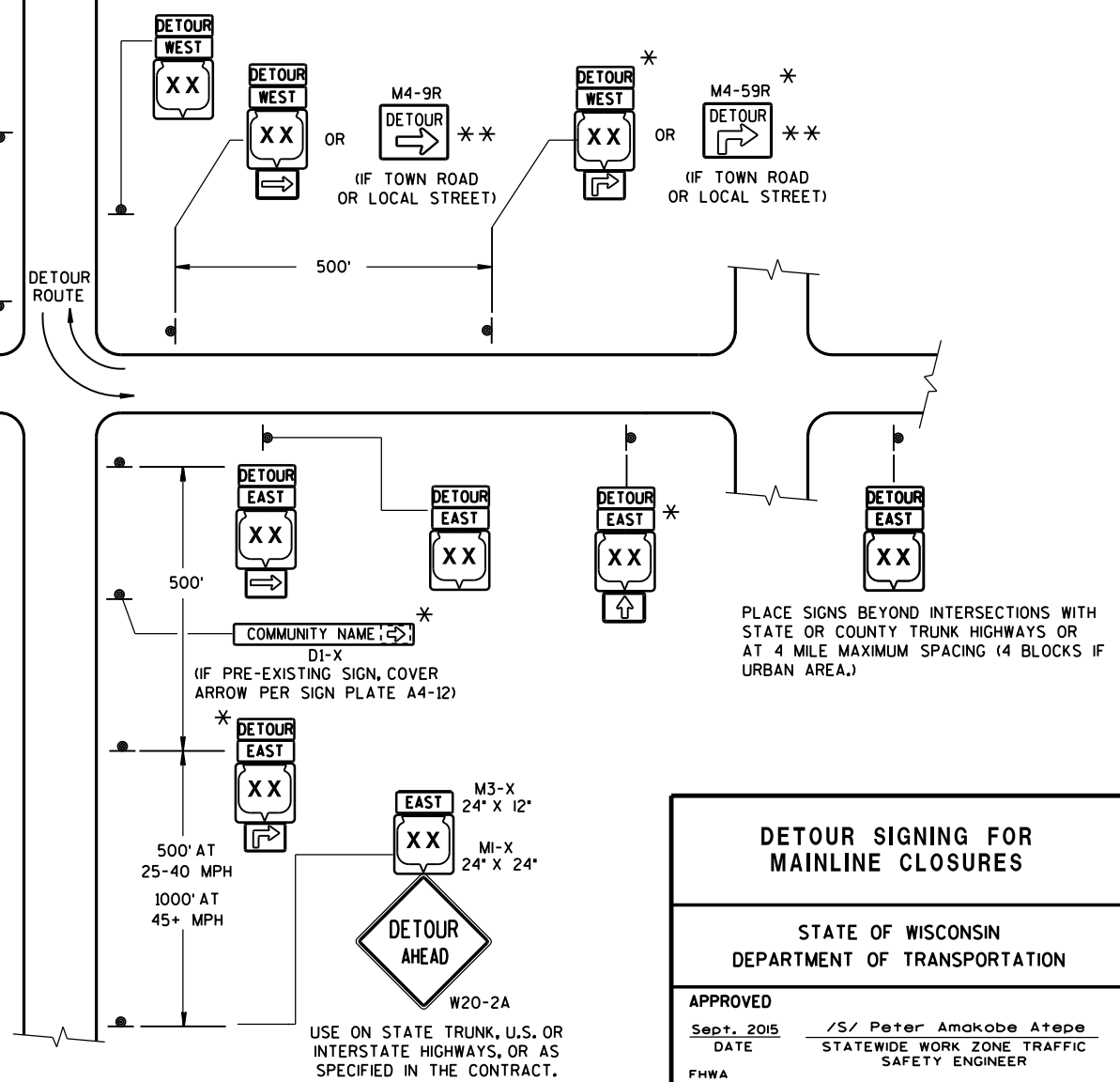
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

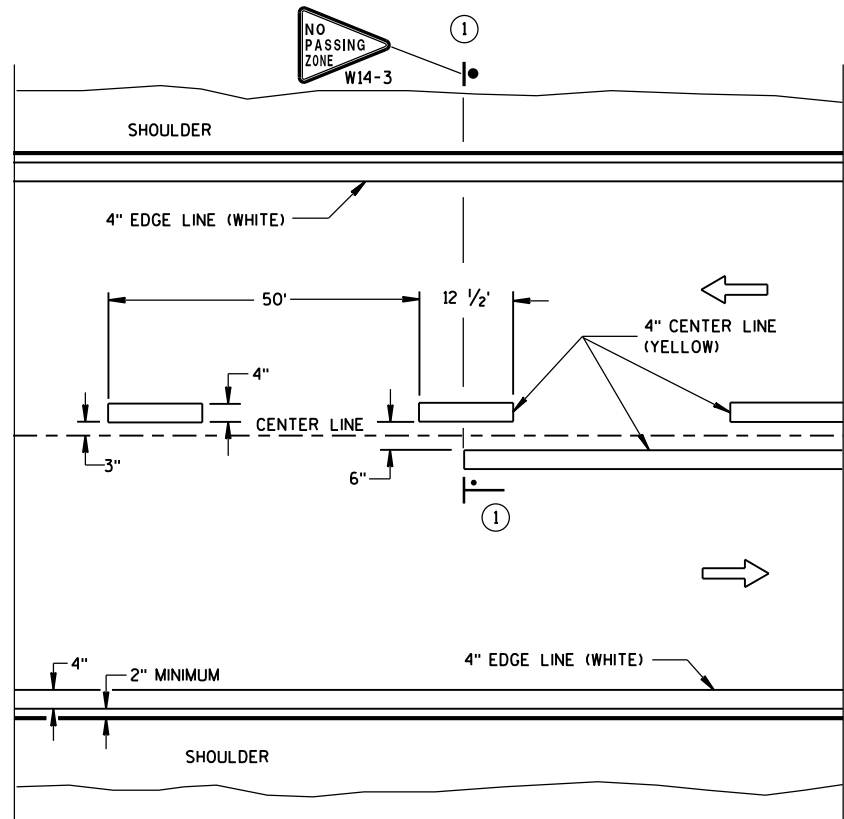
- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- M05-1 AND M06-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

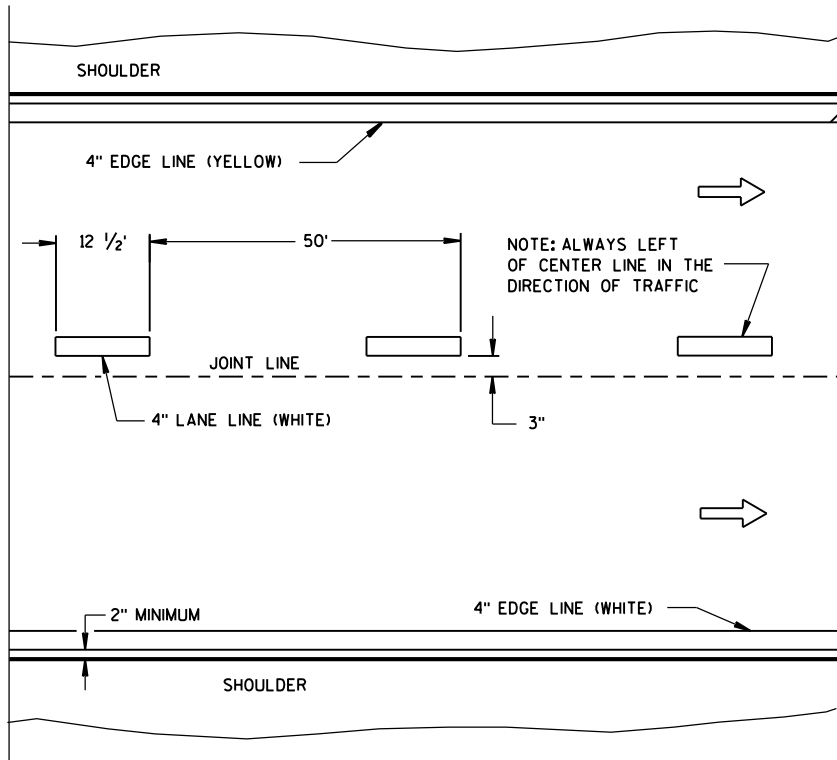
** FOR A TOWN ROAD OR LOCAL STREET DETOURED ONTO A STATE TRUNK HIGHWAY, PLACE A ROAD NAME PLAQUE ABOVE THE M4-9 SIGN AS SPECIFIED IN THE CONTRACT.



DETOUR SIGNING FOR MAINLINE CLOSURES	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE FWHA	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER

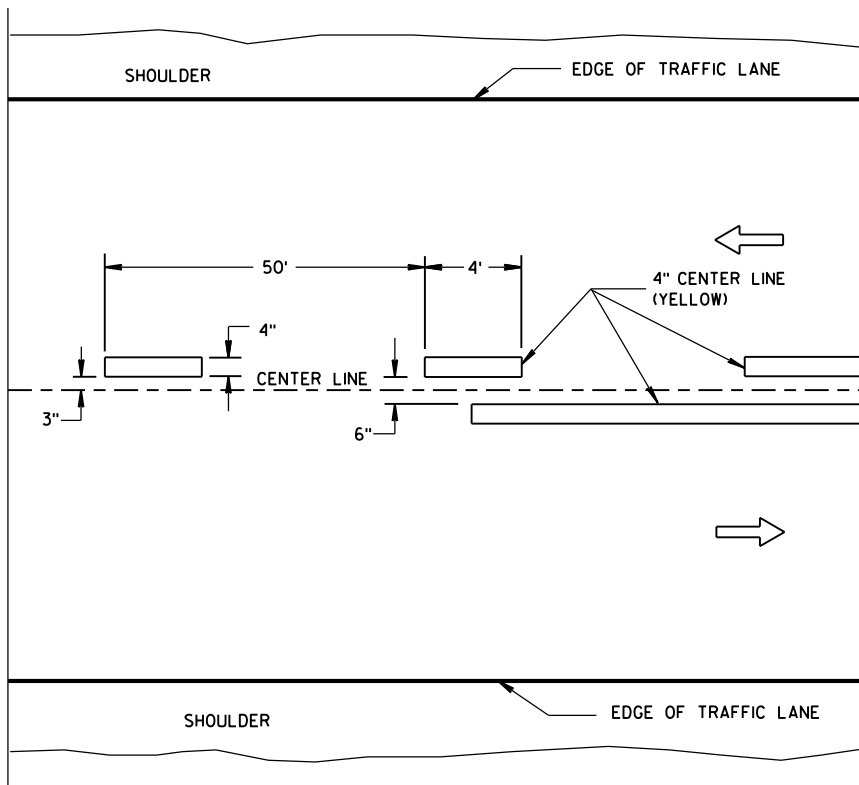


TWO WAY TRAFFIC

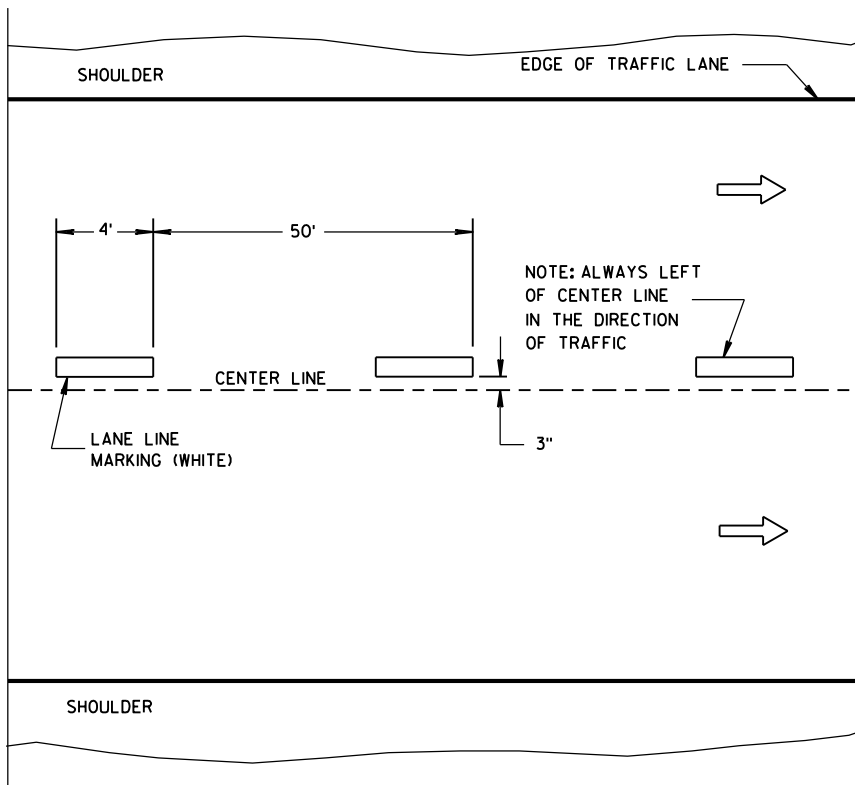


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

GENERAL NOTES

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

① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING.

NOTE

ARROW SYMBOL (→) SHOWS DIRECTION OF TRAVEL

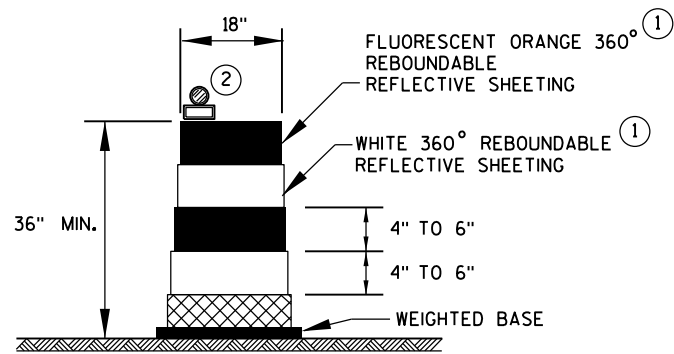
LEGEND

- "T" MARKING
- POST MOUNTED SIGN

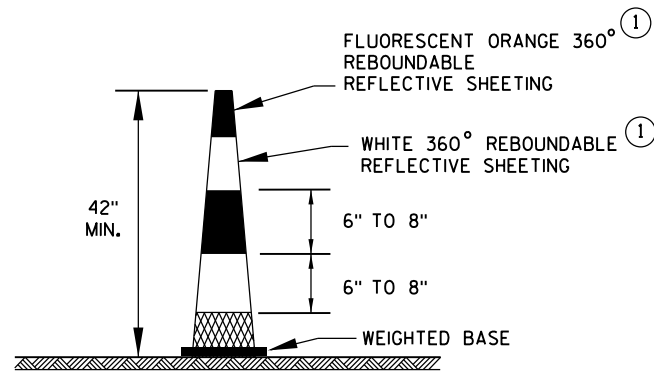
LONGITUDINAL MARKING
(MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MARKING ENGINEER
FHWA



DRUM

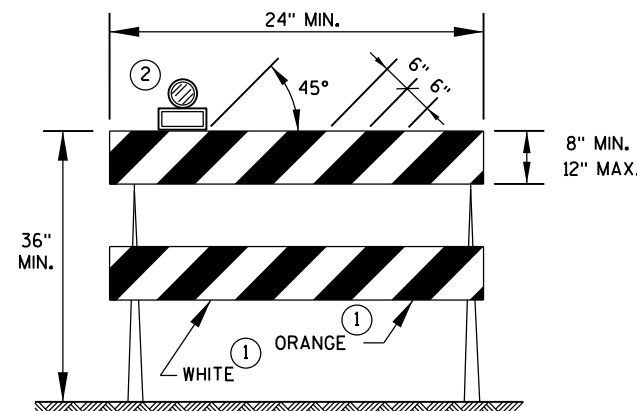


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

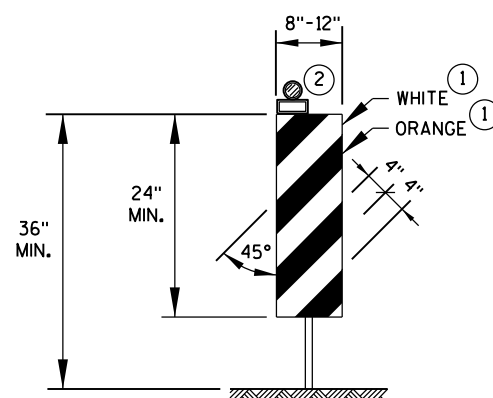
GENERAL NOTES

- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② LOCATION OF WARNING LIGHTS WHEN SHOWN ON THE PLAN.



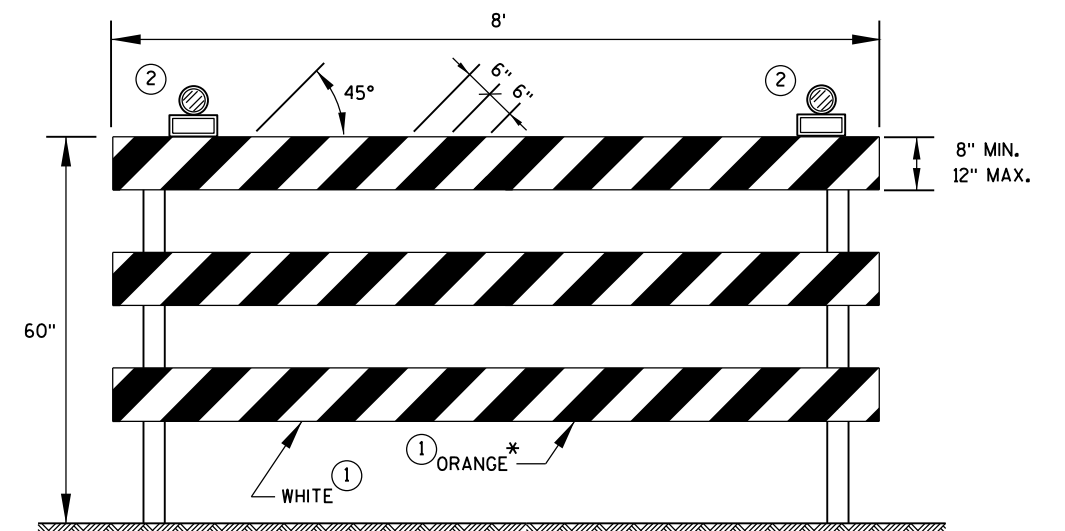
TYPE 2 BARRICADE

FOR RAILS LESS THAN 36" LONG, 4" WIDE STRIPES MAY BE USED.
ALL STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



VERTICAL PANEL

THE STRIPES SHALL SLOPE DOWNWARD TO THE TRAFFIC SIDE FOR CHANNELIZATION.



TYPE 3 BARRICADE

IF SIGN MOUNTED, DO NOT COVER MORE THAN 50% OF THE TOP TWO RAILS OR 33% OF THE TOTAL AREA OF THE THREE RAILS.

* IF USED FOR A PERMANENT APPLICATION, USE RED SHEETING.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2017
DATE

FHWA

/S/ Andrew Heidtke
WORK ZONE ENGINEER

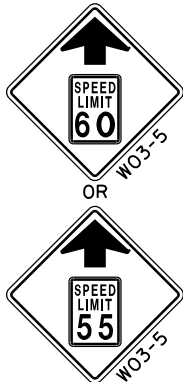
LEGEND

- 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
45	450	495	540	585	630	675
50	500	550	600	650	700	750
55	550	605	660	715	770	825
60	600	660	720	780	840	900
65	650	715	780	845	910	975
70	700	770	840	910	980	1050



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).



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



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.

"W0" 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.

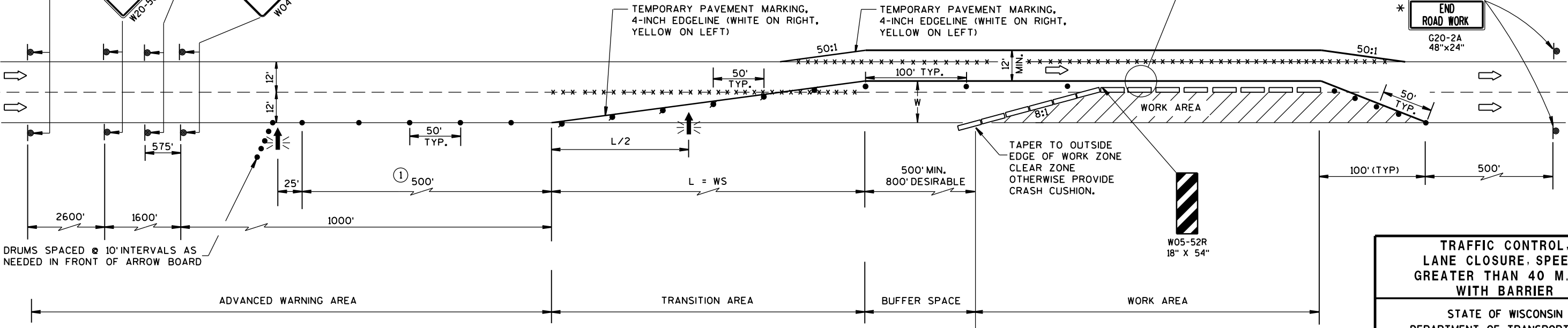
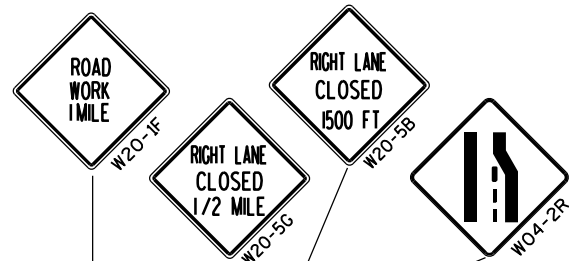
1. CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

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.



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept., 2016 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	

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

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

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

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.


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

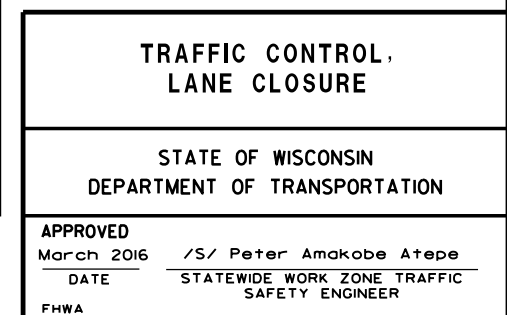
* THE LEFT REVERSE CURVE SIGN (W01-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.

TYPE III BARRICADE WITH ATTACHED SIGN

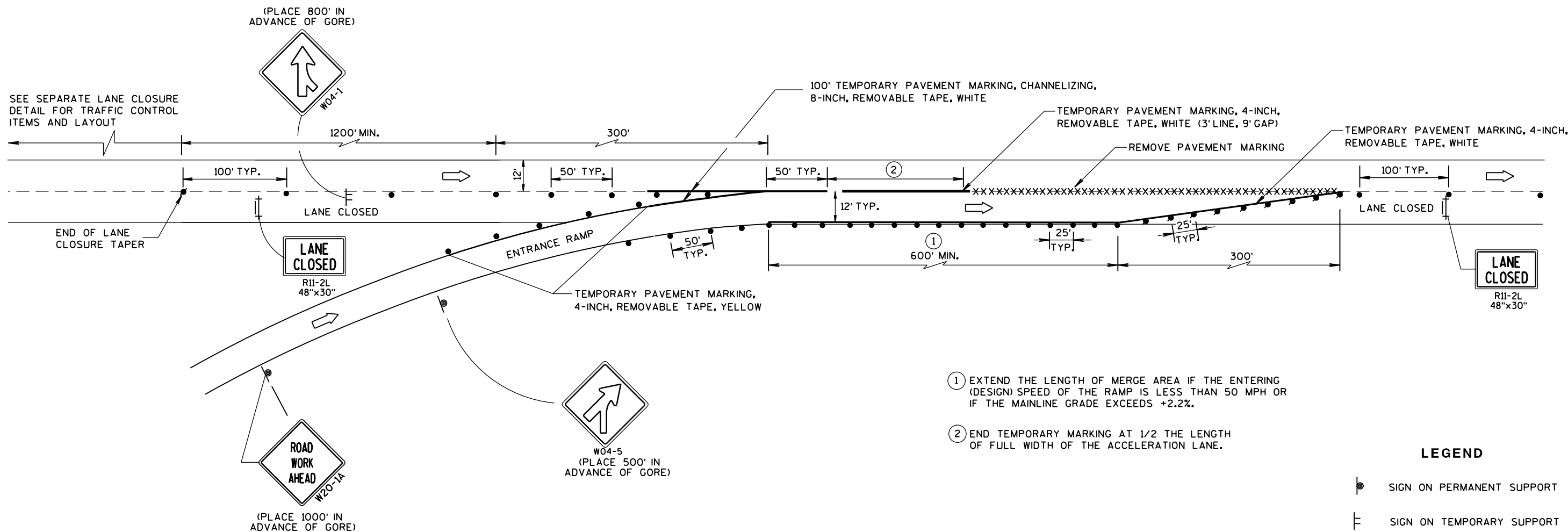
TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

 FLASHING ARROW BOARD

~~X-X-X~~ REMOVING PAVEMENT MARKING

 WORK AREA

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE



PARALLEL 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.

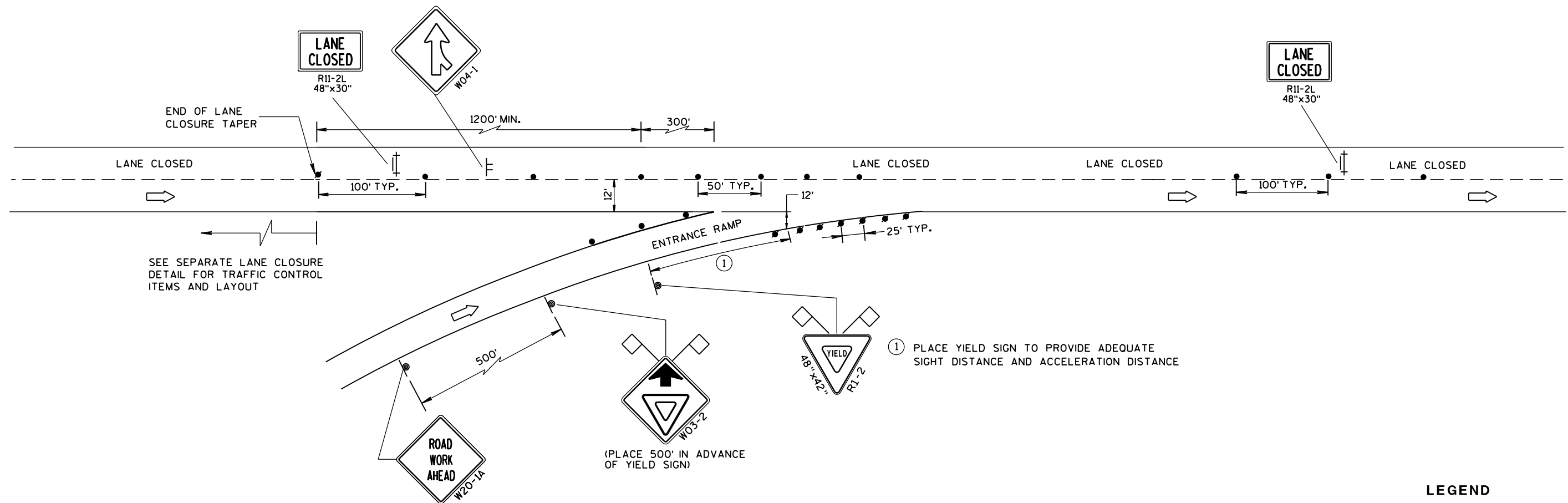
REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING REMOVABLE TAPE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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
- XXXXX REMOVING PAVEMENT MARKING
- ➡ DIRECTION OF TRAFFIC

TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED Sept., 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	



TAPERED ENTRANCE RAMP WITHIN LEFT LANE CLOSURE

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.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

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.

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 4 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
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,
TAPERED ENTRANCE RAMP
WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

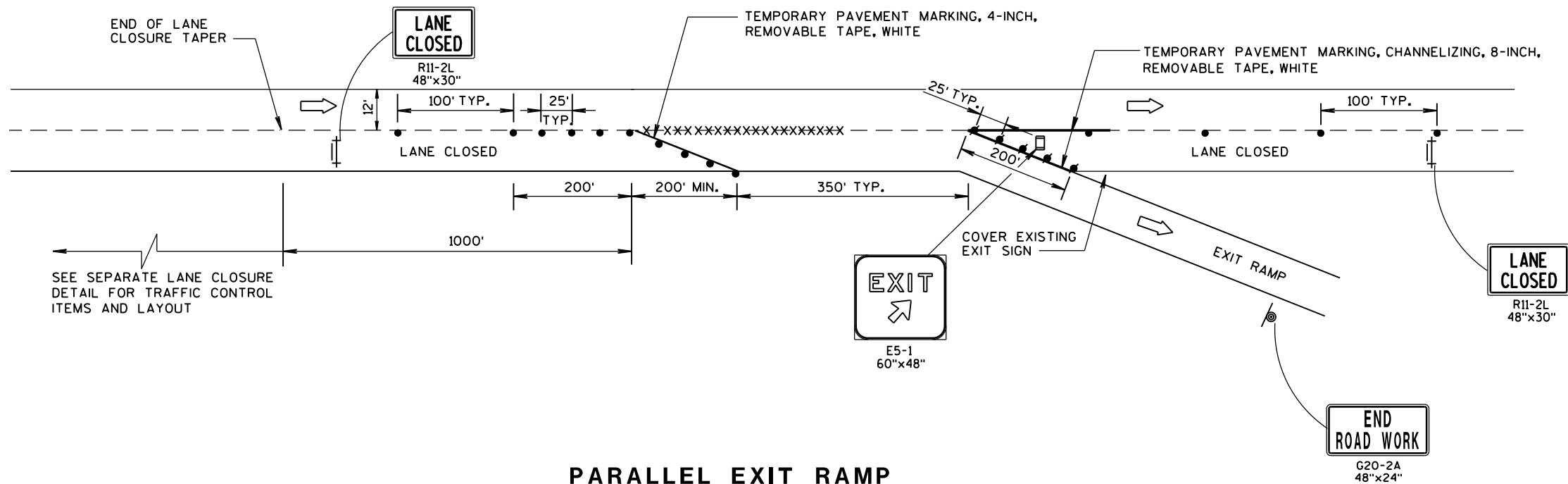
Sept., 2017

DATE

FHWA

/S/ Andrew Heidtke

WORK ZONE ENGINEER



PARALLEL EXIT 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.

"W0" 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.

YIELD SIGN AND WARNING SIGNS ON ENTRANCE RAMP ARE ALSO APPROPRIATE FOR CLOSURE OF THE MAINLINE LEFT LANE. OMIT THE YIELD SIGN IF MORE THAN ONE LANE REMAINS OPEN ON THE MAINLINE AND THE RAMP TAPER IS AT LEAST AS LONG AS THE NORMAL ENTRANCE RAMP TAPER AT THE SITE.

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.

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 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

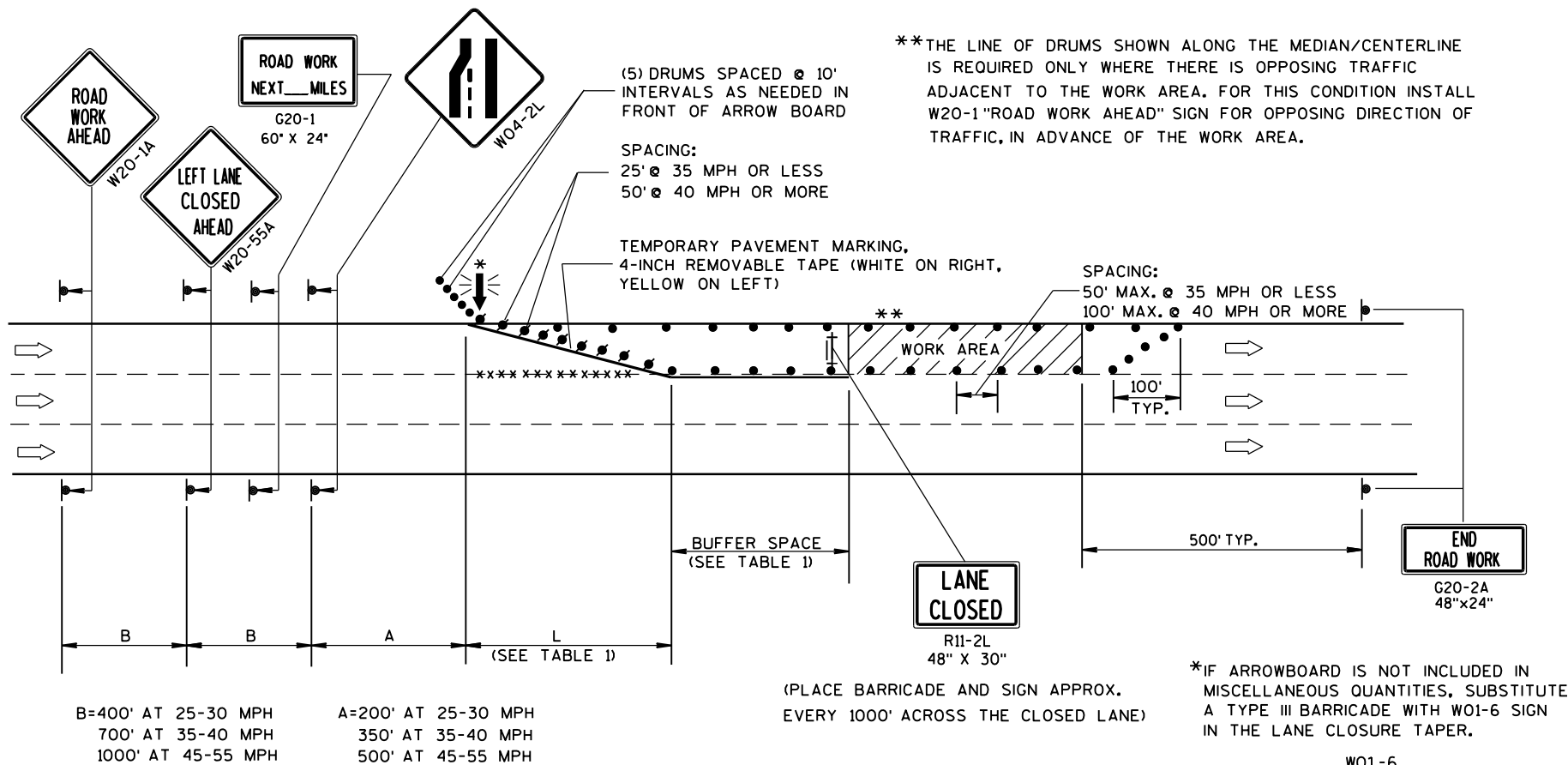
LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)
- TYPE III BARRICADE WITH ATTACHED SIGN
- FLAGS, 16" x 16" MIN., (ORANGE)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL,
PARALLEL EXIT RAMP
WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
DATE: Sept., 2017 /S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA



GENERAL NOTES

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE LEFT LANE. FOR A RIGHT LANE CLOSURE, REVERSE THE TRAFFIC CONTROL.

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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 DESIRABLE MINIMUM OF 200 FEET CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, 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.

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

ON UNDIVIDED ROADWAYS, OMIT THE SIGNS SHOWN ON LEFT SIDE OF ROAD.

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS.

PLACE THE ARROWBOARD AS CLOSE AS POSSIBLE TO THE BEGINNING OF THE LANE CLOSURE TAPER, PREFERABLY ON THE SHOULDER OR TERRACE.

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

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

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

TABLE 1
TAPER AND BUFFER SPACE
FOR 12' LANE WIDTH

S	L	BUFFER SPACE
25	125'	55'
30	180'	85'
35	245'	120'
40	320'	170'
45	540'	220'
50	600'	280'
55	660'	335'

FOR LANE WIDTH OTHER THAN 12':

L = WS AT 45 MPH OR GREATER

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

L = TAPER LENGTH IN FEET

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

W = WIDTH OF LANE CLOSURE

LEGEND

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

TRAFFIC CONTROL,
SINGLE LANE CLOSURE,
NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2016 /S/ Peter Amakobe Atepe
DATE STATEWIDE WORK ZONE TRAFFIC
FHWA SAFETY ENGINEER

GENERAL NOTES

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" SIGNS MAY BE USED IF APPROVED BY DISTRICT TRAFFIC UNIT.

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

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

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

W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

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

TABLE A

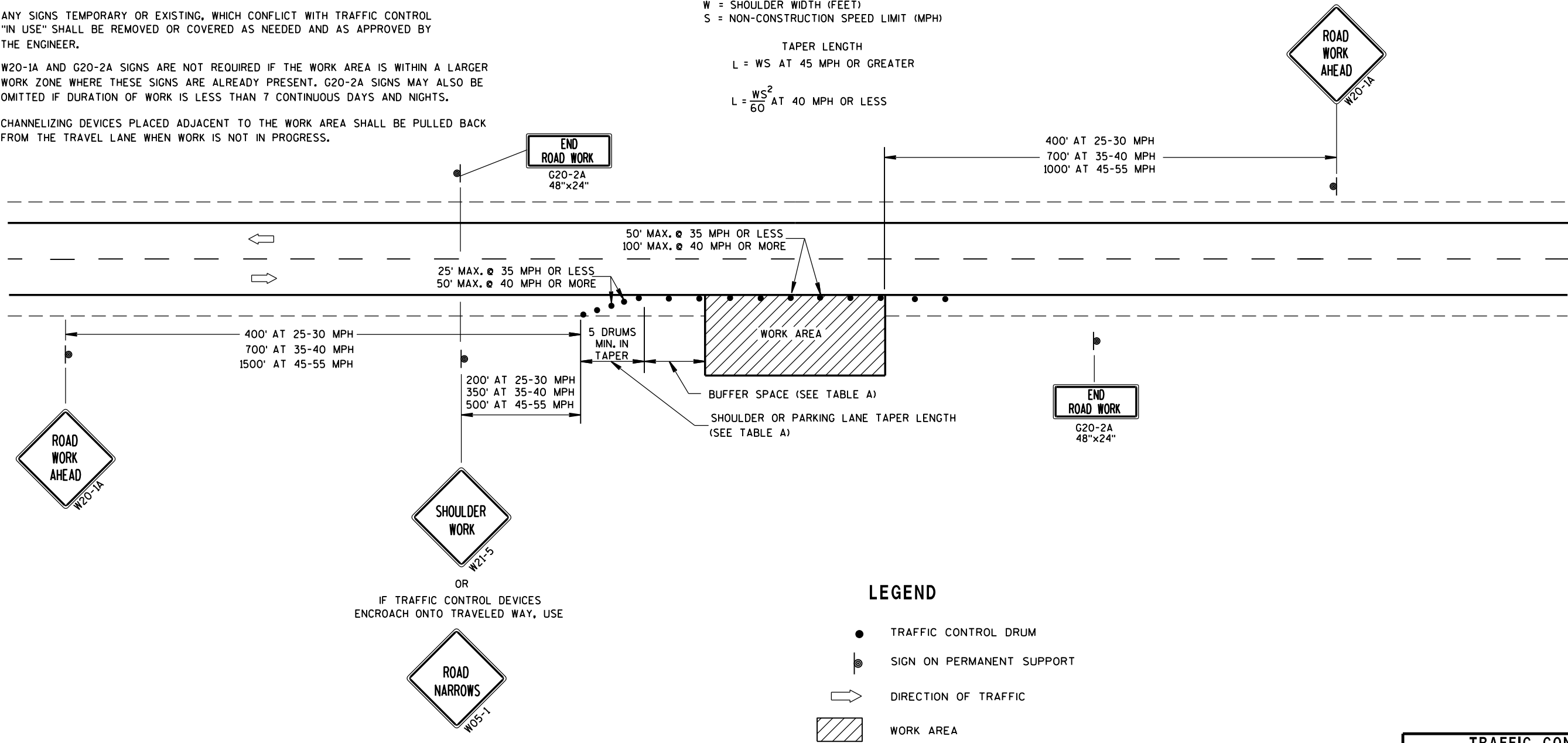
SHOULDER TAPER LENGTH (FEET)					BUFFER SPACE (FEET)
S \ W	4	6	8	10	
30	20	30	40	50	200
35	30	45	55	70	250
40	40	55	75	90	305
45	60	90	120	150	360
50	70	100	135	170	425
55	75	110	150	185	495

W = SHOULDER WIDTH (FEET)
S = NON-CONSTRUCTION SPEED LIMIT (MPH)

TAPER LENGTH
L = WS AT 45 MPH OR GREATER

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

SHOULDER TAPER LENGTH = $\frac{1}{3}L$



LEGEND

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

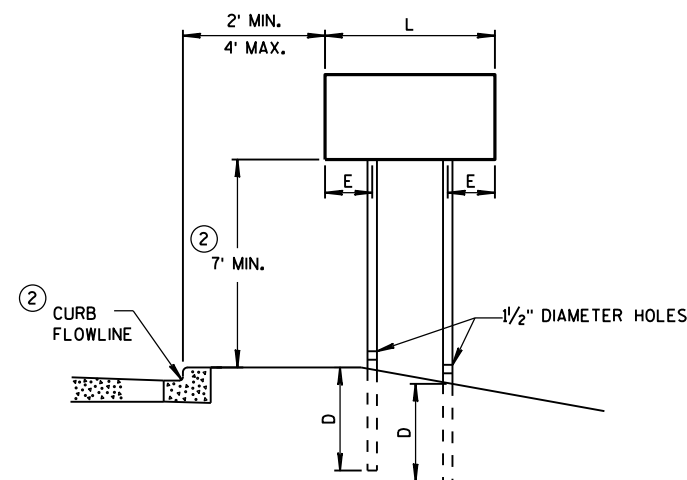
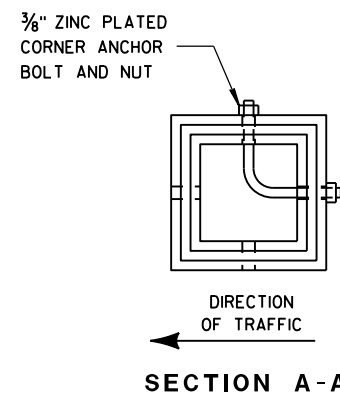
TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED July 14, 2015 DATE	/S/ Peter Amakobe Atepe STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA	



TUBULAR STEEL POSTS

AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS LARGER THAN 27 SQ.FT. SHALL NOT BE MOUNTED ON TUBULAR STEEL POSTS.

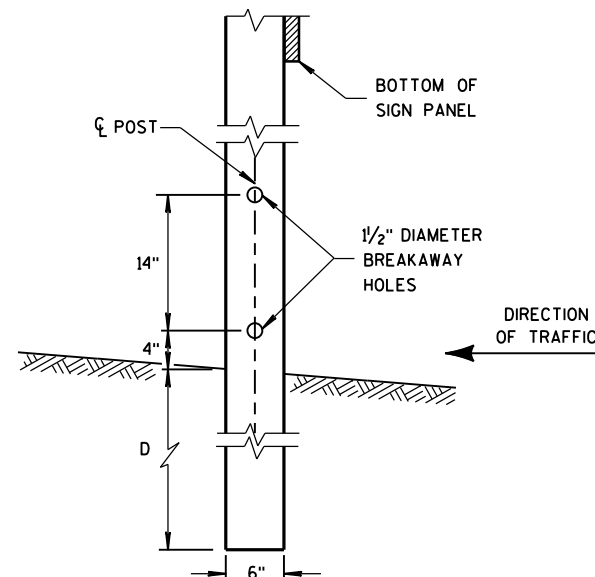


URBAN AREA

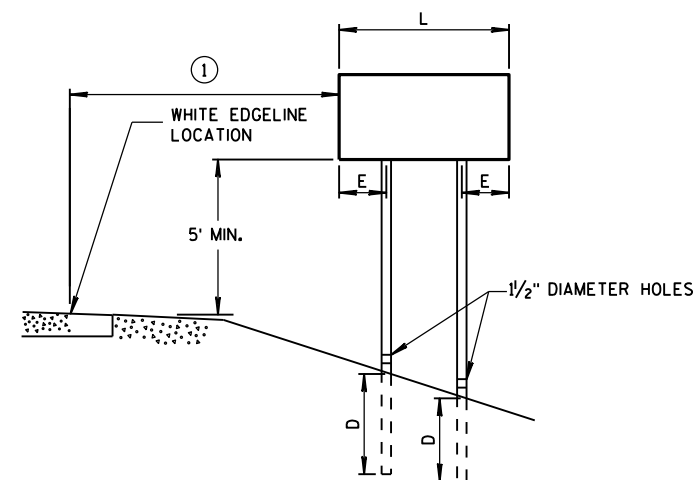
POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

WOOD POST
EMBEDMENT DEPTH

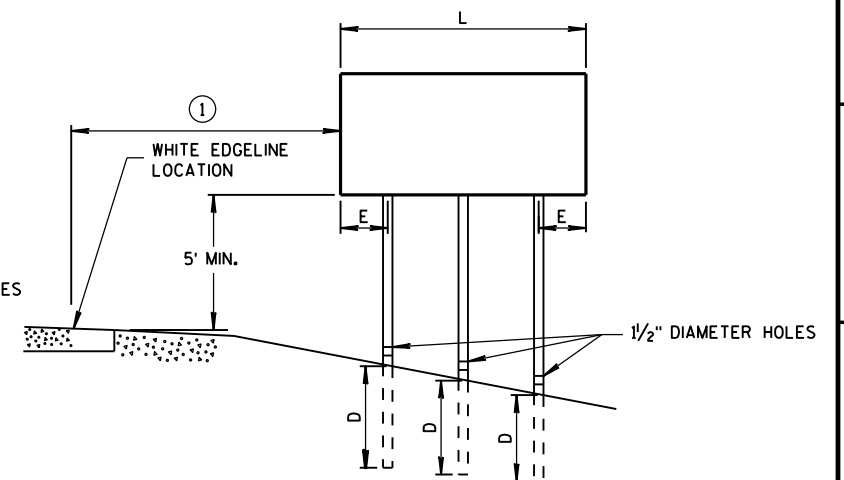
AREA OF SIGN INSTALLATION (SQ. FT.)	D (MIN)
20 OR LESS	4'
GREATER THAN 20	5'



4" x 6" WOOD POST MODIFICATION



RURAL AREA



GENERAL NOTES

- ① 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.
- ② THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.
- ③ FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.

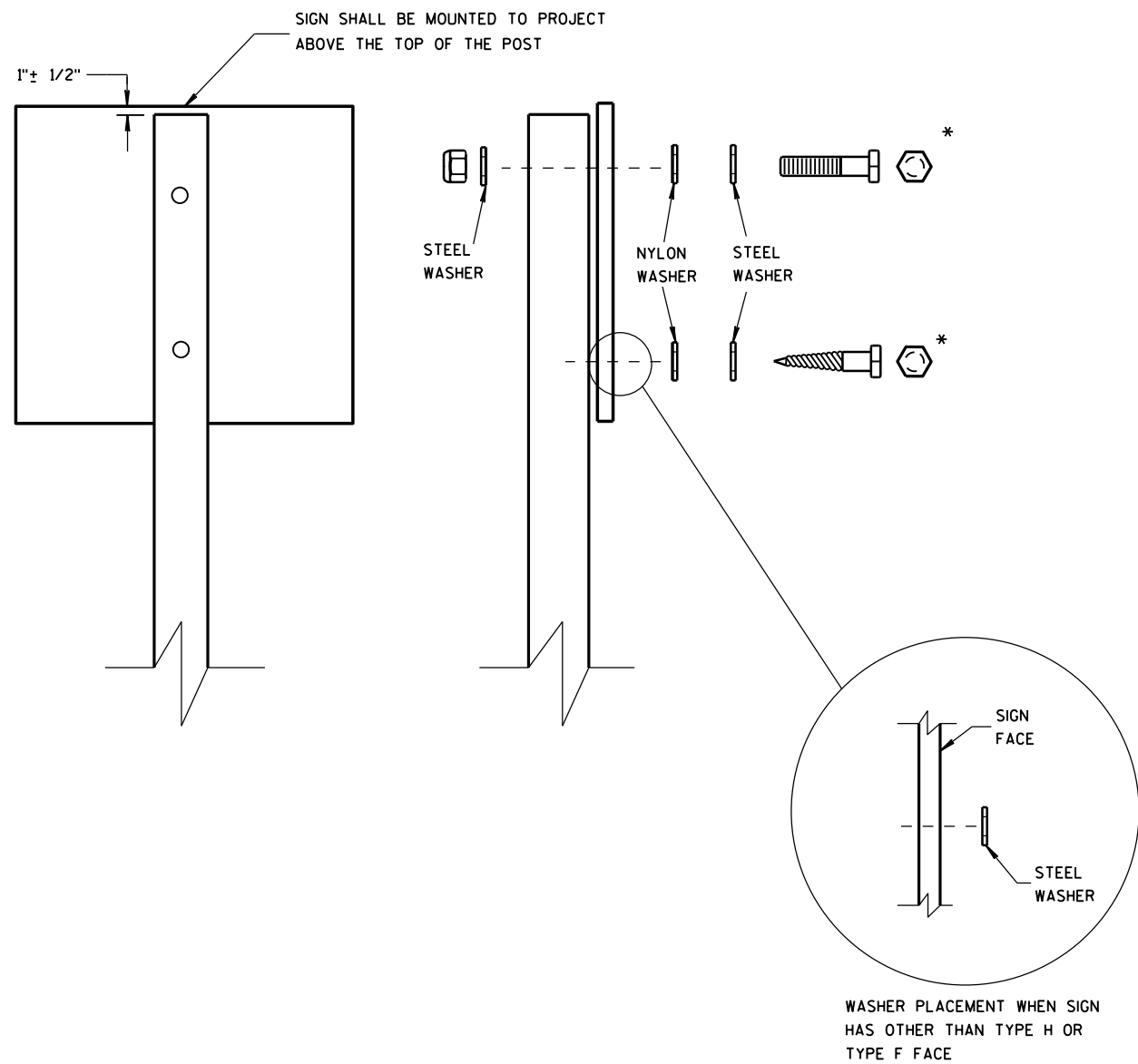
4" X 6" WOOD POST

POST SPACING REQUIREMENTS		NUMBER OF WOOD POSTS REQUIRED
L	E	
48" OR LESS AND LESS THAN 20 SQ. FT.	-	1
LESS THAN 60"	12"	2
60" TO 120"	L/5	2
GREATER THAN 120" LESS THAN 168"	12"	3
168" AND GREATER	12"	4

SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



NUTS, BOLTS AND LAGS USED FOR MOUNTING SIGNS SHALL HAVE HEXAGONAL HEADS AND SHALL BE EITHER:

- A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3
- B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

THREADS ON BOLTS AND NUTS SHALL BE MANUFACTURED WITH SUFFICIENT ALLOWANCE FOR THE CADMIUM PLATE OR GALVANIZED COATING TO PERMIT THE NUTS TO RUN FREELY ON THE BOLTS.

- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - 3/8" x 3"
 - MACHINE BOLTS - 5/16" x 6-1/2" OR 7" LENGTH W/ NUTS

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

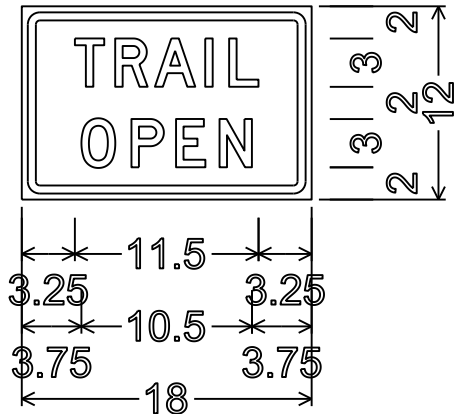
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL
 - 1-1/4" O.D. x 3/8" I.D. x .080 NYLON FOR ALL TYPE H SIGNS

* 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. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

ATTACHMENT OF SIGNS TO POSTS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2017 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER
FHWA	

NOTES

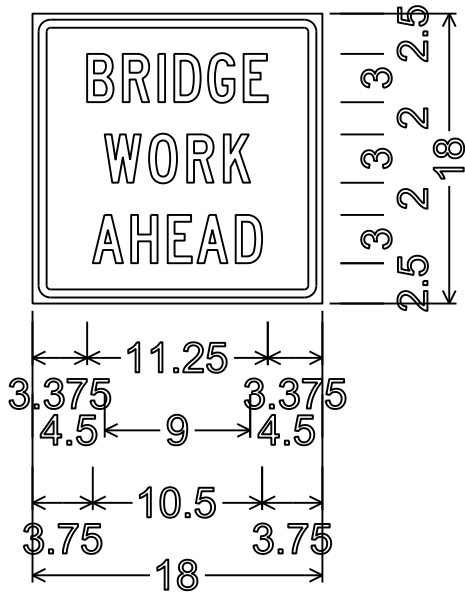
- 1. Fixed Message Type II Signs - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - D



1.125" Radius, 0.500" Border, 0.375" Indent

NOTES

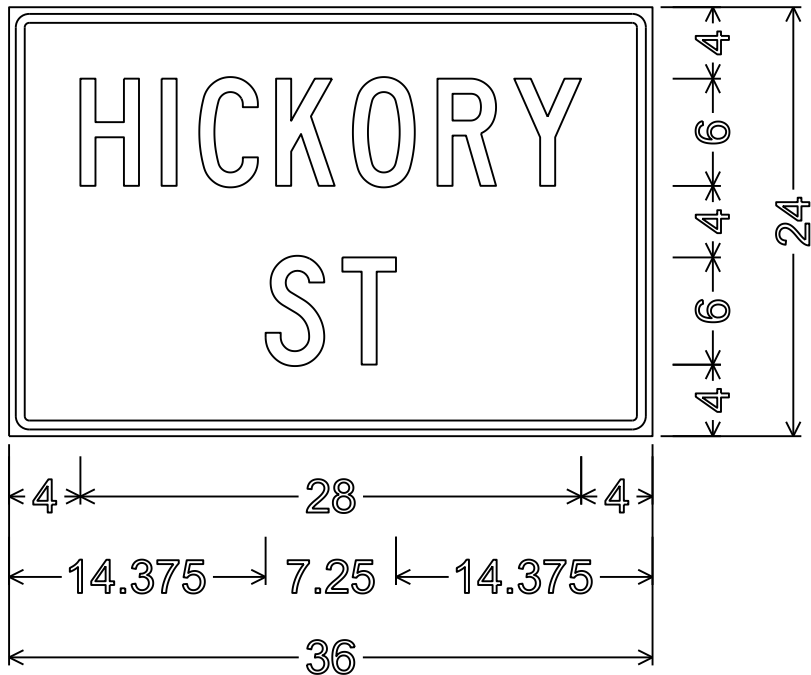
- 1. Fixed Message Type II Signs - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - C



1.125" Radius, 0.500" Border, 0.375" Indent

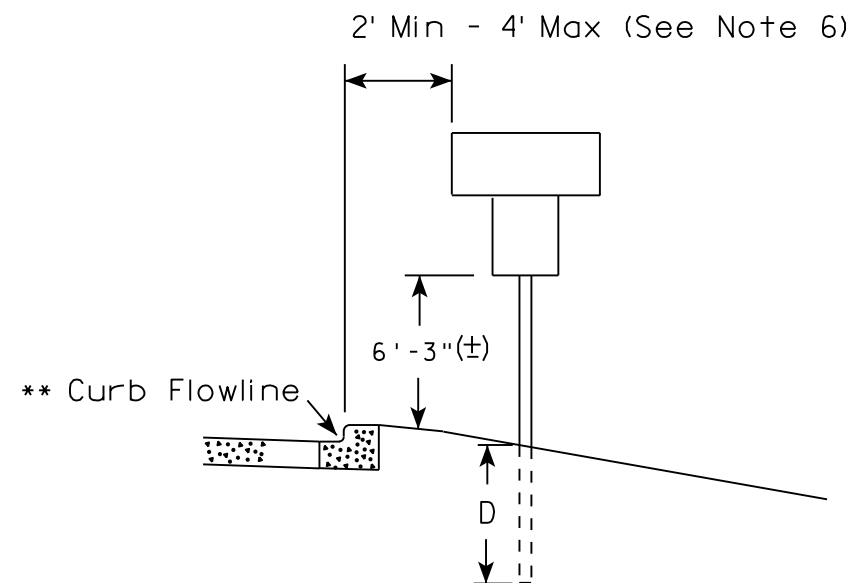
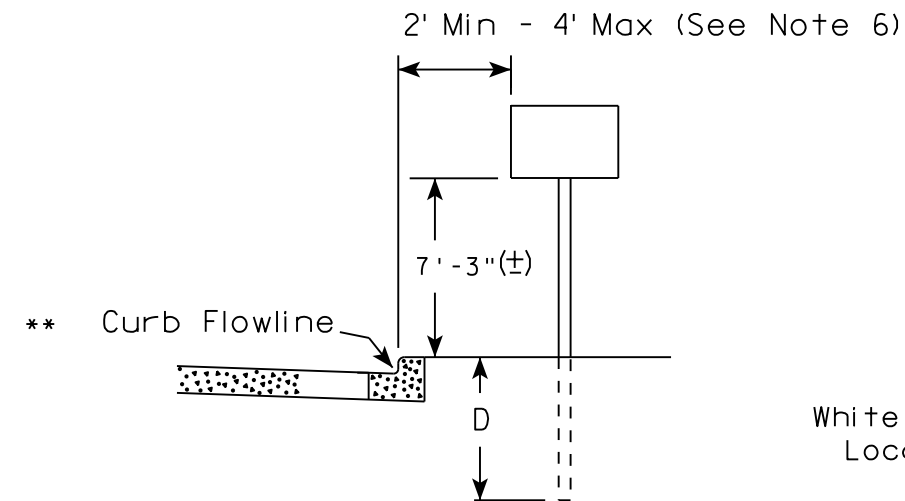
NOTES

- 1. Fixed Message Type II Signs - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C



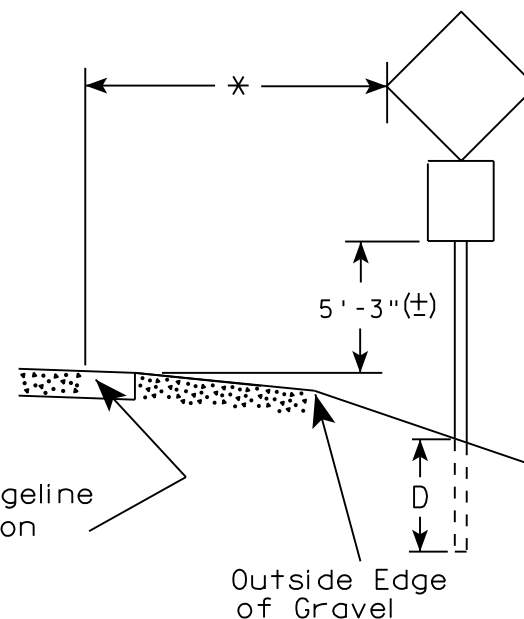
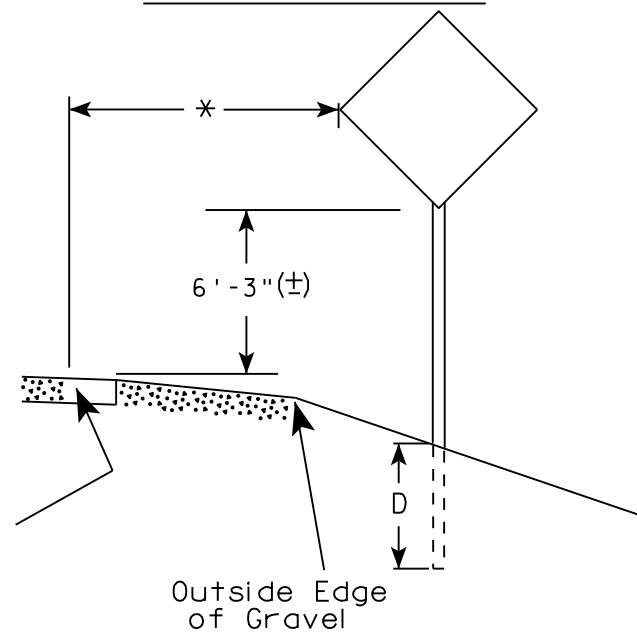
1.125" Radius, 0.500" Border, 0.375" Indent

URBAN AREA



White Edgeline
Location

RURAL AREA (See Note 2)



White Edgeline
Location

Outside Edge
of Gravel

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet 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. J-Assemblies are considered to be one sign for mounting height.
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 directed by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

✱✱ 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 8/21/17 PLATE NO. A4-3.21

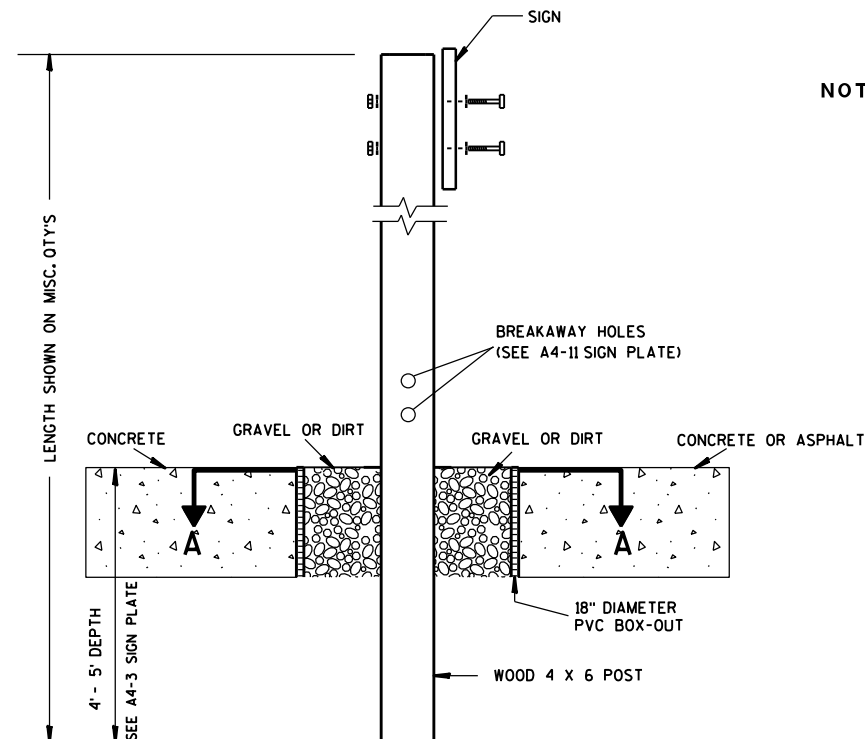
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

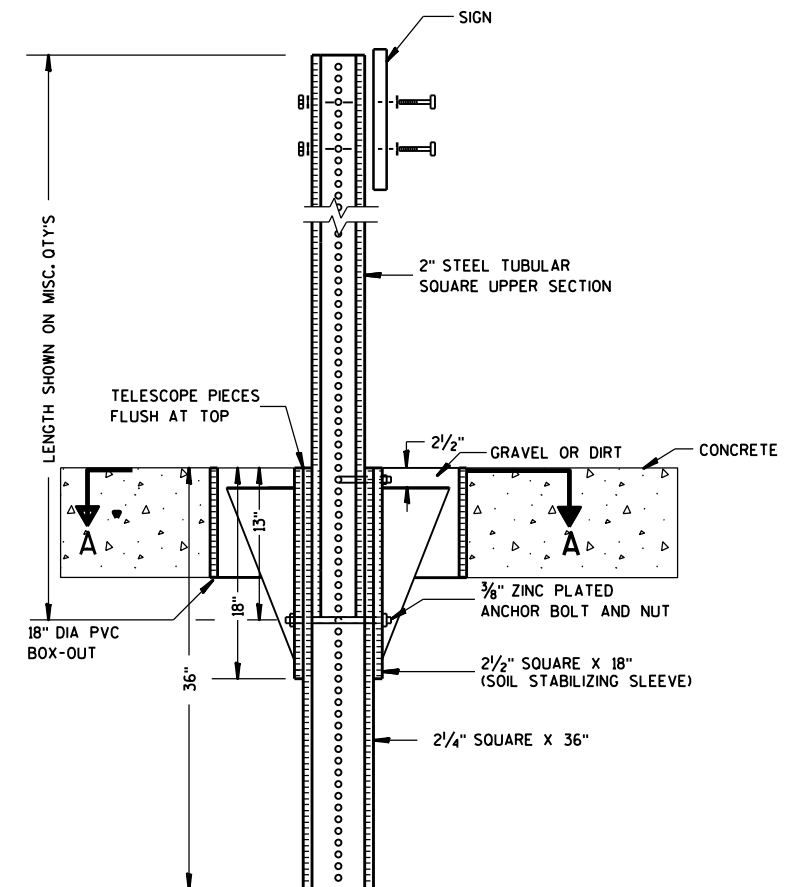
E



ELEVATION VIEW

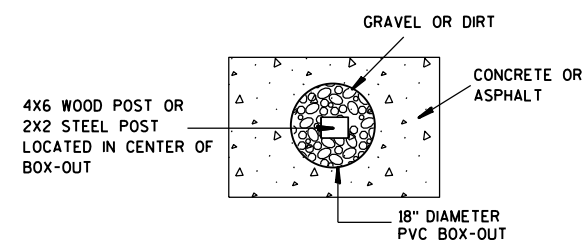
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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

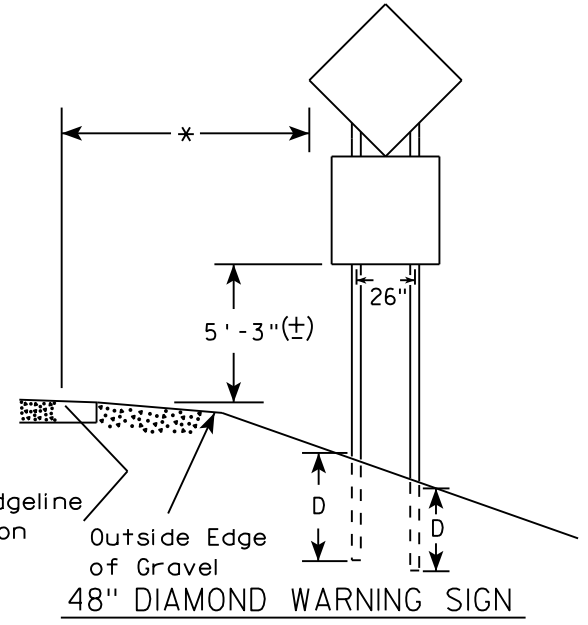
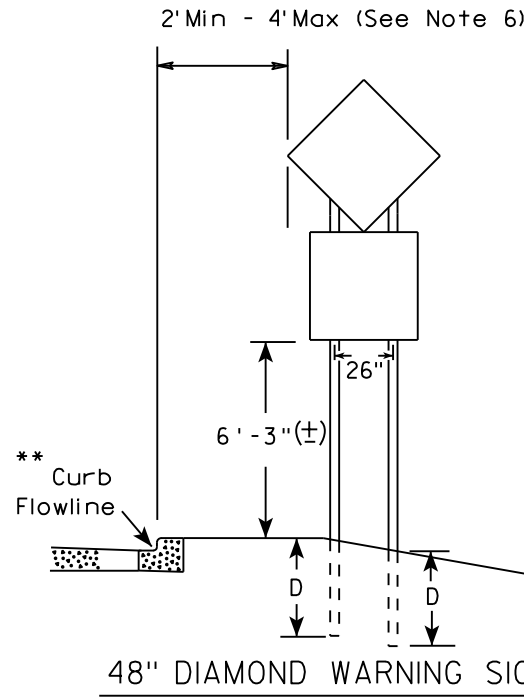
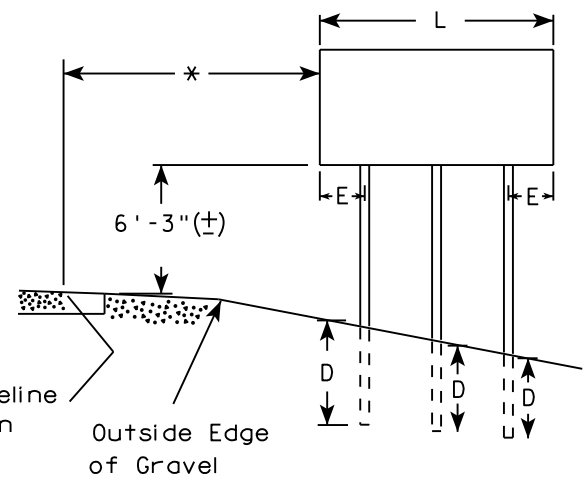
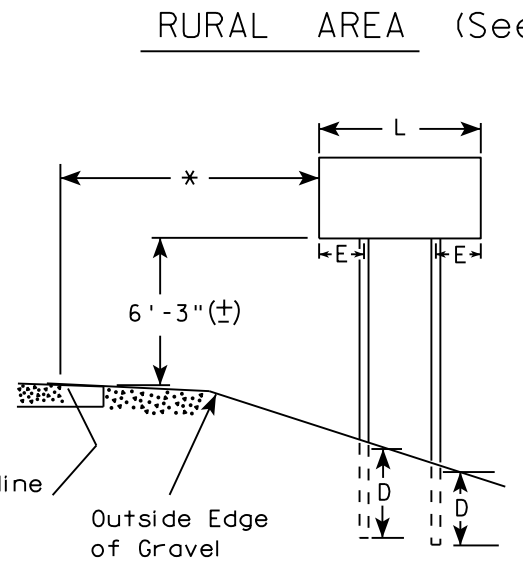
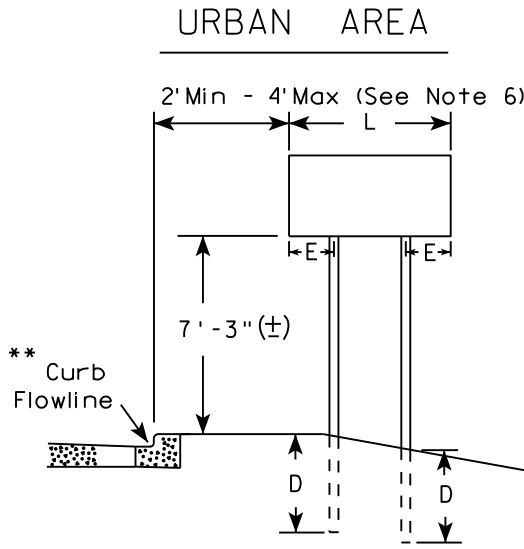
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



- 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. J-Assemblies are considered to be one sign for mounting height.
 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 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

POST EMBEDMENT DEPTH

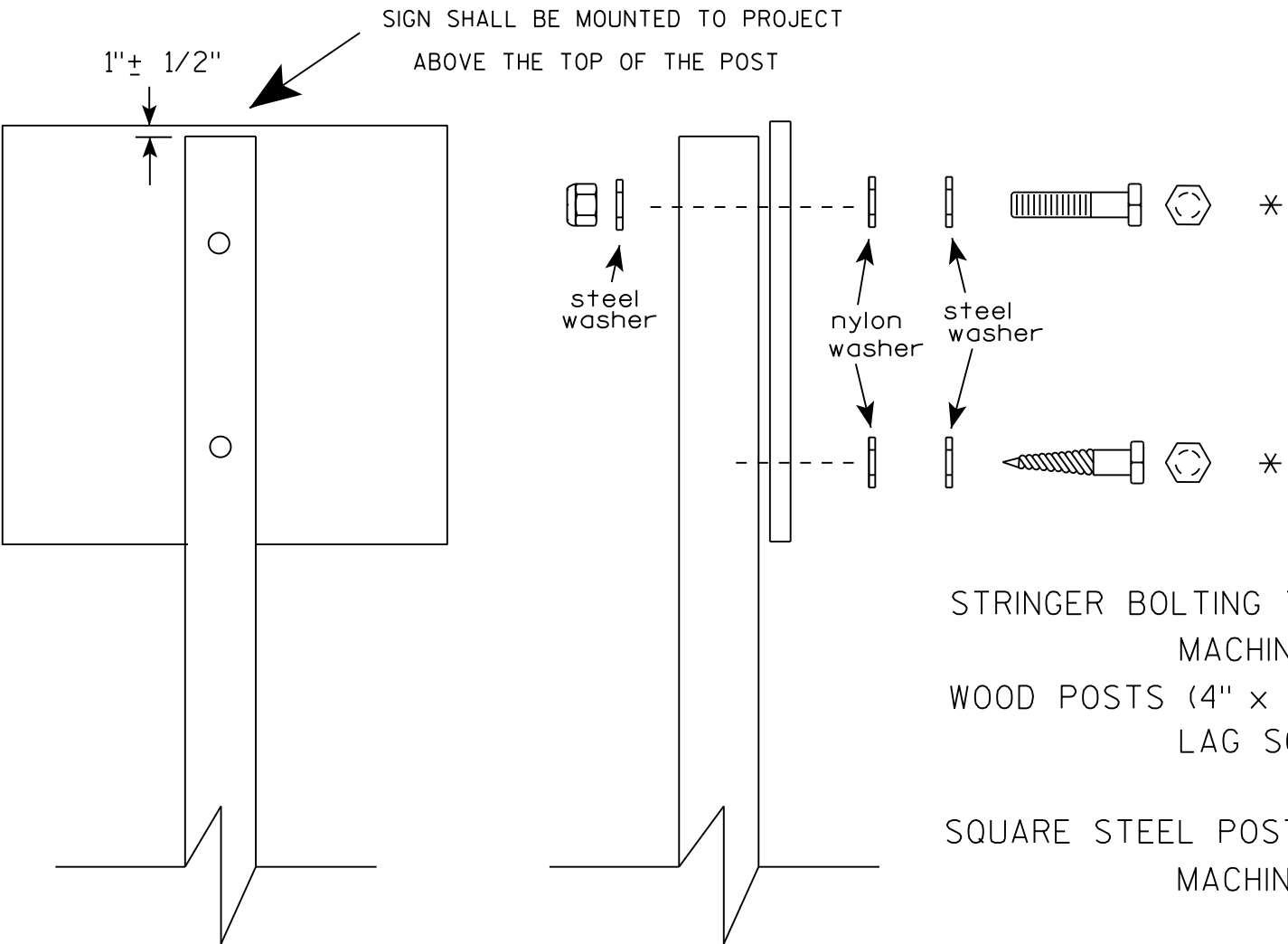
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION
OF TYPE II SIGNS
ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-4.15



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 - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 4" or 4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 - $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (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 $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " 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.

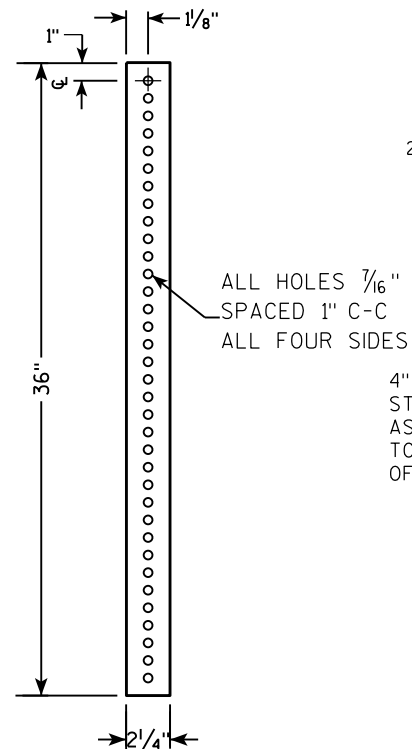
ATTACHMENT OF SIGNS
TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

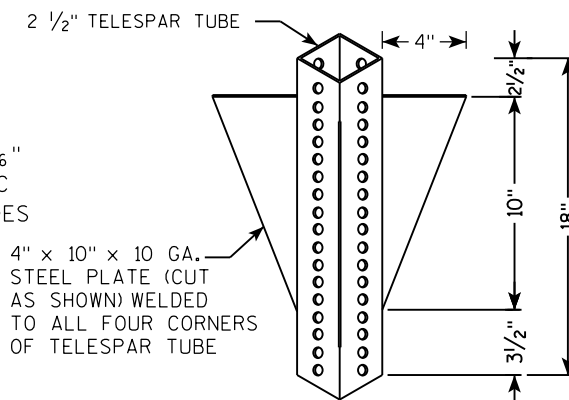
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

**2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH**



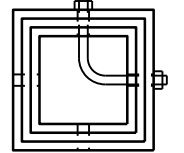
**2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH**



LENGTH SHOWN ON MISC. QTY'S
 18" DIA SCHEDULE 40 PVC BOX-OUT
 TELESCOPE PIECES FLUSH AT TOP
 36"
 18"
 13"
 2 1/2"
 2 1/4" SQUARE X 36"
 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 3/8" ZINC PLATED ANCHOR BOLT AND NUT
 2 1/2" GRAVEL OR DIRT
 3/8" ZINC PLATED ANCHOR BOLT AND NUT
 ALL HOLES 7/16" SPACED 1" C-C ALL FOUR SIDES
 2" STEEL TUBULAR SQUARE UPPER SECTION
 SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 SIGN

[illegible]

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT



DIRECTION
OF TRAFFIC

SECTION A-A

Area of Sign Installation (Sq. Ft.)	Number of Required Posts
9 or less	1
Greater than 9 less than or equal to 18	2
Greater than 18 less than or equal to 27	3

TUBULAR STEEL
SIGN POST
A4-9

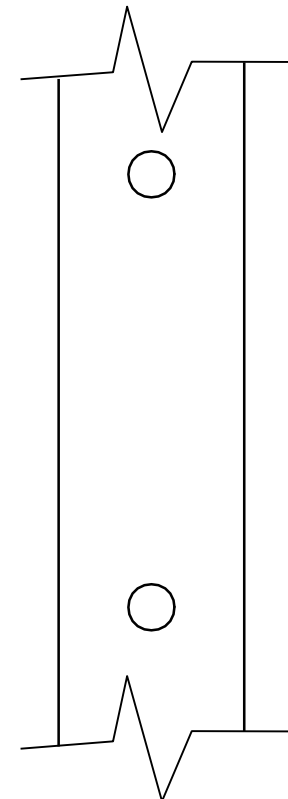
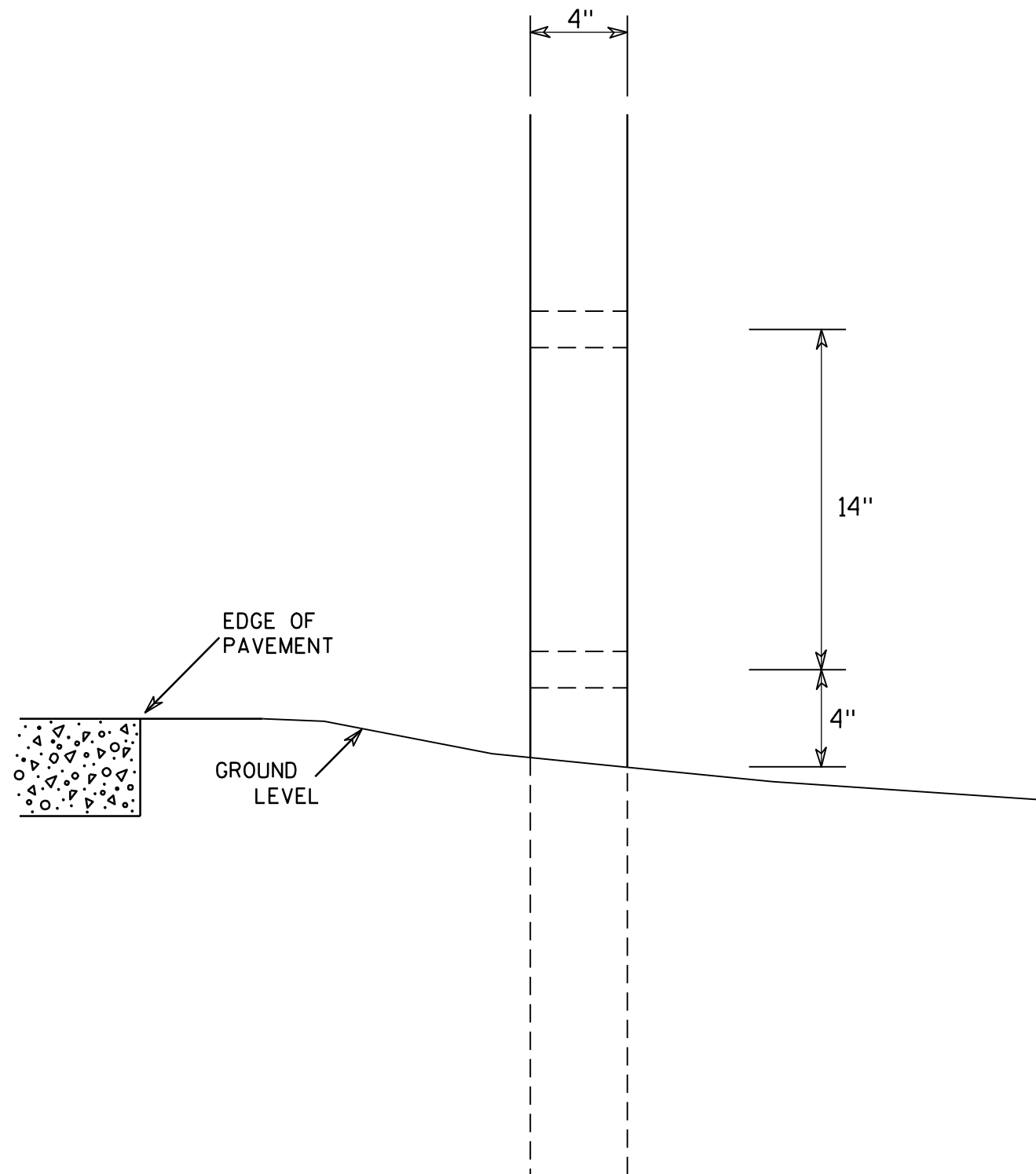
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthieu R. Rauch

for State Traffic Engineer

DATE 2/05/15 PLATE NO. A4-9.9

PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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SIDE VIEW

GENERAL NOTES

1. All 4 x 6 Wood Posts shall be modified by having two 1 1/2" diameter holes drilled perpendicular to the roadway centerline.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Chester J. Spang
for State Traffic Engineer

DATE 3/27/97

PLATE NO. A4-11.2

PROJECT NO:

HWY:

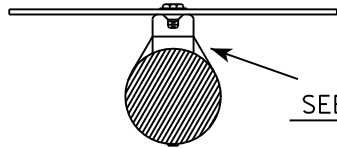
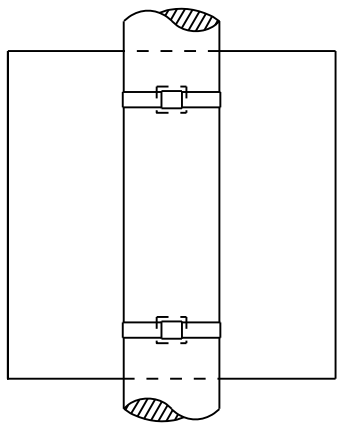
COUNTY:

SHEET NO:

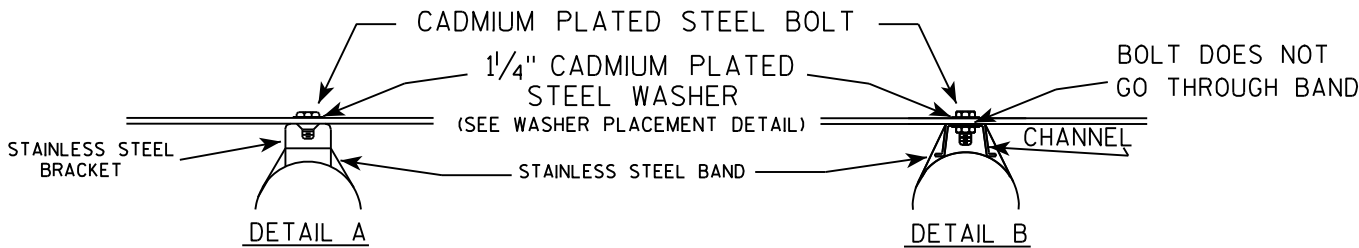
E

BANDING

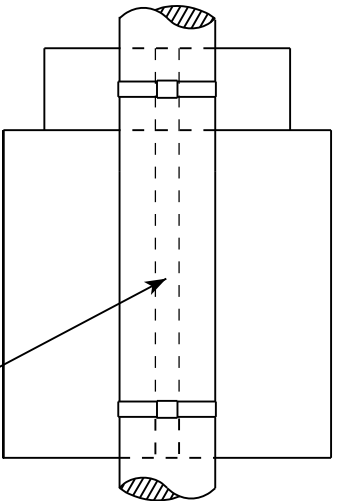
SINGLE SIGN



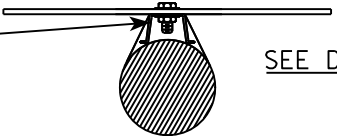
SEE DETAIL A



"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

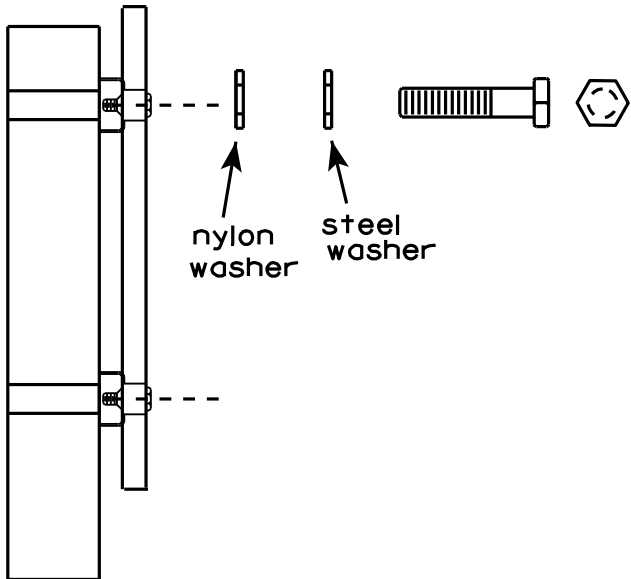


SEE DETAIL B

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be $\frac{3}{4}$ " in width and 0.025" thickness.

WASHER PLACEMENT



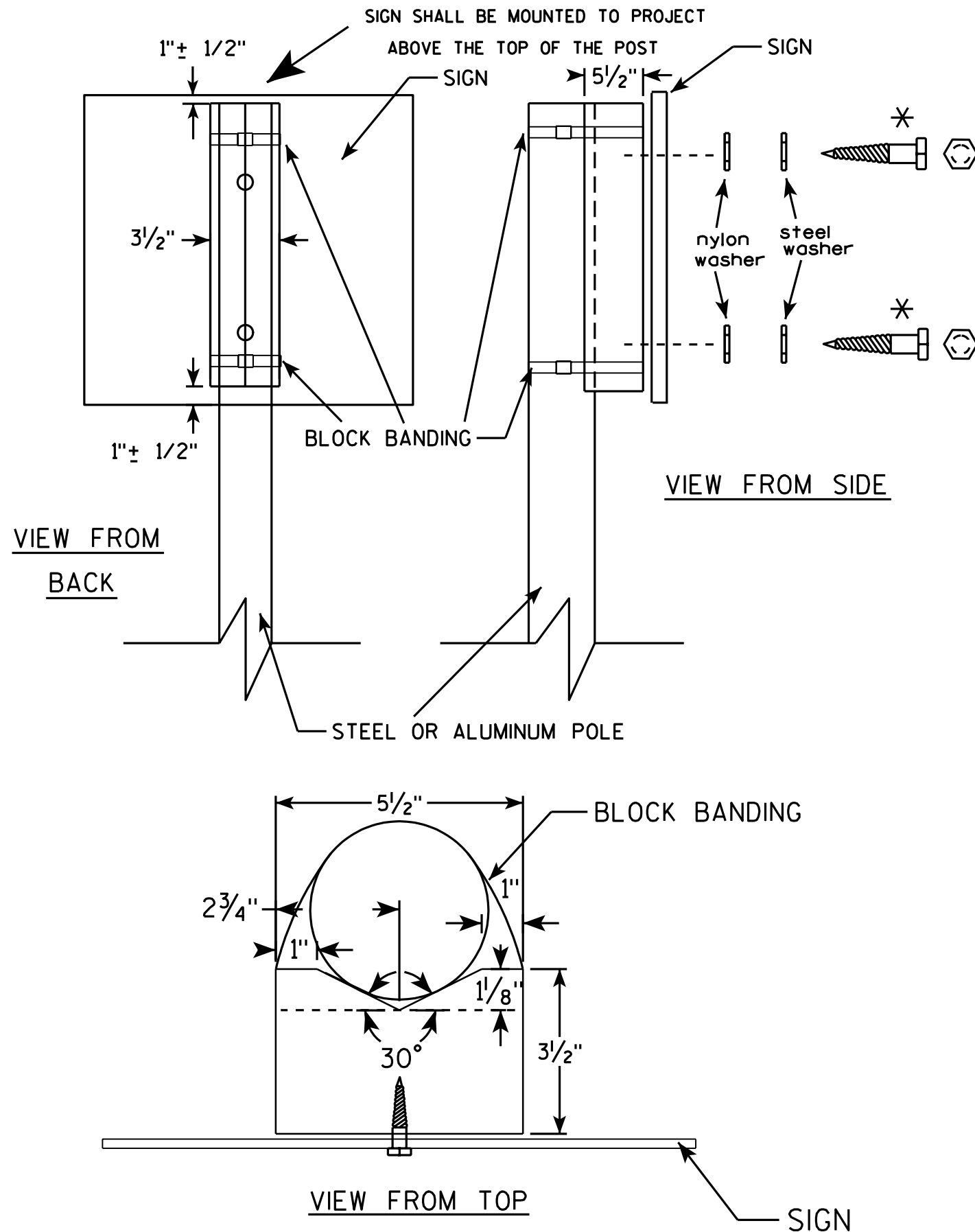
WASHERS (ALL POSTS) -
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 8/16/13 PLATE NO. A5-9.3



GENERAL NOTES

1. WOOD 4"x6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D, or
 - b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
 - c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

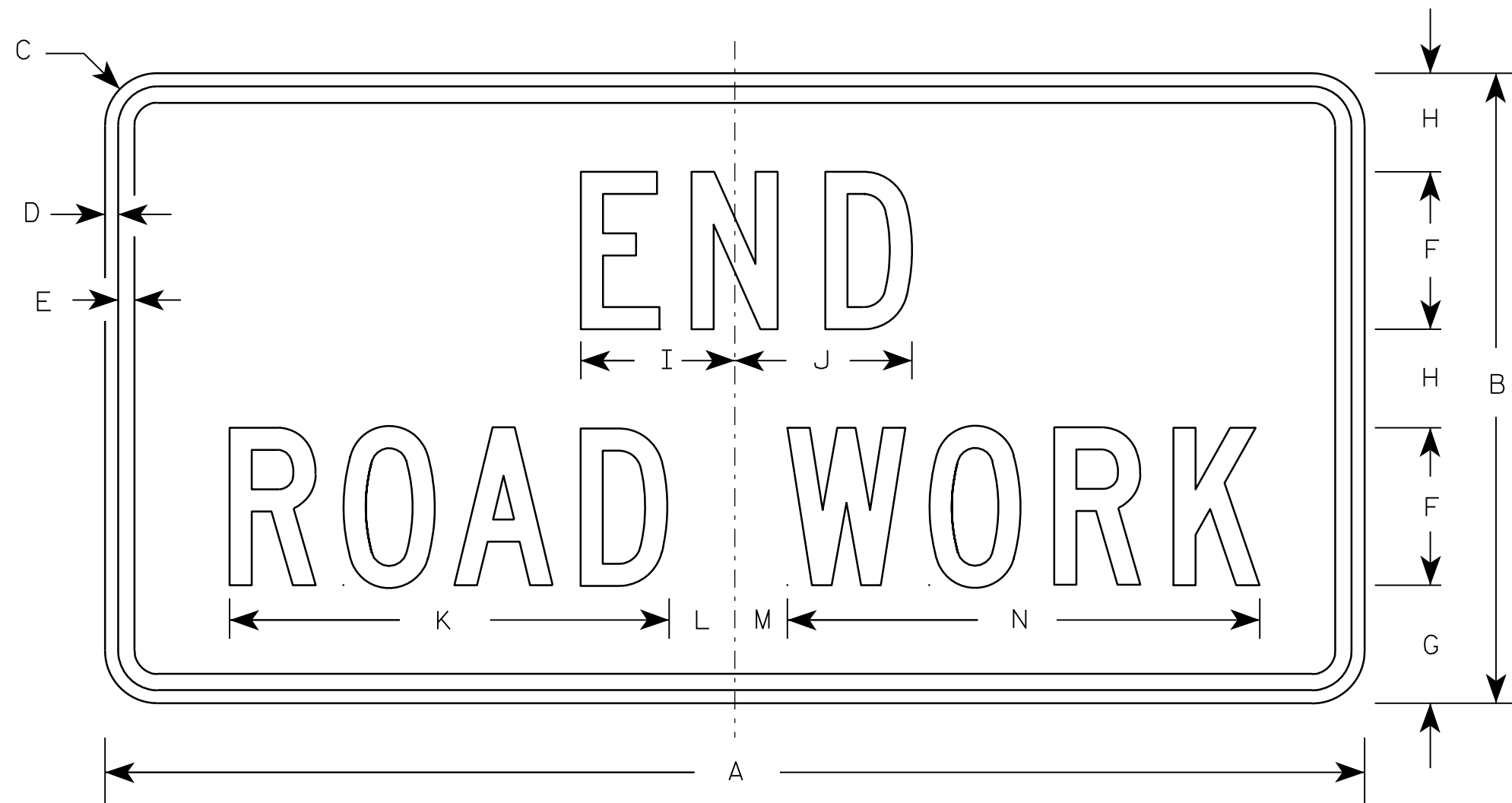
DATE 7/12/07 PLATE NO. A5-10.1

PROJECT NO:

SHEET NO:

E

7



G20-2A

Metric equivalent
for this sign is:

SIZE	
1	900 mm X 450 mm
2	1200 mm X 600 mm
3	1200 mm X 600 mm
4	1200 mm X 600 mm
5	1200 mm X 600 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m ²
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

NOTES

- Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Orange
Message - Black
- Message Series - C
- 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.

7

PROJECT NO:

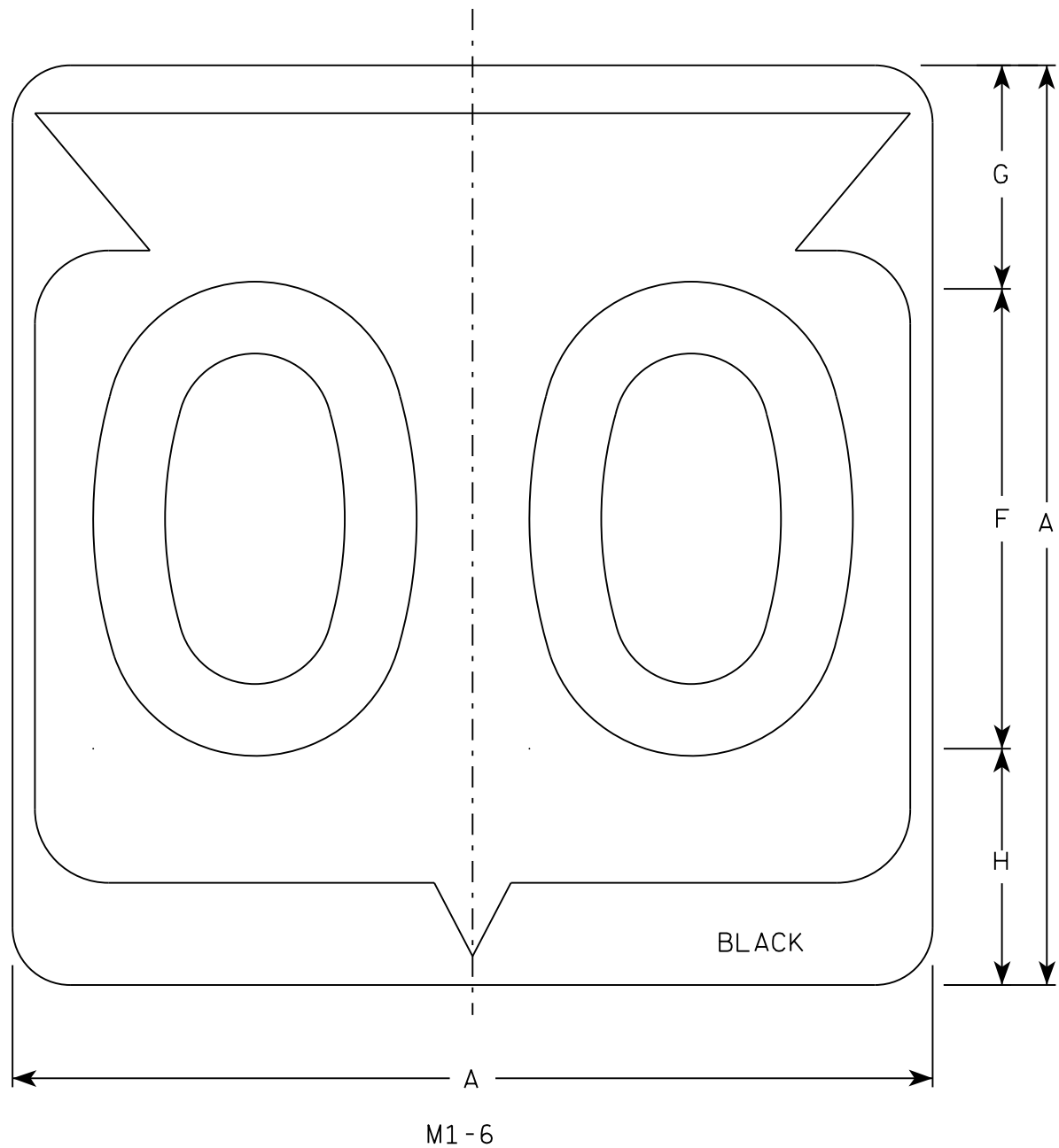
HWY:

COUNTY:

SHEET NO:

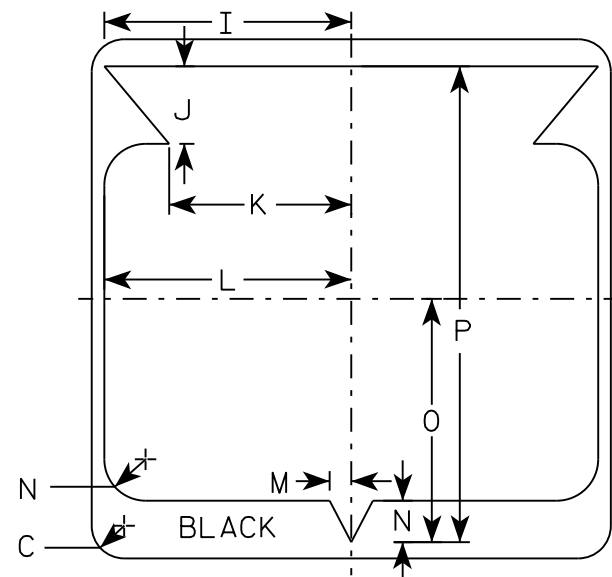
E

7



NOTES

1. Sign is Type II - Type H Reflective
2. Color:
Background - White
Message - Black
3. Message Series - D except 3 number signs 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.



7

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

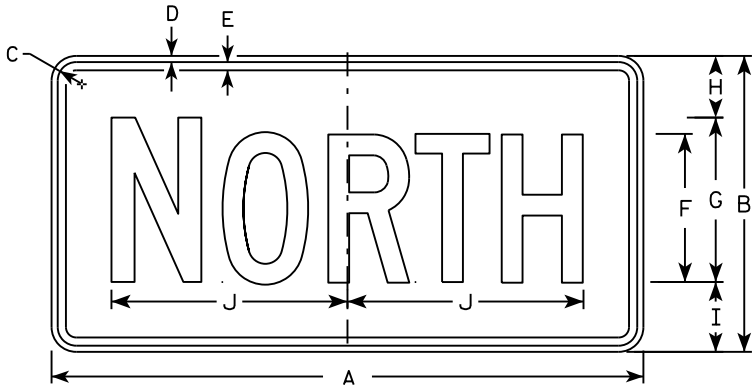
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E
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STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

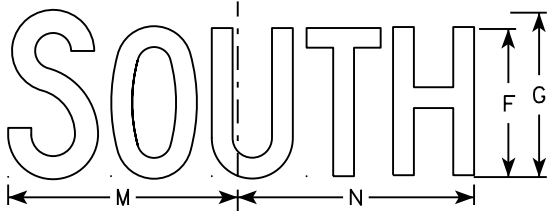
DATE 3/16/18 PLATE NO. M1-6.10



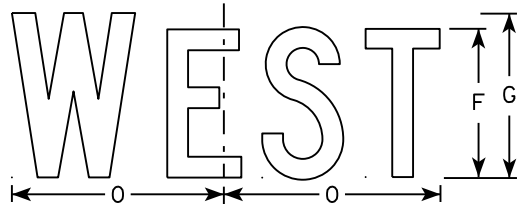
M3-1
MM3-1
MP3-1



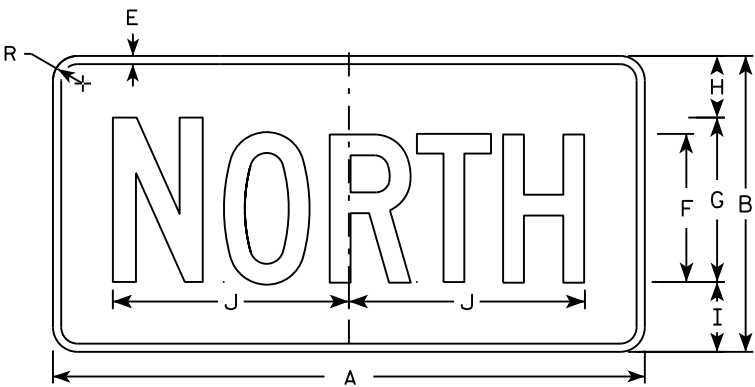
M3-2
MM3-2
MP3-2



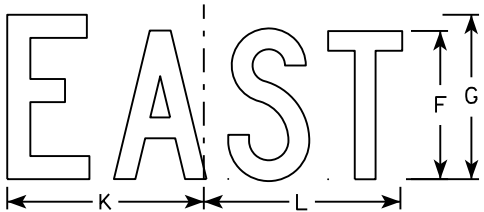
M3-3
MM3-3
MP3-3



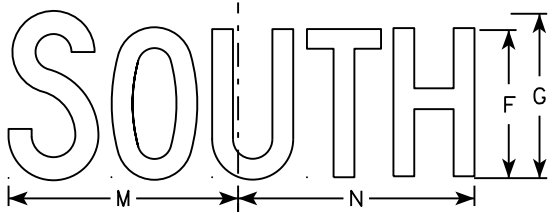
M3-4
MM3-4
MP3-4



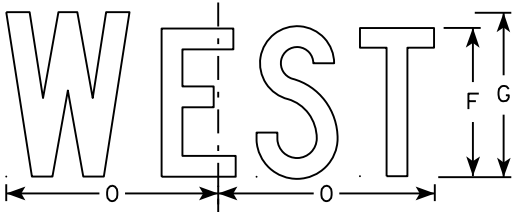
MB3-1
MK3-1
MN3-1



MB3-2
MK3-2
MN3-2



MB3-3
MK3-3
MN3-3



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 thru M3-4
SERIES

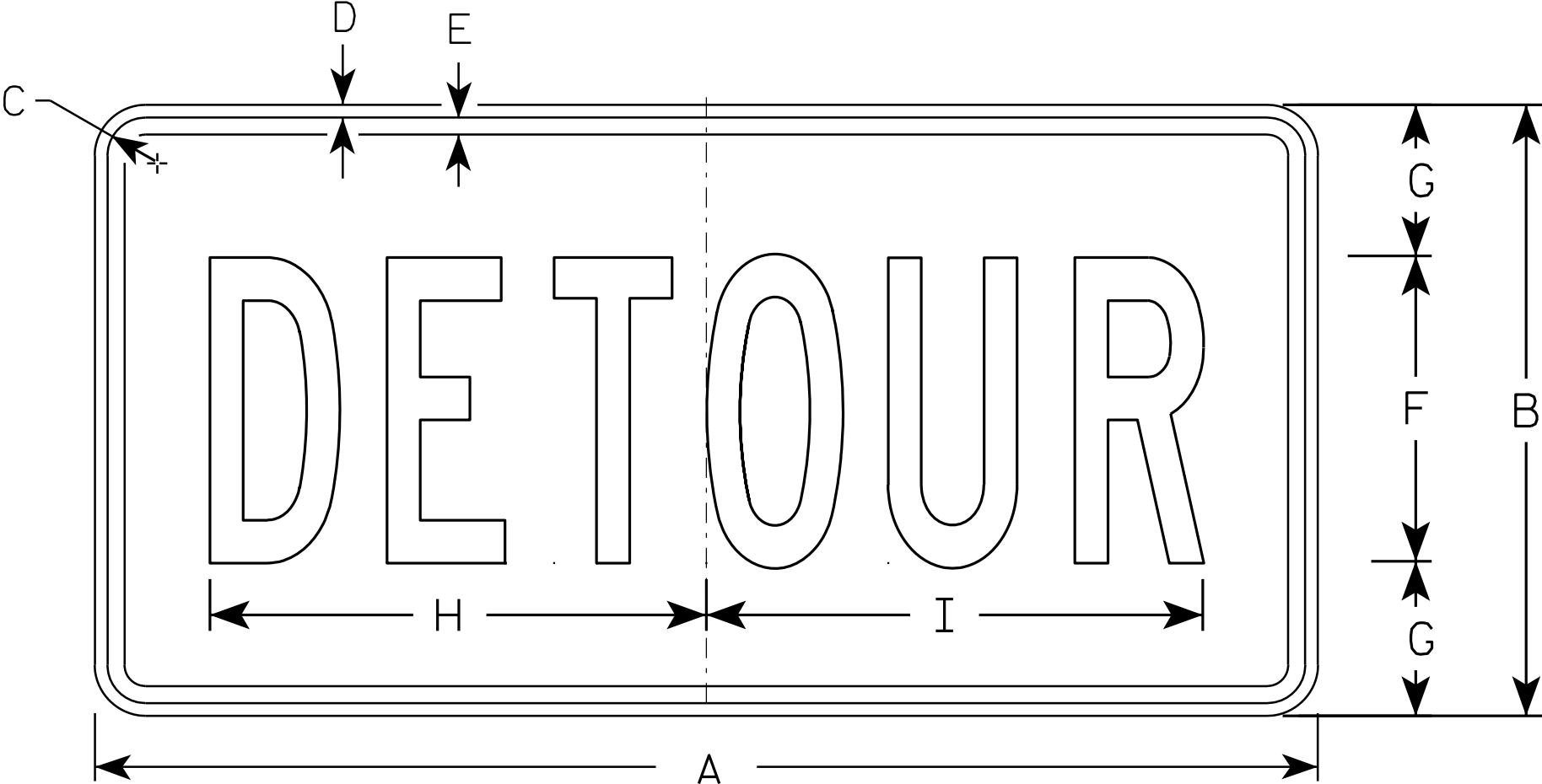
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M3-1.14

NOTES

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



M4 - 8

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/8	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4																											
5																											

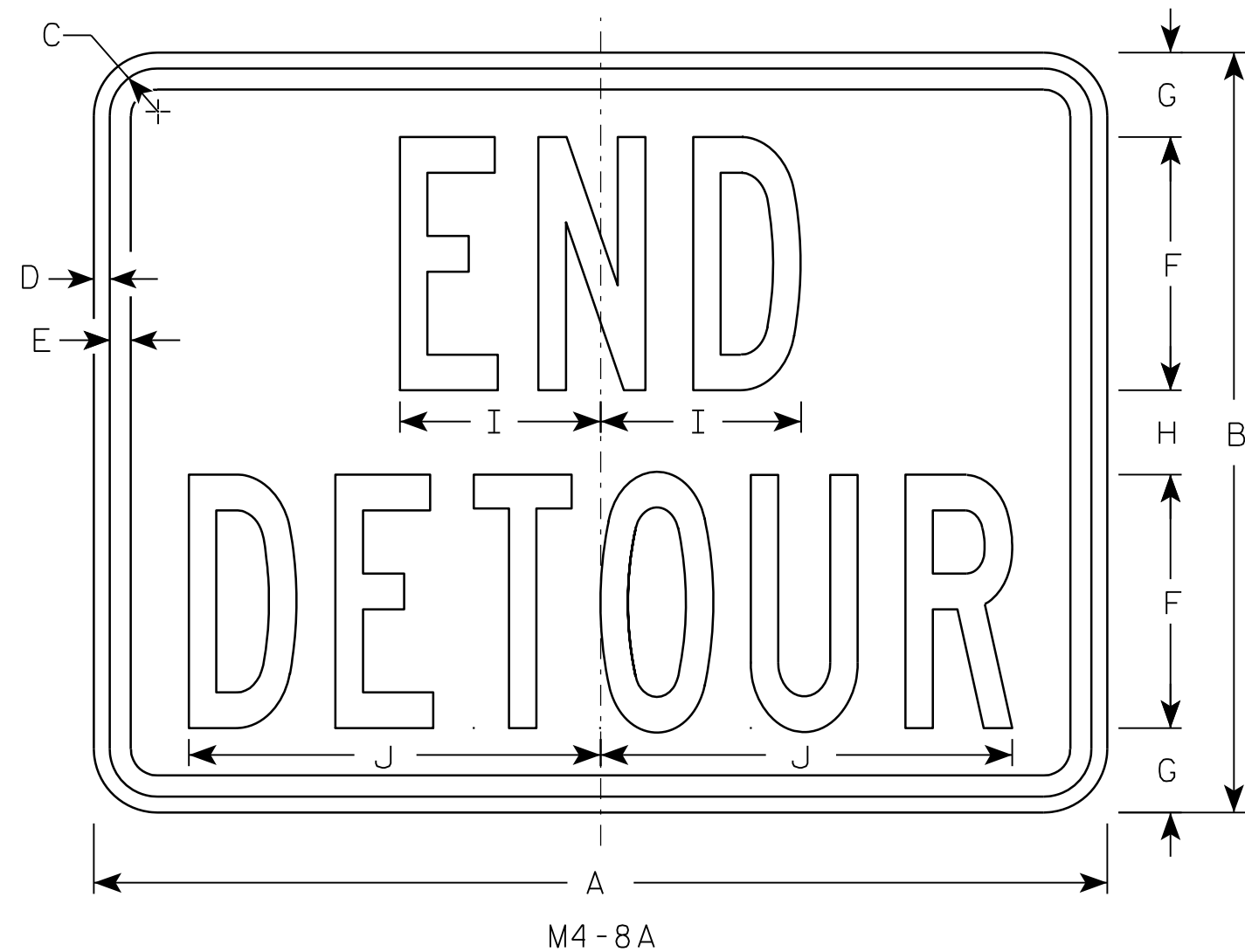
STANDARD SIGN
M4 - 8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

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

7



NOTES

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

7

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	18	1 1/8	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/8	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4																											
5																											

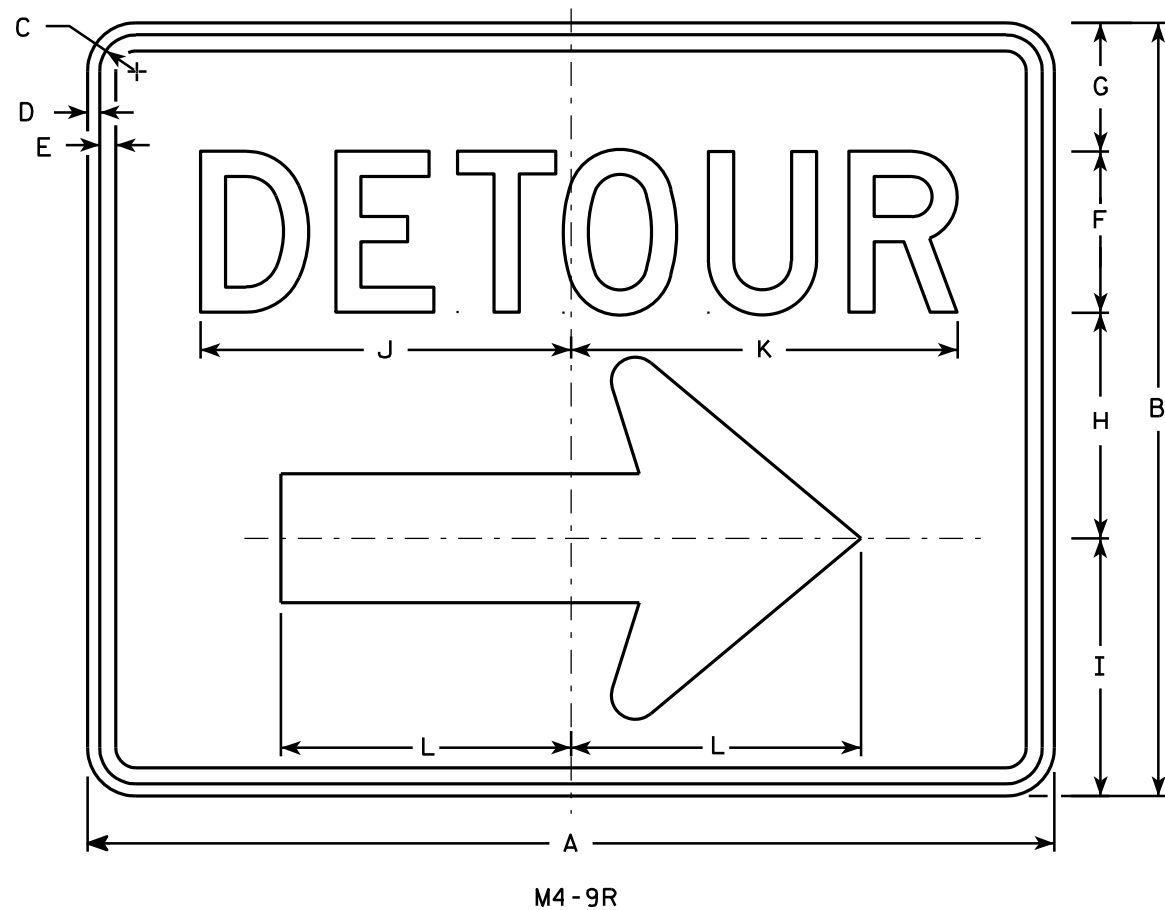
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M4-8A

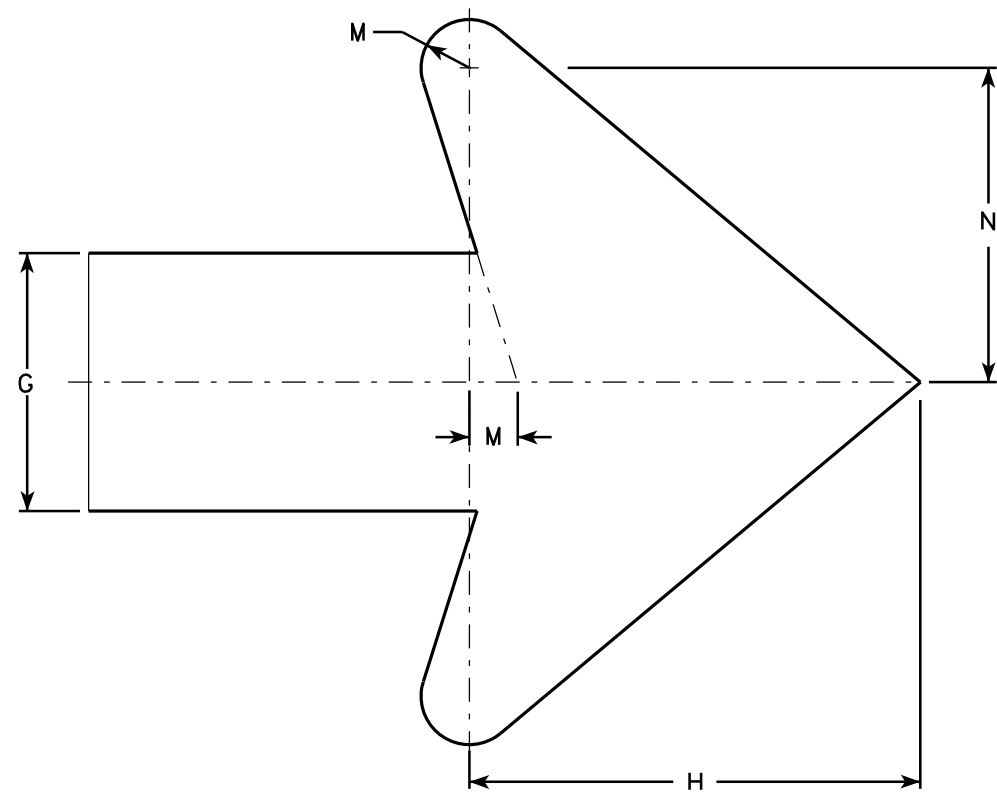
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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



- NOTES**
1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
 2. Color:
Background - Orange
Message - Black
 3. Message Series - D
 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
 5. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
3	30	24	1 1/8	3/8	1/2	5	4	7	8	11 1/2	12	9	3/4	4 7/8													5.00
4	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0
5	48	36	1 3/8	1/2	5/8	8	6	10 1/2	11 5/8	20 5/8	20 1/2	13 1/4	1 1/8	6 7/8													12.0

STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

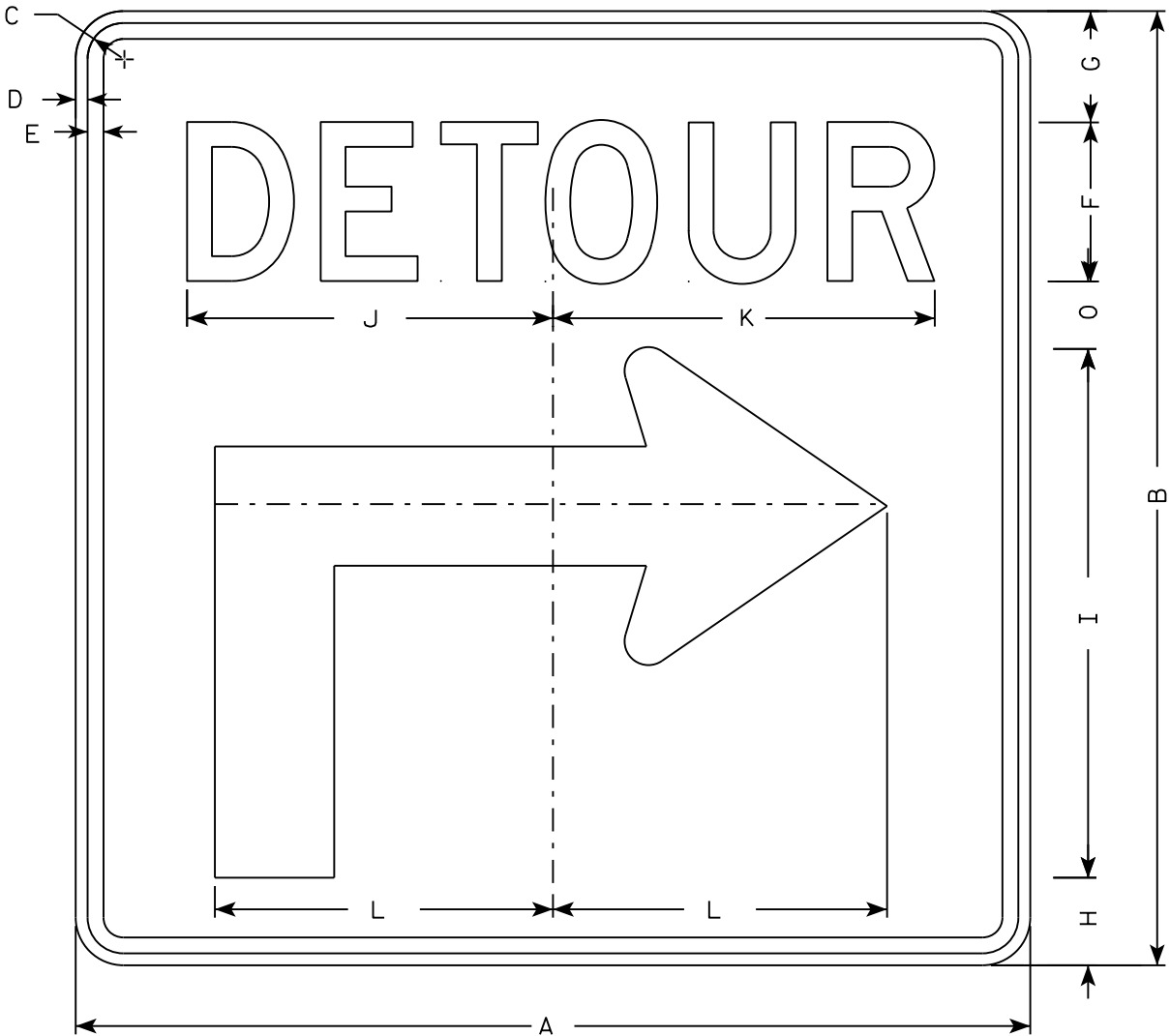
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

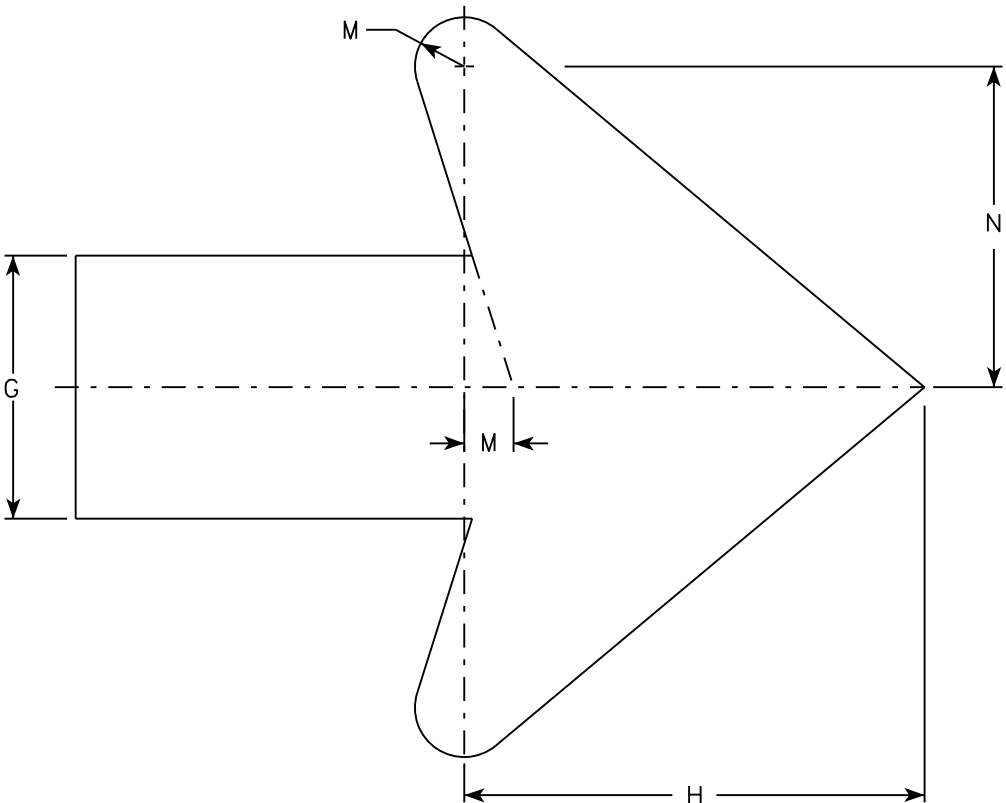
E



M4-59R

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - D
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown when base material is metal.
- 5. M4-59L is the same as M4-59R except the arrow is reversed.



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
3	30	30	1 1/8	3/8	1/2	5	3 1/2	2 3/4	16 5/8	11 1/2	12	10 1/2	3/4	4 7/8	2 1/8												6.25
4	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0
5	48	48	1 3/8	1/2	5/8	8	5 5/8	4 3/8	26 5/8	20 5/8	20 1/2	17	1 1/8	6 7/8	3 3/8												16.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

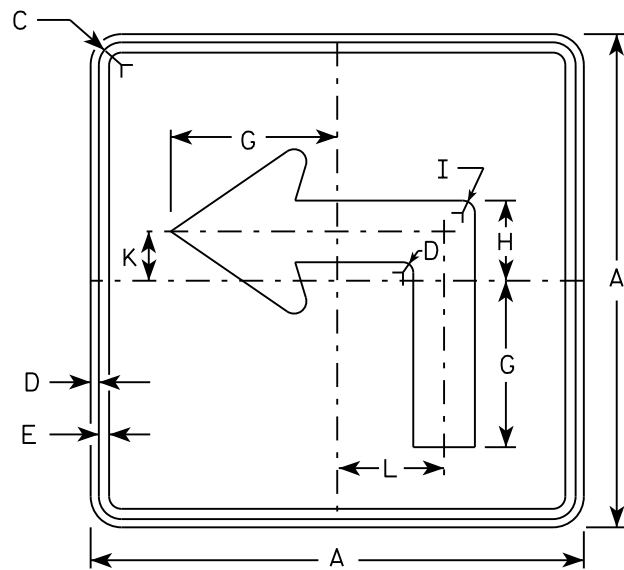
E

STANDARD SIGN
M4-59 L&R

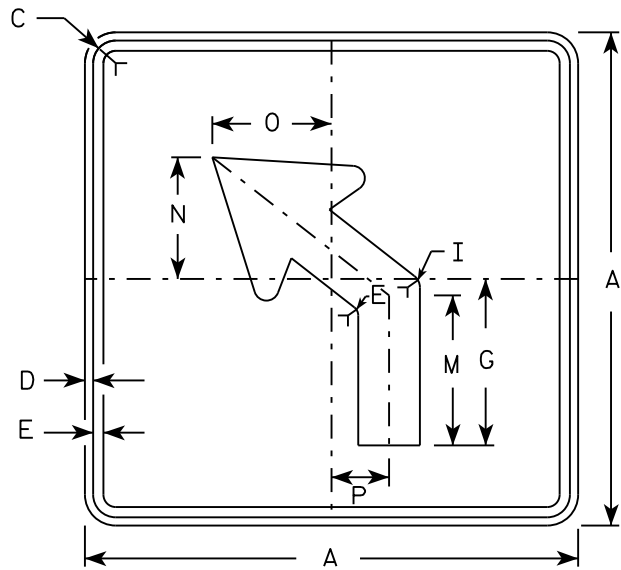
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

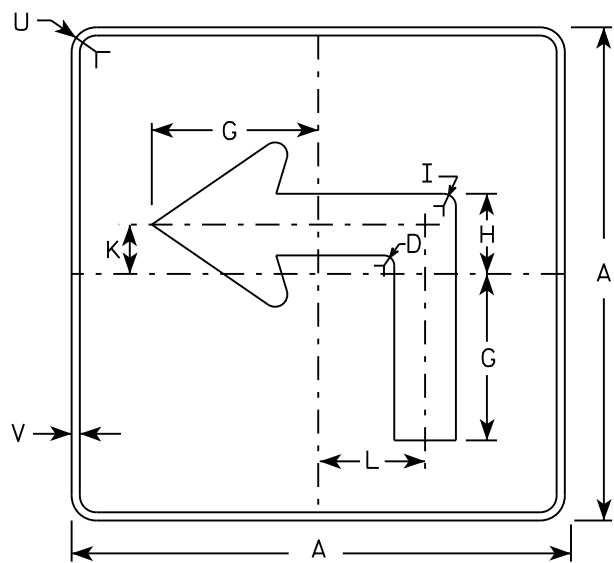
DATE 11/10/15 PLATE NO. M4-59.1



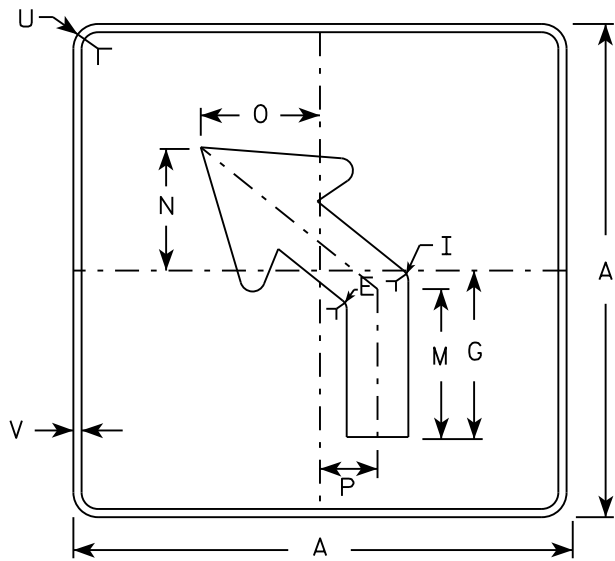
M5-1L
MM5-1L
M05-1L
MP5-1L



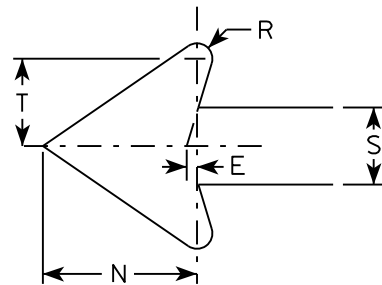
M5-2L
MM5-2L
M05-2L
MP5-2L



MB5-1L
MK5-1L
MN5-1L
MR5-1L



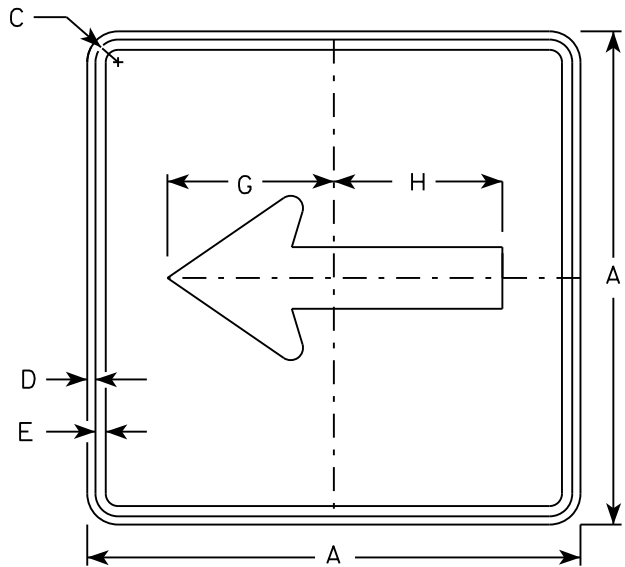
MB5-2L
MK5-2L
MN5-2L
MR5-2L



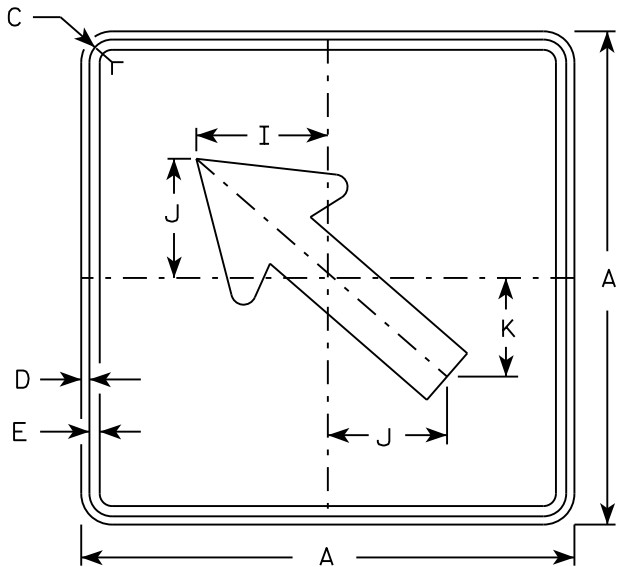
NOTES

- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 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.
- | | |
|-----------------|---|
| M5-1 and M5-2 | Background - White |
| | Message - Black |
| MB5-1 and MB5-2 | Background - Blue |
| | Message - White |
| MK5-1 and MK5-2 | Background - Green |
| | Message - White |
| MM5-1 and MM5-2 | Background - White |
| | Message - Green |
| MN5-1 and MN5-2 | Background - Brown |
| | Message - White |
| M05-1 and M05-2 | Background - Orange - Type F Reflective |
| | Message - Black |
| MP5-1 and MP5-2 | Background - White - Type H Reflective |
| | Message - Blue |
| MR5-1 and MR5-2 | Background - Brown |
| | Message - Yellow |
- M5-1R same as M5-1L except arrow points right.
- M5-2R same as M5-2L except arrow tilts right.

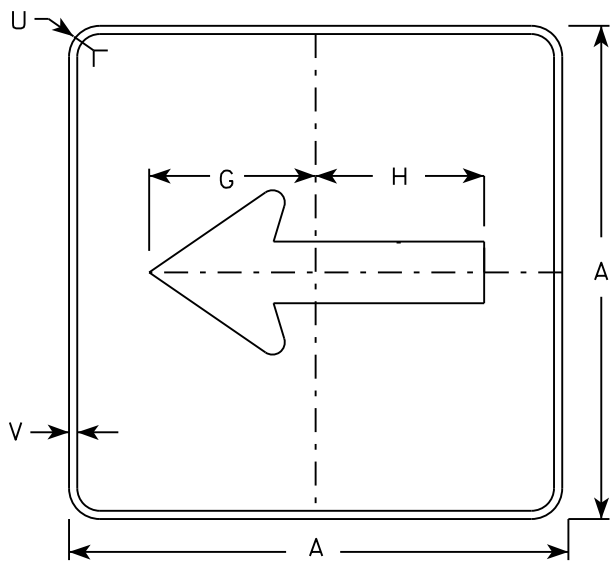
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	21		1 1/8	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3	1 1/2	1/2					3.06
3	30		1 3/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4	1 7/8	1/2					6.25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



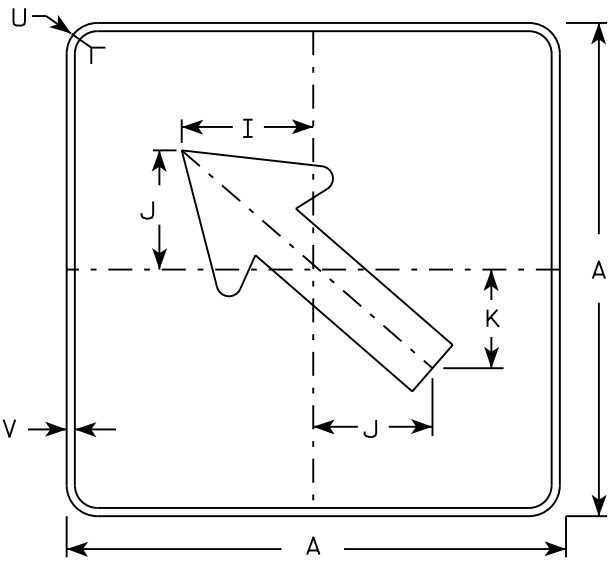
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



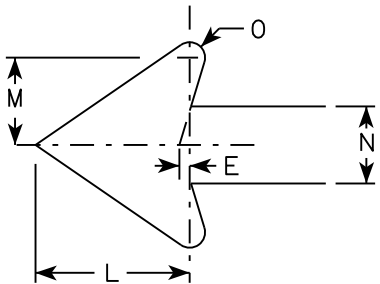
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



MB6 - 1
MK6 - 1
MN6 - 1
MR6 - 1



MB6 - 2
MK6 - 2
MN6 - 2
MR6 - 2



NOTES

- 1. Signs are Type II - Type H except as Shown
- 2. Color:
 - Background - See note 4
 - Message - See note 4
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 4. M6-1 and M6-2 Background - White
Message - Black
MB6-1 and MB6-2 Background - Blue
Message - White
MK6-1 and MK6-2 Background - Green
Message - White
MM6-1 and MM6-2 Background - White
Message - Green
MN6-1 and MN6-2 Background - Brown
Message - White
M06-1 and M06-2 Background - Orange - Type F Reflective
Message - Black
MP6-1 and MP6-2 Background - White
Message - Blue
MR6-1 and MR6-2 Background - Brown
Message - Yellow

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

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

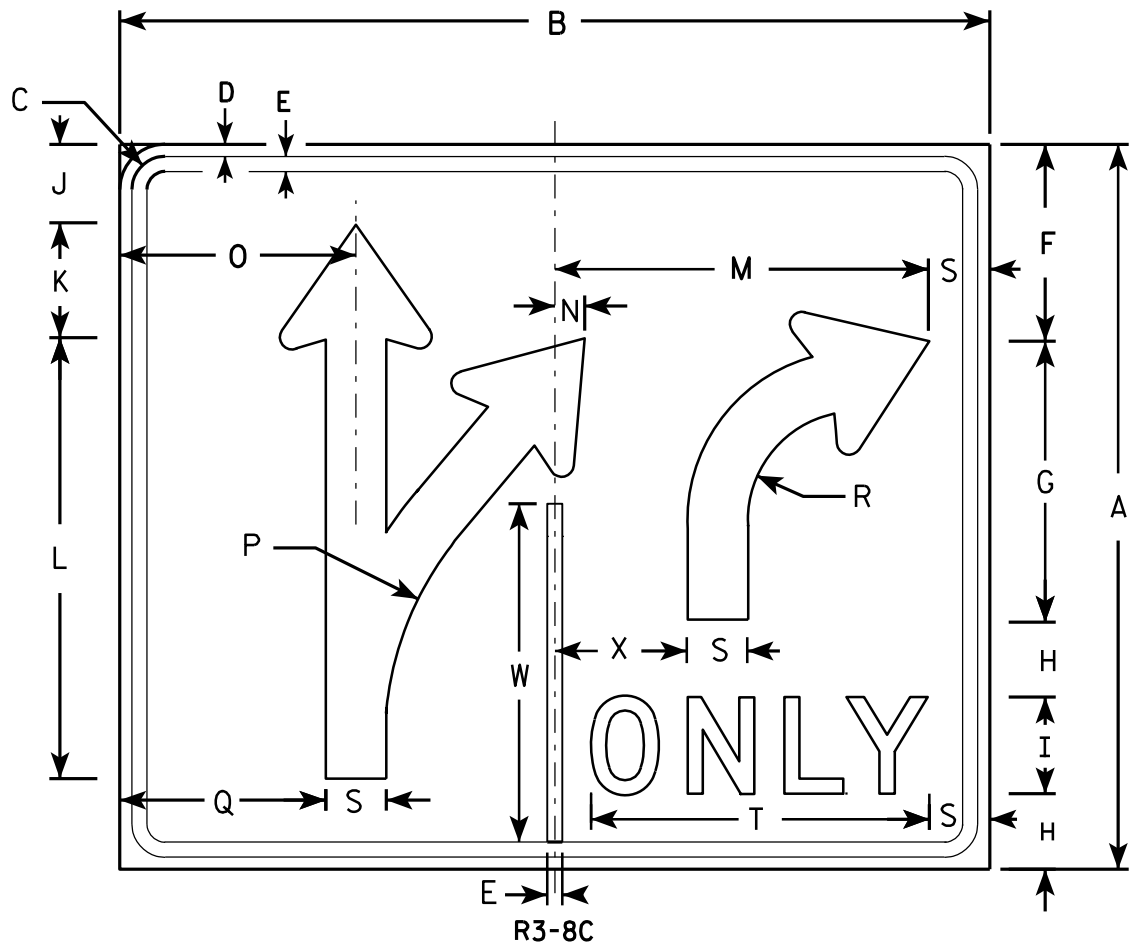
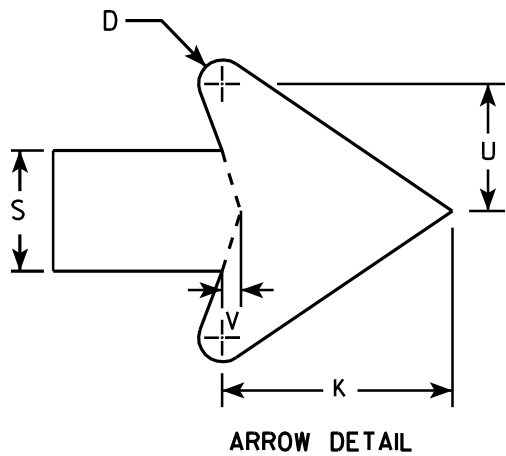
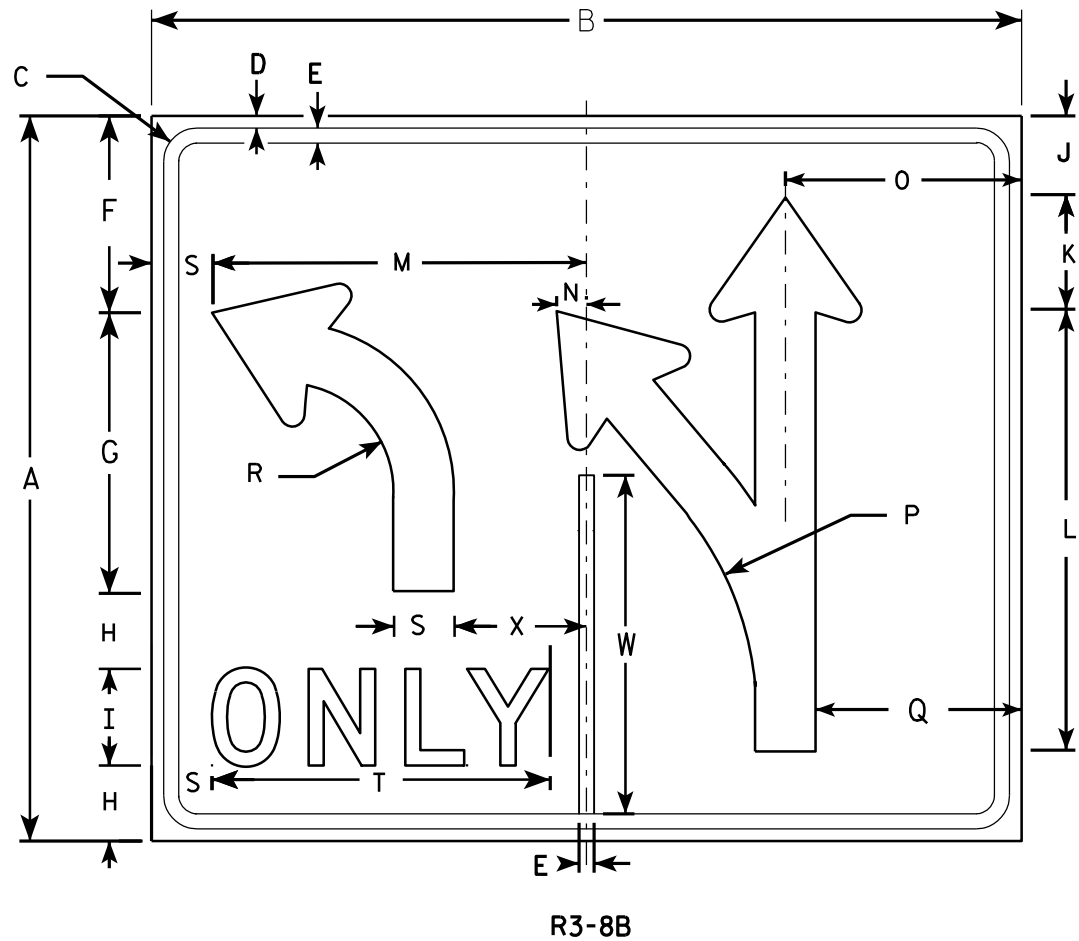
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. M6-1.15

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. R3-8B & R3-8C is the same but reversed.



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 ³ / ₈	¹ / ₂	⁵ / ₈	8 ¹ / ₈	11 ⁵ / ₈	3 ¹ / ₈	4	3 ¹ / ₄	4 ³ / ₄	18 ¹ / ₄	15 ¹ / ₂	1 ¹ / ₄	9 ³ / ₄	13 ¹ / ₄	8 ¹ / ₂	4 ¹ / ₂	2 ¹ / ₂	14	2 ⁵ / ₈	³ / ₈	14	5 ¹ / ₄			7.5
2M	30	36	1 ³ / ₈	¹ / ₂	⁵ / ₈	8 ¹ / ₈	11 ⁵ / ₈	3 ¹ / ₈	4	3 ¹ / ₄	4 ³ / ₄	18 ¹ / ₄	15 ¹ / ₂	1 ¹ / ₄	9 ³ / ₄	13 ¹ / ₄	8 ¹ / ₂	4 ¹ / ₂	2 ¹ / ₂	14	2 ⁵ / ₈	³ / ₈	14	5 ¹ / ₄			7.5
3																											
4	48	54	2 ¹ / ₄	³ / ₄	1	13 ¹ / ₄	18 ¹ / ₂	5 ¹ / ₈	6	5 ¹ / ₄	7 ¹ / ₈	29 ⁵ / ₈	23 ¹ / ₈	1 ⁷ / ₈	14 ⁵ / ₈	21 ⁷ / ₈	12 ³ / ₄	7 ¹ / ₄	3 ³ / ₄	20 ⁵ / ₈	4	⁵ / ₈	22 ³ / ₈	8 ¹ / ₈			18.0
5	48	54	2 ¹ / ₄	³ / ₄	1	13 ¹ / ₄	18 ¹ / ₂	5 ¹ / ₈	6	5 ¹ / ₄	7 ¹ / ₈	29 ⁵ / ₈	23 ¹ / ₈	1 ⁷ / ₈	14 ⁵ / ₈	21 ⁷ / ₈	12 ³ / ₄	7 ¹ / ₄	3 ³ / ₄	20 ⁵ / ₈	4	⁵ / ₈	22 ³ / ₈	8 ¹ / ₈			18.0

STANDARD SIGN
R3-8B & R3-8C

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 3/18/2011

PLATE NO. R3-8B.2

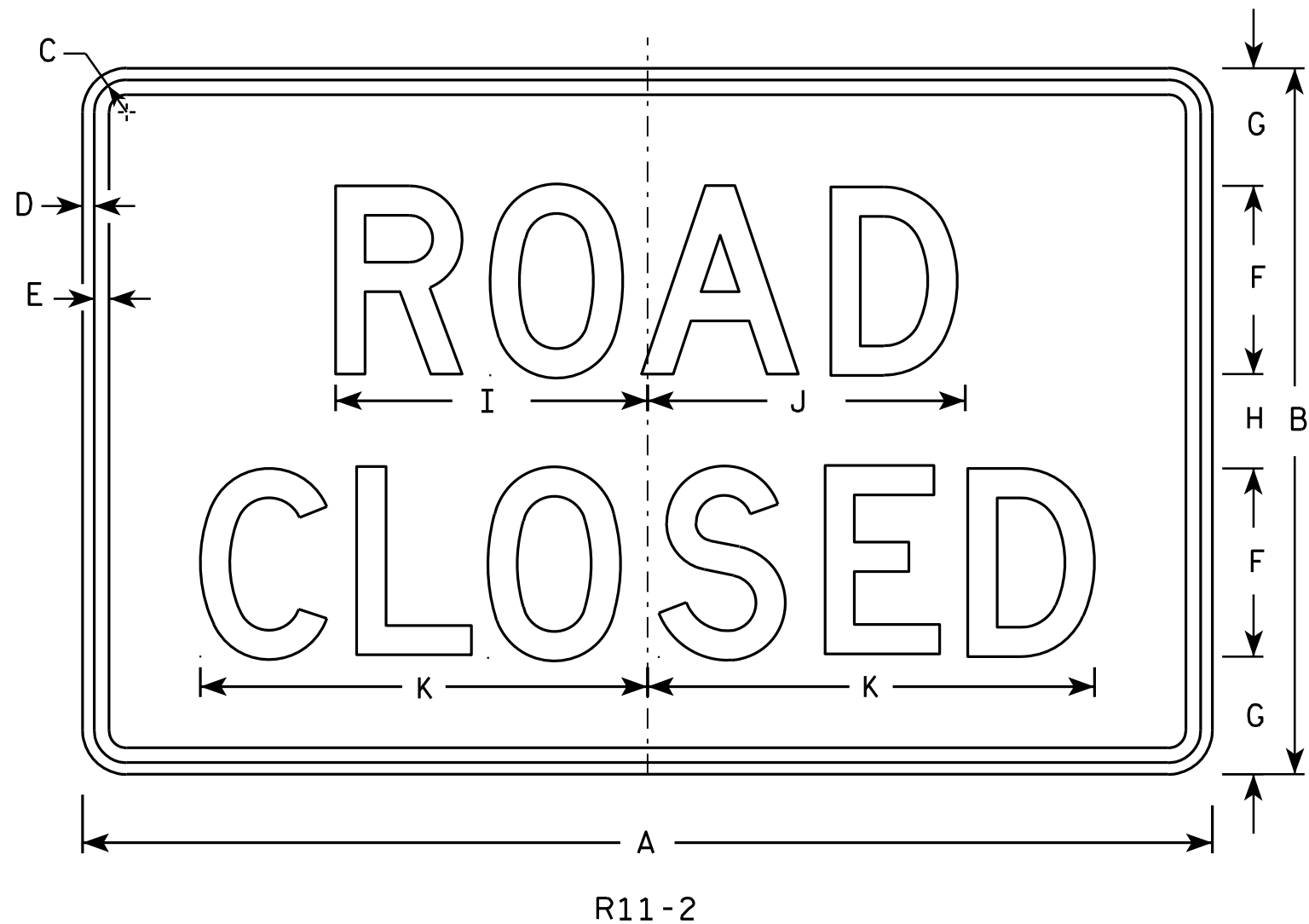
PROJECT NO:

HWY:

COUNTY:

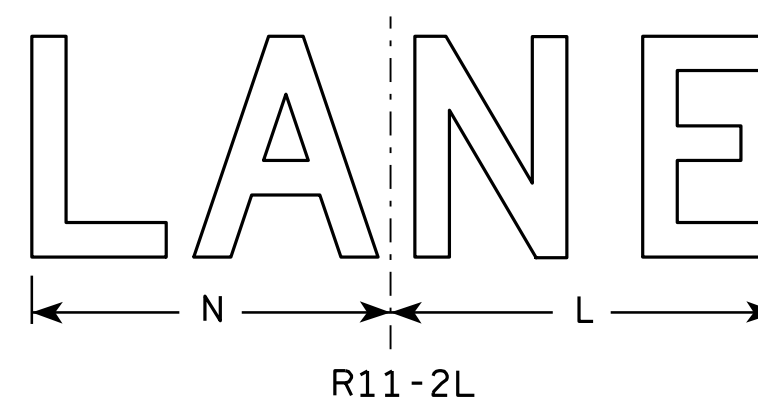
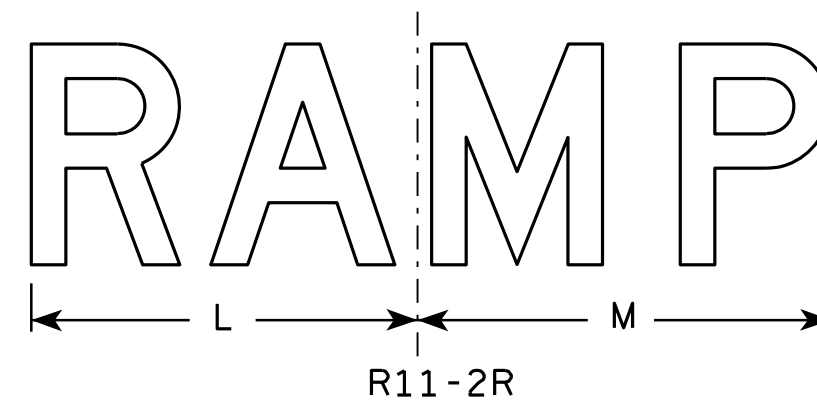
SHEET NO:

E



NOTES

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



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:

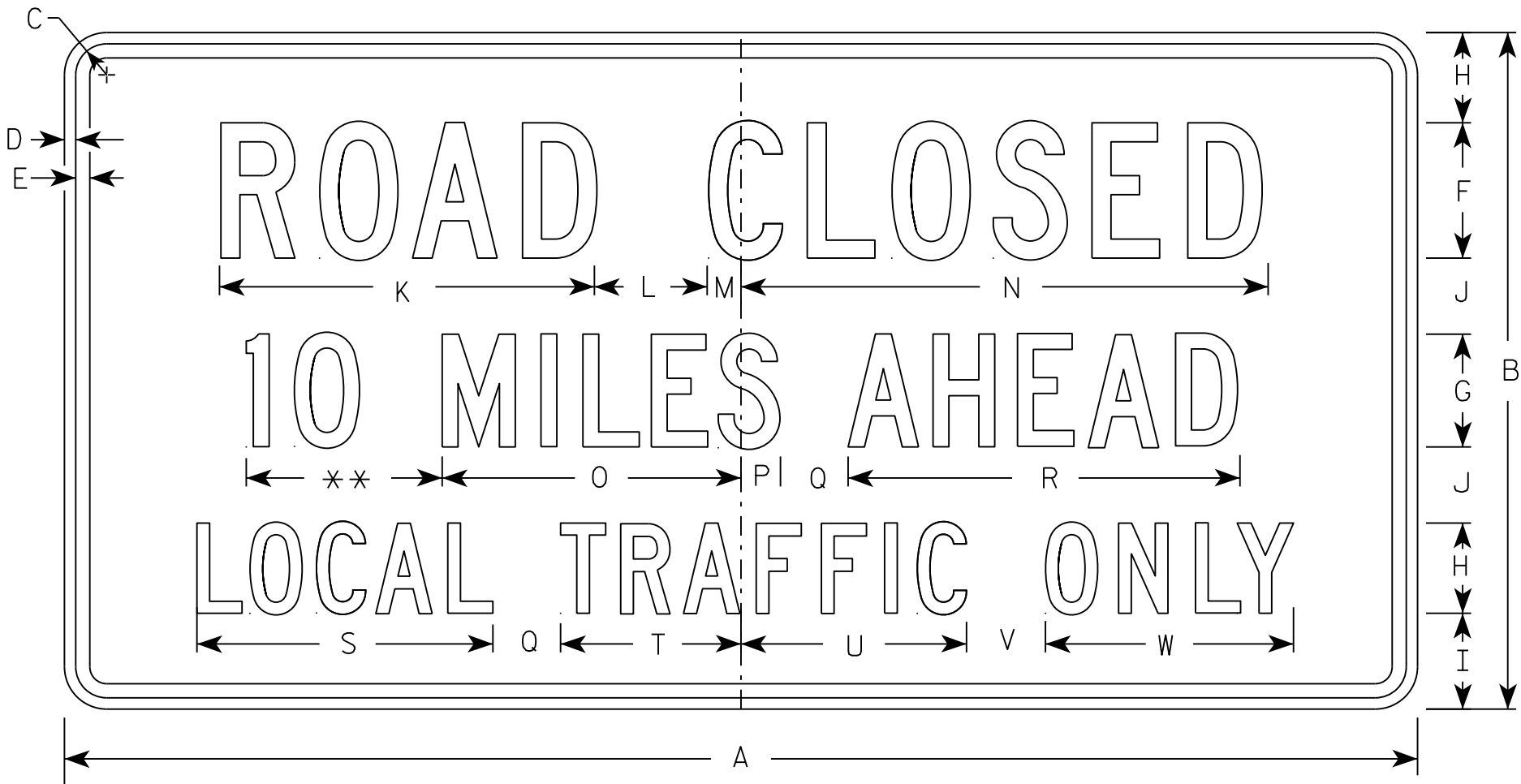
COUNTY:

SHEET NO:

E

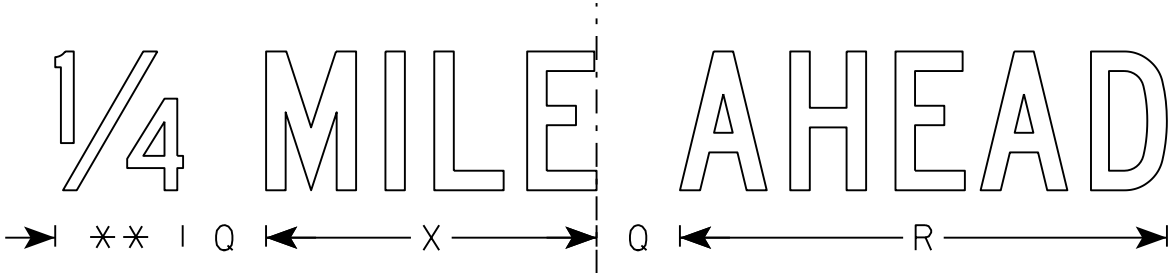
NOTES

- 1. Sign is Type II - Type H Reflective
- 2. Color:
 - Background - White
 - Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing to achieve proper balance.



R11-3

** See Note 5



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	11 1/8	3	1 1/8	15 1/4	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	16 5/8	5	1 1/2	23	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

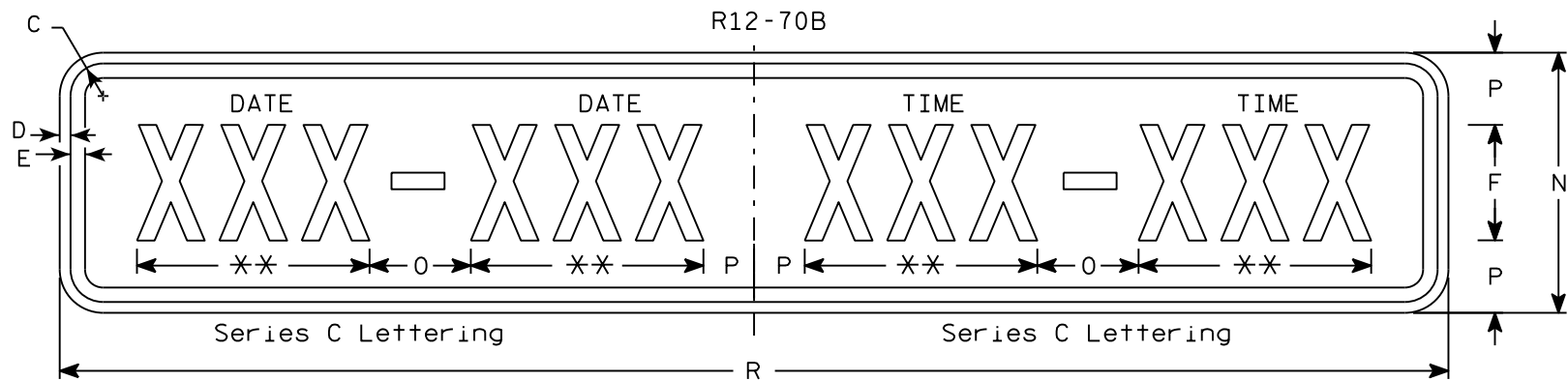
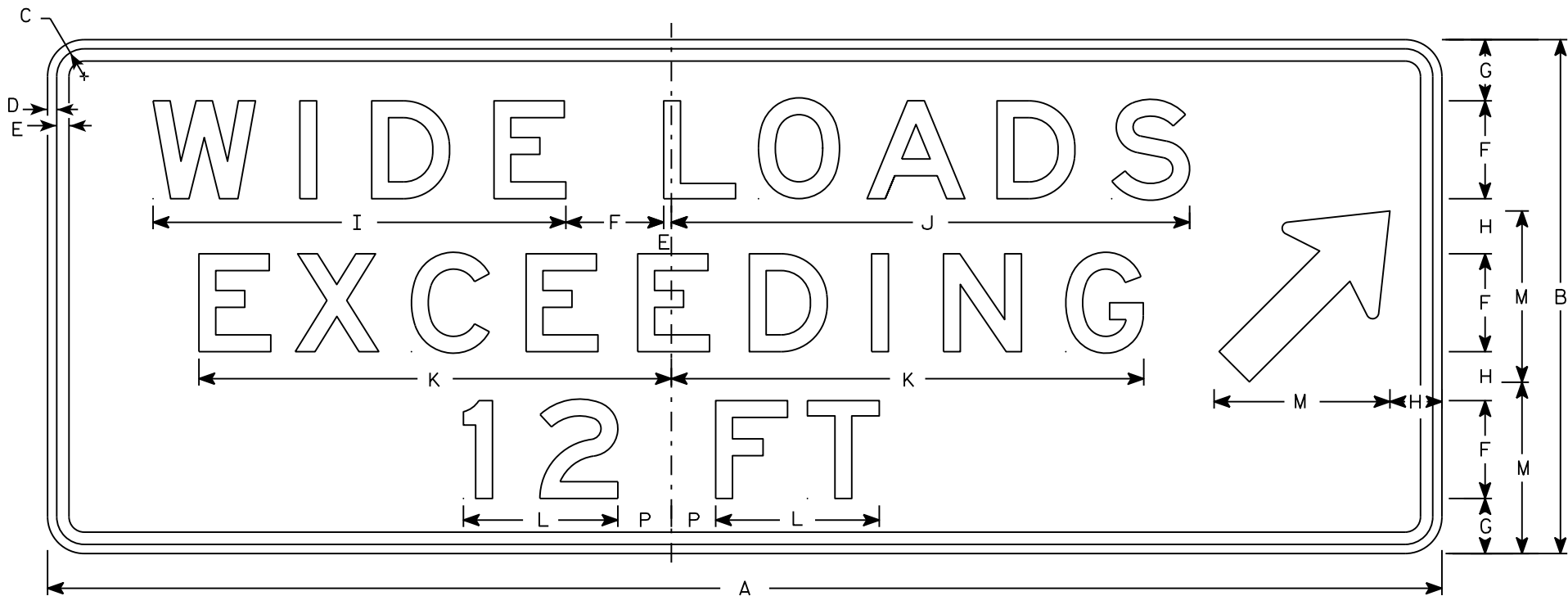
STANDARD SIGN
R11-3

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 3/15/17 PLATE NO. R11-3.8

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 except as noted
 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.
- ** Substitute appropriate message, optically center message



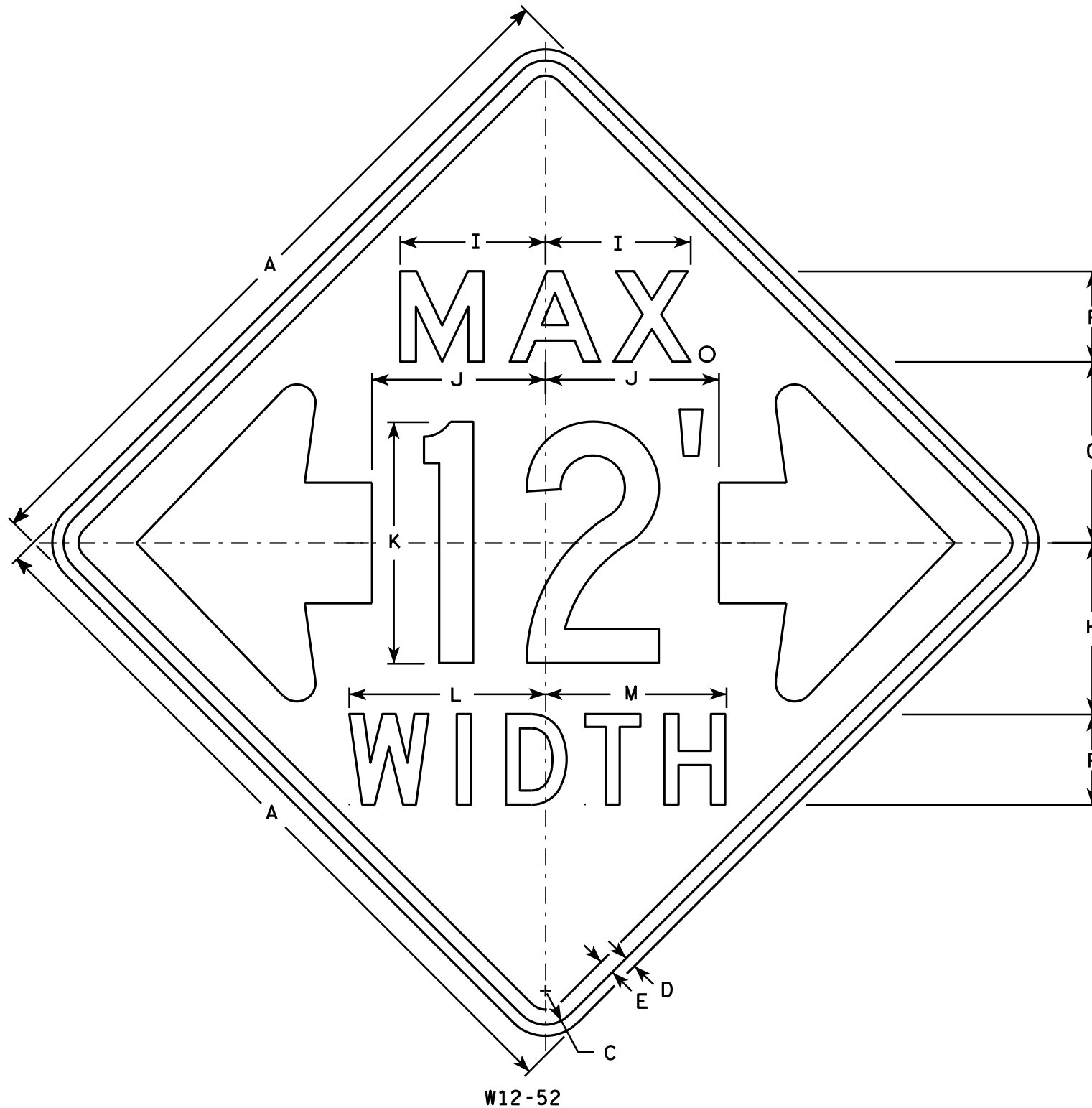
R12 - 70C																												R12-70	R12-70C
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area sq. ft.	
1																													
2S	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5	
2M	90	36	2 1/4	1/2	5/8	6	4	5	20 7/8	28 3/8	24 5/8	8 1/8	12	12	6	3		66									22.5	5.5	
3																													
4	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0	
5	114	42	2 1/4	3/4	1	8	5	4	34	42	39	13	14	18	7	3 1/2		96									36.75	12.0	

TYPICAL SIGN
R12-70B

WISCONSIN DEPT OF TRANSPORTATION

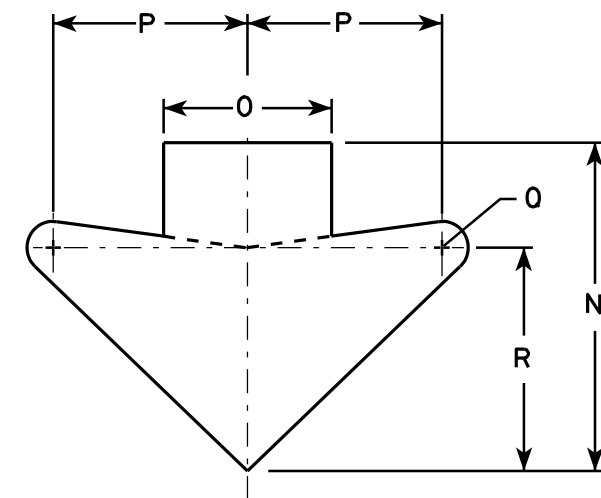
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/10/15 PLATE NO. R12-70B.3



NOTES

1. Sign Is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The top line is series E, the numerals are series C, and the bottom line is series D.
6. Substitute appropriate numerals and adjust spacing as required.



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

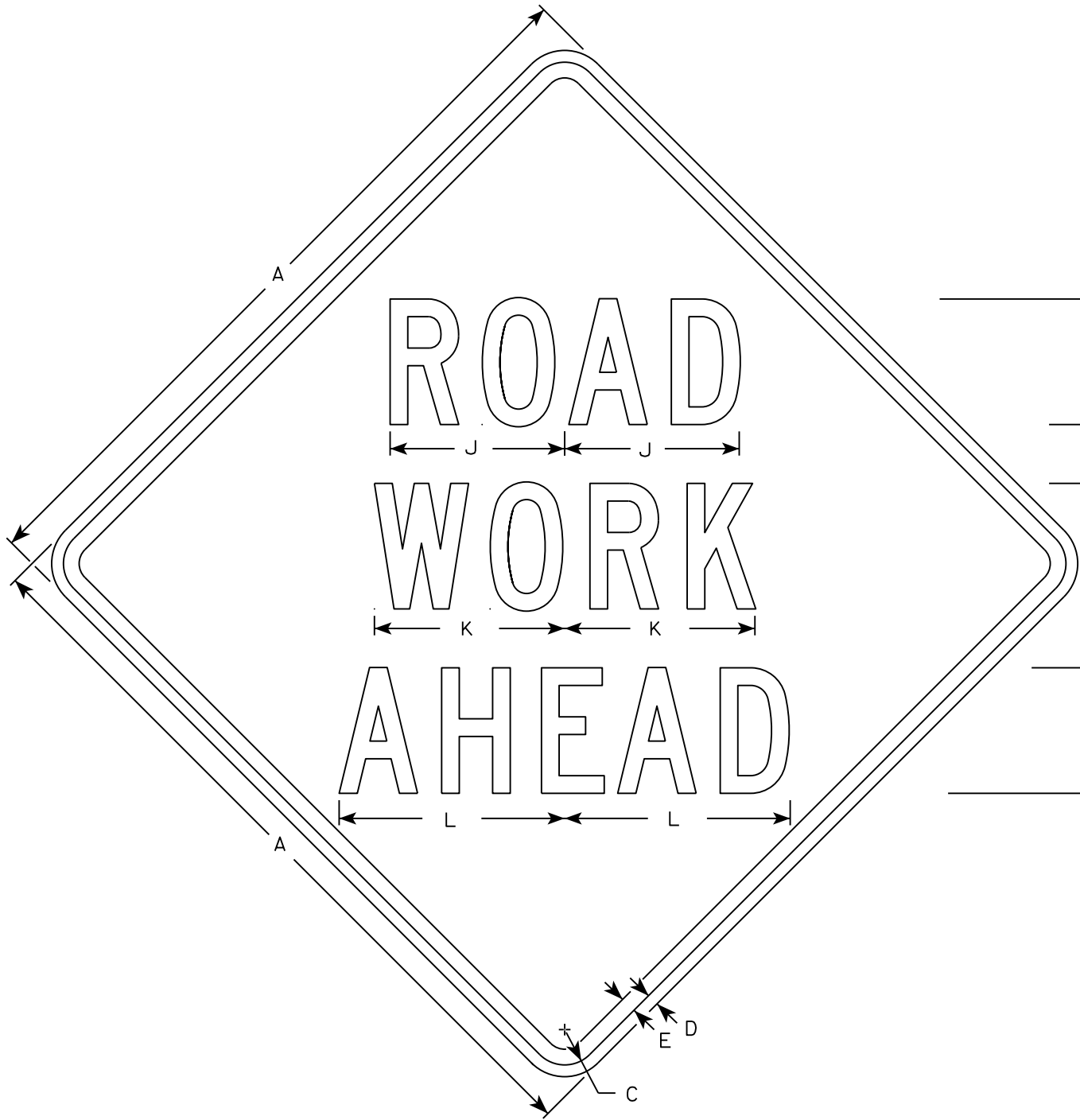
STANDARD SIGN W12-52

WISCONSIN DEPT OF TRANSPORTATION

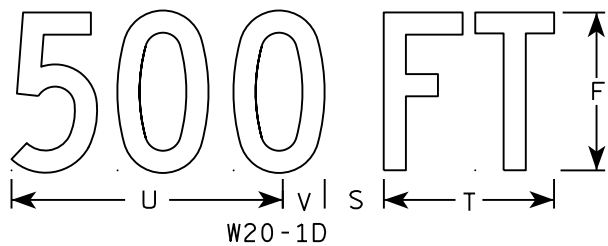
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/16/11 PLATE NO. W12-52.7

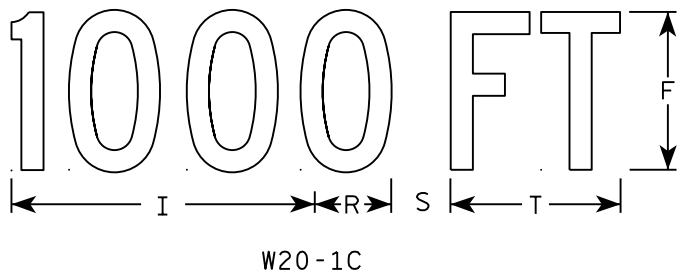
PROJECT NO: HWY: COUNTY: SHEET NO: E



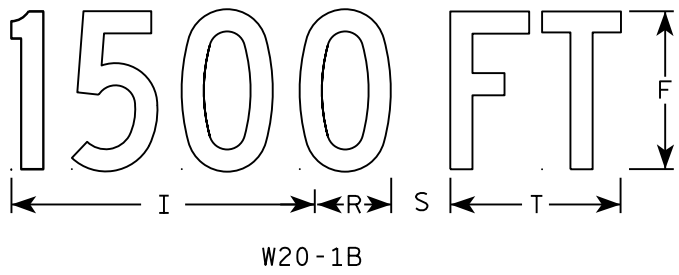
W20-1A



W20-1D



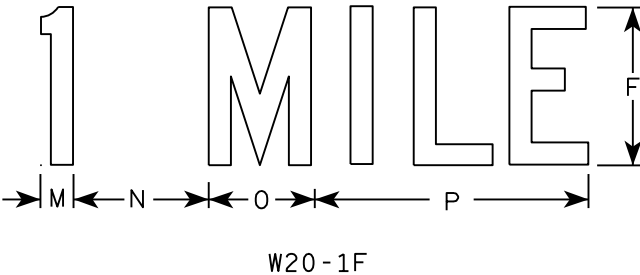
W20-1C



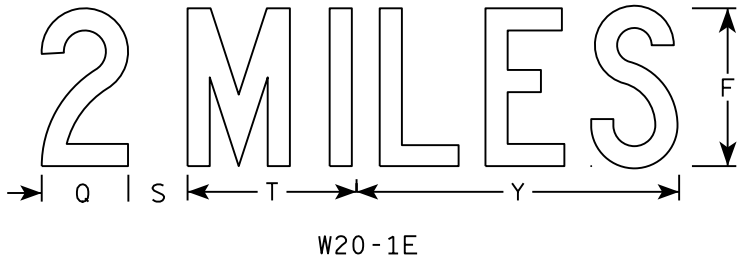
W20-1B



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.

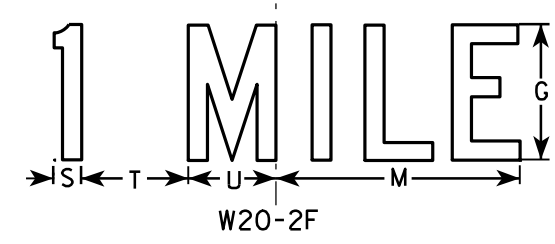
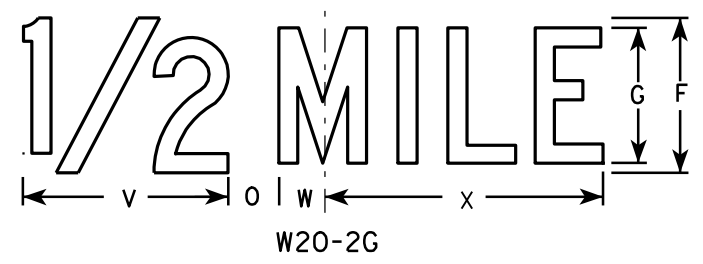
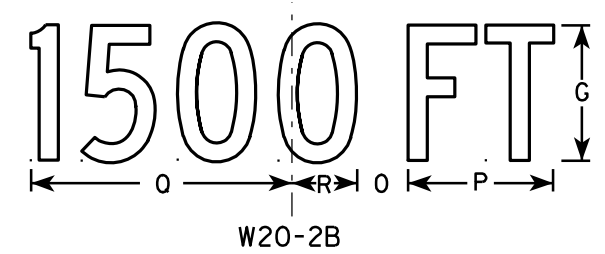
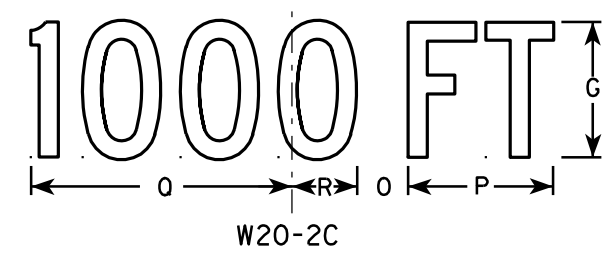
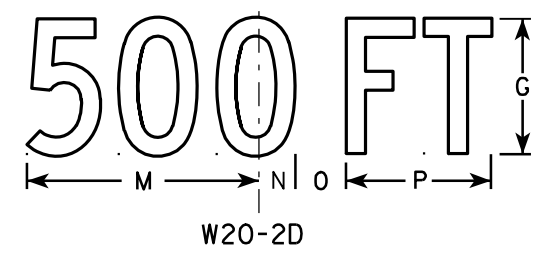
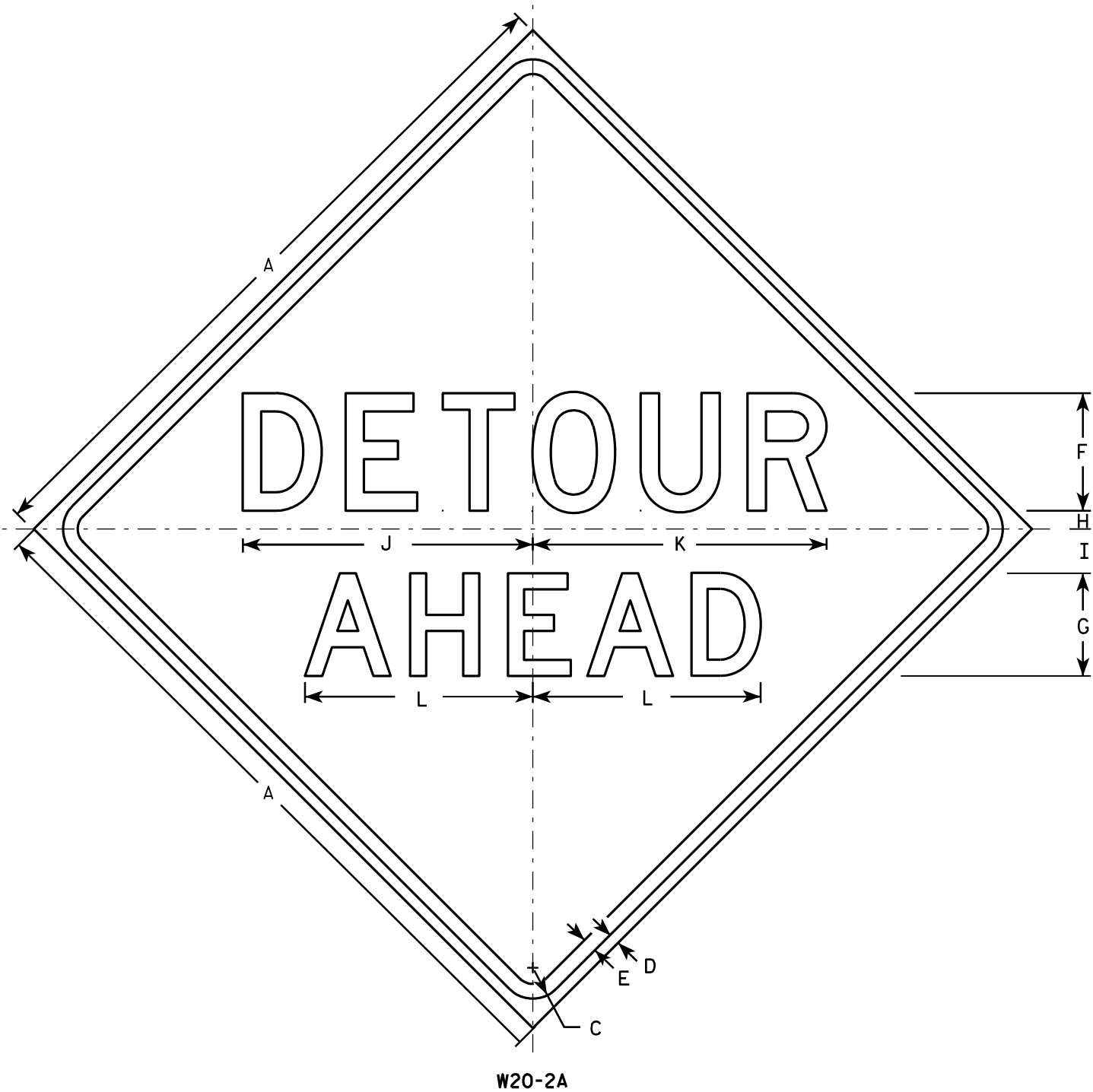
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13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



NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

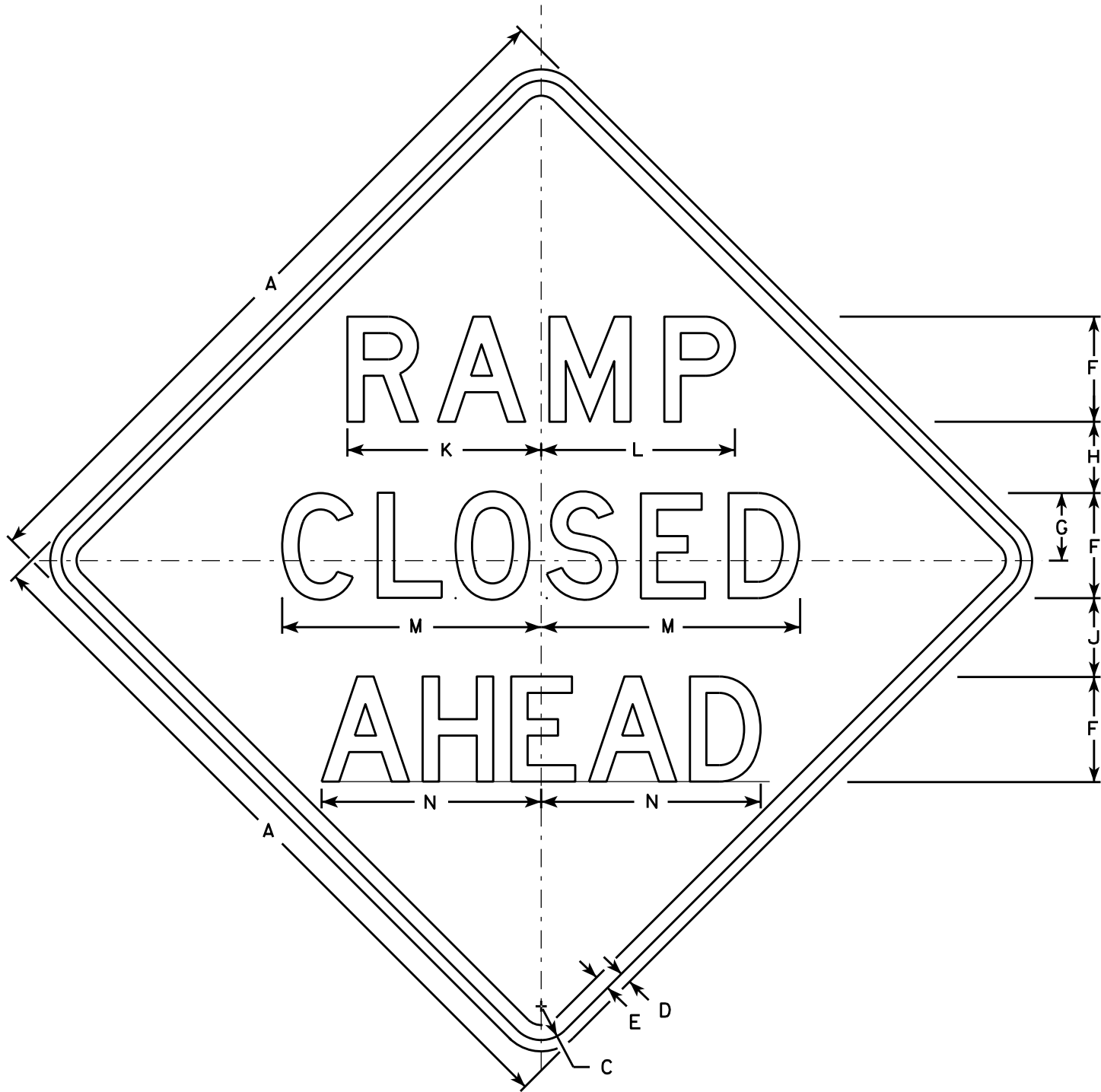
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

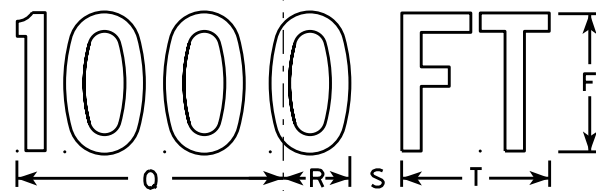
E



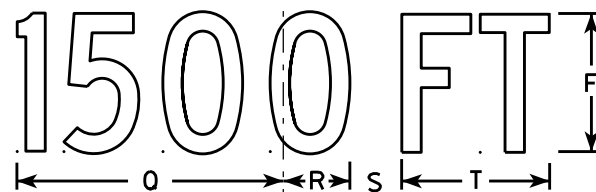
W20-53A



W20-53D



W20-53C



W20-53B



W20-53G



W20-53F

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	3 3/8	3 1/2	1 1/8	4	9 1/4	9 1/4	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	12 7/8	12 7/8	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-53A,B,C,D,F,G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/27/15 PLATE NO. W20-53.1

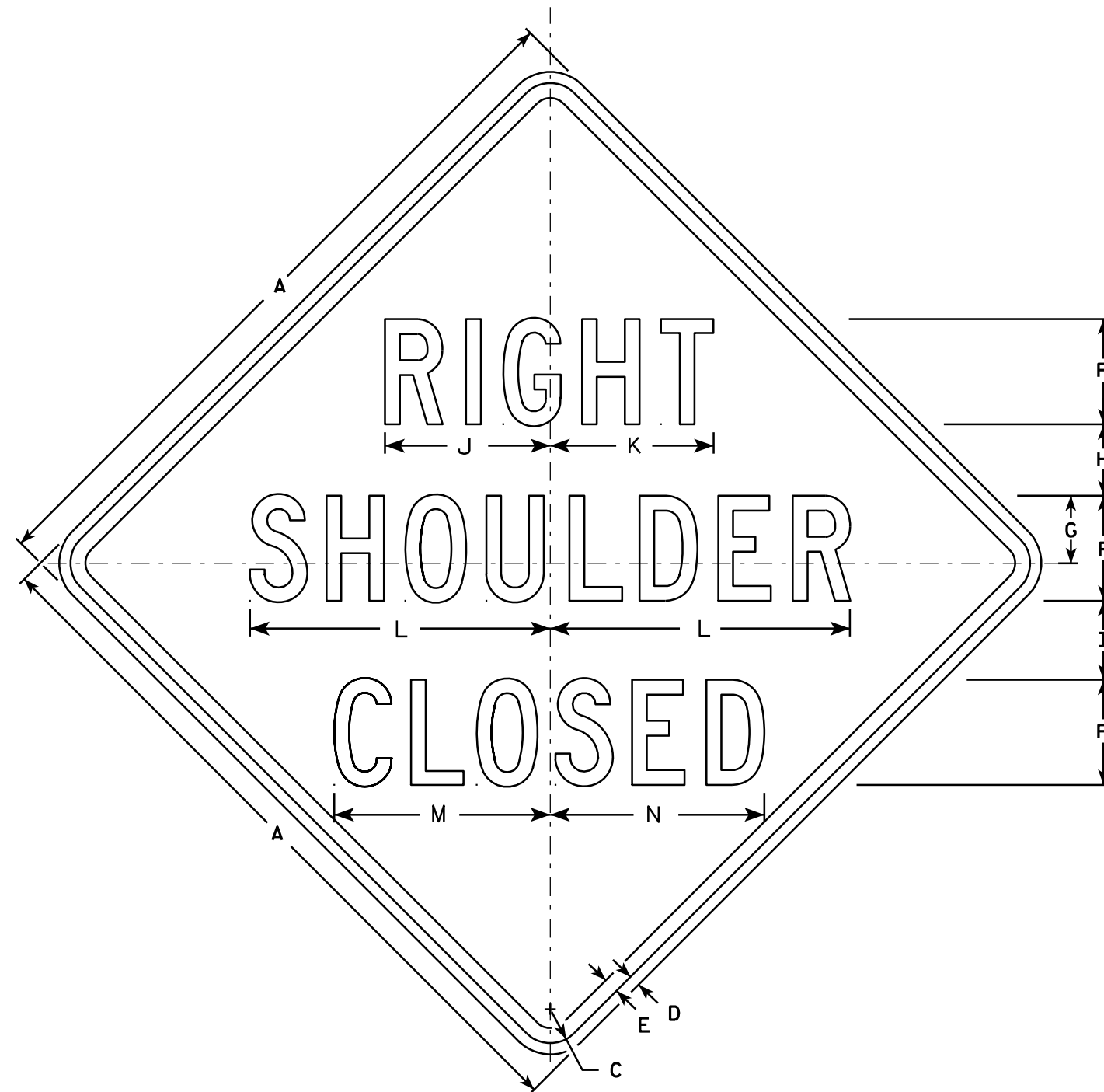
PROJECT NO:

HWY:

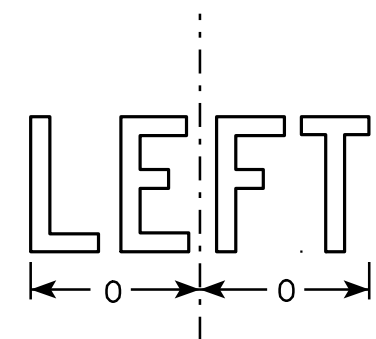
COUNTY:

SHEET NO:

E



W21-5A



W21-5AL

NOTES

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

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	5	3 3/8	3 1/2	4	7 7/8	7 3/4	14 1/4	10 1/4	10 1/8	6 1/4												9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0

STANDARD SIGN
W21-5A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5A.3

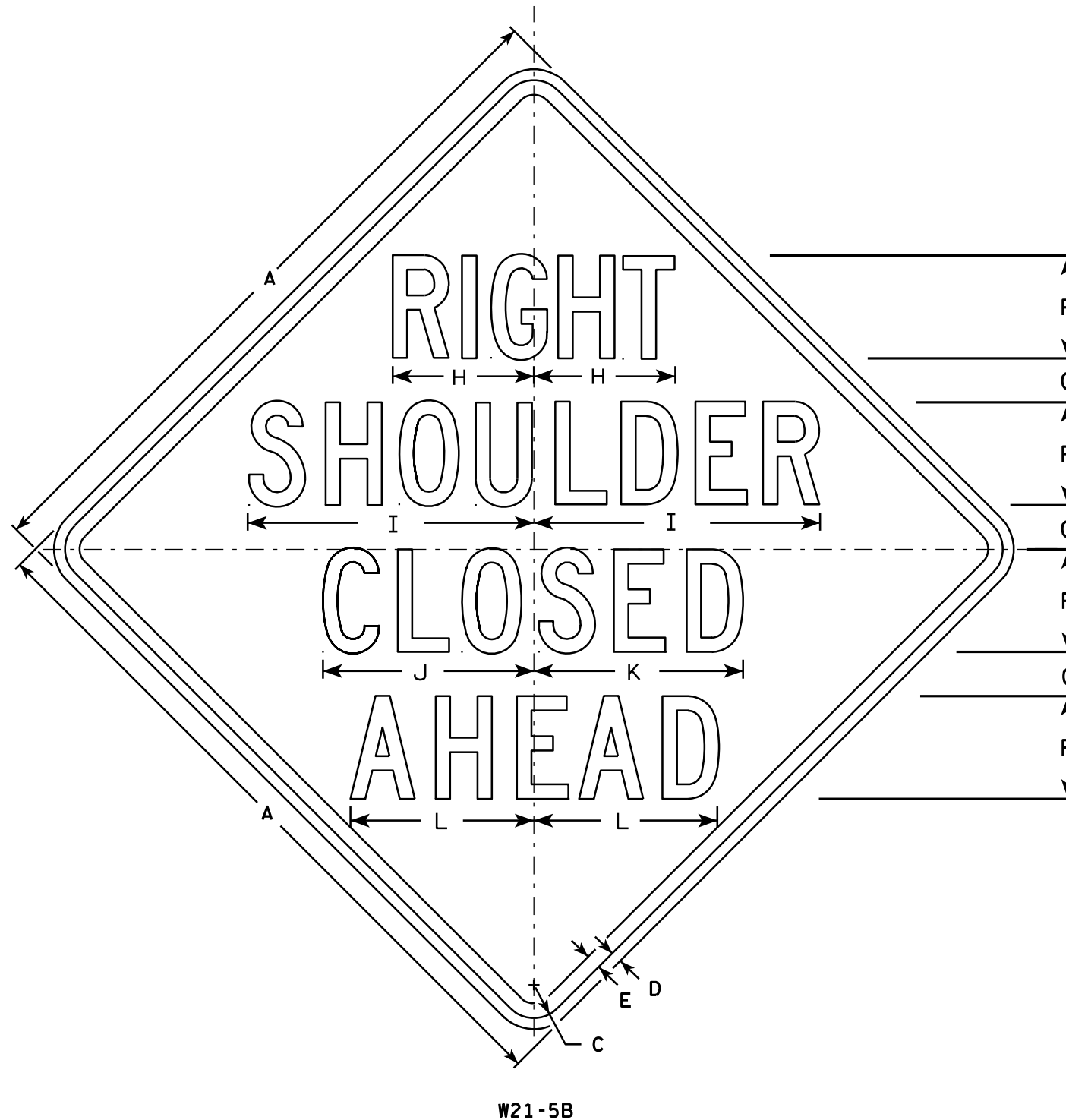
PROJECT NO:

HWY:

COUNTY:

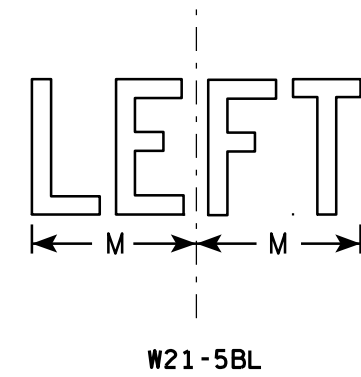
SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - 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	O	R	S	T	U	V	W	X	Y	Z	Area Sq. Ft.
1	36		1 5/8	5/8	3/4	5	2 1/4	7 3/8	14 1/4	10 1/4	10 1/8	8 7/8	6 1/4														9.0
2S	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
2M	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
3	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
4	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0
5	48		2 1/4	3/4	1	7	3	9 5/8	19 1/2	14 3/8	14 1/4	12 1/2	8 1/2														16.0

STANDARD SIGN
W21-5B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/21/11 PLATE NO. W21-5B.3

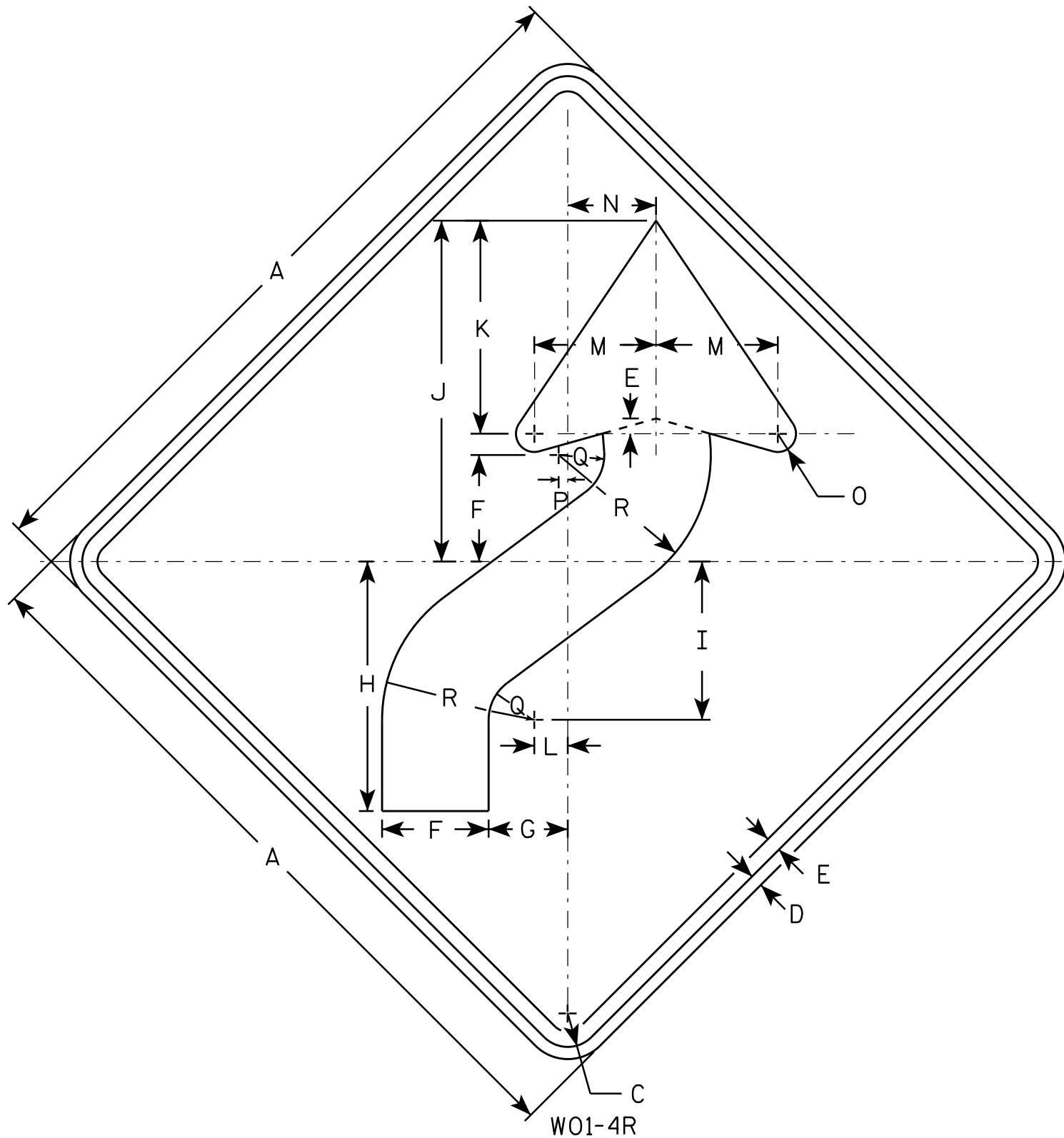
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - 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. W01-4L is the same as W01-4R 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	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		2 1/4	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

STANDARD SIGN W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

Matthew R. Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4.1

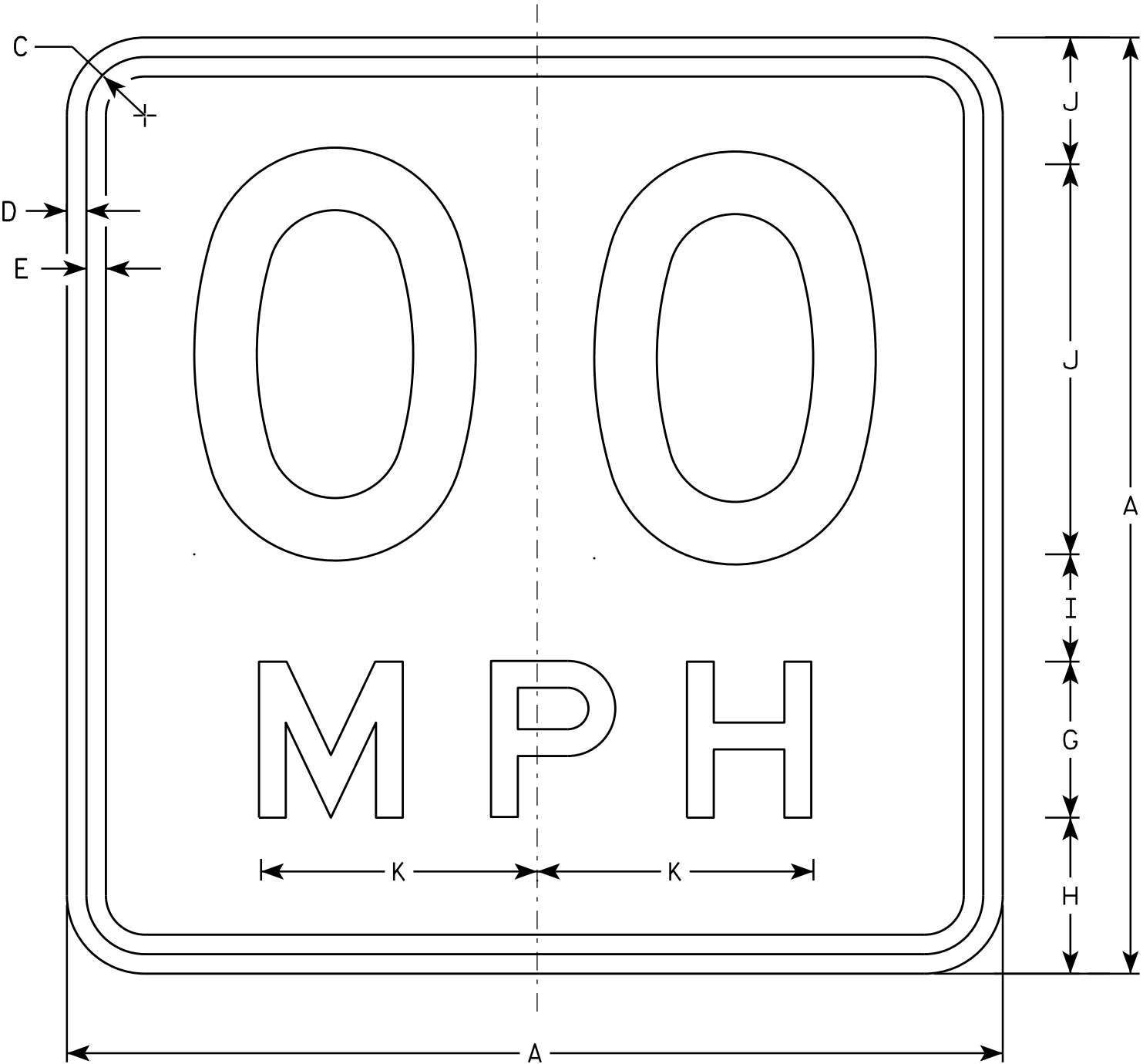
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



W013-1

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - Orange
Message - Black
3. Message Series - See Note 6
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals and optically space about centerline to achieve proper balance.
6. Line 1 is Series D
Line 2 is Series E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.00
2S	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
2M	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
3	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
4	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00
5	36		1 5/8	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.00

STANDARD SIGN
W013-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
For State Traffic Engineer

DATE 11/21/13 PLATE NO. W013-1.1

PROJECT NO:

HWY:

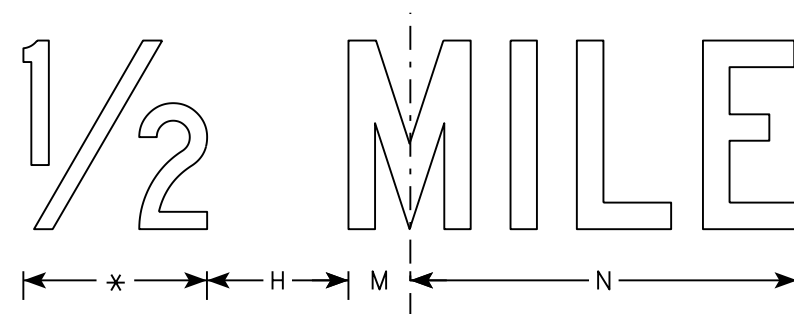
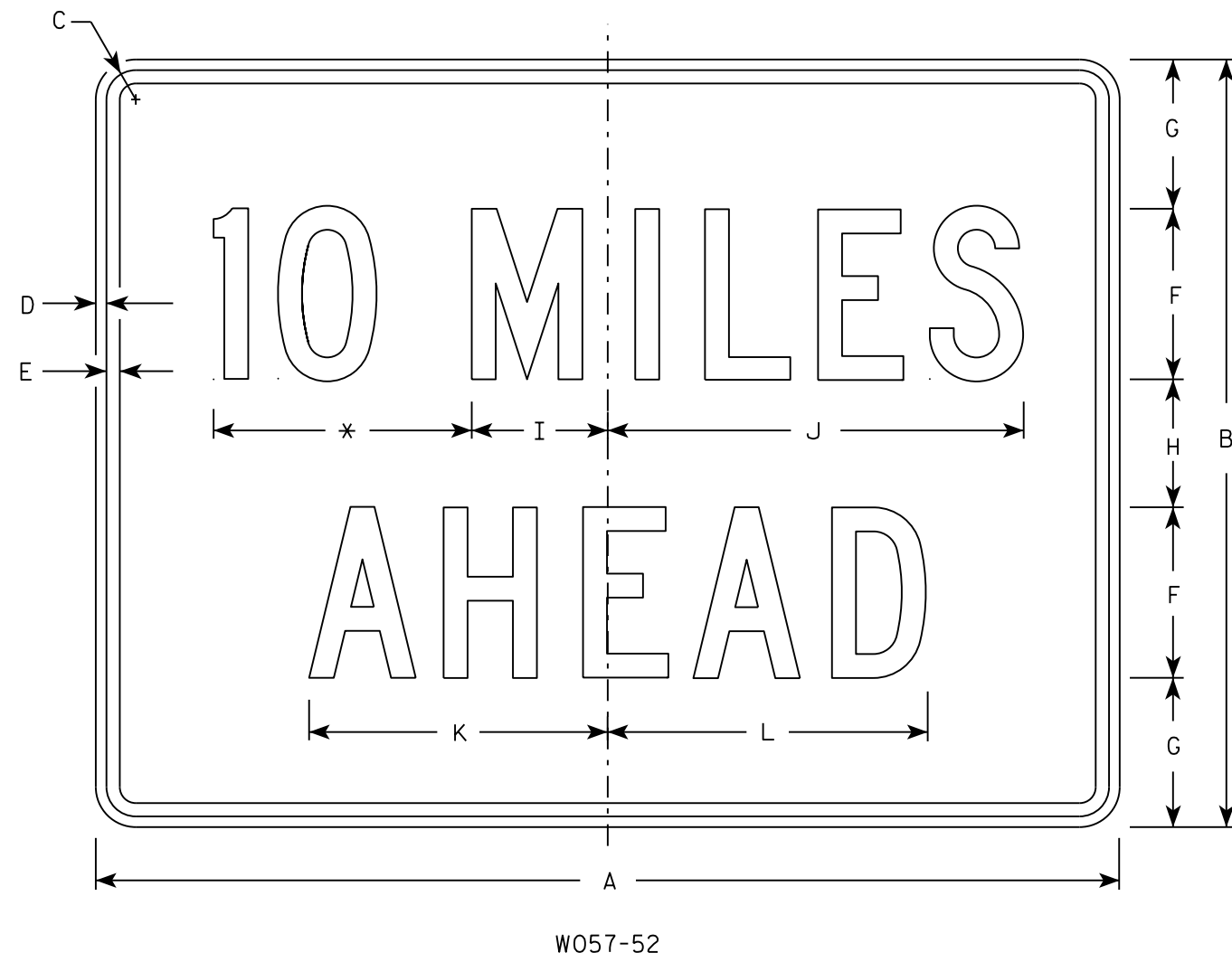
COUNTY:

SHEET NO:

E

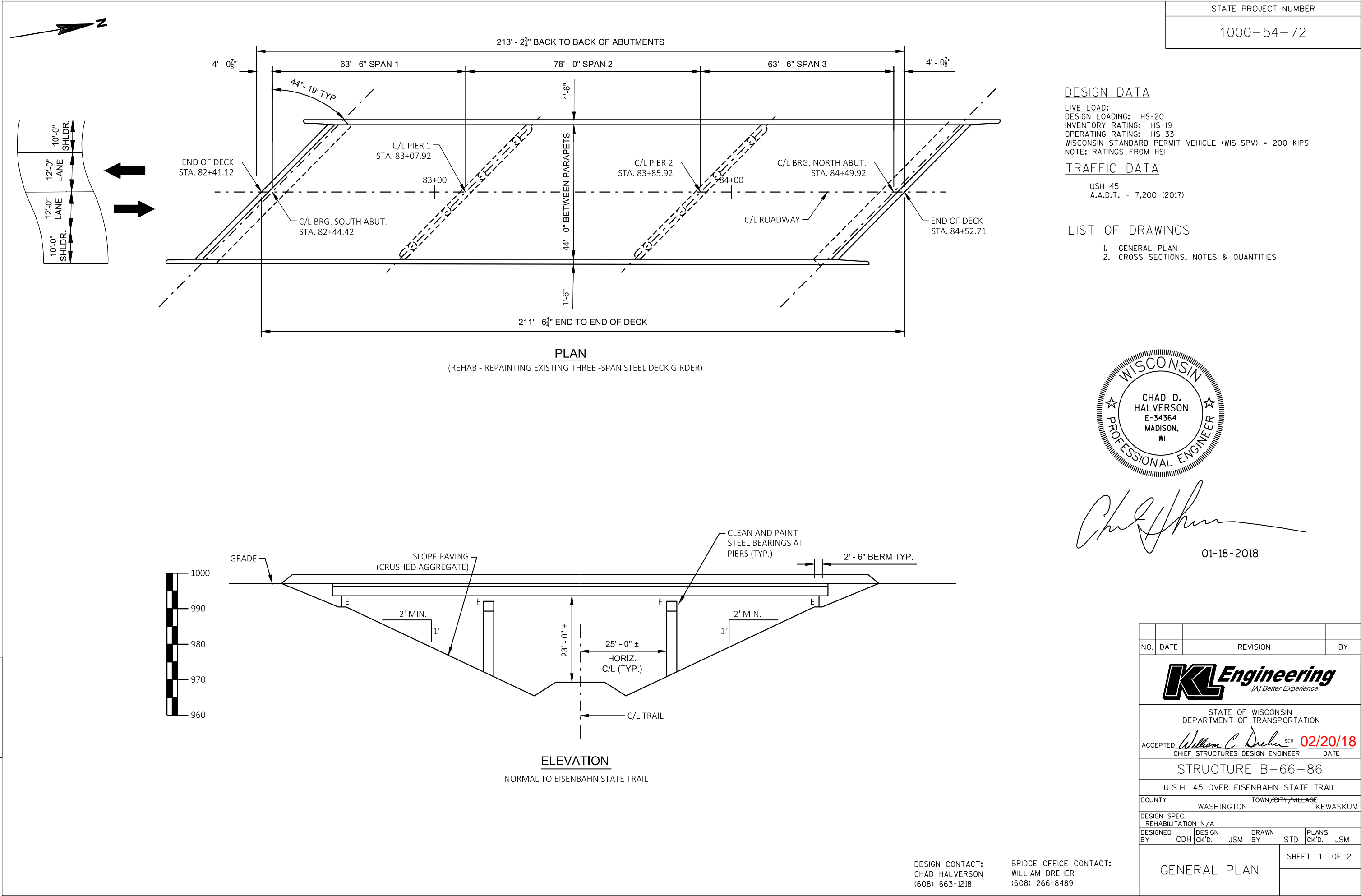
NOTES

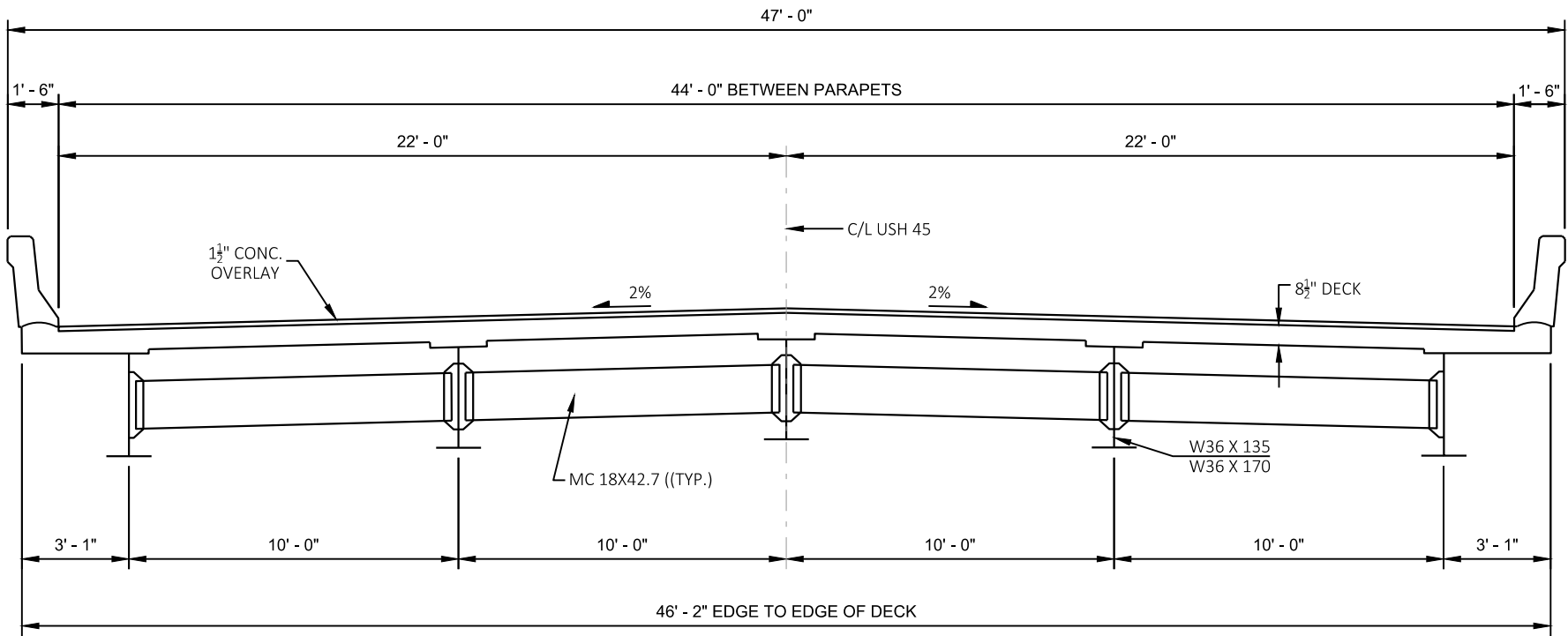
- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - C
- 4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 5. Substitute appropriate numerals to the nearest quarter mile and optically adjust spacing to achieve proper balance.



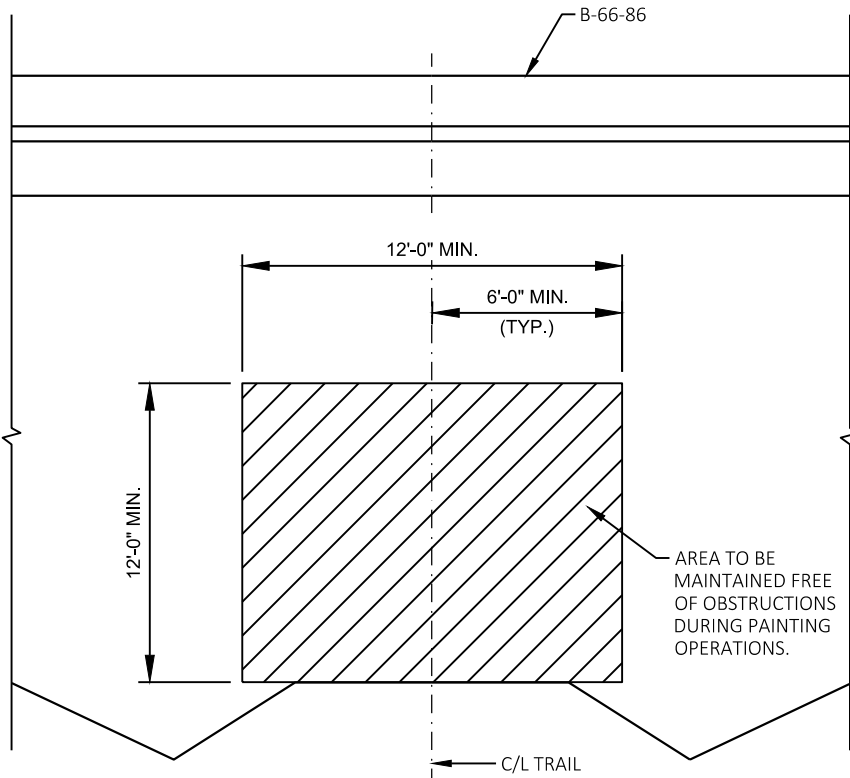
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN W057-52	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> for State Traffic Engineer
DATE 3/21/17	PLATE NO. W057-52.2





CROSS SECTION THRU ROADWAY
LOOKING NORTH



TRAIL CLEARANCE DIAGRAM

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTALS
203.0225.S.01	DEBRIS CONTAINMENT B-66-86	LS	1
517.1800.S.01	STRUCTURE REPAINTING RECYCLED ABRASIVE B-66-86	LS	1
517.4500.S.01	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-66-86	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	10

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

SEE ROAD PLANS FOR TRAFFIC CONTROL.

DIMENSIONS AND STATIONING SHOWN ARE BASED ON THE ORIGINAL PLANS.

VERTICAL CLEARANCES TAKEN FROM HSI.

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE NOT SHOWN.

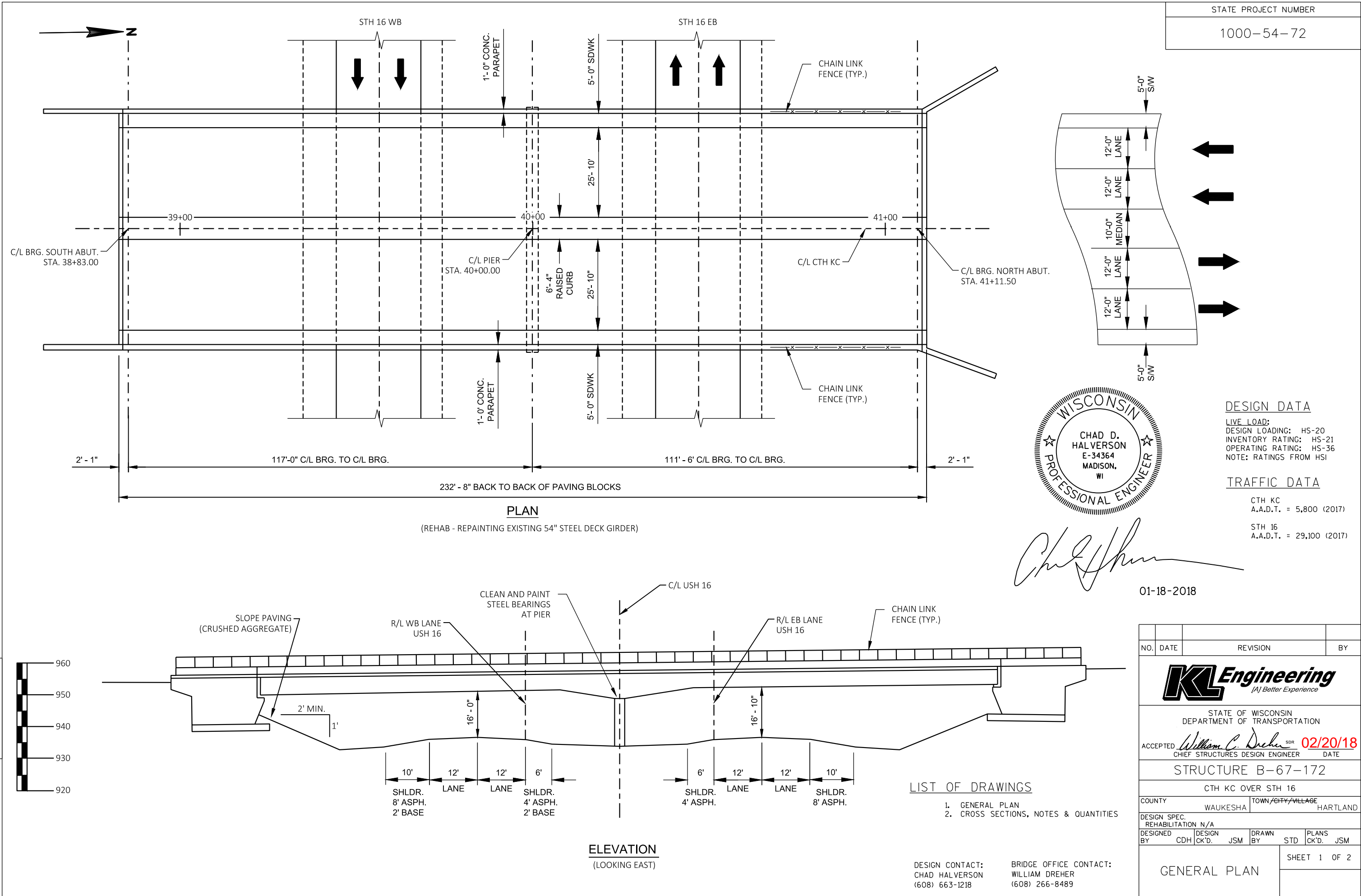
IMPROVEMENTS INCLUDE REPAINTING ALL EXISTING STRUCTURAL STEEL AREAS AND CLEANING AND PAINTING THE STEEL BEARINGS AT THE PIERS.

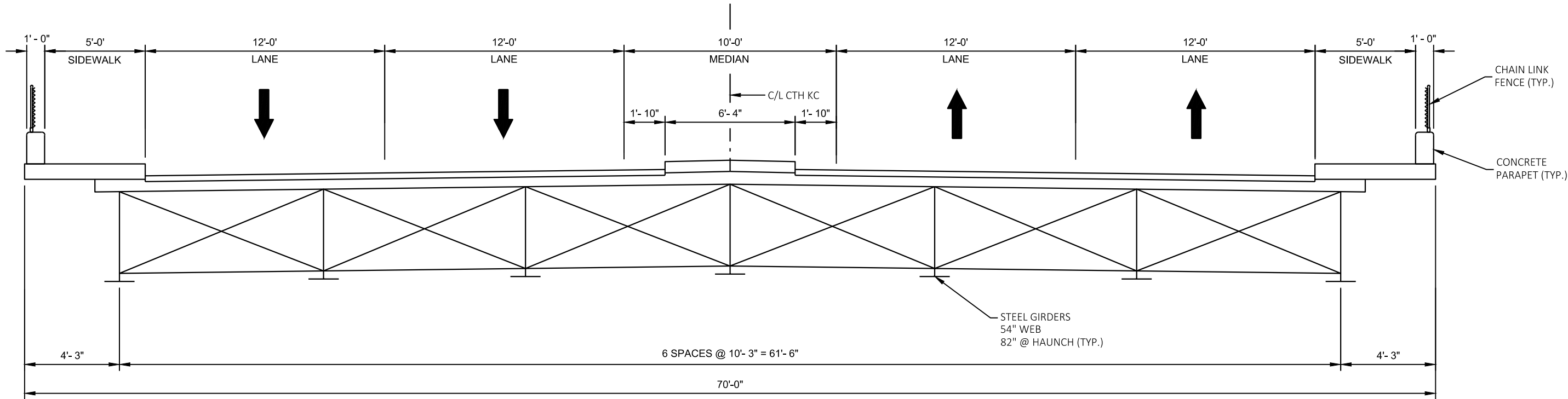
THIS PROJECT WILL PAINT THE EXISTING STRUCTURE, B-66-86, A THREE SPAN, 213.2 FOOT LONG AND STEEL DECK GIRDER BRIDGE.

ESTIMATED STRUCTURAL STEEL SURFACE AREA = 11,200 S.F.

THE COLOR OF THE FINISH EPOXY TOP COAT FOR ALL STRUCTURAL STEEL AREAS SHALL BE GRAY-LIGHT GRAY (FEDERAL COLOR NO. 26293).

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-66-86			
DRAWN BY		JAL	PLANS CK'D. JSM
CROSS SECTIONS, NOTES & QUANTITIES			SHEET 2 OF 2





CROSS SECTION
(LOOKING NORTH)

GENERAL NOTES

- DRAWINGS SHALL NOT BE SCALED.
- SEE ROAD PLANS FOR TRAFFIC CONTROL.
- DIMENSIONS AND STATIONING SHOWN ARE BASED ON THE ORIGINAL PLANS.
- VERTICAL CLEARANCES TAKEN FROM HSI.
- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE NOT SHOWN.
- IMPROVEMENTS INCLUDE REPAINTING ALL EXISTING STRUCTURAL STEEL AREAS AND CLEANING AND PAINTING THE STEEL BEARINGS AT THE PIER.
- THIS PROJECT WILL PAINT THE EXISTING STRUCTURE, B-67-172, A TWO SPAN, 232 FOOT LONG STEEL DECK GIRDER BRIDGE.
- ESTIMATED STRUCTURAL STEEL SURFACE AREA = 26,900 S.F.
- THE COLOR OF THE FINISH EPOXY TOP COAT FOR ALL STRUCTURAL STEEL AREAS SHALL BE GRAY - LIGHT GRAY (FEDERAL COLOR NO. 26293).

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTALS
517.1800.S.02	STRUCTURE REPAINTING RECYCLED ABRASIVE B-67-172	LS	1
517.4500.S.02	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-172	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	7

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-67-172			
		DRAWN BY JAL	PLANS CK'D. JSM
CROSS SECTIONS, NOTES & QUANTITIES		SHEET 2 OF 2	

DESIGN DATA

LIVE LOAD (TAKEN FROM HSI 11-06-2017):
 DESIGN LOADING: HS-20
 INVENTORY RATING: HS-20
 OPERATING RATING: HS-33
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 200 KIPS

TRAFFIC VOLUME

STH 16 WB
 AADT: 13,900 (2017)

HICKORY STREET
 AADT: >1,000 (ASSUMED)

SCOPE OF WORK B-67-180

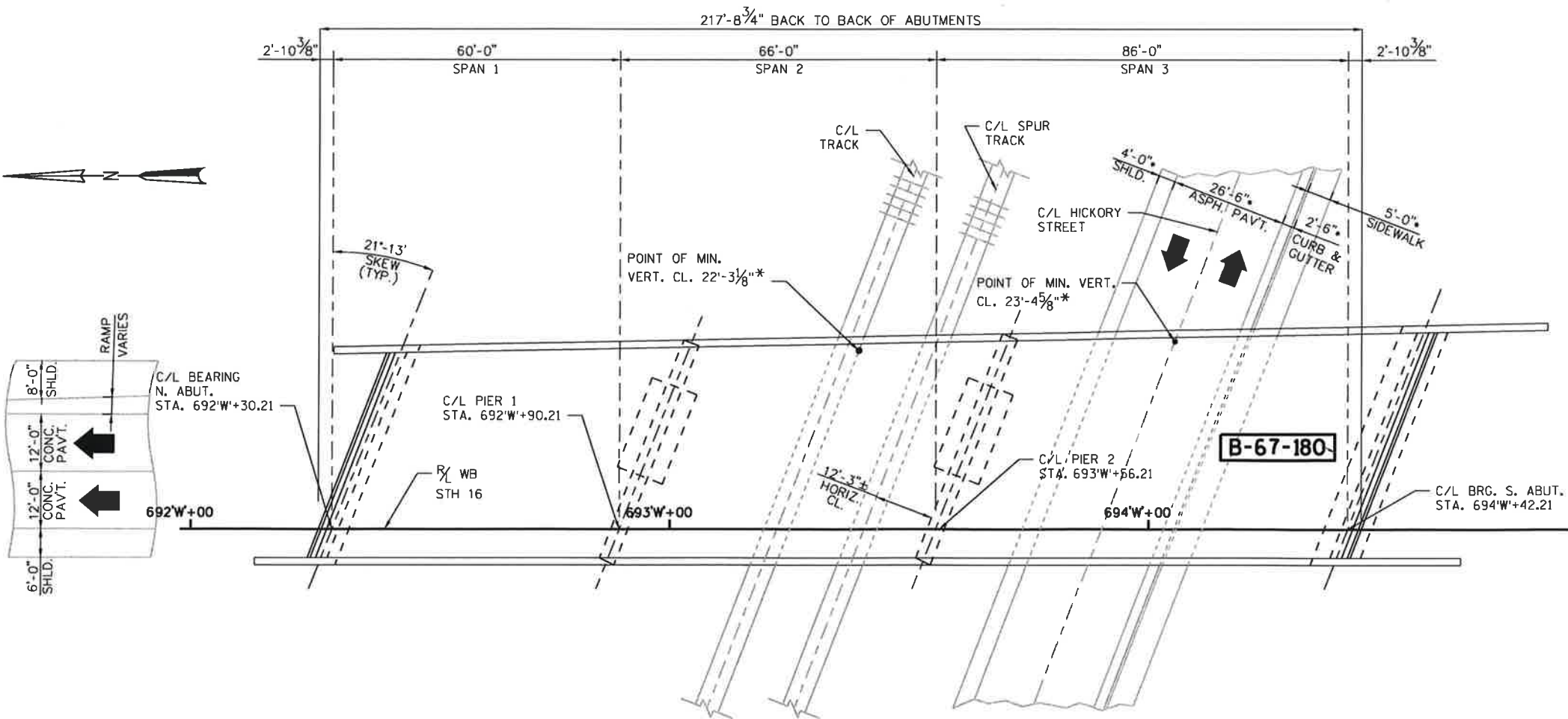
1. STRUCTURE REPAINTING

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION & QUANTITIES

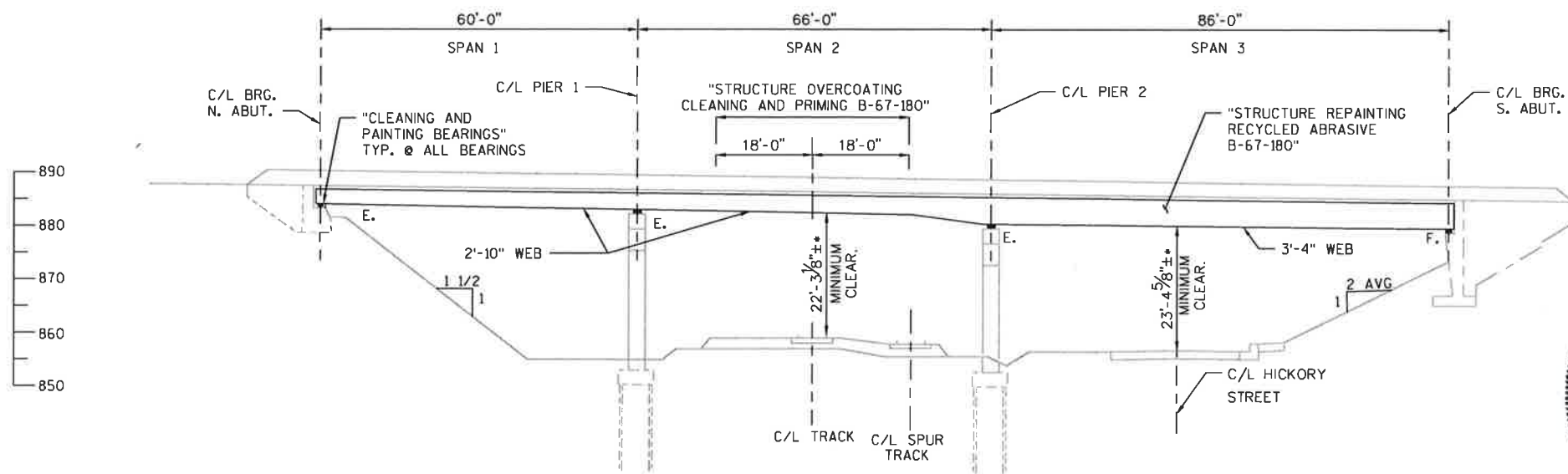
LEGEND

* FIELD MEASURED BY GRAEF



PLAN

3 SPAN CONTINUOUS PLATE GIRDER



ELEVATION

NORMAL TO CANADIAN PACIFIC RR & HICKORY ST.



STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
 WILLIAM DREHER, P.E. (608) 266-8489
 CONSULTANT:
 KEVIN WOOD, P.E. (414) 266-9144

NO.	DATE	REVISION	BY
One Honey Creek Corporate Center 125 South 84th Street, Suite 401 Milwaukee, WI 53214-1470 414 / 259 1500 414 / 259 0037 fax www.graef-usa.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED SDR 02/15/18 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-67-180			
STH 16 OVER CANADIAN PACIFIC & HICKORY ST			
COUNTY	WAUKESHA	TOWN/CITY/VILLAGE	PEWaukee
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	WAR	DESIGN CK'D.	KGW
DRAWN BY	WAR	PLANS CK'D.	KGW
GENERAL PLAN & ELEVATION			SHEET 1 OF 2

I.D.

DATE:

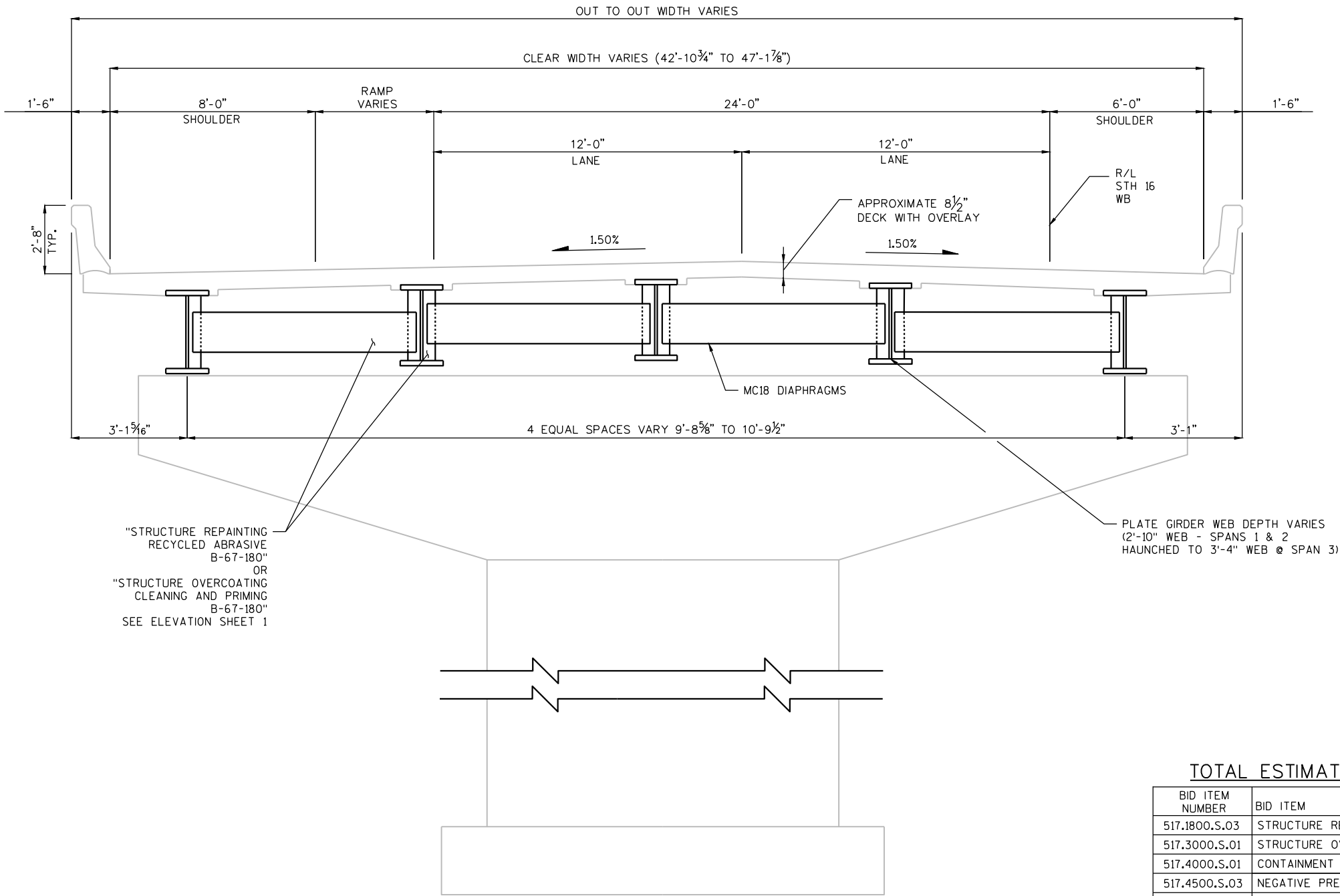
GENERAL NOTES

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS AND SHALL NOT BE SEALED.

SEE HIGHWAY STRUCTURE INFORMATION SYSTEM FOR ADDITIONAL DETAIL.

PAINT COLOR SHALL BE FEDERAL STANDARD COLOR NO. 26293 (GRAY).

ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE ARE TO BE CLEANED AND PAINTED. THE SURFACES INCLUDE GIRDERS, DIAPHRAGMS, STIFFENERS, BEARINGS AND CONNECTIONS.



TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTAL
517.1800.S.03	STRUCTURE REPAINTING RECYCLED ABRASIVE B-67-180	LS	1
517.3000.S.01	STRUCTURE OVERCOATING CLEANING AND PRIMING B-67-180	LS	1
517.4000.S.01	CONTAINMENT AND COLLECTION OF WASTE MATERIAL B-67-180	LS	1
517.4500.S.03	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-180	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	20

FOR INFORMATION ONLY: APPROXIMATELY 12,800 SF OF STRUCTURAL STEEL.

CROSS SECTION THRU BRIDGE
(LOOKING SOUTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-67-180			
DRAWN BY WAR		PLANS CK'D. KWG	
CROSS SECTION & QUANTITIES		SHEET 2 OF 2	

I.D.

DATE:

DESIGN DATA

LIVE LOAD (TAKEN FROM HSI 11-20-2017):
 DESIGN LOADING: HS-20
 INVENTORY RATING: HS-20
 OPERATING RATING: HS-33
 WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

TRAFFIC VOLUME

STH 16 EB
 AADT: 13,900 (2017)
 HICKORY STREET
 AADT: >1,000 (ASSUMED)

SCOPE OF WORK B-67-181

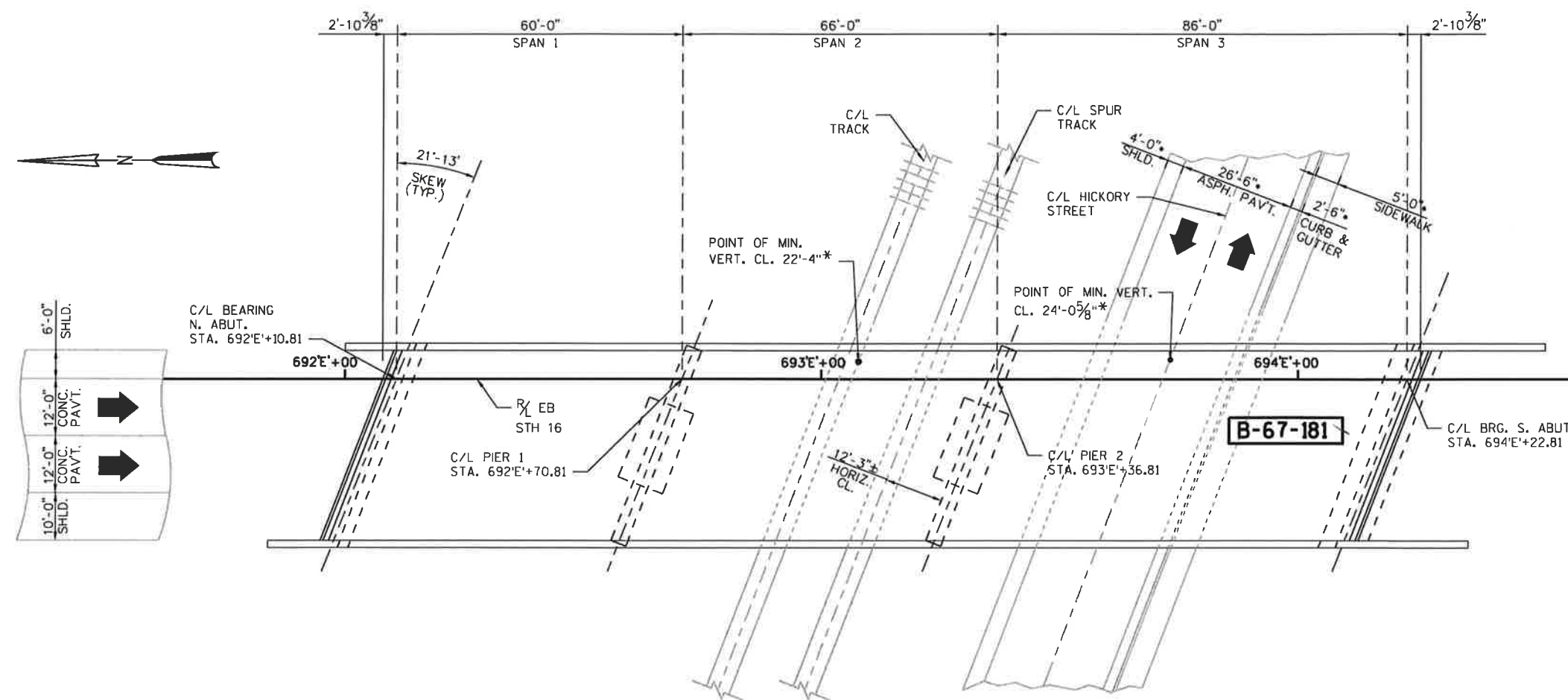
1. STRUCTURE REPAINTING

LIST OF DRAWINGS

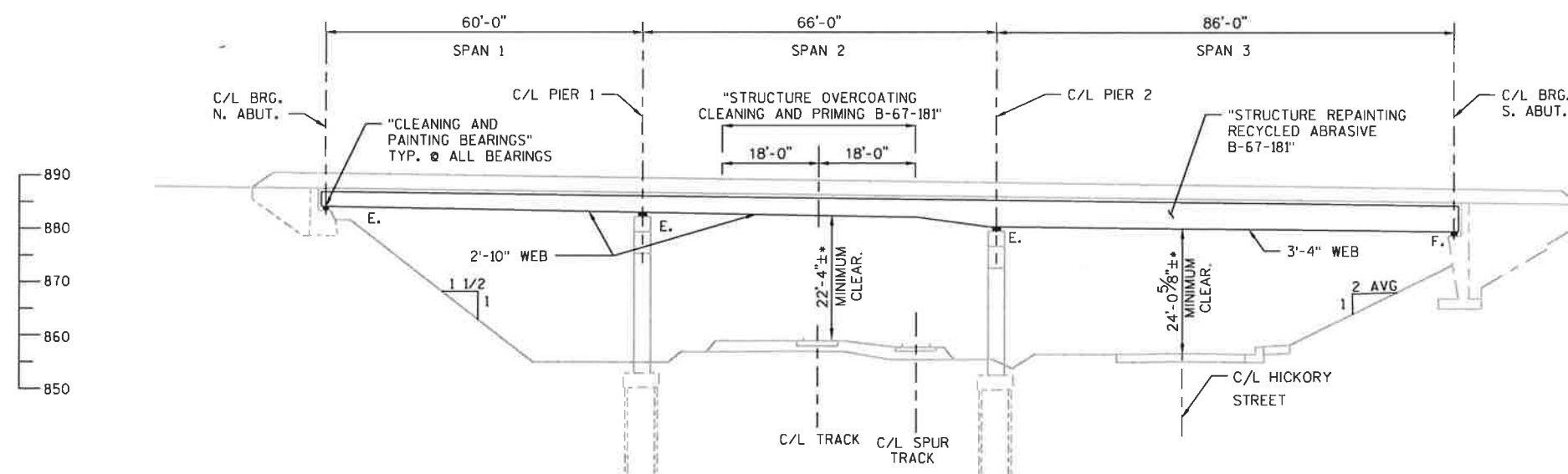
1. GENERAL PLAN & ELEVATION
2. CROSS SECTION & QUANTITIES

LEGEND

* FIELD MEASURED BY GRAEF



PLAN
 3 SPAN CONTINUOUS PLATE GIRDER



ELEVATION
 NORMAL TO CANADIAN PACIFIC RR & HICKORY ST.



STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
 WILLIAM DREHER, P.E. (608) 266-8489
 CONSULTANT:
 KEVIN WOOD, P.E. (414) 266-9144

NO.	DATE	REVISION	BY
One Honey Creek Corporate Center 125 South 94th Street, Suite 401 Milwaukee, WI 53214-1470 414 / 259-1500 414 / 259-0037 fax www.graef-usa.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i>		02/15/18	
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE B-67-181			
STH 16 OVER CANADIAN PACIFIC & HICKORY ST			
COUNTY	WAUKESHA	TOWN/CITY/VILLAGE	PEWAUKEE
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	WAR	DESIGN CK'D.	KGW
DRAWN BY	WAR	PLANS CK'D.	KGW
GENERAL PLAN & ELEVATION			SHEET 1 OF 2

I.D.

DATE:

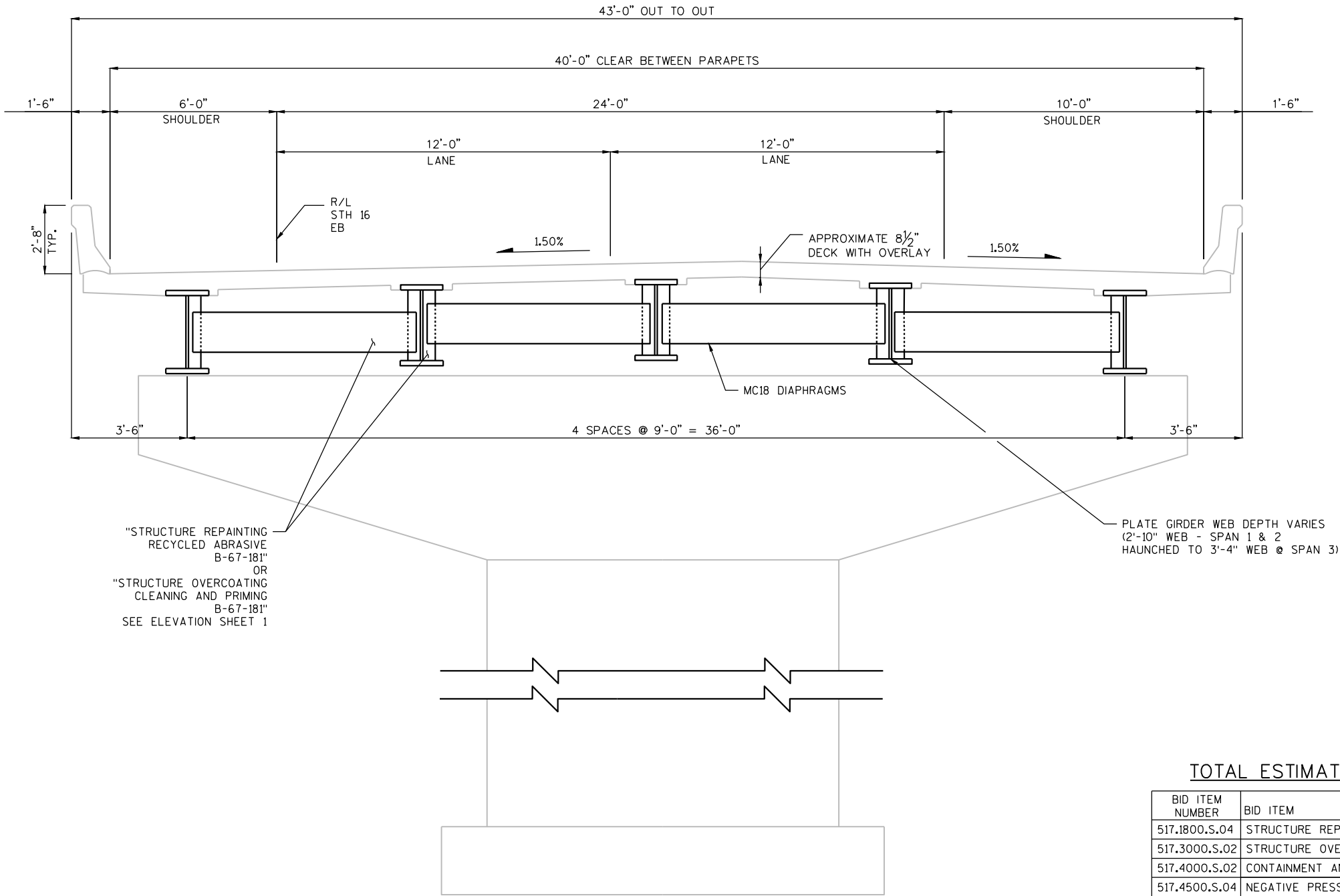
GENERAL NOTES

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS AND SHALL NOT BE SEALED.

SEE HIGHWAY STRUCTURE INFORMATION SYSTEM FOR ADDITIONAL DETAIL.

PAINT COLOR SHALL BE FEDERAL STANDARD COLOR NO. 26293 (GRAY).

ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE ARE TO BE CLEANED AND PAINTED. THE SURFACES INCLUDE GIRDERS, DIAPHRAGMS, STIFFENERS, BEARINGS AND CONNECTIONS.



"STRUCTURE REPAINTING
RECYCLED ABRASIVE
B-67-181"
OR
"STRUCTURE OVERCOATING
CLEANING AND PRIMING
B-67-181"
SEE ELEVATION SHEET 1

PLATE GIRDER WEB DEPTH VARIES
(2'-10" WEB - SPAN 1 & 2
HAUNCHED TO 3'-4" WEB @ SPAN 3)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTAL
517.1800.S.04	STRUCTURE REPAINTING RECYCLED ABRASIVE B-67-181	LS	1
517.3000.S.02	STRUCTURE OVERCOATING CLEANING AND PRIMING B-67-181	LS	1
517.4000.S.02	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-181	LS	1
517.4500.S.04	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-181	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	20

FOR INFORMATION ONLY: APPROXIMATELY 12,100 SF OF STRUCTURAL STEEL.

CROSS SECTION THRU BRIDGE
(LOOKING SOUTH)

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-67-181			
DRAWN BY WAR		PLANS CK'D. KWG	
CROSS SECTION & QUANTITIES		SHEET 2 OF 2	

I.D.

DATE:

DESIGN DATA

LIVE LOAD (TAKEN FROM HSI 11-20-2017):
DESIGN LOADING: HS-20
INVENTORY RATING: HS-22
OPERATING RATING: HS-36
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS

TRAFFIC VOLUME

STH 16 NB RAMP
AADT: 6,700 (2017)
HICKORY STREET
AADT: >1,000 (ASSUMED)

SCOPE OF WORK B-67-182

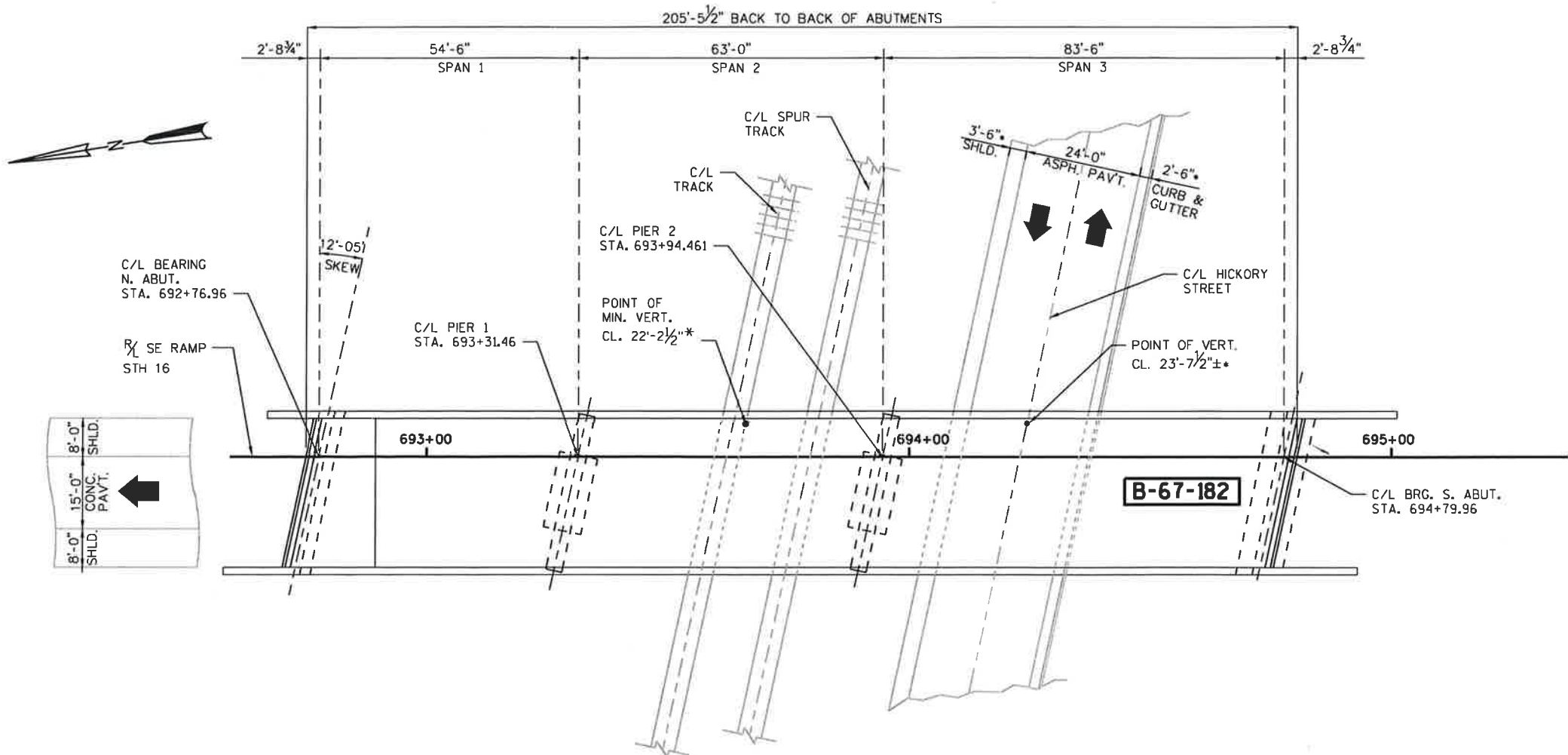
1. STRUCTURE REPAINTING

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. CROSS SECTION & QUANTITIES

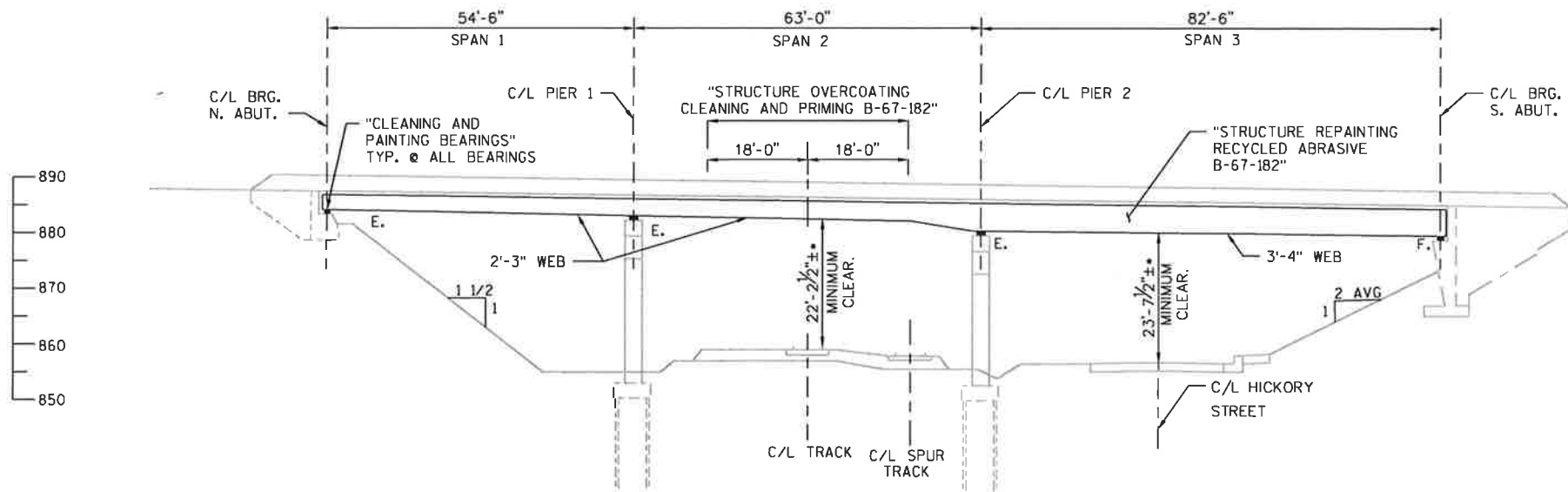
LEGEND

* FIELD MEASURED BY GRAEF



PLAN

3 SPAN CONTINUOUS PLATE GIRDER



ELEVATION

NORMAL TO CANADIAN PACIFIC RR & HICKORY ST.



STRUCTURE DESIGN CONTACTS

BUREAU OF STRUCTURES:
WILLIAM DREHER, P.E. (608) 266-8489
CONSULTANT:
KEVIN WOOD, P.E. (414) 266-9144

NO.	DATE	REVISION	BY
GRAEF One Honey Creek Corporate Center 125 South 94th Street, Suite 401 Milwaukee, WI 53214-1470 414 / 250 1200 414 / 250 0037 fax www.graef-usa.com			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED <i>William C. Dreher</i> ^{SDR} 02/15/18 CHIEF STRUCTURES DESIGN ENGINEER DATE			
STRUCTURE B-67-182			
STH 16 OVER CANADIAN PACIFIC & HICKORY ST			
COUNTY	WAUKESHA	TOWN/CITY/VILLAGE	PEWAUKEE
DESIGN SPEC.	REHABILITATION	N/A	
DESIGNED BY	WAR	DESIGN CK'D. KGW	DRAWN BY WAR
GENERAL PLAN & ELEVATION			PLANS CK'D. KGW
SHEET 1 OF 2			

I.D.

DATE:

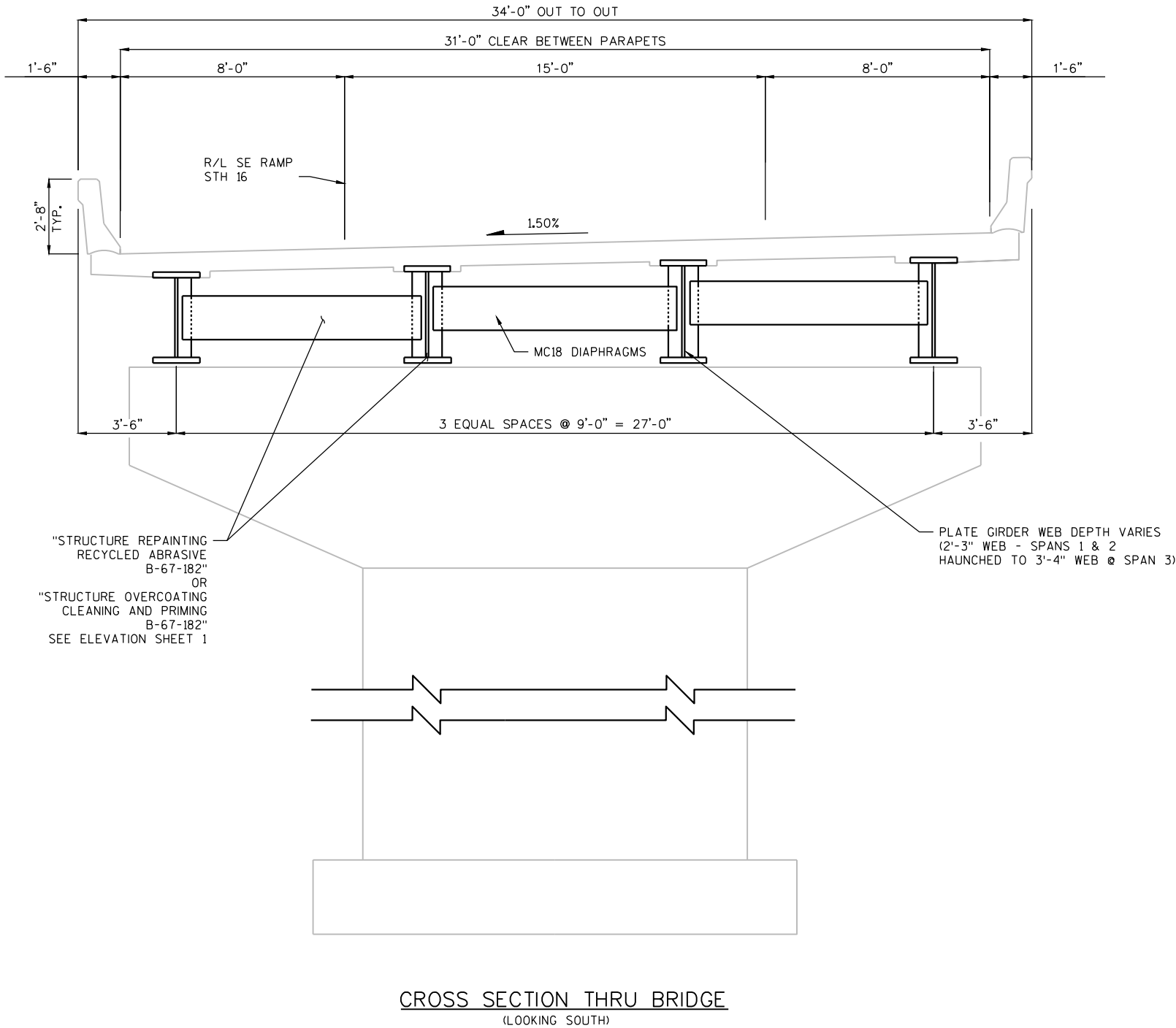
GENERAL NOTES

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS AND SHALL NOT BE SEALED.

SEE HIGHWAY STRUCTURE INFORMATION SYSTEM FOR ADDITIONAL DETAIL.

PAINT COLOR SHALL BE FEDERAL STANDARD COLOR NO. 26293 (GRAY).

ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE ARE TO BE CLEANED AND PAINTED. THE SURFACES INCLUDE GIRDERS, DIAPHRAGMS, STIFFENERS, BEARINGS AND CONNECTIONS.



TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTAL
517.1800.S.05	STRUCTURE REPAINTING RECYCLED ABRASIVE B-67-182	LS	1
517.3000.S.03	STRUCTURE OVERCOATING CLEANING AND PRIMING B-67-182	LS	1
517.4000.S.03	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-182	LS	1
517.4500.S.05	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-182	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	16

FOR INFORMATION ONLY: APPROXIMATELY 8,800 SF OF STRUCTURAL STEEL.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-67-182			
DRAWN BY WAR		PLANS CK'D. KWG	
CROSS SECTION & QUANTITIES		SHEET 2 OF 2	
I.D.		DATE:	



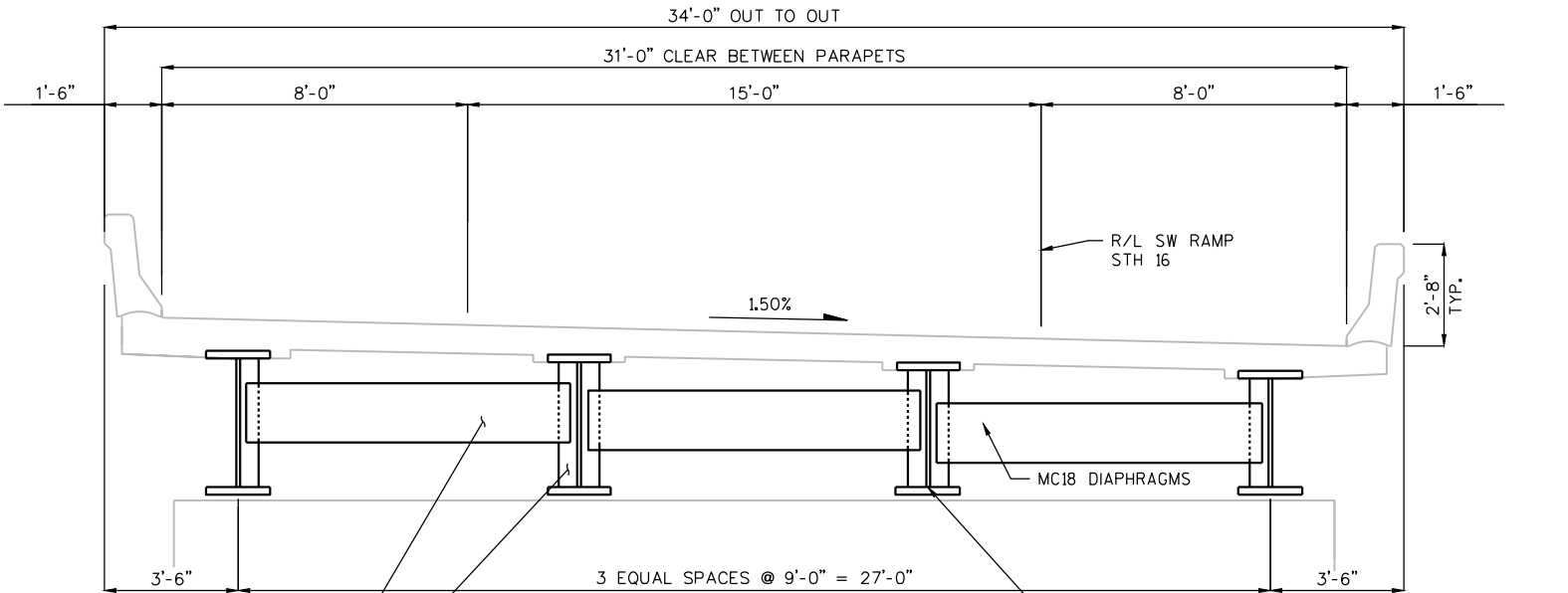
GENERAL NOTES

DIMENSIONS SHOWN ARE BASED ON THE EXISTING ORIGINAL STRUCTURE PLANS AND SHALL NOT BE SEALED.

SEE HIGHWAY STRUCTURE INFORMATION SYSTEM FOR ADDITIONAL DETAIL.

PAINT COLOR SHALL BE FEDERAL STANDARD COLOR NO. 26293 (GRAY).

ALL EXPOSED STEEL SURFACES UNDERNEATH THE BRIDGE ARE TO BE CLEANED AND PAINTED. THE SURFACES INCLUDE GIRDERS, DIAPHRAGMS, STIFFENERS, BEARINGS AND CONNECTIONS.



"STRUCTURE REPAINTING RECYCLED ABRASIVE B-67-183" OR "STRUCTURE OVERCOATING CLEANING AND PRIMING B-67-183" SEE ELEVATION SHEET 1

PLATE GIRDER WEB DEPTH VARIES (2'-10" WEB - SPAN 1 & 2 HAUNCHED TO 4'-0" WEB @ SPAN 3)

CROSS SECTION THRU BRIDGE (LOOKING SOUTH)

TOTAL ESTIMATED QUANTITIES

BID ITEM NUMBER	BID ITEM	UNIT	TOTAL
517.1800.S.06	STRUCTURE REPAINTING RECYCLED ABRASIVE B-67-183	LS	1
517.3000.S.04	STRUCTURE OVERCOATING CLEANING AND PRIMING B-67-183	LS	1
517.4000.S.04	CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-183	LS	1
517.4500.S.06	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-183	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	16

FOR INFORMATION ONLY: APPROXIMATELY 11,600 SF OF STRUCTURAL STEEL.

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-67-183			
DRAWN BY WAR		PLANS CK'D. KWG	
CROSS SECTION & QUANTITIES		SHEET 2 OF 2	
I.D.		DATE:	

LIST OF DRAWINGS

1. GENERAL PLAN
2. CROSS SECTIONS, NOTES & QUANTITIES

DESIGN DATA

LIVE LOAD:
DESIGN LOADING: HS-20
INVENTORY RATING: HS-23
OPERATING RATING: HS-39
NOTE: RATINGS FROM HSI


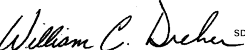
TRAFFIC DATA

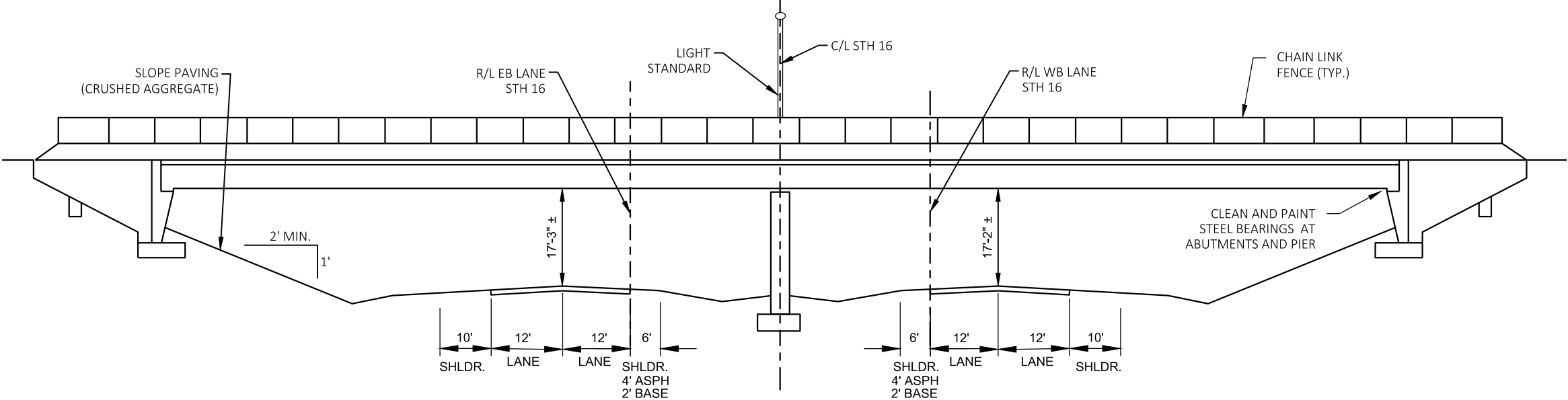
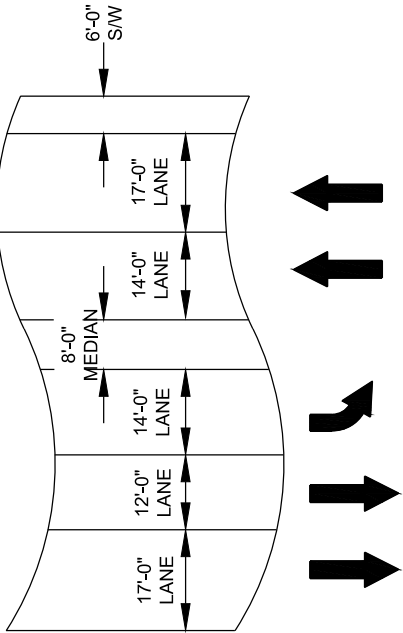
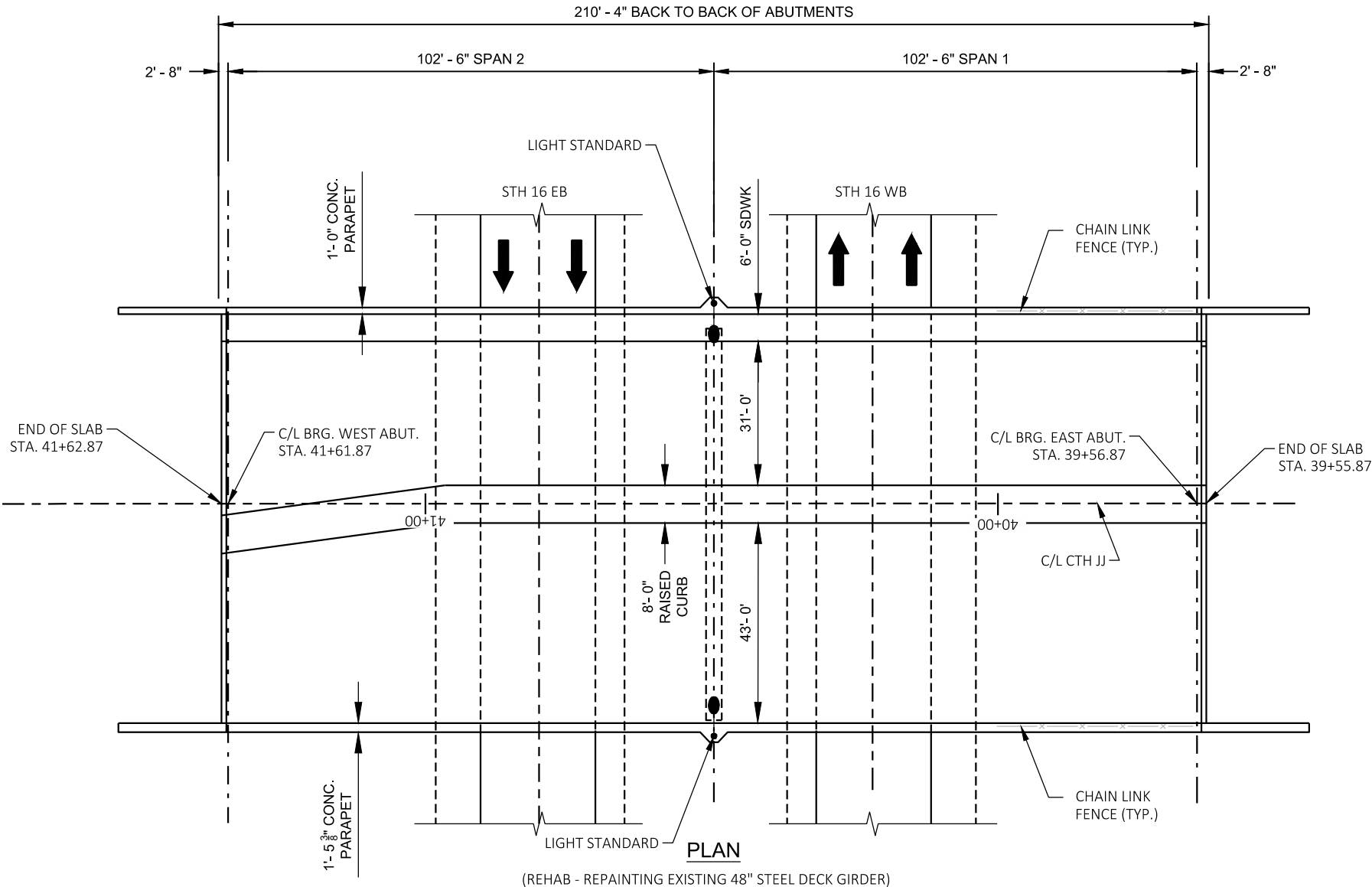
CTH JJ
A.A.D.T. = 12,300 (2017)

USH 16
A.A.D.T. = 26,500 (2017)



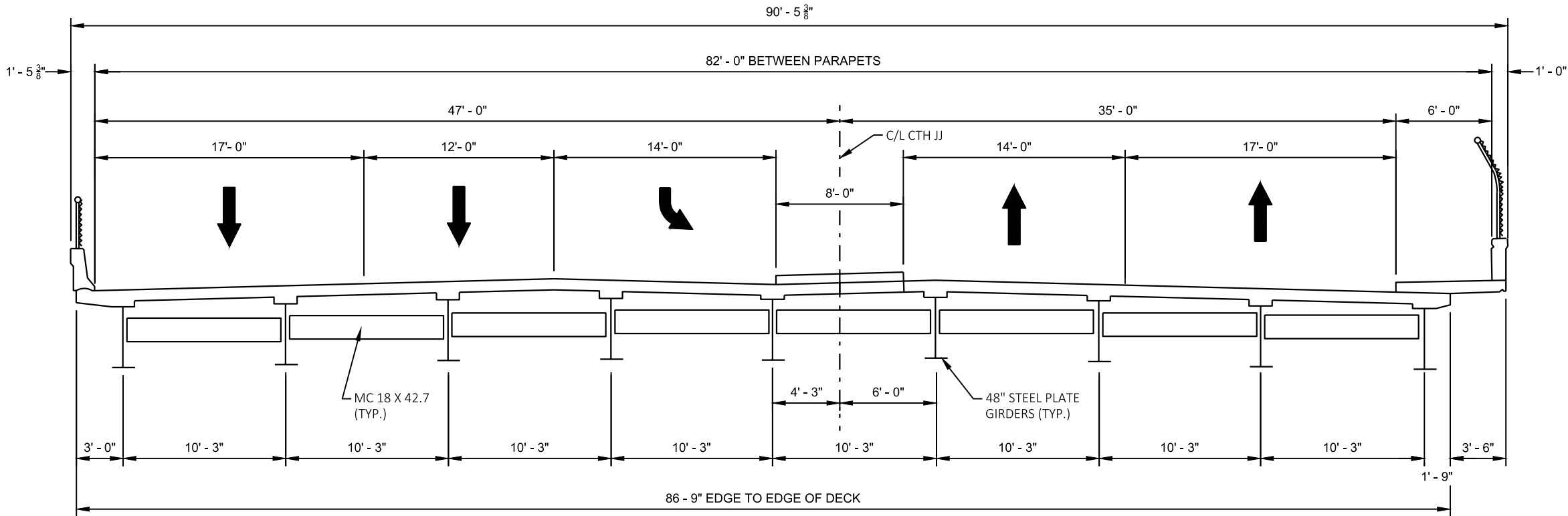
01-18-2018

NO.	DATE	REVISION	BY
<div>KL Engineering [A] Better Experience</div>			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED	 SDR		02/20/18
CHIEF STRUCTURES DESIGN ENGINEER			DATE
STRUCTURE B-67-186			
CTH JJ OVER STH 16			
COUNTY	TOWN/CITY/VILLAGE		
WAUKESHA		PEWAUKEE	
DESIGN SPEC. REHABILITATION N/A			
DESIGNED BY	CDH	DESIGN CK'D.	JSM
DRAWN BY	STD	PLANS CK'D.	JSM
GENERAL PLAN			SHEET 1 OF 2



DESIGN CONTACT:
CHAD HALVERSON
(608) 663-1218

BRIDGE OFFICE CONTACT:
WILLIAM DREHER
(608) 266-8489



CROSS SECTION THRU ROADWAY
LOOKING WEST

GENERAL NOTES

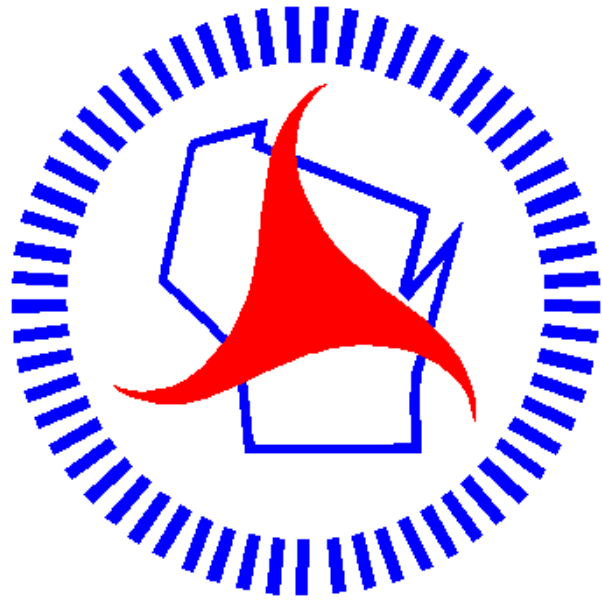
- DRAWINGS SHALL NOT BE SCALED.
- SEE ROAD PLANS FOR TRAFFIC CONTROL.
- DIMENSIONS AND STATIONING SHOWN ARE BASED ON THE ORIGINAL PLANS.
- VERTICAL CLEARANCES TAKEN FROM HSI.
- THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE NOT SHOWN.
- IMPROVEMENTS INCLUDE REPAINTING ALL EXISTING STRUCTURAL STEEL AREAS AND CLEANING AND PAINTING THE STEEL BEARINGS AT THE ABUTMENTS AND PIER.
- THIS PROJECT WILL PAINT THE EXISTING STRUCTURE, B-67-186, A TWO SPAN, 210.0 FOOT LONG STEEL DECK GIRDER BRIDGE.
- ESTIMATED STRUCTURAL STEEL SURFACE AREA = 28,600 S.F.
- THE COLOR OF THE FINISH EPOXY TOP COAT FOR ALL STRUCTURAL STEEL AREAS SHALL BE GRAY - LIGHT GRAY (FEDERAL COLOR NO. 26293).

TOTAL ESTIMATED QUANTITIES

ITEM NUMBER	ITEM DESCRIPTION	UNIT	TOTALS
517.1800.S.07	STRUCTURE REPAINTING RECYCLED ABRASIVE B-67-186	LS	1
517.4500.S.07	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS B-67-186	LS	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH	1
SPV.0060.01	CLEANING AND PAINTING BEARINGS	EACH	27

NO.	DATE	REVISION	BY
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
STRUCTURE B-67-186			
DRAWN BY		JAL	PLANS CK'D. JSM
CROSS SECTIONS, NOTES & QUANTITIES			SHEET 2 OF 2

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

<http://www.dot.wisconsin.gov>