

mad April 2021

PROJECT ID: 1690-01-74

COUNTY: DANE

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 = 162



DESIGN DESIGNATION 1690-01-74

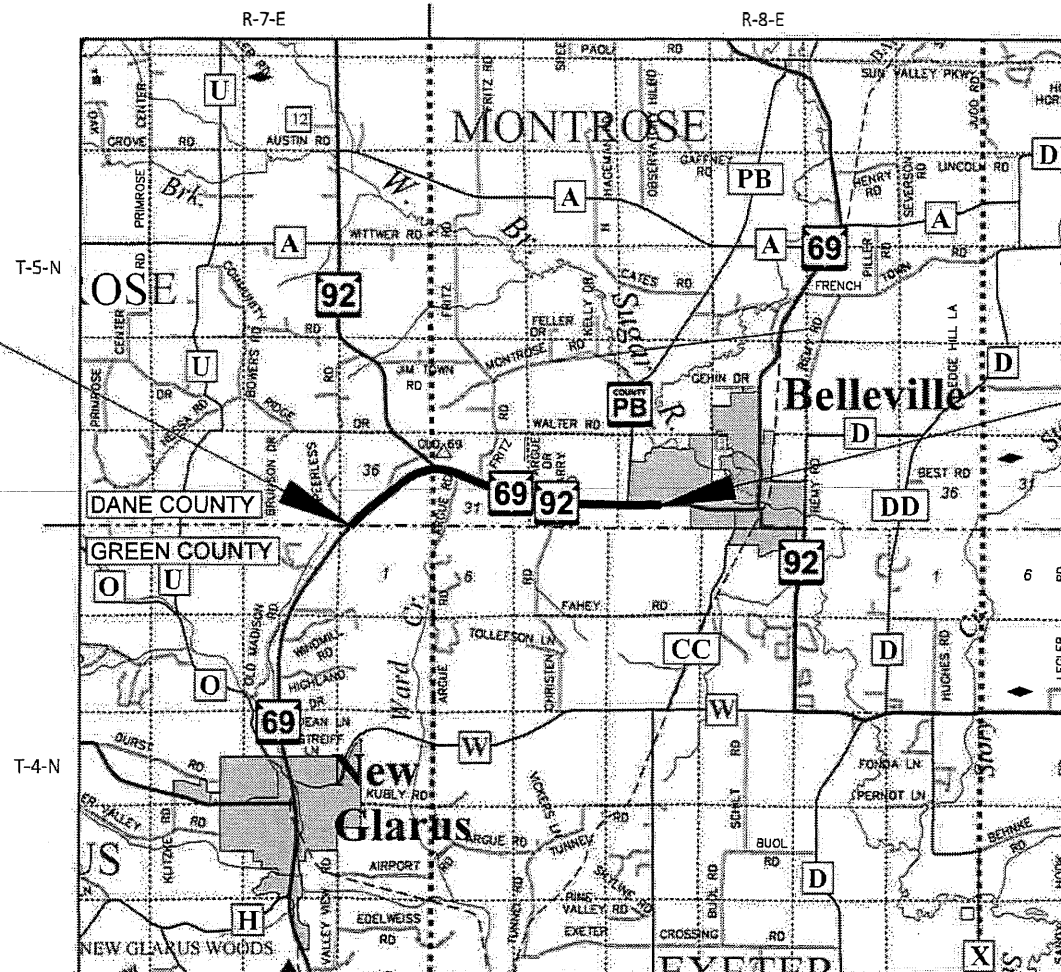
A.A.D.T.	2022	=	7,500
A.A.D.T.	2042	=	8,100
D.H.V.		=	9.2
D.D.		=	60/40
T.		=	17.0%
DESIGN SPEED		=	55 MPH
ESALS		=	2,400,000

CONVENTIONAL SYMBOLS

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

BEGIN PROJECT
STA. 1058+95
X=758203.970
Y=403853.679



LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 3.624 miles

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 12A.

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

NEW GLARUS - VERONA

SOUTH COUNTY LINE TO GEHIN STREET

STH 69
DANE COUNTY

STATE PROJECT NUMBER
1690-01-74

STATE PROJECT

1690-01-74

FEDERAL PROJECT

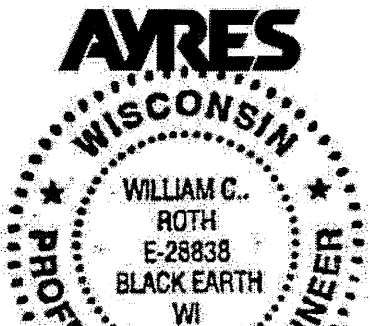
PROJECT

WISC 2021257

CONTRACT

1

ORIGINAL PLANS PREPARED BY



12-22-2020 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	SW REGION
Designer	AYRES ASSOCIATES
Project Manager	JIM SIMPSON, P.E. & P.L.S.
Regional Examiner	SW REGION
Regional Supervisor	KURT JOHNSON, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 12-11-2020 (Signature)

E

STANDARD ABBREVIATIONS

AP	ACCESS POINT	NOM	NOMINAL
AC	ACRE	NC	NORMAL CROWN
ADJ	ADJUST	N	NORTH
AECPRC	APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE	Y	NORTH GRID COORDINATE
		NB	NORTHBOUND
AH	AHEAD	NO	NUMBER
AC	ASPHALT CEMENT	OPT	OPTIONAL
ASPH	ASPHALTIC	OD	OUTSIDE DIAMETER
ACP	ASPHALTIC PAVEMENT CONCRETE	PAVT	PAVEMENT
AVG	AVERAGE	PLE	PERMANENT LIMITED EASEMENT
ADT	AVERAGE DAILY TRAFFIC	PACS	PIPE ARCH CORRUGATED STEEL
BK	BACK	PT	POINT
BAD	BASE AGGREGATE DENSE	PC	POINT OF CURVATURE
BM	BENCH MARK	PI	POINT OF INTERSECTION
CB	CATCH BASIN	PT	POINT OF TANGENCY
C/L	CENTER LINE	PVC	POINT OF VERTICAL CURVE
C/L CONST	CENTER LINE CONSTRUCTION	PVI	POINT OF VERTICAL INTERSECTION
Δ	CENTRAL ANGLE OR DELTA	PVT	POINT OF VERTICAL TANGENCY
CL	CLASS	PVC	POLYVINYL CHLORIDE
CONC	CONCRETE	PCC	PORTLAND CEMENT CONCRETE
CONST	CONSTRUCTION	LB	POUND
CMCP	CORRUGATED METAL CULVERT PIPE	PSF	POUNDS PER SQUARE FOOT
CTH	COUNTY TRUNK HIGHWAY	PSI	POUNDS PER SQUARE INCH
CABC	CRUSHED AGGREGATE BASE COURSE	PE	PRIVATE ENTRANCE
CFS	CUBIC FEET PER SECOND	PGL	PROFILE GRADE LINE
CY	CUBIC YARD	PL	PROPERTY LINE
CP	CULVERT PIPE	Q100	100 YEAR FLOW RATE
CPCS	CULVERT PIPE CORRUGATED STEEL	R	RADIUS
CPRC	CULVERT PIPE REINFORCED CONCRETE	RR	RAILROAD
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL	R	RANGE
		R/L	REFERENCE LINE
C & G	CURB AND GUTTER	REINF	REINFORCING OR REINFORCEMENT
D	DEGREE OF CURVE	REQD	REQUIRED
DRV	DESIGN HOUR VOLUME	RT	RIGHT
DIA	DIAMETER	R/W	RIGHT-OF-WAY
DD	DIRECTIONAL DISTRIBUTION	RD	ROAD
DWY	DRIVEWAY	RDWY	ROADWAY
E	EAST	SEC	SECTION CORNER
X	EAST GRID COORDINATE	SHLDR	SHOULDER
EB	EASTBOUND	S	SOUTH
EL	ELEVATION	SB	SOUTHBOUND
ESALS	EQUIVALENT SINGLE AXLE LOADS	SQ	SQUARE
EXC	EXCAVATION	SF	SQUARE FEET
EBS	EXCAVATION BELOW SUBGRADE	SW	SIDEWALK
EXIST	EXISTING	SY	SQUARE YARD
FPS	FEET PER SECOND	SDD	STANDARD DETAIL DRAWINGS
FERT	FERTILIZE	STH	STATE TRUNK HIGHWAYS
FE	FIELD ENTRANCE	STA	STATION
FL	FLOW LINE	SS	STORM SEWER
FT	FOOT	SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
GN	GRID NORTH	ST	STREET
HES	HIGH EARLY STRENGTH	STR	STRUCTURE OR STRUCTURAL
HP	HIGH POINT	SE	SUPERELEVATION
HW	HIGH WATER	T	TANGENT
HMA	HOT MIX ASPHALT	TEMP	TEMPORARY
CWA	HUNDREDWEIGHT	TI	TEMPORARY INTEREST
HYD	HYDRANT	TLE	TEMPORARY LIMITED EASEMENT
INL	INLET	t	TON
ID	INSIDE DIAMETER	T	TOWN
I	INTERSECTION ANGLE	T/L	TRANSIT LINE
INV	INVERT	T	TRUCKS (PERCENT OF)
IP	IRON PIPE OR PIN	TYP	TYPICAL
JT	JOINT	USH	UNITED STATES HIGHWAY
LT	LEFT	VAR	VARIABLE
L	LENGTH OF CURVE	V	VELOCITY OF DESIGN SPEED
LF	LINEAR FOOT	VERT	VERTICAL
LP	LOW POINT	VC	VERTICAL CURVE
LS	LUMP SUM	VOL	VOLUME
MH	MANHOLE	WM	WATER MAIN
MAX	MAXIMUM	WV	WATER VALVE
Mgal	MEGAGALLON	W	WEST
MPH	MILES PER HOUR	WB	WESTBOUND
MIN	MINIMUM	Y	YARD
MON	MONUMENT		

GENERAL NOTES

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

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLAN ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT AREA THAT ARE NOT SHOWN. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

SAWCUTS AS SHOWN ON THE PLANS ARE AT SUGGESTED LOCATIONS AND MAY BE ADJUSTED AT THE DISCRETION OF THE ENGINEER TO BETTER SUIT FIELD CONDITIONS.

ASPHALTIC SURFACE/HMA PAVEMENT WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN PER THE PAVEMENT REPORT.

APPLY TACK COAT BETWEEN LAYERS OF NEW HMA PAVEMENT AT A RATE OF 0.05 GAL/SY, AND 0.07 GAL/SY PLACED ON EXISTING ASPHALT MILLED SURFACES.

EROSION CONTROL FEATURES AS SHOWN ON THE PLANS, SHALL BE ADJUSTED TO FIT EXISTING FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

GRADING IS NOT ALLOWED IN DELINEATED WETLAND AREAS. DO NOT STORE EQUIPMENT OR MATERIAL IN ENVIRONMENTALLY SENSITIVE AREAS, WETLANDS OR WATERWAYS.

UTILITY CONTACTS

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rothw@ayresassociates.com

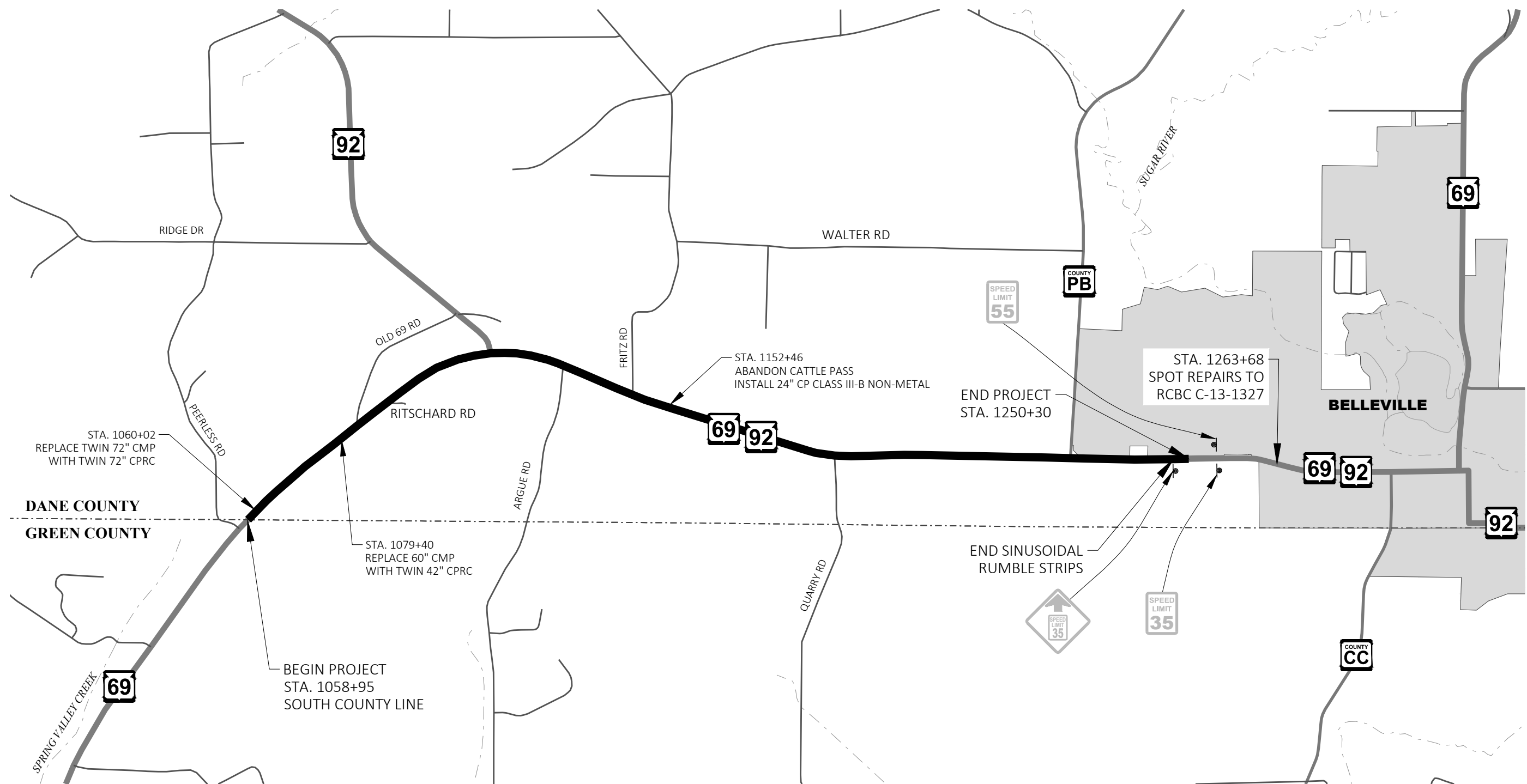
Eric Heggelund
Wisconsin DNR Liaison
3911 Fish Hatchery Rd
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(608) 275-3485
Eric.heggelund@wiconsin.gov

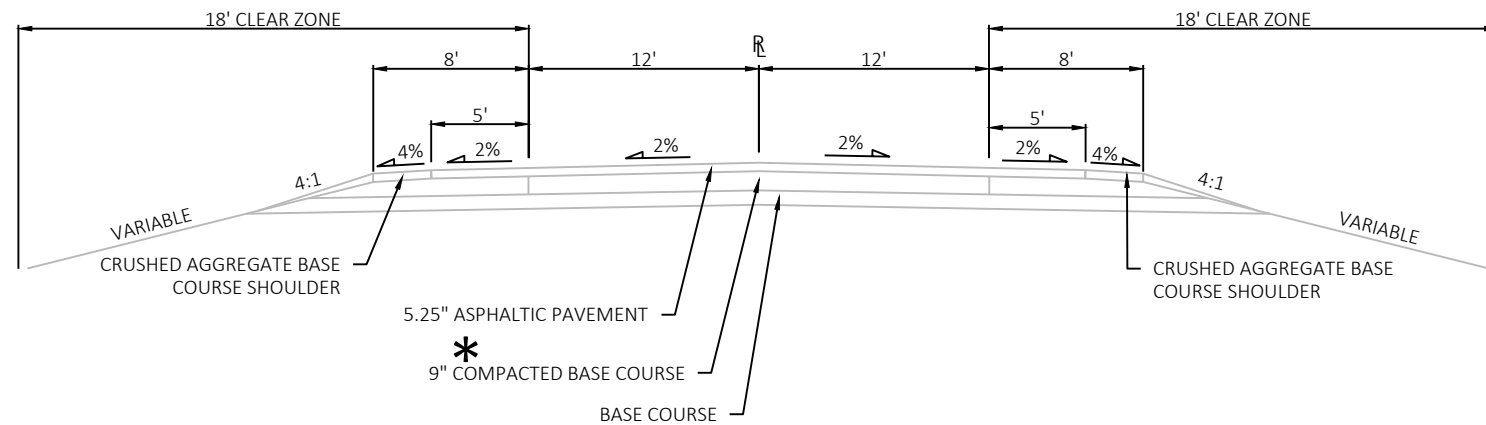
ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PIPE REPLACEMENT DETAILS
EROSION CONTROL
PAVEMENT MARKING
TRAFFIC CONTROL AND CONSTRUCTION STAGING
DETOUR



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





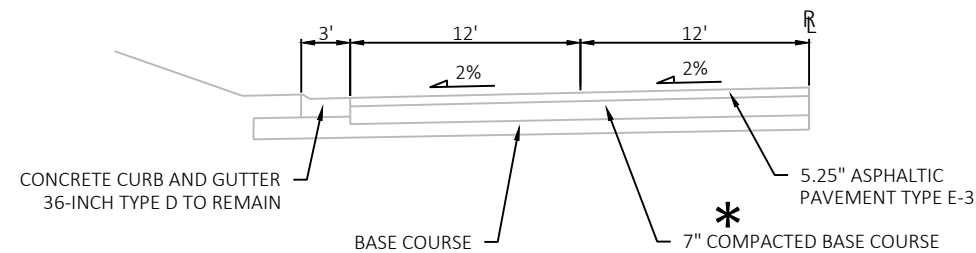
TYPICAL EXISTING SECTION

STATIONS (LT)

STA. 1058+95 - STA. 1109+65
STA. 1118+25 - STA. 1152+60
STA. 1234+60 - STA. 1250+30

STATIONS (RT)

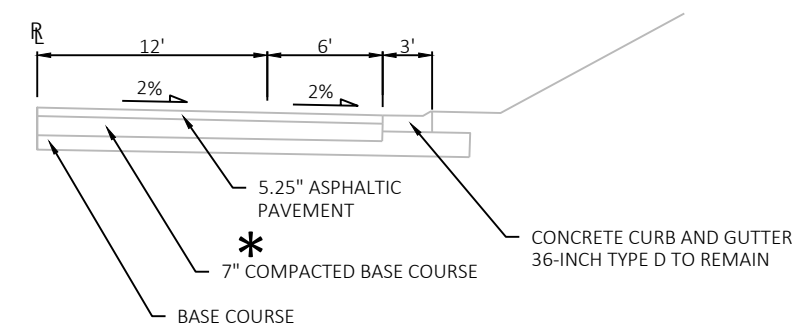
STA. 1058+95 - STA. 1078+00
STA. 1118+30 - STA. 1177+75
STA. 1183+50 - STA. 1193+00
STA. 1199+50 - STA. 1217+00
STA. 1246+50 - STA. 1250+30



TYPICAL EXISTING HALF-SECTION - SB CURB AND GUTTER

STATIONS (LT)

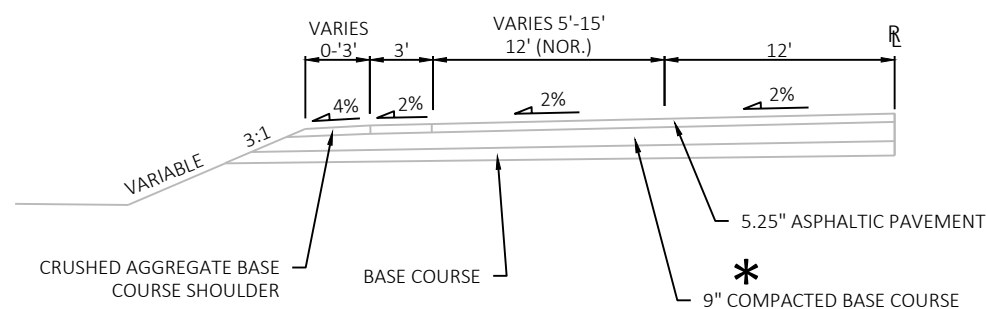
STA. 1158+40 - STA. 1160+90
STA. 1176+90 - STA. 1182+90
STA. 1193+40 - STA. 1198+95



TYPICAL EXISTING HALF-SECTION - NB CURB AND GUTTER

STATIONS (RT)

STA. 1177+75 - STA. 1183+50
STA. 1193+00 - STA. 1199+50
STA. 1228+30 - STA. 1240+00



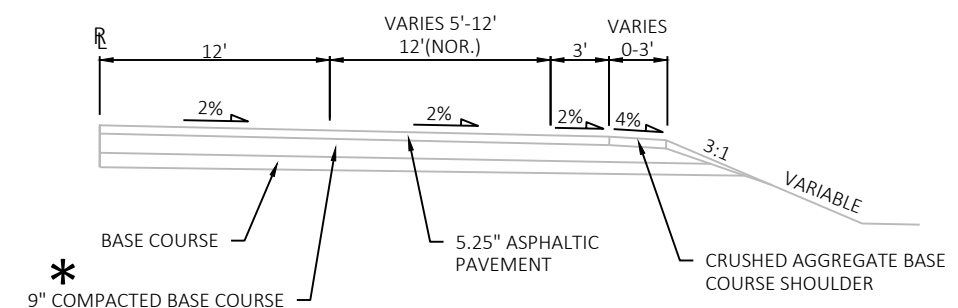
TYPICAL EXISTING HALF-SECTION - SB AUXILIARY LANE

12' LANE STATIONS (LT)

STA. 1113+30 - STA. 1116+45
STA. 1155+75 - STA. 1158+40
STA. 1160+90 - STA. 1176+90
STA. 1182+90 - STA. 1193+40
STA. 1198+95 - STA. 1232+60

VARIABLE WIDTH LANE STATIONS (LT)

STA. 1109+65 - STA. 1113+30
STA. 1116+45 - STA. 1118+25
STA. 1152+60 - STA. 1155+75
STA. 1232+60 - STA. 1234+60



TYPICAL EXISTING HALF-SECTION - NB AUXILIARY LANE

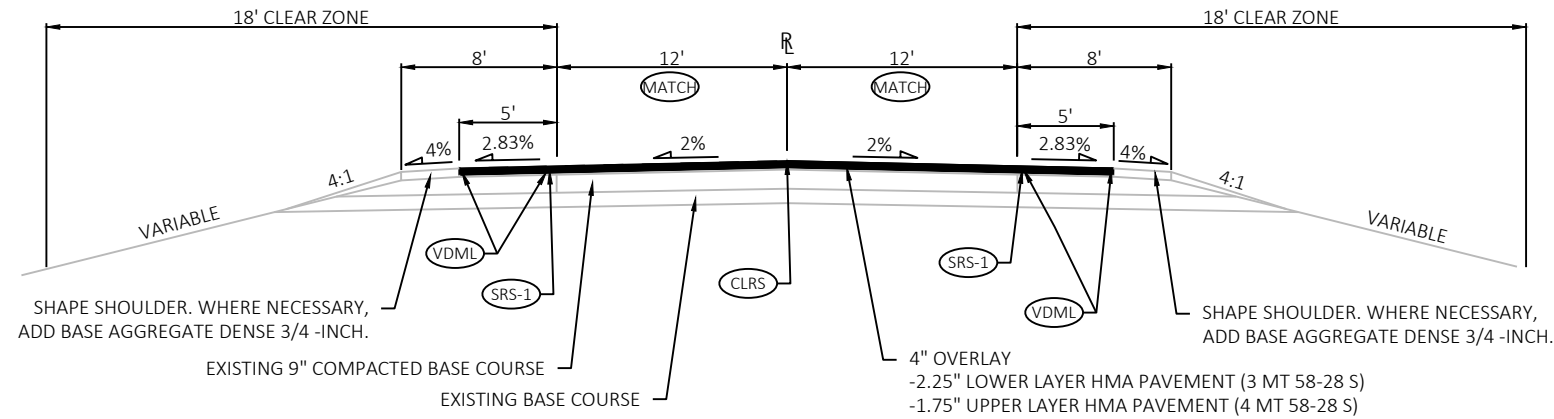
12' LANE STATIONS (RT)

STA. 1081+65 - STA. 1115+00
STA. 1222+95 - STA. 1228+30

VARIABLE WIDTH LANE STATIONS (RT)

STA. 1078+00 - STA. 1081+65
STA. 1115+00 - STA. 1118+30
STA. 1217+00 - STA. 1222+95
STA. 1240+00 - STA. 1246+50

NOTE:
* MILLED MIXED AND RELAYED
ASPHALTIC PAVEMENT AND BASE
COURSE.



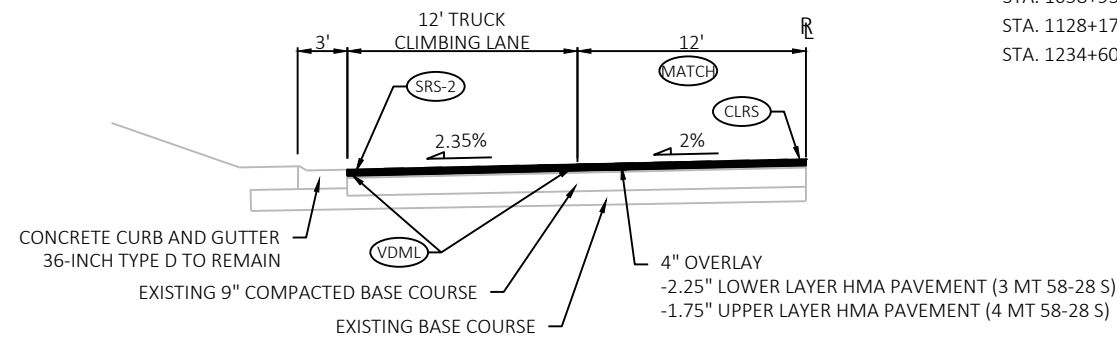
TYPICAL FINISHED SECTION

STATIONS (LT)

STA. 1058+95 - STA. 1097+26
STA. 1128+17 - STA. 1153+50
STA. 1234+60 - STA. 1250+30

STATIONS (RT)

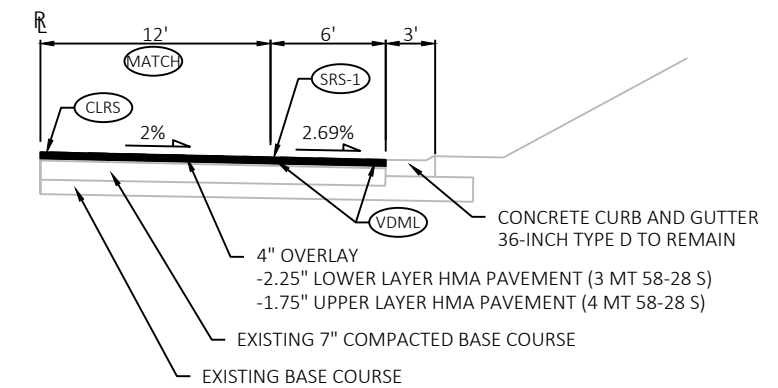
STA. 1058+95 - STA. 1078+00
STA. 1128+17 - STA. 1177+08
STA. 1185+72 - STA. 1193+00
STA. 1199+50 - STA. 1228+30
STA. 1240+00 - STA. 1250+30



TYPICAL FINISHED HALF-SECTION - SB CURB AND GUTTER

STATIONS (LT)

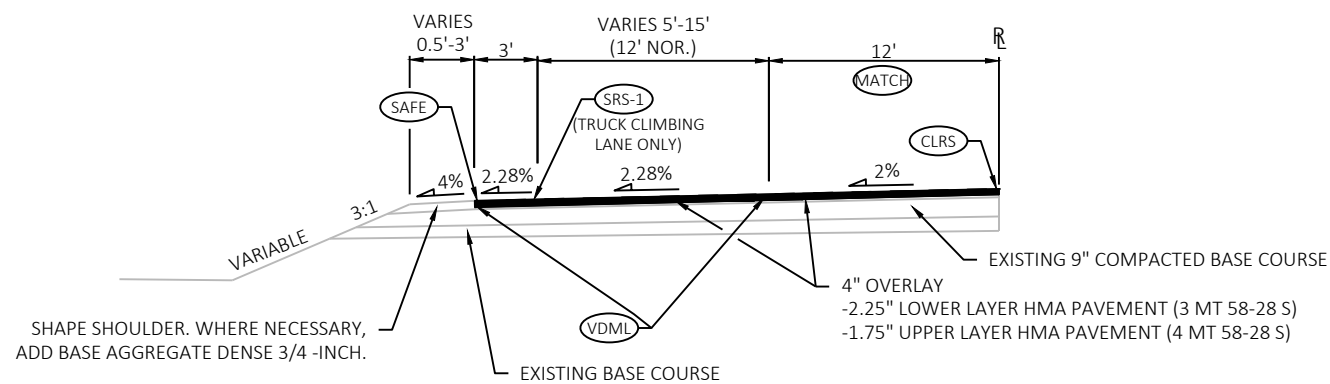
STA. 1158+50 - STA. 1161+00
STA. 1177+00 - STA. 1177+08
STA. 1193+50 - STA. 1199+00



TYPICAL FINISHED HALF-SECTION - NB CURB AND GUTTER

STATIONS (RT)

STA. 1193+00 - STA. 1199+50
STA. 1228+30 - STA. 1240+00



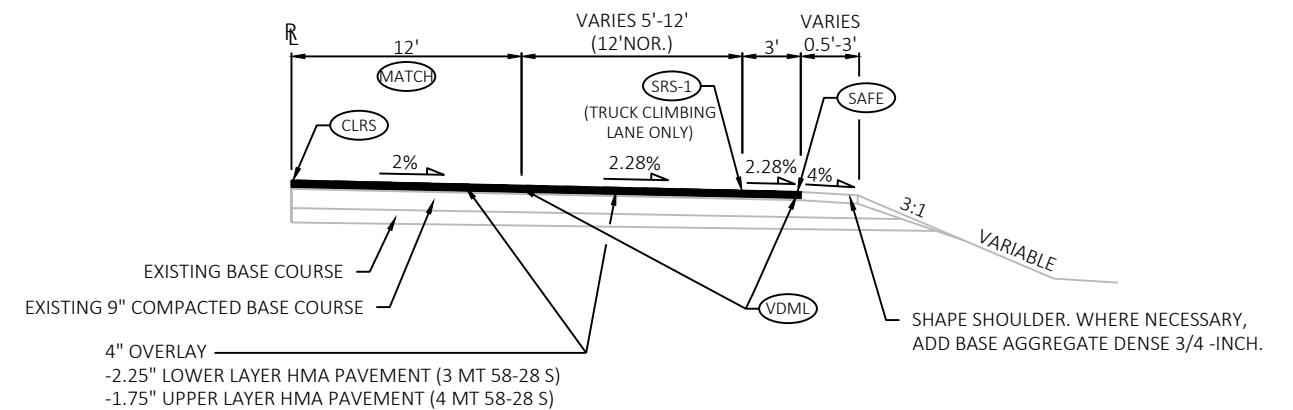
TYPICAL FINISHED HALF-SECTION - SB AUXILIARY LANE

12' LANE STATIONS (LT)

STA. 1157+50 - STA. 1158+50
STA. 1161+00 - STA. 1177+00
STA. 1185+72 - STA. 1193+50
STA. 1199+00 - STA. 1228+80

VARIABLE WIDTH LANE STATIONS (LT)

STA. 1153+50 - STA. 1157+50
STA. 1228+80 - STA. 1234+60



TYPICAL FINISHED HALF-SECTION - NB AUXILIARY LANE

12' LANE STATIONS (RT)

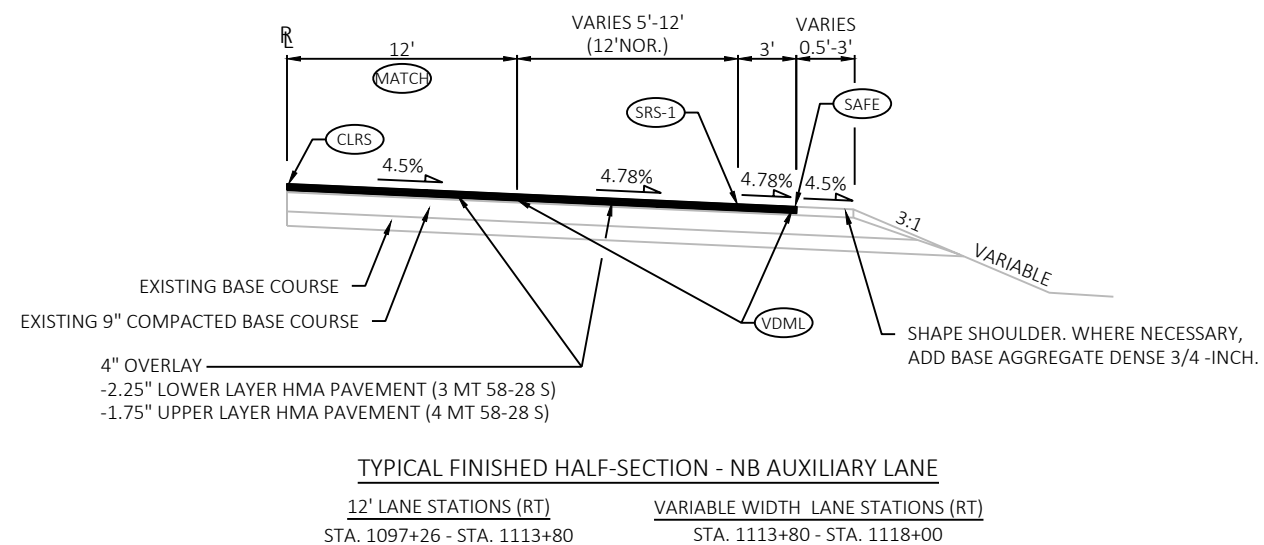
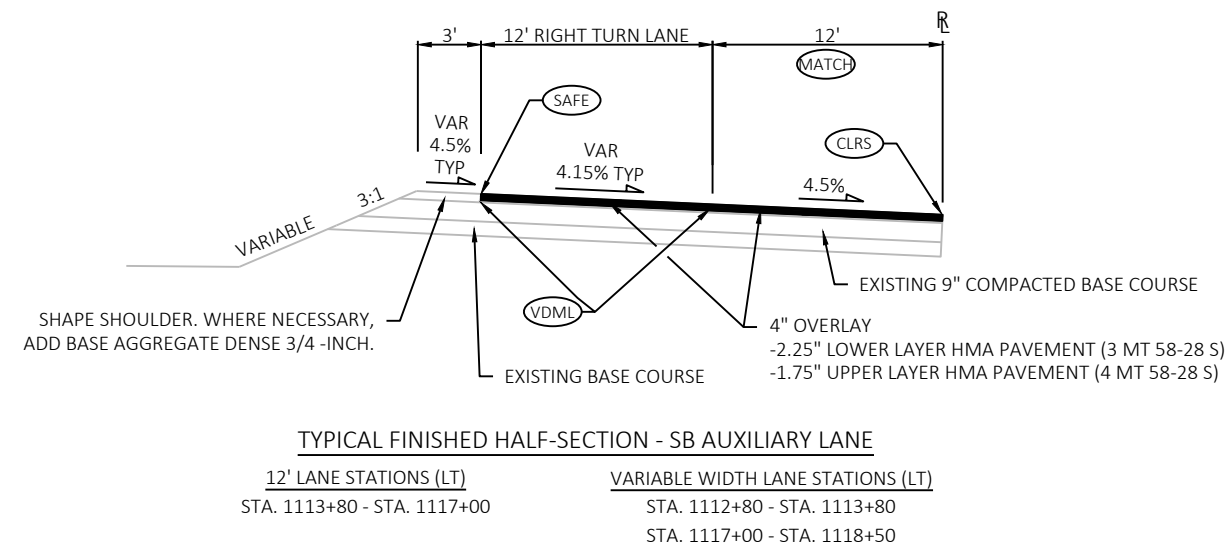
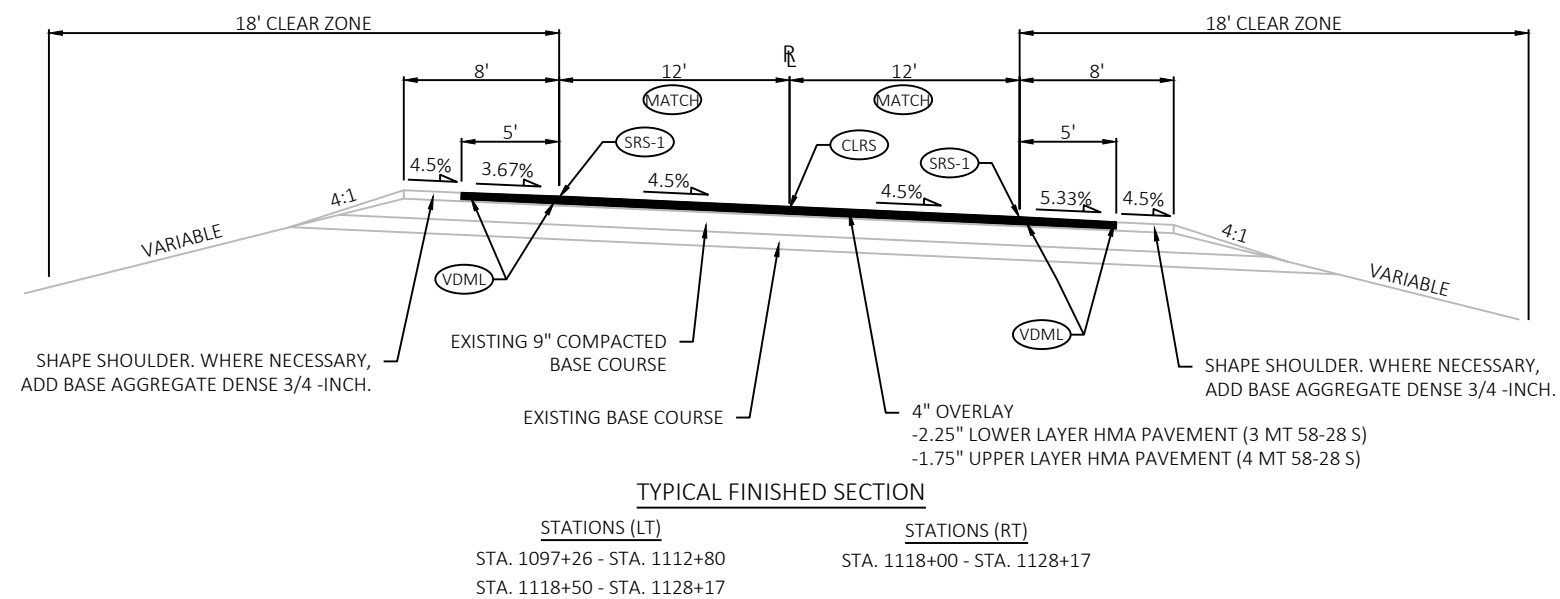
STA. 1083+00 - STA. 1097+26

VARIABLE WIDTH LANE STATIONS (RT)

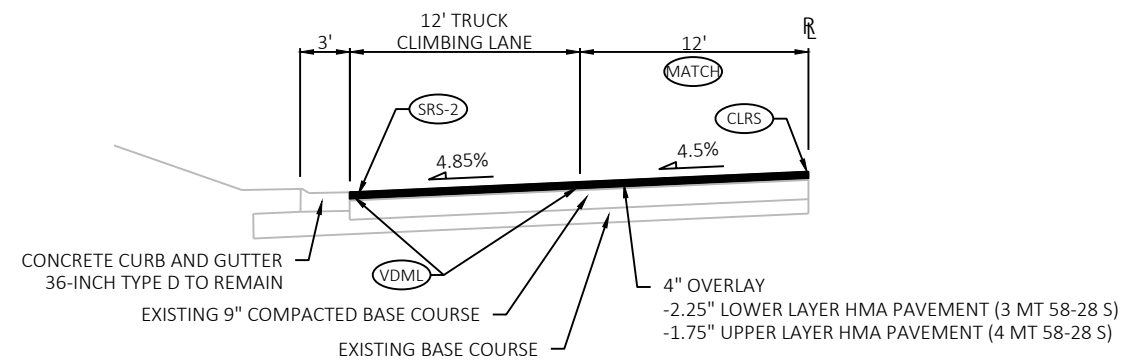
STA. 1078+00 - STA. 1083+00

LEGEND:

- (MATCH) MILL 3.5" AND OVERLAY 4" TO MATCH CROSS SLOPE OF EXISTING 5.25" ASPHALTIC PAVEMENT
- (VDML) VARIABLE DEPTH MILL, 3.5" TO 4"
- (SAFE) SAFETY EDGE
- (CLRS) SINUSOIDAL CENTERLINE RUMBLE STRIPS
- (SRS-1) SINUSOIDAL SHOULDER RUMBLE STRIPS - TYPE 1
- (SRS-2) SINUSOIDAL SHOULDER RUMBLE STRIPS - TYPE 2



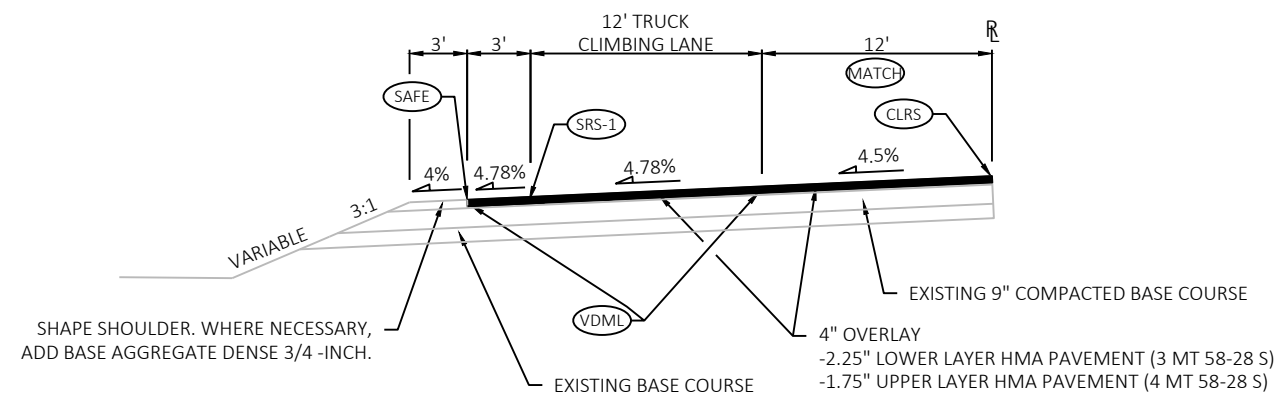
LEGEND:	
	MILL 3.5" AND OVERLAY 4" TO MATCH CROSS SLOPE OF EXISTING 5.25" ASPHALTIC PAVEMENT
	VARIABLE DEPTH MILL, 3.5" TO 4"
	SAFETY EDGE
	SINUSOIDAL CENTERLINE RUMBLE STRIPS
	SINUSOIDAL SHOULDER RUMBLE STRIPS - TYPE 1
	SINUSOIDAL SHOULDER RUMBLE STRIPS - TYPE 2



TYPICAL FINISHED HALF-SECTION - SB CURB AND GUTTER

STATIONS (LT)

STA. 1177+08 - STA. 1182+95



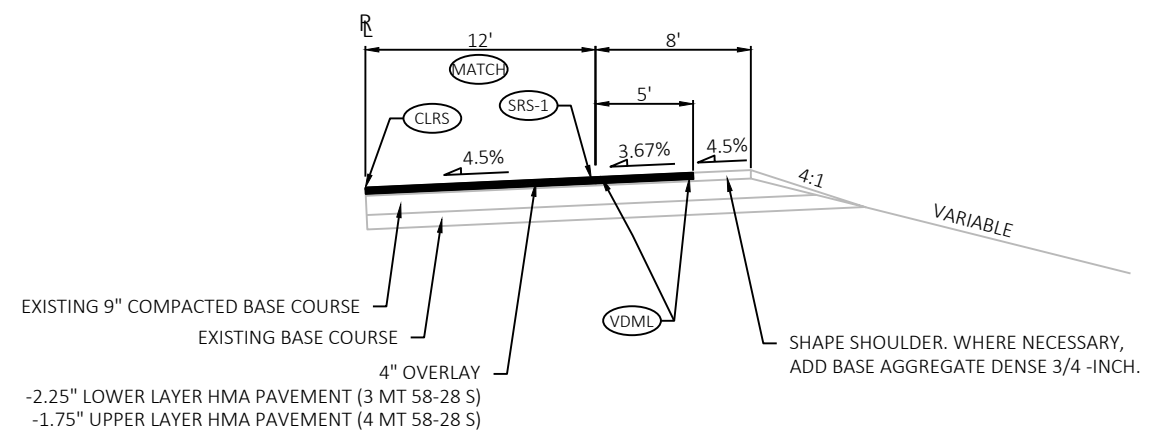
TYPICAL FINISHED HALF-SECTION - SB TRUCK CLIMBING LANE

STATIONS (LT)

STA. 1182+95 - STA. 1185+72

LEGEND:

- MILL 3.5" AND OVERLAY 4" TO MATCH CROSS SLOPE OF EXISTING 5.25" ASPHALTIC PAVEMENT
- VARIABLE DEPTH MILL, 3.5" TO 4"
- SAFETY EDGE
- SINUSOIDAL CENTERLINE RUMBLE STRIPS
- SINUSOIDAL SHOULDER RUMBLE STRIPS - TYPE 1
- SINUSOIDAL SHOULDER RUMBLE STRIPS - TYPE 2

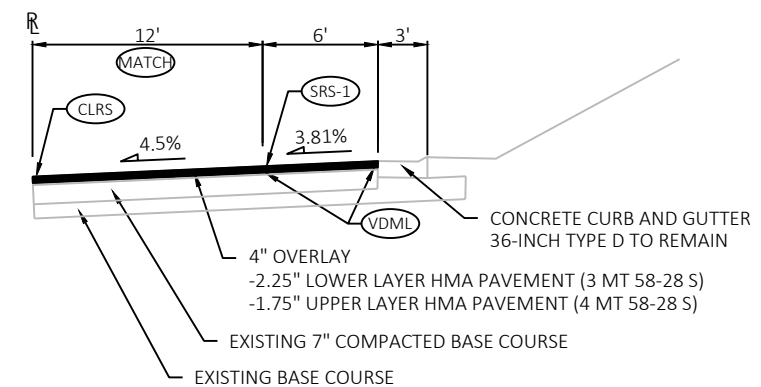


TYPICAL FINISHED HALF-SECTION - NB 8' SHOULDER

STATIONS (RT)

STA. 1177+08 - STA. 1177+85

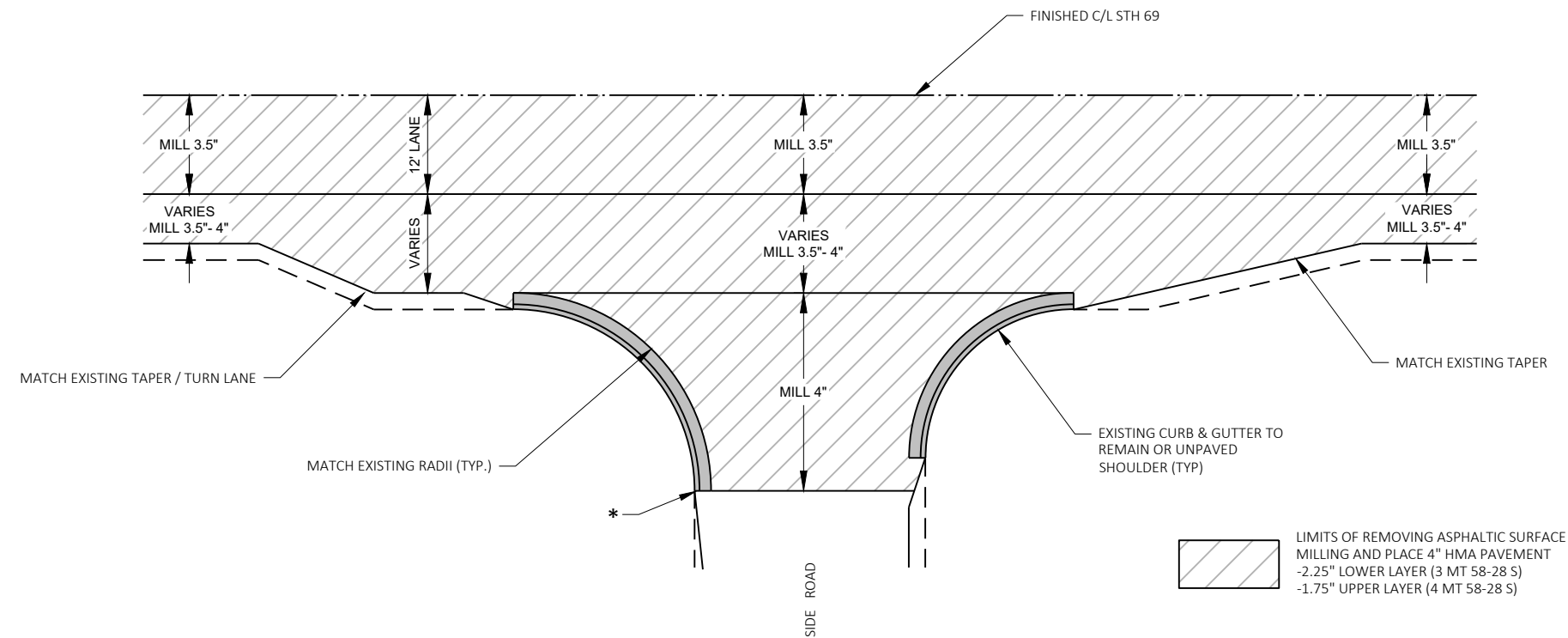
STA. 1182+45 - STA. 1185+72



TYPICAL FINISHED HALF-SECTION - NB CURB AND GUTTER

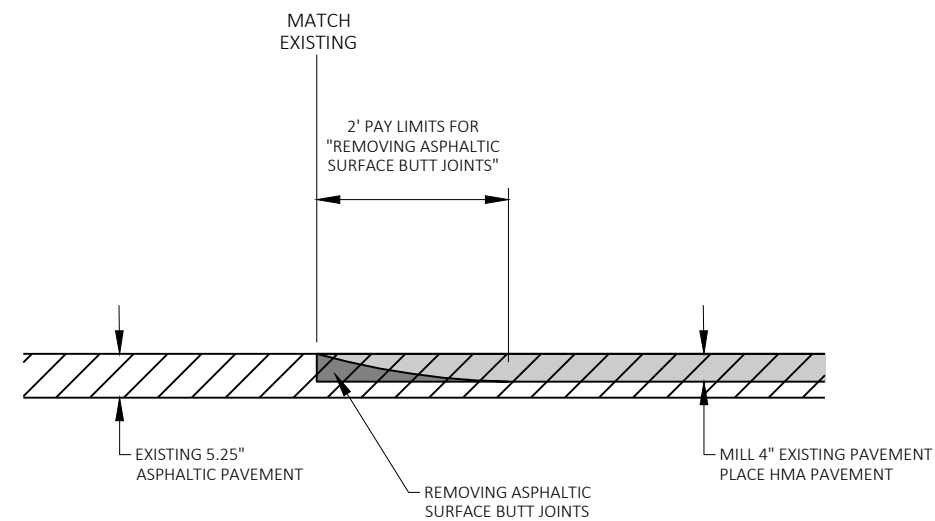
STATIONS (RT)

STA. 1177+85 - STA. 1182+45

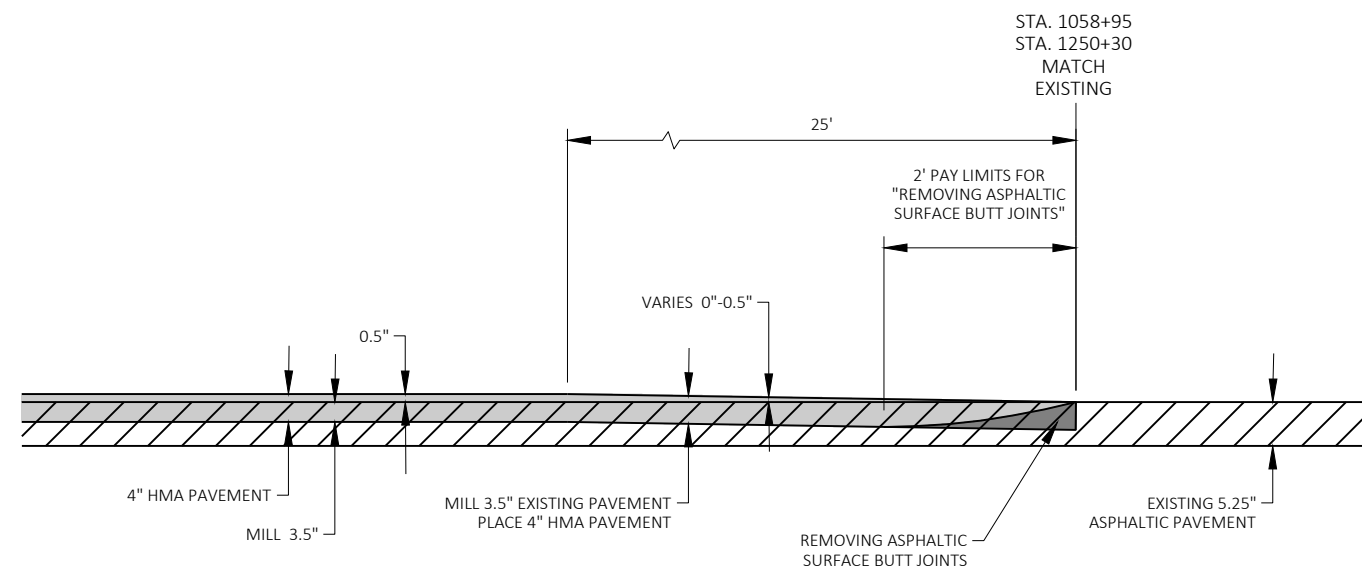


TYPICAL SIDE ROAD PAVING LIMITS

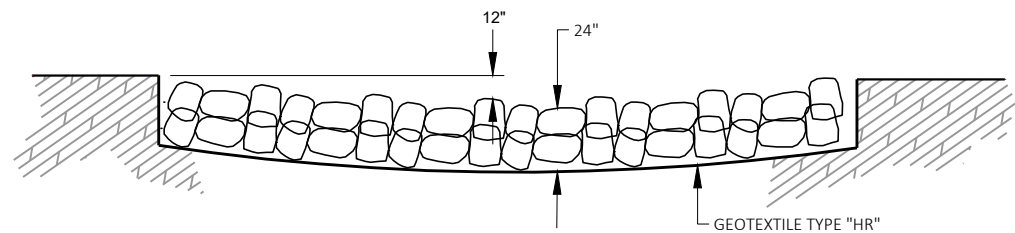
* MILL AND OVERLAY TO RADIUS POINT FARTEST FROM MAINLINE STH 69



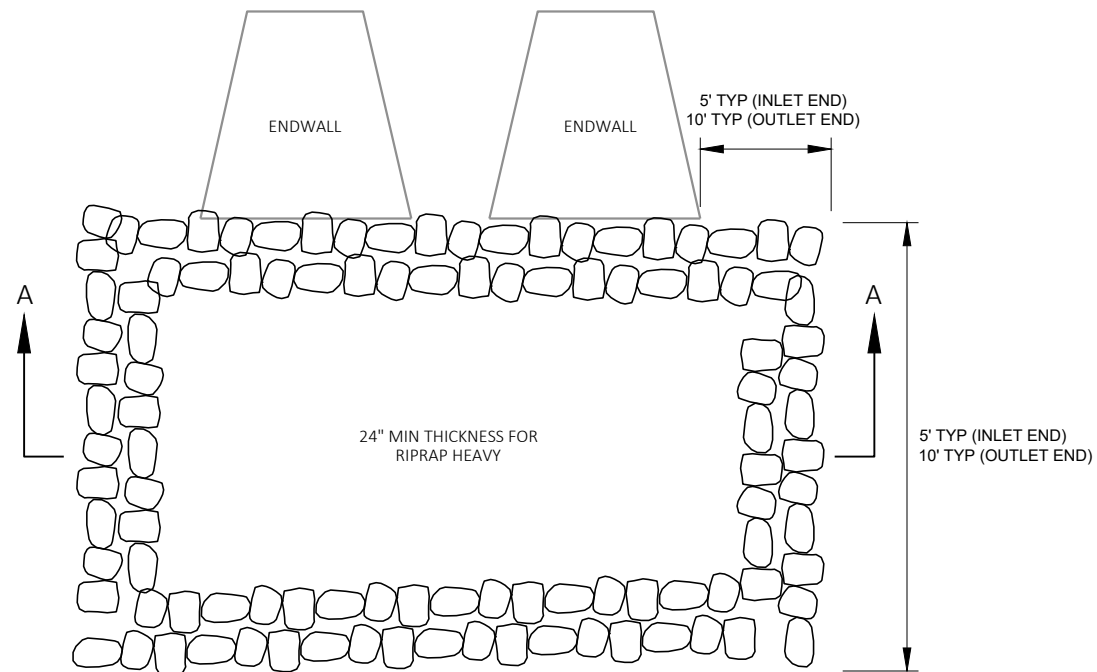
BUTT JOINT TO MATCH EXISTING - SIDE ROADS



BUTT JOINT TO MATCH EXISTING - STH 69



SECTION A-A



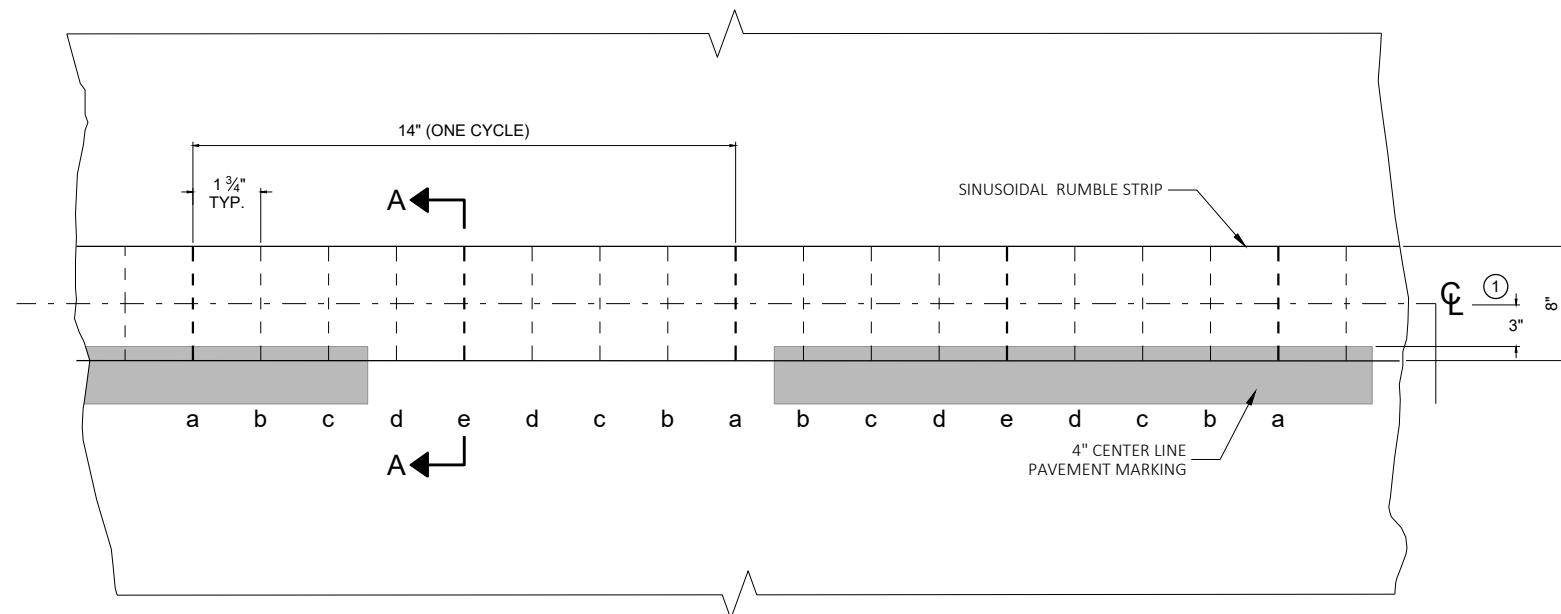
RIPRAP HEAVY TREATMENT AT CULVERTS

NOTE:
RIPRAP HEAVY IS GROUTED AT TWIN 72" CPRC
LOCATED AT STA 1060+00 LT AND RT

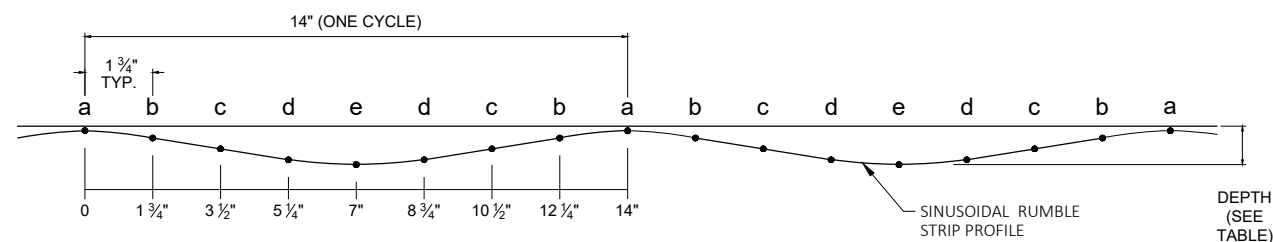
ESTIMATED BAG SIZE = 18" X 12" X 6"	
PIPE SIZE	ESTIMATED NO. OF BAGS
12"	1
15"	2
18"	2
21"	3
14" X 23"	3
24"	3
27"	4
30"	5
19" X 30"	5
36"	7
24" X 38"	8
42"	8
29" X 45"	10
48"	10
34" X 53"	10
38" X 60"	13
60"	13
66"	15
53" X 83"	19

SEE SDD 8E15 FOR PLACEMENT OF
ROCK BAGS AT END OF CULVERT PIPE

ROCK BAGS FOR CULVERT PIPE CHECKS

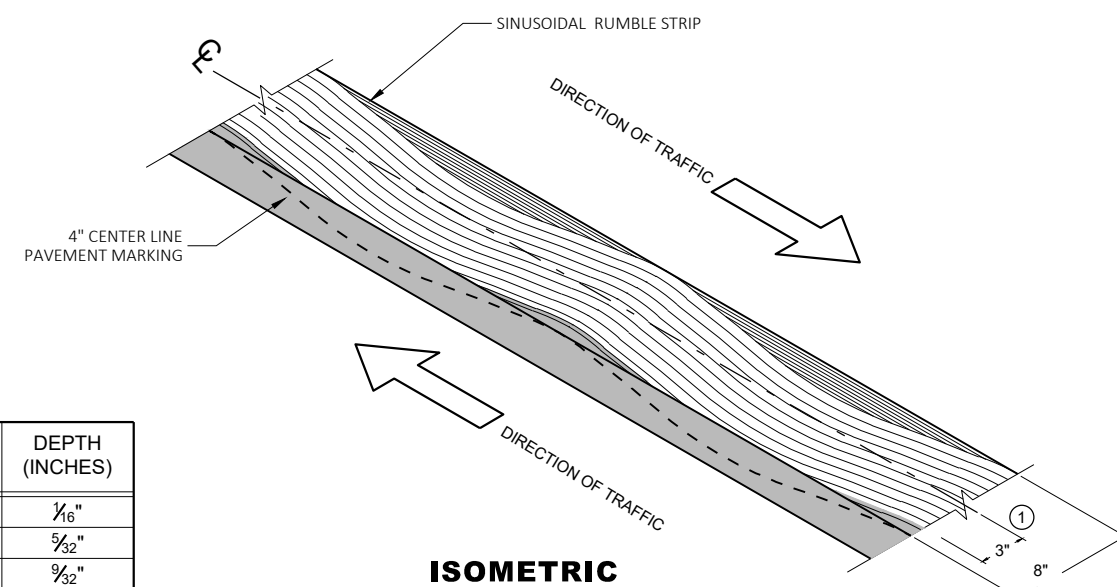


**PLAN VIEW
SINUSOIDAL CENTER LINE RUMBLE STRIPS**

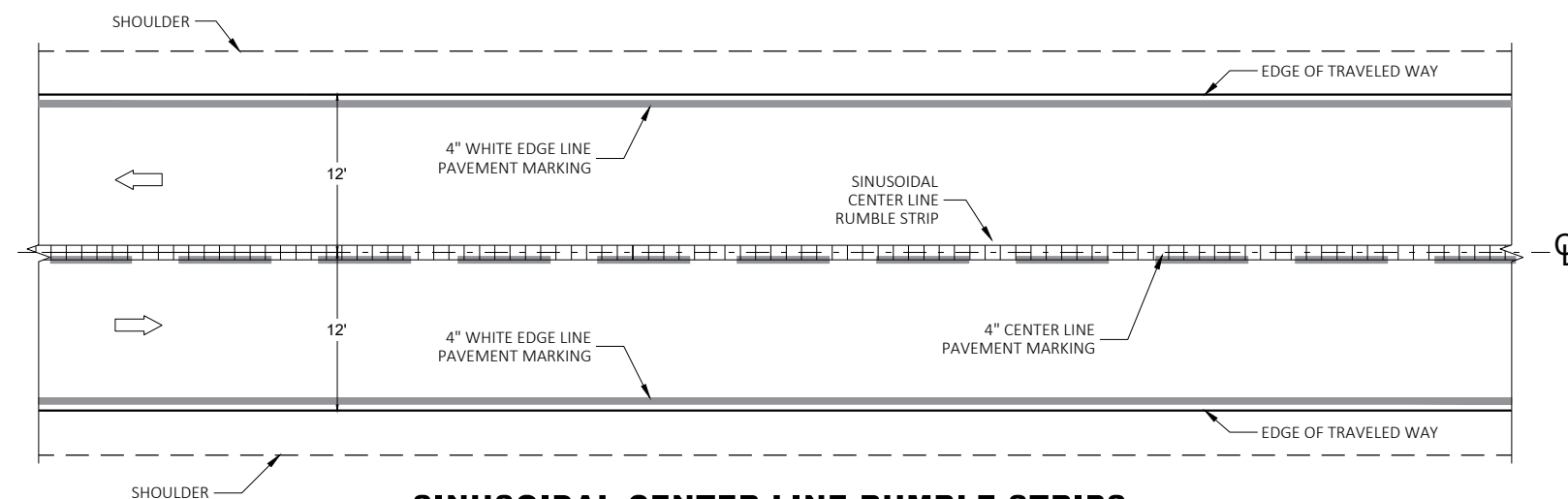


**PROFILE VIEW
SINUSOIDAL SHOULDER RUMBLE STRIPS**

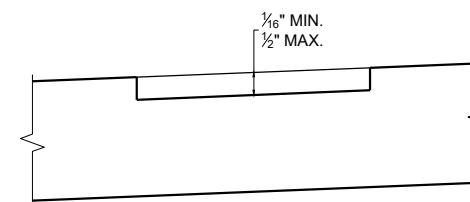
LOCATION	DEPTH (INCHES)
a	1/16"
b	5/32"
c	9/32"
d	7/16"
e	1/2"



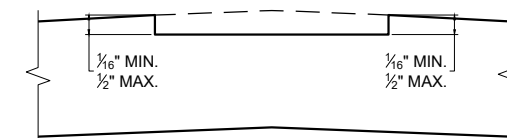
ISOMETRIC



**SINUSOIDAL CENTER LINE RUMBLE STRIPS,
2-LANE ASPHALTIC ROADWAY**



**SECTION A - A
SUPERELEVATED ROADWAY**



**SECTION A - A
CROWNED ROADWAY**

GENERAL NOTES

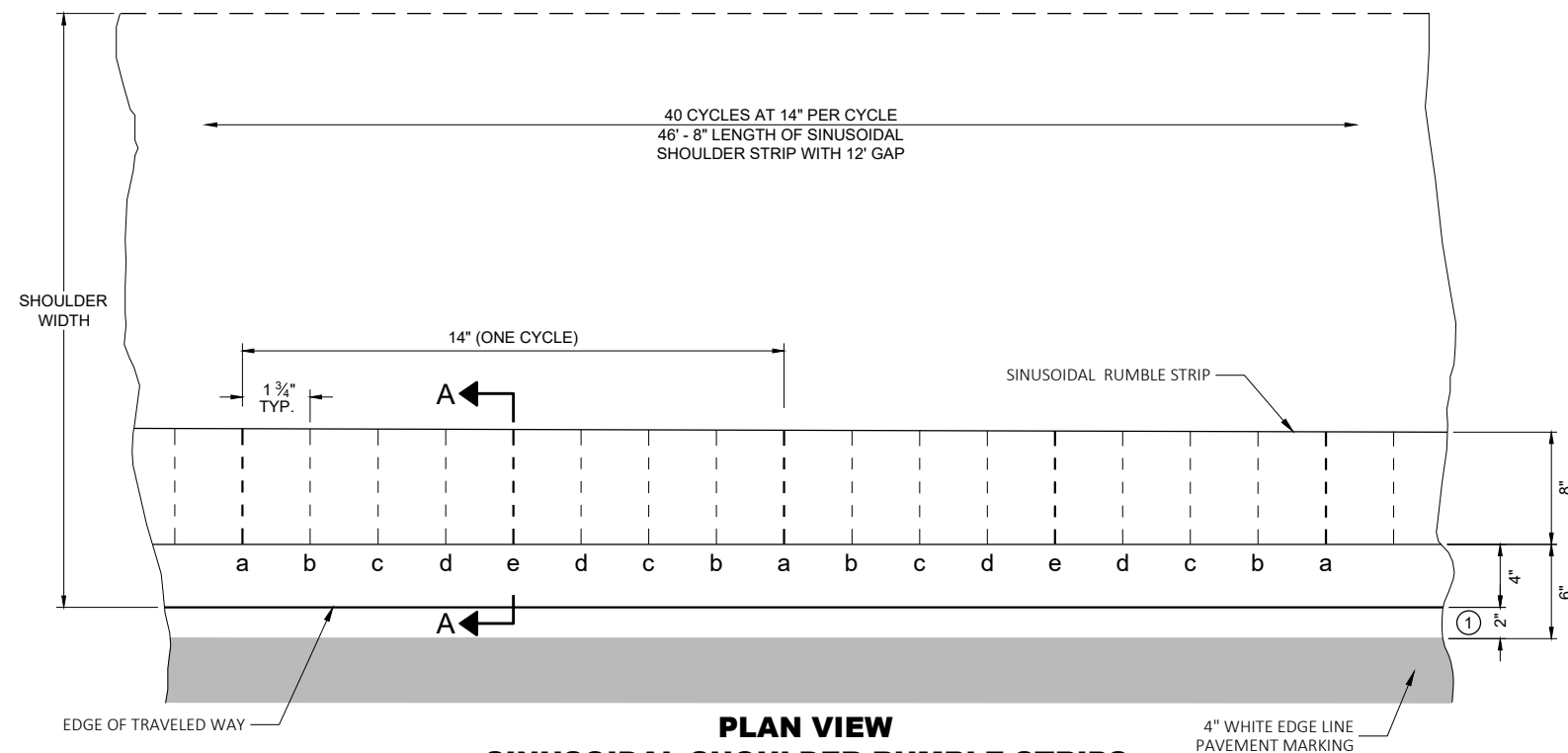
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GAP SINUSOIDAL RUMBLE STRIPS AT INTERSECTIONS, BRIDGE AND APPROACH SLABS, RAILROADS, DRIVEWAYS, PASSING AND CLIMBING LANES, AND OTHER MISCELLANEOUS CROSSINGS

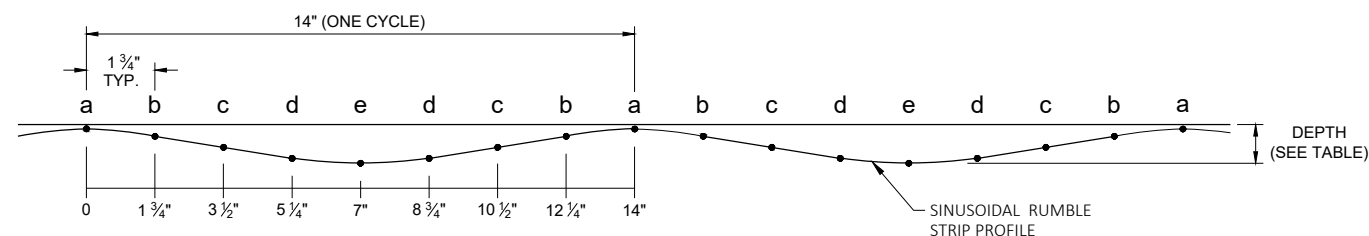
SHOULDER RUMBLE STRIPS MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

TEMPORARY PAVEMENT MARKINGS ARE TYPICALLY PLACED PRIOR TO RUMBLE STRIP INSTALLATION. PERMANENT MARKINGS ARE INSTALLED AFTER RUMBLE STRIP INSTALLATION.

① REFER TO SDD 15C8 - SHEET "a" LONGITUDINAL MARKINGS (MAINLINE).

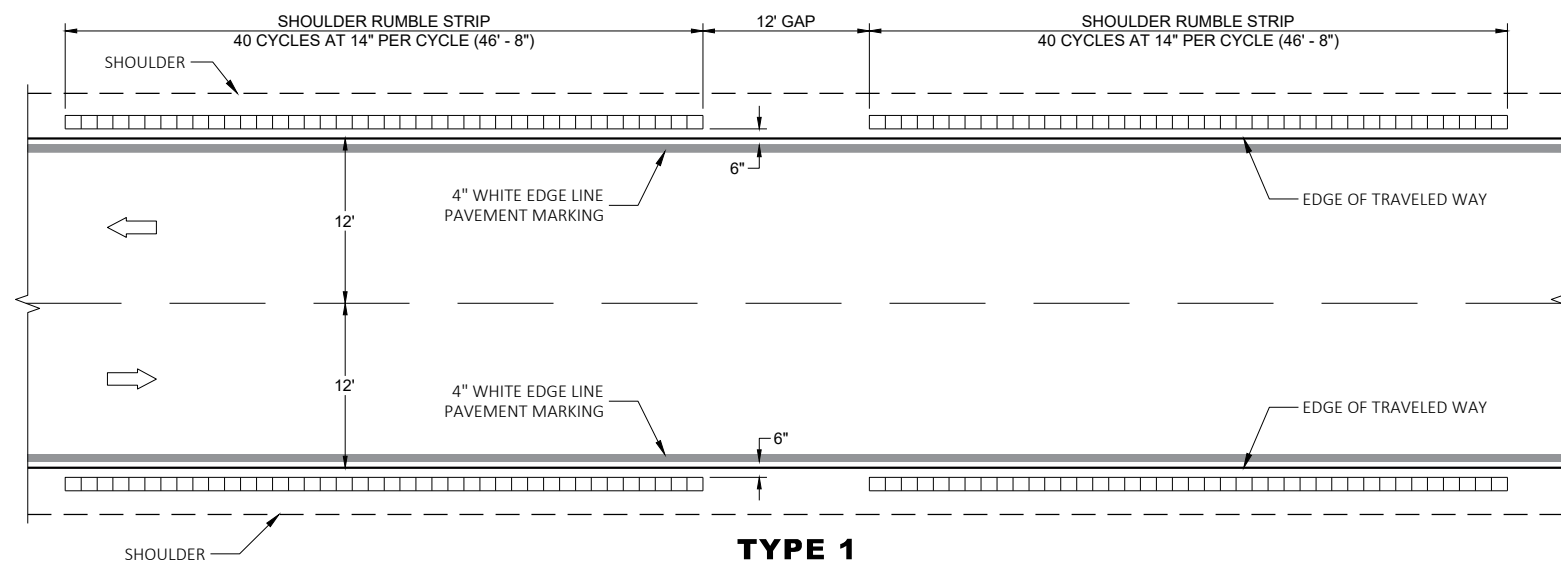


PLAN VIEW
SINUSOIDAL SHOULDER RUMBLE STRIPS



PROFILE VIEW
SINUSOIDAL SHOULDER RUMBLE STRIPS

LOCATION	DEPTH (INCHES)
a	1/16"
b	5/32"
c	9/32"
d	7/16"
e	1/2"



TYPE 1
SINUSOIDAL SHOULDER RUMBLE STRIPS,
2-LANE ASPHALTIC ROADWAY

GENERAL NOTES

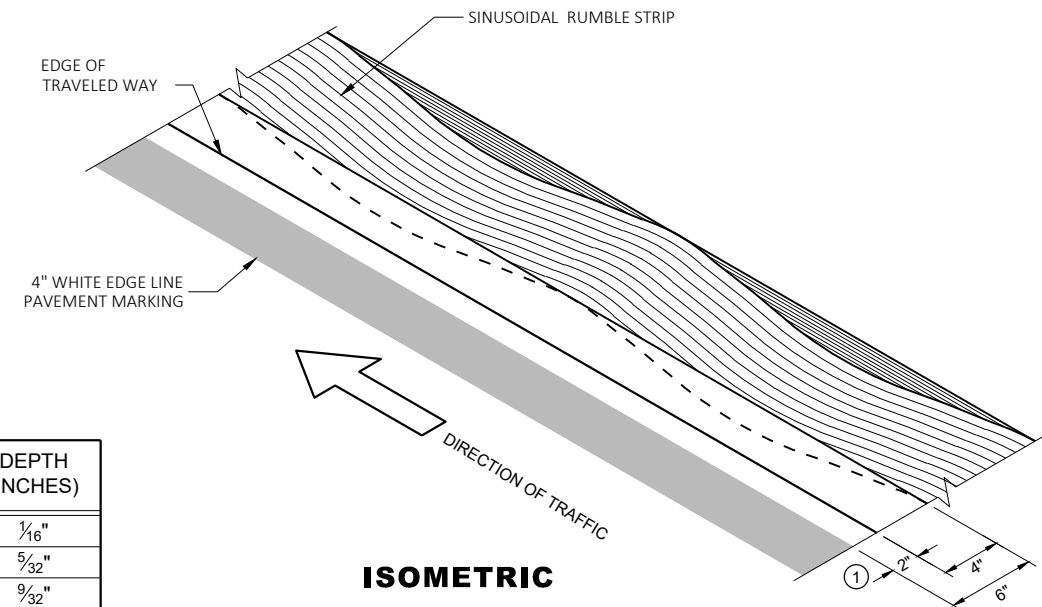
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GAP SINUSOIDAL RUMBLE STRIPS AT INTERSECTIONS, BRIDGE AND APPROACH SLABS, RAILROADS, DRIVEWAYS, PASSING AND CLIMBING LANES, AND OTHER MISCELLANEOUS CROSSINGS

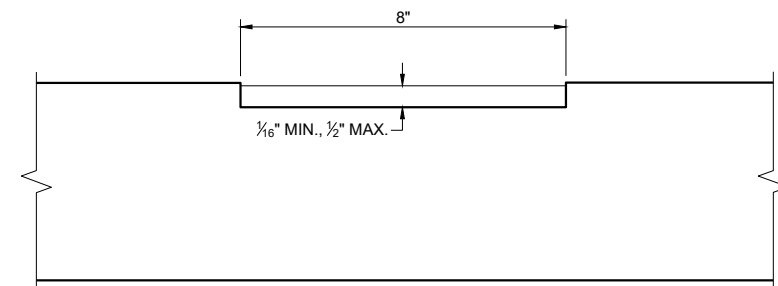
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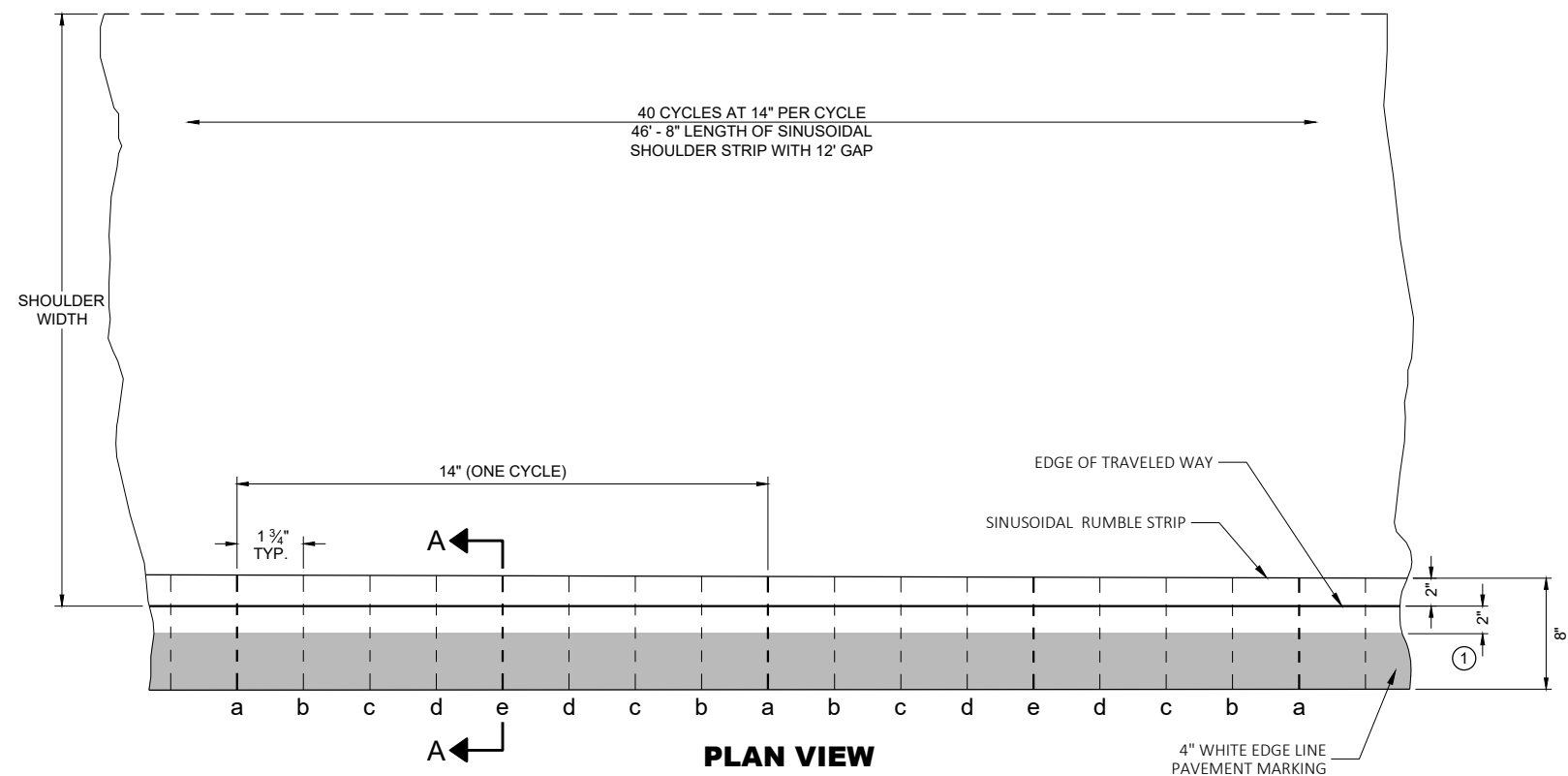
① REFER TO SDD 15C8 - SHEET "a" LONGITUDINAL MARKINGS (MAINLINE).



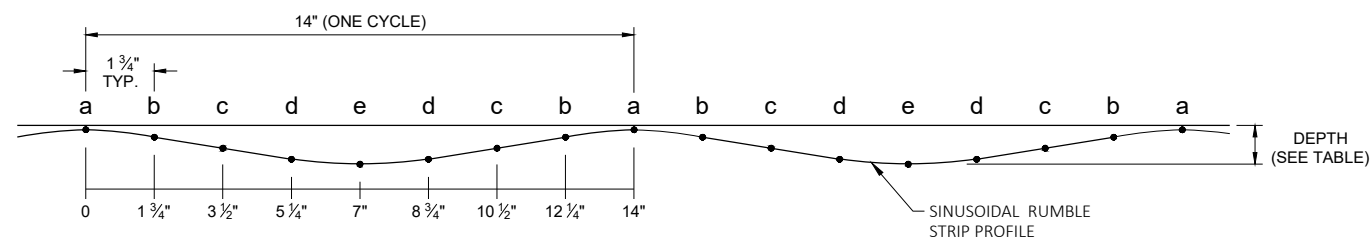
ISOMETRIC



SECTION A - A

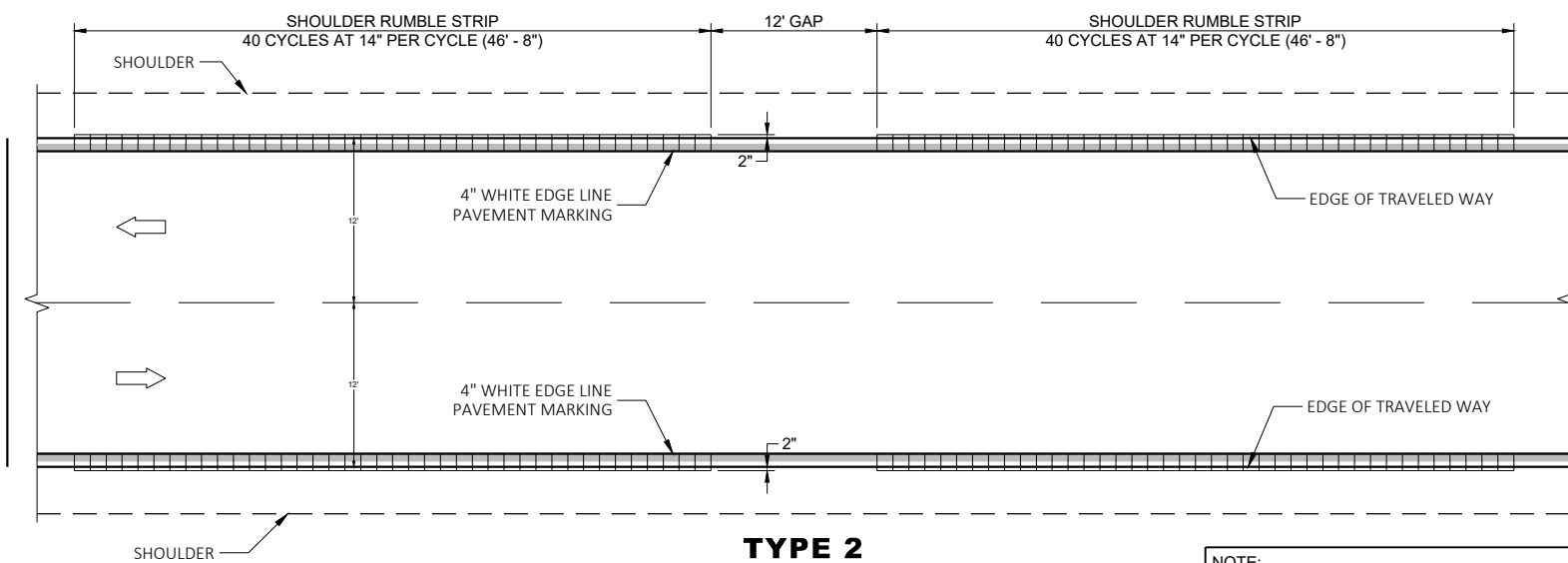


**PLAN VIEW
SINUSOIDAL SHOULDER RUMBLE STRIPS**



**PROFILE VIEW
SINUSOIDAL SHOULDER RUMBLE STRIPS**

LOCATION	DEPTH (INCHES)
a	1/16"
b	5/32"
c	9/32"
d	7/16"
e	1/2"



**TYPE 2
SINUSOIDAL SHOULDER RUMBLE STRIPS,
2-LANE ASPHALTIC ROADWAY**

NOTE:
PROVIDE TYPE 2 SHOULDER RUMBLE STRIP ONLY WHERE CURB
& GUTTER ABUTS THE SB STH 69 TRUCK CLIMBING LANE. FOR
LOCATIONS, SEE TYPICAL FINISHED SECTIONS.

GENERAL NOTES

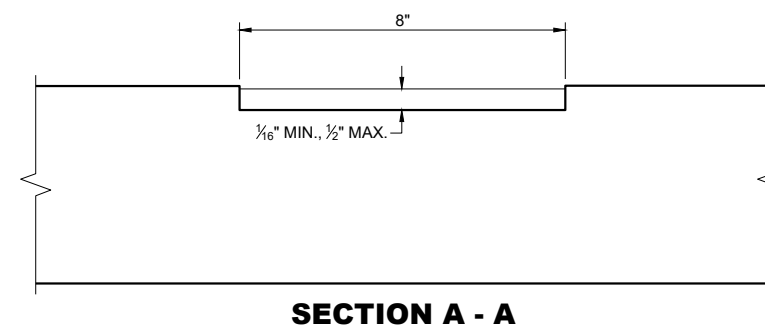
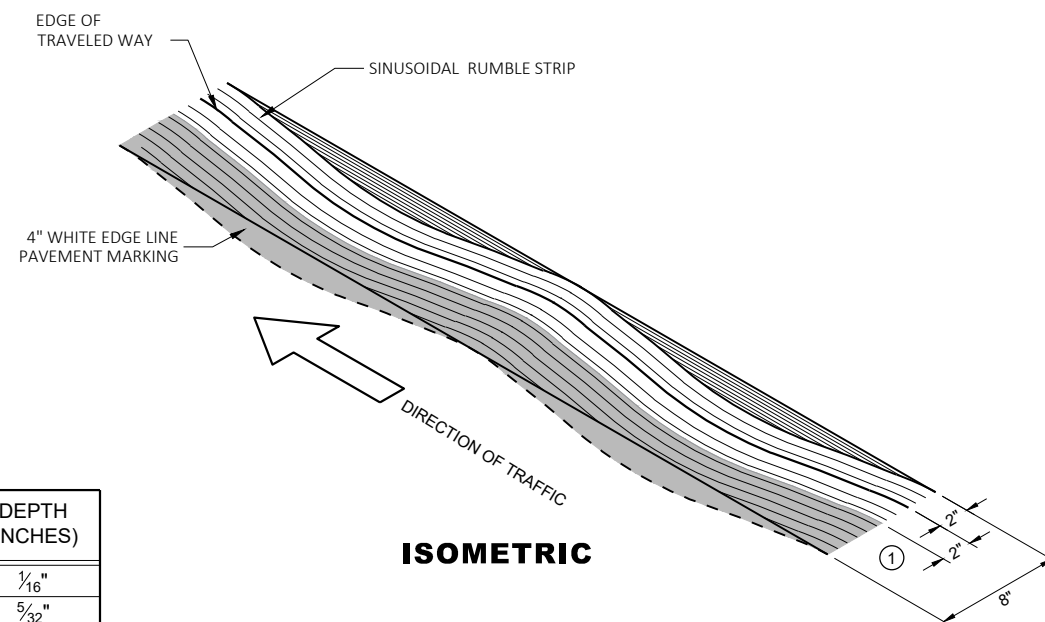
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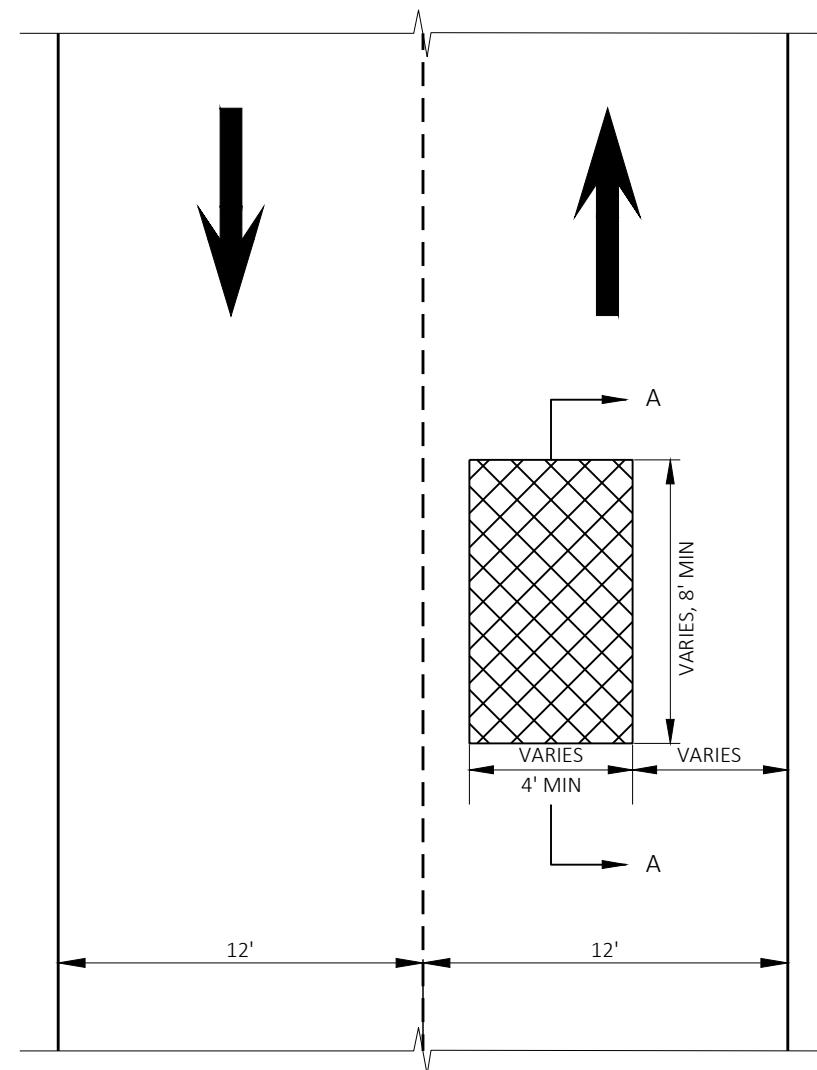
GAP SINUSOIDAL RUMBLE STRIPS AT INTERSECTIONS, BRIDGE AND APPROACH SLABS, RAILROADS, DRIVEWAYS, PASSING AND CLIMBING LANES, AND OTHER MISCELLANEOUS CROSSINGS

SHOULDER RUMBLE STRIPS MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS, WHEN DIRECTED BY THE ENGINEER.

TEMPORARY PAVEMENT MARKINGS ARE TYPICALLY PLACED PRIOR TO RUMBLE STRIP INSTALLATION. PERMANENT MARKINGS ARE INSTALLED AFTER RUMBLE STRIP INSTALLATION.

① REFER TO SDD 15C8 - SHEET "a" LONGITUDINAL MARKINGS (MAINLINE).



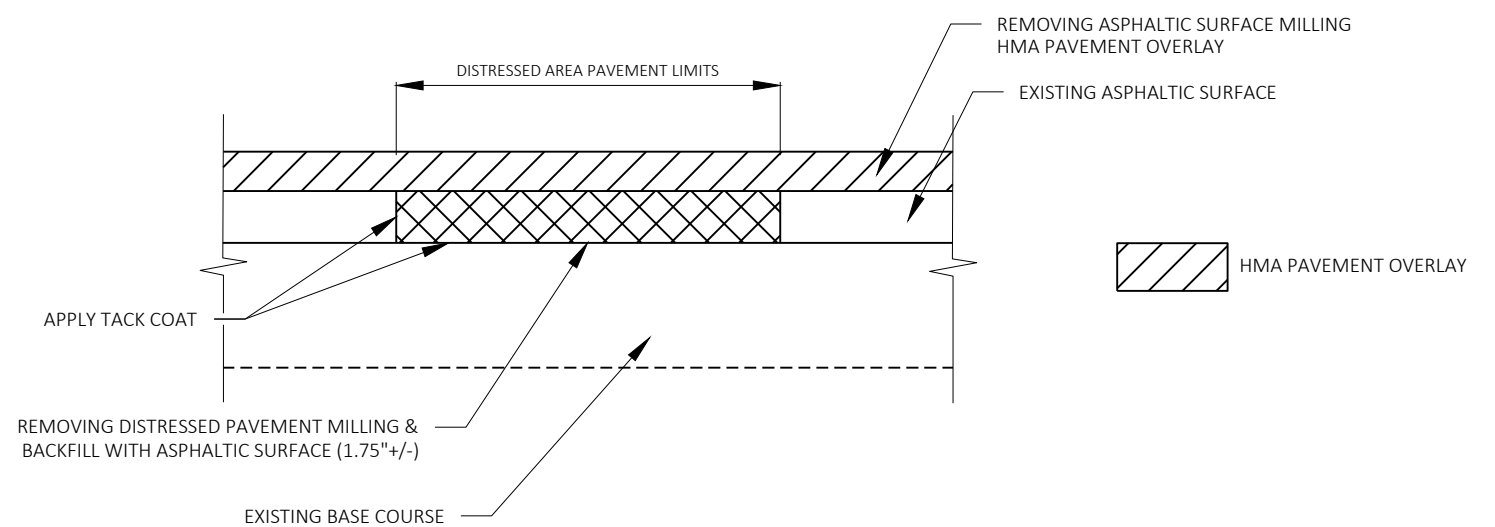


REMOVING DISTRESSED
PAVEMENT MILLING



TRAVEL DIRECTION

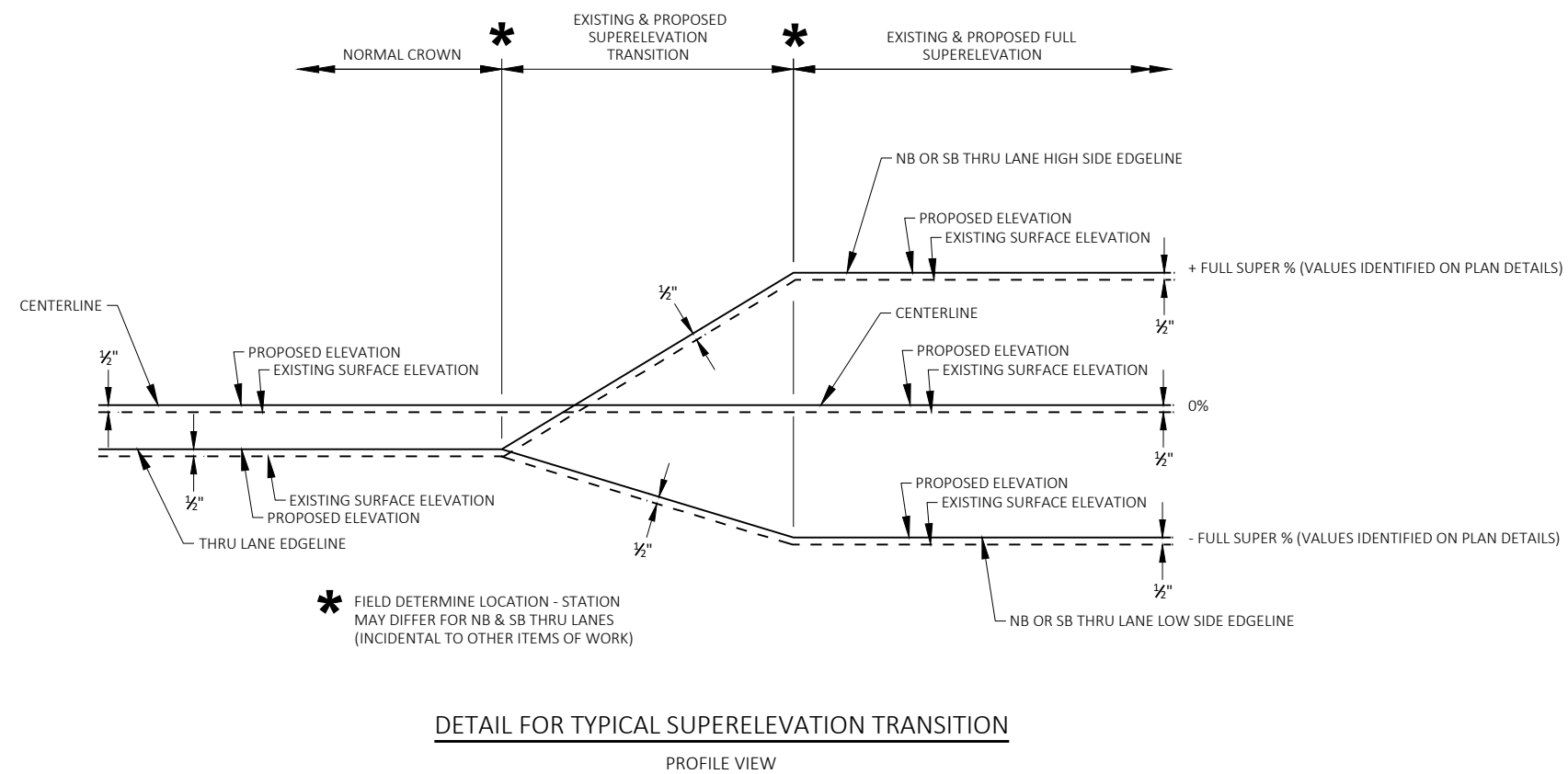
PLAN VIEW

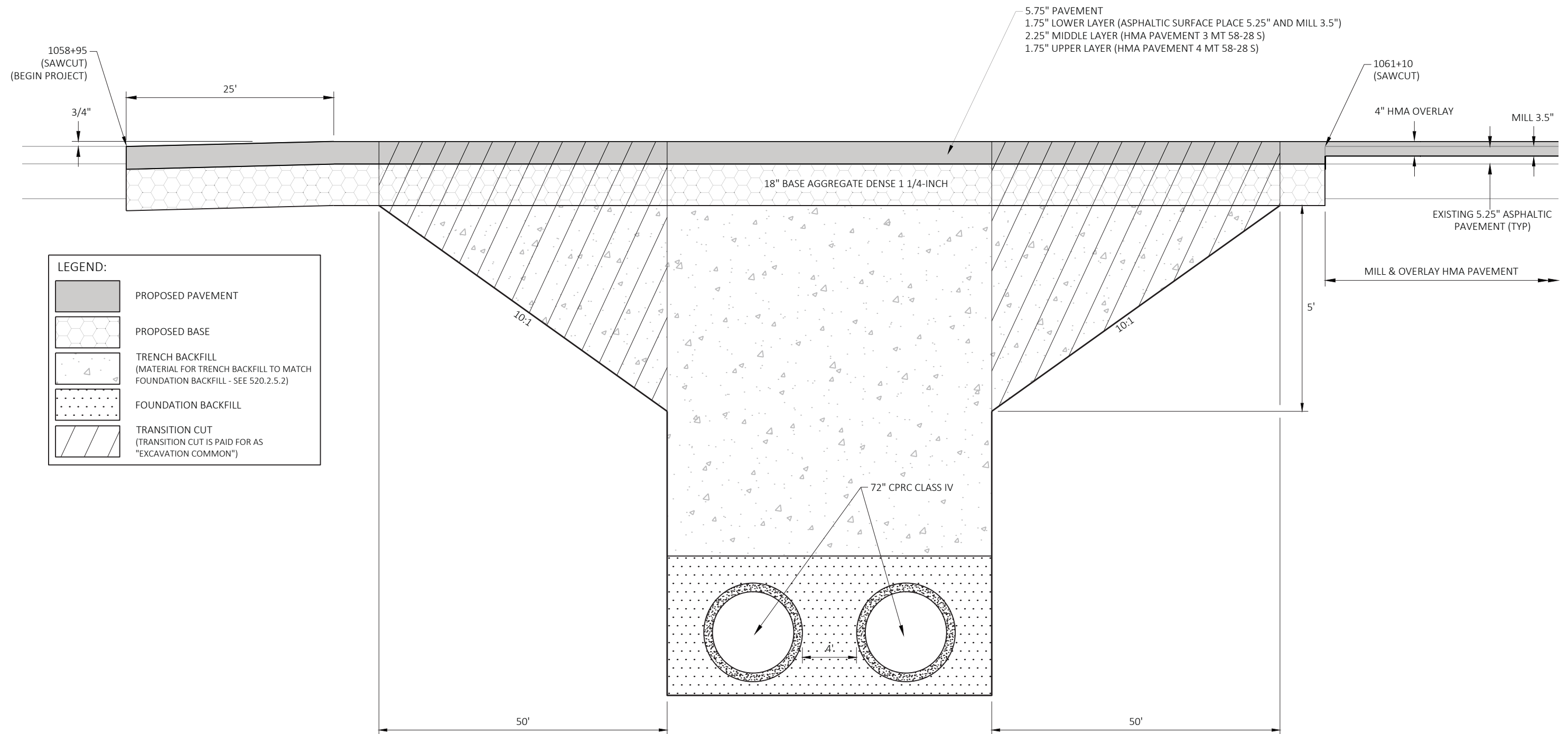


SECTION A-A

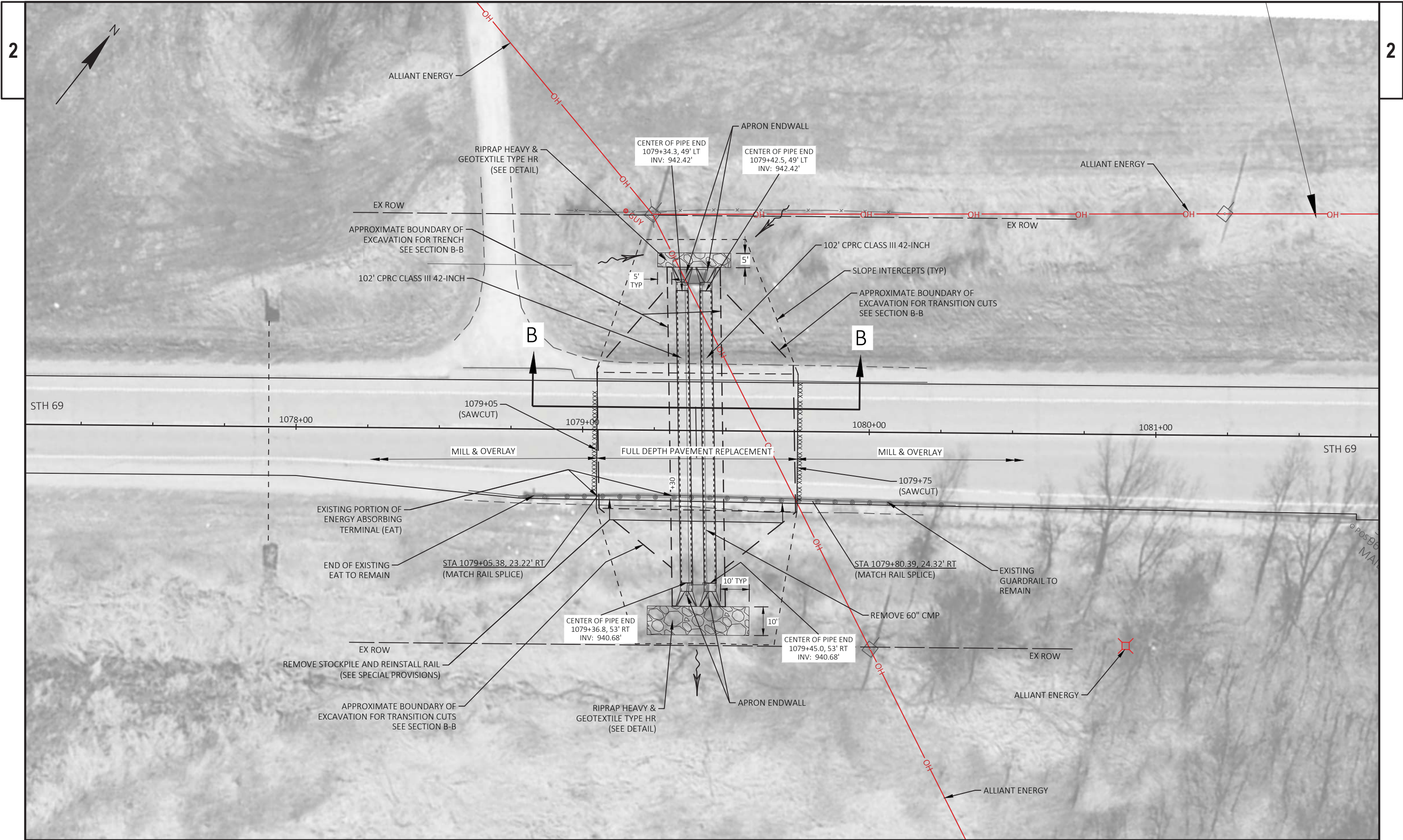
REMOVING DISTRESSED PAVEMENT MILLING

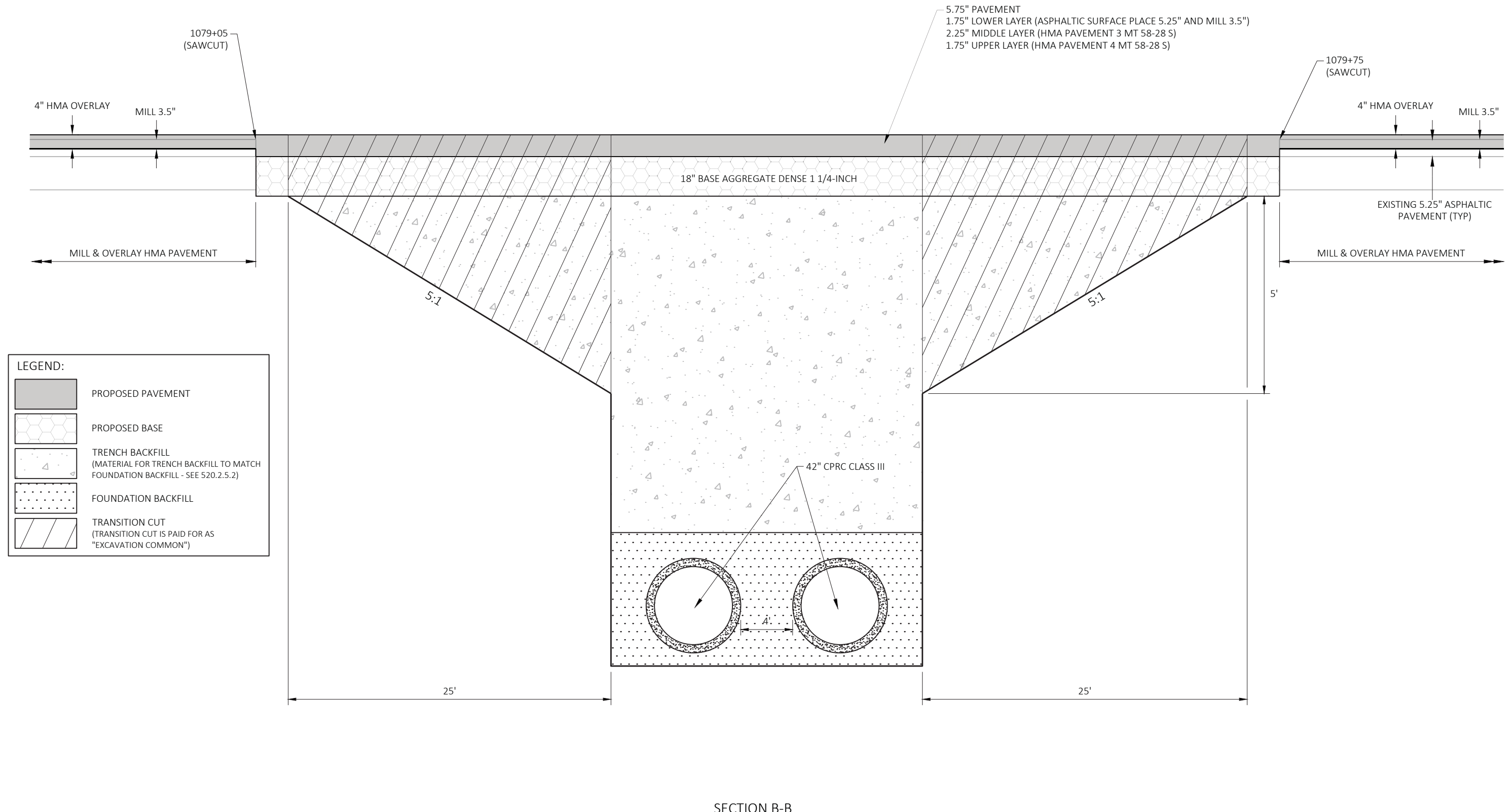
EXACT LOCATION AND LIMITS OF REMOVING DISTRESSED PAVEMENT
MILLING TO BE DETERMINED BY THE ENGINEER IN THE FIELD





SECTION A-A

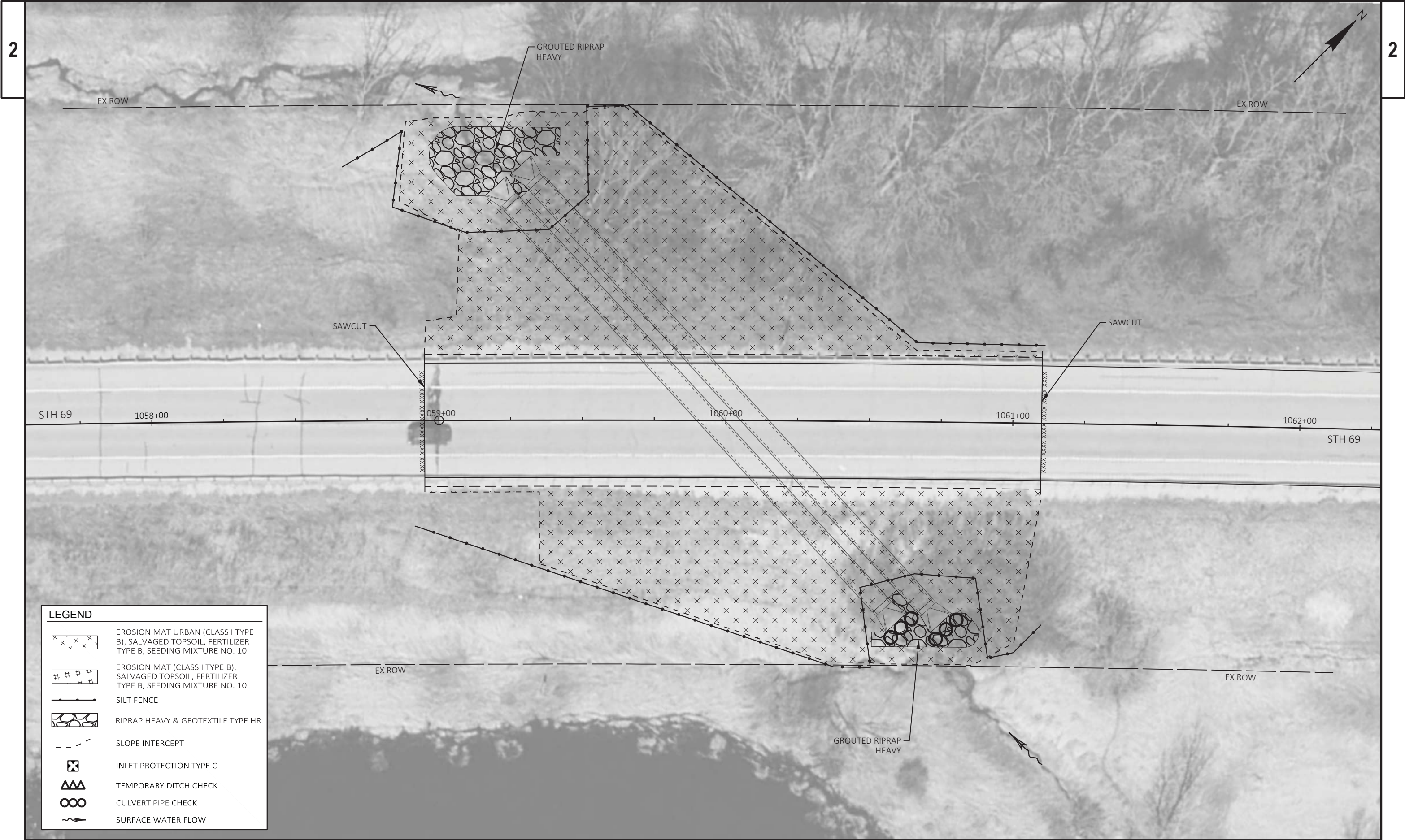




2



FILL AND ABANDON REINFORCED CONCRETE CATTLE PASS



LEGEND

EROSION MAT URBAN (CLASS I TYPE B), SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 10

EROSION MAT (CLASS I TYPE B), SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 10

SILT FENCE

RIPRAP HEAVY & GEOTEXTILE TYPE HR

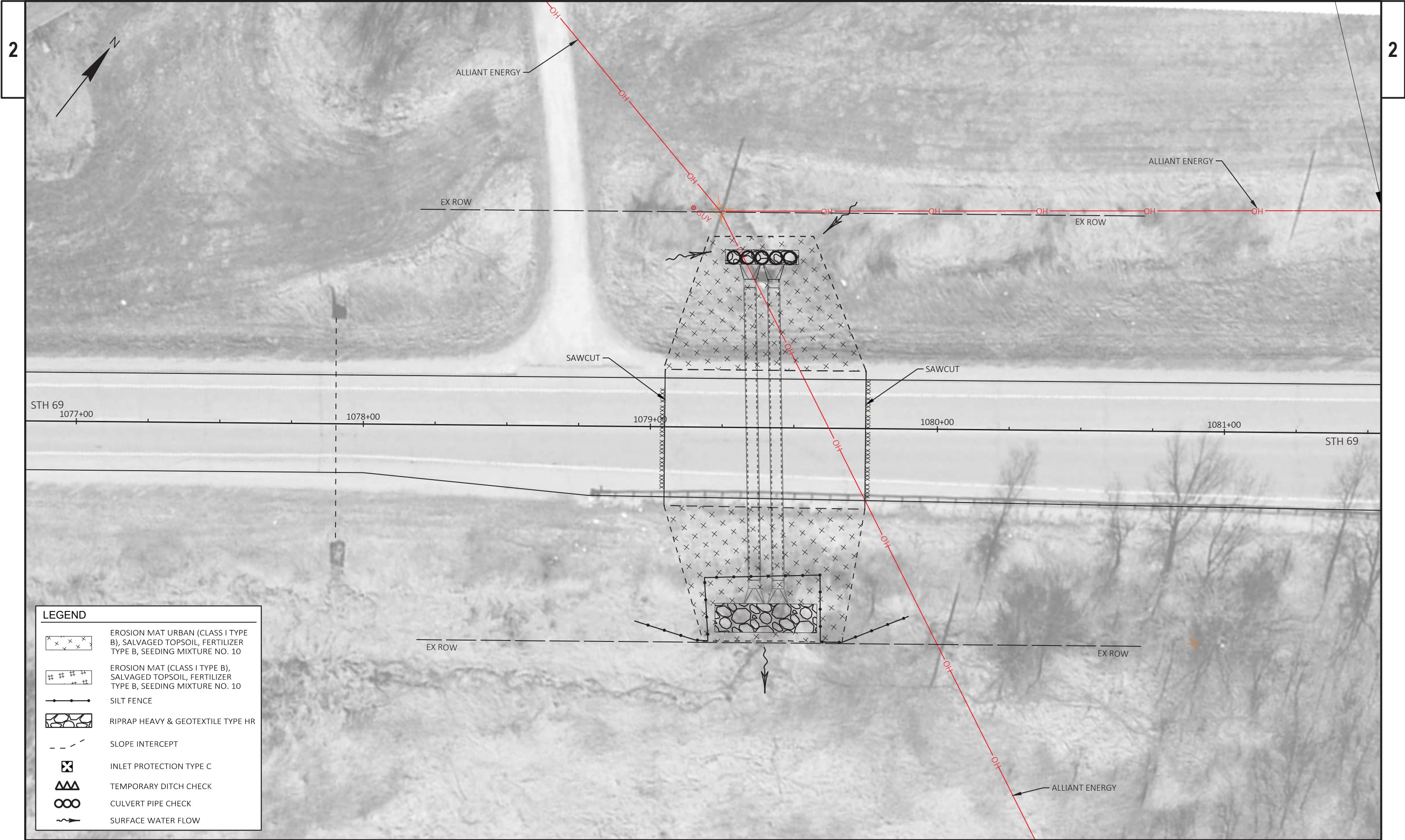
SLOPE INTERCEPT

INLET PROTECTION TYPE C

TEMPORARY DITCH CHECK

CULVERT PIPE CHECK

SURFACE WATER FLOW



LEGEND

EROSION MAT URBAN (CLASS I TYPE B), SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 10

EROSION MAT (CLASS I TYPE B), SALVAGED TOPSOIL, FERTILIZER TYPE B, SEEDING MIXTURE NO. 10

SILT FENCE

RIPRAP HEAVY & GEOTEXTILE TYPE HR

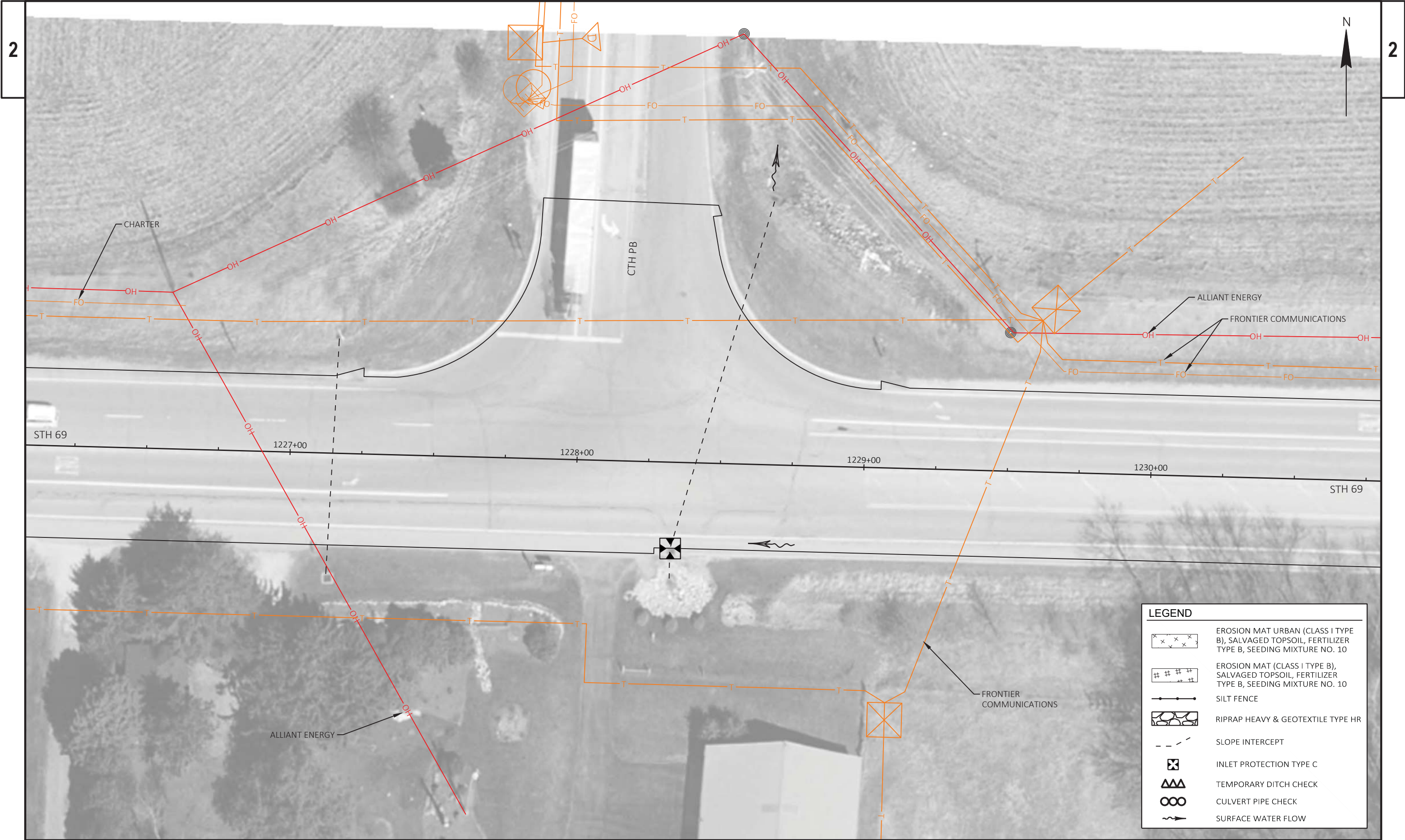
SLOPE INTERCEPT

INLET PROTECTION TYPE C

TEMPORARY DITCH CHECK

CULVERT PIPE CHECK

SURFACE WATER FLOW





MARKING LEGEND

- [A-2] MARKING ARROW EPOXY TYPE 2
- [DY4] MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
- [DY4-SD] MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
- [SL18] MARKING STOP LINE EPOXY 18-INCH, WHITE
- [W4] MARKING LINE EPOXY 4-INCH, WHITE
- [WGW4] MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH, WHITE
- [WGW4-3] MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 3' SEG., 9' GAP
- [WGW4-12.5] MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 12' SEG., 37.5' GAP
- [W8] MARKING LINE EPOXY 8-INCH, WHITE
- [WGW8] MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE
- [WGW8-3] MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE, 3' SEG., 9' GAP
- [WO] MARKING WORD EPOXY, ONLY
- [Y4-SD] MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW
- [Y4-12.5-SD] MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW, 12.5' SEG., 37.5' GAP
- [Y12] MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25-FOOT SPACING

NOTES:
-MATCH EXISTING NO PASSING ZONES.
-PLACE ALL PAVEMENT MARKINGS ACCORDING TO THE FOLLOWING SDDs:
15C7-15b&c (WORDS & ARROWS)
15C8-20a&c (4" WHITE & YELLOW LONGITUDINAL MARKINGS & TURN LANES)
15C18-4 (FLUSH MEDIAN DIAGONALS & DOUBLE YELLOW 4" LONGITUDINALS)
15C33-4 (STOP LINE)
15C35-4a,b,c (INTERSECTIONS & TRUCK CLIMBING LANES)

69

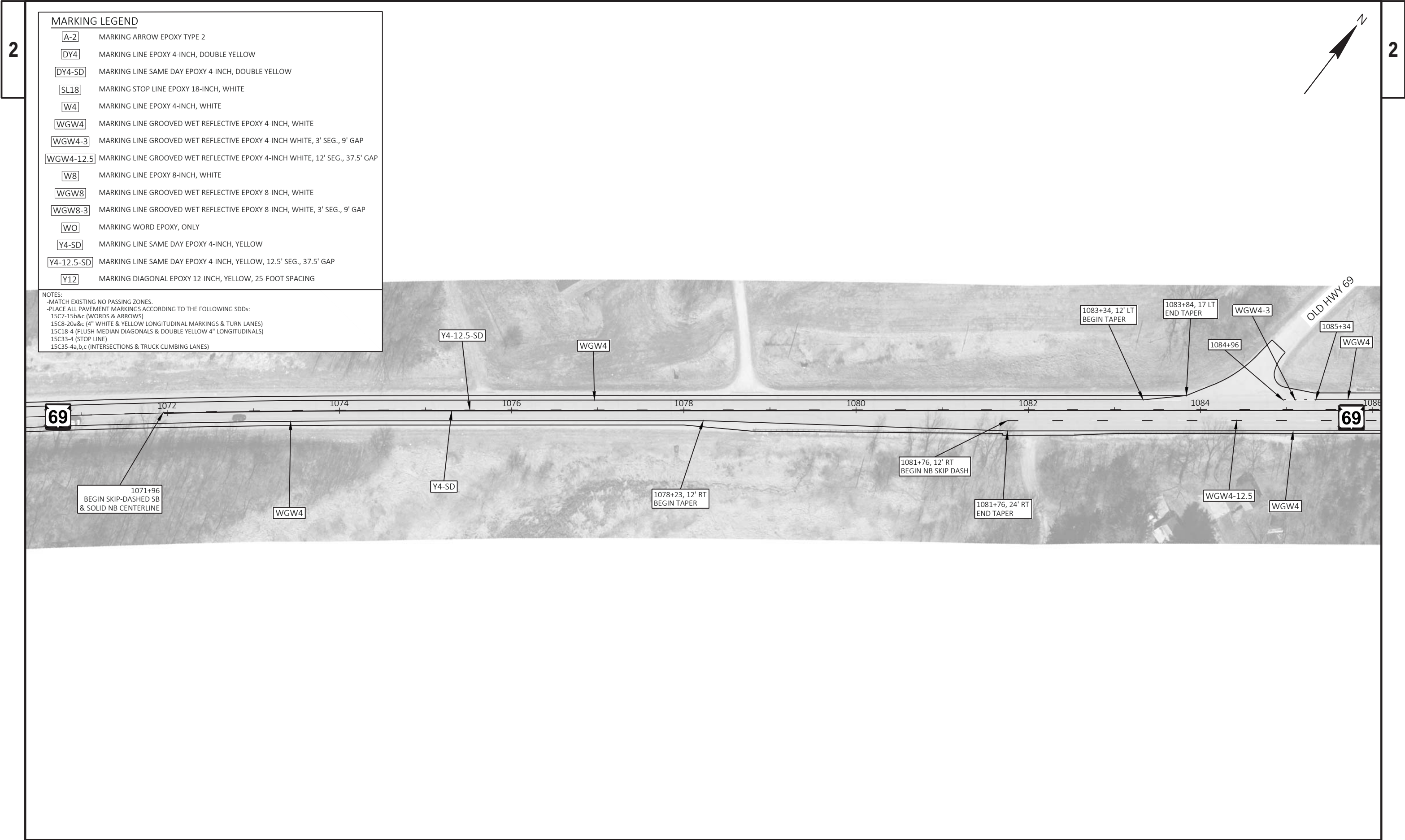
STA. 1058+95
BEGIN PAVEMENT MARKING

WGW4

Y4-12.5-SD

WGW4

69



MARKING LEGEND

A-2	MARKING ARROW EPOXY TYPE 2
DY4	MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
DY4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
SL18	MARKING STOP LINE EPOXY 18-INCH, WHITE
W4	MARKING LINE EPOXY 4-INCH, WHITE
WGW4	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH, WHITE
WGW4-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 3' SEG., 9' GAP
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W8	MARKING LINE EPOXY 8-INCH, WHITE
WGW8	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE
WGW8-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE, 3' SEG., 9' GAP
WO	MARKING WORD EPOXY, ONLY
Y4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW
Y4-12.5-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW, 12.5' SEG., 37.5' GAP
Y12	MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25-FOOT SPACING

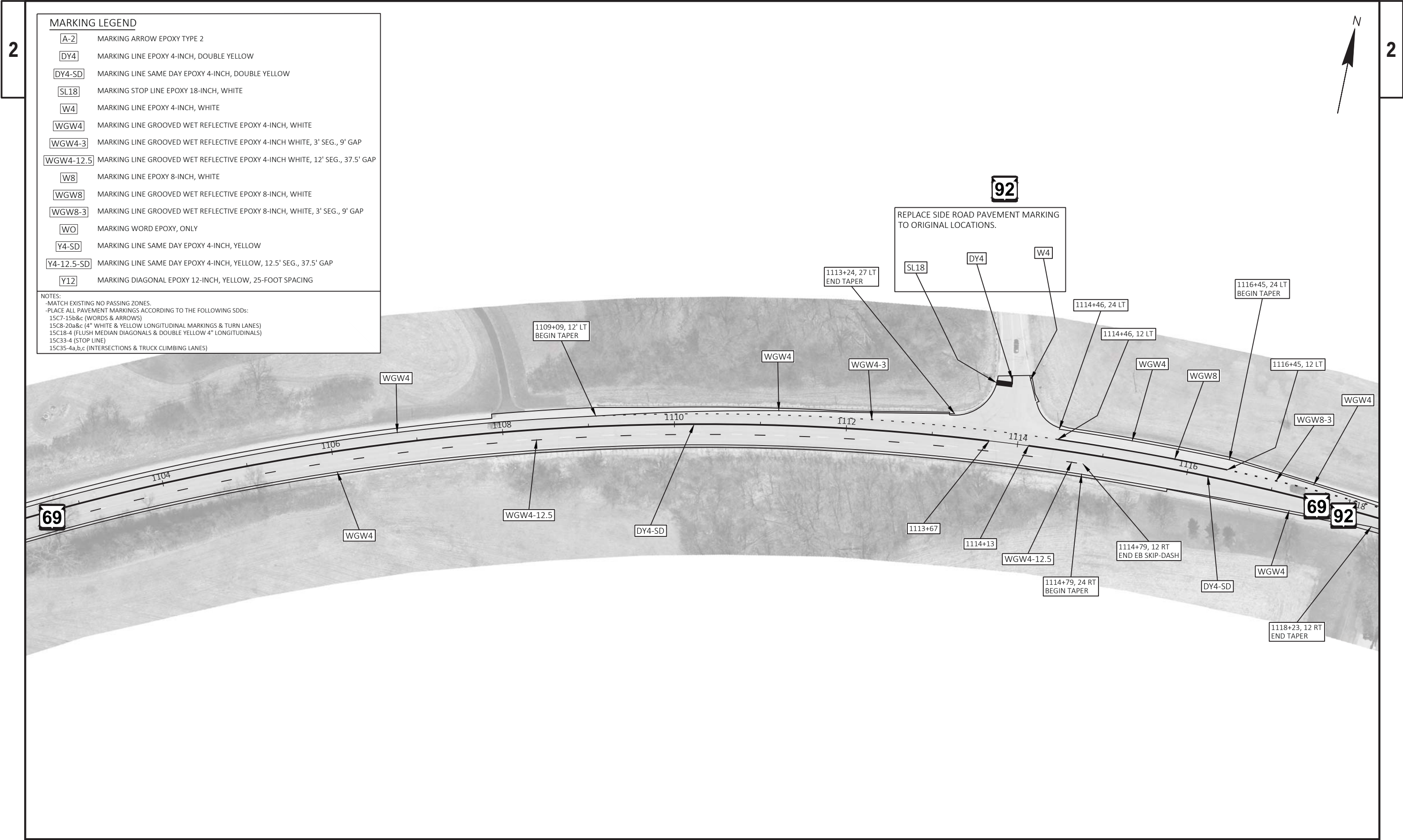
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15C18-4 (FLUSH MEDIAN DIAGONALS & DOUBLE YELLOW 4" LONGITUDINALS)
15C33-4 (STOP LINE)
15C35-4a,b,c (INTERSECTIONS & TRUCK CLIMBING LANES)



MARKING LEGEND

A-2	MARKING ARROW EPOXY TYPE 2
DY4	MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
DY4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
SL18	MARKING STOP LINE EPOXY 18-INCH, WHITE
W4	MARKING LINE EPOXY 4-INCH, WHITE
WGW4	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH, WHITE
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Y12	MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25-FOOT SPACING

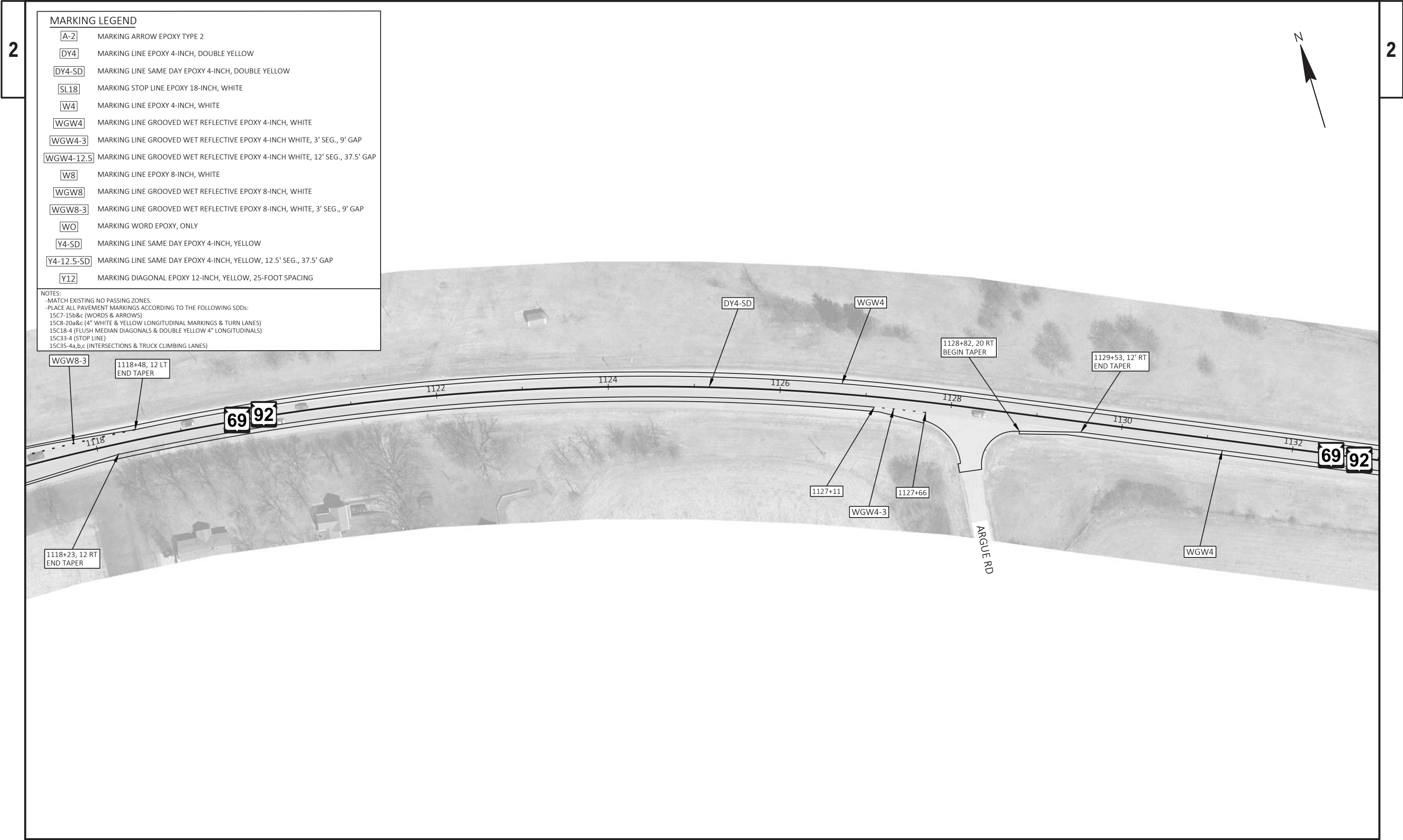
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15C33-4 (STOP LINE)
15C35-4a,b,c (INTERSECTIONS & TRUCK CLIMBING LANES)



MARKING LEGEND	
A-2	MARKING ARROW EPOXY TYPE 2
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DY4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
SL18	MARKING STOP LINE EPOXY 18-INCH, WHITE
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Y12	MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25-FOOT SPACING

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 - 15C33-4 (STOP LINE)
 - 15C35-4a,b,c (INTERSECTIONS & TRUCK CLIMBING LANES)



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DY4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
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MARKING LEGEND

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DY4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
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15C33-4 (STOP LINE)
15C35-4a,b,c (INTERSECTIONS & TRUCK CLIMBING LANES)



2

2

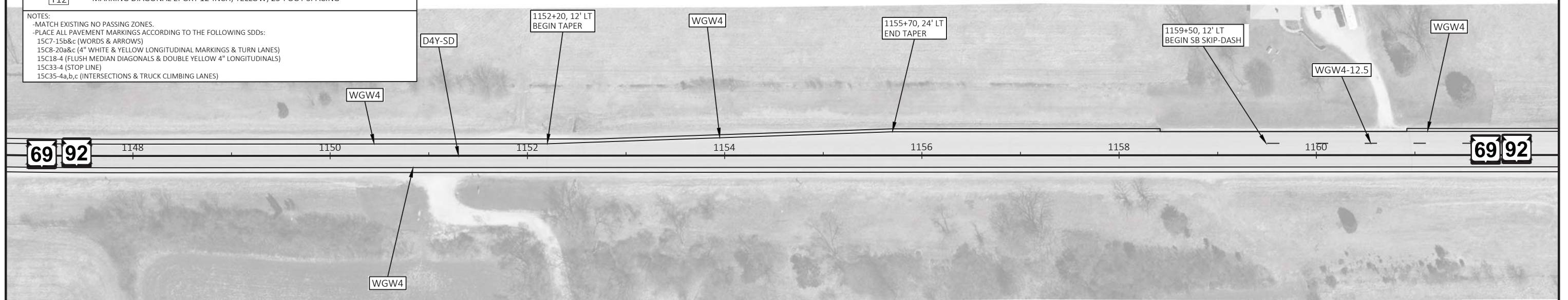
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PROJECT NO:	1690-01-74
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HWY: STH 69

COUNTY: DANE

PERMANENT PAVEMENT MARKING

SHEET 30

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LAYOUT NAME - 07

PLOT DATE : 12/10/2020 5:47 PM

PLOT BY : BUTTERIS, BRADLEY

PLOT NAME :

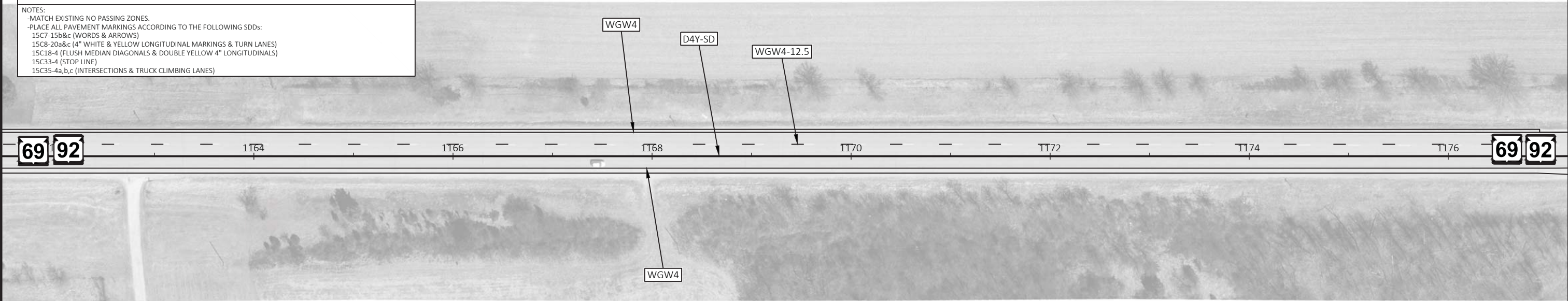
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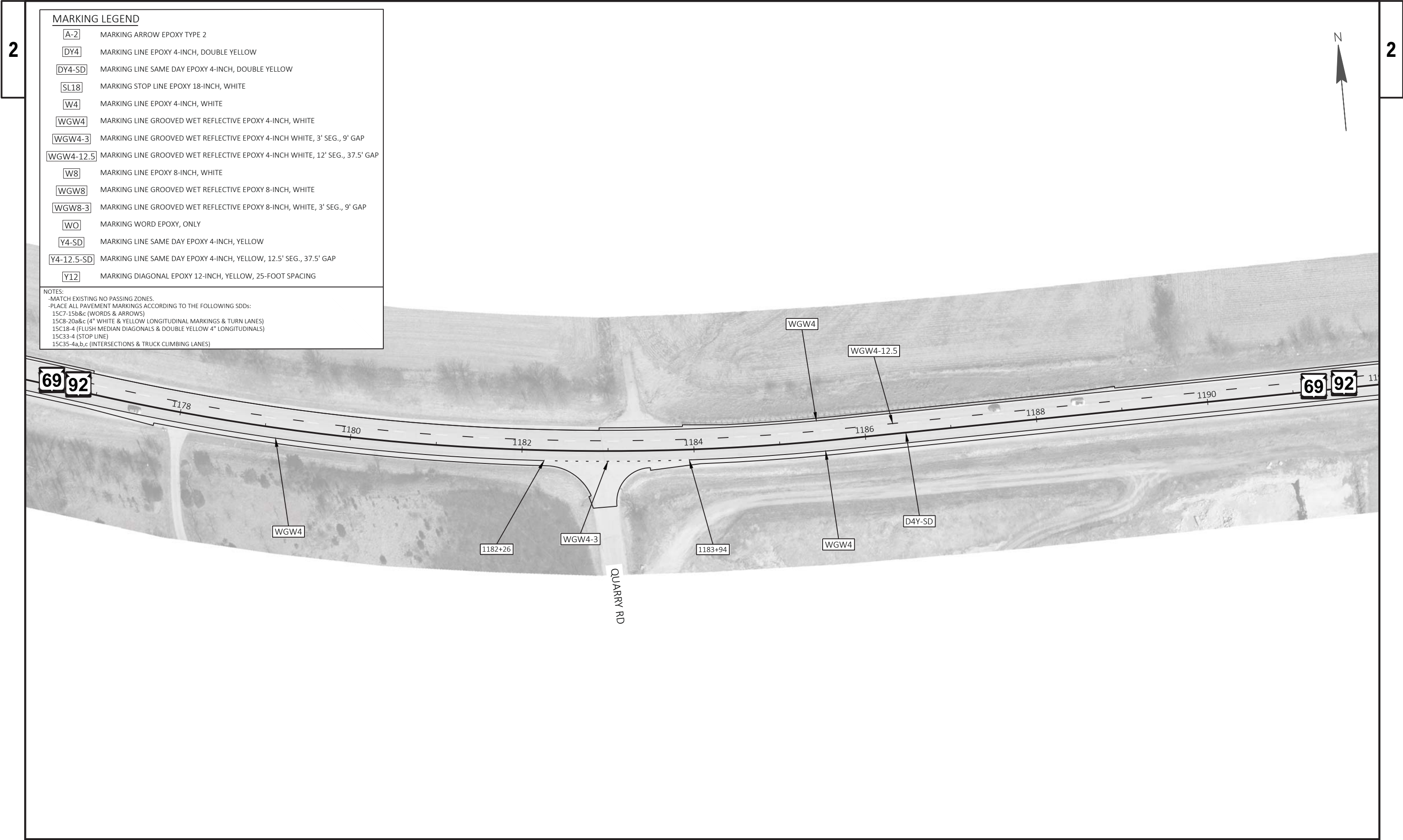
WISDOT/CADDS SHEET 42

MARKING LEGEND

A-2	MARKING ARROW EPOXY TYPE 2
DY4	MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
DY4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
SL18	MARKING STOP LINE EPOXY 18-INCH, WHITE
W4	MARKING LINE EPOXY 4-INCH, WHITE
WGW4	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH, WHITE
WGW4-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 3' SEG., 9' GAP
WGW4-12.5	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 12' SEG., 37.5' GAP
W8	MARKING LINE EPOXY 8-INCH, WHITE
WGW8	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE
WGW8-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE, 3' SEG., 9' GAP
WO	MARKING WORD EPOXY, ONLY
Y4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW
Y4-12.5-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW, 12.5' SEG., 37.5' GAP
Y12	MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25-FOOT SPACING

NOTES:
-MATCH EXISTING NO PASSING ZONES.
-PLACE ALL PAVEMENT MARKINGS ACCORDING TO THE FOLLOWING SDDs:
15C7-15b&c (WORDS & ARROWS)
15C8-20a&c (4" WHITE & YELLOW LONGITUDINAL MARKINGS & TURN LANES)
15C18-4 (FLUSH MEDIAN DIAGONALS & DOUBLE YELLOW 4" LONGITUDINALS)
15C33-4 (STOP LINE)
15C35-4a,b,c (INTERSECTIONS & TRUCK CLIMBING LANES)





MARKING LEGEND

A-2	MARKING ARROW EPOXY TYPE 2
DY4	MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
DY4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
SL18	MARKING STOP LINE EPOXY 18-INCH, WHITE
W4	MARKING LINE EPOXY 4-INCH, WHITE
WGW4	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH, WHITE
WGW4-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 3' SEG., 9' GAP
WGW4-12.5	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 12' SEG., 37.5' GAP
W8	MARKING LINE EPOXY 8-INCH, WHITE
WGW8	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE
WGW8-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE, 3' SEG., 9' GAP
WO	MARKING WORD EPOXY, ONLY
Y4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW
Y4-12.5-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW, 12.5' SEG., 37.5' GAP
Y12	MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25-FOOT SPACING

NOTES:
-MATCH EXISTING NO PASSING ZONES.
-PLACE ALL PAVEMENT MARKINGS ACCORDING TO THE FOLLOWING SDDs:
15C7-15b&c (WORDS & ARROWS)
15C8-20a&c (4" WHITE & YELLOW LONGITUDINAL MARKINGS & TURN LANES)
15C18-4 (FLUSH MEDIAN DIAGONALS & DOUBLE YELLOW 4" LONGITUDINALS)
15C33-4 (STOP LINE)
15C35-4a,b,c (INTERSECTIONS & TRUCK CLIMBING LANES)

PROJECT NO: 1690-01-74

HWY: STH 69

COUNTY: DANE

PERMANENT PAVEMENT MARKING

SHEET

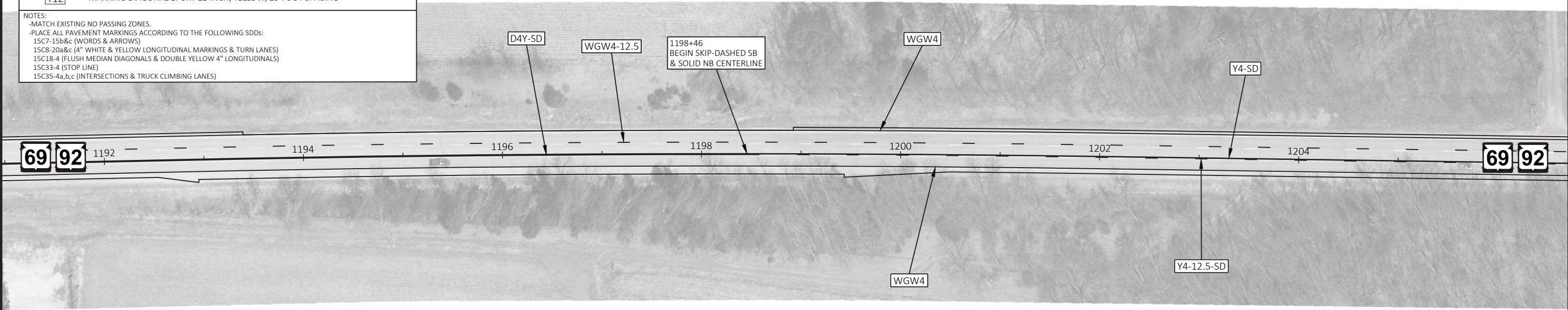
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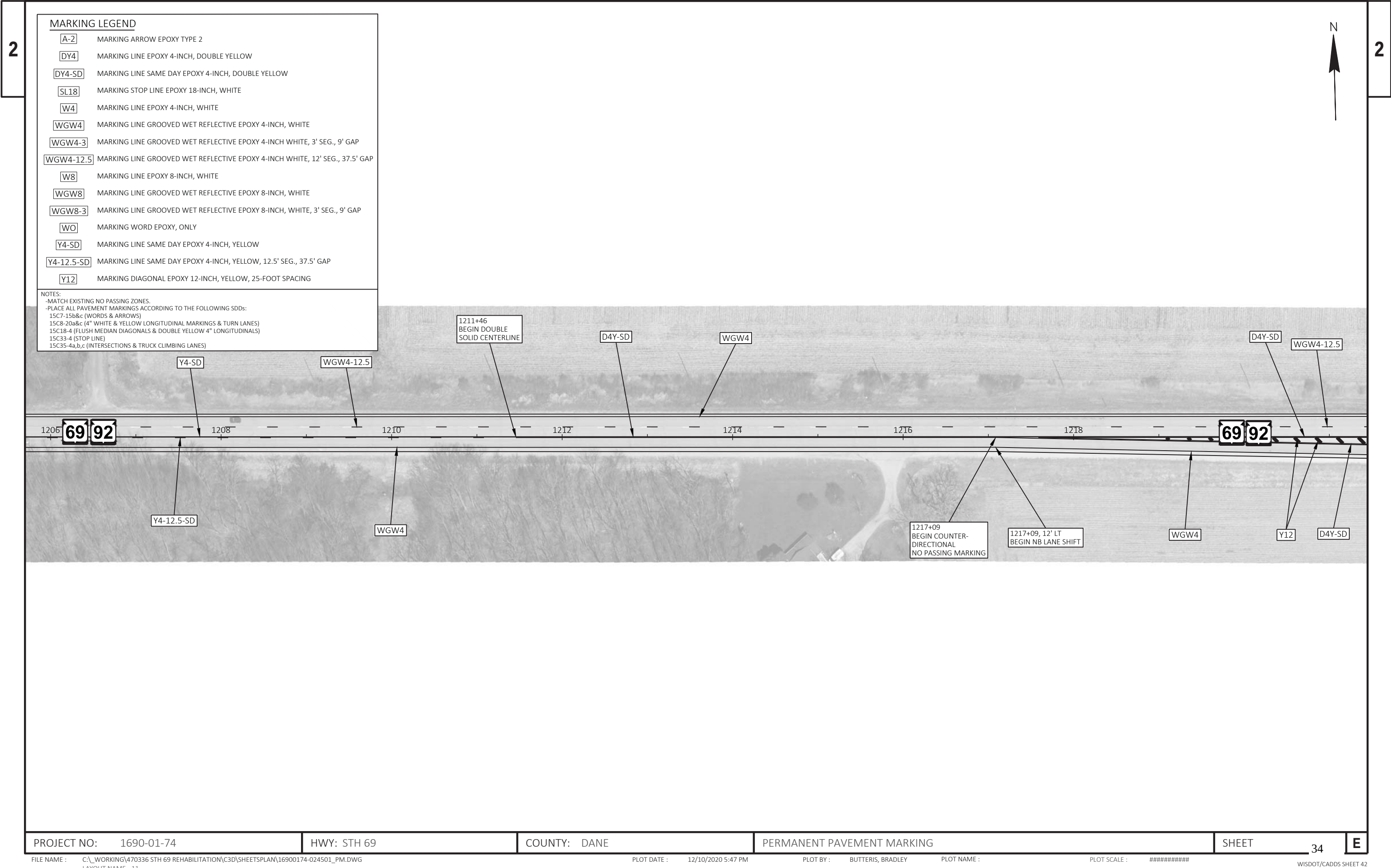
E

MARKING LEGEND

A-2	MARKING ARROW EPOXY TYPE 2
DY4	MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
DY4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
SL18	MARKING STOP LINE EPOXY 18-INCH, WHITE
W4	MARKING LINE EPOXY 4-INCH, WHITE
WGW4	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH, WHITE
WGW4-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 3' SEG., 9' GAP
WGW4-12.5	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 12' SEG., 37.5' GAP
W8	MARKING LINE EPOXY 8-INCH, WHITE
WGW8	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE
WGW8-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE, 3' SEG., 9' GAP
WO	MARKING WORD EPOXY, ONLY
Y4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW
Y4-12.5-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW, 12.5' SEG., 37.5' GAP
Y12	MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25-FOOT SPACING

NOTES:
-MATCH EXISTING NO PASSING ZONES.
-PLACE ALL PAVEMENT MARKINGS ACCORDING TO THE FOLLOWING SDDs:
15C7-15b&c (WORDS & ARROWS)
15C8-20a&c (4" WHITE & YELLOW LONGITUDINAL MARKINGS & TURN LANES)
15C18-4 (FLUSH MEDIAN DIAGONALS & DOUBLE YELLOW 4" LONGITUDINALS)
15C33-4 (STOP LINE)
15C35-4a,b,c (INTERSECTIONS & TRUCK CLIMBING LANES)





PROJECT NO: 1690-01-74

HWY: STH 69

COUNTY: DANE

PERMANENT PAVEMENT MARKING

SHEET 34

E

FILE NAME : C:_WORKING\470336 STH 69 REHABILITATION\C3D\SHEETSPLAN\16900174-024501_PM.DWG
LAYOUT NAME - 11

PLOT DATE : 12/10/2020 5:47 PM

PLOT BY : BUTTERIS, BRADLEY

PLOT NAME :

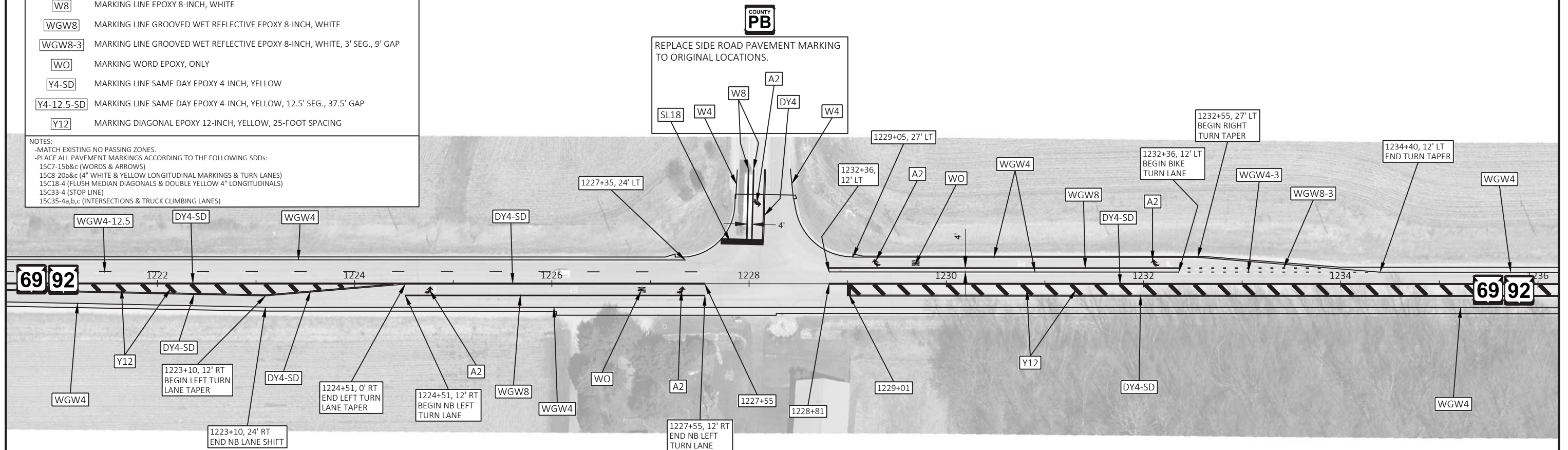
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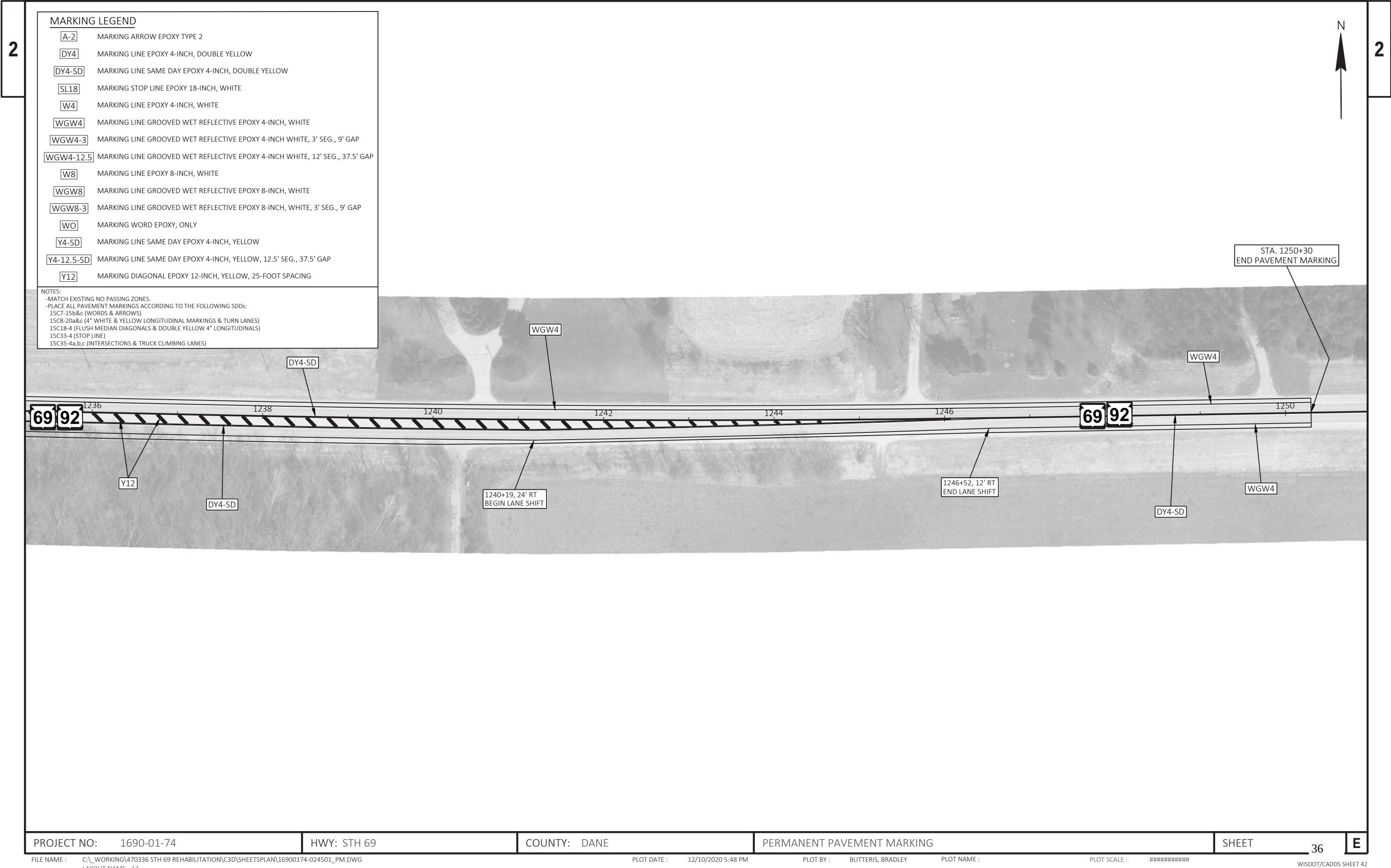
WISDOT/CADDs SHEET 42

A-2	MARKING ARROW EPOXY TYPE 2
DY4	MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
DY4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
SL18	MARKING STOP LINE EPOXY 18-INCH, WHITE
W4	MARKING LINE EPOXY 4-INCH, WHITE
WGW4	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH, WHITE
WGW4-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 3' SEG., 9' GAP
WGW4-12.5	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 12' SEG., 37.5' GAP
W8	MARKING LINE EPOXY 8-INCH, WHITE
WGW8	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE
WGW8-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE, 3' SEG., 9' GAP
WO	MARKING WORD EPOXY, ONLY
Y4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW
Y4-12.5-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW, 12.5' SEG., 37.5' GAP
Y12	MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25-FOOT SPACING

NOTES:

- MATCH EXISTING NO PASSING ZONES.
- PLACE ALL PAVEMENT MARKINGS ACCORDING TO THE FOLLOWING SDDs:
 - 15C7-15b&c (WORDS & ARROWS)
 - 15C8-20a&c (4" WHITE & YELLOW LONGITUDINAL MARKINGS & TURN LANES)
 - 15C18-4 (FLUSH MEDIAN DIAGONALS & DOUBLE YELLOW 4" LONGITUDINALS)
 - 15C33-4 (STOP LINE)
 - 15C35-4a,b,c (INTERSECTIONS & TRUCK CLIMBING LANES)

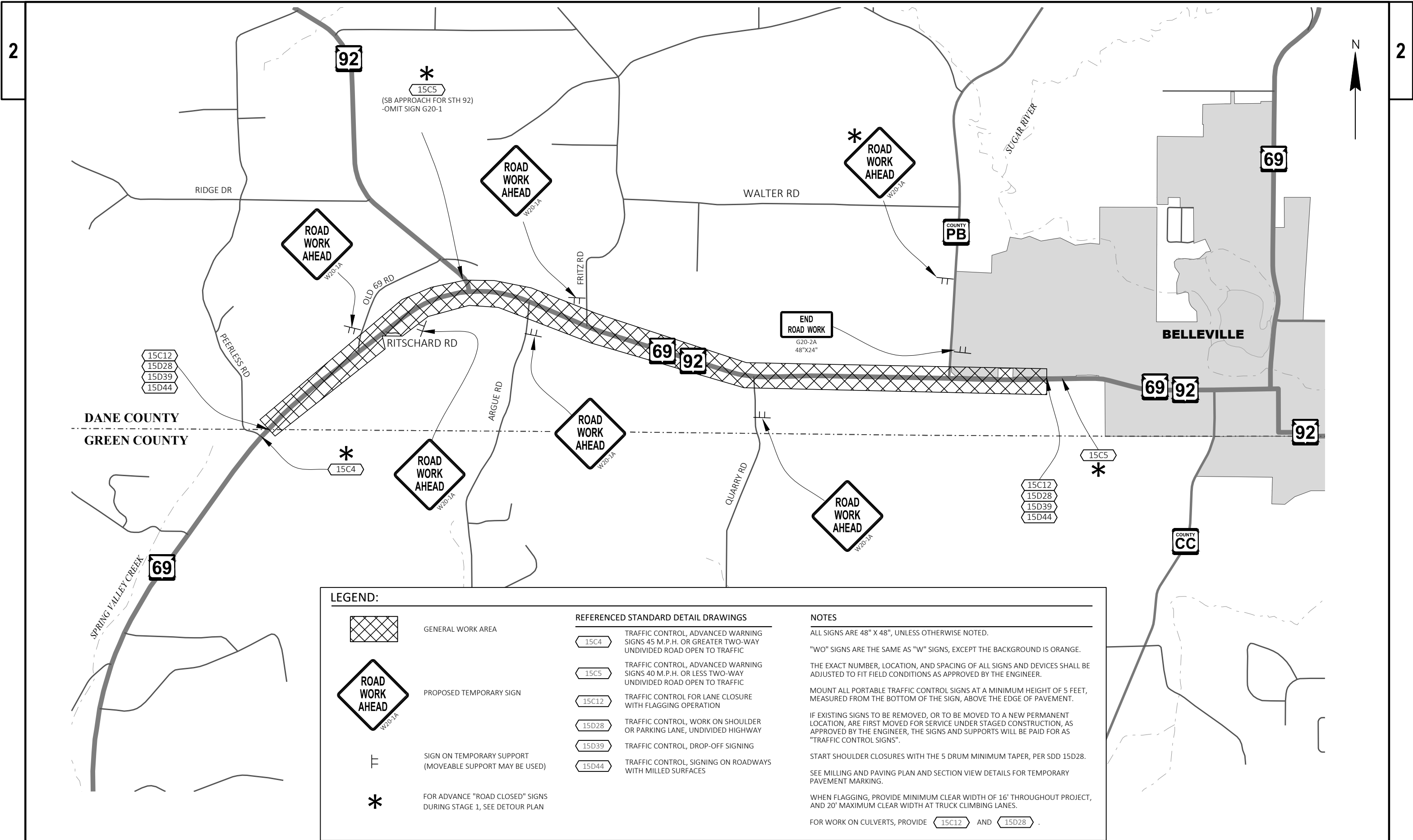




MARKING LEGEND

A-2	MARKING ARROW EPOXY TYPE 2
DY4	MARKING LINE EPOXY 4-INCH, DOUBLE YELLOW
DY4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, DOUBLE YELLOW
SL18	MARKING STOP LINE EPOXY 18-INCH, WHITE
W4	MARKING LINE EPOXY 4-INCH, WHITE
WGW4	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH, WHITE
WGW4-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 3' SEG., 9' GAP
WGW4-12.5	MARKING LINE GROOVED WET REFLECTIVE EPOXY 4-INCH WHITE, 12' SEG., 37.5' GAP
W8	MARKING LINE EPOXY 8-INCH, WHITE
WGW8	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE
WGW8-3	MARKING LINE GROOVED WET REFLECTIVE EPOXY 8-INCH, WHITE, 3' SEG., 9' GAP
WO	MARKING WORD EPOXY, ONLY
Y4-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW
Y4-12.5-SD	MARKING LINE SAME DAY EPOXY 4-INCH, YELLOW, 12.5' SEG., 37.5' GAP
Y12	MARKING DIAGONAL EPOXY 12-INCH, YELLOW, 25-FOOT SPACING

NOTES:
-MATCH EXISTING NO PASSING ZONES.
-PLACE ALL PAVEMENT MARKINGS ACCORDING TO THE FOLLOWING SDDs:
15C7-15b&c (WORDS & ARROWS)
15C8-20a&c (4" WHITE & YELLOW LONGITUDINAL MARKINGS & TURN LANES)
15C18-4 (FLUSH MEDIAN DIAGONALS & DOUBLE YELLOW 4" LONGITUDINALS)
15C33-4 (STOP LINE)
15C35-4a,b,c (INTERSECTIONS & TRUCK CLIMBING LANES)



LEGEND:

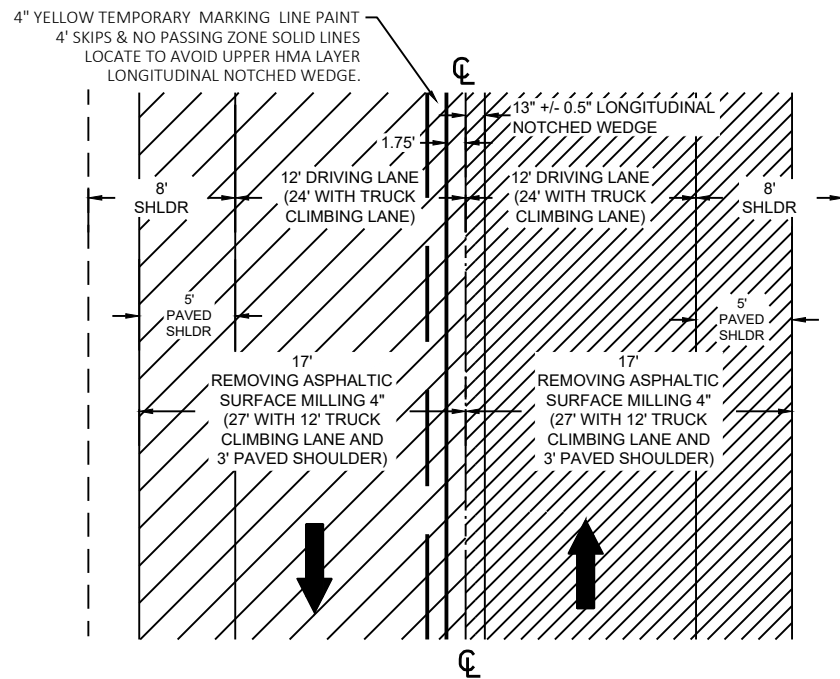
- GENERAL WORK AREA
- PROPOSED TEMPORARY SIGN
- SIGN ON TEMPORARY SUPPORT (MOVEABLE SUPPORT MAY BE USED)
- FOR ADVANCE "ROAD CLOSED" SIGNS DURING STAGE 1, SEE DETOUR PLAN

REFERENCED STANDARD DETAIL DRAWINGS

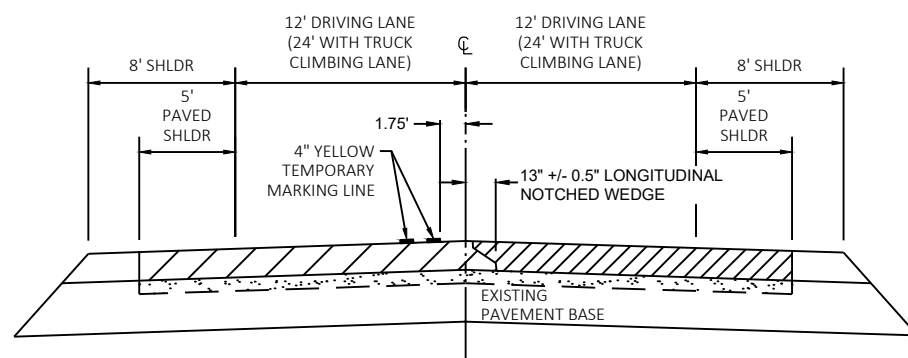
- 15C4 TRAFFIC CONTROL, ADVANCED WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
- 15C5 TRAFFIC CONTROL, ADVANCED WARNING SIGNS 40 M.P.H. OR LESS TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
- 15C12 TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
- 15D28 TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED HIGHWAY
- 15D39 TRAFFIC CONTROL, DROP-OFF SIGNING
- 15D44 TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES

NOTES

- ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.
- IF EXISTING SIGNS TO BE REMOVED, OR TO BE MOVED TO A NEW PERMANENT LOCATION, ARE FIRST MOVED FOR SERVICE UNDER STAGED CONSTRUCTION, AS APPROVED BY THE ENGINEER, THE SIGNS AND SUPPORTS WILL BE PAID FOR AS "TRAFFIC CONTROL SIGNS".
- START SHOULDER CLOSURES WITH THE 5 DRUM MINIMUM TAPER, PER SDD 15D28.
- SEE MILLING AND PAVING PLAN AND SECTION VIEW DETAILS FOR TEMPORARY PAVEMENT MARKING.
- WHEN FLAGGING, PROVIDE MINIMUM CLEAR WIDTH OF 16' THROUGHOUT PROJECT, AND 20' MAXIMUM CLEAR WIDTH AT TRUCK CLIMBING LANES.
- FOR WORK ON CULVERTS, PROVIDE AND .



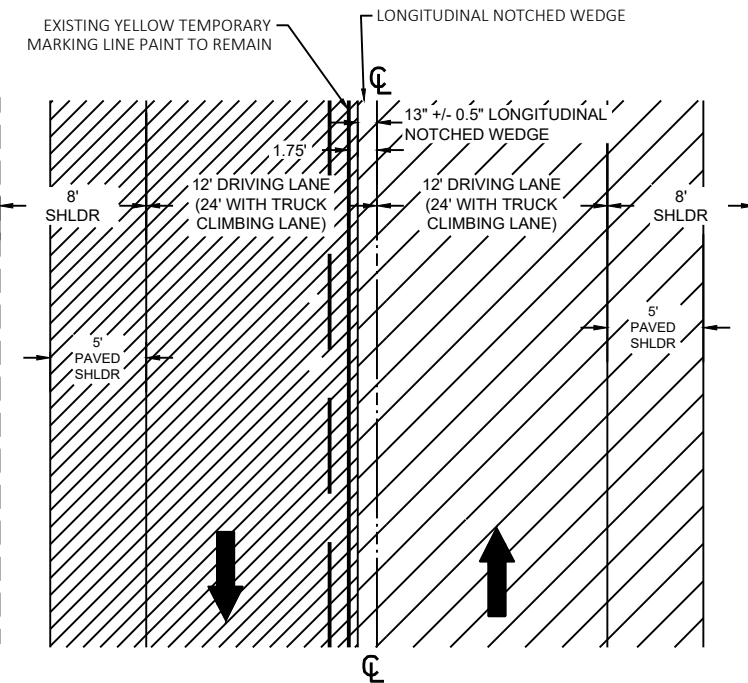
- FIRST LANE (NB OR SB) PAVED WITH 2.25" HMA PAVEMENT
3 MT 58-28 S LOWER LAYER
- EXISTING ASPHALT TO REMAIN (BELOW 4" MILL)
- SECOND LANE (SB OR NB) 2.25" HMA PAVEMENT
3 MT 58-28 S LOWER LAYER



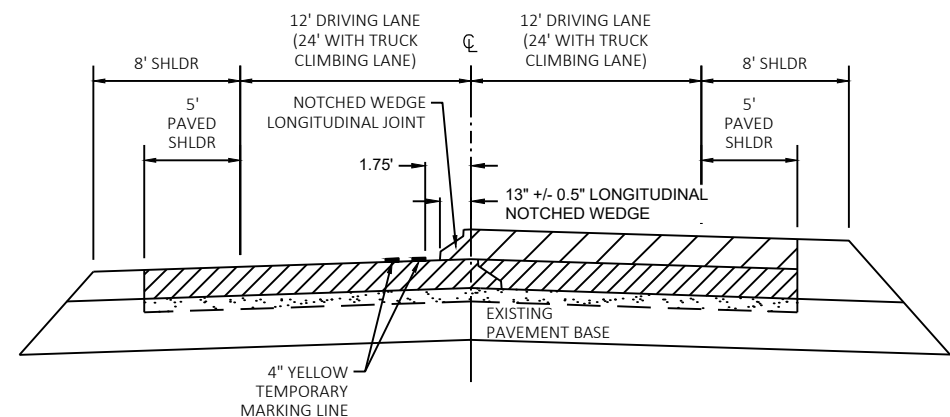
STAGES 1 & 2 - MILLING AND PAVING LOWER HMA LAYER DETAIL

MILLED SURFACE ALLOWED TO BE UNDER ONE TRAFFIC
DIRECTION UP TO 24 HOURS - SEE SPECIAL PROVISIONS

NOTE: CONTINUOUSLY
CLOSE TRUCK CLIMBING
LANES - SEE DETAILS



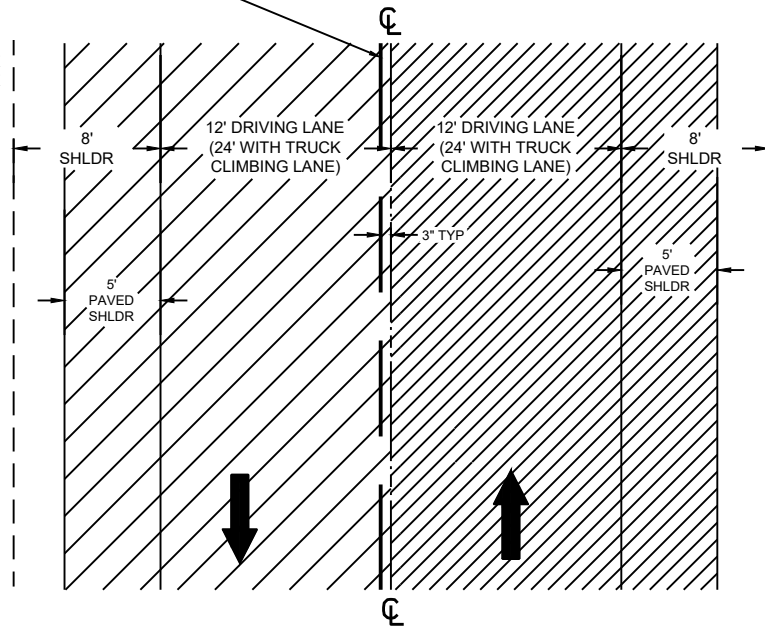
- FIRST LANE (SB OR NB) PAVED WITH 1.75" HMA PAVEMENT 4 MT 58-28 S UPPER LAYER
- EXISTING ASPHALT TO REMAIN (BELOW 4" MILL)
- LOWER LAYERS PREVIOUSLY PAVED



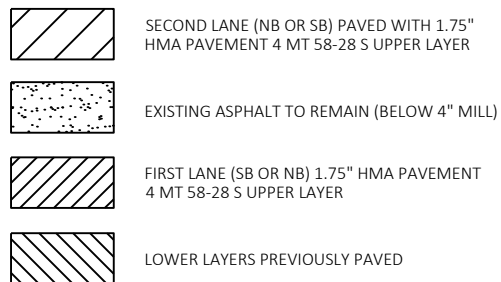
STAGE 3 - PAVING UPPER HMA LAYER FIRST DIRECTION (SB OR NB) DETAIL

* 4" YELLOW TEMPORARY MARKING LINE EPOXY 4' SKIPS SUPPLEMENTED WITH "NO PASSING ZONE" SIGNS (R4-1, 24"x30") INSTALLED AT THE BEGINNING OF NO PASSING ZONES, AND WITHIN NO PASSING ZONES AT ONE MILE INTERVALS AND AFTER STATE AND COUNTY TRUNK HIGHWAY INTERSECTIONS.

PERMANENT 4" YELLOW MARKING LINE SAME DAY EPOXY TO BE PLACED AFTER CENTERLINE RUMBLE STRIPS ARE INSTALLED. (STAGE 4)



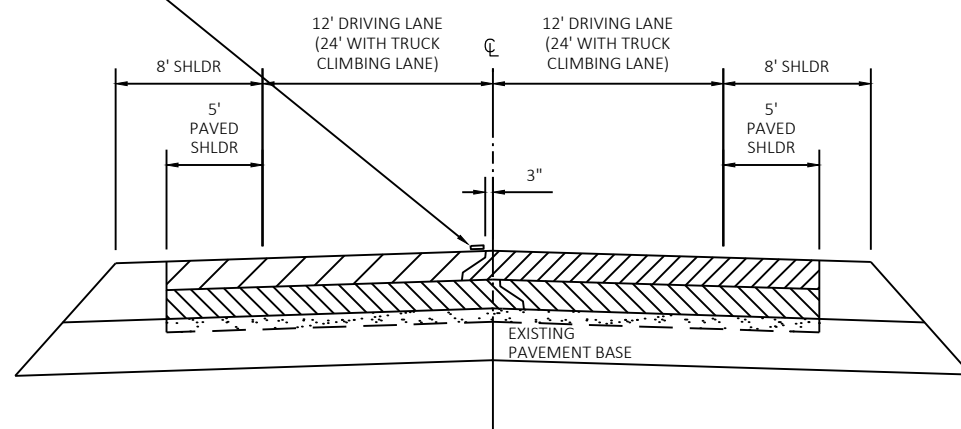
PLAN VIEW



NOTE: CONTINUOUSLY CLOSE TRUCK CLIMBING LANES - SEE DETAILS

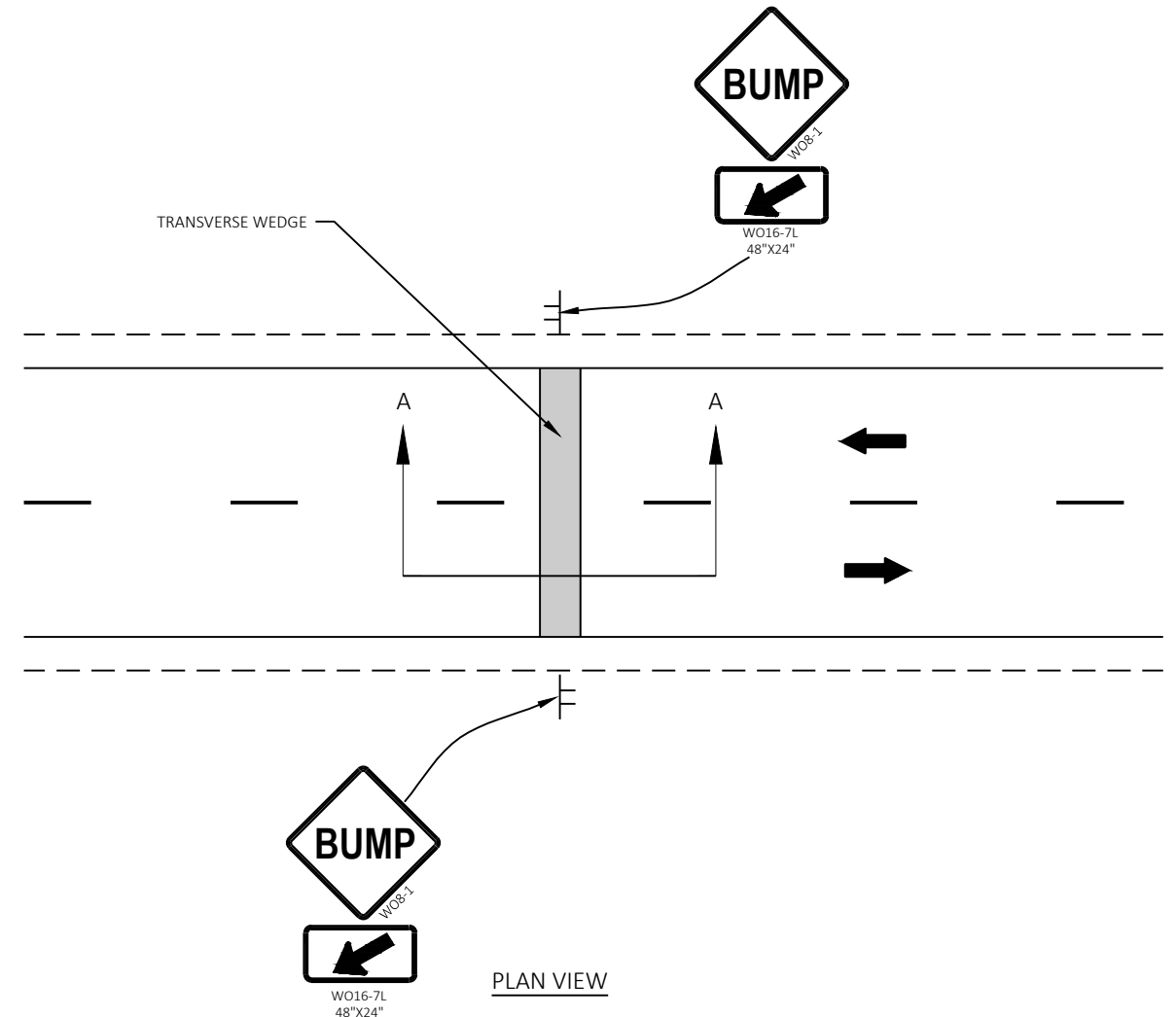
* PLACE TEMPORARY YELLOW MARKING LINE EPOXY 4' SKIPS IN LOCATION OF PERMANENT YELLOW MARKING LINE (SEE SDD 15C8a)

* 4" YELLOW TEMPORARY MARKING LINE EPOXY(4' SKIPS)

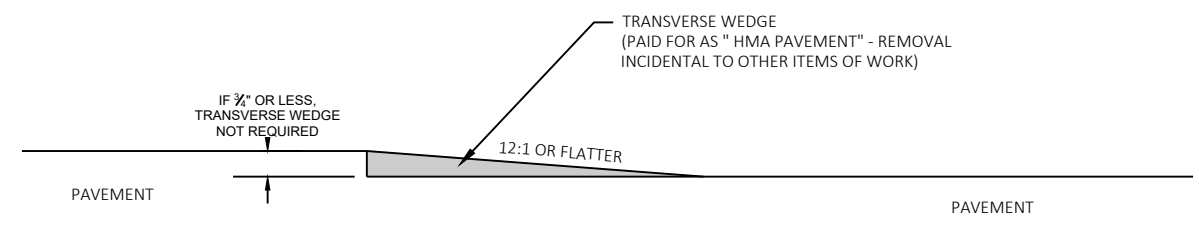


SECTION VIEW

STAGE 3 - MILLING AND PAVING UPPER HMA LAYER SECOND DIRECTION (NB OR SB) DETAIL

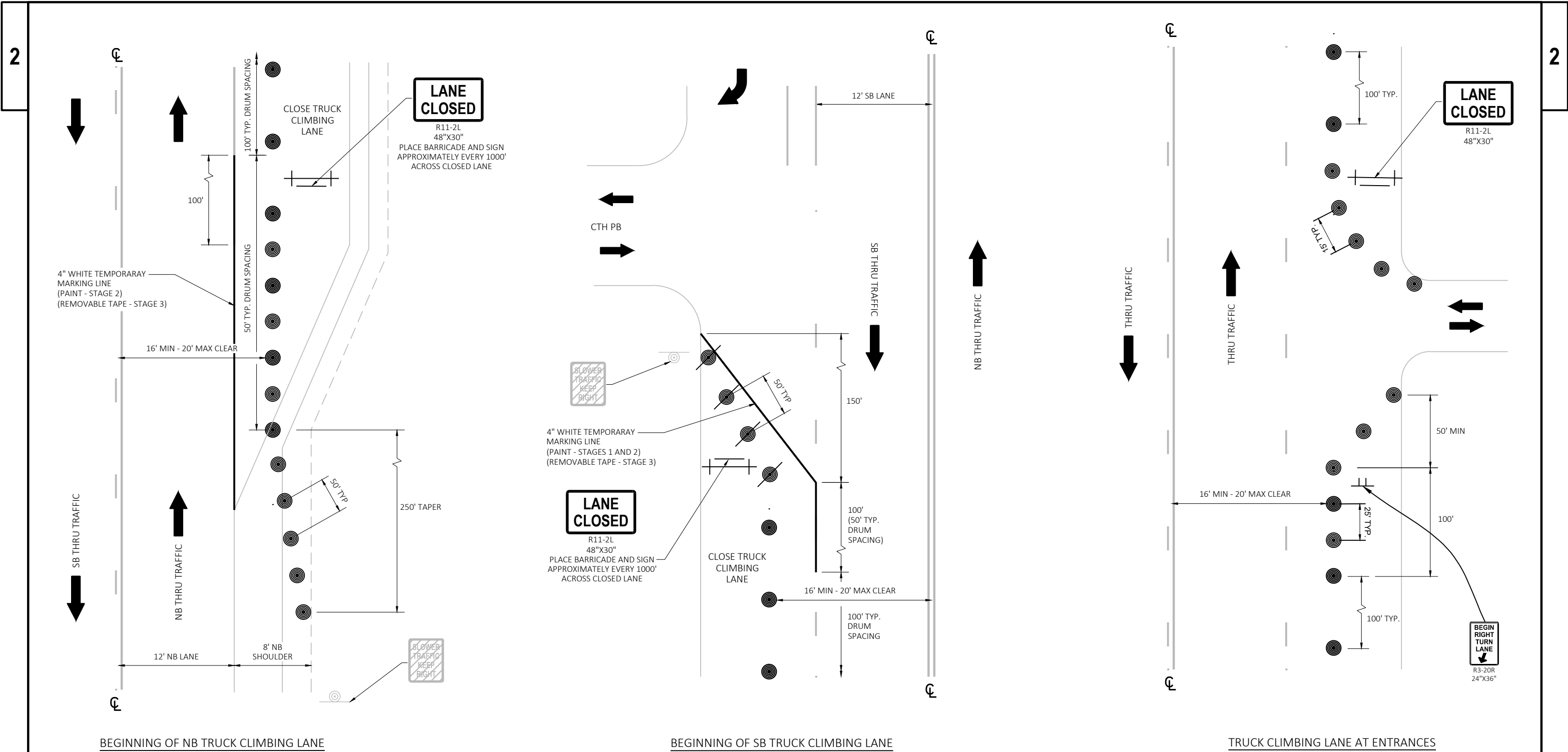


PLAN VIEW



SECTION A-A

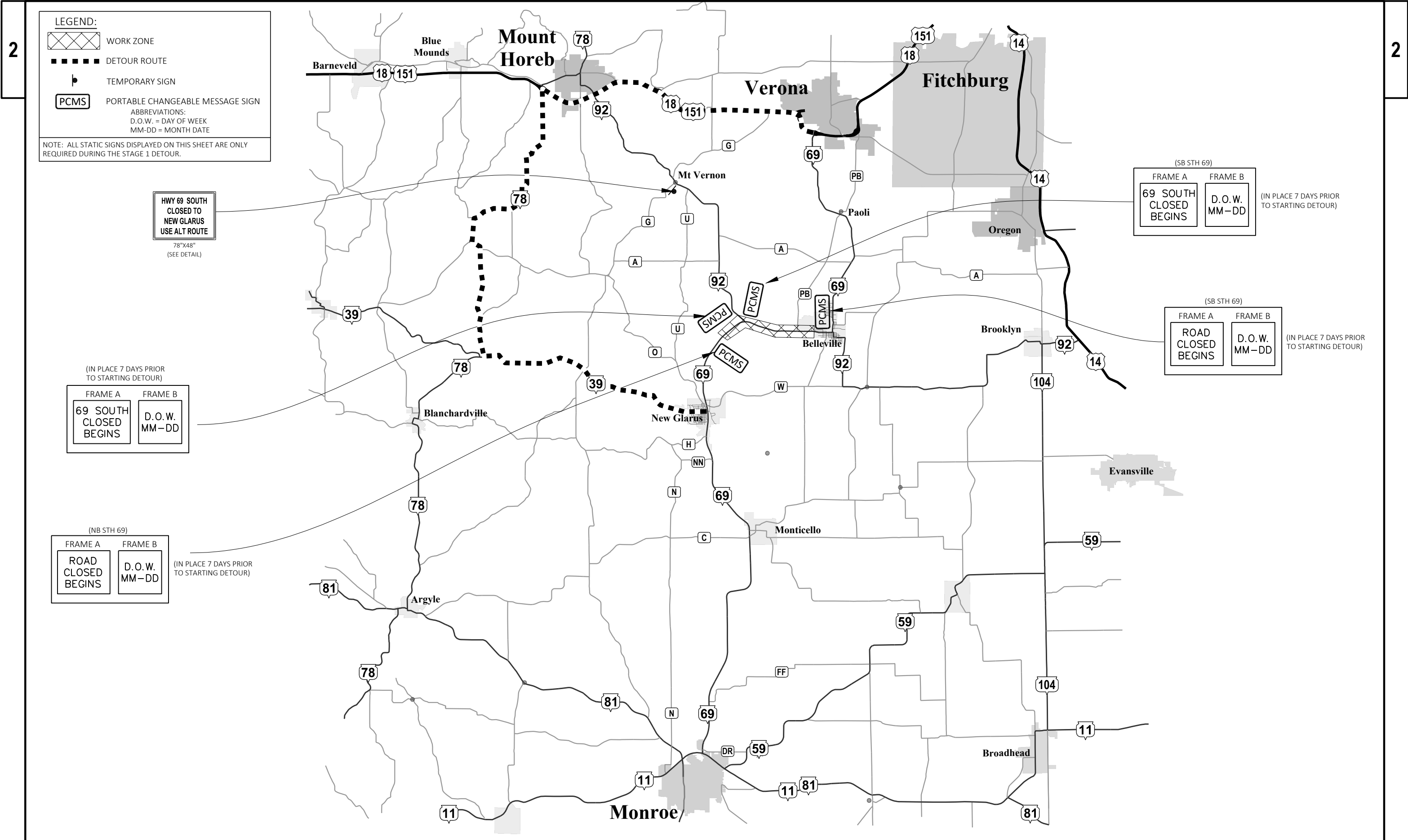
DETAIL FOR TEMPORARY TRANSVERSE WEDGE

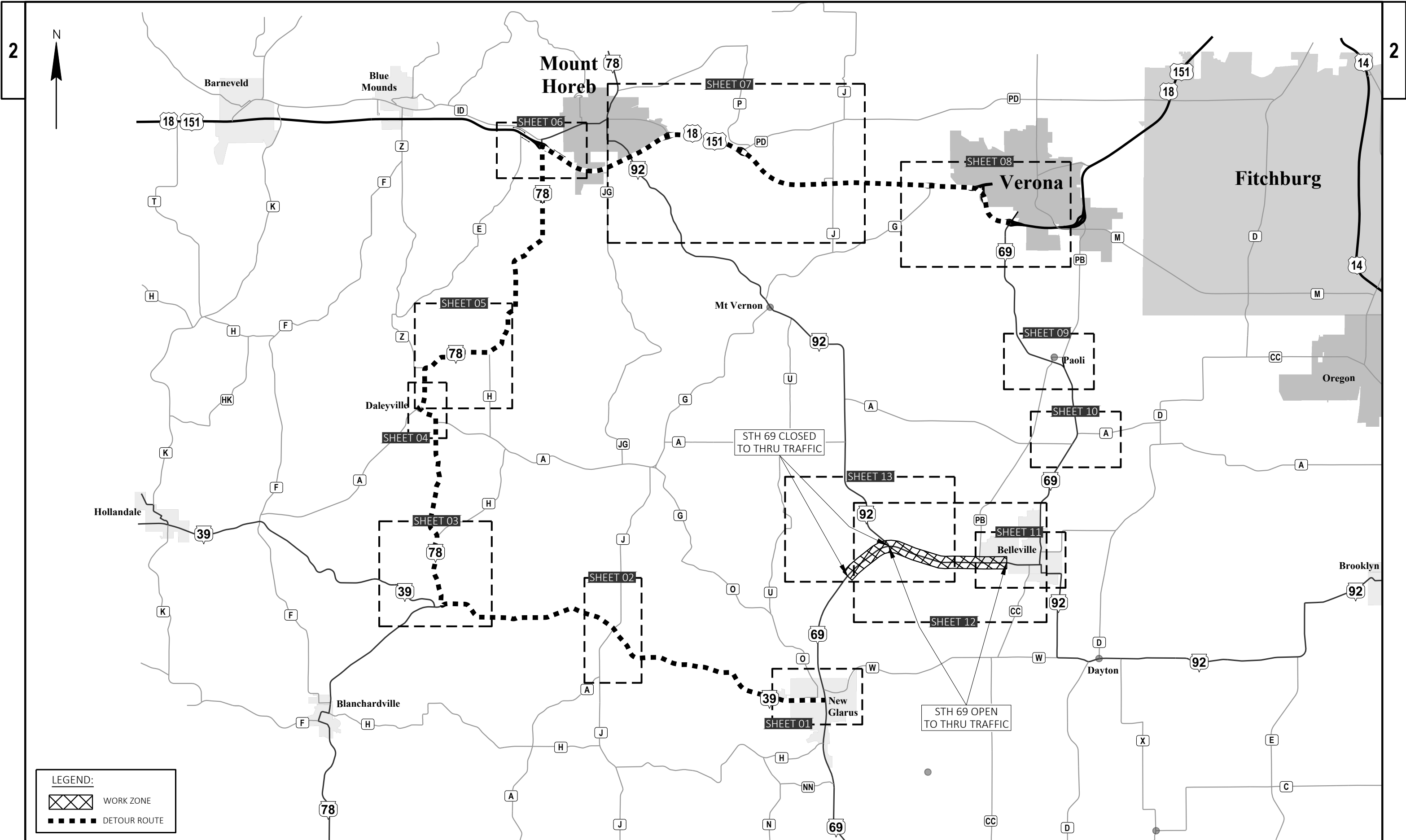


LEGEND:

- | | | | |
|---|-------------------------|----|--|
| LANE CLOSED
R11-2L
48"x30" | PROPOSED TEMPORARY SIGN | TT | SIGN ON TEMPORARY SUPPORT |
| | COVER EXISTING SIGN | | TRAFFIC CONTROL BARRICADE TYPE III |
| | | ⊙ | EXISTING TYPE II SIGN |
| | | ⊙ | TRAFFIC CONTROL DRUM |
| | | ⊙ | TRAFFIC CONTROL DRUM WITH WARNING LIGHT TYPE C |

DETAILS FOR CONTINUOUS CLOSURE OF TRUCK CLIMBING LANE
(START OF MILLING UNDER STAGE 1 THROUGH INSTALLATION OF RUMBLE STRIPS
AND PERMANENT PAVEMENT MARKING UNDER STAGE 3)





LEGEND:

 WORK ZONE

 DETOUR ROUTE

DETOUR
M4-8
24"X12"

NORTH
M3-1
24"X12"

SOUTH
M3-3
24"X12"

69
M1-6
24"X24"

→ ↑ ←
MO6-1
21"X21"

↙ ↘
MO5-1L 21"X21" MO5-1R 21"X21"

END DETOUR
M4-8A
24"X18"

DETOUR
←
M4-9L
30"X24"

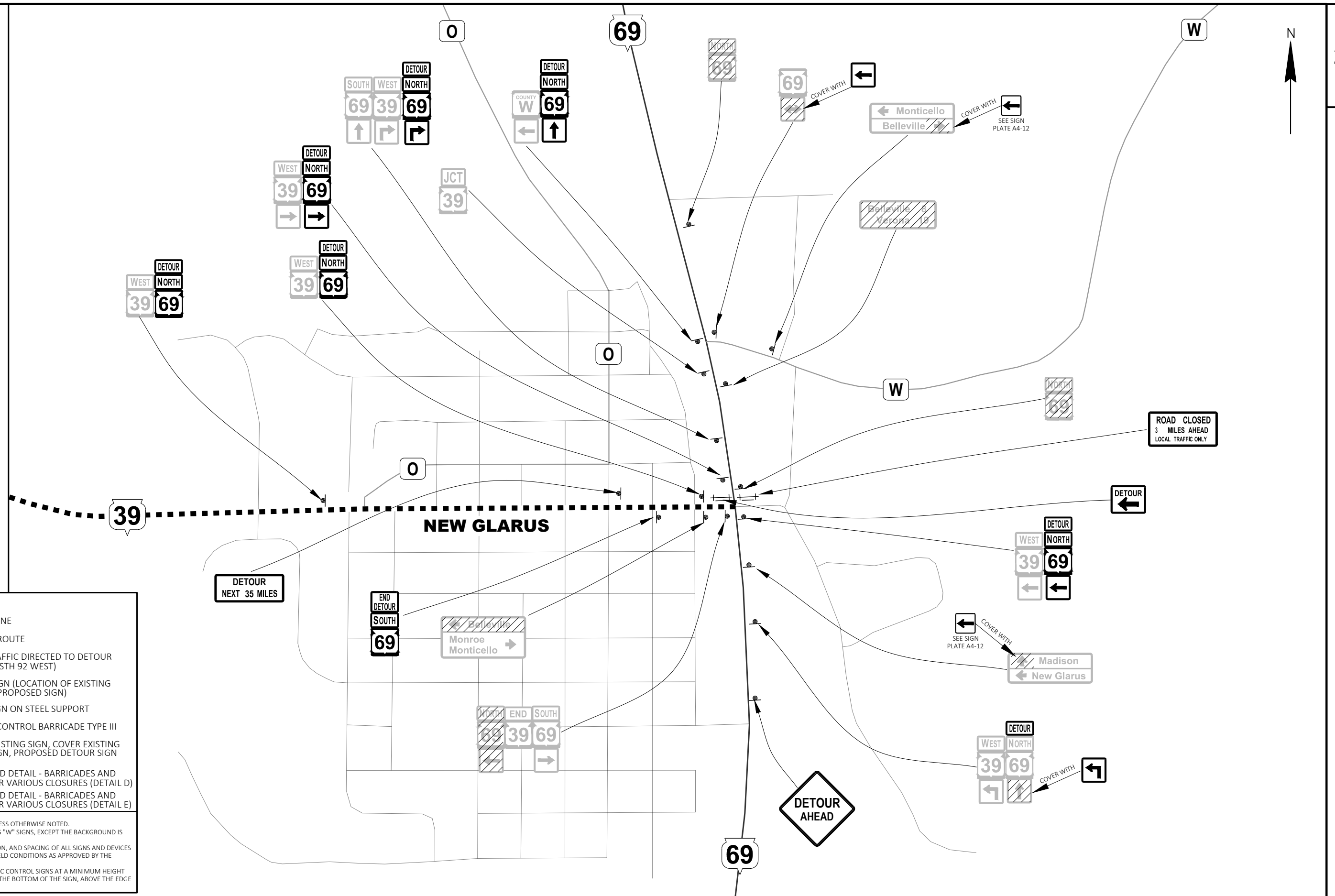
DETOUR
NEXT 35 MILES
G20-51
60"X24"

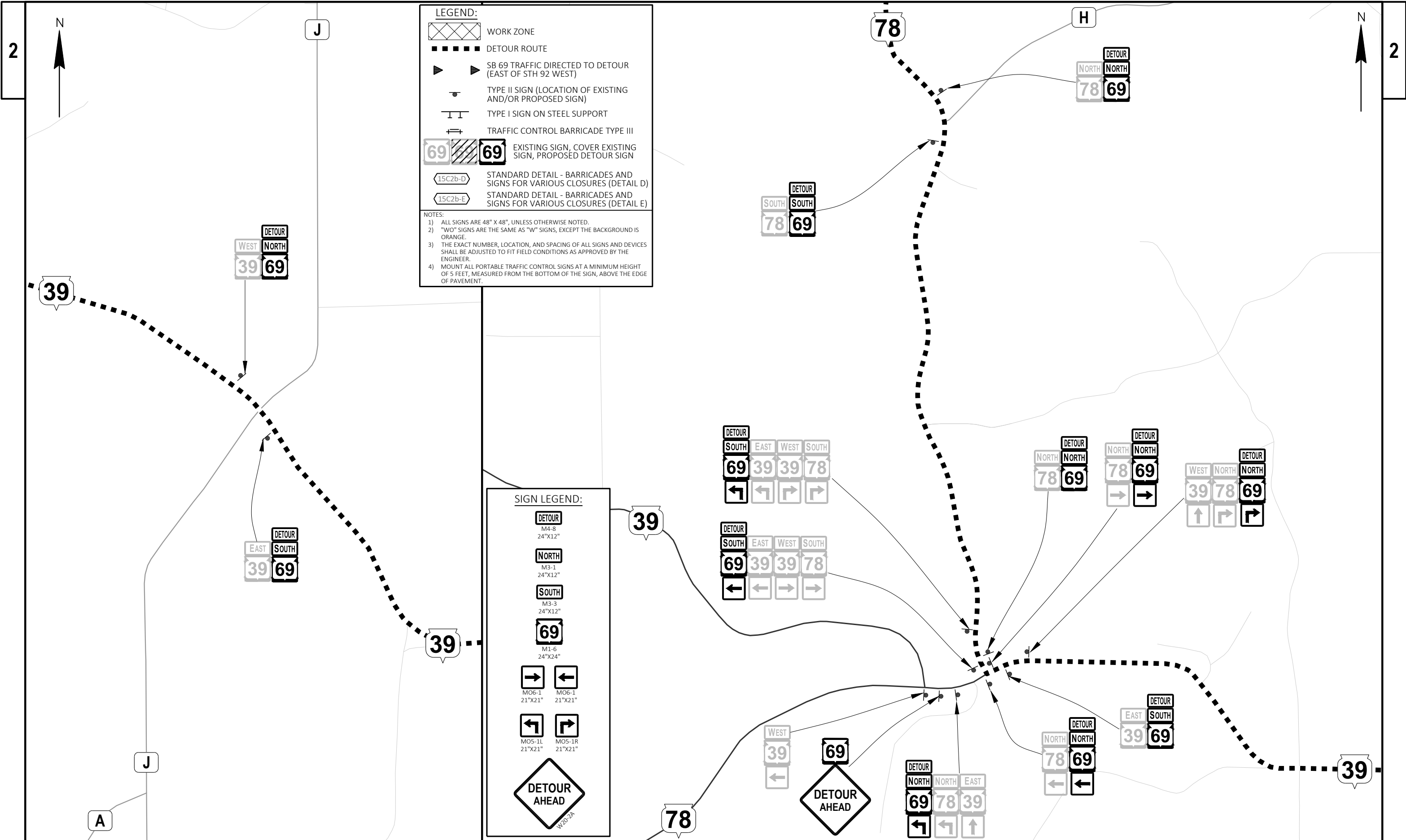
ROAD CLOSED
3 MILES AHEAD
LOCAL TRAFFIC ONLY
R11-3
60"X30"

DETOUR AHEAD
W20-2A

	WORK ZONE
	DETOUR ROUTE
	SB 69 TRAFFIC DIRECTED TO DETOUR (EAST OF STH 92 WEST)
	TYPE II SIGN (LOCATION OF EXISTING AND/OR PROPOSED SIGN)
	TYPE I SIGN ON STEEL SUPPORT
	TRAFFIC CONTROL BARRICADE TYPE III
	EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN
	STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL D)
	STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL E)

NOTES:	1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED. 2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE. 3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER. 4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.
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LEGEND:

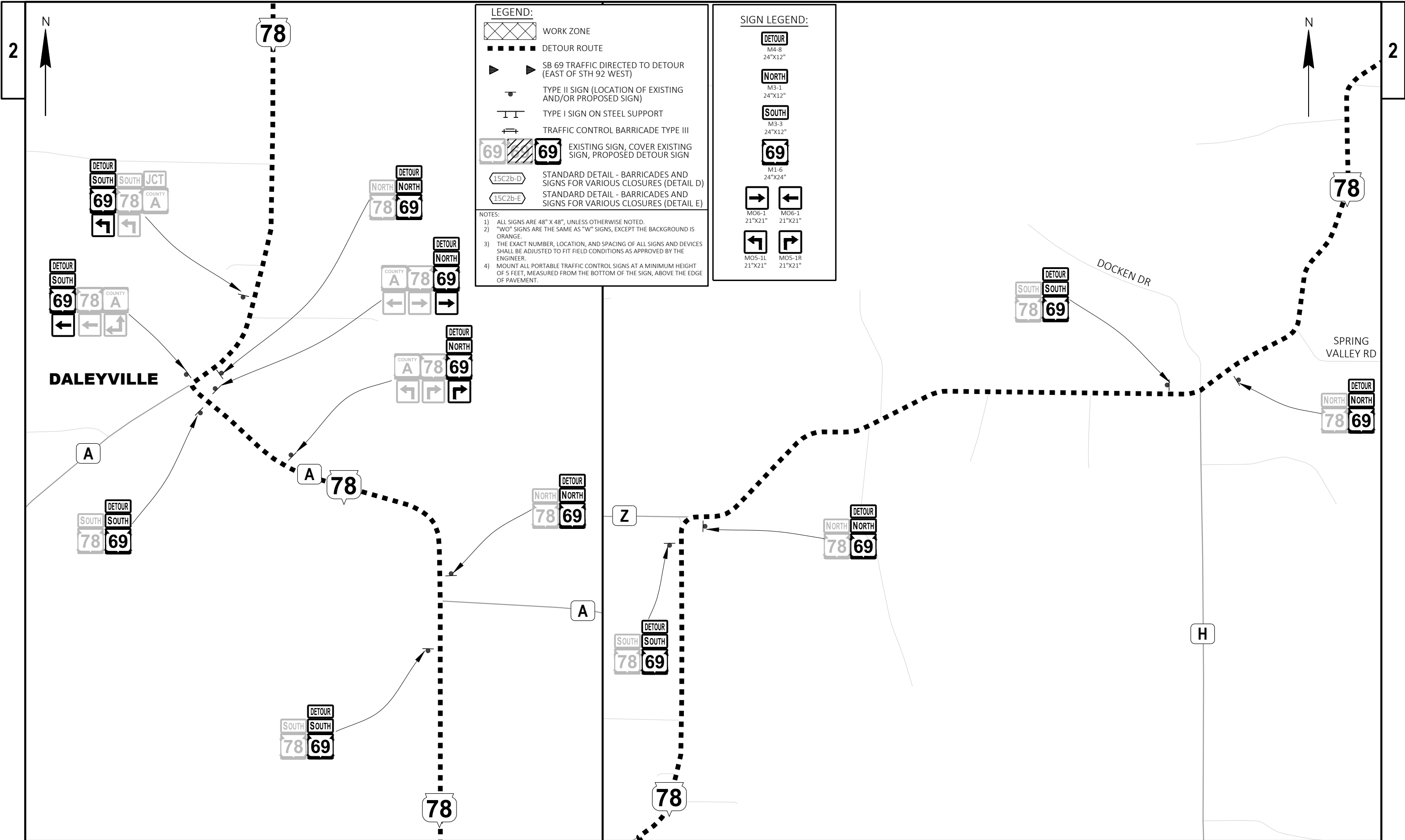
- WORK ZONE
- DETOUR ROUTE
- SB 69 TRAFFIC DIRECTED TO DETOUR (EAST OF STH 92 WEST)
- TYPE II SIGN (LOCATION OF EXISTING AND/OR PROPOSED SIGN)
- TYPE I SIGN ON STEEL SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL D)
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL E)

NOTES:

- 1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
- 2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
- 3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- 4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

SIGN LEGEND:

- DETOUR M4-8 24"X12"
- NORTH M3-1 24"X12"
- SOUTH M3-3 24"X12"
- 69 M1-6 24"X24"
- MO6-1 21"X21"
- MO5-1L 21"X21"
- MO5-1R 21"X21"
- DETOUR AHEAD W20-2A



LEGEND:

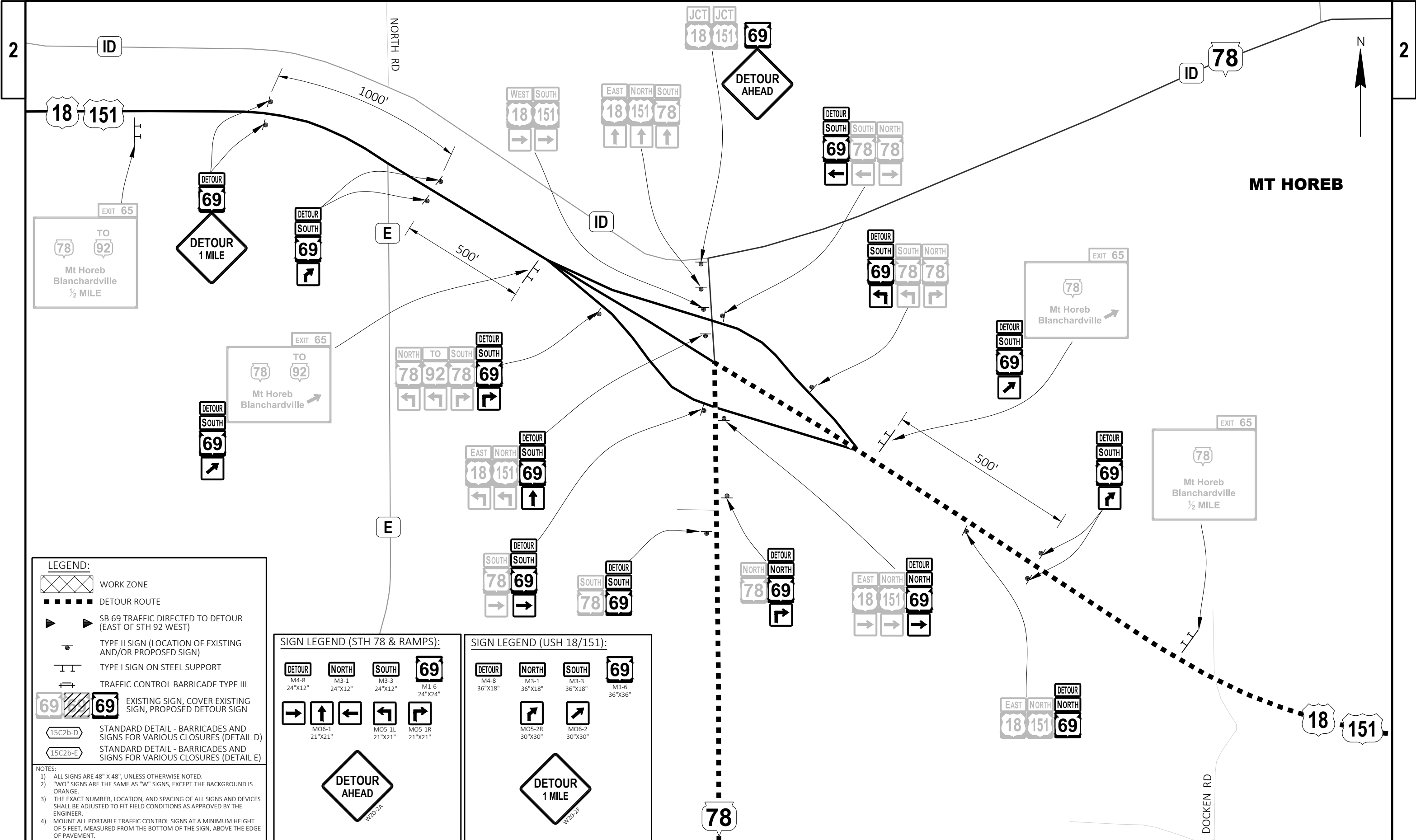
- WORK ZONE
- DETOUR ROUTE
- SB 69 TRAFFIC DIRECTED TO DETOUR (EAST OF STH 92 WEST)
- TYPE II SIGN (LOCATION OF EXISTING AND/OR PROPOSED SIGN)
- TYPE I SIGN ON STEEL SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL D)
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL E)

NOTES:

- ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

SIGN LEGEND:

- DETOUR
- NORTH
- SOUTH
- 69
- 15C2b-D
- 15C2b-E
- MO6-1
- MO5-1L
- MO6-1
- MO5-1R



LEGEND:

- WORK ZONE
- DETOUR ROUTE
- SB 69 TRAFFIC DIRECTED TO DETOUR (EAST OF STH 92 WEST)
- TYPE II SIGN (LOCATION OF EXISTING AND/OR PROPOSED SIGN)
- TYPE I SIGN ON STEEL SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL D)
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL E)

NOTES:

- ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

SIGN LEGEND (STH 78 & RAMPS):

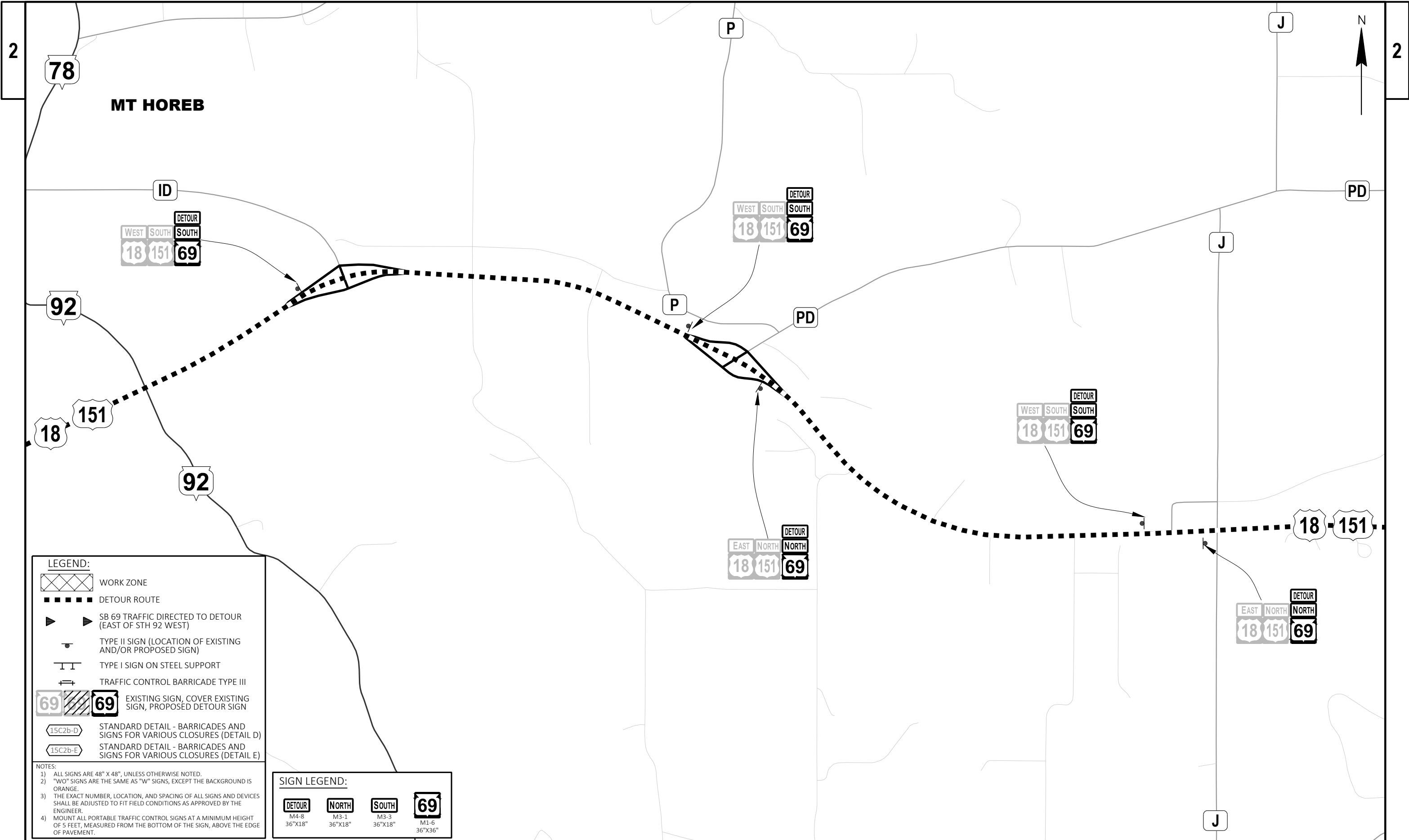
M4-8 24"x12"	M3-1 24"x12"	M3-3 24"x12"	M1-6 24"x24"
MO6-1 21"x21"	MO5-1L 21"x21"	MO5-1R 21"x21"	

DETOUR AHEAD W20-2A

SIGN LEGEND (USH 18/151):

M4-8 36"x18"	M3-1 36"x18"	M3-3 36"x18"	M1-6 36"x36"
MO5-2R 30"x30"	MO6-2 30"x30"		

DETOUR 1 MILE W20-2F



LEGEND:

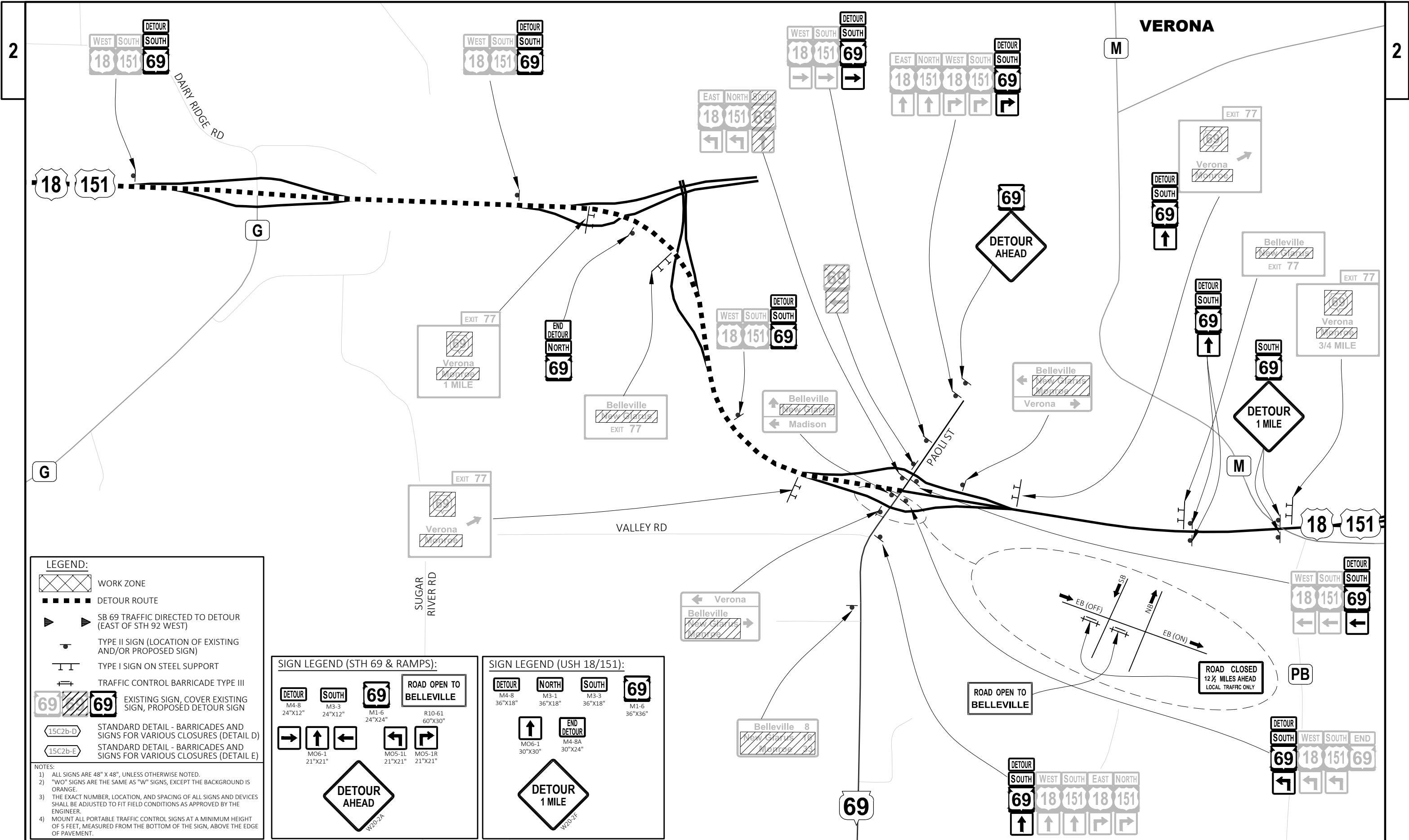
- WORK ZONE
- DETOUR ROUTE
- SB 69 TRAFFIC DIRECTED TO DETOUR (EAST OF STH 92 WEST)
- TYPE II SIGN (LOCATION OF EXISTING AND/OR PROPOSED SIGN)
- TYPE I SIGN ON STEEL SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL D)
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL E)

NOTES:

- 1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
- 2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
- 3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- 4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

SIGN LEGEND:

M4-8 36"x18"	M3-1 36"x18"	M3-3 36"x18"	M1-6 36"x36"
-----------------	-----------------	-----------------	-----------------



LEGEND:

- WORK ZONE
- DETOUR ROUTE
- SB 69 TRAFFIC DIRECTED TO DETOUR (EAST OF STH 92 WEST)
- TYPE II SIGN (LOCATION OF EXISTING AND/OR PROPOSED SIGN)
- TYPE I SIGN ON STEEL SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL D)
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL E)

NOTES:

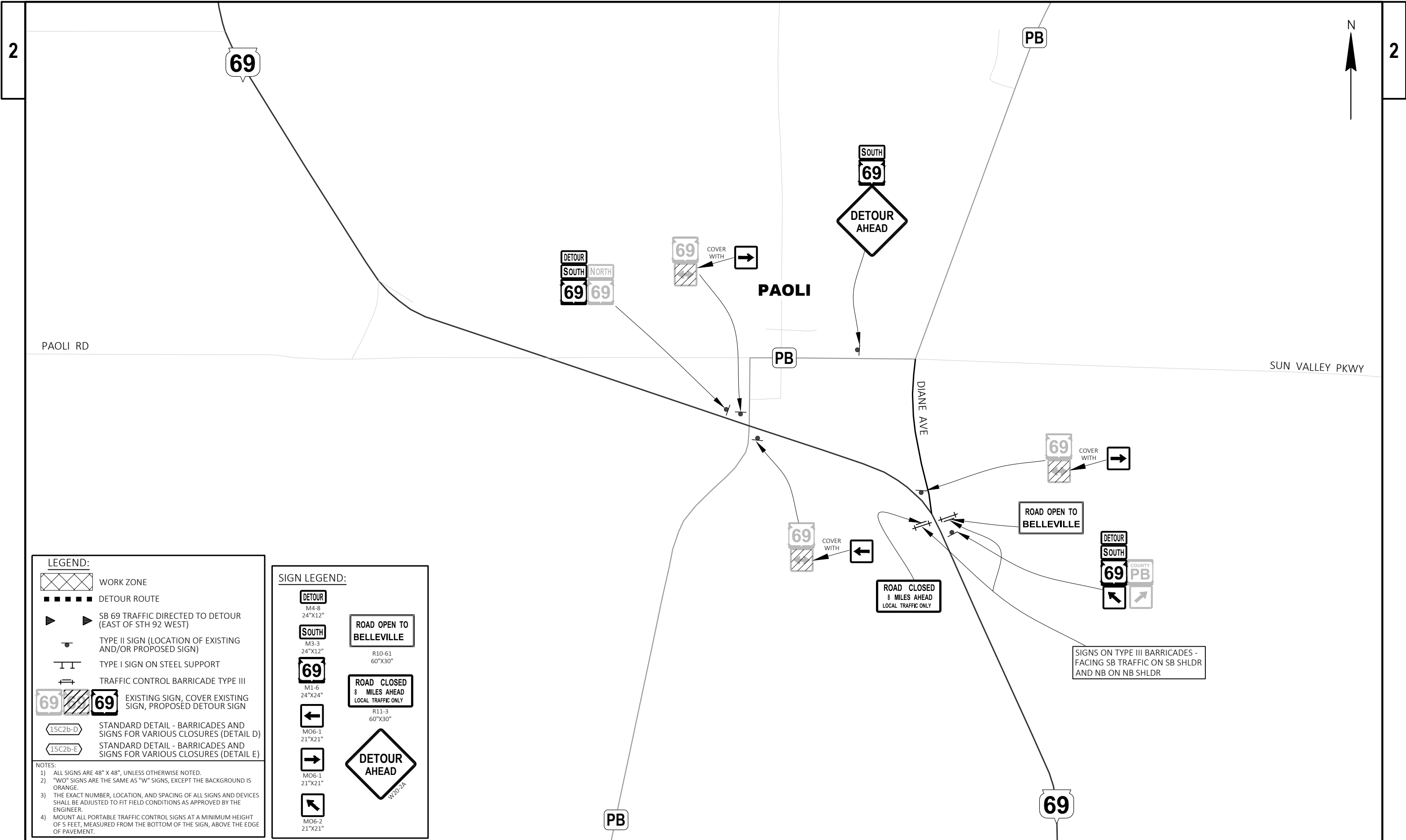
- 1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
- 2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
- 3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- 4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

SIGN LEGEND (STH 69 & RAMPS):

M4-8 24"x12"	M3-3 24"x12"	M1-6 24"x24"	R10-61 60"x30"
MO6-1 21"x21"	MO5-1L 21"x21"	MO5-1R 21"x21"	
W20-2A			

SIGN LEGEND (USH 18/151):

M4-8 36"x18"	M3-1 36"x18"	M3-3 36"x18"	M1-6 36"x36"
MO6-1 30"x30"	M4-8A 30"x24"		
W20-2F			



LEGEND:

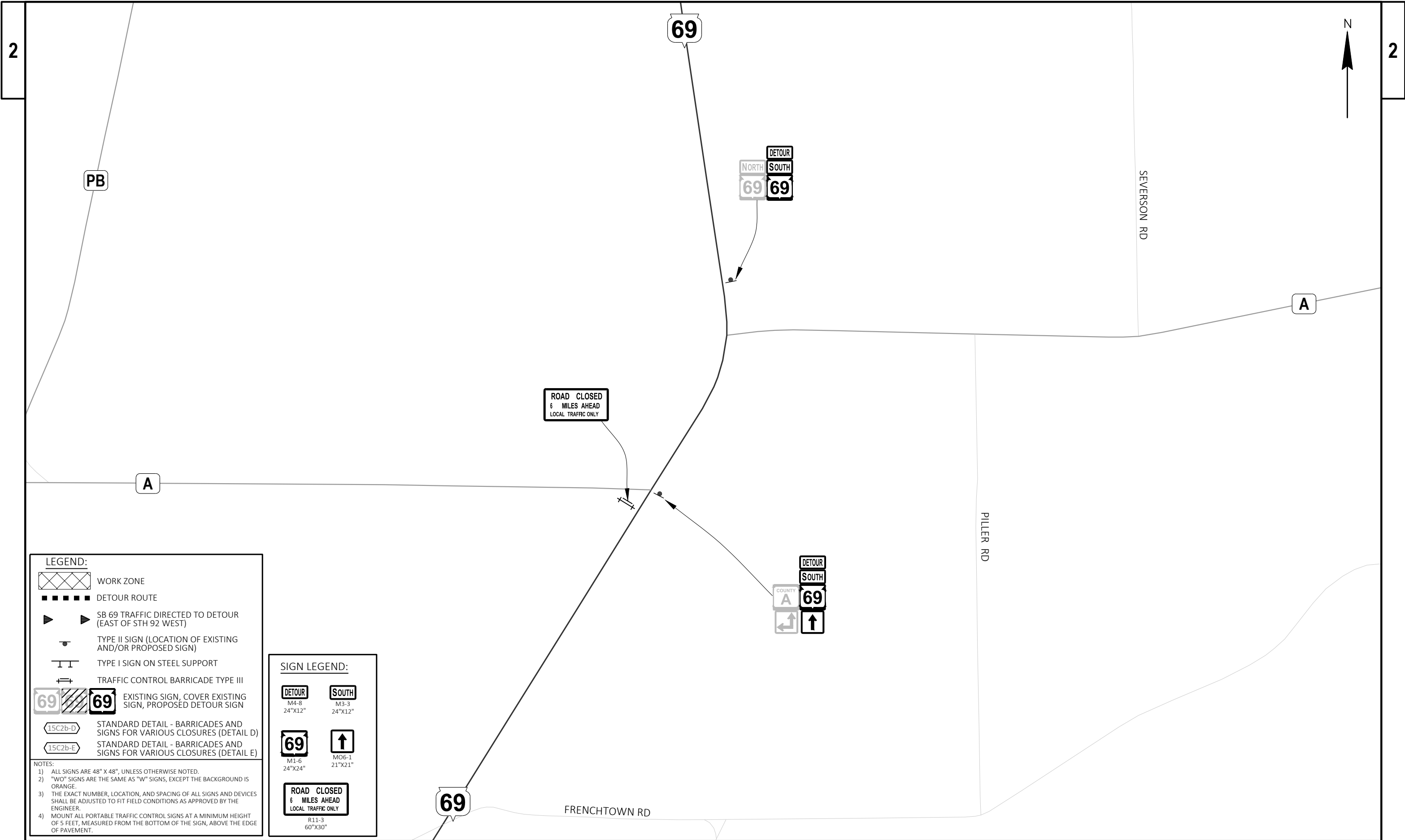
- WORK ZONE
- DETOUR ROUTE
- SB 69 TRAFFIC DIRECTED TO DETOUR (EAST OF STH 92 WEST)
- TYPE II SIGN (LOCATION OF EXISTING AND/OR PROPOSED SIGN)
- TYPE I SIGN ON STEEL SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL D)
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL E)

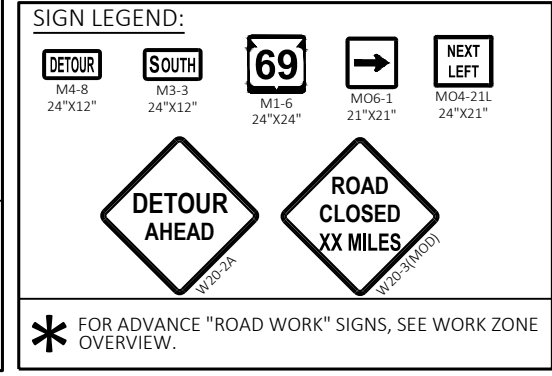
NOTES:

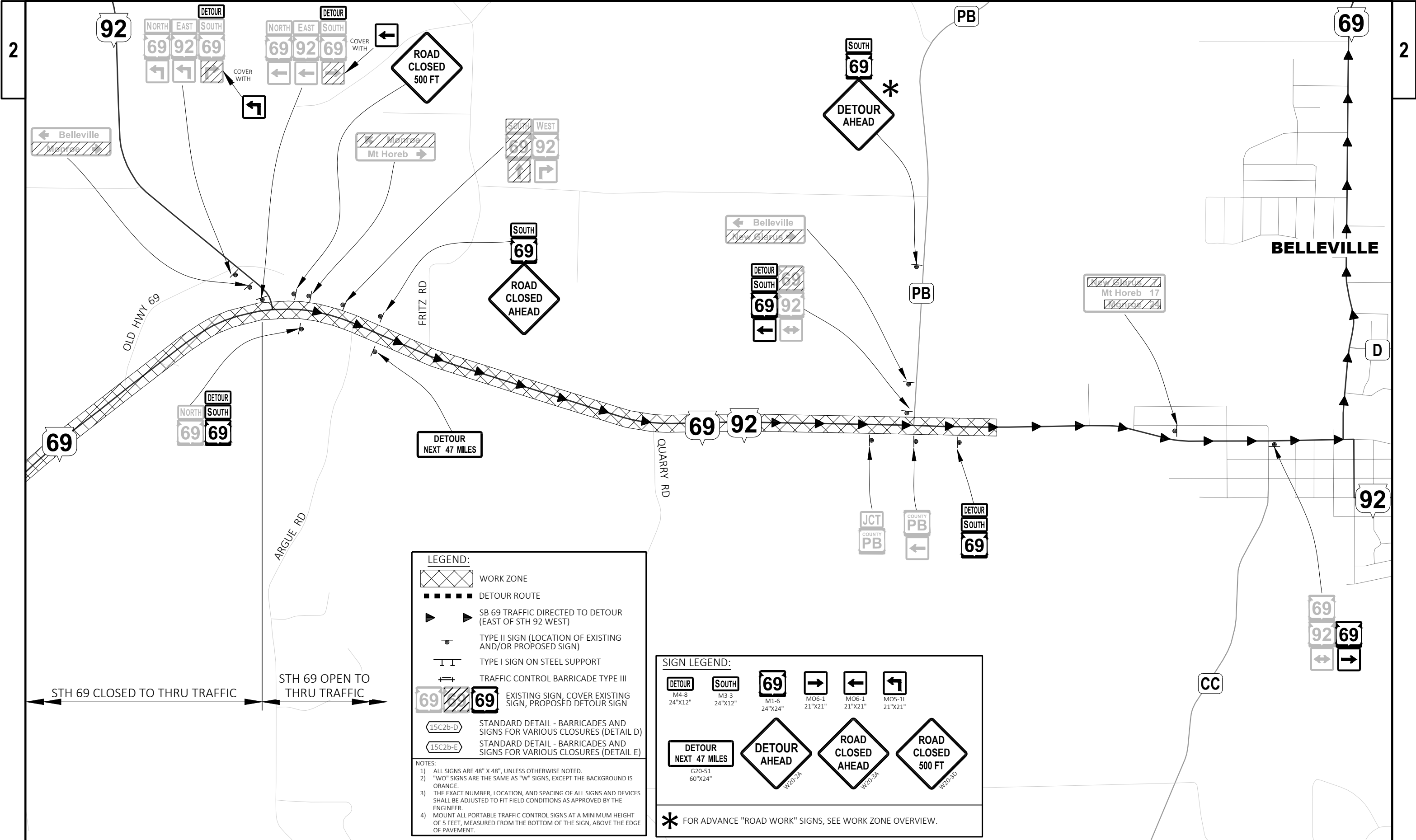
- 1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
- 2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
- 3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- 4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

SIGN LEGEND:

 M4-8 24"x12"	 ROAD OPEN TO BELLEVILLE R10-61 60"x30"
 SOUTH M3-3 24"x12"	 ROAD CLOSED 8 MILES AHEAD LOCAL TRAFFIC ONLY R11-3 60"x30"
 69 M1-6 24"x24"	 DETOUR AHEAD W20-2A
 ← MO6-1 21"x21"	
 → MO6-1 21"x21"	
 ↑ MO6-2 21"x21"	







LEGEND:

- WORK ZONE
- DETOUR ROUTE
- SB 69 TRAFFIC DIRECTED TO DETOUR (EAST OF STH 92 WEST)
- TYPE II SIGN (LOCATION OF EXISTING AND/OR PROPOSED SIGN)
- TYPE I SIGN ON STEEL SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL D)
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL E)

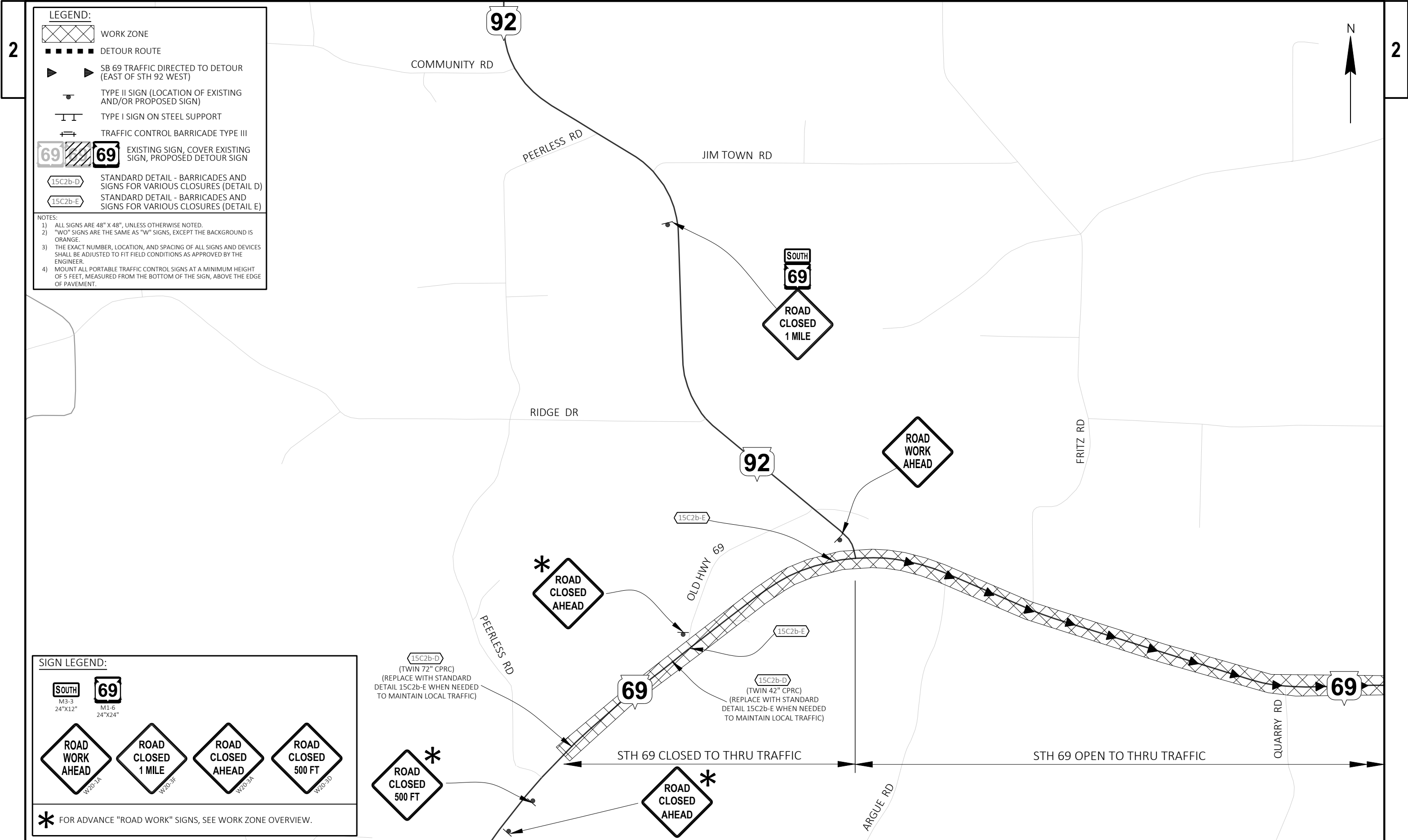
NOTES:

- 1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
- 2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
- 3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- 4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

SIGN LEGEND:

 M4-8 24"x12"	 M3-3 24"x12"	 M1-6 24"x24"	 MO6-1 21"x21"	 MO6-1 21"x21"	 MO5-1L 21"x21"			
 G20-51 60"x24"						 W20-2A	 W20-3A	 W20-5D

* FOR ADVANCE "ROAD WORK" SIGNS, SEE WORK ZONE OVERVIEW.



LEGEND:

- WORK ZONE
- DETOUR ROUTE
- SB 69 TRAFFIC DIRECTED TO DETOUR (EAST OF STH 92 WEST)
- TYPE II SIGN (LOCATION OF EXISTING AND/OR PROPOSED SIGN)
- TYPE I SIGN ON STEEL SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- EXISTING SIGN, COVER EXISTING SIGN, PROPOSED DETOUR SIGN
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL D)
- STANDARD DETAIL - BARRICADES AND SIGNS FOR VARIOUS CLOSURES (DETAIL E)

- NOTES:**
- 1) ALL SIGNS ARE 48" X 48", UNLESS OTHERWISE NOTED.
 - 2) "WO" SIGNS ARE THE SAME AS "W" SIGNS, EXCEPT THE BACKGROUND IS ORANGE.
 - 3) THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
 - 4) MOUNT ALL PORTABLE TRAFFIC CONTROL SIGNS AT A MINIMUM HEIGHT OF 5 FEET, MEASURED FROM THE BOTTOM OF THE SIGN, ABOVE THE EDGE OF PAVEMENT.

SIGN LEGEND:

M3-3
24"x12"

M1-6
24"x24"

W20-1A

W20-3F

W20-3A

W20-3D

***** FOR ADVANCE "ROAD WORK" SIGNS, SEE WORK ZONE OVERVIEW.

Estimate Of Quantities

1690-01-74					
Line	Item	Item Description	Unit	Total	Qty
0002	201.0105	Clearing	STA	6.000	6.000
0004	201.0205	Grubbing	STA	6.000	6.000
0006	203.0200	Removing Old Structure (station) 01. STA 1059+95	LS	1.000	1.000
0008	203.0200	Removing Old Structure (station) 02. STA 1060+06	LS	1.000	1.000
0010	203.0200	Removing Old Structure (station) 03. STA 1079+40	LS	1.000	1.000
0012	203.0200	Removing Old Structure (station) 04. STA 1152+46	LS	1.000	1.000
0014	204.0110	Removing Asphaltic Surface	SY	705.000	705.000
0016	204.0115	Removing Asphaltic Surface Butt Joints	SY	53.000	53.000
0018	204.0120	Removing Asphaltic Surface Milling	SY	92,302.000	92,302.000
0020	204.0180	Removing Delineators and Markers	EACH	6.000	6.000
0022	204.0185	Removing Masonry	CY	4.000	4.000
0024	205.0100	Excavation Common	CY	2,182.000	2,182.000
0026	209.0200.S	Backfill Controlled Low Strength	CY	15.000	15.000
0028	210.2100	Backfill Structure Type B	CY	40.000	40.000
0030	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1690-01-74	LS	1.000	1.000
0032	213.0100	Finishing Roadway (project) 01. 1690-01-74	EACH	1.000	1.000
0034	305.0110	Base Aggregate Dense 3/4-Inch	TON	994.000	994.000
0036	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,912.000	1,912.000
0038	305.0500	Shaping Shoulders	STA	342.000	342.000
0040	455.0605	Tack Coat	GAL	11,432.000	11,432.000
0042	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	2.000	2.000
0044	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0046	460.2000	Incentive Density HMA Pavement	DOL	6,240.000	6,240.000
0048	460.6223	HMA Pavement 3 MT 58-28 S	TON	11,669.000	11,669.000
0050	460.6224	HMA Pavement 4 MT 58-28 S	TON	9,075.000	9,075.000
0052	465.0105	Asphaltic Surface	TON	847.000	847.000
0054	465.0110	Asphaltic Surface Patching	TON	100.000	100.000
0056	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	141.000	141.000
0058	509.1500	Concrete Surface Repair	SF	100.000	100.000
0060	520.1024	Apron Endwalls for Culvert Pipe 24-Inch	EACH	2.000	2.000
0062	520.3624	Culvert Pipe Class III-B Non-metal 24-Inch	LF	64.000	64.000
0064	522.0142	Culvert Pipe Reinforced Concrete Class III 42-Inch	LF	204.000	204.000
0066	522.0472	Culvert Pipe Reinforced Concrete Class IV 72-Inch	LF	390.000	390.000
0068	522.1042	Apron Endwalls for Culvert Pipe Reinforced Concrete 42-Inch	EACH	4.000	4.000
0070	522.1072	Apron Endwalls for Culvert Pipe Reinforced Concrete 72-Inch	EACH	4.000	4.000
0072	606.0300	Riprap Heavy	CY	45.000	45.000
0074	606.0700	Grouted Riprap Heavy	CY	86.000	86.000

Estimate Of Quantities

1690-01-74					
Line	Item	Item Description	Unit	Total	Qty
0076	614.0952	Replacing Guardrail Reflectors	EACH	5.000	5.000
0078	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1690-01-74	EACH	1.000	1.000
0080	619.1000	Mobilization	EACH	1.000	1.000
0082	624.0100	Water	MGAL	29.100	29.100
0084	625.0500	Salvaged Topsoil	SY	3,670.000	3,670.000
0086	628.1504	Silt Fence	LF	867.000	867.000
0088	628.1520	Silt Fence Maintenance	LF	867.000	867.000
0090	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0092	628.1910	Mobilizations Emergency Erosion Control	EACH	3.000	3.000
0094	628.2004	Erosion Mat Class I Type B	SY	350.000	350.000
0096	628.2008	Erosion Mat Urban Class I Type B	SY	3,330.000	3,330.000
0098	628.7015	Inlet Protection Type C	EACH	1.000	1.000
0100	628.7504	Temporary Ditch Checks	LF	15.000	15.000
0102	628.7555	Culvert Pipe Checks	EACH	60.000	60.000
0104	629.0210	Fertilizer Type B	CWT	2.400	2.400
0106	630.0110	Seeding Mixture No. 10	LB	50.000	50.000
0108	630.0500	Seed Water	MGAL	83.000	83.000
0110	633.5200	Markers Culvert End	EACH	6.000	6.000
0112	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	2.000	2.000
0114	638.2102	Moving Signs Type II	EACH	2.000	2.000
0116	638.3000	Removing Small Sign Supports	EACH	2.000	2.000
0118	642.5201	Field Office Type C	EACH	1.000	1.000
0120	643.0300	Traffic Control Drums	DAY	15,000.000	15,000.000
0122	643.0420	Traffic Control Barricades Type III	DAY	2,900.000	2,900.000
0124	643.0705	Traffic Control Warning Lights Type A	DAY	5,700.000	5,700.000
0126	643.0715	Traffic Control Warning Lights Type C	DAY	300.000	300.000
0128	643.0900	Traffic Control Signs	DAY	13,000.000	13,000.000
0130	643.0910	Traffic Control Covering Signs Type I	EACH	10.000	10.000
0132	643.0920	Traffic Control Covering Signs Type II	EACH	19.000	19.000
0134	643.1000	Traffic Control Signs Fixed Message	SF	26.000	26.000
0136	643.1050	Traffic Control Signs PCMS	DAY	28.000	28.000
0138	643.5000	Traffic Control	EACH	1.000	1.000
0140	645.0120	Geotextile Type HR	SY	297.000	297.000
0142	646.1020	Marking Line Epoxy 4-Inch	LF	261.000	261.000
0144	646.1040	Marking Line Grooved Wet Ref Epoxy 4-Inch	LF	41,421.000	41,421.000
0146	646.3020	Marking Line Epoxy 8-Inch	LF	148.000	148.000
0148	646.3040	Marking Line Grooved Wet Ref Epoxy 8-Inch	LF	944.000	944.000
0150	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	38,931.000	38,931.000
0152	646.5020	Marking Arrow Epoxy	EACH	5.000	5.000

Estimate Of Quantities

1690-01-74					
Line	Item	Item Description	Unit	Total	Qty
0154	646.5120	Marking Word Epoxy	EACH	2.000	2.000
0156	646.6120	Marking Stop Line Epoxy 18-Inch	LF	63.000	63.000
0158	646.7120	Marking Diagonal Epoxy 12-Inch	LF	1,098.000	1,098.000
0160	649.0105	Temporary Marking Line Paint 4-Inch	LF	38,720.000	38,720.000
0162	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	1,520.000	1,520.000
0164	649.0150	Temporary Marking Line Removable Tape 4-Inch	LF	700.000	700.000
0166	650.6000	Construction Staking Pipe Culverts	EACH	5.000	5.000
0168	650.8000	Construction Staking Resurfacing Reference	LF	19,135.000	19,135.000
0170	650.9910	Construction Staking Supplemental Control (project) 01. 1690-01-74	LS	1.000	1.000
0172	650.9920	Construction Staking Slope Stakes	LF	335.000	335.000
0174	690.0150	Sawing Asphalt	LF	350.000	350.000
0176	740.0440	Incentive IRI Ride	DOL	18,600.000	18,600.000
0178	ASP.1T0A	On-the-Job Training Apprentice at \$5.00/HR	HRS	1,200.000	1,200.000
0180	ASP.1T0G	On-the-Job Training Graduate at \$5.00/HR	HRS	600.000	600.000
0182	SPV.0055	Special 01. Incentive Density PWL HMA Pavement	DOL	14,330.000	14,330.000
0184	SPV.0055	Special 02. Incentive Air Voids HMA Pavement	DOL	20,920.000	20,920.000
0186	SPV.0055	Special 03. Incentive Density HMA Pavement Longitudinal Joints	DOL	103,980.000	103,980.000
0188	SPV.0090	Special 01. Asphaltic Centerline Rumble Strips Sinusoidal 2-Lane Rural	LF	13,660.000	13,660.000
0190	SPV.0090	Special 02. Asphaltic Shoulder Rumble Strips Sinusoidal 2-Lane Rural	LF	32,316.000	32,316.000
0192	SPV.0090	Special 03. Remove Stockpile and Reinstall Rail	LF	425.000	425.000
0194	SPV.0105	Special 01. Temporary Water Diversions Twin 72-Inch CPRC	LS	1.000	1.000
0196	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	4,615.000	4,615.000

3

CLEARING & GRUBBING

STATION	OFFSET	201.0105	201.0205
		CLEARING	GRUBBING
STA	STA		
1060+02	LT	2	2
1060+02	RT	2	2
1079+40	LT	1	1
1079+40	RT	1	1
TOTALS		6	6

REMOVING LARGE PIPES AND REMOVING PORTION OF CATTLE PASS

STATION	LOCATION	STRUCTURE DESCRIPTION	203.0200.S.01	203.0200.S.02	203.0200.S.03	**203.0200.S.04
			REMOVING OLD STRUCTURE (STA 1059+95) LS	REMOVING OLD STRUCTURE (STA 1060+06) LS	REMOVING OLD STRUCTURE (STA 1079+40) LS	REMOVING OLD STRUCTURE (STA 1152+46) LS
1059+95 (SKEW RHF)	LT & RT	72"X200' CMCP	1	-	-	-
1060+06 (SKEW RHF)	LT & RT	72"X200' CMCP	-	1	-	-
1079+40	LT & RT	60"X106' CMCP	-	-	1	-
1152+46	LT & RT	42"x72" BOX CULVERT	-	-	-	1
TOTALS			1	1	1	1

**REMOVE TOP AND WINGS OF CATTLE PASS STRUCUTRE C-13-1325.

REMOVING ASPHALTIC SURFACE BUTT JOINTS

<u>REMOVING ASPHALTIC SURFACE</u>		<u>REMOVING DELINEATORS AND MARKERS</u>			204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS		
	204.0110 REMOVING ASPHALTIC SURFACE		204.0180 REMOVING DELINEATORS AND MARKERS		STATION	ROADWAY	SY
LOCATION	SY	STATION	LOCATION	EACH			
PAVED ENTRANCES, STH 92 TO QUARRY ROAD	210	1060+02	LT & RT	2	1058+95	STH 69	9
PAVED ENTRANCES, QUARRY ROAD TO CTH PB	280	1079+40	LT & RT	2	1250+30	STH 69	8
PAVED ENTRANCES, EAST OF CTH PB	215	1152+46	LT & RT	2	1084+85 LT	OLD HWY 69	5
TOTAL	705	TOTAL		6	1128+35 RT	ARGUE RD	5
					1142+30 LT	FRITZ RD	6
					1183+00 RT	QUARRY RD	6
					1228+20 LT	CTH PB	14
					TOTAL		53

MILLING AND DISTRESSED PAVEMENT ITEMS

LOCATION	204.0120	SPV.0180.01	465.0105	465.0110	455.0605*
	REMOVING ASPHALTIC SURFACE MILLING SY	REMOVING DISTRESSED PAVEMENT MILLING SY	ASPHALTIC SURFACE TON	ASPHALTIC SURFACE PATCHING TON	TACK COAT GAL
STA 1058+95 TO STA 1061+10	-	-	281	-	-
STA 1079+05 TO STA 1079+75	-	-	92	-	-
STA 1152+35 TO STA 1152+55	-	-	22	-	-
STA 1058+95 TO STH 92	25982	1299	127	-	91
STH 92 TO QUARRY RD	31252	1563	153	-	109
QUARRY RD TO END PROJECT	35068	1753	172	-	123
UNDISTRIBUTED	-	-	-	100	-
TOTALS	92302	4615	847	100	323

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

3

3

3

EARTHWORK & CATTLE PASS BACKFILL

REMOVING MASONRY			
204.0185 REMOVING MASONRY			
STATION	LOCATION	CY	DESCRIPTION
1079+40	LT	2	ENDWALL FOR 60" CMCP
1079+40	RT	2	ENDWALL FOR 60" CMCP
TOTAL		4	

STATION TO STATION		205.0100 EXCAVATION COMMON CY	209.0200.S BACKFILL CONTROLLED LOW STRENGTH CY	210.2100 BACKFILL STRUCTURE TYPE B CY
1058+95 TO 1061+10		REMOVE PAVEMENT & BASE	619	
1059+15 TO 1059+80		TRANSITION CUT FOR PIPE TRENCH	350	
1060+25 TO 1060+90		TRANSITION CUT FOR PIPE TRENCH	350	
1079+05 TO 1079+75		REMOVE PAVEMENT & BASE	261	
1079+06 TO 1079+31		TRANSITION CUT FOR PIPE TRENCH	200	
1079+49 TO 1079+74		TRANSITION CUT FOR PIPE TRENCH	200	
1152+20 TO 1152+70		REMOVE PVMT/BASE & CUT OUTSIDE ENDWALL LT & RT	202	
1152+46		BACKFILL ABANDONED CATTLE PASS	15	40
TOTALS		2182	15	40

BASE AGGREGATE MATERIAL

SHAPING SHOULDERS				
305.0500 SHAPING SHOULDERS				
STA	TO	STA	LT/RT	STA
1058+95	-	1127+75	RT	69
1128+80	-	1177+85	RT	50
1183+50	-	1193+00	RT	10
1199+50	-	1226+00	RT	27
1240+00	-	1250+30	RT	11
1060+85	-	1084+00	LT	24
1085+00	-	1113+15	LT	29
1114+45	-	1141+80	LT	28
1143+10	-	1158+50	LT	16
1161+00	-	1177+00	LT	16
1182+95	-	1193+50	LT	11
1199+00	-	1227+25	LT	29
1229+05	-	1250+30	LT	22
TOTAL				342

		305.0110*	305.0120*	624.0100*
		BASE AGGREGATE	BASE AGGREGATE	
		DENSE 3/4-INCH	DENSE 1 1/4-INCH	WATER
STA TO STA	LOCATION	TON	TON	MGAL
1058+95 - 1061+10	TWIN 72" CPRC	69	1275	13.4
1079+05 - 1079+75	TWIN 42" CPRC	20	425	4.5
1152+35 - 1152+55	ABANDON CATTLE PASS	5	115	1.2
UNDISTRIBUTED	SHORTAGE ON SHOULDERS	700	0	7.0
TOTALS		794	1815	26.1

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

RUMBLE STRIPS

				SPV.0090.01 ASPHALTIC CENTERLINE RUMBLE STRIP SINUSOIDAL 2-LANE RURAL LF	SPV.0090.02 ASPHALTIC SHOULDER RUMBLE STRIP SINUSOIDAL 2-LANE RURAL TYPE -1 LF	TYPE-2 LF
STA	TO	STA	LOCATION	LF	LF	LF
1058+95		1084+50	BEGIN RUMBLE STRIPS TO OLD HWY 69	2358	4798	-
1084+50		1114+00	OLD HWY 69 TO STH 92	2132	4939	-
1114+00		1128+00	STH 92 TO ARGUE RD	1026	2098	-
1128+00		1142+50	ARGUE RD TO FRITZ RD	1041	2569	-
1142+50		1183+00	FRITZ RD TO QUARRY RD	3635	6700	788
1183+00		1228+00	QUARRY RD TO CTH PB	3195	7841	553
1228+00		1249+50	CTH PB TO SIGN W3-5	273	2030	-
TOTALS				13660	30975	1341

**ENTRANCES					
		305.0110*	305.0120*	465.0120	624.0100*
		BASE	BASE	ASPHALTIC	
		AGGREGATE	AGGREGATE	SURFACE	
		DENSE	DENSE	DRIVEWAYS AND	
		3/4-INCH	1 1/4-INCH	FIELD ENTRANCES	WATER
LOCATION	LT/RT	TON	TON	TON	MGAL
1064+25	LT	11	-	-	0.1
1064+15	RT	7	-	-	0.1
1075+70	LT	7	-	-	0.1
1078+75	LT	22	-	-	0.2
1082+00	RT	11	-	-	0.1
1091+90	LT	10	-	-	0.1
1092+00	RT	-	20	30	0.2
1106+20	RT	7	-	-	0.1
1108+05	LT	-	5	7	0.1
1118+30	RT	-	7	10	0.1
1121+35	RT	-	6	9	0.1
1122+00	LT	7	-	-	0.1
1140+70	RT	7	-	-	0.1
1146+00	RT	7	-	-	0.1
1151+05	RT	16	-	-	0.2
1151+90	LT	7	-	-	0.1
1158+90	RT	7	-	-	0.1
1162+80	RT	8	-	-	0.1
1164+25	LT	7	-	-	0.1
1168+00	RT	7	-	-	0.1
1183+30	LT	-	15	22	0.2
1203+50	RT	7	-	-	0.1
1206+55	LT	12	-	-	0.1
1215+85	RT	-	14	21	0.1
1226+20	RT	9	-	-	0.1
1226+95	RT	7	-	-	0.1
1228+05	RT	-	4	5	0.1
1240+25	RT	-	7	10	0.1
1240+60	LT	-	6	9	0.1
1245+00	LT	7	-	-	0.1
1245+20	RT	10	-	-	0.1
1245+70	LT	-	8	11	0.1
1249+75	LT	-	5	7	0.1
TOTALS		200	97	141	3.0

*ADDITIONAL QUANTITIES LISTED ELSEWHERE

**ASSUMED THICKNESS TO RESURFACE ENTRANCE, MATCHING EXIST. CONFIGURATION:

- UNPAVED: 3" BASE AGG DENSE 3/4-INCH

- PAVED: 3" ASPHALTIC SURFACE D'WAYS & FE'S OVER 2" BASE AGG DENSE 1-1/4-INCH

*ADJUSTING GUARDRAIL

		SPV.0090.03	614.0952
		REMOVE	REPLACING
		STOCKPILE AND	GUARDRAIL
		REINSTALL RAIL	REFLECTORS
STATION TO STATION	LOCATION	LF	EACH
1059+06 TO 1060+81	LT	175	2
1059+40 TO 1061+15	RT	175	2
1079+05 TO 1079+80	RT	75	1
TOTALS		425	5

*STEEL PLATE BEAM GUARD CLASS A & ENERGY ABSORBING TERMINAL, INSTALLED 2002.

CULVERT PIPES

	520.3624	522.0142	522.0472	520.1024	522.1042	522.1072	633.5200	650.6000	SPV.0105.01
					APRON	APRON			
		CULVERT PIPE	CULVERT PIPE		ENDWALLS FOR	ENDWALLS FOR			TEMPORARY
		REINFORCED	REINFORCED	APRON	CULVERT PIPE	CULVERT PIPE			WATER
		CONCRETE	CONCRETE	ENDWALLS FOR	REINFORCED	REINFORCED	MARKERS	CONSTRUCTION	DIVERSIONS
		CLASS III-B	CLASS IV	CULVERT PIPE	CONCRETE	CONCRETE	CULVERT	STAKING PIPE	TWIN 72-INCH
		NON-METAL	72-INCH	24-INCH	42-INCH	72-INCH	END	CULVERTS	CPRC
		24-INCH	42-INCH	24-INCH	42-INCH	72-INCH	EACH	EACH	LS
STATION	LF	LF	LF	EACH	EACH	EACH	EACH	EACH	
1060+02	-	-	390	-	-	4	2	2	1
1079+40	-	204	-	-	4	-	2	2	-
1152+46	64	-	-	2	-	-	2	1	-
TOTALS	64	204	390	2	4	4	6	5	1

HMA PAVEMENT

					*455.0605	460.6223	460.6224
					TACK	HMA PAVEMENT	HMA PAVEMENT
					COAT	3 MT 58-28 S	4 MT 58-28 S
STA	TO	STA	O/S	LOCATION	GAL	TON	TON
1058+95	-	1083+87	LT	Mainline & Shoulder	586	616	479
1058+95	-	1064+34	RT	Mainline & Shoulder	144	151	118
1064+34	-	1078+00	RT	Mainline & Shoulder	307	322	250
1078+00	-	1117+95	RT	Mainline, Auxiliary Lane, Shoulder	1425	1,496	1163
1083+87	-	1092+00	LT	Mainline & Shoulder	218	228	178
1092+00	-	1107+89	LT	Mainline & Shoulder	365	383	298
1107+89	-	1114+47	LT	Mainline & Shoulder	199	209	162
1114+47	-	1118+03	LT	Turn Lane & Mainline	118	125	97
1117+95	-	1140+30	RT	Mainline & Shoulder	526	552	429
1118+03	-	1141+82	LT	Mainline & Shoulder	543	570	443
1140+30	-	1142+88	RT	Mainline & Shoulder	70	74	57
1141+82	-	1144+85	LT	Turn Lane & Mainline	77	81	63
1142+88	-	1218+00	RT	Mainline & Shoulder	1738	1,825	1420
1144+85	-	1152+67	LT	Mainline & Shoulder	177	186	145
1152+67	-	1158+42	LT	Mainline & Shoulder	185	194	151
1158+42	-	1160+92	LT	Mainline, Auxiliary Lane, Shoulder	80	84	65
1160+92	-	1183+88	LT	Mainline, Auxiliary Lane, Shoulder	828	870	676
1183+88	-	1188+95	LT	Mainline, Auxiliary Lane, Shoulder	183	193	150
1188+95	-	1193+41	LT	Mainline, Auxiliary Lane, Shoulder	164	172	134
1193+41	-	1198+93	LT	Mainline, Auxiliary Lane, Shoulder	177	186	145
1198+93	-	1227+25	LT	Mainline, Auxiliary Lane, Shoulder	1020	1,071	833
1218+00	-	1228+28	RT	Mainline, Auxiliary Lane, Shoulder	364	382	297
1227+25	-	1234+00	LT	Turn Lane & Mainline	238	251	195
1228+28	-	1246+00	RT	Mainline, Auxiliary Lane, Shoulder	656	689	536
1234+00	-	1250+30	LT	Mainline & Shoulder	369	388	302
1246+00	-	1250+30	RT	Mainline & Shoulder	99	104	81
1084+00	-	1085+20	LT	OLD HWY 69	40	42	33
1113+25	-	1114+50	LT	STH 92	45	48	37
1127+80	-	1128+80	RT	ARGUE RD	31	32	25
1142+00	-	1143+00	LT	FRITZ RD	34	36	28
1182+50	-	1183+50	RT	QUARRY RD	33	35	27
1227+30	-	1229+00	LT	CTH PB	70	74	58
TOTALS					11109	11669	9075

* ADDITIONAL QUANTITIES LISTED ELSEWHERE
** TACK COAT APPLICATION RATE = 0.07 GAL/SY FOR MILLED SURFACES, 0.05 GAL/SY FOR OTHERS
*** ASSUMED HMA AT 112 LBS/SY/IN

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PWL MIXTURE USE TABLE

Location	Station	Mixture Use	Underlying Surface	Bid Items	Tons	Thickness	Mixture Acceptance	Density Acceptance
STH 69 EB Driving Lane	1058+95 - 1250+30	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	3220	2.25"	Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavment SPV.0055.01
STH 69 WB Driving Lane	1058+95 - 1250+30	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	3220	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavment SPV.0055.01
STH 69 EB 12' Auxiliary Lane	1083+00 - 1113+80	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	520	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavment SPV.0055.01
STH 69 WB 12' Auxiliary Lane	1157+50 - 1228+80	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	1200	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavment SPV.0055.01
STH 69 EB 5' Paved Shoulder	1058+95 - 1078+00 1118+00 - 1177+85 1182+45 - 1193+00 1199+50 - 1224+50 1232+00 - 1250+30	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	930	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 EB 3' Paved Shoulder	1078+00 - 1118+00 1224+50 - 1232+00	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	200	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
SB 69 EB 6' Shoulder	1177+85 - 1182+45 1193+00 - 1199+50	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	95	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 EB Turn Lane Tapers/Transitions	1078+00 - 1083+00 1113+80 - 1118+00 1224+50 - 1226+50 1229+00 - 1232+00	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	630	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 WB 5' Paved Shoulder	1058+95 - 1112+80 1118+50 - 1153+50 1234+60 - 1250+30	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	735	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 WB 3' Paved Shoulder	1113+80 - 1118+50 1153+50 - 1158+50 1161+00 - 1177+00 1182+95 - 1193+50 1199+00 - 1234+60	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	305	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 WB Turn Lane Tapers/Transitions	1112+80 - 1118+50 1228+80 - 1234+60	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	347	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
Sideroads	1084+00 - 1085+00 1113+25 - 1114+50 1127+75 - 1128+65 1142+00 - 1143+00 1182+50 - 1183+60 1127+30 - 1129+00	Lower Layer	Milled Existing HMA Surface	460.6223 3 MT 58-28 S	267	2.25	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 EB Driving Lane	1058+95 - 1250+30	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	2500	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavment SPV.0055.01
STH 69 WB Driving Lane	1058+95 - 1250+30	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	2500	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavment SPV.0055.01
STH 69 EB 12' Auxiliary Lane	1083+00 - 1113+80	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	405	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavment SPV.0055.01
STH 69 WB 12' Auxiliary Lane	1157+50 - 1228+80	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	935	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	Incentive Density PWL HMA Pavment SPV.0055.01
STH 69 EB 5' Paved Shoulder	1058+95 - 1078+00 1118+00 - 1177+85 1182+45 - 1193+00 1199+50 - 1224+50 1232+00 - 1250+30	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	725	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 EB 3' Paved Shoulder	1078+00 - 1118+00 1224+50 - 1232+00	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	160	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
SB 69 EB 6' Shoulder	1177+85 - 1182+45 1193+00 - 1199+50	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	75	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000

TABLE CONTINUED ON NEXT PAGE

PWL MIXTURE USE TABLE (CONT)

Location	Station	Mixture Use	Underlying Surface	Bid Items	Tons	Thickness	Mixture Acceptance	Density Acceptance
STH 69 EB Turn Lane Tapers/Transitions	1078+00 - 1083+00 1113+80 - 1118+00 1224+50 - 1226+50 1229+00 - 1232+00	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	486	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 WB 5' Paved Shoulder	1058+95 - 1112+80 1118+50 - 1153+50 1234+60 - 1250+30	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	570	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 WB 3' Paved Shoulder	1113+80 - 1118+50 1153+50 - 1158+50 1161+00 - 1177+00 1182+95 - 1193+50 1199+00 - 1234+60	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	240	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 WB Turn Lane Tapers/Transitions	1112+80 - 1118+50 1228+80 - 1234+60	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	271	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000
STH 69 Culvert & Cattle Pass Patches	1058+95 - 1060+85 1079+10 - 1079+70 1152+35 - 1152+55	Lower Layer	Base Aggregate	465.0105 Asphaltic Surface	235	3.5	QMP as per SS 465	Acceptance by Ordinary Compaction
Sideroads	1084+00 - 1085+00 1113+25 - 1114+50 1127+75 - 1128+65 1142+00 - 1143+00 1182+50 - 1183+60 1127+30 - 1129+00	Surface Layer	3 MT 58-28 S	460.6224 4 MT 58-28 S	208	1.75	Incentive Air Voids HMA Pavement SPV.0055.02	QMP HMA Pavement Nuclear Density 460.2000

HMA PAVEMENT TEST STRIPS

	460.0105.S	460.0110.S
	HMA PERCENT WITHIN	HMA PERCENT WITHIN
	LIMITS (PWL) TEST	LIMITS (PWL) TEST
	STRIP VOLUMETRICS	STRIP DENSITY
LOCATION	EACH	EACH
PROJECT 1690-01-74	2	2

EROSION CONTROL MOBILIZATION

LOCATION	628.1905	628.1910
	MOBILIZATION	EMERGENCY
	EROSION CONTROL	EROSION CONTROL
	EACH	EACH
STA 1060+00, TWIN 72" CPRC	1	1
STA 1079+40, TWIN 42" CPRC	1	1
STA 1152+46, CATTLE PASS	1	1
TOTALS	3	3

EROSION CONTROL

STA	OFFSET	606.0300	606.0700	628.1504	628.1520	628.7015	628.7504	628.7555	645.0120
		GROUTED		SILT FENCE	SILT FENCE MAINTENACE	INLET PROTECTION TYPE C	TEMPORARY DITCH CHECKS	CULVERT PIPE CHECKS	GEOTEXTILE TYPE HR
		RIPRAP HEAVY	RIPRAP HEAVY						
		CY	CY	LF	LF	EACH	LF	EACH	SY
1060+02	LT	-	59	345	345	-	-	-	112
1060+02	RT	-	27	287	287	-	-	38	65
1079+40	LT	9	-	-	-	-	-	16	28
1079+40	RT	26	-	125	125	-	-	-	60
1152+46	LT	-	-	-	-	-	-	3	-
1152+46	RT	-	-	75	75	-	10	-	-
1228+33	RT	-	-	-	-	1	-	-	-
UNDISTRIBUTED		9		35	35	--	5	3	33
TOTALS		45	86	867	867	1	15	60	297

FINISHING ITEMS

STA	OFFSET	625.0500	628.2004	628.2008	629.0210	630.0110	630.0500
		SALVAGED TOPSOIL	EROSION MAT CLASS I TYPE B	EROSION MAT URBAN CLASS I TYPE B	FERTILIZER TYPE B	SEEDING MIXTURE NO. 10	SEED WATER
		SY	SY	SY	CWT	LB	MGAL
1060+02	LT	1120	-	1120	0.7	15	25.1
1060+02	RT	1100	-	1100	0.7	15	24.8
1079+40	LT	270	-	270	0.2	4	6.0
1079+40	RT	280	-	280	0.2	4	6.3
1152+46	LT	150	150	-	0.1	2	3.5
1152+46	RT	140	140	-	0.1	2	3.2
UNDISTRIBUTED		610	60	560	0.4	8	14
TOTALS		3670	350	3330	2.4	50	83

MOVING SIGNS TYPE II

STA	LOCATION	MESSAGE	634.0614	638.2102	638.3000
			POSTS WOOD 4X6-INCH X 14- FEET	MOVING SIGN TYPE II	REMOVING SMALL SIGN SUPPORTS
			EACH	EACH	EACH
1060+20	RT	DANE CO (I2-2)	1	1	1
1060+20	LT	GREEN CO (I2-2)	1	1	1
TOTALS			2	2	2

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TRAFFIC CONTROL												
LOCATION	STAGE	DAYS	643.0300		643.0420		643.0705		643.0715		643.0900	
			DRUMS		BARRICADES TYPE III		WARNING LIGHTS TYPE A		WARNING LIGHTS TYPE C		SIGNS	
			EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS	EACH	DAYS
PROJECT-WIDE, BEGIN MILL ASPHALTIC SURFACE & LOWER LAYER HMA	1	31	25	775	10	310	20	620	-	-	20	620
SIGNED DETOUR ROUTE	1	31	-	-	31	961	62	1922	-	-	288	8928
CLOSE TRUCK CLIMBING LANES	1	31	130	4030	11	341	22	682	4	124	15	465
STA 1060+00, TWIN 72" CPRC	1	21	20	420	-	-	-	-	-	-	2	42
STA 1079+41, TWIN 42' CPRC	1	14	20	280	-	-	-	-	-	-	2	28
STA 1152+47, CATTLE PASS	1	7	20	140	-	-	-	-	-	-	2	14
STA 1263+68, STRUCTURE C-13-1327	1	7	20	140	-	-	-	-	-	-	2	14
PROJECT-WIDE, FINISH MILL ASPHALTIC SURFACE & LOWER LAYER HMA	2	10	25	250	10	100	20	200	-	-	20	200
CLOSE TRUCK CLIMBING LANES	2	10	130	1300	11	110	22	220	4	40	15	150
PROJECT-WIDE, UPPER LAYER HMA, ENTRANCES, SHOULDERING	3	27	25	675	10	270	20	540	-	-	20	540
CLOSE TRUCK CLIMBING LANES	3	27	130	3510	11	297	22	594	4	108	15	405
PROJECT-WIDE, RUMBLE STRIPS & PAVEMENT MARKING	4	20	25	500	10	200	20	400	-	-	20	400
CLOSE TRUCK CLIMBING LANES	4	15	130	1950	11	165	22	330	-	-	15	225
UNDISTRIBUTED	ALL			1030		146		192		28		969
TOTALS				15000		2900		5700		300		13000

TRAFFIC CONTROL SIGNS FIXED MESSAGE

ROADWAY	LOCATION	STAGE	SIZE	643.1000	MESSAGE
				SF	
SB STH 92	APPROACHING CTH U	1	78" x 48"	26.00	"HWY 69 SOUTH/CLOSED TO/NEW GLARUS/USE..."
TOTAL				26.00	

TRAFFIC CONTROL SIGNS PCMS

ROADWAY	LOCATION	STAGE	643.1050
			DAYS
NB STH 69	APPROACHING SOUTH PROJECT LIMIT	PRE-1	7
SB STH 69	APPROACHING NORTH PROJECT LIMIT	PRE-1	7
SB STH 69	APPROACHING STH 92	PRE-1	7
SB STH 92	APPROACHING STH 69	PRE-1	7
TOTAL			28

TRAFFIC CONTROL

LOCATION	643.5000
	EACH
PROJECT LIMITS	1.00
TOTAL	1.00

TRAFFIC CONTROL COVERING SIGNS

ROADWAY	LOCATION	STAGE	CYCLES	TYPE I	TYPE II	COVERED SIGN MESSAGE
				643.0910 EACH	643.0920 EACH	
EB USH 18/151	APPROACH TO STH 69	1	1	4	-	STH 69 & MONROE
EB USH 18/151	APPROACH TO STH 69	1	1	1	-	NEW GLARUS
WB USH 18/151	APPROACH TO STH 69	1	1	4	-	STH 69 & MONROE
WB USH 18/151	APPROACH TO STH 69	1	1	1	-	NEW GLARUS
EB USH 18/151	OFF-RAMP TO STH 69	1	1	-	1	NEW GLARUS/MONROE
WB USH 18/151	OFF-RAMP TO STH 69	1	1	-	1	NEW GLARUS/MONROE
WB USH 18/151	RAMP TERMINAL	1	1	-	1	STH 69/ARROW
SB PAOLI STREET	NORTH OF USH 18/151	1	1	-	1	SOUTH/STH 69/ARROW
SB STH 69	SOUTH OF USH 18/151	1	1	-	1	NEW GLARUS 16/MONROE 33
SB STH 69	STH 92-EAST INTERSECTION	1	1	-	1	SOUTH/STH 69/ARROW
SB STH 69	WEST OF CTH CC	1	1	-	1	NEW GLARUS 7
SB STH 69	WEST OF CTH CC	1	1	-	1	MONROE 24
SB CTH PB	APPROACH TO STH 69	1	1	-	1	NEW GLARUS/ARROW
SB STH 69	APPROACH TO STH 92-WEST	1	1	-	1	SOUTH/STH 69/ARROW
SB STH 69	APPROACH TO STH 92-WEST	1	1	-	1	MONROE/ARROW
SB STH 92	APPROACH TO STH 69	1	1	-	1	MONROE/ARROW
NB STH 69	NORTH OF STH 39	1	1	-	1	NORTH/STH 69
NB STH 69	NORTH OF STH 39	1	1	-	1	BELLEVILLE 8/VERONA 19
NB STH 69	NORTH OF CTH W	1	1	-	1	NORTH/STH 69
EB STH 39	APPROACH TO STH 69	1	1	-	1	NORTH/STH 69/ARROW
EB STH 39	APPROACH TO STH 69	1	1	-	1	BELLEVILLE/ARROW
NB STH 69	START OF TRUCK CLIMBING LANE	1,2,3	1	-	1	SLOWER TRAFFIC KEEP RIGHT
SB STH 69	START OF TRUCK CLIMBING LANE	1,2,3	1	-	1	SLOWER TRAFFIC KEEP RIGHT
TOTALS				10	19	

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PERMANENT PAVEMENT MARKING

				646.1020		646.1040		646.3020		646.3040		646.4520		646.5020		646.5120		646.6120		646.7120		
				MARKING LINE		MARKING LINE		MARKING LINE		MARKING LINE		MARKING LINE						MARKING		MARKING		
				EPOXY		GROOVED		EPOXY		GROOVED		SAME		MARKING		MARKING		STOP LINE		DIAGONAL		
				4-INCH		WET REF		8-INCH		8-INCH		4-INCH		ARROW		WORDS		EPOXY		EPOXY		
				YELLOW		WHITE		WHITE		WHITE		YELLOW		EPOXY		EPOXY		18-INCH		12-INCH		
LOCATION OR		OFFSET	LOCATION	LF		LF		LF		LF		LF		EACH		EACH		LF		LF		
STA	TO			STA																		
STH 69																						
1058+95	1081+76	LT/RT	EDGELINES	-	-	4562		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1058+95	1081+76	LT/RT	CENTER LINE	-	-	-		-	-	-	-	1550		-	-	-	-	-	-	-	-	
1081+76	1109+09	LT/RT	EDGELINES & LANE LINE	-	-	6002		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1081+76	1109+09	LT/RT	CENTER LINE	-	-	-		-	-	-	-	4139		-	-	-	-	-	-	-	-	
1109+09	1118+48	LT/RT	EDGELINES & LANE LINE	-	-	2033		-	-	250		-	-	-	-	-	-	-	-	-	-	
1109+09	1118+48	LT/RT	CENTER LINE	-	-	-		-	-	-	-	1878		-	-	-	-	-	-	-	-	
1118+48	1159+50	LT/RT	EDGELINES	-	-	7781		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1118+48	1159+50	LT/RT	CENTER LINE	-	-	-		-	-	-	-	8204		-	-	-	-	-	-	-	-	
1159+50	1217+09	LT/RT	EDGELINES & LANE LINE	-	-	12958		-	-	-	-	-	-	-	-	-	-	-	-	-	-	
1159+50	1217+09	LT/RT	CENTER LINE	-	-	-		-	-	-	-	10543		-	-	-	-	-	-	-	-	
1217+09	1257+00	LT/RT	EDGELINES & LANE LINE	-	-	8086		-	-	694		-	-	4	-	2	-	-	-	-	1098	
1217+09	1257+00	LT/RT	CENTER LINE	-	-	-		-	-	-	-	12616		-	-	-	-	-	-	-	-	
STH 92																						
-	-	LT/RT	EDGE LINE, CENTER LINE, STOP LINE	21	31	-		-	-	-	-	-	-	-	-	-	-	19	-	-	-	
CTH PB																						
-	-	LT/RT	EDGE LINE, CENTER LINE, STOP LINE, LANE LINE	148	61	-		148	-	-	-	-	-	1	-	-	-	44	-	-	-	
TOTALS				169	92	41421		148	944	38931	5	2	63	1098								

TEMPORARY PAVEMENT MARKING

					**649.0105	649.0150	*649.0120
					TEMPORARY MARKING LINE	TEMPORARY MARKING LINE	TEMPORARY MARKING LINE
					PAINT 4-INCH	REMOVABLE TAPE 4-INCH	EPOXY 4-INCH
STAGES	STA TO STA	LOCATION	COLOR	DESCRIPTION	LF	LF	LF
1,2	1058+95 - 1250+30	CL - ON LOWER LAYER HMA	YELLOW	SOLID & 4' SKIP DASH	38020	-	-
2,3	1078+00 - 1082+50	RT - START OF NB TRUCK CLIMBING LANE	WHITE	SOLID EDGELINE	450	-	-
1,2,3	1224+75 - 1227+25	LT - START OF SB TRUCK CLIMBING LANE	WHITE	SOLID EDGELINE	250	-	-
3B	1078+00 - 1082+50	RT - START OF NB TRUCK CLIMBING LANE	WHITE	SOLID EDGELINE	-	450	-
3B	1224+75 - 1227+25	LT - START OF SB TRUCK CLIMBING LANE	WHITE	SOLID EDGELINE	-	250	-
3B	1058+95 - 1250+30	CL - ON UPPER LAYER HMA	YELLOW	4' SKIP DASH	-	-	1520
TOTALS					38720	700	1520

*PLACE BEFORE OPENING TO TWO-WAY TRAFFIC AND PRIOR TO RUMBLE STRIP INSTALLATION.

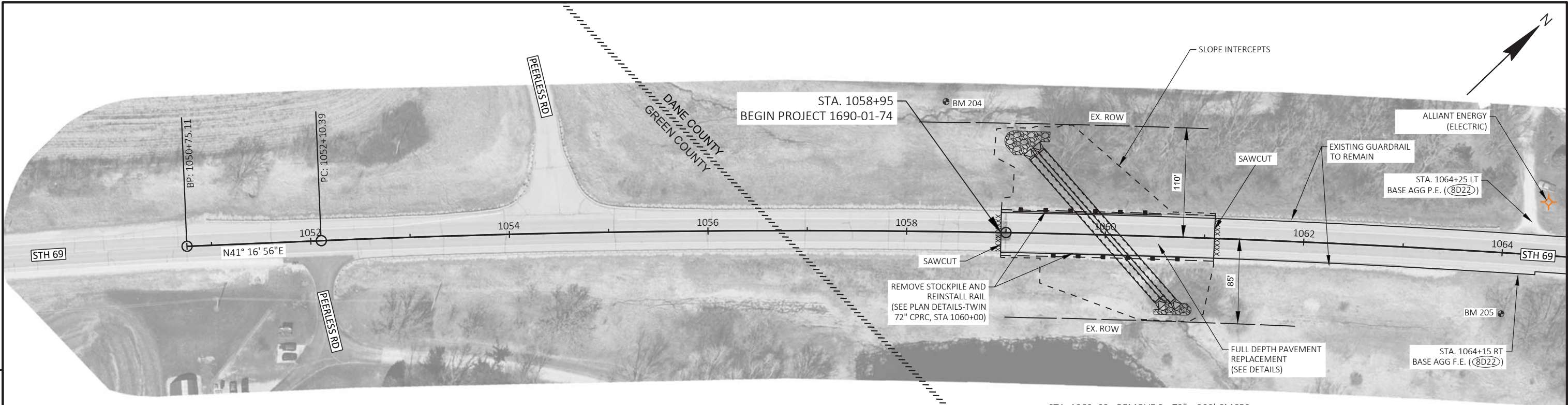
**PLACE BEFORE OPENING TO TWO-WAY TRAFFIC.

MISCELLANEOUS ITEMS				
*211.0100	213.0100	618.0100	619.1000	642.5201
PREPARE		MAINTENANCE		FIELD OFFICE
FOUNDATION FOR	FINISHING	AND REPAIR OF		
ASPHALTIC PAVING	ROADWAY	HAUL ROADS	MOBILIZATION	TYPE C
LS	EACH	EACH	EACH	EACH
1	1	1	1	1
TOTALS	1	1	1	1

*PROVIDE WHEREVER THRU TRAFFIC IS RUN ON LOWER LAYER HMA PAVEMENT, OR WHEREVER TRAFFIC IS RUN ON A MILLED SURFACE.

CONSTRUCTION STAKING				
		650.8000	650.9910	650.9920
		CONSTRUCTION	CONSTRUCTION	CONSTRUCTION
		STAKING	STAKING	STAKING
		RESURFACING	SUPPLEMENTAL	SLOPE
		REFERENCE	CONTROL	STAKES
STA TO STA	LOCATION	LF	LS	LF
1058+95 - 1250+30	PROJECT-WIDE	19135	1	-
1058+95 - 1061+10	TWIN 72" CPRC	-	-	215
1079+05 - 1079+75	TWIN 42" CPRC	-	-	70
1152+20 - 1152+70	ABANDON CATTLE PASS	-	-	50
TOTALS		19135	1	335

SAWCUTS			
			690.0150
			SAWING
			ASPHALT
STATION	OFFSET	LOCATION/DESCRIPTION	LF
1058+95	-	BEGIN PROJECT	40
1061+10	-	PAVEMENT PATCH, TWIN 72" CPRC	40
1079+05	-	PAVEMENT PATCH, TWIN 42" CPRC	40
1079+75	-	PAVEMENT PATCH, TWIN 42" CPRC	40
1152+35	-	PVMT PATCH, ABANDON CATTLE PASS	34
1152+55	-	PVMT PATCH, ABANDON CATTLE PASS	34
1108+05	LT	ENTRANCE	10
1118+30	RT	ENTRANCE	10
1121+35	RT	ENTRANCE	12
1183+30	LT	ENTRANCE	14
1215+85	RT	ENTRANCE	13
1228+05	RT	ENTRANCE	11
1240+25	RT	ENTRANCE	10
1240+60	LT	ENTRANCE	18
1245+70	LT	ENTRANCE	13
1249+75	LT	ENTRANCE	11
TOTAL			350

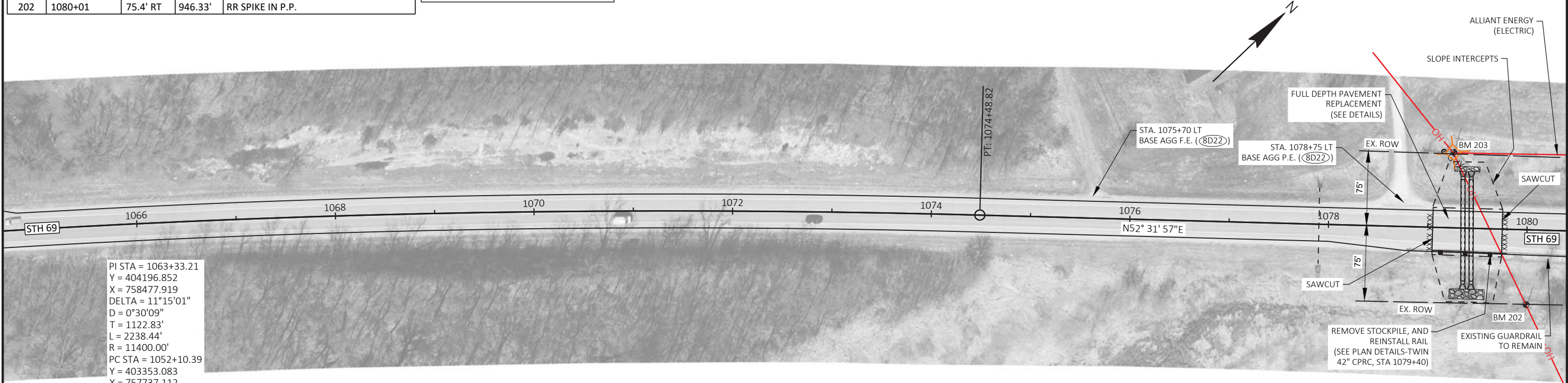


BENCH MARKS				
NO.	STATION	OFFSET	ELEV.	DESCRIPTION
204	1058+38	130.7' LT	913.23'	SPIKE IN TREE
205	1064+03	61.4' RT	933.99'	SPIKE IN 24" TREE
203	1079+24	75.9' LT	946.34'	RR SPIKE IN P.P. #21/15
202	1080+01	75.4' RT	946.33'	RR SPIKE IN P.P.

RESURFACE ENTRANCE TO MATCH EXISTING CONFIGURATION PER SDD 8D22. SEE MISCELLANEOUS QUANTITIES FOR THICKNESS OF PAVEMENT AND BASE.

NOTE: ERODED AREAS AT BEAM GUARD POSTS TO BE RESTORED BY OTHERS PRIOR TO CONSTRUCTION.

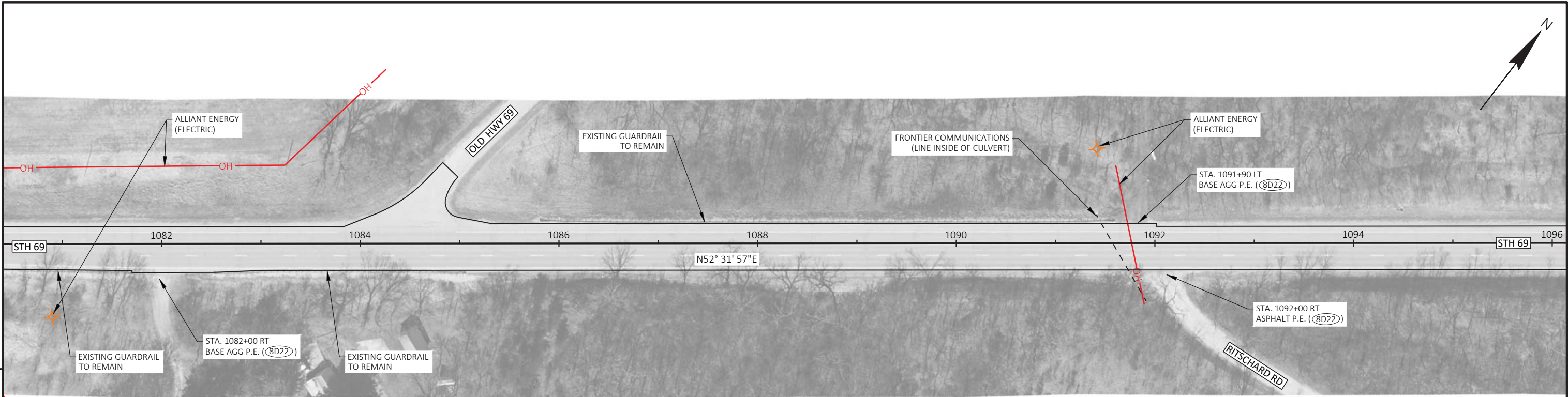
STA. 1060+02, REMOVE 2 - 72" x 200' CMCPs
STA 1059+94.7, 1 - 72" x 190' CPRC CLASS IV REQ'D
STA 1060+01.1, 1 - 72" x 200' CPRC CLASS IV REQ'D
4 - APRON ENDWALLS REQ'D
SKEW 42.8° RHF
ADD MARKER CULVERT EITHER SIDE OF STH 69
(SEE DETAILS & CROSS SECTIONS)



PI STA = 1063+33.21
Y = 404196.852
X = 758477.919
DELTA = 11°15'01"
D = 0°30'09"
T = 1122.83'
L = 2238.44'
R = 11400.00'
PC STA = 1052+10.39
Y = 403353.083
X = 757737.112
PT STA = 1074+48.82
Y = 404879.880
X = 759369.106
BK = N41°16'56.2"E
AH = N52°31'57.1"E
SE = NC (MATCH EXISTING)

STA. 1079+40
REMOVE 60" x 106' CMCP
2 - 42"x 102' CPRC CLASS III REQ'D
4 - APRON ENDWALLS REQ'D
ADD MARKER CULVERT EITHER SIDE OF STH 69
(SEE DETAILS & CROSS SECTIONS)

STA. 1077+91
60" CMCP TO REMAIN

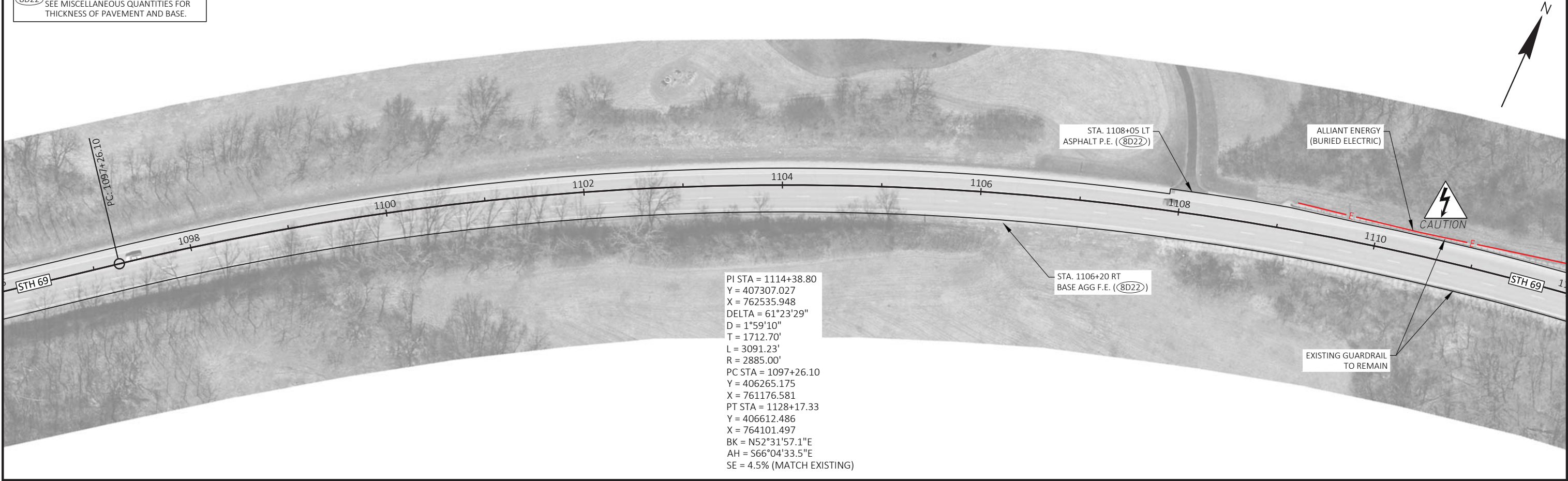


5

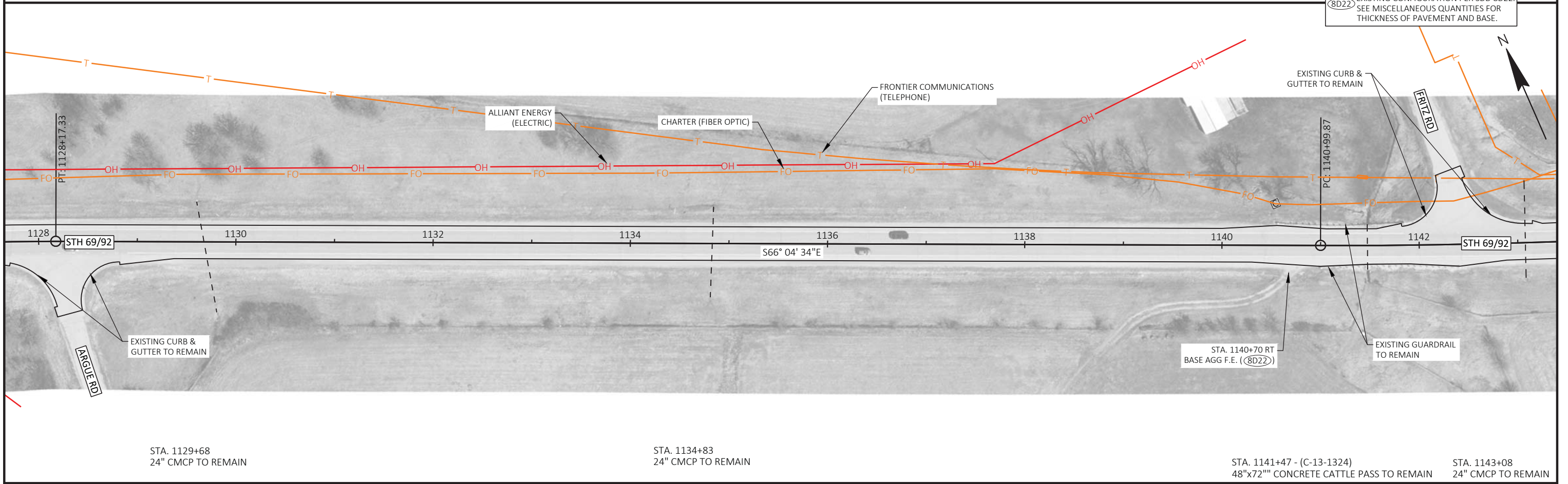
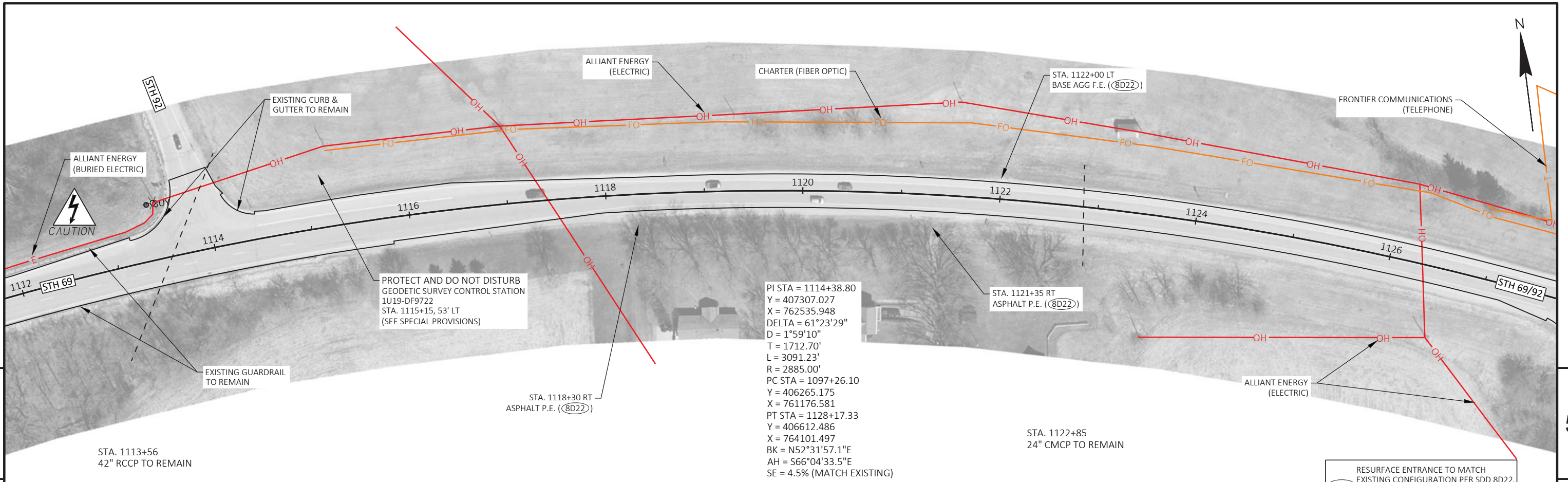
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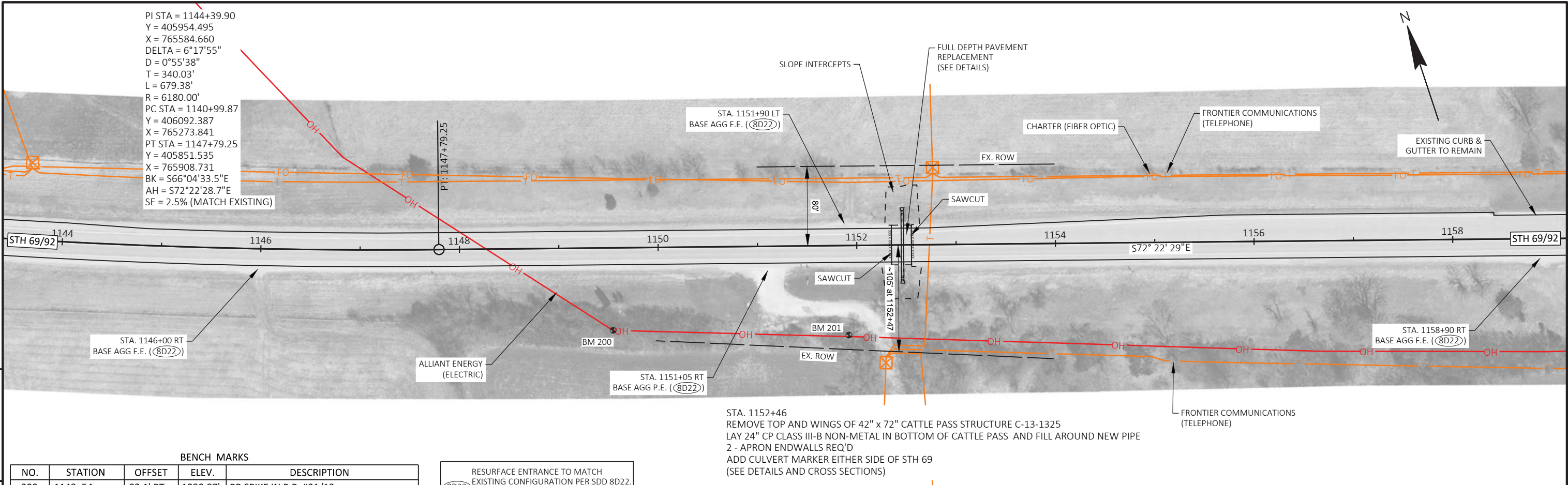
RESURFACE ENTRANCE TO MATCH EXISTING CONFIGURATION PER SDD 8D22. SEE MISCELLANEOUS QUANTITIES FOR THICKNESS OF PAVEMENT AND BASE.

STA. 1091+58
24" CMCP TO REMAIN
SKEW 30° RHF
ADD MARKER CULVERT AT EITHER END.



PI STA = 1114+38.80
Y = 407307.027
X = 762535.948
DELTA = 61°23'29"
D = 1°59'10"
T = 1712.70'
L = 3091.23'
R = 2885.00'
PC STA = 1097+26.10
Y = 406265.175
X = 761176.581
PT STA = 1128+17.33
Y = 406612.486
X = 764101.497
BK = N52°31'57.1"E
AH = S66°04'33.5"E
SE = 4.5% (MATCH EXISTING)

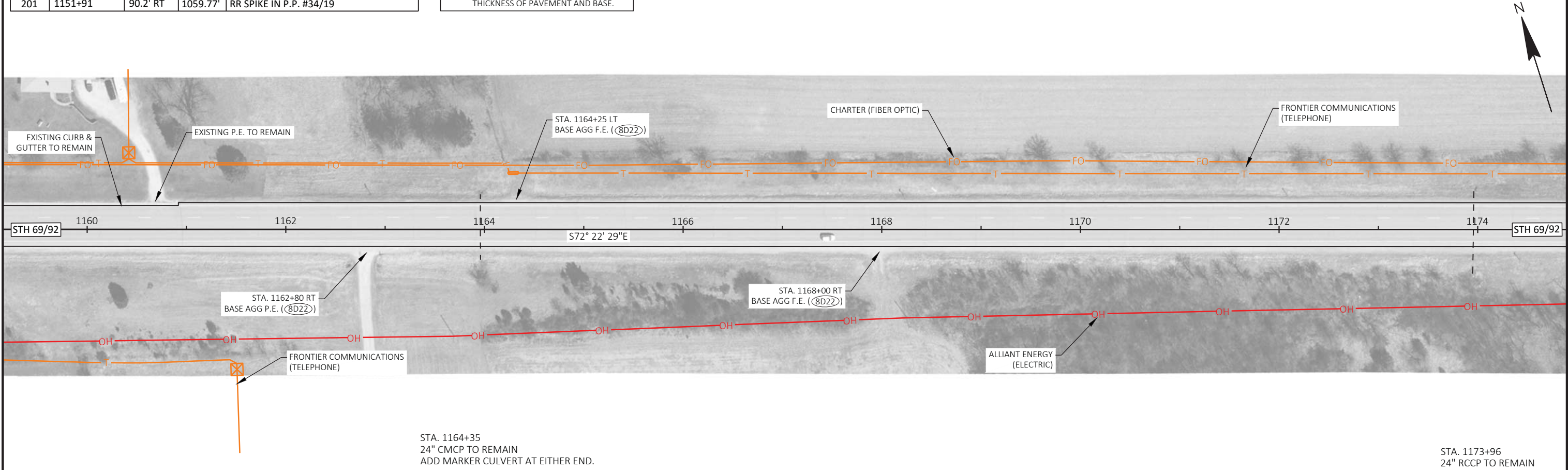


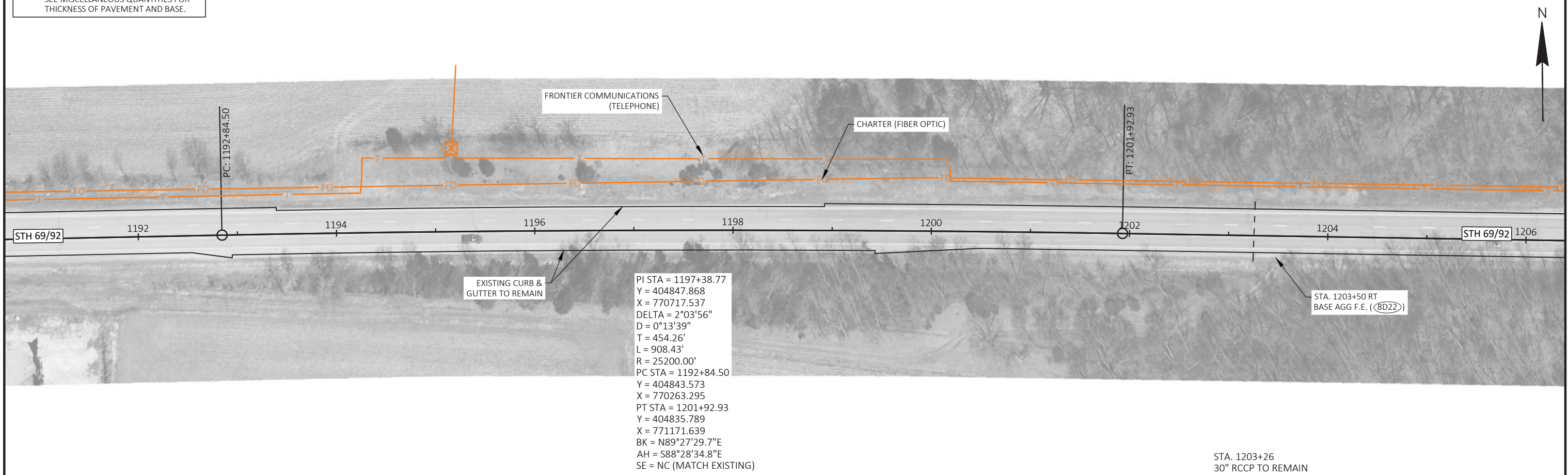
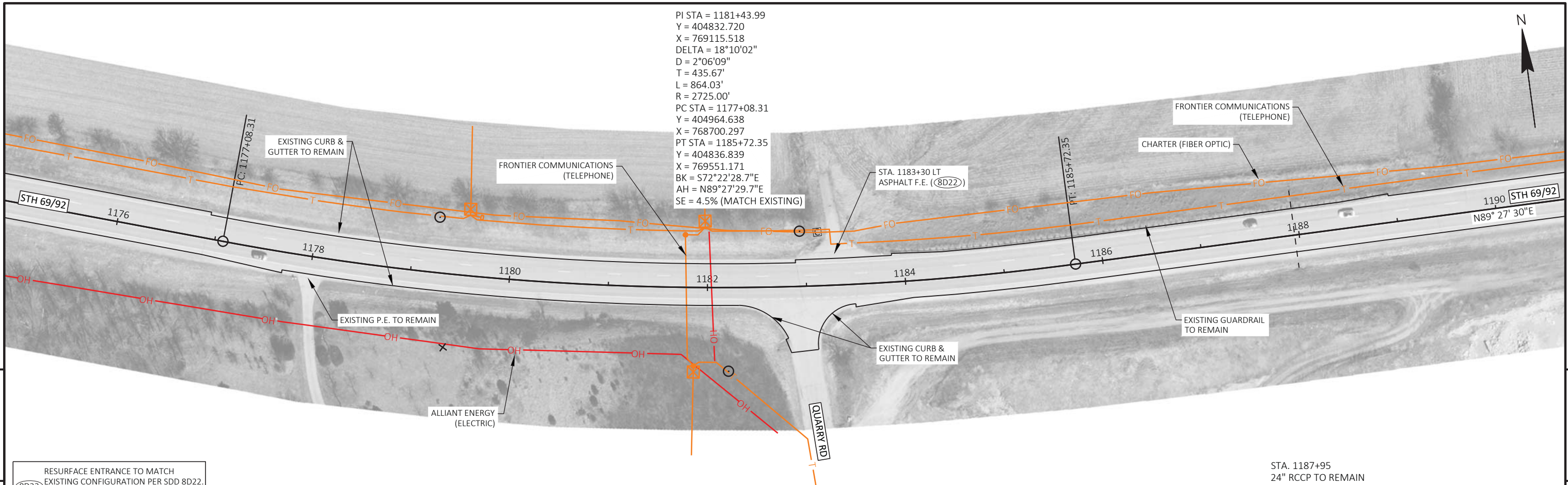


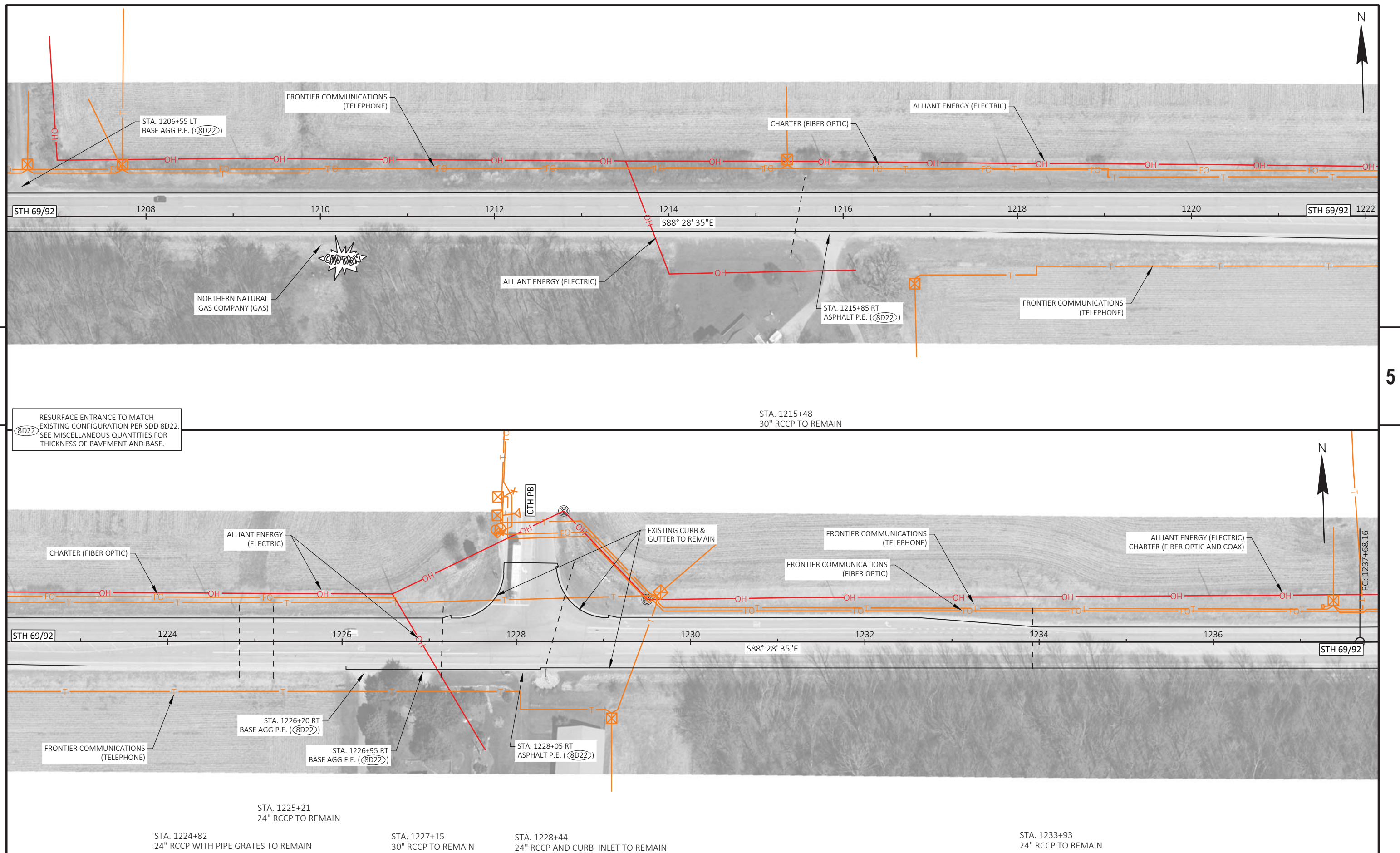
BENCH MARKS				
NO.	STATION	OFFSET	ELEV.	DESCRIPTION
200	1149+54	83.1' RT	1080.87'	RR SPIKE IN P.P. #31/19
201	1151+91	90.2' RT	1059.77'	RR SPIKE IN P.P. #34/19

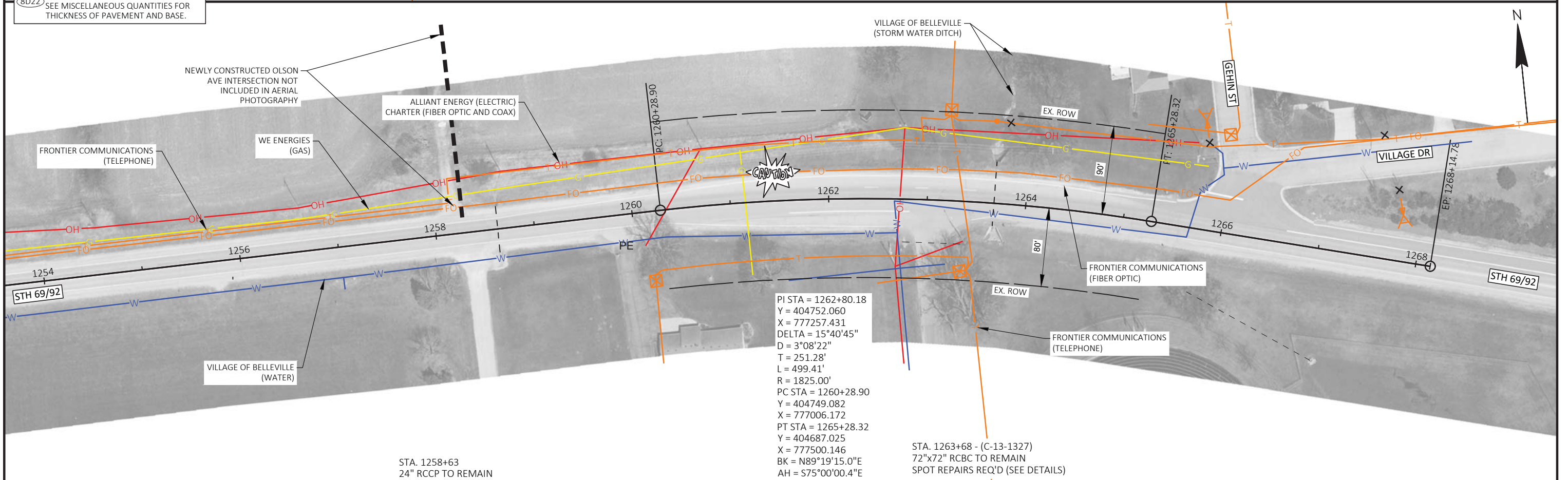
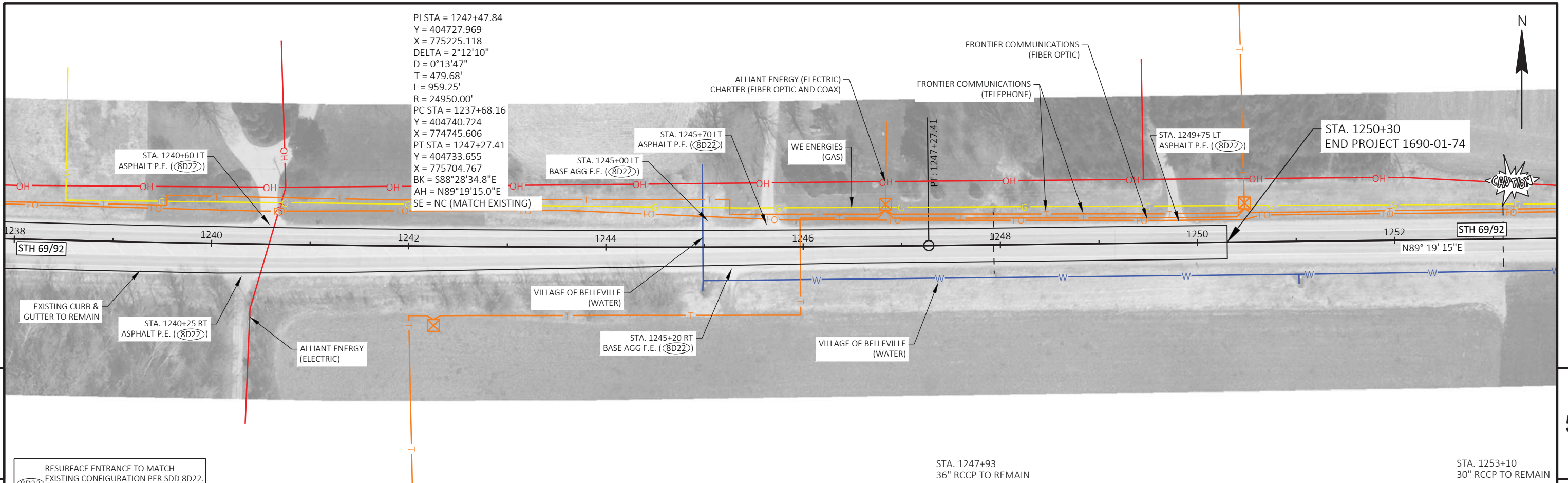
(8D22) RESURFACE ENTRANCE TO MATCH EXISTING CONFIGURATION PER SDD 8D22. SEE MISCELLANEOUS QUANTITIES FOR THICKNESS OF PAVEMENT AND BASE.

STA. 1152+46
REMOVE TOP AND WINGS OF 42" x 72" CATTLE PASS STRUCTURE C-13-1325
LAY 24" CP CLASS III-B NON-METAL IN BOTTOM OF CATTLE PASS AND FILL AROUND NEW PIPE
2 - APRON ENDWALLS REQ'D
ADD CULVERT MARKER EITHER SIDE OF STH 69
(SEE DETAILS AND CROSS SECTIONS)



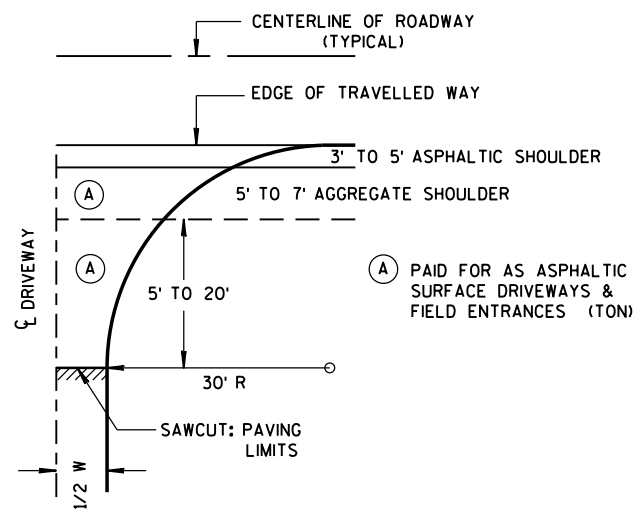






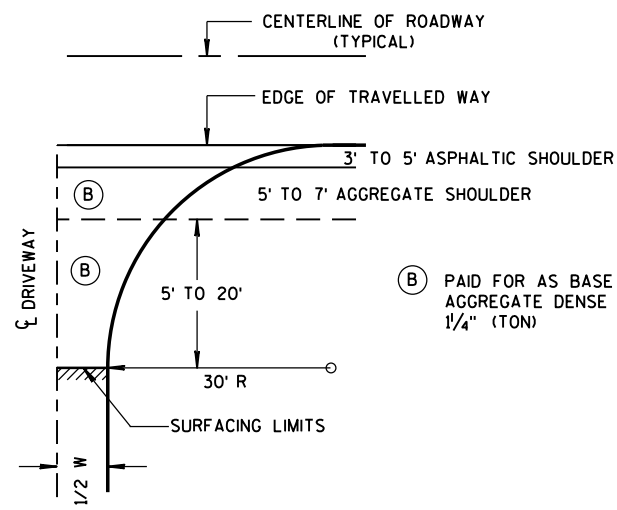
Standard Detail Drawing List

08D22-01	DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A10-02C	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A10-02D	2-LANE RURAL SHOULDER RUMBLE STRIP, MILLING
13A11-03B	2-LANE RURAL CENTER LINE RUMBLE STRIP, MILLING
13C19-03	HMA LONGITUDINAL JOINTS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B24-09A	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09B	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B24-09C	STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL
14B29-01	SAFETY EDGE
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-08C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M.P.H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C08-20A	LONGITUDINAL MARKING (MAINLINE)
15C08-20C	PAVEMENT MARKING (TURN LANES)
15C11-08B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-07	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C18-04	MEDIAN ISLAND MARKING
15C19-06A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-06B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C33-04	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-04A	PAVEMENT MARKING (INTERSECTIONS)
15C35-04B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-04C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D29-06	TRAFFIC CONTROL, VEHICLE ENTRANCE/EXIT OR HAUL ROAD
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING
15D40-01	TRAFFIC CONTROL, LANE SHIFT, MULTILANE DIVIDED OR ONE WAY ROAD
15D43-01	TRAFFIC CONTROL, SHORT DURATION MOBILE OPERATIONS
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL

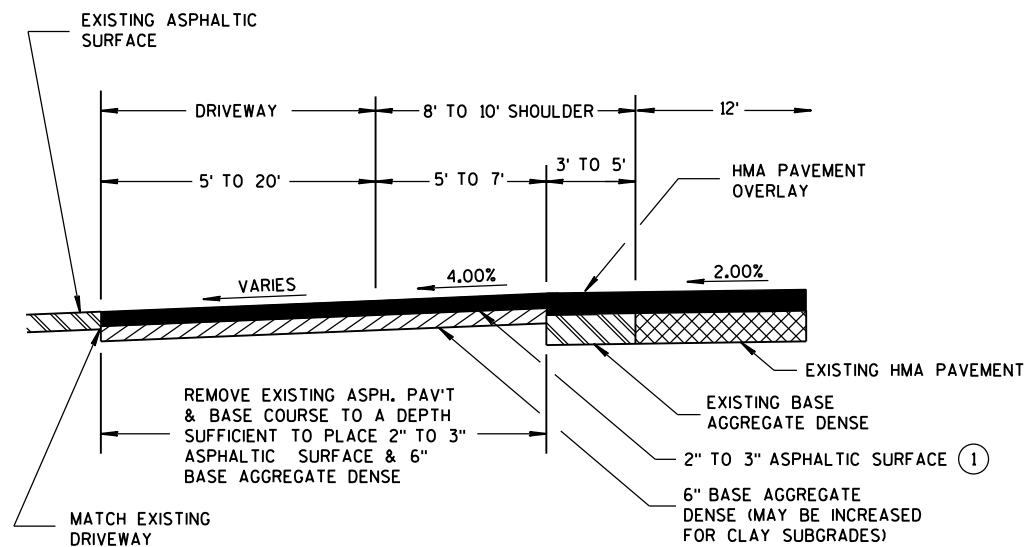


PLAN VIEW
HALF SECTION

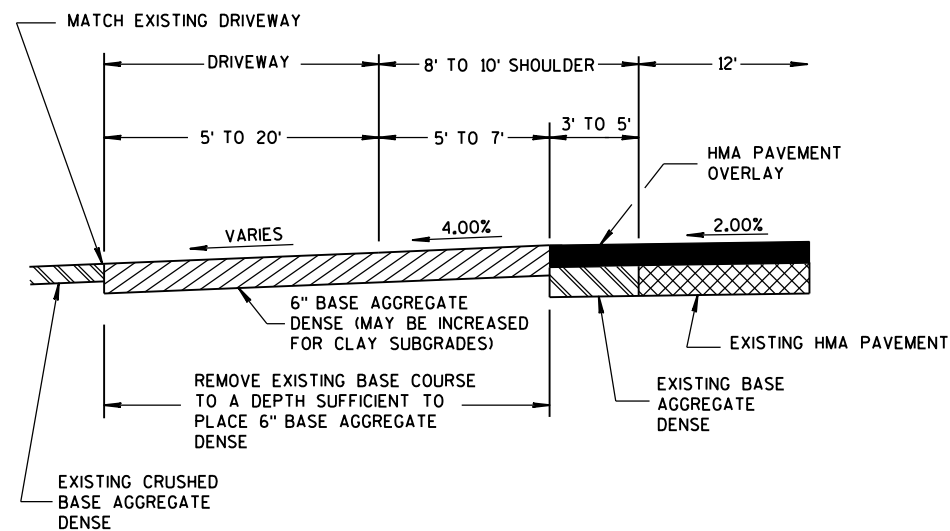
W MIN. = 16'
W MAX. = 24'



PLAN VIEW
HALF SECTION



PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS

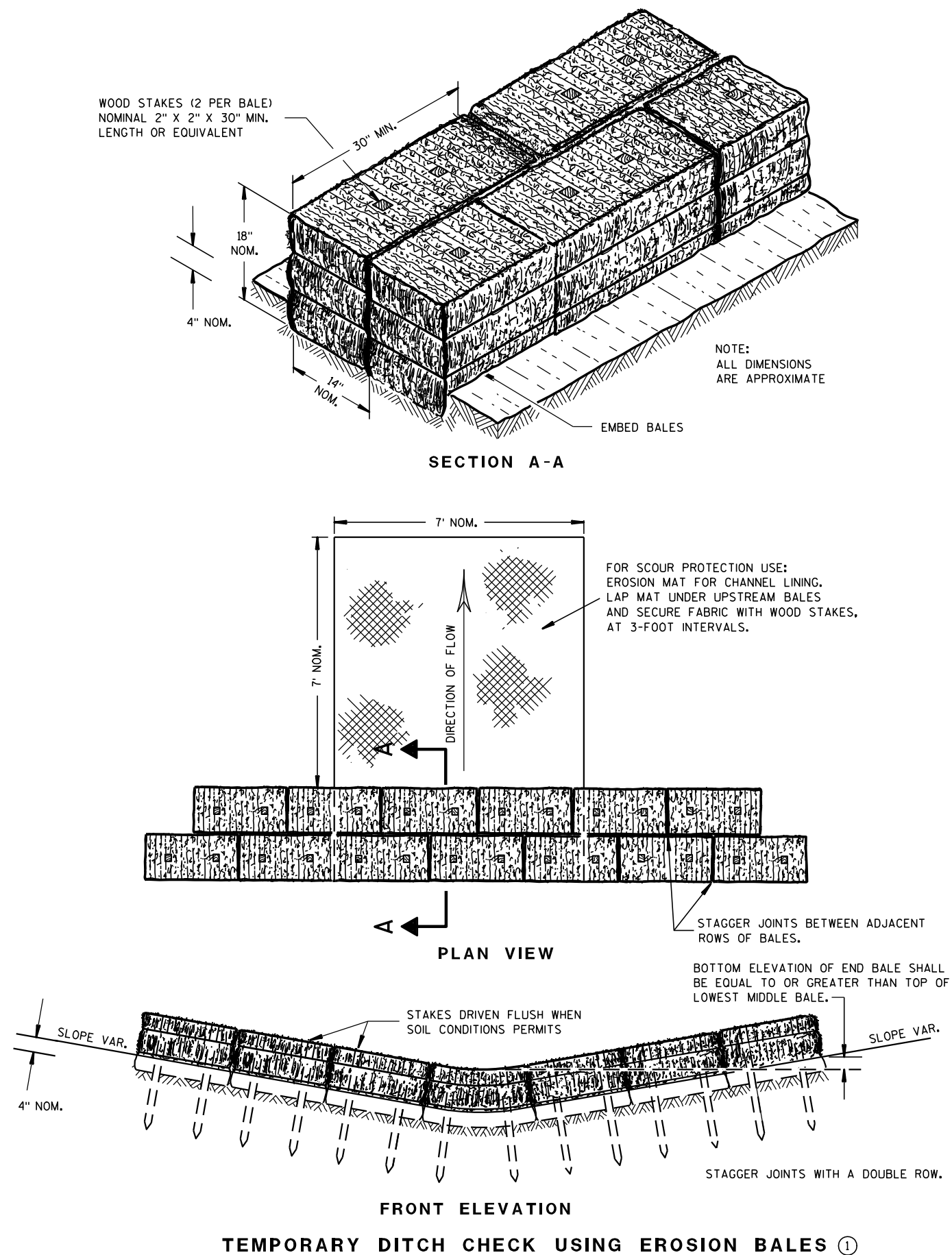


PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS

GENERAL NOTES

- ① DESIGN WILL DETERMINE FINAL DRIVEWAY ASPHALTIC THICKNESS BASED ON TYPE OF USAGE AND LOADINGS.

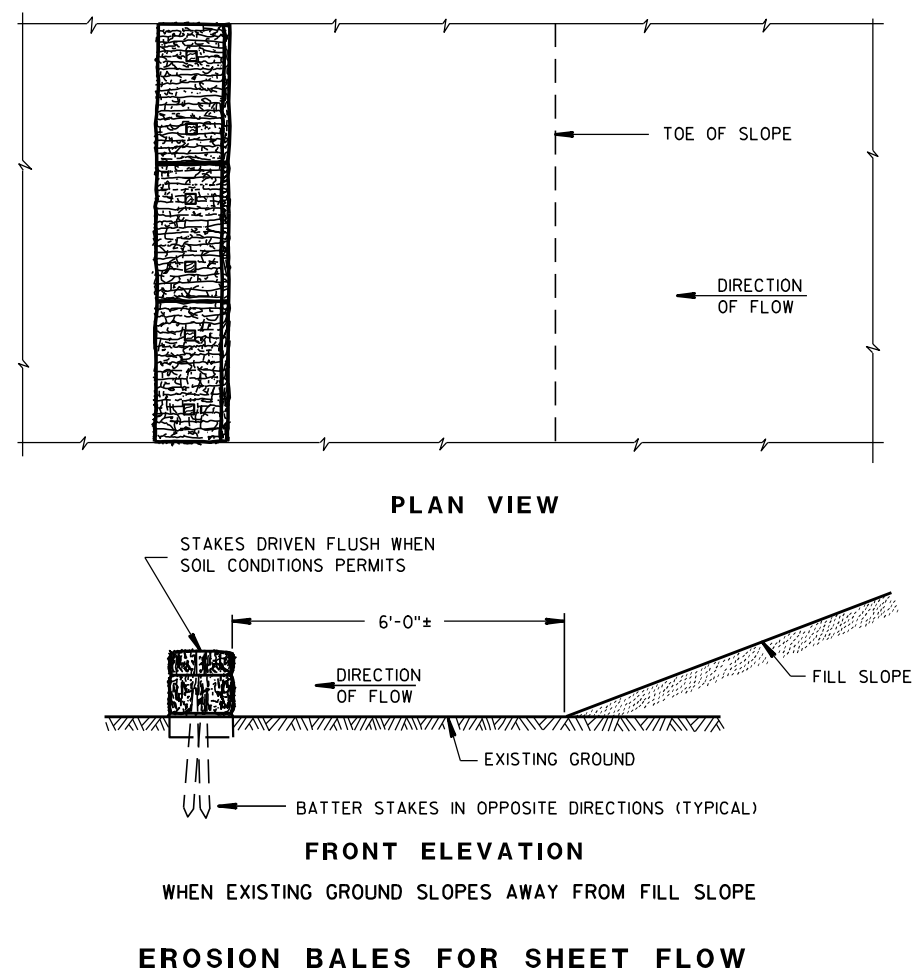
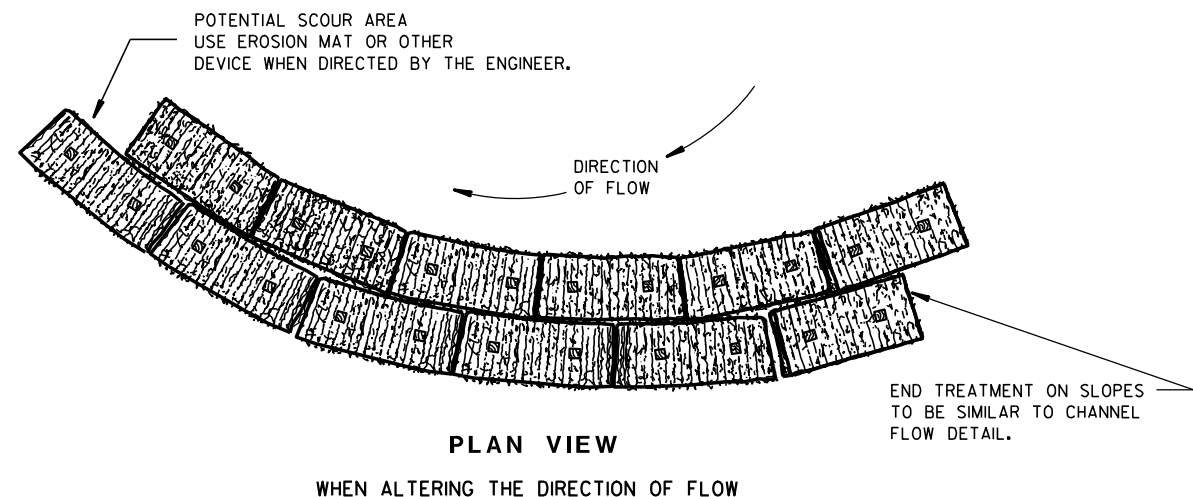
DRIVEWAYS WITHOUT CURB & GUTTER RESURFACING PROJECTS RURAL			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED	December, 2016	/S/ Rodney Taylor	
DATE	ROADWAY STANDARDS	76	ENT
FHWA	UNIT SUPERV		



GENERAL NOTES

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

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

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

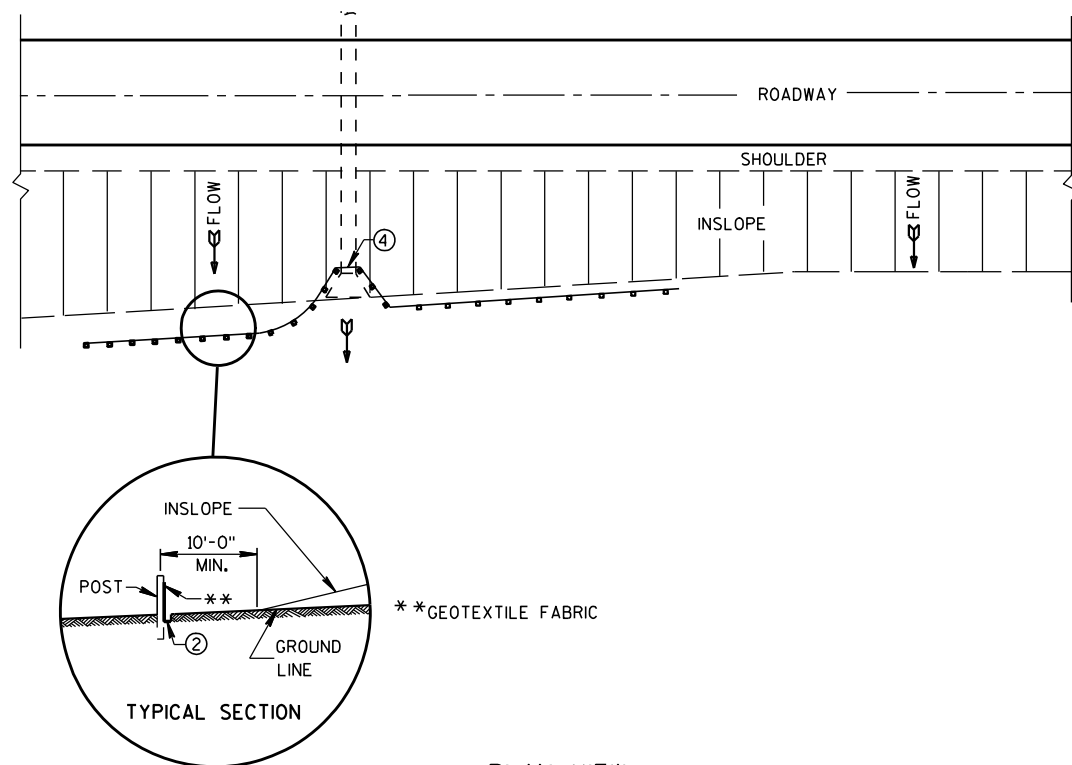
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE/S/ Beth Connolly
CHIEF ROADWAY DEVELOPER

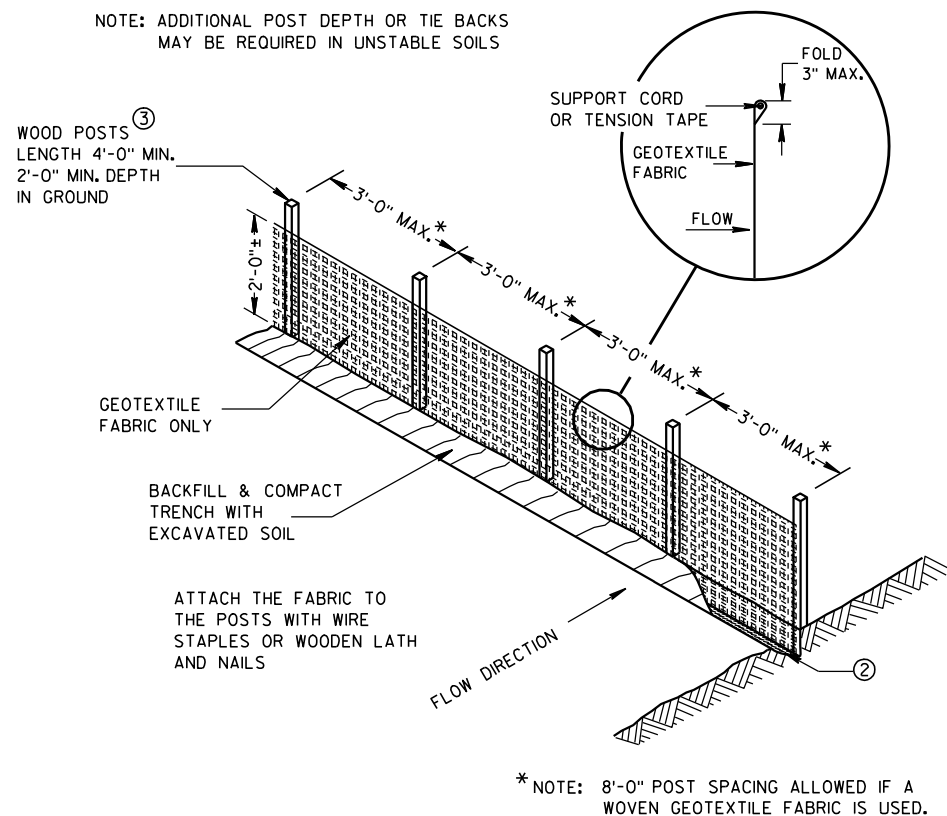
ENGINEER

FHWA

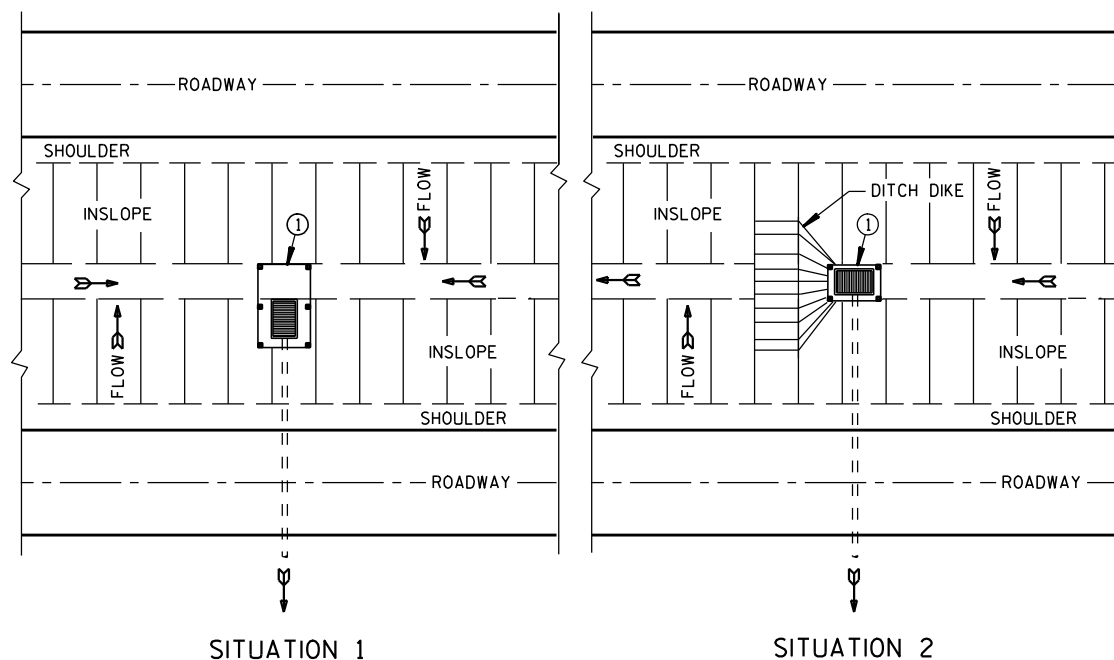


TYPICAL APPLICATION OF SILT FENCE

NOTE: ADDITIONAL POST DEPTH OR TIE BACKS MAY BE REQUIRED IN UNSTABLE SOILS

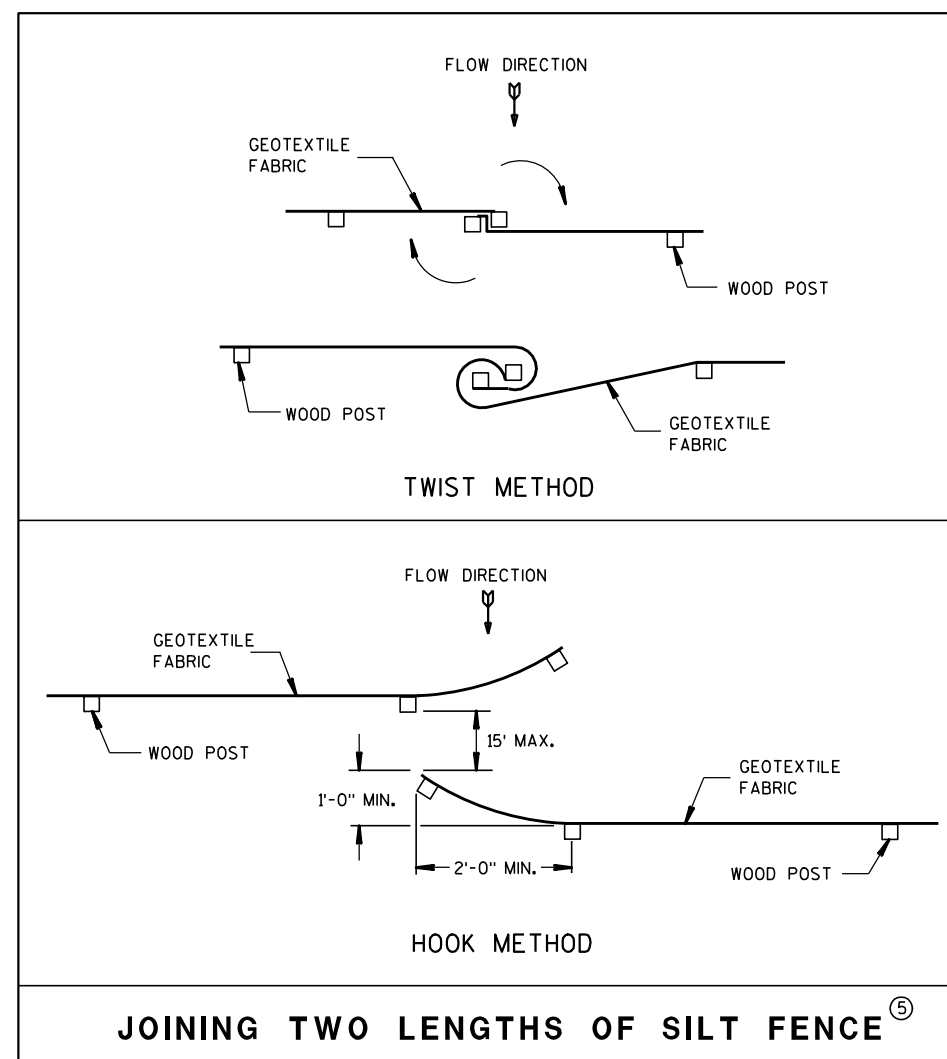


SILT FENCE



PLAN VIEW

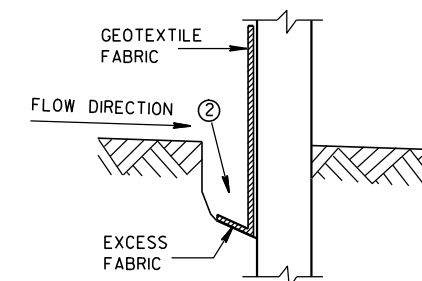
SILT FENCE AT MEDIAN SURFACE DRAINS



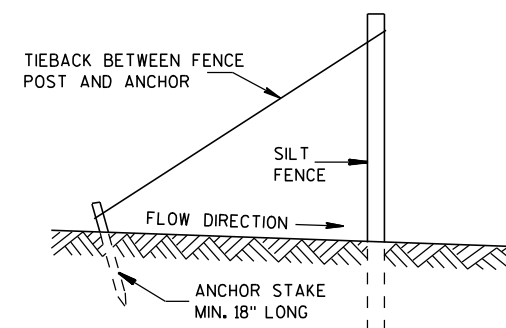
GENERAL NOTES

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

- ① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
- ② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
- ③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1 1/8" X 1 1/8" OF OAK OR HICKORY.
- ④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
- ⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



TRENCH DETAIL



SILT FENCE TIE BACK (WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

4-29-05

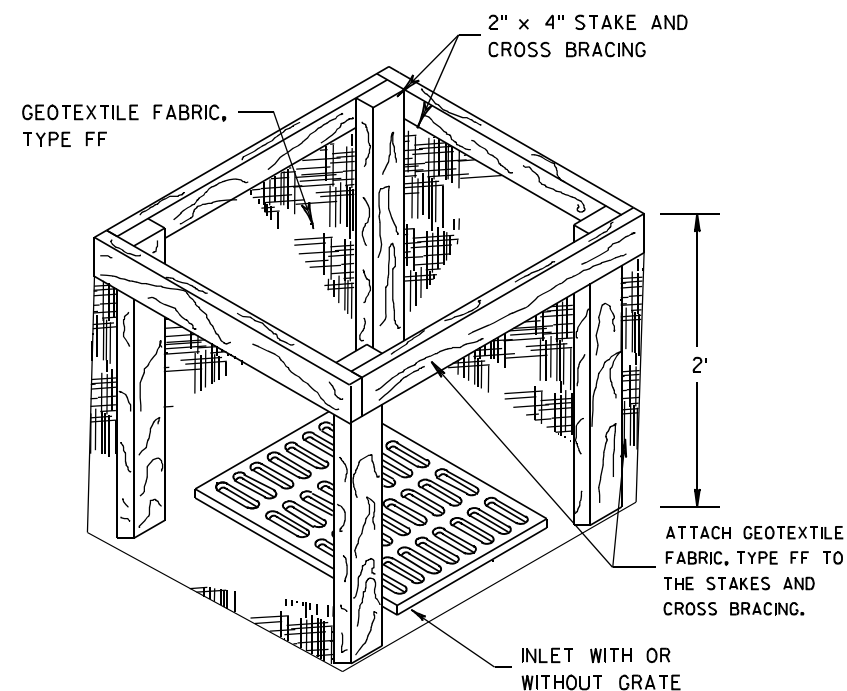
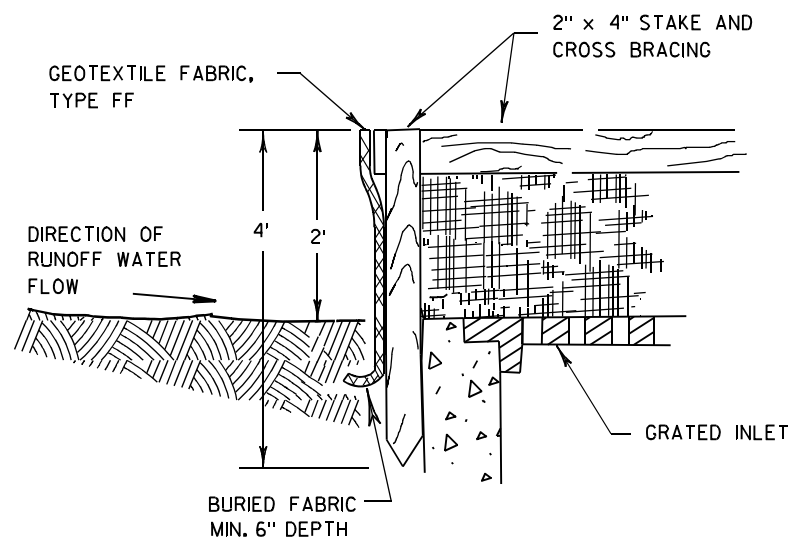
DATE

/S/ Beth Conn

CHIEF ROADWAY DEVELOPER

ENGINEER

FHWA



INLET PROTECTION, TYPE A

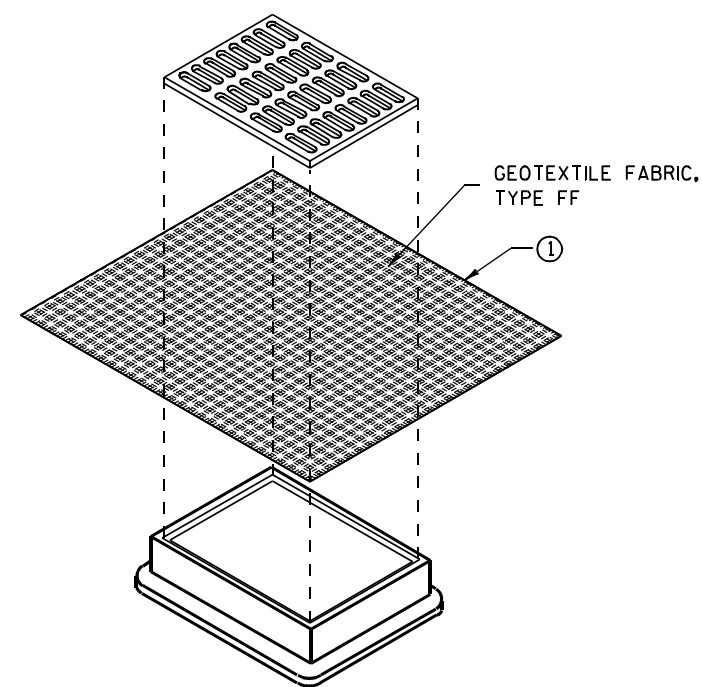
GENERAL NOTES

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

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

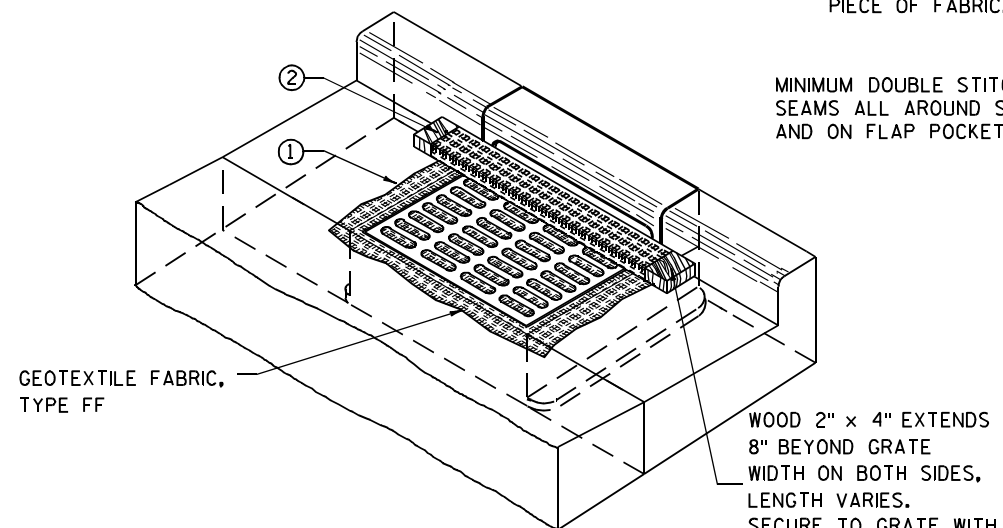
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- ① FINISHED SIZE, INCLUDING FLAP POCKETS WHERE REQUIRED, SHALL EXTEND A MINIMUM OF 10" AROUND THE PERIMETER TO FACILITATE MAINTENANCE OR REMOVAL.
- ② FOR INLET PROTECTION, TYPE C (WITH CURB BOX), AN ADDITIONAL 18" OF FABRIC IS WRAPPED AROUND THE WOOD AND SECURED WITH STAPLES. THE WOOD SHALL NOT BLOCK THE ENTIRE HEIGHT OF THE CURB BOX OPENING.
- ③ FLAP POCKETS SHALL BE LARGE ENOUGH TO ACCEPT WOOD 2X4.



**INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)**

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

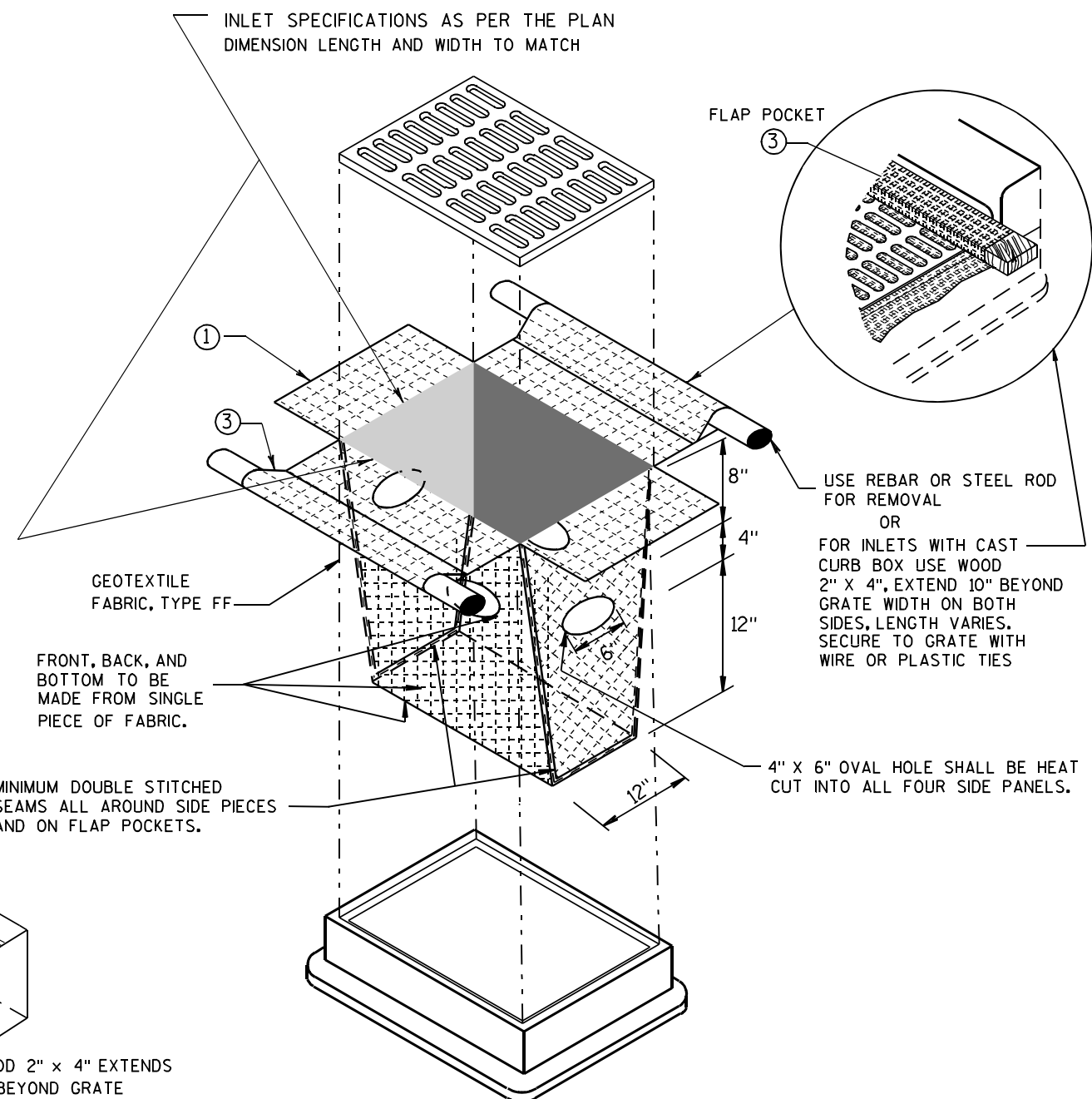
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



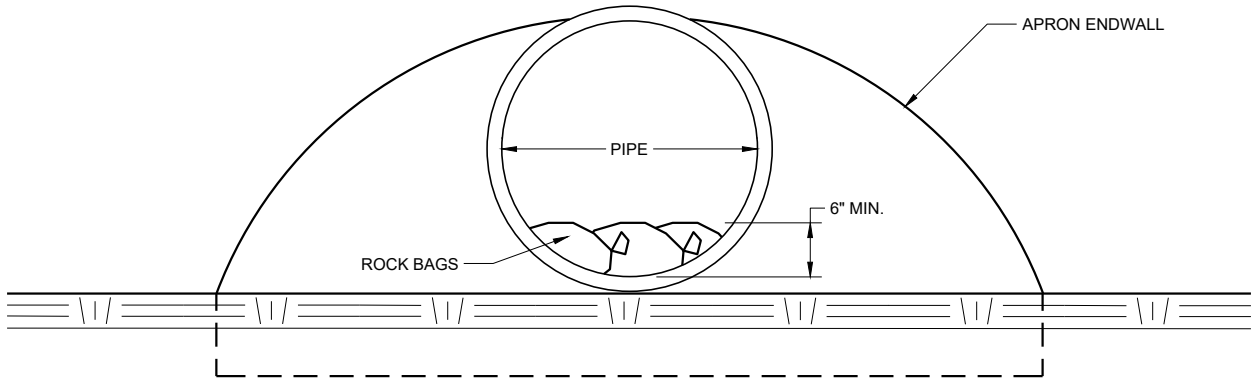
INLET PROTECTION, TYPE D

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

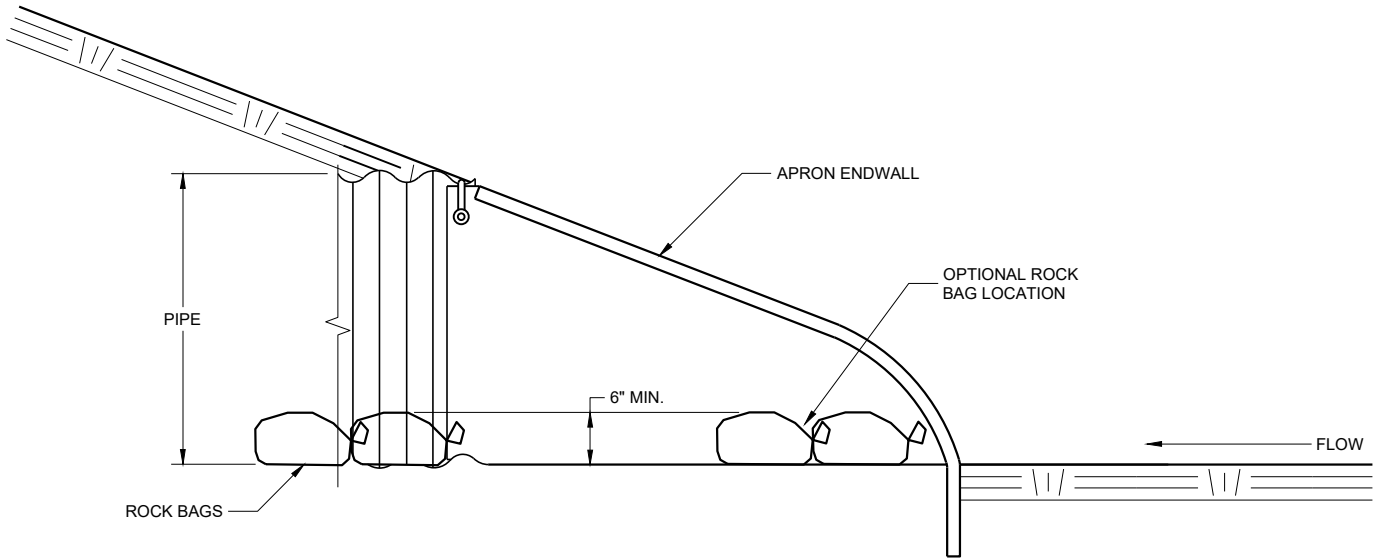
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 79
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW



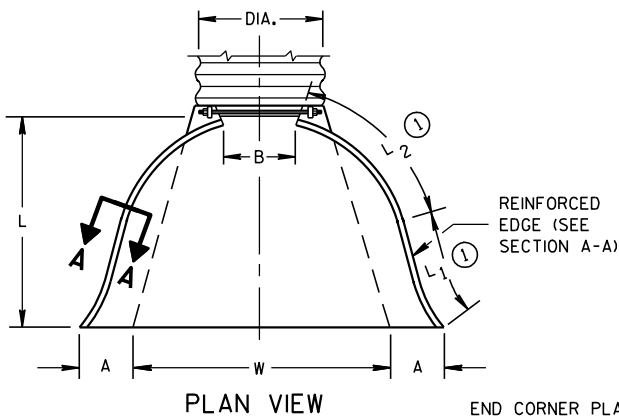
SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

CULVERT PIPE CHECK	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI 80
FHWA	

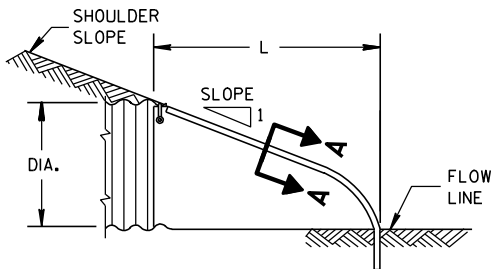
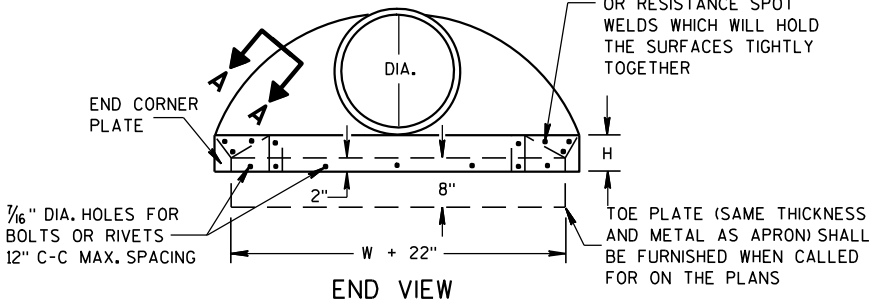
METAL APRON ENDWALLS											
PIPE DIA. (IN.)	MIN. THICK. (Inches)		DIMENSIONS (Inches)						APPROX. SLOPE	BODY	
	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L ₁ ①	L ₂ ①			W (±2")
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109x	.105x	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109x	.105x	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109x	.105x	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109x	.105x	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109x	.105x	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109x	.105x	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109x	.105x	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

* EXCEPT CENTER PANEL
SEE GENERAL NOTES



END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER

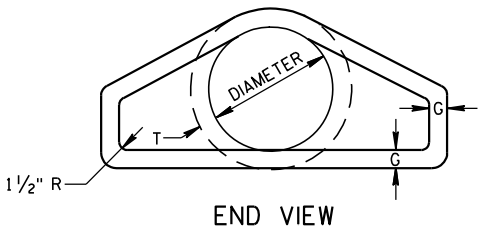
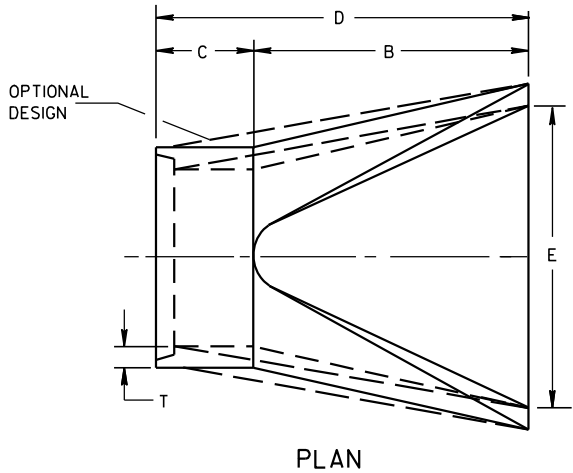
TOE PLATE (SAME THICKNESS AND METAL AS APRON) SHALL BE FURNISHED WHEN CALLED FOR ON THE PLANS



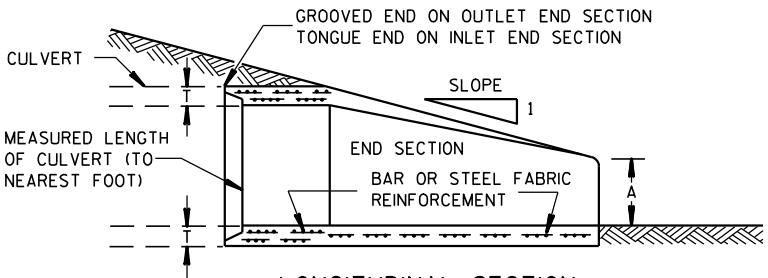
SIDE ELEVATION
METAL ENDWALLS

REINFORCED CONCRETE APRON ENDWALLS								
PIPE DIA. (IN.)	DIMENSIONS (Inches)							APPROX. SLOPE
	T	A	B	C	D	E	G	
12	2	4	24	48 ¹ / ₈	72 ¹ / ₈	24	2	3 to 1
15	2 ¹ / ₄	6	27	46	73	30	2 ¹ / ₄	3 to 1
18	2 ¹ / ₂	9	27	46	73	36	2 ¹ / ₂	3 to 1
21	2 ³ / ₄	9	36	37 ¹ / ₂	73 ¹ / ₂	42	2 ³ / ₄	3 to 1
24	3	9 ¹ / ₂	43 ¹ / ₂	30	73 ¹ / ₂	48	3	3 to 1
27	3 ¹ / ₄	10 ¹ / ₂	49 ¹ / ₂	24	73 ¹ / ₂	54	3 ¹ / ₄	3 to 1
30	3 ¹ / ₂	12	54	19 ³ / ₄	73 ¹ / ₂	60	3 ¹ / ₂	3 to 1
36	4	15	63	34 ³ / ₄	97 ³ / ₄	72	4	3 to 1
42	4 ¹ / ₂	21	63	35	98	78	4 ¹ / ₂	3 to 1
48	5	24	72	26	98	84	5	3 to 1
54	5 ¹ / ₂	27	65	33 ¹ / ₄ -35	98 ¹ / ₄ -100	90	5 ¹ / ₂	2 ¹ / ₂ to 1
60	6	30-35	60	39	99	96	5	2 to 1
66	6 ¹ / ₂	24-30	72-78	21-27	99	102	5 ¹ / ₂	2 to 1
72	7	24-36	78	21	99	108	6	2 to 1
78	7 ¹ / ₂	24-36	78	21	99	114	6 ¹ / ₂	2 to 1
84	8	36	90 ¹ / ₂	21	111 ¹ / ₂	120	6 ¹ / ₂	1 ¹ / ₂ to 1
90	8 ¹ / ₂	41	87 ¹ / ₂	24	111 ¹ / ₂	132	6 ¹ / ₂	1 ¹ / ₂ to 1

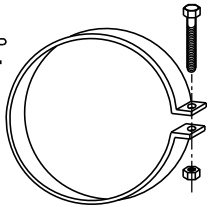
* MINIMUM
** MAXIMUM



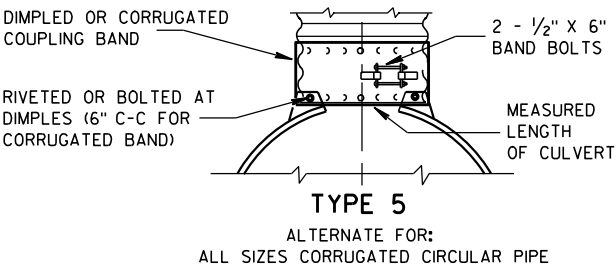
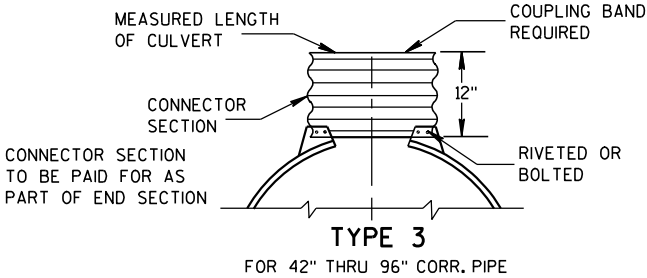
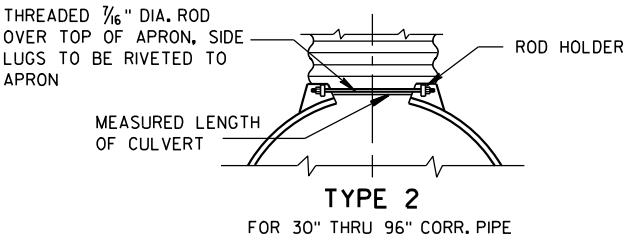
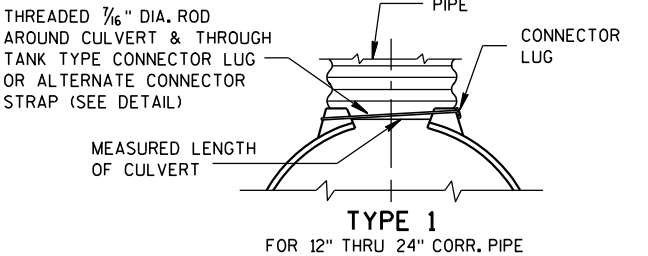
LONGITUDINAL SECTION
CONCRETE ENDWALLS



1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



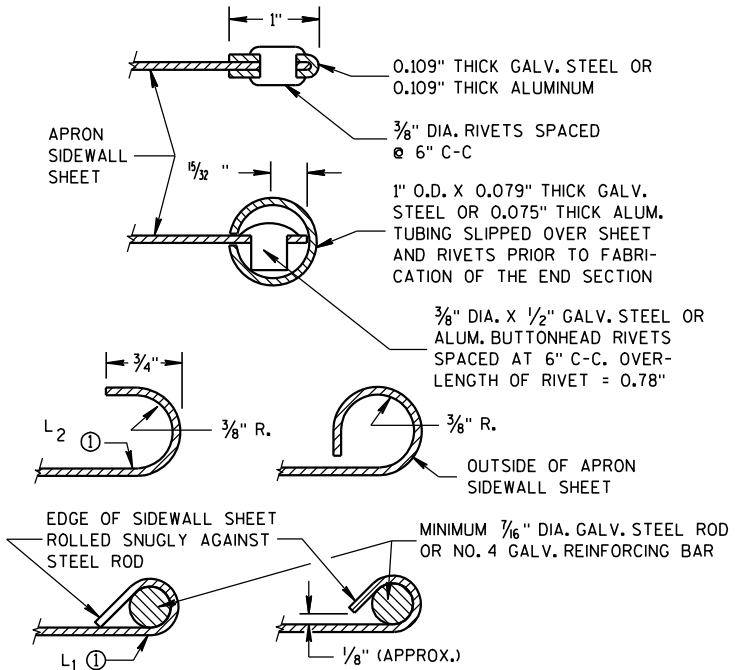
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

FOR CIRCUMFERENTIALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2, 3 OR 5 AS APPLICABLE.

FOR HELICALLY CORRUGATED PIPE USE ENDWALL CONNECTION DETAILS 1, 2 OR 5.

FOR HELICALLY CORRUGATED PIPES WITH TWO CIRCUMFERENTIAL CORRUGATIONS AT EACH END USE ENDWALL CONNECTION DETAILS 1, 2 OR 3.

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

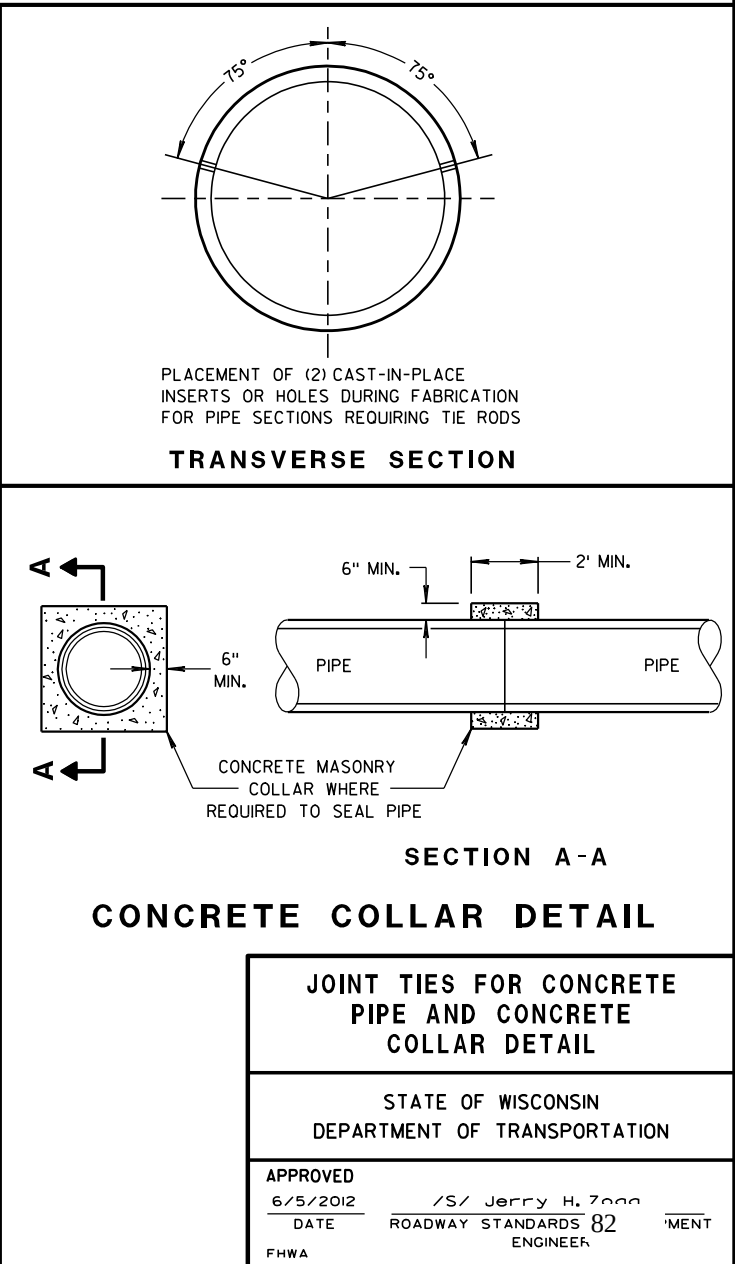
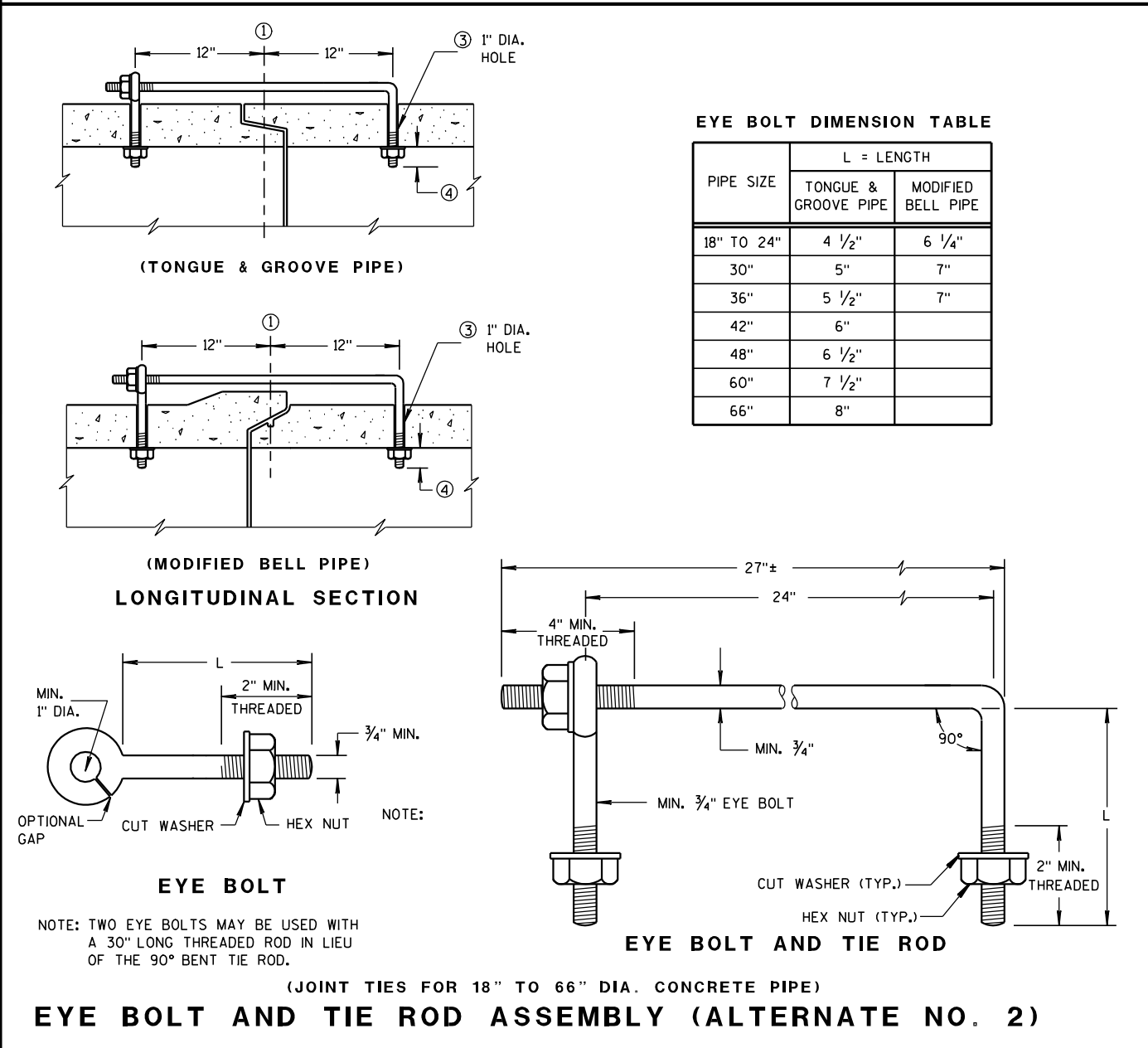
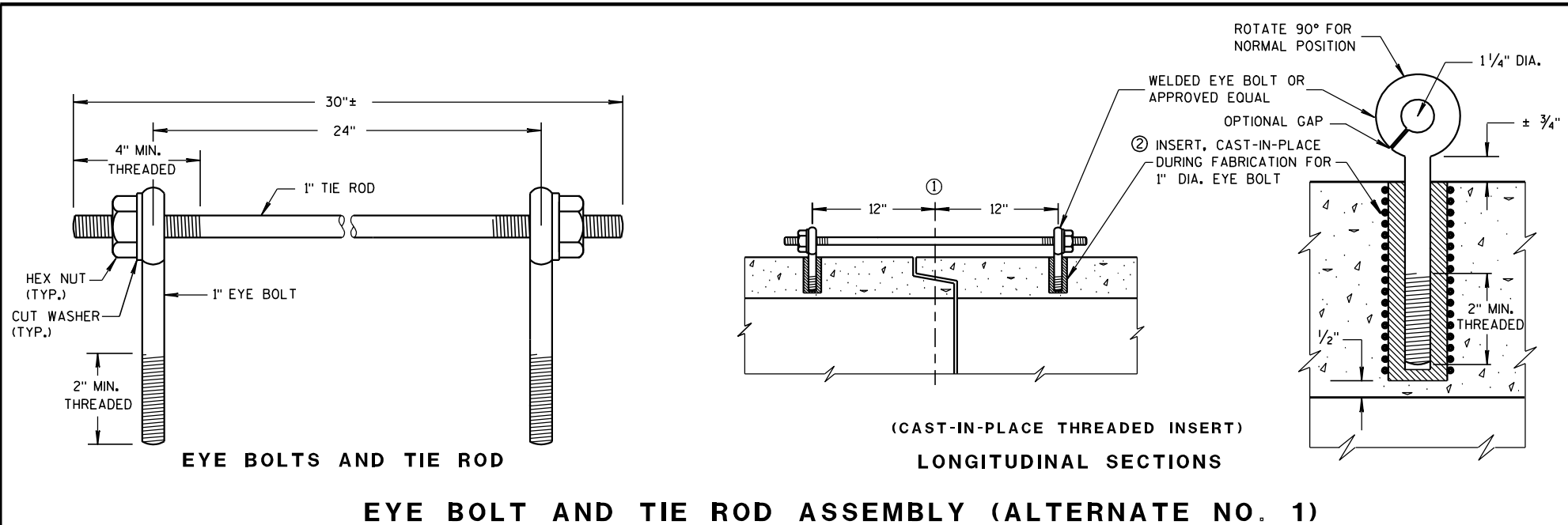
ALL THREE PIECE STEEL APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 60" DIAMETER PIPE AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE PERIMETER.

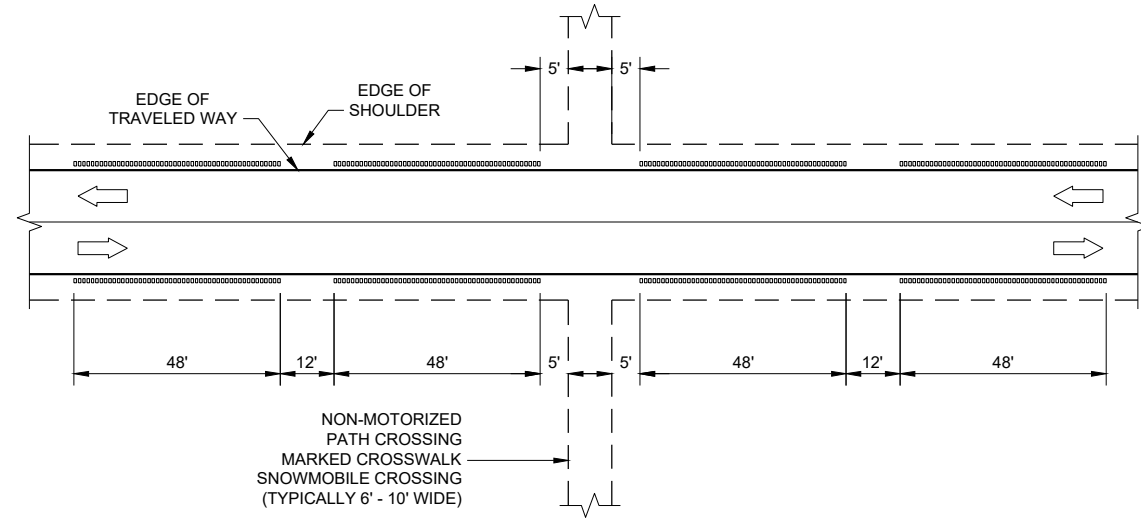
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 60" THROUGH 96" DIAMETER APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

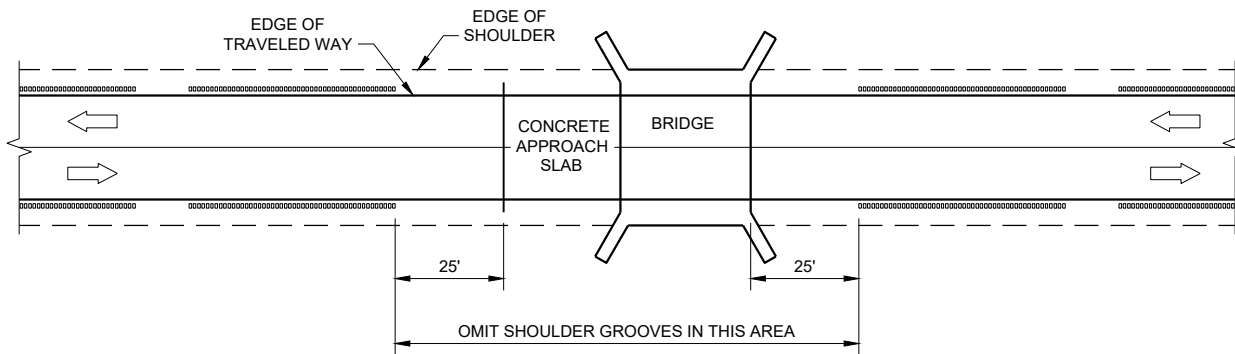
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 11/30/94 DATE	/S/ Rory L. Rhinehart CHIEF ROADWAY DEVELOP	81	NEER
FHWA			

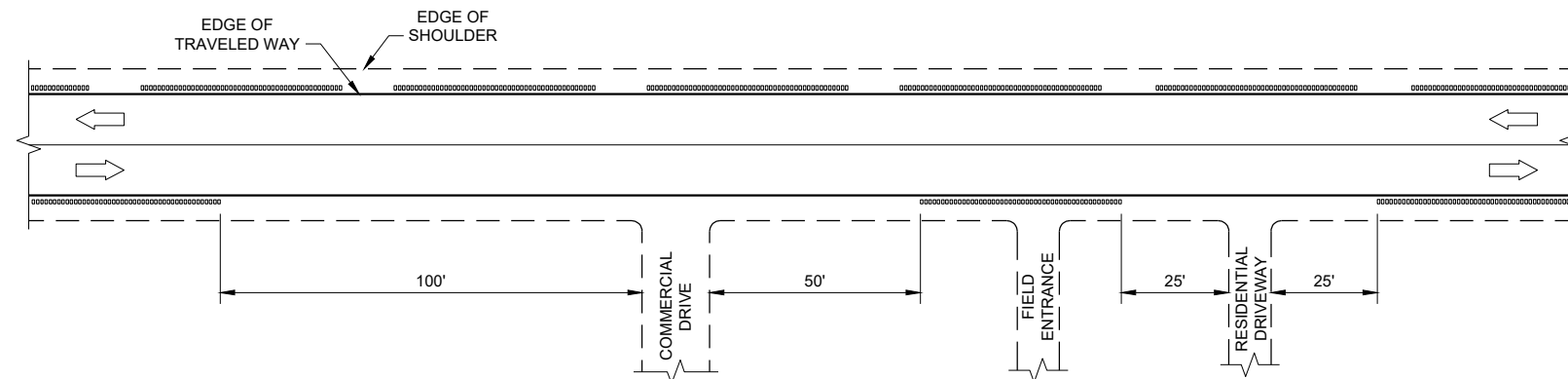




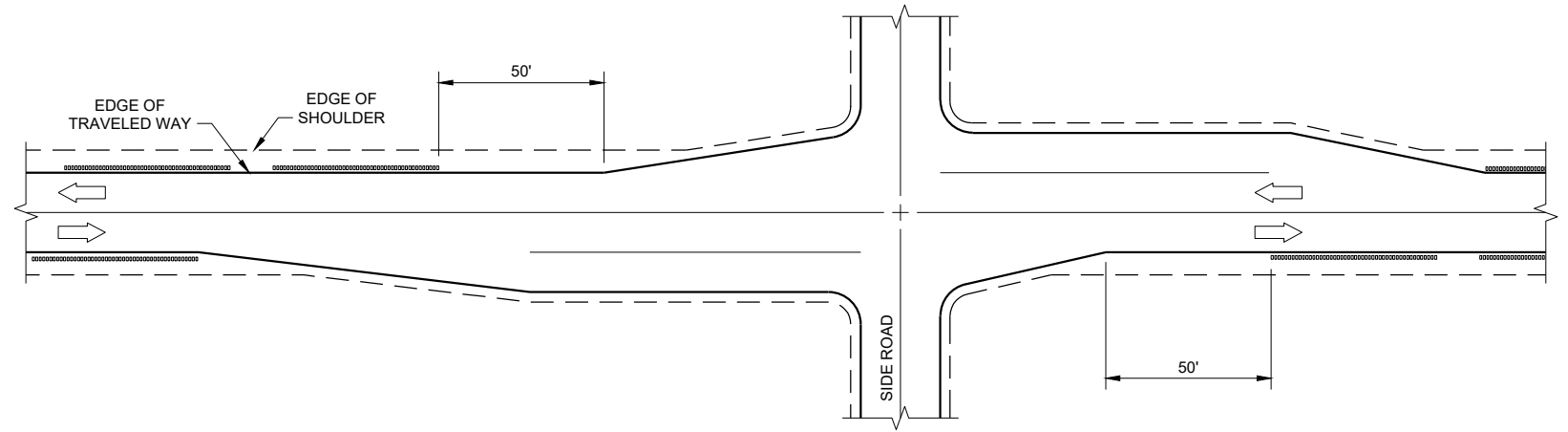
SHOULDER GROOVES AT MISCELLANEOUS CROSSINGS



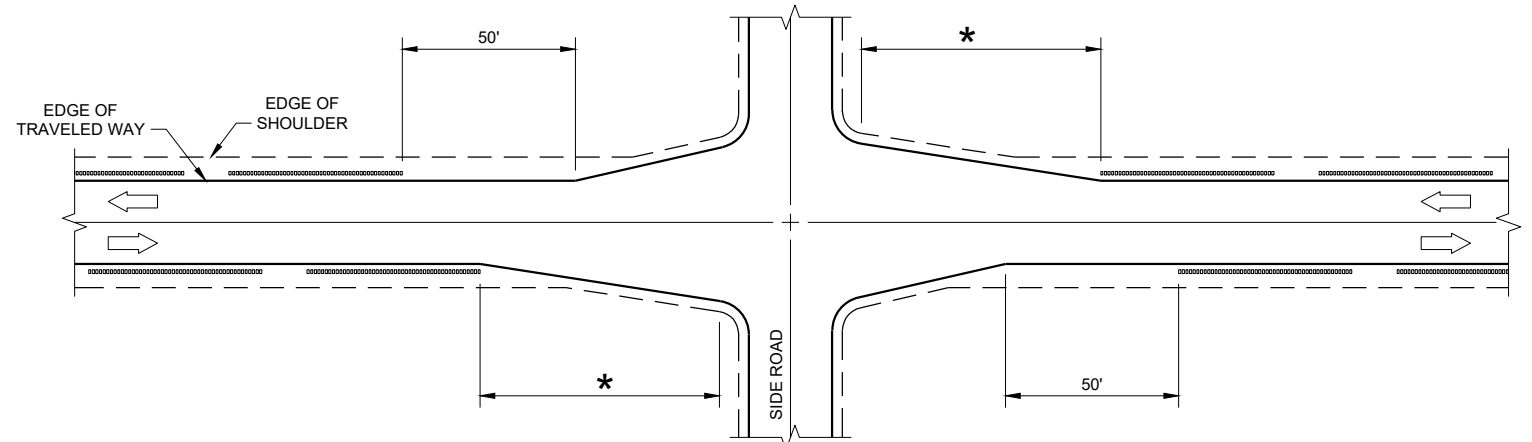
SHOULDER GROOVES AT BRIDGES



SHOULDER GROOVES AT DRIVEWAYS^①



SHOULDER GROOVES AT RIGHT TURN LANE



* GREATER OF 100' OR APPROACH TAPER LENGTH

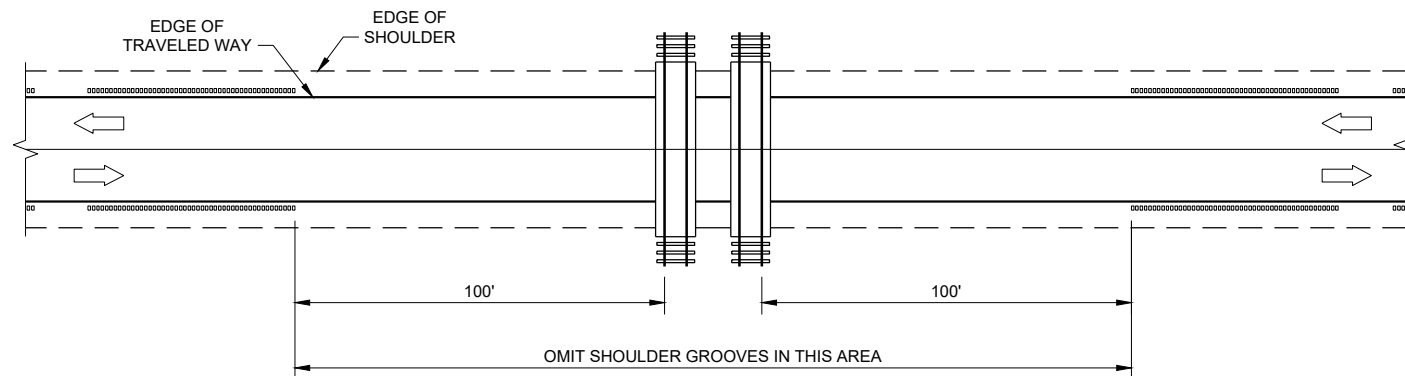
SHOULDER GROOVES AT INTERSECTIONS WITH APPROACH TAPER

GENERAL NOTES

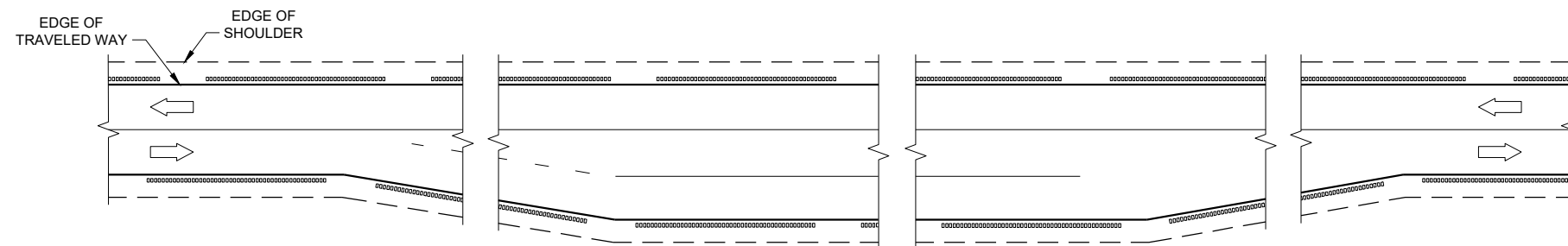
- ① SHOULDER GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.

**2-LANE RURAL SHOULDER
RUMBLE STRIP, MILLING**

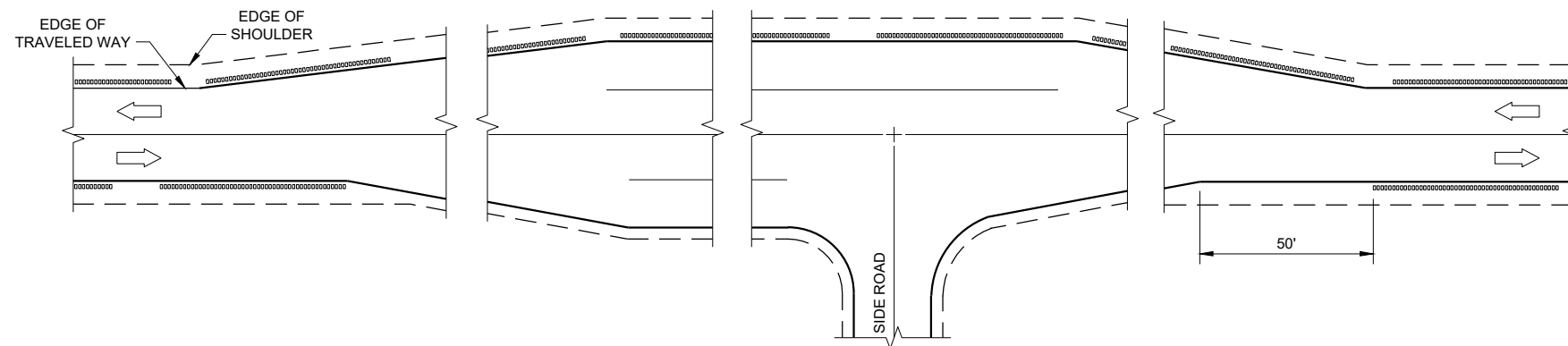
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



SHOULDER GROOVES AT RAILROADS



SHOULDER GROOVES AT PASSING AND CLIMBING LANES



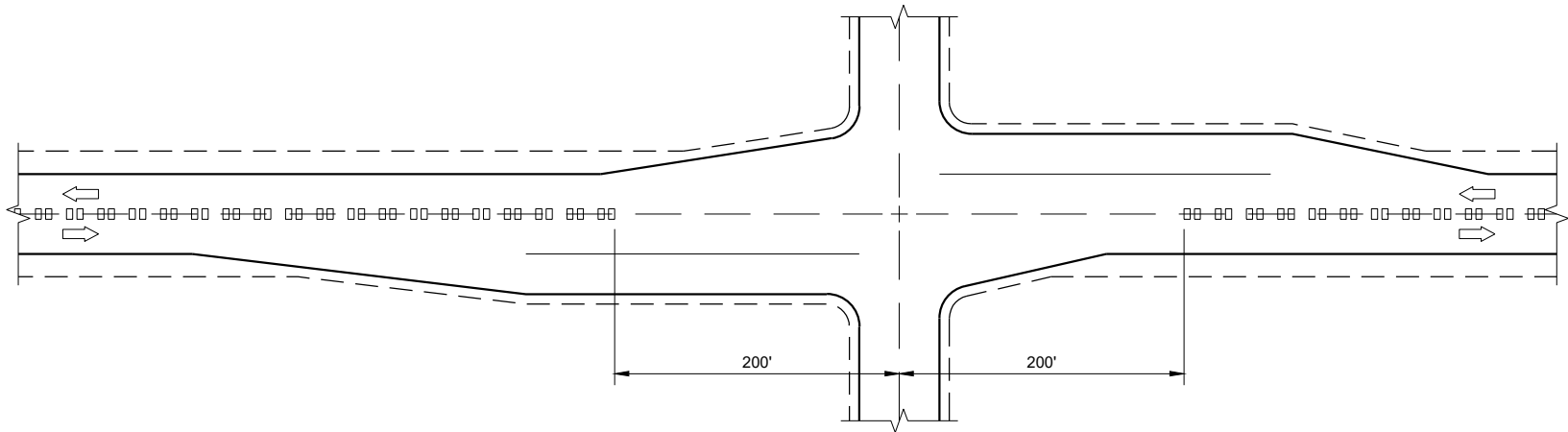
SHOULDER GROOVES AT BYPASS LANES

**2-LANE RURAL SHOULDER
RUMBLE STRIP, MILLING**

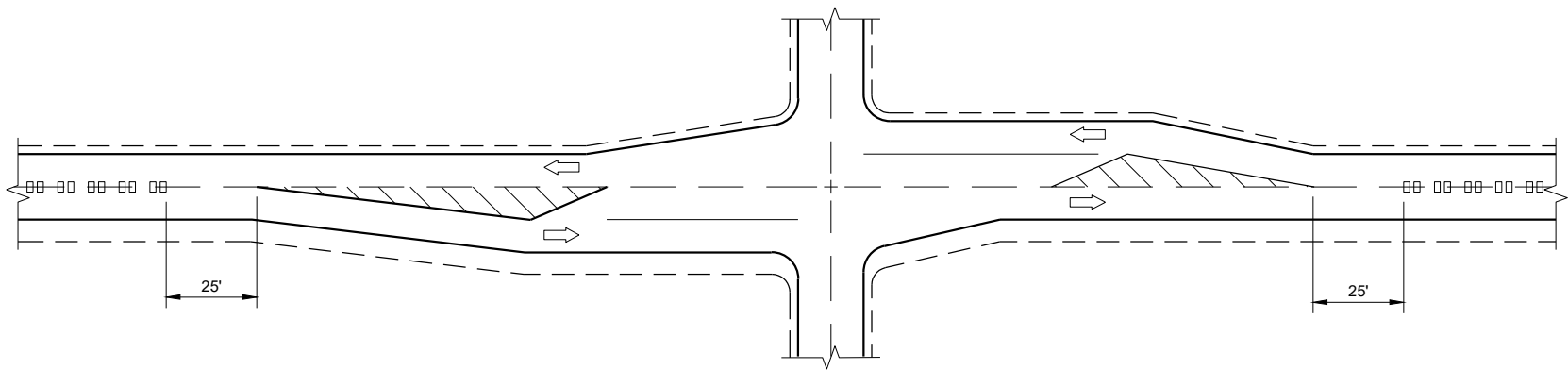
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE /S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER 84

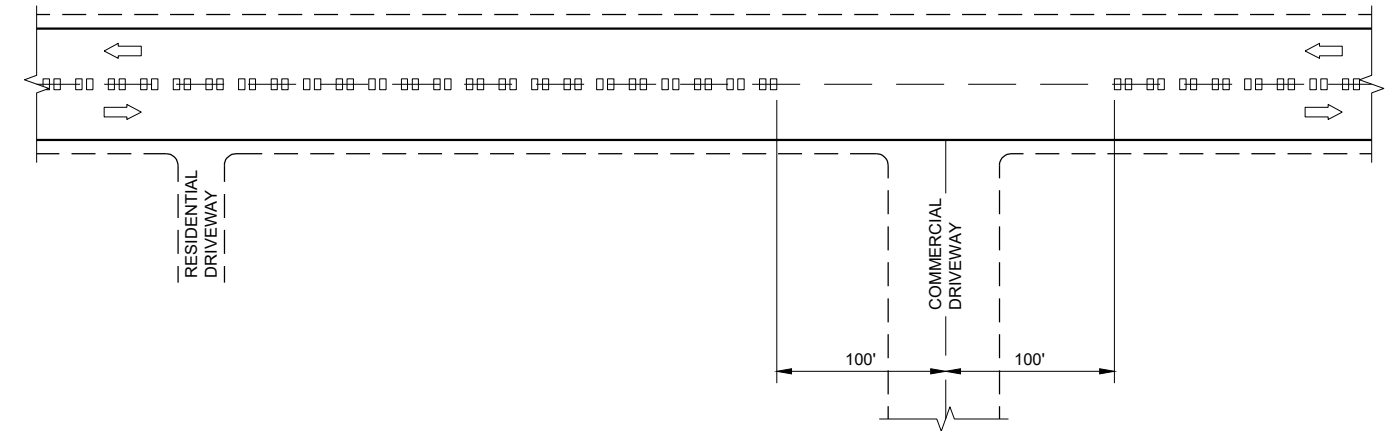
FHWA



CENTERLINE GROOVES AT INTERSECTIONS



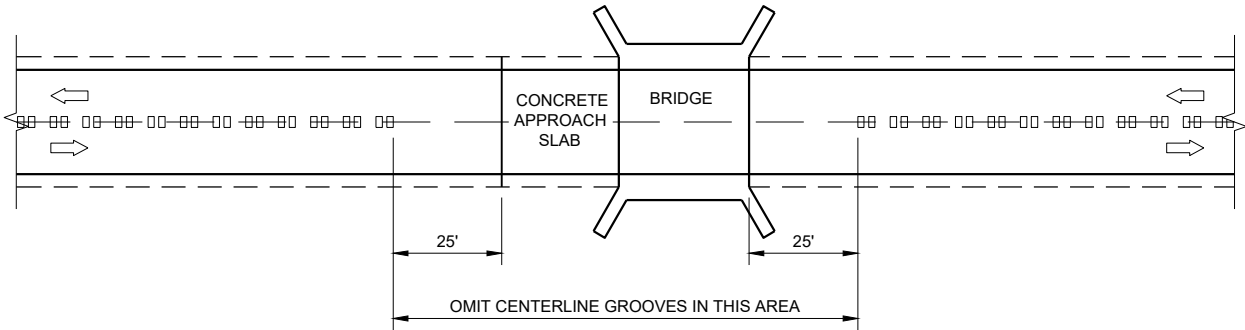
CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)



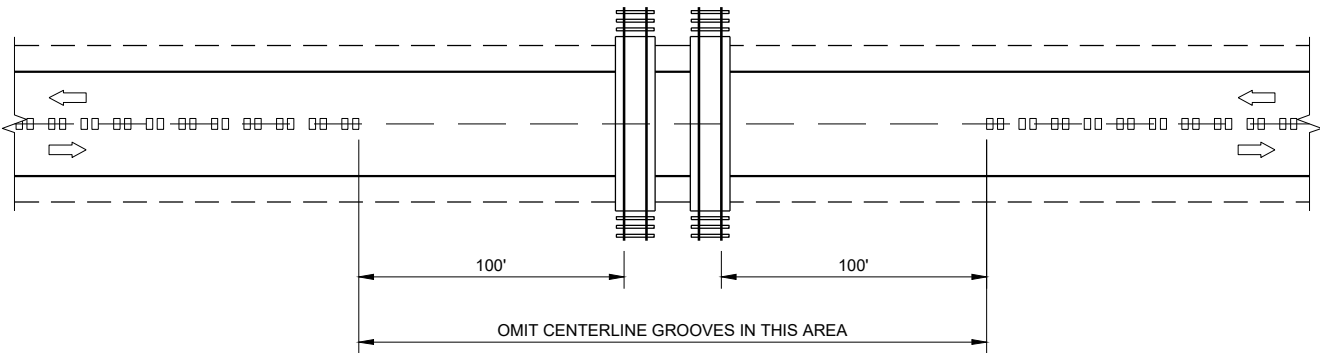
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

- ① CENTERLINE GROOVES MAY BE OMITTED IN AREAS WITH HIGH CONCENTRATIONS OF DRIVEWAYS. WHEN DIRECTED BY THE ENGINEER.



CENTERLINE GROOVES AT BRIDGES



CENTERLINE GROOVES AT RAILROADS

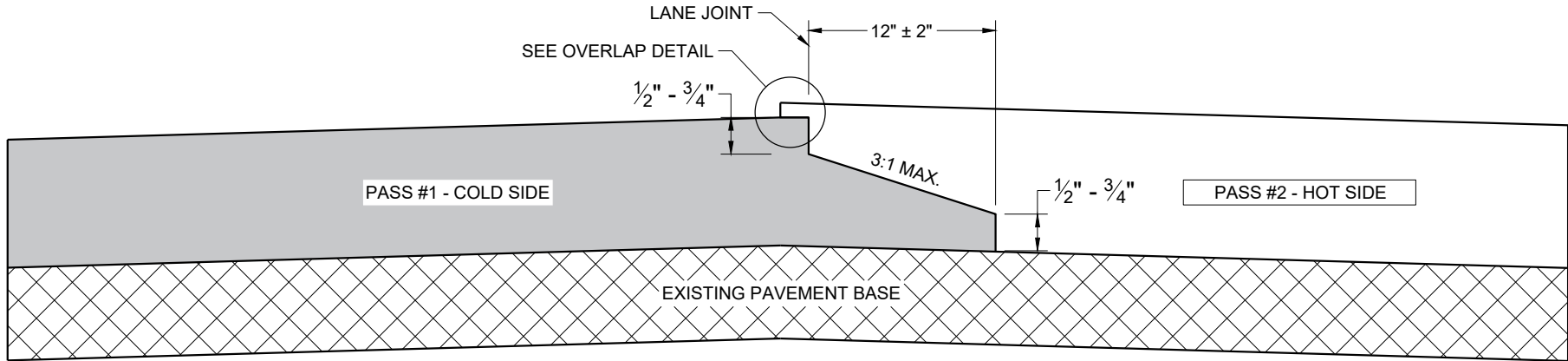
2-LANE RURAL
CENTERLINE RUMBLE STRIP,
MILLING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

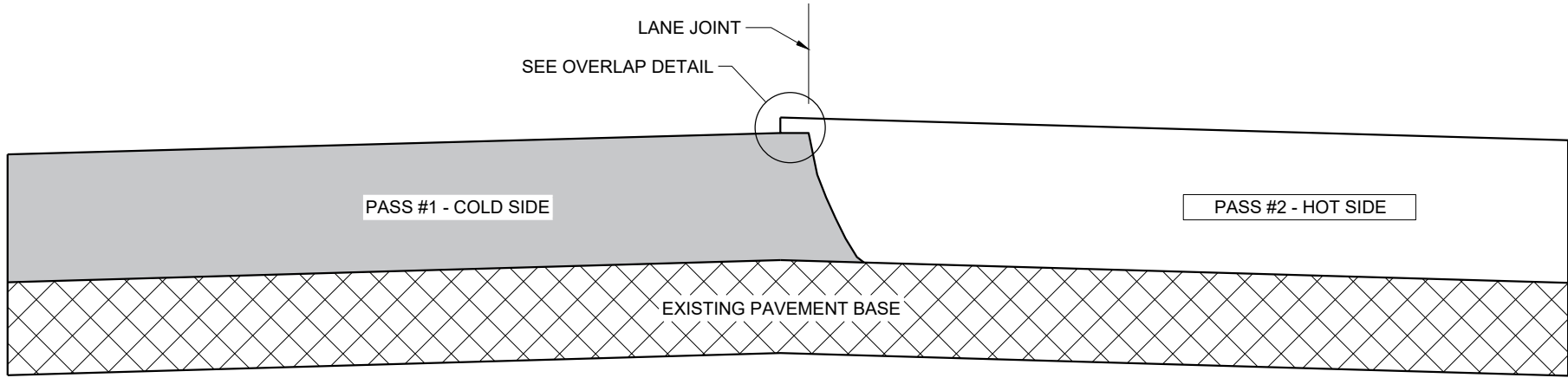
APPROVED
7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

FHWA

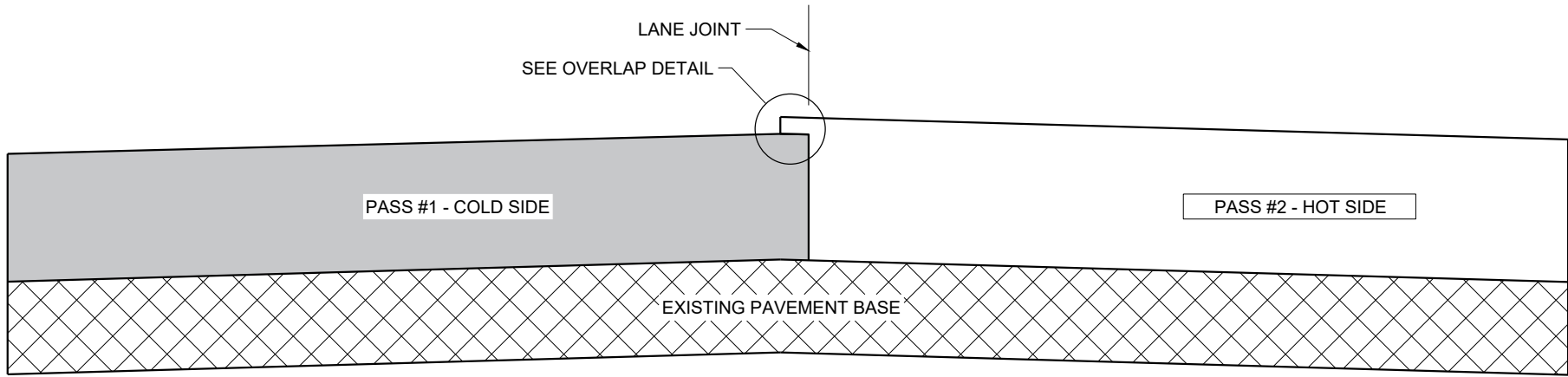
85



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)**

GENERAL NOTES

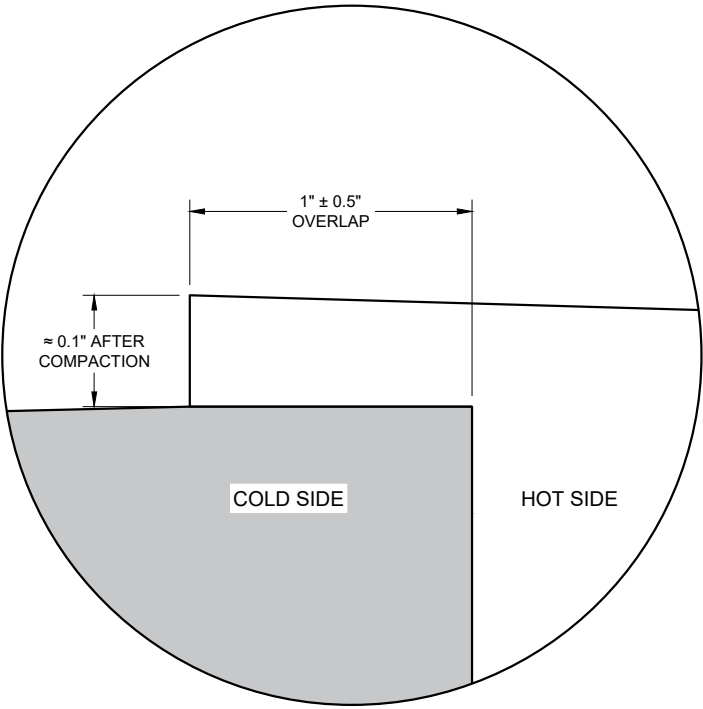
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY 1" ± 0.5" AND THE HOT SIDE OF THE JOINT REMAINS HIGHER THAN THE COLD SIDE BY APPROXIMATELY 0.1" AFTER FINAL COMPACTION. (IT WILL BE FLUSH WHEN PAVING IN ECHELON.)

ONLY REMOVE THE LONGITUDINAL NOTCHED WEDGE JOINT FOR SMA PAVEMENT OR AS DIRECTED BY THE ENGINEER TO ADDRESS SPECIFIC LENGTHS OF JOINT DAMAGED BY TRAFFIC.

WHEN MILLING BACK OR REMOVING ANY LONGITUDINAL JOINT, LIMIT THE MATERIAL REMOVED TO 2" FROM THE TOP NOTCH OR FROM THE VERTICAL JOINT EDGE ON THE COLD SIDE OF THE JOINT.

USE LONGITUDINAL MILLED JOINT AS PLANS SHOW OR THE AS THE ENGINEER DIRECTS.



OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 86

FHWA

6

- S.D.D. 14 B 15-11a**

S.D.D. 14 B 15-11a



S.D.D. 14 B 15-11a



S.D.D. 14 B 15-11a



S.D.D. 14 B 15-11a



S.D.D. 14 B 15-11a



S.D.D. 14 B 15-11a



S.D.D. 14 B 15-11a

S.D.D. 14 B 15-11a



S.D.D. 14 B 15-11a



S.D.D. 14 B 15-11a



S.D.D. 14 B 15-11a



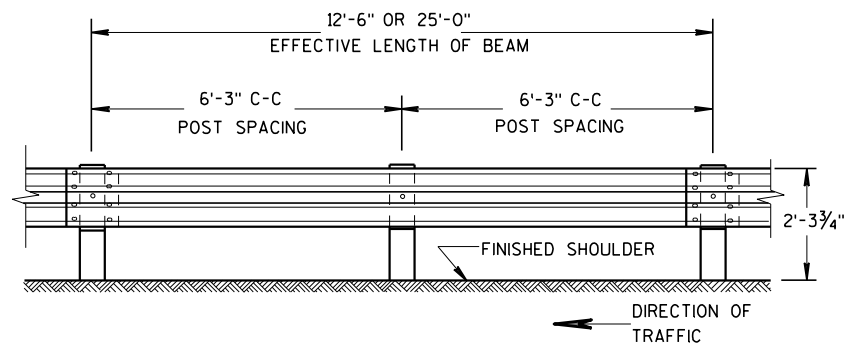
S.D.D. 14 B 15-11a



S.D.D. 14 B 15-11a

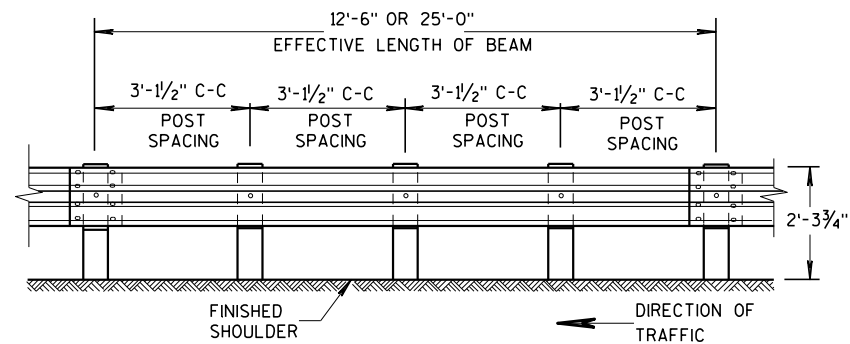
S.D.D. 14 B 15-11a

S.D.D. 14 B 15-11a

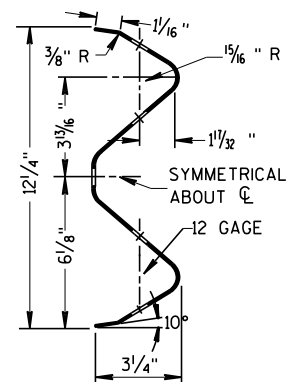


FRONT VIEW

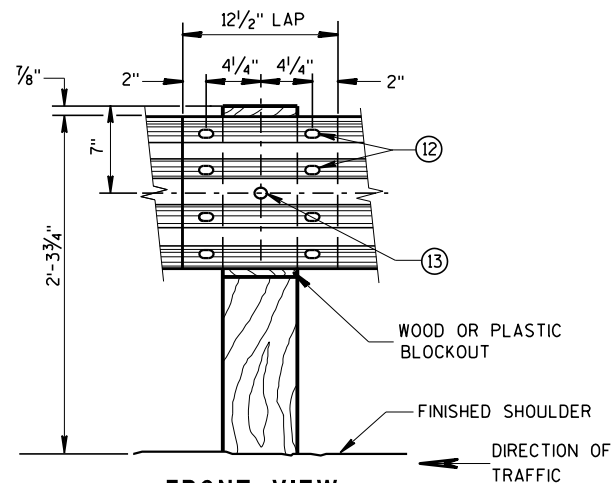
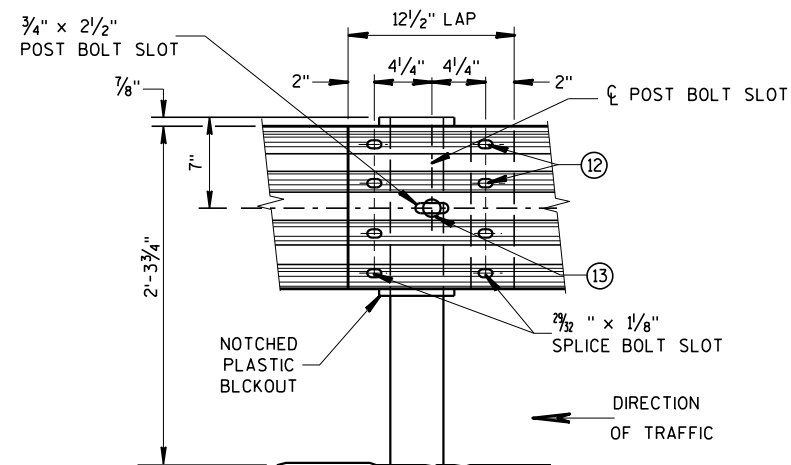
POST SPACING STANDARD INSTALLATION



FRONT VIEW

POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)

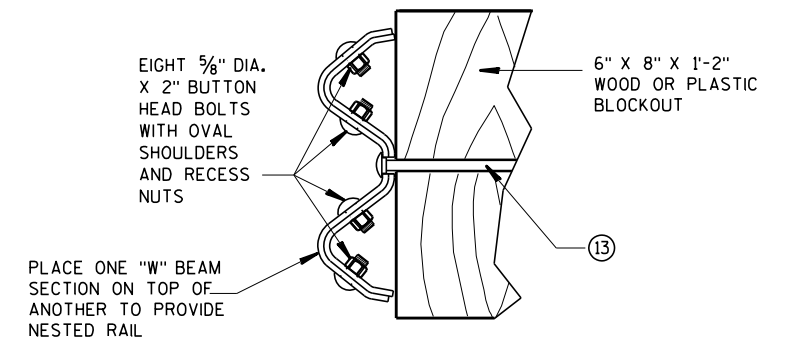
SECTION THRU W BEAM

FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAILFRONT VIEW
BEAM SPLICE AT STEEL POSTTYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD

GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

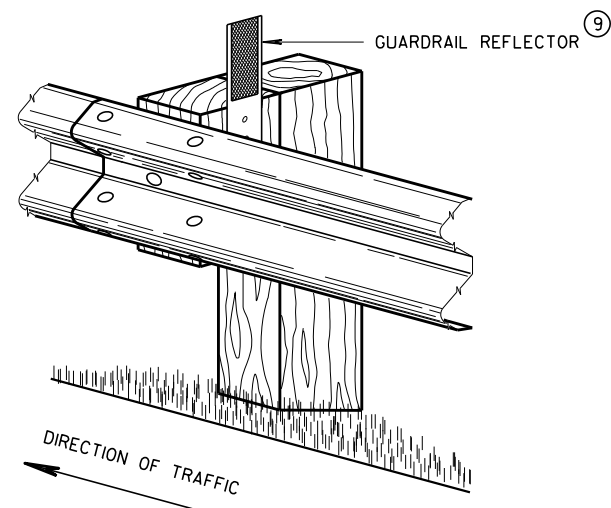
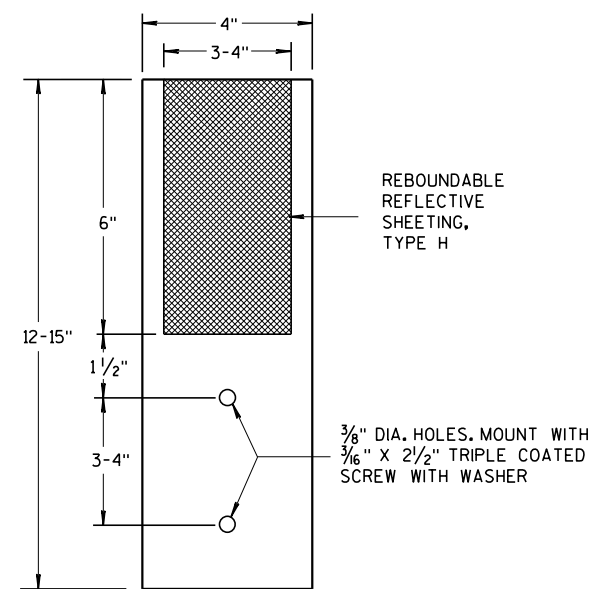
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.
- ⑫ 8 - 5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.
- ⑬ 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.



NESTED W BEAM (NW)

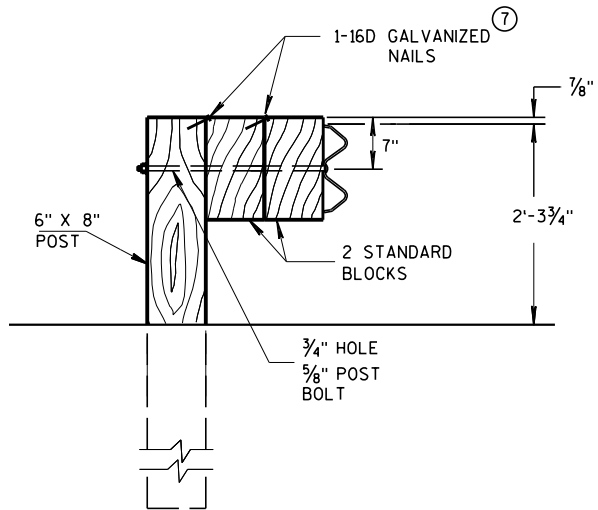
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

* USE DOUBLE SIDED WHITE GUARDRAIL REFLECTORS ON ROADWAYS WITH BI-DIRECTIONAL TRAFFIC (NO MEDIAN). USE SINGLE SIDED WHITE (RIGHT SIDE) AND SINGLE SIDED YELLOW (LEFT SIDE) ON ROADWAYS WITH MEDIAN SEPARATION.

4" X 12" GUARDRAIL REFLECTOR DETAIL
AND TYPICAL INSTALLATION *

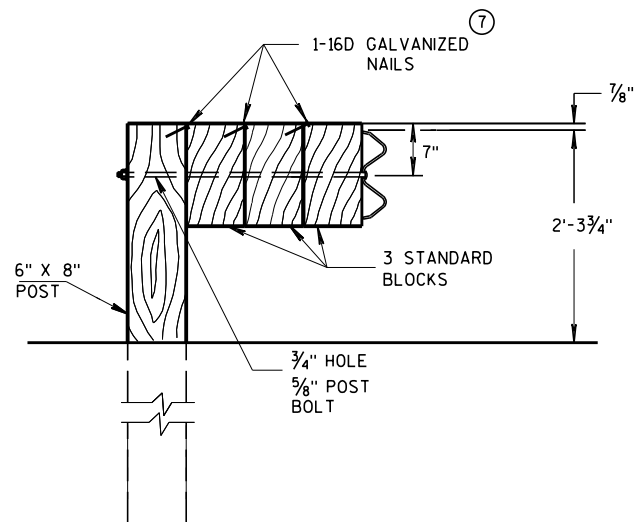
4"x 12" GUARDRAIL REFLECTOR

STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTSSTATE OF WISCONSIN⁸⁸
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

THE NUMBER OF DOUBLE BLOCK POSTS
WITHIN A BARRIER RUN IS UNLIMITED

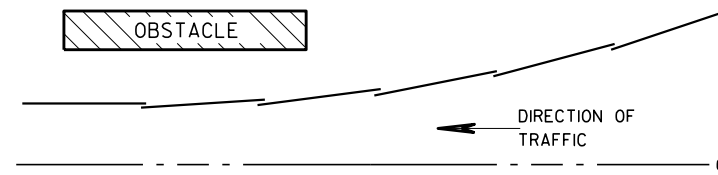


DETAIL FOR TRIPLE BLOCKS

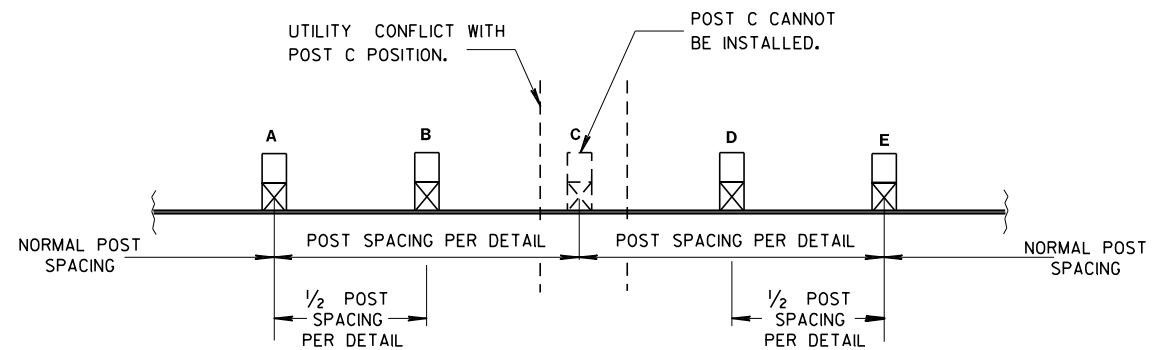
TRIPLE BLOCK DETAIL IS LIMITED TO ONE
LOCATION WITHIN A BEAM GUARD RUN.

NOTES: USE DOUBLE OR TRIPLE BLOCKS WHEN UNDERGROUND OBSTACLES
PREVENT THE POST FROM BEING INSTALLED.

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



PLAN VIEW BEAM LAPPING DETAIL



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED		
June 2017	/S/ Rodney Taylor	
DATE	ROADWAY STANDARDS 89	MENT
FHWA	UNIT SUPERVISOR	

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5½" X 7½" X 3'-9"
②	STEEL TUBE TS 8" X 6" X 0.188", 6'-0"
④	WOOD BREAKAWAY CRT POST: 6" X 8" X 6'-0"
⑤	WOOD OFFSET BLOCKS: 6' X 8" X 1'-2"
⑥	PIPE SLEEVE: 2" X 5 ½" STANDARD PIPE
⑦	BEARING PLATE
⑧	BCT CABLE ASSEMBLY
⑨	CABLE ANCHOR BOX
⑩	STRUT & YOKE
⑪	STEEL PLATE BEAM, END PANEL 12 GA.
⑫	STEEL PLATE BEAM: 12 GA. 13'-6½"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

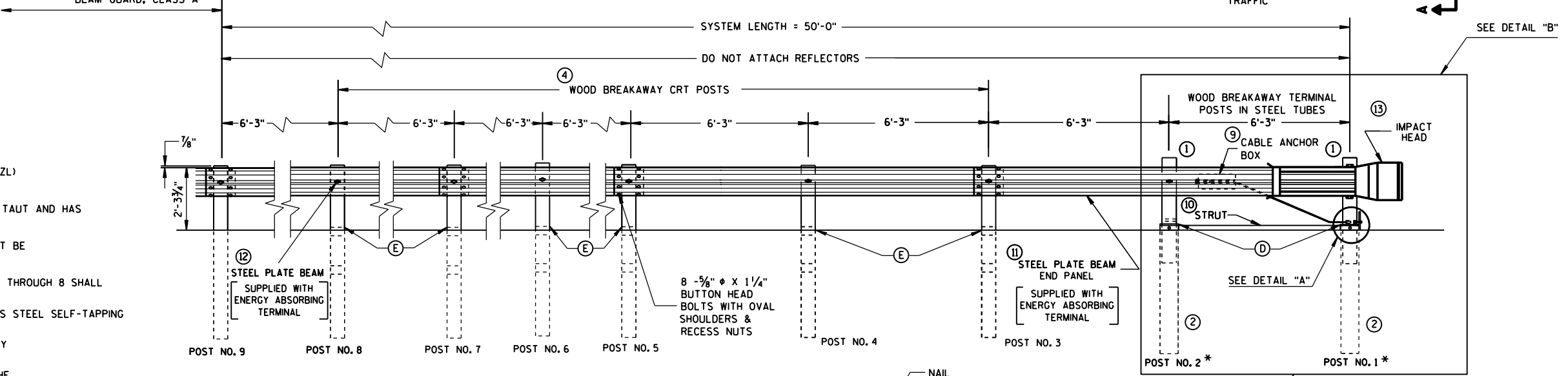
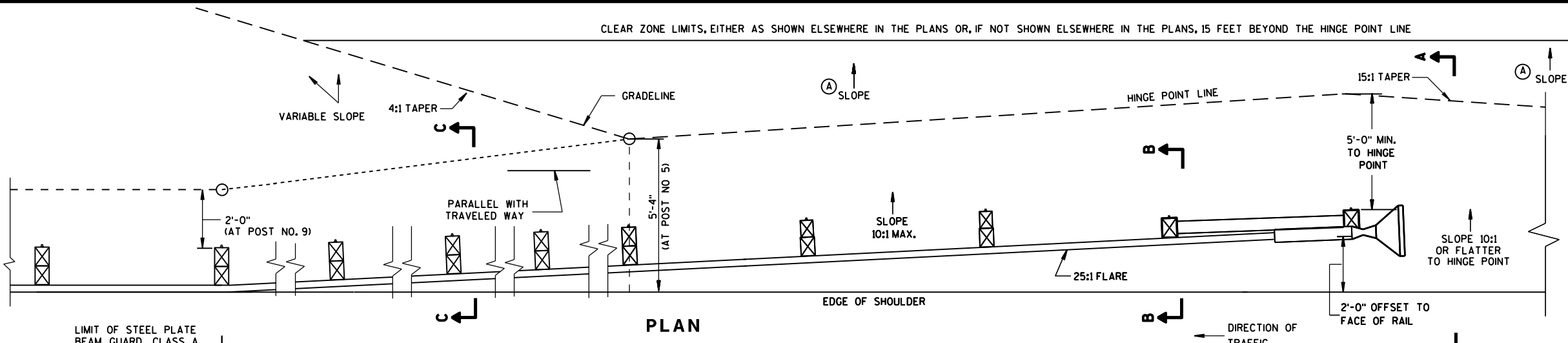
FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL), AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED.
- (D) THE TOP OF THE STEEL TUBE ON POSTS 1 AND 2 SHALL NOT BE MORE THAN 3" ABOVE THE FINISH GROUND ELEVATION.
- (E) THE CENTER OF THE UPPER ¾" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE ¾" ABOVE THE FINISHED GROUND LINE.
- (F) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF-TAPPING SCREWS, ONE SCREW PER CORNER.

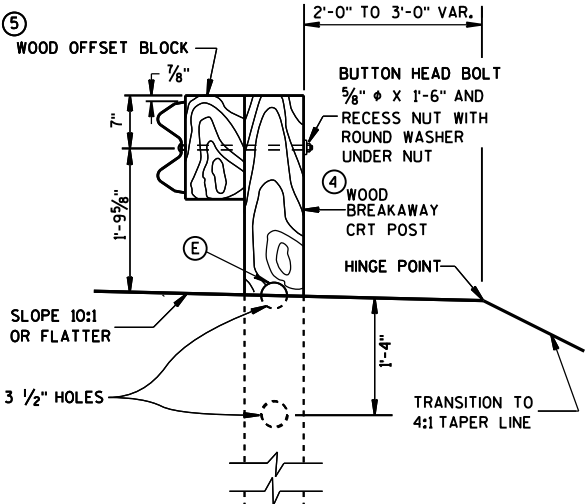
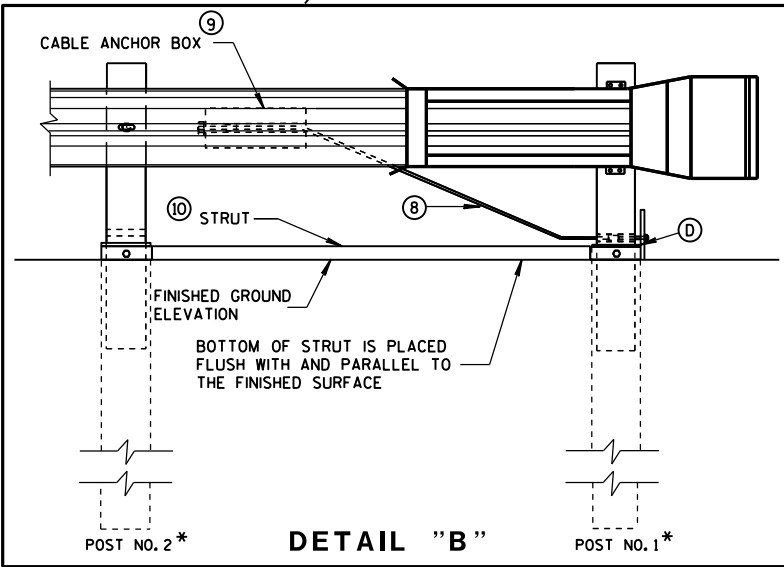
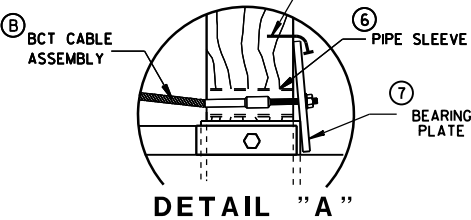
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.

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

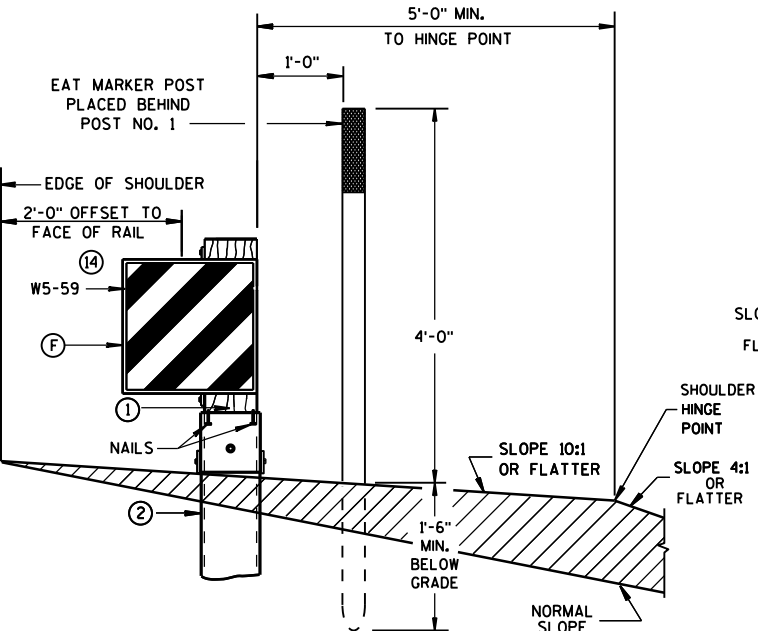
* DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.



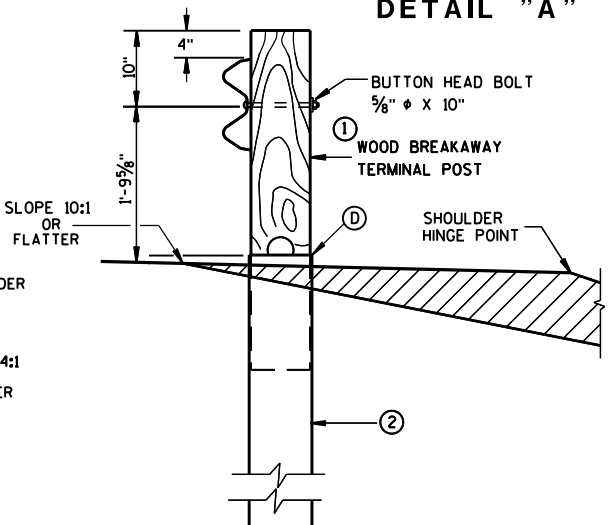
ELEVATION



SECTION C-C
TYPICAL AT POST NOS. 6, 8



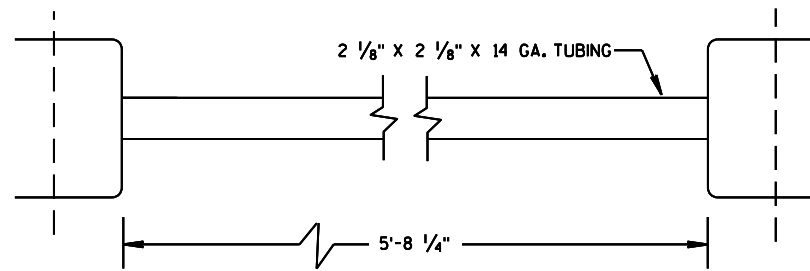
SECTION A-A
TYPICAL AT POST NO. 1*



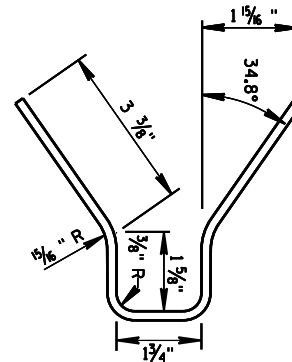
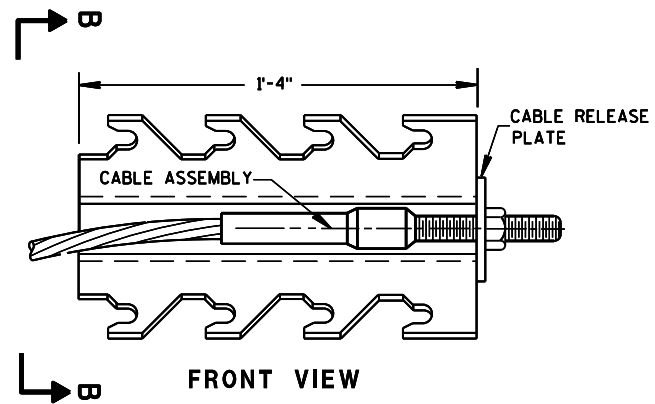
SECTION B-B
TYPICAL AT POST NO. 2*

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

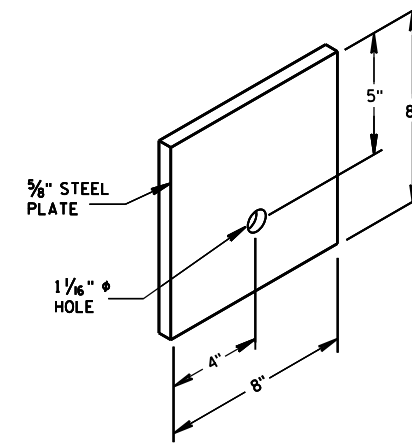
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



⑩ STRUT DETAIL



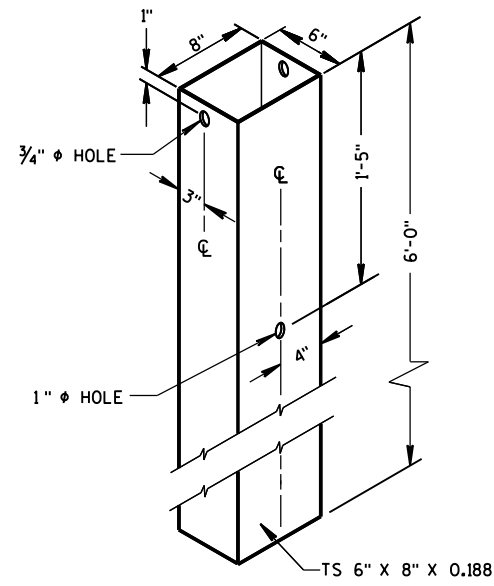
⑨ CABLE ANCHOR BOX



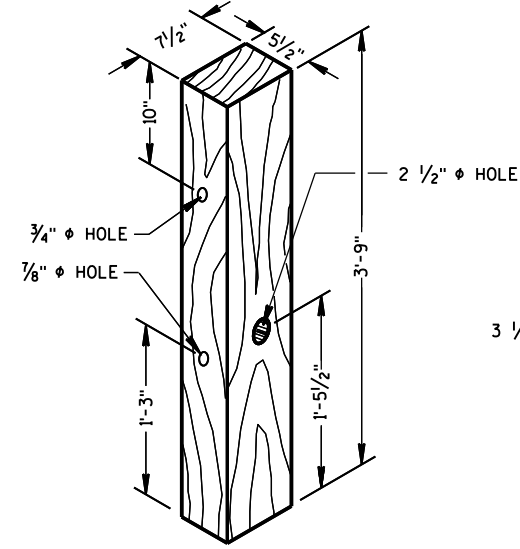
⑦ STEEL BEARING PLATE

STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL

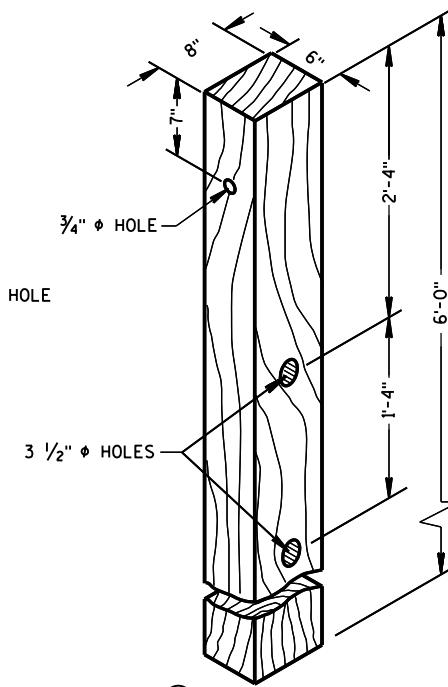
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



② **72" STEEL TUBE**
(POSTS NO. 1-2)

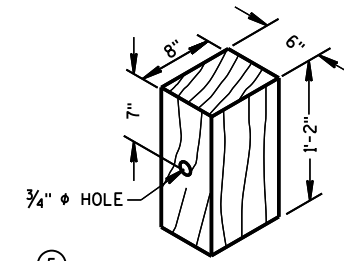


① **TERMINAL POST**



④ **CRT POST**
(POSTS NO'S 5-8)

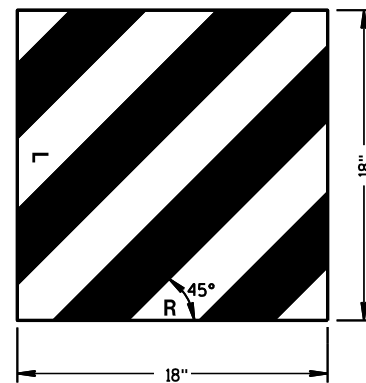
WOOD BREAKAWAY POSTS



⑤ **WOOD OFFSET BLOCK**
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2

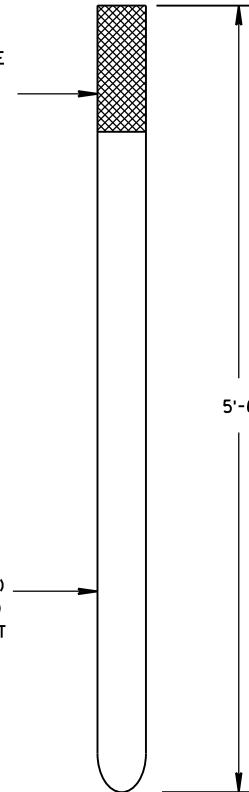
GENERAL NOTES

WHEN ROCK IS ENCOUNTERED DURING EXCAVATION, A 12 INCH DIA. POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK MAY BE USED IF APPROVED BY THE ENGINEER. GRANULAR MATERIAL SHALL BE PLACED IN THE BOTTOM OF THE HOLE APPROXIMATELY 2 1/2" INCHES DEEP TO PROVIDE DRAINAGE. THE SOIL TUBES SHALL BE FIELD CUT TO LENGTH, PLACED IN THE HOLE AND BACKFILLED WITH ADEQUATELY COMPACTED MATERIAL EXCAVATED FROM THE HOLE.



⑭ **REFLECTIVE SHEETING DETAILS**

TYPE H
YELLOW REFLECTIVE
SHEETING 3" X 9".
SEE STANDARD
SPECIFICATION 637.



FRONT VIEW



SIDE VIEW

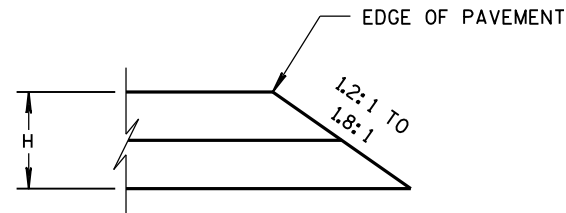
E.A.T. MARKER POST

E.A.T. MARKER
POST (YELLOW)
SEE APPROVED
PRODUCTS LIST

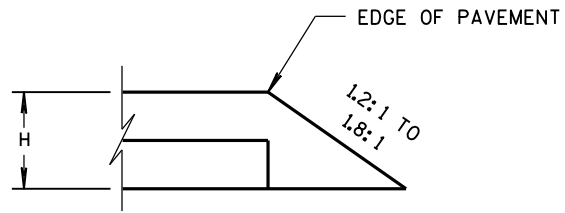
**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

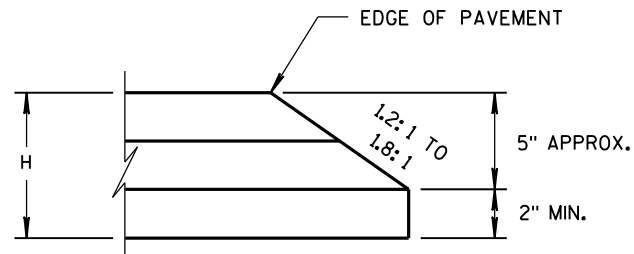
APPROVED
June 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS 92 ENT
FHWA UNIT SUPERVISOR



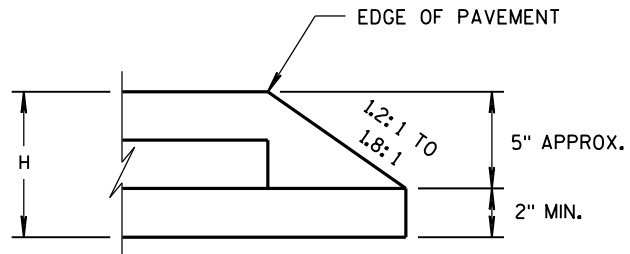
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

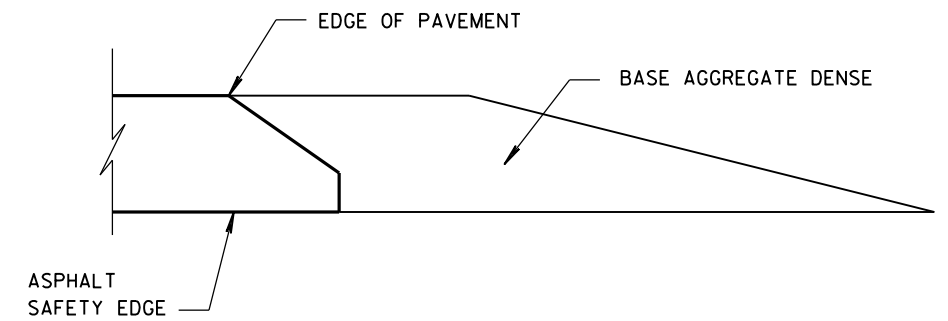


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE_{SM}

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

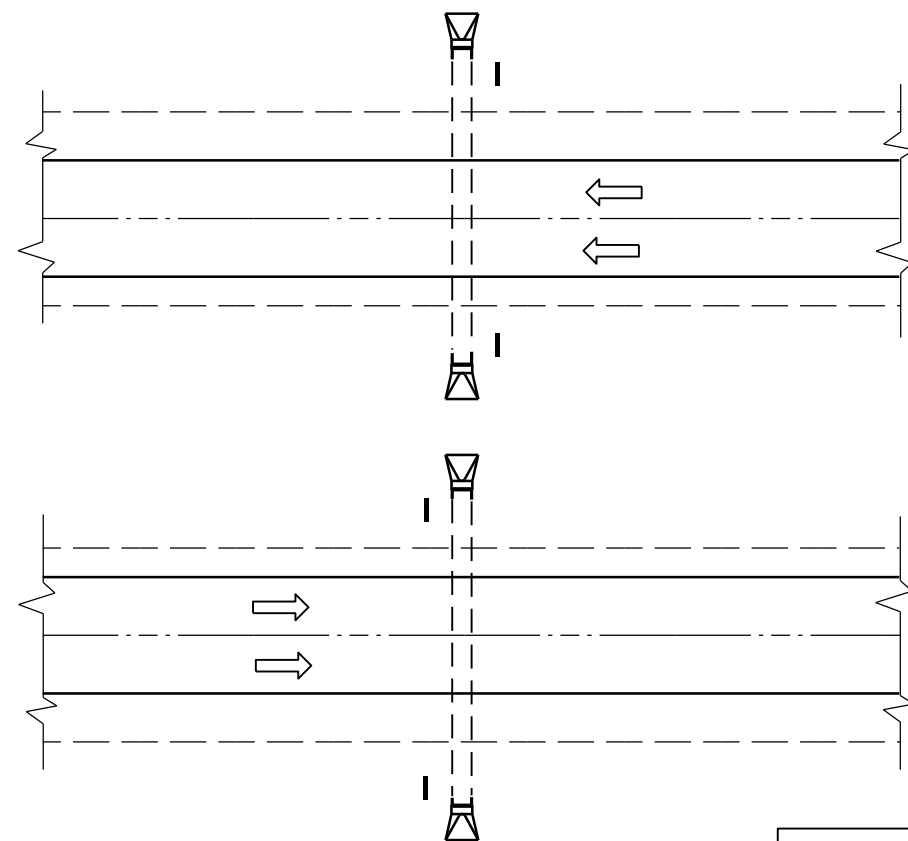
APPROVED

11/30/2012
DATE

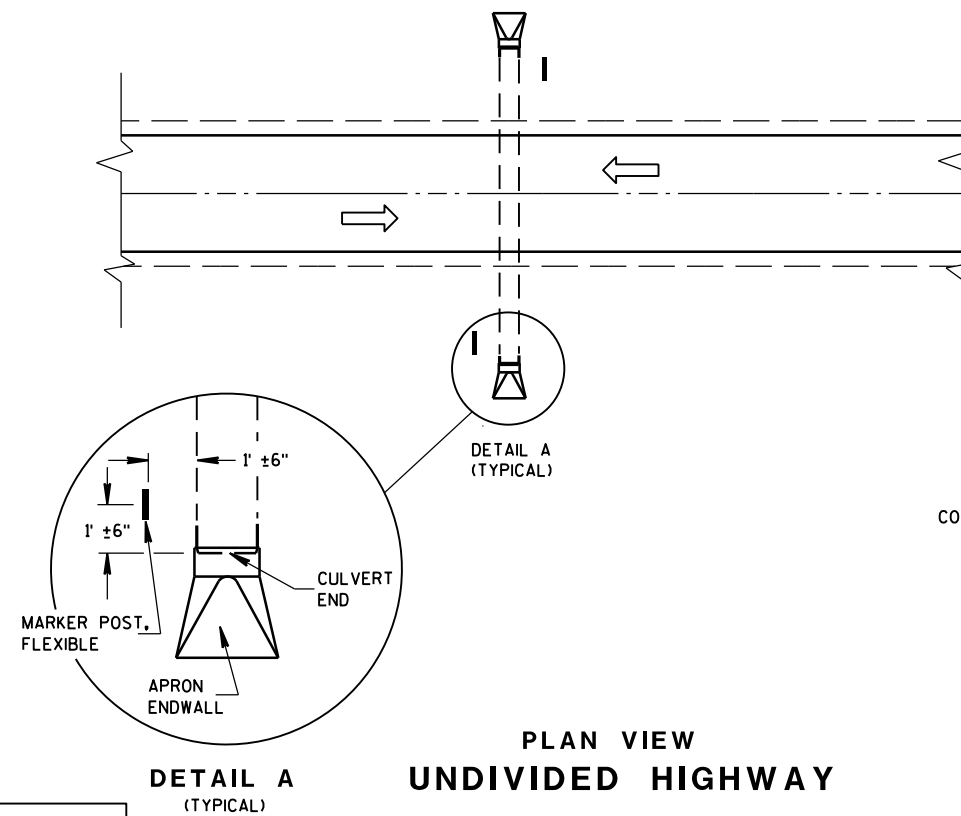
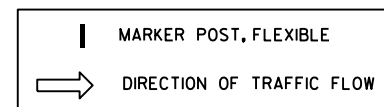
FHWA

/s/ Jerry H. Zoaga
ROADWAY STANDARDS
ENGINEER

ENT



PLAN VIEW
DIVIDED HIGHWAY

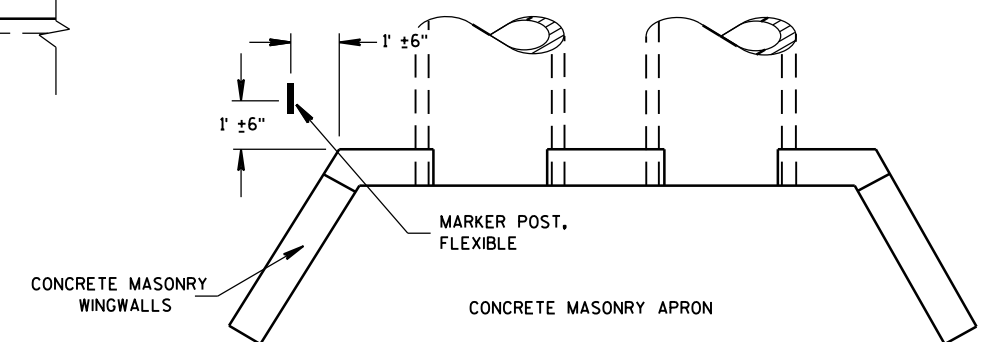


PLAN VIEW
UNDIVIDED HIGHWAY

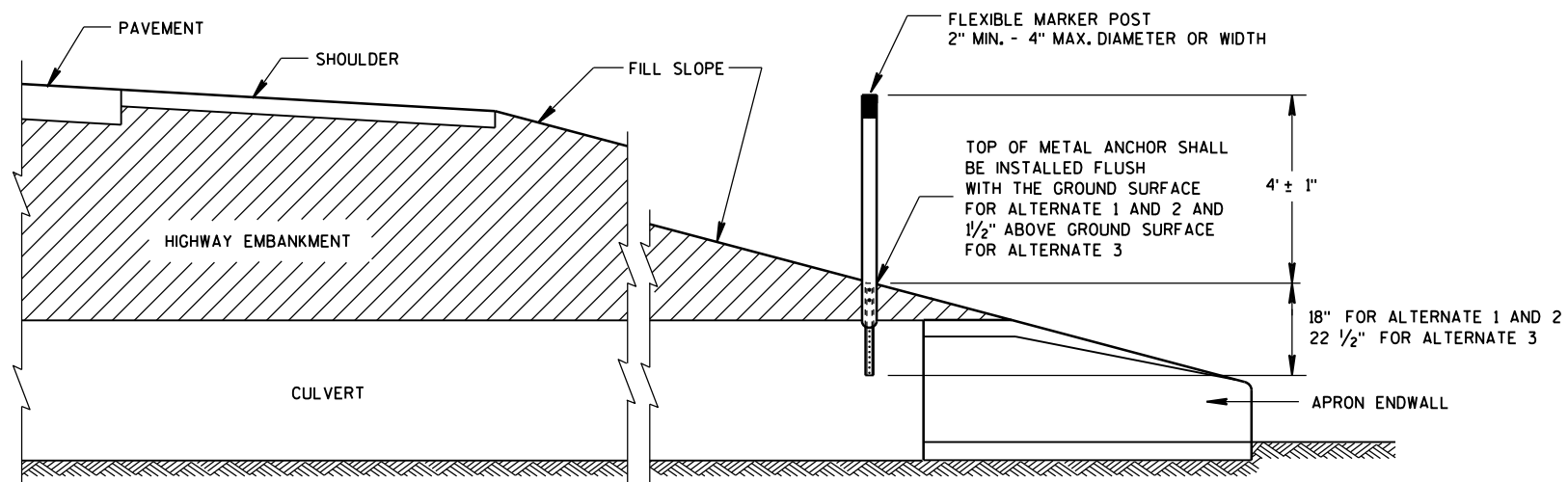
FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

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



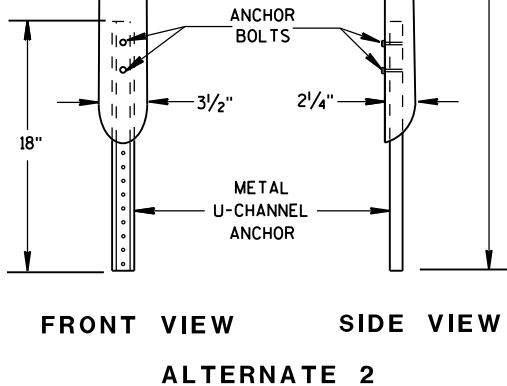
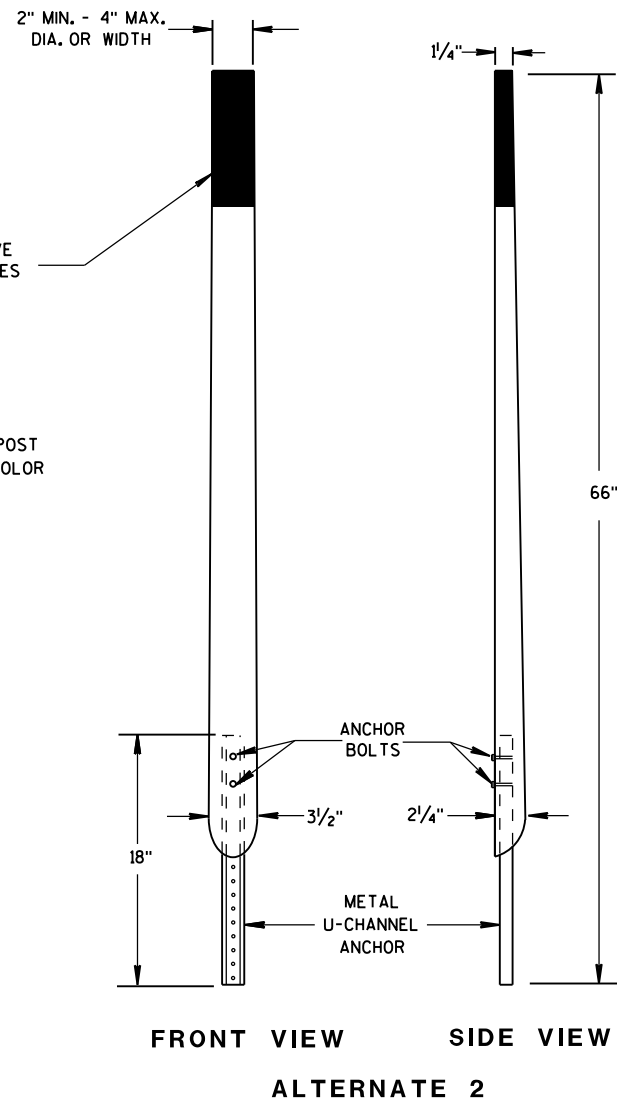
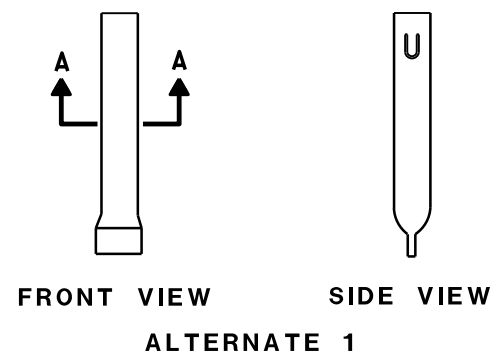
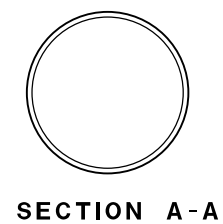
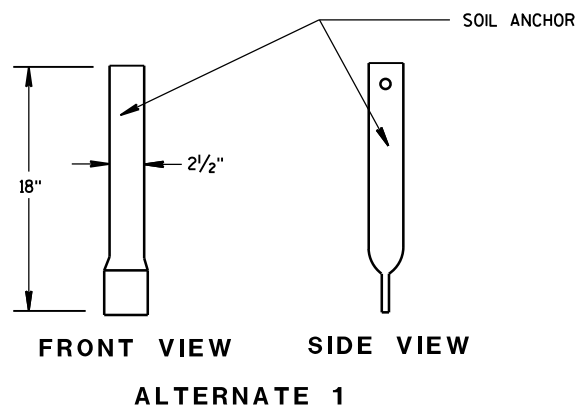
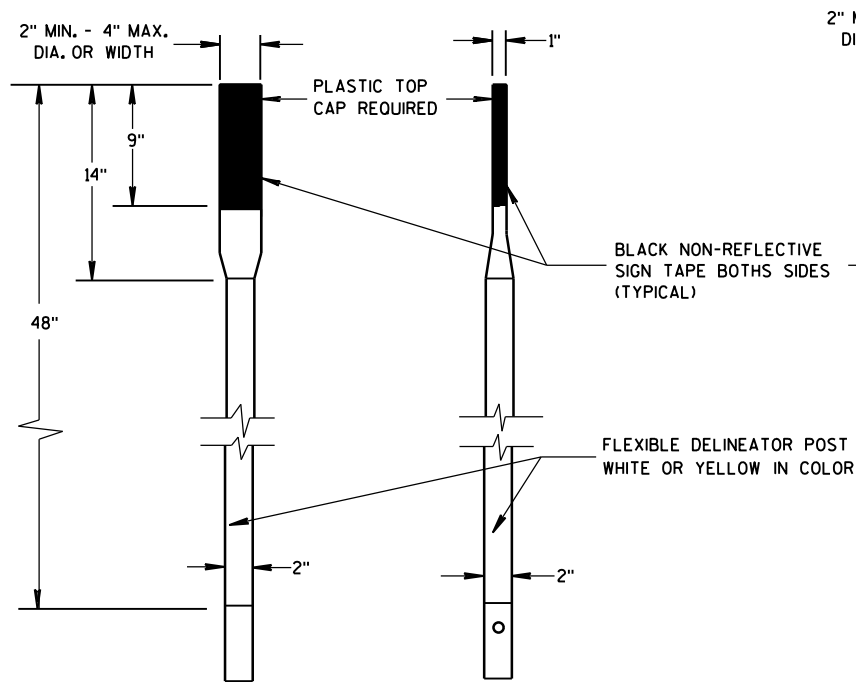
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



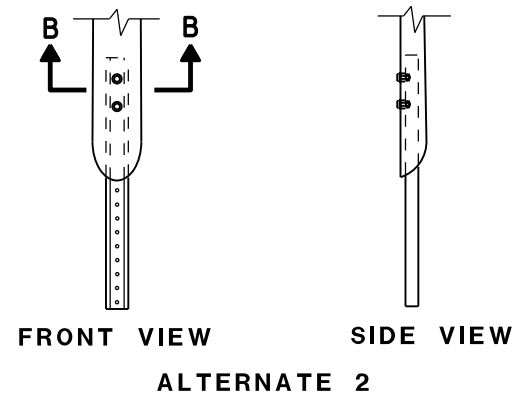
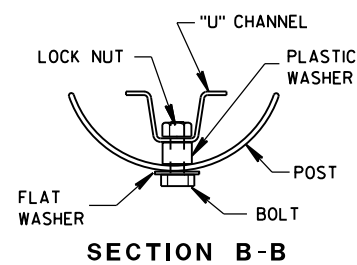
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

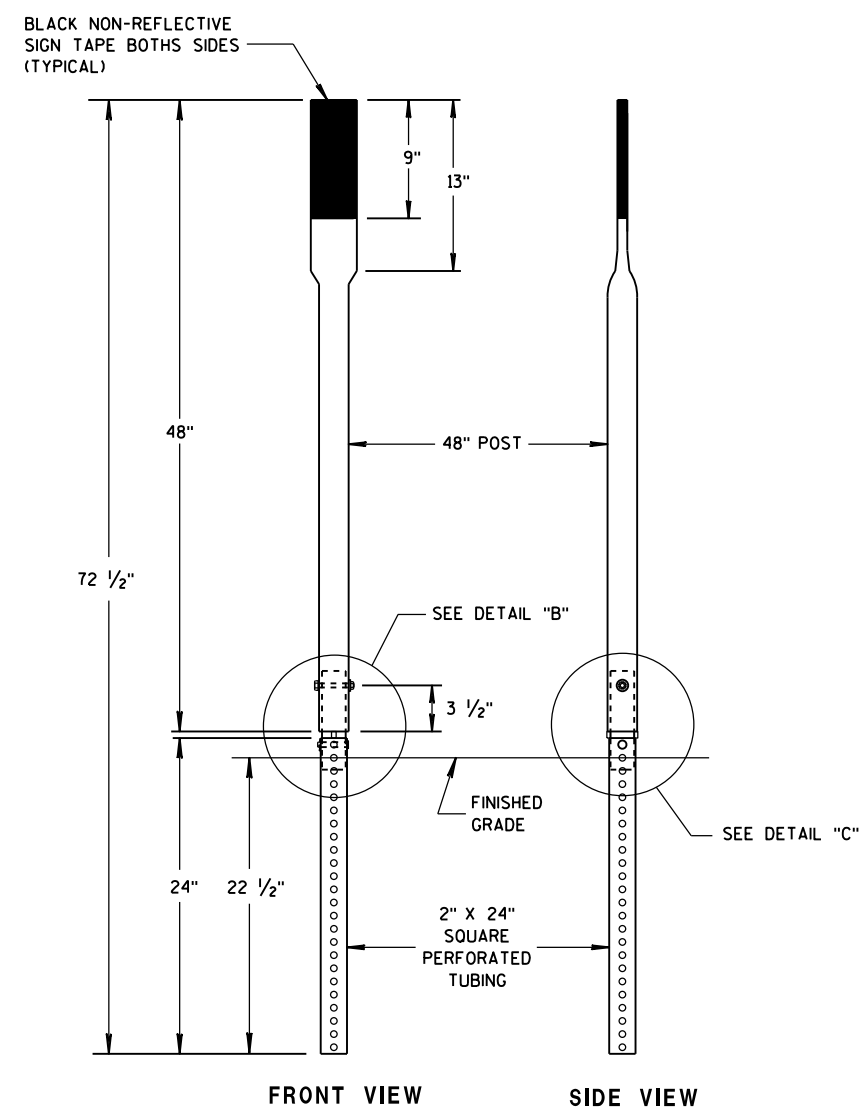
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



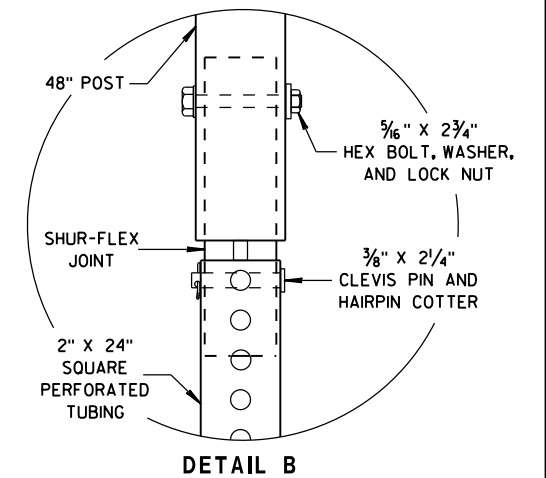
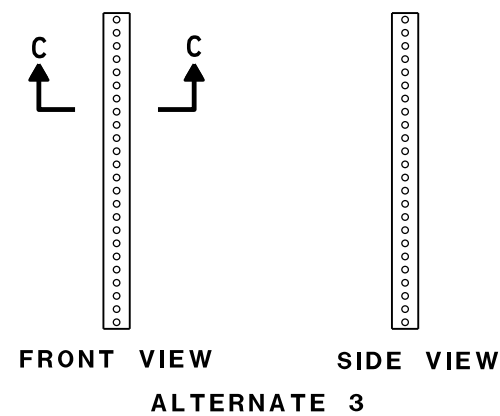
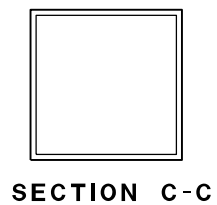
FLEXIBLE MARKER POSTS



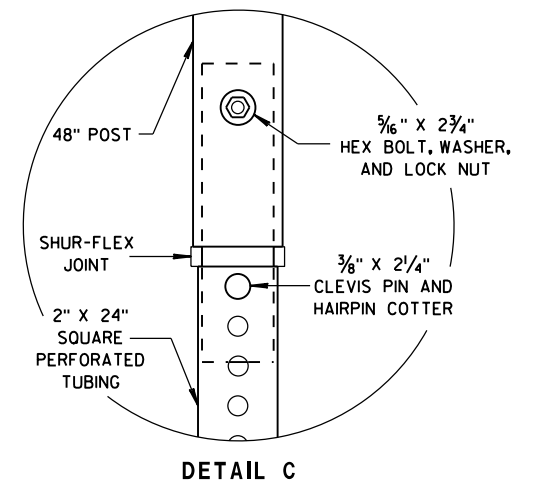
FLEXIBLE MARKER POST ANCHORS



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B



DETAIL C

FLEXIBLE MARKER POST FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

10/1/2012
DATE

FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER 95 IGN



SEE SDD 15C2 - SHEET "a" FOR LEGEND

THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND BARRICADES 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.

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.

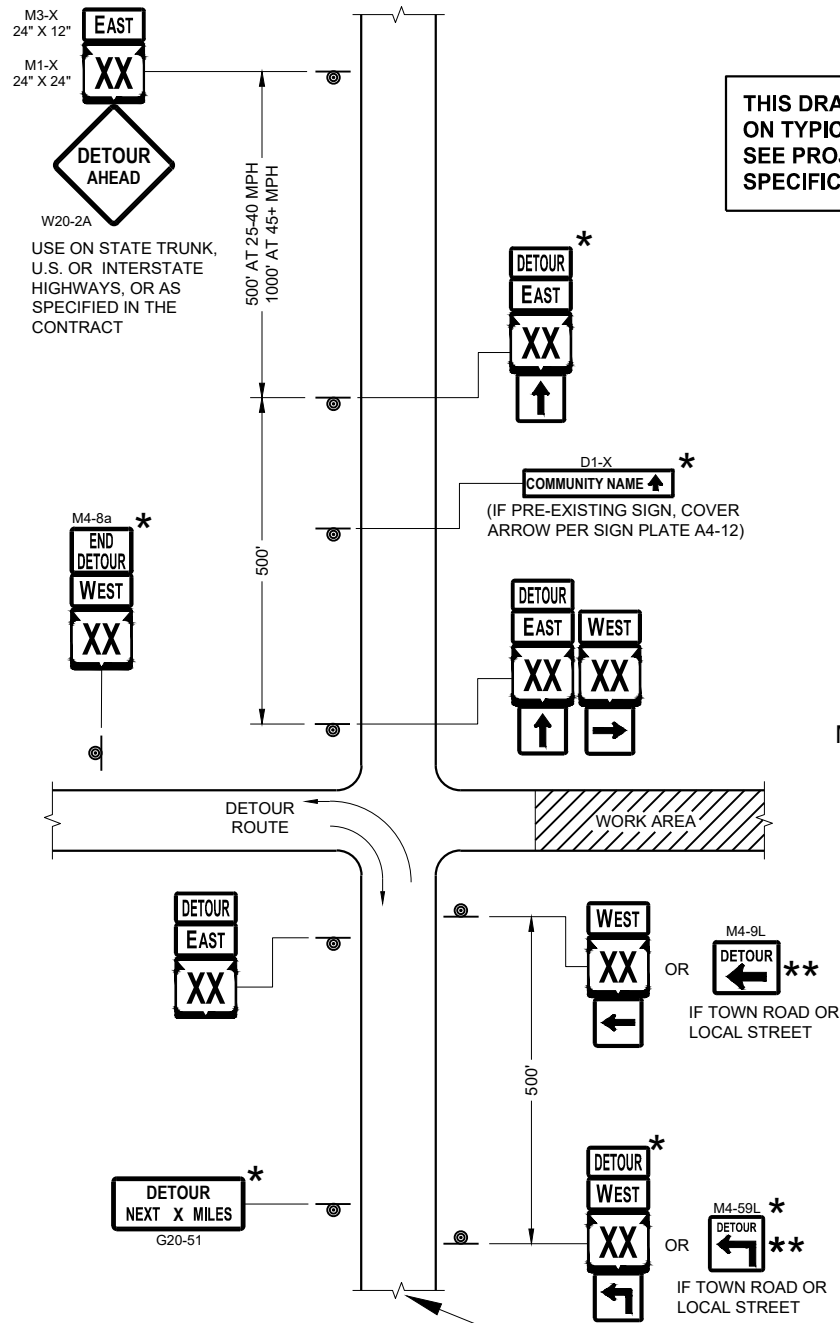
THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

"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 SHALL, 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" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
R1 - 1 SHALL BE 36" X 36"

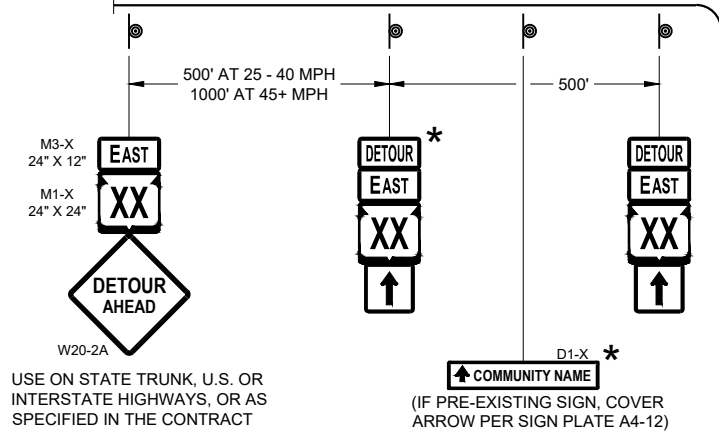
- ① TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- ② THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN 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 ROAD 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.



SEE SPECIFIC PROJECT DETOUR
SIGNING DETAIL SHEETS AND
DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

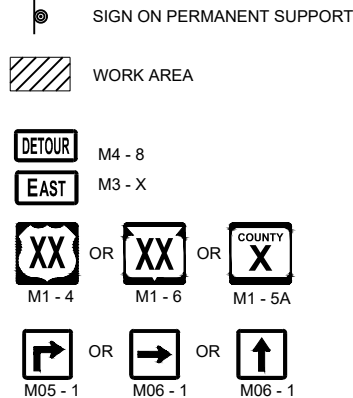
THIS DRAWING PROVIDES GENERAL GUIDANCE
ON TYPICAL DETOUR SIGN LAYOUT AND SPACING.
SEE PROJECT DETOUR SIGNING SHEETS FOR
SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT



DETAIL F
DETOUR SIGNING

LEGEND



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.

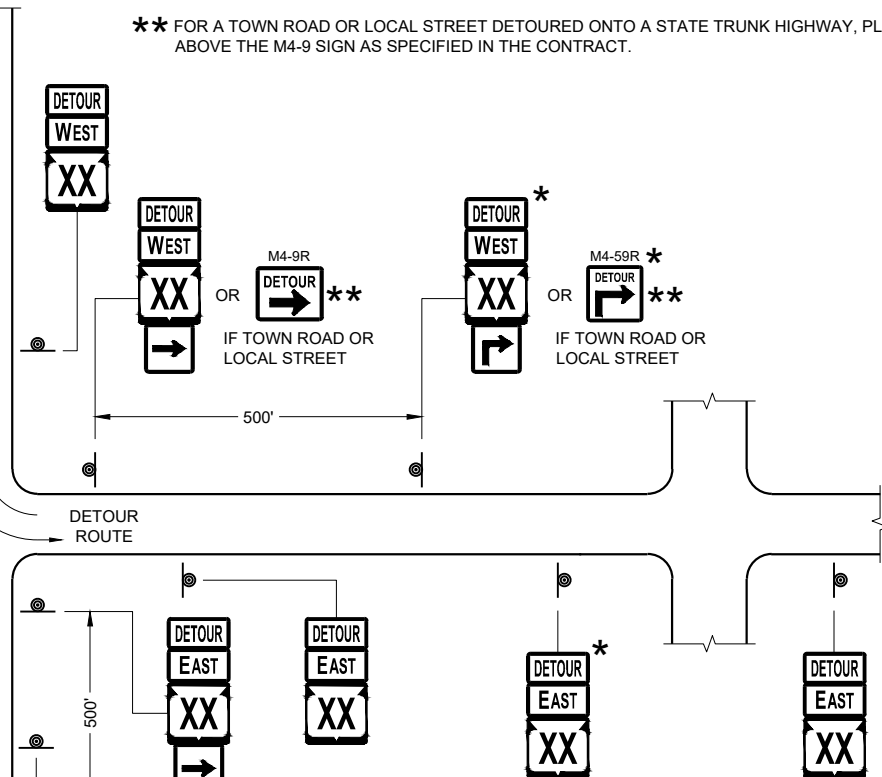
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (30" X 30" 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 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A 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.

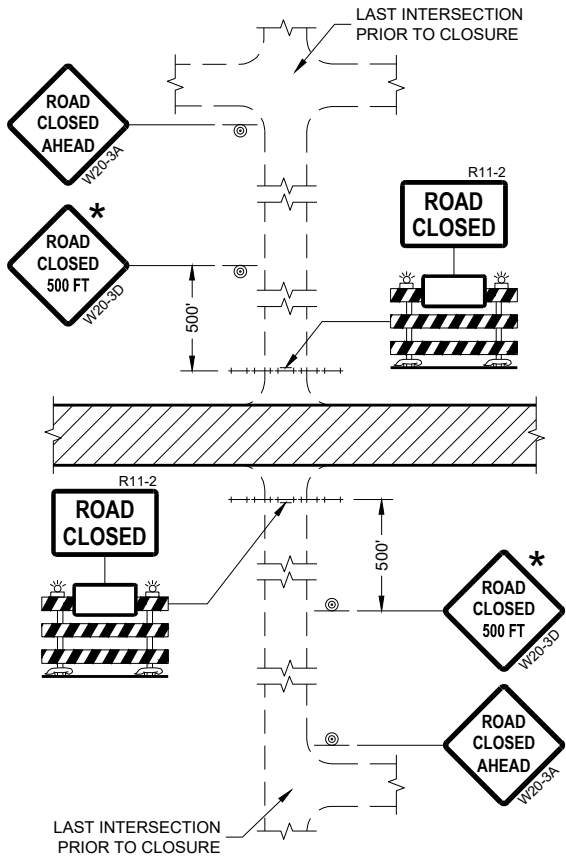


PLACE SIGNS BEYOND INTERSECTIONS
WITH STATE OR COUNTY TRUNK
HIGHWAYS OR AT 4 MILE MAXIMUM
SPACING (4 BLOCKS IF URBAN AREA)

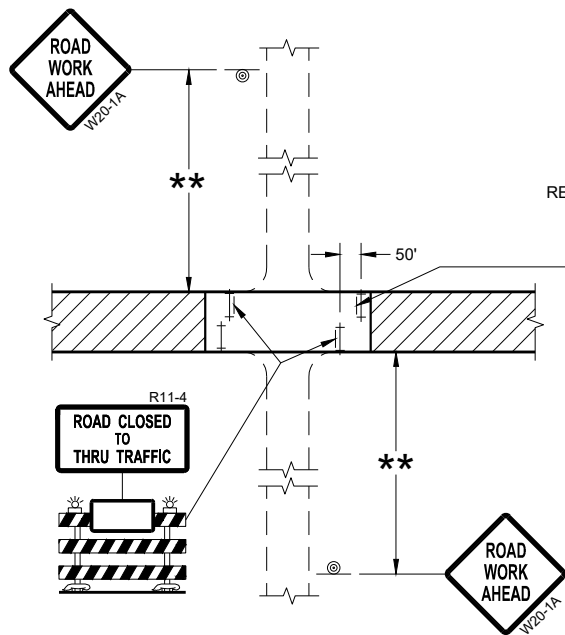
DETOUR SIGNING
FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

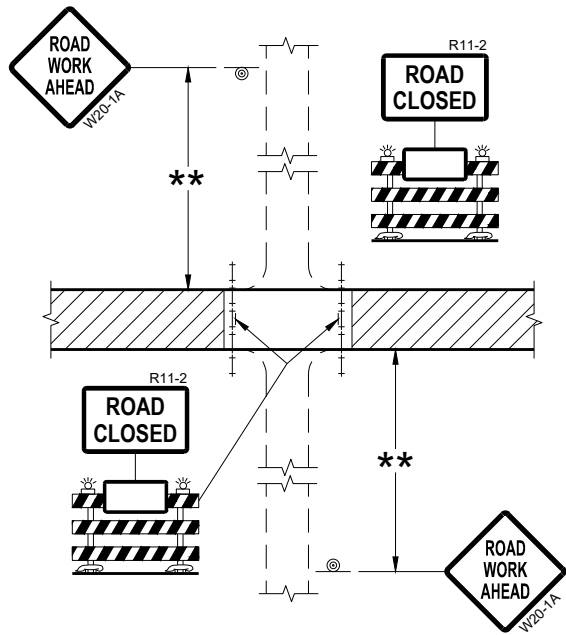
APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 98
FHWA



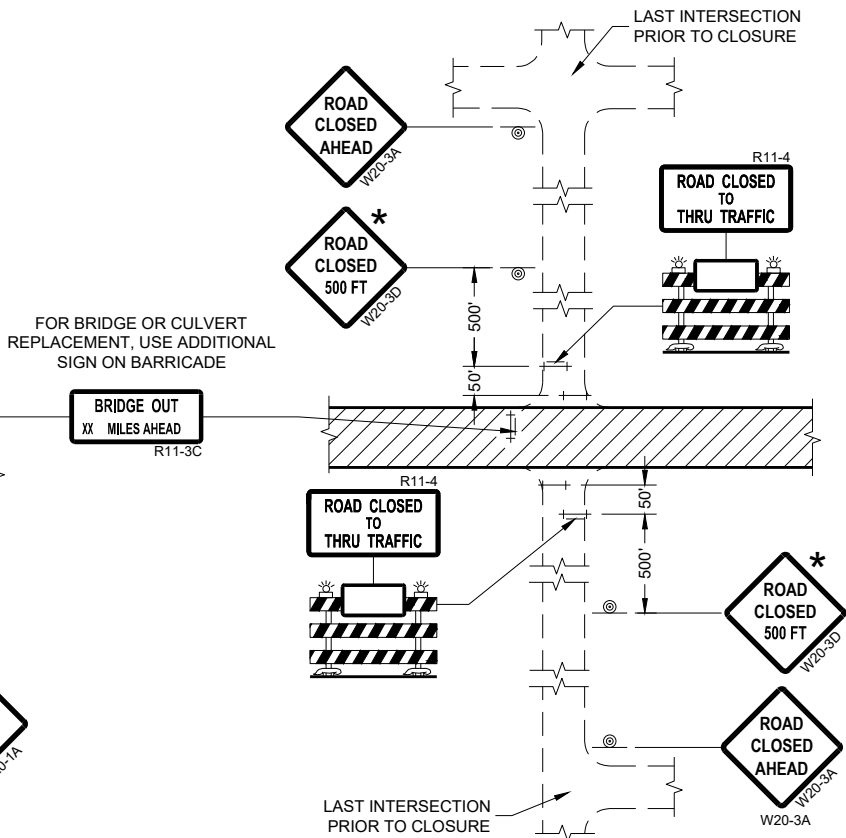
DETAIL 1
(NO ACCESS TO PROJECT)



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)



DETAIL 2
(PUBLIC CROSS-TRAFFIC MAINTAINED.
NO ACCESS TO PROJECT)



DETAIL 4
(CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS TO PROJECT)

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

- * OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.
- ** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.

LEGEND

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

**BARRICADES AND SIGNS
FOR
SIDEROAD CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 99

FHWA

GENERAL NOTES

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

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

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

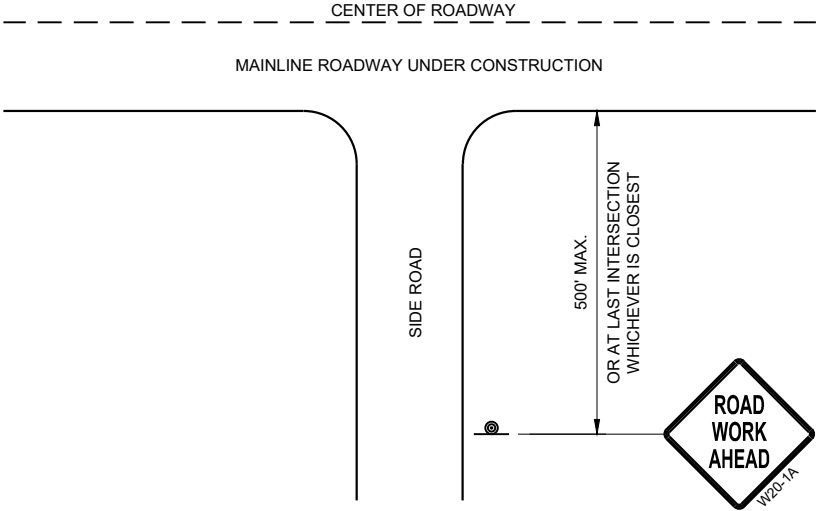
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

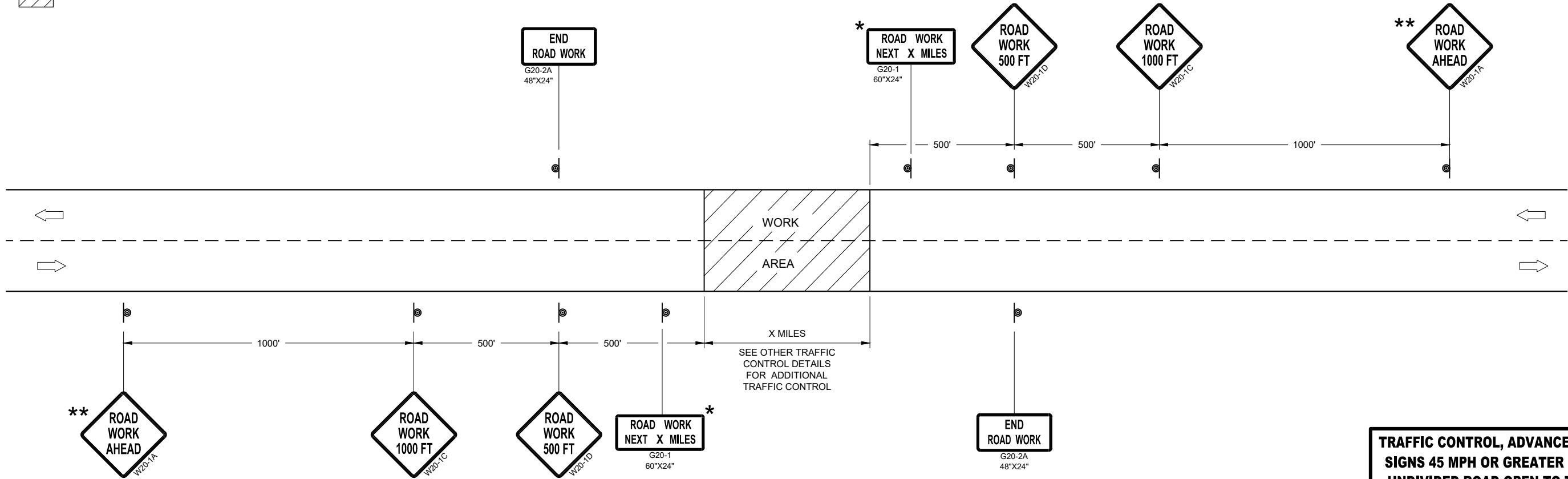
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 45 MPH OR GREATER TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 100
FHWA

GENERAL NOTES

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

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

ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 36"X36" SIGNS MAY BE USED INSTEAD OF 48" X 48" SIGNS.

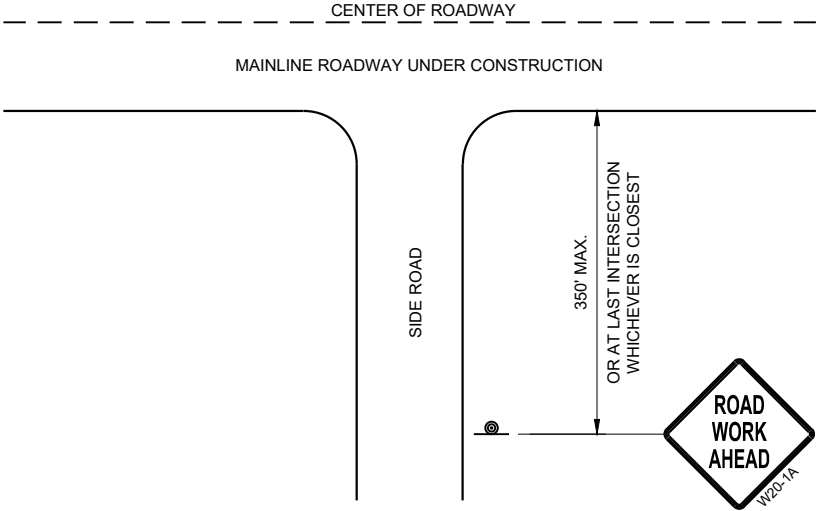
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

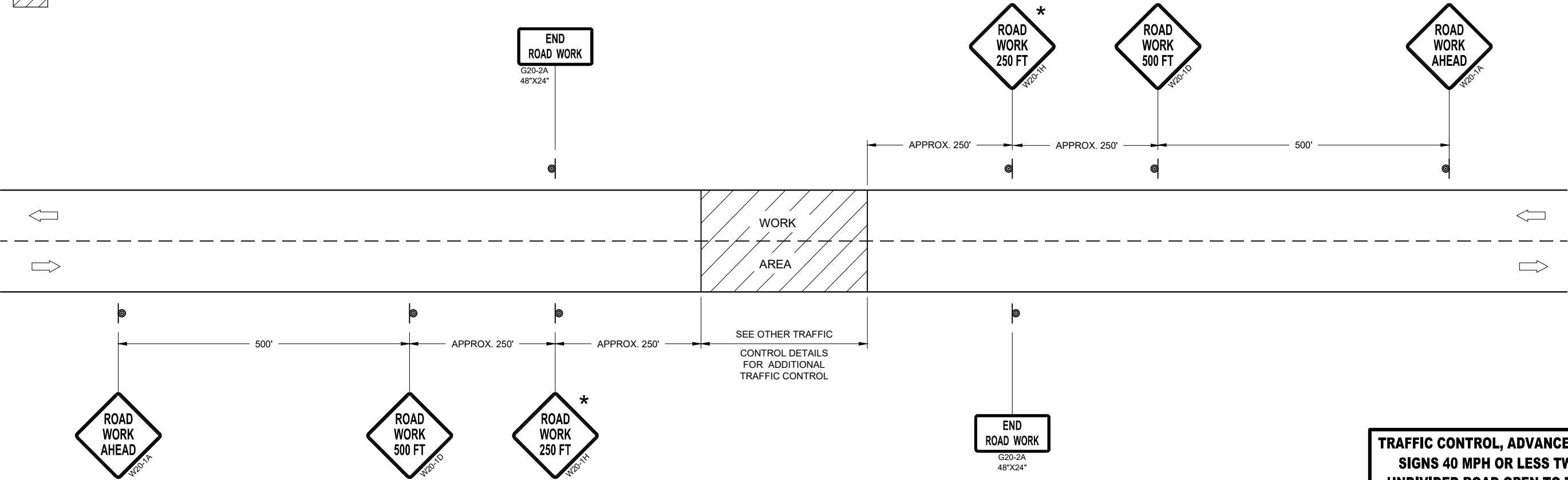
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL



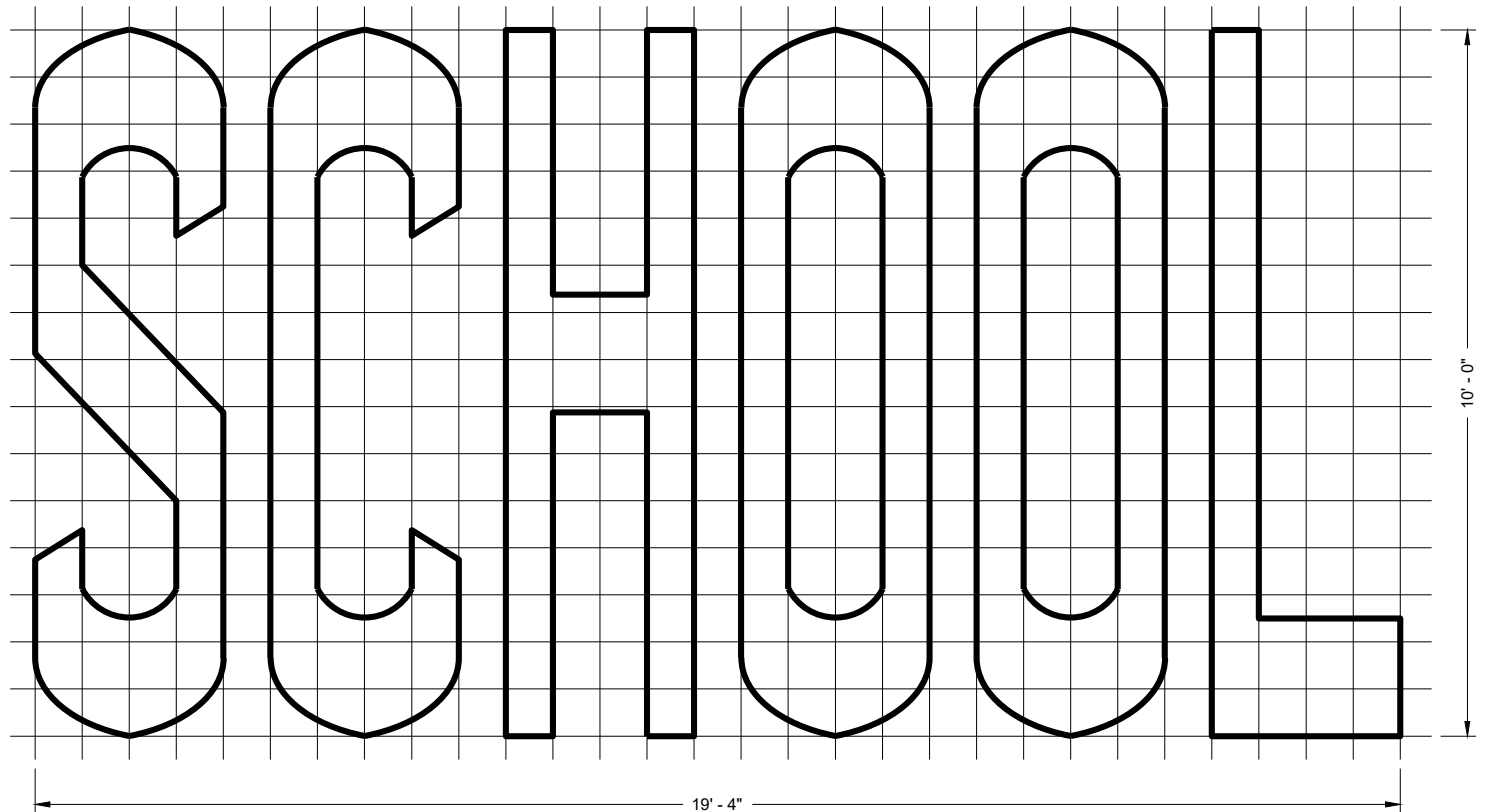
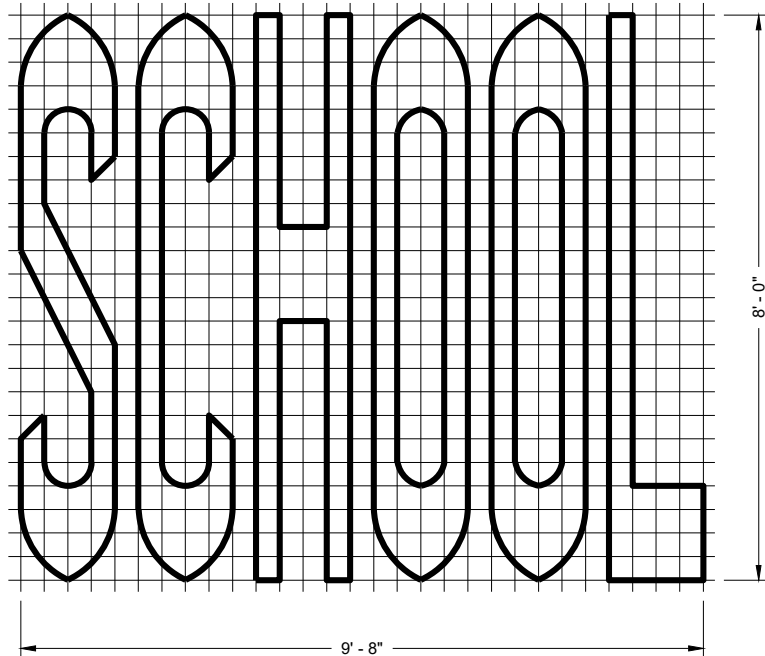
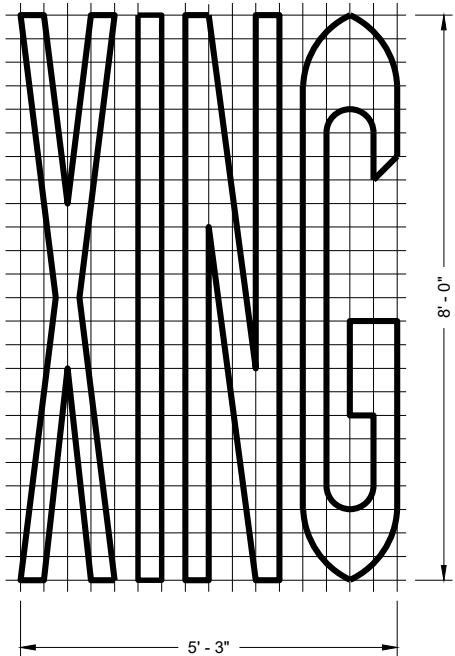
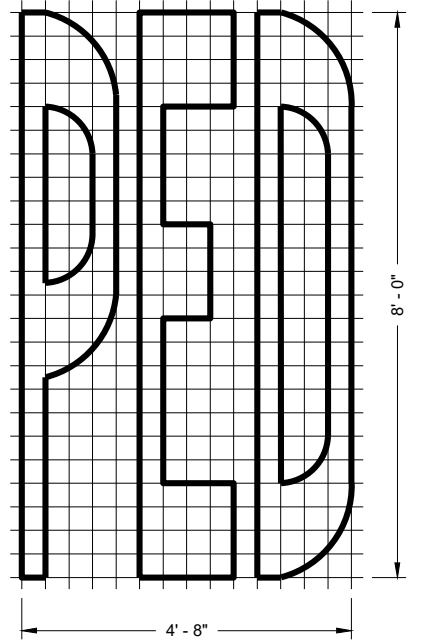
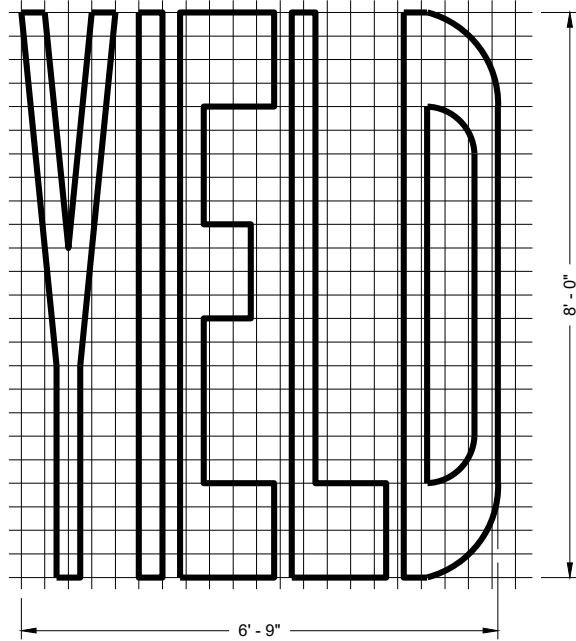
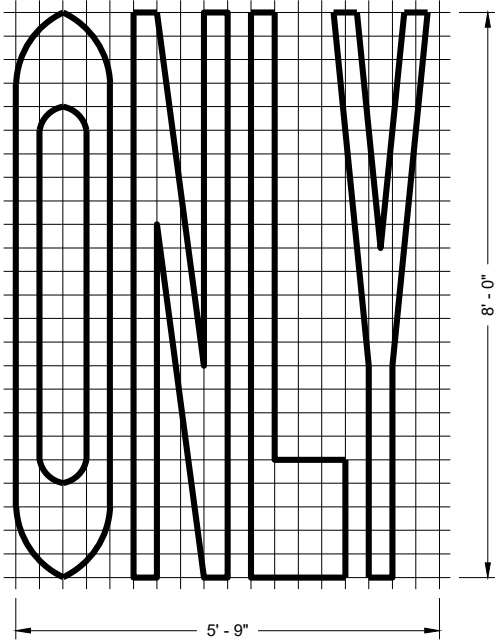
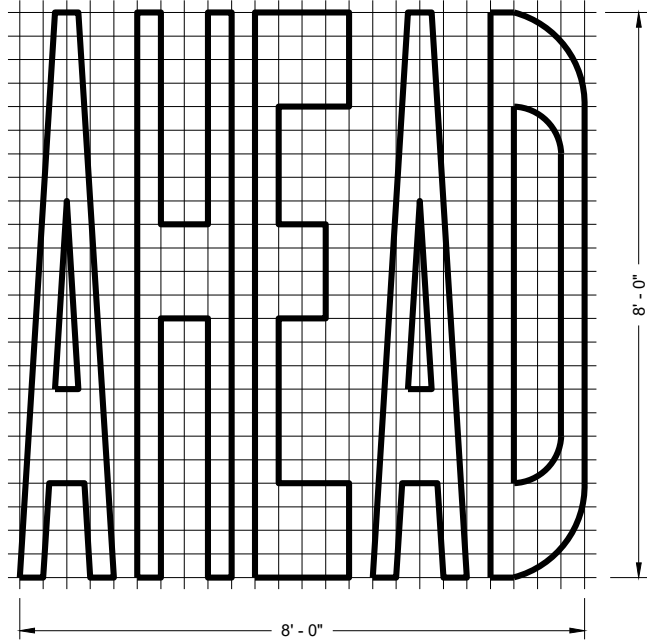
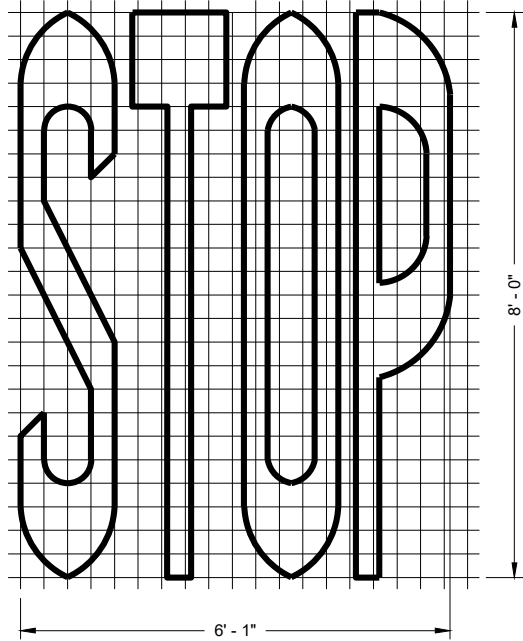
TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

TRAFFIC CONTROL, ADVANCE WARNING
SIGNS 40 MPH OR LESS TWO-WAY
UNDIVIDED ROAD OPEN TO TRAFFICE

STATE OF WISCONSIN
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APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 101

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SINGLE LANE

TWO - LANE

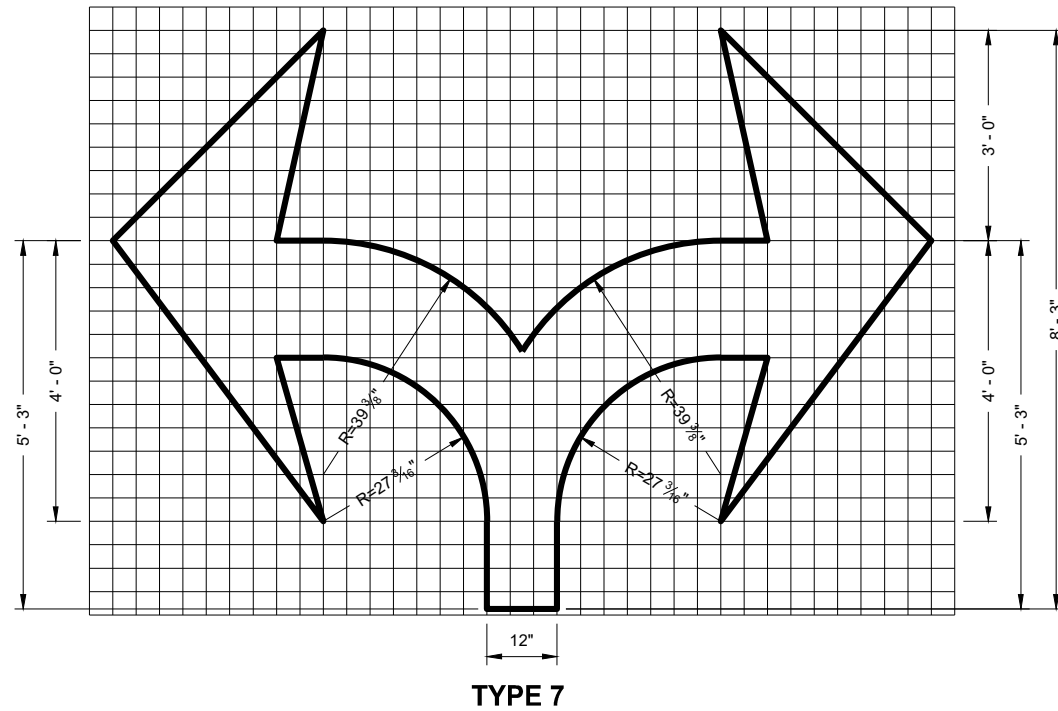
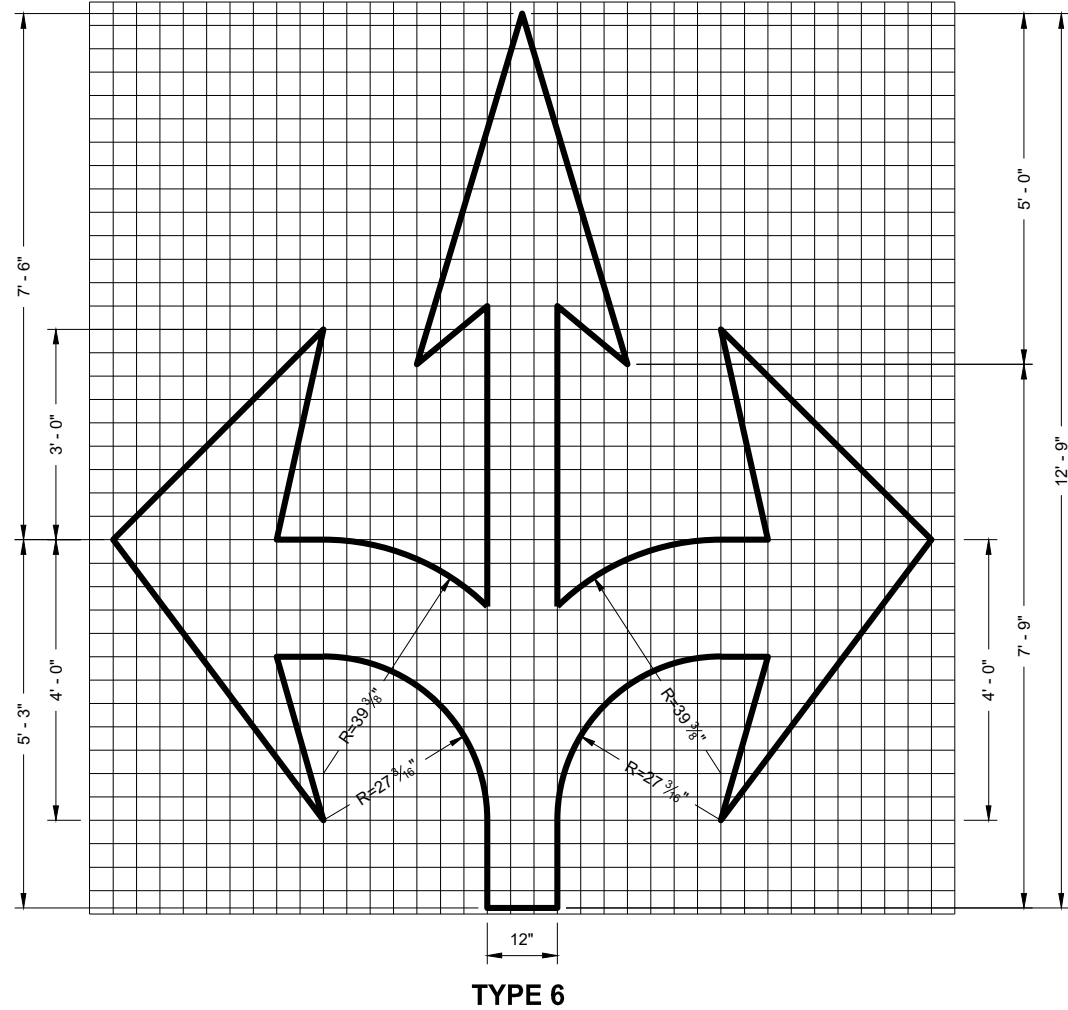
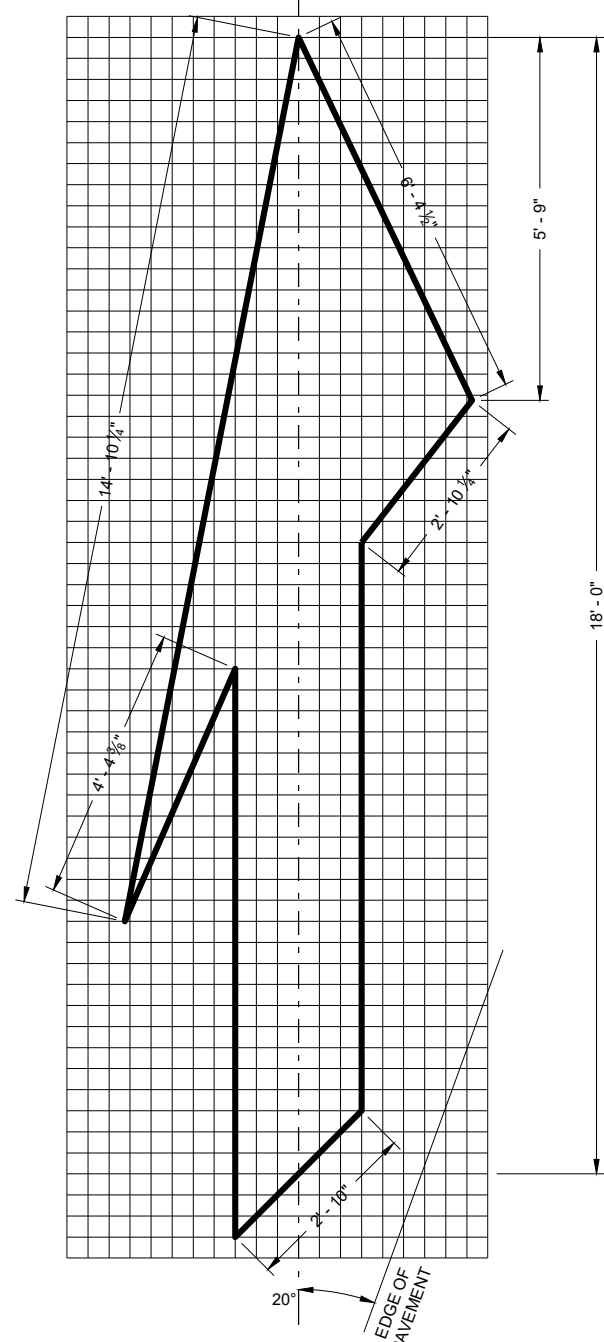
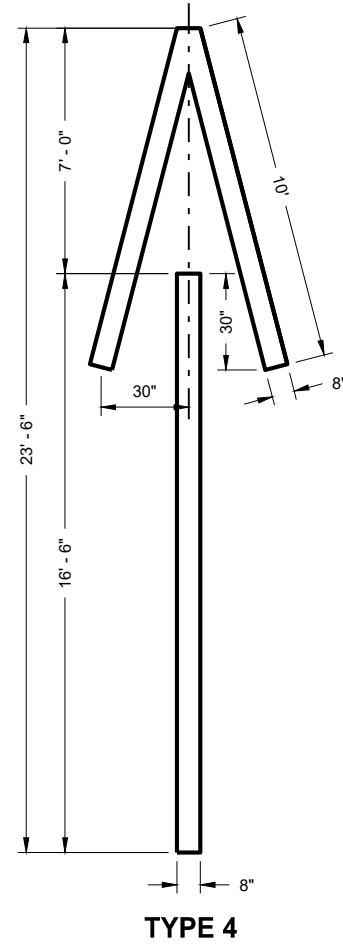
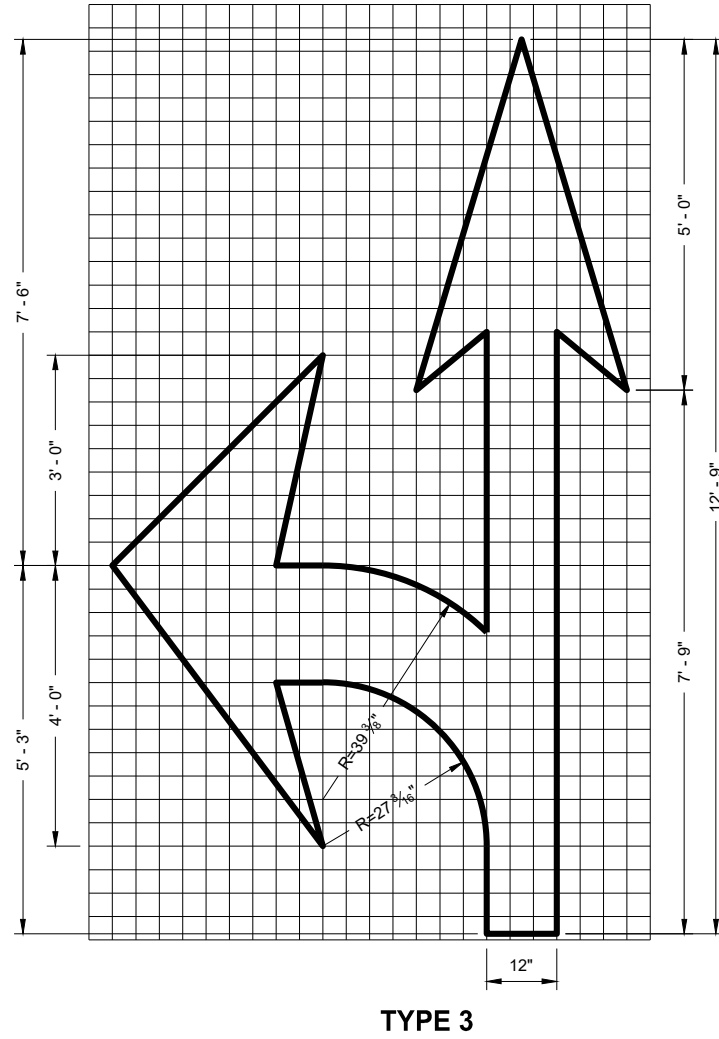
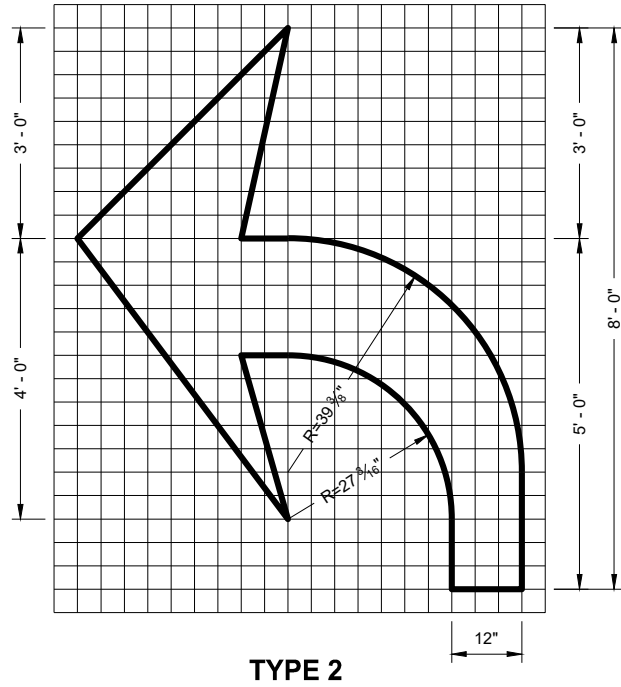
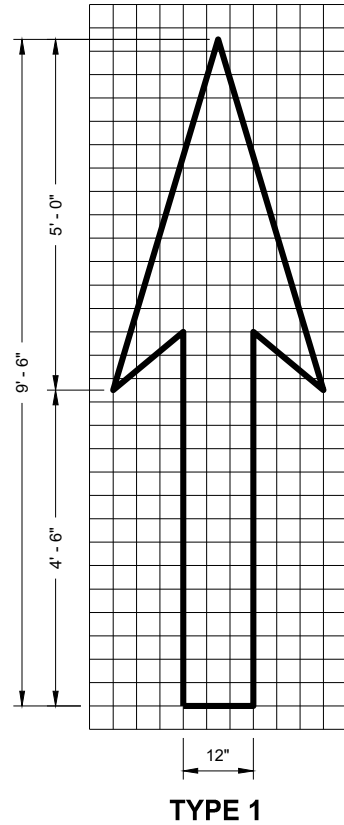
GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 102
FHWA



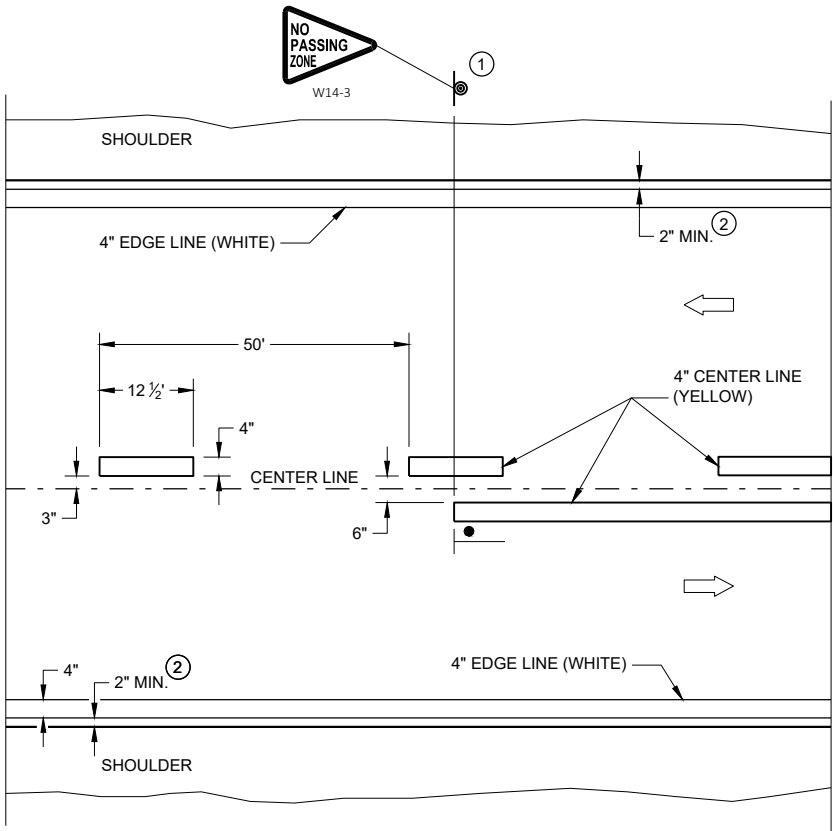
GENERAL NOTES

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

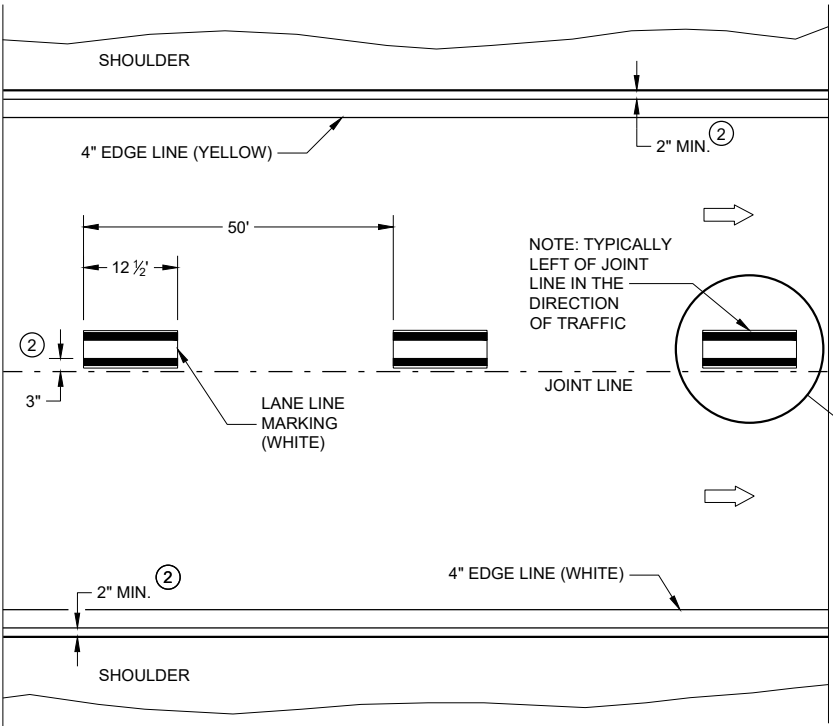
PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE
/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER 103
FHWA

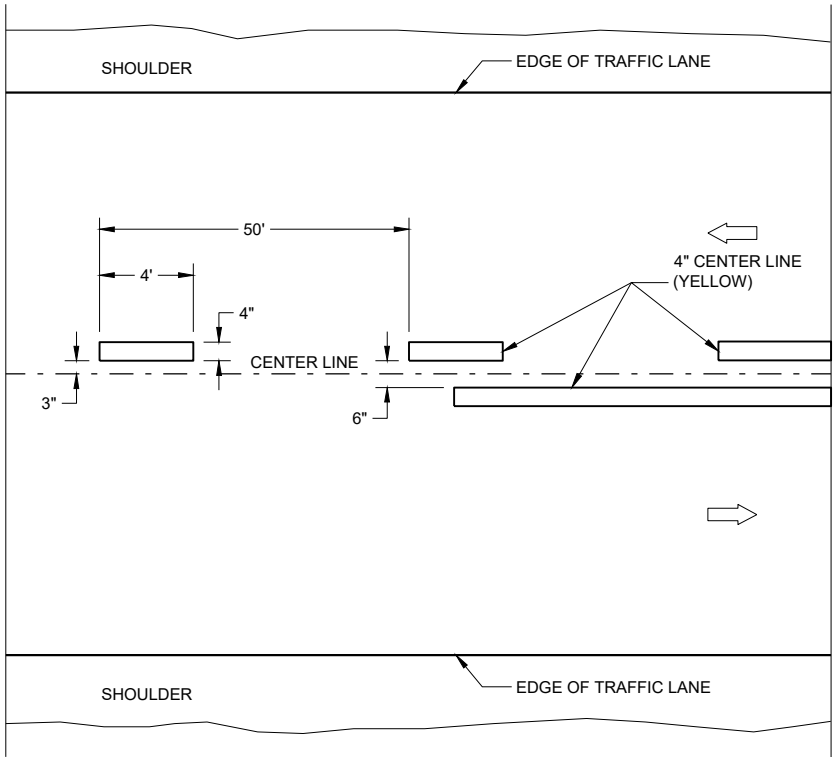


TWO WAY TRAFFIC

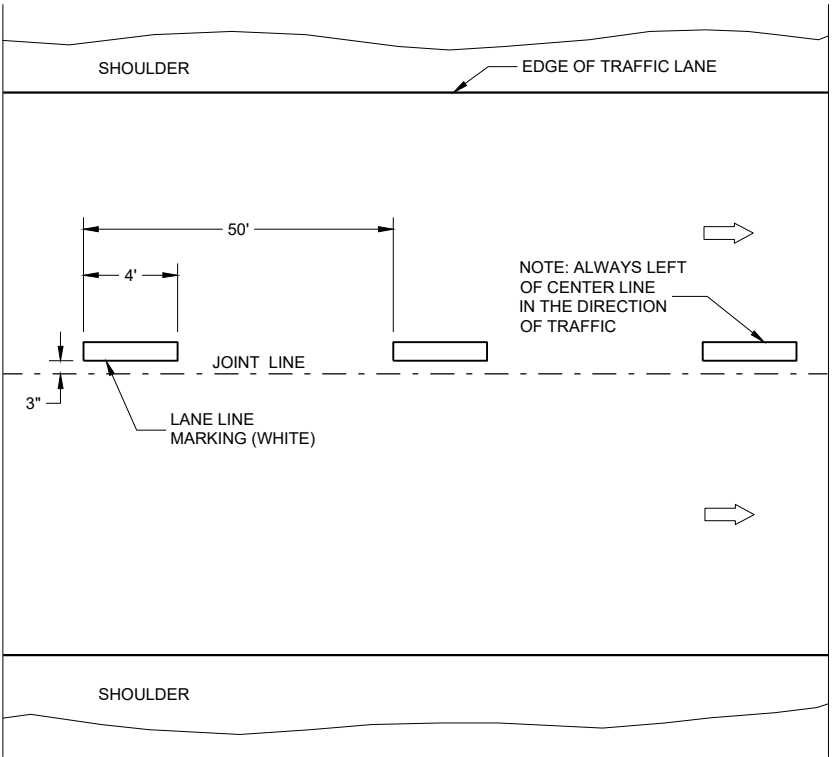


ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

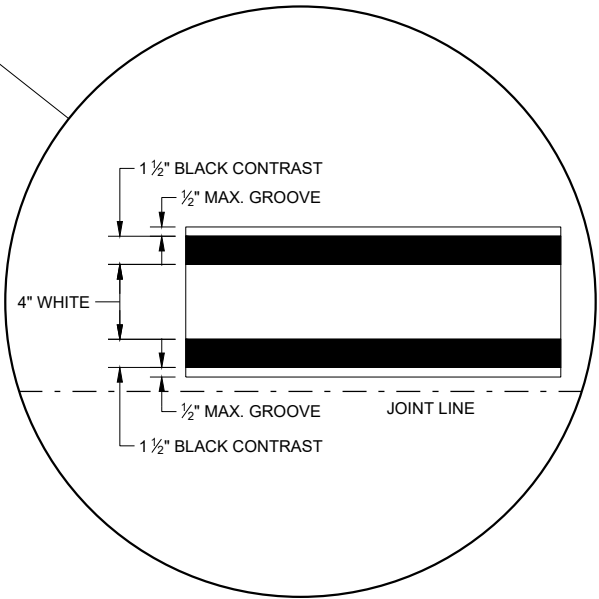
GENERAL NOTES

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 WITH 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

- "T" MARKING
- SIGN ON PERMANENT SUPPORT
- DIRECTION OF TRAFFIC



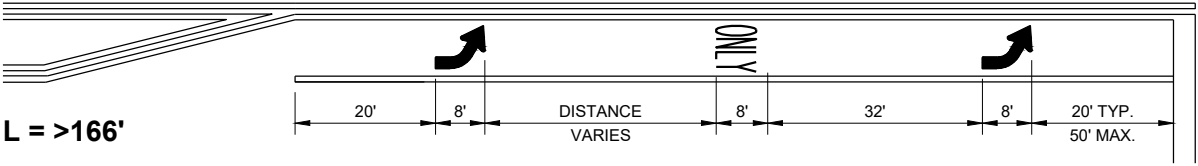
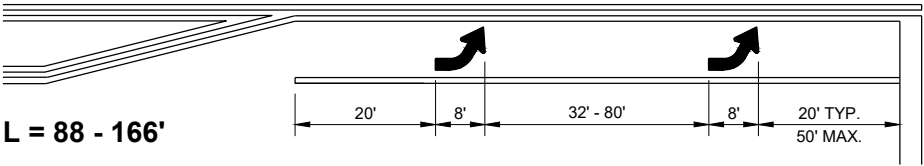
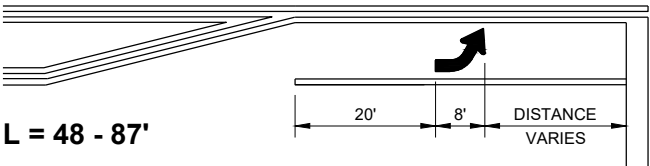
LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Matthew Rauch
DATE STATEWIDE SIGNING AND MARKING ENGINEER 104
FHWA

TURN LANE OPTIONS

LENGTH OF TURN BAY (L) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



*(SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

GENERAL NOTES

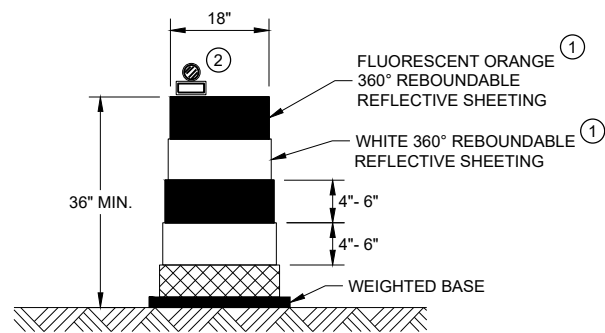
- ① 8" WHITE
- ② QUANTITY AND LOCATION OF TYPE 3 ARROWS ARE THE SAME AS THE TYPE II ARROWS IN THE ADJACENT TURN LANE. FOR TURN LANES WITH A PHYSICAL SEPARATION IN THE SAME DIRECTION OF TRAVEL, THE ARROWS AND "ONLY" MARKING MAY BE ELIMINATED.

➡ DIRECTION OF TRAFFIC

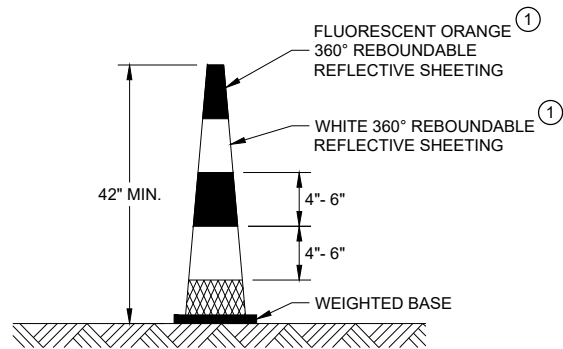
L = LENGTH OF TURN BAY

PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 105

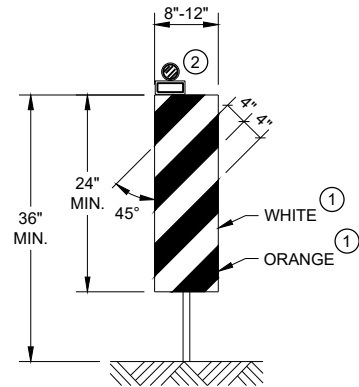


DRUM



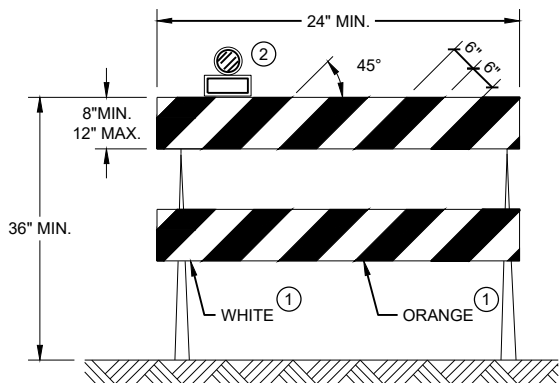
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



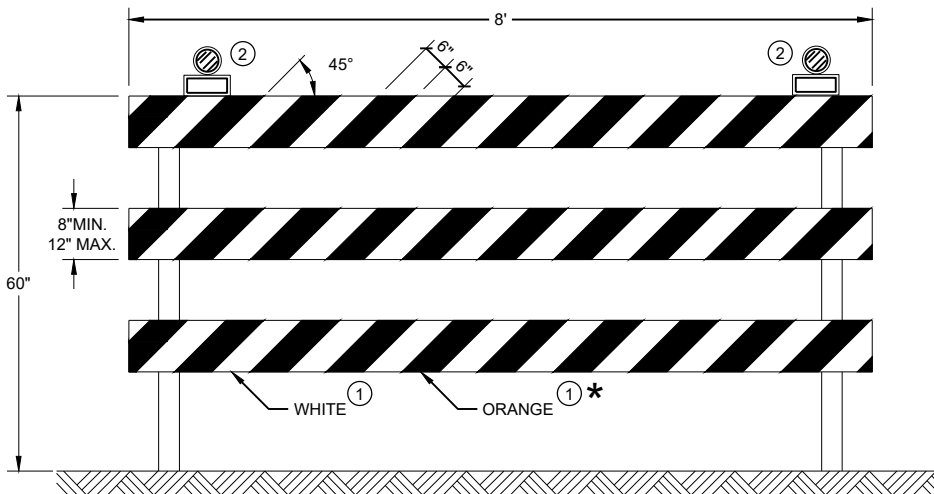
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III 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.

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.

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 106

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LEGEND

-  SIGN ON PORTABLE OR PERMANENT SUPPORT
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

GENERAL NOTES

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

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

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

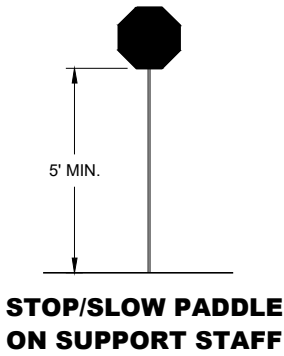
THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS, DEVICES, AND LOCATION OF ALL FLAGGERS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

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

FLAGGING

- FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.
- FOR MOVING WORK OPERATIONS, POST ADDITIONAL W20-7A FLAGGER SIGNS AT APPROXIMATELY 3,500' INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.
 - SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- WHEN THE DISTANCE BETWEEN FLAGGERS EXCEEDS 2 MILES, A PILOT CAR IS REQUIRED. WHEN CURVES REDUCE SIGHT DISTANCE BELOW 400', A PILOT CAR IS REQUIRED.
- TEMPORARY PORTABLE RUMBLE STRIPS**
- UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.
- EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.
- ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FOR THE APPROVED PRODUCTS LIST.
- INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.
- PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.
- DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

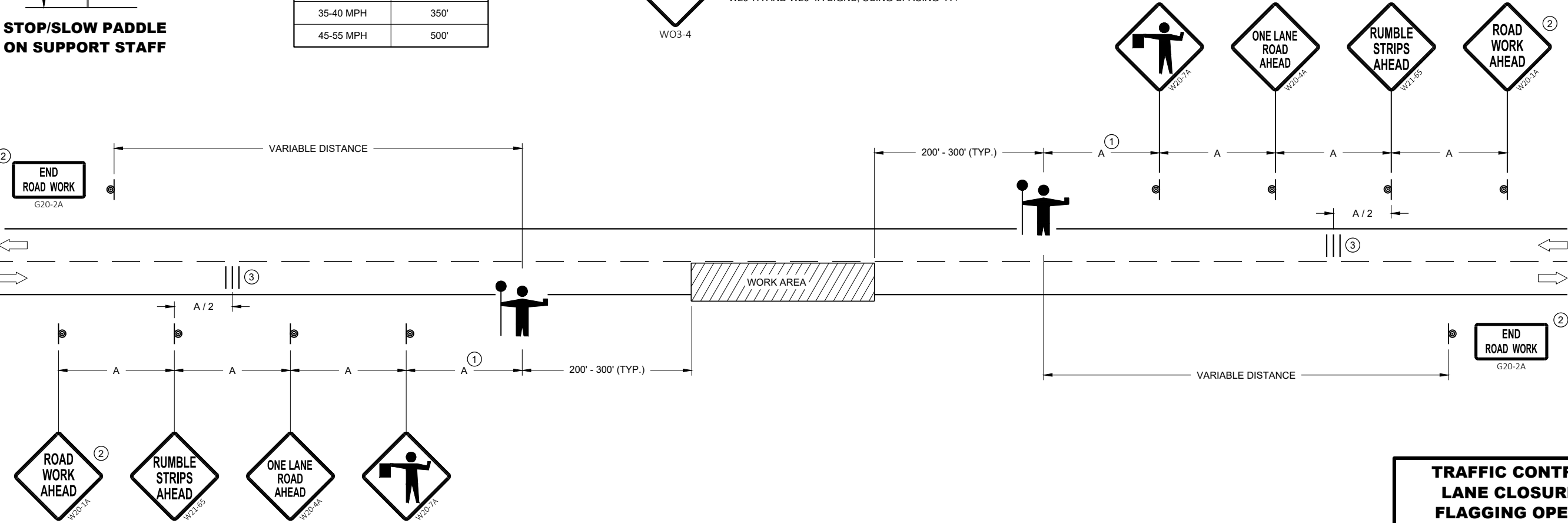


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



USE OF W03-4 SIGN IS OPTIONAL. WHEN USED, THIS SIGN SHALL BE LOCATED BETWEEN THE W20-7A AND W20-4A SIGNS, USING SPACING "A".



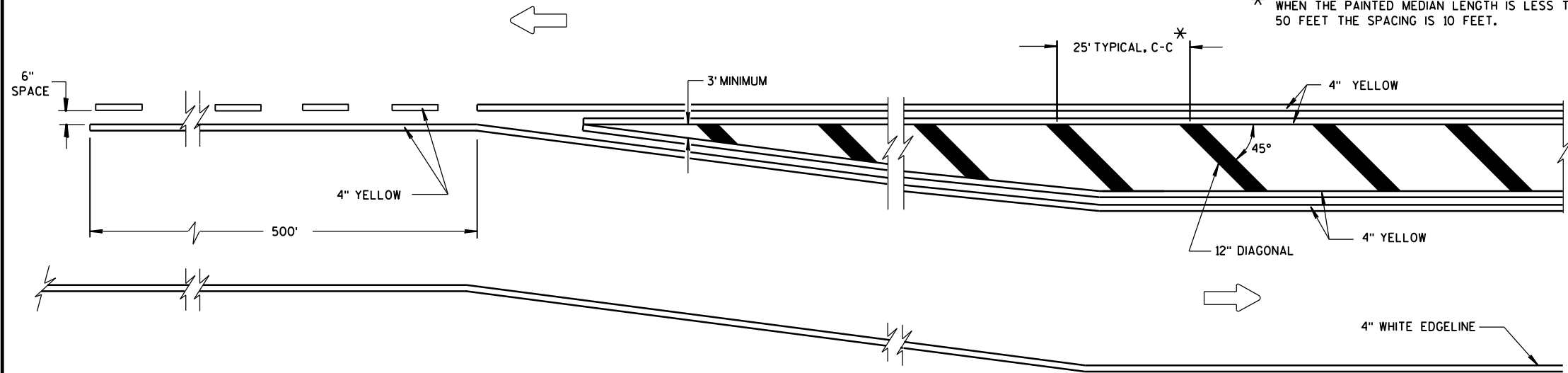
TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 107

FHWA

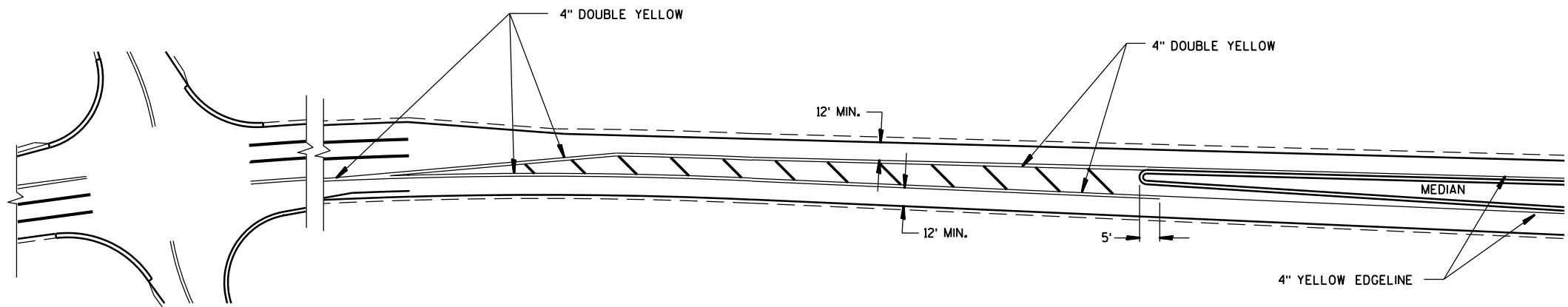


MEDIAN ISLAND DETAIL

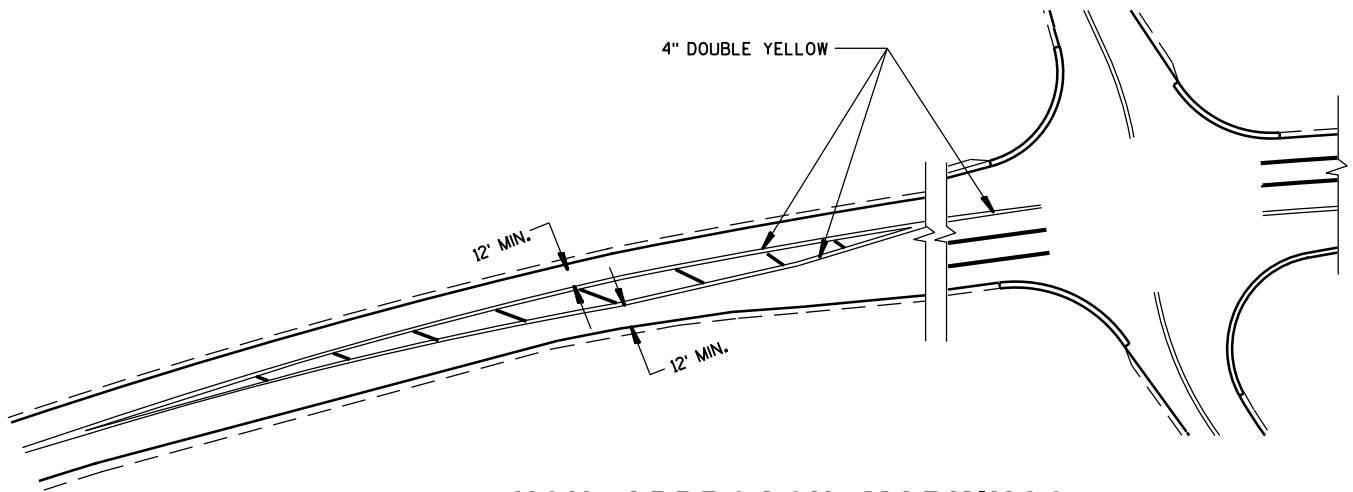
GENERAL NOTE

DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT WIDEST POINT.

➡ DIRECTION OF TRAVEL



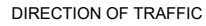
APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON APPROACH MARKINGS

MEDIAN ISLAND MARKING			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED			
June 2017	/S/ Matthew Rauch		
DATE	STATE SIGNING AND MARK	108	ER
FHWA			

V1	LEAD VEHICLE
V2	MARKING VEHICLE
V3	SHADOW VEHICLE



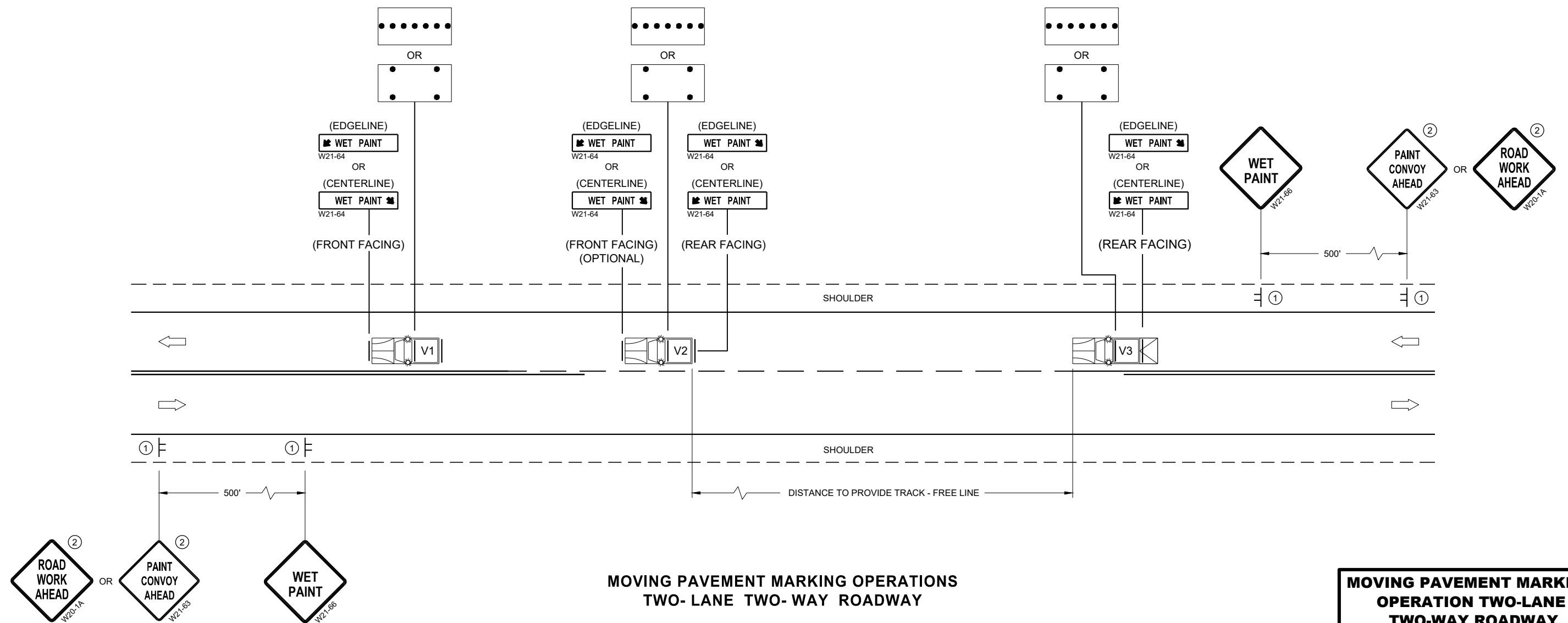
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

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

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

CONES SHALL BE A MINIMUM OF 18" FOR WET PAVEMENT MARKING .

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



LEGEND

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

GENERAL NOTES

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

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

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

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

WHEN WORK ACTIVITY BLOCKS THE LEFT LANE, REVERSE TRAFFIC CONTROL.

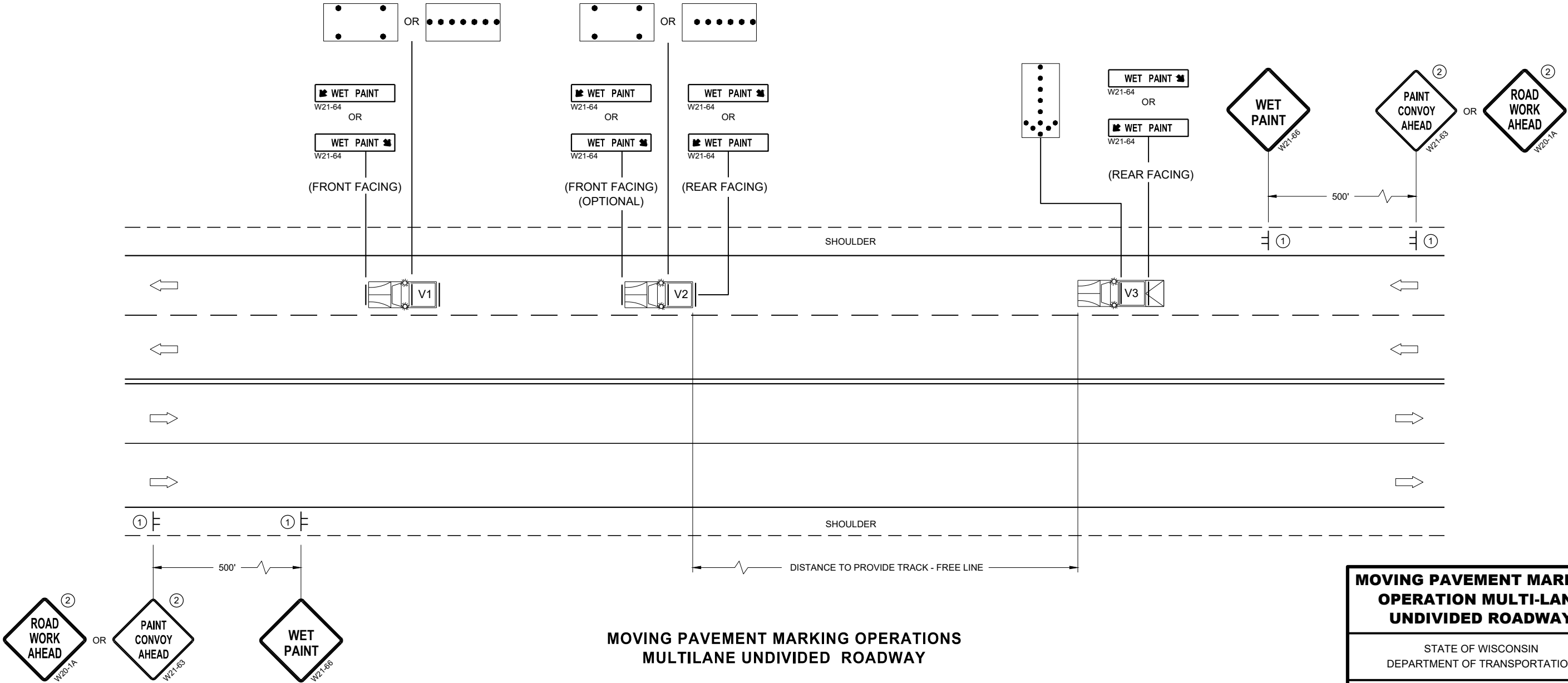
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLES AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL HAVE A MINIMUM HEIGHT OF 18" FOR WET PAVEMENT MARKINGS.

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

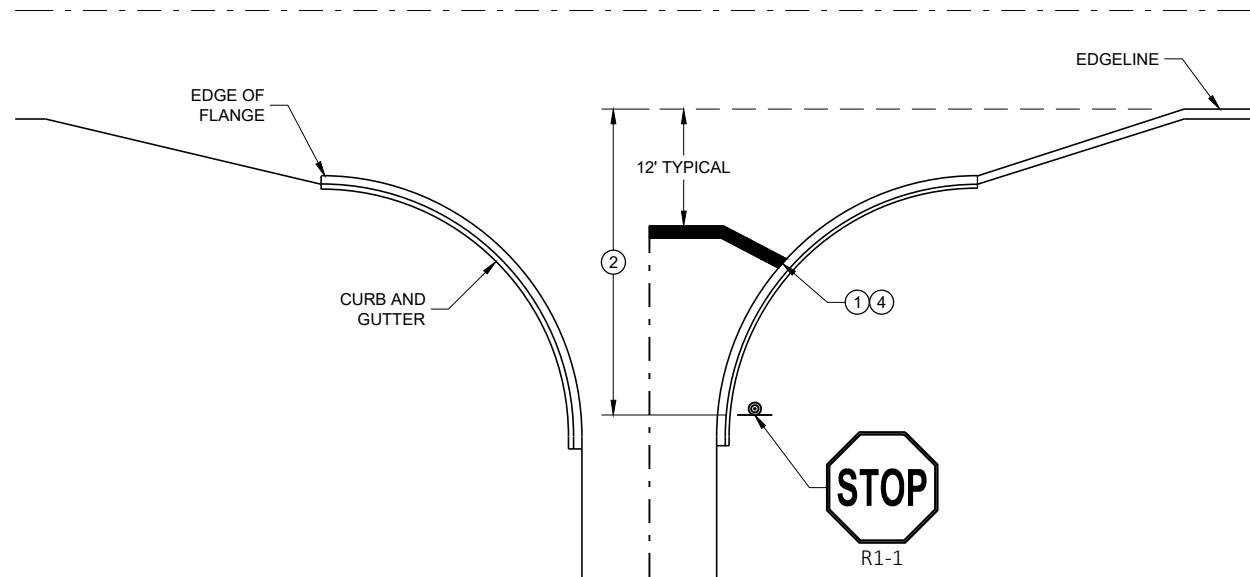


**MOVING PAVEMENT MARKING
OPERATION MULTI-LANE
UNDIVIDED ROADWAY**

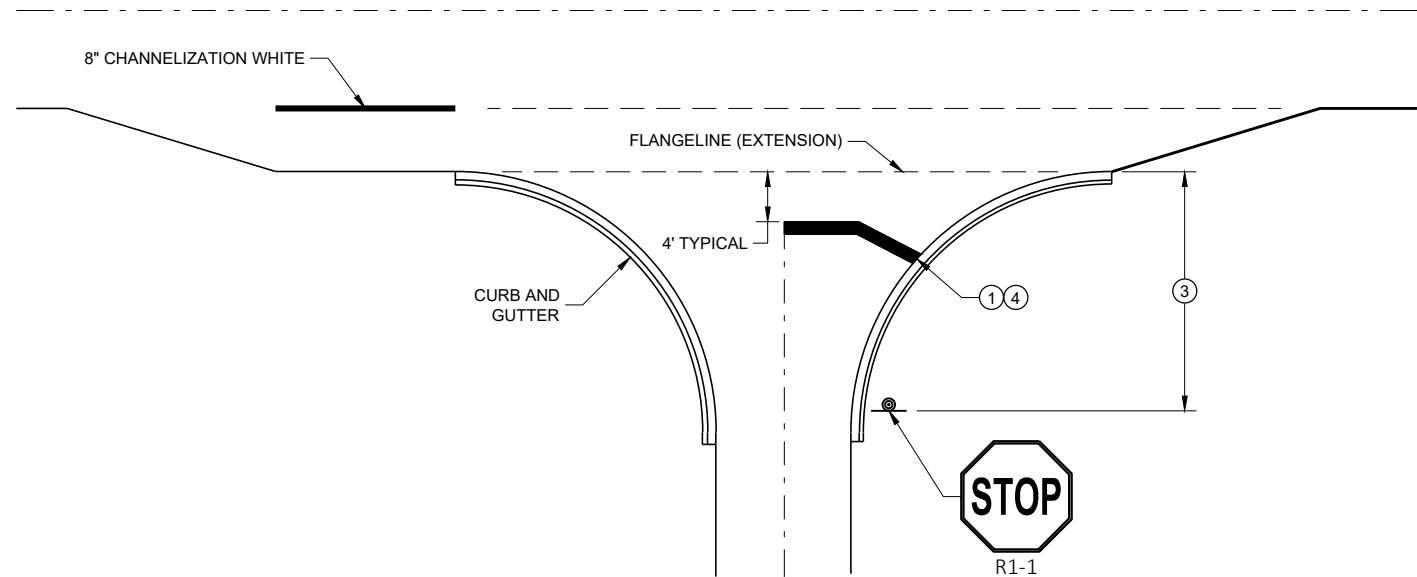
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 110

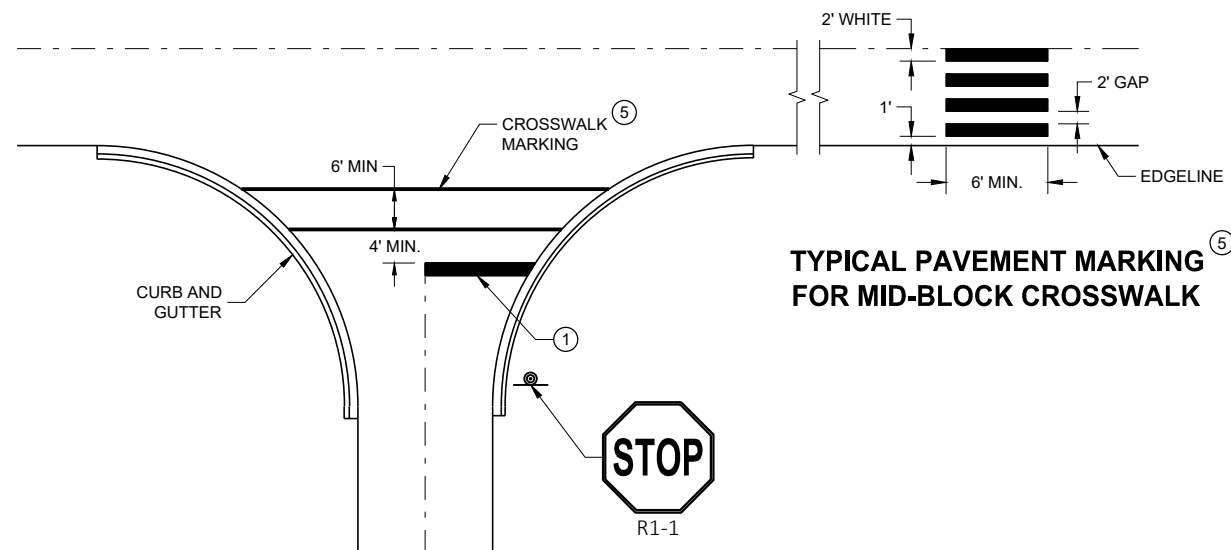
FHWA



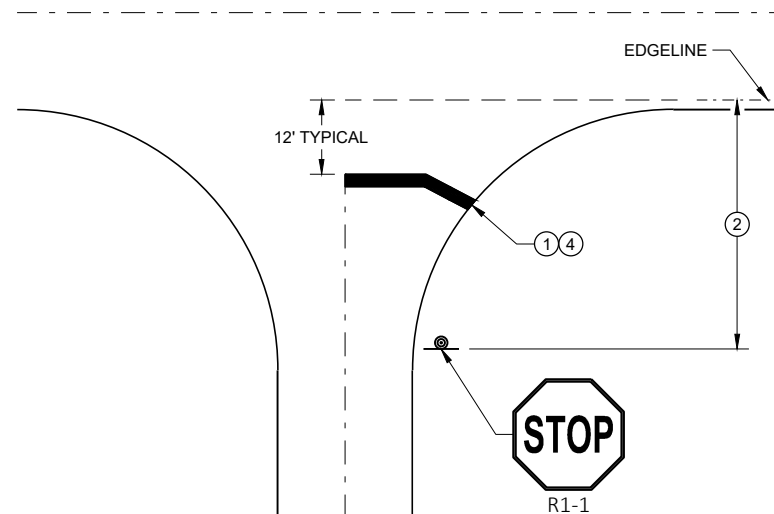
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



TYPICAL STOP LINE PAVEMENT MARKING
FOR SIDEROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDEROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

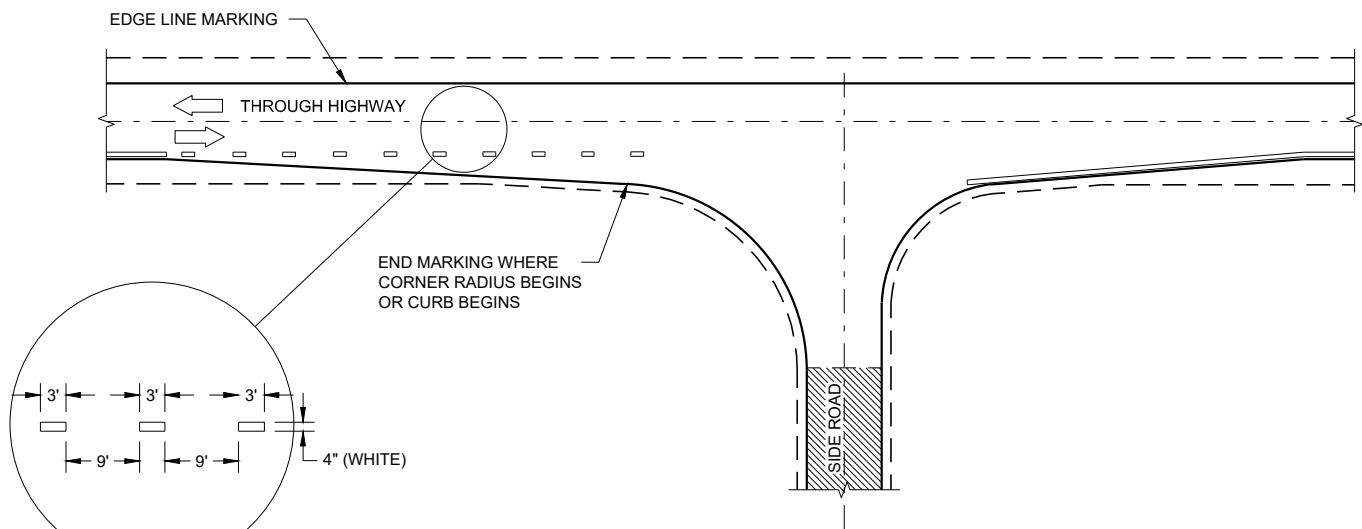
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGE LINE LOCATION.

- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGE LINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
- ④ MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
- ⑤ LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES INSTEAD.

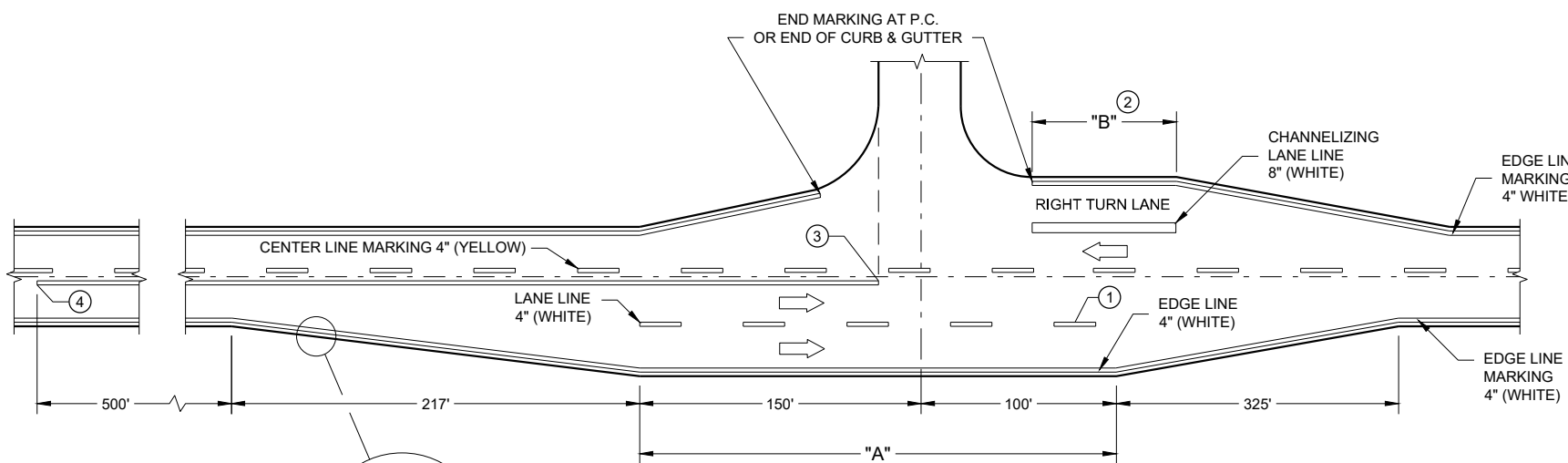
STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 111
FHWA



MINOR INTERSECTION



MAJOR INTERSECTIONS
(INTERSECTION WITH FULL RIGHT TURN LANE OR BYPASS LANE)

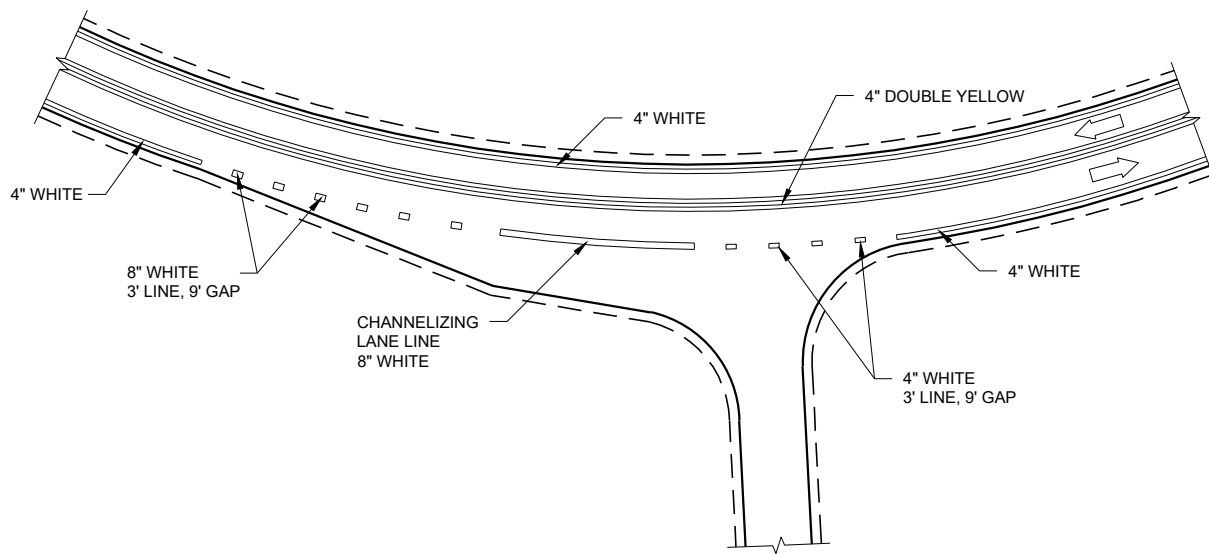
GENERAL NOTES

OMIT EDGE LINES THROUGH INTERSECTIONS. CONTINUE EDGE LINES THROUGH DRIVEWAYS.

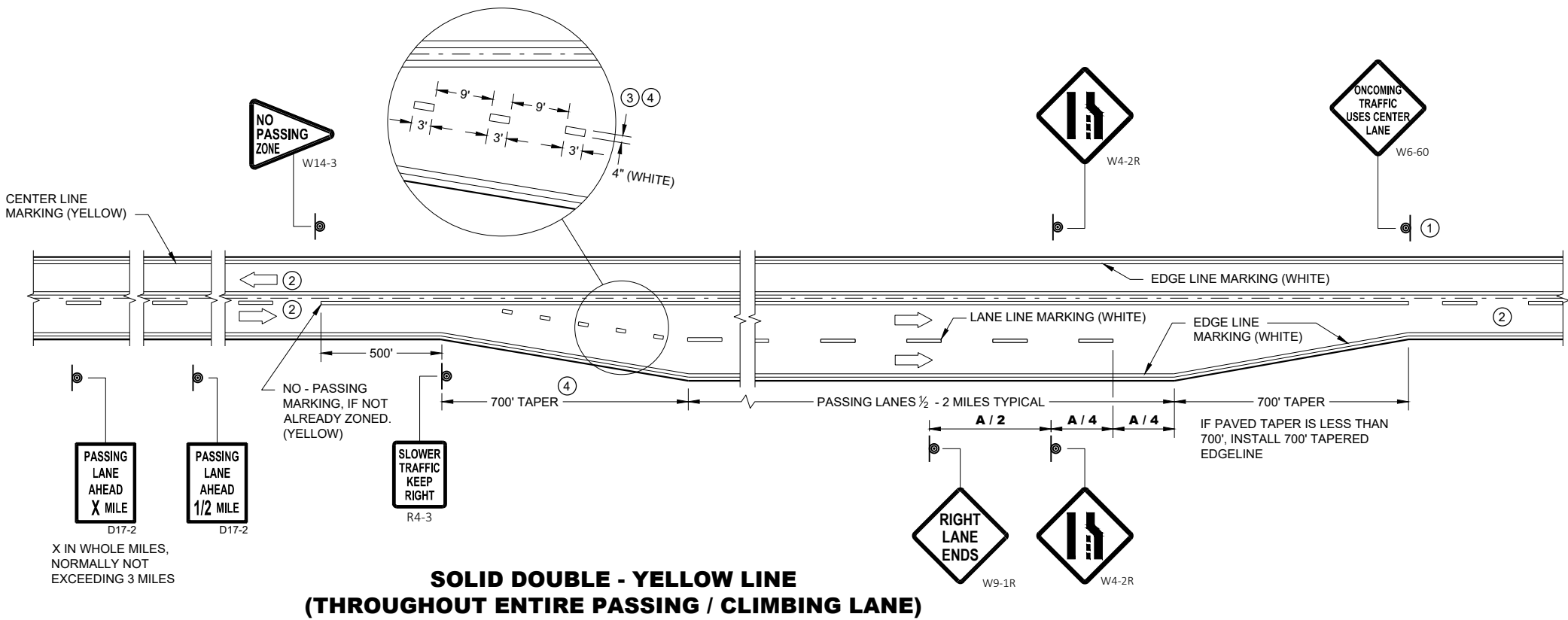
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.

LEGEND

➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE



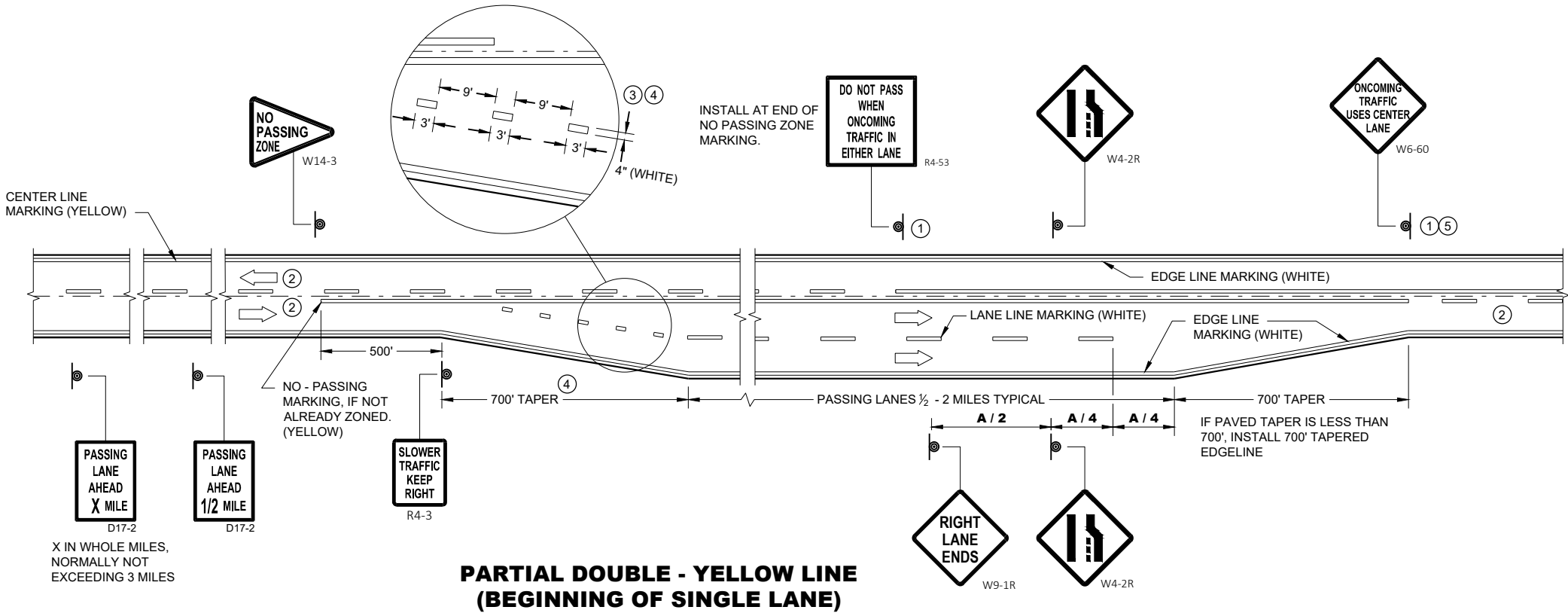
GENERAL NOTES

- 1 SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- 2 THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- 3 THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- 4 WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
- 5 REPEAT EVERY 1 MILE UP UNTIL R4-53.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

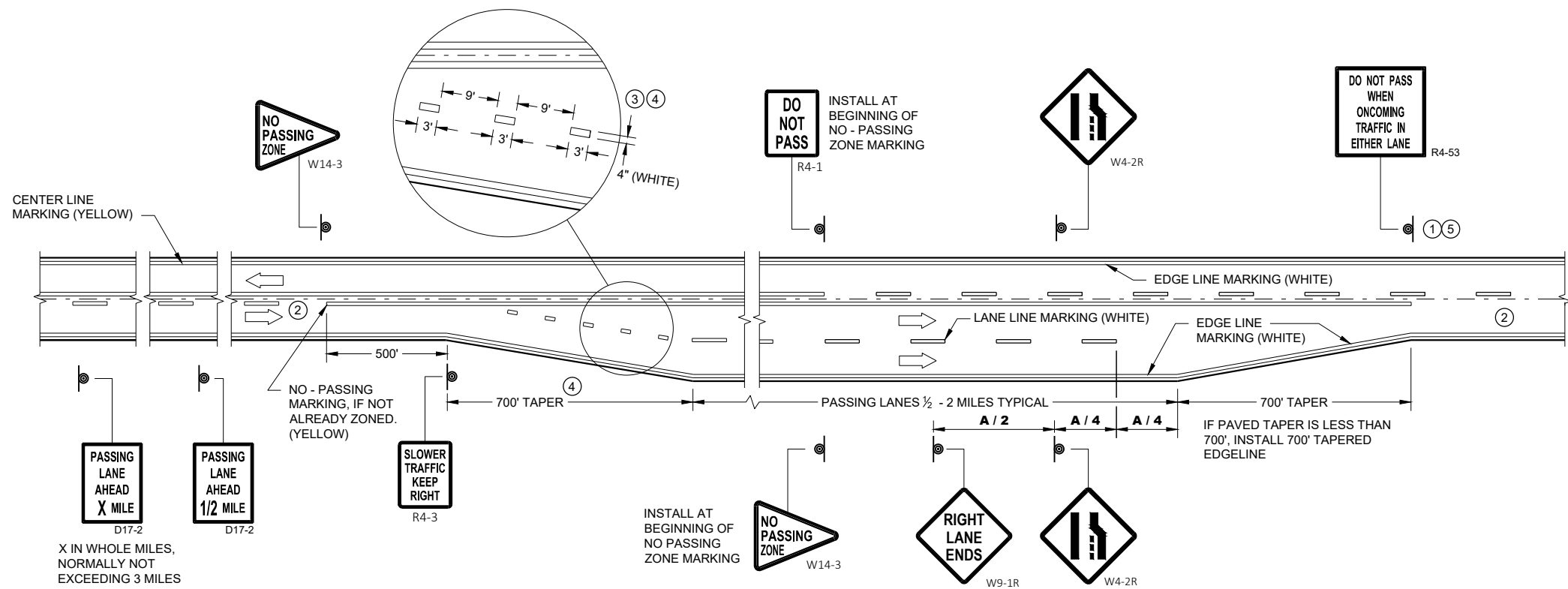
DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

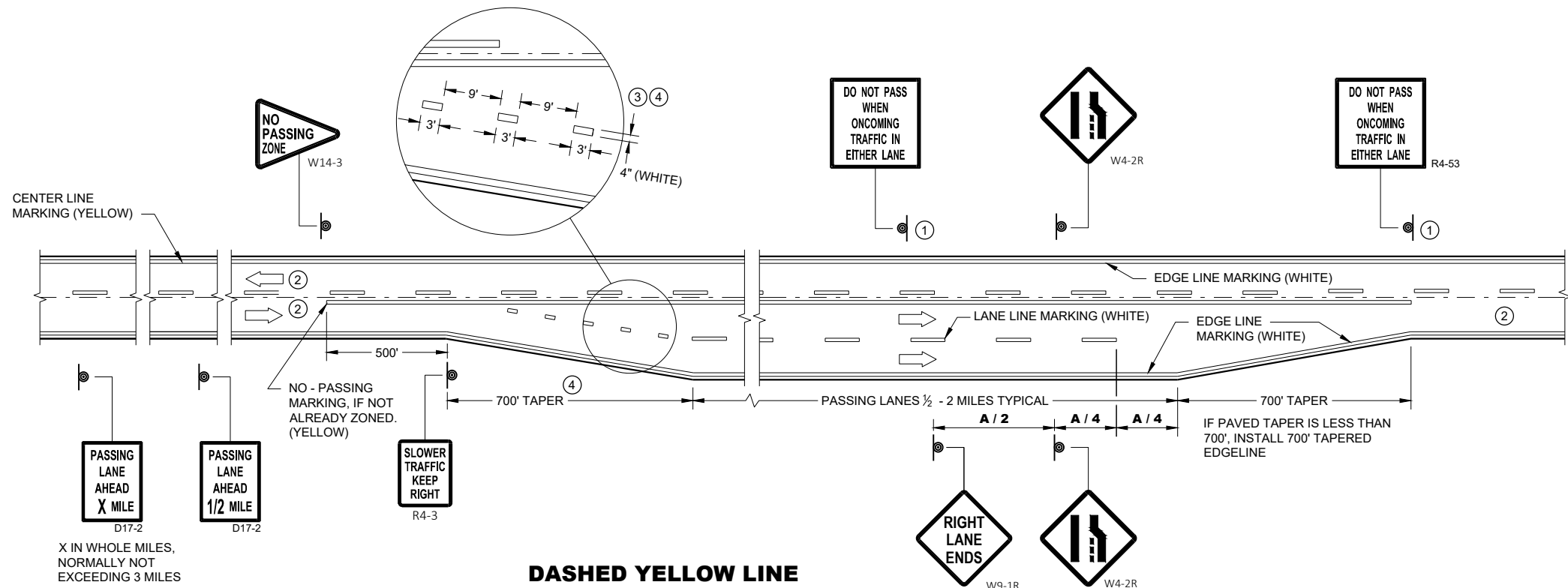


**PAVEMENT MARKING & SIGNING
(CLIMBING LANE & PASSING LANE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



**SOLID DOUBLE - YELLOW LINE
(END OF SINGLE LANE)**



**DASHED YELLOW LINE
(THROUGHOUT SINGLE LANE)**

GENERAL NOTES

- 1 SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- 2 THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- 3 THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE - GAP PATTERN WHERE EXISTING MARKINGS ARE IN PLACE.
- 4 WHEN THE ENTRANCE TAPER IS LESS THAN 700 FEET OR THE SHOULDER WIDTH IN THE PASSING / CLIMBING LANE IS LESS THAN THE ADJACENT HIGHWAY, DO NOT INSTALL DOTTED LINE PAVEMENT MARKING.
- 5 REPEAT EVERY ONE MILE UP UNTIL NO PASSING ZONE.

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

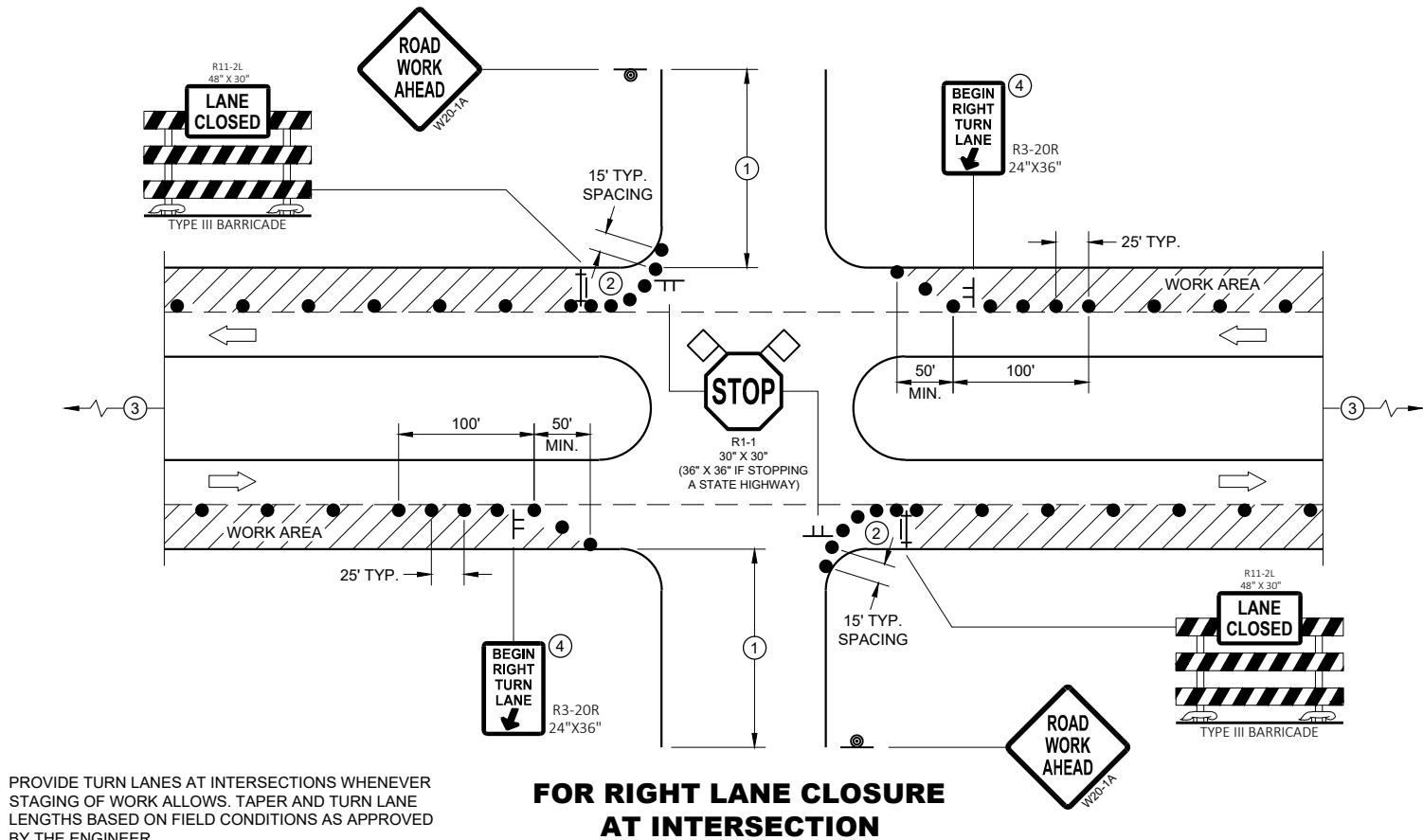
DISTANCE TABLE

POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

**PAVEMNET MARKING & SIGNING
(CLIMBING LANE & PASSING LANE)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 /S/ Matthew Rauch
DATE STATE SIGNING AND MAP ENGINEER 114
FHWA



PROVIDE TURN LANES AT INTERSECTIONS WHENEVER STAGING OF WORK ALLOWS. TAPER AND TURN LANE LENGTHS BASED ON FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

- ① 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ② ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- ③ SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- ④ MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

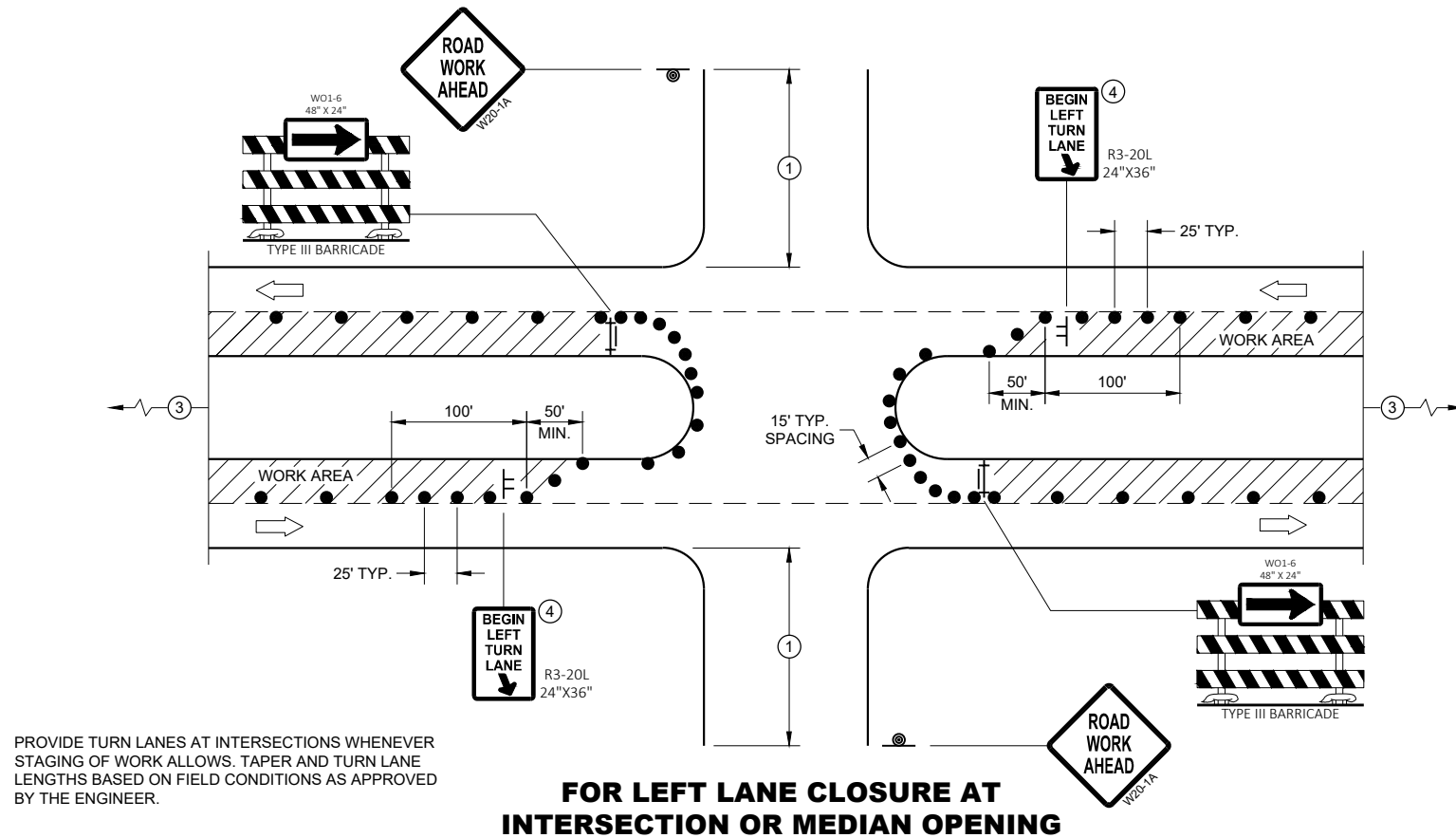
LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

**FOR RIGHT LANE CLOSURE AT INTERSECTION
(WITH RIGHT TURN BAY OPEN)**

**TRAFFIC CONTROL,
INTERSECTION WITHIN SINGLE
RIGHT LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 115

**GENERAL NOTES**

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS IN URBAN AREAS, 36" X 36" MAY BE USED IF APPROVED BY THE DISTRICT TRAFFIC UNIT.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON COVERED OR "DOWNED" SIGNS.

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 TO PROVIDE A MINIMUM OF 200 FEET (500' DESIRABLE) DISTANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE

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

SIGNS THAT WILL REMAIN IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

- 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.
- ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS
- SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.
- MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- DIRECTION OF TRAFFIC
- FLAGS, 16" X 16" MIN., ORANGE
- WORK AREA

**FOR LEFT LANE CLOSURE AT INTERSECTION
OR MEDIAN OPENING (WITH LEFT TURN BAY OPEN)**

**TRAFFIC CONTROL,
INTERSECTION WITHIN SINGLE
LEFT LANE CLOSURE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 116
FHWA

LEGEND

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

GENERAL NOTES

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 THE REGIONAL TRAFFIC UNIT.

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

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

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

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

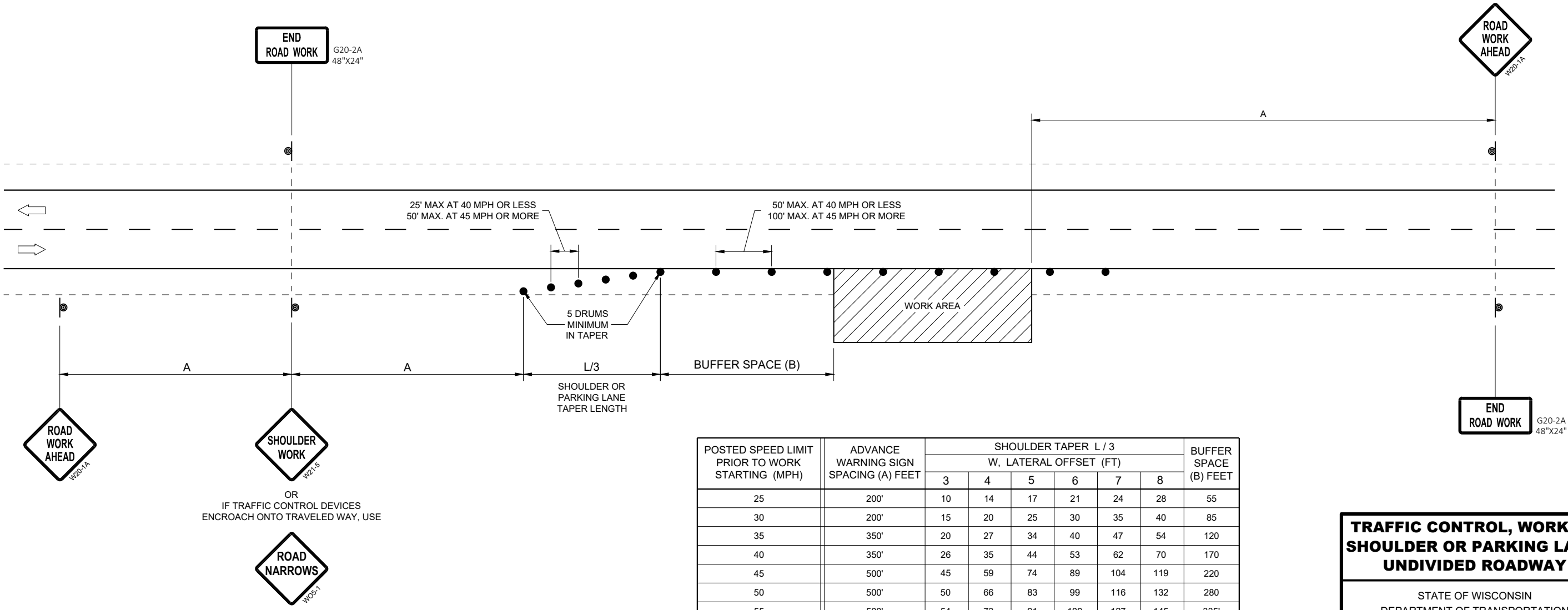
W20-1A AND G20-2A SIGNS ARE NOT REQUIRED IF THE WORK AREA IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT. G20-2A SIGNS MAY ALSO BE OMITTED IF DURATION OF WORK IS LESS THAN 7 CONTINUOUS DAYS AND NIGHTS.

6

6

SDD 15D28 - 04

SDD 15D28 - 04



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHOULDER TAPER L / 3 W, LATERAL OFFSET (FT)						BUFFER SPACE (B) FEET
		3	4	5	6	7	8	
25	200'	10	14	17	21	24	28	55
30	200'	15	20	25	30	35	40	85
35	350'	20	27	34	40	47	54	120
40	350'	26	35	44	53	62	70	170
45	500'	45	59	74	89	104	119	220
50	500'	50	66	83	99	116	132	280
55	500'	54	73	91	109	127	145	335'

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE T
SAFETY ENGINEER 117
FHWA

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  SIGN ON PERMANENT SUPPORT
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  DIRECTION OF TRAFFIC
-  FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET
0-30	200'
35-40	350'
45-55	500'

GENERAL NOTES

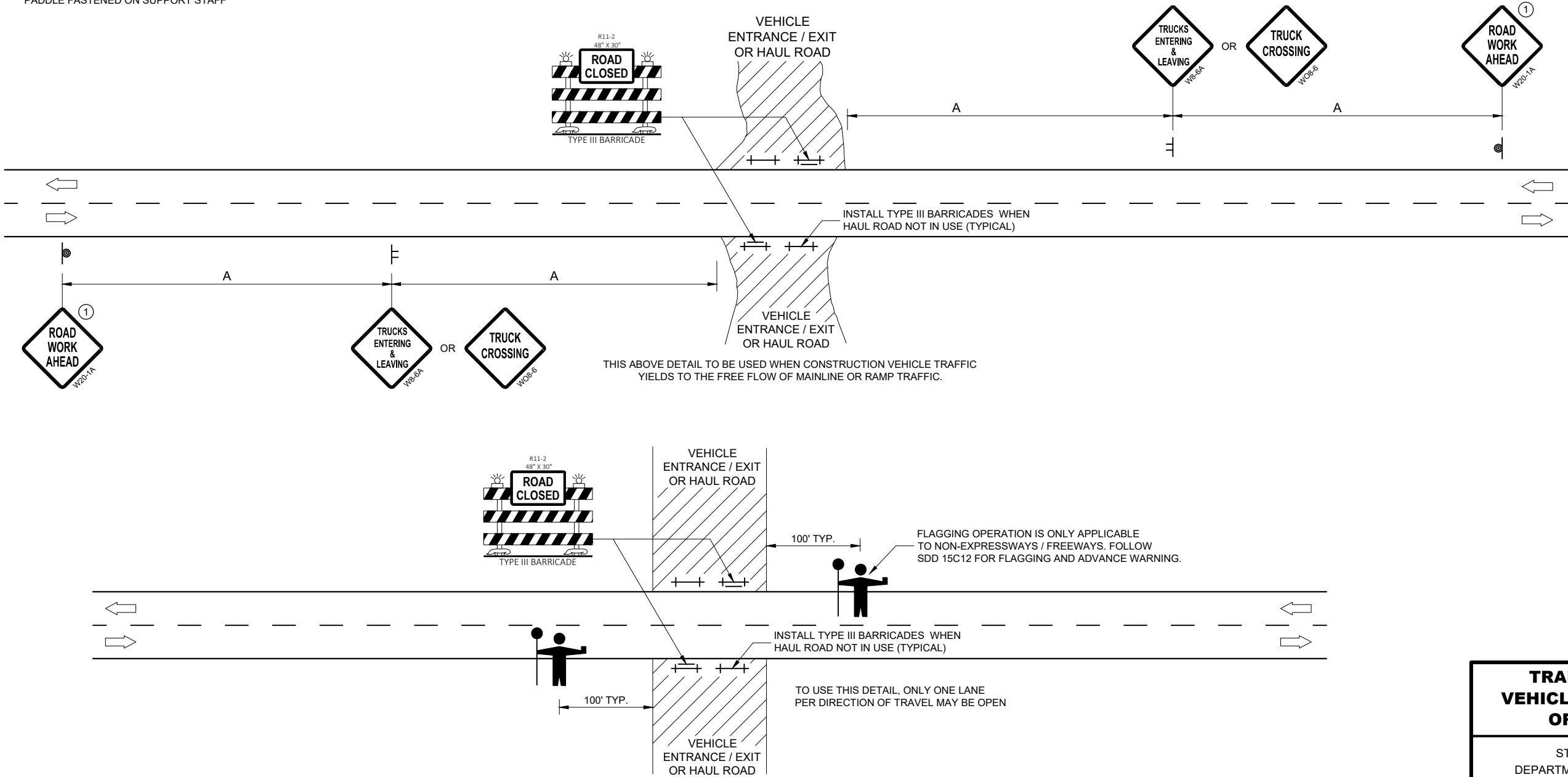
- ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.
- "WO" SIGN IS THE SAME AS "W" SIGN EXCEPT THE BACKGROUND IS ORANGE.
- THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- WARNING SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- WHEN ACTIVITY REFLECTED BY THE SIGN IS NOT CURRENTLY TAKING PLACE, THE HIGHWAY SHALL BE RESTORED TO NORMAL CONDITION AND THE SIGNS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC.
- WHEN A SIDE ROAD OR RAMP INTERSECTS WITHIN THE ADVANCE SIGNING AREA, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.
- PLACE SIGNS ON BOTH SIDES IF USED ON DIVIDED HIGHWAY.
- ① THESE SIGNS ARE TO BE USED ONLY WHEN VEHICLE ENTRANCE / EXIT CONDITIONS ARE SEPARATED BY MORE THAN TWO MILES FROM PREVIOUS WORK AREA OR SIGNING OR AS DIRECTED BY THE ENGINEER.

6

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SDD 15D29 - 06

SDD 15D29 - 06



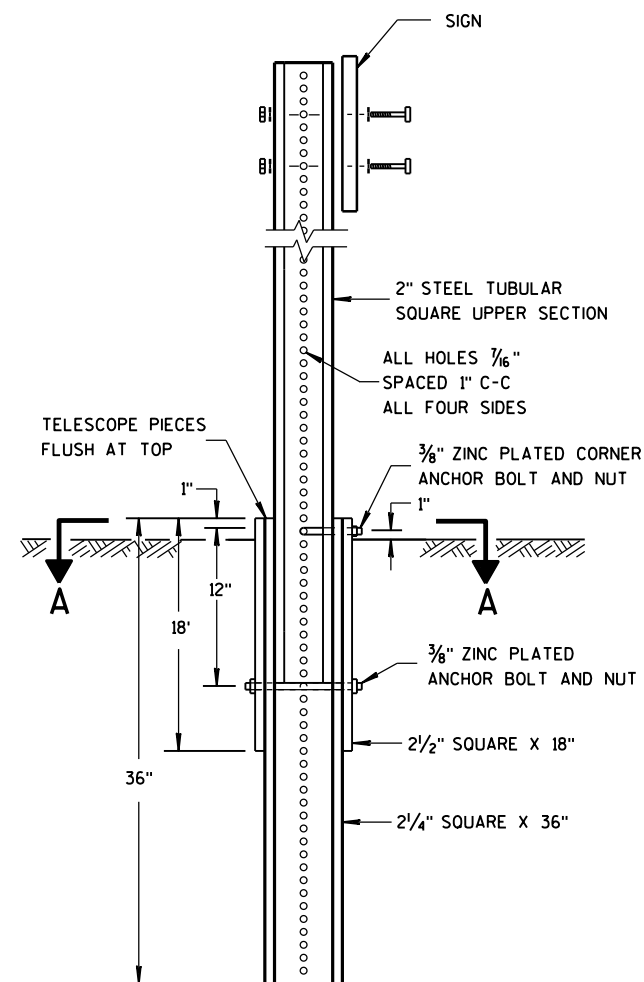
THIS DETAIL TO BE USED WHEN CONSTRUCTION WORK INCLUDING TRUCKING ACTIVITY REQUIRES MAINLINE TRAFFIC TO BE TEMPORARILY STOPPED IN ONE OR BOTH DIRECTIONS. DELAY TO HIGHWAY TRAFFIC SHALL BE MINIMIZED.

**TRAFFIC CONTROL,
VEHICLE ENTRANCE/EXIT
OR HAUL ROAD**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 118

FHWA



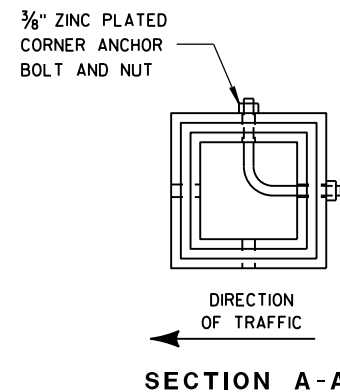
DETAIL OF TUBULAR
STEEL SIGN POST

TUBULAR STEEL POSTS

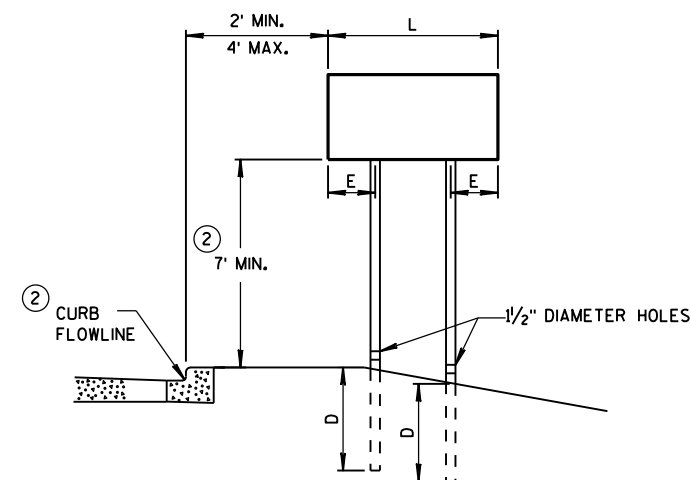
AREA OF SIGN INSTALLATION (SQ. FT.)	NUMBER OF REQUIRED TUBULAR STEEL POSTS
9 OR LESS	1
GREATER THAN 9 LESS THAN OR EQUAL TO 18	2
GREATER THAN 18 LESS THAN OR EQUAL TO 27	3

SIGNS WIDER THAN 3 FEET OR LARGER THAN 9 SQ. FT. SHALL
BE MOUNTED ON MULTIPLE POSTS (SEE ABOVE TABLE).

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



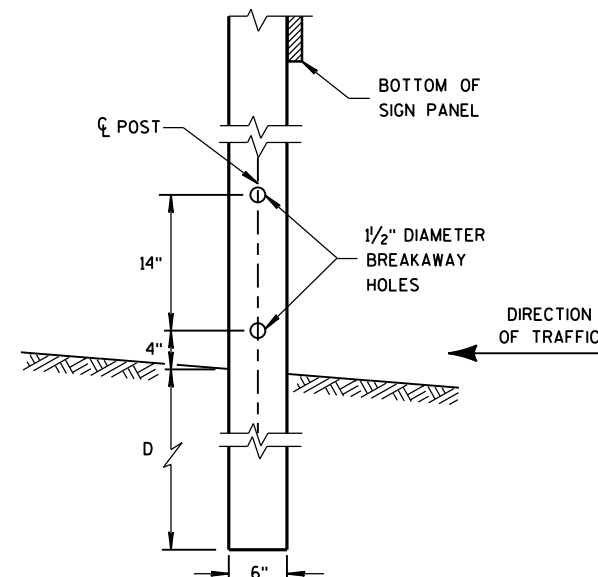
SECTION A-A



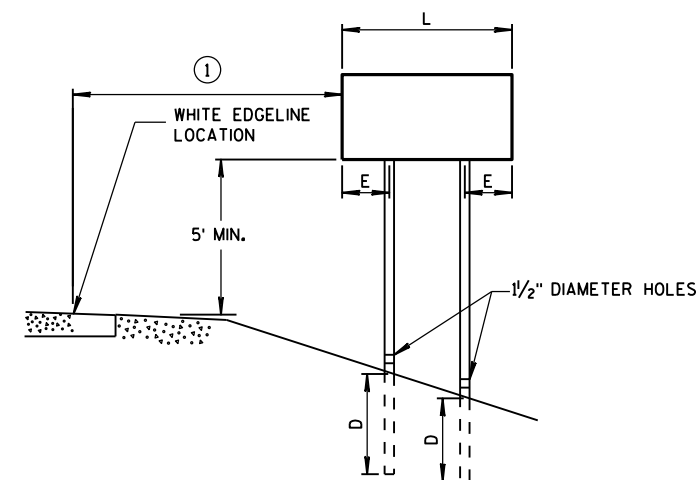
URBAN AREA

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

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

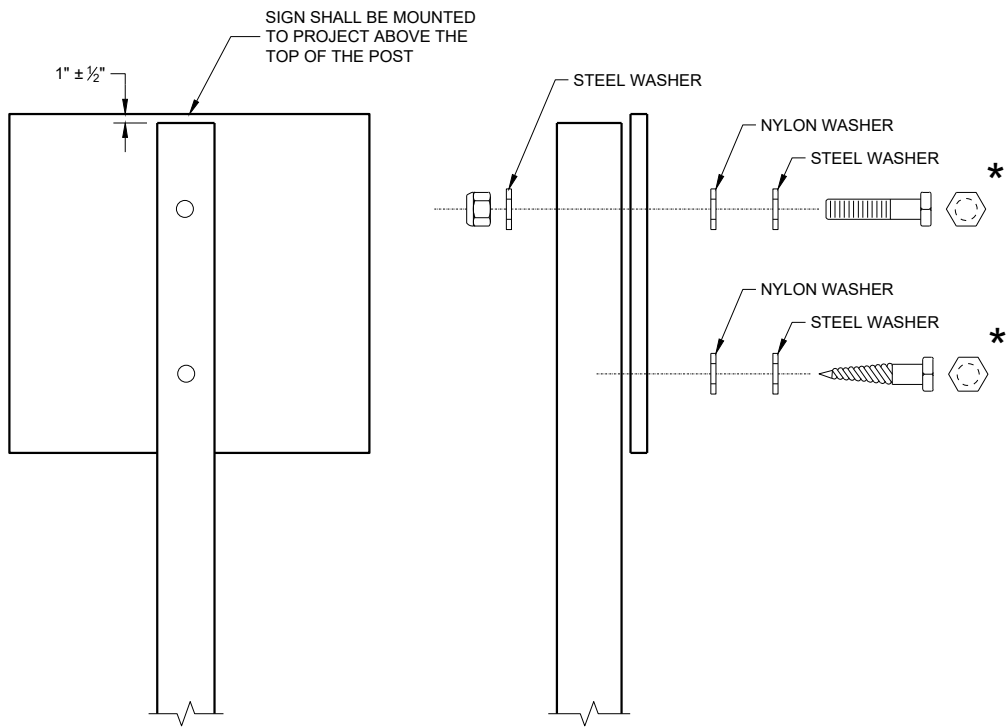
SEE NOTE ③

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.

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 POST (4" x 6")
LAG SCREWS - ¾" x 3"
MACHINE BOLTS - ⅝" x 6 ½" OR 7" LENGTH W/NUTS

SQUARE STEEL POST (2" x 2")
MACHINE BOLTS - ¾" x 3 ¼" LENGTH W/NUTS
RIVETS - ⅝" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM
BODY/MANDREL O.D. FLANGE 0.720 - 0.765 INCH,
GRIP RANGE 0.042 - 0.375 INCH

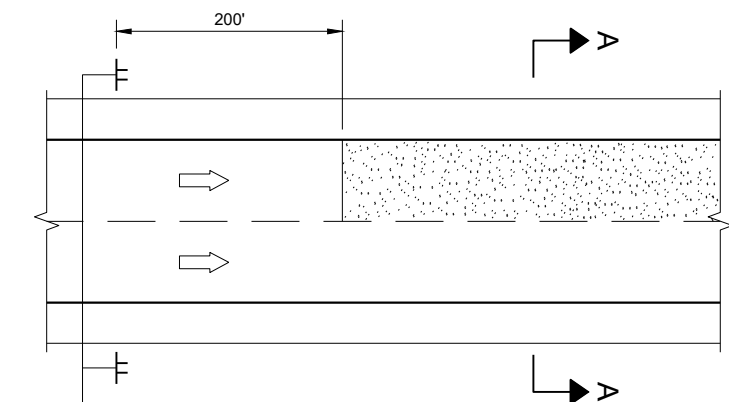
WASHERS (ALL POSTS) -
1 ¼" O.D. x ⅜" I.D. x ⅛" STEEL
1 ¼" O.D. x ⅜" I.D. x 0.080 NYLON

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

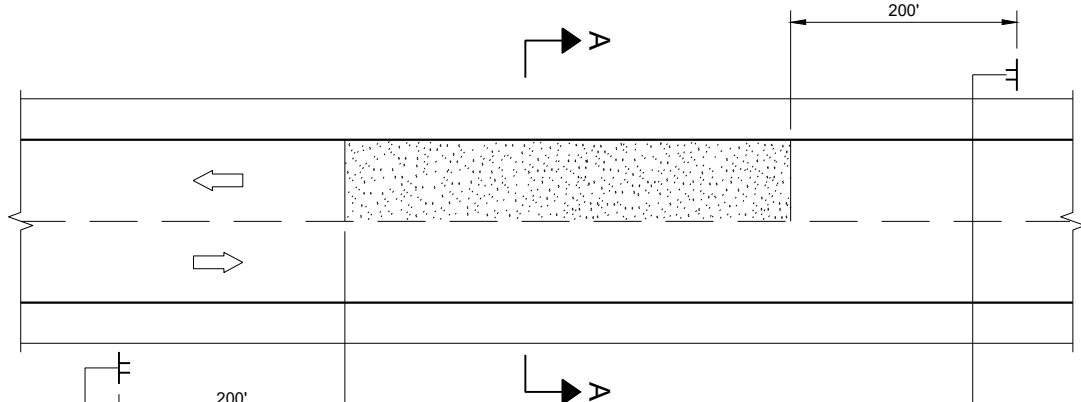
ATTACHMENT OF SIGNS
TO POSTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

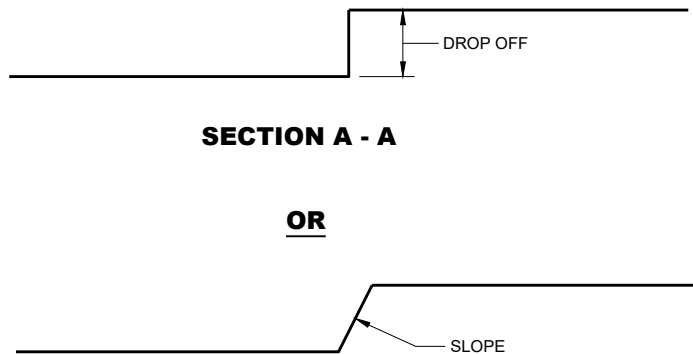
APPROVED
June 2017 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 120
FHWA



MULTI-LANE



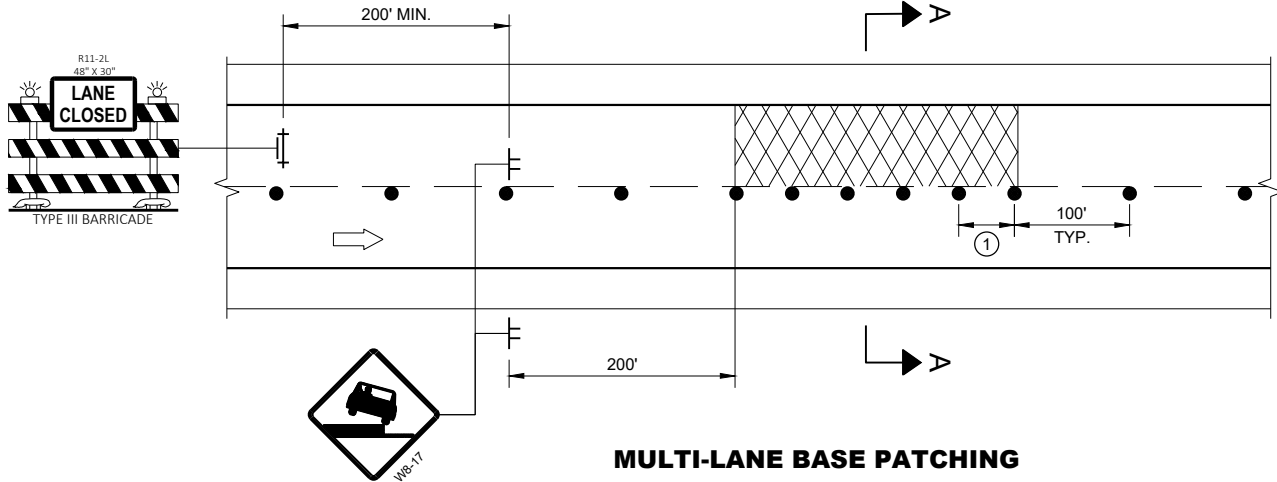
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

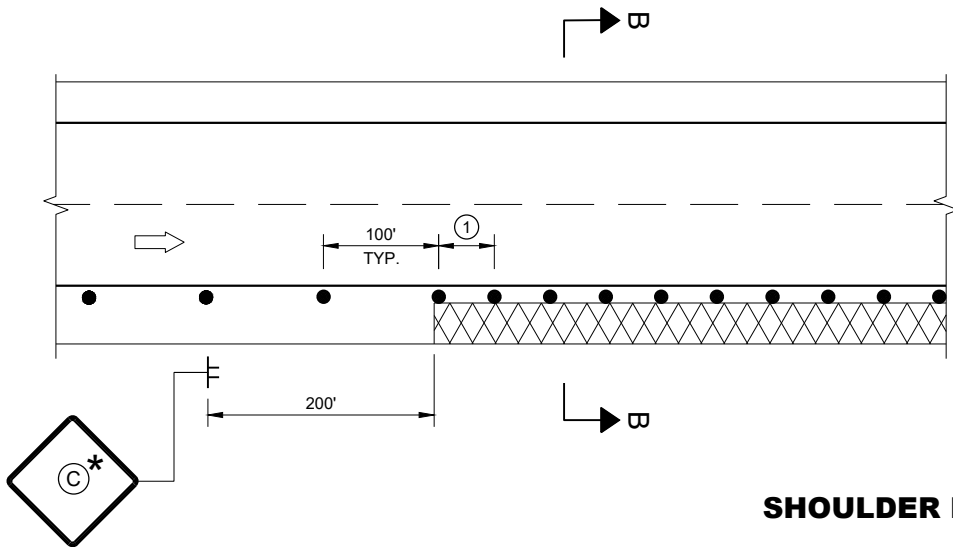
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

* IF THE DROP-OFF IS CONTINUOUS ALONG THE PROJECT, PLACE ADDITIONAL SIGNS EVERY 1 MILE AND AFTER EVERY ENTRANCE RAMP.

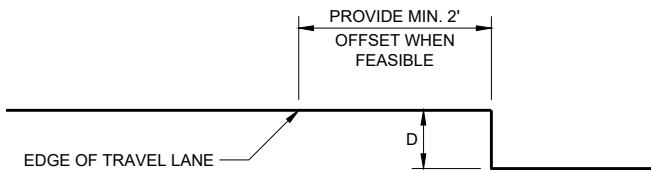
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN (C)
< 2" WITH A SLOPE STEEPER THAN 3:1	LOW SHOULDER WO8-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	SHOULDER DROP - OFF W8-9A PROVIDE A 3:1 OR FLATTER SLOPE OF MATERIAL ADJACENT TO THE PAVEMENT

TRAFFIC CONTROL,
DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 121

FHWA

LEGEND

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

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

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

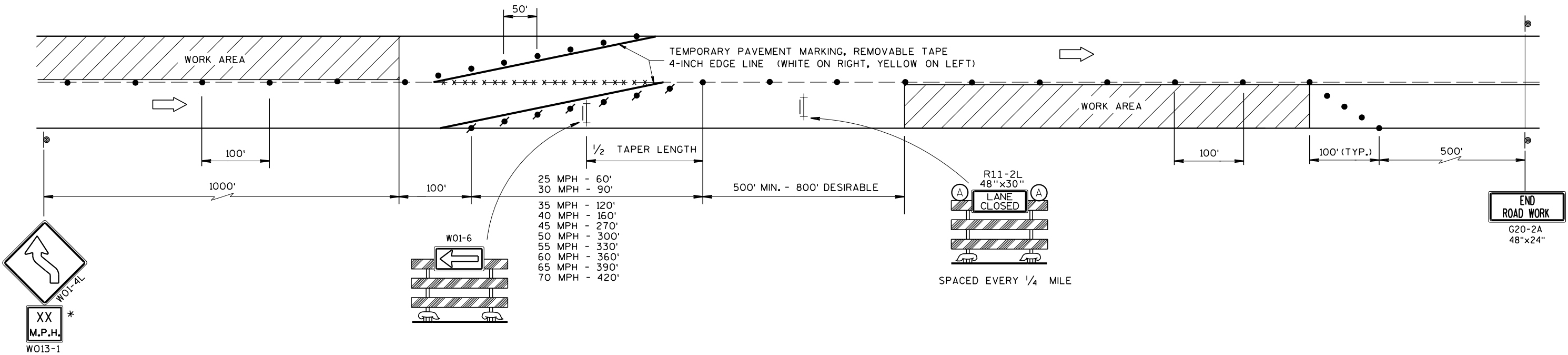
FOR A LANE CLOSURE THAT IS IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, THE ADVANCED WARNING SIGNS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

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



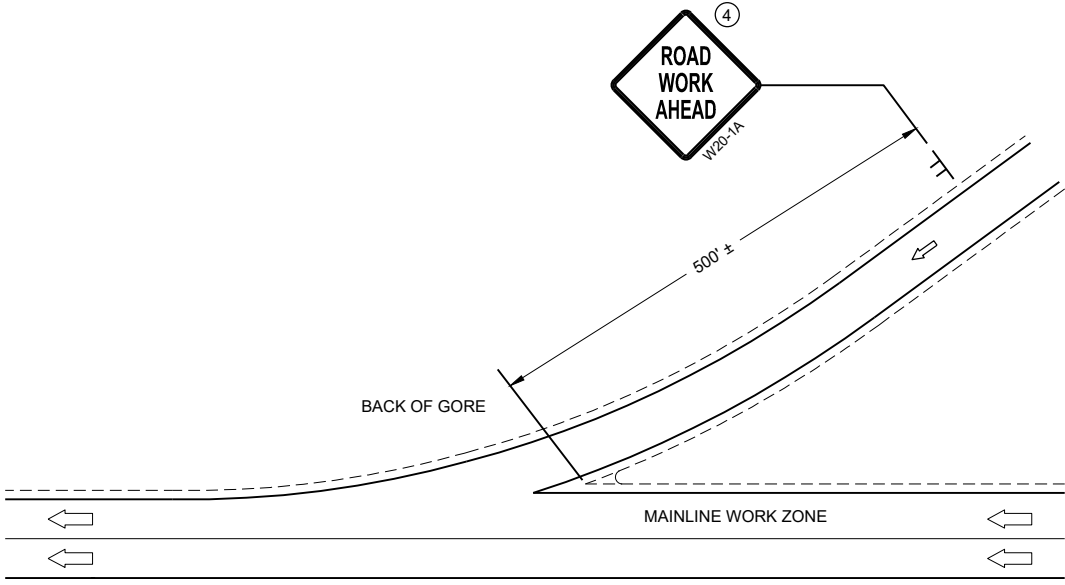
* USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED

LANE SHIFT MULTI-LANE DIVIDED OR ONE WAY ROAD

TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE WAY ROAD	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED March 2018 DATE	/S/ Andrew J. WORK ZONE ET 122
FHWA	

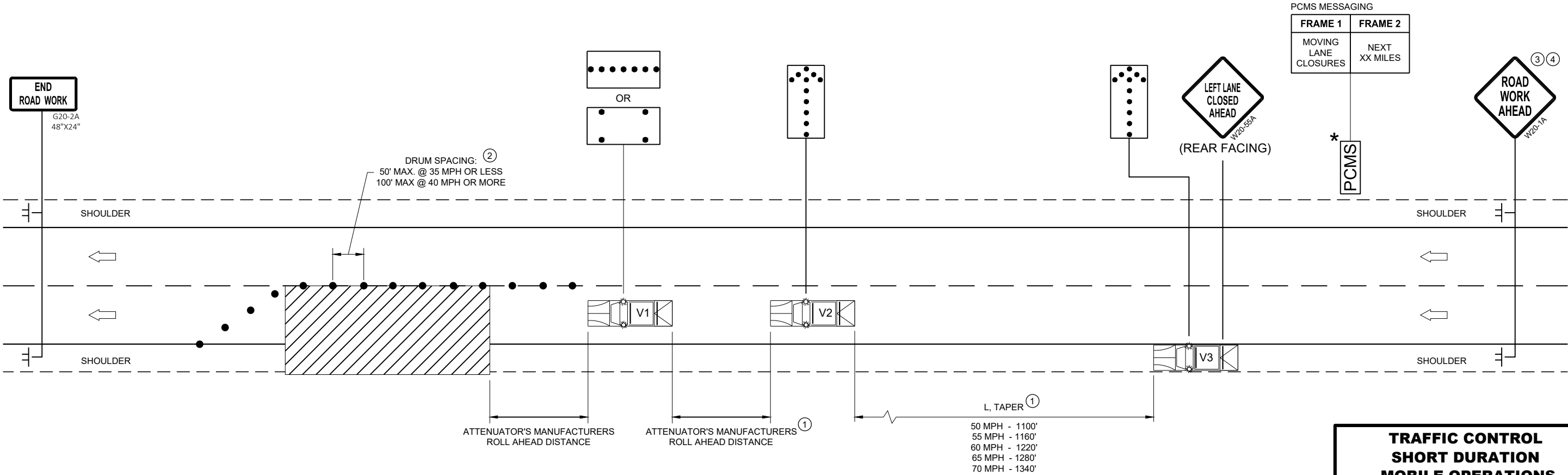
LEGEND

- V1 MARKING VEHICLE
- V2 SHADOW VEHICLE
- V3 TRAIL VEHICLE
- TRAFFIC CONTROL DRUM
- ☐ TRUCK MOUNTED ATTENUATOR (TMA)
- ⊥ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC
- FLASHING ARROW PANEL (MERGE)
- FLASHING ARROW PANEL (CAUTION)
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- ▨ WORK AREA



GENERAL NOTES

- SHORT DURATION IS WORK THAT OCCUPIES A LOCATION UP TO 1 HOUR.
- MOBILE IS WORK THAT MOVES INTERMITTENTLY OR CONTINUOUSLY.
- ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.
- ALL VEHICLES SHALL BE EQUIPPED WITH REAR FACING TYPE B OR C FLASHING ARROW PANEL. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE SPECIFIED.
- WHEN WORK ACTIVITY BLOCKS THE RIGHT LANE, REVERSE TRAFFIC CONTROL.
- WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, PROVIDE ADDITIONAL TRAFFIC CONTROLS AS SPECIFIED IN THE CONTRACT OR AS APPROVED BY THE ENGINEER.
- USE DOUBLE ARROWS WHEN CONVOY IS IN CENTER LANE ONLY.
- WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC
- ① DISTANCE BETWEEN VEHICLES MAY VARY ACCORDING TO TERRAIN, SIGHT DISTANCE AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL AND HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.
 - ② DRUMS ARE TO BE USED FOR BRIDGE DECK SEALING AND OTHER PROJECTS THAT REQUIRE DELINEATION.
 - ③ WITHIN 5 MILES, RELOCATE SIGNS AS WORK PROGRESSES AND NECESSARY OR AS DIRECTED BY THE ENGINEER.
 - ④ SIGN NOT REQUIRED IF MOVING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ★ PCMS OPTIONAL



TRAFFIC CONTROL
SHORT DURATION
MOBILE OPERATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 123
FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

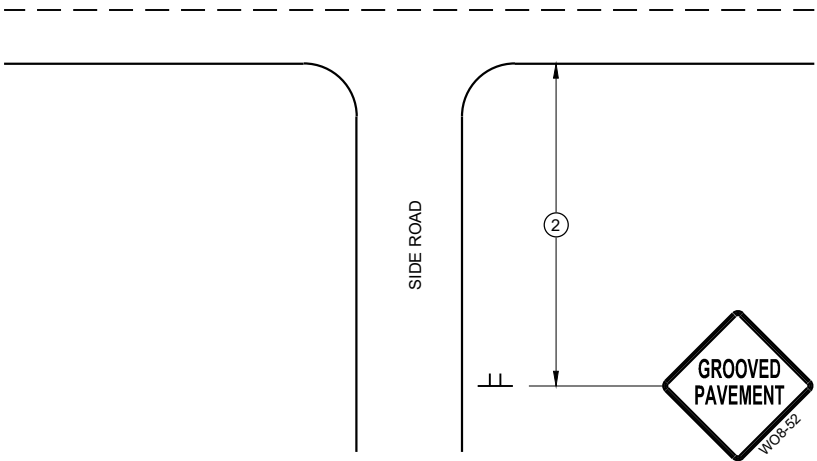
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

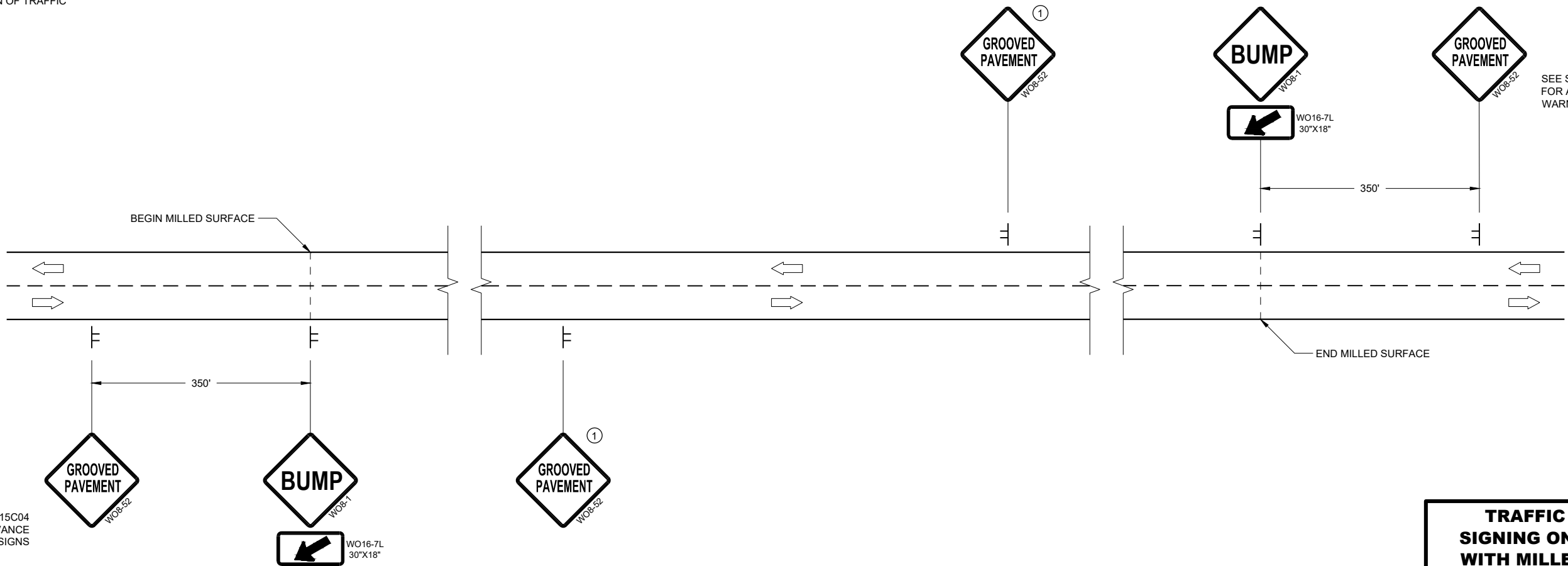
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

SEE SDD15C04
FOR ADVANCE
WARNING SIGNS

DETAIL FOR SIGNING ON MILLED SURFACES

TRAFFIC CONTROL,
SIGNING ON ROADWAYS
WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 124

FHWA

GENERAL NOTES

DRAWING NOT TO SCALE. ALL SIGNS AND POSTS ON THIS SHEET SHALL BE PAID FOR WITH 'TRAFFIC CONTROL SIGNS' BID ITEM. ALL SIDE ROADS WHICH ARE UNDER CONSTRUCTION OF CURB AND GUTTER AND/OR GRADING SHALL BE ADEQUATELY SIGNED.

ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

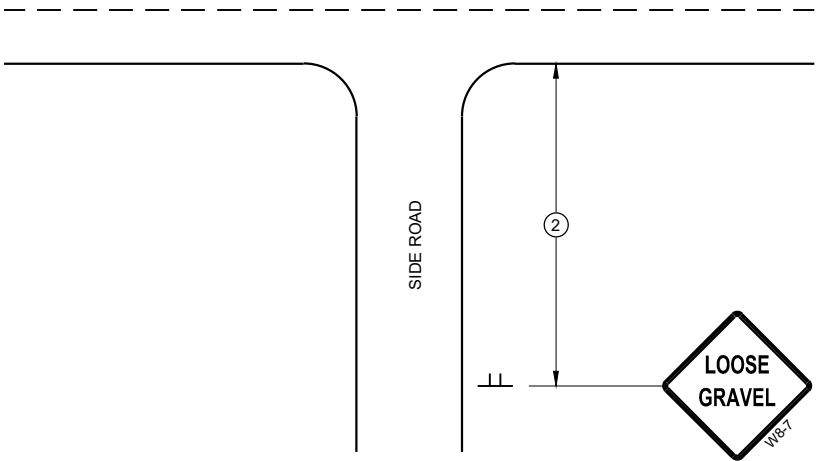
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

SEE 15C34 FOR ADDITIONAL TRAFFIC CONTROL SIGNING WHEN CENTERLINE PAVEMENT MAKINGS ARE MISSING. 'DO NOT PASS' SIGNS MUST BE INSTALLED ON THE SAME DAY AS MILLING OPERATIONS.

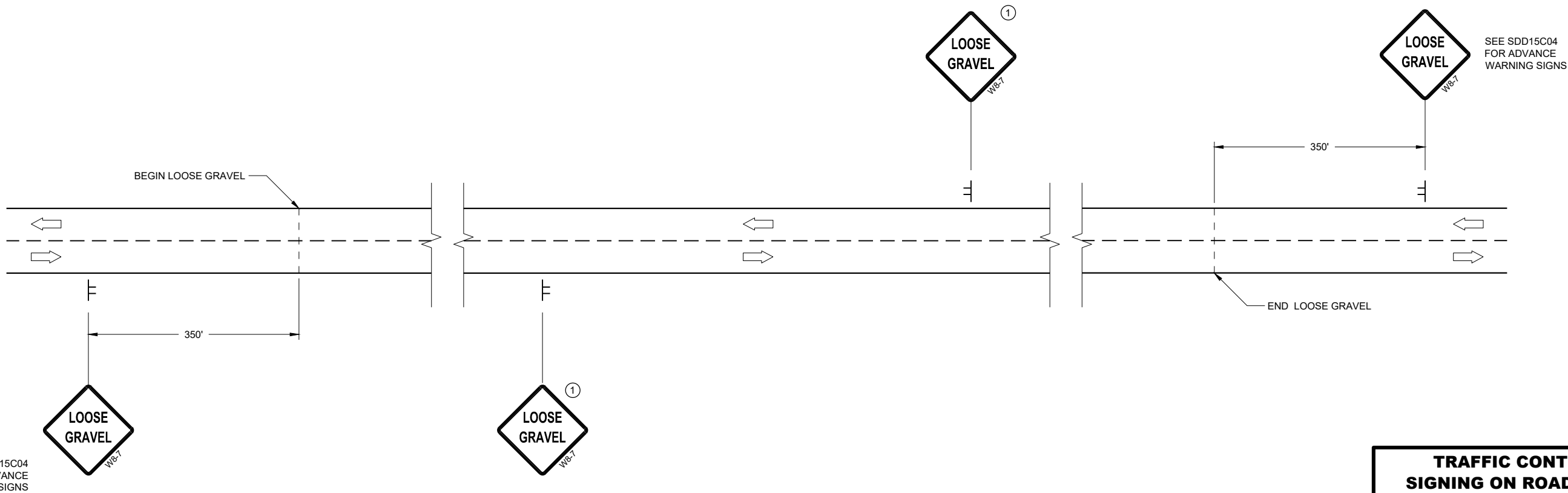
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



DETAIL FOR SIGNING ON CHIP SEALED SURFACES

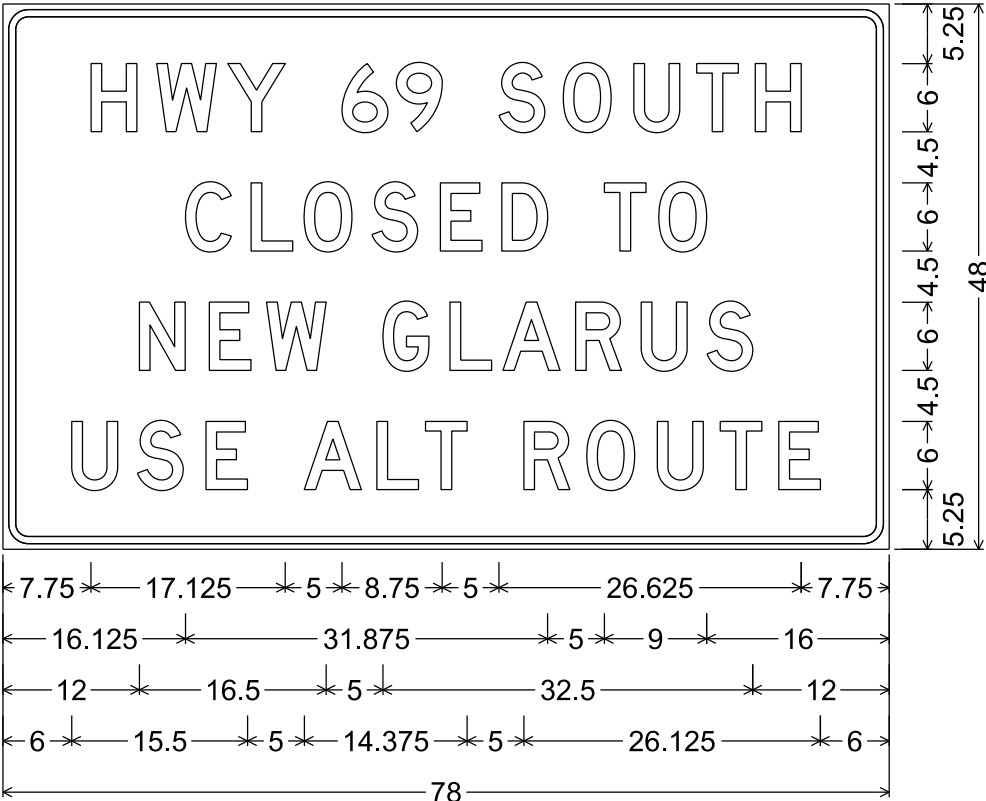
TRAFFIC CONTROL
SIGNING ON ROADWAYS
WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 125

FHWA

7



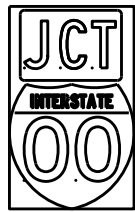
2.250" Radius, 0.625" Border, 0.500" Indent,

NOTES

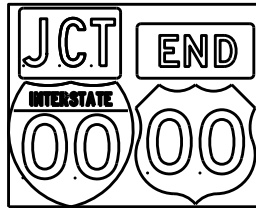
- 1. Fixed Message Type II Sign - Type F Reflective
- 2. Color:
 - Background - Orange
 - Message - Black
- 3. Message Series - D

7

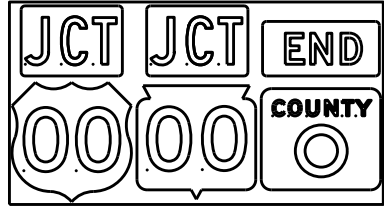
TYPICAL ASSEMBLIES



J1-1



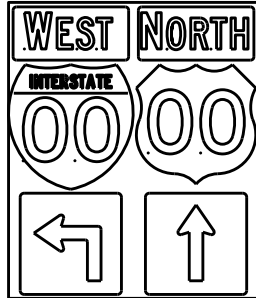
J1-2



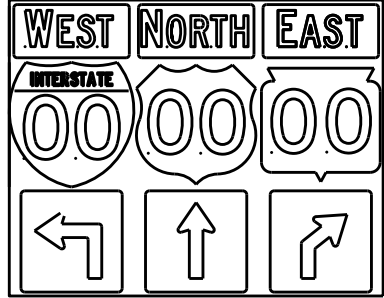
J1-3



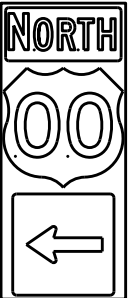
J2-1



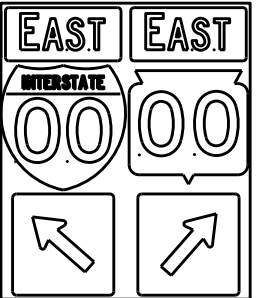
J2-2



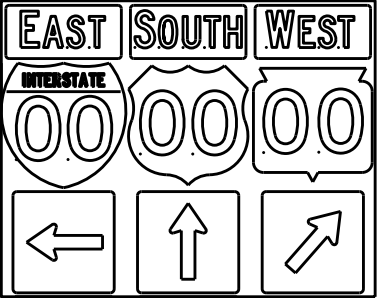
J2-3



J3-1



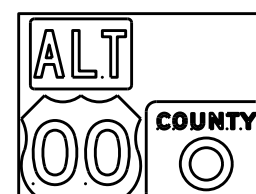
J3-2



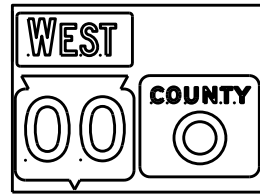
J3-3



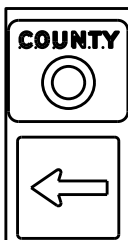
J4-1



J4-2



J4-2



J13-1



J12-1



J32-1



J33-1



J23-1

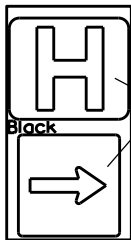


J22-1



JV

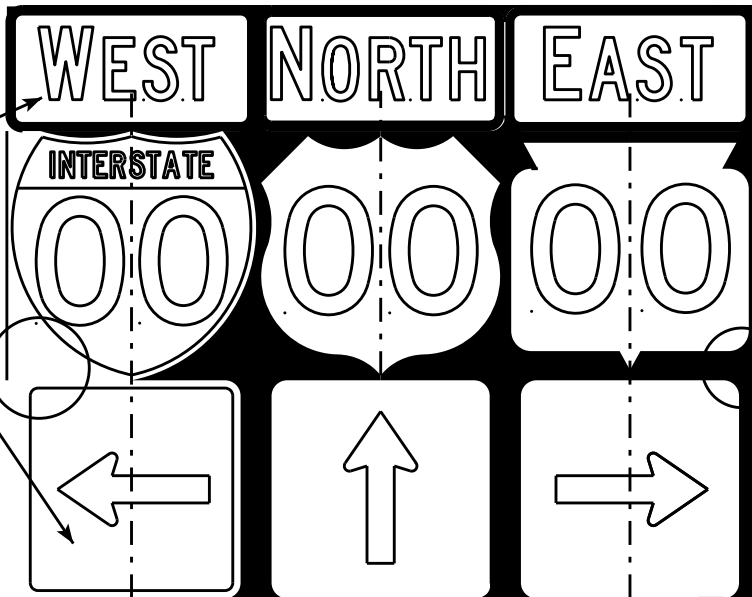
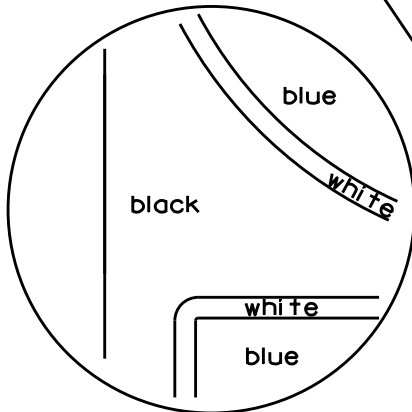
(Typical Vertical J-Assembly
See Note 10 and 11)



JH-1

Blue Background

[blue background
with interstate]



[black background]

ROUTE MARKERS & COMPONENTS
IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

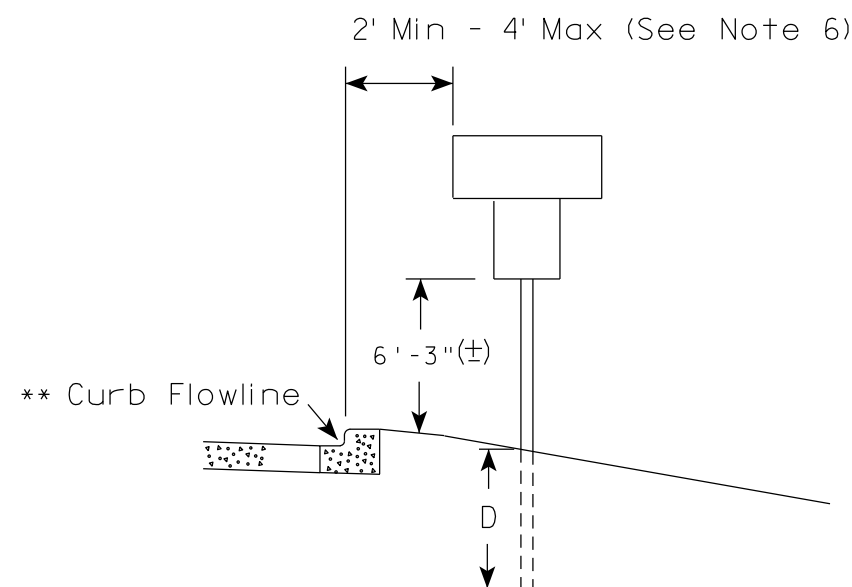
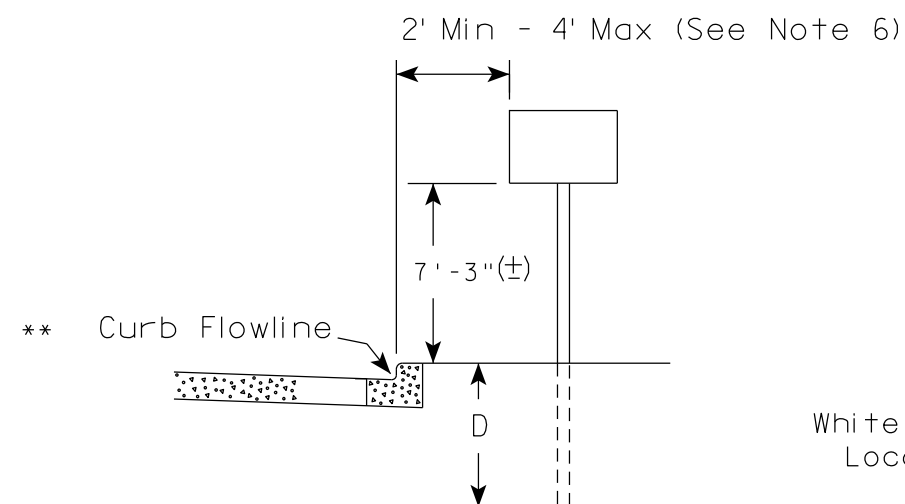
DATE 2/06/14 PL 127 A2-1S.8

SHEET NO: E

NOTES

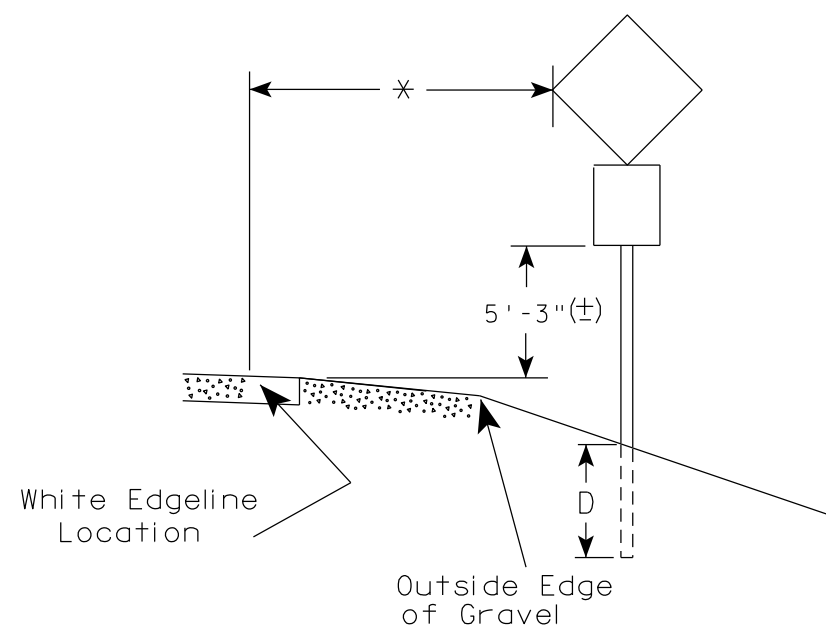
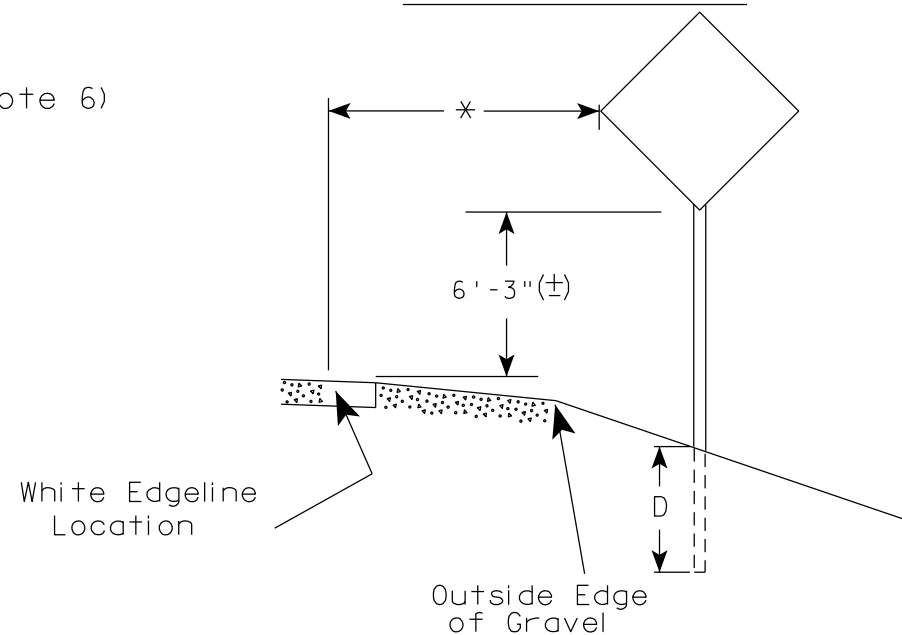
- Signs are Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
- Color:
Background - Black Non-reflective
Message - see Note 5
- Message Series - See Note 5
- Corners shall be square or rounded if base material is plywood. If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

URBAN AREA



✱✱ 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.

RURAL AREA (See Note 2)



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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
The Double Arrow sign (W12-1D) 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" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the Engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 5/13/2020 PLATE NO. A4-3.22

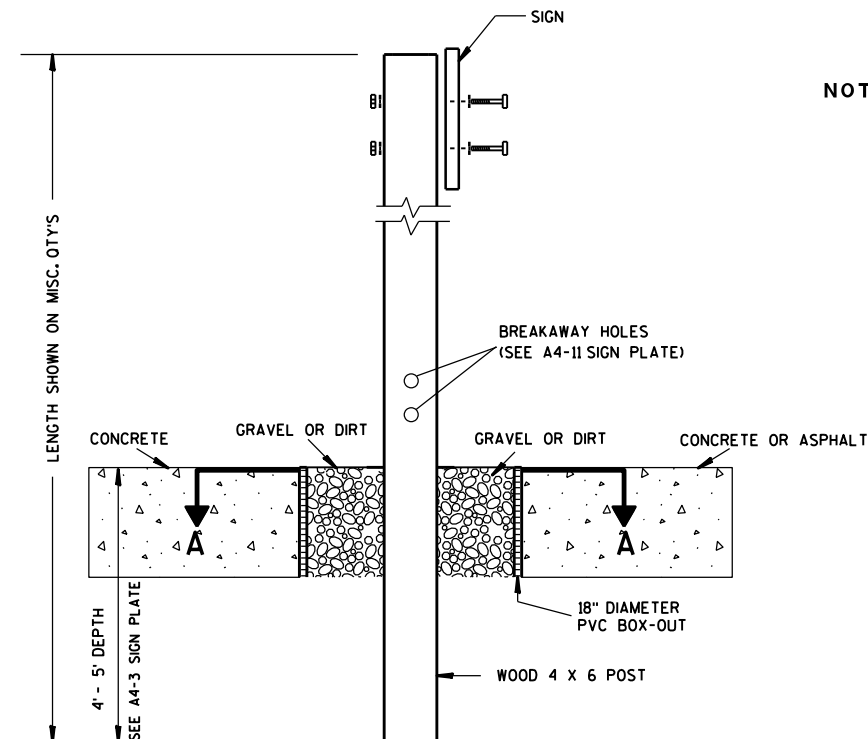
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 128

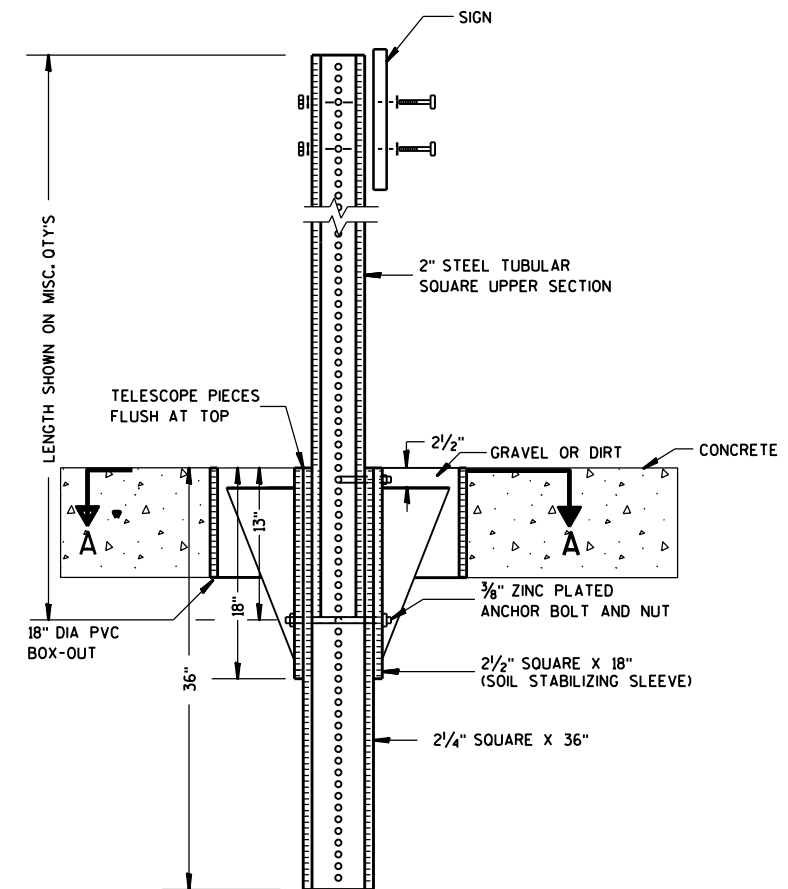
E



ELEVATION VIEW

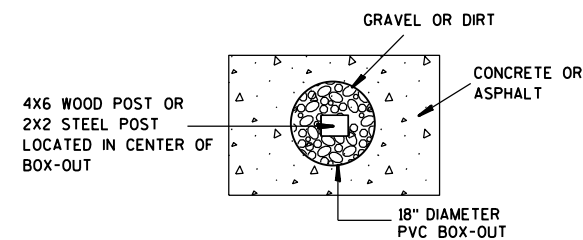
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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 PLAT 129 A4-3B.1

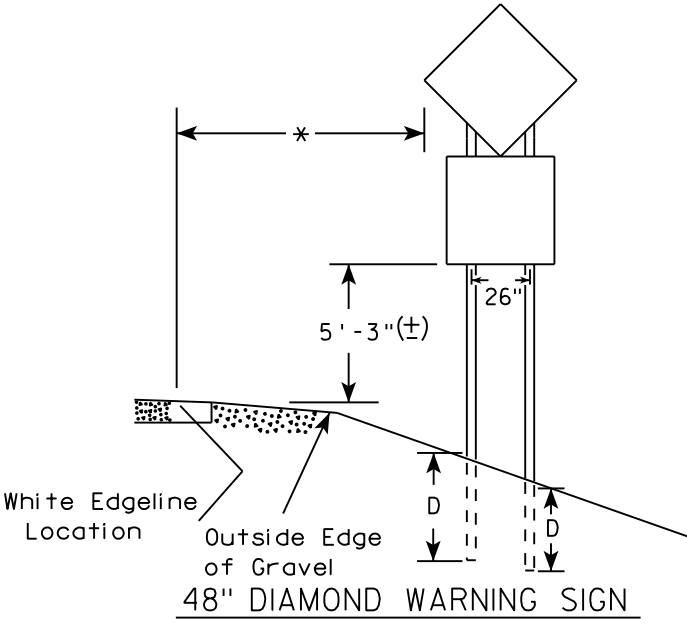
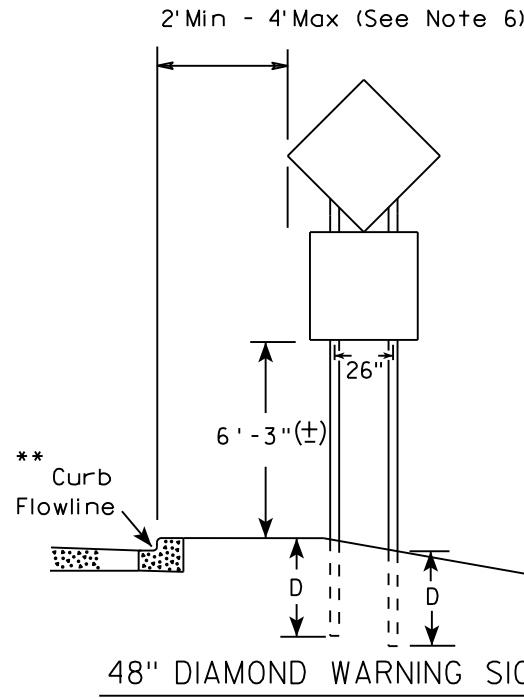
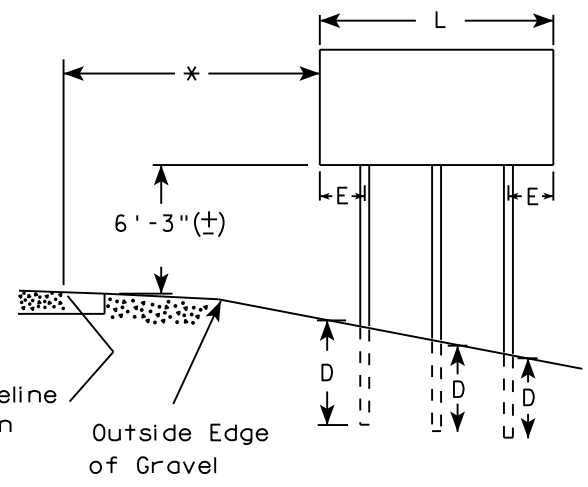
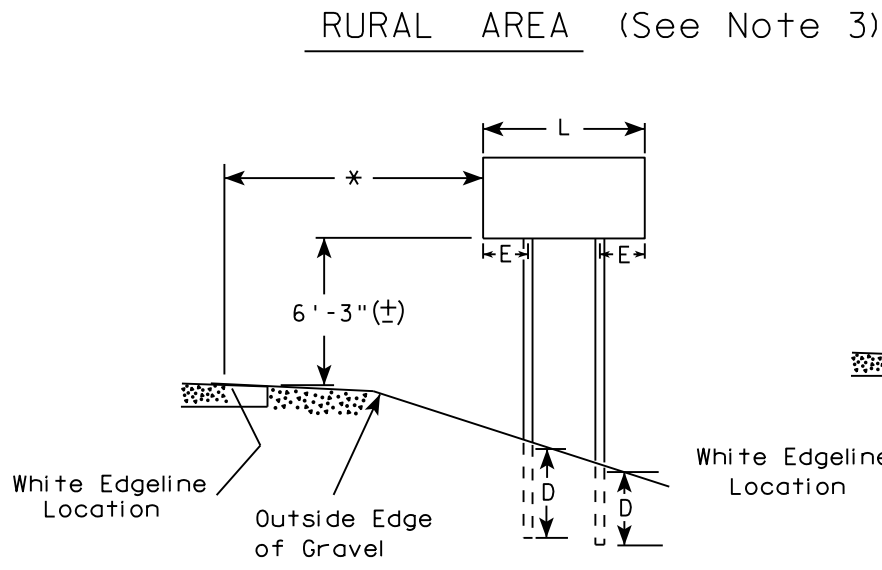
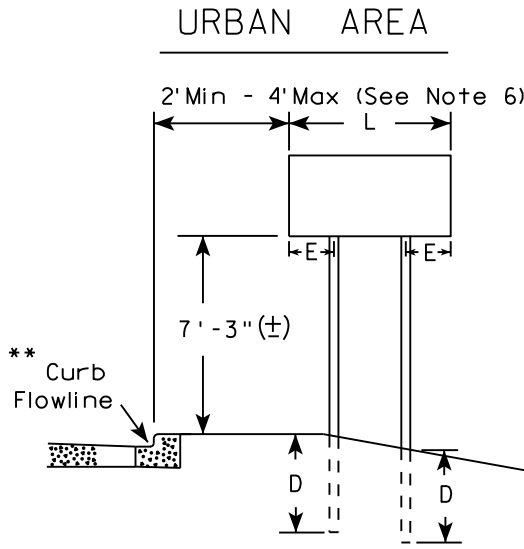
PROJECT NO:

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

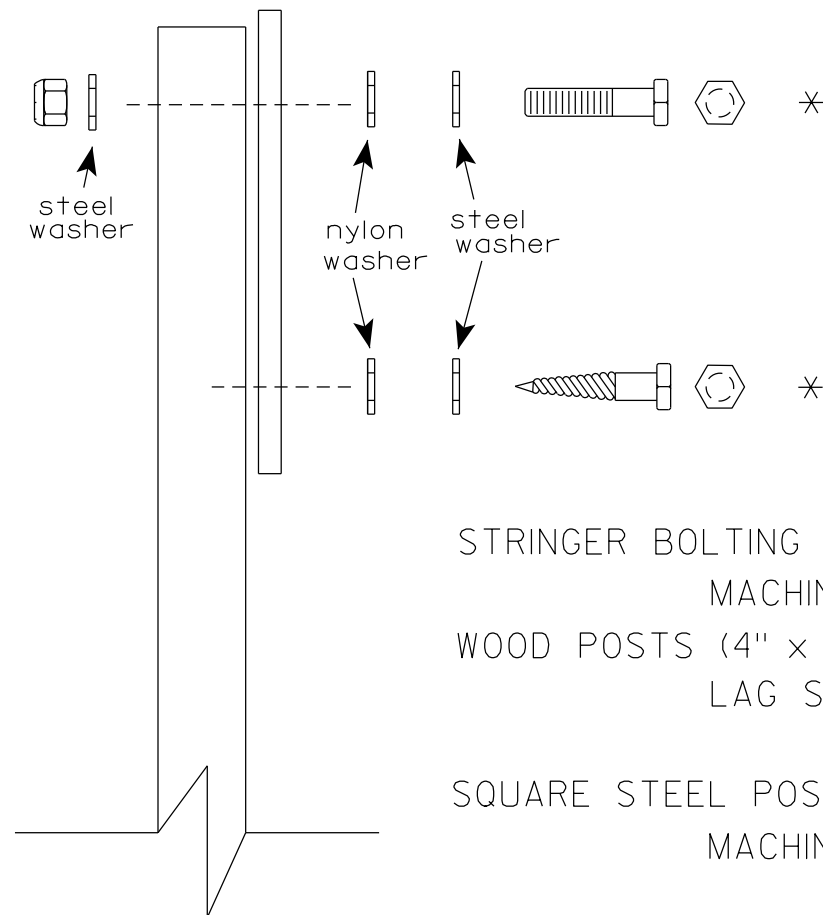
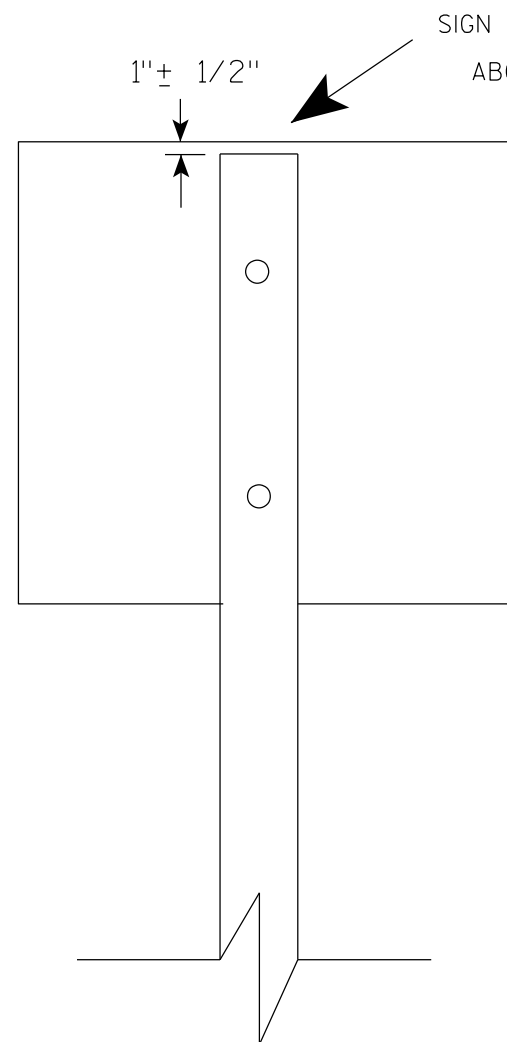
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

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.

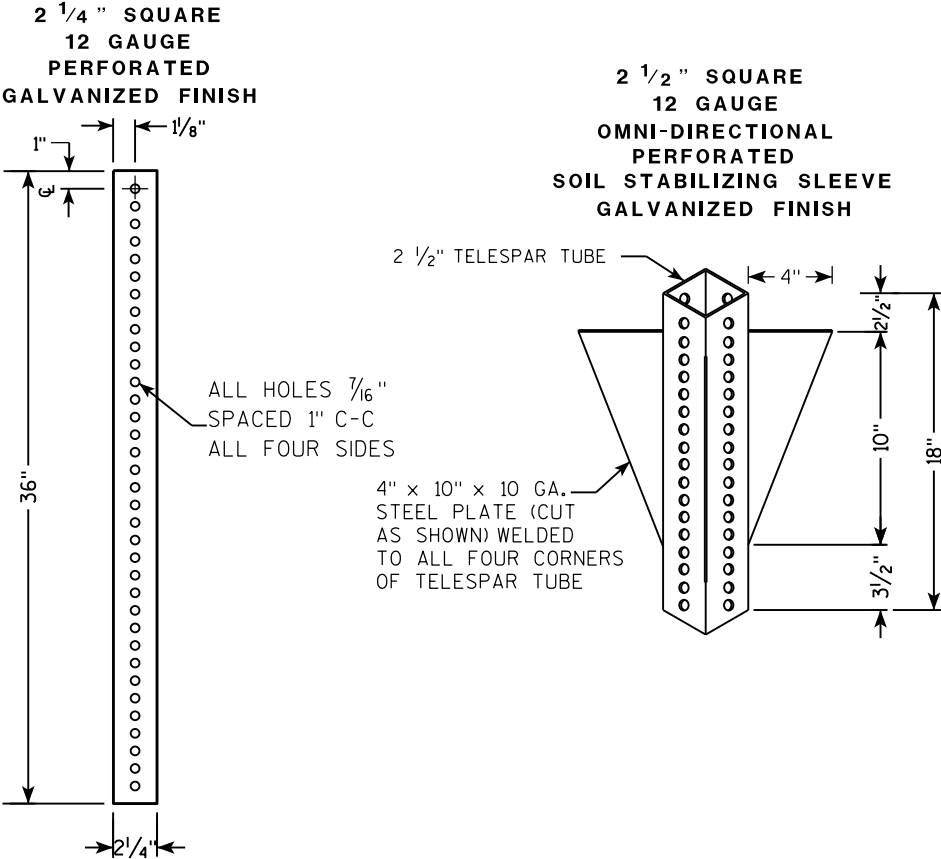
Threads on bolts and nuts shall be manufactured with sufficient allowance for the cadmium plate or galvanized coating to permit the nuts to run freely on the bolts.

- 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 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

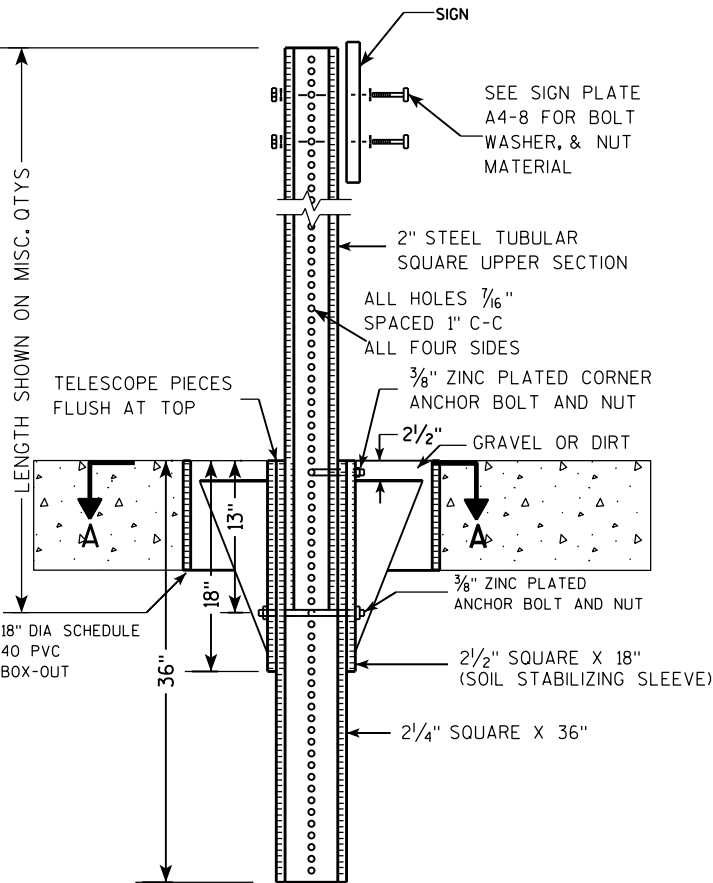
* Two different fastening systems are shown for illustration purposes. On any individual sign, either one or the other system shall be used. Actual number of fasteners per sign varies with the sign area, but normally there are two. For a single post installation, all signs greater than 9 sq. ft. require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

ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R. Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

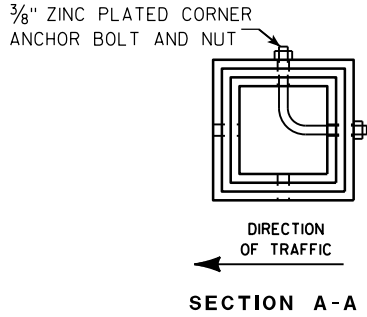
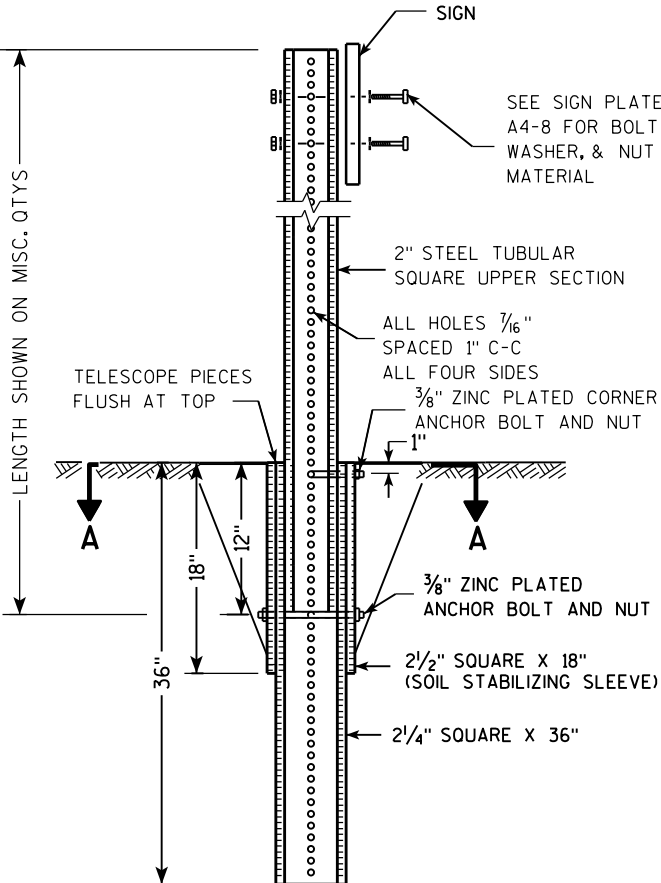
TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM



DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



DETAIL OF TUBULAR STEEL SIGN POST
(IN LOCATIONS OTHER THAN POURED CONCRETE OR ASPHALT)



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

Signs wider than 3 feet or larger than 9 sq. ft shall be mounted on multiple posts (see above table).

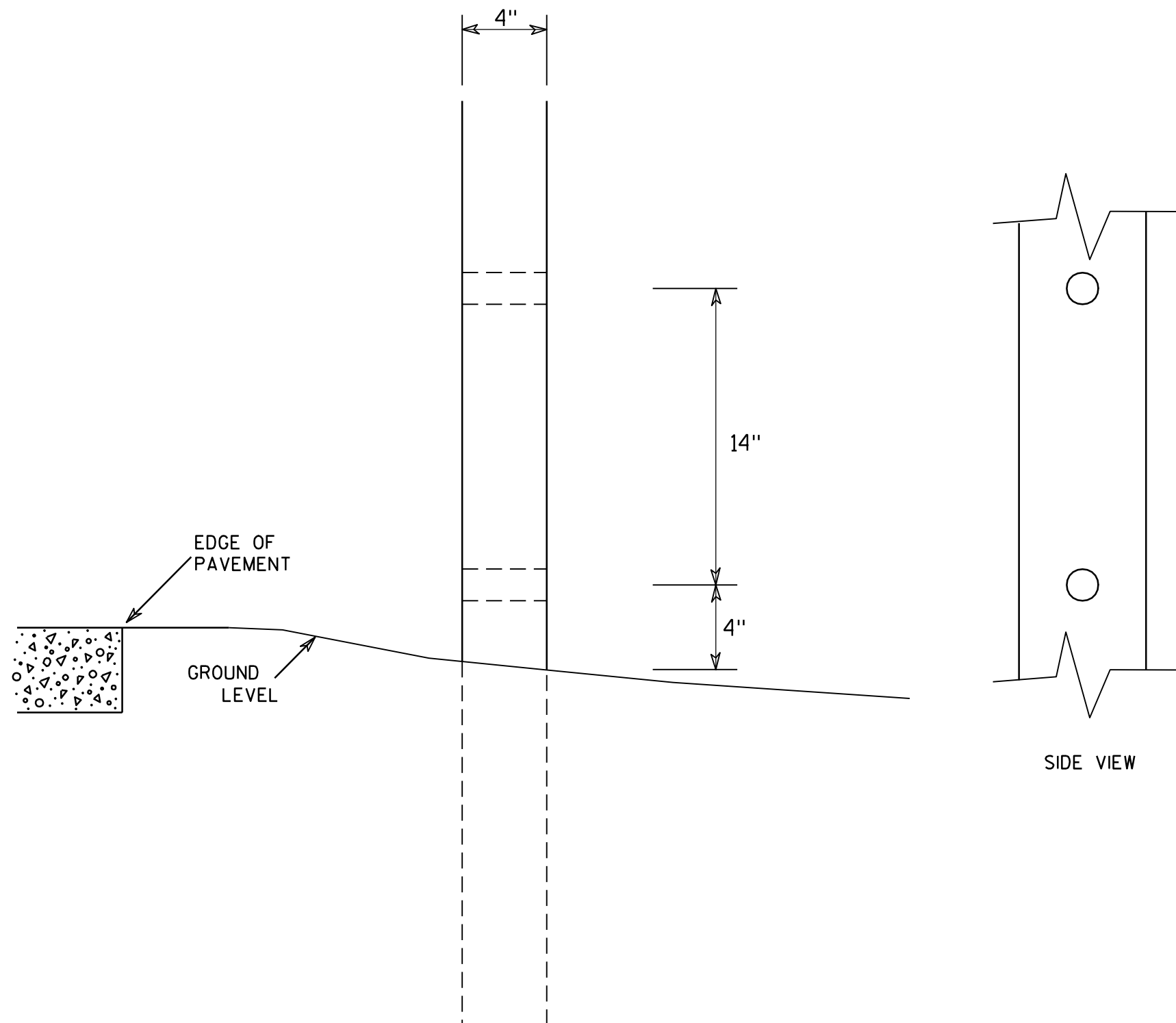
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/05/15 PLAT 132 14-9.9

7



GENERAL NOTES

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

7

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:

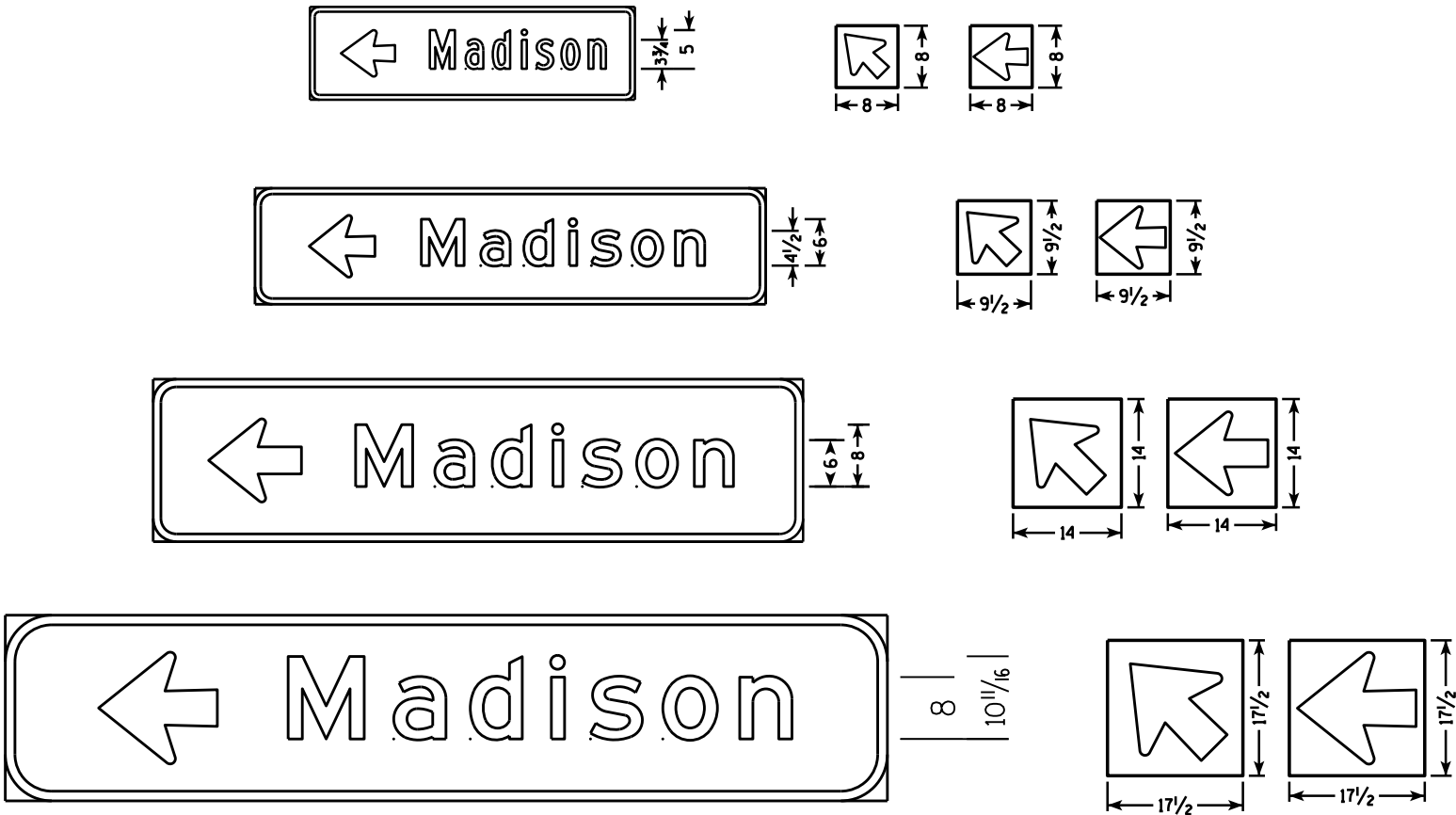
SHEET NO: 133

E

SIGN LAYOUT WITH VARIOUS SIZED MESSAGES

GENERAL NOTES

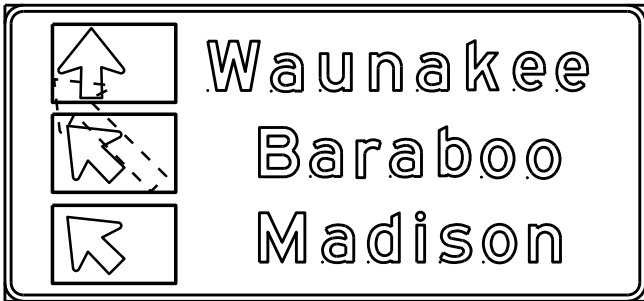
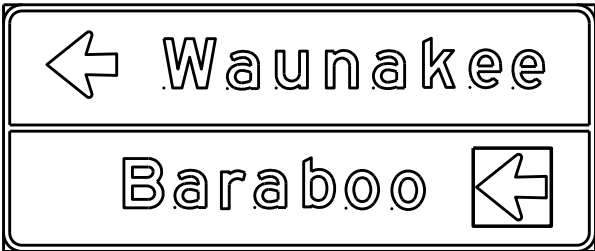
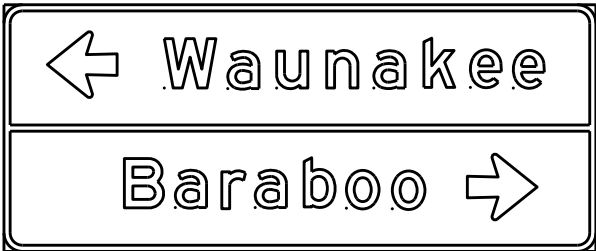
- 1. Materials shall conform to Standard Specification Section 637.
Base - Sheet Aluminum 0.040" Thickness
Sheeting - Orange Type F Reflective
Arrow - Black Non-Reflective
- 2. Arrow signs shall be fastened to permanent sign by either aluminum rivets or aluminum self-tapping sheet metal screws.
There shall be a minmum of 2 fasteners used per arrow sign.
- 3. There shall be a spacer consisting of a 0.08" nylon washer between the back of the arrow sign and the face of the permanent sign.
- 4. Arrows are per standard plate A1-2
- 5. Use separate arrow sign for each destination
- 6. Tilt arrow is always at 45 degrees
- 7. Arrow is centered on arrow sign



Lower Case Copy Size	Standard Width (Single Arrow)	2 Line Tilt Arrow Cover Width	3 Line Tilt Arrow Cover Width	Height
3 3/4" Series C	8	9 1/2	14 1/2	8
4 1/2" Series D & E	9 1/2	10	15	9 1/2
6" Series D & E	14	16	20 1/2	14
8" Series E	17 1/2	20 1/2	25	17 1/2

BEFORE

AFTER



DESTINATION DIRECTIONAL ARROW FOR DETOUR SIGNS

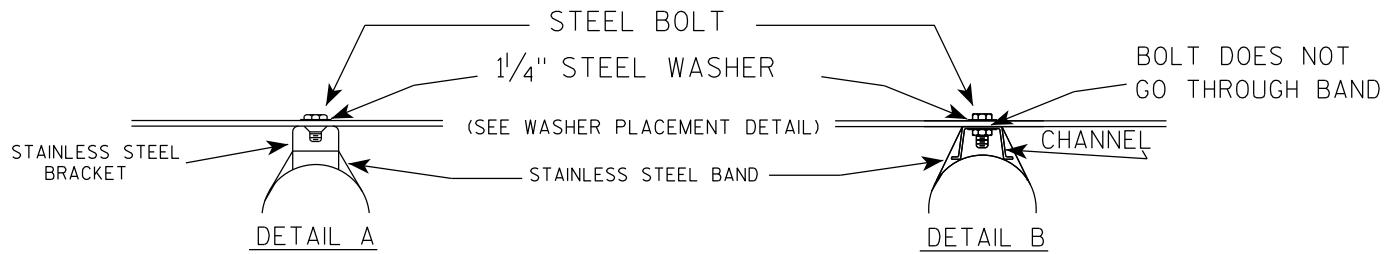
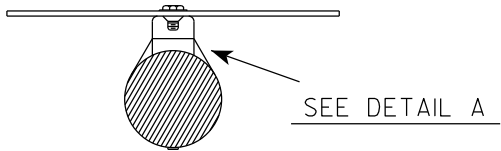
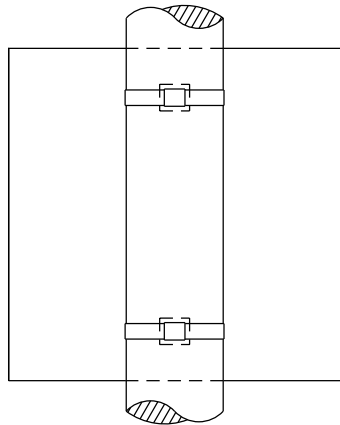
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

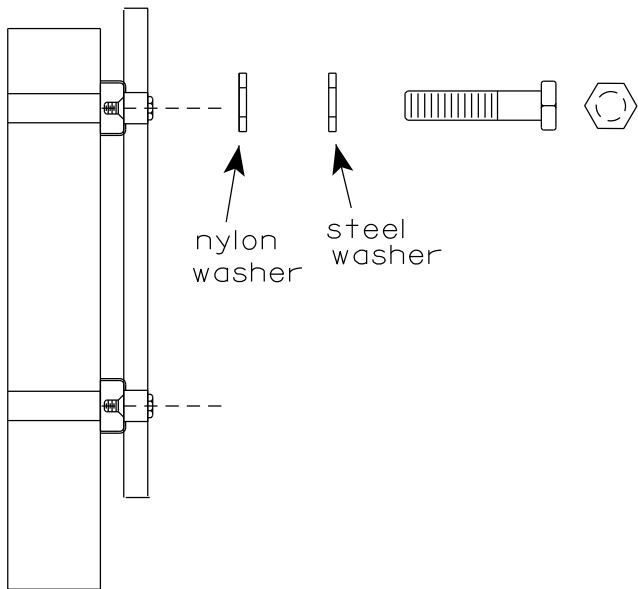
DATE 10/08/14 134 . A4-12.2

BANDING

SINGLE SIGN



WASHER PLACEMENT

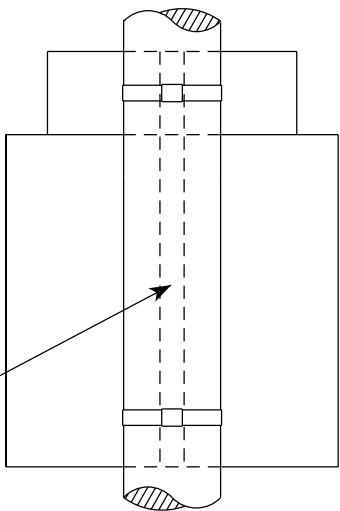


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

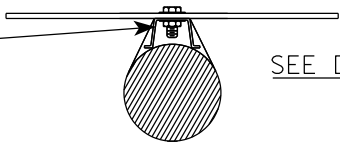
GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be 3/4" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET

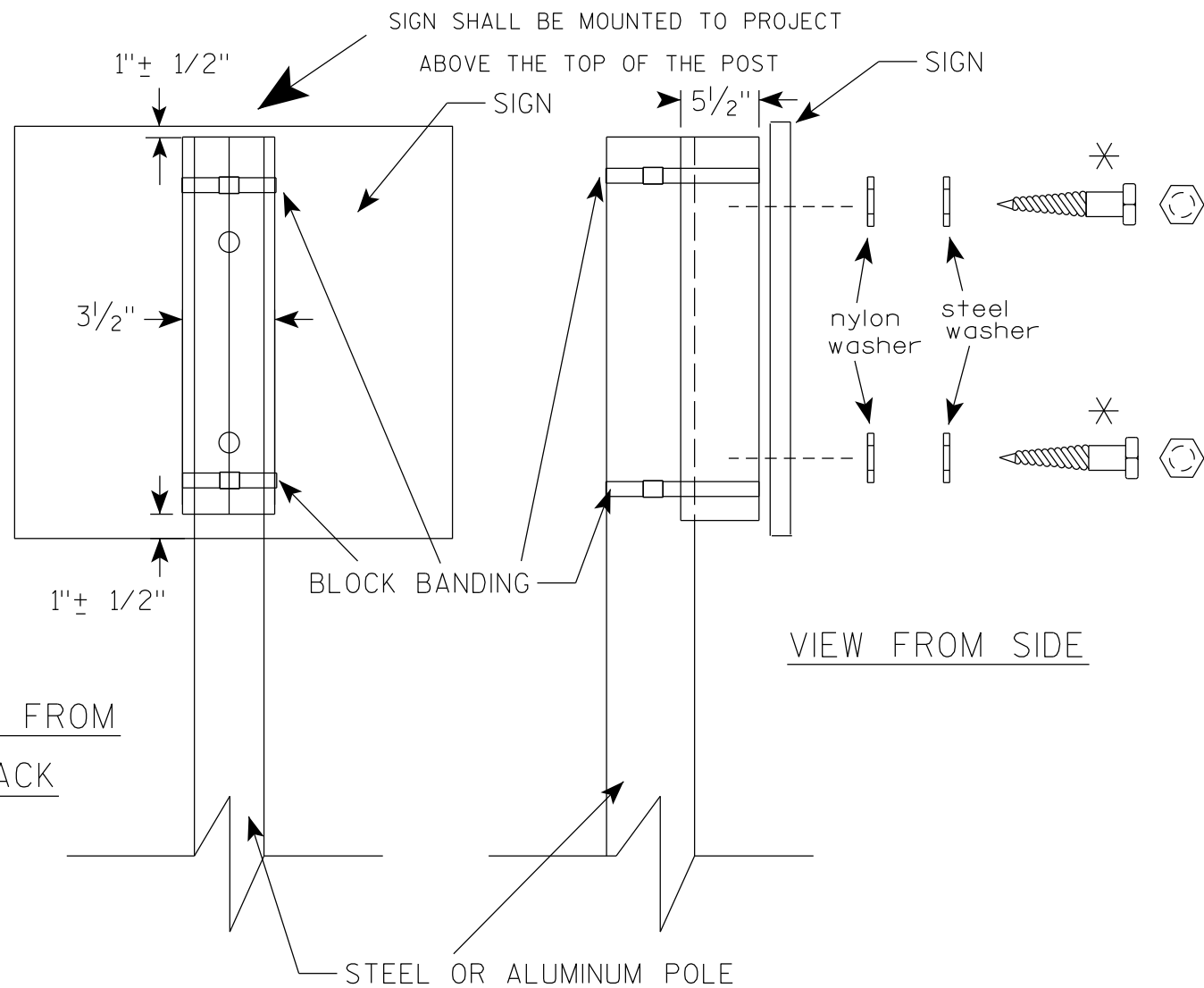


STANDARD SIGN
SIGN BANDING DETAILS

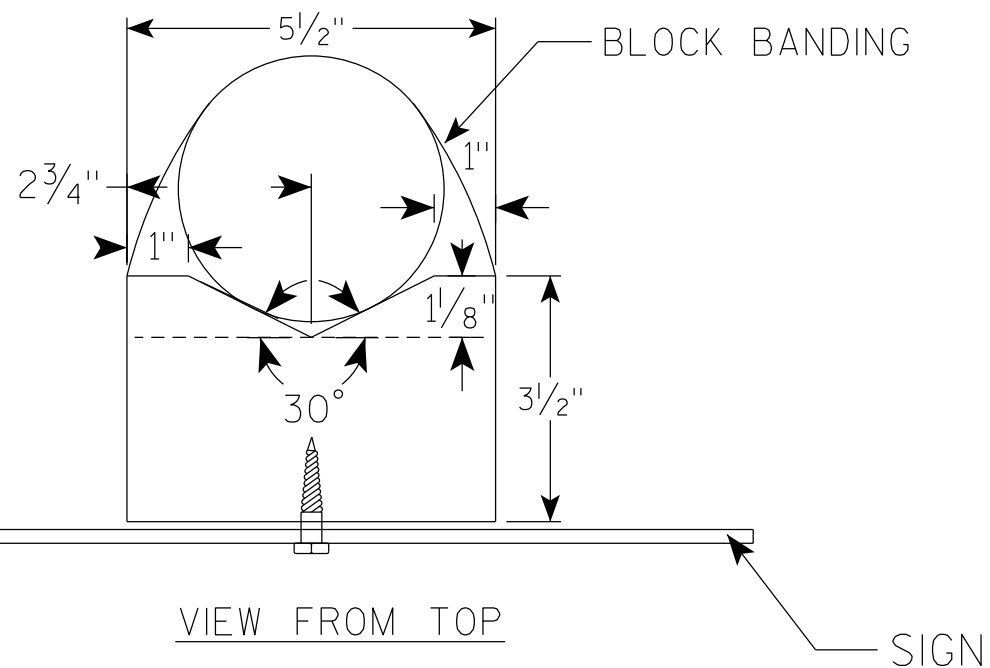
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer
DATE 6/10/19 PLATE NO. A5-9.4

VIEW FROM
BACK



VIEW FROM SIDE



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, $\frac{3}{4}$ " 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
 - b. 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 $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $1\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE $\frac{3}{8}$ " X $2\frac{1}{2}$ "

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 6/10/19 PLATE NO. A5-10.2

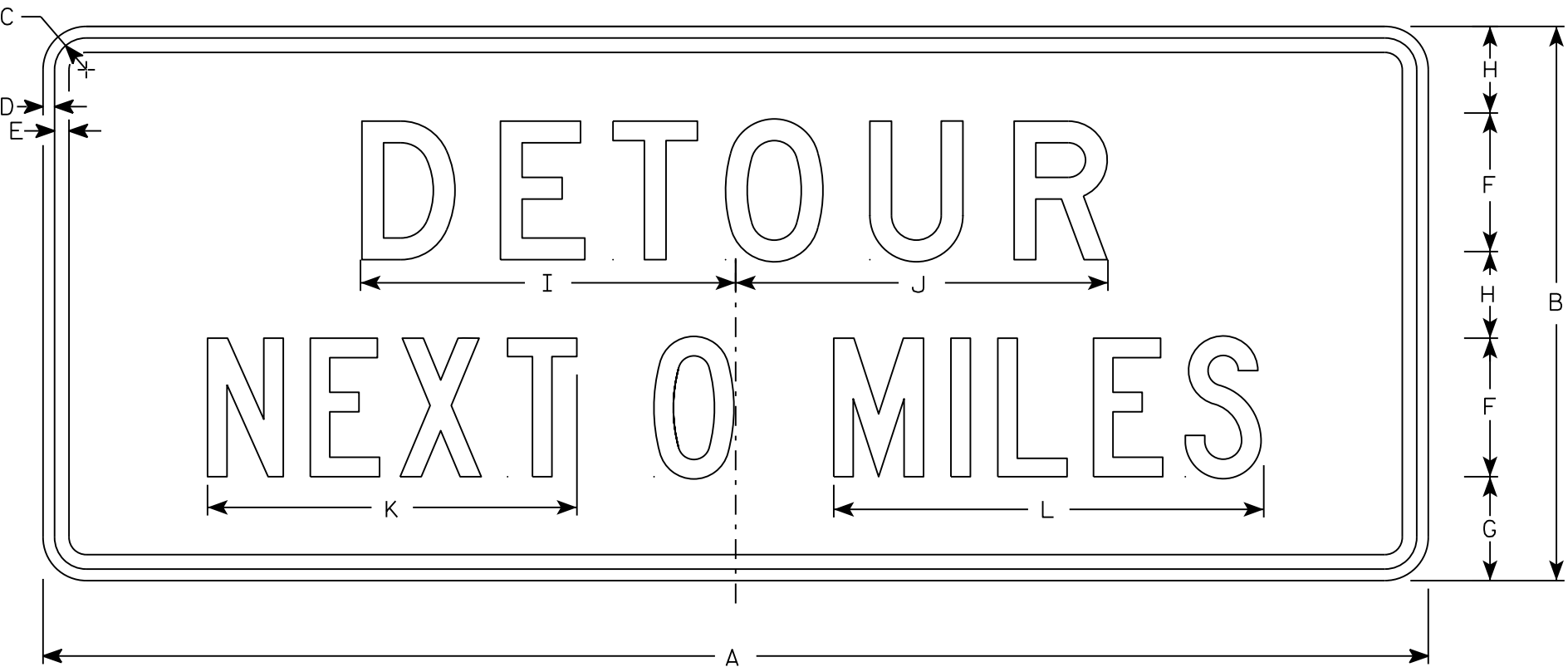
PROJECT NO:

SHEET NO: 136

E

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - Line 1 is D and Line 2 is 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. Round distance to nearest whole Mile and substitute appropriate numerals and optically adjust spacing to achieve proper balance



G20-51

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	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
3																											
4	60	24	1 3/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10
5																											

STANDARD SIGN

G20-51

WISCONSIN DEPT OF TRANSPORTATION

APPROVED

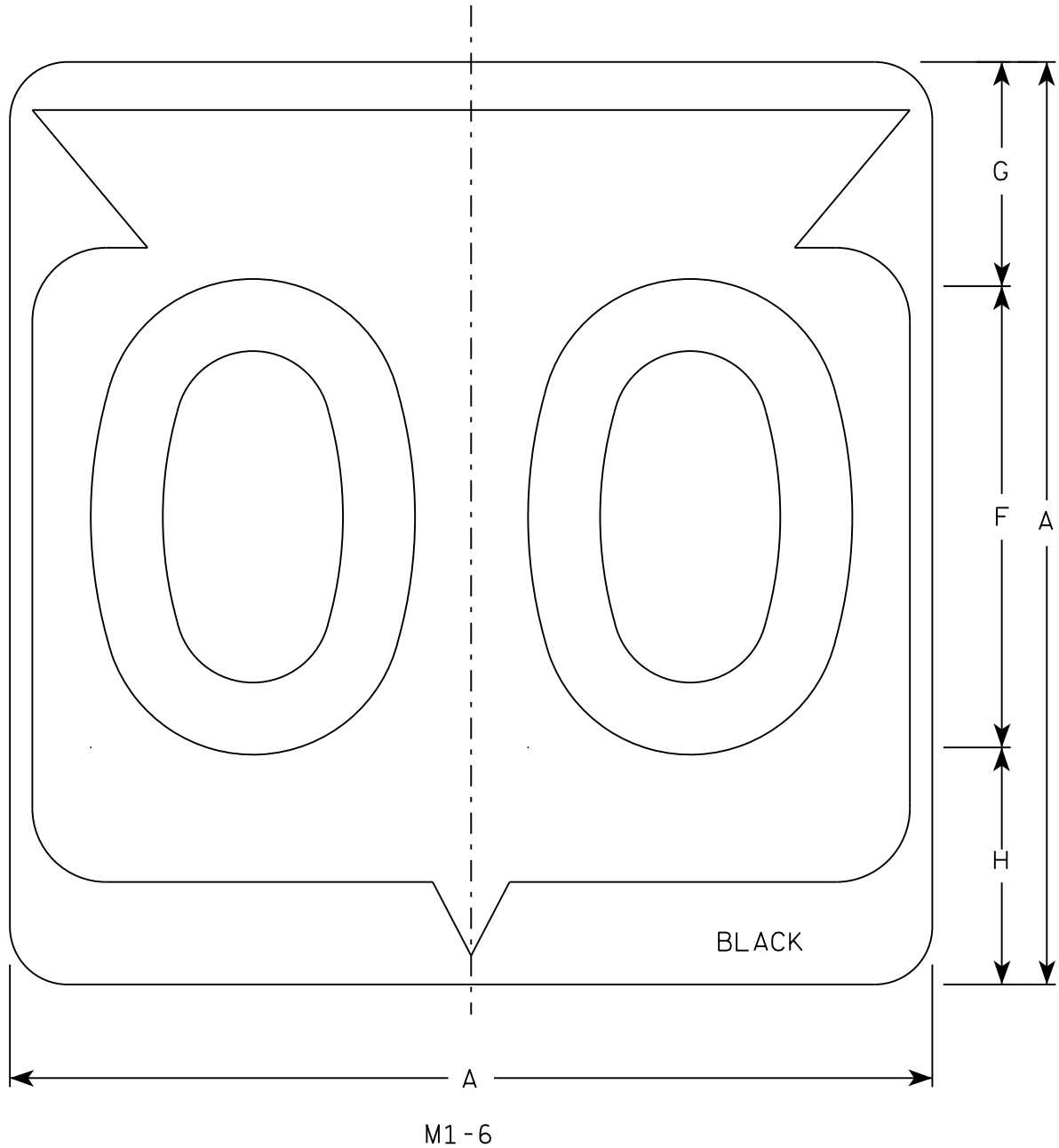
Matthew R. Rauch

for State Traffic Engineer

DATE 3/14/17

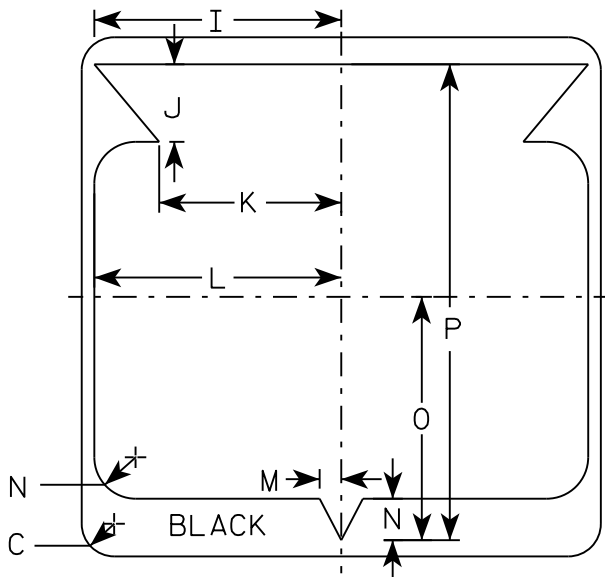
PLATE NO. G20-51.2

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: 138

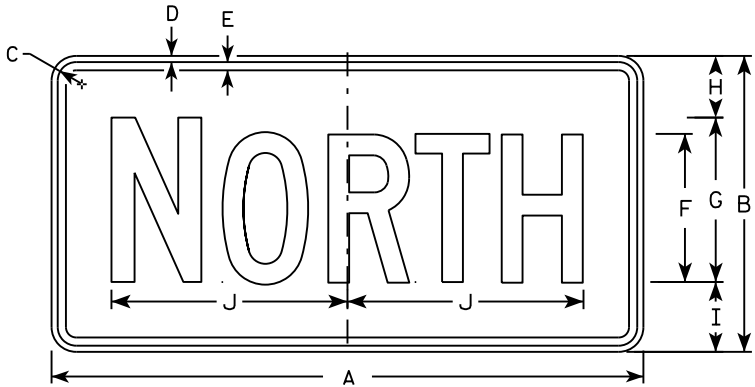
E

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

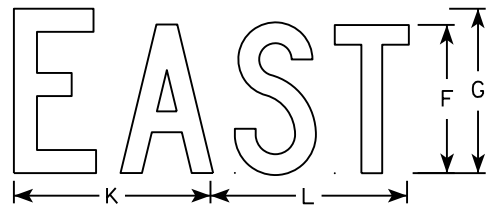
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

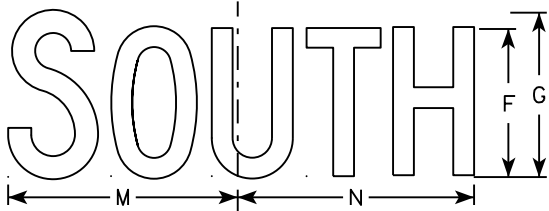
DATE 3/16/18 PLATE NO. M1-6.10



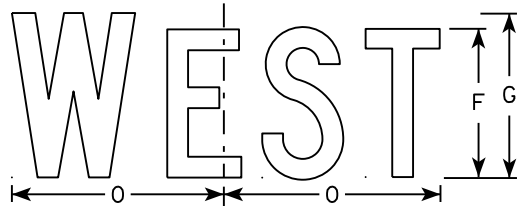
M3-1
MM3-1
MP3-1



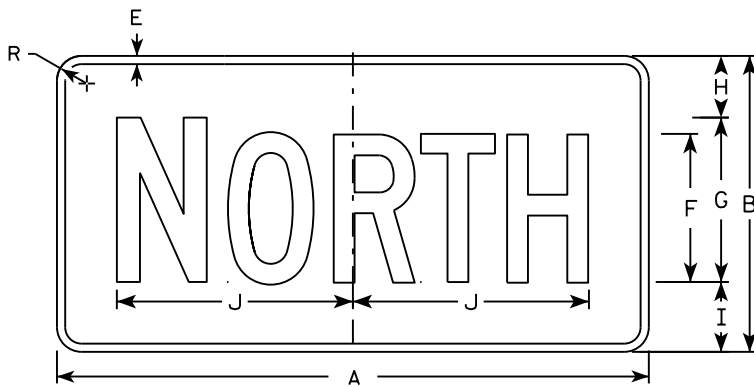
M3-2
MM3-2
MP3-2



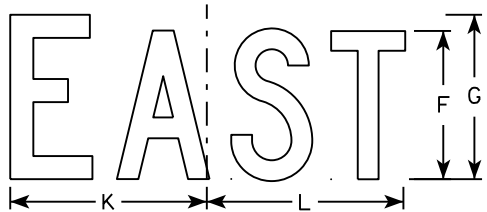
M3-3
MM3-3
MP3-3



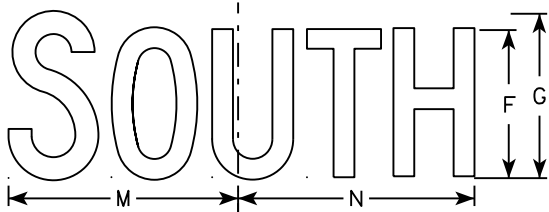
M3-4
MM3-4
MP3-4



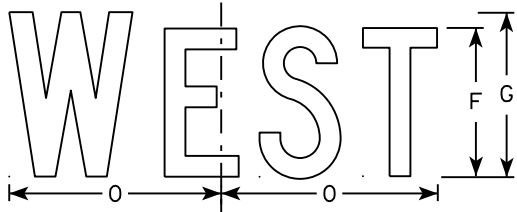
MB3-1
MK3-1
MN3-1



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

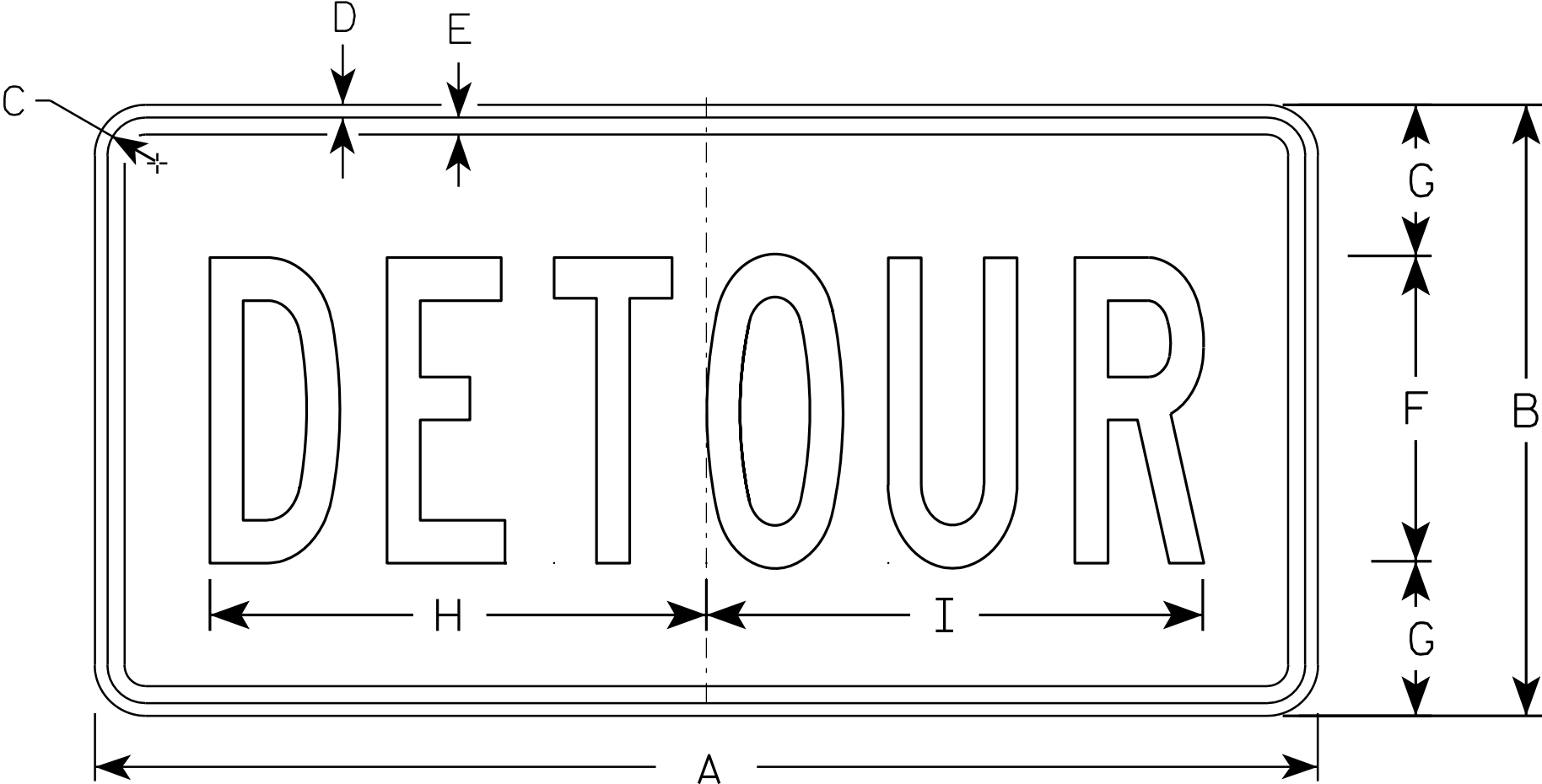
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE NO. 139 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																											

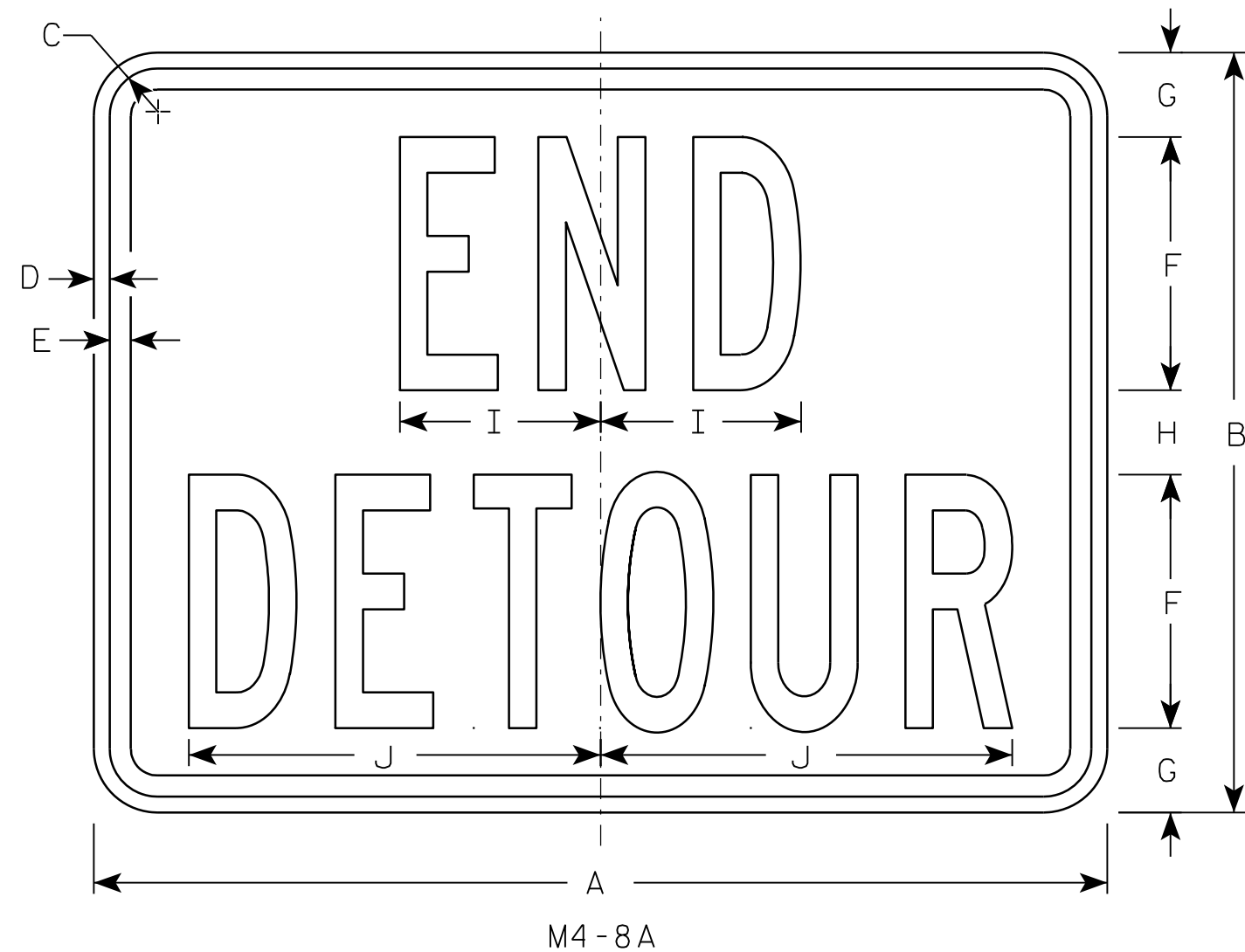
STANDARD SIGN
M4 - 8

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																											

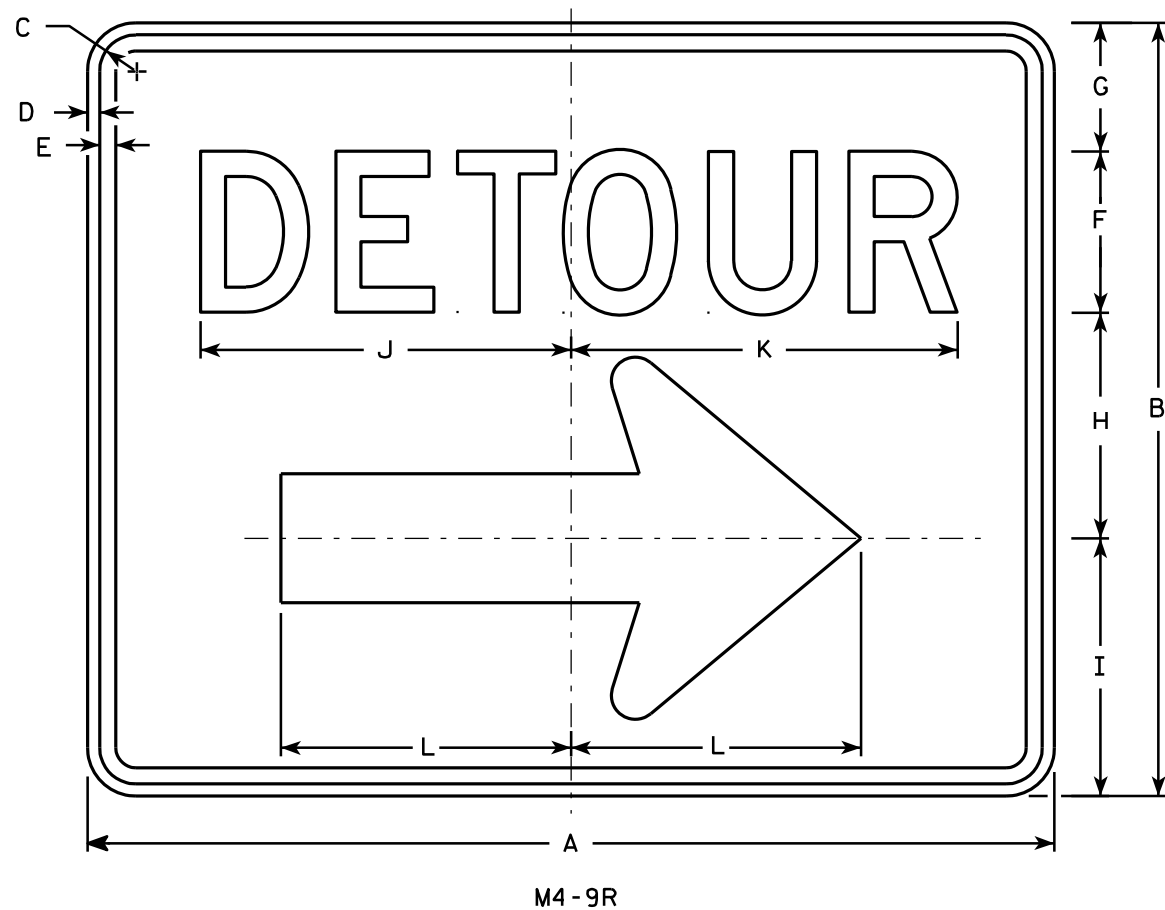
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 141	E
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STANDARD SIGN
M4-8A

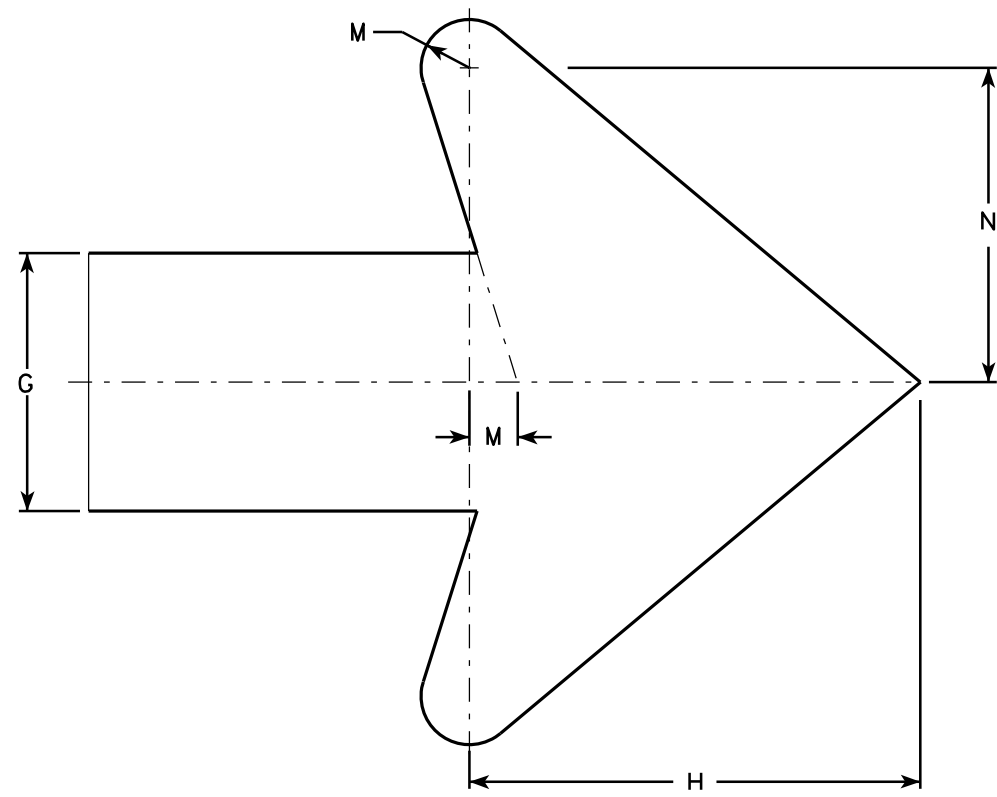
WISCONSIN DEPT OF TRANSPORTATION

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.



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

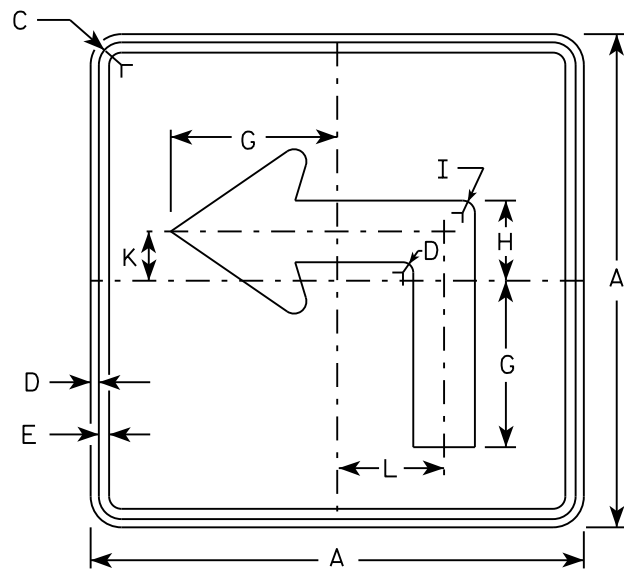
PROJECT NO:

HWY:

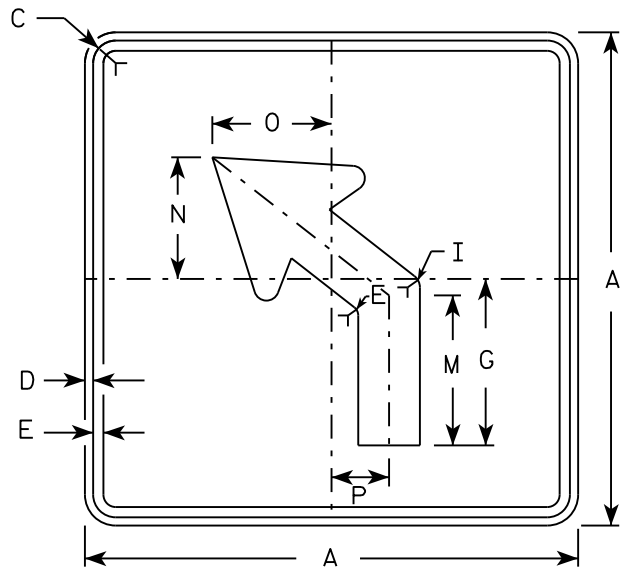
COUNTY:

SHEET NO: 142

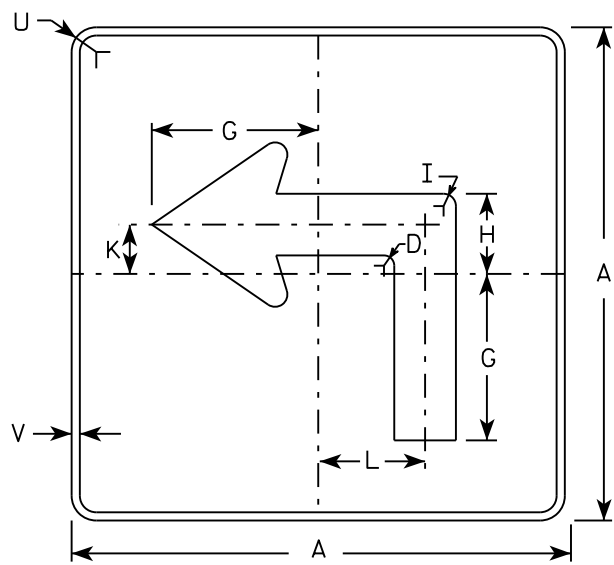
E



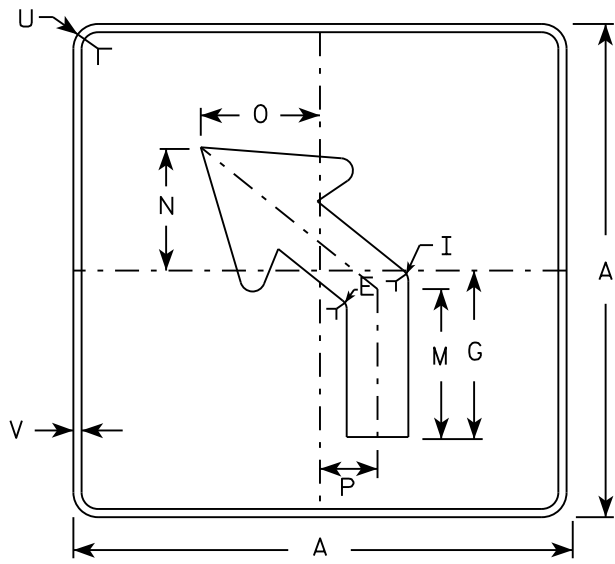
M5-1L
MM5-1L
M05-1L
MP5-1L



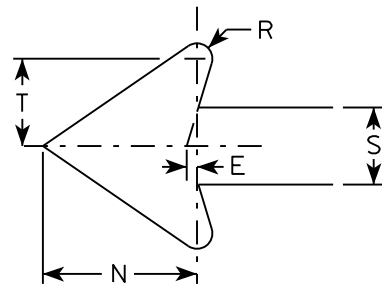
M5-2L
MM5-2L
M05-2L
MP5-2L



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

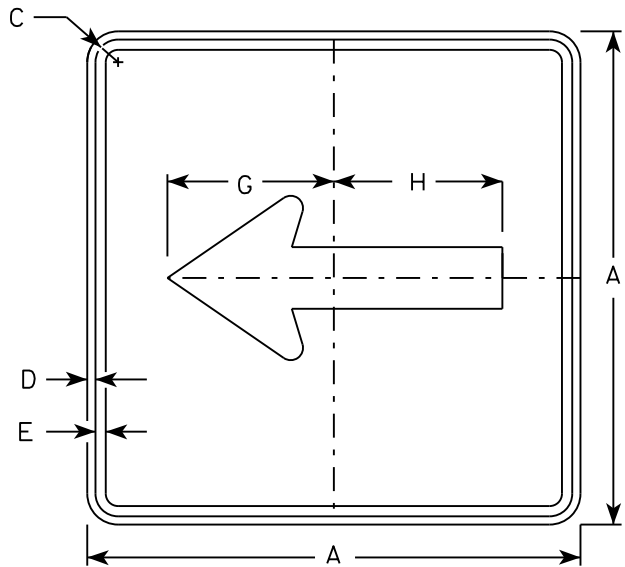
PROJECT NO:	HWY:	COUNTY:	SHEET NO:	E
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STANDARD SIGN
M5-1 & M5-2

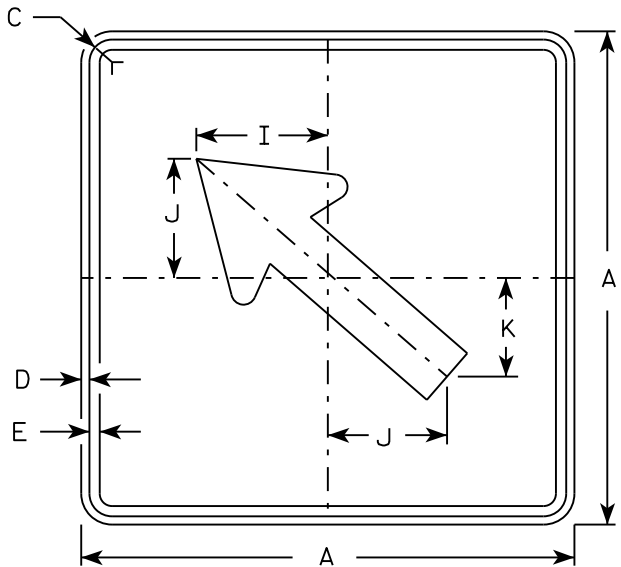
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

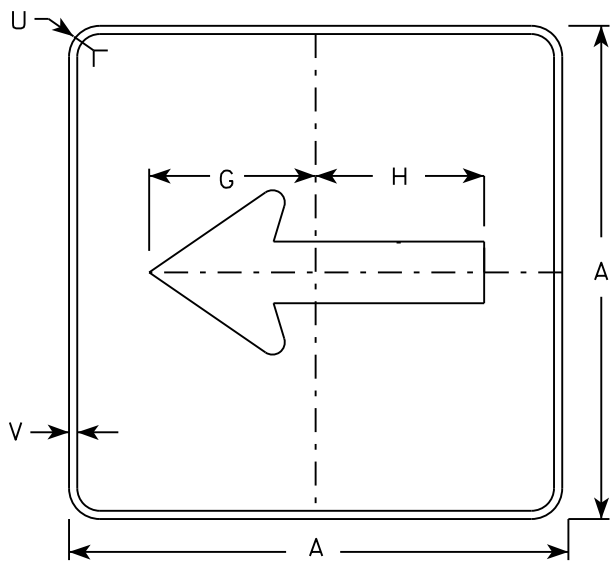
DATE 10/15/15 PLATF 143 M5-1.13



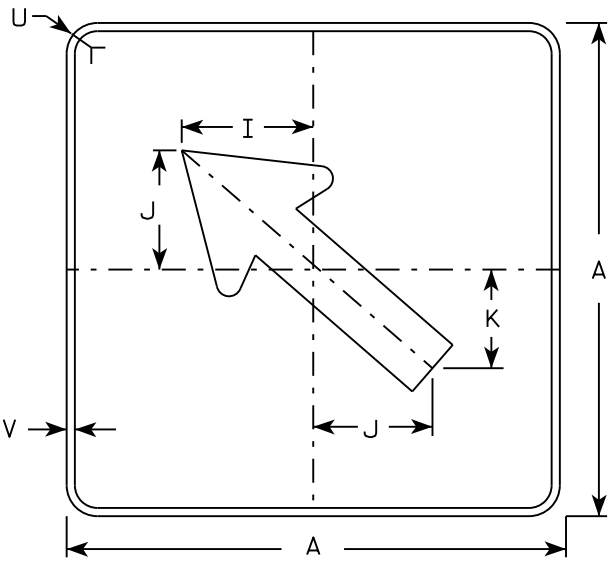
M6 - 1
MM6 - 1
M06 - 1
MP6 - 1



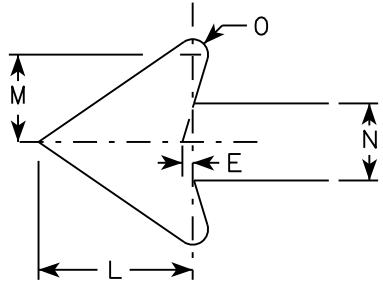
M6 - 2
MM6 - 2
M06 - 2
MP6 - 2



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



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



NOTES

- Signs are Type II - Type H 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.
- 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:

DATE 10/15/15

PLAT 144

SHEET NO:

E

STANDARD SIGN
M6 - 1 & M6 - 2
SERIES

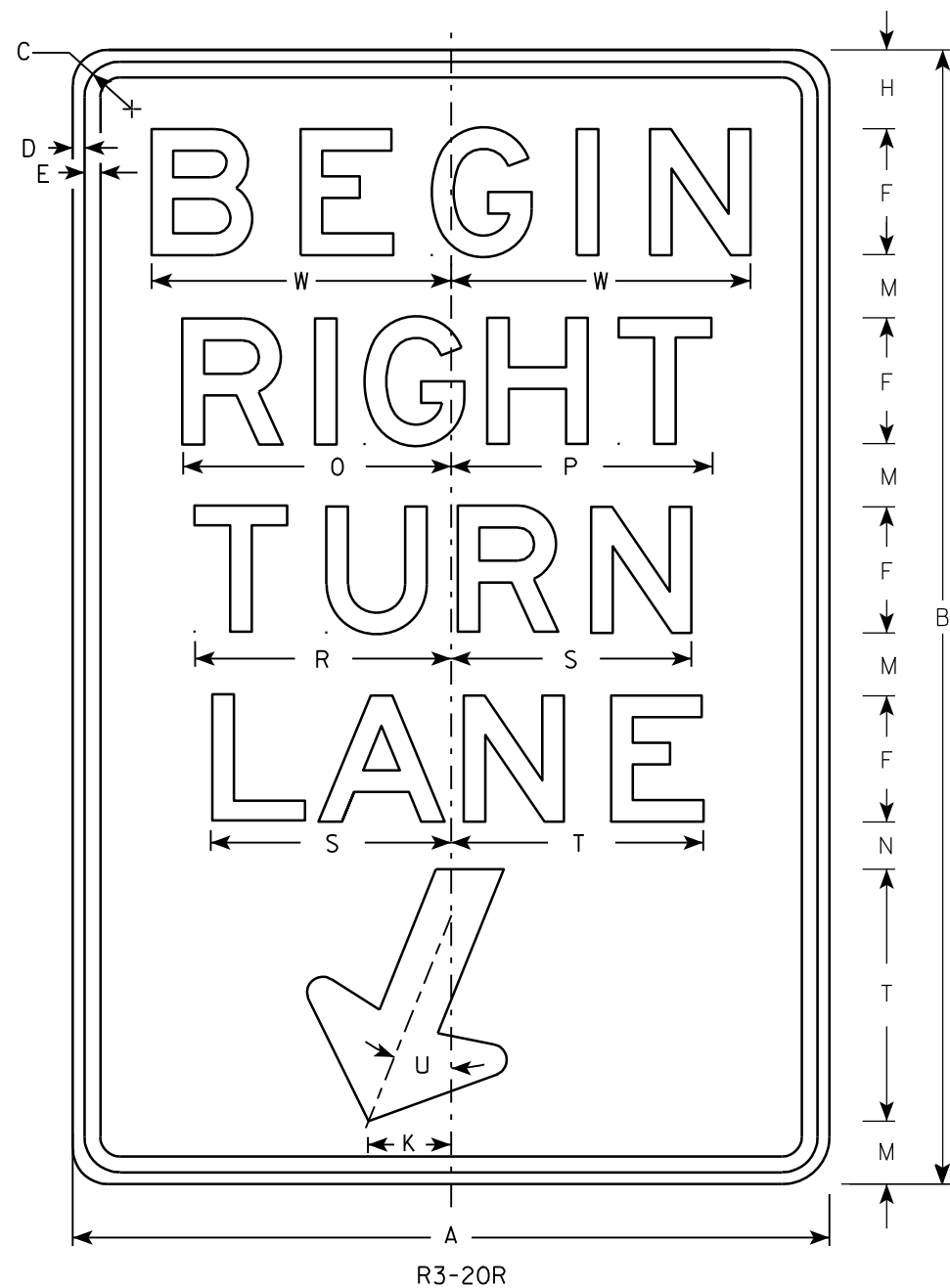
WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

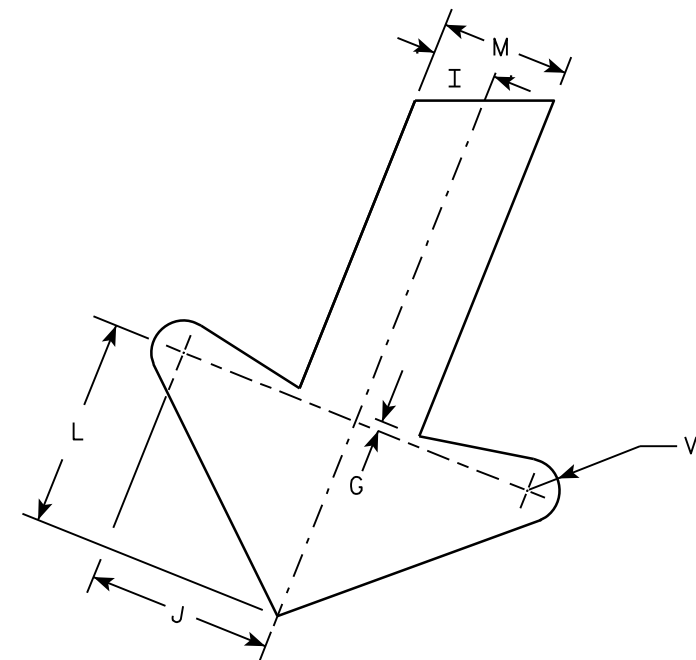
DATE 10/15/15

PLAT 144

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



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/8	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	8 1/2	8 1/4		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 3/4	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	12 3/4	12 1/2		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

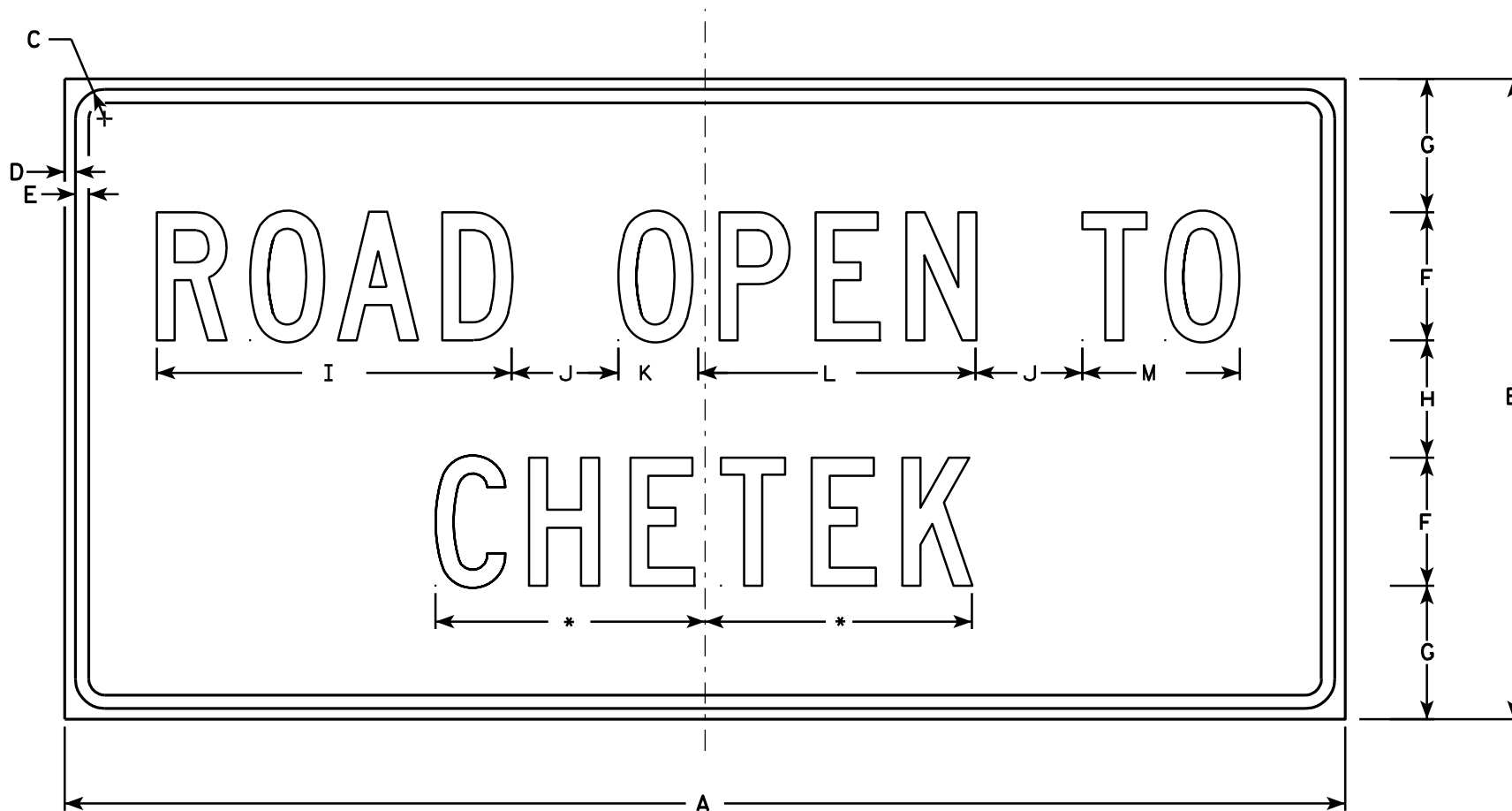
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 145	E
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STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 10/18/10 PLATE NO. R3-20R.6



R10-61

*See note 5

NOTES

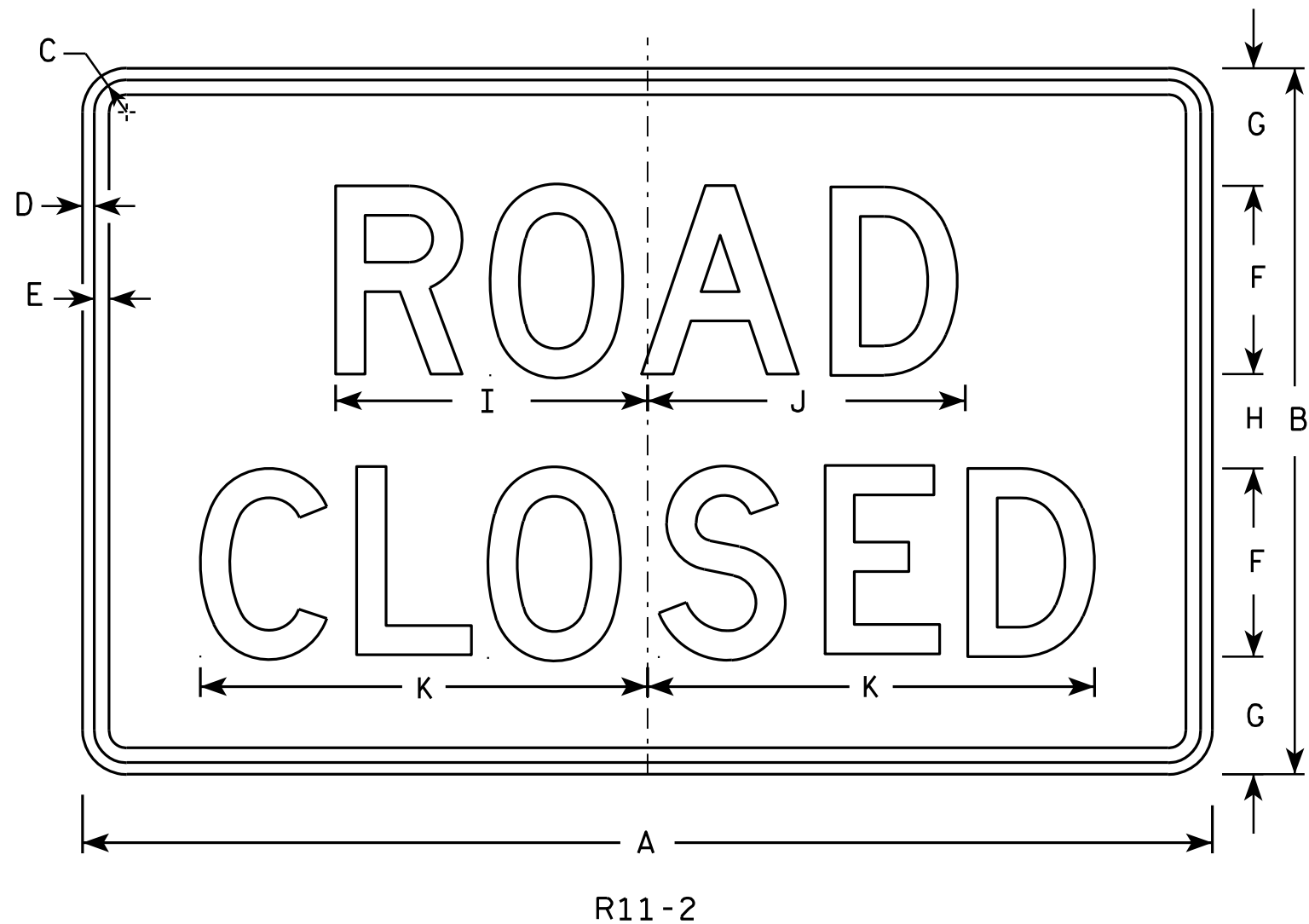
1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
Background - White
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate message and optically 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 3⁄8	1⁄2	5⁄8	4	5 1⁄2	5	10 3⁄4	2	2 1⁄8	8 3⁄8	4 5⁄8														6.0
2S	60	30	1 3⁄8	1⁄2	5⁄8	6	6 1⁄4	5 1⁄2	16 5⁄8	5	3 3⁄4	13	7 3⁄8														12.5
2M	60	30	1 3⁄8	1⁄2	5⁄8	6	6 1⁄4	5 1⁄2	16 5⁄8	5	3 3⁄4	13	7 3⁄8														12.5
3																											
4																											
5																											

STANDARD SIGN R10-61

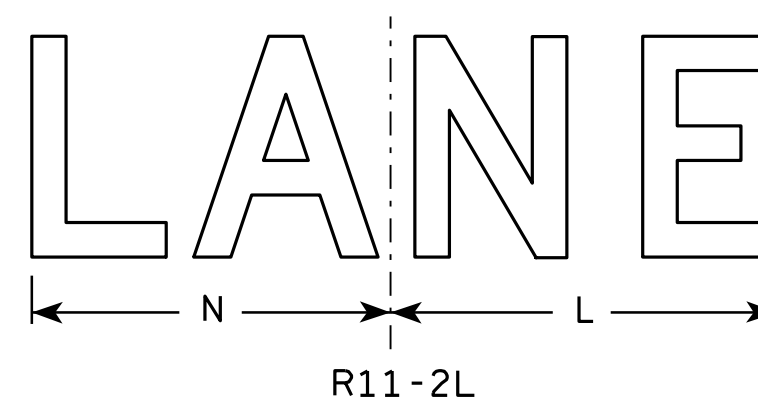
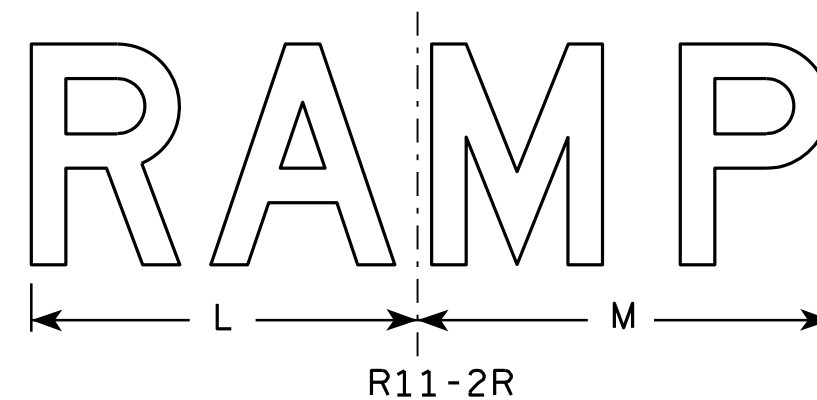
WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 4/4/11 PLATE NO. R10-61.5

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 146 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

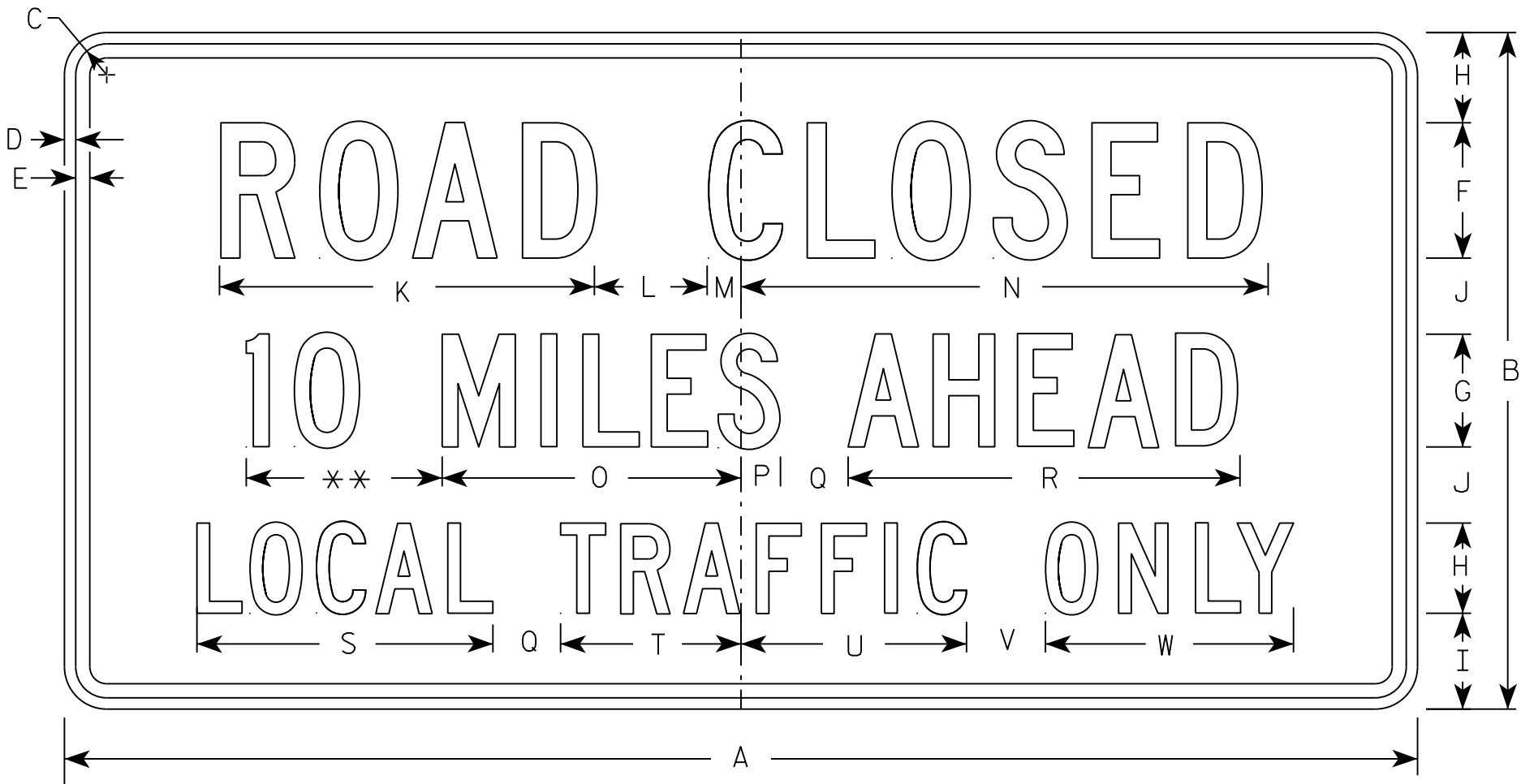
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

PROJECT NO: HWY: COUNTY: SHEET NO: 147 E

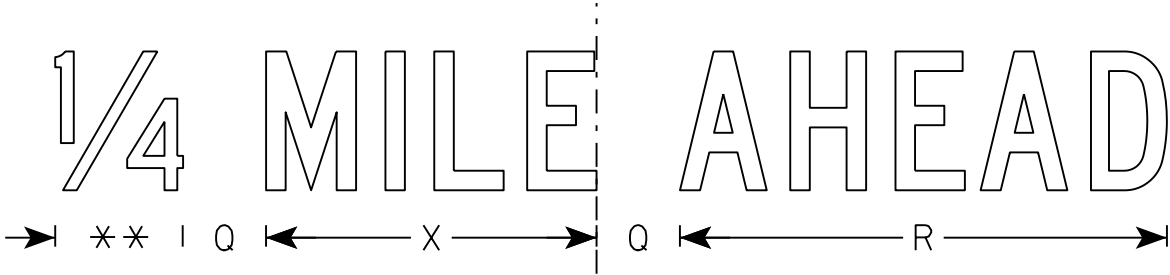
NOTES

- 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																											

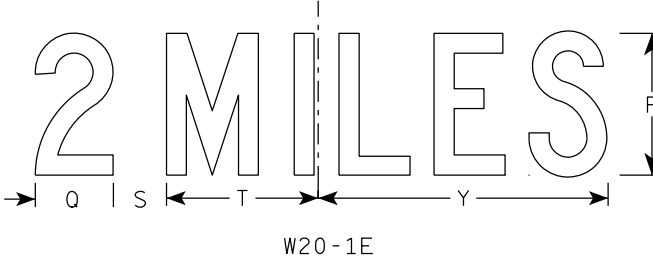
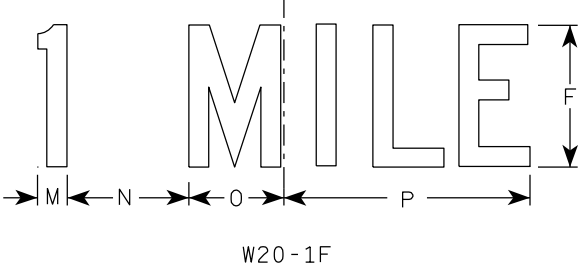
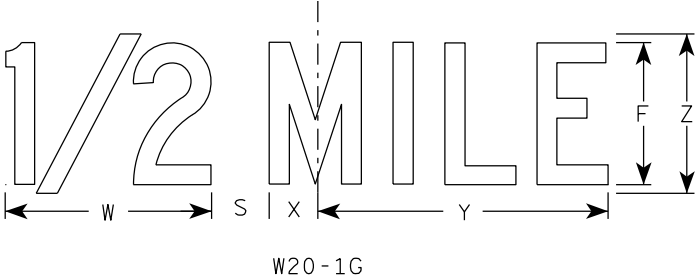
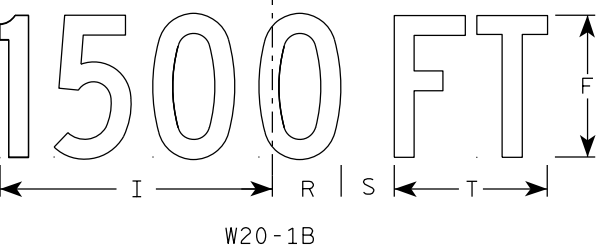
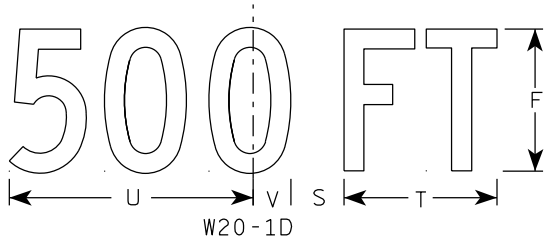
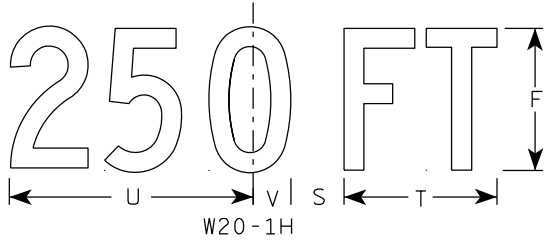
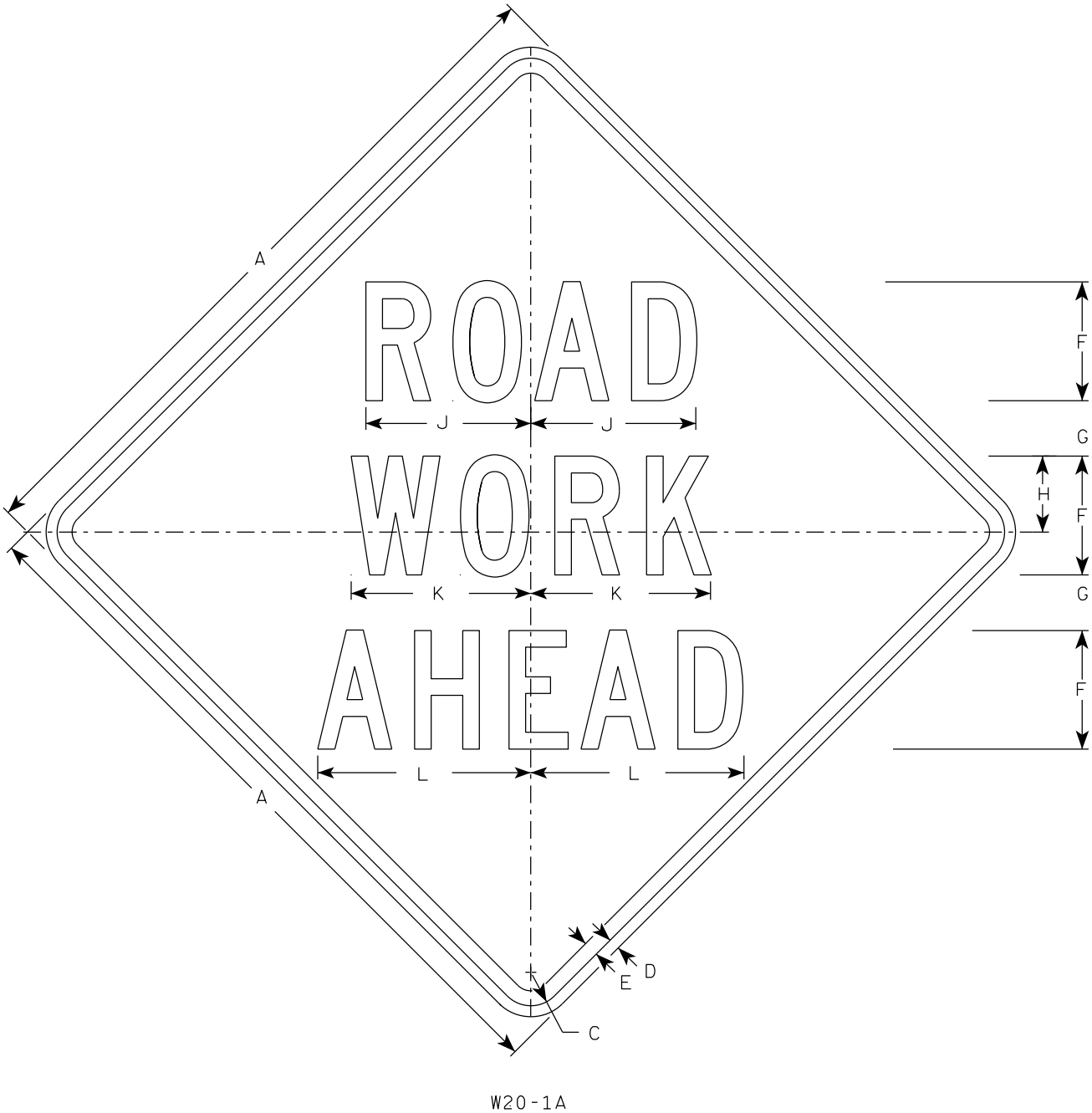
STANDARD SIGN
R11-3

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 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.



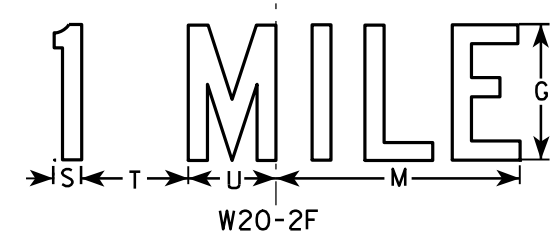
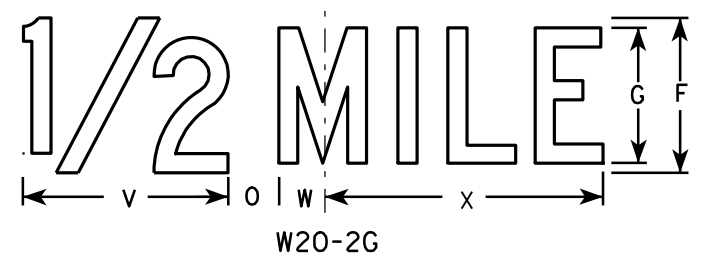
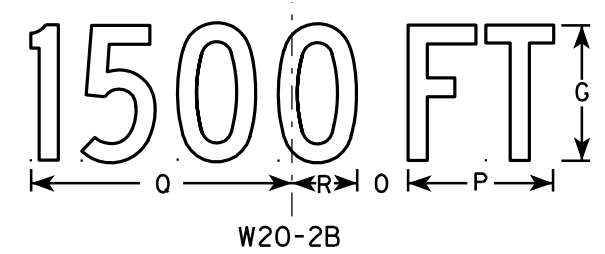
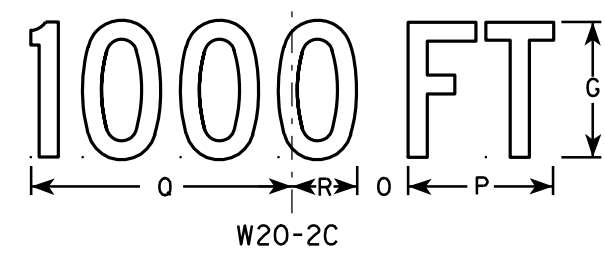
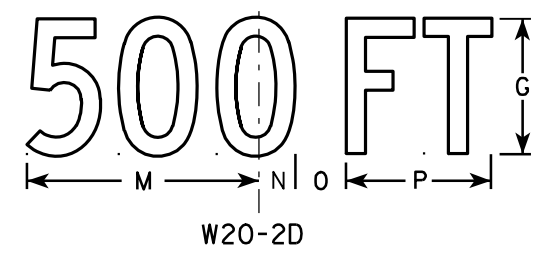
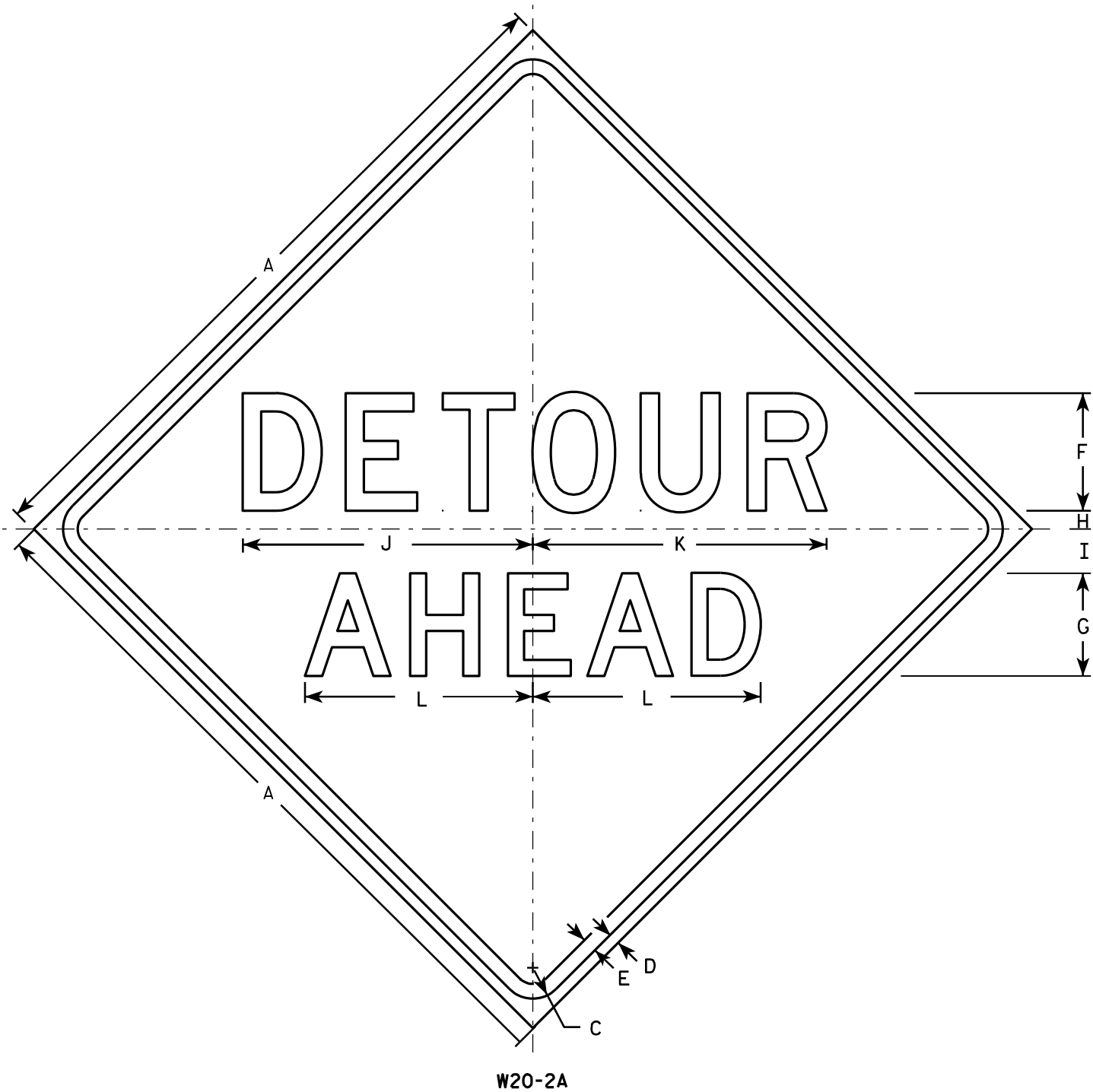
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	A _{req} sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 3/25/2020 PLATE NO. W20-1.11



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

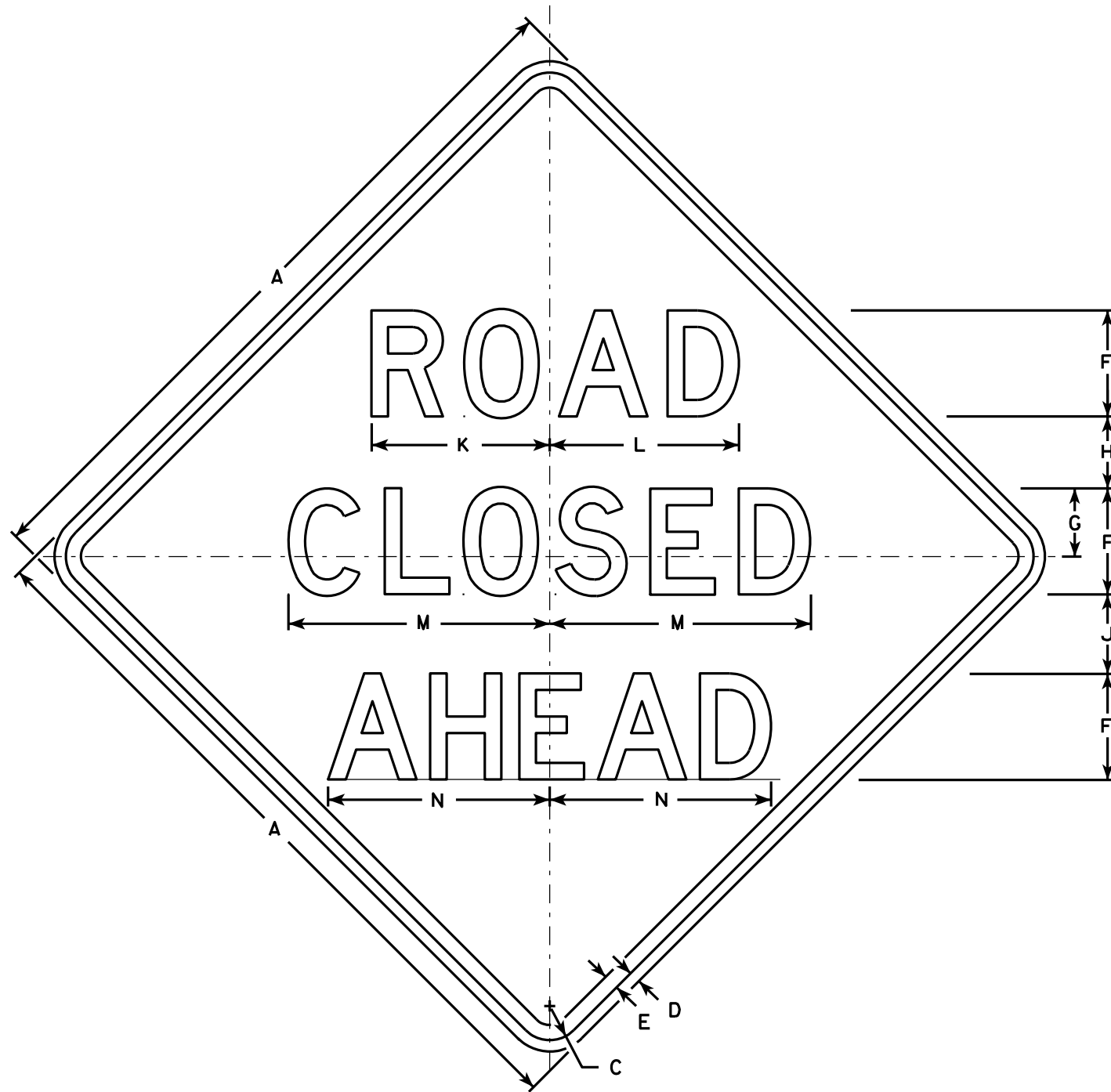
PROJECT NO:

HWY:

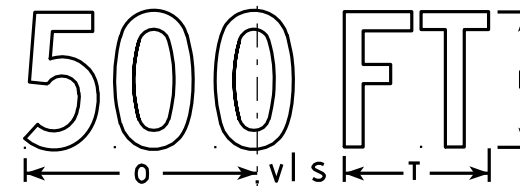
COUNTY:

SHEET NO: 150

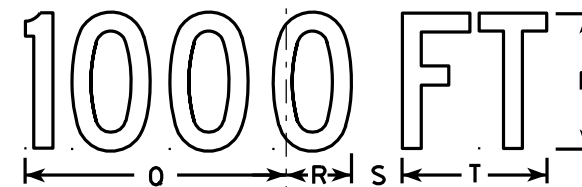
E



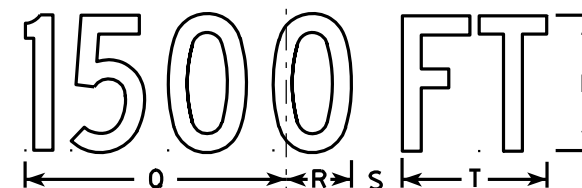
W20-3A



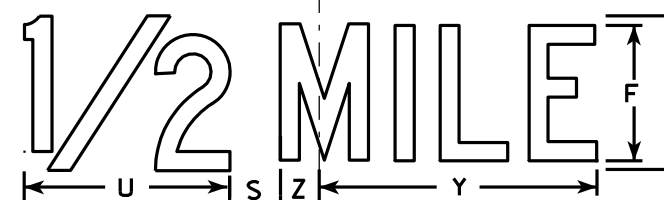
W20-3D



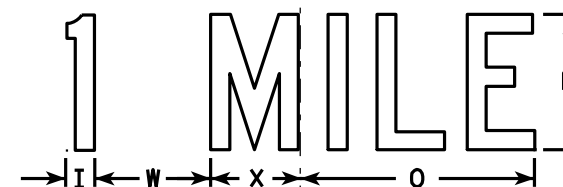
W20-3C



W20-3B



W20-3G



W20-3F

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 - see note 5
- 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.
- 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	8 3/8	8 7/8	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	11 3/4	12 1/2	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	11 3/4	12 1/2	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	11 3/4	12 1/2	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	11 3/4	12 1/2	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	11 3/4	12 1/2	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
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION
APPROVED *Matthew R. Rauch*
For State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

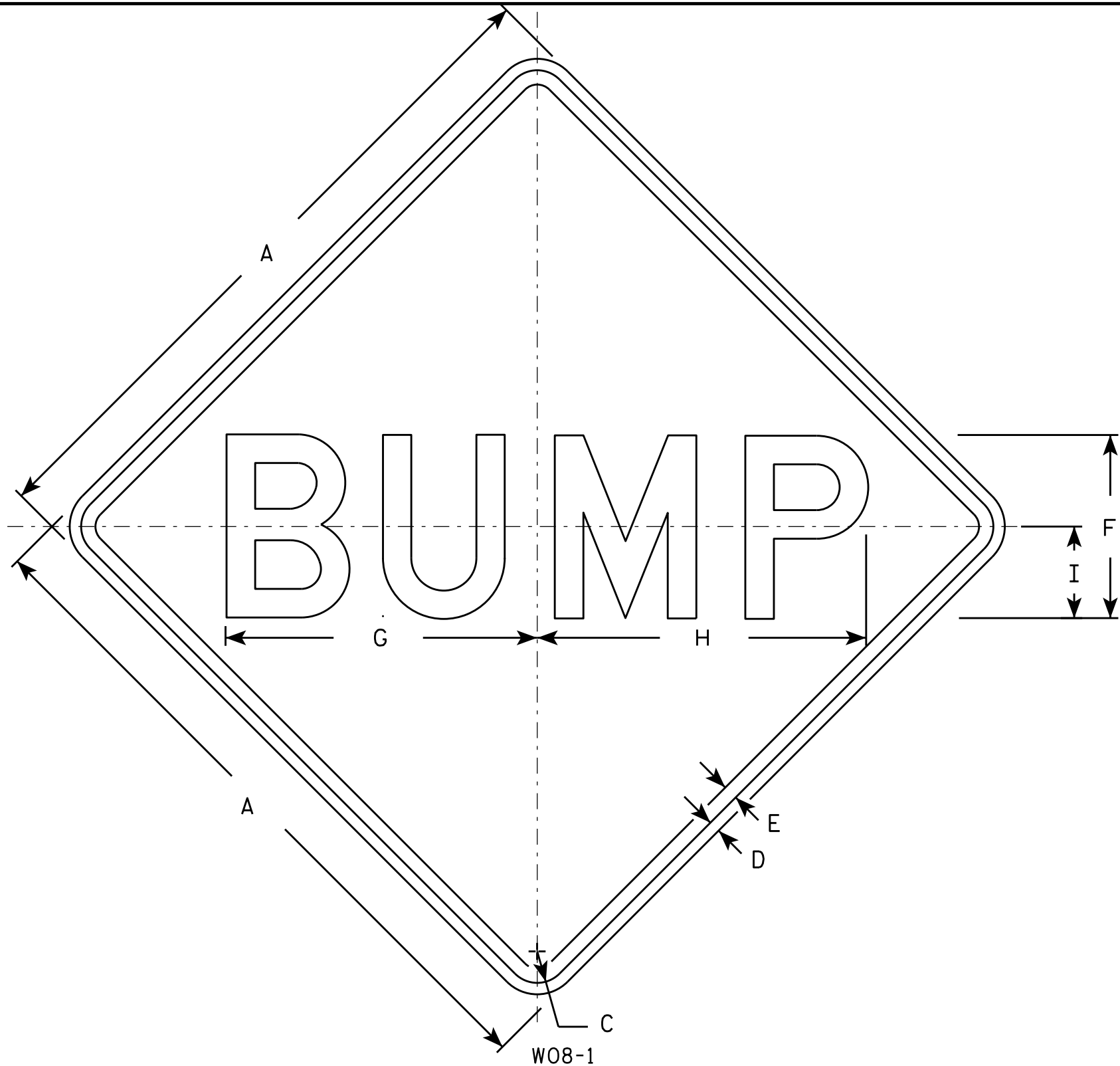
PROJECT NO:

HWY:

COUNTY:

SHEET NO: 151

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 - 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.

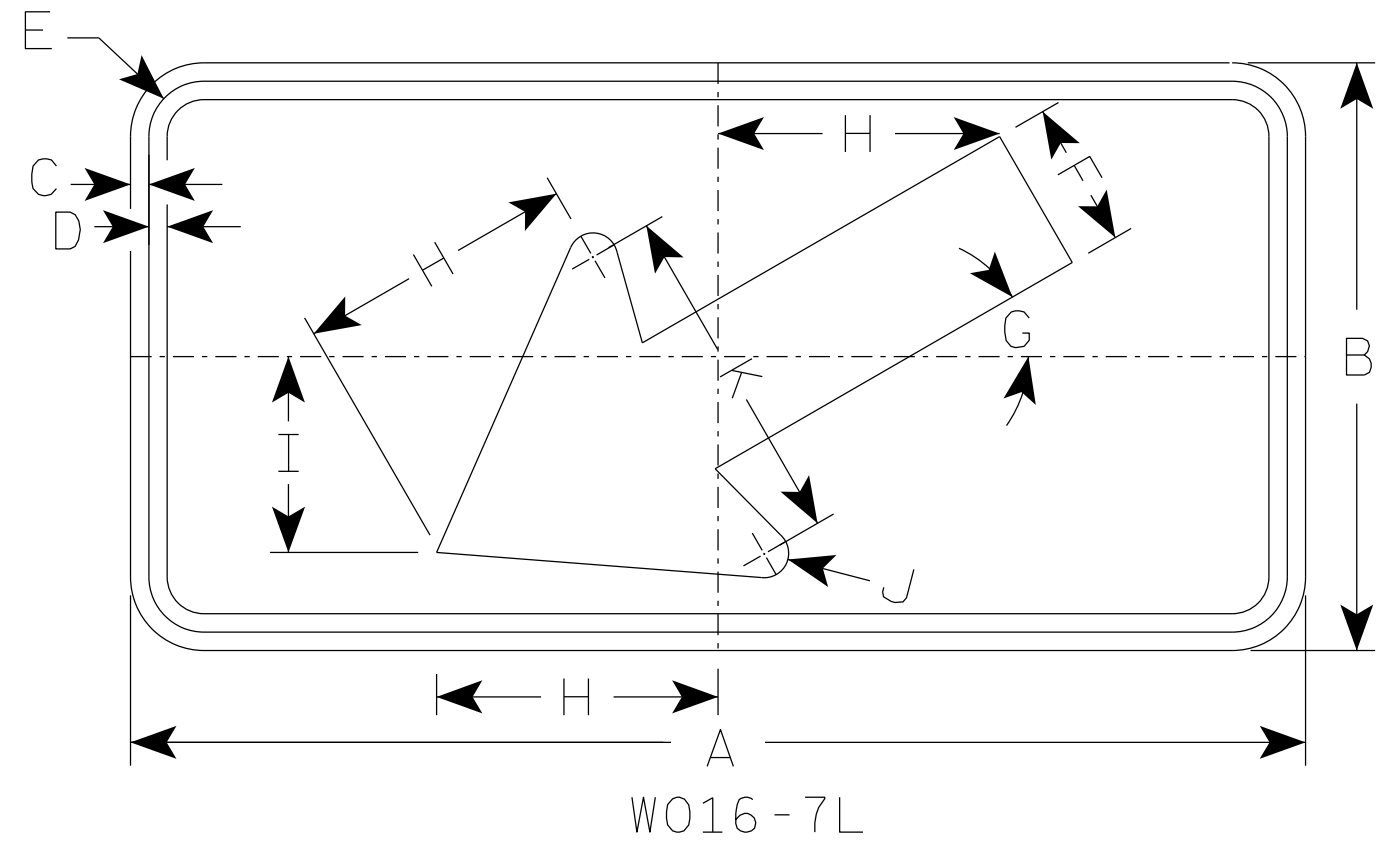
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	10	16 7/8	17 7/8	5																		9.0
2S	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
2M	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
3	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
4	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0
5	48		2 1/4	3/4	1	12	20 3/8	21 5/8	6																		16.0

STANDARD SIGN
W08 - 1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 11/20/13 PLATE 152 W08-1.1



NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Corners may be square or rounded but corners shall be rounded when base material is metal.
- 4. W016-7R is the same as W016-L except the arrow is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	3⁄8	1⁄2	1 1⁄8	4 1⁄2	30°	8 1⁄2	6	5⁄8	10 1⁄4																3.75
2S	48	24	1⁄2	5⁄8	1 3⁄8	6	30°	11 1⁄2	8	1	14																8.0
2M	48	24	1⁄2	5⁄8	1 3⁄8	6	30°	11 1⁄2	8	1	14																8.0
3	48	24	1⁄2	5⁄8	1 3⁄8	6	30°	11 1⁄2	8	1	14																8.0
4	48	24	1⁄2	5⁄8	1 3⁄8	6	30°	11 1⁄2	8	1	14																8.0
5	48	24	1⁄2	5⁄8	1 3⁄8	6	30°	11 1⁄2	8	1	14																8.0

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 153

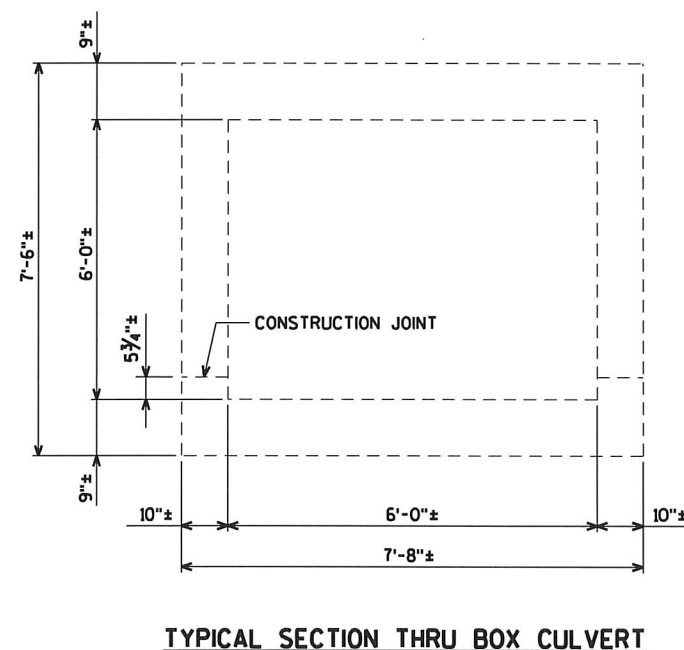
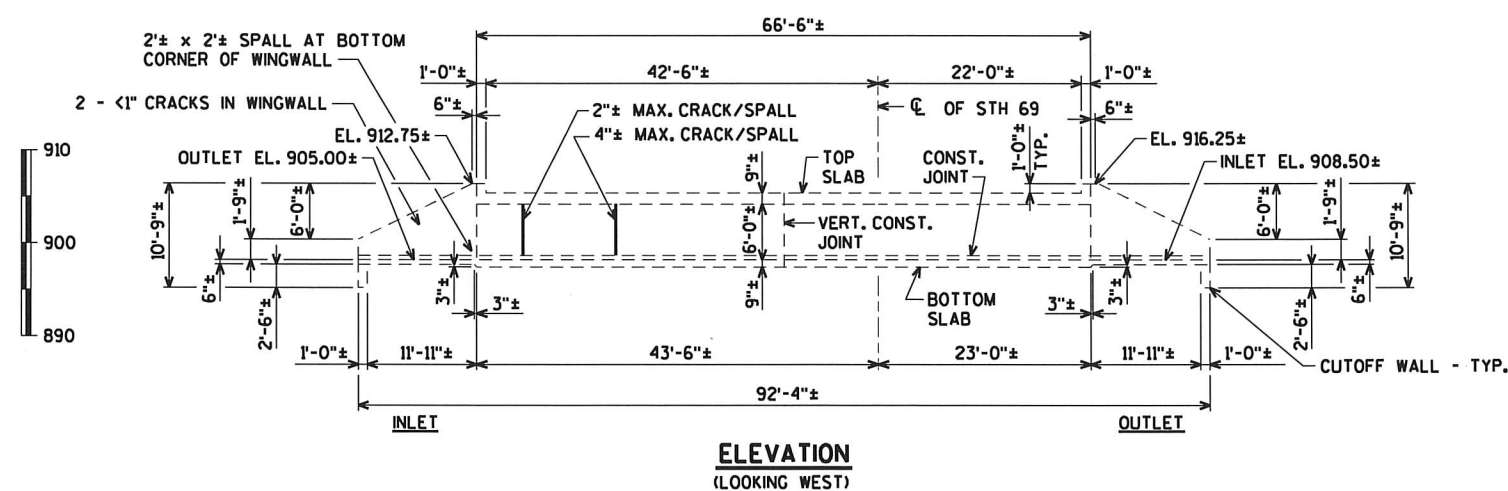
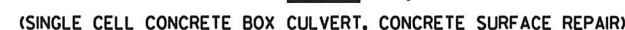
E

STANDARD SIGN
W016-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 7/11/18 PLATE NO. W016-7.1



1. GENERAL PLAN



NO.	DATE	REVISION	BY
		ORIGINAL PLANS PREPARED BY 3433 Oakwood Hills Parkway Eau Claire, WI 54701 www.AyresAssociates.com	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
ACCEPTED			SDR 12/10/2
CHIEF STRUCTURES DESIGN ENGINEER		DATE	
STRUCTURE C-13-1327			
STH 69 AT STATION 1263+70			
COUNTY	DANE	TOWN/CITY/VILLAGE	MONTRON
DESIGN SPEC.		REHABILITATION	N/A
DESIGNED BY	CBM	DESIGN CK'D.	
DRAWN BY	CLP	PLANS CK'D.	CB
GENERAL PLAN		SHEET 1 OF 15	

BRIDGE OFFICE CONTACT:
AARON BONK
(608)-261-0261

CONSULTANT CONTACT:
CHRIS MCMAHON
(715)-834-3161

8

TWIN 72-INCH CPRC AREA

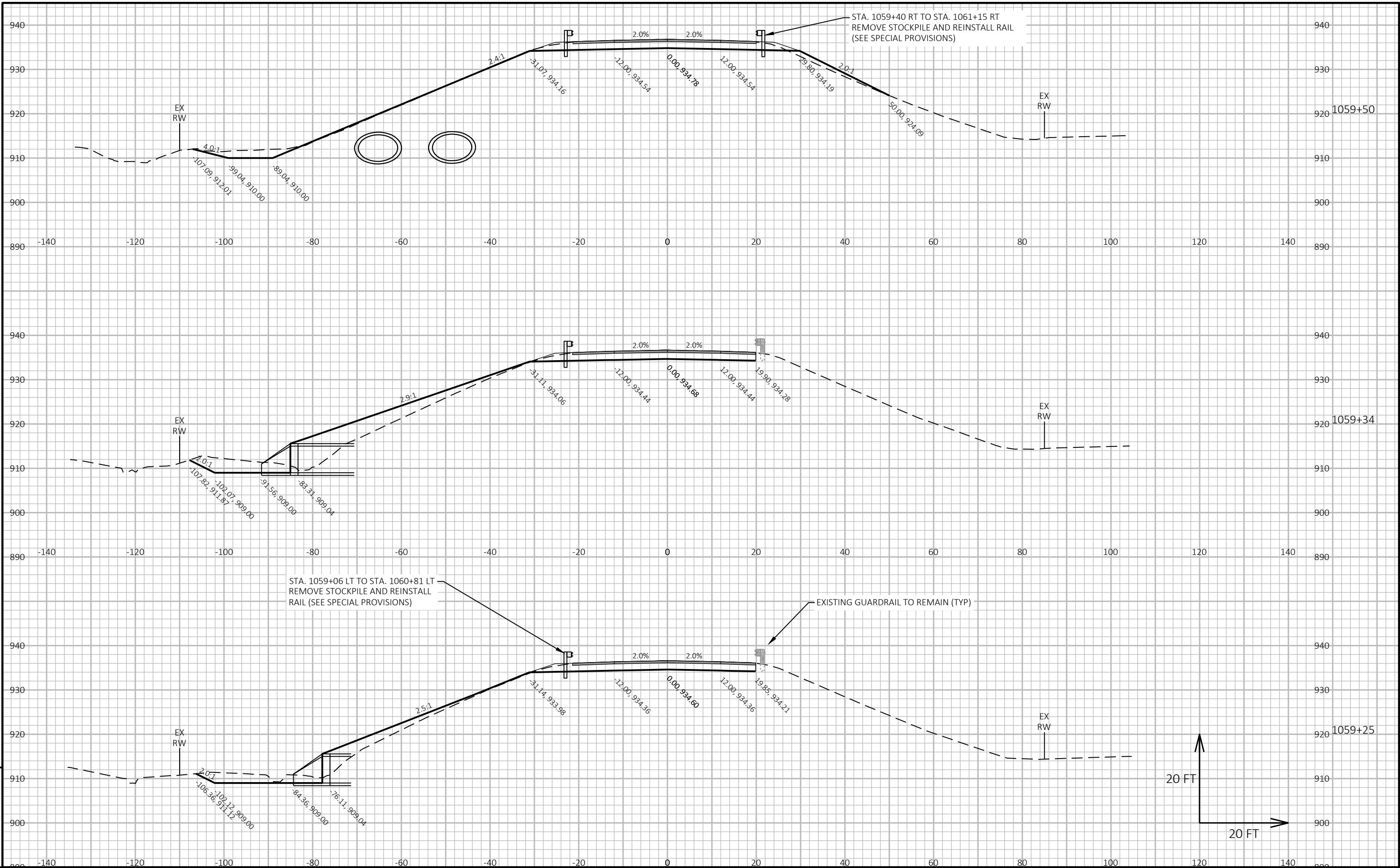
STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.00	MASS ORDINATE
1058+95	0.00	55.20	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
1059+30.486	35.49	87.44	0.00	0.00	94.00	0.00	0.00	94.00	0.00	94
1059+50	19.51	87.10	0.00	0.00	63.00	0.00	0.00	157.00	0.00	157
1059+75	25.00	55.20	0.00	0.00	66.00	0.00	0.00	223.00	0.00	223
1060+00	25.00	86.17	0.00	0.00	65.00	0.00	0.00	288.00	0.00	288
1060+25	25.00	84.67	0.00	0.00	79.00	0.00	0.00	367.00	0.00	367
1060+50	25.00	86.91	0.00	0.00	79.00	0.00	0.00	446.00	0.00	446
1060+66.337	16.34	73.26	0.00	0.00	48.00	0.00	0.00	494.00	0.00	494
1060+75	8.66	78.23	0.00	0.00	24.00	0.00	0.00	518.00	0.00	518
1060+85	10.00	78.23	0.00	0.00	29.00	0.00	0.00	547.00	0.00	547
					547	0	0			

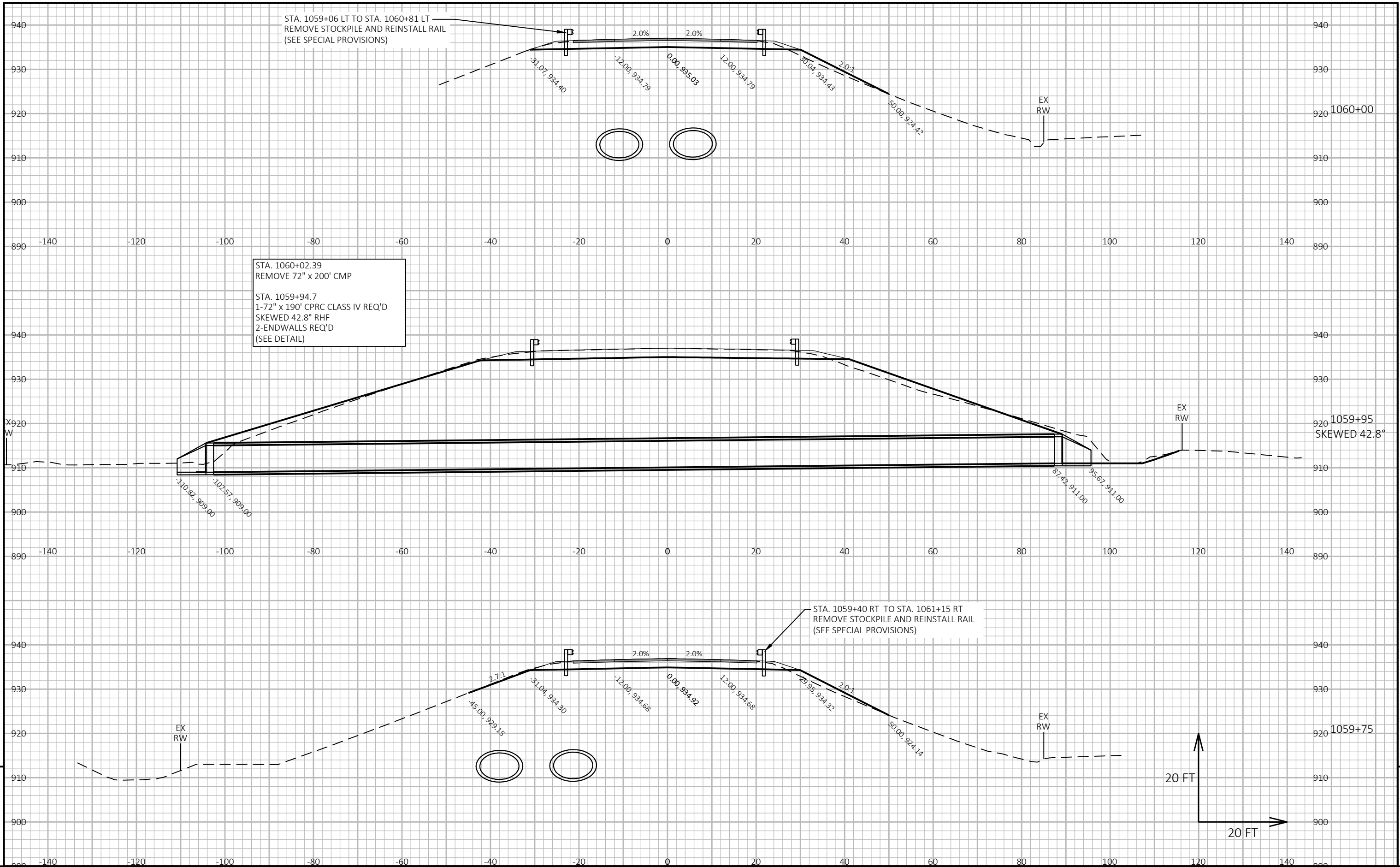
TWIN 42-INCH CPRC AREA

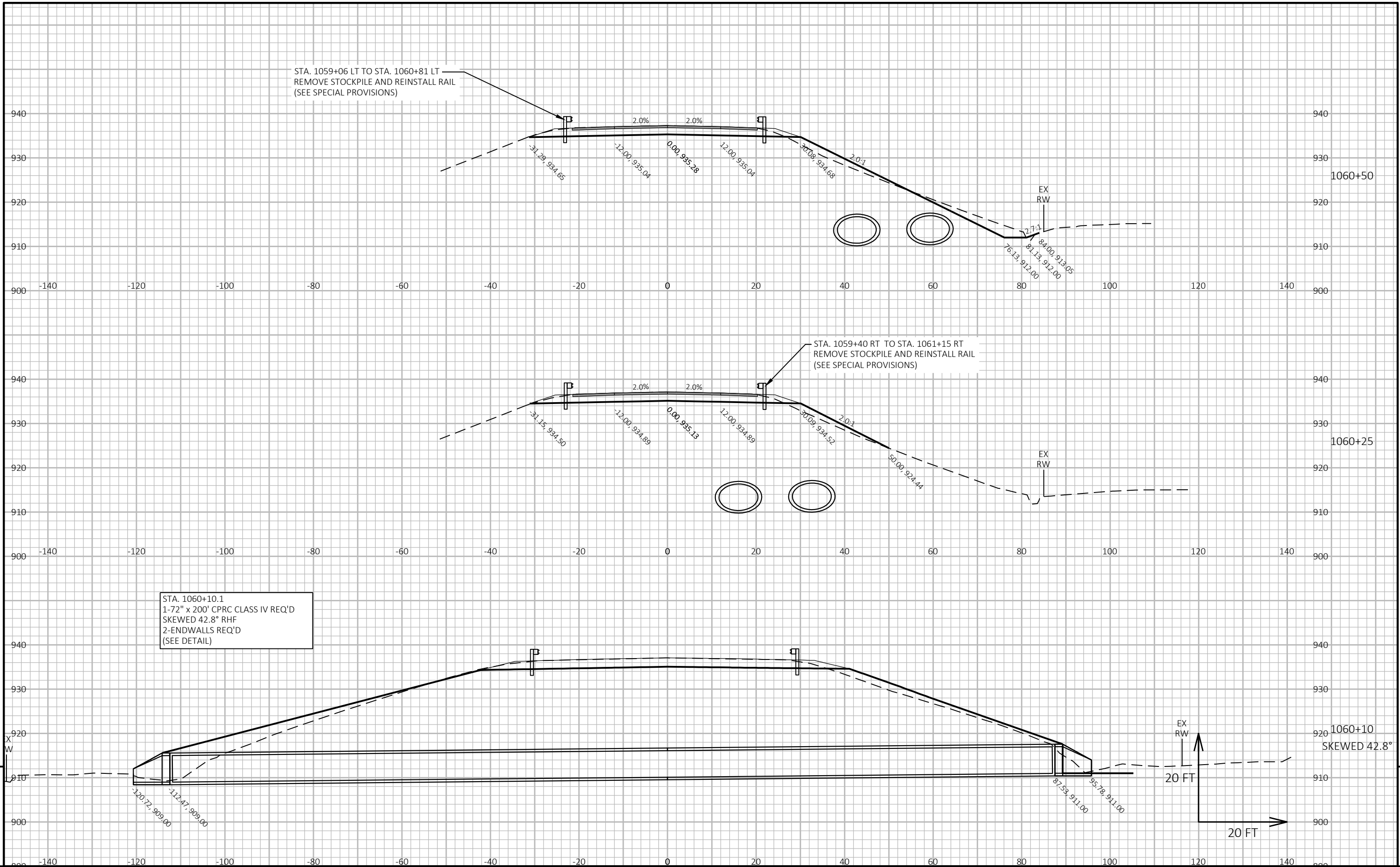
STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.00	MASS ORDINATE
1079+10	0.00	94.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
1079+25	15.00	94.05	0.00	0.00	52.00	0.00	0.00	52.00	0.00	52
1079+39.5	14.50	119.47	0.00	0.00	57.00	0.00	0.00	109.00	0.00	109
1079+50	10.50	98.37	0.00	0.00	42.00	0.00	0.00	151.00	0.00	151
1079+70	20.00	98.37	0.00	0.00	73.00	0.00	0.00	224.00	0.00	224
					224	0	0			

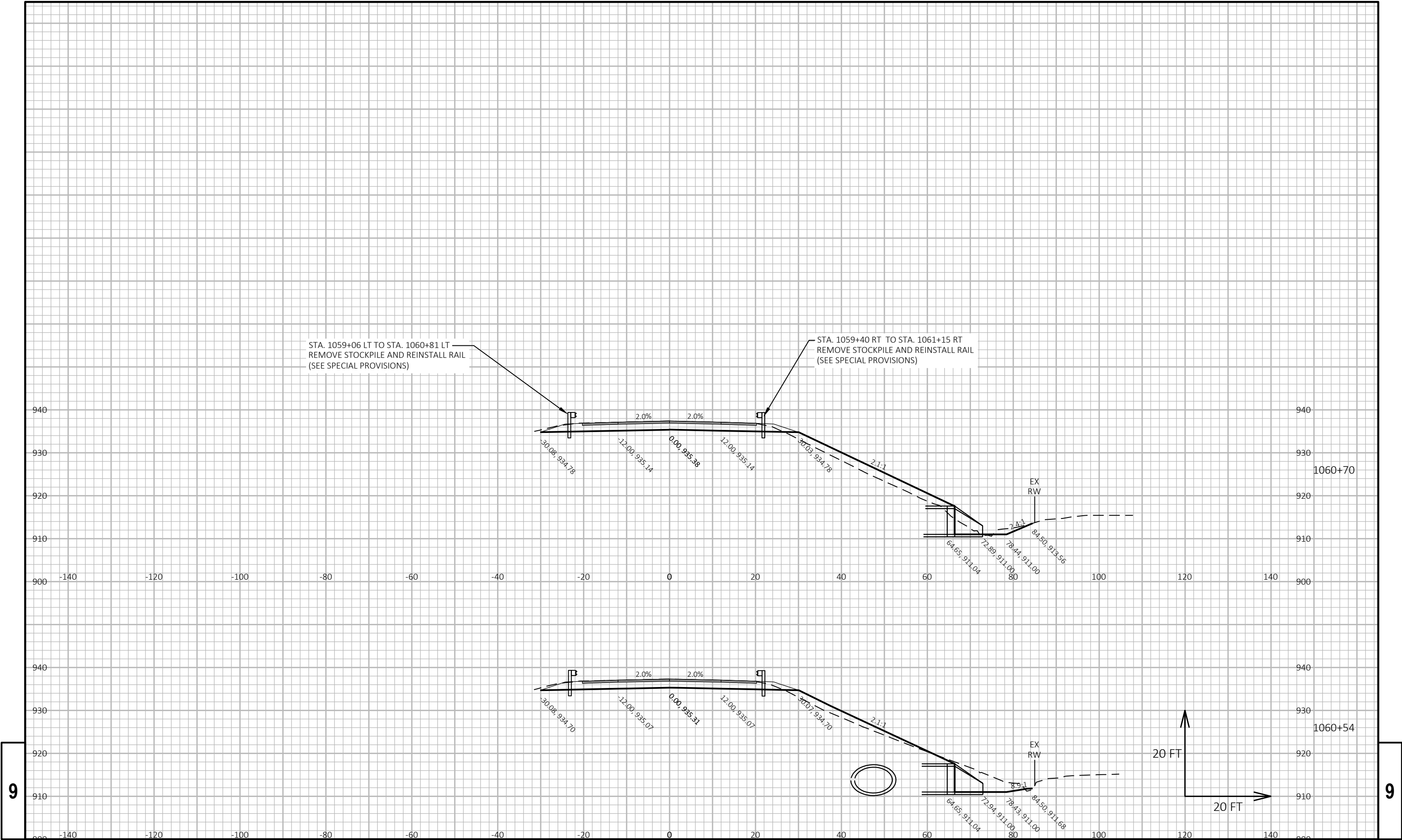
24-INCH CPRC AREA

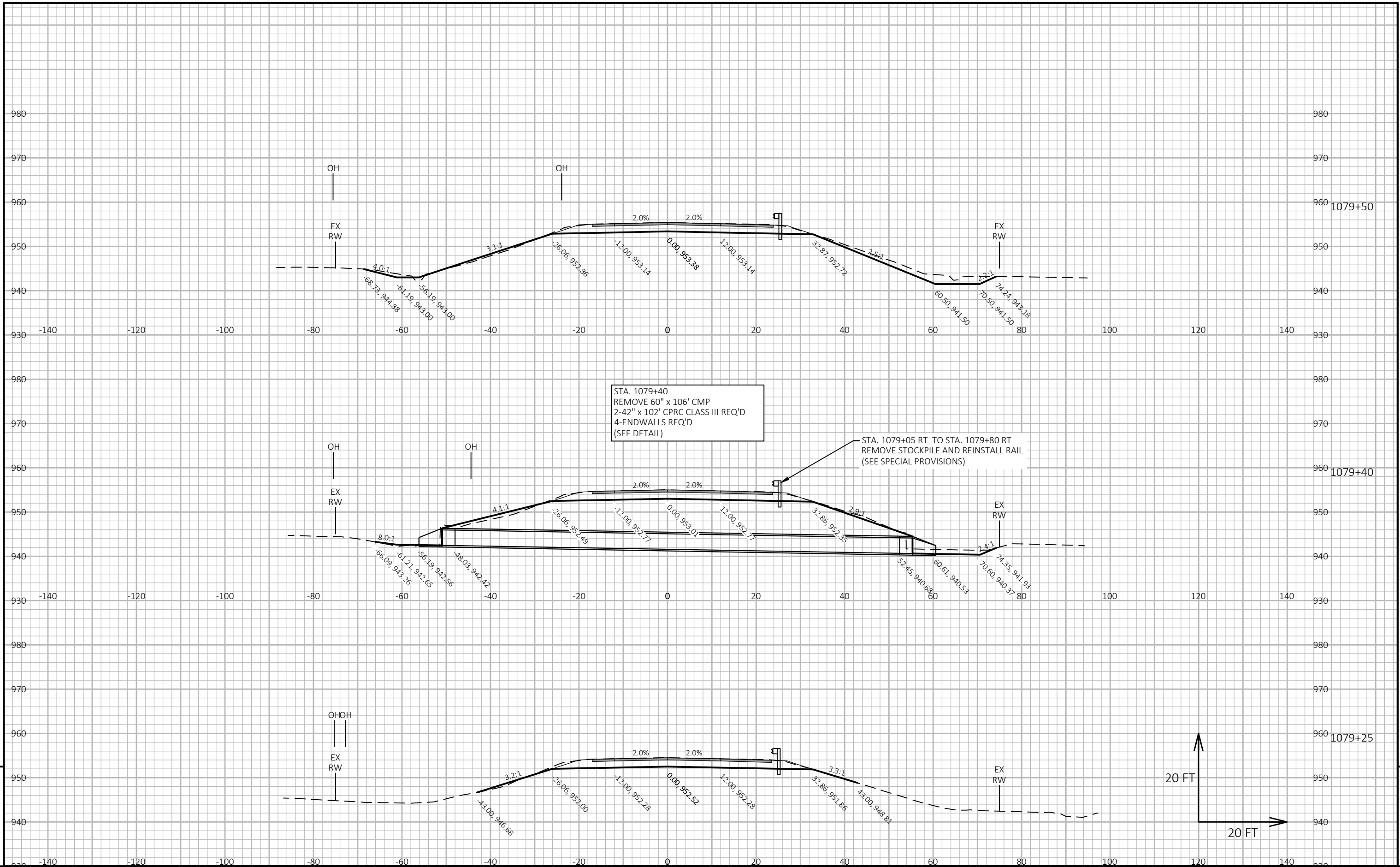
STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
		CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.00	MASS ORDINATE
1152+20	0.00	37.74	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
1152+35	15.00	125.98	0.00	0.00	45.00	0.00	0.00	45.00	0.00	45
1152+46	11.00	101.54	0.00	0.00	46.00	0.00	0.00	91.00	0.00	91
1152+55	9.00	125.98	0.00	0.00	38.00	0.00	0.00	129.00	0.00	129
1152+70	24.00	38.14	0.00	0.00	73.00	0.00	0.00	202.00	0.00	202
					202	0	0			

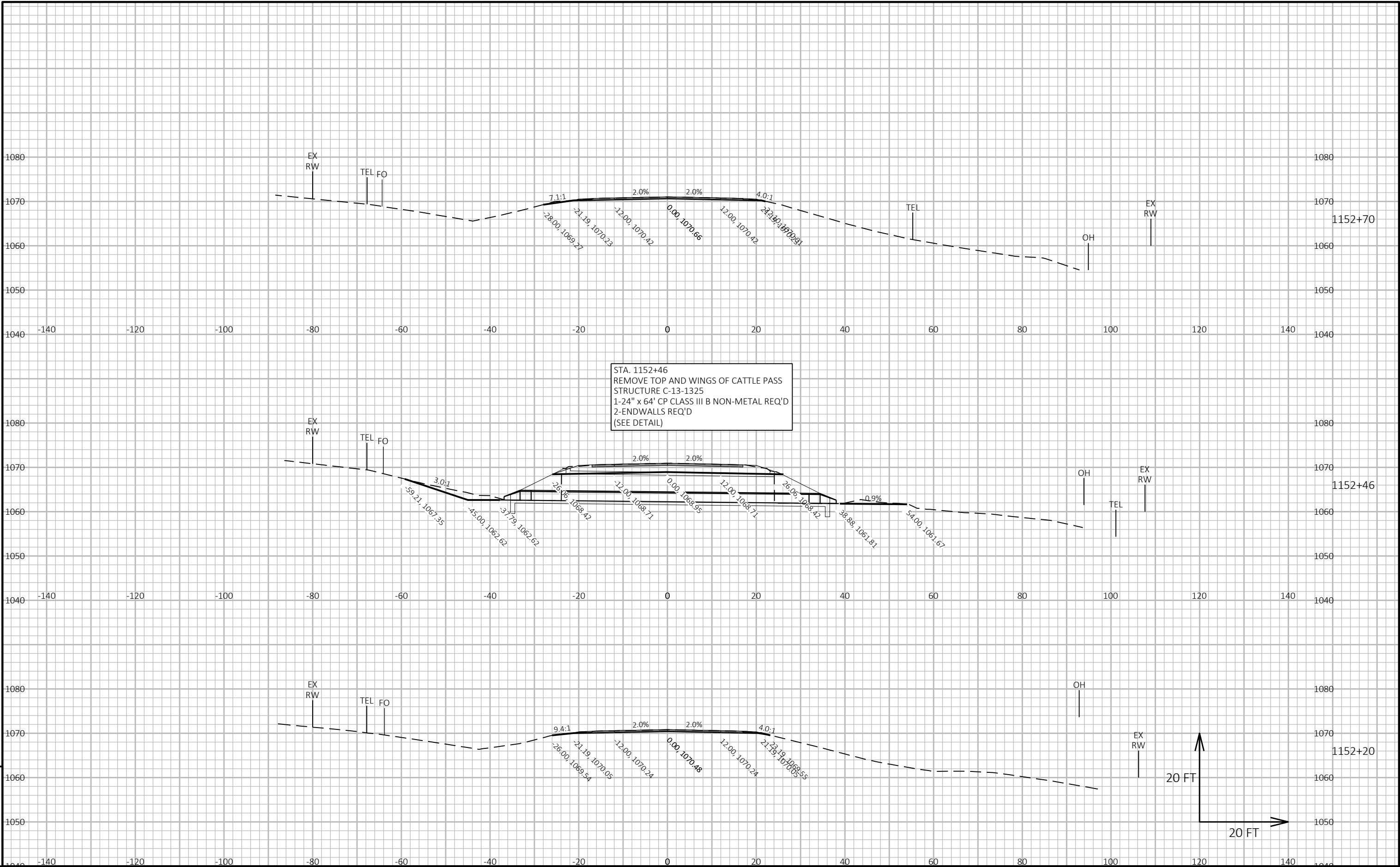


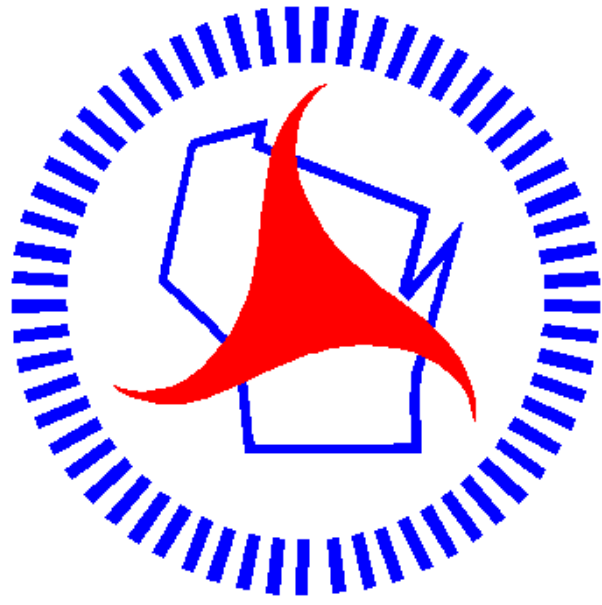












Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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