

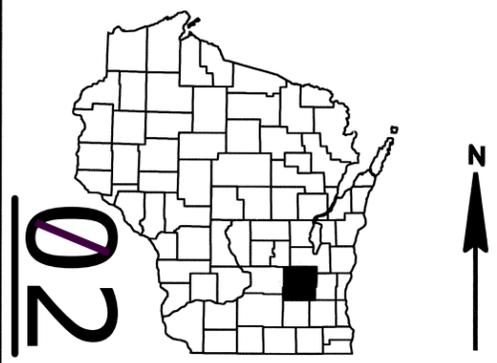
MAD

PROJECT ID: 3030-05-74
WITH: N/A

APRIL 2026
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 = 156



02

DESIGN DESIGNATION

A.A.D.T.	2026	=	4500
A.A.D.T.	2046	=	4500
D.H.V.		=	468
D.D.		=	60/40
T.		=	18.5%
DESIGN SPEED		=	60 MPH
ESALS		=	1,300,000 (HMA)

CONVENTIONAL SYMBOLS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

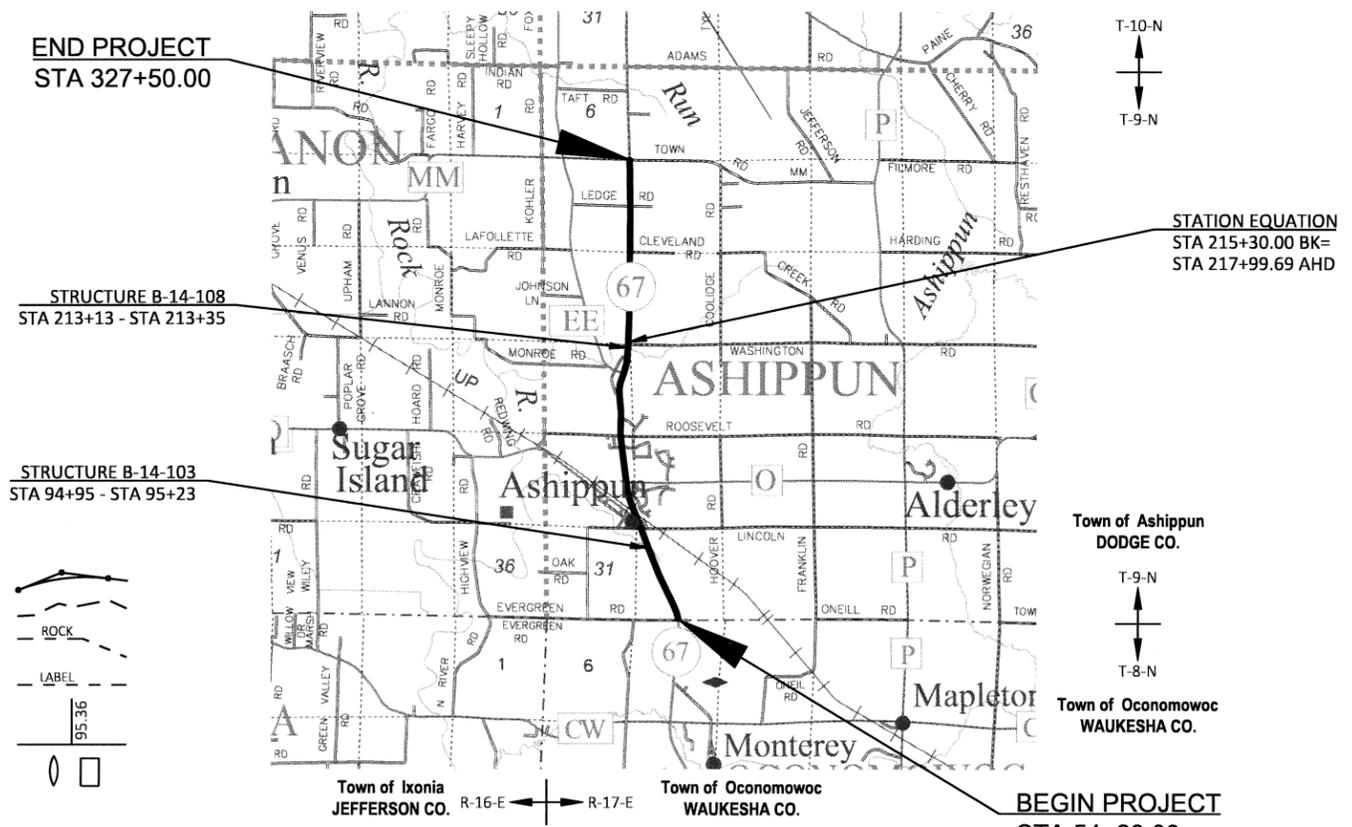
OCONOMOWOC - MAYVILLE

WAUKESHA CO LINE TO CTH MM

STH 67

DODGE COUNTY

STATE PROJECT NUMBER
3030-05-74



BEGIN PROJECT
STA 54+28.00
Y=628637.413
X=935261.270

LAYOUT
SCALE 0 2 MI
TOTAL NET LENGTH OF CENTERLINE = 5.124 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), DODGE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES. ELEVATIONS ARE REFERENCED TO NAVD 88 (2012). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 18.

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
3030-05-74	WISC 2026123	1

ORIGINAL PLANS PREPARED BY
GREMMER & ASSOCIATES, INC.
CONSULTING ENGINEERS



DATE: 7/15/25
JEFFREY A. CHVOSTA, PE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY
Surveyor: GREMMER & ASSOCIATES, INC.
Designer: GREMMER & ASSOCIATES, INC.
Project Manager: MATTHEW LAMB, PE
Regional Examiner: SW REGION
Regional Supervisor: JUSTIN KUTSCHENREUTER, PE

APPROVED FOR THE DEPARTMENT
DATE: 7/17/2025
(Signature)

E

GENERAL NOTES

THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS AS SHOWN ON THE PLANS ARE APPROXIMATE.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS.

HMA PAVEMENT & ASPHALTIC SURFACE WEIGHT CALCULATIONS ARE BASED ON 112 LB/SY/IN.

TACK COAT APPLICATION RATES BASED ON 0.070 GAL/SY IF PLACED ON MILLED PAVEMENT AND 0.050 GAL/SY IF PLACED ON HMA LOWER LAYER.

NO WORK SHALL BE DONE OUTSIDE OF THE SLOPE INTERCEPTS WITHIN WETLAND AREAS.

PRIOR TO THE PLACEMENT OF GUARDRAIL, THE SHOULDERS SHALL BE PLACED, SHAPED, AND COMPACTED.

PAVEMENT LIMITS AT INTERSECTIONS ARE TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE EXACT LOCATIONS AND LIMITS OF PRIVATE ENTRANCES, COMMERCIAL, AND FIELD ENTRANCES SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

ALIGNMENT SHOWN IN PLAN IS FOR REFERENCE ONLY. THE CENTERLINE OF ROADWAY TO BE DETERMINED IN THE FIELD BASED ON THE EXISTING ROADWAY.

ABBREVIATIONS

AGG	AGGREGATE
AH	AHEAD
ASPH	ASPHALT
BK	BACK
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
CC	CENTER OF CURVATURE
CE	COMMERCIAL ENTRANCE
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CONC	CONCRETE
CY	CUBIC YARD
D	DEGREE OF CURVE
Δ	DELTA
E	EXTERNAL DISTANCE FROM MIDPOINT OF CIRCULAR CURVE FROM ANGLE INTERSECTION
ELEV	ELEVATION
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
L	LENGTH OF CURVE
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
M/L	MATCHLINE
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
REQ'D	REQUIRED
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SDD	STANDARD DETAIL DRAWING
SE	SUPER ELEVATION
SEG	SEGMENT
SF	SQUARE FOOT
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TYP	TYPICAL
V	VELOCITY OR DESIGN SPEED

ORDER OF SECTION 2 SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
BEAM GUARD DETAILS
CURB RAMP DETAILS
EROSION CONTROL PLAN
SIGNING & MARKING PLAN
TRAFFIC CONTROL
DETOUR

UTILITIES

SANITARY
ASHIPPUN SANITARY SEWER DISTRICT
PO BOX 28
ASHIPPUN, WI 53003
ATTN: PETE HANSEN
PHONE: (414) 405-1758
MOBILE: (920) 474-7601
EMAIL: Phansen.ashippunsanitary@gmail.com

COMMUNICATIONS
FRONTIER COMMUNICATIONS OF WI LLC
521 NORTH 4TH STREET
WAUSAU, WI 54403
ATTN: CHRISTOPHER POLLACK
PHONE: (715) 847-1240
EMAIL: Christopher.Pollack@ftr.com

COMMUNICATIONS
SPECTRUM
1320 N. DR MARTIN LUTHER KING JR DRIVE
MILWAUKEE, WI 53212
ATTN: MICHAEL YAEGER
PHONE: (414) 908-4677
MOBILE: (414) 233-5751
EMAIL: Michael.Yaeger@charter.com

ELECTRIC
WE ENERGIES
500 SOUTH 116TH STREET
WEST ALLIS, WI 53214
ATTN: ERIC KICKHAVER
PHONE: (414) 944-5917
MOBILE: (414) 588-7472
EMAIL: Eric.Kickhaver@we-energies.com

GAS
WE ENERGIES
500 SOUTH 116TH STREET
WEST ALLIS, WI 53214
ATTN: NICK WAGNER
PHONE: (414) 944-5662
MOBILE: (262) 395-0666
EMAIL: Nicholas.Wagner@we-energies.com



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

RUNOFF COEFFICIENT TABLE

	HYDROLOGIC SOIL GROUP											
	A			B			C			D		
	SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)			SLOPE RANGE (PERCENT)		
LAND USE:	0-2	2-6	6 & OVER									
ROW CROPS	.08 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE-TURF			.25 .32			.27 .34			.28 .36			.25 .38
PAVEMENT:												
ASPHALT	.70 - .95											
CONCRETE	.80 - .95											
BRICK	.70 - .80											
DRIVES, WALKS	.75 - .85											
ROOFS	.75 - .95											
GRAVEL ROADS, SHOULDERS	.40 - .60											

DNR AREA LIAISON

WISCONSIN DEPT. OF NATURAL RESOURCES
3911 FISH HATCHERY ROAD
FITCHBURG, WI 53711
ATTN: ERIC HEGGELUND
PHONE: (608) 228-7927
EMAIL: eric.heggelund@wisconsin.gov

WISDOT CONTACT

WISCONSIN DEPARTMENT OF TRANSPORTATION
2101 WRIGHT STREET
MADISON WI 53704-2559
ATTN: MATTHEW LAMB, PE
PHONE: (608) 246-5638
EMAIL: Matthew.Lamb@dot.wi.gov

DESIGN CONTACT

GREMMER & ASSOCIATES, INC.
W175 N117 STONEWOOD DRIVE, SUITE 200
GERMANTOWN, WI 53022
ATTN: JEFFREY A. CHVOSTA, PE
PHONE: (262) 578-5800
EMAIL: j.chvosta@gremmerassociates.com

TOTAL PROJECT AREA = 74.301 ACRES

TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.817 ACRES

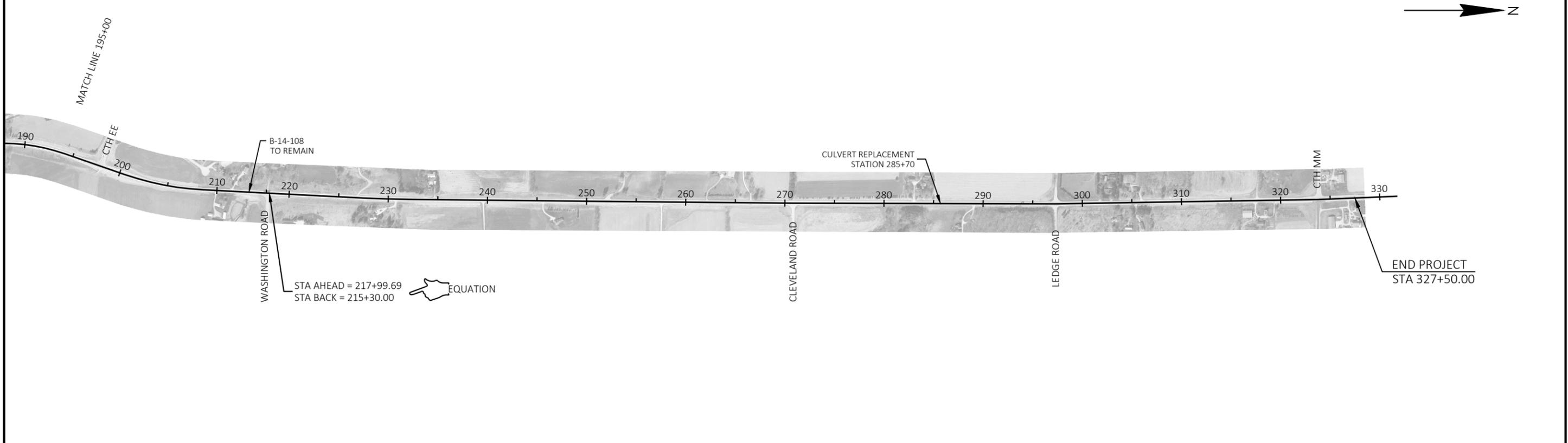
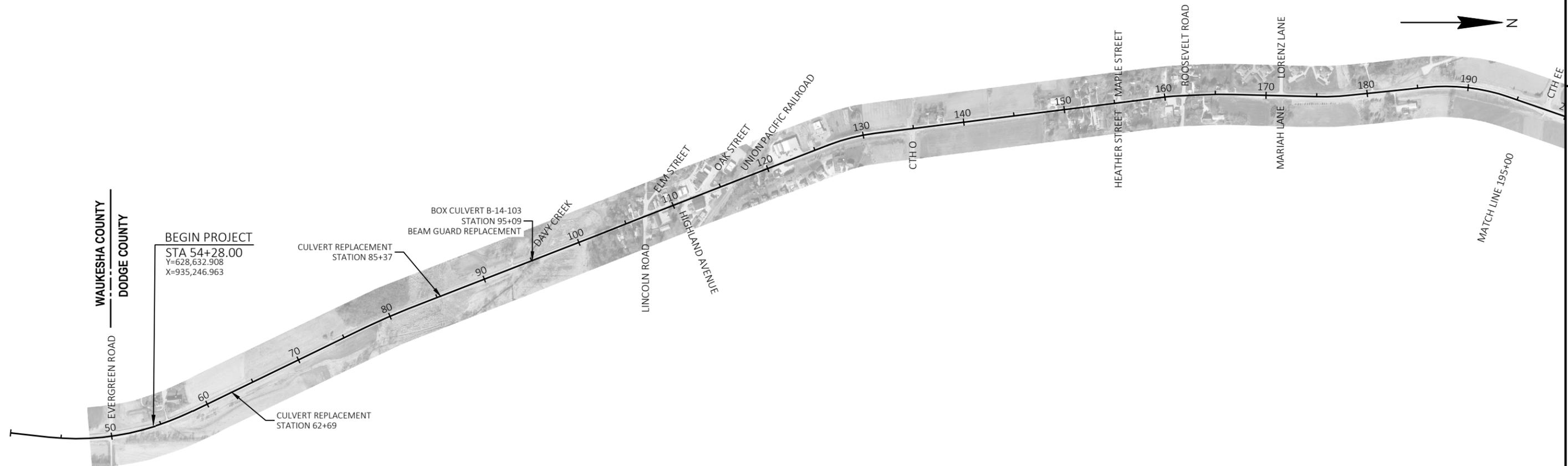
PROJECT NO: 3030-05-74

HWY: STH 67

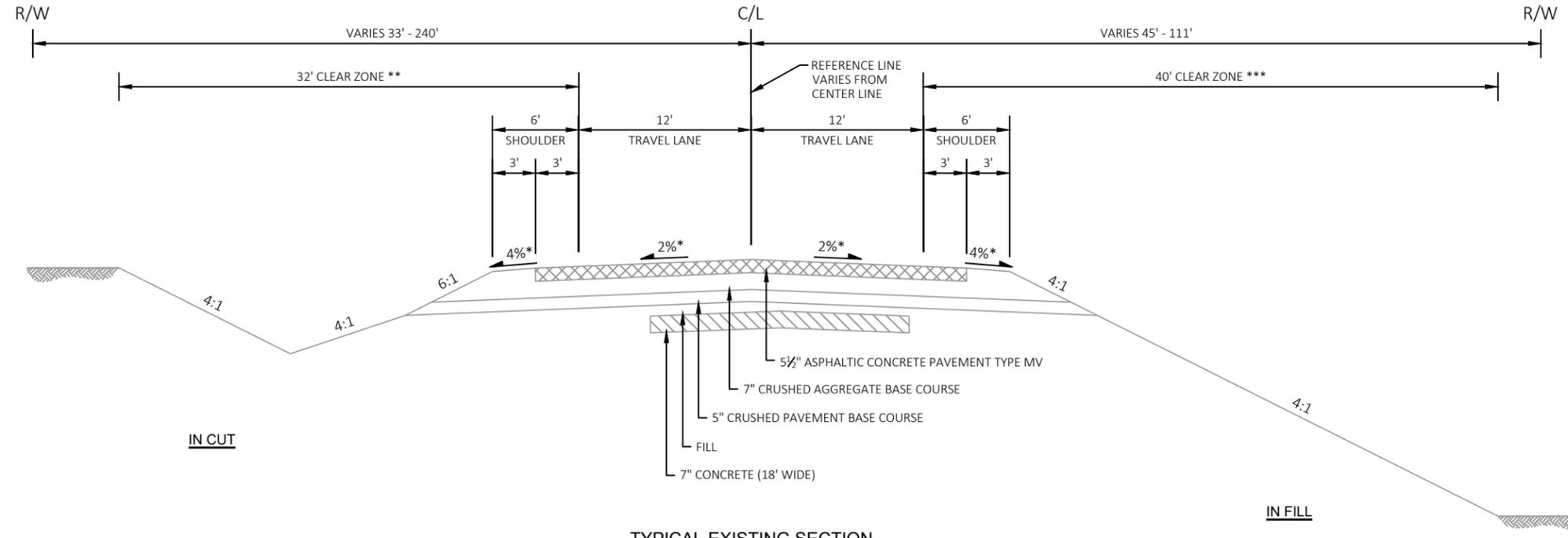
COUNTY: DODGE

GENERAL NOTES

SHEET



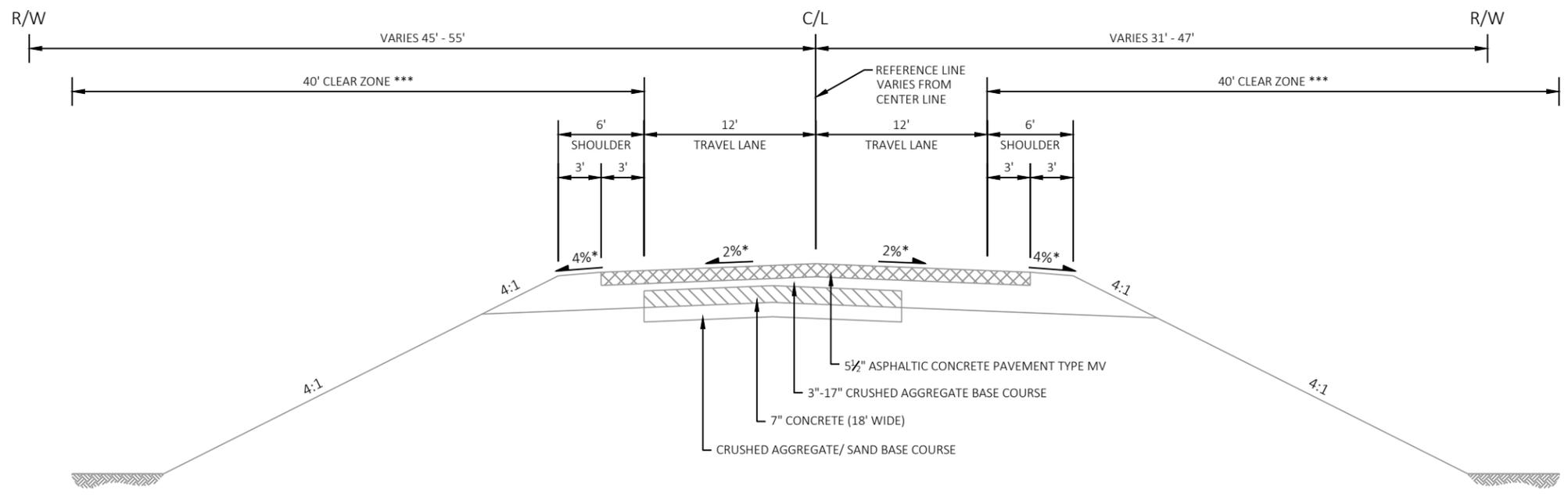
PROJECT NO: 3030-05-74	HWY: STH 67	COUNTY: DODGE	PROJECT OVERVIEW	SHEET 3
------------------------	-------------	---------------	------------------	---------



TYPICAL EXISTING SECTION

STA 54+28 - STA 73+00 LT & RT
 STA 165+90 - STA 327+50 LT
 STA 167+00 - STA 327+50 RT

* CROSS SLOPE VARIES DUE TO SUPERELEVATION
 ** CLEAR ZONE
 STA 301+50 LT - STA 307+50 LT = 35'

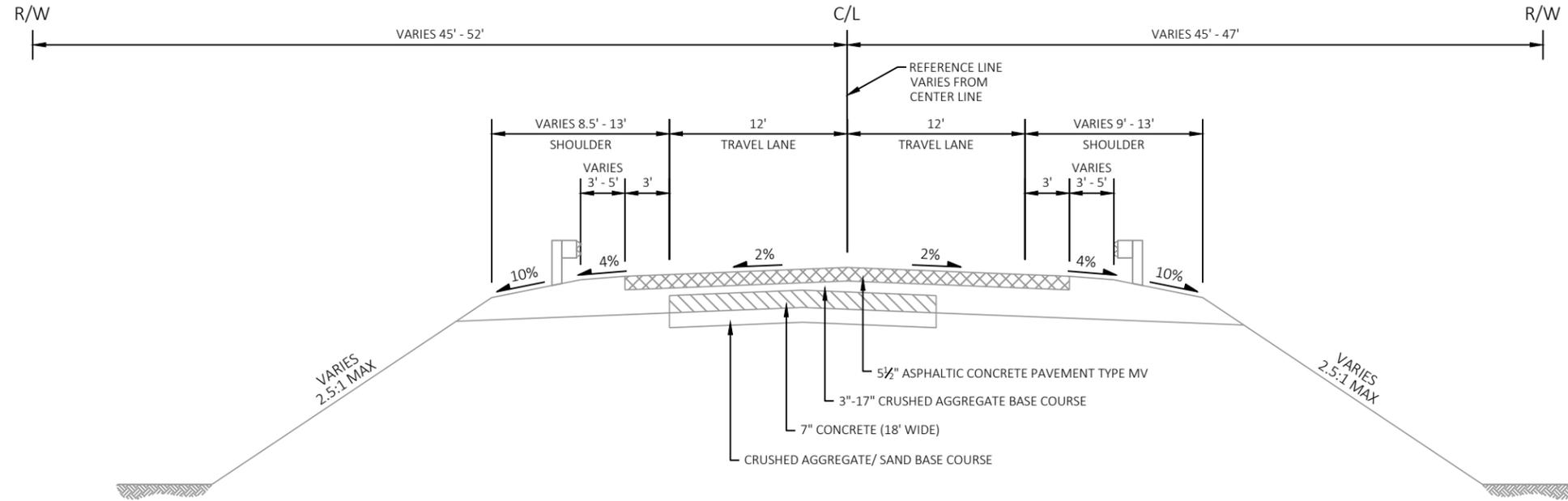


TYPICAL EXISTING SECTION

STA 73+00 - STA 94+25 RT
 STA 73+00 - STA 94+30 LT
 STA 95+75 - STA 102+70 RT
 STA 95+92 - STA 104+00 LT

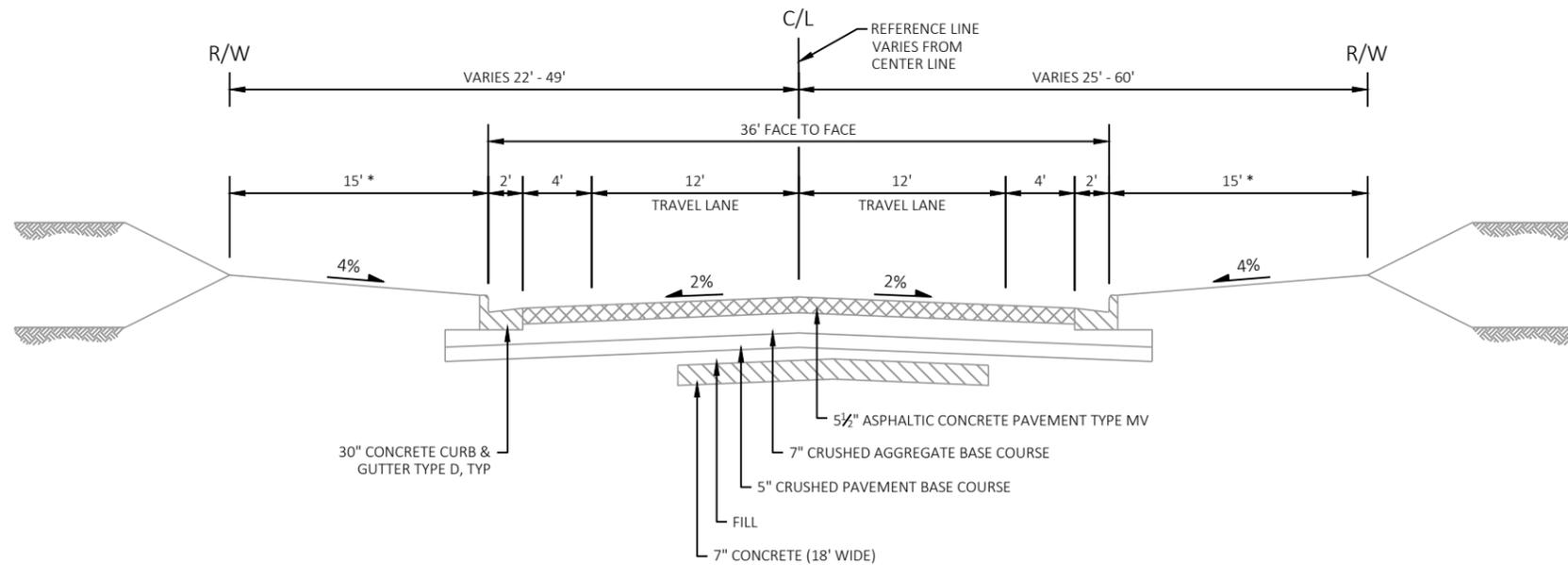
*** OUTSIDE CLEAR ZONE ON OUTSIDE OF HORIZONTAL CURVES

DEGREE	CUT	FILL
2°	38'	42'
3°	41'	45'



TYPICAL EXISTING SECTION

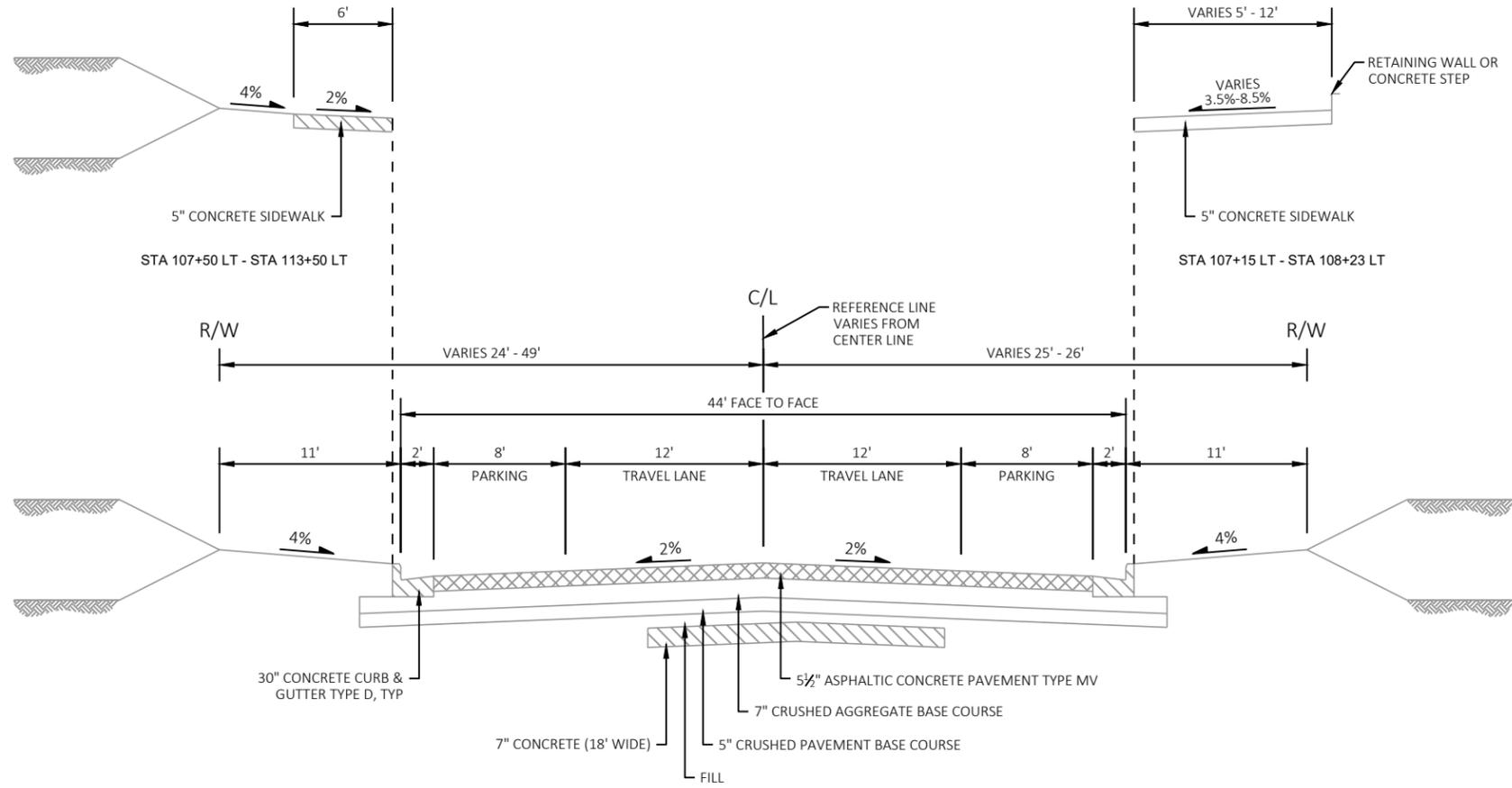
STA 94+25 - STA 95+75 RT
STA 94+30 - STA 95+92 LT



TYPICAL EXISTING SECTION

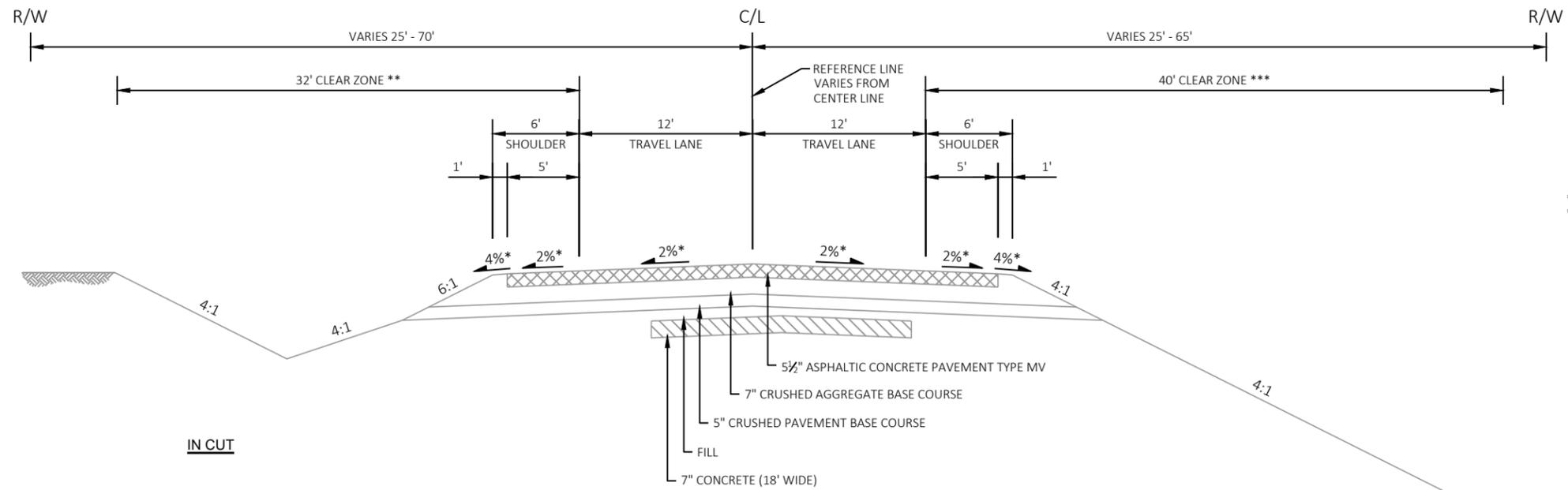
STA 102+70 RT - STA 108+20 RT
STA 104+00 LT - STA 107+50 LT
STA 115+50 RT - STA 121+50 RT
STA 115+50 LT - STA 126+00 LT
STA 147+80 RT - STA 167+00 RT
STA 147+80 LT - STA 165+90 LT

* 10' TERRACE
STA 147+80 - STA 167+00



TYPICAL EXISTING SECTION

STA 107+50 LT - STA 113+50 LT
STA 107+15 LT - STA 108+23 LT



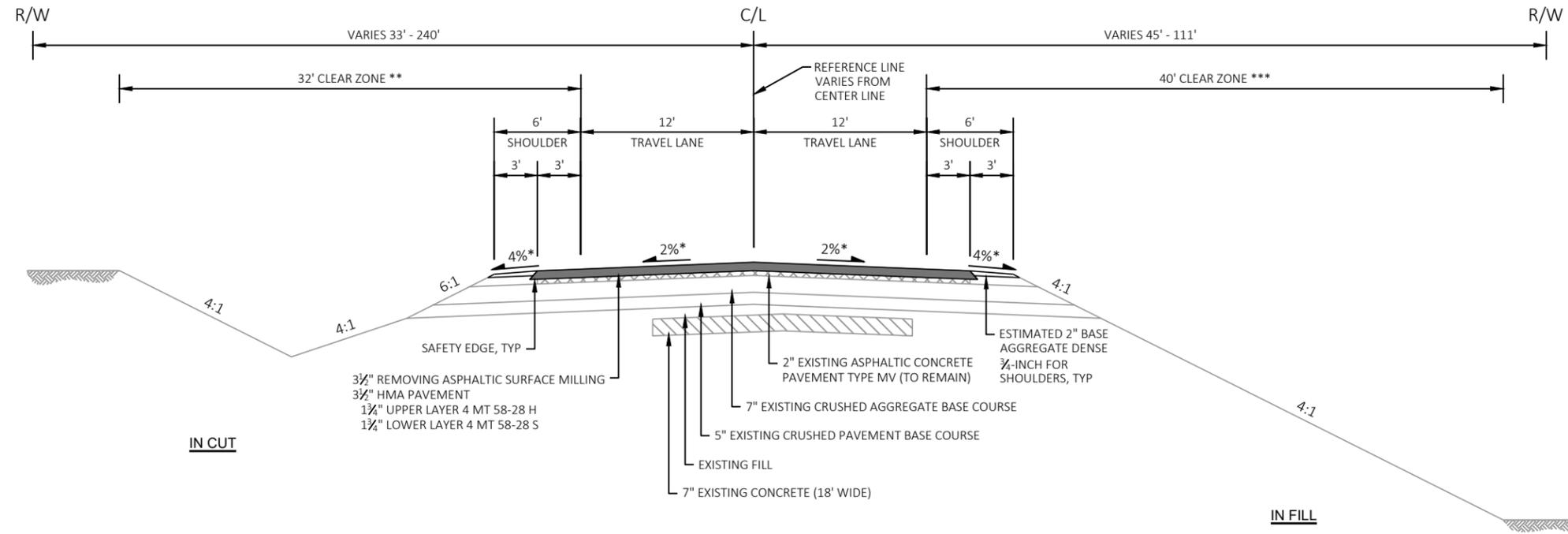
TYPICAL EXISTING SECTION

STA 121+75 STA 147+80 RT
STA 124+00 STA 147+80 LT

* CROSS SLOPE VARIES DUE TO SUPERELEVATION
** CLEAR ZONE
STA 136+00 LT - STA 139+50 LT = 23'

*** OUTSIDE CLEAR ZONE ON OUTSIDE OF HORIZONTAL CURVES

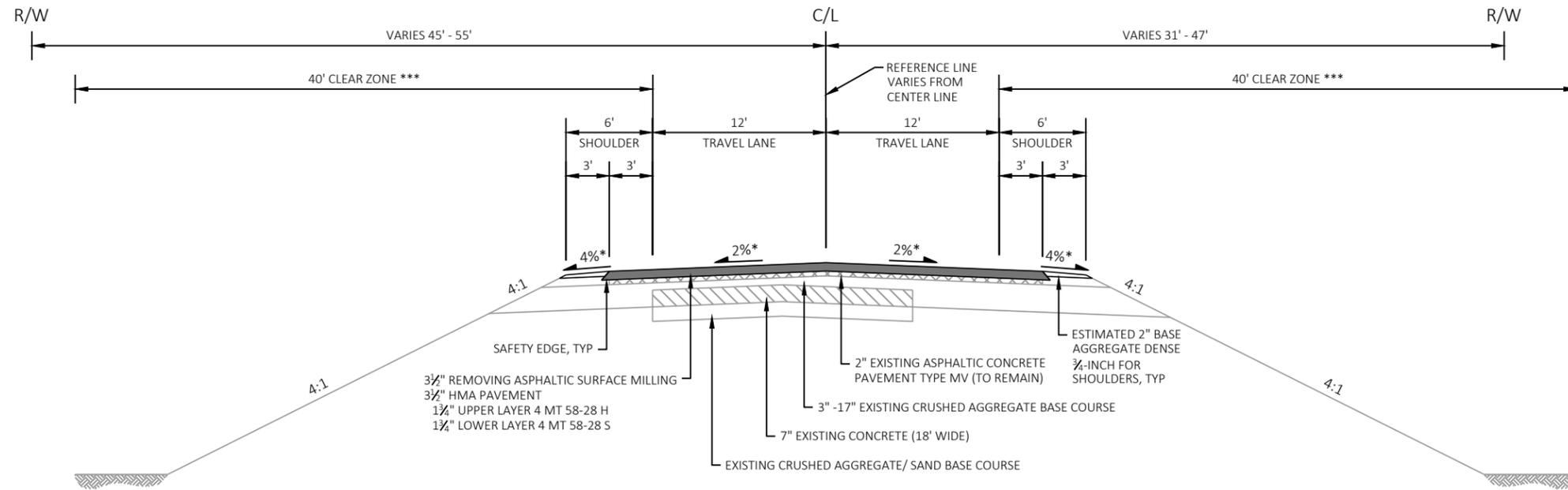
DEGREE	CUT	FILL
2°	38'	42'
3°	41'	45'



TYPICAL FINISHED SECTION

STA 54+28 - STA 73+00 LT & RT
STA 165+90 - STA 327+50 LT
STA 167+00 - STA 327+50 RT

* CROSS SLOPE VARIES DUE TO SUPERELEVATION
** CLEAR ZONE
STA 301+50 LT - STA 307+50 LT = 35'

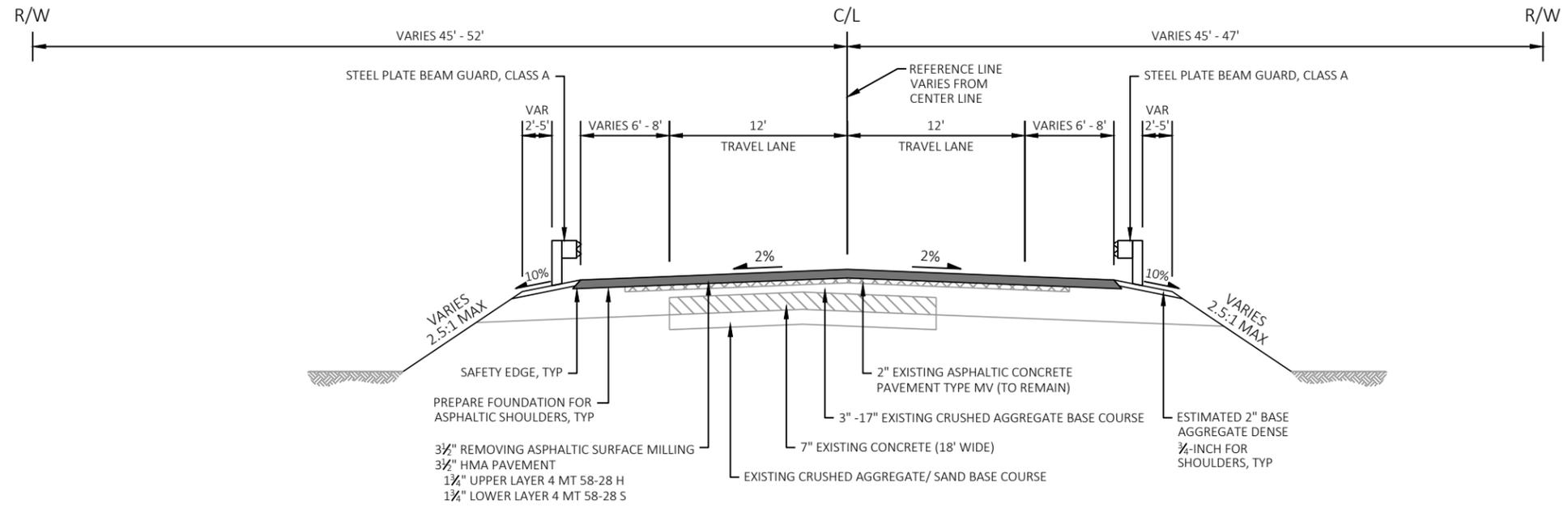


TYPICAL FINISHED SECTION

STA 73+00 - STA 94+25 RT
STA 73+00 - STA 94+30 LT
STA 95+75 - STA 102+70 RT
STA 95+92 - STA 104+00 LT

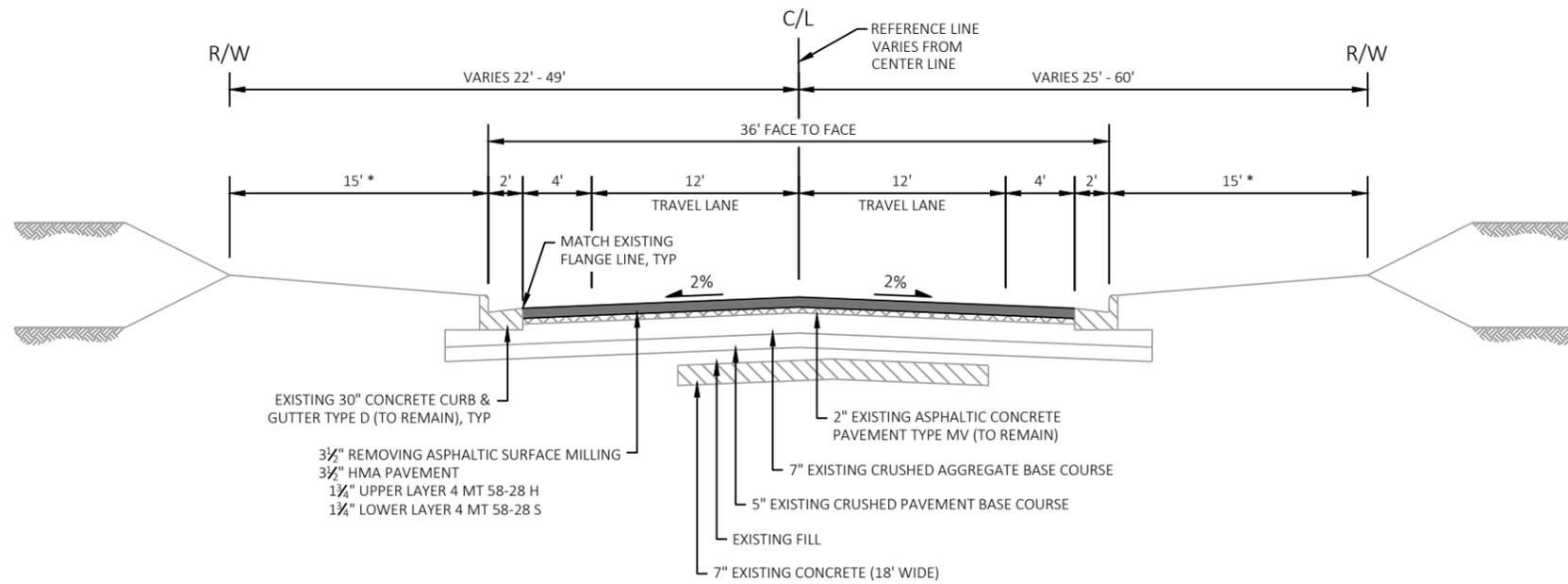
***** OUTSIDE CLEAR ZONE ON OUTSIDE OF HORIZONTAL CURVES**

DEGREE	CUT	FILL
2°	38'	42'
3°	41'	45'



TYPICAL FINISHED SECTION

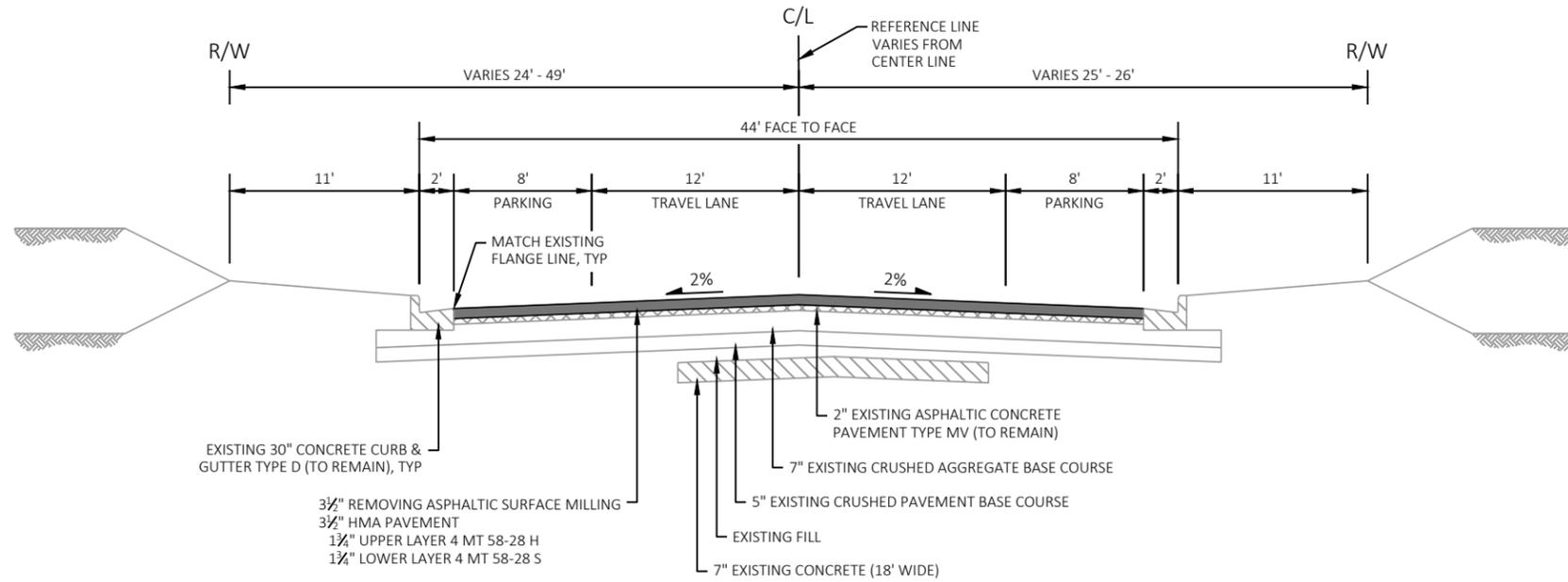
STA 94+25 - STA 95+75 RT
STA 94+30 - STA 95+92 LT



TYPICAL FINISHED SECTION

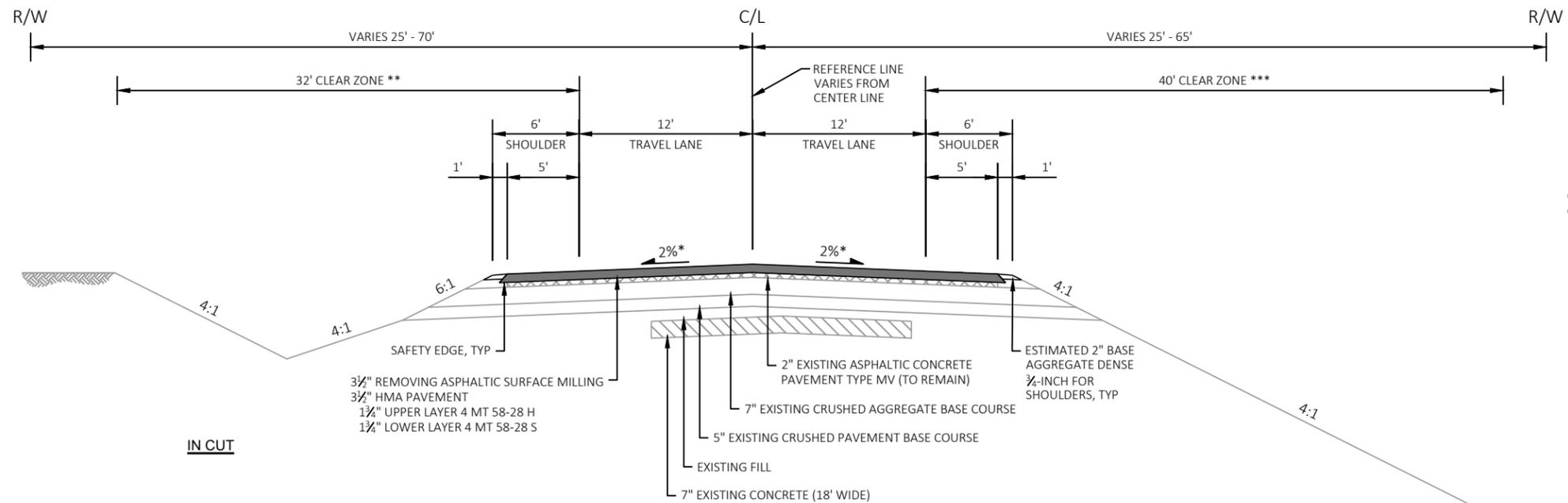
STA 102+70 RT - STA 108+20 RT
STA 104+00 LT - STA 107+50 LT
STA 115+50 RT - STA 121+50 RT
STA 115+50 LT - STA 126+00 LT
STA 147+80 RT - STA 167+00 RT
STA 147+80 LT - STA 165+90 LT

* 10' TERRACE
STA 147+80 - STA 167+00



TYPICAL FINISHED SECTION

STA 107+50 LT - STA 115+50 LT
STA 108+20 RT - STA 115+50 RT



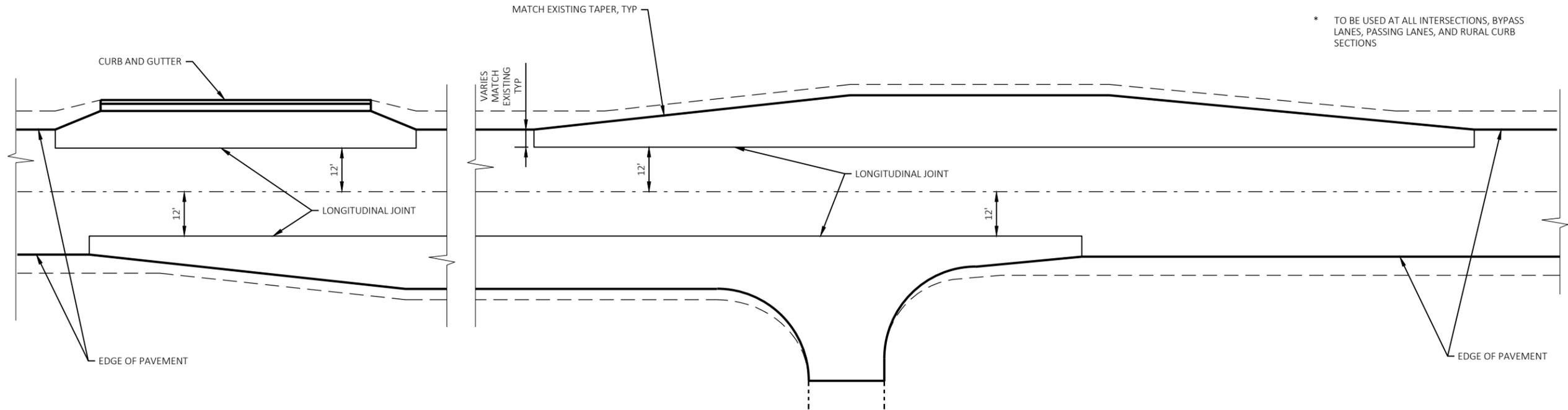
TYPICAL FINISHED SECTION

STA 121+75 STA 147+80 RT
STA 124+00 STA 147+80 LT

* CROSS SLOPE VARIES DUE TO SUPERELEVATION
** CLEAR ZONE
STA 136+00 LT - STA 139+50 LT = 23'

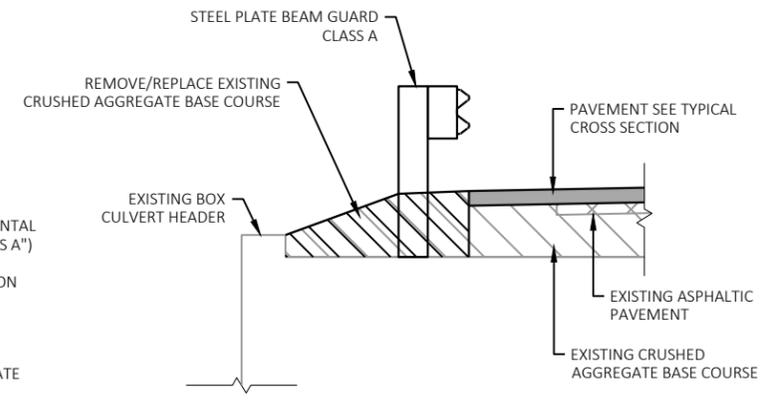
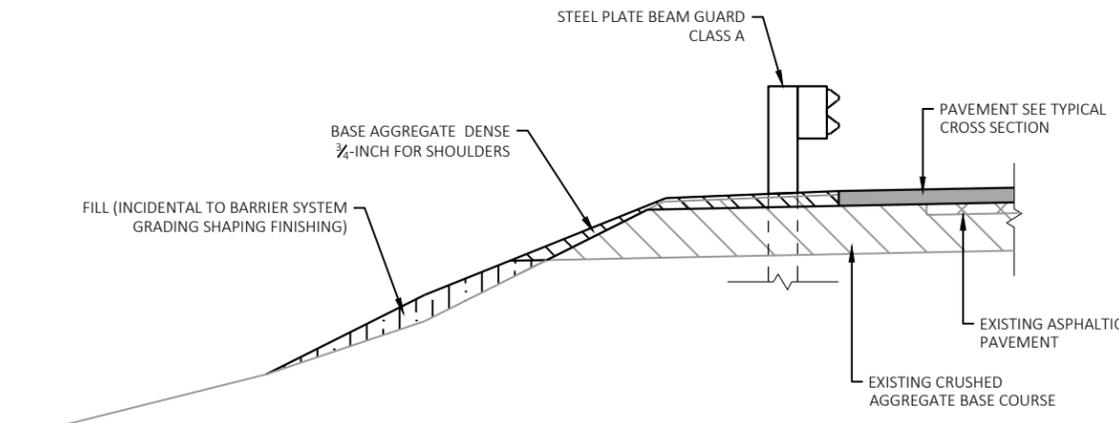
*** OUTSIDE CLEAR ZONE ON OUTSIDE OF HORIZONTAL CURVES

DEGREE	CUT	FILL
2°	38'	42'
3°	41'	45'

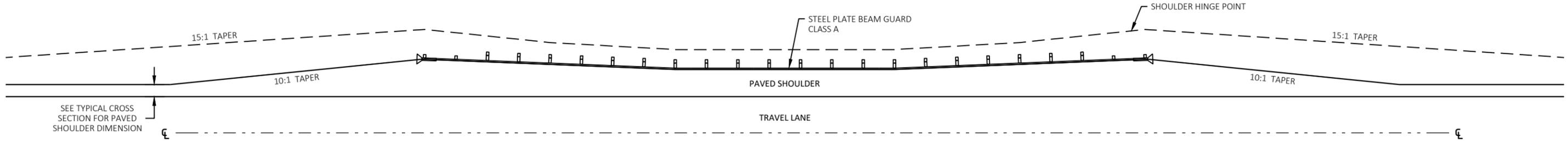


* TO BE USED AT ALL INTERSECTIONS, BYPASS LANES, PASSING LANES, AND RURAL CURB SECTIONS

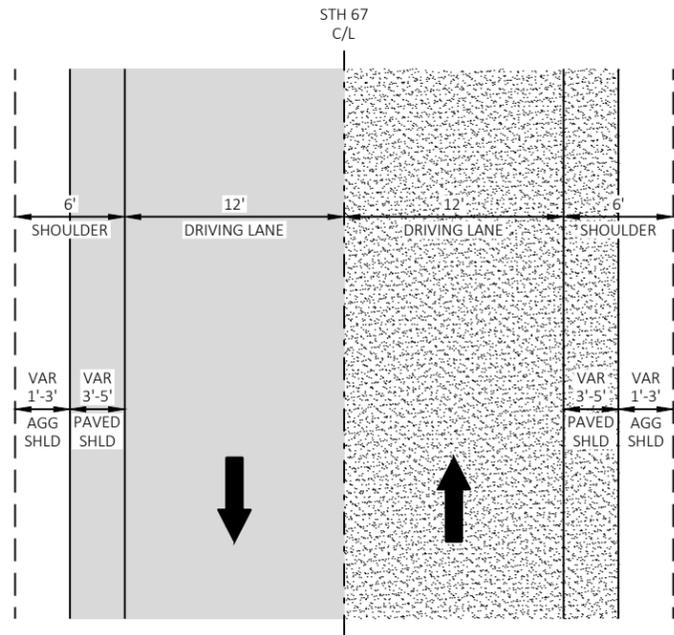
HMA LONGITUDINAL JOINT DETAIL



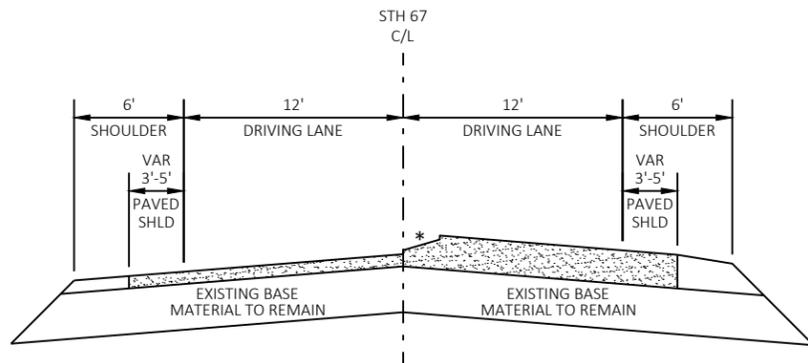
- SEQUENCE OF OPERATIONS AT BOX CULVERT (ALL OPERATIONS AND MATERIALS ARE INCIDENTAL TO BID ITEM "STEEL PLATE BEAM GUARD CLASS A")
1. REMOVE EXISTING CRUSHED AGGREGATE MATERIAL TO EXPOSE POST AND BRACKET ON BOX CULVERT.
 2. REMOVE EXISTING POST FROM BRACKET.
 3. ATTACH NEW POST TO EXISTING BRACKET.
 4. REPLACE EXISTING CRUSHED AGGREGATE MATERIAL OR INSTALL NEW BASE AGGREGATE DENSE 3/4-INCH



DETAIL FOR PAVED SHOULDER AT GUARDRAIL

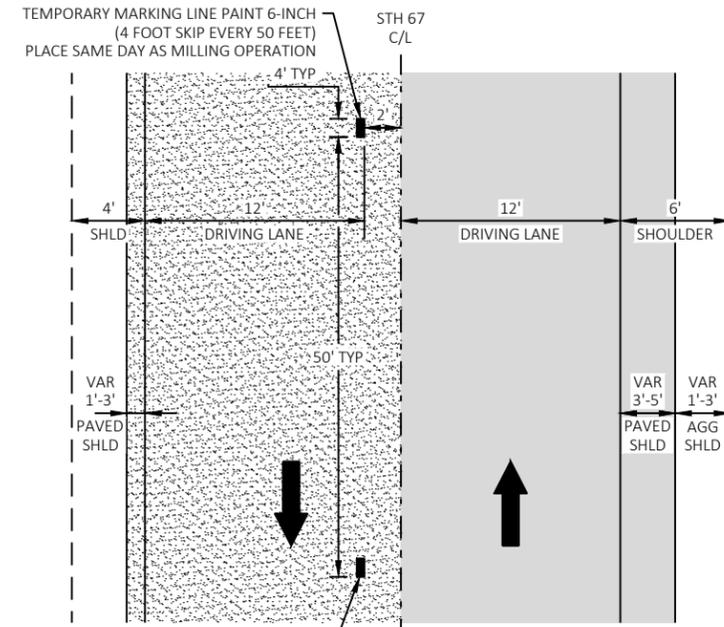


PLAN VIEW

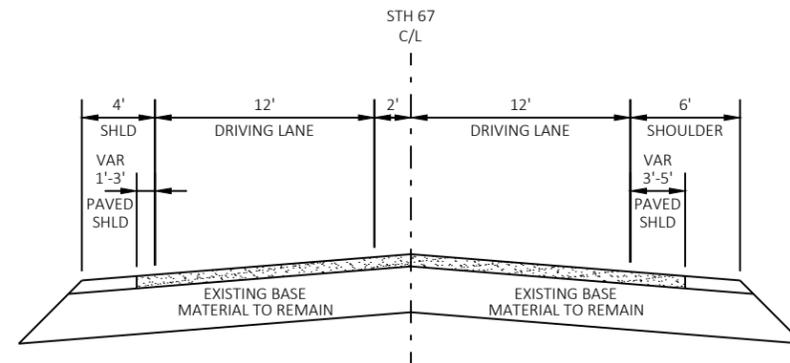


CROSS SECTION VIEW

MILLING FIRST PASS DETAIL



PLAN VIEW



CROSS SECTION VIEW

MILLING SECOND PASS DETAIL



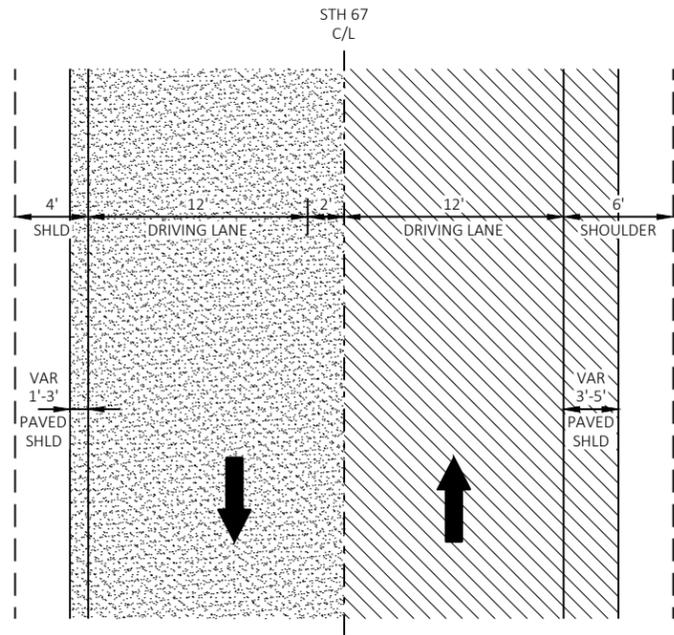
NOTES

TEMPORARY MARKING MUST BE PLACED PRIOR TO OPENING TO TRAFFIC ONLY ONE SET OF PAVEMENT MARKINGS SHALL BE VISIBLE AT ALL TIMES DURING PAVING OPERATIONS.

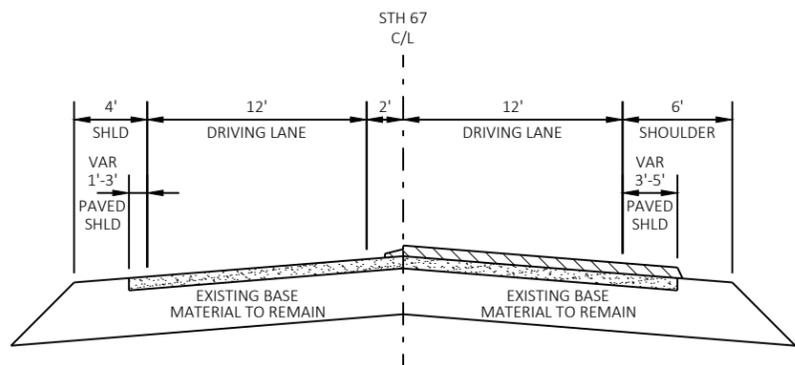
SEE STANDARD DETAIL DRAWING 15C8 PAVEMENT MARKING, MAINLINE AND TURN LANES AND 15C33 STOP LINE AND CROSSWALK PAVEMENT MARKING FOR PERMANENT PAVEMENT MARKING DETAILS.

SEE STANDARD DETAIL DRAWING 15D39 TRAFFIC CONTROL, DROP-OFF SIGNING FOR SIGNING DETAILS WHEN ADJACENT TRAVEL LANES HAVE DIFFERING HEIGHTS.

* ELIMINATE DROP-OFF GREATER THAN 2" PER STANDARD SPEC 104.6.1.2.3. INCIDENTAL TO MILLING AND PAVING OPERATIONS.

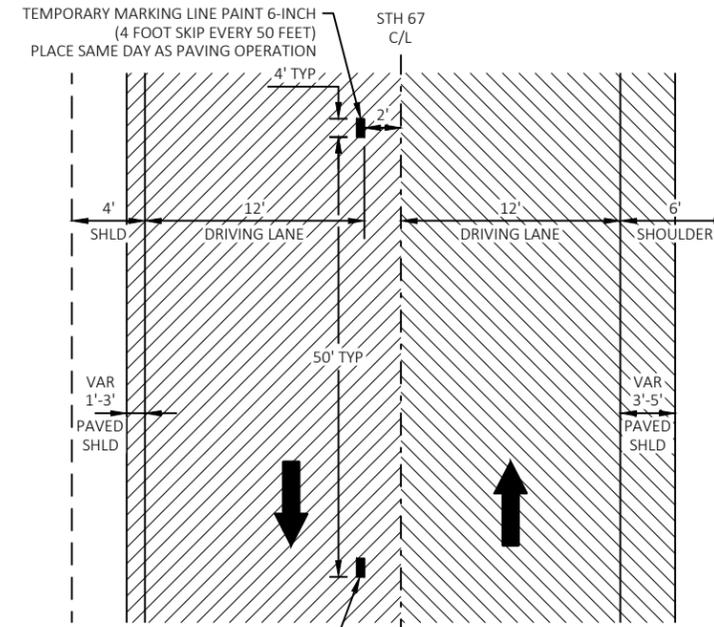


PLAN VIEW

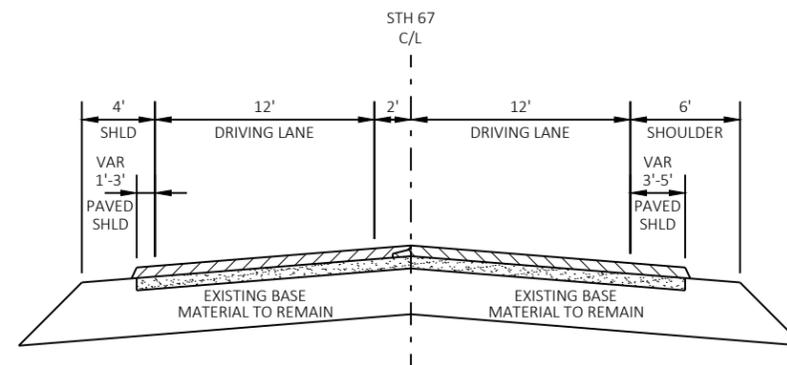


CROSS SECTION VIEW

RURAL LONGITUDINAL JOINT DETAIL - FIRST PASS



PLAN VIEW



CROSS SECTION VIEW

RURAL LONGITUDINAL JOINT DETAIL - SECOND PASS

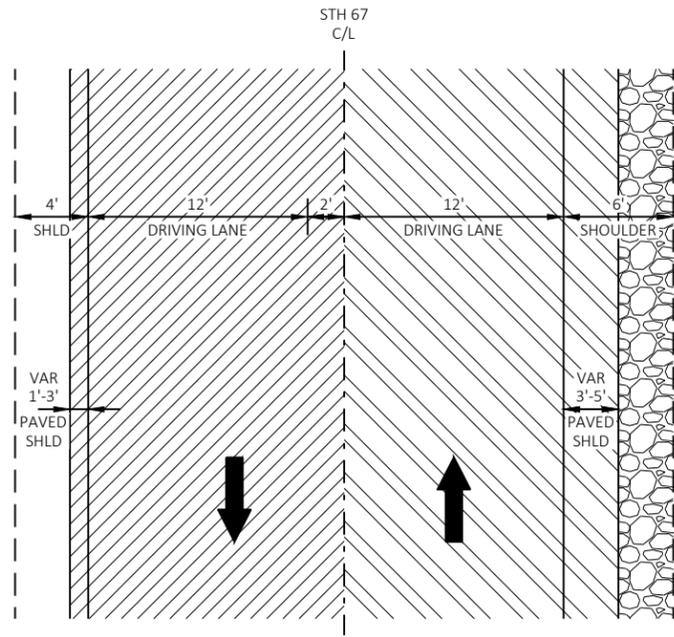
-  EXISTING ASPHALTIC PAVEMENT TO REMAIN
-  FIRST PASS 1 3/4" HMA PAVEMENT 4 MT 58-28 S PAVING LIMITS
-  SECOND PASS 1 3/4" HMA PAVEMENT 4 MT 58-28 S PAVING LIMITS

NOTES

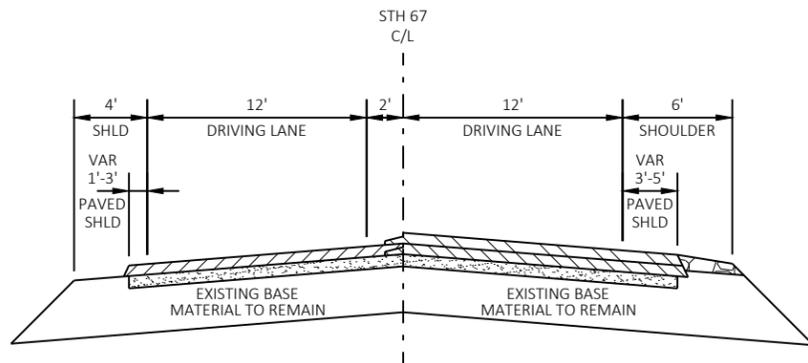
TEMPORARY MARKING MUST BE PLACED PRIOR TO OPENING TO TRAFFIC ONLY ONE SET OF PAVEMENT MARKINGS SHALL BE VISIBLE AT ALL TIMES DURING PAVING OPERATIONS.

SEE STANDARD DETAIL DRAWING 15C8 PAVEMENT MARKING, MAINLINE AND TURN LANES AND 15C33 STOP LINE AND CROSSWALK PAVEMENT MARKING FOR PERMANENT PAVEMENT MARKING DETAILS.

SEE STANDARD DETAIL DRAWING 15D39 TRAFFIC CONTROL, DROP-OFF SIGNING FOR SIGNING DETAILS WHEN ADJACENT TRAVEL LANES HAVE DIFFERING HEIGHTS.

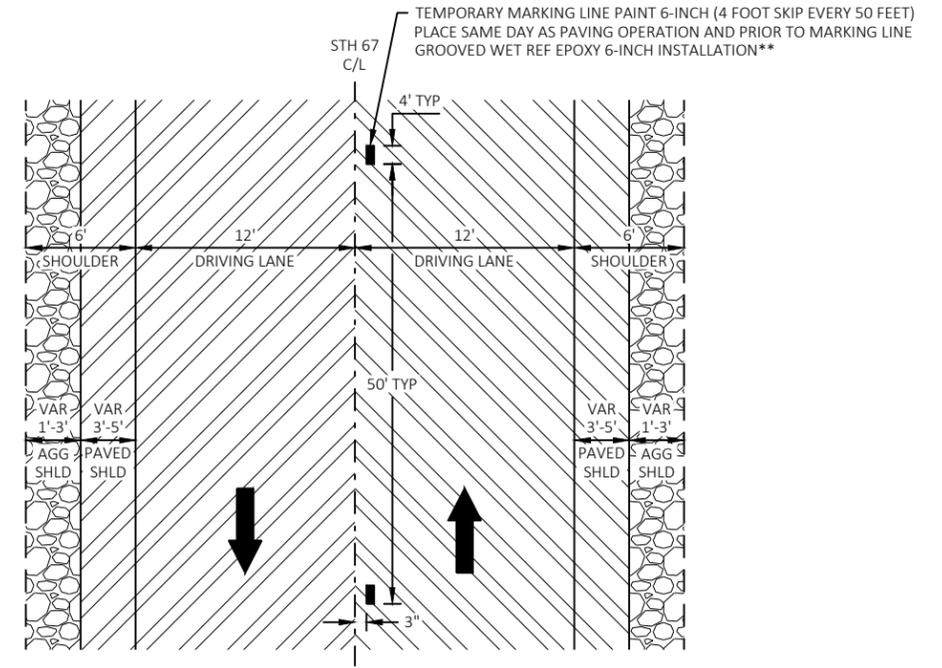


PLAN VIEW



CROSS SECTION VIEW

RURAL LONGITUDINAL JOINT DETAIL - THIRD PASS



CROSS SECTION VIEW

RURAL LONGITUDINAL JOINT DETAIL - FOURTH PASS

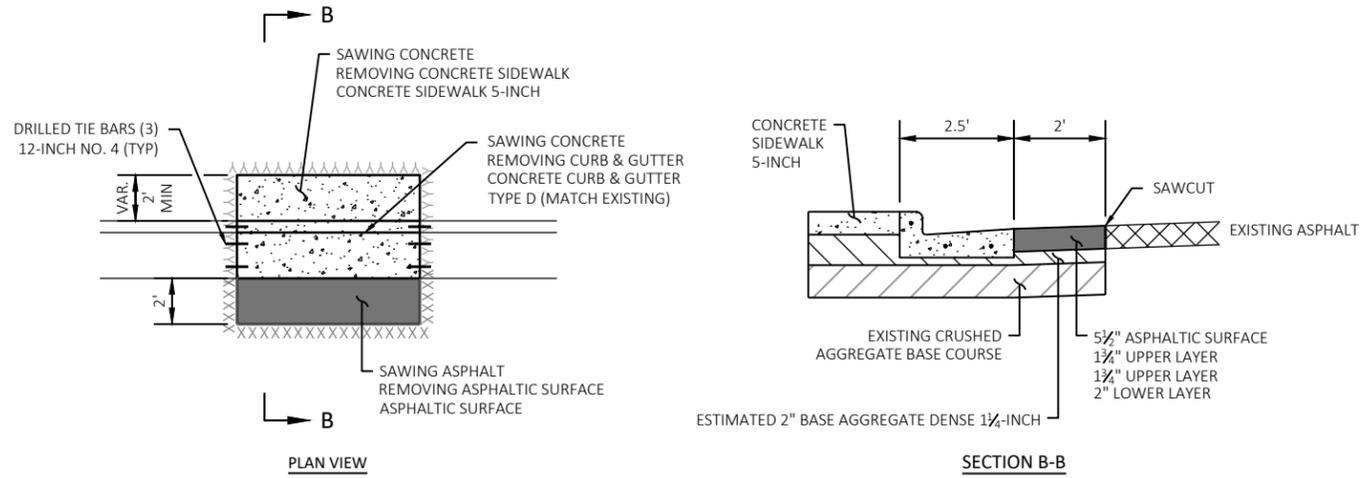
- | | | | |
|--|--|--|--|
| | EXISTING ASPHALTIC PAVEMENT TO REMAIN | | THIRD PASS 1 3/4" HMA PAVEMENT 4 MT 58-28 S PAVING LIMITS |
| | FIRST PASS 1 3/4" HMA PAVEMENT 4 MT 58-28 S PAVING LIMITS | | FOURTH PASS 1 3/4" HMA PAVEMENT 4 MT 58-28 S PAVING LIMITS |
| | SECOND PASS 1 3/4" HMA PAVEMENT 4 MT 58-28 S PAVING LIMITS | | ESTIMATED 2" BASE AGGREGATE DENSE 3/4"-INCH |

NOTES

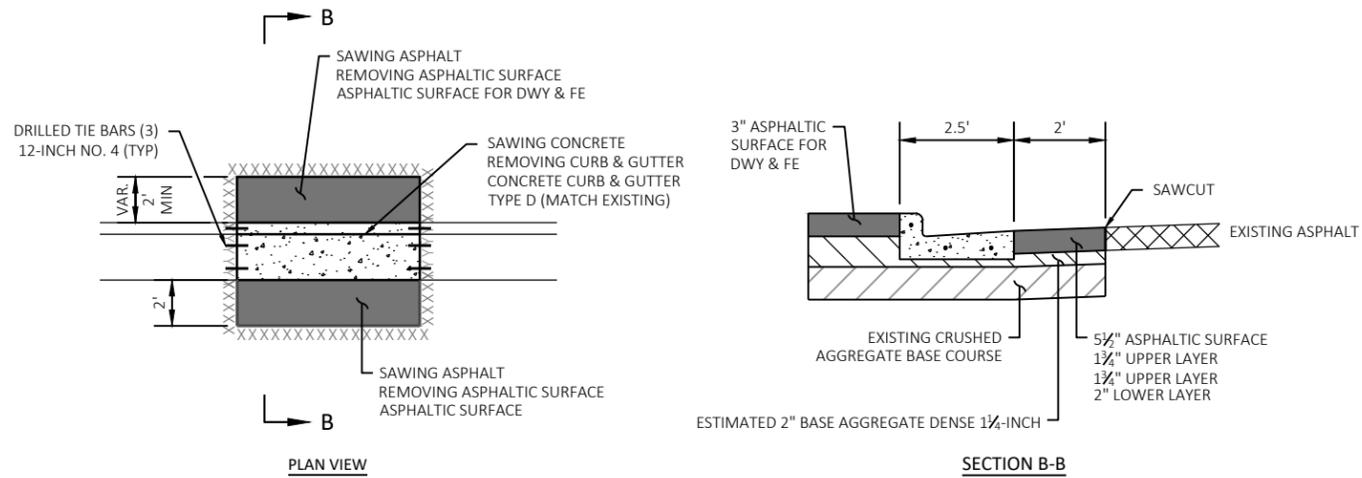
SEE STANDARD DETAIL DRAWING 15C8 PAVEMENT MARKING, MAINLINE AND TURN LANES AND 15C33 STOP LINE AND CROSSWALK PAVEMENT MARKING FOR PERMANENT PAVEMENT MARKING DETAILS.

SEE STANDARD DETAIL DRAWING 15D39 TRAFFIC CONTROL, DROP-OFF SIGNING FOR SIGNING DETAILS WHEN ADJACENT TRAVEL LANES HAVE DIFFERING HEIGHTS.

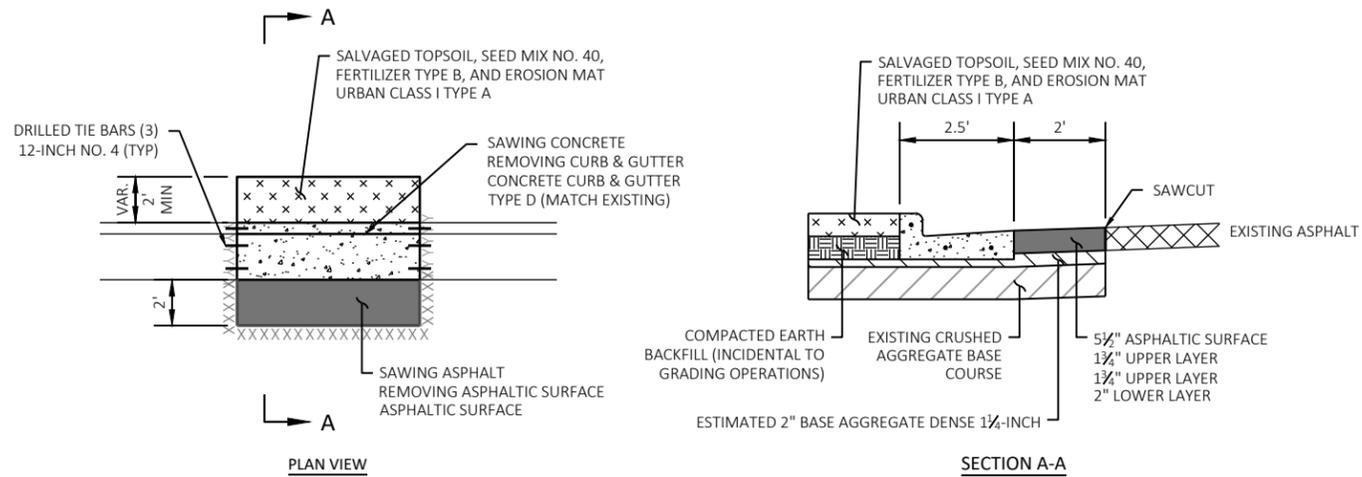
** TEMPORARY PAVEMENT MARKING TO BE PLACED IN LOCATION OF PERMANENT MARKINGS.



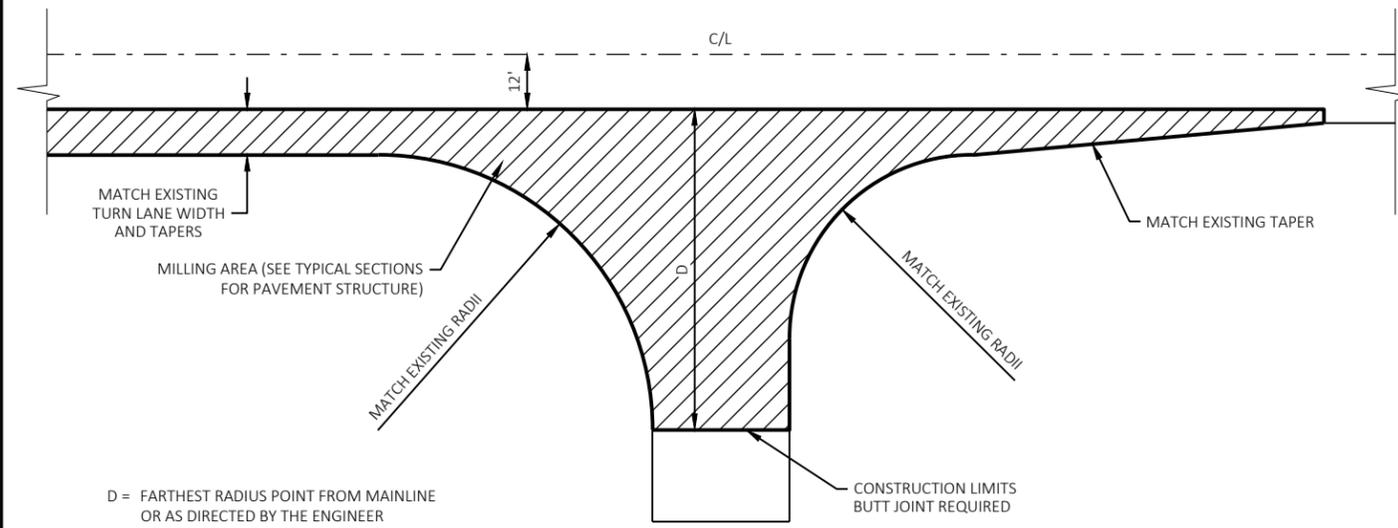
CONCRETE SIDEWALK BEHIND CURB AND GUTTER



ASPHALT BEHIND CURB AND GUTTER

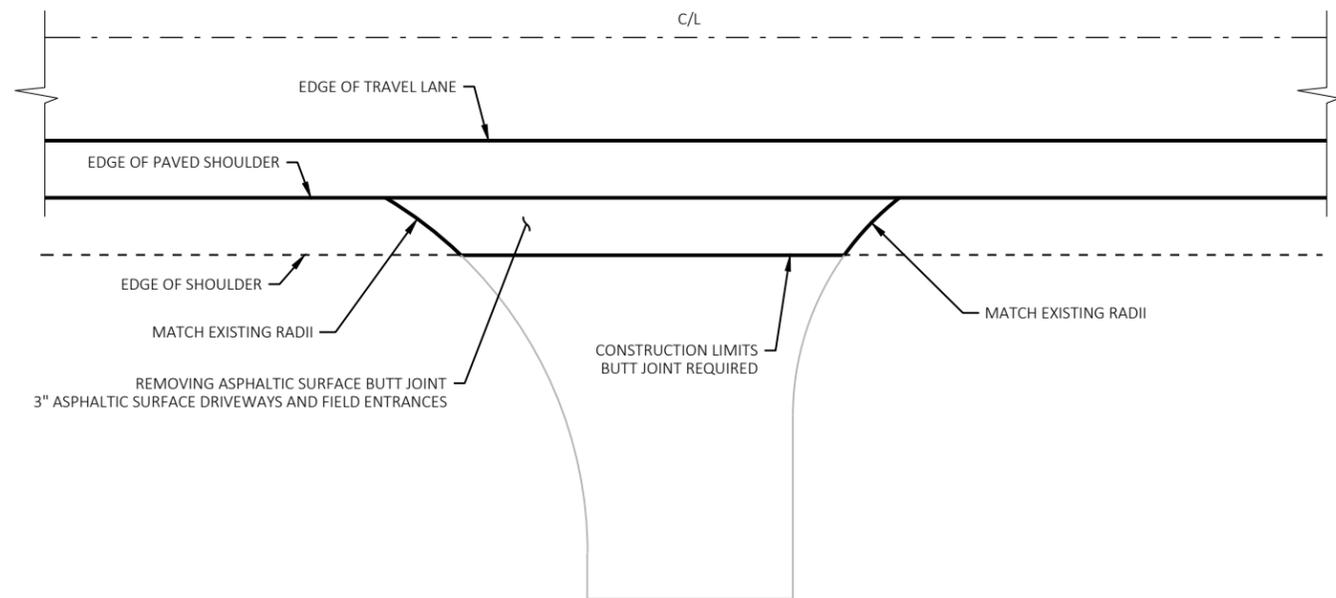


DETAIL FOR CURB AND GUTTER REMOVAL/REPLACEMENT

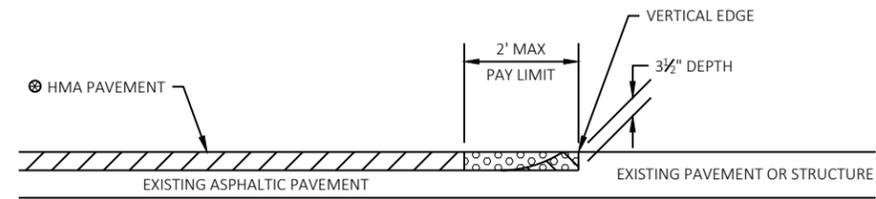


TYPICAL SIDE ROAD DETAIL

- LINCOLN ROAD
- HIGHLAND AVENUE
- OAK STREET
- CTH O
- MAPLE STREET
- ROOSEVELT ROAD
- MARIAH LANE
- LORENZ LANE
- CTH EE
- WASHINGTON ROAD
- CLEVELAND ROAD
- LEDGE ROAD
- CTH MM



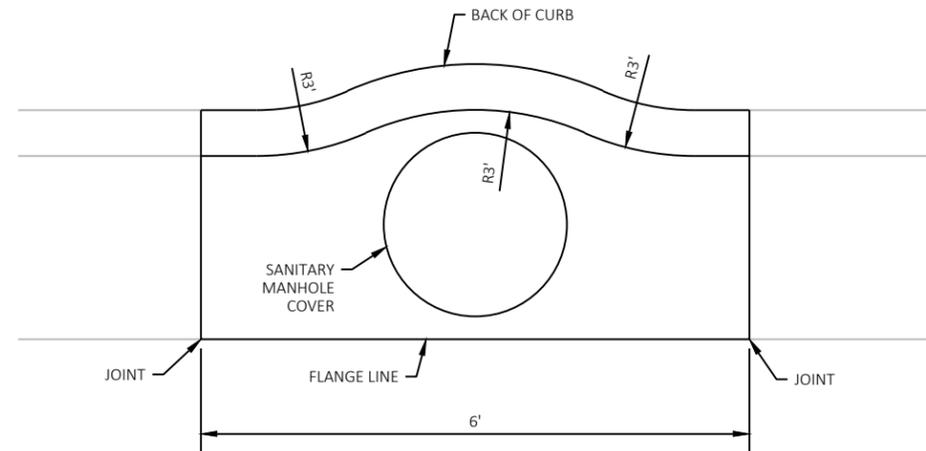
TYPICAL ASPHALT DRIVEWAY DETAIL



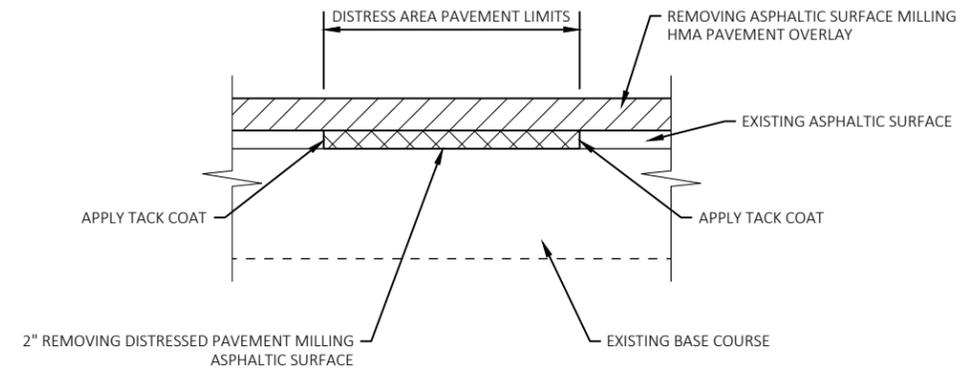
-  REMOVING ASPHALTIC SURFACE, MILLING
-  REMOVING ASPHALTIC SURFACE, BUTT JOINTS
-  REMOVE ASPHALTIC SURFACE WEDGE AT BUTT JOINT TO CREATE VERTICAL EDGE

⊗ SEE TYPICAL CROSS SECTION FOR PAVEMENT TYPE AND THICKNESS OF INDIVIDUAL LAYERS

BUTT JOINT DETAIL FOR ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)



DETAIL FOR CURB AND GUTTER AT SANITARY MANHOLE

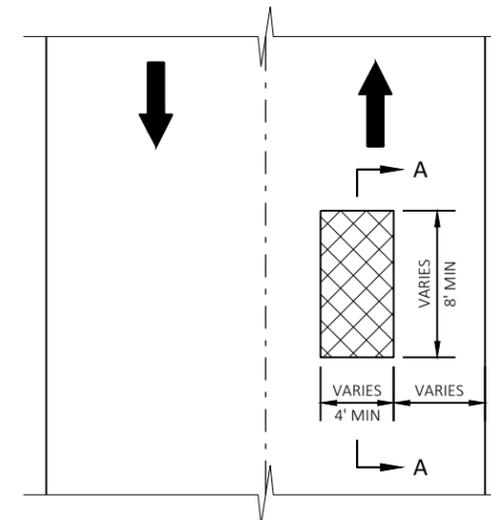


SECTION A-A

-  REMOVING ASPHALTIC SURFACE MILLING HMA PAVEMENT OVERLAY
-  REMOVING DISTRESSED PAVEMENT MILLING ASPHALTIC SURFACE



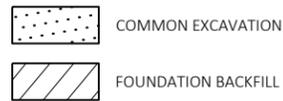
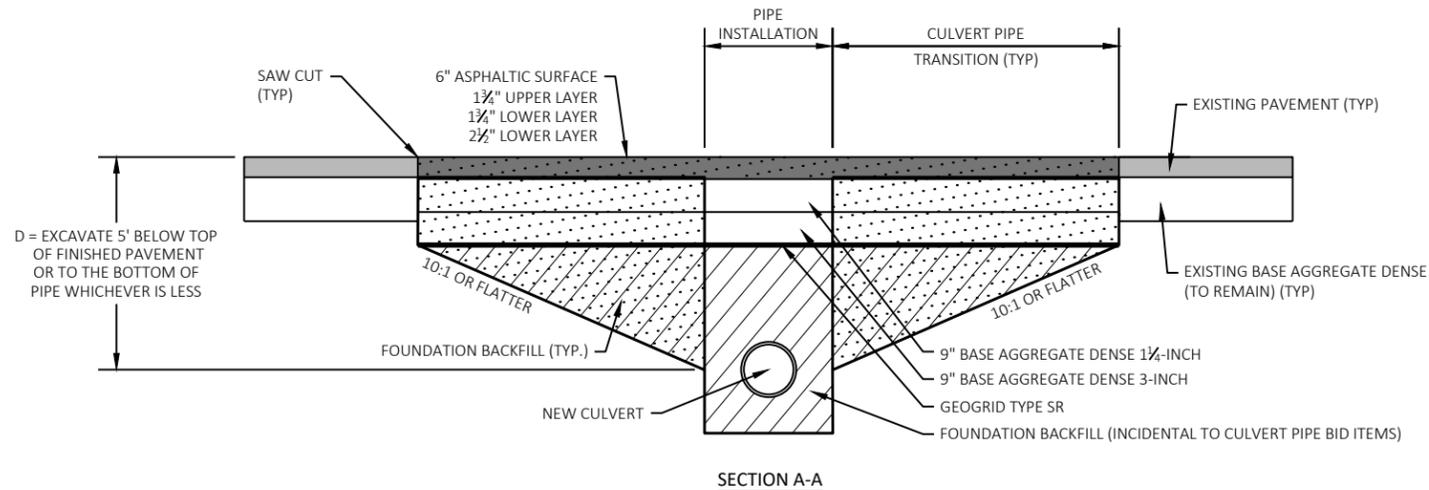
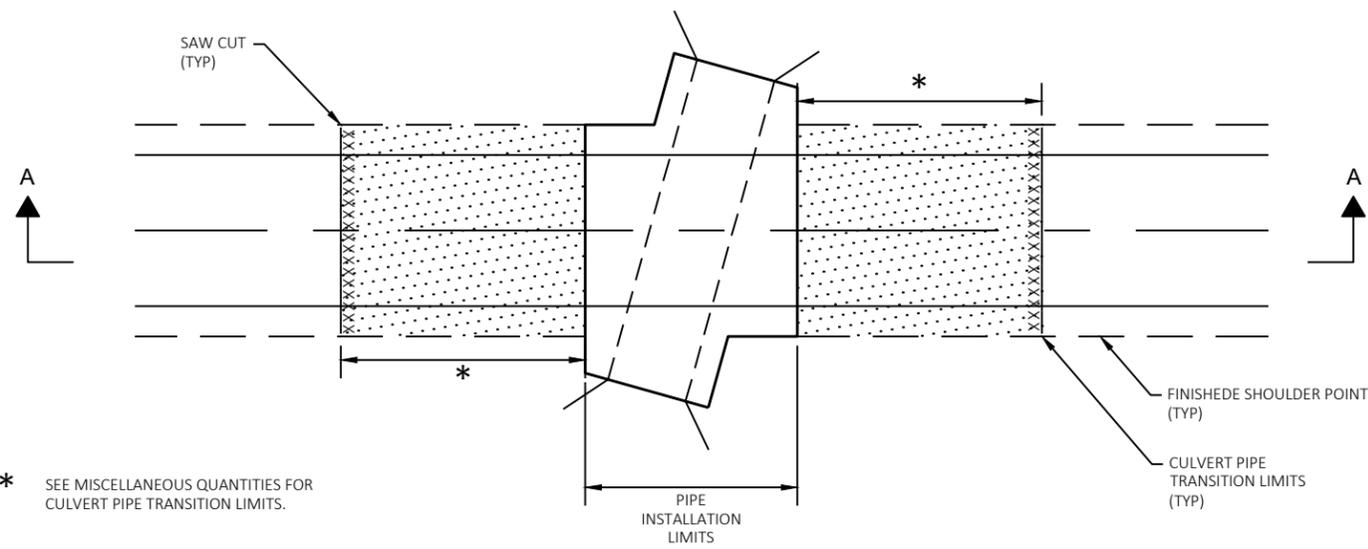
TRAVEL DIRECTION



PLAN VIEW

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

REMOVING DISTRESS PAVEMENT MILLING



NEW CULVERT PIPES WITH TRANSITION

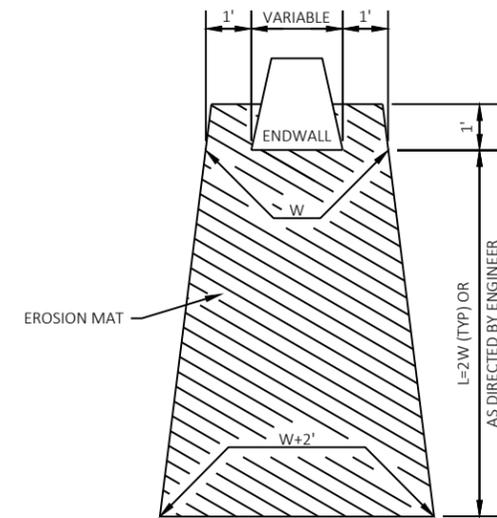
STA 62+69
STA 85+37
STA 285+70

PIPE INSTALLATION AREA WILL FOLLOW SECTION 520 FOR INSTALLATION, WIDTHS AND PAYMENT.

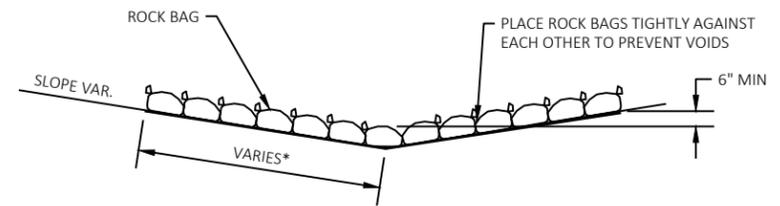
CULVERT PIPE TRANSITION AREAS WILL BE PAID BY COMMON EXCAVATION & SPV FOUNDATION BACKFILL.

SAW CUT PAVEMENT PERPENDICULAR TO ROADWAY ALIGNMENT.

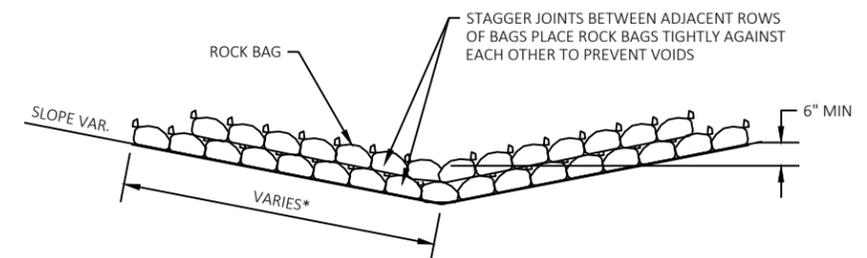
PLAN STATION AND OFFSET CALLOUTS ARE TO THE ENDS OF THE PIPE.



EROSION MAT TREATMENT AT CULVERTS



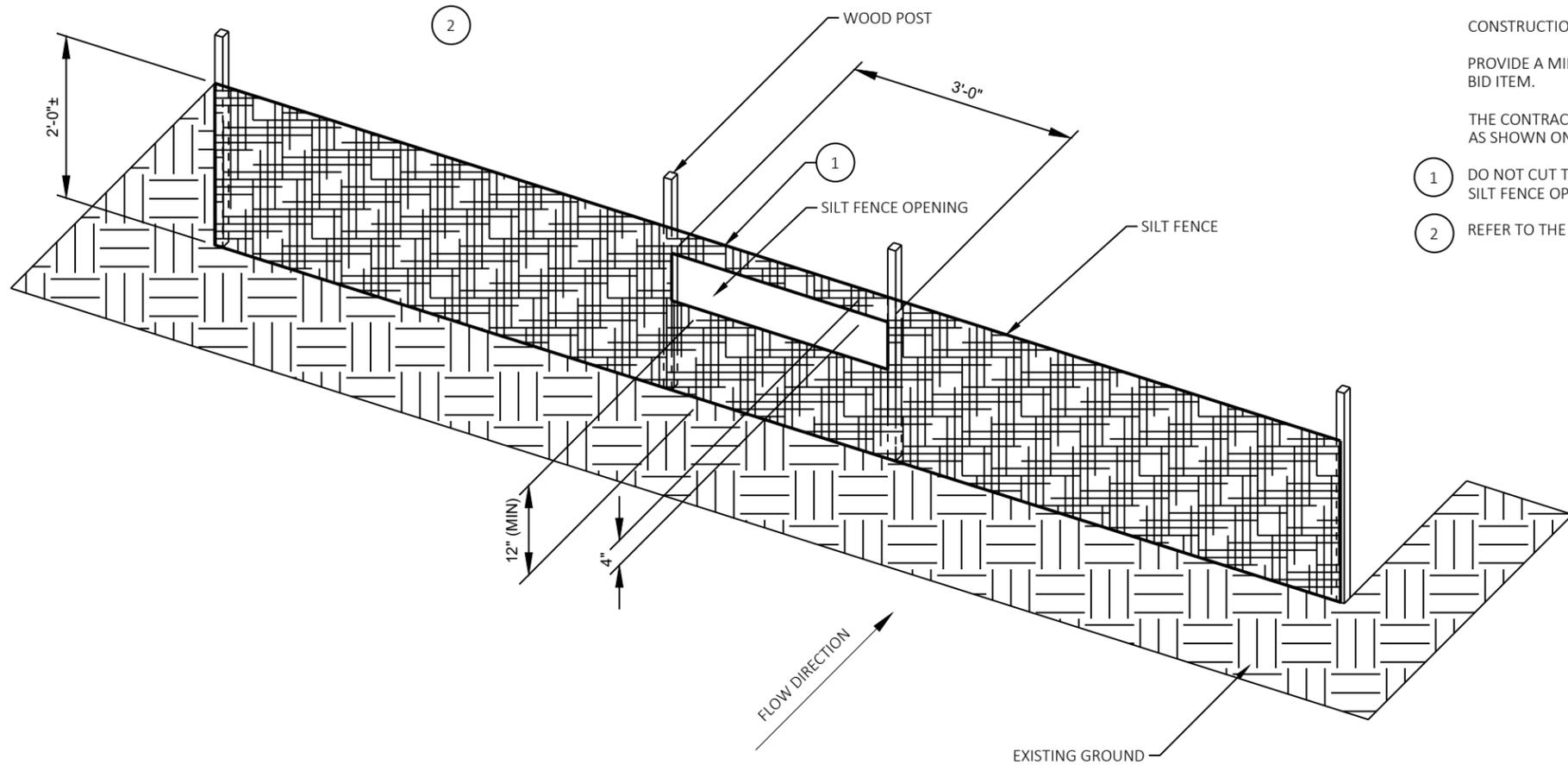
SIDE VIEW (SINGLE LAYER)



SIDE VIEW (MULTIPLE LAYER)

ROCK BAGS USED FOR DITCH CHECKS DETAIL

* LENGTH AND NUMBER OF BAGS MAY VARY DEPENDING ON DESIRED DEPTH OF WATER POOL



GENERAL NOTES

THE SILT FENCE RELIEF DETAIL IS A SUPPLEMENTAL DETAIL TO THE SILT FENCE STANDARD DETAILS AND SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

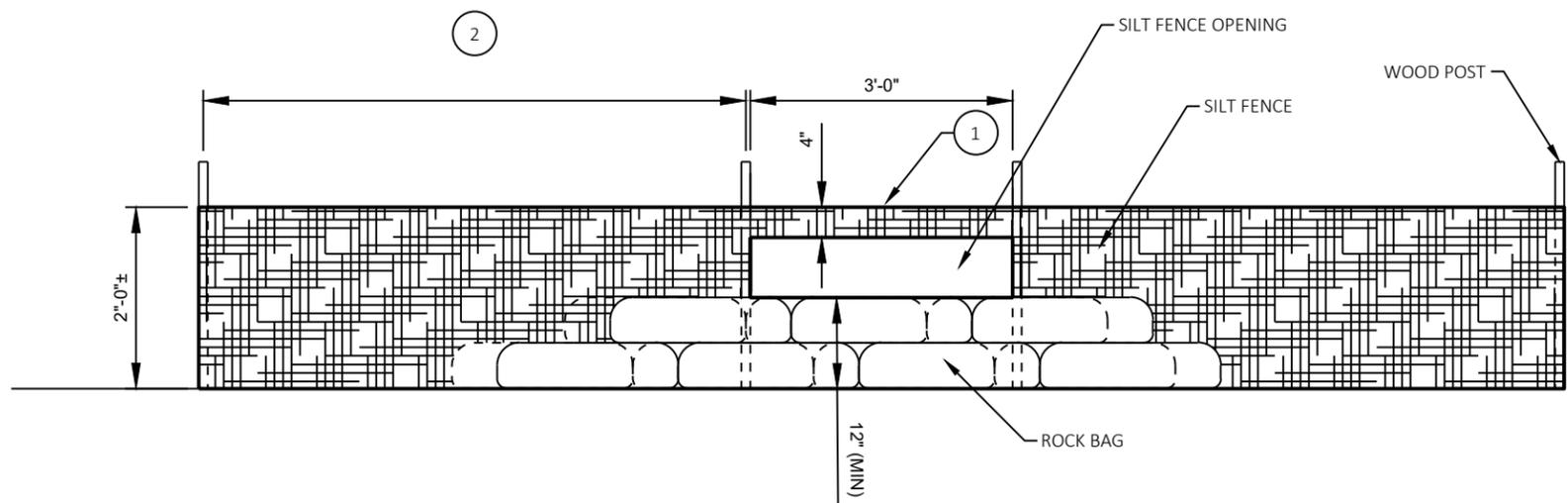
INSTALL SILT FENCE PRIOR TO CONSTRUCTING THE SILT FENCE OPENING. PRIOR TO CONSTRUCTING THE SILT FENCE OPENING, PLACE ROCK BAGS AT THE SILT FENCE OPENING AS SHOWN IN THIS DETAIL.

CONSTRUCTION OF THE SILT FENCE OPENING SHALL BE INCIDENTAL TO THE COST OF THE SILT FENCE BID ITEM.

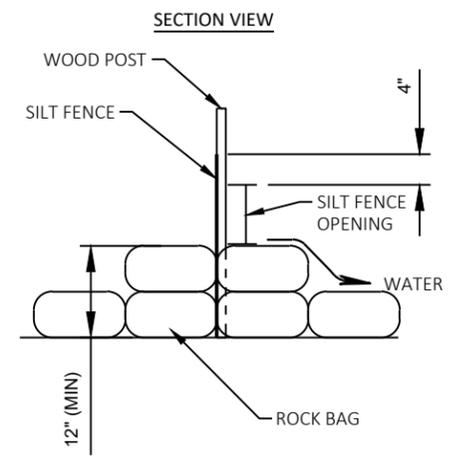
PROVIDE A MINIMUM OF 22 ROCK BAGS MINIMUM PER 3 FOOT OPENING. ROCK BAGS SHALL BE PAID UNDER THE ROCK BAGS BID ITEM.

THE CONTRACTOR SHALL ADJUST THE SILT FENCE RELIEF OPENINGS WITHIN THE SILT FENCE AS NECESSARY TO PROVIDE RELIEF: AS SHOWN ON THE PLANS, TO FIT FIELD CONDITIONS AND AS DIRECTED BY THE FIELD ENGINEER.

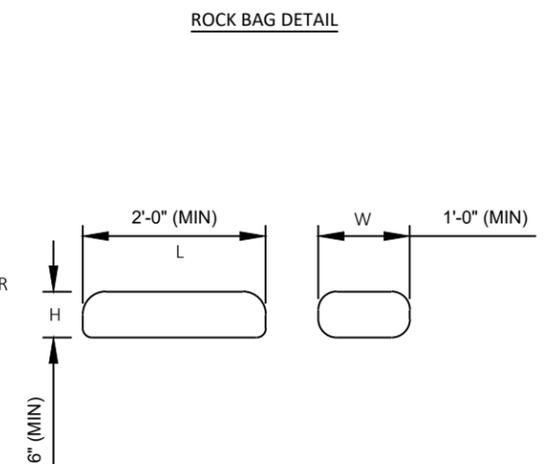
- 1 DO NOT CUT THE SUPPORT CORD OR TENSION TAPE WHEN CONSTRUCTING THE SILT FENCE OPENING. KEEP THE TOP OF THE SILT FENCE OPENING 1"± BELOW THE 3" FOLD AT THE SUPPORT CORD OR TENSION TAPE.
- 2 REFER TO THE SILT FENCE STANDARD DETAILS FOR ALLOWABLE ADJUSTMENTS TO POST SPACING.



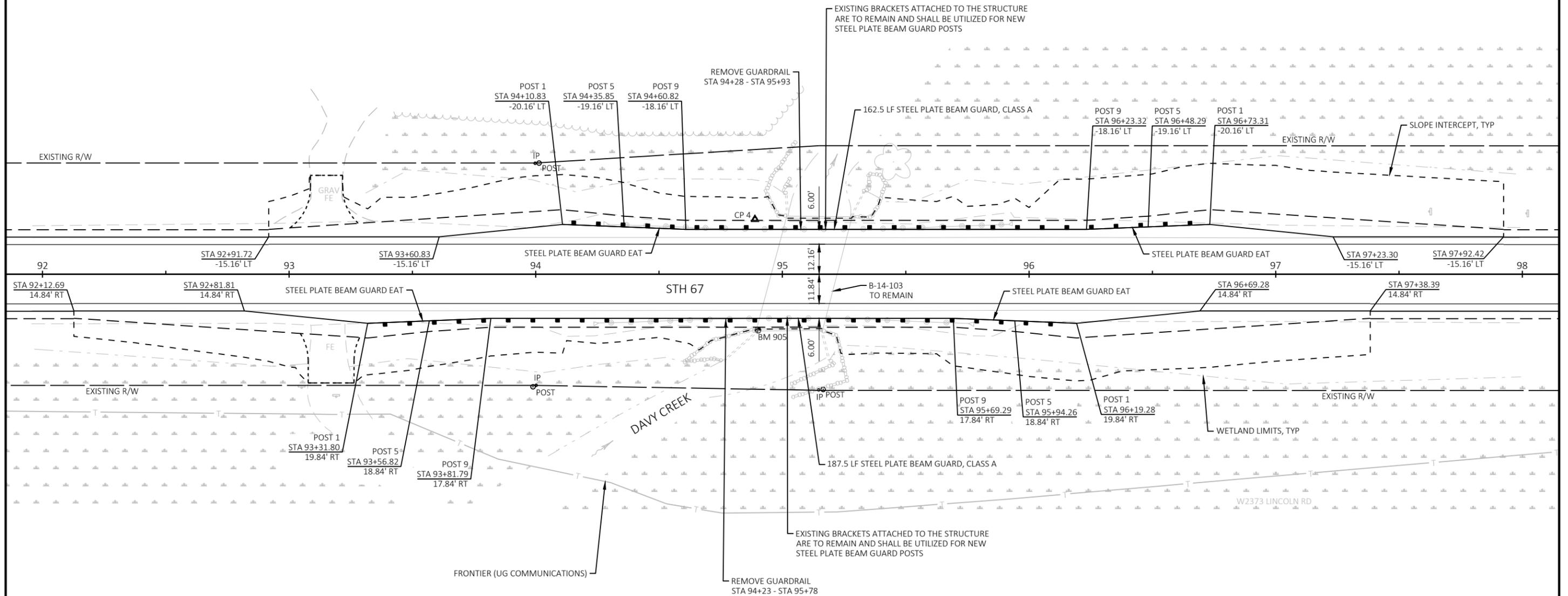
SILT FENCE RELIEF DETAIL

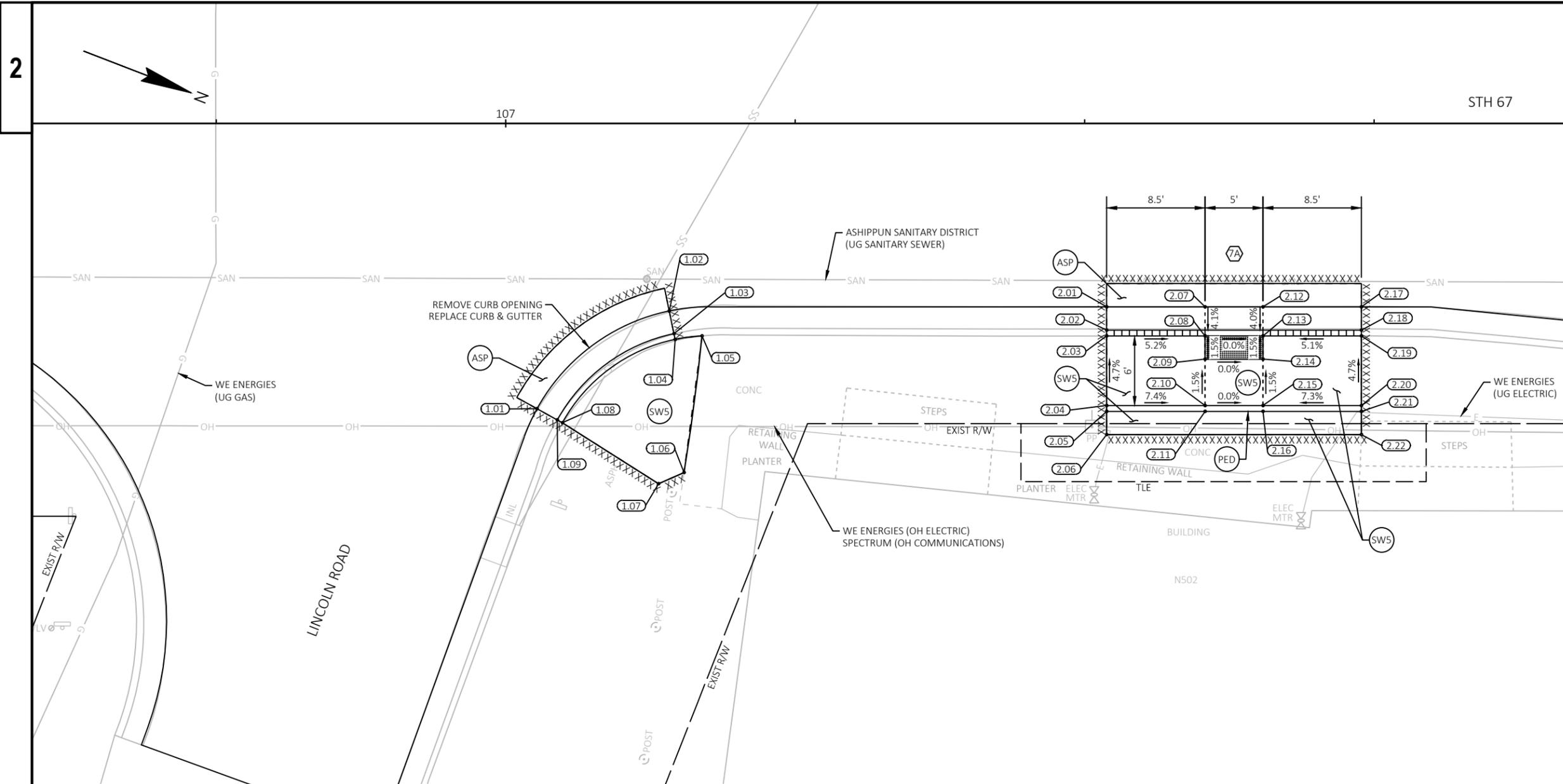


SECTION VIEW



ROCK BAG DETAIL





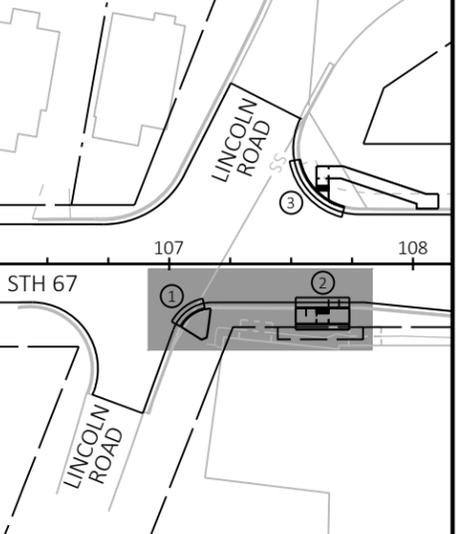
- LEGEND**
- (X) CURB RAMP TYPE
 - (ASP) 5 1/2" ASPHALTIC SURFACE
 - (BAD) 6" BASE AGGREGATE DENSE 3/4-INCH
 - (DWY) 3" ASPHALTIC SURFACE FOR DRIVEWAYS & FIELD ENTRANCES
 - (SW5) CONCRETE SIDEWALK 5-INCH
 - (TOP) SALVAGED TOPSOIL, SEED, FERTILIZER, AND EMAT
 - [Hatched Box] CURB HEAD HEIGHT TRANSITION
 - [Grid Box] CURB RAMP DETECTABLE WARNING FIELD

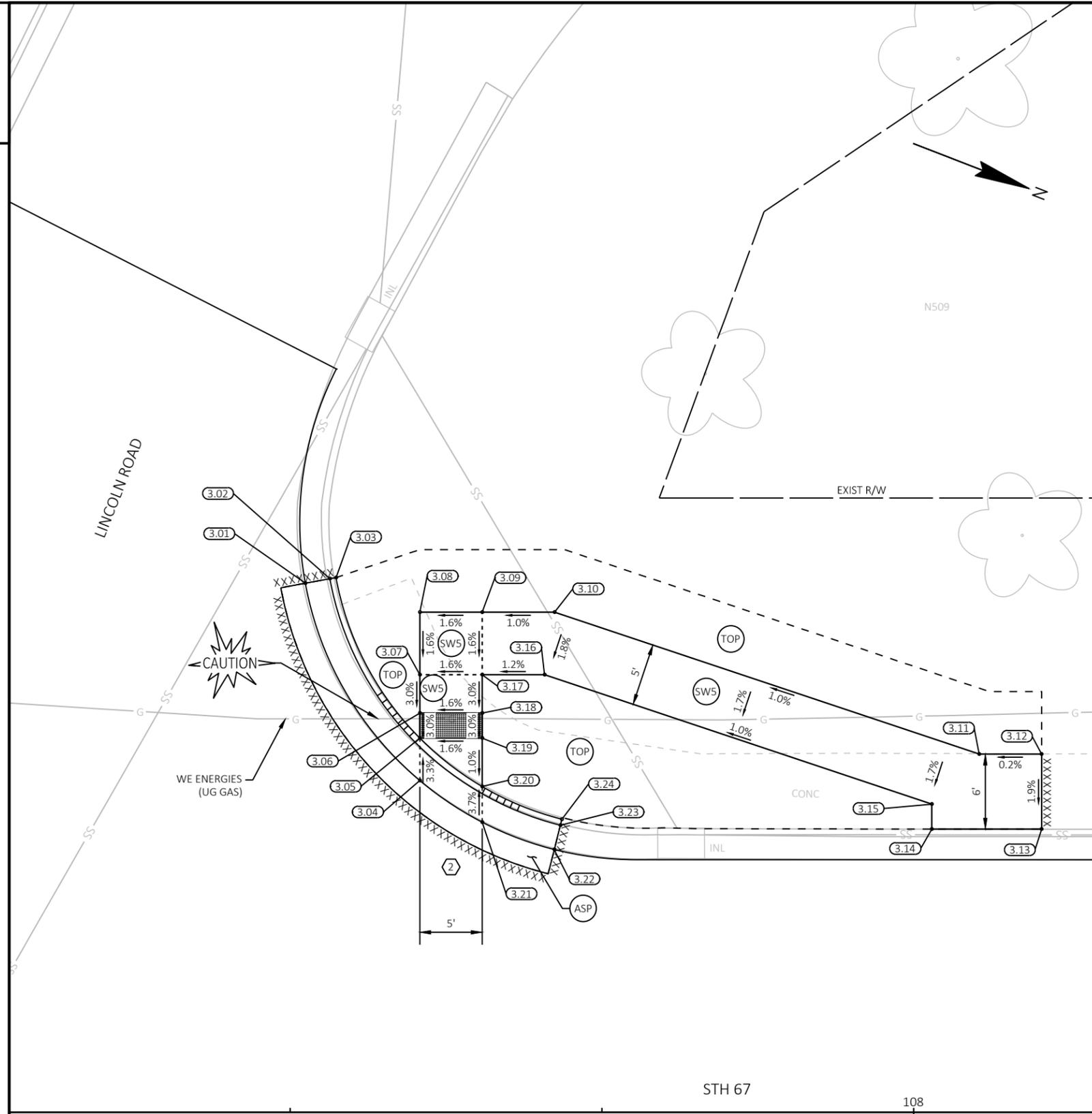
NOTES:
 REFER TO SDD 8D5 "CURB RAMPS" FOR JOINT LOCATIONS AND ADDITIONAL DETAILS.
 CONTRACTOR SHALL VERIFY EXISTING TIE-IN ELEVATIONS PRIOR TO STAKING.

CURB RAMP - 1						
POINT NO.	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1.01	STH67	107+02.70	24.58' RT	855.12	633494.24	933215.92
1.02	STH67	107+14.12	16.16' RT	855.18	633501.84	933203.94
1.03	STH67	107+14.53	18.11' RT	855.07	633502.93	933205.62
1.04	STH67	107+14.63	18.60' RT	855.57	633503.20	933206.04
1.05	STH67	107+16.95	18.31' RT	855.59	633505.26	933204.93
1.06	STH67	107+15.40	30.08' RT	855.76	633508.07	933216.46
1.07	STH67	107+13.20	31.04' RT	855.74	633506.36	933218.15
1.08	STH67	107+04.89	25.79' RT	855.44	633496.72	933216.26
1.09	STH67	107+04.45	25.54' RT	854.94	633496.22	933216.19

CURB RAMP - 2						
POINT NO.	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2.01	STH67	107+51.90	15.80' RT	855.25	633536.94	933189.96
2.02	STH67	107+51.90	17.80' RT	855.18	633537.66	933191.82
2.03	STH67	107+51.90	18.30' RT	855.62	633537.84	933192.29
2.04	STH67	107+51.90	24.30' RT	855.90	633540.01	933197.88
2.05	STH67	107+51.90	24.80' RT	855.90	633540.19	933198.35
2.06	STH67	107+51.90	26.80' RT	855.91	633540.92	933200.21
2.07	STH67	107+60.40	15.80' RT	855.25	633544.87	933186.89
2.08	STH67	107+60.40	18.30' RT	855.18	633545.77	933189.22
2.09	STH67	107+60.40	20.30' RT	855.21	633546.49	933191.08
2.10	STH67	107+60.40	24.30' RT	855.27	633547.94	933194.81
2.11	STH67	107+60.40	24.80' RT	855.89	633548.12	933195.28

CURB RAMP - 2						
POINT NO.	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2.12	STH67	107+65.40	15.80' RT	855.25	633549.53	933185.08
2.13	STH67	107+65.40	18.30' RT	855.18	633550.43	933187.41
2.14	STH67	107+65.40	20.30' RT	855.21	633551.15	933189.27
2.15	STH67	107+65.40	24.30' RT	855.27	633552.60	933193.00
2.16	STH67	107+65.40	24.80' RT	855.89	633552.78	933193.47
2.17	STH67	107+73.90	15.80' RT	855.25	633557.45	933182.01
2.18	STH67	107+73.90	17.80' RT	855.17	633558.18	933183.87
2.19	STH67	107+73.90	18.30' RT	855.61	633558.36	933184.34
2.20	STH67	107+73.90	24.30' RT	855.89	633560.52	933189.93
2.21	STH67	107+73.90	24.80' RT	855.89	633560.71	933190.40
2.22	STH67	107+73.90	26.80' RT	855.92	633561.43	933192.26





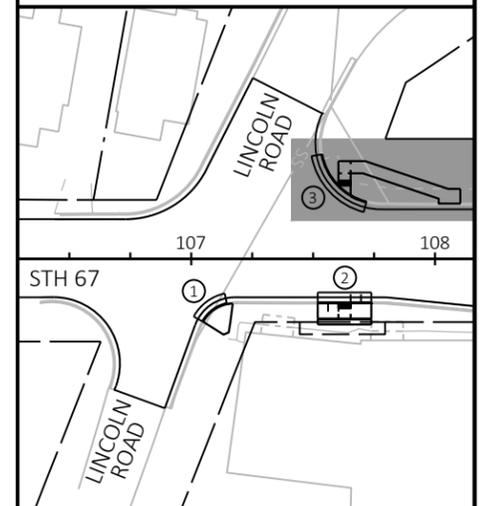
CURB RAMP - 3						
POINT NO.	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3.01	STH67	107+51.22	42.32' LT	854.14	633515.30	933136.01
3.02	STH67	107+53.19	42.68' LT	854.02	633517.01	933134.97
3.03	STH67	107+53.68	42.77' LT	854.46	633517.43	933134.70
3.04	STH67	107+60.40	26.53' LT	854.25	633529.57	933147.41
3.05	STH67	107+60.40	29.93' LT	854.17	633528.34	933144.25
3.06	STH67	107+60.40	31.93' LT	854.23	633527.62	933142.38
3.07	STH67	107+60.40	35.00' LT	854.32	633526.51	933139.52
3.08	STH67	107+60.40	40.00' LT	854.40	633524.70	933134.86
3.09	STH67	107+65.40	40.00' LT	854.48	633529.36	933133.05
3.10	STH67	107+71.21	40.00' LT	854.54	633534.78	933130.95
3.11	STH67	108+05.26	28.65' LT	854.90	633570.63	933129.23
3.12	STH67	108+10.26	28.65' LT	854.91	633575.29	933127.42
3.13	STH67	108+10.26	22.65' LT	854.80	633577.46	933133.01
3.14	STH67	108+01.45	22.65' LT	854.76	633569.24	933136.20
3.15	STH67	108+01.45	24.65' LT	854.79	633568.52	933134.33
3.16	STH67	107+70.40	35.00' LT	854.46	633535.83	933135.90
3.17	STH67	107+65.40	35.00' LT	854.40	633531.17	933137.71
3.18	STH67	107+65.40	31.93' LT	854.31	633532.28	933140.58
3.19	STH67	107+65.40	29.93' LT	854.25	633533.00	933142.44
3.20	STH67	107+65.40	26.06' LT	854.21	633534.40	933146.05
3.21	STH67	107+65.40	23.20' LT	854.28	633535.43	933148.71
3.22	STH67	107+71.18	21.02' LT	854.32	633541.61	933148.66
3.23	STH67	107+71.67	22.96' LT	854.21	633541.37	933146.67
3.24	STH67	107+71.79	23.44' LT	854.65	633541.30	933146.18

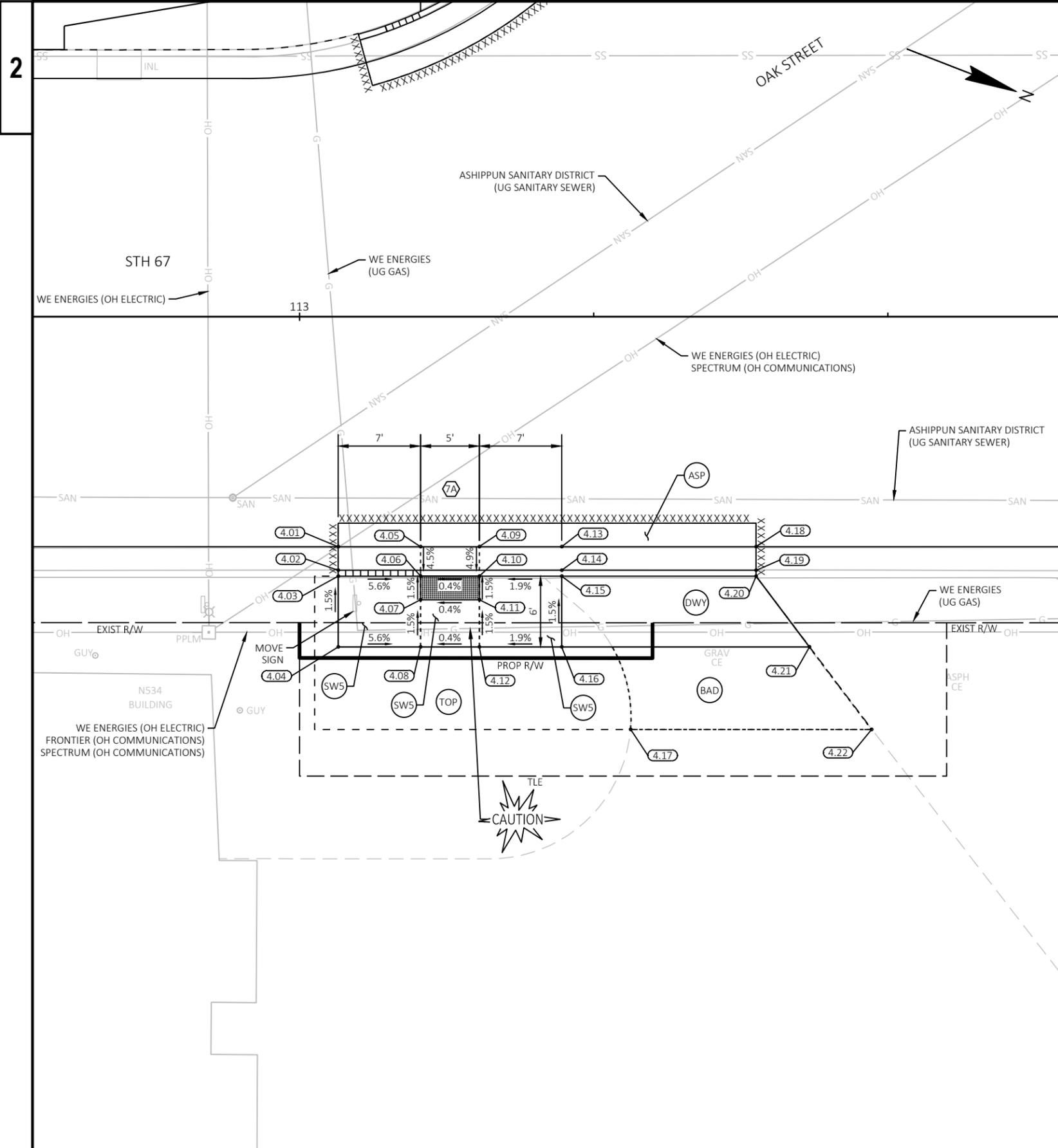
LEGEND

- CURB RAMP TYPE
- 5/8" ASPHALTIC SURFACE
- 6" BASE AGGREGATE DENSE 3/4-INCH
- 3" ASPHALTIC SURFACE FOR DRIVEWAYS & FIELD ENTRANCES
- CONCRETE SIDEWALK 5-INCH
- SALVAGED TOPSOIL, SEED, FERTILIZER, AND EMAT
- CURB HEAD HEIGHT TRANSITION
- CURB RAMP DETECTABLE WARNING FIELD

NOTES:

REFER TO SDD 8D5 "CURB RAMPS" FOR JOINT LOCATIONS AND ADDITIONAL DETAILS.
 CONTRACTOR SHALL VERIFY EXISTING TIE-IN ELEVATIONS PRIOR TO STAKING.

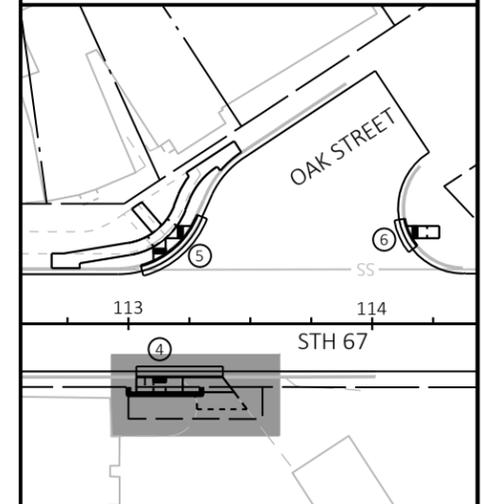




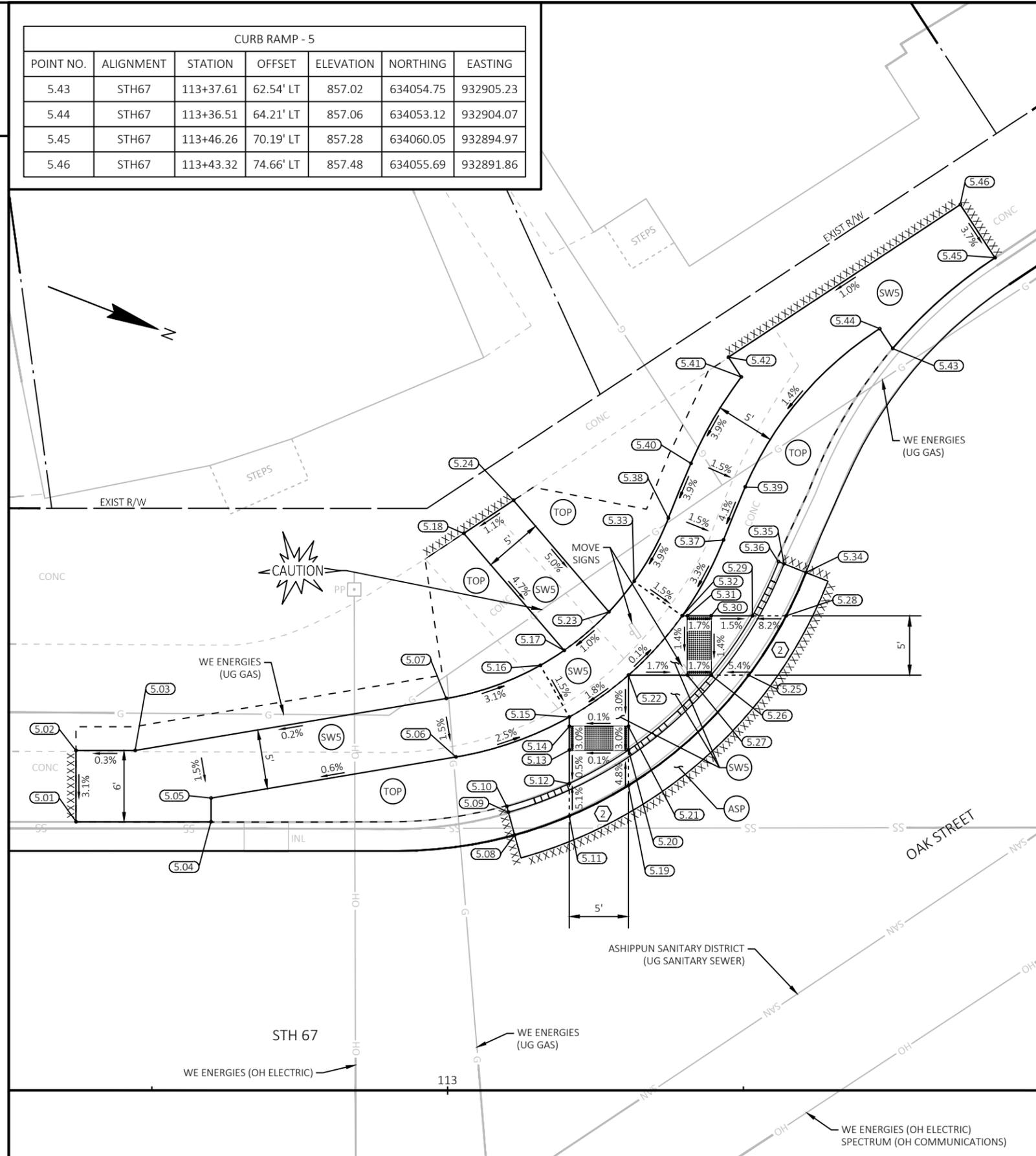
CURB RAMP - 4						
POINT NO.	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4.01	STH67	113+03.28	19.50' RT	856.12	634052.39	932994.13
4.02	STH67	113+03.28	21.50' RT	856.03	634053.11	932996.00
4.03	STH67	113+03.28	22.00' RT	856.47	634053.29	932996.46
4.04	STH67	113+03.28	28.00' RT	856.56	634055.46	933002.06
4.05	STH67	113+10.28	19.50' RT	856.16	634058.92	932991.60
4.06	STH67	113+10.28	22.00' RT	856.08	634059.82	932993.93
4.07	STH67	113+10.28	24.00' RT	856.11	634060.54	932995.80
4.08	STH67	113+10.28	28.00' RT	856.17	634061.99	932999.53
4.09	STH67	113+15.28	19.50' RT	856.19	634063.58	932989.79
4.10	STH67	113+15.28	22.00' RT	856.10	634064.48	932992.13
4.11	STH67	113+15.28	24.00' RT	856.13	634065.20	932993.99
4.12	STH67	113+15.28	28.00' RT	856.19	634066.65	932997.72
4.13	STH67	113+22.28	19.50' RT	856.22	634070.10	932987.27
4.14	STH67	113+22.28	21.50' RT	856.13	634070.83	932989.13
4.15	STH67	113+22.28	22.00' RT	856.23	634071.01	932989.60
4.16	STH67	113+22.28	28.00' RT	856.32	634073.18	932995.19
4.17	STH67	113+28.14	35.00' RT	857.19	634081.16	932999.60
4.18	STH67	113+38.80	19.50' RT	856.29	634085.51	932981.29
4.19	STH67	113+38.80	21.50' RT	856.20	634086.23	932983.16
4.20	STH67	113+38.80	22.00' RT	856.30	634086.41	932983.63
4.21	STH67	113+43.33	28.00' RT	856.74	634092.80	932987.58
4.22	STH67	113+48.61	35.00' RT	857.27	634100.26	932992.20

- LEGEND**
- (X) CURB RAMP TYPE
 - (ASP) 5 1/2" ASPHALTIC SURFACE
 - (BAD) 6" BASE AGGREGATE DENSE 3/4-INCH
 - (DWY) 3" ASPHALTIC SURFACE FOR DRIVEWAYS & FIELD ENTRANCES
 - (SW5) CONCRETE SIDEWALK 5-INCH
 - (TOP) SALVAGED TOPSOIL, SEED, FERTILIZER, AND EMAT
 - [---] CURB HEAD HEIGHT TRANSITION
 - [Grid] CURB RAMP DETECTABLE WARNING FIELD

NOTES:
 REFER TO SDD 8D5 "CURB RAMPS" FOR JOINT LOCATIONS AND ADDITIONAL DETAILS.
 CONTRACTOR SHALL VERIFY EXISTING TIE-IN ELEVATIONS PRIOR TO STAKING.



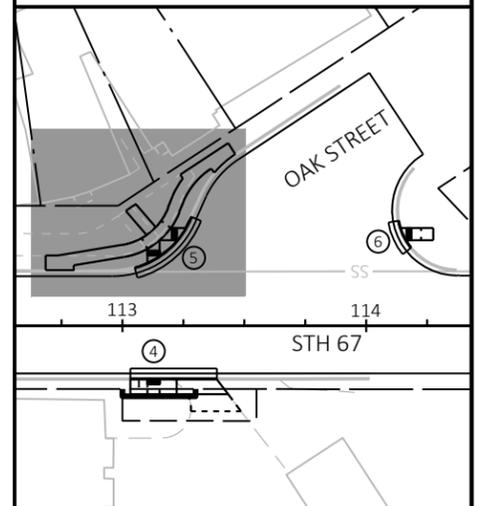
CURB RAMP - 5						
POINT NO.	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
5.43	STH67	113+37.61	62.54' LT	857.02	634054.75	932905.23
5.44	STH67	113+36.51	64.21' LT	857.06	634053.12	932904.07
5.45	STH67	113+46.26	70.19' LT	857.28	634060.05	932894.97
5.46	STH67	113+43.32	74.66' LT	857.48	634055.69	932891.86

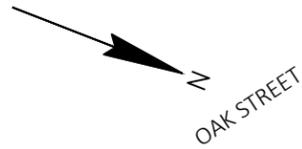


CURB RAMP - 5						
POINT NO.	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
5.01	STH67	112+68.59	22.65' LT	856.36	634004.81	932967.37
5.02	STH67	112+68.59	28.65' LT	856.54	634002.64	932961.78
5.03	STH67	112+73.59	28.65' LT	856.56	634007.30	932959.97
5.04	STH67	112+80.00	22.65' LT	856.38	634015.45	932963.25
5.05	STH67	112+80.00	24.65' LT	856.41	634014.72	932961.38
5.06	STH67	113+00.70	28.10' LT	856.54	634032.78	932950.68
5.07	STH67	112+99.88	33.03' LT	856.61	634030.23	932946.38
5.08	STH67	113+05.66	21.52' LT	856.23	634039.78	932955.02
5.09	STH67	113+05.13	23.45' LT	856.10	634038.59	932953.41
5.10	STH67	113+05.00	23.93' LT	856.58	634038.29	932953.01
5.11	STH67	113+10.28	23.13' LT	856.27	634043.51	932951.85
5.12	STH67	113+10.28	25.86' LT	856.18	634042.52	932949.31
5.13	STH67	113+10.28	28.69' LT	856.19	634041.50	932946.67
5.14	STH67	113+10.28	30.69' LT	856.25	634040.78	932944.80
5.15	STH67	113+10.28	31.47' LT	856.28	634040.49	932944.08
5.16	STH67	113+07.84	35.83' LT	856.35	634036.64	932940.90
5.17	STH67	113+09.84	37.09' LT	856.38	634038.05	932939.00
5.18	STH67	113+01.36	46.95' LT	856.99	634026.58	932932.86
5.19	STH67	113+15.28	25.71' LT	856.31	634047.24	932947.64
5.20	STH67	113+15.28	28.69' LT	856.20	634046.16	932944.86
5.21	STH67	113+15.28	30.69' LT	856.26	634045.44	932943.00
5.22	STH67	113+15.28	35.00' LT	856.39	634043.88	932938.98
5.23	STH67	113+13.63	40.34' LT	856.43	634040.41	932934.59
5.24	STH67	113+05.57	49.73' LT	857.05	634029.50	932928.75
5.25	STH67	113+25.45	35.00' LT	856.41	634053.37	932935.30
5.26	STH67	113+22.26	35.00' LT	856.27	634050.39	932936.46
5.27	STH67	113+20.26	35.00' LT	856.30	634048.53	932937.18
5.28	STH67	113+28.61	40.00' LT	856.44	634054.50	932929.50
5.29	STH67	113+25.76	40.00' LT	856.29	634051.84	932930.53
5.30	STH67	113+22.26	40.00' LT	856.34	634048.58	932931.79
5.31	STH67	113+20.26	40.00' LT	856.38	634046.72	932932.52
5.32	STH67	113+19.82	40.00' LT	856.38	634046.31	932932.68
5.33	STH67	113+15.76	42.92' LT	856.46	634041.46	932931.43
5.34	STH67	113+30.29	43.66' LT	856.47	634054.74	932925.48
5.35	STH67	113+28.43	44.39' LT	856.30	634052.74	932925.47
5.36	STH67	113+27.96	44.57' LT	856.77	634052.24	932925.47
5.37	STH67	113+23.31	46.40' LT	856.62	634047.24	932925.45
5.38	STH67	113+18.65	48.23' LT	856.70	634042.24	932925.42
5.39	STH67	113+25.15	50.86' LT	856.82	634047.35	932920.62
5.40	STH67	113+20.56	52.85' LT	856.89	634042.35	932920.42
5.41	STH67	113+24.82	60.13' LT	857.23	634043.69	932912.10
5.42	STH67	113+23.73	61.80' LT	857.26	634042.07	932910.94

- LEGEND**
- (X) CURB RAMP TYPE
 - (ASP) 5 1/2" ASPHALTIC SURFACE
 - (BAD) 6" BASE AGGREGATE DENSE 3/4-INCH
 - (DWY) 3" ASPHALTIC SURFACE FOR DRIVEWAYS & FIELD ENTRANCES
 - (SW5) CONCRETE SIDEWALK 5-INCH
 - (TOP) SALVAGED TOPSOIL, SEED, FERTILIZER, AND EMAT
 - [Hatched Box] CURB HEAD HEIGHT TRANSITION
 - [Grid Box] CURB RAMP DETECTABLE WARNING FIELD

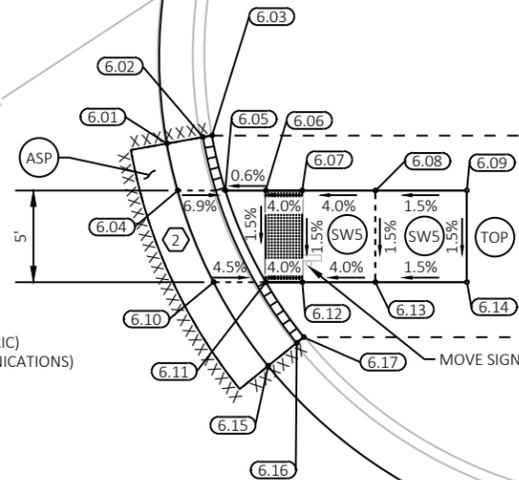
NOTES:
 REFER TO SDD 8D5 "CURB RAMP" FOR JOINT LOCATIONS AND ADDITIONAL DETAILS.
 CONTRACTOR SHALL VERIFY EXISTING TIE-IN ELEVATIONS PRIOR TO STAKING.





ASHIPPUN SANITARY DISTRICT
(UG SANITARY SEWER)

WE ENERGIES (OH ELECTRIC)
SPECTRUM (OH COMMUNICATIONS)



W2464 OAK ST

EXIST R/W

CURB RAMP - 6

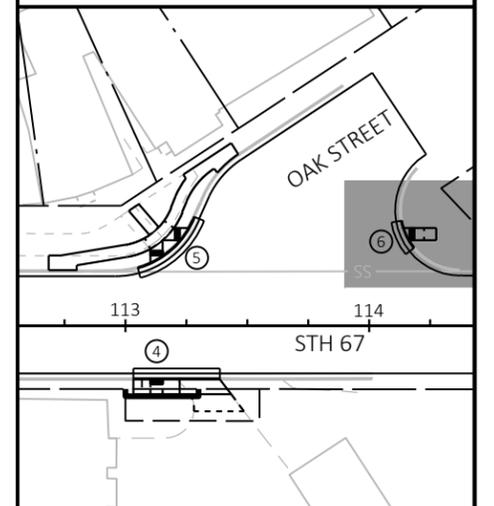
POINT NO.	ALIGNMENT	STATION	OFFSET	ELEVATION	NORTHING	EASTING
6.01	STH67	114+10.99	42.56' LT	857.02	634130.39	932897.34
6.02	STH67	114+12.96	42.91' LT	856.90	634132.10	932896.30
6.03	STH67	114+13.45	43.00' LT	857.37	634132.53	932896.04
6.04	STH67	114+11.58	40.00' LT	856.97	634131.86	932899.51
6.05	STH67	114+14.19	40.00' LT	856.86	634134.29	932898.57
6.06	STH67	114+16.40	40.00' LT	856.87	634136.36	932897.77
6.07	STH67	114+18.40	40.00' LT	856.95	634138.22	932897.05
6.08	STH67	114+22.40	40.00' LT	857.11	634141.95	932895.60
6.09	STH67	114+27.40	40.00' LT	857.19	634146.61	932893.80
6.10	STH67	114+13.55	35.00' LT	856.89	634135.51	932903.46
6.11	STH67	114+16.40	35.00' LT	856.80	634138.16	932902.43
6.12	STH67	114+18.40	35.00' LT	856.88	634140.03	932901.71
6.13	STH67	114+22.40	35.00' LT	857.04	634143.76	932900.26
6.14	STH67	114+27.40	35.00' LT	857.11	634148.42	932898.46
6.15	STH67	114+16.53	30.43' LT	856.81	634139.94	932906.65
6.16	STH67	114+18.09	31.69' LT	856.69	634140.93	932904.91
6.17	STH67	114+18.47	32.00' LT	857.16	634141.18	932904.48

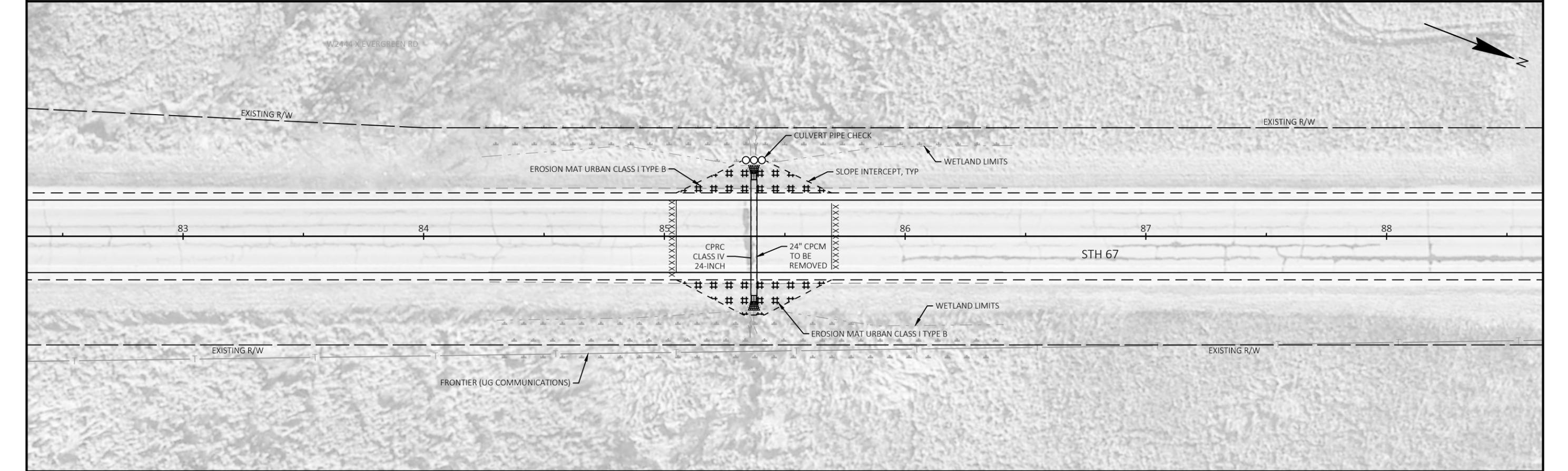
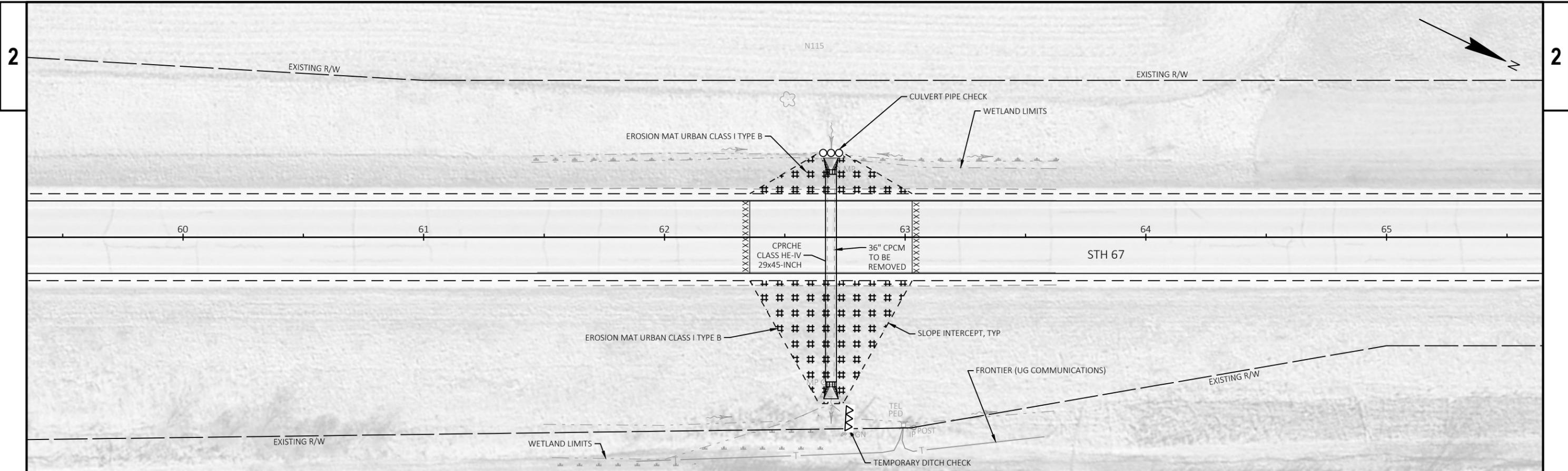
LEGEND

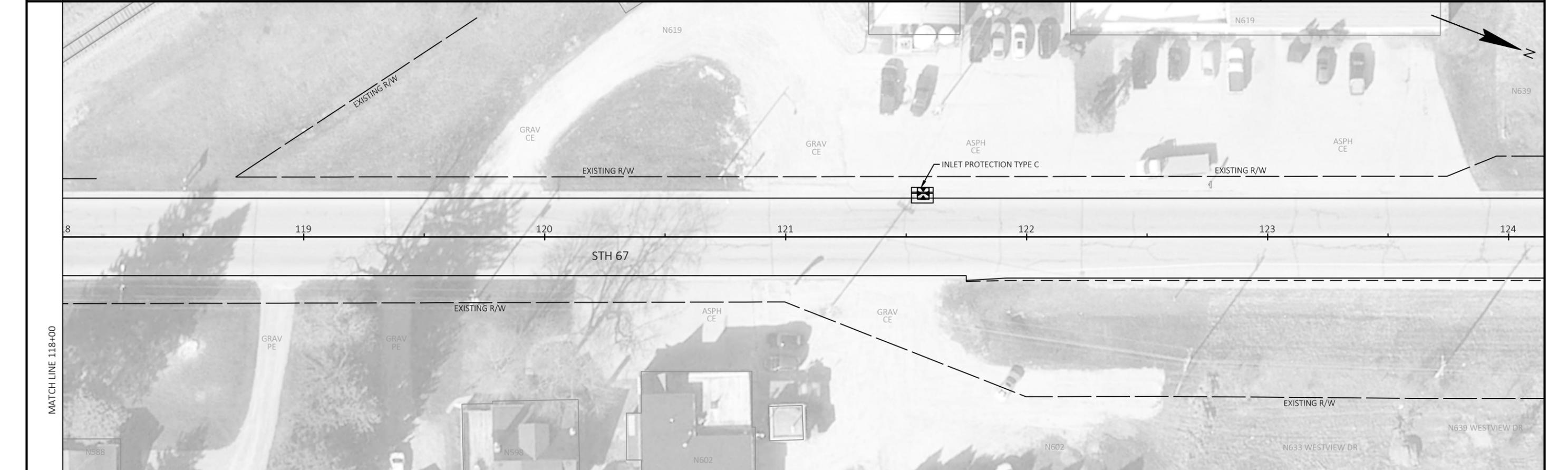
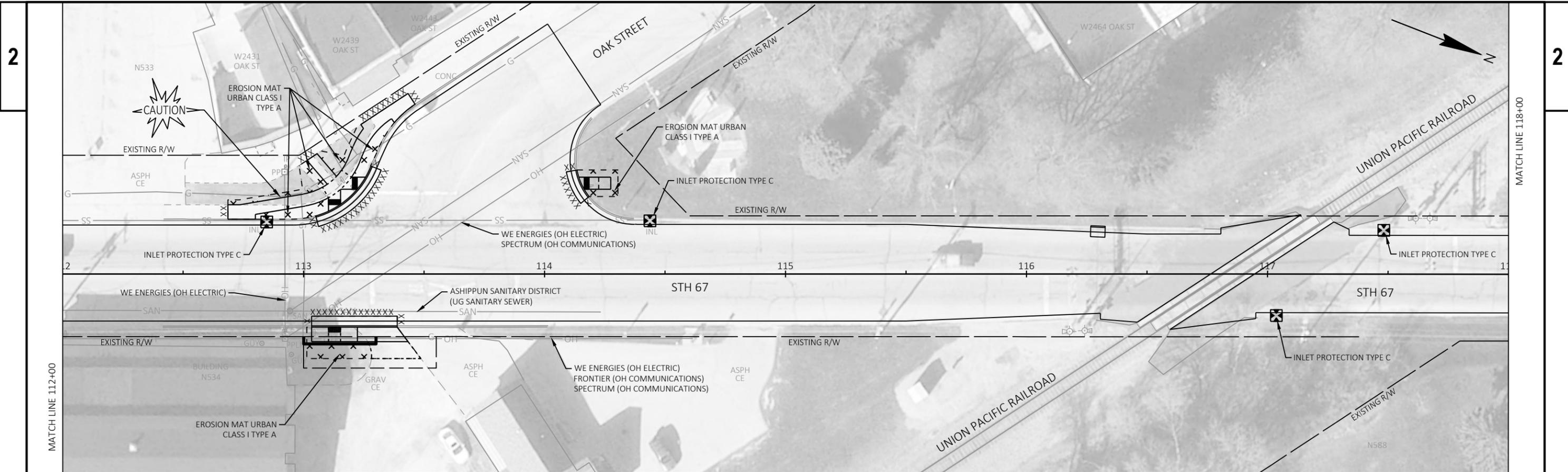
- CURB RAMP TYPE
- 5 1/2" ASPHALTIC SURFACE
- 6" BASE AGGREGATE DENSE 3/4-INCH
- 3" ASPHALTIC SURFACE FOR DRIVEWAYS & FIELD ENTRANCES
- CONCRETE SIDEWALK 5-INCH
- SALVAGED TOPSOIL, SEED, FERTILIZER, AND EMAT
- CURB HEAD HEIGHT TRANSITION
- CURB RAMP DETECTABLE WARNING FIELD

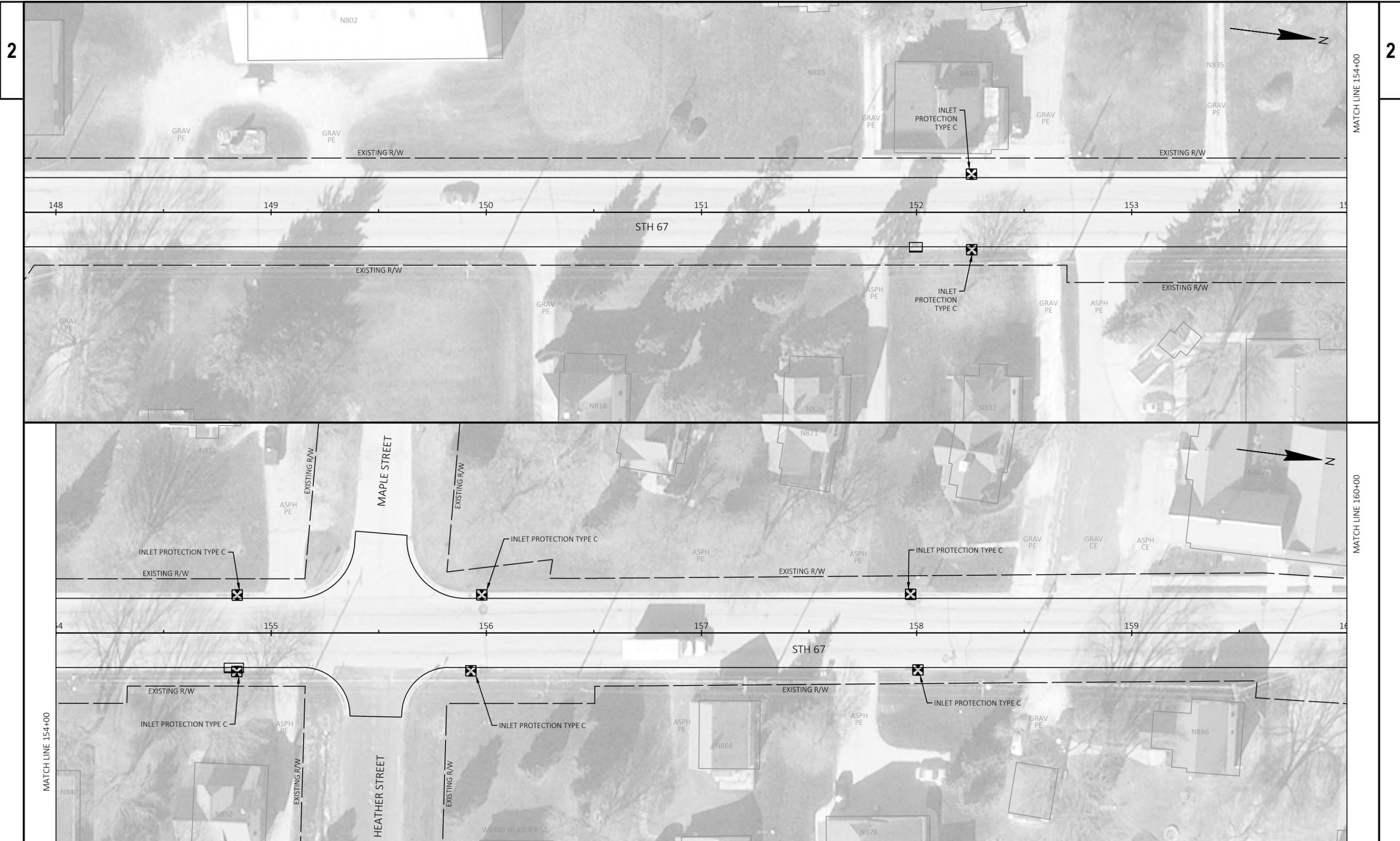
NOTES:

REFER TO SDD 8D5 "CURB RAMPS" FOR JOINT LOCATIONS AND ADDITIONAL DETAILS.
 CONTRACTOR SHALL VERIFY EXISTING TIE-IN ELEVATIONS PRIOR TO STAKING.









PROJECT NO: 3030-05-74

HWY: STH 67

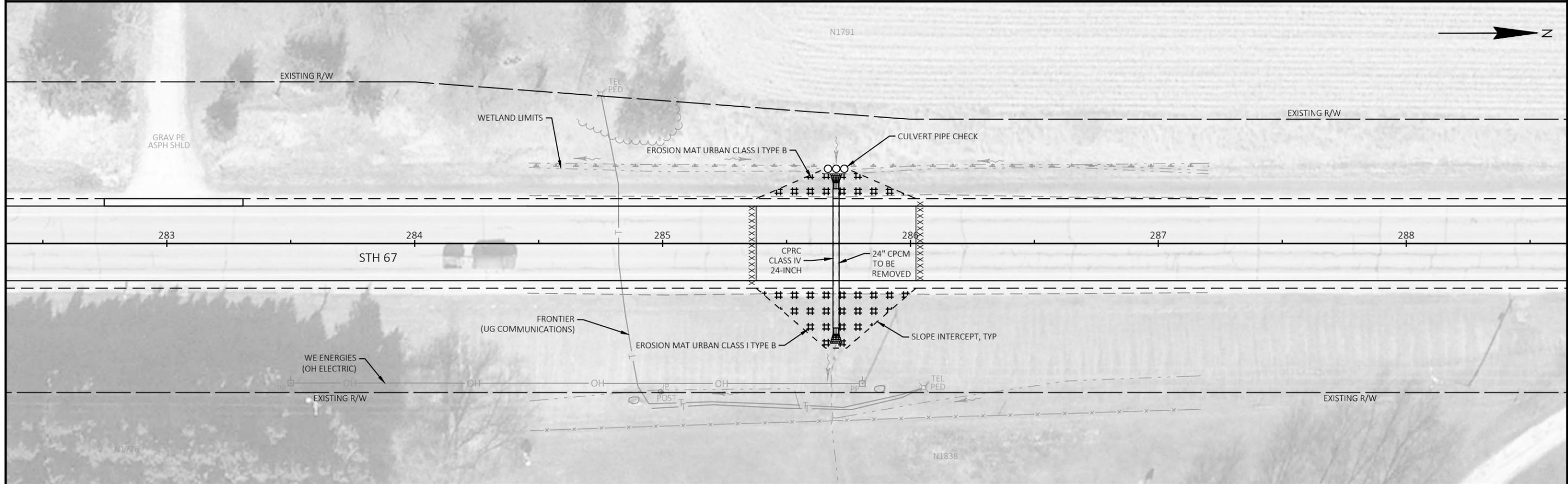
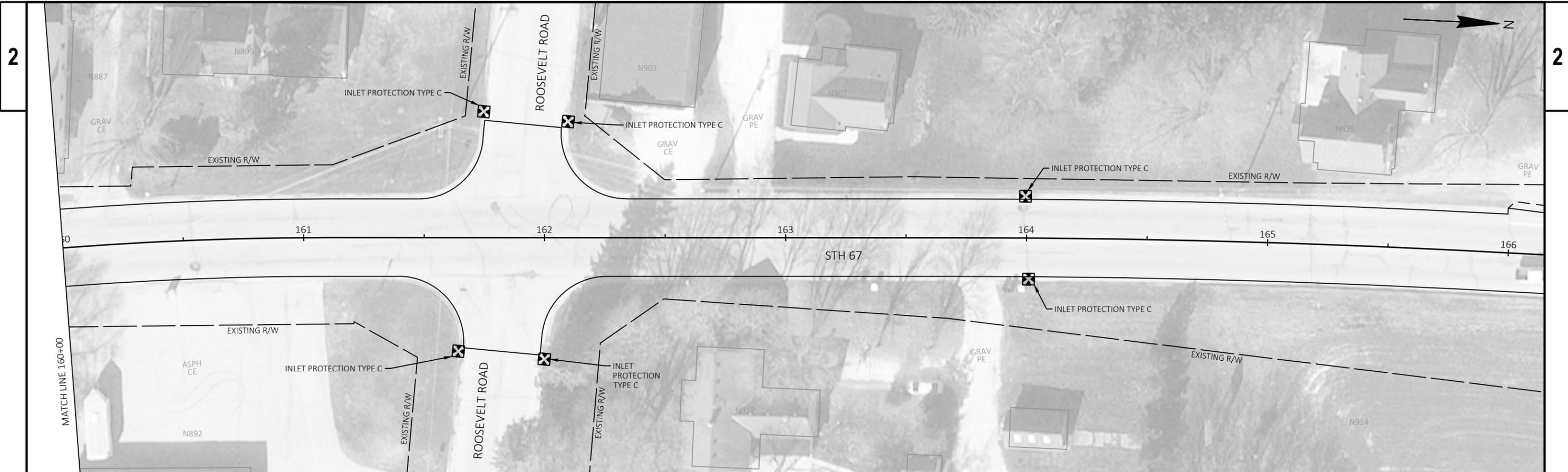
COUNTY: DODGE

EROSION CONTROL PLAN

SHEET

27

E





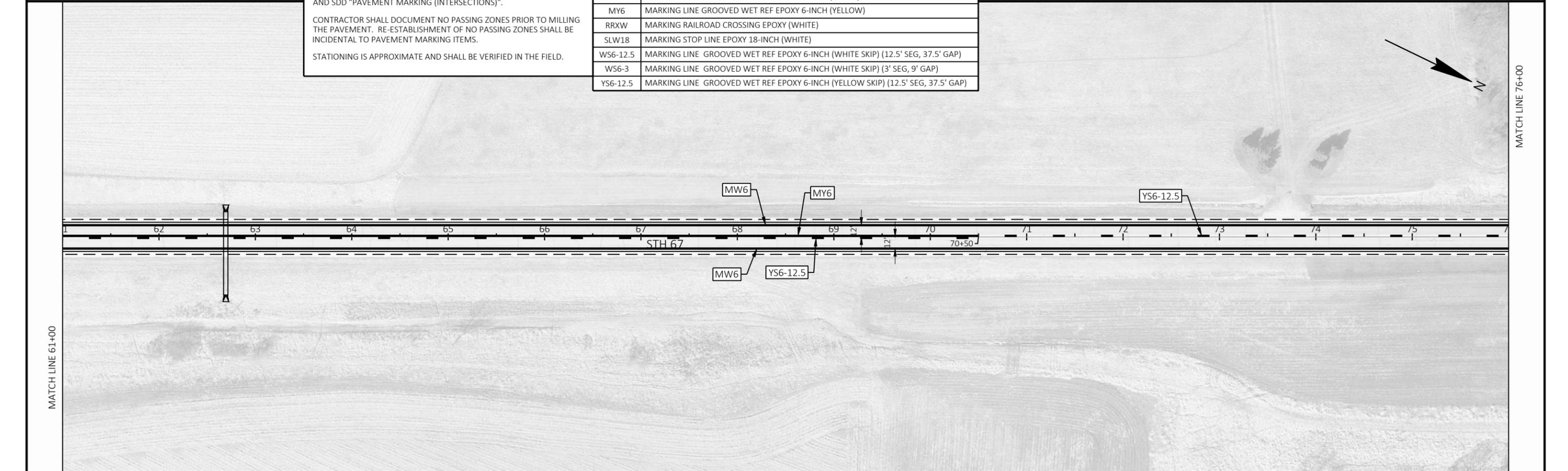
PAVEMENT MARKING NOTES

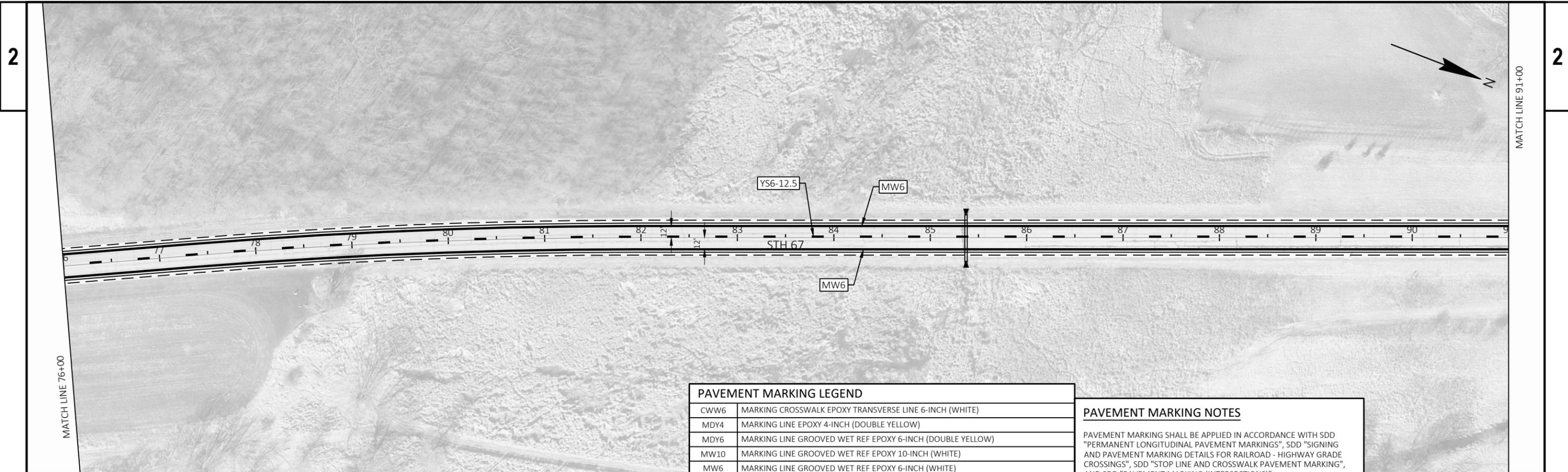
PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS", SDD "STOP LINE AND CROSSWALK PAVEMENT MARKING", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".

CONTRACTOR SHALL DOCUMENT NO PASSING ZONES PRIOR TO MILLING THE PAVEMENT. RE-ESTABLISHMENT OF NO PASSING ZONES SHALL BE INCIDENTAL TO PAVEMENT MARKING ITEMS.

STATIONING IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.

PAVEMENT MARKING LEGEND	
CWW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MDY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
RRXW	MARKING RAILROAD CROSSING EPOXY (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS6-3	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)





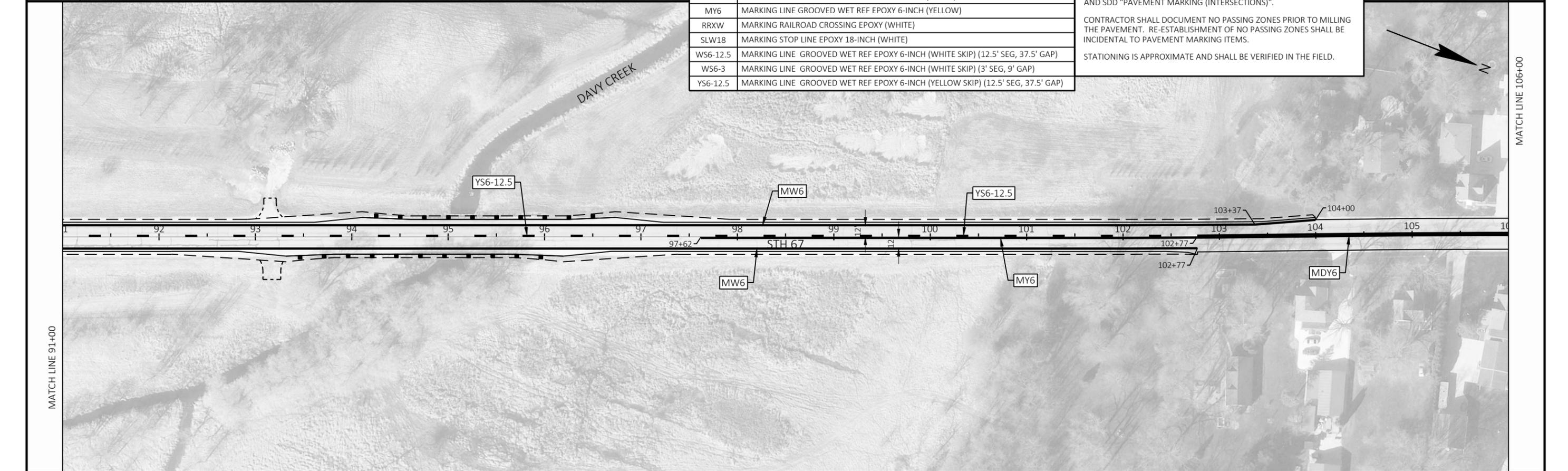
PAVEMENT MARKING LEGEND	
CWW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MDY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
RRXW	MARKING RAILROAD CROSSING EPOXY (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS6-3	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)

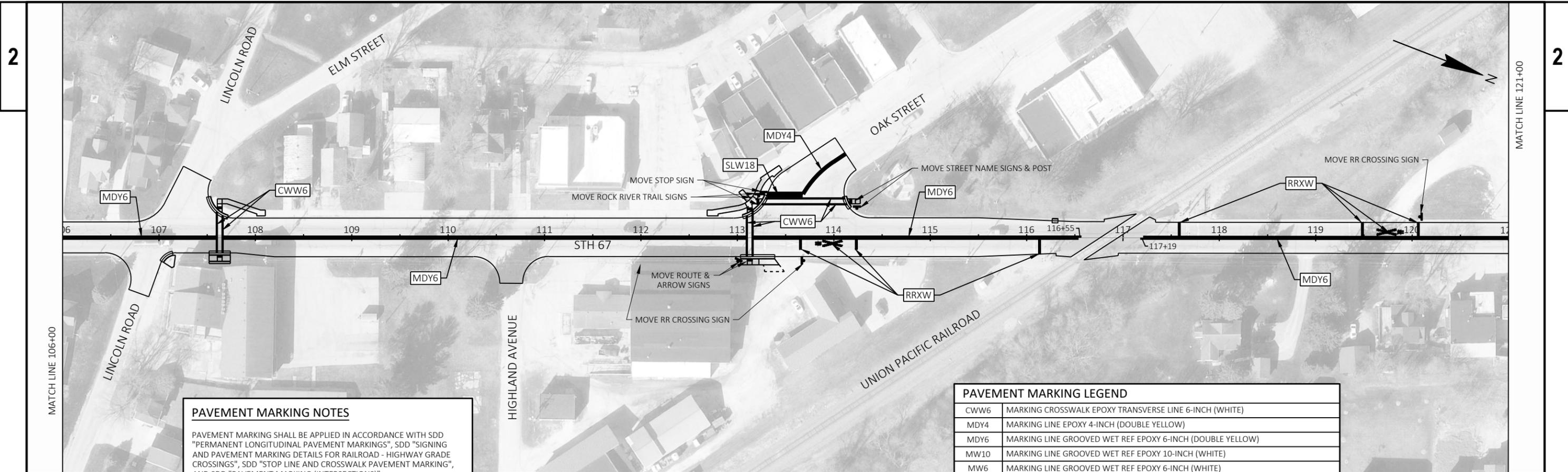
PAVEMENT MARKING NOTES

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS", SDD "STOP LINE AND CROSSWALK PAVEMENT MARKING", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".

CONTRACTOR SHALL DOCUMENT NO PASSING ZONES PRIOR TO MILLING THE PAVEMENT. RE-ESTABLISHMENT OF NO PASSING ZONES SHALL BE INCIDENTAL TO PAVEMENT MARKING ITEMS.

STATIONING IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.





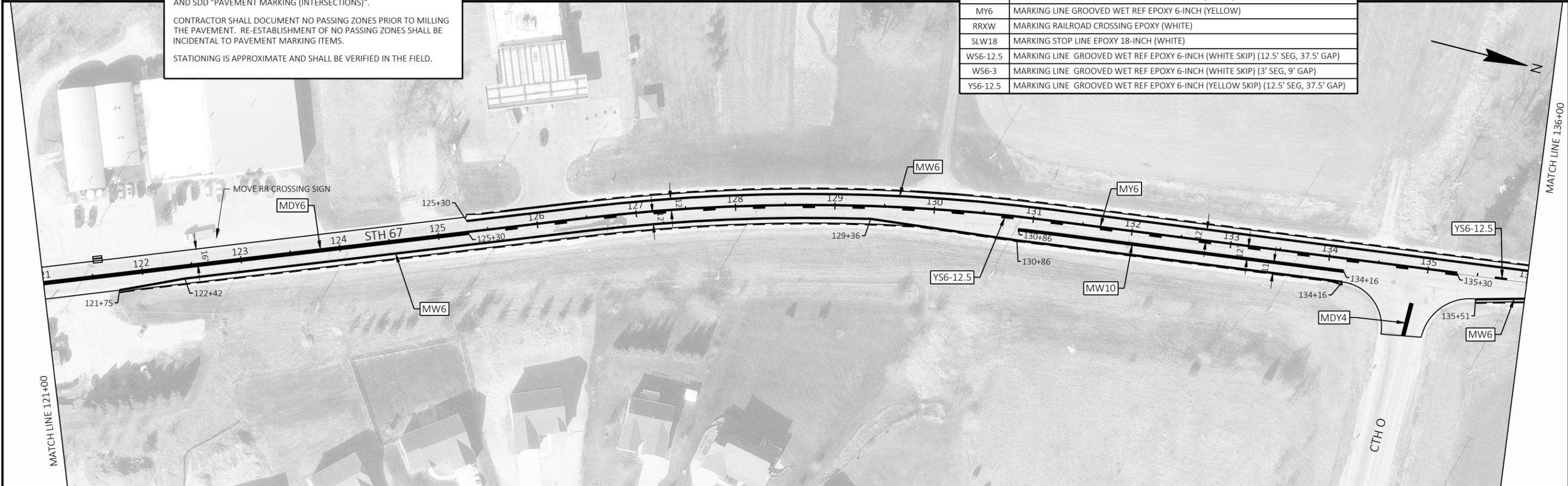
PAVEMENT MARKING NOTES

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS", SDD "STOP LINE AND CROSSWALK PAVEMENT MARKING", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".

CONTRACTOR SHALL DOCUMENT NO PASSING ZONES PRIOR TO MILLING THE PAVEMENT. RE-ESTABLISHMENT OF NO PASSING ZONES SHALL BE INCIDENTAL TO PAVEMENT MARKING ITEMS.

STATIONING IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.

PAVEMENT MARKING LEGEND	
CWW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MDY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
RRXW	MARKING RAILROAD CROSSING EPOXY (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS6-3	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)





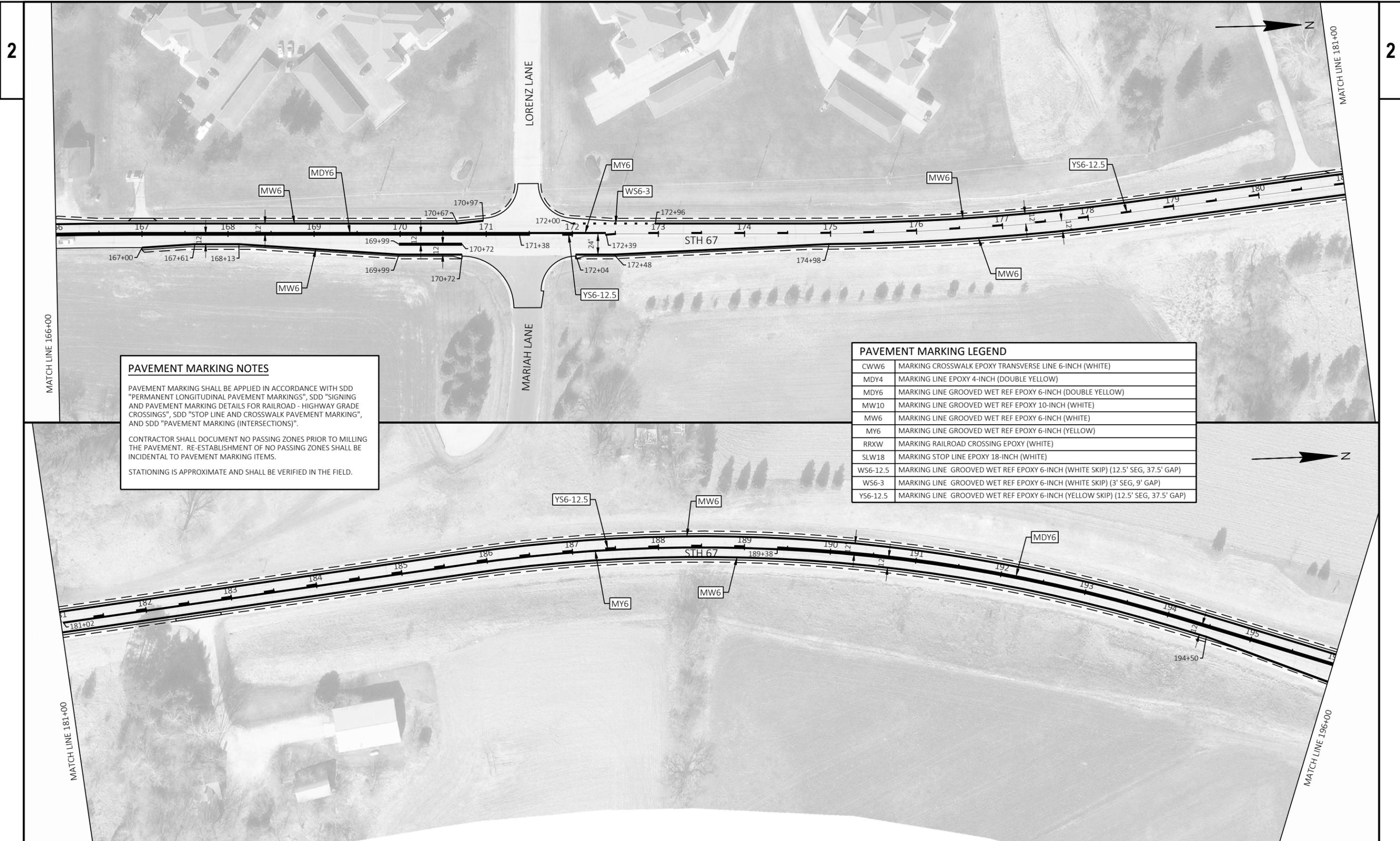
PAVEMENT MARKING NOTES

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS", SDD "STOP LINE AND CROSSWALK PAVEMENT MARKING", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".

CONTRACTOR SHALL DOCUMENT NO PASSING ZONES PRIOR TO MILLING THE PAVEMENT. RE-ESTABLISHMENT OF NO PASSING ZONES SHALL BE INCIDENTAL TO PAVEMENT MARKING ITEMS.

STATIONING IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.

PAVEMENT MARKING LEGEND	
CWW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MDY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
RRXW	MARKING RAILROAD CROSSING EPOXY (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS6-3	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)



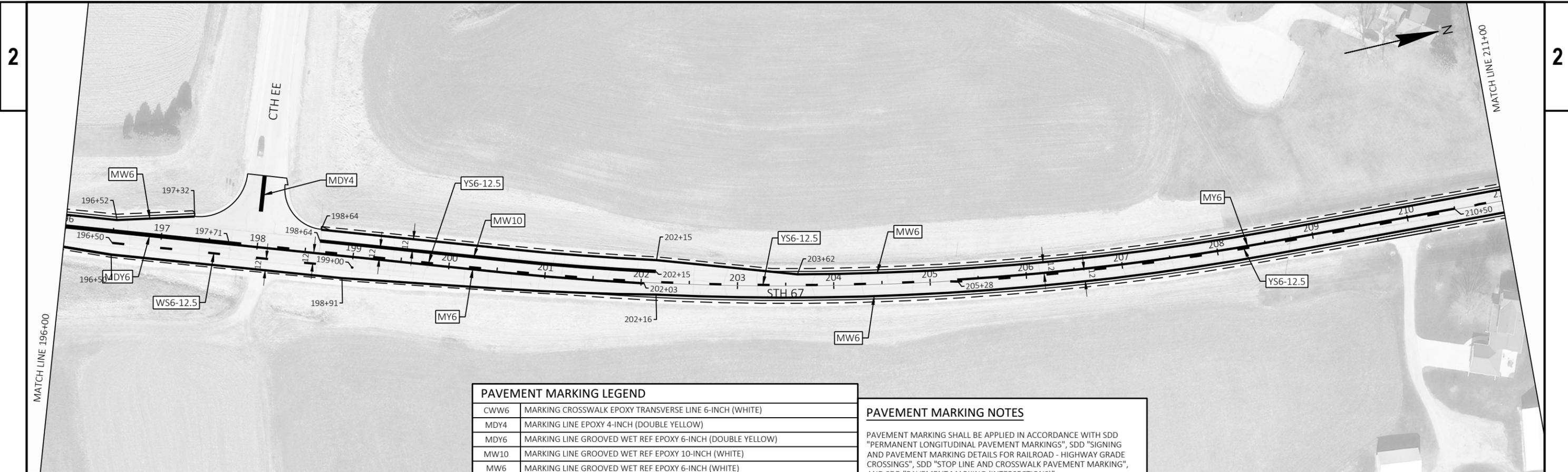
PAVEMENT MARKING NOTES

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS", SDD "STOP LINE AND CROSSWALK PAVEMENT MARKING", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".

CONTRACTOR SHALL DOCUMENT NO PASSING ZONES PRIOR TO MILLING THE PAVEMENT. RE-ESTABLISHMENT OF NO PASSING ZONES SHALL BE INCIDENTAL TO PAVEMENT MARKING ITEMS.

STATIONING IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.

PAVEMENT MARKING LEGEND	
CWW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MDY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
RRXW	MARKING RAILROAD CROSSING EPOXY (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS6-3	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)



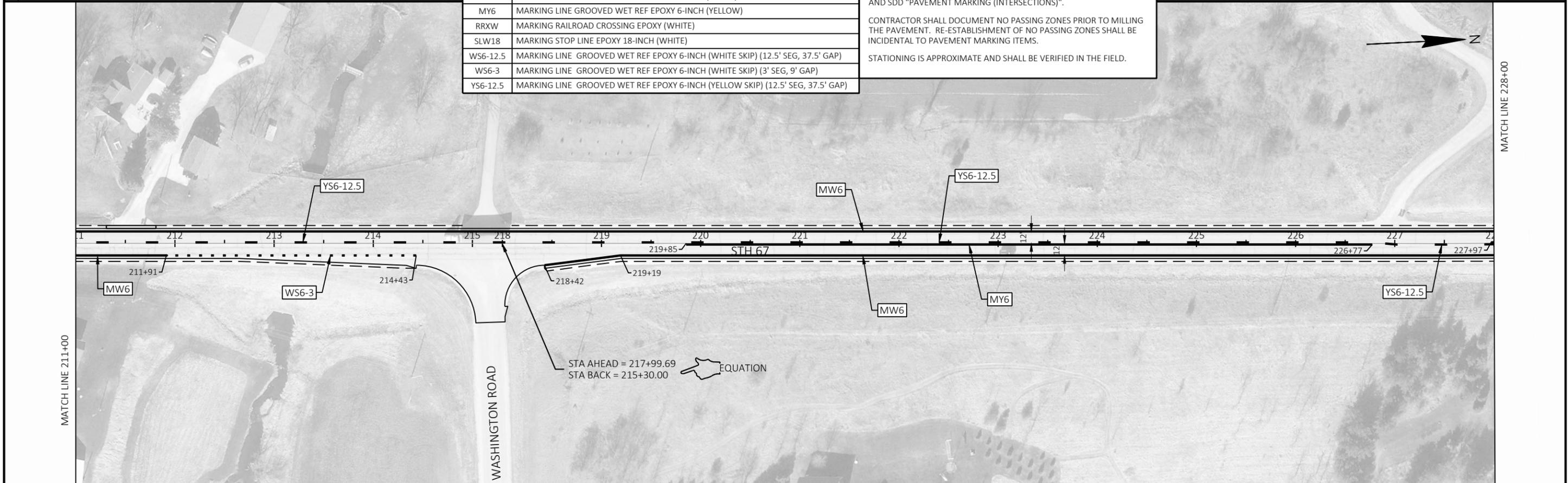
PAVEMENT MARKING LEGEND	
CWW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MDY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
RRXW	MARKING RAILROAD CROSSING EPOXY (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS6-3	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)

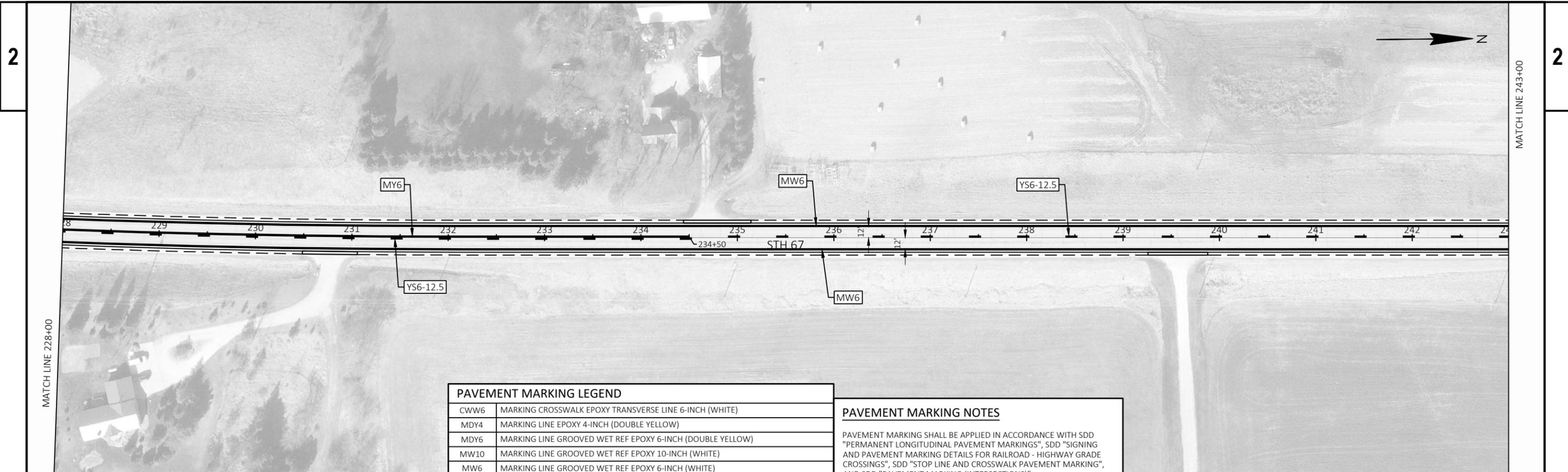
PAVEMENT MARKING NOTES

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS", SDD "STOP LINE AND CROSSWALK PAVEMENT MARKING", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".

CONTRACTOR SHALL DOCUMENT NO PASSING ZONES PRIOR TO MILLING THE PAVEMENT. RE-ESTABLISHMENT OF NO PASSING ZONES SHALL BE INCIDENTAL TO PAVEMENT MARKING ITEMS.

STATIONING IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.





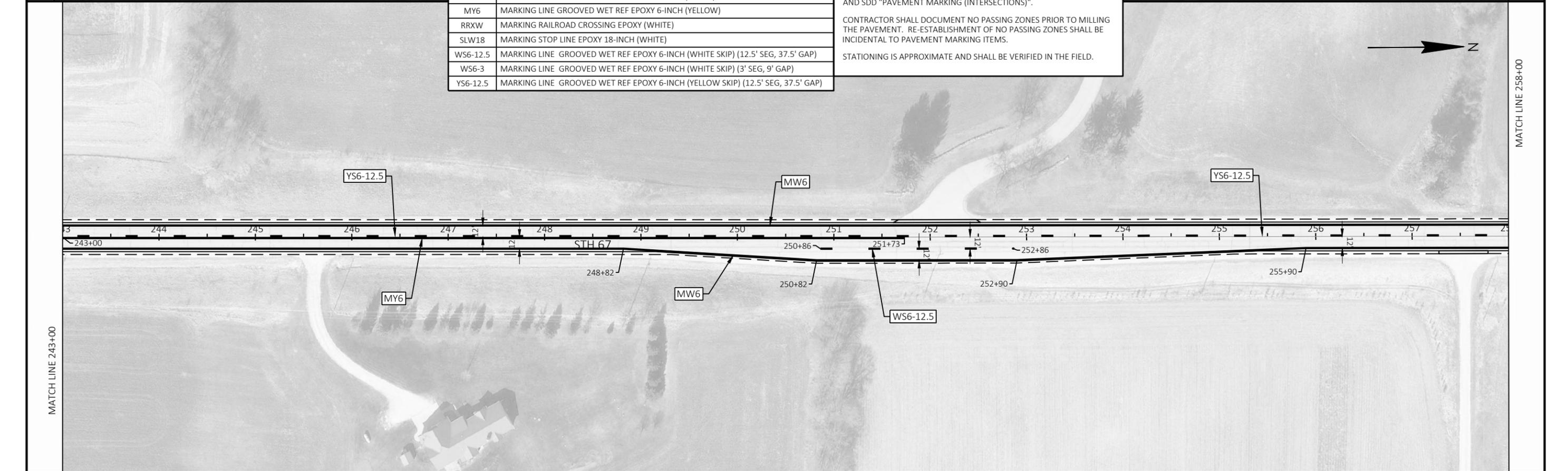
PAVEMENT MARKING LEGEND	
CWW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MDY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
RRXW	MARKING RAILROAD CROSSING EPOXY (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS6-3	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)

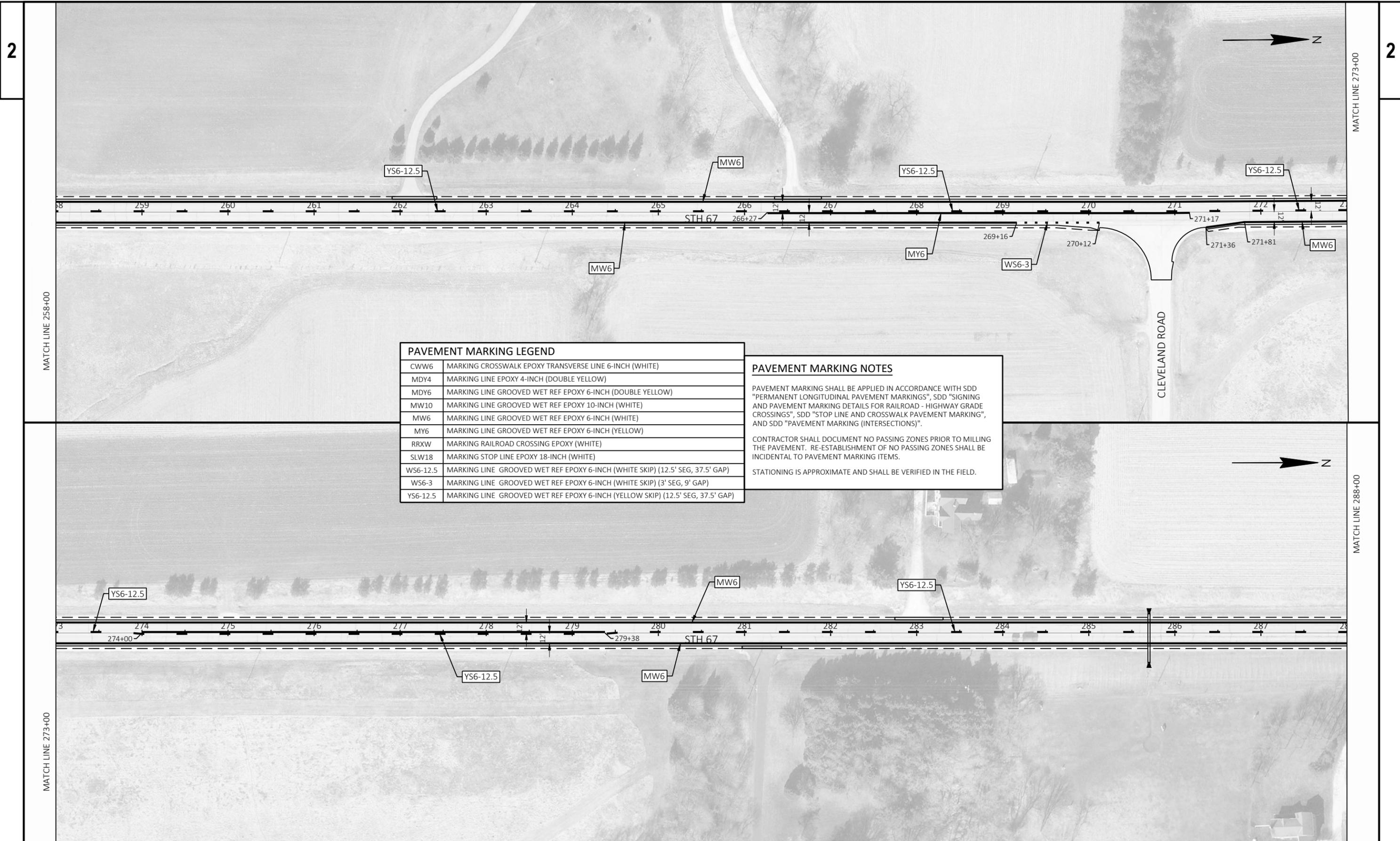
PAVEMENT MARKING NOTES

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS", SDD "STOP LINE AND CROSSWALK PAVEMENT MARKING", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".

CONTRACTOR SHALL DOCUMENT NO PASSING ZONES PRIOR TO MILLING THE PAVEMENT. RE-ESTABLISHMENT OF NO PASSING ZONES SHALL BE INCIDENTAL TO PAVEMENT MARKING ITEMS.

STATIONING IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.





PAVEMENT MARKING LEGEND	
CWW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MDY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
RRXW	MARKING RAILROAD CROSSING EPOXY (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS6-3	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)

PAVEMENT MARKING NOTES

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS", SDD "STOP LINE AND CROSSWALK PAVEMENT MARKING", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".

CONTRACTOR SHALL DOCUMENT NO PASSING ZONES PRIOR TO MILLING THE PAVEMENT. RE-ESTABLISHMENT OF NO PASSING ZONES SHALL BE INCIDENTAL TO PAVEMENT MARKING ITEMS.

STATIONING IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.



MATCH LINE 288+00

MATCH LINE 303+00

PAVEMENT MARKING LEGEND	
CWW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MDY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
RRXW	MARKING RAILROAD CROSSING EPOXY (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS6-3	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)

PAVEMENT MARKING NOTES

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS", SDD "STOP LINE AND CROSSWALK PAVEMENT MARKING", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".

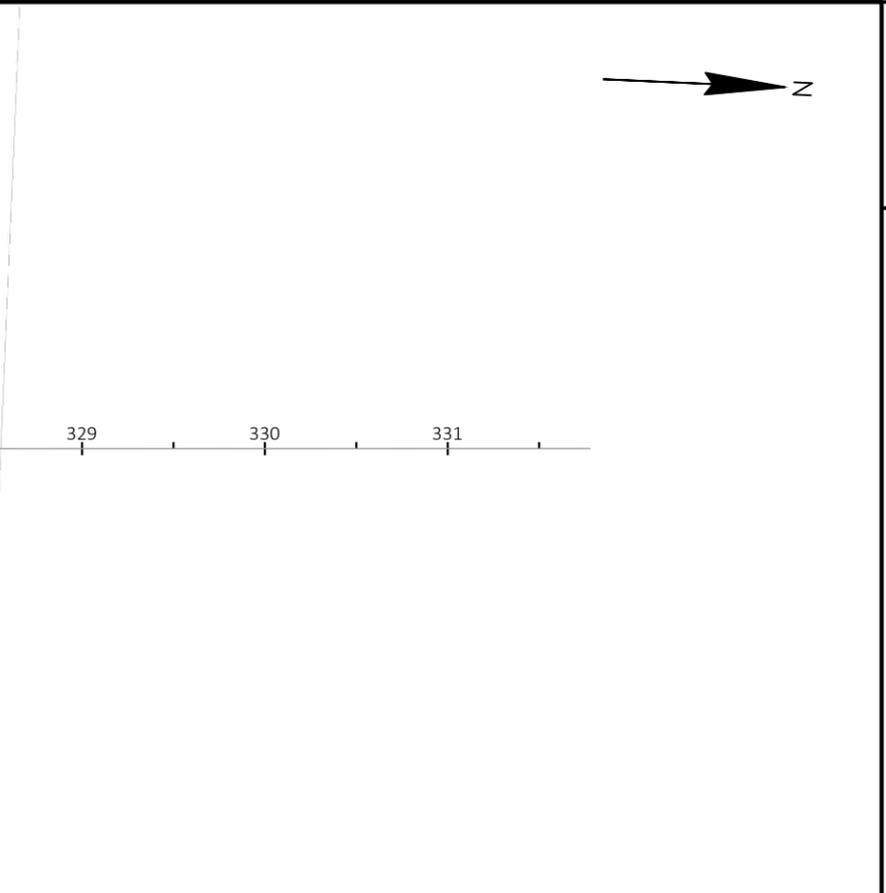
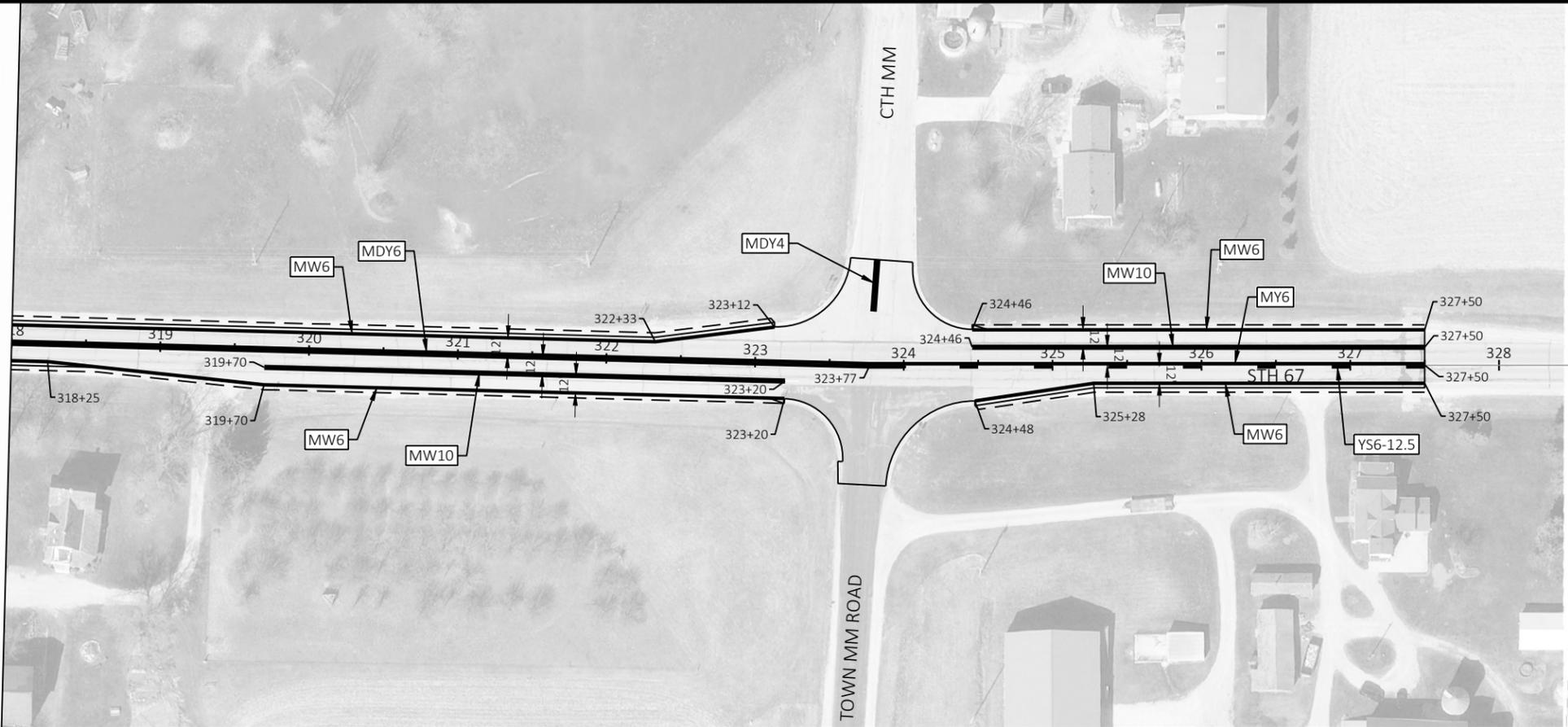
CONTRACTOR SHALL DOCUMENT NO PASSING ZONES PRIOR TO MILLING THE PAVEMENT. RE-ESTABLISHMENT OF NO PASSING ZONES SHALL BE INCIDENTAL TO PAVEMENT MARKING ITEMS.

STATIONING IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.



MATCH LINE 303+00

MATCH LINE 318+00



MATCH LINE 318+00

PAVEMENT MARKING NOTES

PAVEMENT MARKING SHALL BE APPLIED IN ACCORDANCE WITH SDD "PERMANENT LONGITUDINAL PAVEMENT MARKINGS", SDD "SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS", SDD "STOP LINE AND CROSSWALK PAVEMENT MARKING", AND SDD "PAVEMENT MARKING (INTERSECTIONS)".

CONTRACTOR SHALL DOCUMENT NO PASSING ZONES PRIOR TO MILLING THE PAVEMENT. RE-ESTABLISHMENT OF NO PASSING ZONES SHALL BE INCIDENTAL TO PAVEMENT MARKING ITEMS.

STATIONING IS APPROXIMATE AND SHALL BE VERIFIED IN THE FIELD.

PAVEMENT MARKING LEGEND

CWW6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MDY4	MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)
MDY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (DOUBLE YELLOW)
MW10	MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)
MW6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)
MY6	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)
RRXW	MARKING RAILROAD CROSSING EPOXY (WHITE)
SLW18	MARKING STOP LINE EPOXY 18-INCH (WHITE)
WS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (12.5' SEG, 37.5' GAP)
WS6-3	MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE SKIP) (3' SEG, 9' GAP)
YS6-12.5	MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW SKIP) (12.5' SEG, 37.5' GAP)

LEGEND

-  SIGN ON TEMPORARY SUPPORT
 -  PROPOSED DETOUR ROUTE
 -  TEMPORARY PEDESTRIAN BARRICADE
 -  WORK AREA
 -  TEMPORARY CROSSWALK. SEE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR DETAILS AND SIGN LOCATIONS.
 -  SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED. SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR DETAILS AND SIGN LOCATIONS
-
- 

1



2



3

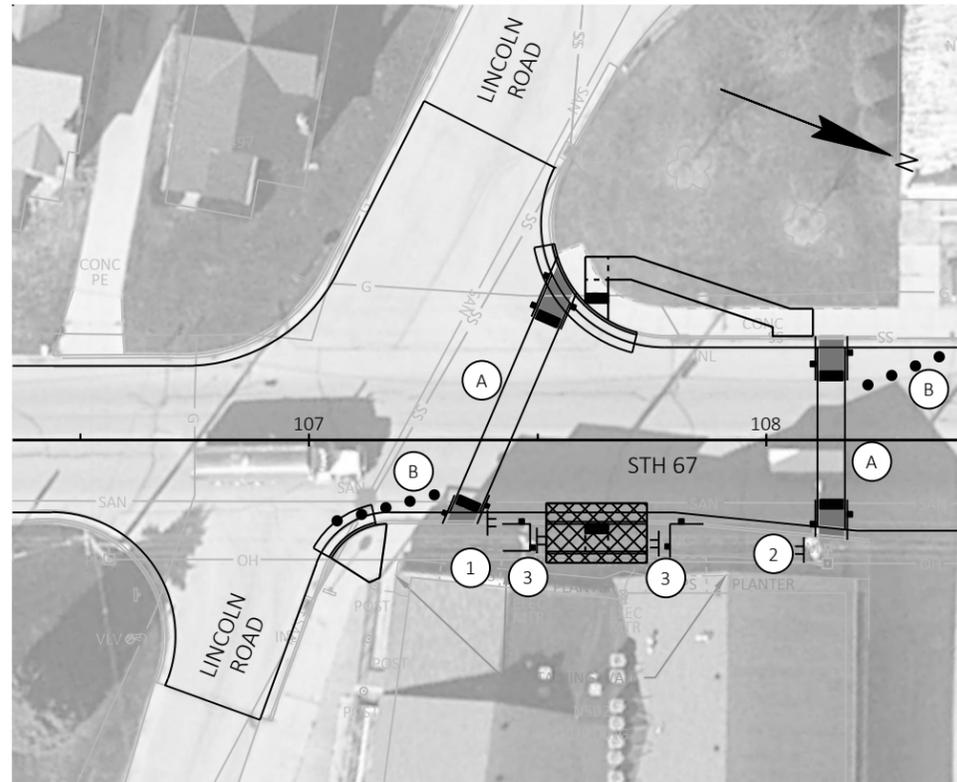


4
-
- 

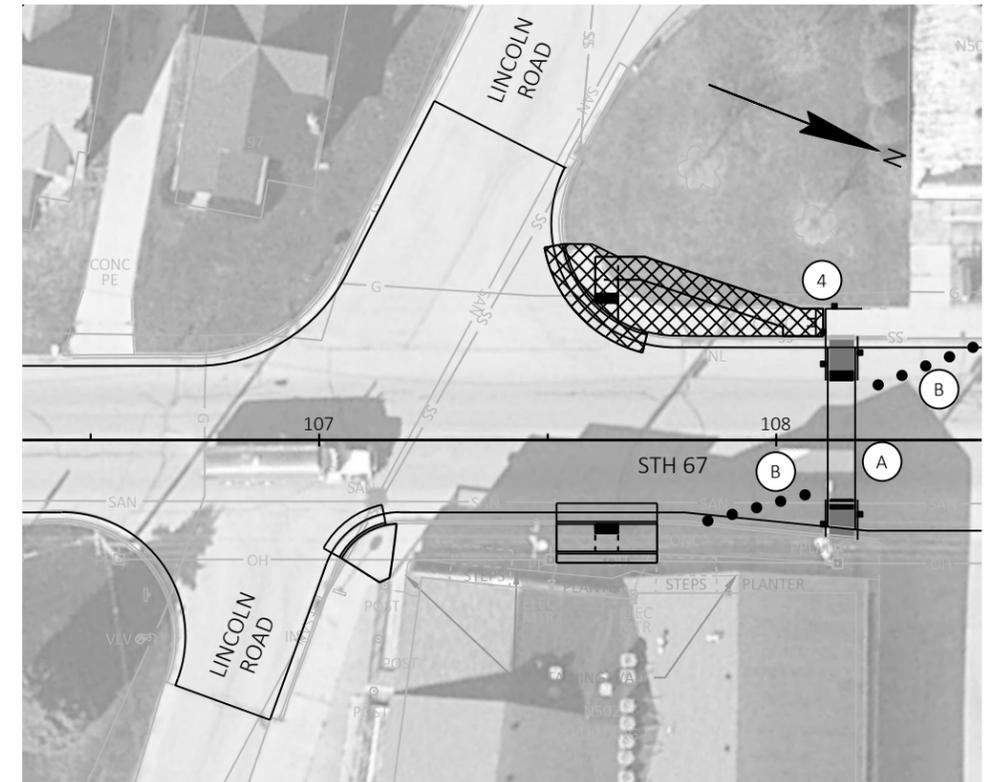
5



6



STAGE 1



STAGE 2

GENERAL NOTES - PEDESTRIAN ACCOMMODATIONS

REFER TO SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR DETAILS.

TEMPORARY CROSSWALKS SHALL BE MOVED AS NEEDED TO PROVIDE CONTINUOUS PEDESTRIAN ACCESS THROUGHOUT THE PROJECT.

POST MOUNTED SIGNS LOCATED NEAR OR ADJACENT TO THE SIDEWALK SHALL HAVE A 7-FT MINIMUM CLEARANCE FROM THE BOTTOM OF THE SIGN TO THE EXISTING OR NEW SIDEWALK.

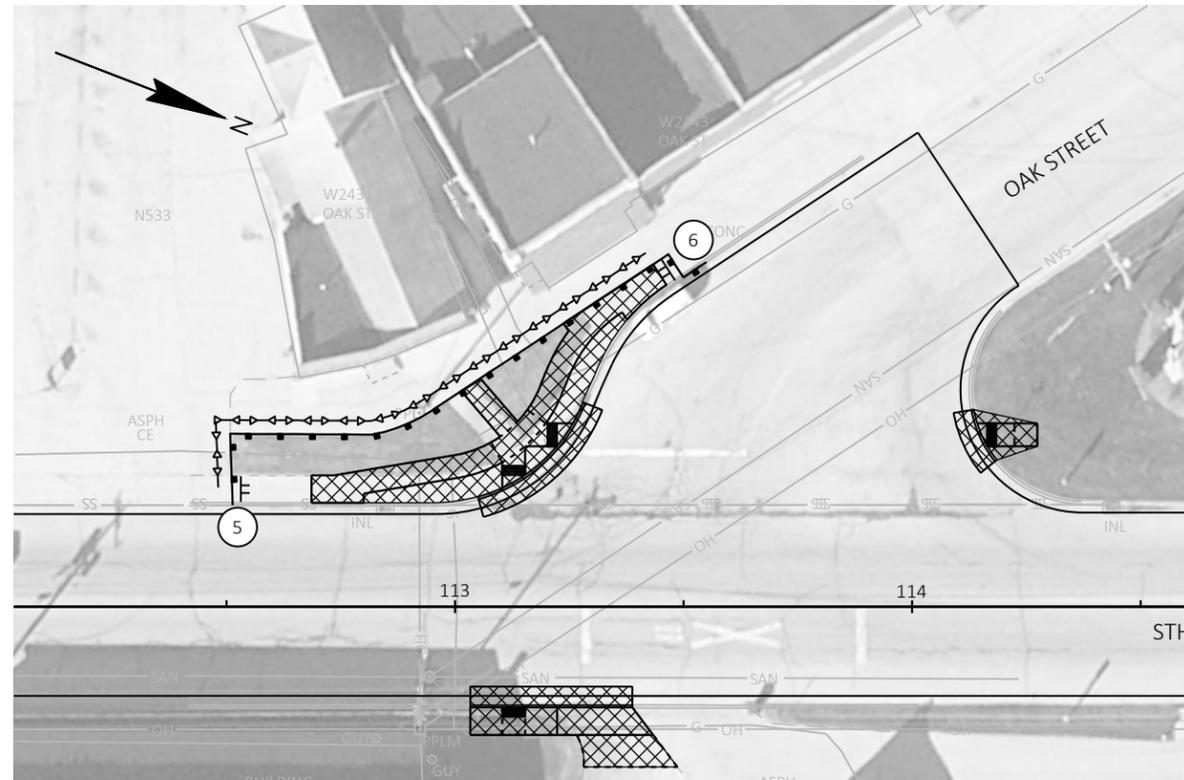
FURNISH AND INSTALL TEMPORARY CURB RAMPS WHEN EXISTING OR FINISHED CURB RAMPS ARE NOT IN PLACE.

DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON FIELD CONDITIONS AND THE CONTRACTOR'S METHODS OR SEQUENCE OF OPERATION.

MAP SHOWN IS NOT TO SCALE.

CONSTRUCTION SEQUENCING

1. CONSTRUCT EAST RAMP AT INTERSECTION OF STH 67 AND LINCOLN ROAD. PROVIDE TEMPORARY CROSSWALK AT INTERSECTION AND NORTH OF CONSTRUCTION WORK ZONE.
2. CONSTRUCT WEST RAMP AT INTERSECTION OF STH 67 AND LINCOLN ROAD. PROVIDE TEMPORARY CROSSWALK NORTH OF EAST RAMP.
3. CONSTRUCT ALL RAMPS AT INTERSECTION OF STH 67 AND OAK STREET. PROVIDE DETOUR USING DRIVEWAY AND SIDEWALK ADJACENT TO THE BUILDINGS.



STAGE 3

LEGEND

- SIGN LOCATION
- TYPE III BARRICADE WITH SIGN
- PORTABLE CHANGEABLE MESSAGE BOARD
- PROPOSED DETOUR ROUTE
- WORK AREA

PLACE TRAFFIC CONTROL SIGNS PER "MAINLINE CLOSURE, NO POSTED DETOUR" IN SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
 PLACE TRAFFIC CONTROL SIGNS PER "LANE CLOSURE BARRICADE DETAIL" IN SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
 PLACE TRAFFIC CONTROL SIGNS PER "DETAIL 4" IN SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

GENERAL NOTES - DETOUR

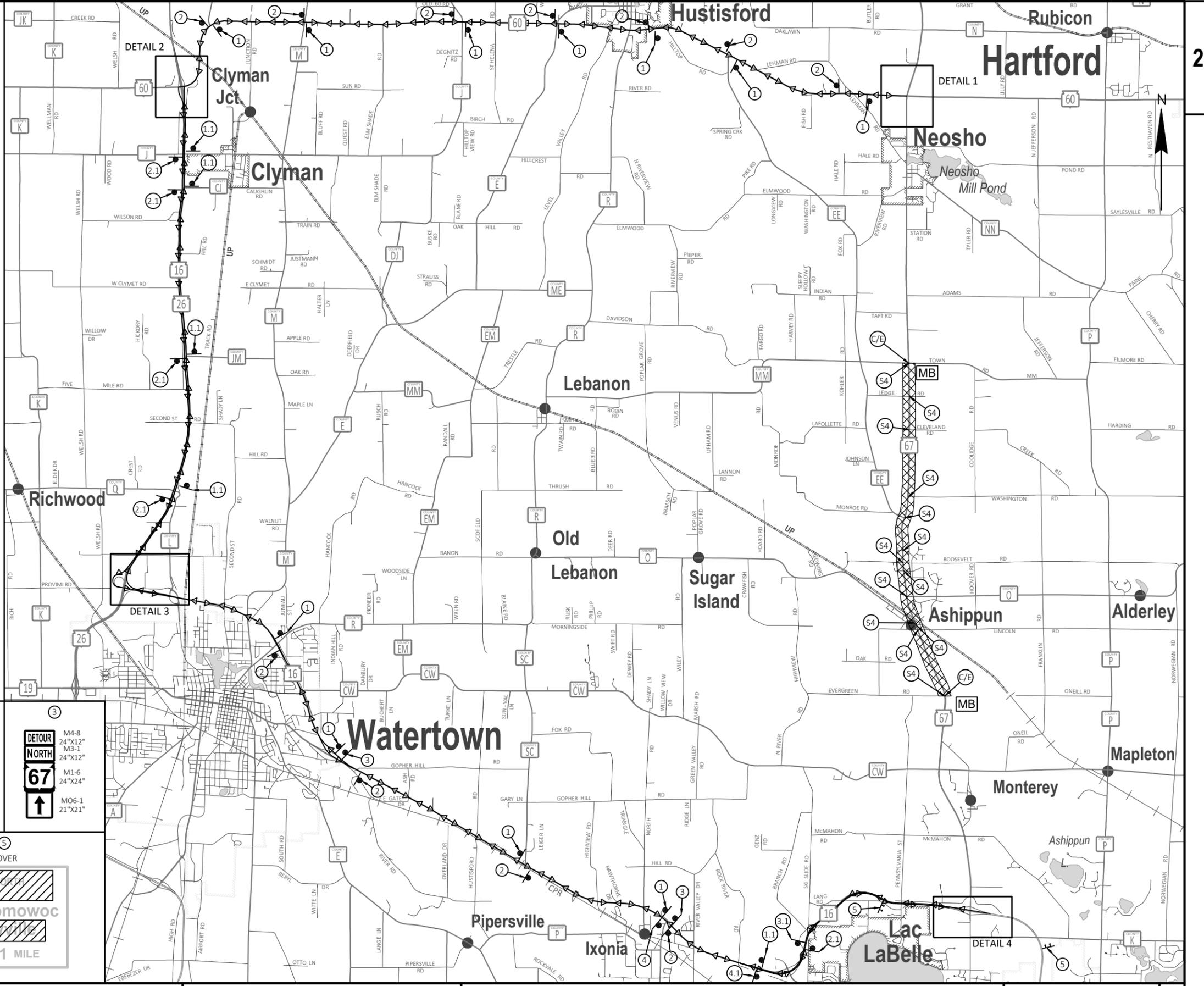
SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", "BARRICADES AND SIGNS FOR VARIOUS CLOSURES", "DETOUR SIGNING FOR MAINLINE CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR GENERAL NOTES AND SIGN SPACING REQUIREMENTS.

DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON FIELD CONDITIONS AND THE CONTRACTOR'S METHODS OR SEQUENCE OF OPERATION.

ALL EXISTING OR TEMPORARY SIGN MESSAGES THAT CONFLICT WITH THE DETOUR SHALL BE COVERED OR REMOVED.

MAP SHOWN IS NOT TO SCALE.

PCMS MESSAGES		
	7 DAYS PRIOR TO DETOUR	
LOCATION	PHASE 1 (2 SEC.)	PHASE 2 (2 SEC.)
STH 67 NB	ROAD CLOSED BEGINS	{DAY} {DATE XX}
STH 67 SB	ROAD CLOSED BEGINS	{DAY} {DATE XX}



 M4-8 24"x12" M3-1 24"x12" M1-6 24"x24" MO6-1 21"x21"	 M4-8 36"x18" M3-1 36"x18" M1-6 36"x36" MO6-1 21"x21"	 M4-8 24"x12" M3-3 24"x12" M1-6 24"x24"	 M4-8 36"x18" M3-3 36"x18" M1-6 36"x36"	 M4-8 24"x12" M3-1 24"x12" M1-6 24"x24" MO6-1 21"x21"
 M4-8 36"x18" M3-1 36"x18" M1-6 36"x36" MO6-1 30"x30"	 M4-8 24"x12" M3-3 24"x12" M1-6 24"x24" MO6-1 21"x21"	 M4-8 36"x18" M3-3 36"x18" M1-6 36"x36" MO6-1 30"x30"	COVER Oconomowoc EXIT 1 MILE	

2

LEGEND

- SIGN LOCATION
- TYPE III BARRICADE WITH SIGN
- PORTABLE CHANGEABLE MESSAGE BOARD
- PROPOSED DETOUR ROUTE
- WORK AREA
- PLACE TRAFFIC CONTROL SIGNS PER "MAINLINE CLOSURE, NO POSTED DETOUR" IN SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
- PLACE TRAFFIC CONTROL SIGNS PER "LANE CLOSURE BARRICADE DETAIL" IN SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
- PLACE TRAFFIC CONTROL SIGNS PER "DETAIL 4" IN SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

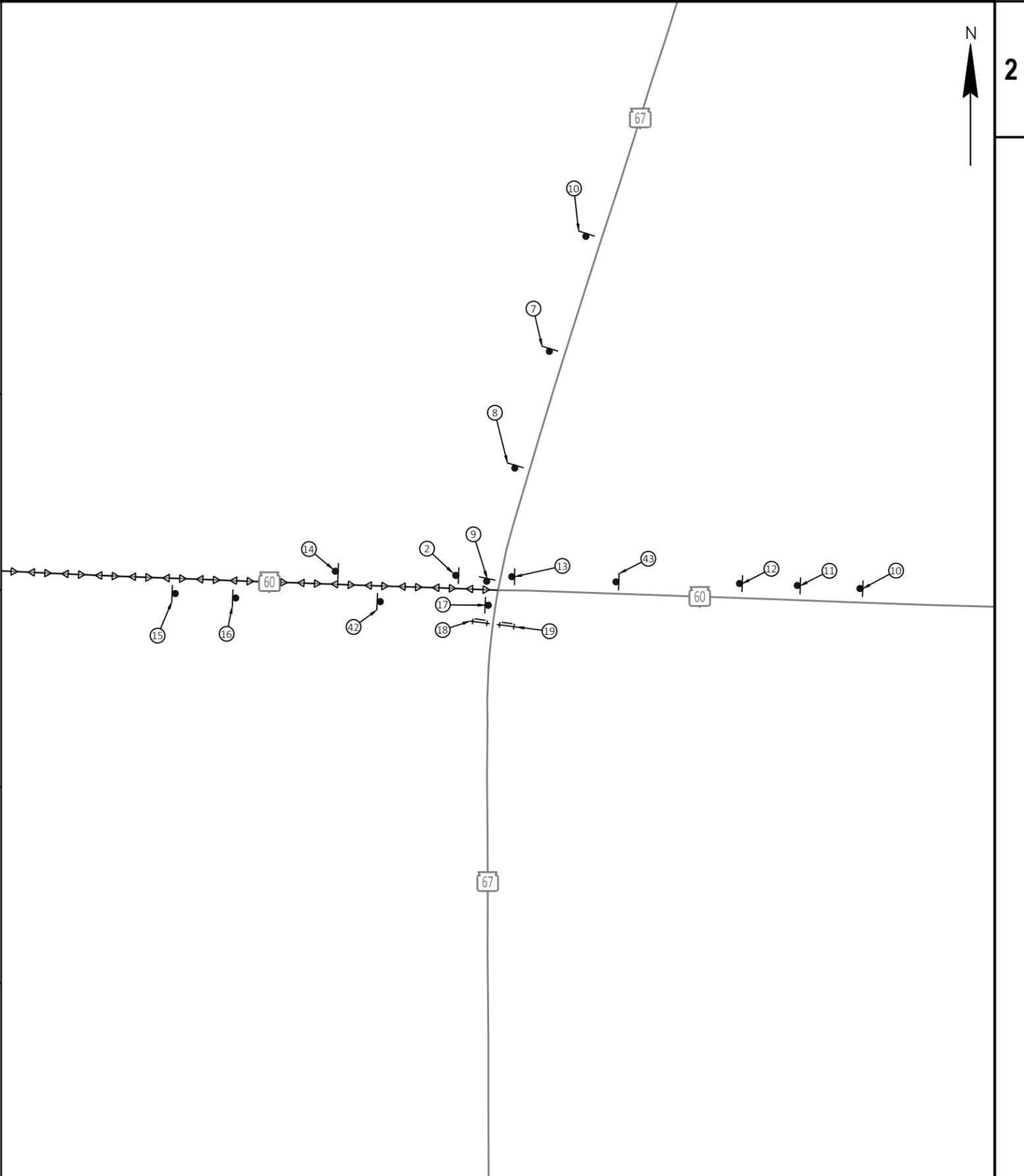
GENERAL NOTES - DETOUR

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", "BARRICADES AND SIGNS FOR VARIOUS CLOSURES", "DETOUR SIGNING FOR MAINLINE CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR GENERAL NOTES AND SIGN SPACING REQUIREMENTS.

DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON FIELD CONDITIONS AND THE CONTRACTOR'S METHODS OR SEQUENCE OF OPERATION.

ALL EXISTING OR TEMPORARY SIGN MESSAGES THAT CONFLICT WITH THE DETOUR SHALL BE COVERED OR REMOVED.

MAP SHOWN IS NOT TO SCALE.



<p>②</p> <p>M4-8 24"x12" M3-3 24"x12" M1-6 24"x24"</p>	<p>⑦</p> <p>FROM</p> <p>TO</p> <p>M4-8 24"x12" MOS-1R 21"x21"</p>	<p>⑧</p> <p>FROM</p> <p>TO</p> <p>BLACK ARROW ON ORANGE BACKGROUND (ARROW SIZE: 9 1/2" X 9 1/2")</p>	<p>⑨</p> <p>M4-8 24"x12" M3-3 24"x12" M1-6 24"x24" MO6-1 21"x21"</p>	
<p>⑩</p> <p>M3-3 24"x12" M1-6 24"x24" W20-2A 48"x48"</p>	<p>⑪</p> <p>COVER</p>	<p>⑫</p> <p>FROM</p> <p>TO</p> <p>M4-8 24"x12" MO6-1 21"x21"</p>	<p>⑬</p> <p>FROM</p> <p>TO</p> <p>M4-8 24"x12" MO6-1 21"x21"</p>	
<p>⑭</p> <p>G20-51 60"x24"</p>	<p>⑮</p> <p>FROM</p> <p>TO</p> <p>M4-8A 24"x18" M3-1 24"x12"</p>	<p>⑯</p> <p>COVER</p>	<p>⑰</p> <p>COVER</p>	<p>⑱</p> <p>M4-9R 30"x24" TYPE III BARRICADE</p>
<p>⑲</p> <p>R11-3 60" X 30" TYPE III BARRICADE</p>	<p>⑳</p> <p>NO MODIFICATION</p>	<p>㉑</p> <p>NO MODIFICATION</p>		

LEGEND

- SIGN LOCATION
- TYPE III BARRICADE WITH SIGN
- PORTABLE CHANGEABLE MESSAGE BOARD
- PROPOSED DETOUR ROUTE
- WORK AREA
- PLACE TRAFFIC CONTROL SIGNS PER "MAINLINE CLOSURE, NO POSTED DETOUR" IN SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
- PLACE TRAFFIC CONTROL SIGNS PER "LANE CLOSURE BARRICADE DETAIL" IN SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
- PLACE TRAFFIC CONTROL SIGNS PER "DETAIL 4" IN SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

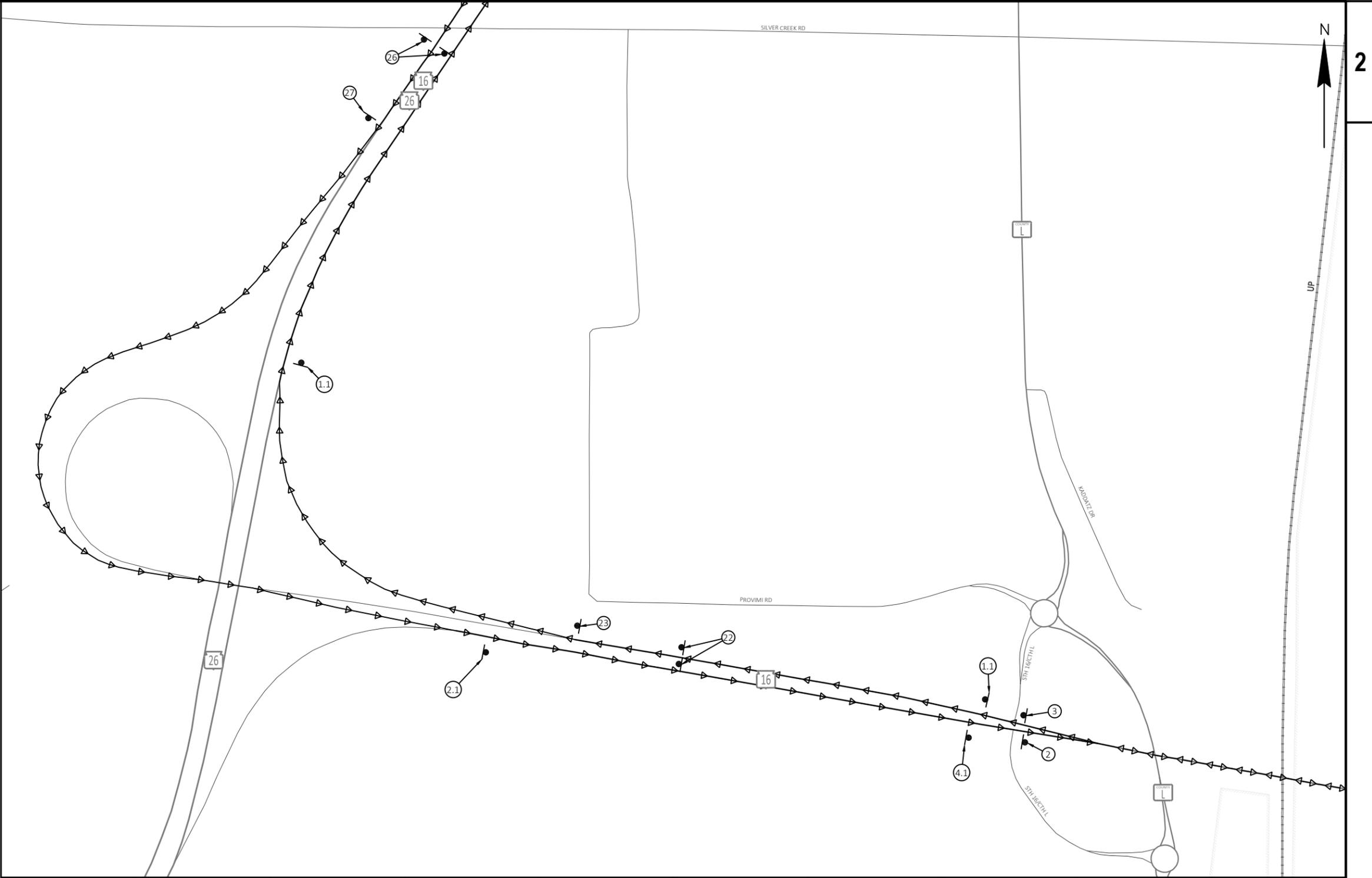
GENERAL NOTES - DETOUR

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", "BARRICADES AND SIGNS FOR VARIOUS CLOSURES", "DETOUR SIGNING FOR MAINLINE CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR GENERAL NOTES AND SIGN SPACING REQUIREMENTS.

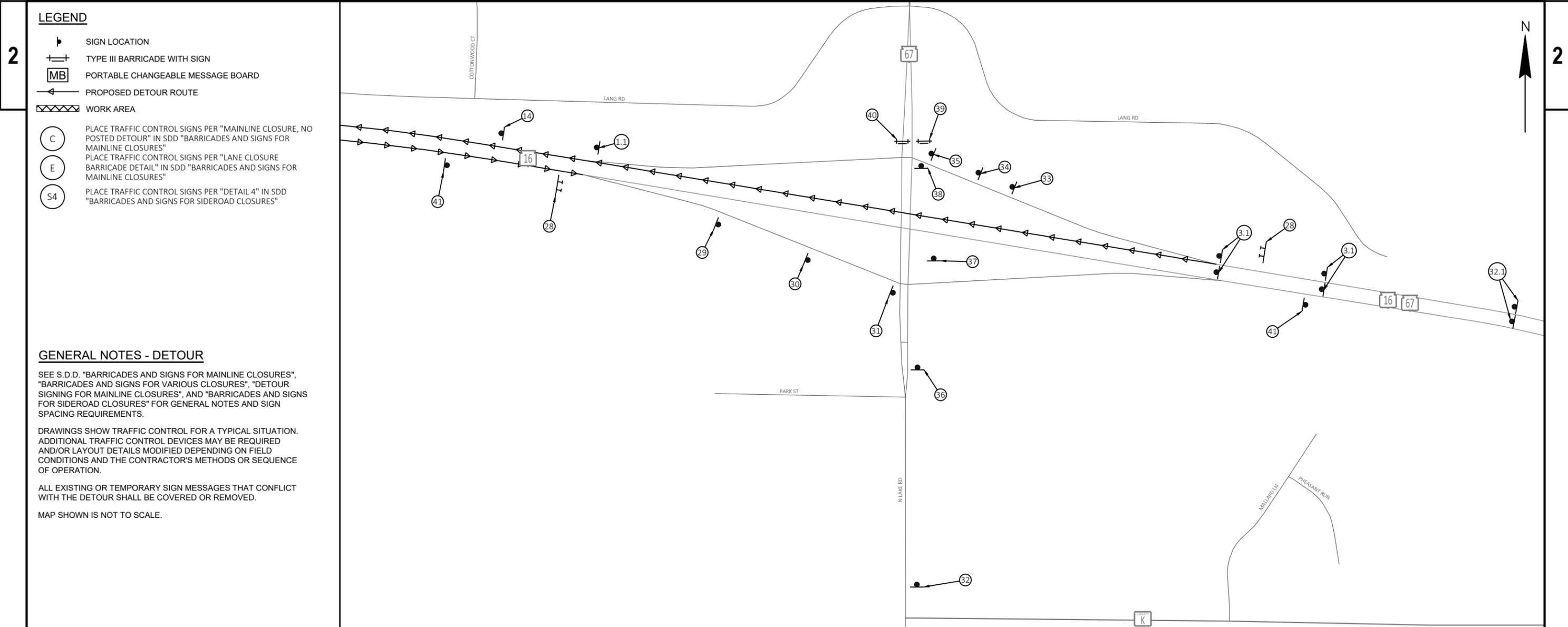
DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON FIELD CONDITIONS AND THE CONTRACTOR'S METHODS OR SEQUENCE OF OPERATION.

ALL EXISTING OR TEMPORARY SIGN MESSAGES THAT CONFLICT WITH THE DETOUR SHALL BE COVERED OR REMOVED.

MAP SHOWN IS NOT TO SCALE.



1.1	2	2.1	3	4.1	2.2	2.3	2.6	2.7
 M4-8 36"x18" M3-1 36"x18" M1-6 36"x36"	 M4-8 24"x12" M3-3 24"x12" M1-6 24"x24"	 M4-8 36"x18" M3-3 36"x18" M1-6 36"x36"	 M4-8 24"x12" M3-1 24"x12" M1-6 24"x24" MO6-1 21"x21"	 M4-8 36"x18" M3-3 36"x18" M1-6 36"x36" MO6-1 30"x30"	 M4-8 36"x18" M3-1 36"x18" M1-6 36"x36" MO5-2R 30"x30"	 M4-8 36"x18" M3-1 36"x18" M1-6 36"x36" MO6-2 30"x30"	 M4-8 36"x18" M3-3 36"x18" M1-6 36"x36" MO5-2R 30"x30"	 M4-8 36"x18" M3-3 36"x18" M1-6 36"x36" MO6-2 30"x30"



LEGEND

- SIGN LOCATION
- TYPE III BARRICADE WITH SIGN
- PORTABLE CHANGEABLE MESSAGE BOARD
- PROPOSED DETOUR ROUTE
- WORK AREA
- PLACE TRAFFIC CONTROL SIGNS PER "MAINLINE CLOSURE, NO POSTED DETOUR" IN SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
- PLACE TRAFFIC CONTROL SIGNS PER "LANE CLOSURE BARRICADE DETAIL" IN SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"
- PLACE TRAFFIC CONTROL SIGNS PER "DETAIL 4" IN SDD "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES"

GENERAL NOTES - DETOUR

SEE S.D.D. "BARRICADES AND SIGNS FOR MAINLINE CLOSURES", "BARRICADES AND SIGNS FOR VARIOUS CLOSURES", "DETOUR SIGNING FOR MAINLINE CLOSURES", AND "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR GENERAL NOTES AND SIGN SPACING REQUIREMENTS.

DRAWINGS SHOW TRAFFIC CONTROL FOR A TYPICAL SITUATION. ADDITIONAL TRAFFIC CONTROL DEVICES MAY BE REQUIRED AND/OR LAYOUT DETAILS MODIFIED DEPENDING ON FIELD CONDITIONS AND THE CONTRACTOR'S METHODS OR SEQUENCE OF OPERATION.

ALL EXISTING OR TEMPORARY SIGN MESSAGES THAT CONFLICT WITH THE DETOUR SHALL BE COVERED OR REMOVED.

MAP SHOWN IS NOT TO SCALE.

1.1	3.1	4.1	1.4	28 COVER	29 COVER	30 COVER	31 COVER	32	32.1	33			
 <small>M4-8 36"x18" M3-1 36"x18" M1-6 36"x36"</small>	 <small>M4-8 36"x18" M3-1 36"x18" M1-6 36"x36" MO6-1 30"x30"</small>	 <small>M4-8 36"x18" M3-1 36"x18" M1-6 36"x36" MO6-1 30"x30"</small>	 <small>G20-51 60"x24"</small>	 <small>Oconomowoc</small>		 <small>Oconomowoc</small>		 <small>M3-1 24"x12" M1-6 24"x24" W20-2A 48"x48"</small>	 <small>M3-1 36"x18" M1-6 36"x36" W20-2A 48"x48"</small>				
34 COVER	35 COVER	36 MODIFY		37 MODIFY		38	39	40		41 MODIFY			
 <small>Oconomowoc</small>		<small>FROM</small> <small>NORTH WEST EAST SOUTH</small> <small>↑ ↑ ↑ ↑</small>		<small>TO</small> <small>DETOUR NORTH</small> <small>NORTH WEST EAST SOUTH</small> <small>↑ ↑ ↑ ↑</small>		 <small>M4-8 24"x12" M3-1 24"x12" M1-6 24"x24" MO6-1 21"x21"</small>	 <small>M4-9L 30"x24"</small> DETOUR 	 <small>R11-3 60" X 30"</small> ROAD CLOSED TO THRU TRAFFIC 4 MILES AHEAD 		<small>FROM</small> <small>EAST SOUTH</small> <small>16 67</small>		<small>TO</small> <small>END DETOUR</small> <small>EAST SOUTH</small> <small>16 67</small>	

Estimate Of Quantities

3030-05-74

Line	Item	Item Description	Unit	Total	Qty
0002	203.0100	Removing Small Pipe Culverts	EACH	3.000	3.000
0004	204.0100	Removing Concrete Pavement	SY	393.000	393.000
0006	204.0110	Removing Asphaltic Surface	SY	55.000	55.000
0008	204.0115	Removing Asphaltic Surface Butt Joints	SY	583.000	583.000
0010	204.0120	Removing Asphaltic Surface Milling	SY	101,300.000	101,300.000
0012	204.0150	Removing Curb & Gutter	LF	174.000	174.000
0014	204.0155	Removing Concrete Sidewalk	SY	142.000	142.000
0016	204.0165	Removing Guardrail	LF	320.000	320.000
0018	204.0180	Removing Delineators and Markers	EACH	6.000	6.000
0020	205.0100	Excavation Common	CY	1,116.000	1,116.000
0022	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 3030-05-74	EACH	1.000	1.000
0024	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	8.000	8.000
0026	213.0100	Finishing Roadway (project) 01. 3030-05-74	EACH	1.000	1.000
0028	305.0110	Base Aggregate Dense 3/4-Inch	TON	2,760.000	2,760.000
0030	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	550.000	550.000
0032	305.0130	Base Aggregate Dense 3-Inch	TON	680.000	680.000
0034	416.0610	Drilled Tie Bars	EACH	60.000	60.000
0036	455.0605	Tack Coat	GAL	12,970.000	12,970.000
0038	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0040	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	2.000	2.000
0042	460.2005	Incentive Density PWL HMA Pavement	DOL	14,130.000	14,130.000
0044	460.2007	Incentive Density HMA Pavement Longitudinal Joints	DOL	5,410.000	5,410.000
0046	460.2010	Incentive Air Voids HMA Pavement	DOL	21,220.000	21,220.000
0048	460.6224	HMA Pavement 4 MT 58-28 S	TON	10,670.000	10,670.000
0050	460.6424	HMA Pavement 4 MT 58-28 H	TON	10,540.000	10,540.000
0052	465.0105	Asphaltic Surface	TON	800.000	800.000
0054	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	77.000	77.000
0056	522.0424	Culvert Pipe Reinforced Concrete Class IV 24-Inch	LF	104.000	104.000
0058	522.1024	Apron Endwalls for Culvert Pipe Reinforced Concrete 24-Inch	EACH	4.000	4.000
0060	522.2429	Culvert Pipe Reinforced Concrete Horizontal Elliptical Class HE-IV 29x45-Inch	LF	86.000	86.000
0062	522.2629	Apron Endwalls for Culvert Pipe Reinforced Concrete Horizontal Elliptical 29x45-Inch	EACH	2.000	2.000
0064	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	176.000	176.000
0066	601.0600	Concrete Curb Pedestrian	LF	22.000	22.000
0068	602.0410	Concrete Sidewalk 5-Inch	SF	1,410.000	1,410.000
0070	602.0515	Curb Ramp Detectable Warning Field Natural Patina	SF	60.000	60.000
0072	611.8115	Adjusting Inlet Covers	EACH	2.000	2.000
0074	614.0010	Barrier System Grading Shaping Finishing	EACH	2.000	2.000
0076	614.0305	Steel Plate Beam Guard Class A	LF	350.000	350.000
0078	614.0370	Steel Plate Beam Guard Energy Absorbing Terminal	EACH	4.000	4.000
0080	618.0100	Maintenance and Repair of Haul Roads (project) 01. 3030-05-74	EACH	1.000	1.000
0082	619.1000	Mobilization	EACH	1.000	1.000
0084	624.0100	Water	MGAL	56.000	56.000
0086	625.0500	Salvaged Topsoil	SY	690.000	690.000
0088	628.1504	Silt Fence	LF	1,130.000	1,130.000
0090	628.1520	Silt Fence Maintenance	LF	1,130.000	1,130.000
0092	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0094	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0096	628.2008	Erosion Mat Urban Class I Type B	SY	690.000	690.000
0098	628.7015	Inlet Protection Type C	EACH	33.000	33.000

Estimate Of Quantities

3030-05-74

Line	Item	Item Description	Unit	Total	Qty
0100	628.7504	Temporary Ditch Checks	LF	45.000	45.000
0102	628.7555	Culvert Pipe Checks	EACH	16.000	16.000
0104	628.7570	Rock Bags	EACH	150.000	150.000
0106	629.0210	Fertilizer Type B	CWT	0.300	0.300
0108	630.0130	Seeding Mixture No. 30	LB	31.000	31.000
0110	630.0500	Seed Water	MGAL	15.000	15.000
0112	633.5200	Markers Culvert End	EACH	6.000	6.000
0114	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	4.000	4.000
0116	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000
0118	638.2102	Moving Signs Type II	EACH	6.000	6.000
0120	638.3000	Removing Small Sign Supports	EACH	5.000	5.000
0122	638.4000	Moving Small Sign Supports	EACH	1.000	1.000
0124	642.5001	Field Office Type B	EACH	1.000	1.000
0126	643.0300	Traffic Control Drums	DAY	2,208.000	2,208.000
0128	643.0420	Traffic Control Barricades Type III	DAY	2,934.000	2,934.000
0130	643.0705	Traffic Control Warning Lights Type A	DAY	5,844.000	5,844.000
0132	643.0900	Traffic Control Signs	DAY	20,258.000	20,258.000
0134	643.0910	Traffic Control Covering Signs Type I	EACH	4.000	4.000
0136	643.0920	Traffic Control Covering Signs Type II	EACH	9.000	9.000
0138	643.1050	Traffic Control Signs PCMS	DAY	14.000	14.000
0140	643.3165	Temporary Marking Line Paint 6-Inch	LF	78,900.000	78,900.000
0142	643.3305	Temporary Marking Crosswalk Paint 6-inch	LF	200.000	200.000
0144	643.5000	Traffic Control	EACH	1.000	1.000
0146	644.1601	Temporary Pedestrian Curb Ramp	DAY	38.000	38.000
0148	644.1605	Temporary Pedestrian Detectable Warning Field	SF	40.000	40.000
0150	644.1810	Temporary Pedestrian Barricade	LF	246.000	246.000
0152	645.0220	Geogrid Type SR	SY	786.000	786.000
0154	646.1020	Marking Line Epoxy 4-Inch	LF	337.000	337.000
0156	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	74,290.000	74,290.000
0158	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	1,410.000	1,410.000
0160	646.5320	Marking Railroad Crossing Epoxy	EACH	2.000	2.000
0162	646.6120	Marking Stop Line Epoxy 18-Inch	LF	37.000	37.000
0164	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	344.000	344.000
0166	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	176.000	176.000
0168	650.6000	Construction Staking Pipe Culverts	EACH	3.000	3.000
0170	650.8000	Construction Staking Resurfacing Reference	LF	27,033.000	27,033.000
0172	650.9000	Construction Staking Curb Ramps	EACH	6.000	6.000
0174	650.9500	Construction Staking Sidewalk (project) 01. 3030-05-74	EACH	1.000	1.000
0176	650.9911	Construction Staking Supplemental Control (project) 01. 3030-05-74	EACH	1.000	1.000
0178	690.0150	Sawing Asphalt	LF	434.000	434.000
0180	690.0250	Sawing Concrete	LF	240.000	240.000
0182	740.0440	Incentive IRI Ride	DOL	20,480.000	20,480.000
0184	SPV.0035	Special 01. Foundation Backfill	CY	538.000	538.000
0186	SPV.0060	Special 01. Grading Shaping and Finishing Curb Ramps	EACH	4.000	4.000
0188	SPV.0060	Special 02. Verify Landmark Reference Monuments	EACH	5.000	5.000
0190	SPV.0060	Special 03. Adjusting Sanitary Manhole Covers	EACH	3.000	3.000
0192	SPV.0180	Special 01. Removing Distressed Pavement Milling	SY	4,710.000	4,710.000

3

REMOVING ITEMS

STATION - STATION	LOCATION	204.0100 REMOVING CONCRETE PAVEMENT	204.0110 REMOVING ASPHALTIC SURFACE	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS	204.0120 REMOVING ASPHALTIC SURFACE MILLING	204.0150 REMOVING CURB & GUTTER	204.0155 REMOVING CONCRETE SIDEWALK	204.0165 REMOVING GUARDRAIL	204.0180 REMOVING DELINEATORS AND MARKERS	SPV.0180.01 REMOVING DISTRESSED PAVEMENT MILLING	COMMENTS
CATEGORY CODE 0010											
54+28 - 116+55	LT & RT	--	--	58	21,750	--	--	--	--	--	--
62+35 - 63+03	LT & RT	135	--	--	--	--	--	--	2	--	CULVERT REPLACEMENT
85+05 - 85+69	LT & RT	129	--	--	--	--	--	--	2	--	CULVERT REPLACEMENT
94+24 - 95+78	RT	--	--	--	--	--	--	154	--	--	GUARDRAIL REPLACEMENT
94+28 - 95+93	LT	--	--	--	--	--	--	166	--	--	GUARDRAIL REPLACEMENT
107+03 - 107+18	RT	--	14	--	--	13	--	--	--	--	CURB RAMP REPLACEMENT
107+51 - 108+10	LT	--	7	--	--	29	41	--	--	--	CURB RAMP REPLACEMENT
107+52 - 107+74	RT	--	5	--	--	22	21	--	--	--	CURB RAMP REPLACEMENT
113+03 - 113+39	RT	--	8	--	--	36	--	--	--	--	CURB RAMP REPLACEMENT
112+69 - 113+46	LT	--	9	--	--	31	80	--	--	--	CURB RAMP REPLACEMENT
114+13 - 114+18	LT	--	3	--	--	13	--	--	--	--	CURB RAMP REPLACEMENT
117+19 - 327+50	LT & RT	--	--	525	78,230	--	--	--	--	--	--
285+38 - 286+02	LT & RT	129	--	--	--	--	--	--	2	--	CULVERT REPLACEMENT
UNDISTRIBUTED		--	--	--	--	--	--	--	--	4,594	DISTRESSED MILLING LOCATIONS
UNDISTRIBUTED		--	9	--	--	30	--	--	--	--	CURB & GUTTER REPLACEMENTS
CATEGORY CODE 0010 SUBTOTALS		393	55	583	99,980	174	142	320	6	4,594	
CATEGORY CODE 0020											
107+18 - 116+55	LT & RT	--	--	--	1,320	--	--	--	--	--	--
UNDISTRIBUTED		--	--	--	--	--	--	--	--	116	DISTRESSED MILLING LOCATIONS
CATEGORY CODE 0020 SUBTOTALS		--	--	--	1,320	--	--	--	--	116	
TOTALS		393	55	583	101,300	174	142	320	6	4,710	

REMOVING SMALL PIPE CULVERTS

203.0100			
STATION	LOCATION	EACH	COMMENTS
CATEGORY CODE 0010			
62+69	LT & RT	1	REMOVE 89 LF OF CPCM 36-INCH
85+37	LT & RT	1	REMOVE 51 LF OF CPCM 24-INCH
285+70	LT & RT	1	REMOVE 61 LF OF CPCM 24-INCH
TOTAL		3	

3

PREPARE FOUNDATION FOR ASPHALTIC PAVING

211.0101		
PROJECT	LOCATION	EACH
CATEGORY CODE 0010		
01. 3030-05-74		1
	54+28 - 116+55	
	117+19 - 327+50	
TOTAL		1

EARTHWORK AND BACKFILL ITEMS

205.0100 SPV.0035.01 EXCAVATION FOUNDATION COMMON BACKFILL		
LOCATION	CY	CY
CATEGORY CODE 0010		
62+35 - 63+03	372	180
85+05 - 85+69	372	176
285+38 - 286+02	372	182
TOTALS	1,116	538

BASE AGGREGATE DENSE AND WATER ITEMS

305.0110 305.0120 305.0130 624.0100 BASE AGGREGATE DENSE BASE AGGREGATE DENSE BASE AGGREGATE DENSE WATER						
		3/4-INCH TON	1 1/4-INCH TON	3-INCH TON	MGAL	COMMENTS
CATEGORY CODE 0010						
54+28 - 116+55	LT & RT	675	--	--	9.5	--
62+35 - 63+03	LT & RT	34	181	234	6.3	CULVERT REPLACEMENT
85+37	LT & RT	33	174	223	6.0	CULVERT REPLACEMENT
107+03 - 107+18	RT	3	1	--	0.1	CURB OPENING REPLACEMENT
107+51 - 108+10	LT	10	3	--	0.2	CURB RAMP REPLACEMENT
107+52 - 107+74	RT	5	2	--	0.1	CURB RAMP REPLACEMENT
112+69 - 113+46	LT	21	3	--	0.3	CURB RAMP REPLACEMENT
113+03 - 113+39	RT	9	8	--	0.2	CURB RAMP REPLACEMENT
114+13 - 114+18	LT	2	1	--	--	CURB RAMP REPLACEMENT
117+19 - 327+50	LT & RT	1,935	--	--	27.2	--
285+70	LT & RT	33	174	223	6.0	CULVERT REPLACEMENT
UNDISTRIBUTED		--	3	--	0.1	CURB & GUTTER REPLACEMENTS
TOTALS		2,760	550	680	56	

BASE AGGREGATE DENSE 3/4-INCH WEIGHT CALCULATIONS BASED ON 2.1 TONS/CY.
 BASE AGGREGATE DENSE 1 1/4-INCH WEIGHT CALCULATIONS BASED ON 2.0 TONS/CY.
 BASE AGGREGATE DENSE 3-INCH WEIGHT CALCULATIONS BASED ON 2.2 TONS/CY.

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

211.0400		
STATION - STATION	LOCATION	STA
CATEGORY CODE 0010		
92+82 - 96+69	RT	4
93+61 - 97+23	LT	4
TOTAL		8

3

DRILLED TIE BARS

STATION	LOCATION	416.0610 EACH
CATEGORY CODE 0010		
107+04	RT	3
107+15	RT	3
107+52	RT	3
107+53	LT	3
107+72	LT	3
107+74	RT	3
113+03	RT	3
113+05	LT	3
113+28	LT	3
113+39	RT	3
114+13	LT	3
114+18	LT	3
UNDISTRIBUTED		24
TOTAL		60

ASPHALTIC ITEMS

STATION - STATION	LOCATION	455.0605	460.0105.S	460.0110.S	460.6224	460.6424	465.0105	465.0120	COMMENTS
		TACK COAT	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS	HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY	HMA PAVEMENT 4 MT 58-28 S	HMA PAVEMENT 4 MT 58-28 H	ASPHALTIC SURFACE	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES	
CATEGORY CODE 0010		GAL	EACH	EACH	TON	TON	TON	TON	
54+28 - 116+55	LT & RT	2,781	1	2	2,304	2,276	--	2	--
62+35 - 63+03	LT & RT	24	--	--	--	--	80	--	CULVERT REPLACEMENT
58+05 - 85+69	LT & RT	23	--	--	--	--	76	--	CULVERT REPLACEMENT
107+03 - 107+14	RT	1	--	--	--	--	1	--	CURB RAMP REPLACEMENT
107+51 - 107+71	LT	1	--	--	--	--	2	--	CURB RAMP REPLACEMENT
107+52 - 107+74	RT	1	--	--	--	--	2	--	CURB RAMP REPLACEMENT
113+03 - 113+39	RT	1	--	--	--	--	3	2	CURB RAMP REPLACEMENT
113+06 - 113+30	LT	1	--	--	--	--	3	--	CURB RAMP REPLACEMENT
114+11 - 114+17	LT	--	--	--	--	--	1	--	CURB RAMP REPLACEMENT
117+19 - 327+50	LT & RT	9,939	--	--	8,230	8,128	--	72	--
285+38 - 286+02	LT & RT	23	--	--	--	--	76	--	CULVERT REPLACEMENT
UNDISTRIBUTED		8	--	--	--	--	540	--	DISTRESSED MILLING LOCATIONS
UNDISTRIBUTED		--	--	--	--	--	2	1	CURB & GUTTER REPLACEMENTS
CATEGORY CODE 0010 SUBTOTALS		12,803	1	2	10,534	10,404	786	77	
CATEGORY CODE 0020									
107+18 - 116+55	LT & RT	166	--	--	136	136	--	--	--
UNDISTRIBUTED		1	--	--	--	--	14	--	DISTRESSED MILLING LOCATIONS
CATEGORY CODE 0020 SUBTOTALS		167	--	--	136	136	14	--	
TOTALS		12,970	1	2	10,670	10,540	800	77	

3

PWL MIXTURE USE TABLE

THE FOLLOWING ACCEPTANCE CRITERIA ARE APPLICABLE FOR THIS PROJECT:

CATEGORY	LOCATION	STATION	MIXTURE USE	UNDERLYING SURFACE	BID ITEM	TONS	THICKNESS	QUALITY MANAGEMENT PROGRAM TO BE USED FOR:	
								MIXTURE ACCEPTANCE	DENSITY ACCEPTANCE
0010	12' Driving Lane	54+28 - 116+55	Upper Layer	4 MT 58-28 S	4 MT 58-28 H	1,635	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
0010	12' Driving Lane	54+28 - 116+55	Lower Layer	Milled Existing HMA Surface	4 MT 58-28 S	1,635	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
0010	3' Shoulder/Side Roads	54+28 - 116+55	Upper Layer	4 MT 58-28 S	4 MT 58-28 H	655	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Department Acceptance (SS 460.3.3.2) *Not eligible for incentive
0010	3' Shoulder/Side Roads	54+28 - 116+55	Lower Layer	Milled Existing HMA Surface	4 MT 58-28 S	655	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Department Acceptance (SS 460.3.3.2) *Not eligible for incentive
0010	12' Driving Lane	117+19 - 327+50	Upper Layer	4 MT 58-28 S	4 MT 58-28 H	5,430	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
0010	12' Driving Lane	117+19 - 327+50	Lower Layer	Milled Existing HMA Surface	4 MT 58-28 S	5,430	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Incentive Density PWL HMA Pavement 460.2005
0010	3' Shoulder/Side Roads	117+19 - 327+50	Upper Layer	4 MT 58-28 S	4 MT 58-28 H	2,750	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Department Acceptance (SS 460.3.3.2) *Not eligible for incentive
0010	3' Shoulder/Side Roads	117+19 - 327+50	Lower Layer	Milled Existing HMA Surface	4 MT 58-28 S	2,750	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Department Acceptance (SS 460.3.3.2) *Not eligible for incentive
0010	Various		Culvert Patches	Base Aggregate	Asphaltic Surface	232	6"	(SS 465)	Ordinary Compaction (SS 450.3.2.6.2)
0010	Various		Curb Ramp Patches	Base Aggregate	Asphaltic Surface	14	5.5"	(SS 465)	Ordinary Compaction (SS 450.3.2.6.2)
0010	Various		Distressed Pavement	Base Aggregate	Asphaltic Surface	540	2"	(SS 465)	Ordinary Compaction (SS 450.3.2.6.2)
0020	Parking Lane	107+18 - 116+55	Upper Layer	4 MT 58-28 S	4 MT 58-28 H	140	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Department Acceptance (SS 460.3.3.2) *Not eligible for incentive
0020	Parking Lane	107+18 - 116+55	Lower Layer	Milled Existing HMA Surface	4 MT 58-28 S	140	1.75"	PWL Incentive Air Voids HMA Pavement 460.2010	Department Acceptance (SS 460.3.3.2) *Not eligible for incentive

3

CULVERT PIPE SUMMARY

STATION	LOCATION	522.0424 CULVERT PIPE REINFORCED CONCRETE CLASS IV 24-INCH	522.1024 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 24-INCH	522.2429 CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL CLASS HE-IV 29X45-INCH	522.2629 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL 29X45-INCH	633.5200 MARKERS CULVERT END	650.6000 CONSTRUCTION STAKING PIPE CULVERTS
		LF	EACH	LF	EACH	EACH	EACH
CATEGORY CODE 0010							
62+69.18	STH67	--	--	86	2	2	1
85+37.16	STH67	48	2	--	--	2	1
285+70.00	STH67	56	2	--	--	2	1
TOTALS		104	4	86	2	6	3

CONCRETE CURB AND GUTTER ITEMS

STATION - STATION	LOCATION	601.0411 CONCRETE CURB & GUTTER 30-INCH TYPE D	601.0600 CONCRETE CURB PEDESTRIAN	650.5500 CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER	COMMENTS
		LF	LF	LF	
CATEGORY CODE 0010					
107+03 - 107+18	RT	13	--	13	CURB RAMP REPLACEMENT
107+52 - 107+74	RT	22	22	22	CURB RAMP REPLACEMENT
107+51 - 107+71	LT	29	--	29	CURB RAMP REPLACEMENT
113+03 - 113+39	RT	36	--	36	CURB RAMP REPLACEMENT
113+06 - 113+30	LT	33	--	33	CURB RAMP REPLACEMENT
114+13 - 114+18	LT	13	--	13	CURB RAMP REPLACEMENT
UNDISTRIBUTED		30	--	30	CURB & GUTTER REPLACEMENTS
TOTALS		176	22	176	

3

CONCRETE SIDEWALK ITEMS

STATION - STATION	LOCATION	602.0410 CONCRETE SIDEWALK 5-INCH	602.0515 CURB RAMP DETECTABLE WARNING FIELD NATURAL PATINA	COMMENTS
		SF	SF	
CATEGORY CODE 0010				
107+03 - 107+18	RT	94	--	CURB RAMP REPLACEMENT
107+51 - 107+71	LT	304	10	CURB RAMP REPLACEMENT
107+52 - 107+74	RT	176	10	CURB RAMP REPLACEMENT
113+03 - 113+39	RT	114	10	CURB RAMP REPLACEMENT
113+06 - 113+30	LT	660	20	CURB RAMP REPLACEMENT
114+13 - 114+18	LT	62	10	CURB RAMP REPLACEMENT
TOTALS		1,410	60	

ADJUSTING INLET COVERS

STATION	LOCATION	611.8115 EACH
CATEGORY CODE 0010		
121+57	LT	1
154+83	RT	1
TOTAL		2

3

GRADING SHAPING FINISHING ITEMS

STATION - STATION	LOCATION	614.0010 BARRIER SYSTEM GRADING SHAPING FINISHING EACH	SPV.0060.01 GRADING SHAPING AND FINISHING CURB RAMPS EACH	* CUT CY	* UNEXPANDED FILL CY	* BORROW CY	* SALVAGED TOPSOIL SY	* EROSION MAT URBAN CLASS I TYPE A SY	* EROSION MAT URBAN CLASS I TYPE B SY	* FERTILIZER TYPE B CWT	* SEED MIX NO. 30 LB	* SEED MIX NO. 40 LB	* SEED WATER MGAL	COMMENTS
CATEGORY CODE 0010														
92+13 - 97+38	RT	1	--	--	83	103	787	--	786	0.09	35	--	17.5	GUARDRAIL REPLACEMENT
92+92 - 97+92	LT	1	--	5	100	120	863	--	864	0.01	39	--	19.3	GUARDRAIL REPLACEMENT
107+21 - 107+71	LT	--	1	8	--	--	83	83	--	0.04	--	4	1.8	CURB RAMP REPLACEMENT
113+06 - 113+30	LT	--	1	16	--	--	69	69	--	0.04	--	3	1.4	CURB RAMP REPLACEMENT
113+03 - 113+39	RT	--	1	11	--	--	28	28	--	0.01	--	1	0.6	CURB RAMP REPLACEMENT
114+13 - 114+18	LT	--	1	2	--	--	15	15	--	0.01	--	1	0.4	CURB RAMP REPLACEMENT
TOTALS		2	4	42	183	223	1,845	195	1,650	0.20	74	9	41.0	

* NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY, ITEMS INCIDENTAL TO "BARRIER SYSTEM GRADING SHAPING FINISHING" & "GRADING SHAPING AND FINISHING CURB RAMPS"
DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A BODY OF WATER OR WETLAND

STEEL PLATE BEAM GUARD ITEMS

STATION - STATION	LOCATION	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0370 STEEL PLATE BEAM GUARD ENERGY ABSORBING TERMINAL EACH
CATEGORY CODE 0010			
93+32 - 96+19	RT	187.5	2.0
94+11 - 96+73	LT	162.5	2.0
TOTALS		350.0	4.0

3

RESTORATION ITEMS

STATION - STATION	LOCATION	625.0500 SALVAGED TOPSOIL SY	628.2008 EROSION MAT URBAN CLASS I TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0500 SEED WATER MGAL	COMMENTS
CATEGORY CODE 0010							
62+35 - 63+03	LT & RT	292	292	0.1	13	7	CULVERT REPLACEMENT
85+05 - 85+69	LT & RT	114	114	--	5	3	CULVERT REPLACEMENT
285+38 - 286+02	LT & RT	147	147	0.1	7	3	CULVERT REPLACEMENT
UNDISTRIBUTED		137	137	0.1	6	2	
TOTALS		690	690	0.3	31.0	15	

NOTES: DO NOT APPLY FERTILIZER WITHIN 20 FEET OF A BODY OF WATER OR WETLAND

EROSION CONTROL ITEMS

STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7570 ROCK BAGS EACH	COMMENTS
CATEGORY CODE 0010										
62+69	LT & RT	--	--	--	--	--	12	7	--	CULVERT REPLACEMENT
85+37	LT & RT	--	--	--	--	--	--	3	--	CULVERT REPLACEMENT
93+23 - 97+02	RT	455	455	--	--	--	--	--	51	GUARDRAIL REPLACEMENT
93+24 - 97+12	LT	447	447	--	--	--	--	--	68	GUARDRAIL REPLACEMENT
107+00 - 121+57	LT & RT	--	--	--	--	12	--	--	--	ASHIPPUN STORM SEWER
152+25 - 164+00	LT & RT	--	--	--	--	14	--	--	--	OLD ASHIPPUN STORM SEWER
285+70	LT & RT	--	--	--	--	--	--	3	--	CULVERT REPLACEMENT
UNDISTRIBUTED		228	228	3	2	7	33	3	31	--
TOTALS		1,130	1,130	3	2	33	45	16	150	

3

3

SIGNING ITEMS

EXISTING STATION	EXISTING LOCATION	PROPOSED STATION	PROPOSED LOCATION	ROADWAY	634.0614	634.0616	638.2102	638.3000	638.4000	COMMENTS
					POSTS WOOD 4X6X14 EACH	POSTS WOOD 4X6X16 EACH	MOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH	MOVING SMALL SIGN SUPPORTS EACH	
CATEGORY CODE 0010										
112+00	RT	113+65	RT	STH 67	1	--	1	1	--	RAILROAD CROSSING SIGN
113+05	RT	113+00	RT	STH 67	--	1	1	1	--	ROUTE MARKER SIGNS
122+75	LT	120+07	LT	STH 67	1	--	1	1	--	RAILROAD CROSSING SIGN
113+16	LT	113+25	LT	OAK ST	1	--	1	1	--	ROCK RIVER TRAIL SIGNS
113+22	LT	113+25	LT	OAK ST	1	--	1	1	--	STOP SIGN
114+19	LT	114+24	LT	OAK ST	--	--	1	--	1	STREET NAME SIGNS & POST
TOTALS					4	1	6	5	1	

TRAFFIC CONTROL ITEMS

CATEGORY CODE 0010	NUMBER OF DAYS IN SERVICE	643.0300* TRAFFIC CONTROL DRUMS		643.0420 TRAFFIC CONTROL BARRICADES TYPE III		643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A		643.0900* TRAFFIC CONTROL SIGNS		643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I			643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II			643.1050 TRAFFIC CONTROL SIGNS PCMS		
		NO. REQ'D	TOTAL DAY	NO. REQ'D	TOTAL DAY	NO. REQ'D	TOTAL DAY	NO. REQ'D	TOTAL DAY	NO.	NO.	TOTAL EACH	NO.	NO.	TOTAL EACH	NO.	NO.	TOTAL DAY
PROJECT 3030-05-74	60	25	1,500	44	2,640	88	5,280	59	3,540	--	--	--	--	--	--	2	7	14
DETOUR ROUTE	60	--	--	4	240	8	480	269	16,140	1	4	4	1	9	9	--	--	--
62+69 - CULVERT REPLACEMENT	1	--	--	18	18	28	28	14	14	--	--	--	--	--	--	--	--	--
85+37 - CULVERT REPLACEMENTS	1	--	--	18	18	28	28	14	14	--	--	--	--	--	--	--	--	--
285+70 - CULVERT REPLACEMENTS	1	--	--	18	18	28	28	14	14	--	--	--	--	--	--	--	--	--
MILLED SURFACE SIGNS - VARIOUS LOCATIONS	17	--	--	--	--	--	--	12	204	--	--	--	--	--	--	--	--	--
UNEVEN LANE SIGNS - VARIOUS LOCATIONS	17	--	--	--	--	--	--	8	136	--	--	--	--	--	--	--	--	--
TOTALS			1,500	2,934		5,844		20,062		4		9		14				

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS.

TEMPORARY PEDESTRIAN ACCOMMODATION ITEMS

LOCATION	643.0300*	643.0900*	643.3305	644.1601	644.1605	644.1810
	TRAFFIC CONTROL DRUMS	TRAFFIC CONTROL SIGNS	TEMPORARY MARKING CROSSWALK PAINT 6-INCH LF	TEMPORARY PEDESTRIAN CURB RAMP DAY	TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF	TEMPORARY PEDESTRIAN BARRICADE LF
CATEGORY CODE 0010						
STH 67 / LINCOLN ROAD INTERSECTION	264	172	200	38	40	114
STH 67 / OAK STREET INTERSECTION	444	24	--	--	--	132
TOTALS		708	196	200	38	246

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE IN PLANS.

3

PAVEMENT MARKING ITEMS

STATION - STATION	LOCATION	643.3165	646.1020	646.2040	646.4040	646.5320	646.6120	646.7420	COMMENTS
		TEMPORARY MARKING LINE PAINT 6-INCH YELLOW	MARKING LINE EPOXY 4-INCH YELLOW	MARKING LINE GROOVED 6-INCH WHITE	MARKING LINE GROOVED 10-INCH WHITE	MARKING RAILROAD CROSSING EPOXY WHITE	MARKING STOP LINE EPOXY 18-INCH WHITE	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH WHITE	
CATEGORY CODE 0010									
54+28 - 116+55	STH 67	5,855	--	--	--	--	--	--	ON MILLED SURFACE
117+19 - 327+50	STH 67	20,445	--	--	--	--	--	--	ON MILLED SURFACE
54+28 - 116+55	STH 67	5,855	--	--	--	--	--	--	ON LOWER LAYER
117+19 - 327+50	STH 67	20,445	--	--	--	--	--	--	ON LOWER LAYER
54+28 - 116+55	STH 67	5,855	--	9,822	6,569	--	1	--	ON FINAL SURFACE
117+19 - 327+50	STH 67	20,445	--	34,896	23,003	1,410	1	--	ON FINAL SURFACE
	OAK STREET	--	124	--	--	--	--	37	ON FINAL SURFACE
	CTH O	--	68	--	--	--	--	--	ON FINAL SURFACE
	CTH EE	--	75	--	--	--	--	--	ON FINAL SURFACE
	CTH MM	--	70	--	--	--	--	--	ON FINAL SURFACE
				44,718	29,572				
TOTALS		78,900	337	74,290	1,410	2	37	344	

GEOGRID TYPE SR

STATION	LOCATION	645.0220 SY
CATEGORY CODE 0010		
62+35 - 63+03	LT & RT	270
85+05 - 85+69	LT & RT	258
285+38 - 286+02	LT & RT	258
TOTAL		786

3

VERIFY LANDMARK REFERENCE MONUMENTS

STATION	OFFSEET	TOWNSHIP	RANGE	SECTION CORNER	SPV.0060.02 EACH
CATEGORY CODE 0010					
215+17	53.6' RT	T9N	R17E	SOUTHEAST CORNER SECTION 18	1
244+41	1.0' RT	T9N	R17E	EAST QUARTER CORNER SECTION 18	1
270+85	0.3' RT	T9N	R17E	SOUTHEAST CORNER SECTION 7	1
297+33	0.2' RT	T9N	R17E	EAST QUARTER CORNER SECTION 7	1
323+77	0.0'	T9N	R17E	SOUTHEAST CORNER SECTION 6	1
TOTAL					5

CONSTRUCTION STAKING ITEMS

STATION - STATION	LOCATION	650.8000	650.9000	650.9500	650.9911
		CONSTRUCTION STAKING RESURFACING REFERENCE LF	CONSTRUCTION STAKING CURB RAMPS EACH	CONSTRUCTION STAKING SIDEWALK EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL EACH
CATEGORY CODE 0010					
01. PROJECT 3030-05-74		--	6	1	1
54+28 - 116+55	LT & RT	6,248	--	--	--
117+19 - 327+50	LT & RT	20,785	--	--	--
TOTALS		27,033	6	1	1

STAKING ITEMS FOR CURB & GUTTER AND PIPE CULVERTS SHOWN ELSEWHERE IN PLANS.

SAWING PAVEMENT ITEMS

STATION - STATION	LOCATION	690.0150	690.0250	COMMENTS
		SAWING ASPHALT LF	SAWING CONCRETE LF	
CATEGORY CODE 0010				
62+35 - 63+03	LT & RT	60	36	CULVERT REPLACEMENT
85+05 - 85+69	LT & RT	60	36	CULVERT REPLACEMENT
107+03 - 107+18	RT	33	5	CURB RAMP REPLACEMENT
107+51 - 107+71	LT	37	11	CURB RAMP REPLACEMENT
107+52 - 107+74	RT	26	44	CURB RAMP REPLACEMENT
113+03 - 113+39	RT	40	5	CURB RAMP REPLACEMENT
113+06 - 113+30	LT	41	42	CURB RAMP REPLACEMENT
114+13 - 114+18	LT	18	5	CURB RAMP REPLACEMENT
285+33 - 286+02	LT & RT	60	36	CULVERT REPLACEMENT
UNDISTRIBUTED		59	20	CURB & GUTTER REPLACEMENTS
TOTALS		434	240	

ADJUSTING SANITARY MANHOLE COVERS

STATION	LOCATION	SPV.0060.03 EACH
CATEGORY CODE 0030		
107+12	RT	1
112+94	RT	1
152+00	RT	1
TOTAL		3

TRANSPORTATION PROJECT PLAT NO: 3030-05-24 - 4.01

THAT PART OF RE-SURVEY & RE-PLAT OF ASHIPGUN LUMBER & FUEL CO. ADDITION, AND PART OF THE SW1/4-SW1/4 OF SECTION 29, T9N, R17E, TOWN OF ASHIPGUN, DODGE COUNTY, WISCONSIN

RELOCATION ORDER STH 67 OCONOMOWOC - MAYVILLE LINCOLN ROAD - ROOSEVELT ROAD DODGE COUNTY

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:

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

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DODGE 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.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING ACCESS CONTROL FOR STH 67 ESTABLISHED FROM CONTROLLED ACCESS PROJECT 3030-00-29.

EXISTING RIGHT-OF-WAY FOR STH 67 ESTABLISHED FROM PREVIOUS PROJECTS 3031-00-21, RE-SURVEY & RE-PLAT OF ASHIPGUN LUMBER & FUEL CO. ADDITION, AND WISCONSIN TOWN LOT COMPANY PLAT OF BLOCKS 5 & 6, ASHIPGUN.

EXISTING RIGHT-OF-WAY FOR LINCOLN ROAD ESTABLISHED FROM PREVIOUS PROJECT 3031-00-21, PLAT OF SURVEY 29-09-17-27, CSM #1342, RE-SURVEY & RE-PLAT OF ASHIPGUN LUMBER & FUEL CO. ADDITION, AND WISCONSIN TOWN LOT COMPANY PLAT OF BLOCKS 5 & 6, ASHIPGUN.

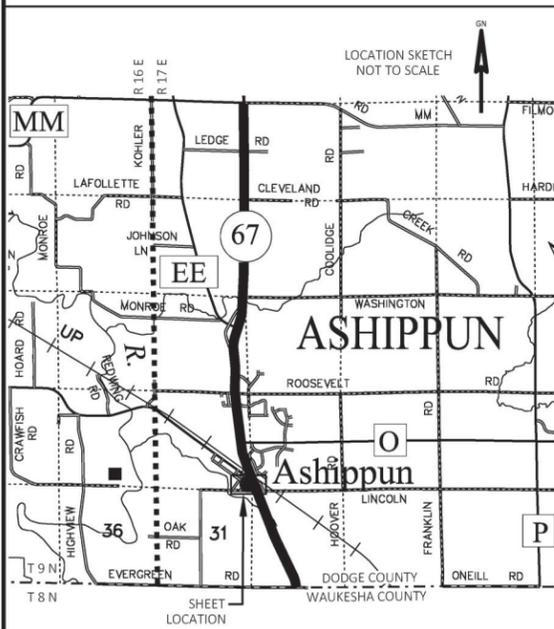
EXISTING RIGHT-OF-WAY FOR ELM STREET ESTABLISHED FROM CSM #1342 AND WISCONSIN TOWN LOT COMPANY PLAT OF BLOCKS 5 & 6, ASHIPGUN.

EXISTING RIGHT-OF-WAY FOR HIGHLAND AVENUE ESTABLISHED FROM PREVIOUS PROJECT 3031-00-21 AND RE-SURVEY & RE-PLAT OF ASHIPGUN LUMBER & FUEL CO. ADDITION.

EXISTING RIGHT-OF-WAY FOR OAK STREET ESTABLISHED FROM PREVIOUS PROJECT 3031-00-21 AND WISCONSIN TOWN LOT COMPANY PLAT OF BLOCKS 5 & 6, ASHIPGUN.

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED AS SHEET 2 OF 2.



I, JAY W. PANETTI, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF THE DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 3030-05-24 - 4.01 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

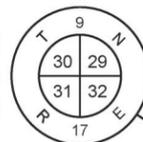
SIGNATURE: *JWP* DATE: 11/3/2023
 PRINT NAME: JAY W. PANETTI
 REGISTRATION NUMBER: S-2747



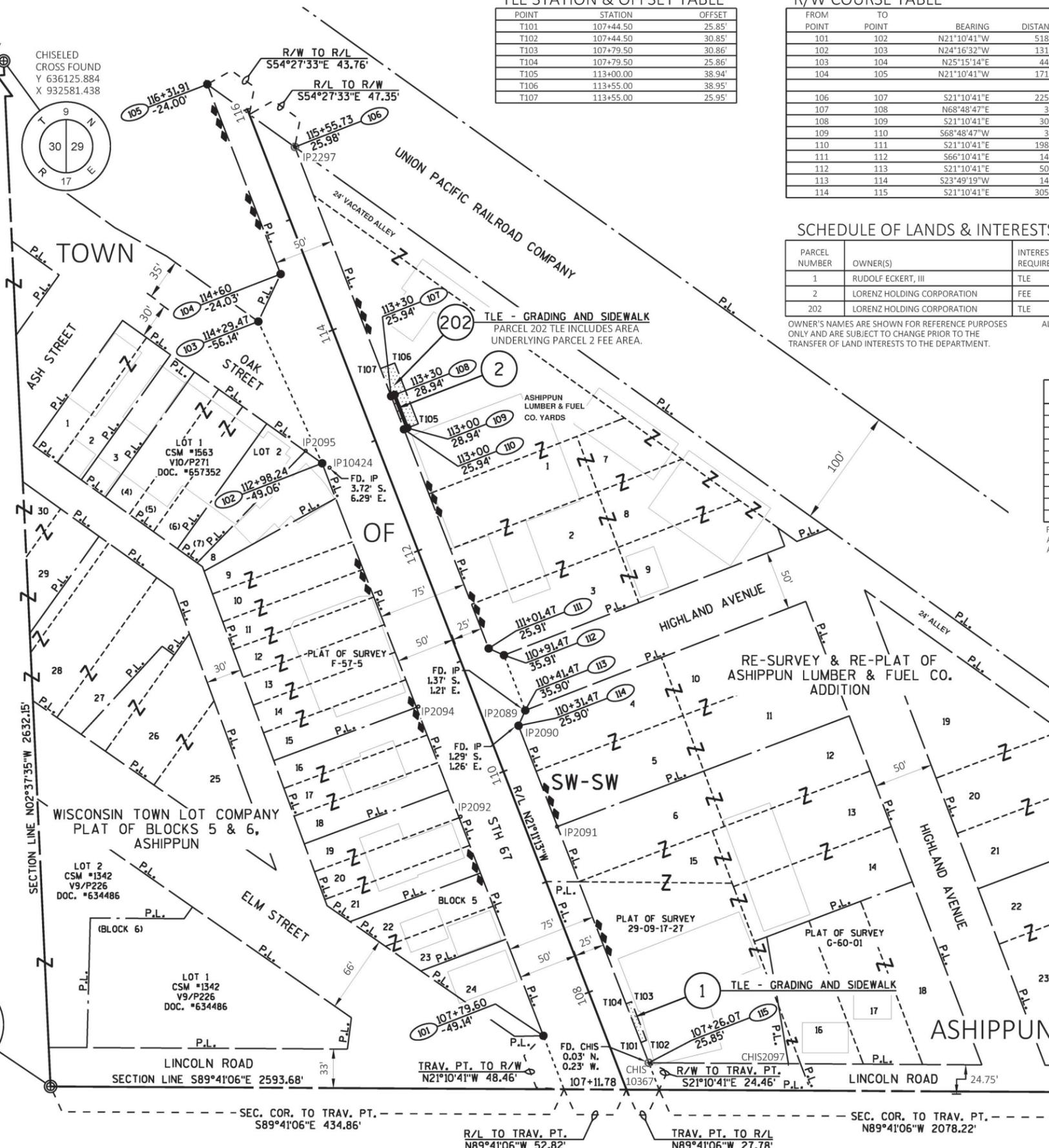
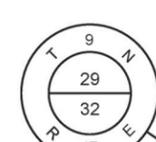
THIS PLAT AND RELOCATION ORDER ARE APPROVED FOR THE WISCONSIN DEPARTMENT OF TRANSPORTATION

SIGNATURE: *Cory Schlager* DATE: 11/3/2023
 PRINT NAME: Cory Schlager

MAG NAIL WITH DODGE COUNTY SHINER FOUND
 Y 633496.504
 X 932702.055



MAG NAIL WITH DODGE COUNTY SHINER FOUND
 Y 633482.250
 X 935295.693



TLE STATION & OFFSET TABLE

POINT	STATION	OFFSET
T101	107+44.50	25.85'
T102	107+44.50	30.85'
T103	107+79.50	30.86'
T104	107+79.50	25.86'
T105	113+00.00	38.94'
T106	113+55.00	38.95'
T107	113+55.00	25.95'

R/W COURSE TABLE

FROM POINT	TO POINT	BEARING	DISTANCE
101	102	N21°10'41"W	518.64'
102	103	N24°16'32"W	131.42'
103	104	N25°15'14"E	44.31'
104	105	N21°10'41"W	171.90'
106	107	S21°10'41"E	225.72'
107	108	N68°48'47"E	3.00'
108	109	S21°10'41"E	30.00'
109	110	S68°48'47"W	3.00'
110	111	S21°10'41"E	198.53'
111	112	S66°10'41"E	14.14'
112	113	S21°10'41"E	50.00'
113	114	S23°49'19"W	14.14'
114	115	S21°10'41"E	305.41'

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER(S)	INTEREST(S) REQUIRED	R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F.
			NEW	EXISTING	TOTAL	
1	RUDOLF ECKERT, III	TLE	0	0	0	175
2	LORENZ HOLDING CORPORATION	FEE	90	0	90	0
202	LORENZ HOLDING CORPORATION	TLE	0	0	0	715

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT. ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED.

FOUND MONUMENT TABLE

POINT NUMBER	Y	X	DESCRIPTION
2089	633812.827	933105.254	1" IRON PIPE
2090	633799.971	933099.593	1" IRON PIPE
2091	633715.995	933131.004	3/4" IRON REBAR
2092	633724.421	933049.246	1" IRON PIPE
2094	633817.312	933013.443	1" IRON PIPE
2095	634033.396	932918.054	1" IRON PIPE
2097	633515.783	933326.872	CHISELED CROSS
2297	634290.086	932908.936	3/4" IRON REBAR
10367	633516.508	933208.438	CHISELED CROSS
10424	634019.190	932938.317	1" IRON PIPE

FOUND MONUMENT INFORMATION SHOWN REPRESENTS TYPE AND LOCATION OF EXISTING MONUMENTS WITHOUT OPINION AS TO THEIR VALIDITY AND USE AS A PROPERTY CORNER.



STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION TRANSPORTATION PROJECT PLAT TITLE SHEET 3030-05-24 OCONOMOWOC - MAYVILLE LINCOLN ROAD - ROOSEVELT ROAD STH 67 DODGE COUNTY



CONVENTIONAL SYMBOLS

SECTION LINE	---	SECTION CORNER SYMBOL		R/W MONUMENT (TO BE SET)	●
QUARTER LINE	---	SECTION CORNER MONUMENT		NON-MONUMENTED R/W POINT	○
SIXTEENTH LINE	---	GEODETIC SURVEY MONUMENT		FOUND IRON PIN (1-INCH UNLESS NOTED)	IP
NEW REFERENCE LINE	---	SIXTEENTH CORNER MONUMENT		FOUND CHISELED CROSS	CHIS
NEW R/W LINE	---	SIGN		OFF-PREMISE SIGN	
EXISTING R/W OR HE LINE	---	ELECTRIC POLE		TELEPHONE POLE	
PROPERTY LINE	---	PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)		ACCESS RESTRICTED BY ACQUISITION	
LOT, TIE & OTHER MINOR LINES	---	NO ACCESS (BY STATUTORY AUTHORITY)		NO ACCESS (BY PREVIOUS PROJECT OR CONTROL)	
NO ACCESS (NEW HIGHWAY)		PARCEL NUMBER		UTILITY NUMBER	
NO ACCESS (NEW HIGHWAY)		PARALLEL OFFSETS			
TEMPORARY LIMITED EASEMENT AREA					
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)					
TRANSMISSION STRUCTURES					
BUILDING TO BE REMOVED					
BRIDGE					
CULVERT					

CONVENTIONAL ABBREVIATIONS

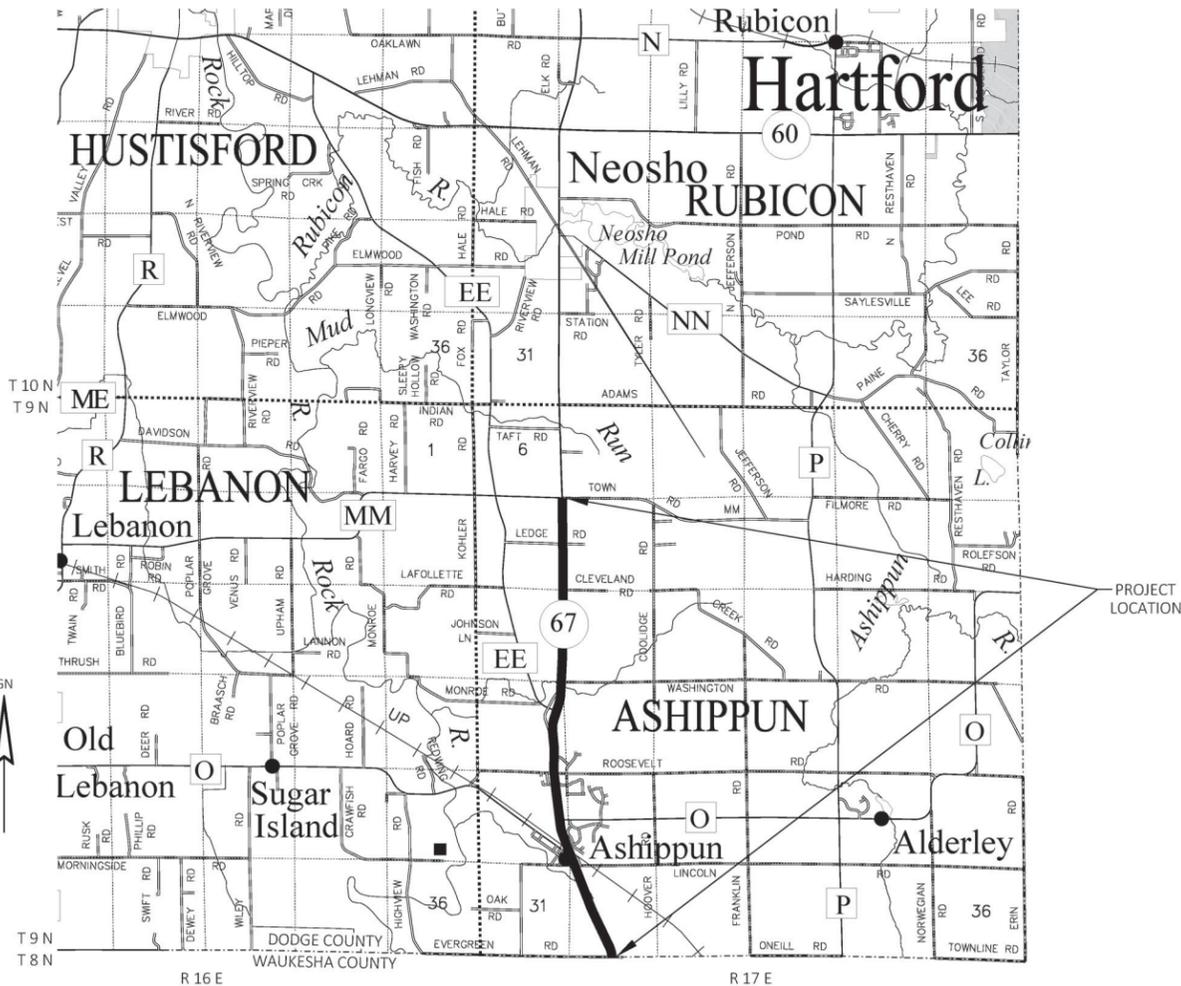
ACCESS RIGHTS	AR	POINT OF COMPOUND CURVE	PCC
ACRES	AC	POINT OF INTERSECTION	PI
AHEAD	AH	PROPERTY LINE	PL
ALUMINUM	ALUM	RECORDED AS (100')	(100')
AND OTHERS	ET AL	REEL / IMAGE	R/I
BACK	BK	REFERENCE LINE	R/L
BLOCK	BLK	REMAINING	REM
CENTERLINE	C/L	RESTRICTIVE DEVELOPMENT	RDE
CERTIFIED SURVEY MAP	CSM	EASEMENT	
CONCRETE	CONC	RIGHT	RT
COUNTY	CO	RIGHT OF WAY	R/W
COUNTY TRUNK HIGHWAY	CTH	SECTION	SEC
DISTANCE	DIST	SEPTIC VENT	SEPV
CORNER	COR	SQUARE FEET	SF
DOCUMENT NUMBER	DOC	STATE TRUNK HIGHWAY	STH
EASEMENT	EASE	STATION	STA
EXISTING	EX	TELEPHONE PEDESTAL	TP
GAS VALVE	GV	TEMPORARY LIMITED	TLE
GRID NORTH	GN	EASEMENT	
HIGHWAY EASEMENT	HE	TRANSPORTATION PROJECT PLAT	TPP
IDENTIFICATION	ID	UNITED STATES HIGHWAY	USH
LAND CONTRACT	LC	VOLUME	V
LEFT	LT		
MONUMENT	MON		
NATIONAL GEODETIC SURVEY	NGS		
NUMBER	NO		
OUTLOT	OL		
PAGE	P		
POINT OF TANGENCY	PT		
PERMANENT LIMITED EASEMENT	PLE		
POINT OF BEGINNING	POB		
POINT OF CURVATURE	PC		

CURVE DATA ABBREVIATIONS

LONG CHORD	LCH
LONG CHORD BEARING	LCB
RADIUS	R
DEGREE OF CURVE	D
CENTRAL ANGLE	Δ/DELTA
LENGTH OF CURVE	L
TANGENT	T
DIRECTION AHEAD	DA
DIRECTION BACK	DB

CONVENTIONAL UTILITY SYMBOLS

WATER	—W—
GAS	—G—
TELEPHONE	—T—
OVERHEAD TRANSMISSION LINES	—OH—
ELECTRIC	—E—
CABLE TELEVISION	—TV—
FIBER OPTIC	—FO—
SANITARY SEWER	—SAN—
STORM SEWER	—SS—
ELECTRIC TOWER	⊠



THE NOTES, CONVENTIONAL SIGNS, AND ABBREVIATIONS ARE ASSOCIATED WITH EACH TRANSPORTATION PROJECT PLAT FOR PROJECT 3030-05-24

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), DODGE 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.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 3/4" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES.

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

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

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

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

FOR THE CURRENT ACCESS/DRIVEWAY INFORMATION, CONTACT THE PLANNING UNIT OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION OFFICE IN MADISON.

PARCEL AND UTILITY IDENTIFICATION NUMBERS MAY NOT POINT TO ALL AREAS OF ACQUISITION, AS NOTED ON THE TPP DETAIL PAGES.

INFORMATION FOR THE BASIS OF EXISTING HIGHWAY RIGHT-OF-WAY POINTS OF REFERENCE AND ACCESS CONTROL ARE LISTED ON THE TPP DETAIL PAGES.

PROJECT NUMBER 3030-05-24 -4.01
SHEET 2 OF 2

SURVEY CONTROL TABLE				
POINT #	POINT NAME	Y	X	ELEVATION
1	CP - 1" IP WITH RED CAP	629327.525	934936.289	888.18
2	CP - 1" IP WITH RED CAP	629540.112	934785.721	889.28
900	NGS OM1385	628266.671	935392.912	894.84

PI STA = 49+19.79
 Y = 628138.575
 X = 935422.493
 DELTA = 24°04'53"
 D = 2°15'00"
 T = 543.16'
 L = 1070.29'
 R = 2546.48'
 PC STA = 43+76.63
 Y = 627598.565
 X = 935364.034
 PT STA = 54+46.92
 Y = 628655.438
 X = 935255.521
 SE = 4.8% (EXISTING)

PI STA = 56+44.04
 Y = 628843.016
 X = 935194.924
 DELTA = 7°52'21"
 D = 2°00'00"
 T = 197.12'
 L = 393.63'
 R = 2864.79'
 PC STA = 54+46.92
 Y = 628655.438
 X = 935255.521
 PT STA = 58+40.55
 Y = 629020.526
 X = 935109.206
 SE = 4.5% (EXISTING)

BEGIN PROJECT
 STA 54+28.00
 Y=628,637.413
 X=935,261.270
 MATCH EXISTING
 BUTT JOINT REQ'D

BENCH MARKS

BM	DESCRIPTION	ELEVATION
A	TOP OF PIPE, SOUTH END OF 18" RCCP UNDER DRIVEWAY TO HOUSE #N115, WEST SIDE OF STH 67	890.82
B	MAG NAIL IN "NO PASSING ZONE" SIGN, WEST SIDE OF STH 67	865.15

**VERTICAL DATUM REFERENCED TO NAVD 88 (2012).



WAUKESHA COUNTY
 DODGE COUNTY

5

5



62+69.18; 26.0 LT; EL=882.60
 62+69.18; 60.0 RT; EL=881.91
 86 LF OF CPRCHE CLASS HE-IV 29X45-INCH REQ'D
 2 - APRON ENDWALLS REQ'D

LEGEND

☒☒☒ REMOVING DISTRESSED PAVEMENT MILLING

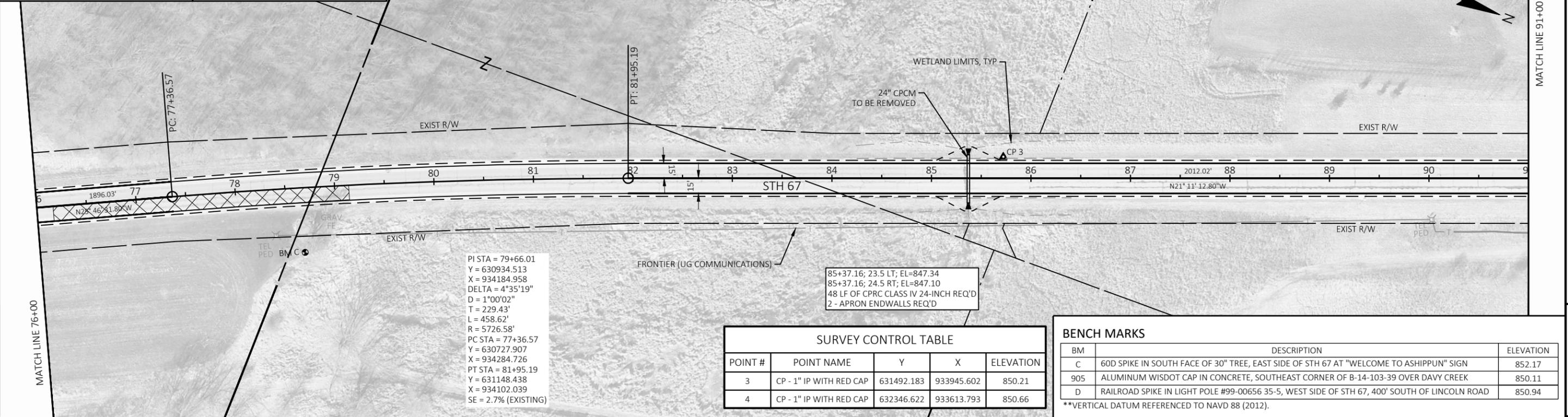
NOTES

REMOVING DISTRESSED PAVEMENT MILLING LOCATIONS APPROXIMATE, FINAL LOCATIONS TO BE DETERMINED BY ENGINEER.

PROJECT NO: 3030-05-74	HWY: STH 67	COUNTY: DODGE	PLAN: STH 67	SHEET 55
------------------------	-------------	---------------	--------------	----------

LEGEND
 REMOVING DISTRESSED PAVEMENT MILLING

NOTES
 REMOVING DISTRESSED PAVEMENT MILLING LOCATIONS APPROXIMATE, FINAL LOCATIONS TO BE DETERMINED BY ENGINEER.



PI STA = 79+66.01
 Y = 630934.513
 X = 934184.958
 DELTA = 4°35'19"
 D = 1°00'02"
 T = 229.43'
 L = 458.62'
 R = 5726.58'
 PC STA = 77+36.57
 Y = 630727.907
 X = 934284.726
 PT STA = 81+95.19
 Y = 631148.438
 X = 934102.039
 SE = 2.7% (EXISTING)

85+37.16; 23.5 LT; EL=847.34
 85+37.16; 24.5 RT; EL=847.10
 48 LF OF CPRC CLASS IV 24-INCH REQ'D
 2 - APRON ENDWALLS REQ'D

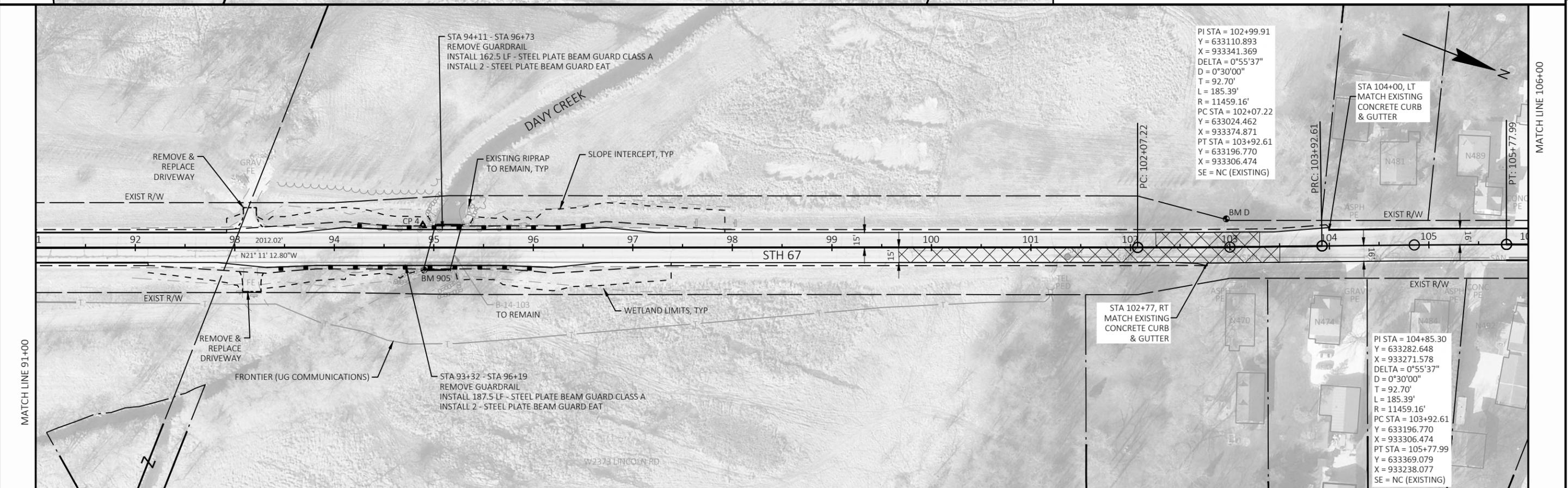
SURVEY CONTROL TABLE

POINT #	POINT NAME	Y	X	ELEVATION
3	CP - 1" IP WITH RED CAP	631492.183	933945.602	850.21
4	CP - 1" IP WITH RED CAP	632346.622	933613.793	850.66

BENCH MARKS

BM	DESCRIPTION	ELEVATION
C	60D SPIKE IN SOUTH FACE OF 30" TREE, EAST SIDE OF STH 67 AT "WELCOME TO ASHIPUN" SIGN	852.17
905	ALUMINUM WISDOT CAP IN CONCRETE, SOUTHEAST CORNER OF B-14-103-39 OVER DAVY CREEK	850.11
D	RAILROAD SPIKE IN LIGHT POLE #99-00656 35-5, WEST SIDE OF STH 67, 400' SOUTH OF LINCOLN ROAD	850.94

****VERTICAL DATUM REFERENCED TO NAVD 88 (2012).**



PI STA = 102+99.91
 Y = 633110.893
 X = 933341.369
 DELTA = 0°55'37"
 D = 0°30'00"
 T = 92.70'
 L = 185.39'
 R = 11459.16'
 PC STA = 102+07.22
 Y = 633024.462
 X = 933374.871
 PT STA = 103+92.61
 Y = 633196.770
 X = 933306.474
 SE = NC (EXISTING)

PI STA = 104+85.30
 Y = 633282.648
 X = 933271.578
 DELTA = 0°55'37"
 D = 0°30'00"
 T = 92.70'
 L = 185.39'
 R = 11459.16'
 PC STA = 103+92.61
 Y = 633196.770
 X = 933306.474
 PT STA = 105+77.99
 Y = 633369.079
 X = 933238.077
 SE = NC (EXISTING)

SURVEY CONTROL TABLE				
POINT #	POINT NAME	Y	X	ELEVATION
5	CP - 1" IP WITH RED CAP	633525.868	933155.674	854.51
6	CP - 1" IP WITH RED CAP	634019.161	932953.877	856.63

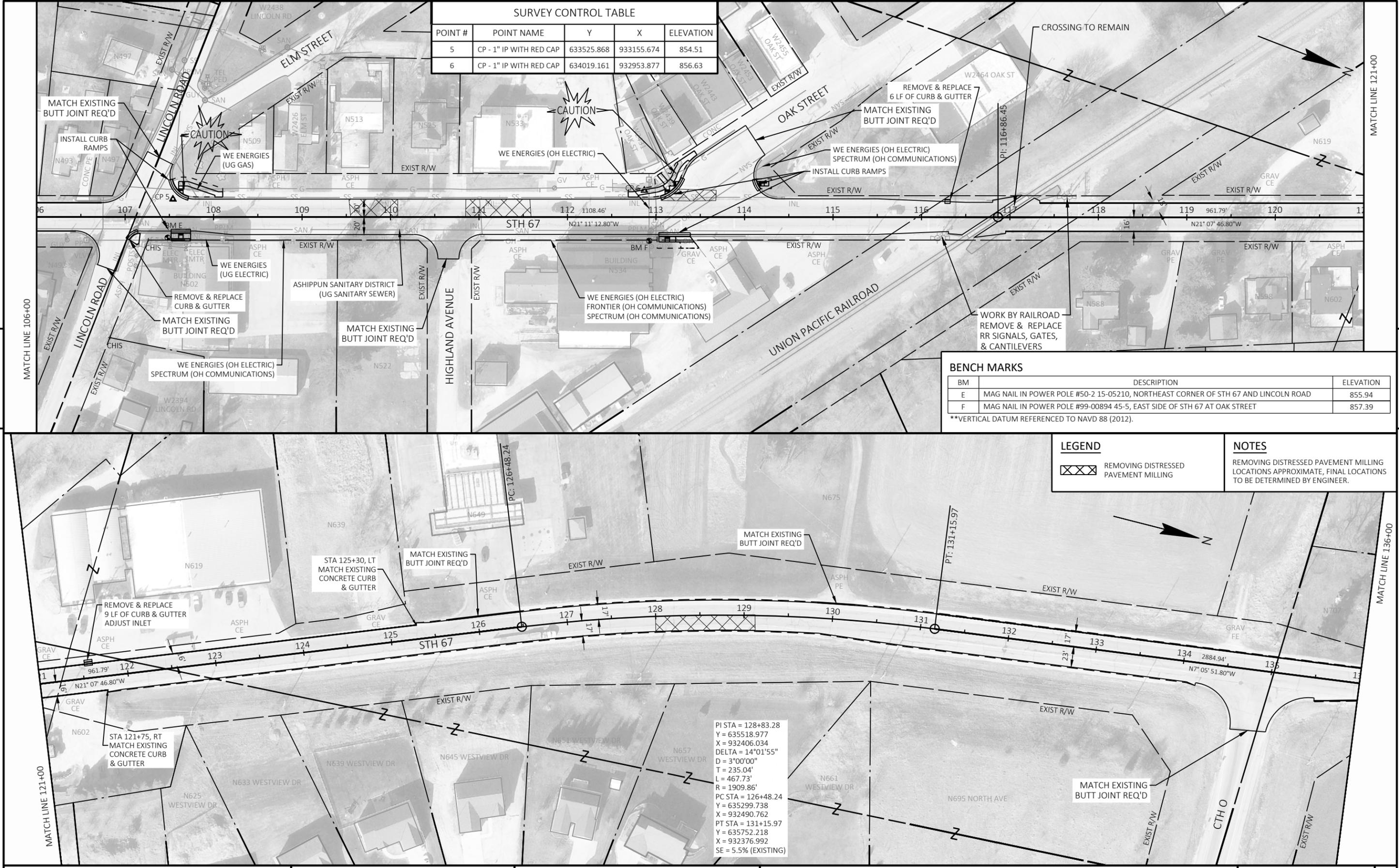
BENCH MARKS		
BM	DESCRIPTION	ELEVATION
E	MAG NAIL IN POWER POLE #50-2 15-05210, NORTHEAST CORNER OF STH 67 AND LINCOLN ROAD	855.94
F	MAG NAIL IN POWER POLE #99-00894 45-5, EAST SIDE OF STH 67 AT OAK STREET	857.39

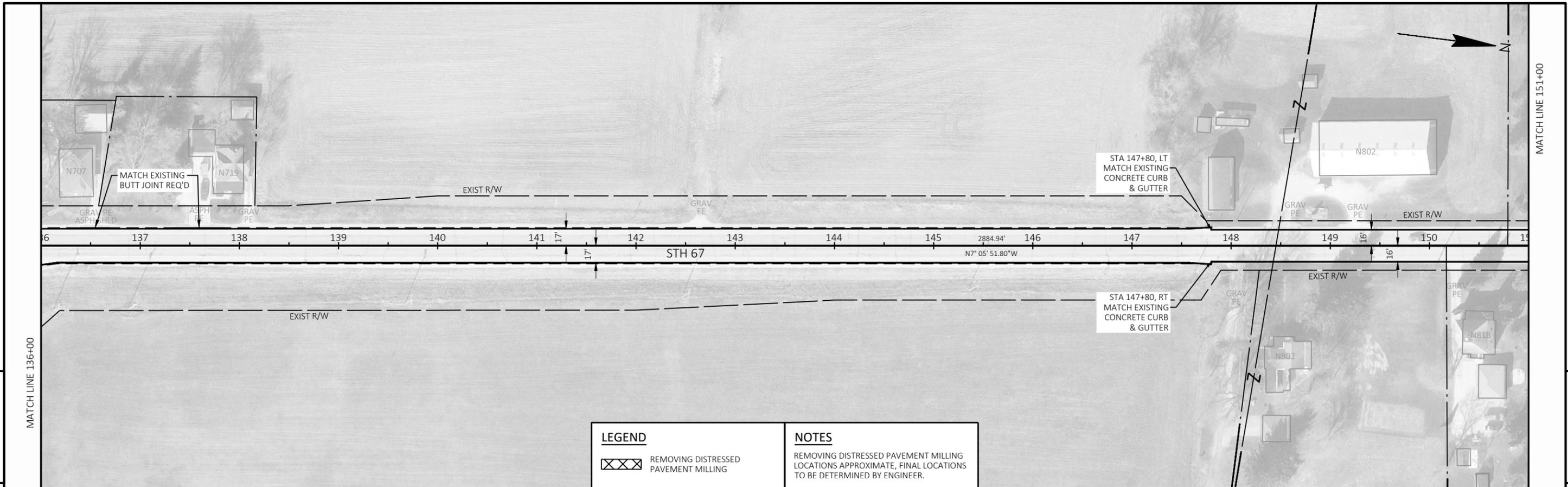
**VERTICAL DATUM REFERENCED TO NAVD 88 (2012).

LEGEND	
	REMOVING DISTRESSED PAVEMENT MILLING

NOTES
 REMOVING DISTRESSED PAVEMENT MILLING LOCATIONS APPROXIMATE, FINAL LOCATIONS TO BE DETERMINED BY ENGINEER.

PI STA = 128+83.28
 Y = 635518.977
 X = 932406.034
 DELTA = 14°01'55"
 D = 3'00"00"
 T = 235.04'
 L = 467.73'
 R = 1909.86'
 PC STA = 126+48.24
 Y = 635299.738
 X = 932490.762
 PT STA = 131+15.97
 Y = 635752.218
 X = 932376.992
 SE = 5.5% (EXISTING)

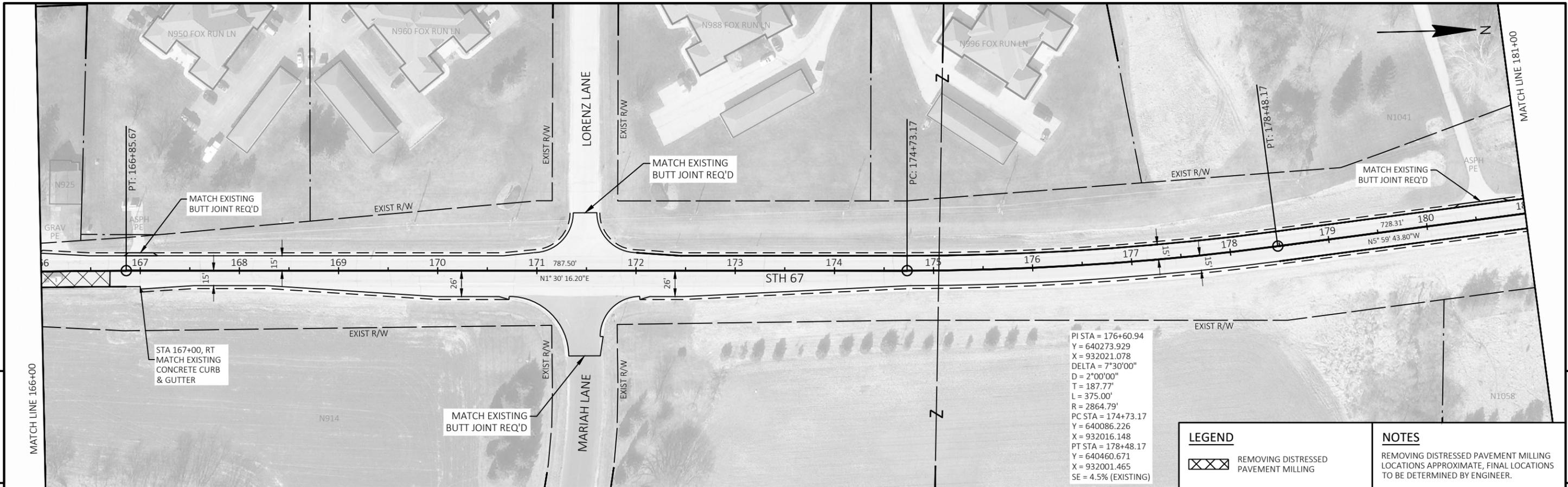




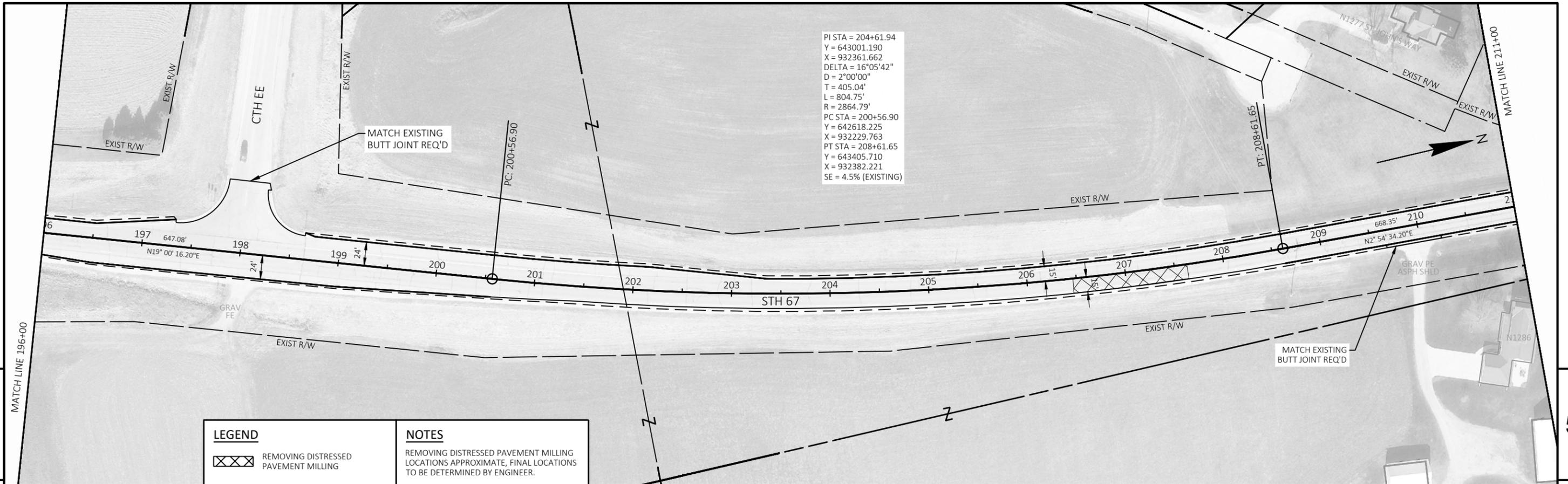
LEGEND	NOTES
 REMOVING DISTRESSED PAVEMENT MILLING	REMOVING DISTRESSED PAVEMENT MILLING LOCATIONS APPROXIMATE, FINAL LOCATIONS TO BE DETERMINED BY ENGINEER.



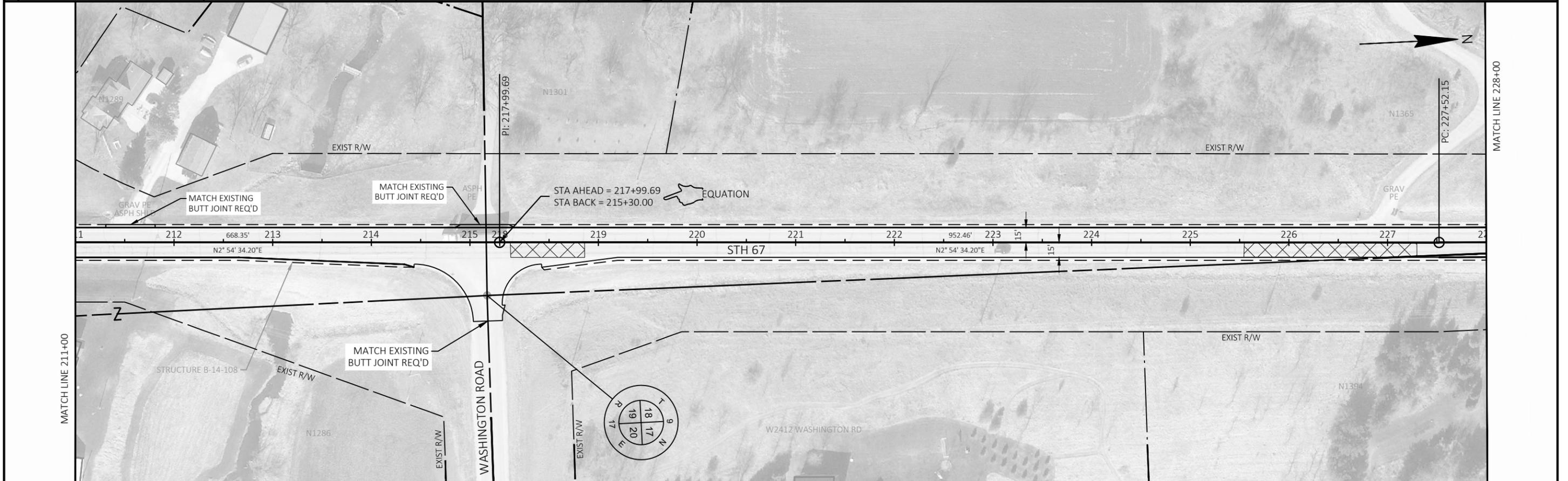
PROJECT NO: 3030-05-74	HWY: STH 67	COUNTY: DODGE	PLAN: STH 67	SHEET 58	E
------------------------	-------------	---------------	--------------	----------	---



PROJECT NO: 3030-05-74 HWY: STH 67 COUNTY: DODGE PLAN: STH 67 SHEET 59



LEGEND	NOTES
 REMOVING DISTRESSED PAVEMENT MILLING	REMOVING DISTRESSED PAVEMENT MILLING LOCATIONS APPROXIMATE, FINAL LOCATIONS TO BE DETERMINED BY ENGINEER.



PROJECT NO: 3030-05-74	HWY: STH 67	COUNTY: DODGE	PLAN: STH 67	SHEET 60
------------------------	-------------	---------------	--------------	----------



5

5



LEGEND	
	REMOVING DISTRESSED PAVEMENT MILLING

NOTES
 REMOVING DISTRESSED PAVEMENT MILLING LOCATIONS APPROXIMATE, FINAL LOCATIONS TO BE DETERMINED BY ENGINEER.

PROJECT NO: 3030-05-74	HWY: STH 67	COUNTY: DODGE	PLAN: STH 67	SHEET 61	E
------------------------	-------------	---------------	--------------	----------	----------

LEGEND
 REMOVING DISTRESSED PAVEMENT MILLING

NOTES
 REMOVING DISTRESSED PAVEMENT MILLING LOCATIONS APPROXIMATE, FINAL LOCATIONS TO BE DETERMINED BY ENGINEER.



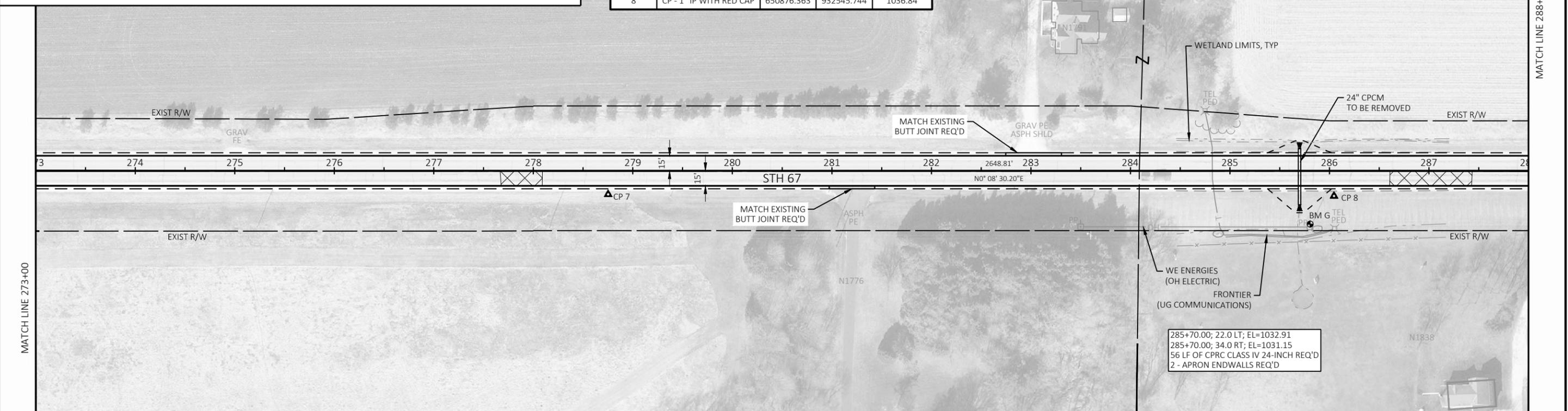
BENCH MARKS

BM	DESCRIPTION	ELEVATION
G	RAILROAD SPIKE IN POWER POLE #98-16911 40-5, EAST SIDE OF STH 67, 300' SOUTH OF DRIVEWAY TO HOUSE #N1838	1030.92

**VERTICAL DATUM REFERENCED TO NAVD 88 (2012).

SURVEY CONTROL TABLE

POINT #	POINT NAME	Y	X	ELEVATION
7	CP - 1" IP WITH RED CAP	650146.935	932542.354	1032.90
8	CP - 1" IP WITH RED CAP	650876.363	932545.744	1036.84

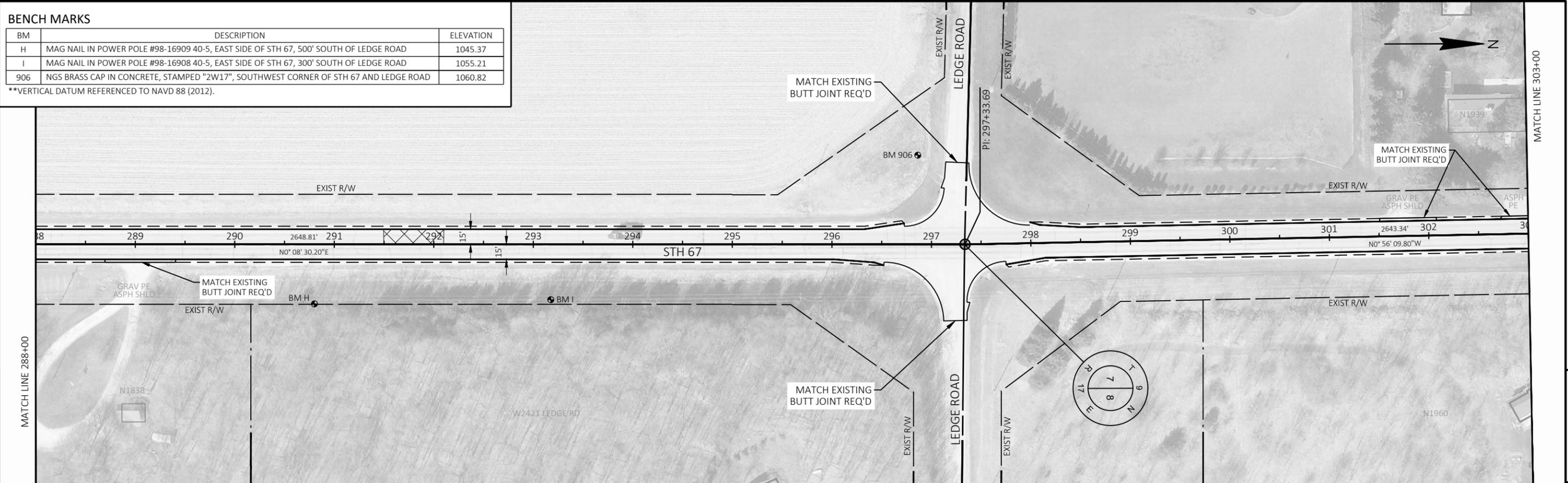


PROJECT NO: 3030-05-74 HWY: STH 67 COUNTY: DODGE PLAN: STH 67 SHEET 62

BENCH MARKS

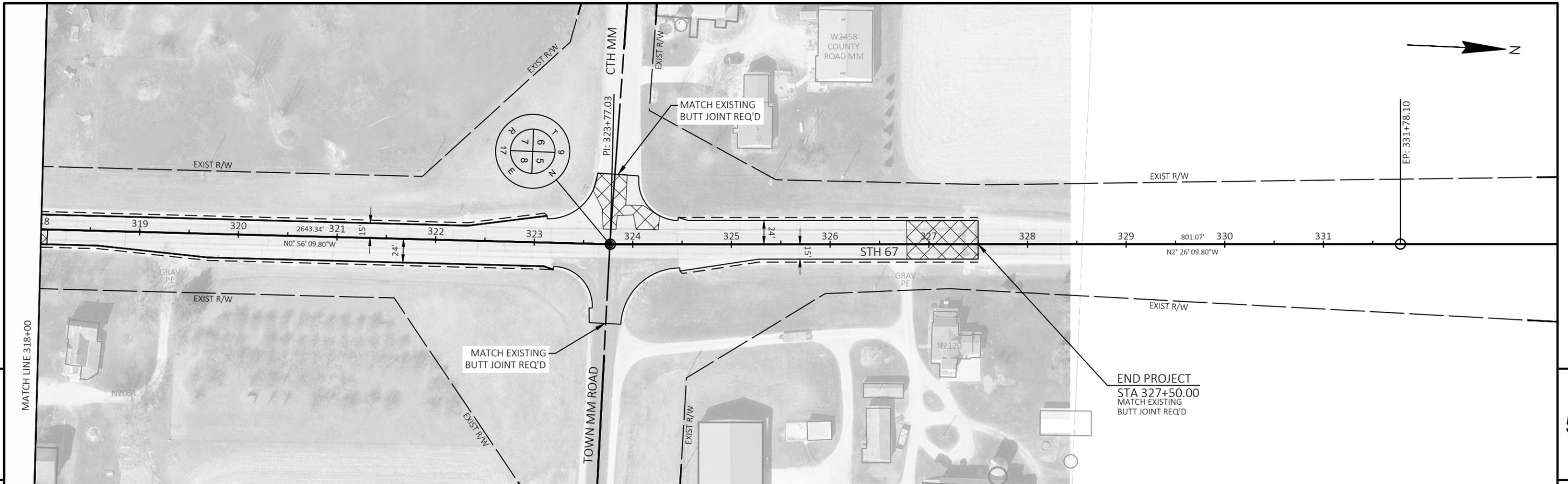
BM	DESCRIPTION	ELEVATION
H	MAG NAIL IN POWER POLE #98-16909 40-5, EAST SIDE OF STH 67, 500' SOUTH OF LEDGE ROAD	1045.37
I	MAG NAIL IN POWER POLE #98-16908 40-5, EAST SIDE OF STH 67, 300' SOUTH OF LEDGE ROAD	1055.21
906	NGS BRASS CAP IN CONCRETE, STAMPED "2W17", SOUTHWEST CORNER OF STH 67 AND LEDGE ROAD	1060.82

**VERTICAL DATUM REFERENCED TO NAVD 88 (2012).



LEGEND	
	REMOVING DISTRESSED PAVEMENT MILLING

NOTES
 REMOVING DISTRESSED PAVEMENT MILLING LOCATIONS APPROXIMATE, FINAL LOCATIONS TO BE DETERMINED BY ENGINEER.



5

5

LEGEND	
	REMOVING DISTRESSED PAVEMENT MILLING

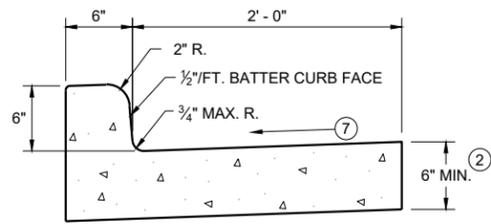
NOTES
REMOVING DISTRESSED PAVEMENT MILLING LOCATIONS APPROXIMATE, FINAL LOCATIONS TO BE DETERMINED BY ENGINEER.

Standard Detail Drawing List

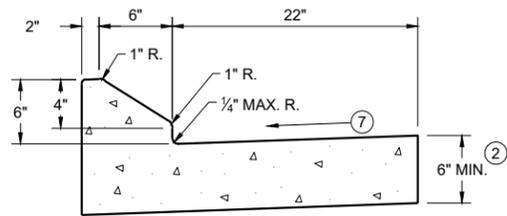
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-22A	CURB RAMPS TYPES 1 AND 1-A
08D05-22B	CURB RAMPS TYPES 2 AND 3
08D05-22C	CURB RAMPS TYPES 4A AND 4A1
08D05-22D	CURB RAMPS TYPES 4B AND 4B1
08D05-22E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-22F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-22G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D18-05	DRIVEWAY AND SIDEWALK RAMPS TYPES X & Y
08D21-01	DRIVEWAYS WITHOUT CURB & GUTTER
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
08F02-01	APRON ENDWALLS FOR PIPE ARCH AND ELLIPTICAL PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13B01-11A	PAVEMENT DETAILS FOR RAILROAD APPROACH
13B01-11B	TYPICAL SECTIONS FOR RAILWAY APPROACH
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
14B51-04A	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B51-04B	ANCHOR POST ASSEMBLY TOP-MOUNTED
14B51-04C	ANCHOR POST ASSEMBLY TOP-MOUNTED
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-09A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-09B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C02-09C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C09-13A	SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD-HIGHWAY GRADE CROSSINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C19-10A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY
15D30-11A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-11L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D39-03	TRAFFIC CONTROL, DROP-OFF SIGNING
15D44-02	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES
15D45-03	TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH LOOSE GRAVEL

6

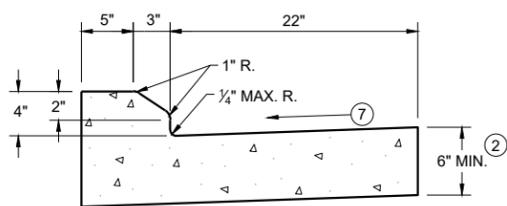
6



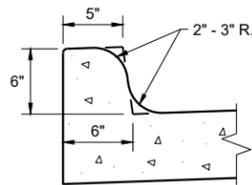
TYPES A^① & D



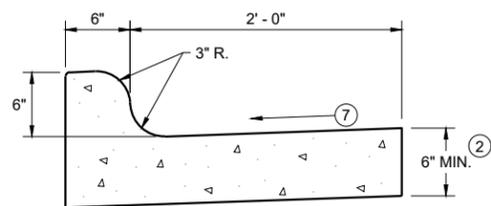
6" SLOPED CURB TYPES G^① & J



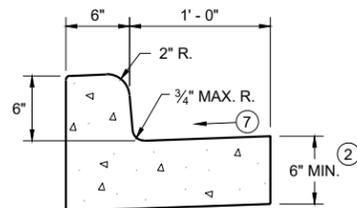
4" SLOPED CURB TYPES G^① & J



TYPES K^① & L
(OPTIONAL CURB SHAPE)

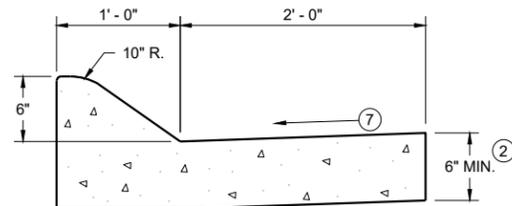


TYPES K^① & L
CONCRETE CURB AND GUTTER 30"

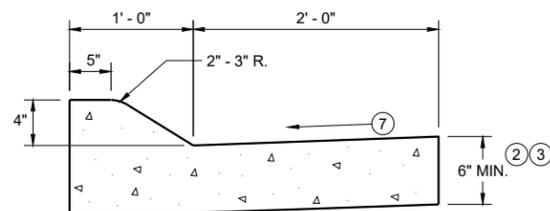


TYPES A^① & D

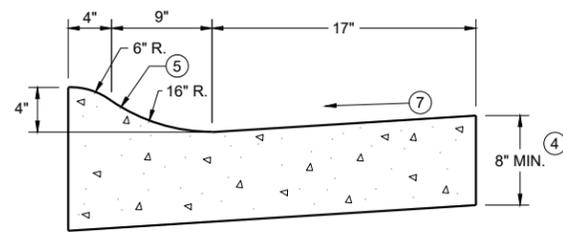
CONCRETE CURB AND GUTTER 18"



6" SLOPED CURB TYPES A^① & D

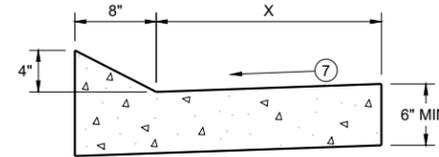


4" SLOPED CURB TYPES A^① & D
CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R^① & T
CONCRETE CURB AND GUTTER 30"

TBT & TBTT	X
30"	22"
36"	28"

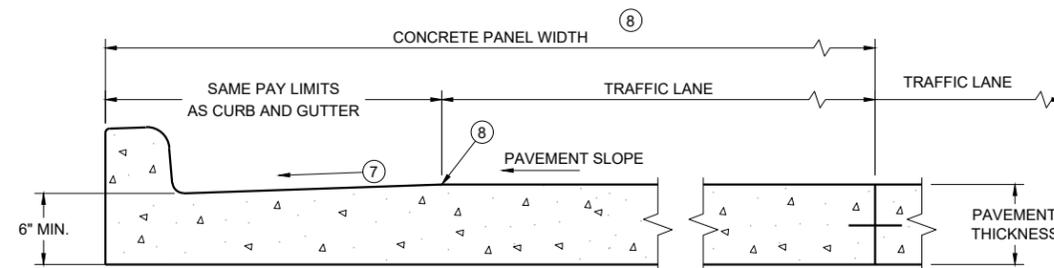


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

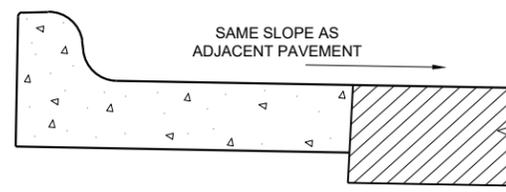
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

PAVEMENT THICKNESS	MAXIMUM PANEL WIDTH
LESS THAN 10"	12'
10" & ABOVE	15'



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



REVERSE SLOPE GUTTER^⑥
(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

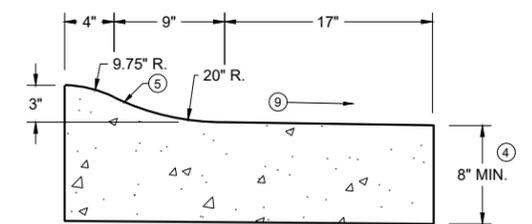
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

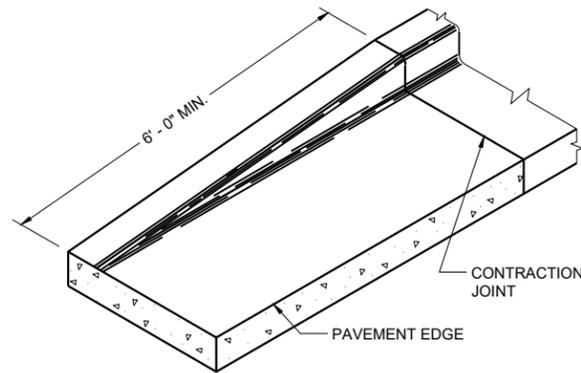
- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ③ USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.
- ④ THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑤ UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.
- ⑥ WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.
- ⑦ USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.
- ⑧ INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.
- ⑨ SLOPE TO BE REVERSE SLOPE MATCHING THE SLOPE OF THE PAVEMENT AND THE CIRCULATORY ROADWAY



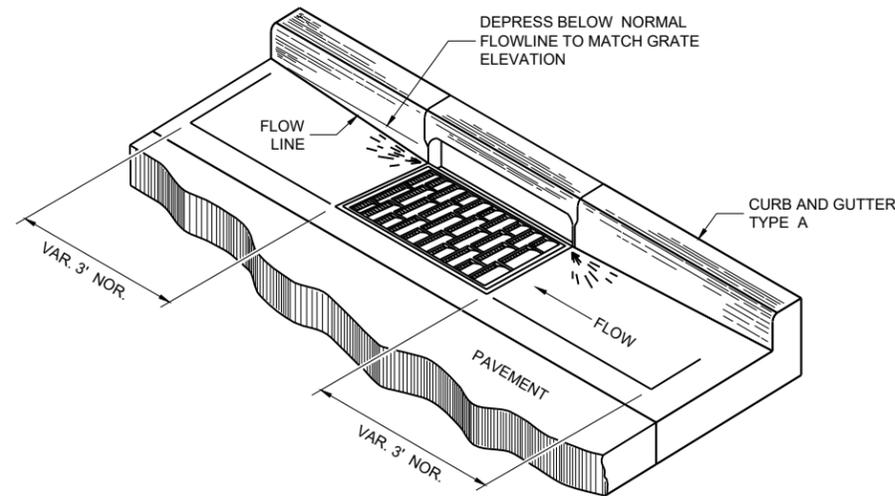
3" SLOPED CURB TYPES R^① & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

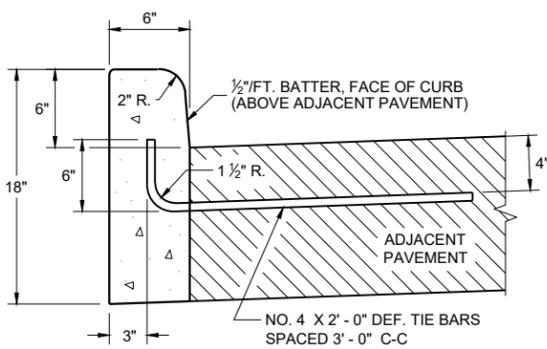


END SECTION CURB AND GUTTER

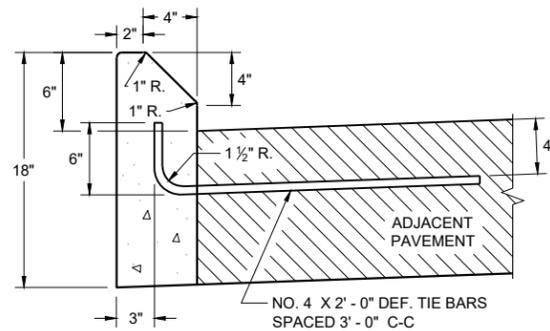


DETAIL OF CURB AND GUTTER AT INLETS

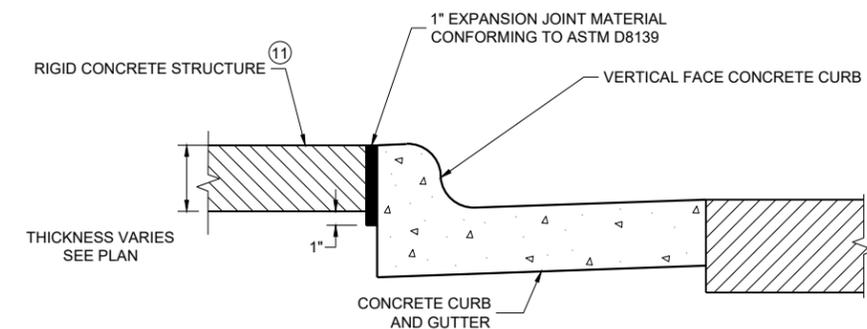
(TYPICAL H INLET COVER SHOWN)



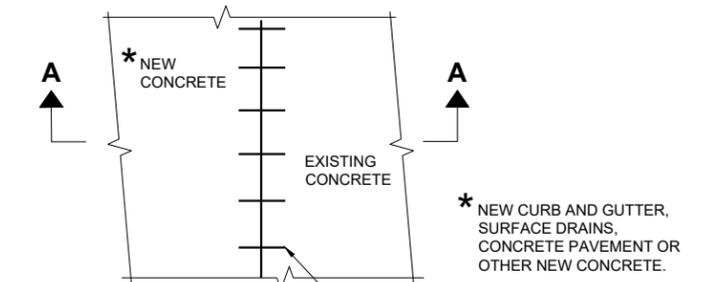
TYPES A^① & D



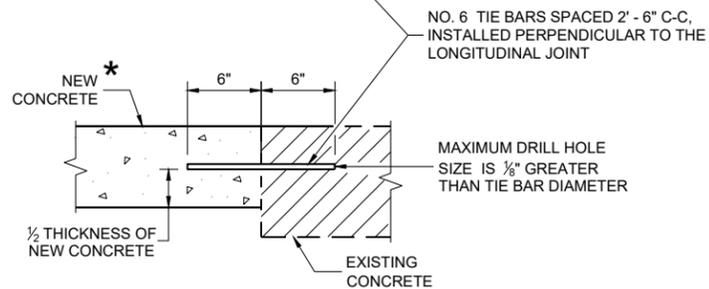
**TYPES G^① & J
CONCRETE CURB**



EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE^⑪



PLAN VIEW



SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT

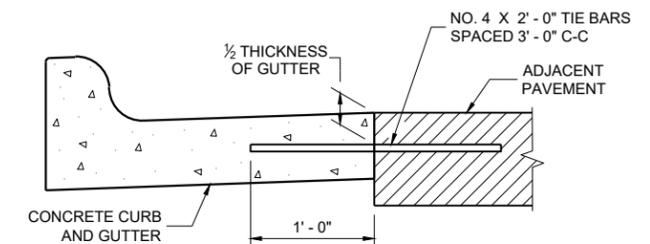
GENERAL NOTES

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

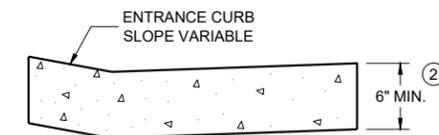
PAVEMENT TIES AND TIE BARS SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.6.2 OF THE STANDARD SPECIFICATIONS.

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

- ① TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.
- ② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.
- ⑩ REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.
- ⑪ PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.



TYPICAL TIE BAR LOCATION^①



**DRIVEWAY ENTRANCE CURB^⑩
(WHEN DIRECTED BY THE ENGINEER)**

6

6

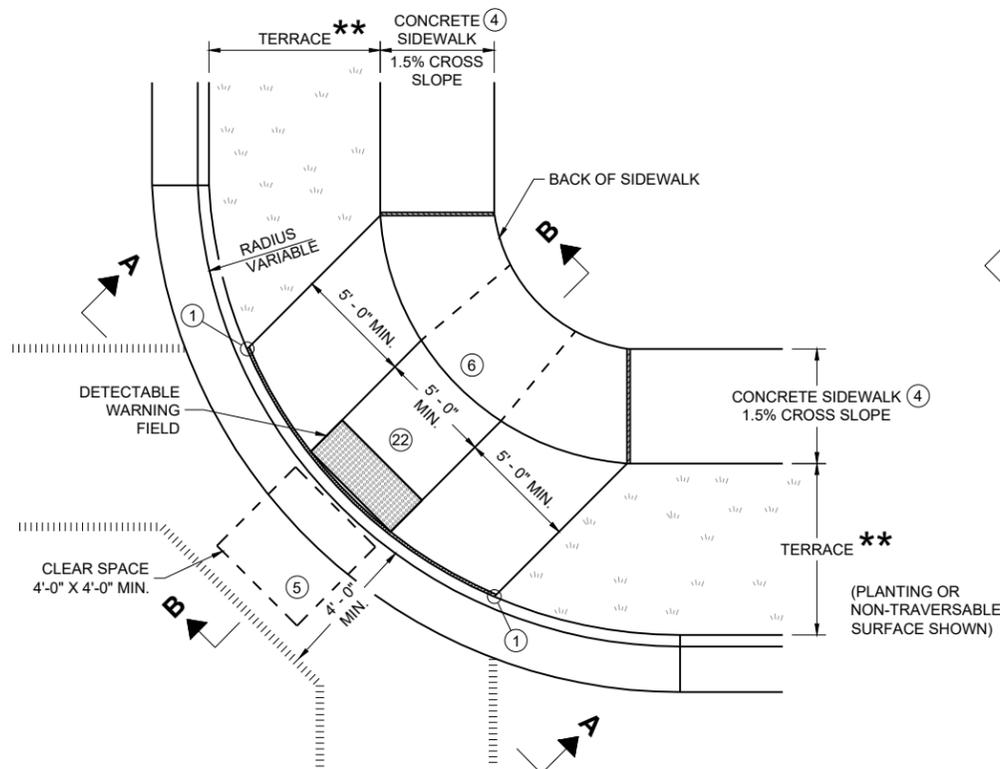
SDD 08D01-24b

SDD 08D01-24b

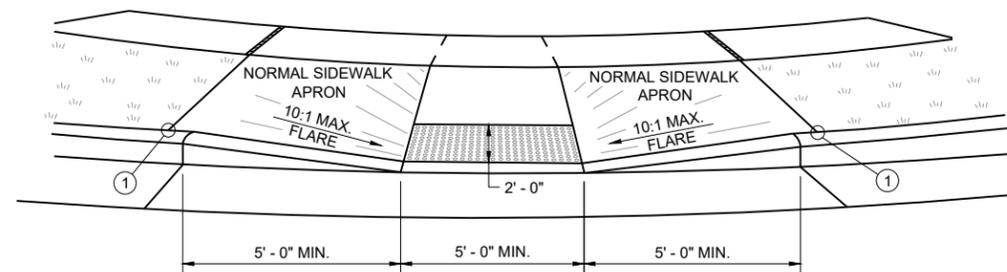
CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

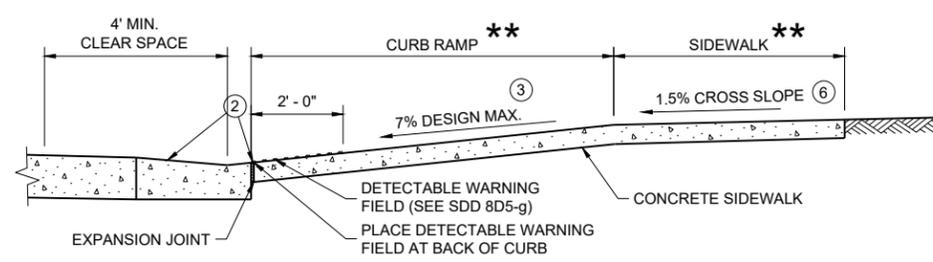
APPROVED
February 2025 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT
FHWA UNIT SUPERVISOR



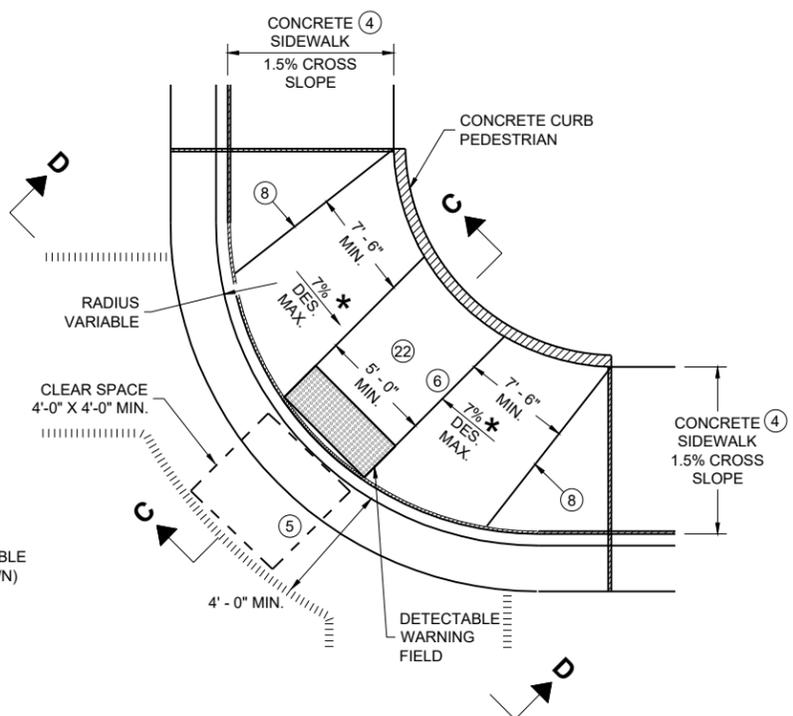
**PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)**



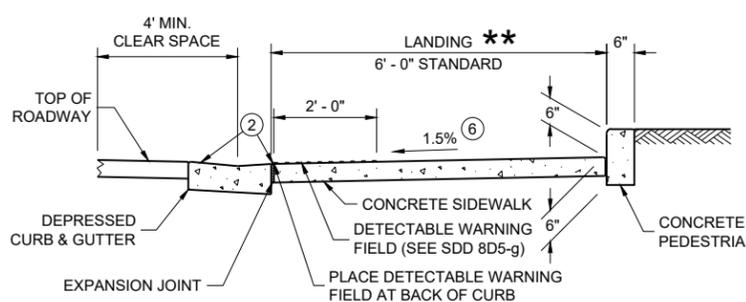
VIEW A - A FOR TYPE 1



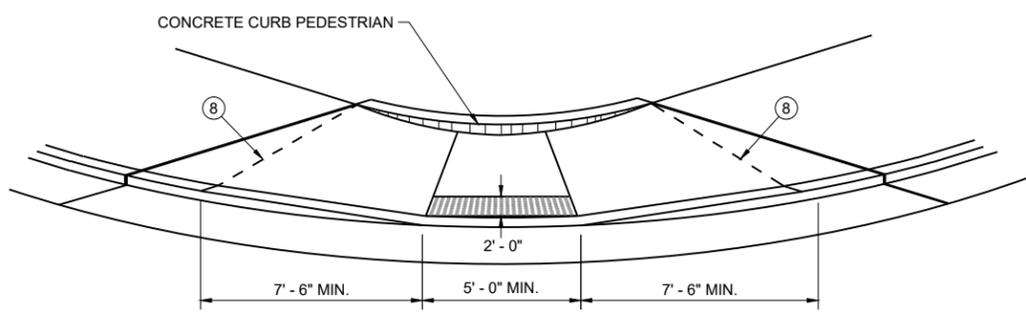
SECTION B - B FOR TYPE 1



**PLAN VIEW
CURB RAMP TYPE 1 - A
(NO TERRACE)**



SECTION C - C FOR TYPE 1 - A



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- 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.
- WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE CURB RAMP.
- TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF CURB RAMP.
- DETECTABLE WARNING FIELD SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.
- SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE CURB RAMP.
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑤ PROVIDE A CLEAR SPACE IN THE STREET AND GUTTER AREA. WHEN THE GUTTER CROSS SLOPE EXCEEDS 2.1%, CONSTRUCT THE CLEAR SPACE IN THE STREET AREA AND THE 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE. FOR RECONSTRUCTION AND MODERNIZATION PROJECTS THE CLEAR SPACE SLOPE PARALLEL TO THE CURBLINE SHOULD BE 2.1% MAX FOR CROSSINGS THAT ARE STOP AND YIELD CONTROLLED, AND 5% MAX FOR THOSE THAT ARE SIGNAL CONTROLLED. FOR PERPETUATION AND REHABILITATION PROJECTS THE SLOPE OF THE CLEAR SPACE PARALLEL TO THE CURBLINE WILL MATCH THE ROADWAY LONGITUDINAL SLOPE. THE SLOPE OF THE CLEAR SPACE PERPENDICULAR TO THE CURBLINE WILL MATCH THE ROADWAY CROSS SLOPE BUT SHOULD NOT EXCEED 5% UNLESS THE ROADWAY IS SUPERELEVATED (WHEN SUPERELEVATED THE ROADWAY CROSS SLOPE SHOULD MATCH THE SUPERELEVATION).
- ⑥ PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- ⑧ PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- ⑰ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑳ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)
- MAXIMUM 8.3%
- WIDTH SHOWN ELSEWHERE IN THE PLANS

**CURB RAMPS
TYPE 1 AND 1-A**

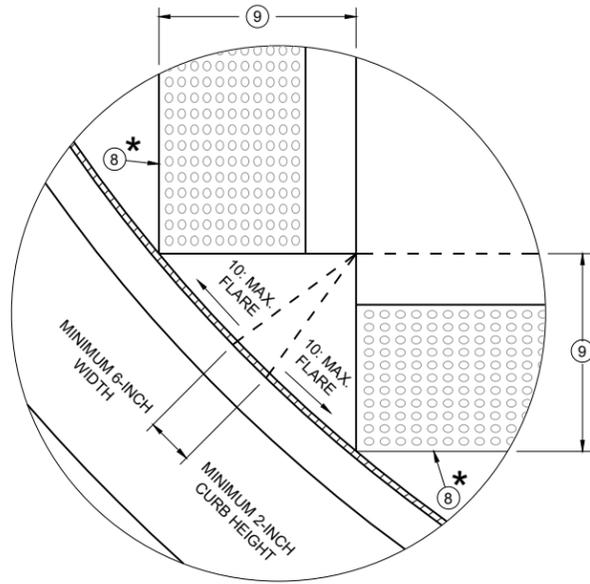
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

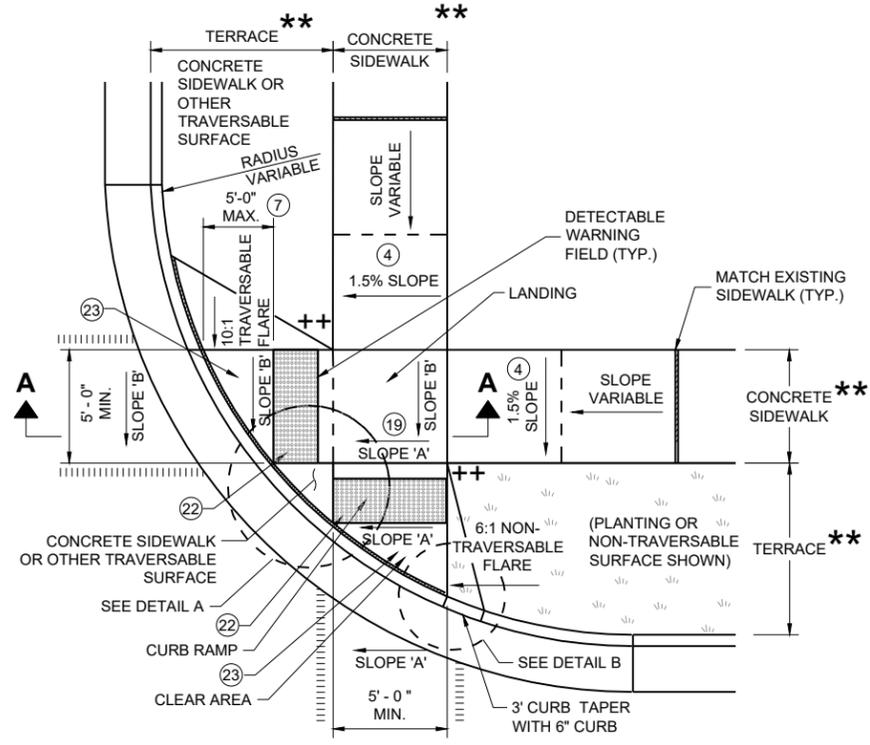
6

SDD 08D05-22a

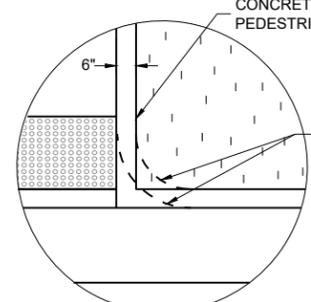
SDD 08D05-22a



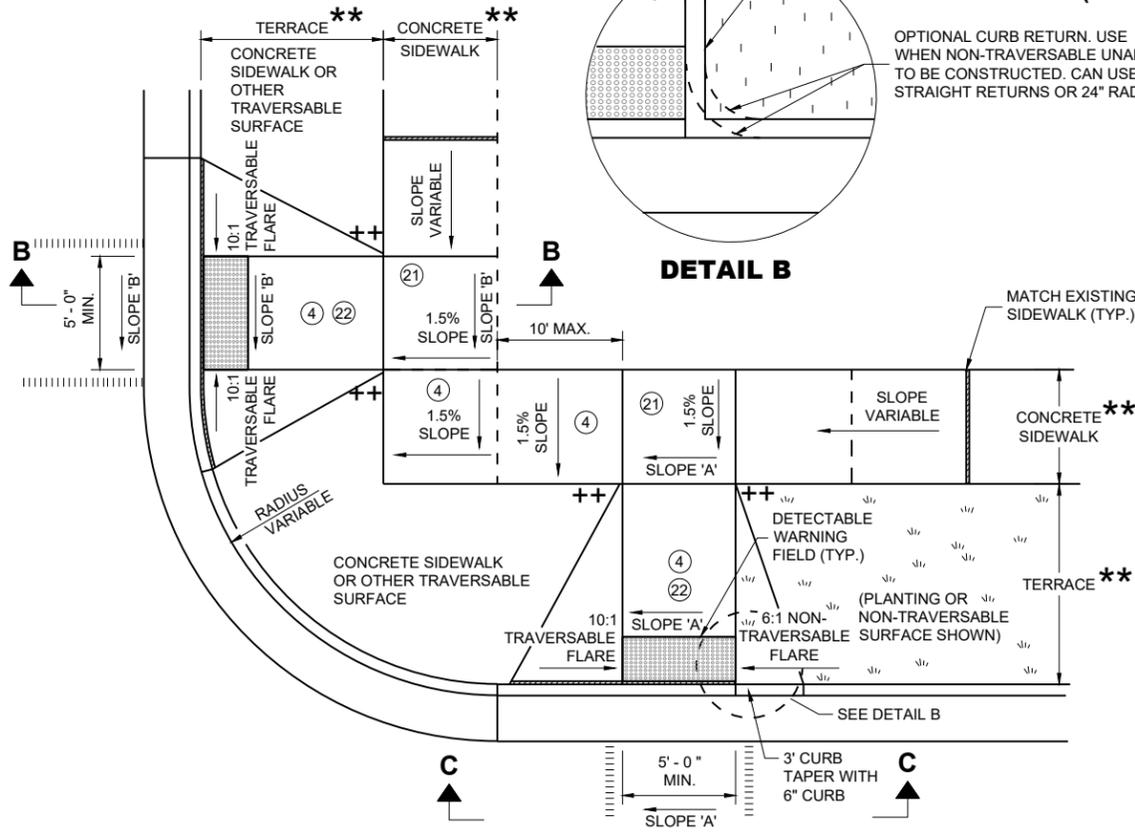
DETAIL A



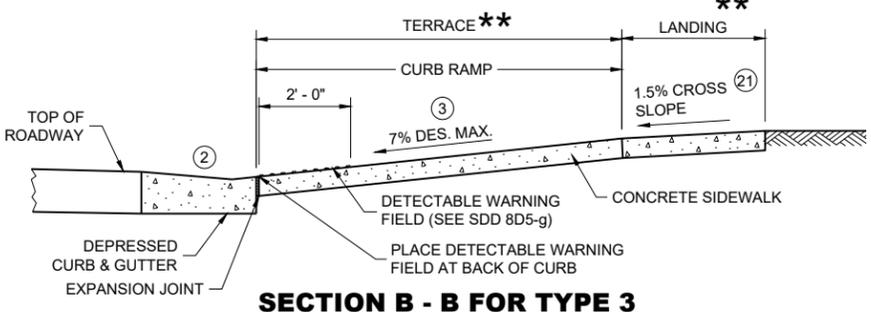
**PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)**



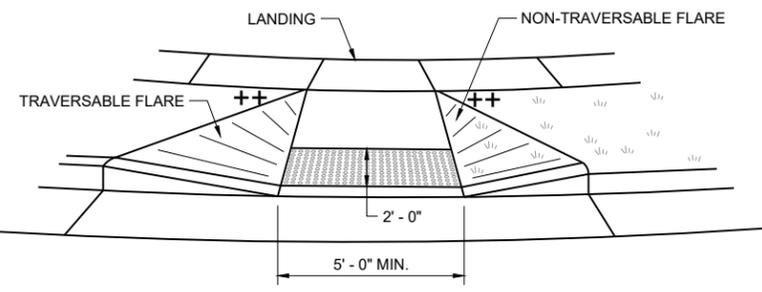
DETAIL B



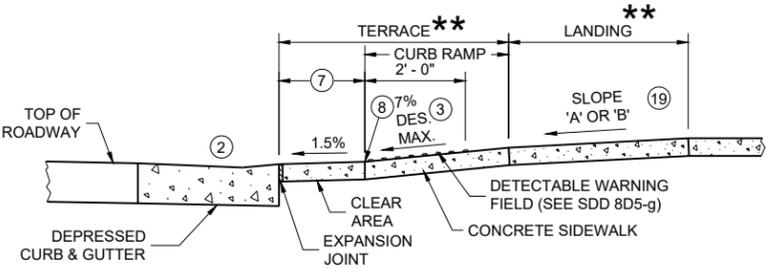
**PLAN VIEW
CURB RAMP TYPE 3
(OUTSIDE OF CROSSWALK AREA)**



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3



SECTION A - A FOR TYPE 2

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- WIDTH SHOWN ELSEWHERE IN THE PLANS
- CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.
- GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-4.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% DESIGN MAXIMUM SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% DESIGN MAXIMUM SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.
- A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- PROVIDE A LANDING WITH A SLOPE PARALLEL TO ROADWAY THAT MATCHES SLOPE AT THE BOTTOM OF THE ADJACENT RAMP. SLOPE PERPENDICULAR TO ROADWAY SHALL BE 2.1% MAXIMUM. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.
- THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

6

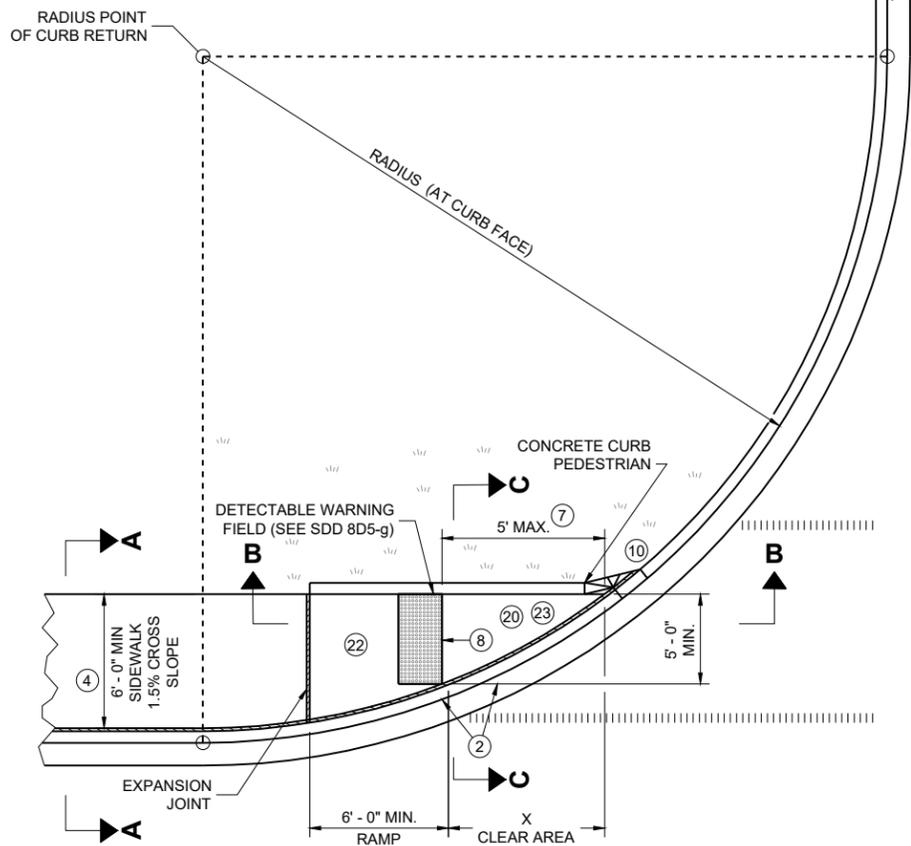
6

SDD 08D05-22b

SDD 08D05-22b

**CURB RAMPS
TYPE 2 AND 3**

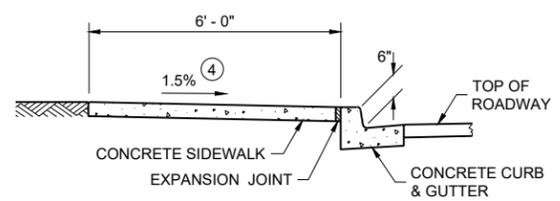
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



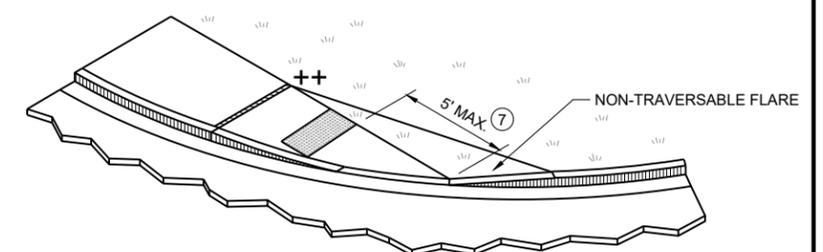
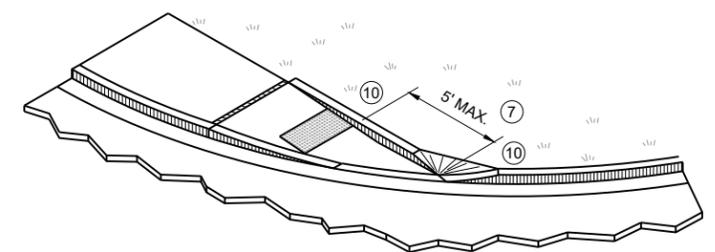
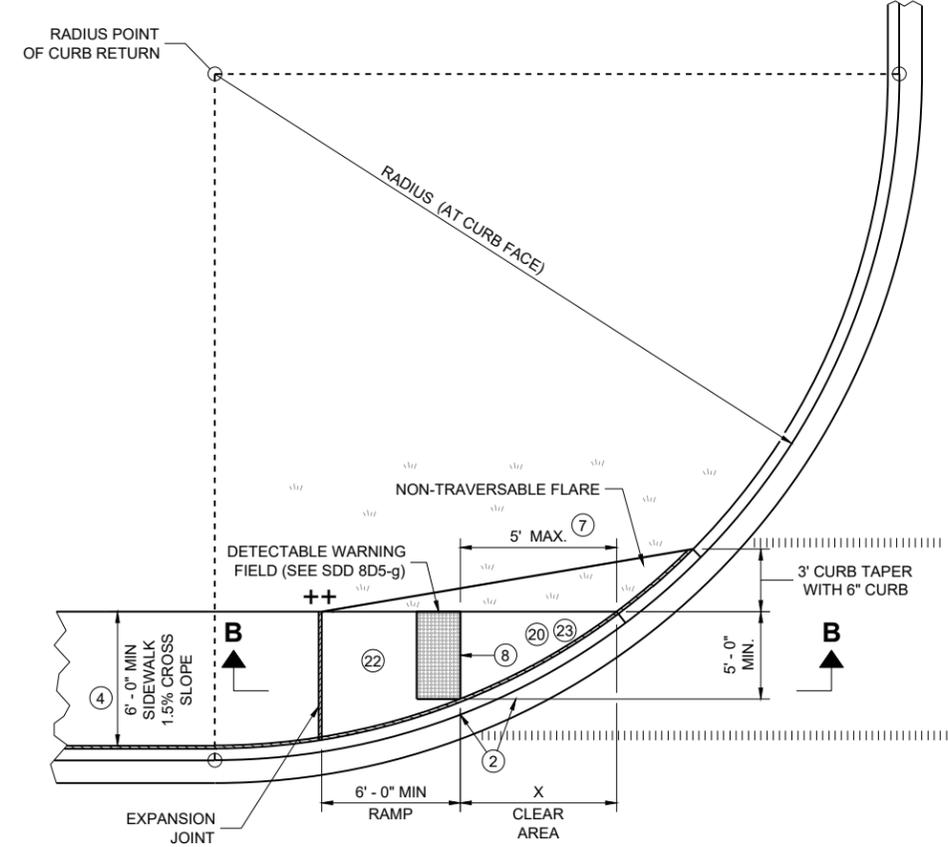
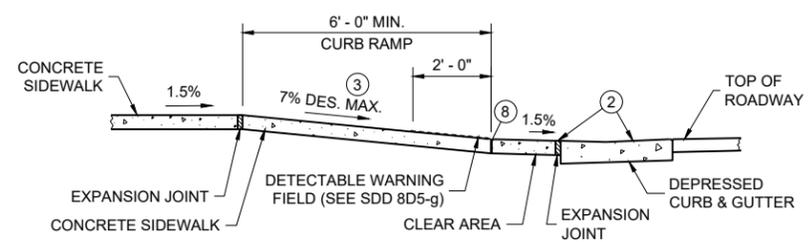
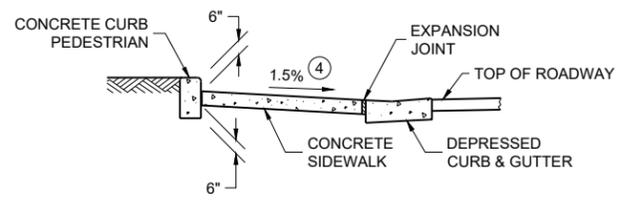
- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
 - - - CONTRACTION JOINT SIDEWALK
 - ||||| PAVEMENT MARKING CROSSWALK (WHITE)
 - ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

RADIUS (AT CURB FACE)	X
10 FEET	4' - 7"

INTERMEDIATE RADII CAN BE INTERPOLATED



- GENERAL NOTES**
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- (2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
 - (3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
 - (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
 - (7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
 - (8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
 - (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
 - (17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
 - (20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
 - (22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
 - (23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



**CURB RAMPS
TYPE 4A AND 4A1**

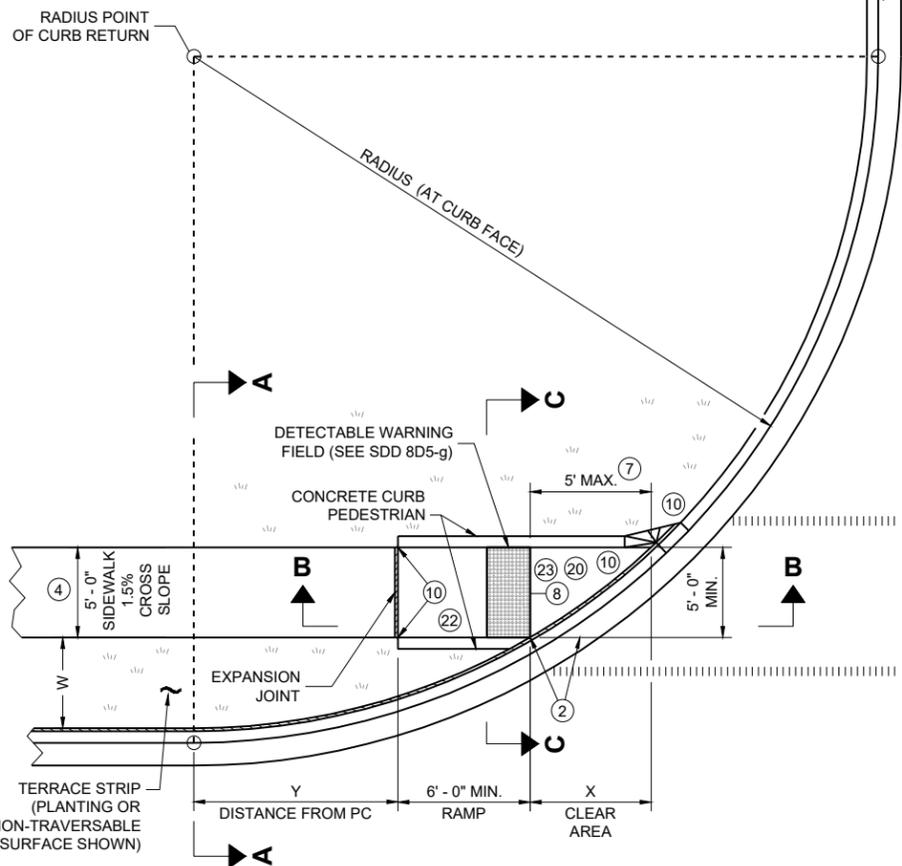
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

SDD 08D05-22C

SDD 08D05-22C



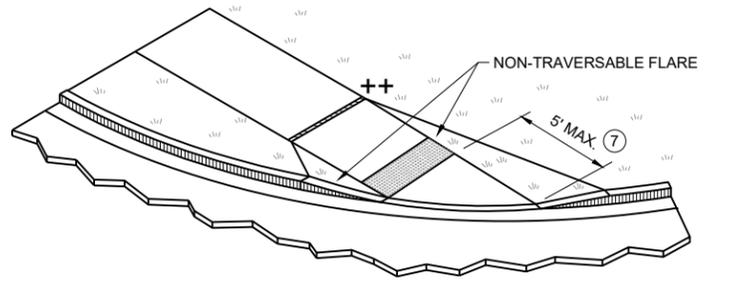
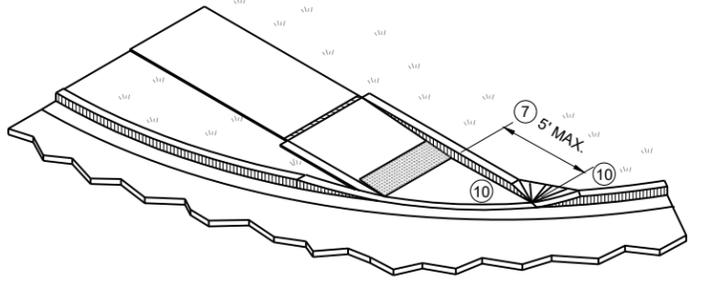
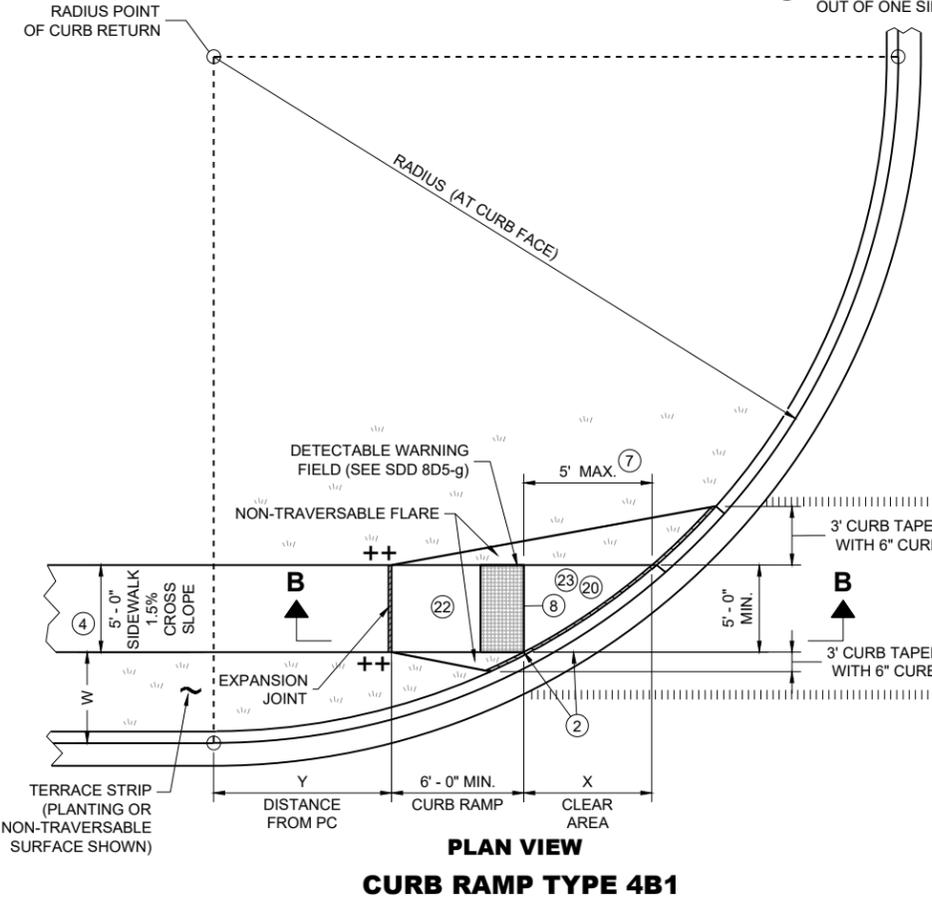
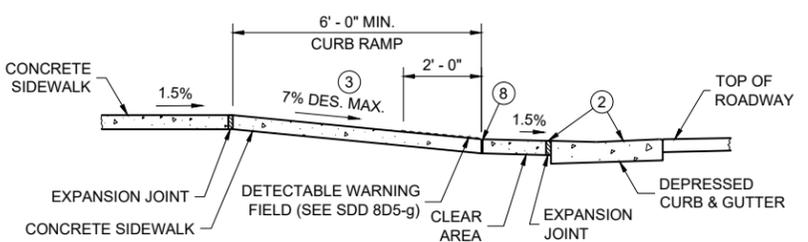
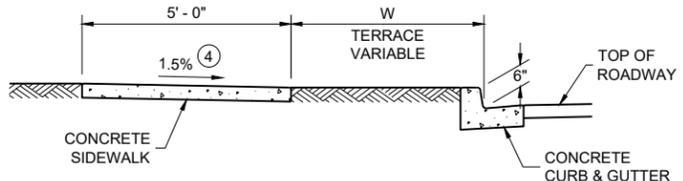
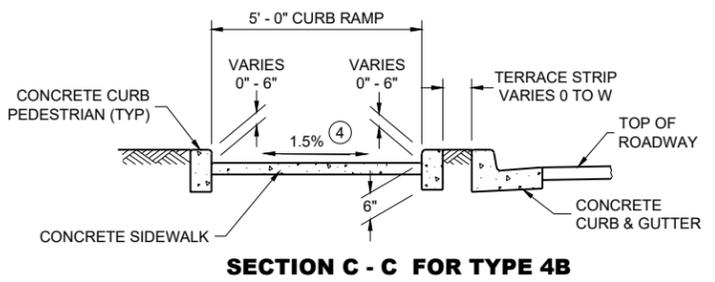
RADIUS (AT CURB FACE)	W = 3'-0"		W = 4'-0"		W = 5'-0"		W = 6'-0"		W = 7'-0"		W = 8'-0"		W = 9'-0"		W = 10'-0"	
	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y	X	Y
10 FEET	2'-10 1/4"	0'-5"	2'-1"	1'-4 1/2"	1'-5"	2'-1"	0'-10"	2'-7 1/2"	0'-3 3/4"	3'-0 1/4"						
15 FEET	4'-6 3/4"	2'-1 3/4"	3'-9"	3'-5 3/4"	3'-1 1/4"	4'-6"	2'-6 3/4"	5'-4 1/2"	2'-1"	6'-1"	1'-8"	6'-8 1/2"	1'-3 1/4"	7'-2 1/2"	0'-10 3/4"	7'-7 1/4"
20 FEET			4'-11 1/2"	5'-1 3/4"	4'-3 1/4"	6'-5 1/2"	3'-8 3/4"	7'-7"	3'-3"	8'-6 1/2"	2'-10"	9'-4 1/2"	2'-5 1/2"	10'-1 1/4"	2'-1 1/4"	10'-9"
30 FEET									4'-10 3/4"	12'-5 3/4"	4'-5 1/2"	13'-7 3/4"	4'-0 3/4"	14'-8 1/2"	3'-8 1/2"	15'-8 1/4"
40 FEET															4'-10 3/4"	19'-8 1/4"

- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
 - CONTRACTION JOINT SIDEWALK
 - PAVEMENT MARKING CROSSWALK (WHITE)
 - * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK
 - ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

INTERMEDIATE RADII CAN BE INTERPOLATED
 DIMENSION "Y" IS CALCULATED BASED ON 6'-0" RAMP LENGTH
 DIMENSION "X" IS CALCULATED BASED ON 5'-0" SIDEWALK WIDTH

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- (2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- (3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- (4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- (7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- (8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- (10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- (17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- (20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- (22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- (23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.



**CURB RAMPS
TYPE 4B AND 4B1**

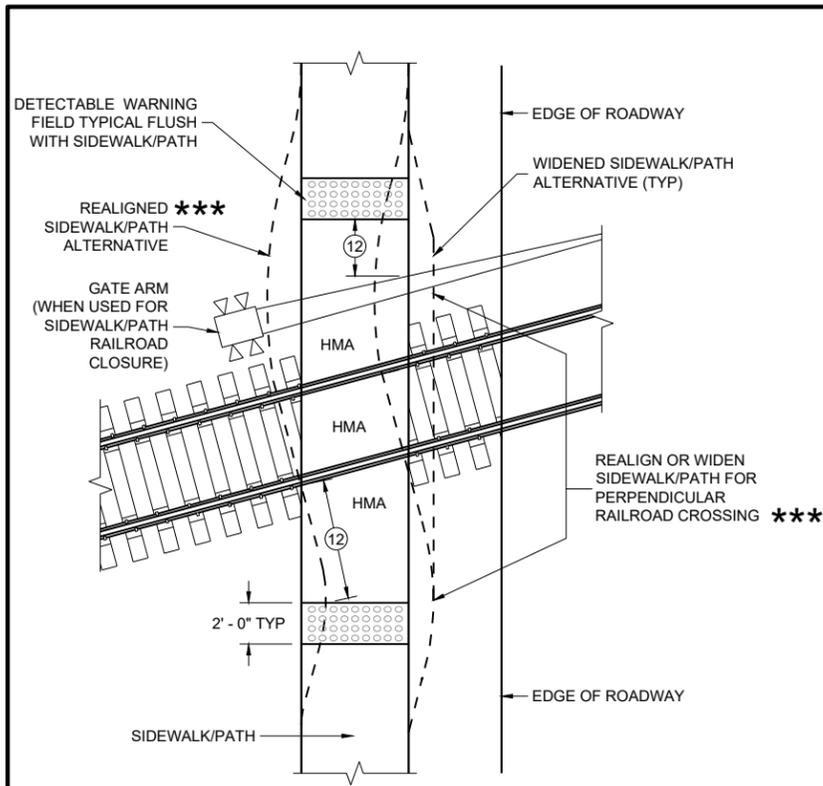
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

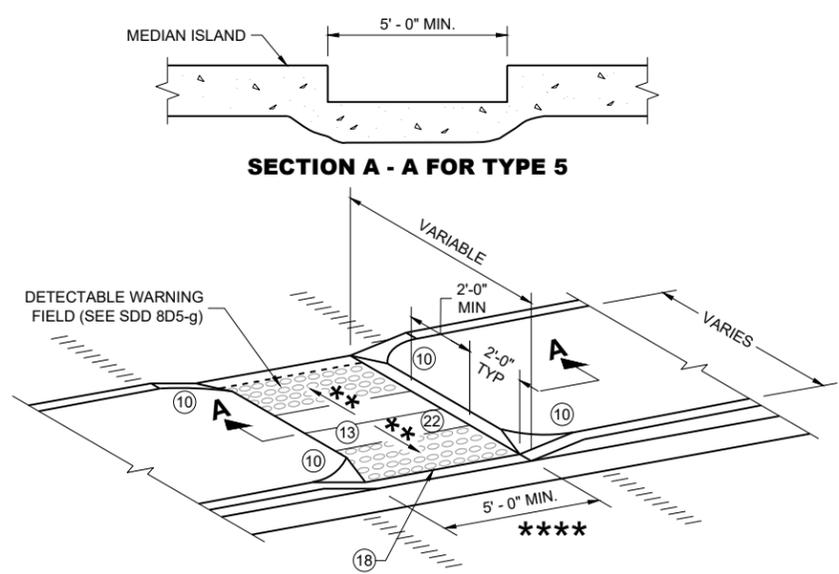
6

SDD 08D05-22d

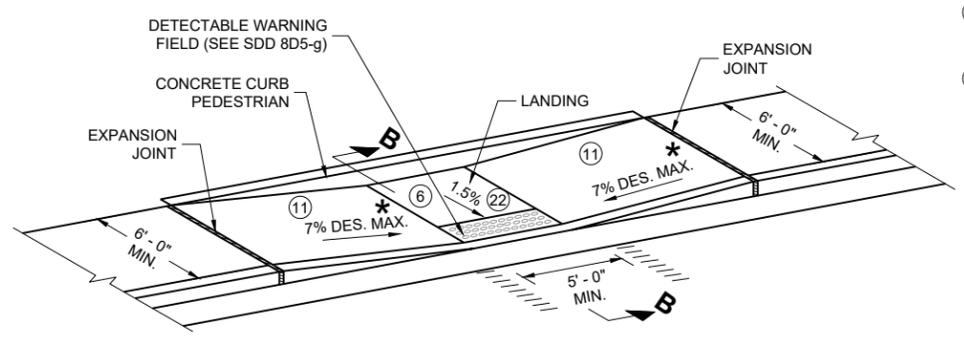
SDD 08D05-22d



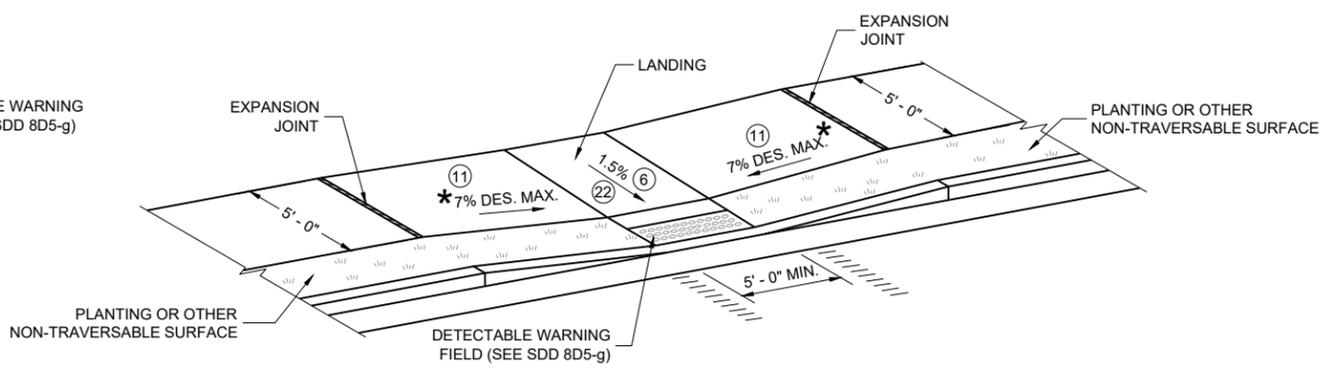
CURB RAMP TYPE 8
DETECTABLE WARNINGS
FOR SIDEWALKS OR SHARED USE PATHS
AT RAILROAD CROSSINGS



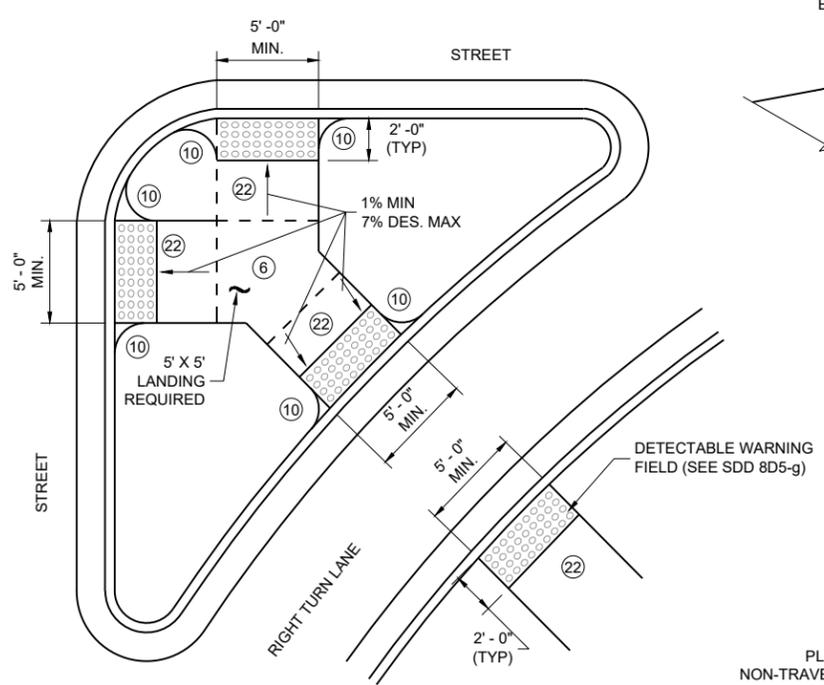
CURB RAMP TYPE 5
MEDIAN ISLAND
NON-ELEVATED PEDESTRIAN CROSSING



CURB RAMP TYPE 7A
FOR INTERSECTIONS AND
MID BLOCK CROSSINGS



CURB RAMP TYPE 7B
FOR INTERSECTIONS AND
MID BLOCK CROSSINGS



CURB RAMP TYPE 6
DETECTABLE WARNING AT ISLANDS

REFER TO GENERAL NOTES ② AND ③
 FOR ALL ISLAND CURB RAMPS

GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- 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.
- SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- ③ MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- ④ ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑥ PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- ⑩ INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- ⑪ SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.
- ⑫ THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.
- ⑬ DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STREET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.
- ⑰ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑱ WHEN THE DISTANCE BETWEEN THE BACK OF CURBS IS LESS THAN 6 FEET BUT THE FACE OF CURB TO FACE OF CURB DISTANCE IS 6 FEET OR GREATER THEN THE DETECTABLE WARNING FIELDS MAY BE MOVED SO THAT THE EDGE OF THE WARNING FIELD IS PLACED AT THE GUTTER FLOWLINE. MAINTAIN A MINIMUM OF TWO FEET BETWEEN DETECTABLE WARNING FIELD PANELS.
- ⑳ THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.

LEGEND

- 1/2" EXPANSION JOINT SIDEWALK
 - CONTRACTION JOINT FIELD LOCATED
 - PAVEMENT MARKING CROSSWALK (WHITE)
 - MAXIMUM 8.3%
 - 1% MINIMUM (PROVIDE DRAINAGE)
 - DETAILS TO BE DETERMINED BY ENGINEER
 - FOR SHARED USE PATHS, WIDTH MUST BE AS WIDE AS THE CROSSWALK
-
- SECTION B - B FOR TYPE 7A**

CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

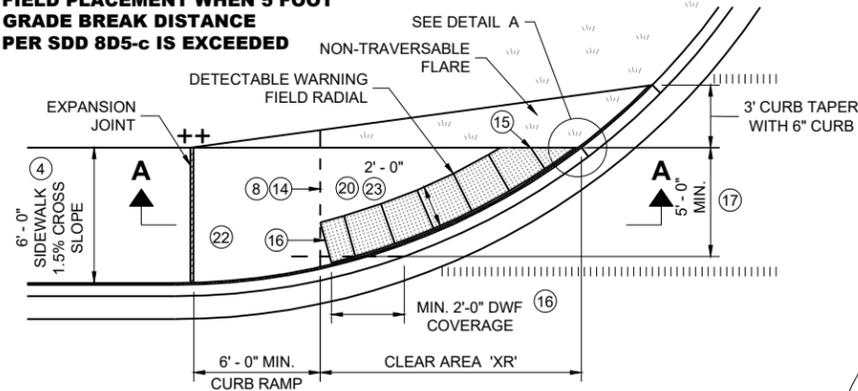
6

6

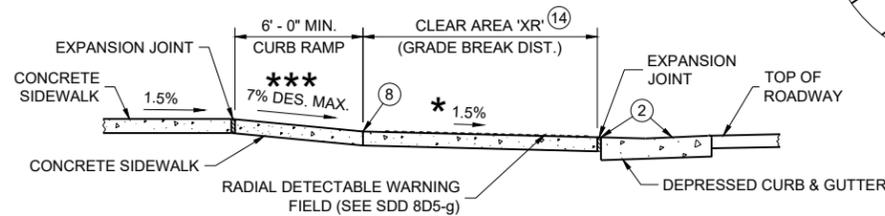
SDD 08D05-22e

SDD 08D05-22e

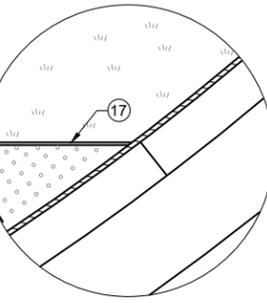
**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-c IS EXCEEDED**



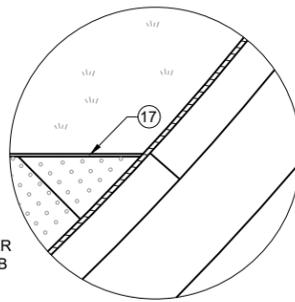
**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



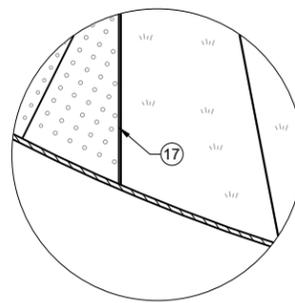
SECTION A - A FOR TYPE 4A1



DETAIL A

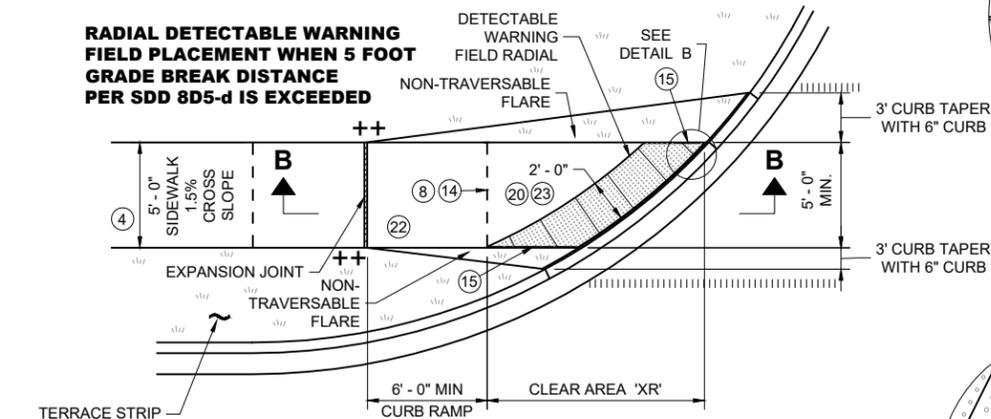


DETAIL B

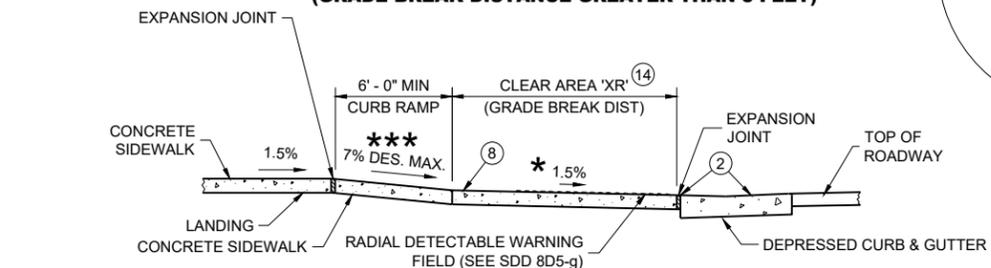


DETAIL C

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-d IS EXCEEDED**



**PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**

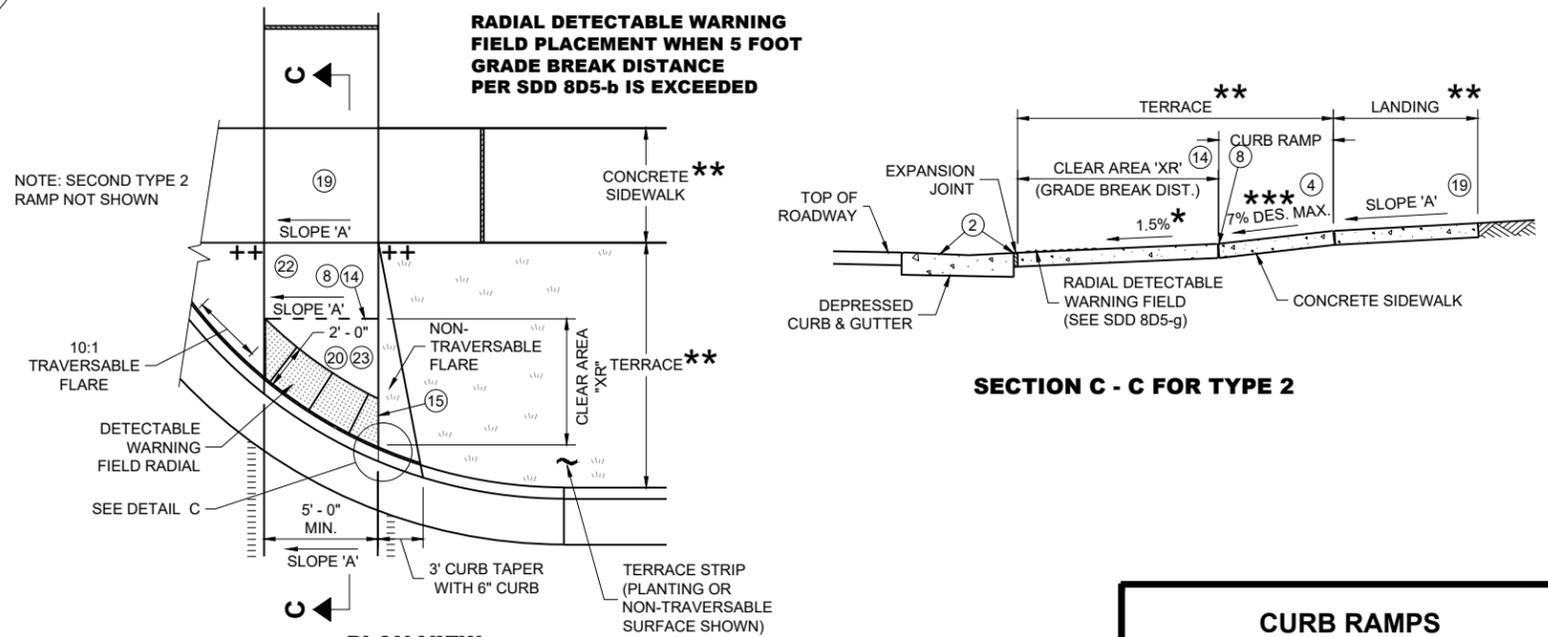


SECTION B - B FOR TYPE 4B1

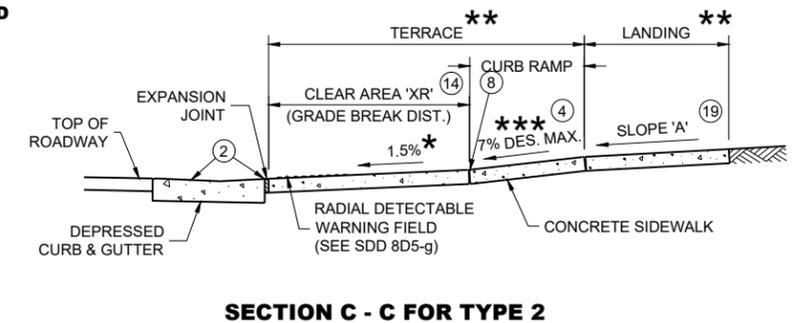
GENERAL NOTES

- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- 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.
- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.
- APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.
- REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- 2) GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% OR LESS AND SHALL NOT EXCEED 13.3%. TYPICAL GUTTER COUNTER SLOPE IS 4% BUT MAY BE MODIFIED TO FIT FIELD CONDITIONS. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5%, DESIRABLY 7% OR LESS, AND SHALL NOT EXCEED A MAXIMUM OF 8.3%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.
- 3) MAXIMUM 8.3% CURB RAMP SLOPE IS ALLOWABLE WITH GUTTER COUNTER SLOPE OF 5% MAXIMUM AND A 13.3% MAXIMUM GRADE CHANGE.
- 4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- 6) PROVIDE A 5 FOOT BY 5 FOOT LANDING. SLOPE PERPENDICULAR TO CURB SHALL BE 2.1% MAXIMUM. SLOPE PARALLEL TO CURB SHALL MATCH THE CURB AND GUTTER LONGITUDINAL SLOPE.
- 8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- 14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.
- 15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.
- 16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.
- 17) A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- 19) WHERE A LANDING SERVES TWO CURB RAMPS, THE LANDING SLOPE SHALL NOT EXCEED THE CROSS SLOPE AT THE BOTTOM OF THE RAMP OR WITHIN THE CROSSWALK PARALLEL TO THE DIRECTION OF TRAVEL.
- 20) MAXIMUM 1.5% DESIGN MAXIMUM AND 2.1% PROWAG MAXIMUM RUNNING SLOPE ON CLEAR AREA. CROSS SLOPE OF CLEAR AREA SHALL MATCH THE CROSS SLOPE OF THE ADJACENT CROSSWALK.
- 22) THE ENTIRE RAMP SHALL BE A PLANAR SURFACE. DO NOT WARP THE RUNNING SLOPE OR CROSS SLOPE OF THE RAMP. WARPING OF THE SIDEWALK CROSS SLOPE SHALL TAKE PLACE BETWEEN THE LANDING AND MATCH POINT.
- 23) THE CLEAR AREA BETWEEN THE BOTTOM OF RAMP AND BACK OF CURB SHALL BE SLOPED SO THAT WATER DRAINS OUT OF ONE SIDE OR BOTH SIDES OF THE CURB OPENING.

**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-b IS EXCEEDED**



**PLAN VIEW
CURB RAMP TYPE 2
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)
(ON LINE WITH SIDEWALK)**



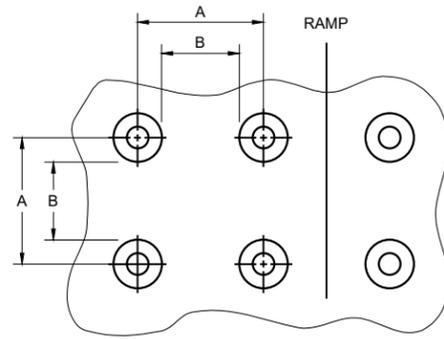
SECTION C - C FOR TYPE 2

**CURB RAMPS
RADIAL DETECTABLE WARNING**

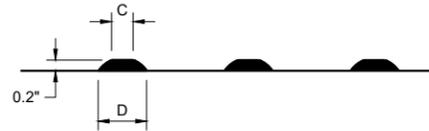
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	MIN.	MAX.
A	1.6"	2.4"
B	0.65"	1.5"
C	*	*
D	0.9"	1.4"

* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.

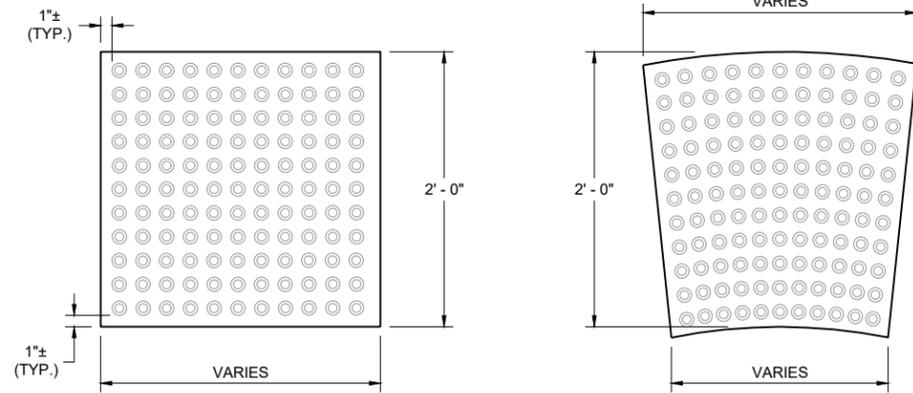


PLAN VIEW



ELEVATION VIEW

**TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL**

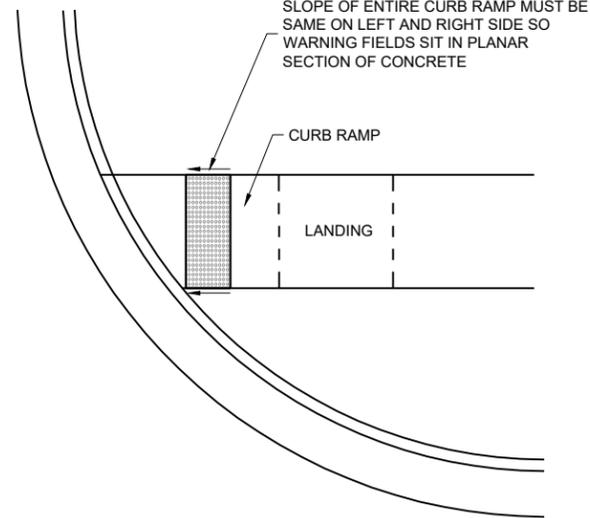


**RECTANGULAR
PLATES**

**RADIAL
PLATES**

PLAN VIEW

DETECTABLE WARNING FIELDS (TYPICAL)

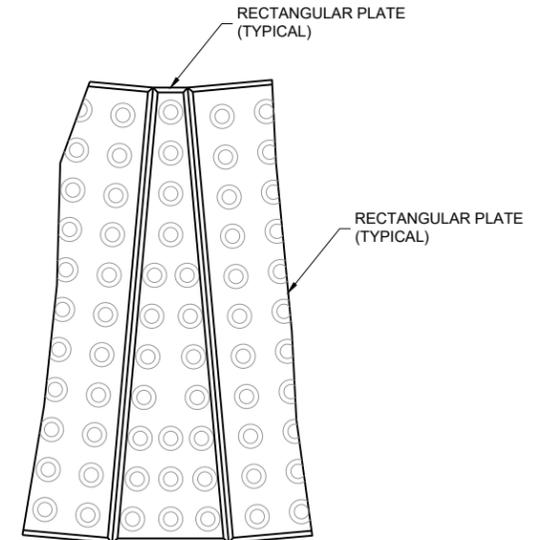


**DETECTABLE WARNING FIELD
PLANAR INSTALLATION**

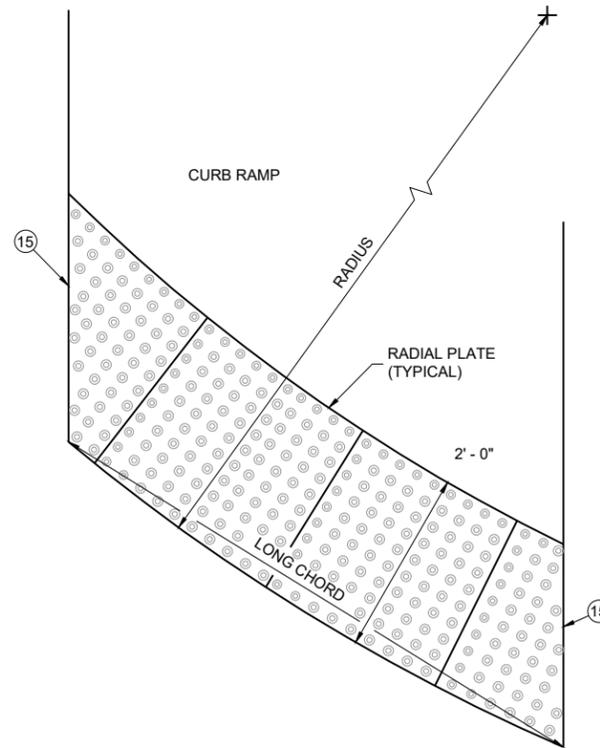
GENERAL NOTES

- DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.
- PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.
- FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.
- DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.
- FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.
- REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.
- DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

15 FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN 1/8" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.



**PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL**

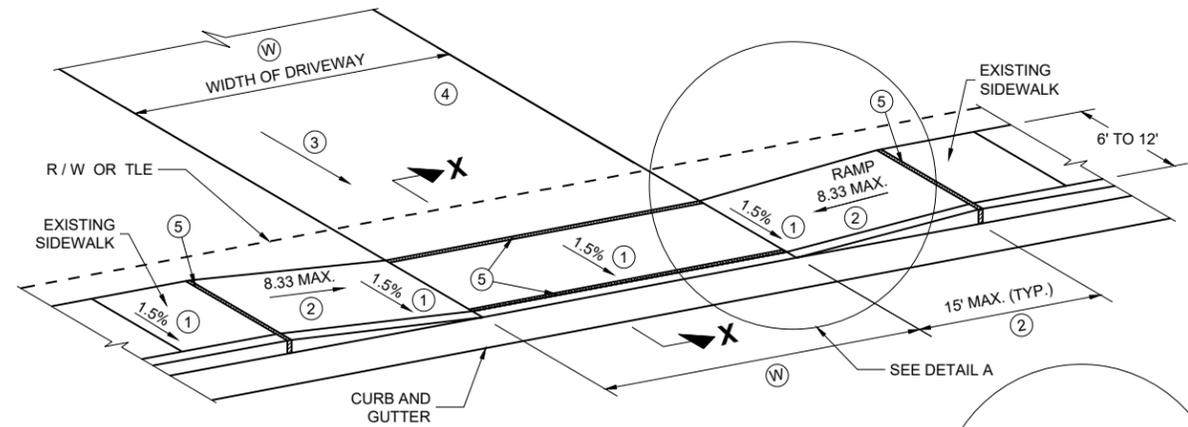


**PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES**

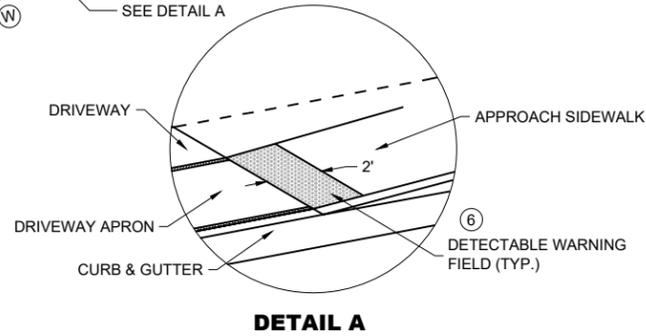
**CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2025 /S/ Rodney Taylor
DATE DATE <position>

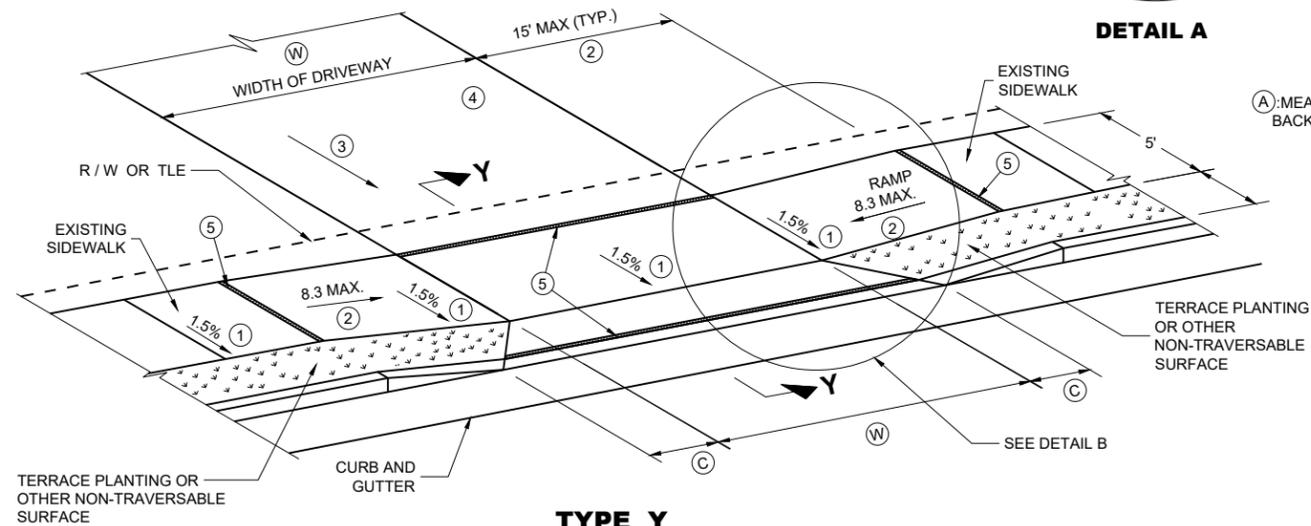


TYPE X
SIDEWALK ABUTS CURB AND GUTTER
TERRACE VARIES 0 TO 3 FEET



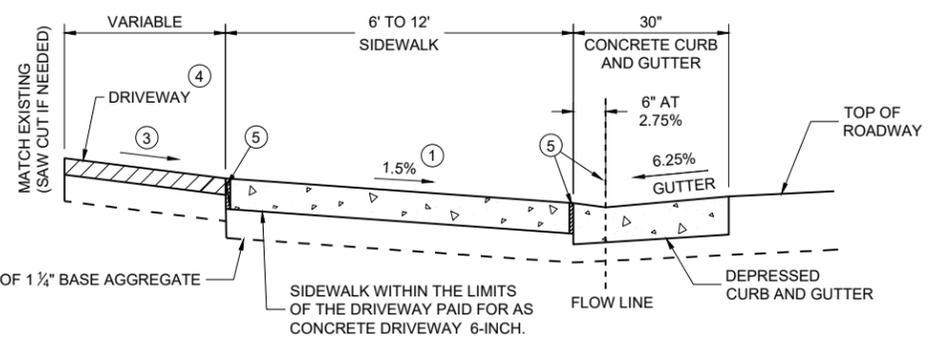
DETAIL A

(A): MEASURE FROM BACK OF CURB

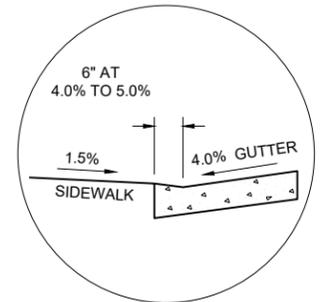


TYPE Y
SIDEWALK WITH NARROWER TERRACE
TERRACE VARIES 4 TO 6 FEET

TERRACE PLANTING OR OTHER NON-TRAVERSABLE SURFACE



SECTION X - X

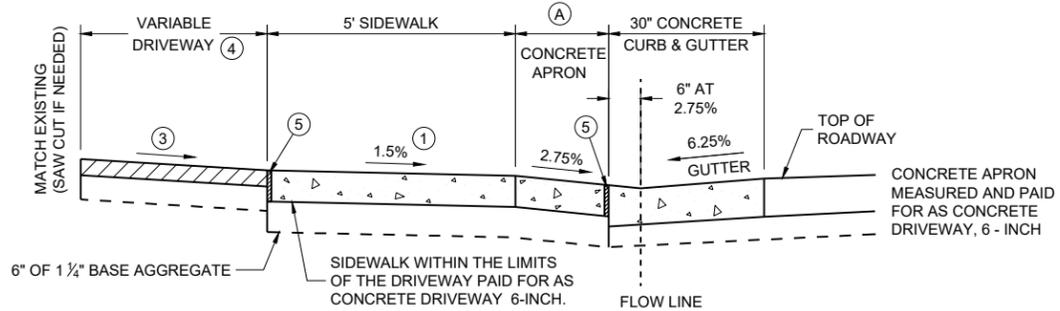


SECTION X - X
4% GUTTER SLOPE

TABLE Y

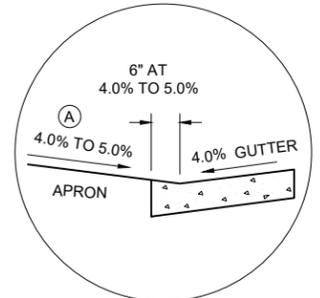
(A) FEET	(C) FEET
3.5'	2.0'
4.5'	3.0'
5.5'	3.5'

(W): 12' MIN. - 24' MAX. RESIDENTIAL AND NON-COMMERCIAL (PE & FE)
 16' MIN. - 35' MAX. COMMERCIAL (CE)



NOTE: SIDEWALK MAY BE DEPRESSED IN DRIVEWAY AREAS

SECTION Y - Y
DRIVEWAY DETAIL WITH CONCRETE CURB AND GUTTER
(URBAN AND SUBURBAN)



SECTION Y - Y
4% GUTTER SLOPE

GENERAL NOTES

PROVIDE CONSTRUCTION JOINTS ALONG THE CENTER OF THE CONCRETE FOR DRIVEWAYS UNDER 20 FEET IN WIDTH AND AT THE THIRD POINTS OVER 20 FEET IN WIDTH.

(W) IS SHOWN ON PLAN AND PROFILE SHEETS.

OFFSETS, ELEVATIONS, AND PERCENT GRADE ARE SHOWN ON THE CROSS SECTIONS.

(1) CONSTRUCTION TOLERANCE OF 0.5%± FOR SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

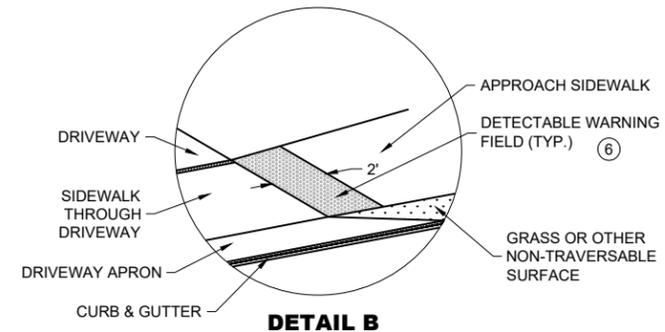
(2) THE SIDEWALK RAMP MAXIMUM RUNNING SLOPE SHALL NOT REQUIRE THE RAMP LENGTH TO EXCEED 15 FEET TO AVOID CHASING THE SLOPE INDEFINITELY WHEN CONNECTING TO STEEP GRADES. WHEN APPLYING THE 15 FOOT MAXIMUM LENGTH, THE RUNNING SLOPE OF THE SIDEWALK SHALL BE AS FLAT AS FEASIBLE AND NOT EXCEED THE LONGITUDINAL GRADE OF THE ROADWAY. SLOPE SIDEWALK RAMP TOWARD APRON AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(3) **DRIVEWAY SLOPES: DESIRABLE MAXIMUM**
 10.5% UP AWAY FROM SIDEWALK (SAG)
 8.5% DOWN AWAY FROM SIDEWALK (CREST)
 ABSOLUTE MAXIMUM 15% FOR BOTH CREST AND SAG

(4) **DRIVEWAY TYPES**
 * 6-INCH CONCRETE DRIVEWAY PAVEMENT OVER 6-INCH BASE AGGREGATE
 * 2-INCH TO 3-INCH ASPHALTIC SURFACE OVER 6-INCH BASE AGGREGATE
 * 6-INCH BASE AGGREGATE (MAY BE INCREASED FOR CLAY SUBGRADES.)

(5) 1/2" EXPANSION JOINT FILLER

(6) DETECABLE WARNING FIELDS ARE REQUIRED WHEN A PEDESTRIAN CIRCULATION ROUTE CROSSES A DRIVEWAY THAT IS TRAFFIC SIGNAL, STOP, OR YIELD SIGN CONTROLLED. DETECABLE WARNING FIELDS TO BE 2 FT DEEP AND EXTEND THE WIDTH OF THE PEDESTRIAN CIRCULATION ROUTE.



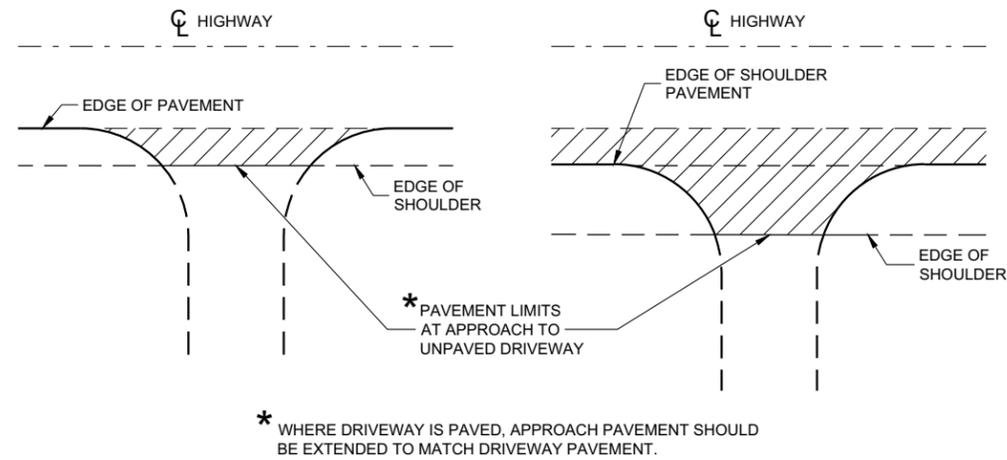
DETAIL B

DRIVEWAY AND SIDEWALK RAMPS
TYPES X AND Y

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 February 2025 /S/ Rodney Taylor
 DATE

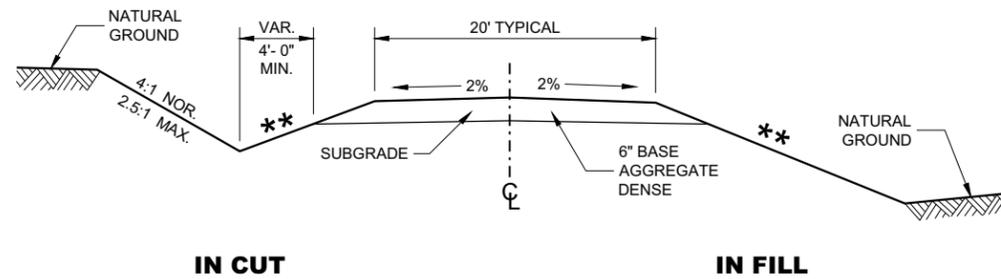
FHWA



PLAN VIEW
(UNPAVED SHOULDER ON HIGHWAY)

PLAN VIEW
(PAVED SHOULDER ON HIGHWAY)

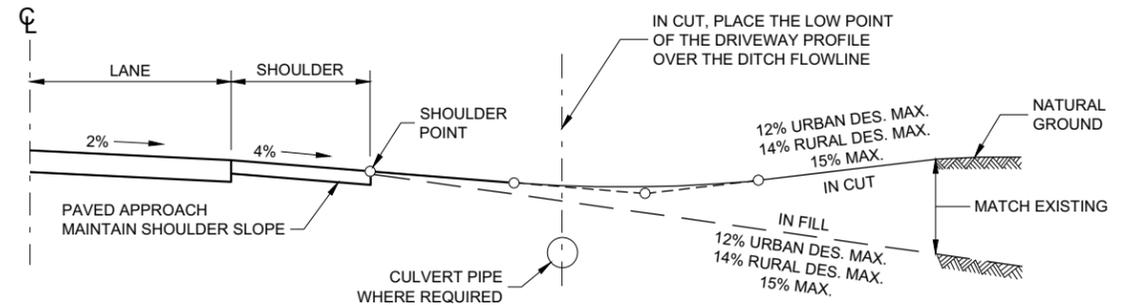
**RURAL DRIVEWAY INTERSECTION DETAIL
(NO CURB AND GUTTER OR SIDEWALK)**



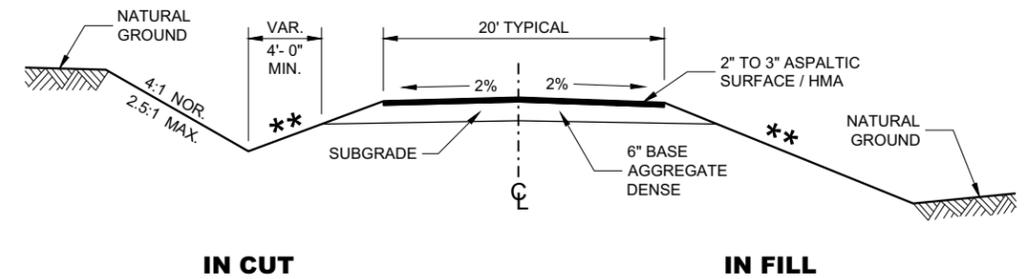
**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
AGGREGATE SURFACE**

** SLOPE CAN VARY WITH SPEED. SEE 11-45-30.6.2

POSTED SPEED MPH	MAX. SLOPE
<35	4:1
≥ 35 TO < 60	6:1
≥60	10:1



TYPICAL DRIVEWAY PROFILES



**TYPICAL CROSS SECTION FOR
PRIVATE DRIVE OR FIELD ENTRANCE
ASPHALTIC SURFACE**

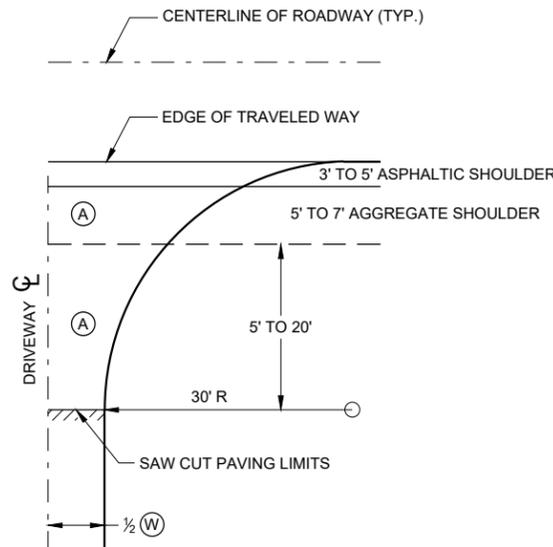
DRIVEWAYS WITHOUT CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

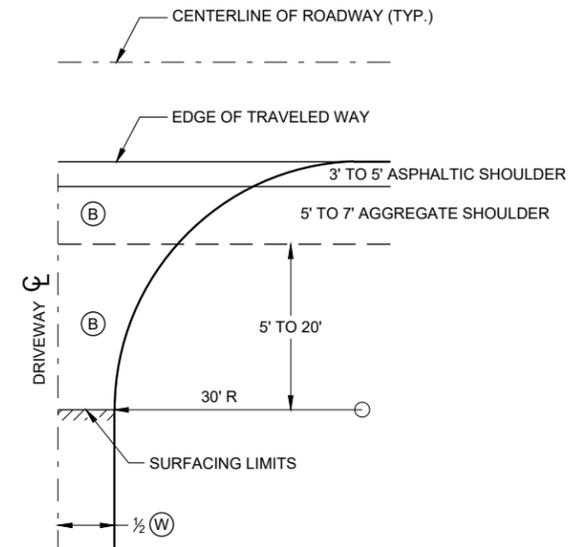
GENERAL NOTES

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

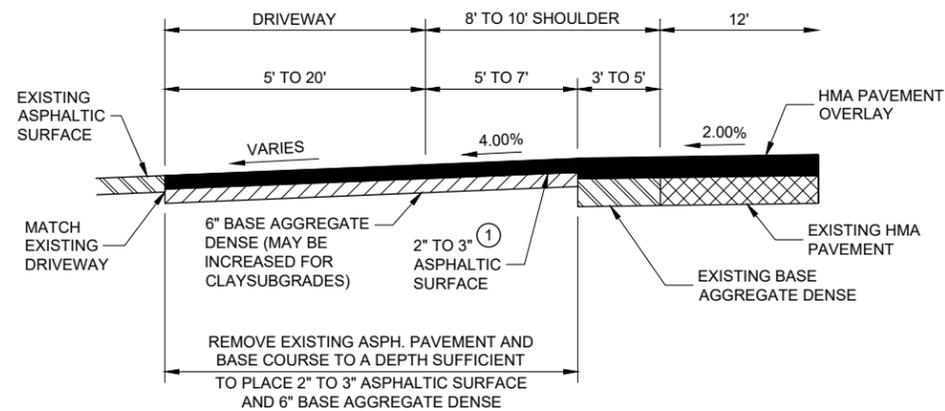


- Ⓐ : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)
- Ⓑ : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)
- ⒲ : DRIVEWAY WIDTH 16' MIN. - 24' MAX.

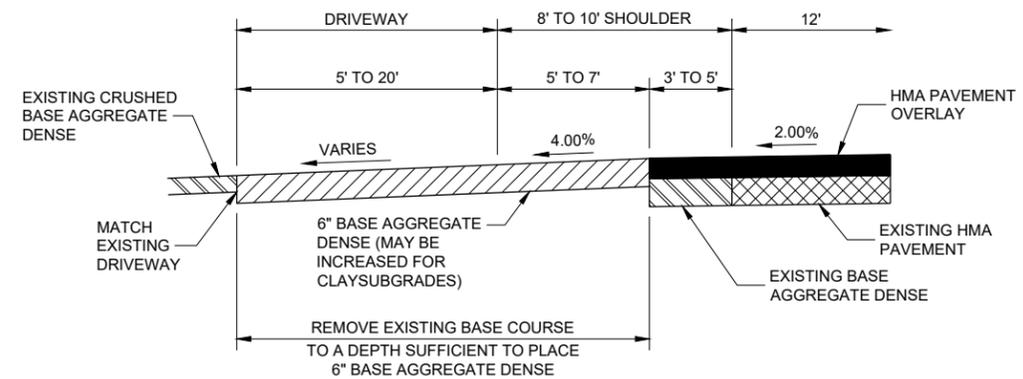
**PLAN VIEW
HALF SECTION**



**PLAN VIEW
HALF SECTION**



**PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS**



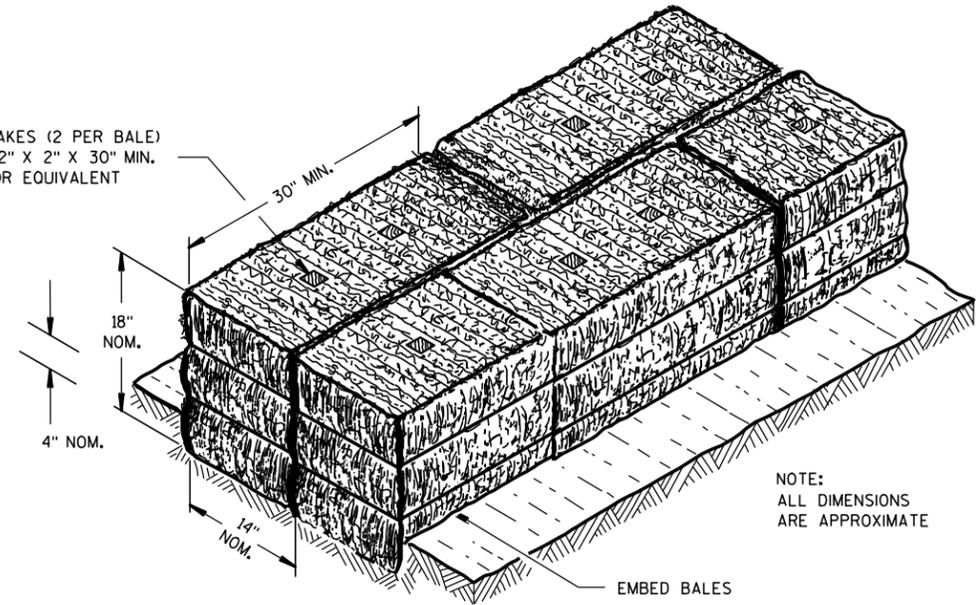
**PROFILE VIEW
RURAL ENTRANCE
WITH AGGREGATE SURFACE
6" BASE AGGREGATE DENSE
RESURFACING PROJECTS**

**DRIVEWAYS WITHOUT CURB
AND GUTTER RESURFACING
PROJECTS RURAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVE 77
ENGINEER
FHWA

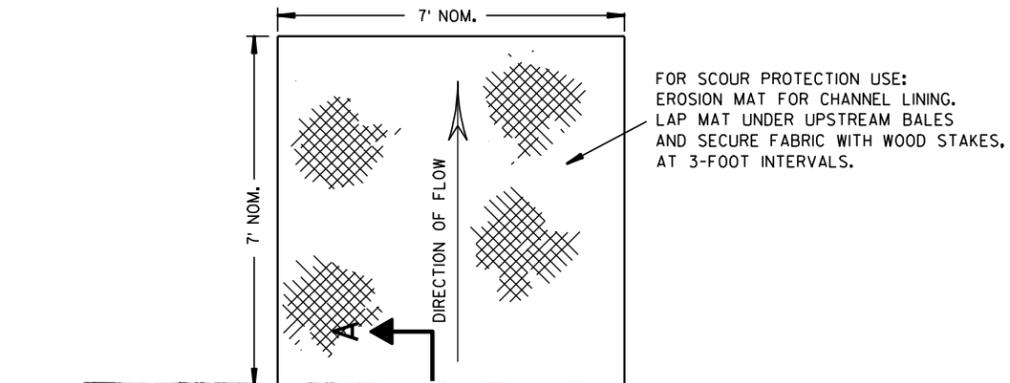
WOOD STAKES (2 PER BALE)
NOMINAL 2" X 2" X 30" MIN.
LENGTH OR EQUIVALENT



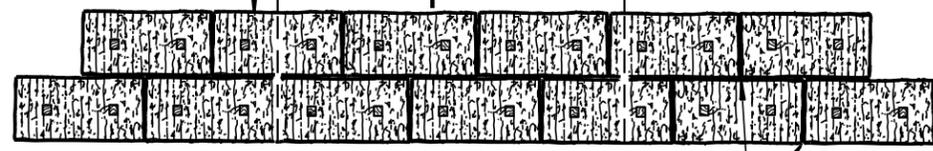
NOTE:
ALL DIMENSIONS
ARE APPROXIMATE

EMBED BALES

SECTION A-A



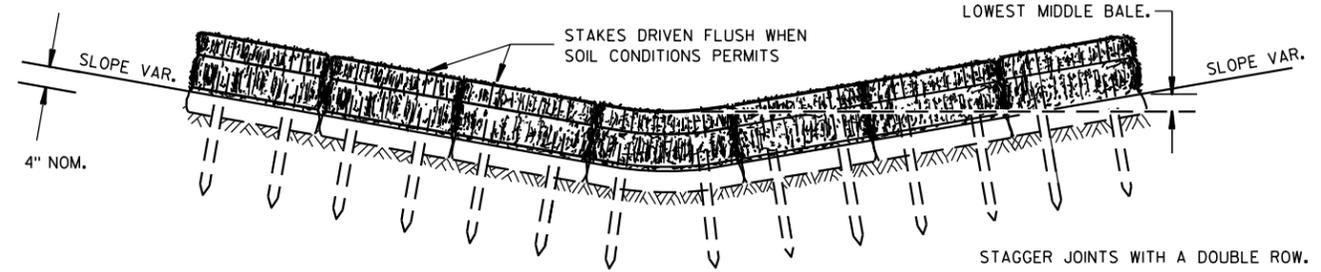
FOR SCOUR PROTECTION USE:
EROSION MAT FOR CHANNEL LINING.
LAP MAT UNDER UPSTREAM BALES
AND SECURE FABRIC WITH WOOD STAKES,
AT 3-FOOT INTERVALS.



STAGGER JOINTS BETWEEN ADJACENT
ROWS OF BALES.

PLAN VIEW

BOTTOM ELEVATION OF END BALE SHALL
BE EQUAL TO OR GREATER THAN TOP OF
LOWEST MIDDLE BALE.



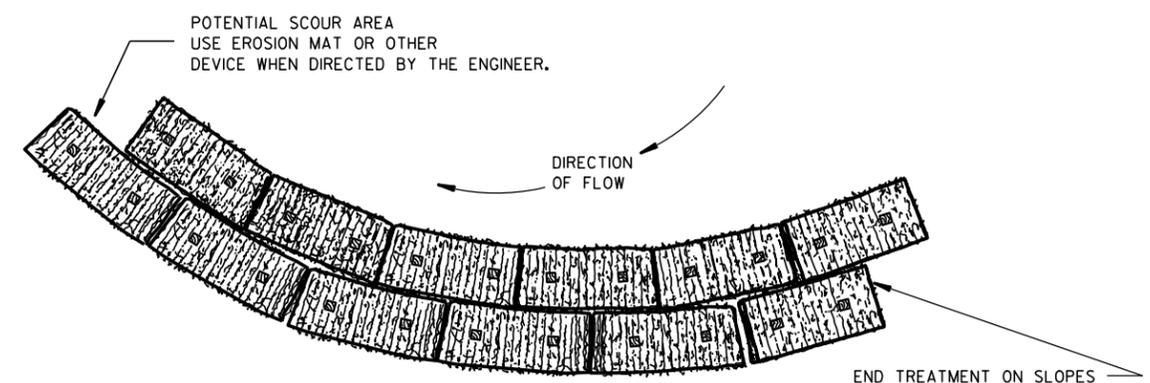
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES ①

GENERAL NOTES

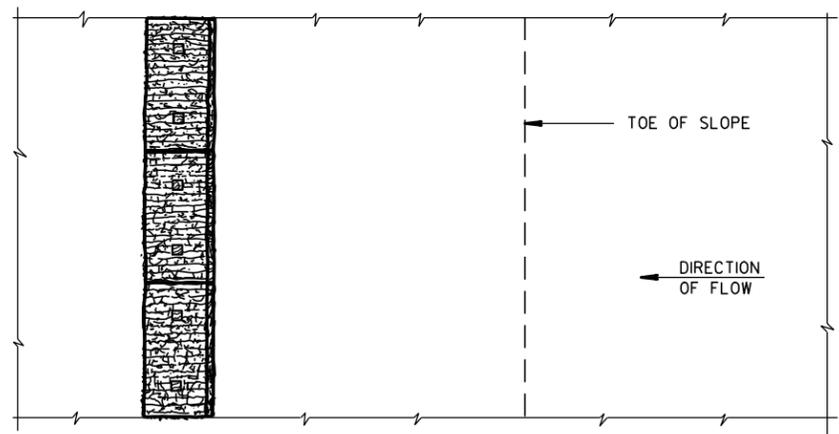
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

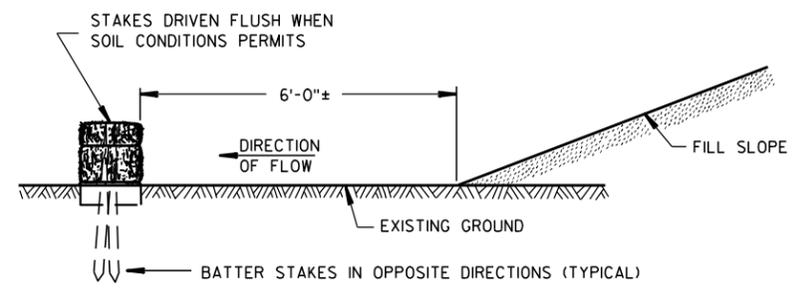


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

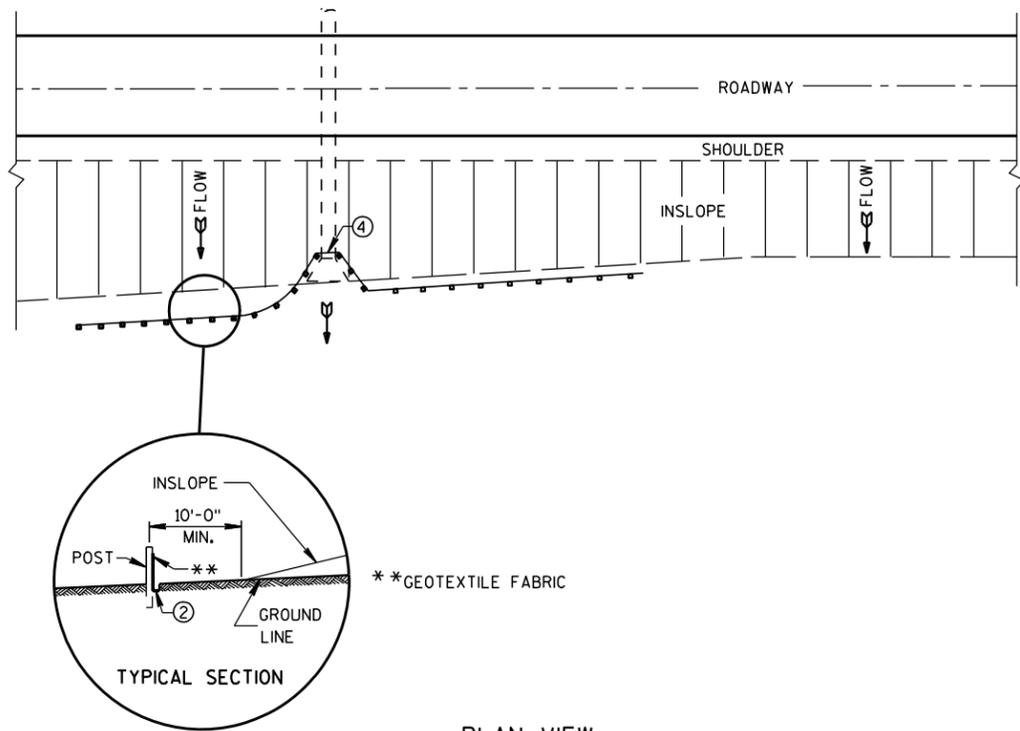
WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

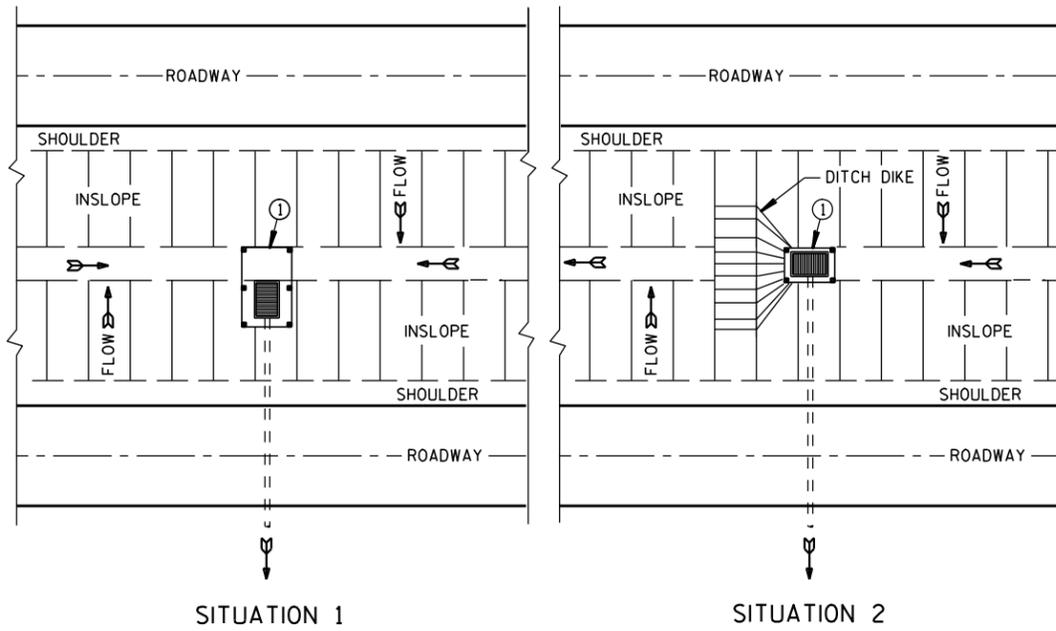
TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
 6/04/02 /S/ Beth Cann-----
 DATE CHIEF ROADWAY DEVELOPER 78 ENGINEER
 FHWA



PLAN VIEW
TYPICAL APPLICATION OF SILT FENCE

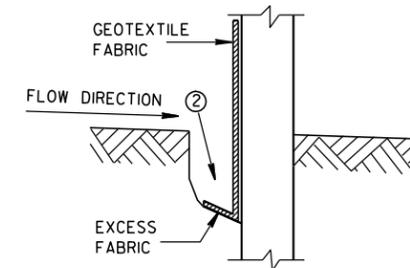


SITUATION 1 SITUATION 2
PLAN VIEW
SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

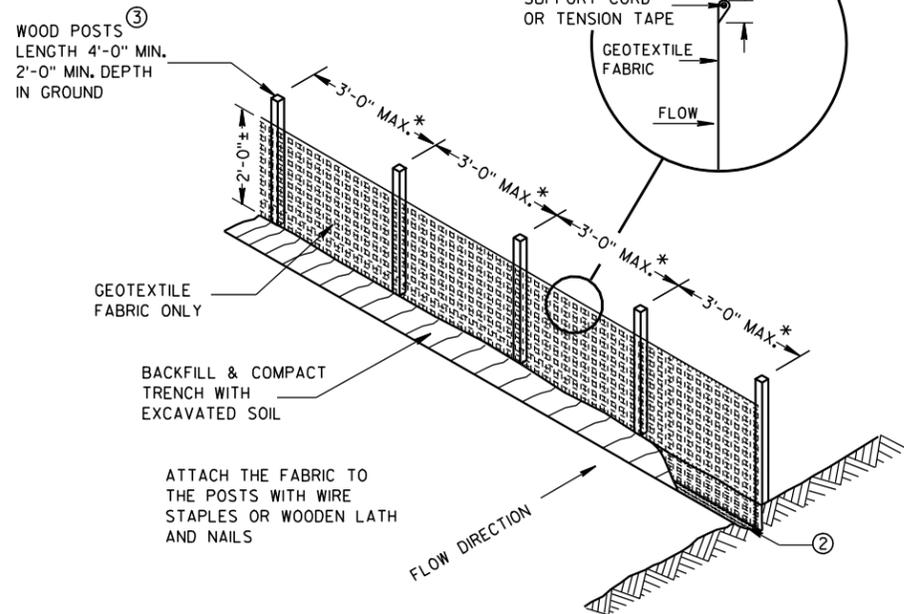
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

- 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.



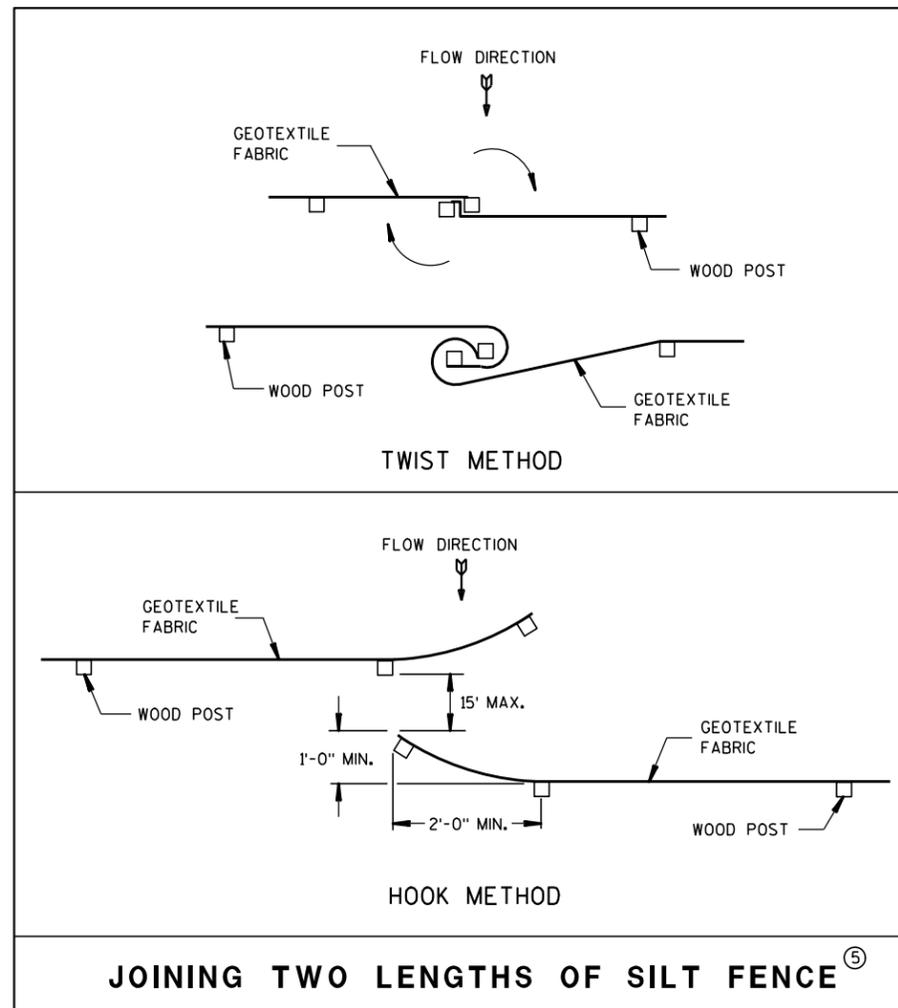
TRENCH DETAIL

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

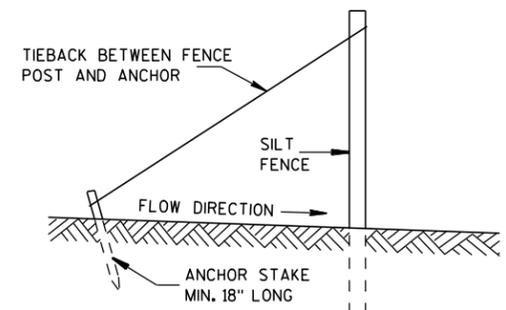


SILT FENCE

* NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.



JOINING TWO LENGTHS OF SILT FENCE ⑤

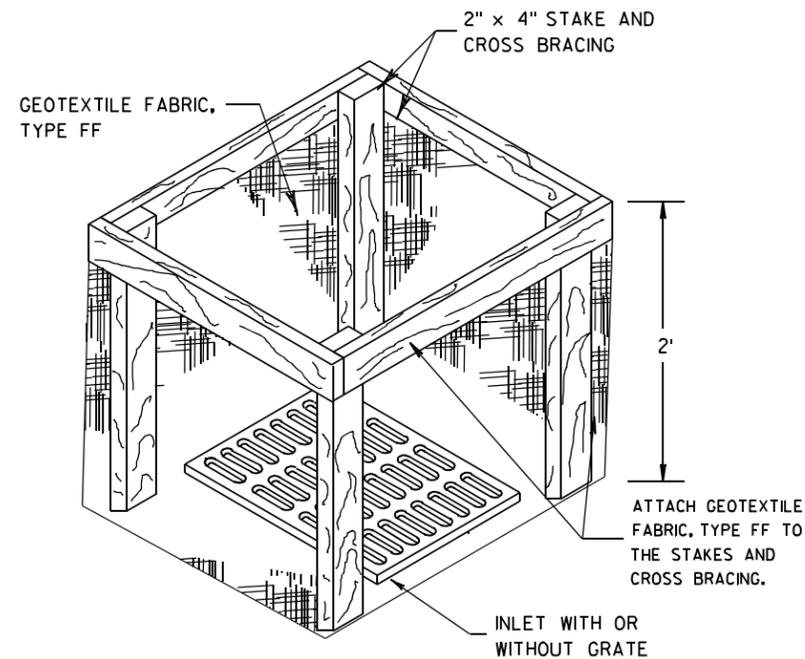
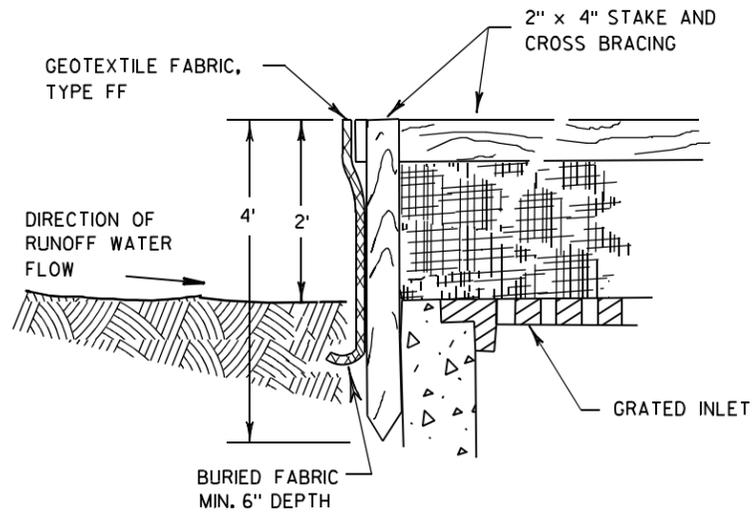


SILT FENCE TIE BACK
(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4-29-05 /S/ Beth Cann
DATE CHIEF ROADWAY DEVELOPER INEER
FHWA



INLET PROTECTION, TYPE A

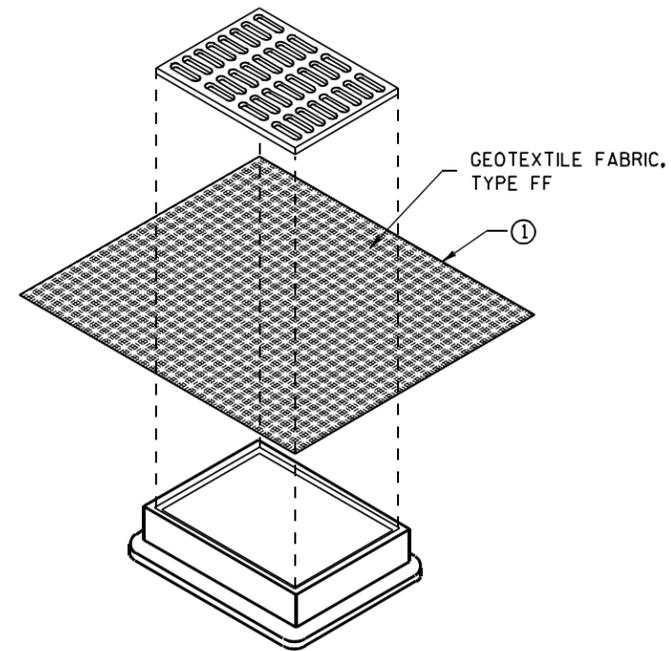
GENERAL NOTES

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.

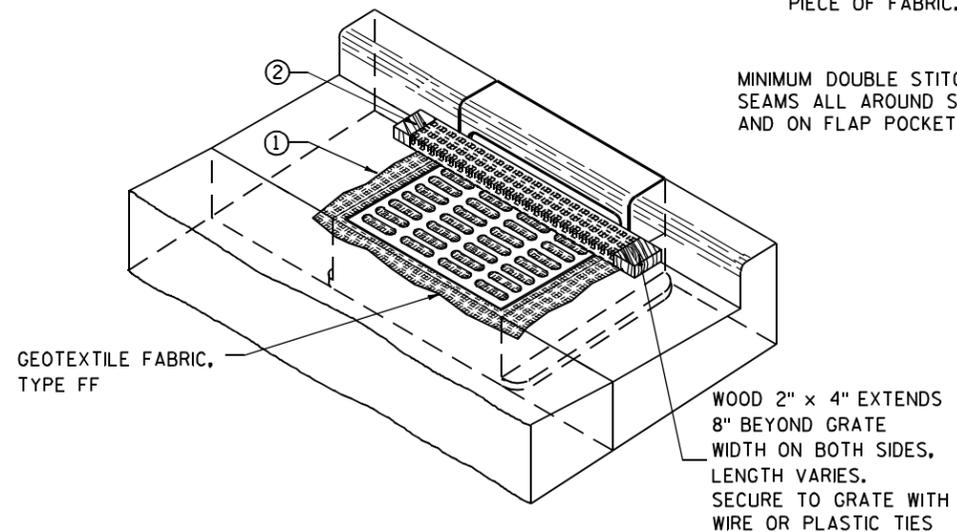
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

- 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.

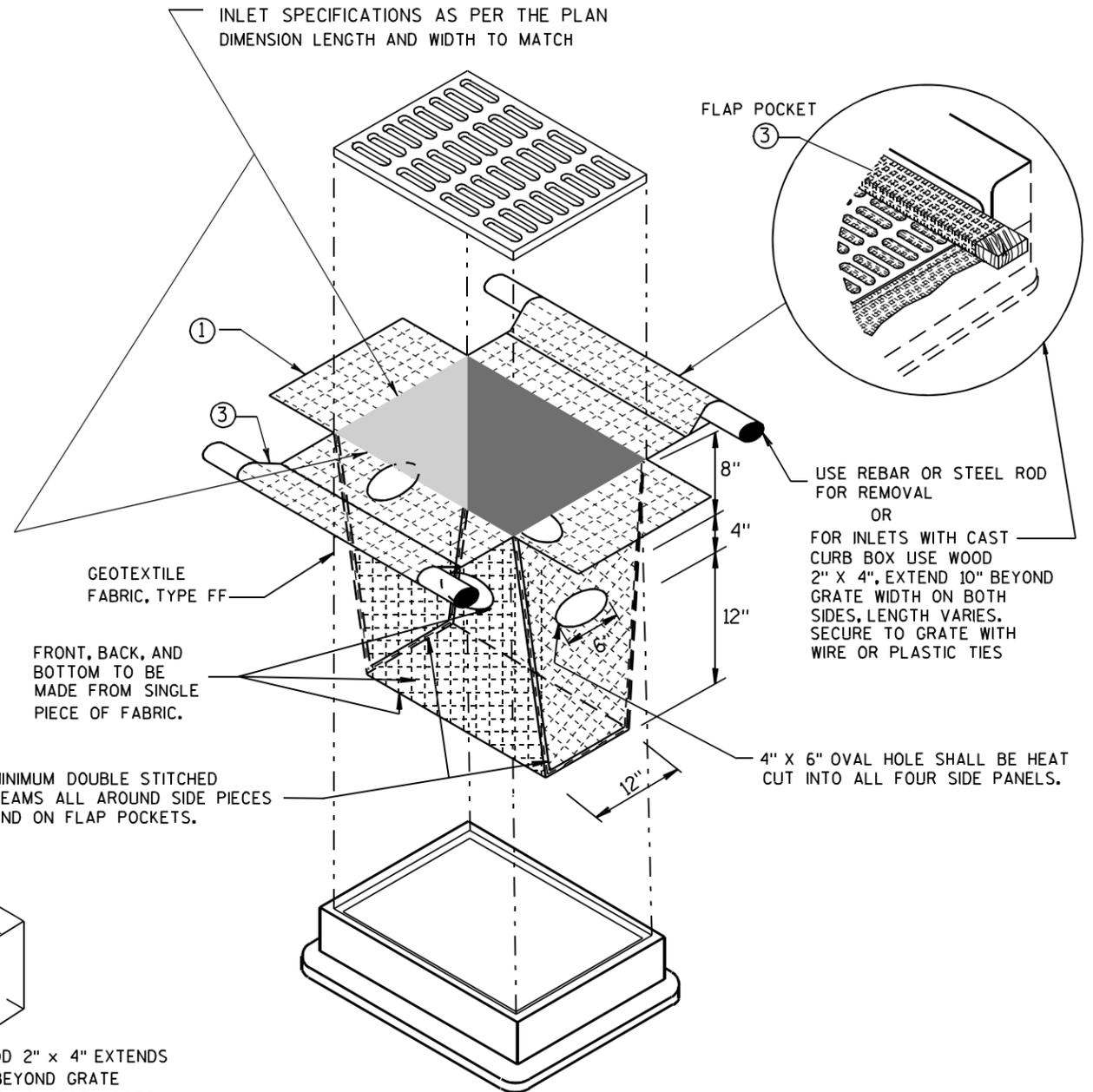
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

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.



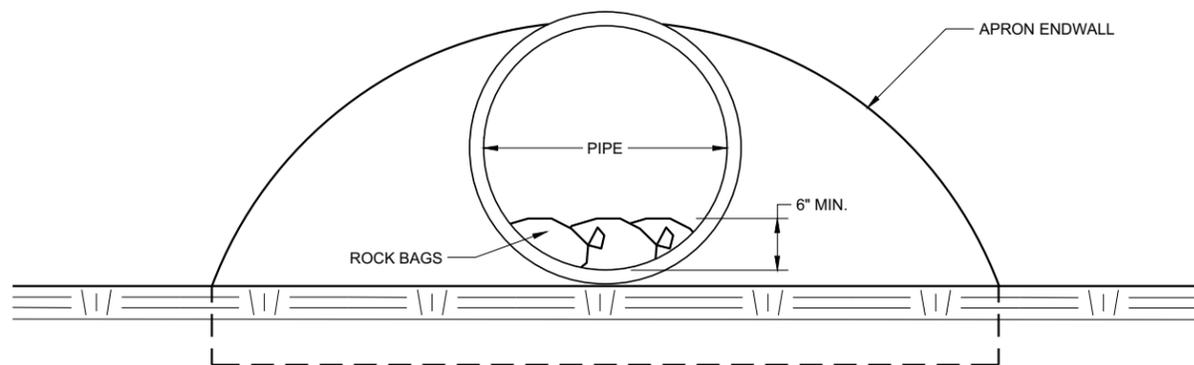
INLET PROTECTION, TYPE D

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

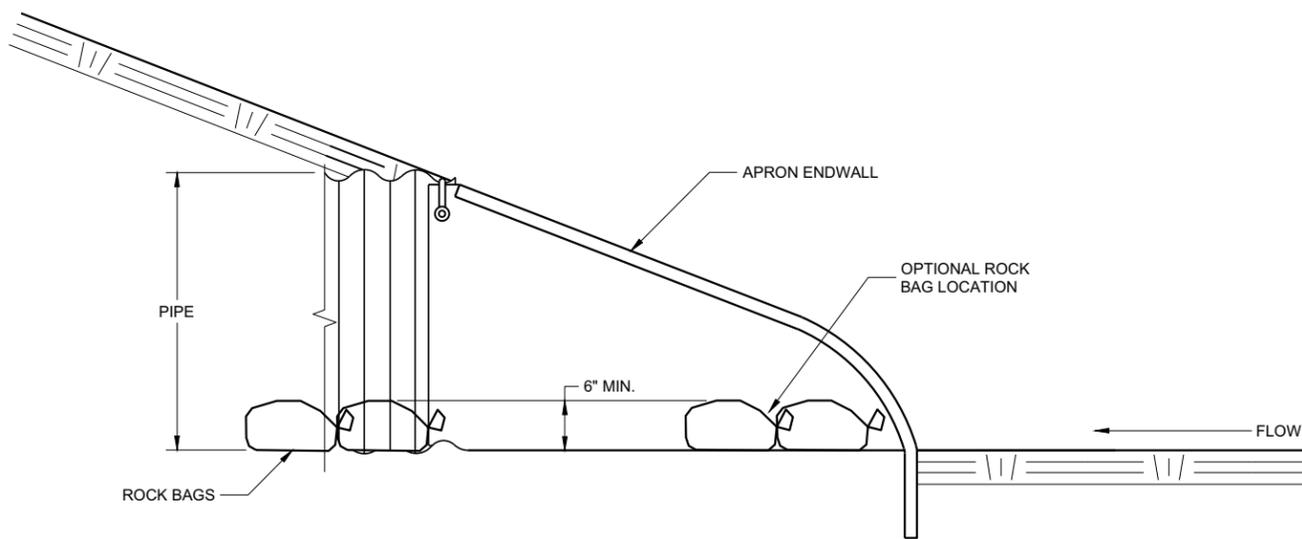
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connors
DATE 80
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 /S/ Daniel Schave
 DATE EROSION CONTROL ENGI 81

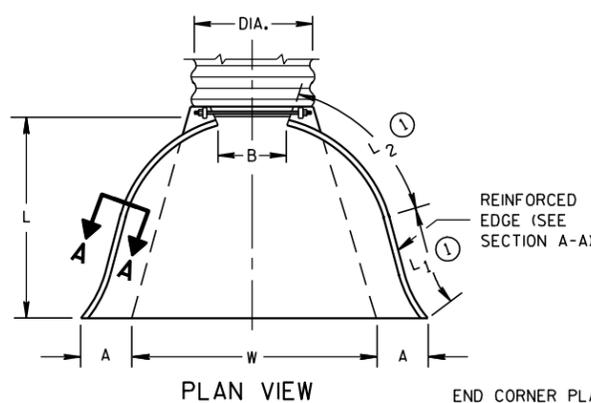
FHWA

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")	L1	L2	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.

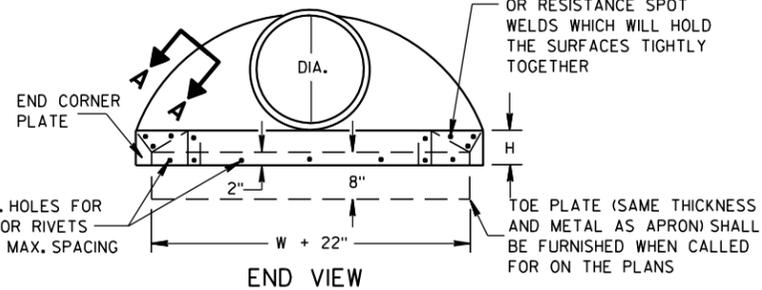
* EXCEPT CENTER PANEL SEE GENERAL NOTES

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	

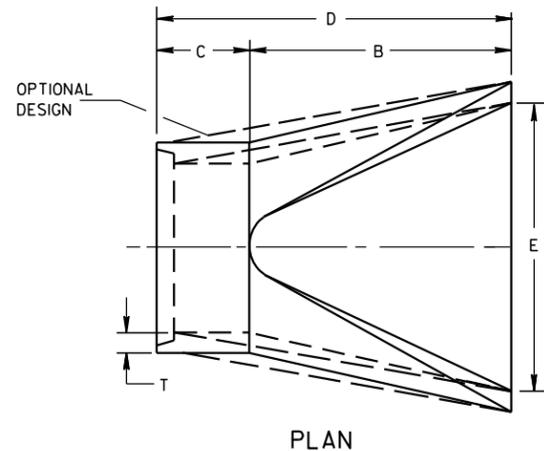
* MINIMUM
** MAXIMUM



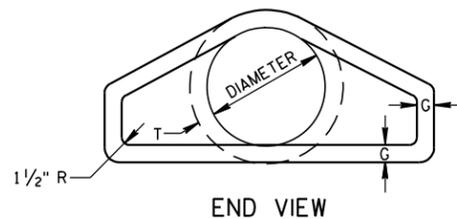
END CORNER PLATES MAY BE FASTENED TO APRON PROPER BY BOLTS, RIVETS, OR RESISTANCE SPOT WELDS WHICH WILL HOLD THE SURFACES TIGHTLY TOGETHER



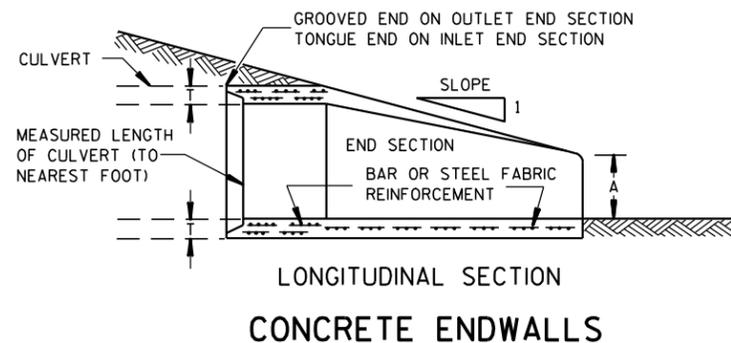
SIDE ELEVATION
METAL ENDWALLS



PLAN

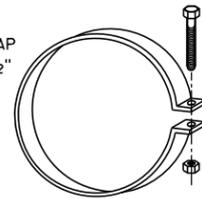


END VIEW

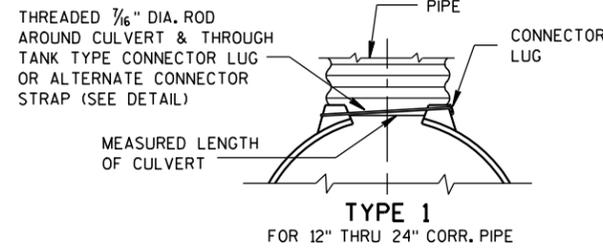


LONGITUDINAL SECTION
CONCRETE ENDWALLS

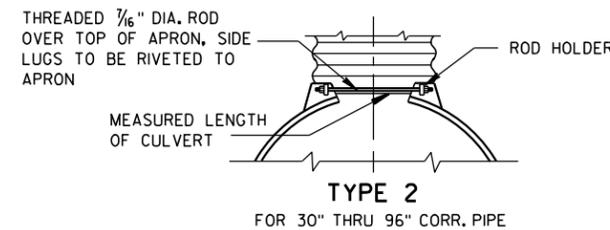
1" WIDE, 12 GA. (0.109" THICK) GALVANIZED STRAP WITH STANDARD 6" X 1/2" BAND BOLT AND NUT



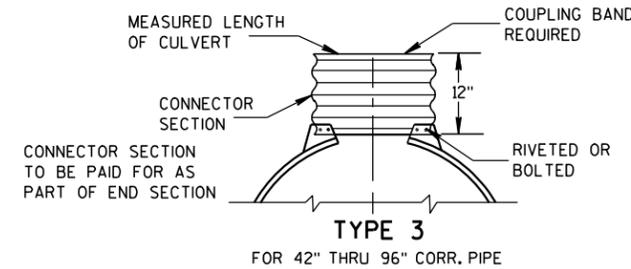
ALTERNATE FOR TYPE 1 CONNECTION
END SECTION CONNECTOR STRAP



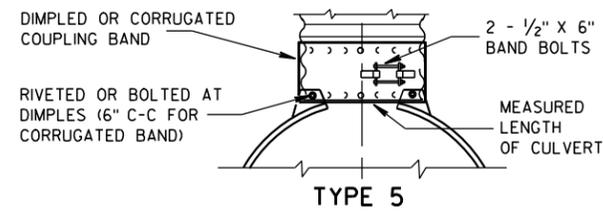
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

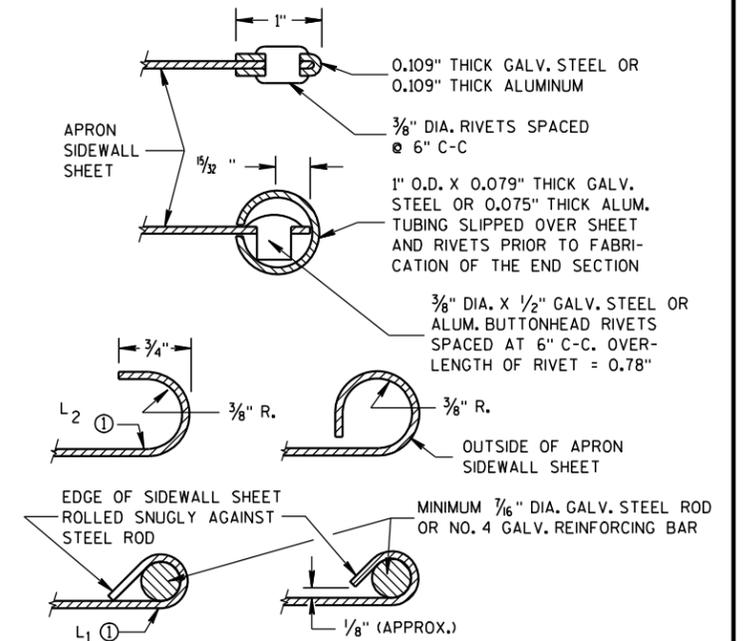
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

CONCRETE CULVERT ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VICE 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.

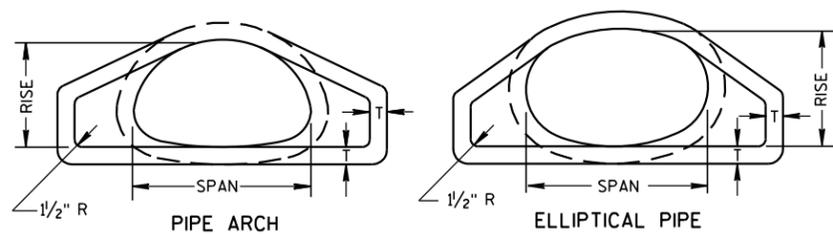
WHERE TWO OR MORE PIPES WITH APRON ENDWALLS ARE LAID ADJACENT TO EACH OTHER, THEY SHALL BE SEPARATED BY A DISTANCE SUFFICIENT TO PROVIDE A MINIMUM CLEARANCE OF 6 INCHES BETWEEN APRON ENDWALLS.

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

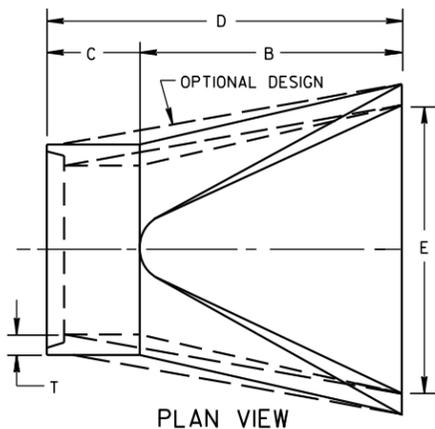
APRON ENDWALLS FOR
CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

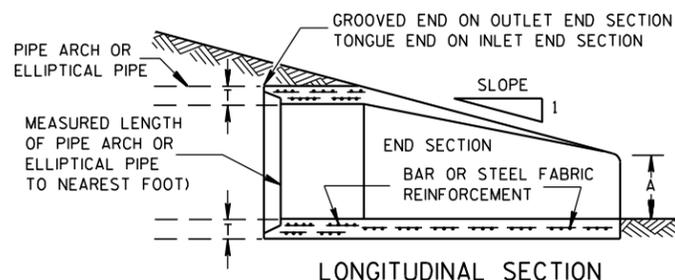
APPROVED
11/30/94 DATE /S/ Rory L. Rhine Chief Roadway Develop 82 NEER
FHWA



END VIEW



PLAN VIEW



LONGITUDINAL SECTION

CONCRETE ENDWALLS

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

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (⊙)	L2 (⊙)	W (±2")		
15	17	13	.064	.060	7	9	6	19	14	16	30	2 1/2 to 1	1 Pc.
18	21	15	.064	.060	7	10	6	23	14	19 3/8	36	2 1/2 to 1	1 Pc.
21	24	18	.064	.060	8	12	6	28	18	21 3/4	42	2 1/2 to 1	1 Pc.
24	28	20	.064	.060	9	14	6	32	18	27 1/2	48	2 1/2 to 1	1 Pc.
30	35	24	.079	.075	10	16	6	39	18	37 5/8	60	2 1/2 to 1	1 Pc.
36	42	29	.079	.075	12	18	8	46	24	45 3/8	75	2 1/2 to 1	1 Pc.
42	49	33	.109	.105	13	21	9	53	24	54 3/4	85	2 1/2 to 1	2 Pc.
48	57	38	.109	.105	18	26	12	63	24	68	90	2 1/2 to 1	3 Pc.
54	64	43	.109	.105	18	30	12	70	24	72 3/4	102	2 1/4 to 1	3 Pc.
60	71	47	.109*	.105*	18	33	12	77	30	82 1/4	114	2 1/4 to 1	3 Pc.
66	77	52	.109*	.105*	18	36	12	77	—	—	126	2 to 1	3 Pc.
72	83	57	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.

3" X 1" CORRUGATIONS

EQUIV. DIA. (Inches)	(Inches)		MIN. THICK. (Inches)		DIMENSIONS (Inches)							APPROX. SLOPE	BODY
	SPAN	RISE	STEEL	ALUM.	A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 (⊙)	L2 (⊙)	W (±2")		
48	53	41	.109	.105	18	26	12	63	24	72 3/4	90	2 1/2 to 1	2 Pc.
54	60	46	.109	.105	18	30	12	70	30	82 1/4	102	2 to 1	2 Pc.
60	66	51	.109*	.105*	18	33	12	77	—	—	114	1 1/2 to 1	3 Pc.
66	73	55	.109*	.105*	18	36	12	77	—	—	126	1 1/2 to 1	3 Pc.
72	81	59	.109*	.105*	18	39	12	77	—	—	138	2 to 1	3 Pc.
78	87	63	.109*	.105*	22	38	12	77	—	—	148	1 1/2 to 1	3 Pc.
84	95	67	.109*	.105*	22	34	12	77	—	—	162	1 1/2 to 1	3 Pc.
90	103	71	.109*	.105*	22	38	12	77	—	—	174	1 1/2 to 1	3 Pc.
96	112	75	.109*	.105*	24	40	12	77	—	—	174	1 1/2 to 1	3 Pc.

NOTE: ALL SPLICES TO BE LAP RIVETED OR BOLTED. * EXCEPT CENTER PANEL SEE GENERAL NOTES

REINFORCED CONCRETE PIPE ARCH

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E	
24	29	18	3	8 1/2	39	33	72	48	3 to 1
30	36	22	3 1/2	9 1/2	50	46	96	60	3 to 1
36	44	27	4	11 1/8	60	36	96	72	3 to 1
42	51	31	4 1/2	15 1/8	60	36	96	78	3 to 1
48	58	36	5	21	60	36	96	84	3 to 1
54	65	40	5 1/2	25 1/2	60	36	96	90	3 to 1
60	73	45	6	31	60	36	96	96	3 to 1
72	88	54	7	31	60	39	99	120	2 to 1
84	102	62	8	28 1/2	83	19	102	144	2 to 1

REINFORCED CONCRETE ELLIPTICAL PIPE

EQUIV. DIA. (Inches)	DIMENSIONS (Inches)								APPROX. SLOPE
	**SPAN	**RISE	T	A	B	C	D	E	
24	30	19	3 1/4	8 1/2	39	33	72	48	3 to 1
30	38	24	3 3/4	9 1/2	54	18	72	60	3 to 1
36	45	29	4 1/2	11 1/8	60	24	84	72	2 1/2 to 1
42	53	34	5	15 3/4	60	36	96	78	2 1/2 to 1
48	60	38	5 1/2	21	60	36	96	84	2 1/2 to 1
54	68	43	6	25 1/2	60	36	96	90	2 1/2 to 1
60	76	48	6 1/2	30	60	36	96	96	2 1/2 to 1

**NOMINAL SIZE

GENERAL NOTES

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

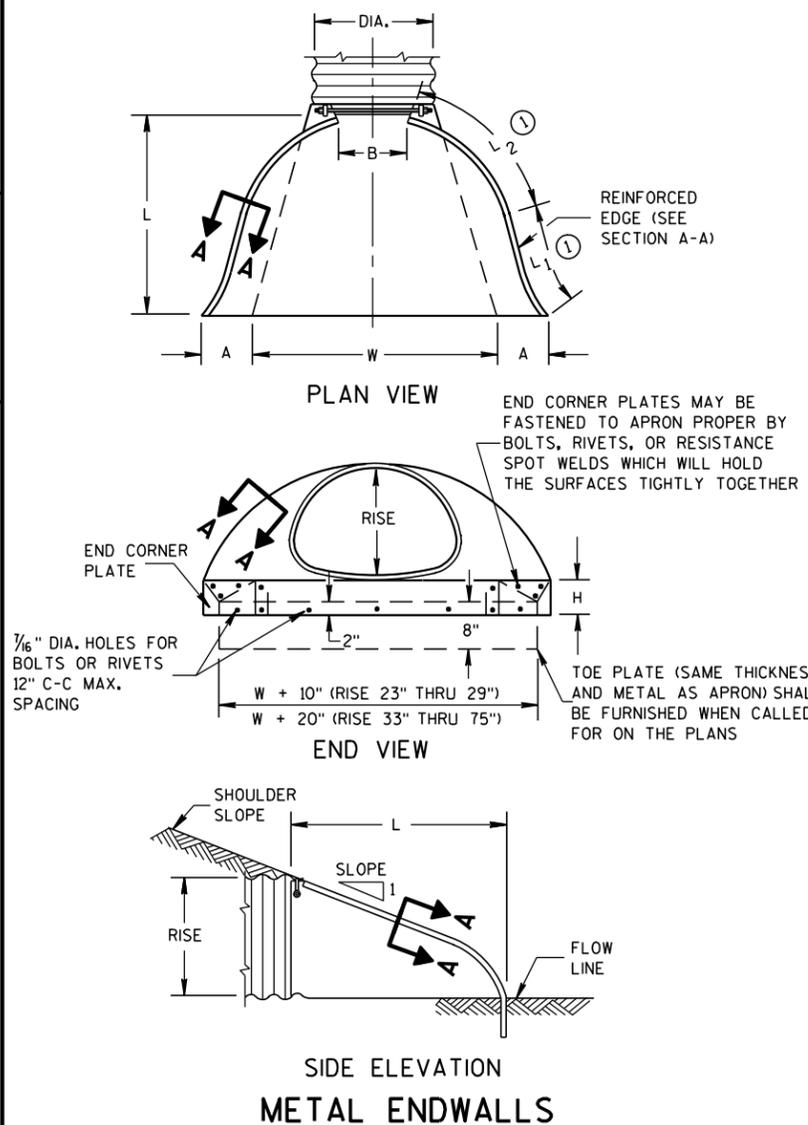
CONCRETE APRON ENDWALLS MAY NOT BE USED WITH GALVANIZED STEEL OR ALUMINUM CULVERT PIPE OR VISE VERSA. GALVANIZED STEEL OR ALUMINUM APRON ENDWALLS SHALL NORMALLY BE INSTALLED ON CULVERT PIPE OF THE SAME METAL.

ALL THREE PIECE STEEL APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.109" SIDES AND 0.138" CENTER PANELS. ALL THREE PIECE ALUMINUM APRON ENDWALLS FOR 66" X 51" PIPE ARCH AND LARGER SHALL HAVE 0.105" SIDES AND 0.134" CENTER PANELS. THE WIDTH OF CENTER PANELS SHALL BE GREATER THAN 20 PERCENT OF THE PIPE ARCH PERIMETER.

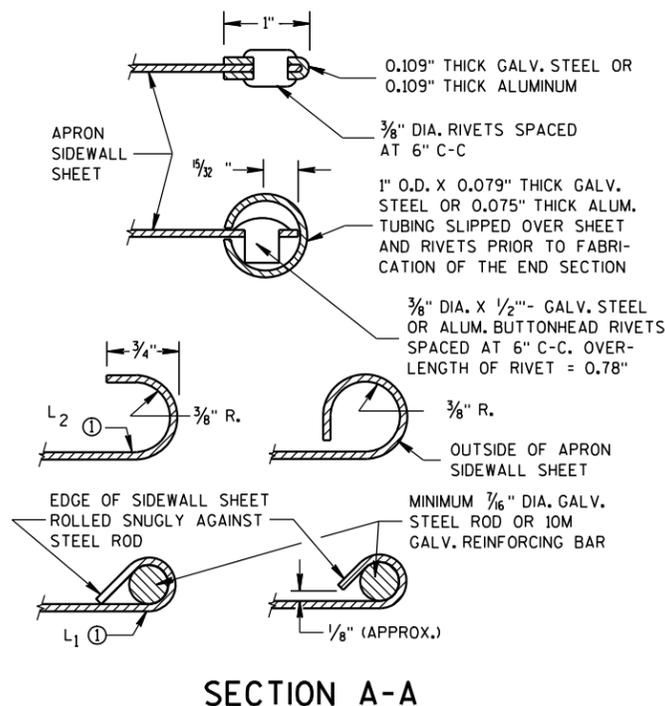
LAP SEAMS SHALL BE TIGHTLY JOINED BY GALVANIZED RIVETS OR BOLTS FOR STEEL UNITS AND ALUMINUM RIVETS AND BOLTS FOR ALUMINUM UNITS. FOR THE 77" X 52" THROUGH 112" X 75" APRON ENDWALL SIZES, THE REINFORCED EDGES AND CENTER PANEL SEAMS SHALL BE FURTHER REINFORCED WITH GALVANIZED STEEL OR ALUMINUM STIFFENER ANGLES. THE ANGLES SHALL BE ATTACHED BY GALVANIZED NUTS AND BOLTS FOR STEEL UNITS AND ALUMINUM NUTS AND BOLTS FOR ALUMINUM UNITS.

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

Ⓛ FOR PIPE ARCH SIZES UP TO 73" X 55" A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.



SIDE ELEVATION
METAL ENDWALLS

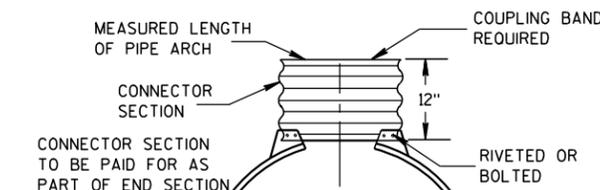


SECTION A-A



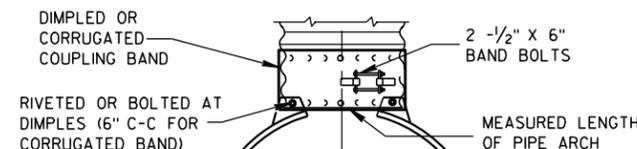
TYPE 2

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



TYPE 3

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



TYPE 5

ALTERNATE FOR:
ALL SIZES CORRUGATED PIPE ARCHES

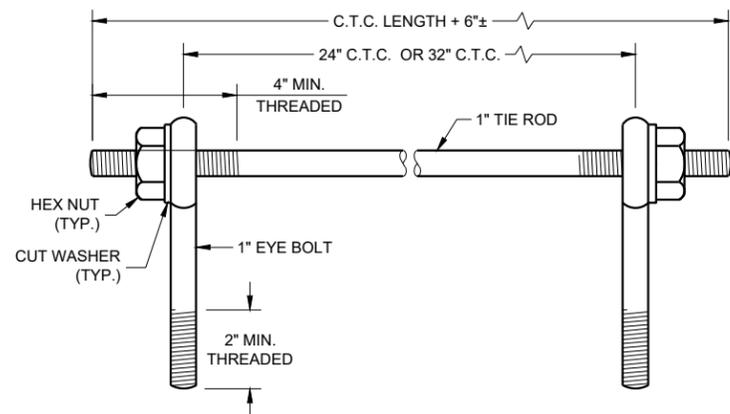
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL, AND CORRUGATED BAND FITS INSIDE ENDWALL.

CONNECTION DETAILS

**APRON ENDWALLS FOR
PIPE ARCH AND
ELLIPTICAL PIPE**

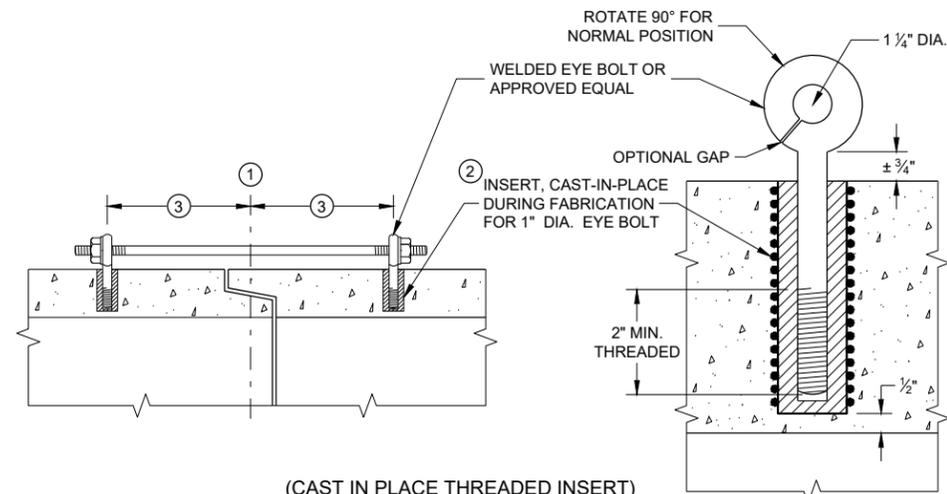
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 /S/ Rory L. Rhinehart
DATE CHIEF ROADWAY DEVELOPER JINEER
FHWA



EYE BOLTS AND TIE ROD

EYE BOLT AND TIE ROD ASSEMBLY (ALTERNATE NO. 1)



LONGITUDINAL SECTIONS

GENERAL NOTES

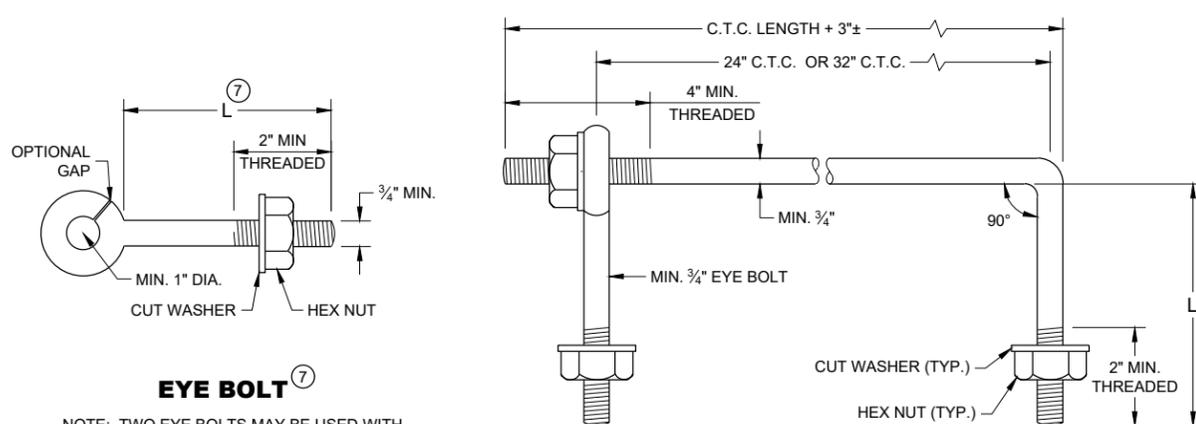
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

CONCRETE CULVERT AND STORM SEWER PIPE SHALL BE TIED TOGETHER IN THE MANNER ILLUSTRATED BY THIS DETAIL AT LOCATIONS DESIGNATED IN THE STANDARD SPECIFICATIONS AND THE PLAN. THE CONTRACTOR MAY USE EITHER ALTERNATE 1, 2 OR 3 FOR DRAINAGE STRUCTURES. ONLY ALTERNATE 1 AND 3 MAY BE USED FOR CATTLE PASSES, UNLESS OTHERWISE STATED IN THE CONTRACT. THE MATERIALS, FABRICATION AND WORK NECESSARY TO TIE THE PIPE BY THIS DETAIL WILL BE CONSIDERED INCIDENTAL TO THE PIPE AND APRON ENDWALLS IF REQUIRED.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR JOINT TIES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL.

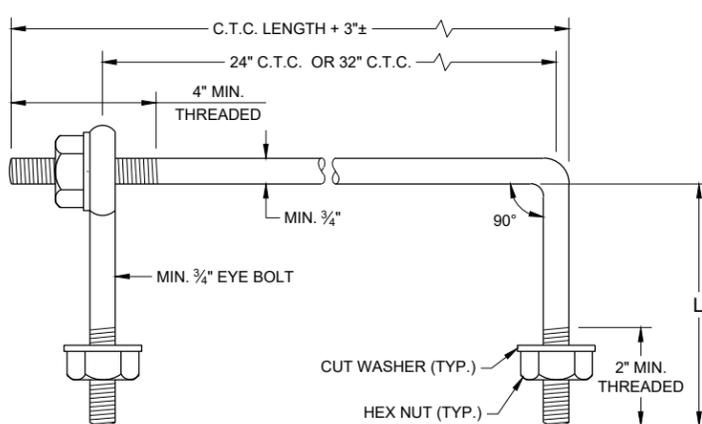
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- ① CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.
- ② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.
- ③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.
- ④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.
- ⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.
- ⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.
- ⑦ EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

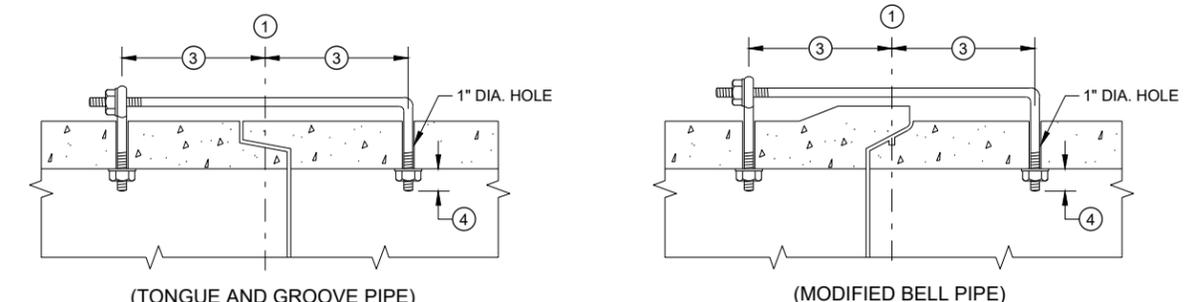


EYE BOLT ⑦

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30\"/>



EYE BOLT AND TIE ROD



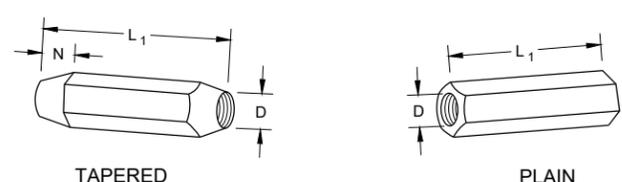
LONGITUDINAL SECTION
(JOINT TIES FOR 18\"/>

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

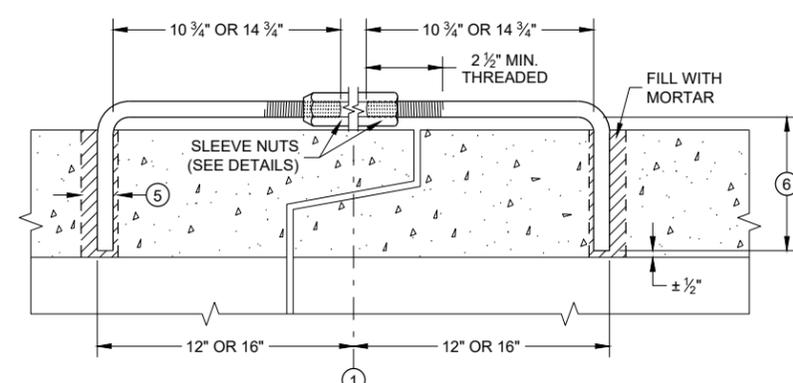
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L ₁	N
12 - 60	5/8	5/8	5	1/2
66 - 84	3/4	3/4	5	1/2
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES

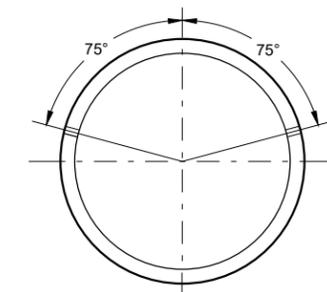


RIGHT AND LEFT THREADS SLEEVE NUTS



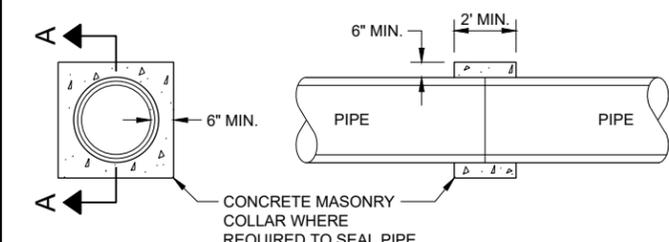
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



PLACEMENT OF (2) CAST-IN-PLACE INSERTS OR HOLES DURING FABRICATION FOR PIPE SECTIONS REQUIRING TIE RODS

TRANSVERSE SECTION



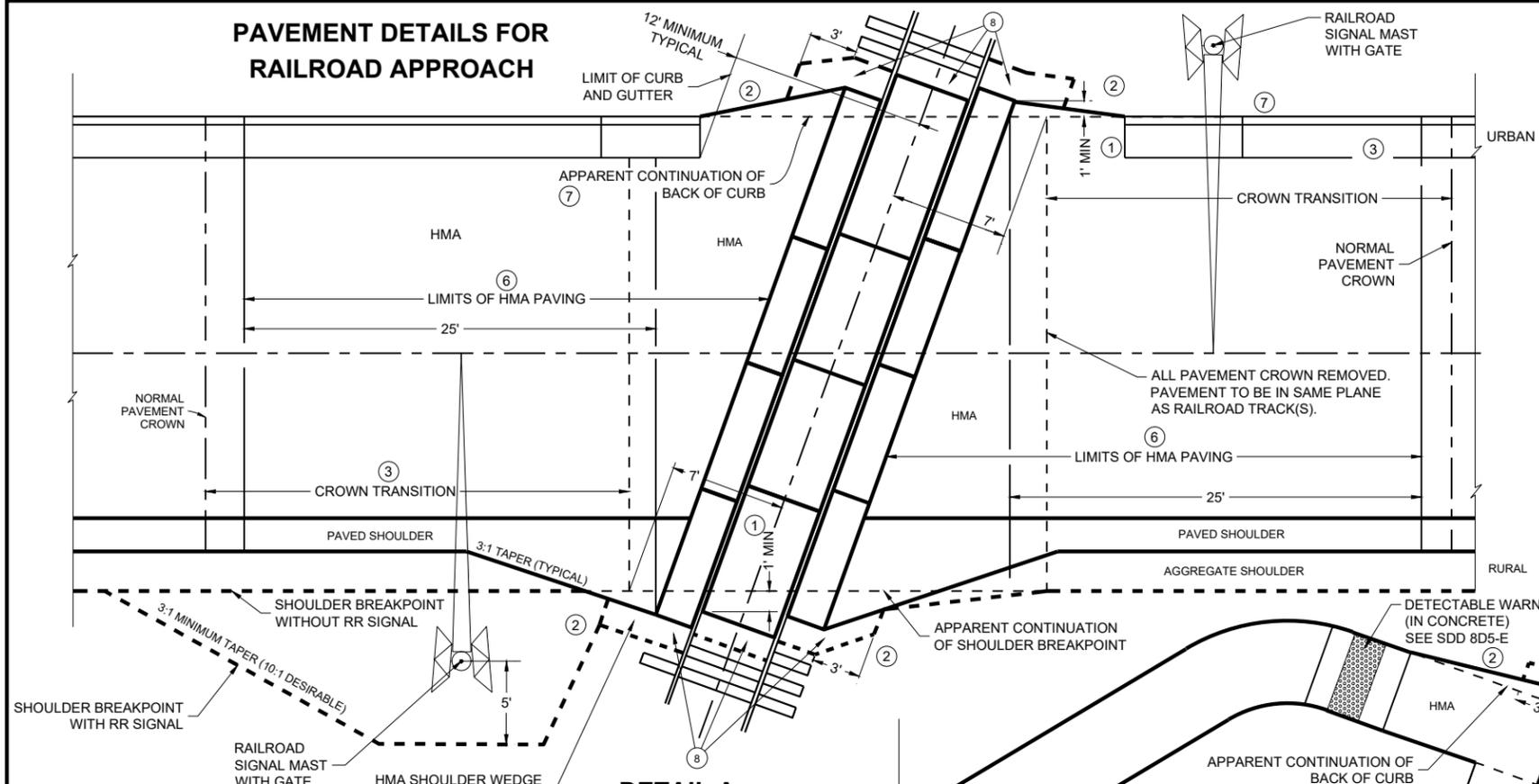
SECTION A - A
CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVE 84
ENGINEER
FHWA

PAVEMENT DETAILS FOR RAILROAD APPROACH



**DETAIL A
RAILROAD APPROACH**

GENERAL NOTES

PLANS AND SECTIONS ARE TYPICAL. DIMENSIONS VARY PER PROJECT.

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

CROSSING SURFACE MATERIAL, RAILS, TIES, BALLAST, AND CROSSING DRAINAGE SYSTEM BY OTHERS UNLESS DIRECTED OTHERWISE. IF THE FINAL GRADES DON'T MATCH TO THE PLAN GRADES THEN GRADE ADJUSTMENTS WILL BE NECESSARY. CONFIRM NEW GRADES WITH PROJECT ENGINEER.

HMA PAVEMENT APPROACHES, HMA PAVEMENT CROSSING SURFACES, AND HMA FLANGWAY/FIELD FILLERS TO BE REPLACED BY ROADWAY CONTRACTOR UNLESS DIRECTED OTHERWISE BY THE PLANS, SPECIAL PROVISIONS, RAILROAD ENGINEER, OR PROJECT ENGINEER.

HMA PAVEMENT SHALL BE ROLLED PARALLEL TO THE TRACK.

WHEN THERE IS A SIDEWALK OR SHARED-USE PATH, ADD DETECTABLE WARNING FIELDS PER CURRENT STANDARD DETAIL DRAWING 8D5-E.

THE CROSSING SHALL NOT BE OPENED TO ANY TYPE OF TRAFFIC UNTIL IT IS FULLY PAVED AND COOLED SUFFICIENTLY UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.

NO NON-RUBBER TIRED OR TRACKED EQUIPMENT SHALL CROSS OR SIT ON THE CROSSING SURFACE WITHOUT PROTECTING THE CROSSING SURFACE WITH A METHOD APPROVED BY THE RAILROAD ENGINEER AND PROJECT ENGINEER.

PLACE BASE AGGREGATE DENSELY AROUND SIGNAL BASE. COORDINATE WITH THE RAILROAD ENGINEER.

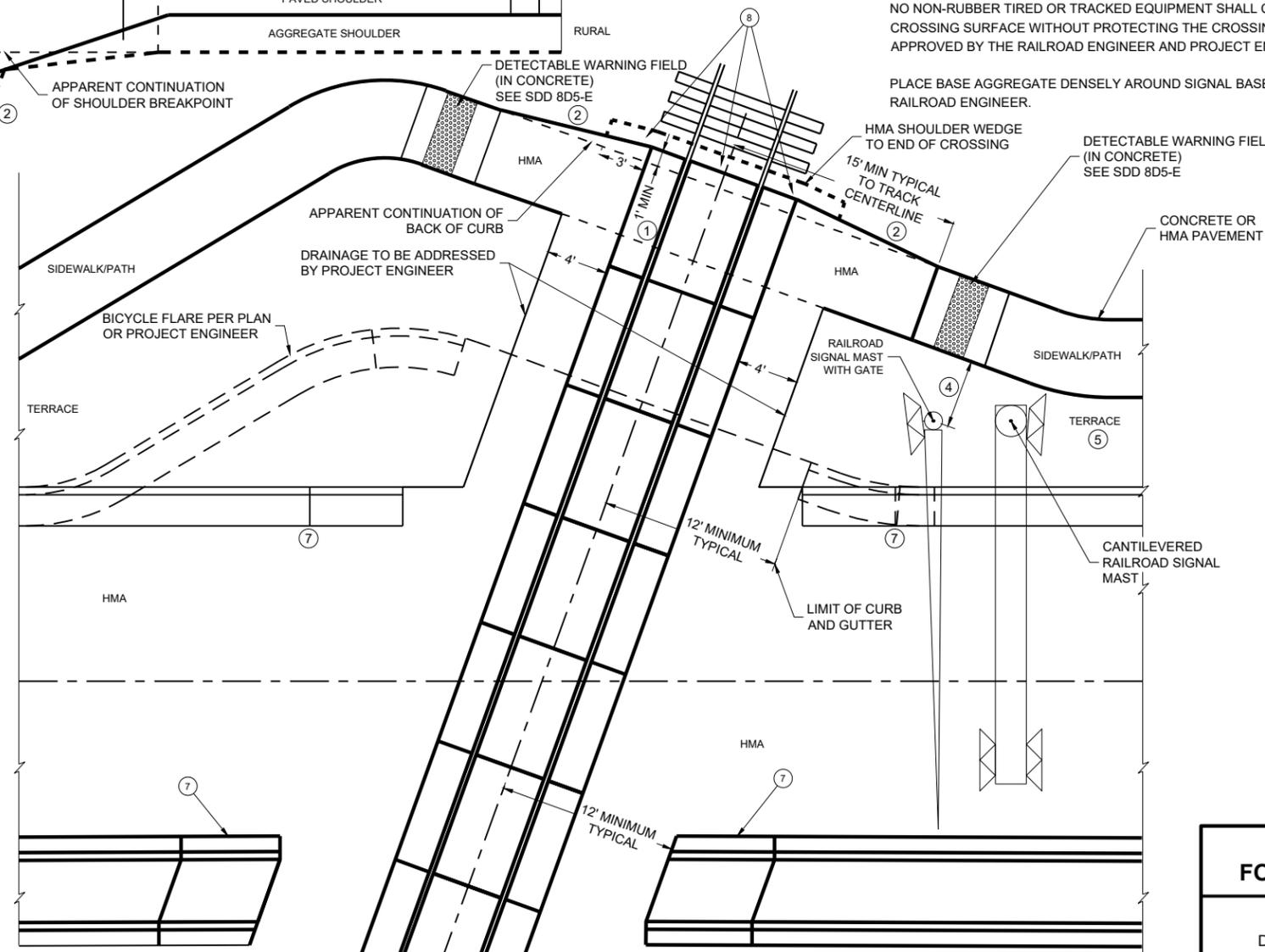
HMA SHOULDER WEDGE TO END OF CROSSING
DETECTABLE WARNING FIELD (IN CONCRETE) SEE SDD 8D5-E

15' MIN TYPICAL TO TRACK CENTERLINE
CONCRETE OR HMA PAVEMENT

6

GENERAL NOTES CONTINUED

- ① 1' MINIMUM CROSSING SURFACE COVERAGE PAST THE APPARENT CONTINUATION OF SHOULDER BREAKPOINT, BACK OF CURB, OR OUTSIDE EDGE OF SIDEWALK/PATH. INDIVIDUAL RAILROADS MAY HAVE DIFFERENT MINIMUM STANDARDS.
- ② HMA FLARE FROM OUTSIDE EDGE OF SIDEWALK/PATH, BACK OF CURB, OR AGGREGATE SHOULDER BREAKPOINT TO THE END OF CROSSING SURFACE MATERIAL.
- ③ CROWN TRANSITION LENGTH SHOWN ELSEWHERE IN THE PLAN.
- ④ NEAR EDGE OF PATH TO THE CENTER OF SIGNAL OR GATE MAST SHOULD BE A MINIMUM OF 5'-0". FOR SIDEWALK, THE NEAR EDGE SHOULD BE A MINIMUM OF 3'-0" TO THE CENTER OF SIGNAL OR GATE. NEAR EDGE OF SIDEWALK TO A NON-GATED MAST OR CANTILEVER SHOULD BE A MINIMUM OF 2'-6". SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATION IF THEY ARE NOT ALREADY INSTALLED.
- ⑤ TERRACE WIDTH VARIES. SEE PLAN FOR RAILROAD SIGNAL AND GATE LOCATIONS. PER PLAN OR PROJECT ENGINEER THE TERRACE AND SIDEWALK/PATH GRADES SHALL BE TRANSITIONED TO MATCH THE GRADE OF THE TRACK. FIELD FIT TO AVOID PONDING.
- ⑥ 25' MINIMUM HMA PAVING MEASURED PARALLEL TO THE ROAD OR 10' MINIMUM MEASURED PERPENDICULAR TO THE TRACK FROM THE EDGE OF THE CROSSING SURFACE, WHICHEVER IS GREATER.
- ⑦ REFERENCE SDD 8-D-01 END SECTION CURB AND GUTTER. MEDIAN END NEAR THE TRACK SHOULD BE PARALLEL TO THE TRACK. 6'-0" TAPER FOR A MEDIAN SHOULD BE REDUCED TO GET FULL HEIGHT CURB WHERE THE GATE COMES DOWN. DESIGN OPTION TO POUR MEDIAN TAPER IN ONE PIECE. BUILD PER PLAN UNLESS OTHERWISE APPROVED BY THE RAILROAD ENGINEER AND THE PROJECT ENGINEER.
- ⑧ IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL G.



**DETAIL B
MEDIAN AND SIDEWALK/SHARED-USE PATH APPROACH**

PAVEMENT DETAILS FOR RAILROAD APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/s/ Kristen Sommers
STATE RAILROAD ENGINEERING
AND SAFETY SUPERVISOR

FHWA

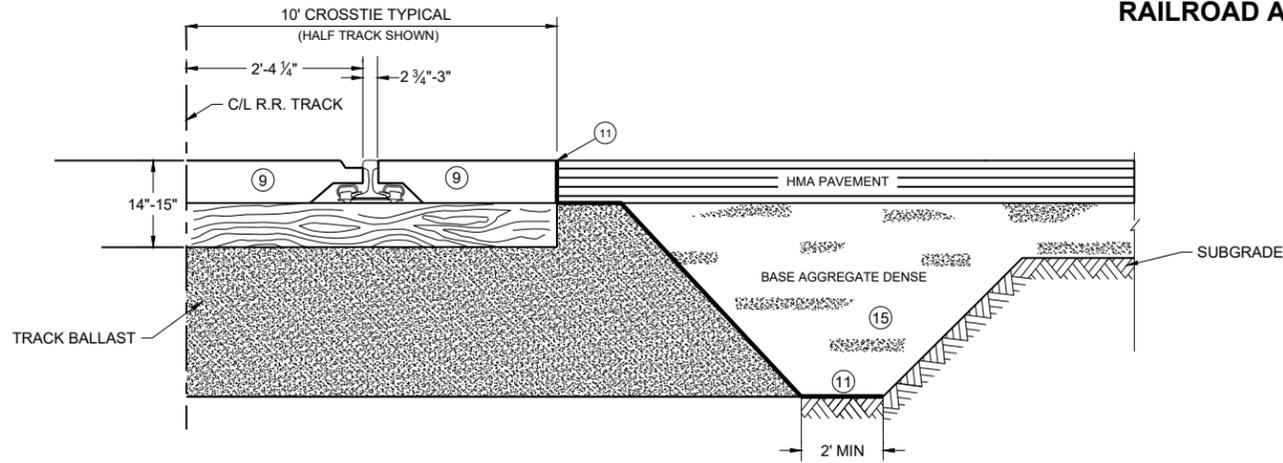
85

SDD 13B01-11a

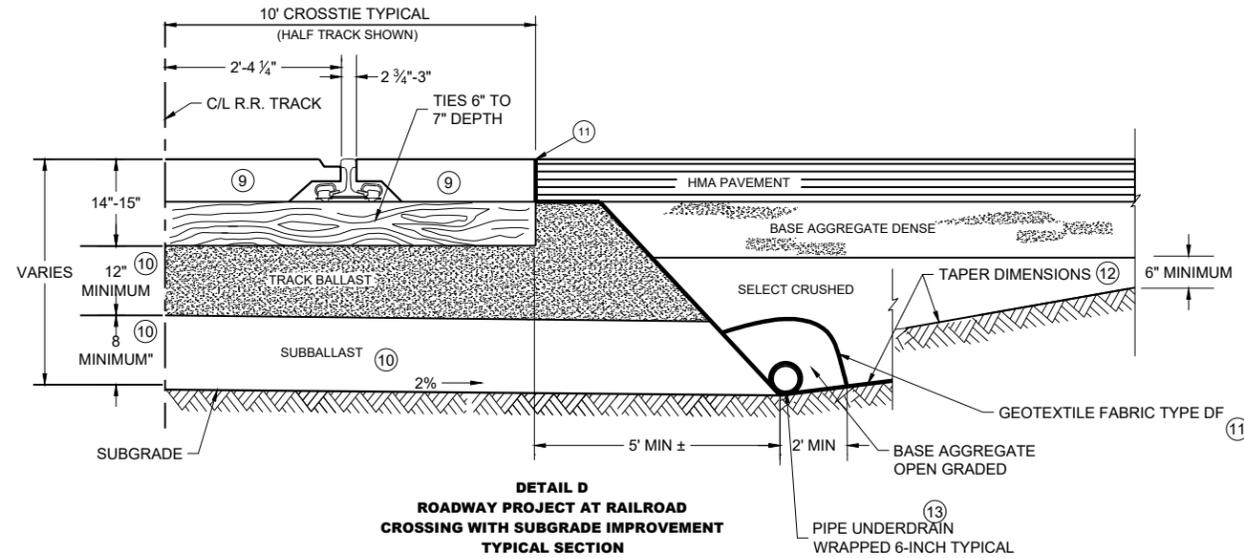
SDD 13B01-11a

6

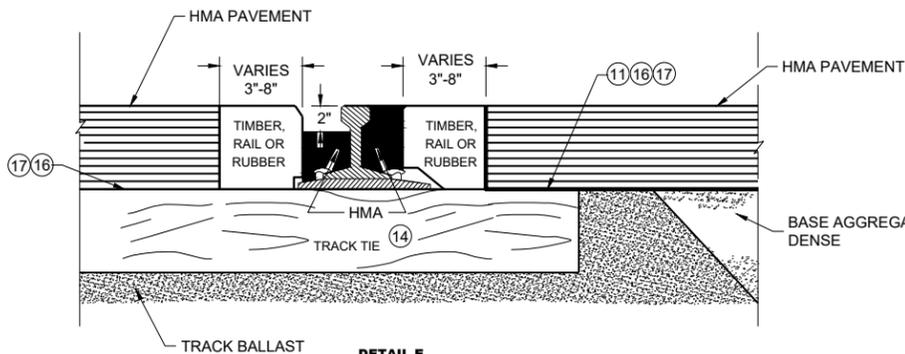
TYPICAL SECTIONS FOR RAILROAD APPROACH



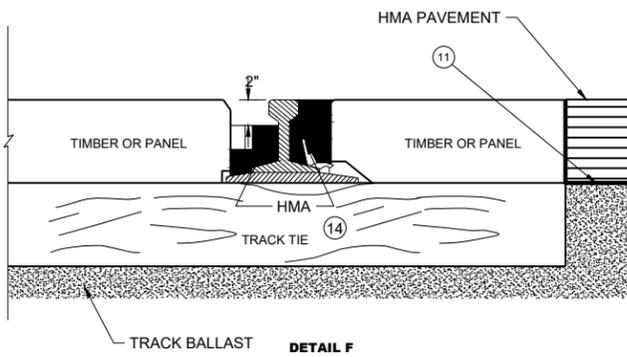
**DETAIL C
ROADWAY PROJECT AT RAILROAD
CROSSING WITHOUT SUBGRADE IMPROVEMENT
TYPICAL SECTION**



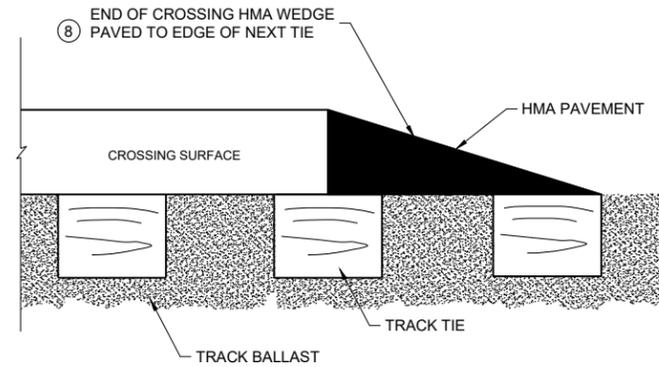
**DETAIL D
ROADWAY PROJECT AT RAILROAD
CROSSING WITH SUBGRADE IMPROVEMENT
TYPICAL SECTION**



**DETAIL E
TIMBER, RAIL OR
RUBBER SECTION
HMA FLANGEWAY
AND FIELD FILLERS**



**DETAIL F
PANEL SECTION
HMA FLANGEWAY
AND FIELD FILLERS**



**DETAIL G
END OF CROSSING HMA WEDGE**

GENERAL NOTES

- ⑧ IF METAL END PLATES ARE NOT INSTALLED BY THE RAILROAD THEN HMA PAVEMENT WEDGE SHALL BE PLACED AT THE END OF THE LAST PANEL TAPERED TO BACK EDGE OF NEXT TIE AND THOROUGHLY COMPACTED. SEE DETAIL A AND B.
- ⑨ MATCH THE CROSSING TYPE THAT IS INSTALLED UNLESS OTHERWISE DIRECTED BY PROJECT ENGINEER.
- ⑩ TRACK BALLAST AND SUBBALLAST REQUIRED 12" AND 8" MINIMUM DEPTHS RESPECTIVELY. DIMENSION FROM BOTTOM OF TRACK TIE TO HIGH SIDE OF 2% SLOPE. THE 2% SLOPE IS REQUIRED ON RAILROAD SUBBALLAST. SEE PLAN FOR CROWN, MATERIAL THICKNESS, AND SLOPE DIRECTION. SUBBALLAST CAN BE HMA, 1 1/2" BASE AGGREGATE DENSE, SELECT CRUSHED, OR A COMBINATION OF THEM.
- ⑪ GEOTEXTILE FABRIC TYPE SAS PLACED IN ORDER TO PROVIDE STABILIZATION AND SEPARATION ON TOP OF THE TRACK BALLAST WHERE IT IS UNDER HMA PAVEMENT, BASE AGGREGATE DENSE OR SELECT CRUSHED MATERIAL AND THE FIELD SIDE BALLAST CRIBS. GEOTEXTILE FABRIC TYPE DF PLACED IN ORDER TO PROVIDE STABILIZATION AND SEPARATION UNDER AND AROUND THE PIPE UNDERDRAIN. PLACING GEOTEXTILE FABRIC OR GEOGRID UNDER THE SUBBALLAST IS OPTIONAL.
- ⑫ TAPER DIMENSIONS PROVIDED BY PLAN OR BY PROJECT ENGINEER.
- ⑬ IF SHOWN ON THE PLAN, TYPICAL 6-INCH PERFORATED PVC SCHEDULE 80 PIPE UNDERDRAIN TO BE PLACED ALONG THE TOE OF SLOPE, GRADED TO DRAIN AND DAYLIGHT OR INTO STORM SEWER. BASE AGGREGATE OPEN GRADED OVER PIPE UNDERDRAIN AND THEN WRAPPED IN GEOTEXTILE FABRIC TYPE DF SCHEDULE A IN ORDER TO STABILIZE AND SEPARATE FROM SELECT CRUSHED.
- ⑭ HMA FLANGEWAY AND FIELD FILLERS ARE TO BE PLACED AND THOROUGHLY HAND COMPACTED BY THE CONTRACTOR, WHEN NOT PROVIDED BY OTHERS AS PART OF THE CROSSING SURFACE MATERIAL. IF THE CROSSING SURFACE IS NOT BEING REPLACED, THEN REMOVE AND REPLACE THE HMA FLANGEWAY AND FIELD FILLERS AS DIRECTED BY THE RAILROAD OR PROJECT ENGINEER.
- ⑮ GRADE TO MATCH EXISTING OR PROPOSED TYPICAL SECTION OF ROADWAY. SEE PLAN OR PROJECT ENGINEER FOR MORE DETAIL. IF NOT NOTED OTHERWISE IN THE PLAN, BACKFILL ANY REMOVED BASE AND SUBGRADE WITH BASE AGGREGATE DENSE.
- ⑯ IF THE CROSSING IS NOT BEING REPLACED, REMOVE AND REPLACE HMA AS DIRECTED BY RAILROAD AND PROJECT ENGINEER. CARE MUST BE TAKEN TO NOT DAMAGE CROSSING PANELS, TIES, RAIL, PLATES AND SPIKES.
- ⑰ PLACE HMA FULL DEPTH. AGGREGATE IS NOT TO BE PLACED BETWEEN THE RAILROAD TIES AND THE HMA PAVEMENT.

TYPICAL SECTIONS FOR RAILWAY APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

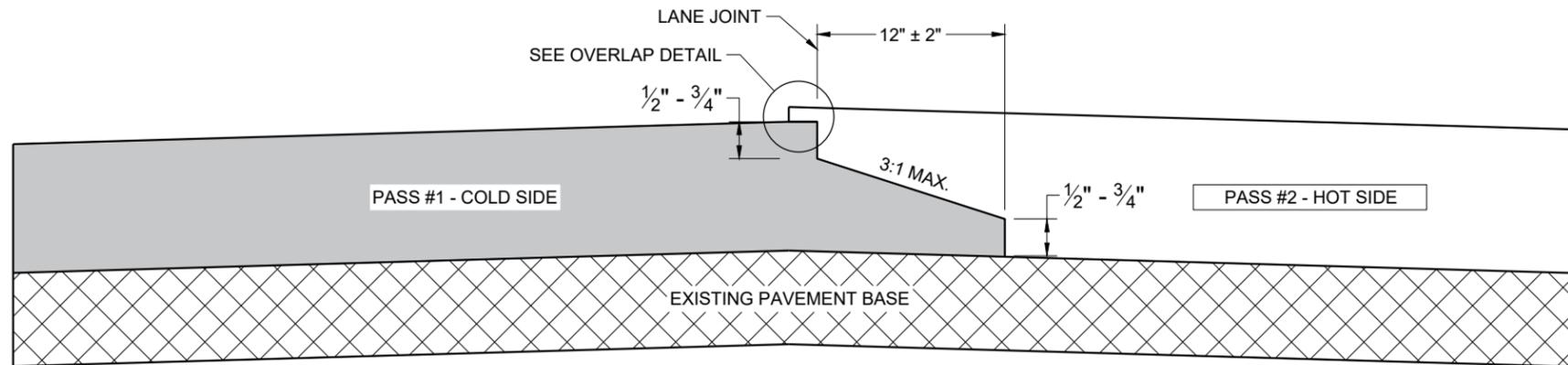
APPROVED

May 2023
DATE

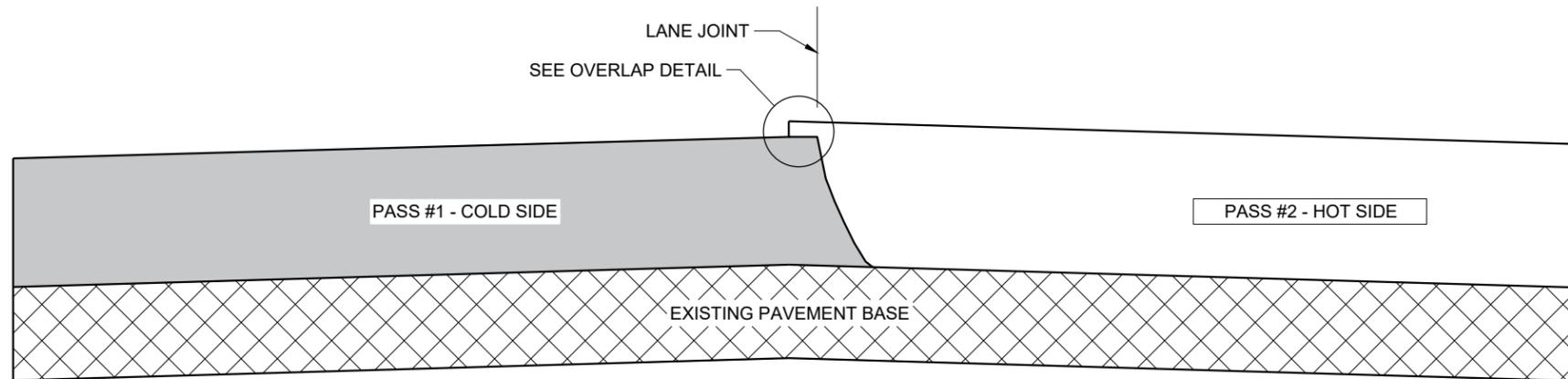
/s/ Kristen Sommers
STATE RAILROAD ENGINEERING
AND SAFETY SUPERVISOR

FHWA

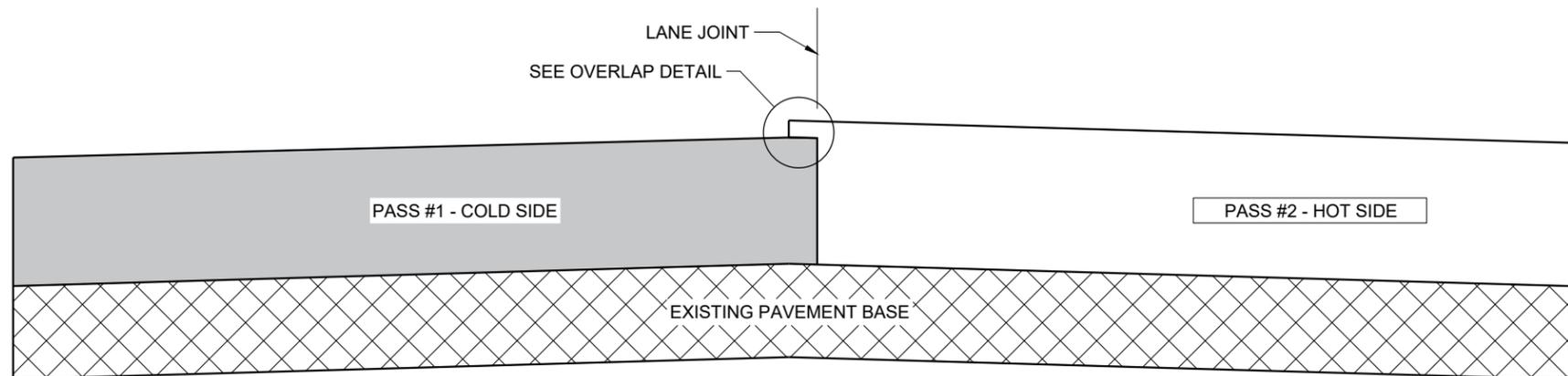
86



**TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT**



**TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT**



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

GENERAL NOTES

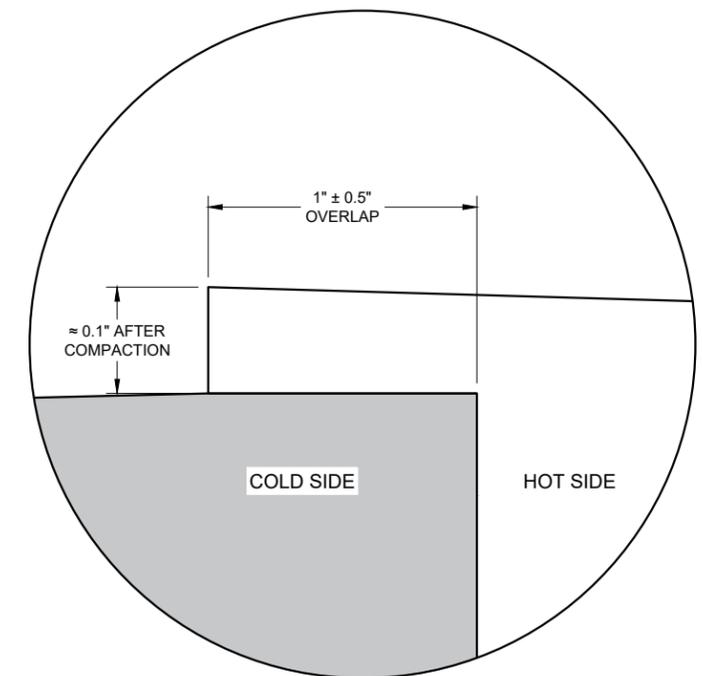
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

FOR ALL LONGITUDINAL JOINTS, ENSURE THE PAVER SCREED OVERLAPS THE PREVIOUSLY PLACED PAVEMENT BY $1" \pm 0.5"$ 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)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 87
FHWA

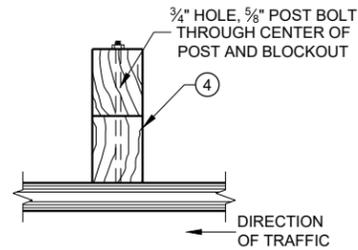
SDD 14B15a Steel Plate Beam Guard, Class "A", Installation and Elements

GENERAL NOTES

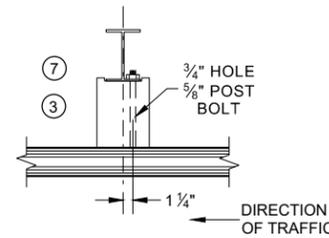
- ① WOOD OR STEEL POSTS (w6x9 OR w6x8.5) AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6"x8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS. DO NOT MIX STEEL AND WOOD POSTS IN A SINGLE INSTALLATION.
- ② USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGE SPALTER COATING ON GALVANIZED POSTS.
- ③ INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ④ USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.
- ⑤ IF THE DISTANCE FROM BACK OF POST TO SHOULDER HIGHE POINT IS LESS THAN 2 FEET, INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).
- ⑥ IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCHES IN DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT ADEQUATELY.
- ⑦ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS, INSTALL FOUR 16d GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

INSTALL BEAM GUARD SECTIONS AND ALL NECESSARY HARDWARE ACCORDING TO THE APPLICABLE PLAN AND CURRENT STANDARD AND SUPPLEMENTAL SPECIFICATIONS.

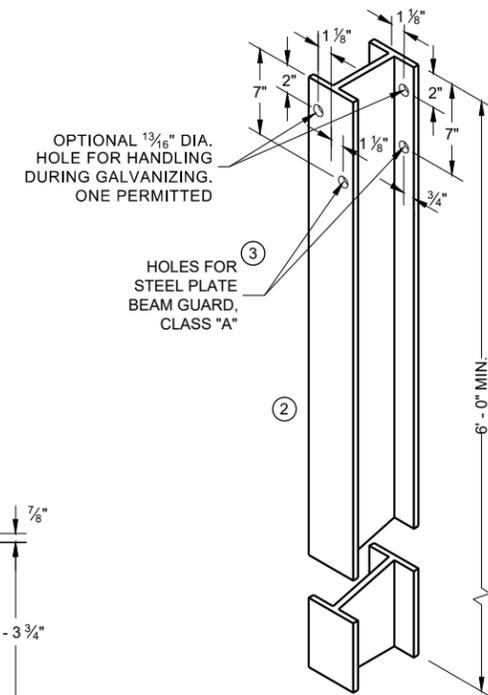
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



PLAN VIEW
WOOD POST, BLOCKOUT AND BEAM

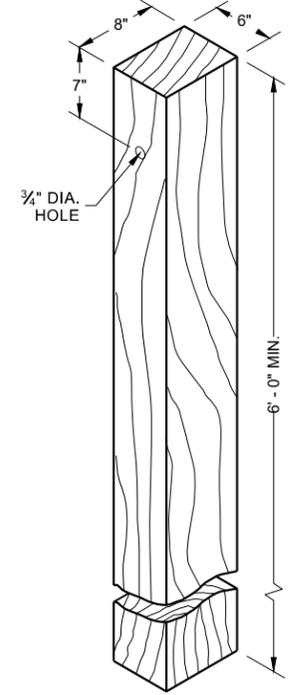


PLAN VIEW
WOOD POST, BLOCKOUT AND BEAM

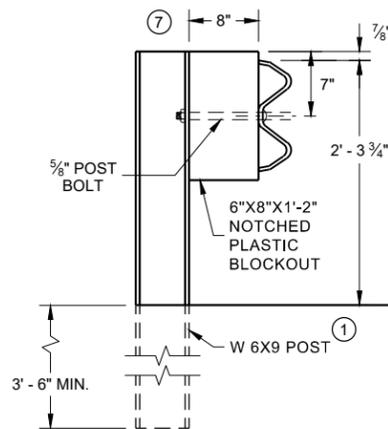


STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9)

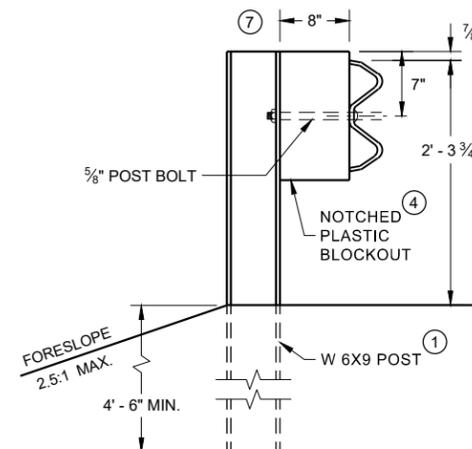
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



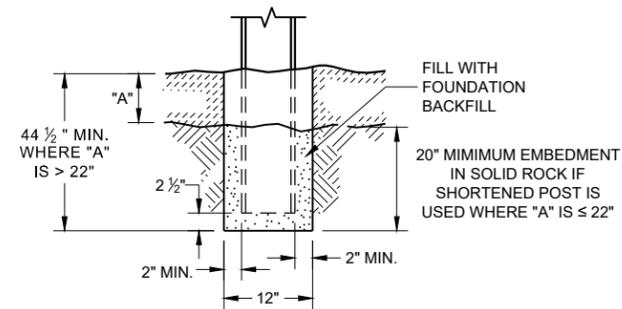
WOOD POST (6" X 8") NOMINAL



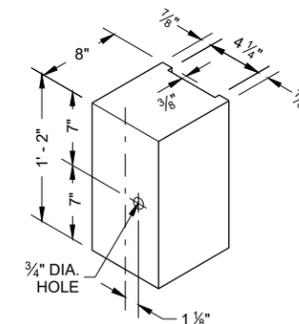
END VIEW
STEEL POST AND NOTCHED PLASTIC BLOCKOUT ALTERNATIVE STANDARD INSTALLATION



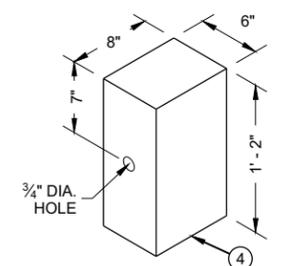
END VIEW
LONGER POST AT HALF POST SPACING W BEAM (LHW)



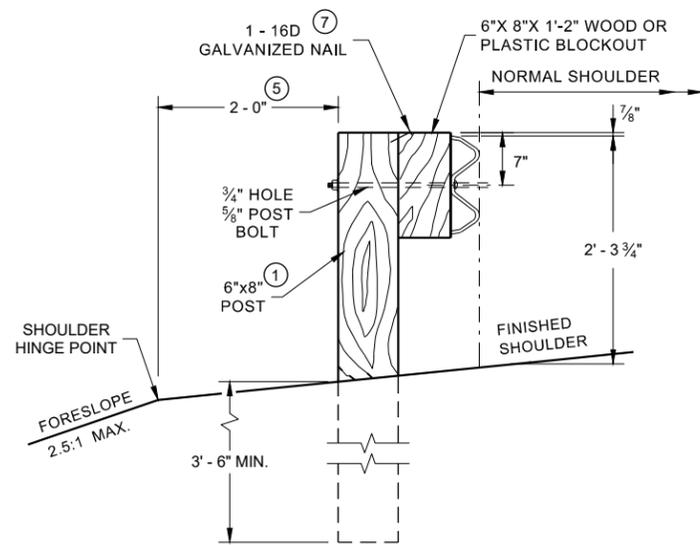
END VIEW
SETTING STEEL OR WOOD POST IN ROCK



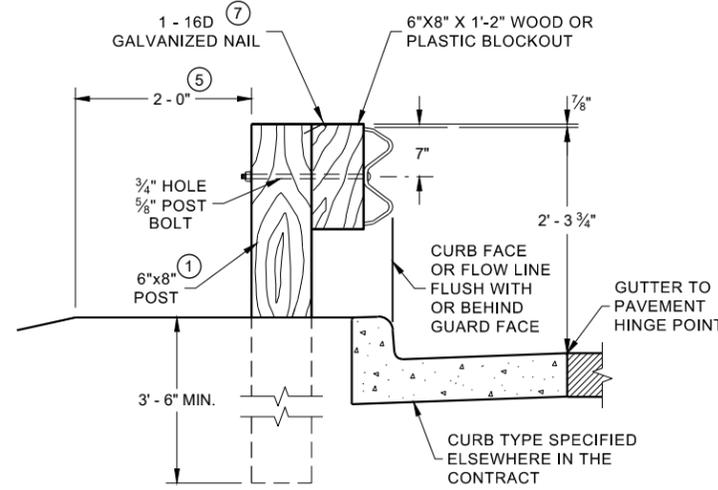
TYPICAL NOTCHED PLASTIC BLOCKOUT FOR STEEL POSTS



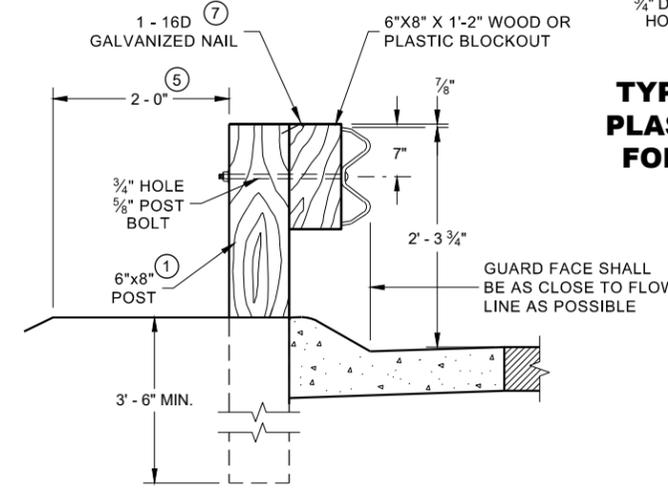
WOOD OR PLASTIC BLOCKOUT FOR WOOD POSTS



END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



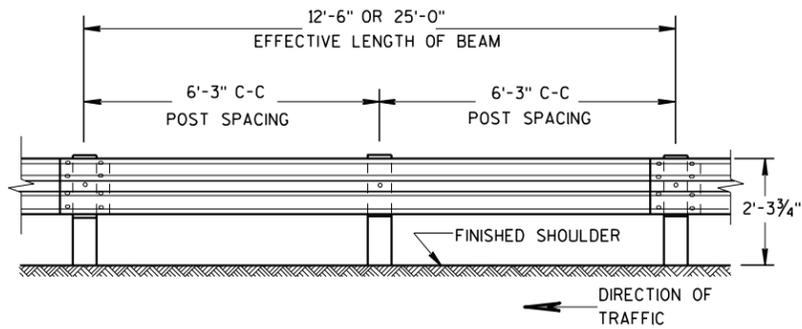
END VIEW
LOCATED ALONG A CURBED ROADWAY



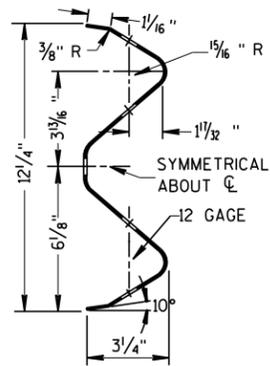
END VIEW
LOCATED ALONG A MOUNTABLE CURBED ROADWAY

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

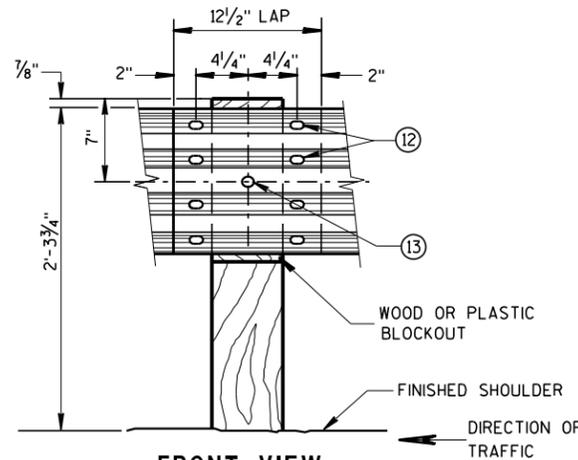
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 88



**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



SECTION THRU W BEAM

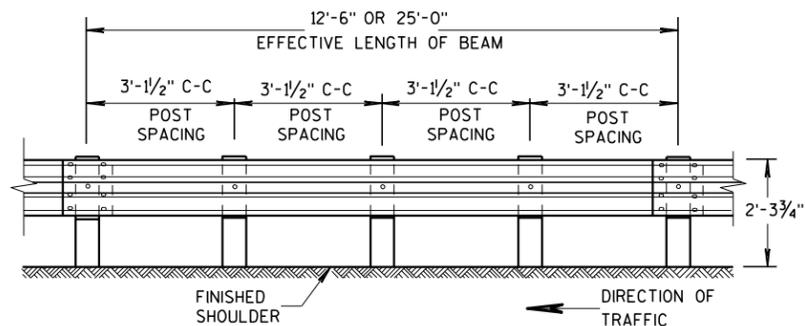


**FRONT VIEW
BEAM SPLICE AT WOOD POST
AND POST MOUNTING DETAIL**

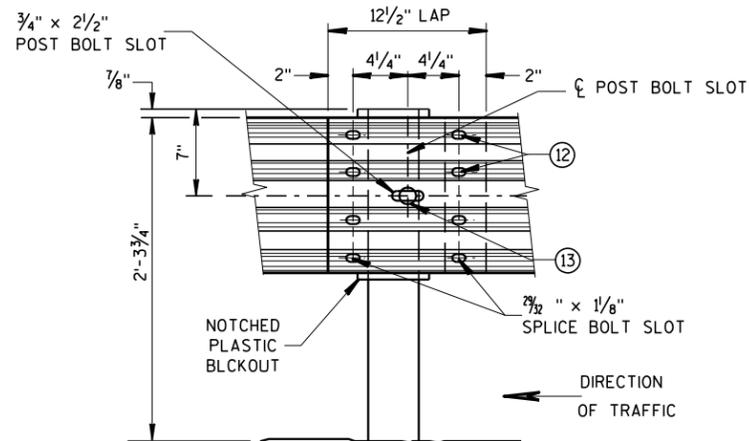
GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

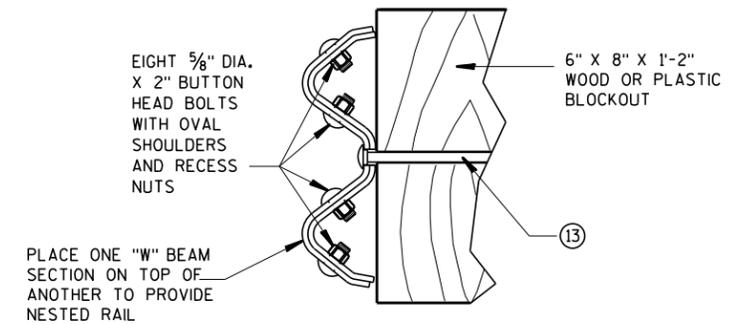
- ⑨ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.
- ⑫ 8 - 5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.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



**FRONT VIEW
POST SPACING FOR LONGER POST
AT HALF POST SPACING W BEAM (LHW)**



**FRONT VIEW
BEAM SPLICE AT STEEL POST
TYPICAL SPLICING DETAILS
OF STEEL PLATE BEAM GUARD**

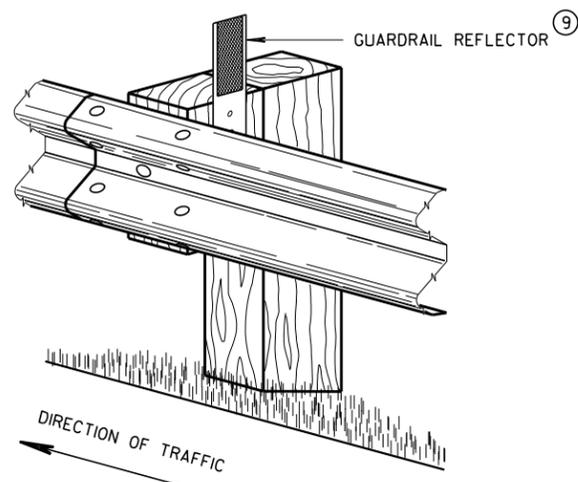


NESTED W BEAM (NW)
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR
CONSTRUCTING NESTED W BEAM (NW)

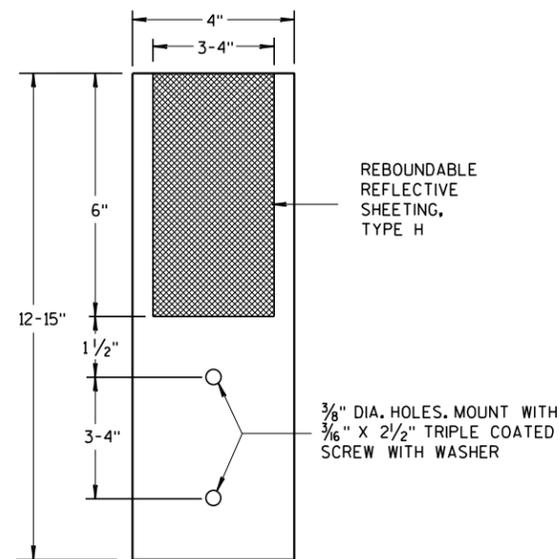
6

6

* 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.



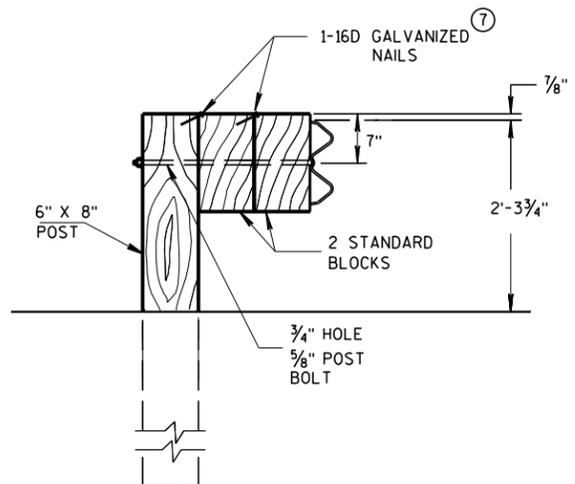
**4" X 12" GUARDRAIL REFLECTOR DETAIL
AND TYPICAL INSTALLATION ***



4" x 12" GUARDRAIL REFLECTOR

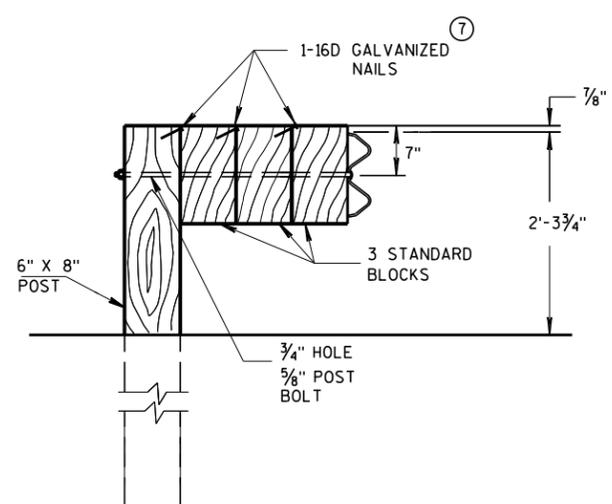
**STEEL PLATE BEAM GUARD,
CLASS "A",
INSTALLATION & ELEMENTS**

STATE OF WISCO⁸⁹
DEPARTMENT OF TRANSPORTATION



DETAIL FOR DOUBLE BLOCKS

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

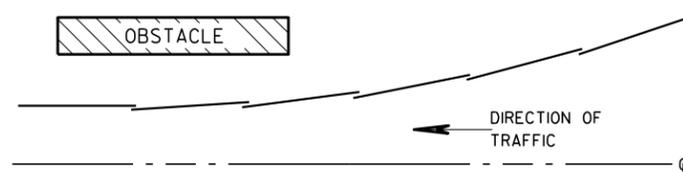


DETAIL FOR TRIPLE BLOCKS

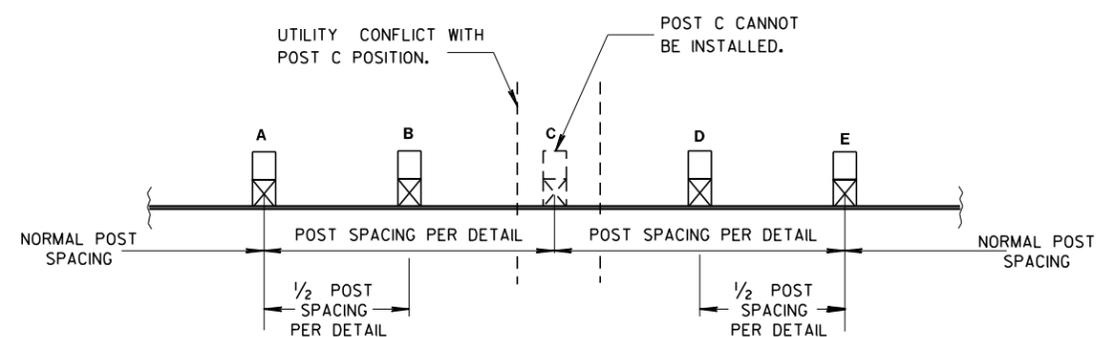
TRIPLE BLOCK DETAIL IS LIMITED TO ONE LOCATION WITHIN A BEAM GUARD RUN.

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 90 UNIT SUPERVISOR
FHWA	

BILL OF MATERIALS

NOTE NO.	DESCRIPTION
①	WOOD BREAKAWAY TERMINAL POST: 5 1/2" X 7 1/2" 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 1/2" 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'-6 1/2"
⑬	IMPACT HEAD
⑭	0.040" ALUMINUM SHEET WITH REFLECTIVE SHEETING TYPE F PER SECTION 637 OF THE STANDARD SPECIFICATIONS

GENERAL NOTES

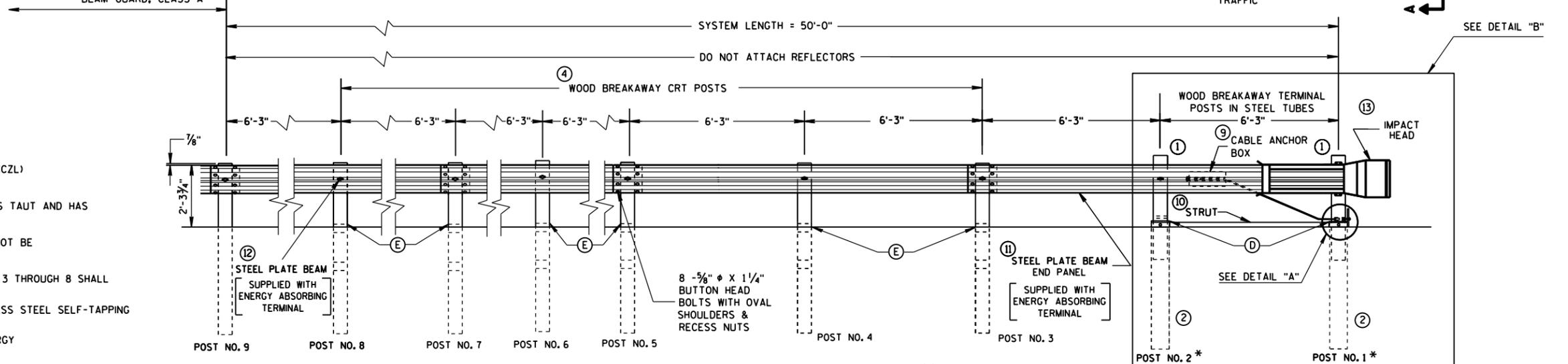
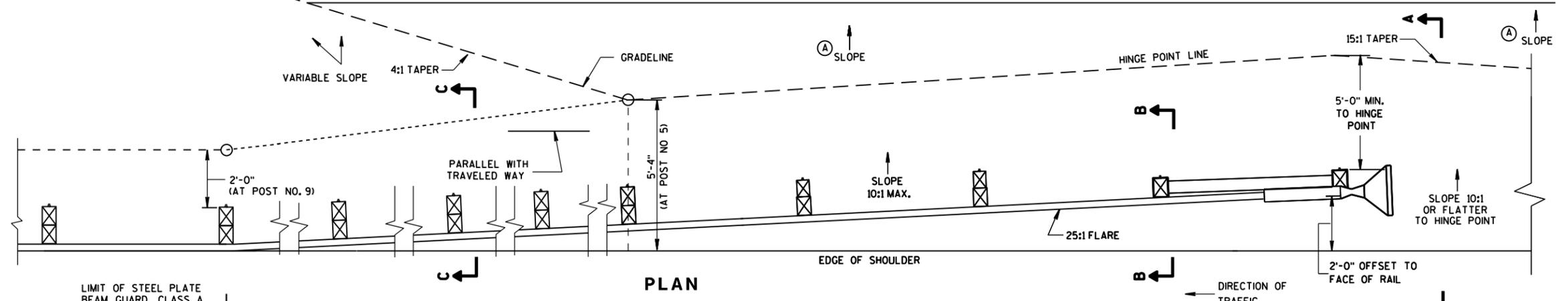
FOLLOW MANUFACTURE'S BOLTING RECOMMENDATIONS.

- (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 3 1/2" DIAMETER HOLE ON POST 3 THROUGH 8 SHALL BE 3/4" 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.

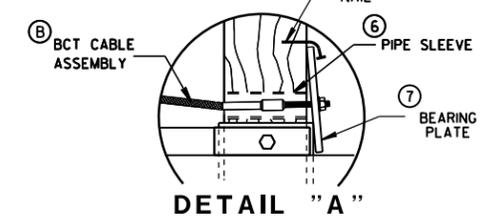
STEEL POSTS SHALL NOT BE ALLOWED FOR USE WITH ENERGY ABSORBING TERMINALS.
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

*DO NOT ATTACH BLOCKOUTS TO POSTS 1 AND 2.

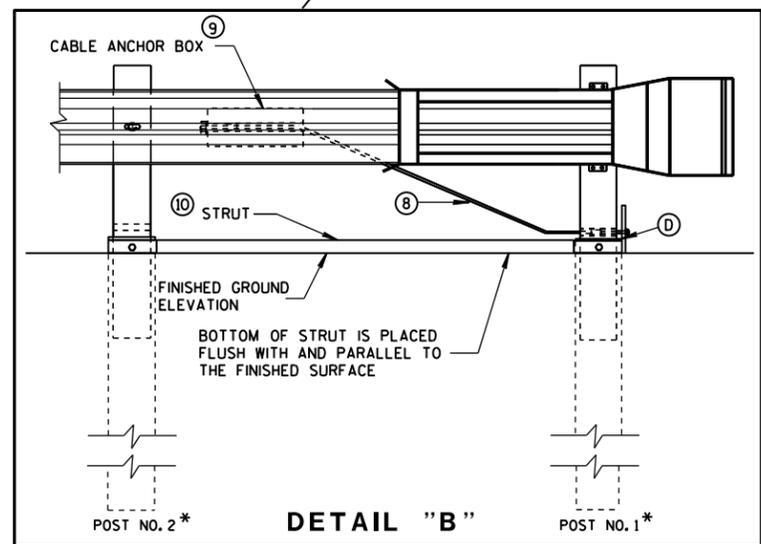
CLEAR ZONE LIMITS, EITHER AS SHOWN ELSEWHERE IN THE PLANS OR, IF NOT SHOWN ELSEWHERE IN THE PLANS, 15 FEET BEYOND THE HINGE POINT LINE



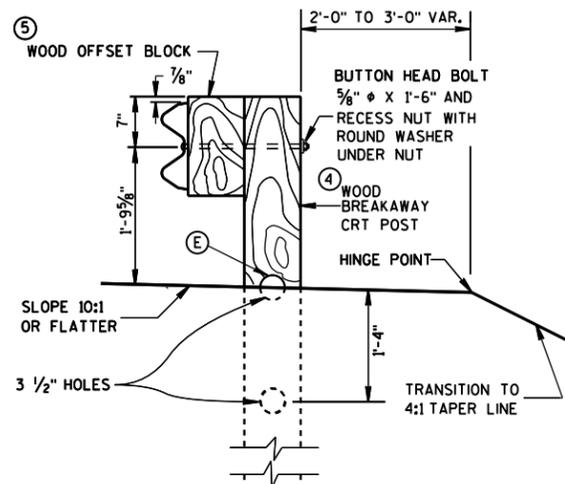
ELEVATION



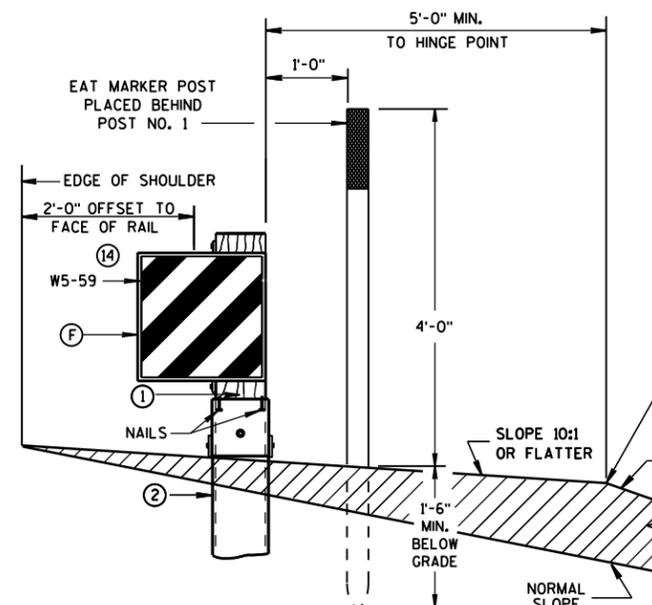
DETAIL "A"



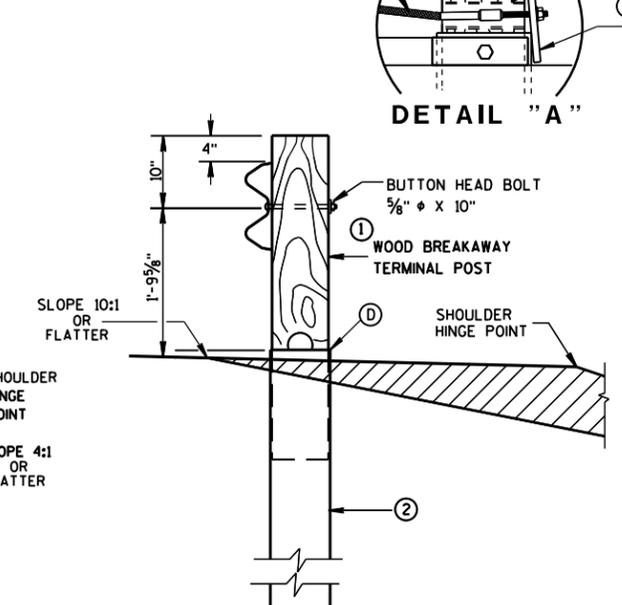
DETAIL "B"



**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**

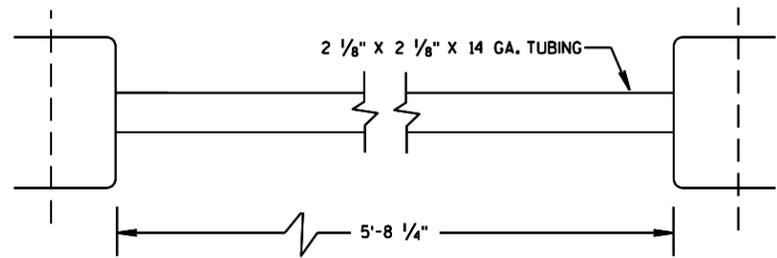
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

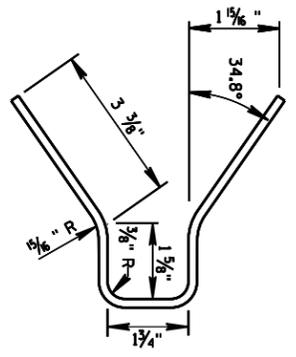
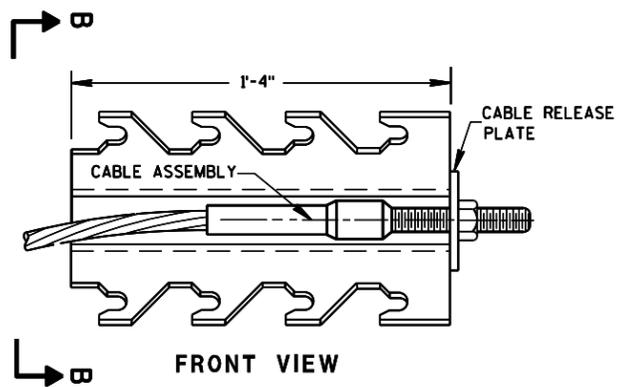
6

S.D.D. 14 B 24-9a

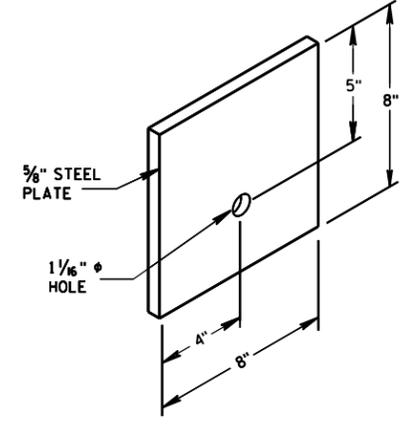
S.D.D. 14 B 24-9a



⑩ STRUT DETAIL



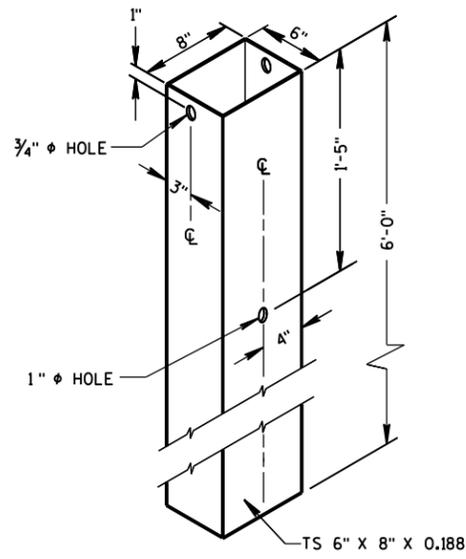
⑨ CABLE ANCHOR BOX



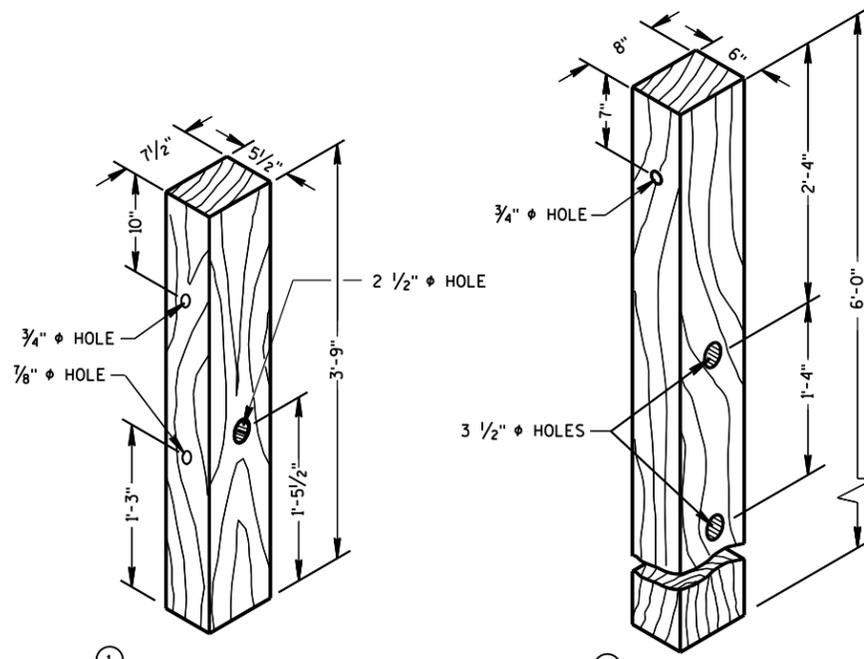
⑦ STEEL BEARING PLATE

6

6



② **72" STEEL TUBE**
(POSTS NO. 1-2)



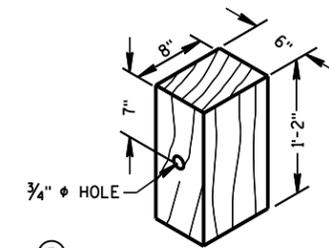
① **TERMINAL POST**

④ **CRT POST**
(POSTS NO'S 5-8)

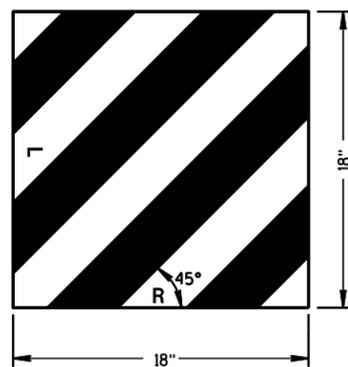
WOOD BREAKAWAY POSTS

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.

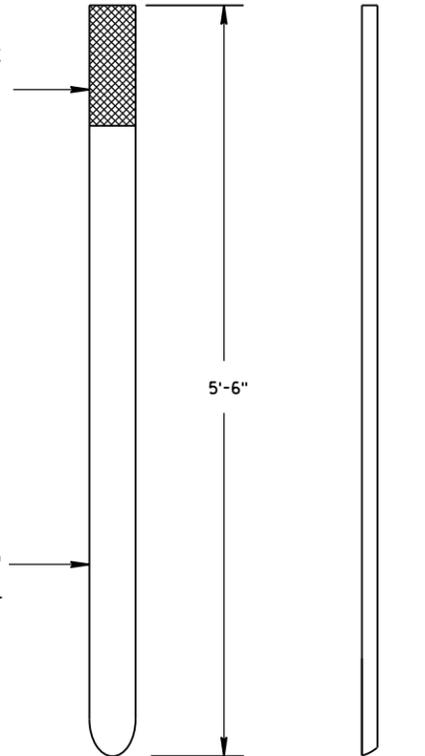


⑤ **WOOD OFFSET BLOCK**
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



⑭ **REFLECTIVE SHEETING DETAILS**

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



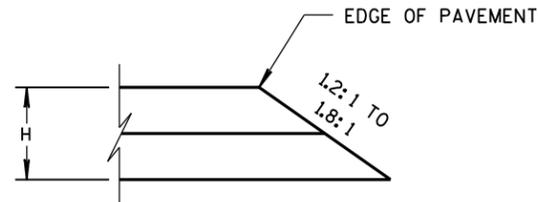
FRONT VIEW **SIDE VIEW**

E.A.T. MARKER POST

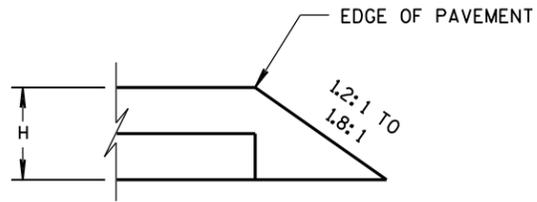
**STEEL PLATE BEAM GUARD
ENERGY ABSORBING TERMINAL**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

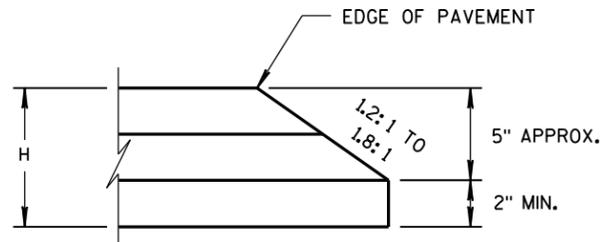
APPROVED
June 2017 /S/ Rodney Taylor
DATE ROADWAY STANDARDS 93 ENT
FHWA UNIT SUPERV...



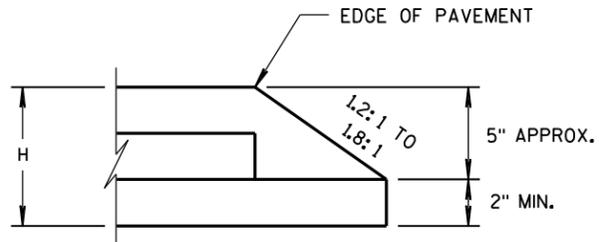
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

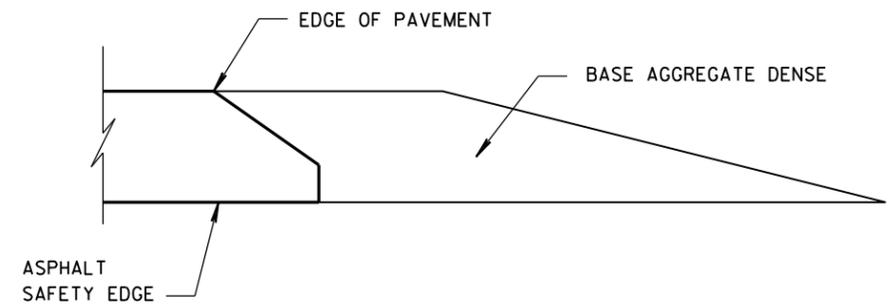


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

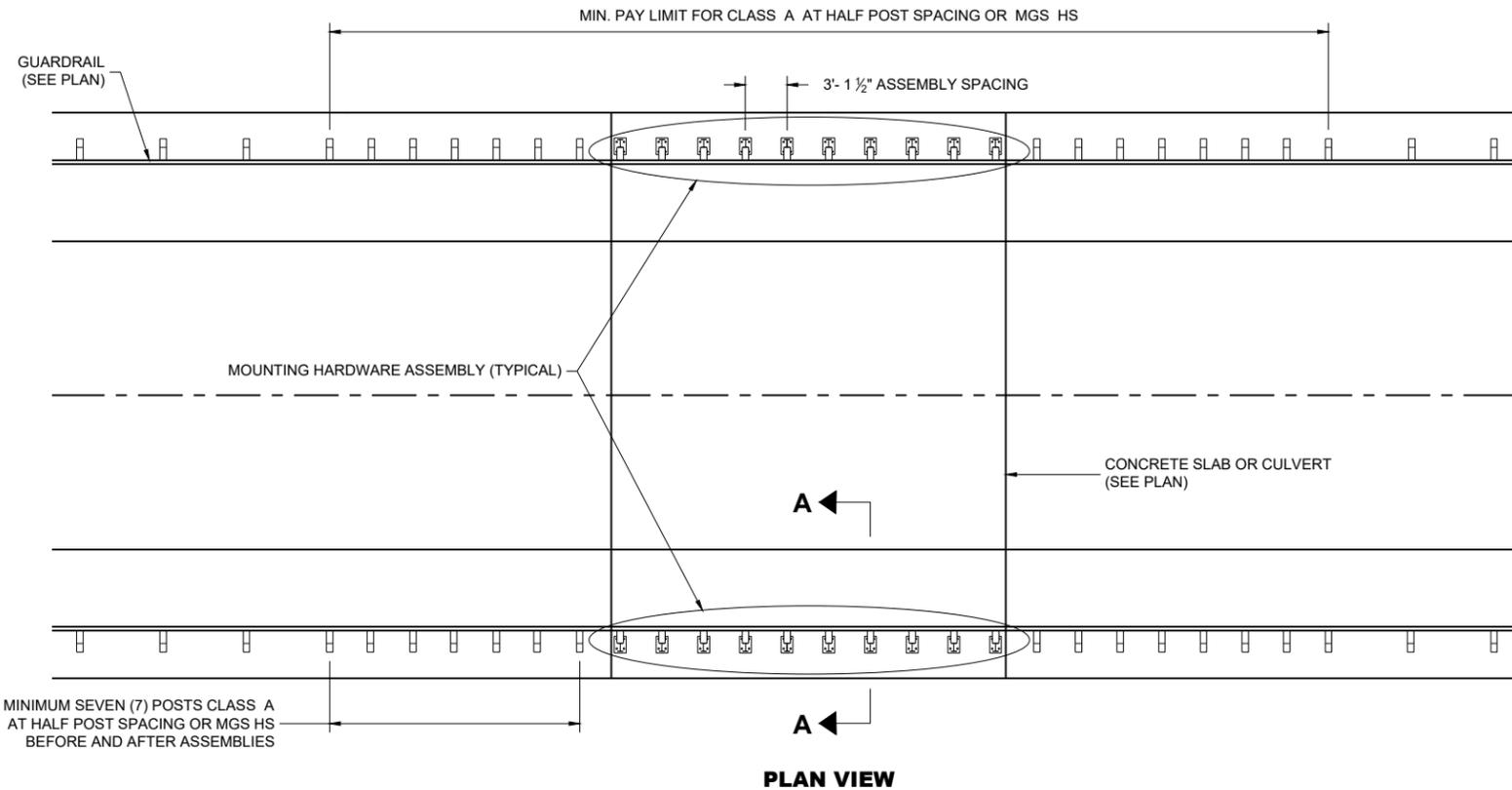
6

6

S.D.D. 14 B 29-1

S.D.D. 14 B 29-1

SAFETY EDGE _{SM}	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED DATE 11/30/2012	/s/ Jerry H. Zoog ROADWAY STANDARDS ENGINEER
FHWA	ENT



GENERAL NOTES

HOLES DRILLED INTO CONCRETE SLAB OR CULVERT ARE 1 1/8" DIAMETER.

POST BASE PLATE (AND BOTTOM PLATES IF USED) SHALL BE FLAT WITH ALL SURFACES SMOOTH, AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS. CUT BOTTOM OF POST SO THAT POST WILL BE VERTICAL WHEN POST ASSEMBLY IS PLACED ON TOP OF CONCRETE. HEX BOLTS AND THREADED RODS ARE TO BE PLACED PERPENDICULAR TO THE BASE PLATE.

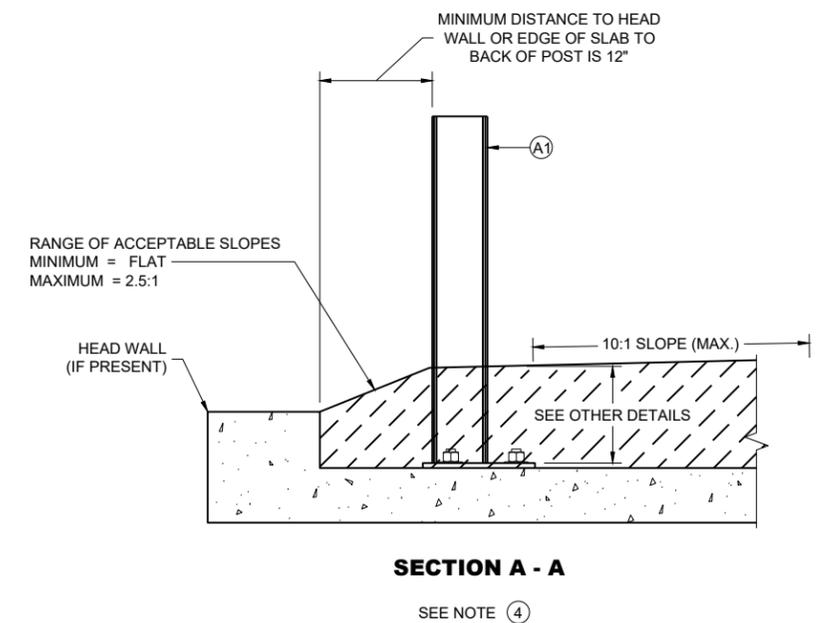
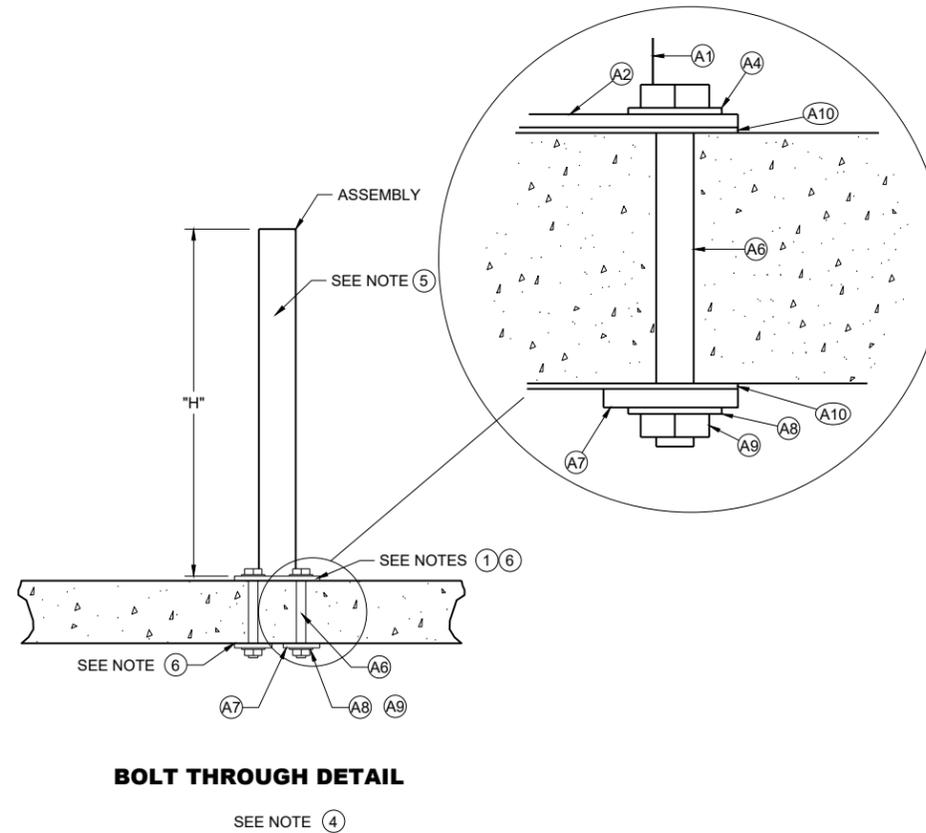
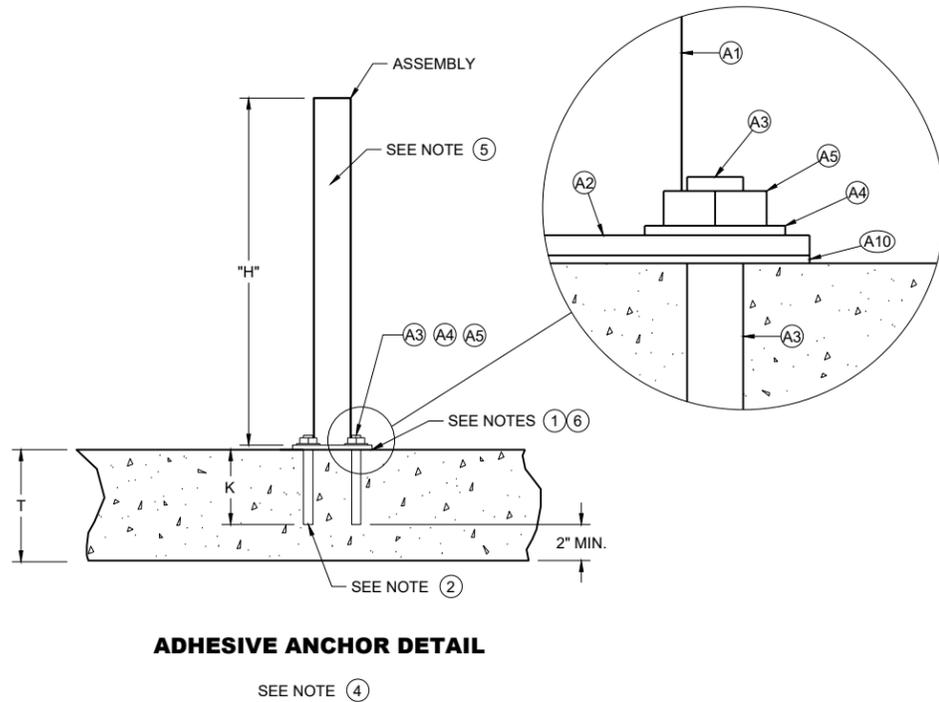
"H" DIMENSION WILL VARY. SEE PLAN FOR "H" DIMENSION. CONTRACTOR HAS OPTION OF INSTALLING POSTS THAT ARE TALLER THAN "H" DIMENSION AND CUT POSTS TO PROPER "H" DIMENSION IN THE FIELD. IF ELECTING TO FIELD CUT POSTS, DRILL HOLES AT APPROPRIATE LOCATIONS AND APPLY GALVANIZATION.

GALVANIZE STEEL COMPONENTS AFTER FABRICATION PER SECTION 614 OF THE WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS.

INSTALL 1 NUT AND 1 WASHER WHERE APPLICABLE. PROVIDE SUFFICIENT LENGTH OF BOLT OR THREADED ROD TO ALLOW FOR 1/4" TO 1/2" OF THREAD TO BEYOND THE NUT.

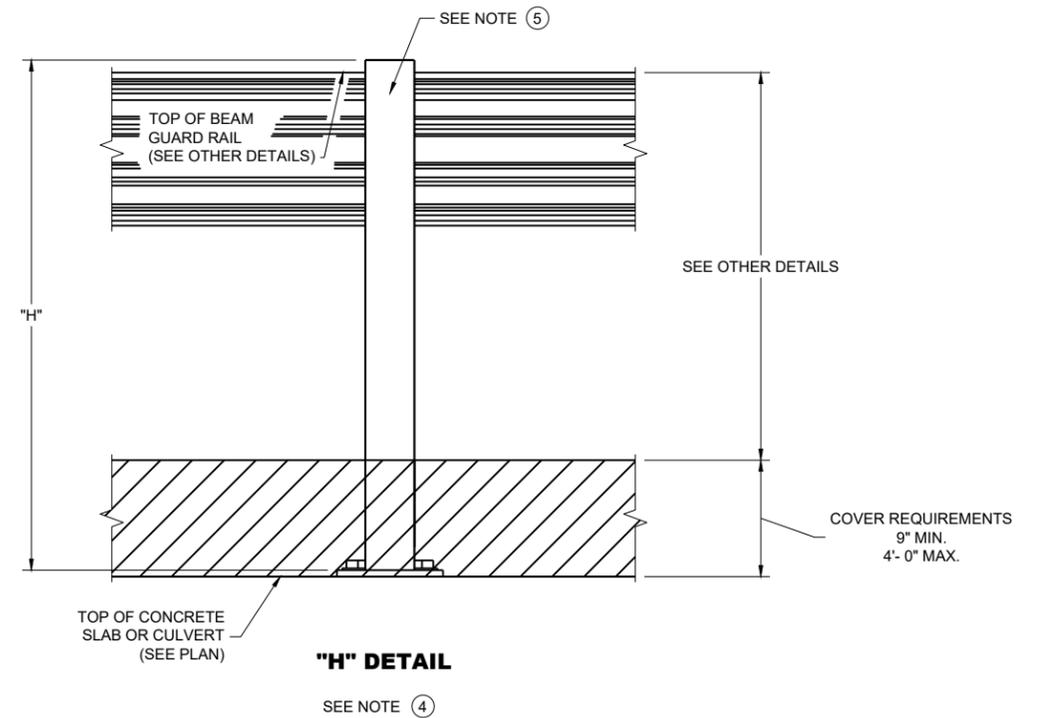
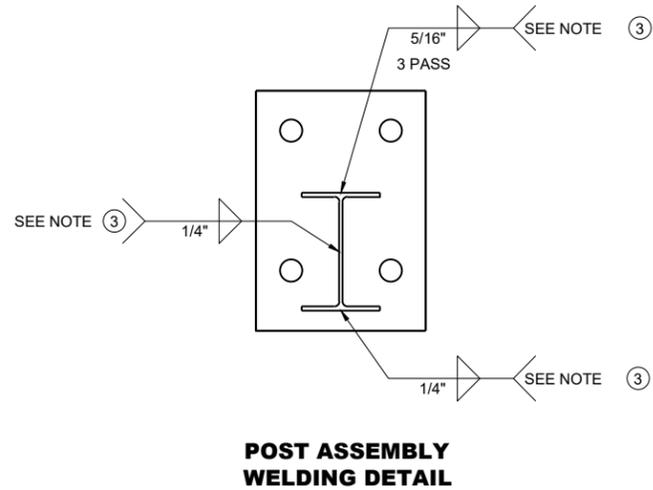
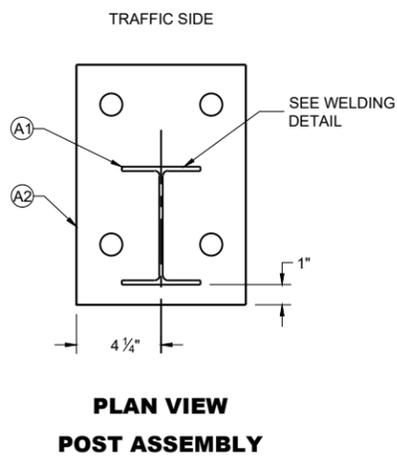
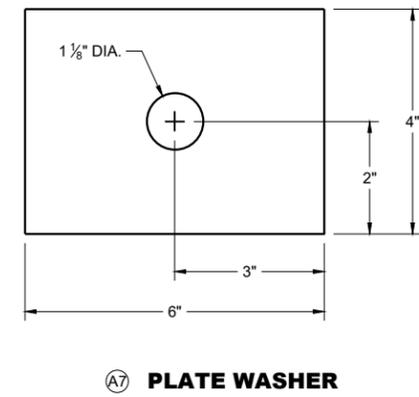
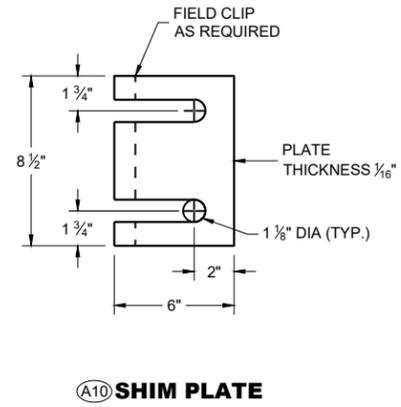
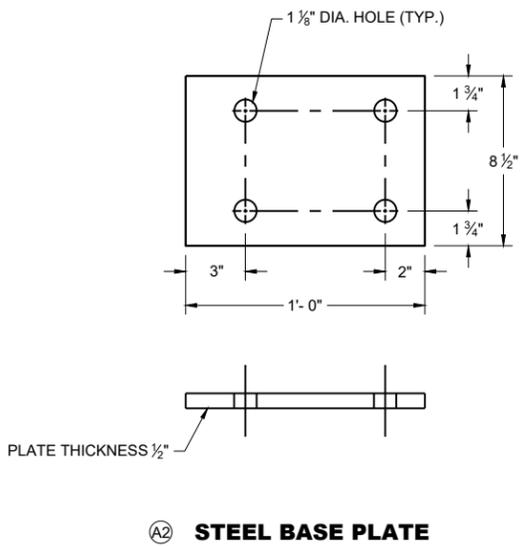
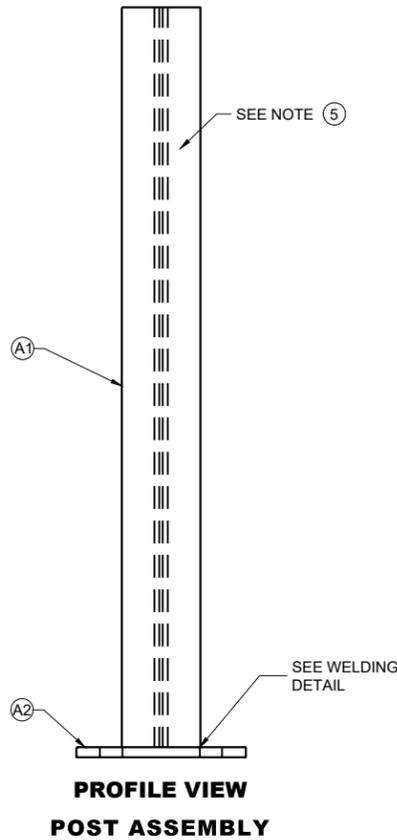
- ① FILL BOLT SLOT OPENINGS IN POST SHIMS AND PLATE A2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER. CAULK AROUND PERIMETER OF A2 WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- ② BOND STRENGTH OF ADHESIVE IS 1,305 PSI OR GREATER WITH A MINIMUM EMBEDMENT DEPTH OF 8-INCHES. IF MINIMUM EMBEDMENT CANNOT BE ACHIEVED, BOLT THROUGH STRUCTURE.
- ③ USE GAS-METAL ARC WELDING (GMAW) PROCESS WITH ER70S-3 WELDING WIRE AND ARGON-OXYGEN OR CO₂ COVER GAS.
- ④ OTHER COMPONENT OF BARRIER SYSTEM NOT SHOWN. SEE SDD 14B15 OR SDD 14B42 FOR MORE DETAILS.
- ⑤ HOLES TO MOUNT BEAM GUARD AND BLOCK NOT SHOWN ON DRAWINGS. SEE SDD 14B15 OR SDD 14B42 FOR MORE DETAILS.
- ⑥ ADD AND ADJUST SHIM PLATES AS NECESSARY TO INSTALL POST PLUMB. SEE (A10) FOR DETAIL.

Concrete Strength (f _c) PSI	"T" Inch	Min. "K" Inch
3,500	11 ≤	9
4,000	10 ≤	8



**ANCHOR POST ASSEMBLY
TOP MOUNTED**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION
95



6

6

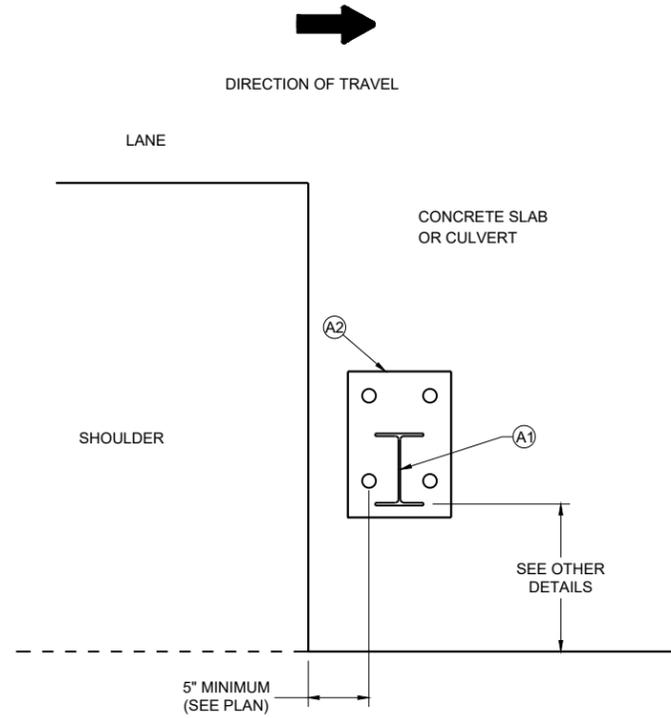
SDD 14B51-05b

SDD 14B51-05b

**ANCHOR POST ASSEMBLY
TOP MOUNTED**

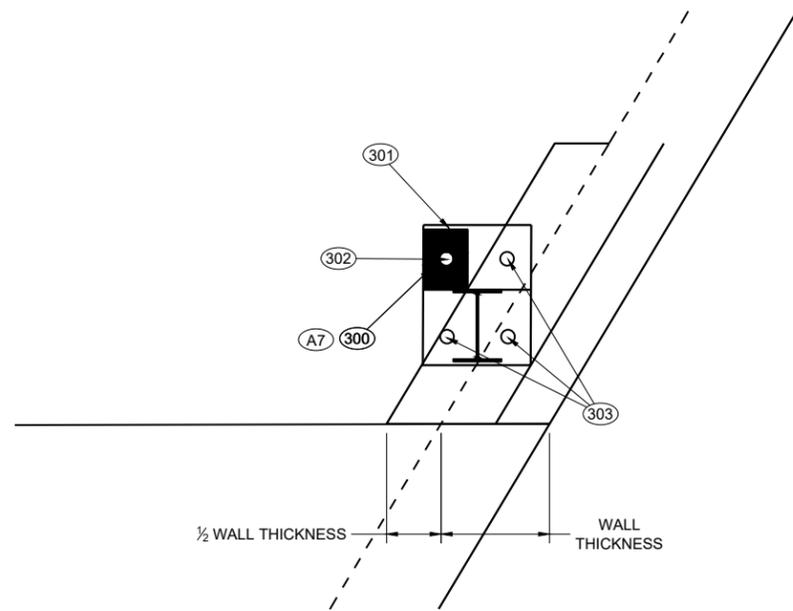
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

96



EDGE PLACEMENT

SEE NOTE ④



TOP MOUNT OPTION NEAR EDGE OF SLAB

BILL OF MATERIALS LIST

ITEM	DESCRIPTION	MATERIAL SPECIFICATIONS	NOTES
①	W6x9 or W6x8.5	ASTM A992 50 KSI MIN., ASTM A709 GRADE 50, OR ASTM A36	SEE SDD 14B15 OR 14B42 LENGTH WILL VARY
②	STEEL BASE PLATE	ASTM A992 50 KSI MIN., ASTM A529 GRADE 50, ASTM A572 GRADE 50, OR ASTM A36	
③	1" DIA. THREADED ROD	SAE J429 GRADE 2, OR ASTM F1554 GRADE 55	LENGTH WILL VARY
④	1" DIA. FLAT WASHER	ASTM F844	
⑤	1" HEX NUT	ASTM A563A	
⑥	1" DIA. HEX BOLT	ASTM A307	LENGTH WILL VARY
⑦	PLATE WASHER	ASTM A992 50 KSI MIN., ASTM A529 GRADE 50, ASTM A572 GRADE 50, OR ASTM A36	1/4" THICKNESS
⑧	1" DIA. FLAT WASHER	ASTM F844	
⑨	1" DIA. HEX NUT	ASTM A563A	
⑩	SHIM PLATE	SEE ②	4 MAX PER POST

NOTES

- ③ Plate washer installed on underside of slab or culvert
- ① Top plate assembly on top of slab or culvert
- ② Bolt through option allowed
- ③ Adhesive Anchors

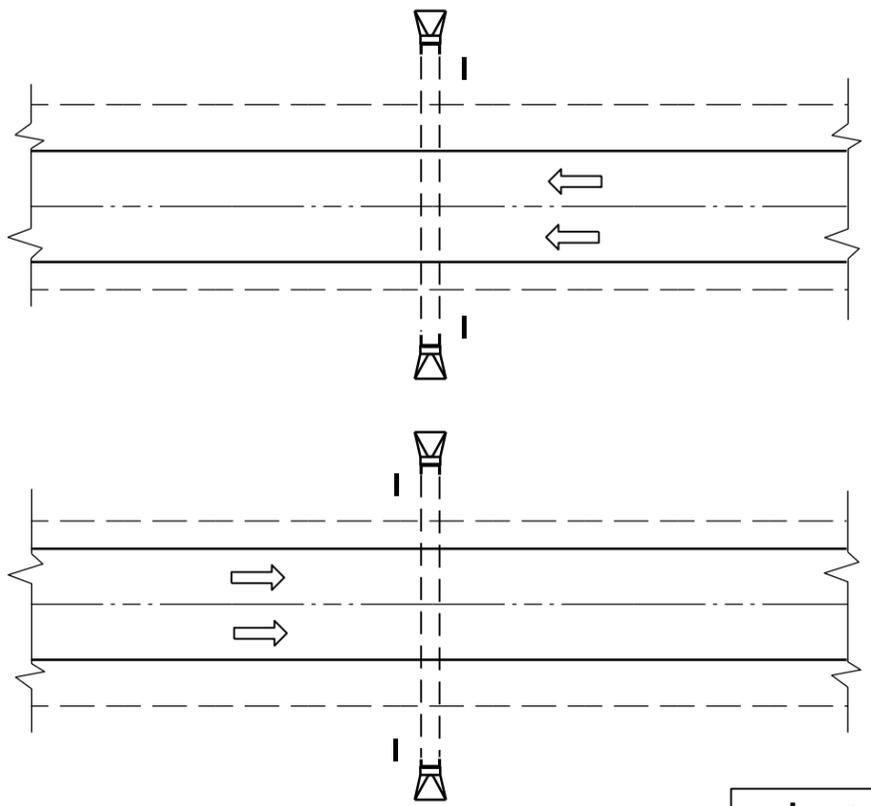
6

SDD 14B51-05c

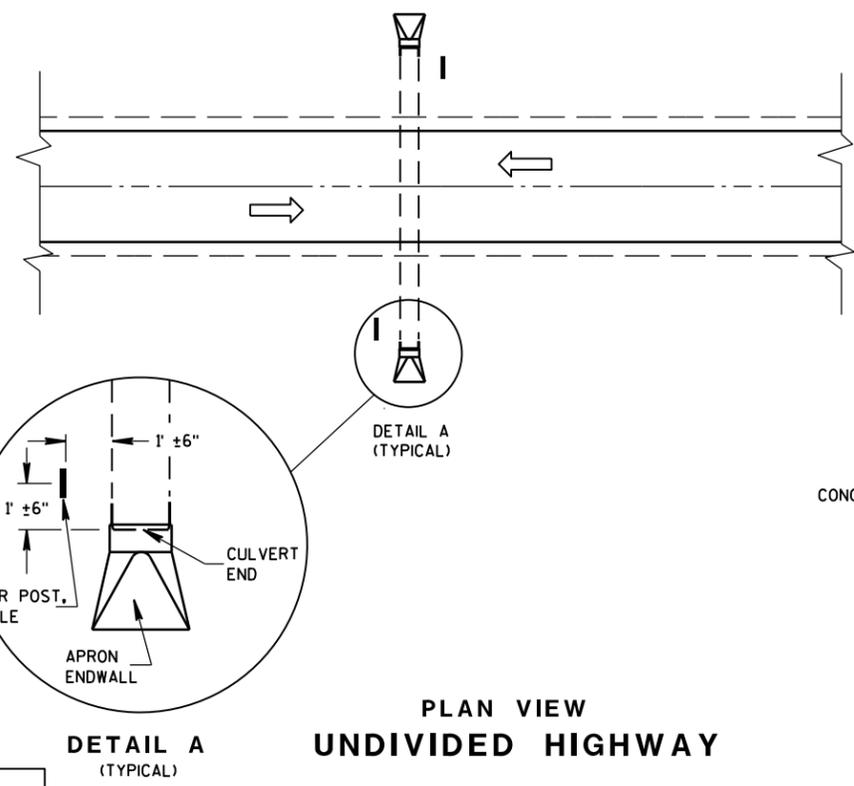
6

SDD 14B51-05c

ANCHOR POST ASSEMBLY TOP MOUNTED	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED June 2025 DATE	/S/ Rodney Taylor WORK ZONE ENGINEER
FHWA 97	

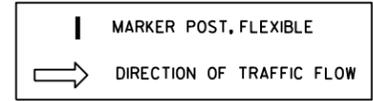


PLAN VIEW
DIVIDED HIGHWAY



PLAN VIEW
UNDIVIDED HIGHWAY

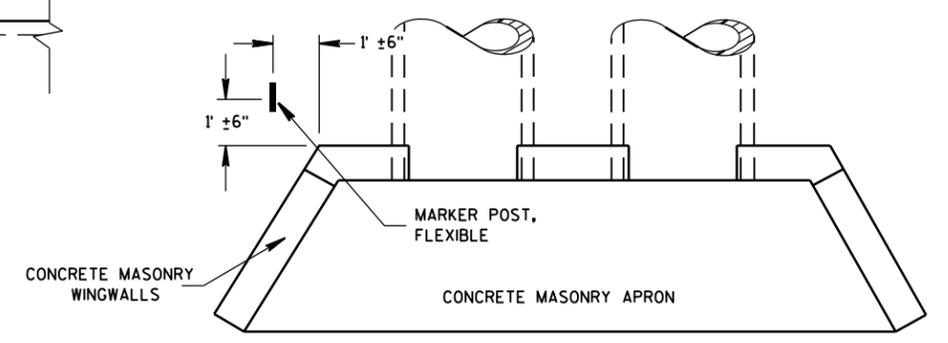
DETAIL A
(TYPICAL)



FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

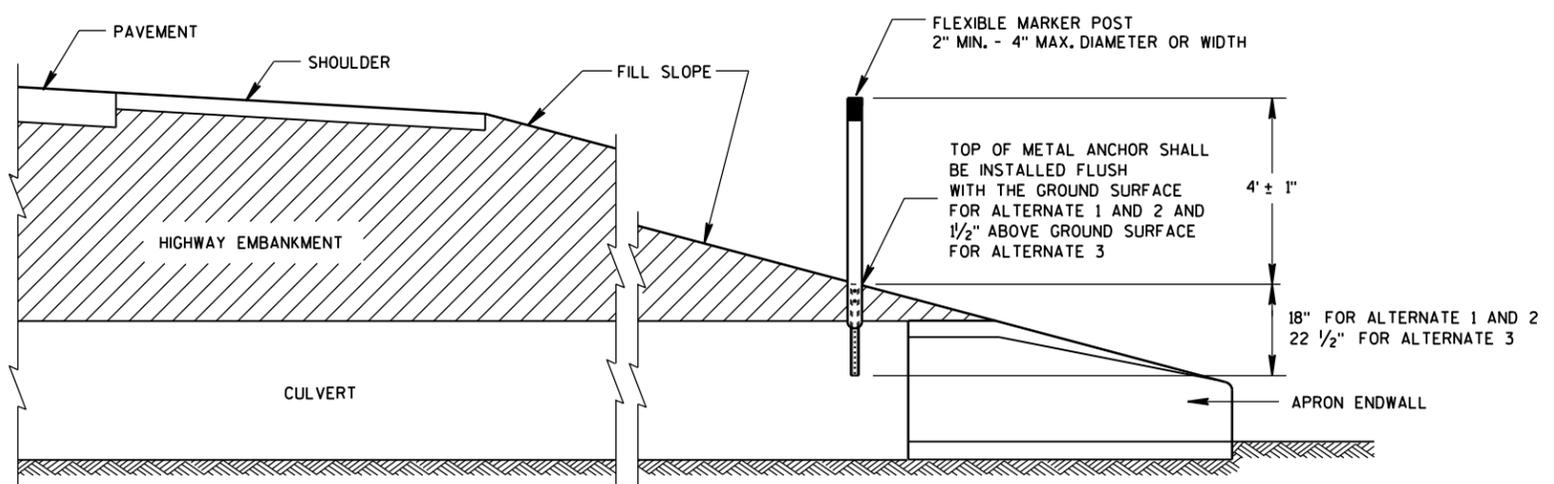
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH

6

6



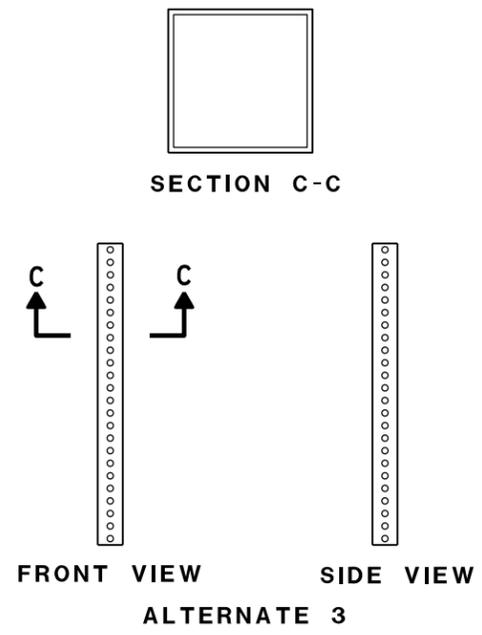
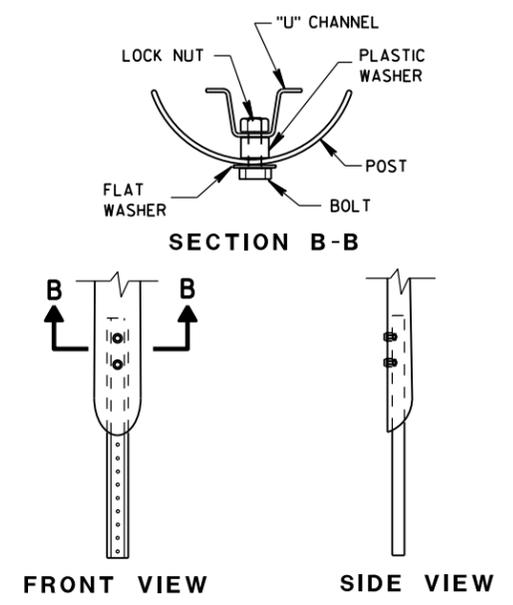
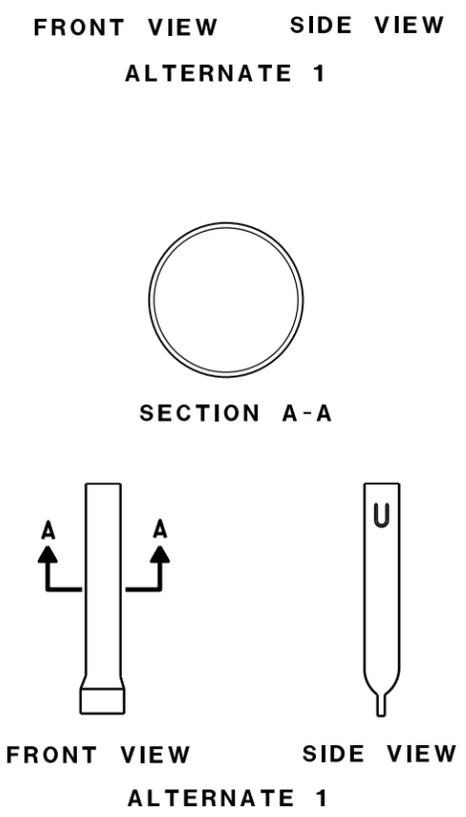
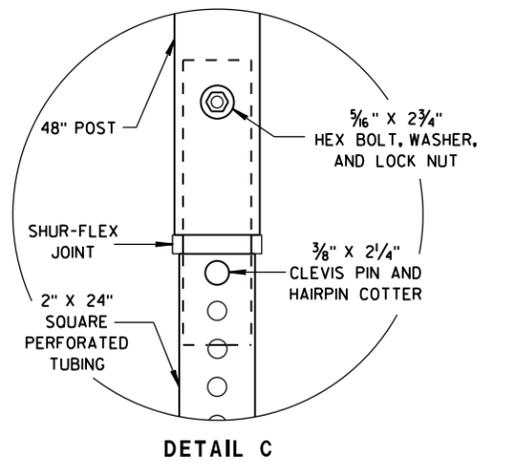
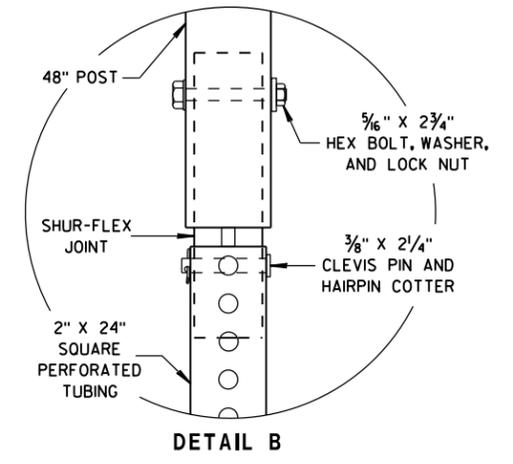
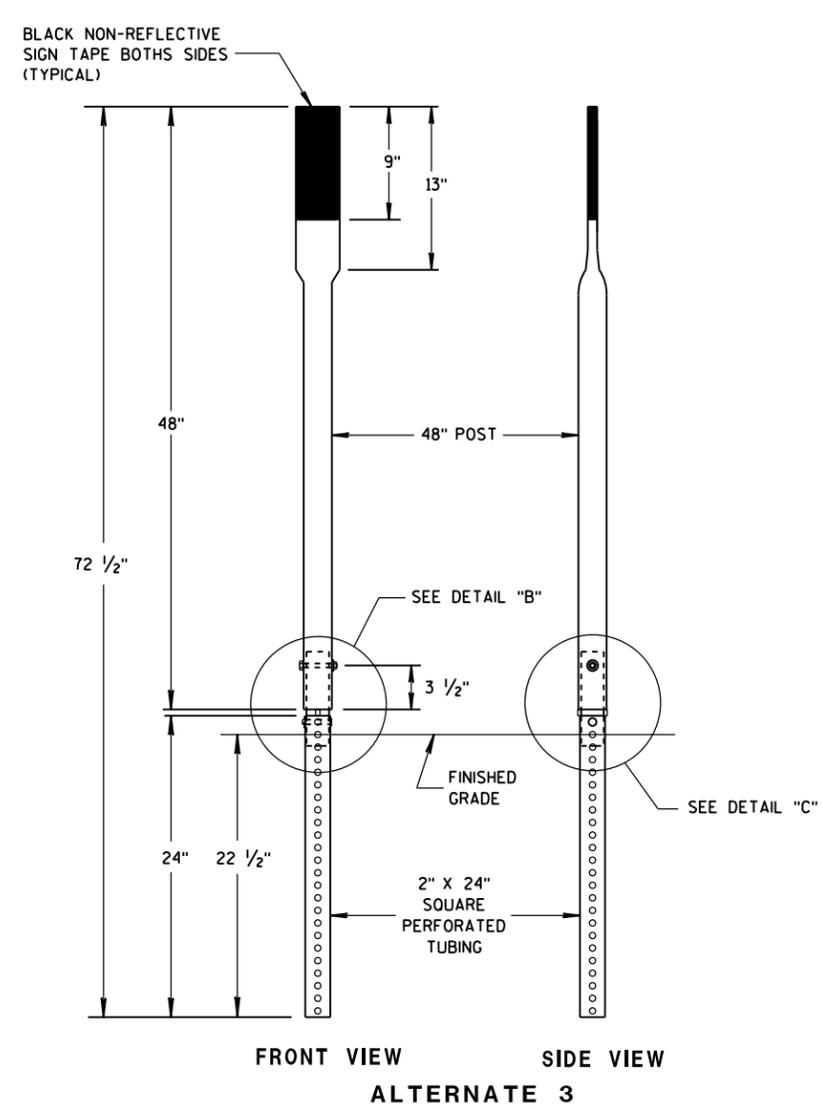
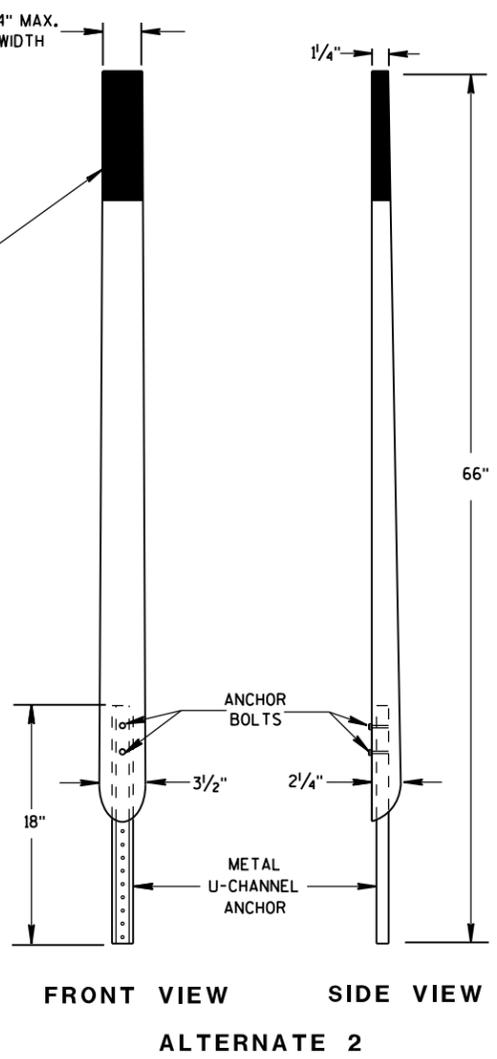
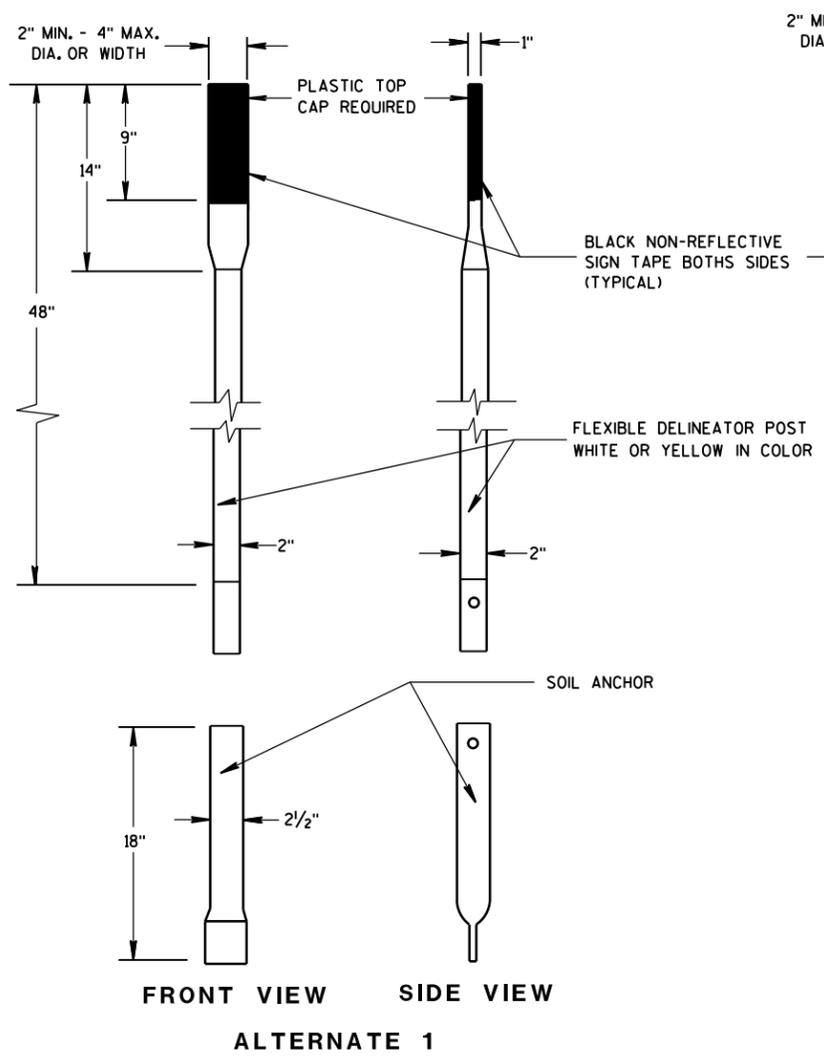
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 98

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

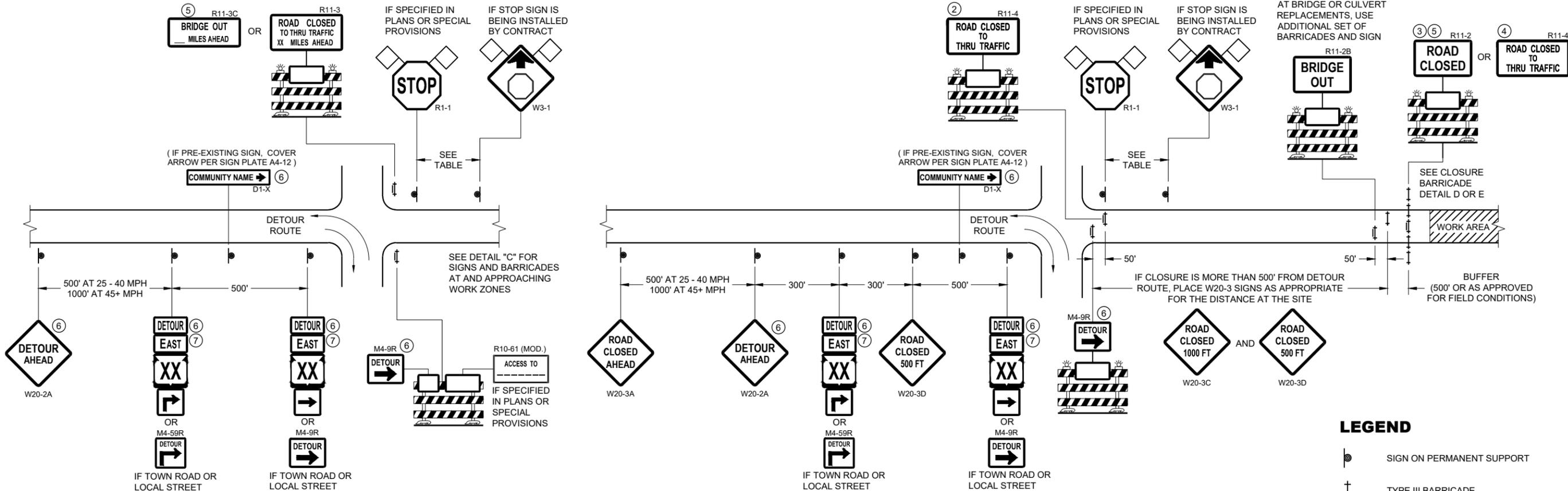
S.D.D. 15 A 3-2a



FLEXIBLE MARKER POSTS

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST FOR CULVERT END		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED		
10/1/2012	/S/ Travis Feltes	
DATE	STATE TRAFFIC ENGINEER	IGN
FHWA		



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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

DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

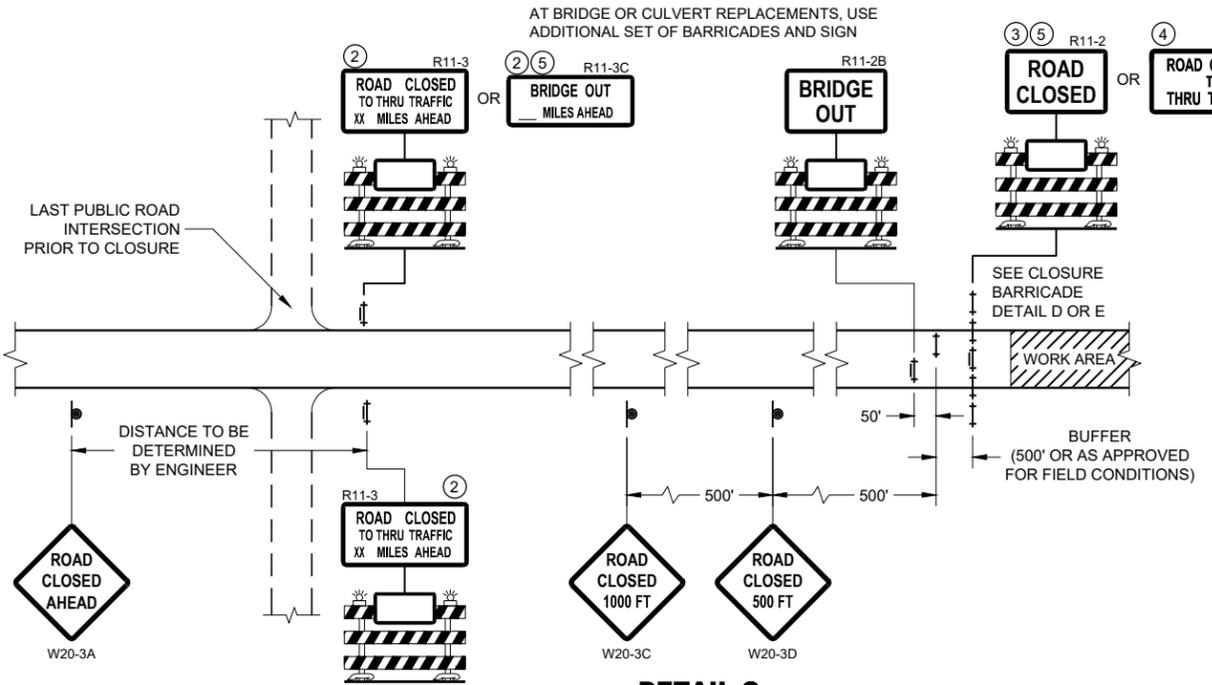
WORK ZONE LESS THAN 1/2 MILE FROM
 DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

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

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

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

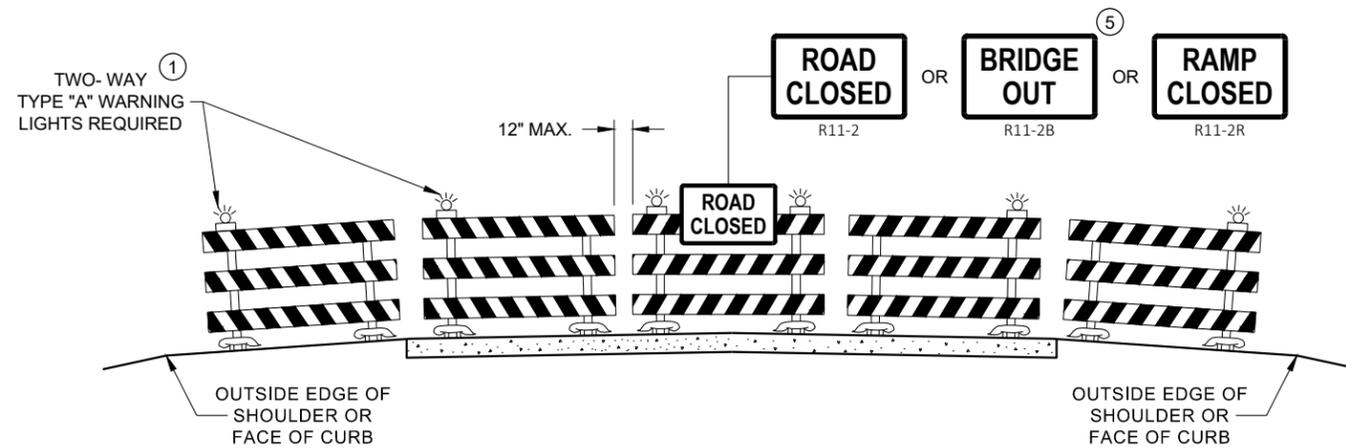


DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

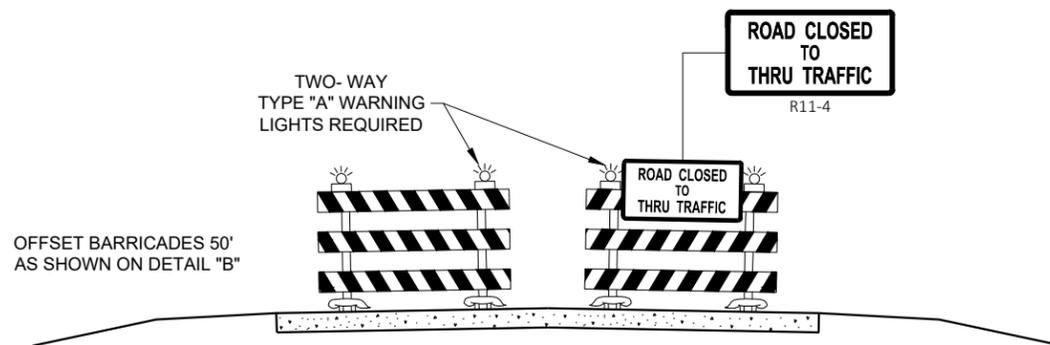
**BARRICADES AND SIGNS
 FOR MAINLINE CLOSURES**

STATE OF WISCONSIN
 DEPARTMENT OF TRANSPORTATION

APPROVED
 May 2023 /S/ Andrew Heidtke
 DATE WORK ZONE ENGINEER 100
 FHWA



**DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW**



**DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW**

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON 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:

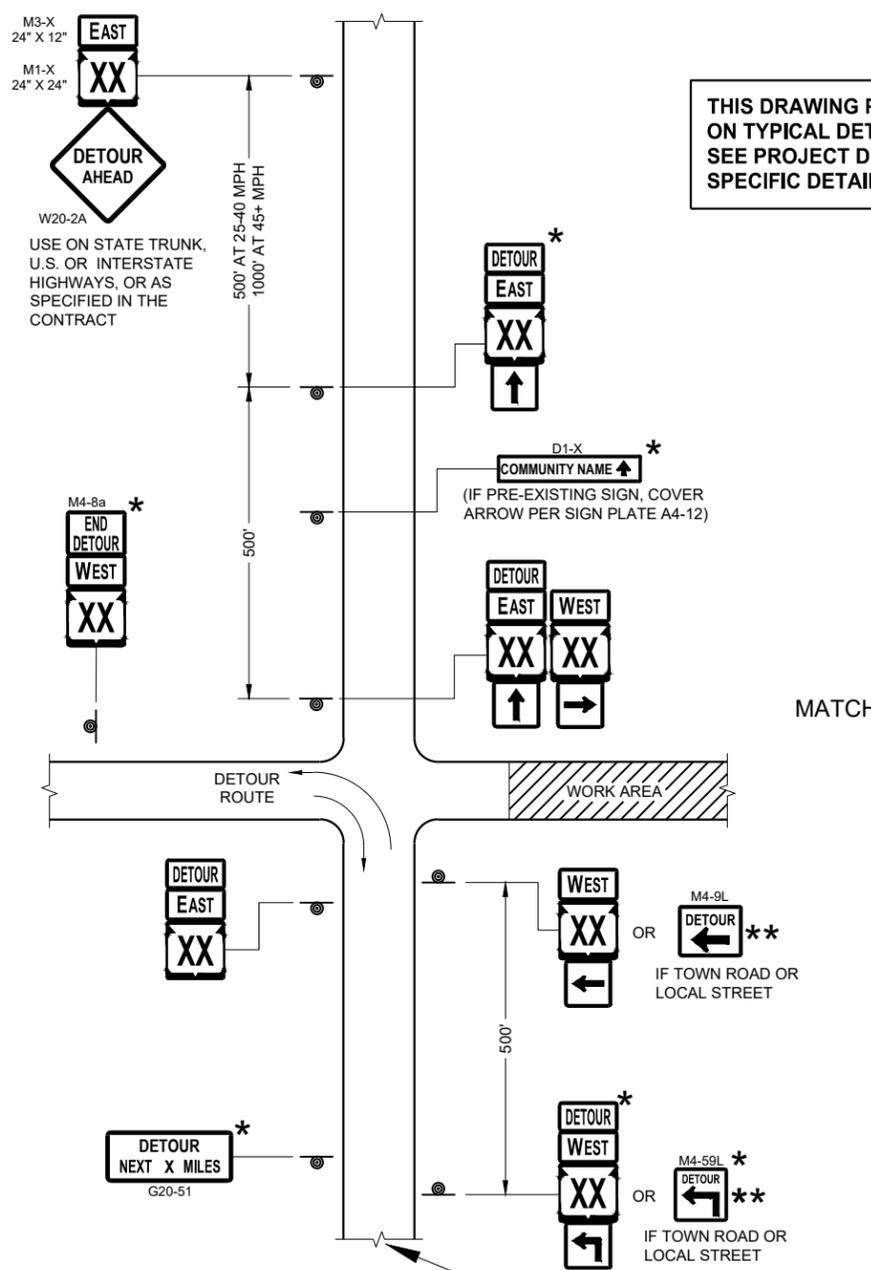
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60" X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" 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.

**BARRICADES AND SIGNS
FOR
VARIOUS CLOSURES**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 101
FHWA



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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- M4 - 8
- M3 - X
- M1 - 4
- M1 - 6
- M1 - 5A
- M05 - 1
- M06 - 1
- M06 - 1

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.

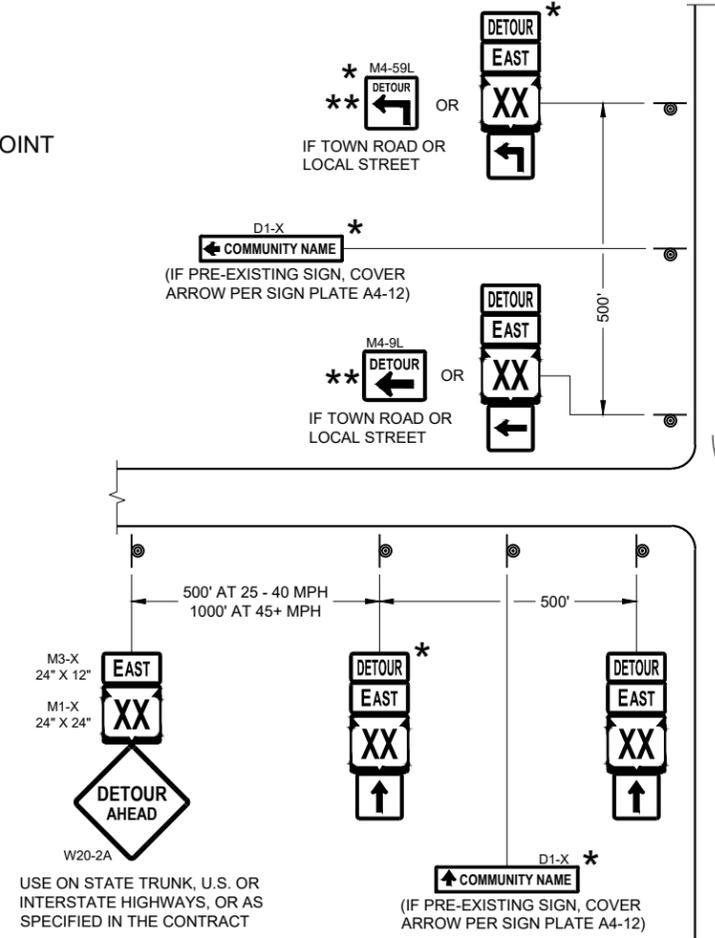
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

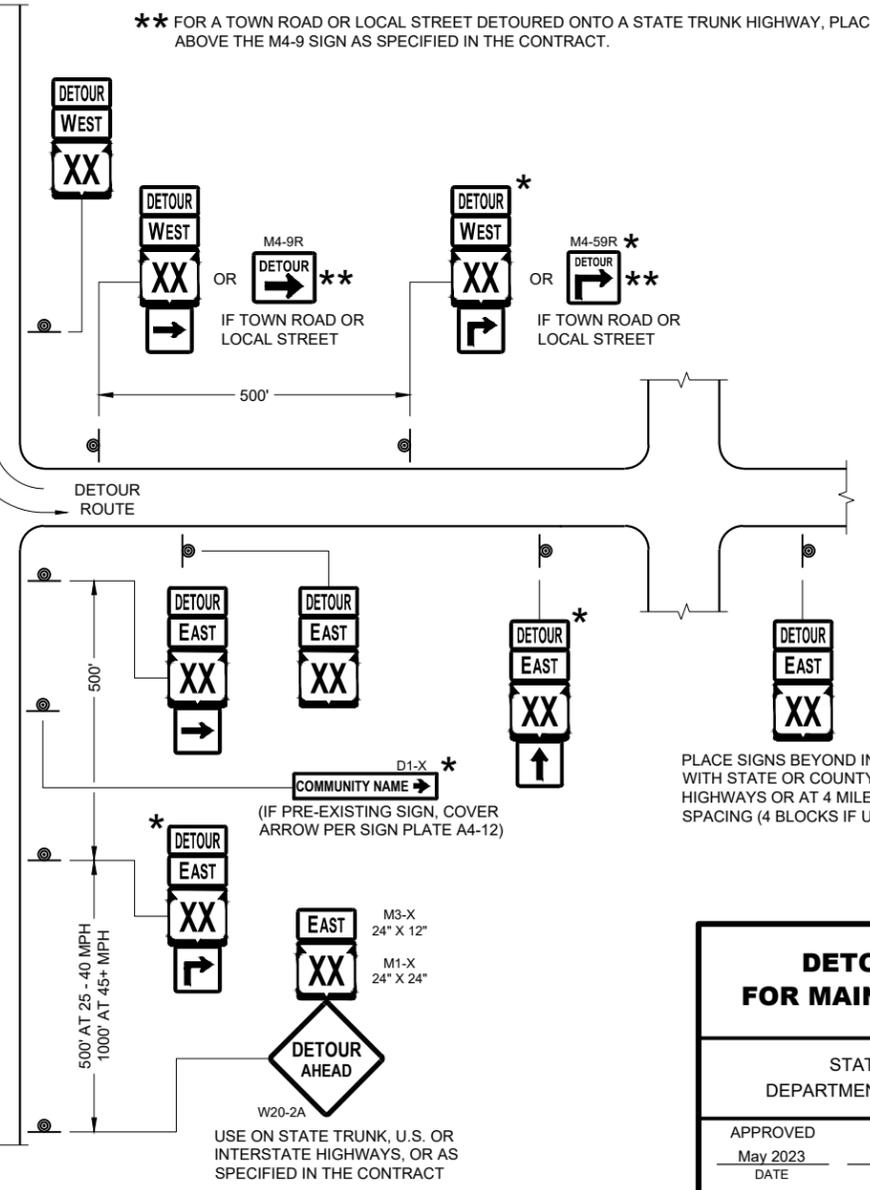
- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 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.

MATCH POINT



**DETAIL F
DETOUR SIGNING**



**DETOUR SIGNING
FOR MAINLINE CLOSURES**

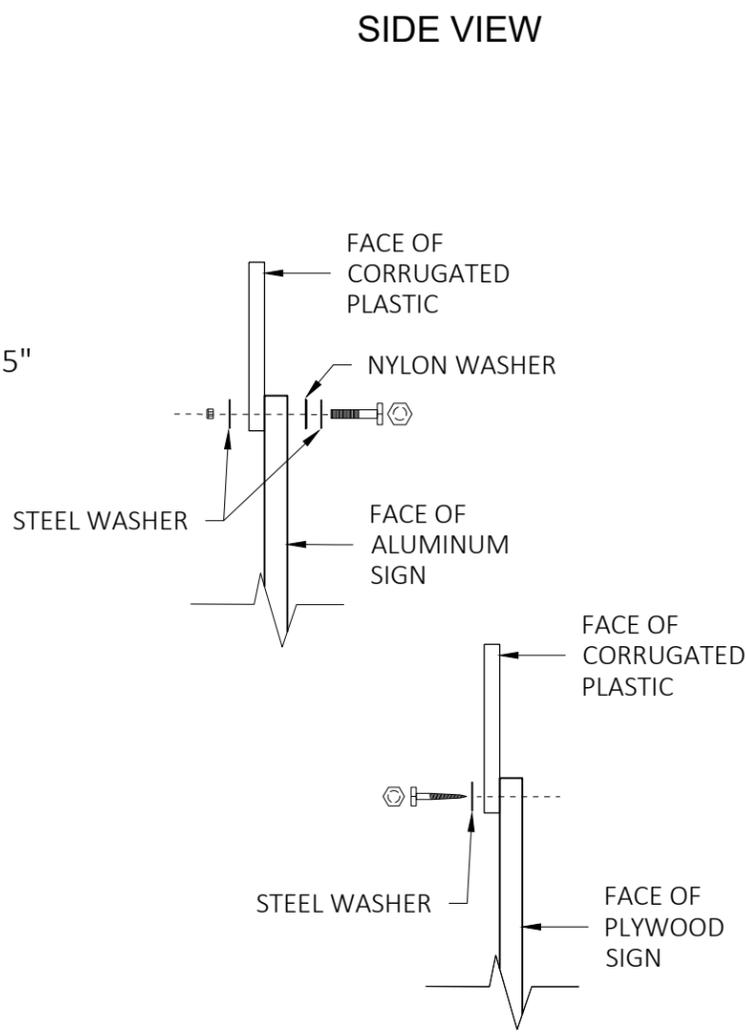
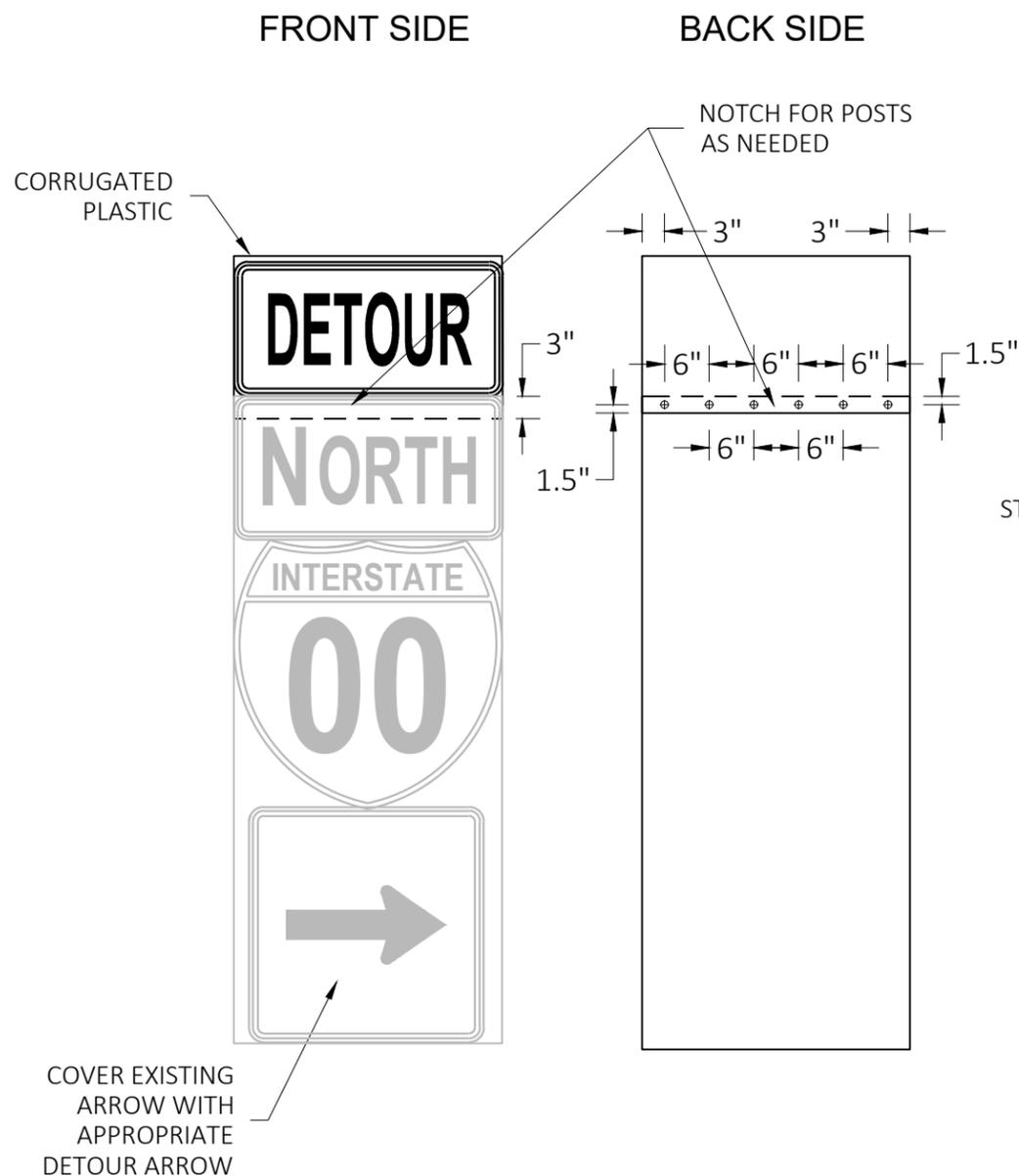
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 102

FHWA

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

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



GENERAL NOTES

CELLS OF CORRUGATED PLASTIC SHALL BE VERTICALLY ORIENTED.

PROVIDE A 0.4-INCH THICK BASE CORRUGATED PLASTIC WITH A 0.035-INCH WALL THICKNESS AND 0.4-INCH CELL SIZE.

FOR 36" WIDE SIGNS: USE 6 FASTENERS AS SHOWN.

FOR 24" WIDE SIGNS: USE 4 FASTENERS WITH EDGE SPACING AS SHOWN AND 6" SPACING BETWEEN FASTENERS.

METAL WASHERS, NUTS, BOLTS AND LAGS 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, SC3

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.

PLYWOOD SIGNS:

LAG SCREWS - 5/16" x 1"

ALUMINUM SIGNS:

MACHINE BOLTS - 5/16" x 1-1/4" LENGTH W/NUTS

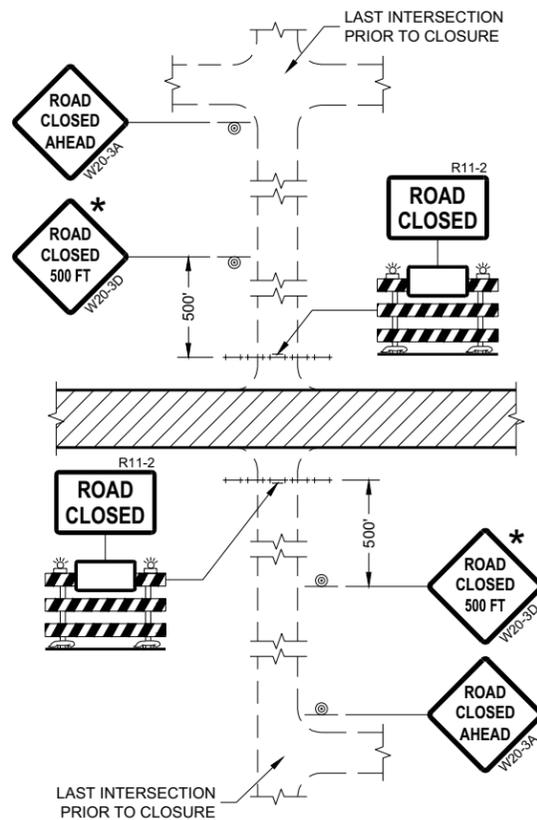
WASHERS:

1-1/4" O.D. x 3/8" I.D. x 1/16" STEEL

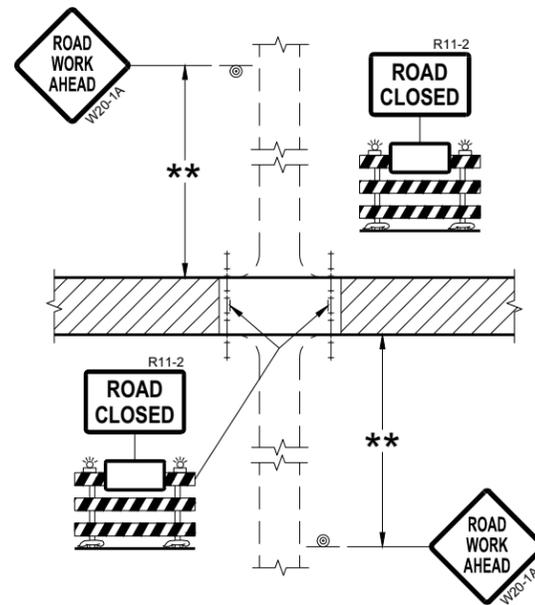
1-1/4" O.D. x 3/8" I.D. x .080 NYLON

MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING

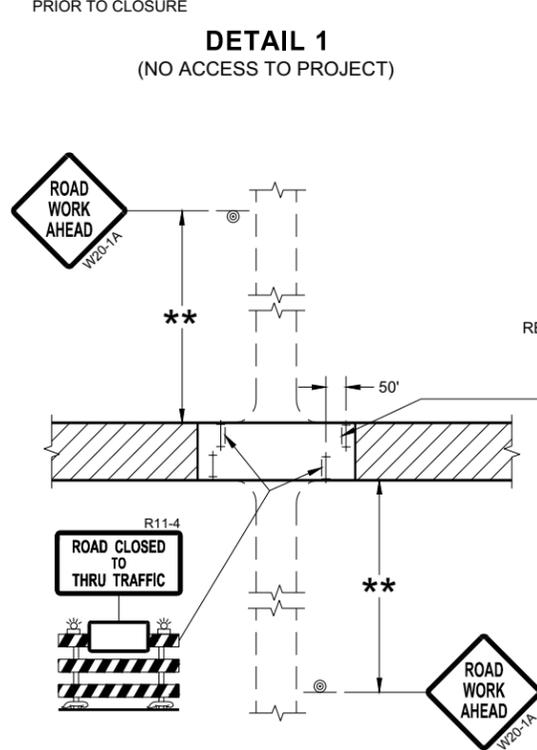
MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke ROADWAY STANDARDS DEVELOPMENT ENGINEER 103
<small>FHWA</small>	



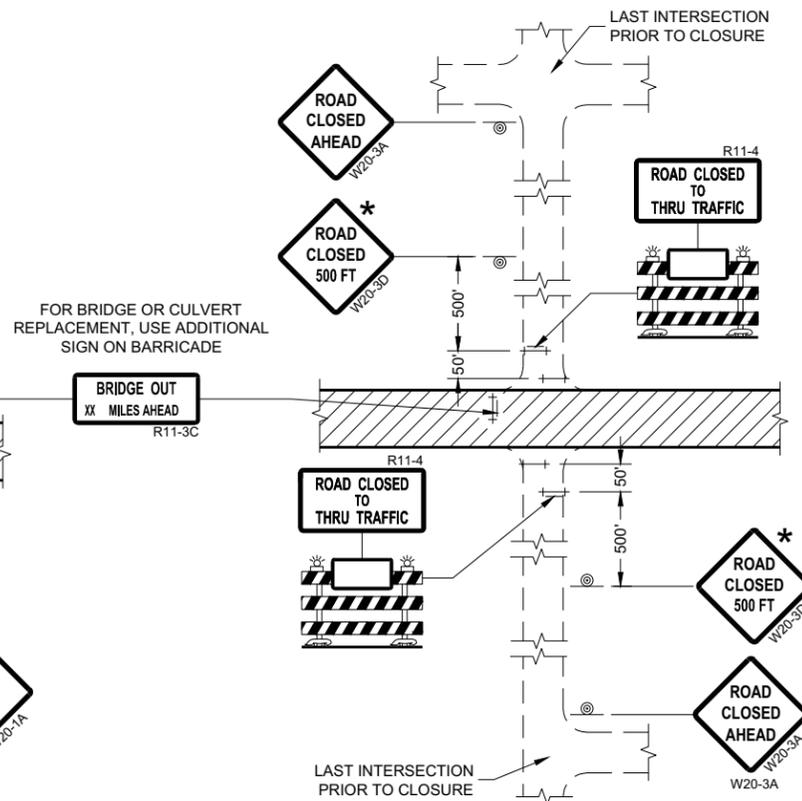
DETAIL 1
(NO ACCESS TO PROJECT)



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



DETAIL 3
(PUBLIC CROSS-TRAFFIC MAINTAINED.
CONTRACTOR, LOCAL BUSINESS AND
RESIDENT ACCESS 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 104
FHWA

GENERAL NOTES

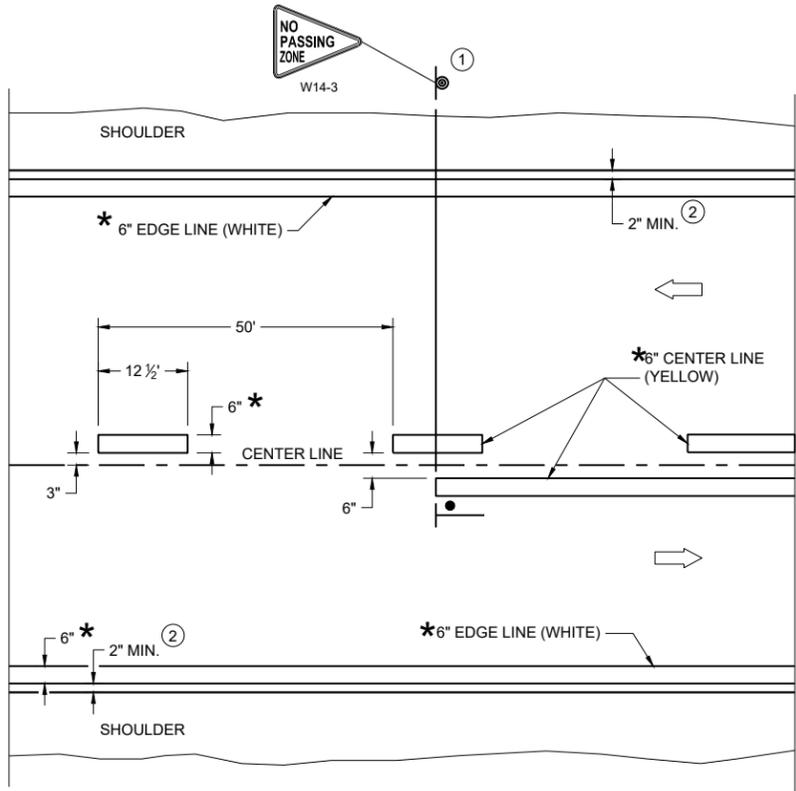
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- ① LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING
- ② MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

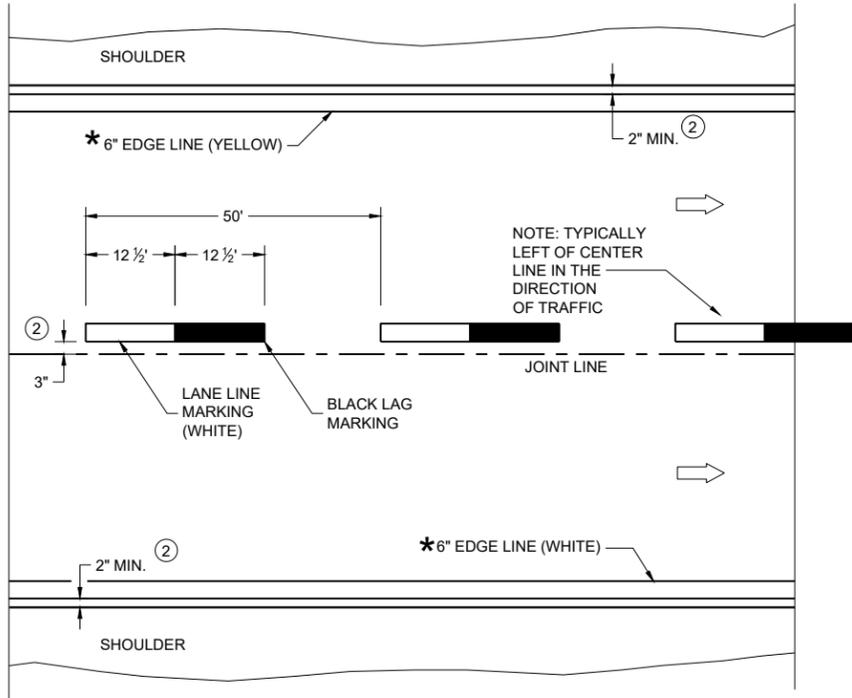
LEGEND

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

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

6

6

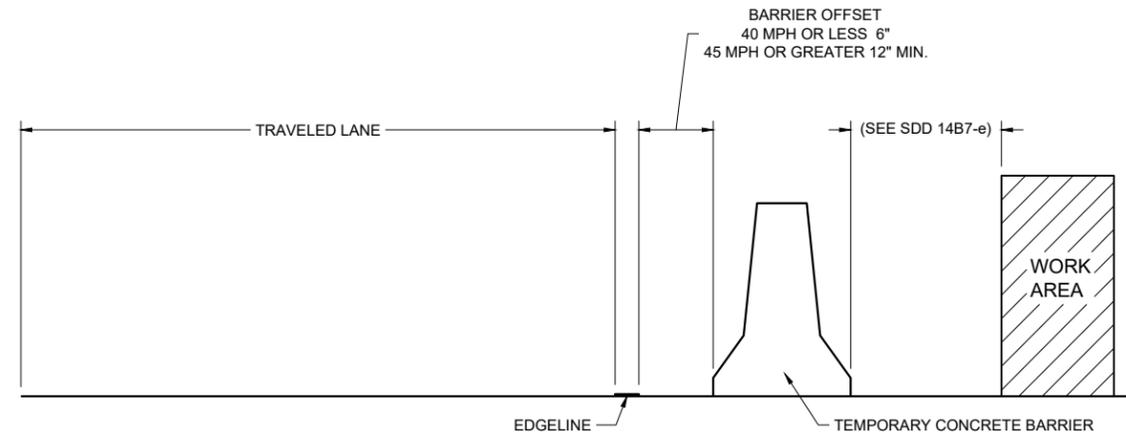
SDD 15C08-24a

SDD 15C08-24a

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer



TEMPORARY BARRIER OFFSET FROM EDGELINE

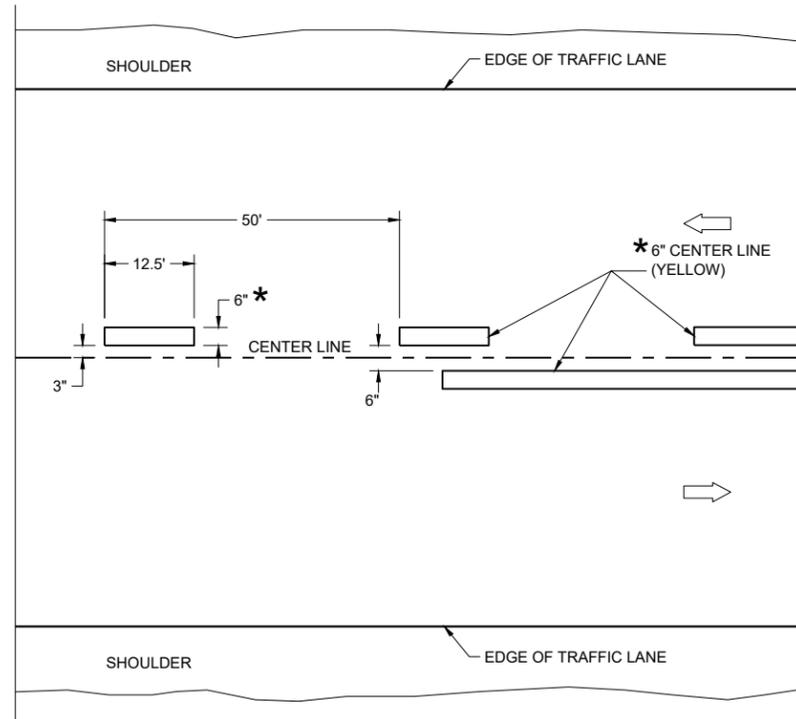
GENERAL NOTES

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

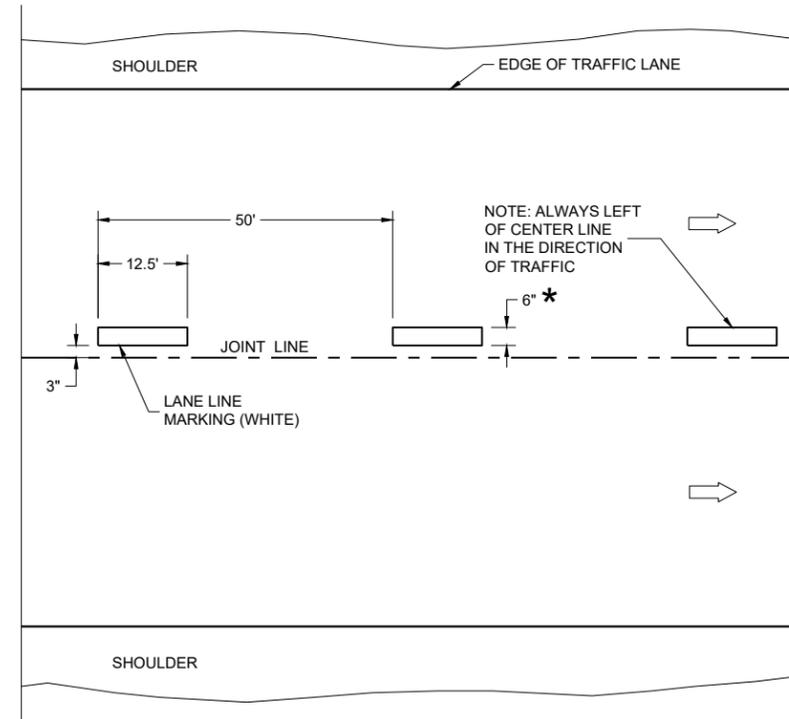
LEGEND

➡ DIRECTION OF TRAFFIC

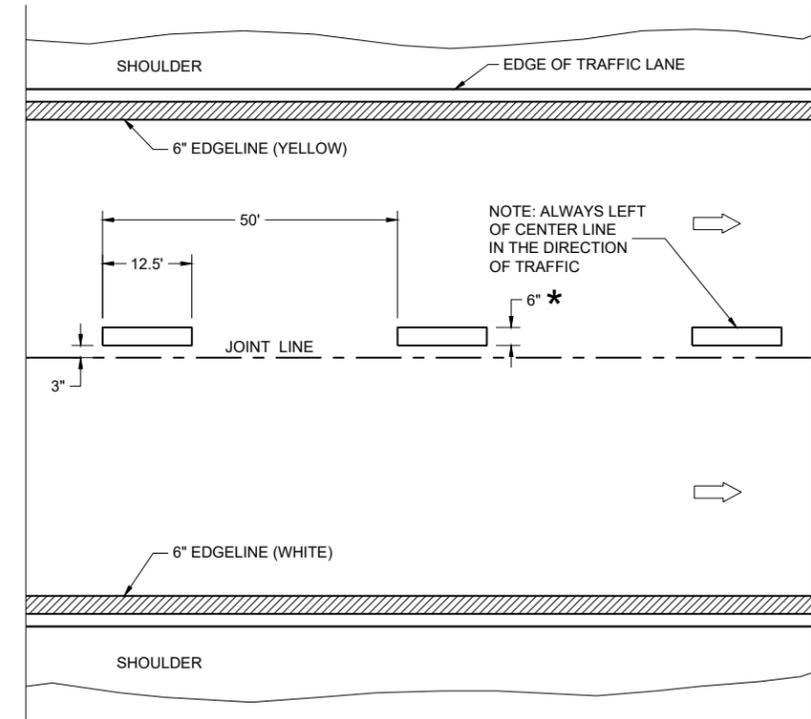
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2024 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer

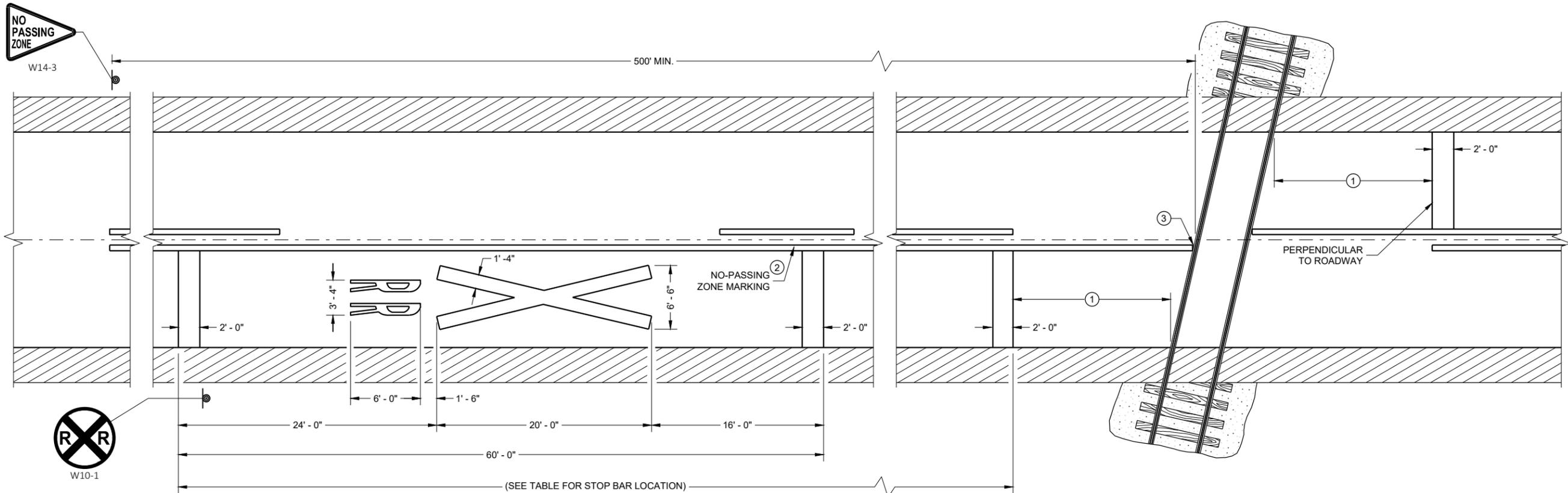
FHWA 106

6

SDD 15C08-24b

6

SDD 15C08-24b



PAVEMENT MARKING

LEGEND

⊙ SIGN ON PERMANENT SUPPORT

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.

ON MULTI-LANE ROADS THE TRANSVERSE BANDS SHOULD EXTEND ACROSS ALL APPROACH LANES, AND INDIVIDUAL R X R SYMBOLS SHOULD BE USED IN EACH APPROACH LANE.

CENTER OR LANE LINES AND NO-PASSING ZONE MARKINGS SHOWN ON THIS DRAWING ARE REQUIRED AND PAID FOR UNDER OTHER ITEMS IN THE CONTRACT.

TRACE EXISTING SYMBOL WHERE EXISTING SYMBOLS ARE PLACED.

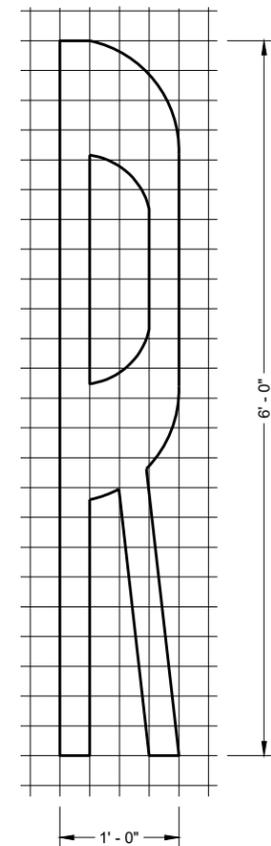
- ① PLACE STOP BAR APPROXIMATELY 8 FEET IN ADVANCE OF THE GATE (IF PRESENT), BUT NO CLOSER THAN 15 FEET IN ADVANCE OF THE NEAREST RAIL. FIELD-FIT STOP BAR TO MAXIMIZE VIEW OF APPROACHING TRAIN.
- ② 500' MINIMUM. MARKING LIMITS MAY BE EXTENDED AS DIRECTED BY THE ENGINEER TO MEET ADJACENT NO-PASSING ZONE MARKINGS.
- ③ FOR MULTIPLE TRACK CROSSINGS, THE BARRIER LINE SHALL EXTEND TO THE NEAR RAIL OF THE FURTHEST TRACK IN THE DIRECTION OF HIGHWAY TRAVEL.

DISTANCE TABLE

TABLE BASED UPON 2C-4 WISCONSIN SUPPLEMENT OF MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

POSTED SPEED (M.P.H.)	DIMENSION RANGE (FEET)
25	150* - 250'
30	200* - 300'
35	250* - 450'
40	300* - 500'
45	400* - 650'
50	550* - 800'
55	750* - 1000'
60	1000* - 1250'
65	1000* - 1250'

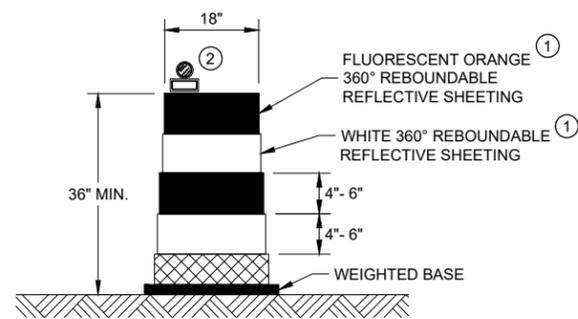
* THE MINIMUM DISTANCES IN THE TABLE ARE DESIRABLE AND SHOULD BE USED. THE DISTANCES MAY BE INCREASED UP TO THE MAXIMUM TO ALLOW FOR FIELD CONDITIONS SUCH AS THE CLOSED PROXIMITY OF DRIVEWAYS, BRIDGES, SIDE ROADS OR OTHER FEATURES THAT WOULD PROHIBIT THE MINIMUM DISTANCES FROM BEING USED.



SIGNING AND PAVEMENT MARKING DETAILS FOR RAILROAD - HIGHWAY GRADE CROSSINGS

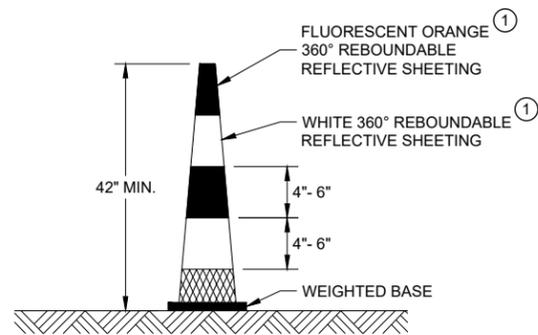
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 DATE /S/ Matthew R. Rauch
STATE SIGNING AND MAF 107 ENGINEER
FHWA



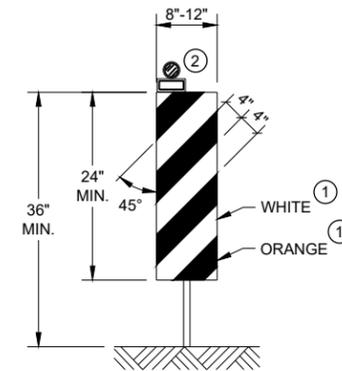
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS
BALLAST WIDTHS
RANGE FROM 14"-20"

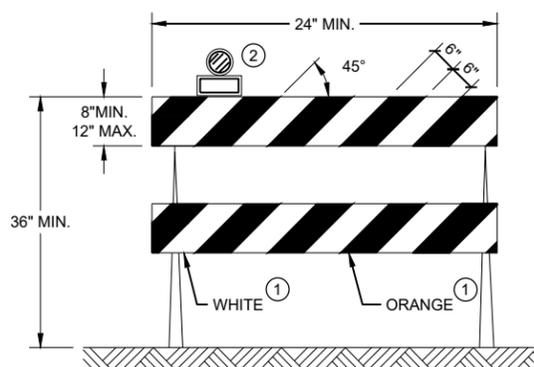


VERTICAL PANEL

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

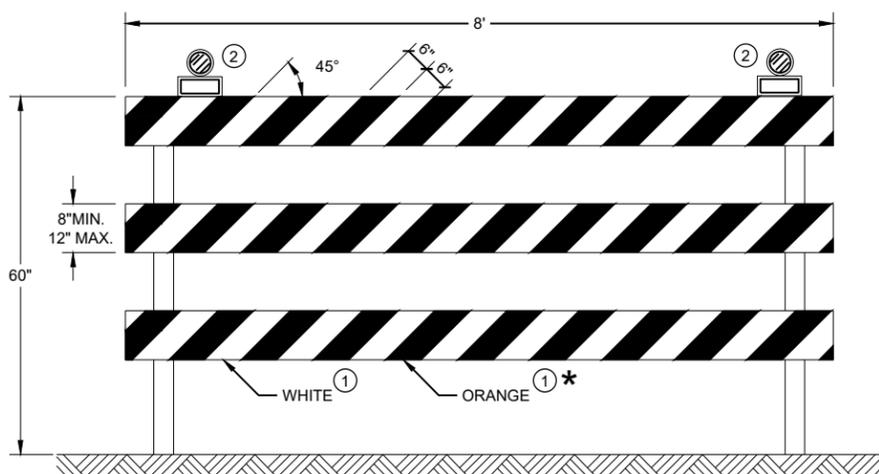
GENERAL NOTES

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



TYPE 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.

**CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 108
FHWA

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.

- ① 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.
- ② 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.

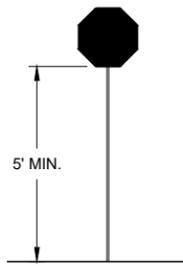
- ③ EACH TEMPORARY PORTABLE RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS PLACED TRANSVERSE ACROSS THE LANE AT THE LOCATIONS SHOWN. WITHIN EACH ARRAY, SPACING BETWEEN RUMBLE STRIPS SHALL BE 15 FEET ON CENTER

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM 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.



STOP/SLOW PADDLE ON SUPPORT STAFF

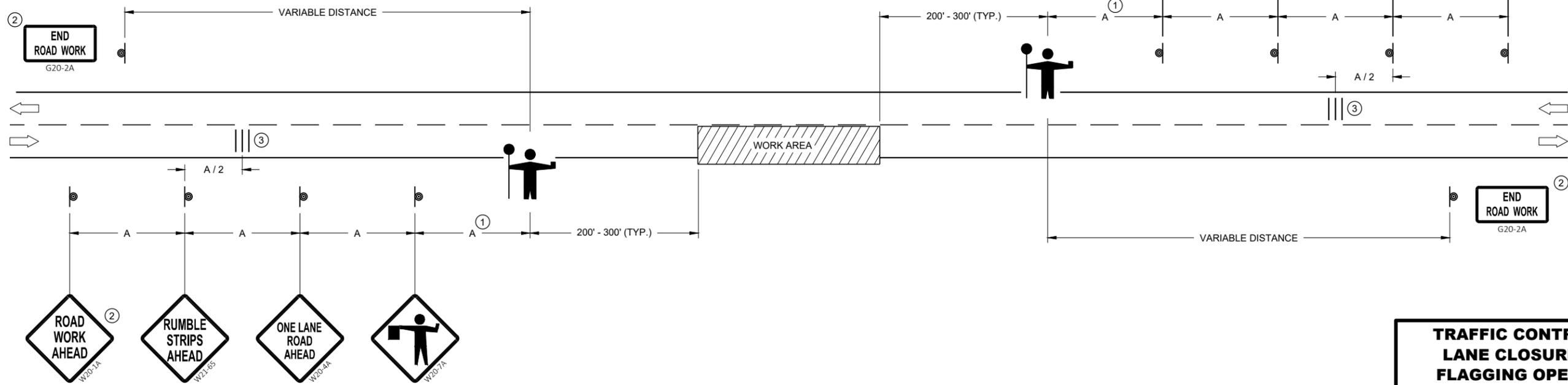
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



W03-4

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".



6

6

SDD 15C12 - 09a

SDD 15C12 - 09a

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED _____ /S/ Andrew Heidtke
DATE May 2022 WORK ZONE ENGINEER 109

FHWA

LEGEND

- V1** LEAD VEHICLE
- V2** MARKING VEHICLE
- V3** SHADOW VEHICLE
-  TRUCK MOUNTED ATTENUATOR (TMA)
-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC

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 OPERATING IN CAUTION MODE. 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.

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

WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC.

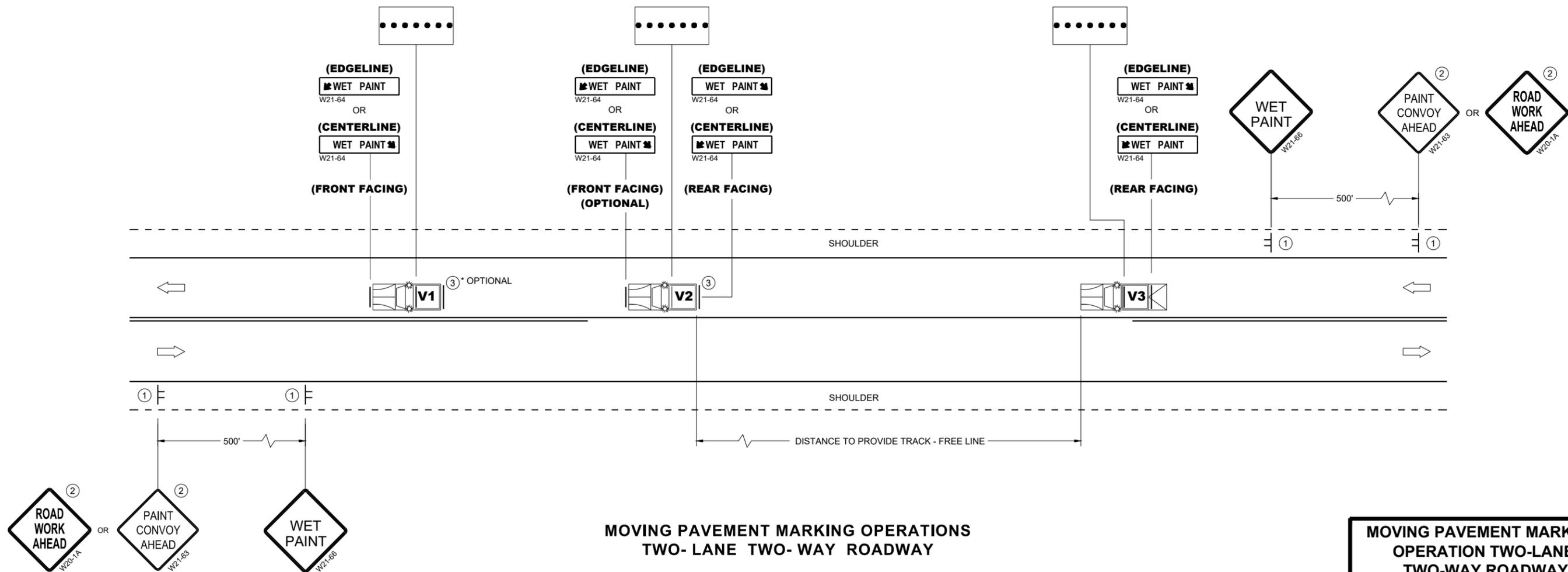
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

CONES SHALL BE A MINIMUM OF 28" FOR WET PAVEMENT MARKING .

- ① SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.
- ② IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.
- ③ V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.

6

6



**MOVING PAVEMENT MARKING OPERATIONS
TWO-LANE TWO-WAY ROADWAY**

SDD 15C19-11a

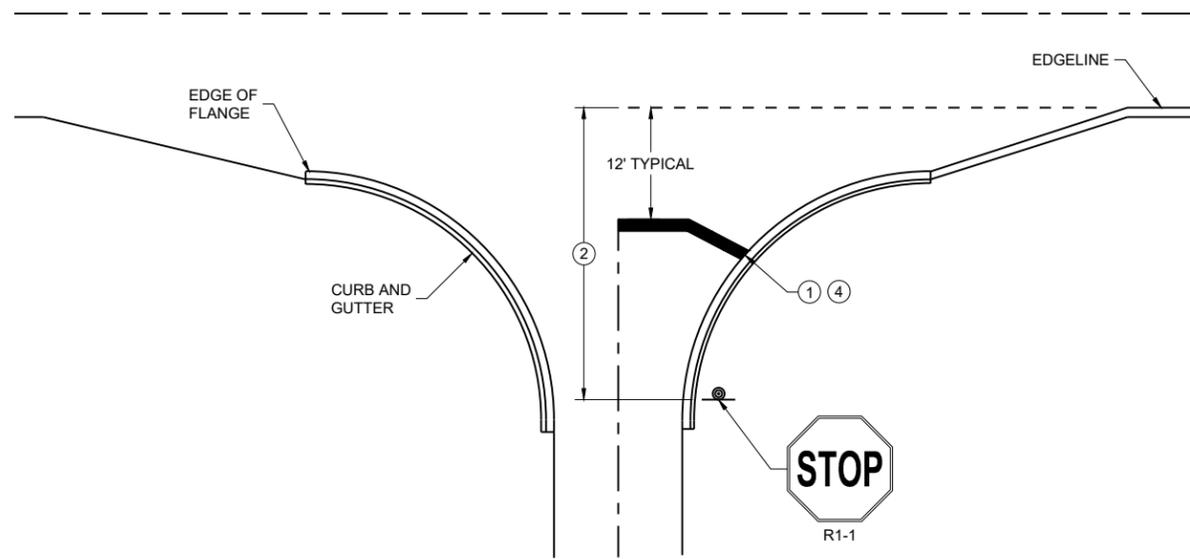
SDD 15C19-11a

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2025 DATE	/s/ Andrew Heidtke STATE ELECTRICAL ENGINEER
FHWA	

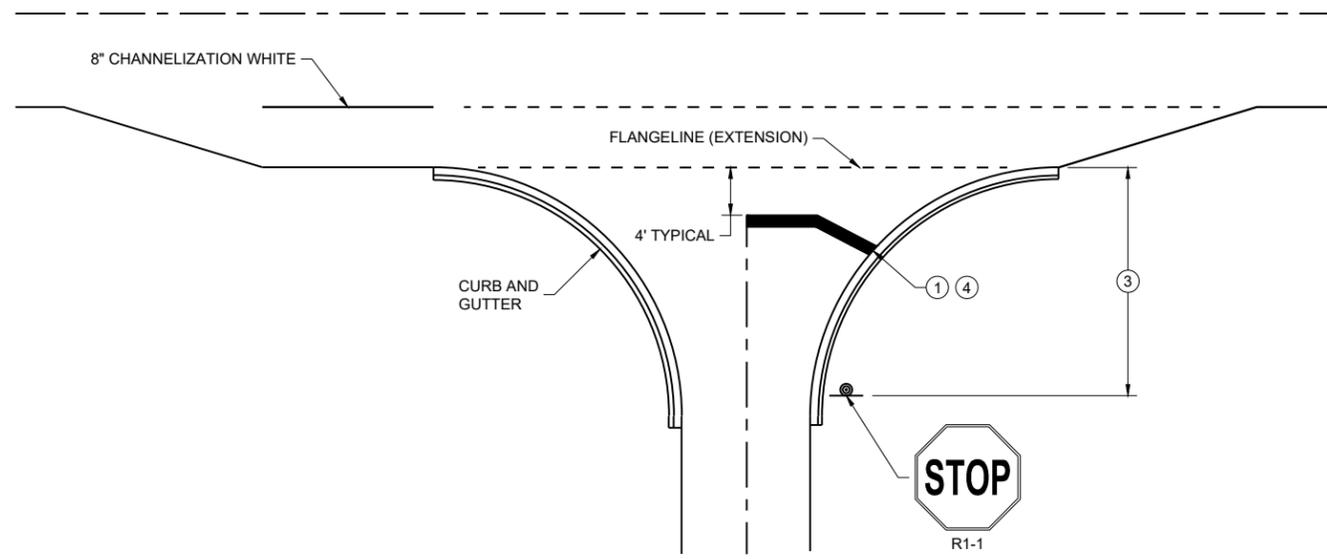
GENERAL NOTES

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

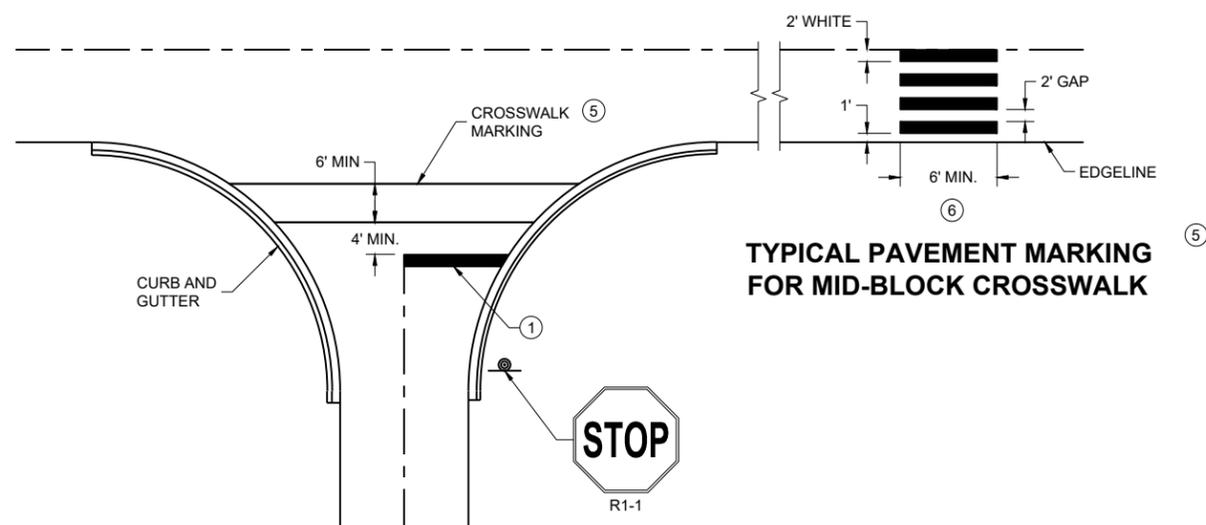
- ① 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
- ② NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
- ③ NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE 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.
- ⑥ POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

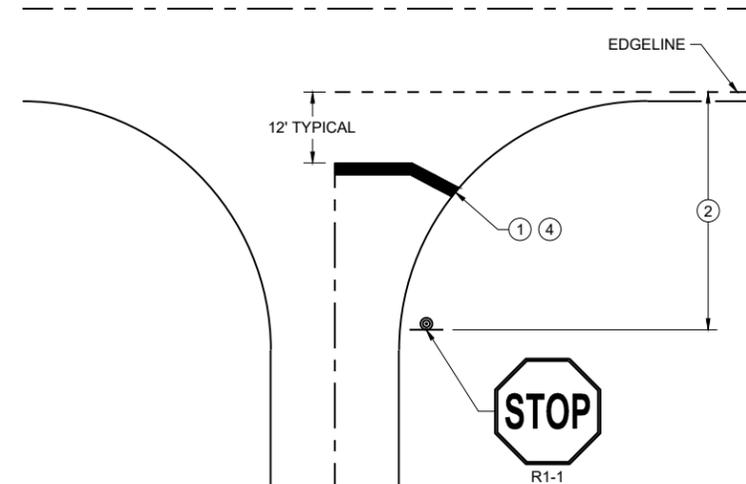


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING

TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

6

6

SDD 15C33-05

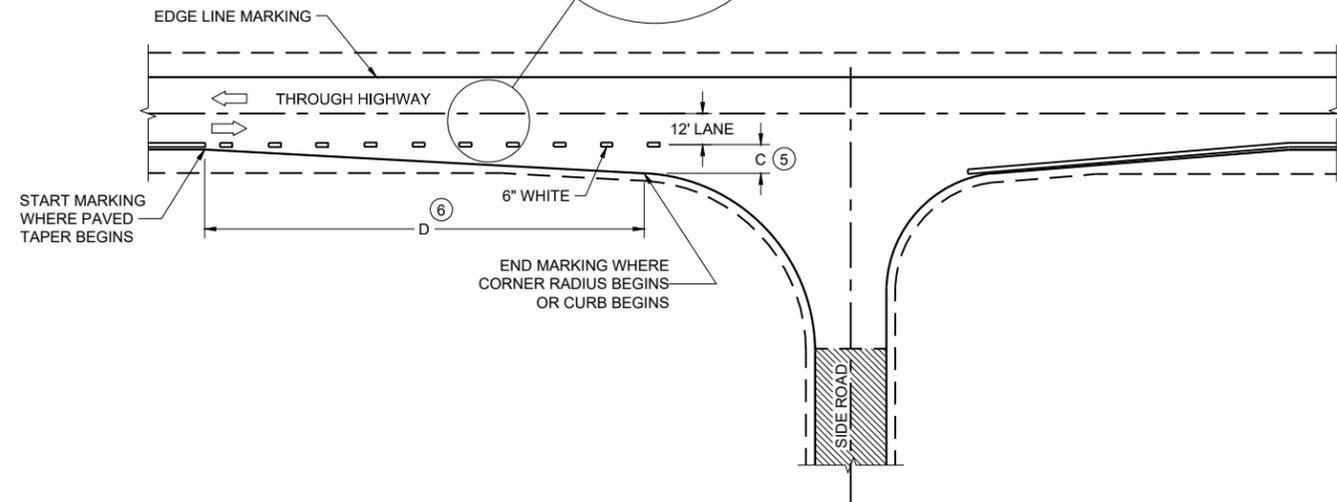
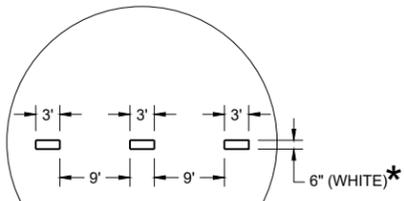
SDD 15C33-05

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024 /s/ Matthew Rauch
DATE STATE SIGNING AND MARKING
ENGINEER

FHWA



MINOR INTERSECTION

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

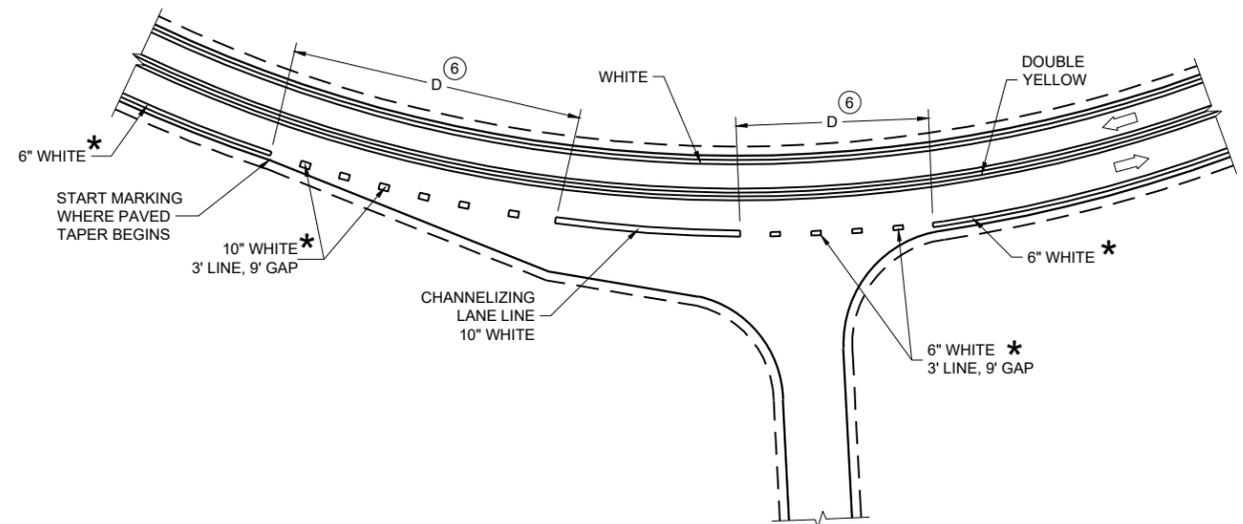
GENERAL NOTES

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

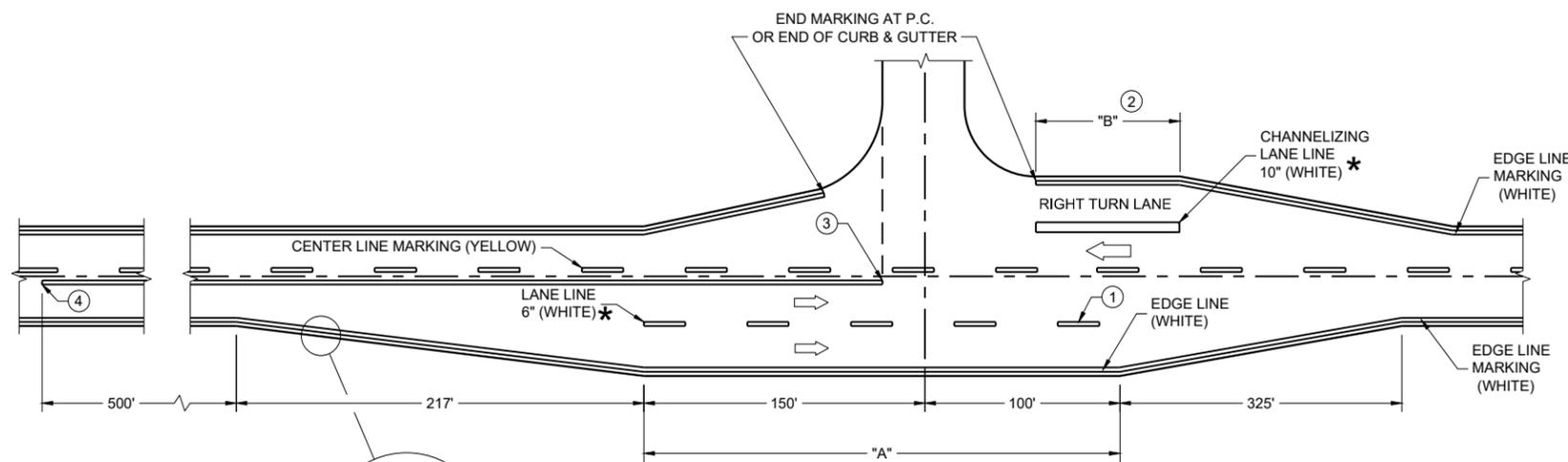
- ① WHEN DISTANCE "A" IS LESS THAN 250 FEET, OMIT LANE LINE.
- ② WHEN DISTANCE "B" IS LESS THAN 100 FEET, OMIT CHANNELIZING LANE LINE.
- ③ BARRIER LINE ENDS AT SIDE ROAD PAVEMENT / SURFACE EDGE EXTENSION.
- ④ BARRIER LINE STARTS 500 FEET PRIOR TO THE BYPASS TAPER.
- ⑤ WHEN DISTANCE "C" IS LESS THAN 4 FEET, OMIT DOTTED EXTENSION.
- ⑥ WHEN DISTANCE "D" IS LESS THAN 50 FEET, OMIT DOTTED EXTENSION.

LEGEND

➡ DIRECTION OF TRAVEL

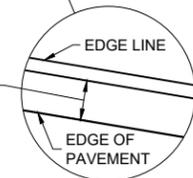


INTERSECTION ON OUTSIDE OF CURVE



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

BYPASS LANE PAVED SHOULDER WIDTH (AS SHOWN ELSEWHERE IN PLANS) - PLUS 2 INCHES



**PAVEMENT MARKING
(INTERSECTIONS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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.

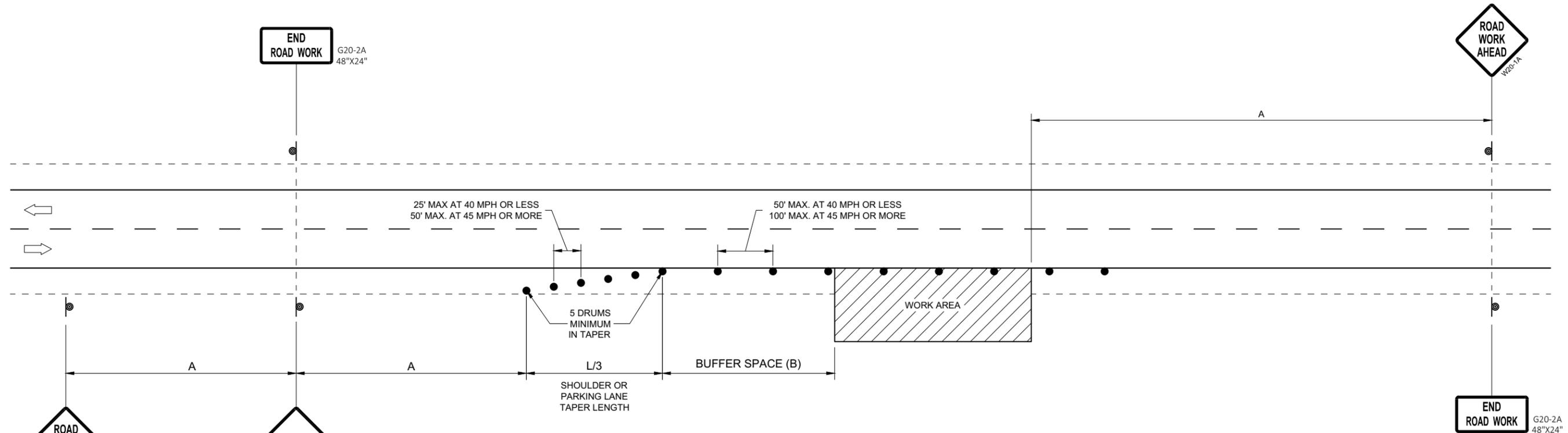
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

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



OR
IF TRAFFIC CONTROL DEVICES
ENCROACH ONTO TRAVELED WAY, USE

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**

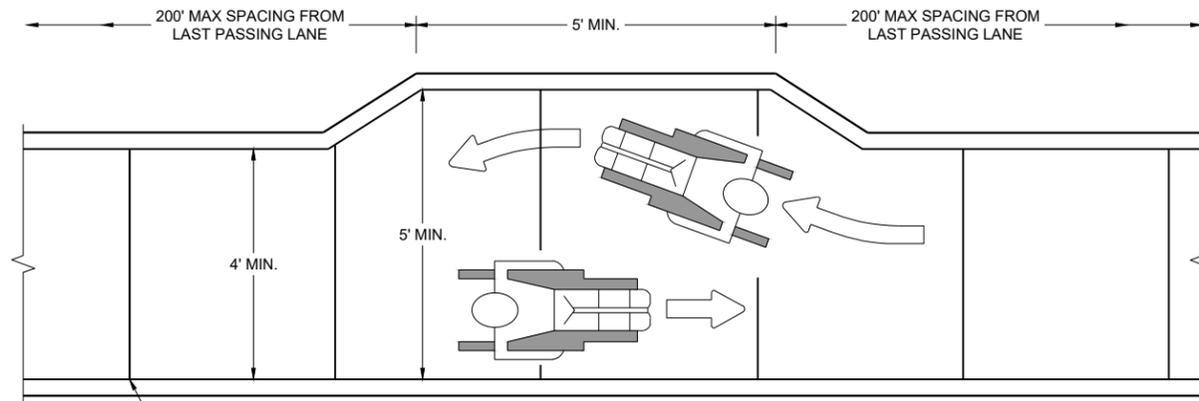
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE T SAFETY ENGINEER 113

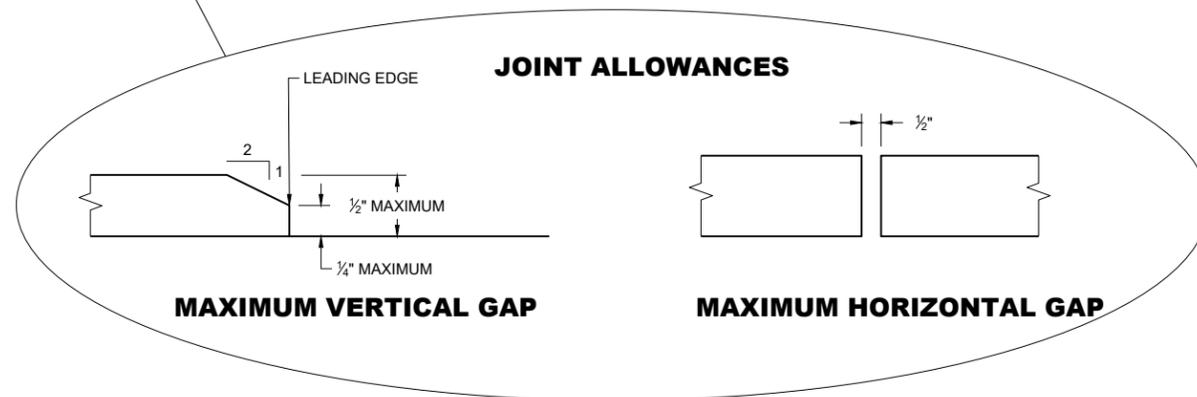
FHWA

SDD 15D28 - 04

SDD 15D28 - 04



NARROW SIDEWALK PASSING DETAIL

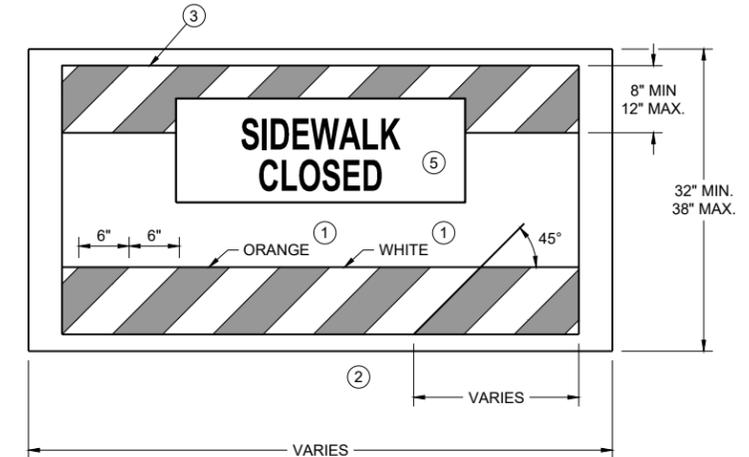


MAXIMUM VERTICAL GAP

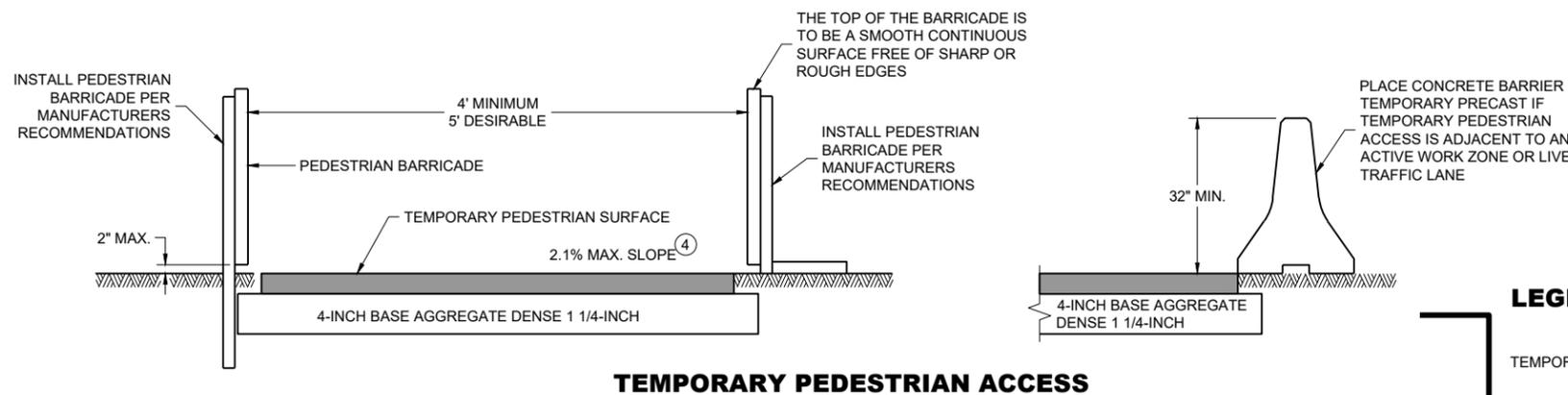
MAXIMUM HORIZONTAL GAP

GENERAL NOTES

- BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST
- ① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.
- ② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.
- ③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.
- ★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.
- ④ WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.
- ⑤ WHERE SIGNS FOR TEMPORARY PEDESTRIAN ACCOMMODATIONS ARE SHOWN BEING PLACED BEHIND TEMPORARY PEDESTRIAN BARRICADE, THE SIGNS MAY BE MOUNTED ON THE TEMPORARY PEDESTRIAN BARRICADE INSTEAD. A CORRUGATED POLYPROPYLENE OR POLYETHYLENE PLASTIC SIGN BASE SHALL BE USED IF MOUNTED ON THE BARRICADE. THE TOP OF THE SIGN SHALL BE MOUNTED BELOW THE TOP OF THE BARRICADE TO ALLOW A CONTINUOUS HAND-TRAILING EDGE.



TEMPORARY PEDESTRIAN BARRICADE *



TEMPORARY PEDESTRIAN ACCESS



TEMPORARY PEDESTRIAN FLAGGING

- LEGEND**
- TEMPORARY PEDESTRIAN BARRICADE
 - AUDIBLE MESSAGE DEVICE
 - TEMPORARY SIGN SUPPORT
 - WORK AREA

**TRAFFIC CONTROL,
PEDESTRIAN
ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

6

SDD 15D30-12a

SDD 15D30-12a

GENERAL NOTES

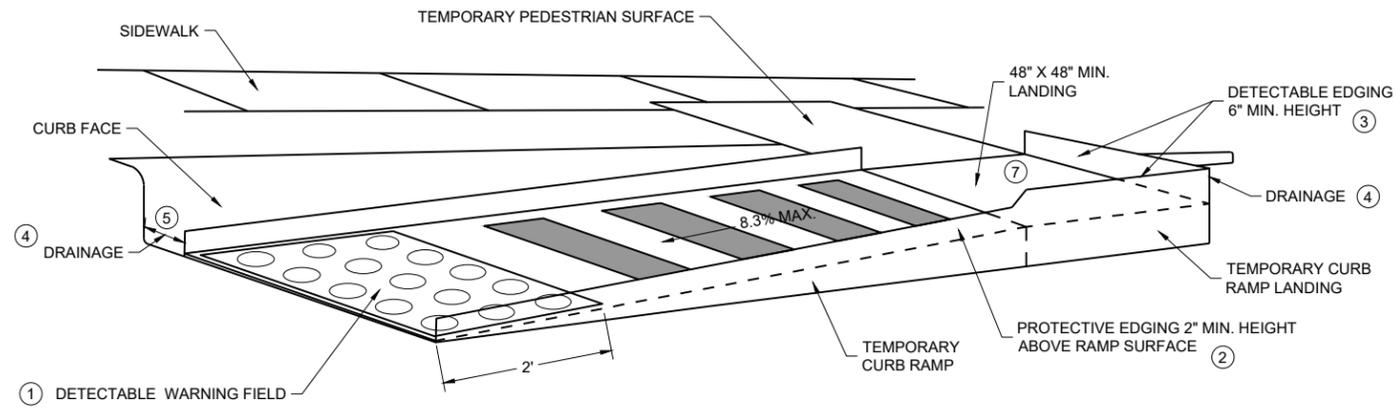
CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

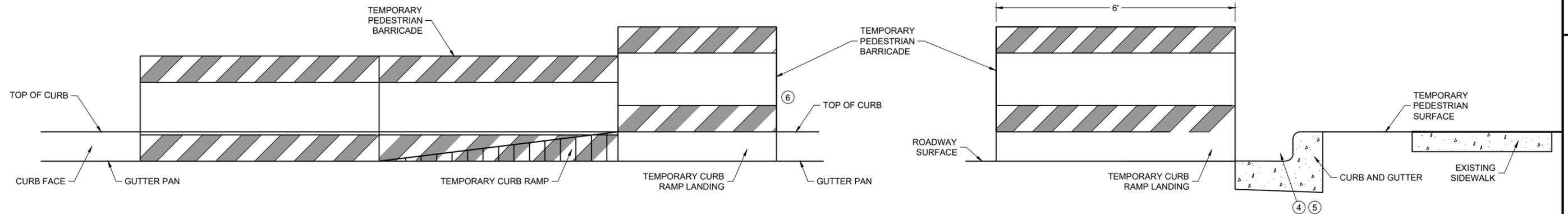
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS.
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ ENSURE CURB RAMP IS OUT OF THE GUTTER PAN.
- ⑥ IF ONLY PART OF THE END PANEL OF TEMPORARY PEDESTRIAN BARRICADE PANEL IS NEEDED, EXTEND EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL HERE.
- ⑦ LANDING TO BE SLOPED A MAXIMUM OF 2.1% IN ALL DIRECTIONS OF PEDESTRIAN TRAVEL.



PERSPECTIVE VIEW



FRONT VIEW

SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

6

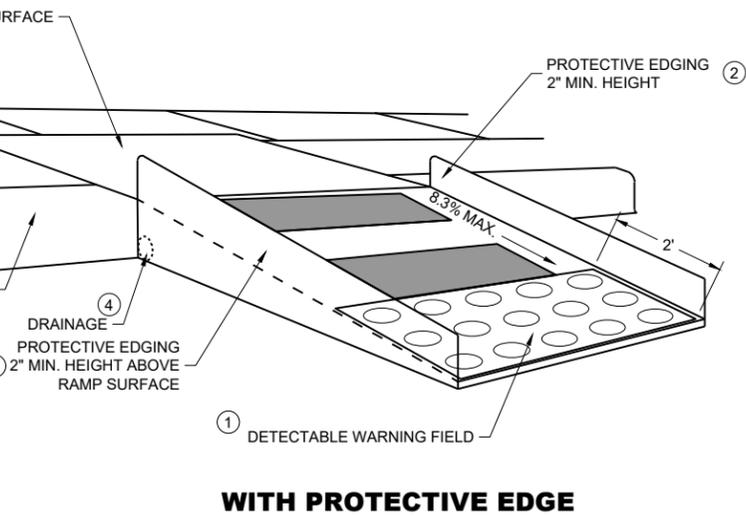
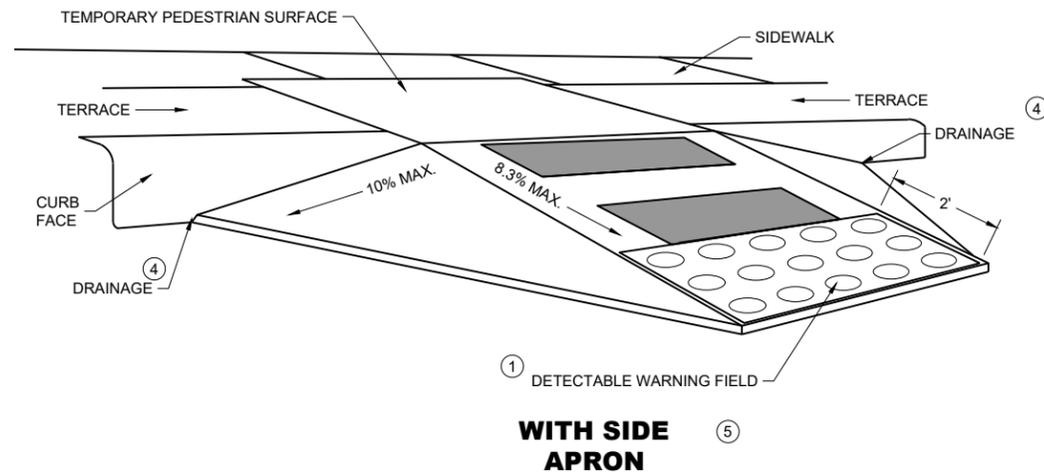
6

SDD 15D30-12b

SDD 15D30-12b

**TRAFFIC CONTROL,
PEDESTRIAN
ACCOMMODATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

CURB RAMPS SHALL BE 48" MINIMUM WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

ALTERNATE SIDEWALK WORK BETWEEN LEFT AND RIGHT SIDE OF ROADWAY TO MAINTAIN PEDESTRIAN ACCESS.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

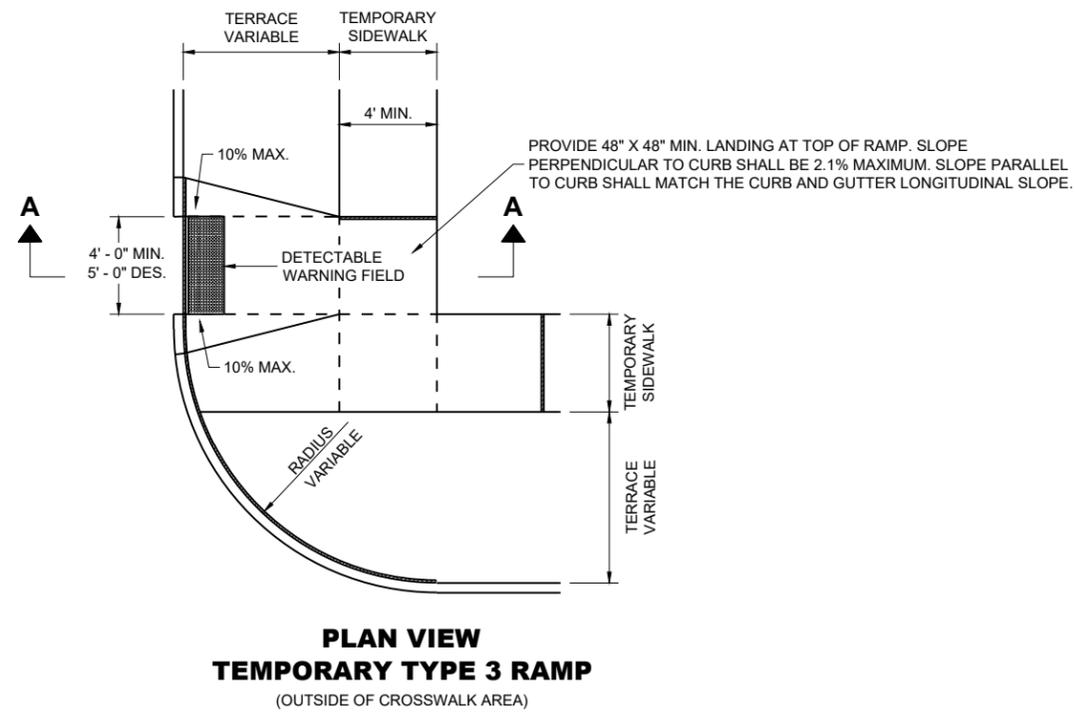
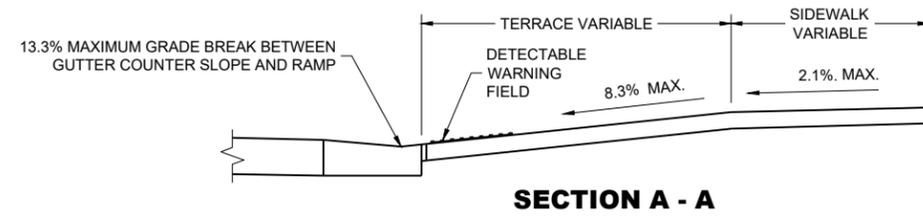
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED 1/2". LATERAL EDGES MAY BE VERTICAL UP TO 1/4" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN 1/4" AND 1/2".

- ① INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- ② PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.
- ③ DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- ④ DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ⑤ CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

GENERAL NOTES



6

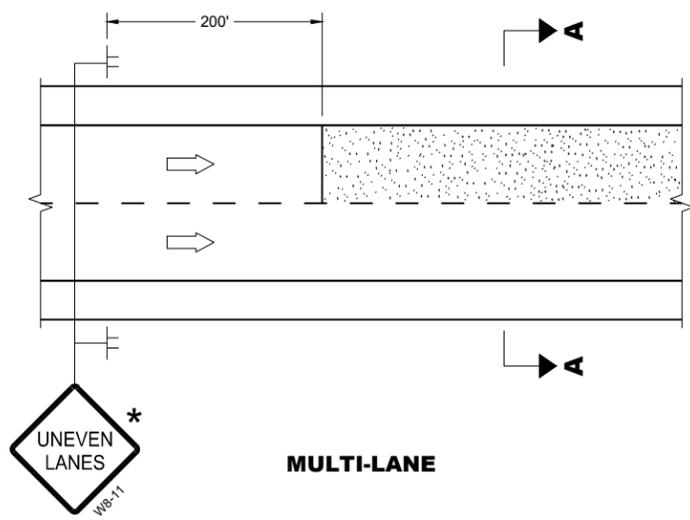
6

SDD 15D30-12d

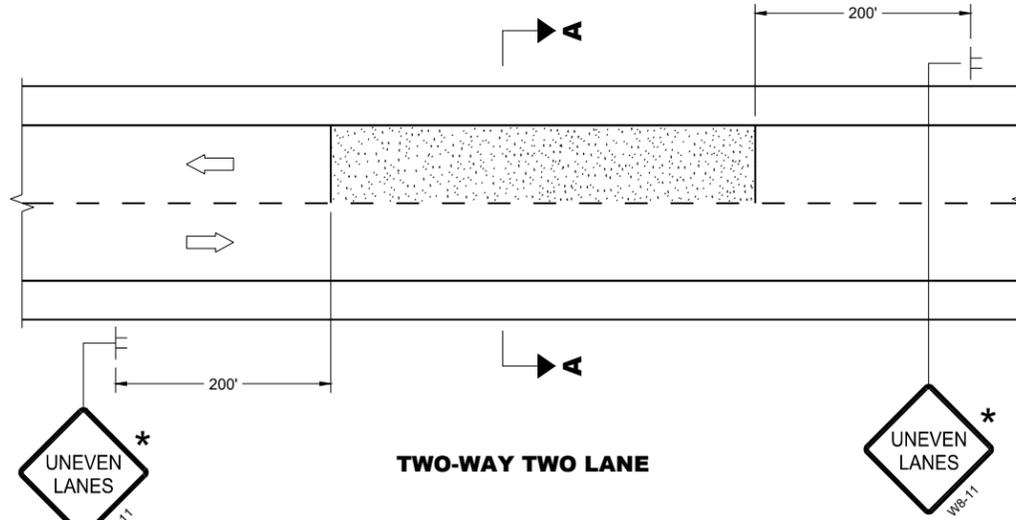
SDD 15D30-12d

**TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION**

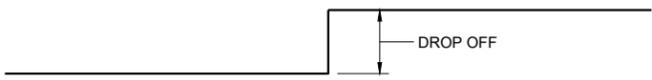
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



MULTI-LANE



TWO-WAY TWO LANE

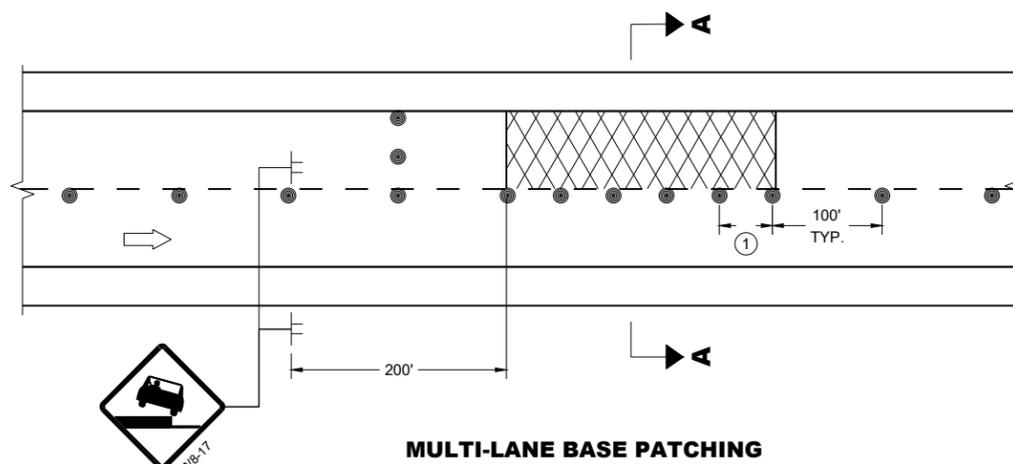


SECTION A - A

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.

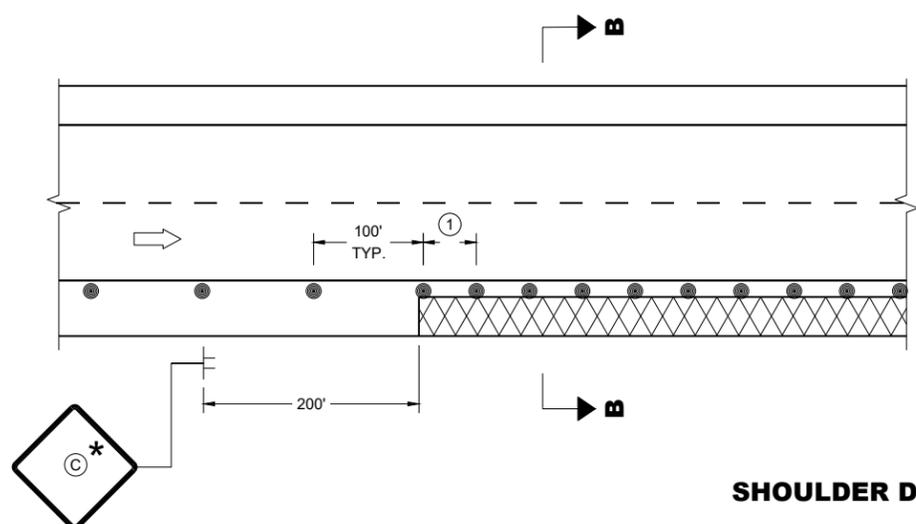
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

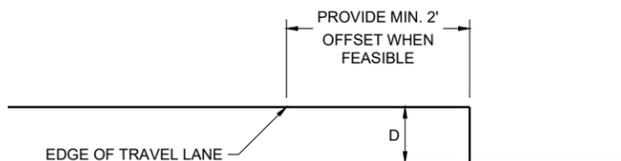
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA WITH DROP-OFF
- MILLED SURFACE

6

6



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
February 2025 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER

FHWA

SDD 15D39-03

SDD 15D39-03

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.

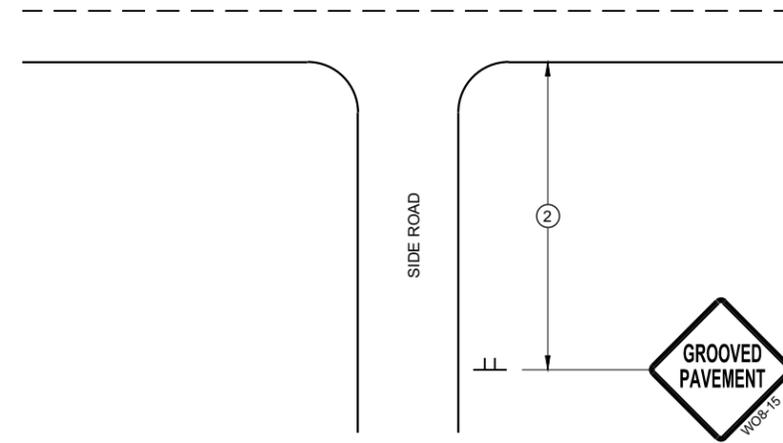
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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.

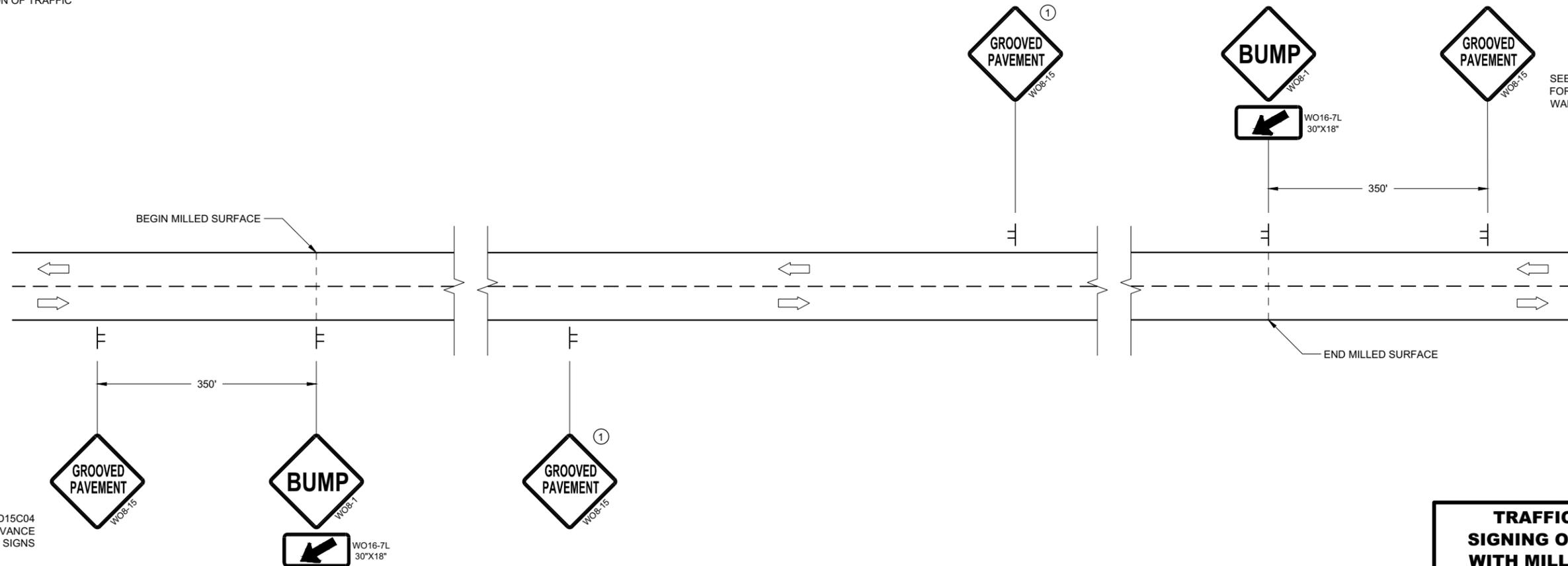
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

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 DATE	/s/ Andrew Heidtke WORK ZONE ENGINEER 120
FHWA	

6

6

SDD 15D44 - 02

SDD 15D44 - 02

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.

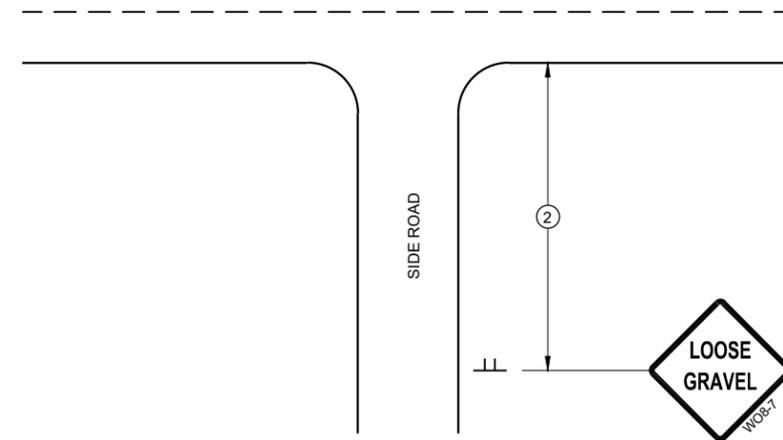
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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.

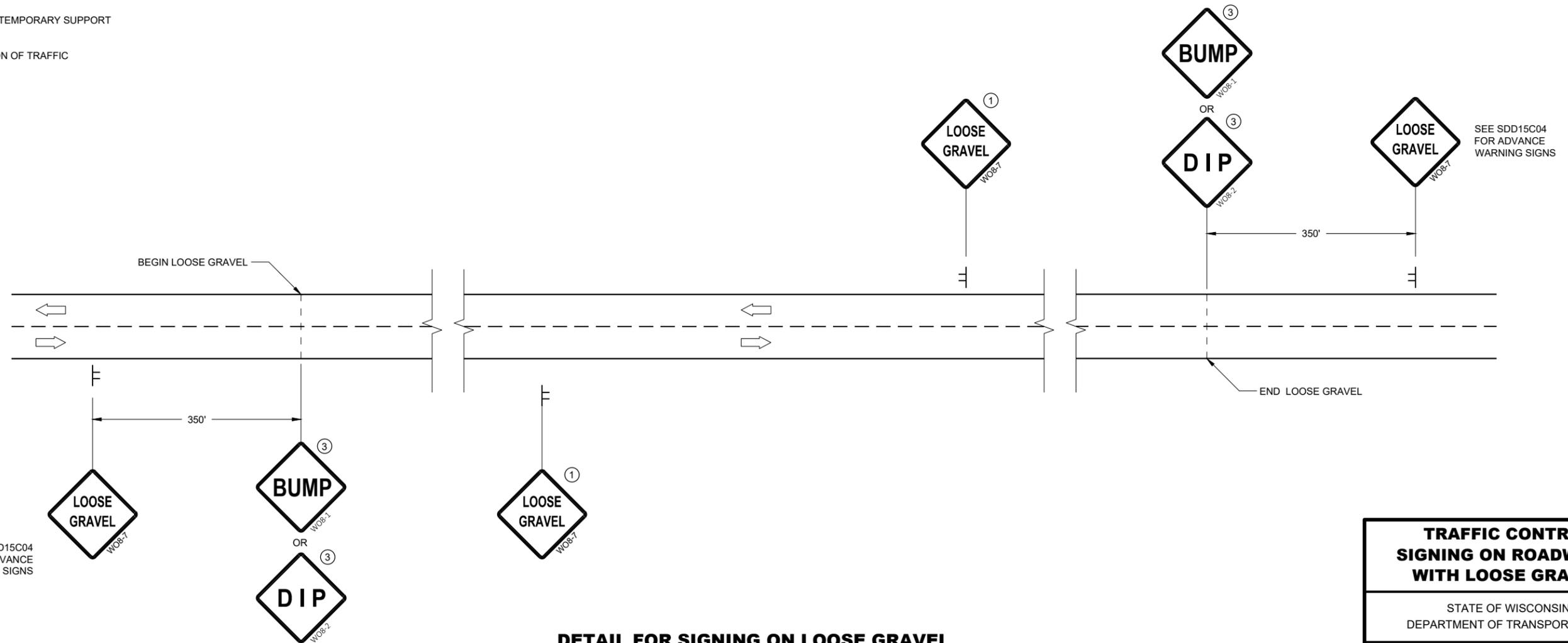
- ① PLACE SIGNS 350' IN ADVANCE OF CHIP SEALED OR LOOSE GRAVEL SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.
- ③ ADD WO8-1 OR WO8-2 SIGN WHEN THE CONDITION IS PRESENT.

LEGEND

- ⊥ SIGN ON TEMPORARY SUPPORT
- ➡ DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH SIGN DETAIL



DETAIL FOR SIGNING ON LOOSE GRAVEL OR CHIP SEALED SURFACES

SEE SDD15C04 FOR ADVANCE WARNING SIGNS

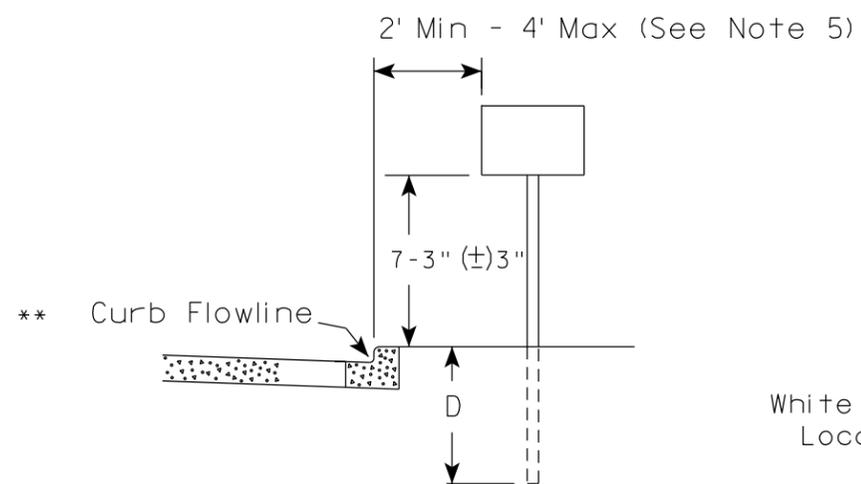
TRAFFIC CONTROL SIGNING ON ROADWAYS WITH LOOSE GRAVEL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2021 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 121
FHWA

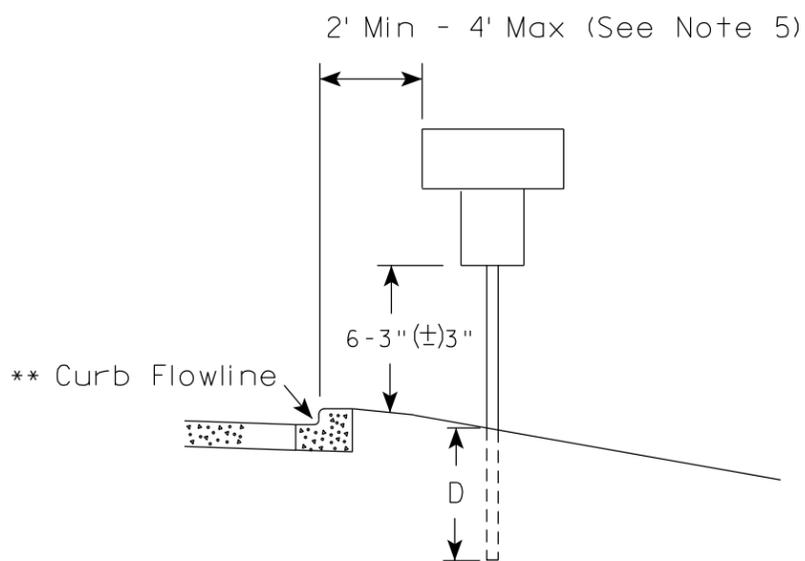
URBAN AREA

RURAL AREA (See Note 2)



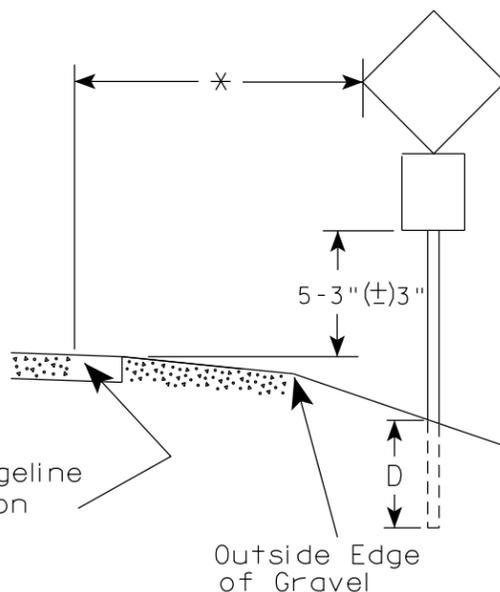
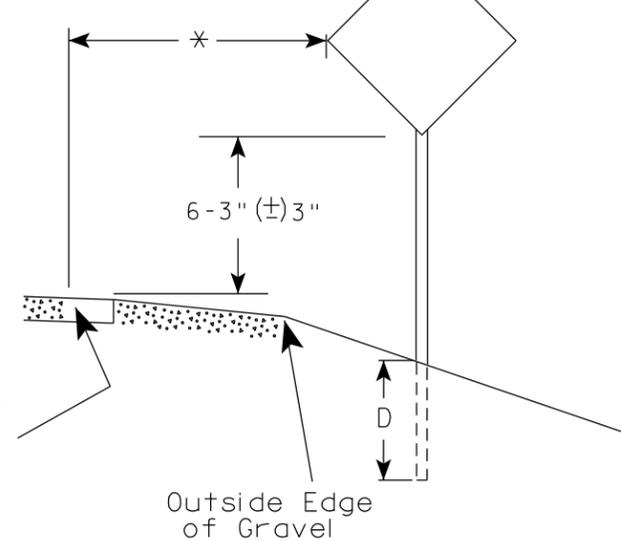
White Edgeline Location

Outside Edge of Gravel



White Edgeline Location

Outside Edge of Gravel



POST EMBEDMENT DEPTH

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

GENERAL NOTES

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

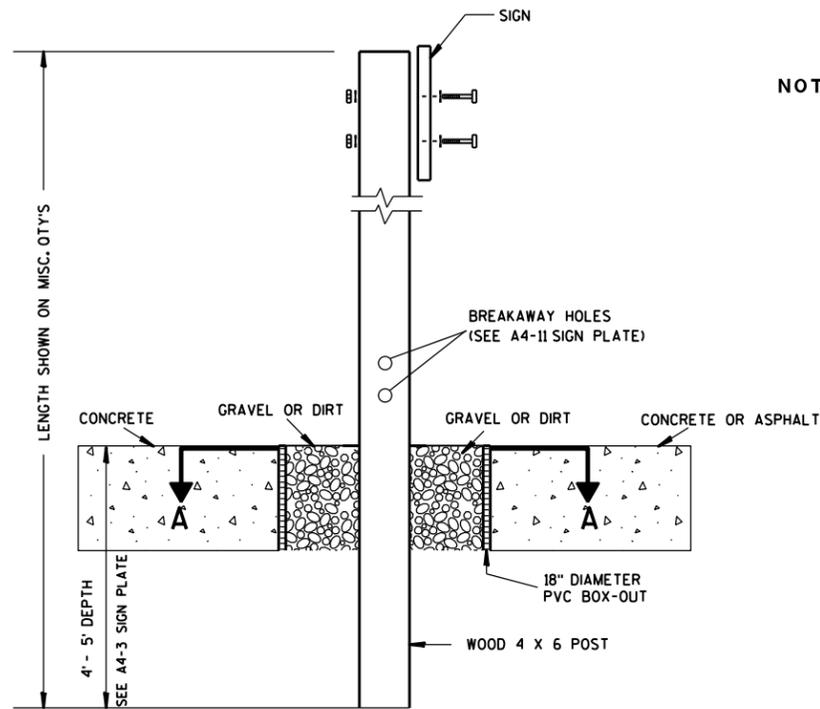
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Raub*
for State Traffic Engineer

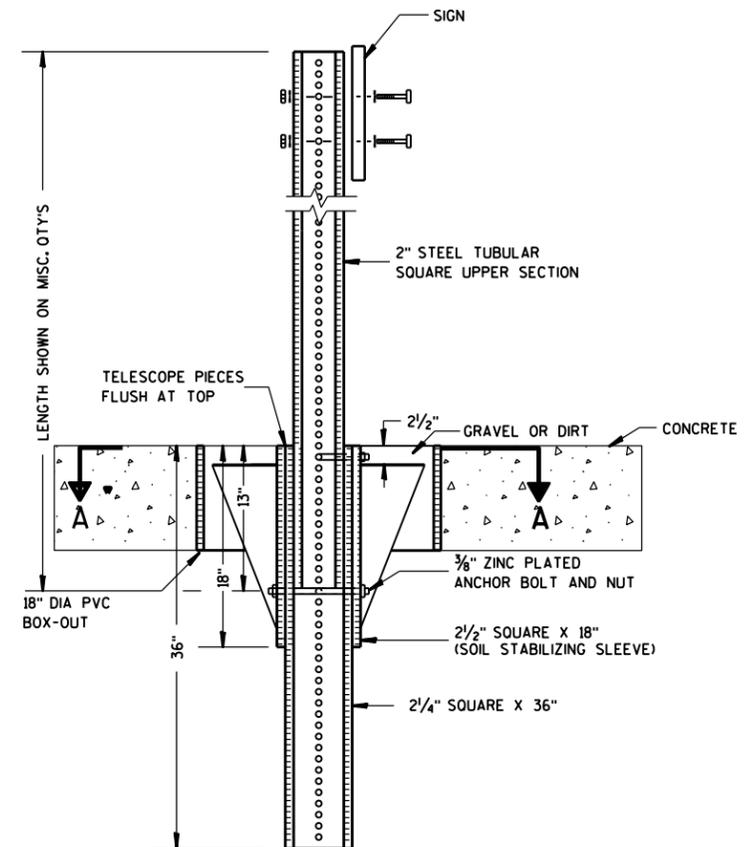
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

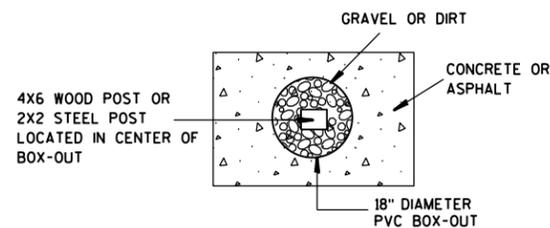
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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 123 A4-3B.1

PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E

GENERAL NOTES

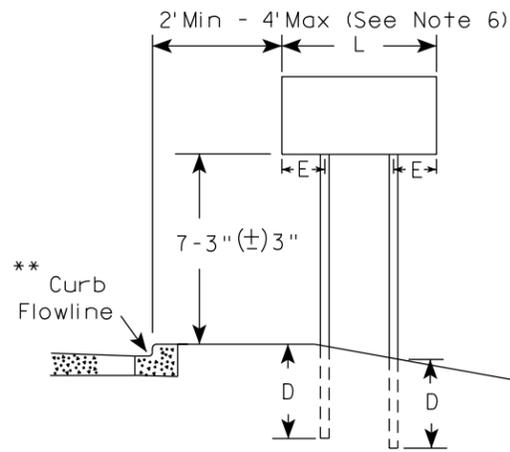
1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 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" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 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" (±) 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.

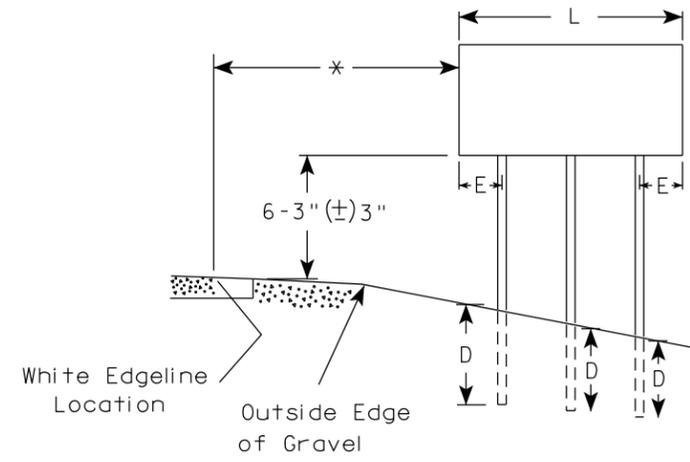
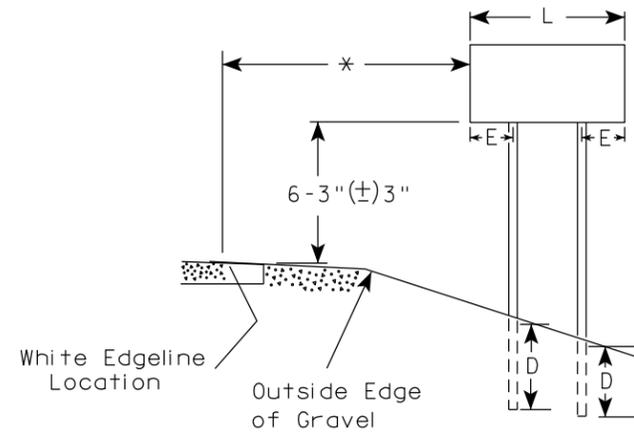
** The existence of curb and gutter does not in itself mandate the vertical clearance illustrated. That height is typically measured where there is sidewalk adjacent to the roadway or parking is permitted. In the absence of sidewalk vertical clearance is measured from the top of the curb. Offset of signs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

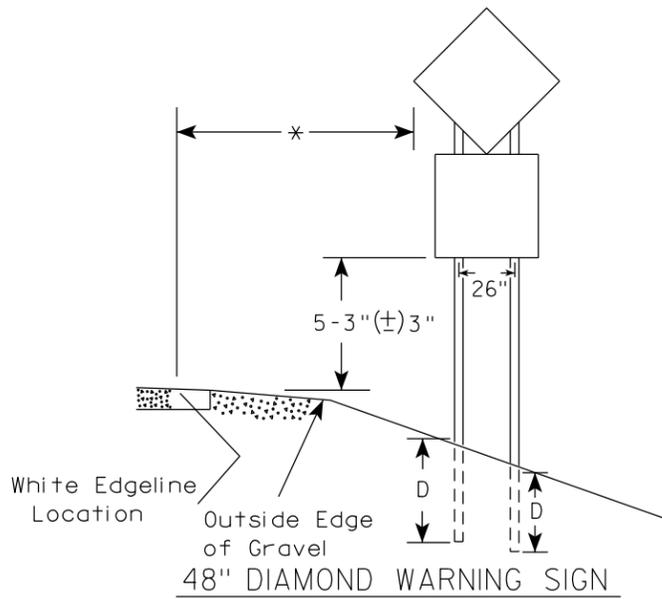
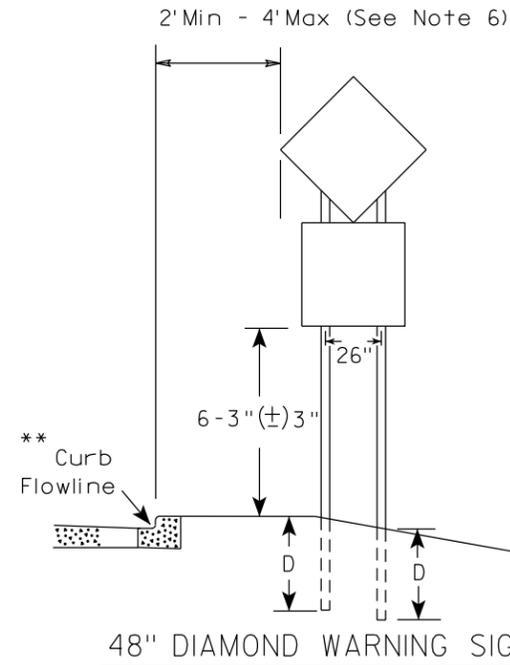
URBAN AREA



RURAL AREA (See Note 3)



URBAN 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

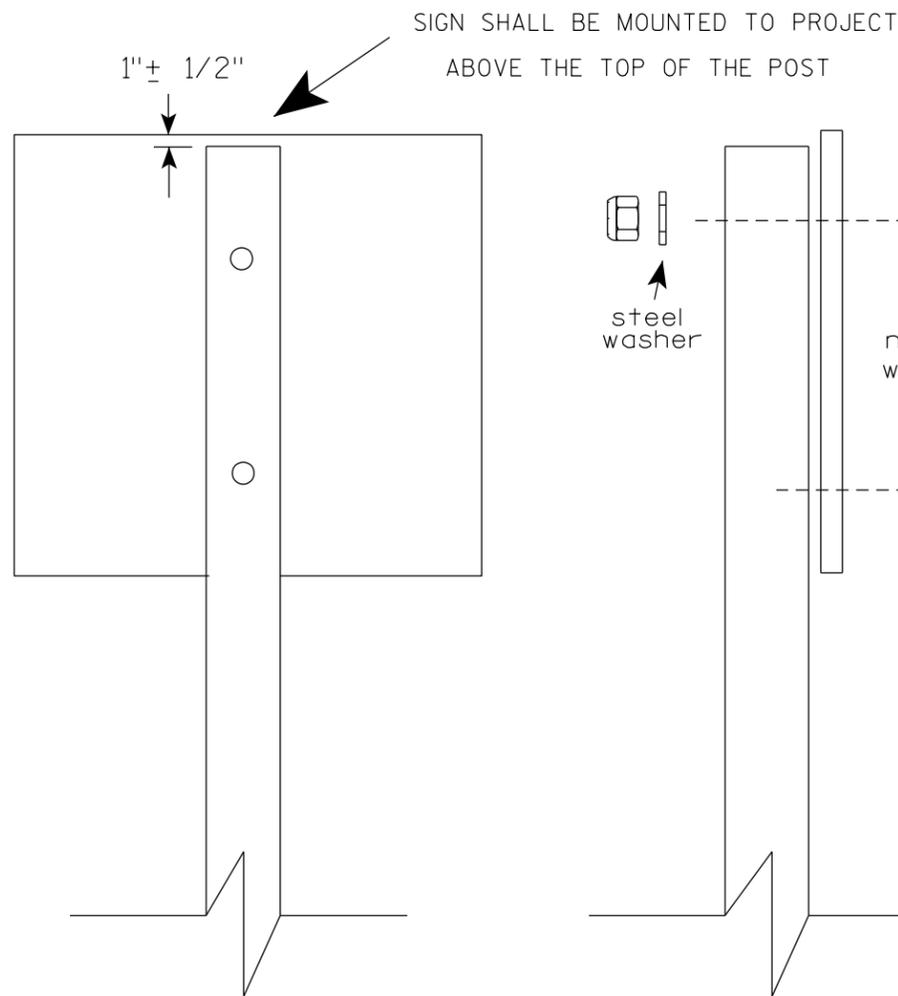
Area of Sign Installation (Sq. Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 12/6/23 PLATE NO. A4-4.16



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

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

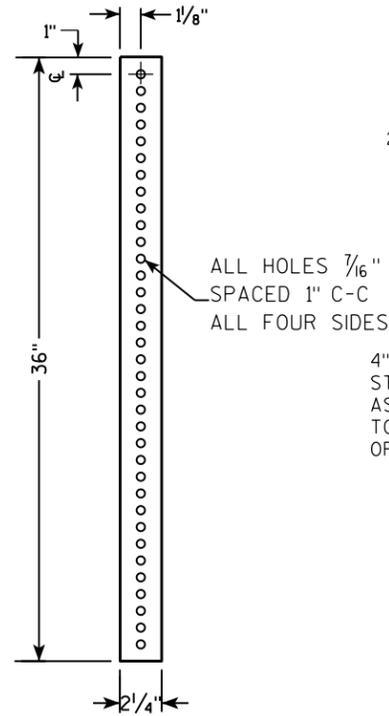
- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE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

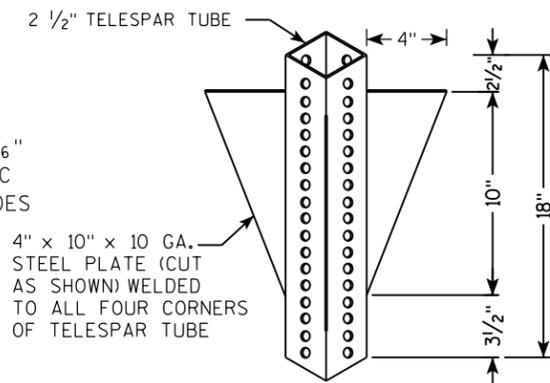
ATTACHMENT OF SIGNS TO POSTS	
WISCONSIN DEPT OF TRANSPORTATION	
APPROVED	<i>Matthew R Rauch</i> For State Traffic Engineer
DATE 4/1/2020	PLATE NO. A4-8.9

**TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM**

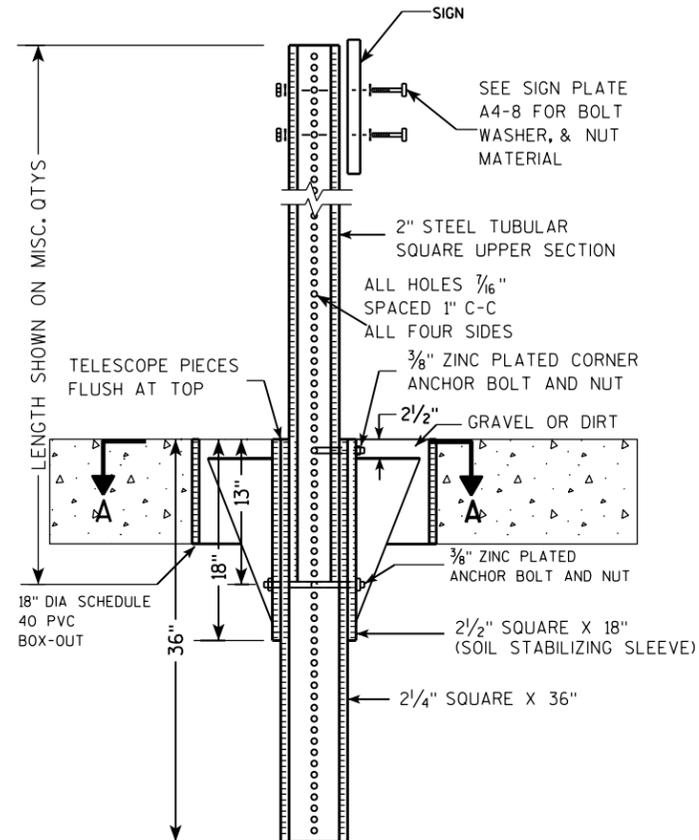
2 1/4" SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



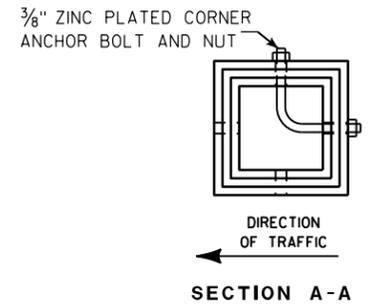
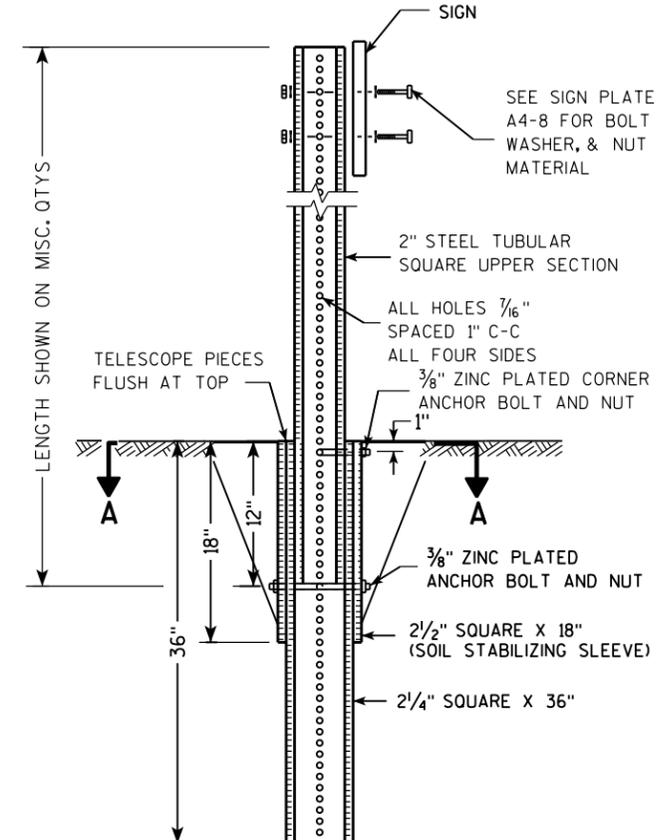
2 1/2" SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH



**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 126 14-9.9

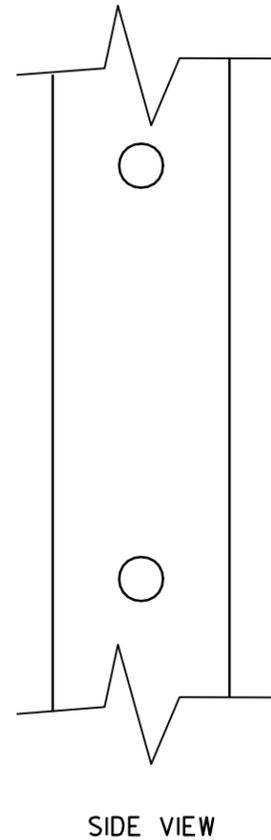
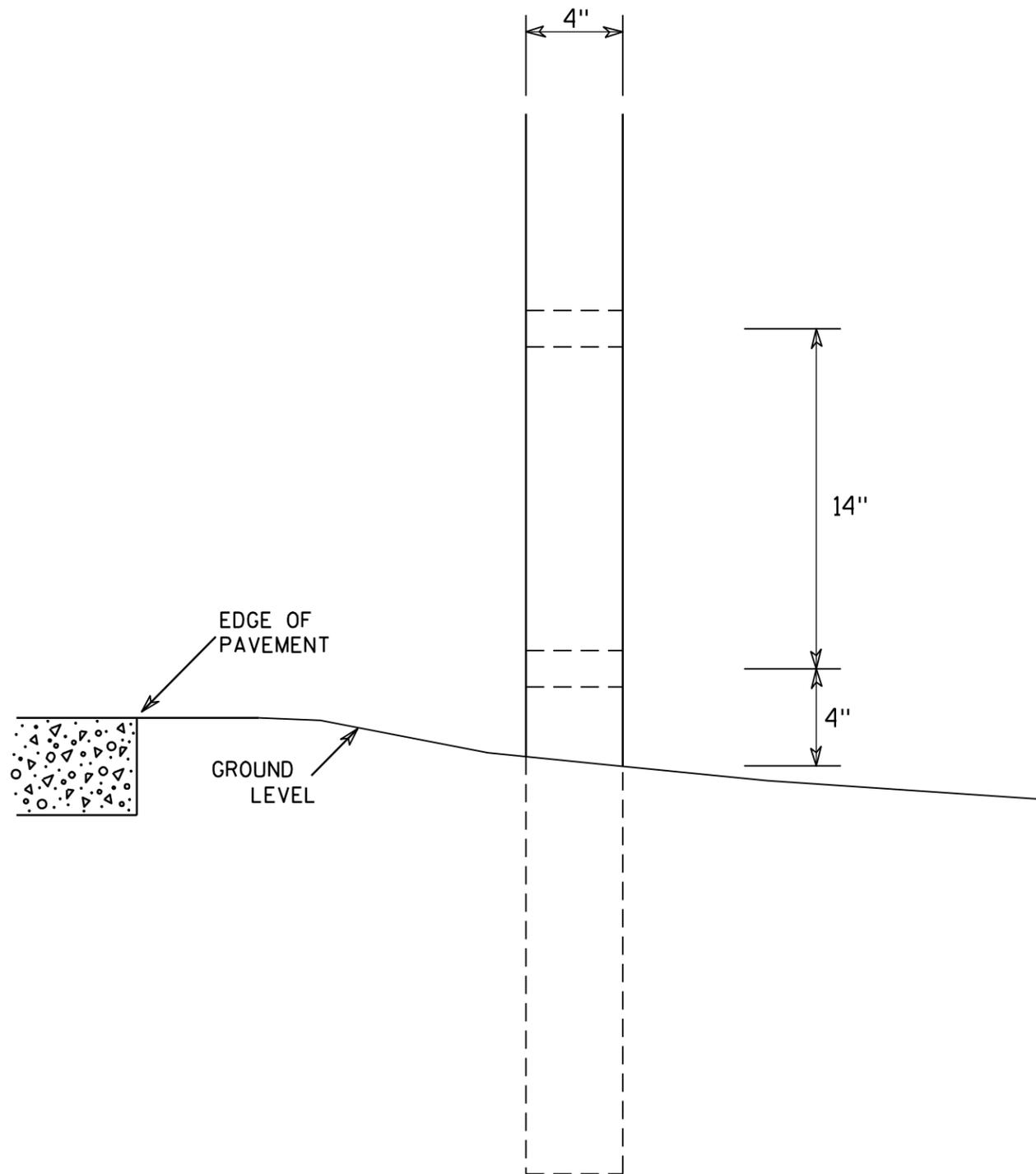
PROJECT NO:

HWY:

COUNTY:

SHEET NO:

E



GENERAL NOTES

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

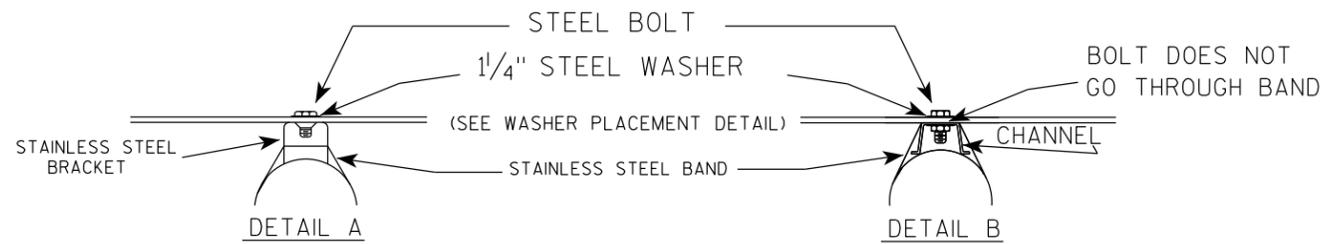
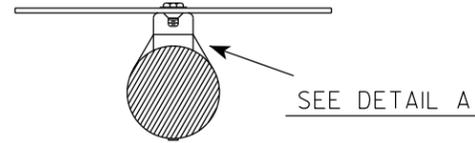
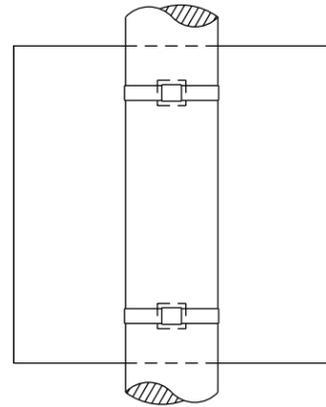
7

7

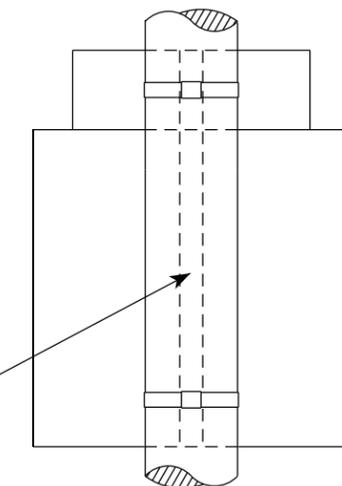
4 X 6 WOOD POST MODIFICATIONS	
<i>WISCONSIN DEPT OF TRANSPORTATION</i>	
APPROVED	<i>Chester J Spang</i> for State Traffic Engineer
DATE <u>3/27/97</u>	PLATE NO. <u>A4-11.2</u>

BANDING

SINGLE SIGN



"J" ASSEMBLY

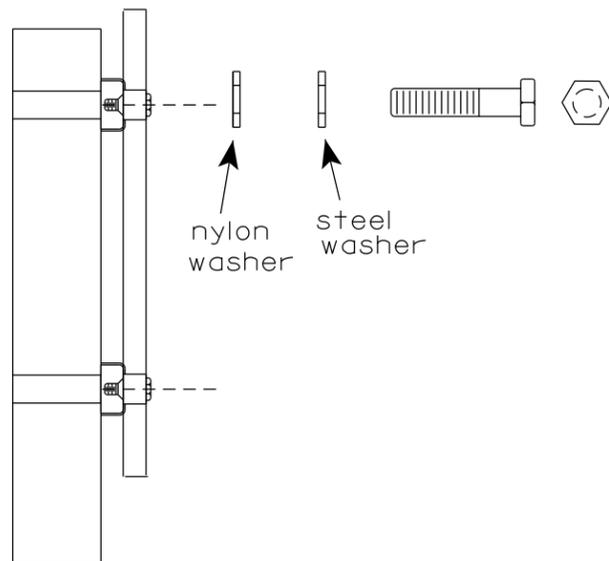


CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



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

WASHER PLACEMENT



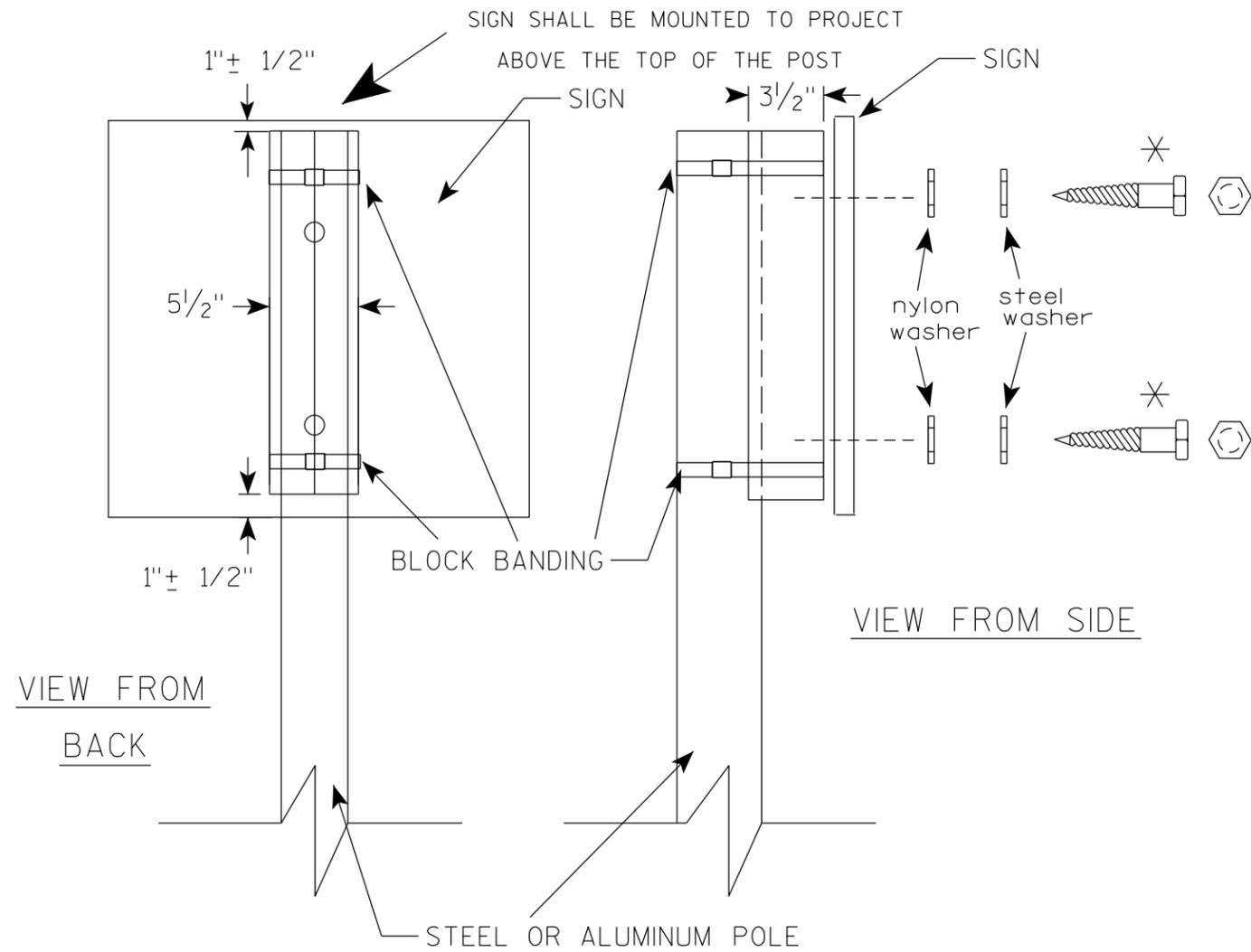
WASHERS (ALL POSTS) -
 1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
 1-1/4" O.D. X 3/8" I.D. X .080 NYLON
 FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

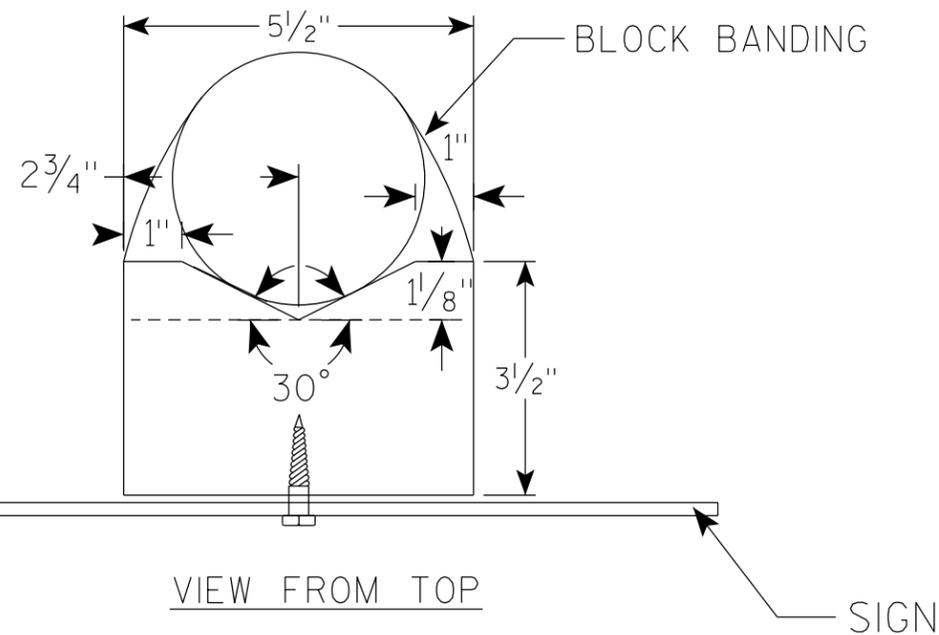
DATE 6/10/19 PLATE NO. A5-9.4



GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, 3/4" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - 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 1/4" O.D. X 3/8" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1/4" O.D. X 3/8" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✱ LAG BOLTS SHALL BE 3/8" X 2 1/2"



BLOCK BANDING DETAIL
(V-BLOCK OPTION)

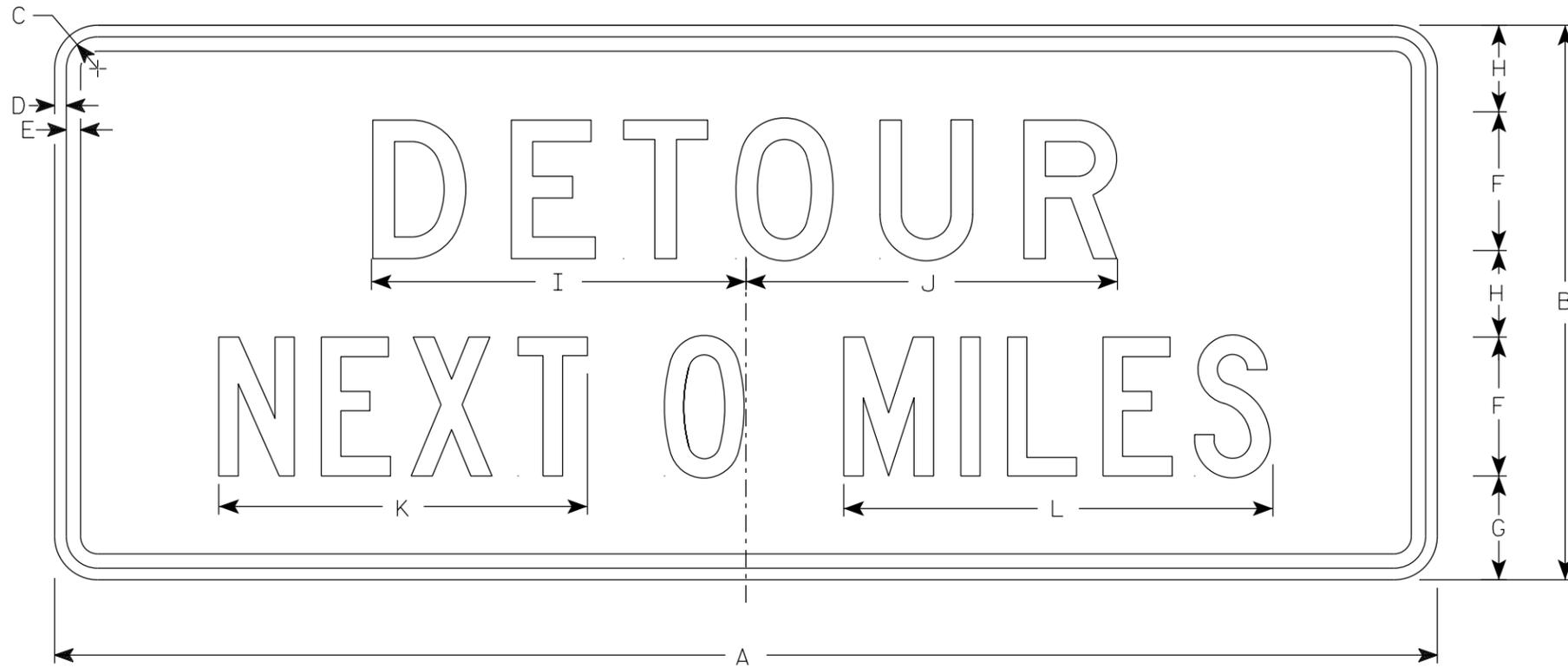
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 4/19/2022 PLATE NO. A5-10.3

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

7

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	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
2M	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
3	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
4	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0
5	60	24	1 7/8	1/2	5/8	6	4 1/2	3 3/4	16 1/4	16 1/8	16	18 5/8															10.0

STANDARD SIGN
G20-51

WISCONSIN DEPT OF TRANSPORTATION

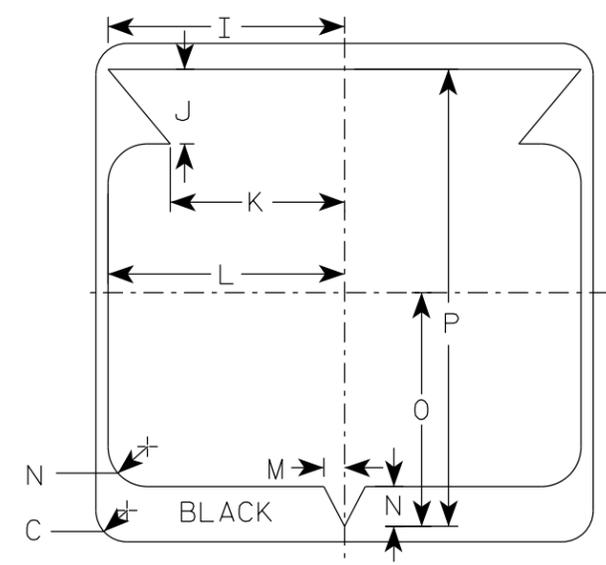
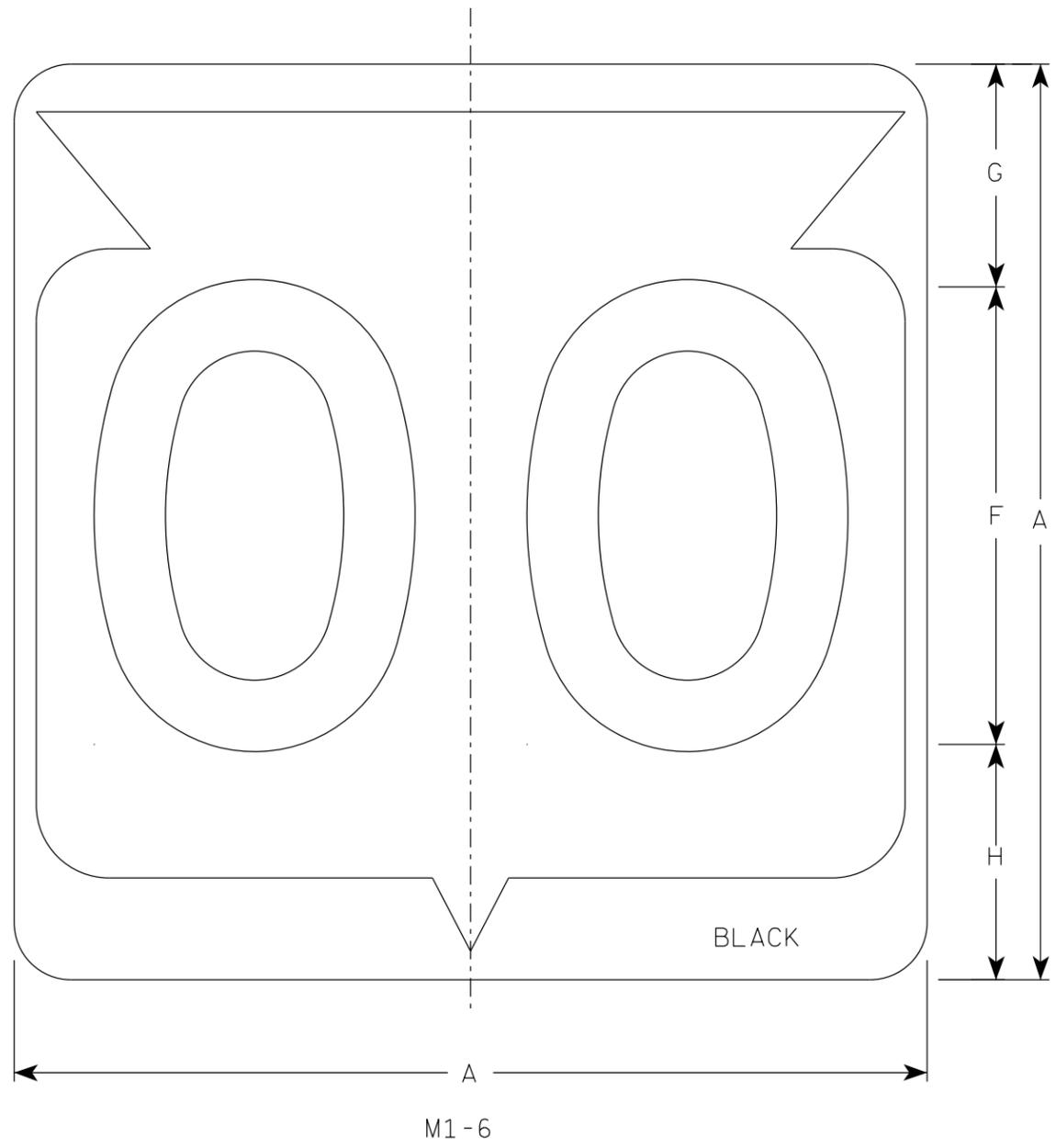
APPROVED *Matthew R. Rauch*
State Traffic Engineer

DATE 1/26/2023 PLATE NO. G20-51.3

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 130 **E**

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



7

7

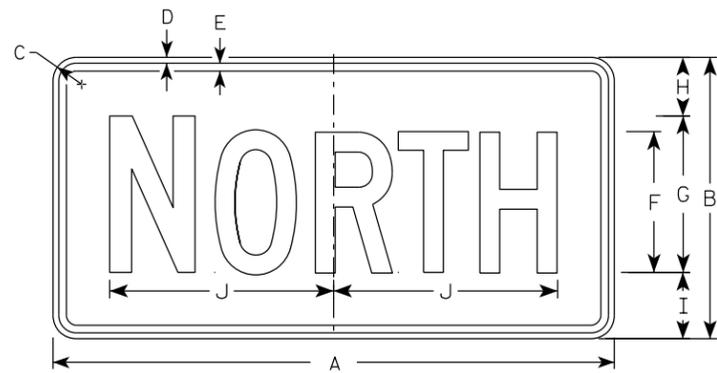
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8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

STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

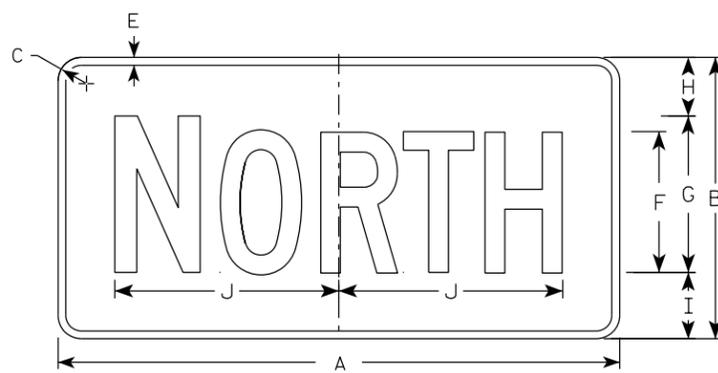
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Raub*
for State Traffic Engineer

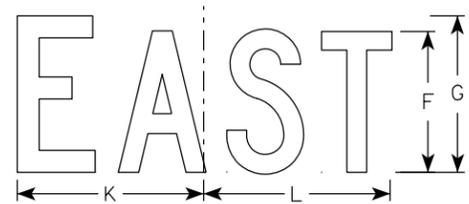
DATE 11/8/2022 PLATE NO. M1-6.11



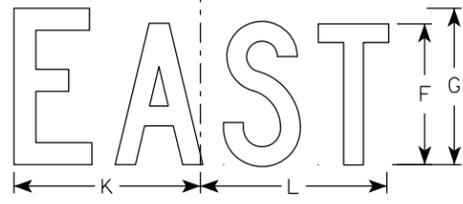
M3-1
MM3-1
MP3-1



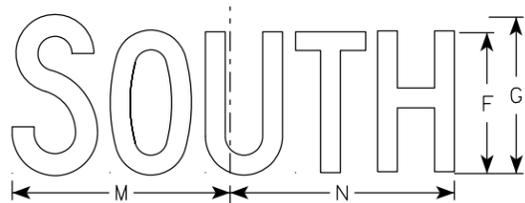
MB3-1
MK3-1
MN3-1



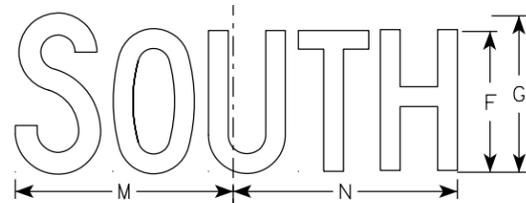
M3-2
MM3-2
MP3-2



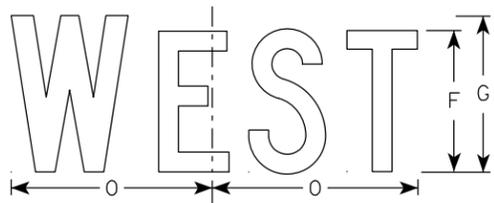
MB3-2
MK3-2
MN3-2



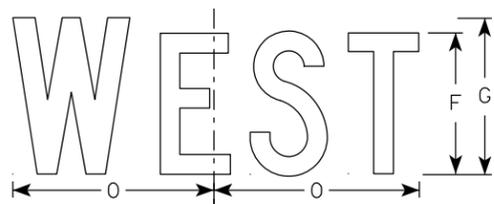
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

- All Signs Type II - Type H Reflective
- Color:
Background - See note 5
Message - See note 5
- Message Series - C
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- 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
- Note the first letter of each direction is larger than the remainder of the message.

7

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																											
2S	24	12	1 1/2	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												2.00
2M	24	12	1 1/2	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												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

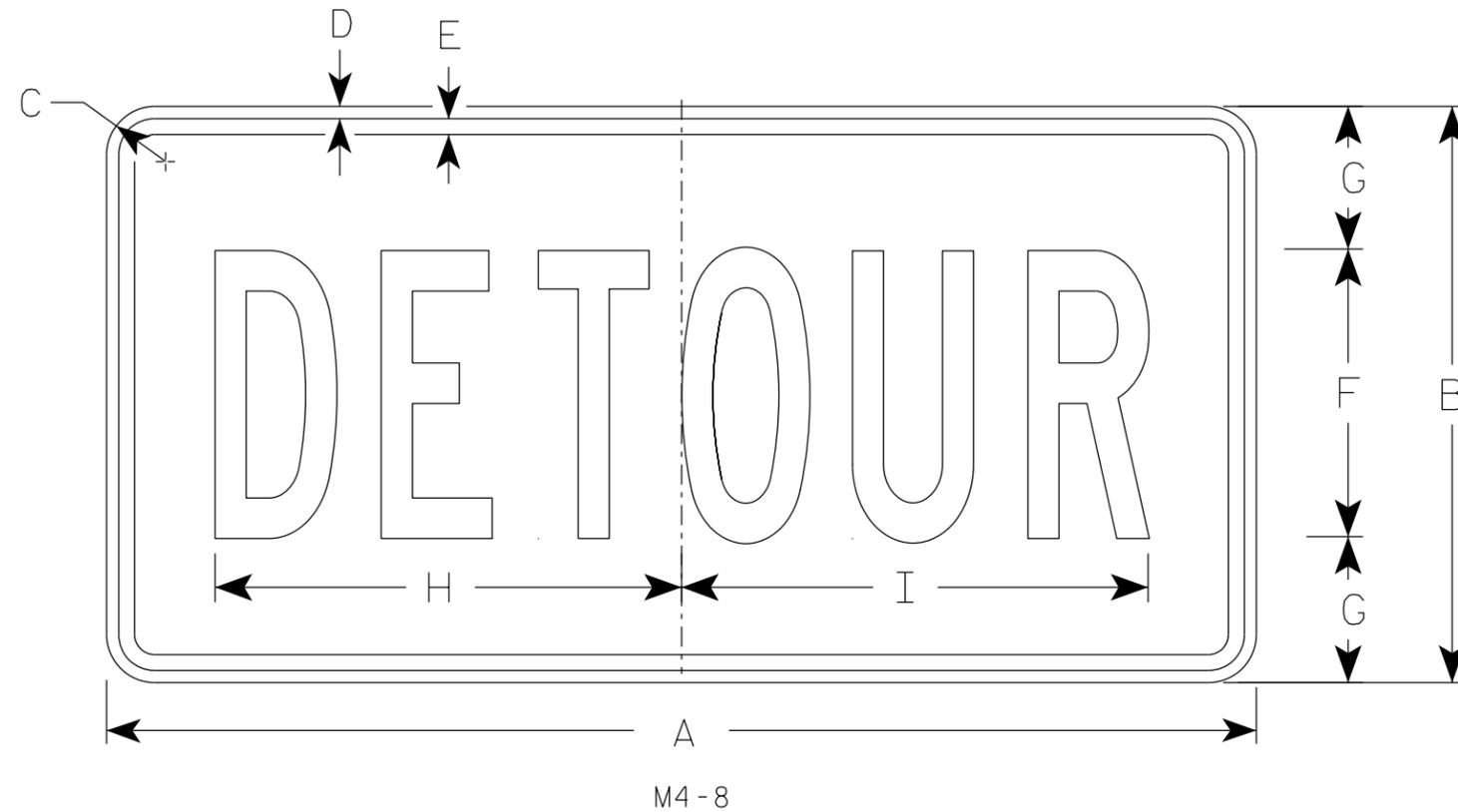
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/8/2023 PLATE NO. M3-1.15

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 132 **E**

NOTES

1. Sign is Type II - Type F Reflective
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

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	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
2M	24	12	1 1/2	3/8	3/8	6	3	10	10 1/4																		2.0
3	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	14 5/8	14 1/2																		4.5

STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

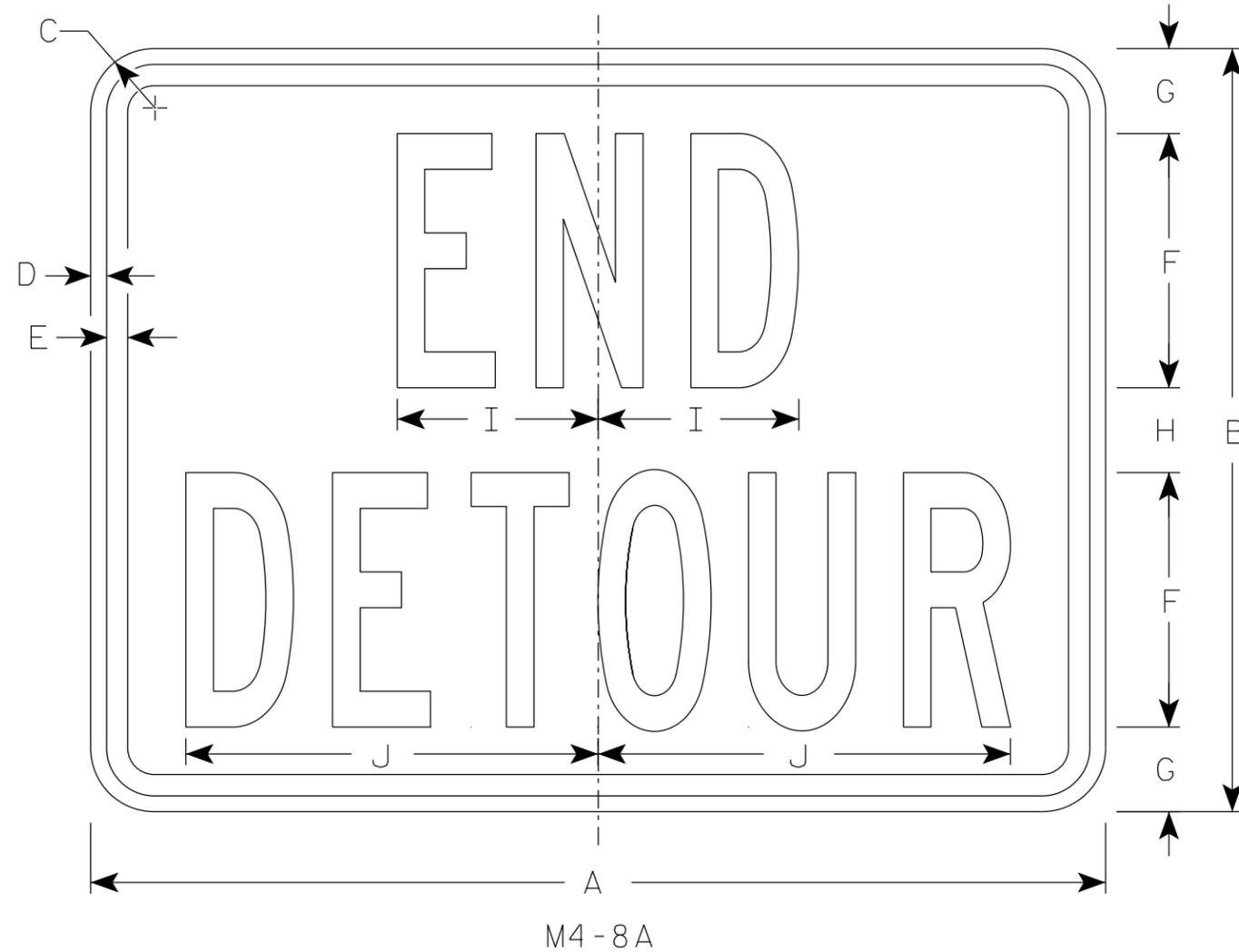
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 2/9/2023 PLATE NO. M4-8.4

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 133 **E**

NOTES

1. Sign is Type II - Type F Reflective
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.



M4-8A

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 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
2M	24	18	1 1/2	3/8	1/2	6	2	2	4 3/4	9 3/4																	3.0
3	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
4	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0
5	30	24	1 1/2	3/8	1/2	8	2 1/2	3	6 3/4	13																	5.0

STANDARD SIGN
M4-8A

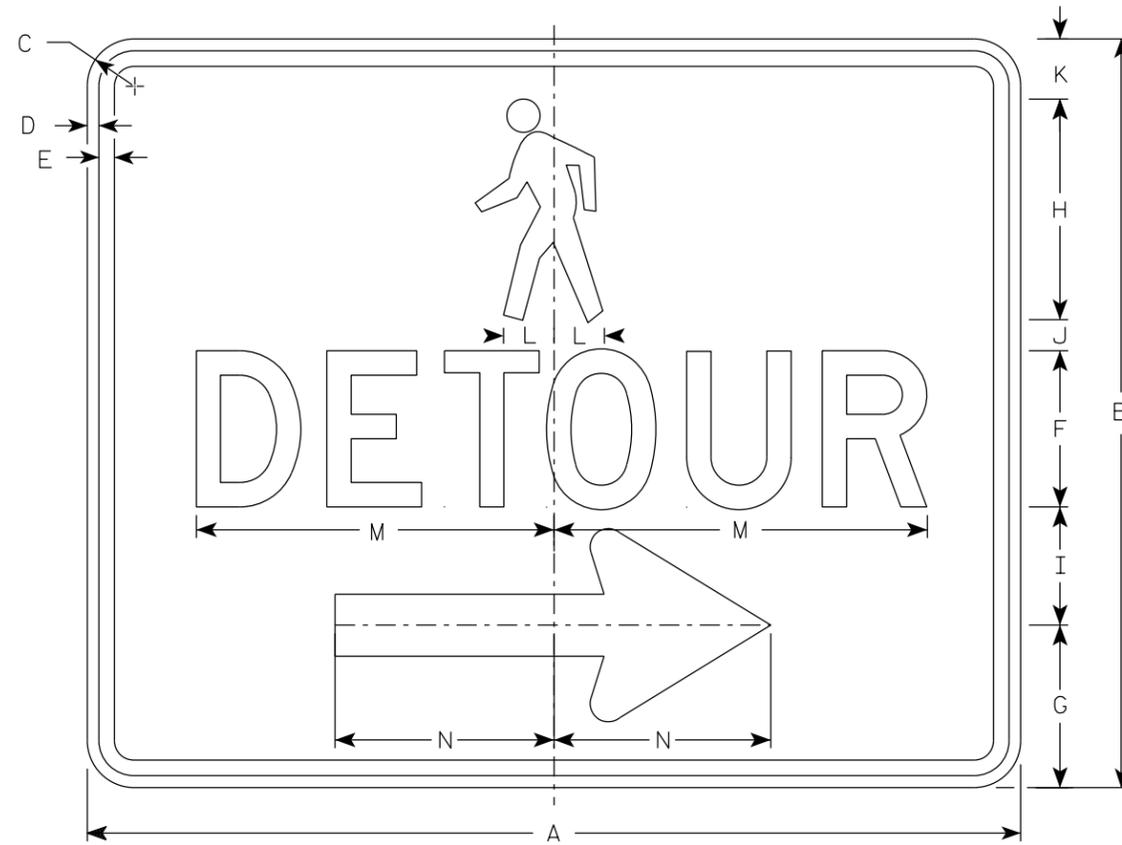
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

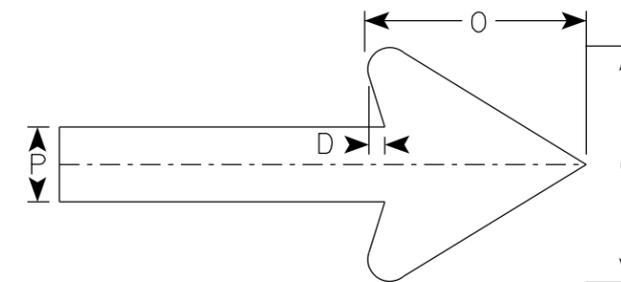
DATE 2/9/2023 PLATE NO. M4-8A.4

NOTES

1. Sign is Type II-Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-9BL is the same as M4-9BR except the arrow is reversed.



M4-9BR



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	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
3																											
4																											
5																											

STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

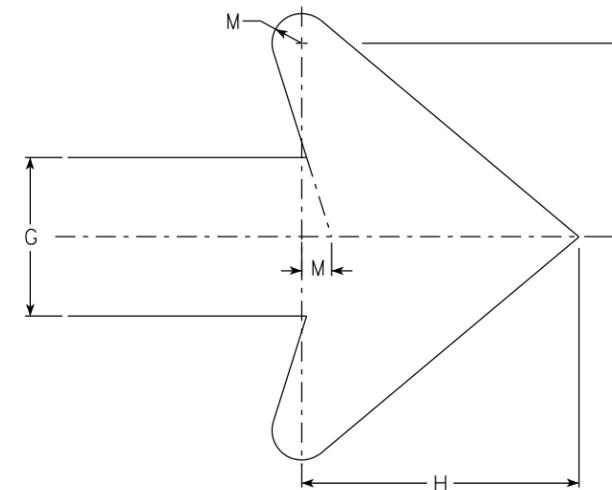
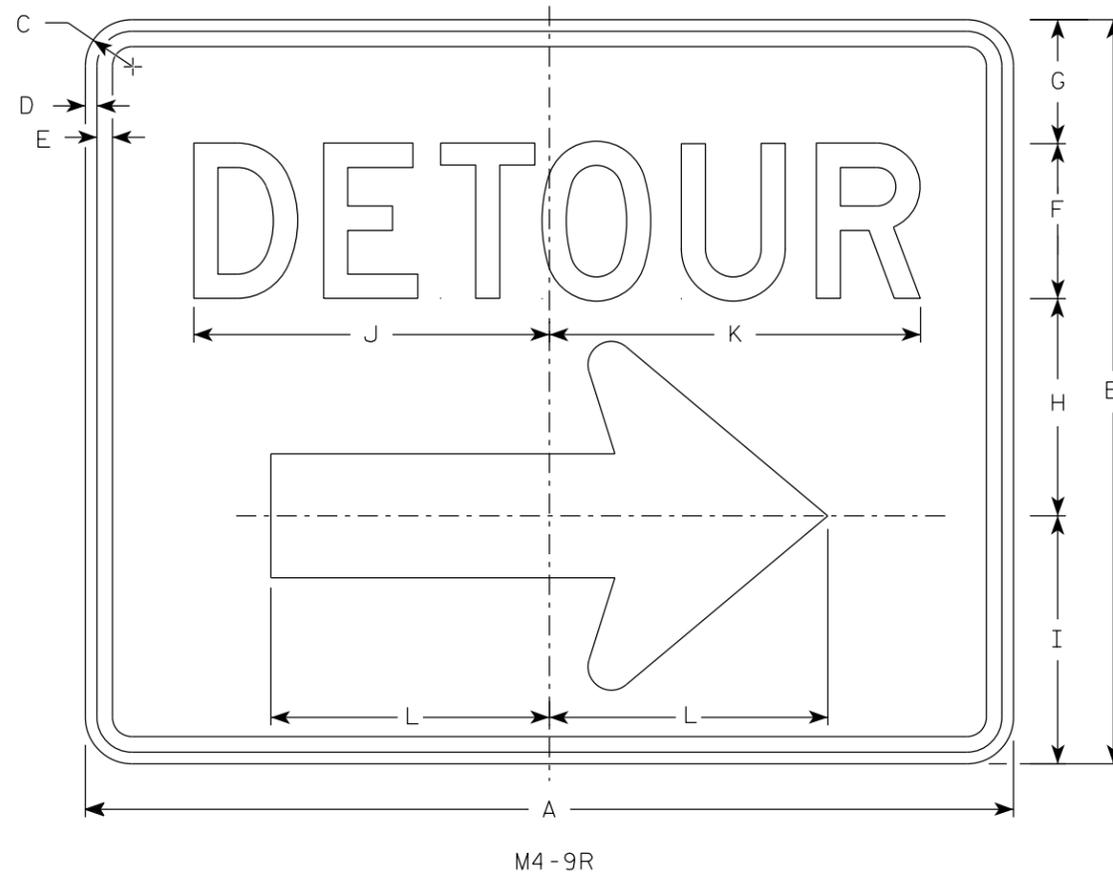
DATE 2/9/2023 PLATE NO. M4-9B.4

7

7

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-9L is the same as M4-9R except the arrow is reversed.



Arrow Detail

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

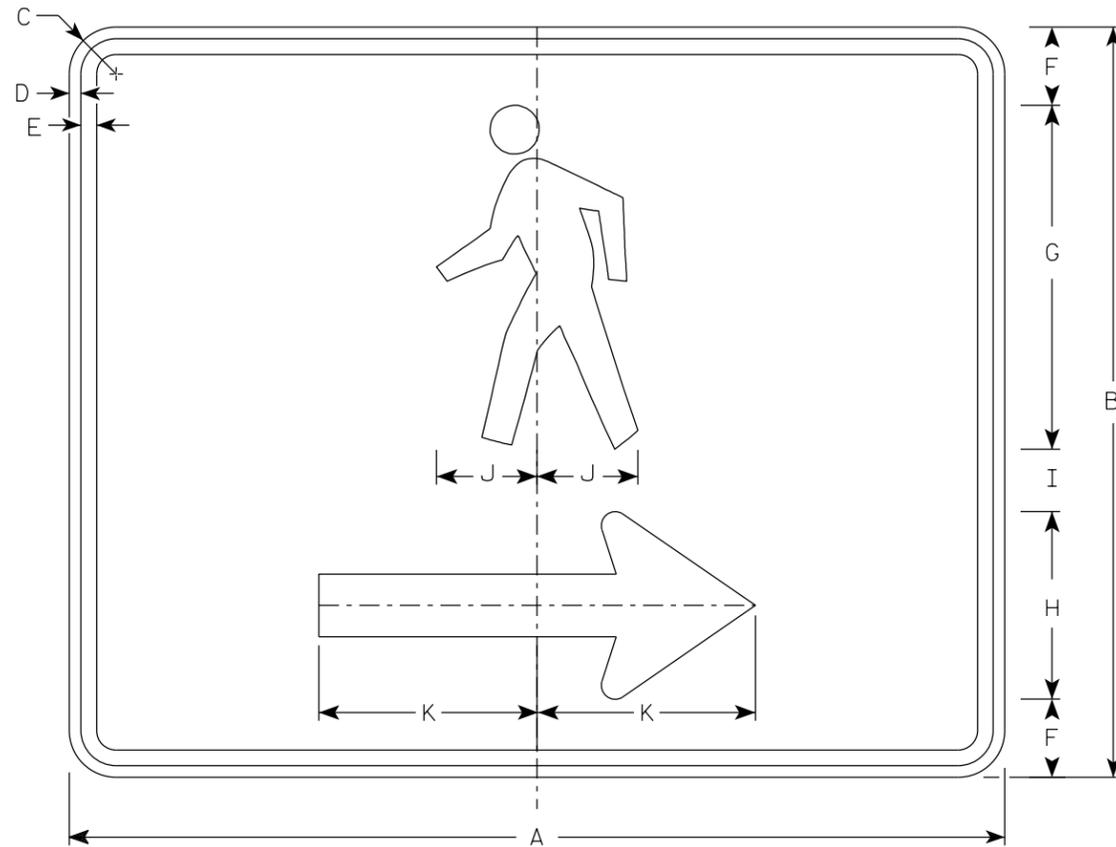
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

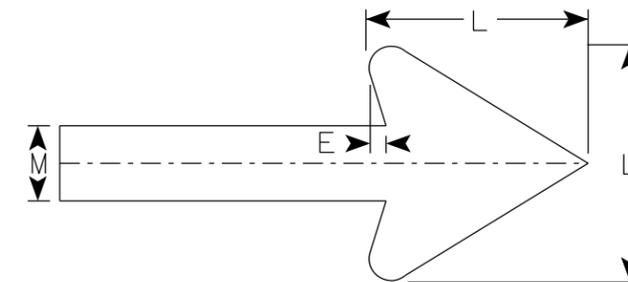
DATE 2/9/2023 PLATE NO. M4-9R.6

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
Background - Orange
Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M4-60L is the same as M4-60R except the arrow is reversed.



M4-60R



Arrow Detail

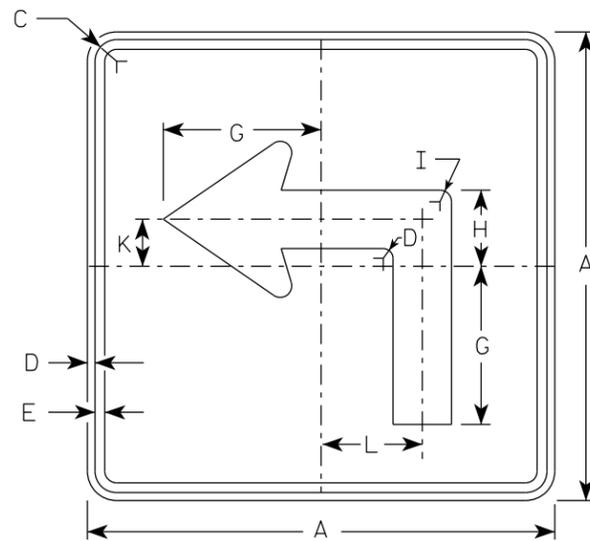
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
2M	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	7	6	2														5.00
3																											
4																											
5																											

STANDARD SIGN
M4-60 L&R

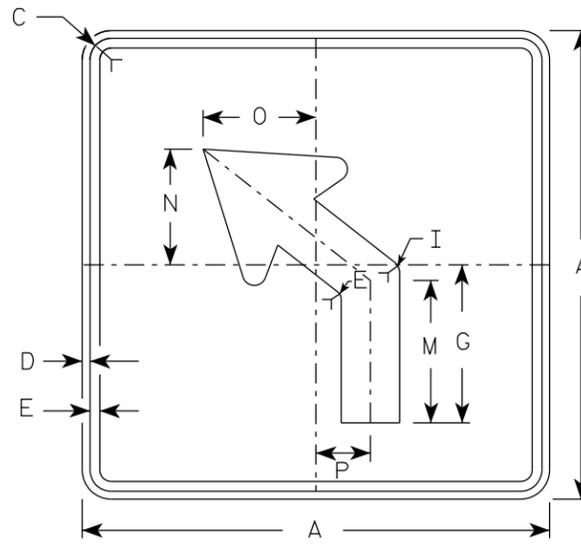
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

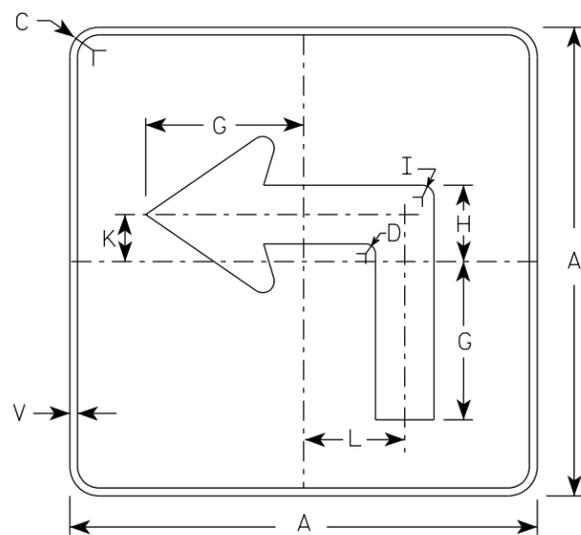
DATE 2/14/2023 PLATE NO. M4-60.2



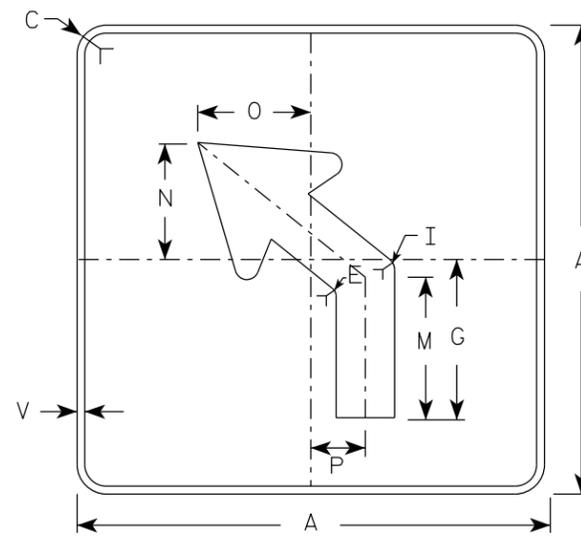
M5-1L
MM5-1L
M05-1L
MP5-1L



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

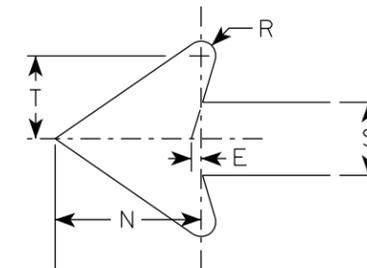


MB5-1L
MK5-1L
MN5-1L
MR5-1L



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

ARROW DETAIL



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 |
| | 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.

7

7

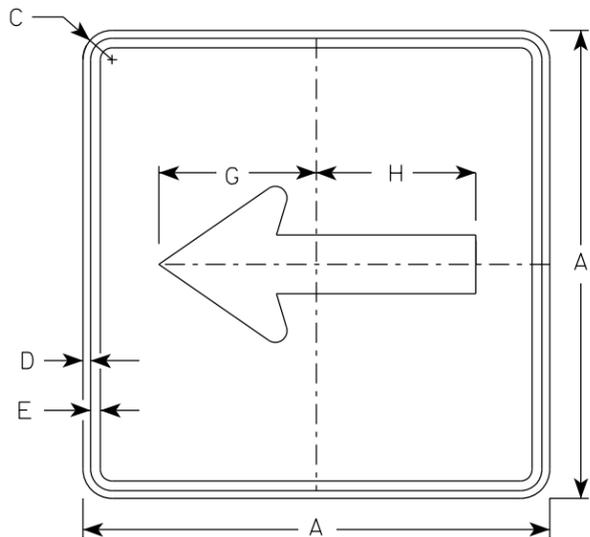
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2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

STANDARD SIGN
M5-1 & M5-2

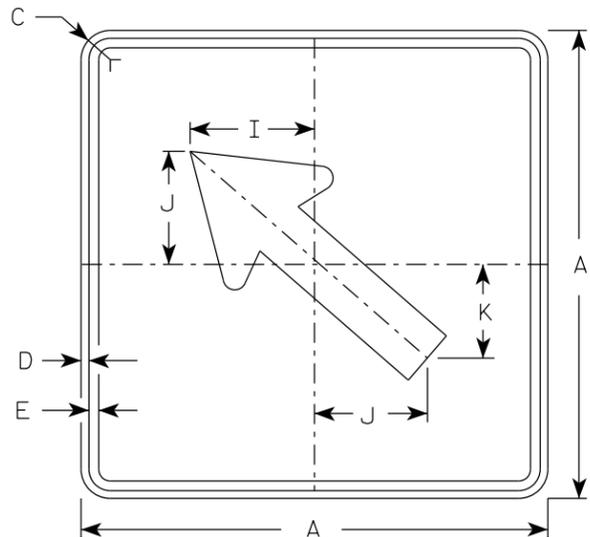
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

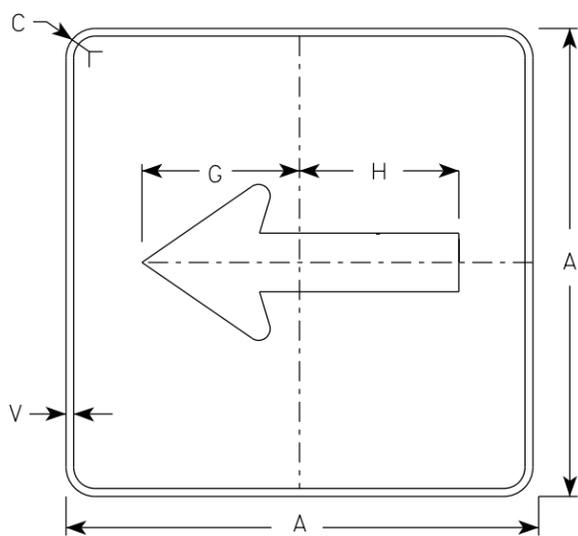
DATE 2/13/2023 PLATE NO. M5-1.15



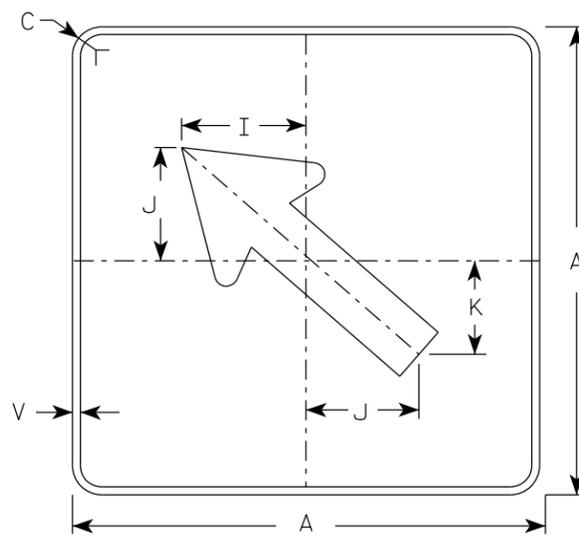
M6-1
MM6-1
M06-1
MP6-1



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



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

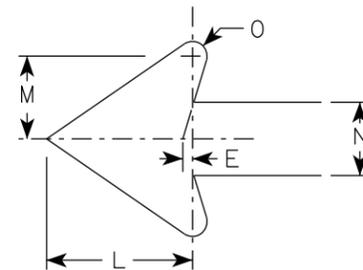


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

- Signs are Type II - Type H 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.
- 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

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	21		1 1/2	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							1/2					3.06
2M	21		1 1/2	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							1/2					3.06
3	30		1 7/8	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							1/2					6.25
4	30		1 7/8	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							1/2					6.25
5	30		1 7/8	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							1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

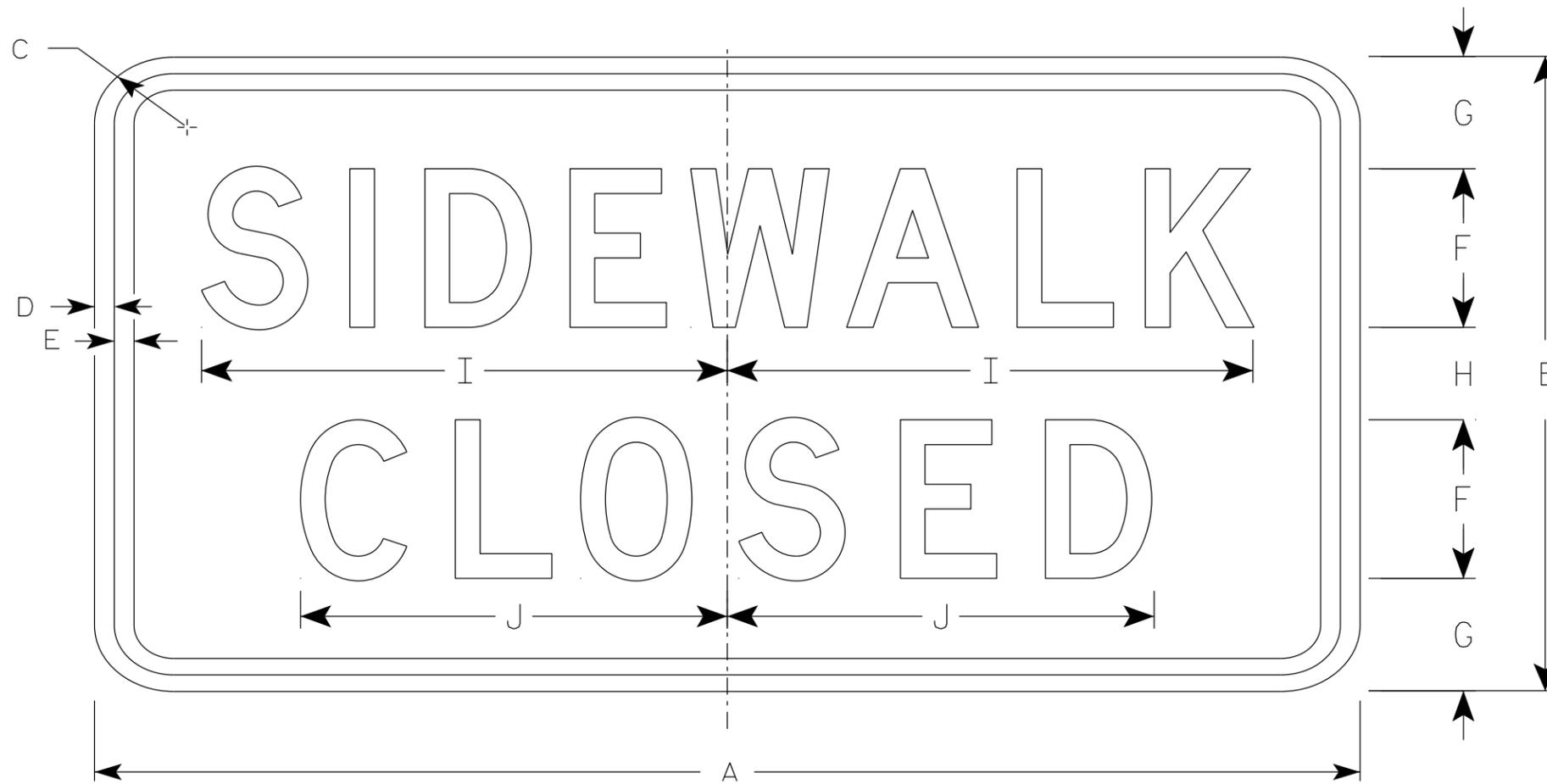
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R Rauch*
For State Traffic Engineer

DATE 2/13/2023 PLATE NO. M6-1.16

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
 - Background - White
 - Message - Black
3. Message Series - C
4. Use Size 2 for Sidewalks. Use Size 3 for Paths and Trails.



R9-9

7

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																											
2S	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
2M	24	12	1 1/2	1/2	1/2	3	2 1/8	1 3/4	10	8 1/8																	2.0
3	30	18	1 1/2	1/2	1/2	4	3 1/2	3	12 1/2	10 1/4																	3.75
4																											
5																											

STANDARD SIGN

R9-9

WISCONSIN DEPT OF TRANSPORTATION

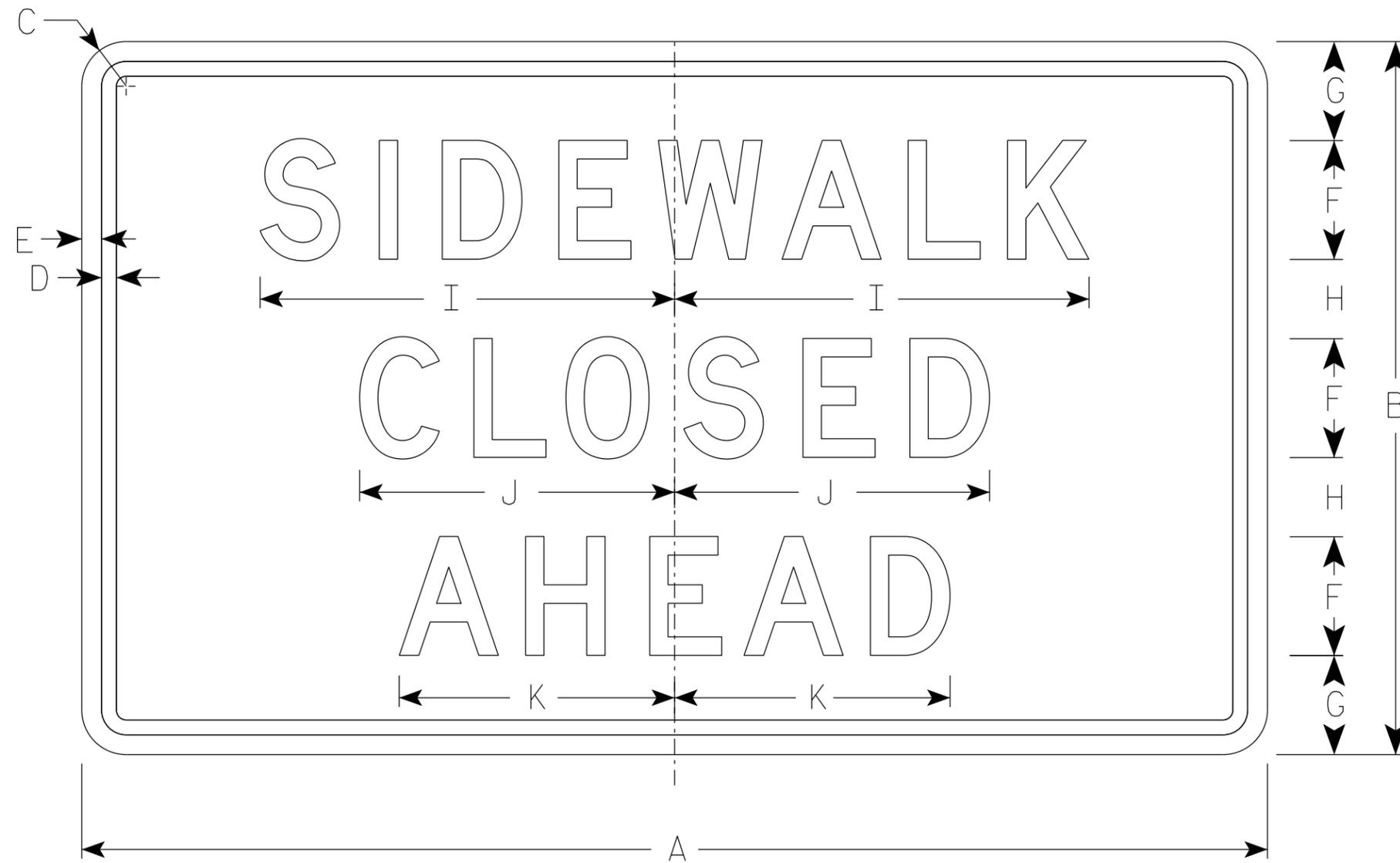
APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9.7

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 140 **E**

NOTES

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



R9-9A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
2M	30	18	1 1/2	3/8	1/2	3	2 1/2	2	10 1/2	8	7																3.75
3																											
4																											
5																											

STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/24/24 PLATE NO. R9-9A.2

PROJECT NO:

HWY:

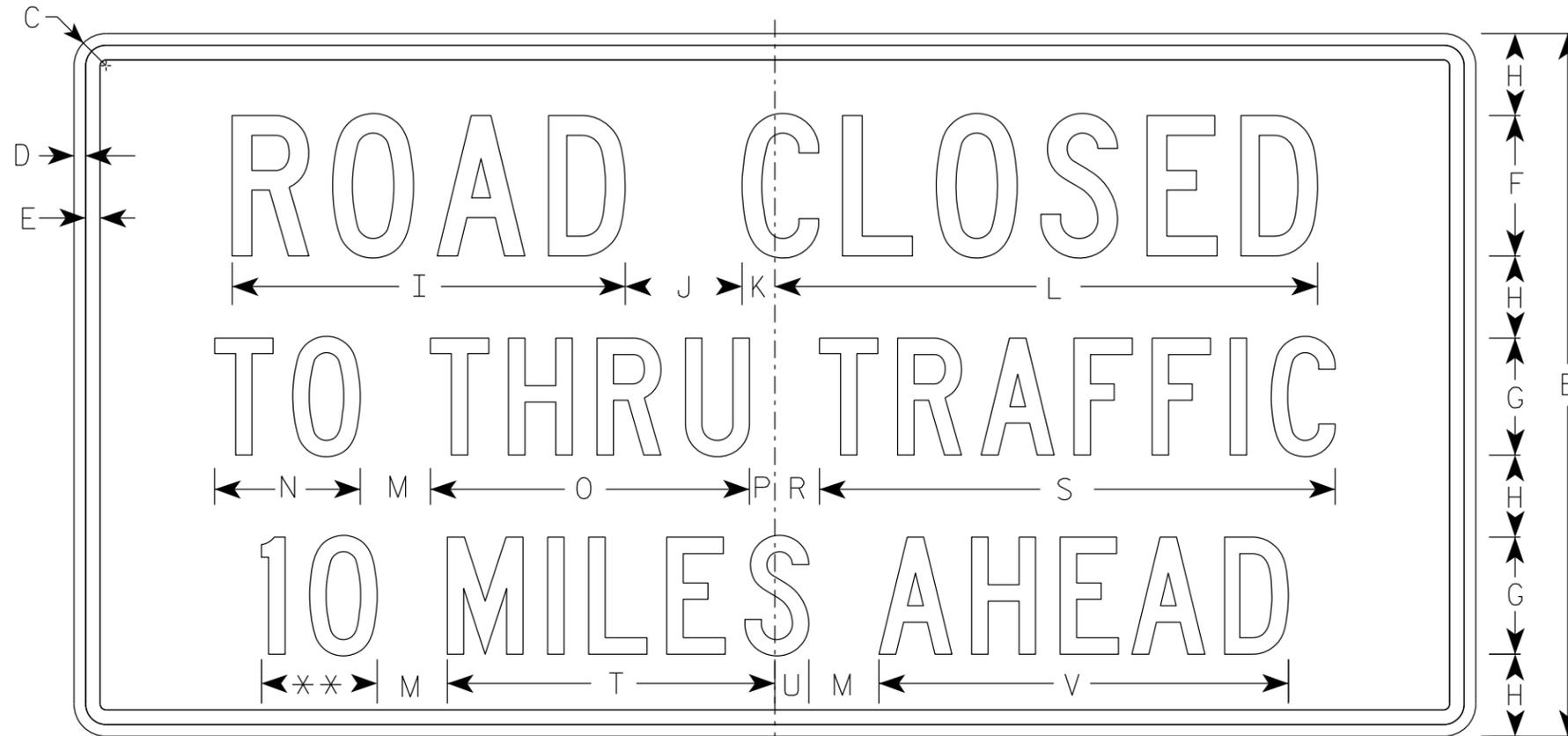
COUNTY:

SHEET NO: 141

E

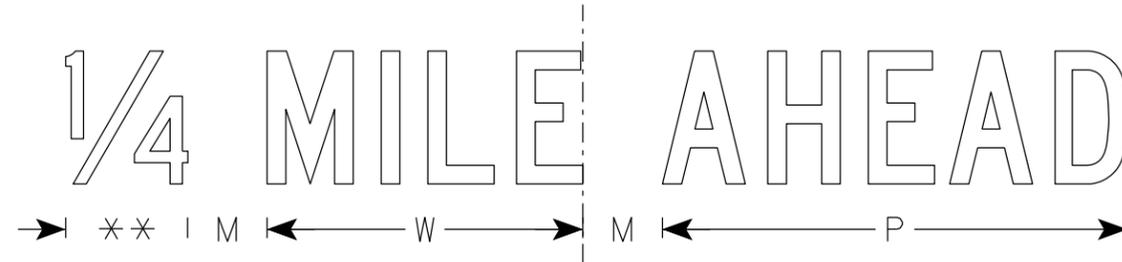
NOTES

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



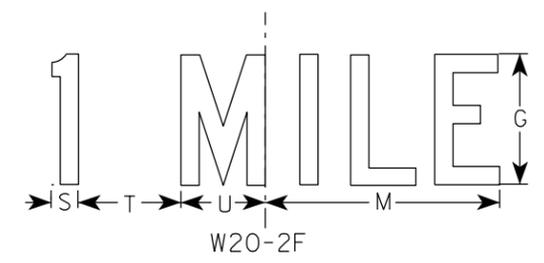
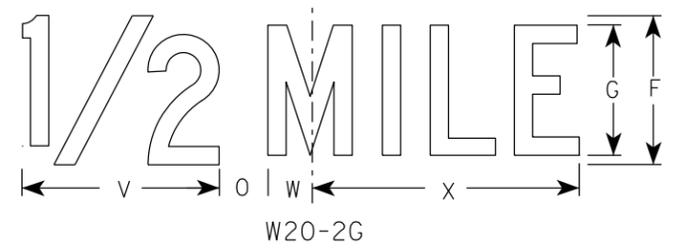
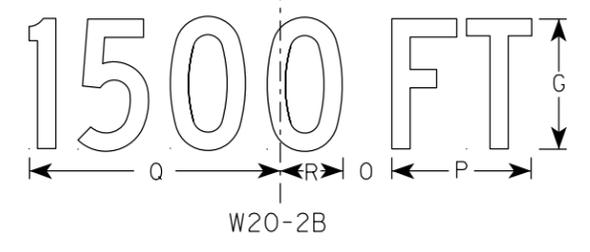
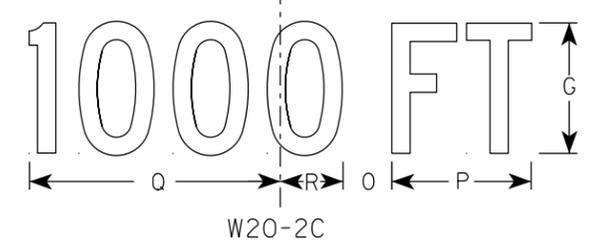
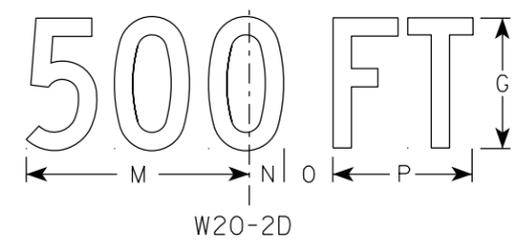
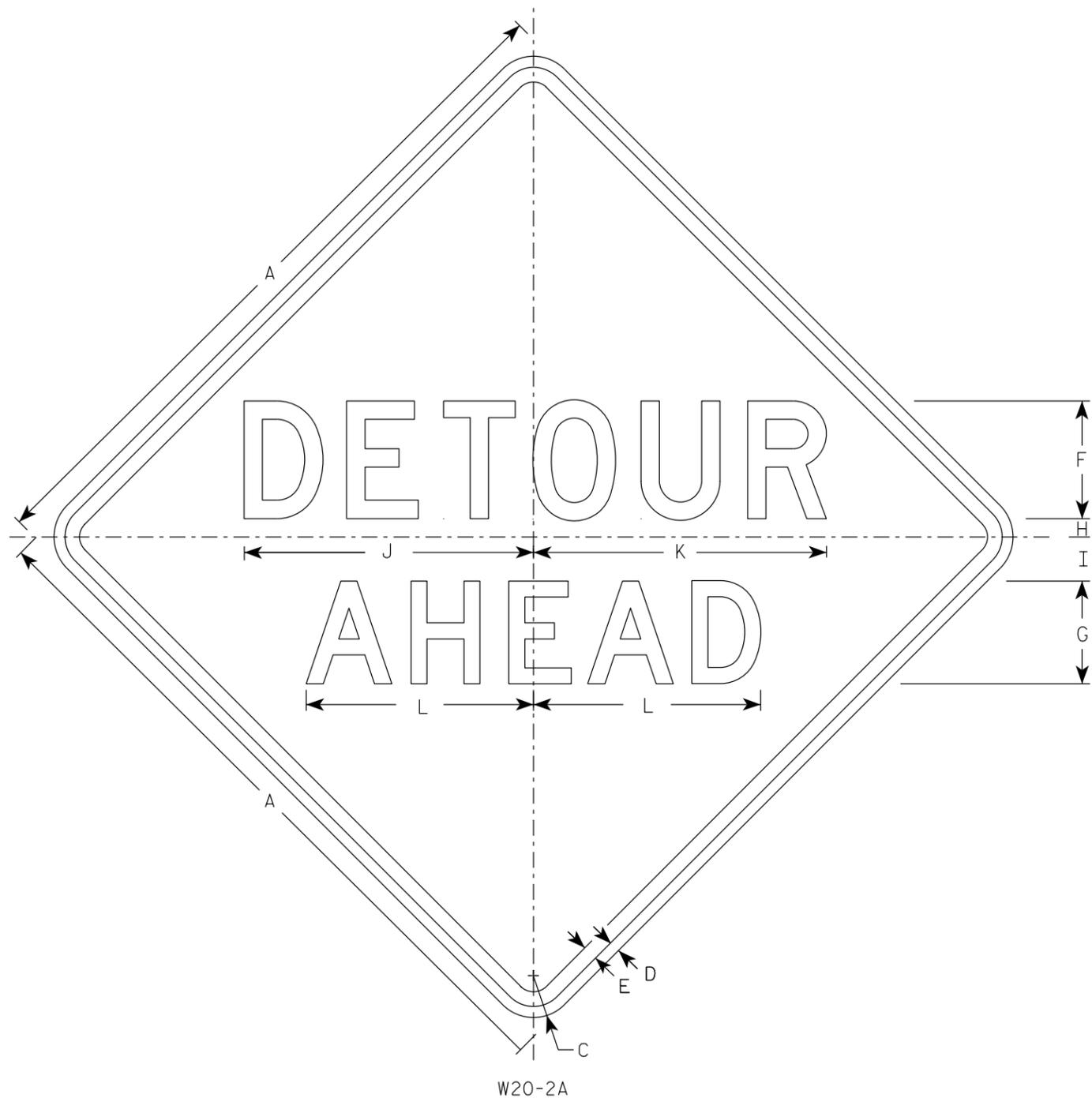
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 1/2	3/8	3/8	4	3	2	11 1/4	3	1 1/8	15 3/8	2	3 3/4	8 1/4	5/8		1 3/8	13 1/4	8 3/8	7/8	10 1/2	7 1/8			4.5	
2S	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	11 7/8			12.5	
2M	60	30	1 7/8	1/2	5/8	6	5	3 1/2	16 7/8	5	1 3/8	23 1/4	3	6 1/4	13 5/8	1 1/8		1 7/8	22 1/8	14	1 1/2	17 1/2	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 2/5/24 PLATE NO. R11-3.10



NOTES

1. Sign is Type II - Type F Reflective
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.

7

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	36		2 1/4	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		3	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		3	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		3	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		3	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		3	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

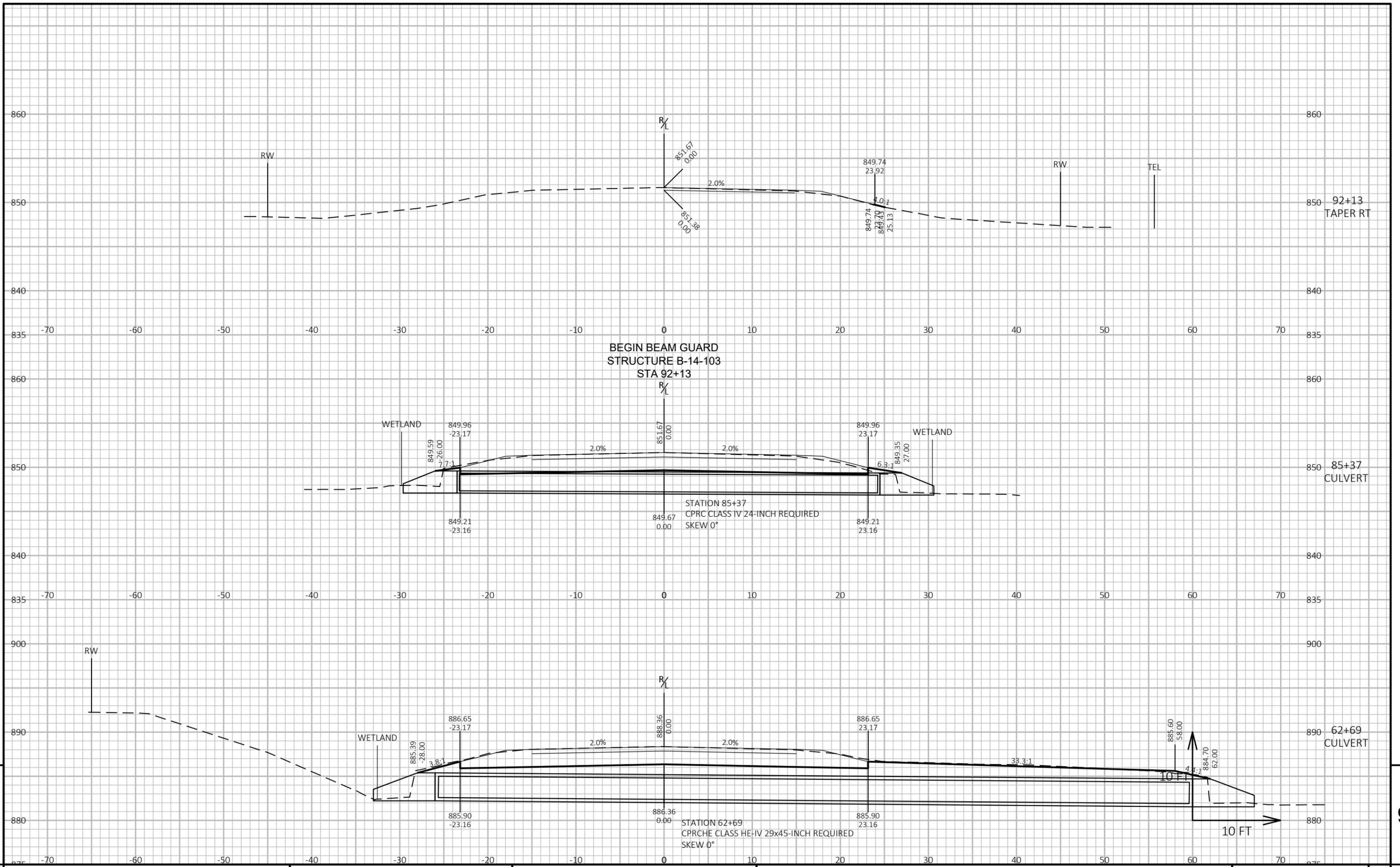
STANDARD SIGN
W20-2A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-2.7

PROJECT NO: _____ HWY: _____ COUNTY: _____ SHEET NO: 143 **E**



BEGIN BEAM GUARD
STRUCTURE B-14-103
STA 92+13

STATION 85+37
CPRC CLASS IV 24-INCH REQUIRED
SKEW 0°

STATION 62+69
CPRC CLASS HE-IV 29x45-INCH REQUIRED
SKEW 0°

PROJECT NO: 3030-05-74

HWY: STH 67

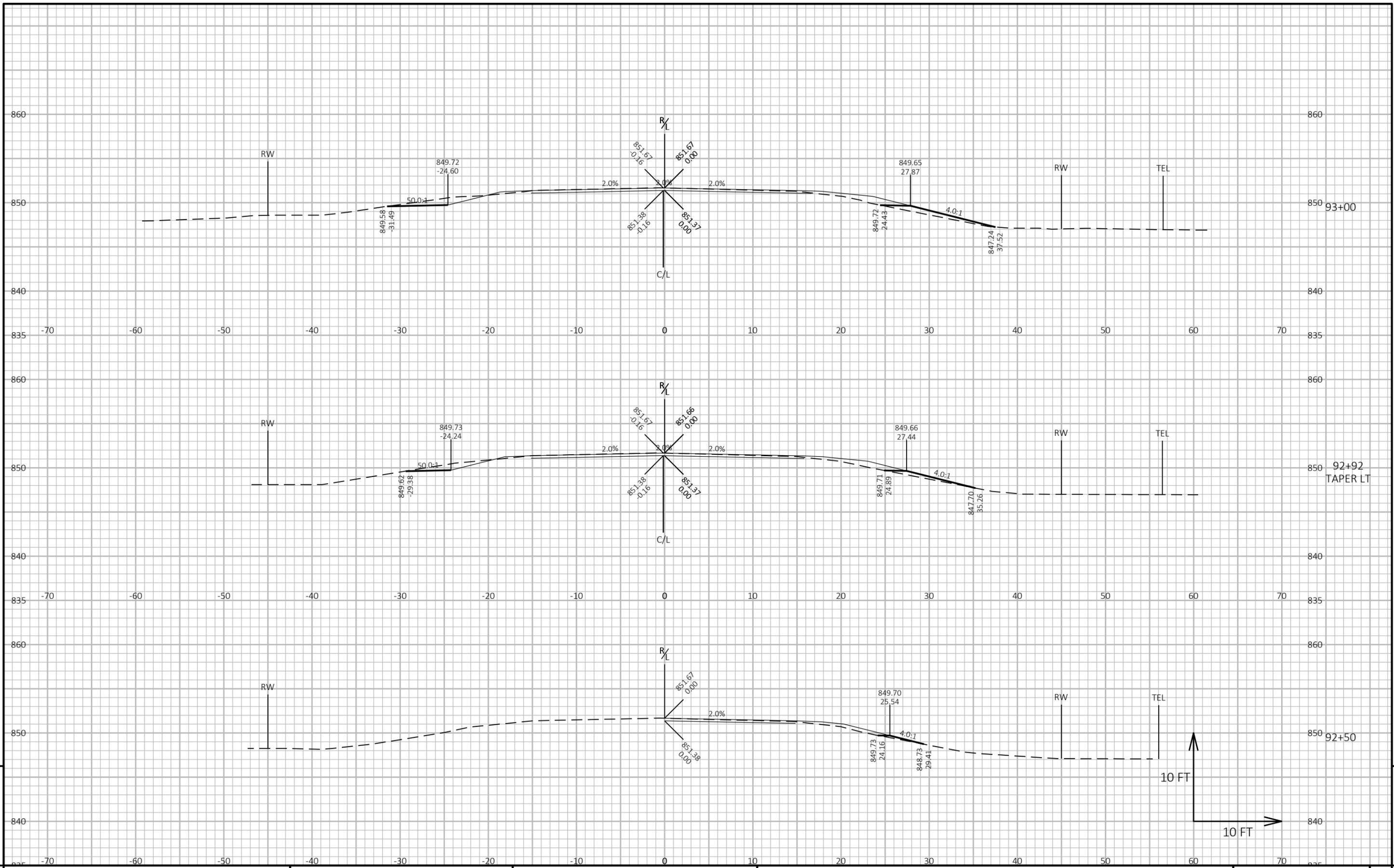
COUNTY: DODGE

CROSS SECTIONS: STH 67

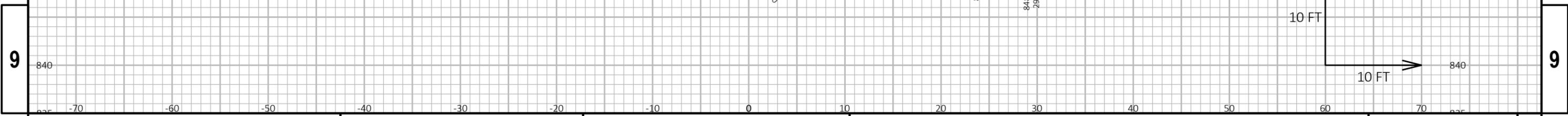
SHEET

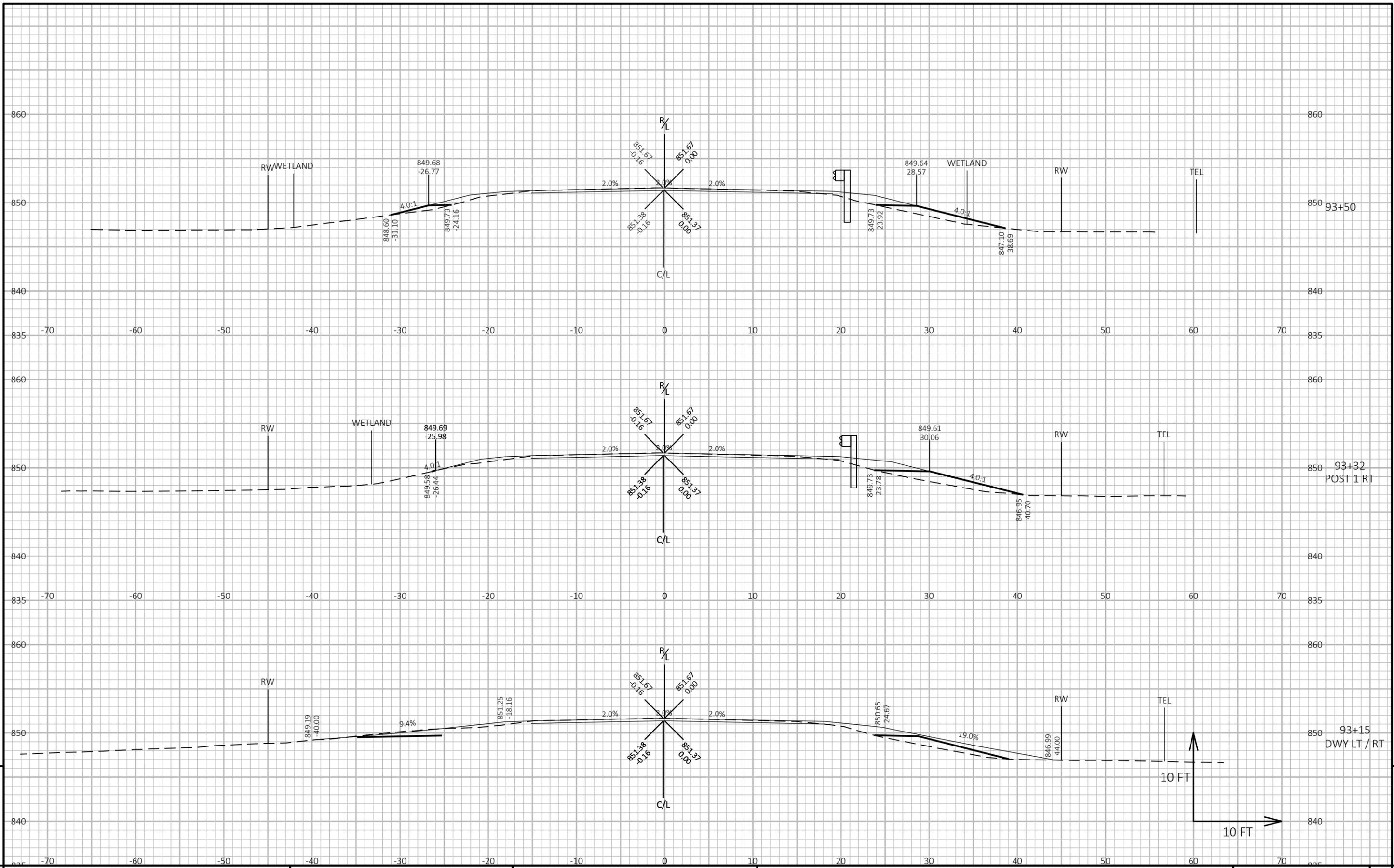
144

E

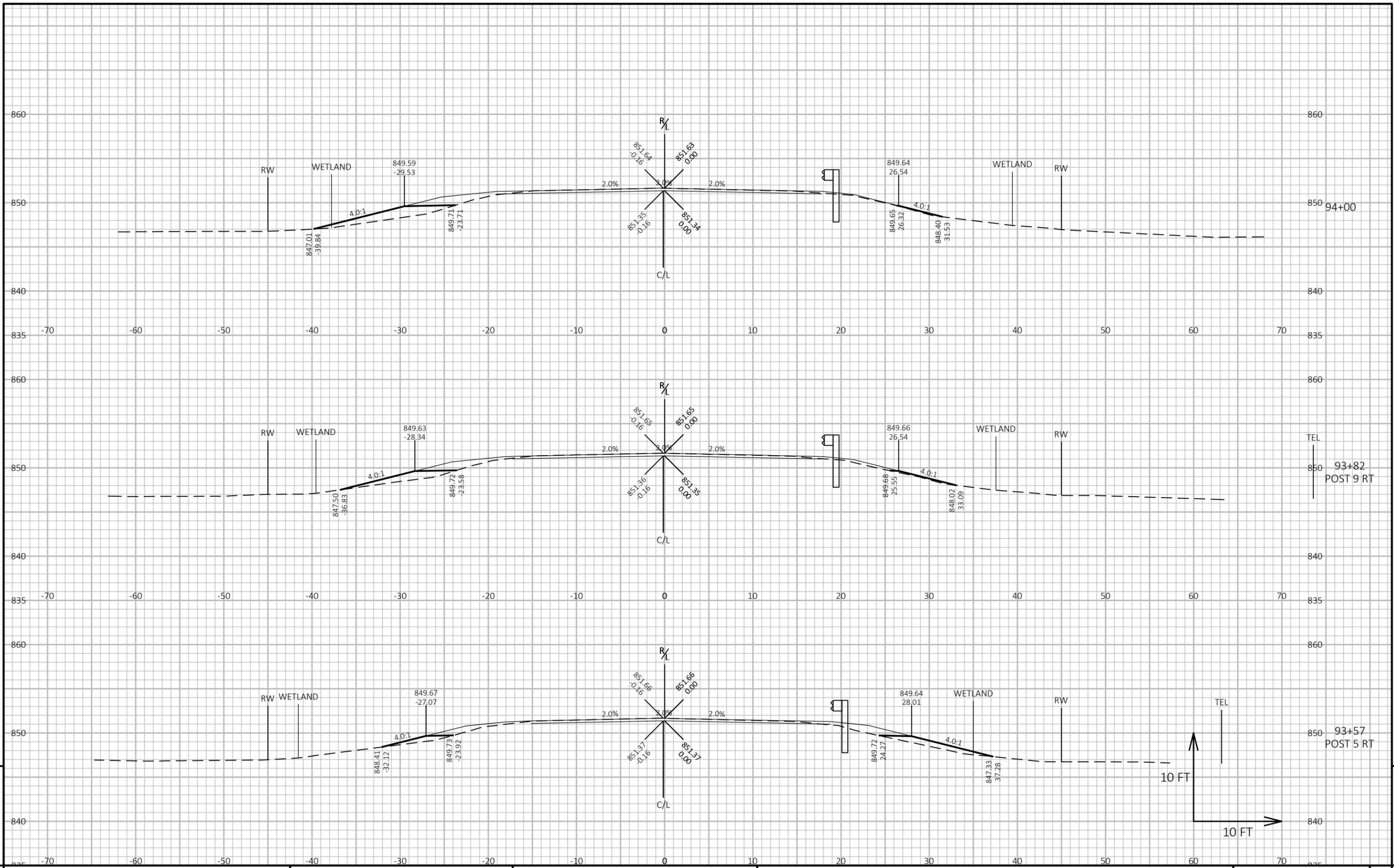


PROJECT NO: 3030-05-74 HWY: STH 67 COUNTY: DODGE CROSS SECTIONS: STH 67 SHEET 145

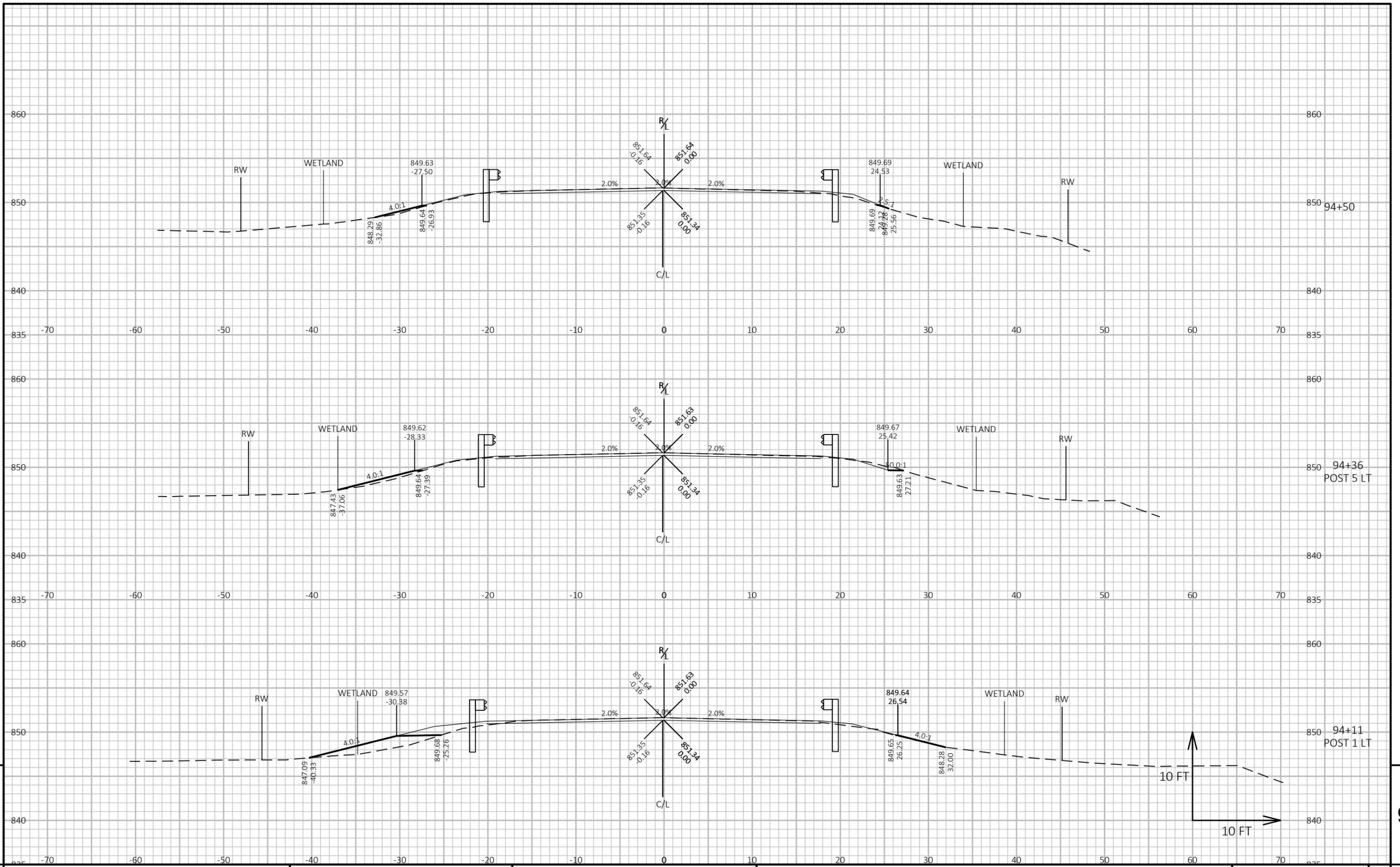




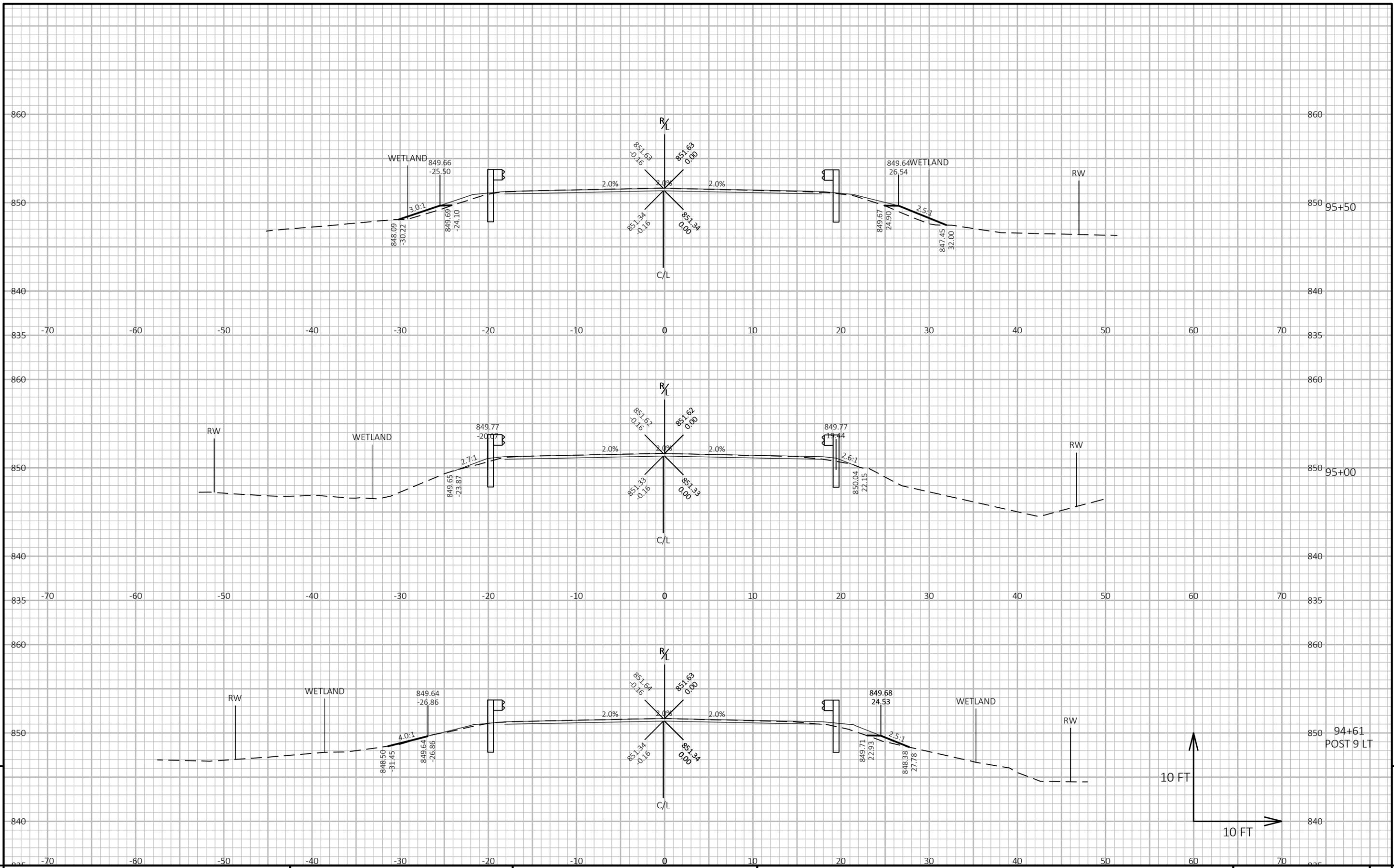
PROJECT NO: 3030-05-74 HWY: STH 67 COUNTY: DODGE CROSS SECTIONS: STH 67 SHEET 146



PROJECT NO: 3030-05-74 HWY: STH 67 COUNTY: DODGE CROSS SECTIONS: STH 67 SHEET 147

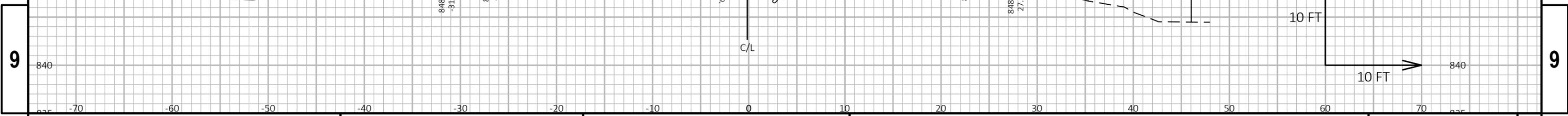


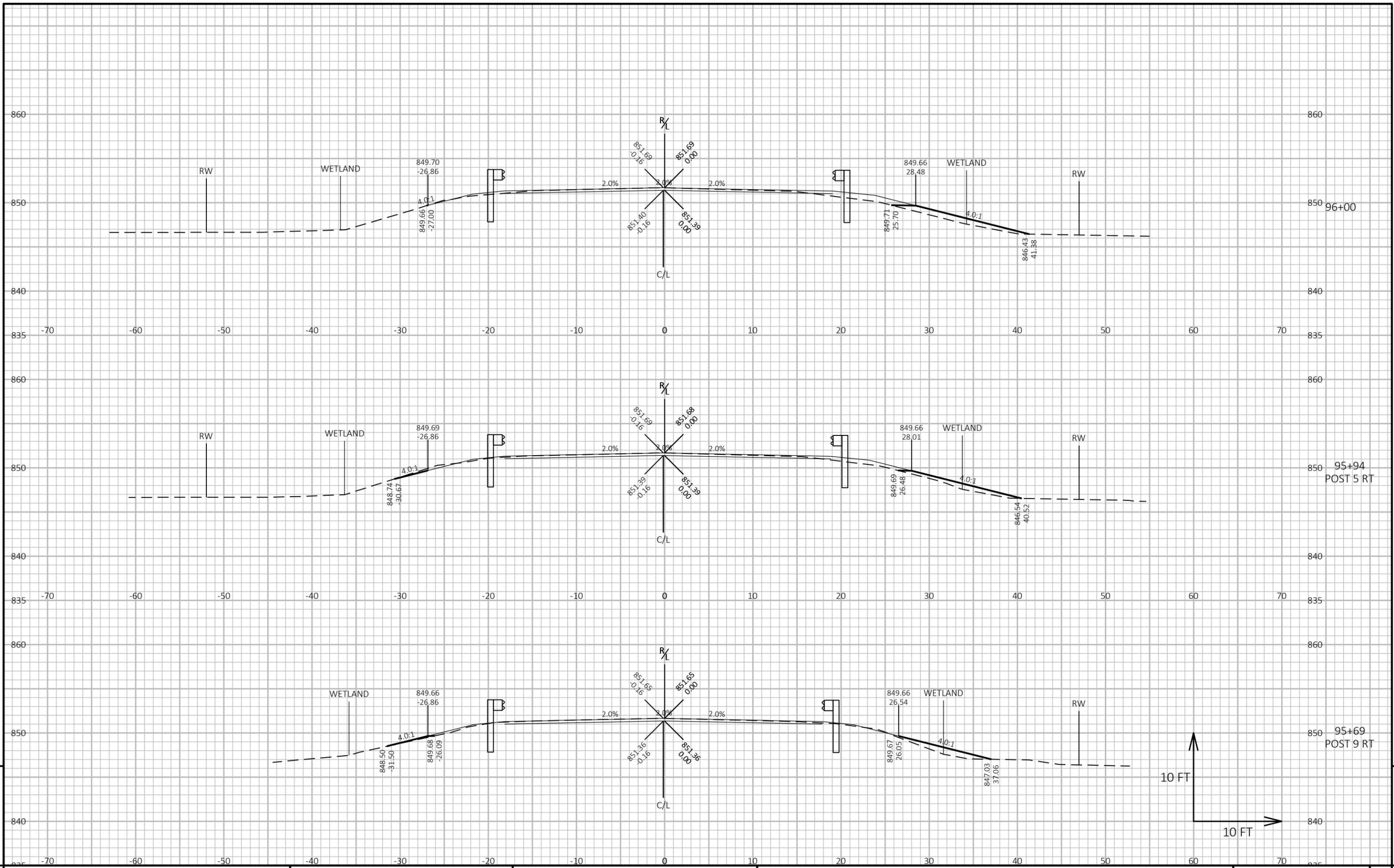
PROJECT NO: 3030-05-74 HWY: STH 67 COUNTY: DODGE CROSS SECTIONS: STH 67 SHEET 148



PROJECT NO: 3030-05-74 HWY: STH 67 COUNTY: DODGE CROSS SECTIONS: STH 67 SHEET 149

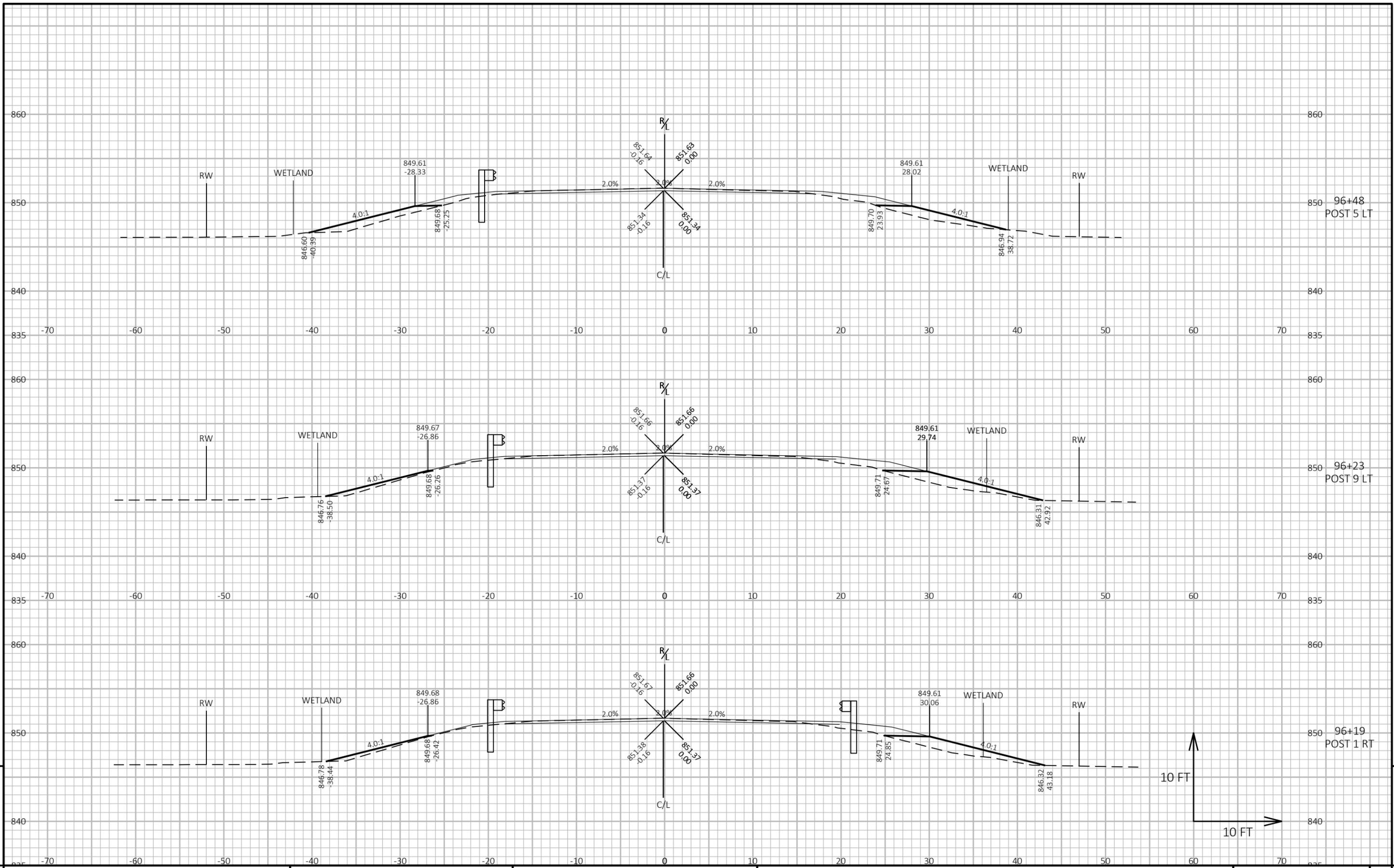
FILE NAME: S:\CURRPROJ\DODGECO\STH 67 - RESURFACE\CIVIL3D\30300504\SHEETSPLAN\30300574-090201-XS.DWG PLOT DATE: 7/14/2025 7:25 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49



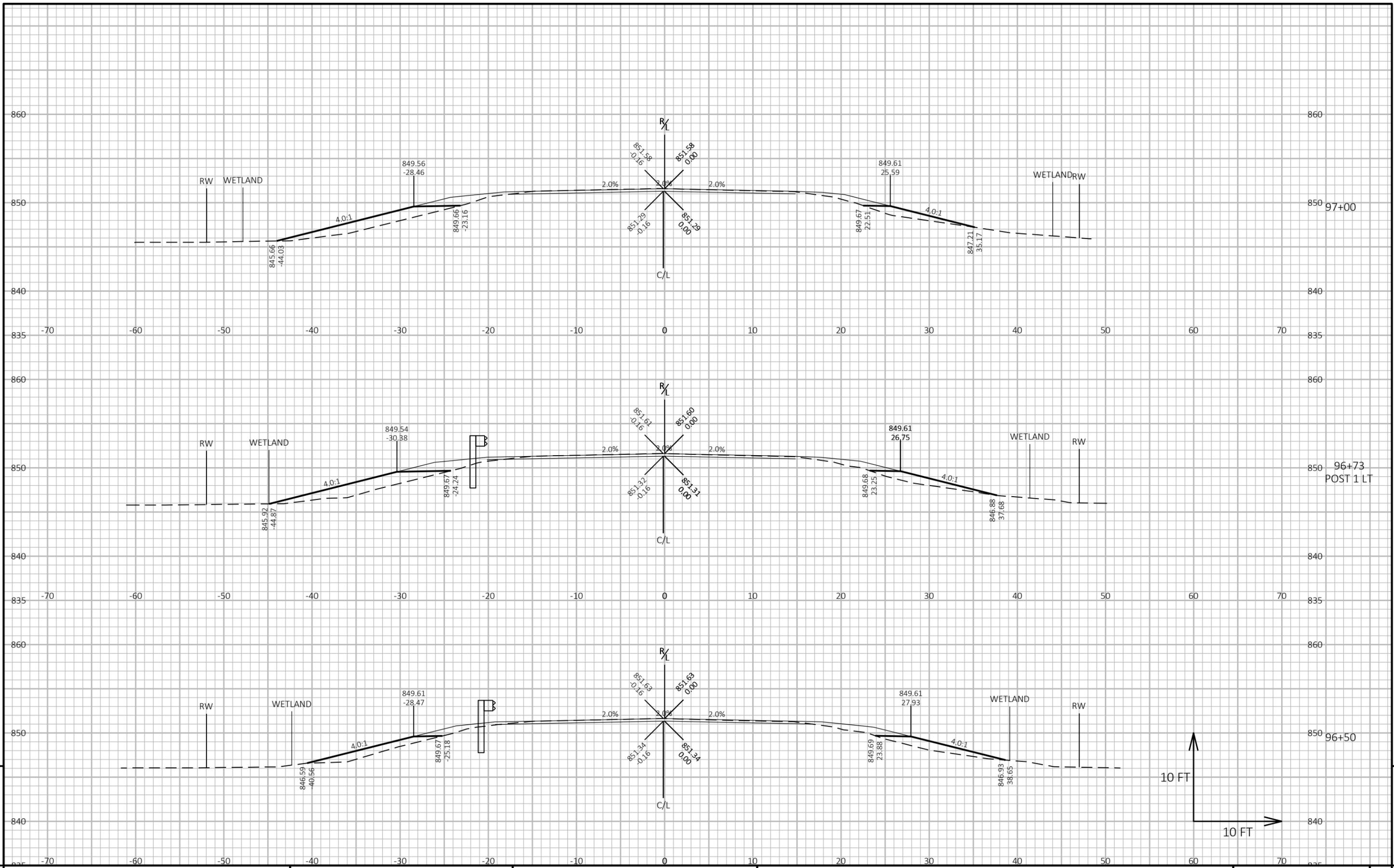


PROJECT NO: 3030-05-74 HWY: STH 67 COUNTY: DODGE CROSS SECTIONS: STH 67 SHEET 150

FILE NAME: S:\CURRPROJ\DODGECO\STH 67 - RESURFACE\CIVIL3D\30300504\SHEETSPLAN\30300574-090201-XS.DWG PLOT DATE: 7/14/2025 7:25 AM PLOT BY: AARON SARAUER PLOT NAME: PLOT SCALE: 1 IN:10 FT HORZ. / 1 IN:10 FT VERT. WISDOT/CADD SHEET 49

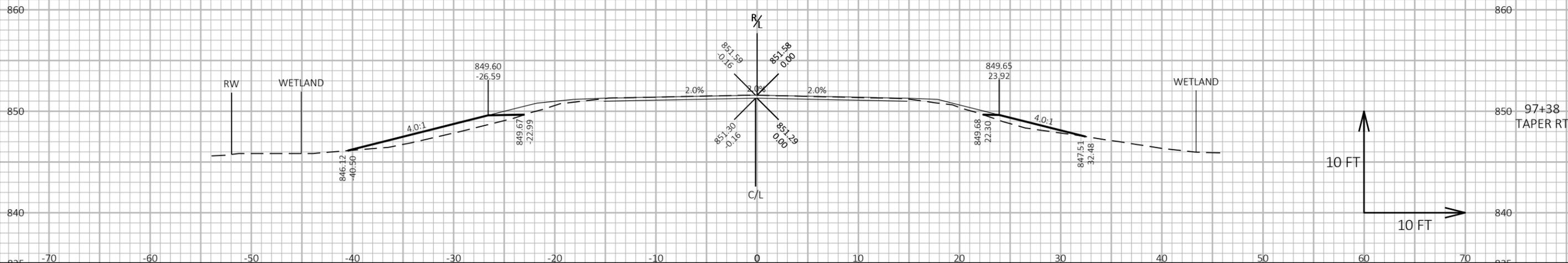
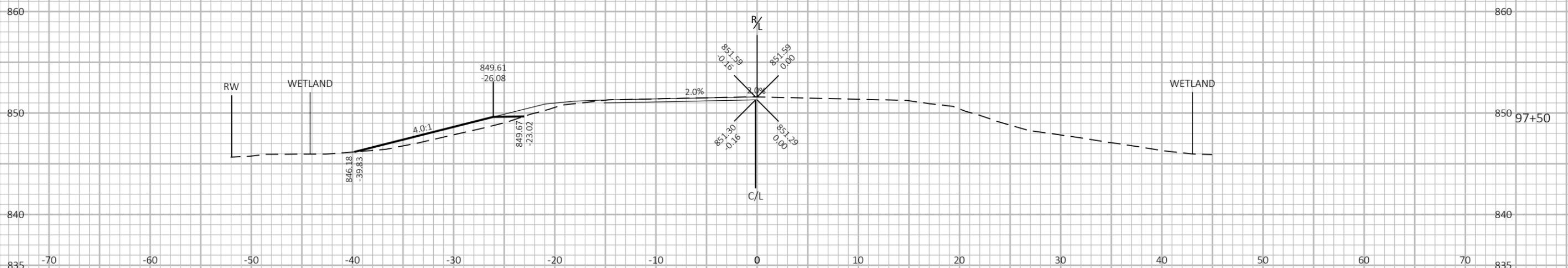
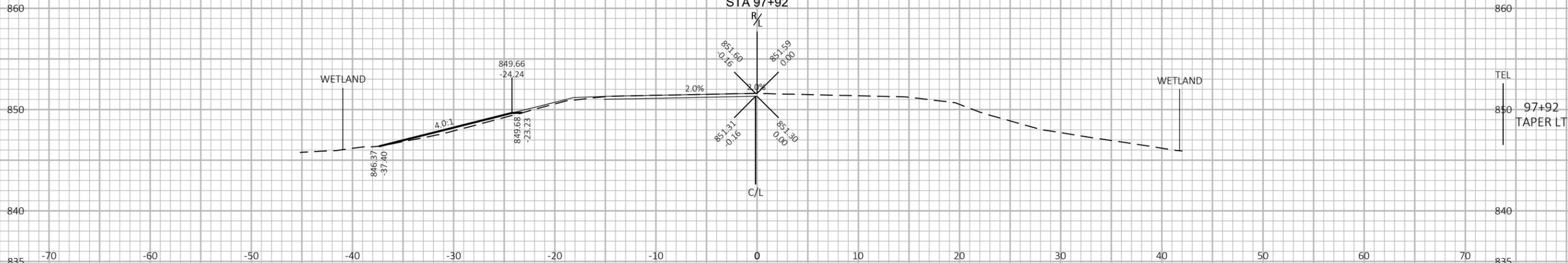


PROJECT NO: 3030-05-74 HWY: STH 67 COUNTY: DODGE CROSS SECTIONS: STH 67 SHEET 151



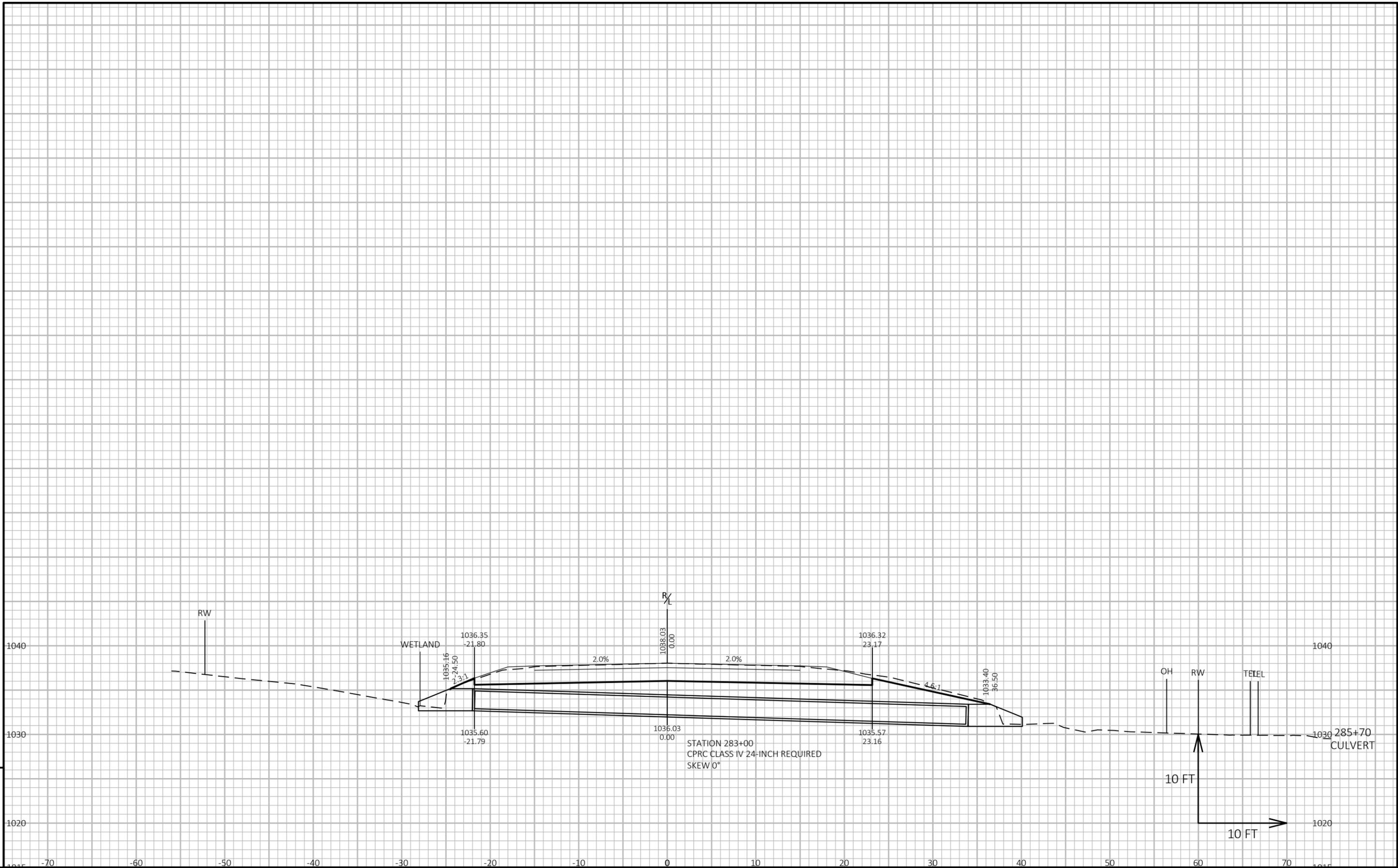
PROJECT NO: 3030-05-74 HWY: STH 67 COUNTY: DODGE CROSS SECTIONS: STH 67 SHEET 152

END BEAM GUARD
STRUCTURE B-14-103
STA 97+92



9

9



9

9

PROJECT NO: 3030-05-74

HWY: STH 67

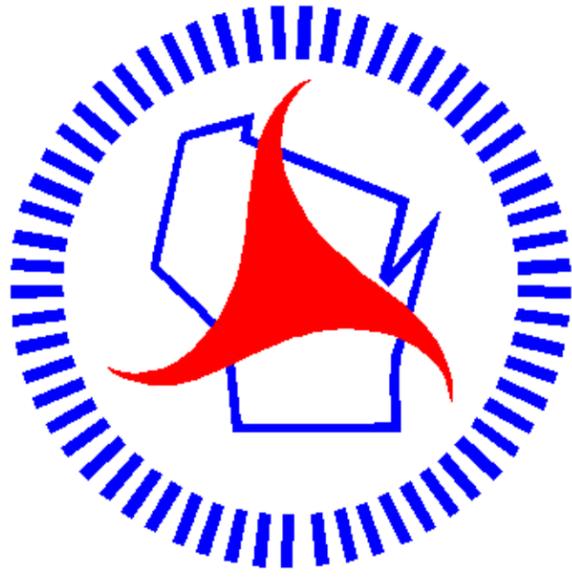
COUNTY: DODGE

CROSS SECTIONS: STH 67

SHEET 154

E

Notes



Wisconsin Department of Transportation

Dedicated people creating transportation solutions through innovation and exceptional service.

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