

GRE

PROJECT ID: 1450-18-71

WITH: N/A

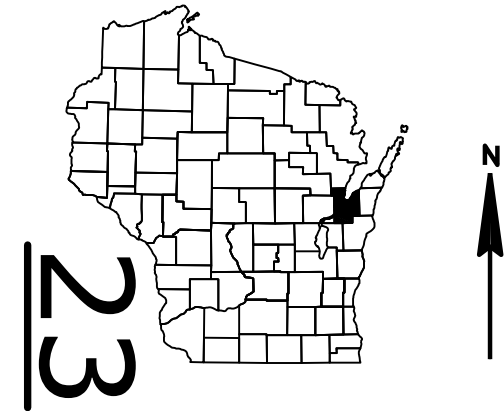
COUNTY: BROWN

FEBRUARY 2026

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control)
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 = 214



DESIGN DESIGNATION

A.A.D.T.	2026	=	6,740
A.A.D.T.	2046	=	6,740
D.H.V.		=	820
D.D.		=	59/41
T.		=	6.2%
DESIGN SPEED		=	45-55 MPH
ESALS		=	880,000

CONVENTIONAL SYMBOLS

PLAN

CORPORATE LIMITS

PROPERTY LINE

LOT LINE

LIMITED HIGHWAY EASEMENT

EXISTING RIGHT OF WAY

PROPOSED OR NEW R/W LINE

SLOPE INTERCEPT

REFERENCE LINE

EXISTING CULVERT

PROPOSED CULVERT (Box or Pipe)

COMBUSTIBLE FLUIDS

MARSH AREA

WOODED OR SHRUB AREA

PROFILE

GRADE LINE

ORIGINAL GROUND

MARSH OR ROCK PROFILE (To be noted as such)

SPECIAL DITCH

GRADE ELEVATION

CULVERT (Profile View)

UTILITIES

ELECTRIC

FIBER OPTIC

GAS

SANITARY SEWER

STORM SEWER

TELEPHONE

WATER

UTILITY PEDESTAL

POWER POLE

TELEPHONE POLE

ROCK

LABEL

95.36

E

FO

G

SAN

SS

T

W

CAUTION

STATE OF WISCONSIN

DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

LEDGEVIEW - BELLEVUE

CTH MM - CONTINENTAL DR

USH 141

BROWN COUNTY

STATE PROJECT NUMBER

1450-18-71

END PROJECT

STA 747+89.45



BEGIN PROJECT

STA 608+54

Y= 539,458.431

X= 125,188.814

LAYOUT

SCALE 0 2 MI

TOTAL NET LENGTH OF CENTERLINE = 2.639 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), BROWN 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
1450-18-71		



500 North 17th Avenue
Wausau, WI 54401
715.845.1081 Fax 715.845.1099



9/9/2025

(Date)

Erik M. Oleson

(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
Surveyor	WISDOT/EMCS, INC.
Designer	EMCS, INC.
Project Manager	JOSHUA LANG
Regional Examiner	NORTHEAST REGION
Regional Supervisor	ANDREW FULCER

APPROVED FOR THE DEPARTMENT

DATE: 11/1/2025

John J. Lang P.E.

(Signature)

GENERAL NOTES

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

ORDER OF SECTION 2 SHEETS

- PROJECT OVERVIEW
- TYPICAL SECTIONS
- CONSTRUCTION DETAILS
- INTERSECTION DETAILS
- CURB RAMP DETAILS
- SIGNING AND MARKING
- TRAFFIC CONTROL
- DETOUR

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

TOTAL PROJECT AREA = 60 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 0.87 ACRE

UTILITIES

GAS/PETROLEUM

WISCONSIN PUBLIC SERVICE CORPORATION
ADAM LEY
2850 SOUTH ASHLAND AVE
GREEN BAY, WI 54304
PHONE: (920) 304-2053
MOBILE: (920) 304-2053
ADAM.LEY@WISCONSINPUBLICSERVICE.COM

SEWER

VILLAGE OF BELLEVUE
ERIK SCHUTZIUS
2828 ALLOUEZ AVE
BELLEVUE, WI 54311
PHONE: (920) 593-5503
MOBILE: (920) 468-4196
ESCHUTZIUS@VILLAGEOFBELLEVUEWI.GOV

COMMUNICATIONS

AT&T WISCONSIN
KYLE WEBER
205 S JEFFERSON ST
GREEN BAY, WI 54301
MOBILE: (920) 221-5969
KW715W@ATT.COM

BRIGHTSPEED OF CENTRAL WISCONSIN, LLC
SCOTT HEINZELMAN
144 NORTH PEARL ST
BERLIN, WI 54923
PHONE: (980) 376-1563
MOBILE: (920) 757-4802
SCOTT.HEINZELMAN@BRIGHTSPEED.COM

NET LEC LLC
RICK VINCENT
470 SECURITY BLVD
GREEN BAY, WI 54313
PHONE: (920) 617-7316
RICK.VINCENT@NSIGHT.COM

SPECTRUM
GEOFF TULACHKA
2580 WEST MASON ST
GREEN BAY, WI 54303
PHONE: (920) 831-9142
GTULACHKA@CHARTER.COM

TDS METROCOM LLC
JIM KOHLER
2900 NORTH ZUEHLKE DR
SUITE B
APPLETON, WI 54911
MOBILE: (920) 209-7601
JIM.KOHLER@TDSTELECOM.COM

ELECTRIC

ATC MANAGEMENT, INC.
CHRIS DAILEY
P.O. BOX 47
WAUKESHA, WI 53187
PHONE: (262) 506-6884
CDAILEY@ATCLLC.COM

WISCONSIN PUBLIC SERVICE CORPORATION
RYAN VOSKUIL
2850 SOUTH ASHLAND AVE
GREEN BAY, WI 54304
PHONE: (920) 617-5150
MOBILE: (920) 655-1584
RYAN.VOSKUIL@WISCONSINPUBLICSERVIVE.COM

WATER

CENTRAL BROWN COUNTY WATER AUTHORITY
ZACH PETHAN
1303 SOUTH 8TH ST
MANITOWOC, WI 54220
PHONE: (920) 686-4244
MOBILE: (920) 323-3968
ZPETHAN@MPU.ORG

VILLAGE OF BELLEVUE
ERIK SCHUTZIUS
2828 ALLOUEZ AVE
BELLEVUE, WI 54311
PHONE: (920) 593-5503
PHONE: (920) 468-4196
ESCHUTZIUS@VILLAGEOFBELLEVUEWI.GOV

DIGGERSHOTLINE

Dial 811 or (800)242-8511

www.DiggersHotline.com

OTHER CONTACTS

WDNR LIAISON
JIM DOPERALSKI JR.
984 SHAWANO AVE.
GREEN BAY, WI 54313
(920) 412-0165
JAMES.DOPERALSKI@WISCONSIN.GOV

FOX VALLEY & LAKE SUPERIOR RAIL SYSTEM, LLC
RAIL ROAD CONTACT TO BE ADDED
WHEN PROVIDED BY THE REGION

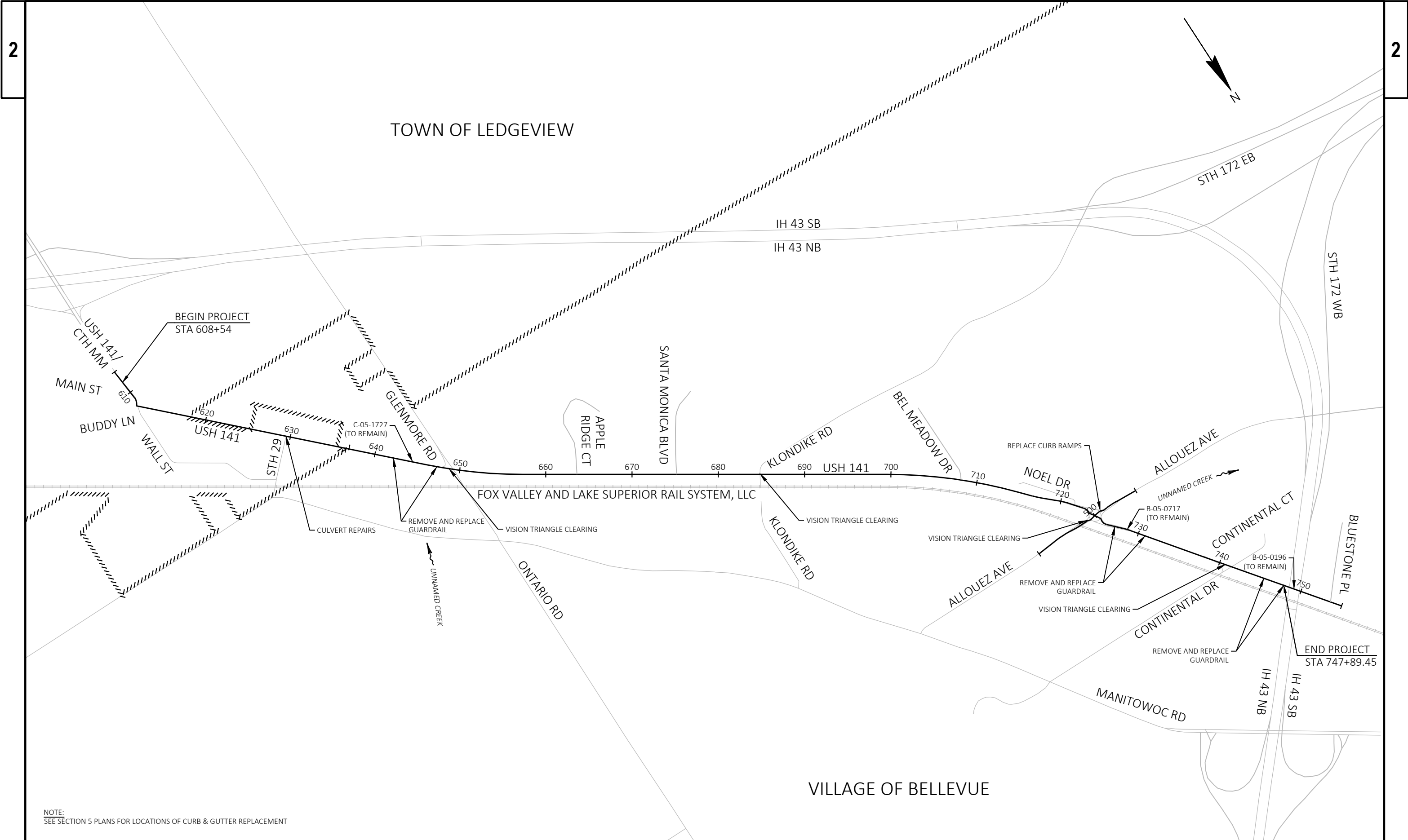
DESIGNER CONTACT
EMCS, INC.
327 N 17TH AVE, SUITE 304
WAUSAU, WI 54401
(715) 845-1081

BROWN COUNTY HIGHWAY COMMISSIONER

CHRIS HARDY
2198 GLENDALE AVENUE
GREEN BAY, WI 54303
(920) 662-2170
CHRIS.HARDY@BROWNCOUNTYWI.GOV

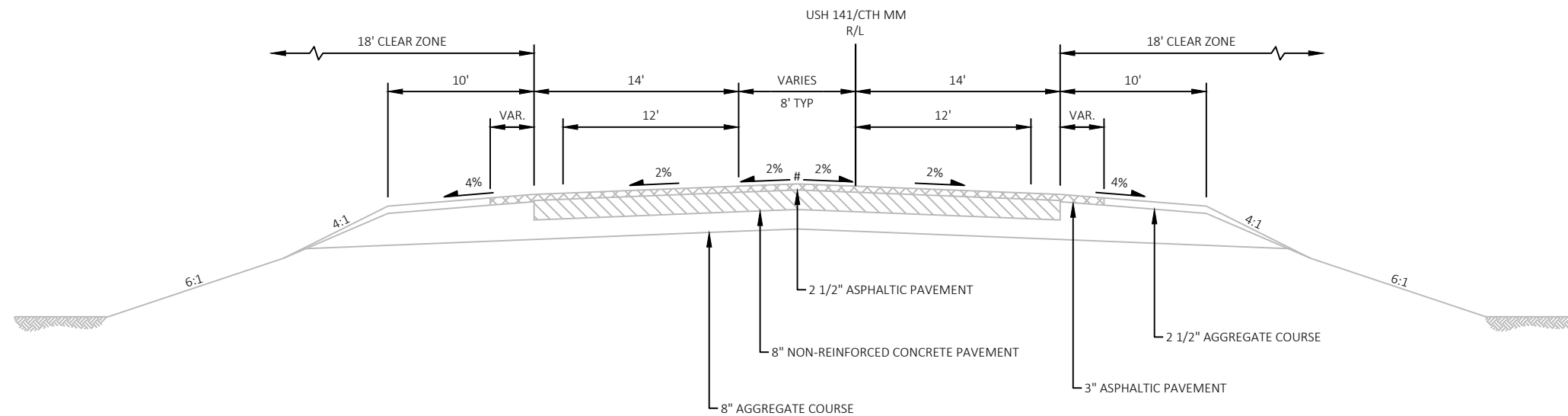
WISDOT PROJECT MANAGER

JOSHUA LANG, PE
944 VANDERPERREN WAY
GREEN BAY, WI 54304
(920) 362-6170
JOSHUA.LANG@DOT.WI.GOV

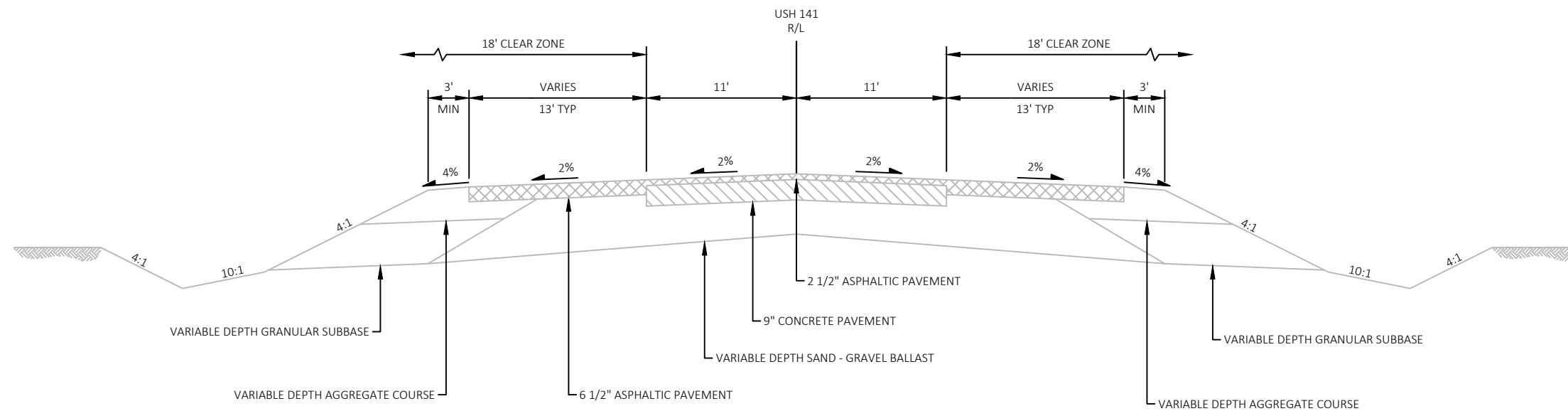


NOTE:
SEE SECTION 5 PLANS FOR LOCATIONS OF CURB & GUTTER REPLACEMENT

PROJECT NO: 1450-18-71	HWY: USH 141	COUNTY: BROWN	PROJECT OVERVIEW	SHEET 3	E
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EXISTING TYPICAL SECTION USH 141/CTH MM
STA 608+54 - STA 611+79

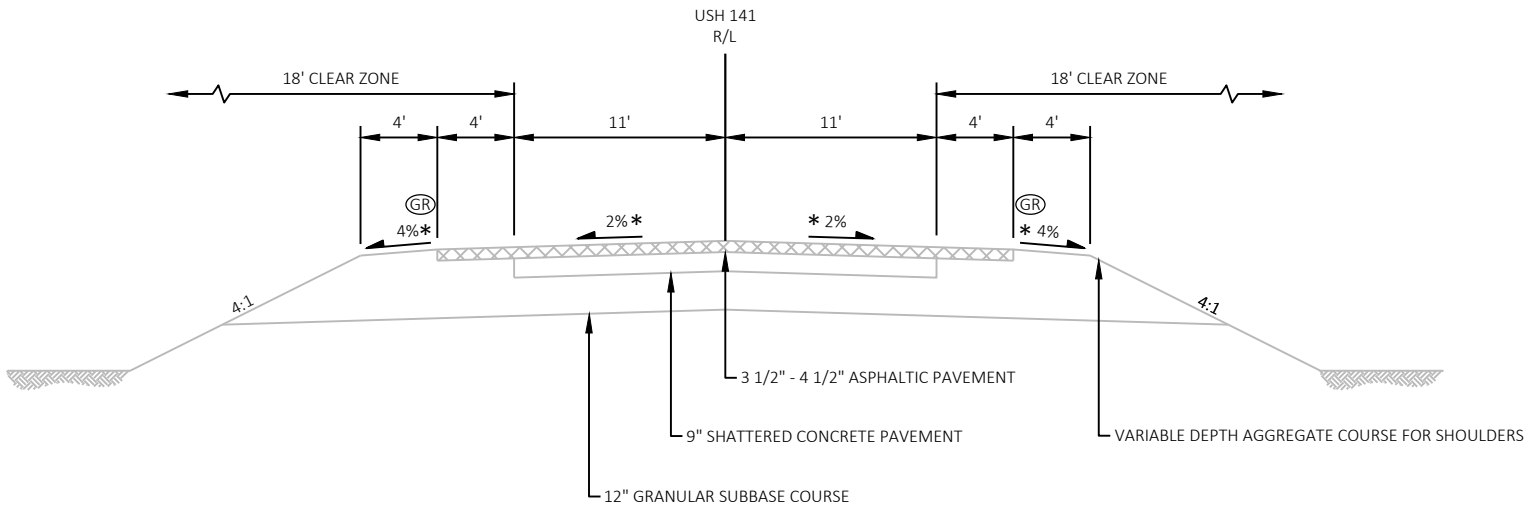


EXISTING TYPICAL SECTION USH 141
STA 611+79 - STA 620+75

NOTES

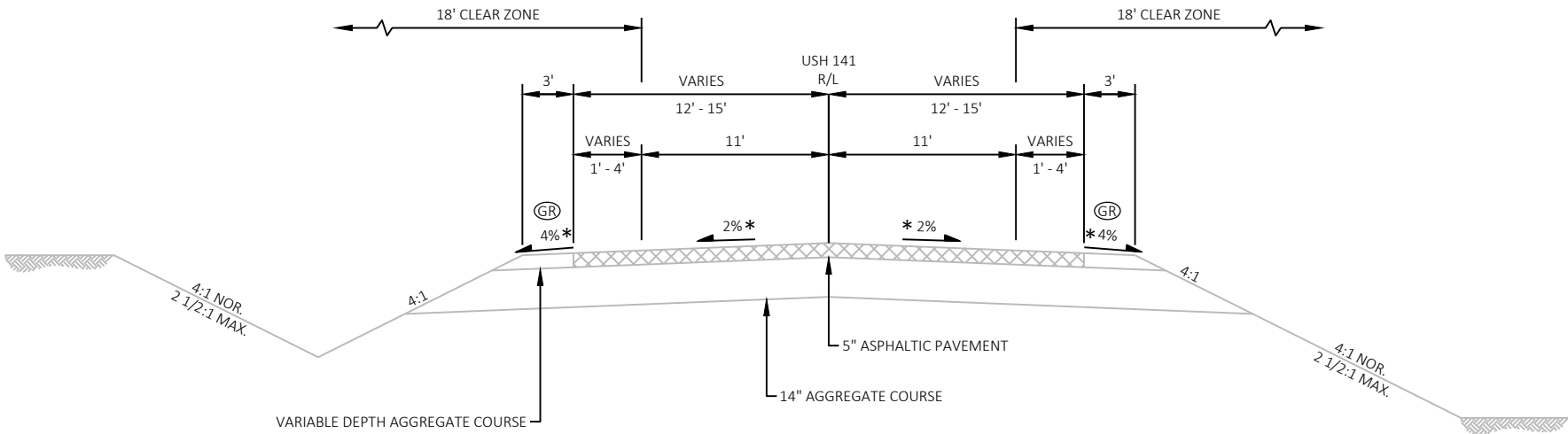
ASPHALTIC PAVEMENT THICKNESS MAY VARY DUE TO ASPHALTIC SURFACE PATCH, MINIMUM THICKNESS SHOWN

SEE MARKING AND SECTION 5 PLAN SHEETS FOR LOCATIONS OF EXISTING TURN LANES, MARKED MEDIANS, AND BYPASS LANES



EXISTING TYPICAL SECTION USH 141

STA 620+75 - STA 714+40
STA 731+80 - STA 747+89

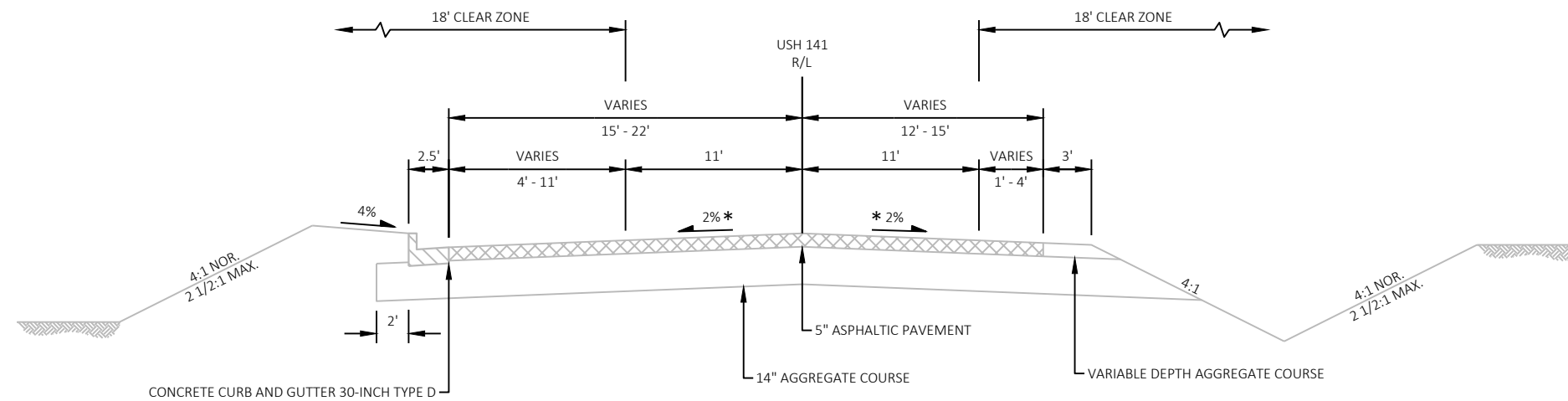


EXISTING TYPICAL SECTION USH 141

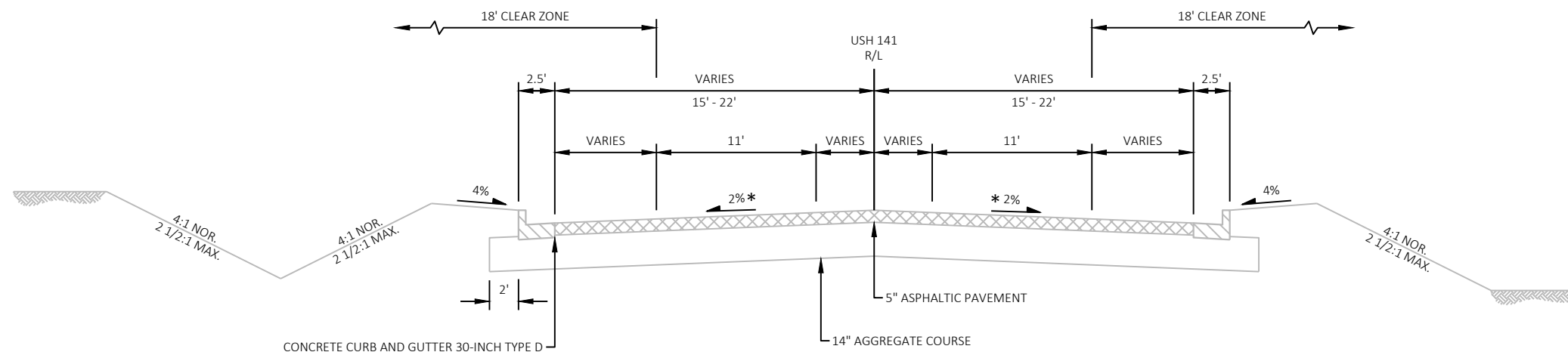
STA 714+40 - STA 721+20
STA 726+41 - STA 731+80

NOTES

- * CROSS SLOPE VARIES DUE TO SUPERELEVATION
- GR SEE SECTION 5 PLAN SHEETS FOR EXISTING GUARDRAIL LOCATIONS
- SEE MARKING AND SECTION 5 PLAN SHEETS FOR LOCATIONS OF EXISTING TURN LANES, MARKED MEDIANS, AND BYPASS LANES



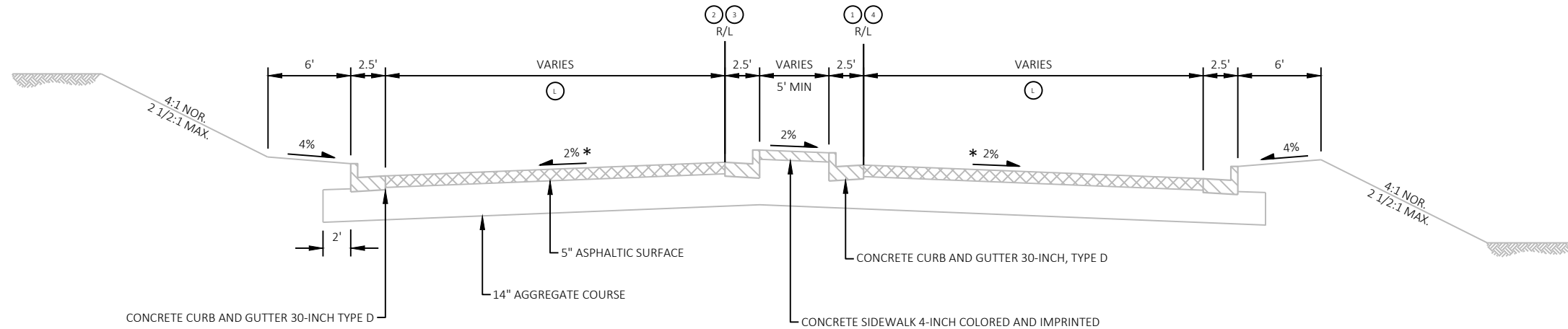
EXISTING TYPICAL SECTION USH 141
STA 721+20 - STA 722+47



EXISTING TYPICAL SECTION USH 141
STA 722+47 - STA 722+94
STA 725+87 - STA 726+41

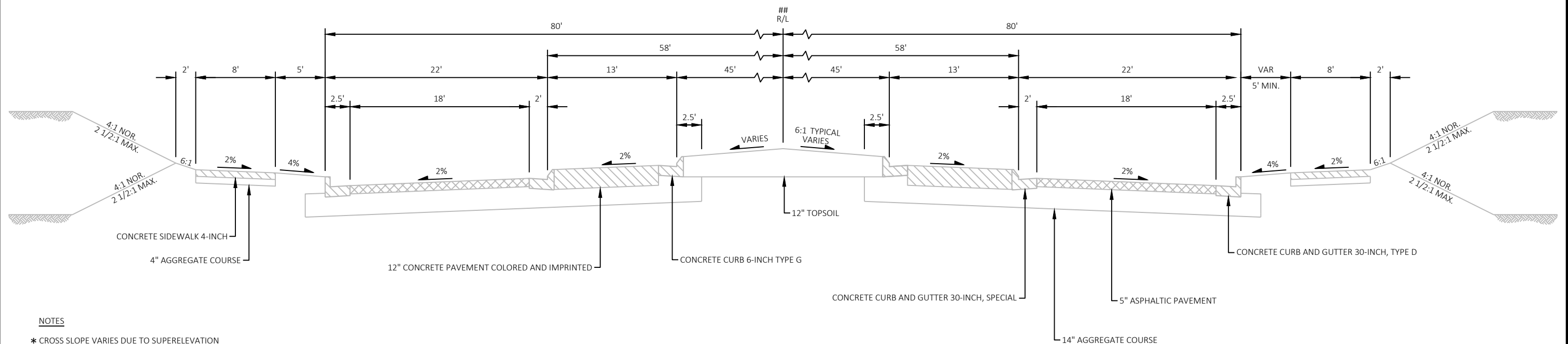
NOTE

* CROSS SLOPE VARIES DUE TO SUPERELEVATION



EXISTING TYPICAL SECTION USH 141/ALLOUEZ AVE ROUNDABOUT APPROACHES

- ① STA 722+94 - STA 723+50 (USH 141)
- ② STA 725+14 - STA 725+87 (USH 141)
- ③ STA 498+45 - STA 499+22 (ALLOUEZ AVE)
- ④ STA 500+78 - STA 501+40 (ALLOUEZ AVE)



NOTES

* CROSS SLOPE VARIES DUE TO SUPERELEVATION

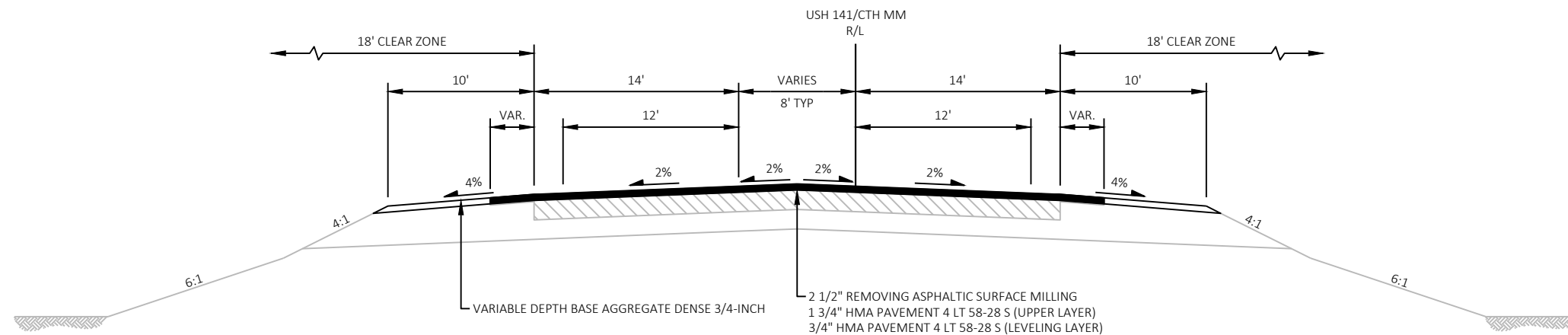
SEE SECTION 5 PLAN SHEETS FOR LOCATION OF REFERENCE LINE

① LANE WIDTHS AND LOCATIONS VARY, SEE SECTION 5 AND MARKING SHEETS FOR ADDITIONAL INFORMATION

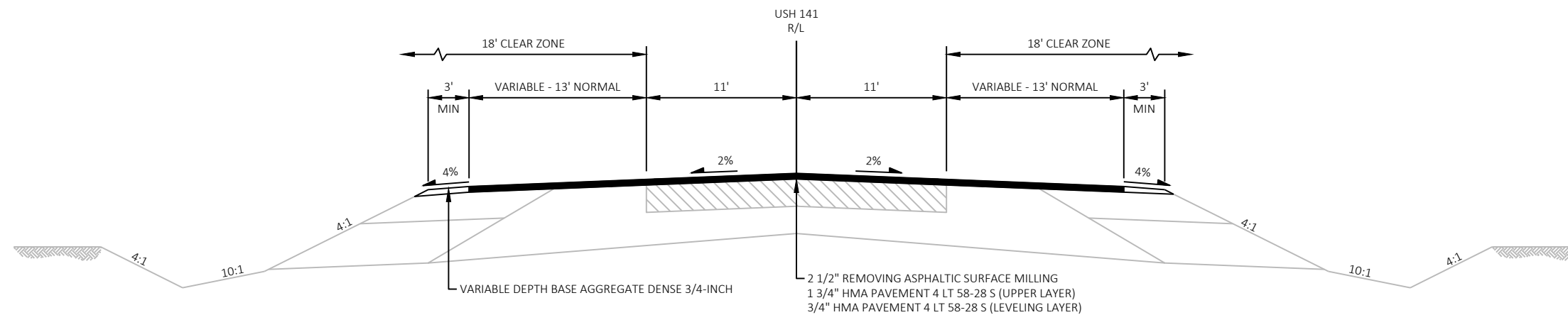
SEE SECTION 5 PLAN SHEETS FOR EXISTING RAISED MEDIAN LOCATIONS

EXISTING TYPICAL SECTION USH 141/ALLOUEZ AVE

STA 723+50 - STA 725+14 (USH 141)
STA 499+22 - STA 500+78 (ALLOUEZ AVE)



FINISHED TYPICAL SECTION USH 141/CTH MM
STA 608+54 - STA 611+79

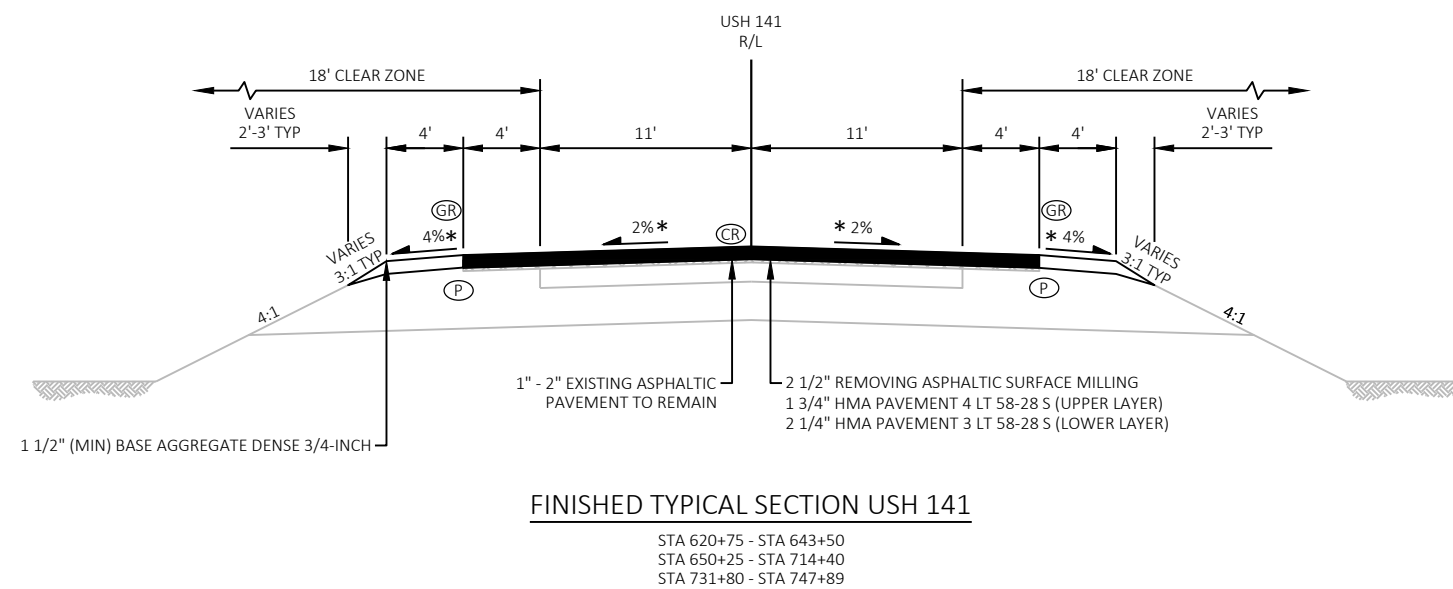
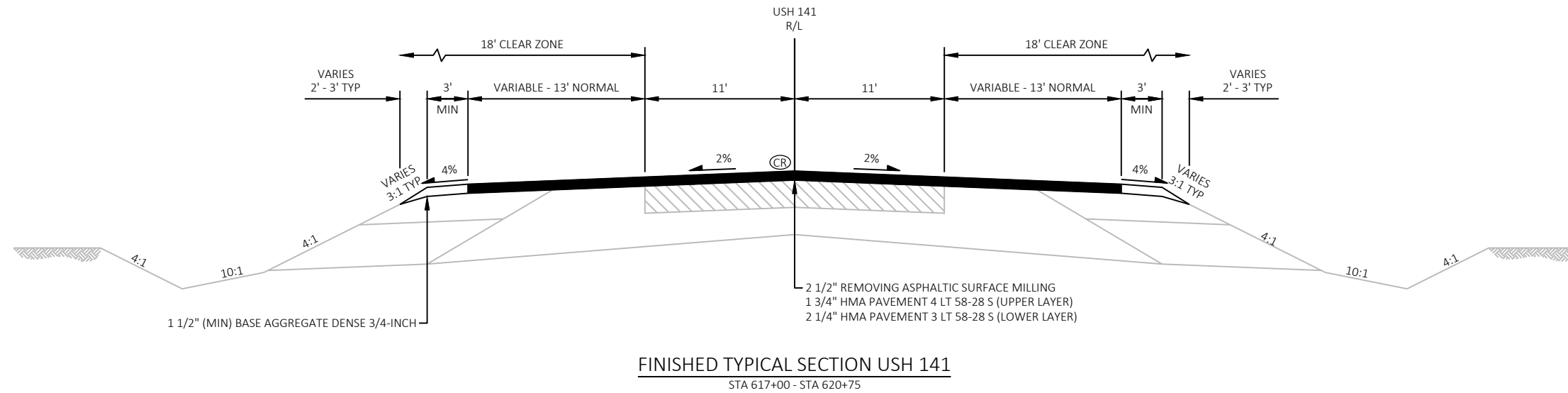


FINISHED TYPICAL SECTION USH 141
STA 611+79 - STA 617+00

NOTES

SEE CONSTRUCTION DETAILS FOR MILL DEPTH TRANSITION
LOCATION AND ADDITIONAL INFORMATION

SEE MARKING AND SECTION 5 PLAN SHEETS FOR LOCATIONS OF
EXISTING TURN LANES, MARKED MEDIANS, AND BYPASS LANES



NOTES

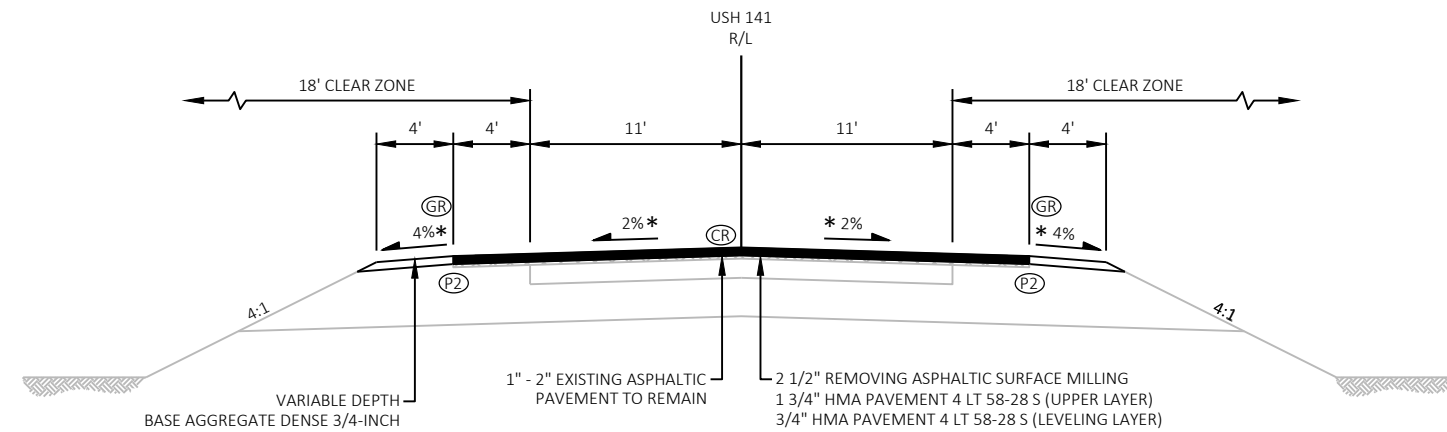
* CROSS SLOPE VARIES DUE TO SUPERELEVATION

GR SEE SECTION 5 PLAN SHEETS FOR PROPOSED GUARDRAIL LOCATIONS. SEE CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION ABOUT PROPOSED GUARDRAIL

SEE MARKING AND SECTION 5 PLAN SHEETS FOR LOCATIONS OF EXISTING TURN LANES, MARKED MEDIANS, AND BYPASS LANES

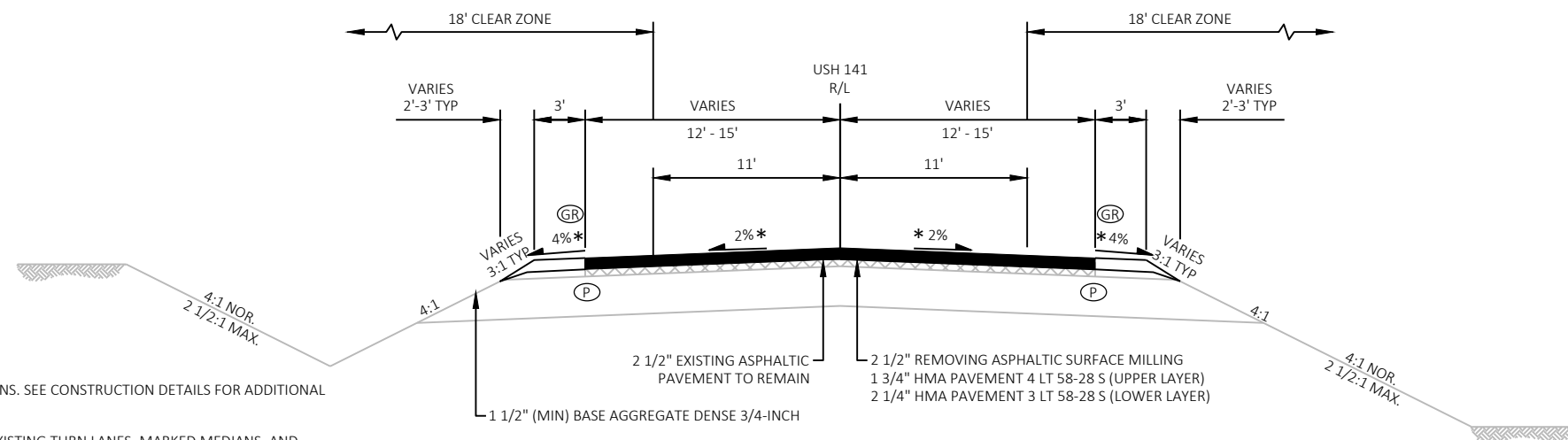
P PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS REQUIRED WHERE PROPOSED SHOULDER PAVING FOR GUARDRAIL IS WIDER THAN EXISTING PAVEMENT. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.

CR ASPHALTIC RUMBLE STRIPS, CENTERLINE, SEE SDD FOR "CENTERLINE RUMBLE STRIPS - ASPHALT" FOR ADDITIONAL INFORMATION.



FINISHED TYPICAL SECTION USH 141

STA 643+50 - STA 650+25

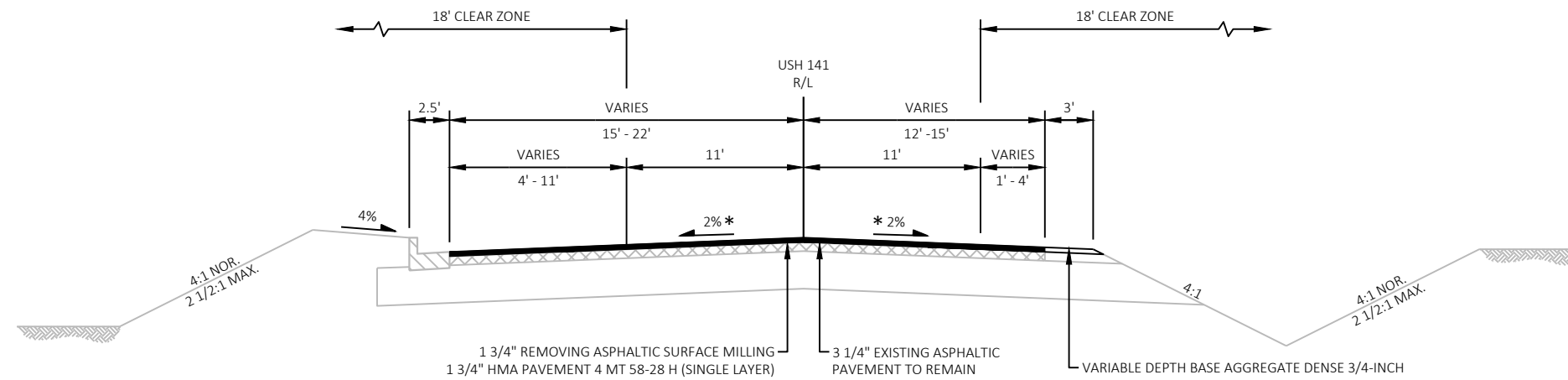


FINISHED TYPICAL SECTION USH 141

STA 714+40 - STA 721+20
STA 726+41 - STA 731+80

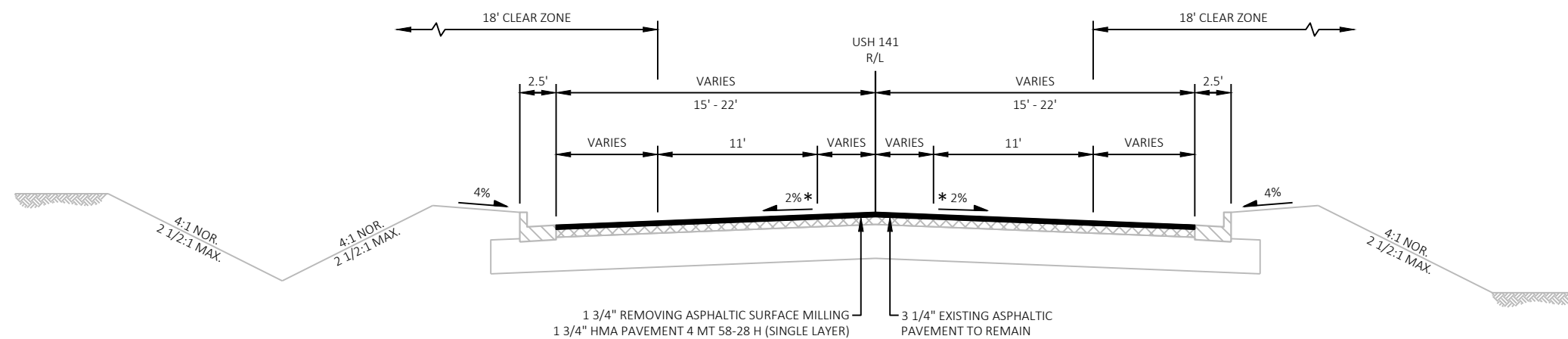
NOTES

- * CROSS SLOPE VARIES DUE TO SUPERELEVATION
- (GR) SEE SECTION 5 PLAN SHEETS FOR PROPOSED GUARDRAIL LOCATIONS. SEE CONSTRUCTION DETAILS FOR ADDITIONAL INFORMATION ABOUT PROPOSED GUARDRAIL
- SEE MARKING AND SECTION 5 PLAN SHEETS FOR LOCATIONS OF EXISTING TURN LANES, MARKED MEDIANS, AND BYPASS LANES
- (P) PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS REQUIRED WHERE PROPOSED SHOULDER PAVING FOR GUARDRAIL IS WIDER THAN EXISTING PAVEMENT. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.
- (P2) WHERE PROPOSED SHOULDER PAVING FOR GUARDRAIL IS WIDER THAN EXISTING PAVEMENT EXCAVATE THE EXISTING SHOULDER AGGREGATE WITH PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS AND PLACE THE LOWER (LEVELING) LAYER OF HMA PAVEMENT AT 1 3/4". DO NOT RAISE THE ROADWAY SURFACE. SEE MISCELLANEOUS QUANTITIES FOR LOCATIONS.
- (CR) ASPHALTIC RUMBLE STRIPS, CENTERLINE, SEE SDD FOR "CENTERLINE RUMBLE STRIPS - ASPHALT" FOR ADDITIONAL INFORMATION.



FINISHED TYPICAL SECTION USH 141

STA 721+20 - STA 722+47

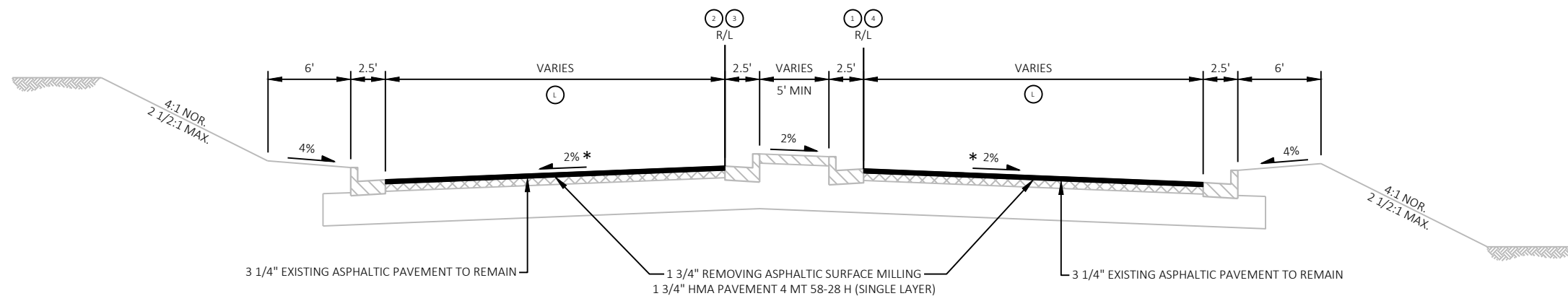


FINISHED TYPICAL SECTION USH 141

STA 722+47 - STA 722+94
STA 725+87 - STA 726+41

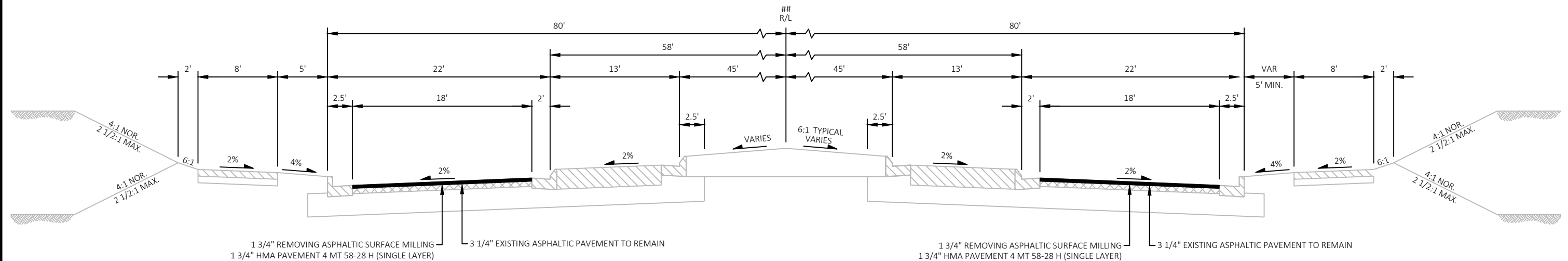
NOTES

- * CROSS SLOPE VARIES DUE TO SUPERELEVATION
- SEE SECTION 5 PLAN SHEETS FOR EXISTING RAISED MEDIAN LOCATIONS
- SEE MARKING SHEETS FOR ADDITIONAL TRAVEL LANE INFORMATION



FINISHED TYPICAL SECTION USH 141/ALLOUEZ AVE ROUNDABOUT APPROACHES

- ① STA 722+94 - STA 723+50 (USH 141)
- ② STA 725+14 - STA 725+87 (USH 141)
- ③ STA 498+45 - STA 499+22 (ALLOUEZ AVE)
- ④ STA 500+78 - STA 501+40 (ALLOUEZ AVE)

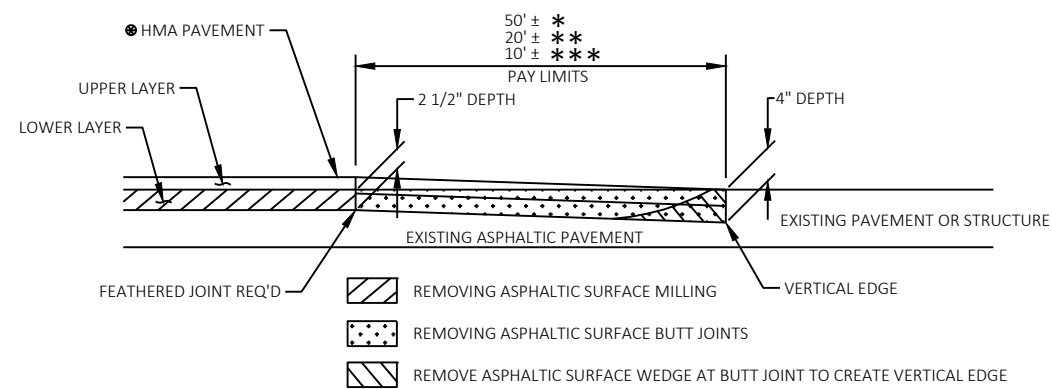


NOTES

- ## SEE SECTION 5 PLAN SHEETS FOR LOCATION OF REFERENCE LINE
- SEE SECTION 5 PLAN SHEETS FOR EXISTING RAISED MEDIAN LOCATIONS
- Ⓛ LANE WIDTHS AND LOCATIONS VARY, SEE SECTION 5 AND MARKING SHEETS FOR ADDITIONAL INFORMATION

FINISHED TYPICAL SECTION USH 141/ALLOUEZ AVE

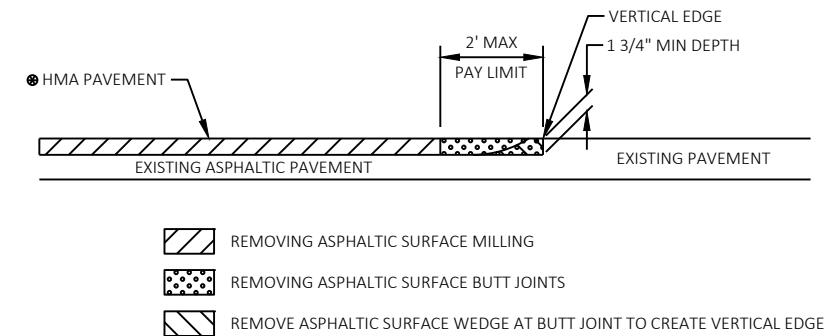
STA 723+50 - STA 725+14 (USH 141)
STA 499+22 - STA 500+78 (ALLOUEZ AVE)



BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS (PROFILE CHANGE)

*** STH 29, RT
*** GLENMORE RD, LT
*** ONTARIO RD, RT
*** APPLE RIDGE CT, LT
*** SANTA MONICA BLVD, LT
*** KLONDIKE RD, LT & RT
*** BEL MEADOW DR, LT
*** CONTINENTAL CT, LT
*** CONTINENTAL DR, RT
* END PROJECT LIMIT
*** PRIVATE ENTRANCES

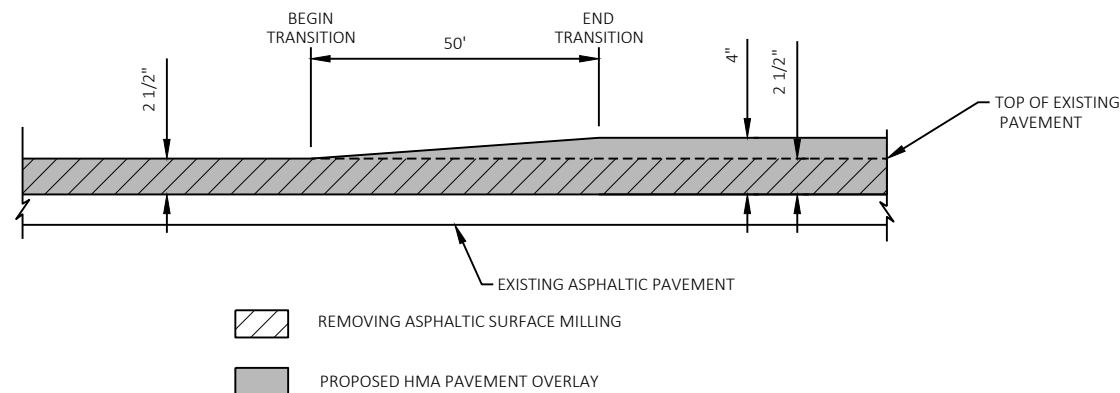
NOTE
● SEE TYPICAL SECTIONS FOR
PAVEMENT TYPE AND THICKNESS
OF INDIVIDUAL LAYERS



BUTT JOINT DETAIL FOR MILLED ASPHALTIC PAVEMENTS (NO PROFILE CHANGE)

BEGIN PROJECT LIMIT
MAIN ST, RT
WALL ST, RT
NOEL DR, LT
ALLOUEZ AVE, LT & RT
PRIVATE ENTRANCES

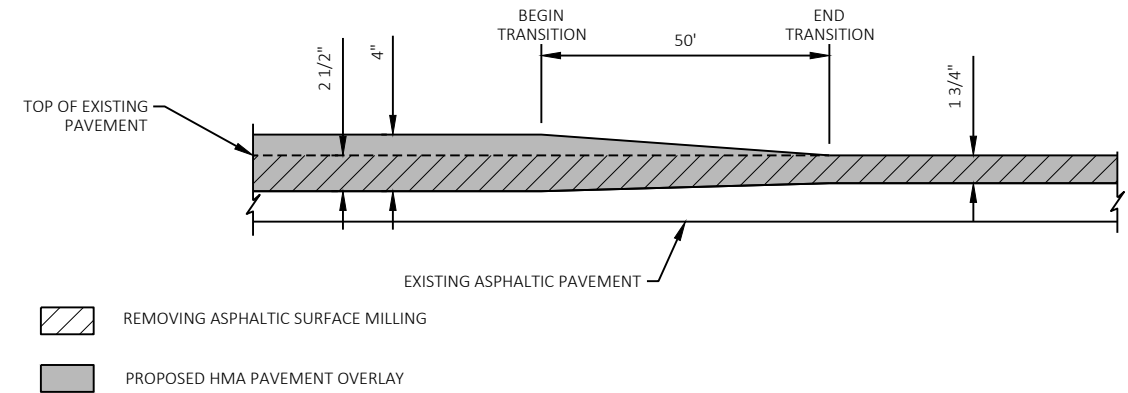
NOTE
● SEE TYPICAL SECTIONS FOR
PAVEMENT TYPE AND THICKNESS
OF INDIVIDUAL LAYERS



PAVEMENT DEPTH TRANSITION DETAIL

STA 617+00 - STA 617+50
STA 643+00 - STA 643+50
STA 650+25 - STA 650+75

NOTE
MIRROR DETAIL FOR STA
643+00 - STA 643+50

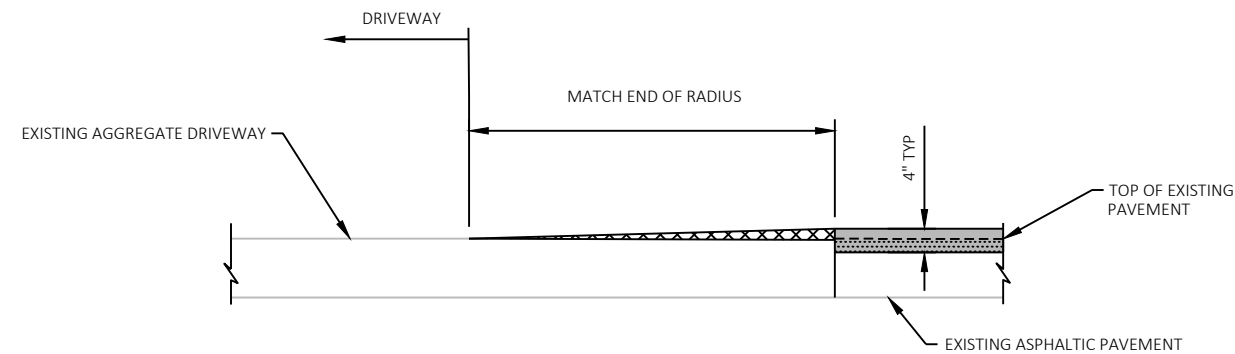


MILL DEPTH TRANSITION DETAIL

STA 720+70 - STA 721+20
STA 726+41 - STA 726+91


NOTES
MIRROR DETAIL FOR STA 726+41 - STA 726+91

SEE TYPICAL SECTIONS FOR MORE INFORMATION ON HMA
MIX TYPES IN THE PAVEMENT DEPTH TRANSITION AREAS



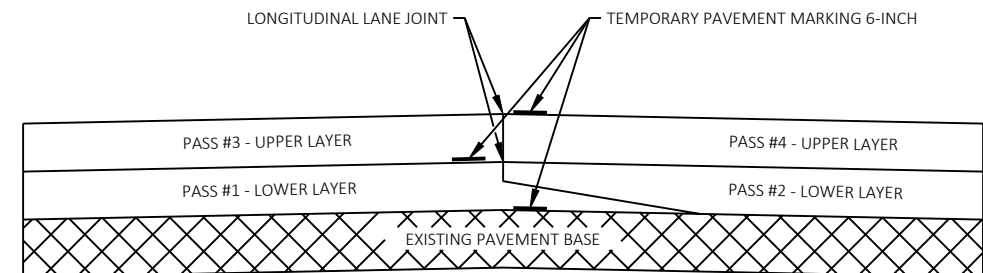
 BASE AGGREGATE DENSE 3/4-INCH (VARIABLE DEPTH)

 REMOVING ASPHALTIC SURFACE MILLING

 PROPOSED HMA PAVEMENT OVERLAY

AGGREGATE DRIVEWAY PROFILE MATCH DETAIL

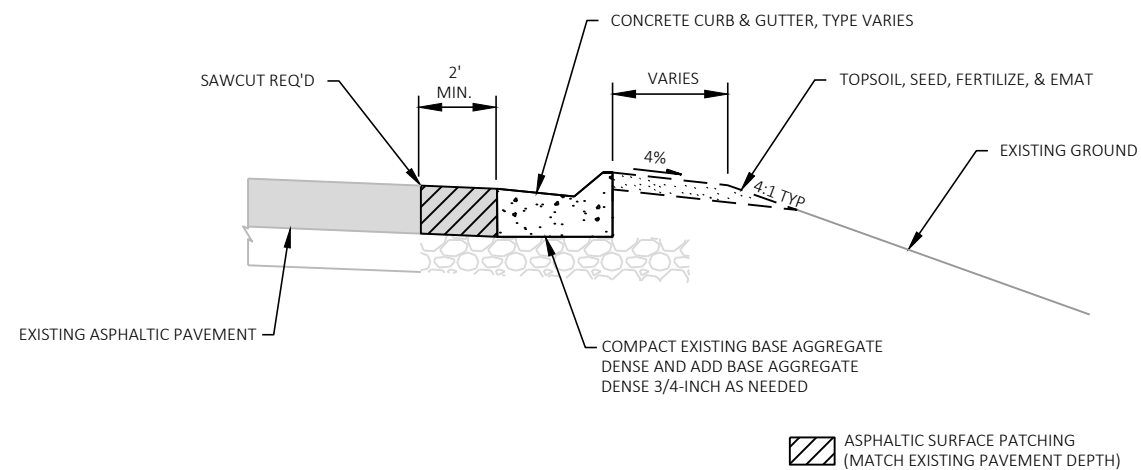
SEE SECTION 5 PLAN SHEETS FOR LOCATIONS



TEMPORARY PAVEMENT MARKING DETAIL FOR CENTERLINE JOINTS IN HMA PAVEMENTS

SEE TYPICAL SECTIONS FOR HMA PAVEMENT INFORMATION

NOTE
INSTALL TEMPORARY EDGELINE MARKING
PER THE MISCELLANEOUS QUANTITIES



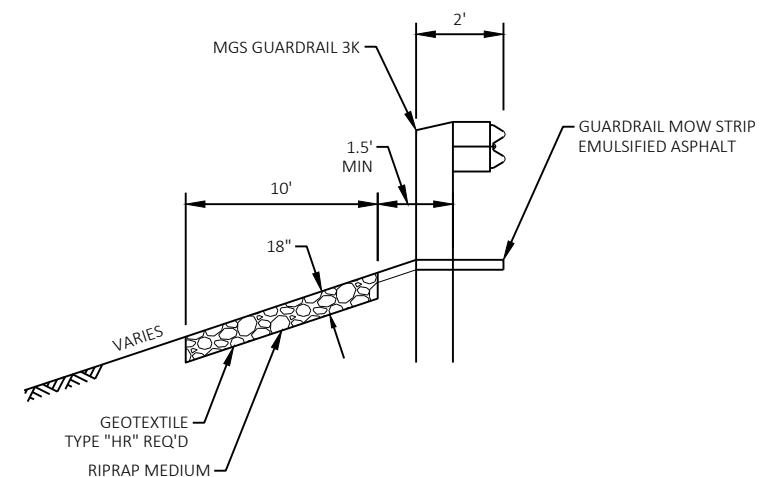
DETAIL OF CURB & GUTTER INSTALLATION

NOTES

COMPLETE CURB & GUTTER REPLACEMENTS AND ASPHALTIC SURFACE PATCHING TO MATCH THE EXISTING SURFACE PRIOR TO THE MILL AND OVERLAY

FOR DETAILS NOT SHOWN, SEE SDD "CONCRETE CURB AND GUTTER" AND SDD "CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS"

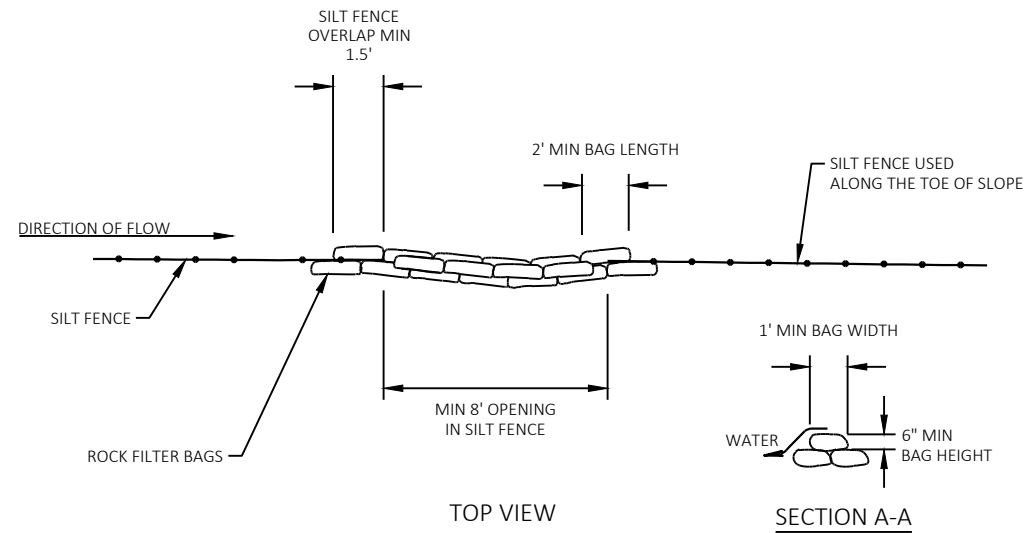
SEE INTERSECTION DETAILS, CURB RAMP DETAILS, MISCELLANEOUS QUANTITIES, AND SECTION 5 PLAN SHEETS FOR ADDITIONAL INFORMATION



MEDIUM RIPRAP AND GUARDRAIL MOW STRIP DETAIL

STA 728+10 - STA 729+50, RT

NOTES
SEE CONSTRUCTION DETAILS - GUARDRAIL
FOR DIMENSIONS AND LOCATIONS OF OTHER
MOW STRIPS

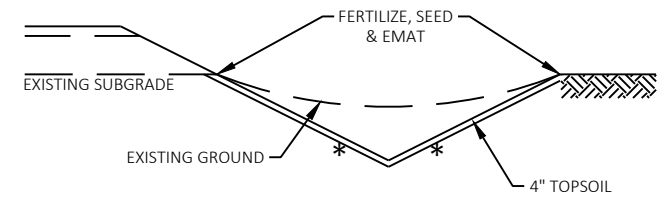


ROCK BAGS USED FOR SILT FENCE RELIEF

NOTES

PLACE AT LOW POINT OF SILT FENCE AS DIRECTED BY THE ENGINEER

SEE EROSION CONTROL SHEETS FOR LOCATIONS

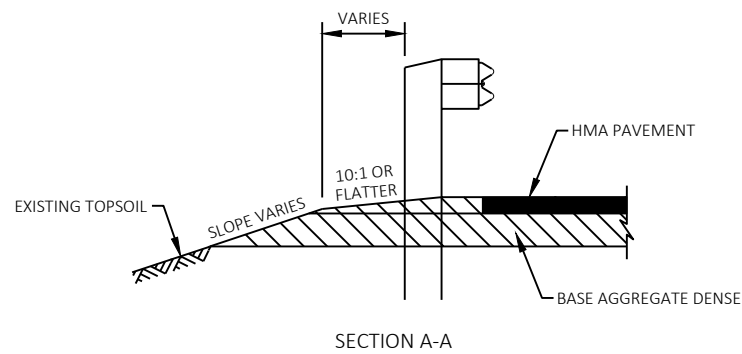


DITCH CLEANING DETAIL

STA 612+75 - STA 613+15, RT

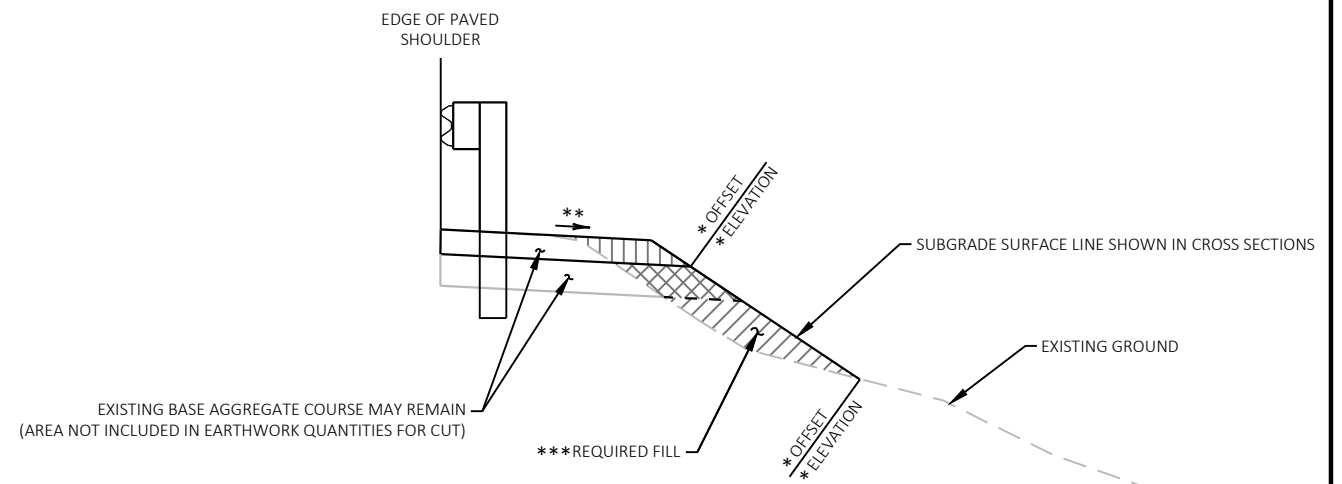
NOTE

* SLOPES VARY, 4:1 MAX



DETAIL FOR ASPHALTIC SHOULDER AT BEAM GUARD

SEE CONSTRUCTION DETAILS - GUARDRAIL FOR LOCATIONS



SHOULDER WIDENING EARTHWORK & BASE AGGREGATE FOR GUARDRAIL DETAIL

SEE SECTION 5 PLAN SHEETS, CROSS SECTIONS, AND TYPICAL SECTIONS FOR LOCATIONS

NOTES

BENCH FILL AS REQUIRED PER STANDARD SPECIFICATION 205.3.2(4)

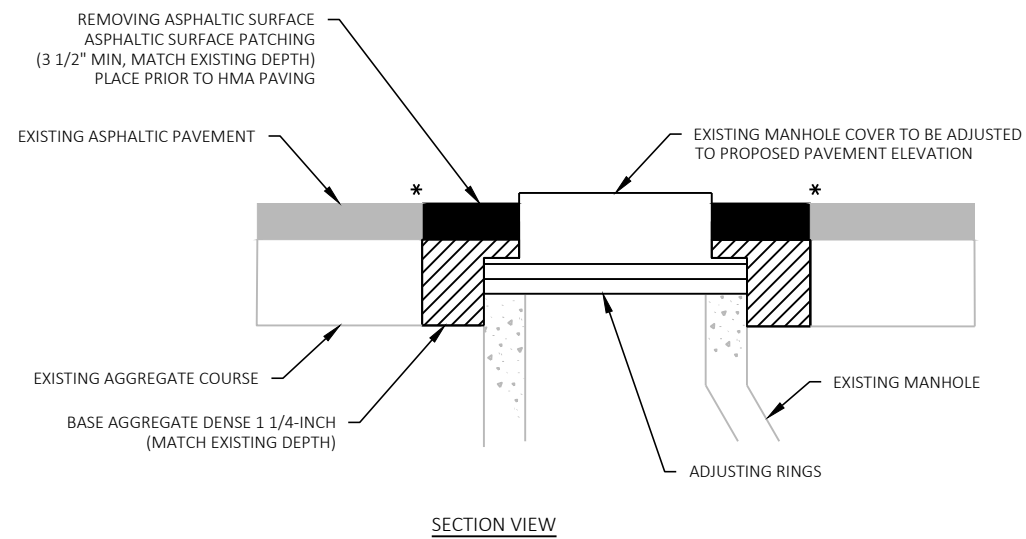
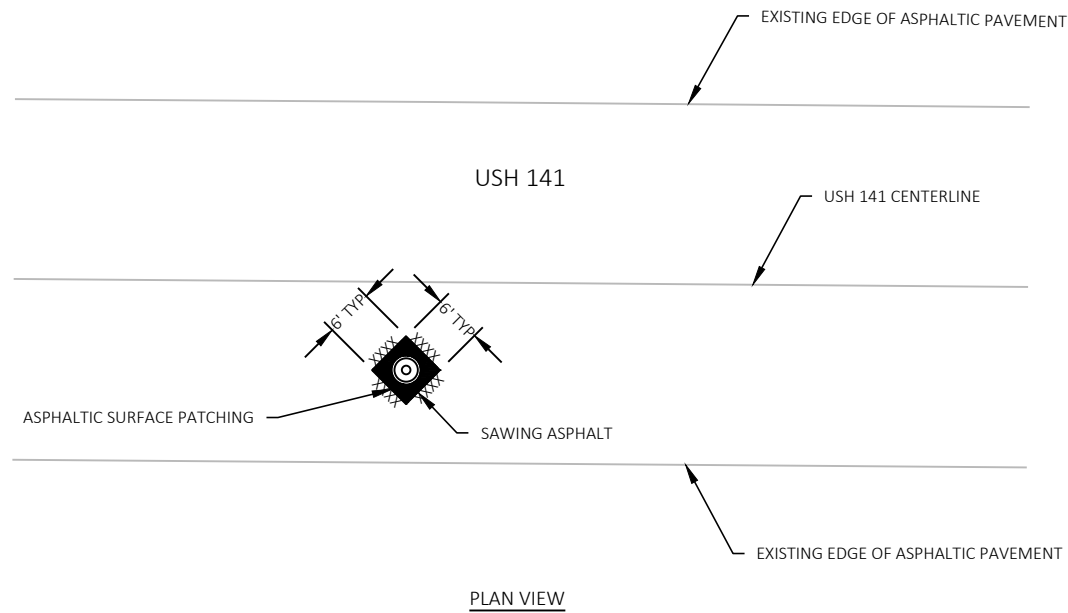
* OFFSET AND ELEVATION PROVIDED TO THESE POINTS ON THE CROSS SECTIONS

** SHOULDER SLOPE PROVIDED ON CROSS SECTIONS

*** PAID FOR UNDER THE BARRIER SYSTEM GRADING SHAPING FINISHING ITEM

LEGEND

	NEW BASE AGGREGATE DENSE 3/4-INCH
	NEW BASE AGGREGATE DENSE 1 1/4-INCH
	FILL




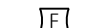


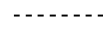

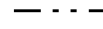
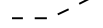
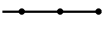


ADJUSTING SANITARY SEWER MANHOLE COVERS DETAIL

STA 663+65, 50' LT
STA 723+81, 89' RT
STA 726+59, 0' LT
STA 740+76, 50' RT

NOTES

* SAWCUT REQ'D

NO CHIMNEY SEALS ARE PRESENT



LEGEND

EROSION MAT URBAN CLASS I TYPE B

RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL)

SILT FENCE

SLOPE INTERCEPT

DELINEATED WETLAND BOUNDARY

SURFACE WATER FLOW

CROSS DRAIN MAINTENANCE (SEE SECTION 5 SHEETS)

TEMPORARY DITCH CHECKS

CULVERT PIPE CHECKS

SILT FENCE RELIEF (ROCK BAGS)

INLET PROTECTION TYPE C (UNLESS OTHERWISE NOTED)

NOTES

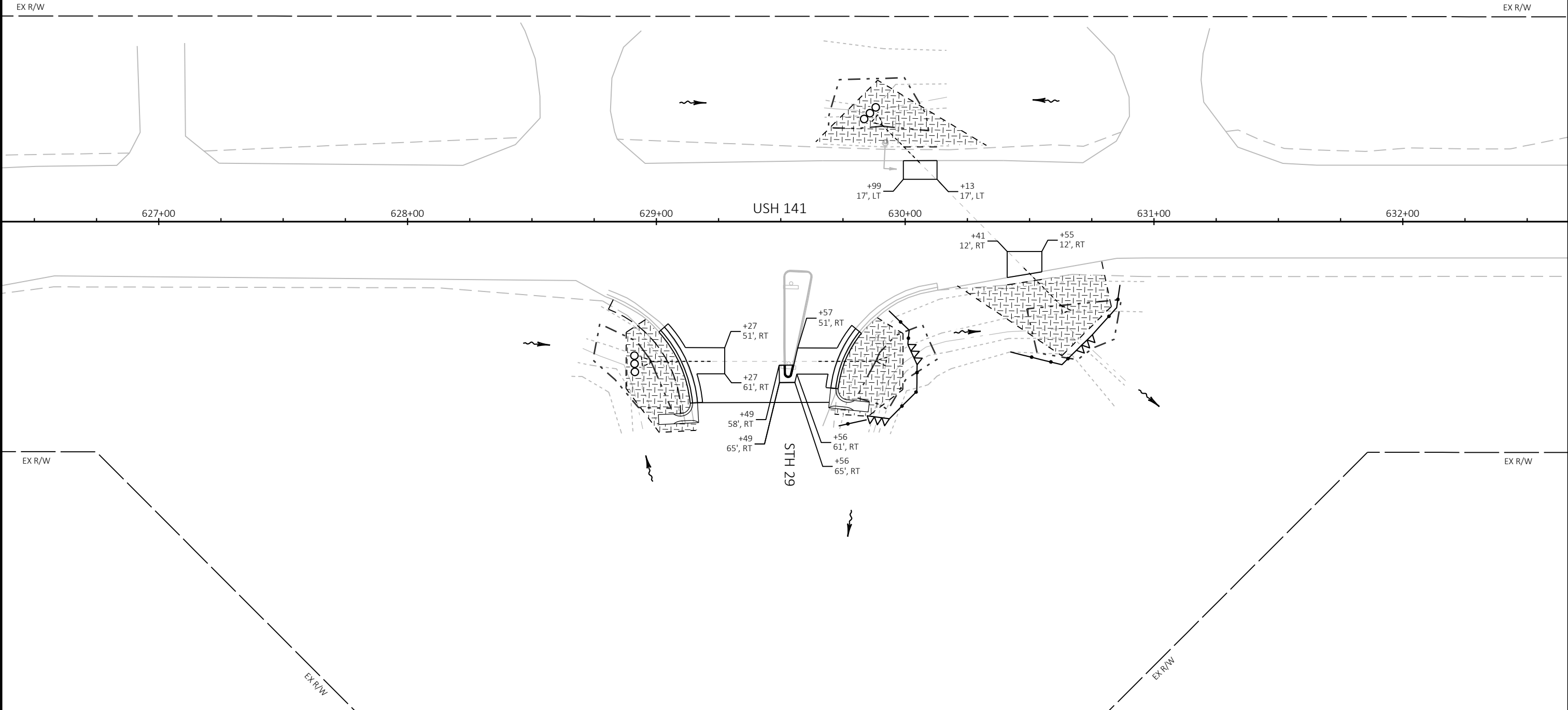
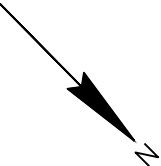
PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

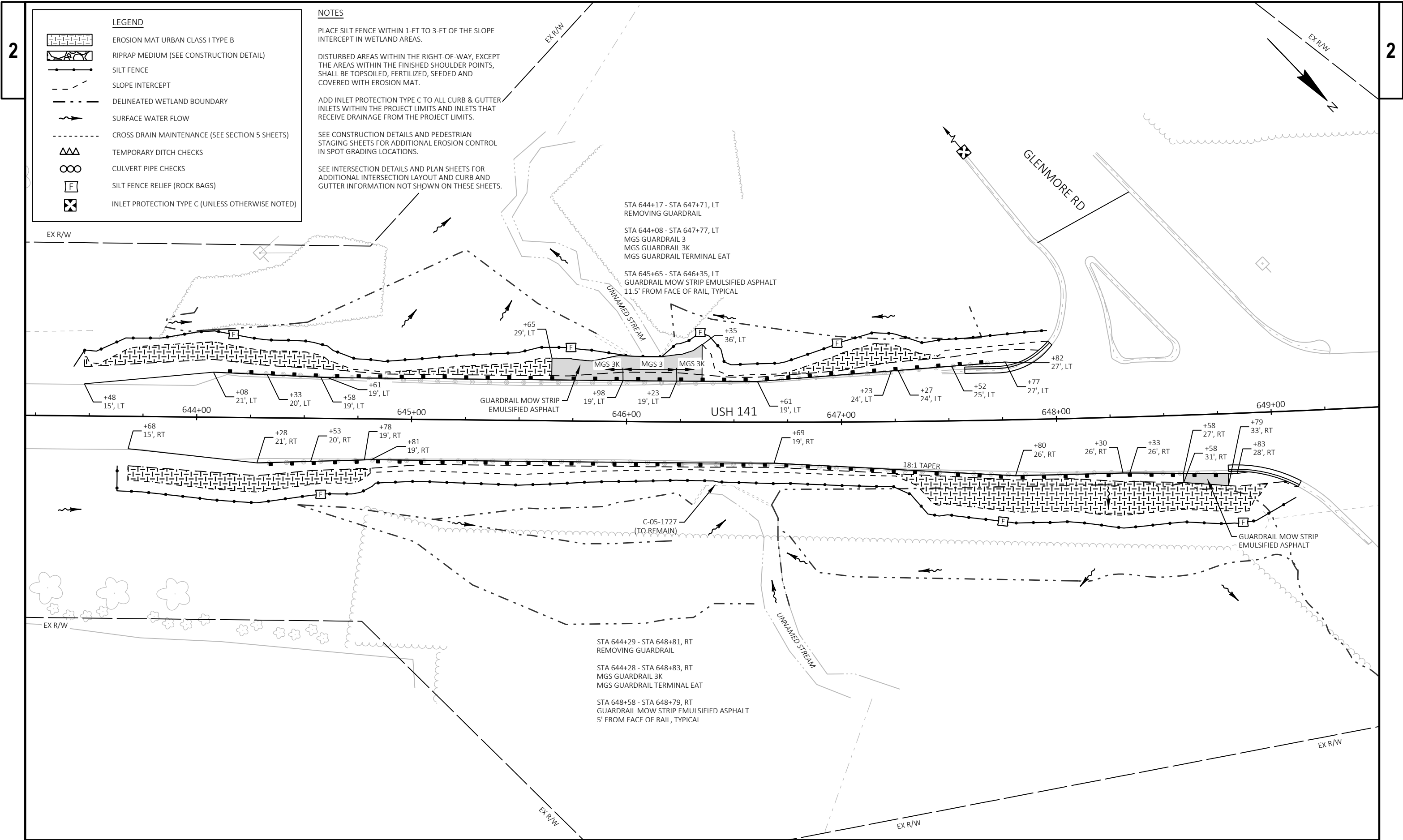
DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH EROSION MAT.

ADD INLET PROTECTION TYPE C TO ALL CURB & GUTTER INLETS WITHIN THE PROJECT LIMITS AND INLETS THAT RECEIVE DRAINAGE FROM THE PROJECT LIMITS.

SEE CONSTRUCTION DETAILS AND PEDESTRIAN STAGING SHEETS FOR ADDITIONAL EROSION CONTROL IN SPOT GRADING LOCATIONS.

SEE INTERSECTION DETAILS AND PLAN SHEETS FOR ADDITIONAL INTERSECTION LAYOUT AND CURB AND GUTTER INFORMATION NOT SHOWN ON THESE SHEETS.





LEGEND

- EROSION MAT URBAN CLASS I TYPE B
- RIPRAP MEDIUM (SEE CONSTRUCTION DETAIL)
- SILT FENCE
- SLOPE INTERCEPT
- DELINEATED WETLAND BOUNDARY
- SURFACE WATER FLOW
- CROSS DRAIN MAINTENANCE (SEE SECTION 5 SHEETS)
- TEMPORARY DITCH CHECKS
- CULVERT PIPE CHECKS
- SILT FENCE RELIEF (ROCK BAGS)
- INLET PROTECTION TYPE C (UNLESS OTHERWISE NOTED)

NOTES

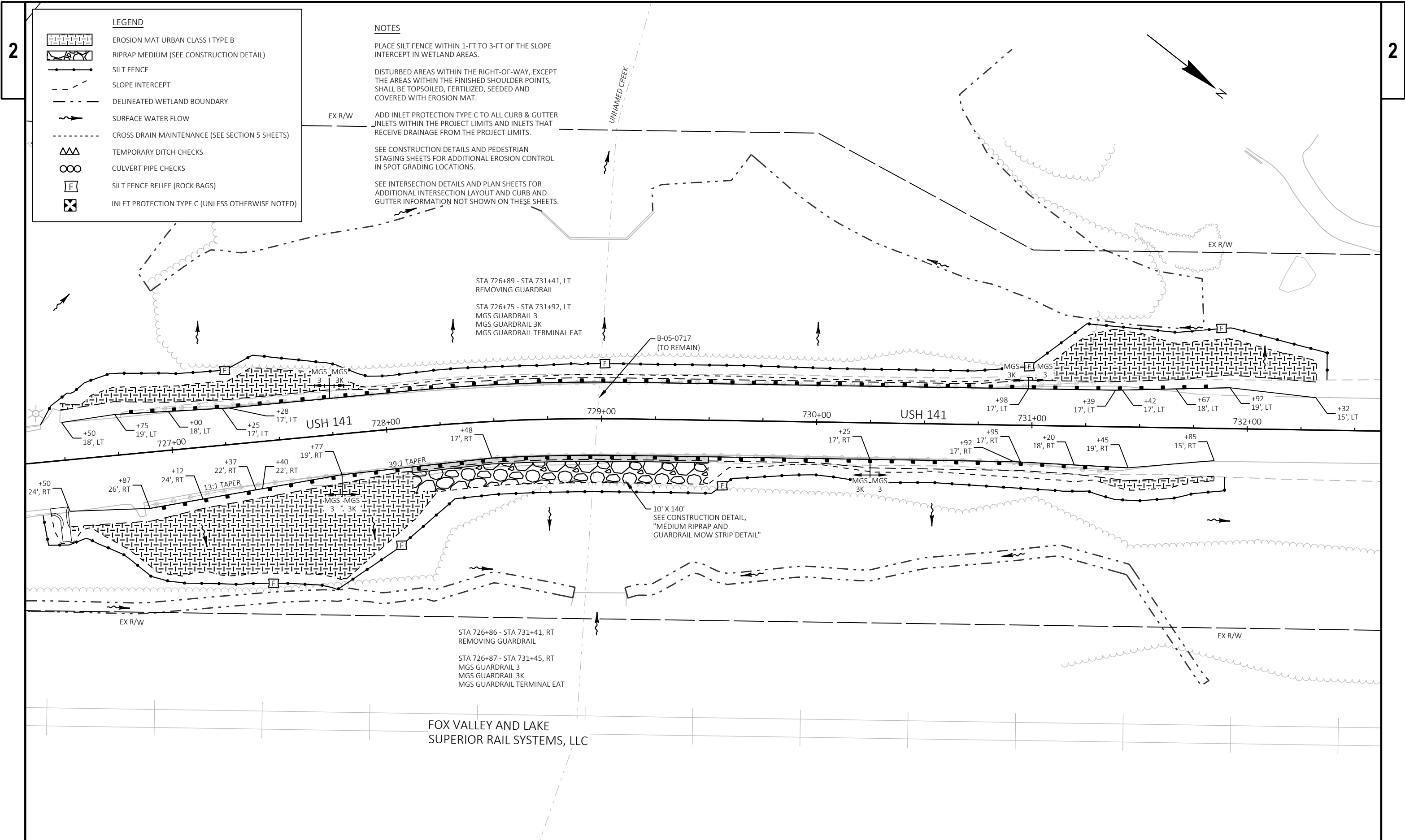
PLACE SILT FENCE WITHIN 1-FT TO 3-FT OF THE SLOPE INTERCEPT IN WETLAND AREAS.

DISTURBED AREAS WITHIN THE RIGHT-OF-WAY, EXCEPT THE AREAS WITHIN THE FINISHED SHOULDER POINTS, SHALL BE TOPSOILED, FERTILIZED, SEEDED AND COVERED WITH EROSION MAT.

ADD INLET PROTECTION TYPE C TO ALL CURB & GUTTER INLETS WITHIN THE PROJECT LIMITS AND INLETS THAT RECEIVE DRAINAGE FROM THE PROJECT LIMITS.

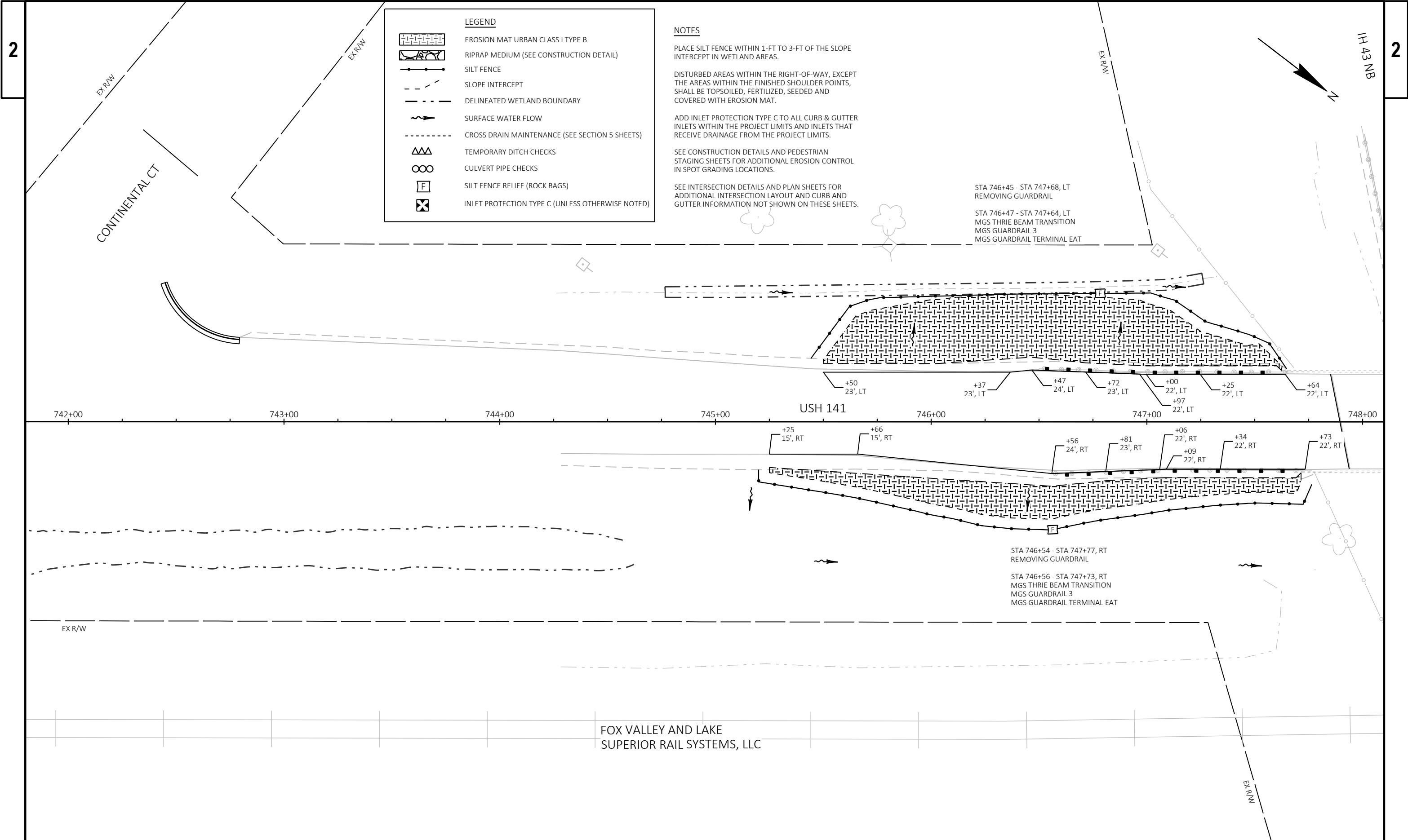
SEE CONSTRUCTION DETAILS AND PEDESTRIAN STAGING SHEETS FOR ADDITIONAL EROSION CONTROL IN SPOT GRADING LOCATIONS.

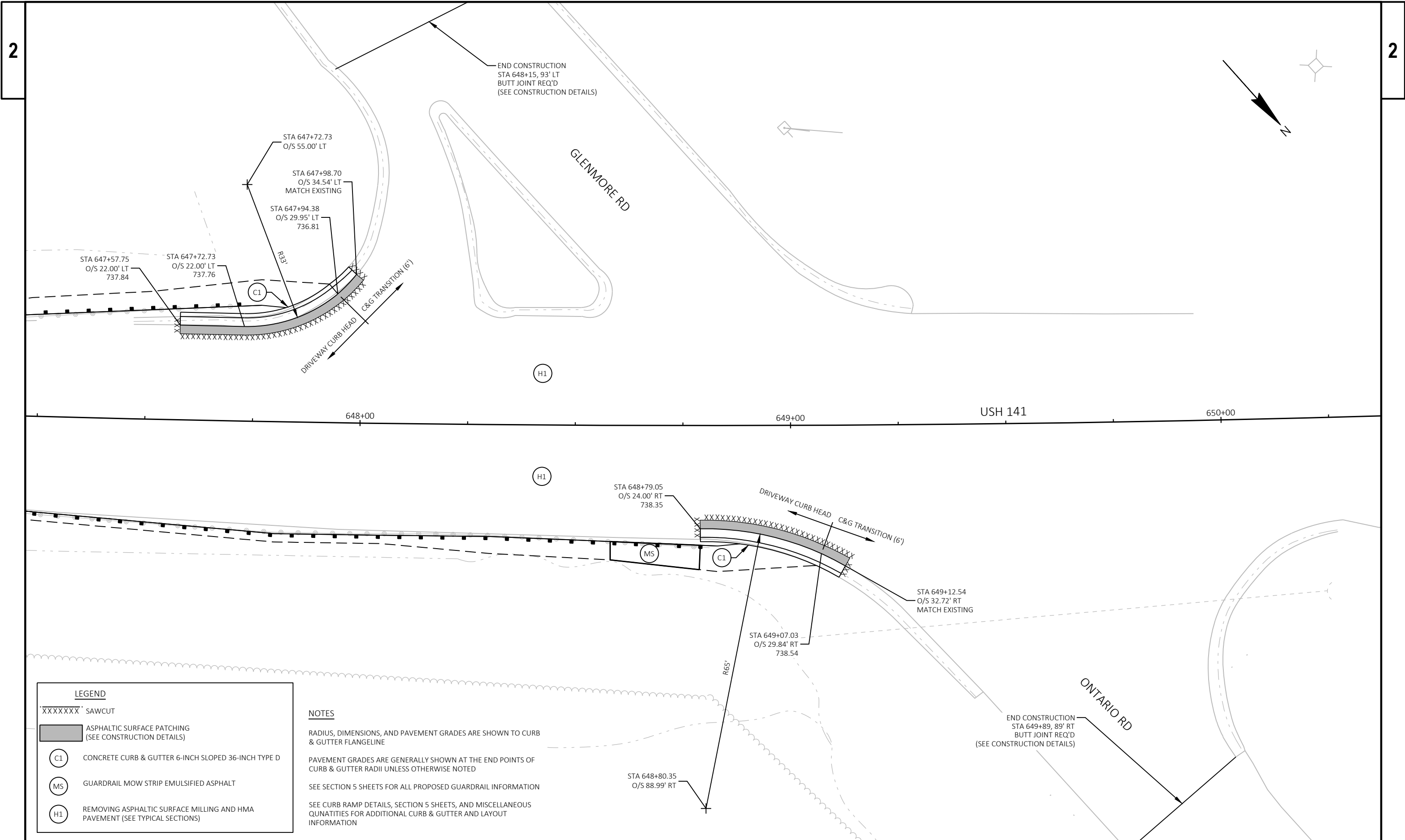
SEE INTERSECTION DETAILS AND PLAN SHEETS FOR ADDITIONAL INTERSECTION LAYOUT AND CURB AND GUTTER INFORMATION NOT SHOWN ON THESE SHEETS.



2

2





LEGEND

XXXXXXX SAWCUT

ASPHALTIC SURFACE PATCHING
(SEE CONSTRUCTION DETAILS)

C1 CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D

MS GUARDRAIL MOW STRIP EMULSIFIED ASPHALT

H1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT (SEE TYPICAL SECTIONS)

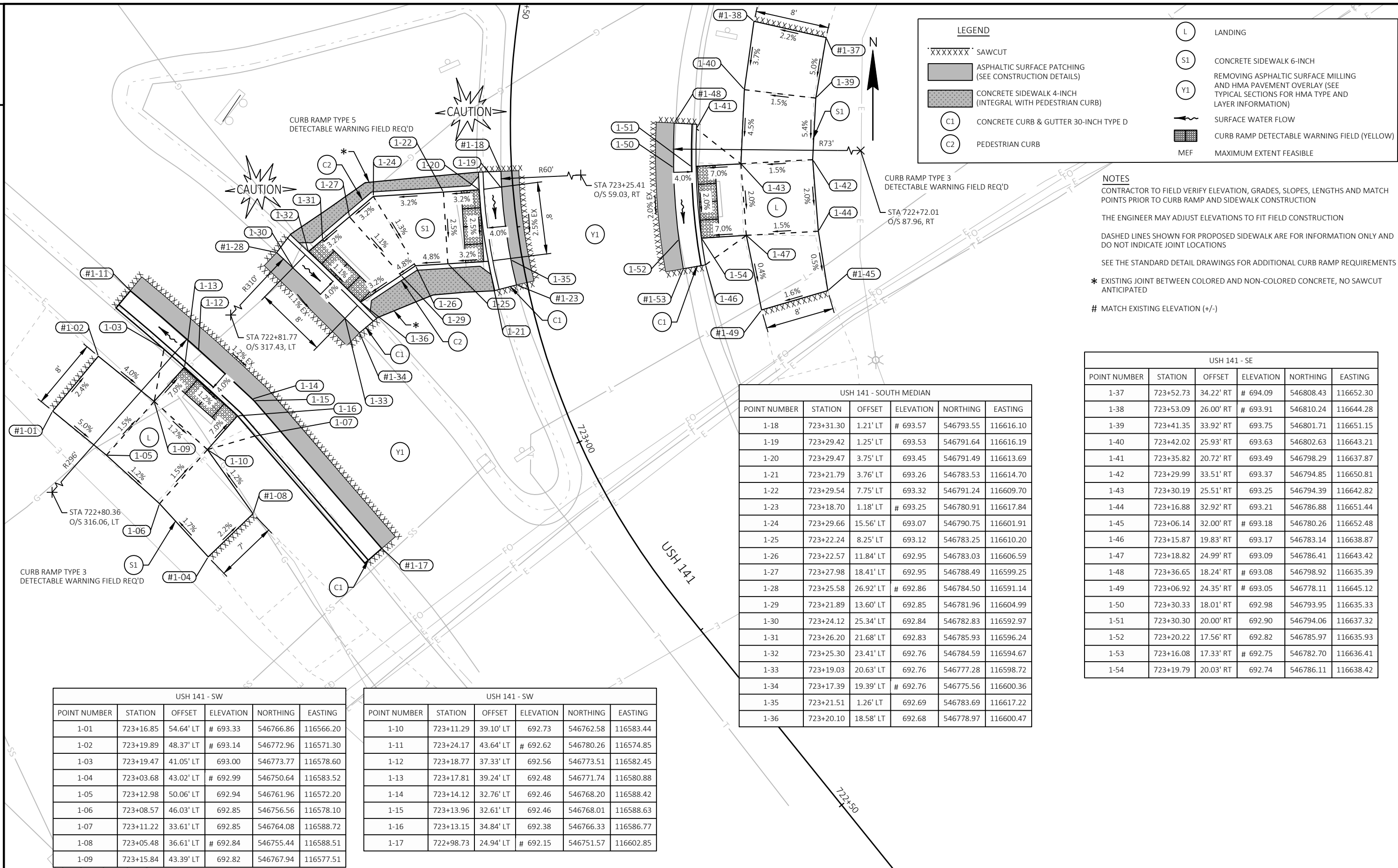
NOTES

RADIUS, DIMENSIONS, AND PAVEMENT GRADES ARE SHOWN TO CURB & GUTTER FLANGELINE

PAVEMENT GRADES ARE GENERALLY SHOWN AT THE END POINTS OF CURB & GUTTER RADII UNLESS OTHERWISE NOTED

SEE SECTION 5 SHEETS FOR ALL PROPOSED GUARDRAIL INFORMATION

SEE CURB RAMP DETAILS, SECTION 5 SHEETS, AND MISCELLANEOUS QUNATITIES FOR ADDITIONAL CURB & GUTTER AND LAYOUT INFORMATION



NOTES
CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR ADDITIONAL CURB RAMP REQUIREMENTS

* EXISTING JOINT BETWEEN COLORED AND NON-COLORED CONCRETE, NO SAWCUT ANTICIPATED

MATCH EXISTING ELEVATION (+/-)

USH 141 - SOUTH MEDIAN					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1-18	723+31.30	1.21' LT	# 693.57	546793.55	116616.10
1-19	723+29.42	1.25' LT	693.53	546791.64	116616.19
1-20	723+29.47	3.75' LT	693.45	546791.49	116613.69
1-21	723+21.79	3.76' LT	693.26	546783.53	116614.70
1-22	723+29.54	7.75' LT	693.32	546791.24	116609.70
1-23	723+18.70	1.18' LT	# 693.25	546780.91	116617.84
1-24	723+29.66	15.56' LT	693.07	546790.75	116601.91
1-25	723+22.24	8.25' LT	693.12	546783.25	116610.20
1-26	723+22.57	11.84' LT	692.95	546783.03	116606.59
1-27	723+27.98	18.41' LT	692.95	546788.49	116599.25
1-28	723+25.58	26.92' LT	# 692.86	546784.50	116591.14
1-29	723+21.89	13.60' LT	692.85	546781.96	116604.99
1-30	723+24.12	25.34' LT	692.84	546782.83	116592.97
1-31	723+26.20	21.68' LT	692.83	546785.93	116596.24
1-32	723+25.30	23.41' LT	692.76	546784.59	116594.67
1-33	723+19.03	20.63' LT	692.76	546777.28	116598.72
1-34	723+17.39	19.39' LT	# 692.76	546775.56	116600.36
1-35	723+21.51	1.26' LT	692.69	546783.69	116617.22
1-36	723+20.10	18.58' LT	692.68	546778.97	116600.47

USH 141 - SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1-37	723+52.73	34.22' RT	# 694.09	546808.43	116652.30
1-38	723+53.09	26.00' RT	# 693.91	546810.24	116644.28
1-39	723+41.35	33.92' RT	693.75	546801.71	116651.15
1-40	723+42.02	25.93' RT	693.63	546802.63	116643.21
1-41	723+35.82	20.72' RT	693.49	546798.29	116637.87
1-42	723+29.99	33.51' RT	693.37	546794.85	116650.81
1-43	723+30.19	25.51' RT	693.25	546794.39	116642.82
1-44	723+16.88	32.92' RT	693.21	546786.88	116651.44
1-45	723+06.14	32.00' RT	# 693.18	546780.26	116652.48
1-46	723+15.87	19.83' RT	693.17	546783.14	116638.87
1-47	723+18.82	24.99' RT	693.09	546786.41	116643.42
1-48	723+36.65	18.24' RT	# 693.08	546798.92	116635.39
1-49	723+06.92	24.35' RT	# 693.05	546778.11	116645.12
1-50	723+30.33	18.01' RT	692.98	546793.95	116635.33
1-51	723+30.30	20.00' RT	692.90	546794.06	116637.32
1-52	723+20.22	17.56' RT	692.82	546785.97	116635.93
1-53	723+16.08	17.33' RT	# 692.75	546782.70	116636.41
1-54	723+19.79	20.03' RT	692.74	546786.11	116638.42

USH 141 - SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1-01	723+16.85	54.64' LT	# 693.33	546766.86	116566.20
1-02	723+19.89	48.37' LT	# 693.14	546772.96	116571.30
1-03	723+19.47	41.05' LT	693.00	546773.77	116578.60
1-04	723+03.68	43.02' LT	# 692.99	546750.64	116583.52
1-05	723+12.98	50.06' LT	692.94	546761.96	116572.20
1-06	723+08.57	46.03' LT	692.85	546756.56	116578.10
1-07	723+11.22	33.61' LT	692.85	546764.08	116588.72
1-08	723+05.48	36.61' LT	# 692.84	546755.44	116588.51
1-09	723+15.84	43.39' LT	692.82	546767.94	116577.51

USH 141 - SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
1-10	723+11.29	39.10' LT	692.73	546762.58	116583.44
1-11	723+24.17	43.64' LT	# 692.62	546780.26	116574.85
1-12	723+18.77	37.33' LT	692.56	546773.51	116582.45
1-13	723+17.81	39.24' LT	692.48	546771.74	116580.88
1-14	723+14.12	32.76' LT	692.46	546768.20	116588.42
1-15	723+13.96	32.61' LT	692.46	546768.01	116588.63
1-16	723+13.15	34.84' LT	692.38	546766.33	116586.77
1-17	722+98.73	24.94' LT	# 692.15	546751.57	116602.85

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR ADDITIONAL CURB RAMP REQUIREMENTS

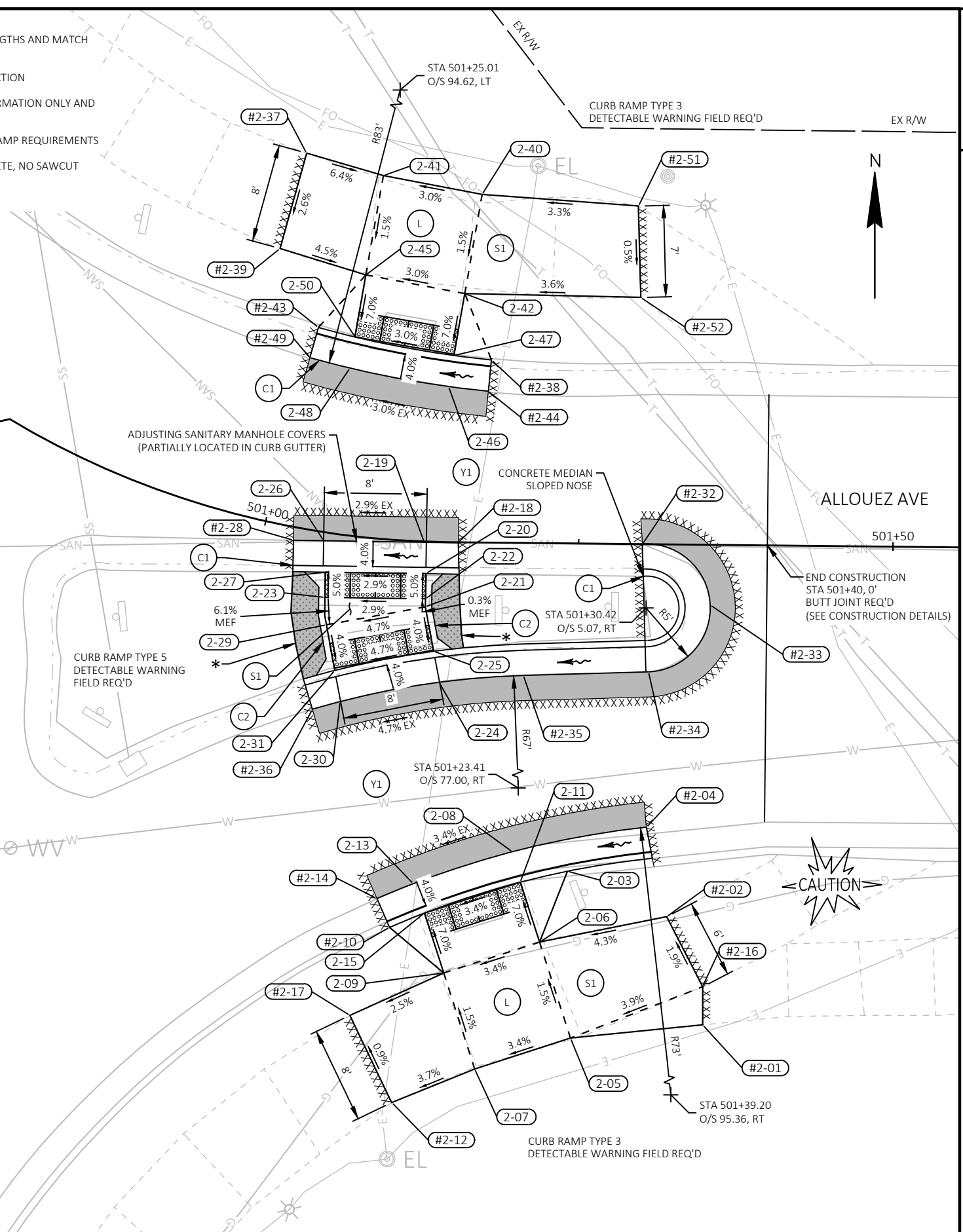
* EXISTING JOINT BETWEEN COLORED AND NON-COLORED CONCRETE, NO SAWCUT ANTICIPATED

MATCH EXISTING ELEVATION (+/-)

ALLOUEZ AVE - NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-46	501+14.52	12.38' LT	697.00	546903.37	116685.09
2-47	501+14.92	14.84' LT	696.92	546905.83	116685.51
2-48	501+04.79	13.21' LT	696.77	546904.82	116677.25
2-49	501+00.73	13.44' LT	# 696.69	546905.64	116674.07
2-50	501+04.85	15.72' LT	696.69	546907.30	116677.67
2-51	501+29.48	26.87' LT	# 697.80	546917.71	116700.19
2-52	501+29.74	19.61' LT	# 697.76	546910.44	116700.38

ALLOUEZ AVE - EAST MEDIAN					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-28	501+02.45	1.04' RT	# 696.75	546891.13	116672.77
2-29	501+05.89	7.26' RT	696.67	546884.41	116675.39
2-30	501+07.50	13.17' RT	696.67	546878.32	116676.49
2-31	501+06.88	10.78' RT	696.58	546880.78	116676.04
2-32	501+30.07	0.01' LT	# 697.71	546890.84	116700.51
2-33	501+35.50	4.78' RT	# 697.76	546885.99	116705.89
2-34	501+30.64	10.16' RT	# 697.70	546880.67	116700.98
2-35	501+20.71	10.54' RT	# 697.31	546880.39	116691.04
2-36	501+05.72	14.06' RT	# 696.56	546877.70	116674.27

ALLOUEZ AVE - SE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
2-10	501+11.56	30.77' RT	# 696.88	546860.36	116680.40
2-11	501+20.63	26.98' RT	696.77	546863.95	116690.80
2-12	501+12.11	44.66' RT	# 696.74	546846.43	116680.57
2-13	501+12.79	27.21' RT	696.57	546863.84	116682.30
2-14	501+10.77	28.53' RT	# 696.50	546862.65	116679.40
2-15	501+13.47	29.52' RT	696.49	546861.50	116683.18
2-16	501+35.19	35.16' RT	# 697.72	546855.62	116705.27
2-17	501+09.78	37.96' RT	# 696.68	546853.35	116677.26



LEGEND

XXXXXXX SAWCUT

ASPHALTIC SURFACE PATCHING
(SEE CONSTRUCTION DETAILS)CONCRETE SIDEWALK 4-INCH
(INTEGRAL WITH PEDESTRIAN CURB)

C1 CONCRETE CURB & GUTTER 30-INCH TYPE D

C2 PEDESTRIAN CURB

L

LANDING

S1

CONCRETE SIDEWALK 6-INCH

Y1

REMOVING ASPHALTIC SURFACE MILLING
AND HMA PAVEMENT OVERLAY (SEE
TYPICAL SECTIONS FOR HMA TYPE AND
LAYER INFORMATION)

SURFACE WATER FLOW

CURB RAMP DETECTABLE WARNING FIELD (YELLOW)

MEF

MAXIMUM EXTENT FEASIBLE

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH
POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

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SEE THE STANDARD DETAIL DRAWINGS FOR ADDITIONAL CURB RAMP REQUIREMENTS

* EXISTING JOINT BETWEEN COLORED AND NON-COLORED CONCRETE, NO SAWCUT
ANTICIPATED

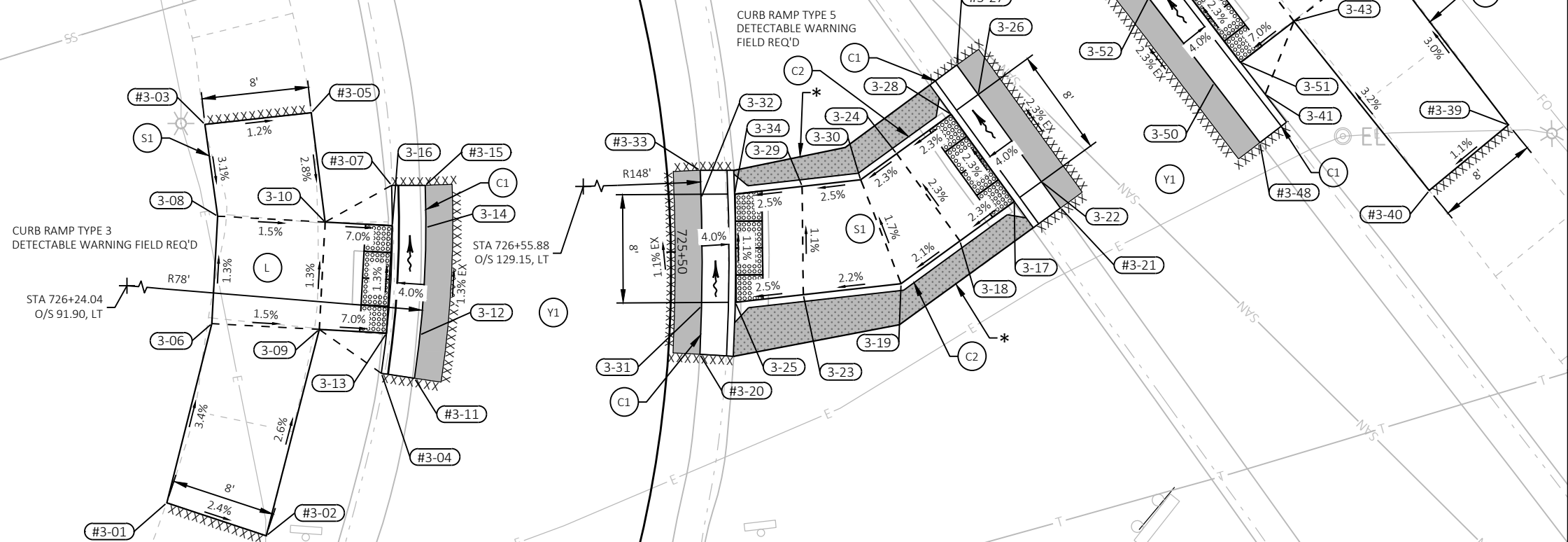
MATCH EXISTING ELEVATION (+/-)

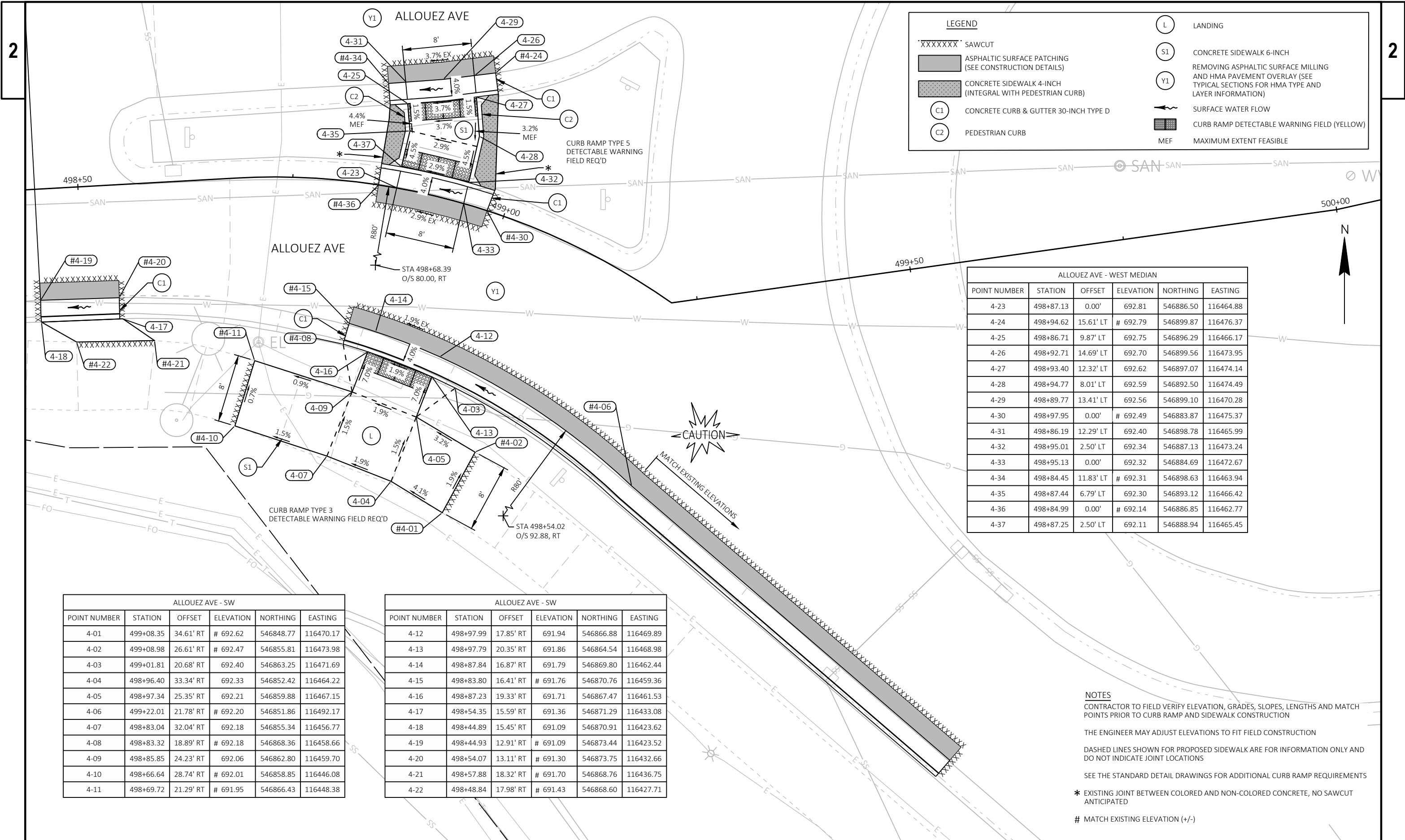
USH 141 - NORTH MEDIAN					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3-17	725+52.59	25.66' RT	695.91	546990.43	116568.39
3-18	725+50.38	21.52' RT	695.80	546987.49	116564.34
3-19	725+14.93	39.57' RT	695.68	546984.31	116559.96
3-20	725+14.93	27.97' RT	# 695.59	546979.07	116544.98
3-21	725+52.11	29.08' RT	# 695.59	546989.94	116571.83
3-22	725+53.65	27.75' RT	695.52	546991.90	116570.40
3-23	725+14.93	35.02' RT	695.51	546983.49	116552.68
3-24	725+55.90	17.15' RT	695.42	546993.97	116559.63
3-25	725+14.93	32.46' RT	695.39	546982.92	116547.61
3-26	725+58.97	23.63' RT	695.31	546998.37	116565.70
3-27	725+60.85	22.34' RT	# 695.24	547000.56	116564.12

USH 141 - NORTH MEDIAN					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3-28	725+57.99	21.46' RT	695.23	546996.91	116563.68
3-29	725+54.25	9.96' RT	695.20	546991.54	116552.59
3-30	725+54.40	14.35' RT	695.04	546992.01	116556.96
3-31	725+14.93	31.44' RT	694.97	546982.65	116545.11
3-32	725+53.89	2.40' RT	694.88	546990.69	116545.07
3-33	725+55.88	2.47' RT	# 694.87	546992.75	116545.00
3-34	725+54.01	4.90' RT	694.80	546990.97	116547.57
3-35	725+80.78	12.83' RT	# 694.54	547021.30	116549.06
3-36	725+83.40	12.06' RT	# 694.54	547023.79	116547.25
3-37	725+84.33	11.06' RT	# 694.54	547024.37	116545.92
3-38	725+82.72	9.92' RT	# 694.54	547022.27	116545.56

USH 141 - NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3-01	725+14.93	34.96' LT	# 695.38	546968.02	116505.30
3-02	725+14.93	27.26' LT	# 695.20	546965.56	116512.70
3-03	725+66.24	33.61' LT	# 695.02	546996.15	116508.14
3-04	725+14.93	29.53' LT	# 694.96	546977.65	116521.27
3-05	725+65.24	25.68' LT	# 694.92	546997.02	116516.06
3-06	725+14.93	40.22' LT	694.92	546981.34	116508.65
3-07	725+56.89	20.50' LT	# 694.81	546991.62	116522.04
3-08	725+55.17	33.60' LT	694.81	546989.33	116509.09
3-09	725+14.93	34.78' LT	694.80	546980.90	116516.65
3-10	725+53.72	25.64' LT	694.69	546988.89	116517.09
3-11	725+14.93	28.00' RT	# 694.54	546977.28	116523.74
3-12	725+14.93	30.74' RT	694.52	546980.49	116524.12
3-13	725+14.93	31.94' RT	694.45	546980.63	116521.65
3-14	725+52.66	18.19' LT	694.42	546988.48	116524.58
3-15	725+56.60	18.01' LT	# 694.40	546991.62	116524.54
3-16	725+52.98	20.66' LT	694.34	546988.62	116522.09

USH 141 - NE					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
3-39	725+54.94	62.73' RT	# 696.07	546996.11	116605.18
3-40	725+52.23	56.56' RT	# 695.98	546991.24	116599.28
3-41	725+57.32	44.88' RT	695.61	546998.39	116587.07
3-42	725+63.16	54.65' RT	695.59	547008.69	116595.56
3-43	725+60.70	47.64' RT	695.47	547003.82	116589.21
3-44	725+72.11	48.09' RT	# 695.46	547021.09	116586.15
3-45	725+67.64	51.06' RT	695.41	547015.03	116590.68
3-46	725+70.08	40.86' RT	# 695.38	547016.33	116579.92
3-47	725+65.66	38.03' RT	695.35	547009.49	116578.53
3-48	725+54.96	44.17' RT	# 695.29	546994.80	116586.67
3-49	725+65.36	43.86' RT	695.29	547010.16	116584.34
3-50	725+58.16	41.18' RT	695.20	546999.25	116583.26
3-51	725+59.03	43.32' RT	695.12	547000.77	116585.24
3-52	725+62.98	37.21' RT	695.02	547005.59	116578.40
3-53	725+63.80	39.41' RT	694.94	547007.12	116580.37
3-54	725+65.89	35.06' RT	# 694.94	547009.24	116575.56





LEGEND

XXXXXXX

SAWCUT

ASPHALTIC SURFACE PATCHING
(SEE CONSTRUCTION DETAILS)

CONCRETE SIDEWALK 4-INCH
(INTEGRAL WITH PEDESTRIAN CURB)

C1

CONCRETE CURB & GUTTER 30-INCH TYPE D

C2

PEDESTRIAN CURB

L

LANDING

S1

CONCRETE SIDEWALK 6-INCH

Y1

REMOVING ASPHALTIC SURFACE MILLING
AND HMA PAVEMENT OVERLAY (SEE
TYPICAL SECTIONS FOR HMA TYPE AND
LAYER INFORMATION)

SURFACE WATER FLOW

CURB RAMP DETECTABLE WARNING FIELD (YELLOW)

MEF

MAXIMUM EXTENT FEASIBLE

ALLOUEZ AVE - WEST MEDIAN					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4-23	498+87.13	0.00'	692.81	546886.50	116464.88
4-24	498+94.62	15.61' LT	# 692.79	546899.87	116476.37
4-25	498+86.71	9.87' LT	692.75	546896.29	116466.17
4-26	498+92.71	14.69' LT	692.70	546899.56	116473.95
4-27	498+93.40	12.32' LT	692.62	546897.07	116474.14
4-28	498+94.77	8.01' LT	692.59	546892.50	116474.49
4-29	498+89.77	13.41' LT	692.56	546899.10	116470.28
4-30	498+97.95	0.00'	# 692.49	546883.87	116475.37
4-31	498+86.19	12.29' LT	692.40	546898.78	116465.99
4-32	498+95.01	2.50' LT	692.34	546887.13	116473.24
4-33	498+95.13	0.00'	692.32	546884.69	116472.67
4-34	498+84.45	11.83' LT	# 692.31	546898.63	116463.94
4-35	498+87.44	6.79' LT	692.30	546893.12	116466.42
4-36	498+84.99	0.00'	# 692.14	546886.85	116462.77
4-37	498+87.25	2.50' LT	692.11	546888.94	116465.45

ALLOUEZ AVE - SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4-01	499+08.35	34.61' RT	# 692.62	546848.77	116470.17
4-02	499+08.98	26.61' RT	# 692.47	546855.81	116473.98
4-03	499+01.81	20.68' RT	692.40	546863.25	116471.69
4-04	498+96.40	33.34' RT	692.33	546852.42	116464.22
4-05	498+97.34	25.35' RT	692.21	546859.88	116467.15
4-06	499+22.01	21.78' RT	# 692.20	546851.86	116492.17
4-07	498+83.04	32.04' RT	692.18	546855.34	116456.77
4-08	498+83.32	18.89' RT	# 692.18	546868.36	116458.66
4-09	498+85.85	24.23' RT	692.06	546862.80	116459.70
4-10	498+66.64	28.74' RT	# 692.01	546858.85	116446.08
4-11	498+69.72	21.29' RT	# 691.95	546866.43	116448.38

ALLOUEZ AVE - SW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
4-12	498+97.99	17.85' RT	691.94	546866.88	116469.89
4-13	498+97.79	20.35' RT	691.86	546864.54	116468.98
4-14	498+87.84	16.87' RT	691.79	546869.80	116462.44
4-15	498+83.80	16.41' RT	# 691.76	546870.76	116459.36
4-16	498+87.23	19.33' RT	691.71	546867.47	116461.53
4-17	498+54.35	15.59' RT	691.36	546871.29	116433.08
4-18	498+44.89	15.45' RT	691.09	546870.91	116423.62
4-19	498+44.93	12.91' RT	# 691.09	546873.44	116423.52
4-20	498+54.07	13.11' RT	# 691.30	546873.75	116432.66
4-21	498+57.88	18.32' RT	# 691.70	546868.76	116436.75
4-22	498+48.84	17.98' RT	# 691.43	546868.60	116427.71

NOTES

CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

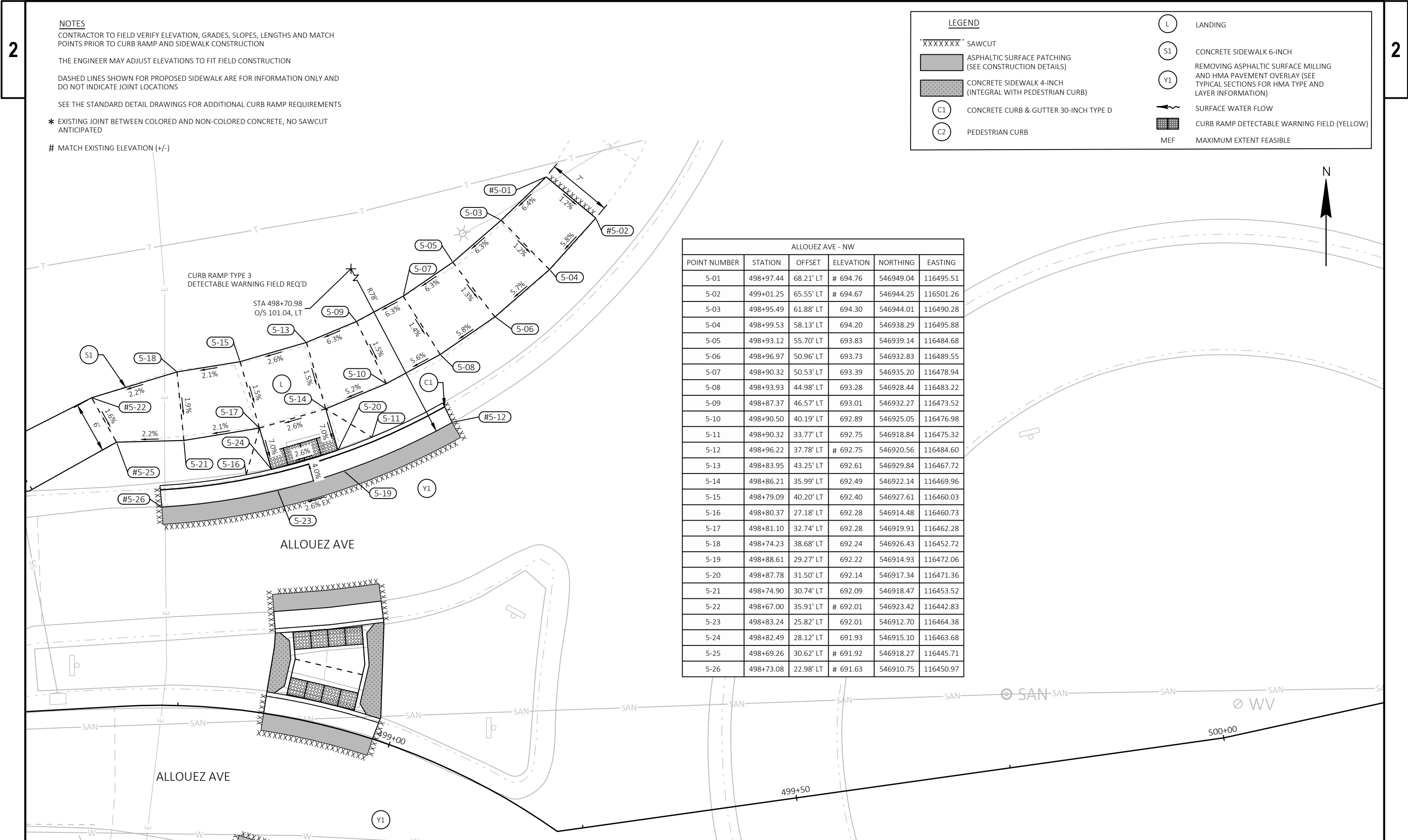
THE ENGINEER MAY ADJUST ELEVATIONS TO FIT FIELD CONSTRUCTION

DASHED LINES SHOWN FOR PROPOSED SIDEWALK ARE FOR INFORMATION ONLY AND DO NOT INDICATE JOINT LOCATIONS

SEE THE STANDARD DETAIL DRAWINGS FOR ADDITIONAL CURB RAMP REQUIREMENTS

* EXISTING JOINT BETWEEN COLORED AND NON-COLORED CONCRETE, NO SAWCUT ANTICIPATED

MATCH EXISTING ELEVATION (+/-)



NOTES
CONTRACTOR TO FIELD VERIFY ELEVATION, GRADES, SLOPES, LENGTHS AND MATCH POINTS PRIOR TO CURB RAMP AND SIDEWALK CONSTRUCTION

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* EXISTING JOINT BETWEEN COLORED AND NON-COLORED CONCRETE, NO SAWCUT ANTICIPATED

MATCH EXISTING ELEVATION (+/-)

LEGEND

XXXXXXX SAWCUT

ASPHALTIC SURFACE PATCHING (SEE CONSTRUCTION DETAILS)

CONCRETE SIDEWALK 4-INCH (INTEGRAL WITH PEDESTRIAN CURB)

C1 CONCRETE CURB & GUTTER 30-INCH TYPE D

C2 PEDESTRIAN CURB

L LANDING

S1 CONCRETE SIDEWALK 6-INCH

Y1 REMOVING ASPHALTIC SURFACE MILLING AND HMA PAVEMENT OVERLAY (SEE TYPICAL SECTIONS FOR HMA TYPE AND LAYER INFORMATION)

W SURFACE WATER FLOW

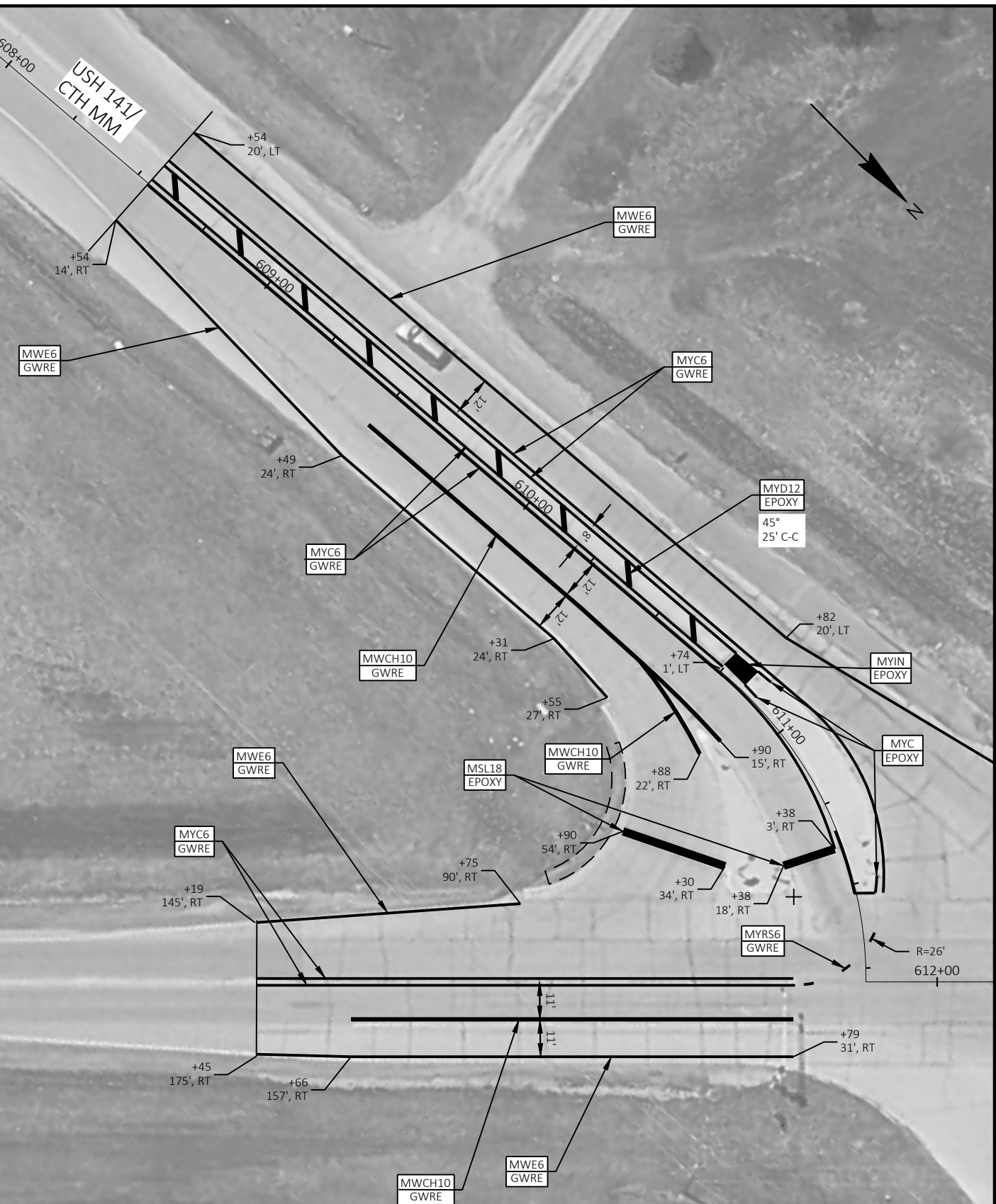
CURB RAMP DETECTABLE WARNING FIELD (YELLOW)

MEF MAXIMUM EXTENT FEASIBLE

ALLOUEZ AVE - NW					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
5-01	498+97.44	68.21' LT	# 694.76	546949.04	116495.51
5-02	499+01.25	65.55' LT	# 694.67	546944.25	116501.26
5-03	498+95.49	61.88' LT	694.30	546944.01	116490.28
5-04	498+99.53	58.13' LT	694.20	546938.29	116495.88
5-05	498+93.12	55.70' LT	693.83	546939.14	116484.68
5-06	498+96.97	50.96' LT	693.73	546932.83	116489.55
5-07	498+90.32	50.53' LT	693.39	546935.20	116478.94
5-08	498+93.93	44.98' LT	693.28	546928.44	116483.22
5-09	498+87.37	46.57' LT	693.01	546932.27	116473.52
5-10	498+90.50	40.19' LT	692.89	546925.05	116476.98
5-11	498+90.32	33.77' LT	692.75	546918.84	116475.32
5-12	498+96.22	37.78' LT	# 692.75	546920.56	116484.60
5-13	498+83.95	43.25' LT	692.61	546929.84	116467.72
5-14	498+86.21	35.99' LT	692.49	546922.14	116469.96
5-15	498+79.09	40.20' LT	692.40	546927.61	116460.03
5-16	498+80.37	27.18' LT	692.28	546914.48	116460.73
5-17	498+81.10	32.74' LT	692.28	546919.91	116462.28
5-18	498+74.23	38.68' LT	692.24	546926.43	116452.72
5-19	498+88.61	29.27' LT	692.22	546914.93	116472.06
5-20	498+87.78	31.50' LT	692.14	546917.34	116471.36
5-21	498+74.90	30.74' LT	692.09	546918.47	116453.52
5-22	498+67.00	35.91' LT	# 692.01	546923.42	116442.83
5-23	498+83.24	25.82' LT	692.01	546912.70	116464.38
5-24	498+82.49	28.12' LT	691.93	546915.10	116463.68
5-25	498+69.26	30.62' LT	# 691.92	546918.27	116445.71
5-26	498+73.08	22.98' LT	# 691.63	546910.75	116450.97

NOTES
SEE MARKING SDD'S FOR ADDITIONAL INFORMATION
AND FOR AREAS NOT SHOWN ON MARKING SHEETS.

FIELD FIT MARKING RADII TO MATCH CURB FLAG OR
EXISTING CONDITIONS UNLESS OTHERWISE NOTED.

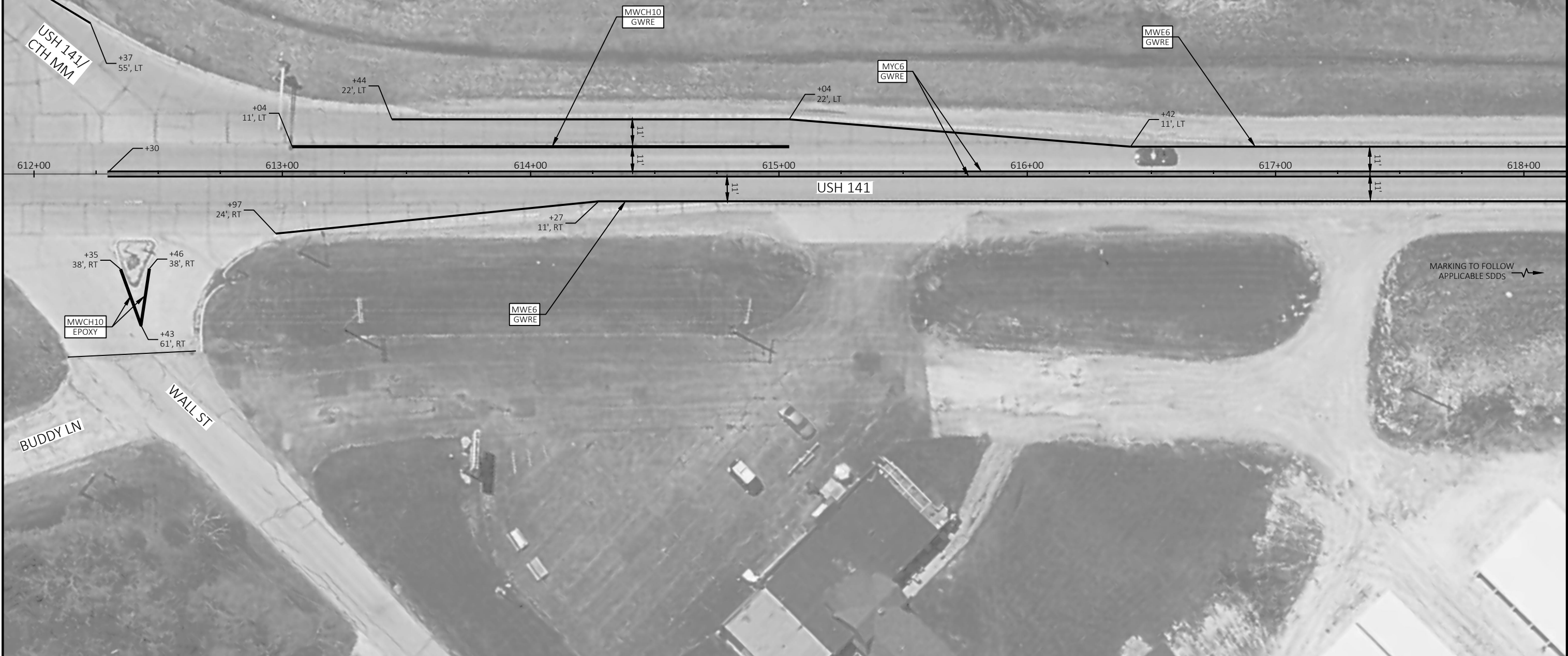


LEGEND

ARRW	MARKING ARROWS (WHITE)	MYRS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(3' LINE, 9' GAP)
WORD	MARKING WORD (WHITE)	MYCS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
EPOXY	EPOXY	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
GWRE	GROOVED WET REFLECTIVE EPOXY	MWD12	MARKING DIAGONAL 12-INCH (WHITE)(25' C-C AT 45°)
MYC6	MARKING CENTER LINE 6-INCH (YELLOW)	MCTL6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MWCH10	MARKING CHANNELIZING 10-INCH (WHITE)	MWD18	MARKING DOTTED EXTENSION 18-INCH (WHITE)(2' LINE, 2' GAP)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	MYIN	MARKING ISLAND NOSE (YELLOW)
MWE6	MARKING EDGE LINE 6-INCH (WHITE)	MYC	MARKING CURB (YELLOW)
X	SIGN NUMBER	REMOVE EXISTING SIGN MOUNTED ON MULTIPLE POSTS	
		MOVE EXISTING SIGN MOUNTED ON SINGLE POST	




















NOTES
SEE MARKING SDD'S FOR ADDITIONAL INFORMATION
AND FOR AREAS NOT SHOWN ON MARKING SHEETS.

FIELD FIT MARKING RADII TO MATCH CURB FLAG OR
EXISTING CONDITIONS UNLESS OTHERWISE NOTED.



2

2 |

LEGEND	
	MARKING ARROWS (WHITE)
	MARKING WORD (WHITE)
	EPOXY
	GROOVED WET REFLECTIVE EPOXY
	MARKING CENTER LINE 6-INCH (YELLOW)
	MARKING CHANNELIZING 10-INCH (WHITE)
	MARKING STOP LINE 18-INCH (WHITE)
	MARKING EDGE LINE 6-INCH (WHITE)
	SIGN NUMBER
	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(3' LINE, 9' GAP)
	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
	MARKING DIAGONAL 12-INCH (WHITE)(25' C-C AT 45°)
	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
	MARKING DOTTED EXTENSION 18-INCH (WHITE)(2' LINE, 2' GAP)
	MARKING ISLAND NOSE (YELLOW)
	MARKING CURB (YELLOW)
	REMOVE EXISTING SIGN MOUNTED ON MULTIPLE POSTS
	MOVE EXISTING SIGN MOUNTED ON SINGLE POST

NOTES
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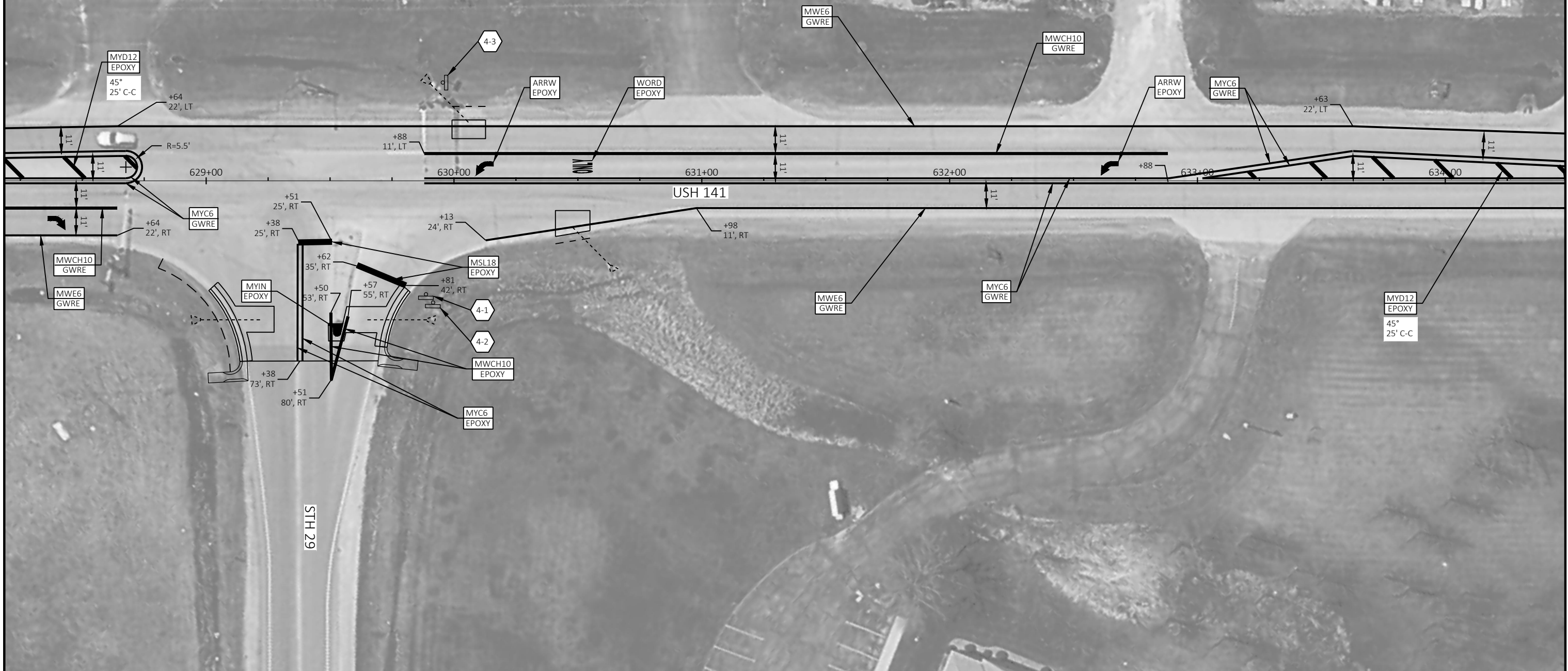
LEGEND

ARRW	MARKING ARROWS (WHITE)	MYRS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(3' LINE, 9' GAP)
WORD	MARKING WORD (WHITE)	MYCS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
EPOXY	EPOXY	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
GWRE	GROOVED WET REFLECTIVE EPOXY	MWD12	MARKING DIAGONAL 12-INCH (WHITE)(25' C-C AT 45°)
MYC6	MARKING CENTER LINE 6-INCH (YELLOW)	MCTL6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MWCH10	MARKING CHANNELIZING 10-INCH (WHITE)	MWD18	MARKING DOTTED EXTENSION 18-INCH (WHITE)(2' LINE, 2' GAP)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	MYIN	MARKING ISLAND NOSE (YELLOW)
MWE6	MARKING EDGE LINE 6-INCH (WHITE)	MYC	MARKING CURB (YELLOW)
X	SIGN NUMBER	REMOVE EXISTING SIGN MOUNTED ON MULTIPLE POSTS	
		MOVE EXISTING SIGN MOUNTED ON SINGLE POST	

NOTES




















SEE MARKING SDD'S FOR ADDITIONAL INFORMATION AND FOR AREAS NOT SHOWN ON MARKING SHEETS.

FIELD FIT MARKING RADII TO MATCH CURB FLAG OR EXISTING CONDITIONS UNLESS OTHERWISE NOTED.



2

2

LEGEND			
	MARKING ARROWS (WHITE)		MARKING CENTER LINE SKIP 6-INCH (YELLOW)(3' LINE, 9' GAP)
	MARKING WORD (WHITE)		MARKING CENTER LINE SKIP 6-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
	EPOXY		MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
	GROOVED WET REFLECTIVE EPOXY		MARKING DIAGONAL 12-INCH (WHITE)(25' C-C AT 45°)
	MARKING CENTER LINE 6-INCH (YELLOW)		MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
	MARKING CHANNELIZING 10-INCH (WHITE)		MARKING DOTTED EXTENSION 18-INCH (WHITE)(2' LINE, 2' GAP)
	MARKING STOP LINE 18-INCH (WHITE)		MARKING ISLAND NOSE (YELLOW)
	MARKING EDGE LINE 6-INCH (WHITE)		MARKING CURB (YELLOW)
	SIGN NUMBER		REMOVE EXISTING SIGN MOUNTED ON MULTIPLE POSTS
			MOVE EXISTING SIGN MOUNTED ON SINGLE POST

NOTES
SEE MARKING SDD'S FOR ADDITIONAL INFORMATION
AND FOR AREAS NOT SHOWN ON MARKING SHEETS.

FIELD FIT MARKING RADII TO MATCH CURB FLAG OR
EXISTING CONDITIONS UNLESS OTHERWISE NOTED.



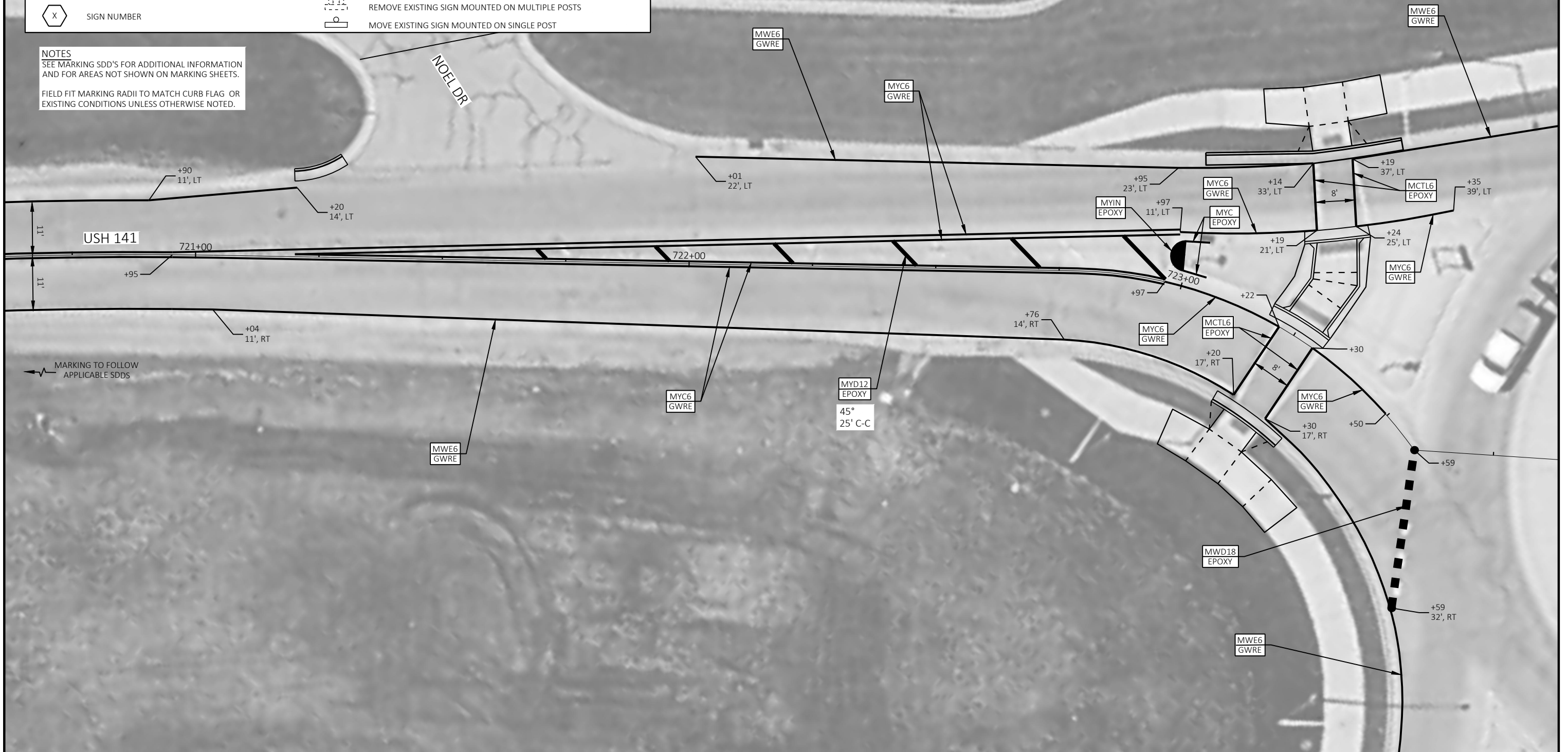
LEGEND

ARRW	MARKING ARROWS (WHITE)	MYRS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(3' LINE, 9' GAP)
WORD	MARKING WORD (WHITE)	MYCS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
EPOXY	EPOXY	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
GWRE	GROOVED WET REFLECTIVE EPOXY	MWD12	MARKING DIAGONAL 12-INCH (WHITE)(25' C-C AT 45°)
MYC6	MARKING CENTER LINE 6-INCH (YELLOW)	MCTL6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MWCH10	MARKING CHANNELIZING 10-INCH (WHITE)	MWD18	MARKING DOTTED EXTENSION 18-INCH (WHITE)(2' LINE, 2' GAP)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	MYIN	MARKING ISLAND NOSE (YELLOW)
MWE6	MARKING EDGE LINE 6-INCH (WHITE)	MYC	MARKING CURB (YELLOW)
X	SIGN NUMBER	REMOVE EXISTING SIGN MOUNTED ON MULTIPLE POSTS	
		MOVE EXISTING SIGN MOUNTED ON SINGLE POST	

NOTES

SEE MARKING SDD'S FOR ADDITIONAL INFORMATION
AND FOR AREAS NOT SHOWN ON MARKING SHEETS.

FIELD FIT MARKING RADII TO MATCH CURB FLAG OR
EXISTING CONDITIONS UNLESS OTHERWISE NOTED.



PROJECT NO: 1450-18-71

HWY: USH 141

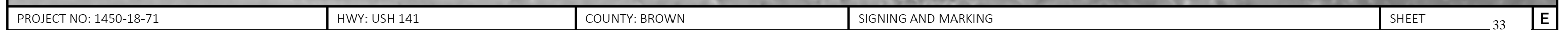
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SIGNING AND MARKING



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32

E



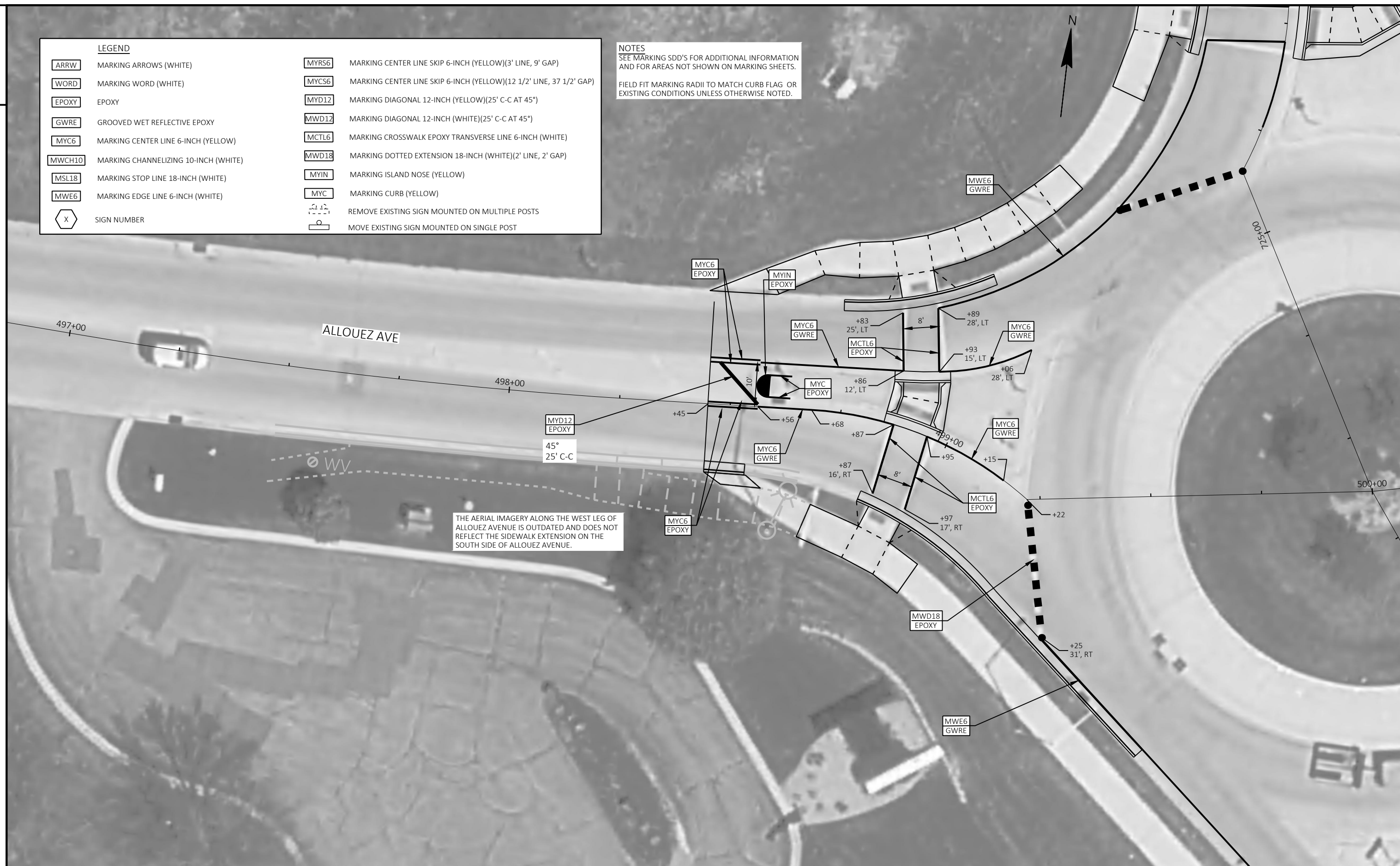
LEGEND

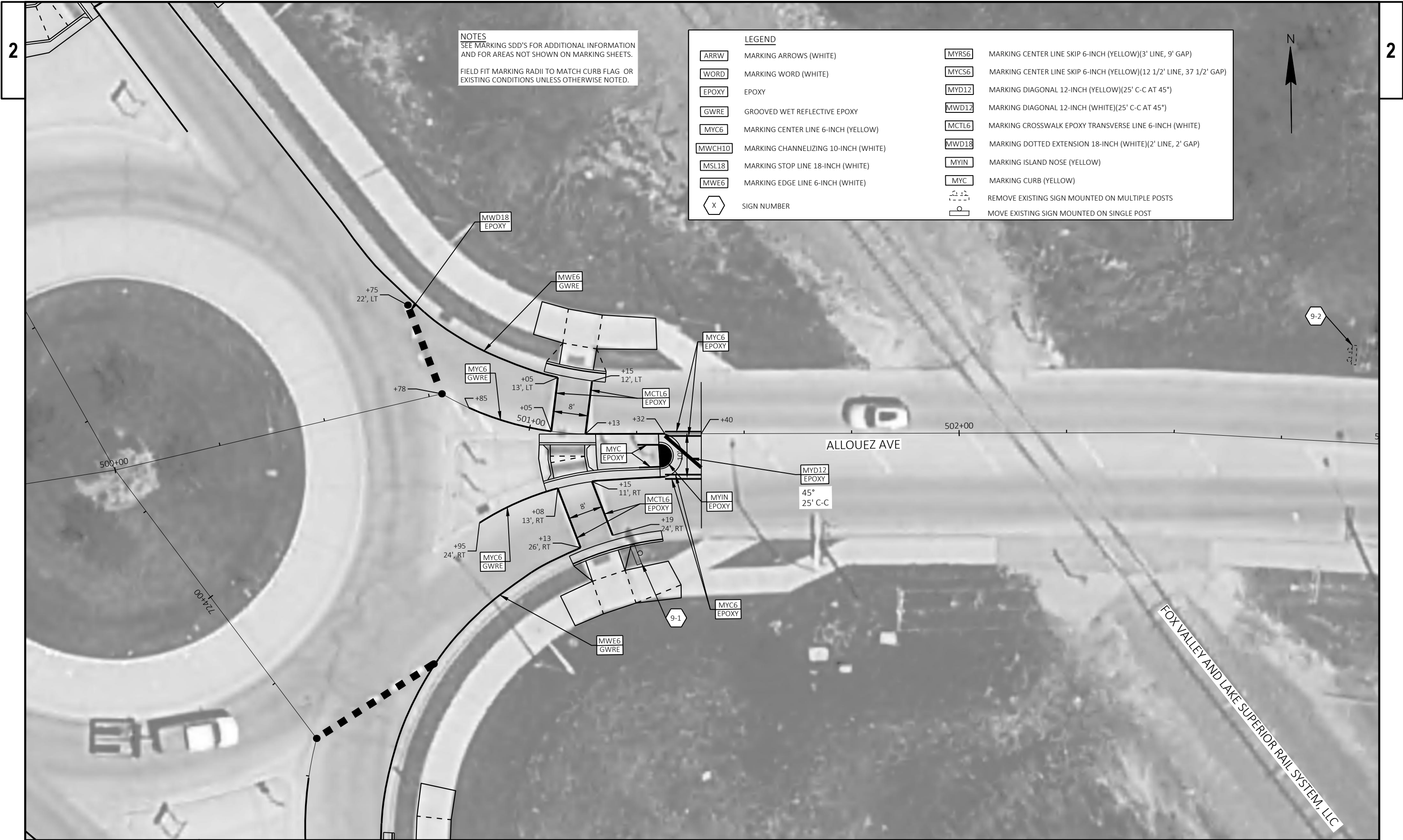
ARRW	MARKING ARROWS (WHITE)	MYRS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(3' LINE, 9' GAP)
WORD	MARKING WORD (WHITE)	MYCS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
EPOXY	EPOXY	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
GWRE	GROOVED WET REFLECTIVE EPOXY	MWD12	MARKING DIAGONAL 12-INCH (WHITE)(25' C-C AT 45°)
MYC6	MARKING CENTER LINE 6-INCH (YELLOW)	MCTL6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MWCH10	MARKING CHANNELIZING 10-INCH (WHITE)	MWD18	MARKING DOTTED EXTENSION 18-INCH (WHITE)(2' LINE, 2' GAP)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	MYIN	MARKING ISLAND NOSE (YELLOW)
MWE6	MARKING EDGE LINE 6-INCH (WHITE)	MYC	MARKING CURB (YELLOW)
X	SIGN NUMBER		REMOVE EXISTING SIGN MOUNTED ON MULTIPLE POSTS
			MOVE EXISTING SIGN MOUNTED ON SINGLE POST

NOTES

SEE MARKING SDD'S FOR ADDITIONAL INFORMATION AND FOR AREAS NOT SHOWN ON MARKING SHEETS.

FIELD FIT MARKING RADII TO MATCH CURB FLAG OR EXISTING CONDITIONS UNLESS OTHERWISE NOTED.





NOTES
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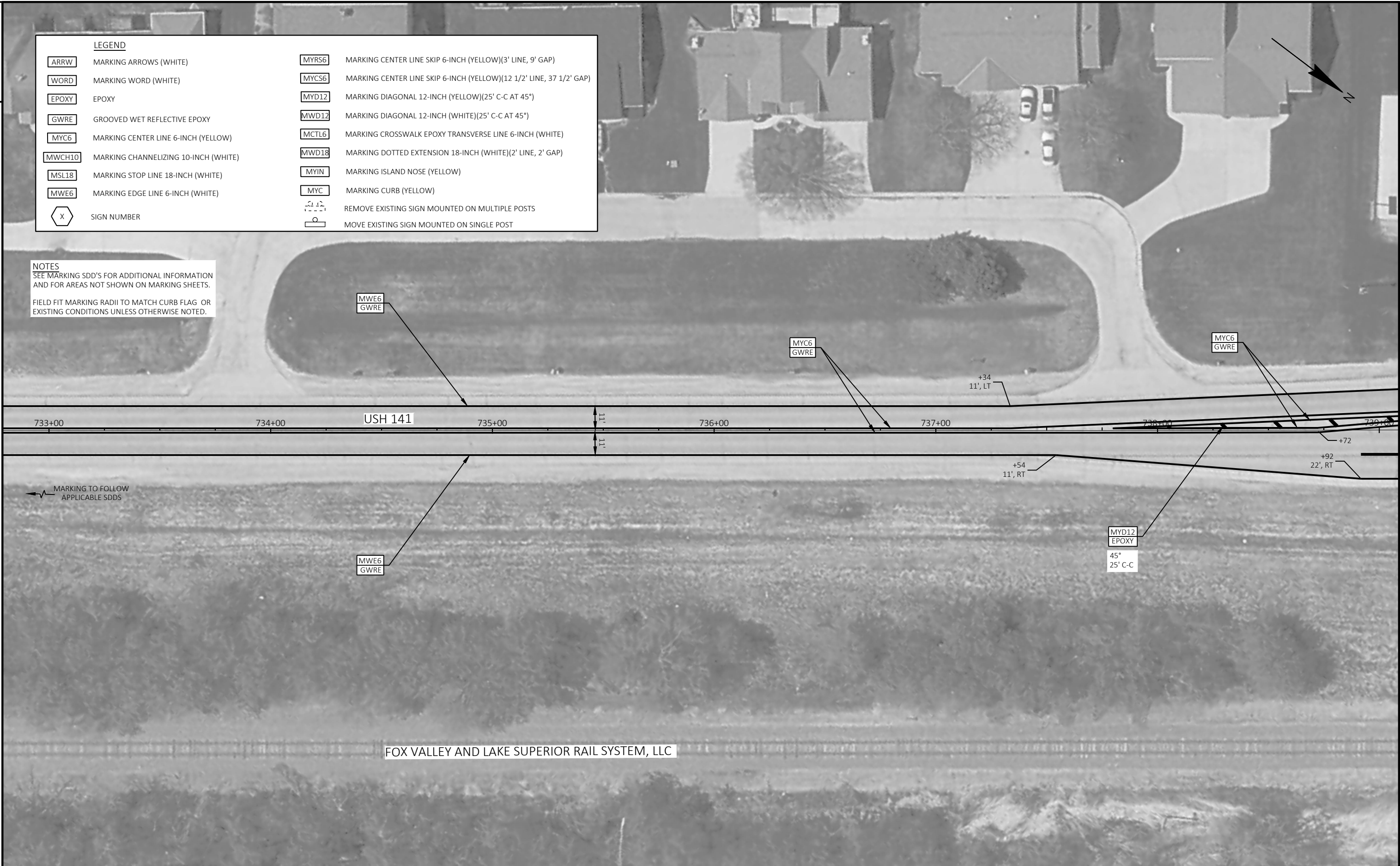
FIELD FIT MARKING RADII TO MATCH CURB FLAG OR
EXISTING CONDITIONS UNLESS OTHERWISE NOTED.

LEGEND	
ARRW	MARKING ARROWS (WHITE)
WORD	MARKING WORD (WHITE)
EPOXY	EPOXY
GWRE	GROOVED WET REFLECTIVE EPOXY
MYC6	MARKING CENTER LINE 6-INCH (YELLOW)
MWCH10	MARKING CHANNELIZING 10-INCH (WHITE)
MSL18	MARKING STOP LINE 18-INCH (WHITE)
MWE6	MARKING EDGE LINE 6-INCH (WHITE)
X	SIGN NUMBER
MYR56	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(3' LINE, 9' GAP)
MYCS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
MWD12	MARKING DIAGONAL 12-INCH (WHITE)(25' C-C AT 45°)
MCTL6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MWD18	MARKING DOTTED EXTENSION 18-INCH (WHITE)(2' LINE, 2' GAP)
MYIN	MARKING ISLAND NOSE (YELLOW)
MYC	MARKING CURB (YELLOW)
	REMOVE EXISTING SIGN MOUNTED ON MULTIPLE POSTS
	MOVE EXISTING SIGN MOUNTED ON SINGLE POST

LEGEND			
ARRW	MARKING ARROWS (WHITE)	MYRS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(3' LINE, 9' GAP)
WORD	MARKING WORD (WHITE)	MYCS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
EPOXY	EPOXY	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
GWRE	GROOVED WET REFLECTIVE EPOXY	MWD12	MARKING DIAGONAL 12-INCH (WHITE)(25' C-C AT 45°)
MYC6	MARKING CENTER LINE 6-INCH (YELLOW)	MCTL6	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)
MWCH10	MARKING CHANNELIZING 10-INCH (WHITE)	MWD18	MARKING DOTTED EXTENSION 18-INCH (WHITE)(2' LINE, 2' GAP)
MSL18	MARKING STOP LINE 18-INCH (WHITE)	MYIN	MARKING ISLAND NOSE (YELLOW)
MWE6	MARKING EDGE LINE 6-INCH (WHITE)	MYC	MARKING CURB (YELLOW)
X	SIGN NUMBER	REMOVE	REMOVE EXISTING SIGN MOUNTED ON MULTIPLE POSTS
		MOVE	MOVE EXISTING SIGN MOUNTED ON SINGLE POST

NOTES
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AND FOR AREAS NOT SHOWN ON MARKING SHEETS.

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NOTES
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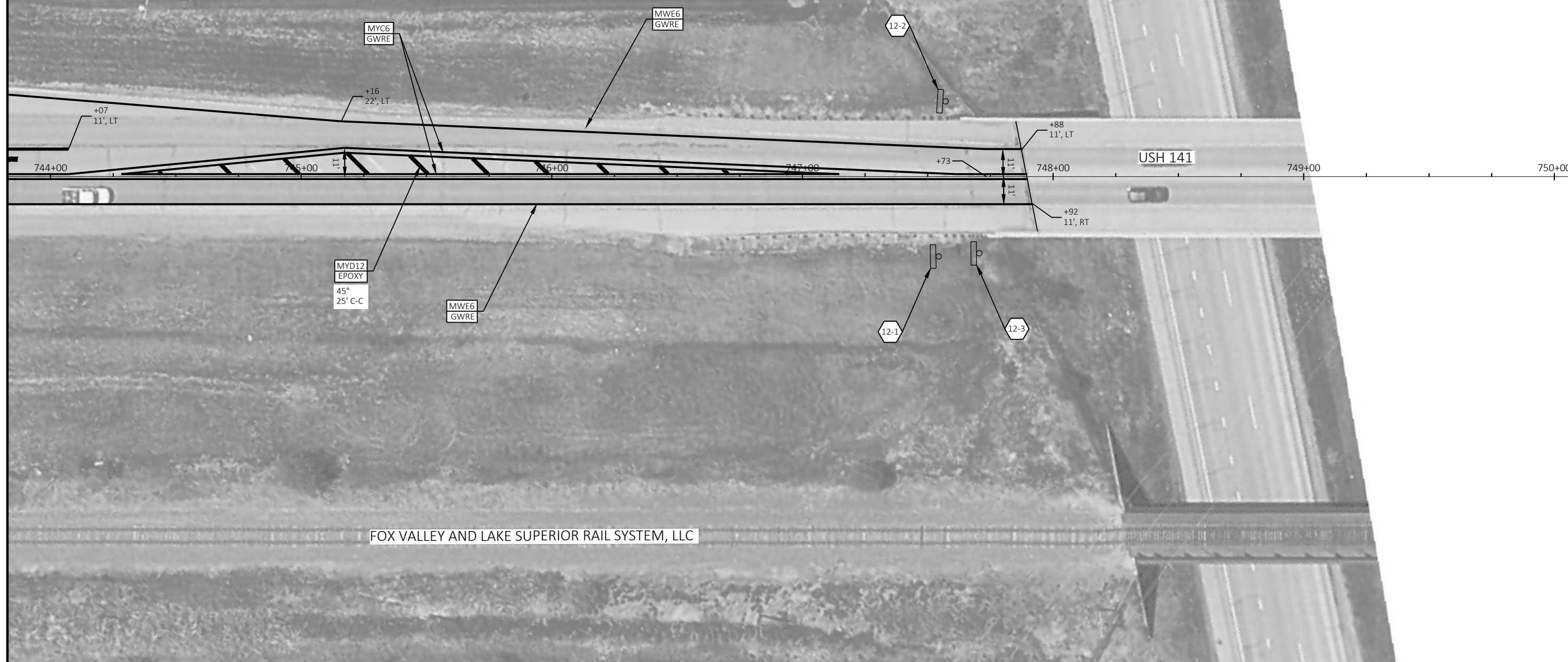
LEGEND

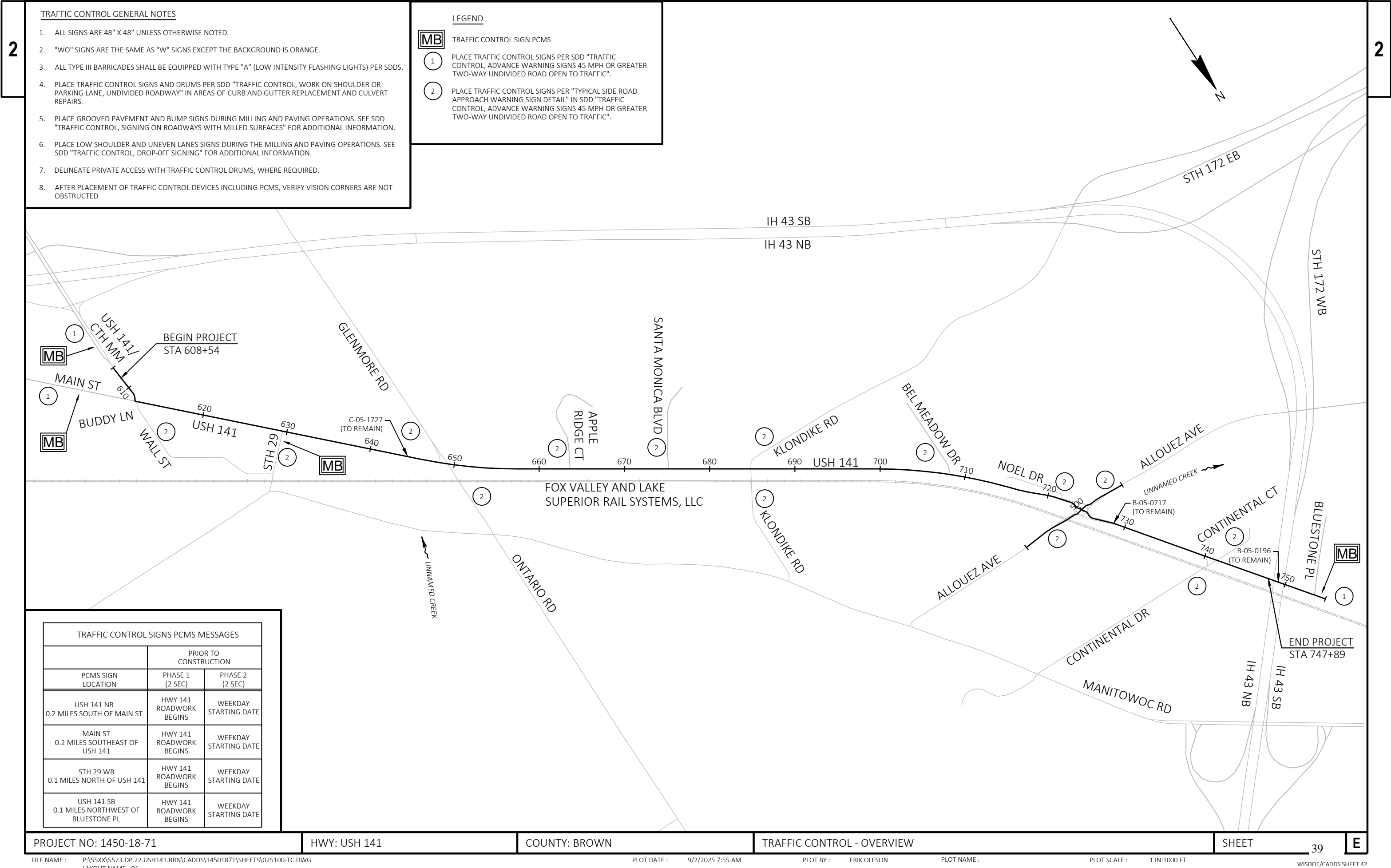
ARRW	MARKING ARROWS (WHITE)	MYRS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(3' LINE, 9' GAP)
WORD	MARKING WORD (WHITE)	MYCS6	MARKING CENTER LINE SKIP 6-INCH (YELLOW)(12 1/2' LINE, 37 1/2' GAP)
EPOXY	EPOXY	MYD12	MARKING DIAGONAL 12-INCH (YELLOW)(25' C-C AT 45°)
GWRE	GROOVED WET REFLECTIVE EPOXY	MWD12	MARKING DIAGONAL 12-INCH (WHITE)(25' C-C AT 45°)
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MSL18	MARKING STOP LINE 18-INCH (WHITE)	MYIN	MARKING ISLAND NOSE (YELLOW)
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X	SIGN NUMBER	REMOVE EXISTING SIGN MOUNTED ON MULTIPLE POSTS	
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NOTES

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TRAFFIC CONTROL GENERAL NOTES

- 1. ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- 2. "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- 3. ALL TYPE III BARRICADES SHALL BE EQUIPPED WITH TYPE "A" (LOW INTENSITY FLASHING LIGHTS) PER SDDS.
- 4. PLACE TRAFFIC CONTROL SIGNS AND DRUMS PER SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" IN AREAS OF CURB AND GUTTER REPLACEMENT AND CULVERT REPAIRS.
- 5. PLACE GROOVED PAVEMENT AND BUMP SIGNS DURING MILLING AND PAVING OPERATIONS. SEE SDD "TRAFFIC CONTROL, SIGNING ON ROADWAYS WITH MILLED SURFACES" FOR ADDITIONAL INFORMATION.
- 6. PLACE LOW SHOULDER AND UNEVEN LANES SIGNS DURING THE MILLING AND PAVING OPERATIONS. SEE SDD "TRAFFIC CONTROL, DROP-OFF SIGNING" FOR ADDITIONAL INFORMATION.
- 7. DELINEATE PRIVATE ACCESS WITH TRAFFIC CONTROL DRUMS, WHERE REQUIRED.
- 8. AFTER PLACEMENT OF TRAFFIC CONTROL DEVICES INCLUDING PCMS, VERIFY VISION CORNERS ARE NOT OBSTRUCTED

LEGEND



TRAFFIC CONTROL SIGN PCMS



PLACE TRAFFIC CONTROL SIGNS PER SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC".



PLACE TRAFFIC CONTROL SIGNS PER "TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL" IN SDD "TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 MPH OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC".

TRAFFIC CONTROL SIGNS PCMS MESSAGES

PCMS SIGN LOCATION	PRIOR TO CONSTRUCTION	
	PHASE 1 (2 SEC)	PHASE 2 (2 SEC)
USH 141 NB 0.2 MILES SOUTH OF MAIN ST	HWY 141 ROADWORK BEGINS	WEEKDAY STARTING DATE
MAIN ST 0.2 MILES SOUTHEAST OF USH 141	HWY 141 ROADWORK BEGINS	WEEKDAY STARTING DATE
STH 29 WB 0.1 MILES NORTH OF USH 141	HWY 141 ROADWORK BEGINS	WEEKDAY STARTING DATE
USH 141 SB 0.1 MILES NORTHWEST OF BLUESTONE PL	HWY 141 ROADWORK BEGINS	WEEKDAY STARTING DATE

PROJECT NO: 1450-18-71

HWY: USH 141

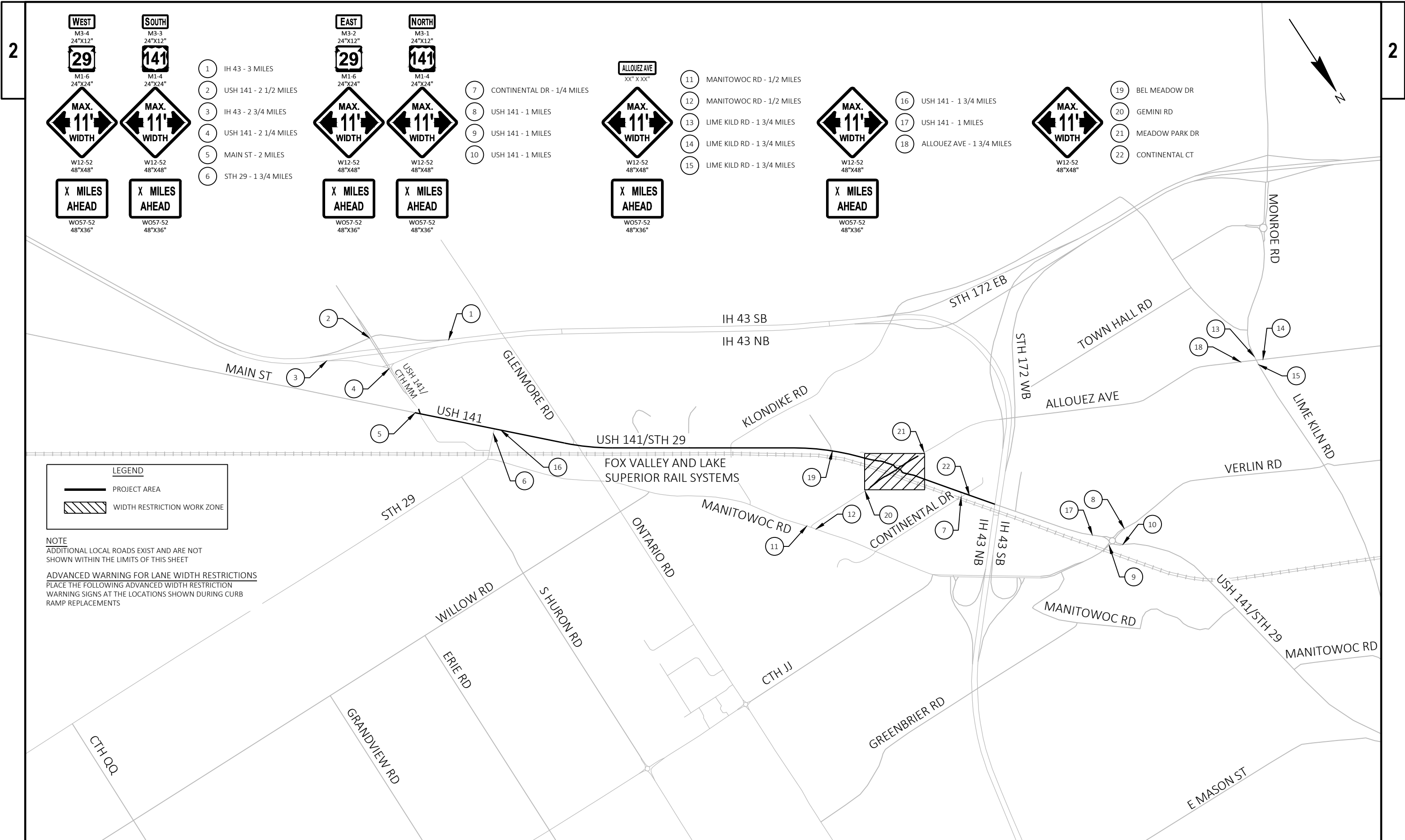
COUNTY: BROWN

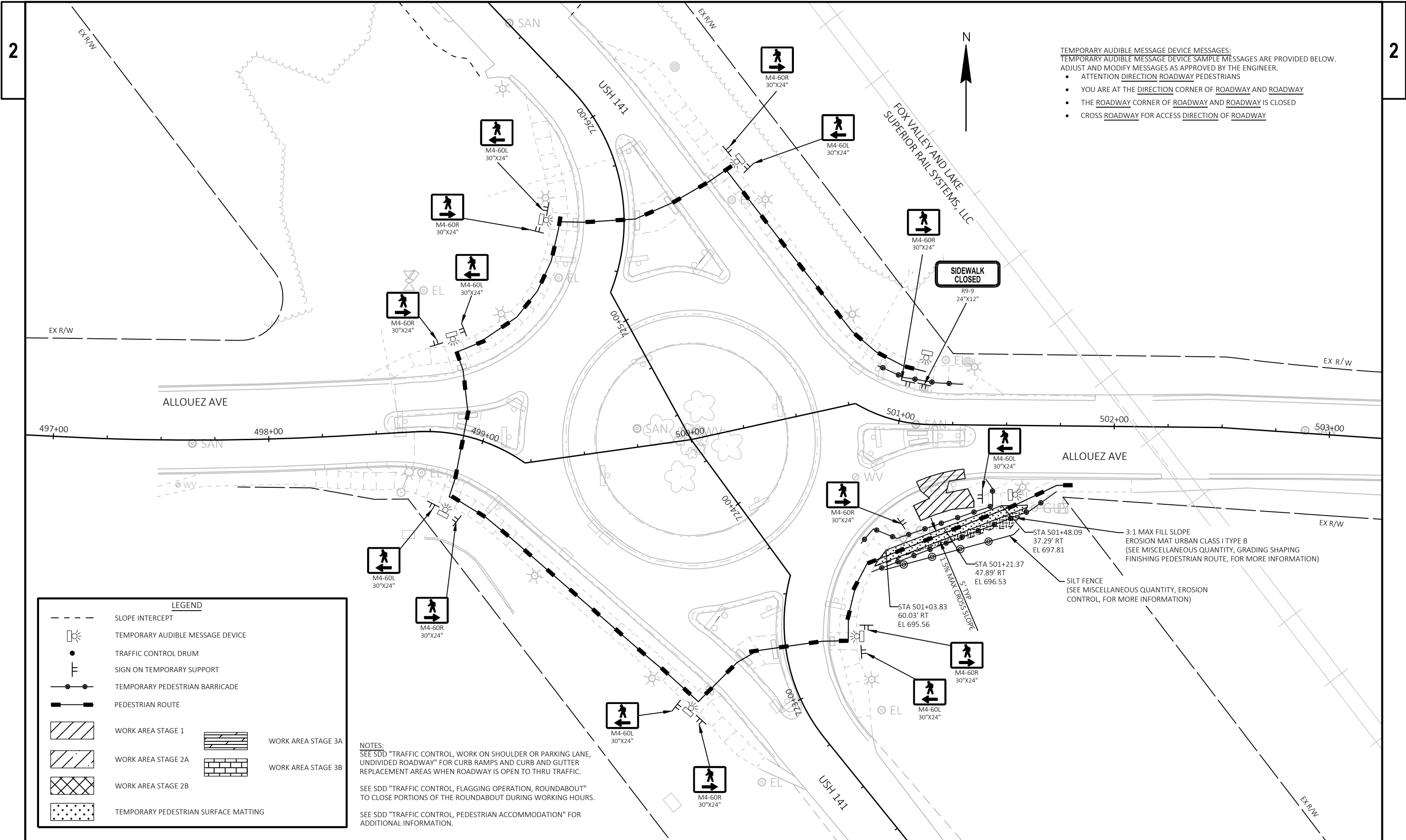
TRAFFIC CONTROL - OVERVIEW

SHEET

39

E



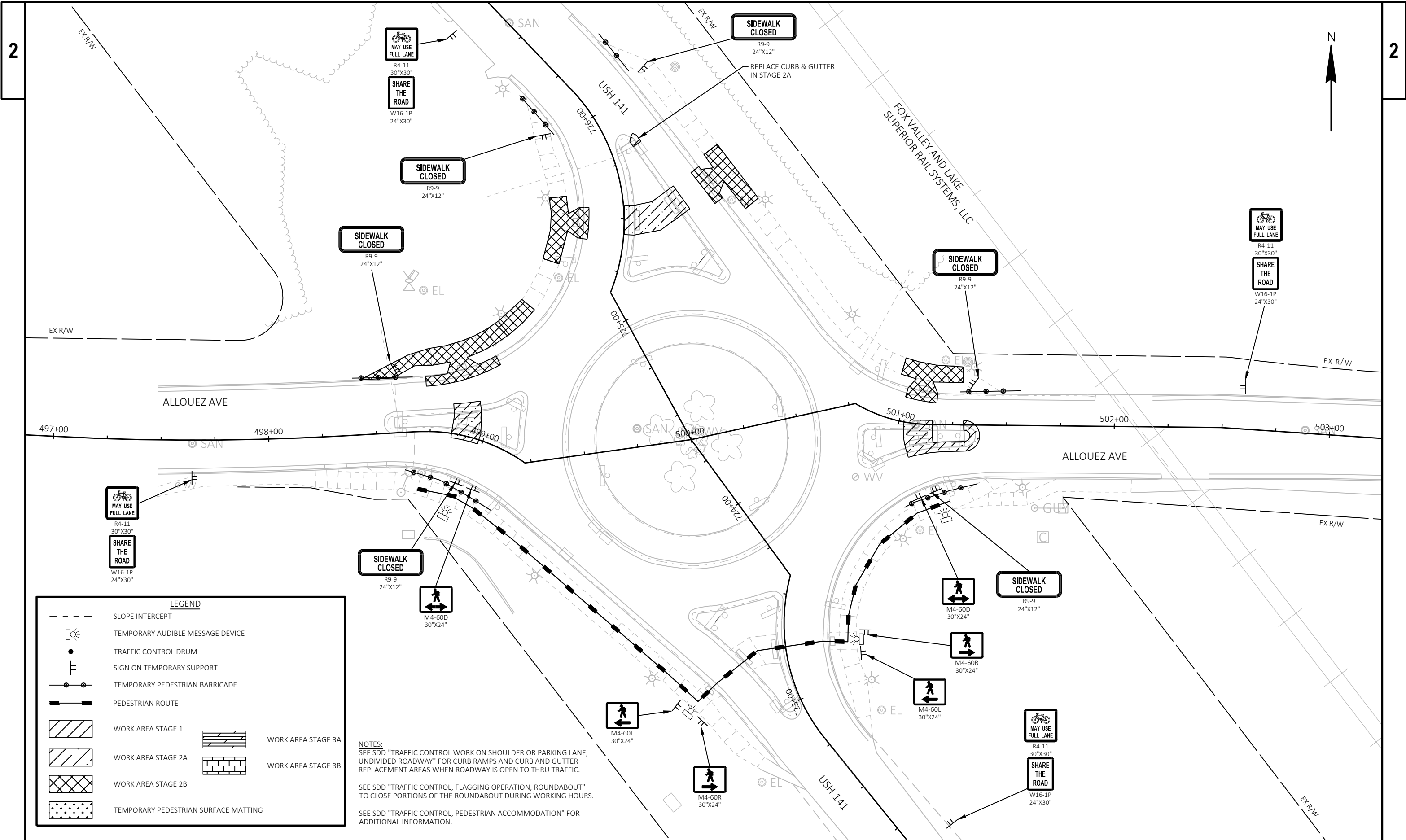


- TEMPORARY AUDIBLE MESSAGE DEVICE MESSAGES:
TEMPORARY AUDIBLE MESSAGE DEVICE SAMPLE MESSAGES ARE PROVIDED BELOW.
ADJUST AND MODIFY MESSAGES AS APPROVED BY THE ENGINEER.
- ATTENTION DIRECTION ROADWAY PEDESTRIANS
 - YOU ARE AT THE DIRECTION CORNER OF ROADWAY AND ROADWAY
 - THE ROADWAY CORNER OF ROADWAY AND ROADWAY IS CLOSED
 - CROSS ROADWAY FOR ACCESS DIRECTION OF ROADWAY

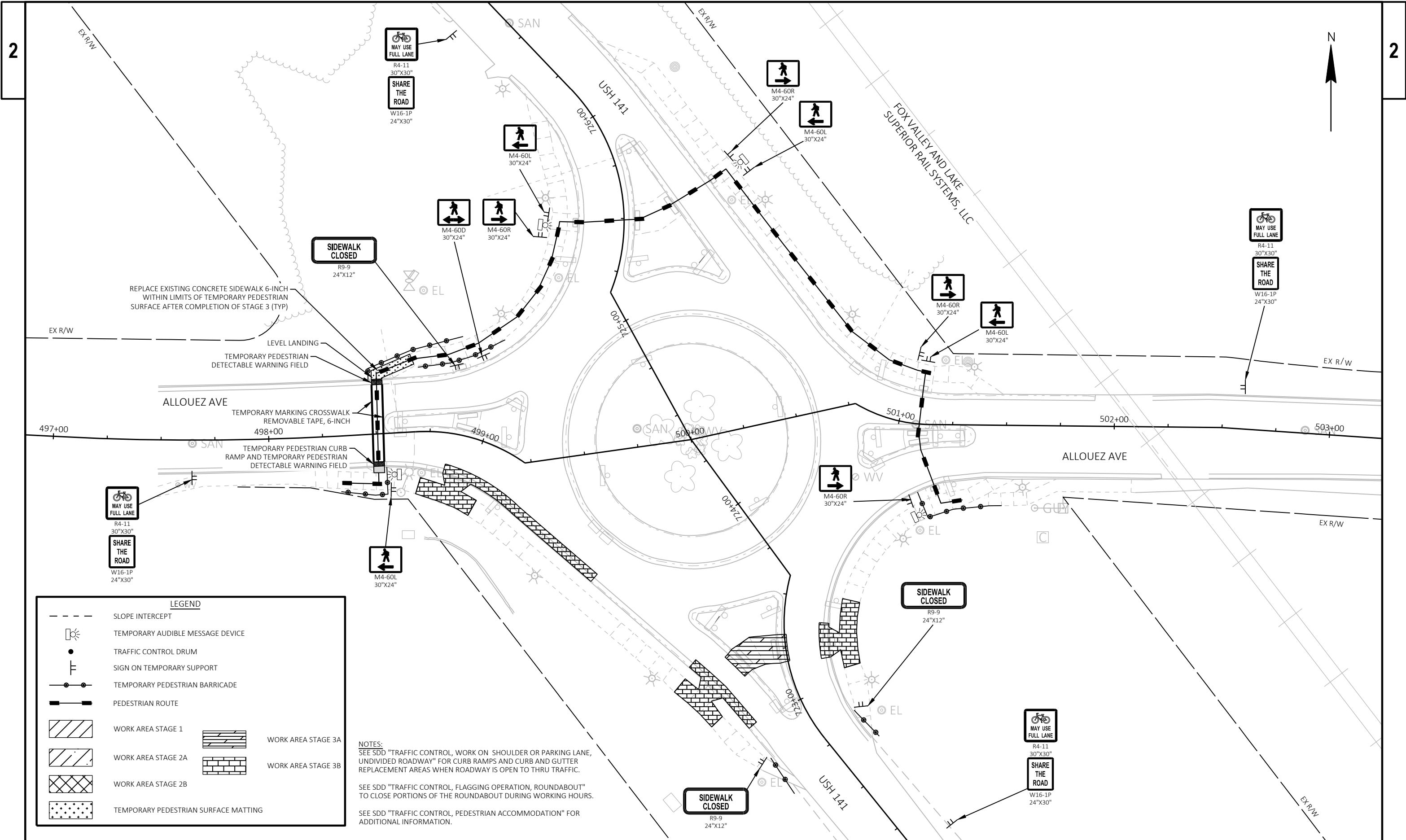
LEGEND

	SLOPE INTERCEPT
	TEMPORARY AUDIBLE MESSAGE DEVICE
	TRAFFIC CONTROL DRUM
	SIGN ON TEMPORARY SUPPORT
	TEMPORARY PEDESTRIAN BARRICADE
	PEDESTRIAN ROUTE
	WORK AREA STAGE 1
	WORK AREA STAGE 2A
	WORK AREA STAGE 2B
	TEMPORARY PEDESTRIAN SURFACE MATTING
	WORK AREA STAGE 3A
	WORK AREA STAGE 3B

NOTES:
SEE SDD "TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR CURB RAMP AND CURB AND GUTTER REPLACEMENT AREAS WHEN ROADWAY IS OPEN TO THRU TRAFFIC.
SEE SDD "TRAFFIC CONTROL, FLAGGING OPERATION, ROUNDABOUT" TO CLOSE PORTIONS OF THE ROUNDABOUT DURING WORKING HOURS.
SEE SDD "TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION" FOR ADDITIONAL INFORMATION.



NOTES:
SEE SDD "TRAFFIC CONTROL WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY" FOR CURB RAMPS AND CURB AND GUTTER REPLACEMENT AREAS WHEN ROADWAY IS OPEN TO THRU TRAFFIC.
SEE SDD "TRAFFIC CONTROL, FLAGGING OPERATION, ROUNDABOUT" TO CLOSE PORTIONS OF THE ROUNDABOUT DURING WORKING HOURS.
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PROJECT NO: 1450-18-71

HWY: USH 141

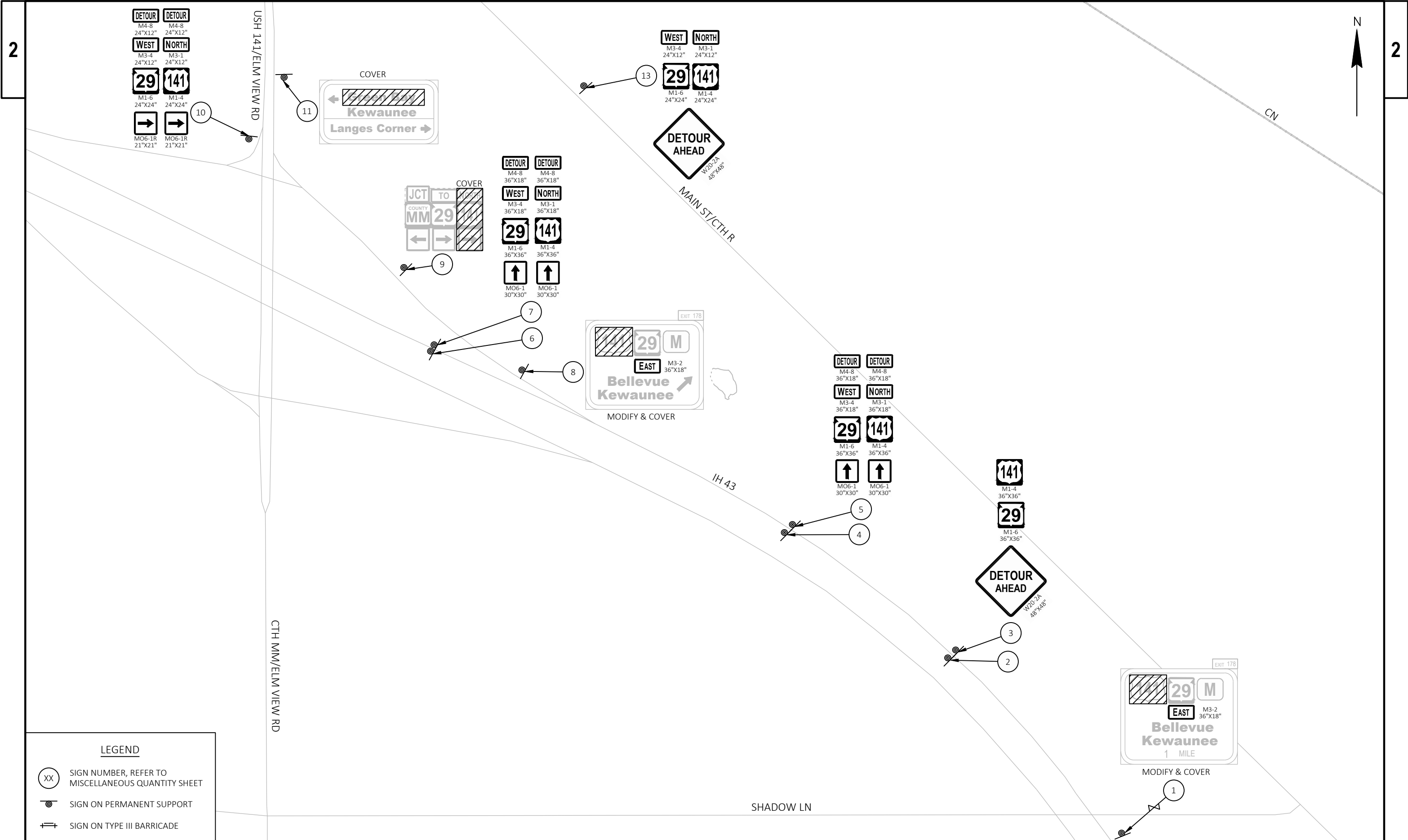
COUNTY: BROWN

PEDESTRIAN STAGING - STAGE 3

SHEET

43

E



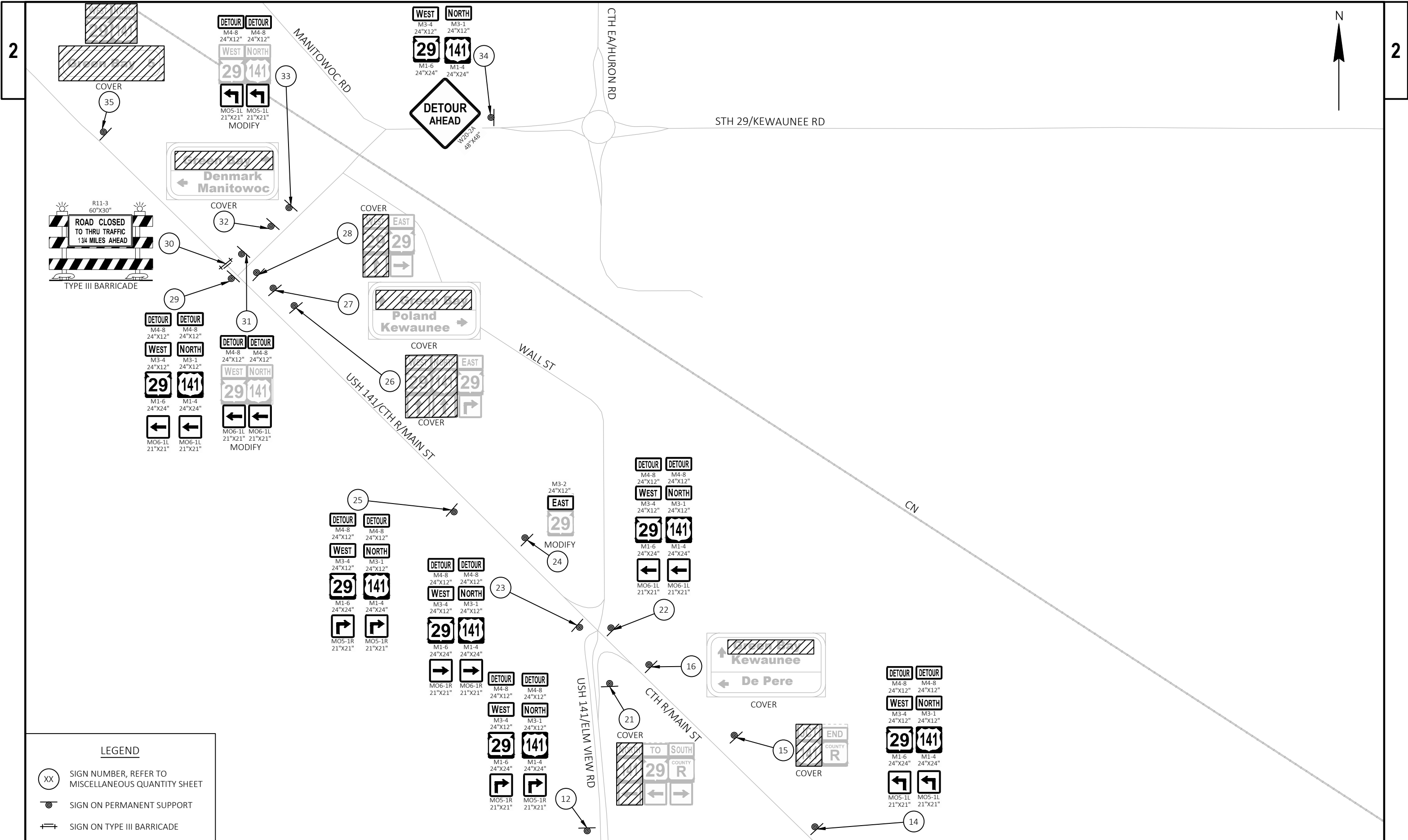
LEGEND

XX

SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN ON PERMANENT SUPPORT

SIGN ON TYPE III BARRICADE



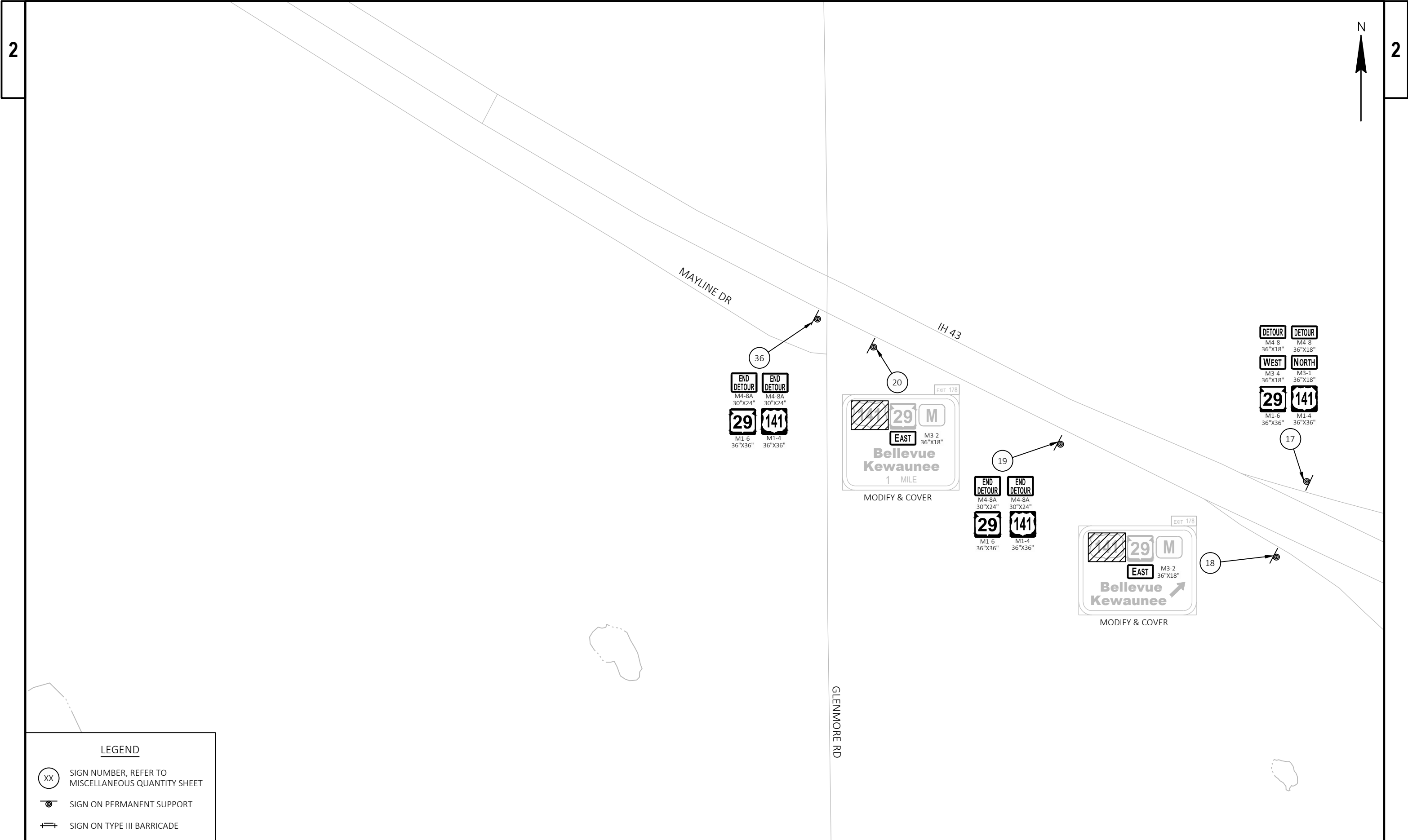
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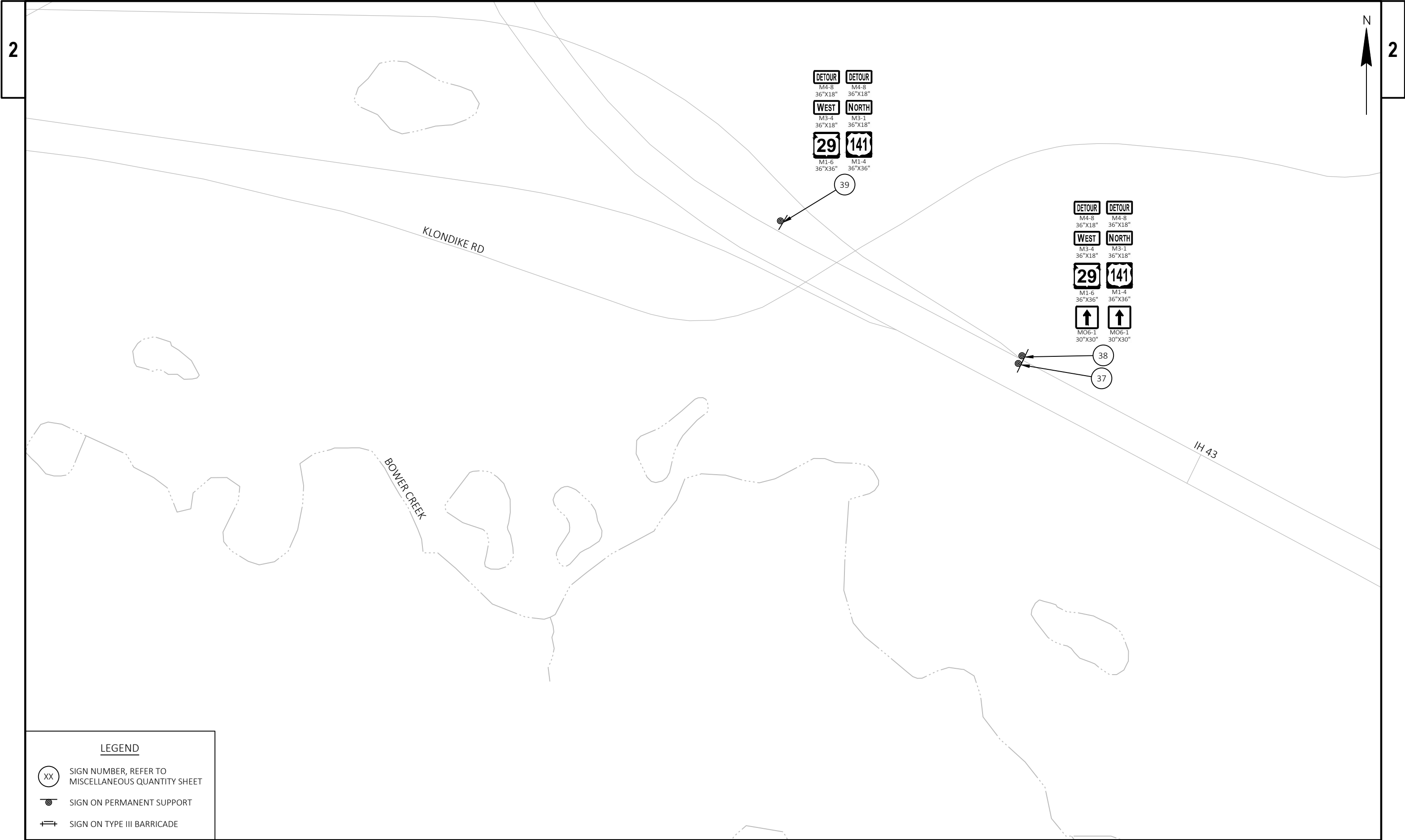
SIGN ON PERMANENT SUPPORT

SIGN ON TYPE III BARRICADE






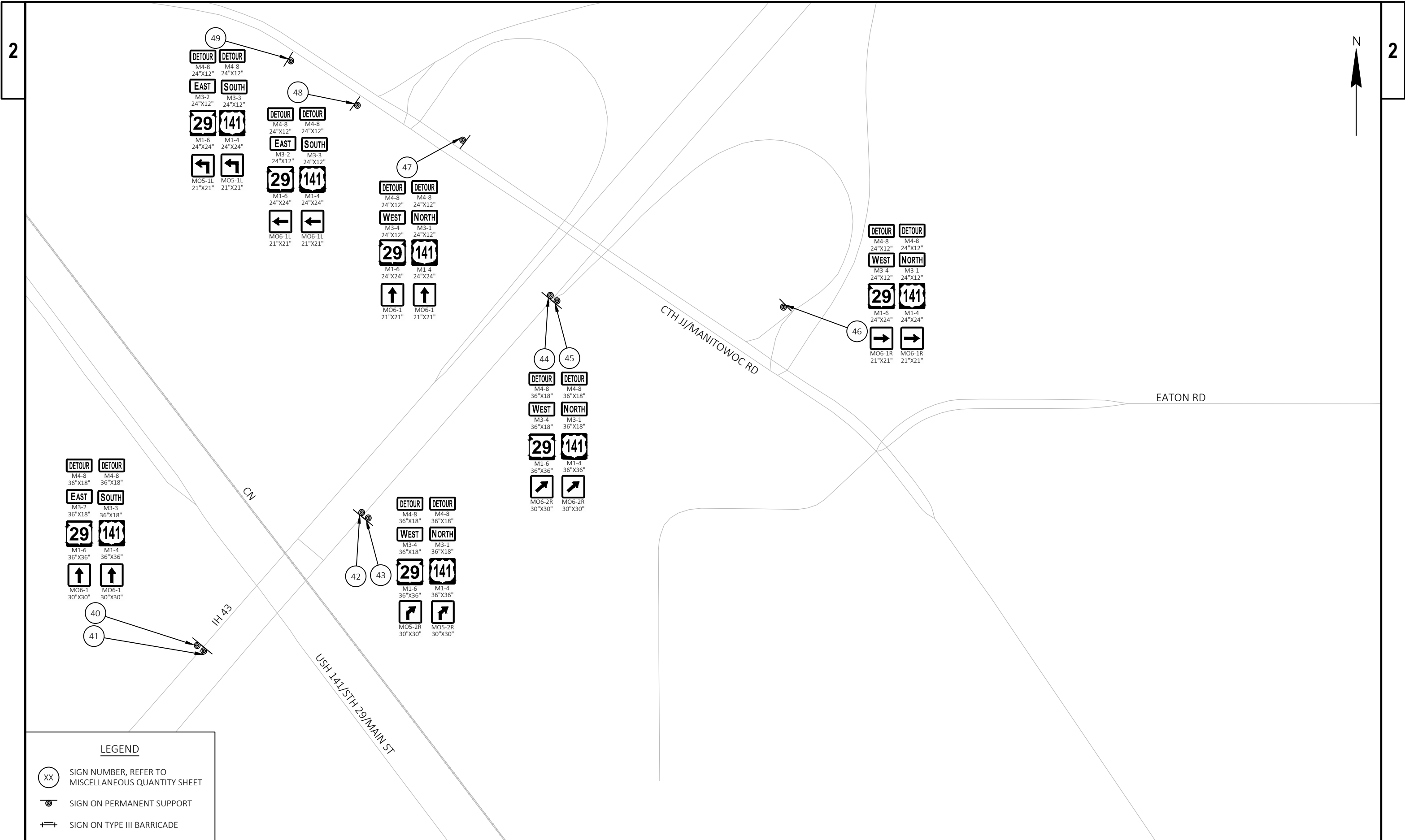
LEGEND

-  SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TYPE III BARRICADE



LEGEND

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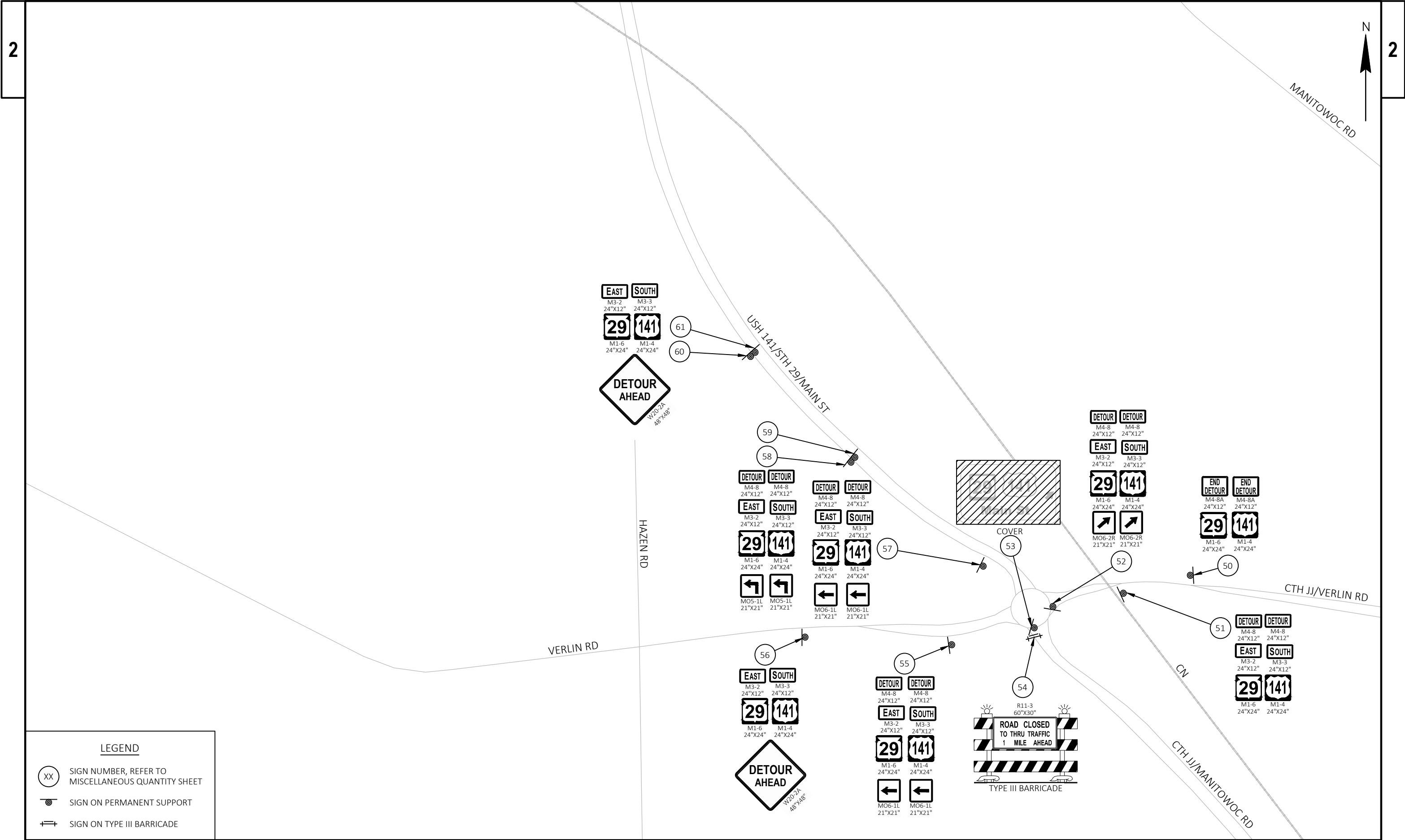
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SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN ON PERMANENT SUPPORT

SIGN ON TYPE III BARRICADE



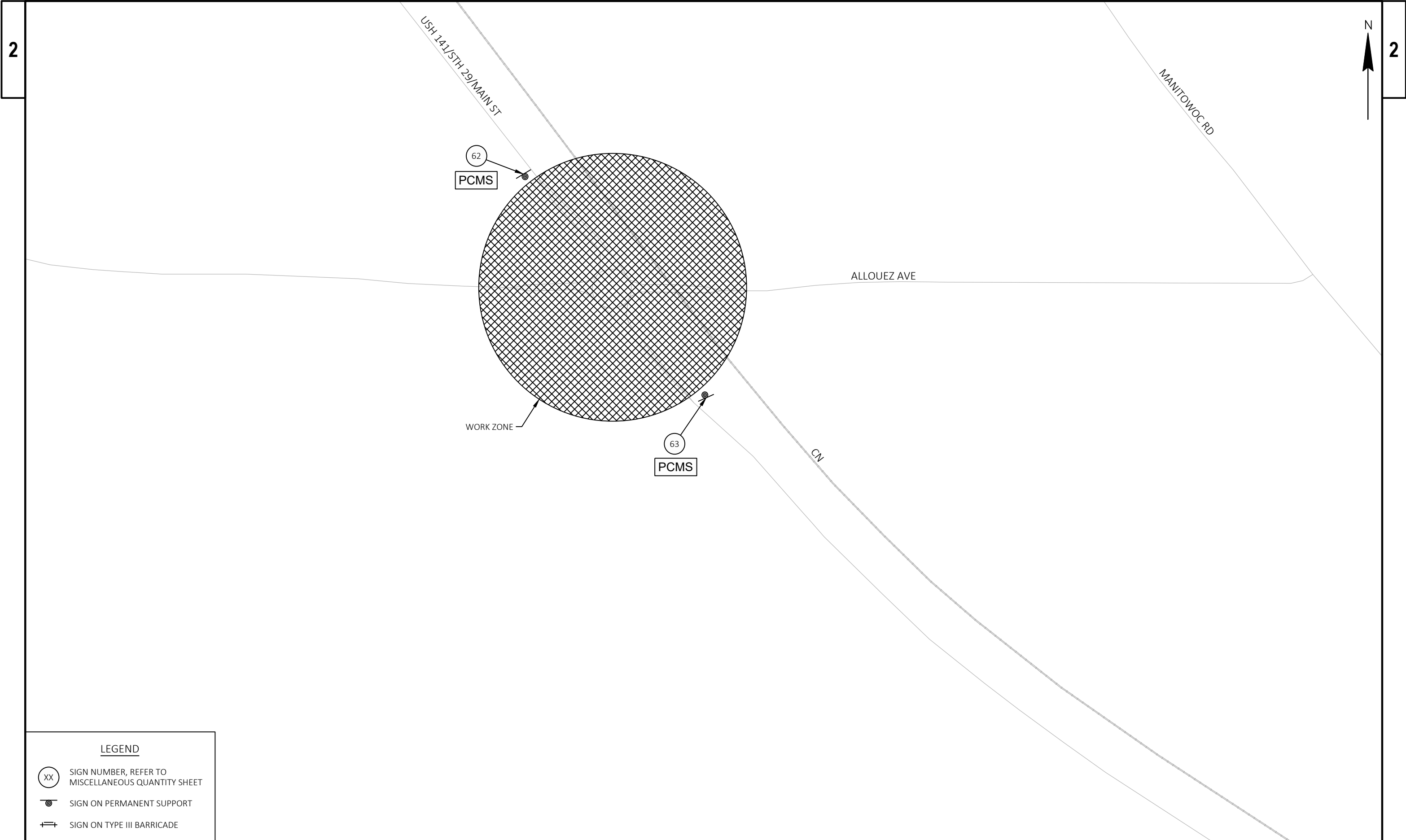
LEGEND

XX




SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET

SIGN ON PERMANENT SUPPORT

SIGN ON TYPE III BARRICADE



LEGEND

-  SIGN NUMBER, REFER TO MISCELLANEOUS QUANTITY SHEET
-  SIGN ON PERMANENT SUPPORT
-  SIGN ON TYPE III BARRICADE

Estimate Of Quantities

1450-18-71

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	1.000	1.000
0004	204.0110	Removing Asphaltic Surface	SY	269.000	269.000
0006	204.0115	Removing Asphaltic Surface Butt Joints	SY	1,755.000	1,755.000
0008	204.0120	Removing Asphaltic Surface Milling	SY	62,890.000	62,890.000
0010	204.0150	Removing Curb & Gutter	LF	835.000	835.000
0012	204.0155	Removing Concrete Sidewalk	SY	350.000	350.000
0014	204.0165	Removing Guardrail	LF	1,965.000	1,965.000
0016	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 1450-18-71	EACH	1.000	1.000
0018	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	24.000	24.000
0020	213.0100	Finishing Roadway (project) 01. 1450-18-71	EACH	1.000	1.000
0022	305.0110	Base Aggregate Dense 3/4-Inch	TON	1,330.000	1,330.000
0024	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	498.000	498.000
0026	450.4000	HMA Cold Weather Paving	TON	1,250.000	1,250.000
0028	455.0605	Tack Coat	GAL	7,480.000	7,480.000
0030	460.2000	Incentive Density HMA Pavement	DOL	8,300.000	8,300.000
0032	460.5223	HMA Pavement 3 LT 58-28 S	TON	6,295.000	6,295.000
0034	460.5224	HMA Pavement 4 LT 58-28 S	TON	6,350.000	6,350.000
0036	460.6424	HMA Pavement 4 MT 58-28 H	TON	310.000	310.000
0038	465.0110	Asphaltic Surface Patching	TON	189.000	189.000
0040	465.0120	Asphaltic Surface Driveways and Field Entrances	TON	250.000	250.000
0042	465.0315	Asphaltic Flumes	SY	40.000	40.000
0044	465.0560	Asphaltic Rumble Strips, Centerline	LF	5,160.000	5,160.000
0046	524.0124	Culvert Pipe Salvaged 24-Inch	LF	92.000	92.000
0048	524.0624	Apron Endwalls for Culvert Pipe Salvaged 24-Inch	EACH	4.000	4.000
0050	601.0411	Concrete Curb & Gutter 30-Inch Type D	LF	540.000	540.000
0052	601.0557	Concrete Curb & Gutter 6-Inch Sloped 36-Inch Type D	LF	305.000	305.000
0054	601.0600	Concrete Curb Pedestrian	LF	75.000	75.000
0056	602.0405	Concrete Sidewalk 4-Inch	SF	215.000	215.000
0058	602.0415	Concrete Sidewalk 6-Inch	SF	3,290.000	3,290.000
0060	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	256.000	256.000
0062	606.0200	Riprap Medium	CY	80.000	80.000
0064	614.0010	Barrier System Grading Shaping Finishing	EACH	6.000	6.000
0066	614.0397	Guardrail Mow Strip Emulsified Asphalt	SY	145.000	145.000
0068	614.2300	MGS Guardrail 3	LF	262.500	262.500
0070	614.2330	MGS Guardrail 3 K	LF	1,162.500	1,162.500
0072	614.2500	MGS Thrie Beam Transition	LF	78.800	78.800
0074	614.2610	MGS Guardrail Terminal EAT	EACH	10.000	10.000
0076	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1450-18-71	EACH	1.000	1.000
0078	619.1000	Mobilization	EACH	1.000	1.000
0080	620.0300	Concrete Median Sloped Nose	SF	30.000	30.000
0082	624.0100	Water	MGAL	10.000	10.000
0084	625.0100	Topsoil	SY	920.000	920.000
0086	628.1504	Silt Fence	LF	3,745.000	3,745.000
0088	628.1520	Silt Fence Maintenance	LF	3,745.000	3,745.000
0090	628.1905	Mobilizations Erosion Control	EACH	4.000	4.000
0092	628.1910	Mobilizations Emergency Erosion Control	EACH	2.000	2.000
0094	628.2008	Erosion Mat Urban Class I Type B	SY	920.000	920.000
0096	628.7015	Inlet Protection Type C	EACH	12.000	12.000
0098	628.7504	Temporary Ditch Checks	LF	70.000	70.000

Estimate Of Quantities

1450-18-71

Line	Item	Item Description	Unit	Total	Qty
0100	628.7555	Culvert Pipe Checks	EACH	5.000	5.000
0102	628.7570	Rock Bags	EACH	360.000	360.000
0104	629.0210	Fertilizer Type B	CWT	0.750	0.750
0106	630.0130	Seeding Mixture No. 30	LB	17.500	17.500
0108	630.0500	Seed Water	MGAL	21.000	21.000
0110	633.5200	Markers Culvert End	EACH	4.000	4.000
0112	638.2102	Moving Signs Type II	EACH	10.000	10.000
0114	638.2602	Removing Signs Type II	EACH	1.000	1.000
0116	638.3000	Removing Small Sign Supports	EACH	3.000	3.000
0118	642.5001	Field Office Type B	EACH	1.000	1.000
0120	643.0300	Traffic Control Drums	DAY	1,160.000	1,160.000
0122	643.0420	Traffic Control Barricades Type III	DAY	44.000	44.000
0124	643.0705	Traffic Control Warning Lights Type A	DAY	56.000	56.000
0126	643.0900	Traffic Control Signs	DAY	6,263.000	6,263.000
0128	643.0920	Traffic Control Covering Signs Type II	EACH	16.000	16.000
0130	643.1050	Traffic Control Signs PCMS	DAY	42.000	42.000
0132	643.3165	Temporary Marking Line Paint 6-Inch	LF	117,160.000	117,160.000
0134	643.3350	Temporary Marking Crosswalk Removable Tape 6-inch	LF	72.000	72.000
0136	643.5000	Traffic Control	EACH	1.000	1.000
0138	644.1440	Temporary Pedestrian Surface Matting	SF	450.000	450.000
0140	644.1601	Temporary Pedestrian Curb Ramp	DAY	5.000	5.000
0142	644.1605	Temporary Pedestrian Detectable Warning Field	SF	20.000	20.000
0144	644.1810	Temporary Pedestrian Barricade	LF	665.000	665.000
0146	644.1900.S	Temporary Audible Message Devices	DAY	80.000	80.000
0148	645.0120	Geotextile Type HR	SY	205.000	205.000
0150	646.2020	Marking Line Epoxy 6-Inch	LF	700.000	700.000
0152	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	48,940.000	48,940.000
0154	646.4020	Marking Line Epoxy 10-Inch	LF	220.000	220.000
0156	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	2,265.000	2,265.000
0158	646.5020	Marking Arrow Epoxy	EACH	13.000	13.000
0160	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0162	646.6120	Marking Stop Line Epoxy 18-Inch	LF	85.000	85.000
0164	646.6320	Marking Dotted Extension Epoxy 18-Inch	LF	60.000	60.000
0166	646.6466	Cold Weather Marking Epoxy 6-Inch	LF	5,000.000	5,000.000
0168	646.6470	Cold Weather Marking Epoxy 10-Inch	LF	250.000	250.000
0170	646.7120	Marking Diagonal Epoxy 12-Inch	LF	485.000	485.000
0172	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	240.000	240.000
0174	646.8120	Marking Curb Epoxy	LF	80.000	80.000
0176	646.8220	Marking Island Nose Epoxy	EACH	8.000	8.000
0178	650.5500	Construction Staking Curb Gutter and Curb & Gutter	LF	835.000	835.000
0180	650.8000	Construction Staking Resurfacing Reference	LF	13,935.000	13,935.000
0182	650.9000	Construction Staking Curb Ramps	EACH	16.000	16.000
0184	650.9500	Construction Staking Sidewalk (project) 01. 1450-18-71	EACH	1.000	1.000
0186	650.9911	Construction Staking Supplemental Control (project) 01. 1450-18-71	EACH	1.000	1.000
0188	690.0150	Sawing Asphalt	LF	1,239.000	1,239.000
0190	690.0250	Sawing Concrete	LF	260.000	260.000
0192	740.0440	Incentive IRI Ride	DOL	20,620.000	20,620.000
0194	SPV.0060	Special 01. Grading Shaping and Finishing Pedestrian Route	EACH	1.000	1.000
0196	SPV.0060	Special 02. Adjusting Sanitary Manhole Covers	EACH	4.000	4.000

Estimate Of Quantities

0198	SPV.0090	Special 01. Ditch Cleaning	LF	40.000	1450-18-71 40.000
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3

GRUBBING ITEMS

CATEGORY	STATION	TO	STATION	OFFSET	201.0205 GRUBBING STA
0010	731+00	-	732+00	LT	1
TOTAL					1

REMOVAL ITEMS

CATEGORY	STATION	TO	STATION	SY	204.0110* REMOVING ASPHALTIC SURFACE	SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS	SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING	SY	204.0150 REMOVING CURB & GUTTER	LF	SY	204.0155 REMOVING CONCRETE SIDEWALK
0010	608+54	-	620+75	--	--	45	7,005	--	--	--	--	--	--	--
	620+75	-	643+50		71	487	9,156	58	--	--	--	--	--	--
	643+50	-	650+25		18	20	4,105	77	--	--	--	--	--	--
	650+25	-	690+00		32	503	17,126	137	--	--	--	--	--	--
	690+00	-	721+20		--	126	11,251	--	--	--	--	--	--	--
	721+20	-	726+41		92	24	3,140	398	350	--	--	--	--	--
	726+41	-	747+89		41	551	11,107	166	--	--	--	--	--	--
TOTALS					255	1,755	62,890	835	350					
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE														

PREPARE FOUNDATION FOR ASPHALTIC SHOULDERS

CATEGORY	STATION	TO	STATION	OFFSET	211.0400 STA
0010	643+48	-	647+47	LT	5
	644+14	-	648+79	RT	5
	726+50	-	732+30	LT	7
	726+53	-	730+78	RT	5
	746+19	-	747+56	RT	2
TOTAL					24

BASE AGGREGATE ITEMS							ASPHALTIC ITEMS												
				305.0110	305.0120*					450.4000	455.0605	460.5223	460.5224	460.6424	465.0110*	465.0120	465.0315	465.0560	
CATEGORY	STATION	TO	STATION	BASE AGGREGATE DENSE 3/4-INCH TON	BASE AGGREGATE DENSE 1 1/4-INCH TON					HMA COLD WEATHER PAVING TON	TACK COAT GAL	HMA PAVEMENT 3 LT 58-28 S TON	HMA PAVEMENT 4 LT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 H TON	ASPHALTIC SURFACE PATCHING TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	ASPHALTIC FLUMES SY	ASPHALTIC RUMBLE STRIPS, CENTERLINE LF	
0010	TEMPORARY PEDESTRIAN ACCESS			--	15														
	608+54	-	620+75	85	--					--	910	160	986	--	--	17	--	243	
	620+75	-	643+50	240	40					--	1,117	1,172	912	--	25	115	19	741	
	643+50	-	650+25	25	160					--	505	--	590	--	5	--	--	356	
	650+25	-	690+00	415	--					--	2,050	2,153	1,675	--	10	47	--	2,695	
	690+00	-	721+20	330	--					--	1,347	1,412	1,100	--	--	29	--	1,125	
	721+20	-	726+41	5	65					--	220	--	--	310	35	--	--	--	
	726+41	-	747+89	230	205					--	1,331	1,398	1,087	--	10	42	21	--	
TOTALS				1,330	485														
NOTE: BASE AGGREGATE DENSE 1 1/4-INCH INCLUDED FROM STA 721+20 TO STA 726+41 IS FOR 3-INCHES OF AGGREGATE UNDER PROPOSED CONCRETE SIDEWALK.																			
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE																			

CATEGORY	STATION	TO	STATION	OFFSET	450.4000	455.0605	460.5223	460.5224	460.6424	465.0110*	465.0120	465.0315	465.0560
					HMA COLD WEATHER PAVING TON	TACK COAT GAL	HMA PAVEMENT 3 LT 58-28 S TON	HMA PAVEMENT 4 LT 58-28 S TON	HMA PAVEMENT 4 MT 58-28 H TON	ASPHALTIC SURFACE PATCHING TON	ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES TON	ASPHALTIC FLUMES SY	ASPHALTIC RUMBLE STRIPS, CENTERLINE LF
0010	608+54	-	620+75	LT & RT	--	910	160	986	--	--	17	--	243
	620+75	-	643+50	LT & RT	--	1,117	1,172	912	--	25	115	19	741
	643+50	-	650+25	LT & RT	--	505	--	590	--	5	--	--	356
	650+25	-	690+00	LT & RT	--	2,050	2,153	1,675	--	10	47	--	2,695
	690+00	-	721+20	LT & RT	--	1,347	1,412	1,100	--	--	29	--	1,125
	721+20	-	726+41	LT & RT	--	220	--	--	310	35	--	--	--
	726+41	-	747+89	LT & RT	--	1,331	1,398	1,087	--	10	42	21	--
UNDISTRIBUTED					1,250	--	--	--	--	100	--	--	--
TOTALS					1,250	7,480	6,295	6,350	310	185	250	40	5,160
NOTES: UNDISTRIBUTED ASPHALTIC SURFACE PATCHING USED FOR MISCELLANEOUS REPAIRS DESIGNATED BY THE ENGINEER.													
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE													

CONCRETE ITEMS																		
				601.0411		601.0557		601.0600		602.0405		602.0415		602.0505		620.0300		
				CONCRETE CURB & GUTTER 30-INCH TYPE D		CONCRETE CURB & GUTTER 6-INCH SLOPED 36-INCH TYPE D		CONCRETE CURB PEDESTRIAN		CONCRETE SIDEWALK 4-INCH		CONCRETE SIDEWALK 6-INCH		CURB RAMP DETECTABLE WARNING FIELD YELLOW		CONCRETE MEDIAN SLOPED NOSE		
CATEGORY	STATION	TO	STATION	OFFSET	LF	LF	LF	SF	SF	SF	SF	SF	SF	SF	SF	SF	SF	
0010	498+67	-	499+48	LT & RT	158	--	20	27	1,178	64	--							
	500+95	-	501+35	LT & RT	87	--	16	29	611	64	14							
	629+03	-	629+80	RT	--	58	--	--	--	--	16							
	647+58	-	647+99	LT	--	44	--	--	--	--	--							
	648+79	-	649+13	RT	--	35	--	--	--	--	--							
	683+99	-	685+41	LT & RT	138	--	--	--	--	--	--							
	721+20	-	721+30	LT	11	--	--	--	--	--	--							
	722+99	-	723+53	LT & RT	83	--	39	70	716	64	--							
	725+31	-	725+84	LT & RT	63	--	--	89	785	64	--							
	739+88	-	742+79	LT & RT	--	168	--	--	--	--	--							
TOTALS					540	305	75	215	3,290	256	30							

CROSS DRAIN MAINTENANCE ITEMS												
				524.0124		524.0624		633.5200		SPV.0090.01		
				CULVERT PIPE SALVAGED 24-INCH		APRON ENDWALLS FOR CULVERT PIPE SALVAGED 24-INCH		MARKERS CULVERT END		DITCH CLEANING		
CATEGORY	STATION	OFFSET	LF	LF	EACH	EACH	EACH	EACH	LF	LF	LF	
0010	612+75 - 613+15	RT	--	--	--	--	--	--	40			
		628+98	RT	24	1	1	1	--	--			
		629+89	RT	24	1	1	1	--	--			
		629+90	LT	22	1	1	1	--	--			
		630+63	RT	22	1	1	1	1	--	--		
TOTALS			92	4	4	4	40					
NOTE: SALVAGING BID ITEMS ACCOUNT FOR JOINT TIES OF THE LAST THREE FULL PIPE SECTIONS AND THE APRON ENDWALL.												

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ADJUSTING MANHOLE COVERS						
CATEGORY	STATION	OFFSET	204.0110*	305.0120*	465.0110*	690.0150*
			REMOVING ASPHALTIC SURFACE SY	BASE AGGREGATE DENSE 1 1/4-INCH TON	ASPHALTIC SURFACE PATCHING TON	SAWING ASPHALT LF
0020	663+65	LT	4	4	1	24
	723+81	RT	2	2	1	12
	726+59	LT	4	3	1	24
	740+76	RT	4	4	1	24
	TOTALS		14	13	4	84
*ADDITIONAL QUANTITIES SHOWN ELSEWHERE						

RIPRAP ITEMS					
CATEGORY	STATION	TO STATION	OFFSET	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
0010	728+10	-	729+50	RT	80
TOTALS					205

3

RESTORATION ITEMS							
CATEGORY	STATION	TO STATION	OFFSET	625.0100	629.0210	630.0130	630.0500
				TOPSOIL SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 30 LB	SEED WATER MGAL
0010	498+67	-	499+48	LT & RT	83	0.06	1.9
	500+95	-	501+35	LT & RT	38	0.03	0.9
	612+75	-	613+15	RT	46	0.04	1.1
	628+88	-	629+14	RT	85	0.07	2.0
	629+66	-	630+31	LT	97	0.08	2.2
	629+73	-	630+86	RT	198	0.14	4.5
	683+99	-	685+41	LT & RT	44	0.04	1.0
	721+20	-	721+30	LT	5	0.01	0.1
	722+99	-	723+53	LT & RT	40	0.03	0.9
	725+19	-	725+72	LT & RT	45	0.04	1.0
	739+87	-	742+79	LT & RT	54	0.05	1.2
	UNDISTRIBUTED			185	0.16	3.6	4.2
	TOTALS			920	0.75	17.5	21.0

EROSION CONTROL ITEMS									
CATEGORY	STATION	TO STATION	OFFSET	628.1504	628.1520	628.2008	628.7504	628.7555	628.7570
				SILT FENCE LF	SILT FENCE MAINTENANCE LF	EROSION MAT URBAN CLASS I TYPE B SY	TEMPORARY DITCH CHECKS LF	CULVERT PIPE CHECKS EACH	ROCK BAGS EACH
0010	498+67	-	499+48	LT & RT	--	--	83	--	--
	500+95	-	501+35	LT & RT	70	70	38	--	--
	612+75	-	613+15	RT	--	--	46	--	--
	628+88	-	629+14	RT	--	--	85	2	5
	629+66	-	630+31	LT	--	--	97	2	5
	629+73	-	630+86	RT	135	135	198	40	--
	643+43	-	649+10	LT & RT	1,050	1,050	--	15	120
	683+99	-	685+41	LT & RT	--	--	44	--	--
	721+20	-	721+30	LT	--	--	5	--	--
	722+99	-	723+53	LT & RT	--	--	40	--	--
	725+19	-	725+72	LT & RT	--	--	45	--	--
	726+40	-	732+37	LT & RT	1,215	1,215	--	--	120
	739+87	-	742+79	LT & RT	--	--	54	--	--
	745+20	-	747+76	LT & RT	525	525	--	--	35
	UNDISTRIBUTED			750	750	185	15	1	75
TOTALS				3,745	3,745	920	70	5	360

EROSION CONTROL MOBILIZATION			
CATEGORY	LOCATION	628.1905	628.1910
		MOBILIZATIONS EROSION CONTROL EACH	MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
0010	PROJECT	4	2
TOTALS		4	2

INLET PROTECTION TYPE C				
CATEGORY	STATION	TO STATION	OFFSET	628.7015
				EACH
0010	646+94		LT	1
	722+13	-	725+79	LT & RT
				9
UNDISTRIBUTED				2
TOTAL				12

WATER		
CATEGORY	LOCATION	624.0100
		MGAL
0010	PROJECT	10
TOTAL		10

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MOVING AND REMOVING SIGN ITEMS

					638.2102	638.2602	638.3000
					MOVING SIGNS TYPE II EACH	REMOVING SIGNS TYPE II EACH	REMOVING SMALL SIGN SUPPORTS EACH
CATEGORY	SIGN NUMBER	STATION	OFFSET	SIGN MESSAGE			
0010							
	9-1	501+26	RT	RAILROAD CROSSING / NO TRUCK SIGN	1	--	--
	9-2	502+99	LT	ALLOUEZ AVE ROUNDABOUT DESCRIPTION	--	1	3
	4-1	629+89	RT	STOP / ALL WAY	1	--	--
	4-2	629+92	RT	NORTH / USH 141/ RIGHT ARROW AND WEST / STH 29 / RIGHT ARROW	1	--	--
	4-3	629+95	LT	EAST / STH 29 / LEFT ARROW AND TO / INTERSTATE 43 / UP ARROW	1	--	--
	7-1	727+50	RT	SPEED LIMIT 45 MPH	1	--	--
	12-1	747+54	RT	HWY 43	1	--	--
	12-2	747+63	LT	BRIDGE HASH MARKS	1	--	--
	12-3	747+66	RT	BRIDGE HASH MARKS	1	--	--
UNDISTRIBUTED					2	--	--
TOTAL					10	1	3

GRADING SHAPING AND FINISHING PEDESTRIAN ROUTE

SPV.0060.01				**	**	**	**	**	**	**	**
CATEGORY	STATION TO STATION	OFFSET	EACH	EXCAVATION	BORROW	TOPSOIL	EROSION MAT	FERTILIZER TYPE	SEEDING	SEED WATER	CONSTRUCTION
				COMMON	CY	SY	URBAN CLASS I	B	MIXTURE NO. 30		STAKING SLOPE
				CY	CY	SY	SY	CWT	LB	MGAL	STAKES
											LF
0010	643+48 - 647+92	LT	1	10	10	90	90	0.1	1.6	2.0	60
TOTALS				1	10	90	90	0.1	1.6	2.0	60

**NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY. ITEMS INCIDENTAL TO GRADING, SHAPING, FINISHING PEDESTRIAN ROUTE

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TRAFFIC CONTROL ITEMS

CATEGORY	LOCATION	STAGE DURATION DAYS	643.0300		643.0420*		643.0705*		643.0900*		643.1050*	
			TRAFFIC CONTROL DRUMS		TRAFFIC CONTROL BARRICADES TYPE III		TRAFFIC CONTROL WARNING LIGHTS TYPE A		TRAFFIC CONTROL SIGNS		TRAFFIC CONTROL SIGNS PCMS	
			NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY	NO.	DAY
0010	PRIOR TO CONSTRUCTION	7	20	140	--	--	--	--	--	--	4	28
	PROJECT - ADVANCED WARNING	70	--	--	--	--	--	--	38	2,660	--	--
	WIDTH RESTRICTION	20	--	--	--	--	--	--	105	2,100	--	--
	CURB & GUTTER REPLACEMENTS	20	10	200	--	--	--	--	--	--	--	--
	PEDESTRIAN STAGING - STAGE 1	5	10	50	--	--	--	--	16	80	--	--
	PEDESTRIAN STAGING - STAGE 2	5	10	50	--	--	--	--	20	100	--	--
	PEDESTRIAN STAGING - STAGE 3	5	10	50	--	--	--	--	19	95	--	--
	DETOUR	2	10	70	20	40	24	48	4	8	--	--
	GUARDRAIL REPLACEMENTS	30	20	600	--	--	--	--	6	180	--	--
	MILL AND OVERLAY	20	--	--	--	--	--	--	22	440	--	--
	TOTALS		1,160		40		48		5,663		28	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TEMPORARY PEDESTRIAN FACILITIES

CATEGORY	LOCATION	STAGE DURATION DAYS	644.1440		644.1601		644.1605		644.1810		644.1900.S		643.3350	
			TEMPORARY PEDESTRIAN SURFACE MATTING SF		TEMPORARY PEDESTRIAN CURB RAMP NO. DAY		TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF		TEMPORARY PEDESTRIAN BARRICADE LF		TEMPORARY AUDIBLE MESSAGE DEVICES NO. DAY		TEMPORARY MARKING CROSSWALK REMOVABLE TAPE 6-INCH LF	
0010	PEDESTRIAN STAGING - STAGE 1	5	345	--	--	--	--	--	220	8	40	--	--	--
	PEDESTRIAN STAGING - STAGE 2	5	--	--	--	--	--	--	200	4	20	--	--	--
	PEDESTRIAN STAGING - STAGE 3	5	105	1	5	20	245	4	20	72				
TOTALS			450	5	20	665	80	72						

LONG LINE PAVEMENT MARKING ITEMS

					643.3165			646.2020		646.2040				646.4020		646.4040		646.6320		646.6466		646.6470		646.7120	
					TEMPORARY MARKING LINE PAINT 6-INCH			MARKING LINE EPOXY 6-INCH	MARKING LINE GROOVED WET REF EPOXY 6-INCH					MARKING LINE EPOXY 10-INCH	MARKING LINE GROOVED WET REF EPOXY 10-INCH	MARKING DOTTED EXTENSION EPOXY 18-INCH		COLD WEATHER MARKING EPOXY 6-INCH	COLD WEATHER MARKING EPOXY 10-INCH	MARKING DIAGONAL EPOXY 12-INCH					
CATEGORY	STATION	TO	STATION	OFFSET	4' LINE 46' SKIP YELLOW	SOLID YELLOW	SOLID WHITE	SOLID YELLOW	3' LINE 9' SKIP YELLOW	12.5' LINE 37.5' SKIP YELLOW	SOLID YELLOW	SOLID WHITE	SOLID WHITE	SOLID WHITE	SOLID WHITE	2' LINE 2' SKIP WHITE		LF	LF	LF	LF				
					LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	LF	
0010																									
	608+54	-	620+75	LT & RT	37	9,111	4,510	--	12	--	3,037	2,255	50		505	--	--	--	--	--	75				
	620+75	-	643+50	LT & RT	188	16,524	8,810	94	--	63	5,514	4,405	50		500	--	--	--	--	--	200				
	643+50	-	650+25	LT & RT	525	2,025	2,064	228	--	175	675	1,032	40		200	--	--	--	--	--	--				
	650+25	-	690+00	LT & RT	3,000	6,333	14,708	--	--	1,000	2,111	7,354	--		415	--	--	--	--	--	--				
	690+00	-	721+20	LT & RT	2,175	9,642	12,224	--	--	725	3,214	6,112	--		100	--	--	--	--	--	--				
	721+20	-	726+41	LT & RT	--	593	984	88	--	--	1,358	722	--		--		60	--	--	--	125				
	726+41	-	747+89	LT & RT	--	16,137	7,570	290	--	--	5,391	3,785	80		545	--	--	--	--	--	85				
UNDISTRIBUTED					--	--	--	--	--	--	--	--	--	--	--	--	--	5,000	250	--	--				
TOTALS					5,925	60,365	50,870	700	12	1,963	21,300	25,665	220	2,265	60	5,000	250	485							
						117,160				48,940															

NOTE:
TEMPORARY MARKING LINE PAINT ACCOUNTS FOR CENTERLINE MARKING ON THE MILLED SURFACE, LOWER LAYER, AND SURFACE LAYER AND EDGELINE MARKING ON THE LOWER LAYER AND SURFACE LAYER.

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MISCELLANEOUS PAVEMENT MARKING ITEMS										
					646.5020	646.5120	646.6120	646.7420	646.8120	646.8220
					MARKING ARROW EPOXY	MARKING WORD EPOXY	MARKING STOP LINE EPOXY 18-INCH	MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH	MARKING CURB EPOXY	MARKING ISLAND NOSE EPOXY
CATEGORY	STATION	TO	STATION	OFFSET	EACH	EACH	LF	LF	LF	EACH
0010	610+75	-	612+51	LT & RT	--	--	50	--	40	1
	626+84	-	632+68	LT & RT	4	2	35	--	--	1
	648+26	-	648+58	LT	--	--	--	--	--	2
	722+97	-	725+84	LT & RT	--	--	--	240	40	4
	739+12	-	743+87	LT & RT	9	1	--	--	--	--
	TOTALS					13	3	85	240	80

GUARDRAIL ITEMS										
					204.0165	614.0397	614.2300	614.2330	614.2500	614.2610
					REMOVING GUARDRAIL LF	GUARDRAIL MOW STRIP EMULSIFIED ASPHALT SY	MGS GUARDRAIL 3 LF	MGS GUARDRAIL 3 K LF	MGS THRIE BEAM TRANSITION LF	MGS GUARDRAIL TERMINAL EAT EACH
CATEGORY	STATION	TO	STATION	OFFSET						
0010	644+08	-	648+83	LT & RT	808	100	25	587.5	--	4
	726+75	-	731+92	LT & RT	910	45	187.5	575	--	4
	746+45	-	747+77	LT & RT	247	--	50	--	78.8	2
TOTALS					1,965	145	262.5	1,162.5	78.8	10

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BARRIER SYSTEM GRADING SHAPING FINISHING													
		614.0010	**	**	**	**	**	**	**	**	**	**	**
CATEGORY	STATION	TO	STATION	OFFSET	EXCAVATION COMMON CY	FILL CY	BORROW CY	TOPSOIL SY	EROSION MAT URBAN CLASS I TYPE B SY	FERTILIZER TYPE B CWT	SEEDING MIXTURE NO. 30 LB	SEED WATER MGAL	CONSTRUCTION STAKING SLOPE STAKES LF
0010	643+48	-	647+92	LT	1	10	30	240	240	0.2	4.7	5.3	444
	643+68	-	649+09	RT	1	15	80	335	335	0.4	7.3	7.5	541
	726+50	-	731+85	RT	1	10	50	390	390	0.4	8.1	8.7	535
	726+50	-	732+32	LT	1	20	90	520	520	0.4	10.1	11.6	582
	745+25	-	747+73	RT	1	--	85	275	275	0.2	5.8	6.2	248
	745+50	-	747+64	LT	1	--	85	570	570	0.4	11.0	12.7	214
TOTALS					6	55	420	2,330	2,330	2.0	47.0	52.0	2,564

**NON-BID ITEM, ITEMS AND QUANTITIES LISTED FOR BID INFORMATION ONLY. ITEMS INCIDENTAL TO BARRIER SYSTEM GRADING SHAPING FINISHING.

STAKING ITEMS									
				650.5500	650.8000	650.9000	650.9500.01	650.9911.01	
CATEGORY	STATION	TO	STATION	OFFSET	CONSTRUCTION STAKING CURB GUTTER AND CURB & GUTTER LF	CONSTRUCTION STAKING RESURFACING REFERENCE LF	CONSTRUCTION STAKING CURB RAMPS EACH	CONSTRUCTION STAKING SIDEWALK (1450-18-71) EACH	CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (1450-18-71) EACH
0010	608+54	-	747+89	LT & RT	835	13,935	16	--	--
	PROJECT				--	--	--	1	1
TOTALS					835	13,935	16	1	1

SAWING ITEMS						
		690.0150*	690.0250			
CATEGORY	STATION	TO	STATION	OFFSET	SAWING ASPHALT LF	SAWING CONCRETE LF
0010	498+67	-	499+48	LT & RT	179	65
	500+95	-	501+35	LT & RT	116	53
	629+01	-	630+55	LT & RT	204	6
	647+58	-	649+14	LT & RT	91	6
	683+99	-	685+41	LT & RT	161	8
	721+20	-	721+32	LT	17	3
	722+99	-	723+53	LT & RT	99	51
	725+19	-	725+86	LT & RT	86	56
	739+88	-	742+79	LT & RT	202	12
TOTALS					1,155	260

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 2 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
1	I-43 NB, S. OF CTH MM, MODIFY/COVER EXISTING TYPE I SIGN AS SHOWN	M 3-2	36"x18"	1	2	2				1	1	PLACE "EAST" PLAQUE OVER "TO" ON TYPE I SIGN
2	I-43 NB, S. OF CTH MM, PLACE 1500' S. OF CTH MM EXIT RAMP IN MEDIAN	M 1-6	36"x36"	1	2	2						29
	"	M 1-6	36"x36"	1	2	2						141
	"	W 20-2A	48"x48"	1	2	2						
3	I-43 NB, S. OF CTH MM, PLACE 1500' S. OF CTH MM EXIT RAMP ON RIGHT SHOULDDER	M 1-6	36"x36"	1	2	2						29
	"	M 1-6	36"x36"	1	2	2						141
	"	W 20-2A	48"x48"	1	2	2						
4	I-43 NB, S. OF CTH MM, PLACE 750' S. OF CTH MM EXIT RAMP IN MEDIAN	MO 4-8	36"x18"	1	2	2						
	"	M 3-4	36"x18"	1	2	2						
	"	M 1-6	36"x36"	1	2	2						29
	"	MO 6-1	30"x30"	1	2	2						AHEAD
	"	MO 4-8	36"x18"	1	2	2						
	"	M 3-1	36"x18"	1	2	2						
	"	M 1-4	36"x36"	1	2	2						141
	"	MO 6-1	30"x30"	1	2	2						AHEAD
5	I-43 NB, S. OF CTH MM, PLACE 750' S. OF CTH MM EXIT RAMP ON RIGHT SHOULDER	MO 4-8	36"x18"	1	2	2						
	"	M 3-4	36"x18"	1	2	2						
	"	M 1-6	36"x36"	1	2	2						29
	"	MO 6-1	30"x30"	1	2	2						AHEAD
	"	MO 4-8	36"x18"	1	2	2						
	"	M 3-1	36"x18"	1	2	2						
	"	M 1-4	36"x36"	1	2	2						141
	"	MO 6-1	30"x30"	1	2	2						AHEAD
6	I-43 NB, AT CTH MM, PLACE ACROSS FROM SIGN #7 IN MEDIAN	MO 4-8	36"x18"	1	2	2						
	"	M 3-4	36"x18"	1	2	2						
	"	M 1-6	36"x36"	1	2	2						29
	"	MO 6-1	30"x30"	1	2	2						AHEAD
	"	MO 4-8	36"x18"	1	2	2						
	"	M 3-1	36"x18"	1	2	2						
	"	M 1-4	36"x36"	1	2	2						141
	"	MO 6-1	30"x30"	1	2	2						AHEAD
7	I-43 NB, AT CTH MM EXIT, PLACE LEFT OF EXISTING TYPE I SIGN ON RIGHT SHOULDER	MO 4-8	36"x18"	1	2	2						
	"	M 3-4	36"x18"	1	2	2						
	"	M 1-6	36"x36"	1	2	2						29
	"	MO 6-1	30"x30"	1	2	2						AHEAD
	"	MO 4-8	36"x18"	1	2	2						
	"	M 3-1	36"x18"	1	2	2						
	"	M 1-4	36"x36"	1	2	2						141
	"	MO 6-1	30"x30"	1	2	2						AHEAD
8	I-43 NB, AT CTH MM, MODIFY/COVER EXISTING TYPE I SIGN AS SHOWN	M 3-2	36"x18"	1	2	2				1	1	PLACE "EAST" PLAQUE OVER "TO" ON TYPE I SIGN
9	I-43 NB OFF-RAMP TO CTH MM, COVER EXISTING J3-3 AS SHOWN									1	1	COVER "NORTH 141 RT"
10	US 141, AT I-43 NB RAMP, PLACE 150' N. OF RAMP INTERSECTION	MO 4-8	24"x12"	1	2	2						
	"	M 3-4	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 6-1	21"x21"	1	2	2						RIGHT
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-1	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 6-1	21"x21"	1	2	2						RIGHT
PAGE SUBTOTALS				48		96	0	0	0		3	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 2 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
11	US 141, N. OF I-43 NB RAMP, COVER EXISTING D1-3 AS SHOWN									1	1	COVER "GREEN BAY"
12	US 141, N. OF I-43 NB RAMP, PLACE 650' N. OF I-43 RAMP INTERSECTION	MO 4-8	24"x12"	1	2	2						
	"	M 3-4	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 5-1R	21"x21"	1	2	2						
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-1	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 5-1R	21"x21"	1	2	2						
13	CTH R, E. OF US 141, PLACE 1500' E. OF US 141 INTERSECTION	M 3-4	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	M 3-1	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	W 20-2A	48"x48"	1	2	2						
14	CTH R, E. OF US 141, PLACE 1000' E. OF US 141 INTERSECTION	MO 4-8	24"x12"	1	2	2						
	"	M 3-4	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 5-1L	21"x21"	1	2	2						
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-1	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 5-1L	21"x21"	1	2	2						
15	CTH R, E. OF US 141, COVER EXISTING J1-2 SIGN AS SHOWN									1	1	COVER "JCT 141"
16	CTH R, E. OF US 141, COVER EXISTING D1-3 SIGN AS SHOWN									1	1	COVER "GREEN BAY"
17	CTH MM ON-RAMP TO I-43 NB, PLACE 250' BEYOND RAMP INTERSECTION	MO 4-8	36"x18"	1	2	2						
	"	M 3-4	36"x18"	1	2	2						
	"	M 1-6	36"x36"	1	2	2						29
	"	MO 4-8	36"x18"	1	2	2						
	"	M 3-1	36"x18"	1	2	2						
	"	M 1-4	36"x36"	1	2	2						141
18	I-43 SB, AT CTH MM EXIT, MODIFY/COVER EXISTING TYPE I SIGN AS SHOWN	M 3-2	36"x18"	1	2	2				1	1	PLACE "EAST" PLAQUE OVER "TO" ON TYPE I SIGN
19	I-43 SB, N. OF CTH MM, PLACE 500' N. OF CTH MM EXIT	M 4-8A	30"x24"	1	2	2						
	"	M 1-6	36"x36"	1	2	2						29
	"	M 4-8A	30"x24"	1	2	2						
	"	M 1-4	36"x36"	1	2	2						141
20	I-43 SB, AT CTH MM EXIT, MODIFY/COVER EXISTING TYPE I SIGN AS SHOWN	M 3-2	36"x18"	1	2	2				1	1	PLACE "EAST" PLAQUE OVER "TO" ON TYPE I SIGN
21	US 141, AT CTH R, COVER EXISTING J3-3 SIGN AS SHOWN									1	1	COVER "NORTH 141 LT"
22	CTH R, AT US 141, PLACE 150' E. OF US 141 INTERSECTION	MO 4-8	24"x12"	1	2	2						
	"	M 3-4	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 6-1	21"x21"	1	2	2						LEFT
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-1	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 6-1	21"x21"	1	2	2						LEFT
PAGE SUBTOTALS				41		82	0	0	0		6	

PLAN SHEET PRODUCED
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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 2 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
23	US 141, AT CTH R, PLACE 150' W. OF CTH R INTERSECTION	MO 4-8	24"x12"	1	2	2						
	"	M 3-4	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 6-1	21"x21"	1	2	2						RIGHT
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-1	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 6-1	21"x21"	1	2	2						RIGHT
24	US 141, W. OF CTH R, MODIFY EXISTING J1-1 SIGN AS SHOWN	M 3-2	24"x12"	1	2	2						
25	US 141, W. OF CTH R, PLACE 650' W. OF CTH R INTERSECTION	MO 4-8	24"x12"	1	2	2						
	"	M 3-4	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 5-1R	21"x21"	1	2	2						
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-1	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 5-1R	21"x21"	1	2	2						
26	US 141, E. OF STH 29, COVER EXISTING J2-3 SIGN AS SHOWN									1	1	COVER "WEST 29 AHEAD, NORTH 141 AHEAD"
27	US 141, E. OF STH 29, COVER EXISTING D1-3 SIGN AS SHOWN									1	1	COVER "GREEN BAY"
28	US 141, AT STH 29, COVER EXISTING J3-2 SIGN AS SHOWN									1	1	COVER "WEST 29 AHEAD"
29	US 141, AT STH 29, PLACE LEFT OF EXISTING J3-3 SIGN	MO 4-8	24"x12"	1	2	2						
	"	M 3-4	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 6-1	21"x21"	1	2	2						LEFT
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-1	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 6-1	21"x21"	1	2	2						LEFT
30	US 141/STH 29, PLACE ON RIGHT SHOULDER IN NW QUADRANT OF INTERSECTION	R 11-3	60"x30"	1	2	2	2	4				1 3/4 MILES AHEAD
31	STH 29, AT US 141, MODIFY EXISTING J3-2 SIGN AS SHOWN	MO 4-8	24"x12"	1	2	2						
	"	MO 4-8	24"x12"	1	2	2						
	"	MO 6-1	21"x21"	1	2	2						LEFT
	"	MO 6-1	21"x21"	1	2	2						LEFT
32	STH 29, N. OF US 141, COVER EXISTING D1-3 SIGN AS SHOWN									1	1	COVER "GREEN BAY"
33	STH 29, N. OF US 141, MODIFY EXISTING J2-2 SIGN AS SHOWN	MO 4-8	24"x12"	1	2	2						
	"	MO 5-1L	21"x21"	1	2	2						
	"	MO 4-8	24"x12"	1	2	2						
	"	MO 5-1L	21"x21"	1	2	2						
34	STH 29, N. OF MANITOWOC RD, PLACE 500' N. OF MANITOWOC RD INTERSECTION	M 3-4	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	M 3-1	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	W 20-2A	48"x48"	1	2	2						
35	US 141/STH 29, COVER EXISTING J4-2 AND D1-2 SIGN AS SHOWN									2	2	COVER BOTH SIGNS ENTIRELY
36	I-43 SB, N. OF CTH MM, PLACE 1500' N. OF CTH MM EXIT	M 4-8A	30"x24"	1	2	2						
	"	M 1-6	36"x36"	1	2	2						29
	"	M 4-8A	30"x24"	1	2	2						
	"	M 1-4	36"x36"	1	2	2						141
PAGE SUBTOTALS				43		86	2	4	0		6	

PLAN SHEET PRODUCED
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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 2 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
37	I-43 NB, AT STH 172, PLACE IN FRONT OF SIGN BRIDGE COLUMNS AT STH 172 EXIT IN MEDIAN	MO 4-8	36"X18"	1	2	2						
	"	M 3-4	36"X18"	1	2	2						
	"	M 1-6	36"X36"	1	2	2						29
	"	MO 6-1	30"X30"	1	2	2						AHEAD
	"	MO 4-8	36"X18"	1	2	2						
	"	M 3-1	36"X18"	1	2	2						
	"	M 1-4	36"X36"	1	2	2						141
	"	MO 6-1	30"X30"	1	2	2						AHEAD
38	I-43 NB, AT STH 172, PLACE IN FRONT OF SIGN BRIDGE COLUMNS AT STH 172 EXIT ON RIGHT SHOULDER	MO 4-8	36"X18"	1	2	2						
	"	M 3-4	36"X18"	1	2	2						
	"	M 1-6	36"X36"	1	2	2						29
	"	MO 6-1	30"X30"	1	2	2						AHEAD
	"	MO 4-8	36"X18"	1	2	2						
	"	M 3-1	36"X18"	1	2	2						
	"	M 1-4	36"X36"	1	2	2						141
	"	MO 6-1	30"X30"	1	2	2						AHEAD
39	I-43 NB, N. OF STH 172 EXIT, PLACE 250' N. OF STH 172 EXIT POINT	MO 4-8	36"X18"	1	2	2						
	"	M 3-4	36"X18"	1	2	2						
	"	M 1-6	36"X36"	1	2	2						29
	"	MO 4-8	36"X18"	1	2	2						
	"	M 3-1	36"X18"	1	2	2						
	"	M 1-4	36"X36"	1	2	2						141
40	I-43 SB, AT STH 172 EXIT, PLACE IN FRONT OF SIGN BRIDGE COLUMNS AT STH 172 EXIT ON RIGHT SHOULDER	MO 4-8	36"X18"	1	2	2						
	"	M 3-2	36"X18"	1	2	2						
	"	M 1-6	36"X36"	1	2	2						29
	"	MO 6-1	30"X30"	1	2	2						AHEAD
	"	MO 4-8	36"X18"	1	2	2						
	"	M 3-3	36"X18"	1	2	2						
	"	M 1-4	36"X36"	1	2	2						141
	"	MO 6-1	30"X30"	1	2	2						AHEAD
41	I-43 SB, AT STH 172 EXIT, PLACE IN FRONT OF SIGN BRIDGE COLUMNS AT STH 172 EXIT IN MEDIAN	MO 4-8	36"X18"	1	2	2						
	"	M 3-2	36"X18"	1	2	2						
	"	M 1-6	36"X36"	1	2	2						29
	"	MO 6-1	30"X30"	1	2	2						AHEAD
	"	MO 4-8	36"X18"	1	2	2						
	"	M 3-3	36"X18"	1	2	2						
	"	M 1-4	36"X36"	1	2	2						141
	"	MO 6-1	30"X30"	1	2	2						AHEAD
42	I-43 NB, S. OF CTH JJ, PLACE 1000' S. OF CTH JJ EXIT IN MEDIAN	MO 4-8	36"X18"	1	2	2						
	"	M 3-4	36"X18"	1	2	2						
	"	M 1-6	36"X36"	1	2	2						29
	"	MO 5-2R	30"X30"	1	2	2						
	"	MO 4-8	36"X18"	1	2	2						
	"	M 3-1	36"X18"	1	2	2						
	"	M 1-4	36"X36"	1	2	2						141
	"	MO 5-2R	30"X30"	1	2	2						
PAGE SUBTOTALS				46		92	0	0	0		0	

PLAN SHEET PRODUCED
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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 2 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
43	I-43 NB, S. OF CTH JJ, PLACE 1000' S. OF CTH JJ EXIT ON RIGHT SHOULDER	MO 4-8	36"X18"	1	2	2						
	"	M 3-4	36"X18"	1	2	2						
	"	M 1-6	36"X36"	1	2	2						29
	"	MO 5-2R	30"X30"	1	2	2						
	"	MO 4-8	36"X18"	1	2	2						
	"	M 3-1	36"X18"	1	2	2						
	"	M 1-4	36"X36"	1	2	2						141
	"	MO 5-2R	30"X30"	1	2	2						
44	I-43 NB, AT CTH JJ, PLACE ACROSS FROM SIGN #45 AT CTH JJ EXIT IN MEDIAN	MO 4-8	36"X18"	1	2	2						
	"	M 3-4	36"X18"	1	2	2						
	"	M 1-6	36"X36"	1	2	2						29
	"	MO 6-2	30"X30"	1	2	2						TILT RIGHT
	"	MO 4-8	36"X18"	1	2	2						
	"	M 3-1	36"X18"	1	2	2						
	"	M 1-4	36"X36"	1	2	2						141
	"	MO 6-2	30"X30"	1	2	2						TILT RIGHT
45	I-43 NB, AT CTH JJ, PLACE AT EXIT POINT FOR CTH JJ EXIT ON RIGHT SHOULDER	MO 4-8	36"X18"	1	2	2						
	"	M 3-4	36"X18"	1	2	2						
	"	M 1-6	36"X36"	1	2	2						29
	"	MO 6-2	30"X30"	1	2	2						TILT RIGHT
	"	MO 4-8	36"X18"	1	2	2						
	"	M 3-1	36"X18"	1	2	2						
	"	M 1-4	36"X36"	1	2	2						141
	"	MO 6-2	30"X30"	1	2	2						TILT RIGHT
46	I-43 NB OFF-RAMP TO CTH JJ, PLACE 150' PRIOR TO RAMP INTERSECTION	MO 4-8	24"X12"	1	2	2						
	"	M 3-4	24"X12"	1	2	2						
	"	M 1-6	24"X24"	1	2	2						29
	"	MO 6-1	21"X21"	1	2	2						RIGHT
	"	MO 4-8	24"X12"	1	2	2						
	"	M 3-1	24"X12"	1	2	2						
	"	M 1-4	24"X24"	1	2	2						141
	"	MO 6-1	21"X21"	1	2	2						RIGHT
47	CTH JJ, AT I-43 SB, PLACE 150' PRIOR TO I-43 SB RAMP INTERSECTION	MO 4-8	24"X12"	1	2	2						
	"	M 3-4	24"X12"	1	2	2						
	"	M 1-6	24"X24"	1	2	2						29
	"	MO 6-1	21"X21"	1	2	2						AHEAD
	"	MO 4-8	24"X12"	1	2	2						
	"	M 3-1	24"X12"	1	2	2						
	"	M 1-4	24"X24"	1	2	2						141
	"	MO 6-1	21"X21"	1	2	2						AHEAD
48	CTH JJ, AT I-43 SB, PLACE 150' PRIOR TO I-43 SB RAMP INTERSECTION	MO 4-8	24"X12"	1	2	2						
	"	M 3-2	24"X12"	1	2	2						
	"	M 1-6	24"X24"	1	2	2						29
	"	MO 6-1	21"X21"	1	2	2						LEFT
	"	MO 4-8	24"X12"	1	2	2						
	"	M 3-3	24"X12"	1	2	2						
	"	M 1-4	24"X24"	1	2	2						141
	"	MO 6-1	21"X21"	1	2	2						LEFT
PAGE SUBTOTALS				48		96	0	0	0		0	

PLAN SHEET PRODUCED
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TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 2 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
49	CTH JJ, W. OF I-43 SB, PLACE 500' W. OF I-43 SB RAMP INTERSECTION	MO 4-8	24"x12"	1	2	2						
	"	M 3-2	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 5-1L	21"x21"	1	2	2						
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-3	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 5-1L	21"x21"	1	2	2						
50	CTH JJ, E. OF US 141/STH 29, PLACE 500' E. OF US 141/STH 29 INTERSECTION	M 4-8A	24"x18"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	M 4-8A	24"x18"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						141
51	CTH JJ, E. OF US 141/STH 29, PLACE 250' E. OF US 141/STH 29 INTERSECTION	MO 4-8	24"x12"	1	2	2						
	"	M 3-2	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-3	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
52	CTH JJ, AT US 141/STH 29, PLACE ABOVE EXISITNG SPLITTER ISLAND TO CTH JJ	MO 4-8	24"x12"	1	2	2						
	"	M 3-2	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 6-2	21"x21"	1	2	2						TILT RIGHT
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-3	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 6-2	21"x21"	1	2	2						TILT RIGHT
53	CTH JJ, AT US 141/STH 29, COVER EXISTING SPLITTER ISLAND SIGN AS SHOWN									1	1	COVER ENTIRE SIGN
54	US 141/STH 29, PLACE ON RIGHT SHOULDER IN SE QUADRANT OF RAB INTERSECTION	R 11-3	60"x30"	1	2	2	2	4				1 MILE AHEAD
55	VERLIN RD, W. OF US 141/STH 29, PLACE 250' W. OF US 141/STH 29 INTERSECTION	MO 4-8	24"x12"	1	2	2						
	"	M 3-2	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 6-1	21"x21"	1	2	2						AHEAD
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-3	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 6-1	21"x21"	1	2	2						AHEAD
56	VERLIN RD, W. OF US 141/STH 29, PLACE 750' W. OF US 141/STH 29 INTERSECTION	M 3-2	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	M 3-3	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	W 20-2A	48"x48"	1	2	2						
57	US 141/STH 29, AT CTH JJ, PLACE 150' N. OF CTH JJ RAB INTERSECTION	MO 4-8	24"x12"	1	2	2						
	"	M 3-2	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 6-1	21"x21"	1	2	2						LEFT
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-3	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 6-1	21"x21"	1	2	2						LEFT
PAGE SUBTOTALS				48		96	2	4	0		1	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION

TRAFFIC CONTROL DETOUR SIGN SUMMARY

SIGN NO.	LOCATION	SIGN CODE	SIZE W X H	NUMBER IN SERVICE	APPROX. SERVICE PERIOD 2 DAYS	643.0900 SIGNS DAYS	643.0420 BARRICADES TYPE III DAY	643.0705 WARNING LIGHTS TYPE A DAY	643.1050 SIGNS PORTABLE CHANGEABLE MESSAGE DAYS	NO. OF CYCLES	643.0920 COVERING TYPE II SIGNS EACH	REMARKS
58	US 141/STH 29, N. OF CTH JJ, PLACE 750' N. OF CTH JJ RAB INTERSECTION ON RIGHT SHOULDER	MO 4-8	24"x12"	1	2	2						
	"	M 3-2	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 5-1L	21"x21"	1	2	2						
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-3	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 5-1L	21"x21"	1	2	2						
59	US 141/STH 29, N. OF CTH JJ, PLACE 750' N. OF CTH JJ RAB INTERSECTION IN MEDIAN	MO 4-8	24"x12"	1	2	2						
	"	M 3-2	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	MO 5-1L	21"x21"	1	2	2						
	"	MO 4-8	24"x12"	1	2	2						
	"	M 3-3	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	MO 5-1L	21"x21"	1	2	2						
60	US 141/STH 29, N. OF CTH JJ, PLACE 1250' N. OF CTH JJ RAB INTERSECTION ON RIGHT SHOULDER	M 3-2	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	M 3-3	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	W 20-2A	48"x48"	1	2	2						
61	US 141/STH 29, N. OF CTH JJ, PLACE 1250' N. OF CTH JJ RAB INTERSECTION IN MEDIAN	M 3-2	24"x12"	1	2	2						
	"	M 1-6	24"x24"	1	2	2						29
	"	M 3-3	24"x12"	1	2	2						
	"	M 1-4	24"x24"	1	2	2						141
	"	W 20-2A	48"x48"	1	2	2						
62	US 141/STH 29, N. OF ALLOUEZ AVE, PLACE ON RIGHT SHOULDER, FIELD DETERMINE LOCATION	PCMS		1					7			PLACE IN ADVANCE OF CLOSURE
63	US 141/STH 29, S. OF ALLOUEZ AVE, PLACE ON RIGHT SHOULDER, FIELD DETERMINE LOCATION	PCMS		1					7			PLACE IN ADVANCE OF CLOSURE
PAGE SUBTOTALS				28		52	0	0	14		0	
DETOUR TOTALS				302		600	4	8	14		16	

PLAN SHEET PRODUCED
BY WisDOT - NE REGION





LEGEND

- DELINEATED WETLAND BOUNDARY
- PERMITTED WETLAND IMPACT
- SLOPE INTERCEPT
- RAILROAD VISION TRIANGLE CLEARING LIMITS
- Ⓢ CLEARING (PREVIOUSLY COMPLETED BY OTHERS)
- X GRUBBING
- ⌈/⌋ ASPHALTIC FLUMES
- MH ADJUSTING SANITARY MANHOLE COVERS (SEE CONSTRUCTION DETAILS)
- XXXXXXXXXXXX SAWCUT

NOTES

SEE INTERSECTION DETAILS, CURB RAMP DETAILS, AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INTERSECTION LAYOUT AND CURB AND GUTTER INFORMATION NOT SHOWN ON THESE SHEETS.

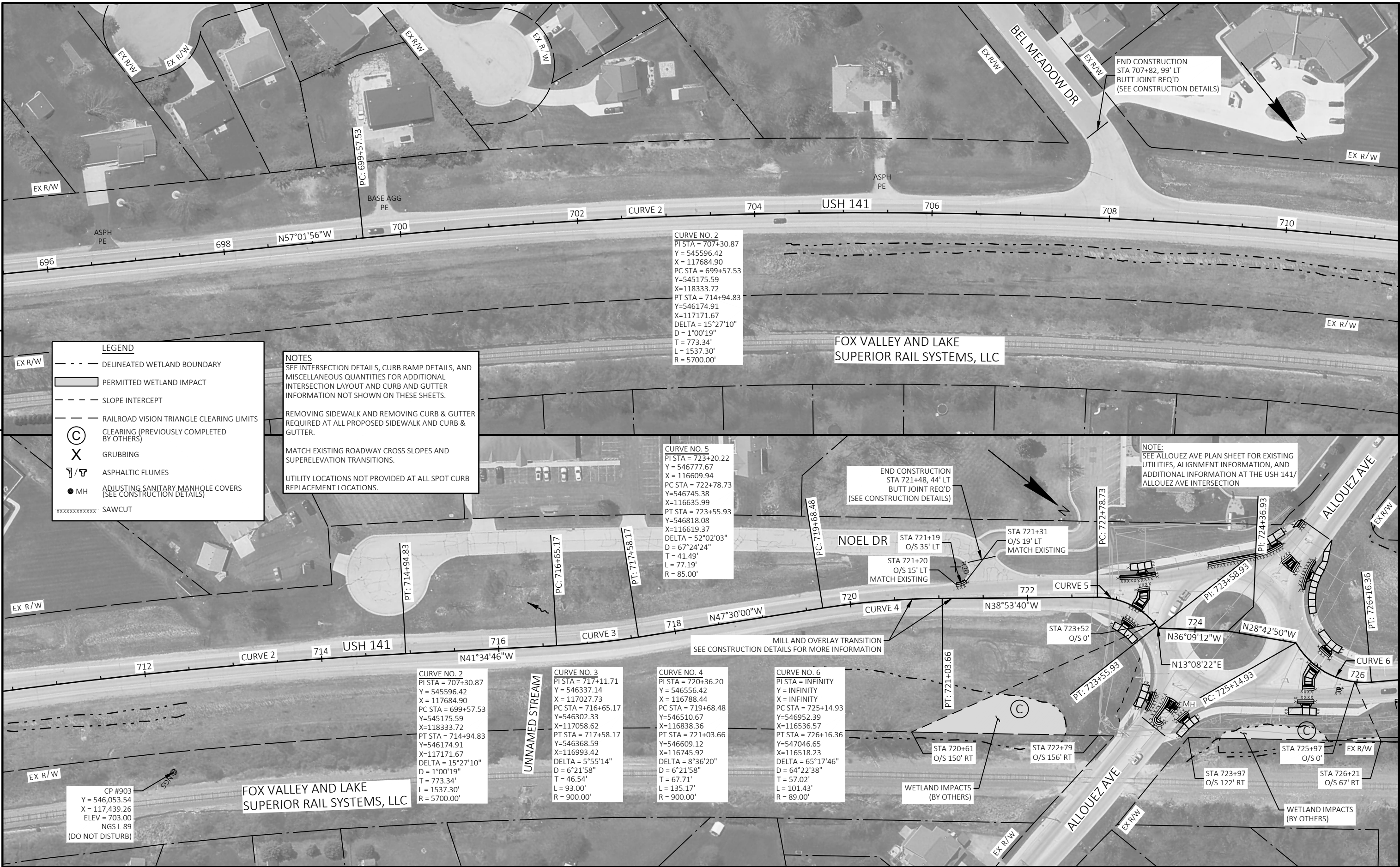
REMOVING SIDEWALK AND REMOVING CURB & GUTTER REQUIRED AT ALL PROPOSED SIDEWALK AND CURB & GUTTER.

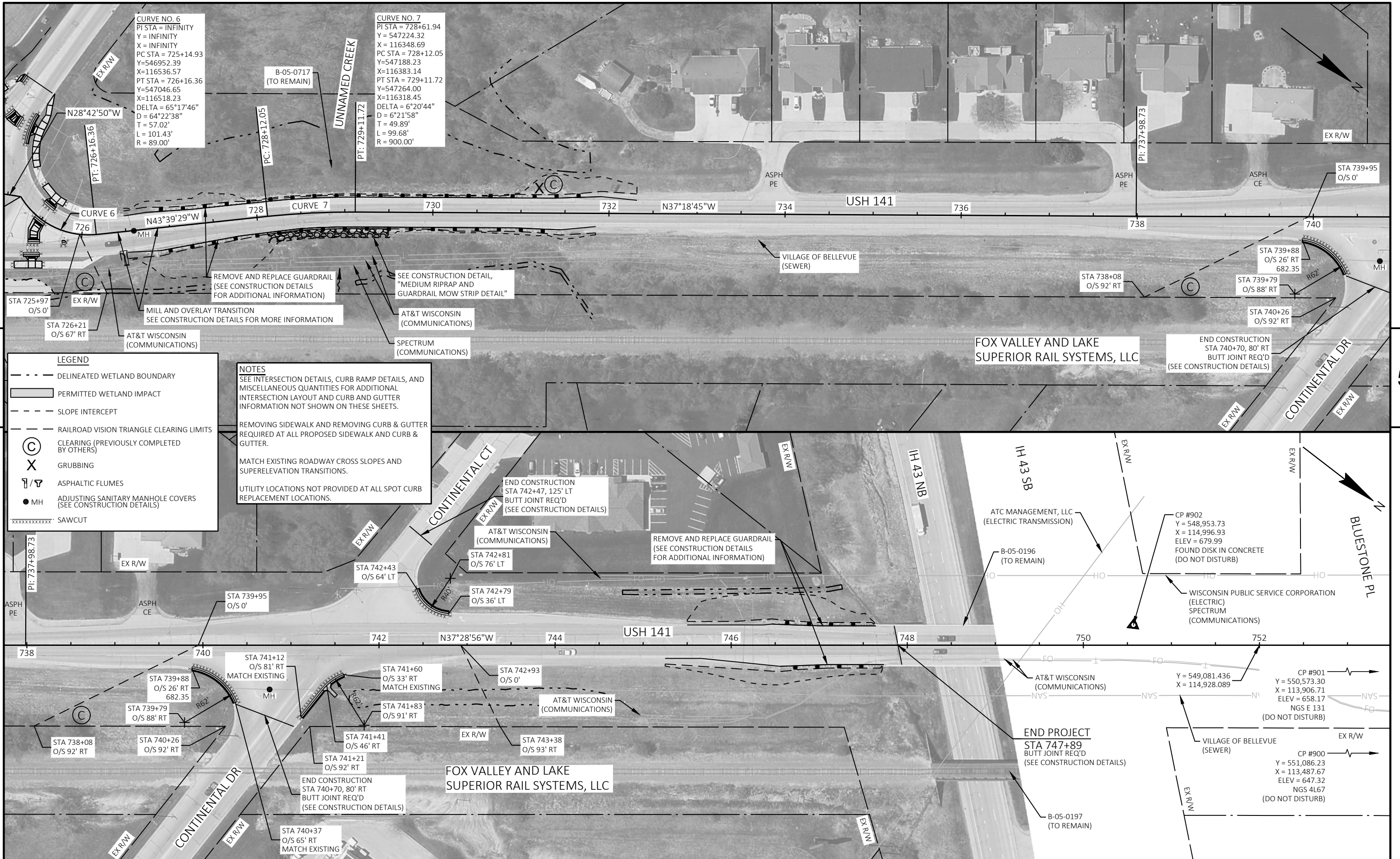
MATCH EXISTING ROADWAY CROSS SLOPES AND SUPERELEVATION TRANSITIONS.

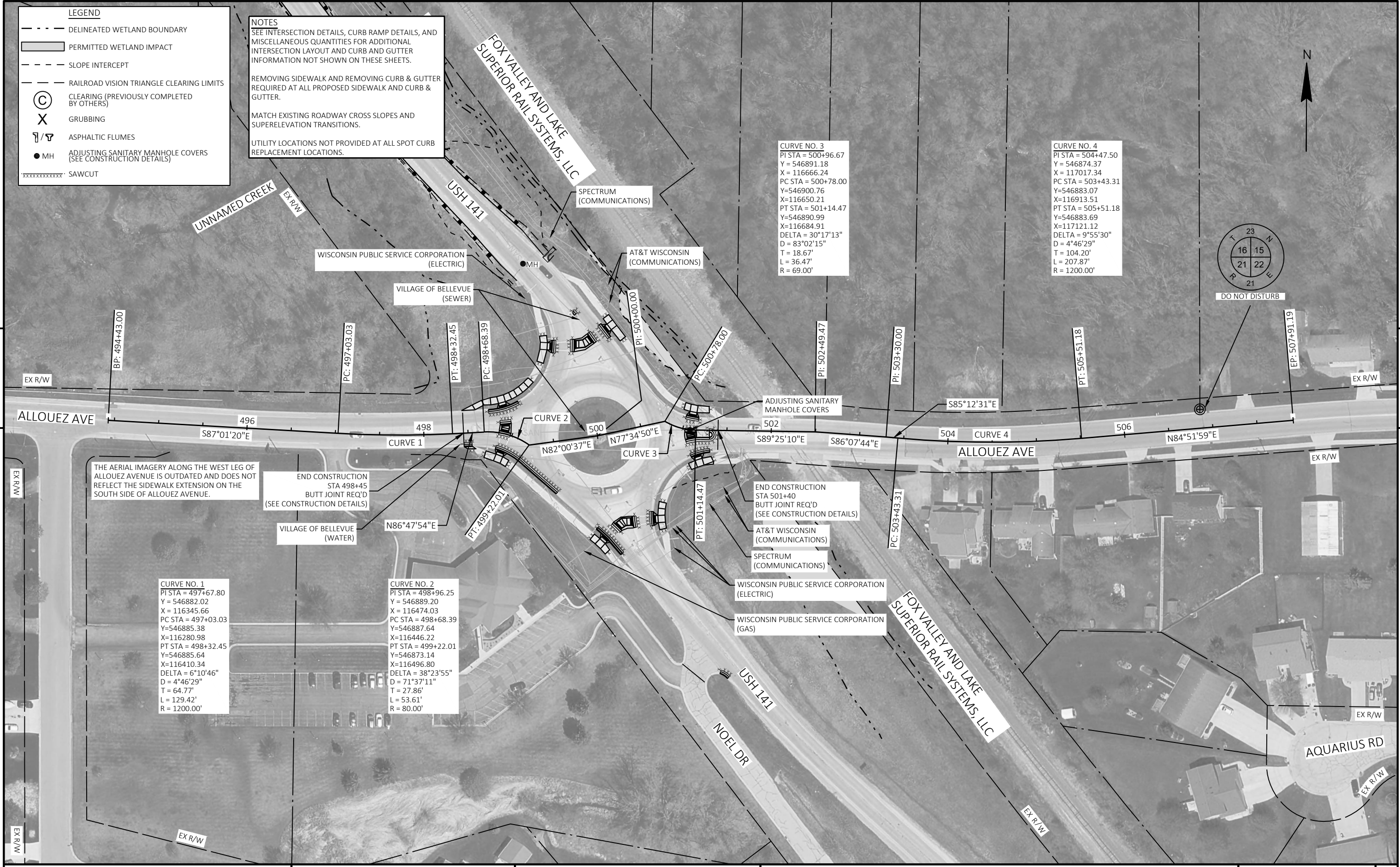
UTILITY LOCATIONS NOT PROVIDED AT ALL SPOT CURB REPLACEMENT LOCATIONS.

CURVE NO. 1
PI STA = 651+72.32
Y = 542569.58
X = 122351.55
PC STA = 646+09.76
Y=542175.69
X=122753.20
PT STA = 657+31.12
Y=542875.71
X=121879.57
DELTA = 11°28'23"
D = 1°01'23"
T = 562.56'
L = 1121.36'
R = 5600.00'









LEGEND

- DELINEATED WETLAND BOUNDARY
- PERMITTED WETLAND IMPACT
- SLOPE INTERCEPT
- RAILROAD VISION TRIANGLE CLEARING LIMITS
- ⊙ CLEARING (PREVIOUSLY COMPLETED BY OTHERS)
- X GRUBBING
- ⌈/⌋ ASPHALTIC FLUMES
- MH ADJUSTING SANITARY MANHOLE COVERS (SEE CONSTRUCTION DETAILS)
- XXXXXXXXXX SAWCUT

NOTES

SEE INTERSECTION DETAILS, CURB RAMP DETAILS, AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INTERSECTION LAYOUT AND CURB AND GUTTER INFORMATION NOT SHOWN ON THESE SHEETS.

REMOVING SIDEWALK AND REMOVING CURB & GUTTER REQUIRED AT ALL PROPOSED SIDEWALK AND CURB & GUTTER.

MATCH EXISTING ROADWAY CROSS SLOPES AND SUPERELEVATION TRANSITIONS.

UTILITY LOCATIONS NOT PROVIDED AT ALL SPOT CURB REPLACEMENT LOCATIONS.

CURVE NO. 3
PI STA = 500+96.67
Y = 546891.18
X = 116666.24
PC STA = 500+78.00
Y=546900.76
X=116650.21
PT STA = 501+14.47
Y=546890.99
X=116684.91
DELTA = 30°17'13"
D = 83°02'15"
T = 18.67'
L = 36.47'
R = 69.00'

CURVE NO. 4
PI STA = 504+47.50
Y = 546874.37
X = 117017.34
PC STA = 503+43.31
Y=546883.07
X=116913.51
PT STA = 505+51.18
Y=546883.69
X=117121.12
DELTA = 9°55'30"
D = 4°46'29"
T = 104.20'
L = 207.87'
R = 1200.00'

CURVE NO. 1
PI STA = 497+67.80
Y = 546882.02
X = 116345.66
PC STA = 497+03.03
Y=546885.38
X=116280.98
PT STA = 498+32.45
Y=546885.64
X=116410.34
DELTA = 6°10'46"
D = 4°46'29"
T = 64.77'
L = 129.42'
R = 1200.00'

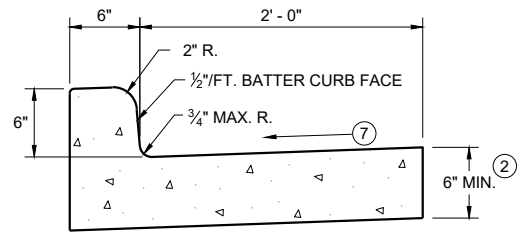
CURVE NO. 2
PI STA = 498+96.25
Y = 546889.20
X = 116474.03
PC STA = 498+68.39
Y=546887.64
X=116446.22
PT STA = 499+22.01
Y=546873.14
X=116496.80
DELTA = 38°23'55"
D = 71°37'11"
T = 27.86'
L = 53.61'
R = 80.00'

Standard Detail Drawing List

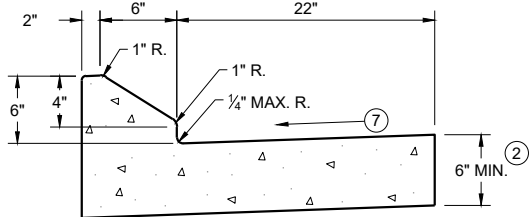
08D01-24A	CONCRETE CURB & GUTTER
08D01-24B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08D05-22A	CURB RAMPS TYPES 1 AND 1-A
08D05-22B	CURB RAMPS TYPES 2 AND 3
08D05-22C	CURB RAMPS TYPES 4A AND 4A1
08D05-22D	CURB RAMPS TYPES 4B AND 4B1
08D05-22E	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
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
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13A11-04A	CENTERLINE RUMBLE STRIPS - ASPHALT
13A11-04D	CENTERLINE RUMBLE STRIPS - INTERSECTIONS, DRIVEWAYS, BRIDGES, RAILROADS
13C19-03	HMA LONGITUDINAL JOINTS
14B28-04A	GUARDRAIL MOW STRIP
14B28-04B	GUARDRAIL MOW STRIP
14B29-01	SAFETY EDGE
14B42-07A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-07D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
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
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C02-09H	MODIFIED ROUTE ASSEMBLY FOR DETOUR SIGNING
15C04-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45 M. P. H. OR GREATER TWO-WAY UNDIVIDED ROAD OPEN TO TRAFFIC
15C07-16B	PAVEMENT MARKING WORDS
15C07-16C	PAVEMENT MARKING ARROWS
15C08-24A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-24B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-24C	PAVEMENT MARKING (TURN LANES)
15C08-24D	PAVEMENT MARKING (TURN LANES)
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-09A	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C12-09B	TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE
15C18-09A	MEDIAN ISLAND PAVEMENT MARKINGS
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C19-10B	MOVING PAVEMENT MARKING OPERATION MULTI-LANE UNDIVIDED ROADWAY
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15C35-06A	PAVEMENT MARKING (INTERSECTIONS)
15C35-06B	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15C35-06C	PAVEMENT MARKING AND SIGNING (CLIMBING LANE & PASSING LANE)
15D28-04	TRAFFIC CONTROL, WORK ON SHOULDER OR PARKING LANE, UNDIVIDED ROADWAY

Standard Detail Drawing List

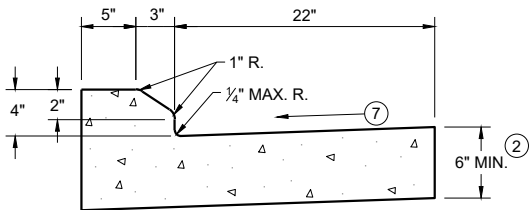
15D30-11A	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11B	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11C	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11D	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11E	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11F	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11G	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11H	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11I	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11J	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11K	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D30-11L	TRAFFI C CONTROL, PEDESTRI AN ACCOMMODATI ON
15D31-05	TRAFFI C CONTROL, TEMPORARY BYPASS ROADWAY
15D37-03	TRAFFI C CONTROL, 2-LANE ROUNDABOUT
15D39-03	TRAFFI C CONTROL, DROP-OFF SIGNI NG
15D44-02	TRAFFI C CONTROL, SIGNI NG ON ROADWAYS WITH MI LLED SURFACES



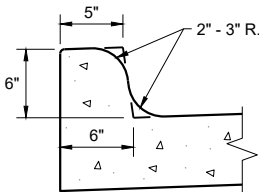
TYPES A^① & D



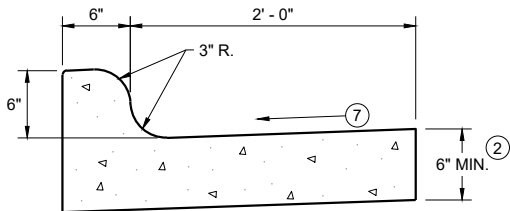
6" SLOPED CURB TYPES G^① & J



4" SLOPED CURB TYPES G^① & J

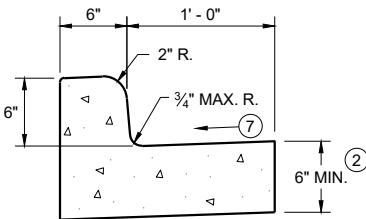


TYPES K^① & L
(OPTIONAL CURB SHAPE)



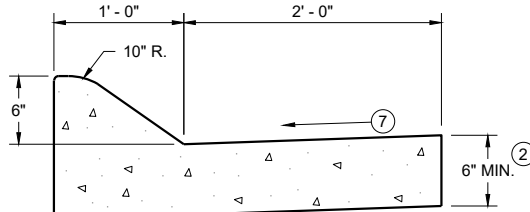
TYPES K^① & L

CONCRETE CURB AND GUTTER 30"

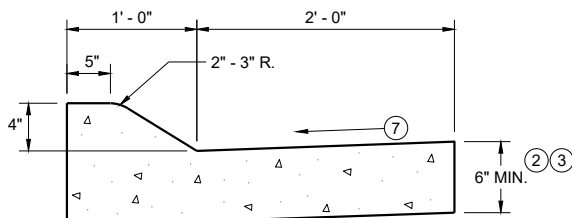


TYPES A^① & D

CONCRETE CURB AND GUTTER 18"

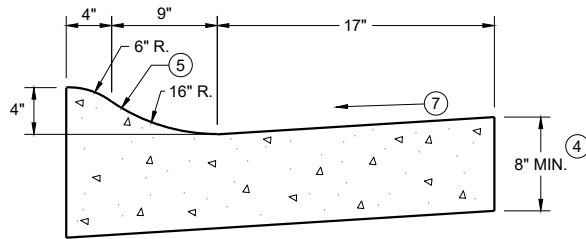


6" SLOPED CURB TYPES A^① & D



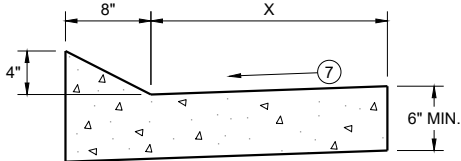
4" SLOPED CURB TYPES A^① & D

CONCRETE CURB AND GUTTER 36"



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

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

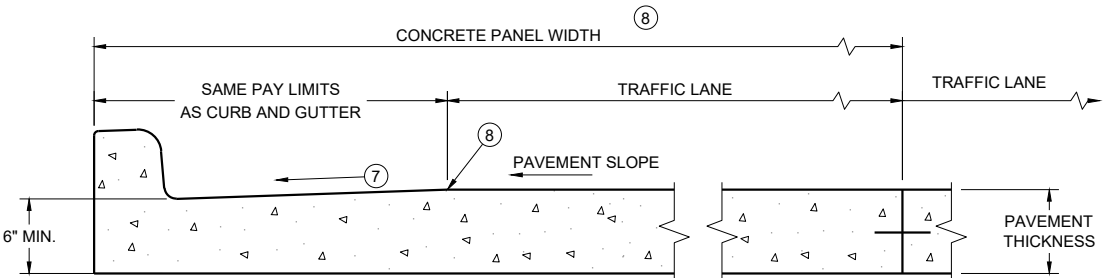


TYPES TBT & TBTT^①

CONCRETE CURB AND GUTTER

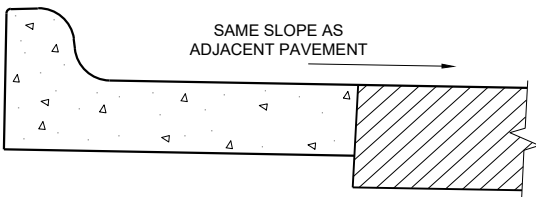
PAVEMENT THICKNESS
AND MAXIMUM CONCRETE
PANEL WIDTH TABLE

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

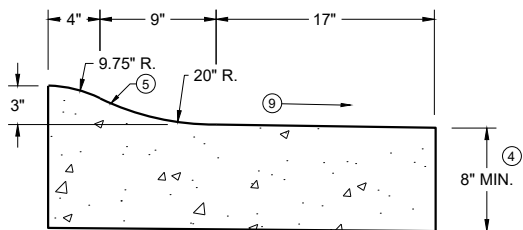


PARTIAL SECTION OF PAVEMENT
WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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



3" SLOPED CURB TYPES R^① & T

CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES

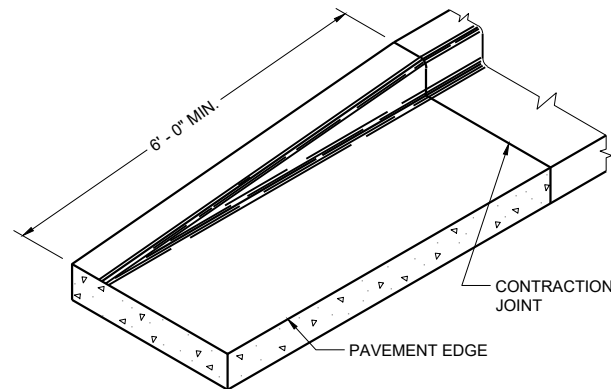
DETAILS OF CONSTRUCTION AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

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

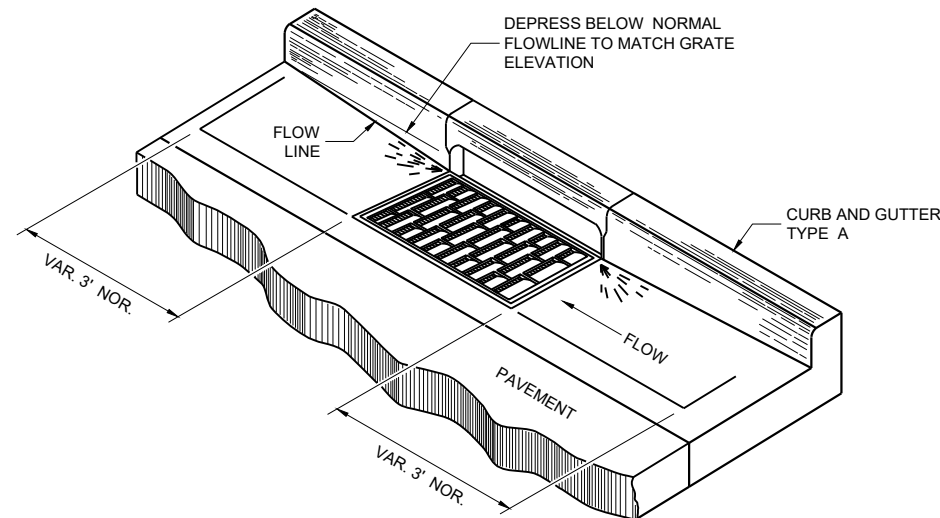
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE.

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

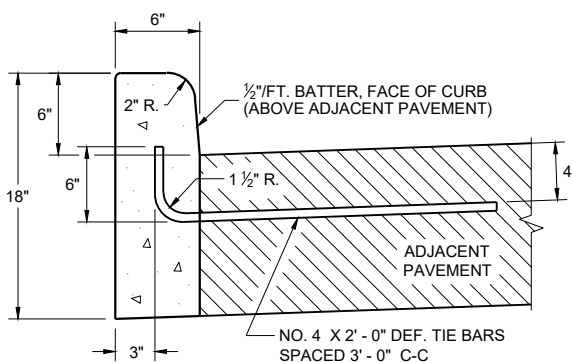


END SECTION CURB AND GUTTER

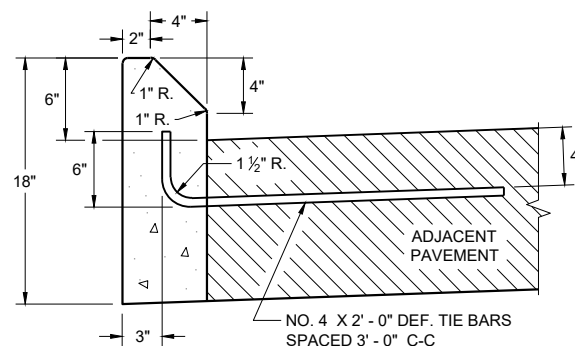


DETAIL OF CURB AND GUTTER AT INLETS

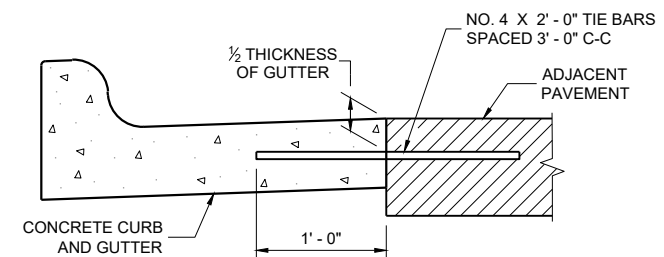
(TYPICAL H INLET COVER SHOWN)



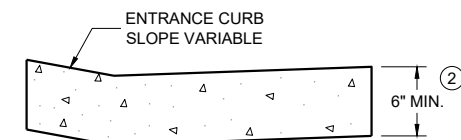
TYPES A^① & D



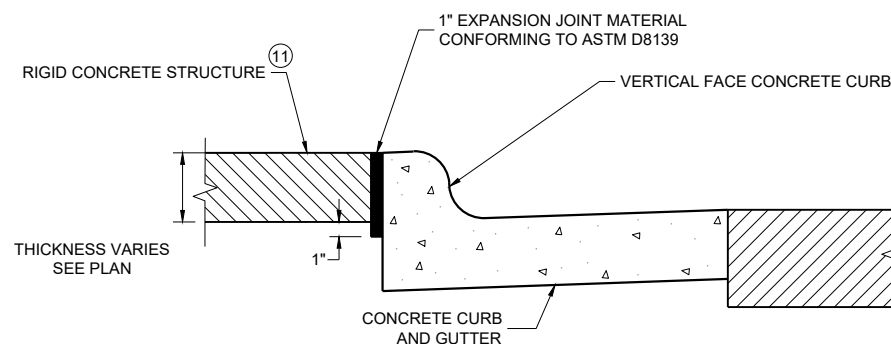
**TYPES G^① & J
CONCRETE CURB**



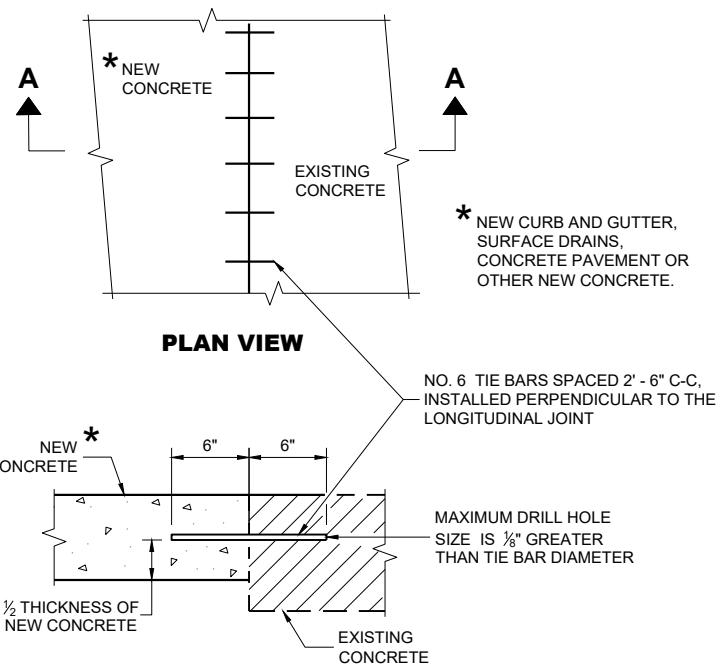
TYPICAL TIE BAR LOCATION^①



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



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



**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.

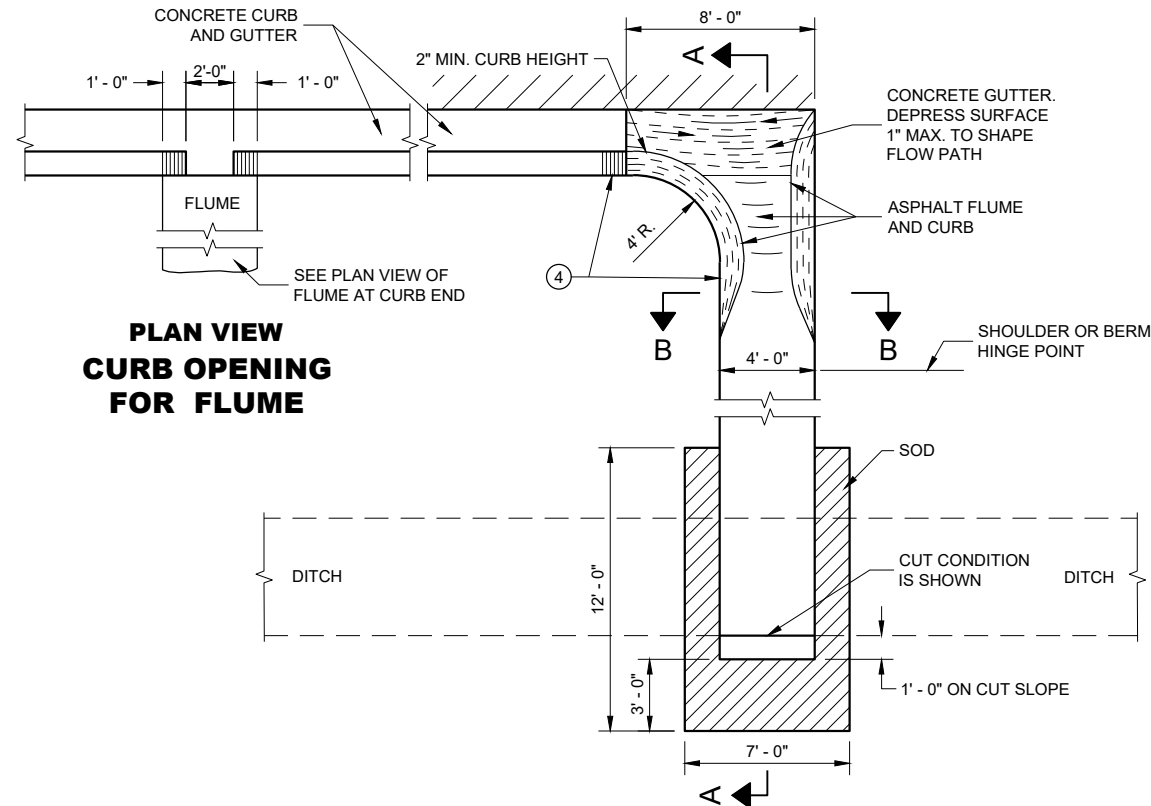
**CONCRETE CURB, TIES
AND CURB AND GUTTER
APPLICATIONS**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

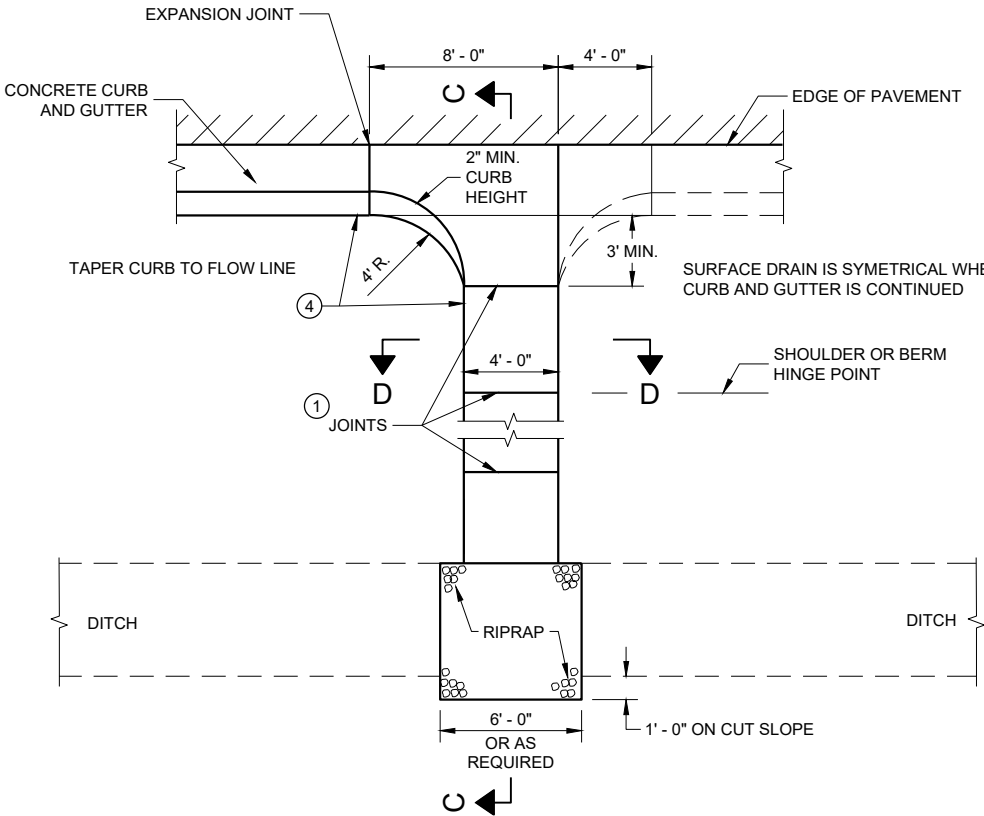
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING
FOR FLUME

PLAN VIEW
FLUME AT CURB END



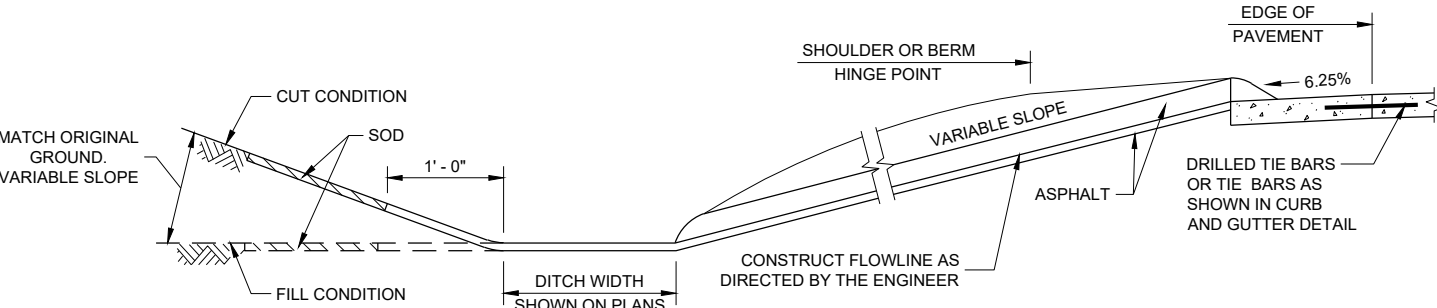
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

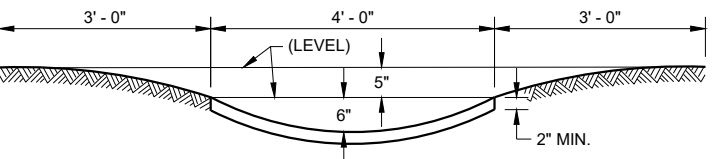
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

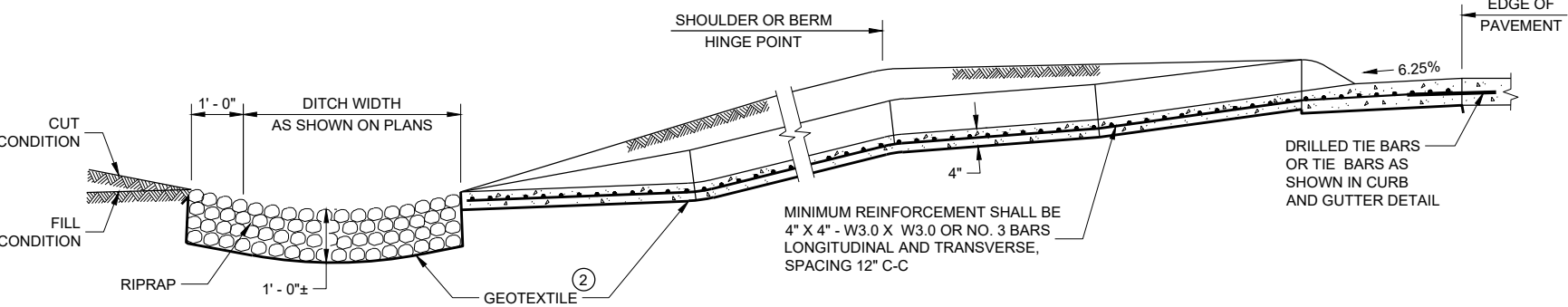
- JOINTS SHALL BE $\frac{1}{8}$ " TO $\frac{1}{4}$ " WIDE BY $\frac{1}{2}$ " DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
- GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
- CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
- ANGLE OF FLUME IN RELATION TO BACK OF CURB TO BE CONSTRUCTED PER THE PLAN DETAILS OR AS DIRECTED BY THE ENGINEER. ANGLE OF FLUME MAY BE OTHER THAN 90 DEGREES AS SHOWN.



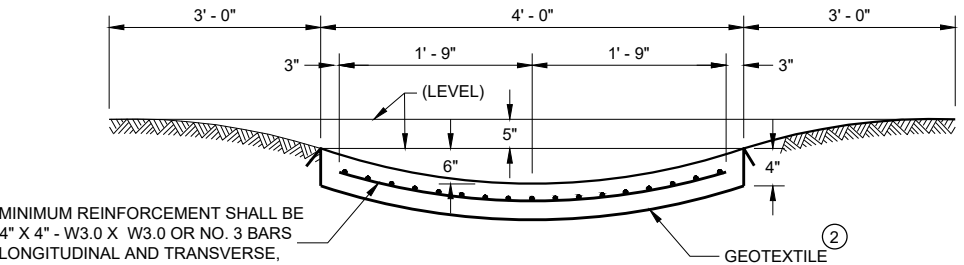
SECTION A - A



SECTION B - B



SECTION C - C

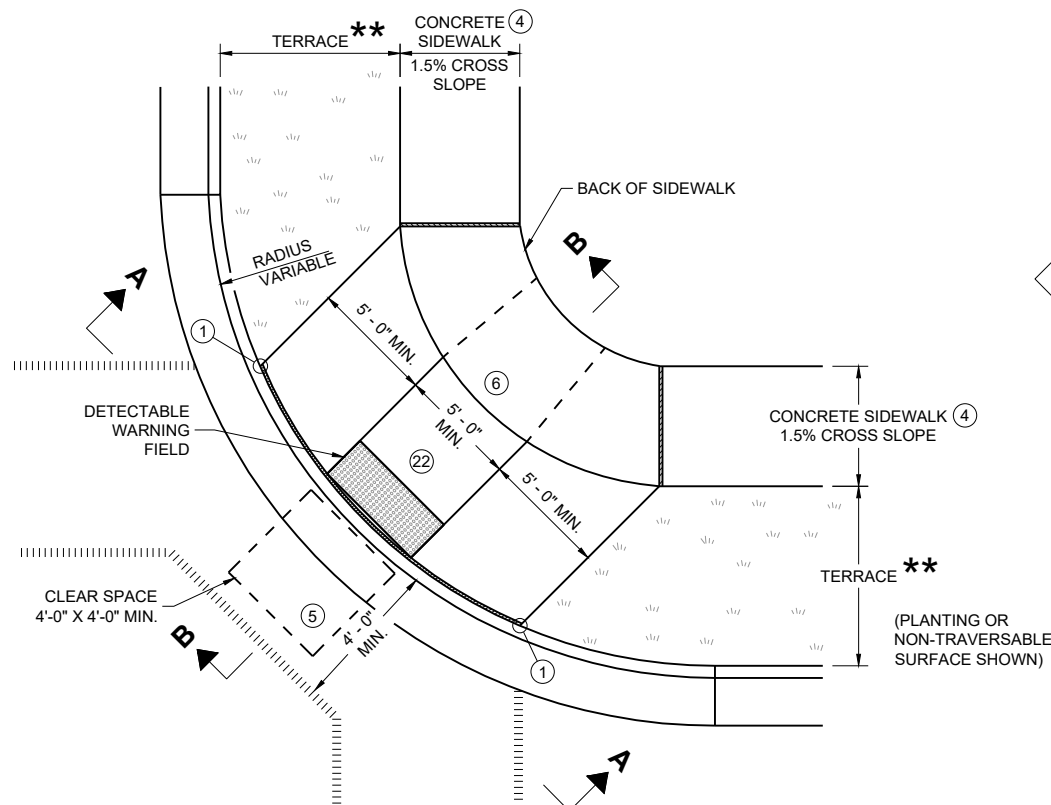


SECTION D - D

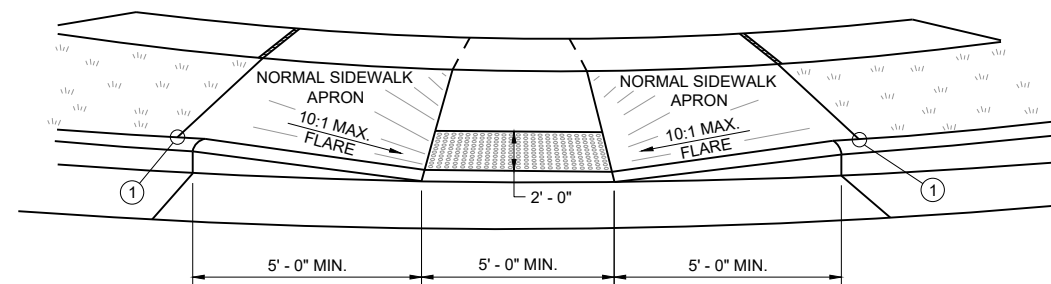
CONCRETE SURFACE
DRAINS AND
ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

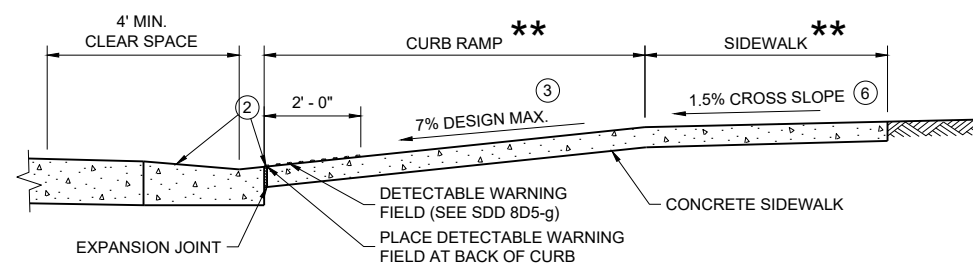
APPROVED
May 2023
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT ENGINEER
75
FHWA



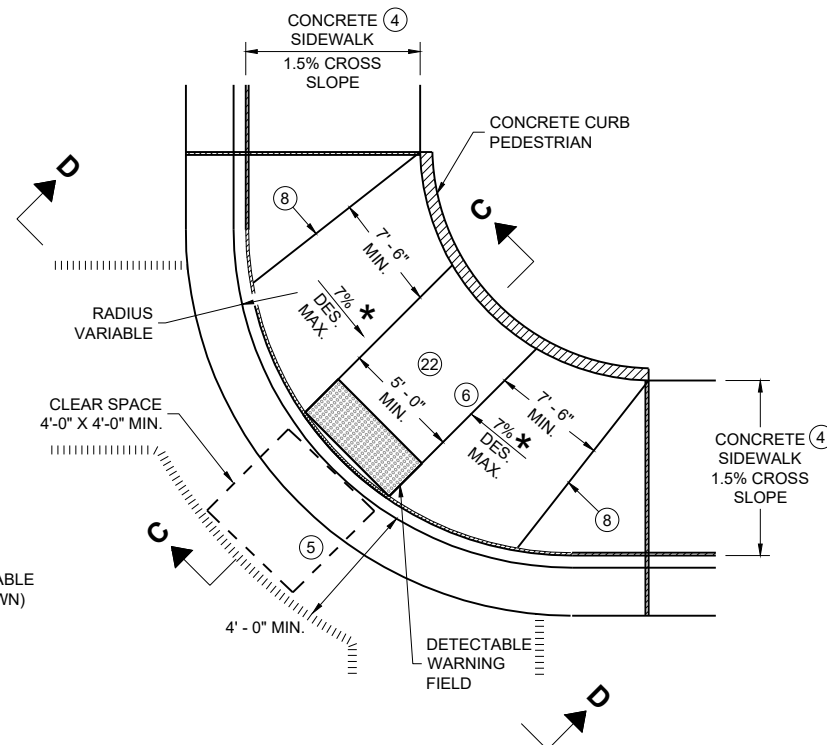
PLAN VIEW
CURB RAMP TYPE 1
(CENTER OF CORNER RADIUS)



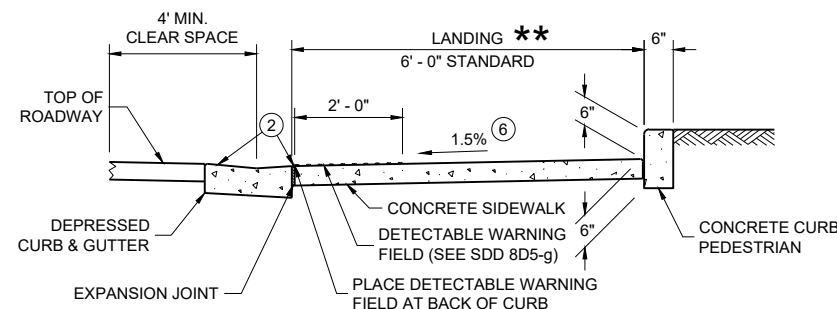
VIEW A - A FOR TYPE 1



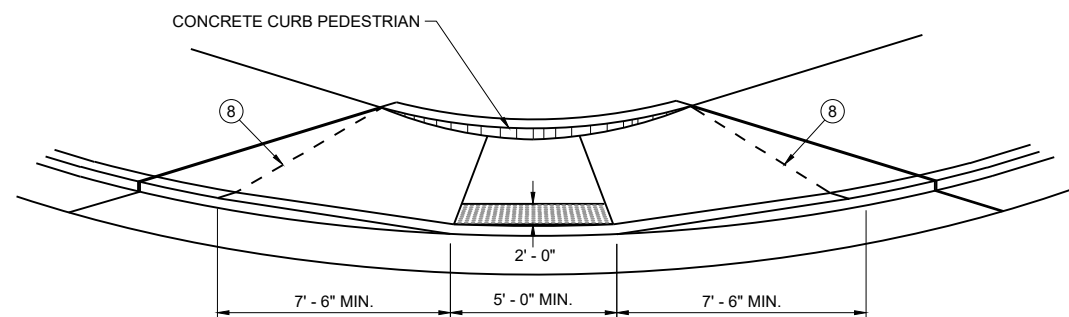
SECTION B - B FOR TYPE 1



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.

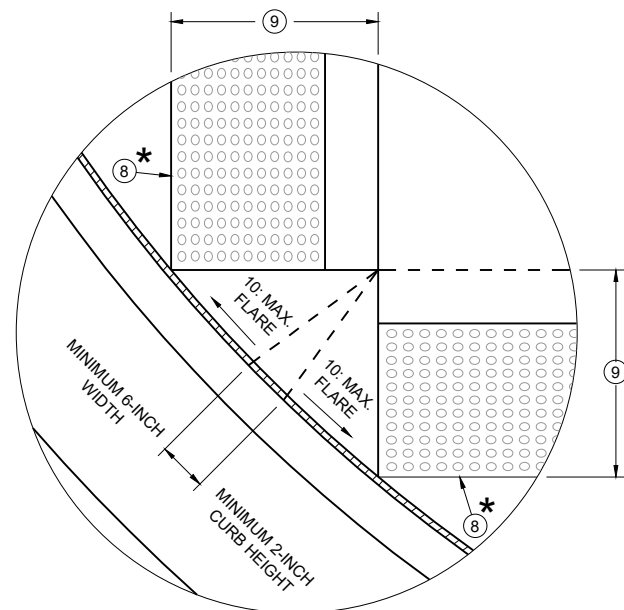
- ① THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.
- ② GRADE CHANGE BETWEEN GUTTER COUNTER SLOPE AND THE CURB RAMP SLOPE IS DESIRABLY 11% 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 $\pm 0.5\%$ 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.
- ⑪ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑫ 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

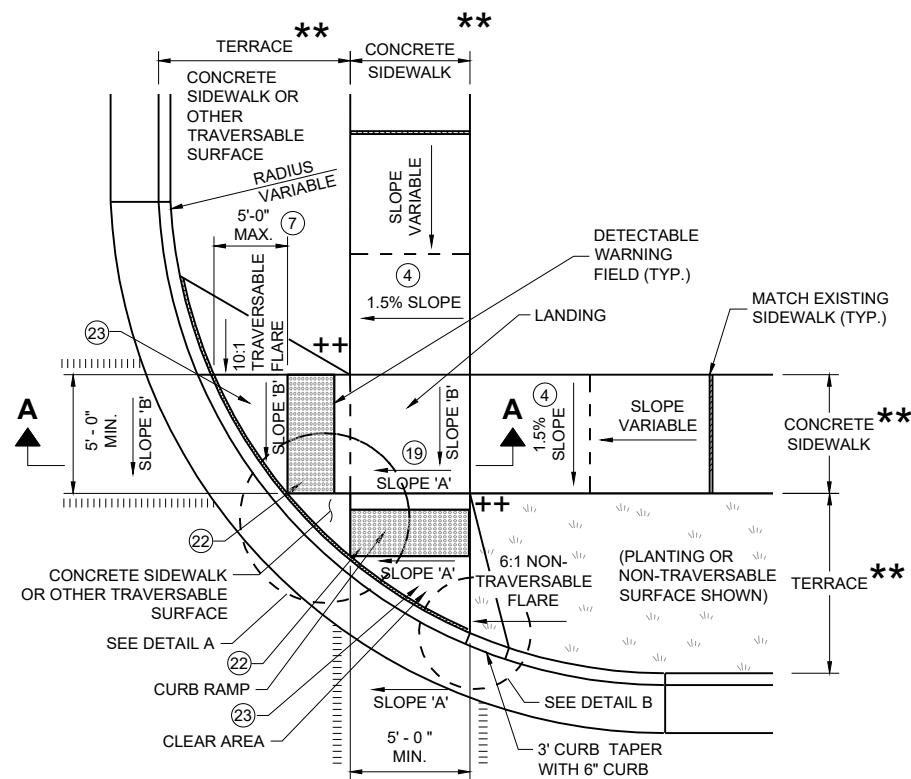
- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT FIELD LOCATED
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 8.3%
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS

CURB RAMPS TYPE 1 AND 1-A

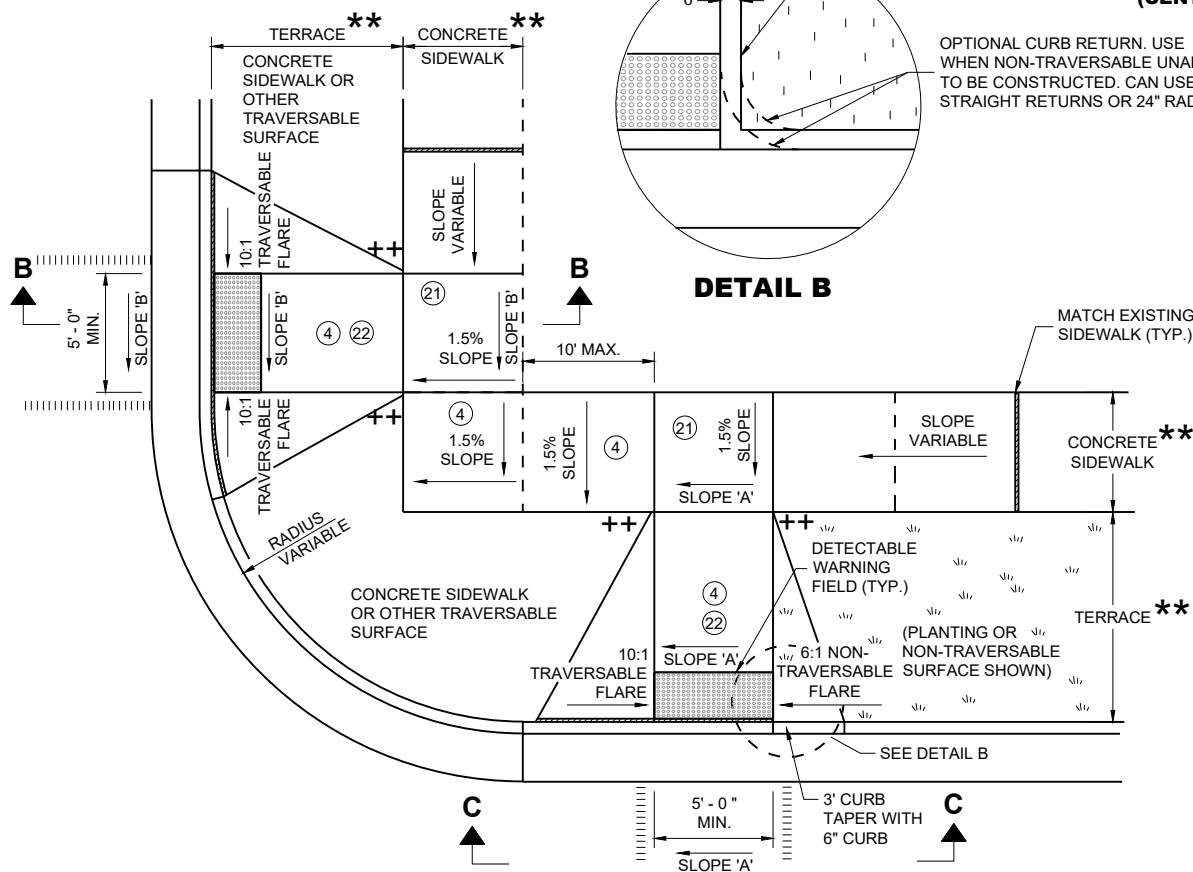
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



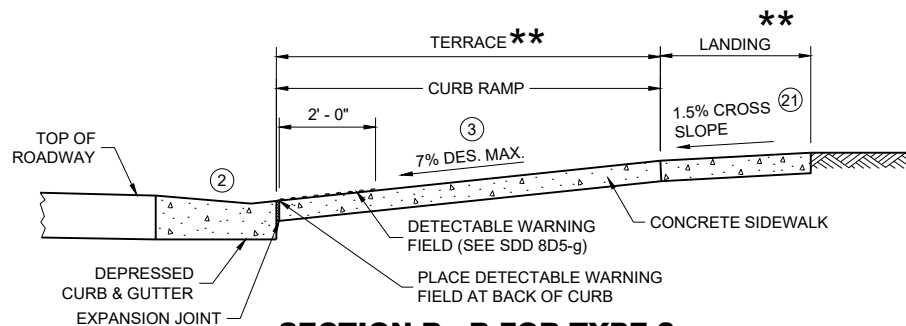
DETAIL A



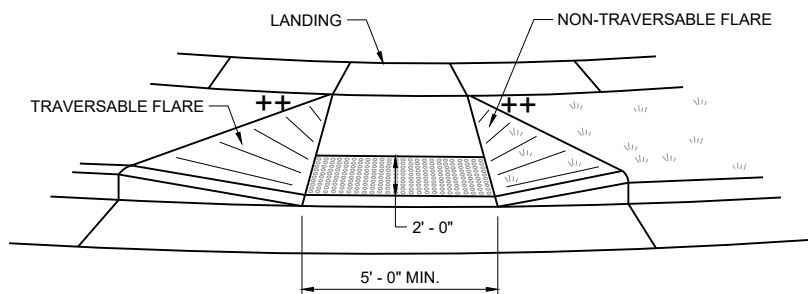
PLAN VIEW
CURB RAMP TYPE 2
(CENTER OF CORNER RADIUS)



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



SECTION B - B FOR TYPE 3



VIEW C - C FOR TYPE 3

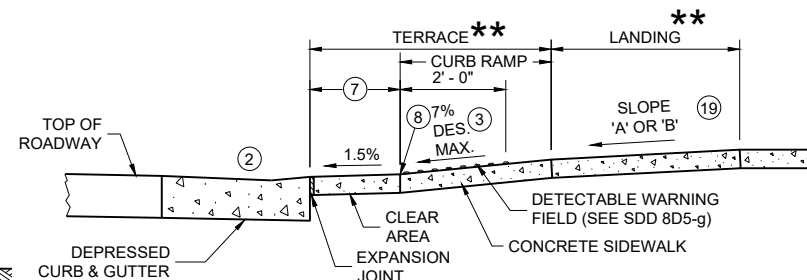
GENERAL NOTES

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 $\pm 0.5\%$ CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.
- ⑦ WHEN 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.
- ⑨ 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.
- ⑪ A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- ⑫ 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.
- ⑬ 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.
- ⑭ 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.
- ⑮ 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.



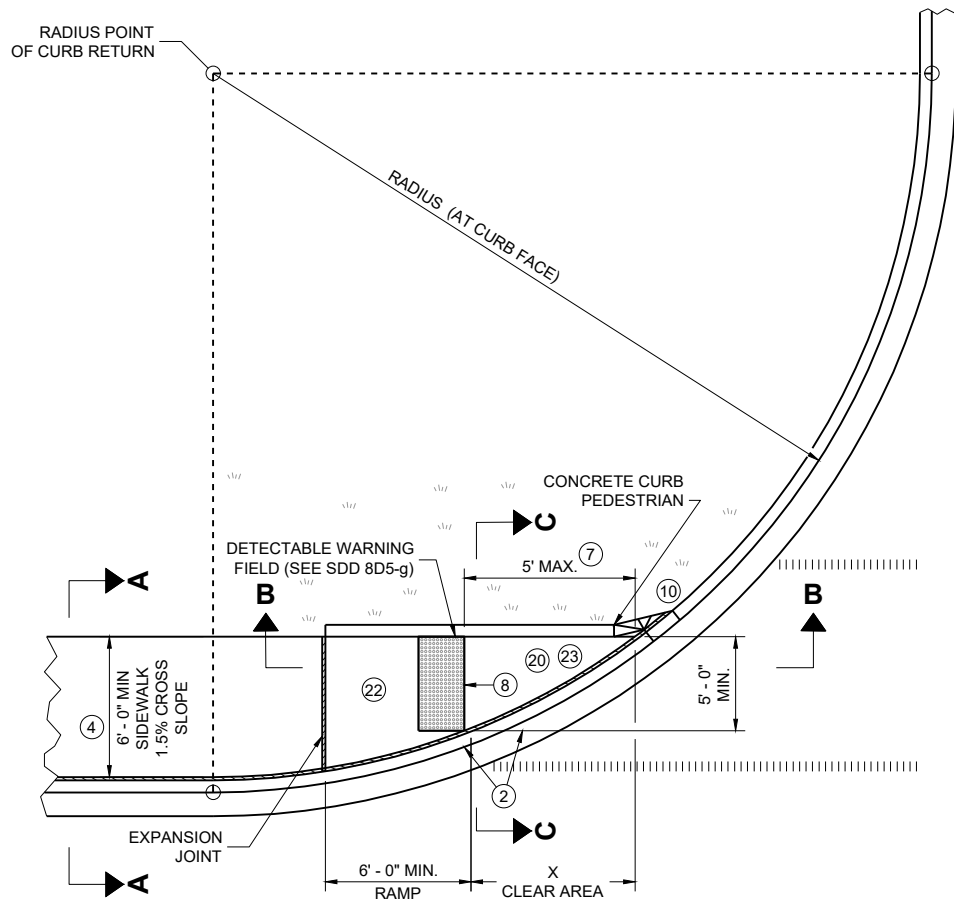
SECTION A - A FOR TYPE 2

LEGEND

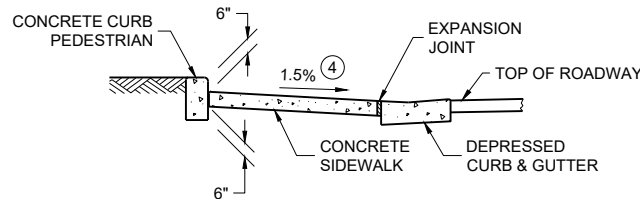
- 1/2" EXPANSION JOINT SIDEWALK
- - - CONTRACTION JOINT SIDEWALK
- ||||| PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK
- ** WIDTH SHOWN ELSEWHERE IN THE PLANS
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
TYPE 2 AND 3

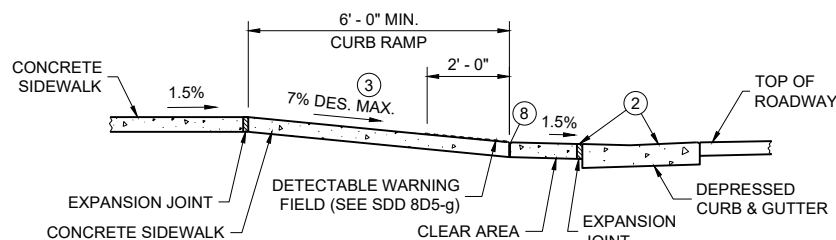
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
CURB RAMP TYPE 4A



SECTION C - C FOR TYPE 4A

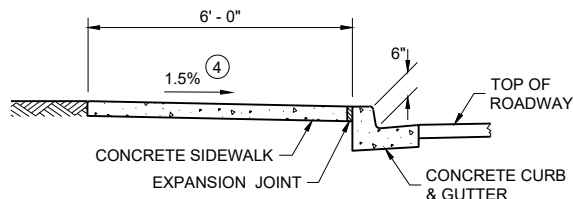


SECTION B - B FOR
TYPE 4A AND TYPE 4A1

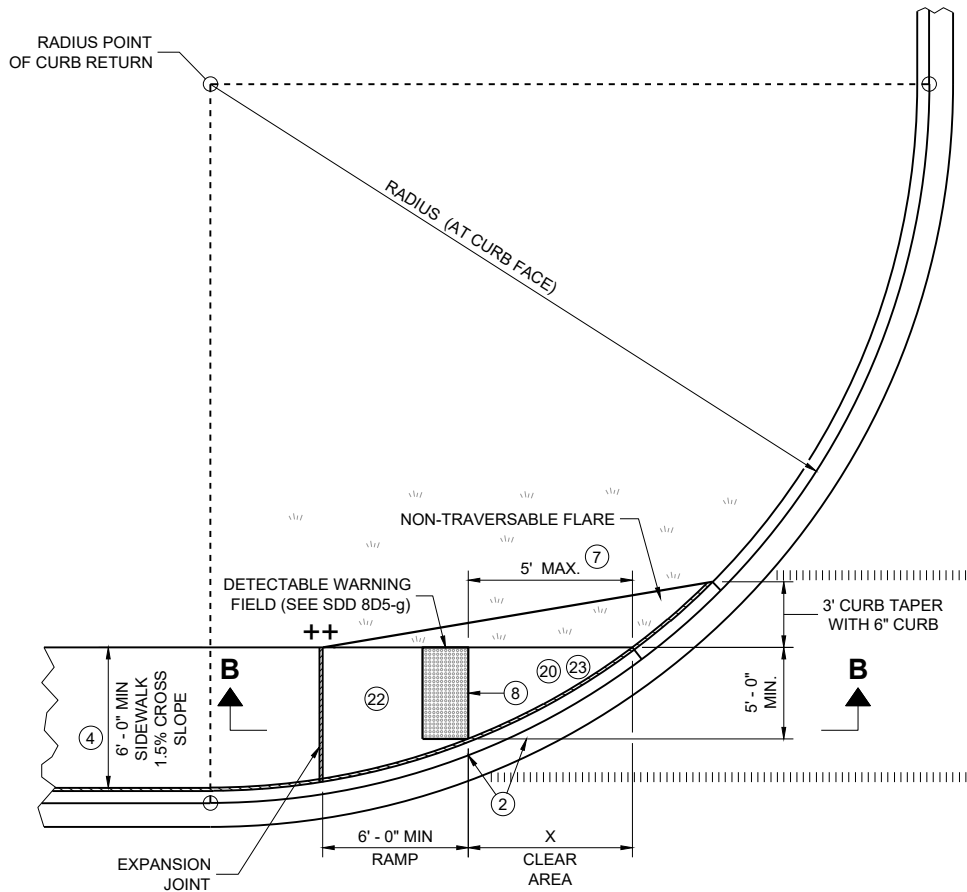
- LEGEND**
- 1/2" EXPANSION JOINT SIDEWALK
 - CONTRACTION JOINT SIDEWALK
 - PAVEMENT MARKING CROSSWALK (WHITE)
 - ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

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

INTERMEDIATE RADII CAN BE INTERPOLATED



SECTION A - A FOR TYPE 4A



PLAN VIEW
CURB RAMP TYPE 4A1

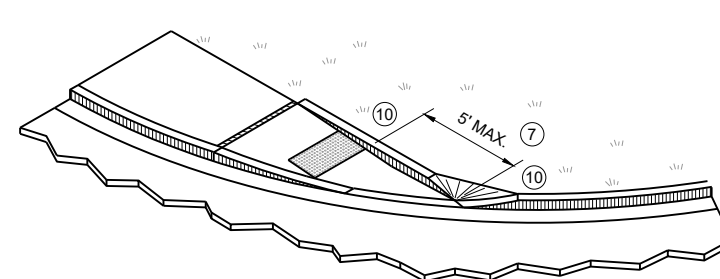
GENERAL NOTES

AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.

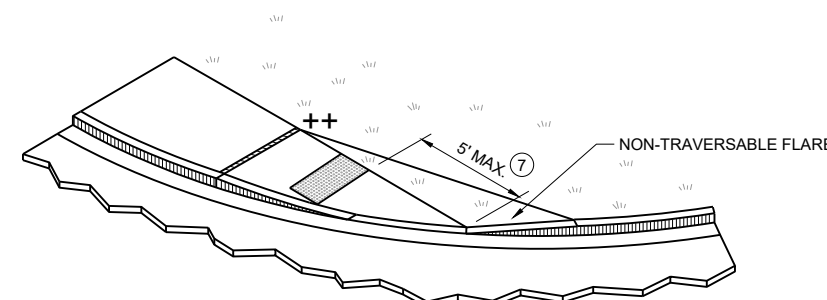
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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.



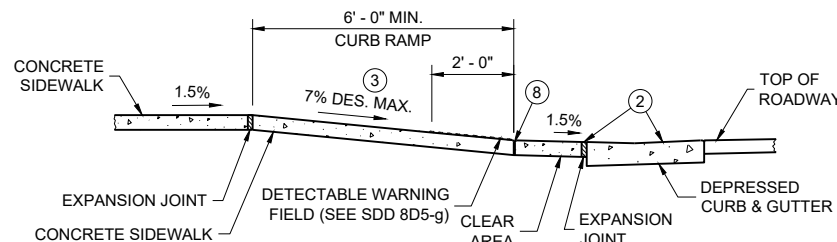
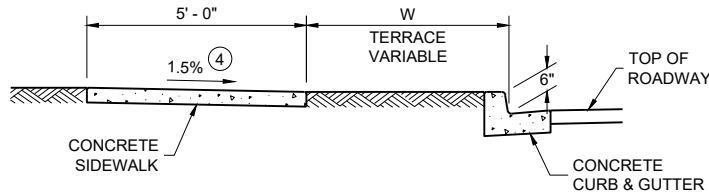
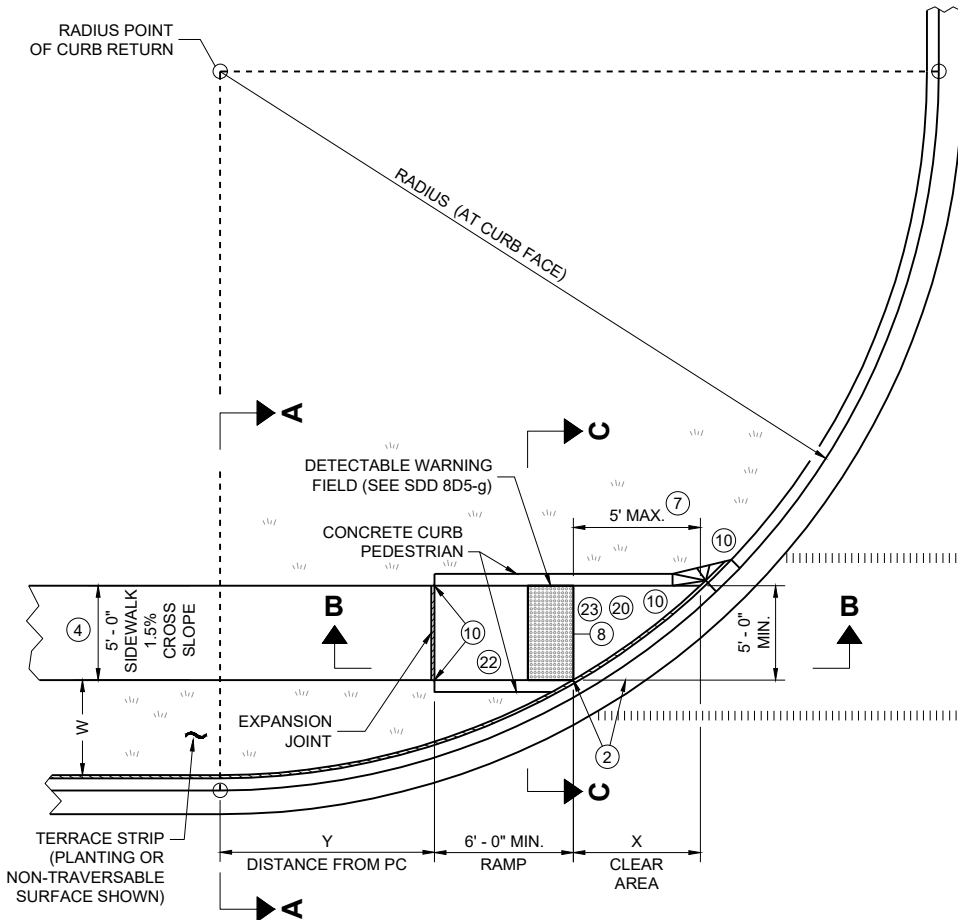
ISOMETRIC VIEW FOR TYPE 4A



ISOMETRIC VIEW FOR TYPE 4A1

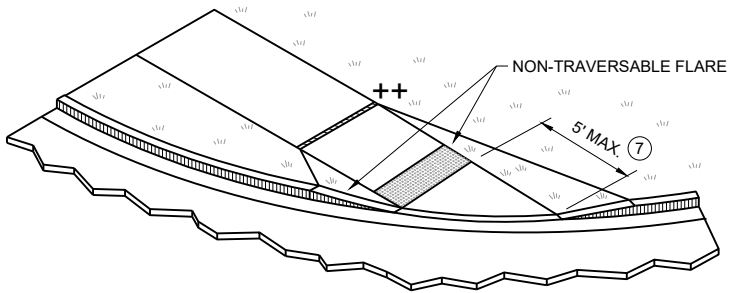
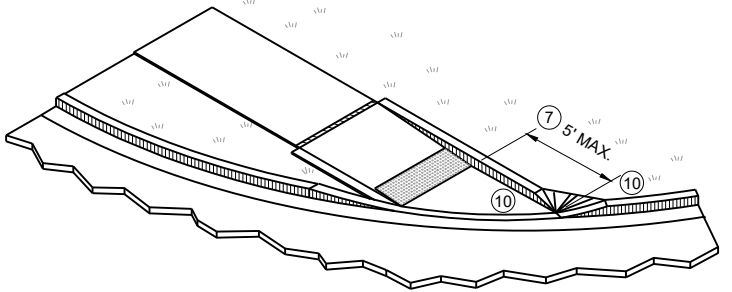
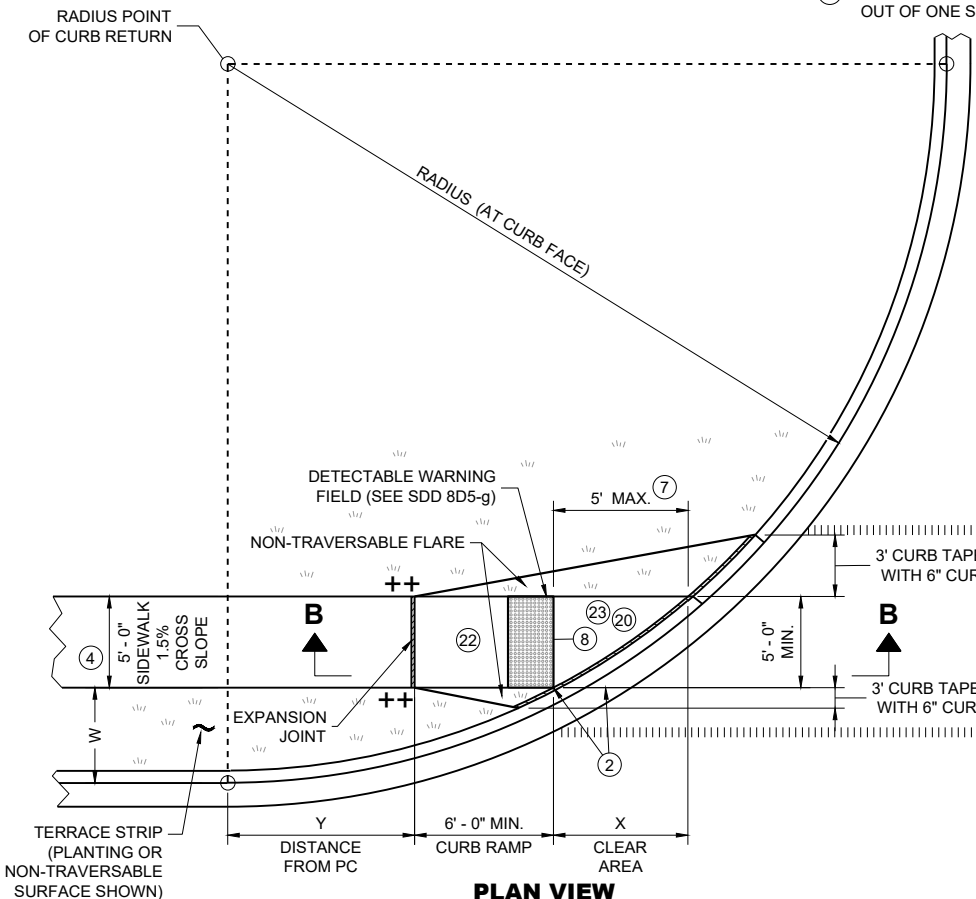
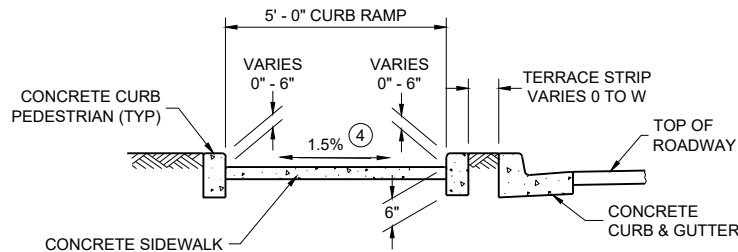
**CURB RAMPS
TYPE 4A AND 4A1**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



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"

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



LEGEND

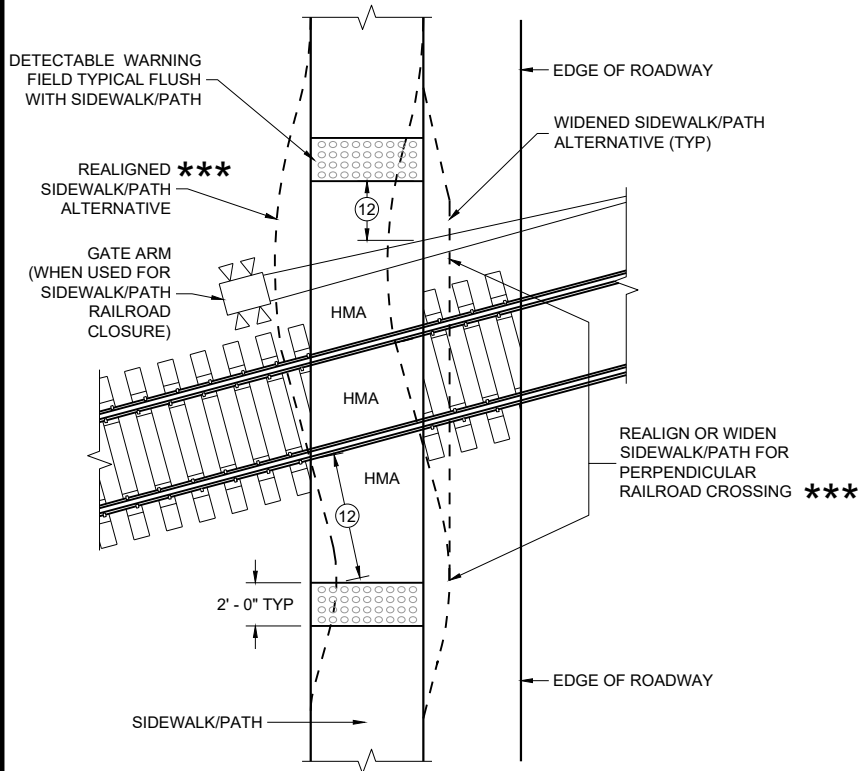
- 1/2" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)
- * MAXIMUM 2.1% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK
- ++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

GENERAL NOTES

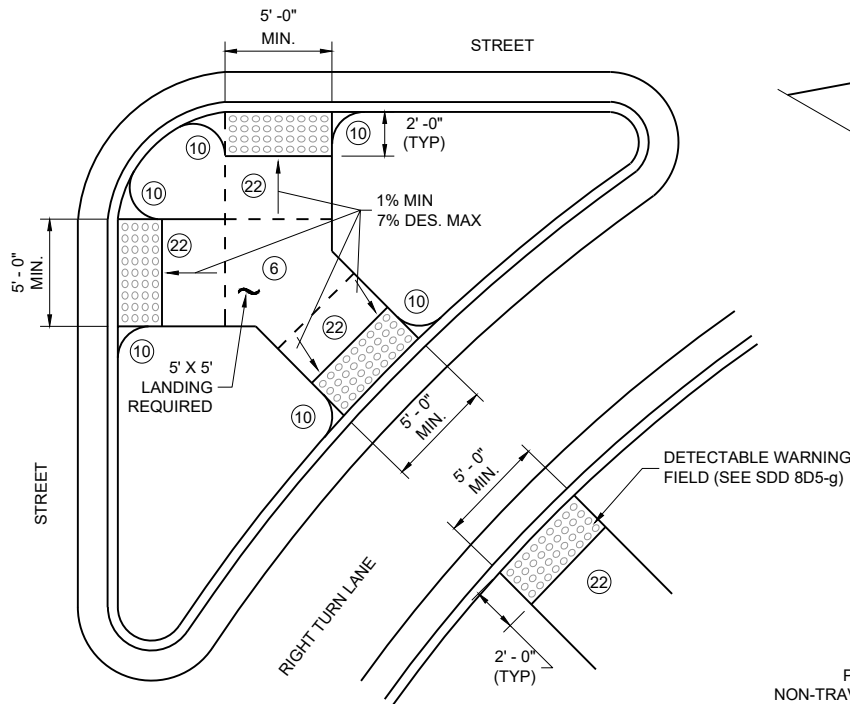
- AVOID PLACING DRAINAGE STRUCTURES, JUNCTION BOXES OR OTHER OBSTRUCTIONS IN FRONT OF CURB RAMP ACCESS AREAS.
- DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.
- 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 THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.
- PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.
- INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.
- A MAXIMUM 2-INCH CONCRETE BORDER IS PERMITTED ALONG ALL SIDES OF THE DETECTABLE WARNING FIELD SURFACE.
- 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.
- 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.

CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

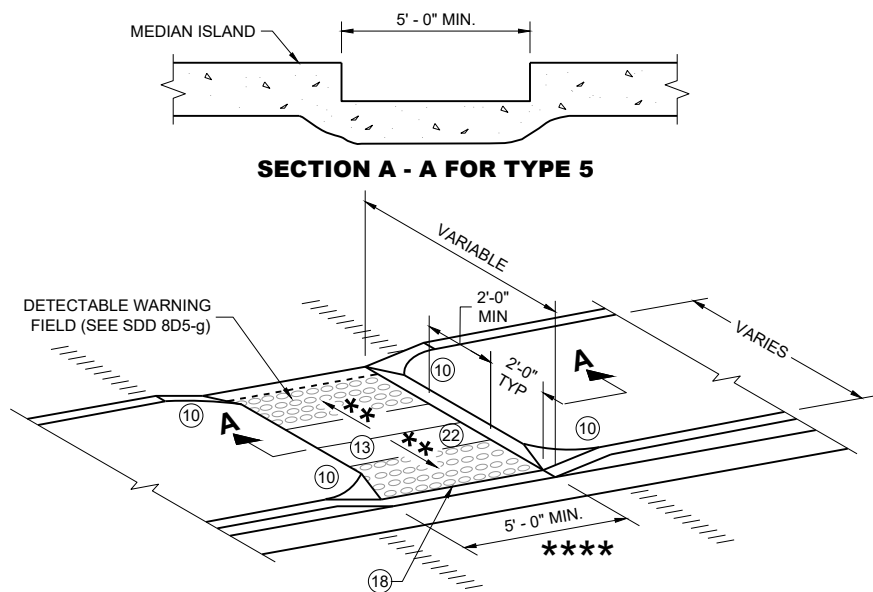


CURB RAMP TYPE 8
DETECTABLE WARNINGS
FOR SIDEWALKS OR SHARED USE PATHS
AT RAILROAD CROSSINGS

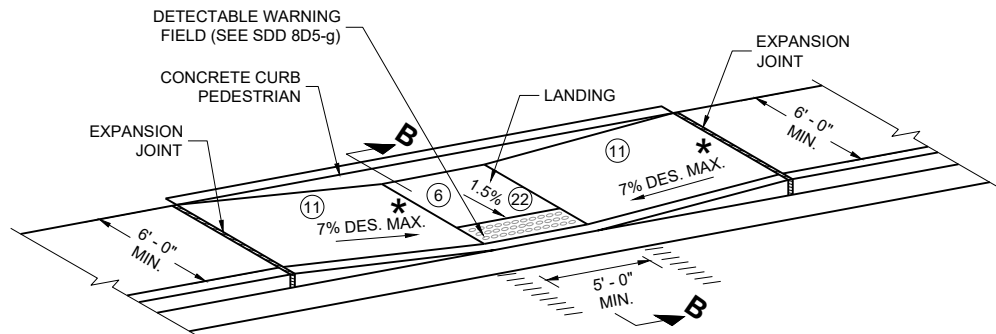


CURB RAMP TYPE 6
DETECTABLE WARNING AT ISLANDS

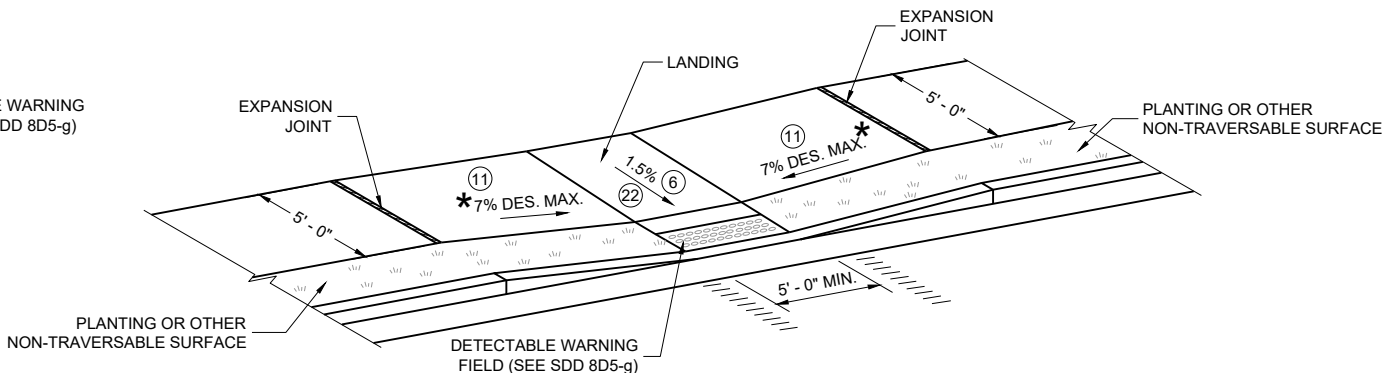
REFER TO GENERAL NOTES ② AND ③
FOR ALL ISLAND CURB RAMPS



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

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.

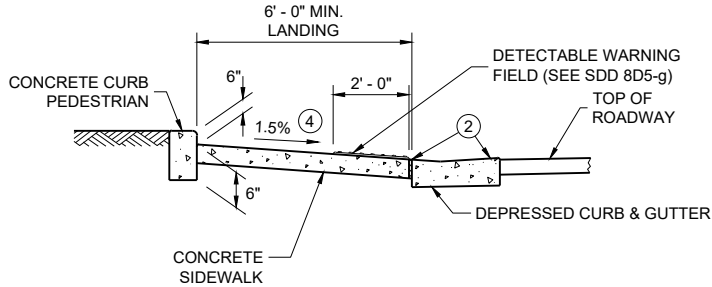
SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2.1%.

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 STEET-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

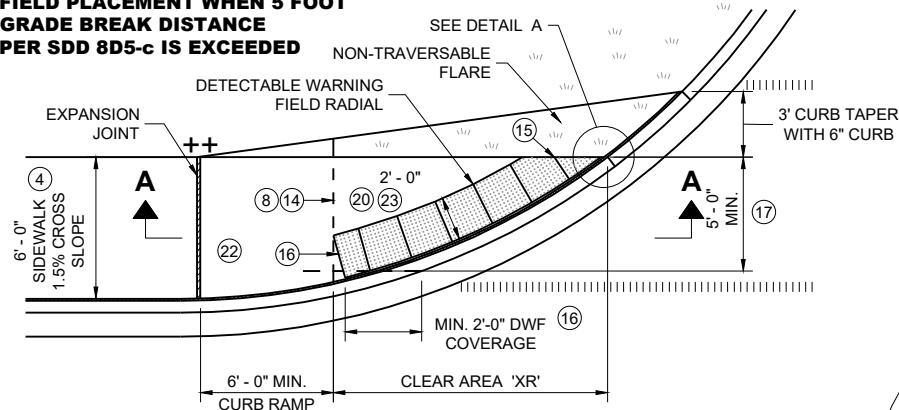


SECTION B - B FOR TYPE 7A

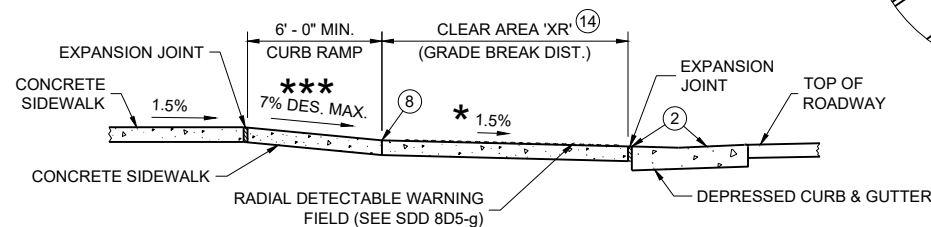
CURB RAMPS
TYPE 5, 6, 7A, 7B & 8

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

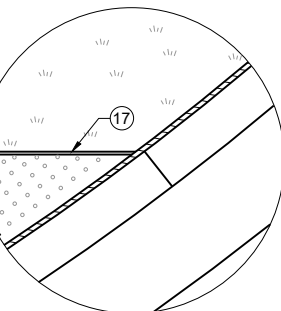
**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-c IS EXCEEDED**



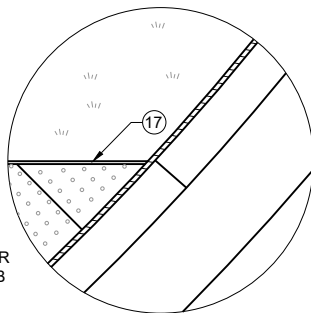
**PLAN VIEW
CURB RAMP TYPE 4A1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



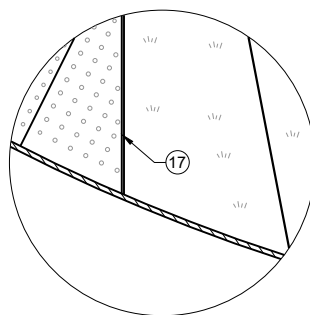
SECTION A - A FOR TYPE 4A1



DETAIL A

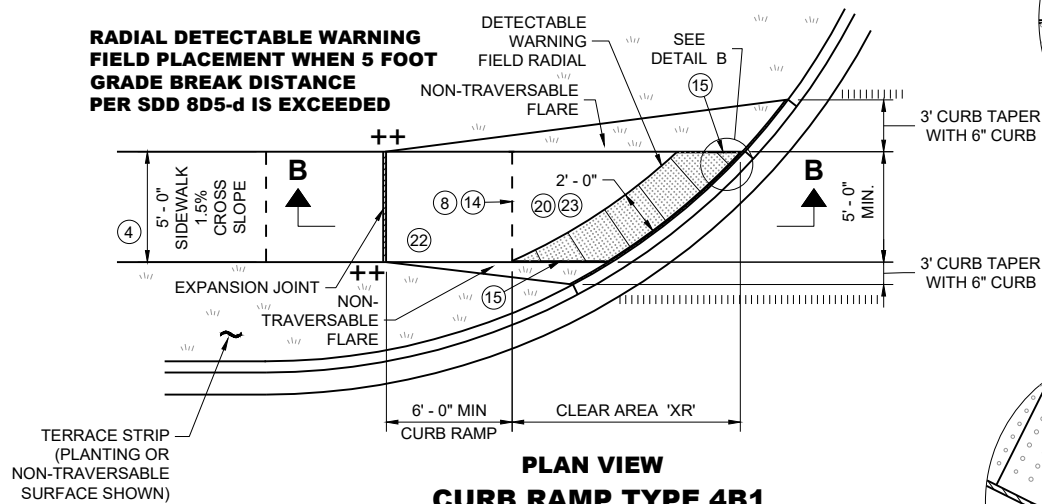


DETAIL B

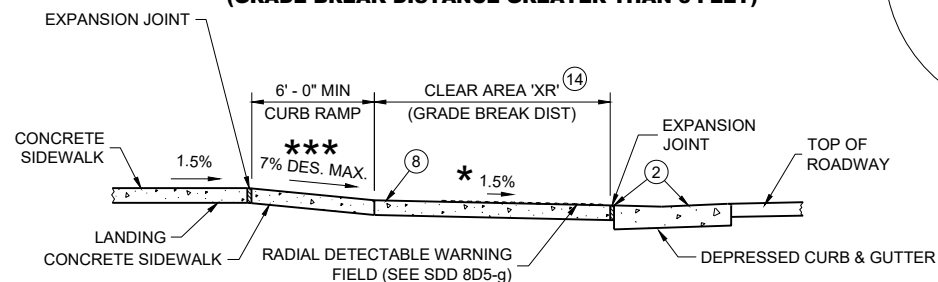


DETAIL C

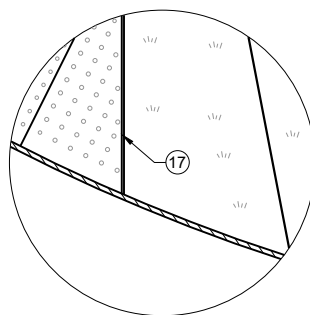
**RADIAL DETECTABLE WARNING
FIELD PLACEMENT WHEN 5 FOOT
GRADE BREAK DISTANCE
PER SDD 8D5-d IS EXCEEDED**



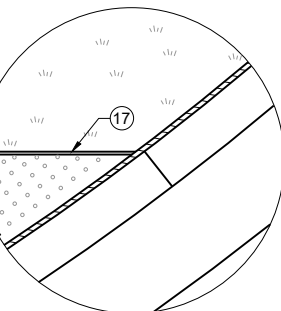
**PLAN VIEW
CURB RAMP TYPE 4B1
(GRADE BREAK DISTANCE GREATER THAN 5 FEET)**



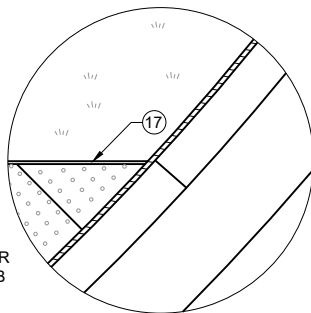
SECTION B - B FOR TYPE 4B1



DETAIL C



DETAIL A



DETAIL B

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.

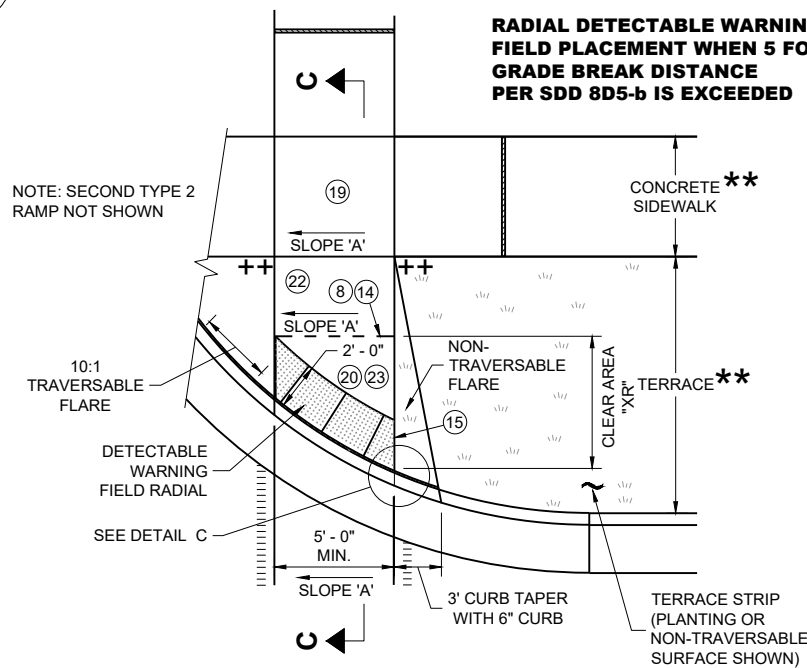
REFER TO SDD 8D5-g FOR ADDITIONAL RADIAL PLATE REQUIREMENTS.

FIELD CUTS AT INTERMEDIATE JOINTS WITHIN THE RADIAL DETECTABLE WARNING FIELD ARE PROHIBITED.

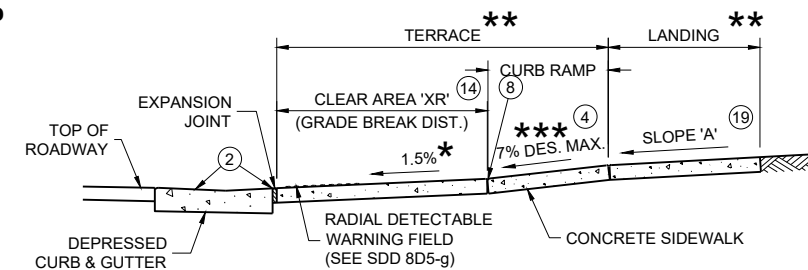
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

- 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 $\pm 0.5\%$ 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 $\frac{1}{8}$ " 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)**



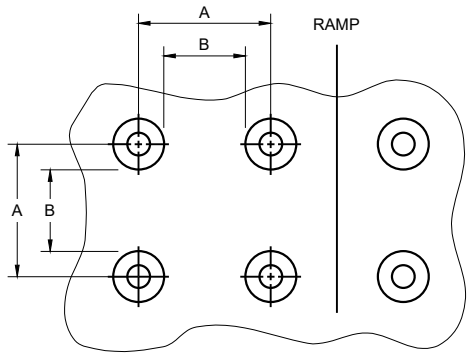
SECTION C - C FOR TYPE 2

**CURB RAMPS
RADIAL DETECTABLE WARNING**

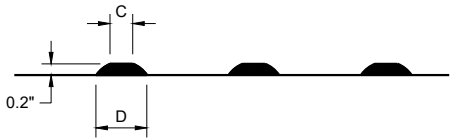
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

	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.

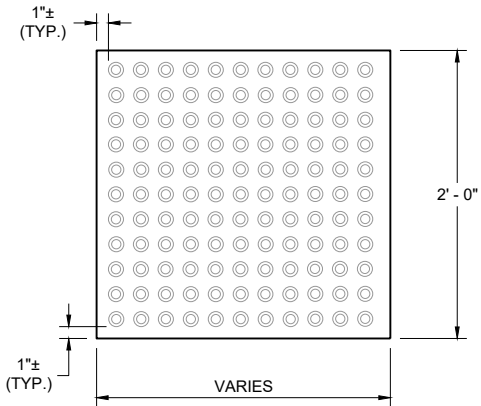


PLAN VIEW

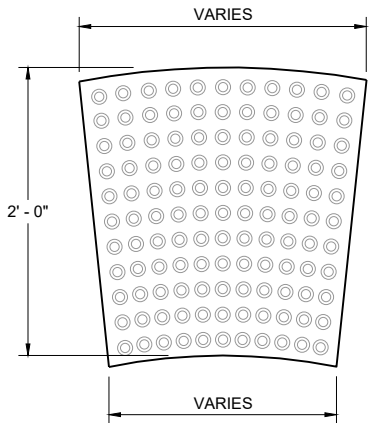


ELEVATION VIEW

TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL

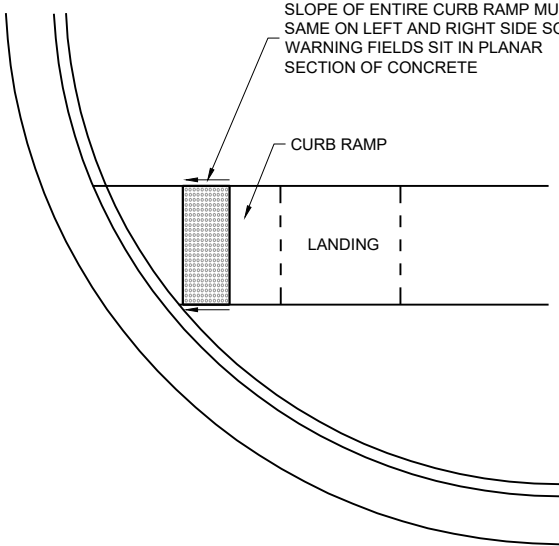


RECTANGULAR
PLATES

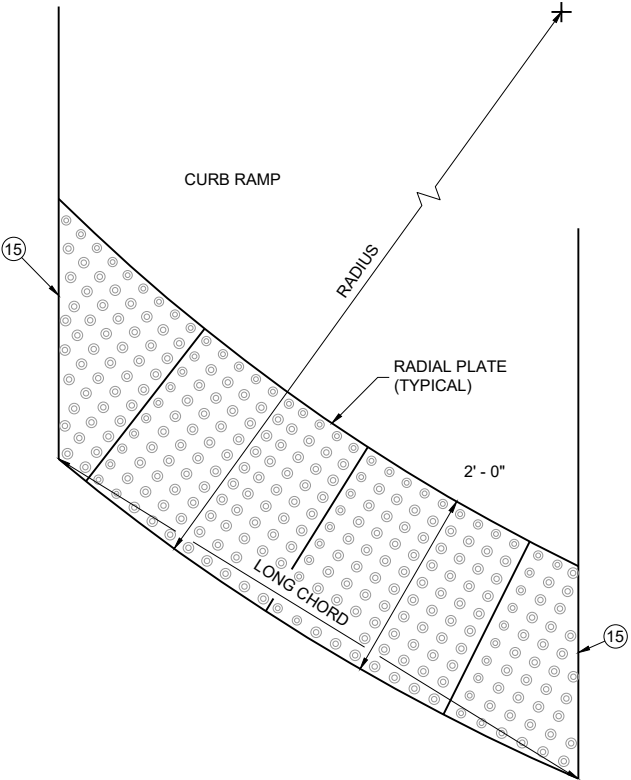


RADIAL
PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



DETECTABLE WARNING FIELD
PLANAR INSTALLATION



PLAN VIEW
RADIAL DETECTABLE
WARNING FIELD ATTRIBUTES

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 FILED ARE PROHIBITED.

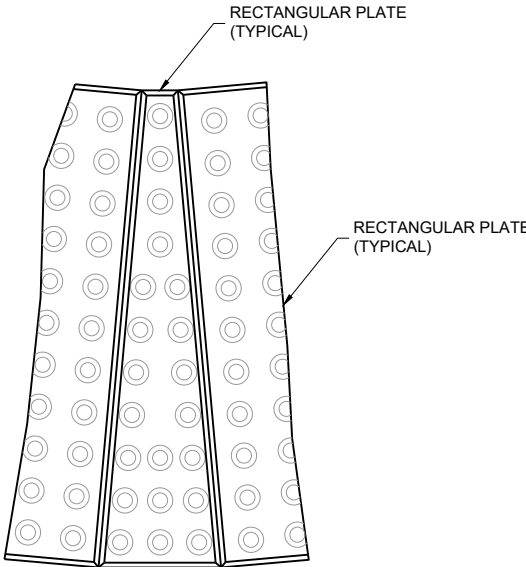
DETERMINE FINAL RADIAL WARNING FIELD CONFIGURATION AND ITS INDIVIDUAL PLATE LOCATIONS. PERFORM PRE-LAYOUT PRIOR TO PLACEMENT IN PLASTIC CONCRETE. FOLLOW MANUFACTURER'S PRODUCT LIST AND INSTALLATION RECOMMENDATIONS.

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.



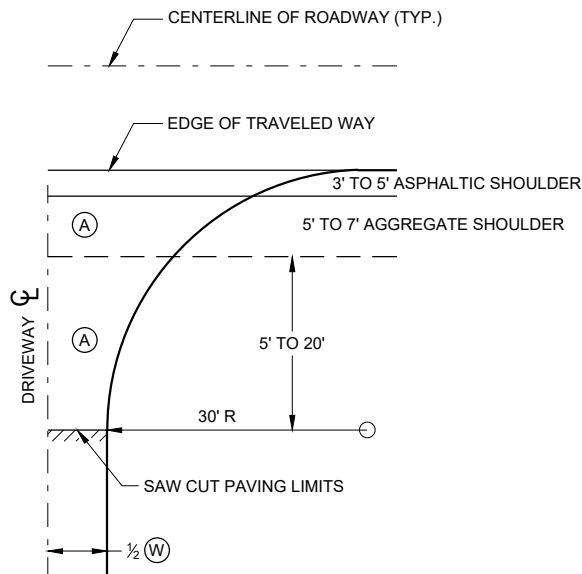
PLAN VIEW
RADIAL WEDGE PLATE
CONNECTION DETAIL

CURB RAMPS
RECTANGULAR AND RADIAL
DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

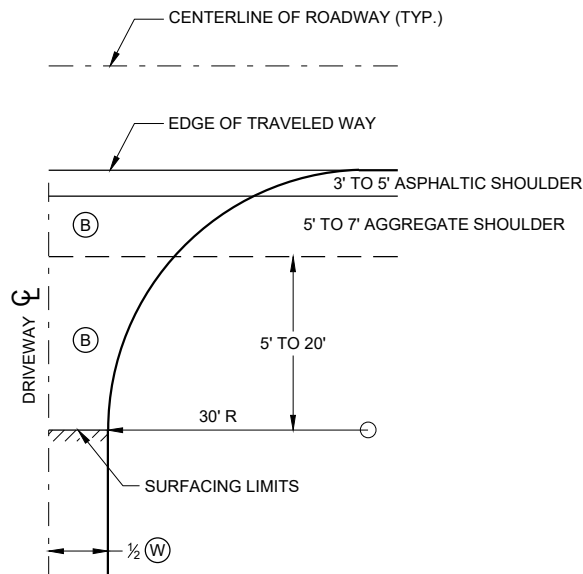
APPROVED
February 2025 /S/ Rodney Taylor
DATE <position>

FHWA

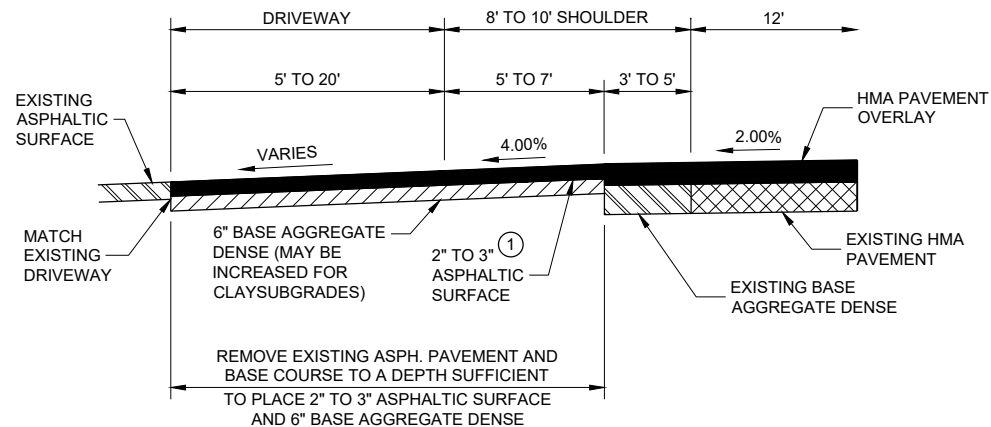


PLAN VIEW
HALF SECTION

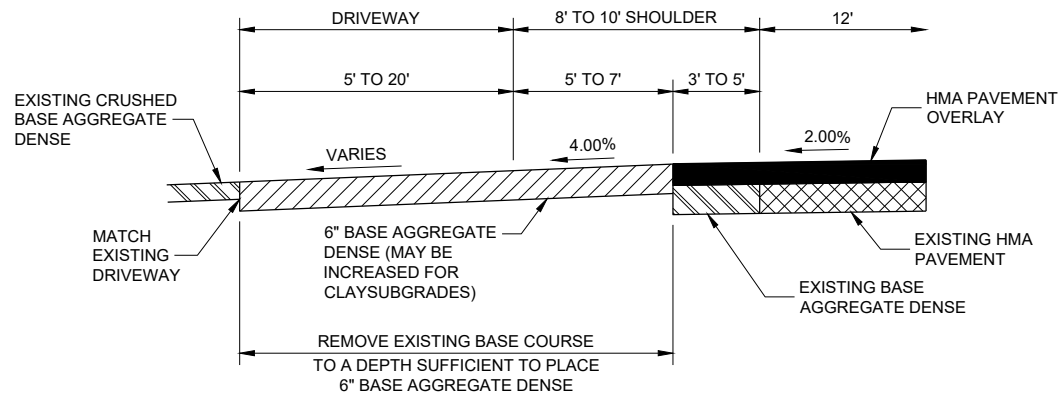
- (A) : PAID FOR AS ASPHALTIC SURFACE DRIVEWAYS AND FIELD ENTRANCES. (TON)
- (B) : PAID FOR AS BASE AGGREGATE DENSE 1 1/4" (TON)
- (W) : DRIVEWAY WIDTH 16' MIN. - 24' MAX.



PLAN VIEW
HALF SECTION



PROFILE VIEW
RURAL ENTRANCE
WITH ASPHALTIC SURFACE
RESURFACING PROJECTS



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

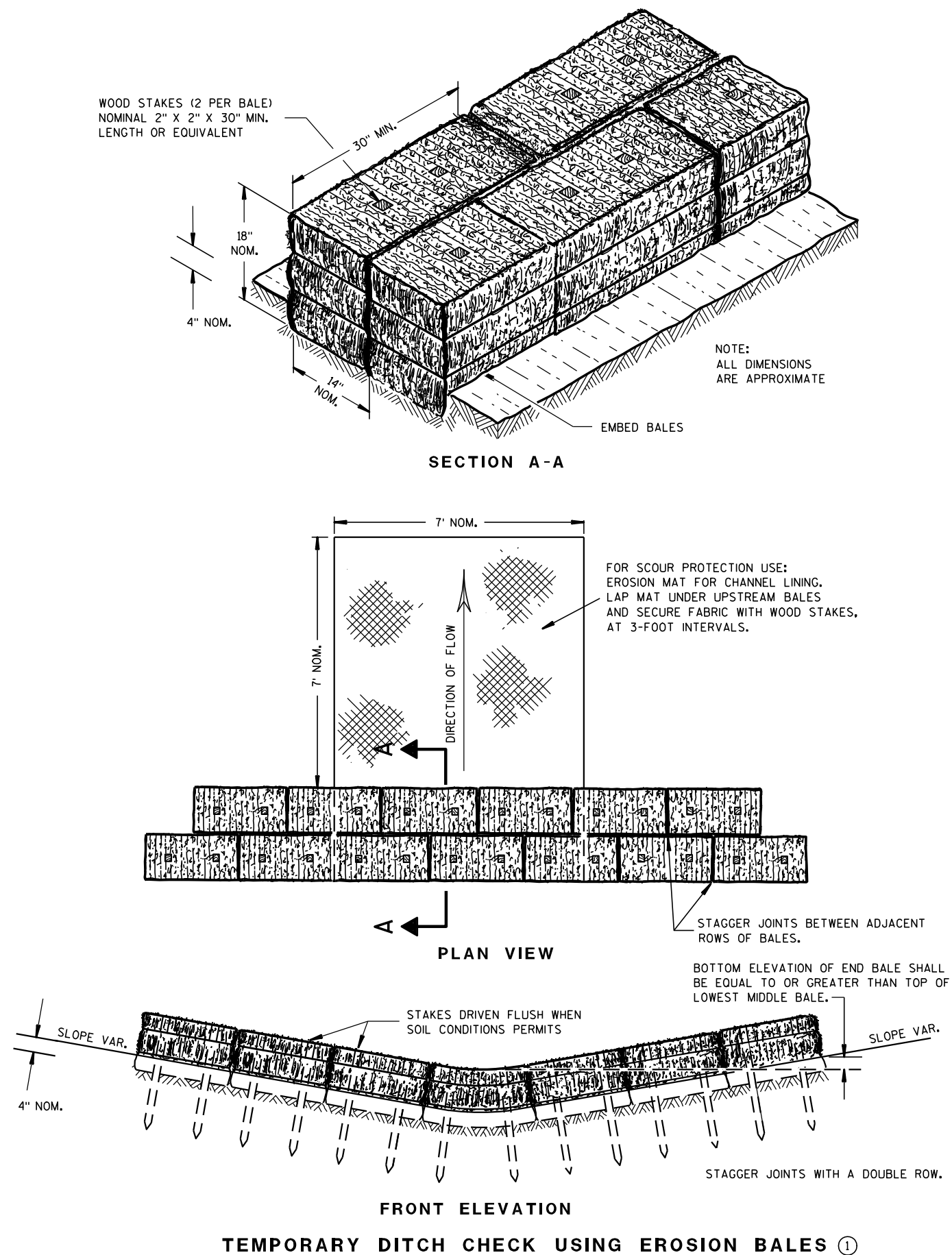
GENERAL NOTES

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

DRIVEWAYS WITHOUT CURB
AND GUTTER RESURFACING
PROJECTS RURAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

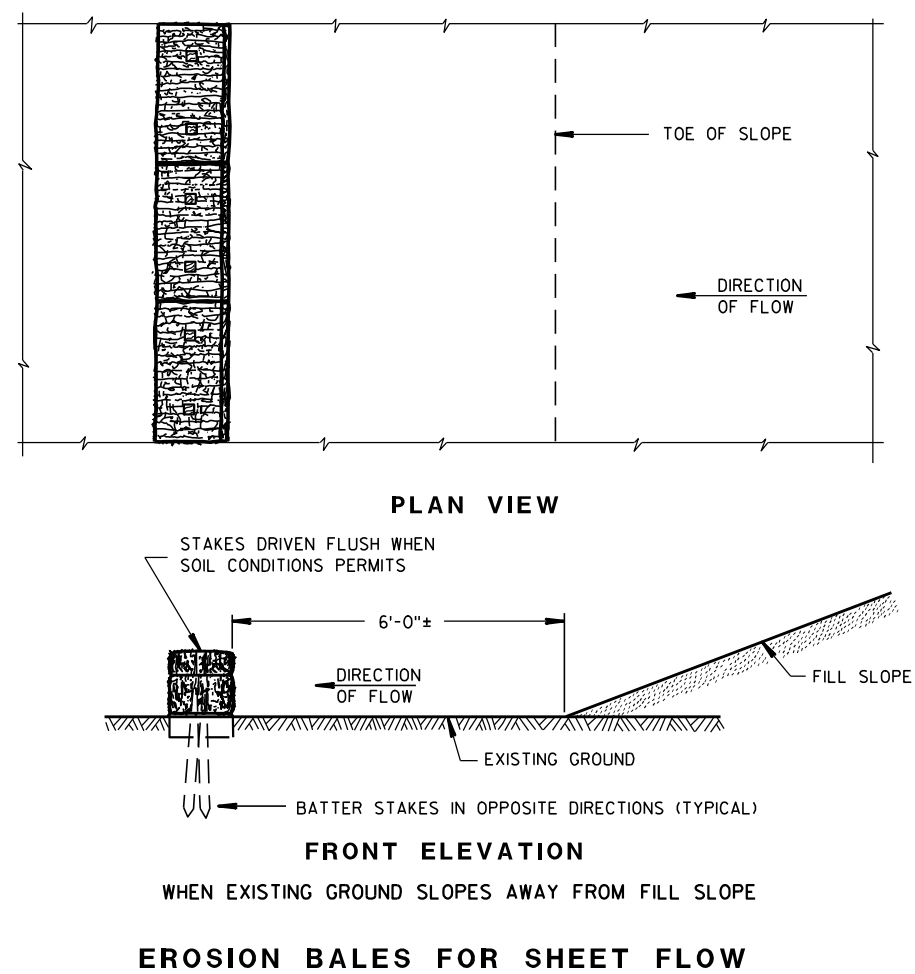
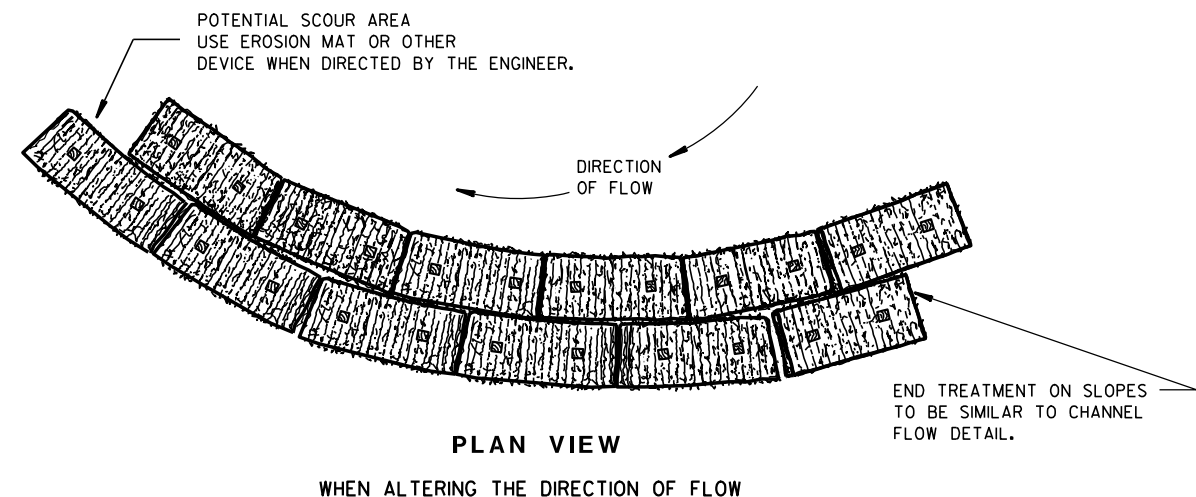
APPROVED
December 2016 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 83
FHWA



GENERAL NOTES

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

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

TYPICAL INSTALLATIONS OF
EROSION BALES / TEMPORARY
DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02
DATE/S/ Beth Conn-----
CHIEF ROADWAY DEVELOPER 84 ENGINEER

FHWA



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



SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

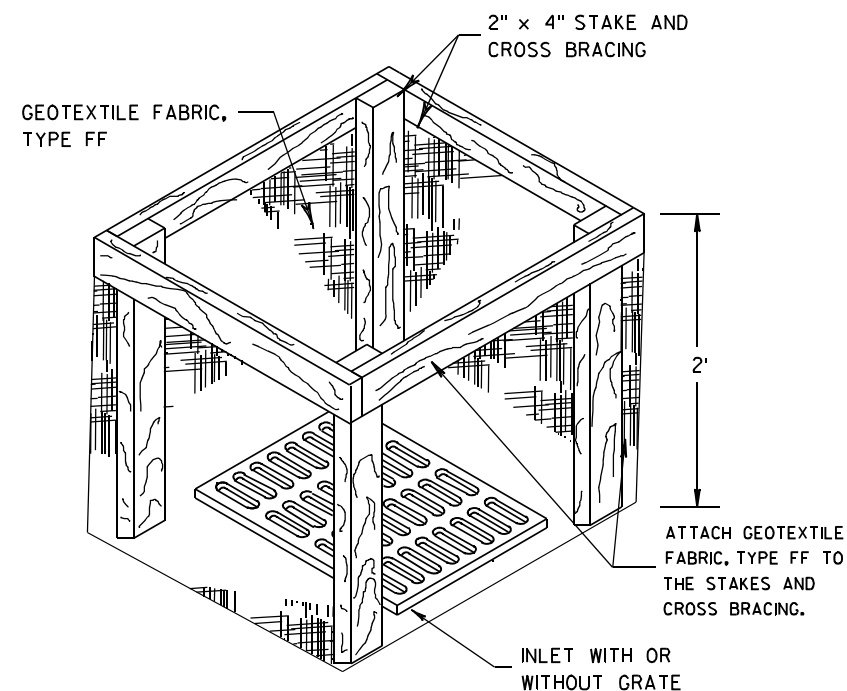
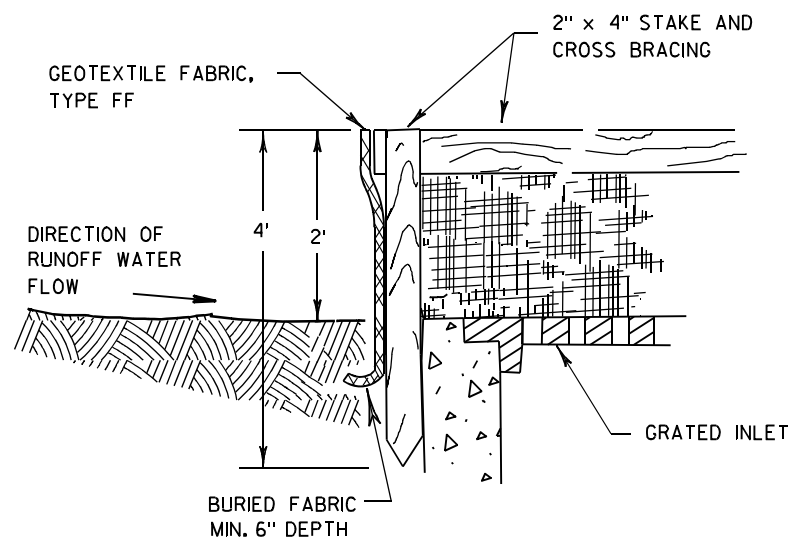
APPROVED
4-29-05
DATE

/S/ Beth Cannata
CHIEF ROADWAY DEVELOPMENT

85

ENGINEER

FHWA



INLET PROTECTION, TYPE A

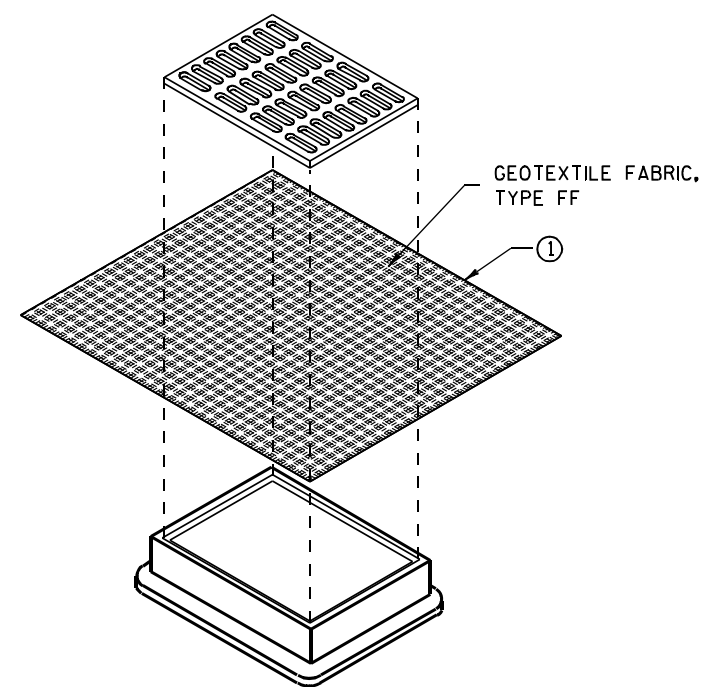
GENERAL NOTES

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

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

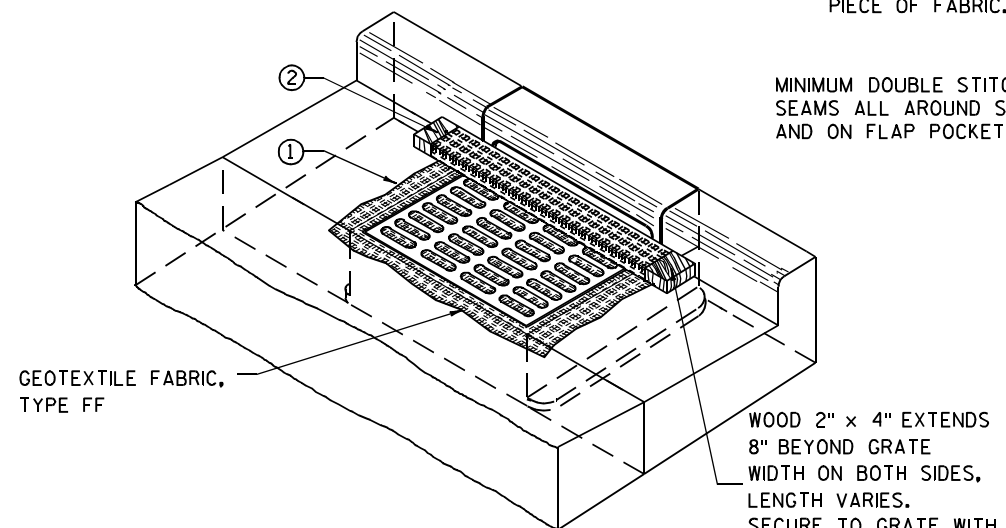
WHEN REMOVING OR MAINTAINING INLET PROTECTION, CARE SHALL BE TAKEN SO THAT THE SEDIMENT TRAPPED ON THE GEOTEXTILE FABRIC DOES NOT FALL INTO THE INLET. ANY MATERIAL FALLING INTO THE INLET SHALL BE REMOVED IMMEDIATELY.

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



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

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



INLET PROTECTION, TYPE C (WITH CURB BOX)

INSTALLATION NOTES

TYPE B & C

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

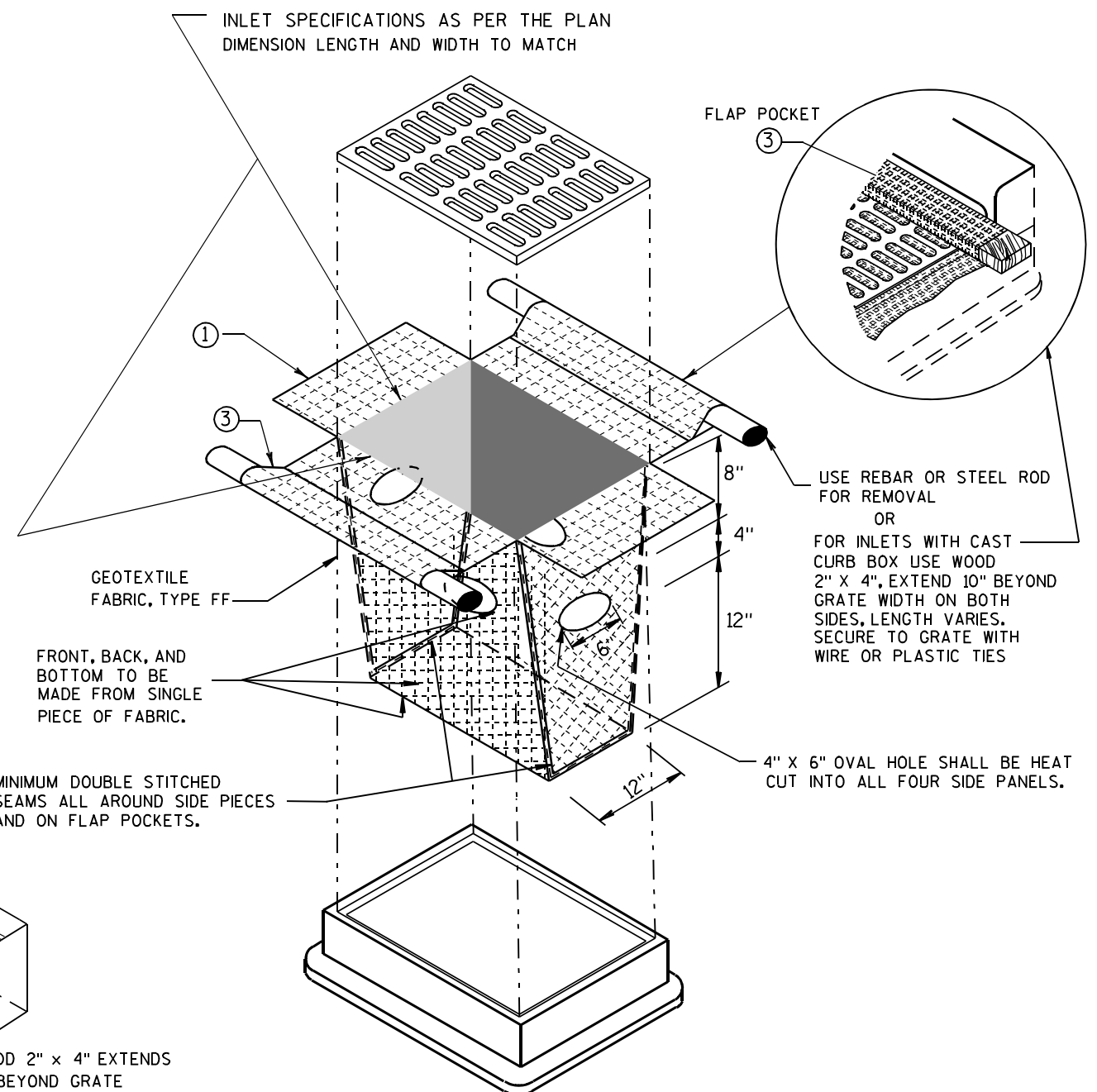
THE CONTRACTOR SHALL DEMONSTRATE A METHOD OF MAINTENANCE, USING A SEWN FLAP, HAND HOLDS OR OTHER METHOD TO PREVENT ACCUMULATED SEDIMENT FROM ENTERING THE INLET.

TYPE D

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

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

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



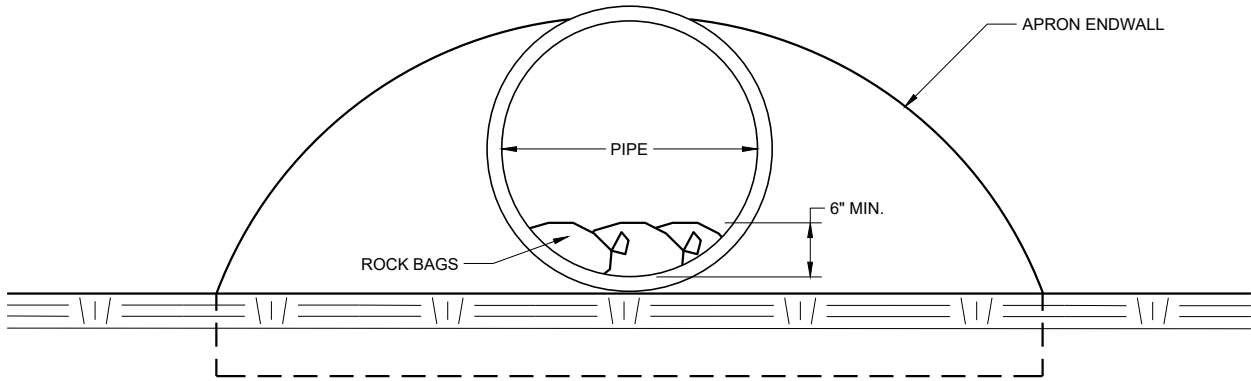
INLET PROTECTION, TYPE D

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

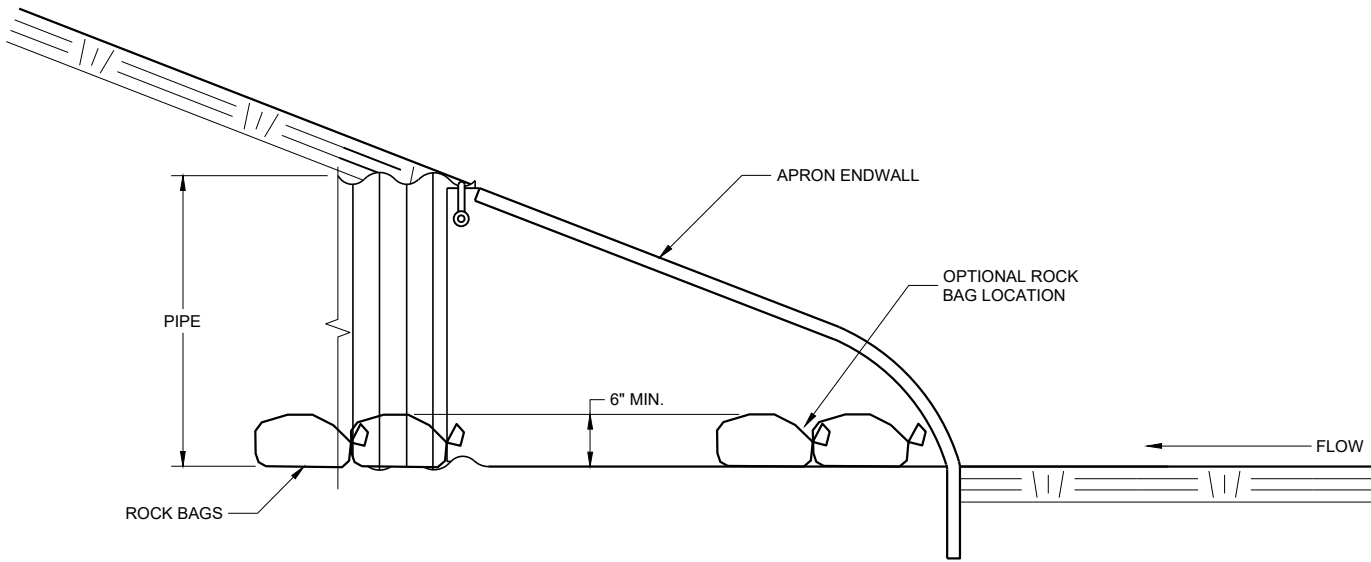
**INLET PROTECTION
TYPE A, B, C, AND D**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
10/16/02 /S/ Beth Connolly
DATE 86
FHWA CHIEF ROADWAY DEVELOPMENT ENGINEER



END VIEW

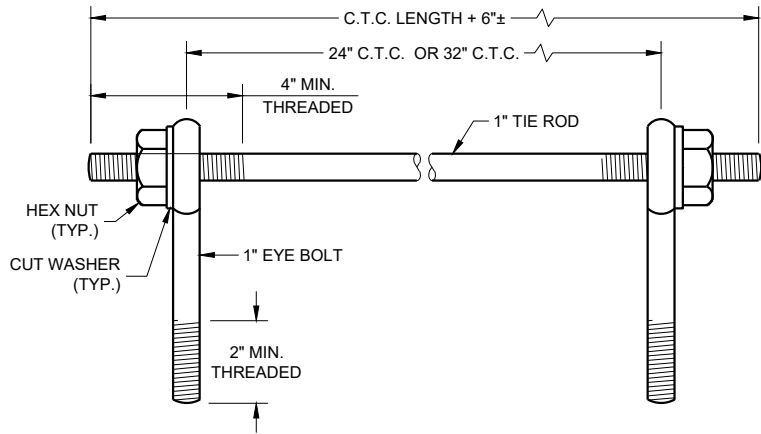


SIDE VIEW

CULVERT PIPE CHECK
(INSTALL ON INLET END ONLY)

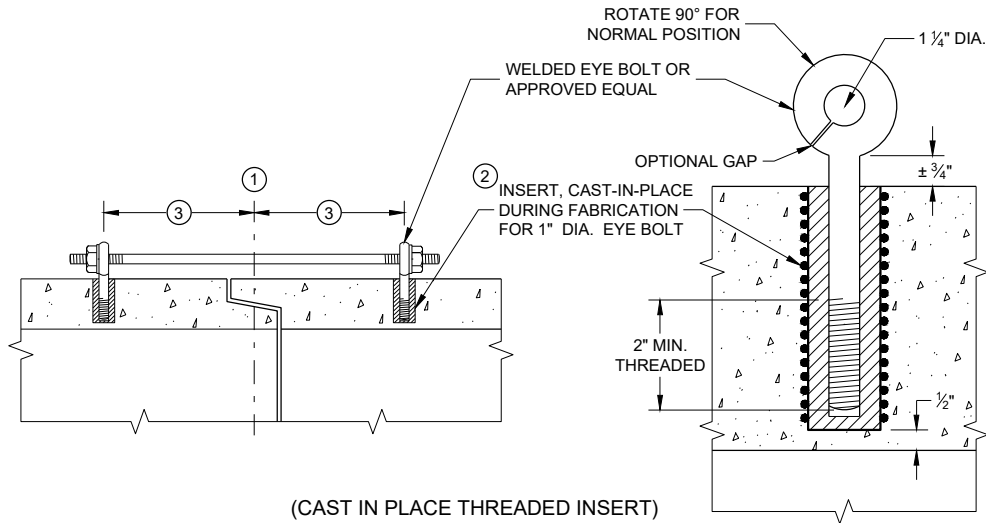
CULVERT PIPE CHECK		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED May 2019 DATE	/S/ Daniel Schave EROSION CONTROL ENGI 87	-

FHWA



EYE BOLTS AND TIE ROD

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



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

GENERAL NOTES

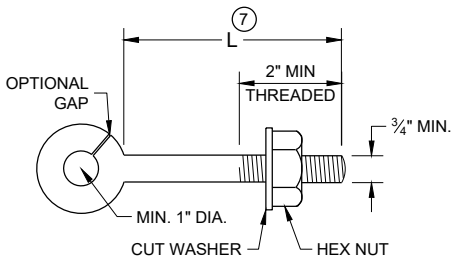
DETAILS OF CONSTRUCTION, MATERIALS, AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

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.

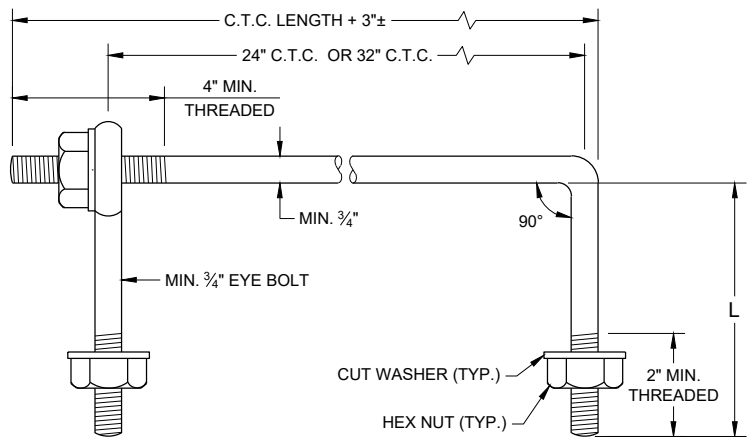
JOINT TIES TO BE HOT-DIP GALVANIZED PER ASTM A 153.

- 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.

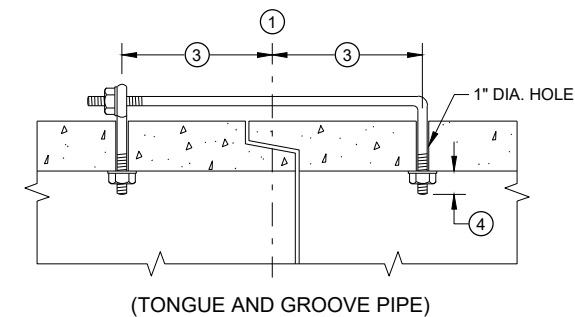


EYE BOLT 7

NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD

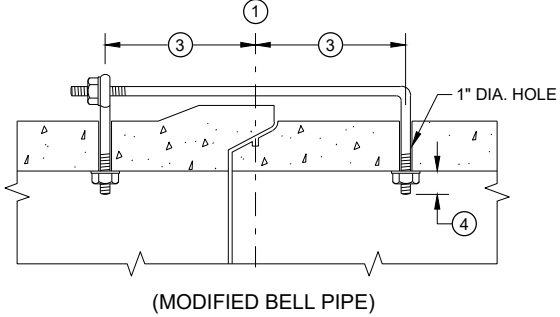


(TONGUE AND GROOVE PIPE)

LONGITUDINAL SECTION

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

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

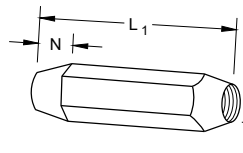


(MODIFIED BELL PIPE)

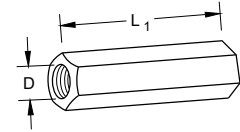
ADJUSTABLE TIE ROD TABLE

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 1/16

DIMENSIONS SHOWN ARE IN INCHES

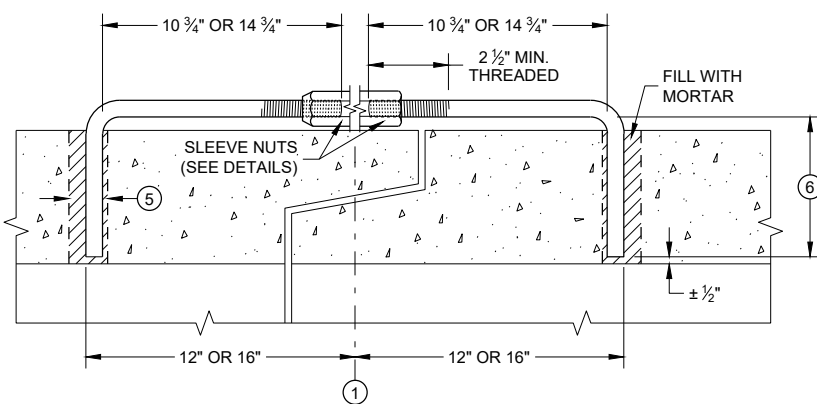


TAPERED



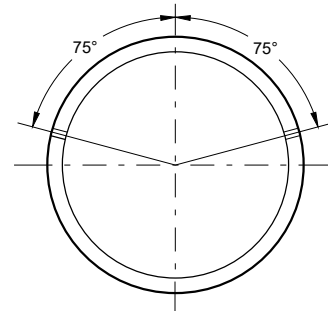
PLAIN

RIGHT AND LEFT THREADS
SLEEVE NUTS



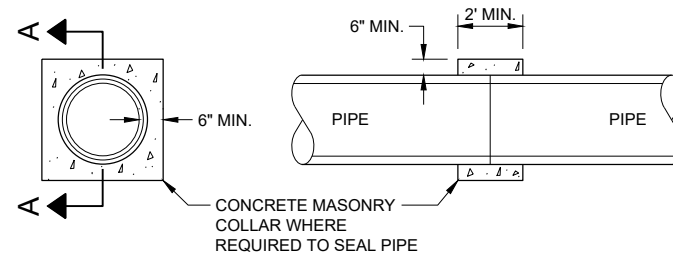
LONGITUDINAL SECTION

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



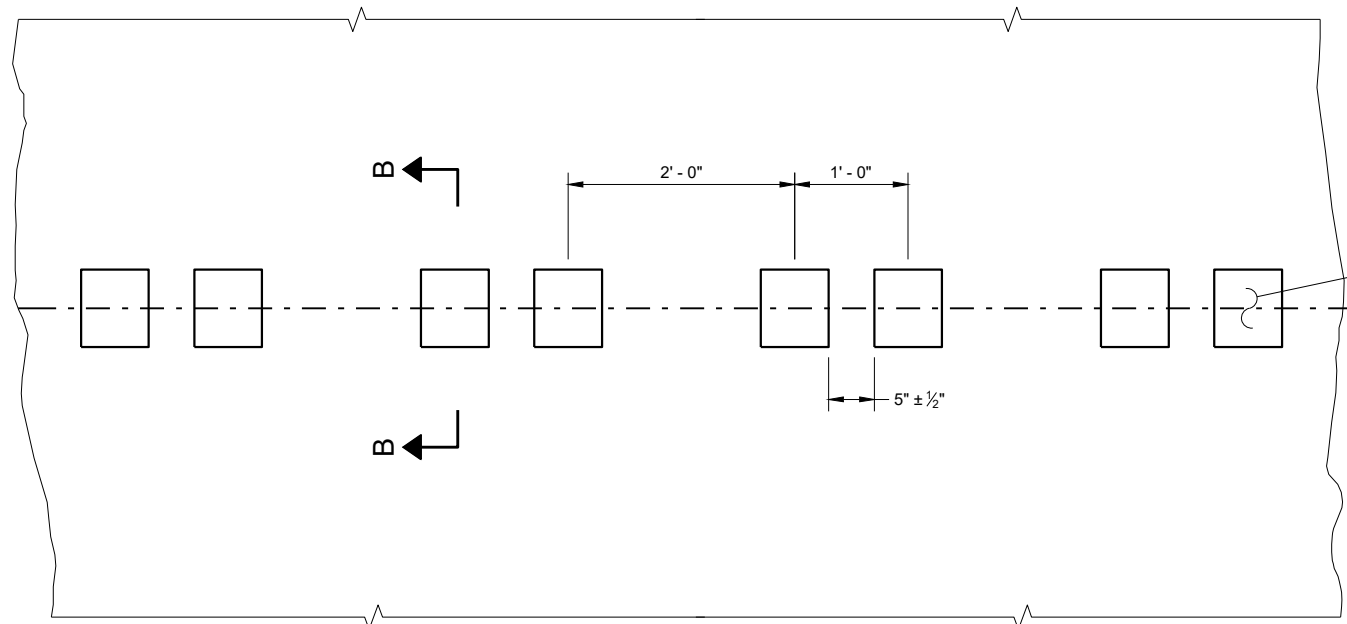
SECTION A - A

CONCRETE COLLAR DETAIL

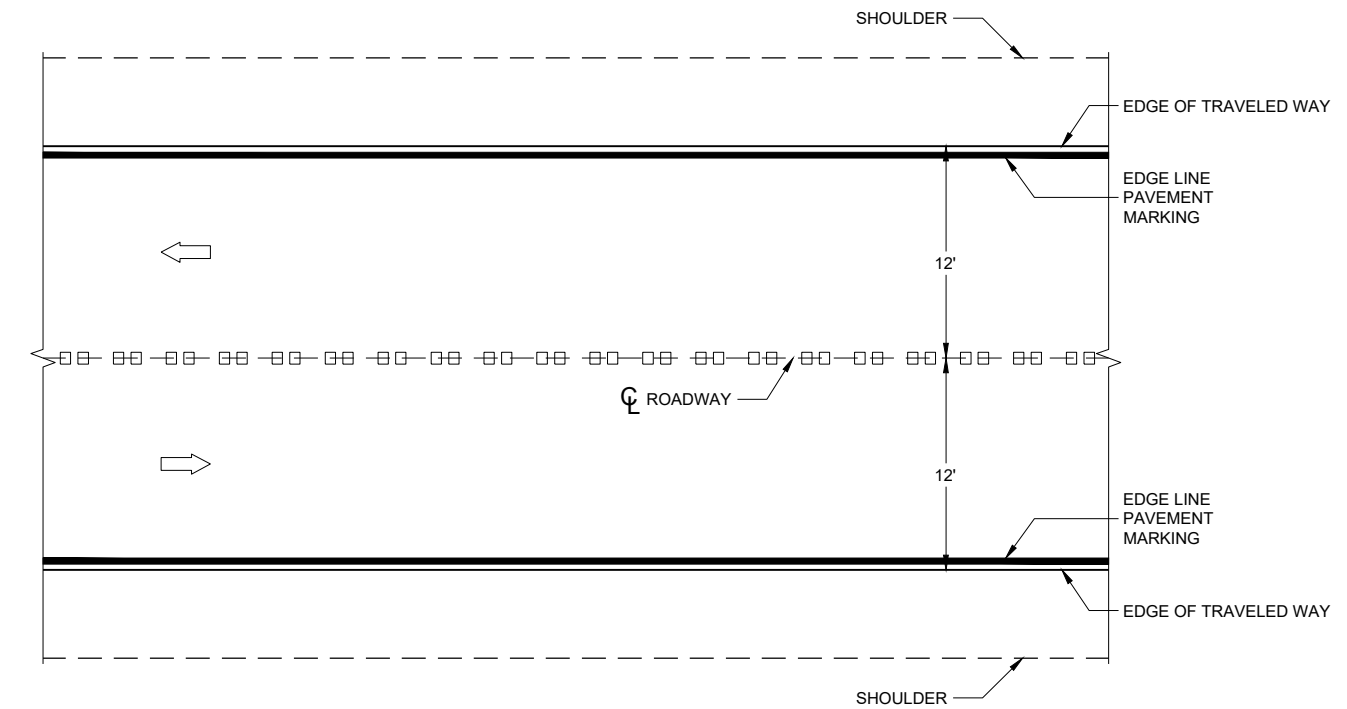
JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2021 /S/ Rodney Taylor
DATE ROADWAY STANDARDS DEVELOPMENT ENGINEER 88
FHWA

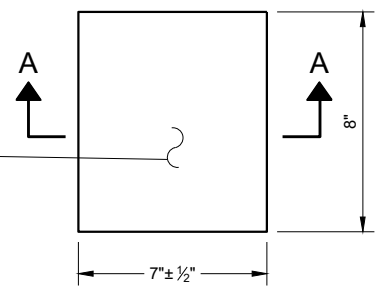


PLAN DETAIL VIEW

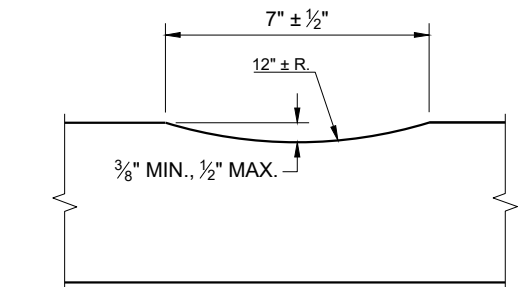


PLAN VIEW

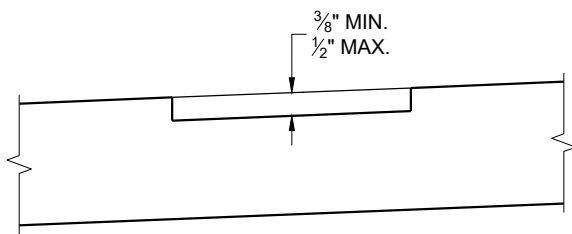
CENTERLINE RUMBLE STRIPS - ASPHALT



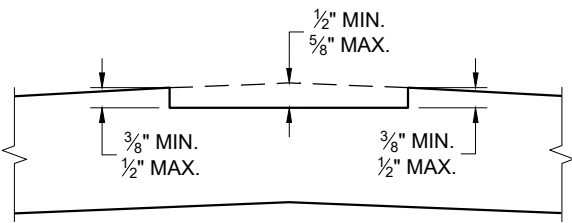
PLAN VIEW
(SINGLE GROOVE)



SECTION A - A



SECTION B - B
SUPERELEVATED ROADWAY

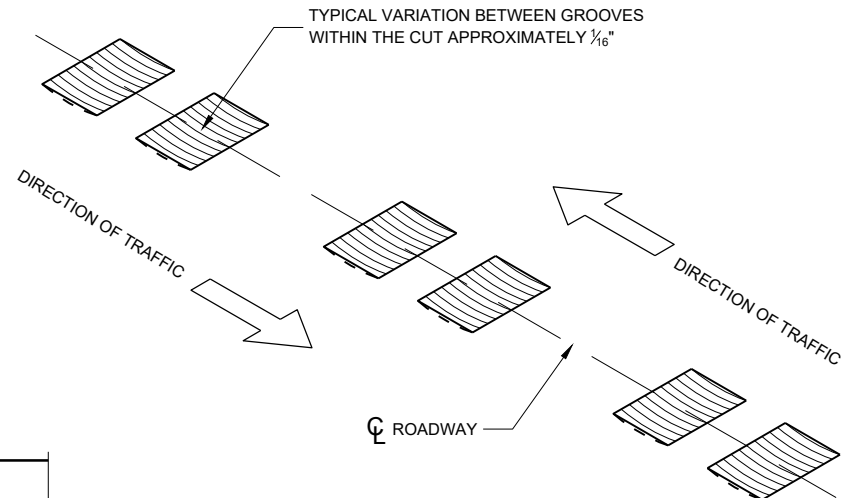


SECTION B - B
CROWNED ROADWAY

GENERAL NOTES

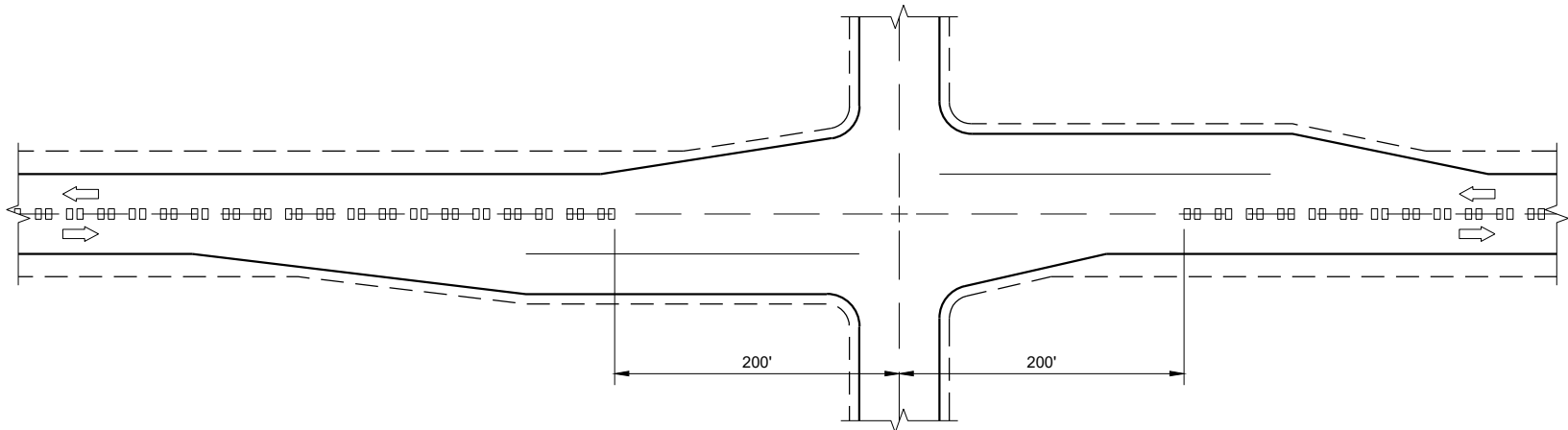
DO NOT MILL SHOULDER GROOVES THROUGH INTERSECTIONS, MARKED CROSSWALKS, NON-MOTORIZED PATH CROSSINGS, ETC. REFER TO SDD 13A11 SHEETS "d" AND "e".

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

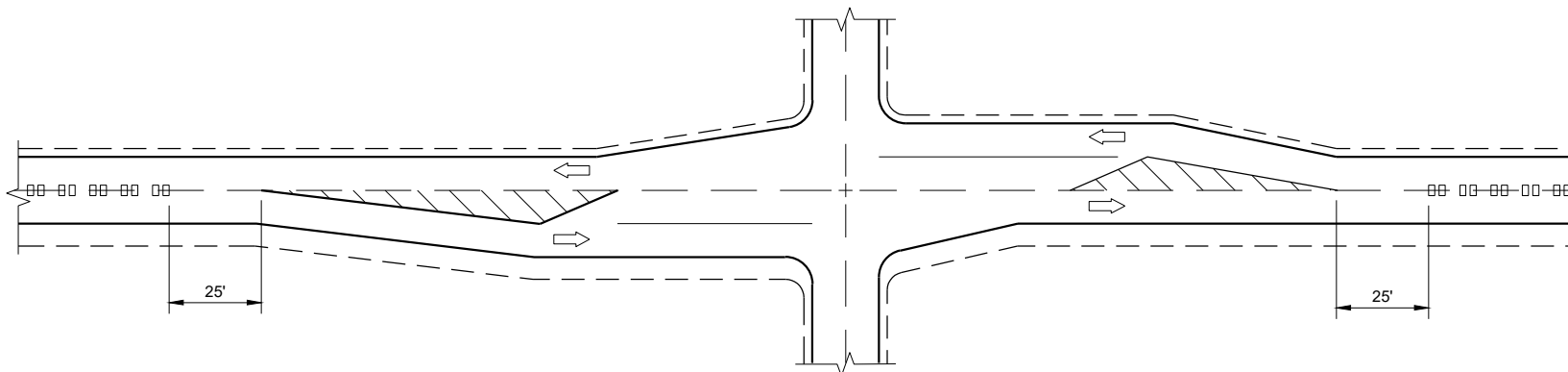


CENTERLINE RUMBLE STRIPS - ASPHALT

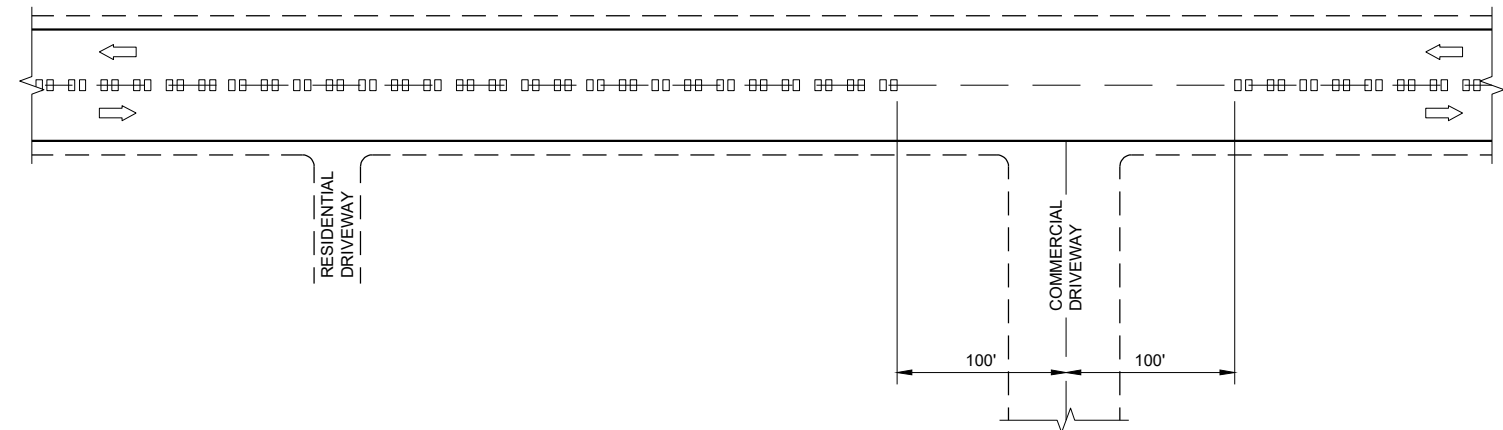
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CENTERLINE GROOVES AT INTERSECTIONS



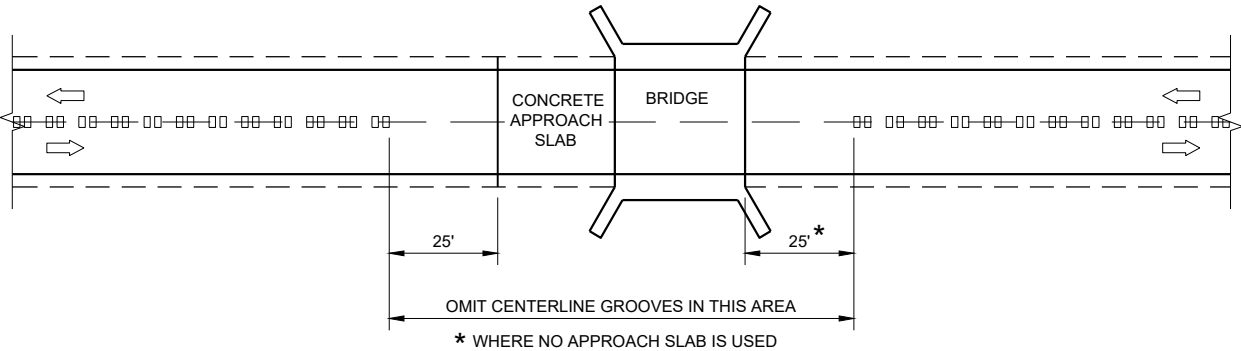
CENTERLINE GROOVES AT INTERSECTIONS
(WITH LEFT TURN LANES)



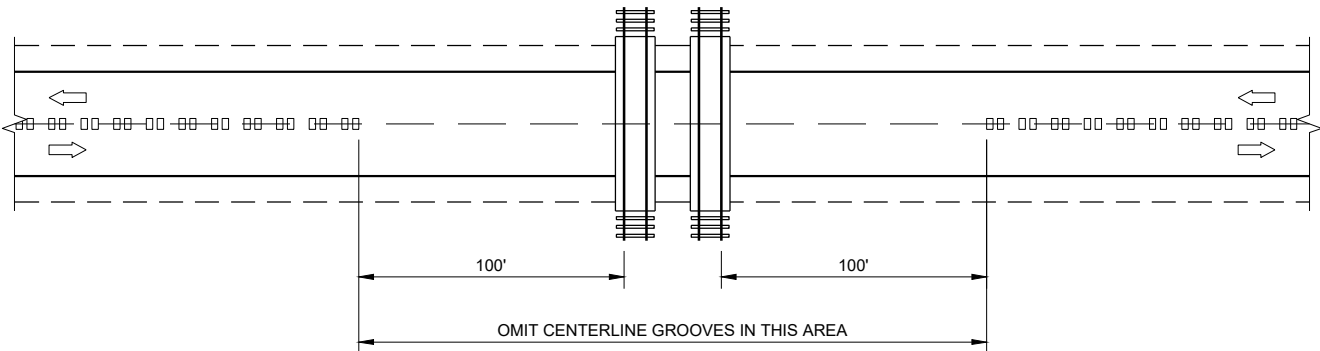
CENTERLINE GROOVES AT DRIVEWAYS^①

GENERAL NOTES

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



CENTERLINE GROOVES AT BRIDGES

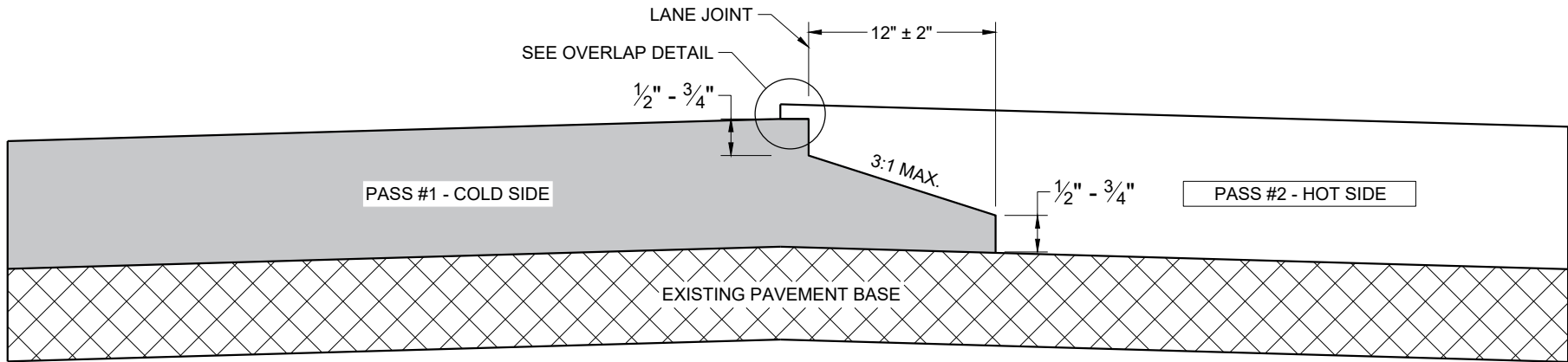


CENTERLINE GROOVES AT RAILROADS

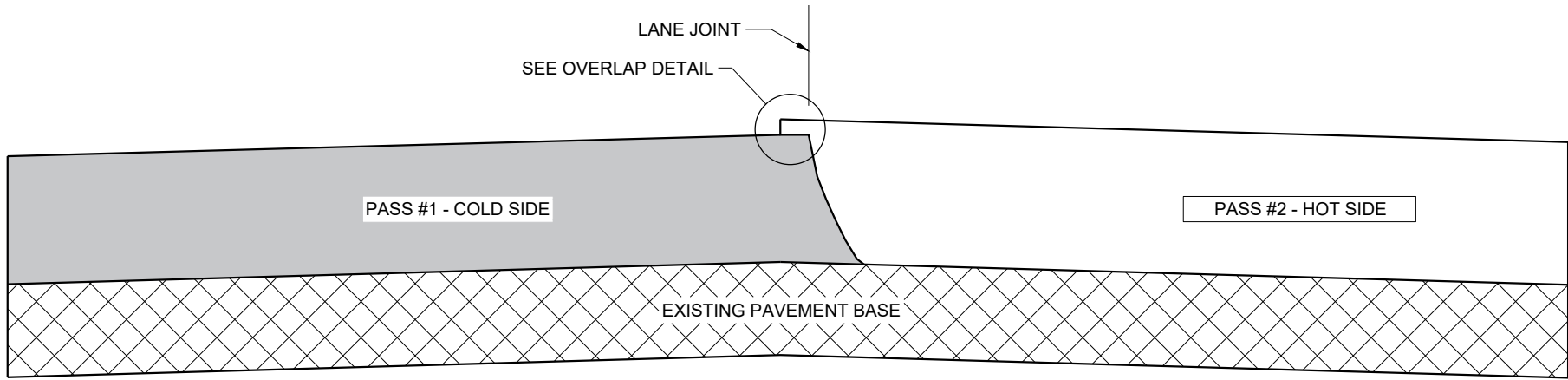
CENTER LINE
RUMBLE STRIPS -
INTERSECTIONS, DRIVEWAYS,
BRIDGES, RAIL ROADS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

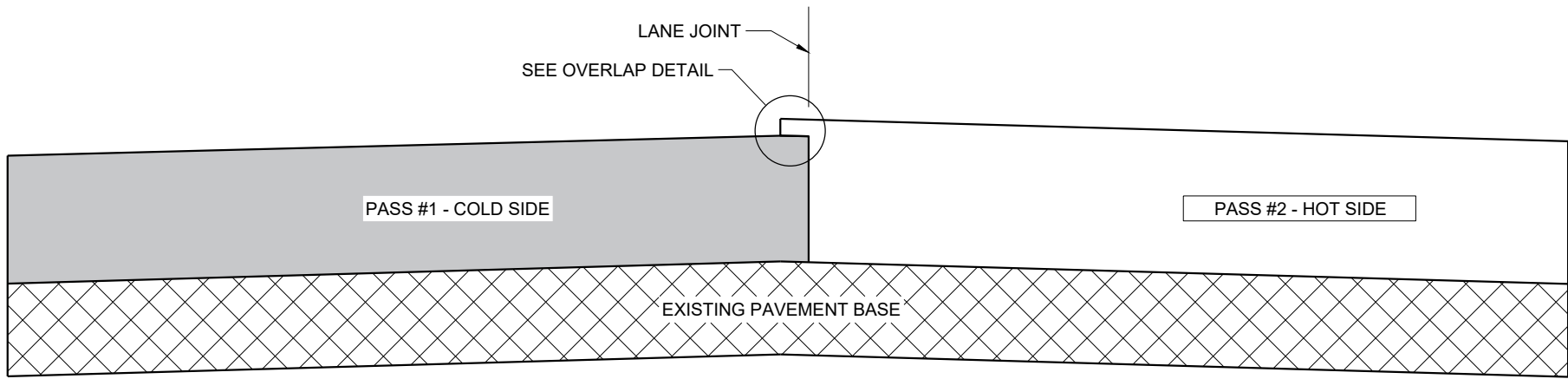
APPROVED
May 2023
DATE
/S/ John Jenkins
ROADWAY STANDARDS DEVELOPMENT
ENGINEER
90
FHWA



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

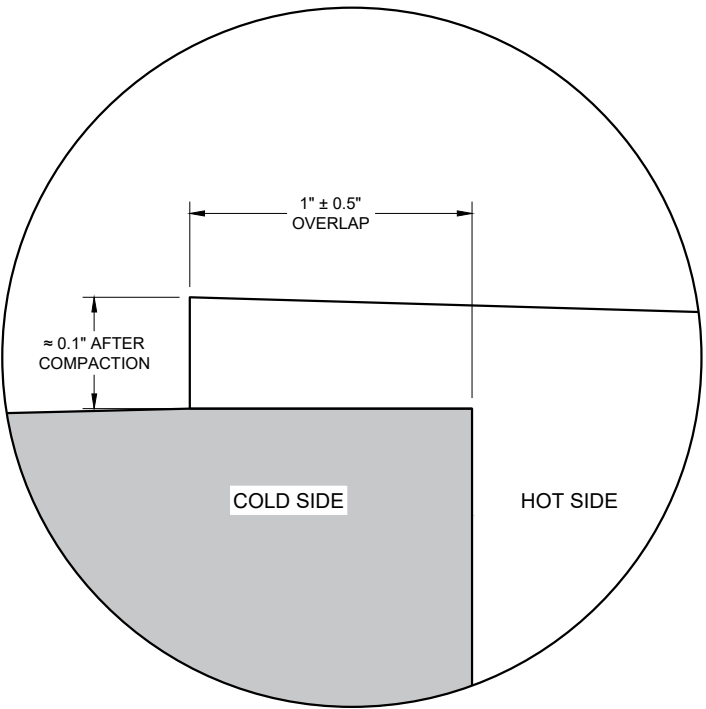
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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.



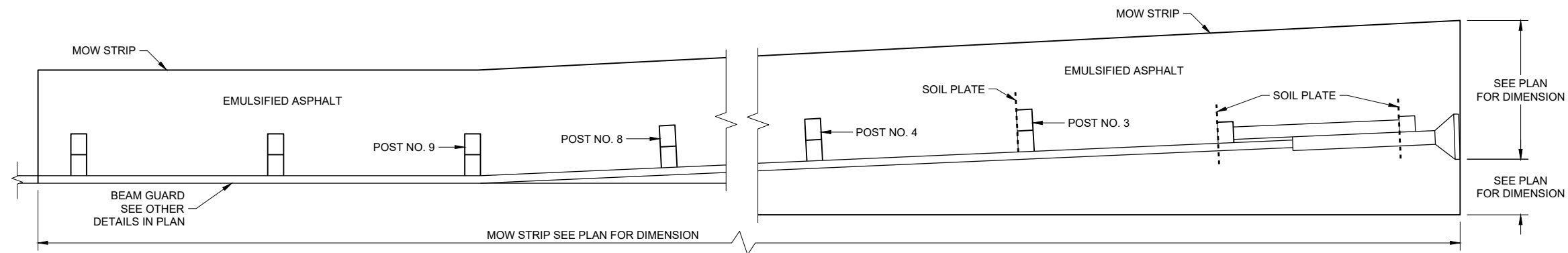
OVERLAP DETAIL (TYPICAL)

HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2020 /S/ Steven Hefel
DATE HMA PAVEMENT ENGIN 91

FHWA

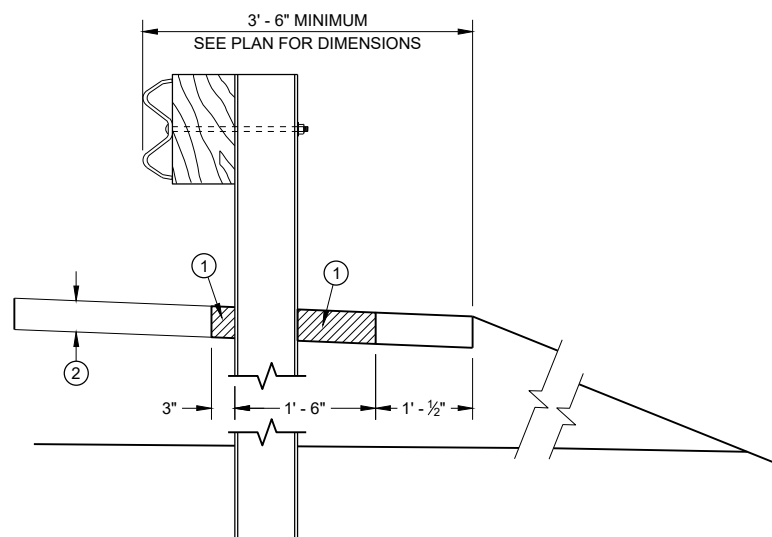


PLAN VIEW
MOW STRIP LAYOUT FOR ENERGY ABSORBING TERMINAL

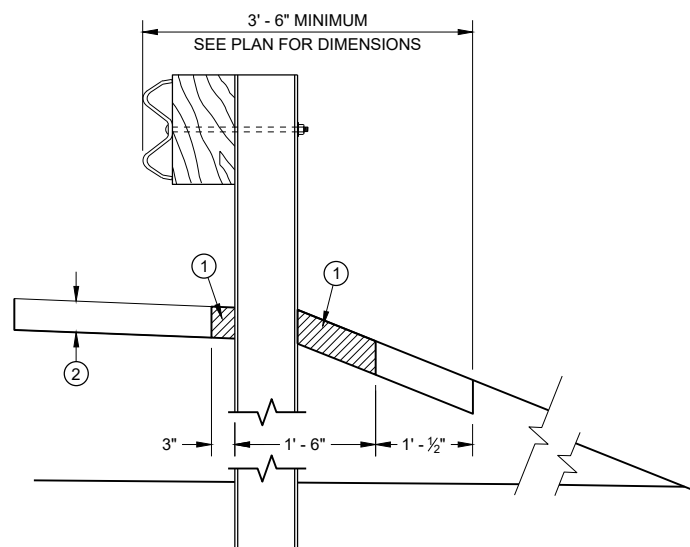
GENERAL NOTES

ONLY USE STEEL POSTS IN CONCRETE AND ASPHALT MOW STRIPS.

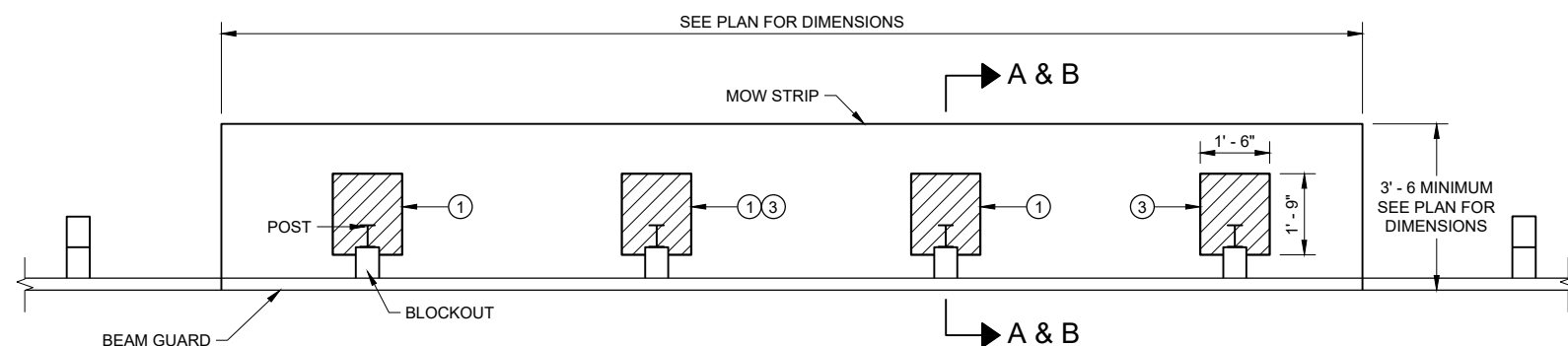
- ① CONTROLLED LOW-STRENGTH BACKFILL OR EMULSIFIED ASPHALT.
- ② DEPTH OF MOW STRIP:
ASPHALT - 4"
CONCRETE - 4"
EMULSIFIED ASPHALT - 1" OR LESS
- ③ FOR EMULSIFIED ASPHALT, MOW STRIP STRIP LEAVE OUTS NOT REQUIRED. (TYPICAL FOR ALL POSTS)



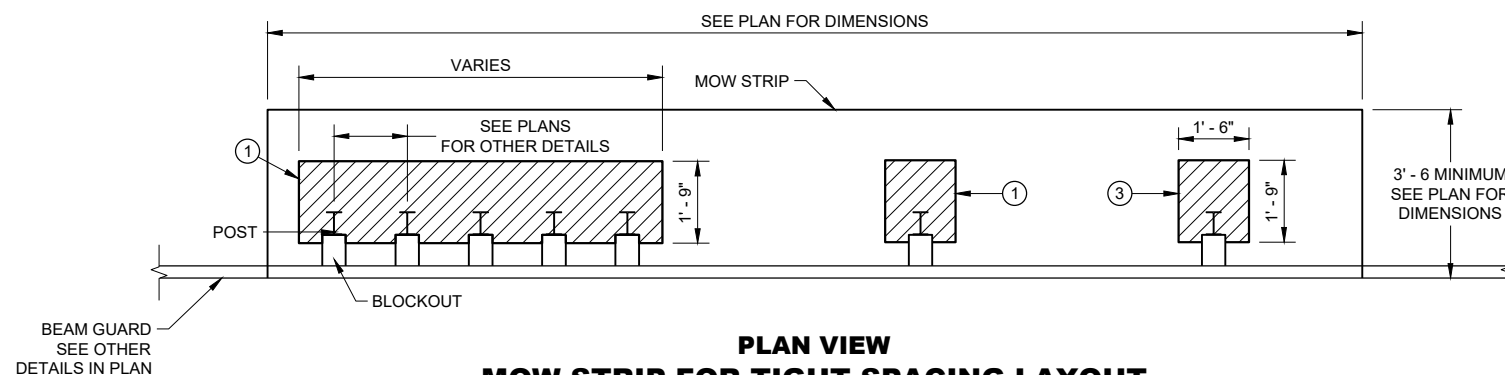
SECTION A - A



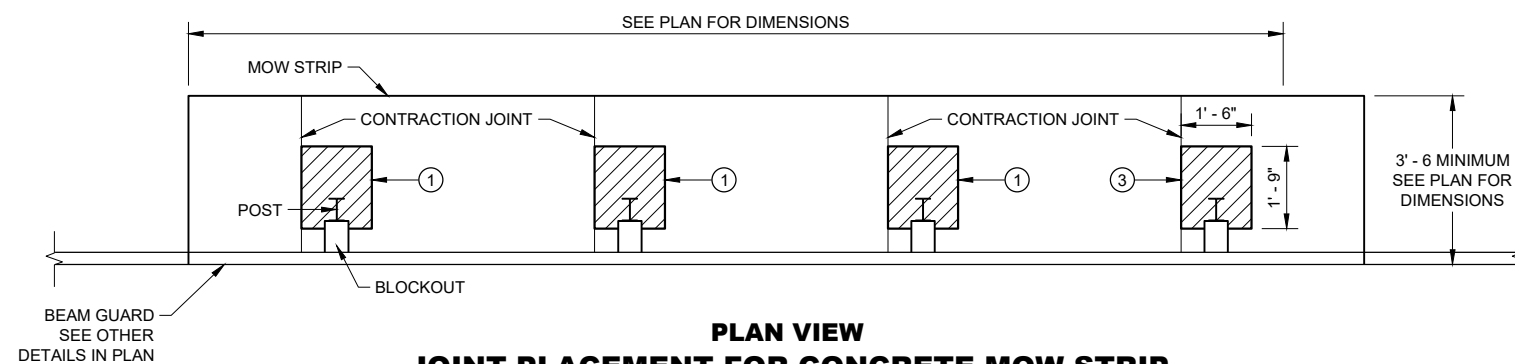
SECTION B - B



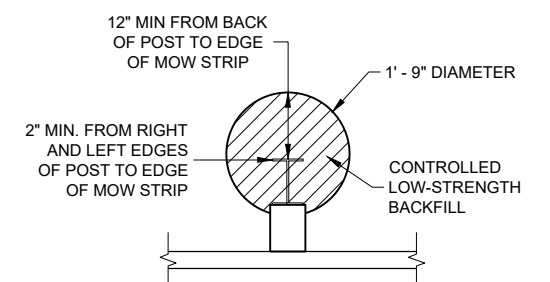
PLAN VIEW
MOW STRIP FOR TYPICAL BLOCKOUT LAYOUT



PLAN VIEW
MOW STRIP FOR TIGHT SPACING LAYOUT



PLAN VIEW
JOINT PLACEMENT FOR CONCRETE MOW STRIP



ALTERNATIVE HMA
MOW STRIP DESIGN

GUARDRAIL MOW STRIP

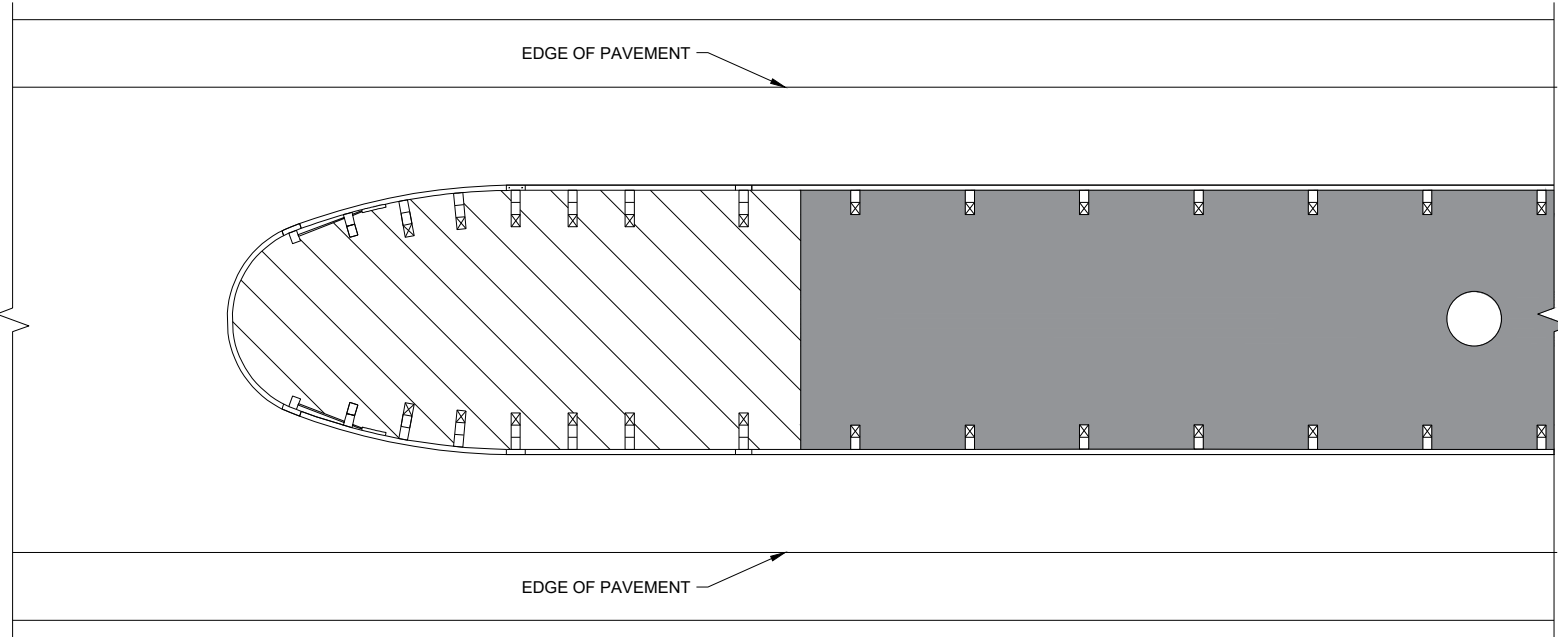
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

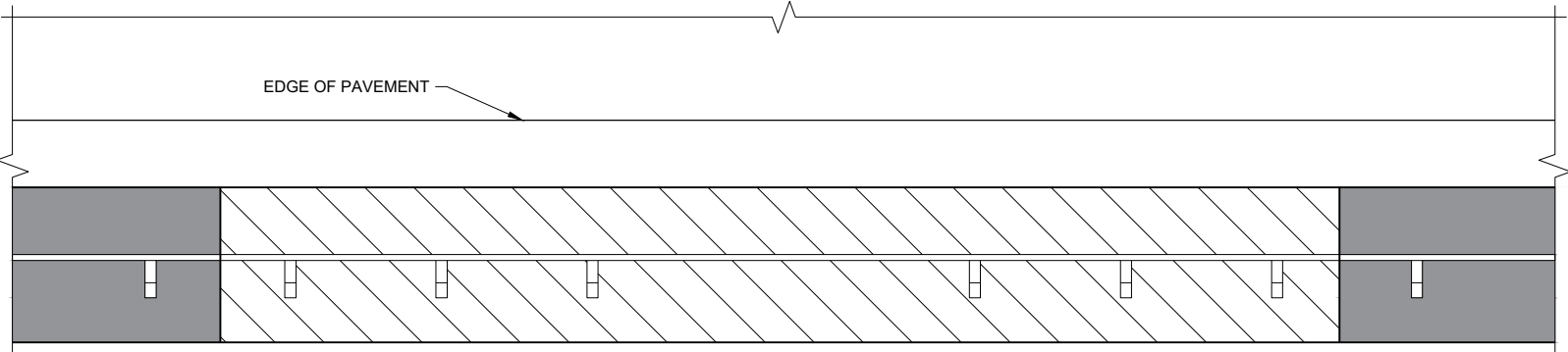
- CONCRETE, ASPHALT, OR EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)
- EMULSIFIED ASPHALT MOW STRIP (SEE OTHER DETAILS)

GENERAL NOTES

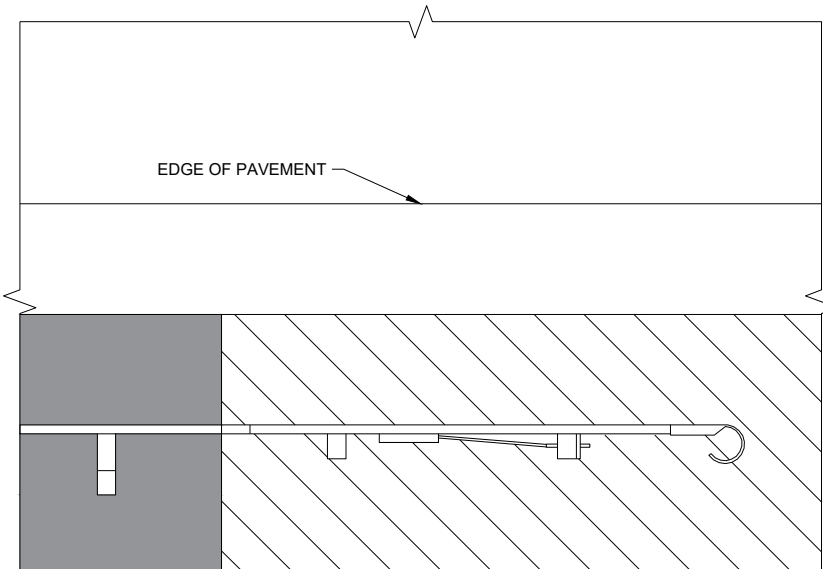
EXISTING THRIE BEAM BULLNOSES MAY HAVE WOOD POSTS. NEW THRIE BEAM BULLNOSE WILL HAVE STEEL POSTS.



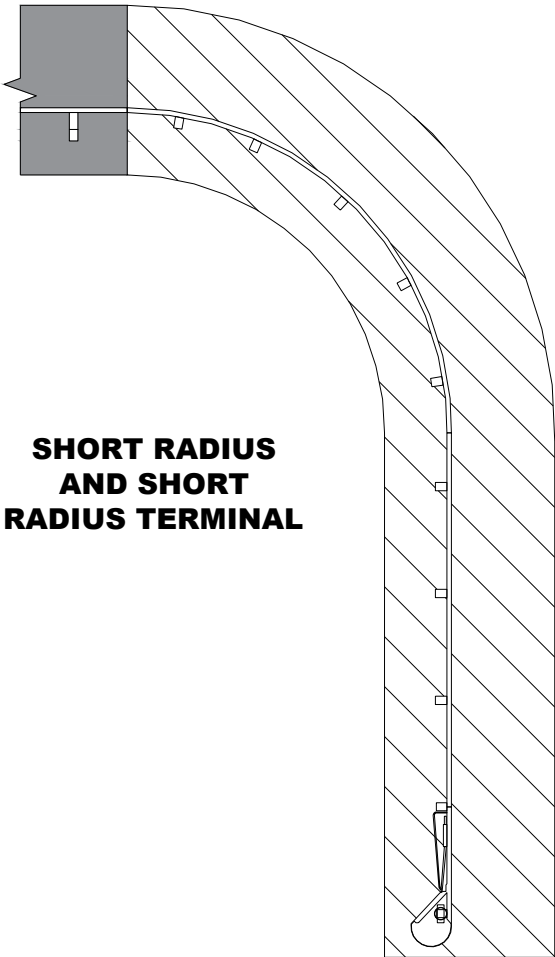
THRIE BEAM BULLNOSE



LONG - SPAN



TYPE 2 TERMINAL



SHORT RADIUS
AND SHORT
RADIUS TERMINAL

GUARDRAIL MOW STRIP

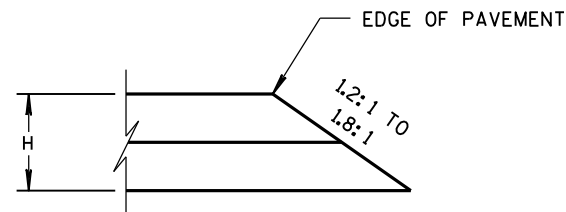
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

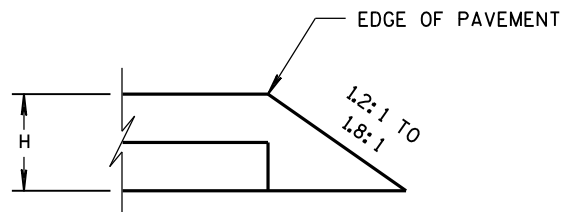
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
ENGINEER

93

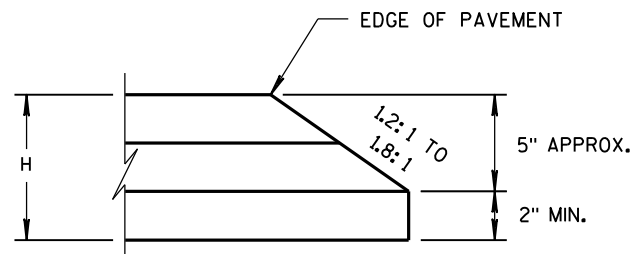
FHWA



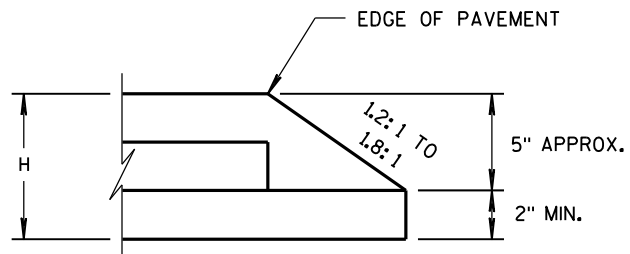
CONSTRUCTED WITH FINAL TWO LAYERS
FOR H 5" OR LESS



CONSTRUCTED WITH FINAL LAYER
FOR H 5" OR LESS

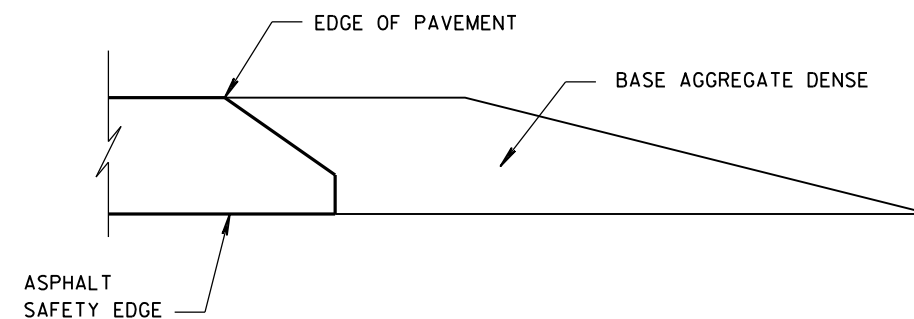


CONSTRUCTED WITH FINAL TWO LAYERS
FOR H GREATER THAN 5"



CONSTRUCTED WITH FINAL LAYER
FOR H GREATER THAN 5"

HMA PAVEMENT AND HMA OVERLAYS



FINISHED SHOULDER AGGREGATE PLACEMENT

SAFETY EDGE_{SM}

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

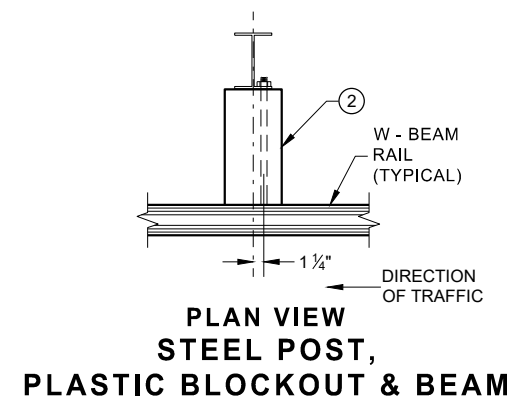
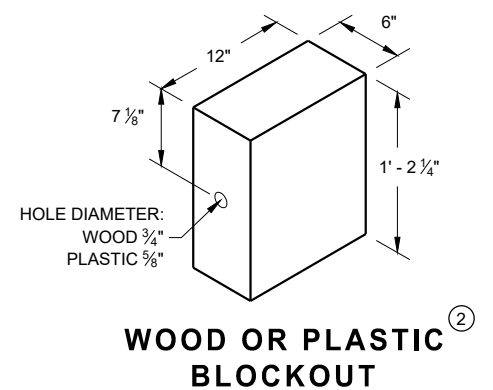
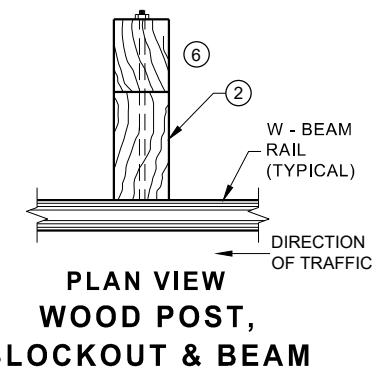
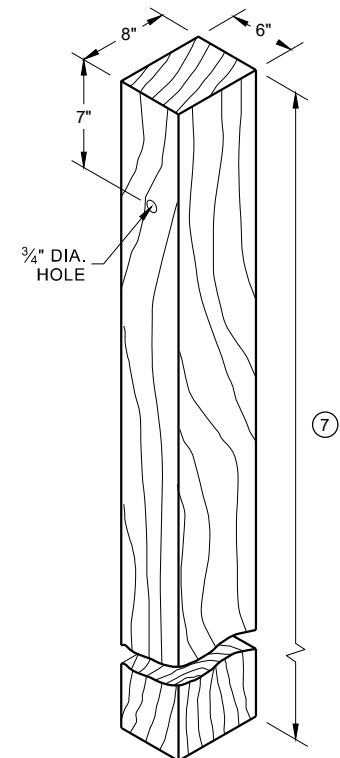
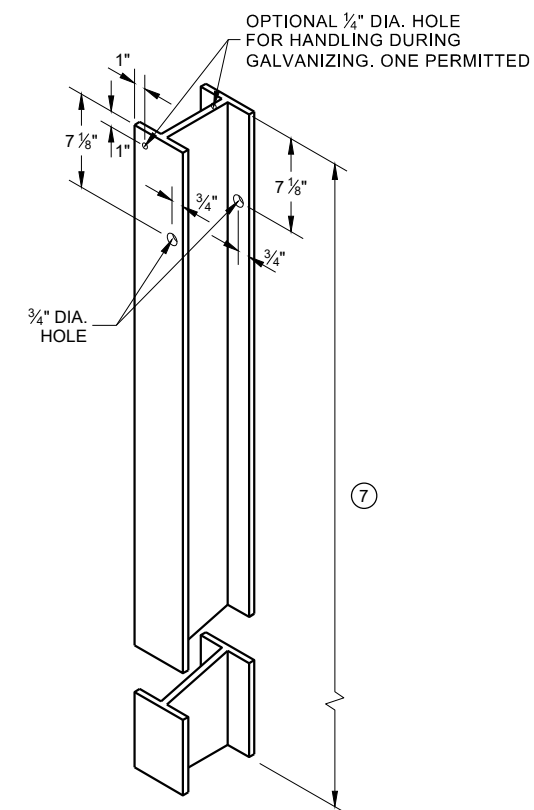
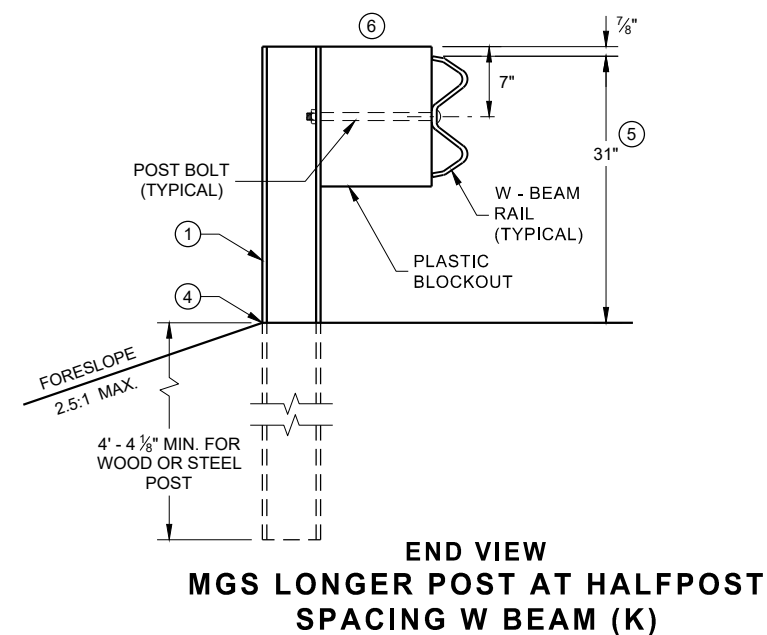
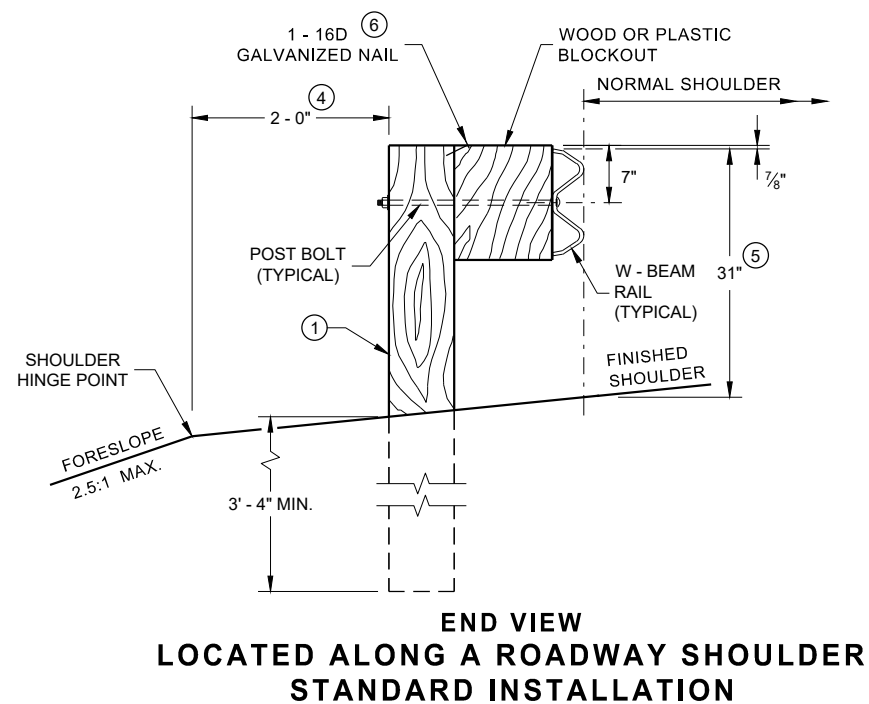
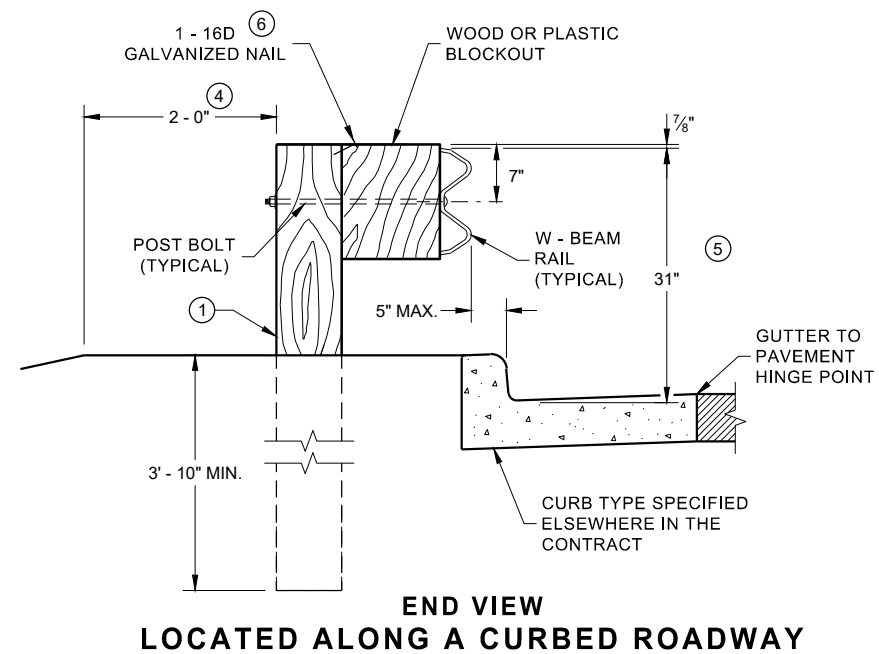
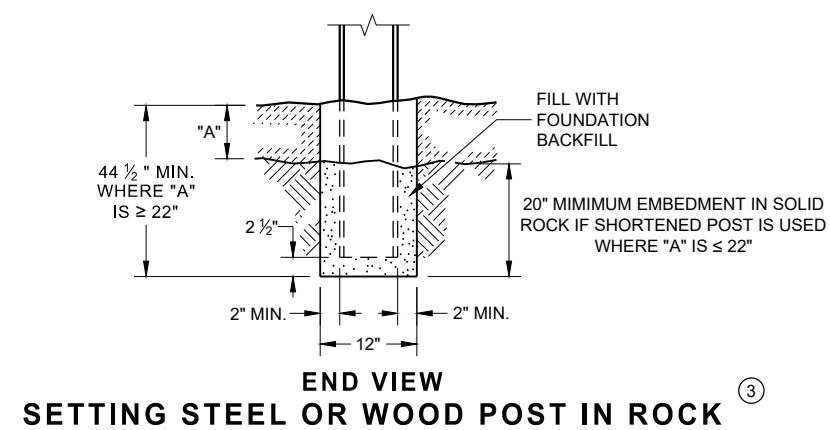
11/30/2012
DATE

FHWA

/s/ Jerry H. Zoaga
ROADWAY STANDARDS
ENGINEER

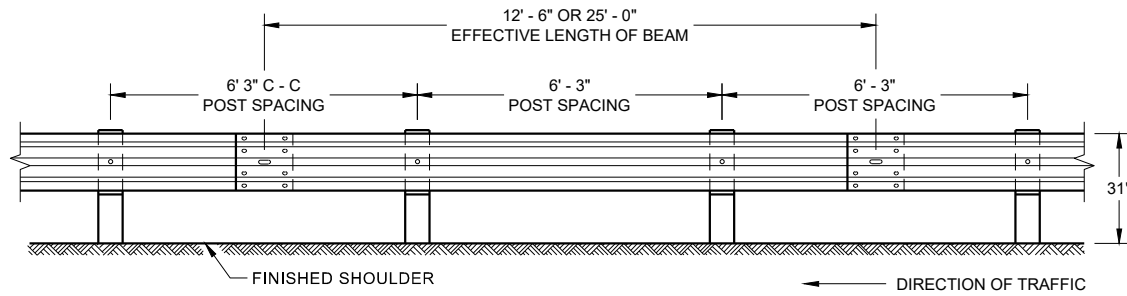
ENT

- ① WOOD OR STEEL POSTS (w6X9 OR w6X8.5) MAY BE USED. DO NOT INTERMIX WOOD AND STEEL POSTS. INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.
- ② USE WOOD OR APPROVED PLASTIC BLOCKOUTS. WOOD BLOCKOUTS MAY BE CONSTRUCTED OUT OF TWO OR MORE WOOD BLOCKOUTS. SEE ALTERNATE WOOD BLOCKOUT DETAIL. DIMENSIONS OF APPROVED PLASTIC BLOCKOUTS MAY VARY.
- ③ IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS TO LENGTH AND INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL IS TO BE FREE OF LARGE ROCKS.
- ④ WHEN THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING (K).
- ⑤ FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS $\pm 1"$. FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 3/4" TO 32".
- ⑥ WHEN USING STEEL POST AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- ⑦ TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".

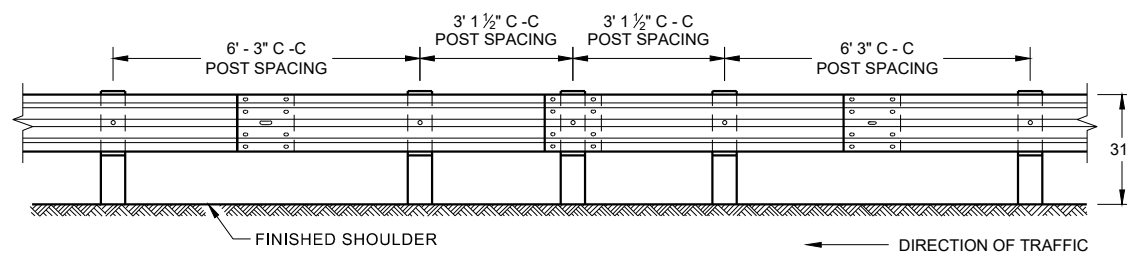


MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

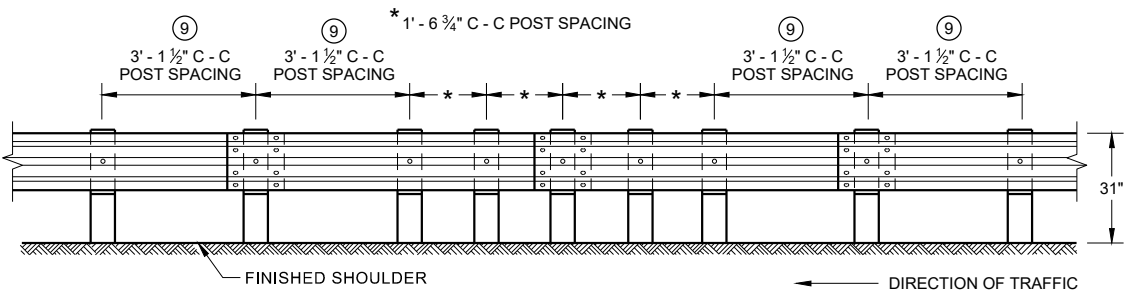
STATE OF WISCONSIN
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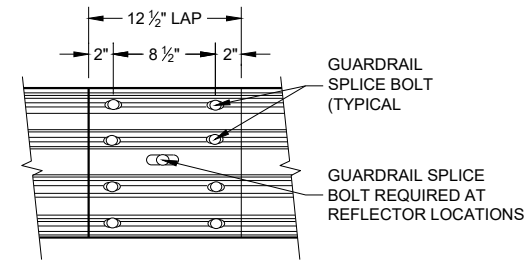
**FRONT VIEW
POST SPACING STANDARD INSTALLATION**



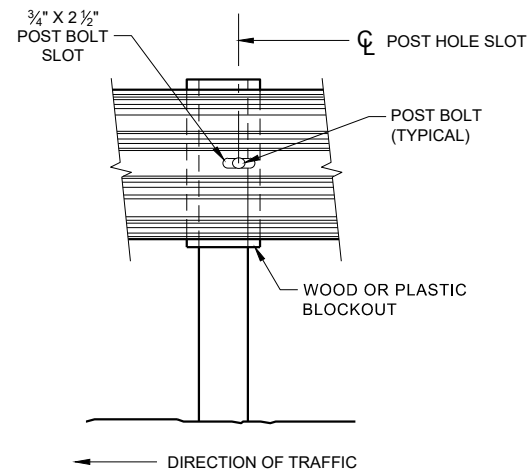
**FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)**



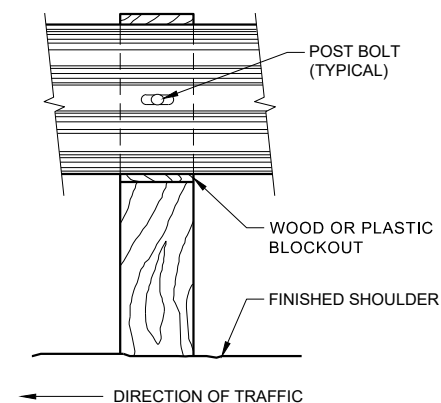
**FRONT VIEW
QUARTER POST SPACING (QS)**



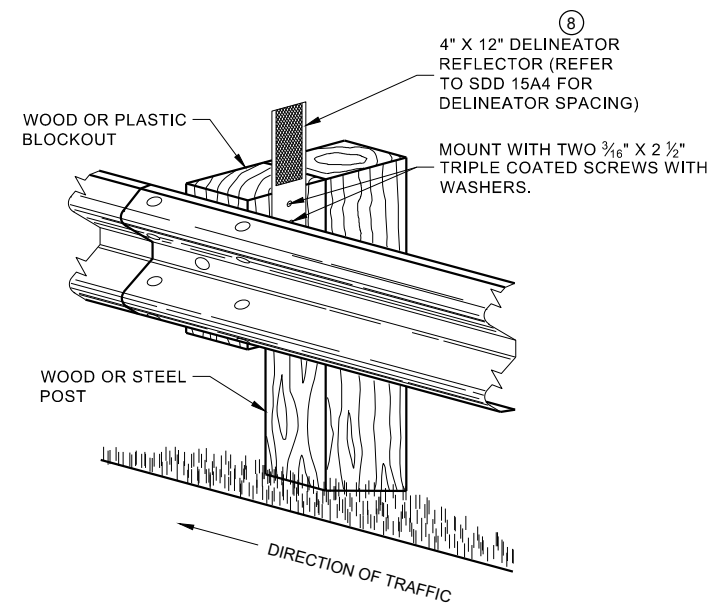
**FRONT VIEW
MID-SPAN BEAM SPLICE**



FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



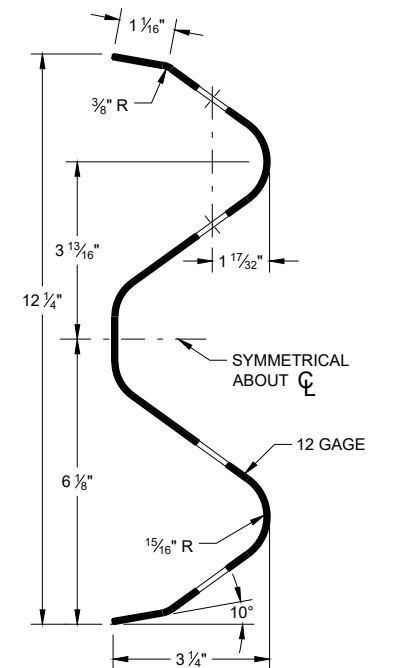
**ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION**

GENERAL NOTES

- 8 DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.
- 9 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES 3/4" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND 3/8" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

GUARD RAIL SPLICE BOLTS ARE A 3/8" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES 3/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



SECTION THRU W-BEAM RAIL

**MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL**

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IT IS ACCEPTABLE TO USE BLOCKOUTS UP TO 16" DEEP TO INCREASE THE POST OFFSET TO AVOID UNDERGROUND OBSTACLES. THERE IS NO LIMIT TO THE NUMBER OF POSTS THAT CAN HAVE ADDITIONAL BLOCKOUTS UP TO 16" DEEP.

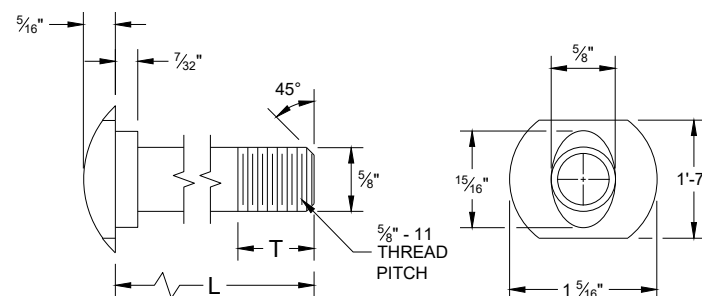


NOTES: UNDER SPECIAL CIRCUMSTANCES, SUCH AS AVOIDING OBSTACLES THAT ARE NOT RELOCATED, IT IS ACCEPTABLE TO INSTALL ADDITIONAL BLOCKOUTS TO OBTAIN UP TO 36" DEPTH FOR ONE OR TWO POSTS IN A SECTION OF GUARDRAIL.

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

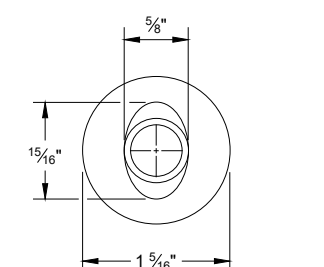
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF $\frac{3}{16}$ ".
2. IF THE BOLT EXTENDS MORE THAN $\frac{1}{4}$ " FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

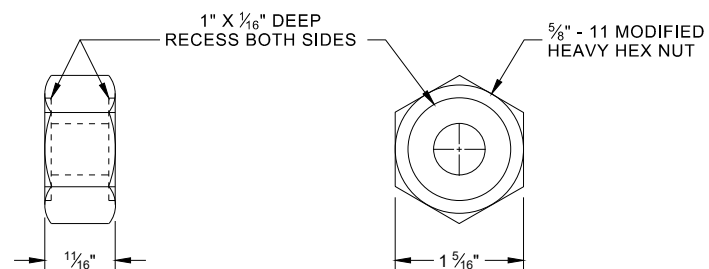


POST BOLT TABLE

L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 ⅙"
18"	4"
21"	4 ⅙"
25"	4"

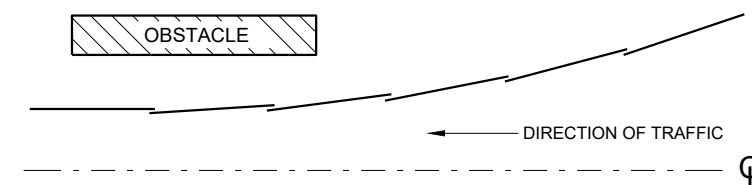


ALTERNATE BOLT HEAD

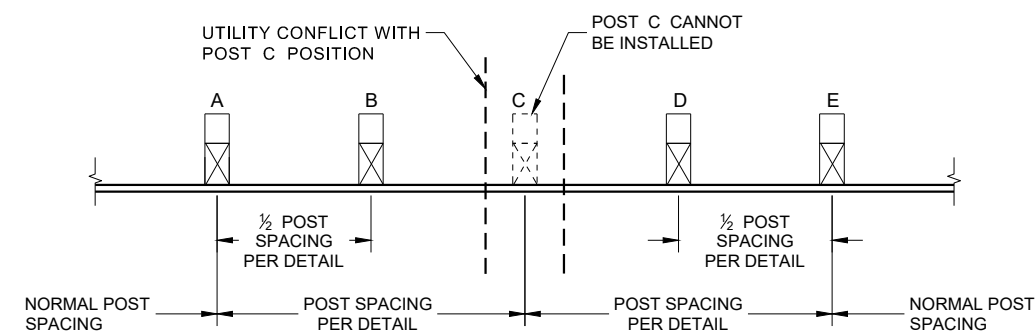


POST BOLT, SPLICE BOLT AND RECESS NUT

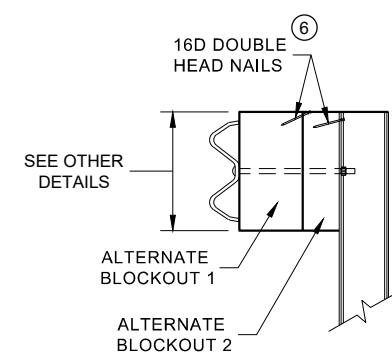
- ⑥ WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.



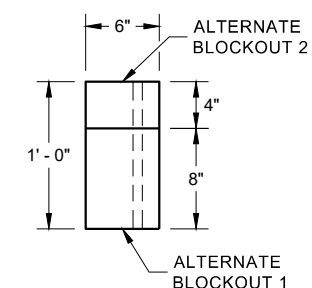
**PLAN VIEW
BEAM LAPPING DETAIL**



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



SIDE VIEW

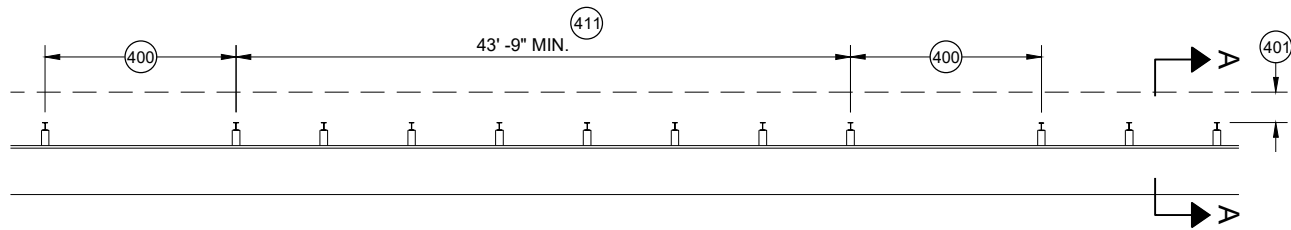


PLAN VIEW

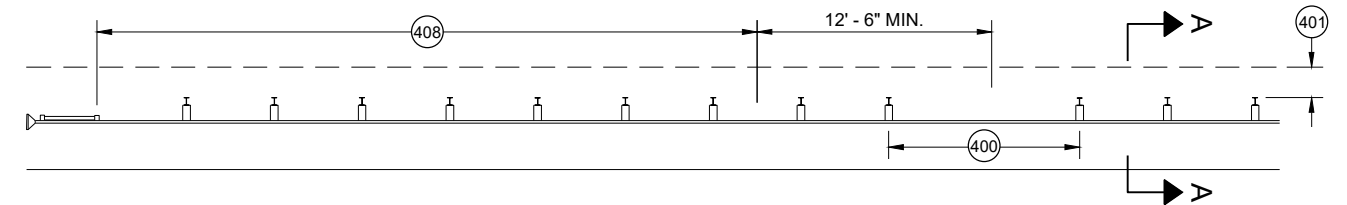
ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

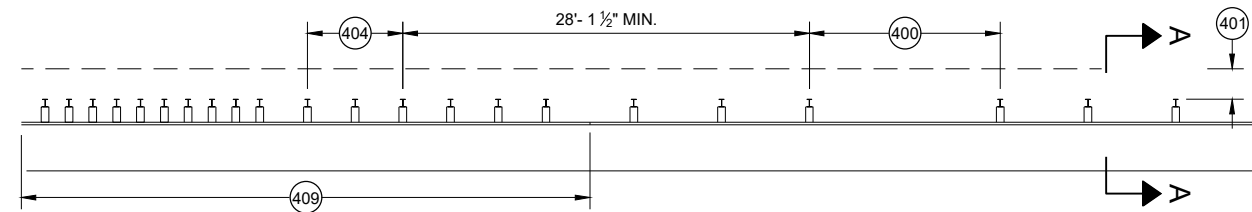
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 197



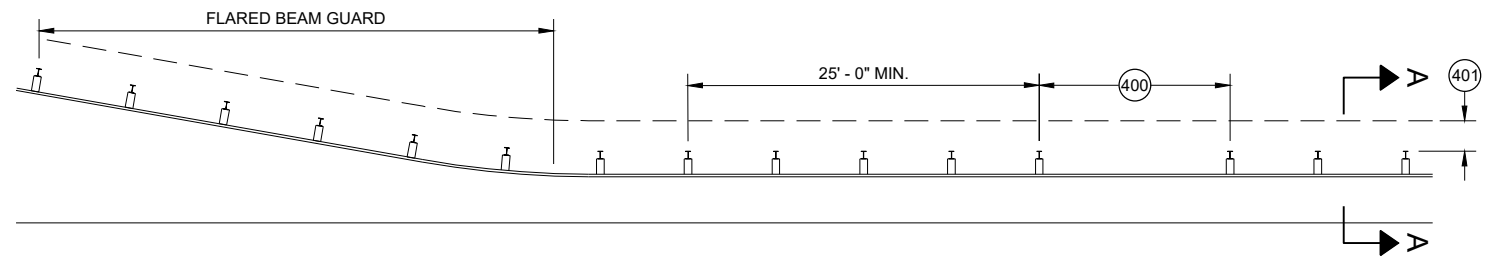
MISSING POST IN MGS GUARDRAIL



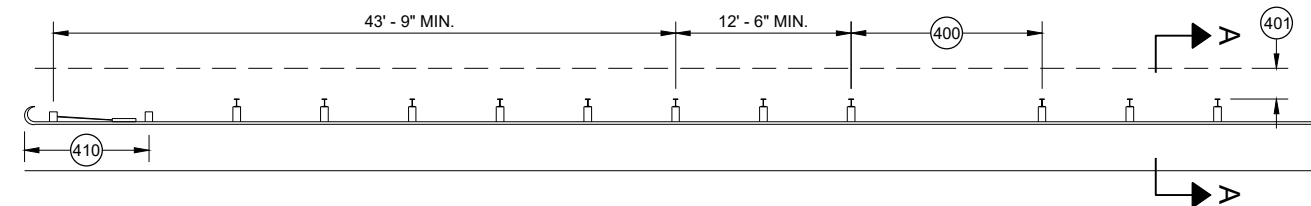
MISSING POST IN MGS GUARDRAIL NEAR EAT



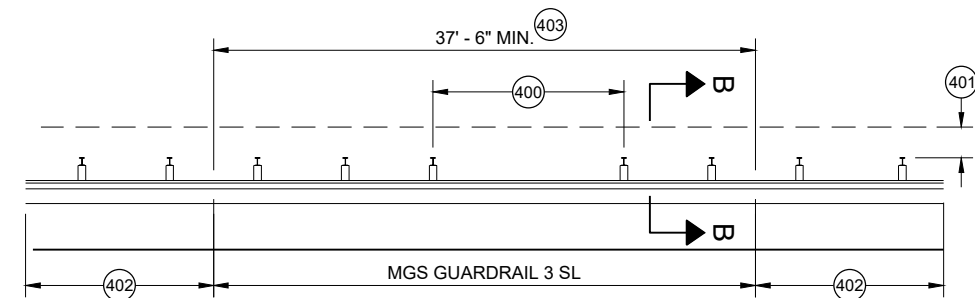
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

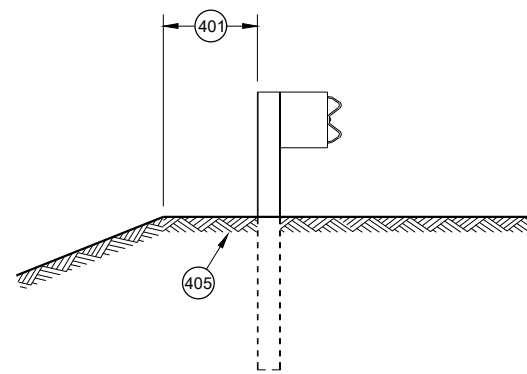


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

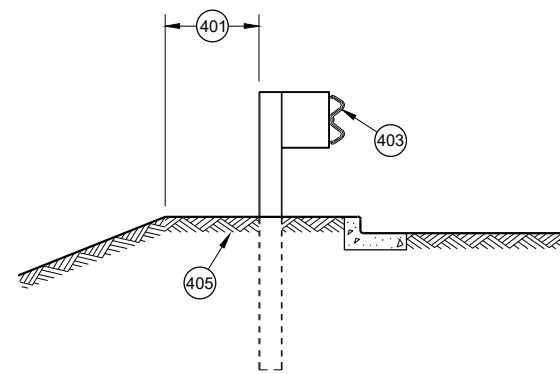


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL)

- (400) MAX SPAN 12' - 6"
- (401) 2' MIN.
- (402) MGS GUARDRAIL 3
- (403) NESTING BEAM GUARD
- (404) ASYMMETRIC TRANSITION
- (405) SOIL WELL DRAINED AND COMPACTED
- (406) SEE OTHER DRAWINGS IN THIS SDD
- (407) SEE OTHER DRAWINGS FOR MIN. SPACING BETWEEN SPANS
- (408) SEE SDD 14B44
- (409) SEE SDD 14B45
- (410) SEE SDD 14B47
- (411) MINIMUM DISTANCE BETWEEN MISSING POST SPANS.



SECTION A - A



SECTION B - B

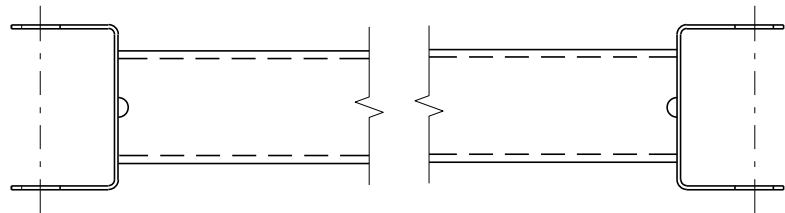
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2021 DATE	/S/ Rodney Taylor ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA	

- (A) THE SLOPE IN THE AREA BOUNDED BY THE GRADELINE, THE HINGE POINT LINE (HPL) AND THE CLEAR ZONE LIMITS (CZL) SHALL BE 4:1 OR FLATTER.
- (B) AFTER FINAL ASSEMBLY, RECHECK CABLE TO BE SURE IT IS TAUT AND HAS NOT RELAXED
- (C) DIFFERENT MANUFACTURERS REQUIRE DIFFERENT PERFORATED W - BEAM RAIL END PANELS. SEE MANUFACTURER'S INFORMATION.
- (D) ATTACH ALUMINUM SHEET TO E.A.T. HEAD USING 4 STAINLESS STEEL SELF - TAPPING SCREWS. ONE SCREW PER CORNER.
- (E) HARDWARE MAY VARY BETWEEN MANUFACTURER. SEE MANUFACTURER'S DRAWING FOR INFORMATION.

DIMENSIONS MAY VARY, MANUFACTURER'S INFORMATION.

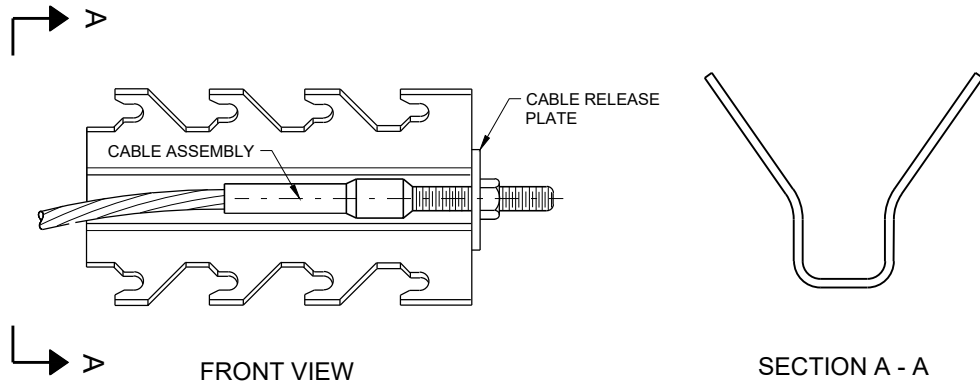
THE CENTER OF THE UPPER 3 1/2" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.

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DEPARTMENT OF TRANSPORTATION 99

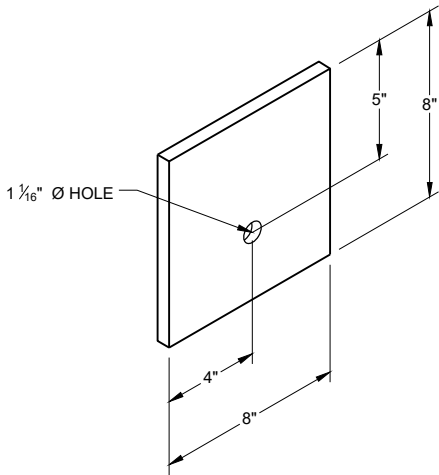


GENERIC GROUND STRUT⁹ ^E

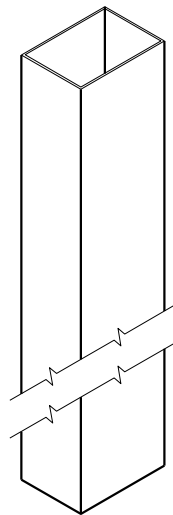
BILL OF MATERIALS	
PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUFACTURER'S DETAILS FOR MORE INFORMATION.
①	UPPER POST NO. 1 6" X 6" TUBE
②	LOWER POST NO. 1
③	WOOD CRT
④	WOOD BLOCKOUT
⑤	PIPE SLEEVE
⑥	BEARING PLATE
⑦	BCT CABLE ASSEMBLY
⑧	ANCHOR CABLE BOX
⑨	GROUND STRUT
⑩	PERFORATED W-BEAM RAIL END PANEL, 12'-6" LONG.
⑪	STANDARD W-BEAM RAIL. MULTIPLE SECTIONS REQUIRED. SECTIONS VARY IN LENGTH.
⑫	IMPACT HEAD
⑬	EAT MARKER POST - YELLOW (SEE APPROVED PRODUCTS LIST)
⑭	SOIL PLATE
⑮	UPPER POST NO. 2
⑯	LOWER POST NO. 2



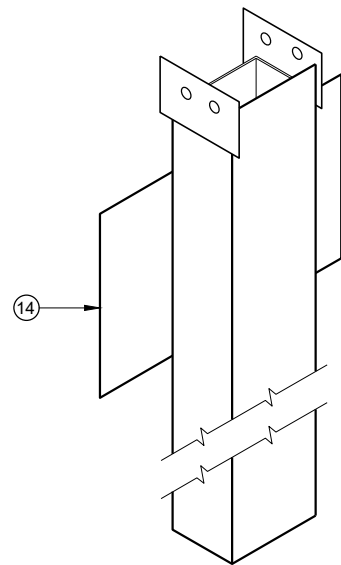
GENERIC ANCHOR CABLE BOX⁹ ^E



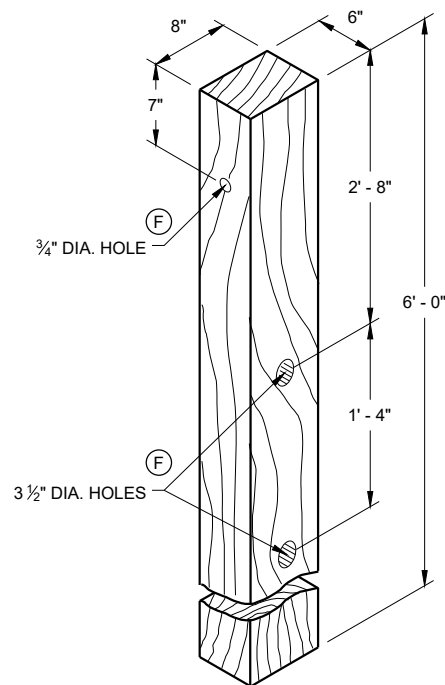
BEARING PLATE⁶ ^E



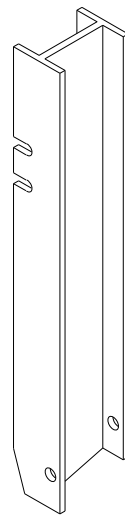
UPPER POST NO. 1 ⁽¹⁾ (E)



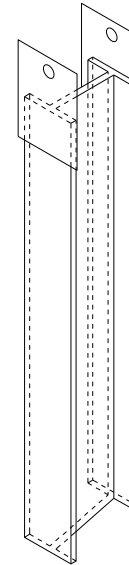
LOWER POST NO. 1 ⁽²⁾ (E)



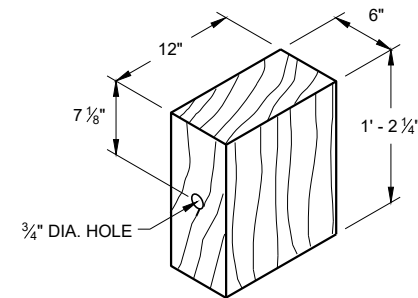
WOOD CRT POST ⁽³⁾ (E)
POSTS NUMBER 3-9



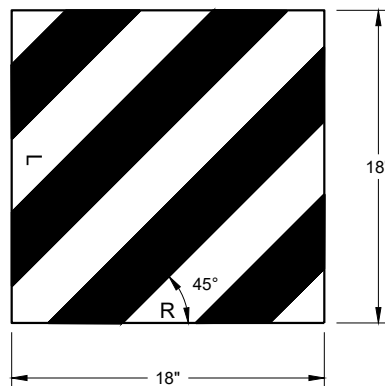
UPPER POST NO. 2 ⁽¹⁵⁾ (E)



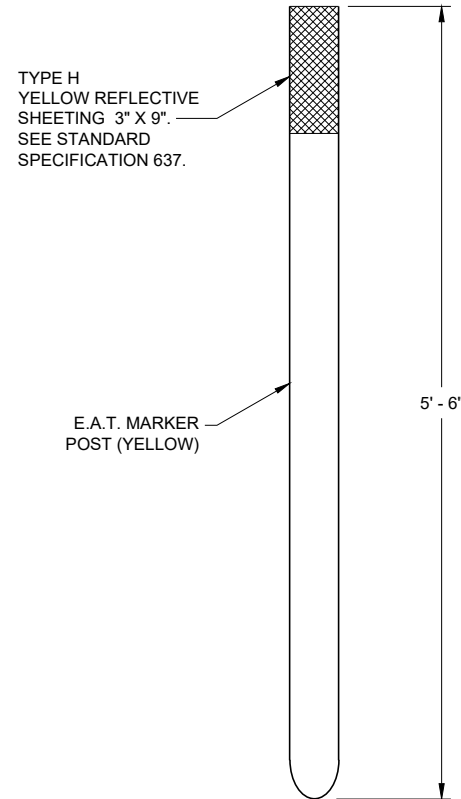
LOWER POST NO. 2 ⁽¹⁶⁾ (E)



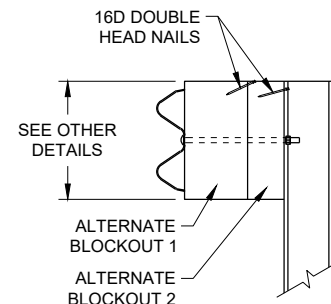
WOOD BLOCKOUT ⁽⁴⁾
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



REFLECTIVE SHEETING DETAIL ^(E)

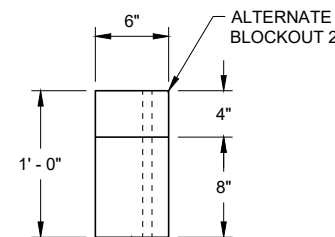


E.A.T. MARKER POST ⁽¹³⁾



SIDE VIEW

ALTERNATE WOOD
BLOCKOUT DETAIL

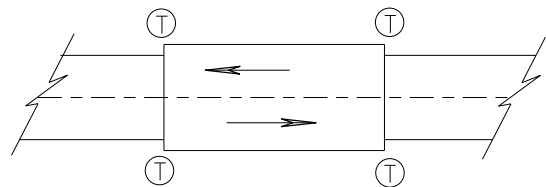


TOP VIEW

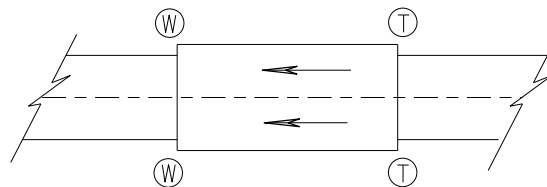
**MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR



TWO WAY TRAFFIC



ONE WAY TRAFFIC

(T) THRIE BEAM CONNECTION

(W) W-BEAM CONNECTION WHEN REQUIRED

TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

GENERAL NOTES

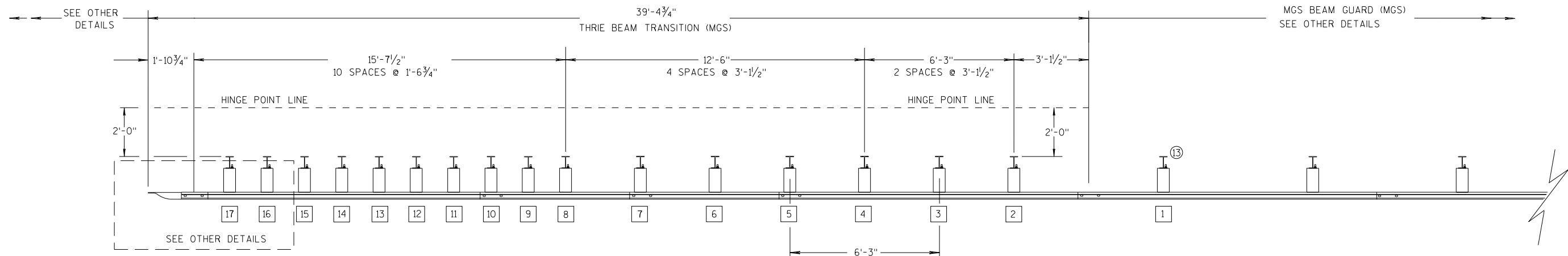
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

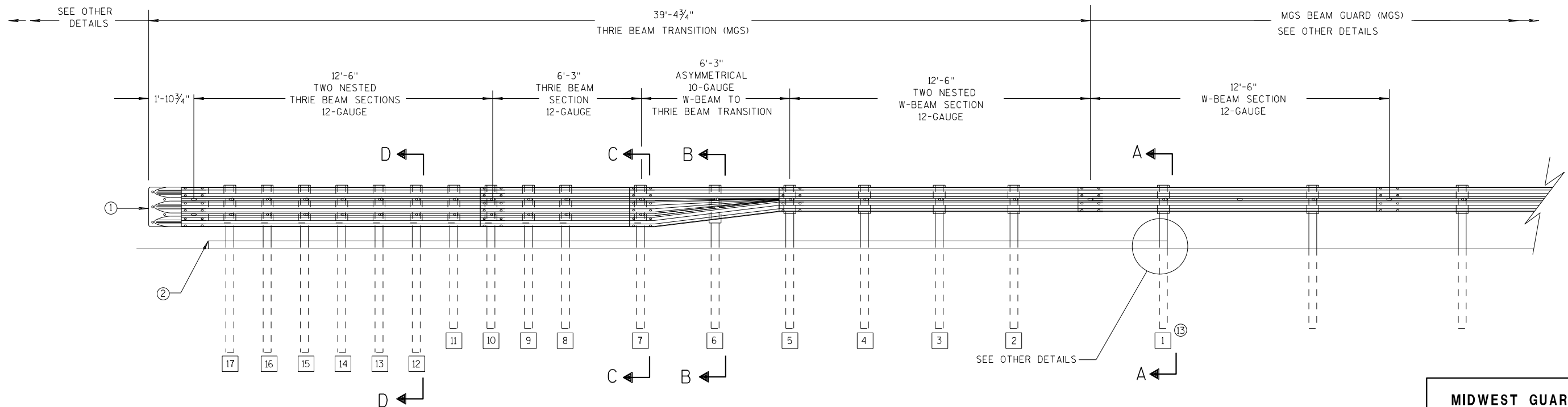
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

- ① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD14B42



PLAN VIEW



ELEVATION VIEW

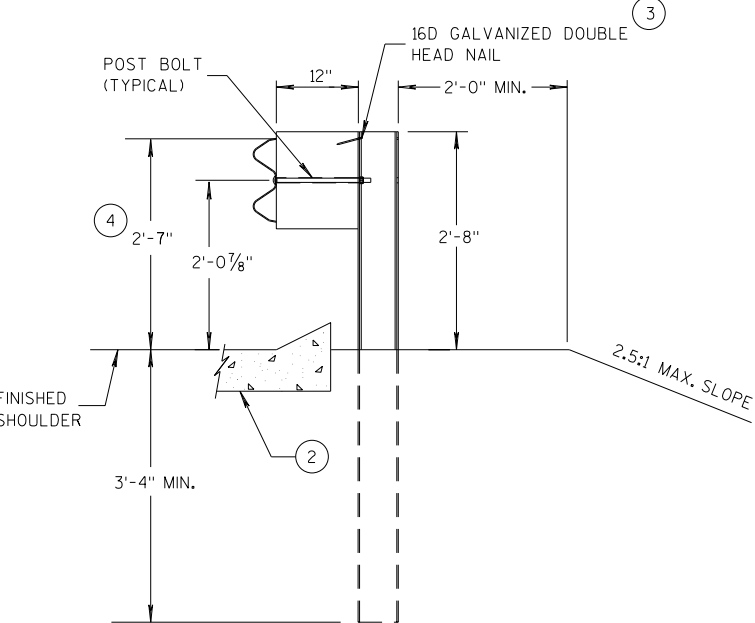
MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

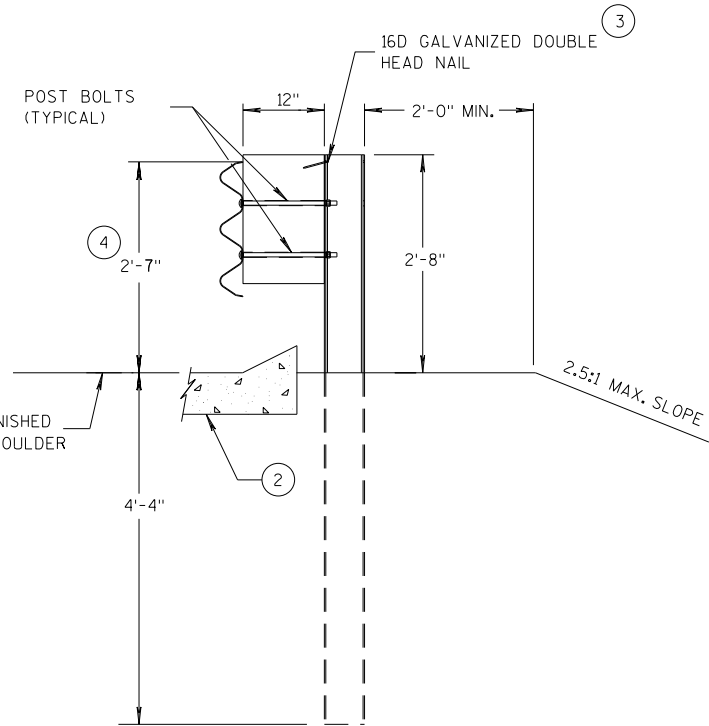
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 102

GENERAL NOTES

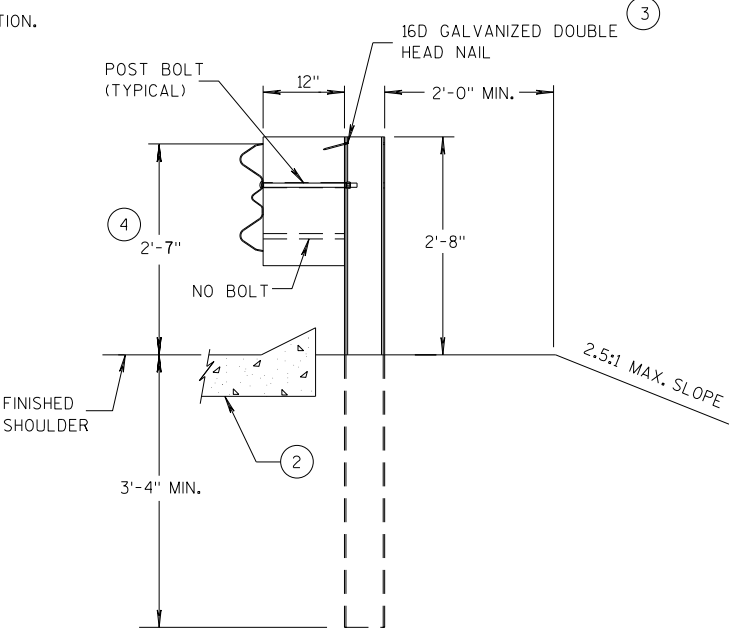
- 2 OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- 3 WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 10D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.
- 4 TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".
- 13 STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42



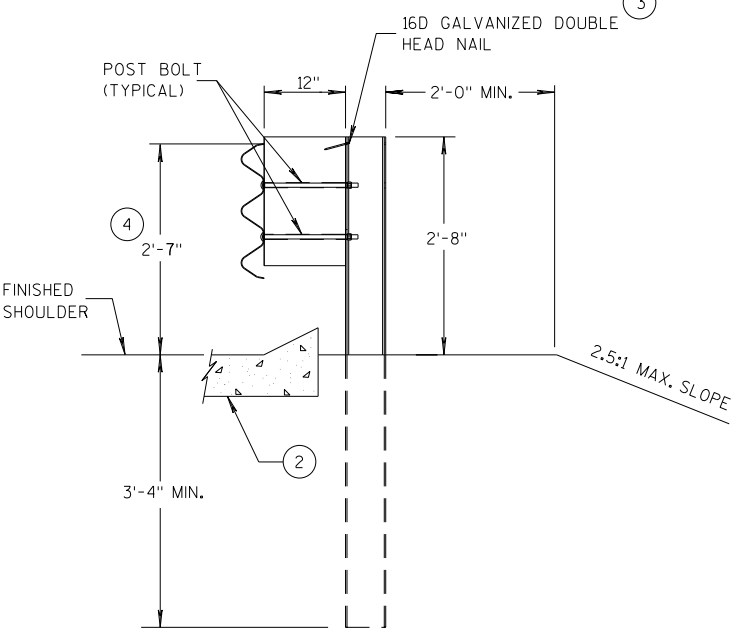
SECTION A-A
POSTS 1-5



SECTION D-D
POSTS 12-17



SECTION B-B
POST 6



SECTION C-C
POSTS 7-11

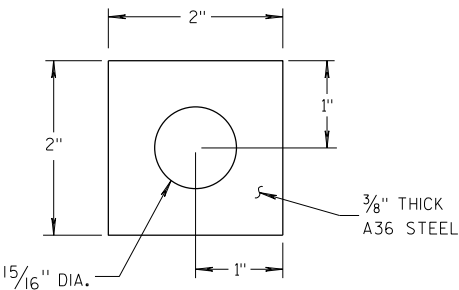
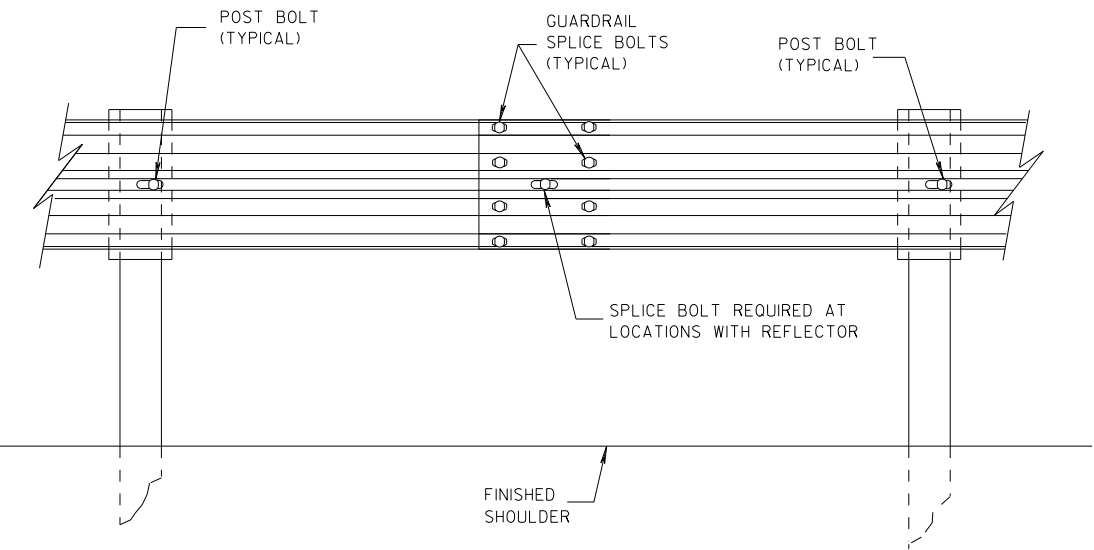
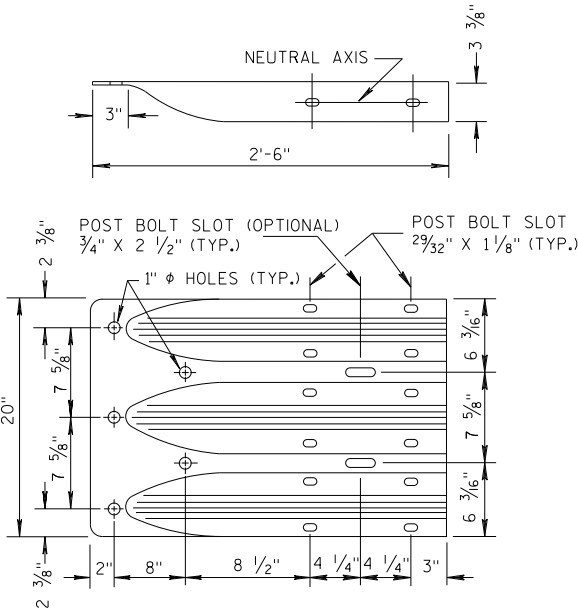


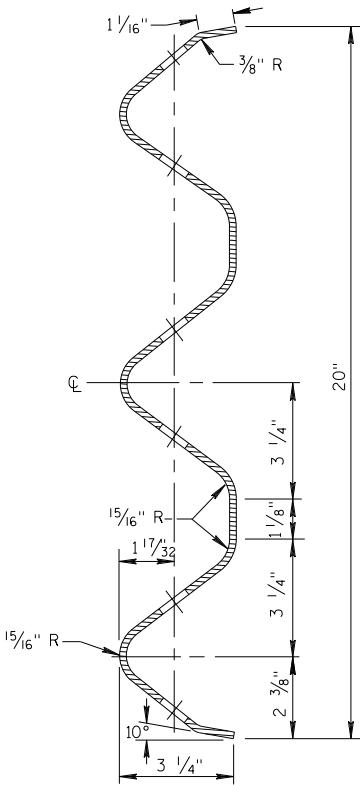
PLATE WASHER DETAIL



SPLICE DETAIL



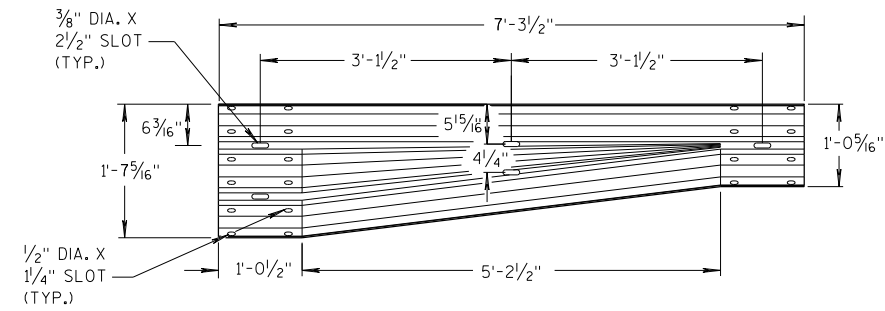
THRIE BEAM
TERMINAL CONNECTOR



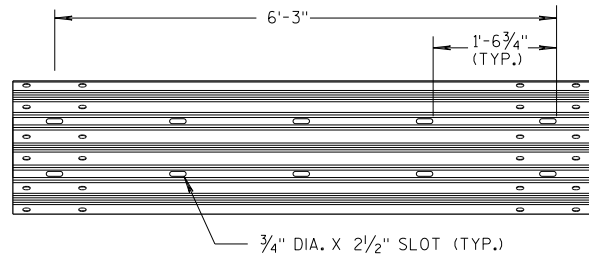
SECTION THRU THRIE
BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

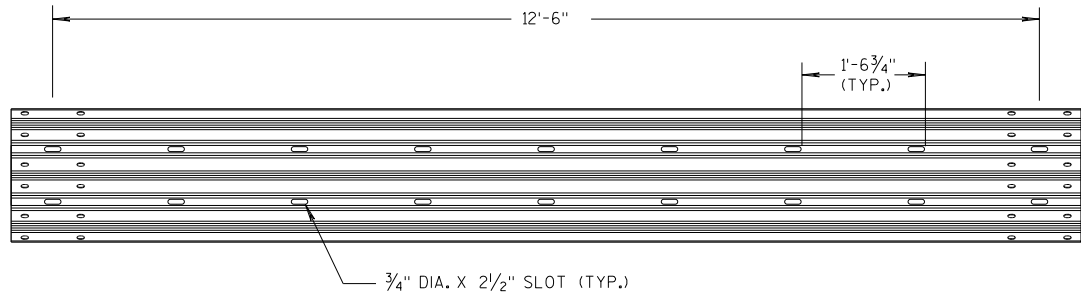
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



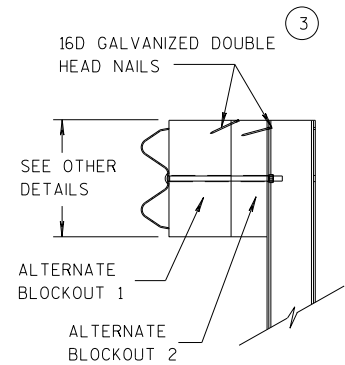
W-BEAM TO THRIE BEAM TRANSITION SECTION



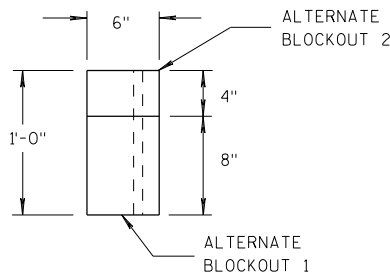
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

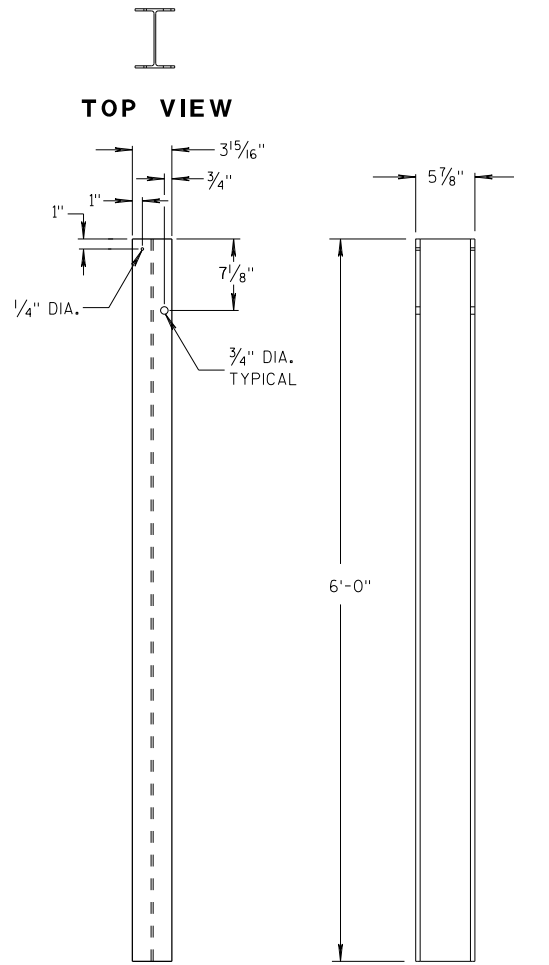


SIDE VIEW



TOP VIEW

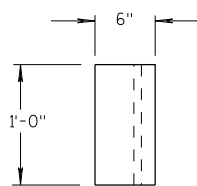
ALTERNATE WOOD BLOCKOUT DETAIL



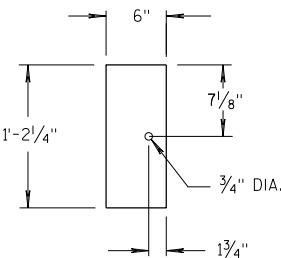
FRONT VIEW

SIDE VIEW

STEEL POSTS 1-5

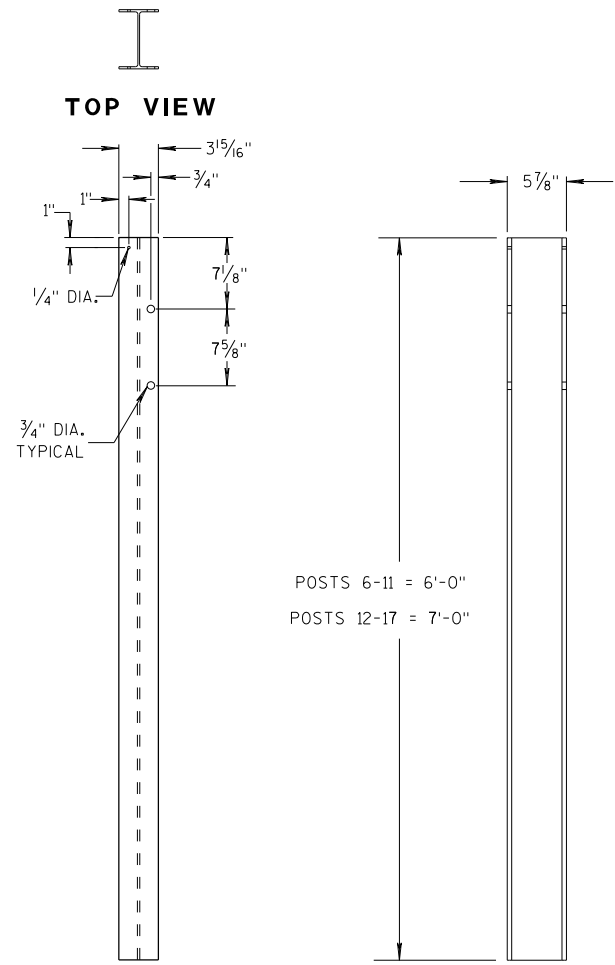


TOP VIEW



FRONT VIEW

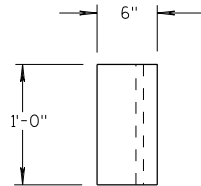
BLOCKOUT POSTS 1-5



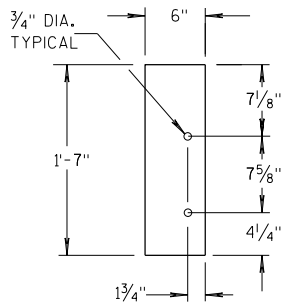
FRONT VIEW

SIDE VIEW

STEEL POSTS 6-17



TOP VIEW



FRONT VIEW

BLOCKOUT POSTS 6-17

GENERAL NOTES

STEEL POSTS ARE W6X9 OR W6X8.5.

BOLT HOLES FOR POST ARE ON FRONT AND OF SIDE OF POST.

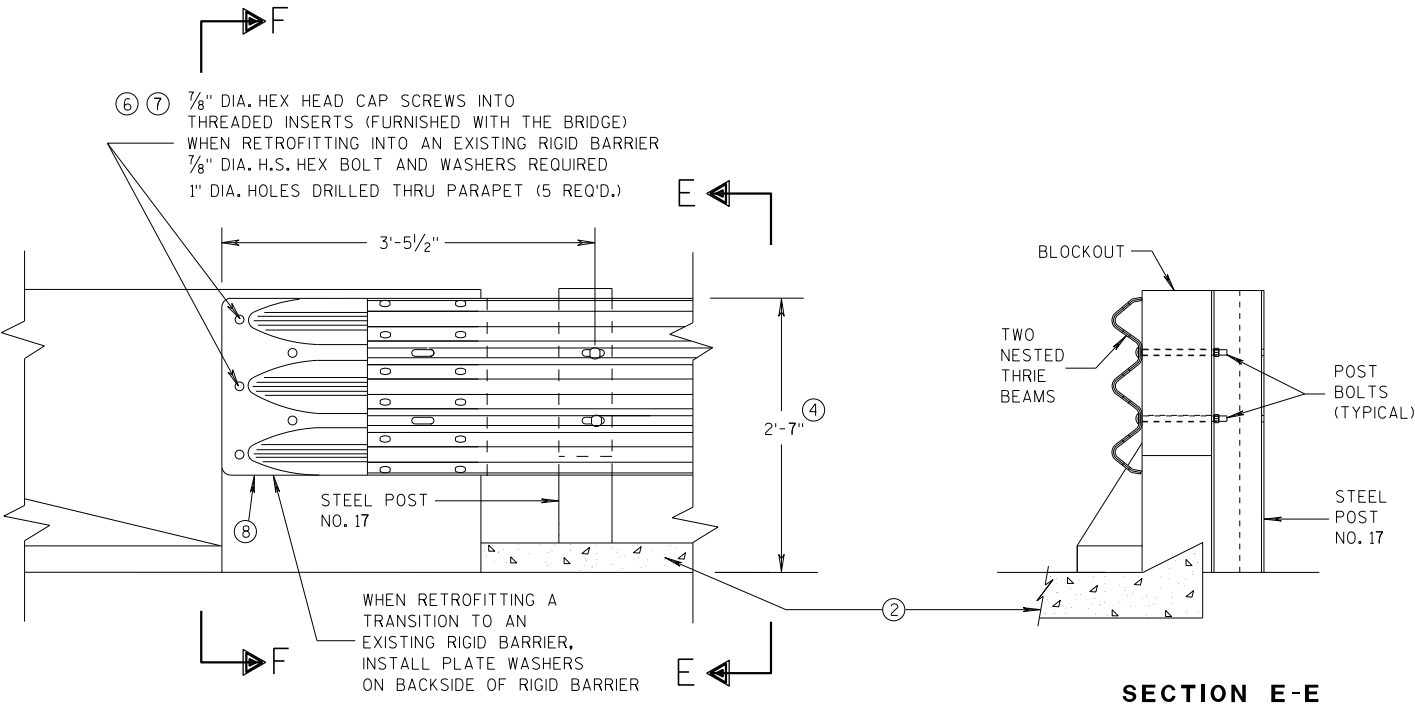
③ WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

⑤ WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

⑬ STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

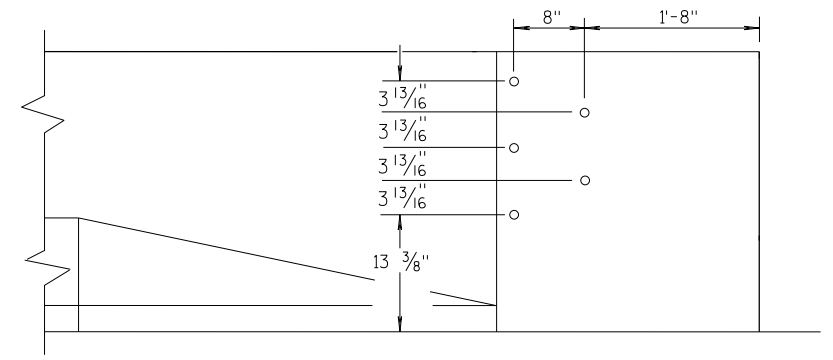
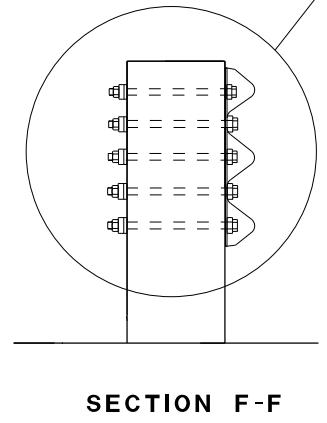
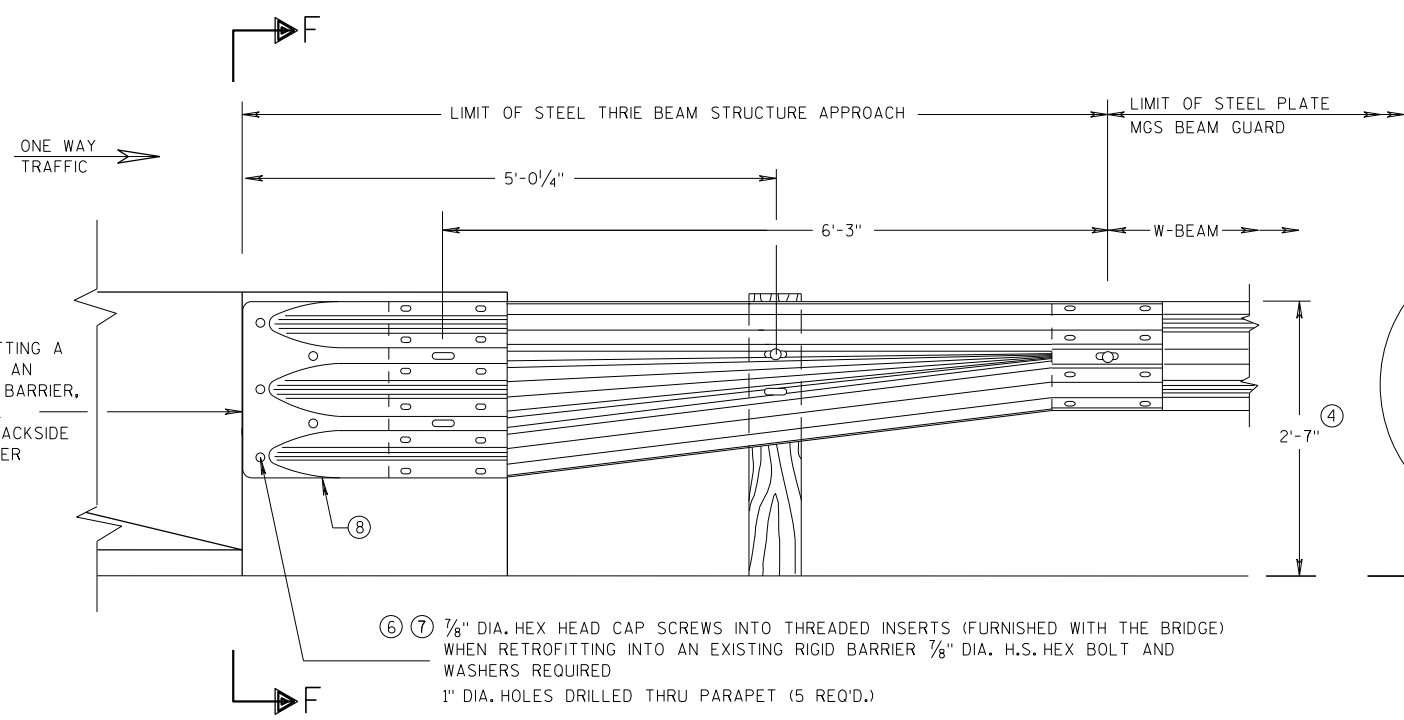
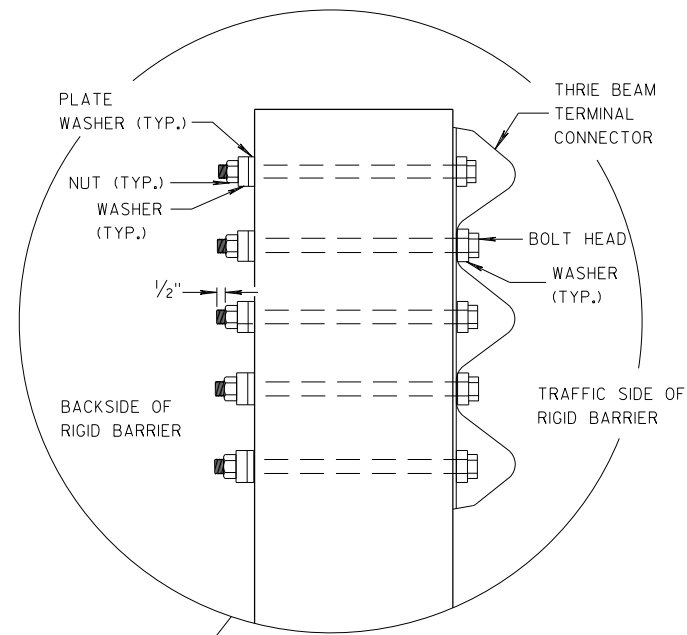
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

- THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

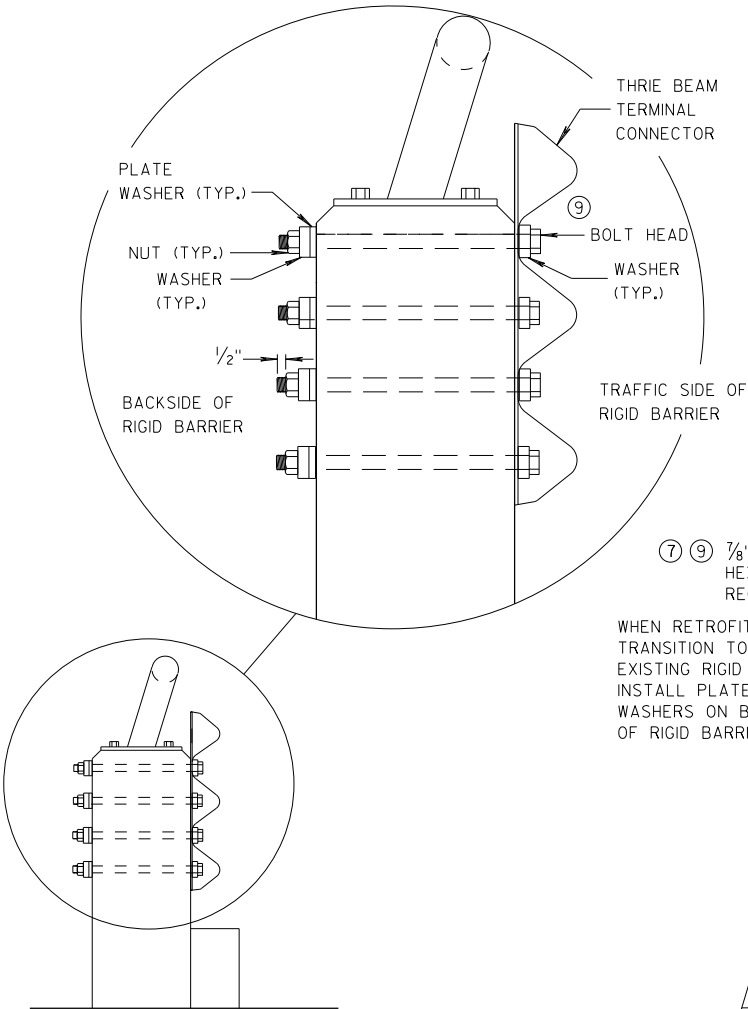


MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)			
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION			
APPROVED 07/2018 DATE	/S/ Rodney Taylor ROADWAY STANDARDS UNIT SUPERVISOR		
FHWA	105	NT	

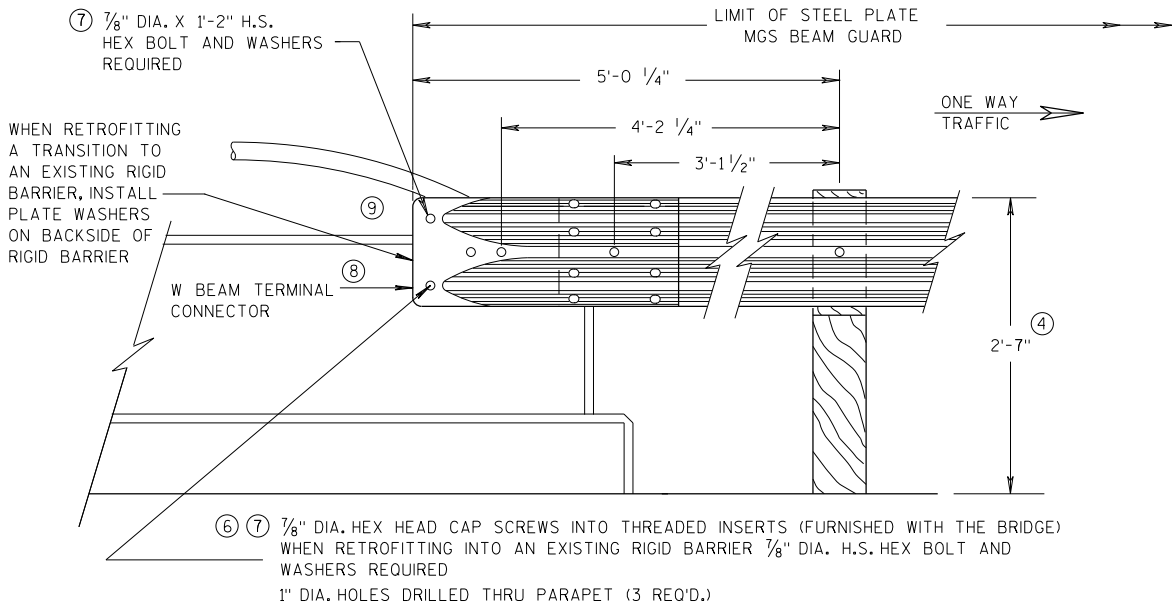
GENERAL NOTES

THESE ARE TYPICAL CONNECTION DETAILS. ADJUST THE POSTION OF CONNECTIONS TO EXISTING BRIDGES TO FIT THE ACTUAL BRIDGE AND SITE DIMENSIONS.

- ②
- OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④
- TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥
- DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦
- BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X $\frac{5}{32}"$ THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.
- ⑧
- THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 $\frac{1}{2}"$.
- ⑨
- BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

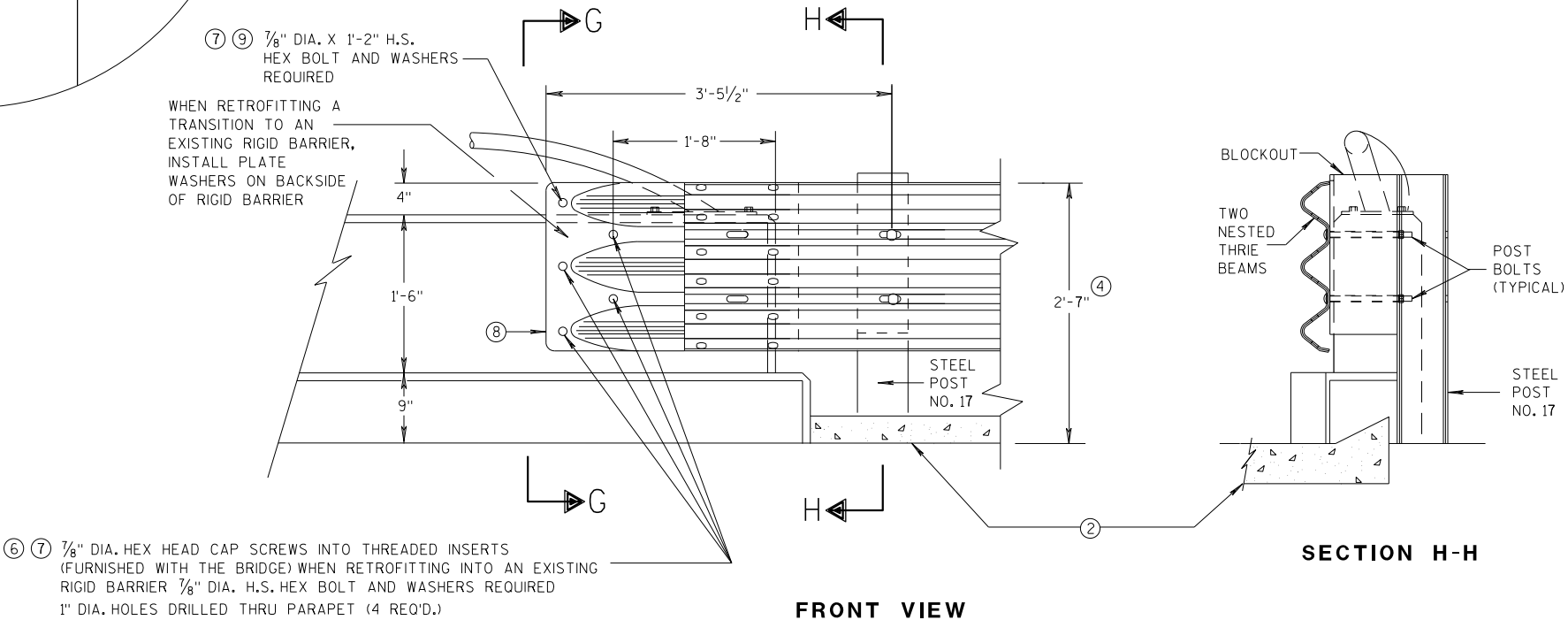


SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

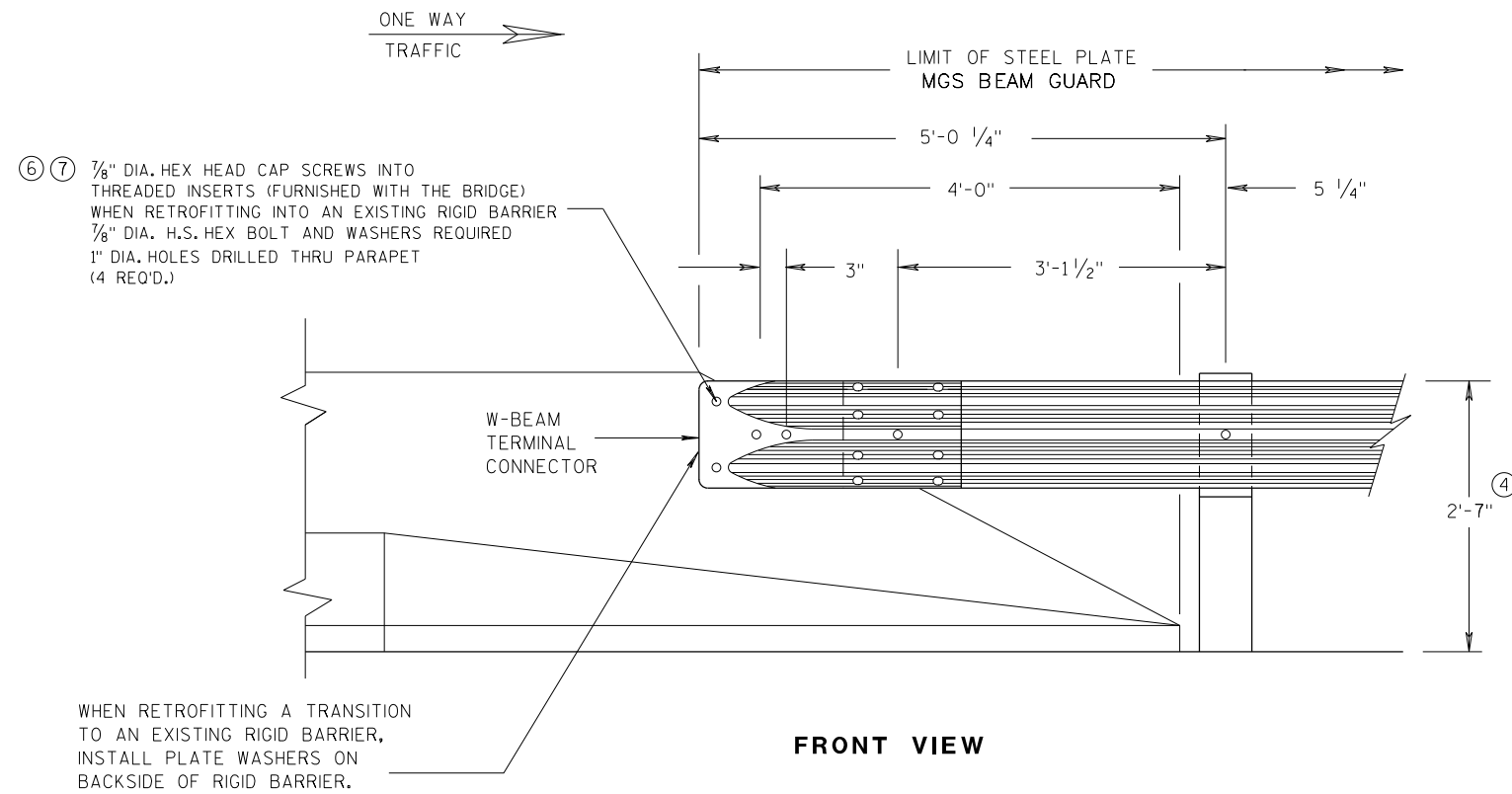
THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

SECTION H-H

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

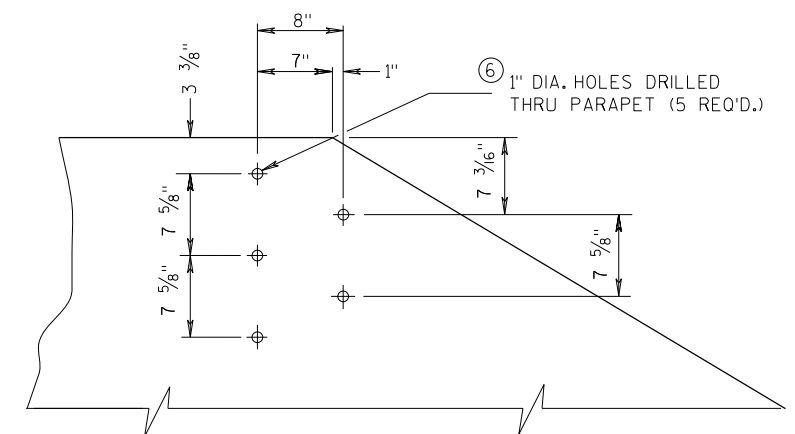
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106
FHWA



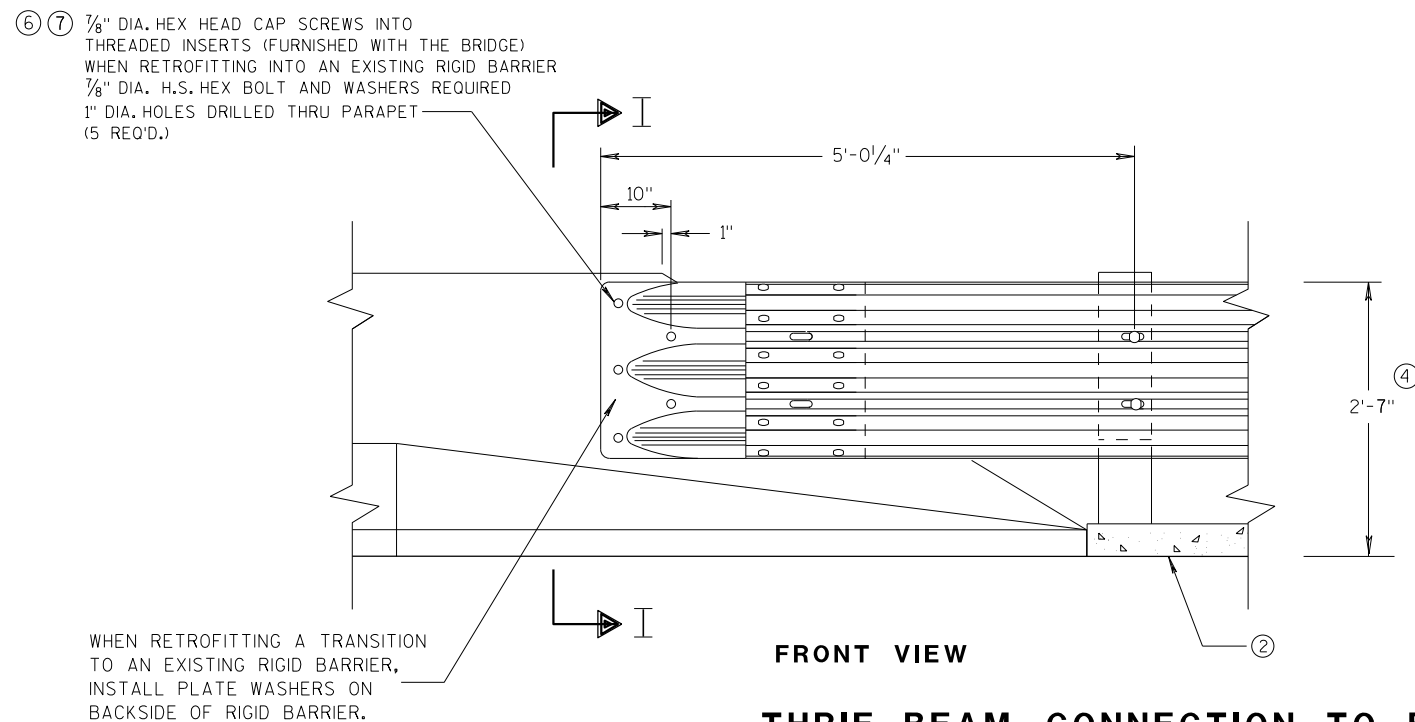
**W BEAM CONNECTION TO
PARAPETS WITH SLOPED ENDS**
(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

GENERAL NOTES

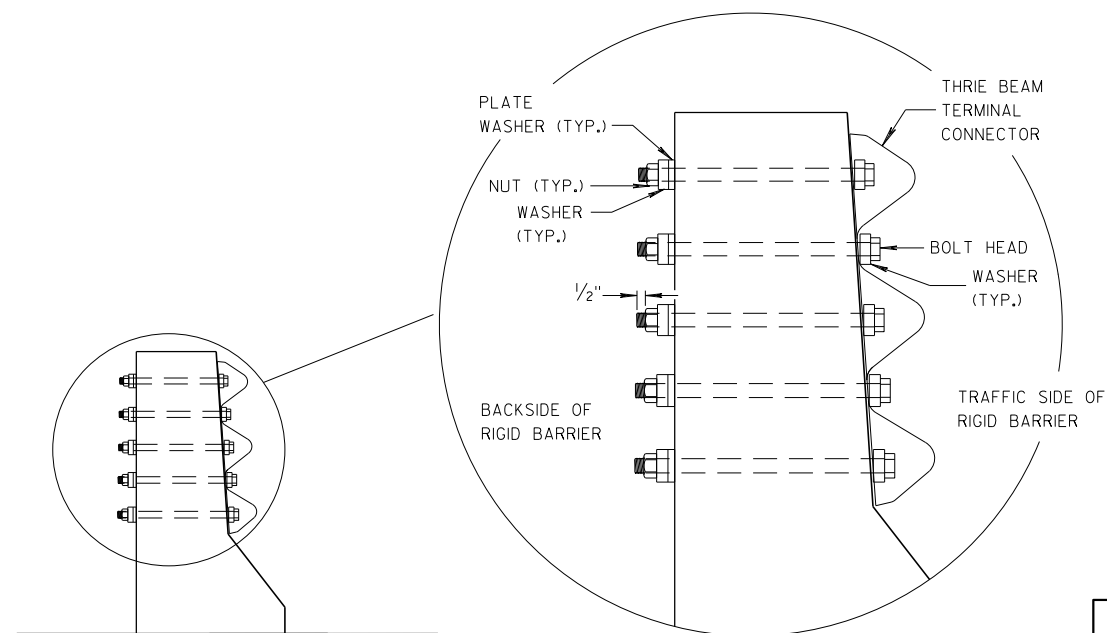
- ② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.
- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.
- ⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



**DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION**



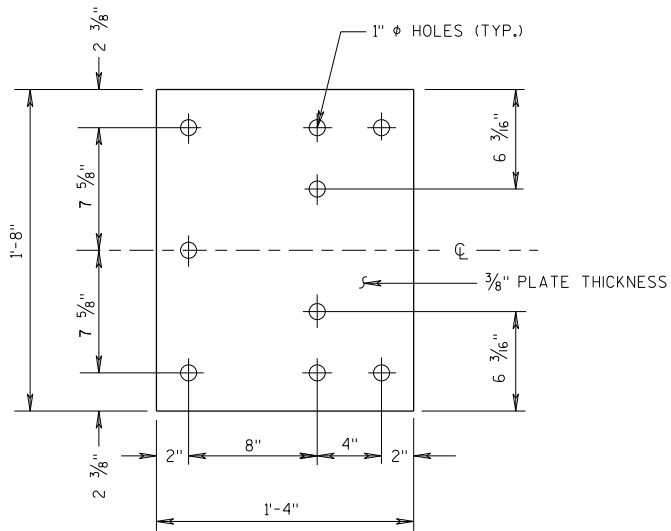
**THRIE BEAM CONNECTION TO BRIDGE
PARAPETS WITH SLOPED ENDS**



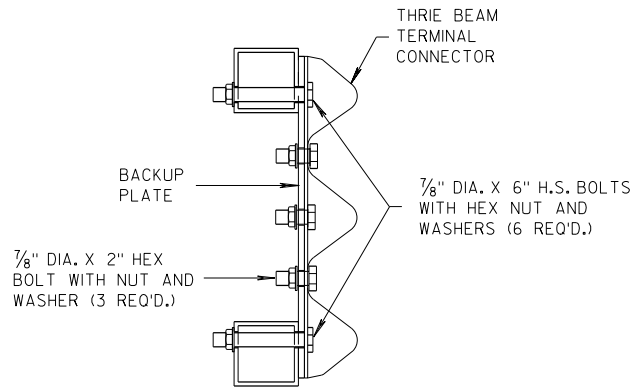
**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

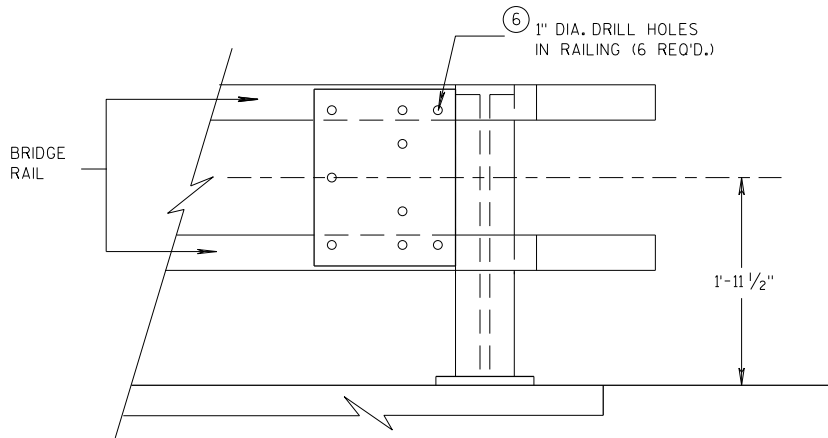
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FHWA



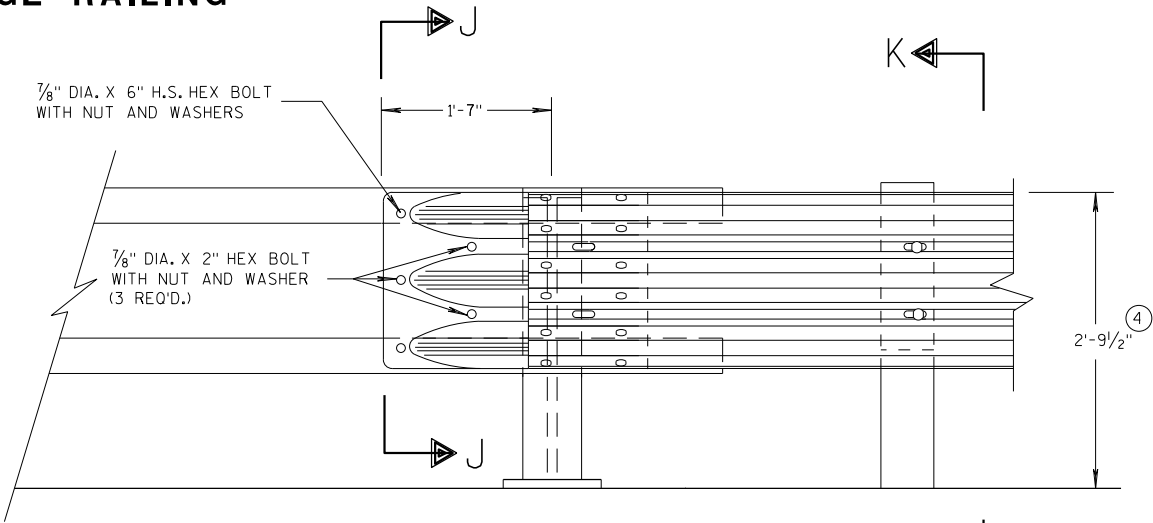
BACK-UP PLATE DETAIL



SECTION J-J

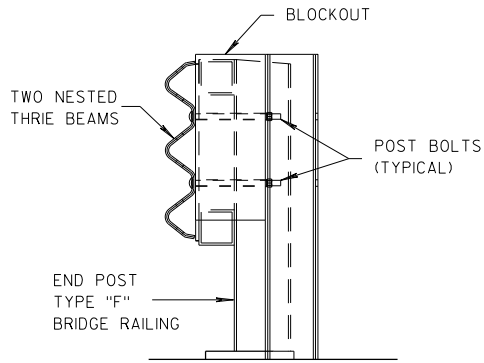


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING



FRONT VIEW

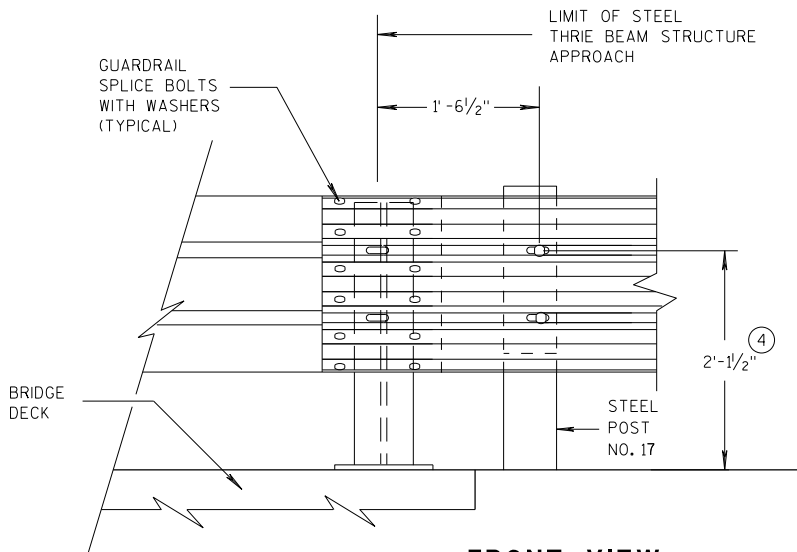
THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"



SECTION K-K

GENERAL NOTES

- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑥ DRILLING HOLES THROUGH THE PAPER, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.



FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)		
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION		
APPROVED 07/2018	/S/ Rodney Taylor	108
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FHWA		

④ TOLERANCE FOR TOP OF W-BEAM RAIL IS $\pm 1"$.



6



SECTION M-M



FRONT VIEW



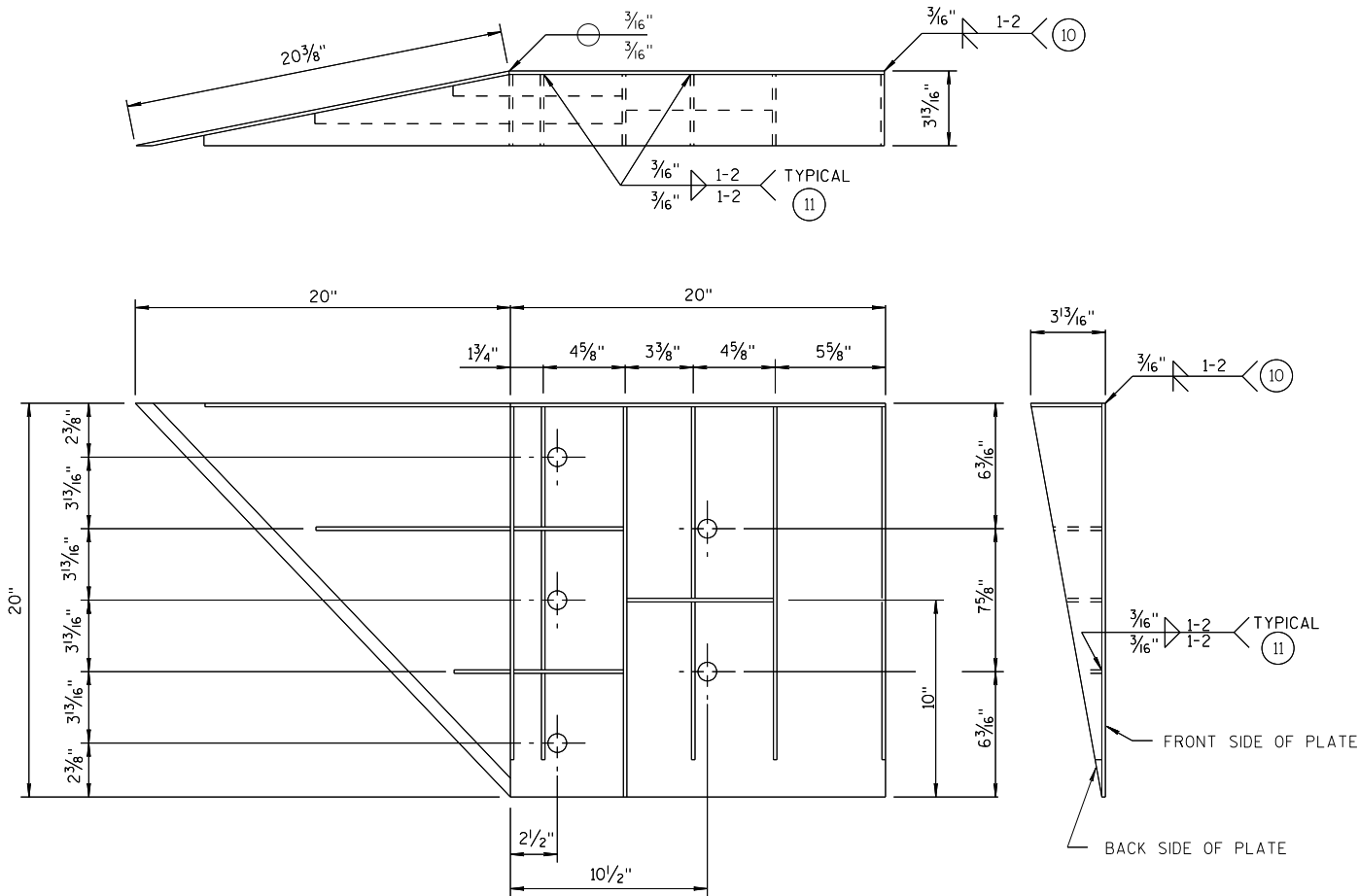
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07/2018
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ROADWAY STANDARDS I
UNIT SUPERVISOR

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WELDING INSTRUCTION
(VIEWED FROM BACK SIDE OF PLATE)

CONNECTOR PLATE DIMENSION (PER ASSEMBLY)				
PLATE	QUANTITY	SHAPE	SIZE (A x B x C x D)	THICKNESS
P1	1		20" x 20"	3/16"
P2	1		20" x 20" x 28 3/16"	3/16"
P3	1		39" x 3 5/8" x 20" x 19 5/16"	3/16"
S1	4		18 7/16" x 3 5/8" x 18 3/4"	1/4"
S2	1		10 1/4" x 2 1/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 3/8" x 1/2"	1/4"
S4	1		6 1/8" x 2 7/16"	1/4"
S5	1		6 1/8" x 1 1/16"	1/4"
S6	1		7 3/4" x 1 3/4"	1/4"
S7	1		2 3/16" x 6" x 3 5/8" x 5 7/8"	1/4"
S8	1		1 5/32" x 7 1/2" x 2 1/2" x 7 3/8"	1/4"
S9	1		6 1/16" x 6 3/16" x 1 3/32"	1/4"
S10	1		1 7/8" x 9 7/8" x 3 5/8" x 9 11/16"	1/4"
S11	1		8 1/2" x 8 3/4" x 1 3/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

GENERAL NOTES

- COVER PLATE PANELS ARE 3/16" THICK.
- ALL STIFFENERS ARE 1/4" THICK.
- CONNECTOR PLATE SHALL BE FABRICATED FROM ASTM GRADE A36 STEEL AND GALVANIZED.
- FOR GALVANIZED REQUIREMENTS, SEE SECTION 614 OF THE STANDARD SPECIFICATIONS.
- ALL HOLE DIAMETERS SHALL BE 1".
- FOR OPPOSITE SIDE INSTALLATION MIRROR DRAWINGS.

- 10 STIFFENERS LOCATED AT THE OUTSIDE EDGES OF THE COVER PLATES SHALL BE WELDED AS FOLLOWS:
SINGLE BEVEL GROOVE WELD ON EXTERNAL SIDES AND 3/16" FILLET WELD BY 1" LONG SPACED AT 2" ON INTERNAL SIDES.
- 11 STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

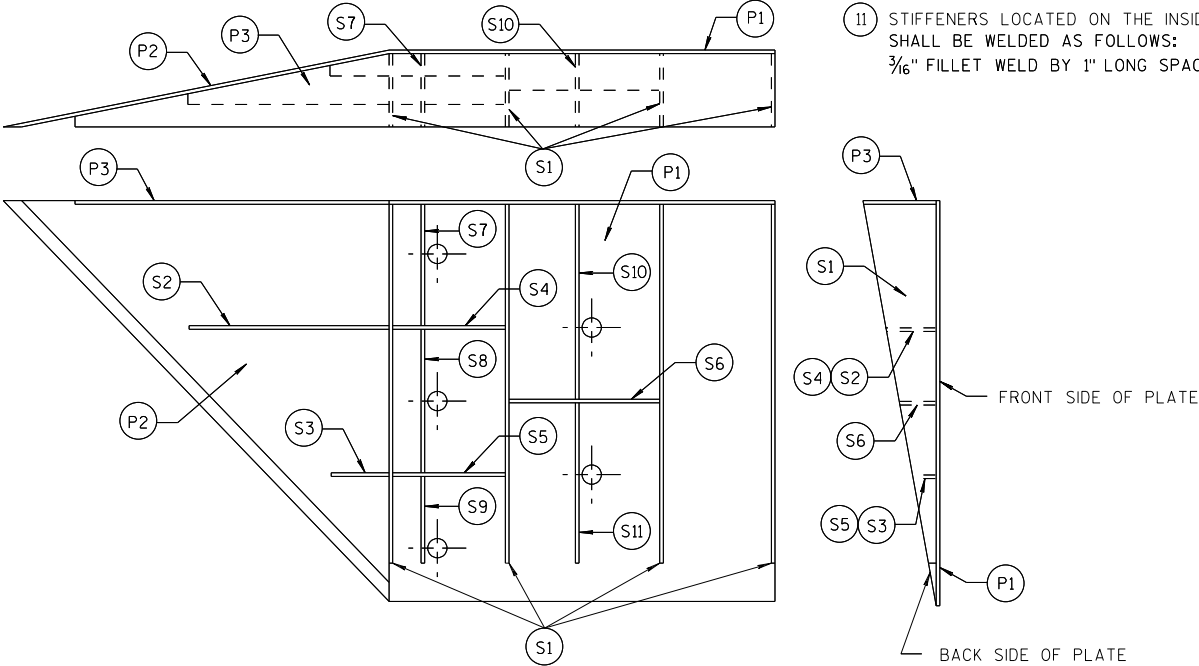


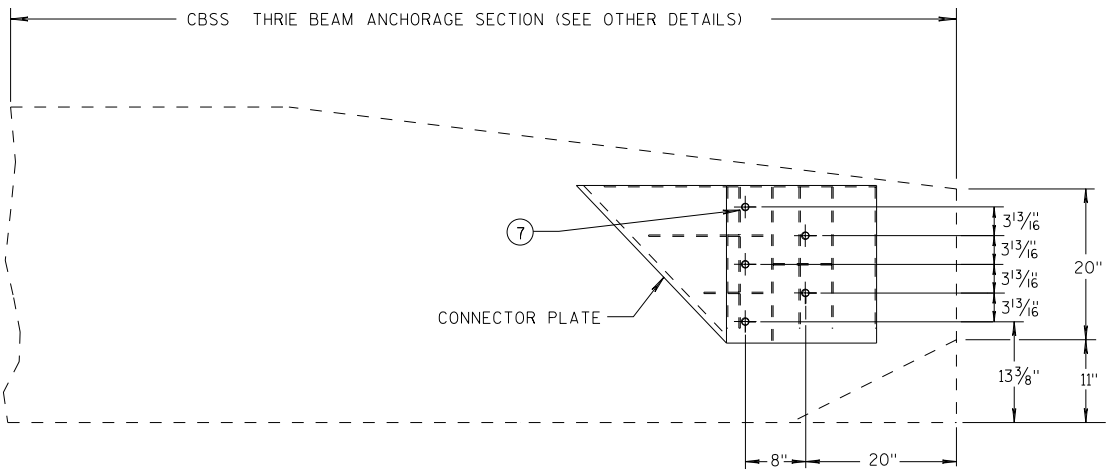
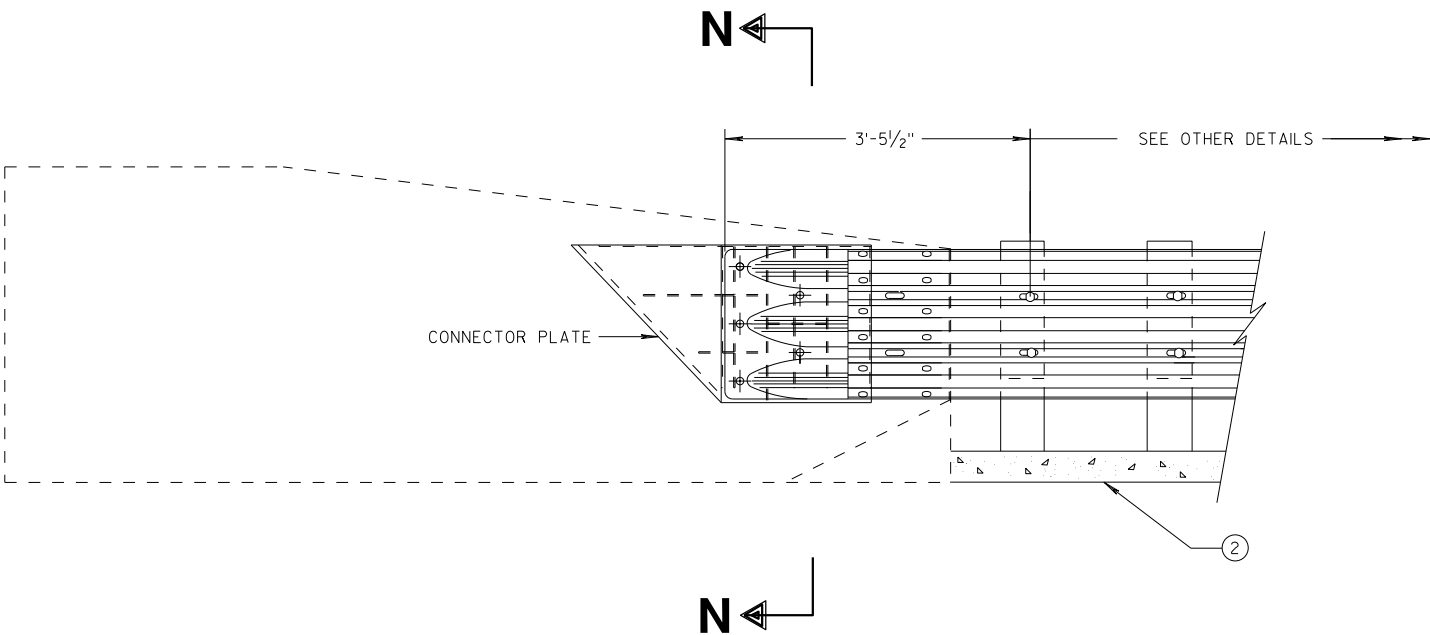
PLATE AND STIFFENER IDENTIFICATION
(VIEWED FROM BACK SIDE OF PLATE)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



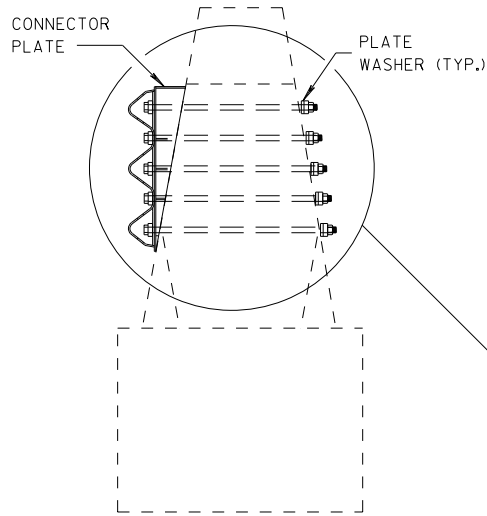
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

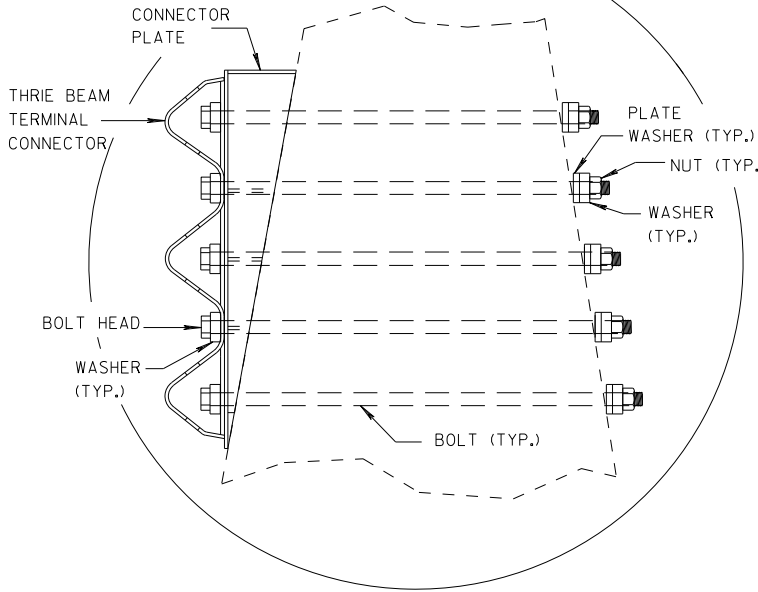
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(2) OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

(7) BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTION PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/32" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



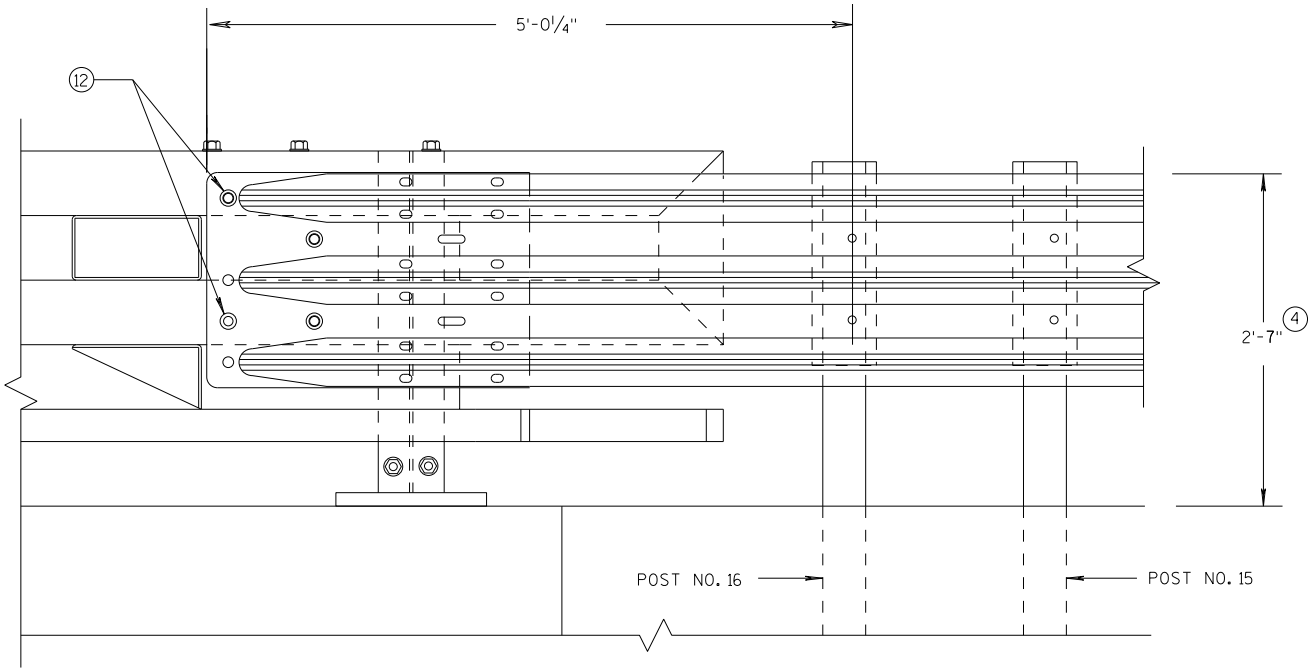
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

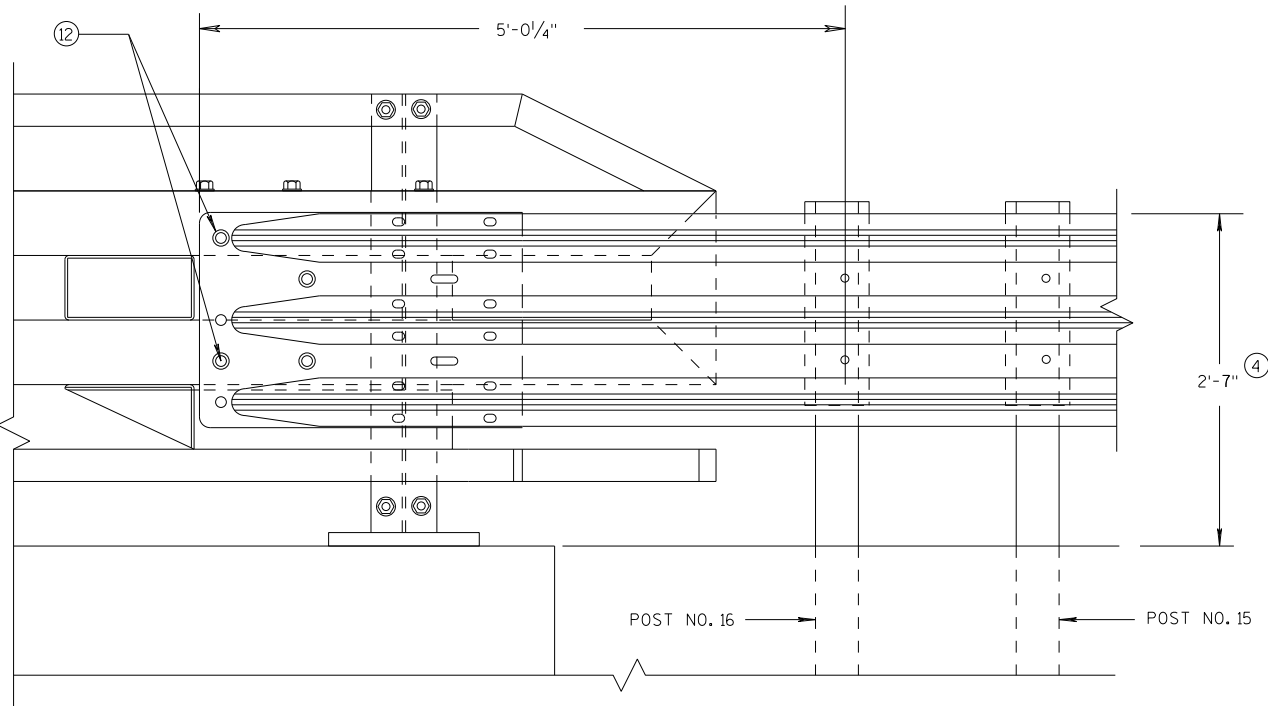
APPROVED
DATE 7/2018
ROADWAY STANDARDS DIVISION
UNIT SUPERVISOR /S/ Rodney Taylor
111
FHWA

GENERAL NOTES

- ④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.
- ⑫ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. ON BACKSIDE OF PARAPET ONE ROUND WASHER, AND NUT REQUIRED. BOLT THREAD IS TO EXTEND $\frac{1}{2}$ -INCH BEYOND NUT.



ELEVATION OF DETAIL AT NY3 END POST
THRIE BEAM RAIL ATTACHMENT

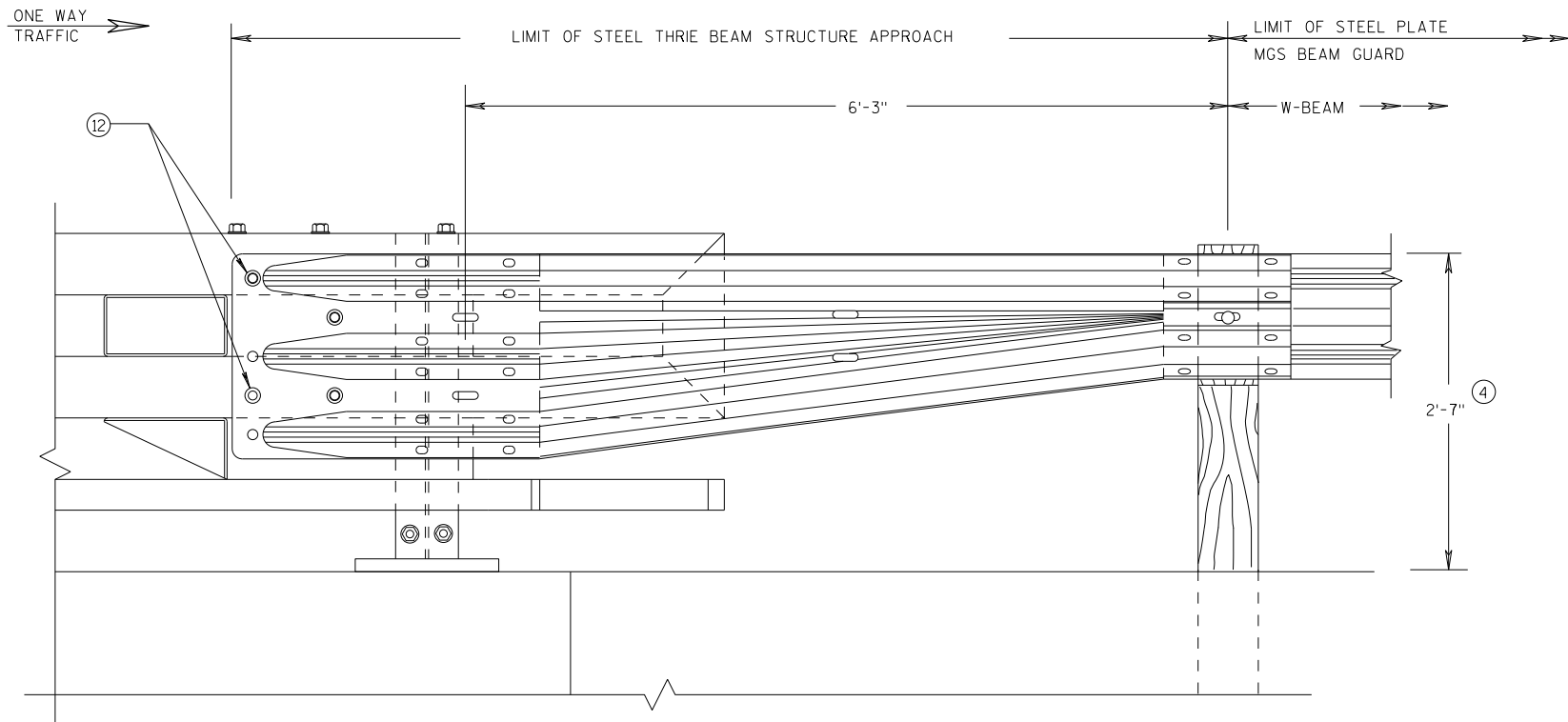


ELEVATION OF DETAIL AT NY4 END POST
THRIE BEAM RAIL ATTACHMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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DATE	7/2018
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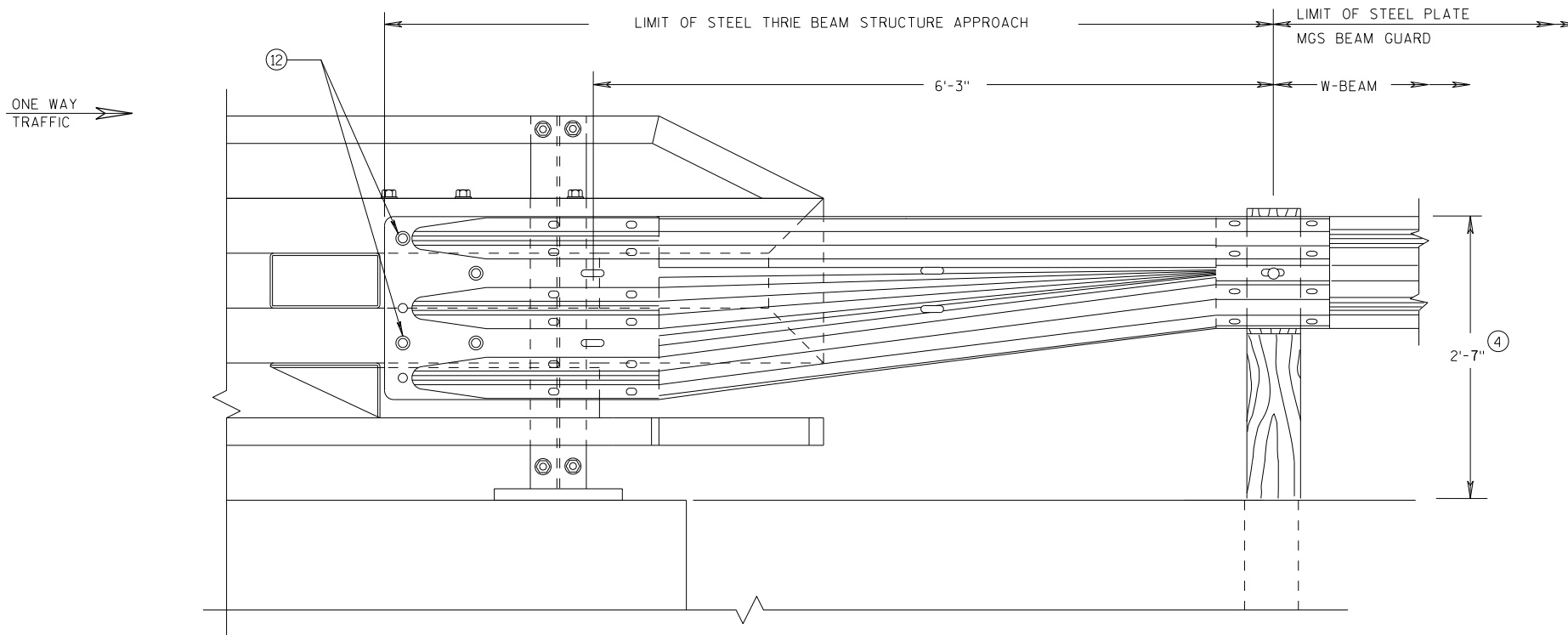
FRONT VIEW

**W BEAM TRANSITION AND
CONNECTION TO BRIDGE RAILING TYPE "NY3"**
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

④ TOLERANCE FOR TOP OF BEAM IS $\pm 1"$.

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FRONT VIEW

**W BEAM TRANSITION AND
CONNECTION TO BRIDGE RAILING TYPE "NY4"**
(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

**MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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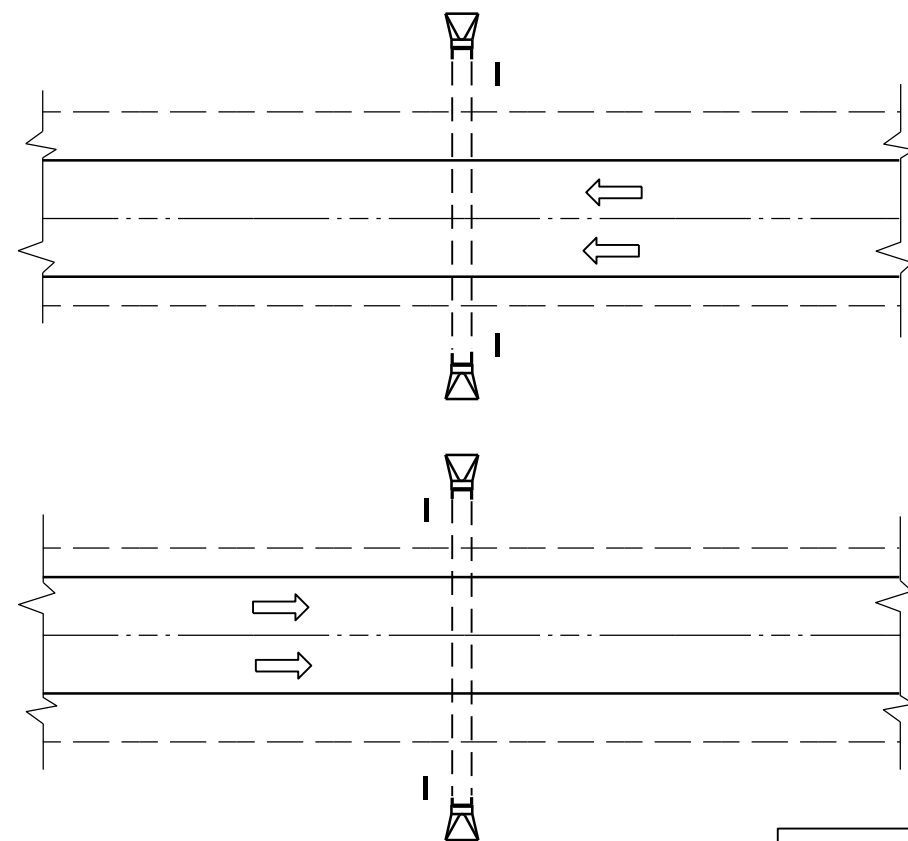
7/2018
DATE

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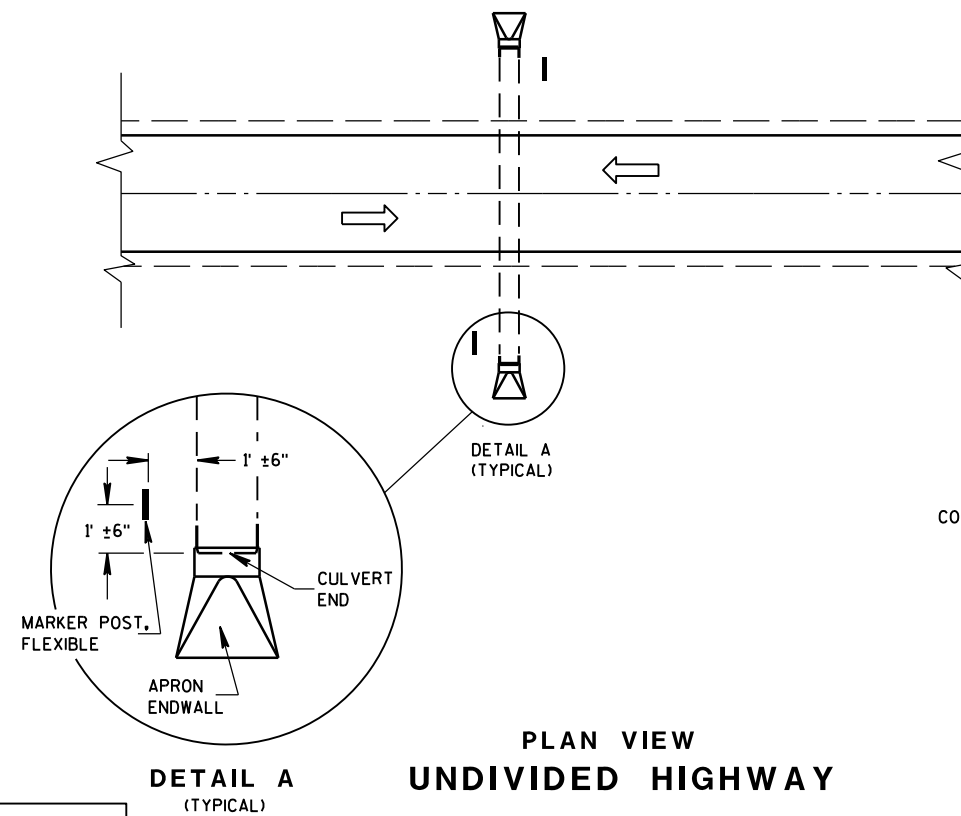
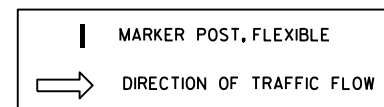
/S/ Rodney Taylor

ROADWAY STANDARDS C 113
UNIT SUPERVISOR

NT



PLAN VIEW
DIVIDED HIGHWAY

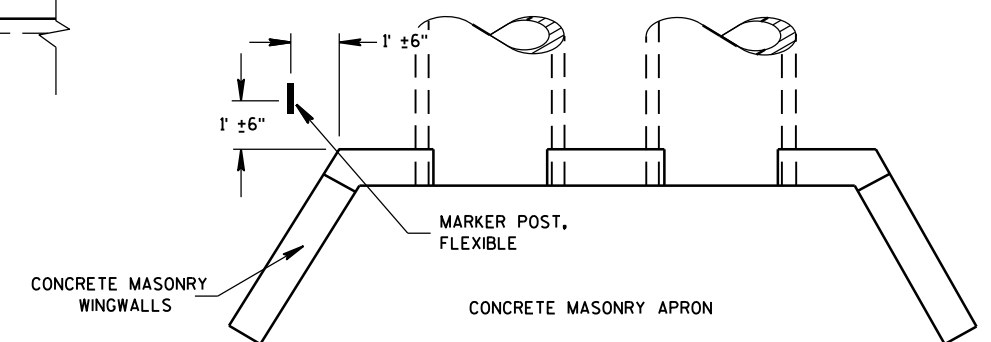


PLAN VIEW
UNDIVIDED HIGHWAY

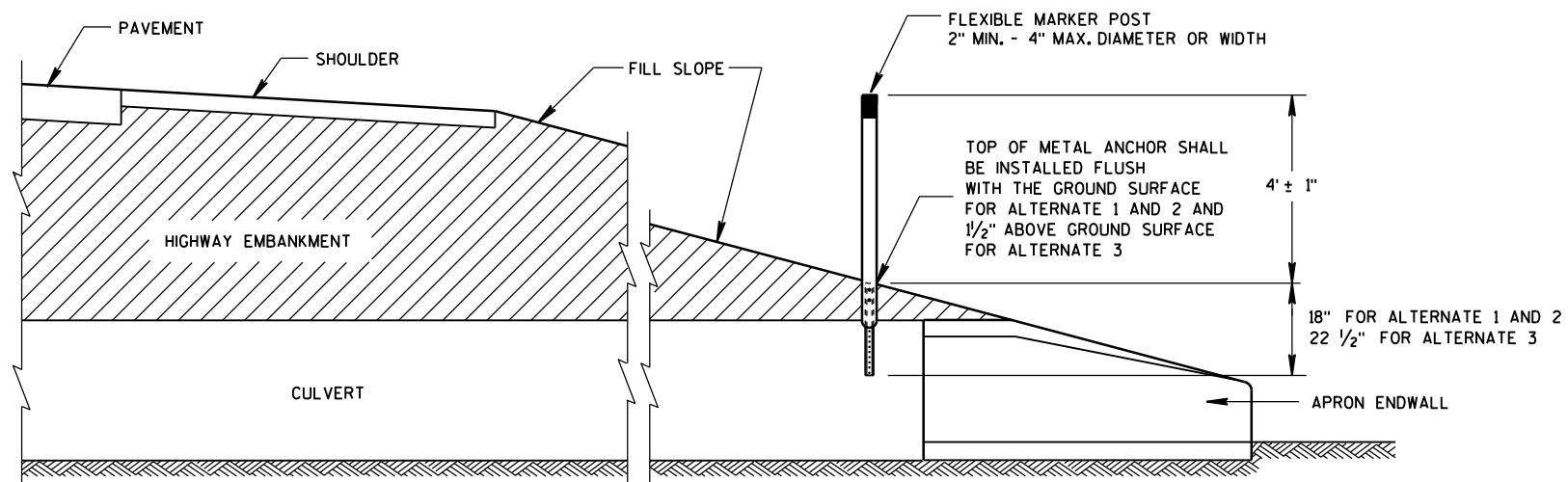
FLEXIBLE MARKER POST LOCATION

GENERAL NOTES

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



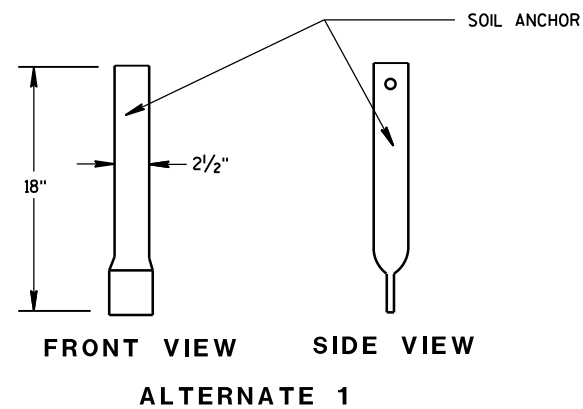
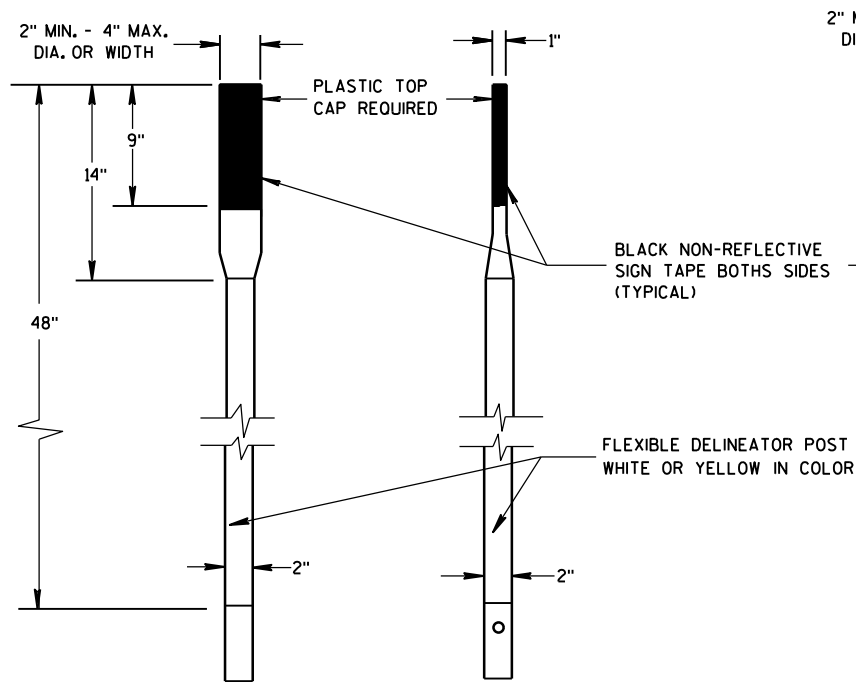
PLAN VIEW
CONCRETE MASONRY ENDWALLS FOR
CULVERT PIPE AND PIPE ARCH



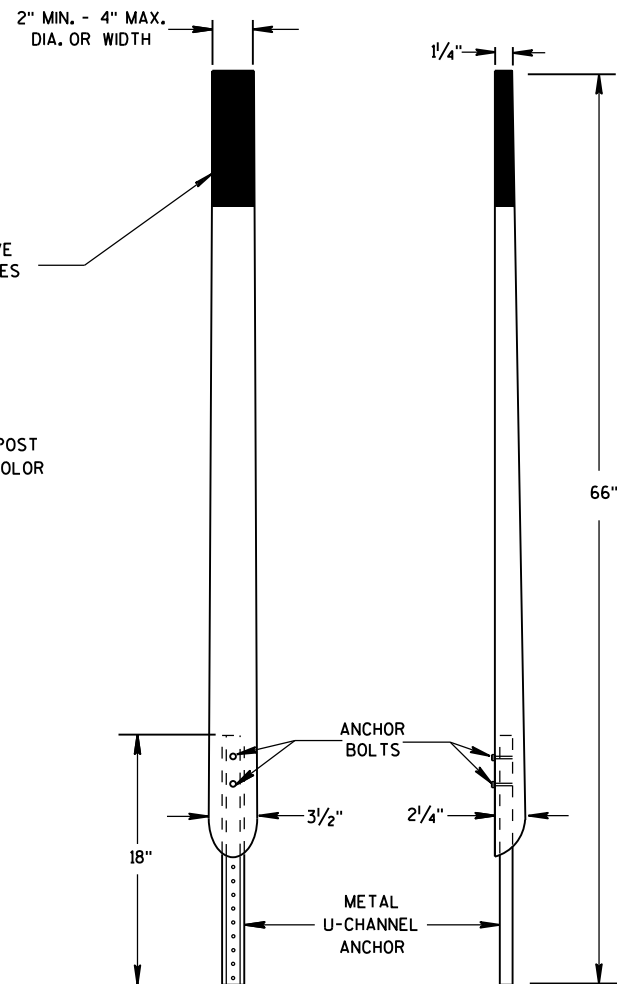
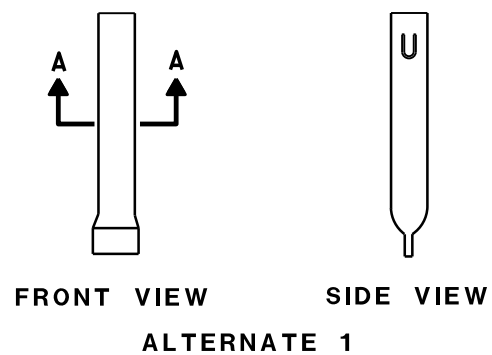
CROSS SECTION
FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION 114

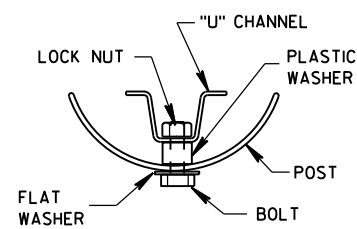


SECTION A-A

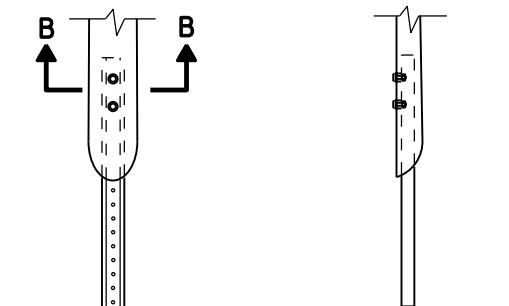


FRONT VIEW SIDE VIEW
ALTERNATE 2

FLEXIBLE MARKER POSTS

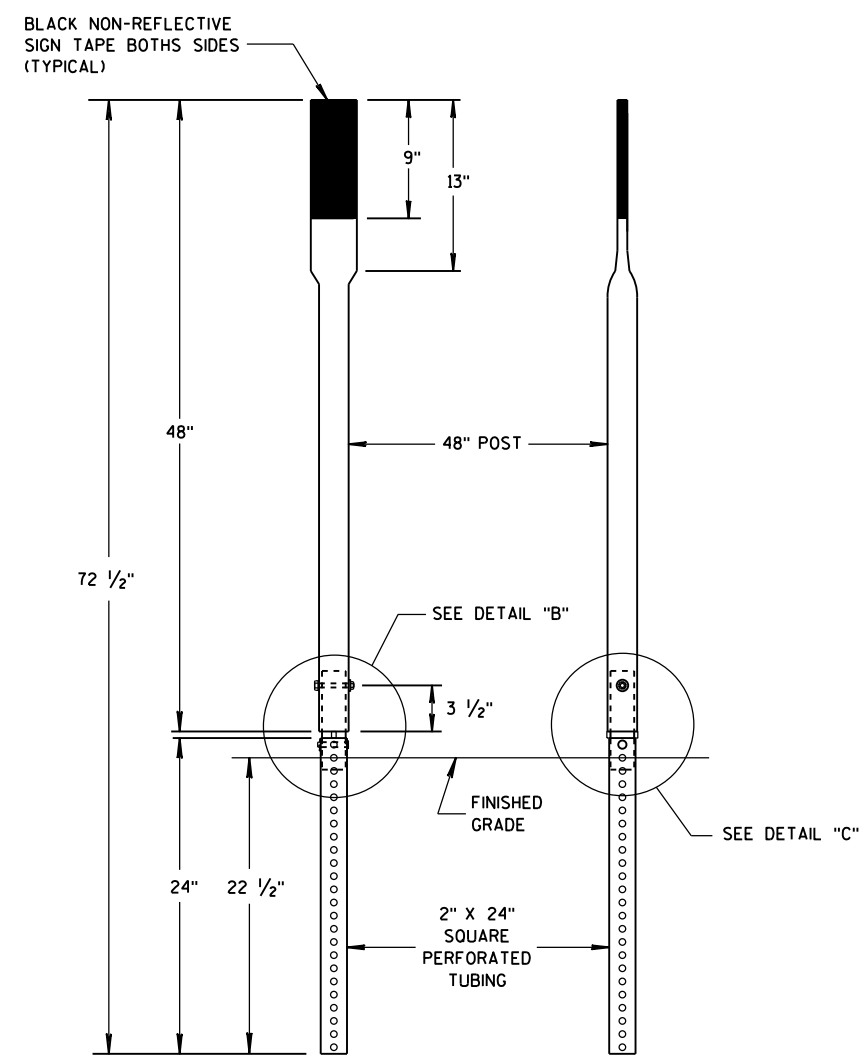


SECTION B-B

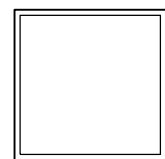


FRONT VIEW SIDE VIEW
ALTERNATE 2

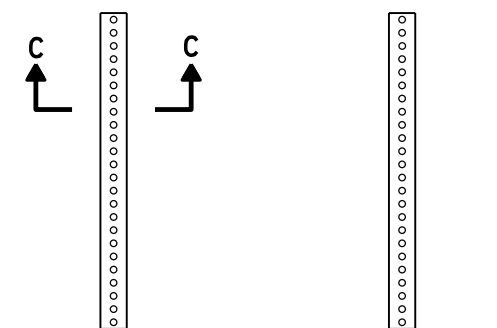
FLEXIBLE MARKER POST ANCHORS



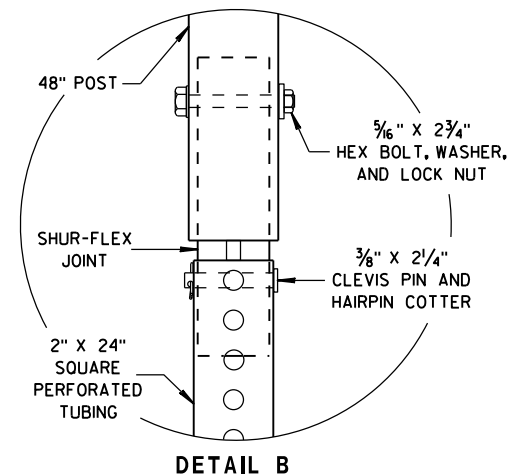
FRONT VIEW SIDE VIEW
ALTERNATE 3



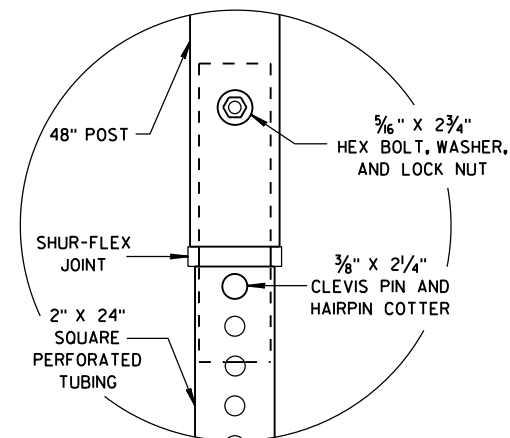
SECTION C-C



FRONT VIEW SIDE VIEW
ALTERNATE 3



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

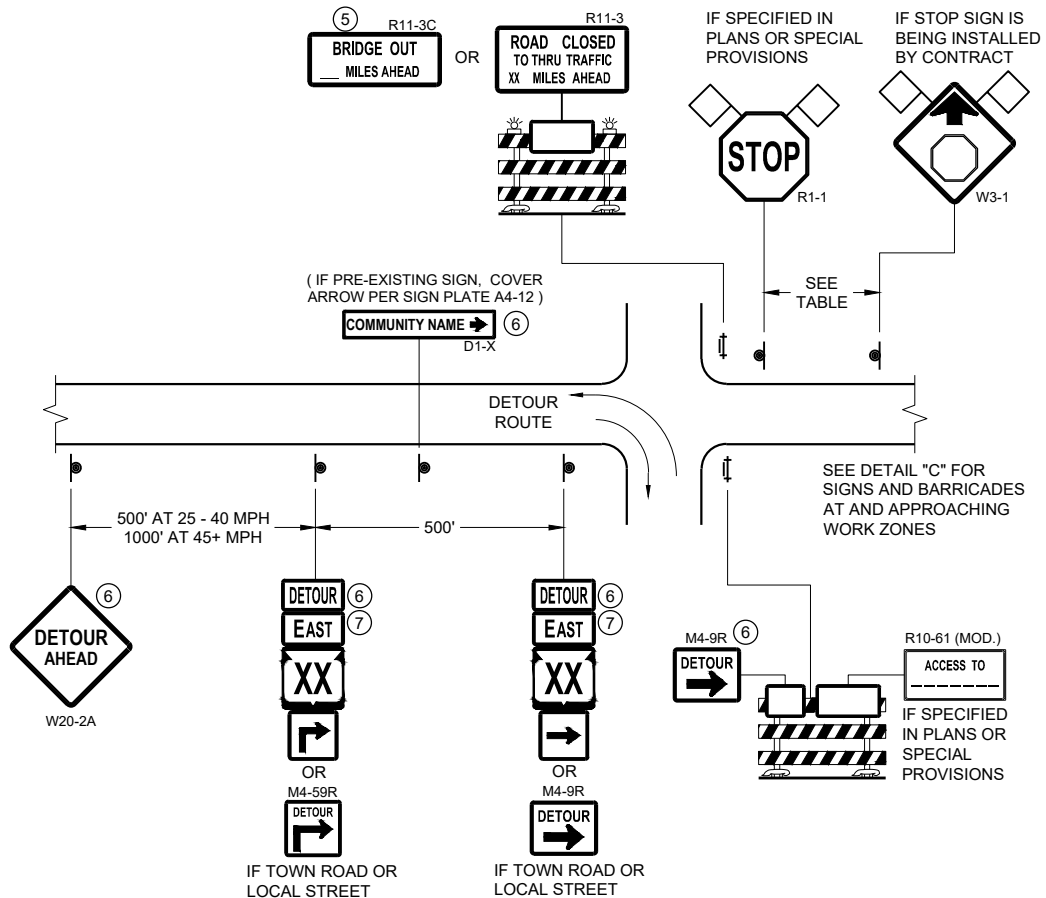
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DATE

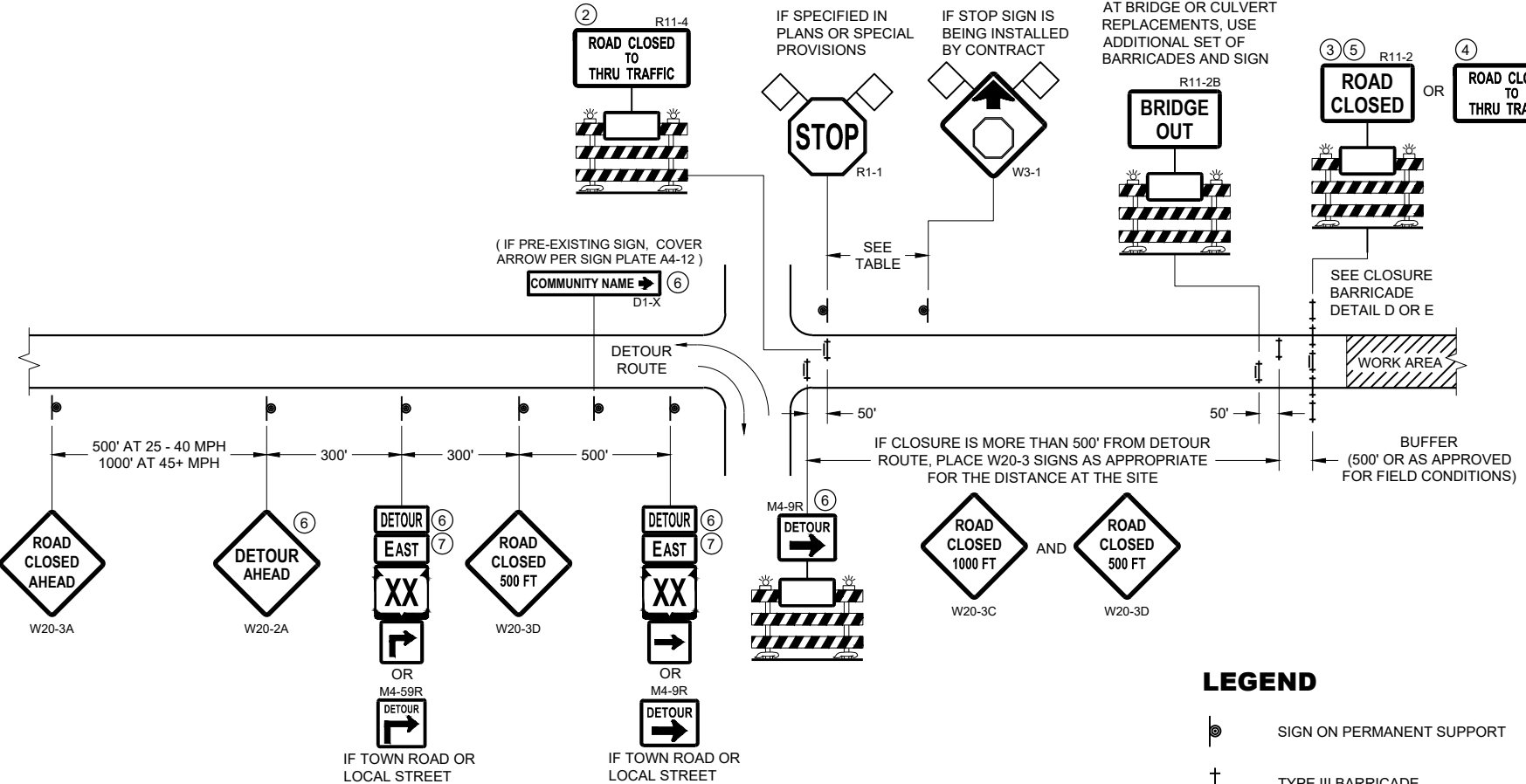
FHWA

/S/ Travis Feltes
STATE TRAFFIC ENGINEER 115

IGN



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)



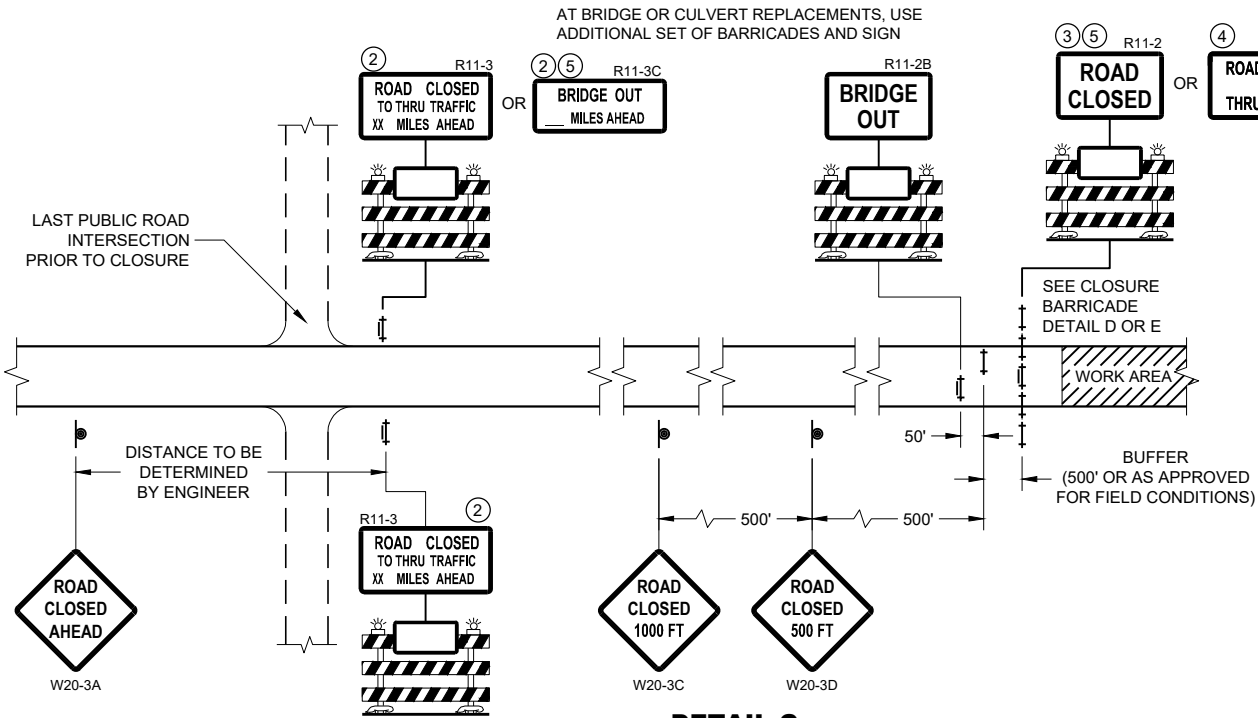
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR
WORK ZONE LESS THAN ½ MILE FROM
DETOUR ROUTE (1000 FEET IF URBAN)

- 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)

- DETOUR M4 - 8
- EAST M3 - X
- XX M1 - 4 OR XX M1 - 6 OR COUNTY M1 - 5A
- OR 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



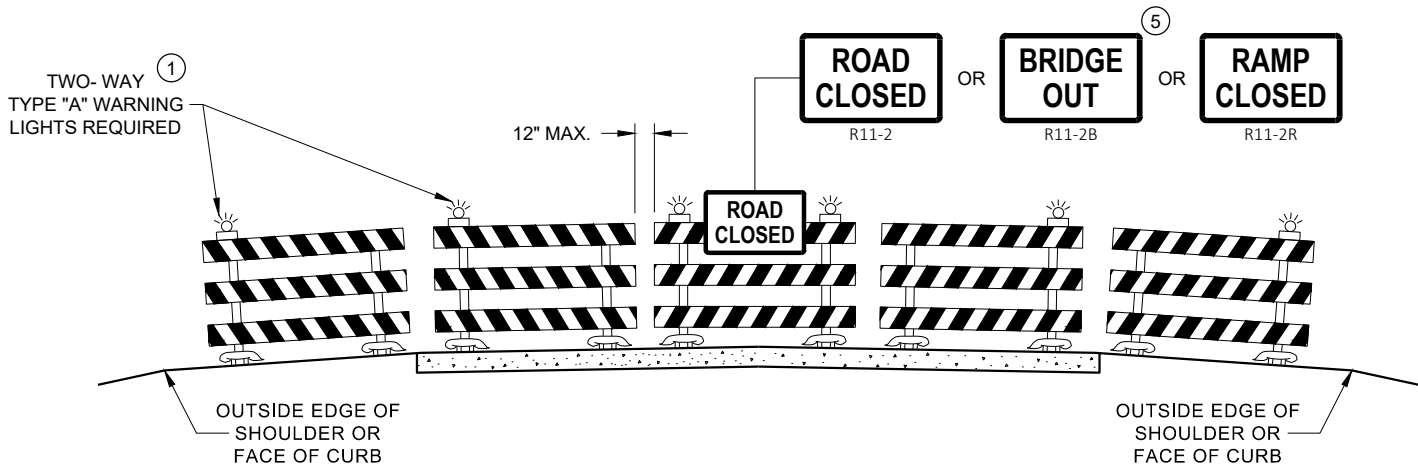
DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

**BARRICADES AND SIGNS
FOR MAINLINE CLOSURES**

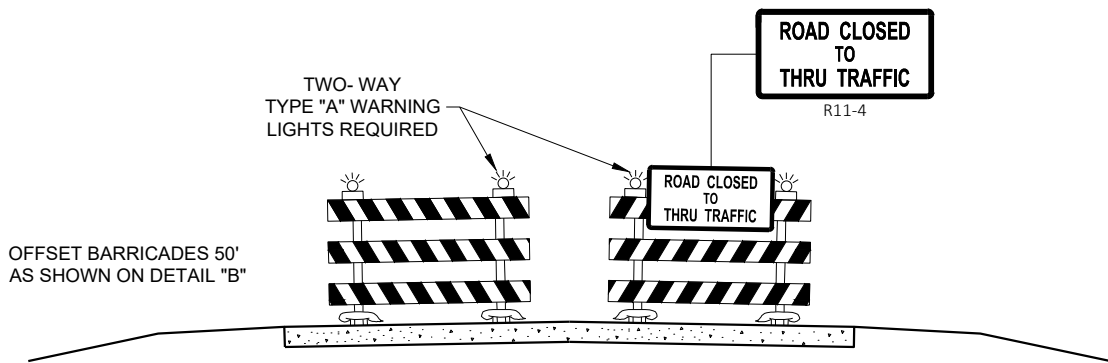
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DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 116

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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"

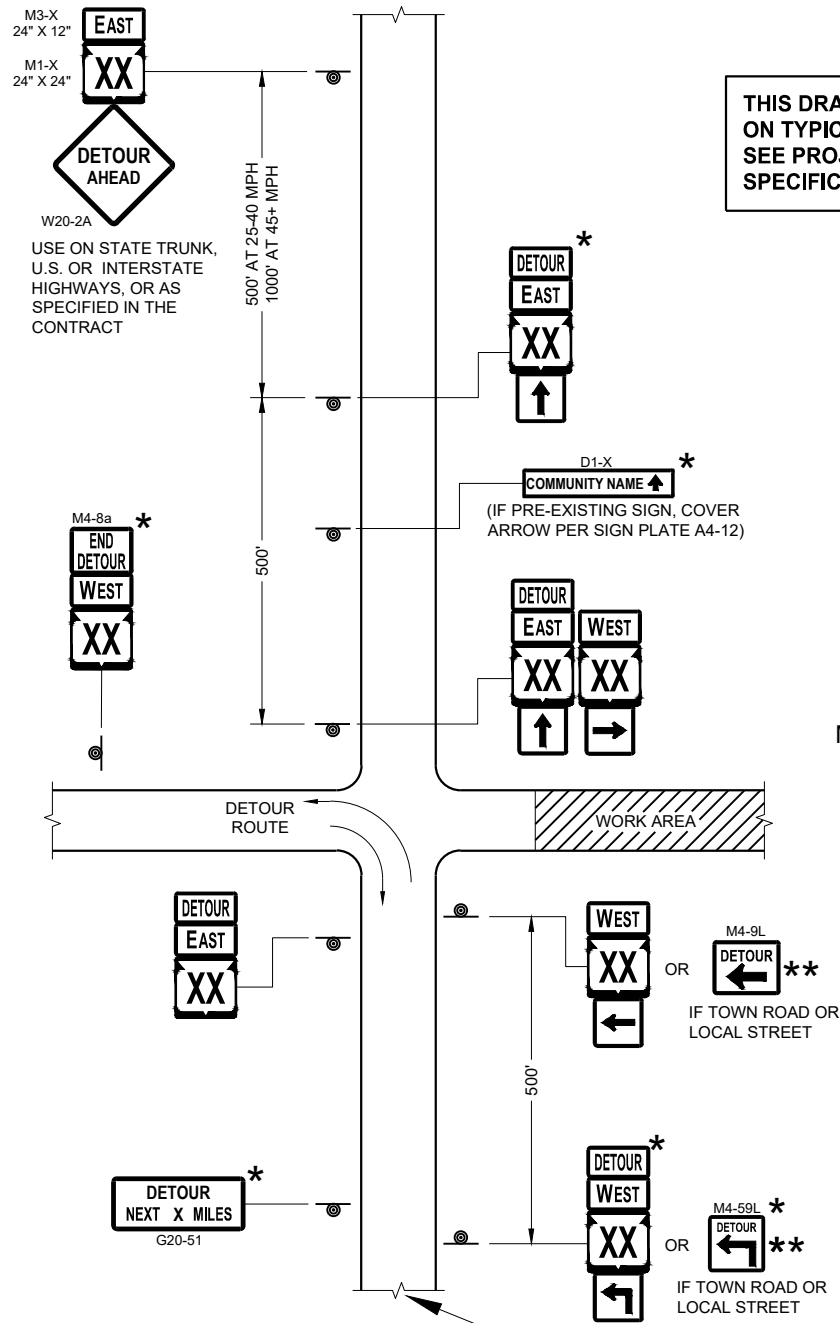
- 1 TWO WARNING LIGHTS SHALL BE PROVIDED ON THE CENTER BARRICADE AND A MINIMUM OF ONE WARNING LIGHT SHALL BE PROVIDED ON EACH OF THE OTHER BARRICADES WITHIN THE ROADWAY LIMITS. SPACING OF THE WARNING LIGHTS SHALL BE UNIFORM TO THE EDGE OF ROADWAY AS SHOWN (APPROX. 8 FOOT LIGHT SPACING).
- 2 THESE SIGNS 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 117

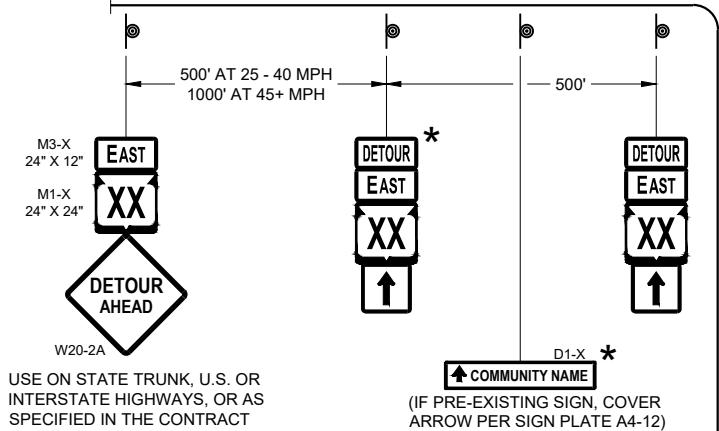
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SEE SPECIFIC PROJECT DETOUR
SIGNING DETAIL SHEETS AND
DETAIL A OR B ON SDD SHEET 15C02 - SHEET "a"

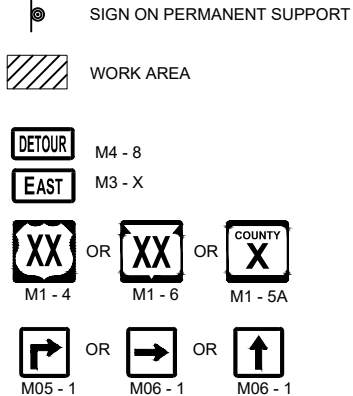
THIS DRAWING PROVIDES GENERAL GUIDANCE
ON TYPICAL DETOUR SIGN LAYOUT AND SPACING.
SEE PROJECT DETOUR SIGNING SHEETS FOR
SPECIFIC DETAILS FOR EACH PROJECT.

MATCH POINT



DETAIL F
DETOUR SIGNING

LEGEND



GENERAL NOTES

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

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

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

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

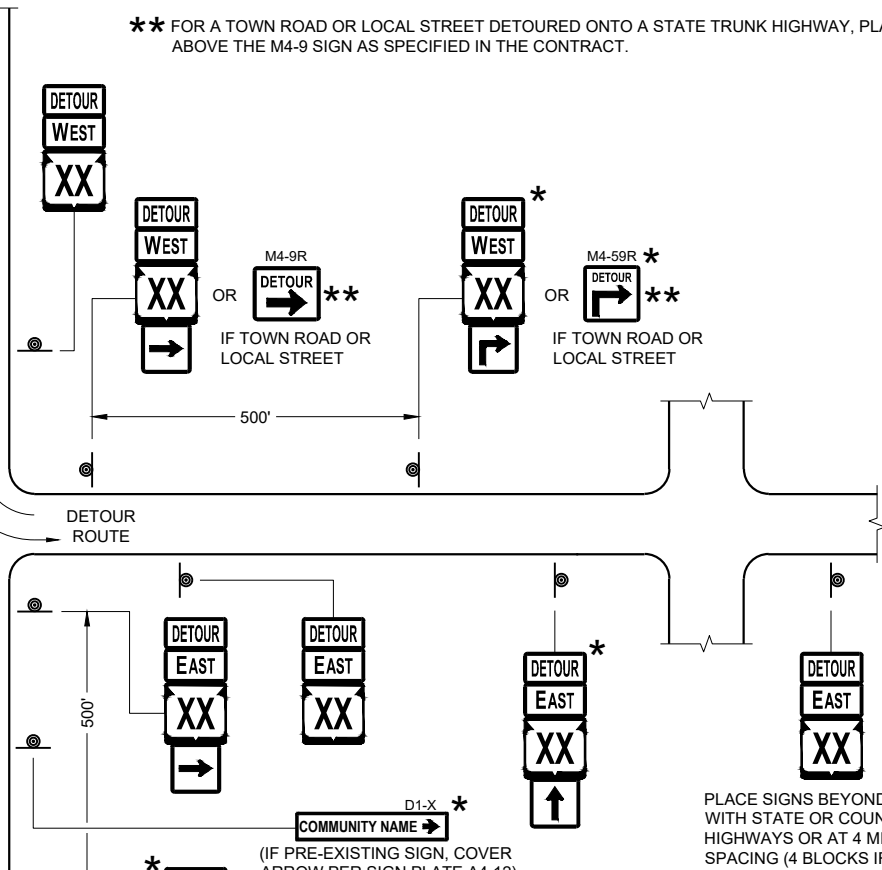
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

SIGN SIZES SHALL BE AS FOLLOWS:

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



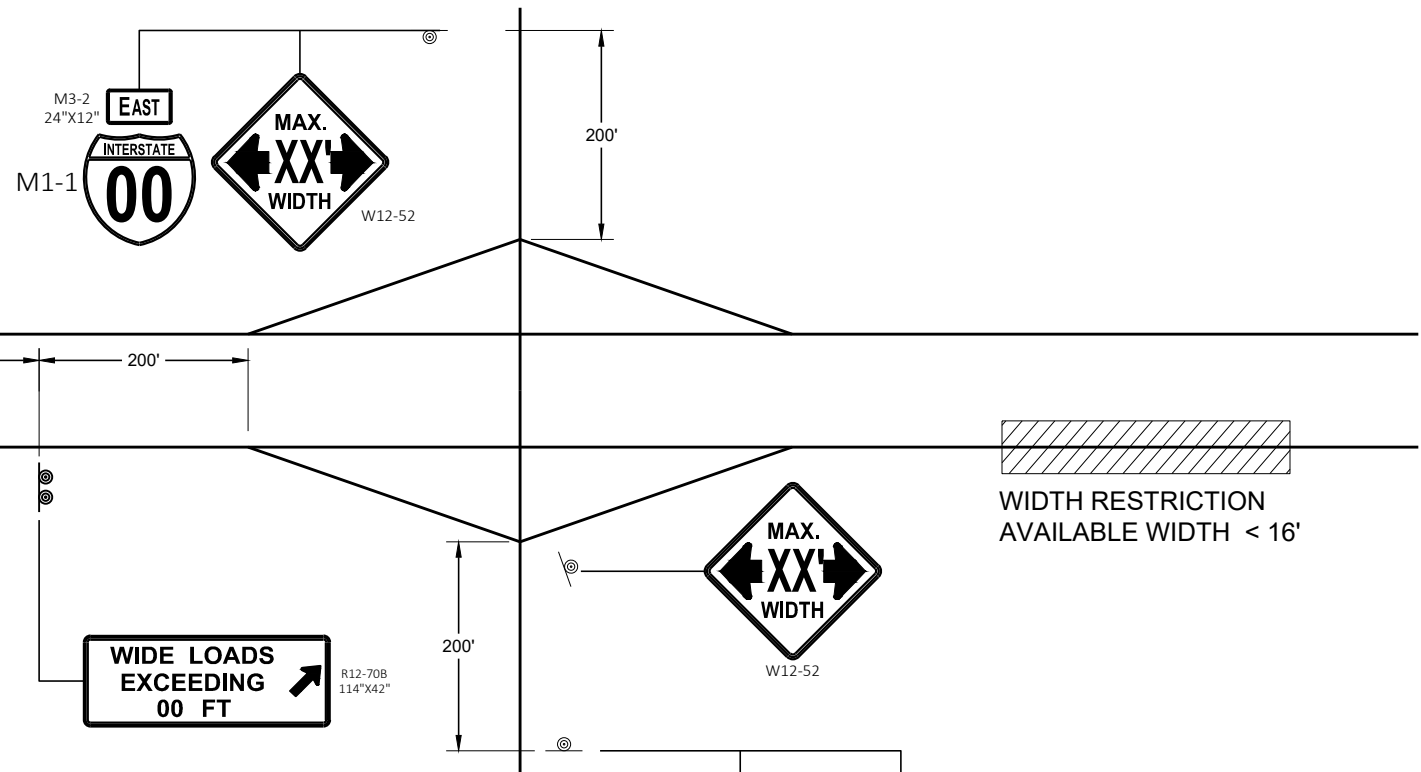
PLACE SIGNS BEYOND INTERSECTIONS
WITH STATE OR COUNTY TRUNK
HIGHWAYS OR AT 4 MILE MAXIMUM
SPACING (4 BLOCKS IF URBAN AREA)

DETOUR SIGNING
FOR MAINLINE CLOSURES

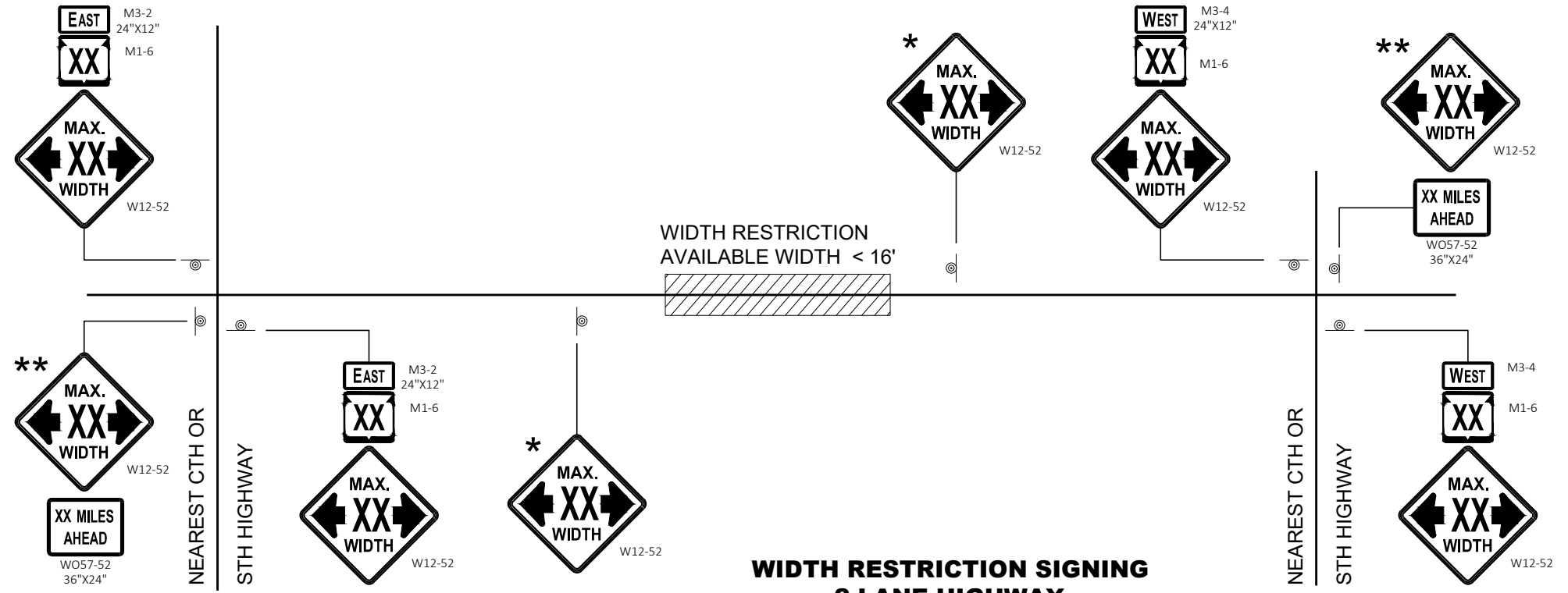
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 118

FHWA



WIDTH RESTRICTION SIGNING



WIDTH RESTRICTION SIGNING
2 LANE HIGHWAY

LEGEND

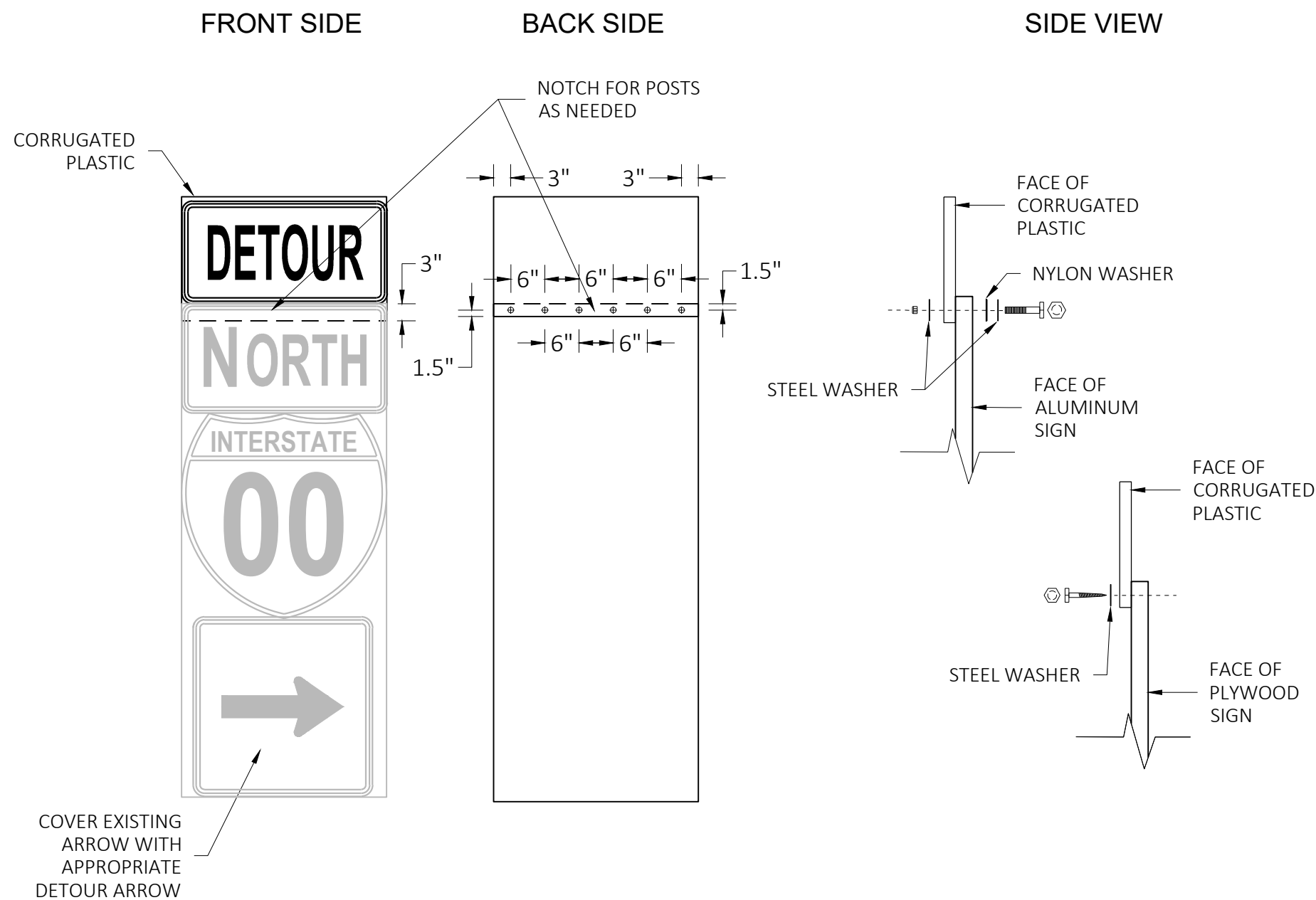
⊙ SIGN ON PERMANENT SUPPORT

GENERAL NOTES

- THE EXACT NUMBER, LOCATION AND SPACING OF ALL SIGNS SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.
- THE SPACING BETWEEN SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND TO PROVIDE A 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.
- ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.
- "WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.
- WIDTH ON SIGN TO BE APPROXIMATELY ONE FOOT LESS THAN AVAILABLE WIDTH.
- * PLACE 500 FEET AFTER THE W20 - 1A AND 500 FEET BEFORE ADDITIONAL SIGNS FOR ROADWAYS WITH A PRE - CONSTRUCTION SPEED LIMIT OF 45 MPH OR MORE. FOR 35-40 MPH, USE 350 FOOT TYPICAL SPACING. FOR 25-30 MPH, USE 200 FOOT TYPICAL SPACING.
 - ** SIGN SHALL BE VISIBLE FROM ROADWAY.
 - *** ADDITIONAL SIGNS NEEDED IF THERE IS AN ON RAMP BETWEEN SIGNS.



ADVANCED WIDTH RESTRICTION SIGNING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2023 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 119
FHWA	



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

120

FHWA

GENERAL NOTES

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

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




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

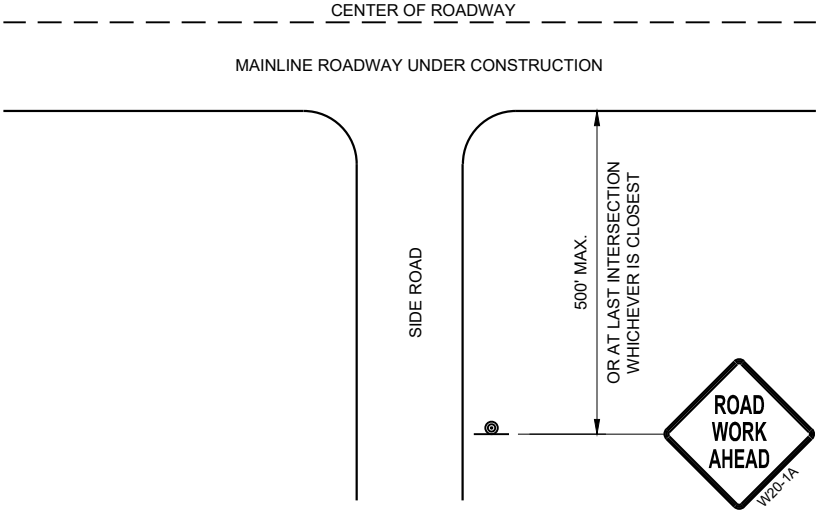
SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

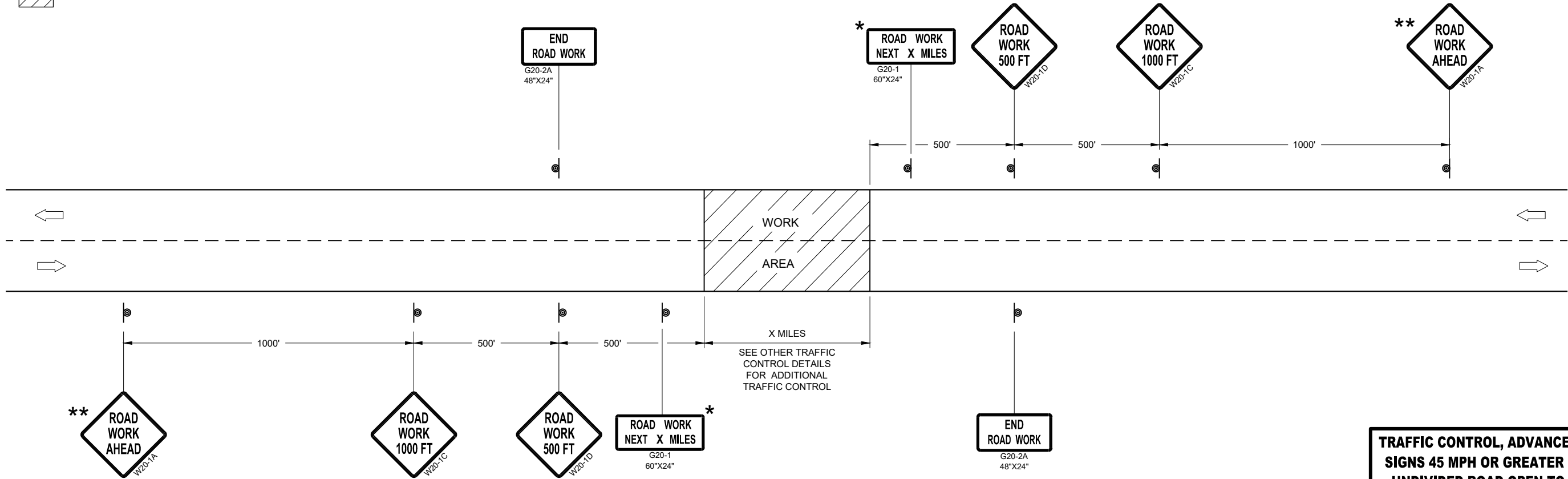
- * OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS
- ** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.

LEGEND

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



TYPICAL SIDE ROAD APPROACH
WARNING SIGN DETAIL

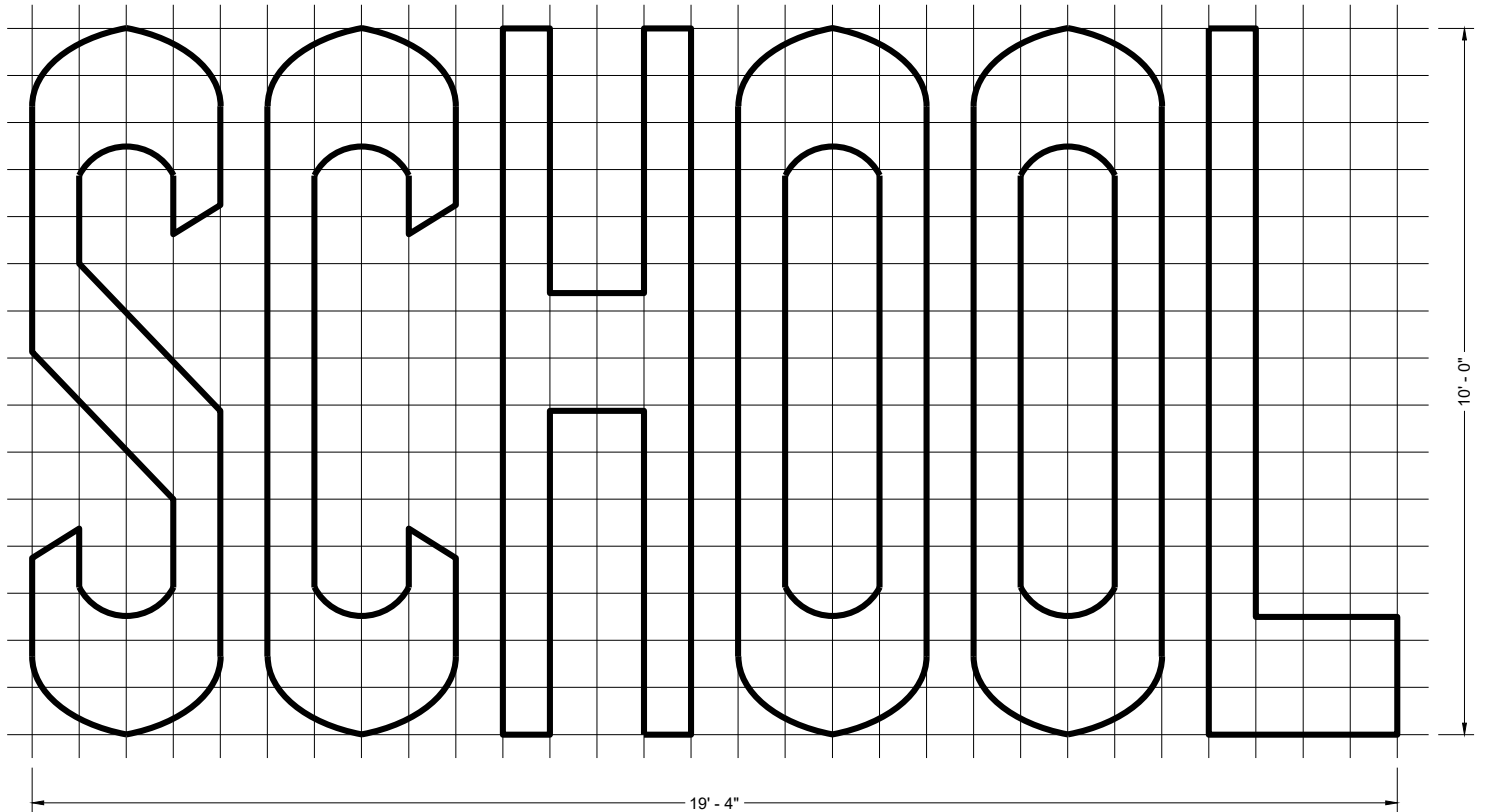
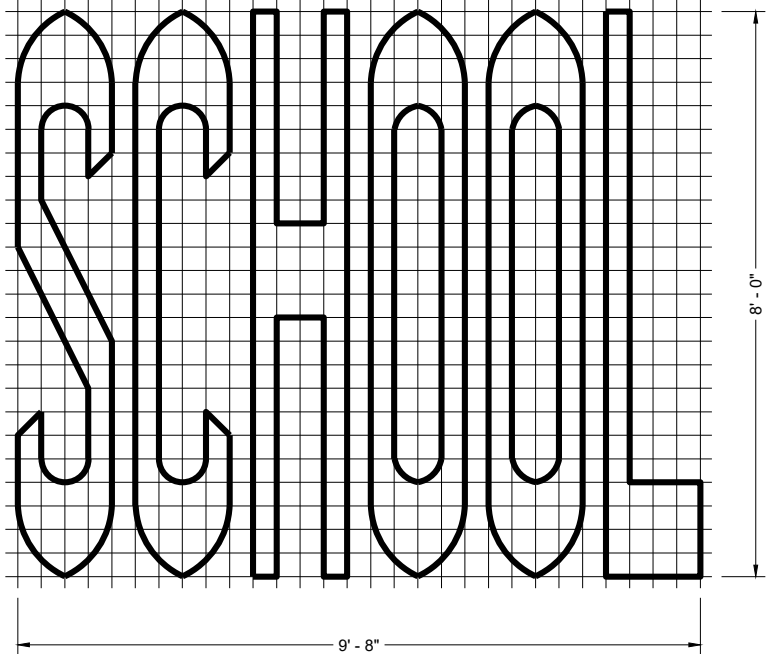
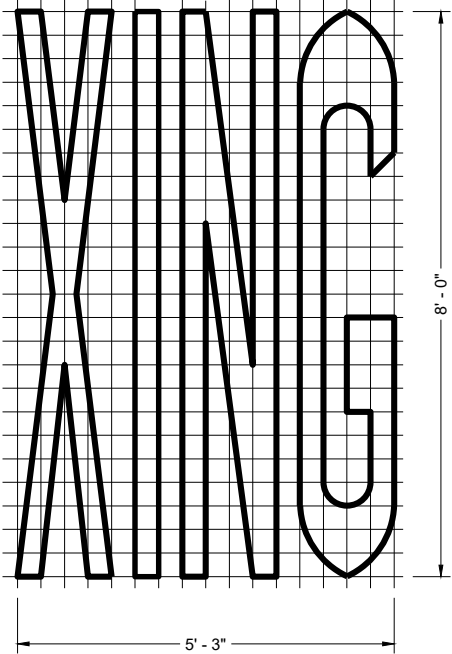
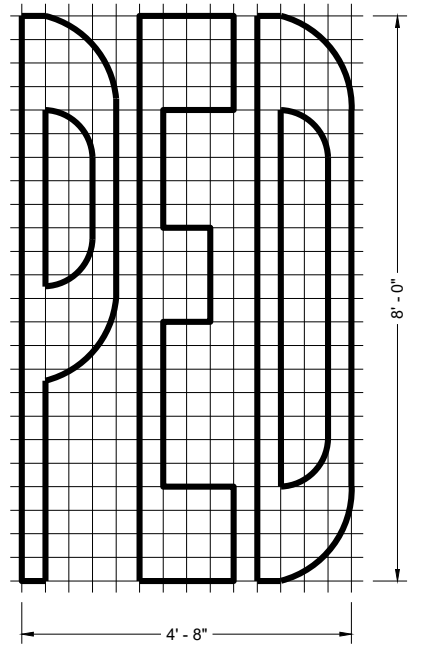
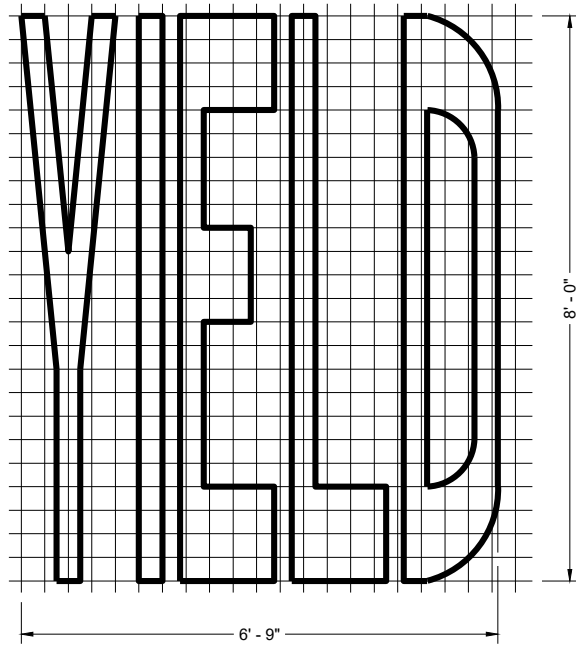
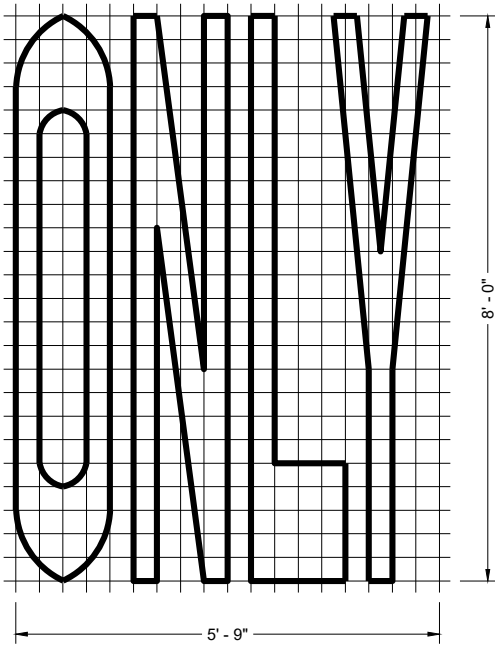
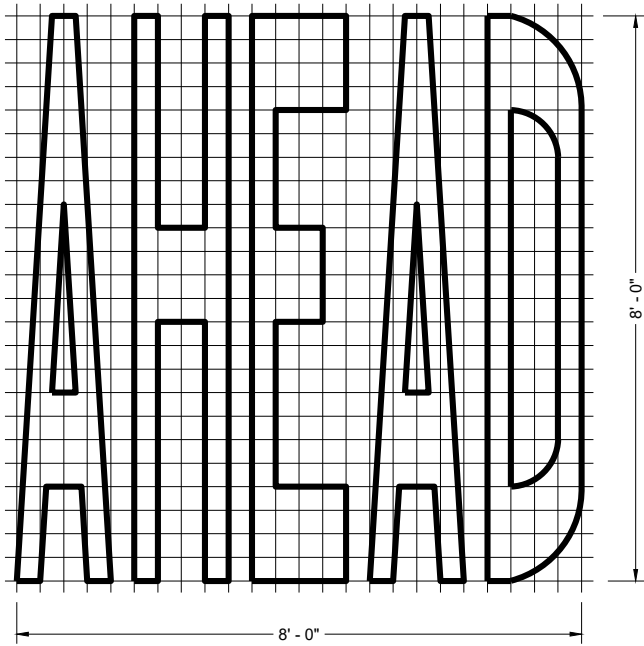
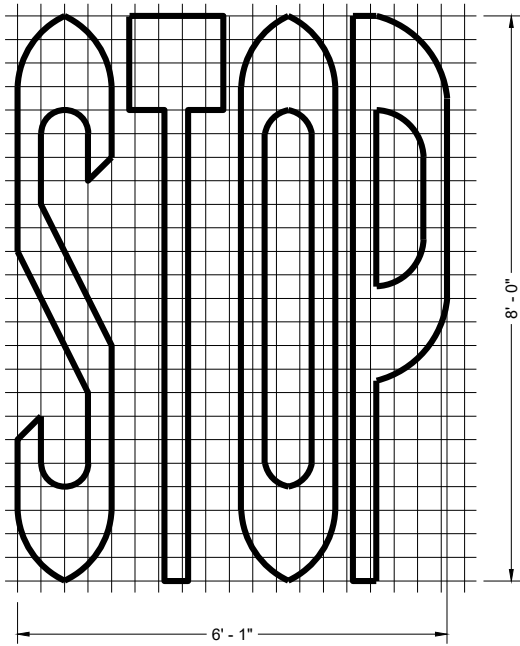


TRAFFIC CONTROL, ADVANCE WARNING SIGNS 45MPH OR GREATER

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 121
FHWA



SINGLE LANE

TWO - LANE

GENERAL NOTES

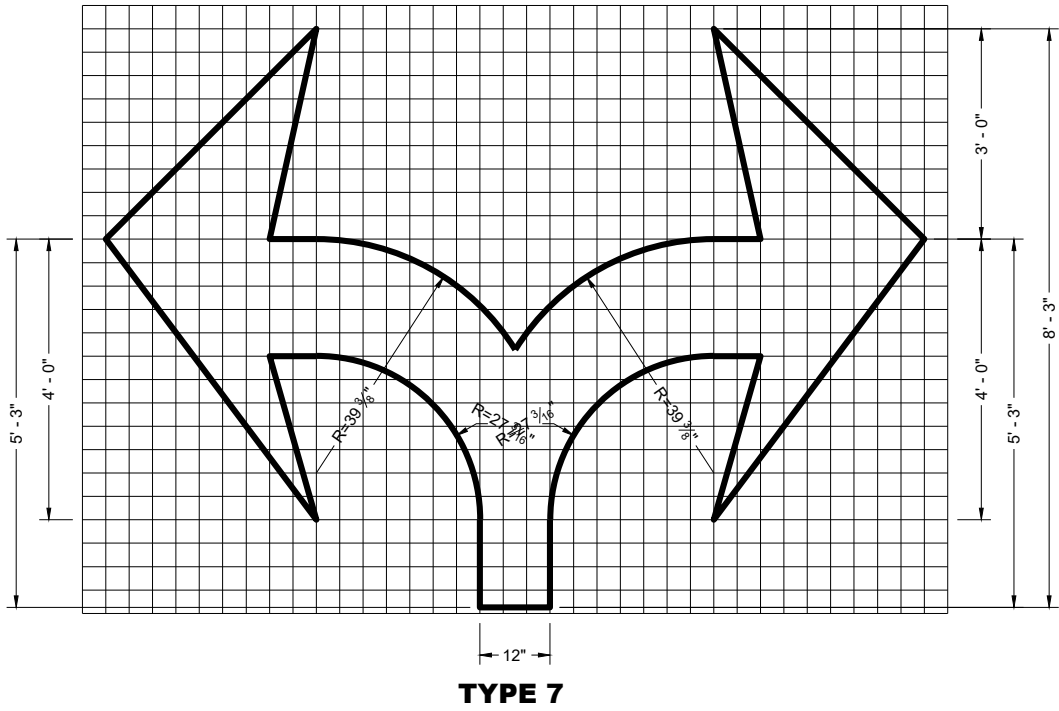
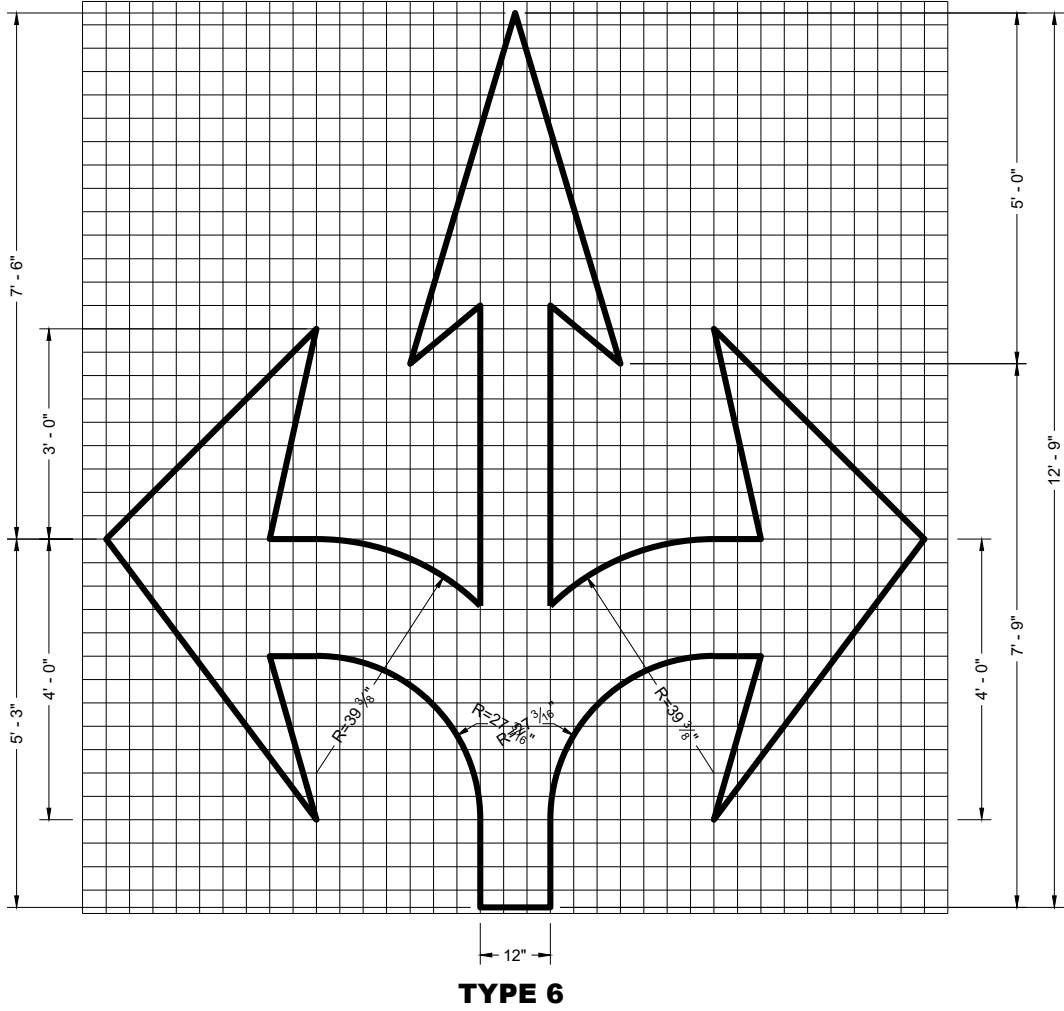
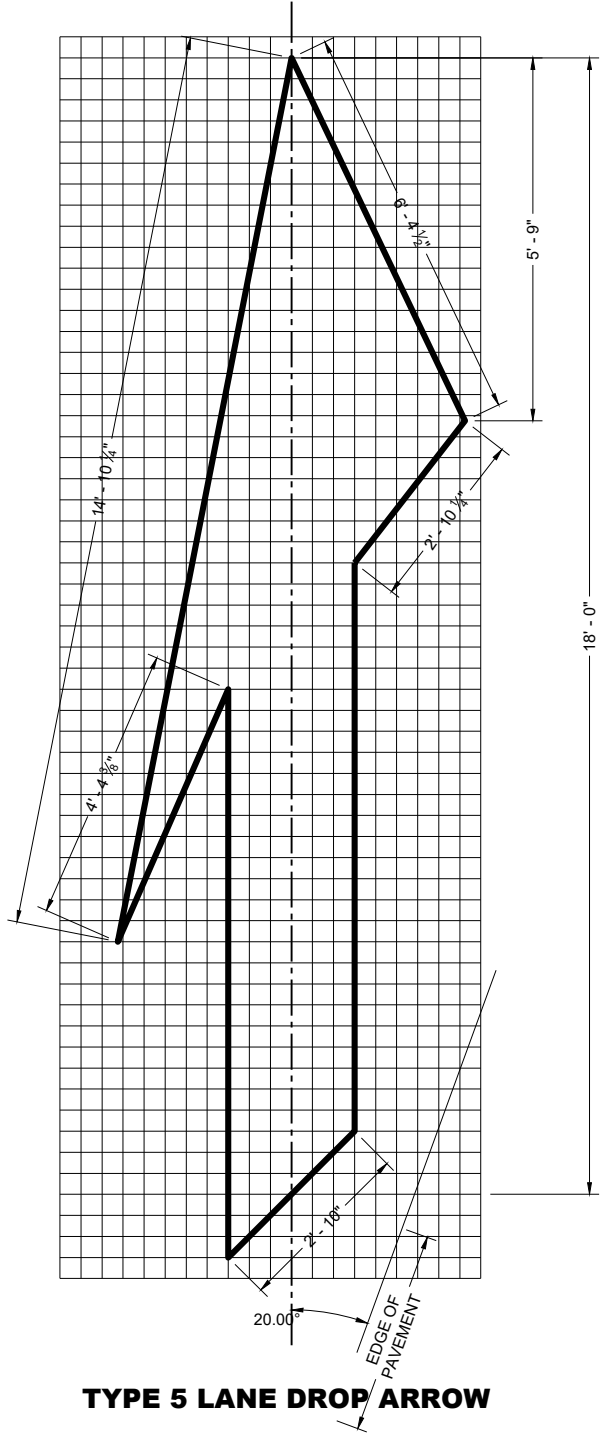
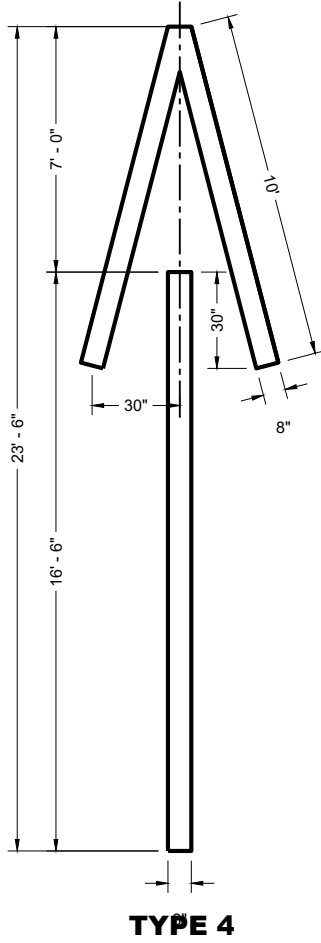
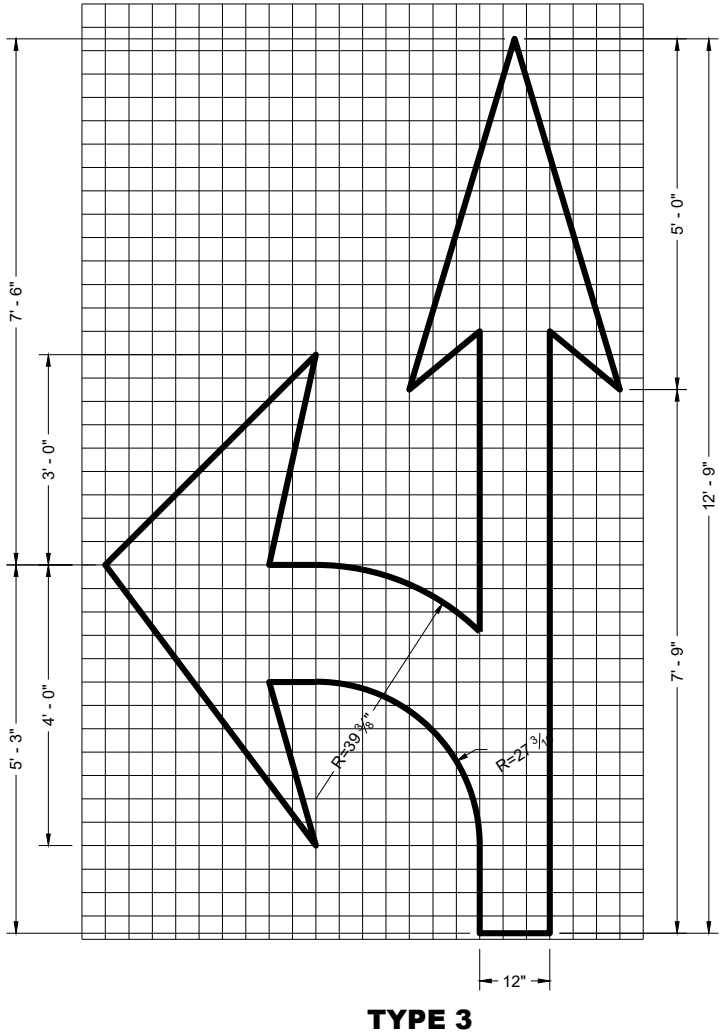
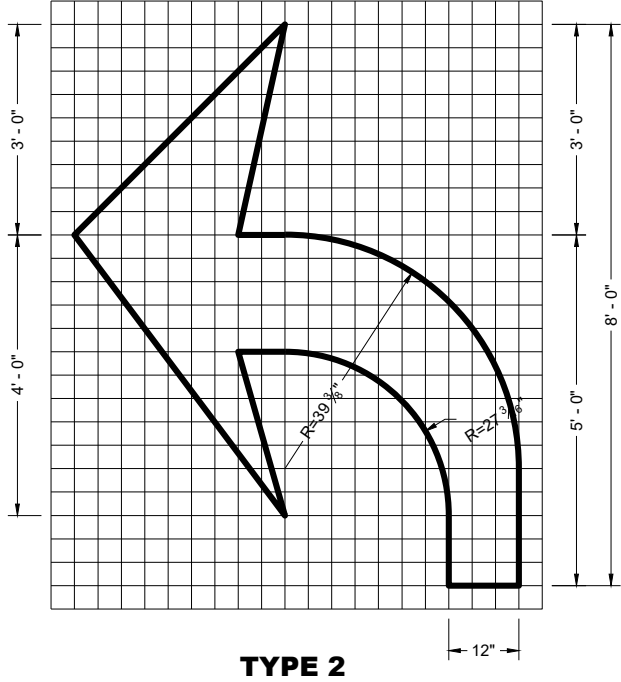
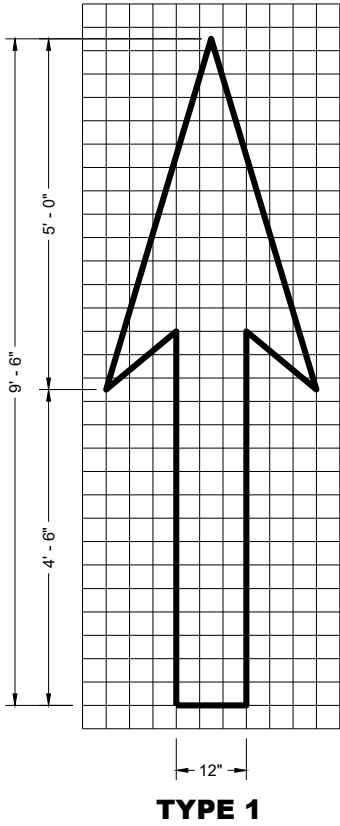
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 /S/ Jeannie Silver
DATE STATE SIGNING AND MARKING ENGINEER

FHWA



GENERAL NOTES

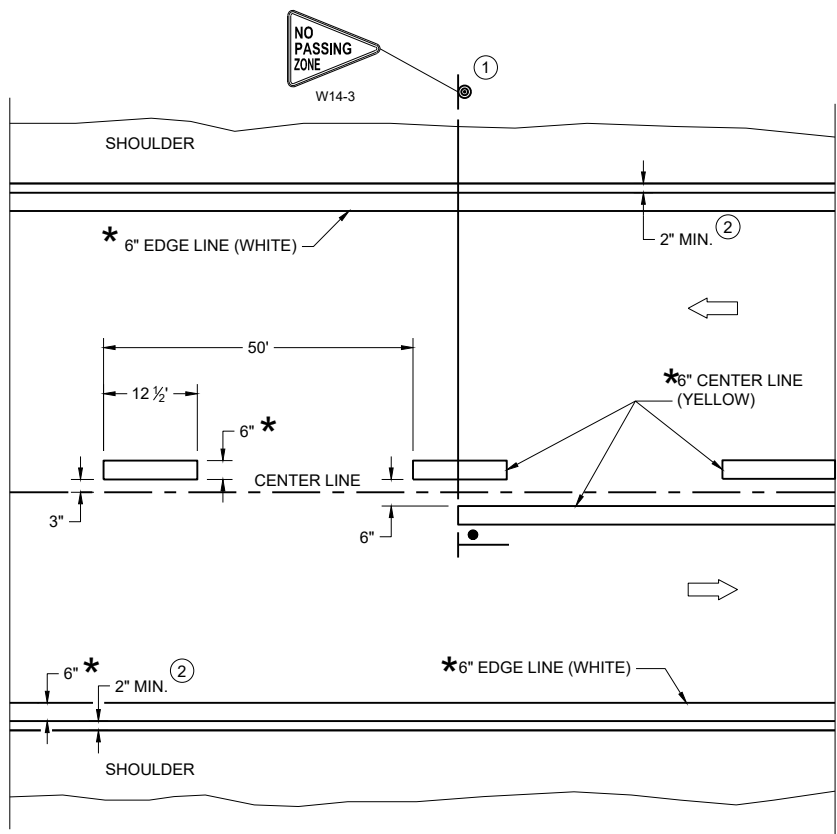
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PAVEMENT MARKING ARROWS

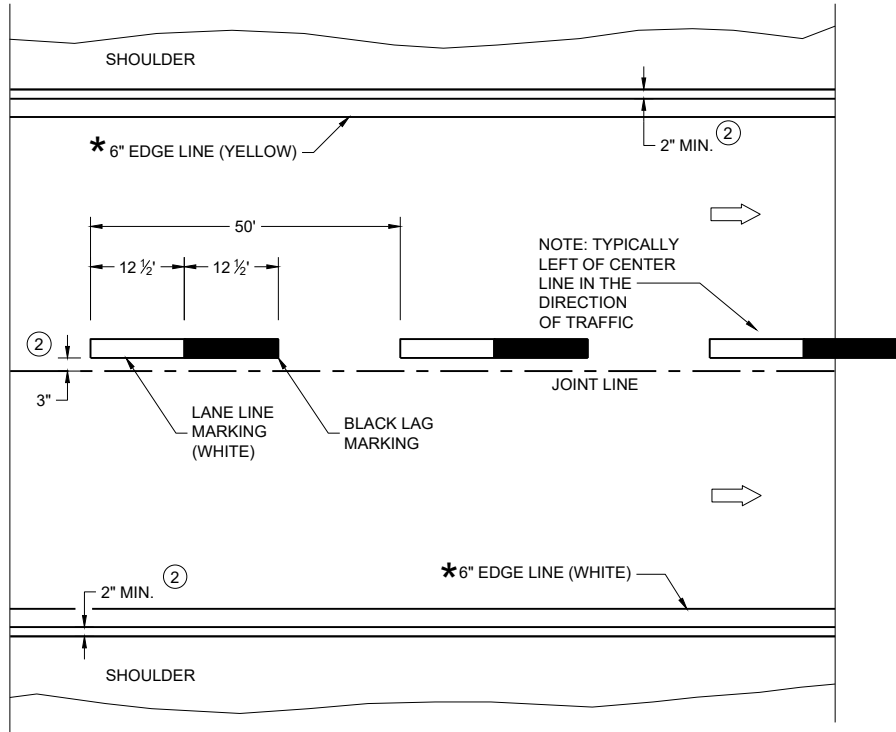
STATE OF WISCONSIN
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APPROVED
November 2024 /S/ Jeannie Silver
DATE STATE SIGNING AND MARKING ENGINEER

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TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

GENERAL NOTES

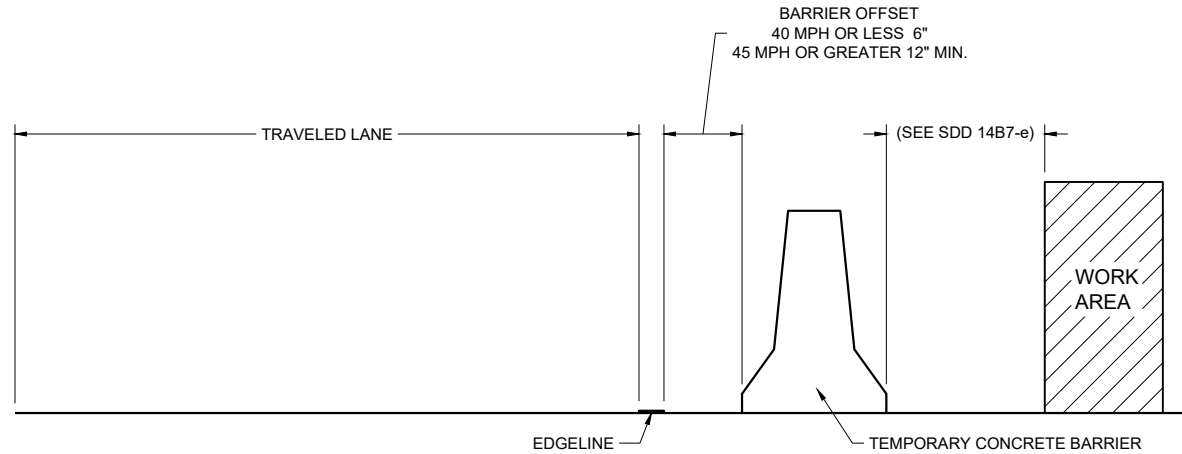
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

- 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

PERMANENT LONGITUDINAL PAVEMENT MARKINGS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA 124	



TEMPORARY BARRIER OFFSET FROM EDGE LINE

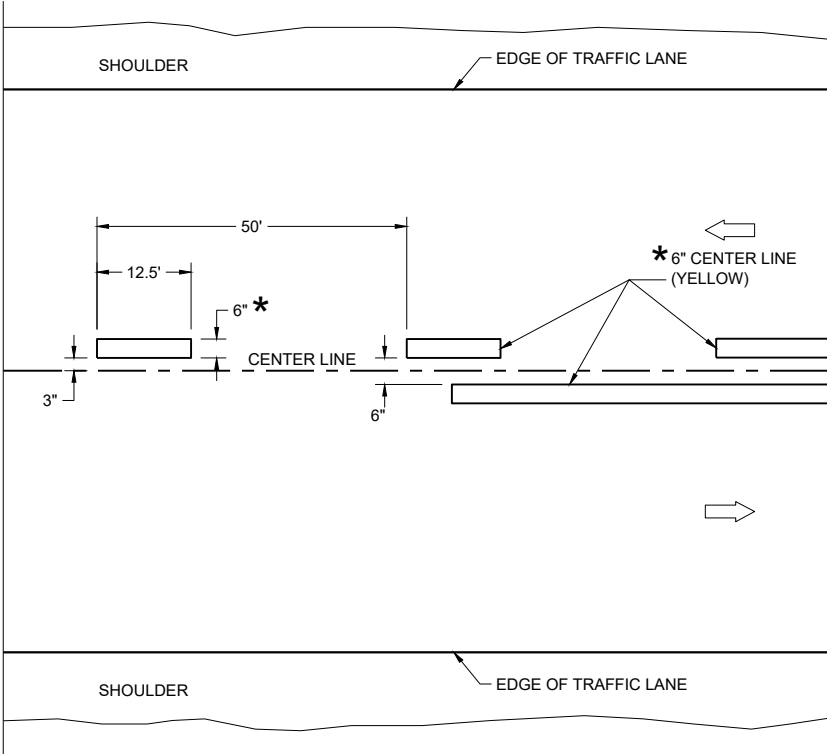
GENERAL NOTES

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

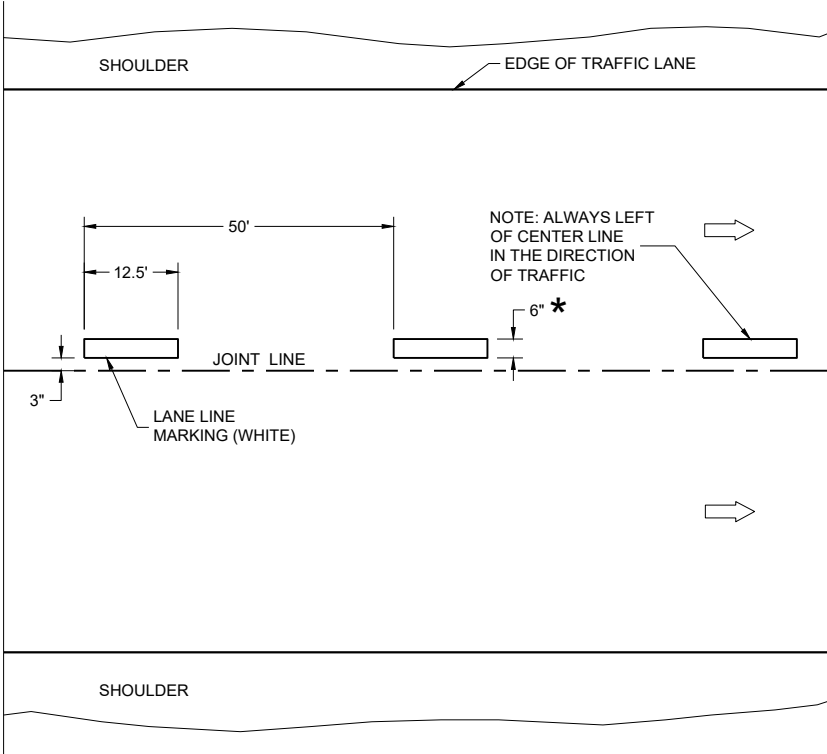
LEGEND

DIRECTION OF TRAFFIC

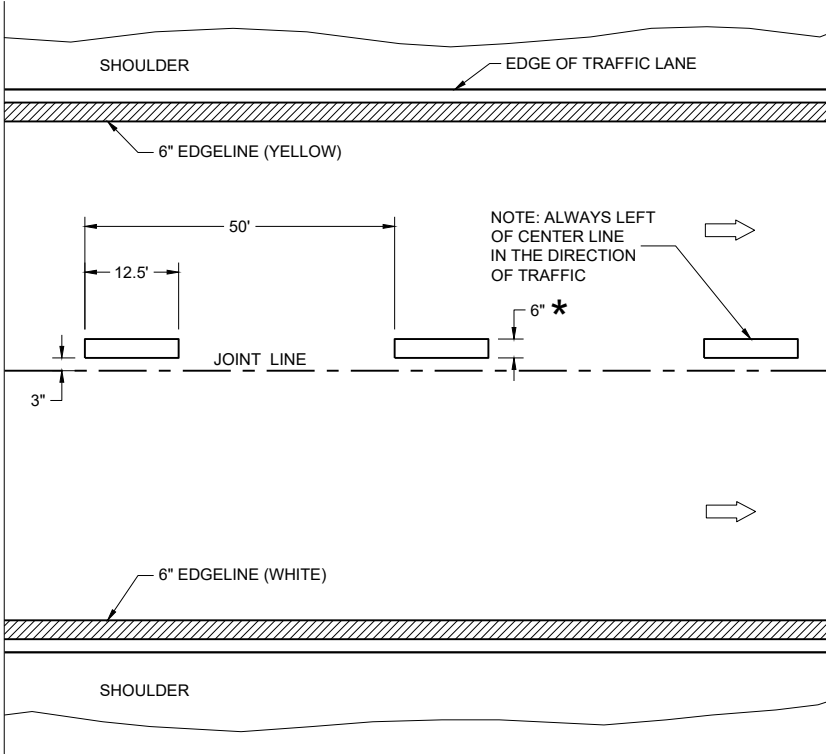
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



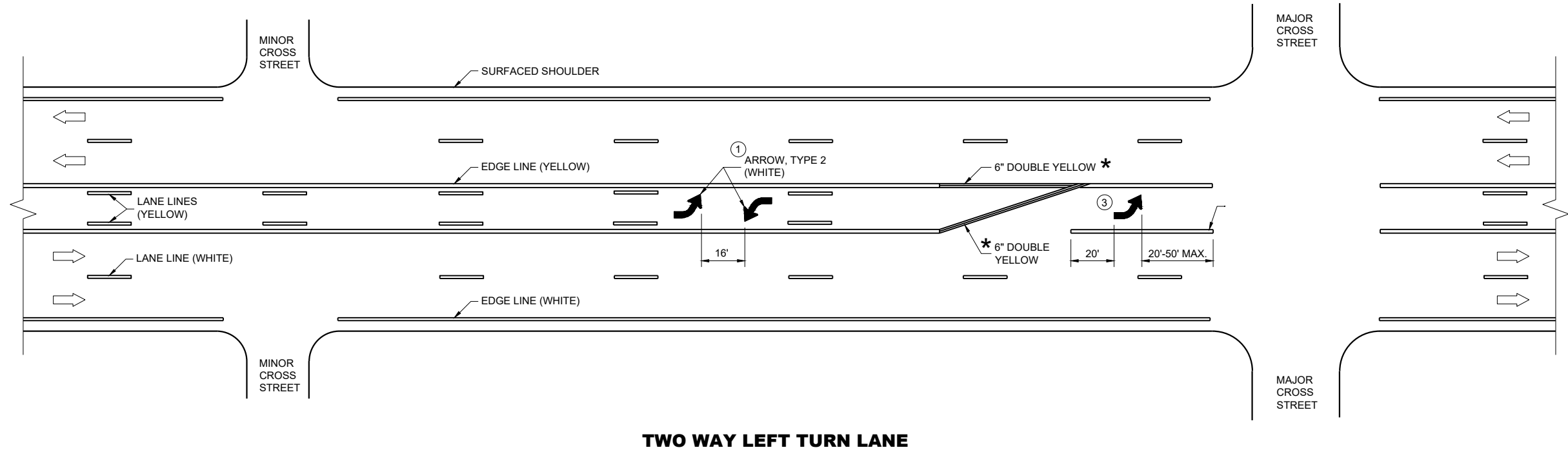
ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED December 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	125



GENERAL NOTES

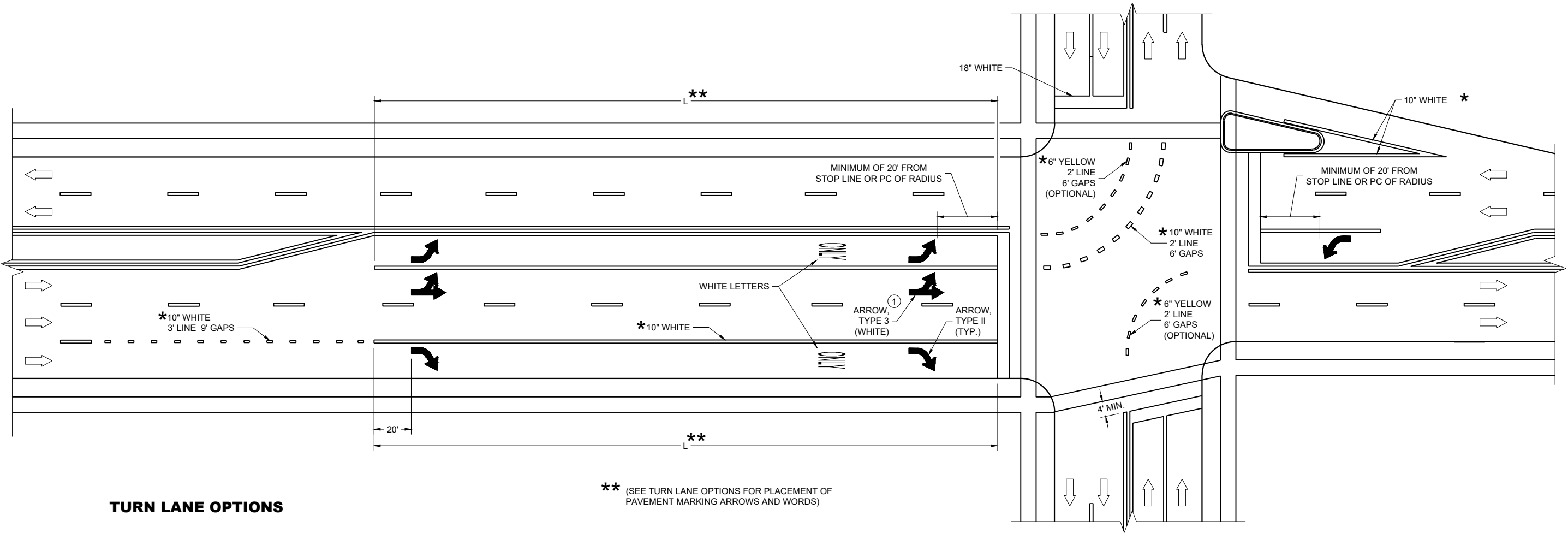
- ① A SET OF ARROWS IS REQUIRED EVERY 400 FEET OR NEAR INTERSECTIONS OR DRIVEWAYS WITH TURNING TRAFFIC.
- ② 10" WHITE
- ③ TURN BAY LENGTH OF LESS THAN 48' DOES NOT REQUIRE PAVEMENT ARROWS OR TEXT.

➡ DIRECTION OF TRAFFIC

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

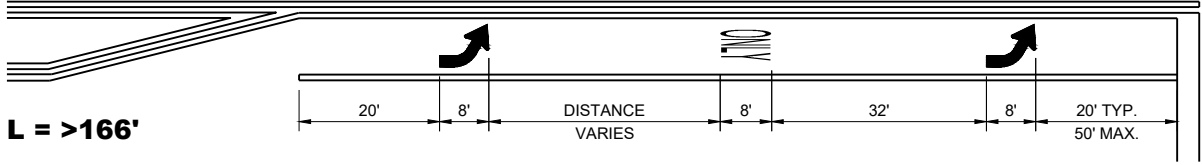
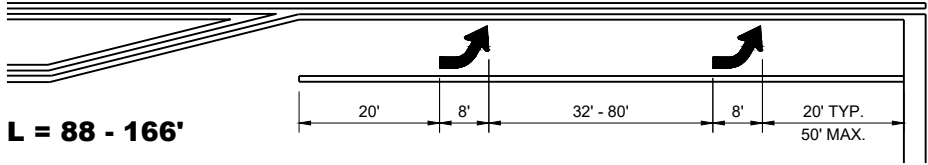
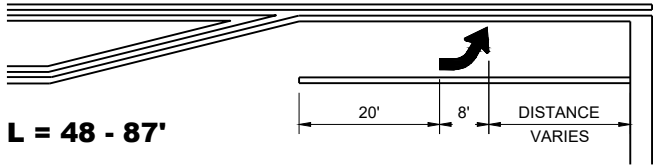
**PAVEMENT MARKING
(TURN LANES)**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



TURN LANE OPTIONS

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



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

GENERAL NOTES

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

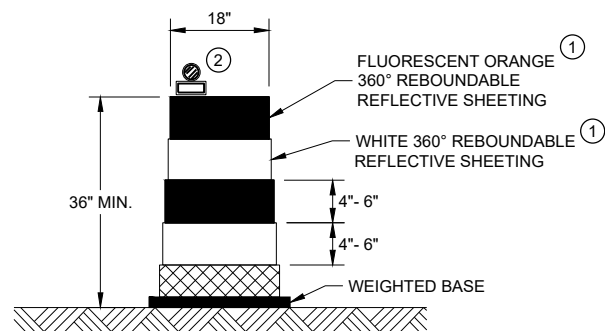
➡ DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

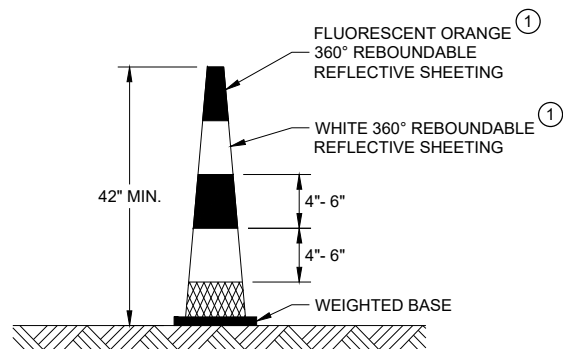
PAVEMENT MARKING
(TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



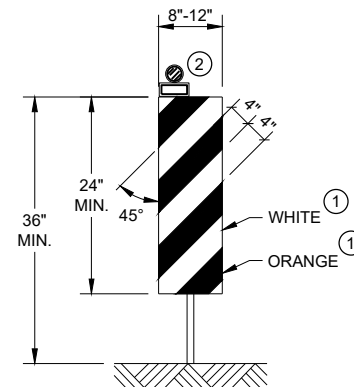
DRUM

BALLAST WIDTHS
RANGE FROM 24"-36"



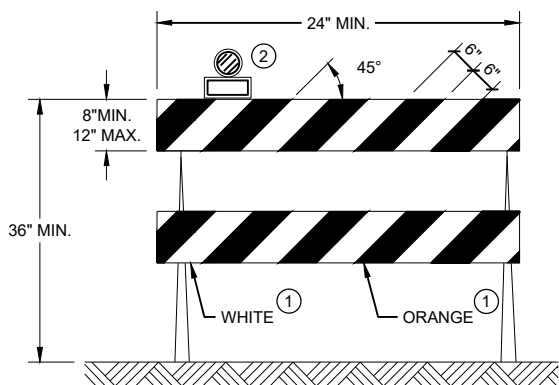
42" CONE

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



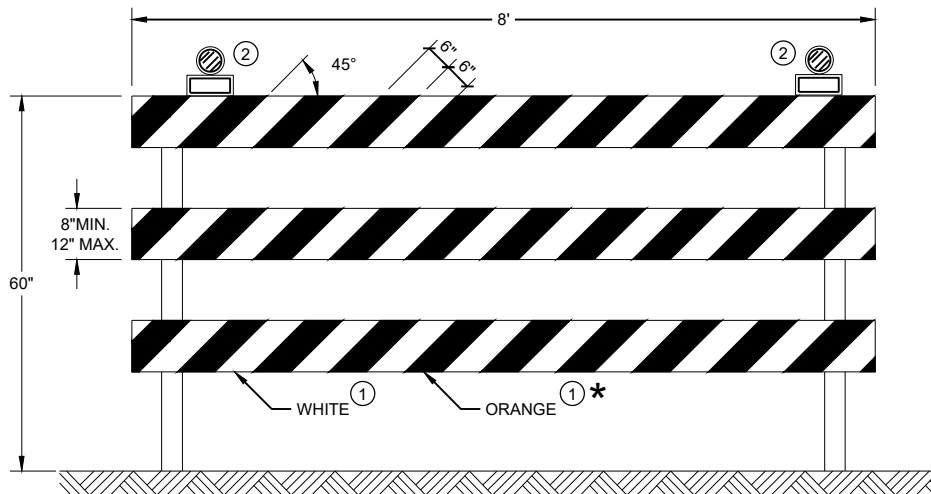
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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






* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

GENERAL NOTES

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

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2022 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER 128
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

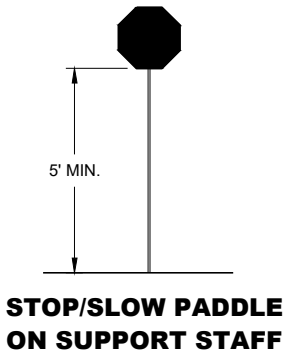
FLAGGERS SHALL BE IN SIGHT OF EACH OTHER OR IN DIRECT COMMUNICATION AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING OPERATION IS NOT IN EFFECT REMOVE TEMPORARY PORTABLE RUMBLE STRIPS PRIOR TO COVERING OR REMOVING ALL ADVANCE SIGNING.

- 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.

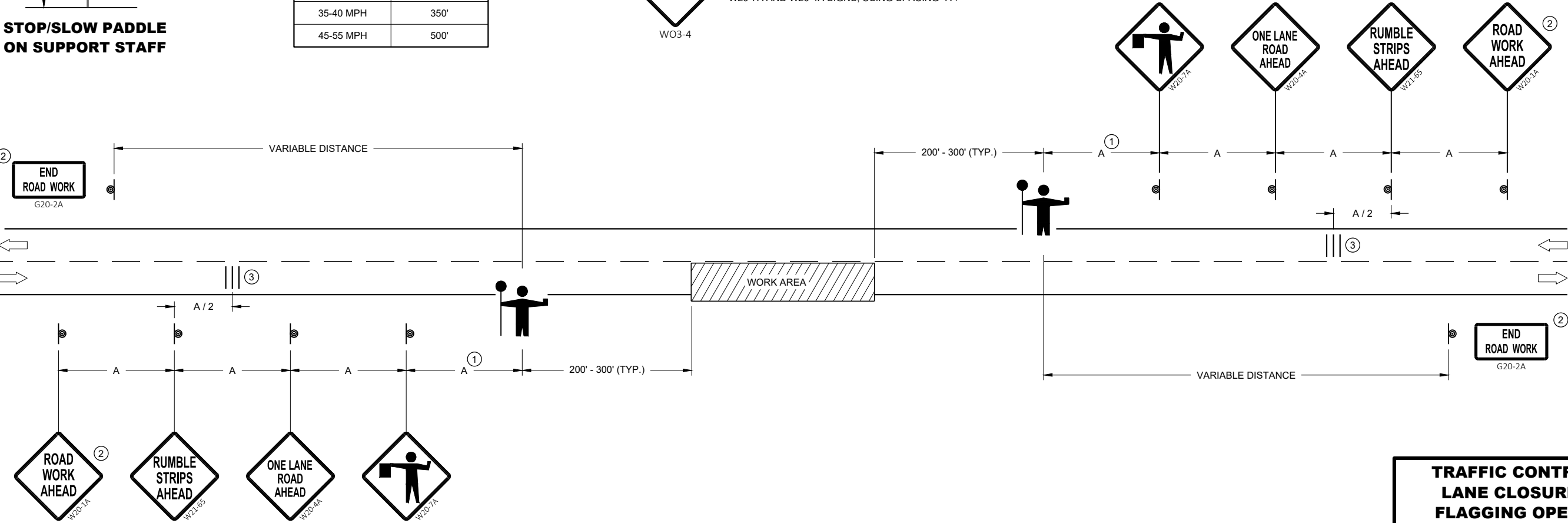


SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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



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










**TRAFFIC CONTROL FOR
LANE CLOSURE WITH
FLAGGING OPERATION**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 129

FHWA

GENERAL NOTES

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL CONE 42-INCH
-  TRAFFIC CONTROL DRUM
-  TEMPORARY PORTABLE RUMBLE STRIP ARRAY
-  DIRECTION OF TRAFFIC
-  WORK AREA
-  AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD)

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

IF THE AUTOMATED FLAGGER ASSISTANCE DEVICE (AFAD) STOPS WORKING, 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.

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.

- ① SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.
- ② IF FLAGGERS ARE PHYSICALLY NEEDED TO FLAG, REPLACE WO3-4 SIGNS WITH W20-7A SIGNS.

TEMPORARY PORTABLE RUMBLE STRIPS

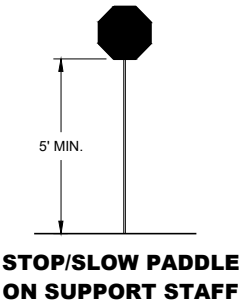
UTILIZE TEMPORARY PORTABLE RUMBLE STRIPS ON ALL FLAGGING OPERATIONS.

ONLY USE TEMPORARY PORTABLE RUMBLE STRIPS FROM THE APPROVED PRODUCTS LIST.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

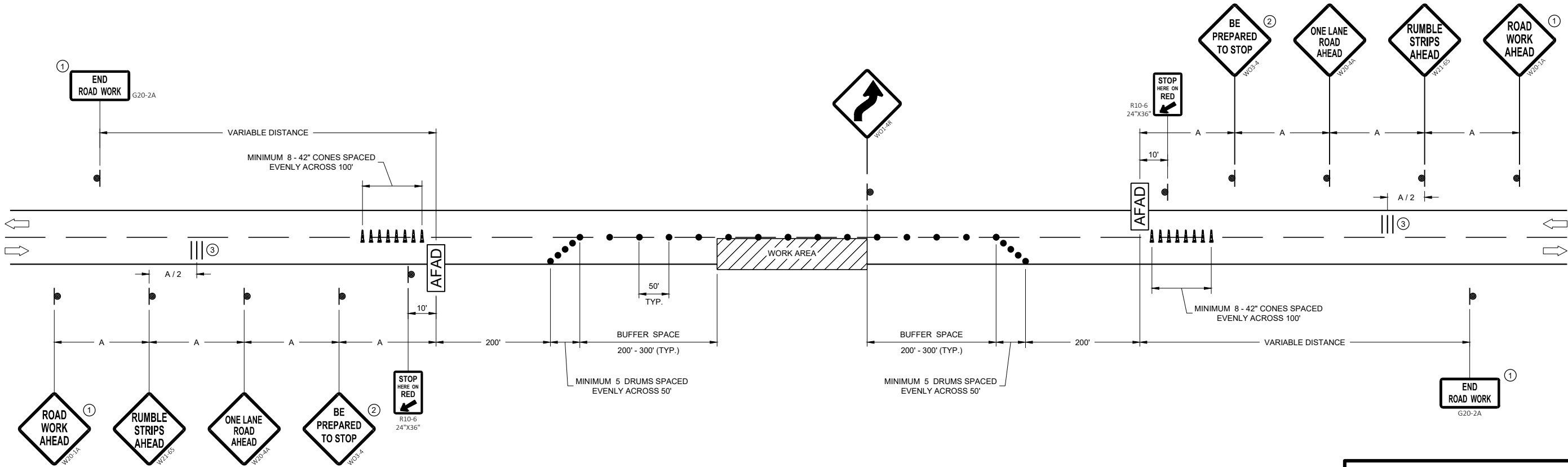
DO NOT INSTALL TEMPORARY PORTABLE RUMBLE STRIPS ON GRAVEL, MILLED SURFACES, OR ASPHALT THAT HAS BEEN PAVED LESS THAN 12 HOURS.

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



SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

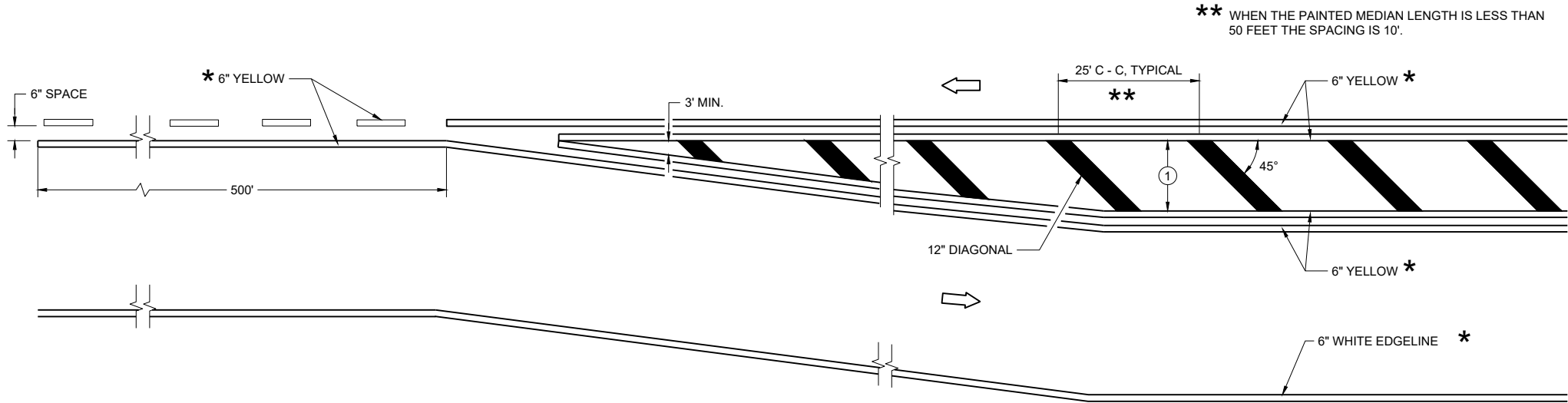
SPEED LIMIT	SPACING "A"
25-30 MPH	200'
35-40 MPH	350'
45-55 MPH	500'



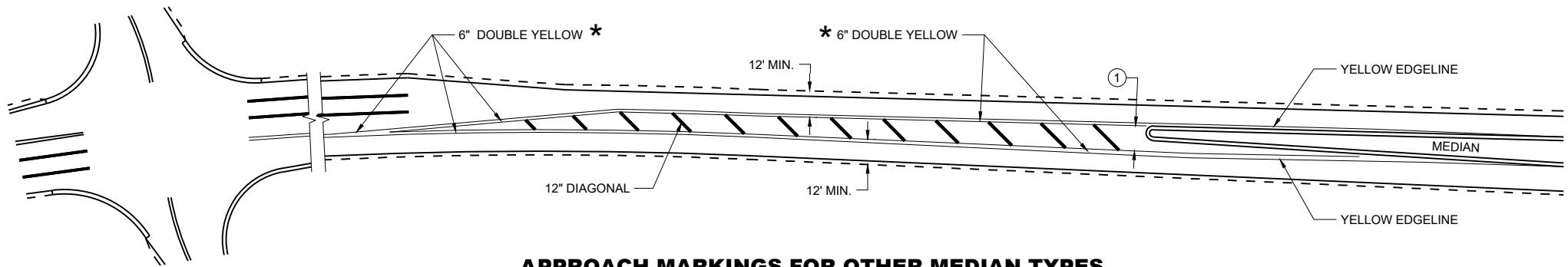
TRAFFIC CONTROL, LANE CLOSURE WITH AUTOMATED FLAGGER ASSISTANCE DEVICE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

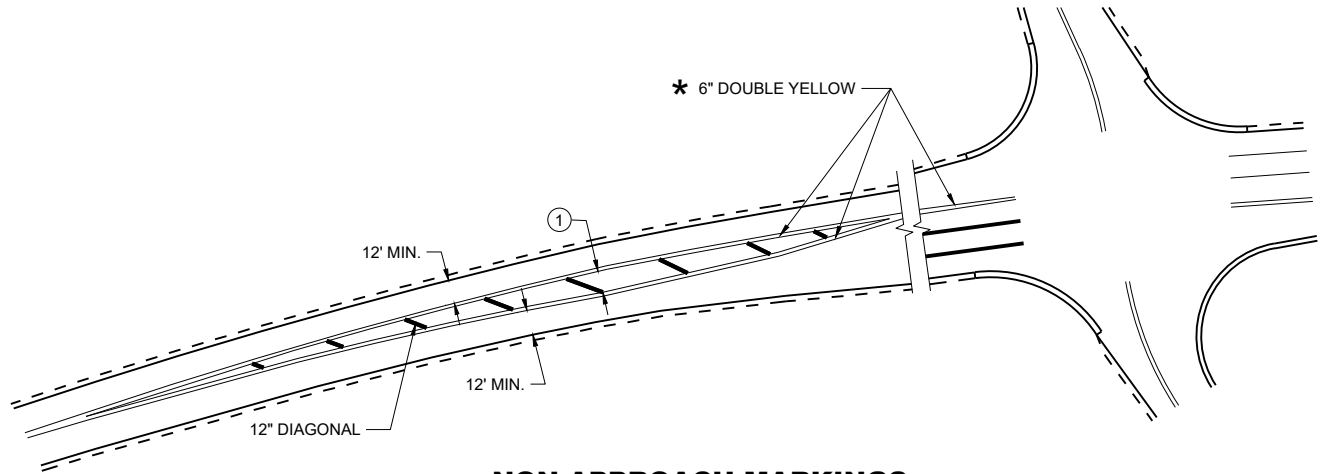
APPROVED
May 2022 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 130
FHWA



MEDIAN ISLAND DETAIL



APPROACH MARKINGS FOR OTHER MEDIAN TYPES



NON-APPROACH MARKINGS

GENERAL NOTES

- ① DIAGONALS ARE OPTIONAL WHEN PAINTED ISLAND IS LESS THAN 6 FEET AT THE WIDEST POINT. OMIT DIAGONALS IF WIDTH IS LESS THAN 4 FEET.

➡ DIRECTION OF TRAVEL

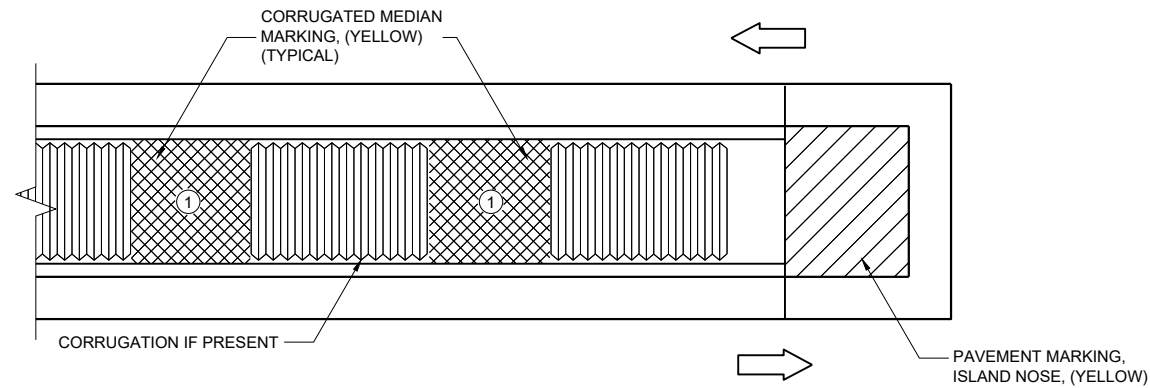
* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

**MEDIAN ISLAND
PAVEMENT MARKINGS**

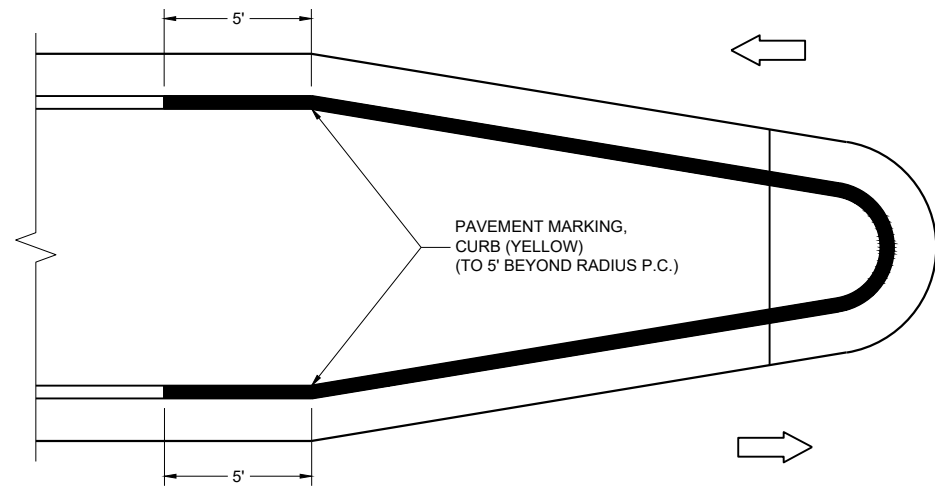
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

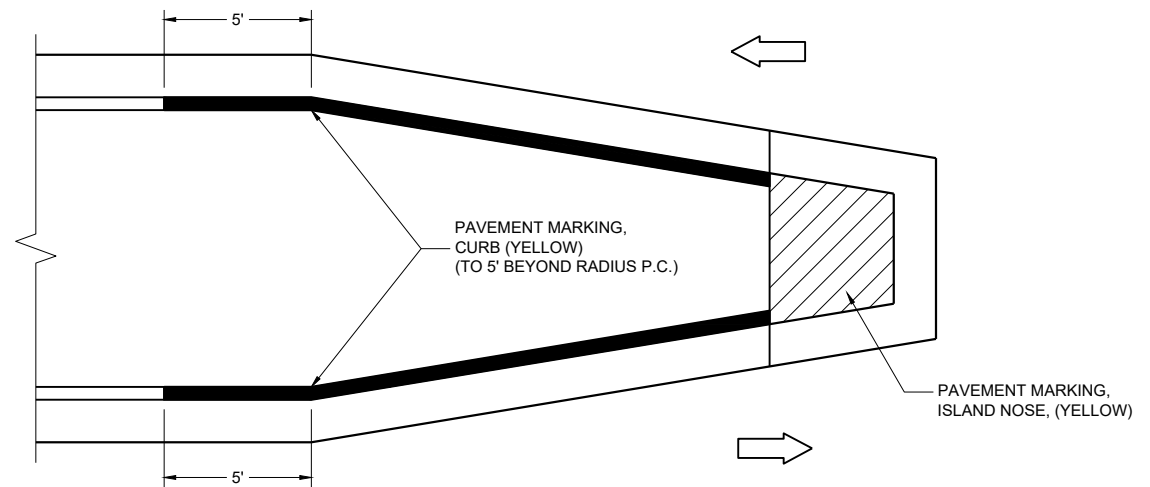
FHWA 131



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

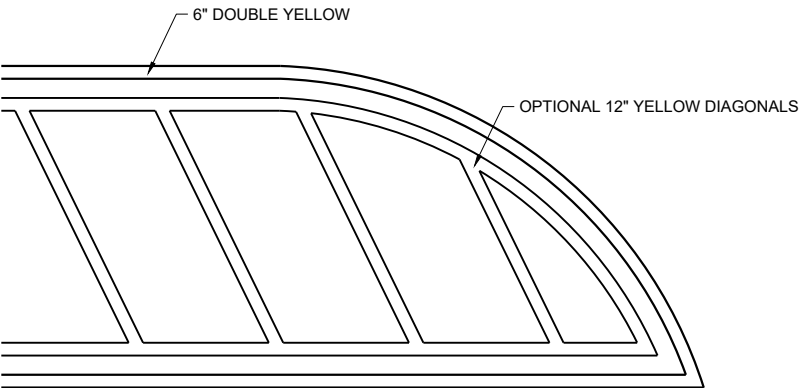
TYPICAL PLACEMENT OF
PAVEMENT MARKING ON MEDIAN ISLANDS

GENERAL NOTES

WHEN CONCRETE CORRUGATED MEDIAN IS CONSTRUCTED TO SEPARATE TRAFFIC OPERATING IN THE OPPOSING DIRECTION, YELLOW PAVEMENT MARKING SHALL BE APPLIED TO THE FLAT PORTION OF THE CONCRETE CORRUGATED MEDIAN. THE ITEM OF PAVEMENT MARKING, CONCRETE CORRUGATED MEDIAN, WILL BE MEASURED IN PLACE AND ACCEPTED IN ACCORDANCE WITH THE CONTRACT AND PAID FOR AT THE CONTRACT UNIT PRICE PER SQUARE FOOT.

① APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

- ISLAND NOSE MARKING
- CURB MARKING
- CORRUGATED MEDIAN MARKING
- DIRECTION OF TRAVEL



FLUSH MEDIAN ISLAND NOSE

PAVEMENT MARKINGS, MEDIAN ISLAND NOSE	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED August 2024 DATE	/S/ Jeannie Silver Statewide Pavement Marking Engineer
FHWA	132

LEGEND

- V1

LEAD VEHICLE
- V2

MARKING VEHICLE
- V3

SHADOW VEHICLE
- TRUCK MOUNTED ATTENUATOR (TMA)
- SIGN ON TEMPORARY SUPPORT
- DIRECTION OF TRAFFIC
- ARROW PANEL (CAUTION)

GENERAL NOTES

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

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

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

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

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

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

WORKERS SHALL NOT PERFORM WORK FROM ANY SHADOW OR PROTECTION VEHICLES.

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

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

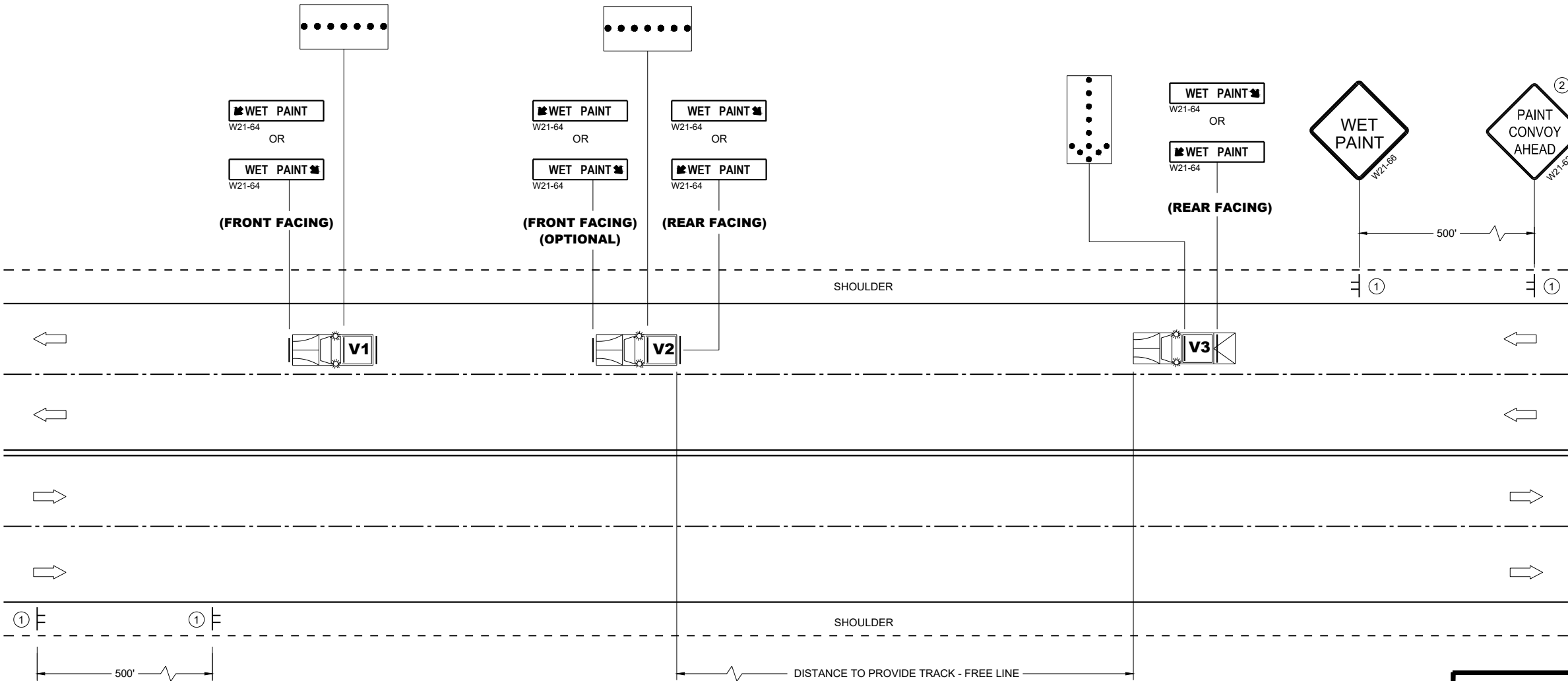
CONES SHALL HAVE A MINIMUM HEIGHT OF 28" FOR WET PAVEMENT MARKINGS.

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.

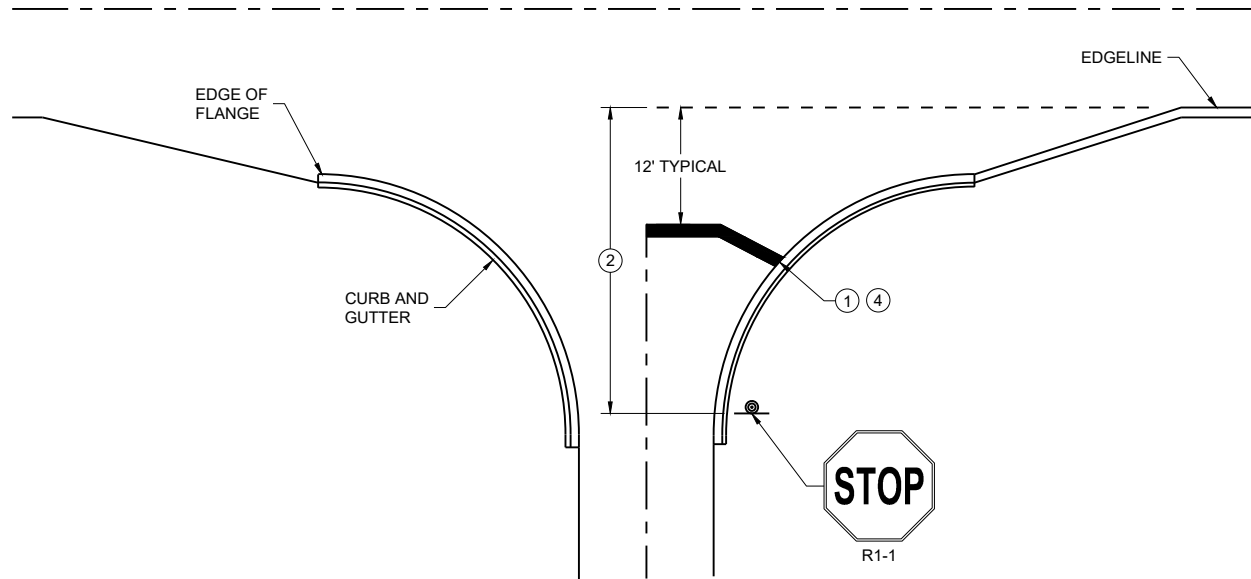


MOVING PAVEMENT MARKING OPERATIONS
MULTILANE UNDIVIDED ROADWAY

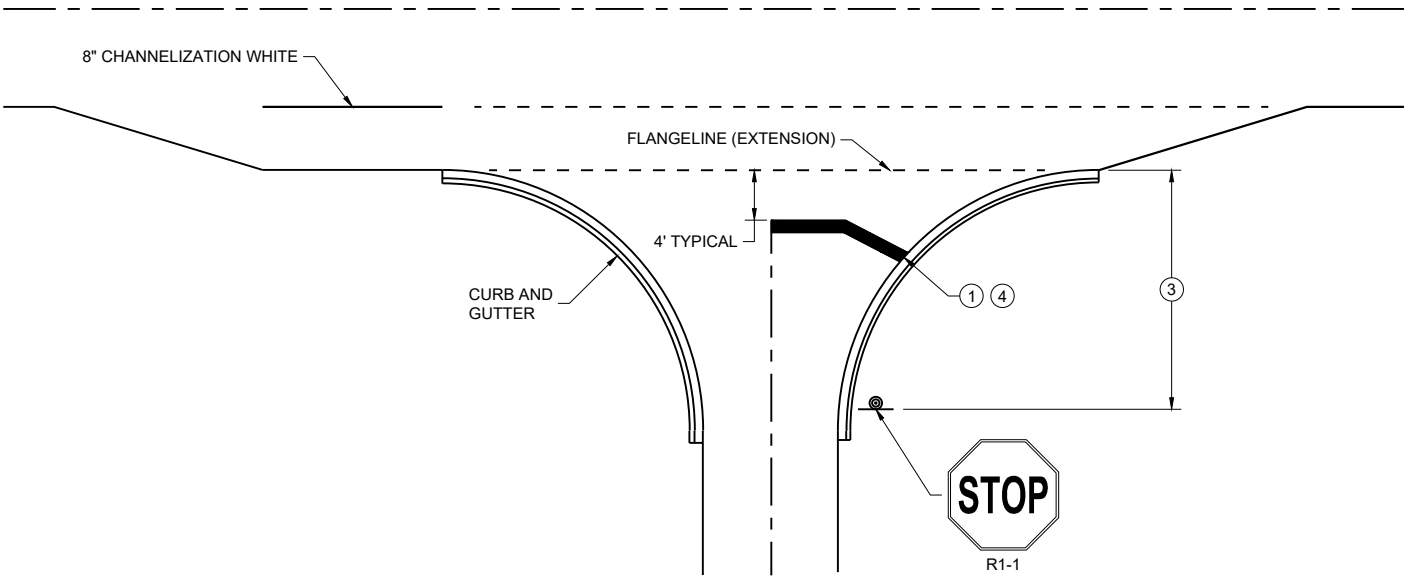
MOVING PAVEMENT MARKING
OPERATION MULTI-LANE
UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

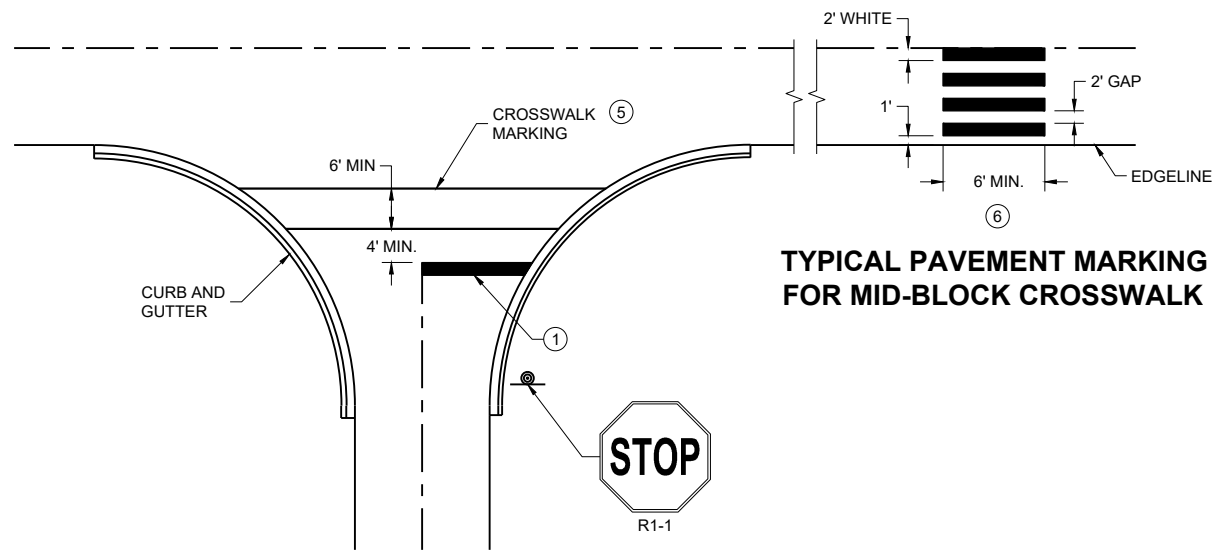
APPROVED
November 2025 /S/ Andrew Heidtke
DATE STATE ELECTRICAL ENGINEER
FHWA



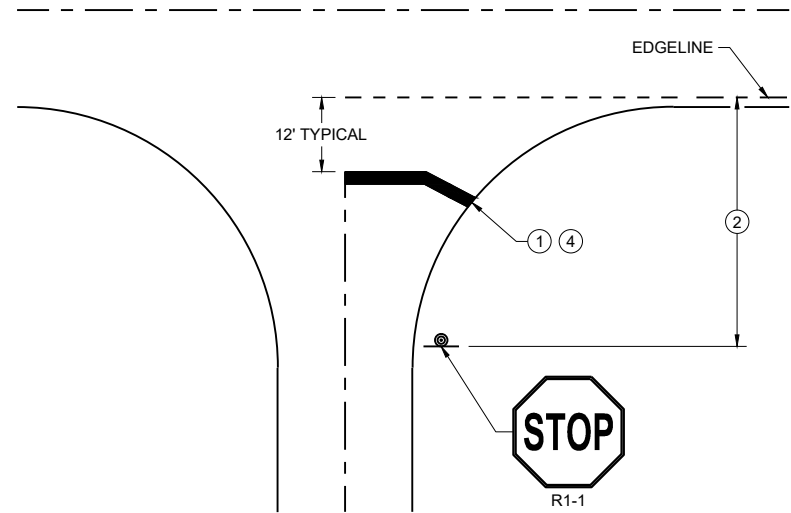
TYPICAL STOP LINE PAVEMENT MARKING
WITH CURB AND GUTTER



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



TYPICAL STOP LINE PAVEMENT MARKING FOR
SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING
WITHOUT CURB AND GUTTER

GENERAL NOTES

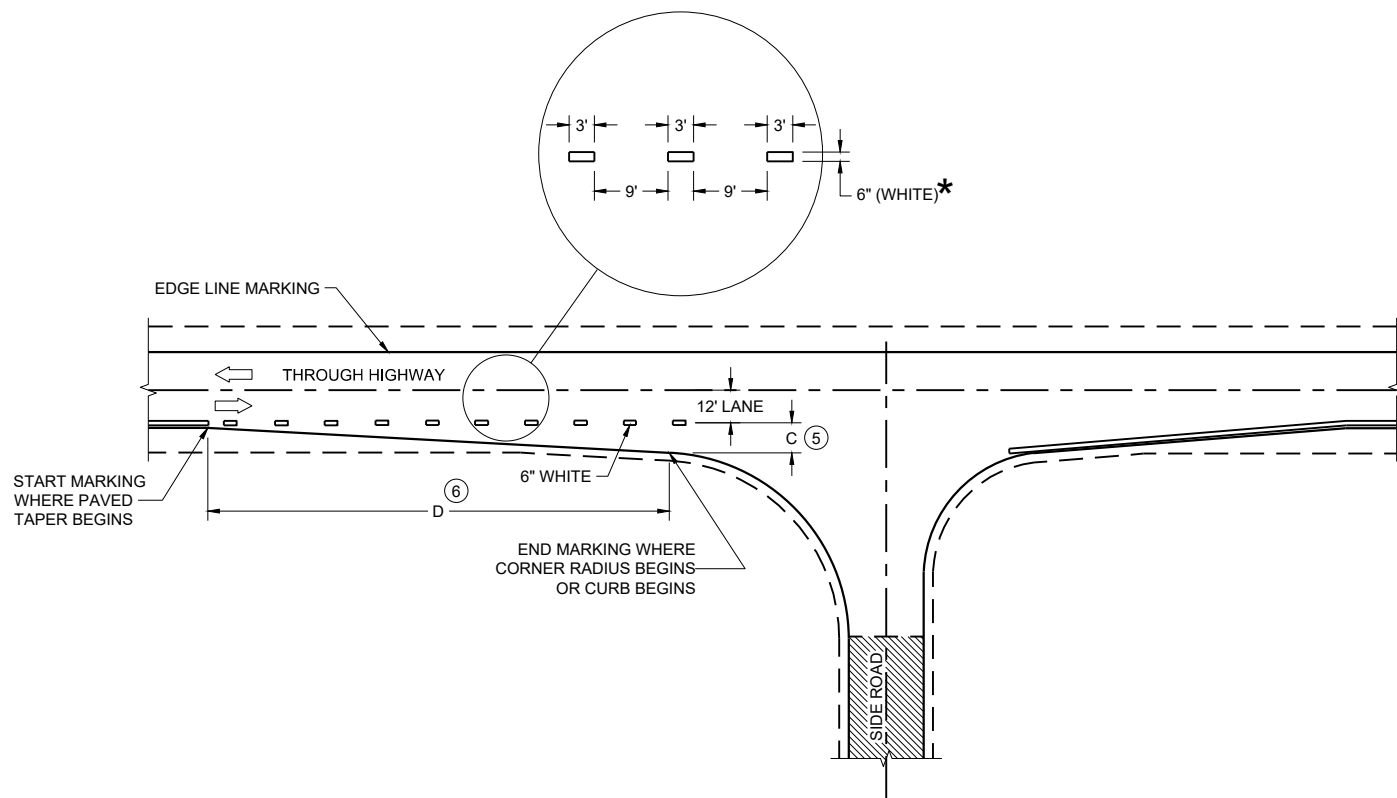
STOP SIGN SHALL BE PLACED A MINIMUM OF 6 FEET TO A MAXIMUM OF 50 FEET FROM THE EDGELINE LOCATION.

- 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

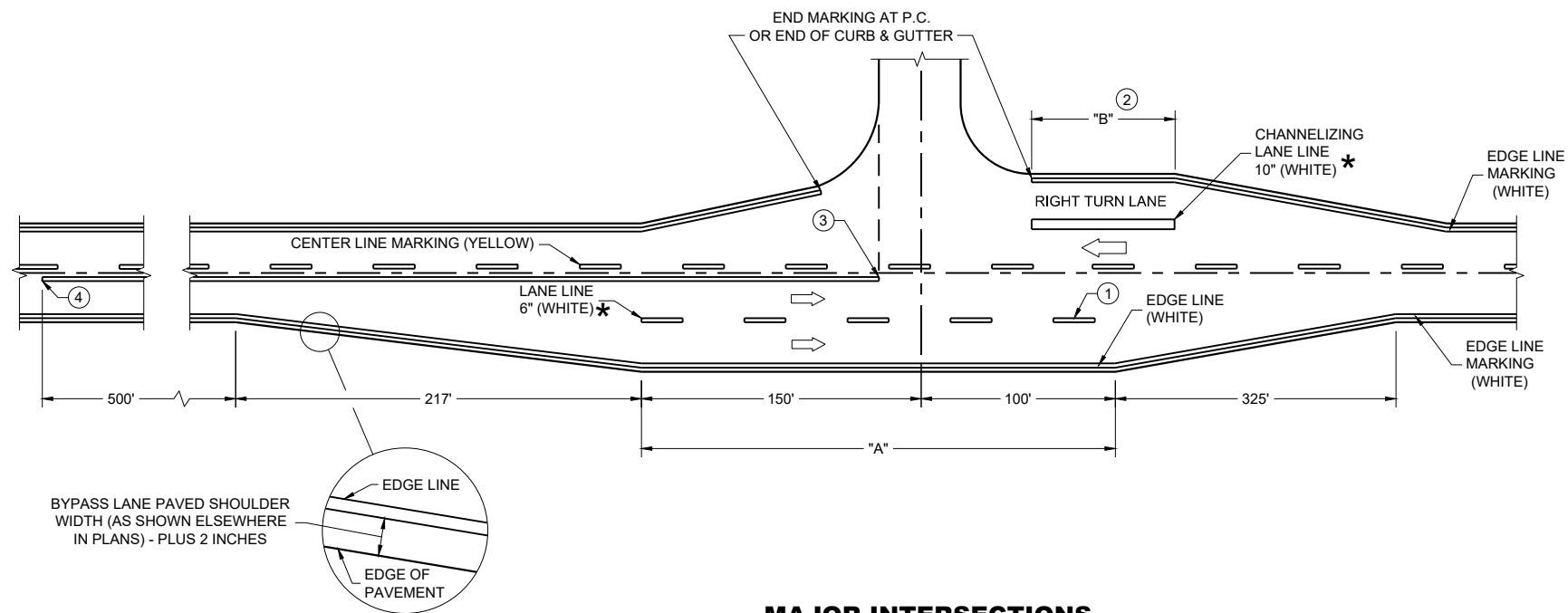
STOP LINE AND CROSSWALK
PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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



MINOR INTERSECTION



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

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

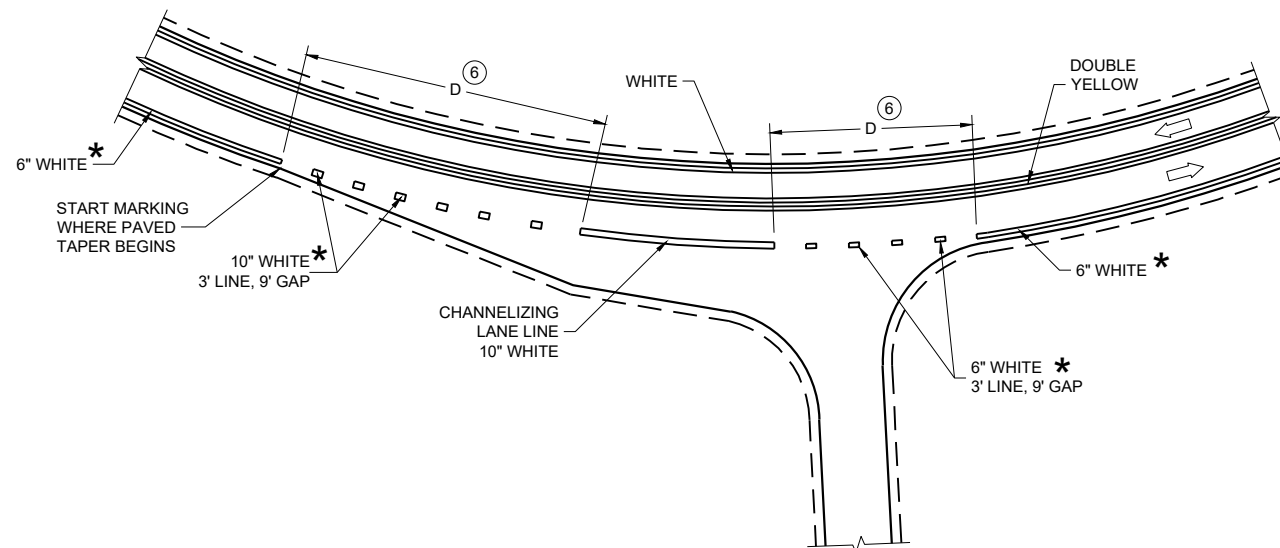
GENERAL NOTES

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

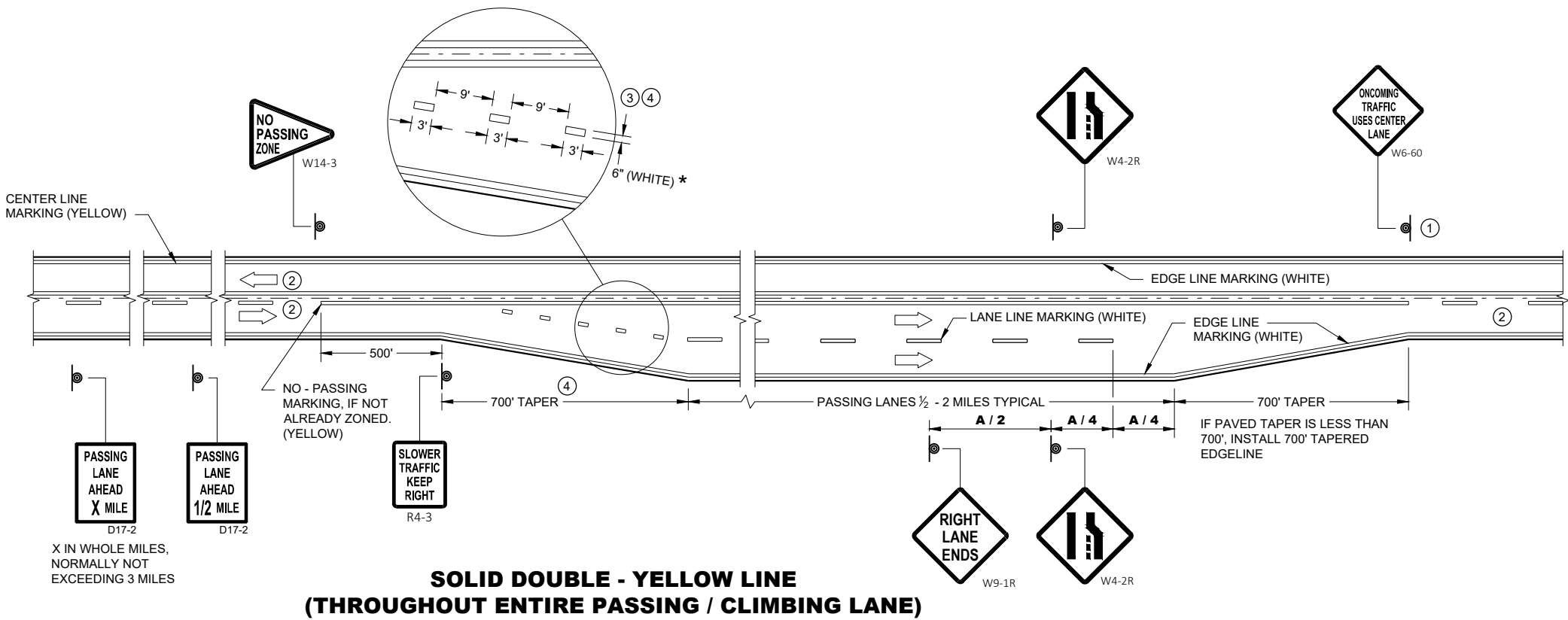
➡ DIRECTION OF TRAVEL



INTERSECTION ON OUTSIDE OF CURVE

PAVEMENT MARKING
(INTERSECTIONS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

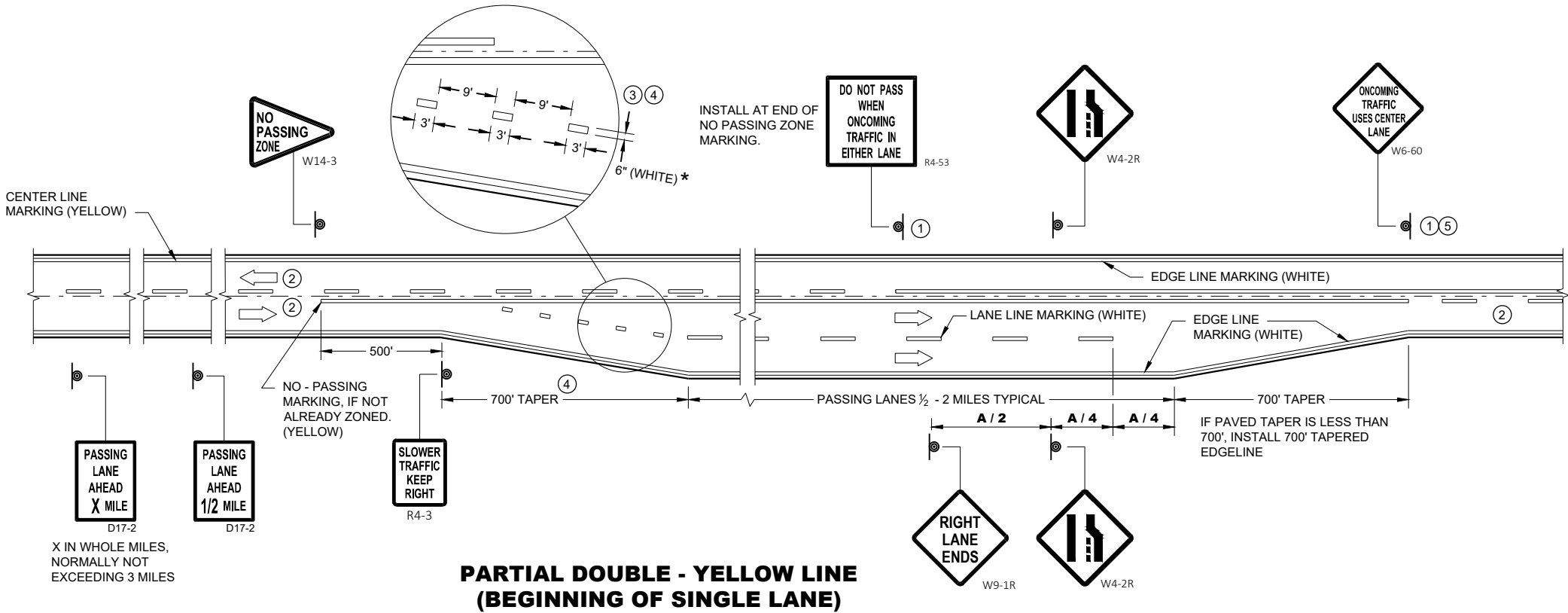
- ① SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- ② THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- ③ THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE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

ARROW SYMBOL (➡) SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

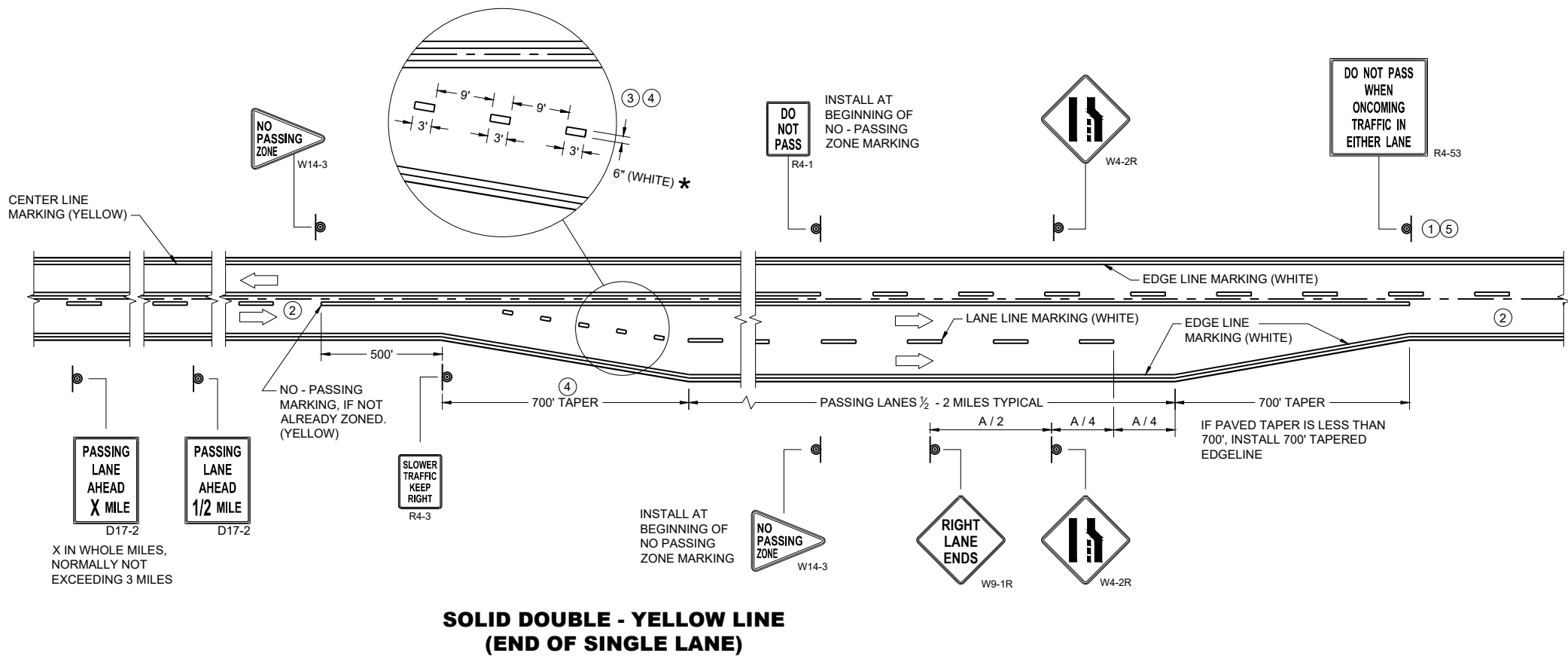
POSTED OR 85th PERCENTILE SPEED	DISTANCE "A"
45	775
50	885
55	990

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



PAVEMENT MARKING & SIGNING
(CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



GENERAL NOTES

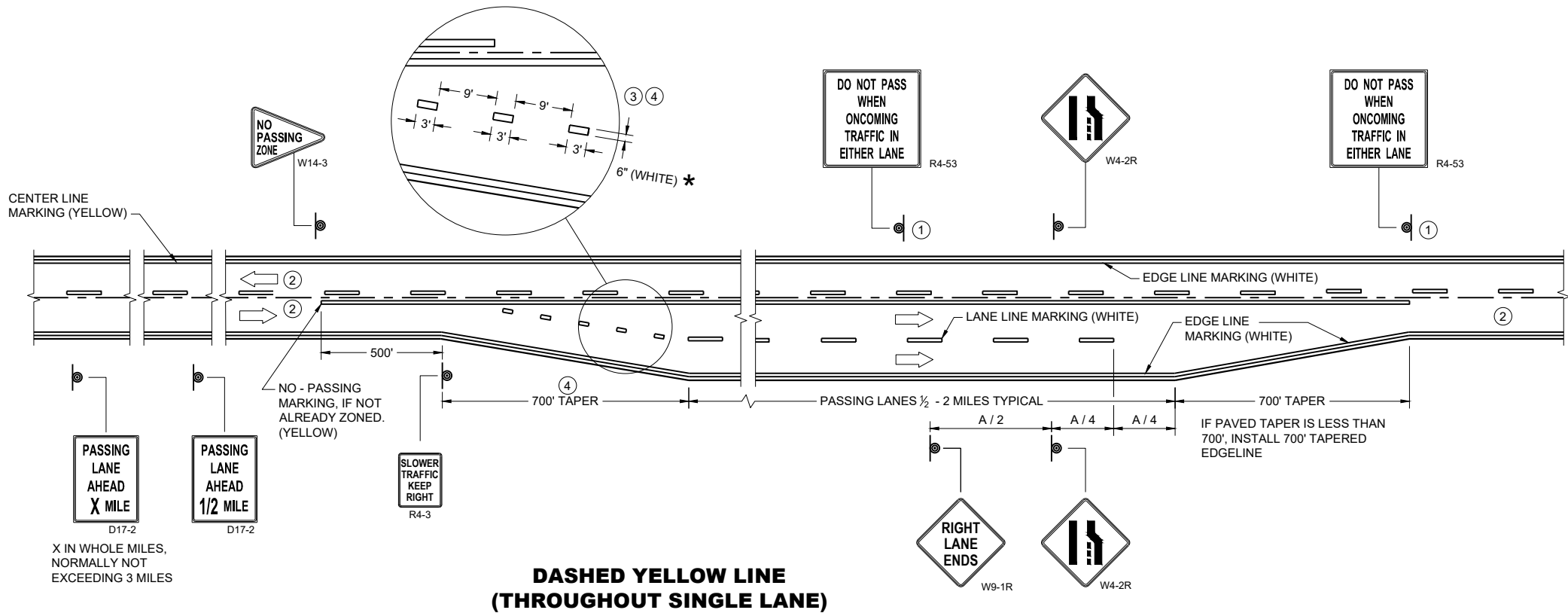
- 1 SIGN SHALL BE REPEATED AT 1 MILE INCREMENTS OR AT THE DISCRETION OF THE REGIONAL TRAFFIC ENGINEER.
- 2 THERE MAY BE SOLID YELLOW ON THE CENTERLINE DUE TO SIGHT CONDITIONS.
- 3 THE TAPER LENGTH OF THE DOTTED LINE PAVEMENT MARKING SHALL BE 700 FEET, 3' LINE, 9' GAP, EXCEPT RETRACE THE EXISTING LINE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

ARROW SYMBOL () SHOWS DIRECTION OF TRAVEL

DISTANCE TABLE

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

*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES







PAVEMENT MARKING & SIGNING (CLIMBING LANE & PASSING LANE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Jeannie Silver
DATE Statewide Pavement Marking Engineer
FHWA

LEGEND

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

GENERAL NOTES

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

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

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

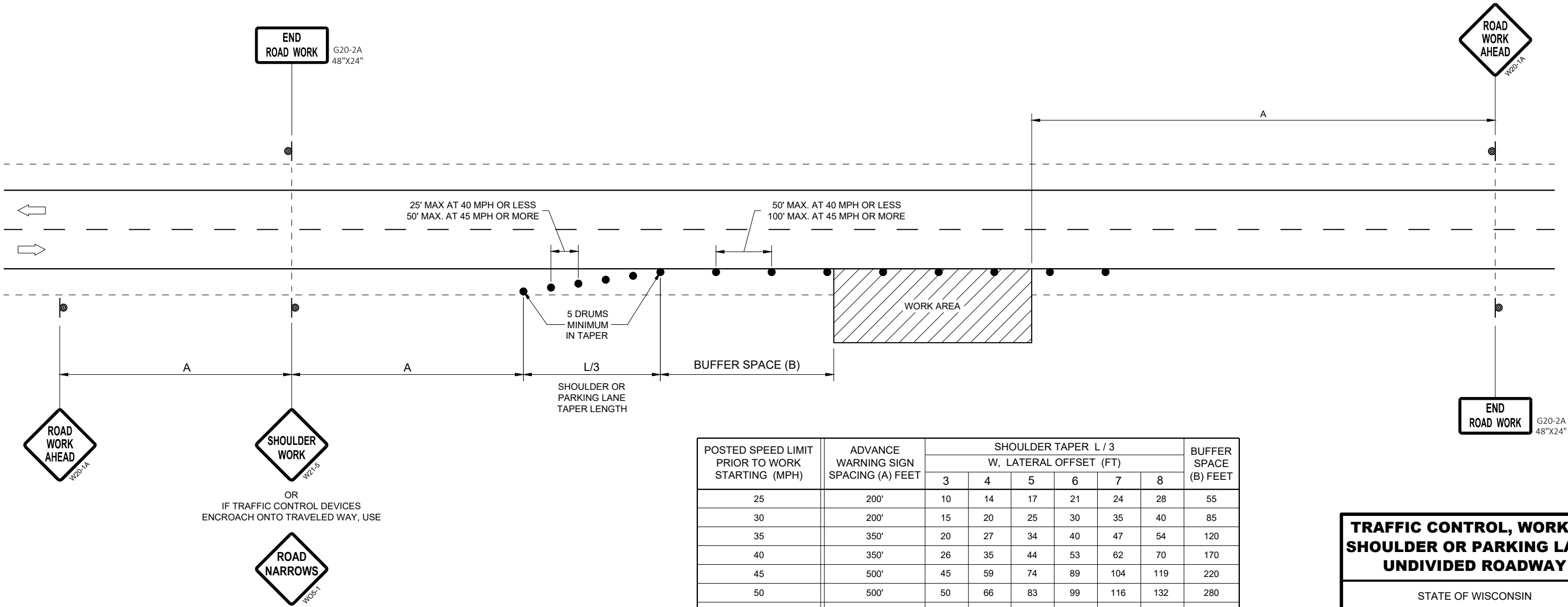
THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

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

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

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

6



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'

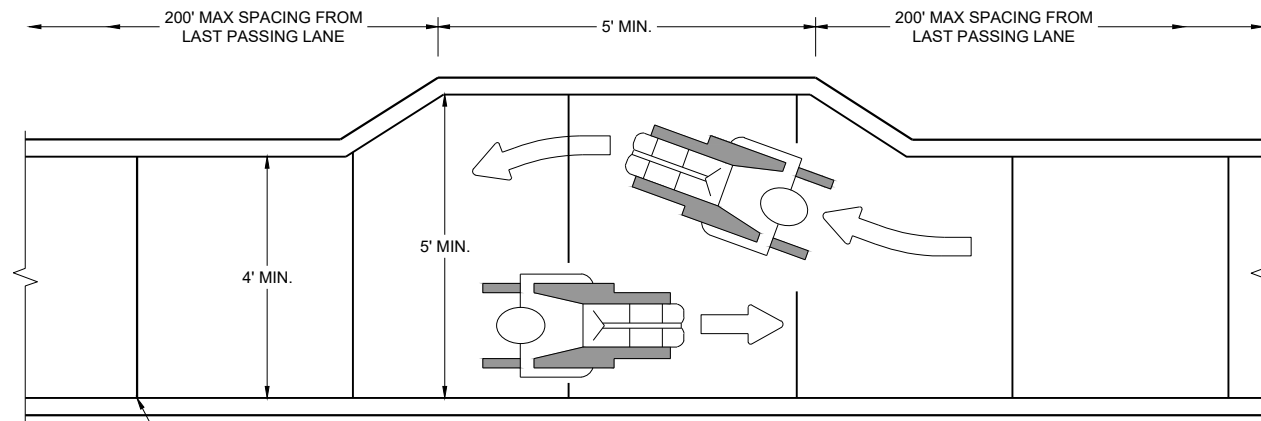
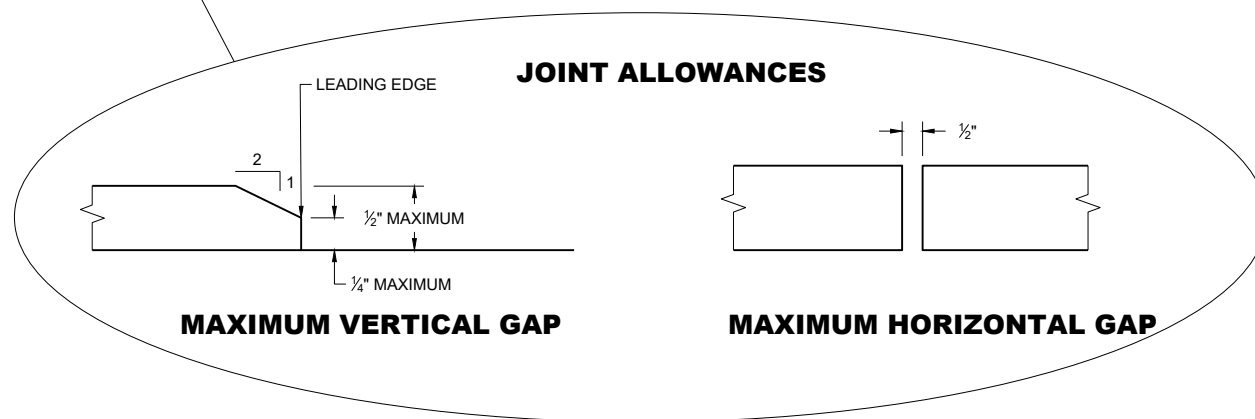
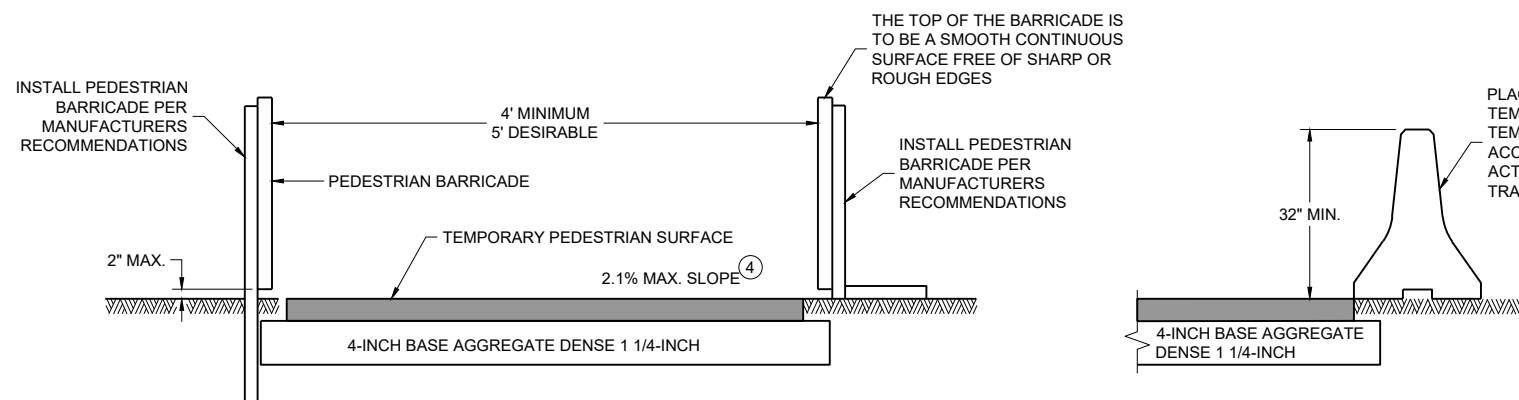
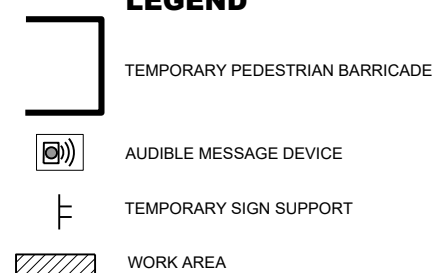
TRAFFIC CONTROL, WORK ON
SHOULDER OR PARKING LANE,
UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE T
SAFETY ENGINEER 138

FHWA

6

**NARROW SIDEWALK PASSING DETAIL****MAXIMUM VERTICAL GAP****MAXIMUM HORIZONTAL GAP****TEMPORARY PEDESTRIAN ACCESS****GENERAL NOTES**

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

① REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

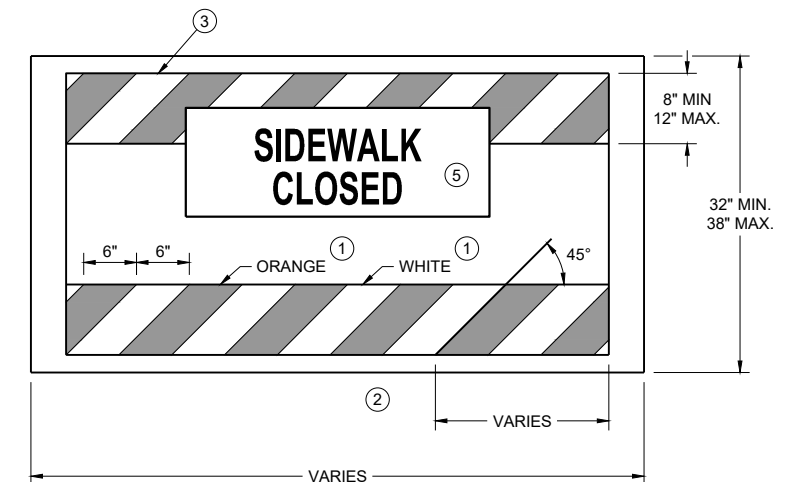
② SHEETING REQUIRED ON MORE THAN 50% OF BARRICADE WIDTH.

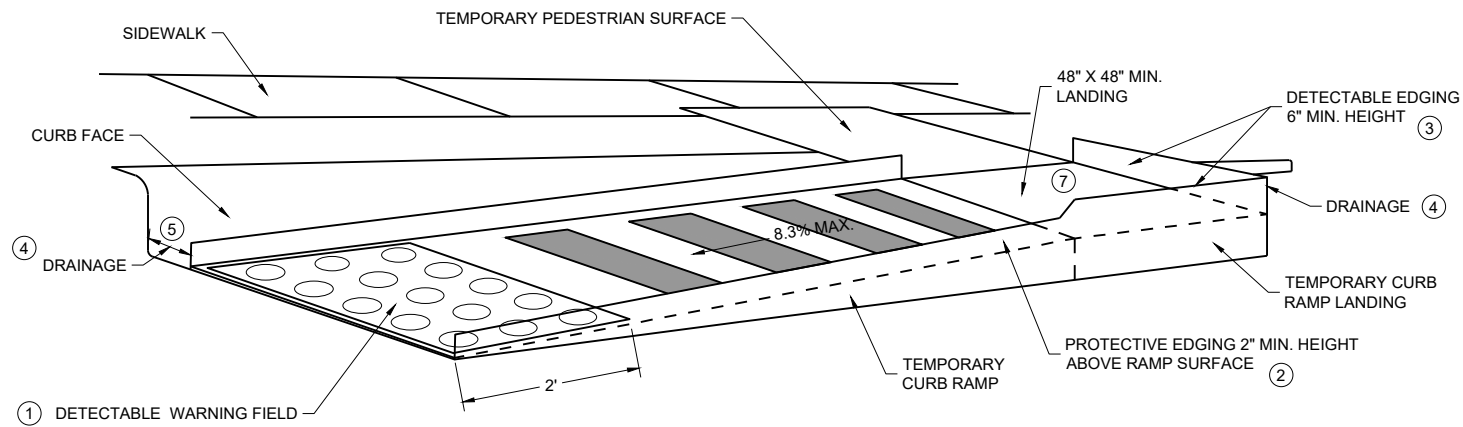
③ PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

★ USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

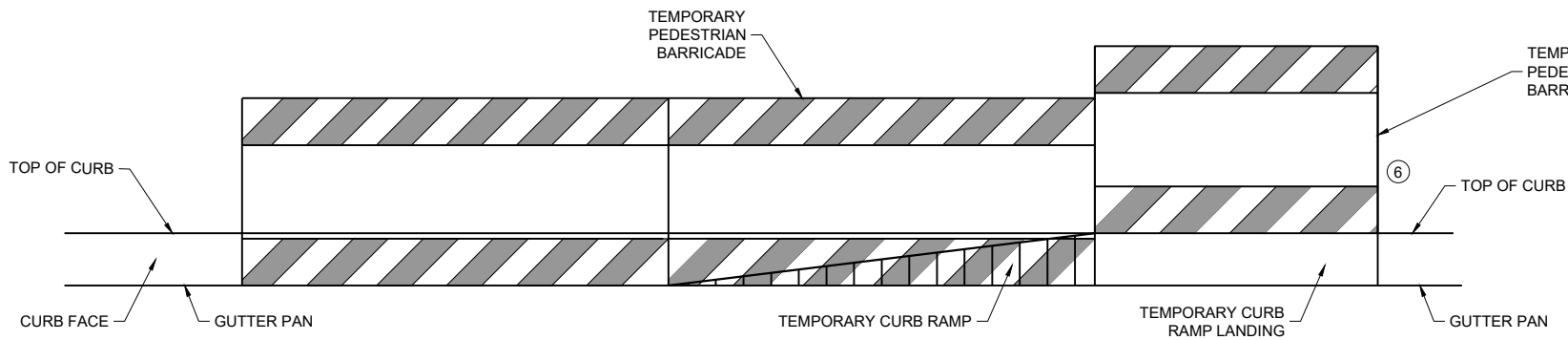
④ WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

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 FLAGGING****TRAFFIC CONTROL,
PEDESTRIAN
ACCOMMODATION**STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

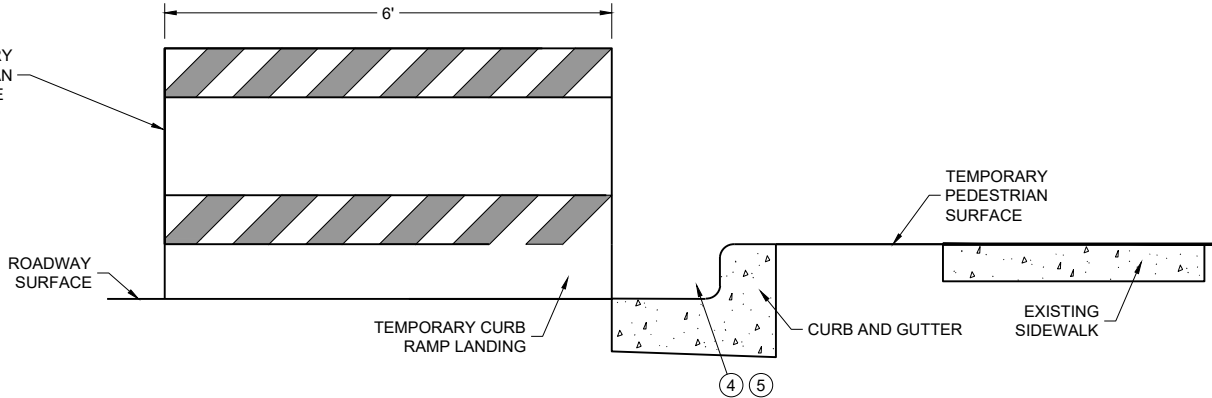


PERSPECTIVE VIEW



FRONT VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB



SIDE VIEW

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.

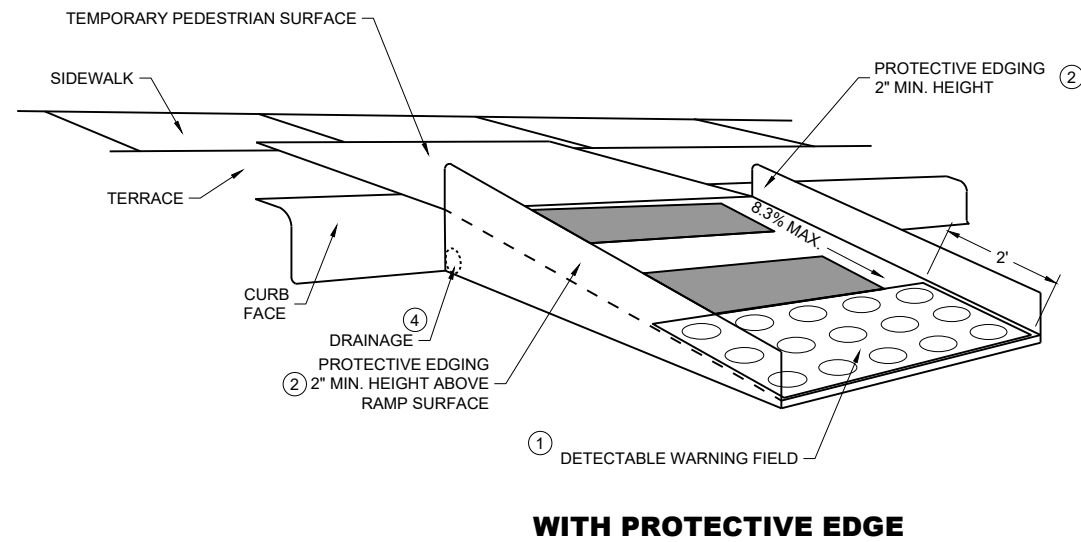
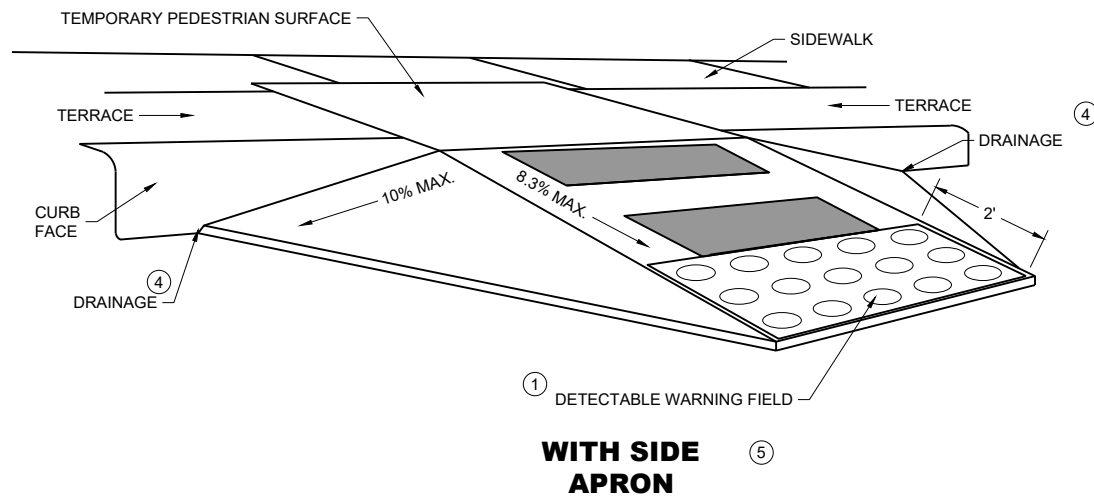
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN 1/2" WIDTH.

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.

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.

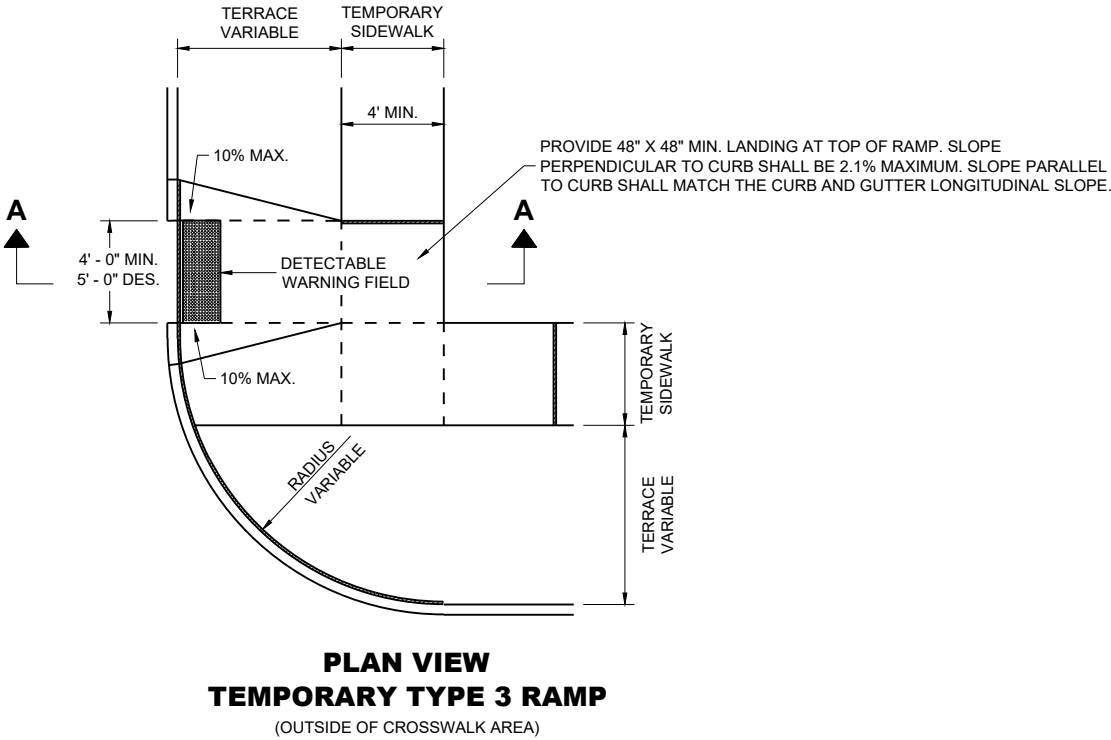
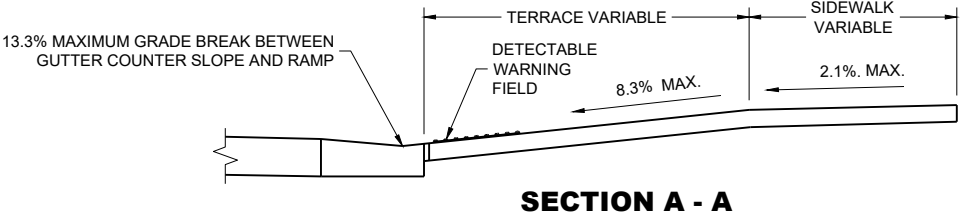
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP.

LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".

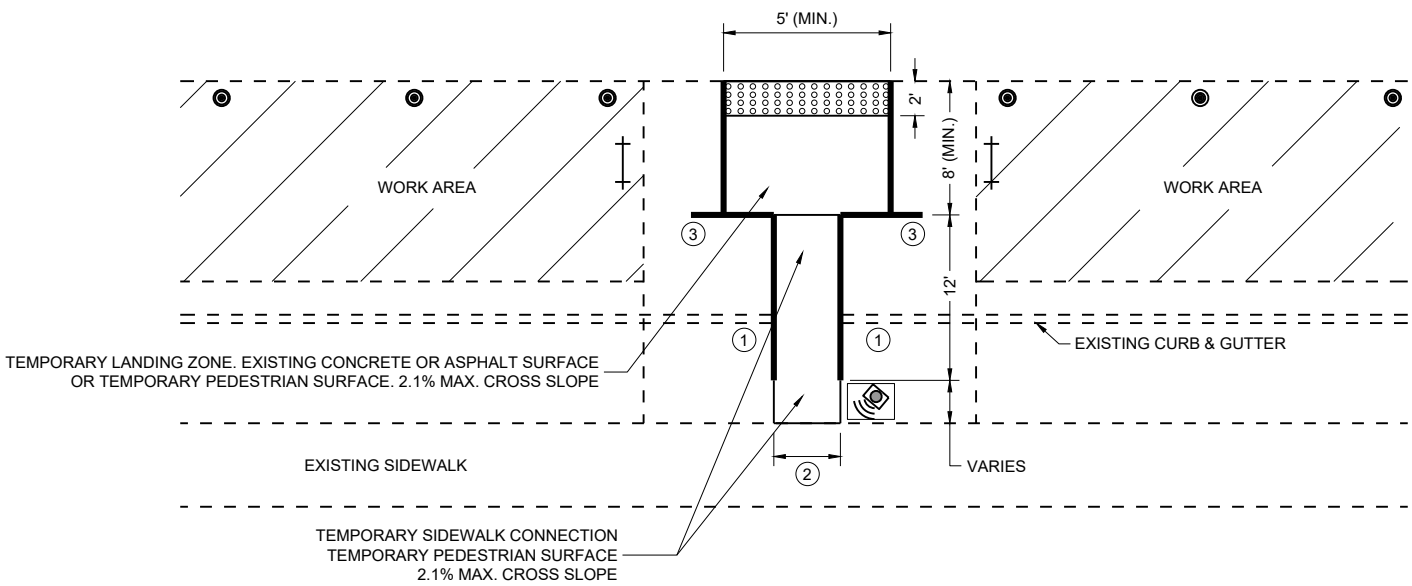
- (1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS
- (2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). 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

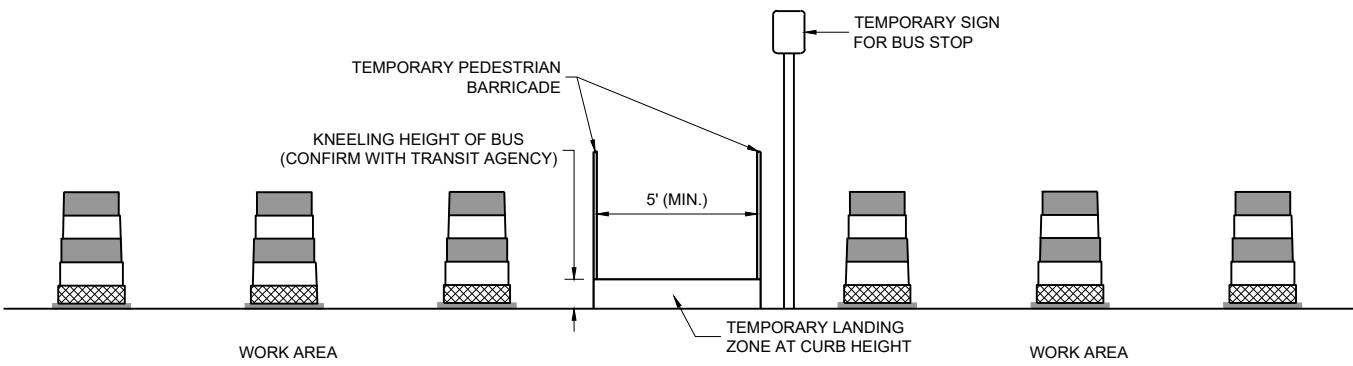


TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW



PROFILE VIEW
TEMPORARY BUS STOP PAD

GENERAL NOTES

- TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
- NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.
- 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.
- DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).
- LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.
- CHANGES BETWEEN SURFACE HEIGHTS SHALL NOT EXCEED ½". LATERAL EDGES MAY BE VERTICAL UP TO ¼" HIGH AND SHALL BE BEVELED AT 1:2 BETWEEN ¼" AND ½".
- CURB RAMPS AND LANDINGS SHALL HAVE A 1:48 (2.1%) MAX. CROSS-SLOPE.

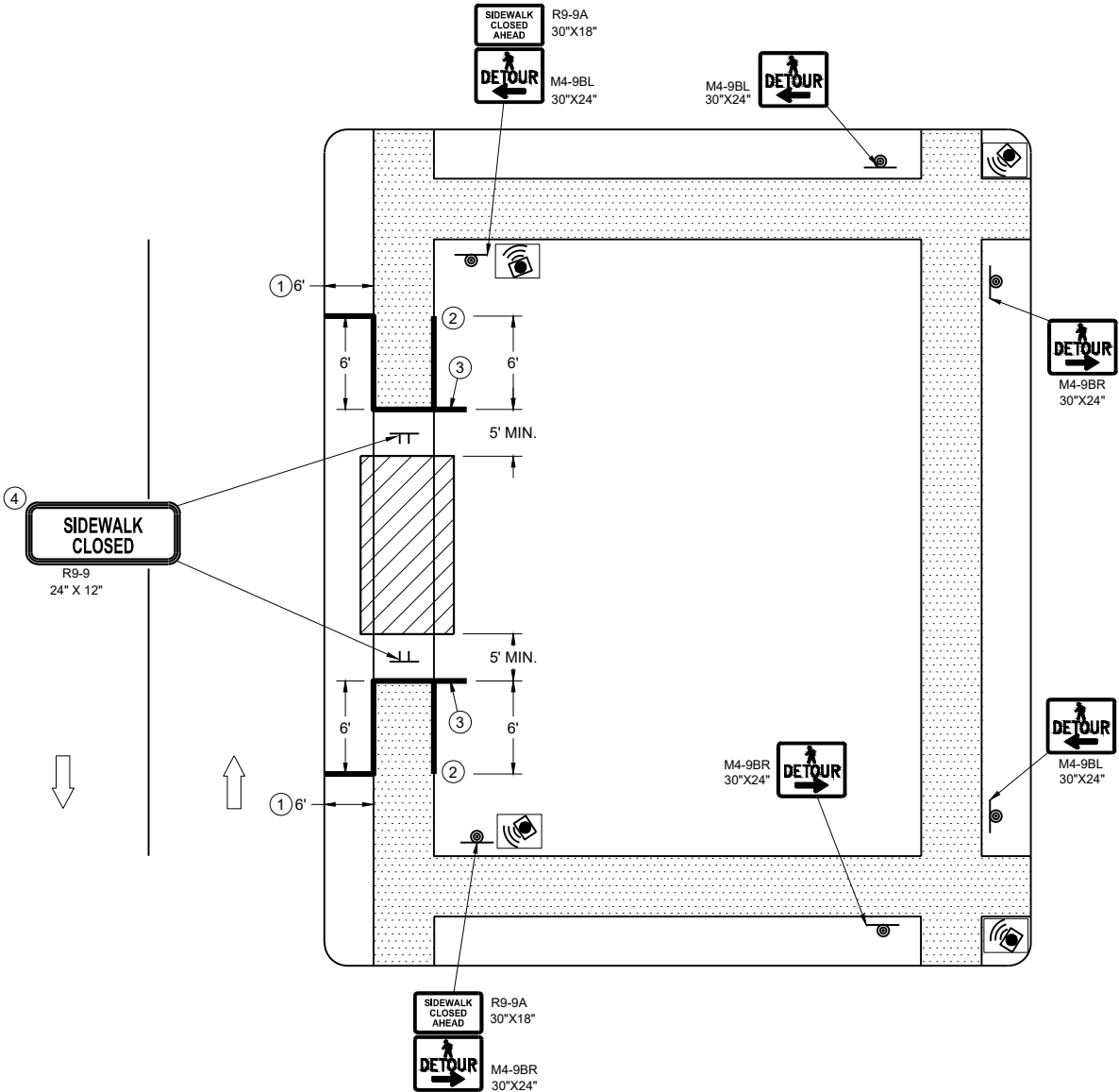
- ① DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.
- ② 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.
- ③ PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

- TRAFFIC CONTROL DRUM
- ⊢ TYPE III BARRICADE
- TEMPORARY PEDESTRIAN BARRICADE
- ⊞ TEMPORARY DETECTABLE WARNING FIELD
- ▨ WORK AREA
- 🔊 TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

GENERAL NOTES

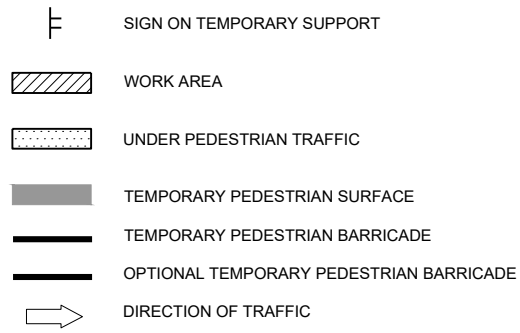
WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICTS WITH DRIVEWAYS AND OTHER EXISTING FEATURES.

- ① IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ② PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ③ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ④ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

LEGEND



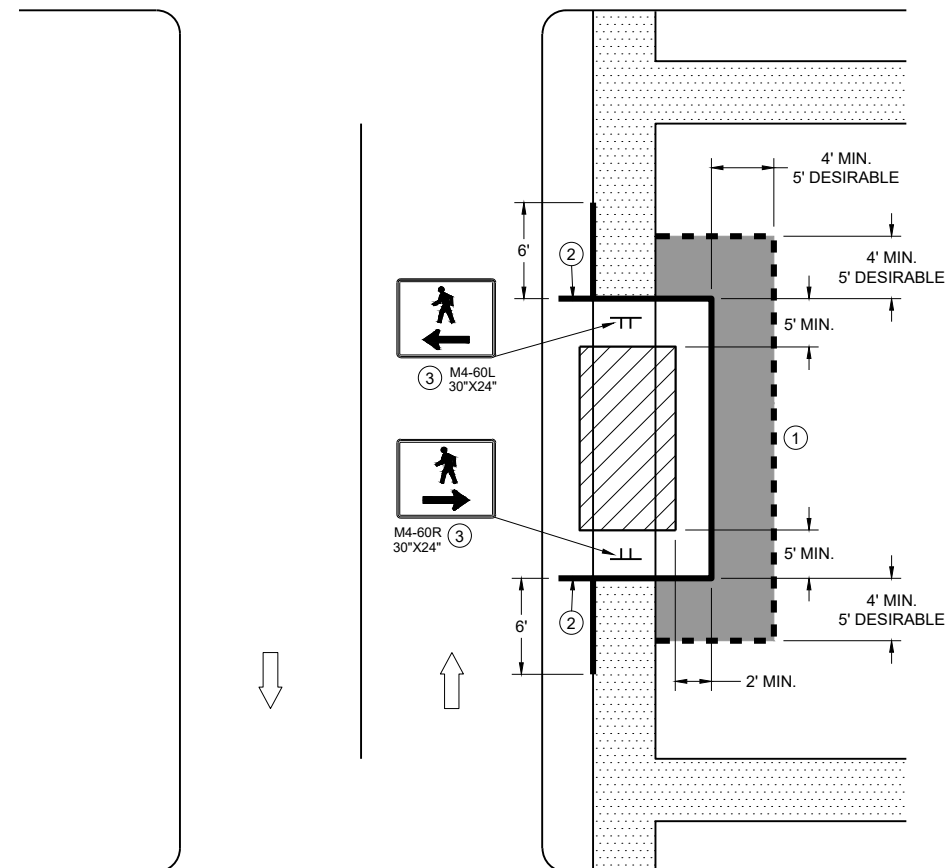
GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.










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

- ① USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- ② IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK BYPASS SINGLE SIDE

LEGEND

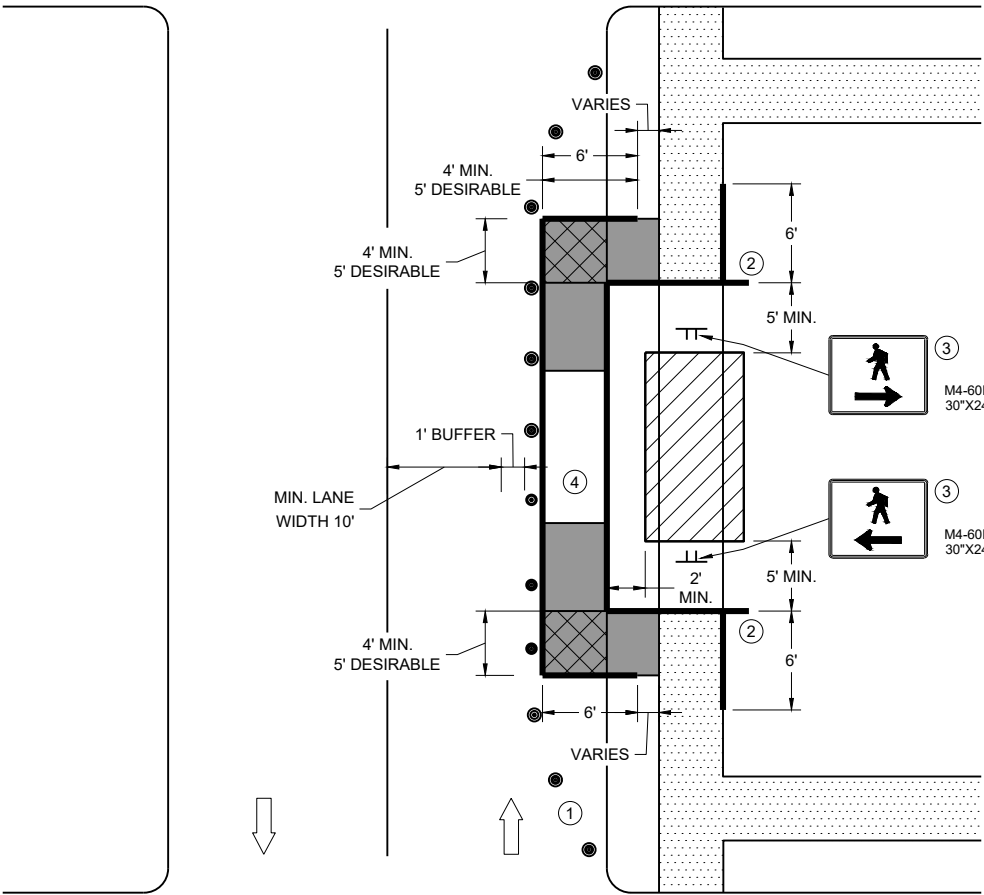
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

- ① SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.
- ② PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.
- ③ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.
- ④ USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURFACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.



SIDEWALK BYPASS, SINGLE SIDE

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

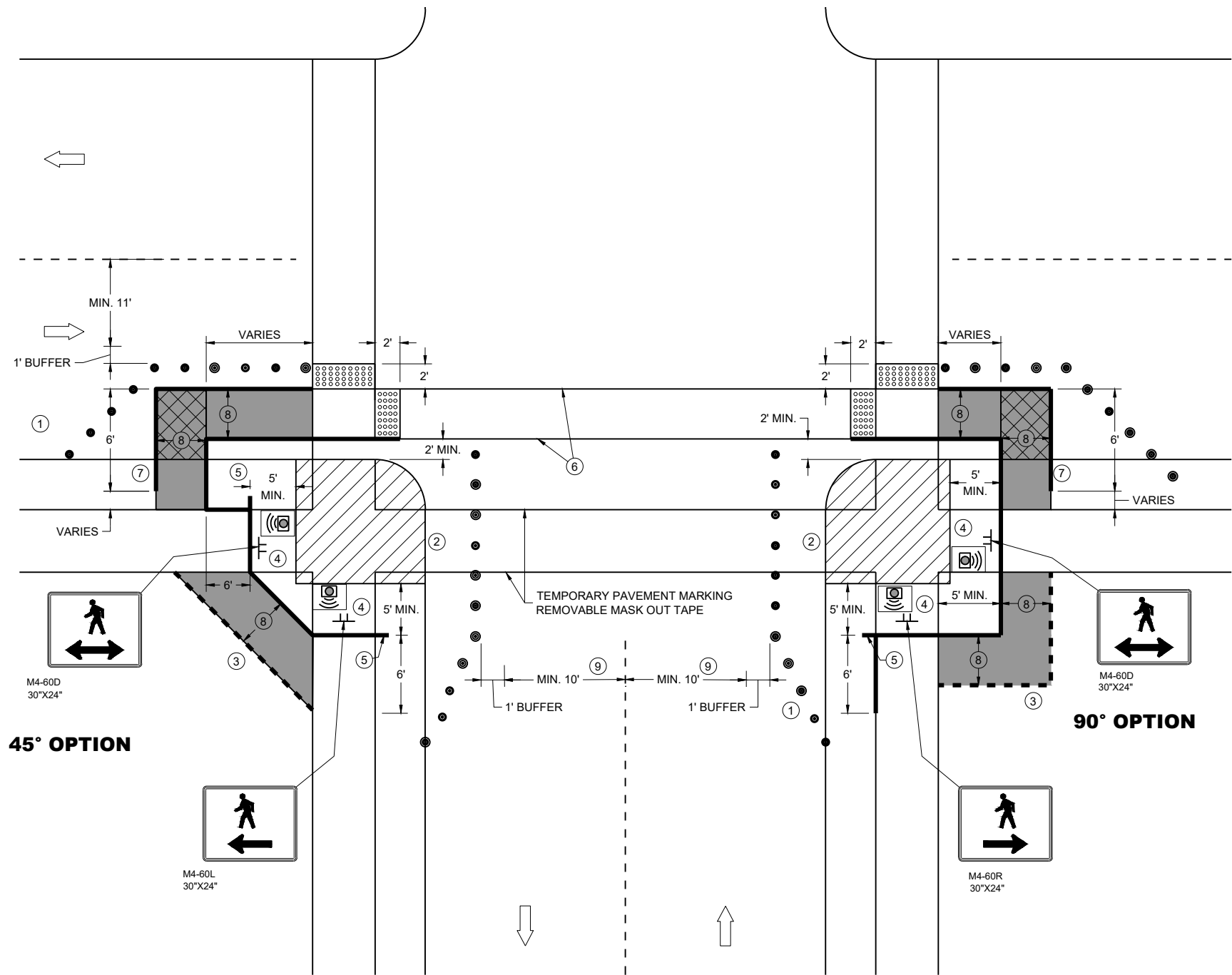
TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

- ## LEGEND

- 147



GENERAL NOTES

IF PEDESTRIAN PUSH BUTTONS ARE PRESENT ON THE EXISTING FACILITY, ENSURE THEY ARE MAINTAINED/ACCESSIBLE FOR PEDESTRIAN USE THROUGHOUT THE TEMPORARY PEDESTRIAN ACCOMMODATIONS.

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

WHEN TEMPORARY PEDESTRIAN BARRICADE RUNS PARALLEL ALONG THE SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

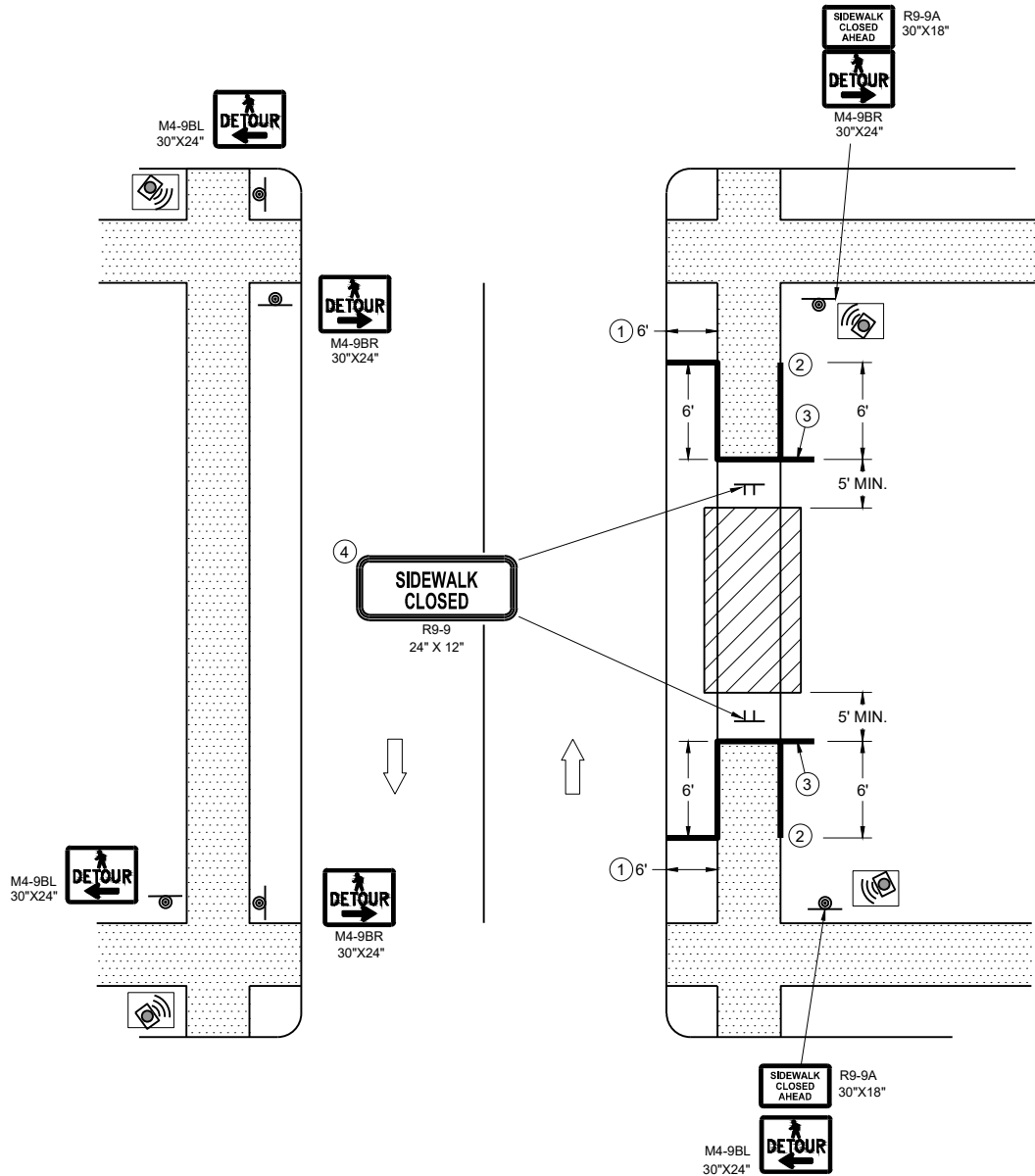
- 1 SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.
- 2 PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS
- 3 USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.
- 4 MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.
- 5 PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.
- 6 WHITE 6" TEMPORARY PAVEMENT MARKING
- 7 IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.
- 8 4 FEET MINIMUM, 5 FEET DESIRABLE
- 9 IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- WORK AREA
- TEMPORARY CURB RAMP
- TEMPORARY PEDESTRIAN SURFACE "A"
- TEMPORARY PEDESTRIAN SURFACE "B"
- TEMPORARY DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

LEGEND

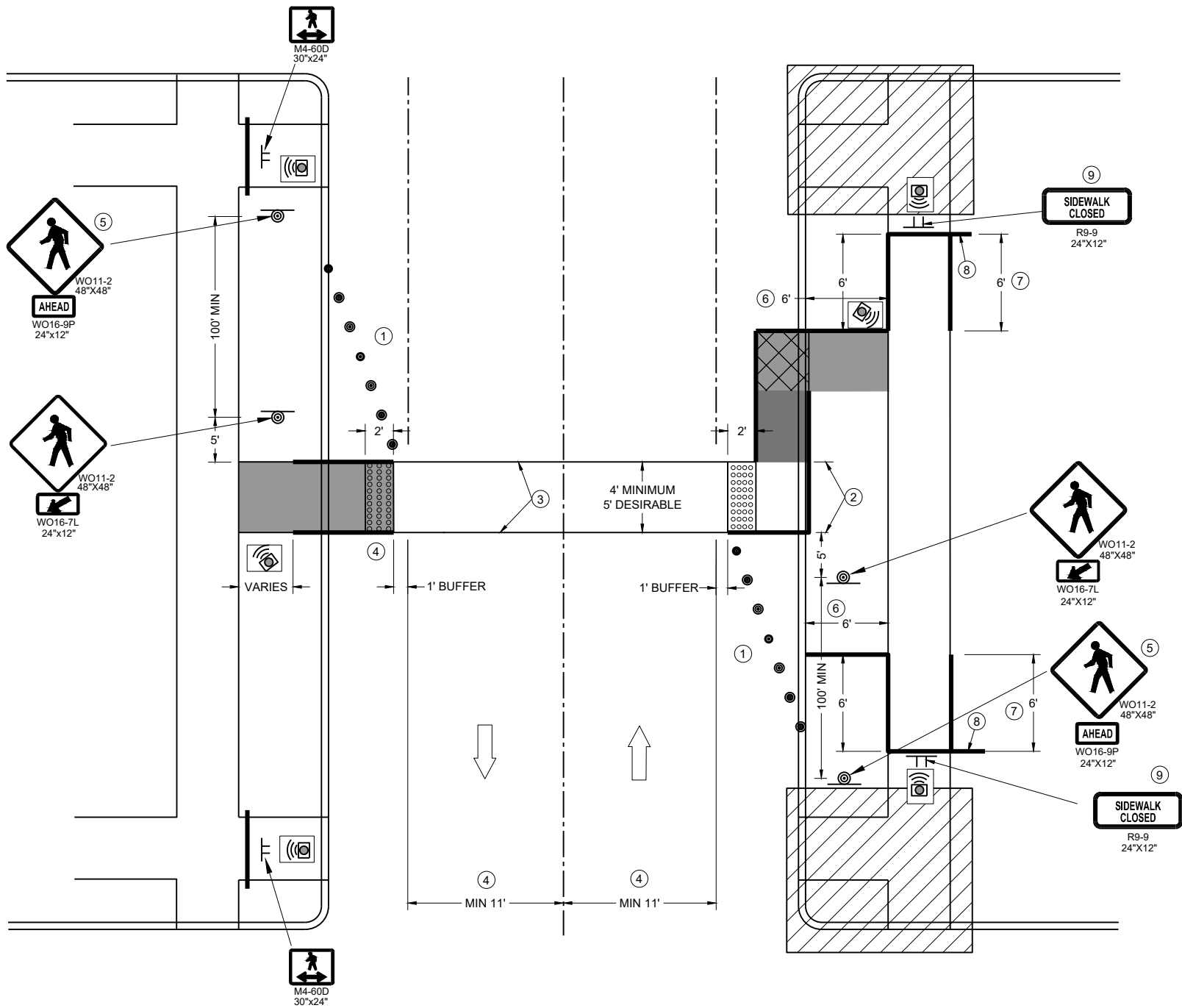
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- UNDER PEDESTRIAN TRAFFIC
- WORK AREA
- TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC
- TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

- WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.
- SIGNS THAT REMAIN IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.
- PLACE TEMPORARY PEDESTRIAN BARRICADE TO FIT FIELD CONDITIONS, AVOIDING CONFLICT WITH DRIVEWAYS AND OTHER EXISTING FEATURES.
- IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
 - PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
 - IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
 - MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.
SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.

- ① SHOULDER OR LANE CLOSURE ADVANCED WARNING AND PROPER BUFFER SPACE REQUIRED.
- ② 4 FEET MINIMUM, 5 FEET DESIRABLE.
- ③ WHITE 6" TEMPORARY PAVEMENT MARKING.
- ④ IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, PERPENDICULAR CURB RAMPS MAY NEED TO BE UTILIZED.
- ⑤ IF MINIMUM 100' SPACING FROM THE MID-BLOCK CROSSING CANNOT BE ATTAINED BEFORE THE INTERSECTION, REMOVE THIS SIGN ASSEMBLY.
- ⑥ IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
- ⑦ PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
- ⑧ IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF THE EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.
- ⑨ MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF THE SIGN.













LEGEND

- TRAFFIC CONTROL DRUM
- ⊥ SIGN ON TEMPORARY SUPPORT
- ▬ TEMPORARY CURB RAMP
- ◻ TEMPORARY DETECTABLE WARNING FIELD
- ▬ TEMPORARY PEDESTRIAN SURFACE "A"
- ▬ TEMPORARY PEDESTRIAN SURFACE "B"
- ▨ WORK AREA
- ▬ TEMPORARY PEDESTRIAN BARRICADE
- ➡ DIRECTION OF TRAFFIC
- 🔊 TEMPORARY AUDIBLE MESSAGE DEVICE (EXACT PLACEMENT BASED UPON FIELD CONDITIONS)

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED November 2025 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEER

FHWA

LEGEND

-  SIGN ON PERMANENT SUPPORT
-  TRAFFIC CONTROL DRUM
-  TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
-  TEMPORARY DELINEATOR (WHITE, SINGLE DELINEATOR)
-  TYPE III BARRICADE
-  TYPE III BARRICADE WITH ATTACHED SIGN
-  TYPE "A" WARNING LIGHT (FLASHING)
-  TEMPORARY RAISED PAVEMENT MARKERS (TWO WAY YELLOW)
-  TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT
-  DIRECTION OF TRAFFIC
-  REMOVE PAVEMENT MARKINGS
-  WORK AREA

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH 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.

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

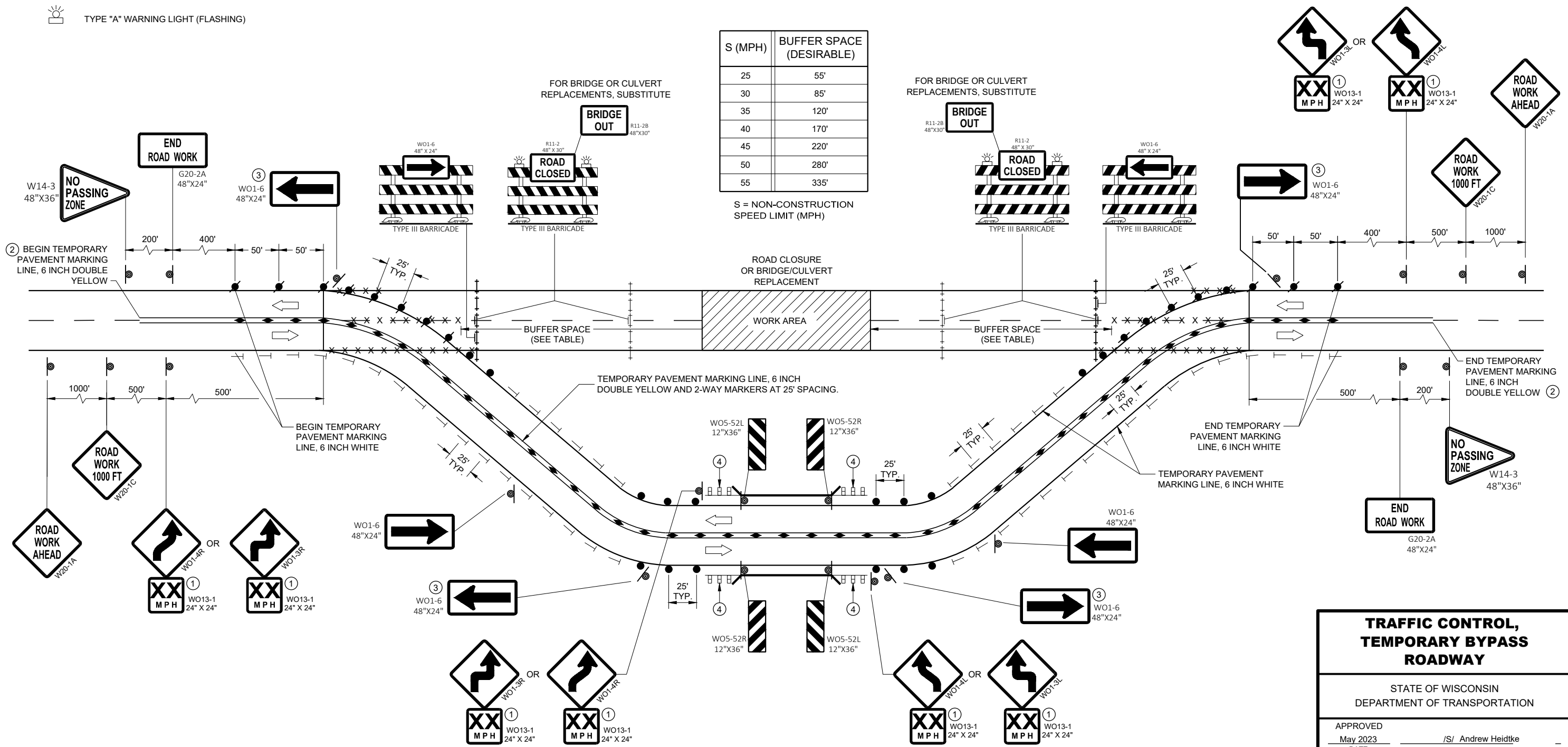
SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE FHWA'S MANUAL ON STANDARD HIGHWAY SIGNS OR THE WISCONSIN STANDARD SIGN PLATES.

EQUIPMENT, VEHICLES, OR MATERIAL SHOULD NOT BE STORED IN BUFFER SPACE.

- ① IF ADVISORY SPEED IS GREATER THAN 30 MPH, USE THE WO1-4 SIGN. IF ADVISORY SPEED IS 30 MPH OR LESS, USE THE WO1-3 SIGN.
- ② WHEN THE DISTANCE TO / FROM THE NEXT CLOSEST NO-PASSING ZONE IS LESS THAN THE MINIMUM DISTANCE BETWEEN ZONES AS INDICATED IN THE SPECIFICATIONS, THE TWO ZONES SHALL BE CONNECTED.
- ③ OMIT THESE WO1-6 SIGNS IF THE ADVISORY SPEED OF THE CURVE IS GREATER THAN 30 MPH.
- ④ TEMPORARY STEEL PLATE BEAM GUARD AND END TREATMENT WHEN INCLUDED IN THE CONTRACT. FOR LAYOUT, SEE DETAILS ELSEWHERE IN THE PLAN.

S (MPH)	BUFFER SPACE (DESIRABLE)
25	55'
30	85'
35	120'
40	170'
45	220'
50	280'
55	335'

S = NON-CONSTRUCTION SPEED LIMIT (MPH)

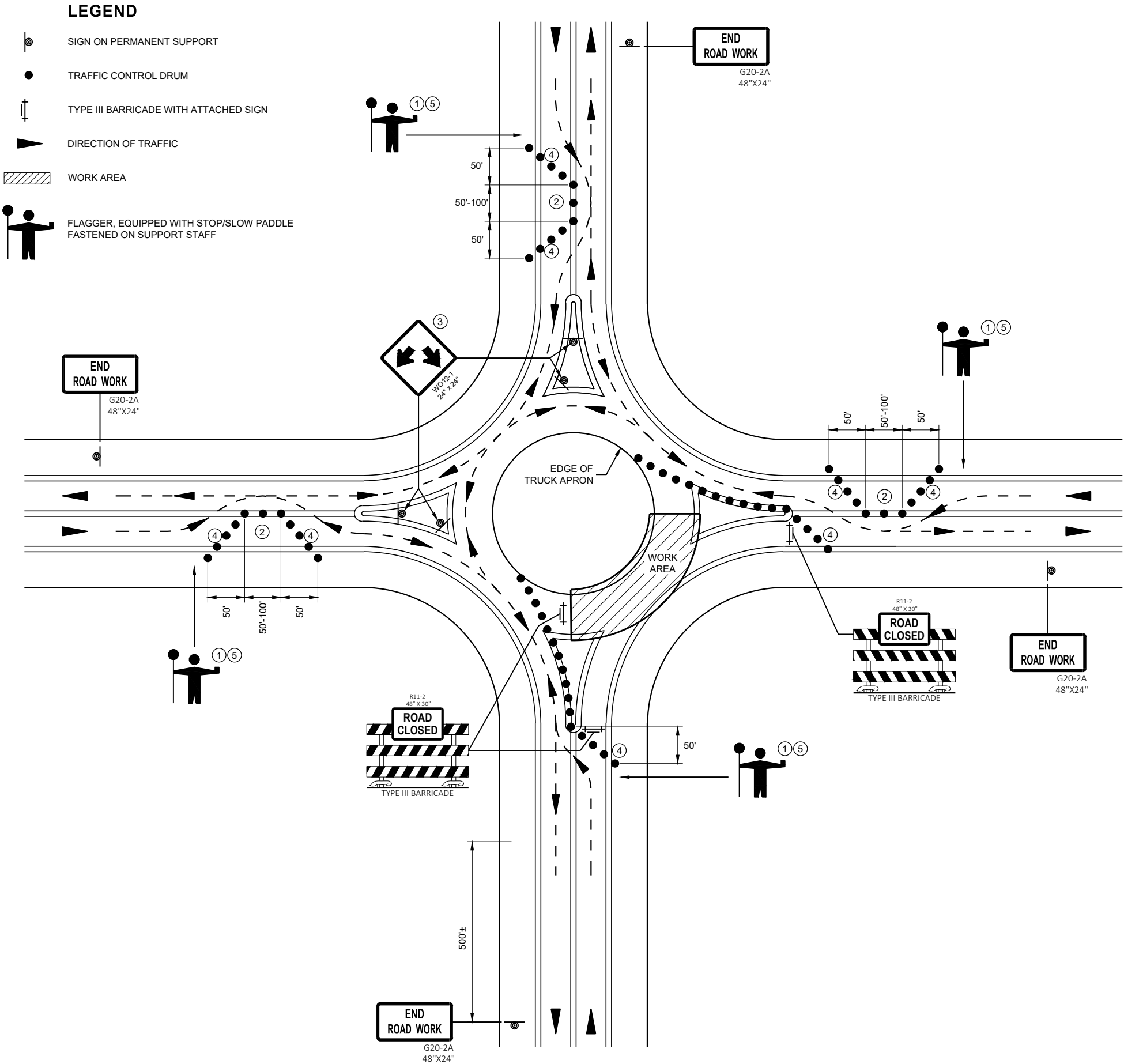


**TRAFFIC CONTROL,
TEMPORARY BYPASS
ROADWAY**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 151

FHWA



GENERAL NOTES

ALL SIGNS ARE 48"X48" BLACK ON ORANGE UNLESS OTHERWISE NOTED. IF NECESSARY DUE TO SPACE CONSTRAINTS, 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.

ONLY ONE QUADRANT OF TRAFFIC SHALL BE RELEASED AT A TIME.

FLAGGERS SHALL CONTROL TRAFFIC ON ALL APPROACHES OF THE ONE-LANE ROUNDABOUT. ONE FLAGGER SHALL BE DESIGNATED LEAD FLAGGER.

NIGHT TIME WORK REQUIRES ADDITIONAL LIGHTING AT FLAGGER STATION(S).

- ① FLAGGERS SHALL BE IN DIRECT RADIO CONTACT AT ALL TIMES. THEY SHALL BE EQUIPPED WITH STOP/SLOW PADDLES FASTENED ON SUPPORT STAFFS. WHEN THE FLAGGING IS NOT IN EFFECT, COVER OR REMOVE ALL TEMPORARY TRAFFIC CONTROL SIGNS.
- ② ADJUST CHANNELIZING DEVICES TO ACCOMMODATE FOR TURNING RADIUS OF LARGE VEHICLES AS DIRECTED BY THE ENGINEER.
- ③ GUIDE SIGN WITH ROAD NAMES MAY BE USED IN LIEU OF THE DOUBLE ARROW (WO12-1) SIGN.
- ④ THE TWO- WAY TAPER SHOULD BE 50 FEET USING 5 EQUALLY SPACED DRUMS.
- ⑤ FOLLOW SDD 15C12 FOR FLAGGING AND ADVANCE WARNING.

RECOMMENDED REDUCED DRUM SPACING WITHIN ROUNDABOUT

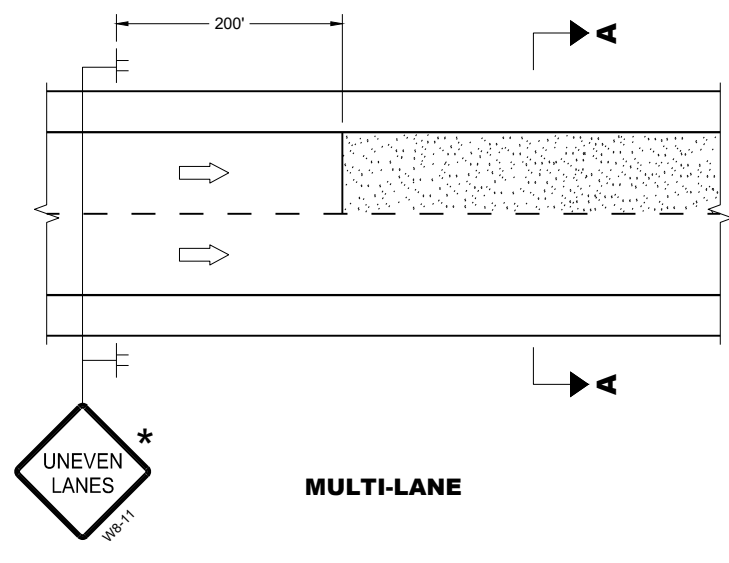
MPH	DRUM SPACING (FT)
0-40	25
45-55	50

TRAFFIC CONTROL,
FLAGGING OPERATION,
ROUNDABOUT

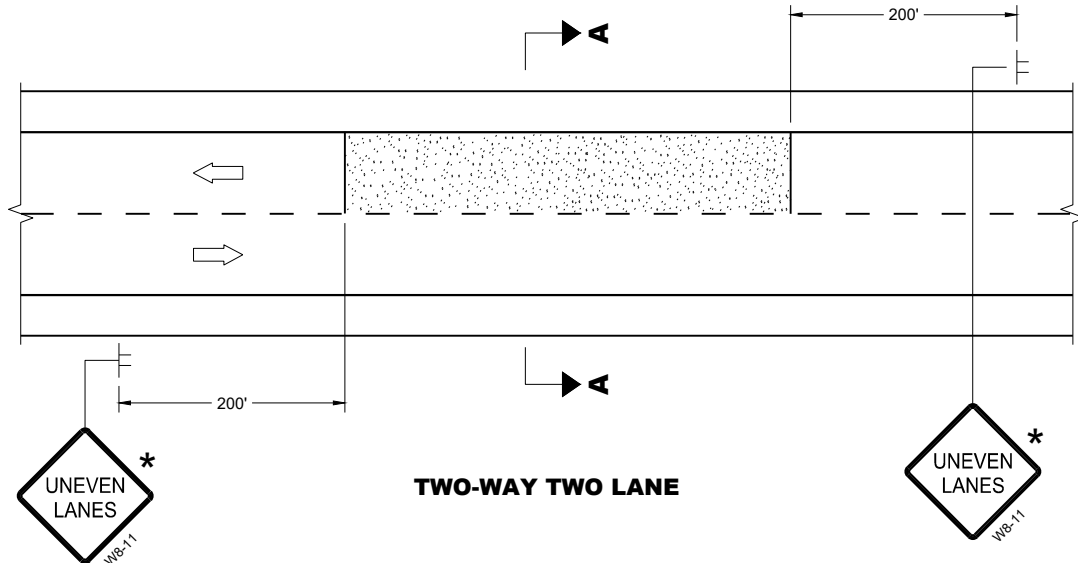
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2020 /S/ Andrew Heidtke
DATE STATEWIDE WORK ZONE T SAFETY ENGINEER 152

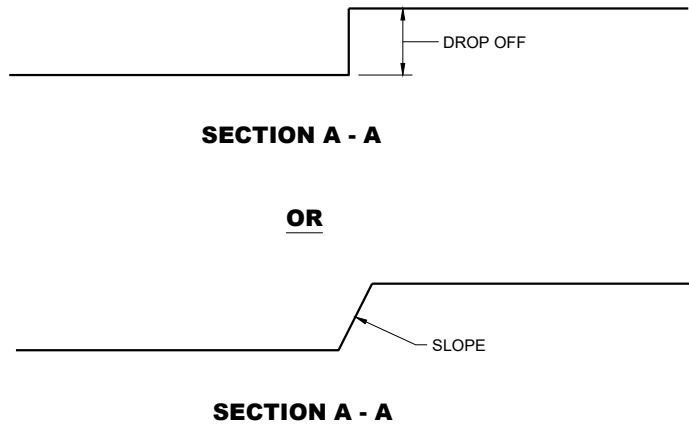
FHWA



MULTI-LANE



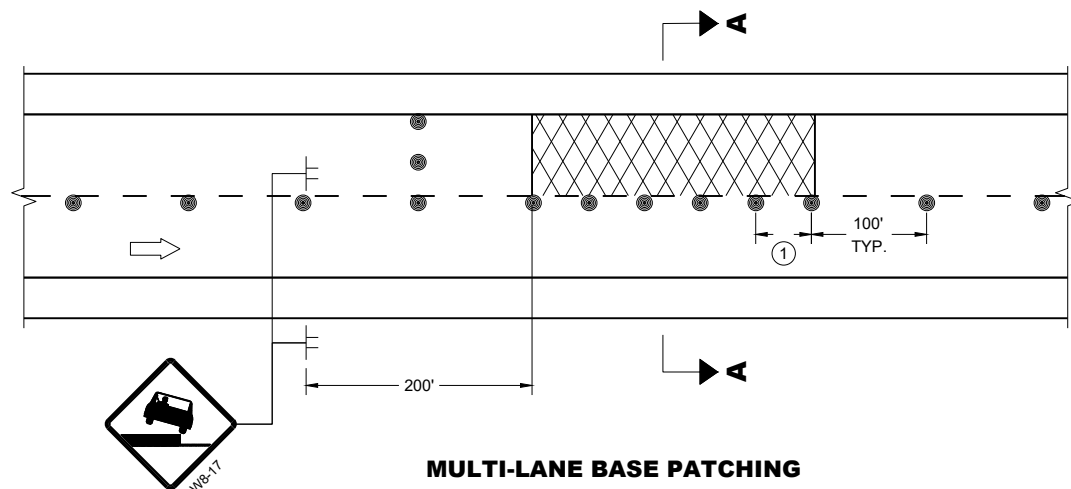
TWO-WAY TWO LANE



SECTION A - A

OR

SECTION A - A



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

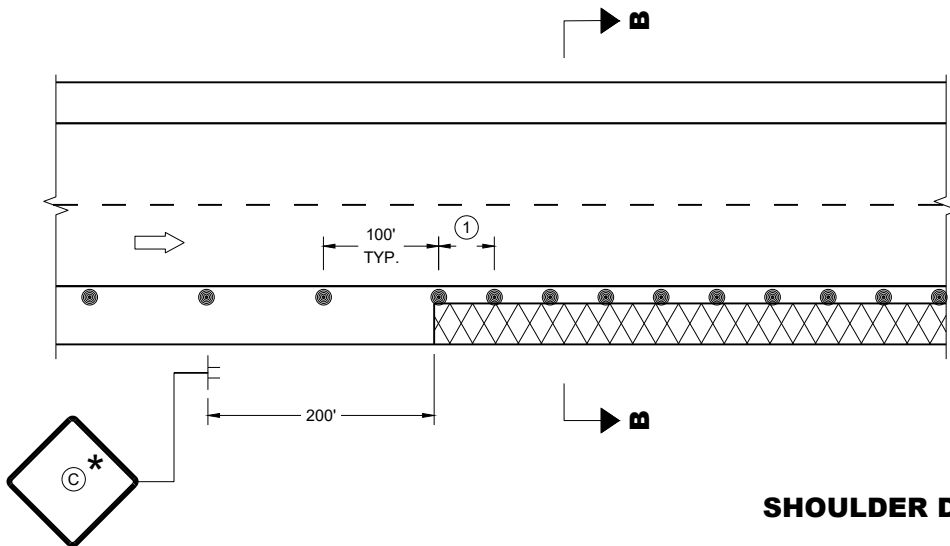
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

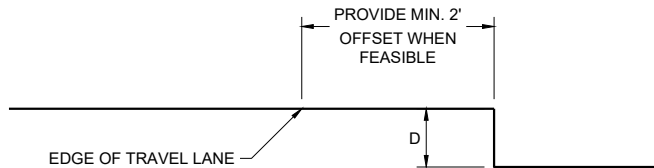
① USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

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



SHOULDER DROP-OFFS



SECTION B - B

D	SIGN ©
< 2" WITH A SLOPE STEEPER THAN 3:1	 WB-9
2" < 6" WITH A SLOPE STEEPER THAN 3:1	 WB-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
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

GENERAL NOTES

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

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

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

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



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

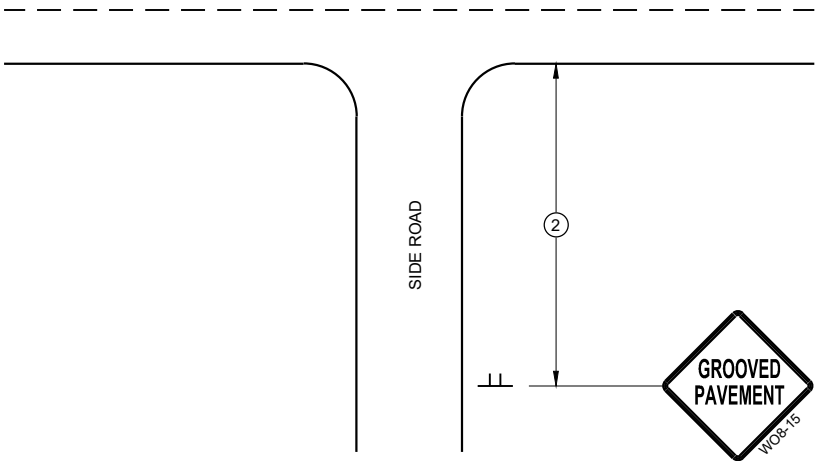
ALL SIGNS INAPPROPRIATE TO THE STATUS OF THE CONTROL ZONE, INCLUDING PRE-EXISTING SIGNS IN THE VICINITY, SHALL BE COVERED OR REMOVED AS DIRECTED BY THE ENGINEER.

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

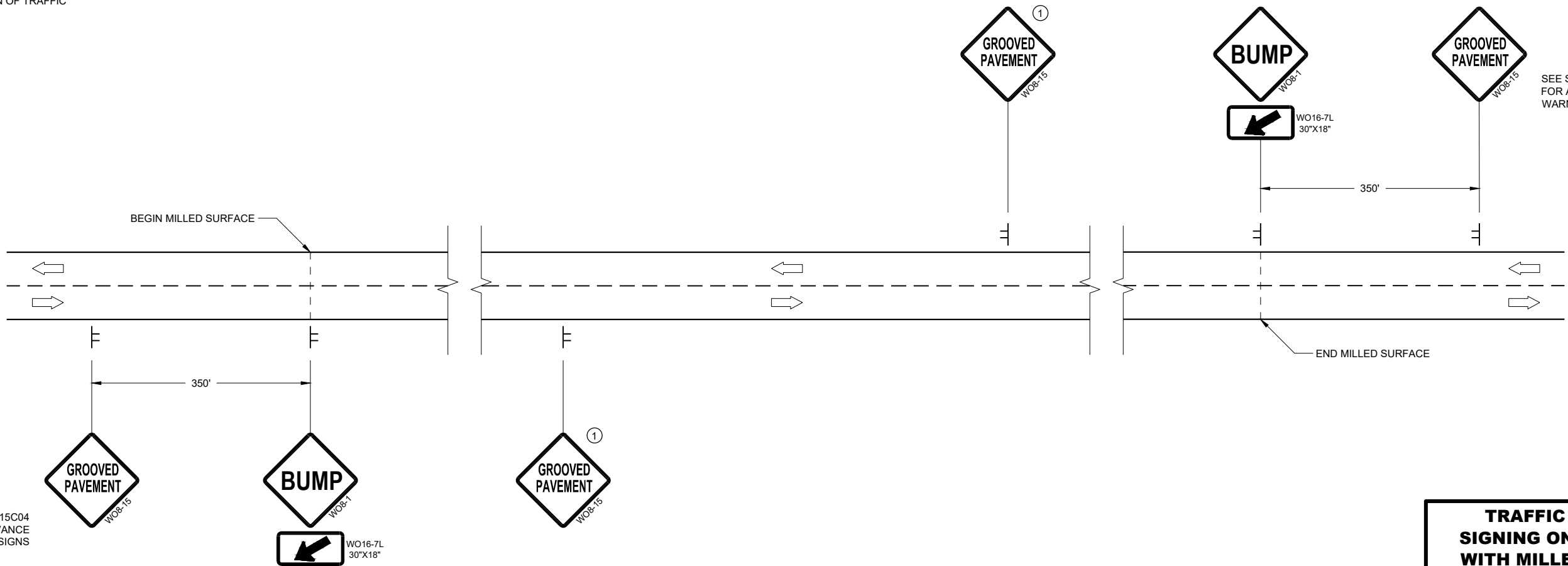
- ① PLACE SIGNS 350' IN ADVANCE OF MILLED SURFACES AND AT 1 MILE INTERVALS, OR AS DIRECTED BY THE ENGINEER.
- ② PLACE SIGN 200' MIN. FROM INTERSECTION AND 200' MIN. AFTER ADVANCE WARNING SIGN SHOWN IN SDD 15C04.

LEGEND

-  SIGN ON TEMPORARY SUPPORT
-  DIRECTION OF TRAFFIC



TYPICAL SIDE ROAD APPROACH
SIGN DETAIL



DETAIL FOR SIGNING ON MILLED SURFACES

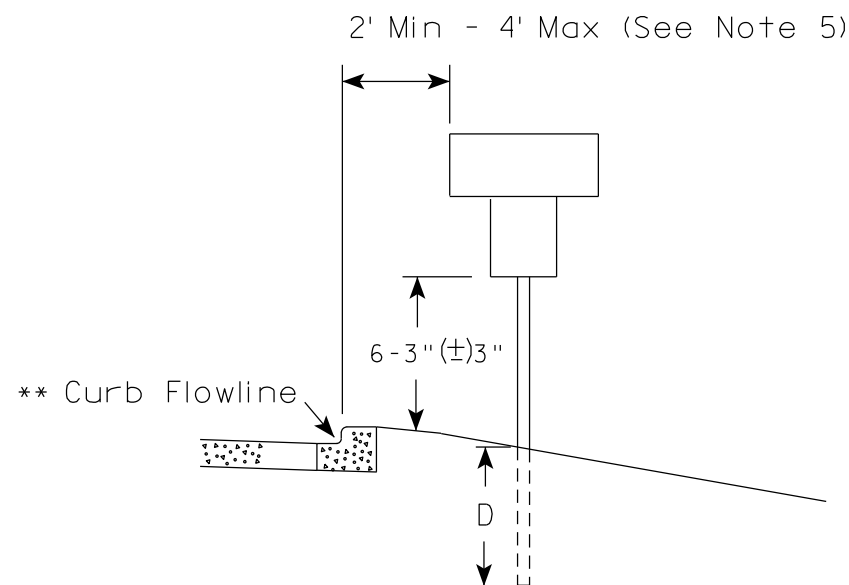
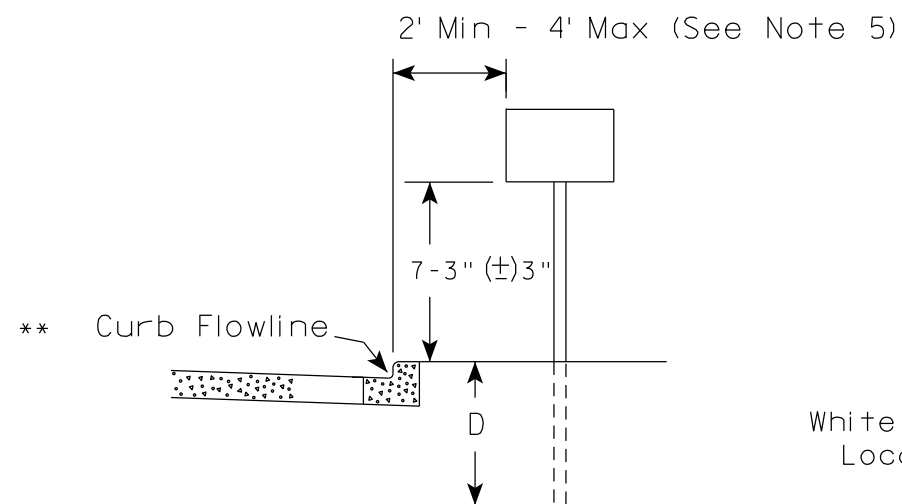
TRAFFIC CONTROL,
SIGNING ON ROADWAYS
WITH MILLED SURFACES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

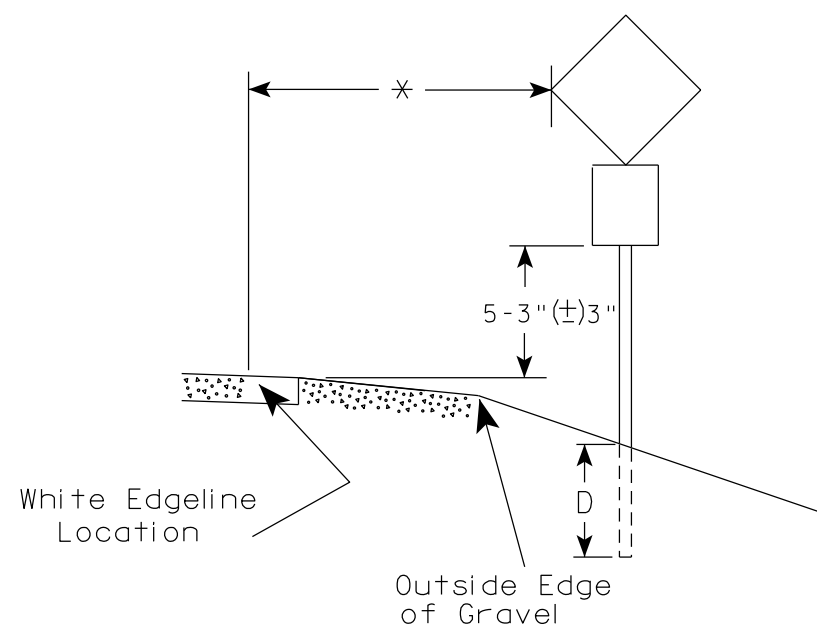
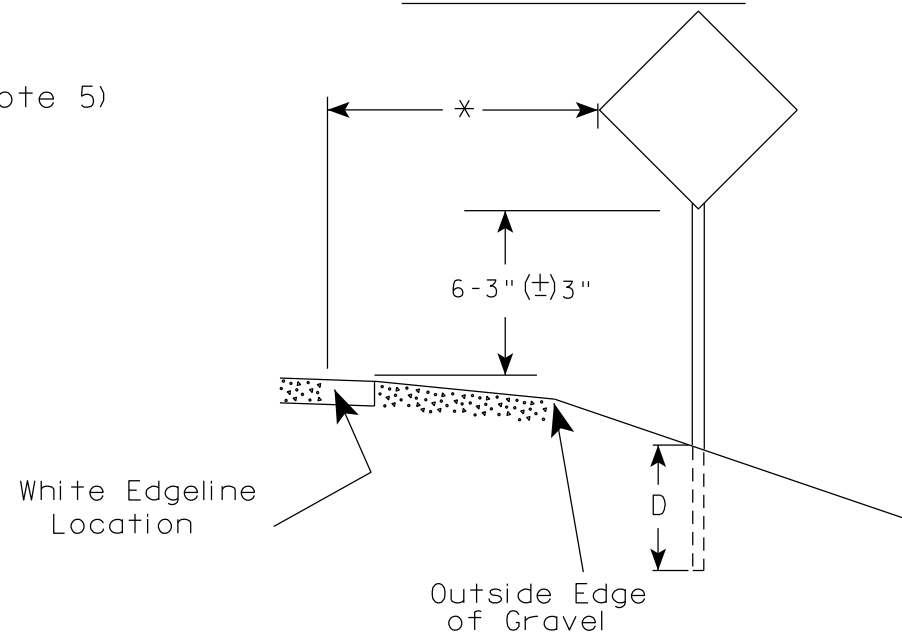
APPROVED
February 2020 /S/ Andrew Heidtke
DATE WORK ZONE ENGINEER 154

FHWA

URBAN AREA



RURAL AREA (See Note 2)



POST EMBEDMENT DEPTH

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

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.

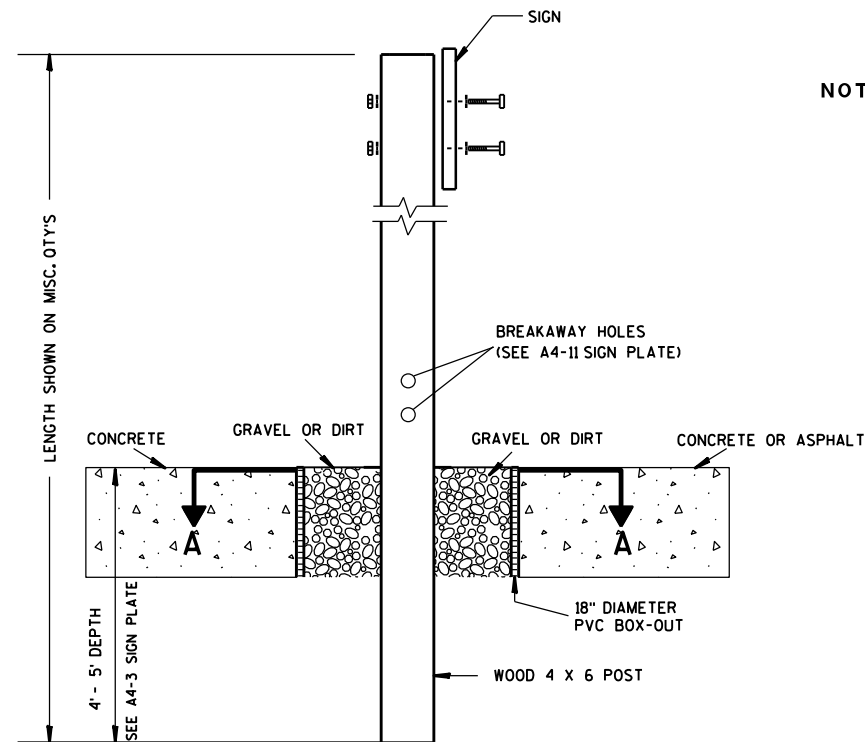
* 6 feet from edge of a paved shoulder or 12 feet from the edge of pavement (edge line location) or 2 feet from outside edge of gravel, whichever is greater unless directed by project engineer.

TYPICAL INSTALLATION
OF PERMANENT TYPE II
SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

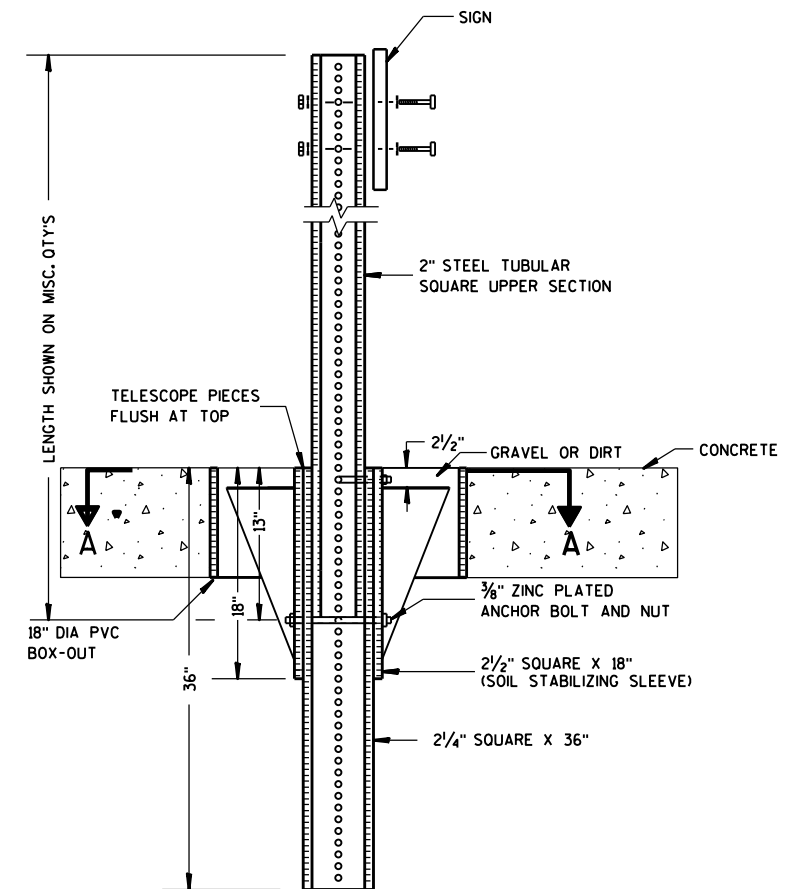
DATE 12/6/23 PLATE NO. A4-3.23



ELEVATION VIEW

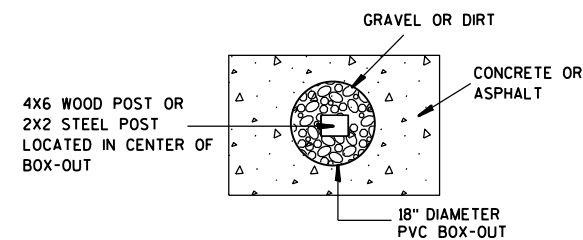
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

- 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 156 A4-3B.1

PROJECT NO:

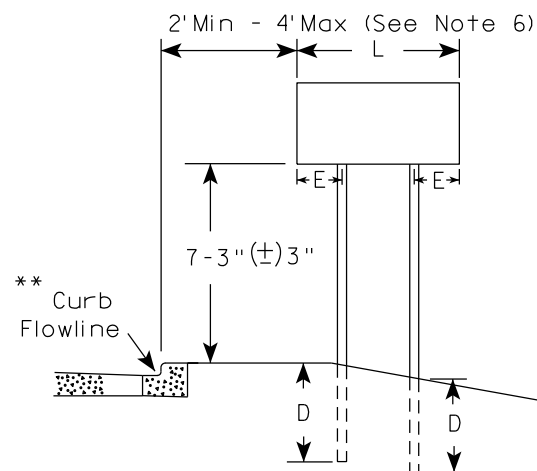
HWY:

COUNTY:

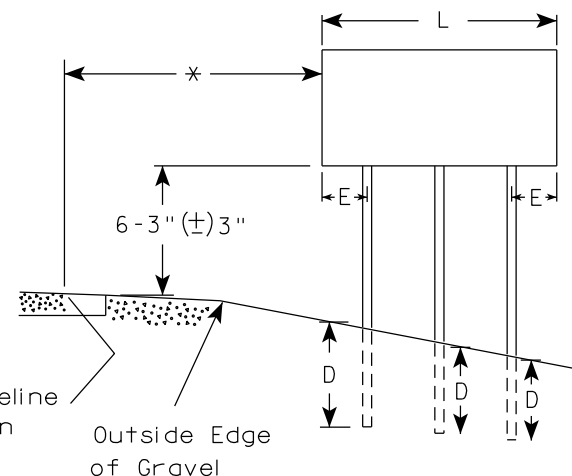
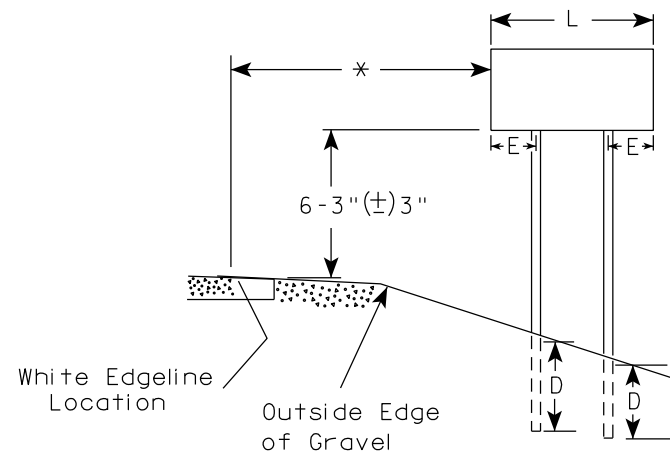
SHEET NO:

E

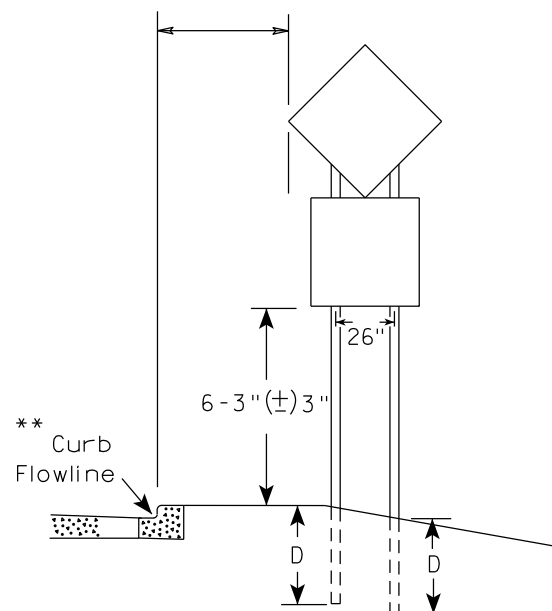
URBAN AREA



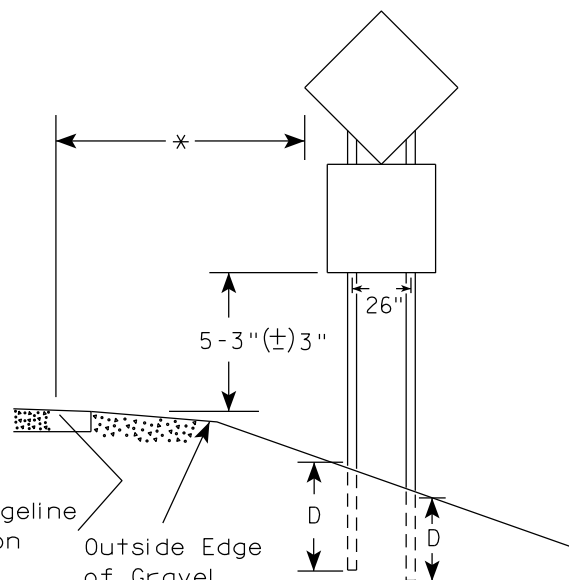
RURAL AREA (See Note 3)



2' Min - 4' Max (See Note 6)



48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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

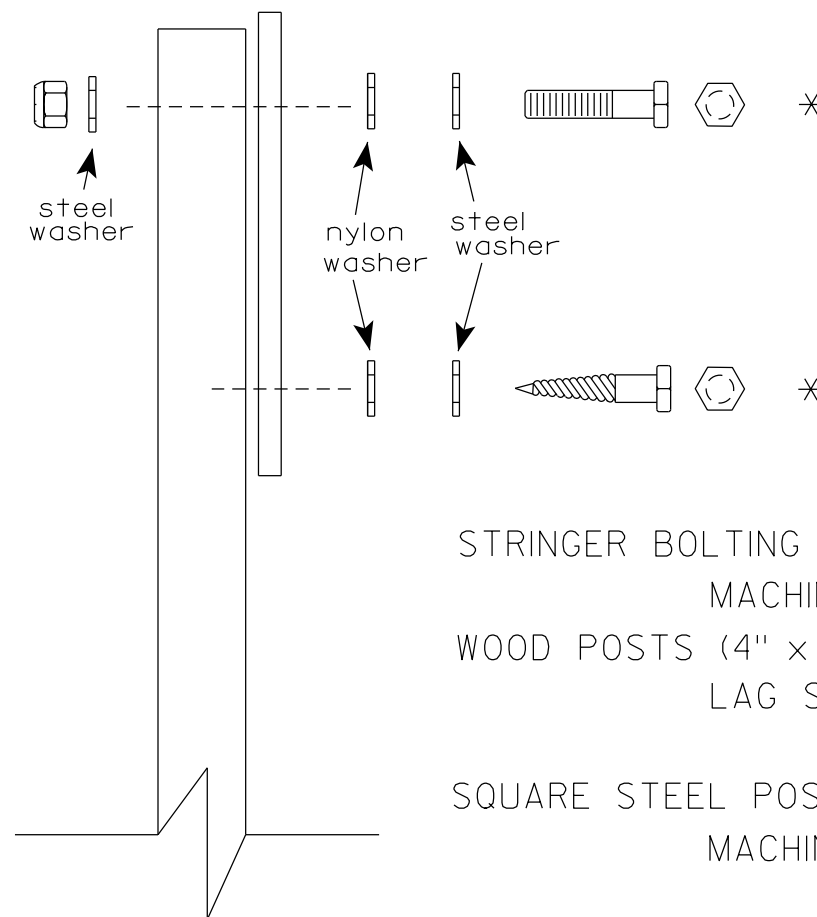
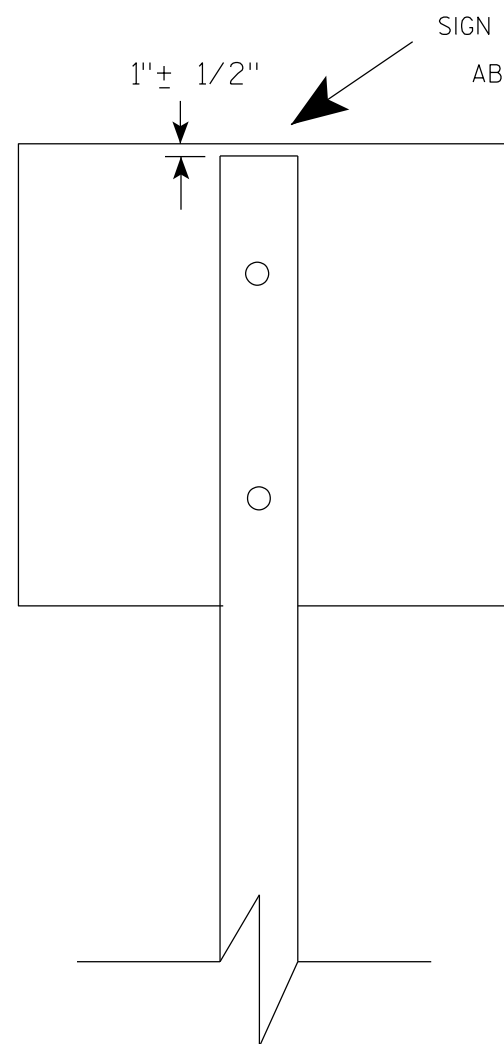
Area of Sign Installation (Sq.Ft.)	D (Min)
20 or Less	4'
Greater than 20	5'

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 :

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

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

- STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)
- MACHINE BOLTS - $\frac{5}{16}$ " X 1-3/4" Length w/ lock nuts
- WOOD POSTS (4" x 6")
- LAG SCREWS - $\frac{3}{8}$ " X 3" (NO STRINGERS ON BACK OF SIGN)
 $\frac{3}{8}$ " X 4" (STRINGERS ON BACK OF SIGN)
- SQUARE STEEL POSTS (2" x 2")
- MACHINE BOLTS - $\frac{3}{8}$ " X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
 $\frac{3}{8}$ " X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)
- RIVETS - $\frac{9}{32}$ " (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH
- WASHERS (ALL POSTS) -
- 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ " STEEL
 - 1-1/4" O.D. X $\frac{3}{8}$ " I.D. X .080 NYLON

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

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

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

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

LENGTH SHOWN ON MISC. Q'TYS

SIGN

SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL

2" STEEL TUBULAR SQUARE UPPER SECTION

ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C

ALL FOUR SIDES

$\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT

2 1/2" GRAVEL OR DIRT

TELESCOPE PIECES FLUSH AT TOP

18" DIA SCHEDULE 40 PVC BOX-OUT

36"

18"

13"

$\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT

2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)

2 1/4" SQUARE X 36"

TECHNICAL DRAWING OF A SIGNPOST ASSEMBLY:

- Dimensions:**
 - Overall height: LENGTH SHOWN ON MISC. QTY'S
 - Vertical spacing from ground line: 36" (total), 18" (upper section), 12" (lower section).
- Components and Labels:**
 - SIGN
 - SEE SIGN PLATE A4-8 FOR BOLT WASHER, & NUT MATERIAL
 - 2" STEEL TUBULAR SQUARE UPPER SECTION
 - ALL HOLES $\frac{7}{16}$ " SPACED 1" C-C
 - ALL FOUR SIDES
 - $\frac{3}{8}$ " ZINC PLATED CORNER ANCHOR BOLT AND NUT
 - TELESCOPE PIECES FLUSH AT TOP
 - $\frac{3}{8}$ " ZINC PLATED ANCHOR BOLT AND NUT
 - 2 1/2" SQUARE X 18" (SOIL STABILIZING SLEEVE)
 - 2 1/4" SQUARE X 36"

3/8" ZINC PLATED CORNER
ANCHOR BOLT AND NUT

DIRECTION
OF TRAFFIC

SECTION A-A

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

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 PLATI 159 14-9.9

PROJECT NO:

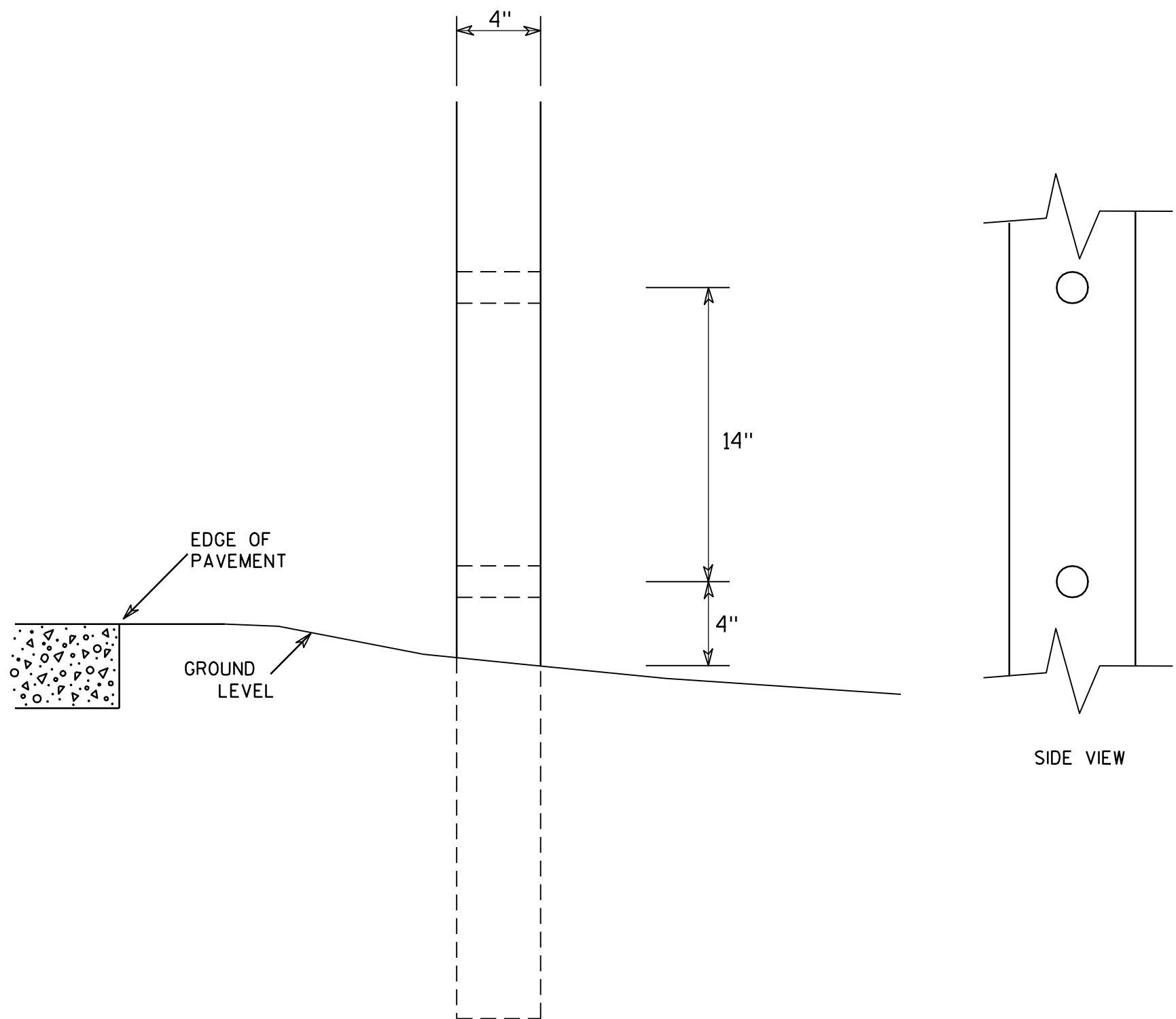
HWY:

COUNTY:

SHEET NO:

T

7



GENERAL NOTES

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

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

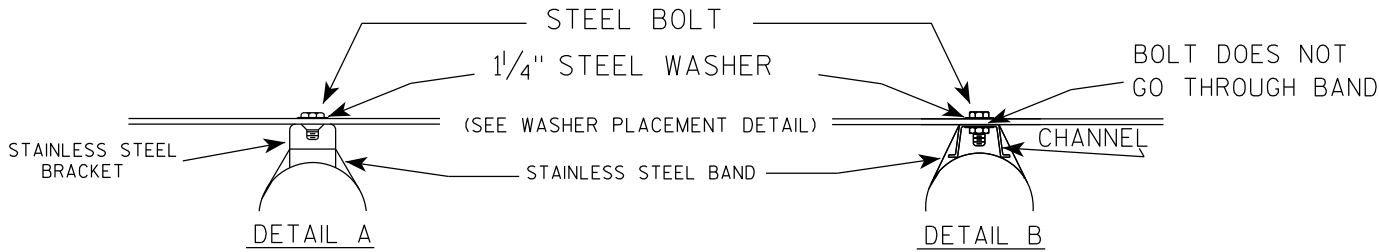
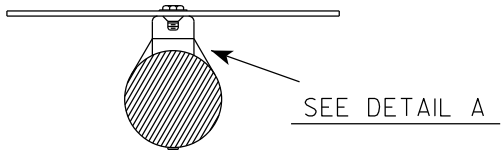
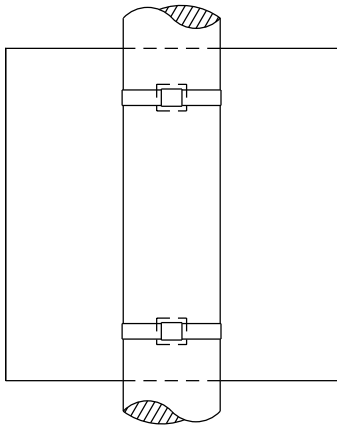
APPROVED *Chester J. Spang*
for State Traffic Engineer

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

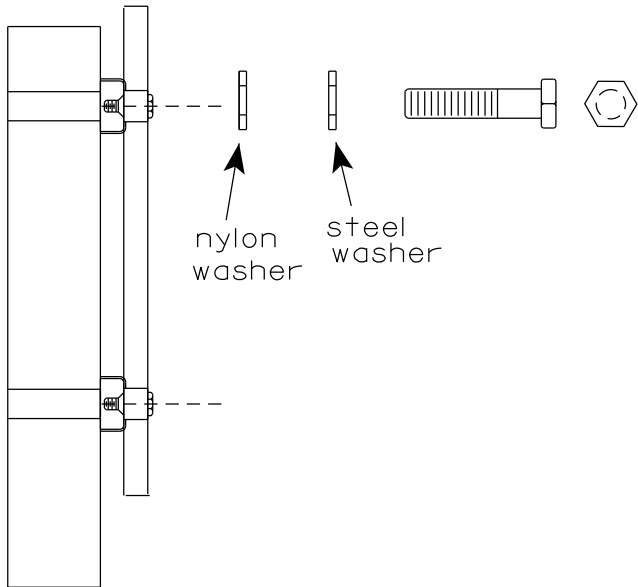
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 160	E
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BANDING

SINGLE SIGN



WASHER PLACEMENT

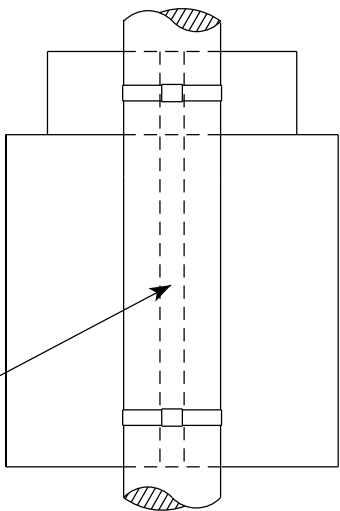


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

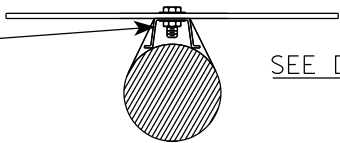
GENERAL NOTES

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

"J" ASSEMBLY



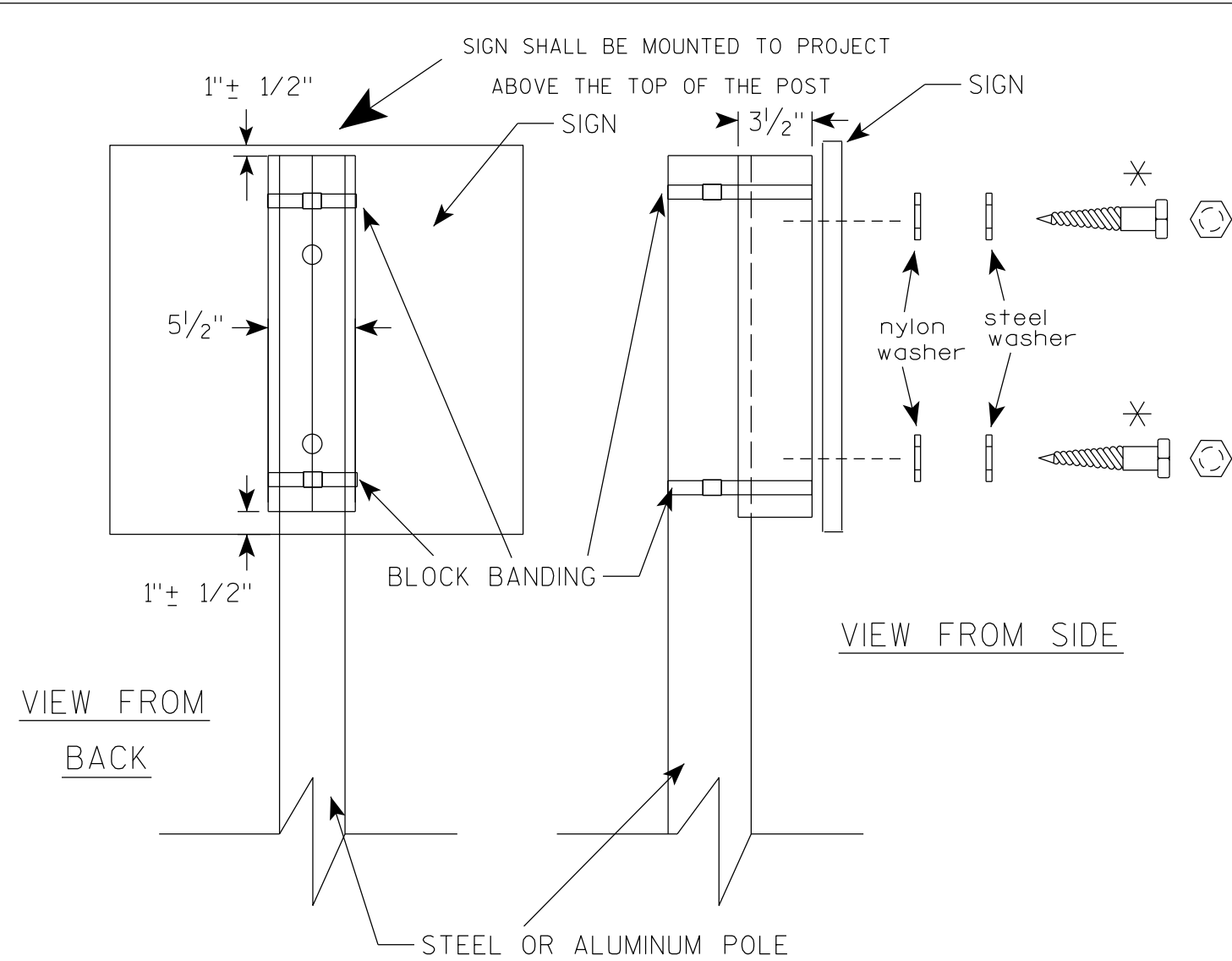
CHANNEL
SEE TYPICAL PANEL
INSTALLATION SHEET



STANDARD SIGN
SIGN BANDING DETAILS

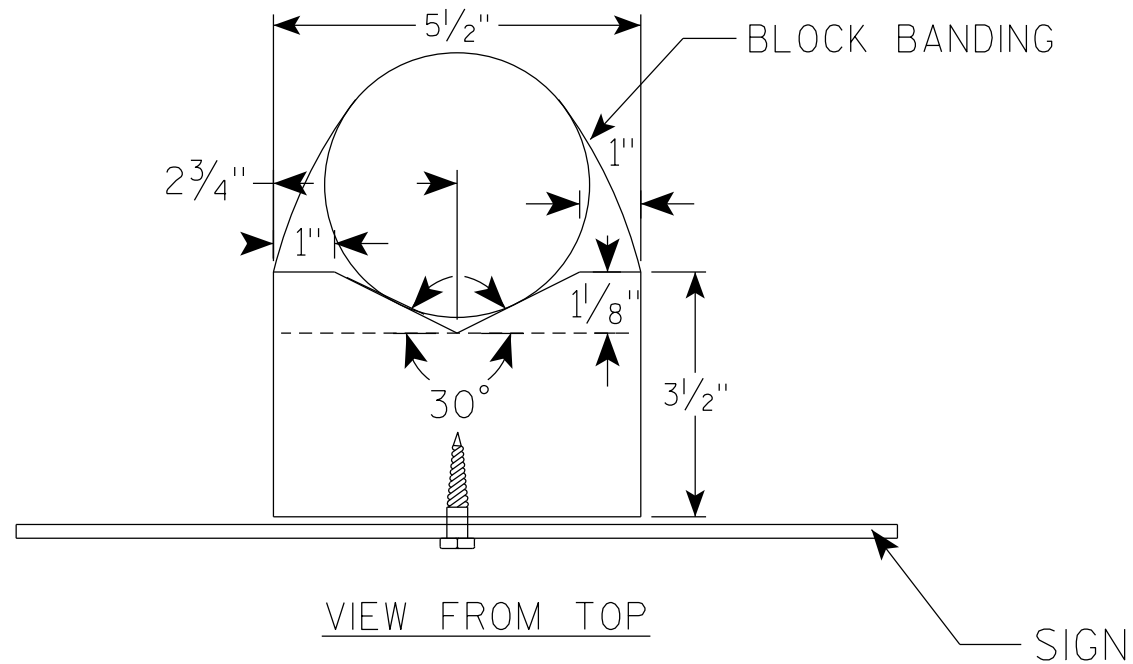
WISCONSIN DEPT OF TRANSPORTATION

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



VIEW FROM
BACK

VIEW FROM SIDE



VIEW FROM TOP

GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WISDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, $\frac{3}{4}$ " WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORMALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
 - a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
 - b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X $\frac{1}{16}$ "
8. NYLON WASHERS SHALL BE $\frac{1}{4}$ " O.D. X $\frac{3}{8}$ " I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

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

BLOCK BANDING DETAIL
(V-BLOCK OPTION)

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

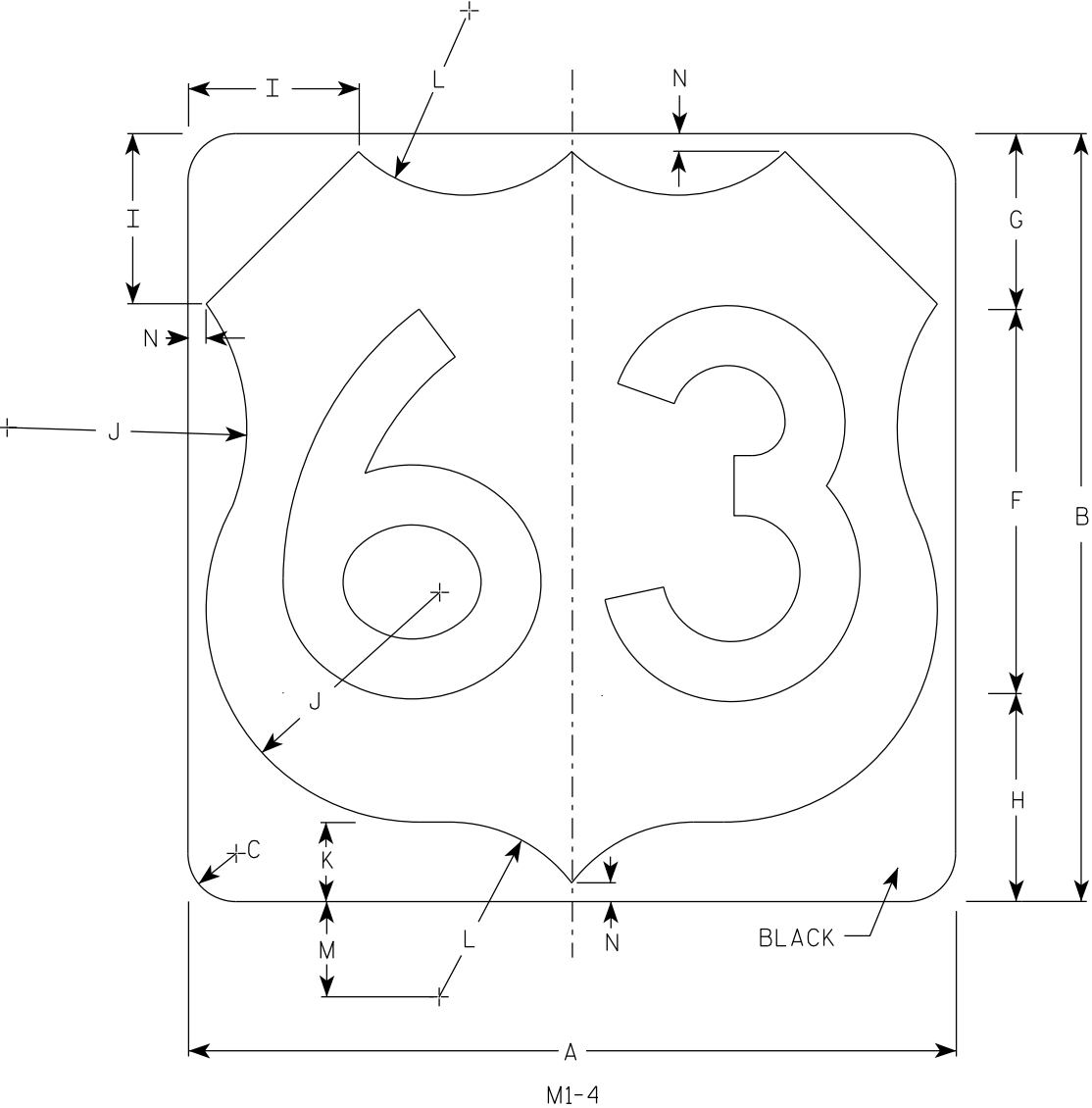
DATE 4/19/2022 PLATE NO. A5-10.3

PROJECT NO:

SHEET NO: 162

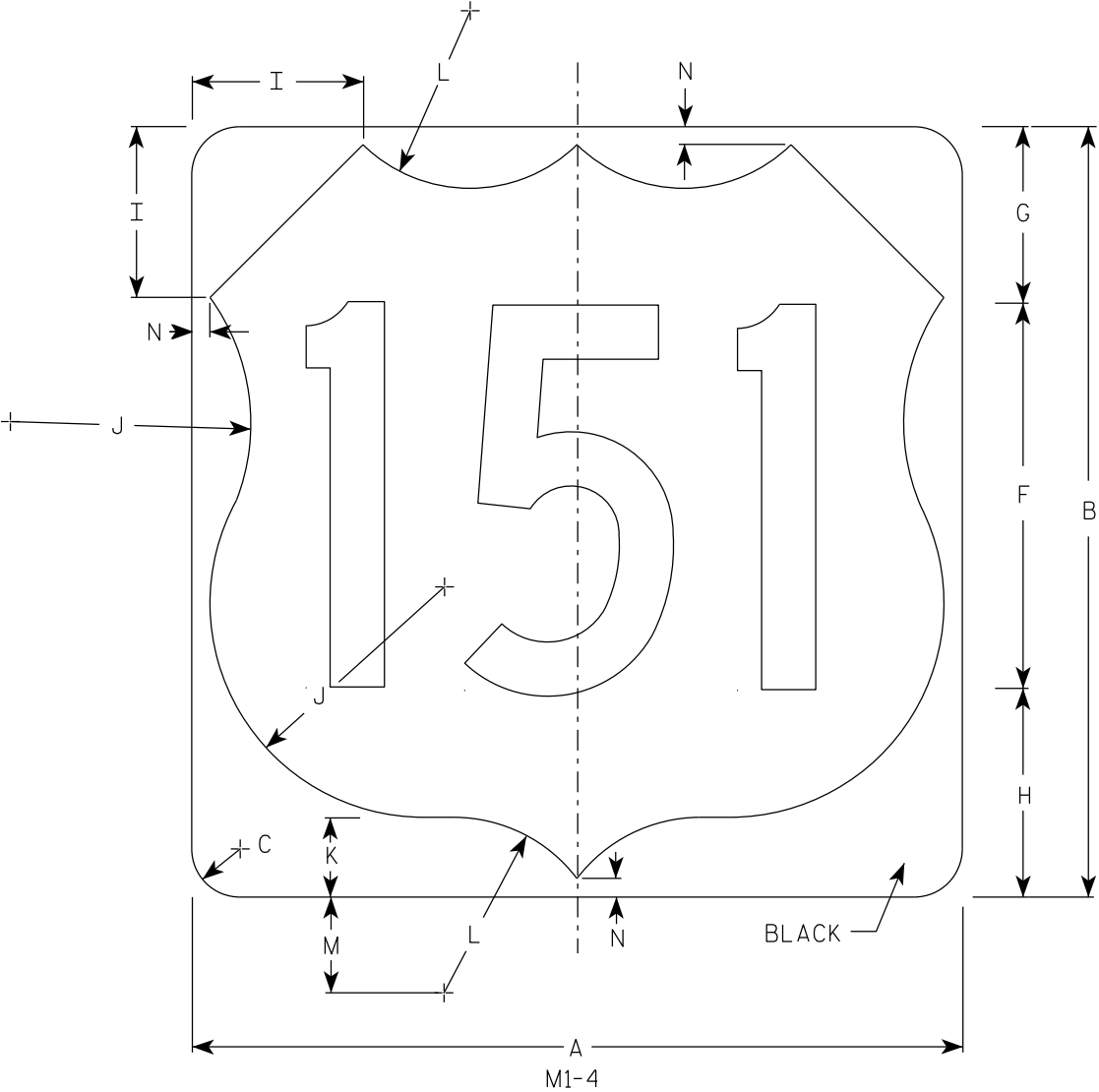
E

7



NOTES

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



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	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
2M	24	24	1 1/2			12	5 1/2	6 1/2	5	7 1/2	2 1/2	5 1/2	3	1/2													4.0
3	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
4	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0
5	36	36	2 1/4			18	8 1/4	9 1/4	7 1/4	11 1/4	3 3/4	8 1/4	4 1/2	3/4													9.0

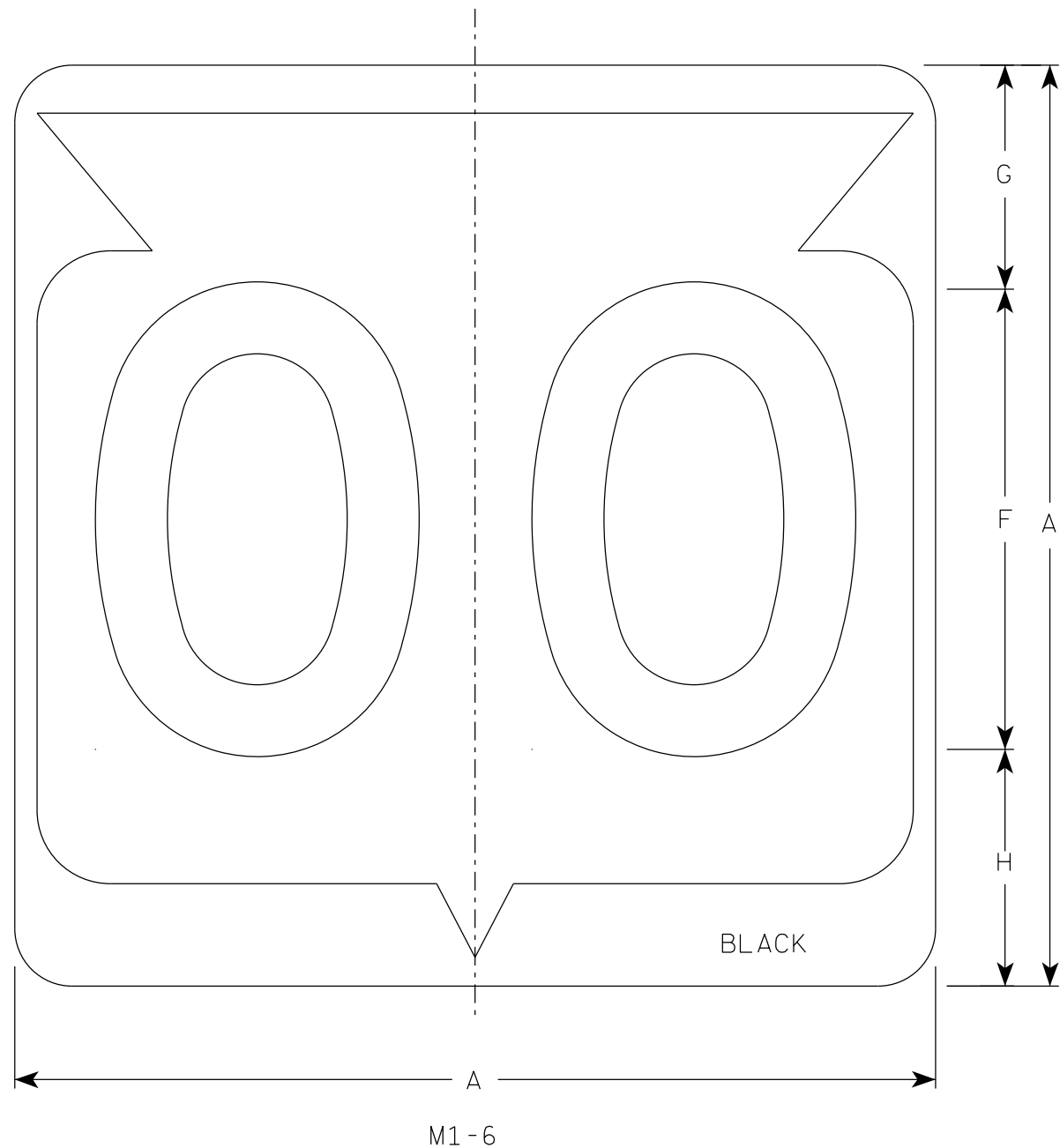
USH MARKER
M1-4 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

APPROVED
Matthew R. Rauch
for State Traffic Engineer

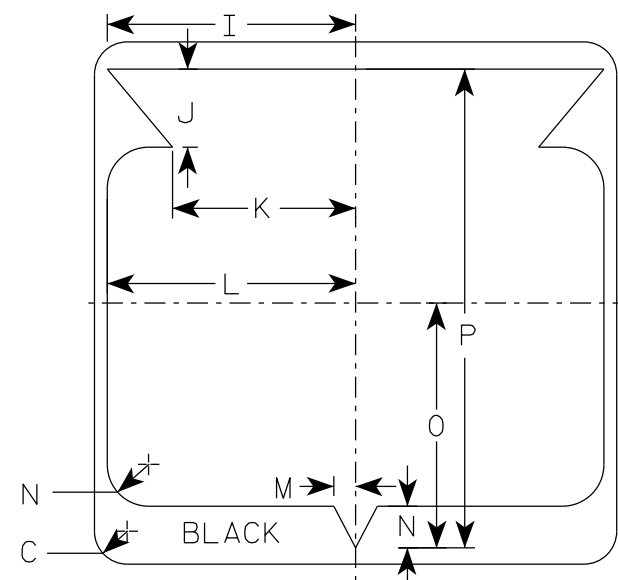
DATE 12/20/22 PLATE NO. M1-4.11

7



NOTES

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



7

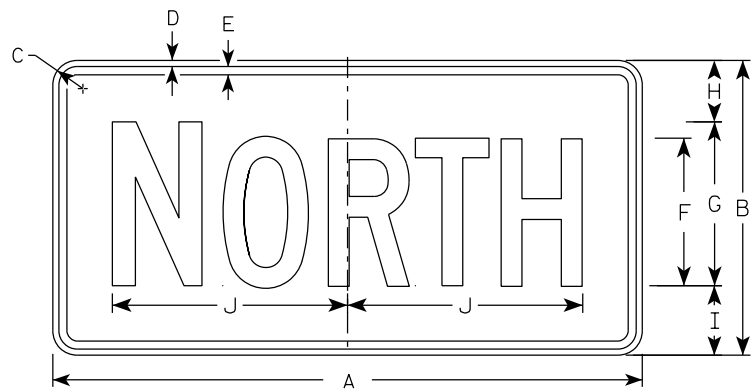
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8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

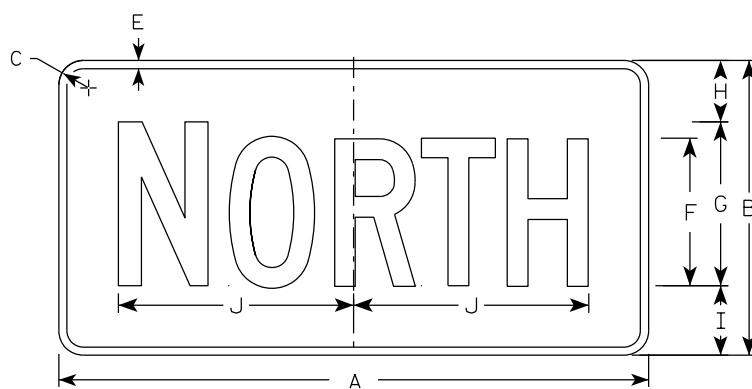
WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

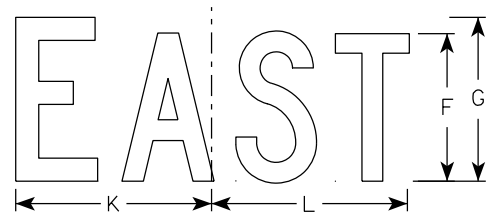
DATE 11/8/2022 PLATE NO. M1-6.11



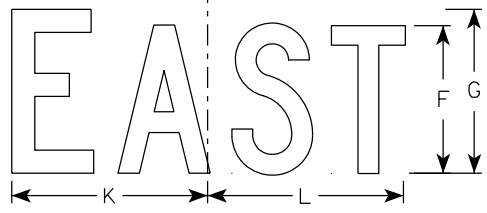
M3-1
MM3-1
MP3-1



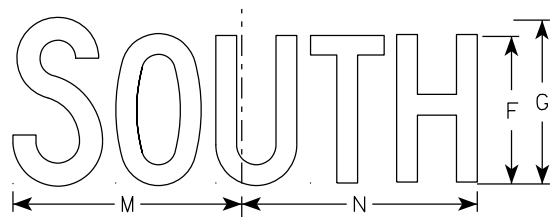
MB3-1
MK3-1
MN3-1



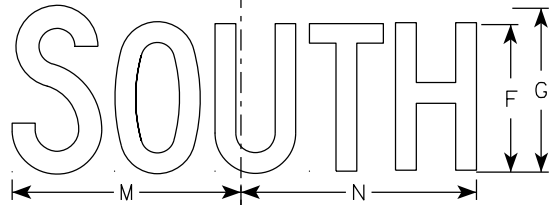
M3-2
MM3-2
MP3-2



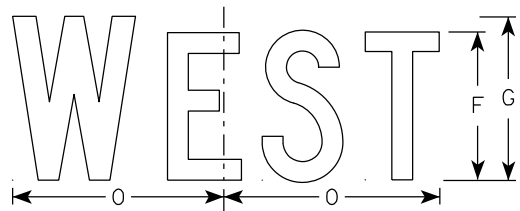
MB3-2
MK3-2
MN3-2



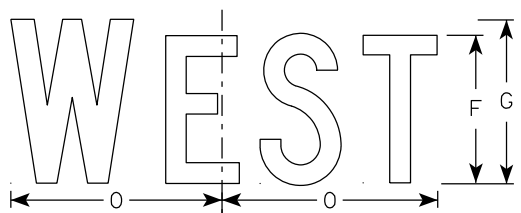
M3-3
MM3-3
MP3-3



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.

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

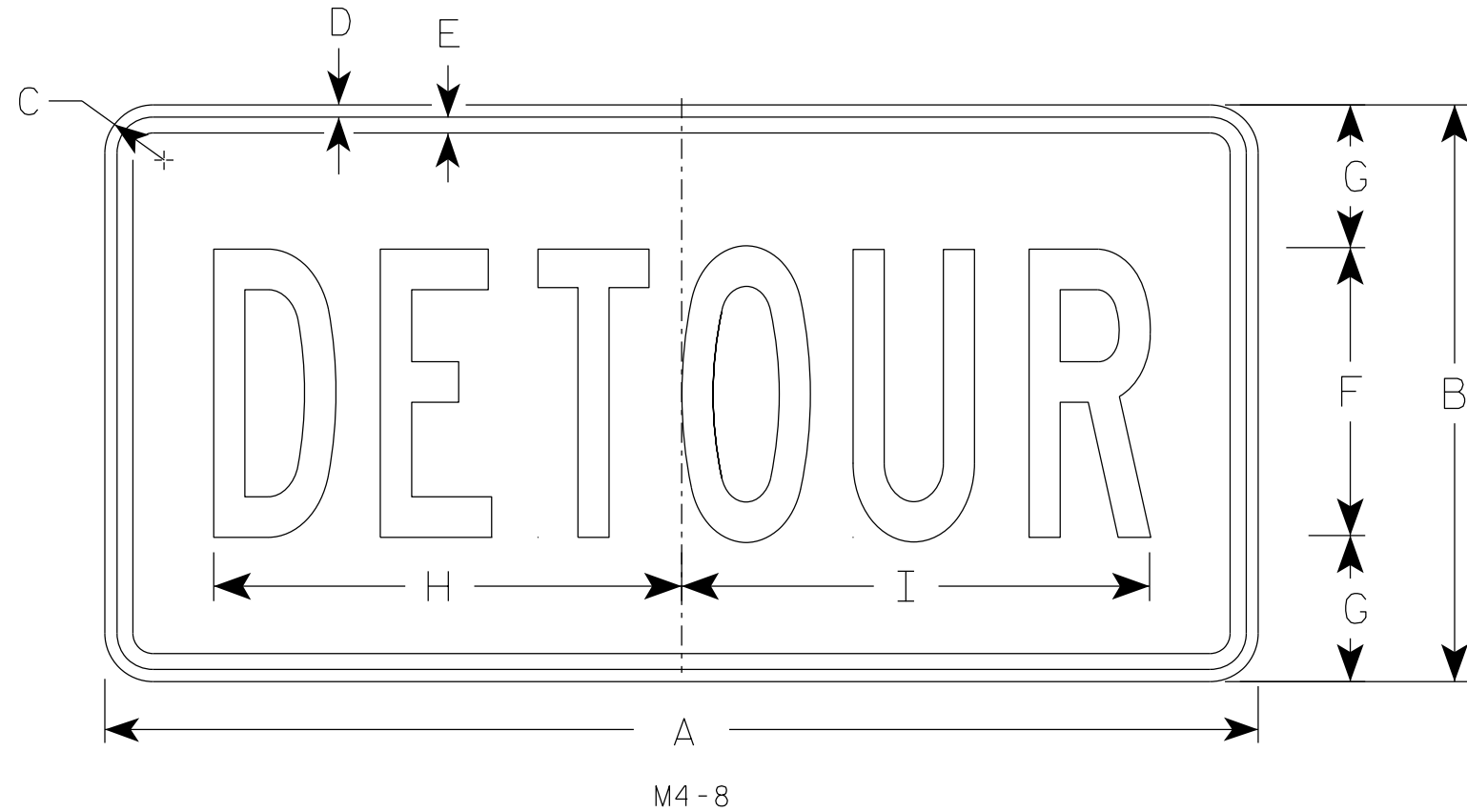
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 165	E
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7

7

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.



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

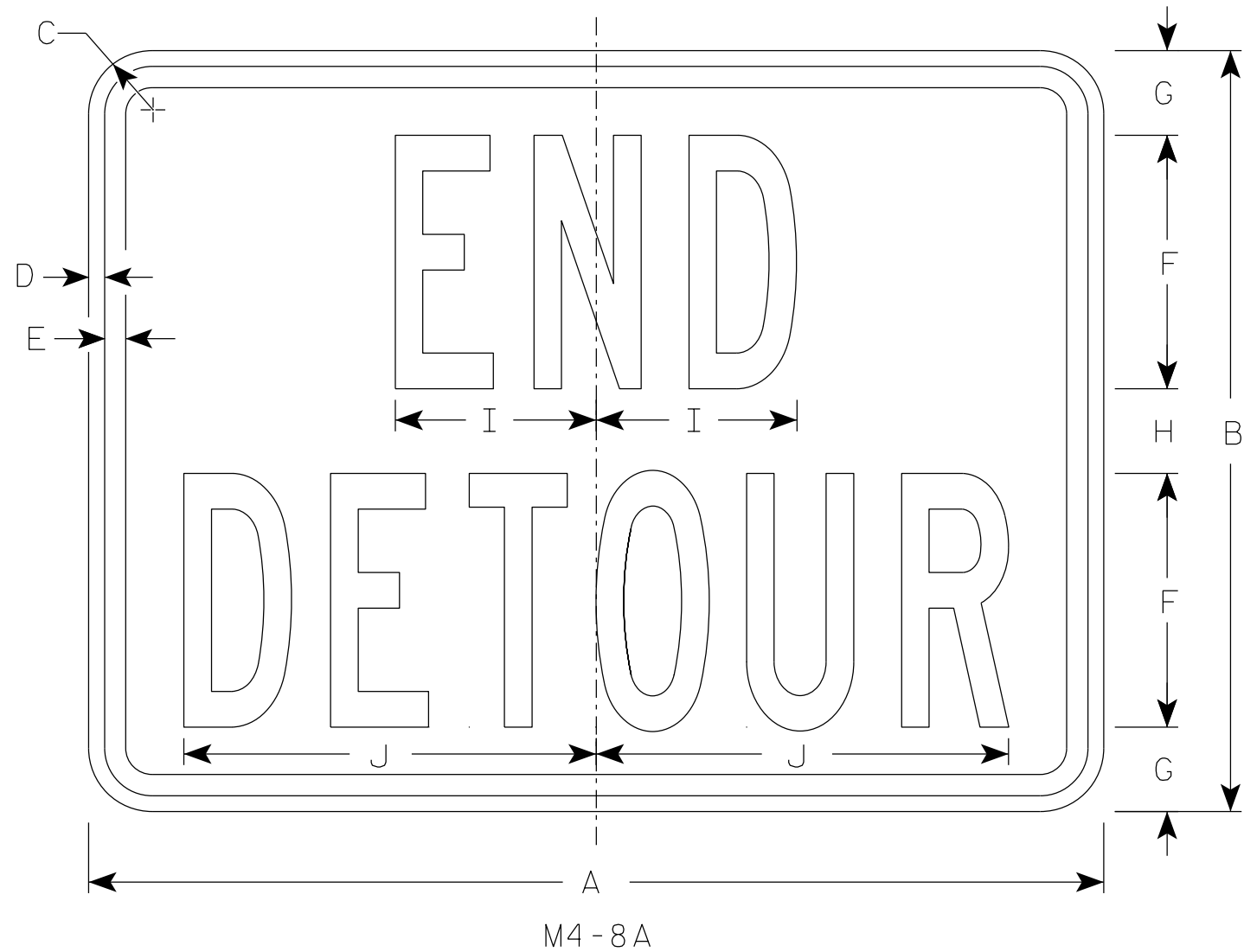
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
for State Traffic Engineer

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

7



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

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

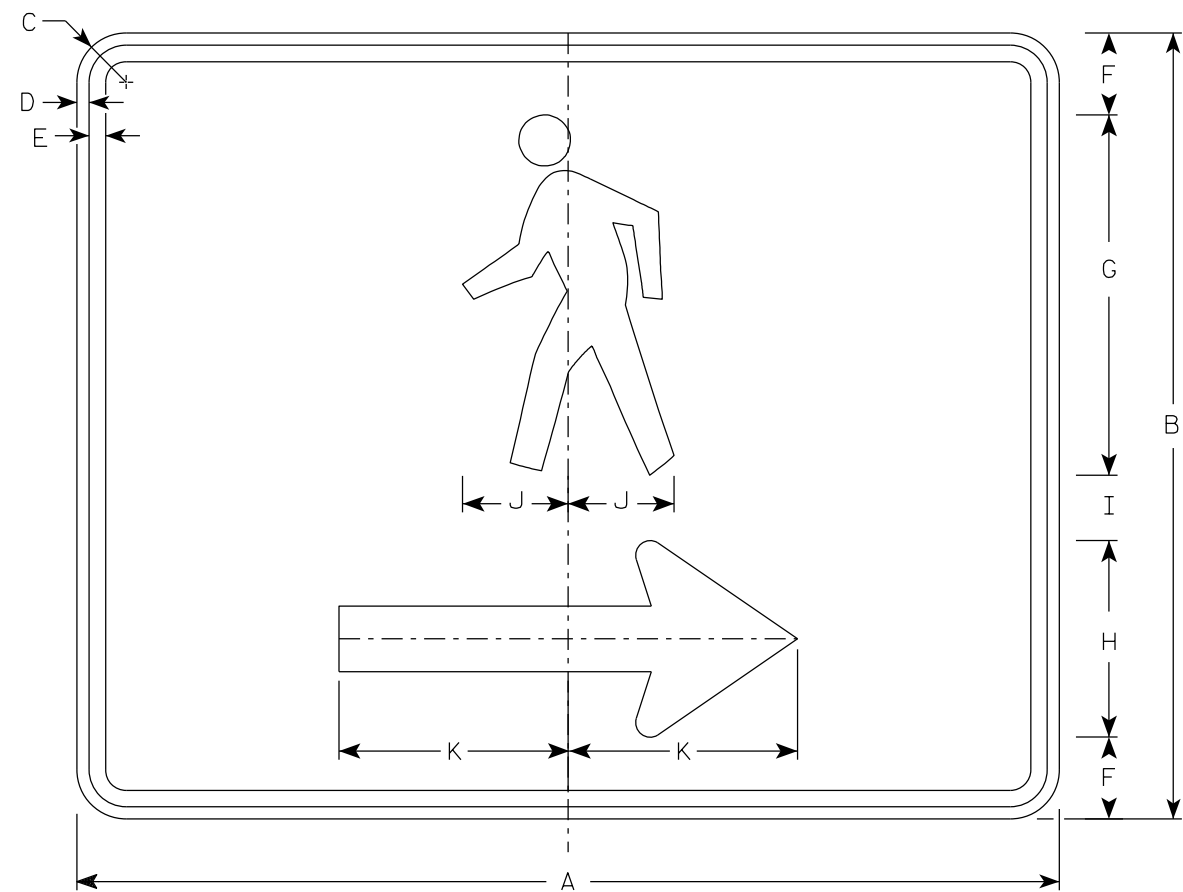
M4-8A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

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

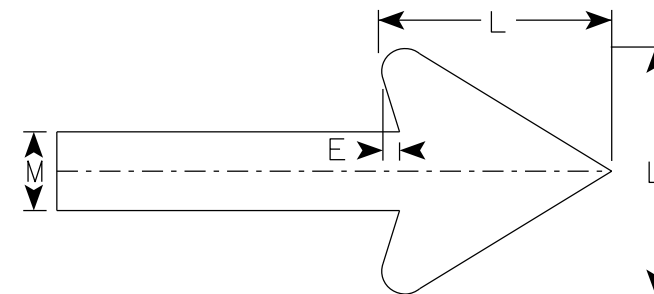
7



M4-60R

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.



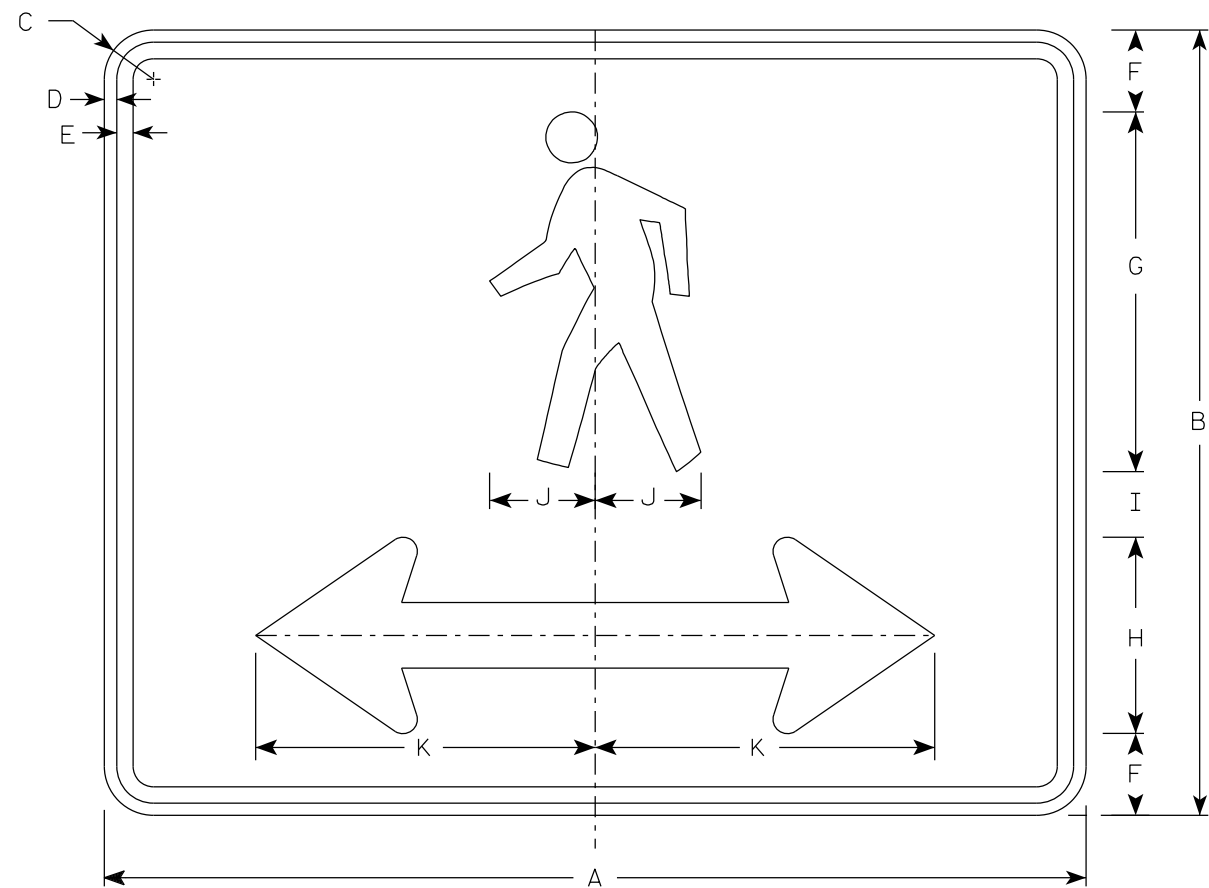
Arrow Detail

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																											

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 168	E
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7

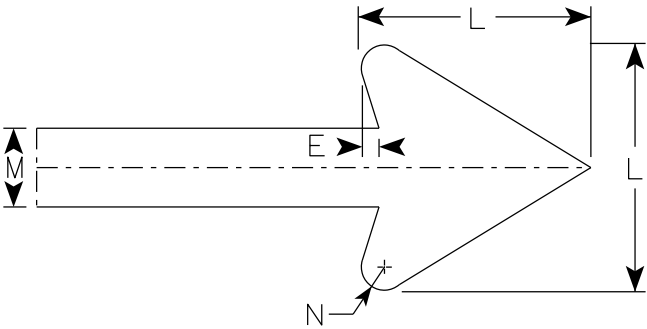
7



M4-60D

NOTES

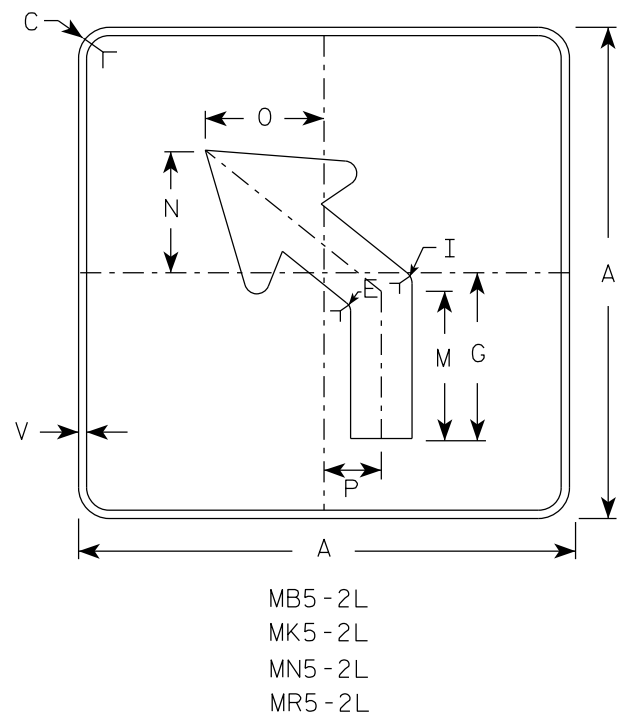
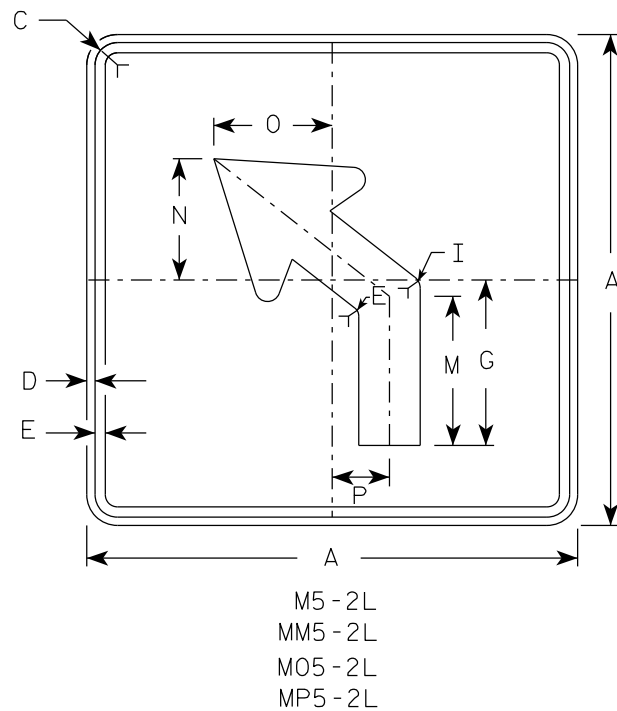
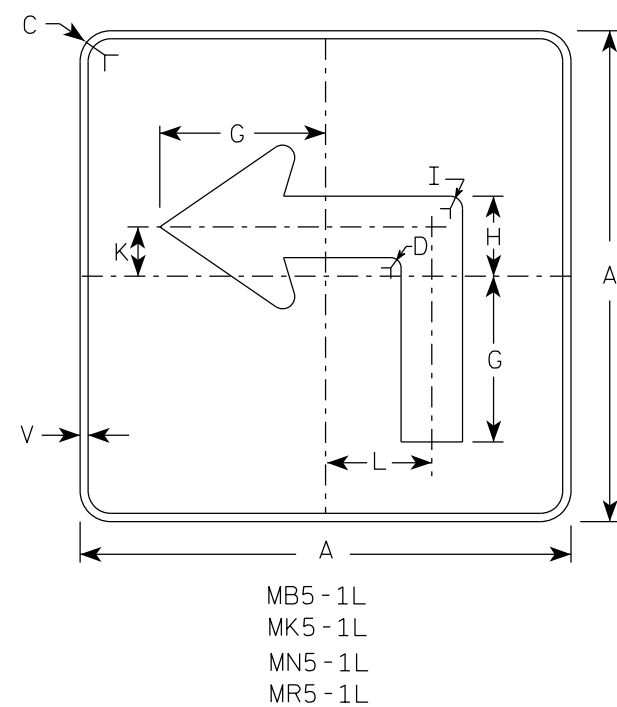
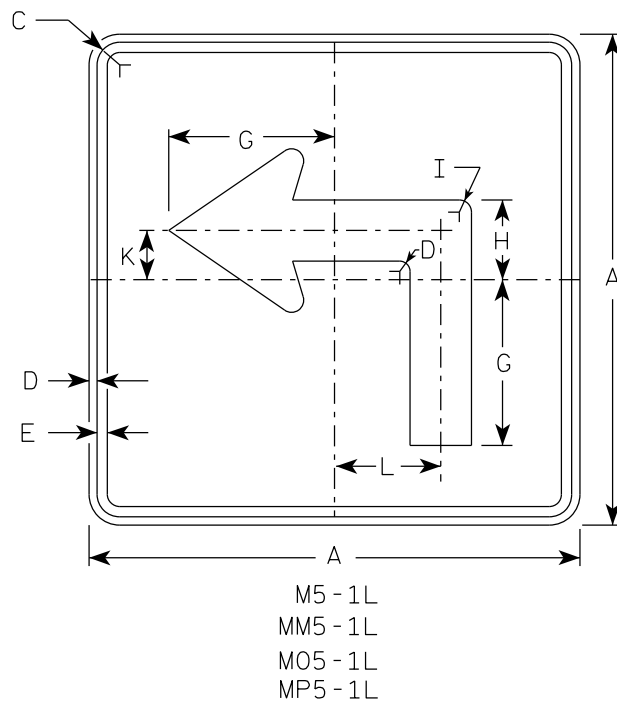
- 1. Sign is Type II- Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



Arrow Detail

7

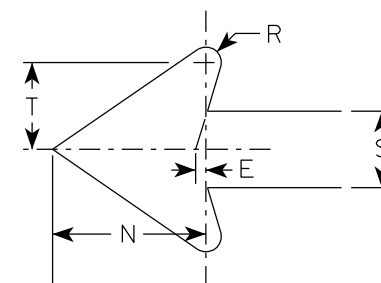
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	10 3/8	6	2	3/8													5.00
2M	30	24	1 1/2	3/8	1/2	2 1/2	11	6	2	3 1/4	10 3/8	6	2	3/8													5.00
3																											
4																							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



NOTES

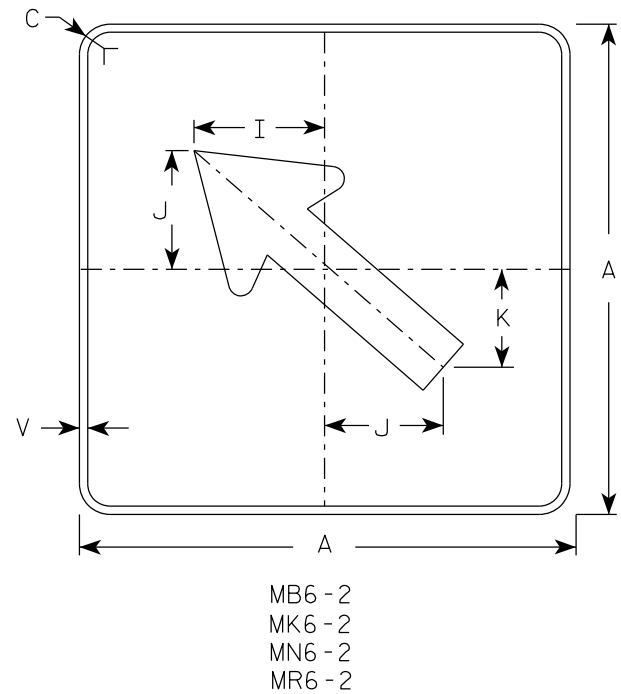
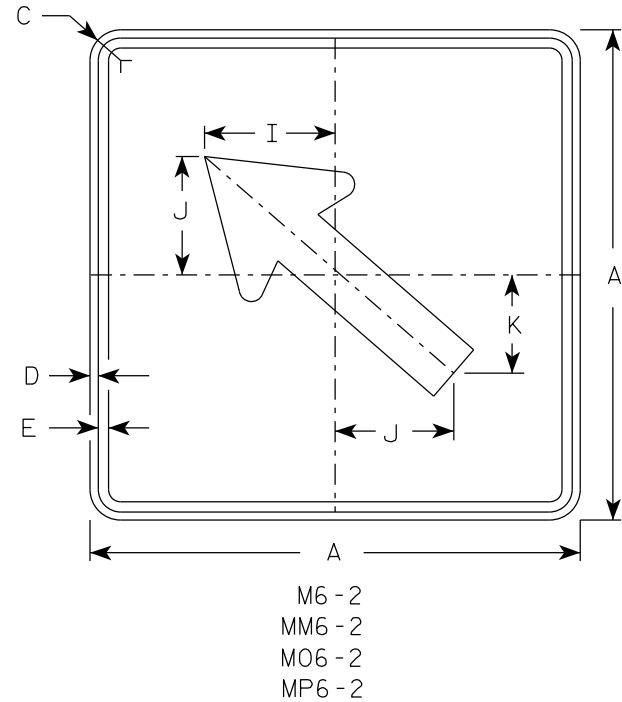
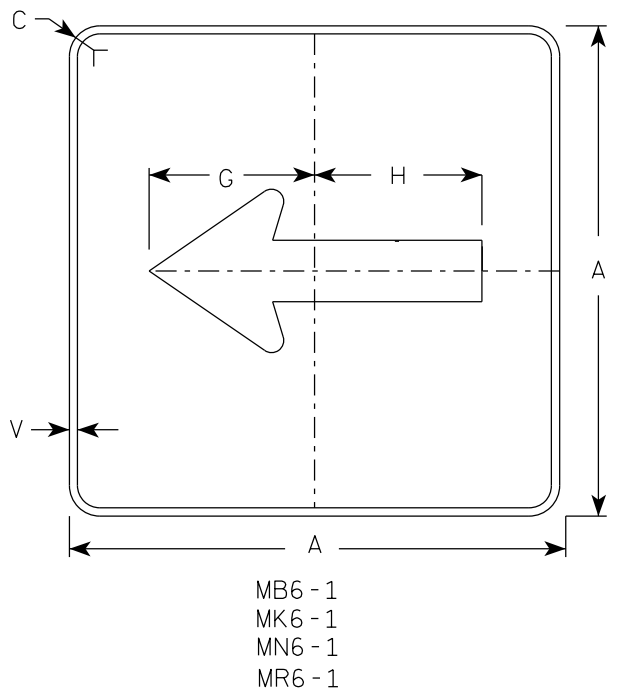
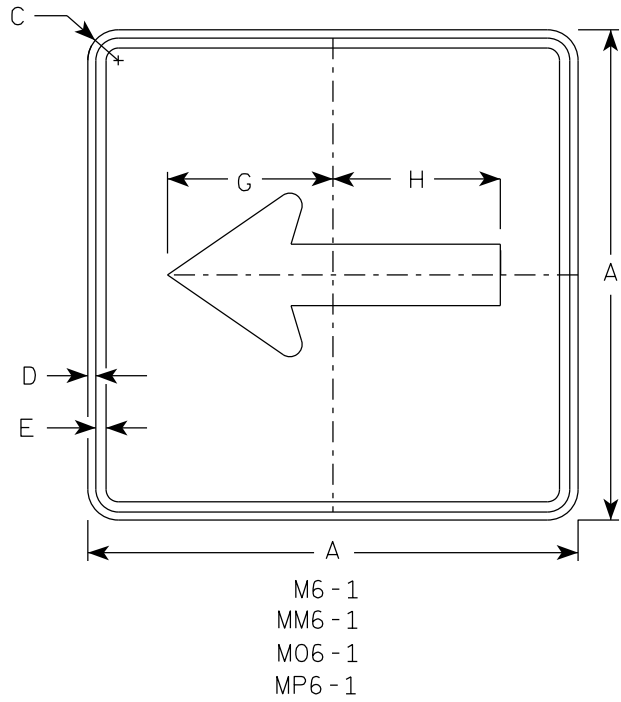
- Signs are Type II - Type H reflective except as shown
- Color:
Background - See note 4
Message - See note 4
- Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
- | | | |
|-----------|-------|---|
| 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.

ARROW DETAIL



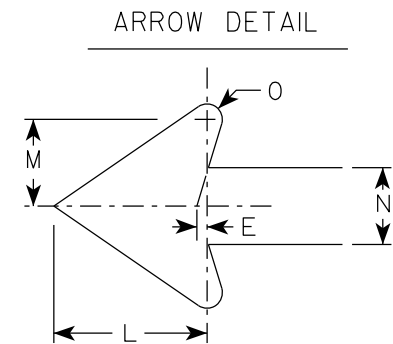
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2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

PROJECT NO:	HWY:	COUNTY:	SHEET NO: 170	E
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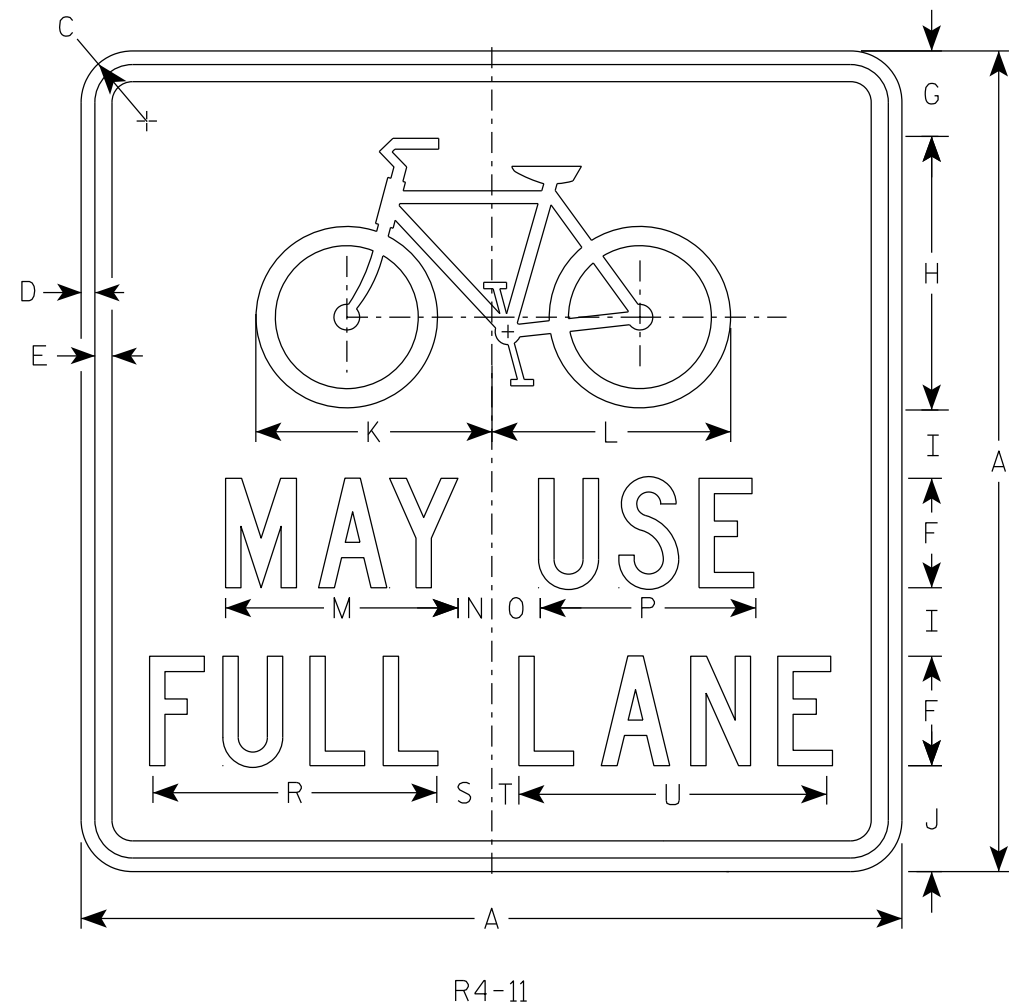
NOTES

- 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



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

7



NOTES

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

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	30		1 7⁄8	1⁄2	5⁄8	4	3 1⁄8	10	2 1⁄2	3 7⁄8	8 5⁄8	8 3⁄4	8 1⁄2	1 1⁄4	1 3⁄4	7 7⁄8		10 3⁄8	2	1	11 1⁄4						6.25
2M	30		1 7⁄8	1⁄2	5⁄8	4	3 1⁄8	10	2 1⁄2	3 7⁄8	8 5⁄8	8 3⁄4	8 1⁄2	1 1⁄4	1 3⁄4	7 7⁄8		10 3⁄8	2	1	11 1⁄4						6.25
3																											
4																											
5																											

STANDARD SIGN

R4-11

WISCONSIN DEPT OF TRANSPORTATION

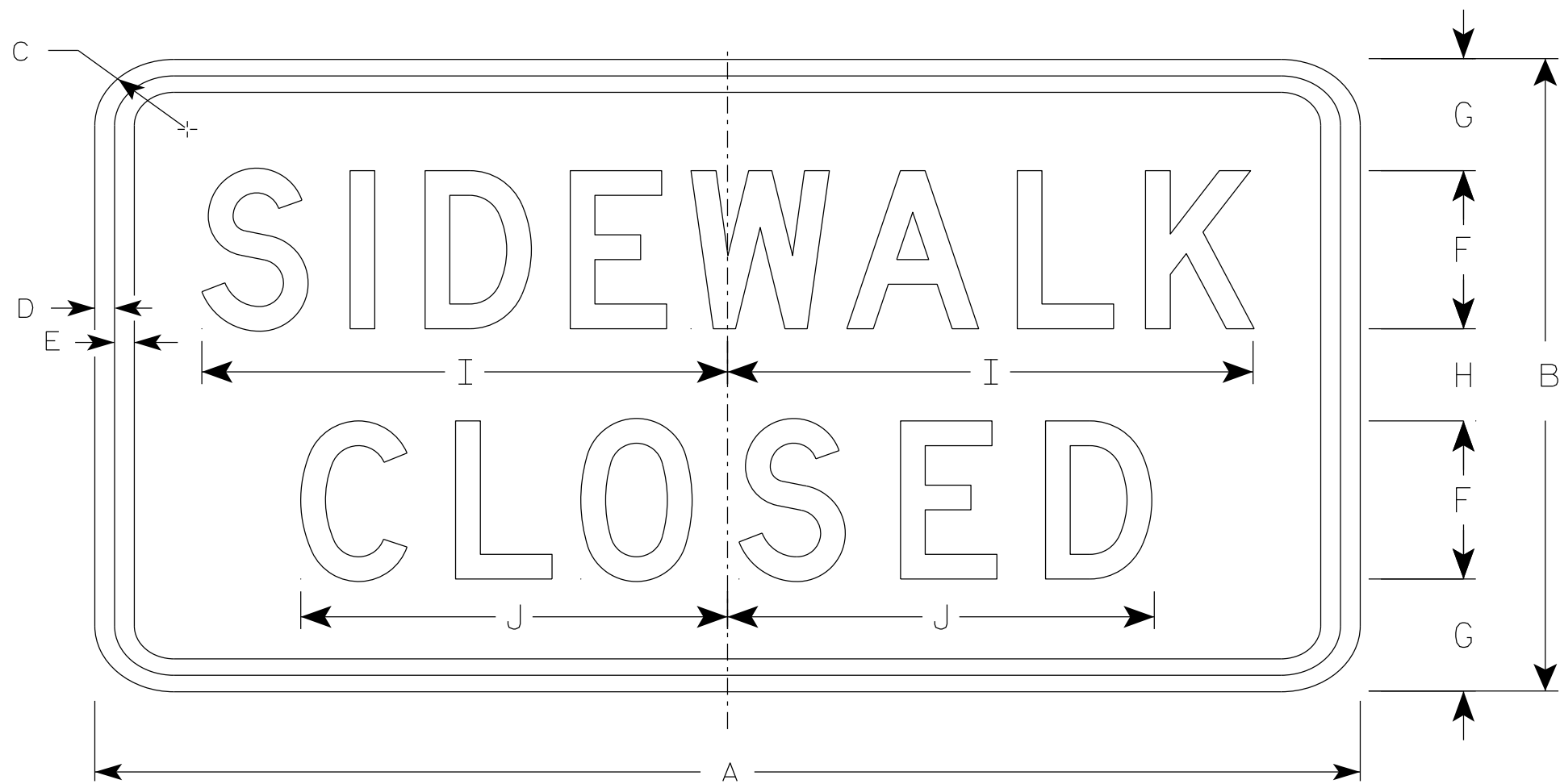
APPROVED

Matthew R. Rauch

for State Traffic Engineer

DATE 8/17/23PLATE NO. R4-11.2

7



R9-9

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.

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																											

PROJECT NO:

HWY:

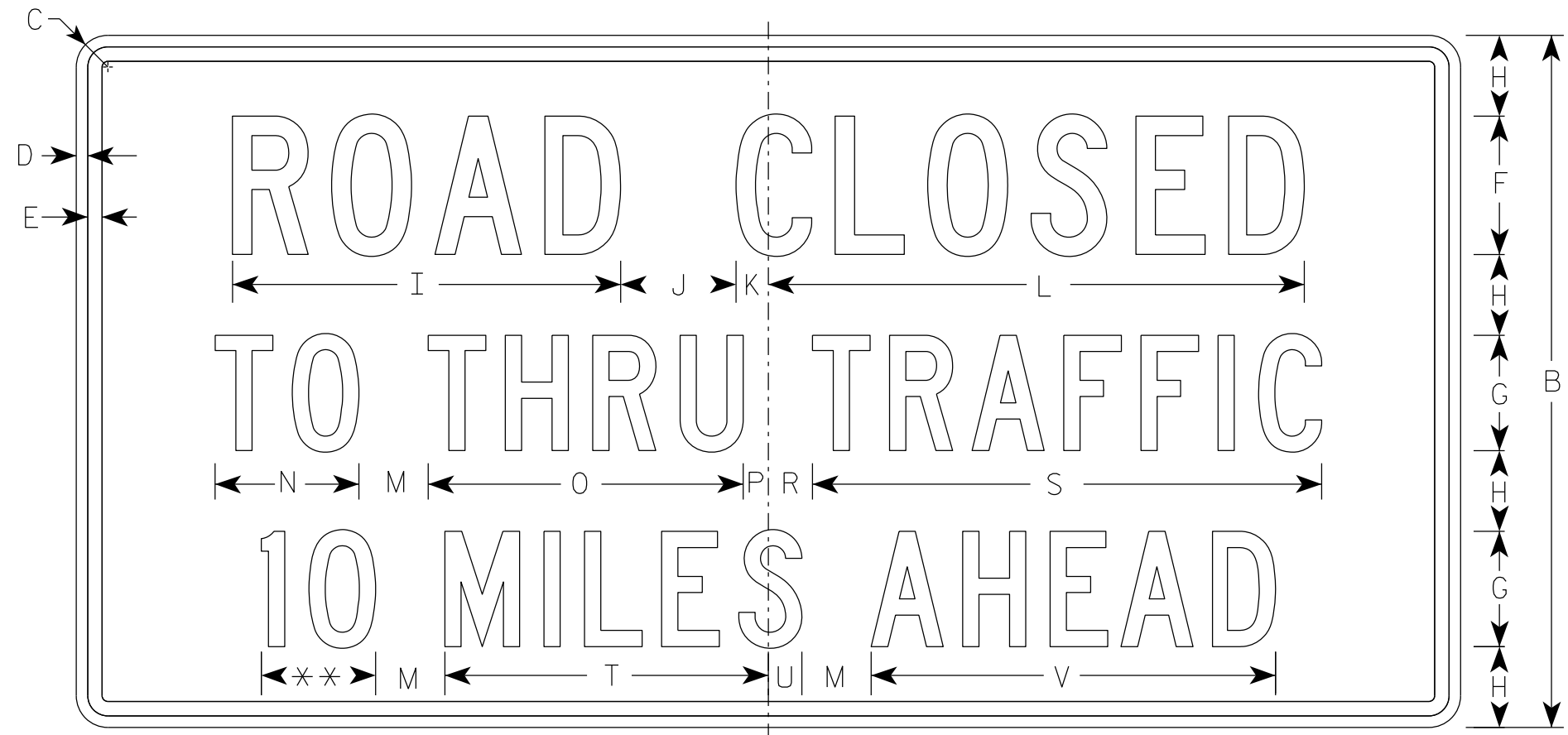
COUNTY:

SHEET NO: 173

E

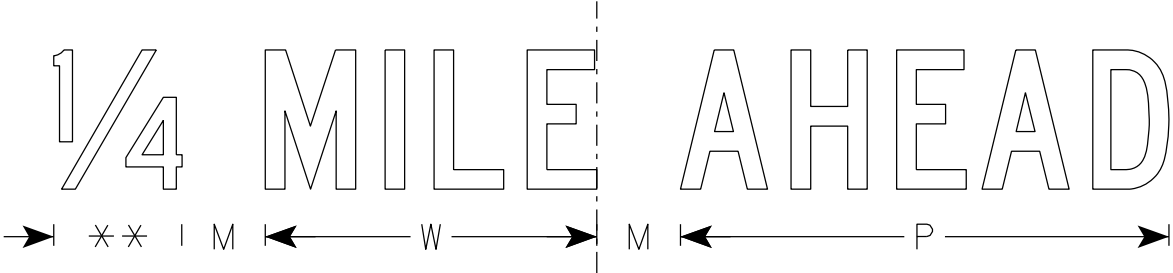
7

7



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																											

PROJECT NO:

HWY:

COUNTY:

SHEET NO: 174

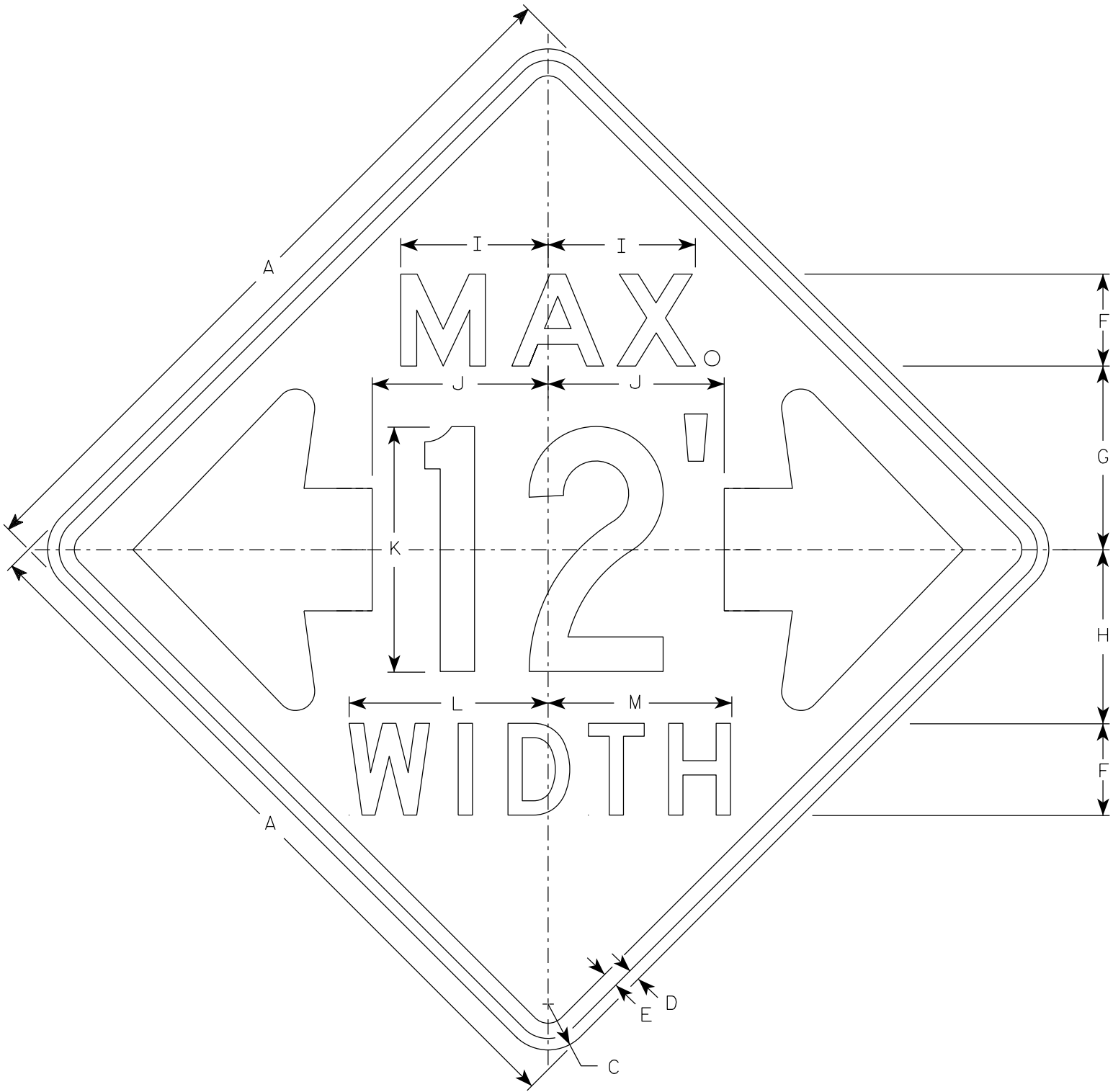
E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:

Background - White

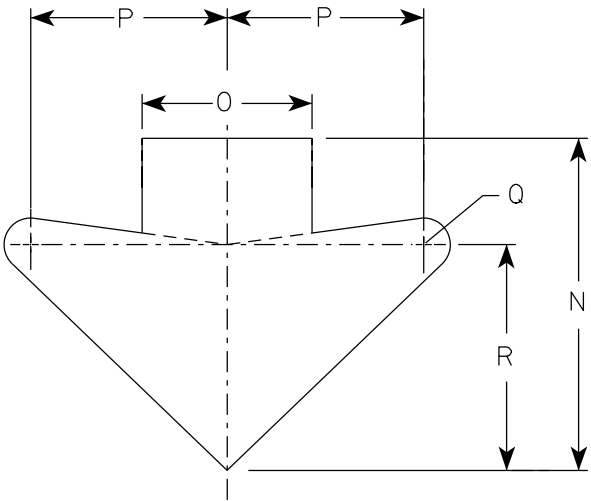
Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Substitute appropriate numerals to nearest quarter mile and optically adjust spacing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



W12-52

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
Background - Orange
Message - Black
- 3. Message Series - See note 5
- 4. The top line is series E, the numerals are series C, and the bottom line is series D.
- 5. Substitute appropriate numerals and adjust spacing as required.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48		3	¾	1	6	12	11 ⅜	9 ⅝	11 ½	16	13	12	15 ⅝	8	9 ¼	1 ¼	10 ⅝									16.0
2M	48		3	¾	1	6	12	11 ⅜	9 ⅝	11 ½	16	13	12	15 ⅝	8	9 ¼	1 ¼	10 ⅝									16.0
3																											
4																											
5																											

STANDARD SIGN

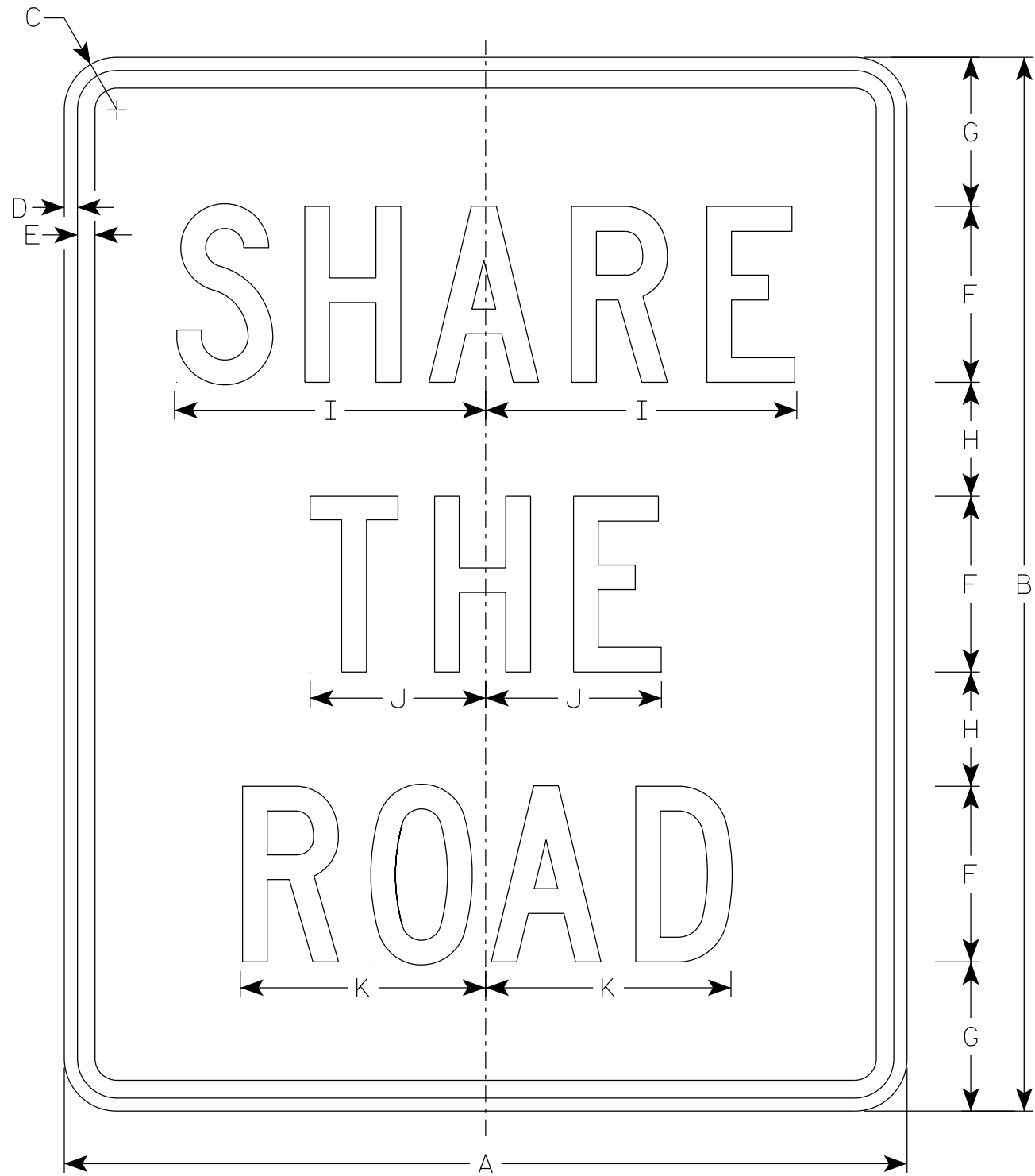
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED *Matthew R. Rauch*
For State Traffic Engineer

DATE 3/10/2024 PLATE NO. W12-52.8

7



W16 - 1P

NOTES

- 1. Sign is Type II - Type F Reflective
- 2. Color:
 - Background - Yellow
 - Message - Black
- 3. Message Series - C

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	18	24	1 1/2	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
2M	18	24	1 1/2	3/8	1/2	4	3 3/8	2 5/8	6 5/8	3 3/4	5 3/8																3.0
3	24	30	1 1/2	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
4	24	30	1 1/2	3/8	1/2	5	4 1/4	3 1/4	8 7/8	5	7																5.0
5																											

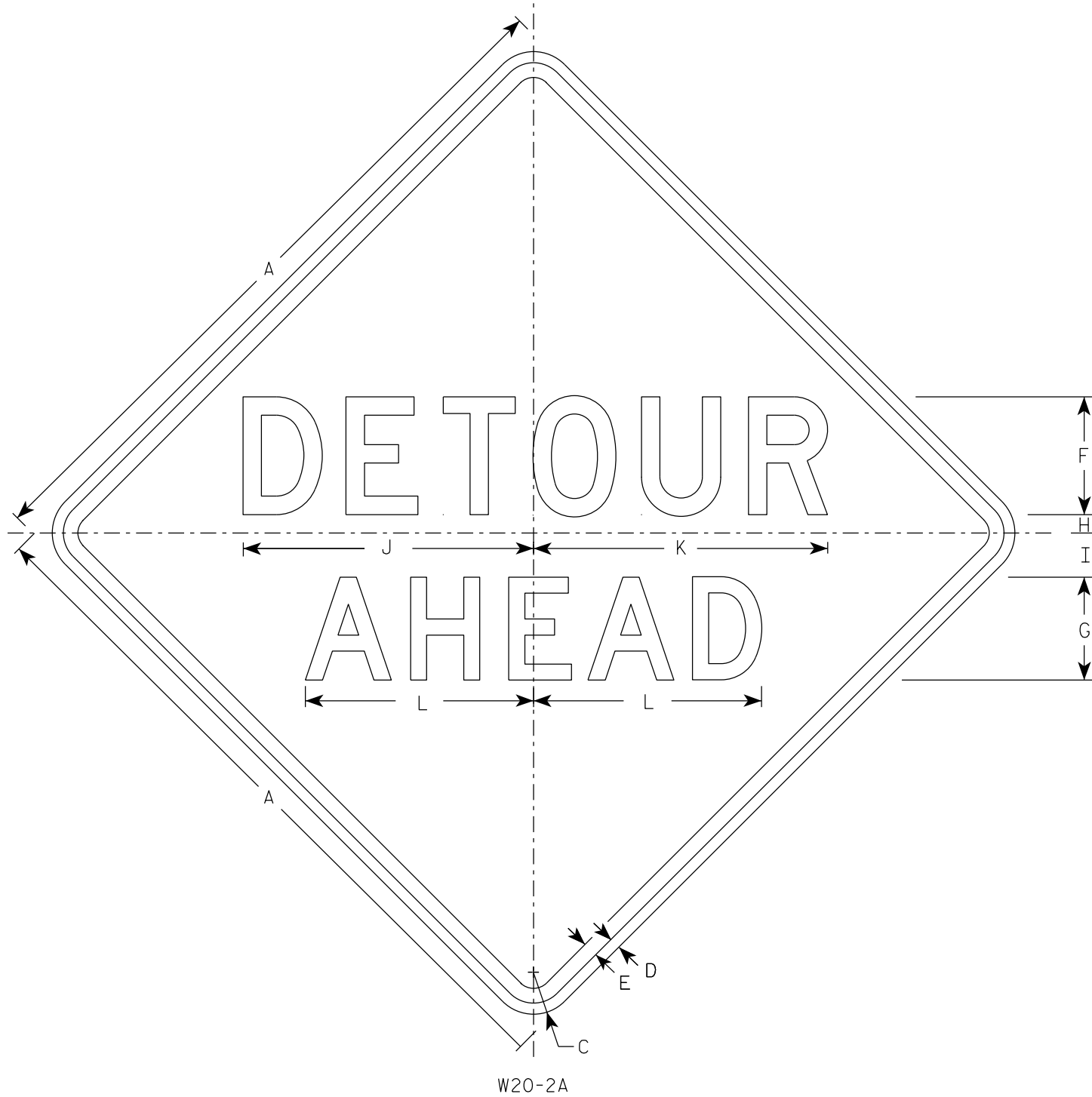
STANDARD SIGN
W16 - 1P

WISCONSIN DEPT OF TRANSPORTATION

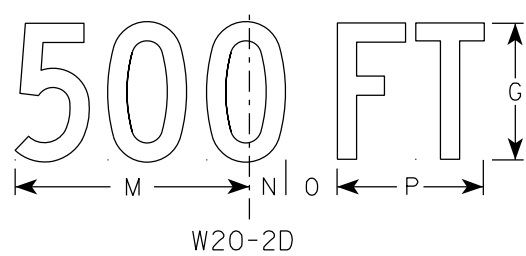
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 1/8/2024 PLATE NO. W16-1P.3

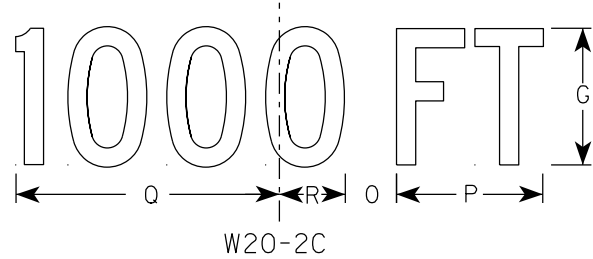
PROJECT NO:	HWY:	COUNTY:	SHEET NO: 176		E
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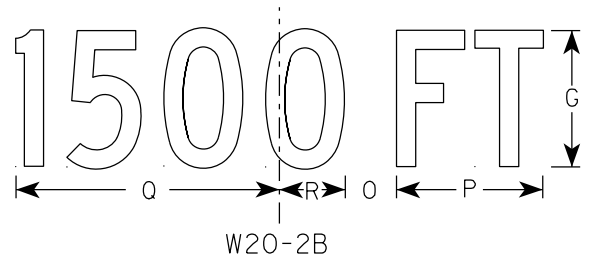
W20-2A



W20-2D



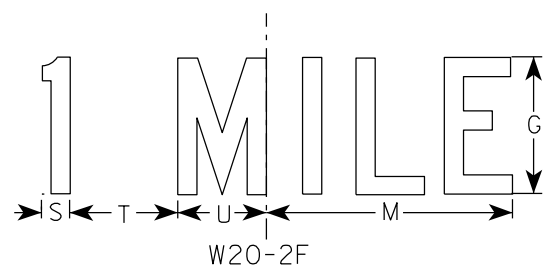
W20-2C



W20-2B



W20-2G



W20-2F

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.

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:

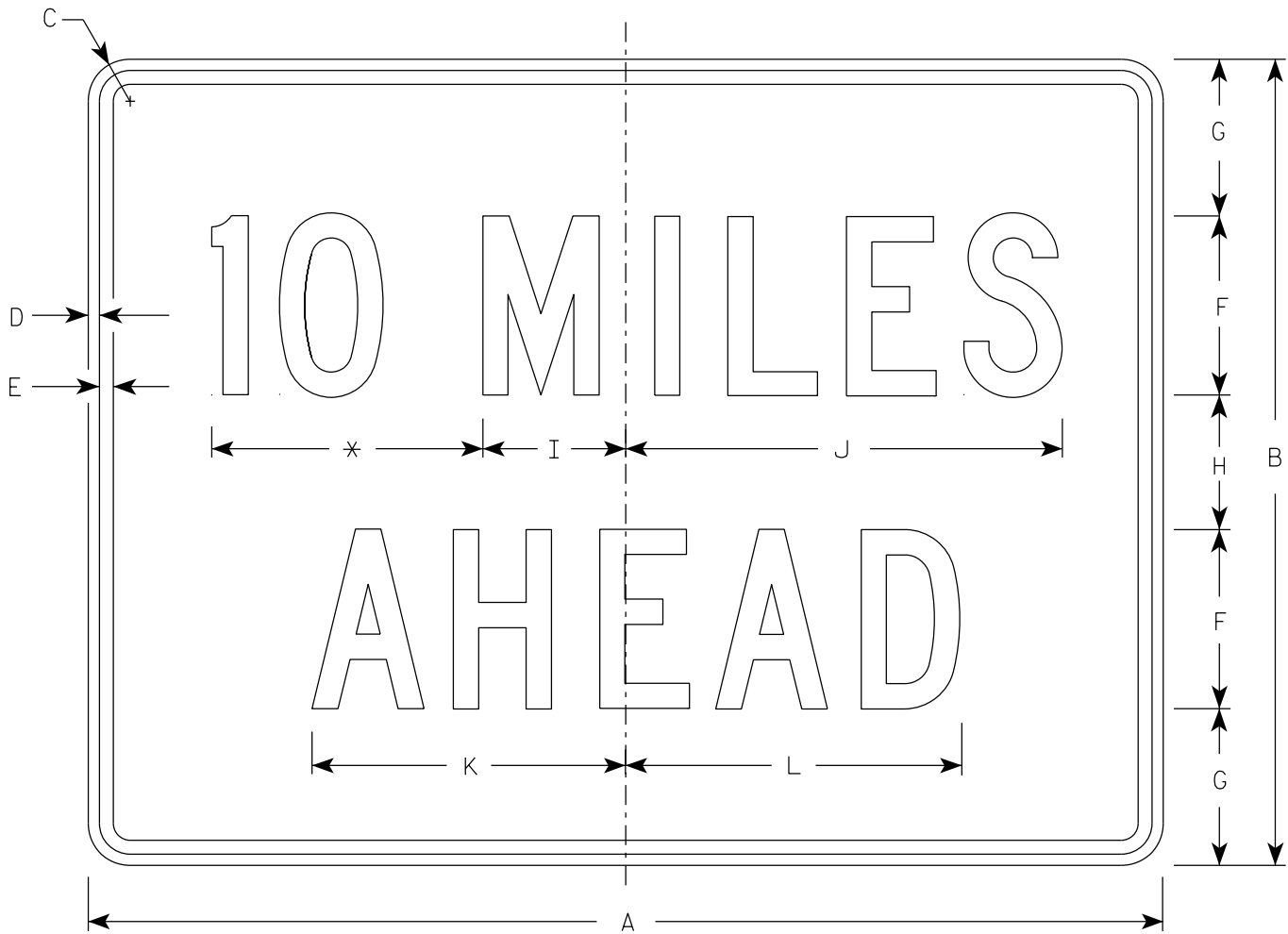
HWY:

COUNTY:

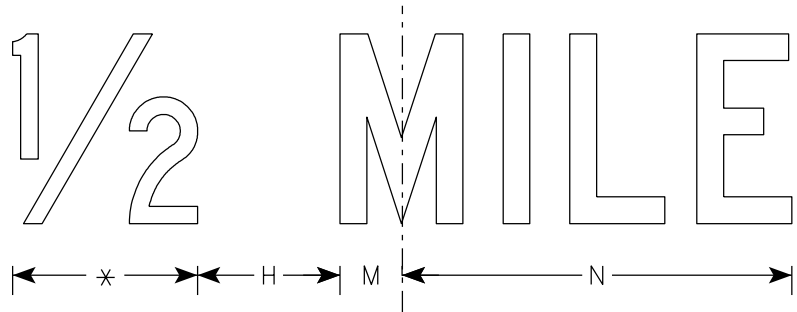
SHEET NO: 177

E

7



W057-52



* See note 5

NOTES

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

7

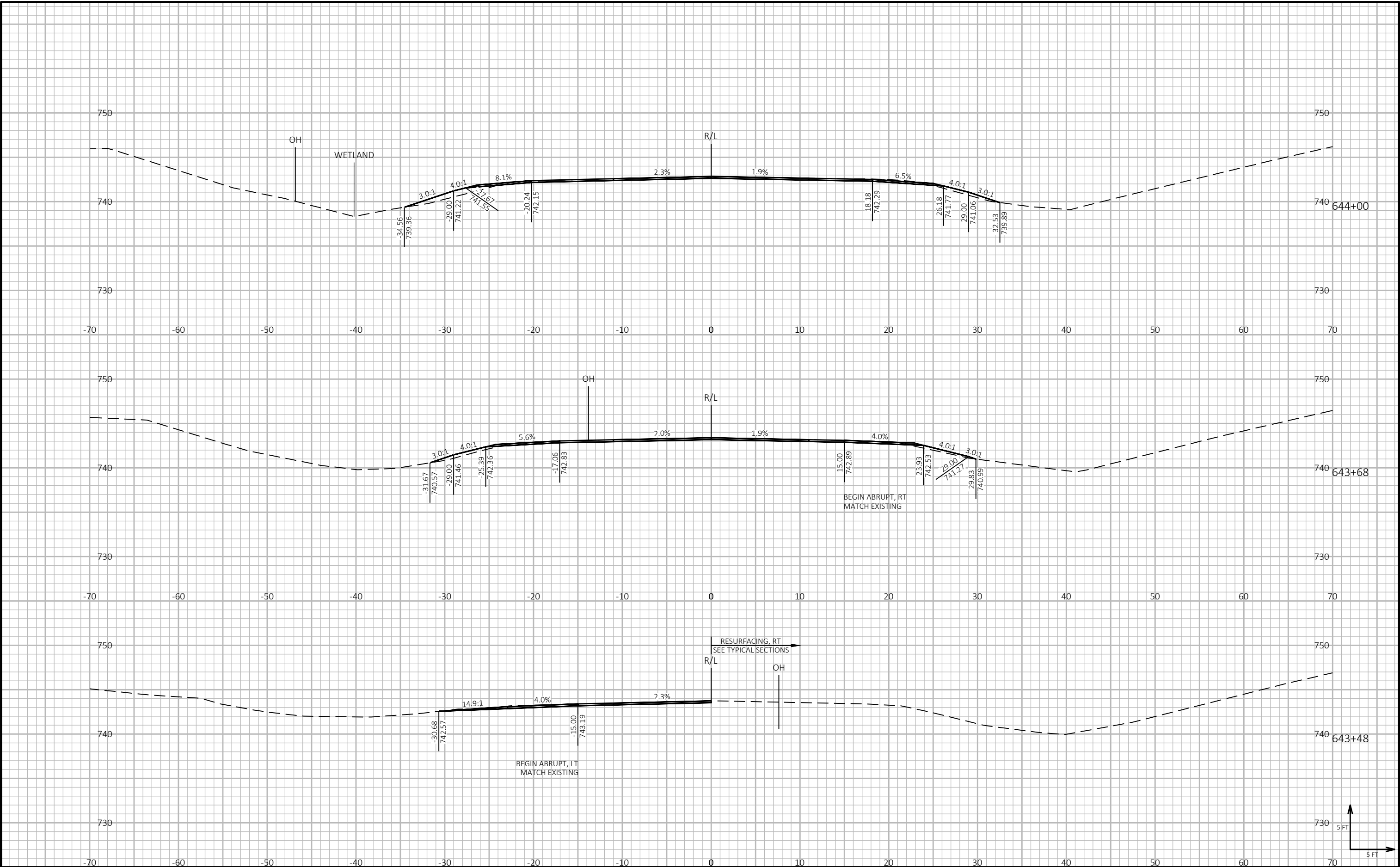
SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	24	1 1/2	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	2 1/4	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8												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

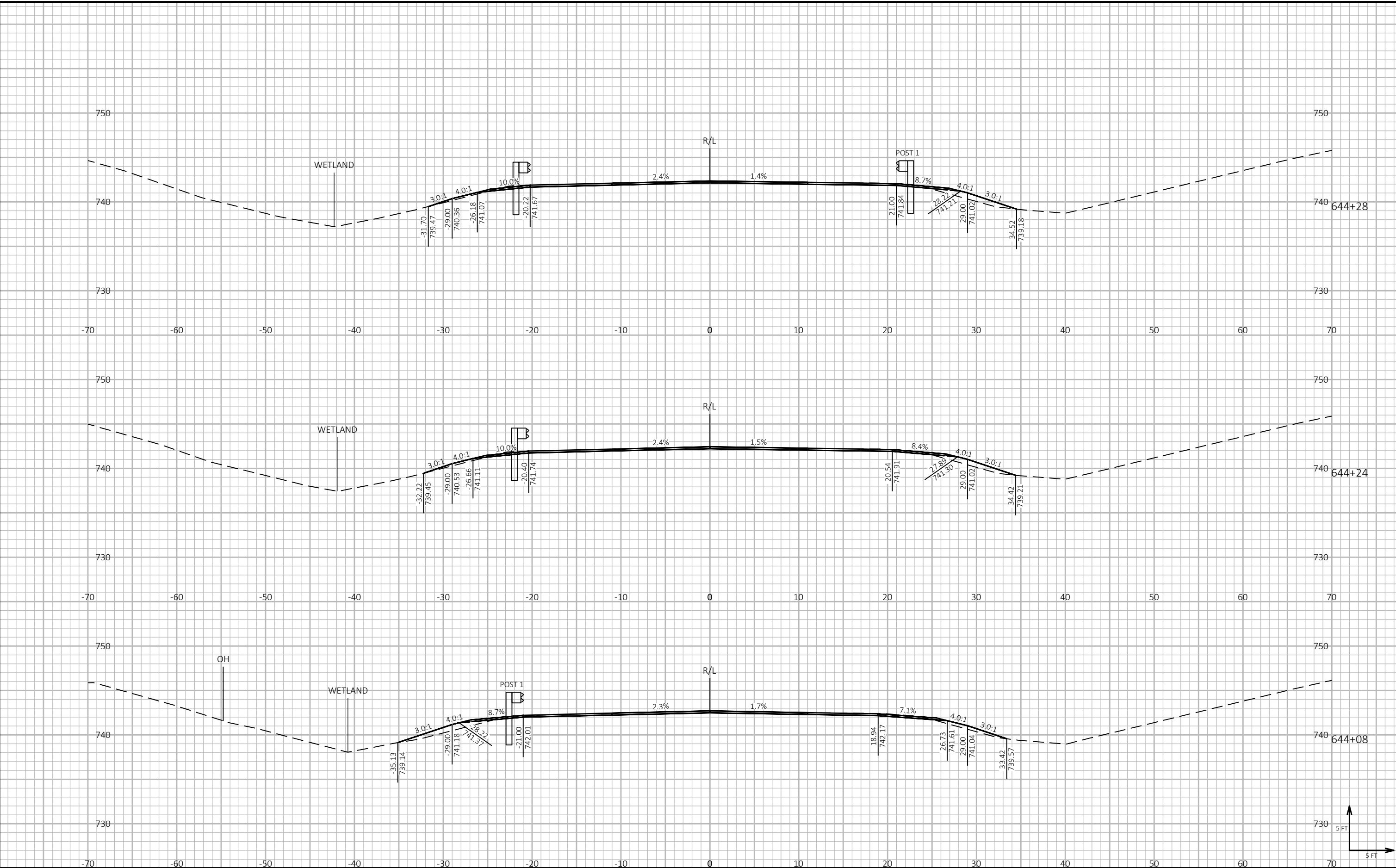
STANDARD SIGN
W057-52

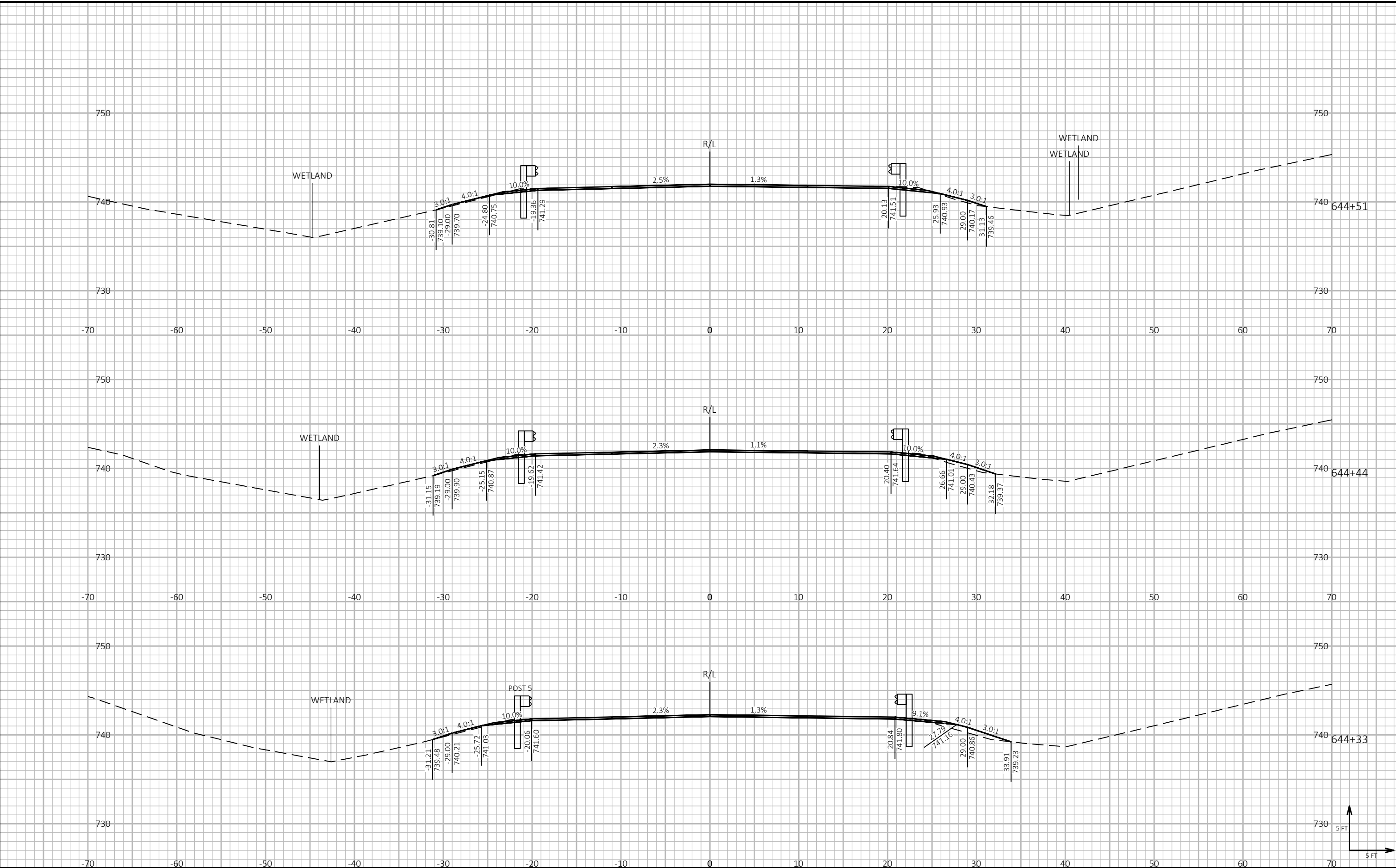
WISCONSIN DEPT OF TRANSPORTATION

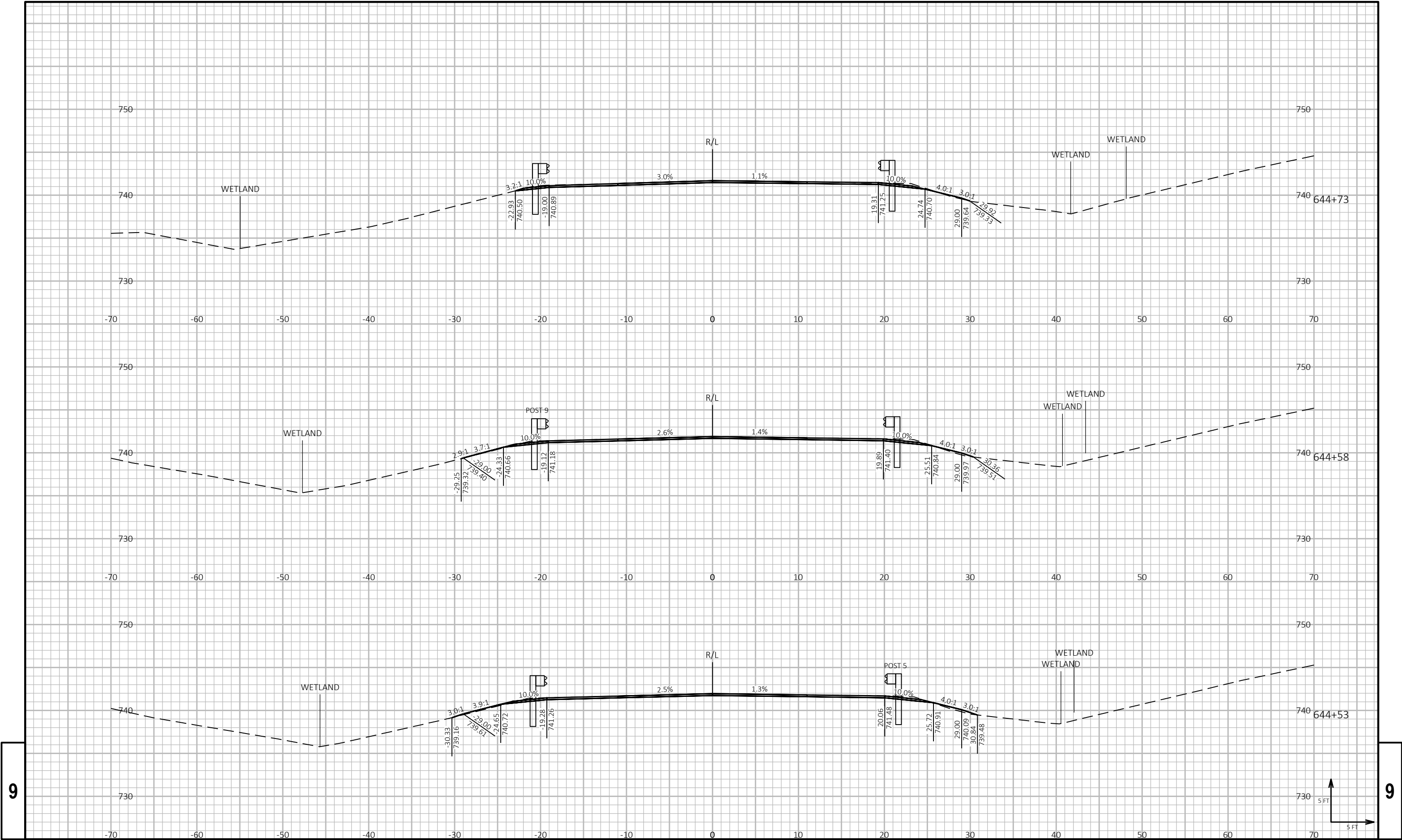
APPROVED *Matthew R. Rauch*
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W057-52.3









9

9

PROJECT NO: 1450-18-71

HWY: USH 141

COUNTY: BROWN

CROSS SECTIONS: USH 141 - GUARDRAIL

SHEET

182

E

FILE NAME : P:\55XX\5523.DP.22.USH141.BRN\CADD\14501871\14501871\090201-XS.DWG
LAYOUT NAME - 04

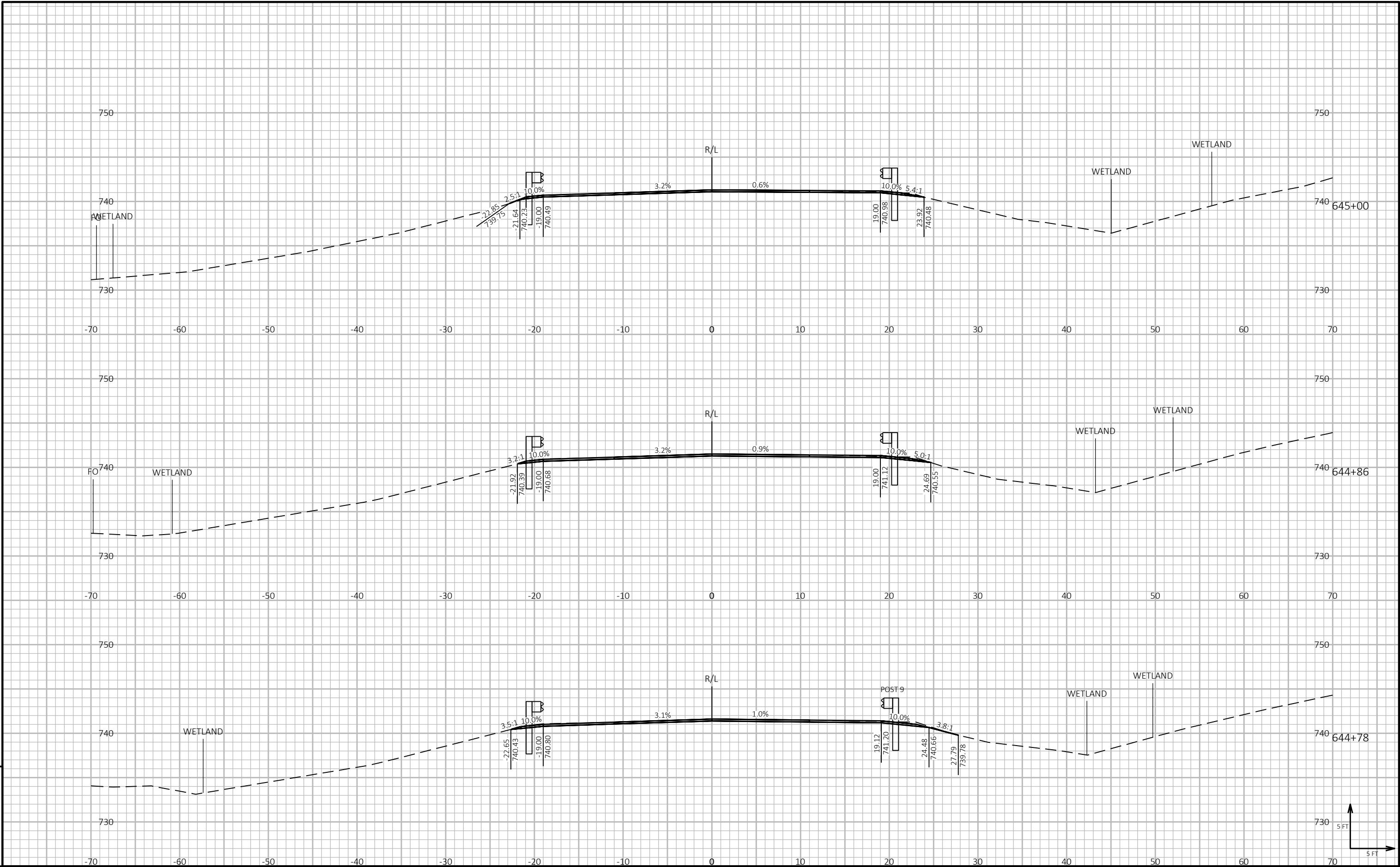
PLOT DATE : 5/30/2024 3:25 PM

PLOT BY : AUSTIN STRAHL

PLOT NAME :

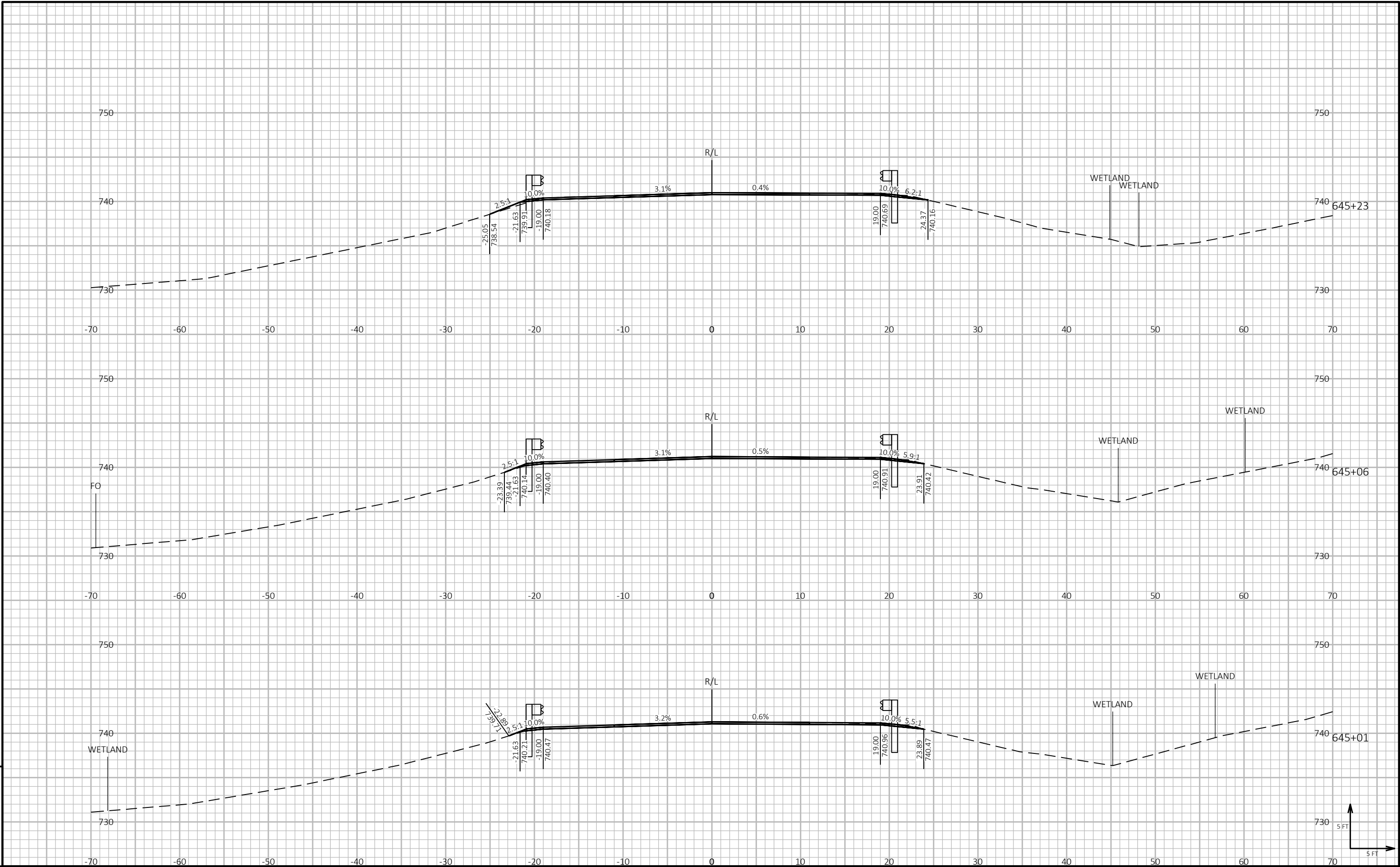
PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADD SHEET 49



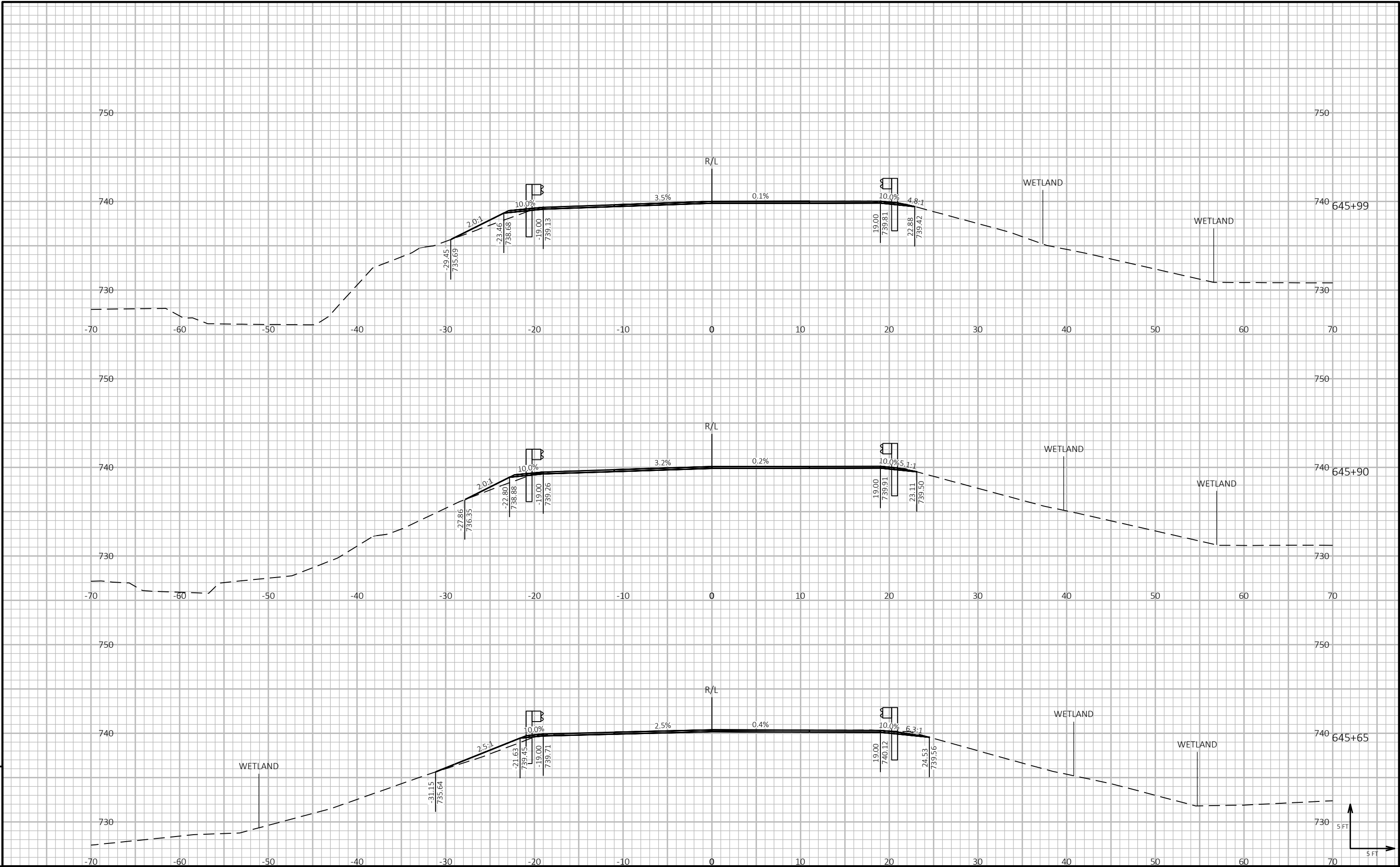
9

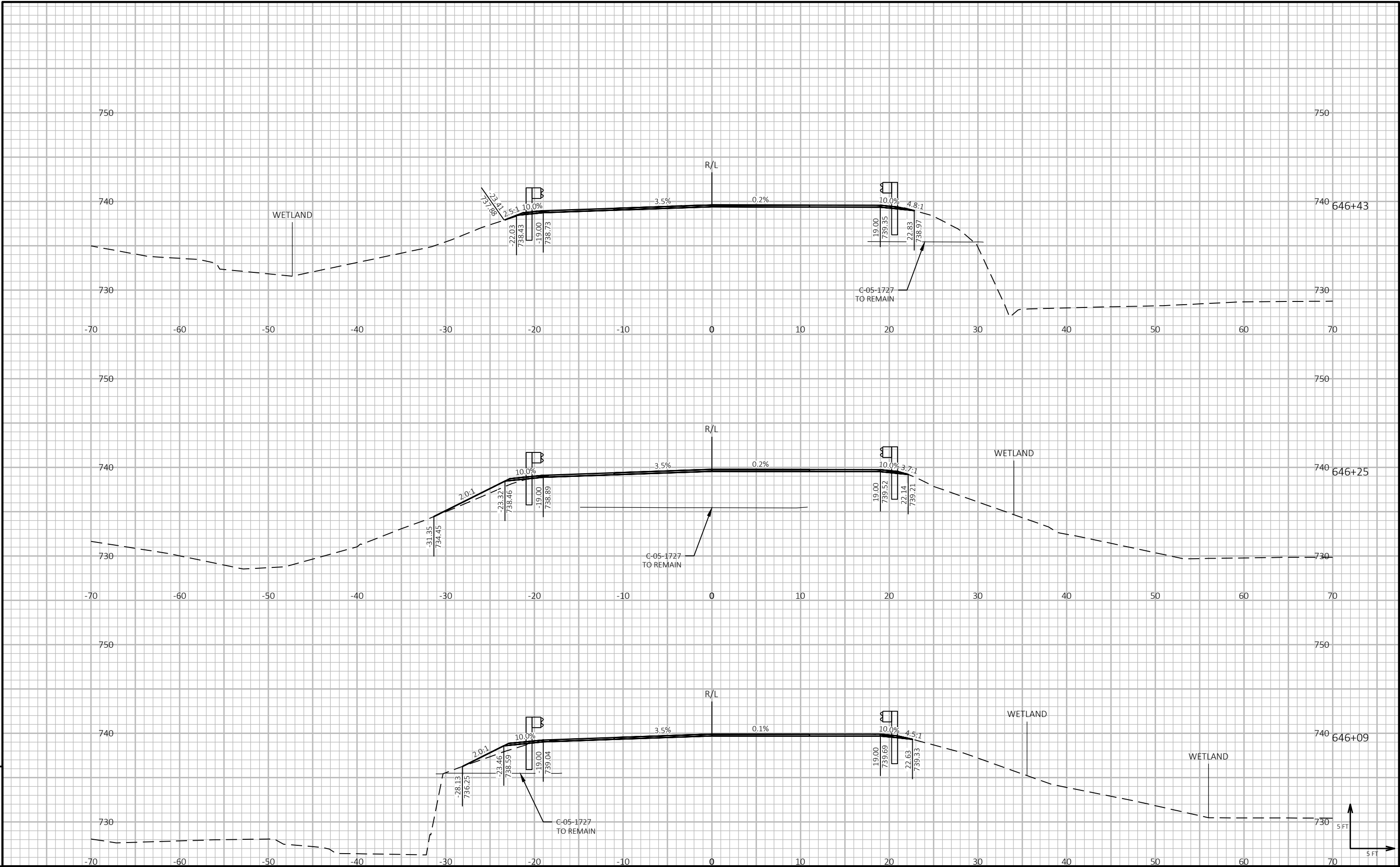
9

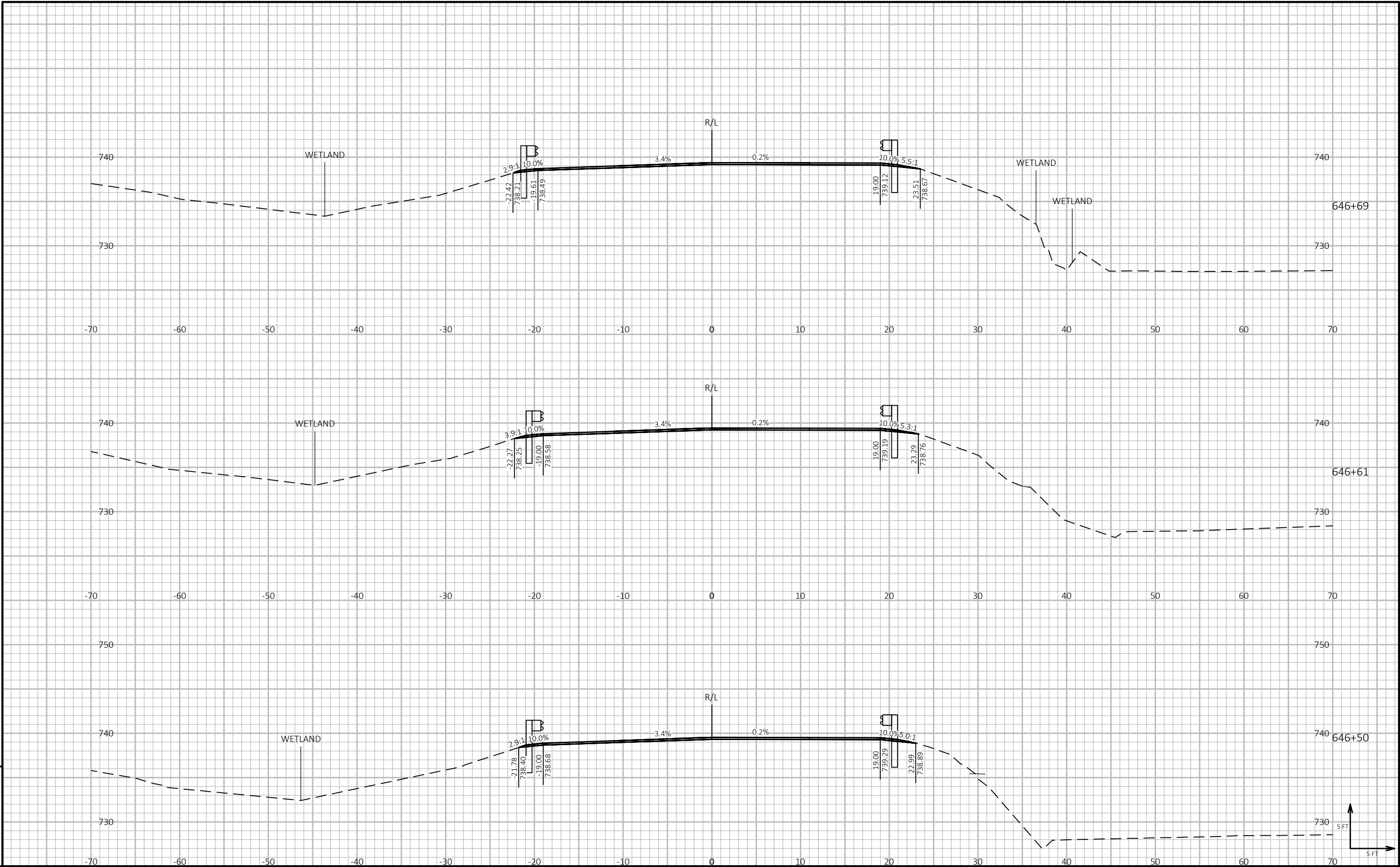


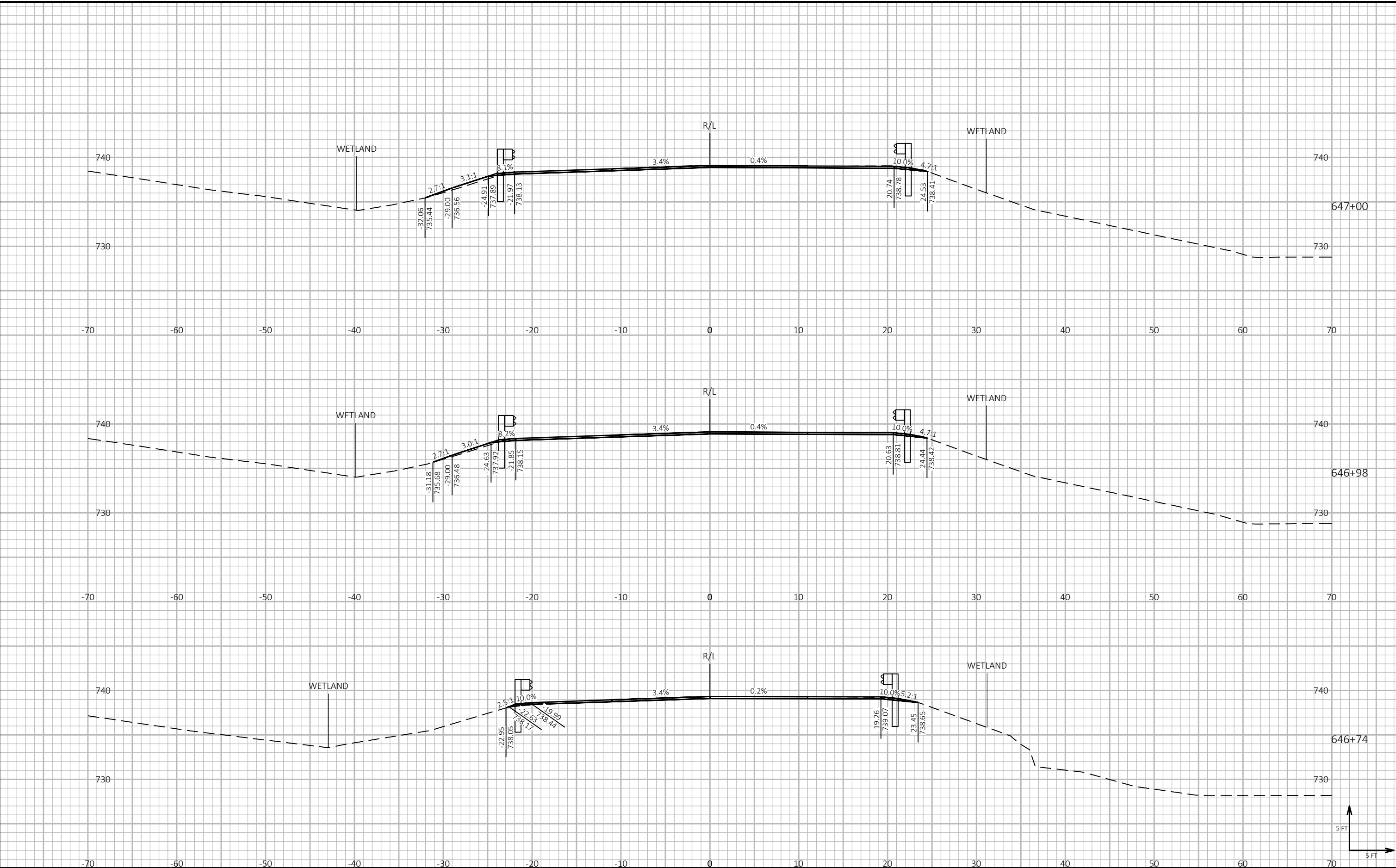
9

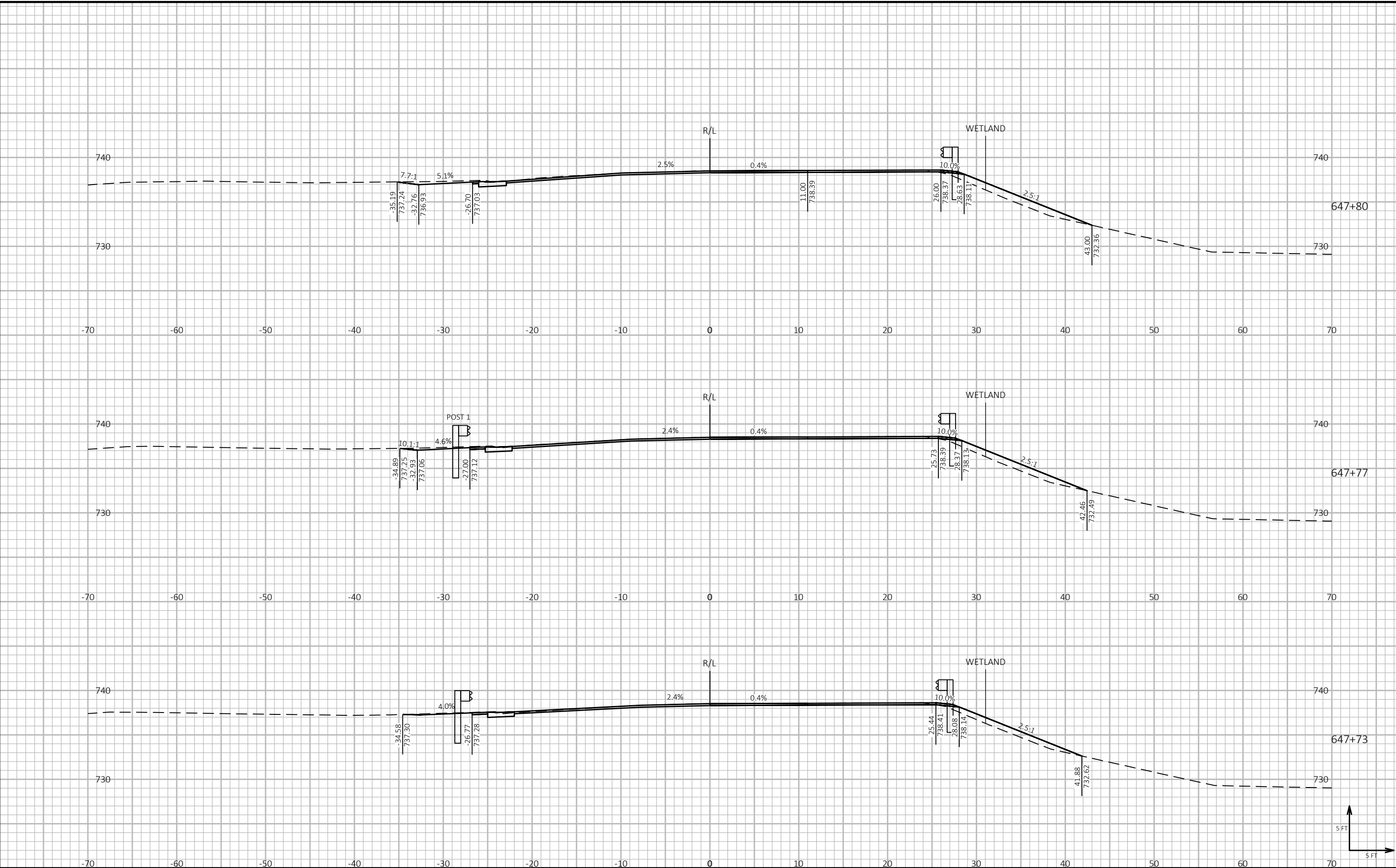
9

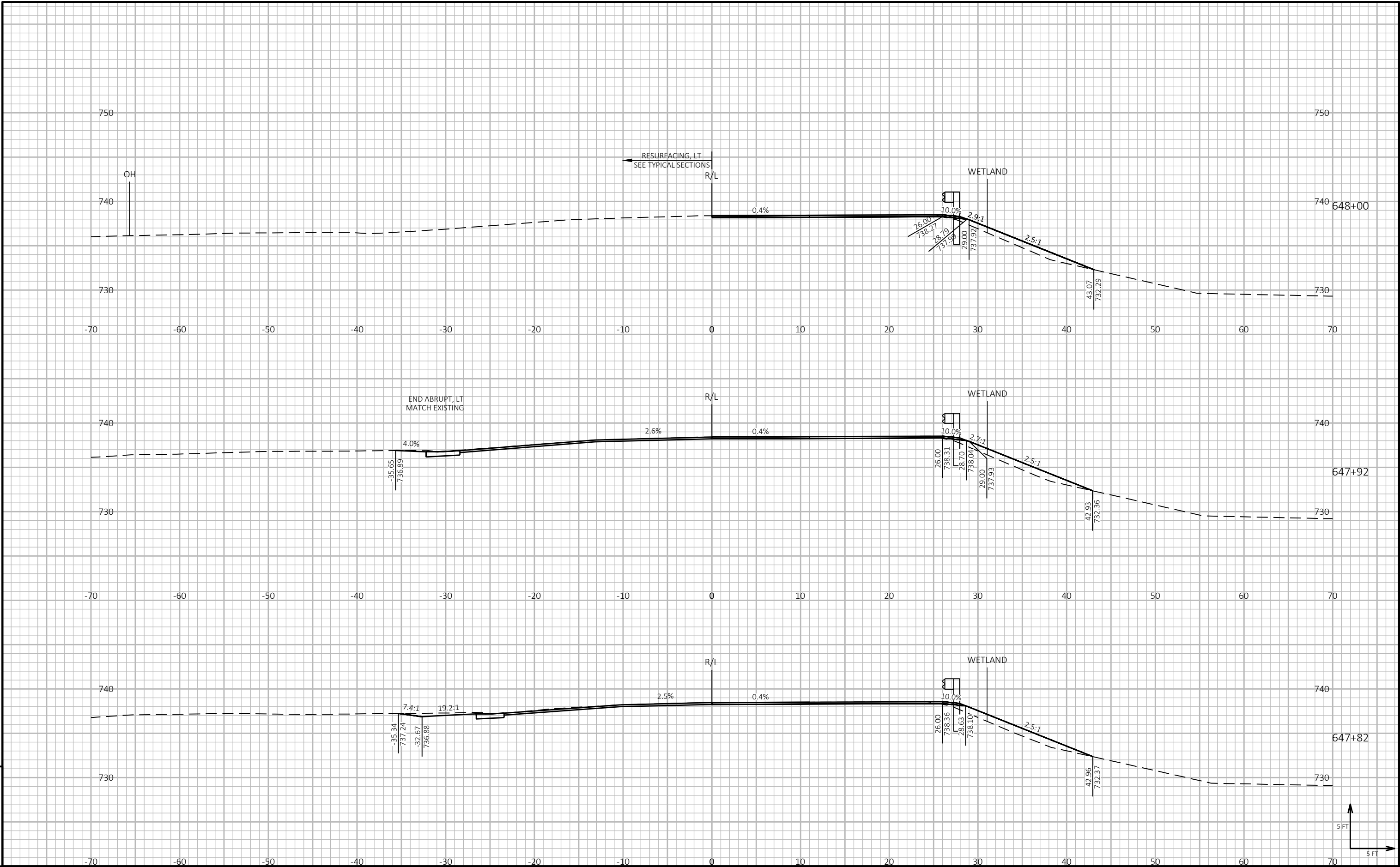






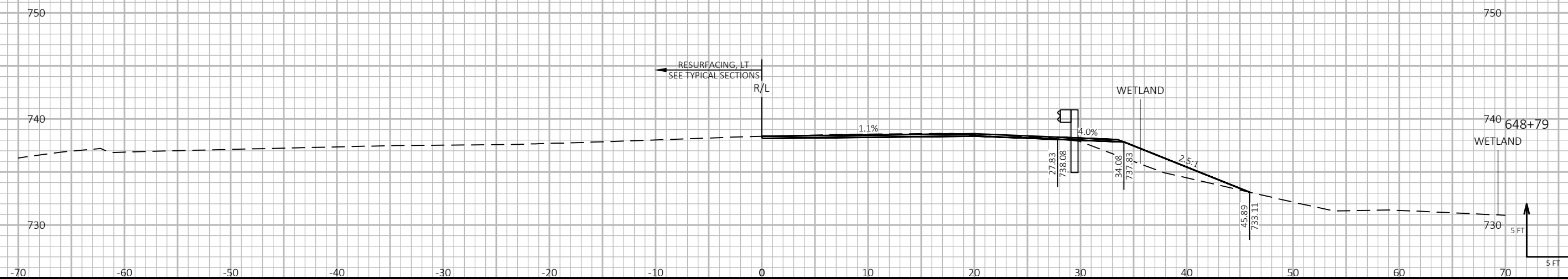
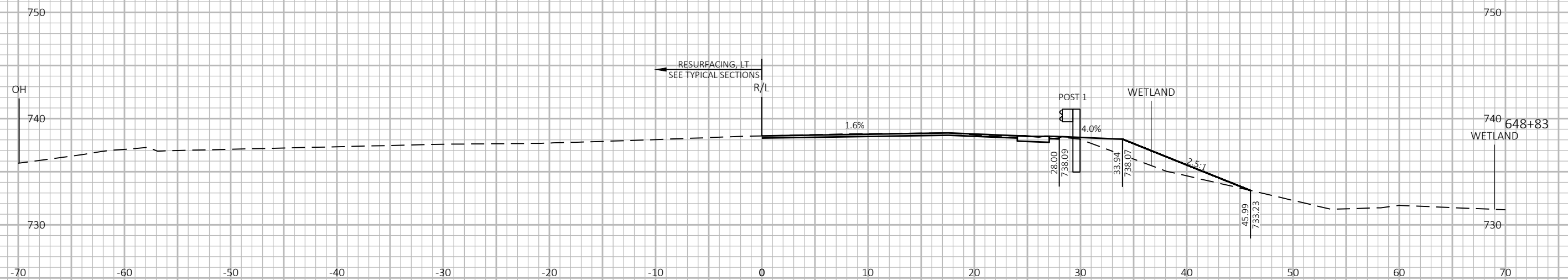
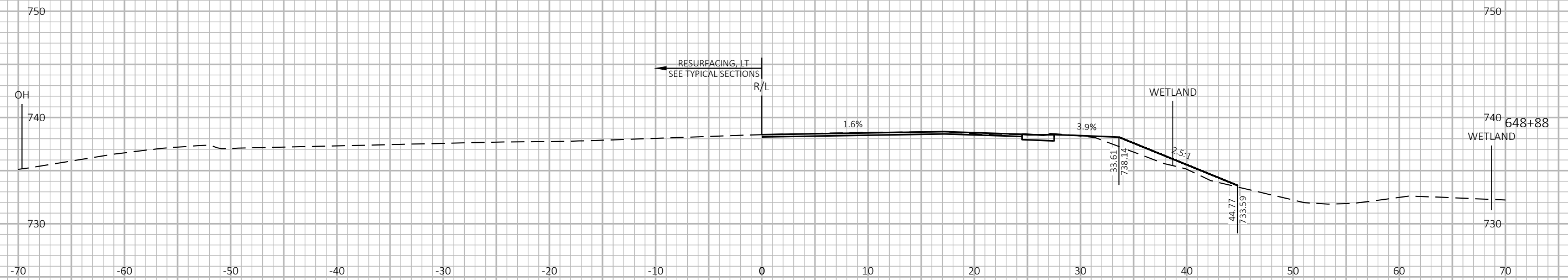


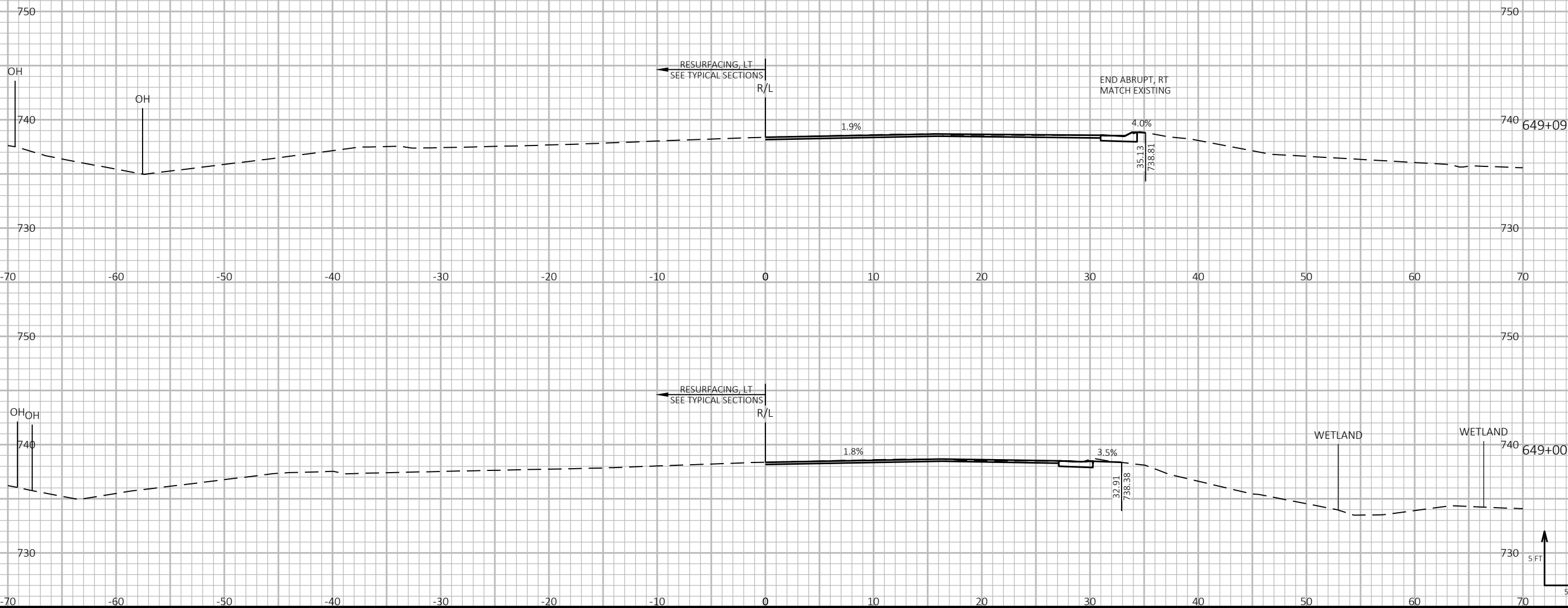




9

9

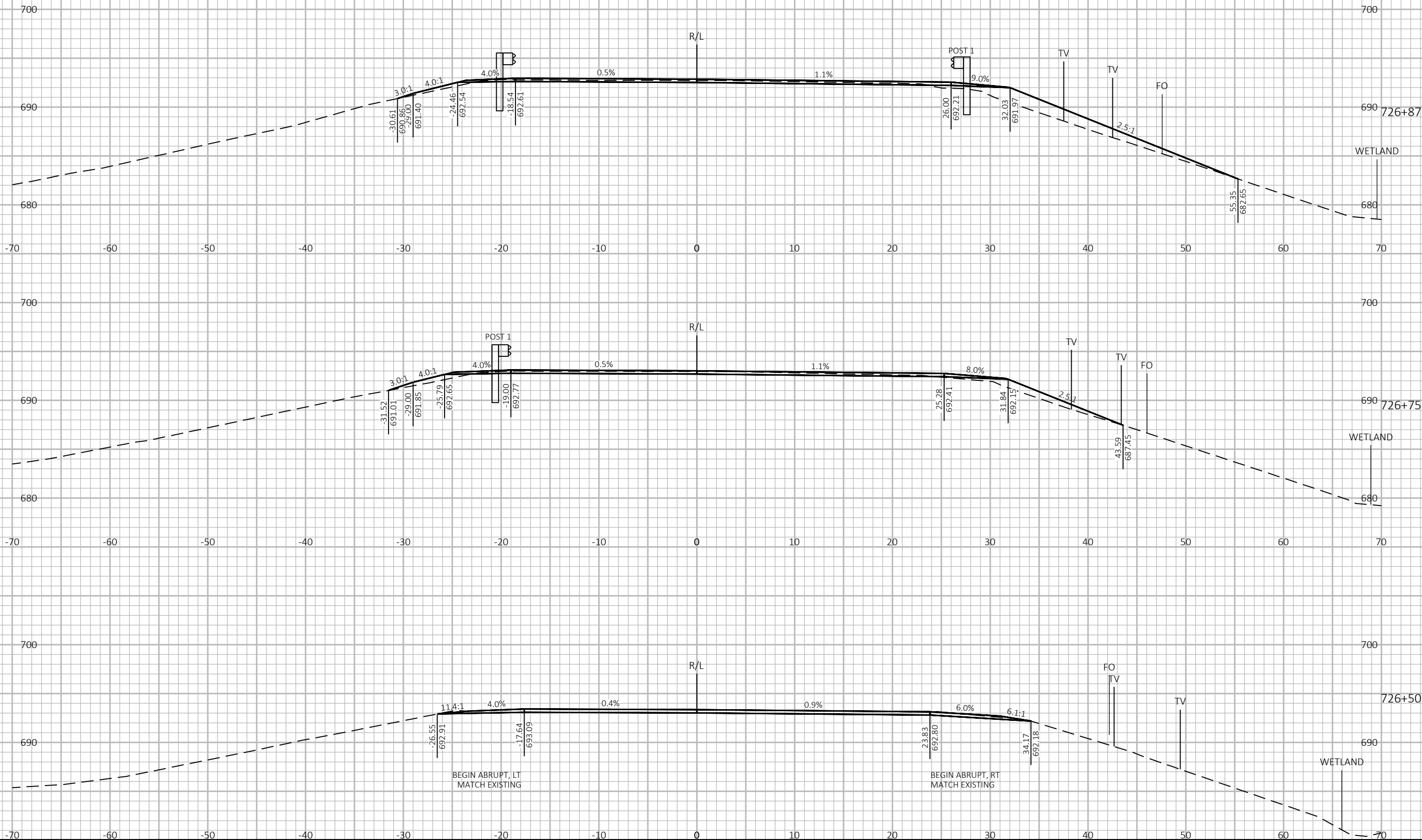




9

9

9



9

PROJECT NO: 1450-18-71

HWY: USH 141

COUNTY: BROWN

CROSS SECTIONS: USH 141 - GUARDRAIL

SHEET

195

E

FILE NAME : P:\55XX\5523.DP.22.USH141.BRN\CADD\14501871\SHEETS\090202-XS.DWG
LAYOUT NAME - 01

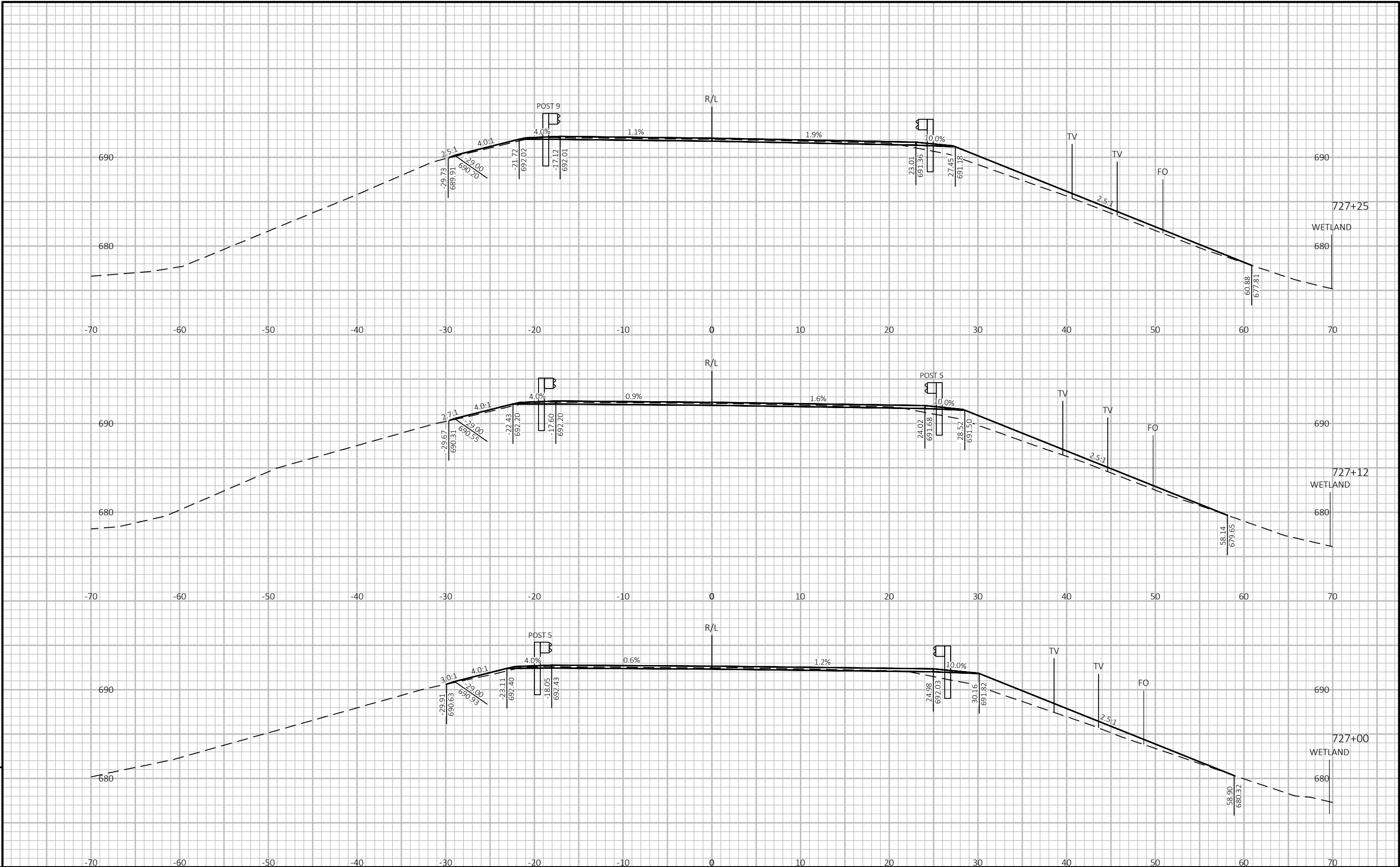
PLOT DATE : 5/30/2024 3:06 PM

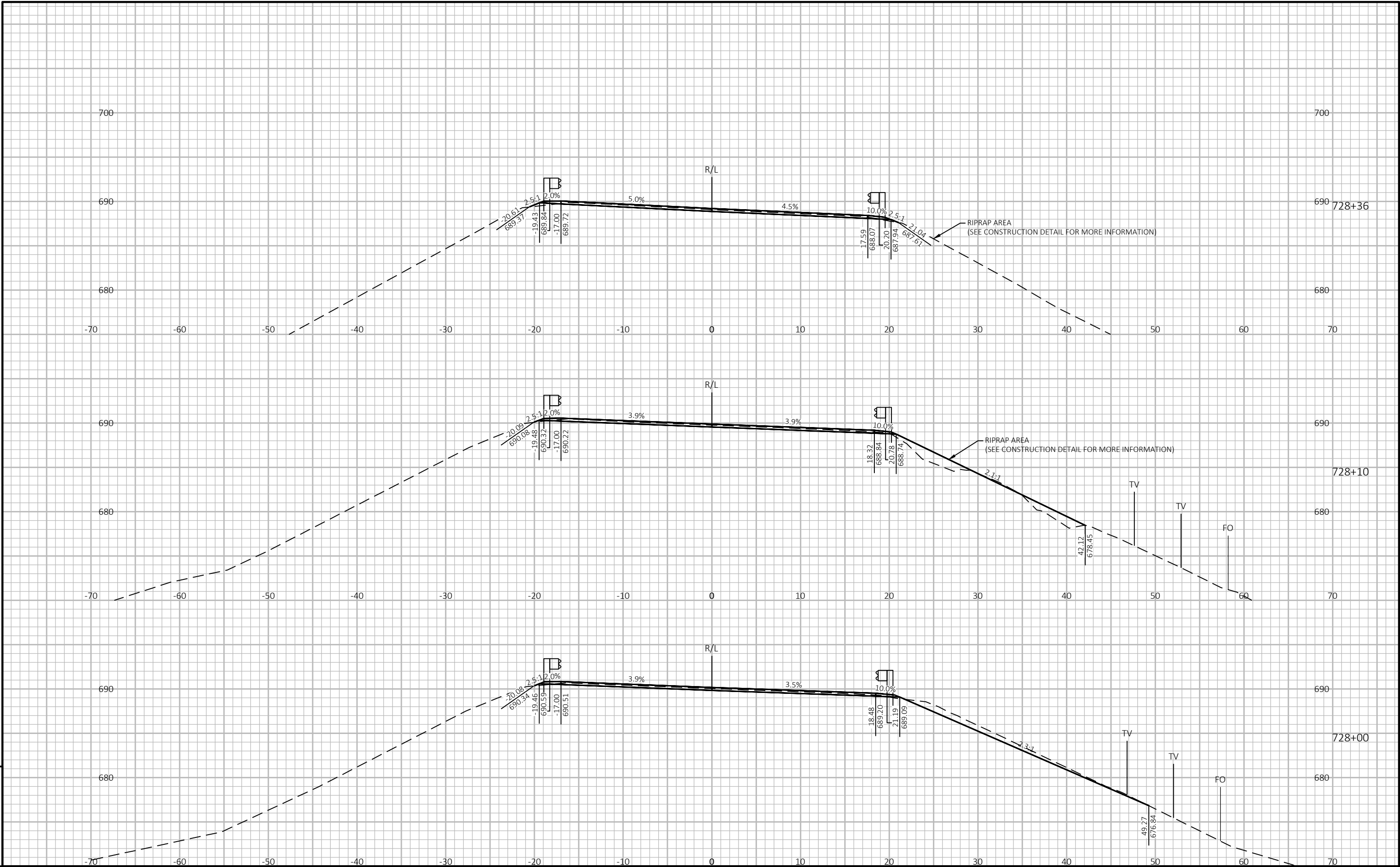
PLOT BY : AUSTIN STRAHL

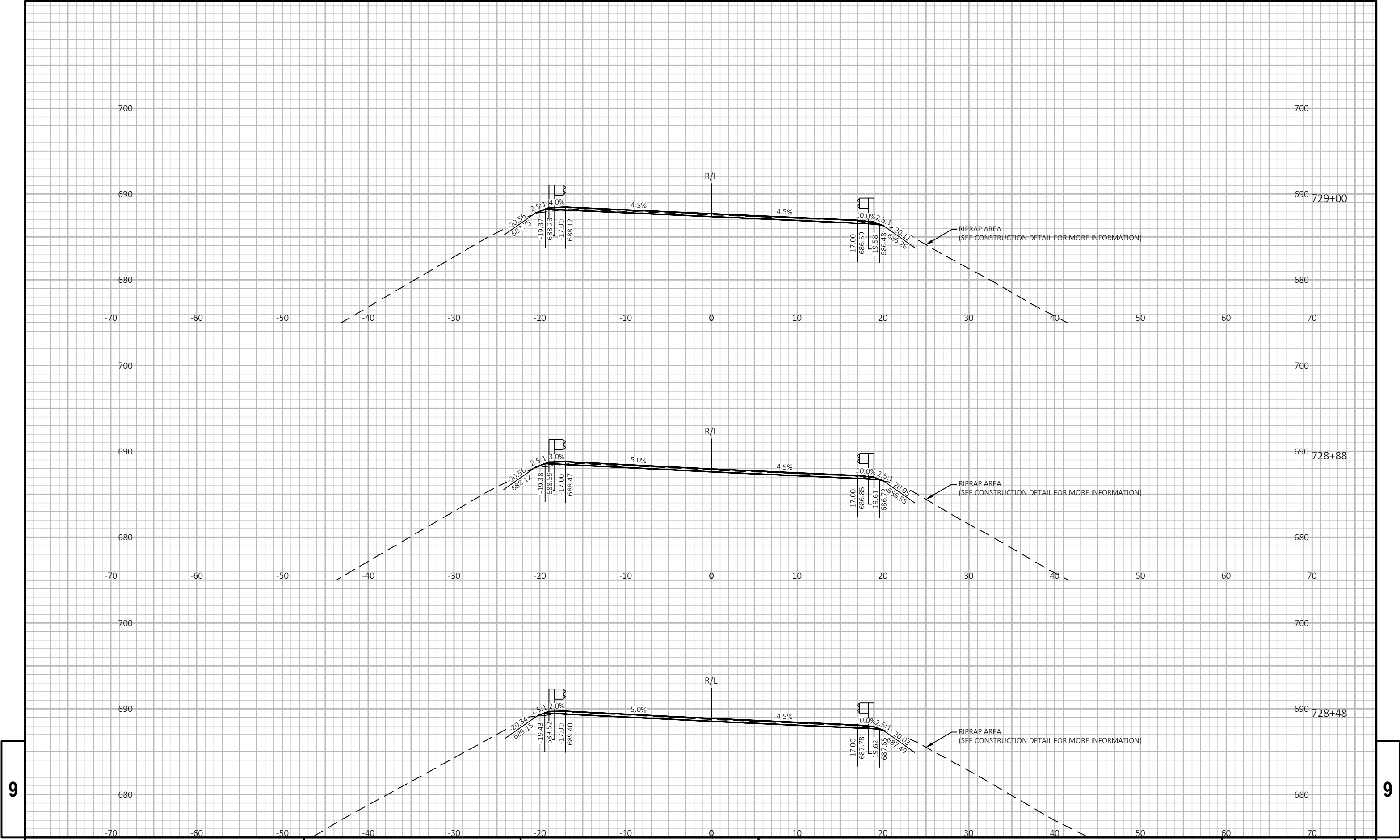
PLOT NAME :

PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADD SHEET 49

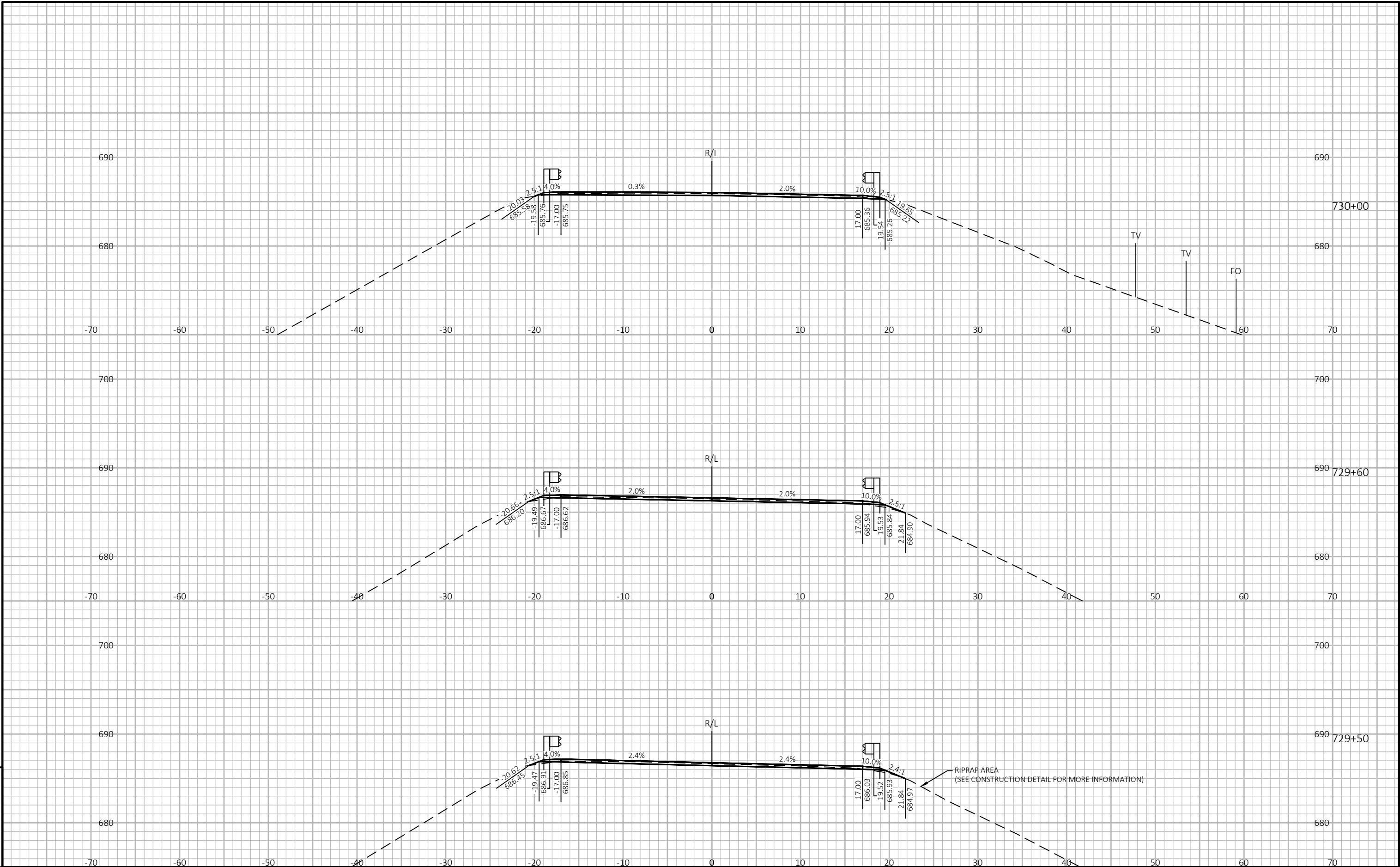


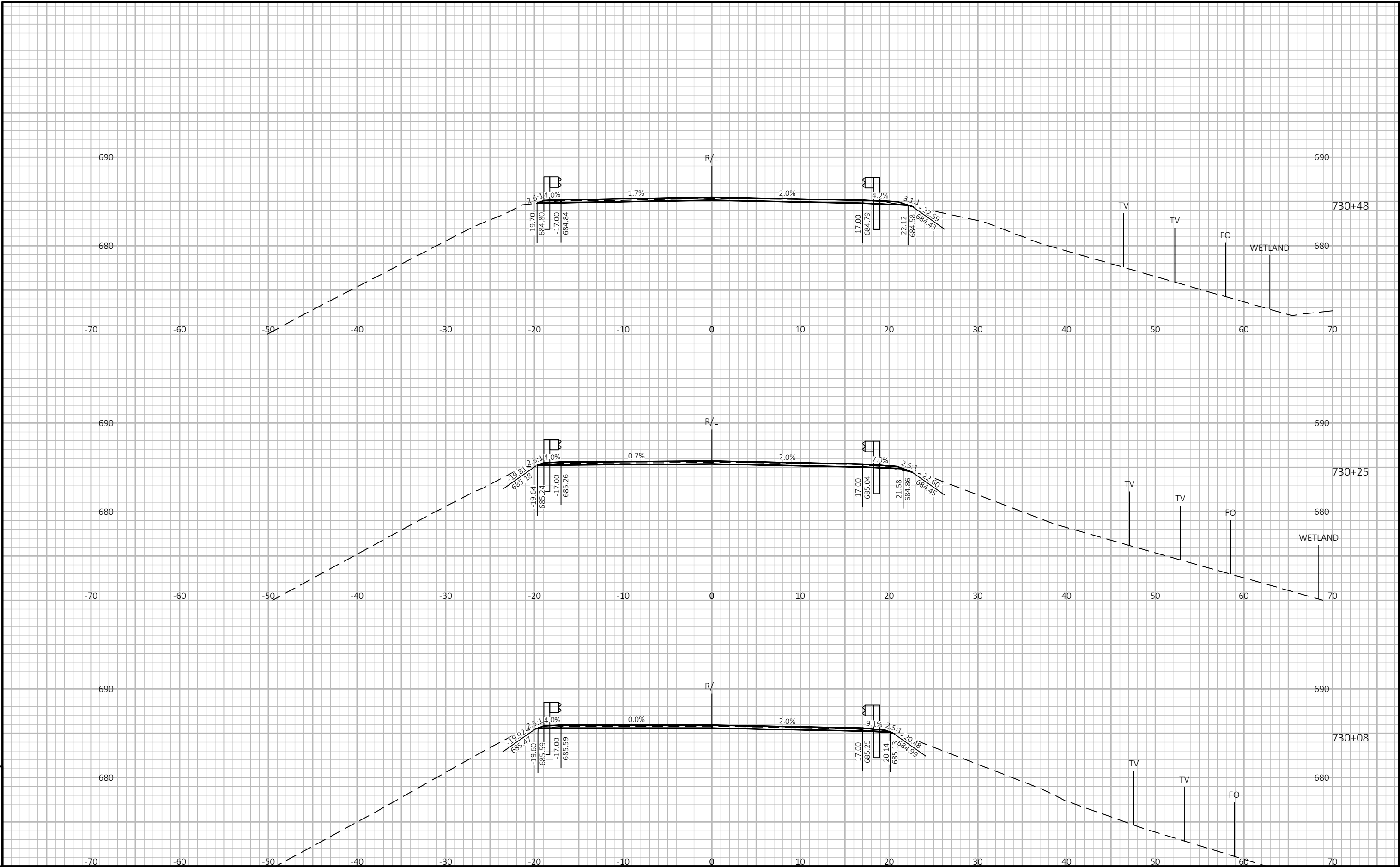


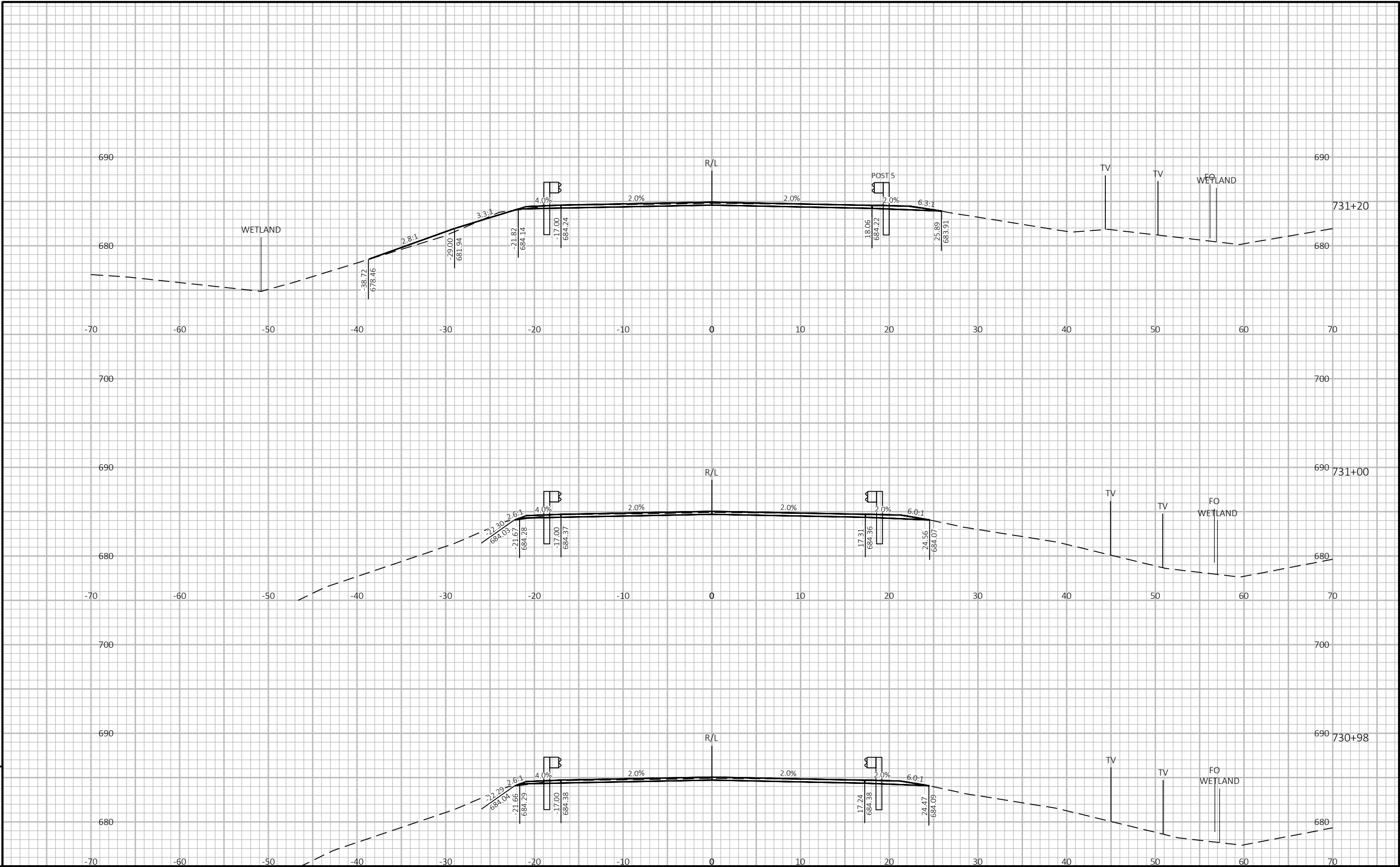


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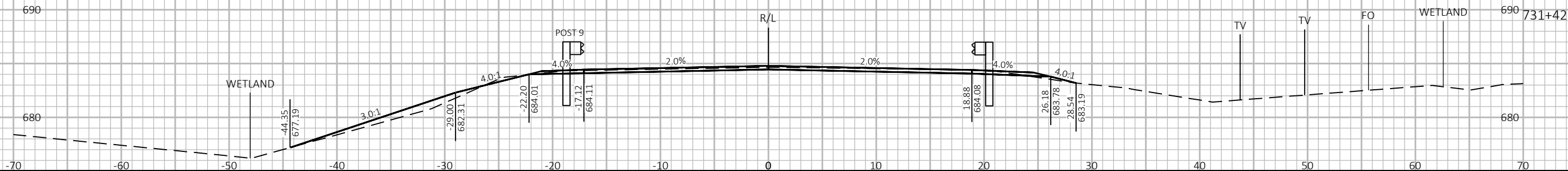
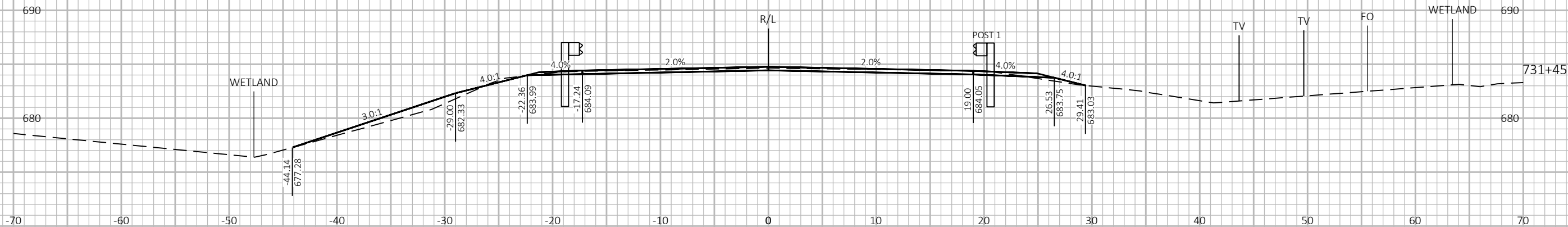
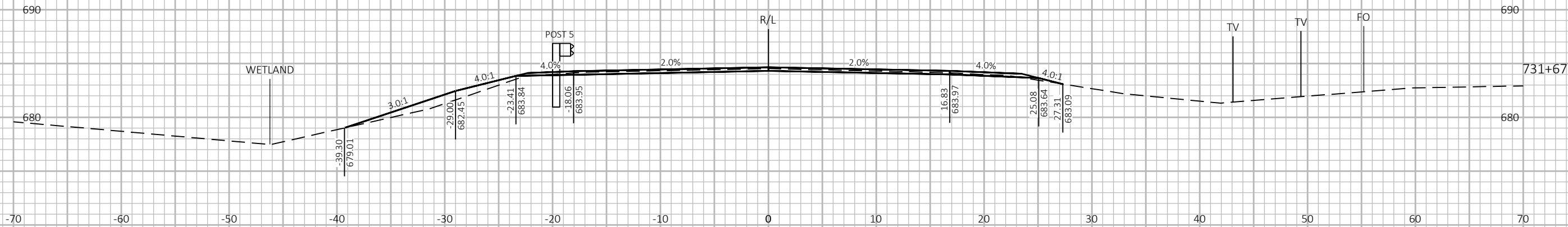
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PROJECT NO: 1450-18-71

HWY: USH 141

COUNTY: BROWN

CROSS SECTIONS: USH 141 - GUARDRAIL

SHEET

204

E

FILE NAME : P:\55XX\5523.DP.22.USH141.BRN\CADD\14501871\SHEETS\090202-XS.DWG
LAYOUT NAME - 10

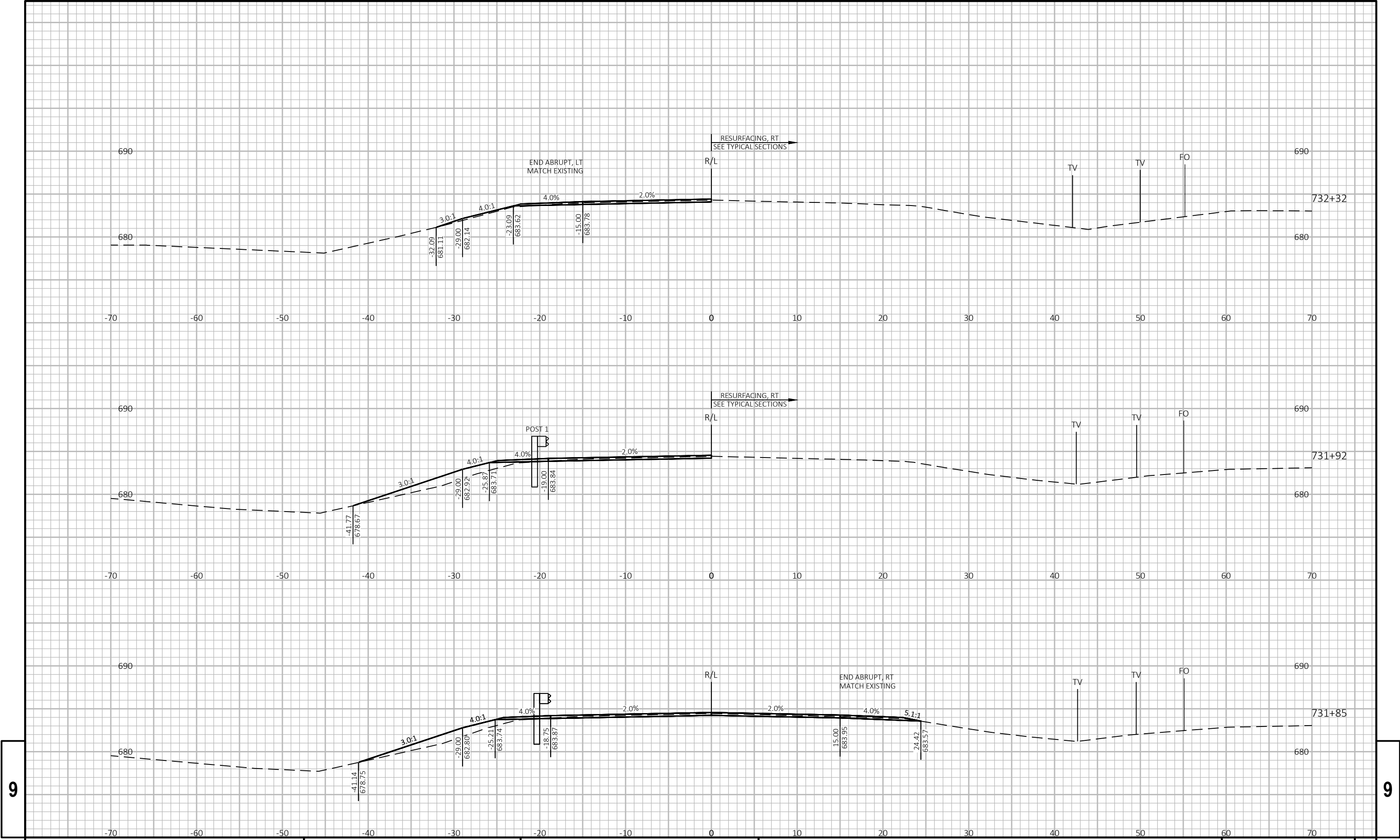
PLOT DATE : 5/30/2024 3:07 PM

PLOT BY : AUSTIN STRAHL

PLOT NAME :

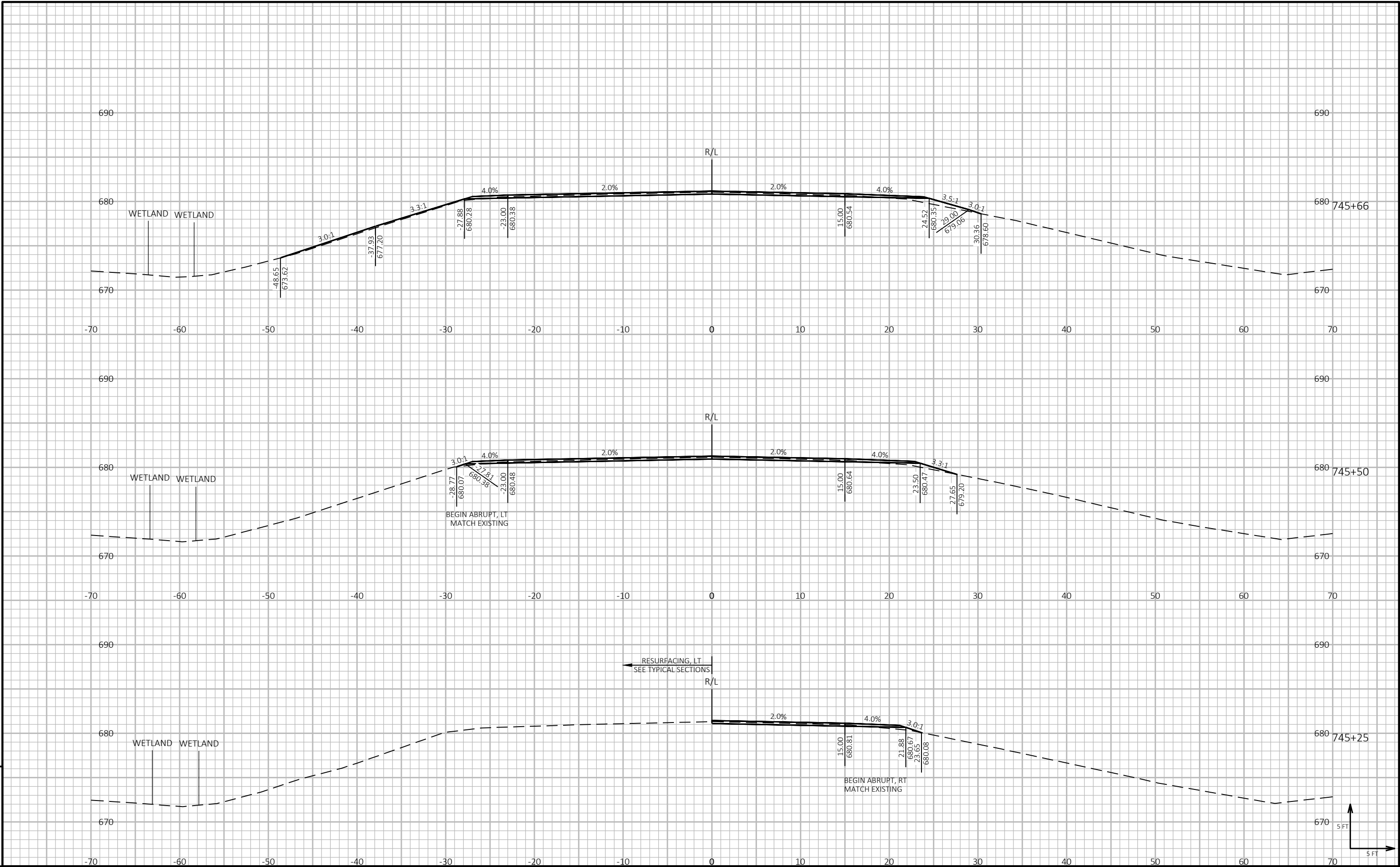
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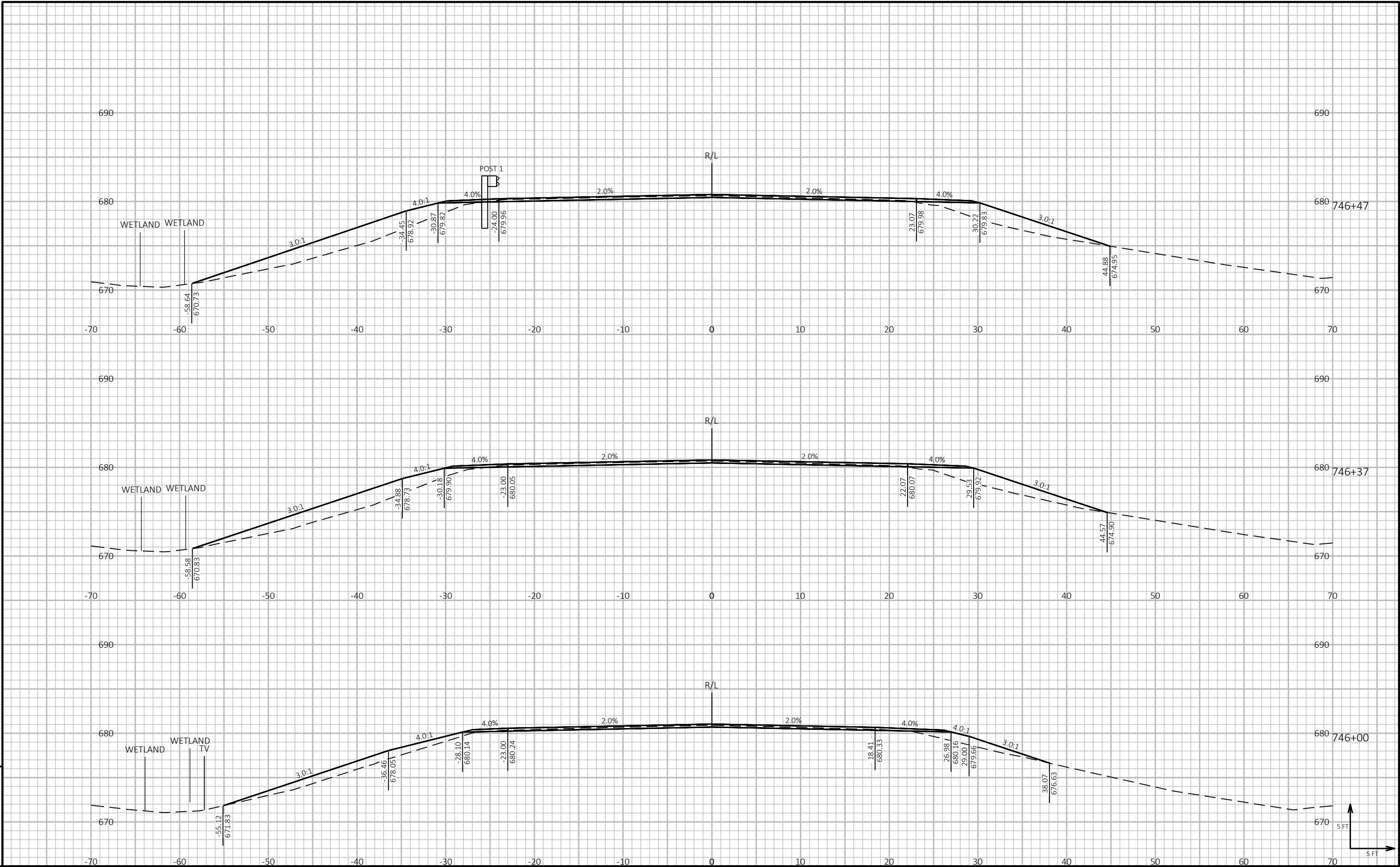
WISDOT/CADD SHEET 49

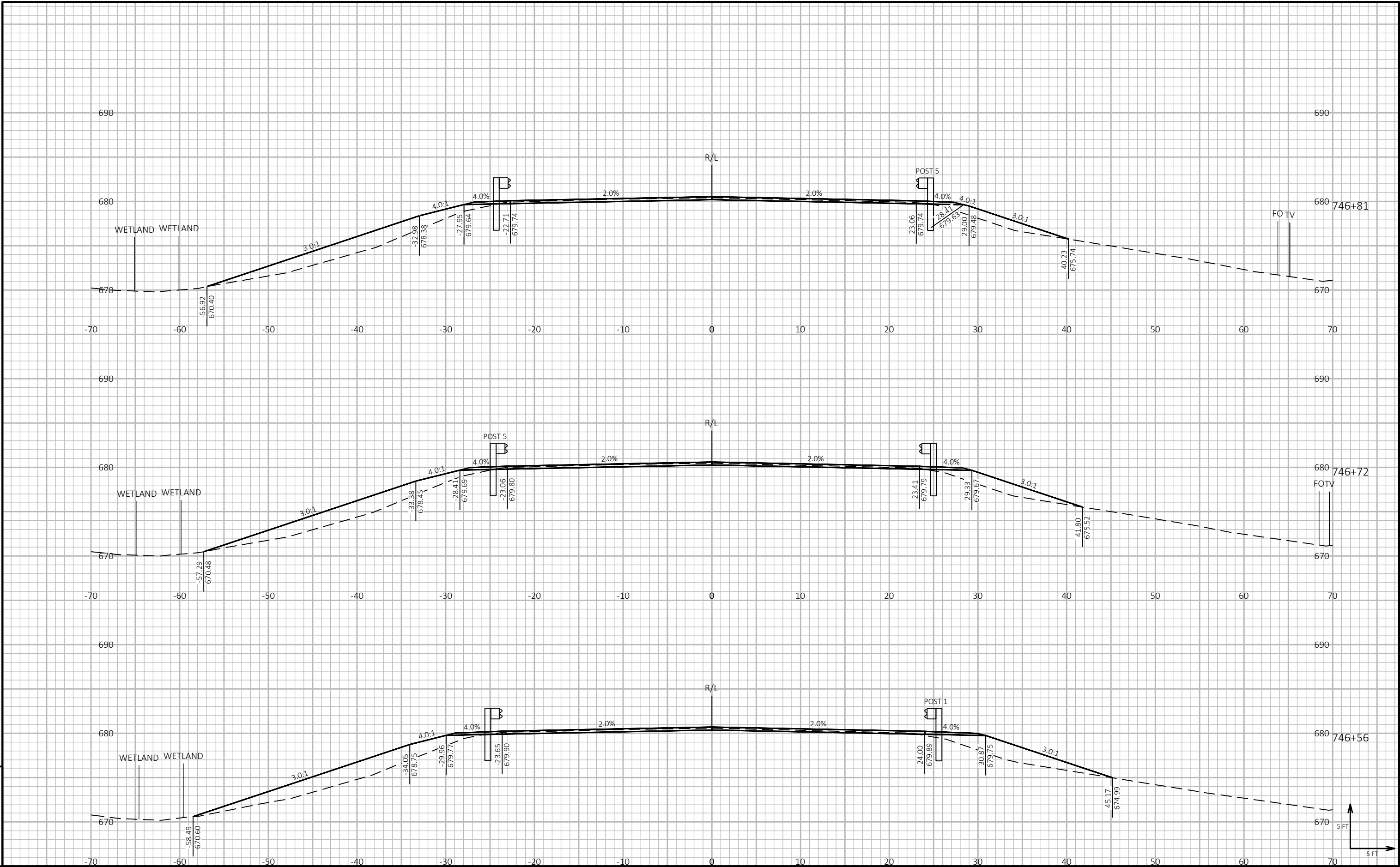


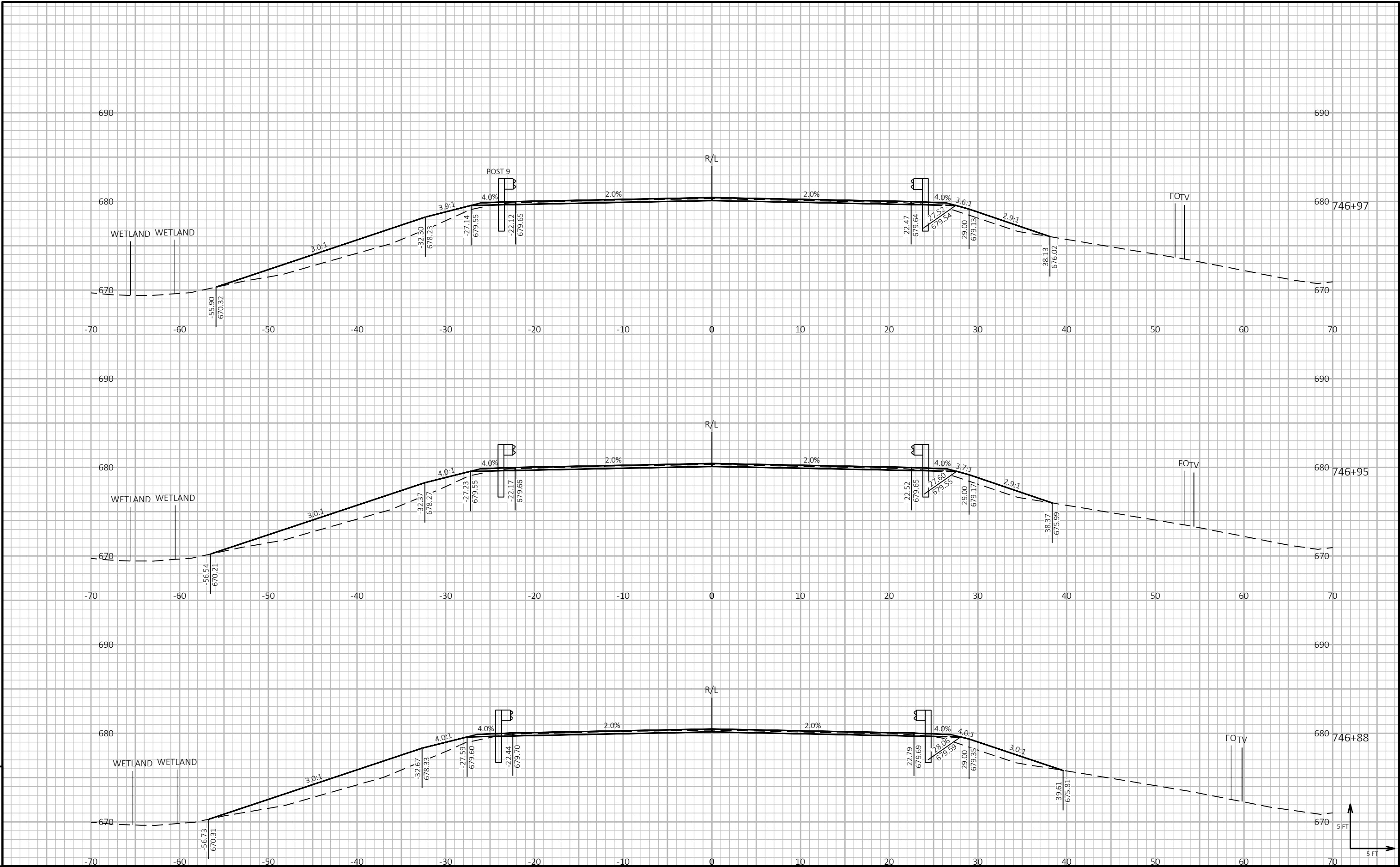
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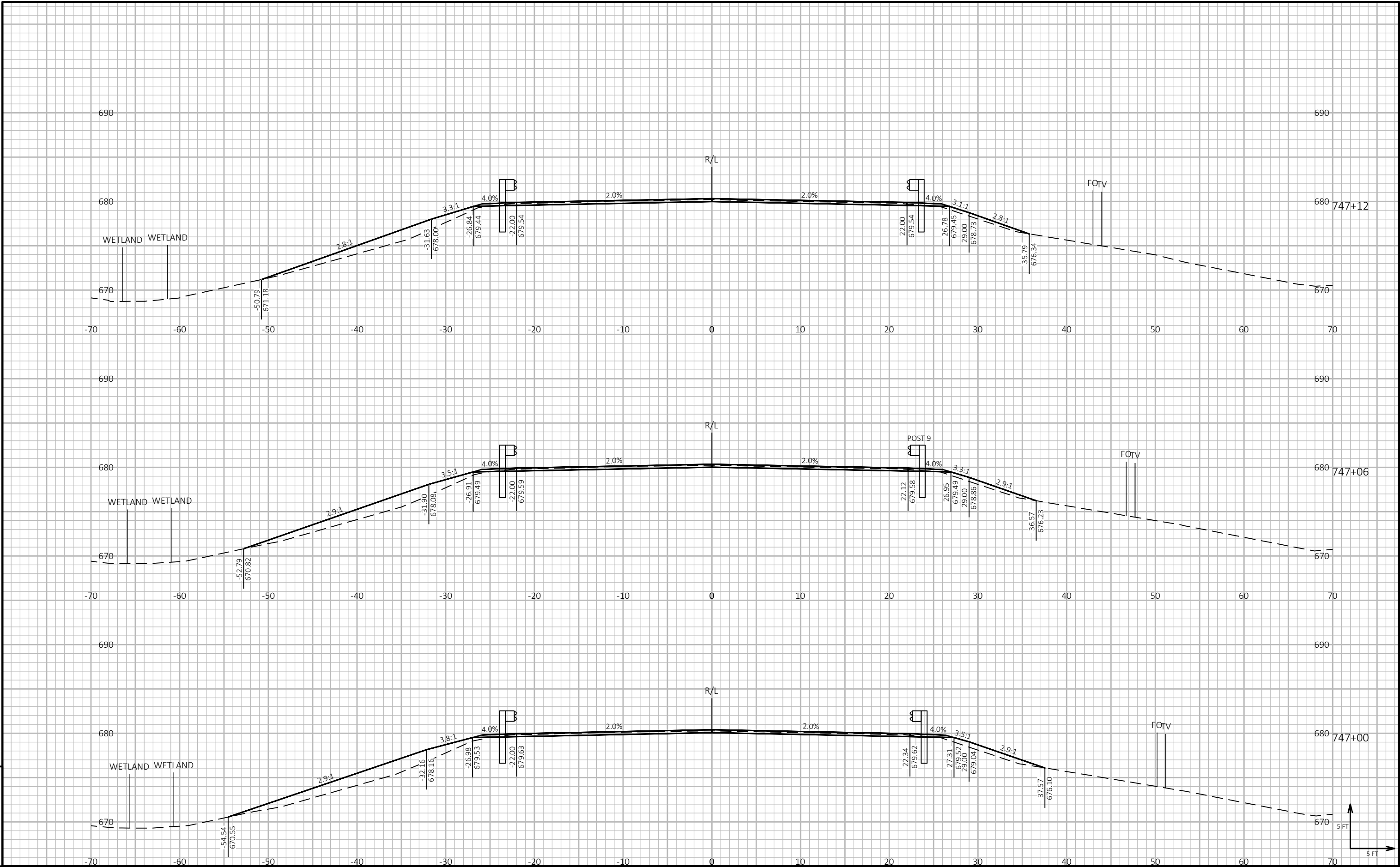
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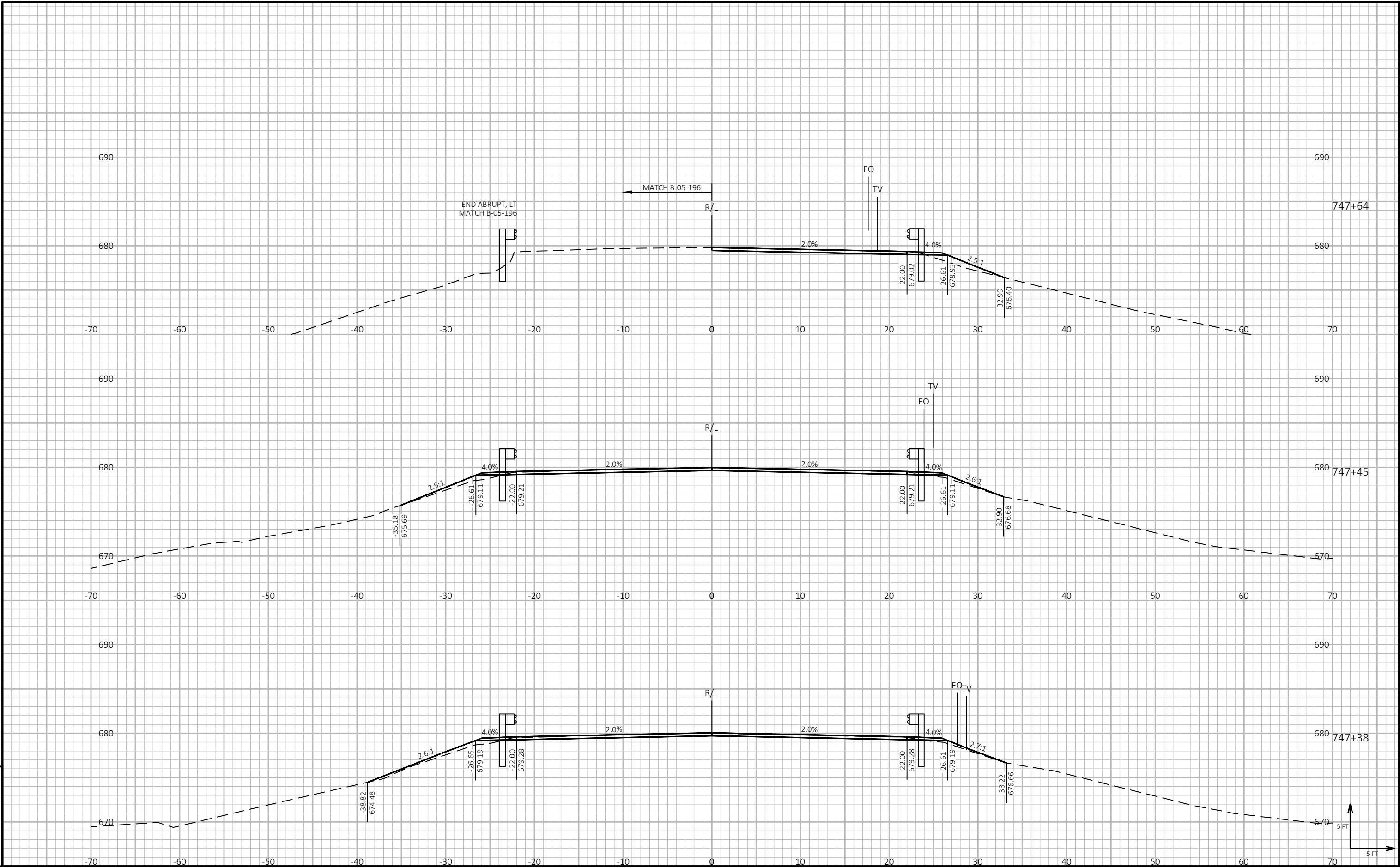


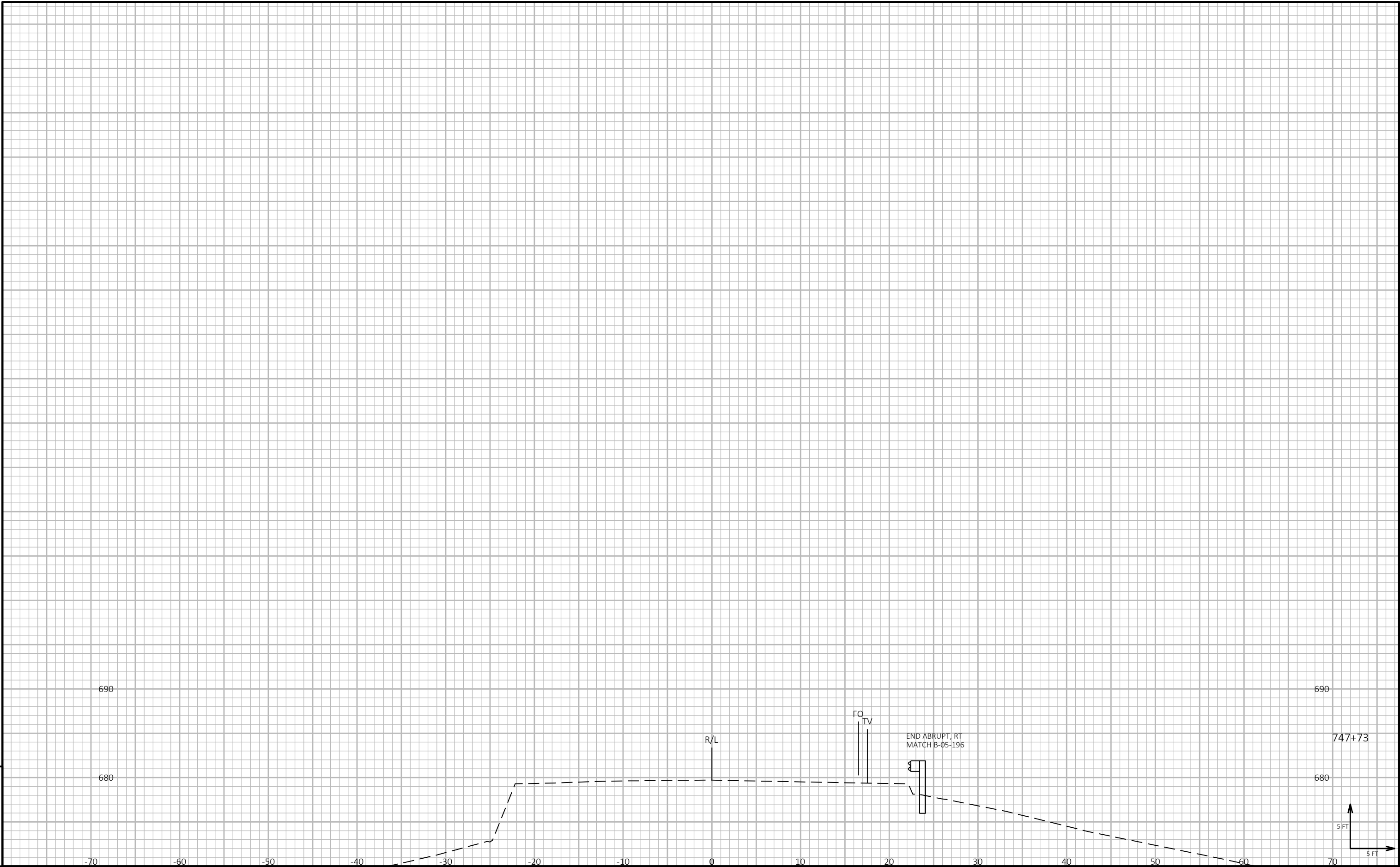












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Notes



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