GRE

MARCH 2024

PROJECT ID: 1130-66-83

WITH: N/A

COUNTY: OUTAGAMIE

ORDER OF SHEETS

Section No.	1	Title
Section No.	2	Typical Sections and Details (Includes Erosion Control Plans)
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 = 306



18

N

DESIGN DESIGNATION

			CTH CC
A.A.D.T.	(2026)	=	2,000
A.A.D.T.	(2046)	=	3,000
D.H.V.		=	265
D.D.		=	60/40
T,		=	10.6%
DESIGN SPEED		=	55 MPH
ESALS		=	349,000

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 (300'ER')
- EXISTING CULVERT
- PROPOSED CULVERT (Box or Pipe)
- COMBUSTIBLE FLUIDS (CAUTION)
- MARSH AREA
- WOODED OR SHRUB AREA

PROFILE

- GRADE LINE
- ORIGINAL GROUND
- MARSH OR ROCK PROFILE (To be noted as such) (ROCK)
- SPECIAL DITCH (LABEL)
- GRADE ELEVATION (955.36)
- CULVERT (Profile View)

UTILITIES

- ELECTRIC (E)
- FIBER OPTIC (FO)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- TELEPHONE (T)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

APPLETON - DE PERE

ROSE HILL RD/CTH CC OVERPASS

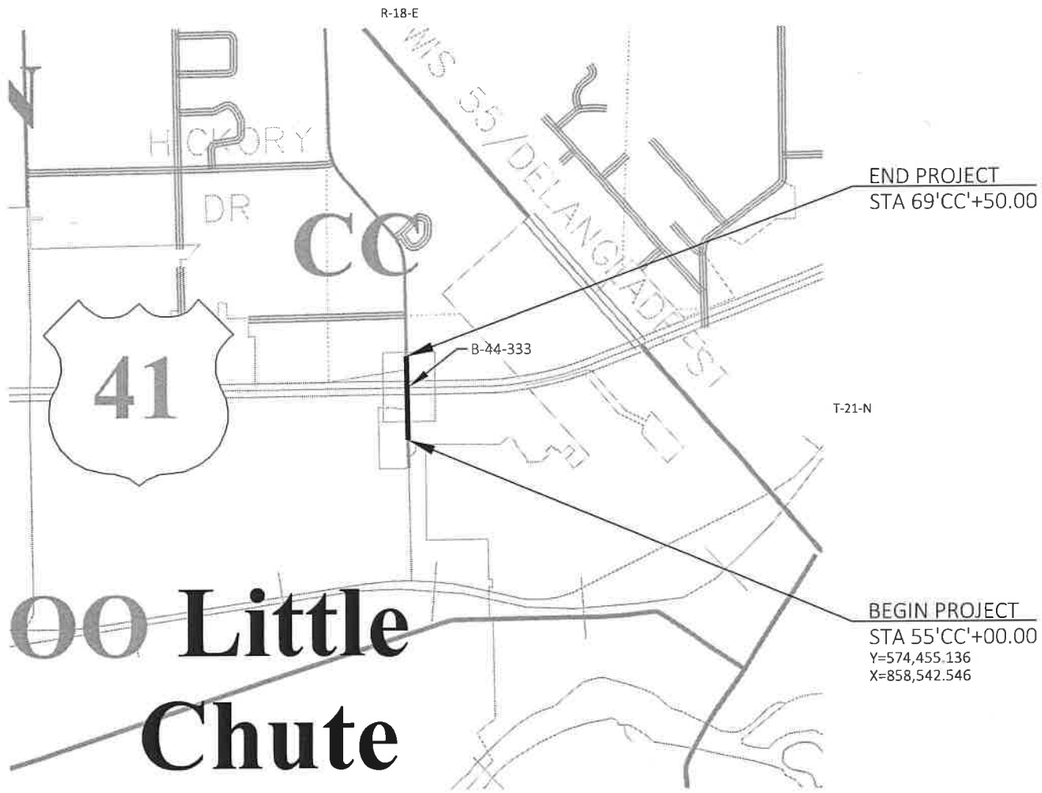
IH 41

OUTAGAMIE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1130-66-83	WISC 2024318	1

STATE PROJECT NUMBER

1130-66-83



LAYOUT

SCALE 0 0.5 MI

TOTAL NET LENGTH OF CENTERLINE = 0.275 MI.

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), OUTAGAMIE 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 12A

ORIGINAL PLANS PREPARED BY:

jt ENGINEERING, INC
Consulting Services

WISCONSIN
ANDREW W. BLOCK
E-41224-6
APPLETON WI.
PROFESSIONAL ENGINEER

10/24/2023

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	NE REGION
Designer	JT ENGINEERING, INC.
Project Manager	SCOTT EBEL, P.E.
Regional Examiner	NE REGION
Regional Supervisor	ERIC GWIDT, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 10-25-23 (Signature)

E

FILE NAME : X:\PROJECTS\OUTAGAMIE\220044 11306301 IH 41\DESIGN\C3D\SHEETSPLAN\010101-TI-CC.DWG

PLOT DATE : 10/11/2023 8:47 AM PLOT BY : ANDY BLOCK PLOT NAME :

UTILITY CONTACTS

AT&T WISCONSIN - COMMUNICATION LINE
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KAUKAUNA, WI 54130-7077
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emiller@ku-wi.org

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STATE AGENCIES

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Cole.runge@browncountywi.gov

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 .22	.16 .30	.22 .38	.12 .26	.20 .34	.27 .44	.15 .30	.24 .37	.33 .50	.19 .34	.28 .41	.38 .56
MEDIAN STRIP-TURF	.19 .24	.20 .26	.24 .30	.19 .25	.22 .28	.26 .33	.20 .26	.23 .30	.30 .37	.20 .27	.25 .32	.30 .40
SIDE SLOPE: TURF			.25 .32			.27 .34			.28 .36			.30 .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 = 11.71 ACRES
TOTAL AREA EXPECTED TO BE DISTURBED BY CONSTRUCTION ACTIVITIES = 6.06 ACRES

TO OBTAIN LOCATION OF PARTICIPANTS' UNDERGROUND FACILITIES
BEFORE YOU DIG IN WISCONSIN

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

GENERAL NOTES

ANY REINFORCEMENT LOCATED IN EXISTING CONCRETE PAVEMENT SHALL BE CONSIDERED INCIDENTAL TO THE REMOVING PAVEMENT ITEM, AND NO ADDITIONAL COMPENSATION WILL BE GRANTED.

WHEN THE QUANTITY OF HMA PAVEMENT OR BASE AGGREGATE IS MEASURED FOR PAYMENT BY THE TON, THE DEPTH OR THICKNESS OF THE LAYER SHOWN ON THE PLAN IS APPROXIMATE AND THE ACTUAL THICKNESS WILL DEPEND ON THE DISTRIBUTION OF THE MATERIAL AS DIRECTED BY THE ENGINEER.

THE QUANTITY OF TOPSOIL IS COMPUTED FROM MEASUREMENTS BETWEEN THE SUBGRADE SHOULDER POINTS AND THE SLOPE INTERCEPTS AS SHOWN ON THE CROSS SECTIONS PLUS 5 FEET FOR ROUNDING.

CURB AND GUTTER GRADES ARE GIVEN TO THE FLANGE OF CURB AND GUTTER. CURB AND GUTTER RADII ARE MEASURED TO THE FLANGE OF CURB AND GUTTER.

BROKEN CONCRETE CONTAINING RE-BAR SHALL NOT BE USED AS RIPRAP MEDIUM.

A SAWED JOINT IS REQUIRED WHERE NEW HMA PAVEMENT MEETS EXISTING HMA PAVEMENT.

REMOVAL OF EROSION CONTROL DEVICES IS INCLUDED IN THE COST OF THEIR RESPECTIVE BID ITEMS.

FERTILIZER SHALL NOT BE USED WITHIN 20' OF NAVIGABLE WATERWAYS OR WETLANDS.

VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. NOTIFY THE ENGINEER IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND EXISTING PAVEMENT ELEVATIONS.

THE EXACT LOCATION OF EXCAVATION BELOW SUBGRADE (EBS) WILL BE DETERMINED BY THE ENGINEER.

ALL PRIVATE EXISTING UTILITIES ARE TO BE ADJUSTED BY THE UTILITIES CONCERNED.

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

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

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

INLET AND DISCHARGE ELEVATIONS FOR DRAINAGE STRUCTURES SHOWN ON THE PLAN MAY BE ADJUSTED BY THE ENGINEER TO FIT FIELD CONDITIONS.

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

SIGNS IN CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE COVERED AS DIRECTED BY THE ENGINEER AND PAID FOR UNDER THE ITEM TRAFFIC CONTROL COVERING SIGNS.

PROVIDE TEMPORARY POSITIVE DRAINAGE ON THE NEWLY INSTALLED STORM SEWER SYSTEM UNTIL IT IS ABLE TO EFFECTIVELY DRAIN TO ITS INTENDED OR PLANNED OUTFALL.

PLACE TOPSOIL TO A MINIMUM DEPTH OF 4-INCHES.

THE IH 41 ALIGNMENTS (NORTHBOUND AND SOUTHBOUND) SHOWN IN THE PLAN REPRESENT THE FUTURE PROPOSED IH 41 CONFIGURATION, UNLESS CALLED OUT AS THE EXISTING ALIGNMENT OR REFERENCE LINE.

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAIL
GUARDRAIL PLAN
EROSION CONTROL - TEMPORARY
EROSION CONTROL - PERMANENT
STORM SEWER REMOVALS
STORM SEWER
PERMANENT SIGNING
LIGHTING PLAN
PAVEMENT MARKING PLAN
TRAFFIC CONTROL
DETOUR PLAN
ALIGNMENT DETAILS

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
AH	AHEAD
ASPH	ASPHALTIC
BK	BACK
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L OR ℄	CENTER LINE
CONC	CONCRETE
CP	CULVERT PIPE
CPCM	CULVERT PIPE CORRUGATED METAL
CPRC	CULVERT PIPE REINFORCED CONCRETE
CPRCHE	CULVERT PIPE REINFORCED CONCRETE HORIZONTAL ELLIPTICAL
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC YARD
D	DEGREE OF CURVE
DISCH	DISCHARGE
Δ	DELTA
é	INTERSECTION ANGLE
EB	EASTBOUND
ENB	EXISTING NOISE BARRIER
EOP	EDGE OF PAVEMENT
FE	FIELD ENTRANCE
FL	FLOW LINE
FTMS	FREEWAY TRAFFIC MANAGEMENT SYSTEM
FS	FULL SUPERELEVATION
HMA	HOT MIX ASPHALT
IE	INVERT ELEVATION
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LP	LOW POINT
LT	LEFT
MAX	MAXIMUM
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PNB	PROPOSED NOISE BARRIER
PRC	POINT OF REVERSE CURVE
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L OR ~	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQ'D	REQUIRED
RD	ROAD
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RT	RIGHT
SALV	SALVAGED
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWING
SE	SUPERELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
TYP	TYPICAL
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT
WB	WESTBOUND

2

N

TOWN OF
VANDENBROEK

CTH N / FREEDOM RD

BUCHANAN ST

EVERGREEN DR

CTH CC / ROSE HILL RD

STH 55 / DELANGLADE ST

MALONEY RD

END PROJECT 1130-66-83
STA 69'CC'+50.00

70'CC'

B-44-0333

1010'NB' 1020'NB' 1030'NB' 1040'NB' 1050'NB' 1060'NB' IH 41 SB 1070'NB' 1080'NB' 1090'NB' 1100'NB' 1110'NB' 1120'NB' 1130'NB' 1140'NB' 1150'NB' 1160'NB'

IH 41 NB

60'CC'

BEGIN PROJECT 1130-66-83
STA 55'CC'+00.00

MOASIS DR

VILLAGE OF
LITTLE CHUTE

FAIRLANE DR

50'CC'

CITY OF
KAUKAUNA

GERTRUDE ST

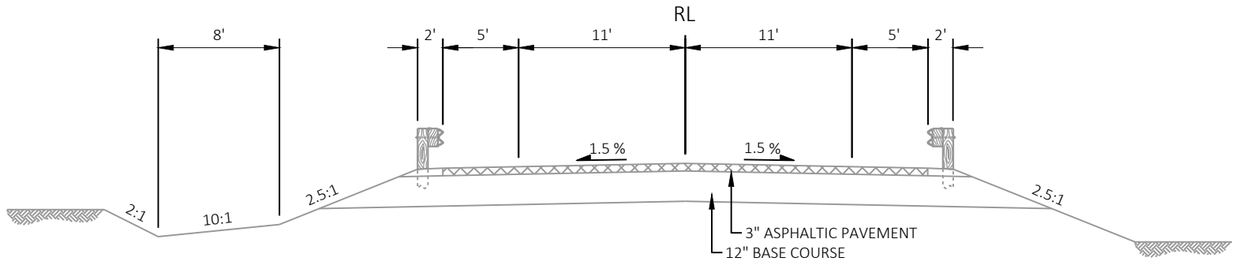
CTH OO / HYLAND AVE

STH 55 / LAWE ST

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PROJECT OVERVIEW	SHEET 4	E

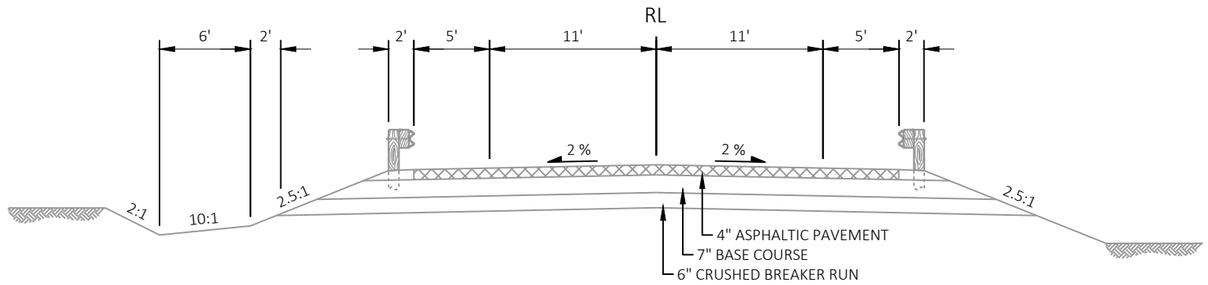
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LAYOUT NAME - 020201-po
PLOT DATE : 8/17/2023 7:39 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2



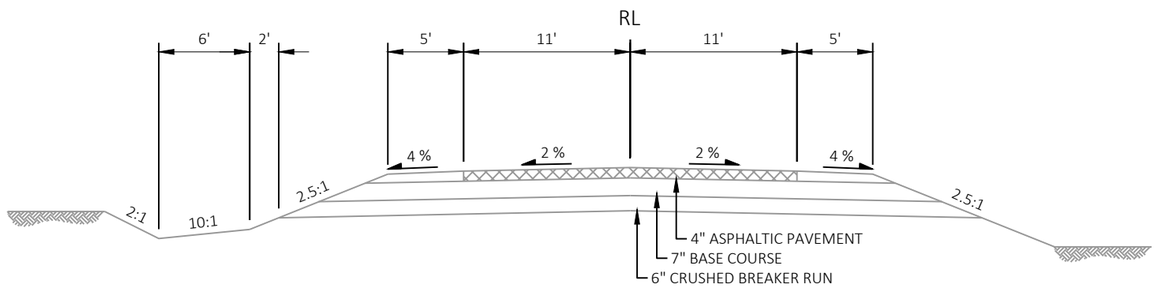
EXISTING TYPICAL SECTION

CTH CC/ROSEHILL ROAD
STA 55'CC'+00 - STA 61'CC'+00



EXISTING TYPICAL SECTION

CTH CC/ROSEHILL ROAD
STA 61'CC'+00 - STA 62+96.58
STA 65+06.40 - STA 66'CC'+88, RT AND STA 67'CC'+01, LT



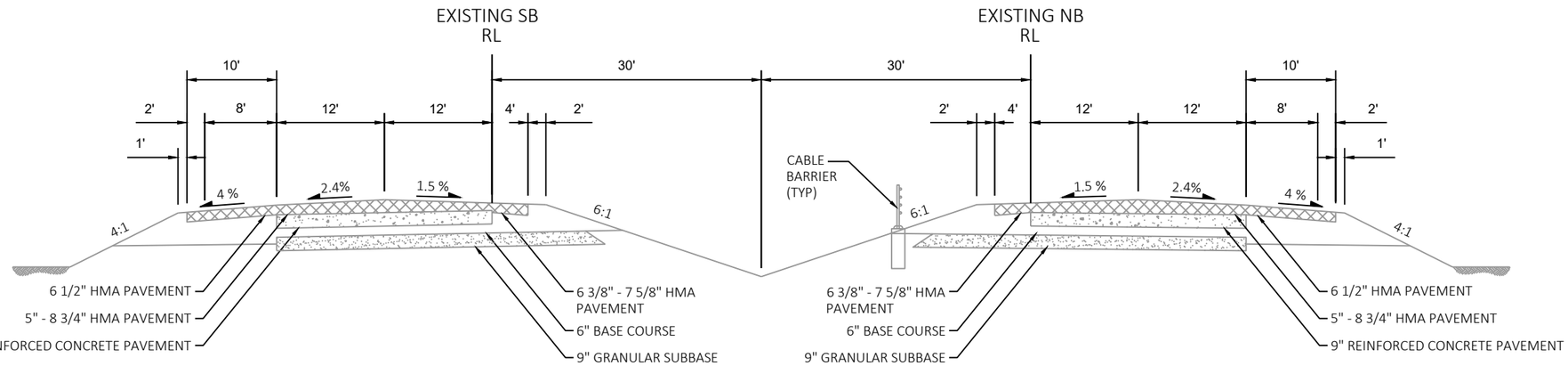
EXISTING TYPICAL SECTION

CTH CC/ROSEHILL ROAD
STA 66'CC'+88, RT AND STA 67'CC'+01, LT - STA 69'CC'+50

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EXISTING TYPICAL SECTIONS - CTH CC (ROSEHILL RD)	SHEET 5	E

FILE NAME : X:\PROJECTS\OUTAGAMIE\220044 11306301 IH 41\DESIGN\C3D\SHEETSPLAN\020320-TS-CC.DWG
LAYOUT NAME - 01-10ft CC EX
PLOT DATE : 6/21/2023 7:42 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



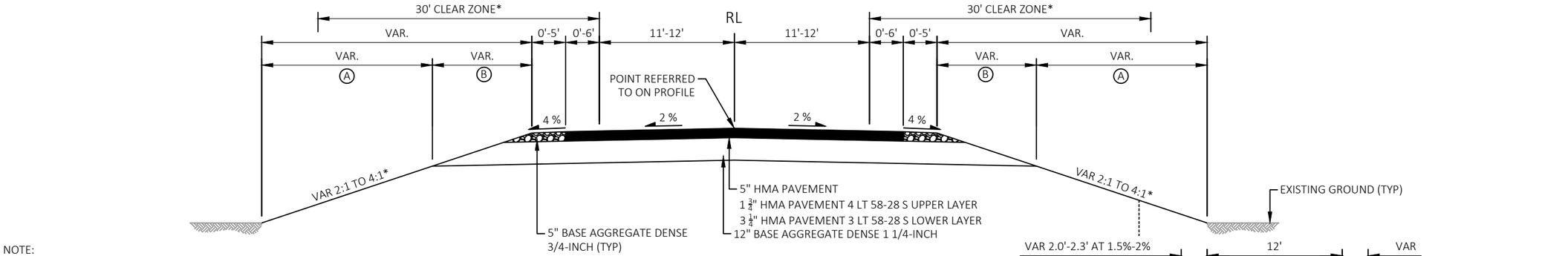
EXISTING TYPICAL SECTION
IH 41 SB
STA. 958+00 SB - STA. 1211+00 SB

EXISTING TYPICAL SECTION
IH 41 NB
STA. 958+00 NB - STA. 1211+00 NB

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EXISTING TYPICAL SECTIONS - IH 41	SHEET 6	E

FILE NAME : X:\PROJECTS\OUTAGAMIE\220044 11306301 IH 41\DESIGN\C3D\SHEETSPLAN\020320-TS-CC.DWG
LAYOUT NAME - 02-10ft 41 EX
PLOT DATE : 8/25/2023 11:25 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT

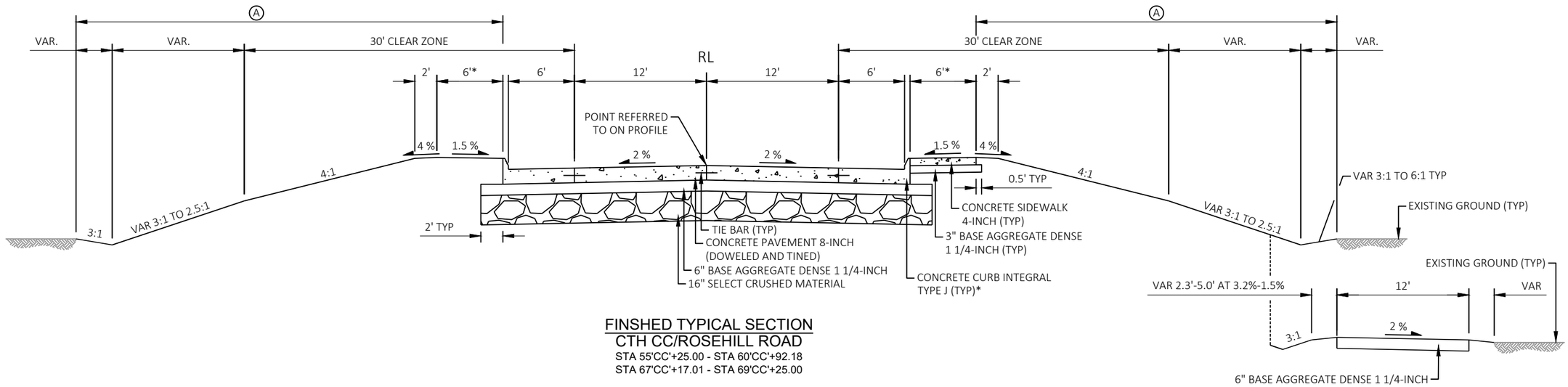
2



NOTE:
*A FULL CLEAR ZONE NOT PROVIDED WHEN BLENDING INTO THE EXISTING CONDITION

FINISHED TYPICAL SECTION
CTH CC/ROSEHILL ROAD
STA 55'CC'+00.00 - STA 55'CC'+25.00
STA 69'CC'+25.00 - STA 69'CC'+50.00

FIELD ENTRANCE
STA 69'CC'+25.00 - STA 69'CC'+50.00, RT



FINSHED TYPICAL SECTION
CTH CC/ROSEHILL ROAD
STA 55'CC'+25.00 - STA 60'CC'+92.18
STA 67'CC'+17.01 - STA 69'CC'+25.00

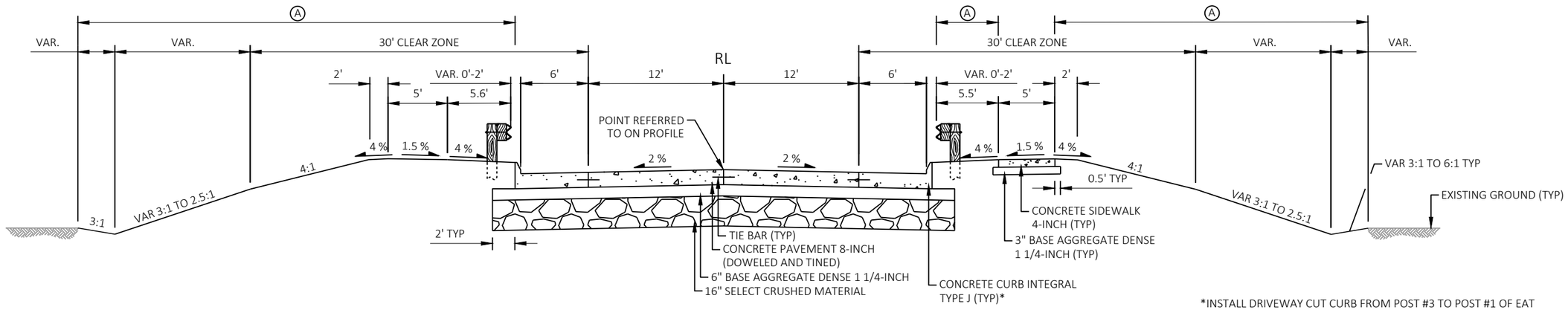
FIELD ENTRANCE
STA 67'CC'+84.3 - 69'CC'+25.00, RT

Ⓐ TOPSOIL, EROSION MAT CLASS II, TYPE B, SEEDING MIXTURE NO. 30 & FERTILIZER TYPE B

Ⓑ SEEDING MIXTURE NO. 30 & FERTILIZER TYPE B

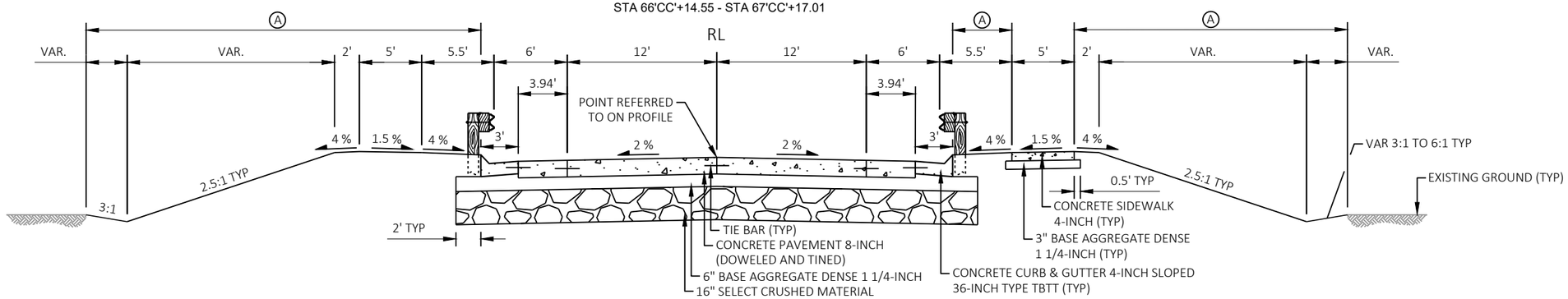
NOTE:
*STA. 59'CC'+92.04 - 60'CC'+92.18 & 67'CC'+17.03 - 68'CC'+16.86
--5' WIDTH
--DISTANCE FROM BACK OF CURB TO INSIDE OF SIDEWALK (RT) OR 1.5% GRADING (LT) VARIES FROM 1' TO 7'
--INSTALL DRIVEWAY CUT CURB 100' IN ADVANCE OF EAT

PROJECT NO: 1130-66-83	HWY: CTH CC	COUNTY: OUTAGAMIE	FINISHED TYPICAL SECTIONS - CTH CC (ROSEHILL RD)	SHEET 7	E

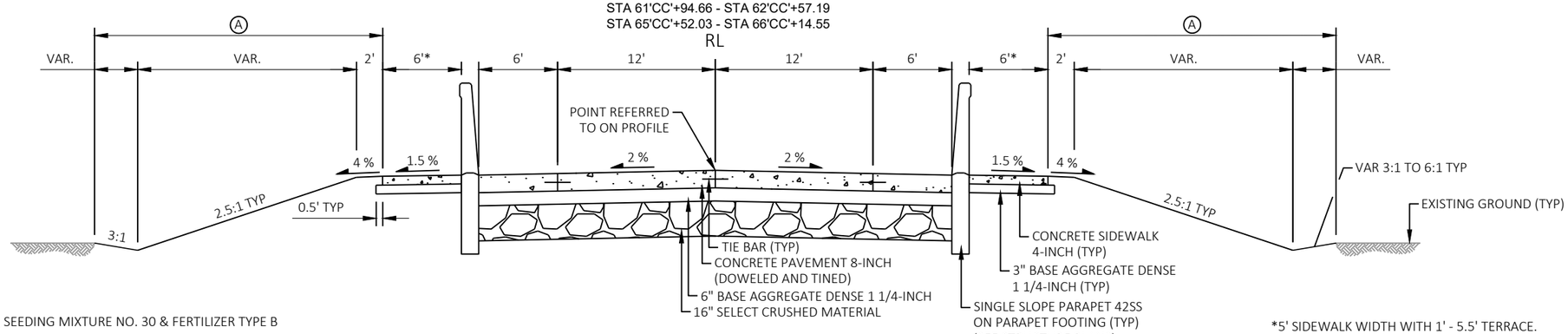


*INSTALL DRIVEWAY CUT CURB FROM POST #3 TO POST #1 OF EAT

FINISHED TYPICAL SECTION
CTH CC/ROSEHILL ROAD
STA 60'CC'+92.18 - STA 61'CC'+94.66
STA 66'CC'+14.55 - STA 67'CC'+17.01



FINISHED TYPICAL SECTION
CTH CC/ROSEHILL ROAD
STA 61'CC'+94.66 - STA 62'CC'+57.19
STA 65'CC'+52.03 - STA 66'CC'+14.55



*5' SIDEWALK WIDTH WITH 1' - 5.5' TERRACE.
-STA 62'CC'+57.19 - STA 62'CC'+72.19
-STA 65'CC'+37.03 - STA 65'CC'+52.03

SEE PLAN DETAILS FOR SIDEWALK CROSS SLOPE.

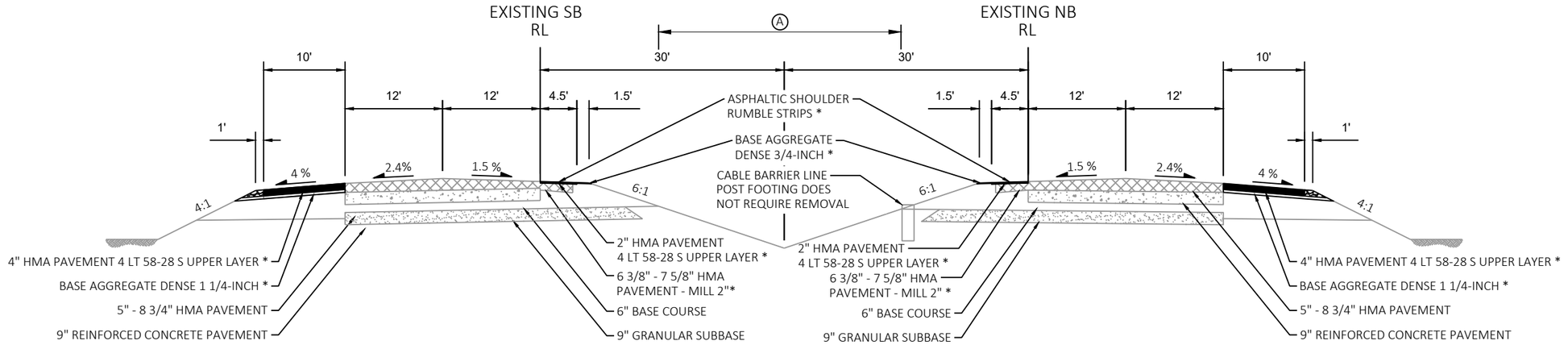
Ⓐ TOPSOIL, EROSION MAT CLASS II, TYPE B, SEEDING MIXTURE NO. 30 & FERTILIZER TYPE B

Ⓑ SEEDING MIXTURE NO. 30 & FERTILIZER TYPE B

FINISHED TYPICAL SECTION
CTH CC/ROSEHILL ROAD
STA 62'CC'+57.19 - STA 63'CC'+01.36
STA 65'CC'+07.86 - STA 65'CC'+52.03

PROJECT NO: 1130-66-83	HWY: CTH CC	COUNTY: OUTAGAMIE	FINISHED TYPICAL SECTIONS - CTH CC (ROSEHILL RD)	SHEET 8	E

2



FINISHED TYPICAL SECTION
IH 41 SB
STA. 958+00 SB - STA. 1211+00 SB

FINISHED TYPICAL SECTION
IH 41 NB
STA. 958+00 NB - STA. 1211+00 NB

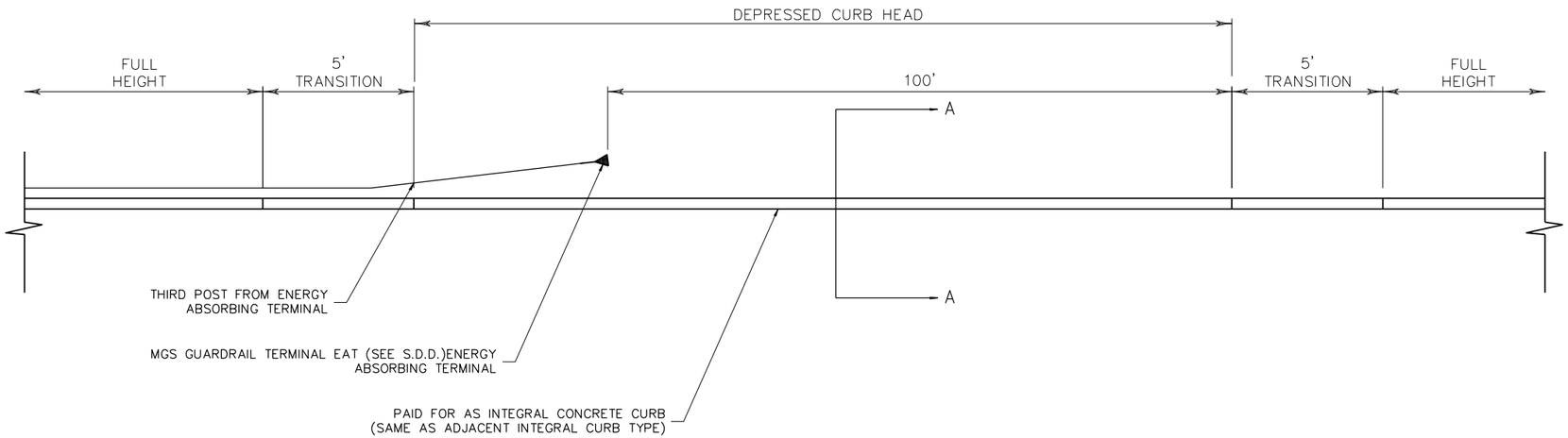
*NOTE:
INSIDE SHOULDER MILLING AND RESURFACING REQ'D:
-STA. 1072'NB'+35 - STA. 1085'NB'+05
-STA. 1079'SB'+05 - STA. 1091'SB'+75

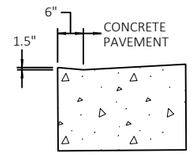
OUTSIDE SHOULDER PAVING REQ'D:
-STA. 1081'NB'+78 - STA. 1082'NB'+29
-STA. 1081'SB'+82 - STA. 1082'SB'+30

Ⓐ TOPSOIL, EROSION MAT CLASS II, TYPE B, SEEDING MIXTURE NO. 30 & FERTILIZER TYPE B

Ⓑ SEEDING MIXTURE NO. 30 & FERTILIZER TYPE B

2



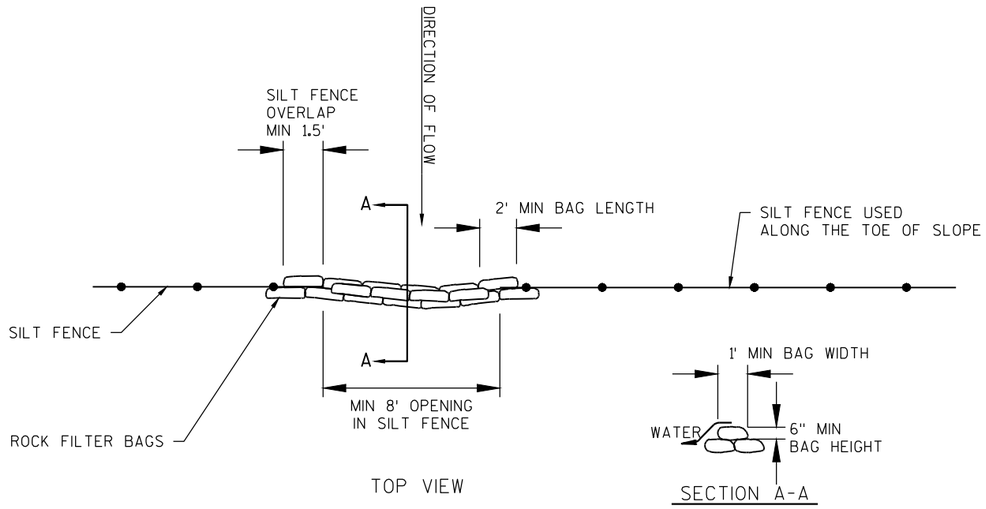


SECTION A–A

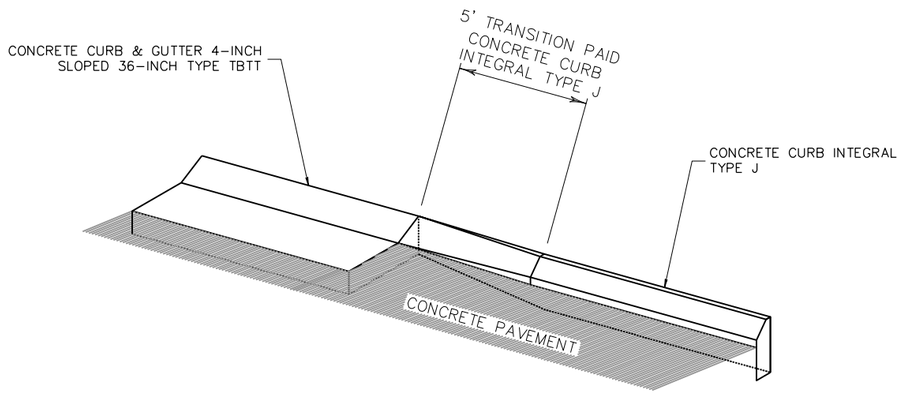
DEPRESSED CURB

DEPRESSED CURB HEAD AT BEAM GUARD TERMINAL

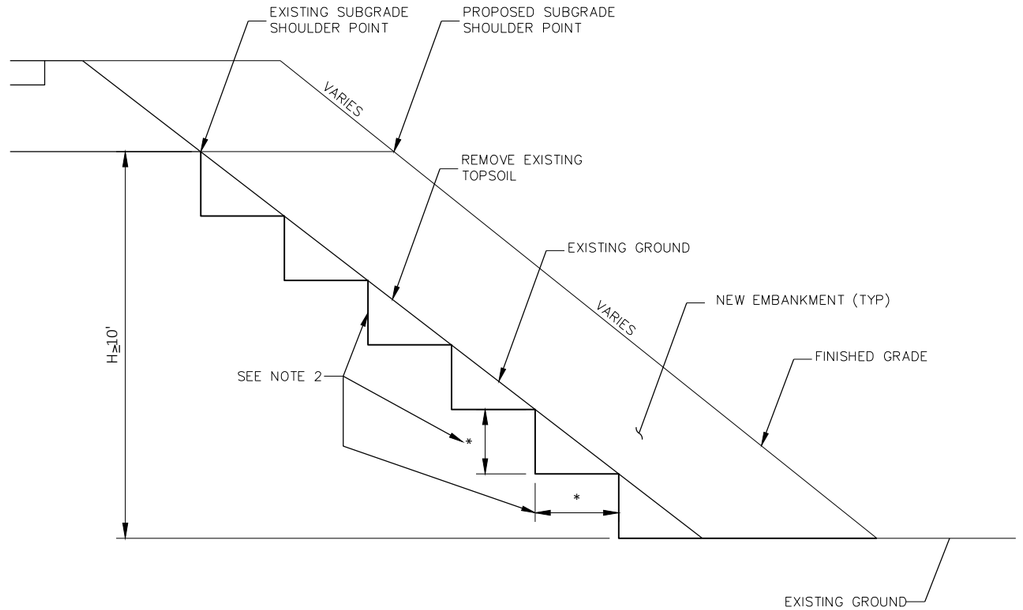
2



ROCK BAGS USED FOR SILT FENCE RELIEF



TRANSITION FROM TBTT CURB & GUTTER TO INTEGRAL TYPE J CURB



STEPPED EMBANKMENT

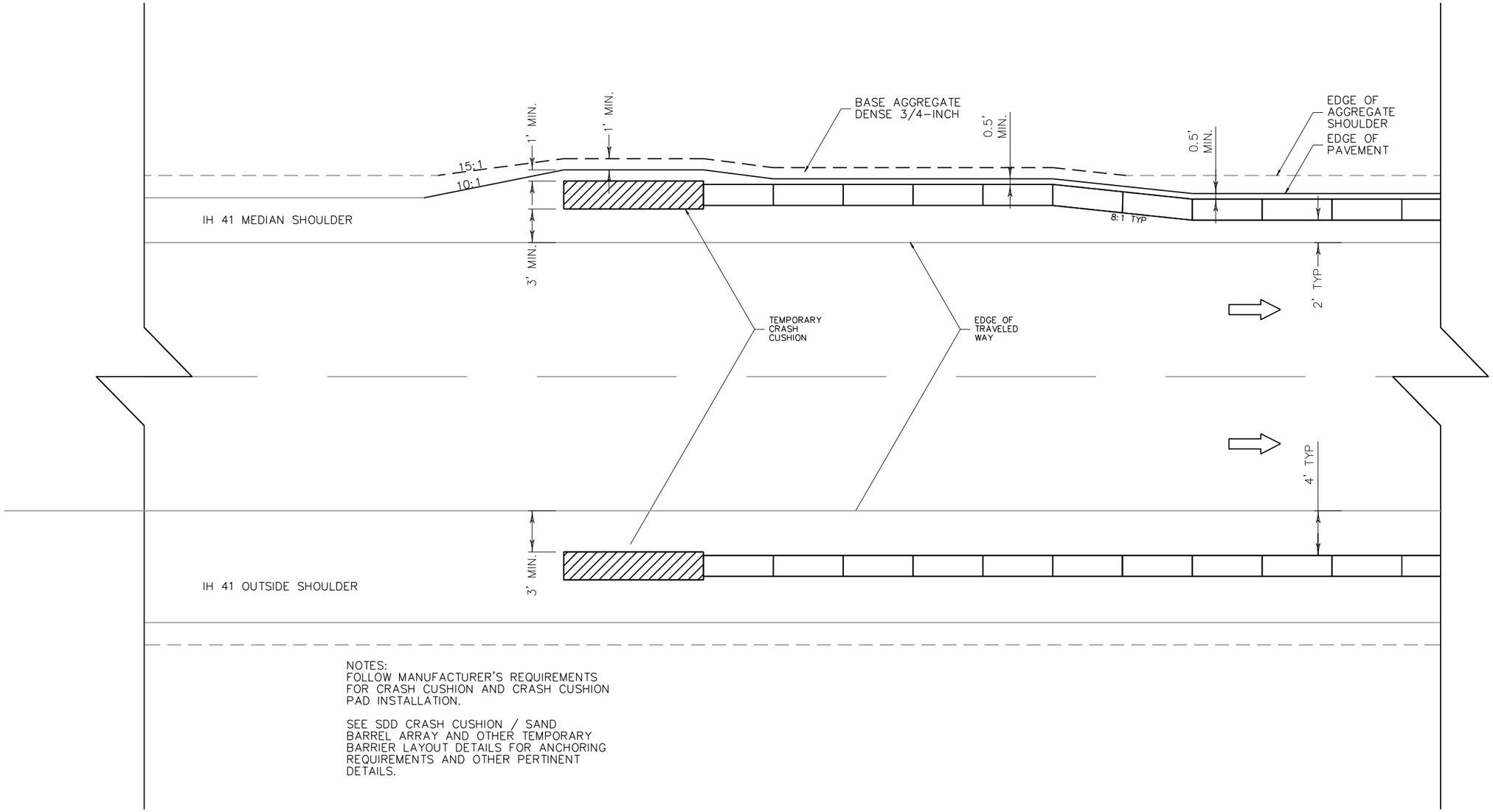
NOTES:

1) EMBANKMENT PLACED IN LAYERS AND COMPACTED PER SPECIFICATIONS

2) BENCH AS REQUIRED TO FACILITATE CONSTRUCTION FILLING OPERATIONS. BENCH IS INCIDENTAL TO FILLING OPERATIONS. SEE SPECIAL PROVISIONS FOR DIMENSIONS.

3) EBS AS REQUIRED IN THE PLANS OR DIRECTED BY THE ENGINEER SHALL BE PAID UNDER THE ITEM "EXCAVATION COMMON".

2

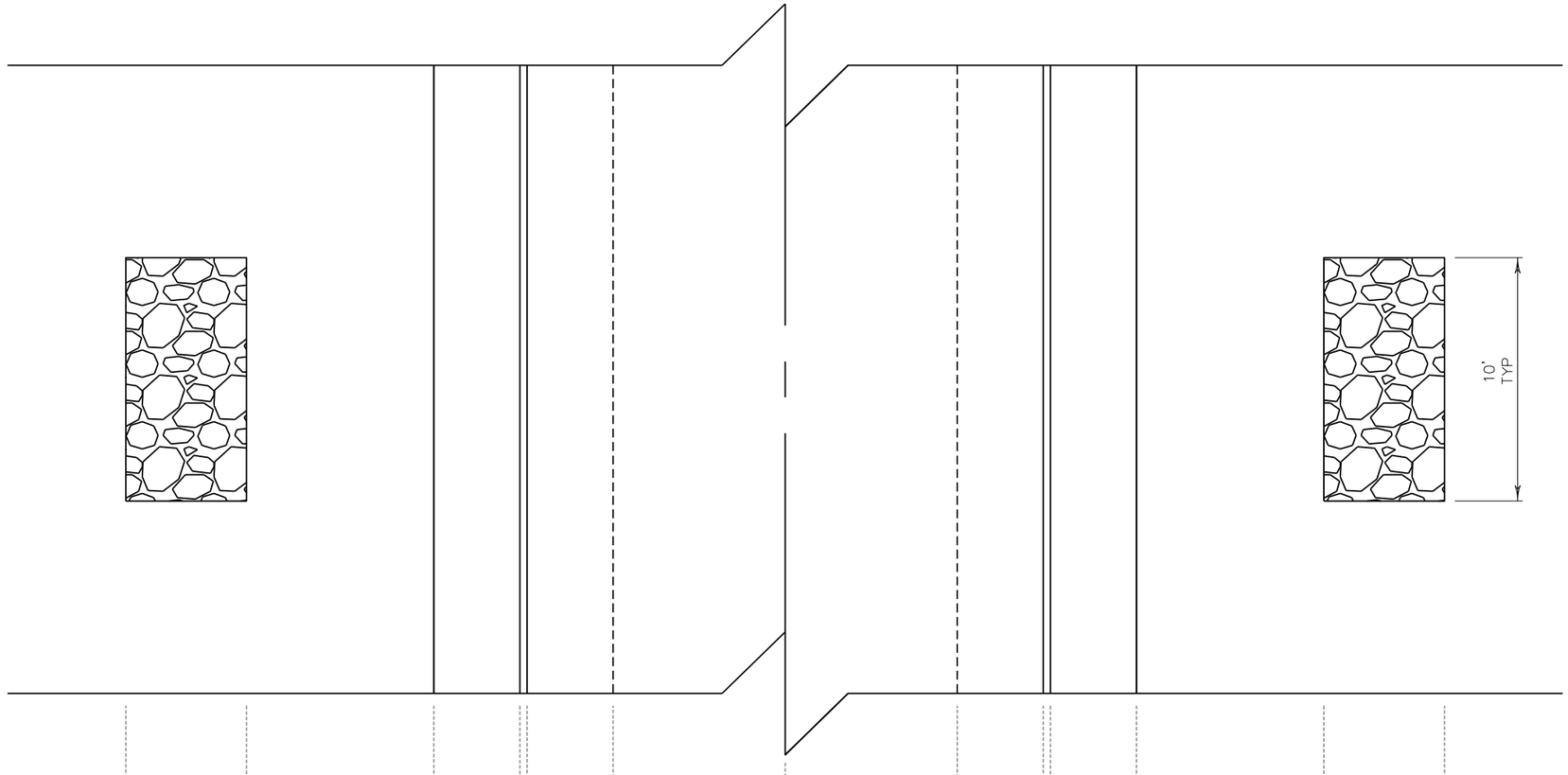


NOTES:
FOLLOW MANUFACTURER'S REQUIREMENTS FOR CRASH CUSHION AND CRASH CUSHION PAD INSTALLATION.

SEE SDD CRASH CUSHION / SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS FOR ANCHORING REQUIREMENTS AND OTHER PERTINENT DETAILS.

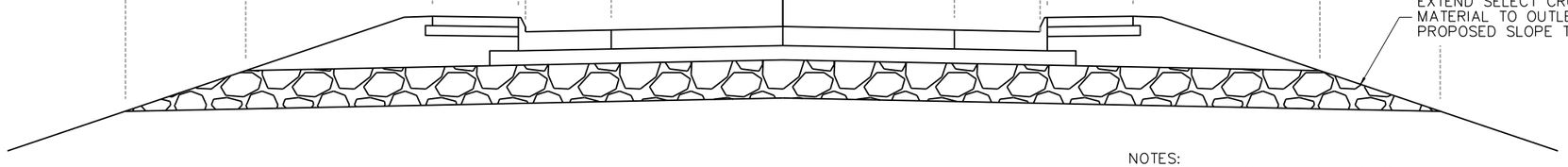
TEMPORARY CRASH CUSHION AND PAD DETAIL

2



PLAN VIEW

CTH CC
RL

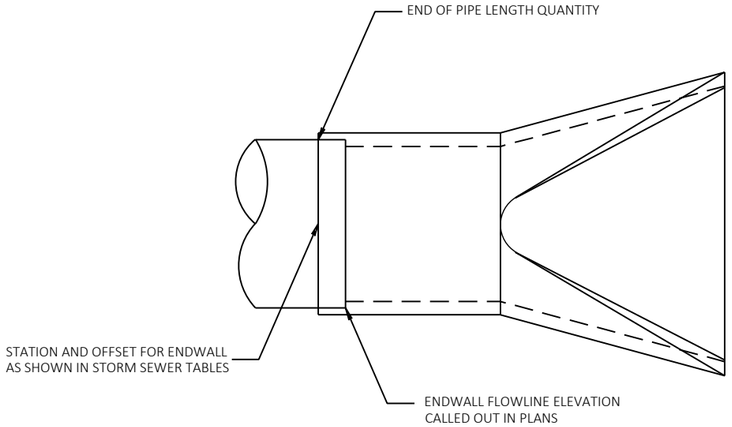


PROFILE VIEW

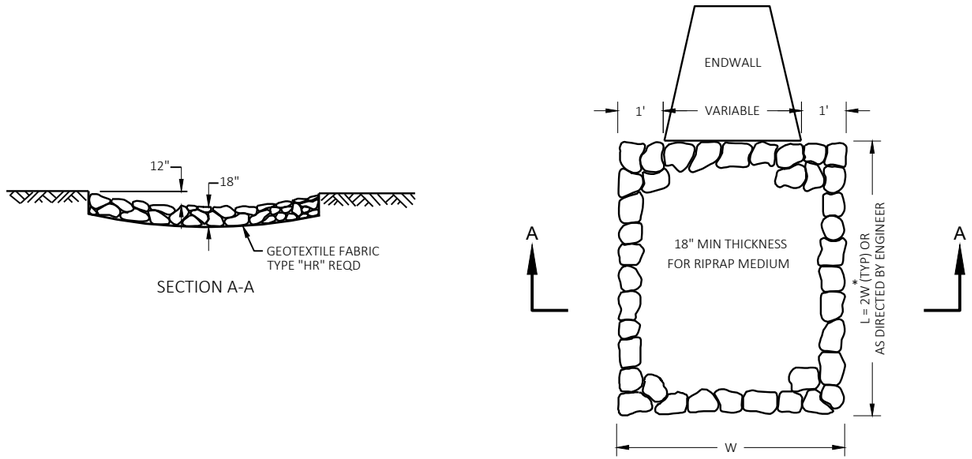
NOTES:
DETAILS OF OTHER MATERIALS, DIMENSIONS AND FINISHING REQUIREMENTS SHOWN ELSEWHERE IN PLAN.

LOCATE DRAIN OUTS NEAR STA 55'CC'+30, STA 59'CC'+50 AND STA 69'CC'+20 OR AS DIRECTED BY THE ENGINEER.

SELECT CRUSHED DRAIN OUT DETAIL

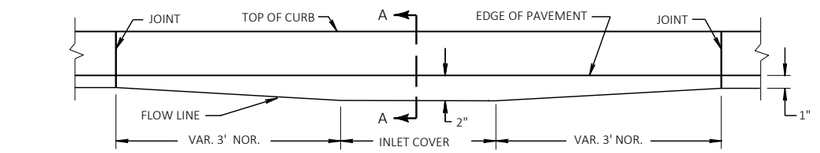


ENDWALL DETAIL

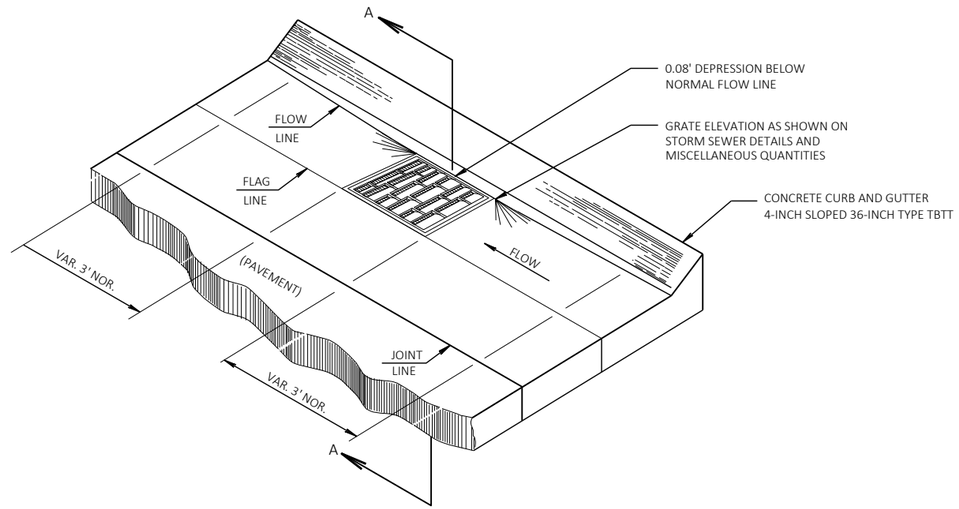


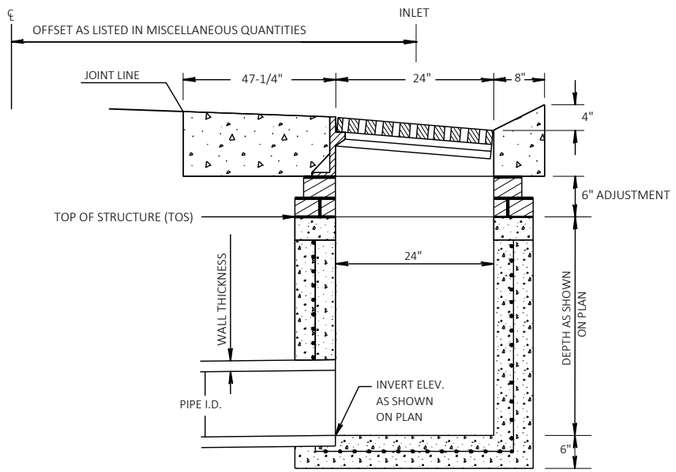
RIPRAP MEDIUM TREATMENT AT CULVERTS

* RIPRAP SHOULD BE PLACED FROM OUTLET TO THE BOTTOM OF SLOPE WHEN APPLICABLE. SEE STORM SEWER PLANS FOR APPROXIMATE RIPRAP LIMITS.



ELEVATION



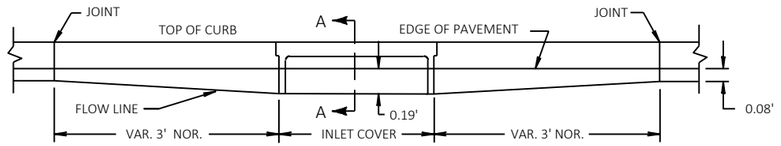


SEE S.D.D. INLETS 2x2-FT FOR ADDITIONAL INFORMATION.

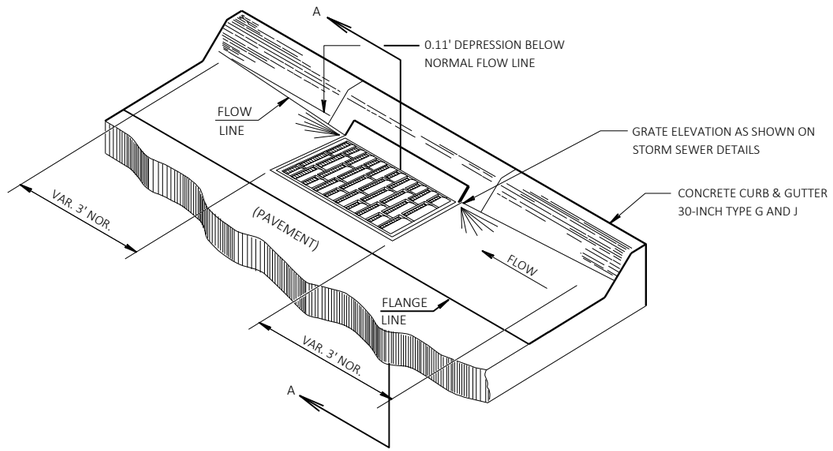
SECTION A-A

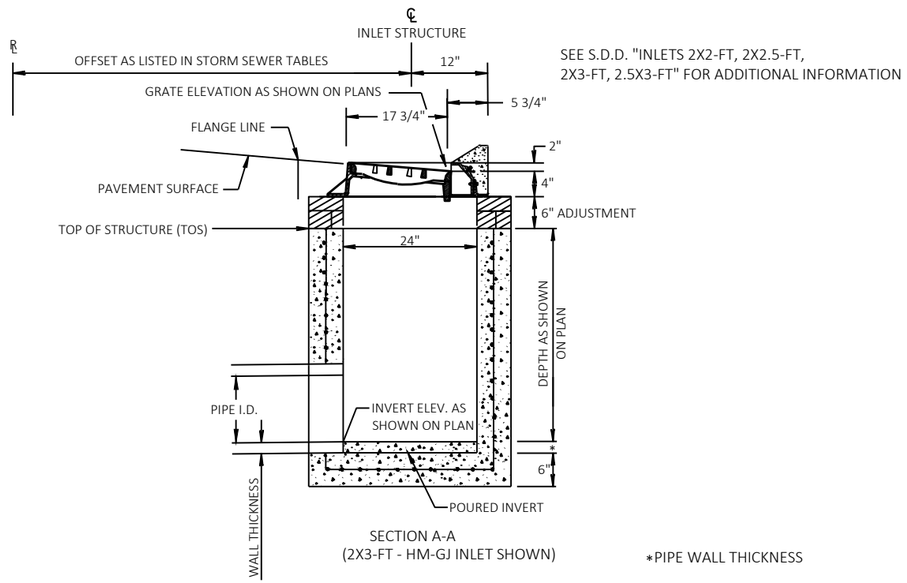
NOT A BID ITEM
(INLET 2X2-FT WITH COVERS TYPE V SHOWN)

DETAIL OF CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT



ELEVATION





SEE S.D.D. "INLETS 2X2-FT, 2X2.5-FT,
2X3-FT, 2.5X3-FT" FOR ADDITIONAL INFORMATION

DETAIL OF CONCRETE CURB & GUTTER 30-INCH TYPE G AND J AT INLETS

GENERAL NOTES

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

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

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

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

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

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

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

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

(1) EXISTING POST MOUNTED SPEED LIMIT SIGNS SHOULD BE COVERED OR REMOVED.

(2) PCMS SHALL FOLLOW ARROW BOARD STANDARDS WHEN DISPLAYING FLASHING FOUR CORNER CAUTION MODE.

(3) PLACE A DIGITAL SPEED LIMIT TRAILER 700' FEET UPSTREAM OF EACH ACTIVE WORK AREA WHERE WORKERS ARE PRESENT.

(4) A DIGITAL SPEED LIMIT TRAILER SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP.

(5) IF WORK AREA STARTS LESS THAN 1,000 FEET FROM END OF LANE CLOSURE TAPER, OMIT DIGITAL SPEED LIMIT TRAILER AT THAT LOCATION.

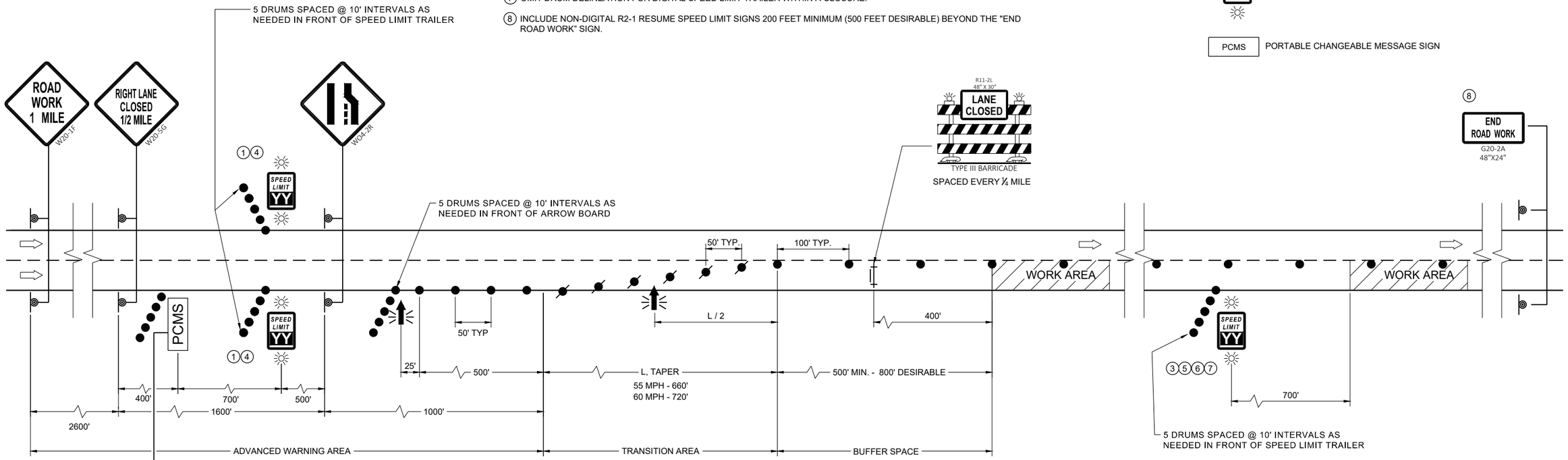
(6) PLACE A DIGITAL SPEED LIMIT TRAILER A MINIMUM OF EVERY ONE MILE. MODIFY PLACEMENT AS DIRECTED BY ENGINEER WHEN DIGITAL SPEED LIMIT TRAILER IS LOCATED IN CLOSE PROXIMITY TO AN ACCELERATION LANE OF AN ENTRANCE RAMP.

(7) OMIT DRUM DELINEATION FOR DIGITAL SPEED LIMIT TRAILER WITHIN A CLOSURE.

(8) INCLUDE NON-DIGITAL R2-1 RESUME SPEED LIMIT SIGNS 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END ROAD WORK" SIGN.

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- DIGITAL SPEED LIMIT TRAILER (SPEED LIMIT YY)
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN



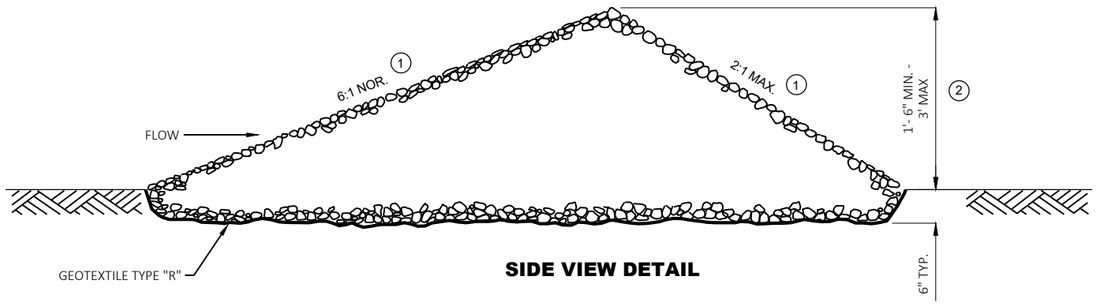
(2) PCMS MESSAGING

POSTED SPEED REDUCTION		NO SPEED REDUCTION
FRAME 1	FRAME 2	
REDUCED SPEED AHEAD	XX MPH	(FLASHING CAUTION MODE)

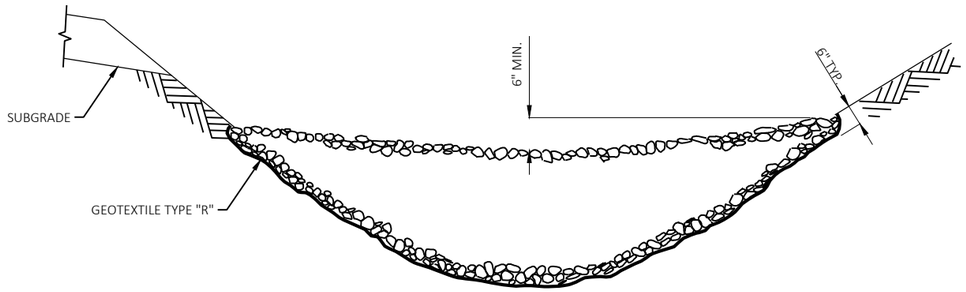
TRAFFIC CONTROL, LANE CLOSURE, DIGITAL SPEED REDUCTION SYSTEM DETAIL

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CONSTRUCTION DETAILS	SHEET 17	E

2



SIDE VIEW DETAIL



SECTION VIEW

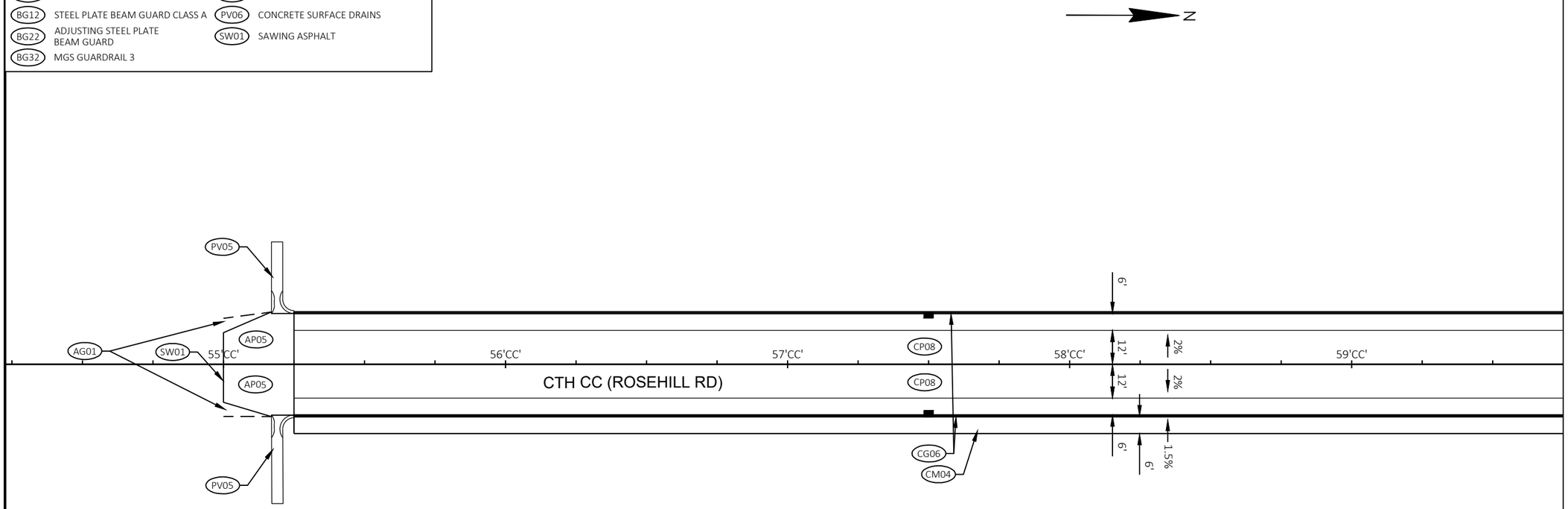
TEMPORARY STONE DITCH CHECKS DETAIL

(1) WHEN PLACED WITHIN THE CLEAR ZONE, SLOPED AT 6:1 OR FLATTER.

(2) MEASURED AT THE CENTER OF THE DITCH CHECK. VARY HEIGHT TO MATCH FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	BG39	MGS THRIE BEAM TRANSITION
AP02	HMA PAVEMENT 2-INCH	BG40	MGS GUARDRAIL TERMINAL EAT
AP04	HMA PAVEMENT 4-INCH	CG06	CONCRETE CURB INTEGRAL TYPE J
AP05	HMA PAVEMENT 5-INCH	CG41	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT
BG02	ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2	CM04	CONCRETE SIDEWALK 4-INCH
BG03	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	CP08	CONCRETE PAVEMENT 8-INCH
BG09	STEEL THRIE BEAM BULLNOSE TERMINAL	PV01	CONCRETE PAVEMENT APPROACH SLAB
BG10	STEEL THRIE BEAM	PV05	ASPHALTIC FLUME
BG12	STEEL PLATE BEAM GUARD CLASS A	PV06	CONCRETE SURFACE DRAINS
BG22	ADJUSTING STEEL PLATE BEAM GUARD	SW01	SAWING ASPHALT
BG32	MGS GUARDRAIL 3		

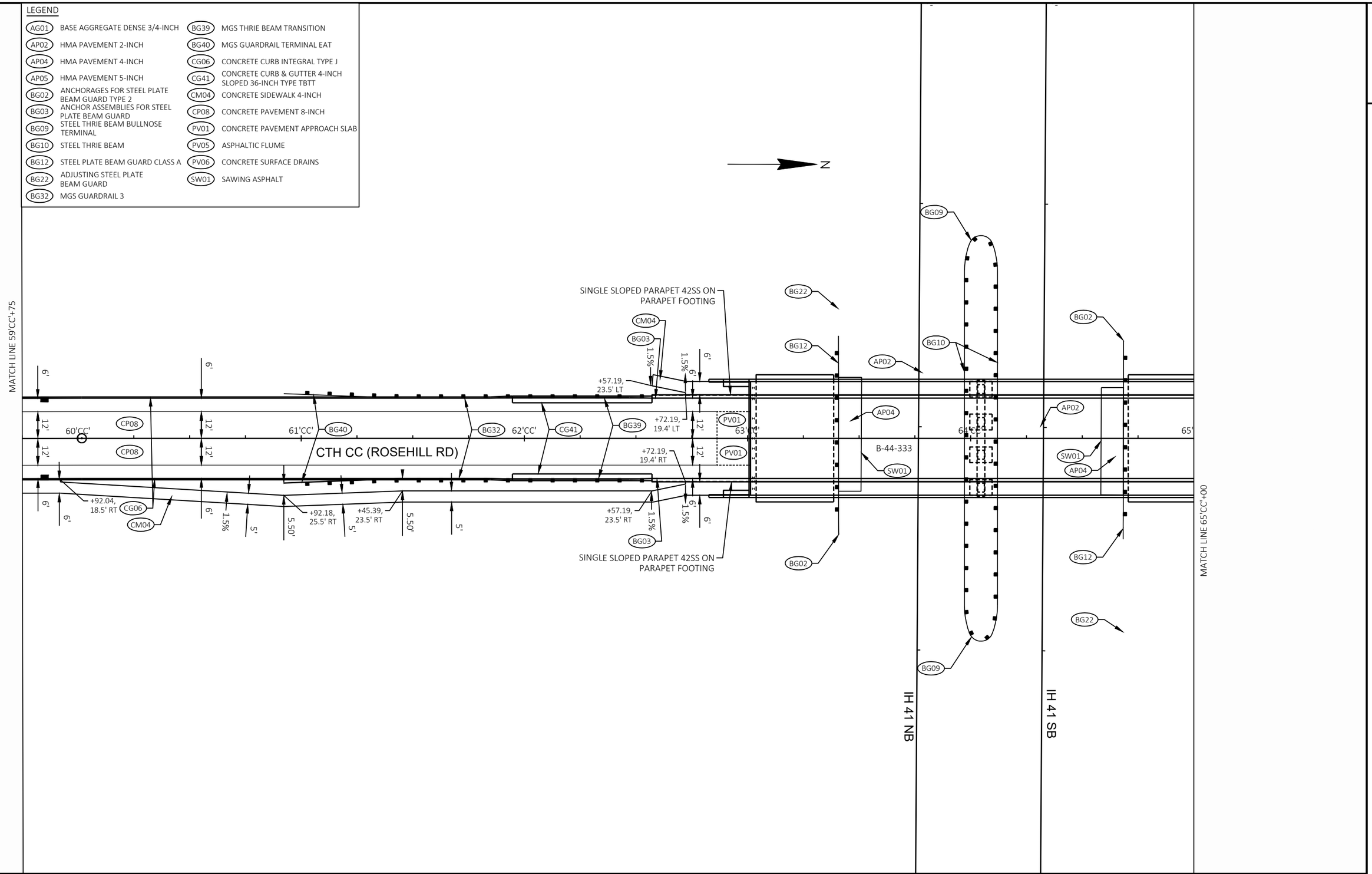


PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PLAN DETAIL - CTH CC (ROSEHILL RD)	SHEET 19	E

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	BG39	MGS THRIE BEAM TRANSITION
AP02	HMA PAVEMENT 2-INCH	BG40	MGS GUARDRAIL TERMINAL EAT
AP04	HMA PAVEMENT 4-INCH	CG06	CONCRETE CURB INTEGRAL TYPE J
AP05	HMA PAVEMENT 5-INCH	CG41	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT
BG02	ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2	CM04	CONCRETE SIDEWALK 4-INCH
BG03	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	CP08	CONCRETE PAVEMENT 8-INCH
BG09	STEEL THRIE BEAM BULLNOSE TERMINAL	PV01	CONCRETE PAVEMENT APPROACH SLAB
BG10	STEEL THRIE BEAM	PV05	ASPHALTIC FLUME
BG12	STEEL PLATE BEAM GUARD CLASS A	PV06	CONCRETE SURFACE DRAINS
BG22	ADJUSTING STEEL PLATE BEAM GUARD	SW01	SAWING ASPHALT
BG32	MGS GUARDRAIL 3		



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PLAN DETAIL - CTH CC (ROSEHILL RD)	SHEET 20 E

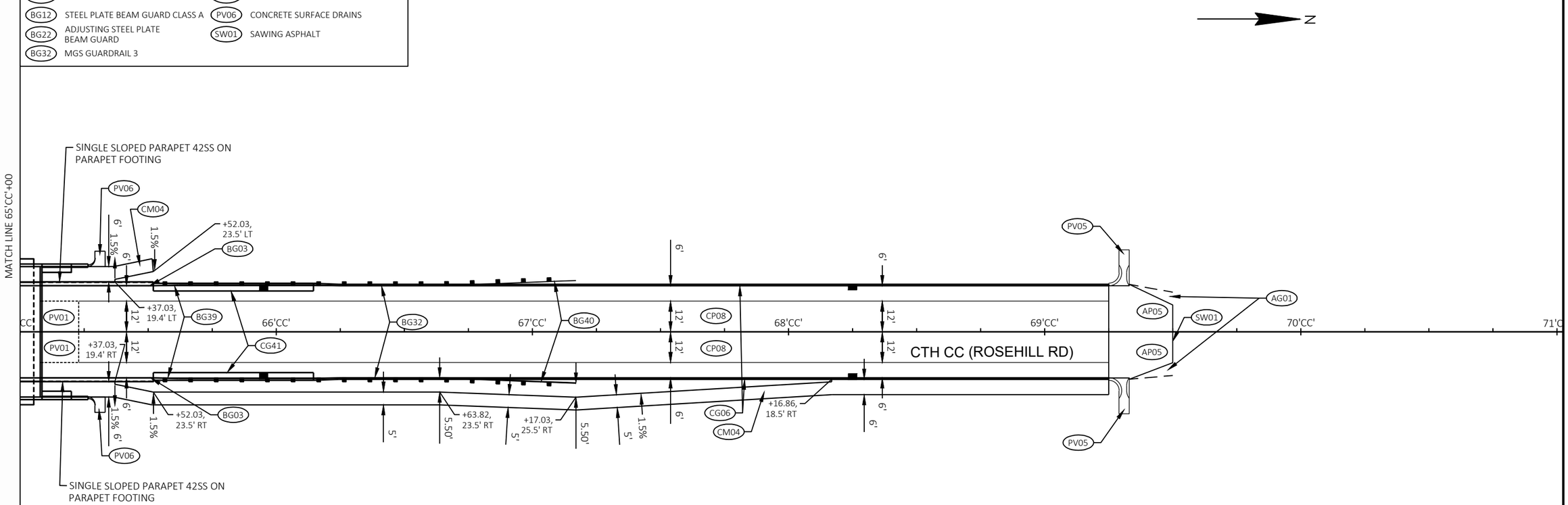
FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\021201-PD-CC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/9/2024 12:58 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

AG01	BASE AGGREGATE DENSE 3/4-INCH	BG39	MGS THRIE BEAM TRANSITION
AP02	HMA PAVEMENT 2-INCH	BG40	MGS GUARDRAIL TERMINAL EAT
AP04	HMA PAVEMENT 4-INCH	CG06	CONCRETE CURB INTEGRAL TYPE J
AP05	HMA PAVEMENT 5-INCH	CG41	CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT
BG02	ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2	CM04	CONCRETE SIDEWALK 4-INCH
BG03	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	CP08	CONCRETE PAVEMENT 8-INCH
BG09	STEEL THRIE BEAM BULLNOSE TERMINAL	PV01	CONCRETE PAVEMENT APPROACH SLAB
BG10	STEEL THRIE BEAM	PV05	ASPHALTIC FLUME
BG12	STEEL PLATE BEAM GUARD CLASS A	PV06	CONCRETE SURFACE DRAINS
BG22	ADJUSTING STEEL PLATE BEAM GUARD	SW01	SAWING ASPHALT
BG32	MGS GUARDRAIL 3		



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PLAN DETAIL - CTH CC (ROSEHILL RD)	SHEET 21 E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\021201-PD-CC.DWG
LAYOUT NAME - 03
PLOT DATE : 1/9/2024 1:00 PM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

N

SEPTIC MOUND

SIGN

GUY

POST

KAUKAUNA UTILITIES
ELECTRICITY
AND
SPECTRUM
COMMUNICATION LINE

AT & T WI
COMMUNICATION LINE

LUMEN/LEVEL 3
COMMUNICATION LINE

TDS METROCOM
COMMUNICATION LINE

ADJUST EXISTING STEEL PLATE BEAM GUARD

REMOVE EXISTING CABLE
BARRIER AND TERMINALS

STA. 1081'NB'+30.01, 33.06' LT
CENTER OF POST #5

STA. 1081'NB'+30.08, 21.97' LT
CENTER OF POST #5

1081

STEEL THRIE BEAM
BULLNOSE TERMINAL

STA. 60'CC'+92.20, 20.0' LT
EAT POST #1

MGS GUARDRAIL
TERMINAL EAT

75' MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

89' STEEL PLATE BEAM GUARD
CLASS A

150' STEEL THRIE BEAM

1082

59

CTH CC (ROSEHILL RD)

60

61

62

59'CC'+92.04 - 61'CC'+04.69, LT & RT
DRIVEWAY CUT CURB REQ'D

MGS GUARDRAIL
TERMINAL EAT

75' MGS GUARDRAIL 3

MGS THRIE BEAM
TRANSITION

STA. 60'CC'+92.20, 20.0' RT
EAT POST #1

STA. 1080'NB'+42.76, RT
ANCHORAGES FOR STEEL PLATE
BEAM GUARD TYPE 2

STEEL THRIE BEAM
BULLNOSE TERMINAL

1083

KAUKAUNA UTILITIES
ELECTRICITY

STA. 1082'NB'+80.07, 22.94' LT
CENTER OF POST #5

STA. 1082'NB'+80.00, 34.03' LT
CENTER OF POST #5

IH 41 NB

IH 41 SB

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	GUARDRAIL PLAN - CTH CC (ROSEHILL RD)	SHEET 22	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\021220-GR-CC.DWG
LAYOUT NAME - 01
PLOT DATE : 1/9/2024 1:15 PM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

E EXISTING CABLE
R AND TERMINALS

STA. 1081'NB'+66.58, LT
ANCHORAGES FOR STEEL PLATE
BEAM GUARD TYPE 2

STA. 67'CC'+17.01, 20.0' LT
EAT POST #1

KAUKAUNA UTILITIES
ELECTRICITY
AND
SPECTRUM
COMMUNICATION LINE

LUMEN/LEVEL 3
COMMUNICATION LINE

MGS THRIE BEAM
TRANSITION

75' MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

MGS THRIE BEAM
TRANSITION

75' MGS GUARDRAIL 3

MGS GUARDRAIL
TERMINAL EAT

65

66

67

68

69

70

CTH CC (ROSEHILL RD)

67'CC'+04.52 - 68'CC'+16.86, LT & RT
DRIVEWAY CUT CURB REQ'D

89' STEEL PLATE BEAM
GUARD CLASS A

STA. 67'CC'+17.01, 20.0' RT
EAT POST #1

KAUKAUNA UTILITIES
ELECTRICITY

WISDOT
COMMUNICATION LINE

ADJUST EXISTING STEEL PLATE BEAM GUARD

IH 41 SB

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	GUARDRAIL PLAN - CTH CC (ROSEHILL RD)	SHEET 23	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\021220-GR-CC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/9/2024 1:11 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- A B C D INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- ROCK BAGS FOR SILT FENCE RELIEF

N

SEPTIC MOUND

SEPC

SEPC

TLE

PROPOSED R/W (TYP.)

TEMPORARY STONE DITCH CHECK LOCATION
REMOVE PRIOR TO FINAL RESTORATION

SLOPE INTERCEPT

WETLANDS

EXISTING R/W

POST

SIGN

A C

CTH CC (ROSEHILL RD)

55'CC' 56'CC' 57'CC' 58'CC' 59'CC' 60'CC'

MATCH LINE 60 'CC'+25

TEMPORARY STONE DITCH CHECK LOCATION
REMOVE PRIOR TO FINAL RESTORATION

EXISTING R/W

SLOPE INTERCEPT

WETLANDS

FLAG

POOL

CVD

2

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - TEMPORARY - CTH CC (ROSEHILL RD)	SHEET 24	E

2

2

LEGEND

- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- A B C D INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- ROCK BAGS FOR SILT FENCE RELIEF

N

WETLANDS

TLE

EXISTING R/W (TYP.)

SLOPE INTERCEPT (TYP.)

TEMPORARY STONE DITCH CHECK LOCATION REMOVE PRIOR TO FINAL RESTORATION

TEMPORARY STONE DITCH CHECK LOCATION REMOVE PRIOR TO FINAL RESTORATION

WETLANDS

IP

MATCH LINE 60 'CC'+25

CTH CC (ROSEHILL RD)

61'CC' 62'CC' 63'CC' 64'CC' 65'CC'

1081'NB' 1081'SB' 1082'NB' 1082'SB'

MATCH LINE 65 'CC'+50

IH 41 NB

IH 41 SB

1083'NB' 1083'SB'

PROPOSED R/W (TYP.)

TEMPORARY STONE DITCH CHECK LOCATION REMOVE PRIOR TO FINAL RESTORATION

WETLANDS

WETLANDS

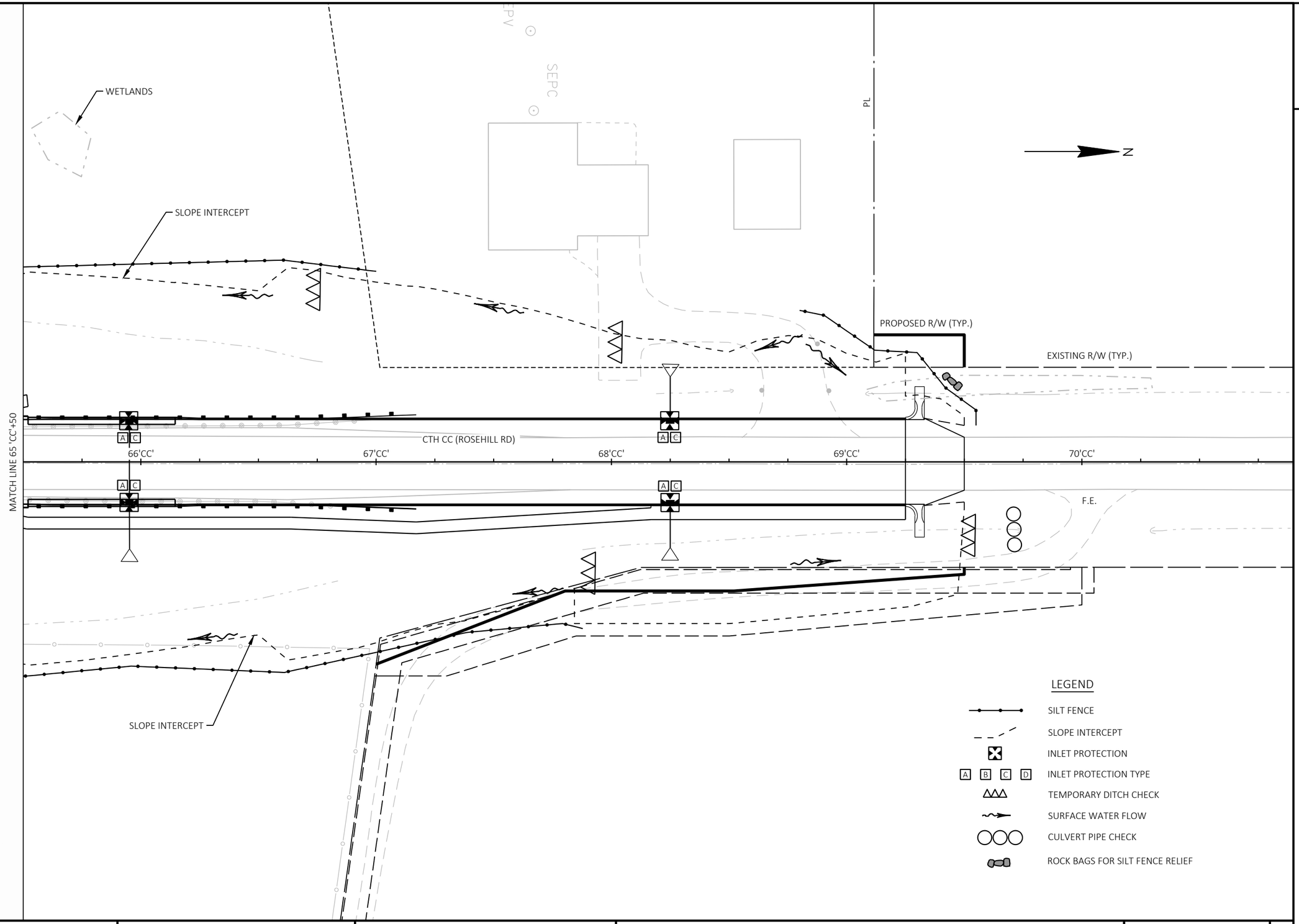
TEMPORARY STONE DITCH CHECK LOCATION REMOVE PRIOR TO FINAL RESTORATION

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - TEMPORARY - CTH CC (ROSEHILL RD)	SHEET 25	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022001-EC-CC-TEMP.DWG
LAYOUT NAME - 02
PLOT DATE : 1/9/2024 1:42 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - TEMPORARY - CTH CC (ROSEHILL RD)	SHEET 26	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022001-EC-CC-TEMP.DWG
LAYOUT NAME - 03

PLOT DATE : 1/9/2024 1:38 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- A B C D — INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- ROCK BAGS FOR SILT FENCE RELIEF

N

65'CC'

SLOPE INTERCEPT (TYP.)

IH 41 SB

1078'SB' 1079'SB' 1080'SB' 1081'SB' 1082'SB' 1083'SB'

64'CC'

MATCH LINE 1083'NB'+50

1078'NB' 1079'NB' 1080'NB' 1081'NB' 1082'NB' 1083'NB'

IH 41 NB

63'CC'

EXISTING R/W (TYP.)

SIGN

CTH CC (ROSEHILL RD)

PROPOSED R/W

SLOPE INTERCEPT (TYP.)

62'CC'

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - TEMPORARY - CTH CC & IH 41 MEDIAN	SHEET 27	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022001-EC-CC-MED-TEMP.DWG
LAYOUT NAME - 04

PLOT DATE : 1/9/2024 1:52 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- SILT FENCE
- SLOPE INTERCEPT
- INLET PROTECTION
- A B C D INLET PROTECTION TYPE
- TEMPORARY DITCH CHECK
- SURFACE WATER FLOW
- CULVERT PIPE CHECK
- ROCK BAGS FOR SILT FENCE RELIEF

N

SIGN

IH 41 SB

1084'SB' 1085'SB' 1086'SB' 1087'SB' 1088'SB'

SLOPE INTERCEPT (TYP.)

MATCH LINE 1083'NB'+50

1084'NB' 1085'NB' 1086'NB' 1087'NB' 1088'NB'

IH 41 NB

EXISTING R/W (TYP.)

PROPOSED R/W (TYP.)

FO FO FO FO FO FO FO FO

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - TEMPORARY - CTH CC & IH 41 MEDIAN	SHEET 28	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022001-EC-CC-MED-TEMP.DWG
LAYOUT NAME - 05
PLOT DATE : 10/18/2023 3:40 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

EROSION MAT CLASS II, TYPE B

RIP RAP

SLOPE INTERCEPT

SURFACE WATER FLOW

N

SEPTIC MOUND

SEPC

SEPC

TLE

SLOPE INTERCEPT

PROPOSED R/W (TYP.)

WETLAND

POST

SIGN

CTH CC (ROSEHILL RD)

55'CC'

56'CC'

57'CC'

58'CC'

59'CC'

60'CC'

MATCH LINE 60 'CC'+25

EXISTING R/W (TYP.)

SLOPE INTERCEPT

WETLAND

FLAG

POOL

C/L

2

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - PERMANENT - CTH CC (ROSEHILL RD)	SHEET 29	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022001-EC-CC-PERM.DWG
LAYOUT NAME - 01

PLOT DATE : 1/9/2024 2:28 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

EROSION MAT CLASS II, TYPE B

RIP RAP

SLOPE INTERCEPT

SURFACE WATER FLOW

N

TLE

EXISTING R/W (TYP.)

SLOPE INTERCEPT (TYP.)

WETLANDS

WETLANDS

WETLANDS

WETLANDS

MATCH LINE 60 'CC'+25

MATCH LINE 65 'CC'+50

CTH CC (ROSEHILL RD)

61'CC'

62'CC'

63'CC'

65'CC'

1081'NB'

1081'SB'

1082'NB'

1082'SB'

1083'NB'

1083'SB'

IH 41 NB

IH 41 SB

PROPOSED R/W (TYP.)

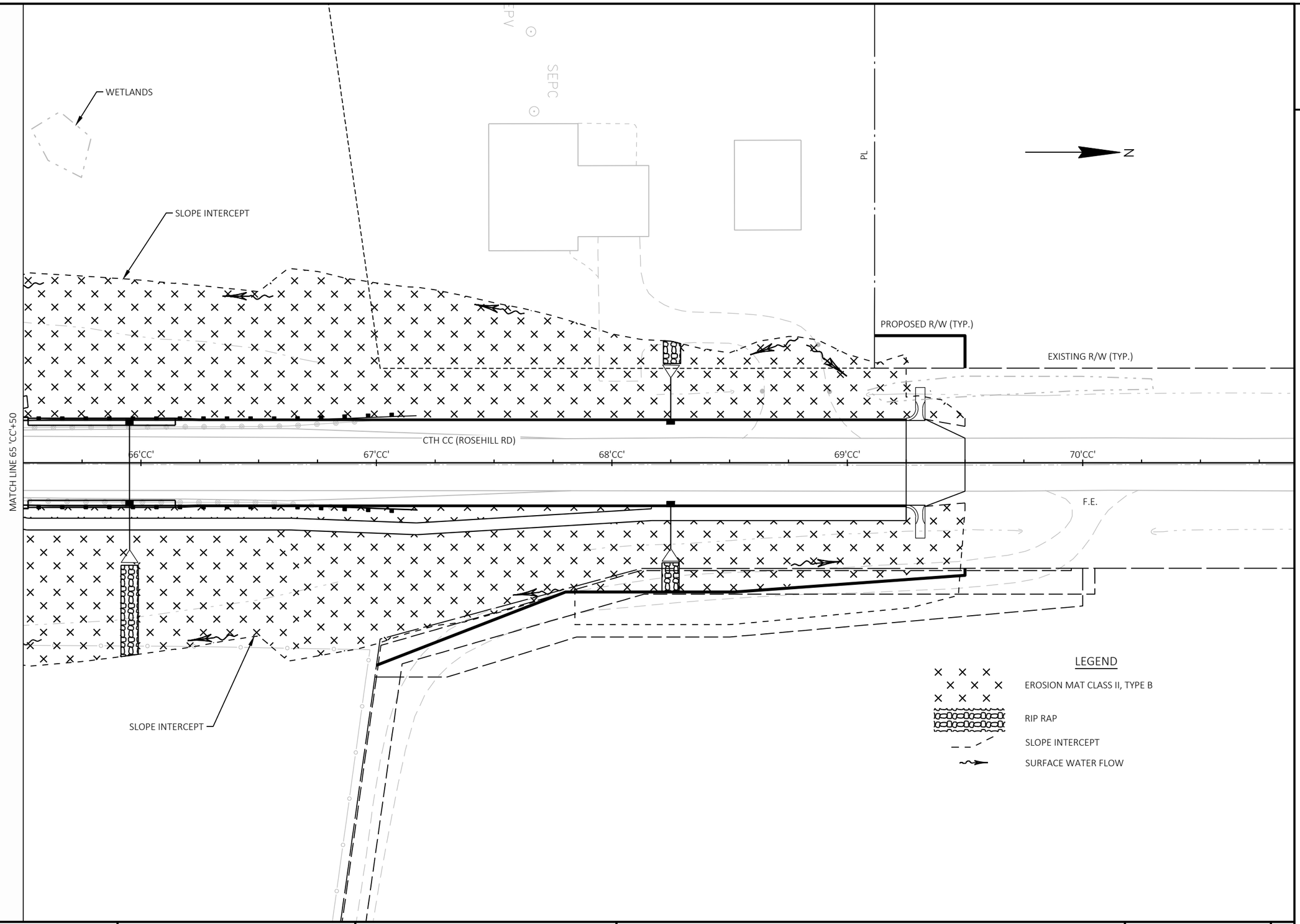
PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - PERMANENT - CTH CC (ROSEHILL RD)	SHEET 30	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022001-EC-CC-PERM.DWG
LAYOUT NAME - 02

PLOT DATE : 1/9/2024 2:36 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - PERMANENT - CTH CC (ROSEHILL RD)	SHEET 31	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022001-EC-CC-PERM.DWG
LAYOUT NAME - 03
PLOT DATE : 1/9/2024 2:40 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

EROSION MAT CLASS II, TYPE B

RIP RAP

SLOPE INTERCEPT

SURFACE WATER FLOW

N

65'CC'

IH 41 SB

1078'SB' 1079'SB' 1080'SB' 1081'SB' 1082'SB' 1083'SB'

SLOPE INTERCEPT (TYP.)

1078'NB' 1079'NB' 1080'NB' 1081'NB' 1082'NB' 1083'NB'

MATCH LINE 1083'NB'+50

IH 41 NB

63'CC'

EXISTING R/W (TYP.)

SIGN

CTH CC (ROSEHILL RD)

SLOPE INTERCEPT (TYP.)

62'CC'

PROPOSED R/W

2

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - PERMANENT - CTH CC & IH 41 MEDIAN	SHEET 32	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022001-EC-CC-MED-PERM.DWG
LAYOUT NAME - 04

PLOT DATE : 1/9/2024 2:46 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

EROSION MAT CLASS II, TYPE B

RIP RAP

SLOPE INTERCEPT

SURFACE WATER FLOW

N

SIGN

IH 41 SB

1084'SB' 1085'SB' 1086'SB' 1087'SB' 1088'SB'

MATCH LINE 1083'NB'+50

SLOPE INTERCEPT (TYP.)

1084'NB' 1085'NB' 1086'NB' 1087'NB' 1088'NB'

IH 41 NB

EXISTING R/W

PROPOSED R/W

FO FO FO FO FO FO FO FO

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	EROSION CONTROL - PERMANENT - CTH CC & IH 41 MEDIAN	SHEET 33	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022001-EC-CC-MED-PERM.DWG
LAYOUT NAME - 05

PLOT DATE : 1/9/2024 3:00 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

(A) REMOVING INLETS REQ'D

(B) REMOVING STORM SEWER 12-INCH REQ'D

2

2

N

IH 41 NB

IH 41 SB

1080

1085

56'CC'

58'CC'

60'CC'

62'CC'

64'CC'

66'CC'

68'CC'

70'CC'

ROSEHILL RD / CTH CC

WEYENBERG RD

A

B

SIGN

POST

SEPC

SEPTIC MOUND

U/C

INL

FO

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	STORM SEWER REMOVALS	SHEET 34	E

FILE NAME : C:\USERS\ALEXZ\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022401-SS-CC.DWG
LAYOUT NAME - 022401-ss-cc

PLOT DATE : 1/2/2024 9:40 AM PLOT BY : ZWART, ALEX PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

IH 41 NB

IH 41 SB

1080

1085

ROSEHILL RD / CTH CC

WEYENBERG RD

STA 57+50 'CC', 35.3' LT
APRON ENDWALLS FOR CPRC 12-INCH
9420

STA 57+50 'CC', 17.5' LT
INLETS 2x3-HM-GJ
9421

STA 59+85 'CC', 37.0' LT
APRON ENDWALLS FOR CPRC 12-INCH
9416

STA 59+85 'CC', 17.5' LT
INLETS 2x3-HM-GJ
9415

STA 65+95 'CC', 17.3' LT
INLETS 2x2-V
9405

STA 68+25 'CC', 36.1' LT
APRON ENDWALLS FOR CPRC 12-INCH
9400

STA 68+25 'CC', 17.5' LT
INLETS 2x3-HM-GJ
9401

56'CC' 58'CC' 60'CC' 62'CC' 64'CC' 66'CC' 68'CC' 70'CC'

STA 57+50 'CC', 17.5' RT
INLETS 2x3-HM-GJ
9422

STA 57+50 'CC', 35.4' RT
APRON ENDWALLS FOR CPRC 12-INCH
9423

STA 59+85 'CC', 17.5' RT
INLETS 2x3-HM-GJ
9417

STA 59+85 'CC', 37.1' RT
APRON ENDWALLS FOR CPRC 12-INCH
9418

STA 65+95 'CC', 17.3' RT
INLETS 2x2-V
9406

STA 65+95 'CC', 37.0' RT
APRON ENDWALLS FOR CPRC 12-INCH
9407

STA 68+25 'CC', 17.5' RT
INLETS 2x3-HM-GJ
9402

STA 68+25 'CC', 36.4' RT
APRON ENDWALLS FOR CPRC 12-INCH
9403

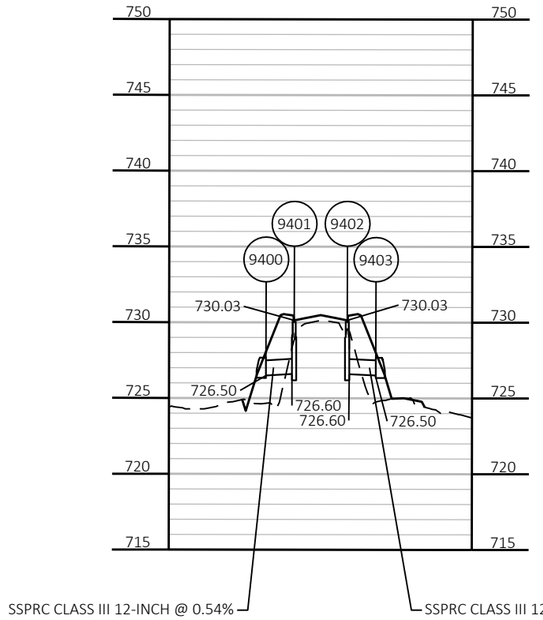
PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 35	E

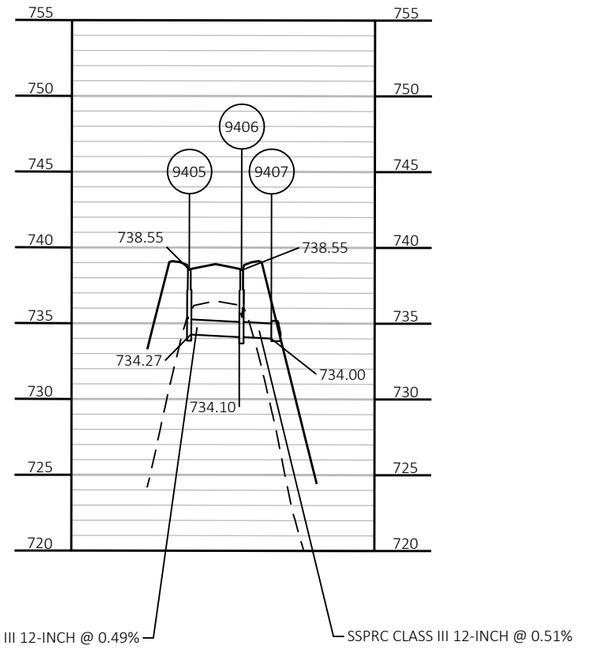
FILE NAME : C:\USERS\ALEXZ\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\022501-SS-CC.DWG
LAYOUT NAME - 022501-ss-cc

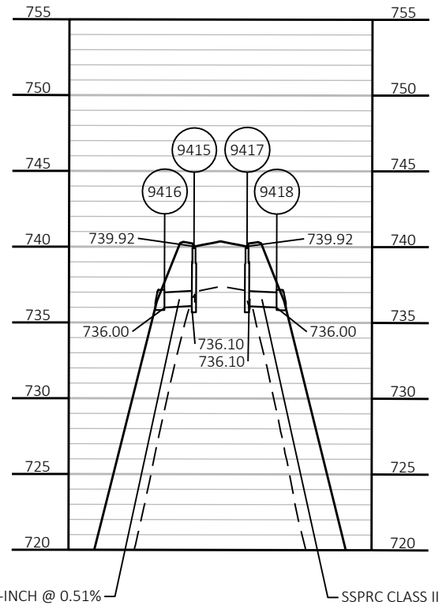
PLOT DATE : 1/2/2024 9:47 AM PLOT BY : ZWART, ALEX PLOT NAME : PLOT SCALE : 1 IN:100 FT

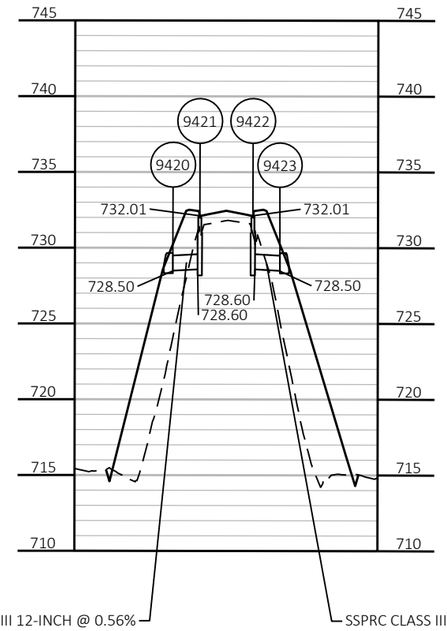
WISDOT/CADDS SHEET 42

2









PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	STORM SEWER	SHEET 36	E

STRUCTURE NO.	STATION		OFFSET	C-C (ft)	DOWNSTREAM STRUCTURE	INLET TYPE	COVER	RIM/ GRATE ELEVATION	T.O.S. ELEVATION	DEPTH (FT)	DISCHARGE PIPE					REMARKS
											SIZE (IN)	INVERT ELEVATIONS	DISCHARGE ELEVATION	LENGTH (FT)	SLOPE (%)	
9400	68+25.00	CC	36.1 ' LT	-	-	-	-	-	-	-	-	726.50	-	-	-	APRON ENDWALLS FOR CPRC 12-INCH
9401	68+25.00	CC	17.5 ' LT	18.6	9400	2X3-FT	HM-GJ	730.03	729.20	2.60	12	726.60	726.50	19	0.54%	
9402	68+25.00	CC	17.5 ' RT	18.9	9403	2X3-FT	HM-GJ	730.03	729.20	2.60	12	726.60	726.50	19	0.53%	
9403	68+25.00	CC	36.4 ' RT	-	-	-	-	-	-	-	-	726.50	-	-	-	APRON ENDWALLS FOR CPRC 12-INCH
9405	65+95.11	CC	17.3 ' LT	34.5	9406	2x2-FT	V	738.55	737.30	3.03	12	734.27	734.10	35	0.49%	
9406	65+95.08	CC	17.3 ' RT	19.7	9407	2x2-FT	V	738.55	737.30	3.20	12	734.10	734.00	20	0.51%	
9407	65+95.16	CC	37.0 ' RT	-	-	-	-	-	-	-	-	734.00	-	-	-	APRON ENDWALLS FOR CPRC 12-INCH
9415	59+85.00	CC	17.5 ' LT	19.5	9416	2X3-FT	HM-GJ	739.92	739.09	2.99	12	736.10	736.00	19	0.51%	
9416	59+85.00	CC	37.0 ' LT	-	-	-	-	-	-	-	-	736.00	-	-	-	APRON ENDWALLS FOR CPRC 12-INCH
9417	59+85.00	CC	17.5 ' RT	19.6	9418	2X3-FT	HM-GJ	739.92	739.09	2.99	12	736.10	736.00	20	0.51%	
9418	59+85.00	CC	37.1 ' RT	-	-	-	-	-	-	-	-	736.00	-	-	-	APRON ENDWALLS FOR CPRC 12-INCH
9420	57+50.00	CC	35.3 ' LT	-	-	-	-	-	-	-	-	728.50	-	-	-	APRON ENDWALLS FOR CPRC 12-INCH
9421	57+50.00	CC	17.5 ' LT	17.8	9420	2X3-FT	HM-GJ	732.01	731.18	2.58	12	728.60	728.50	18	0.56%	
9422	57+50.00	CC	17.5 ' RT	17.9	9423	2X3-FT	HM-GJ	732.01	731.18	2.58	12	728.60	728.50	18	0.56%	
9423	57+50.00	CC	35.4 ' RT	-	-	-	-	-	-	-	-	728.50	-	-	-	APRON ENDWALLS FOR CPRC 12-INCH

POST LENGTHS SHOWN IN MQ TABLES ARE ESTIMATED. CONTRACTOR SHALL USE POSTS OF LENGTHS NECESSARY FOR PROPER MOUNTING HEIGHT AND POST EMBEDMENT DEPTH.

SIGNS MOUNTED BELOW ANOTHER SIGN OR BACK TO BACK WILL BE PAID AS ONE(1) SIGN REMOVAL.

MOVE SIGNS - IT IS THE CONTRACTORS RESPONSIBILITY TO CARE FOR SIGNS. DAMAGED MOVE SIGNS SHALL BE REPLACED WITH NEW SIGNS AT CONTRACTORS EXPENSE.

FAIRLANE DR

SEPC

SEPC

N

SIGN

SIGN

IP

51'CC'

52'CC'

53'CC'

54'CC'

55'CC'

56'CC'

CTH CC (ROSEHILL RD)

MATCH LINE 56'CC'+25

1

SPEED LIMIT 35

R2-1

24"X30"

2

SPEED LIMIT 25

R2-1

REMOVE

3

SPEED LIMIT 55

R2-1

24"X30"

4

W1-4L

REMOVE

25 MPH

W13-1

REMOVE

FLAG

POOL

X SIGN - REMOVE AND REPLACE

X SIGN - REMOVE

X SIGN - PLACE NEW

X SIGN - MOVE

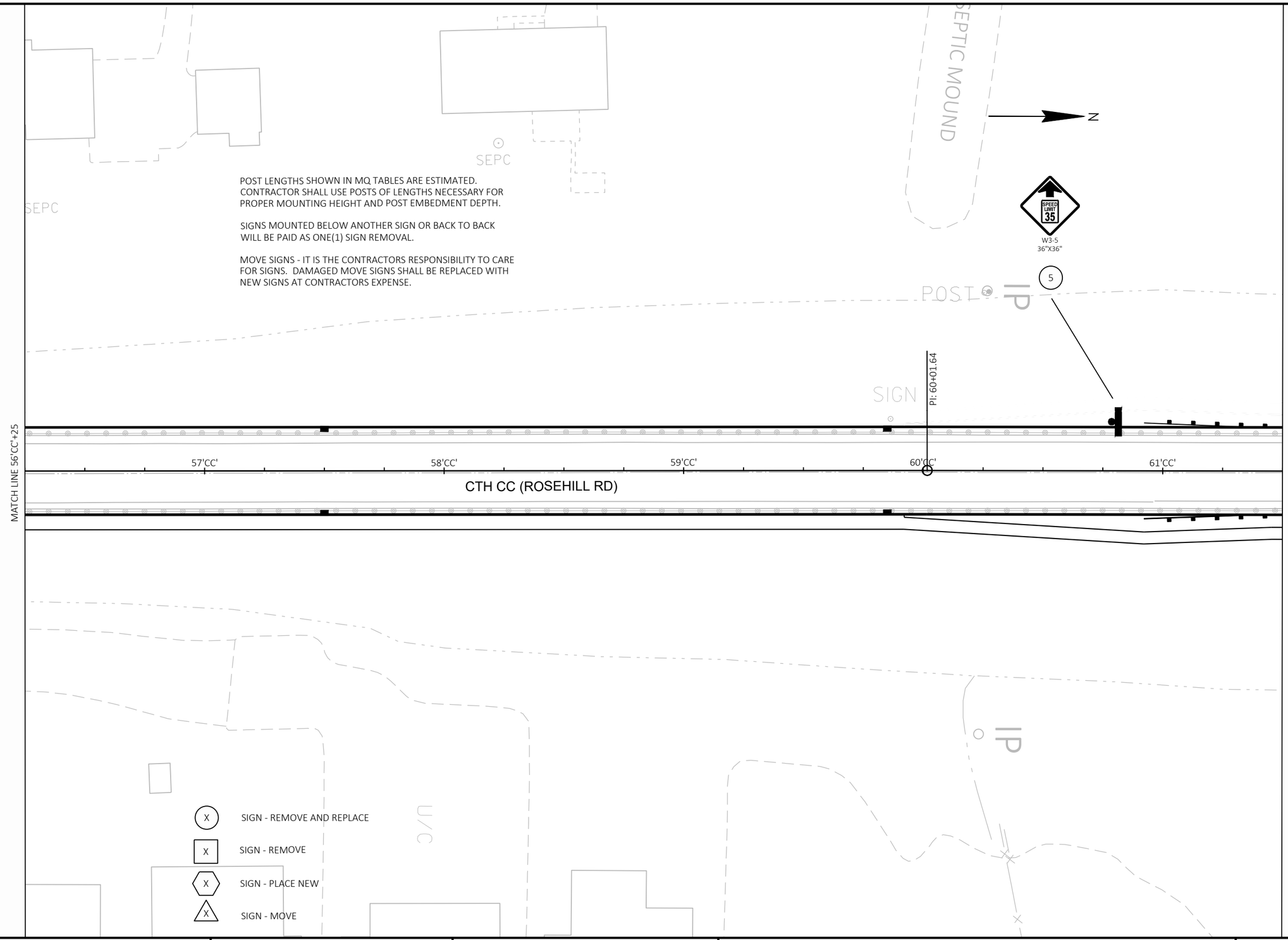
PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 38	E

2

POST LENGTHS SHOWN IN MQ TABLES ARE ESTIMATED. CONTRACTOR SHALL USE POSTS OF LENGTHS NECESSARY FOR PROPER MOUNTING HEIGHT AND POST EMBEDMENT DEPTH.

SIGNS MOUNTED BELOW ANOTHER SIGN OR BACK TO BACK WILL BE PAID AS ONE(1) SIGN REMOVAL.

MOVE SIGNS - IT IS THE CONTRACTORS RESPONSIBILITY TO CARE FOR SIGNS. DAMAGED MOVE SIGNS SHALL BE REPLACED WITH NEW SIGNS AT CONTRACTORS EXPENSE.



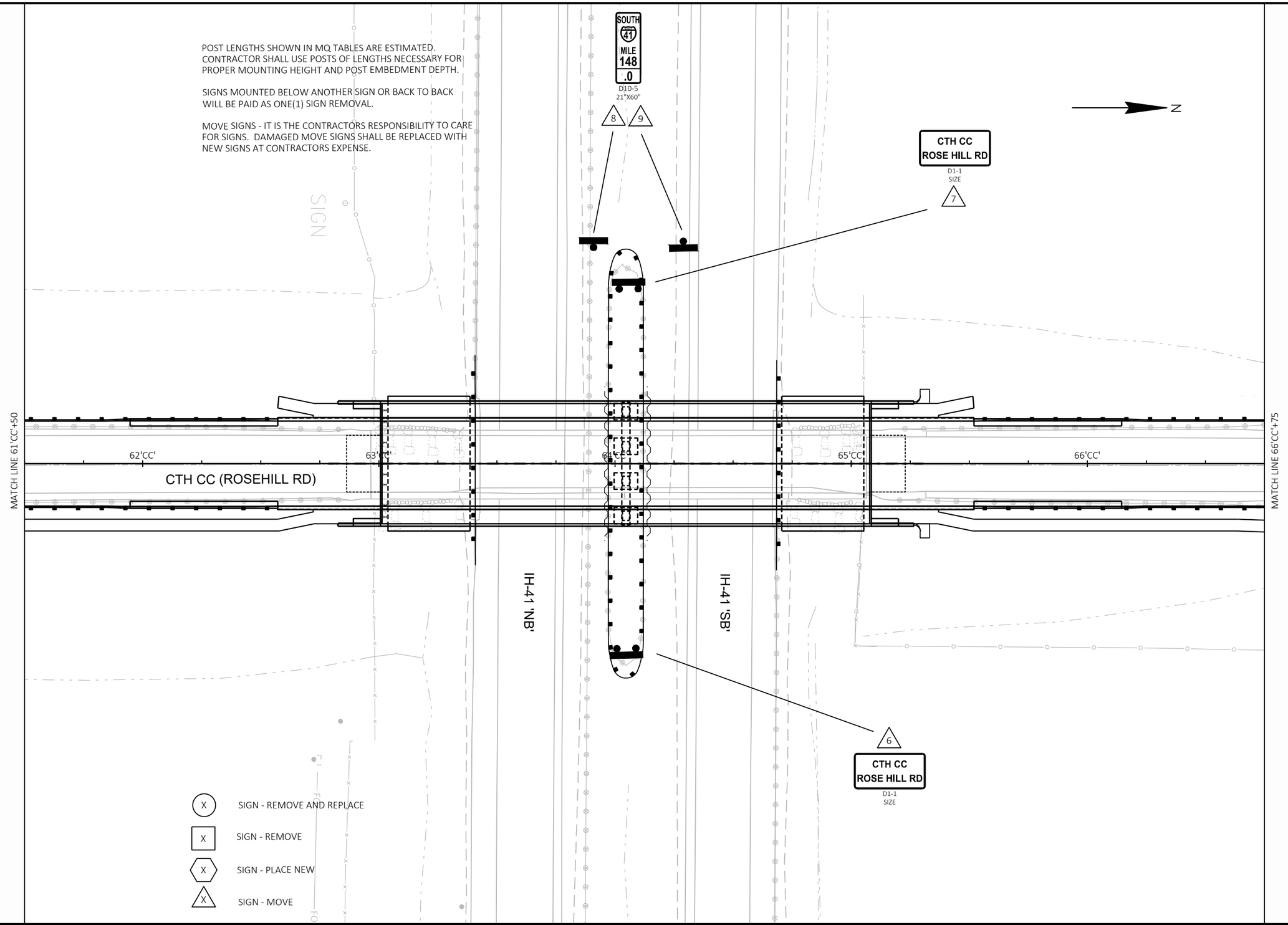
PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 39	E

FILE NAME : C:\USERS\DOTETS\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\023201-PS-CC.DWG
LAYOUT NAME - 02
PLOT DATE : 8/23/2023 9:23 AM
PLOT BY : SIKORSKI, ERIC T
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

POST LENGTHS SHOWN IN MQ TABLES ARE ESTIMATED. CONTRACTOR SHALL USE POSTS OF LENGTHS NECESSARY FOR PROPER MOUNTING HEIGHT AND POST EMBEDMENT DEPTH.

SIGNS MOUNTED BELOW ANOTHER SIGN OR BACK TO BACK WILL BE PAID AS ONE(1) SIGN REMOVAL.

MOVE SIGNS - IT IS THE CONTRACTORS RESPONSIBILITY TO CARE FOR SIGNS. DAMAGED MOVE SIGNS SHALL BE REPLACED WITH NEW SIGNS AT CONTRACTORS EXPENSE.



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 40	E

2

SEPV

SEPC

W1-4L
REMOVE

25 MPH
W13-1
REMOVE

10

N

POST LENGTHS SHOWN IN MQ TABLES ARE ESTIMATED. CONTRACTOR SHALL USE POSTS OF LENGTHS NECESSARY FOR PROPER MOUNTING HEIGHT AND POST EMBEDMENT DEPTH.

SIGNS MOUNTED BELOW ANOTHER SIGN OR BACK TO BACK WILL BE PAID AS ONE(1) SIGN REMOVAL.

MOVE SIGNS - IT IS THE CONTRACTORS RESPONSIBILITY TO CARE FOR SIGNS. DAMAGED MOVE SIGNS SHALL BE REPLACED WITH NEW SIGNS AT CONTRACTORS EXPENSE.

IP

MATCH LINE 66'CC'+75

67'CC' 68'CC' 69'CC' 70'CC' 71'CC' 72'CC'

CTH CC (ROSEHILL RD)

11

SPEED LIMIT 55
R2-1
REMOVE

X SIGN - REMOVE AND REPLACE

X SIGN - REMOVE

X SIGN - PLACE NEW

X SIGN - MOVE

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PERMANENT SIGNING	SHEET 41	E

FILE NAME : C:\USERS\DOTETS\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\023201-PS-CC.DWG
LAYOUT NAME - 04

PLOT DATE : 6/22/2023 12:15 PM PLOT BY : SIKORSKI, ERIC T PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

STREET LIGHTING PLANS PREPARED BY

KL Engineering
[A] Better Experience

WISCONSIN
JACOB A. JOYAL
46965-6
OREGON, WI
PROFESSIONAL ENGINEER

10-11-2023
(DATE)

(SIGNATURE)

GENERAL STREET LIGHTING NOTES:

1) WISCONSIN DOT NORTHEAST REGION ELECTRICAL UNIT SHALL APPROVE THE FINAL LOCATION FOR ALL CONCRETE BASES IN THE FIELD PRIOR TO INSTALLATION. CONTACT RANDY ASMAN 3 DAYS IN ADVANCE AT (920) 360-3107 OR RANDY.ASMAN@DOT.WI.GOV.

2) PITCH ALL CONDUIT TOWARDS PULLBOXES. A 2" DRAIN DUCT TO DITCH OR STORM SEWER REQUIRED FOR ALL PULLBOXES IN LOW POINTS. REFER TO THE MISCELLANEOUS QUANTITIES FOR LOCATIONS OF DRAIN DUCT.

3) THE LOCATION OF EXISTING AND PROPOSED UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE. IN ADDITION, THERE MAY BE OTHER UTILITIES WITHIN THE PROJECT AREA WHICH ARE NOT SHOWN. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES PRIOR TO CONSTRUCTION.

4) REFER TO STAKING DATA FOR EXACT LOCATIONS, WITH ALL LOCATIONS APPROVED BY THE ENGINEER PRIOR TO INSTALL. GENERAL GUIDELINES FOR OFFSETS ARE AS FOLLOWS:
   - BEHIND SIDEWALK: 1.83' FROM EDGE OF SIDEWALK TO CENTER OF BASE.

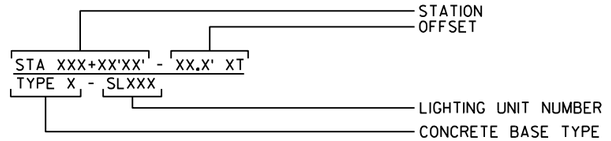
5) CONDUIT RIGID METALLIC MAY BE REQUIRED ACROSS STRUCTURE JOINTS AT CERTAIN LOCATIONS. FIVE FEET (MINIMUM) ON EITHER SIDE OF THE JOINT REQUIRED. APPLY ASPHALTIC SEALANT TO ANY EXPOSED METALLIC CONDUIT. EXPANSION FITTING BONDING JUMPER TO ASPHALTIC SEALANT TO BE CONSIDERED INCIDENTAL TO THE CONDUIT. REFER TO LOCATIONS SHOWN IN THE PLANS FOR RIGID METALLIC CONDUIT LOCATIONS.

6) METALLIC CONDUIT SHALL BE PLACED BETWEEN STRUCTURE PARAPETS AND THE FIRST PULLBOX LOCATED OFF THE STRUCTURE.

LIGHTING PLAN LEGEND

- ● PROPOSED LIGHTING CONCRETE BASE (POLE, ARM AND LUMINAIRE TO BE INSTALLED BY OTHERS)
- ⓓ PROPOSED PULL BOX NON-CONDUCTIVE (24"X42")
- — — — PROPOSED LIGHTING CONDUIT (2" SCHEDULE 40 PVC)
- —·—·— PROPOSED LIGHTING CONDUIT (3" SCHEDULE 80 PVC)
- B-XX-XXXX SEE STRUCTURE PLANS FOR ELECTRICAL DETAILS

*STRUCTURE NUMBERS WITHOUT A BOX INDICATE NO ELECTRICAL INFRASTRUCTURE INCLUDED

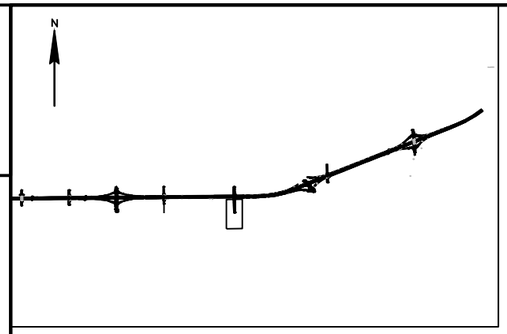


ABBREVIATIONS

STR - STRUCTURE MOUNT (REFER TO STRUCTURE PLANS)
PWO - PULLWIRE ONLY REQ'D

SHEET 1 OF 3

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	LIGHTING PLANS - TITLE SHEET	SHEET 42	E



N

R/W (TYP.)

LYNN ST

FAIRLANE DR

WEYENBERG RD

R/W (TYP.)

ALYSSA ST

STA 56+63'CC' - 27.5' LT
LPB100

R/W (TYP.)

CTH CC/ROSE HILL RD

PWO 1-3"

PWO 1-2"

PWO 1-2"

PWO 1-2"

STA 56+63'CC' - 27.3' RT
TYPE 5 - SL100

STA 58+59'CC' - 27.3' RT
TYPE 5 - SL101

STA 60+57'CC' - 31.2' RT
TYPE 5 - SL102

48+00 'CC'

50+00 'CC'

52+00 'CC'

54+00 'CC'

56+00 'CC'

58+00 'CC'

60+00 'CC'

62+0

MATCH LINE STA. 62+00 'CC'

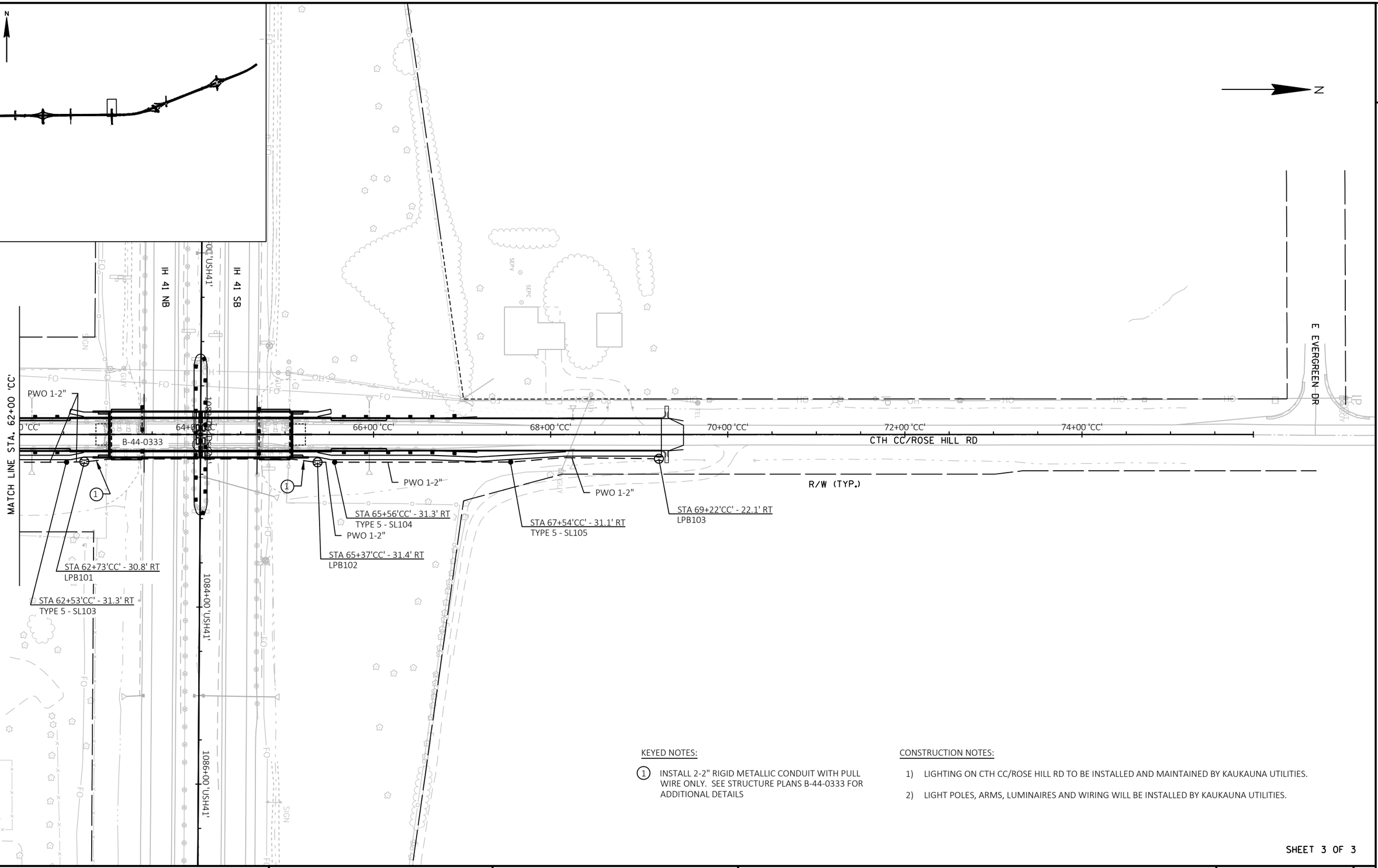
CONSTRUCTION NOTES:

1) LIGHTING SYSTEM WILL BE OWNED AND MAINTAINED BY WE ENERGIES, THE POLE, ARM, LUMINAIRE AND WIRING WILL BE INSTALLED BY KAUKAUNA UTILITIES.

SHEET 2 OF 3

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	LIGHTING PLANS	SHEET 43	E

FILE NAME : C:\USERS\ALOBDELL\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306301\DSGN\LIGHTING\SHEETS\SHEETSPLAN\1130-66-83_CTH CC_ROSE HILL RD\023601-LP (1130-66-83).DWG PLOT DATE : 10/11/2023 1:03 PM PLOT BY : ANDREW LOBDELL PLOT NAME : PLOT SCALE : 1 IN:100 FT
LAYOUT NAME - 01



KEYED NOTES:

(1) INSTALL 2-2" RIGID METALLIC CONDUIT WITH PULL WIRE ONLY. SEE STRUCTURE PLANS B-44-0333 FOR ADDITIONAL DETAILS

CONSTRUCTION NOTES:

1) LIGHTING ON CTH CC/ROSE HILL RD TO BE INSTALLED AND MAINTAINED BY KAUKAUNA UTILITIES.

2) LIGHT POLES, ARMS, LUMINAIRES AND WIRING WILL BE INSTALLED BY KAUKAUNA UTILITIES.

SHEET 3 OF 3

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	LIGHTING PLANS	SHEET 44	E

FILE NAME : C:\USERS\ALOBDELL\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306301\DSGN\LIGHTING\SHEETS\SHEETSPLAN\1130-66-83_CTH CC_ROSE HILL RD\023601-LP (1130-66-83).DWG
LAYOUT NAME - 02
PLOT DATE : 10/11/2023 1:07 PM PLOT BY : ANDREW LOBDELL PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

SEPC

SEPC

SIGN

55'CC'

56'CC'

57'CC'

58'CC'

59'CC'

60'

6'

12'

12'

6'

CTH CC (ROSEHILL RD)

MARKING LINE EPOXY 6-INCH
(WHITE - SOLID)
MARKING LINE EPOXY 6-INCH
(YELLOW - 12.5' LINE, 37.5' SKIP)
MARKING LINE EPOXY 6-INCH
(YELLOW - SOLID)
MARKING LINE EPOXY 6-INCH
(WHITE - SOLID)

MATCH LINE 60'CC'+00

NOTE:
LIMITS OF NO-PASSING ZONES TO BE DETERMINED IN THE FIELD WITH ITEM LOCATING NO-PASSING ZONES.

FLAG

POOL

U/C

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING PLAN	SHEET 45	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\024501-PM-CC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/11/2024 6:38 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

2

SEPTIC MOUND

SIGN

POST

IP

N

MATCH LINE 60'CC'+00

PI: 60+01.64

MARKING LINE EPOXY 6-INCH
(YELLOW - SOLID)

MARKING LINE SAME DAY EPOXY 4-INCH
(YELLOW - SOLID)

MARKING LINE SAME DAY EPOXY 4-INCH
(WHITE - SOLID)

6'

12'

12'

6'

61'CC'

61'CC'+75

62'CC'

63'CC'

65'CC'

CTH CC (ROSEHILL RD)

63'CC'+50

MARKING LINE EPOXY 6-INCH
(WHITE - SOLID)

MARKING LINE EPOXY 6-INCH
(YELLOW - 12.5' LINE, 37.5' SKIP)

MARKING LINE EPOXY 6-INCH
(YELLOW - SOLID)

MARKING LINE EPOXY 6-INCH
(WHITE - SOLID)

MARKING LINE EPOXY 6-INCH
(YELLOW - 12.5' LINE, 37.5' SKIP)

IH-41 'NB'

IH-41 'SB'

MATCH LINE 65'CC'+25

MARKING LINE SAME DAY EPOXY 4-INCH
(WHITE - SOLID)

MARKING LINE SAME DAY EPOXY 4-INCH
(YELLOW - SOLID)

IP

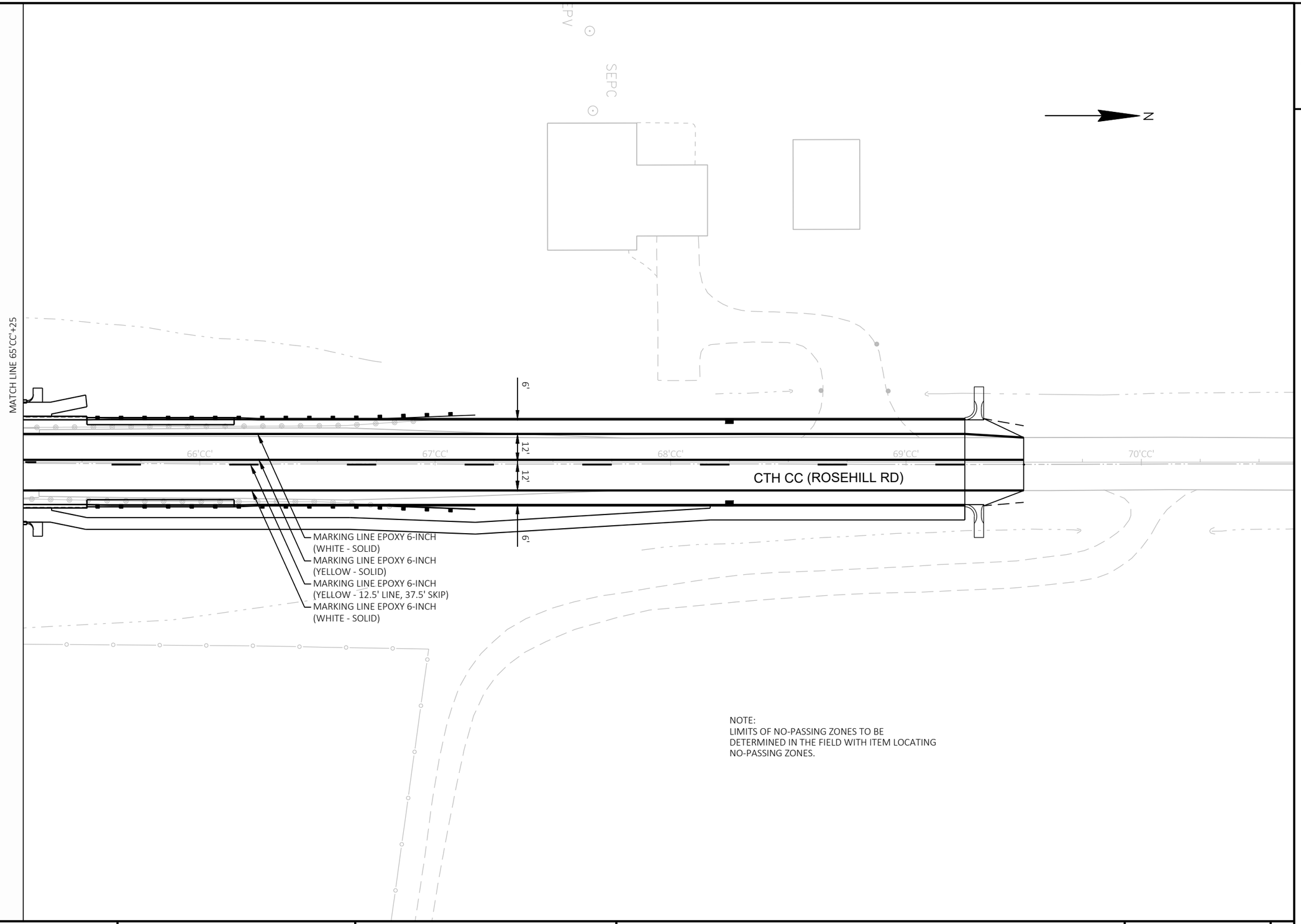
NOTE:
LIMITS OF NO-PASSING ZONES TO BE
DETERMINED IN THE FIELD WITH ITEM LOCATING
NO-PASSING ZONES.

FO

FO

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING PLAN	SHEET 46	E

2

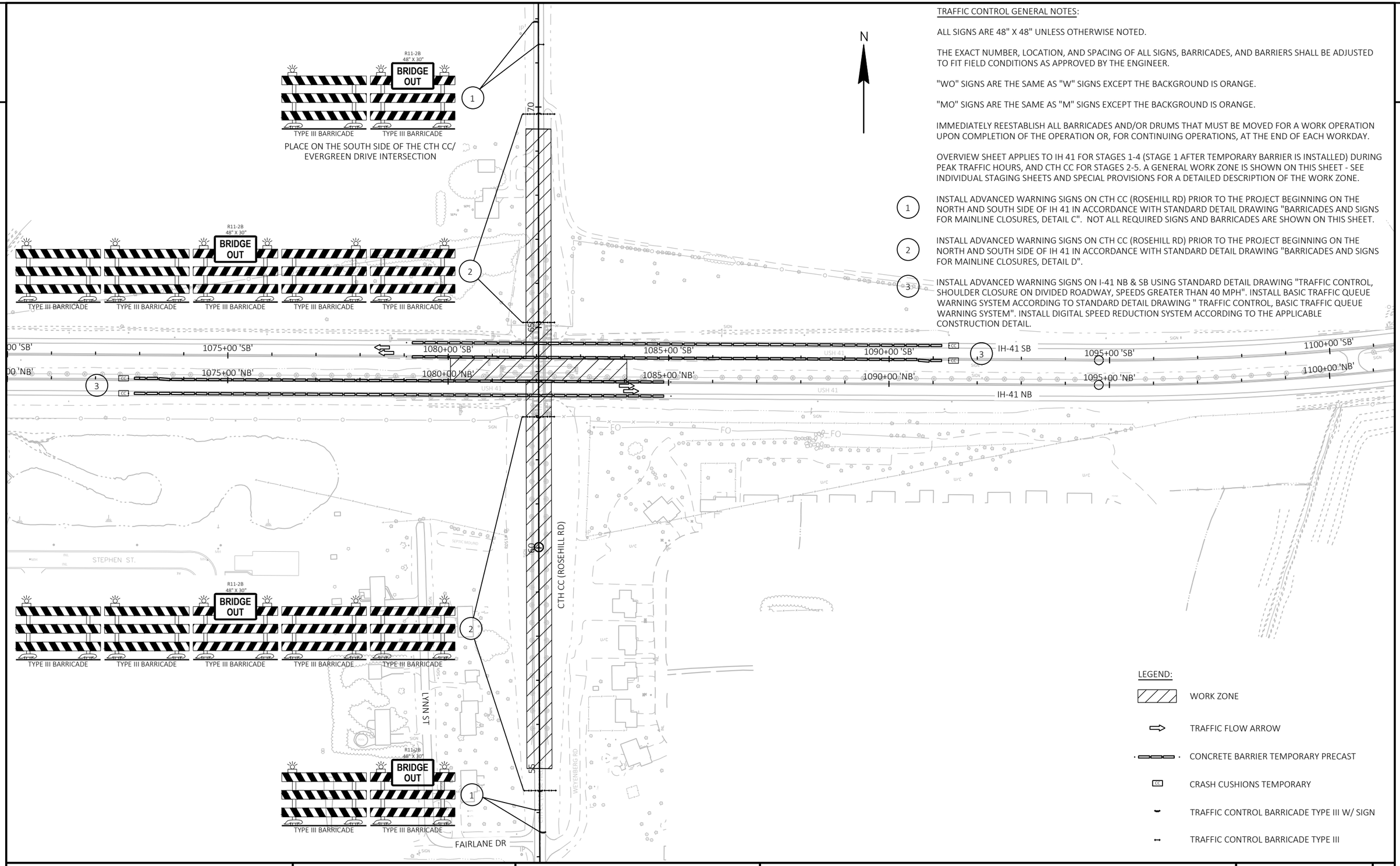


NOTE:
LIMITS OF NO-PASSING ZONES TO BE DETERMINED IN THE FIELD WITH ITEM LOCATING NO-PASSING ZONES.

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PAVEMENT MARKING PLAN	SHEET 47	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\024501-PM-CC.DWG
LAYOUT NAME - 03
PLOT DATE : 1/11/2024 6:43 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



TRAFFIC CONTROL GENERAL NOTES:

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

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

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

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

IMMEDIATELY REESTABLISH ALL BARRICADES AND/OR DRUMS THAT MUST BE MOVED FOR A WORK OPERATION UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKDAY.

OVERVIEW SHEET APPLIES TO IH 41 FOR STAGES 1-4 (STAGE 1 AFTER TEMPORARY BARRIER IS INSTALLED) DURING PEAK TRAFFIC HOURS, AND CTH CC FOR STAGES 2-5. A GENERAL WORK ZONE IS SHOWN ON THIS SHEET - SEE INDIVIDUAL STAGING SHEETS AND SPECIAL PROVISIONS FOR A DETAILED DESCRIPTION OF THE WORK ZONE.

1. INSTALL ADVANCED WARNING SIGNS ON CTH CC (ROSEHILL RD) PRIOR TO THE PROJECT BEGINNING ON THE NORTH AND SOUTH SIDE OF IH 41 IN ACCORDANCE WITH STANDARD DETAIL DRAWING "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL C". NOT ALL REQUIRED SIGNS AND BARRICADES ARE SHOWN ON THIS SHEET.

2. INSTALL ADVANCED WARNING SIGNS ON CTH CC (ROSEHILL RD) PRIOR TO THE PROJECT BEGINNING ON THE NORTH AND SOUTH SIDE OF IH 41 IN ACCORDANCE WITH STANDARD DETAIL DRAWING "BARRICADES AND SIGNS FOR MAINLINE CLOSURES, DETAIL D".

3. INSTALL ADVANCED WARNING SIGNS ON I-41 NB & SB USING STANDARD DETAIL DRAWING "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH". INSTALL BASIC TRAFFIC QUEUE WARNING SYSTEM ACCORDING TO STANDARD DETAIL DRAWING " TRAFFIC CONTROL, BASIC TRAFFIC QUEUE WARNING SYSTEM". INSTALL DIGITAL SPEED REDUCTION SYSTEM ACCORDING TO THE APPLICABLE CONSTRUCTION DETAIL.

LEGEND:

- WORK ZONE
- TRAFFIC FLOW ARROW
- CONCRETE BARRIER TEMPORARY PRECAST
- CRASH CUSHIONS TEMPORARY
- TRAFFIC CONTROL BARRICADE TYPE III W/ SIGN
- TRAFFIC CONTROL BARRICADE TYPE III

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - OVERVIEW	SHEET 48	E

TRAFFIC CONTROL GENERAL NOTES:

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

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

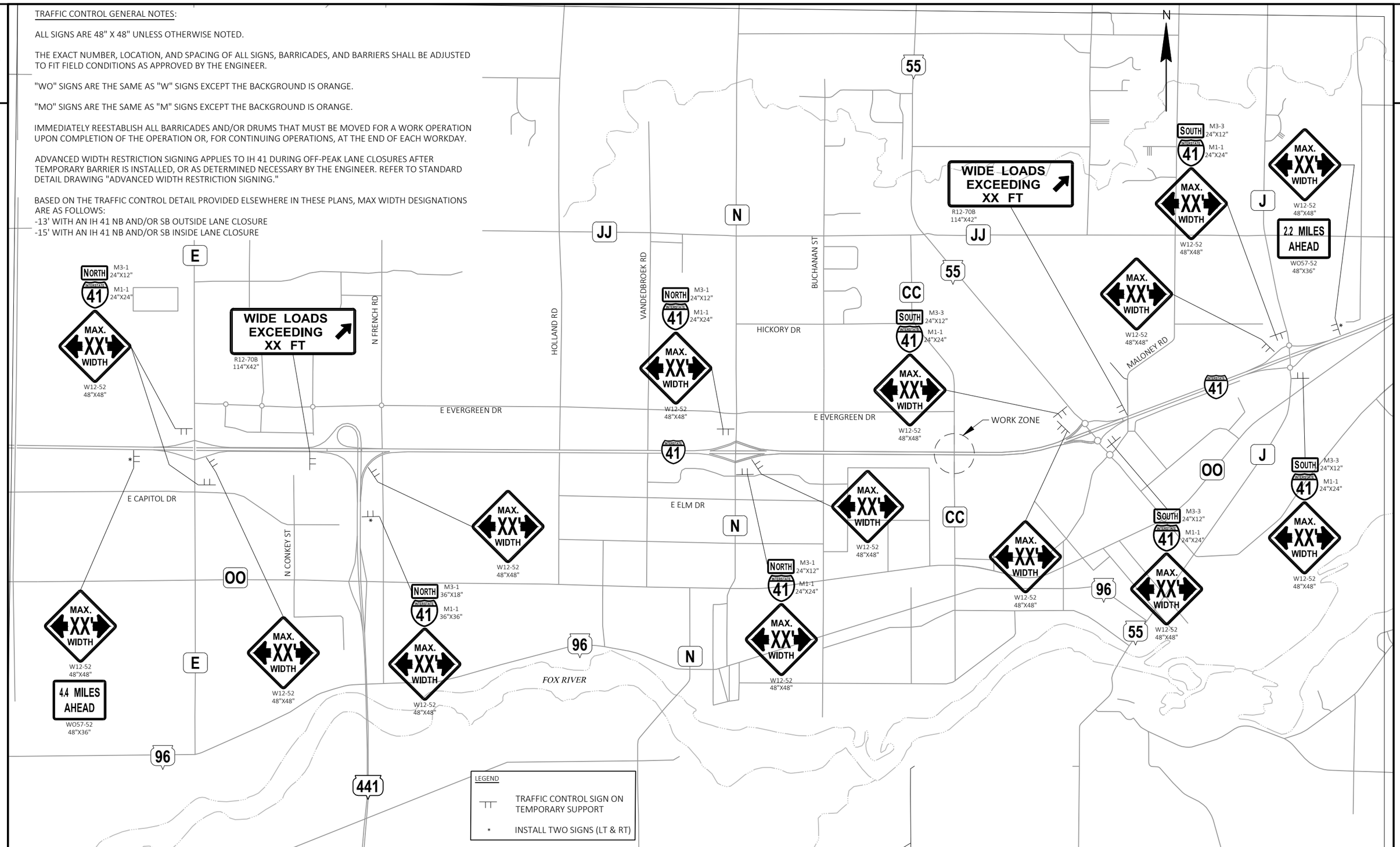
"WO" SIGNS ARE THE SAME AS "W" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

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

IMMEDIATELY REESTABLISH ALL BARRICADES AND/OR DRUMS THAT MUST BE MOVED FOR A WORK OPERATION UPON COMPLETION OF THE OPERATION OR, FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKDAY.

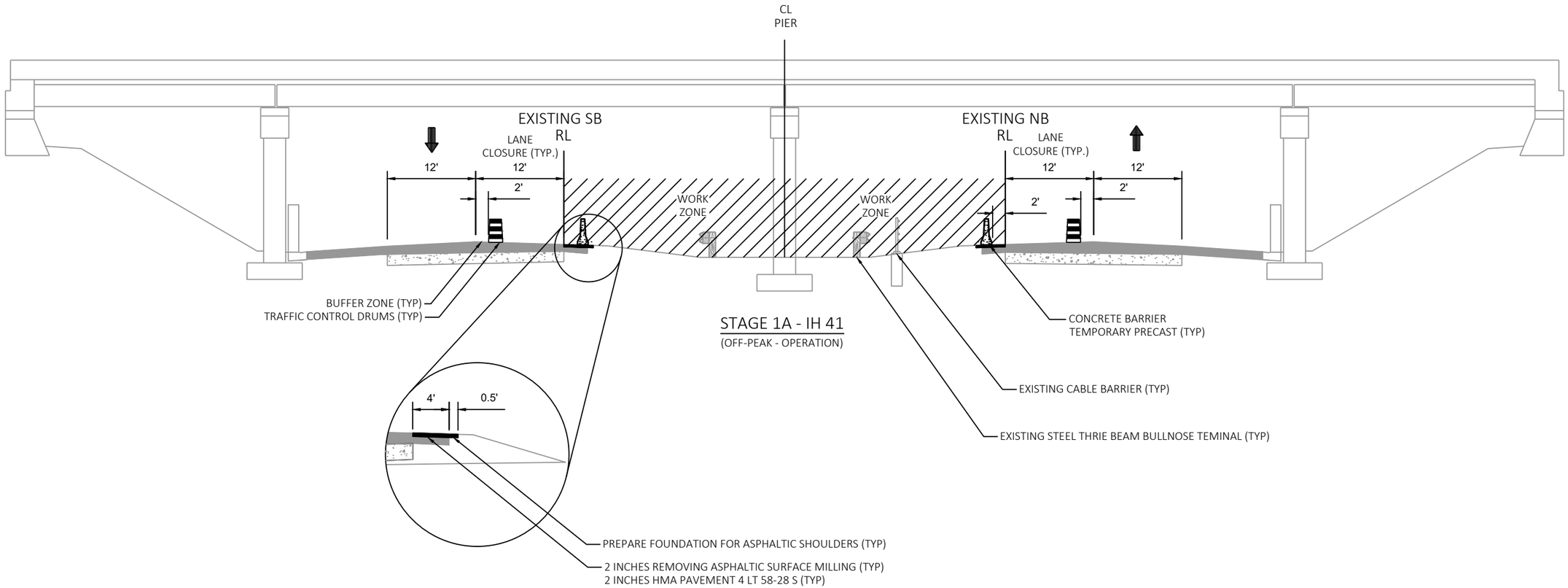
ADVANCED WIDTH RESTRICTION SIGNING APPLIES TO IH 41 DURING OFF-PEAK LANE CLOSURES AFTER TEMPORARY BARRIER IS INSTALLED, OR AS DETERMINED NECESSARY BY THE ENGINEER. REFER TO STANDARD DETAIL DRAWING "ADVANCED WIDTH RESTRICTION SIGNING."

BASED ON THE TRAFFIC CONTROL DETAIL PROVIDED ELSEWHERE IN THESE PLANS, MAX WIDTH DESIGNATIONS ARE AS FOLLOWS:
-13' WITH AN IH 41 NB AND/OR SB OUTSIDE LANE CLOSURE
-15' WITH AN IH 41 NB AND/OR SB INSIDE LANE CLOSURE

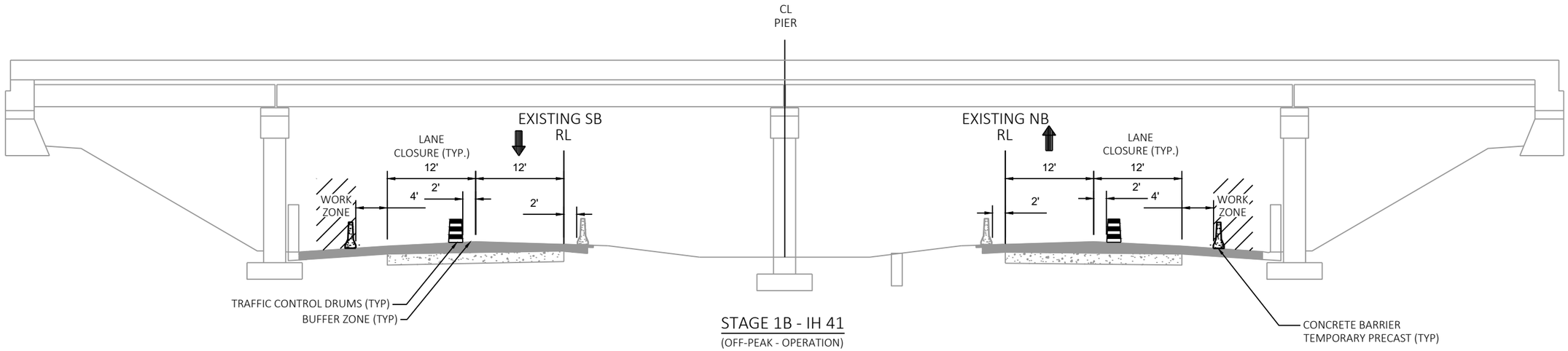


PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - ADVANCED WIDTH RESTRICTION SIGNING	SHEET 49	E

2



STAGE 1A - IH 41
(OFF-PEAK - OPERATION)

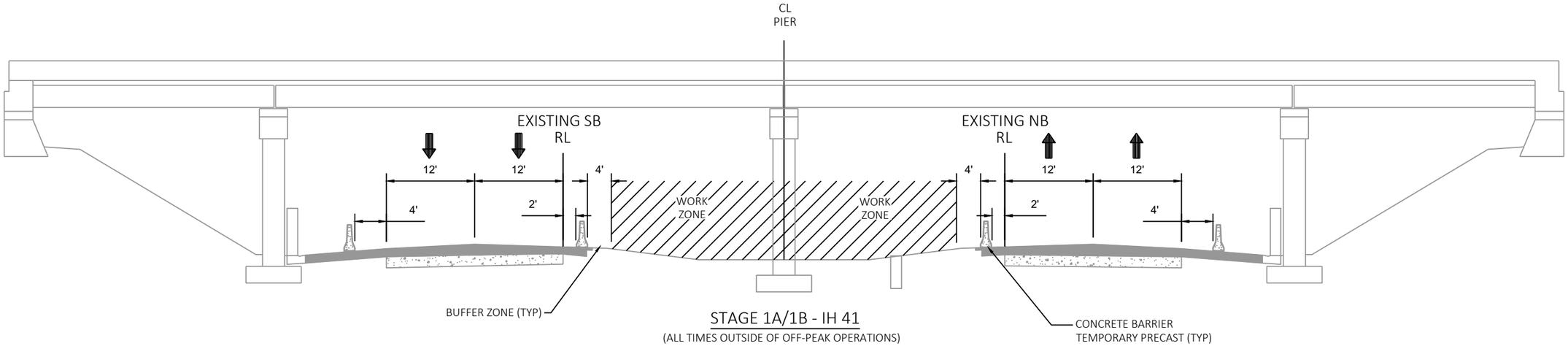


STAGE 1B - IH 41
(OFF-PEAK - OPERATION)

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL TYPICAL SECTIONS - IH 41	SHEET 50	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\025102-TC.DWG
LAYOUT NAME - 025101-tc
PLOT DATE : 11/6/2023 6:58 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



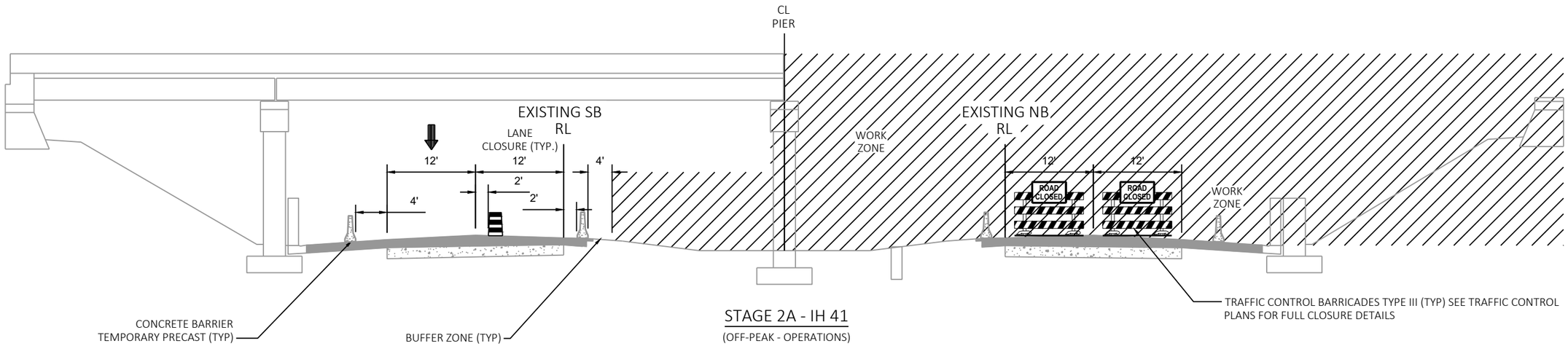
STAGE 1A/1B - IH 41

(ALL TIMES OUTSIDE OF OFF-PEAK OPERATIONS)

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL TYPICAL SECTIONS - IH 41	SHEET 51	E

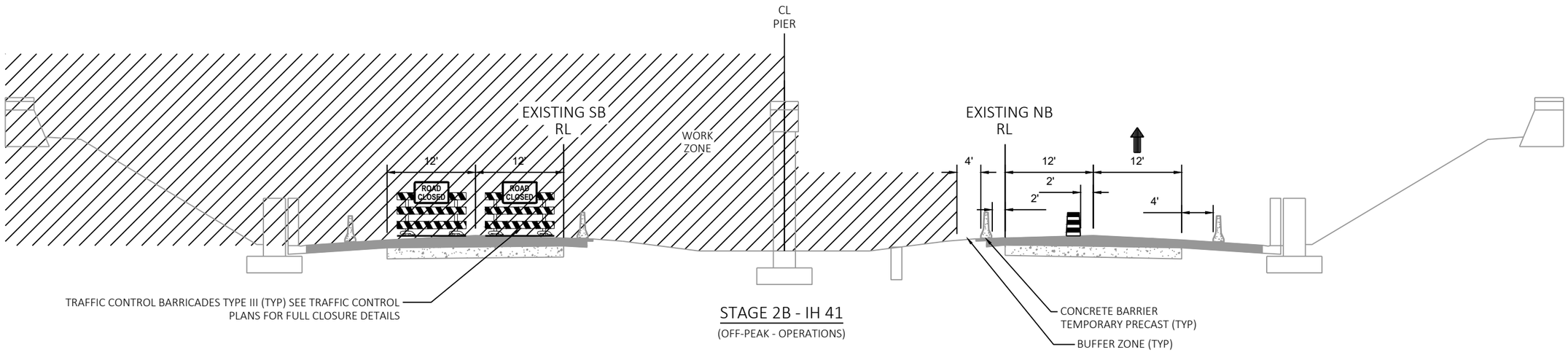
FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\025102-TC.DWG
LAYOUT NAME - 025102-tc
PLOT DATE : 10/2/2023 12:20 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



STAGE 2A - IH 41

(OFF-PEAK - OPERATIONS)

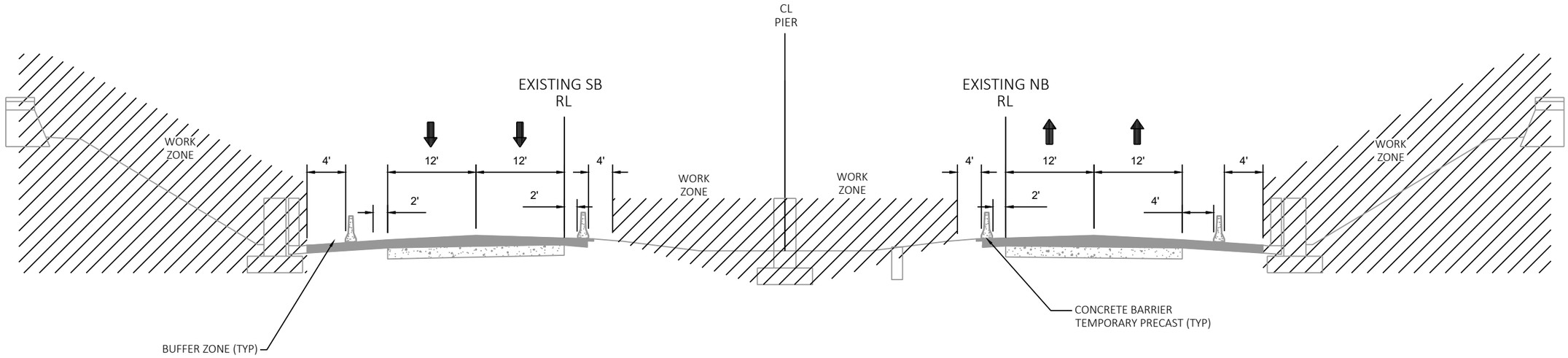


STAGE 2B - IH 41

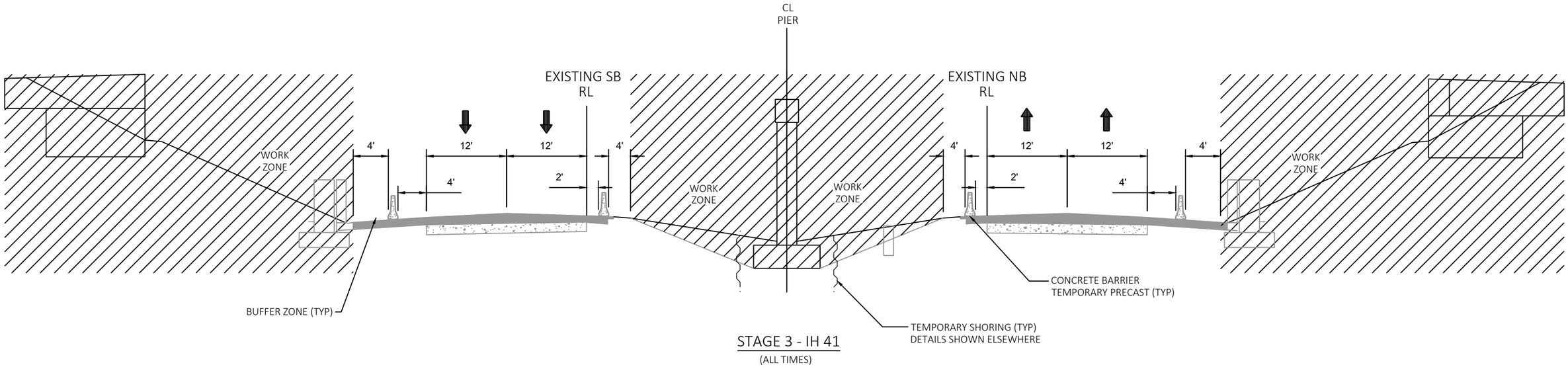
(OFF-PEAK - OPERATIONS)

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL TYPICAL SECTIONS - IH 41	SHEET 52	E

2



STAGE 2A/2B - IH 41
(ALL TIMES OUTSIDE OF OFF-PEAK OPERATIONS)

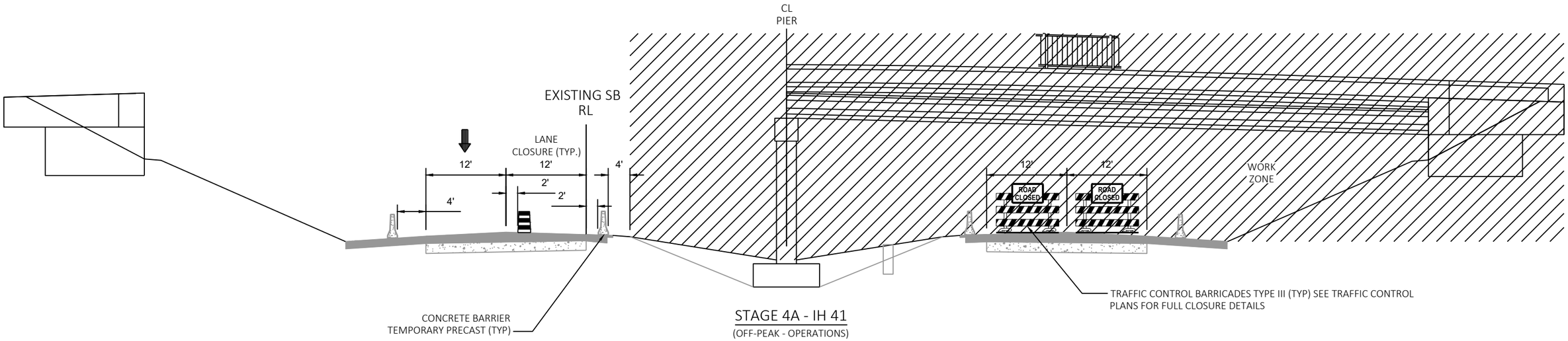


STAGE 3 - IH 41
(ALL TIMES)

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL TYPICAL SECTIONS - IH 41	SHEET 53	E

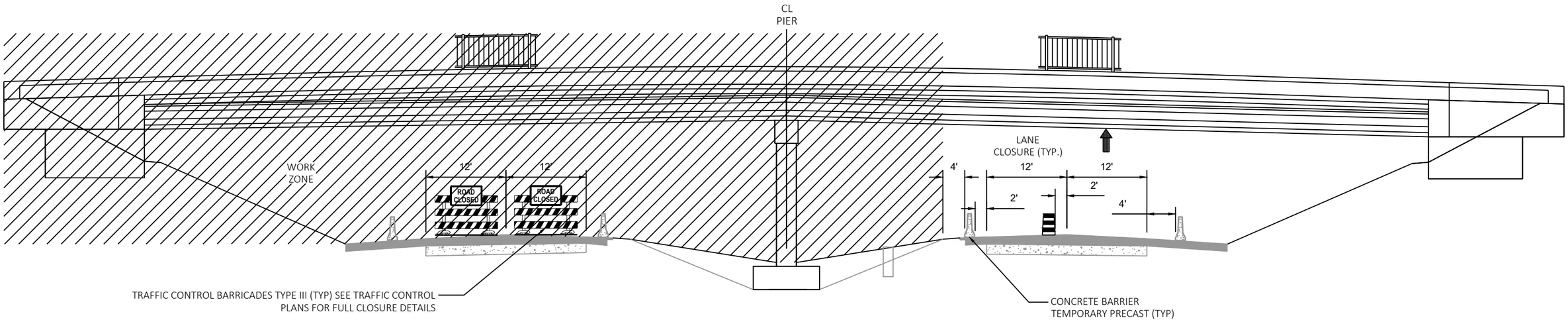
FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\025102-TC.DWG
LAYOUT NAME - 025104-tc
PLOT DATE : 10/2/2023 12:21 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



STAGE 4A - IH 41

(OFF-PEAK - OPERATIONS)



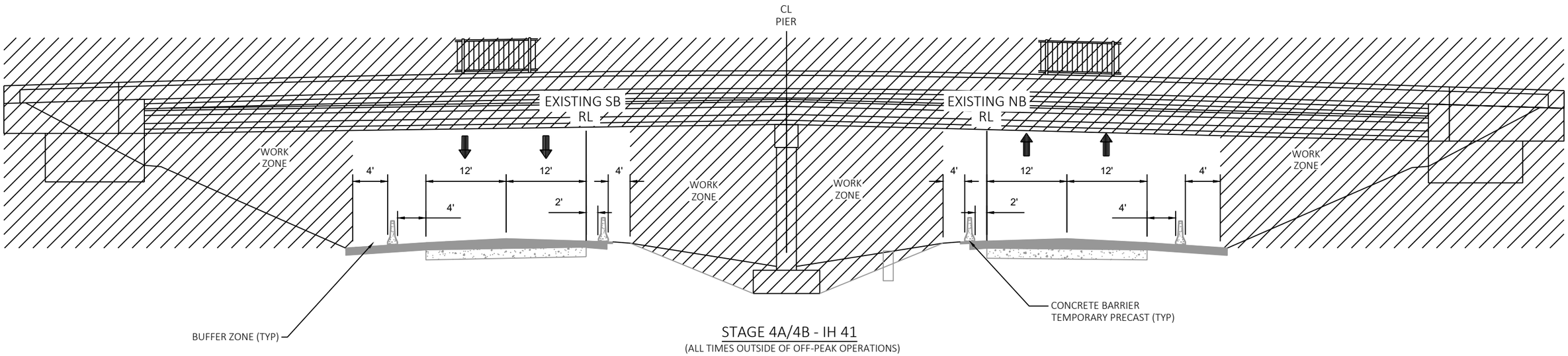
STAGE 4B - IH 41

(OFF-PEAK - OPERATIONS)

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL TYPICAL SECTIONS - IH 41	SHEET 54	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\025102-TC.DWG
LAYOUT NAME - 025105-tc
PLOT DATE : 10/2/2023 12:21 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2



STAGE 4A/4B - IH 41

(ALL TIMES OUTSIDE OF OFF-PEAK OPERATIONS)

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL TYPICAL SECTIONS - IH 41	SHEET 55	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\025102-TC.DWG
LAYOUT NAME - 025106-tc
PLOT DATE : 10/2/2023 12:21 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

N

SIGN
POST
1045+00 'SB'
1050+00 'SB'
1055+00 'SB'
IH 41 SB
1045+00 'NB'
1050+00 'NB'
1055+00 'NB'
MB
SPEED LIMIT YY
50' (TYP.)
IH 41 NB
25'
500'
2600'
400'
700'
500'
1000'
ROAD WORK 1 MILE W20-1F
LEFT LANE CLOSED 1/2 MILE W20-5SG
DIGITAL SPEED LIMIT TRAILERS
W04-2L
SPEED LIMIT 70
COVER EXISTING SIGN WEST OF BUCHANAN ST.
SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL, LANE CLOSURE, DIGITAL SPEED REDUCTION SYSTEM DETAIL"
INL
A/C
ANT.
MATCH LINE 1059+50 'NB'

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1A	SHEET 56	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1A.DWG
LAYOUT NAME - 01
PLOT DATE : 10/3/2023 11:30 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

N

MATCH LINE 1059+50'NB'

MATCH LINE 1074+00'NB'

1060+00 'SB'

1065+00 'SB'

1070+00 'SB'

IH 41 SB

330'

50' (TYP.)

1060+00 'NB'

1065+00 'NB'

1070+00 'NB'

IH 41 NB

SPEED LIMIT 70

R2-1
48"X60"

STA 1072+75.04

100' (TYP.)

660' TAPER

R11-2L
48"X30"

LANE CLOSED

TYPE III BARRICADE

SIGN

POST

A/C

IP

INL

MH

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1A	SHEET 57	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1A.DWG
LAYOUT NAME - 02

PLOT DATE : 10/2/2023 9:56 AM

PLOT BY : ANDY BLOCK

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

NOTE:

TRAFFIC CONTROL FOR IH 41 NORTHBOUND AND SOUTHBOUND LANE CLOSURES ARE SHOWN CONCURRENTLY, BUT DO NOT NEED TO BE USED CONCURRENTLY. SEE SPECIAL PROVISIONS.

REFER TO STANDARD DETAIL DRAWING "TRAFFIC CONTROL INGRESS/EGRESS WITHOUT BARRIER" FOR ACCESSING THE WORK AREA.

N

MATCH LINE 1074+00'NB'

MATCH LINE 1088+50'NB'

END ROAD WORK
G20-2A
48"X24"

R11-2L
48" X 30"
LANE CLOSED
SIGN TYPE III BARRICADE

IH 41 SB

1075+00 'SB'

1080+00 'SB'

1085+00 'SB'

100' (TYP.)

730'

STA 1079+05.04

1075+00 'NB'

1080+00 'NB'

1085+00 'NB'

730'

IH 41 NB

100' (TYP.)

STA 1085+05.04

R11-2L
48"X30"
LANE CLOSED
TYPE III BARRICADE

SIGN

CTH CC (ROSEHILL RD)

FO FO FO FO

U/C

U/C

SEPTIC MOUND

POST

SIGN

IP

IP

MH

MH

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1A	SHEET 58	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1A.DWG
LAYOUT NAME - 03

PLOT DATE : 10/2/2023 9:59 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

N

SPEED LIMIT 70
COVER EXISTING SIGN

DIGITAL SPEED LIMIT TRAILER

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

MATCH LINE 1088+50'NB'

STA 1091+35

100' (TYP.)

1090+00 'SB'

1095+00 'SB'

IH 41 SB

1100+00 'SB'

1090+00 'NB'

1095+00 'NB'

1100+00 'NB'

IH 41 NB

MATCH LINE 1103+00'NB'

END ROAD WORK
G20-2A
48"X24"

SPEED LIMIT 70
R2-1
48"X60"

SIGN

IP

FO

U/C

FOUND

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1A	SHEET 59	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1A.DWG
LAYOUT NAME - 04

PLOT DATE : 10/3/2023 11:55 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

TRAFFIC CONTROL FLAGS INCIDENTAL TO TRAFFIC CONTROL SIGNS BID ITEM.

R1-2 48"X42"

R11-2L 48" X 30" LANE CLOSED

TYPE III BARRICADE

W03-2

PLACE 500' IN ADVANCE OF YIELD SIGN, R1-2. TRAFFIC CONTROL FLAGS INCIDENTAL TO TRAFFIC CONTROL SIGNS BID ITEM.

MATCH LINE 1103+00'NB'

MATCH LINE 1117+50'NB'

25' (TYP.)

50' (TYP.)

100' (TYP.)

1105+00 'SB'

1110+00 'SB'

1115+00 'SB'

IH 41 SB

1105+00 'NB'

1110+00 'NB'

1115+00 'NB'

IH 41 NB

N

POST

GENERATOR

U/C

SIGN

IP

INL

MH

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1A	SHEET 60	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1A.DWG
LAYOUT NAME - 05

PLOT DATE : 10/2/2023 10:02 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

(PLACE 1000' IN ADVANCE OF GORE)

ROAD WORK AHEAD
W20-3A

STH 55 ENTRANCE RAMP TO IH 41 SB

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

PLACE 800' IN ADVANCE OF GORE
W04-1R

100' (TYP.)

END ROAD WORK
G20-2A
48"X24"

IH 41 SB EXIT RAMP TO STH 55

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

MATCH LINE 1117+50'NB'

1120+00 'SB'

IH 41 SB

1125+00 'SB'

1130+00 'SB'

1120+00 'NB'

1125+00 'NB'

1130+00 'NB'

IH 41 NB

MATCH LINE 1132+00'NB'

TRAFFIC CAMERA

STH 55/DELANGLADE ST

IH 41 NB EXIT RAMP TO STH 55

STH 55 ENTRANCE RAMP TO IH 41 NB

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	MB PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	CC CRASH CUSHION TEMORARY
SIGN ON PERMANENT SUPPORT	

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1A	SHEET 61	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1A.DWG
LAYOUT NAME - 06

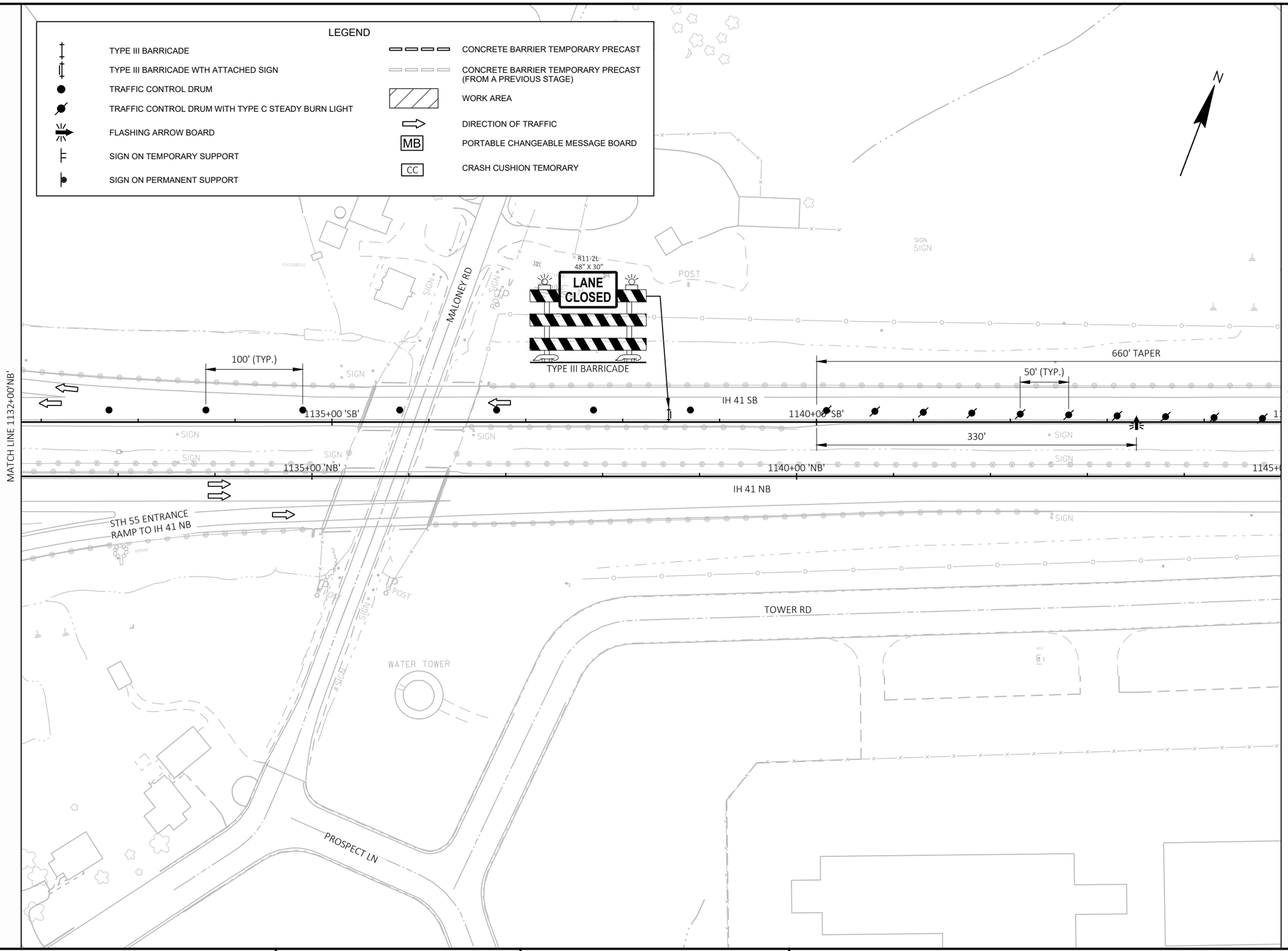
PLOT DATE : 10/2/2023 11:23 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1A	SHEET 62	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1A.DWG
LAYOUT NAME - 07

PLOT DATE : 10/2/2023 10:15 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

N

SPEED LIMIT 70

COVER EXISTING SIGN WEST OF CTH J

SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL, LANE CLOSURE, DIGITAL SPEED REDUCTION SYSTEM DETAIL"

W04-2L — DIGITAL SPEED LIMIT TRAILERS — LEFT LANE CLOSED 1/2 MILE W20-5SG — ROAD WORK 1 MILE W20-1F

1000' | 500' | 700' | 400' | 2600'

500' | 25' | 50' (TYP.)

MATCH LINE 1145+00'NB'

1145+00 'SB' | 1150+00 'SB' | 1155+00 'SB'

IH 41 SB

1150+00 'NB' | 1155+00 'NB'

IH 41 NB

TOWER RD

SIGN | A/C | POST | WALLS | INL | MB | FLAC

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1A	SHEET 63	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1A.DWG
LAYOUT NAME - 08

PLOT DATE : 10/3/2023 11:27 AM | PLOT BY : ANDY BLOCK | PLOT NAME : | PLOT SCALE : 1 IN:100 FT

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	CRASH CUSHION TEMORARY
SIGN ON PERMANENT SUPPORT	

N

SIGN
POST
SIGN
SIGN
1045+00 'SB'
1050+00 'SB'
IH 41 SB
1055+00 'SB'
SIGN
SIGN
1045+00 'NB'
1050+00 'NB'
1055+00 'NB'
SPEED LIMIT YY
IH 41 NB
MB
50' (TYP.)
SIGN
25'
500'
2600'
400'
700'
500'
1000'
SIGN
INL
POST
A/C
SIGN
SIGN
ROAD WORK 1 MILE
W20-1F
RIGHT LANE CLOSED 1/2 MILE
W20-5G
DIGITAL SPEED LIMIT TRAILERS
W04-2R
SPEED LIMIT 70
COVER EXISTING SIGN WEST OF BUCHANAN ST.
SEE CONSTRUCTION DETAIL "TRAFFIC CONTROL, LANE CLOSURE, DIGITAL SPEED REDUCTION SYSTEM DETAIL"
ANT.
MATCH LINE 1059+75 'NB'

2

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1B	SHEET 64	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1B.DWG
LAYOUT NAME - 01
PLOT DATE : 10/3/2023 12:11 PM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	CRASH CUSHION TEMORARY
SIGN ON PERMANENT SUPPORT	

N

SIGN

POST

POST

SIGN

SPEED LIMIT 70
R2-1
48"X60"

MATCH LINE 1059+75'NB'

060+00 'SB'

1065+00 'SB'

IH 41 SB

1070+00 'SB'

SIGN

SIGN

060+00 'NB'

1065+00 'NB'

1070+00 'NB'

MATCH LINE 1074+00'NB'

50' (TYP.)

330'

660' TAPER

SIGN

IH 41 NB

100' (TYP.)

STA 1072+75.04

IP

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

W

W FLAG

SIGN

SIGN

SIGN

A/C

SIGN

POST

A/C

AC

W

W

MH

INL

INL

STEPHEN ST

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1B	SHEET 65	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1B.DWG
LAYOUT NAME - 02

PLOT DATE : 10/2/2023 11:11 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	PORTABLE CHANGEABLE MESSAGE BOARD (MB)
SIGN ON TEMPORARY SUPPORT	CRASH CUSHION TEMORARY (CC)
SIGN ON PERMANENT SUPPORT	

NOTE:

TRAFFIC CONTROL FOR IH 41 NORTHBOUND AND SOUTHBOUND LANE CLOSURES ARE SHOWN CONCURRENTLY, BUT DO NOT NEED TO BE USED CONCURRENTLY. SEE SPECIAL PROVISIONS.

REFER TO STANDARD DETAIL DRAWING "TRAFFIC CONTROL INGRESS/EGRESS WITHOUT BARRIER" FOR ACCESS THE WORK AREA.

N

MATCH LINE 1074+00'NB'

END ROAD WORK
G20-2A
48"X24"

100' (TYP.)

STA 1079+05.05

IH 41 SB

1075+00 'SB'

1080+00 'SB'

1085+00 'SB'

1075+00 'NB'

1080+00 'NB'

1085+00 'NB'

IH 41 NB

100' (TYP.)

STA 1085+04.50

MATCH LINE 1088+50'NB'

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

CTH CC (ROSEHILL RD)

SIGN

FO

U/C

SEPTIC MOUND

MH

IP

POST

INL

2

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1B	SHEET 66	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1B.DWG
LAYOUT NAME - 03

PLOT DATE : 10/2/2023 11:13 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	PORTABLE CHANGEABLE MESSAGE BOARD (MB)
SIGN ON TEMPORARY SUPPORT	CRASH CUSHION TEMORARY (CC)
SIGN ON PERMANENT SUPPORT	

N

MATCH LINE 1088+50'NB'

MATCH LINE 1103+00'NB'

SPEED LIMIT 70

COVER EXISTING SIGN

DIGITAL SPEED LIMIT TRAILER

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

STA 1091+35.05

100' (TYP.)

25' (TYP.)

1090+00 'SB'

1095+00 'SB'

IH 41 SB

1100+00 'SB'

1090+00 'NB'

1095+00 'NB'

1100+00 'NB'

IH 41 NB

END ROAD WORK
G20-2A
48"X24"

SPEED LIMIT 70
R2-1
48"X60"

SIGN

U/C

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1B	SHEET 67 E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1B.DWG
LAYOUT NAME - 04

PLOT DATE : 10/3/2023 12:20 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

TRAFFIC CONTROL FLAGS INCIDENTAL TO TRAFFIC CONTROL SIGNS BID ITEM.

R1-2
48"X42"

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

PLACE 500' IN ADVANCE OF YIELD SIGN, R1-2. TRAFFIC CONTROL FLAGS INCIDENTAL TO TRAFFIC CONTROL SIGNS BID ITEM.

W03-2

330' TAPER
25' (TYP.)
50' (TYP.)
600'
275'

MATCH LINE 1103+00 'NB'
MATCH LINE 1117+50 'NB'

1105+00 'SB'
1110+00 'SB'
1115+00 'SB'
IH 41 SB

1105+00 'NB'
1110+00 'NB'
1115+00 'NB'
IH 41 NB

N

POST
GENERATOR
SIGN
U/C
IP
INL
MH

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1B	SHEET 68	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1B.DWG
LAYOUT NAME - 05

PLOT DATE : 10/3/2023 7:49 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

(PLACE 1000' IN ADVANCE OF GORE)

ROAD WORK AHEAD
W20-1A

STH 55 ENTRANCE RAMP TO IH 41 SB

(PLACE 800' IN ADVANCE OF GORE)

W04-1R

100' (TYP.)

END ROAD WORK
G20-2A
48"X24"

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

IH 41 SB EXIT RAMP TO STH 55

25' (TYP.)

N

MATCH LINE 1117+50'NB'

MATCH LINE 1132+00'NB'

IH 41 SB

1120+00 'SB'

1125+00 'SB'

1130+00 'SB'

1120+00 'NB'

1125+00 'NB'

1130+00 'NB'

IH 41 NB

TRAFFIC CAMERA

STH 55/DELANGLADE ST

IH 41 NB EXIT RAMP TO STH 55

STH 55 ENTRANCE RAMP TO IH 41 NB

SIGN

RIPRAP

IP

INL

VACUUM

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	PORTABLE CHANGEABLE MESSAGE BOARD (MB)
SIGN ON TEMPORARY SUPPORT	CRASH CUSHION TEMORARY (CC)
SIGN ON PERMANENT SUPPORT	

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1B	SHEET 69	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1B.DWG
LAYOUT NAME - 06

PLOT DATE : 10/2/2023 11:24 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	PORTABLE CHANGEABLE MESSAGE BOARD (MB)
SIGN ON TEMPORARY SUPPORT	CRASH CUSHION TEMORARY (CC)
SIGN ON PERMANENT SUPPORT	

N

EXIT

E5-1
48"X48"

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

200' MIN. TAPER

200'

25' (TYP.)

MALONEY RD

MATCH LINE 1132+00'NB'

MATCH LINE 1146+50'NB'

1135+00 'SB'

1140+00 'SB'

1145+00 'SB'

1135+00 'NB'

1140+00 'NB'

1145+00 'NB'

STH 55 ENTRANCE RAMP TO IH 41 NB

TOWER RD

WATER TOWER

PROSPECT LN

SIGN

POST

RIPRAP

SUBSTATION

FOOTBRIDGE

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1B	SHEET 70 E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1B.DWG
LAYOUT NAME - 07

PLOT DATE : 10/2/2023 11:29 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

660' TAPER
330'
50' (TYP.)
100' (TYP.)
500'

IH 41 SB
1150+00 'SB'
1155+00 'SB'
1160+00 'SB'

1150+00 'NB'
1155+00 'NB'
1160+00 'NB'
IH 41 NB

TOWER RD

MATCH LINE 1146+50'NB'

MATCH LINE 1161+00'NB'

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	
FLASHING ARROW BOARD	DIRECTION OF TRAFFIC
SIGN ON TEMPORARY SUPPORT	MB — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON PERMANENT SUPPORT	CC — CRASH CUSHION TEMORARY

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1B	SHEET 71	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1B.DWG
LAYOUT NAME - 08

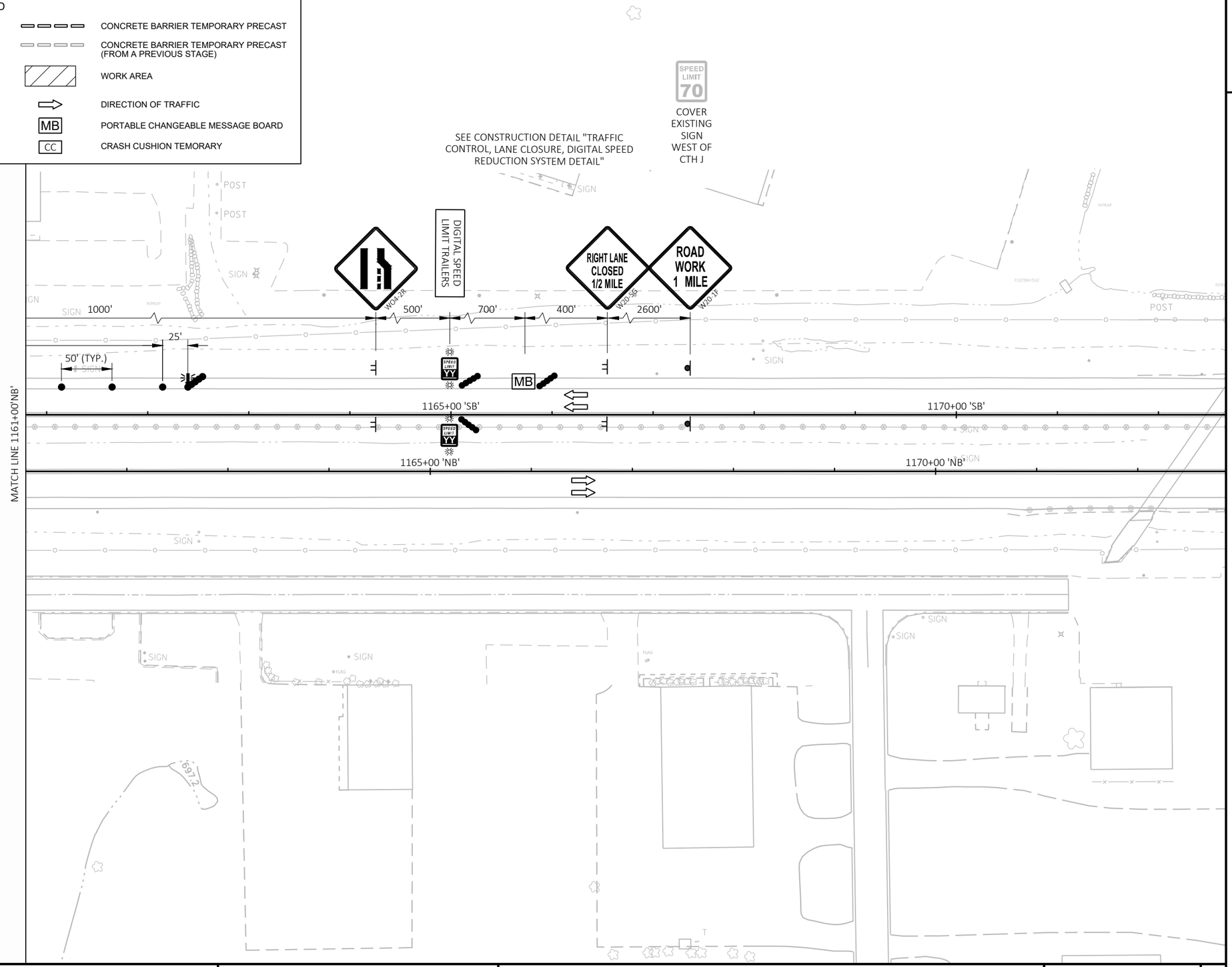
PLOT DATE : 10/2/2023 11:36 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

TYPE III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	CRASH CUSHION TEMORARY
SIGN ON PERMANENT SUPPORT	



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 1B	SHEET 72 E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S1B.DWG
LAYOUT NAME - 09

PLOT DATE : 10/3/2023 12:25 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

N

2600'
1600'
500'
500'
500'
500'

840+00 'SB'
845+00 'SB'
850+00 'SB'
840+00 'NB'
845+00 'NB'
850+00 'NB'

25'
50' (TYP.)

IH 41
IH 41 SB
IH 41 NB

CTH E/N BALLARD RD
ENTRANCE RAMP TO IH 41 SB

IH 41 NB EXIT RAMP TO
CTH E/N BALLARD RD

MATCH LINE 851+50'NB'

ROAD CLOSED AHEAD W20-3A

DETOUR AHEAD W20-2A

LEFT LANE CLOSED 1/2 MILE W20-5SG

W04-2L

SIGN
POST
POOL
A/C

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 73	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 01

PLOT DATE : 9/29/2023 10:57 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

N

MATCH LINE 851+50'NB'

MATCH LINE 866+00'NB'

CTH E/N BALLARD RD
ENTRANCE RAMP TO IH 41 SB

CTH E/ N BALLARD RD

IH 41 SB EXIT RAMP TO
CTH E/ N BALLARD RD

840' TAPER

855+00 'SB'

860+00 'SB'

865+00 'SB'

420'

1680'

50' (TYP.)

50' (TYP.)

855+00 'NB'

860+00 'NB'

865+00 'NB'

IH 41 SB

IH 41 NB

R11-2L
48" X 30"

LANE
CLOSED

TYPE III BARRICADE

W04-1R

(PLACE 800' IN
FRONT OF GORE)

CTH E/N BALLARD RD
ENTRANCE RAMP TO IH 41 NB

IH 41 NB EXIT RAMP TO
CTH E/N BALLARD RD

ROAD
WORK
AHEAD

W20-1A

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 74	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 02

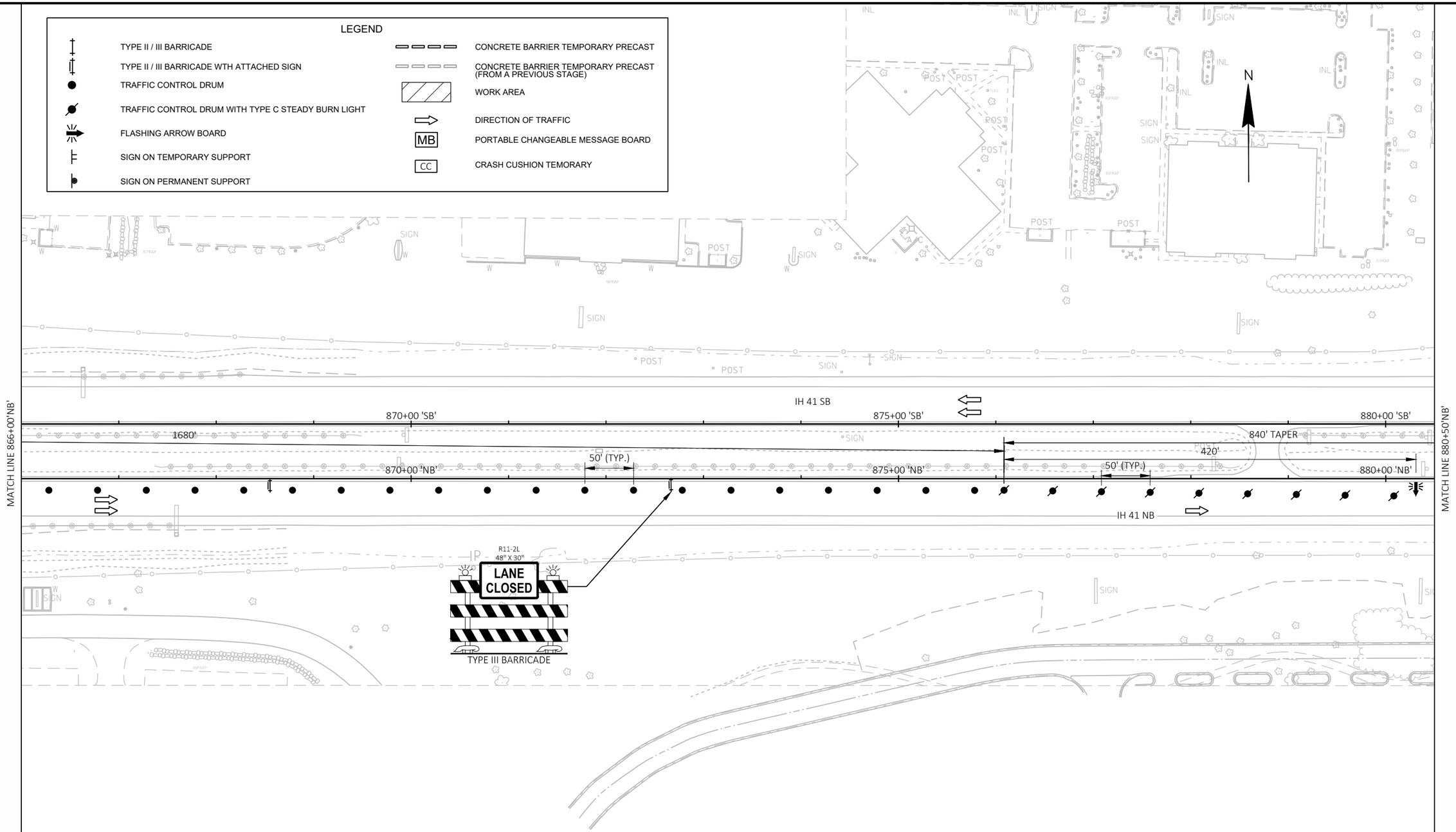
PLOT DATE : 9/29/2023 10:59 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 75	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 03

PLOT DATE : 9/29/2023 11:01 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

N

STH 441 NB ENTRANCE RAMP TO IH 41 SB

R11-2
48" X 30"
ROAD CLOSED
TYPE III BARRICADE

MATCH LINE 880+50'NB'

885+00 'SB'

IH 41 SB

890+00 'SB'

895+00

840' TAPER

50' (TYP.)

885+00 'NB'

500'

890+00 'NB'

25' (TYP.)

895+00

IH 41 NB

CLOSED ROAD
SEE SDD "BARRICADES AND SIGNS FOR MAINLINE CLOSURES"

IH 41 NB EXIT RAMP TO SB STH 441

WO1-6
48" X 24"
TYPE III BARRICADE

WO1-2R

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE

SIGN
POST
IP
RIPRAP
INL
DOCK
FLAG
W
SLAB

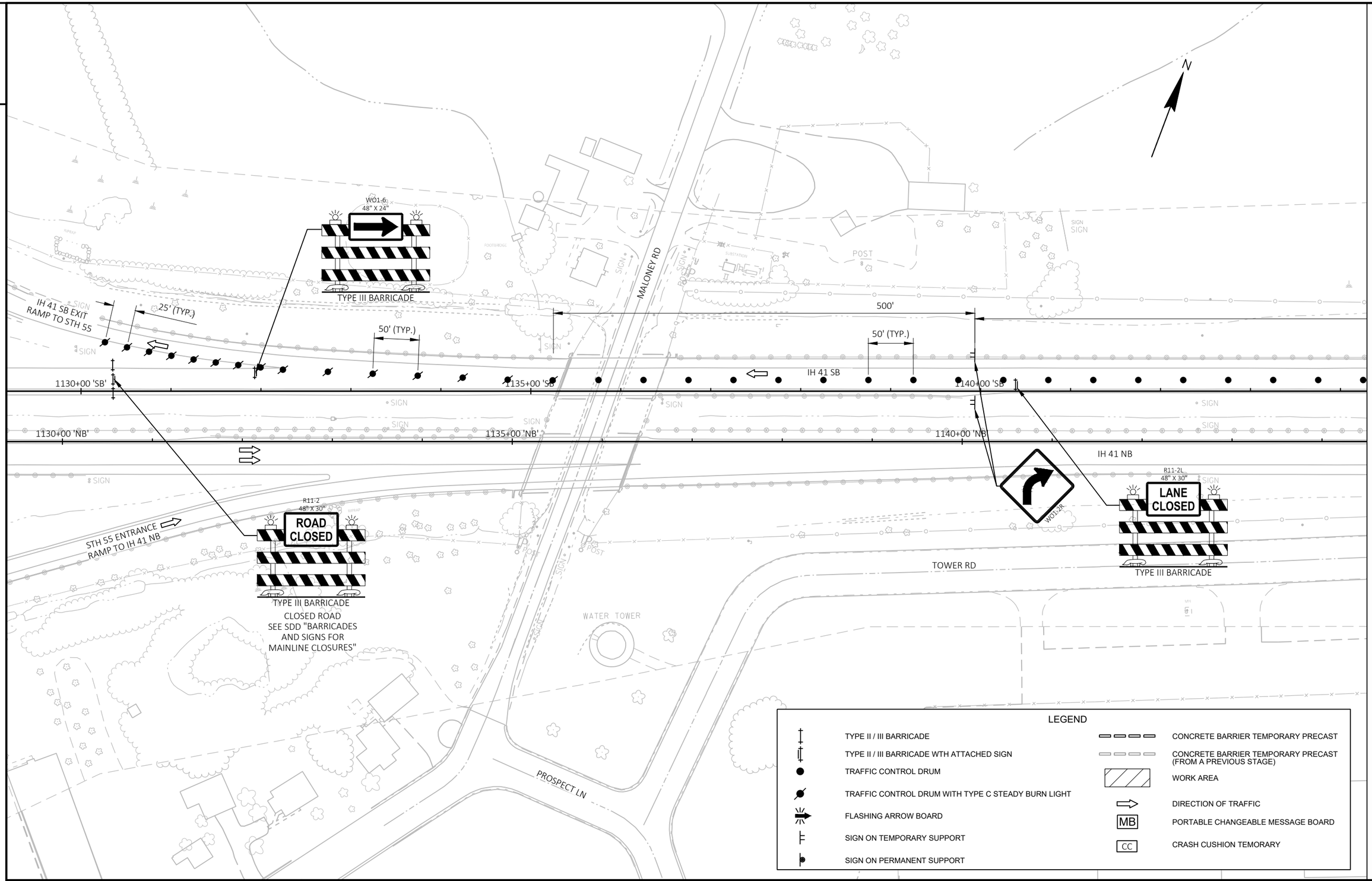
PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 76	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 04

PLOT DATE : 9/29/2023 11:03 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

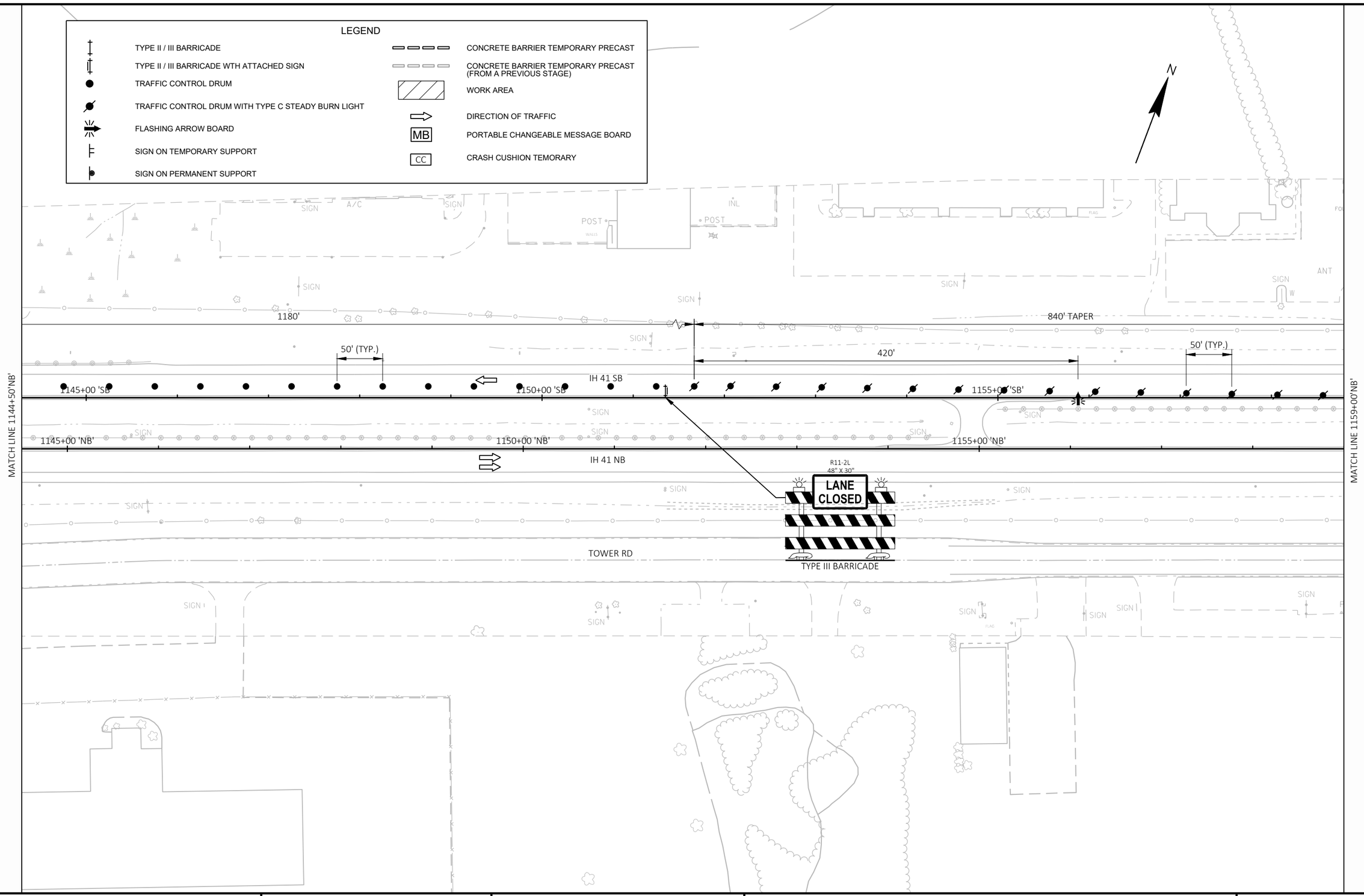
PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 77	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 08
PLOT DATE : 10/3/2023 7:30 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 78	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 09

PLOT DATE : 10/3/2023 7:35 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

N

MATCH LINE 1159+00'NB'

W04-2R

LEFT LANE CLOSED 1/2 MILE — W20-5G

DETOUR AHEAD — W20-2A

ROAD CLOSED AHEAD — W20-3A

500' | 500' | 1600' | 2100' | 500'

50' (TYP.) | 25'

1160+00 'SB' | 1165+00 'SB' | 1170+00 'SB'

IH 41 SB

1160+00 'NB' | 1165+00 'NB' | 1170+00 'NB'

IH 41 NB

SIGN | POST | FOUNTAIN | RIPRAP | FLAG | 697.2

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 79	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 10
PLOT DATE : 9/29/2023 11:45 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

TYPE II / III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE II / III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	MB — PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	CC — CRASH CUSHION TEMORARY
SIGN ON PERMANENT SUPPORT	

N

PLACE 2500' BEFORE EXIT RAMP TO NORTHLAND AVENUE

M3-1 36"X18" NORTH
M1-1 36"X36" INTERSTATE 41

ROAD WORK AHEAD W20-1A

RAMP CLOSED AHEAD W20-5A

1500'

STH 441 SB EXIT RAMP TO NORTHLAND AVE

STH 441 SB

NORTHLAND AVE ENTRANCE RAMP TO STH 441 NB

STH 441 NB

50' (TYP.)

25' (TYP.)

RAMP CLOSED 1000 FT W20-53C

RAMP CLOSED 500 FT W20-53D

M3-1 36"X18" NORTH
M1-1 36"X36" INTERSTATE 41

ROAD WORK AHEAD W20-1A

RAMP CLOSED AHEAD W20-53A

MATCH LINE 401+00'SW'

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 80	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 11

PLOT DATE : 9/29/2023 11:47 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

LEGEND

TYPE II / III BARRICADE	CONCRETE BARRIER TEMPORARY PRECAST
TYPE II / III BARRICADE WTH ATTACHED SIGN	CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
TRAFFIC CONTROL DRUM	WORK AREA
TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT	DIRECTION OF TRAFFIC
FLASHING ARROW BOARD	PORTABLE CHANGEABLE MESSAGE BOARD
SIGN ON TEMPORARY SUPPORT	CRASH CUSHION TEMORARY
SIGN ON PERMANENT SUPPORT	

N

MATCH LINE 401+00'SW'

STH 441 SB

HWY 441

IH 41 NB EXIT RAMP TO SB STH 441

STH 441 NB

HWY 441

600'

25' (TYP.)

25' (TYP.)

150'

300' TAPER

25' (TYP.)

R3-1
36"X36"

200'

STH 441 NB ENTRANCE RAMP TO IH 41 NB

MB

FRAME 1
RAMP TO CLOSE

FRAME 2
DATE XXPM TO XXAM

PLACE PCMS 7 DAYS PRIOR TO CLOSURE

R11-2R
48" X 30"

RAMP CLOSED

TYPE III BARRICADE

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 81 E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 12

PLOT DATE : 9/29/2023 11:50 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

IH 41 NB EXIT RAMP TO CTH N/FREEDOM RD

CTH N/FREEDOM RD ENTRANCE RAMP TO IH 41 SB

IH 41 NB

IH 41 SB

1015+00 'NB'

1015+00 'SB'

PATRIOT DR

MOSSIS RD

M3-1 24"X12" NORTH
M1-1 24"X24" INTERSTATE 41
RAMP CLOSED AHEAD W20-53A

(PLACE APPROX. 200' PRIOR TO INTERSECTION)

(PLACE APPROX. 500' PRIOR TO ENTRANCE RAMP)

CTH N / FREEDOM RD

CTH N / N FREEDOM RD

60+00 'N'

65+00 'N'

70+00 'N'

25' (TYP.)

R3-2 36"X36"

R11-2R 48" X 30" RAMP CLOSED

TYPE III BARRICADE

MB

FRAME 1: RAMP TO CLOSE

FRAME 2: DATE XXPM TO XXAM

PLACE PCMS 7 DAYS PRIOR TO CLOSURE

CTH N/FREEDOM RD ENTRANCE RAMP TO IH 41 NB

1020+00 'NB'

1020+00 'SB'

IH 41 SB EXIT RAMP TO CTH N/FREEDOM RD RD

IH 41

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB PORTABLE CHANGEABLE MESSAGE BOARD
- CC CRASH CUSHION TEMORARY

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 82	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 05

PLOT DATE : 9/29/2023 11:58 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- FLASHING ARROW BOARD
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- CONCRETE BARRIER TEMPORARY PRECAST
- CONCRETE BARRIER TEMPORARY PRECAST (FROM A PREVIOUS STAGE)
- WORK AREA
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- CC — CRASH CUSHION TEMORARY

N

STH 55 TO IH 41 SB ENTRANCE RAMP

FRAME 1: RAMP TO CLOSE

FRAME 2: DATE XXPM TO XXAM

MB

PLACE PCMS 7 DAYS PRIOR TO CLOSURE

200'

R11-2R 48" X 30"
RAMP CLOSED
TYPE III BARRICADE

R3-1 24"X24"

25' (TYP.)

STH 55 / DELANGLADE ST

ARBOR WAY

SOUTH M3-3 24"X12"
INTERSTATE 41 M1-1 24"X24"
RAMP CLOSED AHEAD W20-3A
(PLACE 200' PRIOR TO INTERSECTION)

(PLACE ALONG STH 55 NB BETWEEN MALONEY RD AND IH 41 NB RAMPS)

IH 41 NB

IH 41 SB

USH 41

1120+00 NB

1120+00 SB

1125+00 SB

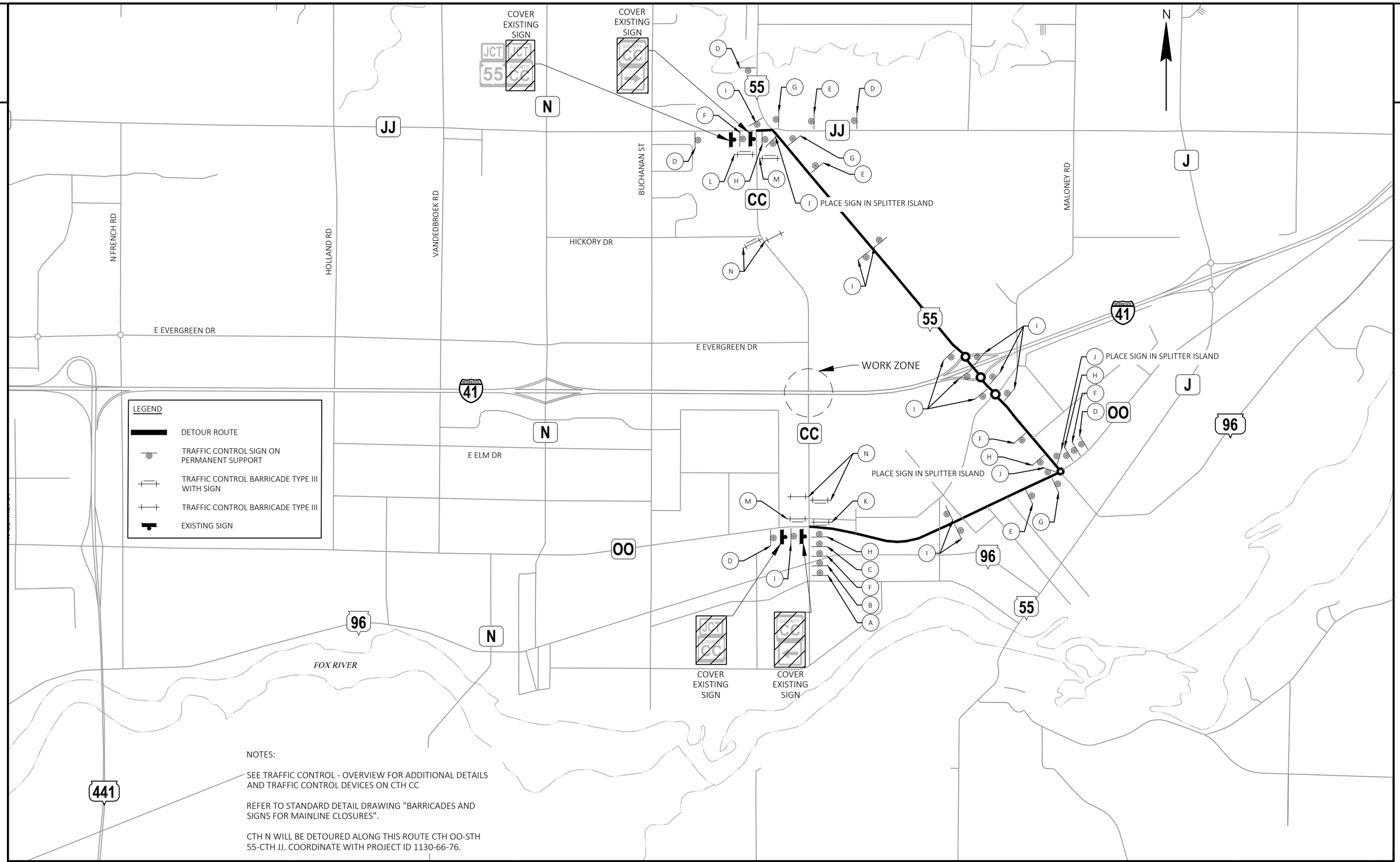
IH 41 SB EXIT RAMP TO STH 55

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	TRAFFIC CONTROL - STAGE 2 & 4	SHEET 83	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\026001-S2.DWG
LAYOUT NAME - 13

PLOT DATE : 9/29/2023 12:01 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	DETOUR PLAN - CTH CC	SHEET 84	E

2



A



B



C



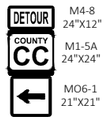
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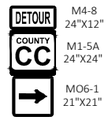
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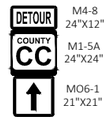
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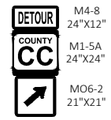
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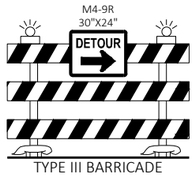
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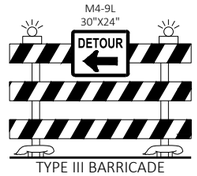
I



J



K

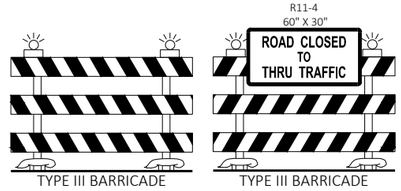


L



1.3 MILES FOR NORTH BARRICADE
0.6 MILES FOR SOUTH BARRICADE

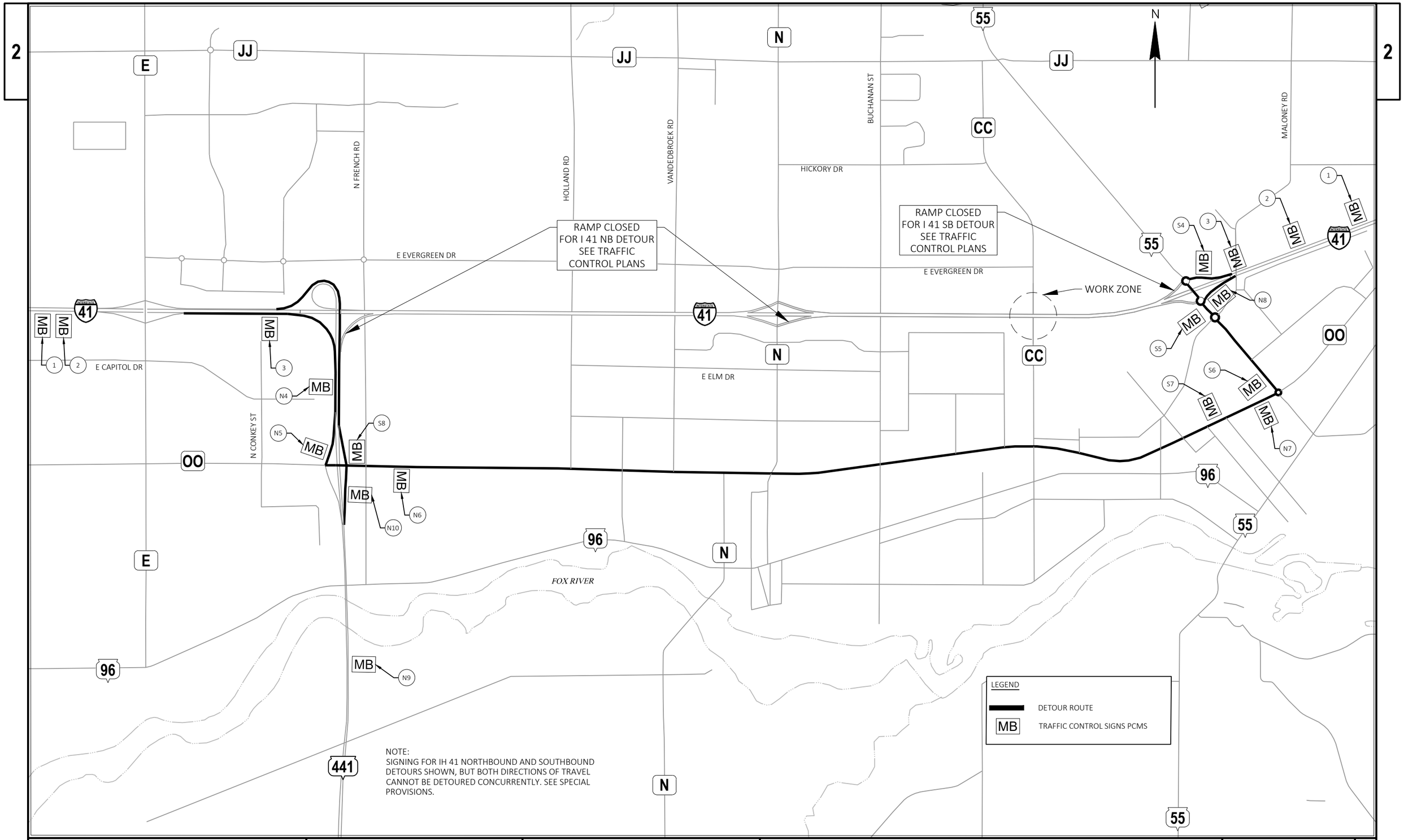
M



N

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	DETOUR PLAN - CTH CC	SHEET 85	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\027001_DT.DWG
LAYOUT NAME - 02
PLOT DATE : 10/3/2023 8:08 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	DETOUR PLAN - IH 41	SHEET 86	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\11306683\027002_DT.DWG
LAYOUT NAME - 01

PLOT DATE : 10/2/2023 12:15 PM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : Custom

WISDOT/CADDS SHEET 42

PCMS

ROAD WORK AHEAD

WATCH FOR BACKUPS

INSTALL 2-MILES UPSTREAM OF CLOSURE

1

PCMS

I–41 CLOSED AHEAD

FOLLOW DETOUR

INSTALL 1-MILE UPSTREAM OF CLOSURE

2

PCMS

ALL TRAFFIC

EXIT RIGHT

3

PCMS

I–41 NB TRAFFIC

USE NEXT EXIT

N4

PCMS

I–41 NB TRAFFIC

FOLLOW HWY 00 LEFT

N5

PCMS

I–41 NB TRAFFIC

CONTINUE TO WIS 55

N6

PCMS

I–41 NB TRAFFIC

FOLLOW WIS 55 LEFT

N7

PCMS

I–41 NB TRAFFIC

FOLLOW RAMP RIGHT

N8

PCMS

I–41 CLOSED AHEAD

USE NEXT EXIT

N9

PCMS

I–41 NB TRAFFIC

FOLLOW HWY 00 RIGHT

N10

PCMS

I–41 SB TRAFFIC

FOLLOW WIS 55 LEFT

S4

PCMS

I–41 SB TRAFFIC

CONTINUE TO HWY 00

S5

PCMS

I–41 SB TRAFFIC

FOLLOW HWY 00 RIGHT

S6

PCMS

I–41 SB TRAFFIC

CONTINUE TO WIS 441

S7

PCMS

I–41 SB TRAFFIC

FOLLOW WIS 441 RIGHT

S8

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	DETOUR PLAN - IH 41	SHEET 87	E

2

N

BP: 47'CC'+20.00
Y:573675.14
X:858545.02

PI: 60'CC'+01.64
Y:574956.77
X:858540.95
Δ = 0° 7' 39"

EP: 75'CC'+93.37
Y:576548.50
X:858539.44

CTH CC (ROSEHILL RD)

48'CC' 50'CC' 52'CC' N0°10'55"W 54'CC' 56'CC' 58'CC' 60'CC' 62'CC' 64'CC' 66'CC' 68'CC' N0°03'16"W 70'CC' 72'CC' 74'CC'

BEGIN PROJECT ID 1130-66-83
STA. 55'CC'+00.00

END PROJECT ID 1130-66-83
STA. 69'CC'+50.00

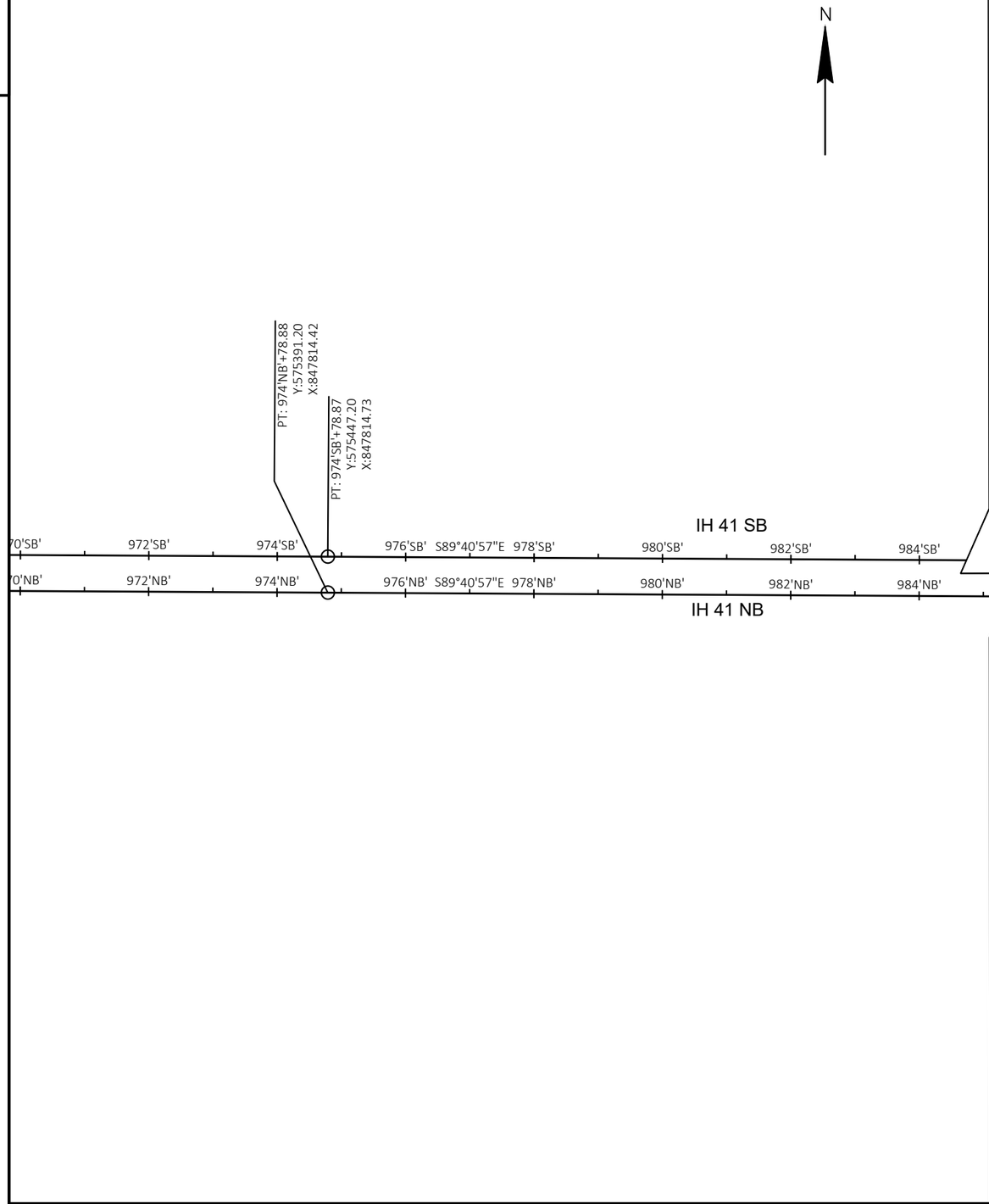
1074'NB' 1074'SB' 1076'NB' 1076'SB' 1078'NB' 1078'SB' 1080'NB' 1080'SB' 1082'NB' 1082'SB' 1084'NB' 1084'SB' 1086'NB' 1086'SB' 1088'NB' 1088'SB' 1090'NB' 1090'SB'

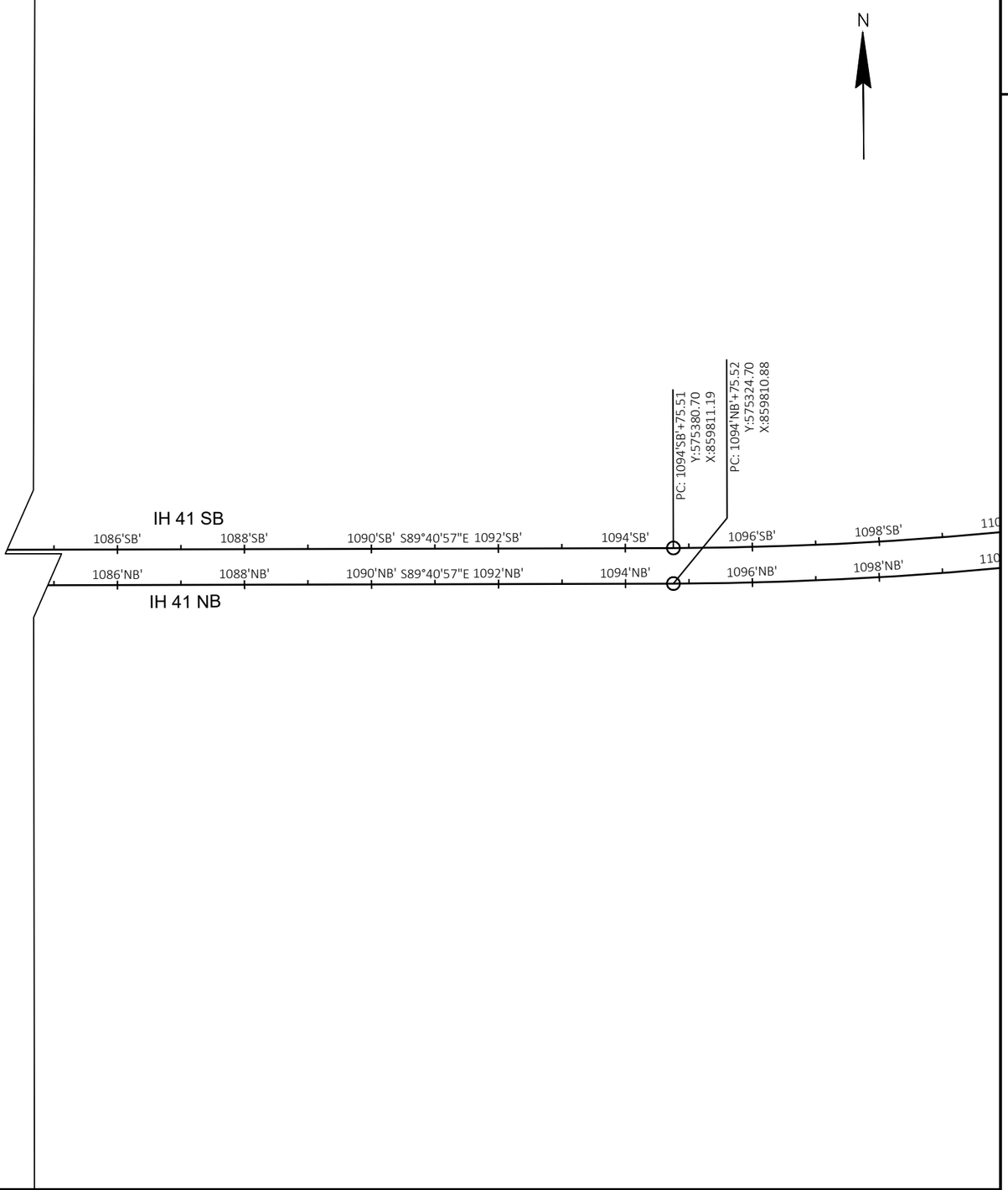
IH 41 NB

IH 41 SB

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	ALIGNMENT DETAILS - CTH CC (ROSEHILL RD)	SHEET 88	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\027220-AD-CC.DWG
LAYOUT NAME - 01
PLOT DATE : 8/23/2023 9:14 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
WISDOT/CADDS SHEET 42


N
PT: 974'NB'+78.88
Y:575391.20
X:847814.42
PT: 974'SB'+78.87
Y:575447.20
X:847814.73
IH 41 SB
970'SB'
972'SB'
974'SB'
976'SB'
S89°40'57"E
978'SB'
980'SB'
982'SB'
984'SB'
970'NB'
972'NB'
974'NB'
976'NB'
S89°40'57"E
978'NB'
980'NB'
982'NB'
984'NB'
IH 41 NB


N
PC: 1094'SB'+75.51
Y:575380.70
X:859811.19
PC: 1094'NB'+75.52
Y:575324.70
X:859810.88
IH 41 SB
1086'SB'
1088'SB'
1090'SB'
S89°40'57"E
1092'SB'
1094'SB'
1096'SB'
1098'SB'
1086'NB'
1088'NB'
1090'NB'
S89°40'57"E
1092'NB'
1094'NB'
1096'NB'
1098'NB'
IH 41 NB

Estimate Of Quantities

1130-66-83

Line	Item	Item Description	Unit	Total	Qty
0002	201.0205	Grubbing	STA	9.000	9.000
0004	203.0100	Removing Small Pipe Culverts	EACH	1.000	1.000
0006	203.0220	Removing Structure (structure) 01. B-44-39	EACH	1.000	1.000
0008	203.0330	Debris Containment (structure) 01. B-44-39	EACH	1.000	1.000
0010	204.0110	Removing Asphaltic Surface	SY	110.000	110.000
0012	204.0120	Removing Asphaltic Surface Milling	SY	1,130.000	1,130.000
0014	204.0157	Removing Concrete Barrier	LF	325.000	325.000
0016	204.0165	Removing Guardrail	LF	2,250.000	2,250.000
0018	204.0170	Removing Fence	LF	995.000	995.000
0020	204.0190	Removing Surface Drains	EACH	2.000	2.000
0022	204.0220	Removing Inlets	EACH	2.000	2.000
0024	204.0245	Removing Storm Sewer (size) 01. 12-Inch	LF	70.000	70.000
0026	204.9060.S	Removing (item description) 01. Cable Barrier Terminal	EACH	2.000	2.000
0028	204.9090.S	Removing (item description) 01. Cable Barrier	LF	5,785.000	5,785.000
0030	205.0100	Excavation Common	CY	2,458.000	2,458.000
0032	206.1001	Excavation for Structures Bridges (structure) 01. B-44-333	EACH	1.000	1.000
0034	208.0100	Borrow	CY	45,042.000	45,042.000
0036	210.1500	Backfill Structure Type A	TON	828.000	828.000
0038	211.0101	Prepare Foundation for Asphaltic Paving (project) 01. 1130-66-83	EACH	1.000	1.000
0040	211.0201	Prepare Foundation for Concrete Pavement (project) 01. 1130-66-83	EACH	1.000	1.000
0042	211.0400	Prepare Foundation for Asphaltic Shoulders	STA	27.000	27.000
0044	213.0100	Finishing Roadway (project) 01. 1130-66-83	EACH	1.000	1.000
0046	305.0110	Base Aggregate Dense 3/4-Inch	TON	130.000	130.000
0048	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	2,380.000	2,380.000
0050	312.0110	Select Crushed Material	TON	4,630.000	4,630.000
0052	415.0080	Concrete Pavement 8-Inch	SY	4,640.000	4,640.000
0054	415.0410	Concrete Pavement Approach Slab	SY	80.000	80.000
0056	455.0605	Tack Coat	GAL	94.000	94.000
0058	460.2000	Incentive Density HMA Pavement	DOL	160.000	160.000
0060	460.5223	HMA Pavement 3 LT 58-28 S	TON	36.000	36.000
0062	460.5224	HMA Pavement 4 LT 58-28 S	TON	200.000	200.000
0064	465.0315	Asphaltic Flumes	SY	45.000	45.000
0066	465.0510	Asphaltic Rumble Strips, Shoulder Divided Roadway	LF	2,640.000	2,640.000
0068	501.1000.S	Ice Hot Weather Concreting	LB	3,495.000	3,495.000
0070	502.0100	Concrete Masonry Bridges	CY	282.000	282.000
0072	502.3200	Protective Surface Treatment	SY	1,125.000	1,125.000
0074	502.3210	Pigmented Surface Sealer	SY	719.000	719.000
0076	503.0146	Prestressed Girder Type I 45W-Inch	LF	1,433.000	1,433.000
0078	505.0400	Bar Steel Reinforcement HS Structures	LB	10,840.000	10,840.000
0080	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	136,940.000	136,940.000
0082	506.2605	Bearing Pads Elastomeric Non-Laminated	EACH	28.000	28.000
0084	506.4000	Steel Diaphragms (structure) 01. B-44-333	EACH	24.000	24.000
0086	511.1200	Temporary Shoring (structure) 01. B-44-333	SF	480.000	480.000
0088	516.0500	Rubberized Membrane Waterproofing	SY	40.000	40.000
0090	522.1012	Apron Endwalls for Culvert Pipe Reinforced Concrete 12-Inch	EACH	7.000	7.000
0092	550.0010	Pre-Boring Unconsolidated Materials	LF	88.000	88.000
0094	550.1120	Piling Steel HP 12-Inch X 53 Lb	LF	3,760.000	3,760.000
0096	601.0155	Concrete Curb Integral Type J	LF	1,960.000	1,960.000
0098	601.0590	Concrete Curb & Gutter 4-Inch Sloped 36-Inch Type TBTT	LF	250.000	250.000
0100	602.0405	Concrete Sidewalk 4-Inch	SF	7,608.000	7,608.000

Estimate Of Quantities

1130-66-83

Line	Item	Item Description	Unit	Total	Qty
0102	602.3010	Concrete Surface Drains	CY	5.000	5.000
0104	603.8000	Concrete Barrier Temporary Precast Delivered	LF	4,920.000	4,920.000
0106	603.8125	Concrete Barrier Temporary Precast Installed	LF	5,520.000	5,520.000
0108	603.8500	Anchoring Concrete Barrier Temporary Precast	LF	450.000	450.000
0110	604.0400	Slope Paving Concrete	SY	346.000	346.000
0112	604.0600	Slope Paving Select Crushed Material	SY	96.000	96.000
0114	606.0200	Riprap Medium	CY	90.000	90.000
0116	608.0312	Storm Sewer Pipe Reinforced Concrete Class III 12-Inch	LF	167.000	167.000
0118	611.0630	Inlet Covers Type HM-GJ	EACH	6.000	6.000
0120	611.0654	Inlet Covers Type V	EACH	2.000	2.000
0122	611.3220	Inlets 2x2-FT	EACH	2.000	2.000
0124	611.3230	Inlets 2x3-FT	EACH	6.000	6.000
0126	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	590.000	590.000
0128	614.0115	Anchorages for Steel Plate Beam Guard Type 2	EACH	2.000	2.000
0130	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	4.000	4.000
0132	614.0220	Steel Thrie Beam Bullnose Terminal	EACH	2.000	2.000
0134	614.0230	Steel Thrie Beam	LF	150.000	150.000
0136	614.0305	Steel Plate Beam Guard Class A	LF	203.000	203.000
0138	614.0400	Adjusting Steel Plate Beam Guard	LF	425.000	425.000
0140	614.0905	Crash Cushions Temporary	EACH	4.000	4.000
0142	614.2300	MGS Guardrail 3	LF	300.000	300.000
0144	614.2500	MGS Thrie Beam Transition	LF	157.600	157.600
0146	614.2610	MGS Guardrail Terminal EAT	EACH	4.000	4.000
0148	618.0100	Maintenance and Repair of Haul Roads (project) 01. 1130-66-83	EACH	1.000	1.000
0150	619.1000	Mobilization	EACH	1.000	1.000
0152	624.0100	Water	MGAL	110.000	110.000
0154	625.0100	Topsoil	SY	21,810.000	21,810.000
0156	628.1504	Silt Fence	LF	2,105.000	2,105.000
0158	628.1520	Silt Fence Maintenance	LF	4,210.000	4,210.000
0160	628.1905	Mobilizations Erosion Control	EACH	6.000	6.000
0162	628.1910	Mobilizations Emergency Erosion Control	EACH	4.000	4.000
0164	628.2023	Erosion Mat Class II Type B	SY	21,810.000	21,810.000
0166	628.7005	Inlet Protection Type A	EACH	8.000	8.000
0168	628.7015	Inlet Protection Type C	EACH	8.000	8.000
0170	628.7504	Temporary Ditch Checks	LF	295.000	295.000
0172	628.7515.S	Stone Ditch Checks	CY	40.000	40.000
0174	628.7555	Culvert Pipe Checks	EACH	5.000	5.000
0176	628.7560	Tracking Pads	EACH	2.000	2.000
0178	628.7570	Rock Bags	EACH	140.000	140.000
0180	629.0210	Fertilizer Type B	CWT	14.000	14.000
0182	630.0130	Seeding Mixture No. 30	LB	985.000	985.000
0184	630.0200	Seeding Temporary	LB	265.000	265.000
0186	630.0300	Seeding Borrow Pit	LB	40.000	40.000
0188	630.0500	Seed Water	MGAL	495.000	495.000
0190	633.5200	Markers Culvert End	EACH	7.000	7.000
0192	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	2.000	2.000
0194	634.0616	Posts Wood 4x6-Inch X 16-FT	EACH	1.000	1.000
0196	637.2210	Signs Type II Reflective H	SF	10.000	10.000
0198	637.2230	Signs Type II Reflective F	SF	9.000	9.000
0200	638.2102	Moving Signs Type II	EACH	4.000	4.000

Estimate Of Quantities

1130-66-83

Line	Item	Item Description	Unit	Total	Qty
0202	638.2602	Removing Signs Type II	EACH	6.000	6.000
0204	638.3000	Removing Small Sign Supports	EACH	6.000	6.000
0206	638.4000	Moving Small Sign Supports	EACH	4.000	4.000
0208	643.0300	Traffic Control Drums	DAY	32,170.000	32,170.000
0210	643.0420	Traffic Control Barricades Type III	DAY	4,856.000	4,856.000
0212	643.0705	Traffic Control Warning Lights Type A	DAY	8,426.000	8,426.000
0214	643.0715	Traffic Control Warning Lights Type C	DAY	3,110.000	3,110.000
0216	643.0800	Traffic Control Arrow Boards	DAY	748.000	748.000
0218	643.0900	Traffic Control Signs	DAY	13,993.000	13,993.000
0220	643.0920	Traffic Control Covering Signs Type II	EACH	170.000	170.000
0222	643.1050	Traffic Control Signs PCMS	DAY	138.000	138.000
0224	643.1205.S	Basic Traffic Queue Warning System	DAY	280.000	280.000
0226	643.5000	Traffic Control	EACH	1.000	1.000
0228	645.0111	Geotextile Type DF Schedule A	SY	102.000	102.000
0230	645.0120	Geotextile Type HR	SY	296.000	296.000
0232	645.0130	Geotextile Type R	SY	160.000	160.000
0234	646.2020	Marking Line Epoxy 6-Inch	LF	4,850.000	4,850.000
0236	646.4520	Marking Line Same Day Epoxy 4-Inch	LF	3,240.000	3,240.000
0238	648.0100	Locating No-Passing Zones	MI	0.280	0.280
0240	650.4000	Construction Staking Storm Sewer	EACH	15.000	15.000
0242	650.4500	Construction Staking Subgrade	LF	1,243.000	1,243.000
0244	650.5000	Construction Staking Base	LF	50.000	50.000
0246	650.6501	Construction Staking Structure Layout (structure) 01. B-44-333	EACH	1.000	1.000
0248	650.7000	Construction Staking Concrete Pavement	LF	1,193.000	1,193.000
0250	650.8501	Construction Staking Electrical Installations (project) 01. 1130-66-83	EACH	1.000	1.000
0252	650.9500	Construction Staking Sidewalk (project) 01. 1130-66-83	EACH	1.000	1.000
0254	650.9911	Construction Staking Supplemental Control (project) 01. 1130-66-83	EACH	1.000	1.000
0256	650.9920	Construction Staking Slope Stakes	LF	2,643.000	2,643.000
0258	652.0125	Conduit Rigid Metallic 2-Inch	LF	144.000	144.000
0260	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	1,494.000	1,494.000
0262	652.0335	Conduit Rigid Nonmetallic Schedule 80 3-Inch	LF	55.000	55.000
0264	653.0164	Pull Boxes Non-Conductive 24x42-Inch	EACH	4.000	4.000
0266	653.0222	Junction Boxes 18x12x6-Inch	EACH	1.000	1.000
0268	654.0105	Concrete Bases Type 5	EACH	6.000	6.000
0270	690.0150	Sawing Asphalt	LF	190.000	190.000
0272	715.0502	Incentive Strength Concrete Structures	DOL	4,512.000	4,512.000
0274	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	1,392.000	1,392.000
0276	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	2,400.000	2,400.000
0278	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	2,100.000	2,100.000
0280	SPV.0035	Special 01. High Performance Concrete (HPC) Masonry Structures	CY	466.000	466.000
0282	SPV.0045	Special 01. Digital Speed Reduction System (DSRS)	DAY	300.000	300.000
0284	SPV.0060	Special 01. Existing Footing Opening (EFO)	EACH	8.000	8.000
0286	SPV.0090	Special 01. Fence Chain Link Polymer-Coated 6-Ft. B-44-333	LF	482.000	482.000
0288	SPV.0165	Special 01. Longitudinal Grooving Bridge Deck	SF	7,434.000	7,434.000

3

GRUBBING

STATION	TO	STATION	LOCATION	201.0205 STA
56+00	-	58+00	CTH CC, LT	2
60+00	-	61+00	CTH CC, LT	1
62+00	-	63+00	CTH CC, RT	1
65+00	-	68+00	CTH CC, LT	3
66+00	-	68+00	CTH CC, RT	2
		TOTALS		**9**

REMOVING BARRIER

STATION	TO	STATION	LOCATION	204.0157 REMOVING CONCRETE BARRIER LF	204.9060.S.01 REMOVING CABLE BARRIER TERMINAL EA	204.9090.S.01 REMOVING CABLE BARRIER LF
62+90	-	65+10	CTH CC, RT	220	---	---
1081+78	-	1082+29	IH 41 NB, RT	53	---	---
1081+82	-	1082+32	IH 41 SB, LT	52	---	---
1042+50	-	1100+35	IH 41 NB, LT	---	2	5,785
		TOTAL		**325**	**2**	**5,785**

REMOVING SURFACE DRAINS

STATION	LOCATION	204.0190 EACH
65+25	CTH CC, LT	1
65+25	CTH CC, RT	1
	TOTAL	**2**

3

REMOVING SMALL PIPE CULVERTS

STATION	LOCATION	203.01 EACH	REMARKS
68+80	CTH CC, LT	1	18" CSCP X 60'
	TOTAL	**1**	

REMOVING GUARDRAIL

STATION	TO	STATION	LOCATION	204.0165 LF
55+54	-	62+88	CTH CC, LT	735
55+54	-	62+88	CTH CC, RT	735
65+16	-	67+01	CTH CC, LT	185
65+16	-	66+80	CTH CC, RT	165
1081+60	-	1081+85	IH 41 NB, RT	25
1081+20	-	1082+90	IH 41 NB, LT	355
1082+26	-	1082+50	IH 41 SB, LT	25
1084+51	-	1084+76	IH 41 SB, LT	25
		TOTAL		**2,250**

PREPARE FOUNDATION

STATION	TO	STATION	LOCATION	211.0101 FOR ASPHALTIC PAVING EACH	211.0201 FOR CONCRETE PAVEMENT EACH	211.0400 FOR ASPHALTIC SHOULDERS STA
55+25	-	69+25	CTH CC	---	1	---
55+00	-	55+25	CTH CC	1	---	---
69+25	-	69+50	CTH CC			
1072+35	-	1085+05	IH 41 NB, LT	---	---	14
1079+05	-	1091+75	IH 41 SB, RT	---	---	13
		TOTALS		**1**	**1**	**27**

REMOVING ASPHALT

STATION	TO	STATION	LOCATION	204.0110 REMOVING ASPHALTIC SURFACE SY	204.0120 REMOVING ASPHALTIC SURFACE MILLING SY
1072+35	-	1085+05	IH 41 NB, LT	---	565
1079+05	-	1091+75	IH 41 SB, RT	---	565
1081+78	-	1082+29	IH 41 NB, RT	55	---
1081+82	-	1082+32	IH 41 SB, LT	55	---
		TOTALS		**110**	**1,130**

REMOVING FENCE

STATION	TO	STATION	LOCATION	204.0170 LF
60+25	-	62+98	CTH CC, RT	375
62+95	-	62+98	CTH CC, LT	75
65+02	-	66+97	CTH CC, RT	255
65+05	-	66+98	CTH CC, LT	290
		TOTAL		**995**

3

DIVISION	FROM/TO STATION	LOCATION	205.0100 COMMON EXCAVATION (1)		SALVAGED/UNUSABLE PAVEMENT MATERIAL (3)	AVAILABLE MATERIAL (4)	UNEXPANDED FILL	EXPANDED FILL (5)	MASS ORDINATE +/- (6)	WASTE	208.0100 BORROW	COMMENT
			CUT (2)	EBS EXCAVATION				FACTOR 1.33				
DIVISION 1												
CTH CC (ROSEHILL RD)	55+00.00/69+50.00		2,458	0	0	2,458	35,605	47,355	-44,897	0	44,897	
DIVISION 1 SUBTOTAL			2,458	0	0	2,458	35,605	47,355	-44,897	0	44,897	
DIVISION 2												
41-MED-CC	1079+04.21/1085+05.87		0	0	0	0	109	145	-145	0	145	
DIVISION 2 SUBTOTAL			0	0	0	0	109	145	-145	0	145	
GRAND TOTAL			2,458	0	0	2,458	35,714	47,500	-45,042	0	45,042	
TOTAL COMMON EXC			2,458									

NOTES:

(1) COMMON EXCAVATION IS THE SUM OF THE CUT AND EBS EXCAVATION COLUMNS. ITEM NUMBER 205.0100

(2) SALVAGED/UNSUABLE PAVEMENT MATERIAL IS INCLUDED IN CUT.

(3) SALVAGED/UNUSABLE PAVEMENT MATERIAL

(4) AVAILABLE MATERIAL = CUT - SALVAGED/UNUSUABLE PAVEMENT MATERIAL

(5) EXPANDED FILL = UNEXPANDED FILL * FILL FACTOR

(6) THE MASS ORDINATE + OR - QTY CALCULATED FOR THE DIVISION. PLUS QUANTITY INDICATES AN EXCESS OF MATERIAL WITHIN THE DIVISION. MINUS INDICATES A SHORTAGE OF MATERIAL WITHIN THE DIVISION.

AGGREGATE MATERIALS

CATEGORY	STATION	TO	STATION	LOCATION	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	312.0110 SELECT CRUSHED MATERIAL TON	624.0100 WATER MGAL	REMARKS
1000	55+00	-	55+25	CTH CC	5	90	---	2	
1000	55+25	-	63+01	CTH CC	---	1,260	3,010	67	
1000	65+08	-	69+25	CTH CC	---	755	1,620	37	
1000	69+25	-	69+50	CTH CC	5	90	---	2	
1000	1074+00	-	1086+00	IH 41 NB, LT & RT	60	11	---	1	AGGREGATE SHOULDER RESTORATION
1000	1079+00	-	1090+00	IH 41 SB, LT & RT	60	11	---	1	AGGREGATE SHOULDER RESTORATION
1000	62+57	-	63+01	CTH CC	---	10	---	---	AGGREGATE BELOW PROPOSED SIDEWALK
1000	65+08	-	65+52	CTH CC	---	10	---	---	AGGREGATE BELOW PROPOSED SIDEWALK
1600	UNDISTRIBUTED			---	---	1	---	---	
1610	UNDISTRIBUTED			---	---	1	---	---	
1620	UNDISTRIBUTED			---	---	1	---	---	
1630	55+25	-	63+01	CTH CC, RT	---	93	---	---	AGGREGATE BELOW PROPOSED SIDEWALK
1630	65+08	-	69+25	CTH CC, RT	---	47	---	---	AGGREGATE BELOW PROPOSED SIDEWALK
			CATEGORY 1000 TOTALS		130	2,237	4,630	110	
			CATEGORY 1600 TOTALS		0	1	0	0	
			CATEGORY 1610 TOTALS		0	1	0	0	
			CATEGORY 1620 TOTALS		0	1	0	0	
			CATEGORY 1630 TOTALS		0	140	0	0	
			PROJECT TOTALS		**130**	**2,380**	**4,630**	**110**	

CONCRETE ITEMS

CATEGORY	STATION	TO	STATION	LOCATION	415.0080 CONCRETE PAVEMENT 8-INCH SY	415.0410 CONCRETE PAVEMENT APPROACH SLABS SY	601.0155 CONCRETE CURB INTEGRAL TYPE J LF	601.0590 CONCRETE CURB & GUTTER 4-INCH SLOPED 36-INCH TYPE TBTT LF	602.0405 CONCRETE SIDEWALK 4-INCH SF
1000	55+25	-	63+01	CTH CC	3,040	40	1,340	125	---
1000	65+08	-	69+25	CTH CC	1,600	40	620	125	---
1000	62+57	-	63+01	CTH CC	---	---	---	---	500
1000	65+08	-	65+52	CTH CC	---	---	---	---	500
1630	55+25	-	62+57	CTH CC, RT	---	---	---	---	4,380
1630	65+52	-	69+25	CTH CC, RT	---	---	---	---	2,228
			CATEGORY 1000 TOTALS		4,640	80	1960	250	1,000
			CATEGORY 1630 TOTALS		0	0	0	0	6,608
			TOTALS		**4,640**	**80**	**1,960**	**250**	**7,608**

HMA PAVEMENT AND RUMBLE STRIPS

STATION	TO	STATION	LOCATION	455.0605 TACK COAT GAL	460.5223 HMA PAVEMENT 3 LT 58-28 S TON	460.5224 HMA PAVEMENT 4 LT 58-28 S TON	465.0510 ASPHALTIC SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY LF
55+00	-	55+25	CTH CC	7	18	10	---
69+25	-	69+50	CTH CC	7	18	10	---
1072+35	-	1085+05	IH 41 NB, LT	40	---	75	1,270
1079+05	-	1091+75	IH 41 SB, RT	40	---	75	1,270
1081+78	-	1082+29	IH 41 NB, RT	---	---	15	50
1081+82	-	1082+32	IH 41 SB, LT	---	---	15	50
		TOTALS		**94**	**36**	**200**	**2,640**

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TEMPORARY CONCRETE BARRIER

STATION	TO	STATION	LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	603.8500 ANCHORING CONCRETE BARRIER TEMPORARY PRECAST LF	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH LF	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
1072+75	-	1085+05	IH 41 NB, LT	1,230	1,330	50	1	2	OM-3L	TL-3	UNIDIRECTIONAL	R	TEMPORARY BARRIER WALL
1072+75	-	1085+05	IH 41 NB, RT	1,230	1,430	175	1	2	OM-3R	TL-3	UNIDIRECTIONAL	L	TEMPORARY BARRIER WALL
1079+05	-	1091+35	IH 41 SB, RT	1,230	1,330	50	1	2	OM-3L	TL-3	UNIDIRECTIONAL	R	TEMPORARY BARRIER WALL
1079+05	-	1091+35	IH 41 SB, LT	1,230	1,430	175	1	2	OM-3R	TL-3	UNIDIRECTIONAL	L	TEMPORARY BARRIER WALL
		TOTALS		**4,920**	**5,520**	**450**	**4**						

FLUMES AND SURFACE DRAINS

STATION	LOCATION	465.0315 ASPHALTIC FLUMES SY	602.3010 CONCRETE SURFACE DRAINS CY
55+19	CTH CC, LT	12	---
55+19	CTH CC, RT	15	---
65+30	CTH CC, LT	---	2.5
65+30	CTH CC, RT	---	2.5
69+31	CTH CC, LT	9	---
69+31	CTH CC, RT	9	---
	TOTALS	**45**	**5**

GUARDRAIL

STATION	TO	STATION	LOCATION	614.0115 ANCHORAGES FOR STEEL PLATE BEAM GUARD TYPE 2 EACH	614.0220 STEEL THRIE BEAM BULLNOSE TERMINAL EACH	614.0230 STEEL THRIE BEAM LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF	614.2300 MGS GUARDRAIL 3 LF	614.2500 MGS THRIE BEAM TRANSITION LF	614.2610 MGS GUARDRAIL TERMINAL EAT EACH
60+92	-	62+60	CTH CC, LT	---	---	---	---	---	75	39.4	1
60+92	-	62+60	CTH CC, RT	---	---	---	---	---	75	39.4	1
65+50	-	67+17	CTH CC, LT	---	---	---	---	---	75	39.4	1
65+50	-	67+17	CTH CC, RT	---	---	---	---	---	75	39.4	1
1079+33	-	1082+49	IH 41 NB, RT	1	---	---	89	225	---	---	---
1084+14	-	1082+96	IH 41 NB, LT	---	2	150	---	---	---	---	---
1081+61	-	1084+76	IH 41 SB, LT	1	---	---	114	200	---	---	---
		TOTALS		**2**	**2**	**150**	**203**	**425**	**300**	**157.6**	**4**

RESTORATION

STATION	TO	STATION	LOCATION	625.0100 TOPSOIL SY	628.2023 EROSION MAT CLASS II TYPE B SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB	630.0200 SEEDING TEMPORARY LB	630.0300 SEEDING BORROW PIT LB	630.0500 SEED WATER MGAL
55+00	-	63+50	CTH CC, LT	5,900	5,900	3.7	265	75	---	135
55+00	-	63+50	CTH CC, RT	7,260	7,260	4.6	330	100	---	165
64+50	-	69+50	CTH CC, LT	2,320	2,320	1.5	100	20	---	50
64+50	-	69+50	CTH CC, RT	2,200	2,200	1.4	100	20	---	50
1079+00	-	10+85	IH 41 NB, LT	2,130	2,130	1.3	100	20	---	50
		UNDISTRIBUTED		2,000	2,000	1.5	90	30	40	45
		TOTALS		**21,810**	**21,810**	**14**	**985**	**265**	**40**	**495**

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REMOVING INLETS

CATEGORY	STATION	OFFSET	204.0220 EACH
1000	65+27 CC	12.0 'LT	1
	65+27 CC	17.0 'RT	1
		TOTAL	2

REMOVING STORM SEWER

CATEGORY	STATION	LOCATION	204.0245.01 12-INCH LF
1000	65+27 CC	LT	30
	65+27 CC	LT	40
		TOTAL	70

STORM SEWER PIPE REINFORCED CONCRETE

CATEGORY	FROM STRUCTURE	TO STRUCTURE	608.0312 CLASS III 12-INCH LF
1000	9401	9400	19
	9402	9403	19
	9405	9406	35
	9406	9407	20
	9415	9416	19
	9417	9418	20
	9421	9420	18
	9422	9423	18
		TOTALS	167

MANHOLES AND INLETS SUMMARY

CATEGORY	STRUCTURE NUMBER	STATION	OFFSET	611.3230 INLETS 2X3-FT EACH	611.3220 INLETS 2X2-FT EACH	611.0630 INLET COVERS TYPE HM-GJ EACH	611.0654 INLET COVERS TYPE V EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH*
1000	9401	68+25.00 CC	17.5 ' LT	1	-	1	-	1
	9402	68+25.00 CC	17.5 ' RT	1	-	1	-	1
	9405	65+95.11 CC	17.3 ' LT	-	1	-	1	1
	9406	65+95.08 CC	17.3 ' RT	-	1	-	1	1
	9415	59+85.00 CC	17.5 ' LT	1	-	1	-	1
	9417	59+85.00 CC	17.5 ' RT	1	-	1	-	1
	9421	57+50.00 CC	17.5 ' LT	1	-	1	-	1
	9422	57+50.00 CC	17.5 ' RT	1	-	1	-	1
			TOTALS	6	2	6	2	8

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

APRON ENDWALLS AND RIP RAP SUMMARY

CATEGORY	STRUCT. NO.	STATION	OFFSET	522.1012 APRON ENDWALLS FOR CULVERT PIPE REINFORCED CONCRETE 12-INCH EACH	633.5200 MARKERS CULVERT END EACH	650.4000 CONSTRUCTION STAKING STORM SEWER EACH*	606.0200 RIPRAP MEDIUM CY	645.0120 GEOTEXTILE TYPE HR SY
1000	9400	68+25.00 CC	36.1 ' LT	1	1	1	1	5
	9403	68+25.00 CC	36.4 ' RT	1	1	1	1	5
	9407	65+95.16 CC	37.0 ' RT	1	1	1	7	28
	9416	59+85.00 CC	37.0 ' LT	1	1	1	9	35
	9418	59+85.00 CC	37.1 ' RT	1	1	1	9	35
	9420	57+50.00 CC	35.3 ' LT	1	1	1	6	25
	9423	57+50.00 CC	35.4 ' RT	1	1	1	7	28
			TOTALS	7	7	7	40	161

*ADDITIONAL QUANTITIES LISTED ELSEWHERE.

EROSION CONTROL

STATION	TO	STATION	LOCATION	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7005 INLET PROTECTION TYPE A EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7504 TEMPORARY DITCH CHECKS LF	628.7555 CULVERT PIPE CHECKS EACH	628.7560 TRACKING PADS EACH	628.7570 ROCK BAGS EACH	606.0200* RIPRAP MEDIUM CY	645.0120* GEOTEXTILE TYPE HR SY	645.0130 GEOTEXTILE TYPE R SY	628.7515.S STONE DITCH CHECKS CY	REMARKS
55+00	-	63+50	CTH CC, LT	875	1,750	2	2	75	---	1	40	---	---	40	10	ITEMS 645.0130 & 628.7515.S FOR 2 TEMPORARY STONE DITCH CHECKS
55+00	-	63+50	CTH CC, RT	355	710	2	2	60	---	---	20	---	---	40	10	ITEMS 645.0130 & 628.7515.S FOR 2 TEMPORARY STONE DITCH CHECKS
64+50	-	69+50	CTH CC, LT	340	680	2	2	45	---	1	40	20	55	20	5	ITEMS 645.0130 & 628.7515.S FOR 1 TEMPORARY STONE DITCH CHECK
64+50	-	69+50	CTH CC, RT	335	670	2	2	45	5	---	20	25	65	20	5	ITEMS 645.0130 & 628.7515.S FOR 1 TEMPORARY STONE DITCH CHECK
1079+00	-	10+85	IH 41 NB, LT	---	---	---	---	40	---	---	---	---	---	---	---	
UNDISTRIBUTED				200	400	---	---	30	---	---	20	5	15	40	10	ITEMS 645.0130 & 628.7515.S FOR 2 TEMPORARY STONE DITCH CHECKS
TOTALS				**2,105**	**4,210**	**8**	**8**	**295**	**5**	**2**	**140**	**50**	**135**	**160**	**40**	

*-ADDITIONAL QUANTITIES SHOWN ELSEWHERE

EROSION CONTROL MOBILIZATIONS

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT	6	4
TOTAL	**6**	**4**

TRAFFIC CONTROL COVERING SIGNS TYPE II

STAGE	LOCATION	643.0920 EACH	REMARKS
1	IH 41 SB	16	2 SIGNS AT 8 CYCLES
	IH 41 NB	8	1 SIGN AT 8 CYCLES
	STAGE 1 SUBTOTALS	24	
2	CTH CC AND ADJACENT ROADWAYS STG 2-5	4	SIGNS TO REMAIN COVERED THROUGHOUT DETOUR (4 SIGNS AT 1 CYCLE)
	STAGE 2 SUBTOTALS	4	
3	IH 41 SB	50	2 SIGNS AT 25 CYCLES
	IH 41 NB	25	1 SIGN AT 25 CYCLES
	STAGE 3 SUBTOTALS	75	
4	IH 41 SB	4	2 SIGNS AT 2 CYCLES
	IH 41 NB	3	1 SIGN AT 3 CYCLES
	STAGE 4 SUBTOTALS	7	
5	IH 41 SB	40	2 SIGNS AT 20 CYCLES
	IH 41 NB	20	1 SIGN AT 20 CYCLES
	STAGE 5 SUBTOTALS	60	
	TOTALS	**170**	

TRAFFIC CONTROL

STAGE	LOCATION	APPROXIMATE SERVICE DAYS	643.0300 DRUMS NO. IN SERVICE	643.0300 DRUMS DAYS	643.0420 BARRICADES TYPE III NO. IN SERVICE	643.0420 BARRICADES TYPE III DAYS	643.0705 WARNING LIGHTS TYPE A NO. IN SERVICE	643.0705 WARNING LIGHTS TYPE A DAYS	643.0715 WARNING LIGHTS TYPE C NO. IN SERVICE	643.0715 WARNING LIGHTS TYPE C DAYS	643.0800 ARROW BOARDS NO. IN SERVICE	643.0800 ARROW BOARDS DAYS	643.0900 SIGNS NO. IN SERVICE	643.0900 SIGNS DAYS	643.1050 PCMS SIGNS NO. IN SERVICE	643.1050 PCMS SIGNS DAYS
1	CTH CC	14	10	70	--	--	--	--	--	--	--	--	8	112	2	14
	IH 41 NB INSIDE LANE CLOSURE	2	120	240	2	4	4	8	15	30	2	4	16	32	1	7
	IH 41 NB OUTSIDE LANE CLOSURE	1	120	120	2	2	4	4	15	15	2	2	16	16	--	--
	IH 41 SB INSIDE LANE CLOSURE	2	200	400	6	12	12	24	30	60	2	4	25	50	1	7
	IH 41 SB OUTSIDE LANE CLOSURE	1	215	215	5	5	10	10	50	50	2	2	26	26	--	--
	IH 41 CABLE BARRIER REMOVAL CLOSURE	2	70	140	6	12	12	24	15	30	1	2	16	32	--	--
	IH 41 NB & SB SHOULDER CLOSURES	14	110	1,540	--	--	--	--	--	--	4	56	16	224	--	--
	STAGE 1 SUBTOTALS			2,725		35		70		185		70		492		28
2	CTH CC	7	--	--	18	126	30	210	--	--	--	--	16	112	--	--
	CTH CC DETOUR	7	--	--	8	56	16	112	--	--	--	--	45	315	--	--
	IH 41 NB FULL CLOSURE	2	200	400	24	48	37	74	90	180	4	8	49	98	2	14
	IH 41 SB FULL CLOSURE	2	130	260	12	24	19	38	35	70	2	4	25	50	1	7
	IH 41 SB DETOUR	2	--	--	--	--	--	--	--	--	--	--	--	--	9	18
	IH 41 NB DETOUR	2	--	--	--	--	--	--	--	--	--	--	--	--	8	16
	IH 41 NB & SB SHOULDER CLOSURES	7	110	770	--	--	--	--	--	--	4	28	16	112	--	--
	STAGE 2 SUBTOTALS			1,430		254		434		250		40		687		55
3	CTH CC	47	--	--	18	846	30	1,410	--	--	--	--	16	752	--	--
	CTH CC DETOUR	47	--	--	8	376	16	752	--	--	--	--	45	2,115		
	IH 41 NB OUTSIDE LANE CLOSURE	10	120	1,200	2	20	4	40	15	150	2	20	16	160	--	--
	IH 41 SB OUTSIDE LANE CLOSURE	10	215	2,150	5	50	10	100	50	500	2	20	26	260	--	--
	IH 41 NB INSIDE LANE CLOSURE	15	120	1,800	2	30	4	60	15	225	2	30	16	240	--	--
	IH 41 SB INSIDE LANE CLOSURE	15	200	3,000	6	90	12	180	30	450	2	30	25	375	--	--
	IH 41 NB & SB SHOULDER CLOSURES	47	110	5,170	--	--	--	--	--	--	4	188	16	752	--	--
	STAGE 3 SUBTOTALS			13,320		1,412		2,542		1,325		288		4,654		--
4	CTH CC	4	--	--	18	72	30	120	--	--	--	--	16	64	--	--
	CTH CC DETOUR	4	--	--	8	32	16	64	--	--	--	--	45	180	--	--
	IH 41 NB FULL CLOSURE	1	200	200	24	24	37	37	90	90	2	2	49	49	2	14
	IH 41 SB FULL CLOSURE	1	130	130	12	12	19	19	35	35	2	2	25	25	1	7
	IH 41 SB DETOUR	2	--	--	--	--	--	--	--	--	--	--	--	--	9	18
	IH 41 NB DETOUR	2	--	--	--	--	--	--	--	--	--	--	--	--	8	16
	IH 41 NB INSIDE LANE CLOSURE	2	120	240	2	4	4	8	15	30	2	4	16	32	--	--
	IH 41 NB OUTSIDE LANE CLOSURE	1	120	120	2	2	4	4	15	15	2	2	16	16	--	--
	IH 41 SB INSIDE LANE CLOSURE	1	200	200	6	6	12	12	30	30	2	2	25	25	--	--
	IH 41 SB OUTSIDE LANE CLOSURE	1	215	215	5	5	10	10	50	50	2	2	26	26	--	--
	IH 41 NB & SB SHOULDER CLOSURES	4	110	440	--	--	--	--	--	--	4	16	16	64	--	--
	STAGE 4 SUBTOTALS			1,545		157		274		250		30		481		55
5	CTH CC	89	--	--	24	2,136	38	3,382	--	--	--	--	16	1,424	--	--
	CTH CC DETOUR	89	--	--	8	712	16	1,424	--	--	--	--	45	4,005	--	--
	IH 41 NB INSIDE LANE CLOSURE	10	120	1,200	2	20	4	40	15	150	2	20	17	170	--	--
	IH 41 NB OUTSIDE LANE CLOSURE	10	120	1,200	2	20	4	40	15	150	2	20	17	170	--	--
	IH 41 SB INSIDE LANE CLOSURE	10	200	2,000	6	60	12	120	30	300	2	20	27	270	--	--
	IH 41 SB OUTSIDE LANE CLOSURE	10	215	2,150	5	50	10	100	50	500	2	20	23	230	--	--
	IH 41 NB & SB SHOULDER CLOSURES	60	110	6,600	--	--	--	--	--	--	4	240	16	960	--	--
	STAGE 5 SUBTOTALS			13,150		2,998		5,106		1,100		320		7,229	0	0
	UNDISTRIBUTED	--	--	--	--	--	--	--	--	--	--	--	--	450	--	--
	SUBTOTALS			--		--		--		--		--		450		--
	TOTALS		**32,170**		**4,856**		**8,426**		**3,110**		**748**		**13,993**		**138**	

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ERECTION & REMOVAL OF PERMANENT SIGNING, TYPE II

SIGN NO.	LOCATION	SIGN CODE	W X H	637.2210 SIGNS TYPE II REFLECTIVE TYPE H S.F.	637.2230 SIGNS TYPE II REFLECTIVE TYPE F S.F.	634.0614 POSTS WOOD 4x6x14 EACH	634.0616 POSTS WOOD 4x6x16 EACH	638.2102 MOVING SIGNS TYPE II EACH	638.4000 MOVING SMALL SIGN SUPPORTS EACH	638.2602 REMOVING SIGNS TYPE II EACH	638.3000 REMOVING SMALL SIGN SUPPORTS EACH	REMARKS
1	CTH CC, S. OF IH 41	R2-1	24" X 30"	5.00	---	1	---	---	---	1	1	35 MPH
2	"	R2-1	---	---	---	---	---	---	---	1	1	
3	"	R2-1	24" X 30"	5.00	---	1	---	---	---	---	---	
4	"	W1-4L	---	---	---	---	---	---	---	1	1	INCLUDES W13-1 REMOVAL
5	"	W3-5	36" X 36"	---	9.00	---	1	---	---	1	1	35 MPH
6	IH 41, MEDIAN BELOW CTH CC STRUCTURE	D1-1	---	---	---	---	---	1	2	---	---	
7		D1-1	---	---	---	---	---	1	2	---	---	
8		D10-5	---	---	---	---	---	1	---	---	---	
9		D10-5	---	---	---	---	---	1	---	---	---	
10	CTH CC, N. OF IH 41	W1-4L	---	---	---	---	---	---	---	1	1	INCLUDES W13-1 REMOVAL
11	"	R2-1	---	---	---	---	---	---	---	1	1	
	TOTALS			**10.00**	**9.00**	**2**	**1**	**4**	**4**	**6**	**6**	

PAVEMENT MARKING

STATION	TO	STATION	LOCATION	646.2020 MARKING LINE EPOXY 6-INCH (WHITE) LF	646.2020 MARKING LINE EPOXY 6-INCH (YELLOW) LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH (WHITE) LF	646.4520 MARKING LINE SAME DAY EPOXY 4-INCH (YELLOW) LF	648.0100 LOCATING NO-PASSING ZONES MI
55+00	-	69+50	CTH CC	2,900	1,950	---	---	0.28
1072+35	-	1085+55	IH 41 NB, LT	---	---	---	1,520	---
1078+55	-	1091+75	IH 41 SB, RT	---	---	---	1,520	---
1081+78	-	1082+29	IH 41 NB, RT	---	---	100	---	---
1081+82	-	1082+32	IH 41 SB, LT	---	---	100	---	---
			SUBTOTALS	2,900	1,950	200	3,040	0.28
			TOTALS	**4,850**		**3,240**		**0.28**

SAWING ASPHALT

STATION	TO	STATION	LOCATION	690.0150 LF
	55+00		CTH CC	25
	69+50		CTH CC	25
1081+78	-	1082+29	IH 41 NB, RT	70
1081+82	-	1082+32	IH 41 SB, LT	70
			TOTALS	**190**

BASIC QUEUE WARNING SYSTEM

LOCATION	STAGE	FLASHING BEACON SIGNS (FBS)	643.1205.S DAY
IH 41 NB	1, 2, 3, 4 AND A PORTION OF 5	3	140
IH 41 SB	1, 2, 3, 4 AND A PORTION OF 5	3	140
		TOTAL	280

CONSTRUCTION STAKING

STATION	TO	STATION	LOCATION	650.4500 SUBGRADE LF	650.5000 BASE LF	650.6501 STRUCTURE LAYOUT EACH	650.7000 CONCRETE PAVEMENT LF	650.8501 ELECTRICAL INSTALLATIONS EACH	650.9500 SIDEWALK EACH	650.9911 SUPPLEMENTAL CONTROL EACH	650.9920 SLOPE STAKES LF
55+00	-	63+01	CTH CC	801	25	---	776	---	---	---	801
65+08	-	69+50	CTH CC	442	25	---	417	---	---	---	442
1079+00	-	1086+00	IH 41 NB, LT	---	---	---	---	---	---	---	700
1079+00	-	1086+00	IH 41 SB, RT	---	---	---	---	---	---	---	700
		PROJECT		---	---	1	---	1	1	1	---
		TOTALS		**1,243**	**50**	**1**	**1,193**	**1**	**1**	**1**	**2,643**

DIGITAL SPEED REDUCTION SYSTEM

LOCATION	STAGE	PORTABLE CHANGEABLE MESSAGE SIGN (PCMS)**	DIGITAL SPEED LIMIT TRAILERS**	SPV.0045.01 DIGITAL SPEED REDUCTION SYSTEM (DSRS) DAY
IH 41 NB	1, 2, 3, 4 AND A PORTION OF 5	1	2	150
IH 41 SB	1, 2, 3, 4 AND A PORTION OF 5	1	3	150
			TOTAL	300

**FOR INFORMATION ONLY

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STREET LIGHTS

LIGHT NUMBER		STATION	OFFSET	R/L	654.0105 CONCRETE BASES TYPE 5 EACH
ALL ITEMS ARE CATEGORY 1100					
SL	100	56+63'CC'	27.3'	RT	1
SL	101	58+59'CC'	27.3'	RT	1
SL	102	60+57'CC'	31.2'	RT	1
SL	103	62+53'CC'	31.3'	RT	1
SL	104	65+56'CC'	31.3'	RT	1
SL	105	67+54'CC'	31.1	RT	1
PROJECT TOTAL					**6**

LIGHTING PULLBOXES

PULLBOX NUMBER	STATION	OFFSET	R/L	653.0164 PULL BOXES NON-CONDUCTIVE 24X42-INCH EACH
ALL ITEMS ARE CATEGORY 1100				
LPB 100	56+63'CC'	27.5'	LT	1
LPB 101	62+73'CC'	30.8'	RT	1
LPB 102	65+37'CC'	31.4'	RT	1
LPB 103	69+22'CC'	22.1'	RT	1
PROJECT TOTAL				**4**

3

LIGHTING CONDUIT AND WIRE

FROM	-	TO	652.0125 CONDUIT RIGID METALLIC 2-INCH LF	652.0225 CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0335 CONDUIT RIGID NONMETALLIC SCHEDULE 80 3-INCH LF	REMARKS
ALL ITEMS ARE CATEGORY 1100						
LPB 100	-	SL 100	--	--	55	PULL WIRE ONLY
SL 100	-	SL 101	--	200	--	PULL WIRE ONLY
SL 101	-	SL 102	--	200	--	PULL WIRE ONLY
SL 102	-	SL 103	--	200	--	PULL WIRE ONLY
SL 103	-	LPB 101	--	25	--	PULL WIRE ONLY
LPB 101	-	LPB 102	30	--	--	CONDUIT TO STRUCTURE B-44-0333 / PULL WIRE ONLY
LPB 101	-	LPB 102	30	--	--	CONDUIT TO STRUCTURE B-44-0333 / PULL WIRE ONLY
LPB 101	-	LPB 102	30	--	--	CONDUIT TO STRUCTURE B-44-0333 / PULL WIRE ONLY
LPB 101	-	LPB 102	30	--	--	CONDUIT TO STRUCTURE B-44-0333 / PULL WIRE ONLY
LPB 102	-	SL 104	--	25	--	PULL WIRE ONLY
SL 104	-	SL 105	--	200	--	PULL WIRE ONLY
SL 105	-	LPB 103	--	180	--	PULL WIRE ONLY
PROJECT TOTAL			**120**	**1030**	**55**	

TRANSPORTATION PROJECT PLAT NO: 1130-63-21 - 4.28

THAT PART OF LOT 1 AND LOT 2 OF CERTIFIED SURVEY MAP 2995, BEING IN AND INCLUDING PART OF THE NORTHEAST 1/4 OF THE NORTHEAST 1/4, SECTION 15, AND THAT PART OF THE NORTHWEST 1/4 OF THE NORTHWEST 1/4, AND THAT PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4, SECTION 14, TOWNSHIP 21 NORTH, RANGE 18 EAST, TOWN OF VANDENBROEK, ALSO THAT PART OF LOT 1 OF CERTIFIED SURVEY MAP 6284, BEING IN PART OF THE SOUTHEAST 1/4 OF THE NORTHEAST 1/4, SECTION 15, AND THAT PART OF LOT 1 OF CERTIFIED SURVEY MAP 6284, AND THAT PART OF LOT 1 OF CERTIFIED SURVEY MAP 2775, AND THAT PART OF LOT 13 OF EBBEN'S INDUSTRIAL PARK PLAT, BEING IN PART OF THE SOUTHWEST 1/4 OF THE NORTHWEST 1/4, SECTION 14, TOWNSHIP 21 NORTH, RANGE 18 EAST, VILLAGE OF LITTLE CHUTE, ALL IN OUTAGAMIE COUNTY, WISCONSIN.

RELOCATION ORDER IH-41 APPLETON-DE PERE STH 96 - CTH F OUTAGAMIE & BROWN COUNTIES

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

R/W STATION & OFFSET TABLE		
POINT	STATION	OFFSET
2710	1055+83.15	118.00' LT
2711	1055+83.23	0.00' RT
2712	1055+83.30	105.00' RT
2800	1068+78.10	118.00' LT
2801	1069+65.76	118.00' LT
2802	1079+85.92	269.34' LT
2803	1079+84.34	505.56' LT
2804	1081+55.08	506.63' LT
2805	1081+54.83	545.03' LT
2806	1081+68.65	545.11' LT
2807	1082+08.65	545.37' LT
2808	1082+12.29	0.00' RT
2809	1082+12.77	71.06' RT
2810	1082+19.61	904.61' RT
2811	1081+65.41	905.05' RT
2812	1081+53.36	905.16' RT
2813	1081+18.46	521.40' RT
2814	1081+17.25	373.57' RT
2815	1081+04.77	370.87' RT
2816	1081+03.09	120.00' RT
2817	1070+47.33	120.00' RT
2818	1069+87.33	164.00' RT
2819	1068+77.93	140.30' RT
2820	1068+67.33	138.00' RT
2821	1068+07.33	138.00' RT
2822	1067+50.00	105.00' RT
2823	1068+78.06	0.00' RT

TLE STATION & OFFSET TABLE		
POINT	STATION	OFFSET
T2830	1067+67.37	115.00' RT
T2831	1059+17.33	115.00' RT
T2832	1059+17.33	105.00' RT
T2833	1081+18.26	497.20' RT
T2834	1081+13.26	497.25' RT
T2835	1081+12.24	372.49' RT

COURSE TABLE		
COURSE	BEARING	DISTANCE
2800-2801	S89° 40' 57"E	87.60'
2801-2802	N81° 52' 45"E	1031.33'
2802-2803	N00° 03' 54"W	236.22'
2803-2804	N89° 57' 31"E	170.74'
2804-2805	N00° 03' 16"W	38.40'
2805-2806	N90° 00' 00"E	13.82'
2806-2807	N89° 56' 06"E	40.00'
2807-2808	S00° 03' 54"E	545.38'
2808-2809	S00° 03' 54"E	71.07'
2809-2810	S00° 09' 09"E	833.57'
2810-2811	S89° 50' 51"W	54.20'
2811-2812	S89° 49' 05"W	12.06'

COURSE TABLE		
COURSE	BEARING	DISTANCE
2812-2813	N04° 52' 42"W	385.34'
2813-2814	N00° 09' 09"W	147.83'
2814-2815	N77° 27' 17"W	12.76'
2815-2816	N00° 03' 54"W	250.87'
2816-2817	N89° 40' 57"W	1055.77'
2817-2818	S54° 03' 45"W	74.41'
2818-2819	N77° 27' 26"W	111.93'
2819-2820	N77° 27' 26"W	10.85'
2820-2821	N89° 40' 57"W	60.00'
2821-2822	N59° 45' 10"W	66.15'
2822-2712	N89° 40' 57"W	1166.70'
2710-2800	S89° 40' 57"E	1295.01'

UTILITY INTERESTS REQUIRED

UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
502	AT&T WISCONSIN	RELEASE OF RIGHTS
503	SPECTRUM	RELEASE OF RIGHTS
523	KAUKAUNA UTILITIES - ELECTRICITY	RELEASE OF RIGHTS
524	KAUKAUNA UTILITIES - WATER	RELEASE OF RIGHTS

(502) AT&T WISCONSIN
NO RECORDED EASEMENT - PARCEL 282
DOC 1522558 - PARCEL 284
DOC 1205530 & DOC 1911813 - PARCEL 285

(503) SPECTRUM (TIME WARNER)
DOC 1205530 & DOC 1911813 - PARCEL 285

(523) KAUKAUNA UTILITIES - ELECTRICITY
DOC 1205530 & DOC 1911813 - PARCEL 285

(524) KAUKAUNA UTILITIES - WATER
DOC 1205530 & DOC 1911813 - PARCEL 285

FOUND
RAILROAD SPIKE
Y=576614.312
X=857214.322

T 21 N, R 18 E

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), OUTAGAMIE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1" X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

FOUND IRON PINS ARE 3/4" REBAR WITH PLASTIC CAP, UNLESS OTHERWISE NOTED.

EXISTING ACCESS CONTROL FOR IH-41 ESTABLISHED FROM PREVIOUS PROJECT T03-2(28), 1123-01-22.

EXISTING ACCESS CONTROL FOR CTH CC/ROSEHILL RD ESTABLISHED FROM PREVIOUS PROJECT T03-2(28).

EXISTING RIGHT-OF-WAY FOR IH-41 ESTABLISHED FROM PREVIOUS PROJECTS T03-2(28), 1130-42-00, 1130-63-22, CSM 2995, EBBEN'S INDUSTRIAL PARK PLAT, CSM 6284, AND CSM 2775.

EXISTING RIGHT-OF-WAY FOR CTH CC/ROSEHILL RD ESTABLISHED FROM PREVIOUS PROJECTS T03-2(28), 1130-42-00, 1130-63-22, CSM 2775, AND CSM 2453.

EXISTING RIGHT-OF-WAY FOR LYNN ST ESTABLISHED FROM PREVIOUS PROJECTS CSM 2775, POS A-83-700, AND POS A-81-573.

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

USH 41 IN OUTAGAMIE/BROWN COUNTIES WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 6/8/1972.

SCHEDULE OF SIGN STRUCTURES

SIGN NUMBER	SIGN OWNER(S)	OASIS NUMBER
275-1	LAMAR CENTRAL OUTDOOR, LLC GEORGE EBBEN	004010
279-1	LINK MEDIA WISCONSIN LLC APPLETON BAPTIST TEMPLE INCE	018281

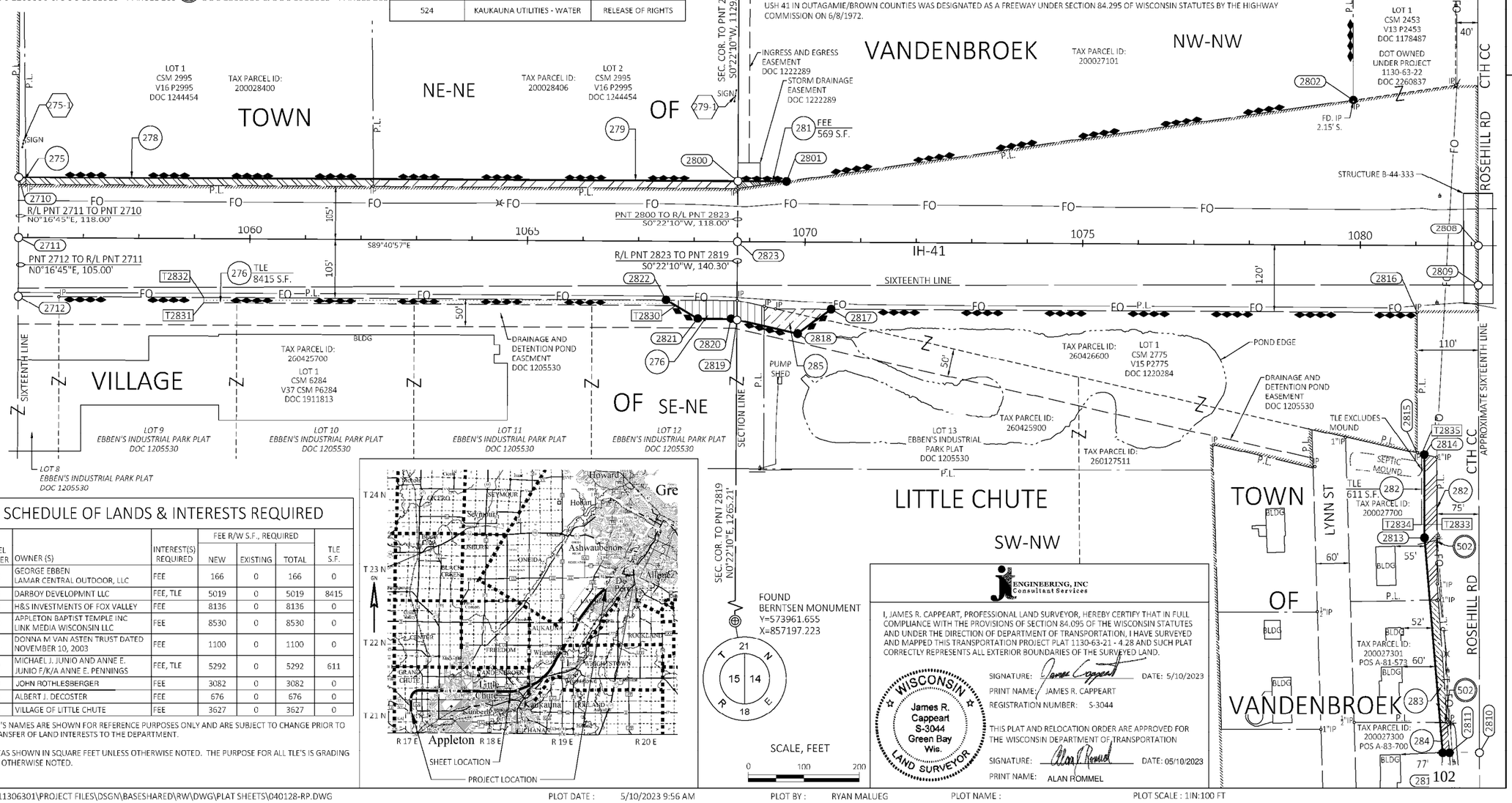
GN

Document #: **2292269**
Date: **05-11-2023** Time: **9:54 AM**
Pages: **1** Fee: **$25.00**
County: **OUTAGAMIE COUNTY** State: **WI**

SARAH R VAN CAMP, REGISTER OF DEEDS
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RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER: 1130-63-21 - 4.28
AMENDMENT NO:

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN OUTAGAMIE COUNTY AS SHEET 2 OF 2 OF DOCUMENT #2288266.



SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST(S) REQUIRED	FEE R/W S.F., REQUIRED NEW	EXISTING	TOTAL	TLE S.F.
275	GEORGE EBBEN LAMAR CENTRAL OUTDOOR, LLC	FEE	166	0	166	0
276	DARBOY DEVELOPMNT LLC	FEE, TLE	5019	0	5019	8415
278	H&S INVESTMENTS OF FOX VALLEY	FEE	8136	0	8136	0
279	APPLETON BAPTIST TEMPLE INC LINK MEDIA WISCONSIN LLC	FEE	8530	0	8530	0
281	DONNA M VAN ASTEN TRUST DATED NOVEMBER 10, 2003	FEE	1100	0	1100	0
282	MICHAEL J. JUNIO AND ANNE E. JUNIO F/K/A ANNE E. PENNINGS	FEE, TLE	5292	0	5292	611
283	JOHN ROTHLESBERGER	FEE	3082	0	3082	0
284	ALBERT J. DECOSTER	FEE	676	0	676	0
285	VILLAGE OF LITTLE CHUTE	FEE	3627	0	3627	0

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED. THE PURPOSE FOR ALL TLE'S IS GRADING UNLESS OTHERWISE NOTED.

FOUND
BERNTSEN MONUMENT
Y=573961.655
X=857197.223

T 21 N, R 18 E

SCALE, FEET
0 100 200

ENGINEERING, INC
Consultant Services

I, JAMES R. CAPPEART, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF DEPARTMENT OF TRANSPORTATION, I HAVE SURVEYED AND MAPPED THIS TRANSPORTATION PROJECT PLAT 1130-63-21 - 4.28 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: _____ DATE: 5/10/2023
PRINT NAME: JAMES R. CAPPEART
REGISTRATION NUMBER: S-3044

WISCONSIN James R. Cappeart S-3044 Green Bay Wis. LAND SURVEYOR

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

SIGNATURE: _____ DATE: 05/10/2023
PRINT NAME: ALAN ROMMEL

FILE NAME : C:\USERS\RYANMA\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\BASESHARED\RW\DWG\PLAT SHEETS\040128-RP.DWG
APPRAISAL PLAT DATE : 5/10/2023
PLOT DATE : 5/10/2023 9:56 AM PLOT BY : RYAN MALUEG PLOT NAME : PLOT SCALE : 1IN:100 FT

TRANSPORTATION PROJECT PLAT NO: 1130-63-21 - 4.29

THAT PART OF LOT 1 OF CSM 779, LOCATED IN AND ALSO INCLUDING PART OF GOVERNMENT LOT 1, SECTION 14, T21N R18E, TOWN OF VANDENBROEK, OUTAGAMIE COUNTY, WISCONSIN.

RELOCATION ORDER IH-41 APPLETON-DE PERE STH 96 - CTH F OUTAGAMIE & BROWN COUNTIES

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), OUTAGAMIE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1" X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING ACCESS CONTROL FOR IH-41 ESTABLISHED FROM PREVIOUS PROJECT T03-2(28).
EXISTING ACCESS CONTROL FOR CTH CC/ROSEHILL ROAD ESTABLISHED FROM PREVIOUS PROJECT T03-2(28).

EXISTING RIGHT-OF-WAY FOR IH-41 ESTABLISHED FROM PREVIOUS PROJECTS T03-2(28), 1130-42-00.
EXISTING RIGHT-OF-WAY FOR CTH CC/ROSEHILL ROAD ESTABLISHED FROM PREVIOUS PROJECTS T03-2(28), 1130-42-00.

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

USH 41 IN OUTAGAMIE/BROWN COUNTIES WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 6/8/1972.

SCHEDULE OF LANDS & INTERESTS REQUIRED

PARCEL NUMBER	OWNER (S)	INTEREST(S) REQUIRED	FEE R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F
			NEW	EXISTING	TOTAL	
297	THOMAS WEYENBERG, ET AL.	FEE, TLE	7531	0	7531	5329
298	VZ SIGN, LLC	FEE	3875	0	3875	0

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED. THE PURPOSE FOR ALL TLE'S IS GRADING UNLESS OTHERWISE NOTED.

SECTION CORNERS AND EXISTING MONUMENTATION WERE PROVIDED BY THE DEPARTMENT AND JT ENGINEERING, INC. FINAL R/W MONUMENTATION TO BE PROVIDED BY JT ENGINEERING, INC.

R/W STATION & OFFSET TABLE		
POINT	STATION	OFFSET
2808	1082+12.29	0.00'
2901	1102+33.08	0.00'
2902	1094+82.84	0.00'
2904	1082+08.32	595.37' LT
2905	1082+53.31	595.67' LT
2906	1082+53.65	545.67' LT
2907	1082+56.65	545.69' LT
2908	1082+64.30	447.94' LT
2909	1082+64.78	376.11' LT
2910	1082+96.43	295.98' LT
2911	1096+20.56	118.00' LT
2912	1100+70.19	123.00' LT
2913	1100+95.32	138.00' LT
2914	1101+51.39	123.02' LT

TLE STATION & OFFSET TABLE		
POINT	STATION	OFFSET
T2930	1082+69.31	595.77' LT
T2931	1082+83.47	445.86' LT
T2932	1082+83.89	380.86' LT
T2933	1083+01.25	325.98' LT
T2934	1083+01.45	295.31' LT

CURVE TABLE				
COURSE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
2901-2902	750.23'	5729.52'	S86° 33' 59"W	749.70'

COURSE TABLE		
COURSE	BEARING	DISTANCE
2901-2902	SEE CURVE TABLE	
2902-2808	N89° 40' 57"W	1270.55'
2808-2904	N00° 03' 54"W	595.38'
2904-2905	N89° 56' 06"E	45.00'
2905-2906	S00° 03' 54"E	50.00'
2906-2907	N89° 56' 44"E	3.00'
2907-2908	S04° 09' 32"E	98.05'
2908-2909	S00° 03' 54"E	71.83'
2909-2910	S21° 14' 09"E	86.15'
2910-2911	S82° 04' 46"E	1333.00'
2911-2912	N86° 02' 30"E	440.09'
2912-2913	N52° 53' 39"E	28.77'
2913-2914	S80° 48' 08"E	56.80'

FOUND ALUMINUM COUNTY MONUMENT
Y=576624.096
X=859527.429

T 21 N R 18 E — 14 GL4, PC 14 35, 14 GL1

GOV'T LOT 1
SEC 14

TOWN OF VANDENBROEK

PRIVATE CLAIM 35

MON. TO R/W
S40°04'36"E 1455.70'

MON. TO MON. AND R/L
S40°04'36"E 1602.88'

PRIVATE CLAIM LINE

CURVE DATA - R/L CURVE 2
PI STA = 1105+44.55
Y = 575346.814
X = 860872.717
DELTA = 20°59'46" LT
D = 1°00'00"
T = 1061.70'
L = 2099.59'
R = 5729.52'
PC STA = 1094+82.84
PT STA = 1115+82.44
DA = N69°19'17"E

STA 1102+33.08 TO
PT STA 1115+82.44
L = 1349.36'
LCH = 1346.24'
LCB = N76°04'06"E
R = 5729.52'

CTH CC/ROSEHILL ROAD

P.I.

2905, 2904, T2930, 2906, 2907, 2908, T2931, 2909, T2932, T2933, 2910, T2934

45'

1" IP

297 TLE - GRADING 5329 S.F.

297 1687 S.F.

APPROXIMATE SIXTEENTH LINE

STRUCTURE B-44-333

2808

TAX PARCEL ID: 200027000

10' WIDE INGRESS/EGRESS EASEMENT DOC. 1133358

5844 S.F. 297

T262

FD. IP

LOT 1 CSM 779 V 4 CSM P 779 DOC 992295

TAX PARCEL ID: 200027001

SIGN EASEMENT DOC. 992279

104.85' (105')

298

2912, 2913, 2914

R/W TO MON. AND R/L
S40°04'36"E 147.18'

FOUND BERNSTEN MONUMENT
Y=575397.600
X=860559.380

MON. TO MON. AND R/L
N40°17'28"W 534.53'

IH-41

1085, 1090, 1095, 1100

S89°40'57"E

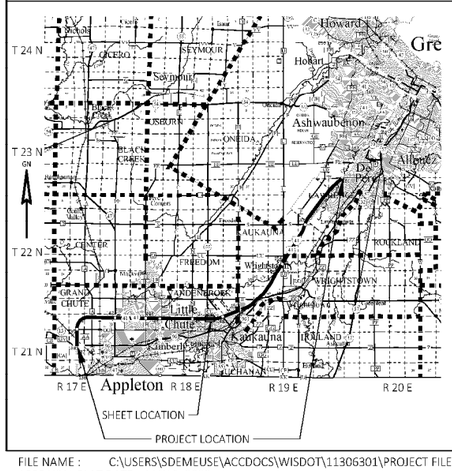
R/L CURVE 2

2901, 2902

PC: 1094+82.84

T 21 N R 18 E — 14 GL2, PC 14 35, PC1

FOUND BERNSTEN MONUMENT
Y=574989.878
X=860905.046



KL Engineering
[A] Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT 1130-63-21 - 4.29 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: _____ DATE: 5/2/2023
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591

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

SIGNATURE: _____ DATE: 05/02/2023
PRINT NAME: ALAN ROMMEL

Document #: **2291895**
Date: **05-04-2023** Time: **9:02 AM**
Pages: **1** Fee: **$25.00**
County: **OUTAGAMIE COUNTY** State: **WI**

SARAH R VAN CAMP, REGISTER OF DEEDS
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RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER: 1130-63-21 - 4.29
AMENDMENT NO:

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN OUTAGAMIE COUNTY AS SHEET 2 OF 2 OF DOCUMENT #2288266.

GN

SCALE, FEET
0 100 200

4

4

FILE NAME : C:\USERS\SDEMEUSE\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\BASESHARED\RW\DWG\PLAT SHEETS\040129-RP.DWG
APPRAISAL PLAT DATE : MAY 2, 2023
PLOT DATE : 5/2/2023 10:02 AM PLOT BY : SCOTT DEMEUSE PLOT NAME : PLOT SCALE :

TRANSPORTATION PROJECT PLAT NO: 1130-63-21 - 4.30

THAT PART OF LOTS 44, 45,49, 50, 51, 52, 53, 54, 55, 56 AND 57, WILDENBERG NORTH 2, LOCATED IN PART OF GOVERNMENT LOT 2, SECTION 14, T21N, R18E, CITY OF KAUKAUNA, AND PART OF GOVERNMENT LOT 1 AND GOVERNMENT LOT 2, SECTION 14, T21N, R18E, TOWN OF VANDENBROEK, OUTAGAMIE COUNTY, WISCONSIN.

RELOCATION ORDER IH-41 APPLETON-DE PERE STH 96 - CTH F OUTAGAMIE & BROWN COUNTIES

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

TO EFFECT THIS CHANGE, PURSUANT TO AUTHORITY GRANTED UNDER SECTION 84.02 (3), 84.09, AND 84.30, WISCONSIN STATUTES, THE DEPARTMENT OF TRANSPORTATION HEREBY ORDERS THAT:
1. THAT PORTION OF SAID HIGHWAY AS SHOWN ON THIS PLAT IS LAID OUT AND ESTABLISHED TO THE LINES AND WIDTHS AS SO SHOWN FOR THE ABOVE PROJECT.
2. THE LANDS OR INTERESTS OR RIGHTS IN LANDS AS SHOWN ON THIS PLAT ARE REQUIRED BY THE DEPARTMENT FOR THE ABOVE PROJECT AND SHALL BE ACQUIRED IN THE NAME OF THE STATE OF WISCONSIN, PURSUANT TO THE PROVISIONS OF SECTION 84.09 (1) OR (2), WISCONSIN STATUTES.

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), OUTAGAMIE COUNTY, NAD83 (2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY 1" X 24" IRON PIPES), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

EXISTING ACCESS CONTROL FOR IH-41 ESTABLISHED FROM PREVIOUS PROJECT T03-2(28).
EXISTING ACCESS CONTROL FOR CTH CC/ROSEHILL ROAD ESTABLISHED FROM PREVIOUS PROJECT T03-2(28).

EXISTING RIGHT-OF-WAY FOR IH-41 ESTABLISHED FROM PREVIOUS PROJECTS T03-2(28), 1130-42-00.
EXISTING RIGHT-OF-WAY FOR CTH CC/ROSEHILL ROAD ESTABLISHED FROM PREVIOUS PROJECTS T03-2(28), 1130-42-00, WILDENBERG NORTH 2, POS 2118144015.

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

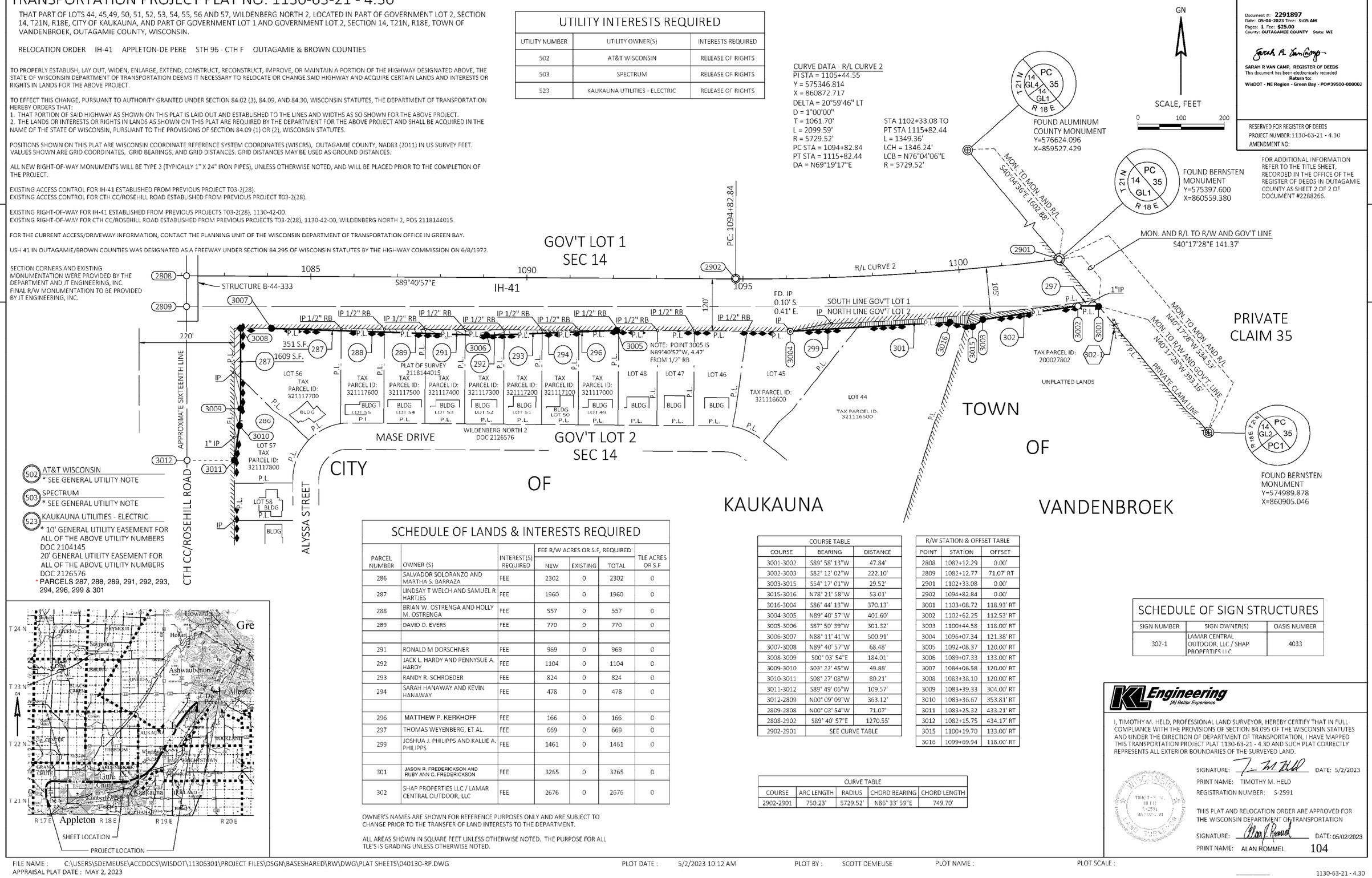
USH 41 IN OUTAGAMIE/BROWN COUNTIES WAS DESIGNATED AS A FREEWAY UNDER SECTION 84.295 OF WISCONSIN STATUTES BY THE HIGHWAY COMMISSION ON 6/8/1972.

SECTION CORNERS AND EXISTING MONUMENTATION WERE PROVIDED BY THE DEPARTMENT AND JT ENGINEERING, INC.
FINAL R/W MONUMENTATION TO BE PROVIDED BY JT ENGINEERING, INC.

UTILITY INTERESTS REQUIRED		
UTILITY NUMBER	UTILITY OWNER(S)	INTERESTS REQUIRED
502	AT&T WISCONSIN	RELEASE OF RIGHTS
503	SPECTRUM	RELEASE OF RIGHTS
523	KAUKAUNA UTILITIES - ELECTRIC	RELEASE OF RIGHTS

CURVE DATA - R/L CURVE 2
PI STA = 1105+44.55
Y = 575346.814
X = 860872.717
DELTA = 20°59'46" LT
D = 1°00'00"
T = 1061.70'
L = 2099.59'
R = 5729.52'
PC STA = 1094+82.84
PT STA = 1115+82.44
DA = N69°19'17"E

STA 1102+33.08 TO
PT STA 1115+82.44
L = 1349.36'
LCH = 1346.24'
LCB = N76°04'06"E
R = 5729.52'



502	AT&T WISCONSIN * SEE GENERAL UTILITY NOTE
503	SPECTRUM * SEE GENERAL UTILITY NOTE
523	KAUKAUNA UTILITIES - ELECTRIC * 10' GENERAL UTILITY EASEMENT FOR ALL OF THE ABOVE UTILITY NUMBERS DOC 2104145 20' GENERAL UTILITY EASEMENT FOR ALL OF THE ABOVE UTILITY NUMBERS DOC 2126576 * PARCELS 287, 288, 289, 291, 292, 293, 294, 296, 299 & 301

SCHEDULE OF LANDS & INTERESTS REQUIRED						
PARCEL NUMBER	OWNER (S)	INTEREST(S) REQUIRED	FEE R/W ACRES OR S.F. REQUIRED			TLE ACRES OR S.F
			NEW	EXISTING	TOTAL	
286	SALVADOR SOLORANZO AND MARTHA S. BARRAZA	FEE	2302	0	2302	0
287	LINDSAY T WELCH AND SAMUEL R HARTJES	FEE	1960	0	1960	0
288	BRIAN W. OSTRENGA AND HOLLY M. OSTRENGA	FEE	557	0	557	0
289	DAVID D. EVERS	FEE	770	0	770	0
291	RONALD M DORSCHNER	FEE	969	0	969	0
292	JACK L. HARDY AND PENNYSUE A. HARDY	FEE	1104	0	1104	0
293	RANDY R. SCHROEDER	FEE	824	0	824	0
294	SARAH HANAWAY AND KEVIN HANAWAY	FEE	478	0	478	0
296	MATTHEW P. KERKHOFF	FEE	166	0	166	0
297	THOMAS WEYENBERG, ET AL.	FEE	669	0	669	0
299	JOSHUA J. PHILIPPS AND KALLIE A. PHILIPPS	FEE	1461	0	1461	0
301	JASON R. FREDERICKSON AND RUBY ANN G. FREDERICKSON	FEE	3265	0	3265	0
302	SHAP PROPERTIES LLC / LAMAR CENTRAL OUTDOOR, LLC	FEE	2676	0	2676	0

OWNER'S NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT.

ALL AREAS SHOWN IN SQUARE FEET UNLESS OTHERWISE NOTED. THE PURPOSE FOR ALL TLE'S IS GRADING UNLESS OTHERWISE NOTED.

COURSE TABLE		
COURSE	BEARING	DISTANCE
3001-3002	S89° 58' 13"W	47.84'
3002-3003	S82° 12' 02"W	222.10'
3003-3015	S54° 17' 01"W	29.52'
3015-3016	N78° 21' 58"W	53.01'
3016-3004	S86° 44' 13"W	370.13'
3004-3005	N89° 40' 57"W	401.60'
3005-3006	S87° 50' 39"W	301.32'
3006-3007	N88° 11' 41"W	500.91'
3007-3008	N89° 40' 57"W	68.48'
3008-3009	S00° 03' 54"E	184.01'
3009-3010	S03° 23' 45"W	49.88'
3010-3011	S08° 27' 08"W	80.21'
3011-3012	S89° 49' 06"W	109.57'
3012-2809	N00° 09' 09"W	363.12'
2809-2808	N00° 03' 54"W	71.07'
2808-2902	S89° 40' 57"E	1270.55'
2902-2901	SEE CURVE TABLE	

R/W STATION & OFFSET TABLE		
POINT	STATION	OFFSET
2808	1082+12.29	0.00'
2809	1082+12.77	71.07' RT
2901	1102+33.08	0.00'
2902	1094+82.84	0.00'
3001	1103+08.72	118.93' RT
3002	1102+62.25	112.53' RT
3003	1100+44.58	118.00' RT
3004	1096+07.34	121.38' RT
3005	1092+08.37	120.00' RT
3006	1089+07.33	133.00' RT
3007	1084+06.58	120.00' RT
3008	1083+38.10	120.00' RT
3009	1083+39.33	304.00' RT
3010	1083+36.67	353.81' RT
3011	1083+25.32	433.21' RT
3012	1082+15.75	434.17' RT
3015	1100+19.70	133.00' RT
3016	1099+69.94	118.00' RT

CURVE TABLE				
COURSE	ARC LENGTH	RADIUS	CHORD BEARING	CHORD LENGTH
2902-2901	750.23'	5729.52'	N86° 33' 59"E	749.70'

SCHEDULE OF SIGN STRUCTURES		
SIGN NUMBER	SIGN OWNER(S)	OASIS NUMBER
302-1	LAMAR CENTRAL OUTDOOR, LLC / SHAP PROPERTIES LLC	4033

KL Engineering
A Better Experience

I, TIMOTHY M. HELD, PROFESSIONAL LAND SURVEYOR, HEREBY CERTIFY THAT IN FULL COMPLIANCE WITH THE PROVISIONS OF SECTION 84.095 OF THE WISCONSIN STATUTES AND UNDER THE DIRECTION OF DEPARTMENT OF TRANSPORTATION, I HAVE MAPPED THIS TRANSPORTATION PROJECT PLAT 1130-63-21 - 4.30 AND SUCH PLAT CORRECTLY REPRESENTS ALL EXTERIOR BOUNDARIES OF THE SURVEYED LAND.

SIGNATURE: _____ DATE: 5/2/2023
PRINT NAME: TIMOTHY M. HELD
REGISTRATION NUMBER: S-2591

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

SIGNATURE: _____ DATE: 05/02/2023
PRINT NAME: ALAN ROMMEL

104

Document #: **2291897**
Date: **05-04-2023** Time: **9:05 AM**
Pages: **1** Fee: **$25.00**
County: **OUTAGAMIE COUNTY** State: **WI**

SARAH R VAN CAMP, REGISTER OF DEEDS
This document has been electronically recorded
Return to:
WisDOT - NE Region - Green Bay - PO#39500-000002

RESERVED FOR REGISTER OF DEEDS
PROJECT NUMBER: 1130-63-21 - 4.30
AMENDMENT NO:

FOR ADDITIONAL INFORMATION REFER TO THE TITLE SHEET, RECORDED IN THE OFFICE OF THE REGISTER OF DEEDS IN OUTAGAMIE COUNTY AS SHEET 2 OF 2 OF DOCUMENT #2288266.

4

4

FILE NAME : C:\USERS\SDEMEUSE\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\BASESHARED\RW\DWG\PLAT SHEETS\040130-RP.DWG
APPRAISAL PLAT DATE : MAY 2, 2023
PLOT DATE : 5/2/2023 10:12 AM
PLOT BY : SCOTT DEMEUSE
PLOT NAME :
PLOT SCALE :

REMOVING OLD STRUCTURE B-44-39 REQ'D

BM 166

STA. 64'CC'+04.61
STRUCTURE B-44-333 REQ'D

KAUKAUNA UTILITIES
ELECTRICITY
AND
SPECTRUM
COMMUNICATION LINE

SLOPE INTERCEPT (TYP)

PI: 60'CC'+01.64
Y:574956.77
X:858540.95

LUMEN/LEVEL 3
COMMUNICATION LINE

EXISTING R/W

AT & T WI
COMMUNICATION LINE

PROPOSED R/W

TDS METROCOM
COMMUNICATION LINE

EXISTING R/W

R/L 'CC'

MATCH LINE 66+00

52'CC' 53'CC' 54'CC' 55'CC' 56'CC' 57'CC' 58'CC' 59'CC' 60'CC' 61'CC' 62'CC' 63'CC' 64'CC' 65'CC' 66'CC'

CTH CC (ROSEHILL RD)

BM 167
STA. 63'CC'+76.61 =
STA. 1082'NB'+05.22

STA. 64'CC'+32.61 =
STA. 1082'SB'+04.86

BM 168

WEYENBERG RD

EXISTING R/W

PROPOSED R/W

WISDOT
COMMUNICATION
LINE

MATCH LINE 66+00

WETLAND BOUNDARY (TYP)

BEGIN PROJECT
STA 55'CC'+00.00
MATCH EXISTING
SAW CUT REQ'D
Y = 574,455.136
X = 858,542.546

KAUKAUNA UTILITIES
ELECTRICITY

REMOVE CABLE BARRIER
AND TERMINALS REQ'D

BENCH MARKS			
NO.	STATION	ELEV.	DESCRIPTION
166	63+19.4, 172', LT	716.58	CHISELED X ON NE CORNER OF SIGN BASE
167	62+85.7, 15.8' RT	741.98	CHISELED X ON SE WINGWALL
168	65+19.0, 16.0' RT	740.10	DISK ON NE WINGWALL

VPI STA 62+60.00 'CC'
VPI EL 752.94

VPC STA 57+97.50 'CC'
VPC EL 734.36

FINISHED PROFILE AT RL 'CC'

STA 55+00.00 'CC'
EL 722.42

4.02%

EXISTING PROFILE AT RL 'CC'

B-44-333

VCL = 925.00

K = 115.75

MIN. VERT. CLEAR. EX. IH-41 = 19'-7.2"
MIN. VERT. CLEAR. FINAL IH-41 = 18'-0.4"
MIN. VERT. CLEAR. FINAL IH-41 = 17'-4"
MIN. VERT. CLEAR. EX. IH-41 = 18'-4"

FINAL PROPOSED SURFACE IH-41 'NB'
(BY OTHERS)

FINAL PROPOSED SURFACE IH-41 'SB'
(BY OTHERS)

EXISTING PROFILE ELEVATION

FINISHED PROFILE ELEVATION

STA. 64'CC'+01.49
REMOVE STRUCTURE B-44-39
FOUR SPAN PRESTRESSED CONCRETE GIRDER
WITH REINFORCED CONCRETE DECK
210.0' OVERALL LENGTH
32.0' OVERALL WIDTH

STA. 64'CC'+04.61
STRUCTURE B-44-333 REQ'D
TWO SPAN CONCRETE GIRDER WITH
REINFORCED CONCRETE DECK
36' CLEAR ROADWAY
SKEW 0° RHF

750 745 740 735 730 725 720 715 713

715.59 715.65 715.84 716.34 717.27 718.73 720.47 722.42 722.42 724.31 724.42 726.43 726.43 728.29 728.44 730.04 730.45 731.80 732.46 733.31 734.47 734.62 736.35 735.77 738.03 736.77 739.49 737.63 740.73 738.41 741.75 739.01 742.56 739.42 743.16 739.64 743.53 739.68 743.69 732.96 743.64 718.21 743.37 716.90 742.88 718.25 742.18 729.24 741.26 737.10 740.13 736.37 738.78

51'CC'+50 52'CC'+00 53'CC'+00 54'CC'+00 55'CC'+00 56'CC'+00 57'CC'+00 58'CC'+00 59'CC'+00 60'CC'+00 61'CC'+00 62'CC'+00 63'CC'+00 64'CC'+00 65'CC'+00 66'CC'+00

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: CTH CC (ROSEHILL RD)	SHEET 105	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\050120-PP-CC.DWG
LAYOUT NAME - 01
PLOT DATE : 1/11/2024 6:50 AM
PLOT BY : ANDY BLOCK
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

MATCH LINE 66+00

LUMEN/LEVEL 3
COMMUNICATION LINE

SLOPE INTERCEPT (TYP)

PROPOSED R/W

EXISTING R/W

KAUKAUNA UTILITIES
ELECTRICITY
AND
SPECTRUM
COMMUNICATION LINE

EP: 75'CC'+93.37
Y:576548.50
X:858539.44

EVERGREEN DR

N

66'CC' 67'CC' 68'CC' 69'CC' 70'CC' 71'CC' 72'CC' 73'CC' 74'CC' 75'CC'

CTH CC (ROSEHILL RD)

CABC
FE

EXISTING R/W

PROPOSED R/W

TLE

KAUKAUNA UTILITIES
ELECTRICITY

REALIGN EXISTING
FIELD ENTRANCE

EXISTING EASEMENT

END PROJECT
STA 69'CC'+50.00
MATCH EXISTING
SAW CUT REQ'D

VPT STA 67+22.50 'CC'
VPT EL 734.56

FINISHED PROFILE AT RL 'CC'

STA 69+50.00 'CC'
EL 725.51

-3.98%

VCL = 925.00

K = 115.75

EXISTING PROFILE AT RL 'CC'

EXISTING PROFILE ELEVATION

FINISHED PROFILE ELEVATION

750 745 740 735 730 725 720 715 713

736.37	735.29	734.05	732.55	730.97	729.26	727.45	725.51	723.54	721.79	720.25	718.93	717.82	716.87	716.13	715.71	715.43	715.19	715.02	714.98
738.78	737.21	735.43	733.46	731.48	729.49	727.50	725.51												

66'CC'+00 67'CC'+00 68'CC'+00 69'CC'+00 70'CC'+00 71'CC'+00 72'CC'+00 73'CC'+00 74'CC'+00 75'CC'+00 76'CC'+00 77'CC'+00 78'CC'+00 79'CC'+00 80'CC'+00 80'CC'+50

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	PLAN AND PROFILE: CTH CC (ROSEHILL RD)	SHEET 106	E

FILE NAME : C:\USERS\ABLOCK\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\050120-PP-CC.DWG
LAYOUT NAME - 02

PLOT DATE : 1/11/2024 6:54 AM PLOT BY : ANDY BLOCK PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 44

Standard Detail Drawing List

08A05-20C	INLET COVERS TYPE F, HM, HM-S, S, T, V, HM-GJ, & HM-GJ-S
08C07-02	INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D03-09A	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D03-09B	CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES
08D04-07	CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES
08E08-03	TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08E14-01	TRACKING PAD
08E15-01	CULVERT PIPE CHECK
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B16-02	PULL BOX NON-CONDUCTIVE
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
12A03-10	NAME PLATE (STRUCTURES)
13A05-06A	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13A05-06B	SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY
13B02-09A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C11-14A	RURAL DOWELED CONCRETE PAVEMENT
13C11-14B	RURAL DOWELED CONCRETE PAVEMENT
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
13C19-03	HMA LONGITUDINAL JOINTS
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B08-02A	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02B	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02C	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02D	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B08-02E	CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS
14B15-11A	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11B	STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATION & ELEMENTS
14B15-11C	STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS
14B16-04A	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B16-04B	ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2
14B26-05A	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05B	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05C	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05D	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05E	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05F	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05G	STEEL THRIE BEAM BULLNOSE TERMINAL
14B26-05H	STEEL THRIE BEAM BULLNOSE TERMINAL
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)

6

Standard Detail Drawing List

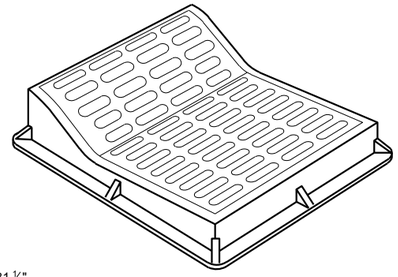
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE 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
15C02-09D	ON RAMP LANE CLOSURE
15C02-09E	OFF RAMP LANE CLOSURE
15C02-09F	ADVANCED WIDTH RESTRICTION SIGNING
15C02-09G	TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE
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
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-12	SIGNING & MARKING FOR TWO LANE BRIDGES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C19-08C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15D12-11A	TRAFFIC CONTROL, LANE CLOSURE
15D12-11B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D12-11D	TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM
15D14-06	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY
15D15-07A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07C	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07D	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-07E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-06	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D42-01	TRAFFIC CONTROL, TWO LANE FULL FREEWAY CLOSURE
15D47-03B	TRAFFIC CONTROL, INGRESS/EGRESS WITHOUT BARRIER
15D49-02	TRAFFIC CONTROL, SYSTEM RAMP CLOSURE

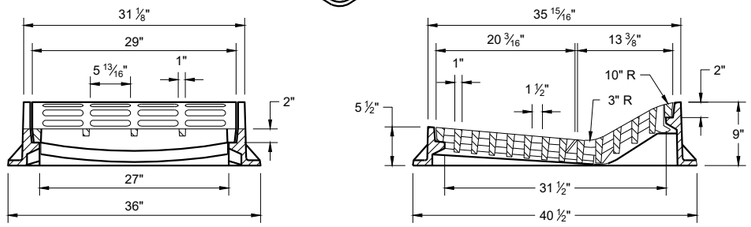
6

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.

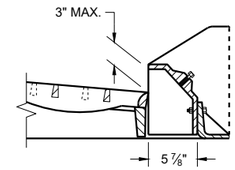
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.





TYPE "F"

USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"

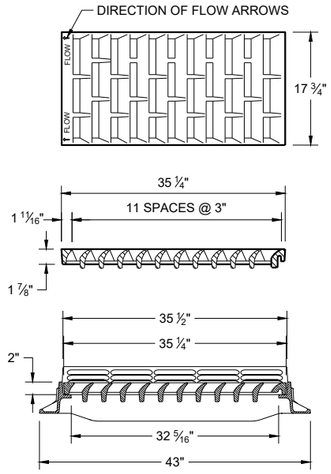


ALTERNATIVE CURB BOX FOR TYPE "HM" COVER

USE WITH TYPES "G" AND "J" CONCRETE CURB AND GUTTER, 30 INCH
NOTED AS TYP "HM-GJ" ON DRAINAGE TABLE

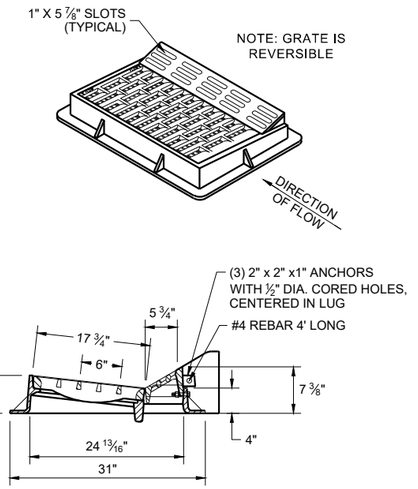
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.



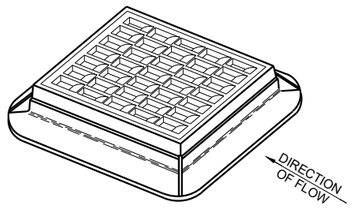
TYPE "HM"

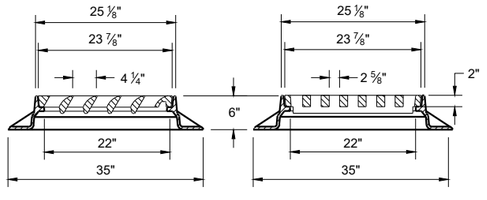
USE WITH TYPES "A" AND "D" CONCRETE CURB AND GUTTER, 36"



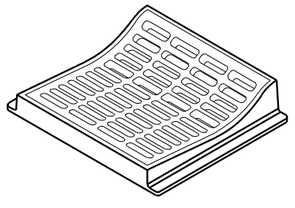
NOTE:
SPECIAL GRATE FOR THE TYPE "H" COVER MAY ALSO BE USED FOR THE TYPE "HM-GJ" COVER.

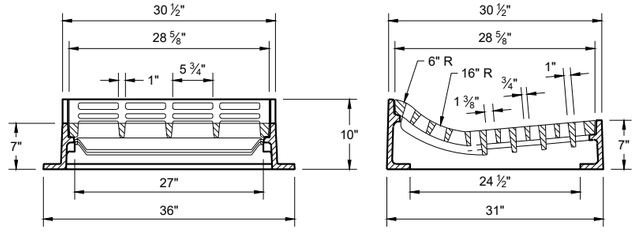
NOTED AS TYPE HM-GJ-S ON THE DRAINAGE TABLE.





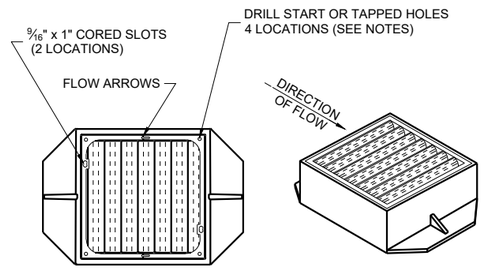
TYPE "S"

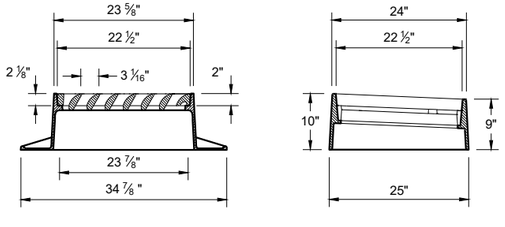




TYPE "T"

USE WITH TYPES "R" AND "T" CONCRETE CURB AND GUTTER, 36"

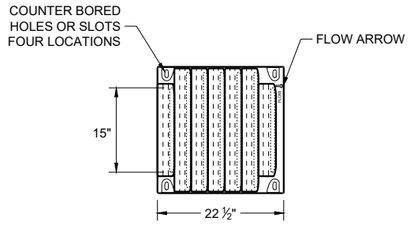




TYPE "V"

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER ALL DRILLING AND TAPPING GRATES AND FRAMES BY CASTING MANUFACTURER

TYPE V
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A
3/8" DIA. X 1/16" DRILL START IN 4 LOCATIONS
GRATE - CAST GRAY IRON ASTM A-48, CLASS 35B



BOLT DOWN GRATE FOR TYPE "V" COVER

NOTES: ALL HARDWARE TO BE SUPPLIED BY CASTING MANUFACTURER NOTED AS TYPE "V-B" ON DRAINAGE TABLE

TAP 1/2" -13 HOLES IN FOUR LOCATIONS IN FRAME TO BOLT GRATE
FRAME - CAST GRAY IRON ASTM A48 CLASS 40A

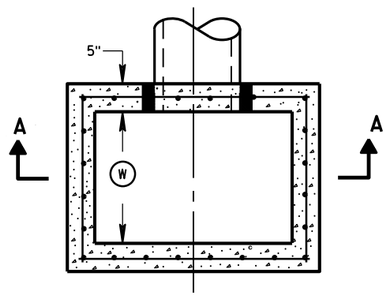
GRATE - CAST DUCTILE IRON ASTM A536, 55+KSI YIELD
BOLTS - 1/2" -13 STAINLESS STEEL BOLTS WITH WASHERS
TORQUE BOLTS TO MANUFACTURER SPECIFICATION DO NOT OVERTIGHTEN.

INLET COVERS TYPES F, HM, HM-S, S, T, V, HM-GJ AND HM-GJ-S

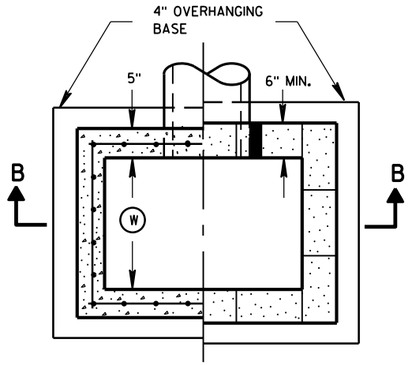
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

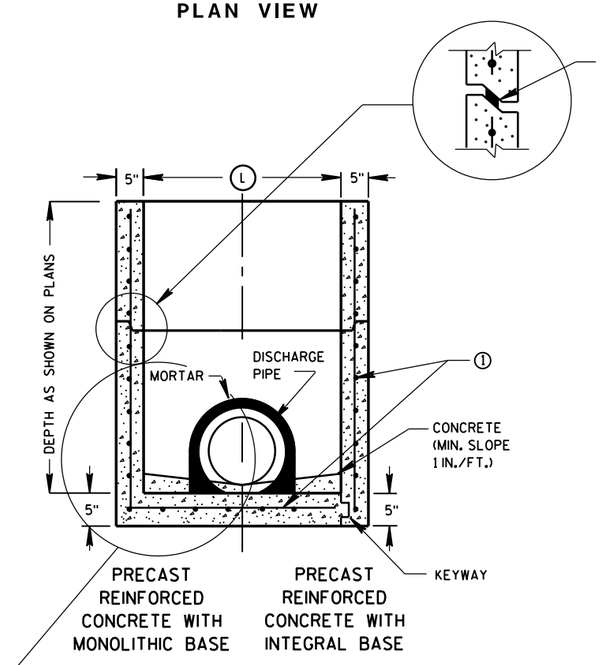
FHWA



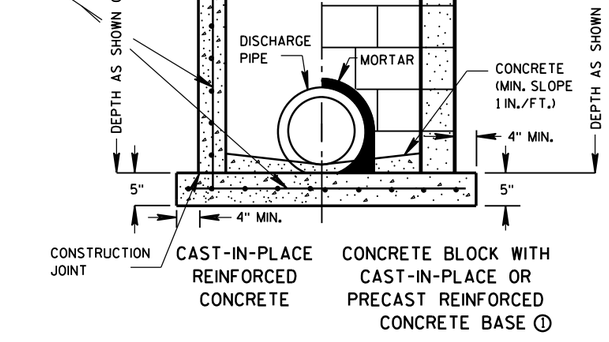
PLAN VIEW



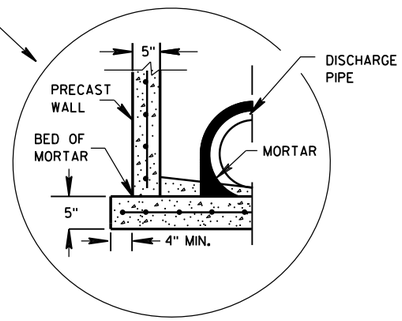
PLAN VIEW



SECTION A-A



SECTION B-B



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

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.

UNLESS OTHERWISE AUTHORIZED IN WRITING BY THE ENGINEER, THE CONTRACTOR SHALL NOT ORDER AND DELIVER PRECAST INLET UNITS REQUIRED FOR THE PROJECT UNTIL A LIST OF SIZES IS FURNISHED BY THE ENGINEER.

DETAILED DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR UNDERGROUND DRAINAGE STRUCTURES SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF ASTM C 913.

ALL DRAINAGE STRUCTURES ARE DESIGNATED ON THE PLANS AS "MANHOLES 3X3-L", "CATCH BASINS 4-B", "INLETS 2X3-H", ETC. THE FIRST NUMBERS DESIGNATES THE SIZE OF THE STRUCTURE, AND THE FOLLOWING LETTER DESIGNATES THE TYPE OF COVER TO BE USED TO COMPRISE THE COMPLETE UNIT.

BASES SHALL BE PLACED ON A BED OF MATERIAL AT LEAST 6 INCHES IN DEPTH, WHICH MEETS THE REQUIREMENTS OF FOUNDATION BACKFILL. THIS BEDDING SHALL BE COMPACTED AND PROVIDE UNIFORM SUPPORT FOR THE ENTIRE AREA OF THE BASE.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

PRECAST REINFORCED RISERS SHALL HAVE A TONGUE AND GROOVE JOINT WITH TONGUE UP OR DOWN.

4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS.
4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED.
OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

MAXIMUM INSIDE PIPE DIAMETER DETERMINED BY 3 INCH CLEARANCE ON EACH SIDE OF THE OUTSIDE WALL OF THE PIPE. SEE DETAIL "A". ASSUMES PIPE ENTERS PERPENDICULAR TO THE STRUCTURE.

① FOR PRECAST INLETS PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

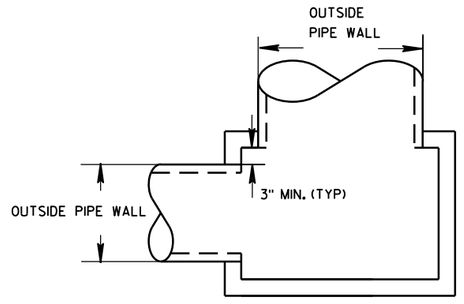
② CONTRACTOR TO PROVIDE DRAWING(S) STAMPED BY A PROFESSIONAL ENGINEER FOR STEEL REINFORCING DESIGN FOR CAST-IN-PLACE STRUCTURES.

INLET COVER MATRIX

INLET SIZE		INLET COVER TYPE	ALL A'S	ALL B'S	BW	F	ALL H'S	S	T	V	WM
	WIDTH (W) (FT)	LENGTH (L) (FT)									
2X2-FT	2	2	X	X				X		X	
2X2.5-FT	2	2.5			X			X	X	X	X
2X3-FT	2	3					X				
2.5X3-FT	2.5	3				X					

PIPE MATRIX

INLET SIZE	MAXIMUM INSIDE PIPE DIAMETER	
	WIDTH (IN)	LENGTH (IN)
2X2-FT	12	12
2X2.5-FT	12	18
2X3-FT	12	24
2.5X3-FT	18	24



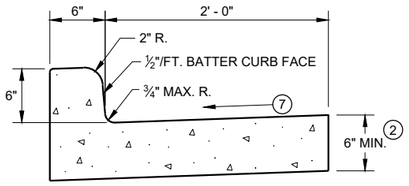
DETAIL "A"

INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT

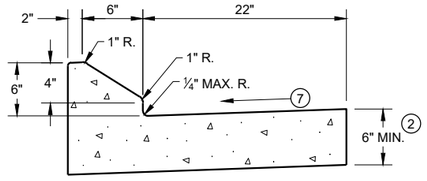
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Rodney Taylor
ROADWAY STANDARDS D IT UNIT SUPERVIS
FHWA

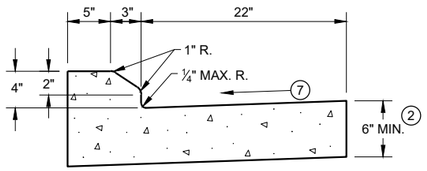
INLETS 2X2-FT, 2X2.5-FT, 2X3-FT AND 2.5X3-FT



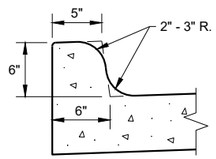
TYPES A (1) & D



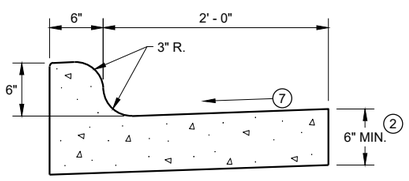
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

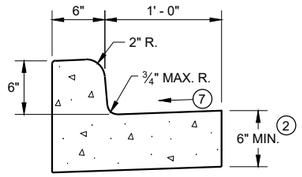


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



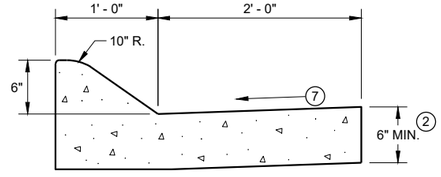
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

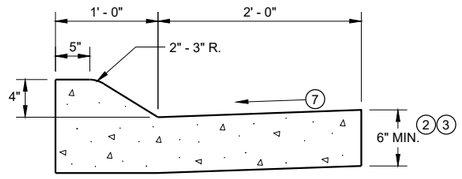


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

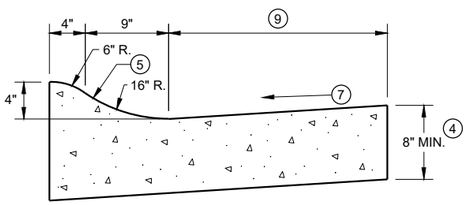


6" SLOPED CURB TYPES A (1) & D



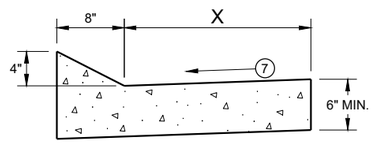
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

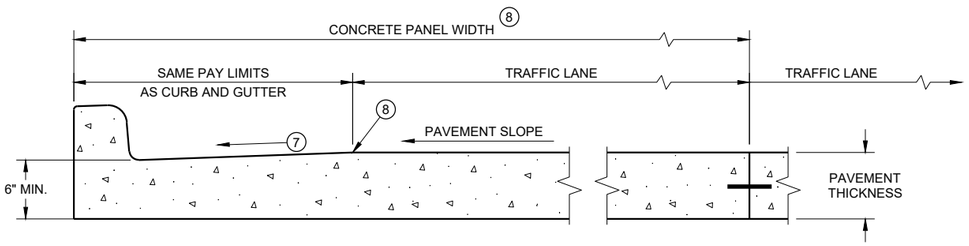


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

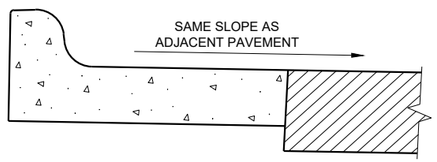
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT * WITH INTEGRAL CURB AND GUTTER

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(3) USE 8" MINIMUM GUTTER THICKNESS WHEN USED WITH AN ADJACENT CONCRETE TRUCK APRON PLACED BEHIND BACK OF CURB.

(4) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 8" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(5) UNLESS OTHERWISE NOTED, FOR STAKING PURPOSES THE FACE OF CURB IS 6" FROM THE BACK OF CURB.

(6) WHEN REVERSE SLOPE GUTTER IS REQUIRED, THE LOCATION(S) WILL BE SHOWN ELSEWHERE IN THE PLAN.

(7) USE 4% GUTTER CROSS SLOPE UNLESS OTHERWISE NOTED IN THE PLANS.

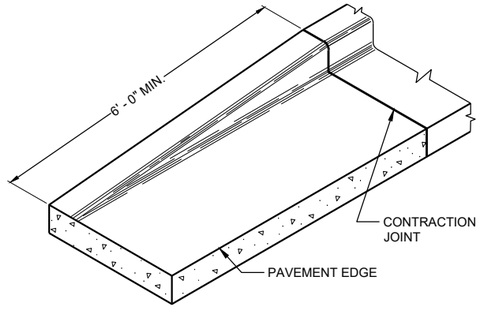
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

(9) CONCRETE CURB AND GUTTER 4-INCH SLOPED 30-INCH TYPE "R" AND "T" = 17 INCHES
CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE "R" AND "T" = 23 INCHES

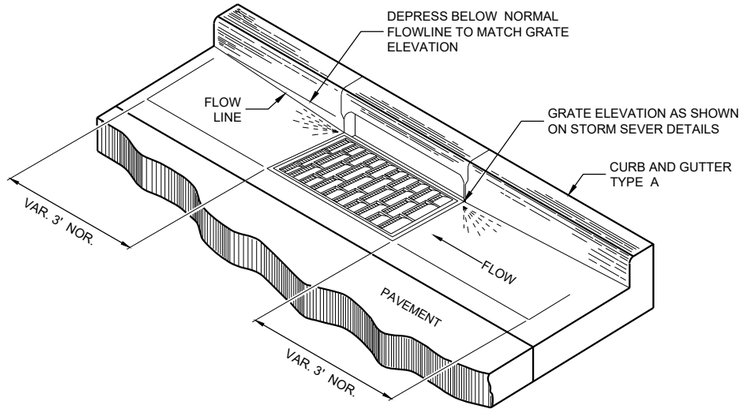
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 08D01 - 23a



END SECTIONCURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

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.

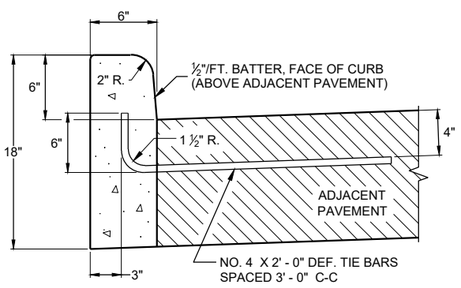
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

(1) TIE BARS ARE REQUIRED FOR CURB AND GUTTERS TYPES A, G, K, R, AND TBTT.

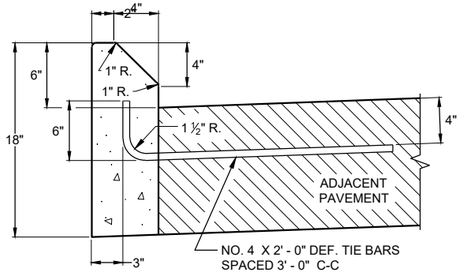
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(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.

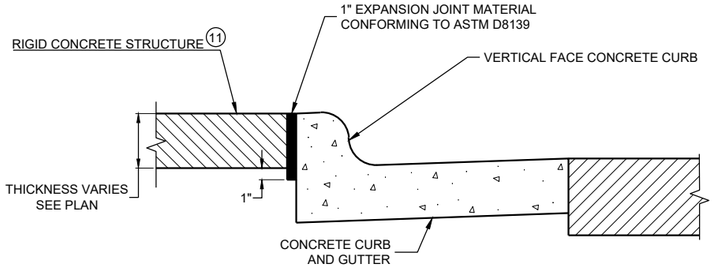


TYPES A (1) & D

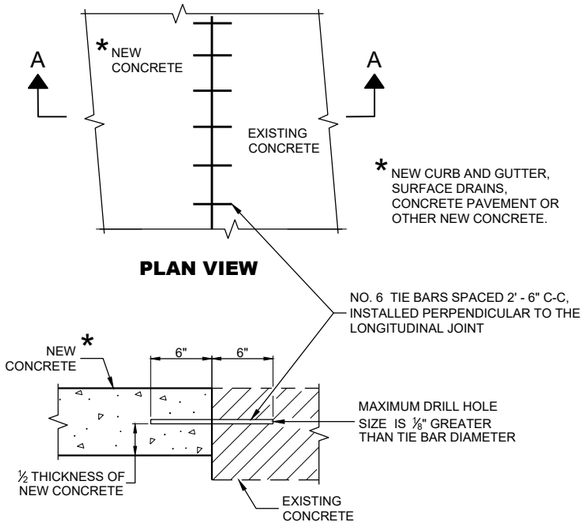


TYPES G (1) & J

CONCRETE CURB



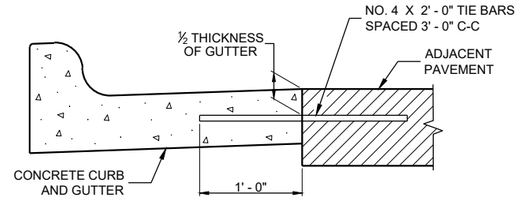
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



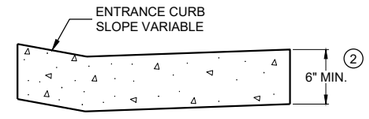
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

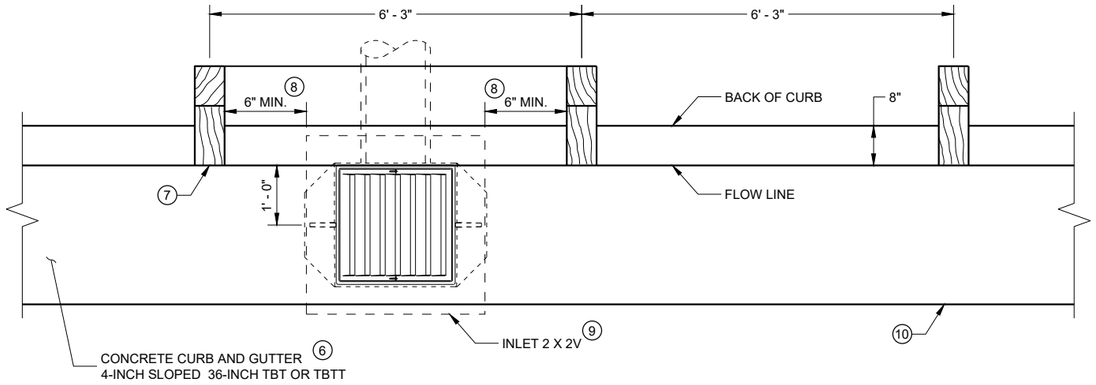
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVE ENGINEER

FHWA

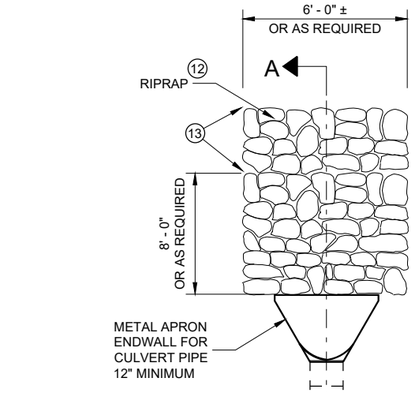
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SDD08D01 - 23b



INLET PLAN VIEW

(NOTE: RAIL NOT SHOWN FOR CLARITY)

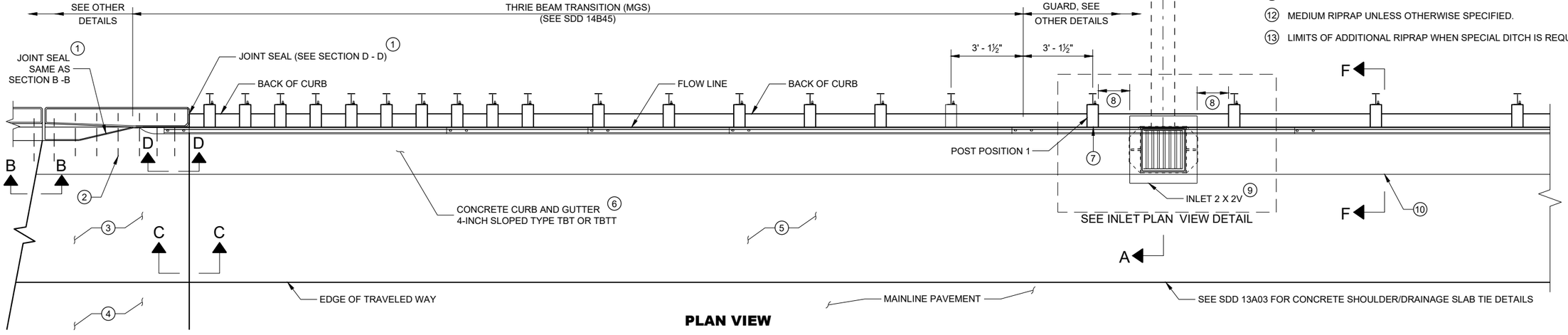


GENERAL NOTES

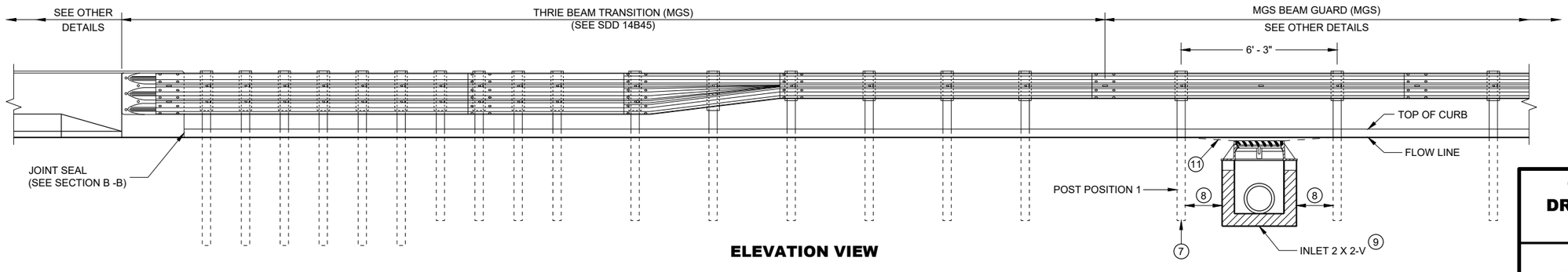
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

ALL STEEL REINFORCEMENT SHALL BE EMBEDDED 2 INCHES CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

1. USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.
2. NO. 4 X 2' - 0" TIE BARS SPACED AT 12" C-C TO BE PLACED BY BRIDGE CONTRACTOR OR DRILLED TIE BARS PLACED AS DIRECTED BY THE ENGINEER.
3. PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.
4. CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02.
5. PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.
6. CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.
7. PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)
8. CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.
9. SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.
10. START CURB AND GUTTER TRANSITION OR END SECTION.
11. DEPRESS FLOW LINE (SEE DETAIL)
12. MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.
13. LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.



PLAN VIEW

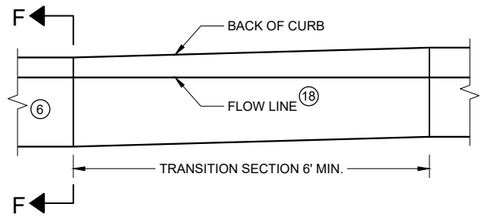


ELEVATION VIEW

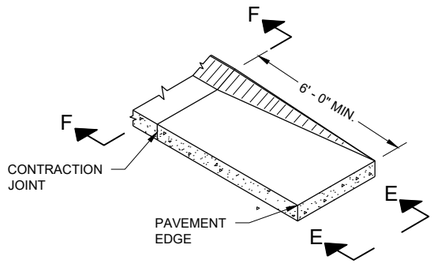
CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

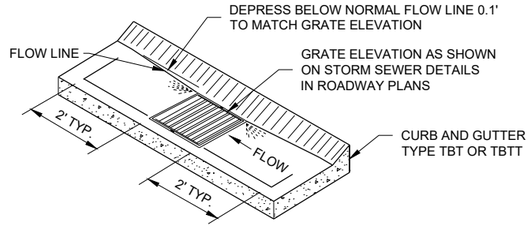
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SDD 08D03 - 09a



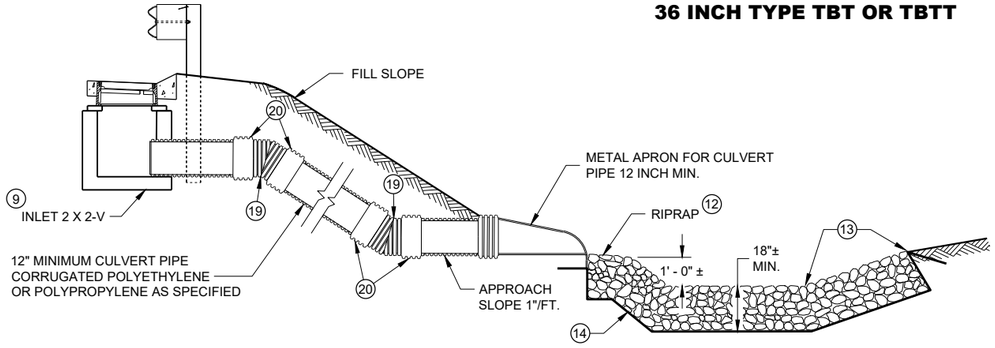
CURB AND GUTTER TRANSITION SECTION CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT



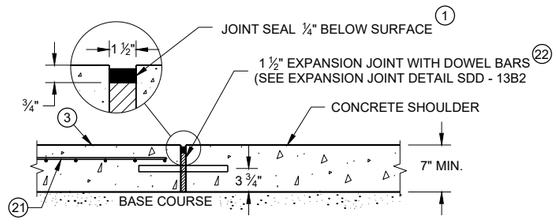
CURB AND GUTTER END SECTION CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT



CURB AND GUTTER FLOW LINE DEPRESSION AT INLETS CONCRETE CURB AND GUTTER 4-INCH SLOPED 36 INCH TYPE TBT OR TBTT

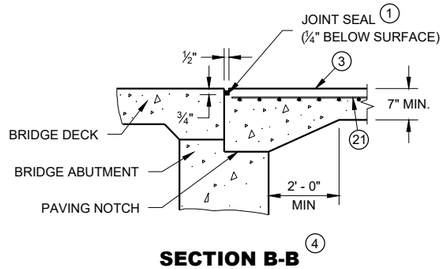


SECTION A - A

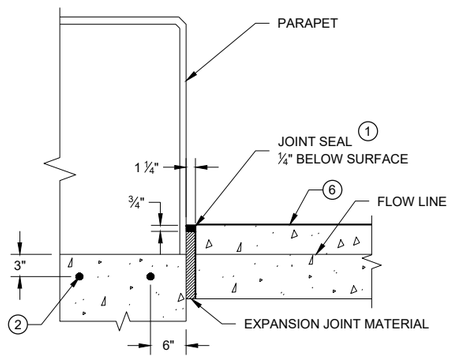


SECTION C - C

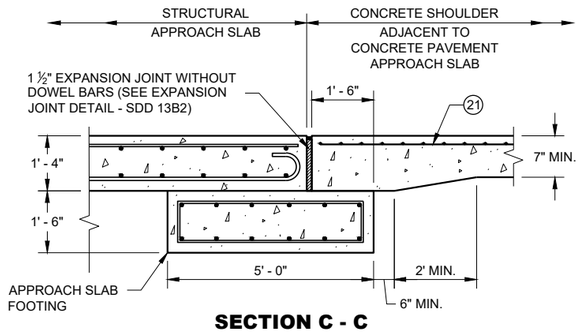
JOINT DETAIL FOR BRIDGE APPROACH WITH CONCRETE SHOULDERS



SECTION B-B 4

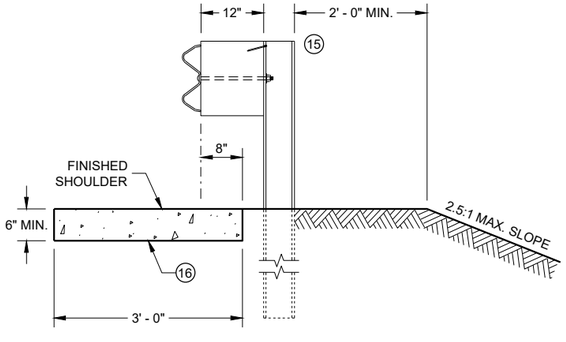


SECTION D - D

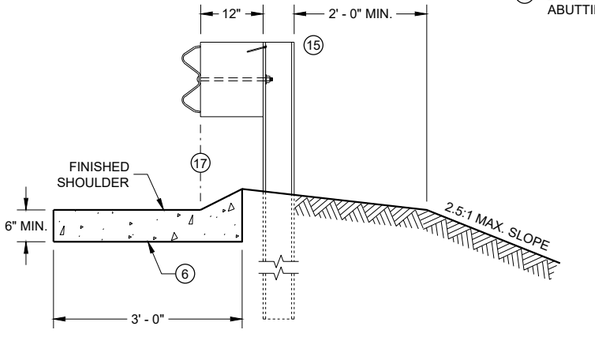


SECTION C - C

JOINT DETAIL FOR BRIDGE WITH STRUCTURAL APPROACH SLAB AND CONCRETE APPROACH SLAB



SECTION E - E



SECTION F - F

GENERAL NOTES

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(3) PAVED CONCRETE SHOULDER (SDD 13A03) OR CONCRETE DRAINAGE SLAB.

(4) CONCRETE PAVEMENT APPROACH SLAB (SHOWN) OR STRUCTURE APPROACH SLAB AND CONCRETE PAVEMENT APPROACH SLAB. SEE SDD 13B02 AND STRUCTURE PLANS.

(5) PAVED CONCRETE SHOULDER (SDD 13A03) OR ASPHALT SHOULDER.

(6) CONCRETE CURB AND GUTTER 4-INCH SLOPED 36-INCH TYPE TBT OR TBTT. USE TYPE TBTT CURB WITH NO. 4 X 2' -0" TIE BARS SPACED AT 3' - 0" C-C ONLY WHEN ADJACENT TO CONCRETE PAVEMENTS.

(7) PLACE DRAINAGE STRUCTURE BEFORE MSG THRIE BEAM TRANSITION POST 1 (SEE SDD 14B45)

(8) CENTER DRAINAGE STRUCTURE BETWEEN POSTS. 6-INCH MINIMUM SEPARATION FROM OUTSIDE WALL OF DRAINAGE STRUCTURE TO POSTS.

(9) SEE SDD 08A05 AND 08C07 FOR DETAILS. SEE ROADWAY PLANS FOR LOCATION.

(10) START CURB AND GUTTER TRANSITION OR END SECTION.

(11) DEPRESS FLOW LINE (SEE DETAIL)

(12) MEDIUM RIPRAP UNLESS OTHERWISE SPECIFIED.

(13) LIMITS OF ADDITIONAL RIPRAP WHEN SPECIAL DITCH IS REQUIRED.

(14) GEOTEXTILE TYPE HR.

(15) MSG THRIE BEAM TRANSITION POST 1. SEE SDD 14B45 FOR ADDITIONAL CONSTRUCTION DETAILS AND ACCEPTABLE MATERIALS.

(16) MAINTAIN WIDTH, THICKNESS AND CROSS SLOPE OF ADJACENT TYPE TBT OR TBTT CURB. SEE NOTE 6 FOR TIE BAR SPACING.

(17) ALIGN FACE OF POST BLOCK WITH FLOW LINE.

(18) MAINTAIN FLOW LINE AT EDGE OF PAVEMENT/FACE OF BEAM GUARD AS APPLICABLE.

(19) MANUFACTURER SUPPLIED BEND.

(20) MANUFACTURER SUPPLIED EXTERNAL MECHANICAL COUPLING OR A MANUFACTURER RECOMMENDED COUPLING WITH A MASTIC IMPREGNATED GEOTEXTILE WRAP AND MECHANICAL FASTENING BANDS.

(21) MINIMUM REINFORCEMENT SHALL BE 6" X 6" - W4.0 X W4.0 OR NO. 3 BARS LONGITUDINAL AND TRANSVERSE SPACING 12" C - C.

(22) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING HMA PAVEMENTS.

CONCRETE SURFACE DRAINS DROP INLET TYPE AT STRUCTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER

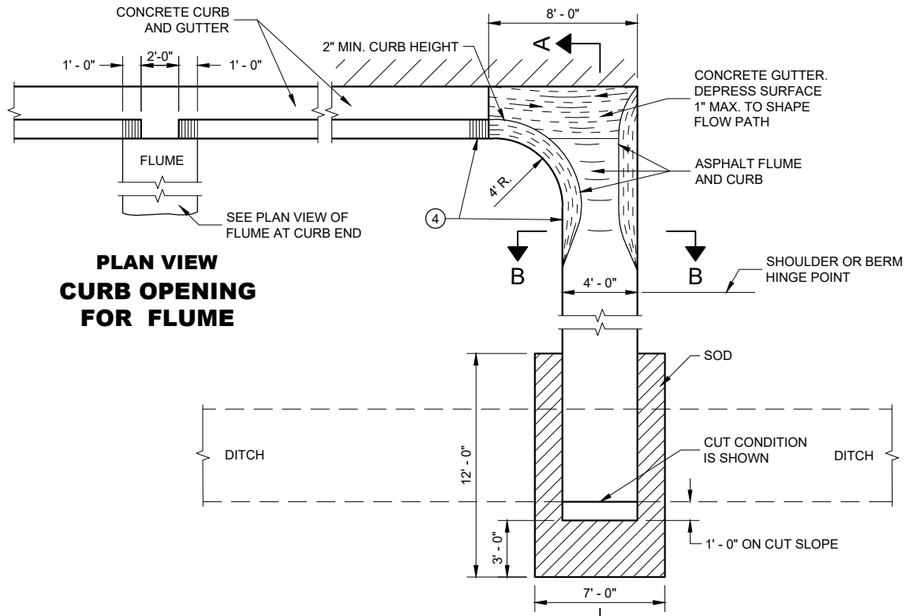
FHWA

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SDD 08D03 - 09b

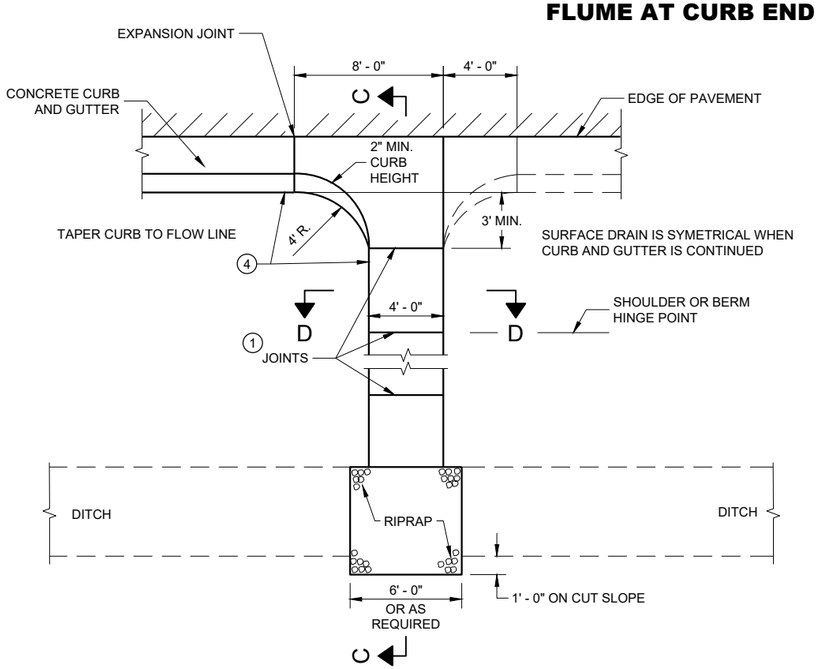
NOTE: TAPER CURB ENDS TO GUTTER IN 1' - 0"

ASPHALTIC FLUME



PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



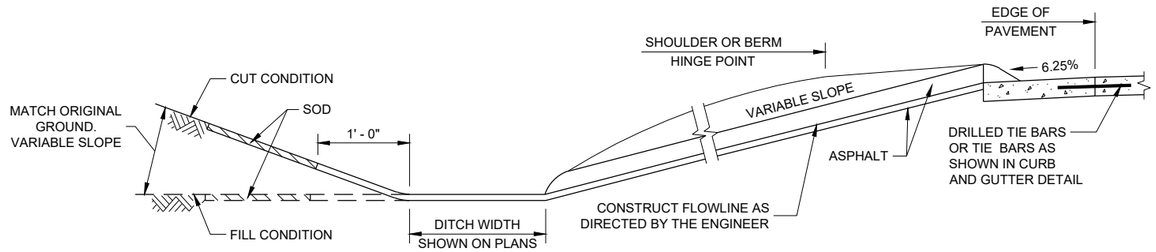
PLAN VIEW
CONCRETE SURFACE DRAIN

GENERAL NOTES

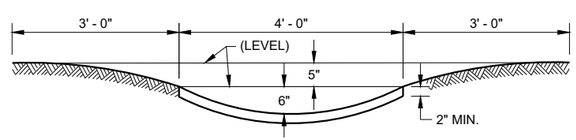
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4" X 4" - W3.0 X W3.0 CONCRETE REINFORCEMENT SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

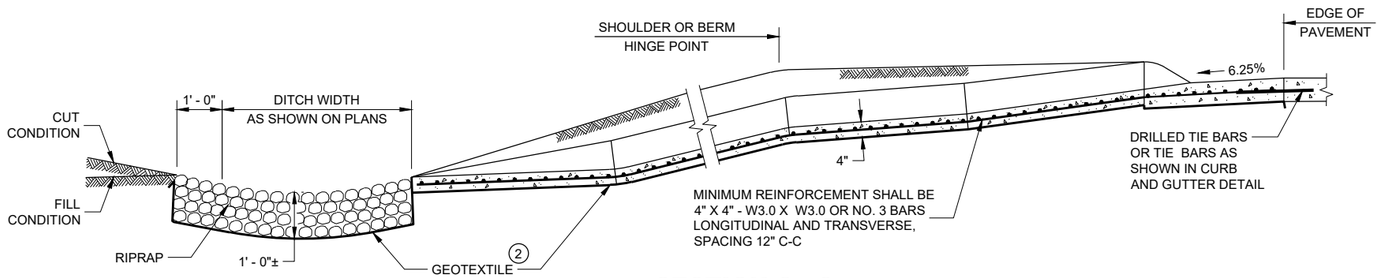
1. JOINTS SHALL BE ⅛" TO ¼" WIDE BY 1½" DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.
2. GEOTEXTILE TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.
3. CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED.
4. 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.



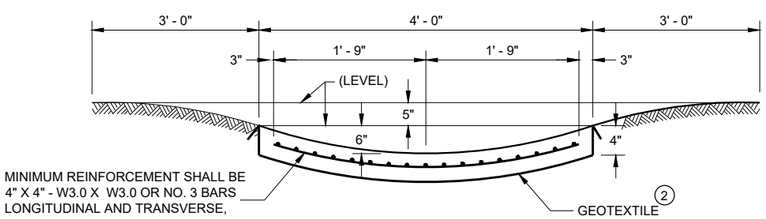
SECTION A - A



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 DEVE ENGINEER

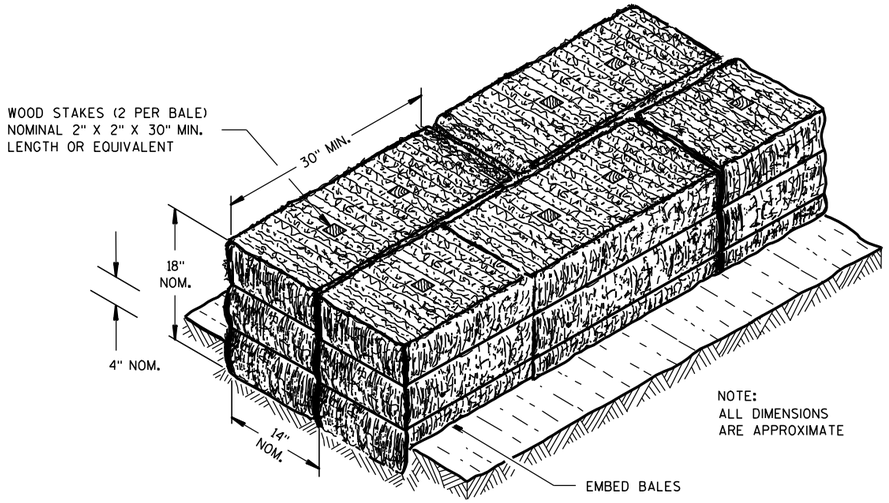
FHWA

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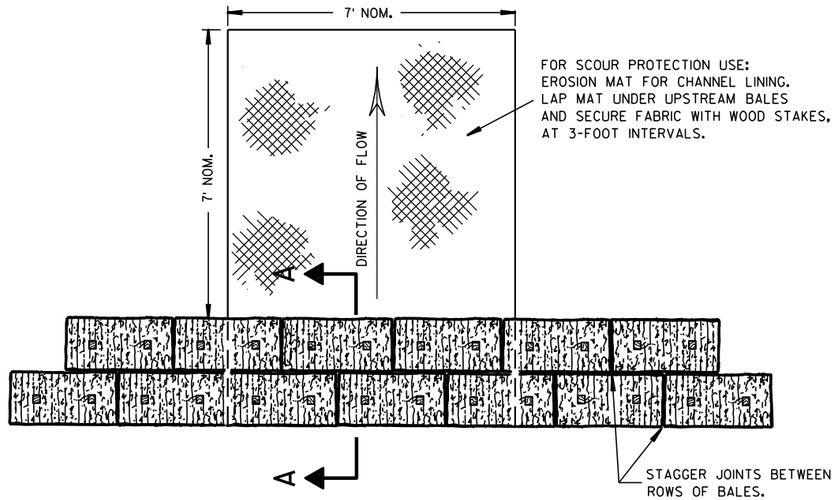
SDD 08D04 - 07

6

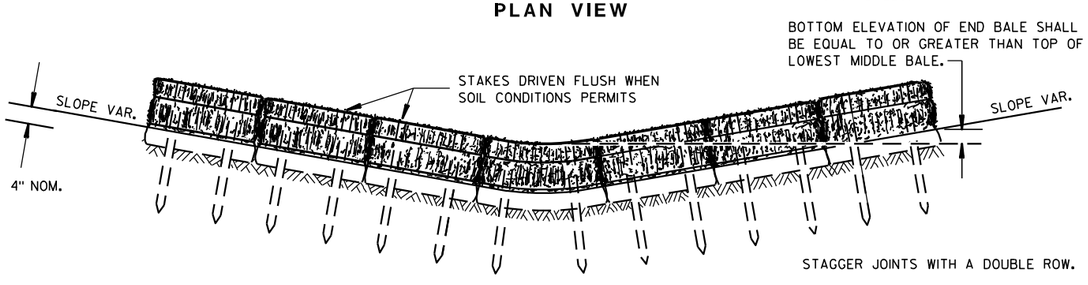
SDD 08D04 - 07



SECTION A-A



PLAN VIEW



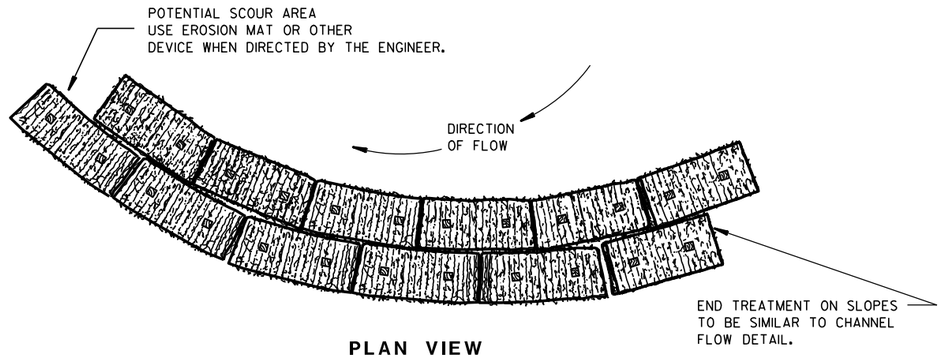
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

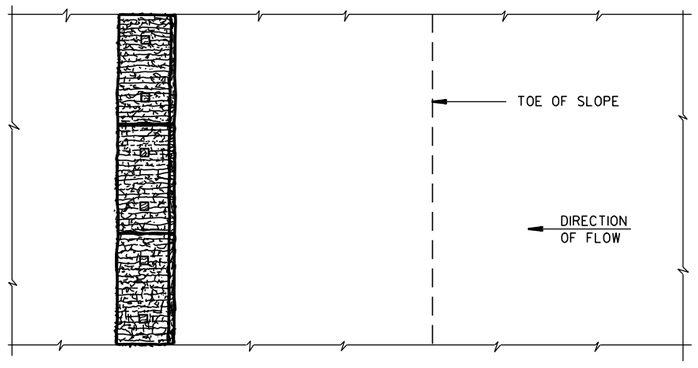
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(1) TEMPORARY DITCH CHECKS EITHER EROSION BALES OR MANUFACTURED SHALL BE PAID FOR UNDER THE BID ITEM OF TEMPORARY DITCH CHECK. THE DEPARTMENT WILL NOT PAY FOR TEMPORARY DITCH CHECKS CONSTRUCTED OF A SINGLE ROW OF EROSION BALES.

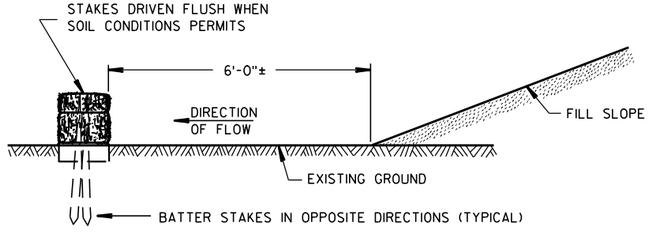


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 — DATE

/S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

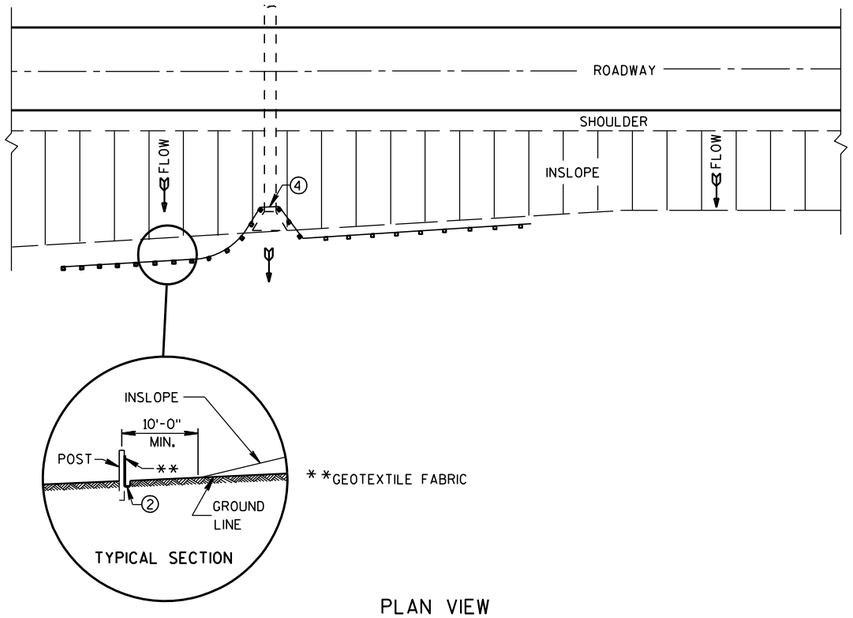
FHWA

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S.D.D. 8 E 8-3

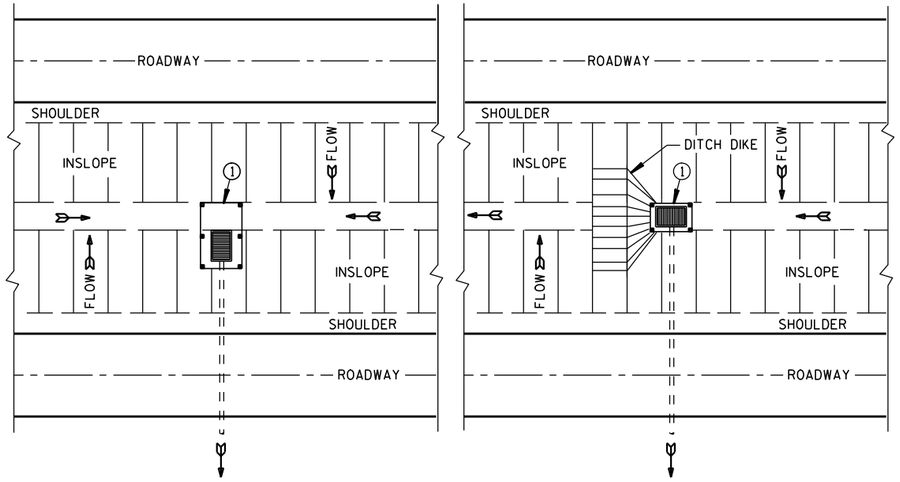
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



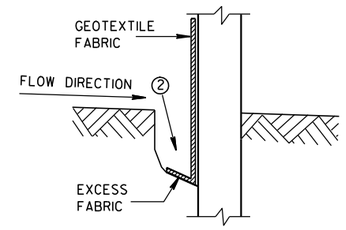
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

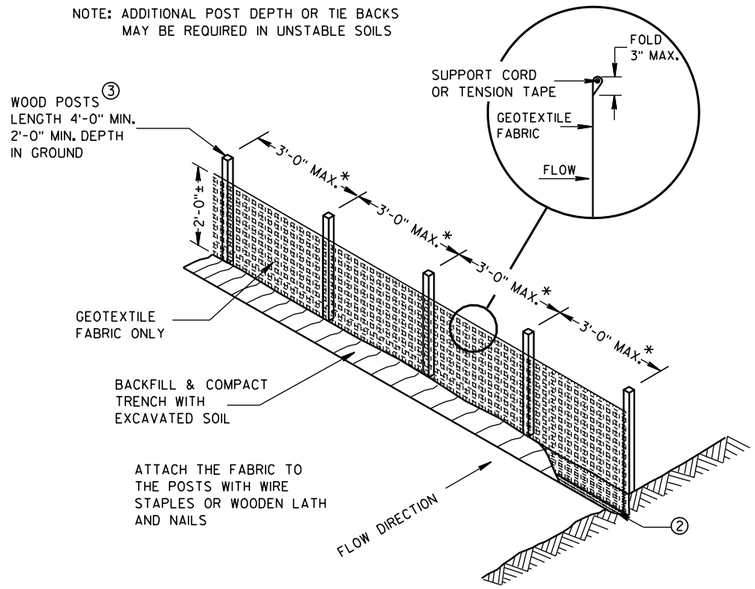
GENERAL NOTES

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

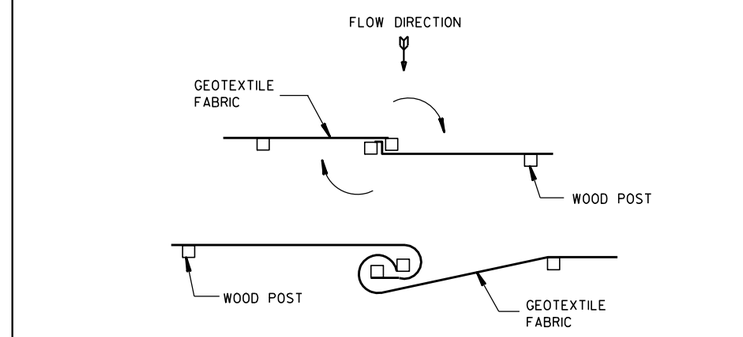
1. HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.
2. FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.
3. WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.
4. SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.
5. CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



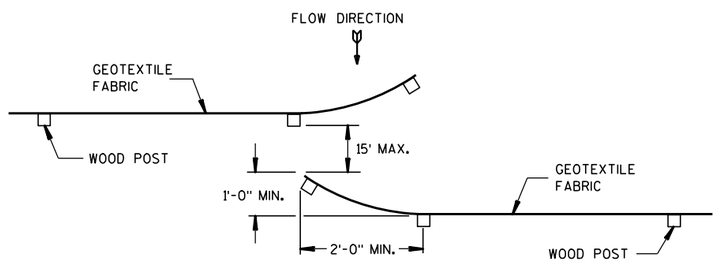
TRENCH DETAIL



SILT FENCE

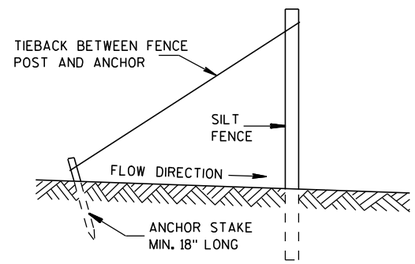


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE 5



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

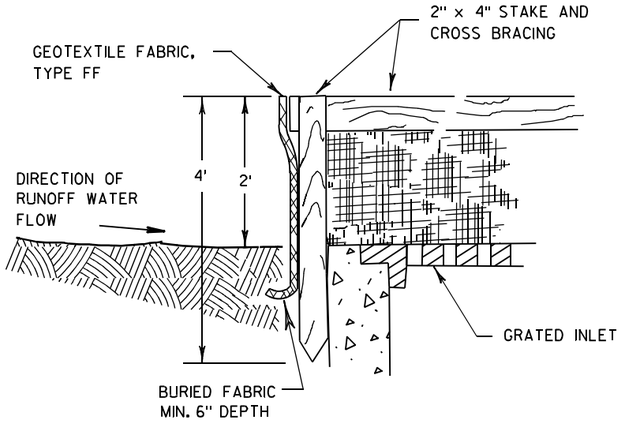
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

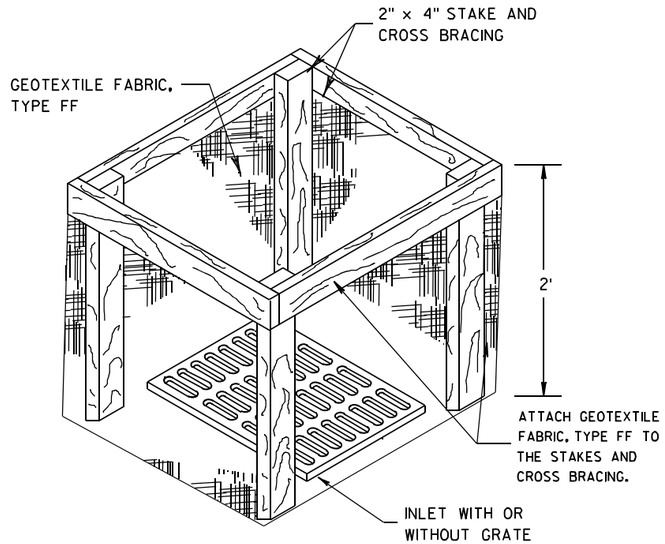
6

S.D.D. 8 E 9-6

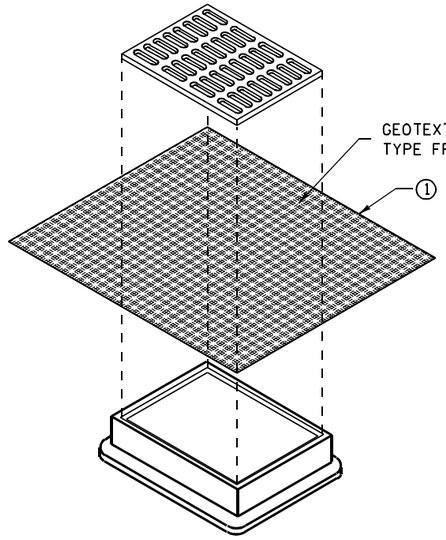
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S.D.D. 8 E 9-6



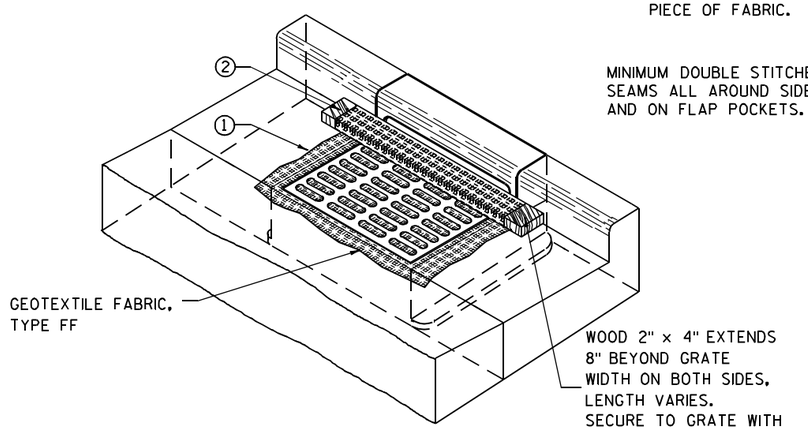


INLET PROTECTION, TYPE A

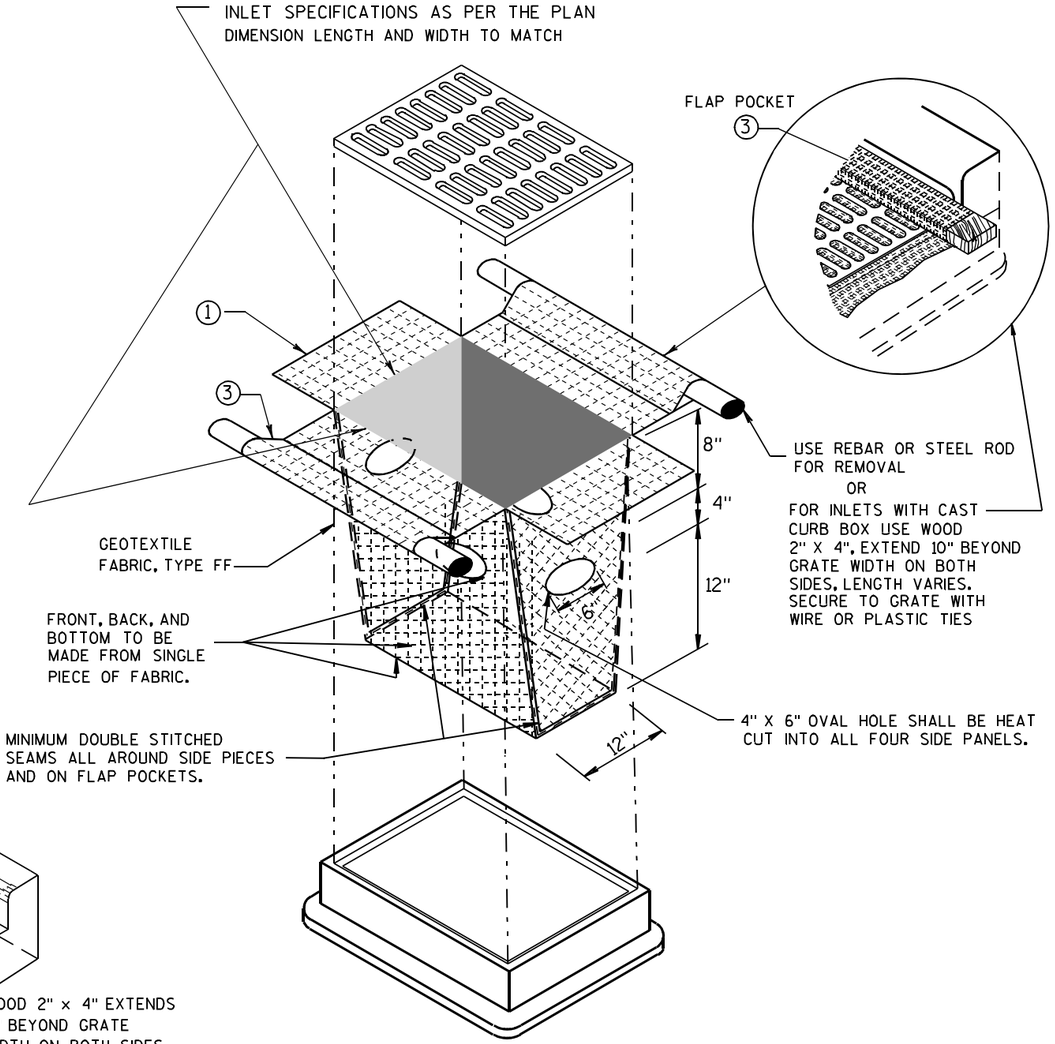


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

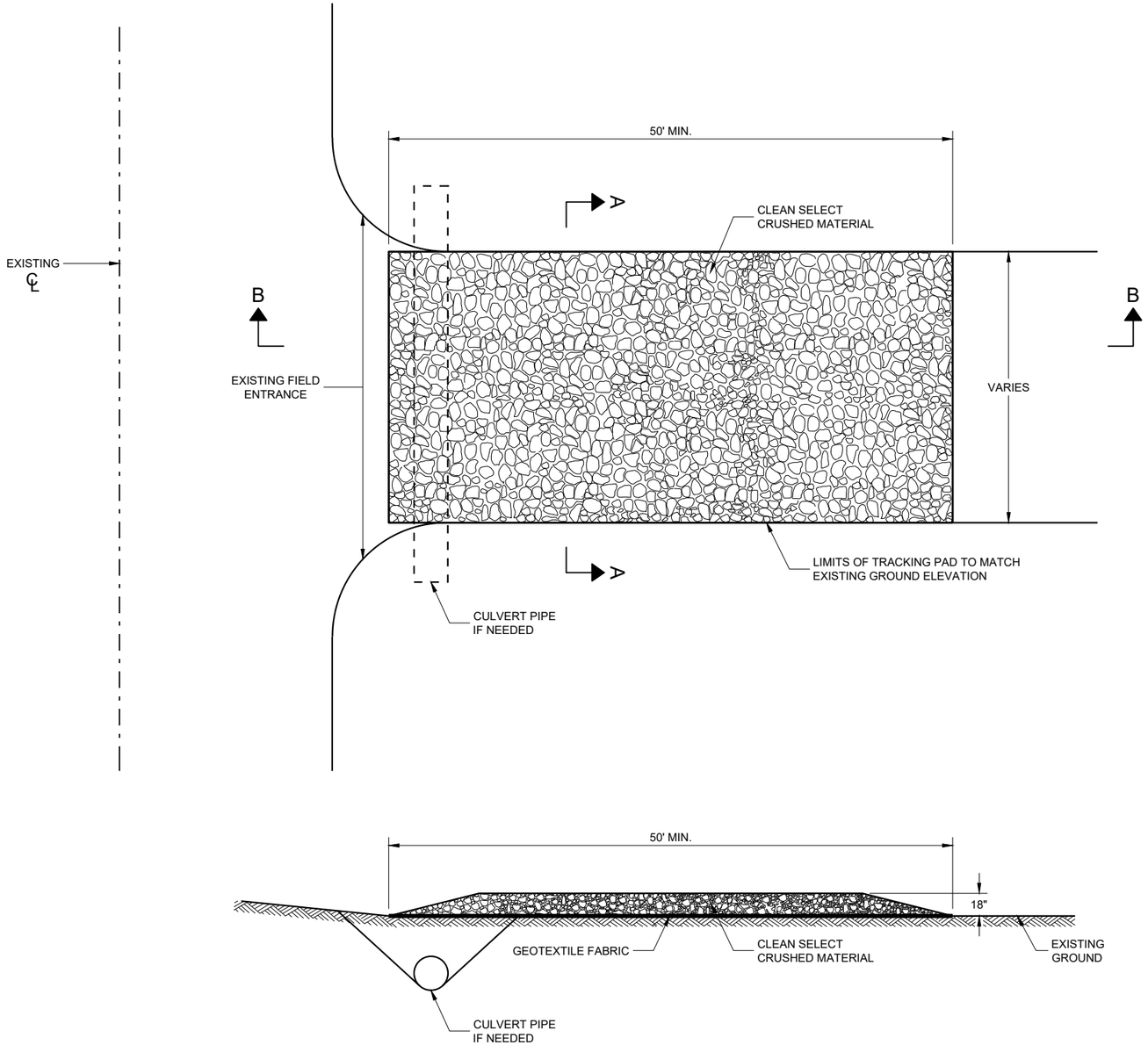
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



SECTION B - B

GENERAL NOTES

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

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

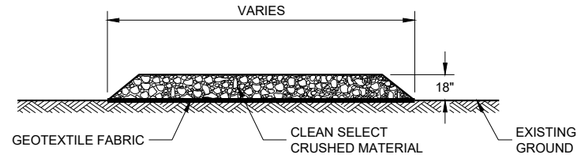
TRACKING PAD TO BE REMOVED AFTER CONSTRUCTION IS COMPLETED.

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

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

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

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



SECTION A - A

6

SDD 08E14 - 01

TRACKING PAD

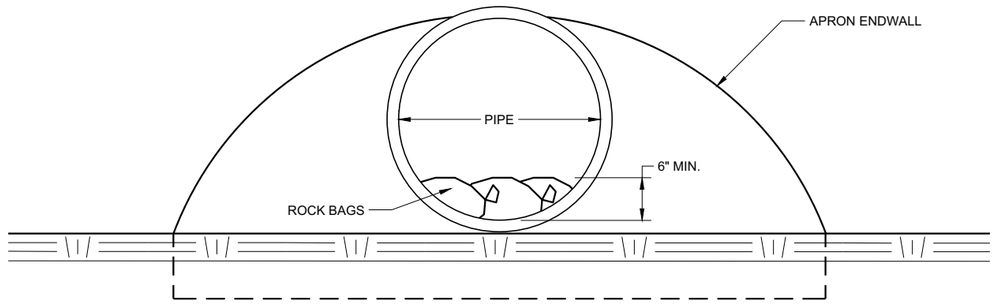
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

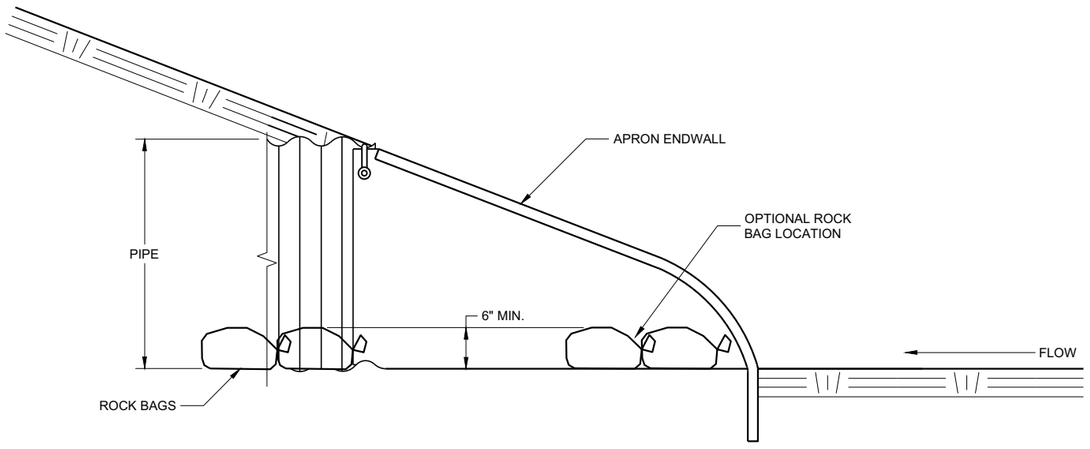
FHWA

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SDD 08E14 - 01



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
FHWA	

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SDD 08E15 - 01

METAL APRON ENDWALLS

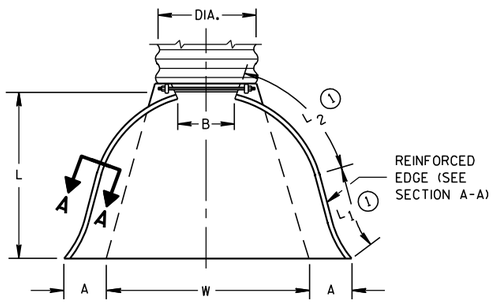
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	36	2 1/2 to 1	1 Pc.
21	.064	.060	9	12	6	36	18	29 5/8	42	2 1/2 to 1	1 Pc.
24	.064	.075	10	13	6	41	18	37 1/4	48	2 1/2 to 1	1 Pc.
30	.079	.075	12	16	8	51	18	52 1/4	60	2 1/2 to 1	1 Pc.
36	.079	.105	14	19	9	60	24	59 3/4	72	2 1/2 to 1	2 Pc.
42	.109	.105	16	22	11	69	24	75 5/8	84	2 1/2 to 1	2 Pc.
48	.109	.105	18	27	12	78	24	81	90	2 1/4 to 1	3 Pc.
54	.109	.105	18	30	12	84	30	85 1/2	102	2 1/4 to 1	3 Pc.
60	.109×	.105×	18	33	12	87	—	—	114	2 to 1	3 Pc.
66	.109×	.105×	18	36	12	87	—	—	120	2 to 1	3 Pc.
72	.109×	.105×	18	39	12	87	—	—	126	2 to 1	3 Pc.
78	.109×	.105×	18	42	12	87	—	—	132	1 1/2 to 1	3 Pc.
84	.109×	.105×	18	45	12	87	—	—	138	1 1/2 to 1	3 Pc.
90	.109×	.105×	18	37	12	87	—	—	144	1 1/2 to 1	3 Pc.
96	.109×	.105×	18	35	12	87	—	—	150	1 1/2 to 1	3 Pc.

× EXCEPT CENTER PANEL SEE GENERAL NOTES

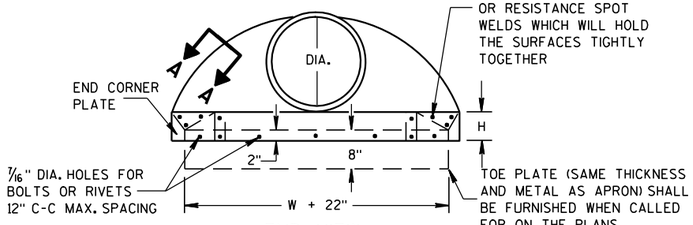
REINFORCED CONCRETE APRON ENDWALLS

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

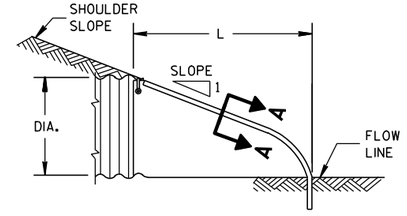
*MINIMUM
**MAXIMUM



PLAN VIEW

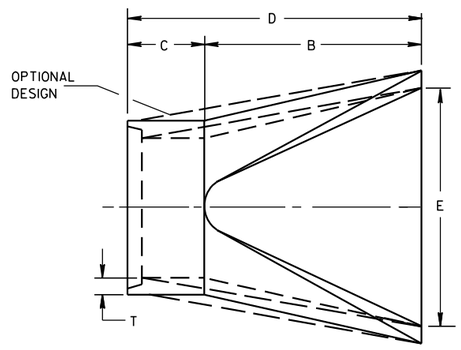


END VIEW

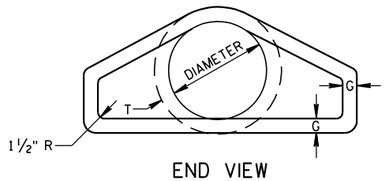


SIDE ELEVATION

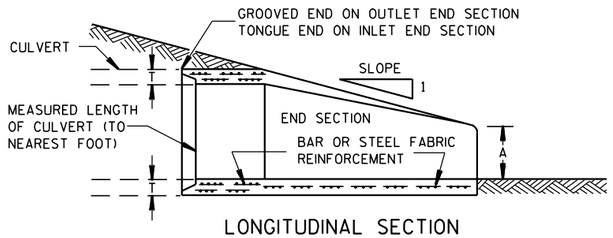
METAL ENDWALLS



PLAN

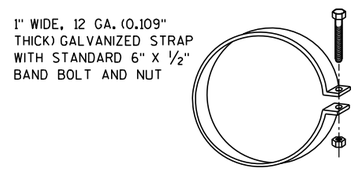


END VIEW



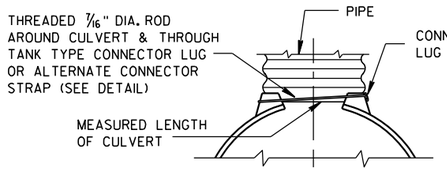
LONGITUDINAL SECTION

CONCRETE ENDWALLS

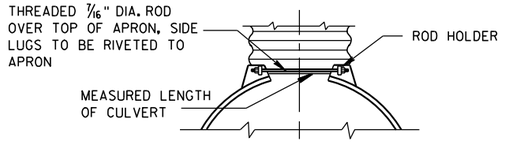


ALTERNATE FOR TYPE 1 CONNECTION

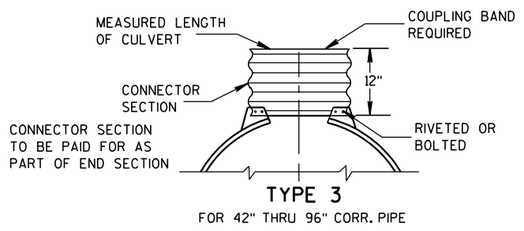
END SECTION CONNECTOR STRAP



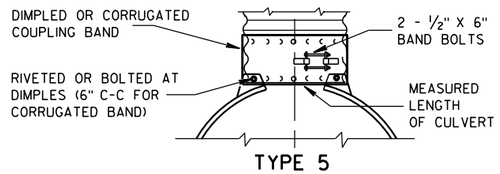
TYPE 1
FOR 12" THRU 24" CORR. PIPE



TYPE 2
FOR 30" THRU 96" CORR. PIPE



TYPE 3
FOR 42" THRU 96" CORR. PIPE



TYPE 5
ALTERNATE FOR:
ALL SIZES CORRUGATED CIRCULAR PIPE

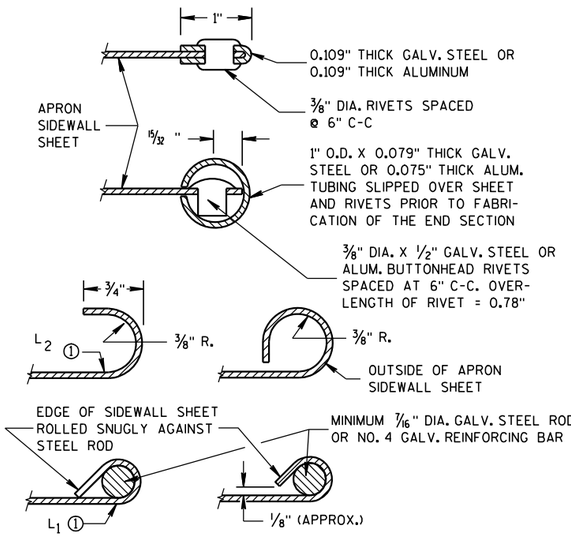
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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

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

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

CONNECTION DETAILS



SECTION A-A

GENERAL NOTES

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

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

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

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

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

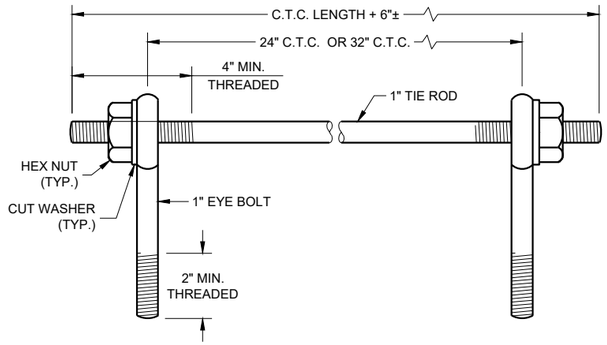
① FOR PIPE SIZES UP TO 60" DIAMETER, A 180° ROLLED EDGE MAY BE USED INSTEAD OF STEEL ROD REINFORCEMENT. SEE SECTION A-A.

APRON ENDWALLS FOR CULVERT PIPE

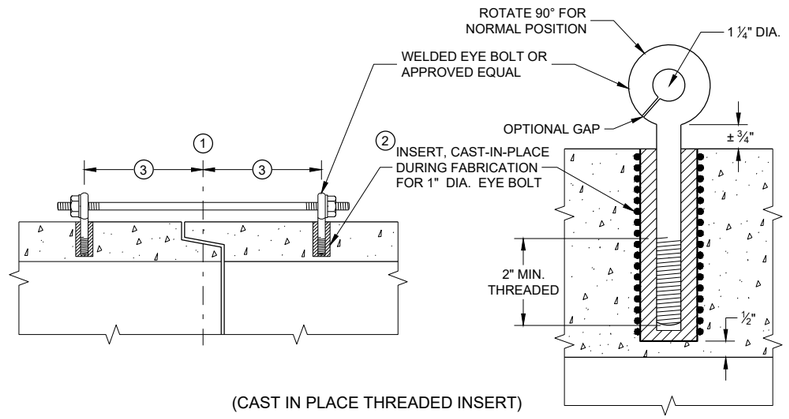
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6
S.D.D. 8 F 1-11



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) 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.

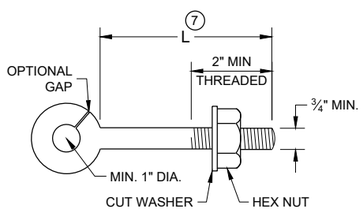
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

(5) OPENING TO BE ROD DIAMETER PLUS 1 INCH.

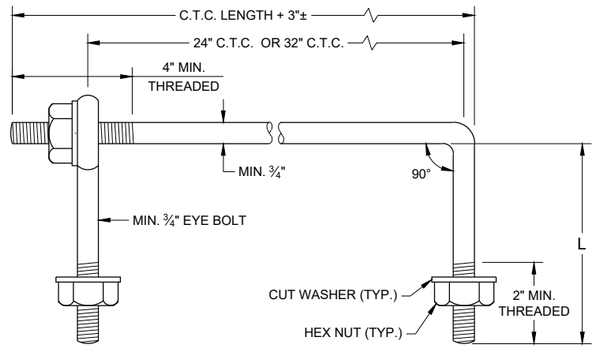
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

(7) EYE BOLT LENGTH DETERMINED BY WALL THICKNESS, BELL THICKNESS AND BOLT PROJECTION INSIDE PIPE.

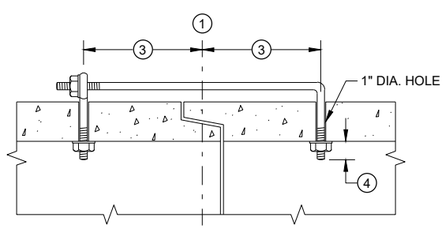


EYE BOLT (7)

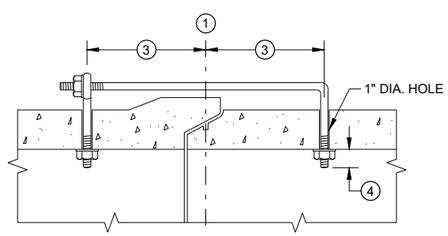
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

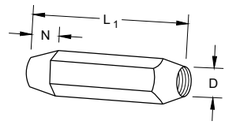
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

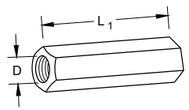
ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12 - 60	⅝	⅝	5	½
66 - 84	¾	¾	5	½
90 - 144	1	1	7	1 7/16

DIMENSIONS SHOWN ARE IN INCHES



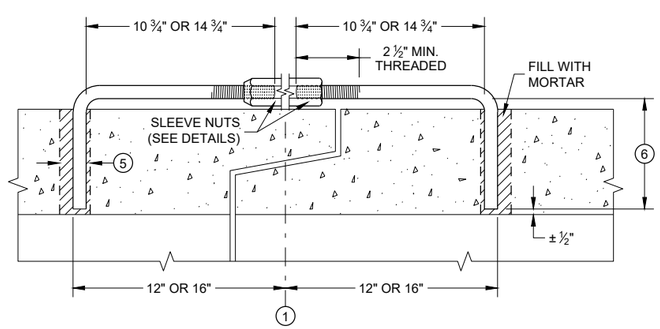
TAPERED



PLAIN

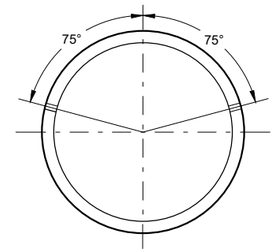
RIGHT AND LEFT THREADS

SLEEVE NUTS



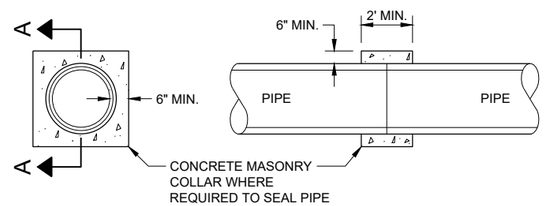
LONGITUDINAL SECTION

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

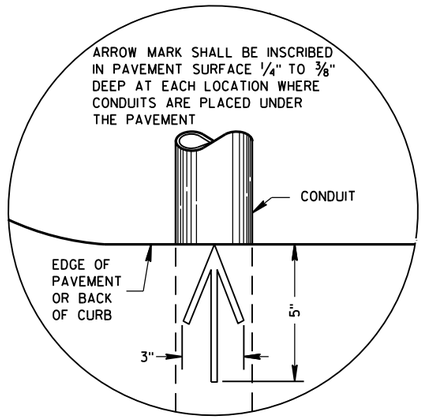
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

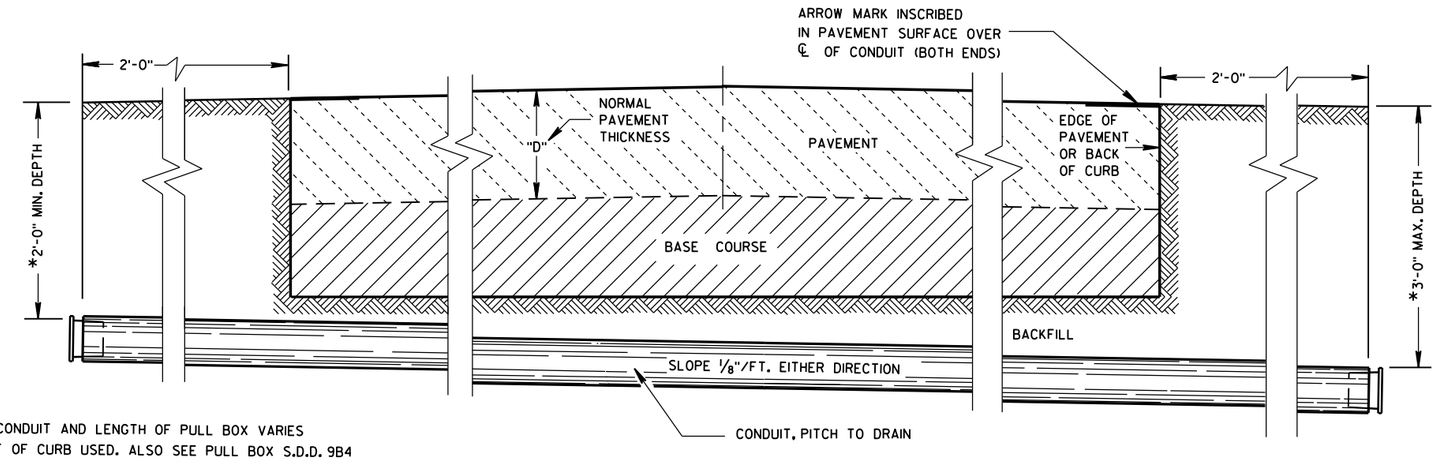
SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW

ARROW MARK



*DEPTH OF CONDUIT AND LENGTH OF PULL BOX VARIES WITH HEIGHT OF CURB USED. ALSO SEE PULL BOX S.D.D. 9B4

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

METALLIC (STANDARD SPECIFICATION 652.2.2) OR NONMETALLIC (STANDARD SPECIFICATION 652.2.3) CONDUIT SHALL BE FURNISHED AND PLACED AS SHOWN.

DEPTH OF CONDUIT INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES MINIMUM AND 36 INCHES MAXIMUM.

DEPTH OF CONDUIT INSTALLED THAT IS NOT BELOW THE TRAVELED WAY SHALL BE 18 INCHES MINIMUM AND 36 INCHES MAXIMUM.

ANY EXCEPTION TO THE MAXIMUM DEPTH SHALL BE ONLY WITH THE WRITTEN APPROVAL OF THE ENGINEER.

THE TRENCH SHALL NOT BE BACKFILLED PRIOR TO INSPECTION OF THE CONDUIT.

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

ALL METALLIC CONDUIT IN WHICH WIRE OR CABLE IS TO BE INSTALLED SHALL BE BUSHED WITH APPROVED THREADED BUSHINGS BEFORE INSTALLATION OF THE WIRE OR CABLE.

ALL METALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT TO BE INSTALLED SHALL BE CAPPED WITH THREADED PROTECTIVE CAPS, AS APPROVED BY THE ENGINEER.

ALL NONMETALLIC CONDUIT SHALL BE CAPPED OR PLUGGED IMMEDIATELY AFTER INSTALLATION AND SHALL REMAIN CAPPED OR PLUGGED UNTIL WIRE/CABLES ARE INSTALLED.

NONMETALLIC CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BENDING OF PVC ELECTRICAL CONDUIT SHALL BE ACCOMPLISHED BY USING A BLANKET OR EMERSION TYPE TANK DESIGNED FOR THE PURPOSE OF BENDING PVC ELECTRICAL CONDUIT.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON NONMETALLIC CONDUIT. (SEE NEC 347.5)

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY U.L. LISTED ADAPTER FITTINGS SHALL BE USED.

PRIOR TO CONDUIT ACCEPTANCE, CONDUIT CAPS OR PLUGS SHALL BE REMOVED, AND THE CAPS, PLUGS AND CONDUIT ENDS SHALL BE THOROUGHLY CLEANED AND THEN THE CAPS OR PLUGS REINSTALLED TO ENSURE THAT THE CAPS OR PLUGS CAN BE EASILY REMOVED IN THE FUTURE.

ALL CONDUIT BEING FURNISHED AND INSTALLED SHALL HAVE THE U.L. LABEL FIRMLY ATTACHED.

CONDUIT RUNS SHALL BE THE SAME SIZE OF CONDUIT FROM ONE END TO THE OTHER (FROM PULL BOX TO PULL BOX-OR-JUNCTION BOX TO JUNCTION BOX-OR-BASE TO BASE, ETC.).

TRACER WIRE SHALL BE INSTALLED AS STATED IN THE STANDARD SPECIFICATION, ITEM 652.3.1.1.

ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO BASE AND BASE TO BASE AS SHOWN ON THE PLANS.

CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

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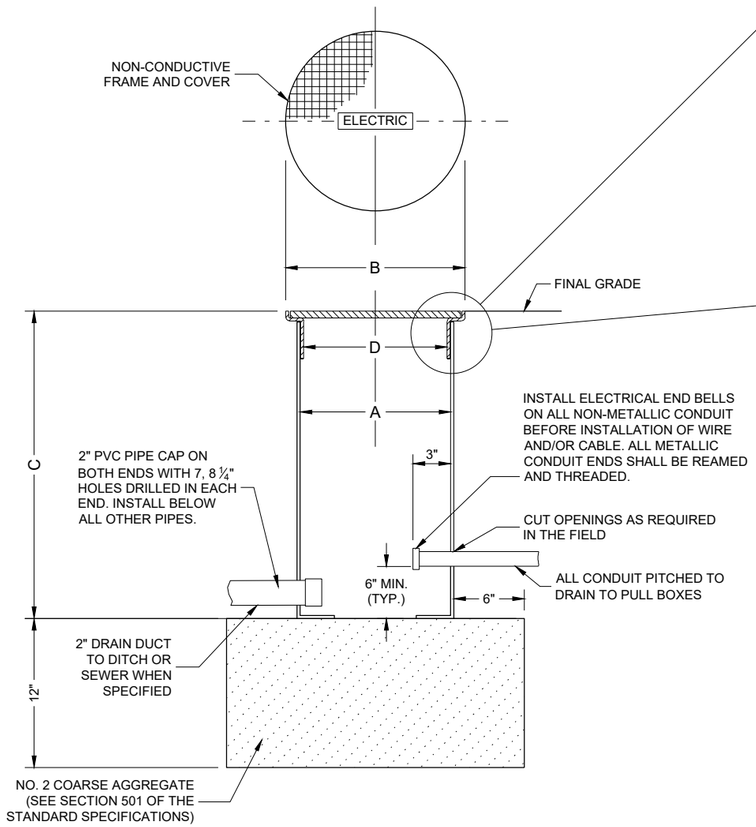
S.D.D. 9 B 2-10

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

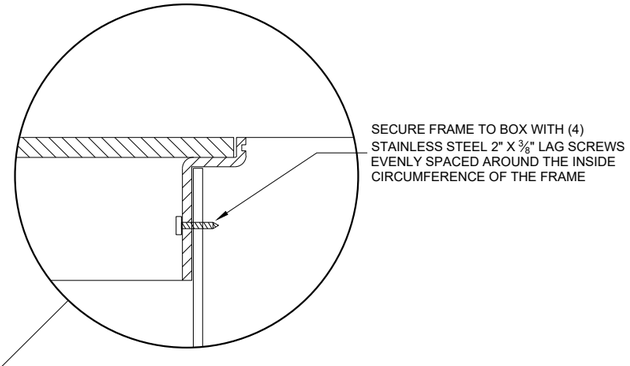
DIMENSION IN INCHES		NON- CONDUCTIVE PULL BOX	
BOX DIAMETER ** (INSIDE)	A	24	24
BOX OVERALL OUTSIDE DIAMETER	B	27	27
BOX LENGTH	C	36	42
FRAME OPENING	D	22 ½	22 ½
WEIGHT IN POUNDS *			
COVER		50	50
BOX ONLY		75	85

* THE ACTUAL WEIGHT OF THE COVER OR BOX ONLY MAY VARY NOT TO EXCEED 100 LBS INDIVIDUALLY.

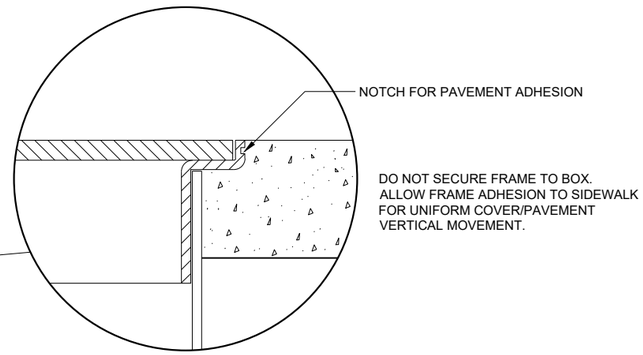
** DIAMETER VARIES FROM TOP TO BOTTOM WITH THE DIAMETER LARGER AT THE BOTTOM TO PREVENT FROST HEAVE.



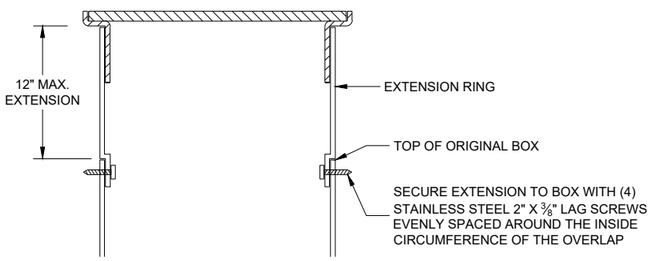
NON-CONDUCTIVE PULL BOX



INSTALLED IN SOD OR CRUSHED AGGREGATE



INSTALLED IN SIDEWALK



BOX EXTENSION

GENERAL NOTES

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

ALL BOXES, FRAMES AND COVERS SHALL BE SUITABLE FOR TIER 15 LOADING AS SPECIFIED IN ANSI/SCTE 77.

PROVIDE AN OPENING FOR TOOL ASSISTED COVER REMOVAL NOT LARGE ENOUGH TO PERMIT PASSAGE OF A SPHERE MORE THAN ½" DIAMETER

ENSURE COVER SURFACE IS SKID RESISTANT WITH A COEFFICIENT OF FRICTION OF AT LEAST 0.5 AND VERTICAL SURFACE DICONTINUITIES LESS THAN ¼".

COVER SHALL BE MAGNETICALLY LOCATABLE.

BOXES AND EXTENSIONS ARE TRIMMABLE FOR CUSTOM LENGTHS. TRIMMED PIECES SHALL MAINTAIN A UNIFORM LENGTH.

ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

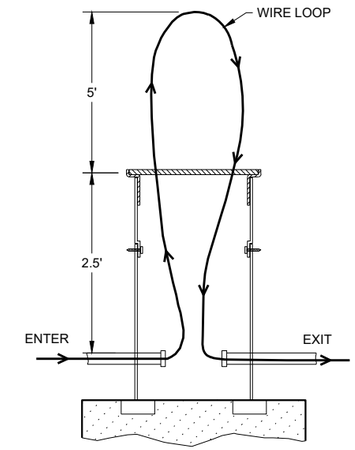
THE CONTRACTOR SHALL NOT INSTALL WIRE IN ANY PULL BOX UNTIL ITS INSTALLATION HAS BEEN INSPECTED AND ACCEPTED BY THE ENGINEER.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

ENTIRE BOX MUST BE CONSTRUCTED OF NON-CONDUCTIVE MATERIALS WITH THE EXCEPTION OF STAINLESS STEEL FASTENERS AND MAGNETIC LOCATABLE DEVICE.

WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE.

LABEL ON COVER SHALL READ "ELECTRIC" FOR SIGNAL AND LIGHTING SYSTEMS, "WISDOT ITS" FOR COMMUNICATIONS AND ITS EQUIPMENT SYSTEMS.



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX

6

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SDD 09B16 - 02

SDD 09B16 - 02

PULL BOXES NON-CONDUCTIVE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

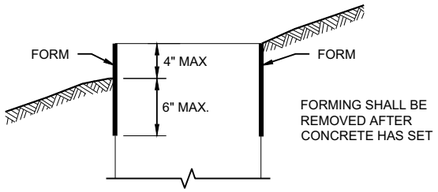
APPROVED
May 2022
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

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FHWA

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWINGSHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

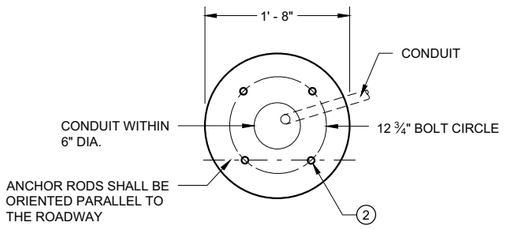
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

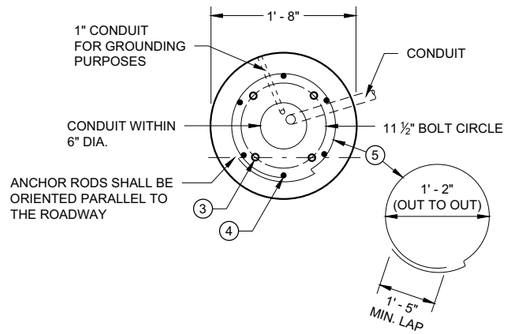
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

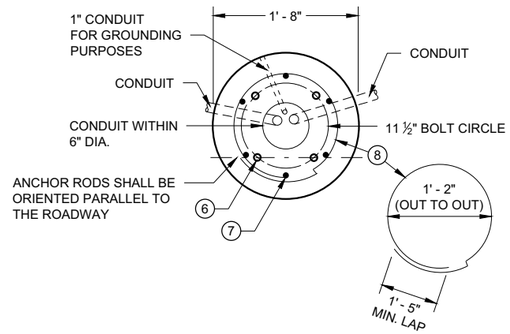
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

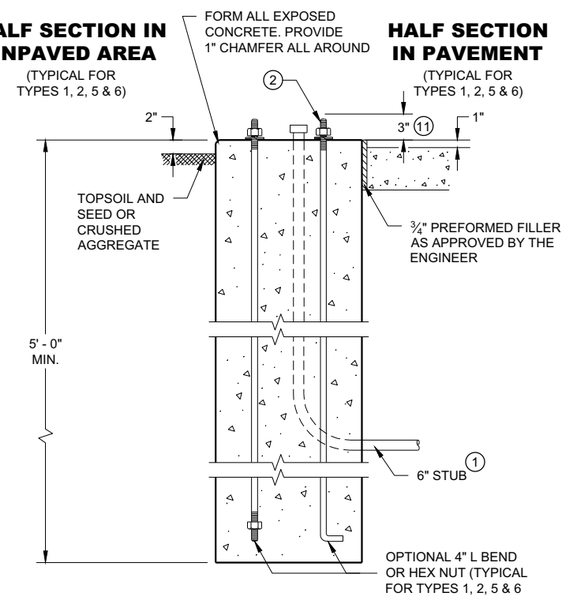
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

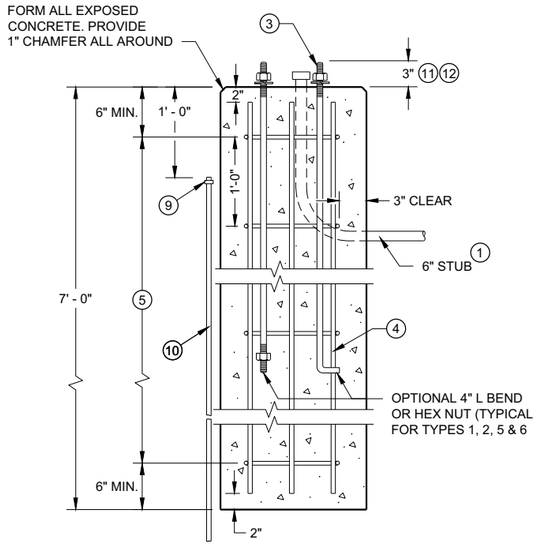
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

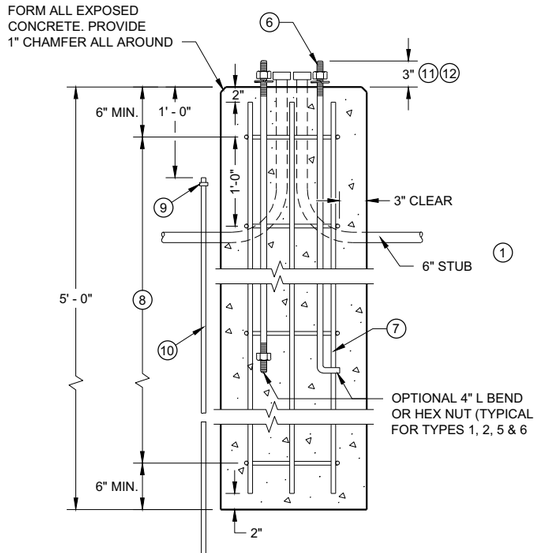
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

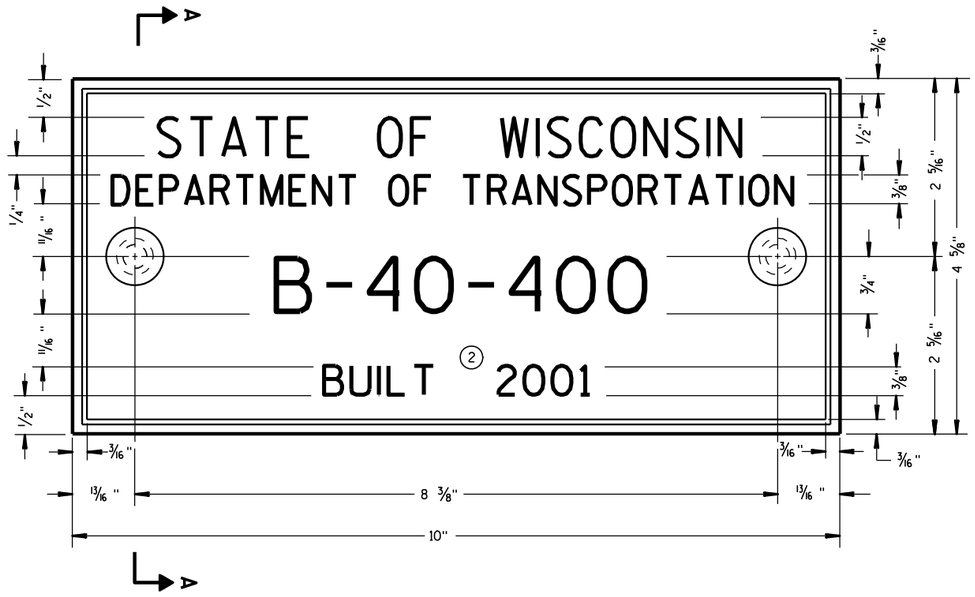
CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 125

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SDD 09C02 - 09



TYPICAL NAME PLATE
(BRIDGES, CULVERTS, AND RETAINING WALLS)

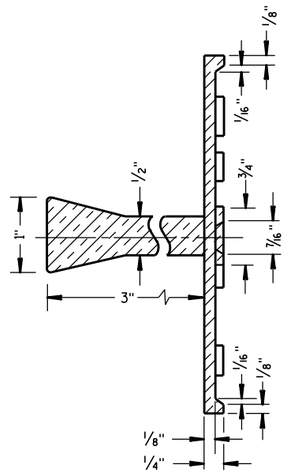
GENERAL NOTES

NAME PLATES TO BE INSTALLED ON BRIDGES, CULVERTS, AND RETAINING WALLS SHALL CONFORM TO THE REQUIREMENTS OF SECTION 502.3.11 OF THE STANDARD SPECIFICATIONS.

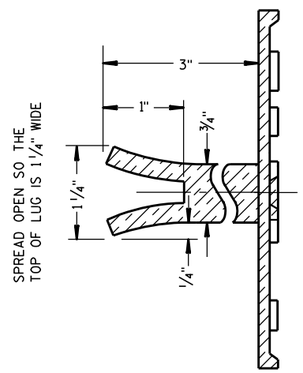
THE BRIDGE NUMBER AND YEAR BUILT SHOWN ON THIS DRAWING ARE EXAMPLES ONLY. SEE CONSTRUCTION PLANS FOR INDIVIDUAL NUMBERING AND YEAR BUILT.

(1) EPOXY RESIN SHALL BE FROM AN APPROVED MANUFACTURER AND USED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.

(2) REHABILITATION OF AN EXISTING STRUCTURE SHOULD USE THE DATE OF ORIGINAL STRUCTURE CONSTRUCTION.



SECTION A-A



ALTERNATE LUG

FOR MULTI-UNIT STRUCTURES
LINE 3 ABOVE SHALL READ

B = BRIDGE
C = CULVERT
R = RETAINING WALL

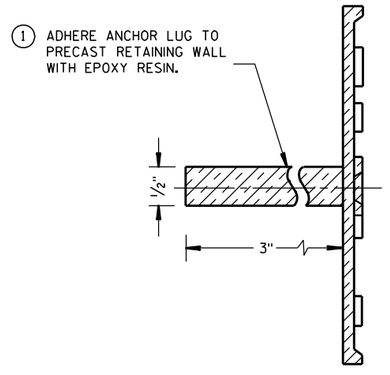
COUNTY NO.

BRIDGE NO.

UNIT NO. FOR MULTIPLE UNIT BRIDGE

B-40-400-1A

NUMBERING DESIGNATION
MULTI-UNIT STRUCTURES



ALTERNATE LUG
(FOR ATTACHMENT TO PRECAST STRUCTURES)

NAME PLATE (STRUCTURES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

3/26/10 DATE

/S/ Scot Beck-- CHIEF STRUCTURAL DEVELOP ENGINEER

FHWA

6

S.D.D. 12 A 3-10

6

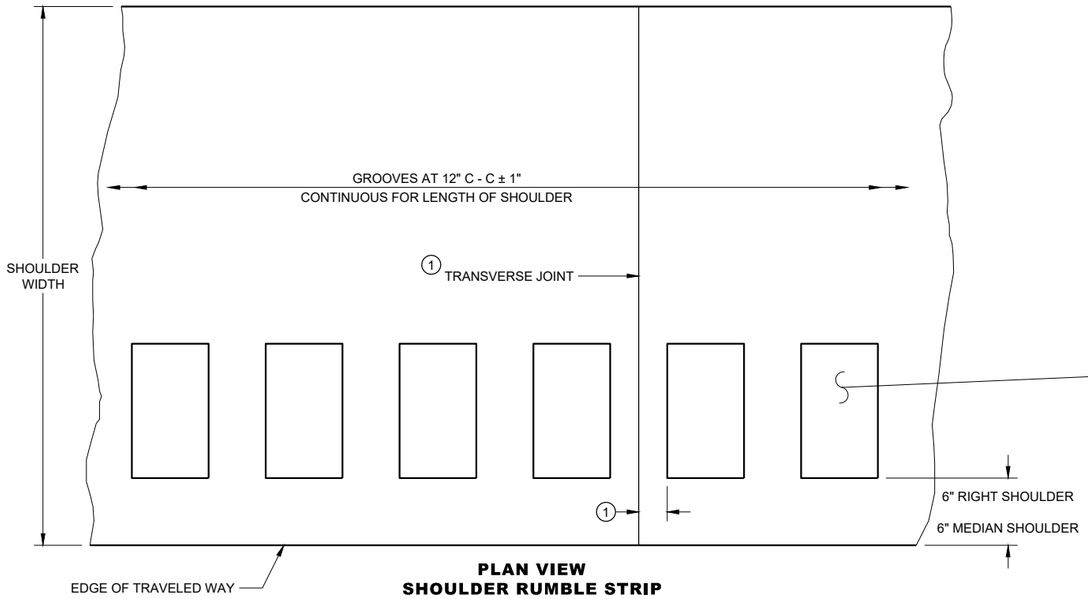
S.D.D. 12 A 3-10

GENERAL NOTES

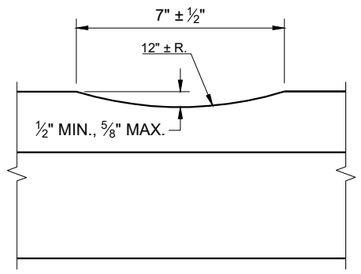
SDD 13A5, SHEET "b" SHOWS THE LOCATION OF THE RUMBLE STRIPS AT RAMP AND GORE LOCATIONS.

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIAL AND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

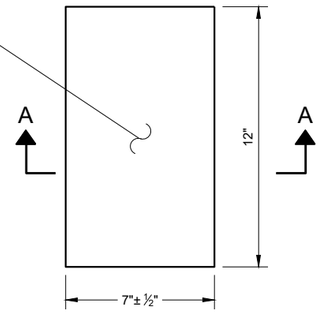
(1) CONCRETE PAVEMENT - RUMBLE STRIPS SHALL BE A MINIMUM OF 6 INCHES AWAY FROM TRANSVERSE JOINTS.



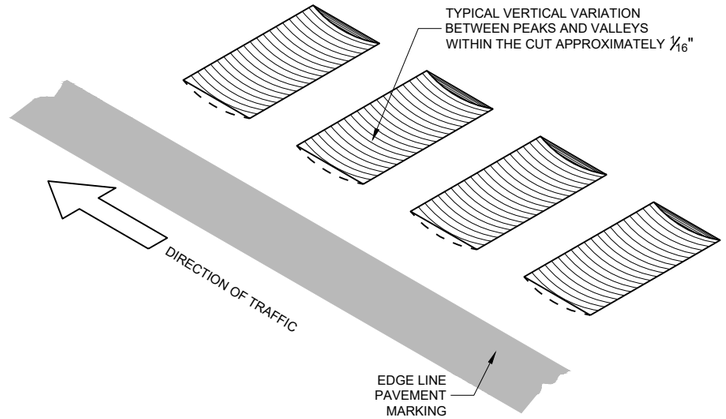
PLAN VIEW
SHOULDER RUMBLE STRIP



SECTION A - A

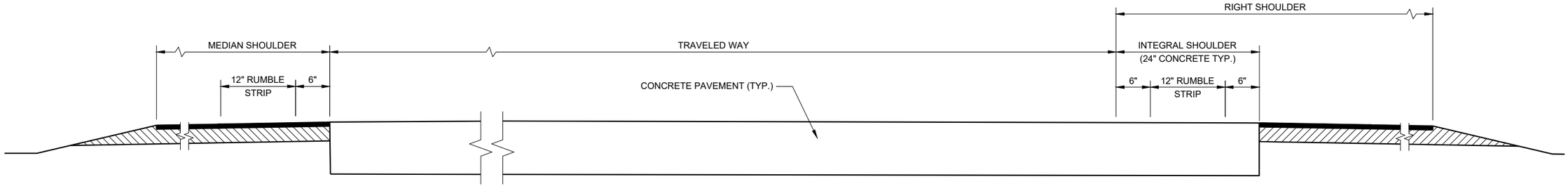


PLAN VIEW
(SINGLE GROOVE)



ISOMETRIC

PLACEMENT DETAIL FOR RUMBLE STRIP



SECTION VIEW

TYPICAL SHOULDER RUMBLE STRIPS
(ONE ROADWAY IS SHOWN)

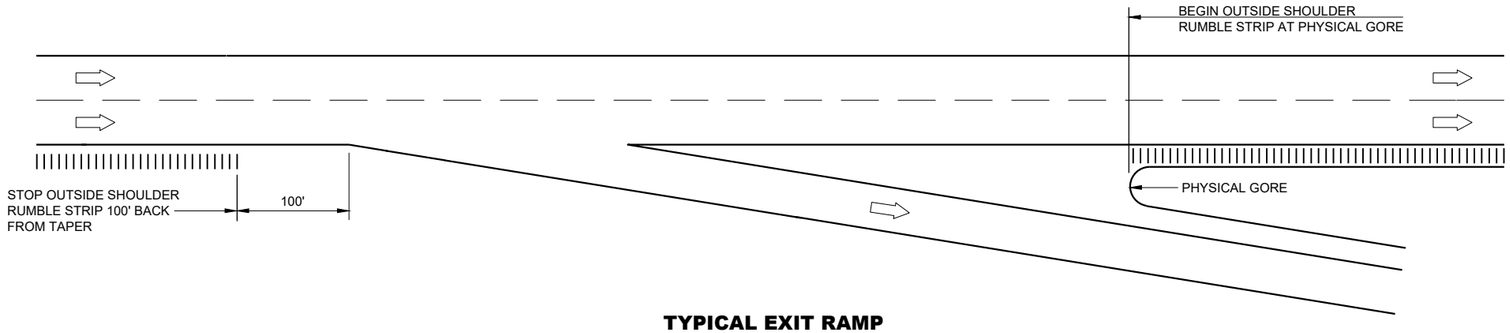
SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

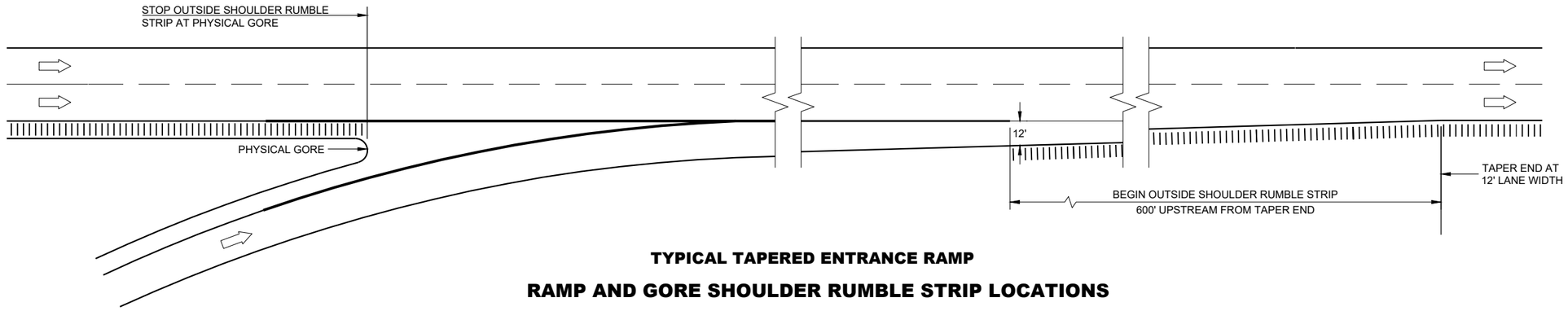
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SDD 13A05-06a

SDD 13A05-06a

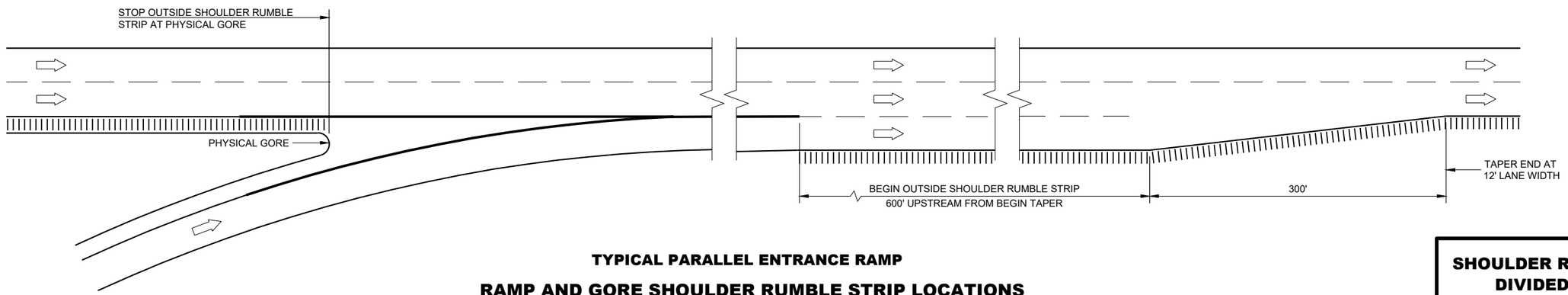


TYPICAL EXIT RAMP



TYPICAL TAPERED ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS



TYPICAL PARALLEL ENTRANCE RAMP

RAMP AND GORE SHOULDER RUMBLE STRIP LOCATIONS

GENERAL NOTES

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

RUMBLE STRIPS ON EXPRESSWAYS:
DO NOT INSTALL SHOULDER RUMBLE STRIPS ACROSS SIDE ROAD INTERSECTIONS, COMMERCIALAND PRIVATE DRIVEWAYS, ADJACENT TO RIGHT TURN LANES, LEFT TURN LANES, TURN LANE TAPERS, 25' IN ADVANCE OF BRIDGE DECKS, 25' IN ADVANCE OF BRIDGE APPROACHES, OR 100 FEET IN ADVANCE OF RAILROAD CROSSINGS.

LEGEND

DIRECTION OF TRAFFIC

SHOULDER RUMBLE STRIPS, DIVIDED ROADWAY

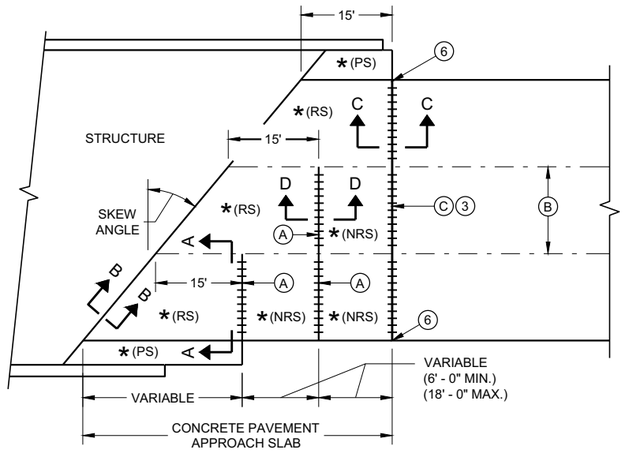
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodney Taylor — ROADWAY DESIGN STANDARDS UNIT SUPERVISOR

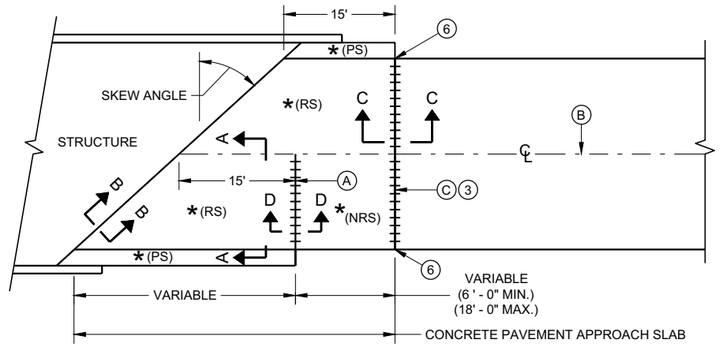
FHWA

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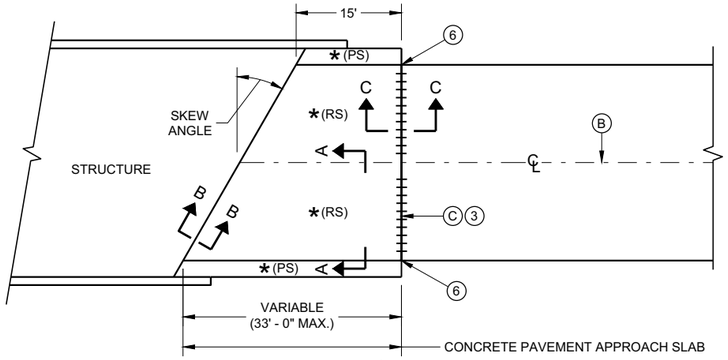
SDD 13A05-06b



SKEWED APPROACH
(PAVEMENT MORE THAN TWO LANES)



SKEWS > 20°
(PAVEMENT WIDTH ≤ 30')



SKEWS ≤ 20°
(PAVEMENT WIDTH ≤ 30')

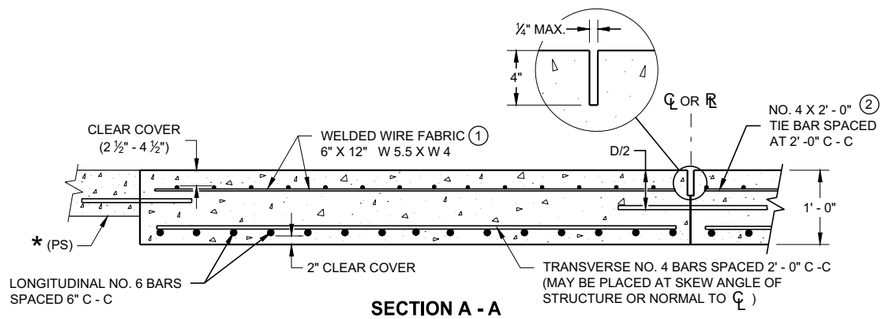
APPROACH SLAB AND ADJACENT PAVEMENT

* (RS) = REINFORCED CONCRETE SLAB

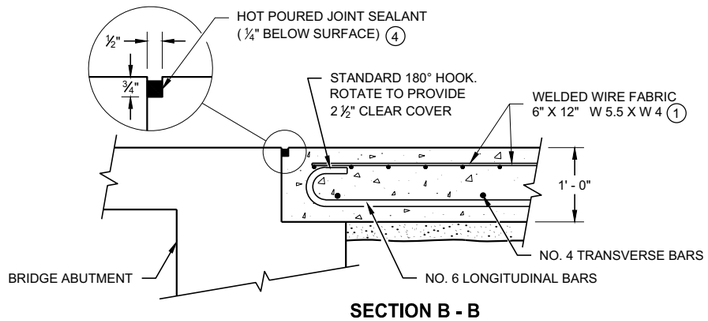
* (PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB

* (NRS) - NON - REINFORCED CONCRETE SLAB

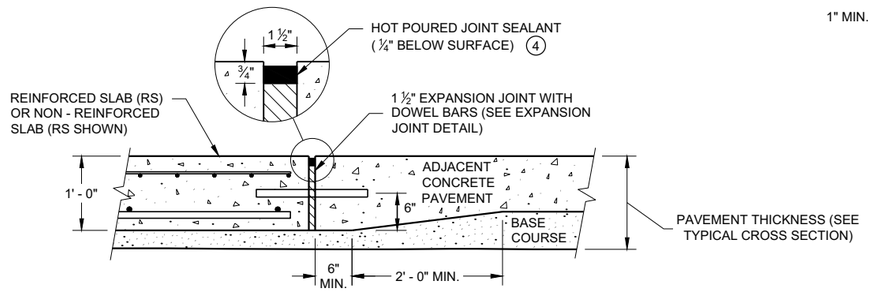
*** STANDARD DOWEL BAR DIAMETER (SEE SDD 13C11 AND SDD 13C13)



SECTION A - A
REINFORCEMENT POSITIONING DETAIL



SECTION B - B
BEND DETAIL
BOTTOM REINFORCEMENT



SECTION C - C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT

GENERAL NOTES

THE CONTRACTOR MAY SPLICE NO. 6 BARS IN THE APPROACH SLAB FOR SKEWED STRUCTURES ONLY. STAGGER SPLICES WITH A MAXIMUM OF ONE SPLICE PER BAR. THE LENGTH OF LAP IS 20 INCHES.

TACK WELD DOWEL BARS TO THE BASKETS ON ALTERNATE ENDS.

(1) THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2' - 0 " C - C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

(2) THE CONTRACTOR MAY OMIT THE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

(3) DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

(4) USE A JOINT SEALANT CONFORMING TO STANDARD SPECIFICATION 415.2.6.

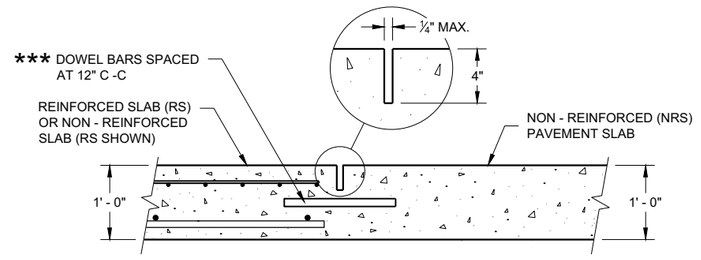
(5) PLACE EXPANSION CAP ON THE END OF THE DOWEL THAT IS NOT TACK WELDED TO THE BASKET. DO NOT FORCE DOWEL BAR PAST THE DOWEL STOP.

(6) EXTEND EXPANSION JOINT THROUGH ANY ADJACENT TIED CONCRETE.

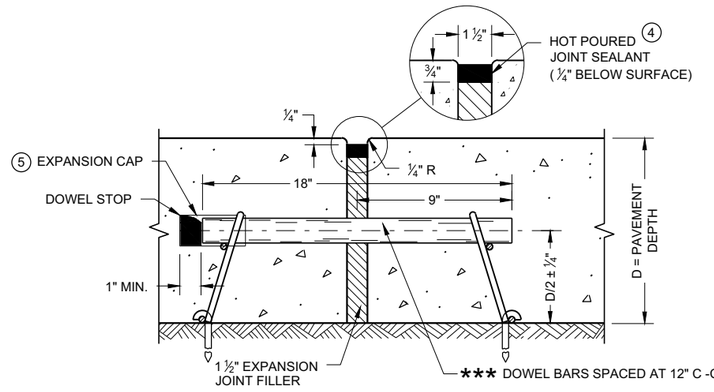
(A) STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℞.

(B) STANDARD LONGITUDINAL JOINT WITH TIE BARS.

(C) 1 ½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℞ .



SECTION D - D
CONTRACTION JOINT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

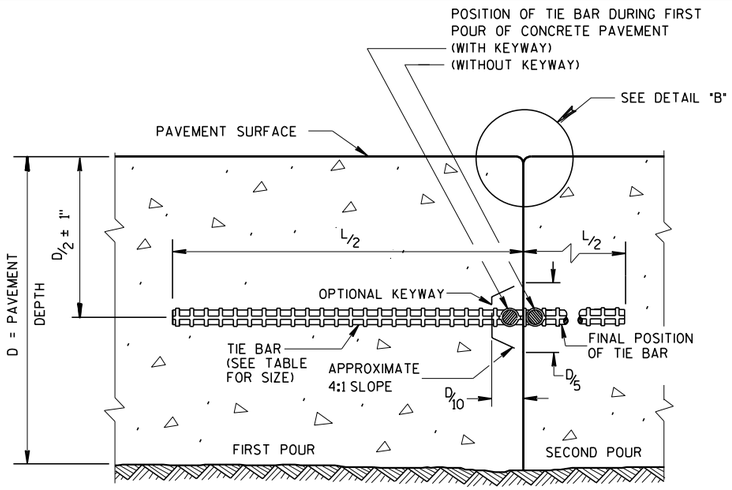
APPROVED
November 2018
DATE

/S/ Peter Kemp, P.E.
PAVEMENT SUPERVIS

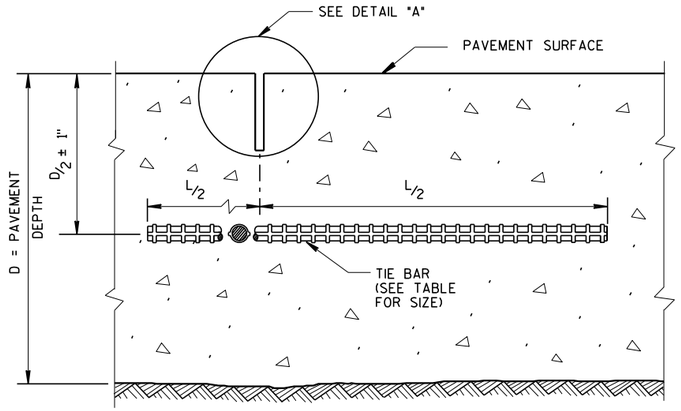
FHWA

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SDD 13B02 - 09a



CONSTRUCTION JOINT



SAWED JOINT

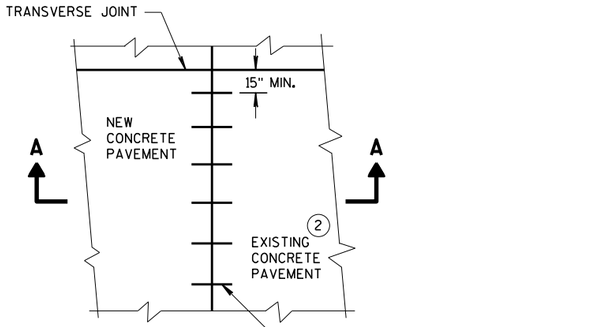
GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

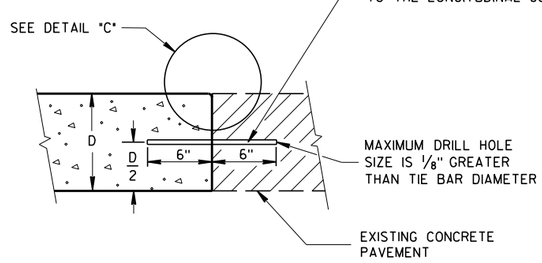
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

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

(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

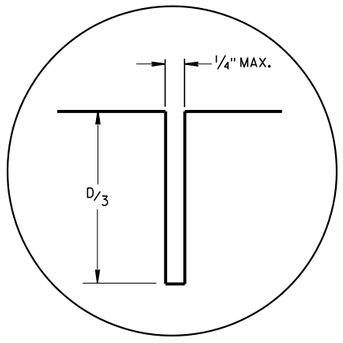


PLAN VIEW

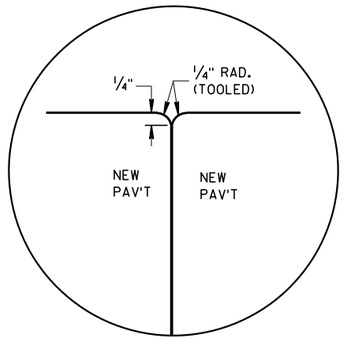


SECTION A-A

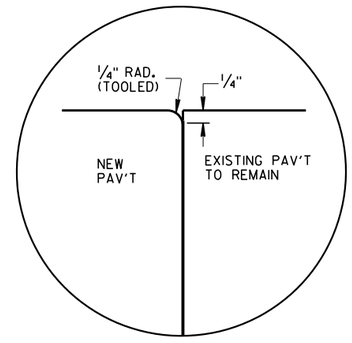
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



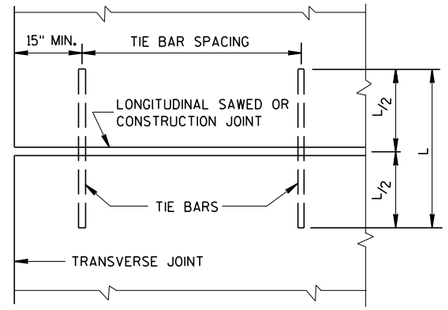
DETAIL "C"

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 1/2"	NO. 4	30"	36"
≥ 10 1/2"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINUMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

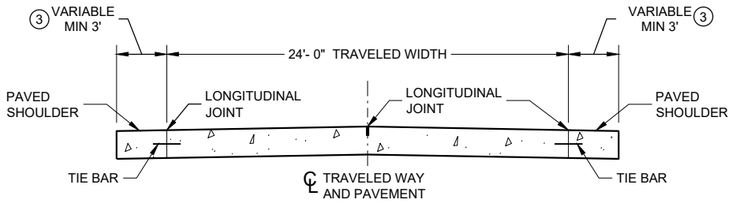


PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

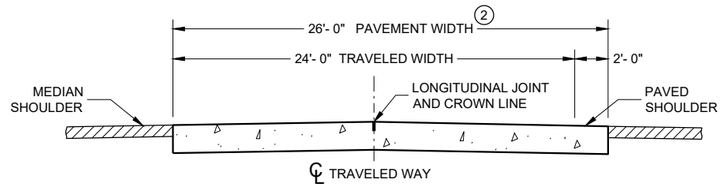
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Peter Kemp PE
PAVEMENT SUPE
FHWA

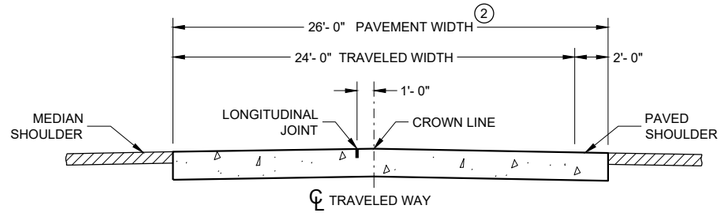


SECTION A - A

TWO-LANE TWO-WAY HIGHWAY (1)



SECTION B - B



ALTERNATIVE SECTION B - B

DIVIDED HIGHWAY (1)

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

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

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

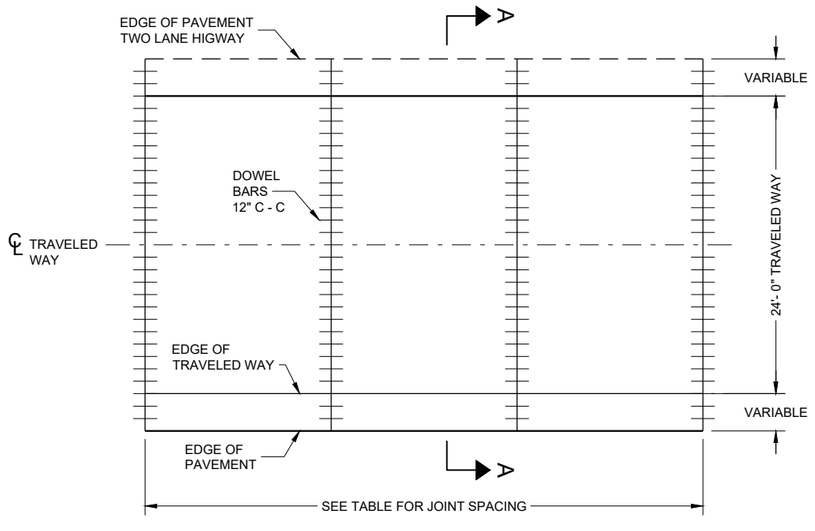
(1) REFER TO TYPICAL CROSS SECTIONS FOR ADDITIONAL DETAILS.

(2) MEASURE THE ENTIRE PAVED WIDTH INCLUDING THE PORTION(S) LABELED "PAVED SHOULDER" AS CONCRETE PAVEMENT.

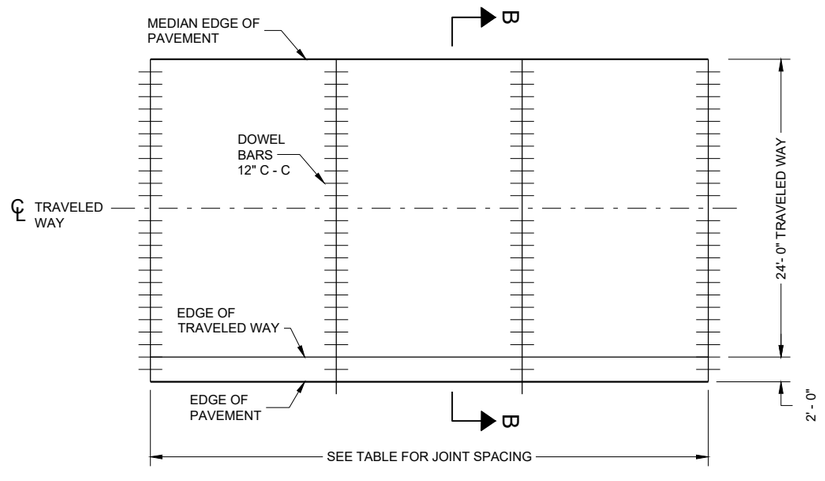
(3) SHOULDER WIDTHS LESS THAN 3 FEET SHALL BE PAVED INTEGRAL TO THE MAINLINE CONCRETE PAVEMENT, SEE SECTION B-B.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'



CONTRACTION JOINT LAYOUT FOR TWO-LANE TWO-WAY HIGHWAY



CONTRACTION JOINT LAYOUT FOR DIVIDED HIGHWAY

RURAL DOWELED CONCRETE PAVEMENT

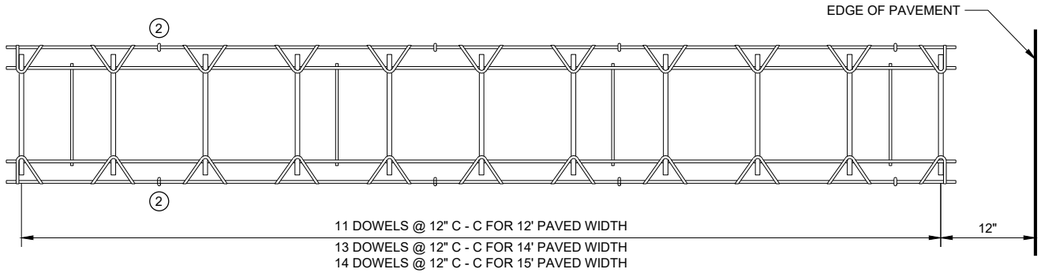
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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SDD 13C11 - 14a

6

SDD13C11 - 14a



PLAN VIEW



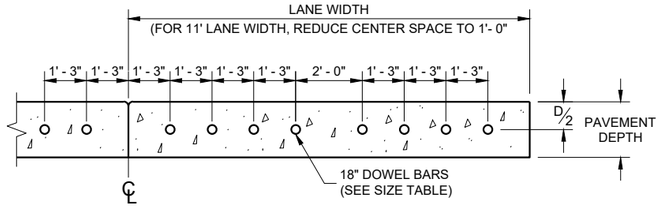
SIDE VIEW

(NORMAL TO CENTERLINE)

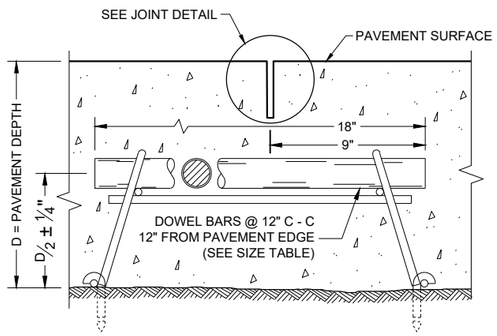
CONTRACTION JOINT DOWEL ASSEMBLY (1)

GENERAL NOTES

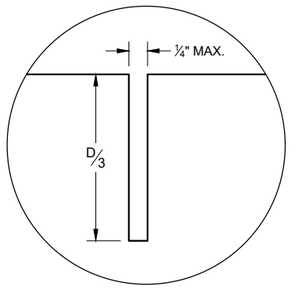
1. OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.
2. SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.
3. FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.
4. PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.
5. INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.
6. APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.
7. ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



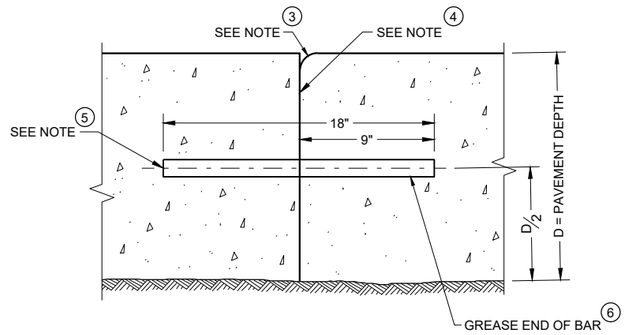
DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



DOWELED CONTRACTION JOINT



JOINT DETAIL



TRANSVERSE CONSTRUCTION JOINT

RURAL DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

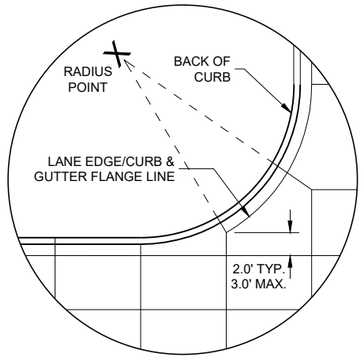
APPROVED
November 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

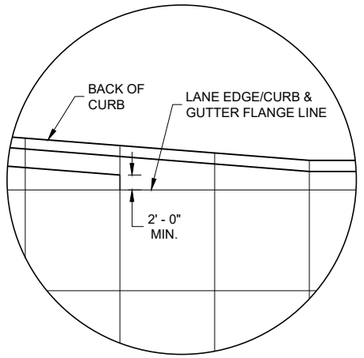
FHWA

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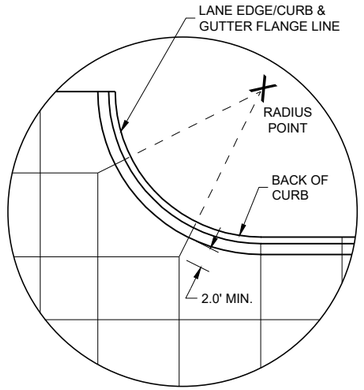
SDD 13C11 - 14b
SDD 13C11 - 14b



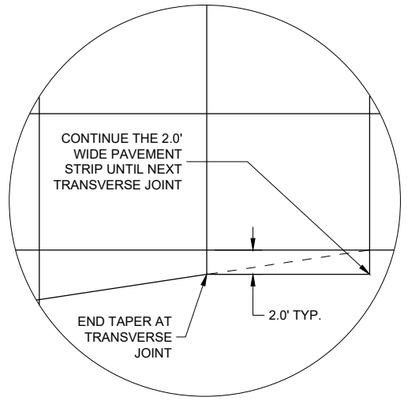
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

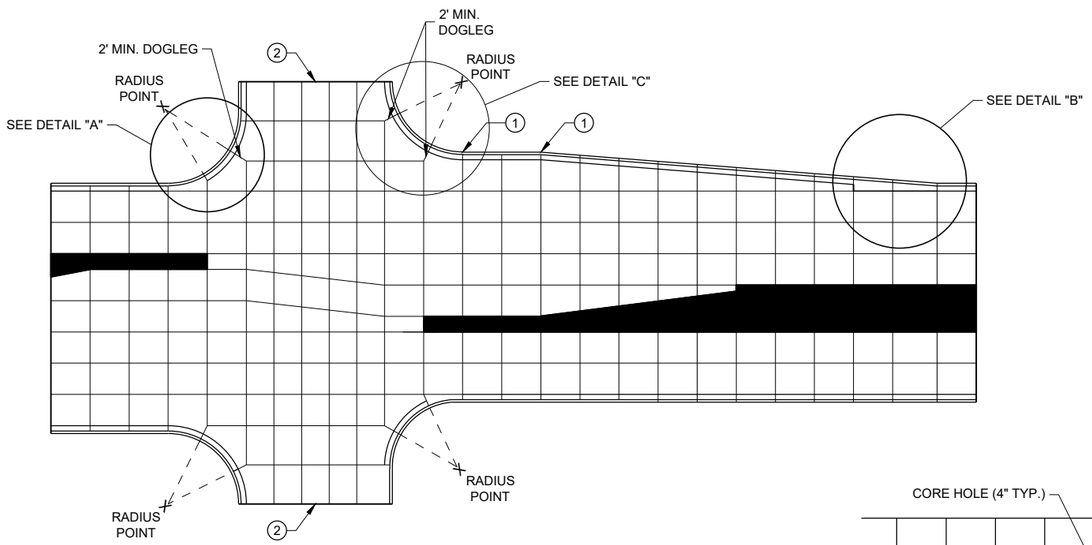
AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

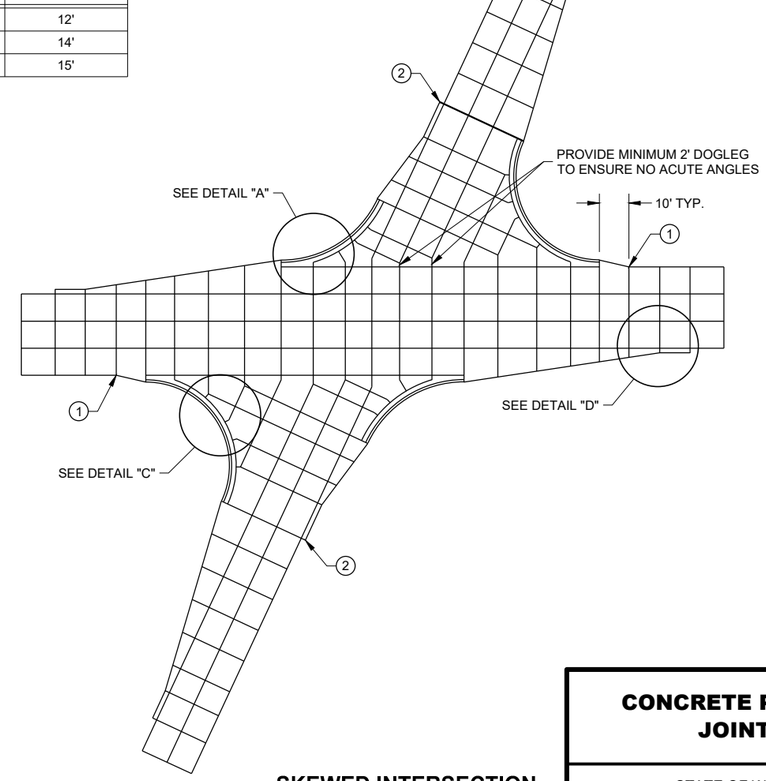
1. PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.
2. CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.
3. THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



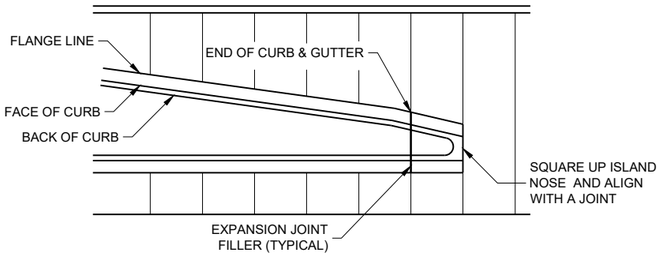
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

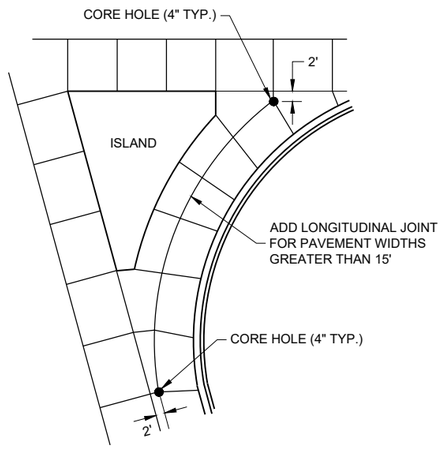
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08a

6

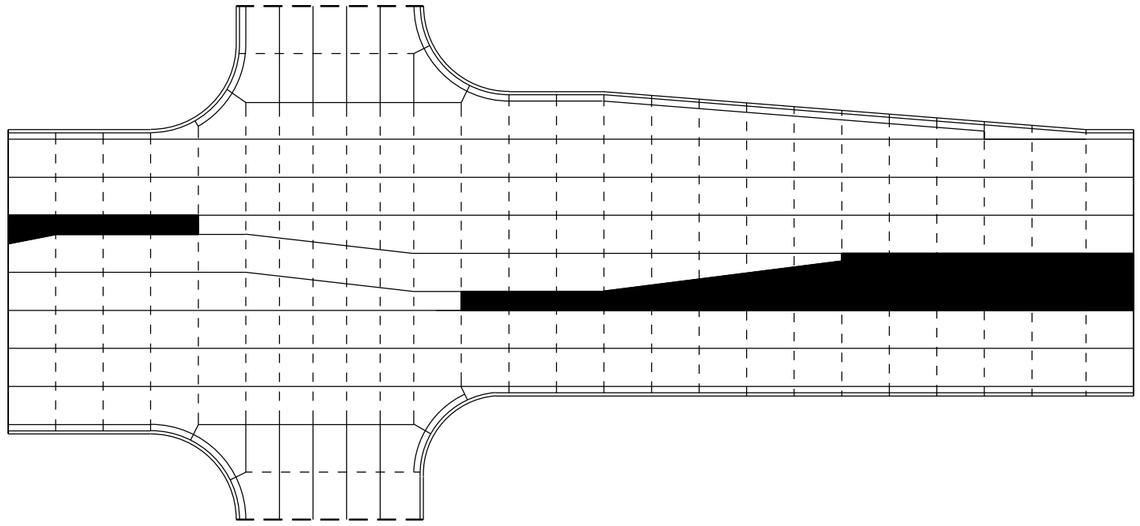
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

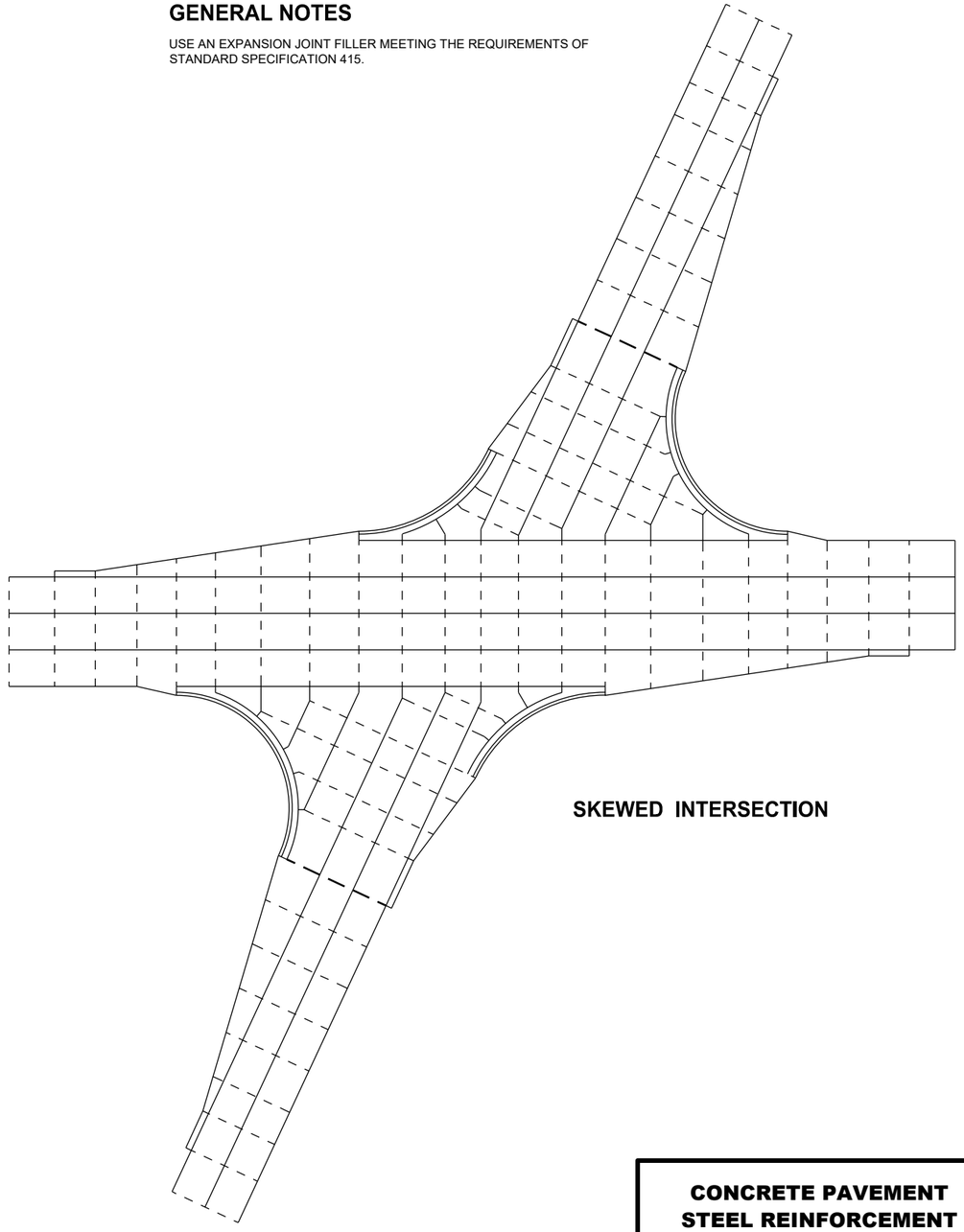
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

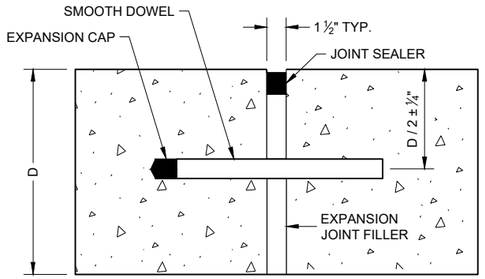
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

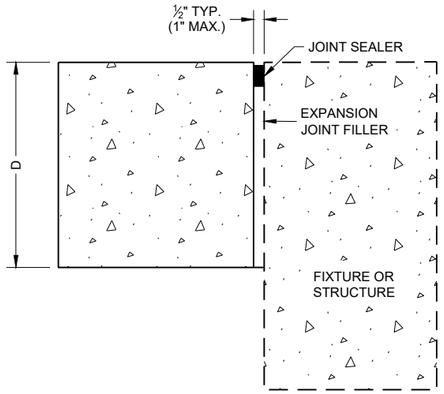
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

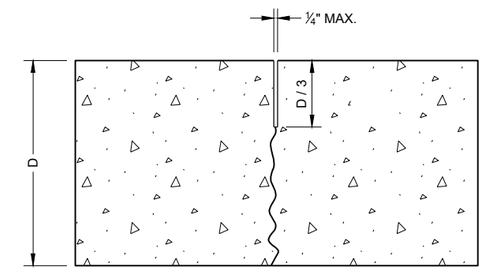
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

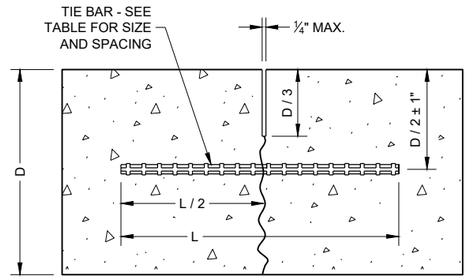
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

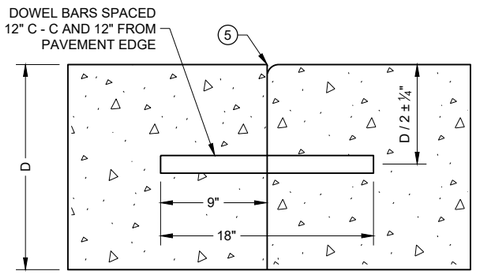
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



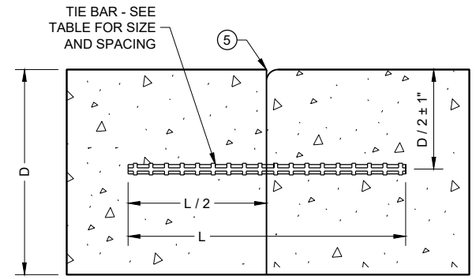
UNDOWELED TRANSVERSE



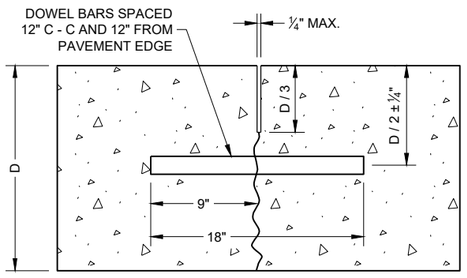
TIED LONGITUDINAL



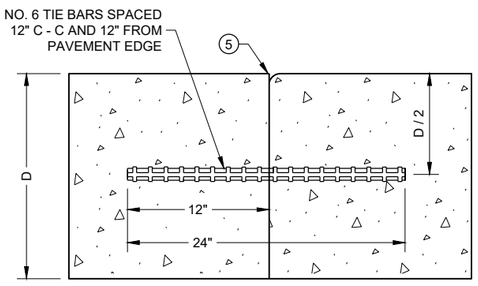
DOWELED TRANSVERSE (3)



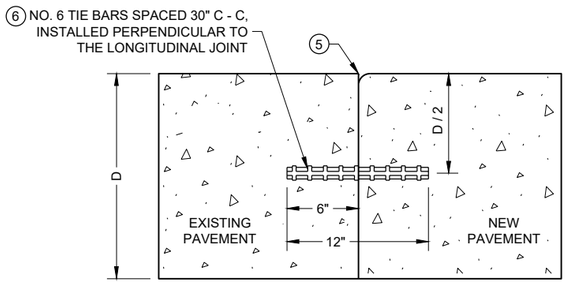
TIED LONGITUDINAL



DOWELED TRANSVERSE



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

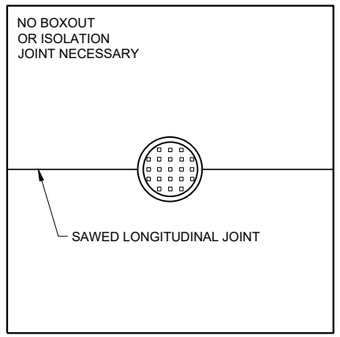
CONTRACTION JOINTS (2)

CONSTRUCTION JOINTS (4)

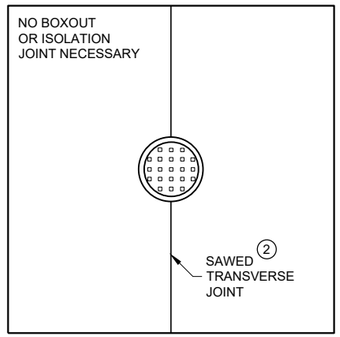
CONCRETE PAVEMENT JOINT TYPES

SDD 13C18 - 08c

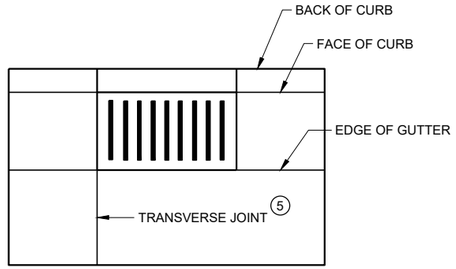
6



MANHOLE WITH LONGITUDINAL JOINT



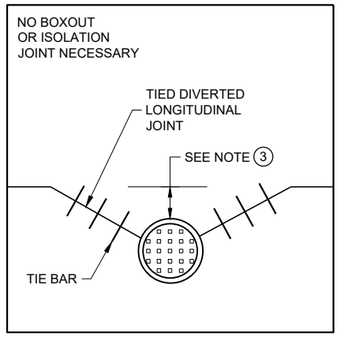
MANHOLE WITH TRANSVERSE JOINT



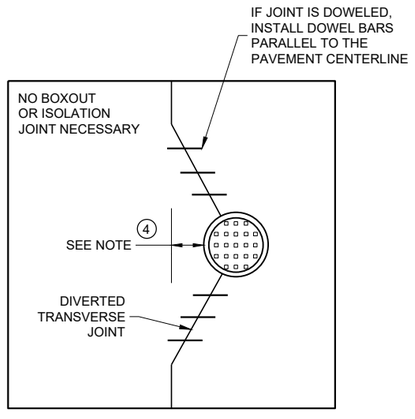
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

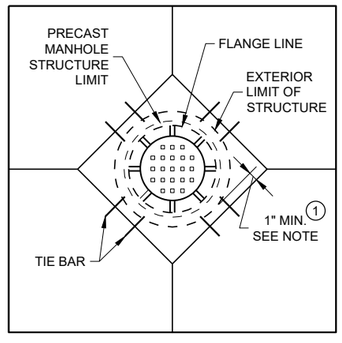
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVISO

FHWA

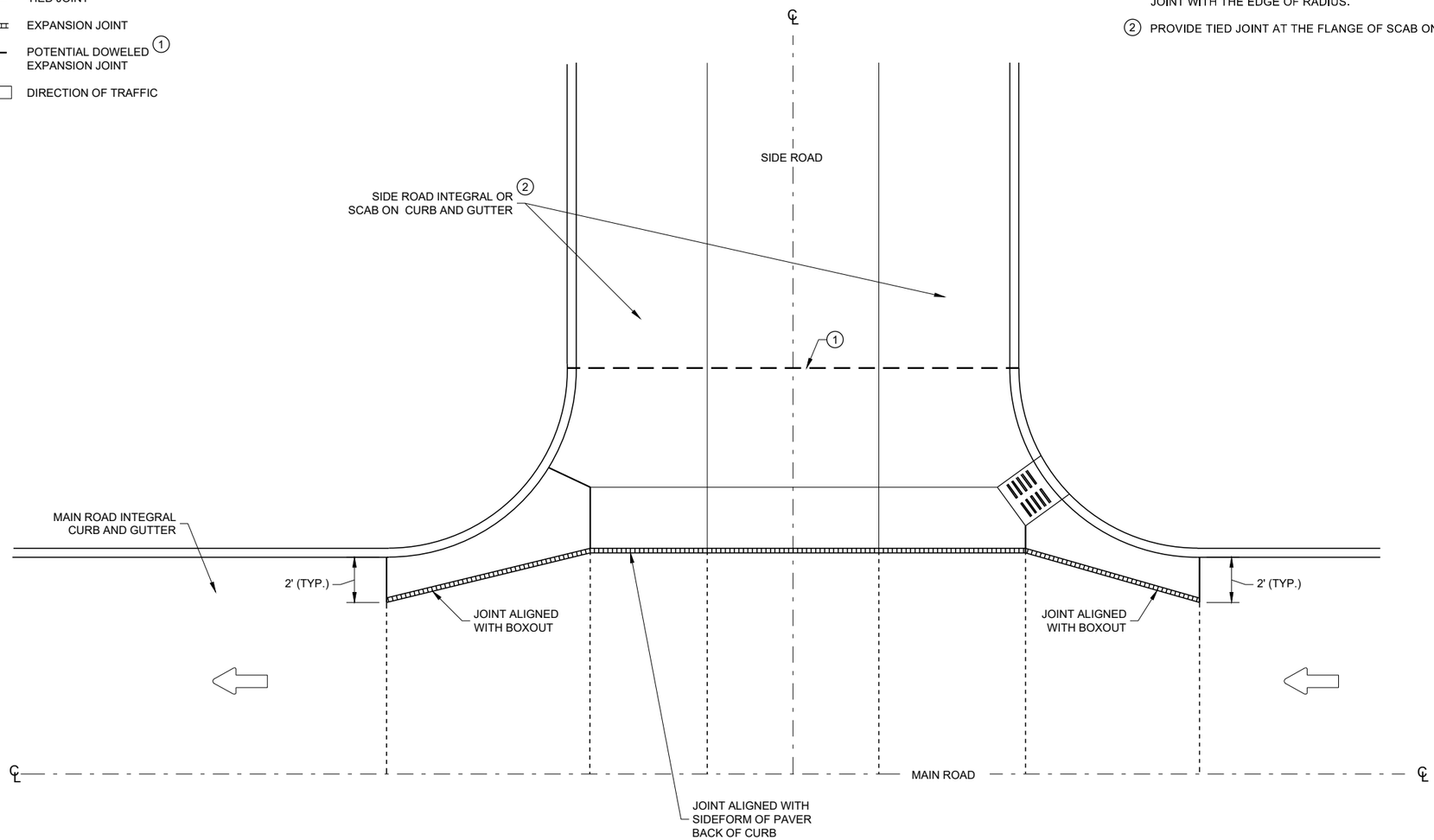
6

SDD13C18 - 08d

SDD13C18 - 08d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

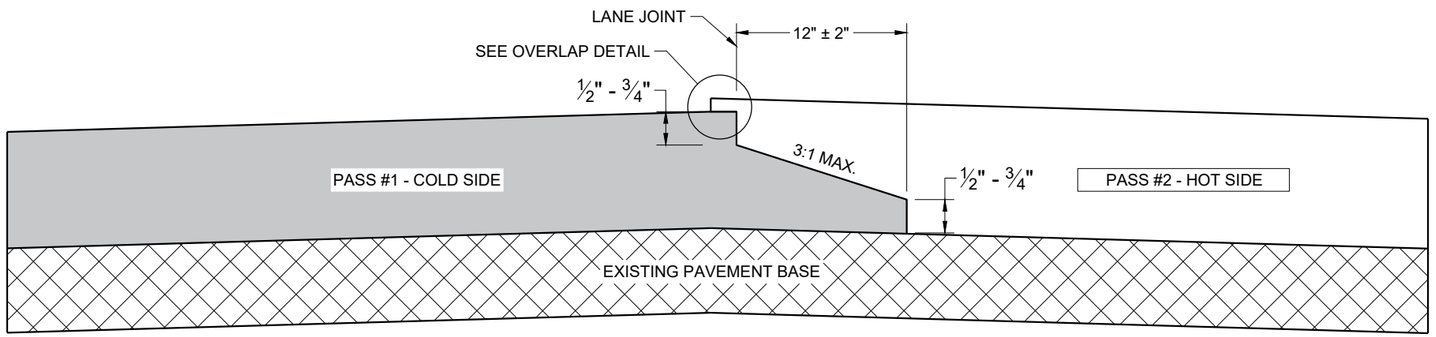
FHWA

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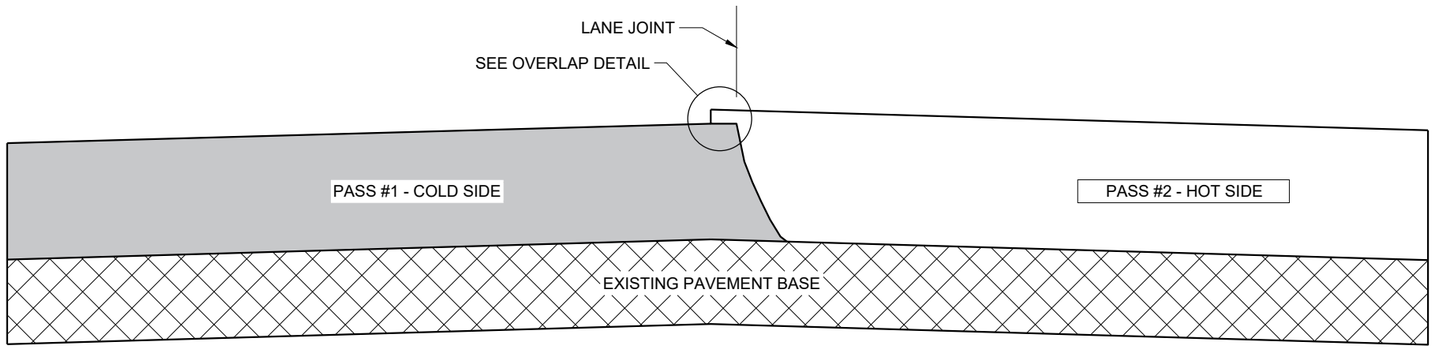
SDD 13C18 - 08f

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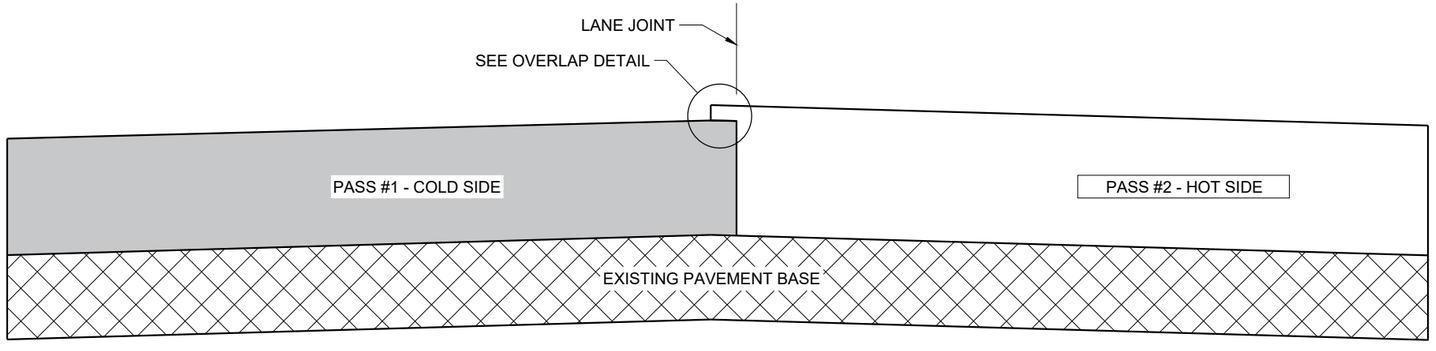
SDD 13C18 - 08f



TYPICAL PAVEMENT CROSS SECTION
NOTCHED WEDGE JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT



TYPICAL PAVEMENT CROSS SECTION
VERTICAL JOINT (MILLED)

GENERAL NOTES

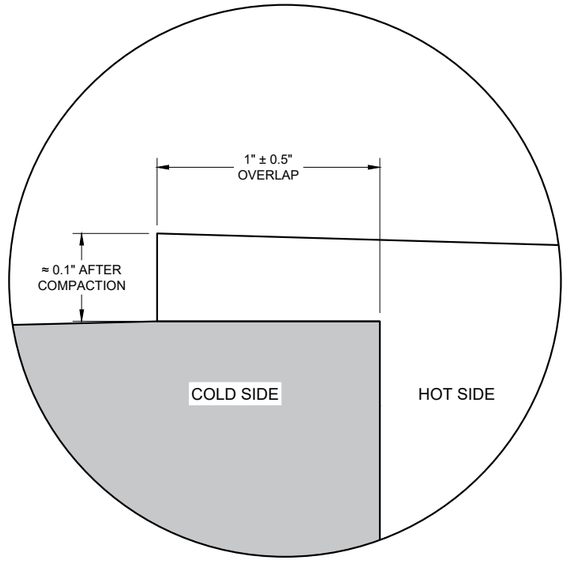
IN ADDITION TO THE DETAILS PROVIDED IN THIS DRAWING, CONFORM TO STANDARD SPECIFICATION 450.3.2.8 FOR WHEN A NOTCHED WEDGE JOINT IS REQUIRED AND FOR GENERAL JOINT CONSTRUCTION REQUIREMENTS.

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

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

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

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



OVERLAP DETAIL (TYPICAL)

6

6

SDD 13C19 - 03

SDD 13C19 - 03

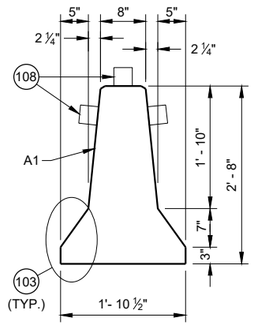
HMA LONGITUDINAL JOINTS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

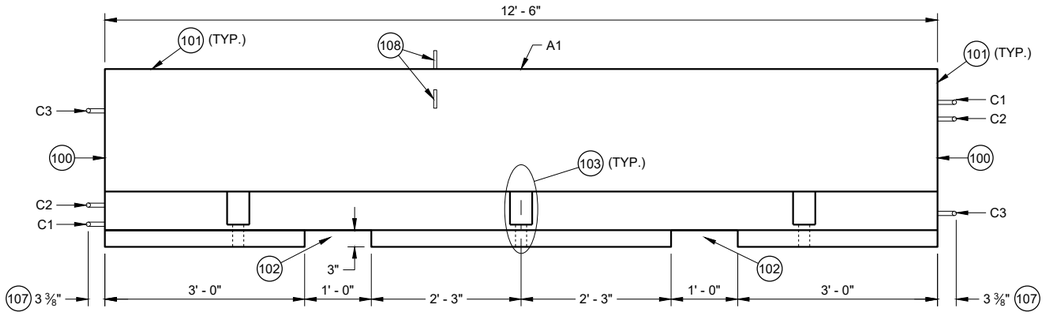
APPROVED
November 2020
DATE

/S/ Steven Hefel
HMA PAVEMENT ENGIN

FHWA



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

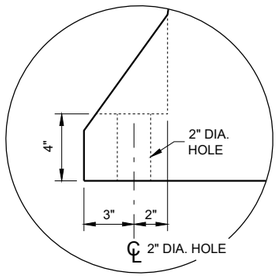
(104) 1 ¼" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

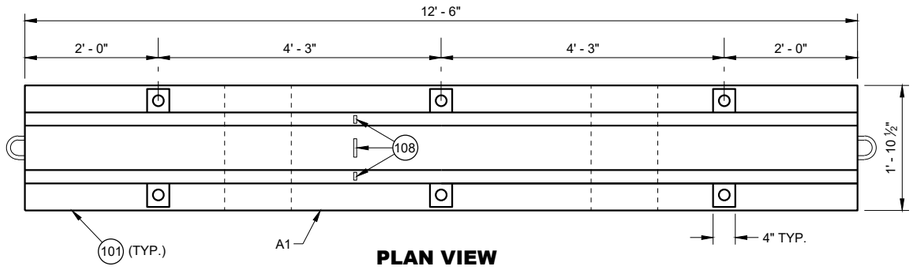
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

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

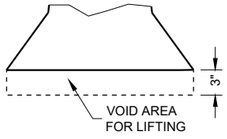


ANCHOR BLOCK DETAIL

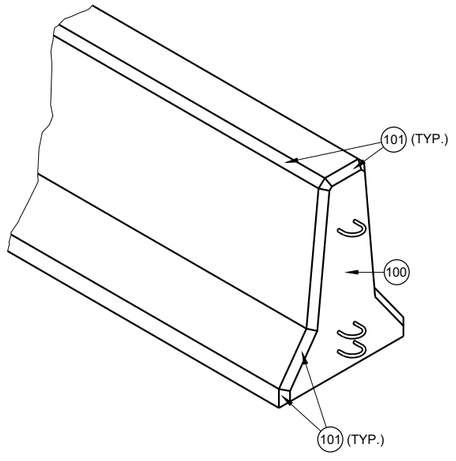


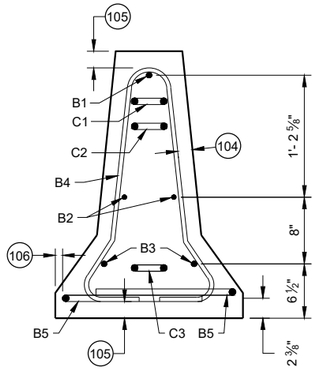
PLAN VIEW

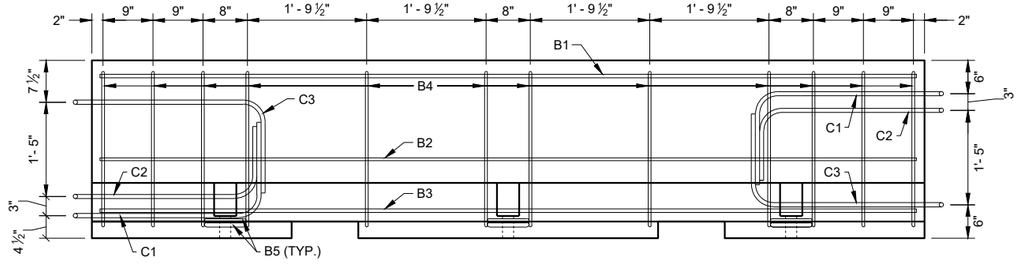
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

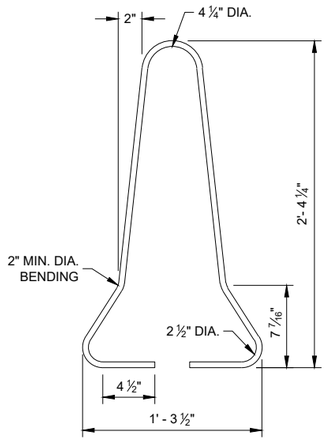
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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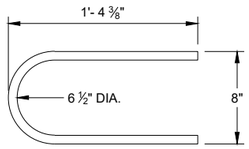
SDD 14B07-16a

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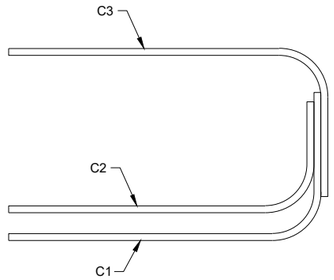
SDD 14B07-16a



B4 BAR DETAIL

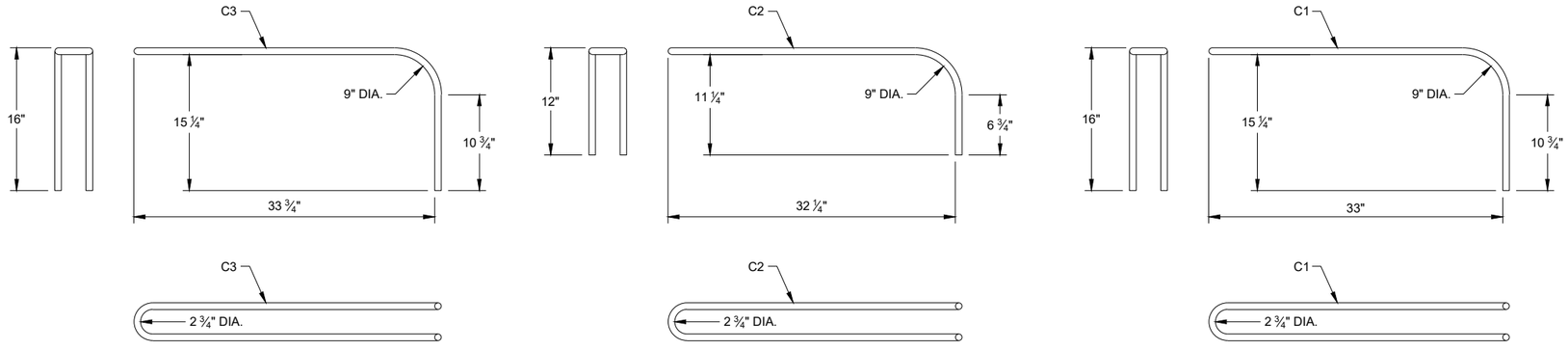


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

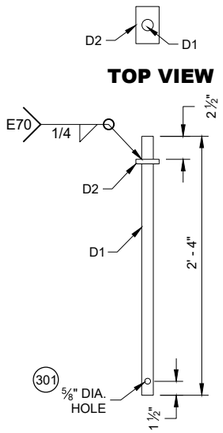
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 140

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SDD 14B07-16b

6

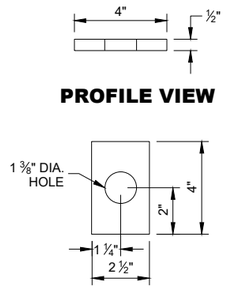
SDD 14B07-16b



TOP VIEW

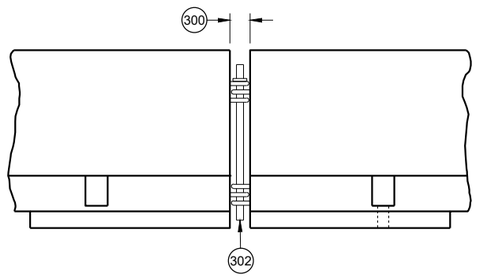
PROFILE VIEW

CONNECTOR PIN ASSEMBLY



PROFILE VIEW

TOP VIEW D2



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

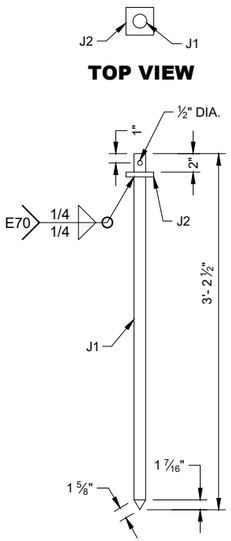
305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY

308 IF DRILLING A PILOT HOLE, THE MAX, DIA. OF THE HOLE IS 3/4"

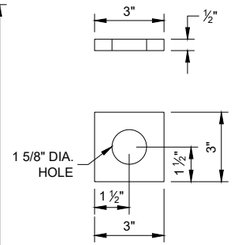
309 WHEN THERE IS ASPHALT OVERLAYING CONCRETE PAVEMENT, A 1 5/8" DIA. PILOT HOLE CAN BE DRILLED INTO THE OVERLAY AND CONCRETE. IF NEEDED DRILL A 3/4" PILOT HOLE IN BASE COURSE.



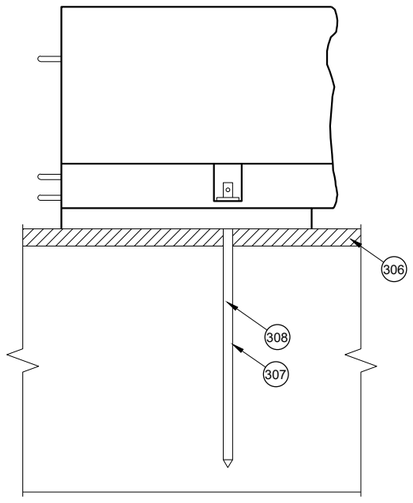
TOP VIEW

PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY

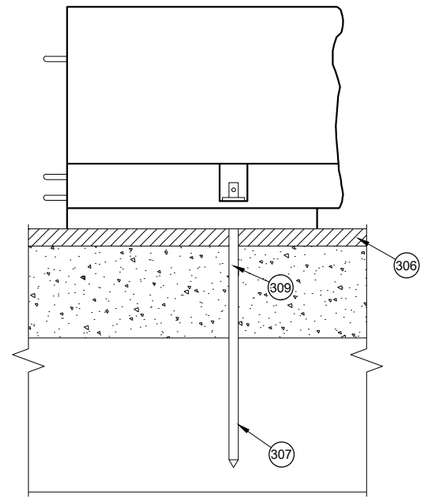


TOP VIEW J2



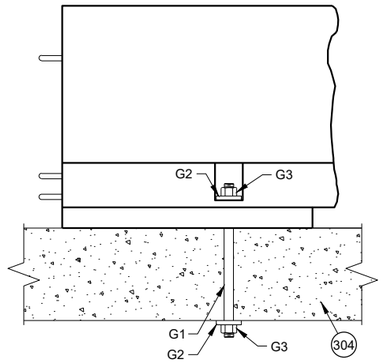
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT PAVEMENT



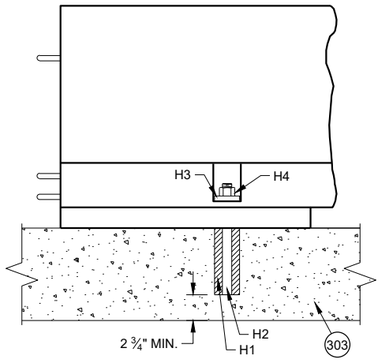
SIDE VIEW

ASPHALT ANCHOR INSTALLATION THROUGH ASPHALT OVERLAY ON TOP OF CONCRETE PAVEMENT



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION (305)



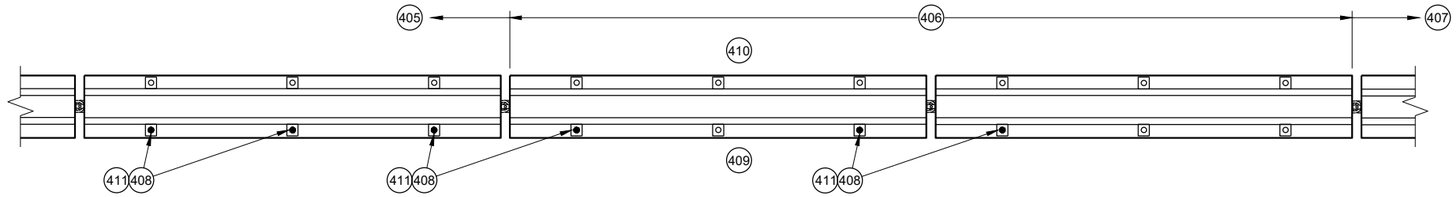
SIDE VIEW

ADHESIVE ANCHOR INSTALLATION (305)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

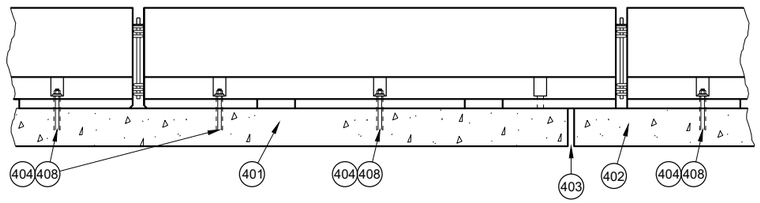
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B07-16c



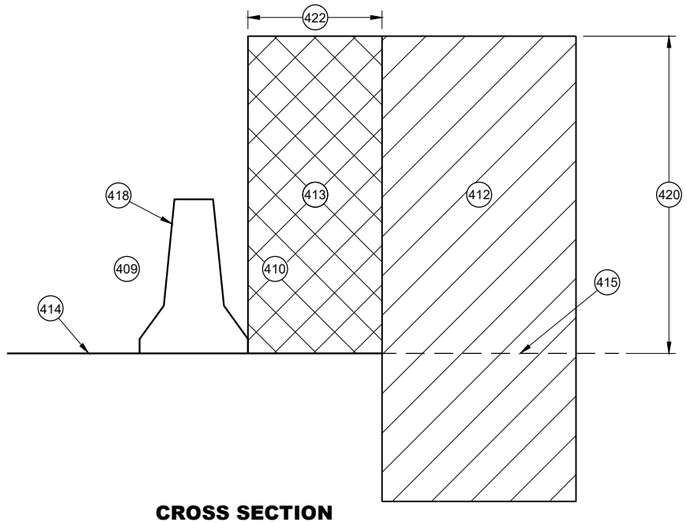
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



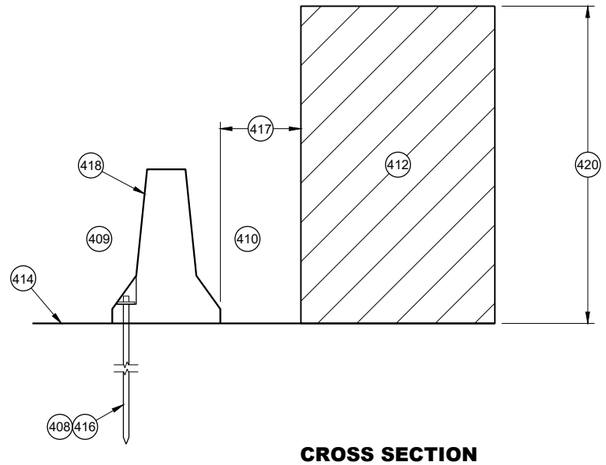
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



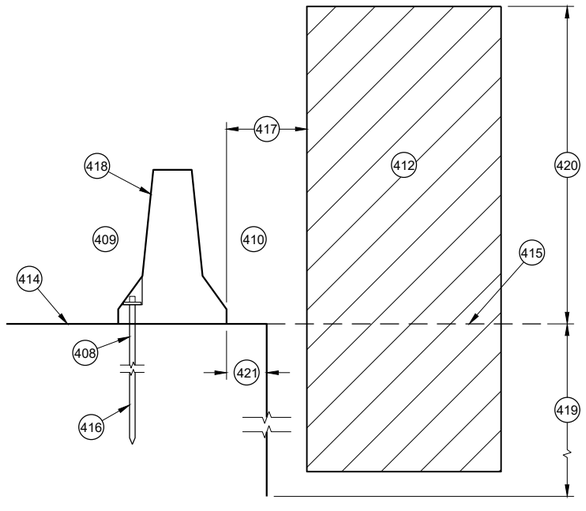
CROSS SECTION

FREE STANDING BARRIER



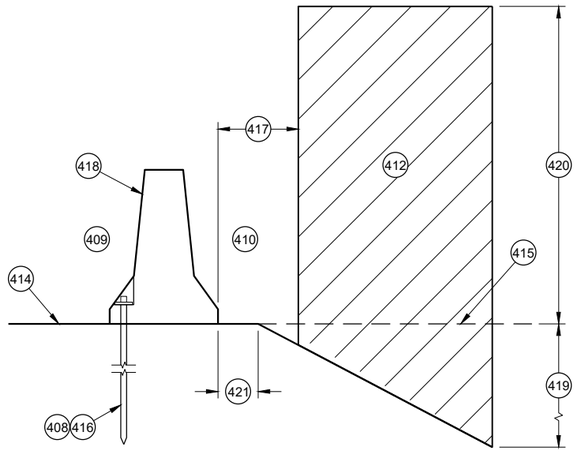
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

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

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

6

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CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

6

SDD 14B07-16d

GENERAL NOTES

500 EXISTING RIGID BARRIERS (VARIES)

501 TEMPORARY BARRIER

502 SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

503 ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

504 NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

505 TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

506 TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

507 VERTICAL BARRIER

508 SAFETY SHAPE BARRIER

509 SINGLE SLOPE BARRIER

510 CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

511 BENT THRIE BEAM TO FIT.

512 THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

513 TWO (2) P1, P2 AND P3 ARE REQUIRED

514 FIVE (5) N1, N2 AND N3 ARE REQUIRED

515 TWO (2) R1, R2 AND R3 ARE REQUIRED

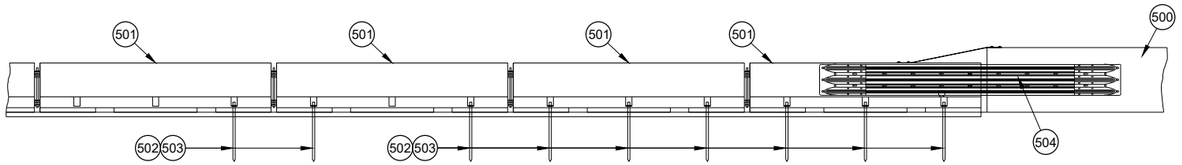
516 CUT WOOD BLOCK TO FIT.

517 SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

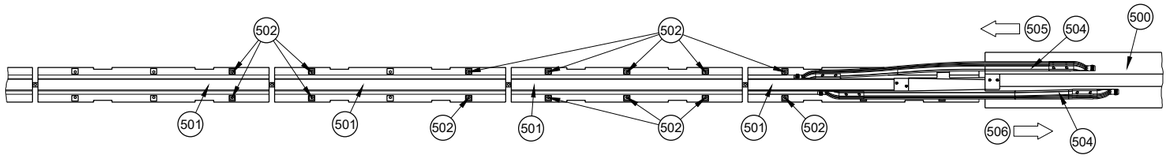
518 CAP ASSEMBLY

519 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

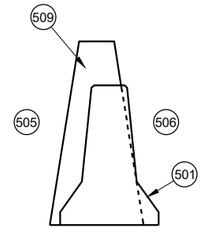
520 ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



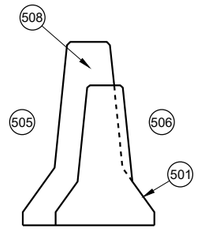
PROFILE VIEW



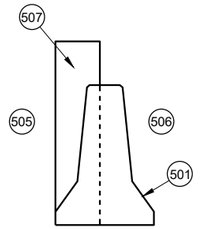
PLAN VIEW



CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE

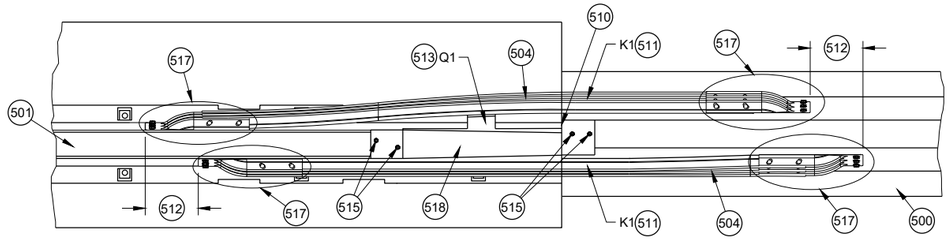


CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE

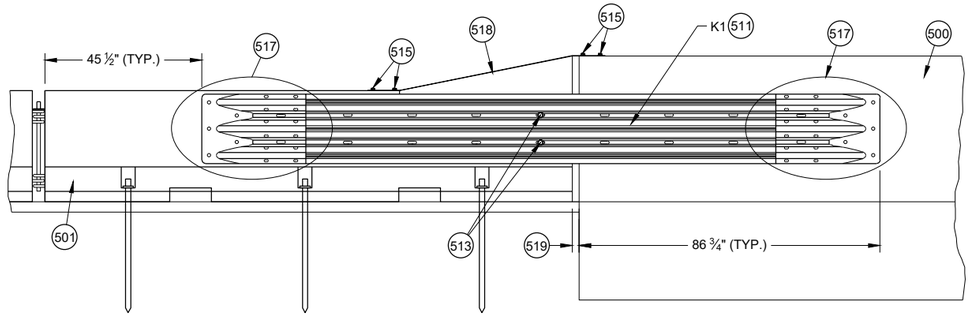


CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL

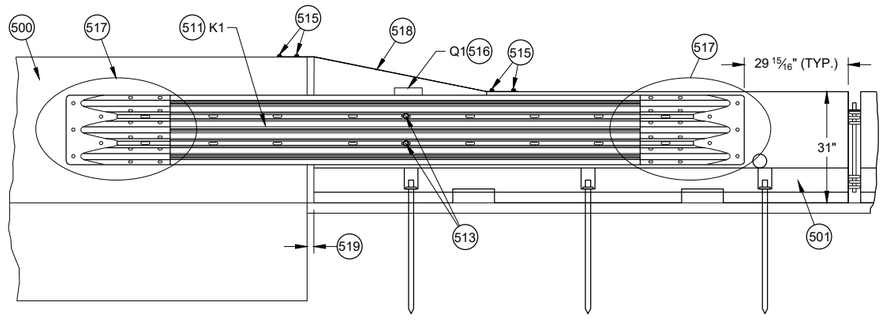
PLAN VIEW
TRANSITION TO RIGID BARRIER



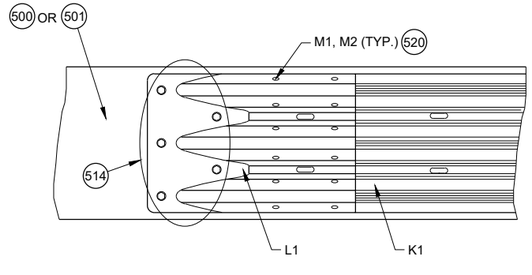
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



517 DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

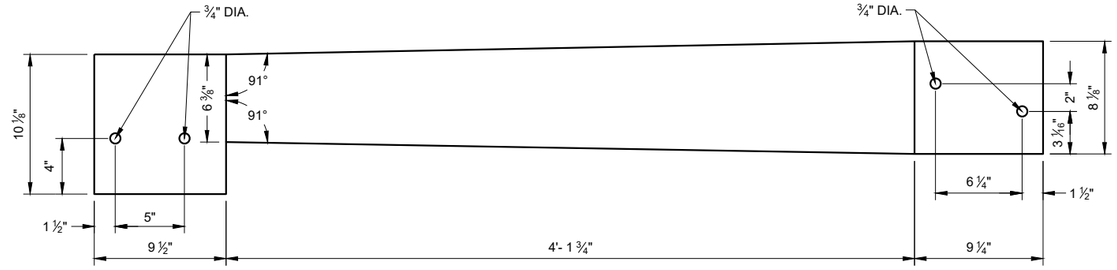
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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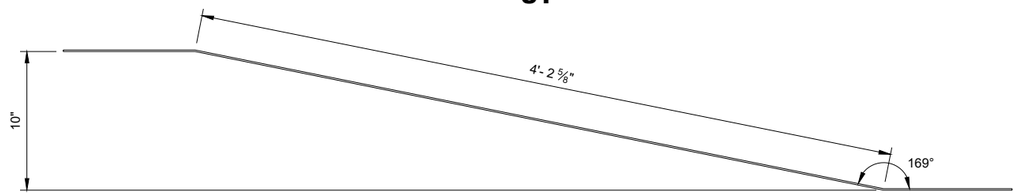
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SDD 14B07-16e



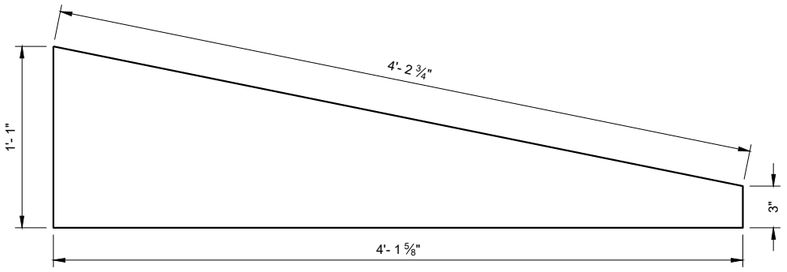
TOP VIEW

S1



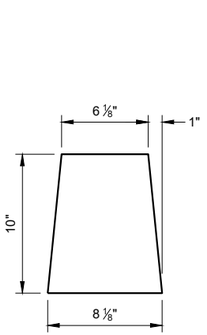
ELEVATION VIEW

S1

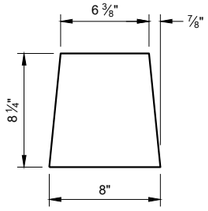


SIDE VIEW

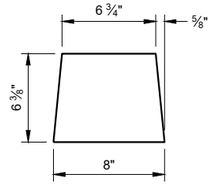
S3



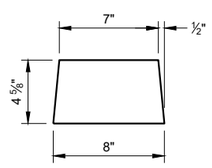
S2



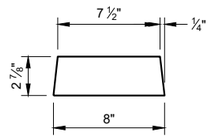
S4



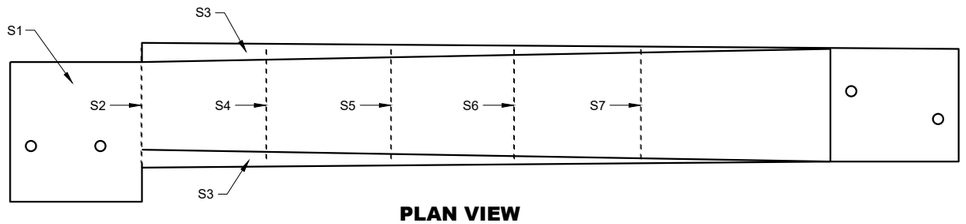
S5



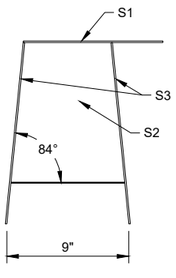
S6



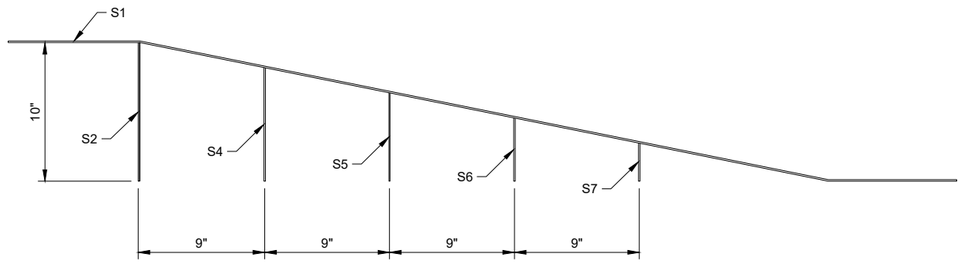
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

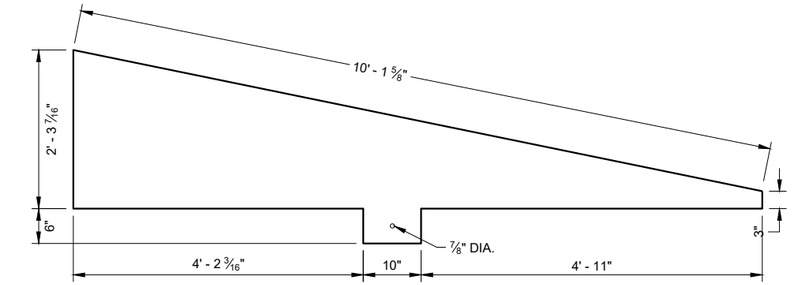
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6

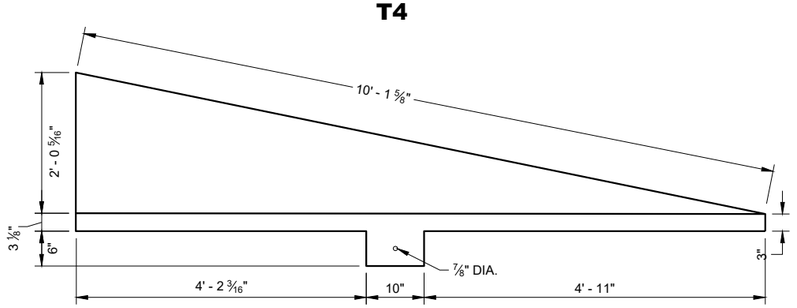
SDD 14B07-16f



SIDE VIEW
T4



END VIEW



SIDE VIEW
T3

END VIEW

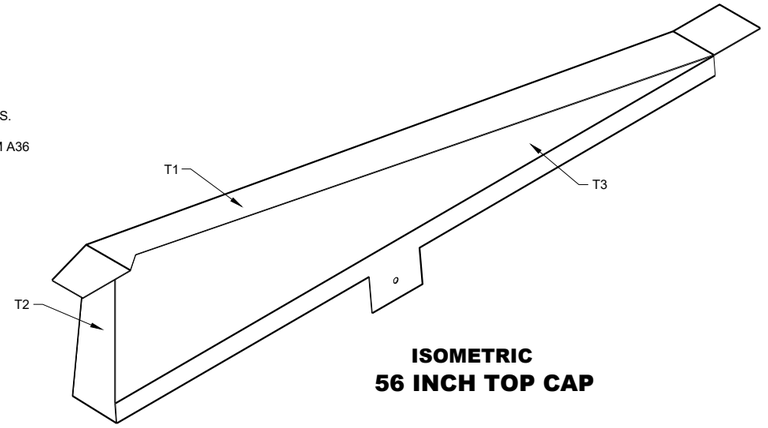
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

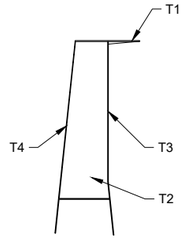
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

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

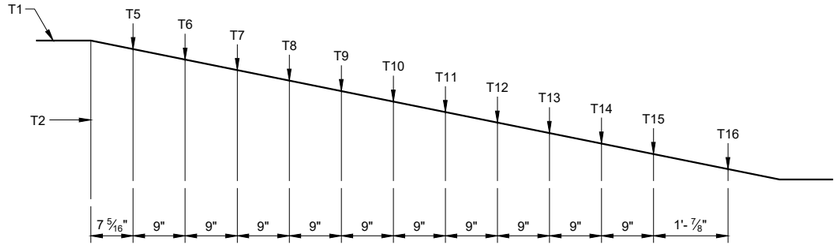
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



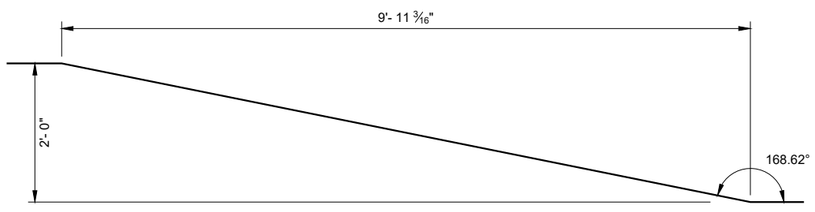
ISOMETRIC
56 INCH TOP CAP



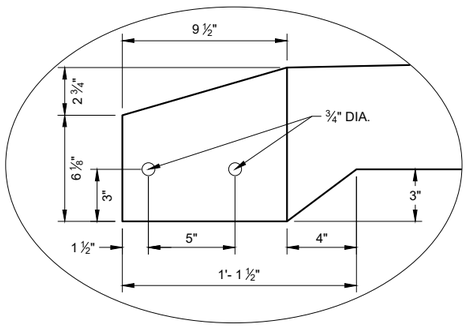
END VIEW
56 INCH TOP CAP



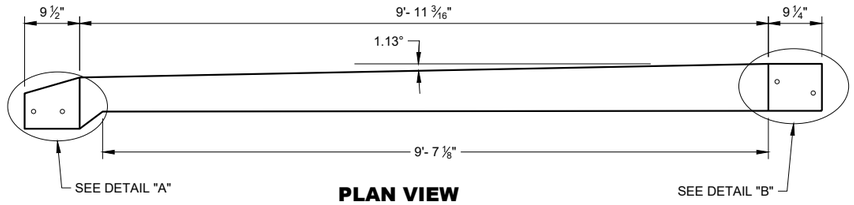
SIDE VIEW (700)
56 INCH TOP CAP



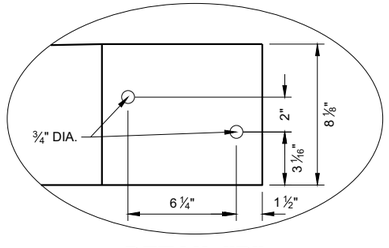
SIDE VIEW
TOP PLATE T1



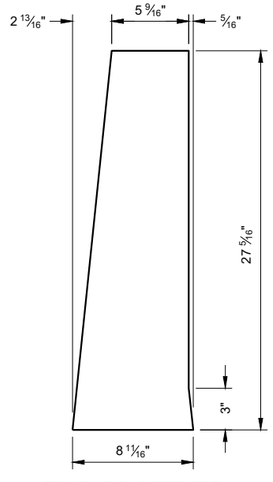
DETAIL "A"



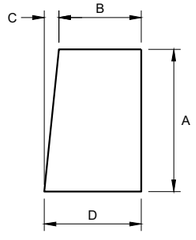
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



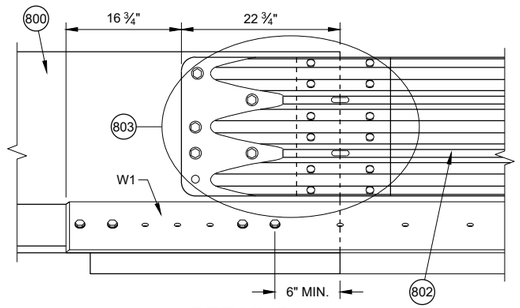
GUSSET PLATES
T5 - T16

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

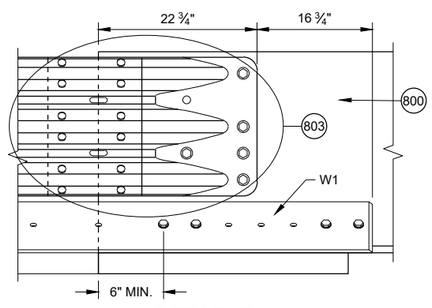
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

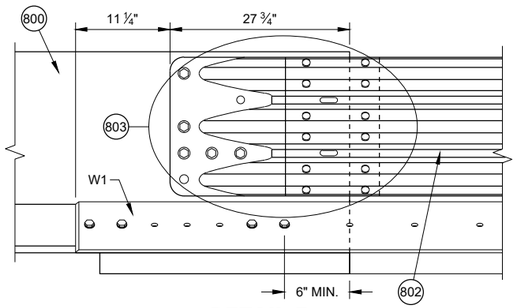
6
SDD 14B07-16g



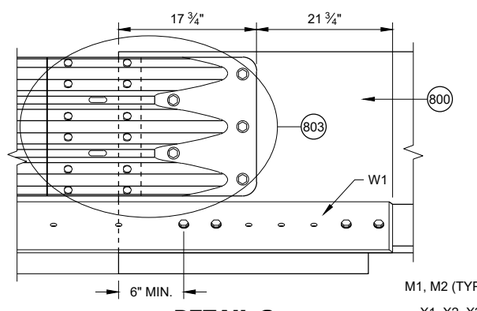
DETAIL D



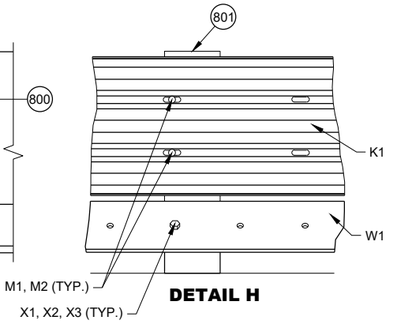
DETAIL E



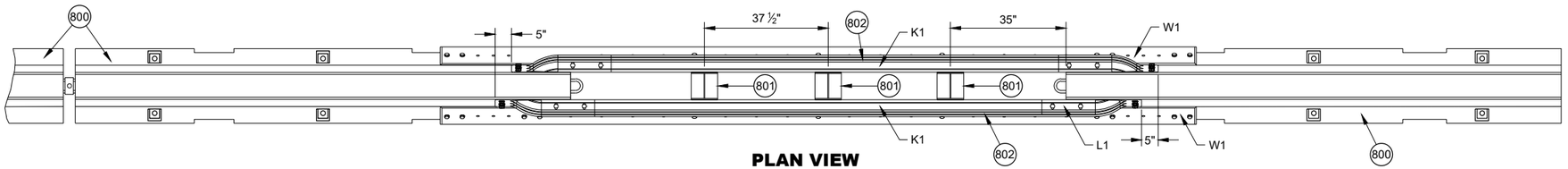
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

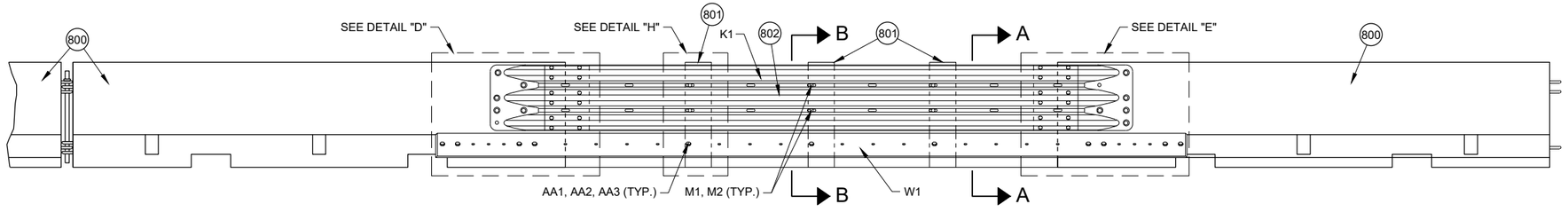
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

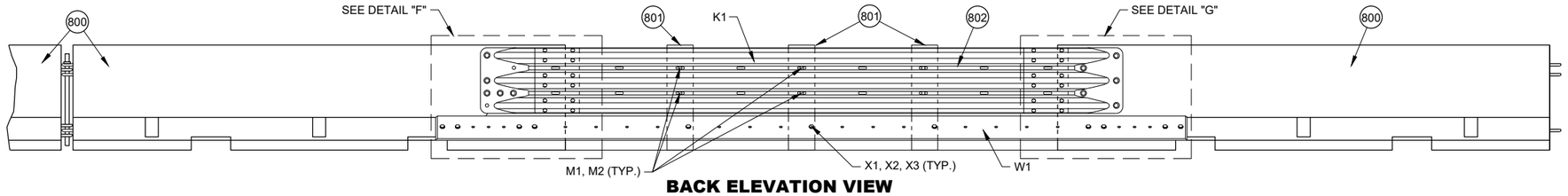
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



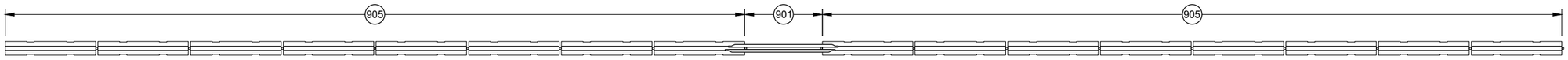
BACK ELEVATION VIEW

PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

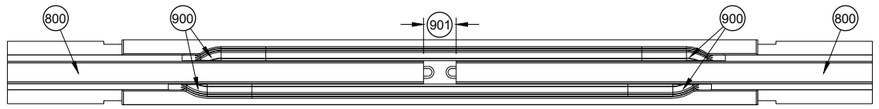
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B07-16h



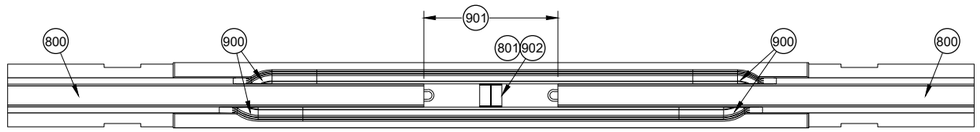
PLAN VIEW
GAP WITHIN SPACING



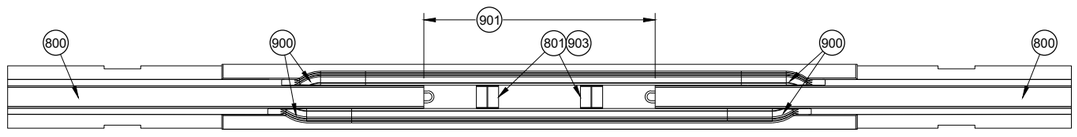
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

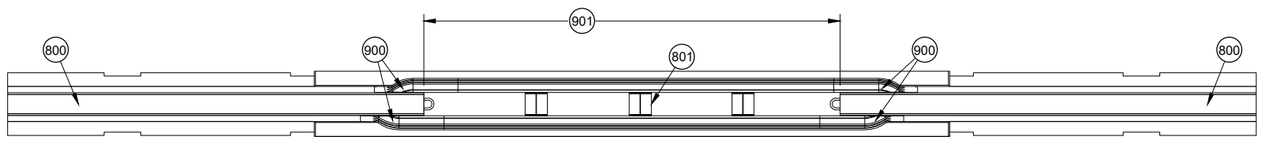
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)

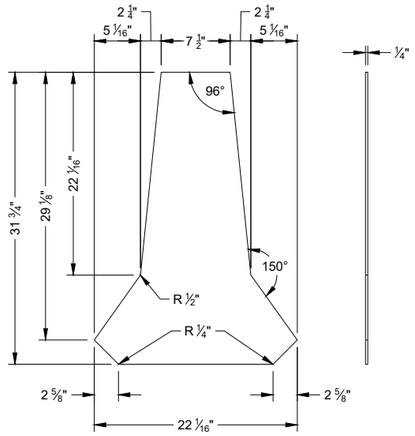


PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)



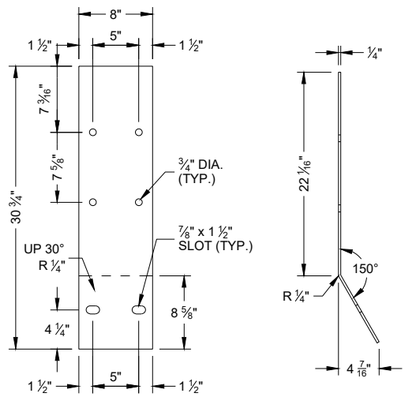
PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"



PROFILE VIEW SIDE VIEW

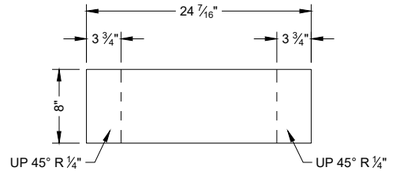
STIFFENER ASSEMBLY CENTER PANEL U1



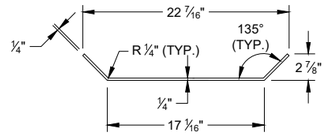
FLAT PATTERN

SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

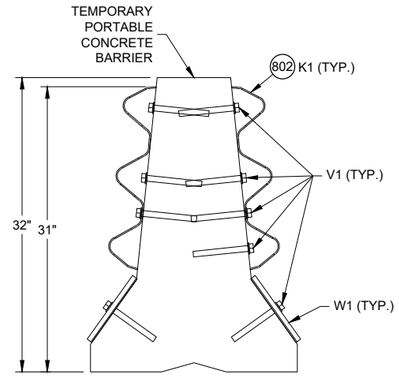


FLAT PATTERN

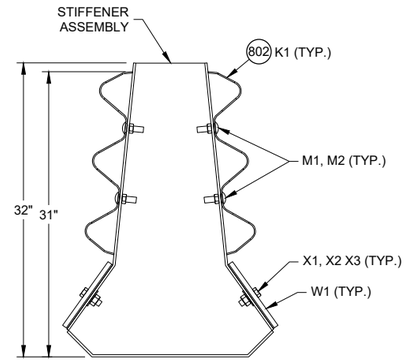


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3

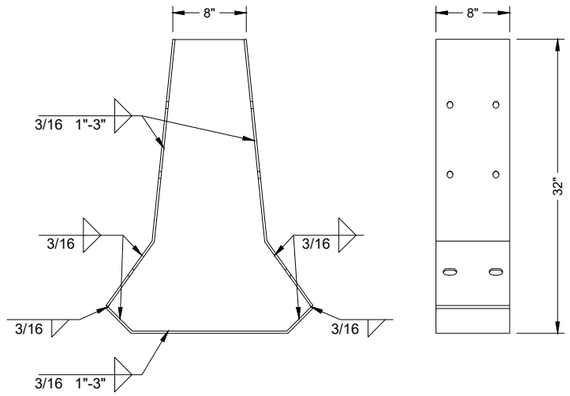


SECTION A - A



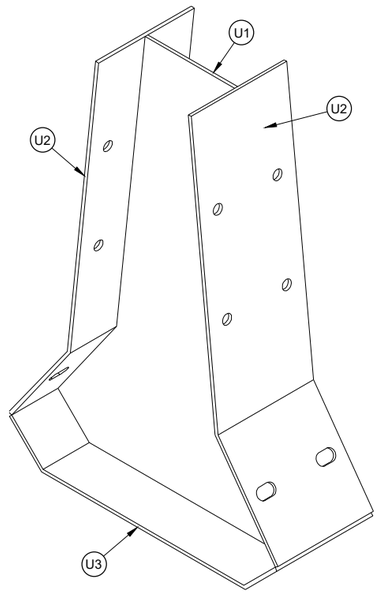
SECTION B - B

PLAN VIEW



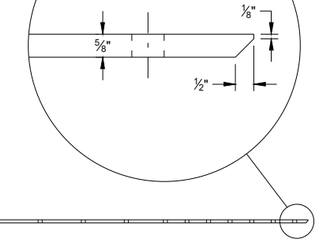
PROFILE VIEW

SIDE VIEW

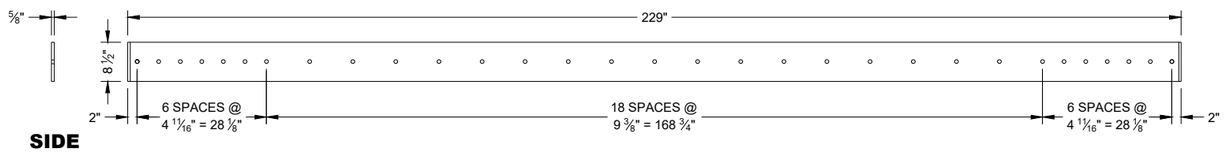


ISOMETRIC

GAP STIFFENER ASSEMBLY



PLAN VIEW



SIDE VIEW

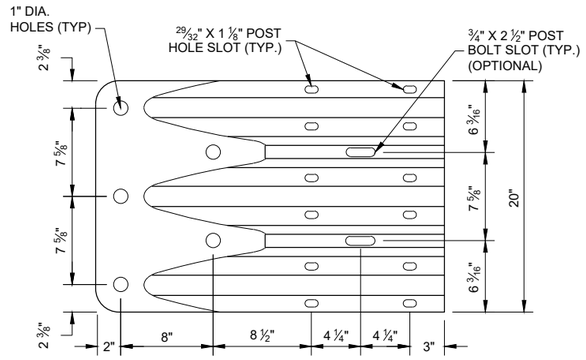
ELEVATION VIEW

W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

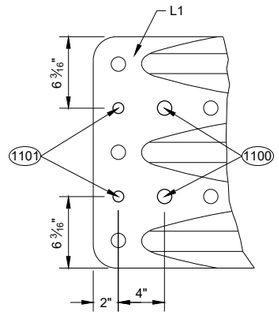
6

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ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

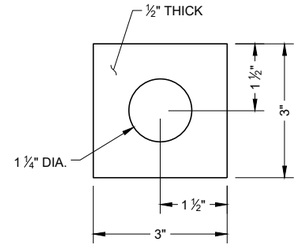


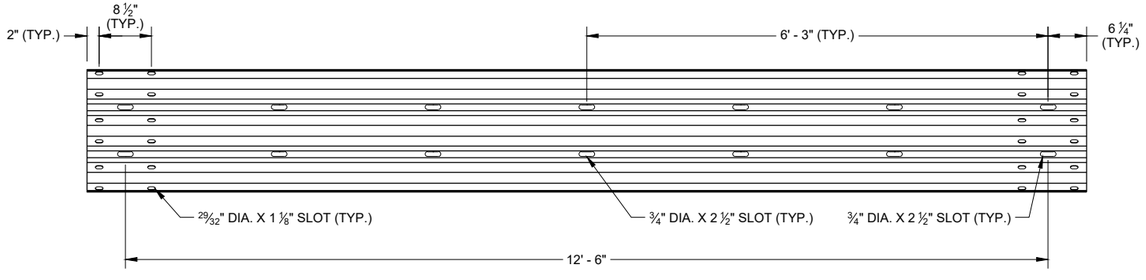
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

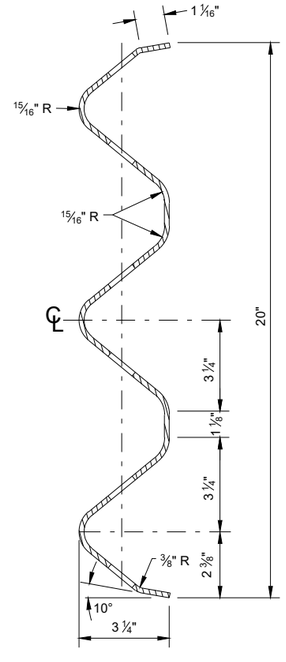
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



SLOTTED THRIE BEAM RAIL K1

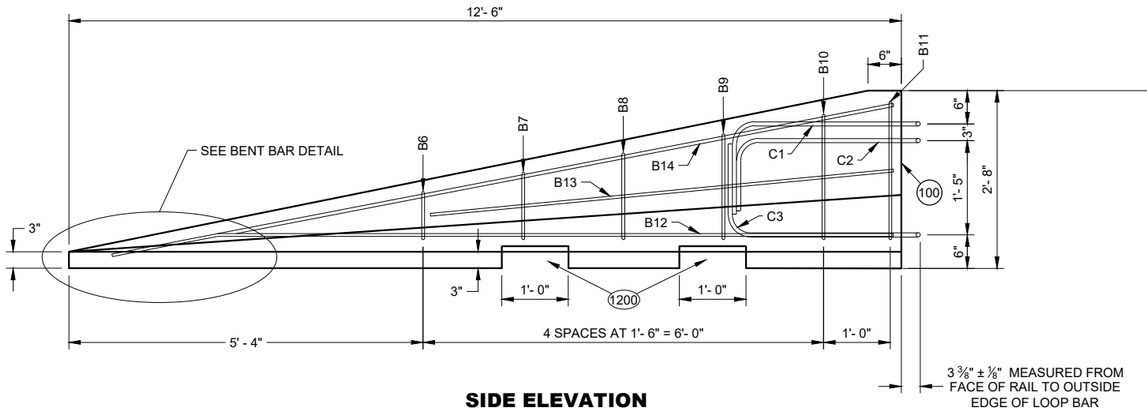


SECTION THROUGH BEAM K1

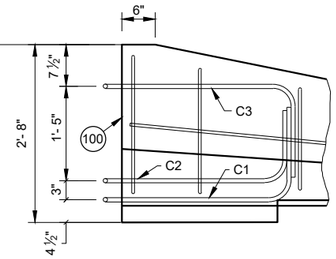
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16k



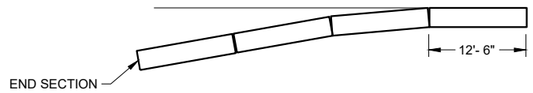
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



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

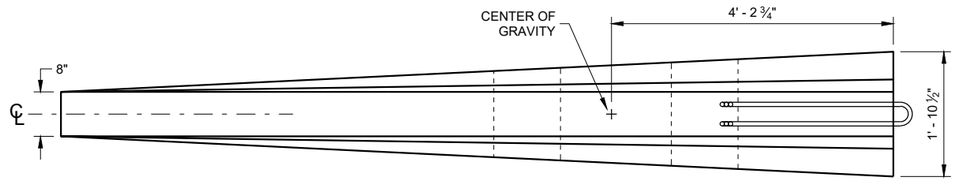
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

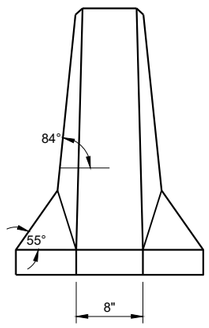


FLARE AT BARRIER END

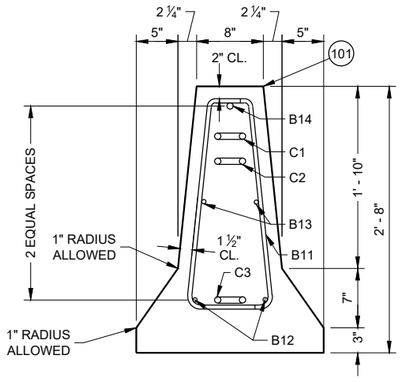
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



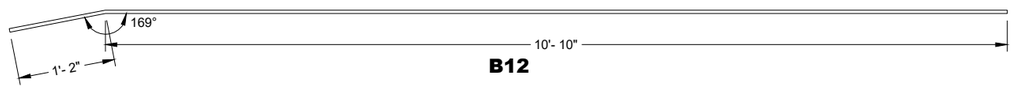
PLAN VIEW



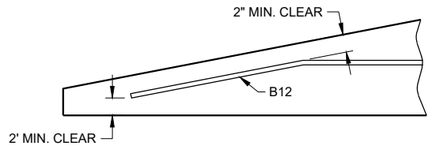
FRONT ELEVATION



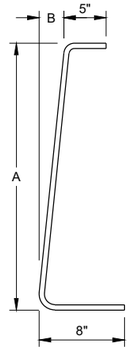
END SECTION



B12



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS
2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07-16I

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. BOND STRENGTH OF 1,650 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE

6

SDD 14B07-16m

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07-16m

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

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CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

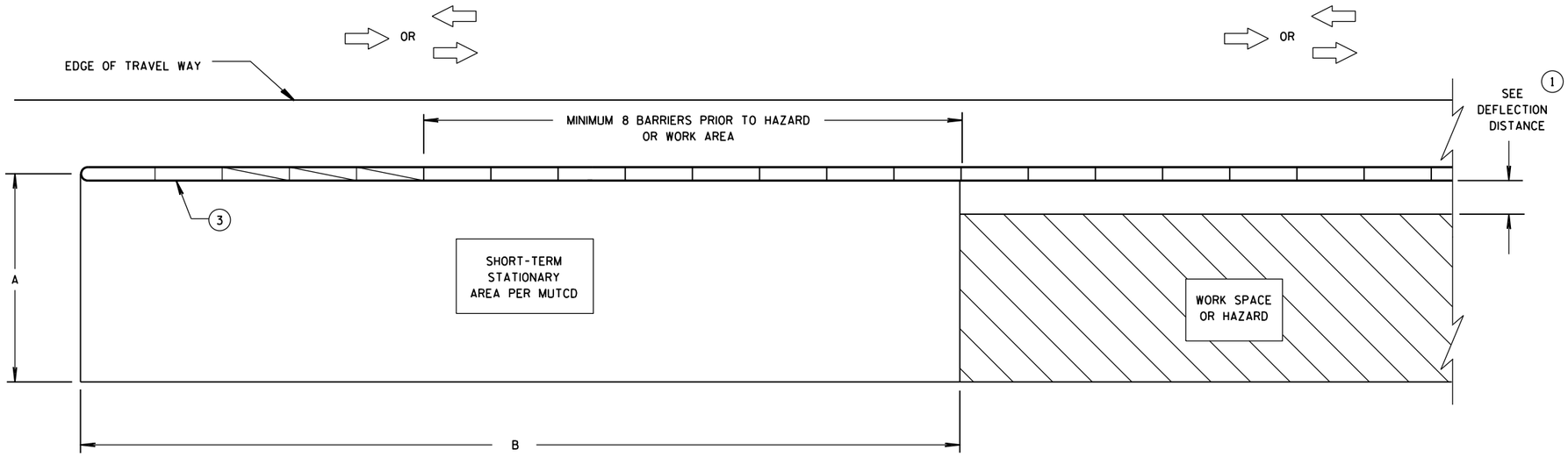
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 14B07-16n



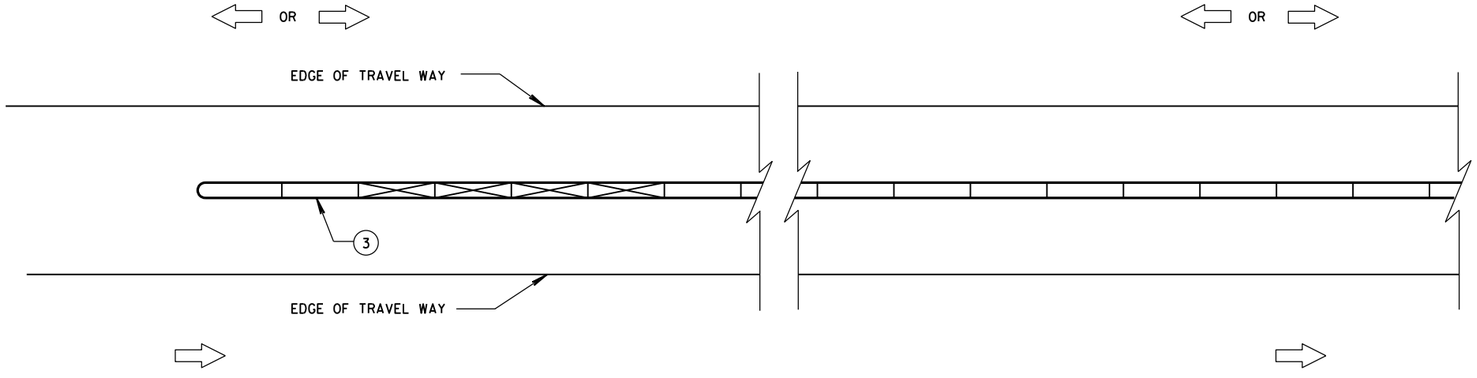
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

DIMENSION A TABLE (2)

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

DIMENSION B TABLE (2)

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



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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

GENERAL NOTES

SEE STANDARD DETAIL DRAWING 14B7 FOR MORE INFORMATION.

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

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

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

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

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

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

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

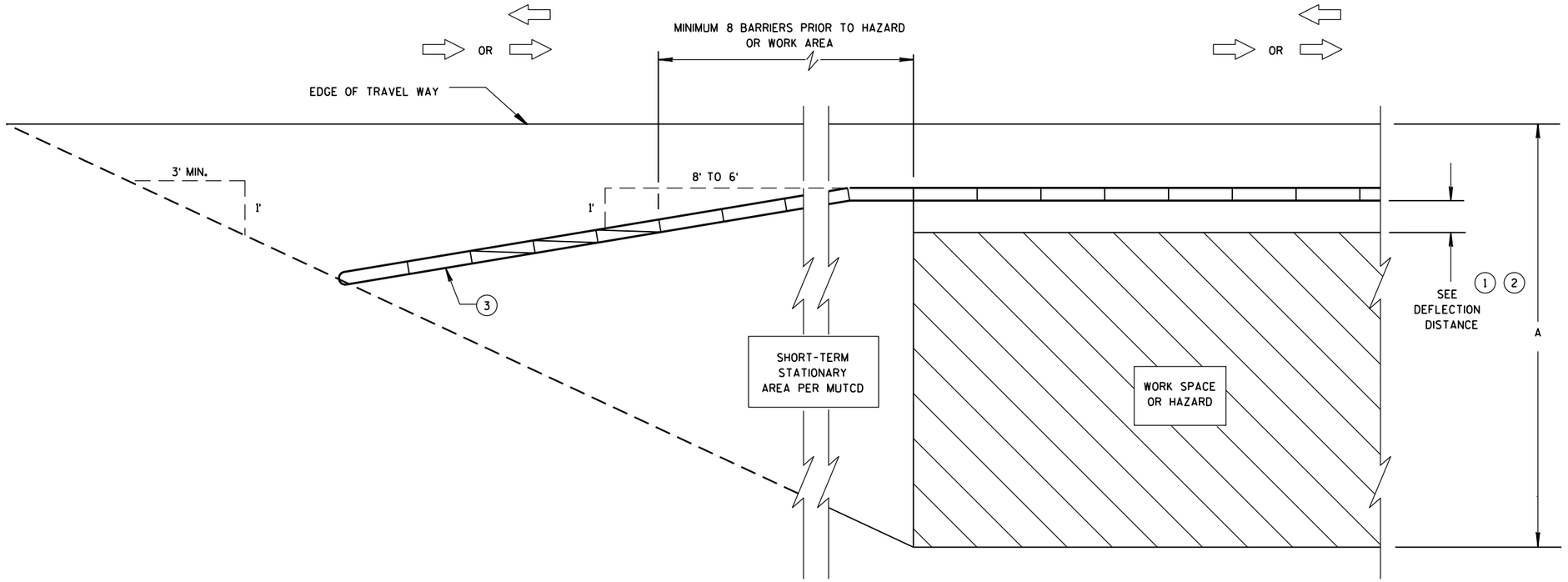
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

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

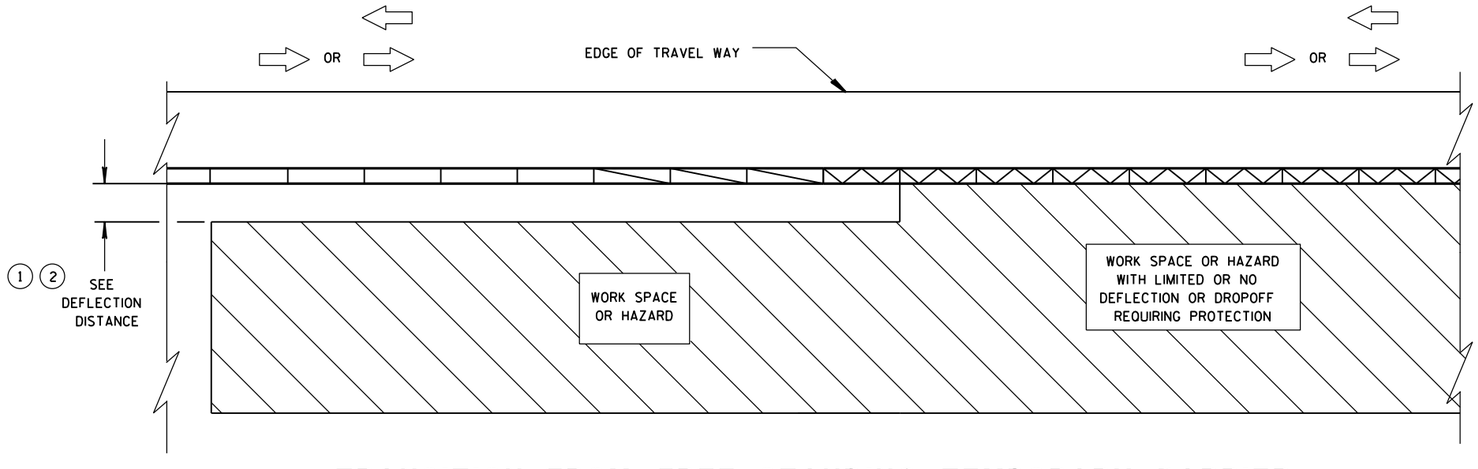
STATE OF WISCONSIN
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CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE - FLARED INSTALLATION



TRANSITION FROM FREE STANDING TEMPORARY BARRIER TO ANCHORED BARRIER

LEGEND

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

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

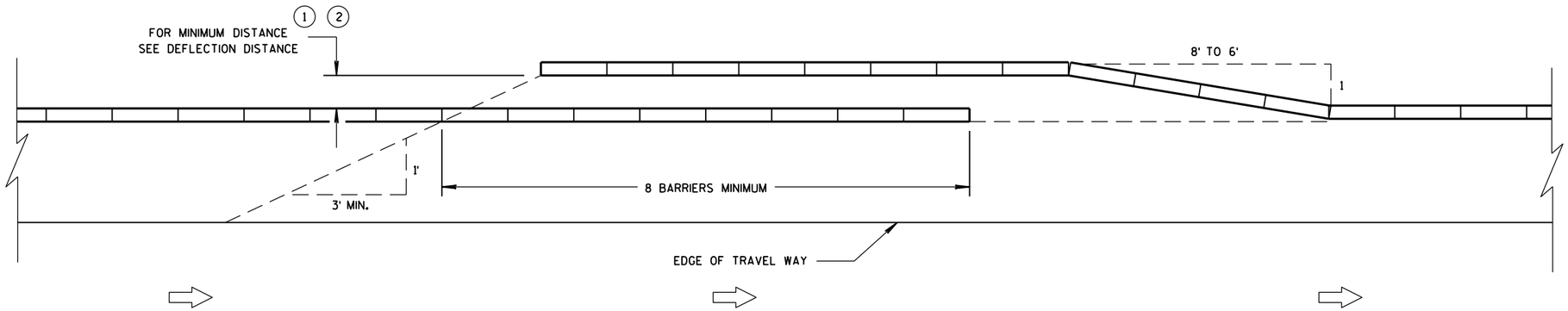
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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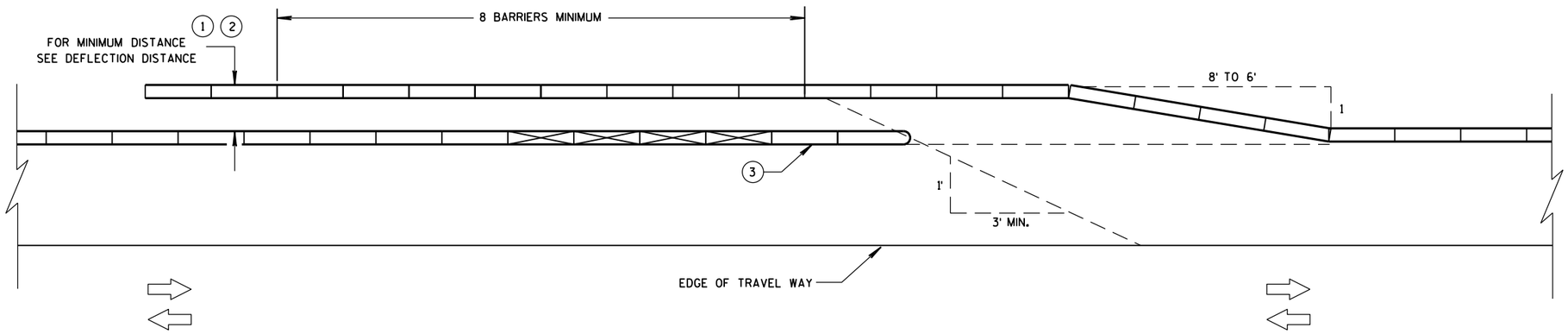
S.D.D. 14 B 8-2b

6

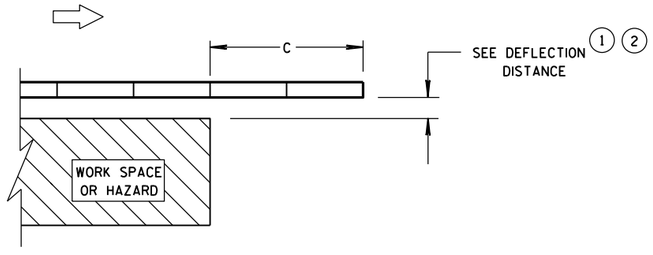
S.D.D. 14 B 8-2b



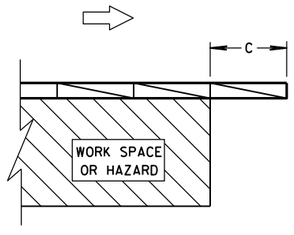
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

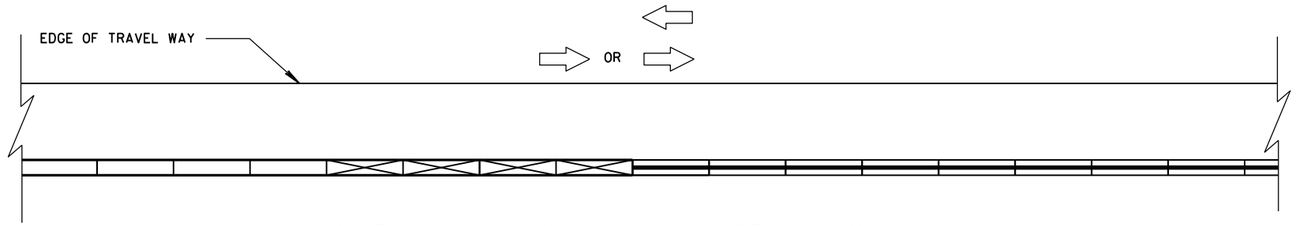
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

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

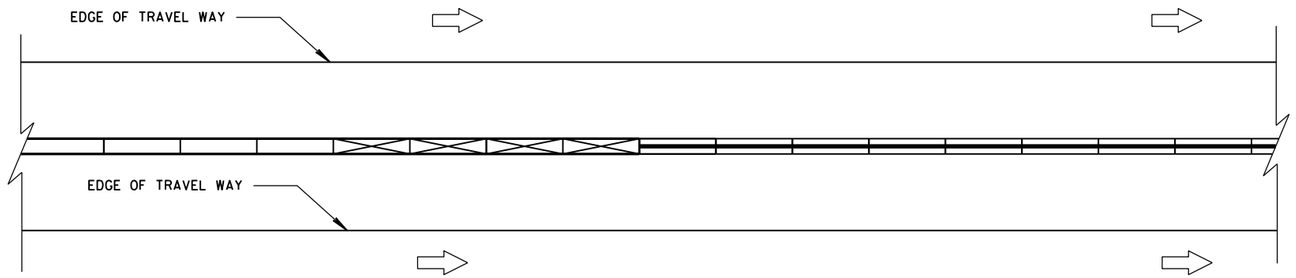
STATE OF WISCONSIN
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CONNECTING TEMPORARY BARRIER TO PERMANENT
CONCRETE BARRIER-TRAFFIC ON ONE SIDE



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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR
SAND BARREL ARRAY

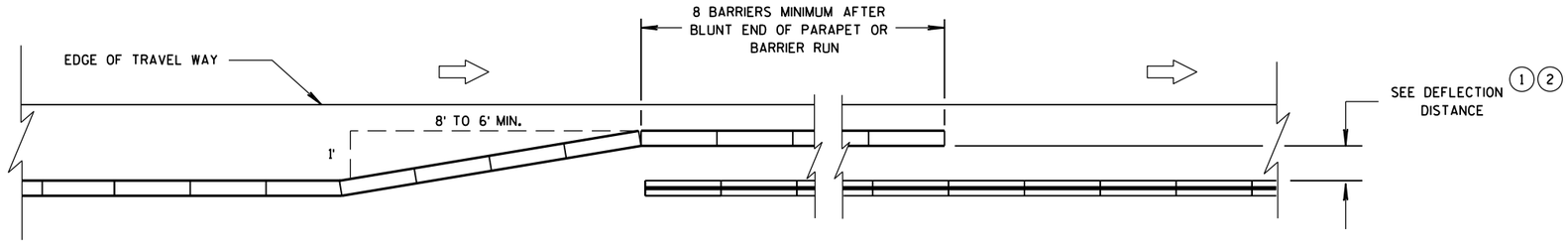
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

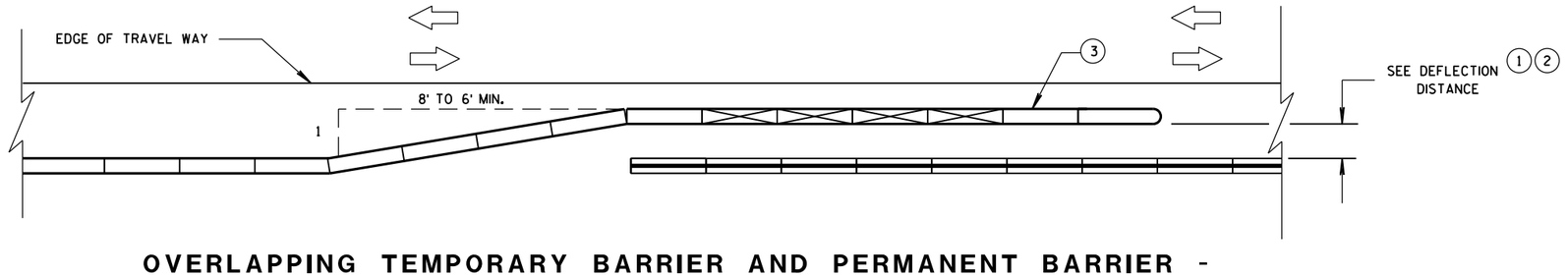
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER
OR CONCRETE PARAPET

FREE STANDING TEMPORARY
BARRIER



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
ONE WAY TRAFFIC



OVERLAPPING TEMPORARY BARRIER AND PERMANENT BARRIER -
TWO WAY TRAFFIC

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

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

LEGEND

DIRECTION OF TRAVEL

CRASH CUSHION OR SAND BARREL ARRAY

SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS

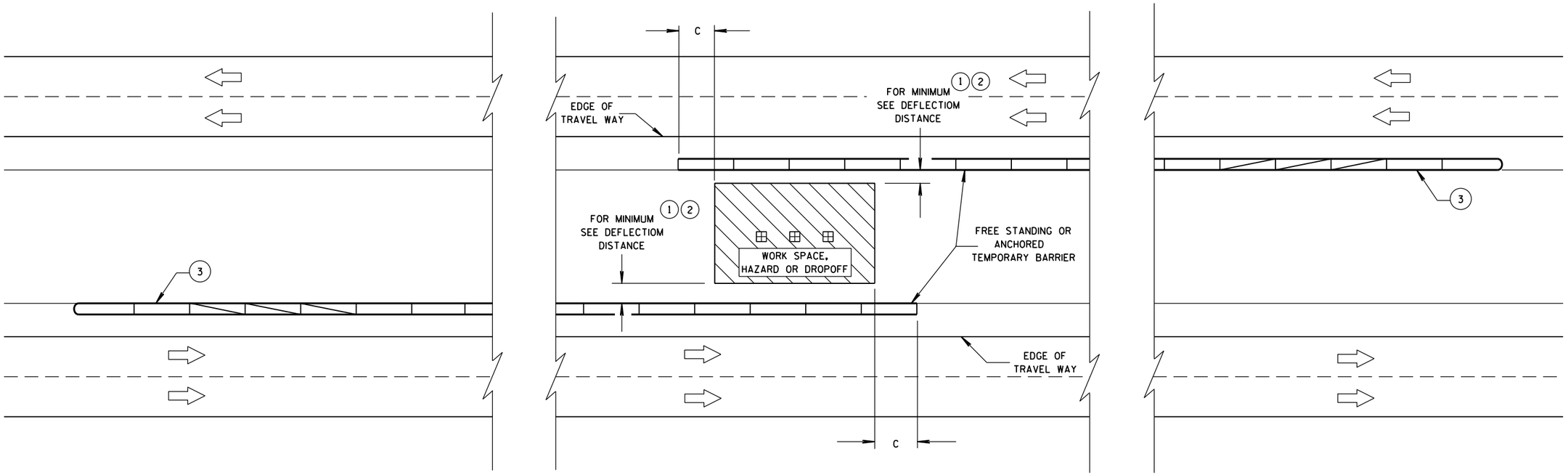
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET

FREE STANDING TEMPORARY BARRIER

DIMENSION C TABLE (2)

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

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

GENERAL NOTES

(1) W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POSTS WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS. APPROVED PLASTIC BLOCKOUT DESIGNS MAY VARY FROM THIS TYPICAL DETAIL WHEN USED IN CONJUNCTION WITH STEEL POSTS.

DO NOT MIX STEEL POSTS AND WOOD POSTS IN A SINGLE INSTALLATION.

(2) USE STRUCTURAL STEEL POSTS CONFORMING TO ASTM A 36. GALVANIZED POSTS ACCORDING TO AASHTO M 111. EITHER SET THE POSTS IN DRILLED HOLES OR DRIVE TO GRADE. REMOVE MUSHROOMING CAUSED BY DRIVING AND REPAIR DAMAGED SPELTER COATING ON GALVANIZED POSTS.

(3) INSTALL STEEL POSTS WITH HOLES ON APPROACHING TRAFFIC SIDE.

(4) USE EITHER WOOD OR APPROVED PLASTIC BLOCKOUTS ON WOOD POSTS.

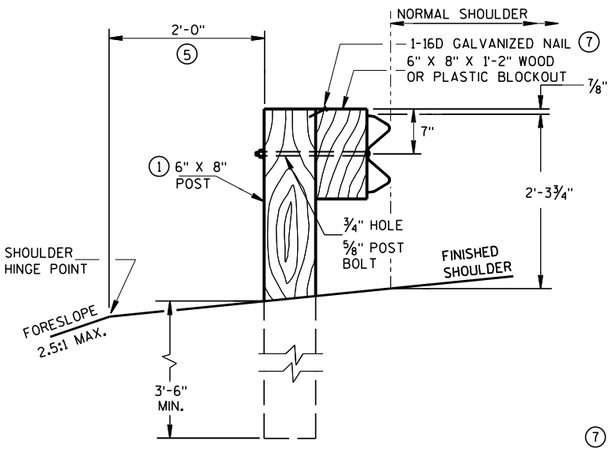
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(6) IF ROCK IS ENCOUNTERED DURING EXCAVATION, THE ENGINEER MAY APPROVE USING A 12 INCH DIAMETER POST HOLE EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE APPROXIMATELY 2½ INCHES DEEP. CUT THE POSTS TO LENGTH AND PLACE IN YHE HOLE. BACKFILL WITH MATERIAL EXCAVATED FROM THE HOLE AND COMPACT ADEQUATEY.

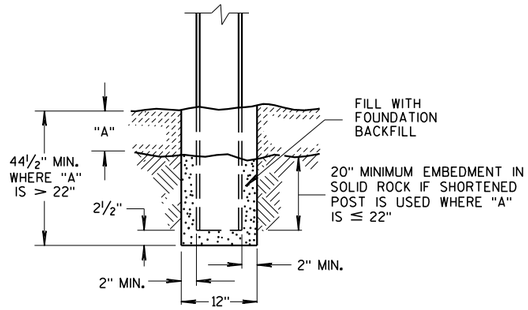
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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

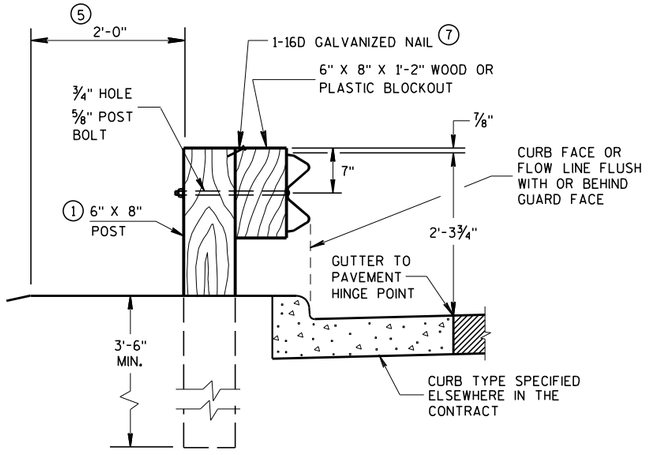
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



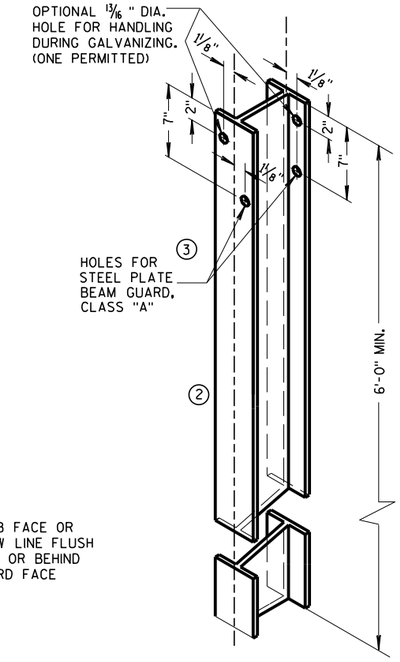
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)

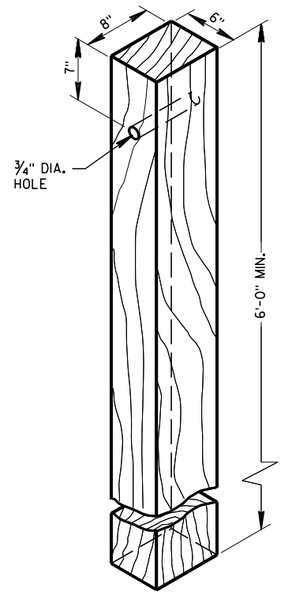


END VIEW
LOCATED ALONG A CURBED ROADWAY

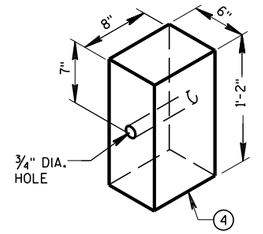


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

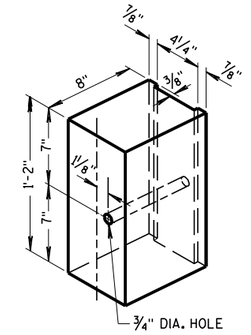
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



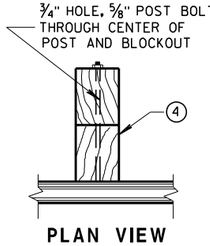
WOOD POST
(6"X8") NOMINAL



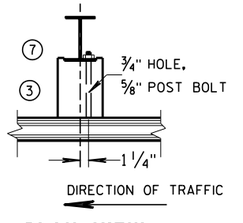
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



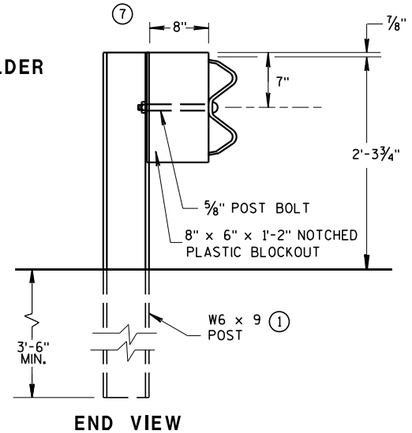
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



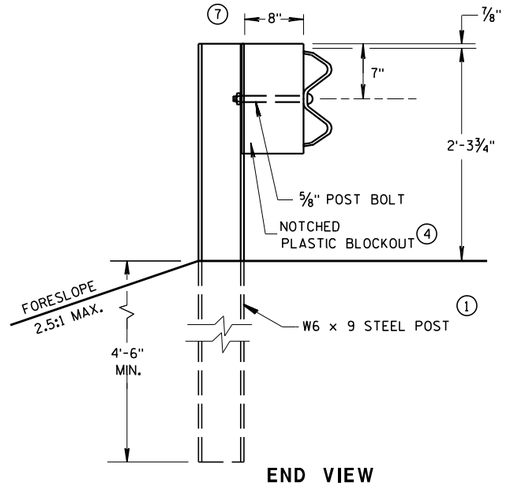
PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



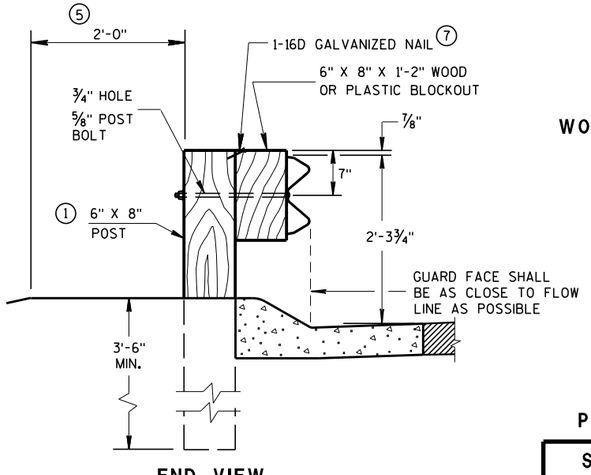
PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION



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



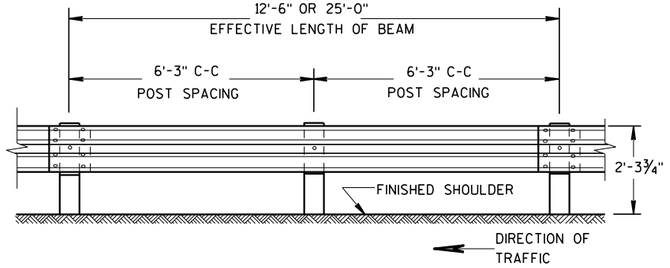
END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

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

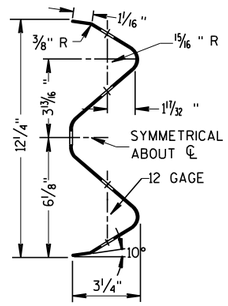
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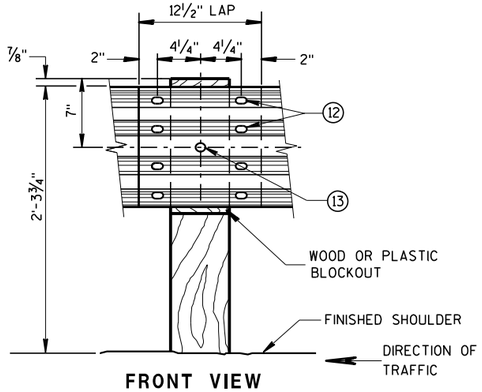


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

GENERAL NOTES

FURNISH GUARDRAIL DEFLECTORS FROM APPROVED PRODUCTS LIST.

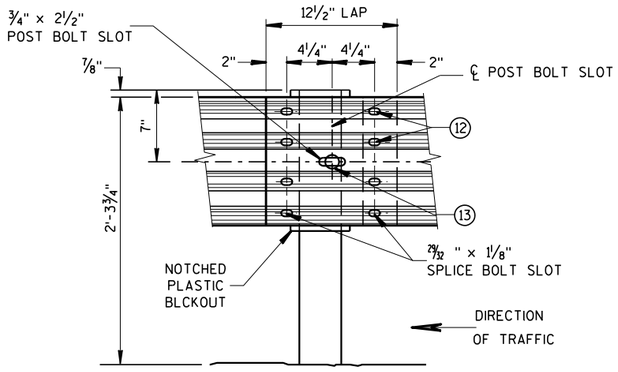
(9) DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINA. START REFLECTORS AT POST #9 AND SPACE EVENLY EVERY 100 FEET (MAX.) TO THE END OF GUARDRAIL RUN, USING A MINIMUM OF 3 REFLECTORS.

(12) 8 -5/8" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) 5/8" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH 5/8" DIA. F844 FLAT WASHER UNDER NUT.

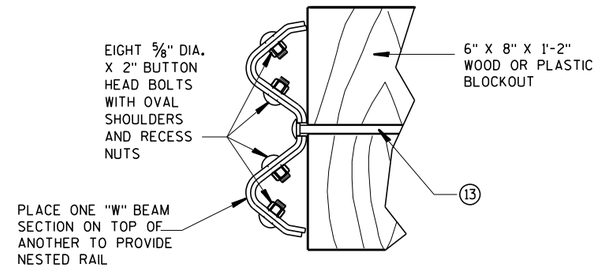
FRONT VIEW

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



FRONT VIEW

BEAM SPLICE AT STEEL POST

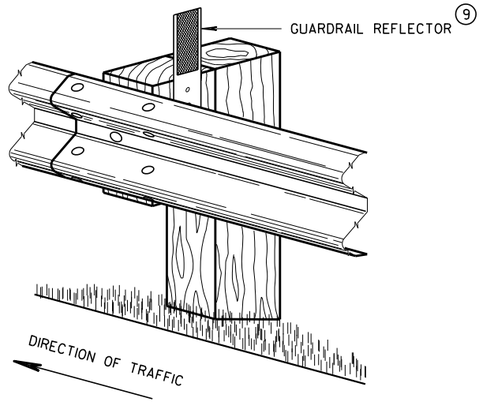


NESTED W BEAM (NW)

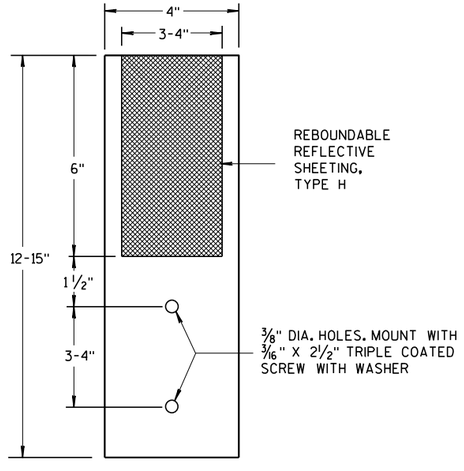
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

TYPICAL SPLICING DETAILS OF STEEL PLATE BEAM GUARD

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



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



4"x 12" GUARDRAIL REFLECTOR

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

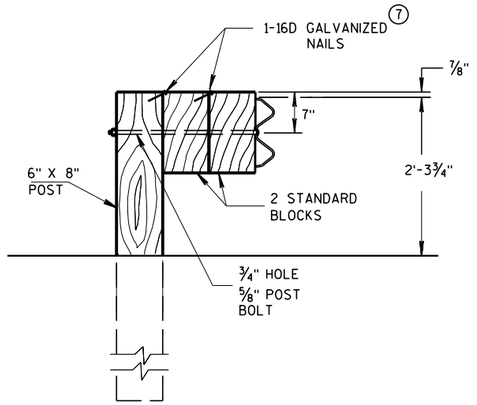
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DEPARTMENT OF TRANSPORTATION

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

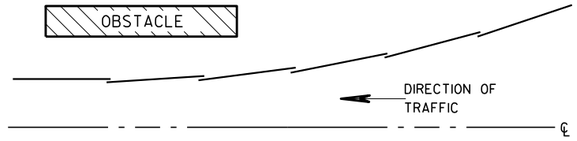
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S.D.D. 14 B 15-11b

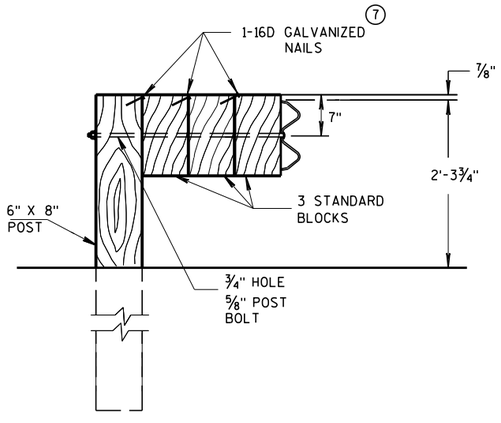


DETAIL FOR DOUBLE BLOCKS

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

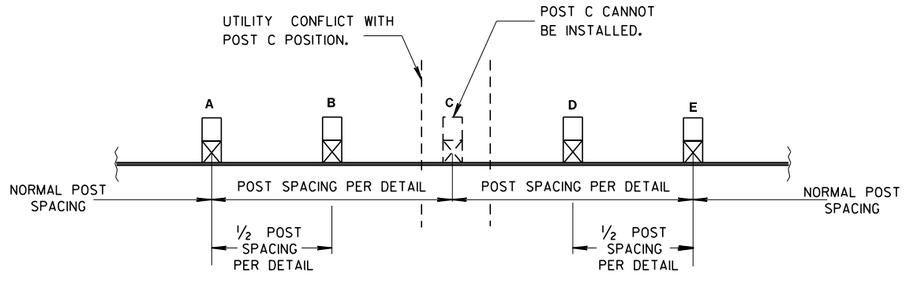


PLAN VIEW
BEAM LAPPING DETAIL



DETAIL FOR TRIPLE BLOCKS

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



POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION

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

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

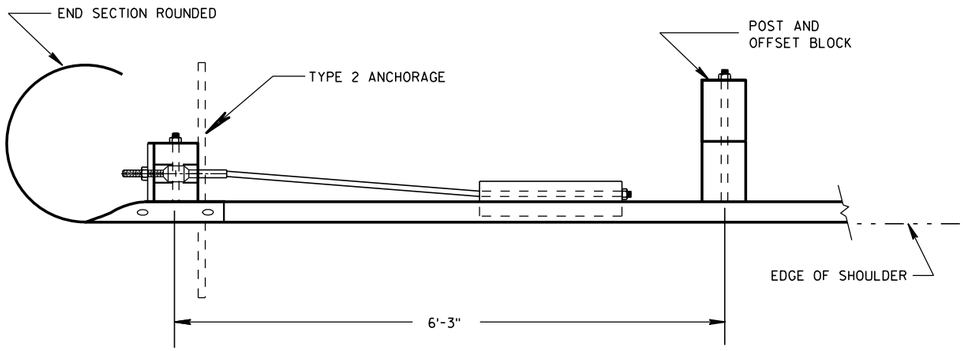
STEEL PLATE BEAM GUARD, CLASS "A", INSTALLATION & ELEMENTS

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DEPARTMENT OF TRANSPORTATION

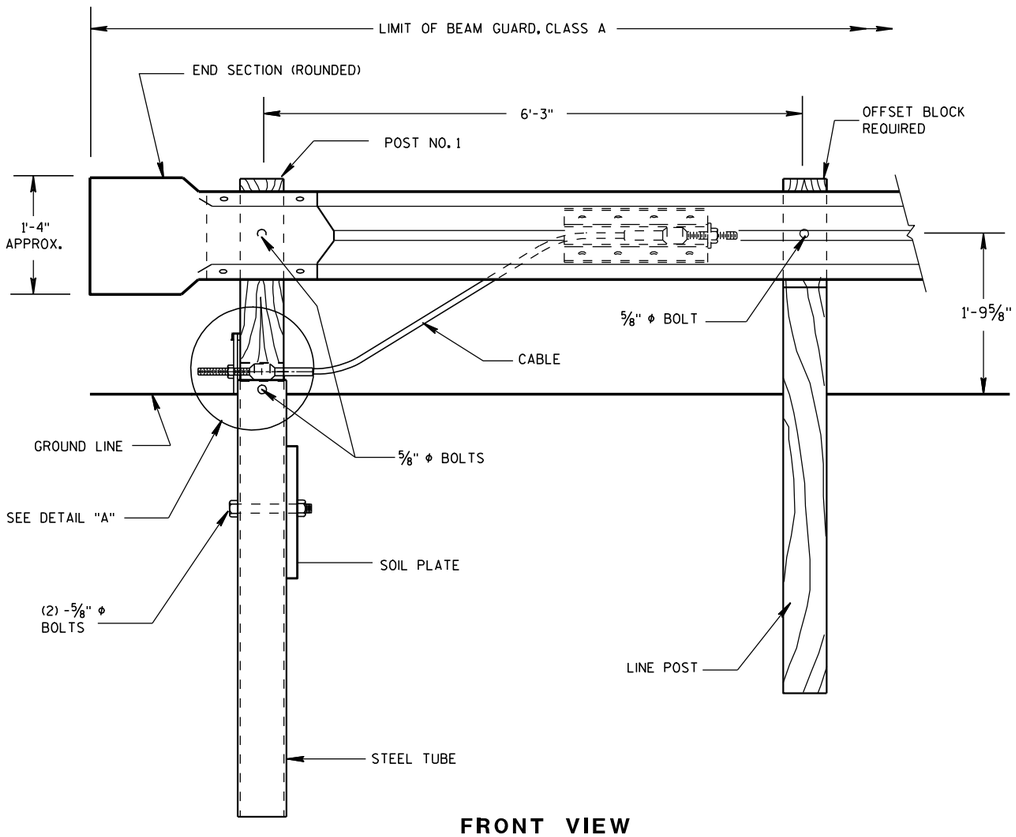
APPROVED
June 2017
DATE
FHWA

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR

6
S.D.D. 14 B 15-11c



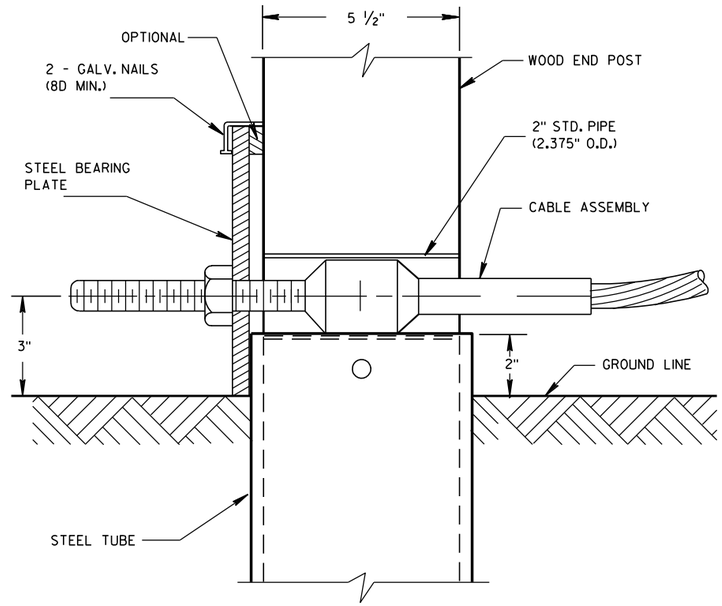
PLAN VIEW



FRONT VIEW

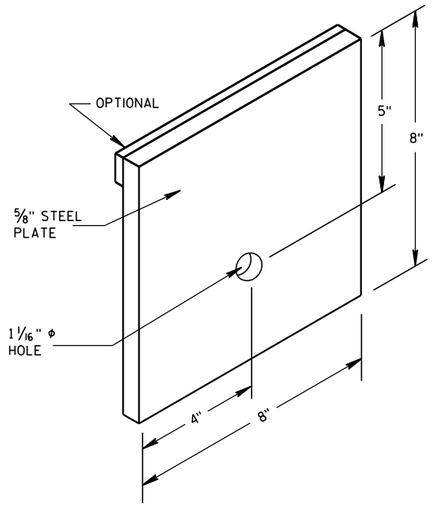
END TREATMENT WITH TYPE 2 ANCHORAGE

(USE ON ONE-WAY ROADWAYS ONLY - DEPARTING END)



DETAIL "A"

POST NO. 1



STEEL BEARING PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2

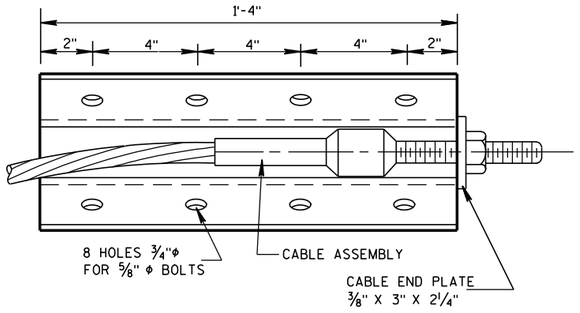
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO.....T

6

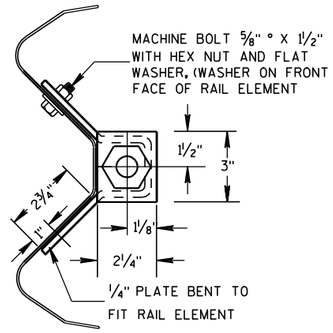
S.D.D. 14 B 16-4a

6

S.D.D. 14 B 16-4a

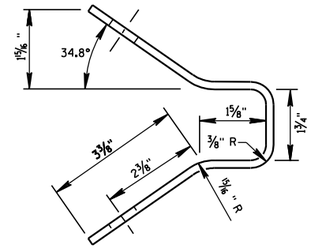


FRONT VIEW

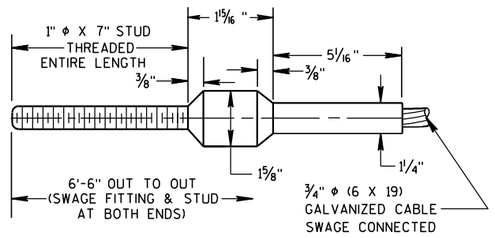


END VIEW

ANCHOR PLATE DETAIL



END VIEW OF BRACKET



CABLE ASSEMBLY

CABLE, SWAGE FITTING, STUD AND NUT SHALL DEVELOP
A MINIMUM BREAKING STRENGTH OF 40,000 LB
(TIGHTEN UNTIL TAUT)

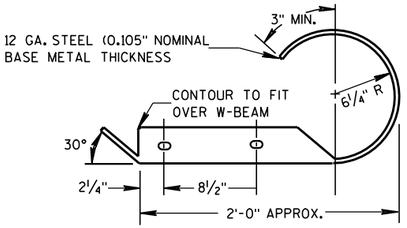
GENERAL NOTES

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

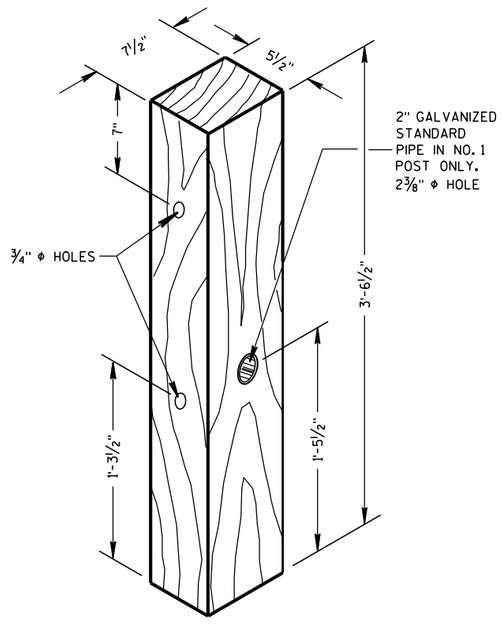
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500 GRADE B OR ASTM A-501.

POST NO. 1 SHALL BE WOOD BREAKAWAY POST INSERTED AND BOLTED INTO STEEL TUBE.

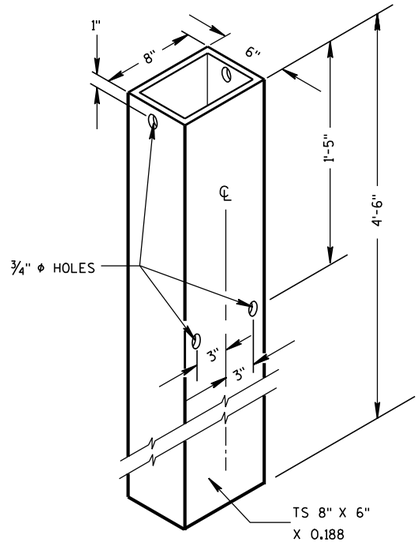
TYPE 2 ANCHORAGE SHALL CONSIST OF A STEEL TUBE, SOIL PLATE WOOD BREAKAWAY POST, BEARING PLATE, ANCHOR PLATE, CABLE ASSEMBLY AND ALL ASSOCIATED HARDWARE, ALL STEEL PARTS SHALL BE GALVANIZED.



PLAN VIEW

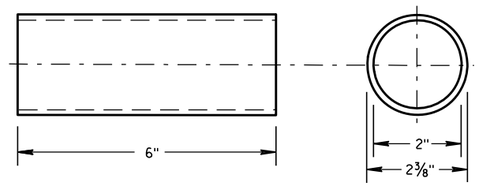


WOOD BREAKAWAY POST



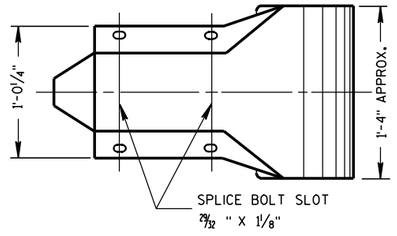
STEEL TUBE

STEEL TUBE SHALL CONFORM TO
REQUIREMENTS OF ASTM A500

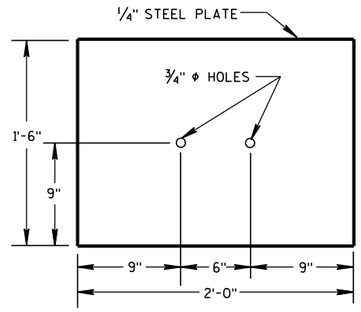


BREAKAWAY TERMINAL POST SLEEVE

GALVANIZED STANDARD STRENGTH STEEL PIPE, ASTM 53 GRADE "B"



FRONT VIEW
W BEAM END SECTION ROUNDED



SOIL PLATE

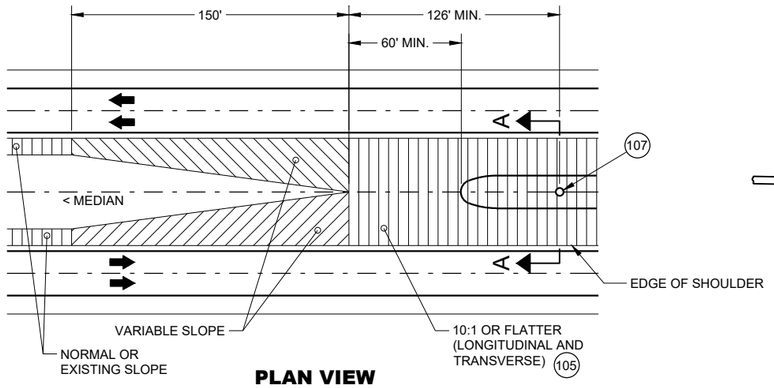
ANCHORAGE FOR STEEL PLATE BEAM GUARD TYPE 2

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

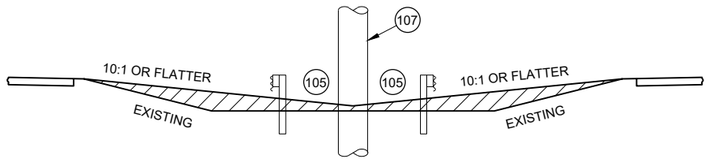
APPROVED
8/21/2007 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 16-4b



PLAN VIEW
GRADING AT BULLNOSE
(ALL INSTALLATIONS)



SECTION A -A
MEDIAN GRADING
(ALL INSTALLATIONS)

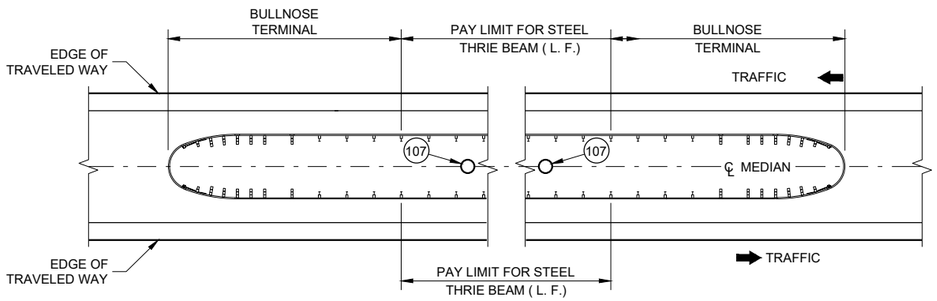
GENERAL NOTES

THRIE BEAM RAILS MAY NEED TO BE FIELD BENT TO FIT THE LOCATION.

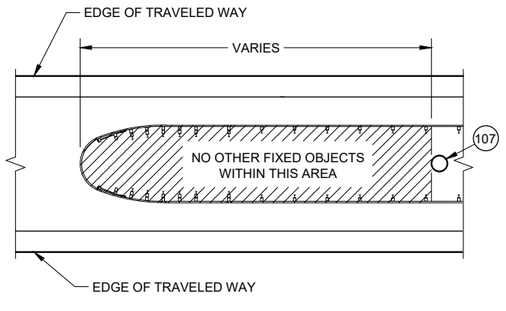
SEE STANDARD DETAIL DRAWINGS 14B26 SHEETS a-h.

IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 ½". MINIMUM DIAMETER OF THE ROCK REMOVAL IS 12" DIAMETER

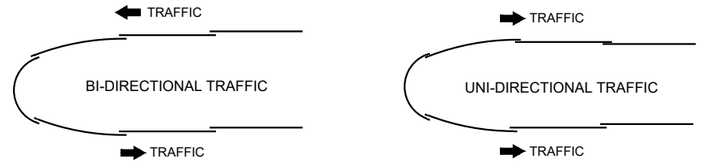
- E1 UNBENT STANDARD THRIE BEAM RAIL B1 (POST 8 TO POST 10 AND POST 10 TO POST 12)
- E2 SLOTTED THRIE BEAM RAIL E1 (POST 1 TO POST 1)
- E3 SLOTTED THRIE BEAM RAIL B3 (POST 5 TO POST 8)
- E4 SLOTTED THRIE BEAM RAIL E4 (POST 1 TO POST 5)
- 5 BEYOND POST 12: CONSTRUCT STEEL THRIE BEAM - USE UNBENT STANDARD THRIE BEAM RAIL NO. 5.
- (100) DIMENSIONS ARE FROM BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO POST OR BLOCK.
- (101) U-BOLT CABLE CLIPS (3 PER CABLE) SPACED OUT ON NOSE, TO HOLD CABLE TO BACKSIDE OF THE RAIL.
- (102) NOSE CABLE WITH SWAGGED END BUTTONS.
- (103) NOSE CABLE ANCHOR PLATE (BACKSIDE OF SPLICE).
- (104) THE SLACK IN THE NOSE CABLES SHALL BE EVENLY DISTRIBUTED BETWEEN THE CABLE CLIP FASTENERS AND POST NO. 1 ON EITHER SIDE OF THE NOSE.
- (105) MINIMUM WORKING WIDTH 4' - 2".
- (106) MAX. WIDTH OF SYSTEM IS 14' - 2 ½" MEASURED FROM THE BACK OF RAIL TO BACK OF RAIL WHERE RAIL IS BOLTED TO A POST OR BLOCK.
- (107) FIXED OBJECT OR OTHER HAZARD.
- (108) PLAN IS TO PROVIDE STATION OFFSET TO CENTER OF POST 5 IN PLANS.



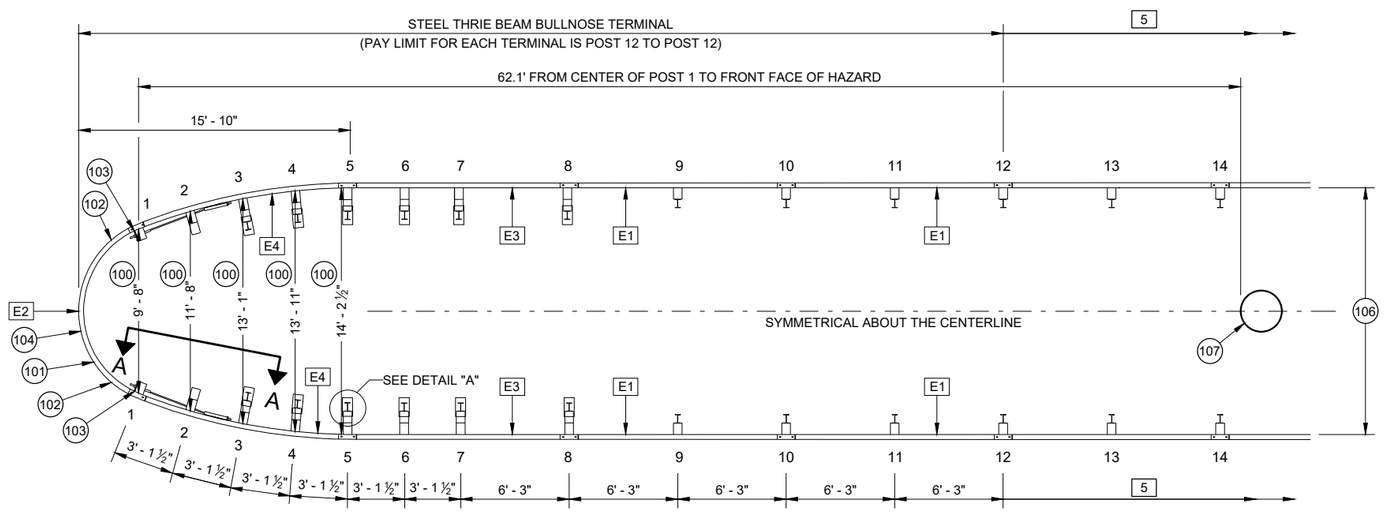
MEDIAN HAZARD PROTECTION PAY LIMITS



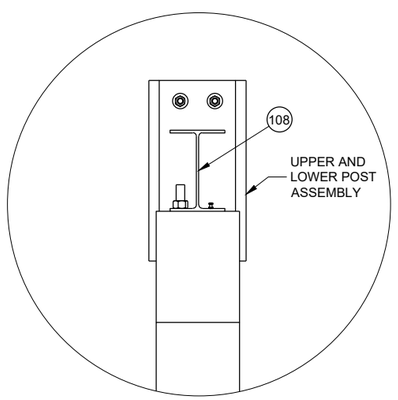
HAZARD FREE AREA
INSIDE BULLNOSE



LAPPING DETAIL



PLAN VIEW
TYPICAL BULLNOSE LAYOUT



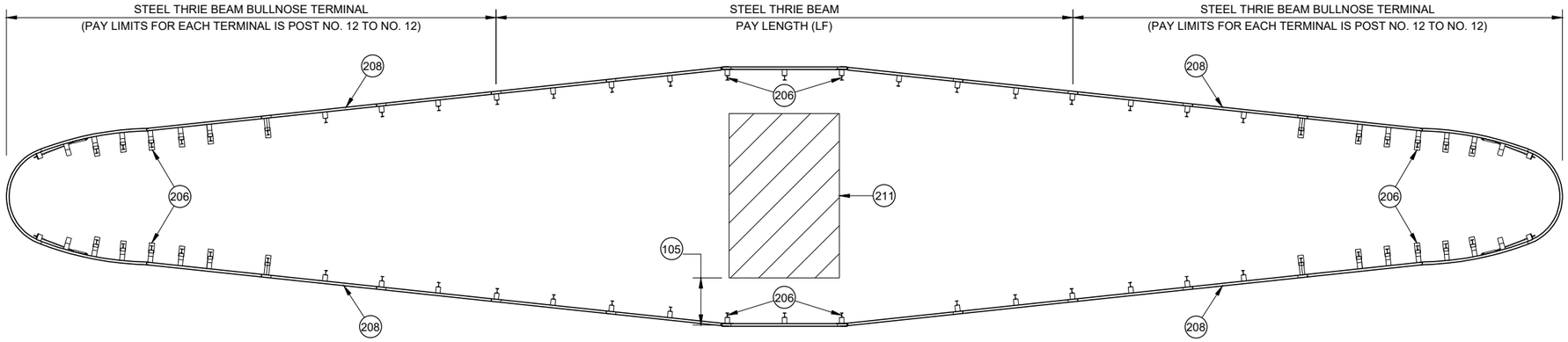
DETAIL "A"

STEEL THRIE BEAM
BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B26 - 05a

SDD 14B26 - 05a



VARIABLE WIDTH BULLNOSE

GENERAL NOTES

200 6' - 3" ASYMMETRICAL 10-GAUGE W-BEAM TO THRIE BEAM GUARD TRANSITION. SEE SDD 14B45 FOR MORE INFORMATION.

201 W-BEAM RAIL. SEE SDD 14B42 FOR MORE INFORMATION.

202 SEE POST NO. 9 AND ALL STEEL THRIE BEAM POST BEYOND DETAIL.

203 SEE SDD 14B42 FOR INSTALLATION INFORMATION.

204 SEE SDD 14B45 FOR INSTALLATION DETAILS. REPLACE ASYMMETRICAL W-BEAM TO THRIE BEAM TRANSITION AND W-BEAM RAIL WITH E1. PAY FOR MODIFIED THRIE BEAM TRANSITION.

205 CONCRETE BARRIER OR BRIDGE RAIL.

206 SEE PLAN FOR STATION AND OFFSET TO CENTER OF POST.

207 SEE PLAN FOR STATION AND OFFSET TO CENTER OF SPLICE.

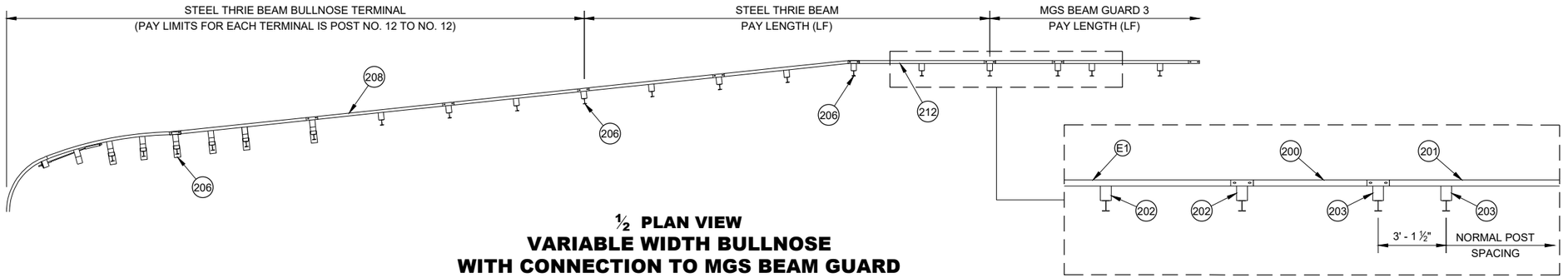
208 SEE PLAN FOR FLARE RATE.

209 A MINIMUM OF 25 FT OF THRIE BEAM TANGENT BEFORE TRANSITIONING TO BEAM GUARD OR THRIE BEAM TRANSITION.

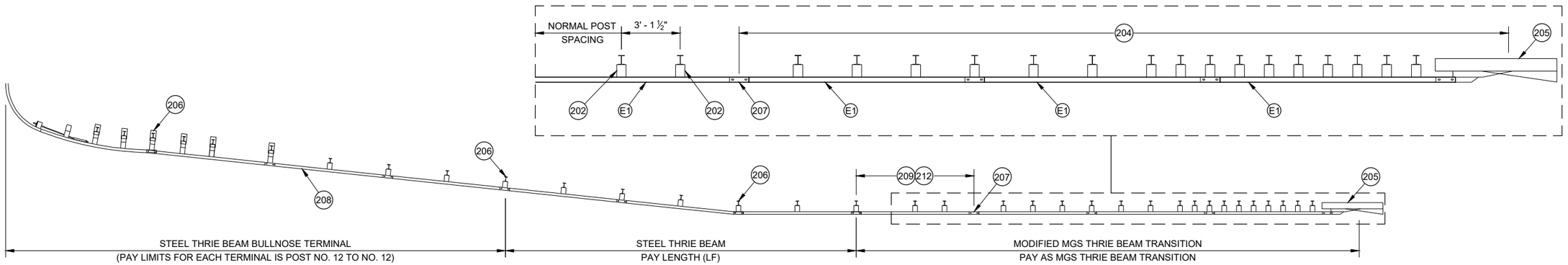
210 NOT ALL BULLNOSE HARDWARE SHOWN. SEE OTHER SHEETS IN 14B26.

211 WIDER HAZARD TO BE SHIELDED.

212 TRANSITION RAIL HEIGHT TO 31" OVER THE LENGTH OF A 12' - 6" BEAM SECTION.



½ PLAN VIEW
VARIABLE WIDTH BULLNOSE
WITH CONNECTION TO MGS BEAM GUARD



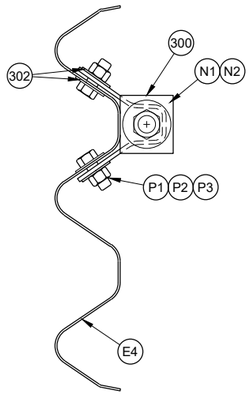
½ PLAN VIEW
VARIABLE WIDTH BULLNOSE
WITH CONNECTION TO RIGID BARRIER

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

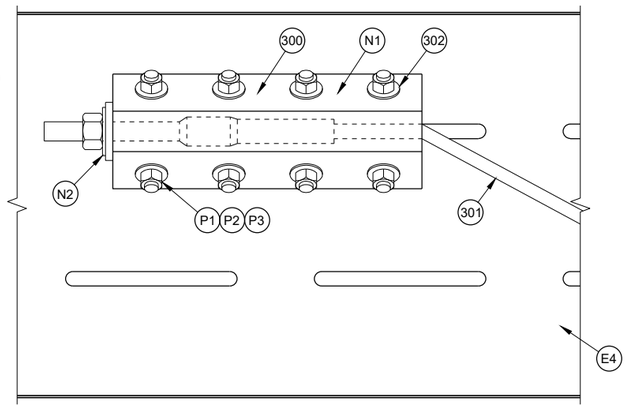
6

SDD 14B26 - 05b

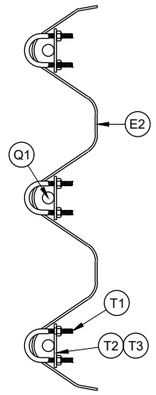


PROFILE VIEW

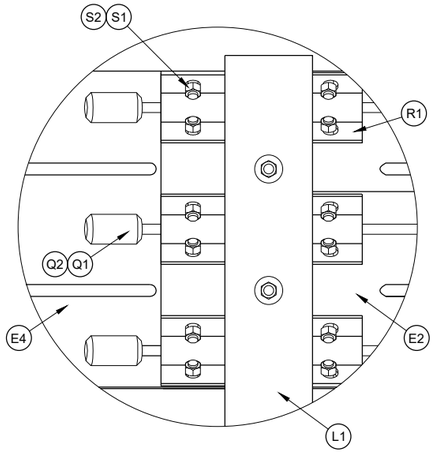
CABLE ANCHOR ASSEMBLY CONNECTION



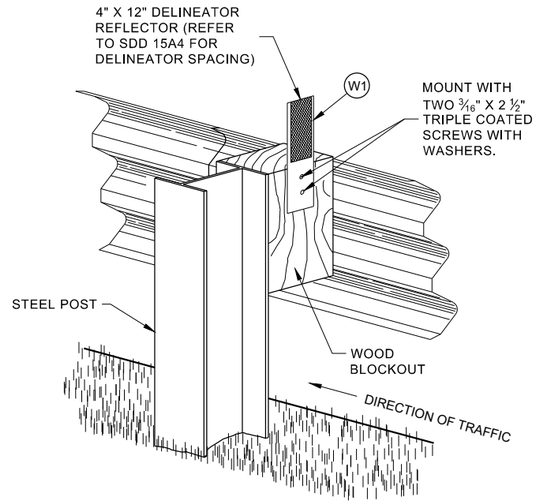
CABLE ANCHOR ASSEMBLY



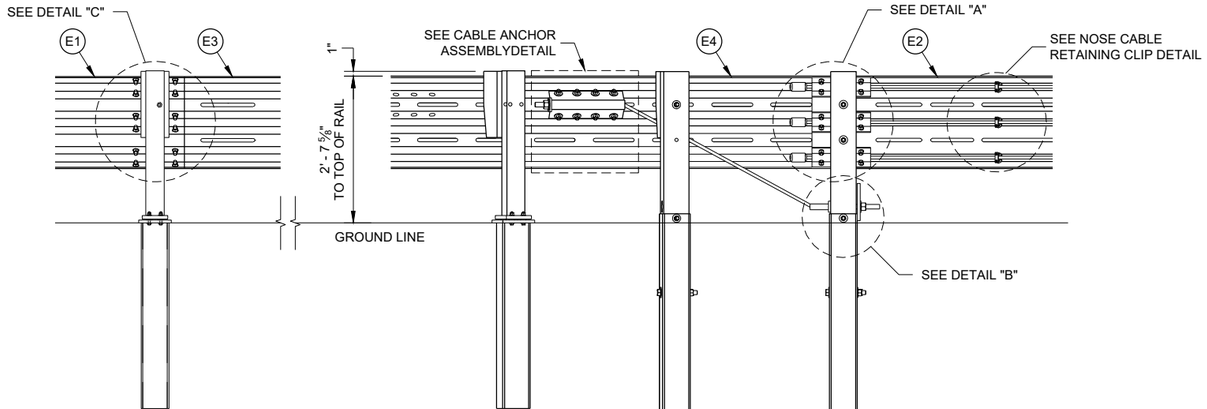
NOSE CABLE RETAINING CLIP



DETAIL "A"

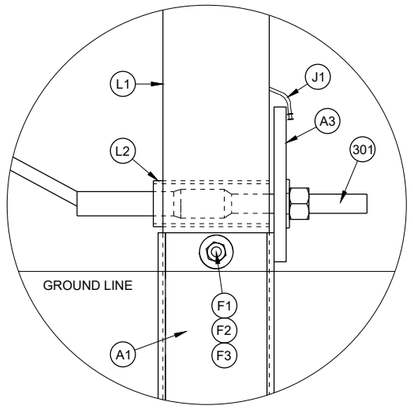


ONE SIDED REFLECTOR DETAIL AND TYPICAL INSTALLATION

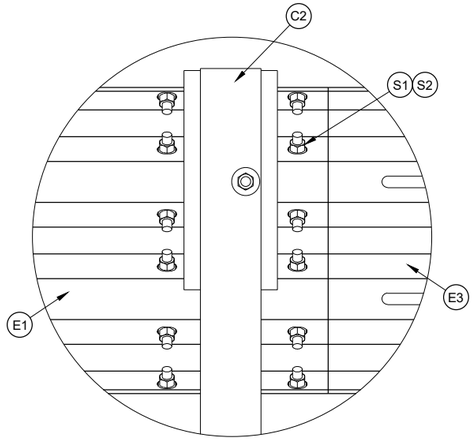


POST 8 **POST 3** **POST 2** **POST 1**

CROSS SECTION A - A



DETAIL "B"



DETAIL "C" THRIE BEAM SPLICE

GENERAL NOTES

(300) SEE ANCHOR BRACKET ASSEMBLY DETAIL.

(301) SEE ANCHOR CABLE ASSEMBLY DETAIL

(302) ONE WASHER BETWEEN BOLT HEAD AND RAIL AND BETWEEN NUT AND ANCHOR BRACKET ASSEMBLY.

(303) ONE WASHER BETWEEN BOLD HEAD AND FOUNDATION TUBE AND BETWEEN NUT AND FOUNDATION TUBE.

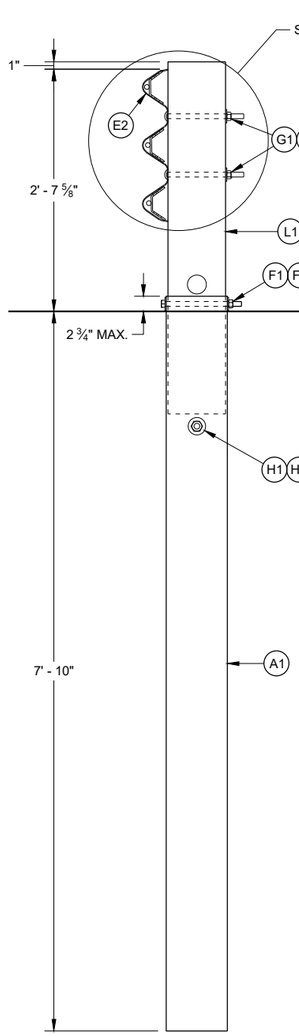
STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

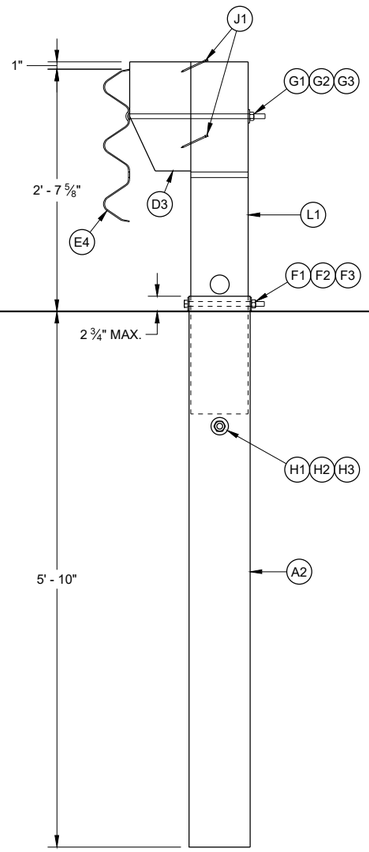
SDD 14B26 - 05c

6

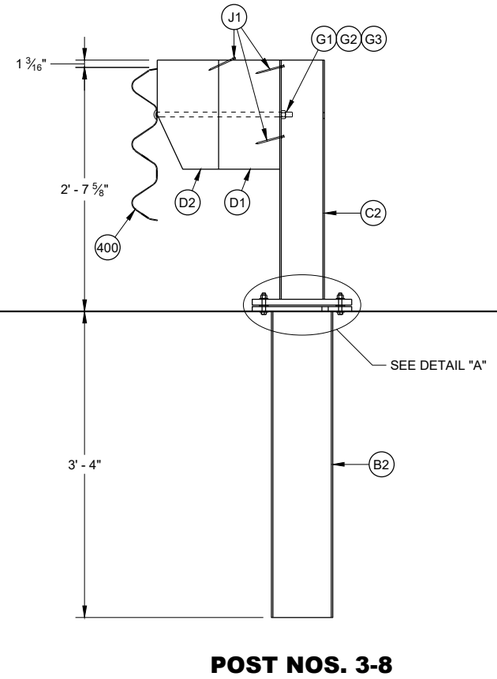
SDD 14B26 - 05c



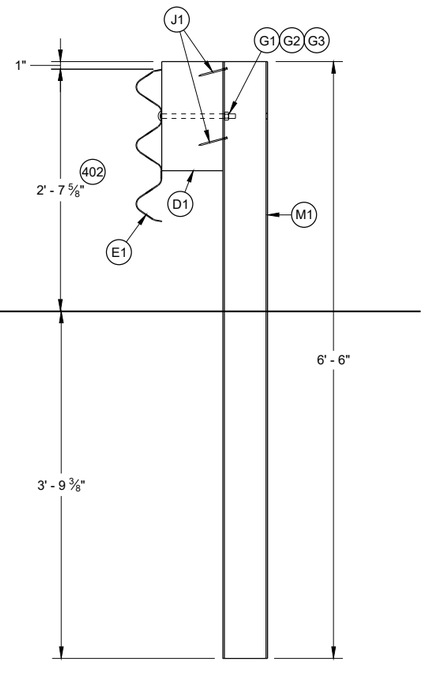
POST NO. 1



POST NO. 2



POST NOS. 3-8



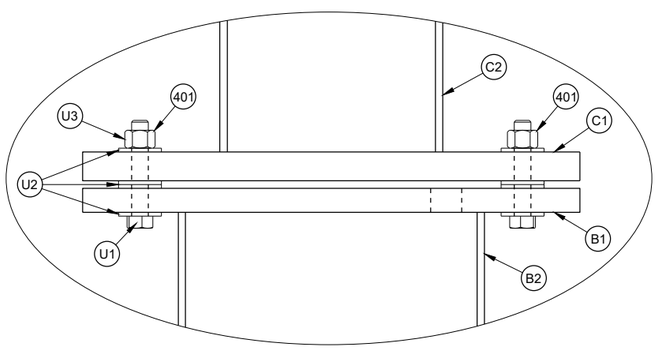
POST NOS. 9 AND ALL STEEL THRIE BEAM POSTS BEYOND

GENERAL NOTES

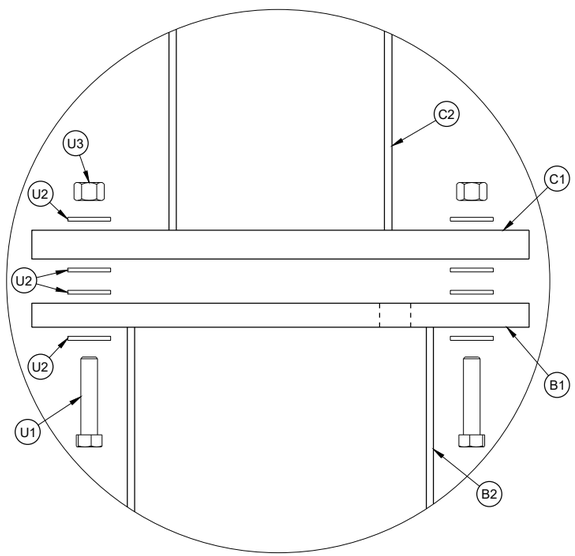
(400) RAIL CAN BE E3 OR E4 DEPENDING ON POST LOCATION.

(401) TORQUE BOLD BETWEEN 60-75 FT-LB

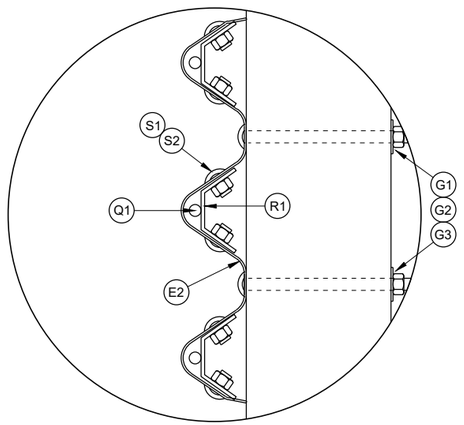
(402) HEIGHT WILL VARY WITHIN HEIGHT TRANSITION TO OTHER HARDWARE. SEE NOTE 213, SHEET "b".



DETAIL "A"



EXPLODED VIEW
DETAIL "A"



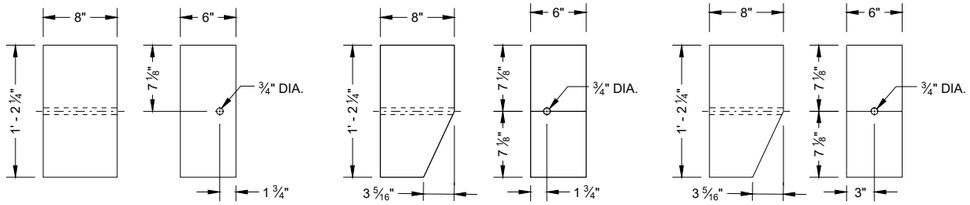
DETAIL "B"

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

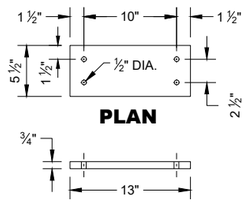
SDD 14B26 - 05d



ELEVATION PROFILE
BLOCKOUT (D1)

ELEVATION PROFILE
BLOCKOUT (D2)

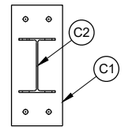
ELEVATION PROFILE
BLOCKOUT (D3)



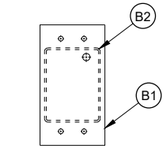
PLAN

PROFILE

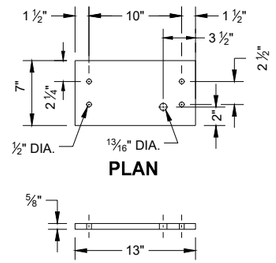
UPPER SHEAR PLATE (C1)



PLAN



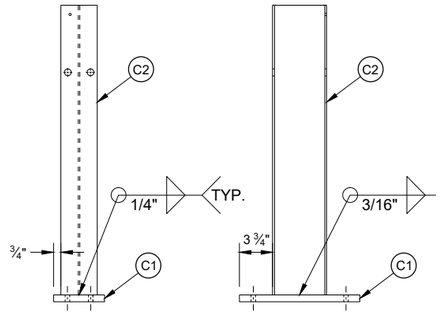
PLAN



PLAN

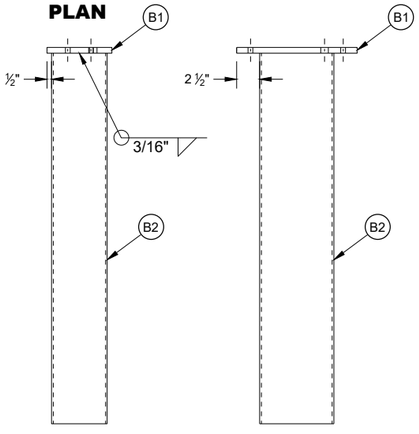
PROFILE

LOWER SHEAR PLATE (B1)



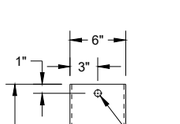
ELEVATION PROFILE

UPPER POST ASSEMBLY



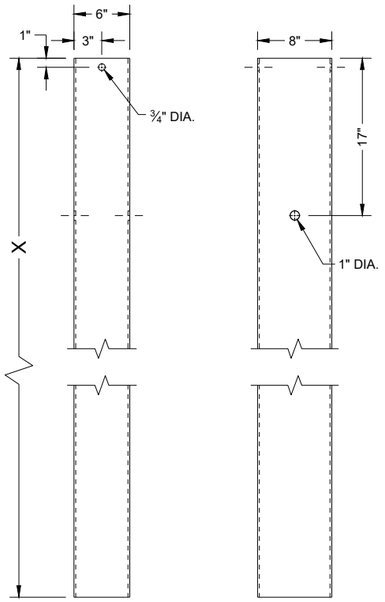
ELEVATION PROFILE

LOWER POST ASSEMBLY



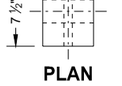
PLAN

PART	LENGTH "X"
A1	8' - 0"
A2	6' - 0"
B2	3' - 4"

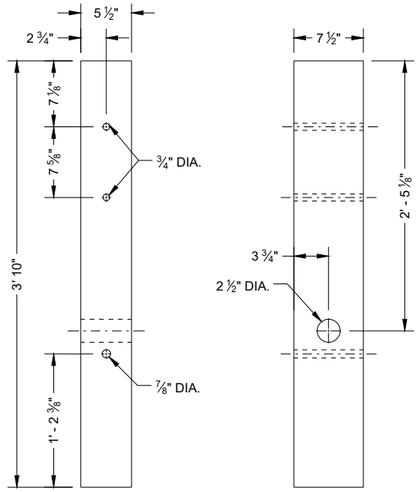


ELEVATION PROFILE

FOUNDATION TUBE

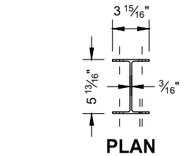


PLAN

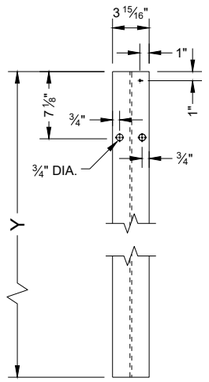


ELEVATION PROFILE

BCT POST (L1)



PLAN



ELEVATION

POST

PART	LENGTH "Y"
M1	6' - 6"
M2	5' - 8 5/8"
C2	2' - 7 5/8"

STEEL THRIE BEAM BULLNOSE TERMINAL

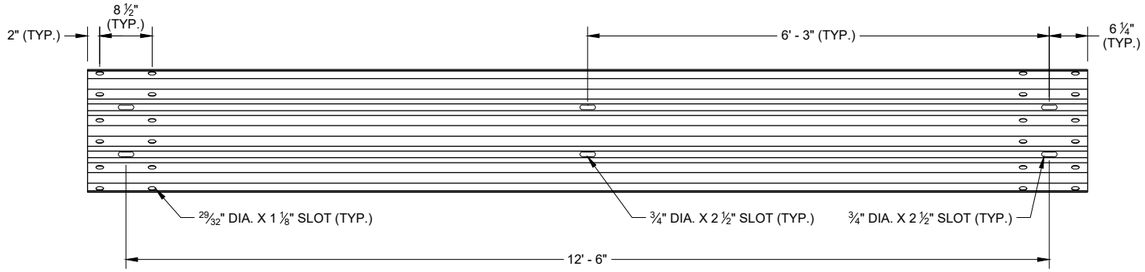
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

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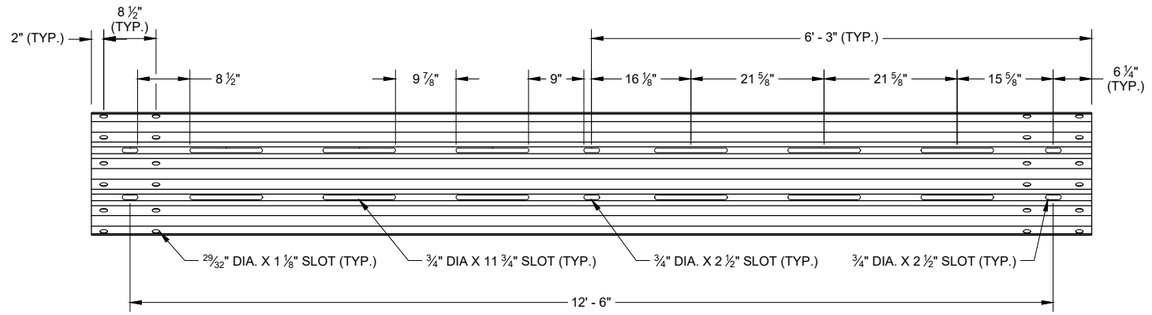
SDD 14B26 - 05e

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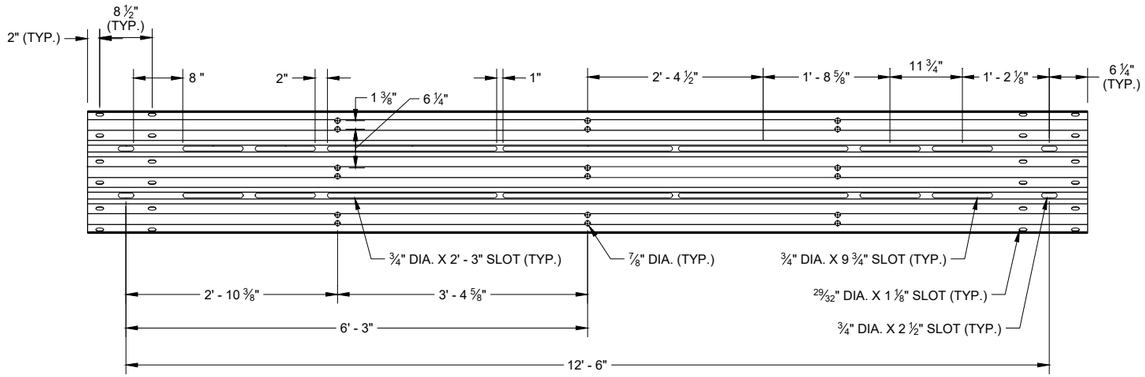
SDD 14B26 - 05e



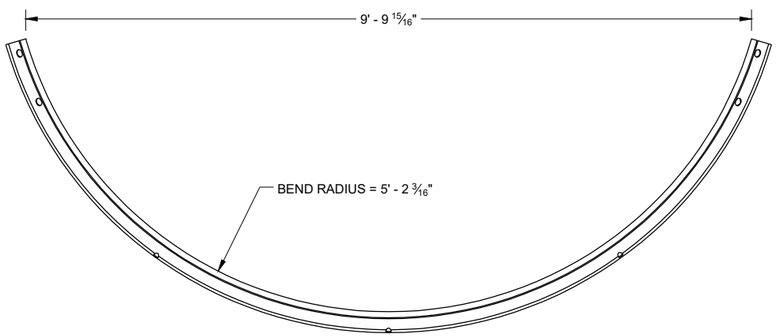
SLOTTED THRIE BEAM RAIL E1



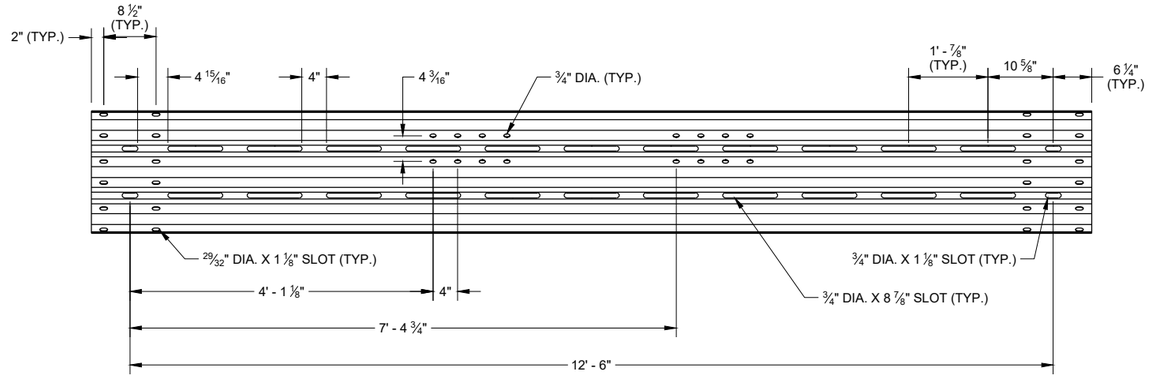
SLOTTED THRIE BEAM RAIL E3



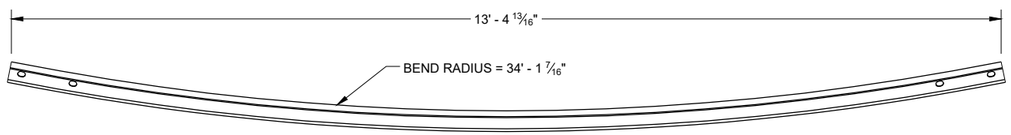
ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E2



PLAN VIEW
SLOTTED THRIE BEAM RAIL E2



ELEVATION VIEW NON - RADIUSED
SLOTTED THRIE BEAM RAIL E4

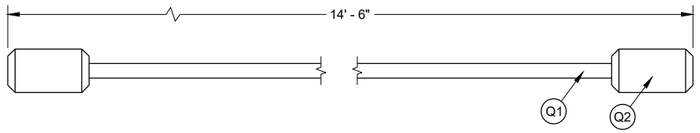


PLAN VIEW
SLOTTED THRIE BEAM RAIL E4

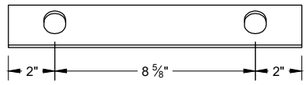
STEEL THRIE BEAM BULLNOSE TERMINAL

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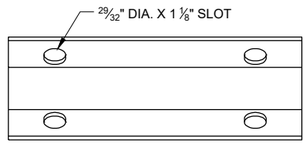
6
SDD 14B26 - 05f



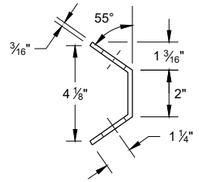
NOSE CABLE AND SWAGE BUTTON



PLAN VIEW

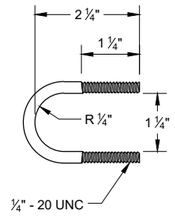


ELEVATION VIEW

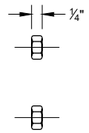


PROFILE VIEW

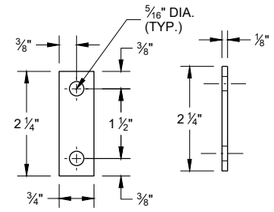
NOSE CABLE ANCHOR (R1)



U - BOLT (T1)

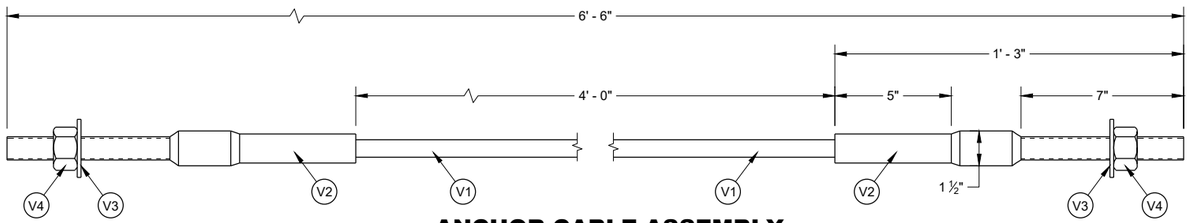


U - BOLT NUT (T3)

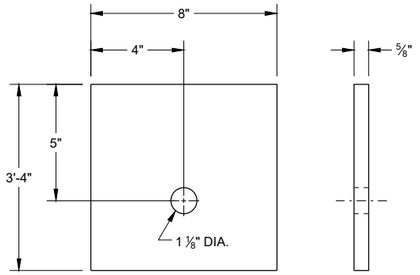


ELEVATION VIEW **PROFILE VIEW**

U - BOLT PLATE WASHER (T2)

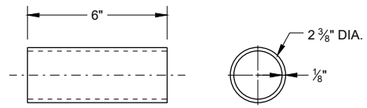


ANCHOR CABLE ASSEMBLY



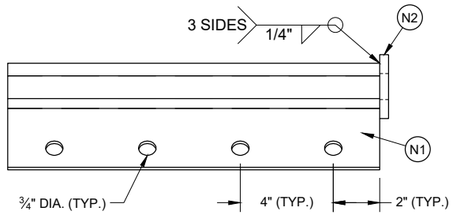
ELEVATION VIEW **PROFILE VIEW**

BCT BEARING PLATE (A3)

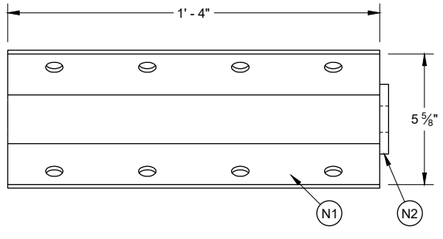


ELEVATION VIEW **PROFILE VIEW**

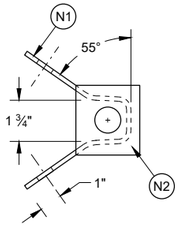
BCT POST SLEEVE (L2)



PLAN VIEW

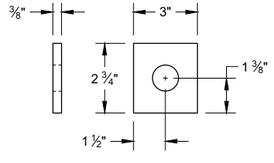


ELEVATION VIEW



PROFILE VIEW

ANCHOR BRACKET ASSEMBLY (N1)



ANCHOR BRACKET END PLATE (N2)

STEEL THRIE BEAM BULLNOSE TERMINAL

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SDD 14B26 - 05g

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BILL OF MATERIALS LIST

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
A1	LONG FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A2	FOUNDATION TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
A3	BEARING PLATE AT POST	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
B1	LOWER SLIP POST ASSEMBLY - PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
B2	LOWER SLIP POST ASSEMBLY - TUBE	AASHTO M111/ASTM A123 ASTM A500 GRADE B OR ASTM A-501
C1	UPPER SLIP POST ASSEMBLY - PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
C2	UPPER SLIP POST ASSEMBLY - POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
D1	BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D2	TAPERED BLOCK FOR STEEL POST - WOOD	WISDOT SPEC. 614
D3	TAPERED BLOCK FOR BCT POST - WOOD	WISDOT SPEC. 614
E1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E2	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
E3	THRIE BEAM RAIL - PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER
E4	THRIE BEAM RAIL - SHOP BENT AND PUNCHED	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER. INDICATE RADIUS BEAM GUARD IS BENT TO ON THE BACKSIDE OF RAIL. FOLLOW AASHTO M180. MARK RADIUS.
F1	5/8" DIA. HEX HEAD GROUND STRUT AND YOKE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
F2	5/8" DIA. GROUND STRUT AND YOKE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
F3	GROUND STRUT AND YOKE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
G1	5/8 " DIA. POST BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G2	POST BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER TYPICALLY USED WITH STEEL POSTS) OR ASTM F844 (UNHARDENED WASHER TYPICALLY USED WITH WOOD)
G3	POST BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
H1	7/8" DIA. SOIL TUBE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD 7/8" ASTM A563DH OR SAE J995 GRADE 5
H2	SOIL TUBE BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 7/8" ASTM F844 TYPE 1 (HARDEN WASHER ONLY)
H3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD 7/8" ASTM A563DH OR SAE J995 GRADE 5
J1	16D DOUBLE HEAD NAIL	ASTM A153 HOT DIPPED CLASS D DOUBLE HEAD ASTM F1667 TYPE 1 STYLE 12 (16 DOUBLE HEADED)
L1	BCT TIMBER POST	WISDOT SPEC. 614 S4S FINISH ON 4 SIDE
L2	BCT POST SLEEVE	AASHTO M111/ASTM A123 2 3/8" OD ASTM 53 GRADE B
M1	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
M2	W6X8.5 OR W6X9 STEEL POST	AASHTO M111/ASTM A123 ASTM A6 W6X9 OR W6X8.5 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
N1	ANCHOR BRACKET	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
N2	ANCHOR BRACKET - BEARING PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI

PART NUMBER	DESCRIPTION	MATERIAL SPECIFICATION
P1	5/8" DIA. ANCHOR BRACKET BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD 5/8" ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
P2	ANCHOR BRACKET BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
P3	SOIL TUBE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
Q1	5/8" DIA. NOSE CABLE	6X19 AASTHO M30 / ASTM A741 XIPS INDEPENDENT WIRE CORE (IWRC) PR 6X25 XIPS, IWRC NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
Q2	NOSE CABLE-SWAGE BUTTON	COLD TUFF BUTTON, S-409 SIZE NO. 12 STOCK NUMBER 1040395 OR ANY OTHER SIMILAR SIZED WAGED-GRIP-BUTTON FERRULES. ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FIELD SWAGED PER MANUFACTURERS RECOMMENDATION. NOMINAL BREAKING STRENGTH OF 41.2 KIPS.
R1	NOSE CABLE ANCHOR BRACKET	AASHTO M111/ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI
S1	5/8" DIA. SPLICE BOLT - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
S2	SPLICE - BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD 5/8" ASTM A563DH OR SAE J995 GRADE 5
T1	1/4" DIA. NOSE CABLE - U BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC HEAVY HEX HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36
T2	U-BOLT - PLATE WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
T3	U-BOLT NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
U1	7/16" DIA. SLIP POST ASSEMBLY - BREAKAWAY BOLT	ASTM A153 OR B695 CLASS 55 OR F2329 UNC FULLY THREADED HEX HEAD TAP BOLT ASTM A449 OR SAE J429 GRADE 5
U2	7/16" DIA. SLIP POST ASSEBLY - BREAKAWAY BOLT - WASHER	ASTM F436 TYPE I (HARDEN TYPICALLY USED WITH STEEL) GALV. AASHTO M111/ASTM A 123 OR GALV. HOT DIP. TO POST BOLT CLASS C / ASTM F2329 OR GALV. MECHANICALLY TO AASHTO M232 CLASS C / ASTM A153 CLASS C / ASTM AASHTO M298 CLASS 50, TYPE 1 / ASTM B695 CLASS 55, F2329
U3	SLIP POST ASSEBLY - BREAKAWAY BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / STM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
V1	¾" DIA. BCT CABLE	AASHTO M30 / ASTM A741 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS), 6X19 INDEPENDENT WIRE CORE (IWRC) IMPROVED PLOW STEEL (IPS) TYPE II OR IIC, CLASS C ZINC COATED MIN BREAKING STRENGTH OF 42.7 KIPS
V2	ANCHOR CABLE-SWAGE FITTING	UNC ASTM A576 GRADE 1035 SWAGE FITTING ARE TO BE FACTORY SWAGED. MIN. BREAKING STRENGTH OF 42.7 KIPS. ASME B30.26 "FORGED, CAST, OR DIE STAMPED WITH THE FOLLOWING IN TO CONNECTION: NAME OF MANUFACTURE OR TRADEMARK OF CONNECTION'S MANUFACTURER, SIZE OR RATED LOAD, GRADE FOR ALLOY EYEBOLTS."
V3	1" DIA. ANCHOR CABLE-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 F436 TYPE 1 (HARDEN WASHER ONLY)
V4	1" DIA. ANCHOR CABLE-NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 50 TYPE 1/ ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5
W1	REFLECTOR	SEE SDD 15A4

6

SDD 14B26 - 05h

6

SDD 14B26 - 05h

STEEL THRIE BEAM BULLNOSE TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA

(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.

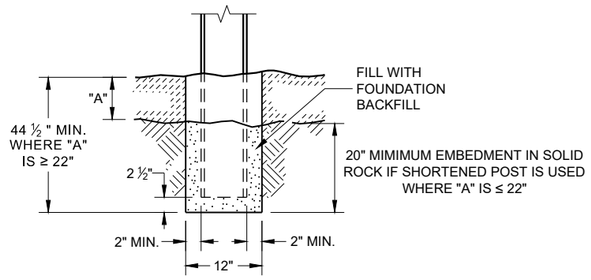
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

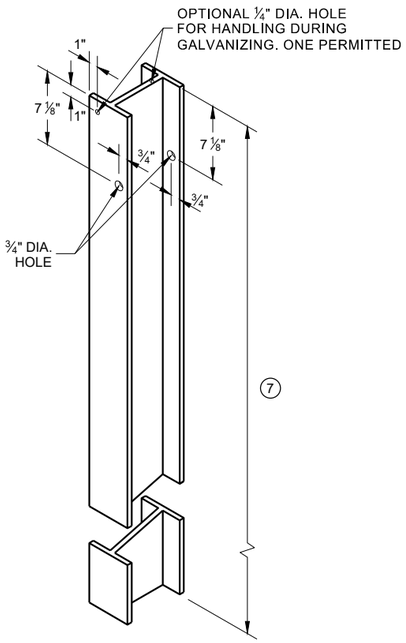
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

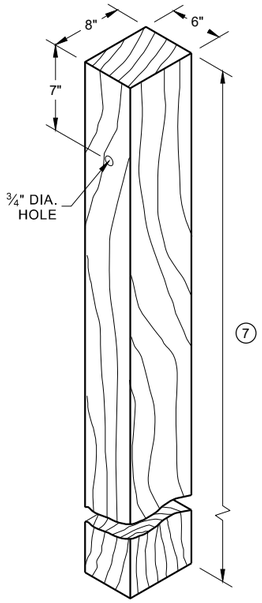
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



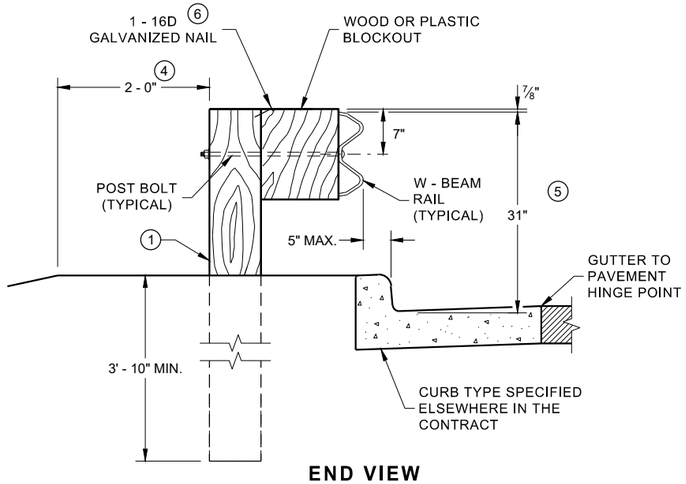
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



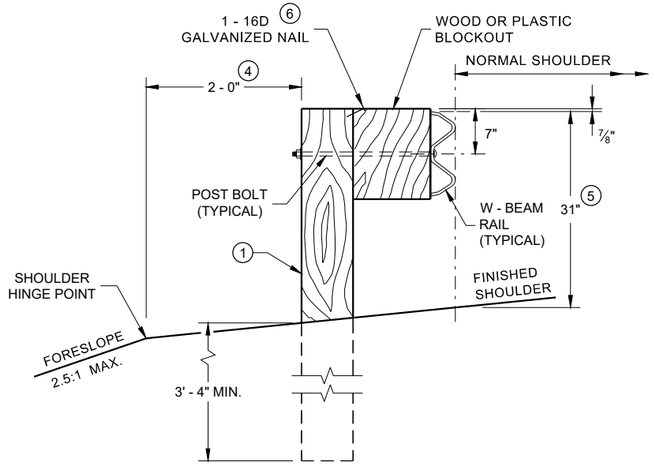
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



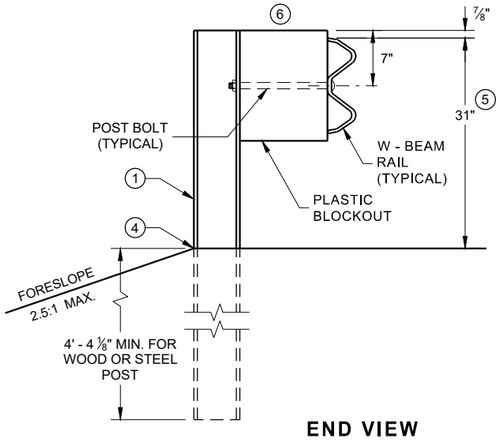
WOOD POST (6" X 8") NOMINAL (1)



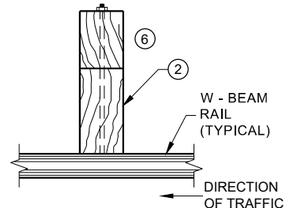
END VIEW
LOCATED ALONG A CURBED ROADWAY



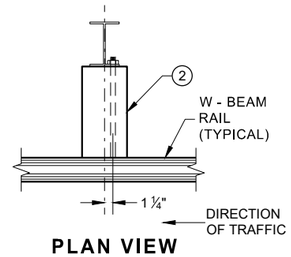
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



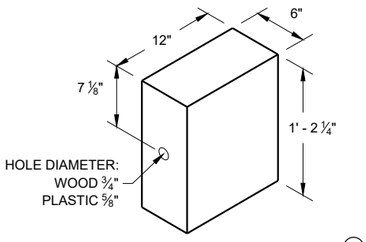
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

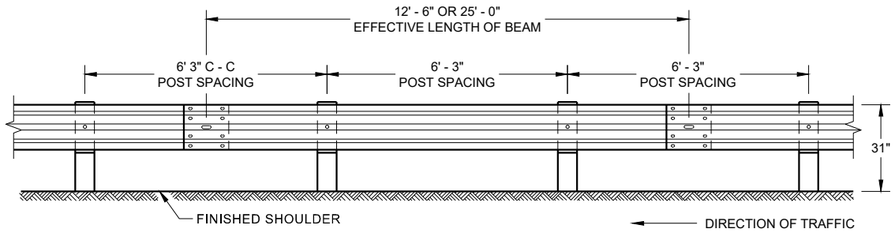
STATE OF WISCONSIN
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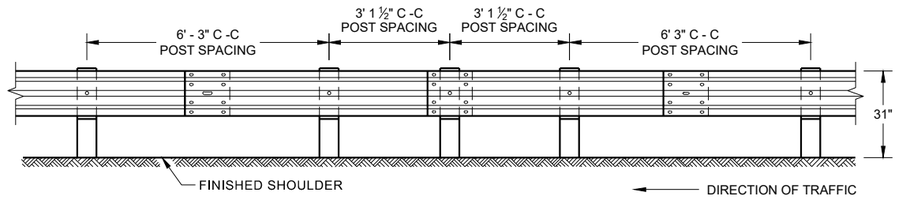
SDD 14B42 - 07a

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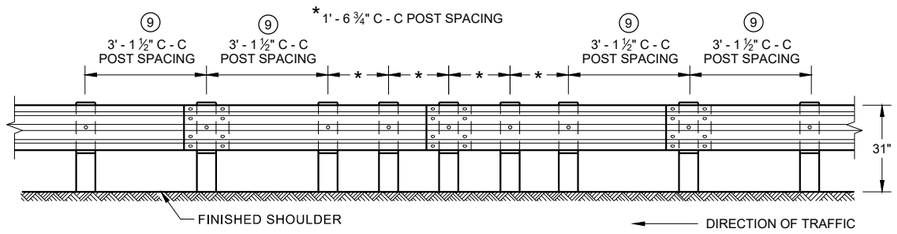
SDD 14B42 - 07a



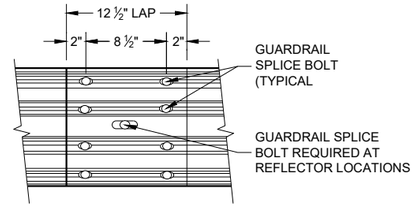
FRONT VIEW
POST SPACING STANDARD INSTALLATION



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

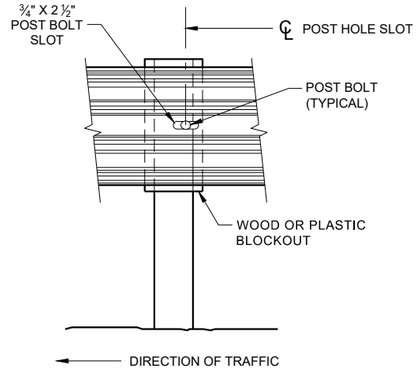
GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

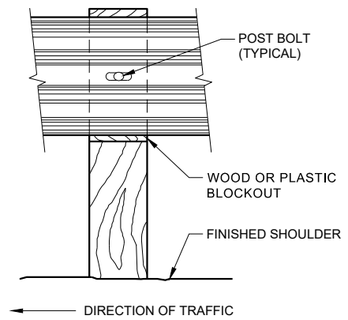
⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL BOLT. A POST BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT AND ⅝" DIAMETER F844 FLAT WASHER. POST BOLTS MAY BE LONGER IF MULTIPLE BLOCKOUTS ARE BEING USED.

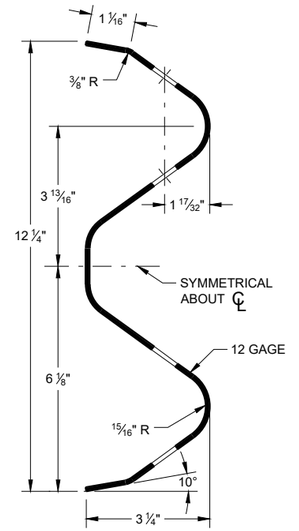
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.



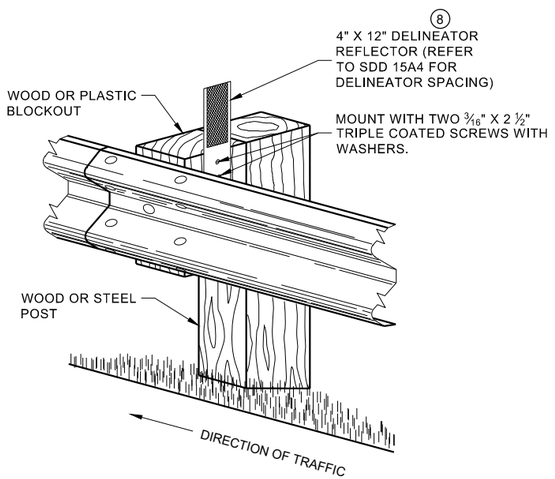
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



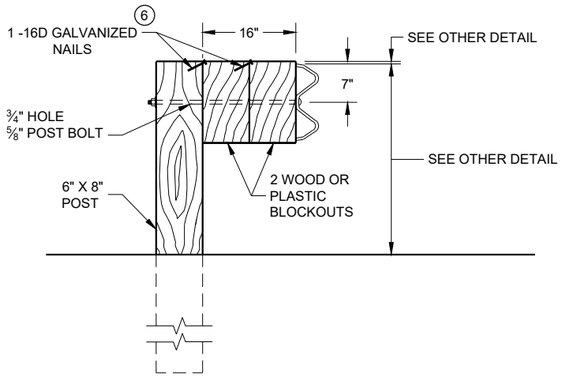
ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

MIDWEST GUARDRAIL SYSTEM
(MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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SDD 14B42 - 07b

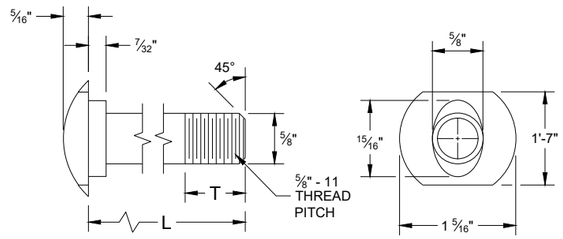


DETAIL FOR 16" BLOCKOUT DEPTH

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.

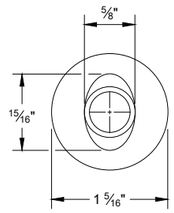
NOTE:

1. ALL FILLETS SHALL HAVE A MINIMUM RADIUS OF 3⁄16".
2. IF THE BOLT EXTENDS MORE THAN ¼" FROM THE NUT THE BOLT SHOULD BE TRIMMED BACK.

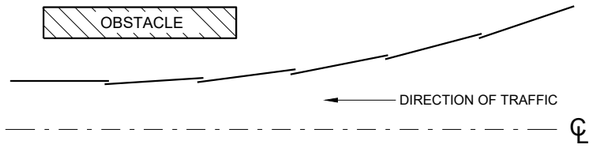


POST BOLT TABLE

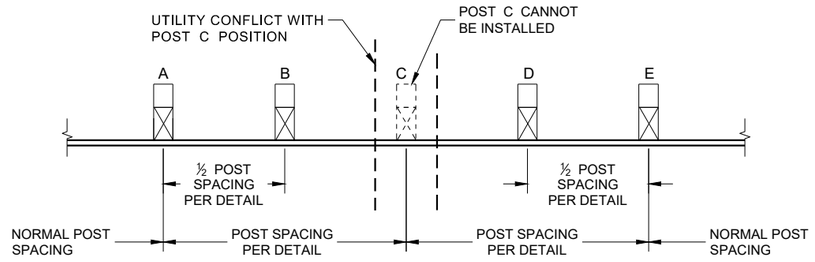
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



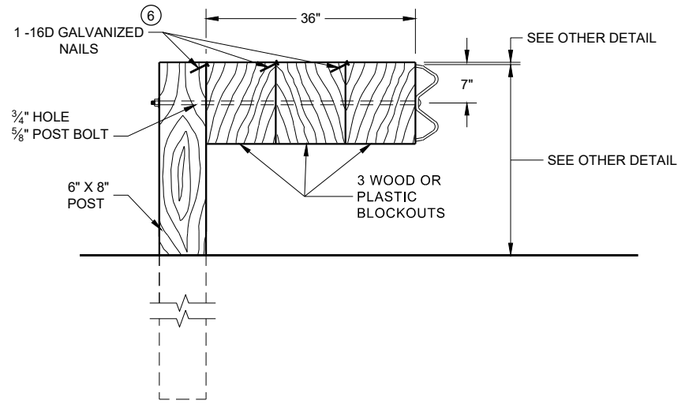
ALTERNATE BOLT HEAD



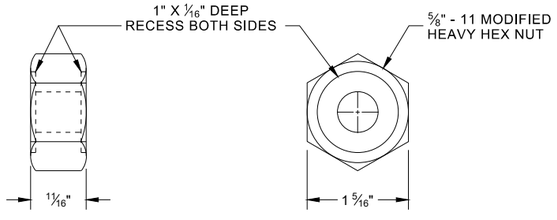
PLAN VIEW
BEAM LAPPING DETAIL



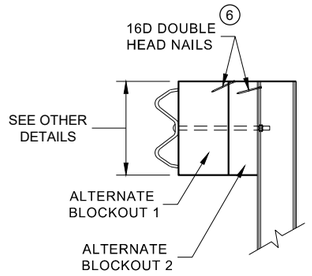
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



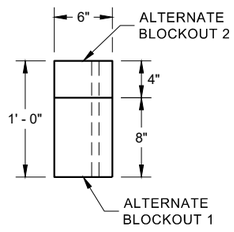
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

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.

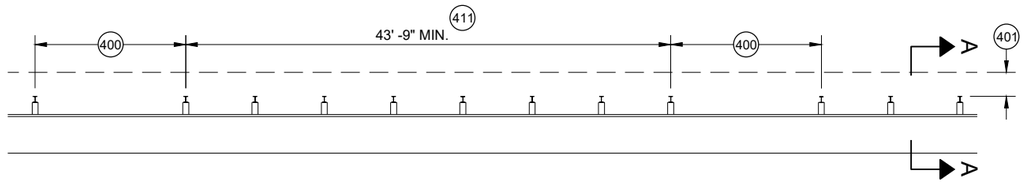
(6) WHEN USING STEEL POST AD WOOD BLOCKOUTS, INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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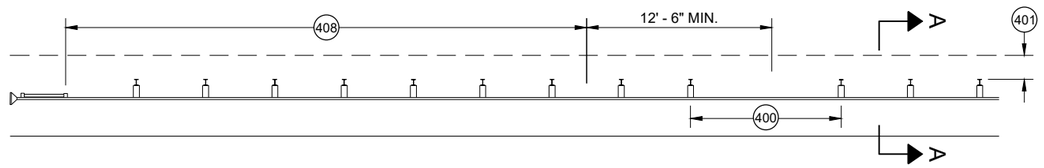
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA 173

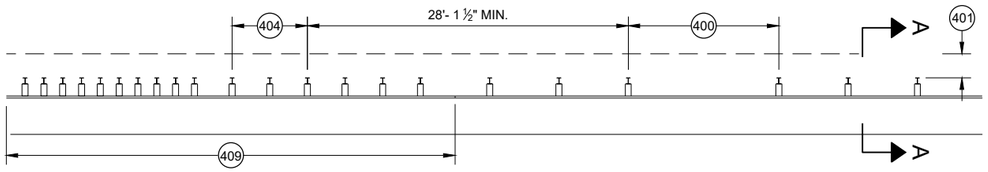
SDD 14B42 - 07c



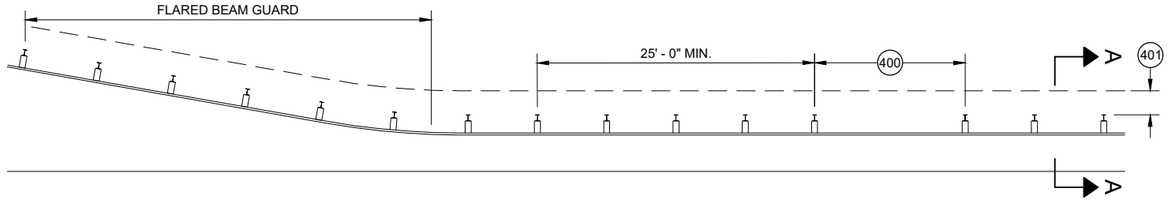
MISSING POST IN MGS GUARDRAIL



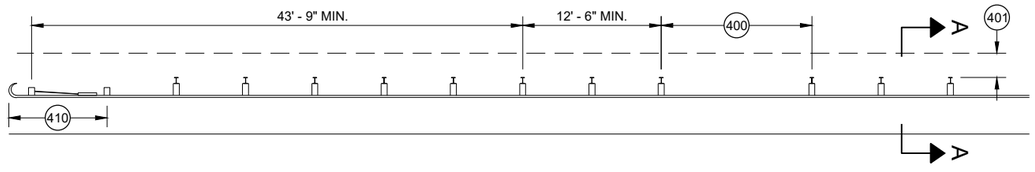
MISSING POST IN MGS GUARDRAIL NEAR EAT



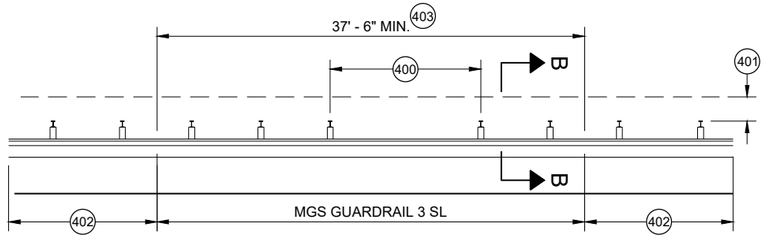
MISSING POST IN MGS GUARDRAIL NEAR AN APPROACH TRANSITION



MISSING POST IN MGS GUARDRAIL NEAR FLARED BEAM GUARD

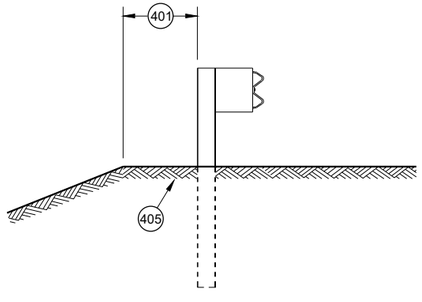


MISSING POST IN MGS GUARDRAIL NEAR A TYPE 2 END TERMINAL

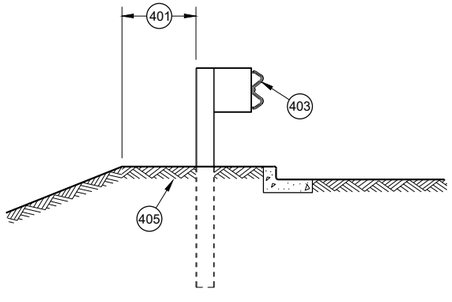


MISSING POST IN SHORT SPAN MGS GUARDRAIL NEAR CURB (SL) 407

(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 406



SECTION B - B 406

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2021
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE
UNIT SUPERVISOR

FHWA

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SDD 14B42 - 07d

GENERAL NOTES

(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.

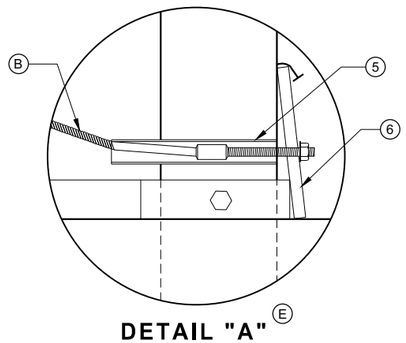
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

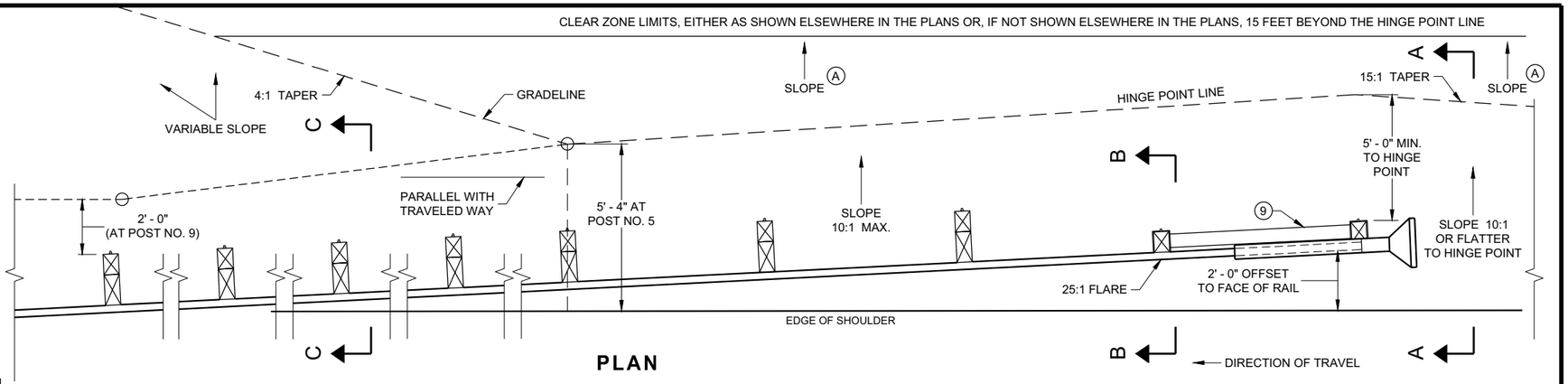
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

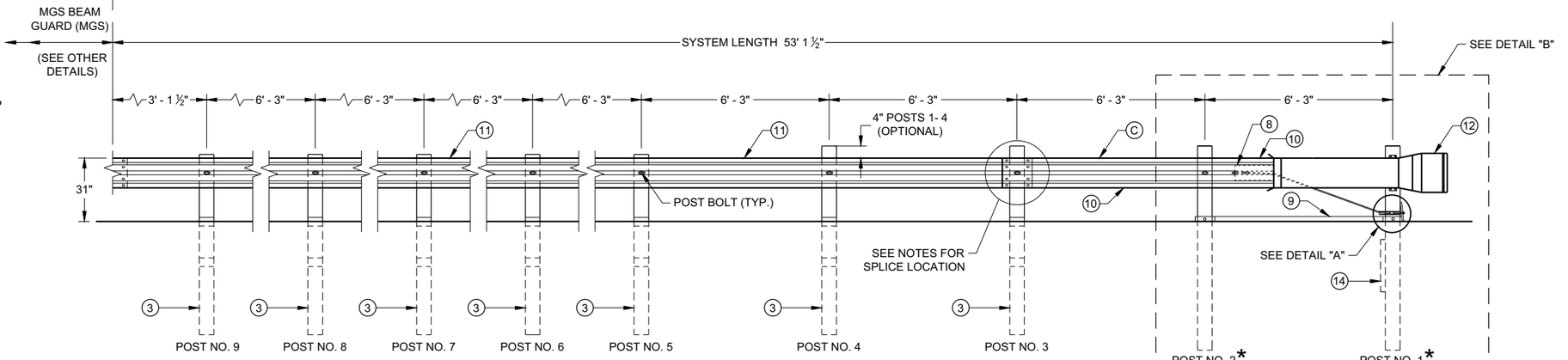
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



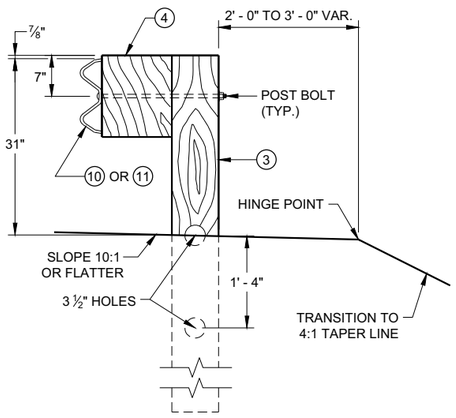
DETAIL "A" (E)



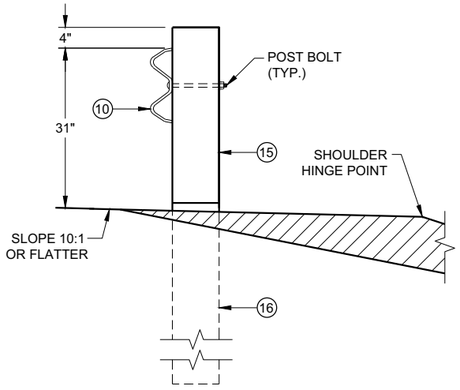
PLAN



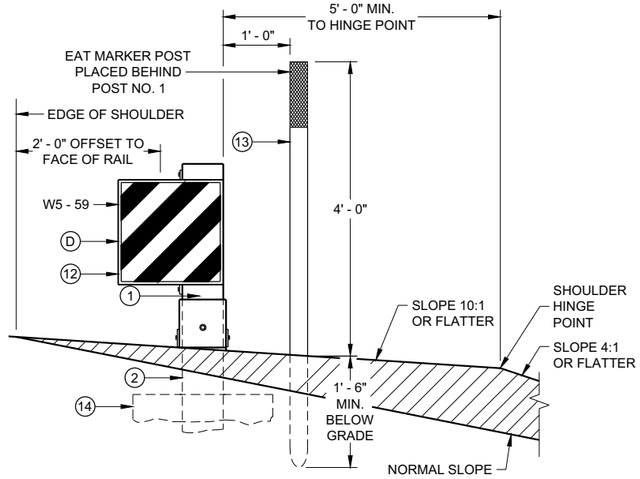
ELEVATION



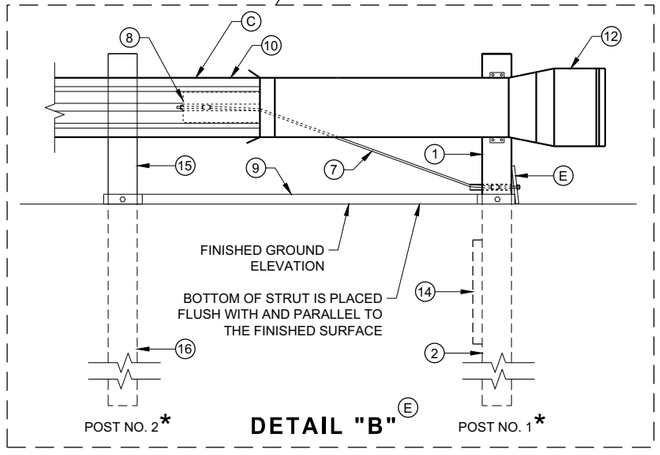
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



SECTION B - B
TYPICAL AT POST NO. 2*



SECTION A - A
TYPICAL AT POST NO. 1*



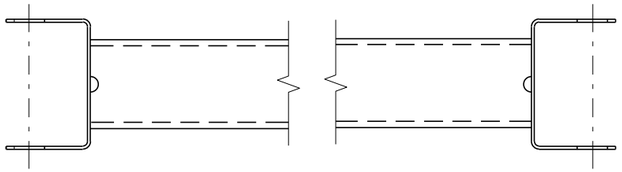
DETAIL "B" (E)

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

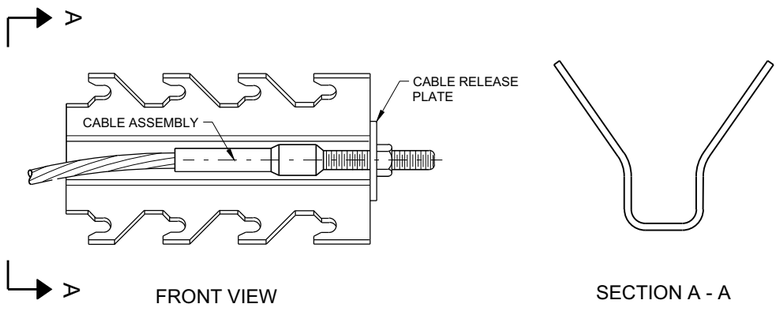
SDD 14B44 - 04a



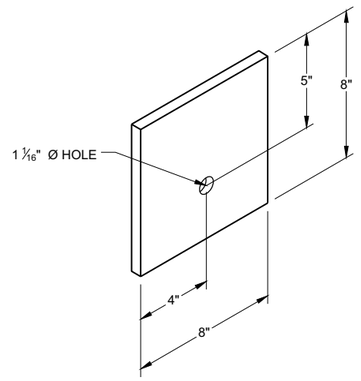
GENERIC GROUND STRUT (9) (E)

BILL OF MATERIALS

PART NO.	DESCRIPTION MATERIALS PROVIDED BY MGS EAT MANUFACTURER. SEE MANUGACTURER'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 BOX (9) (E)



BEARING PLATE (6) (E)

6

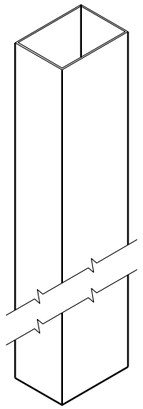
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SDD 14B44 - 04b

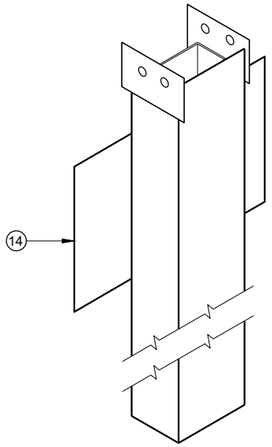
SDD 14B44 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

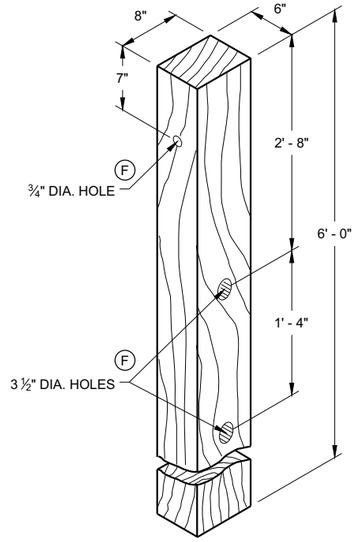
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



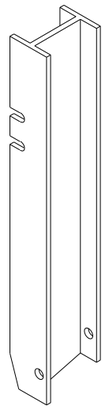
UPPER POST NO. 1 (1) (E)



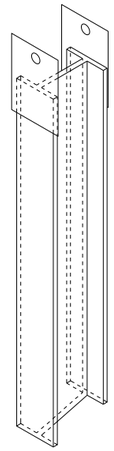
LOWER POST NO. 1 (2) (E)



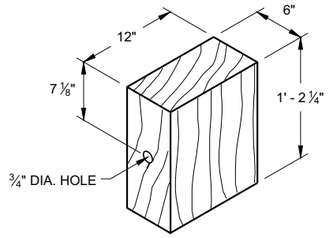
WOOD CRT POST (3) (E)
POSTS NUMBER 3-9



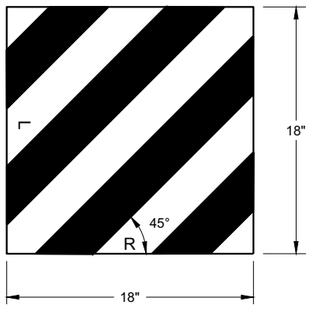
UPPER POST NO. 2 (15) (E)



LOWER POST NO. 2 (16) (E)

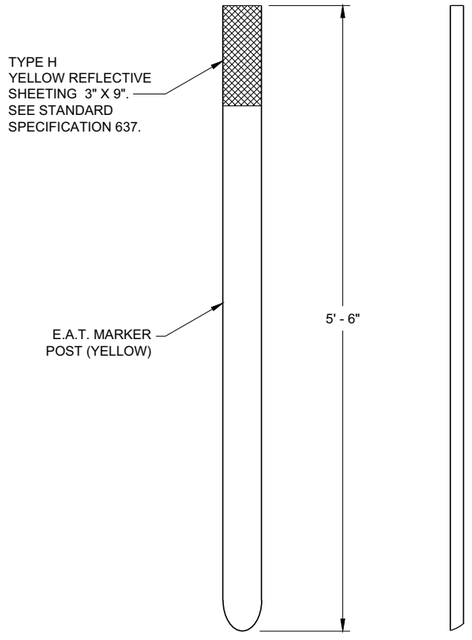


WOOD BLOCKOUT (4)
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



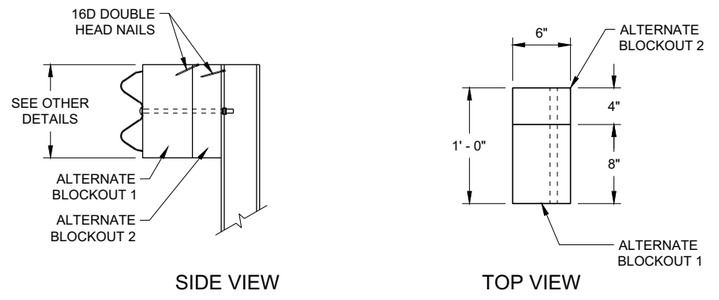
W5 - 59

REFLECTIVE SHEETING DETAIL (E)



FRONT VIEW SIDE VIEW

E.A.T. MARKER POST (13)



SIDE VIEW TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

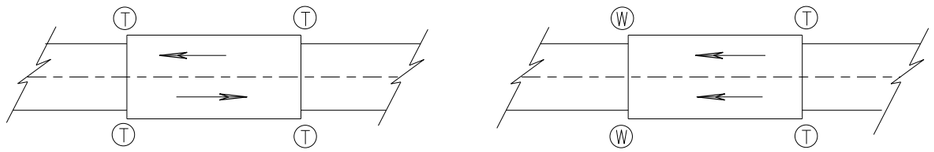
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 14B44 - 04c



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 2½", AND 12" DIAMETER AROUND POST. SEE 14B42 FOR MORE DETAILS.

TRANSITION USES STEEL POSTS ONLY.

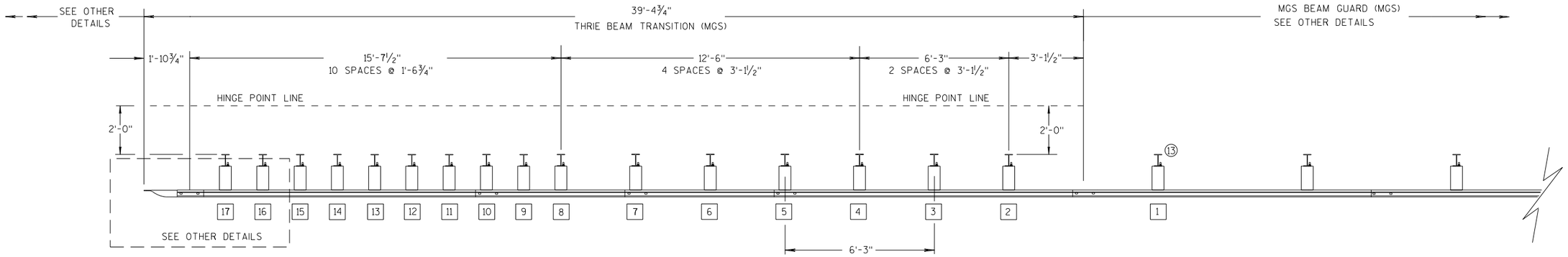
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

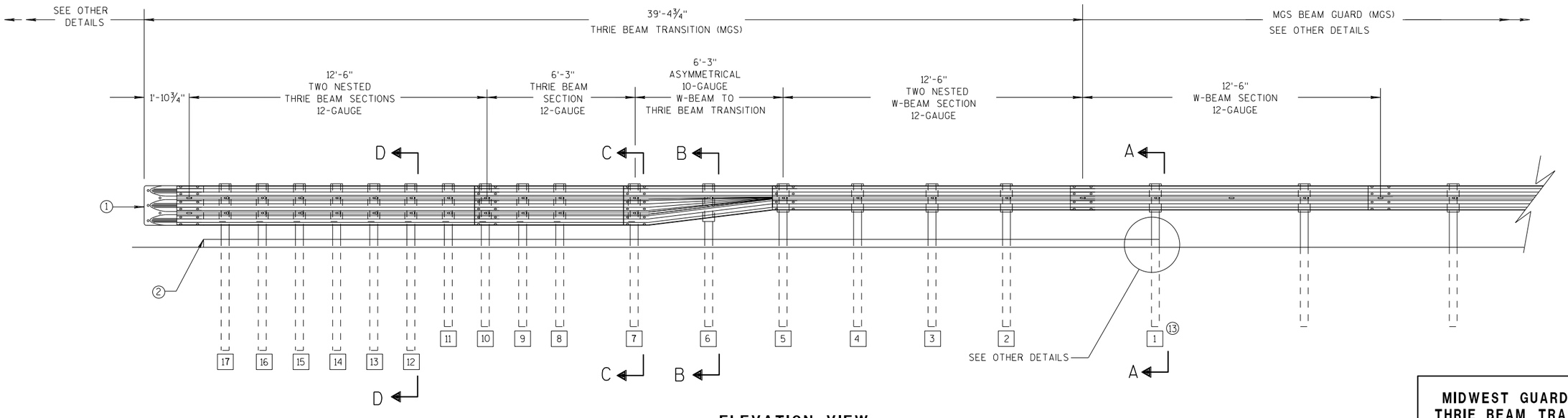
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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 TRANSPOR

6

S.D.D. 14 B 45-5a

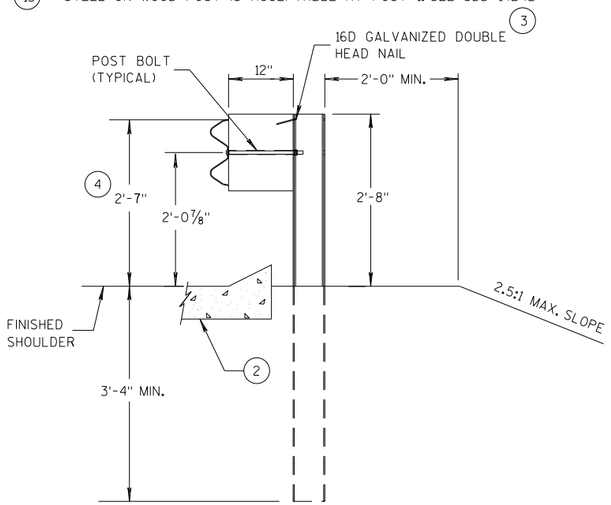
GENERAL NOTES

(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.

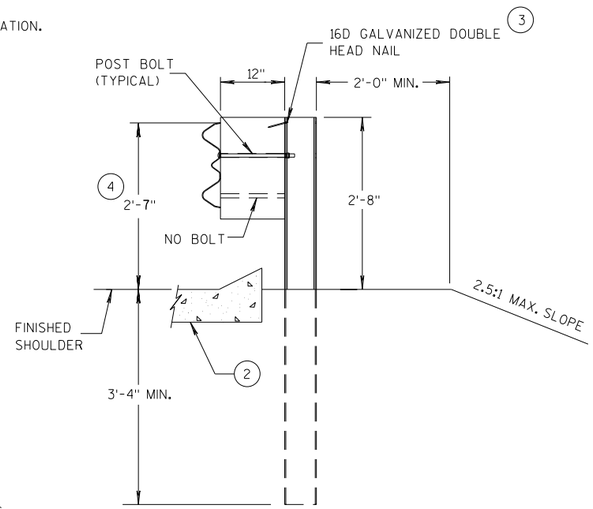
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



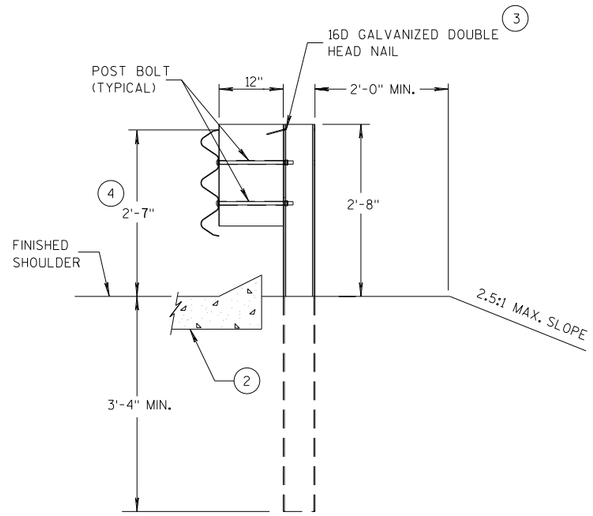
SECTION A-A (13)

POSTS 1-5



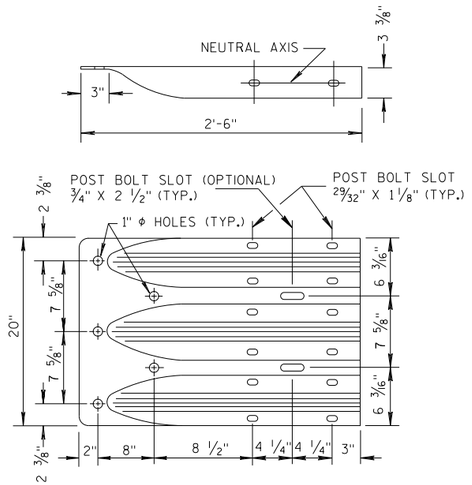
SECTION B-B

POST 6

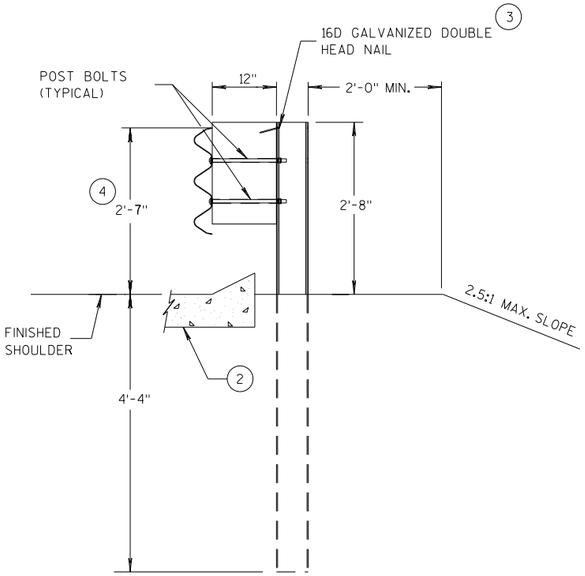


SECTION C-C

POSTS 7-11

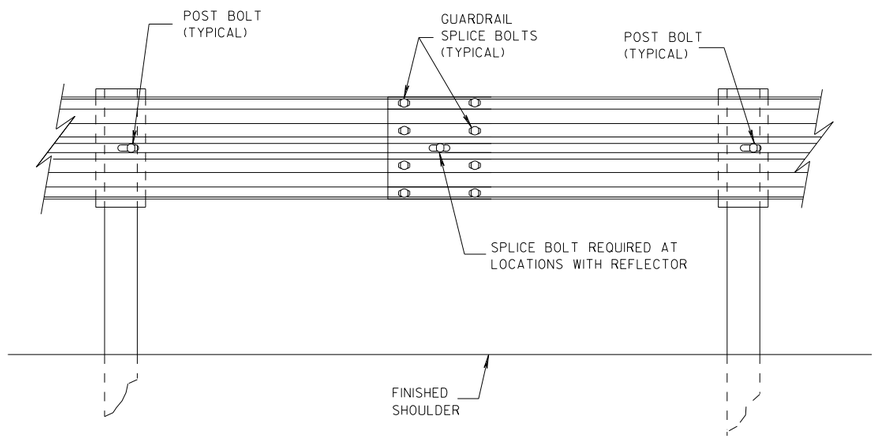


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

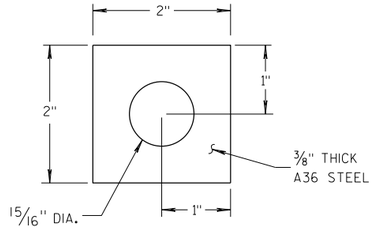
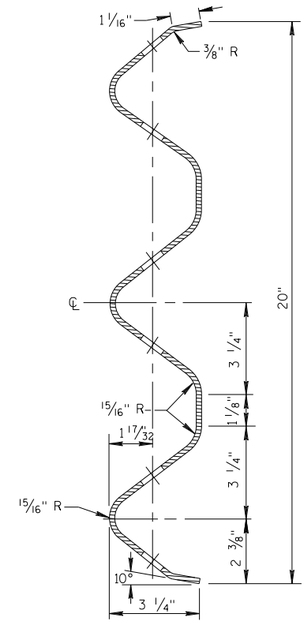


PLATE WASHER DETAIL



SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

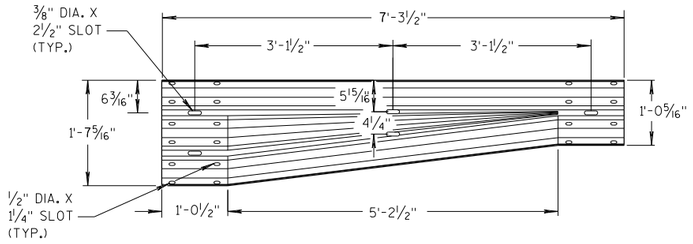
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 179

6

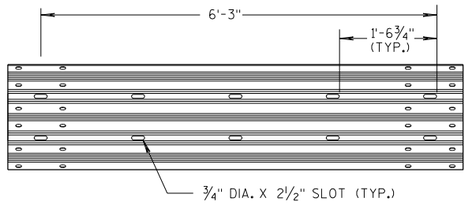
S.D.D. 14 B 45-5b

6

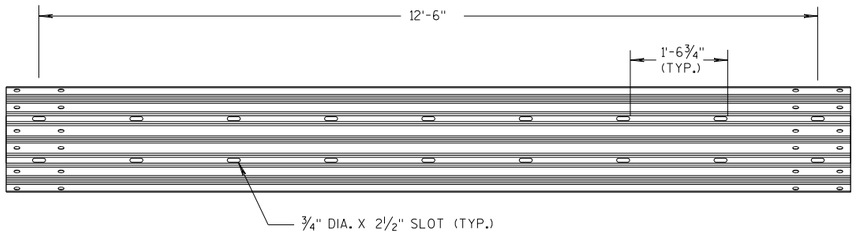
S.D.D. 14 B 45-5b



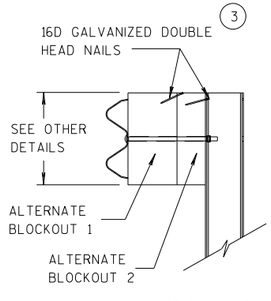
W-BEAM TO THRIE BEAM TRANSITION SECTION



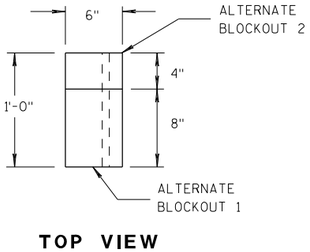
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

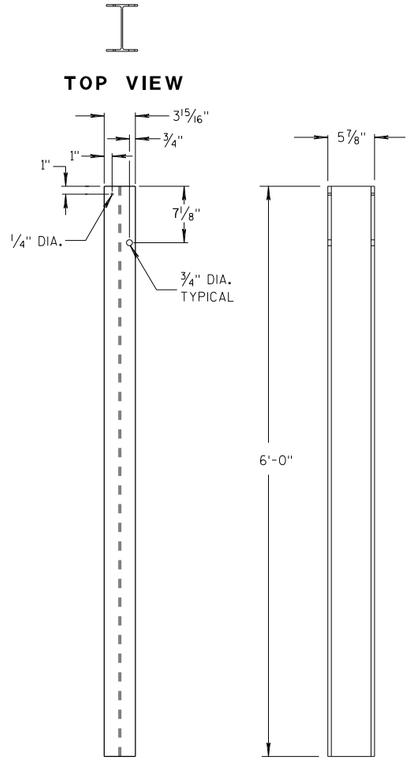


SIDE VIEW



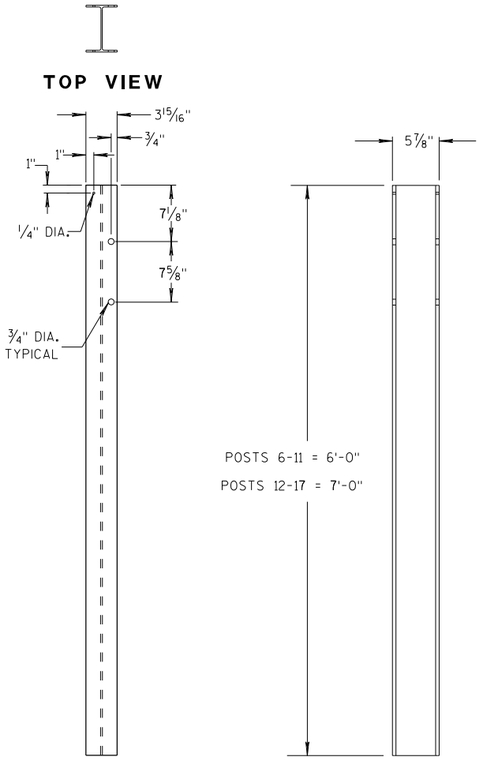
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



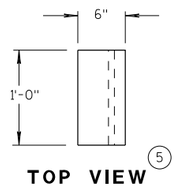
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

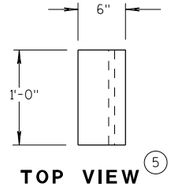


FRONT VIEW SIDE VIEW

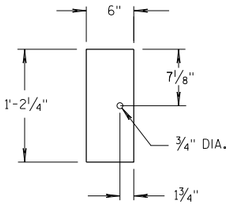
STEEL POSTS 6-17



TOP VIEW (5)

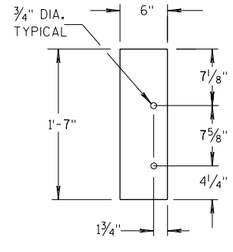


TOP VIEW (5)



FRONT VIEW

BLOCKOUT POSTS 1-5



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.

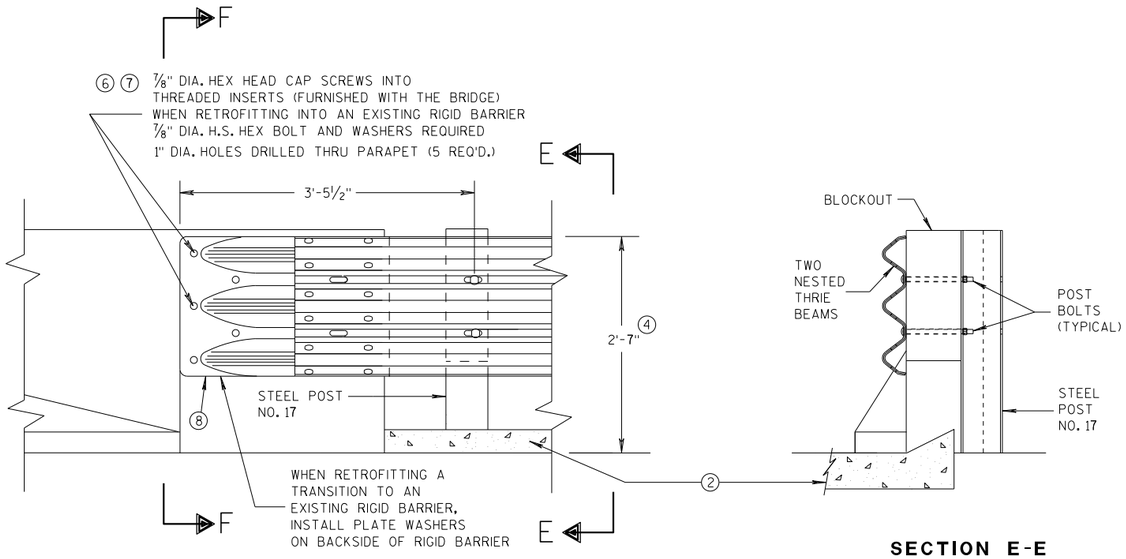
(13) STEEL OR WOOD POST IS ACCEPTABLE AT POST 1. SEE SDD 14B42.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 45-5c



FRONT VIEW

SECTION E-E

THRIE BEAM CONNECTION TO BRIDGE PARAPET WITH SQUARE ENDS

GENERAL NOTES

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

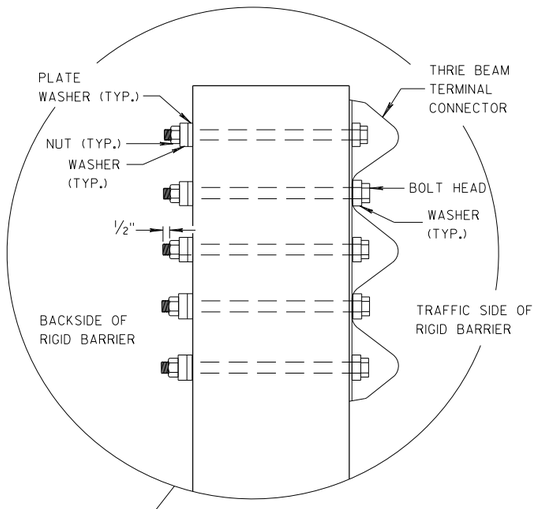
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

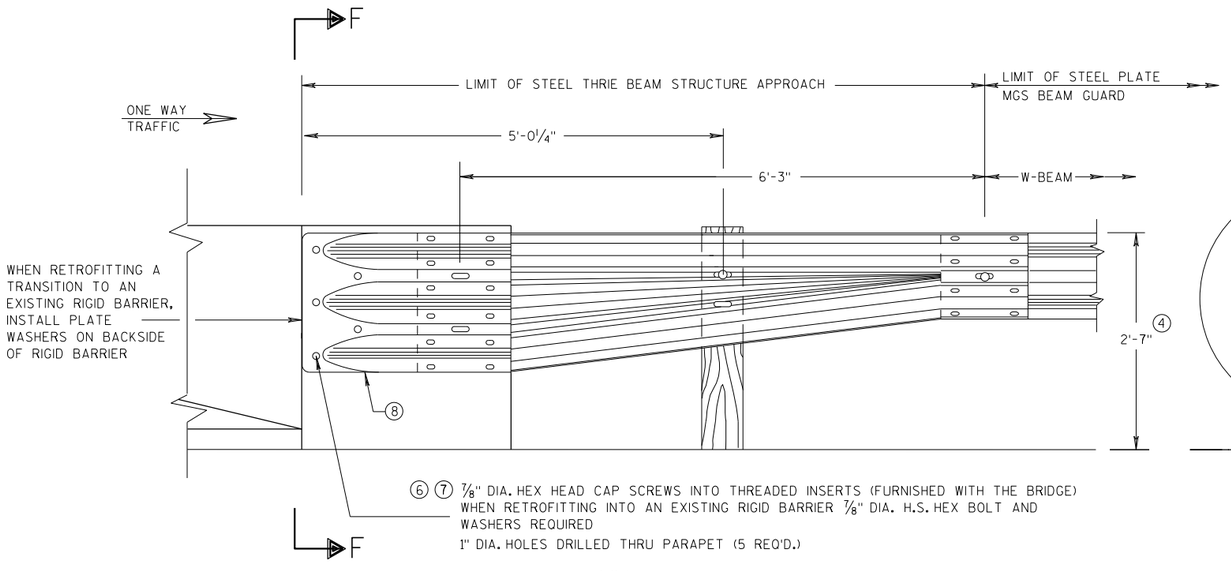
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

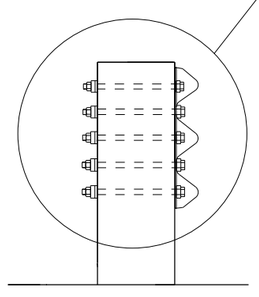
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⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

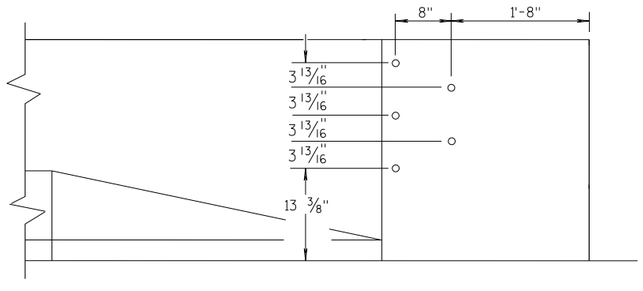




FRONT VIEW



SECTION F-F



DRILL HOLE LOCATION

W BEAM TRANSITION AND CONNECTION TO BRIDGE PARAPETS WITH SQUARE ENDS

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVIS NT
FHWA

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S.D.D. 14 B 45-5d

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S.D.D. 14 B 45-5d

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.

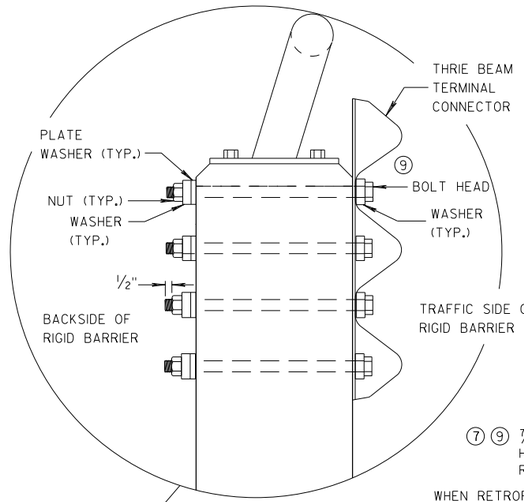
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

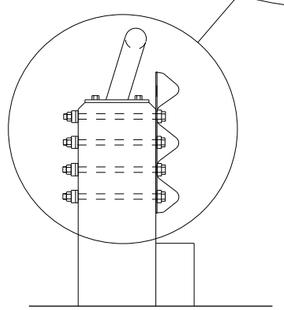
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

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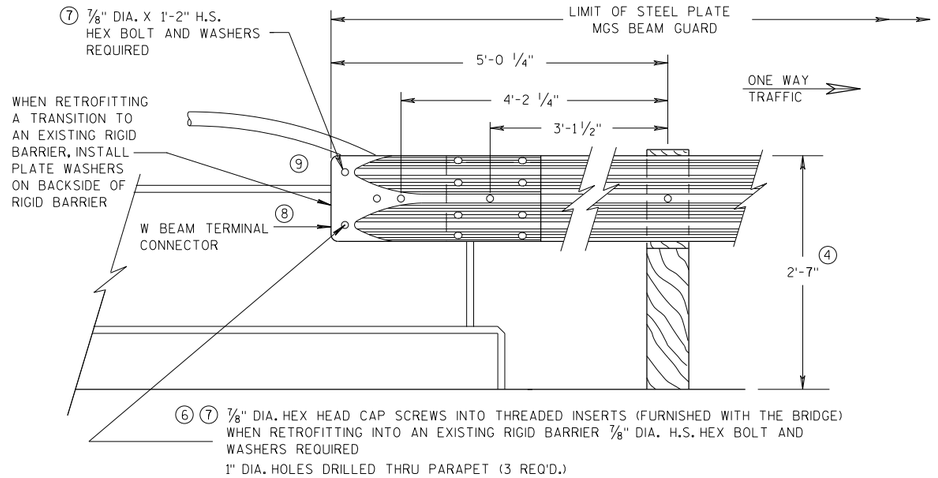
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

(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.





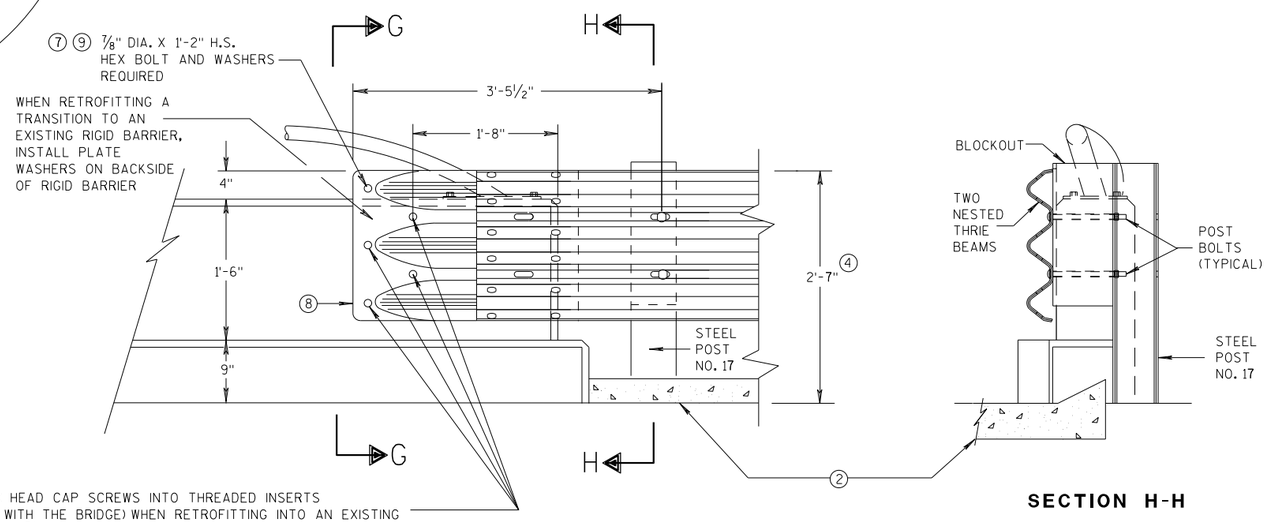
SECTION G-G



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)



FRONT VIEW

SECTION H-H

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

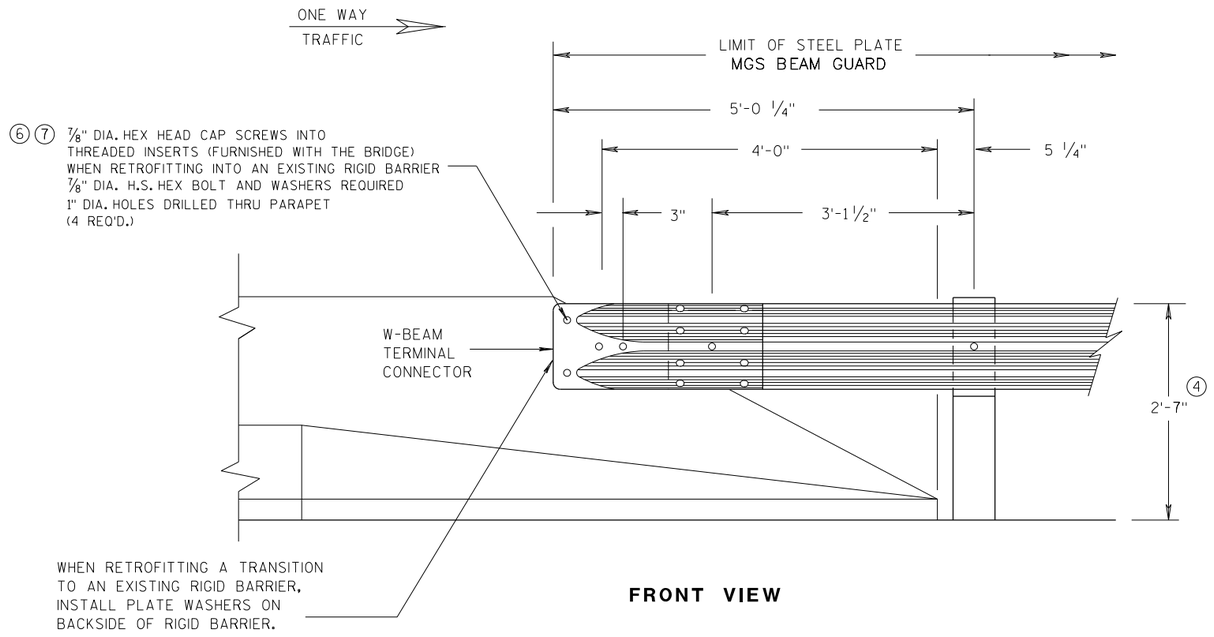
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S.D.D. 14 B 45-5e



FRONT VIEW

W BEAM CONNECTION TO PARAPETS WITH SLOPED ENDS

(USE ONLY AT TRAFFIC EXIT END OF ONE WAY BRIDGE)

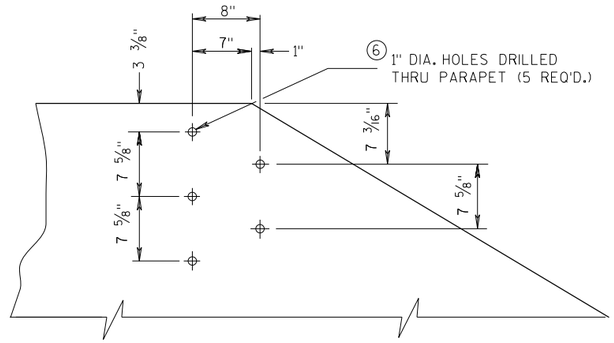
GENERAL NOTES

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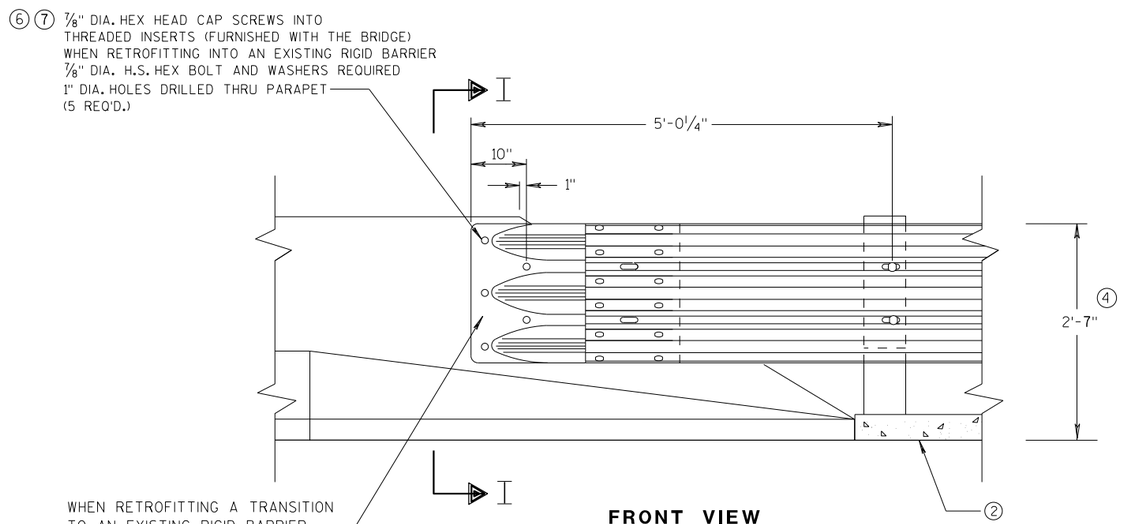
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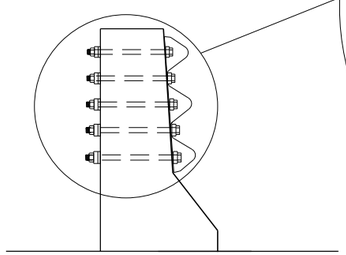
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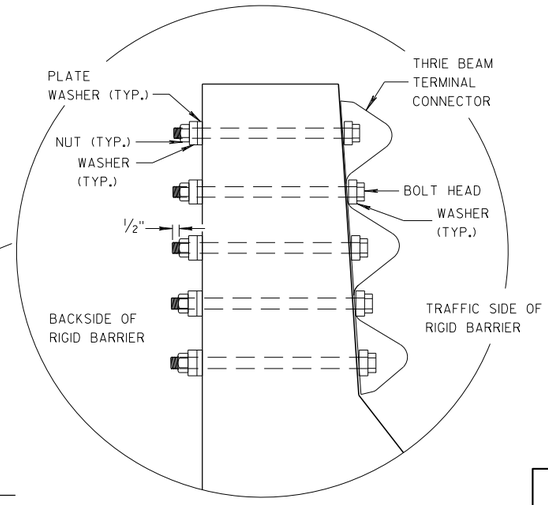
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



FRONT VIEW



SECTION I-I



THRIE BEAM CONNECTION TO BRIDGE PARAPETS WITH SLOPED ENDS

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

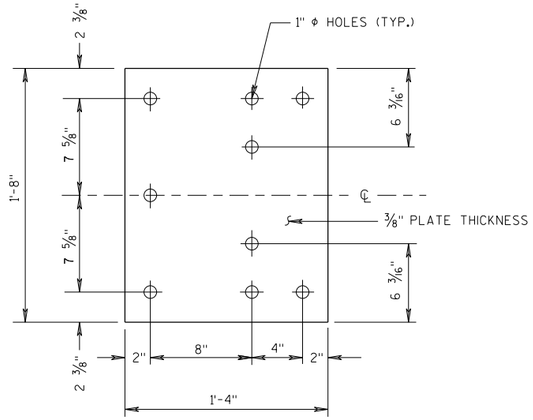
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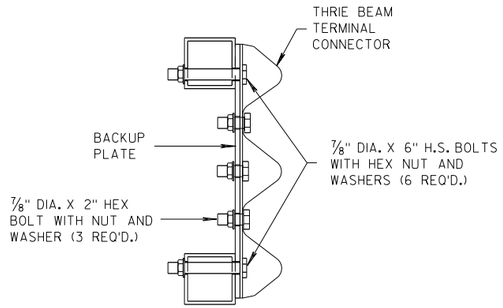
S.D.D. 14 B 45-5f

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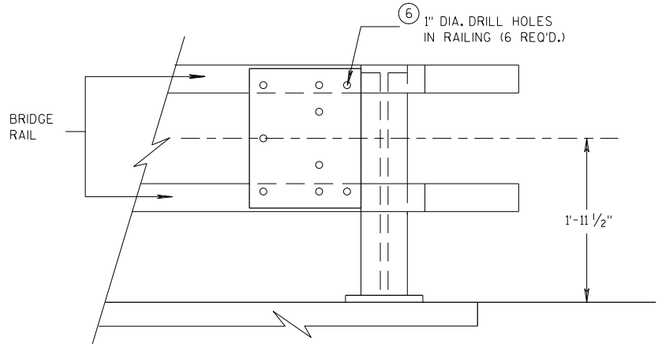
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

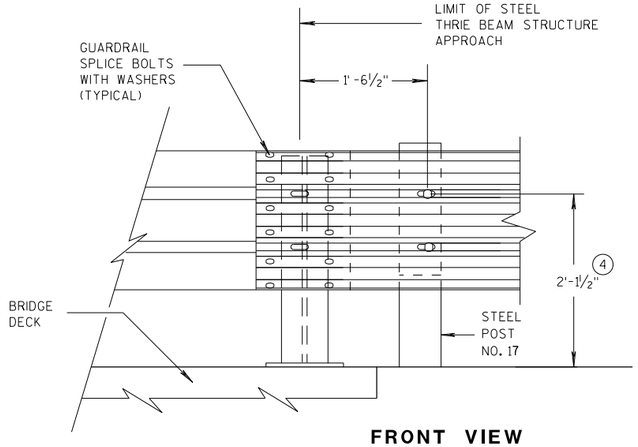


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

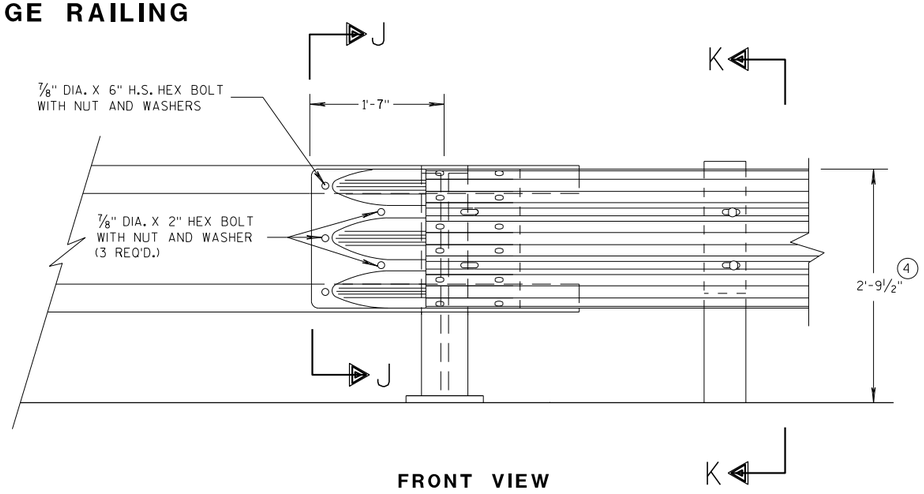
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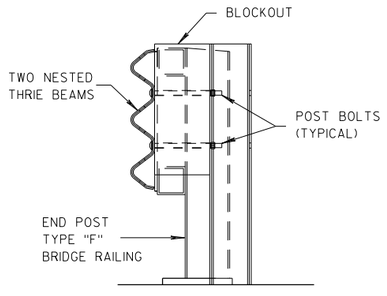


FRONT VIEW

THRIE BEAM CONNECTION TO STEEL RAILING TYPE "W"



FRONT VIEW



SECTION K-K

THRIE BEAM CONNECTION TO TUBULAR RAILING TYPE "F"

MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED 07/2018 — DATE
FHWA

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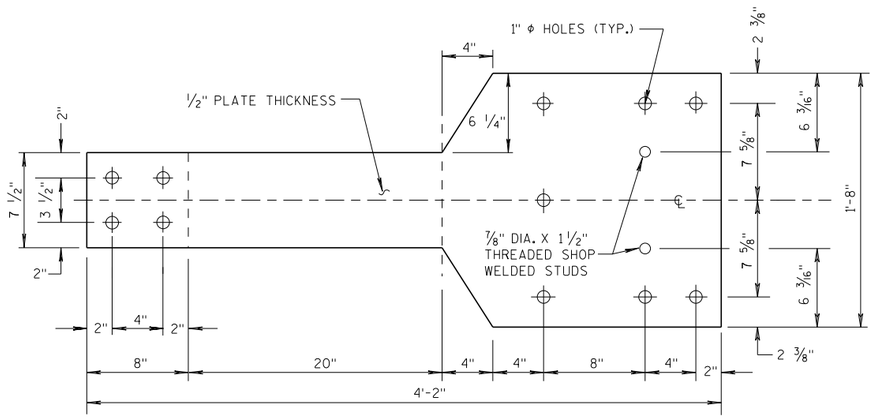
S.D.D. 14 B 45-5g

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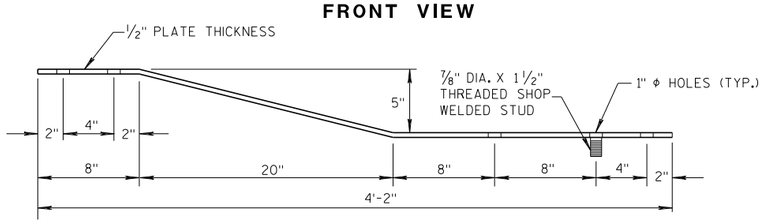
S.D.D. 14 B 45-5g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

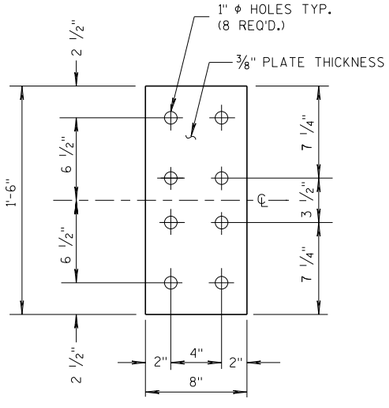


FRONT VIEW



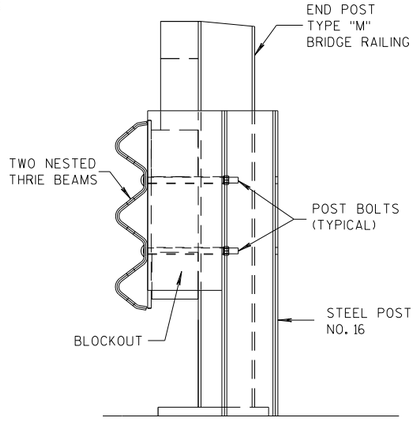
PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

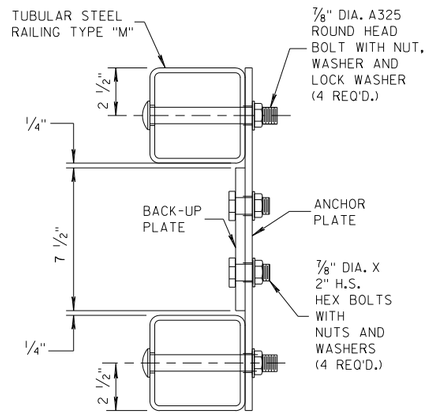


FRONT VIEW

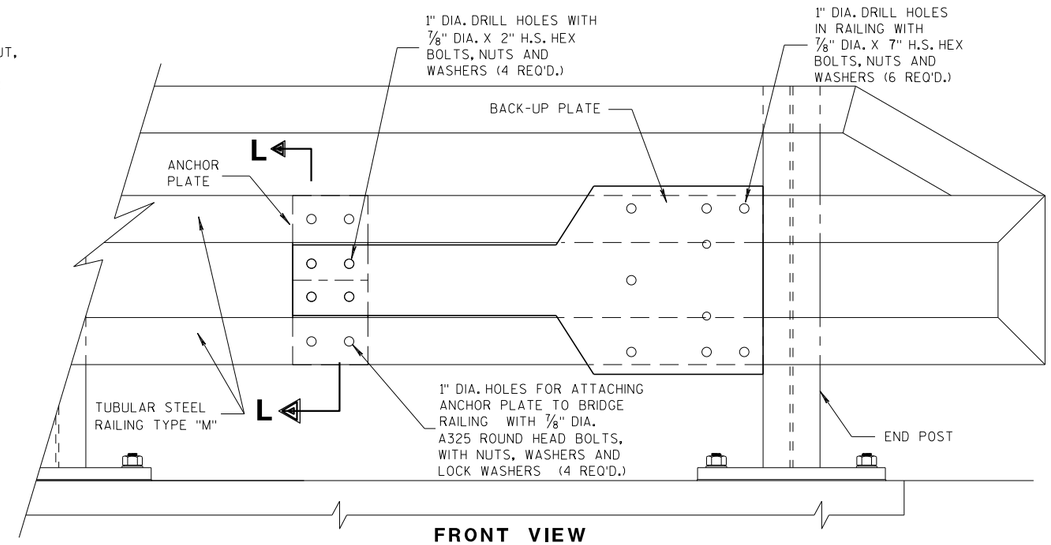
ANCHOR PLATE DETAIL, TYPE "M"



SECTION M-M

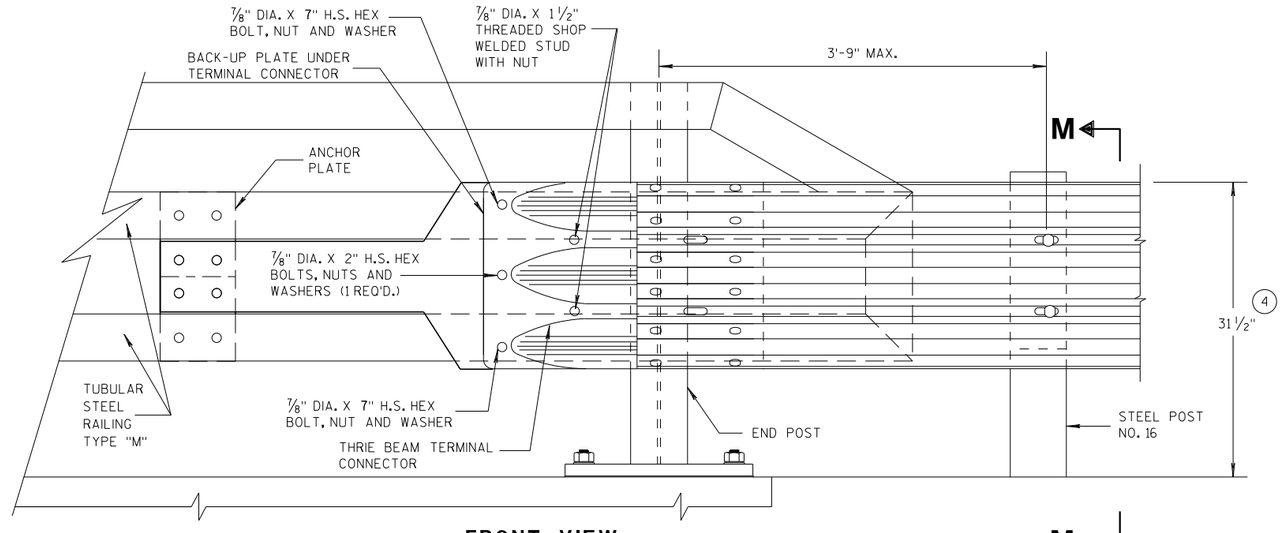


SECTION L-L

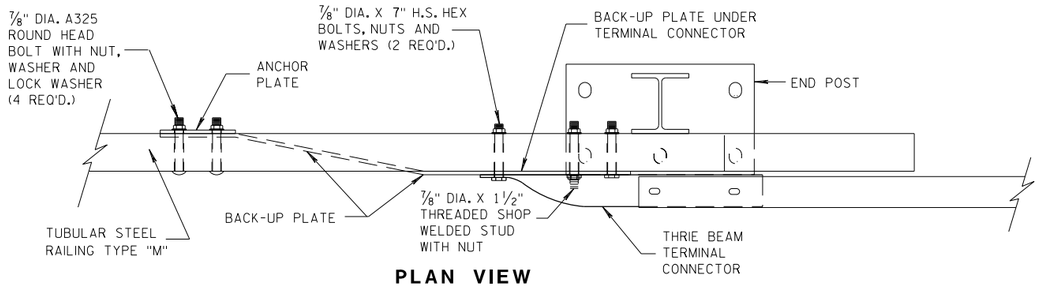


FRONT VIEW

ANCHOR AND BACK-UP PLATE MOUNTING TO BRIDGE RAILING, TYPE "M"



FRONT VIEW



PLAN VIEW

THRIE BEAM CONNECTION TO TUBULAR RAILING, TYPE "M"

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

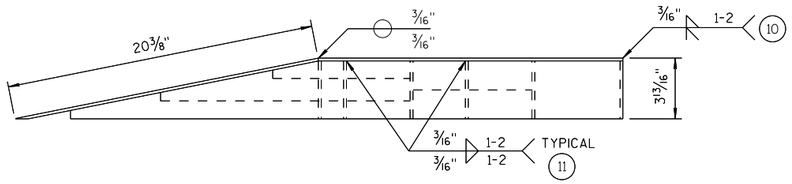
APPROVED
07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS UNIT SUPERVISOR
FHWA

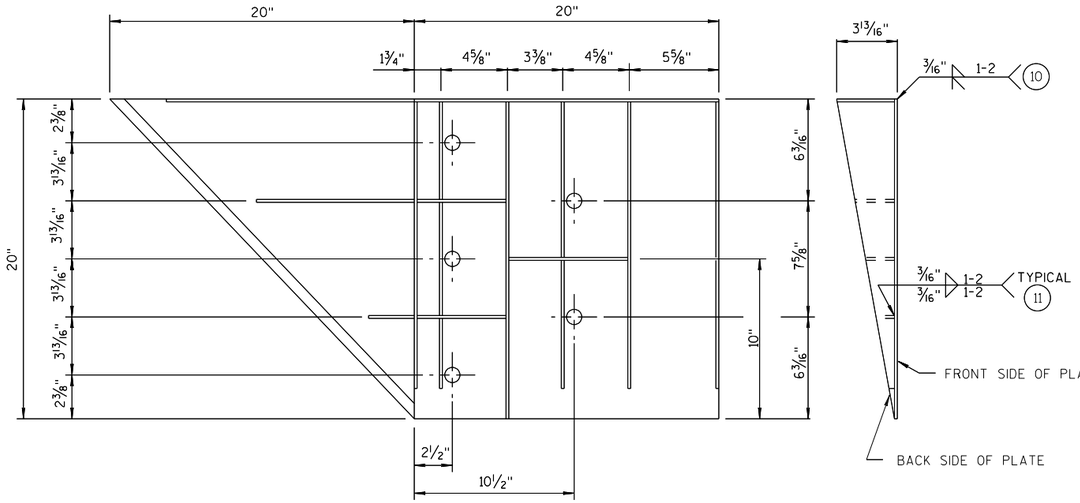
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S.D.D. 14 B 45-5h





WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)

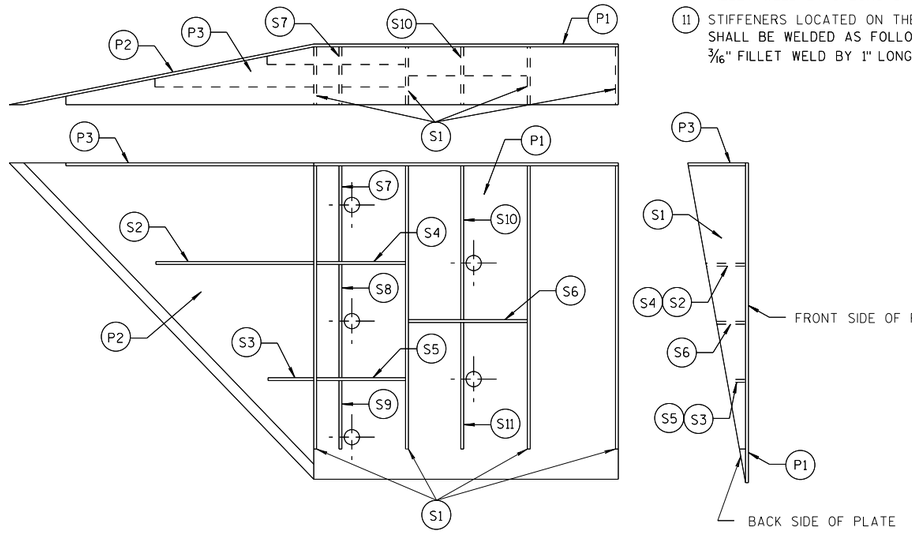


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF 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".

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 9/16"	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 7/16" x 10 3/8" x 1/2"	1/4"
S3	1		3" x 1 1/16" x 3 1/8" 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 9/16" 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 13/16"	1/4"

SINGLE SLOPE CONNECTION PLATE

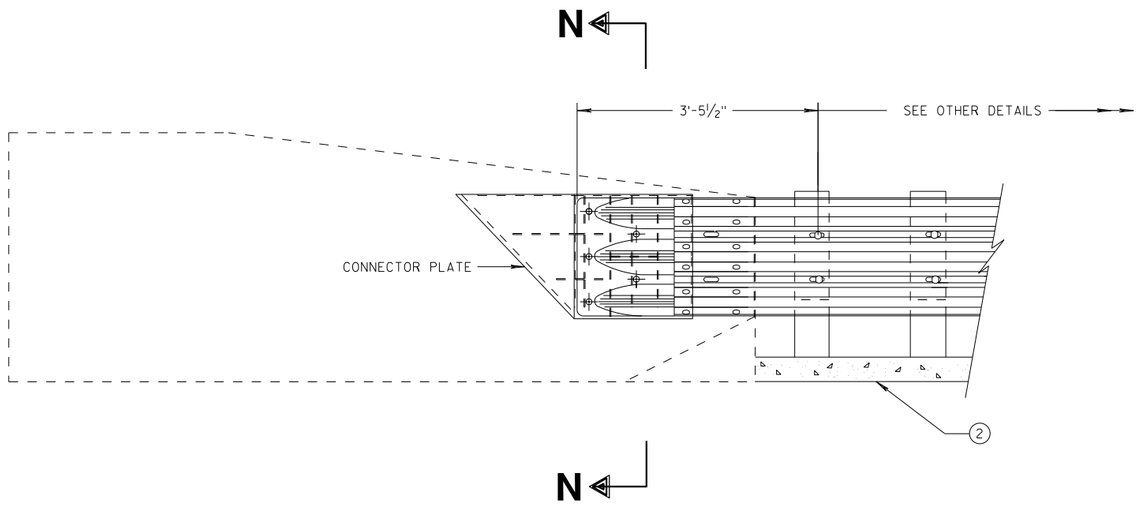
MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

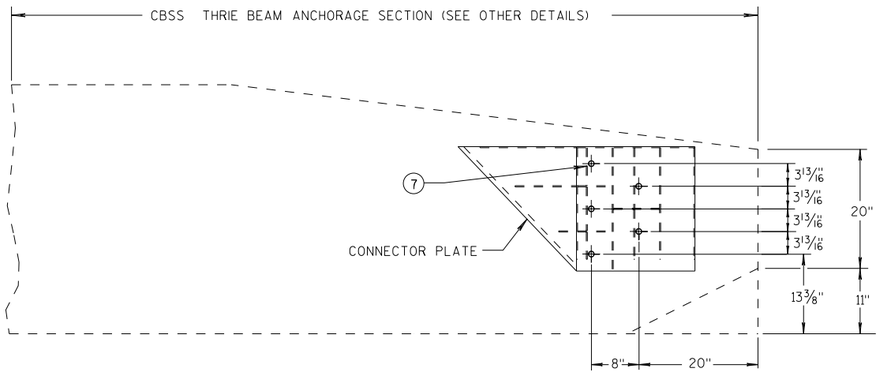
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THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



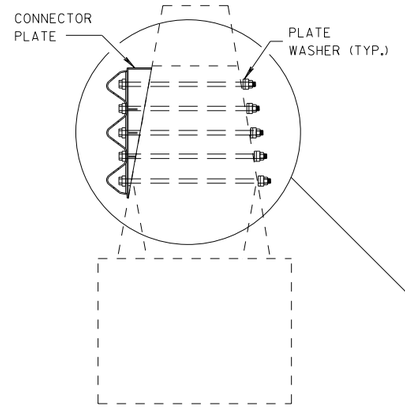
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

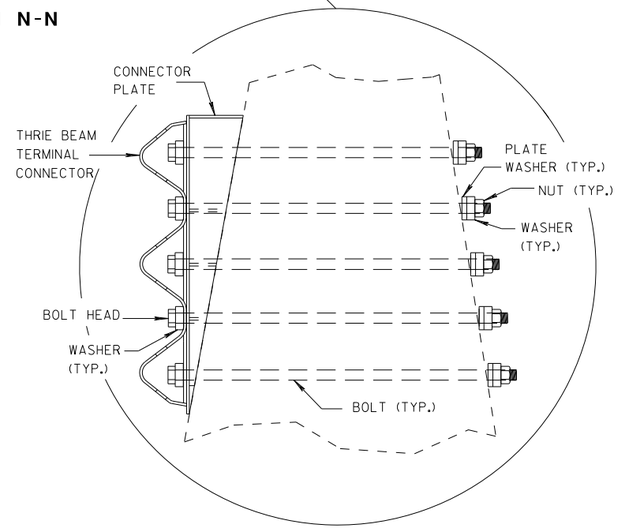
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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 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.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

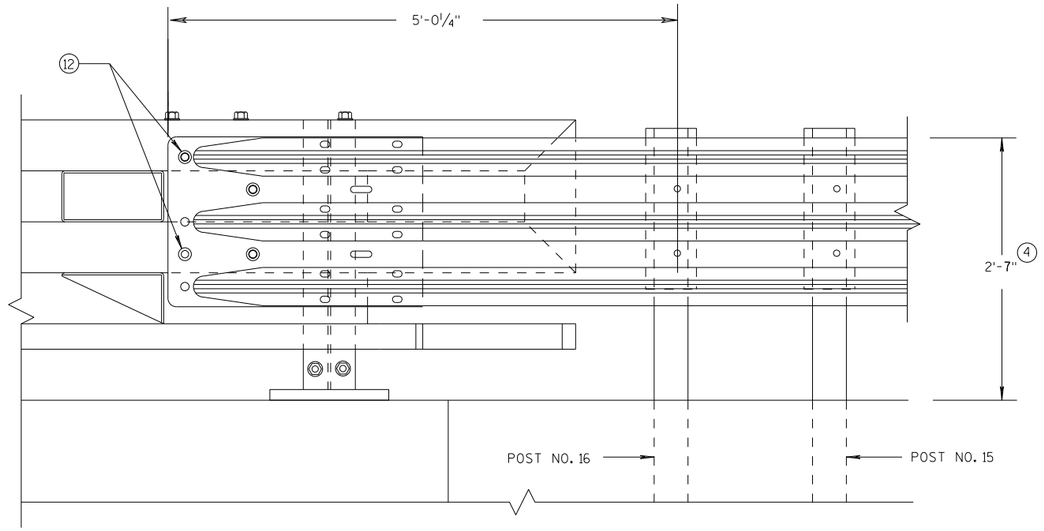
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7/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DI UNIT SUPERVIS
NT
FHWA

6

S.D.D. 14 B 45-5j

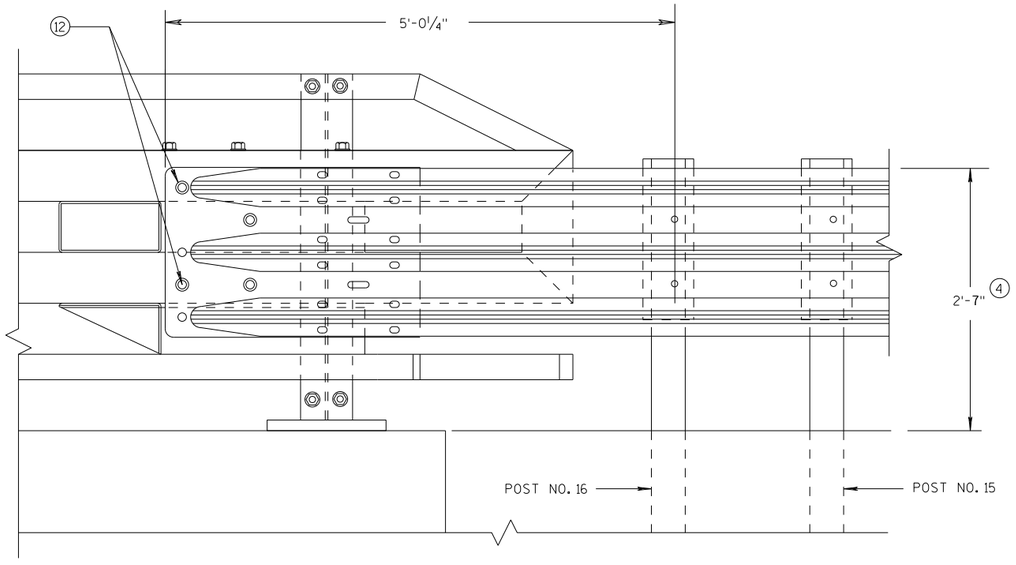
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S.D.D. 14 B 45-5j



ELEVATION OF DETAIL AT NY3 END POST

THRIE BEAM RAIL ATTACHMENT



ELEVATION OF DETAIL AT NY4 END POST

THRIE BEAM RAIL ATTACHMENT

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 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 1/2-INCH BEYOND NUT.

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

STATE OF WISCONSIN
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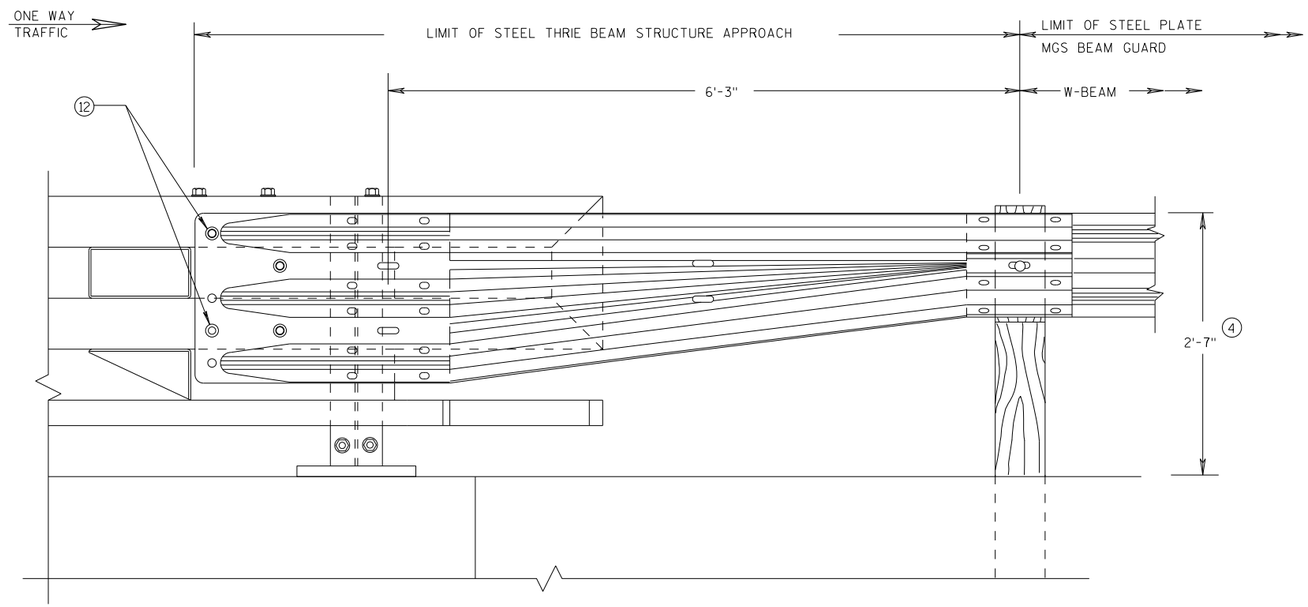
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S.D.D. 14 B 45-5k

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S.D.D. 14 B 45-5k



FRONT VIEW

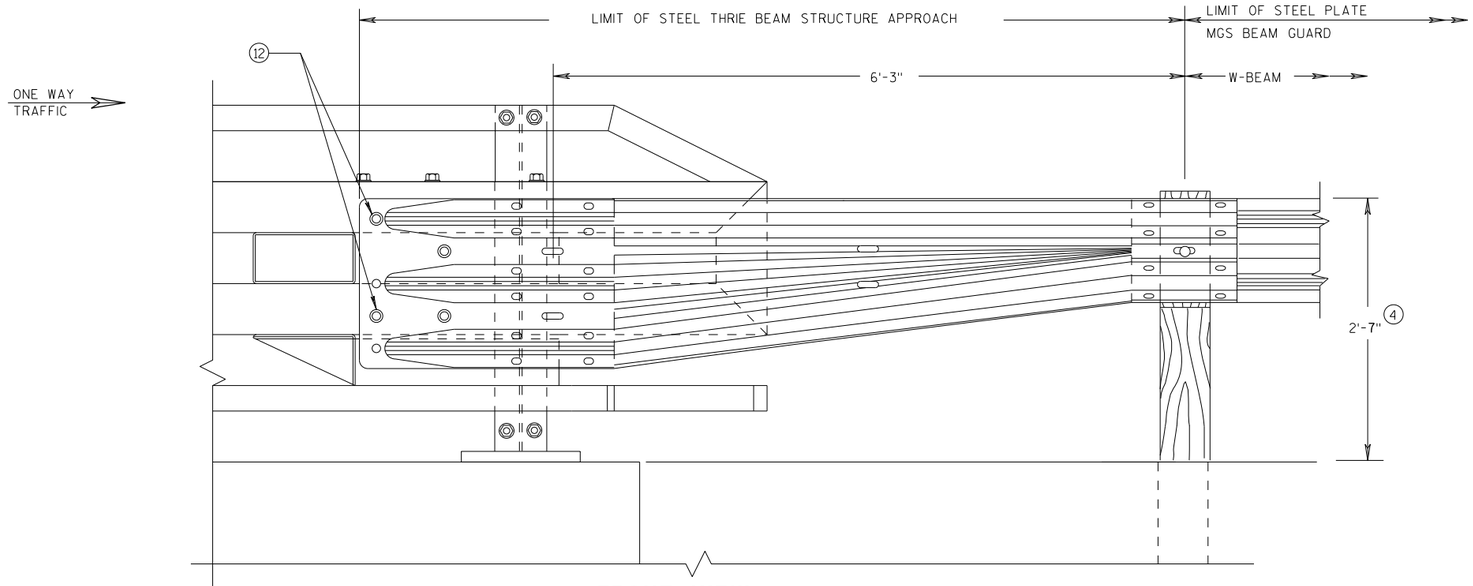
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

GENERAL NOTES

(4) TOLERANCE FOR TOP OF BEAM IS ± 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 1/2-INCH BEYOND NUT.



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

APPROVED
7/2018 DATE
FHWA

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UNIT SUPERVIS

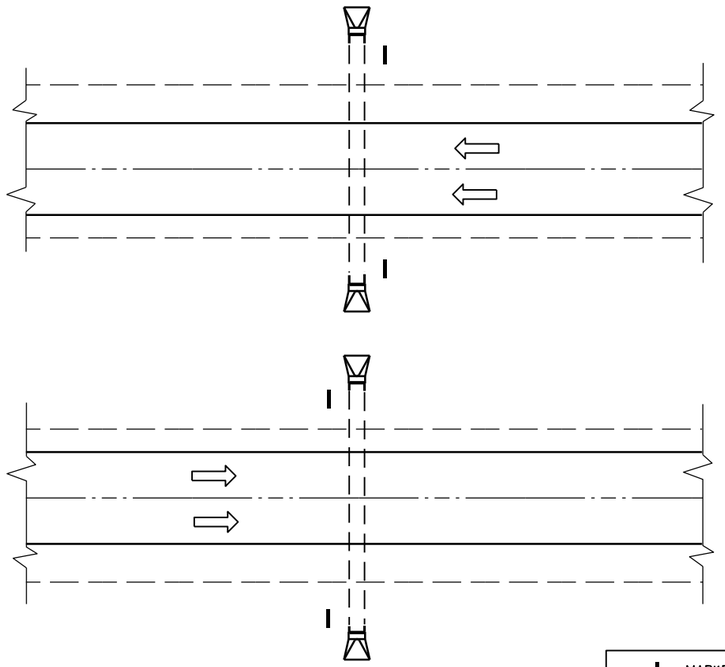
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S.D.D. 14 B 45-5L

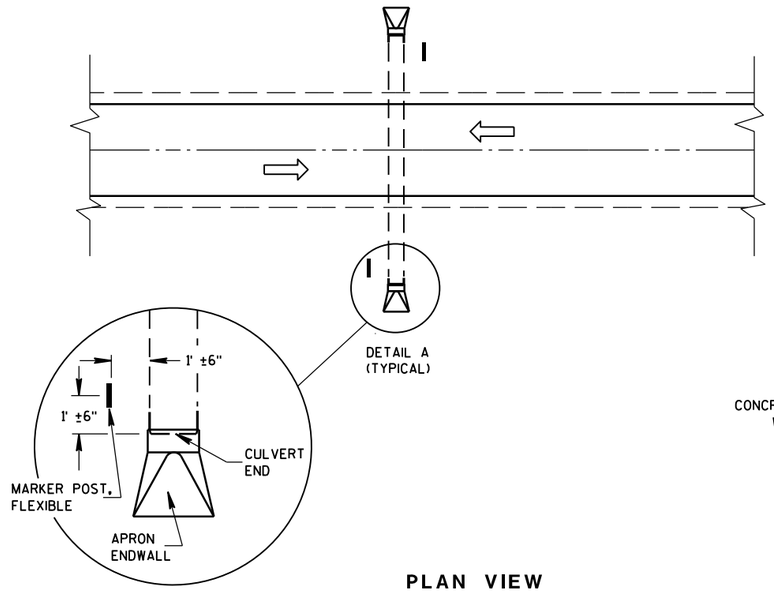
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S.D.D. 14 B 45-5L



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

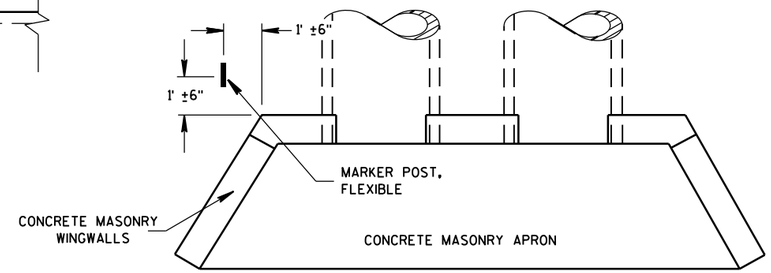
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

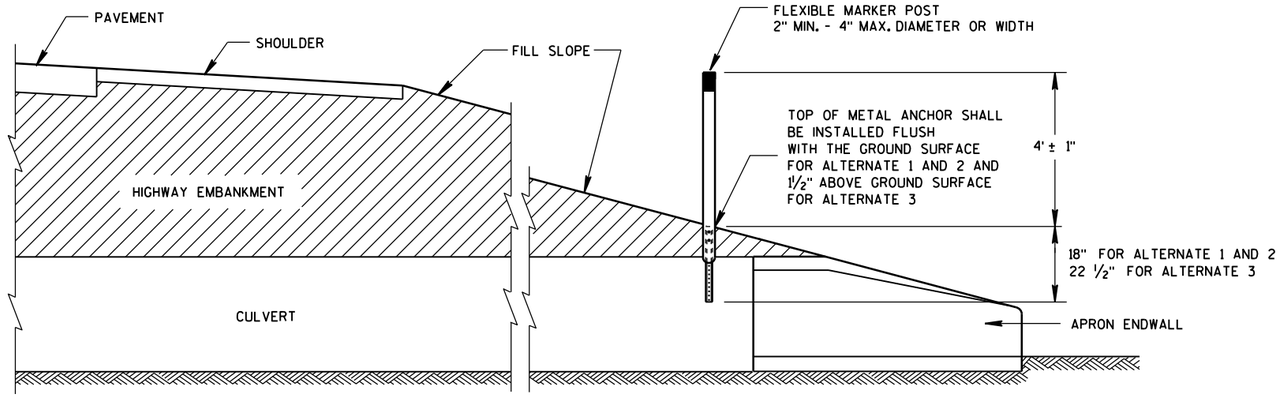
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



PLAN VIEW

CONCRETE MASONRY ENDWALLS FOR CULVERT PIPE AND PIPE ARCH

FLEXIBLE MARKER POST LOCATION



CROSS SECTION

FLEXIBLE MARKER POST

FLEXIBLE MARKER POST
FOR CULVERT END

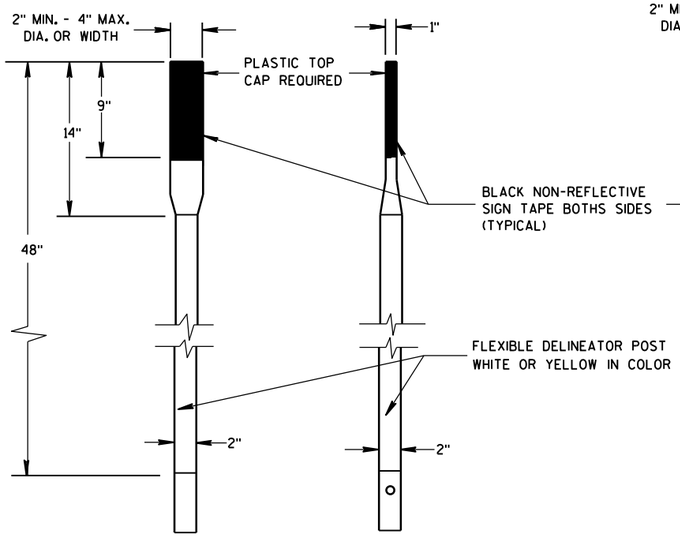
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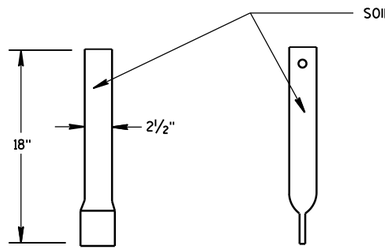
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S.D.D. 15 A 3-2a

6

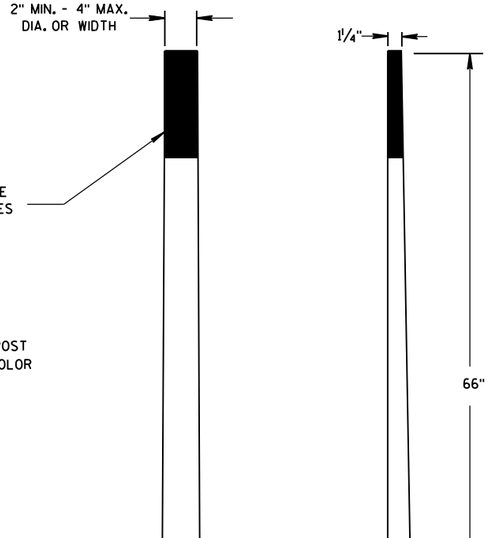
S.D.D. 15 A 3-2a





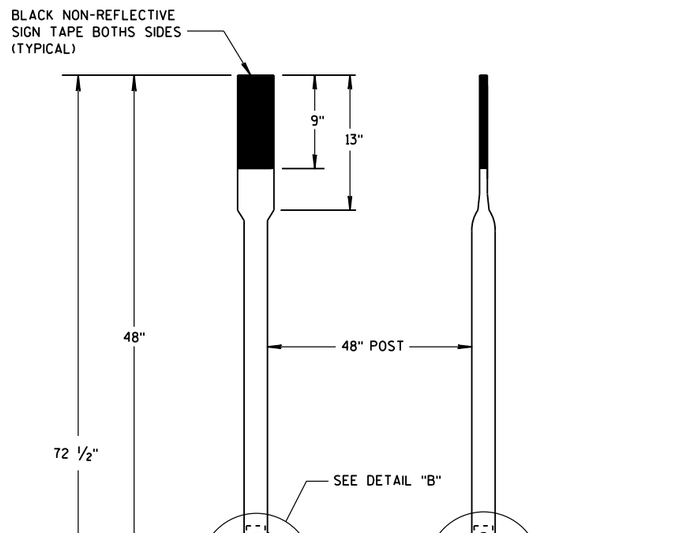
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

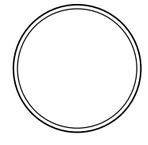
ALTERNATE 2



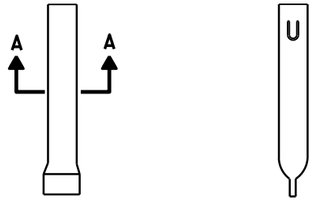
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POSTS

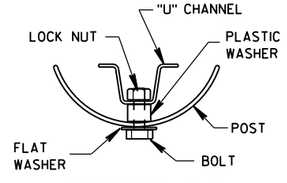


SECTION A-A

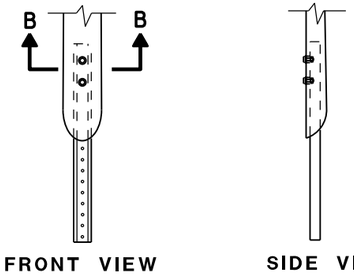


FRONT VIEW SIDE VIEW

ALTERNATE 1

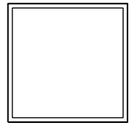


SECTION B-B

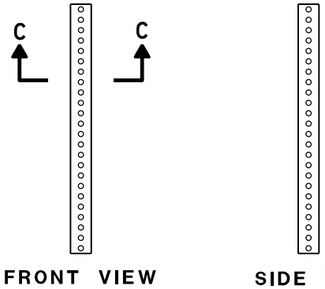


FRONT VIEW SIDE VIEW

ALTERNATE 2



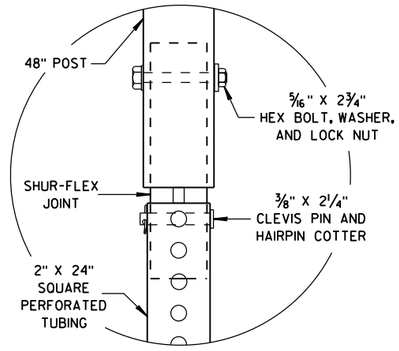
SECTION C-C



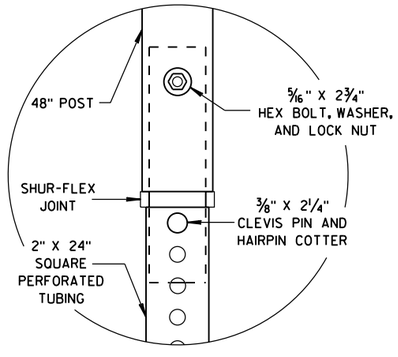
FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS



DETAIL B



DETAIL C

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

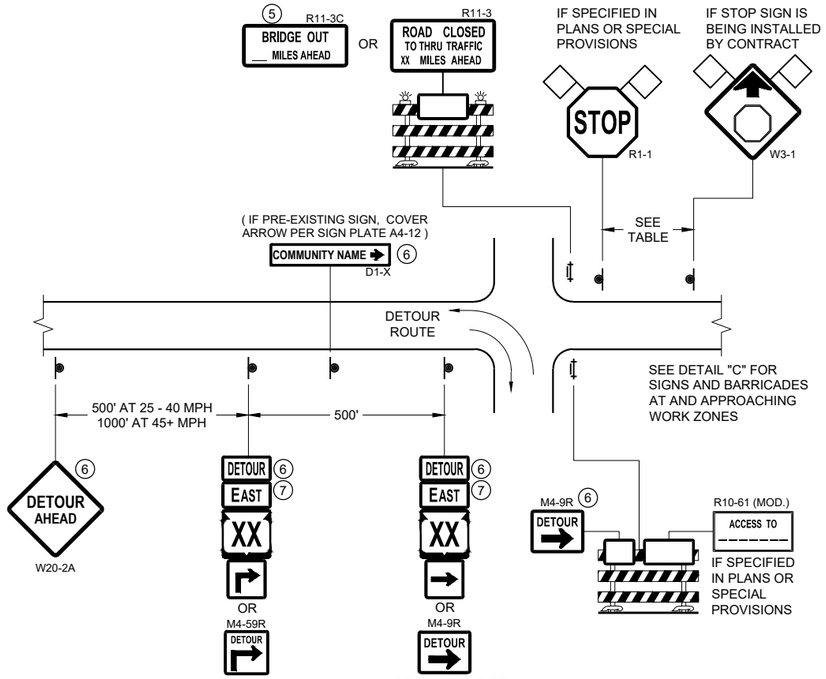
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

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

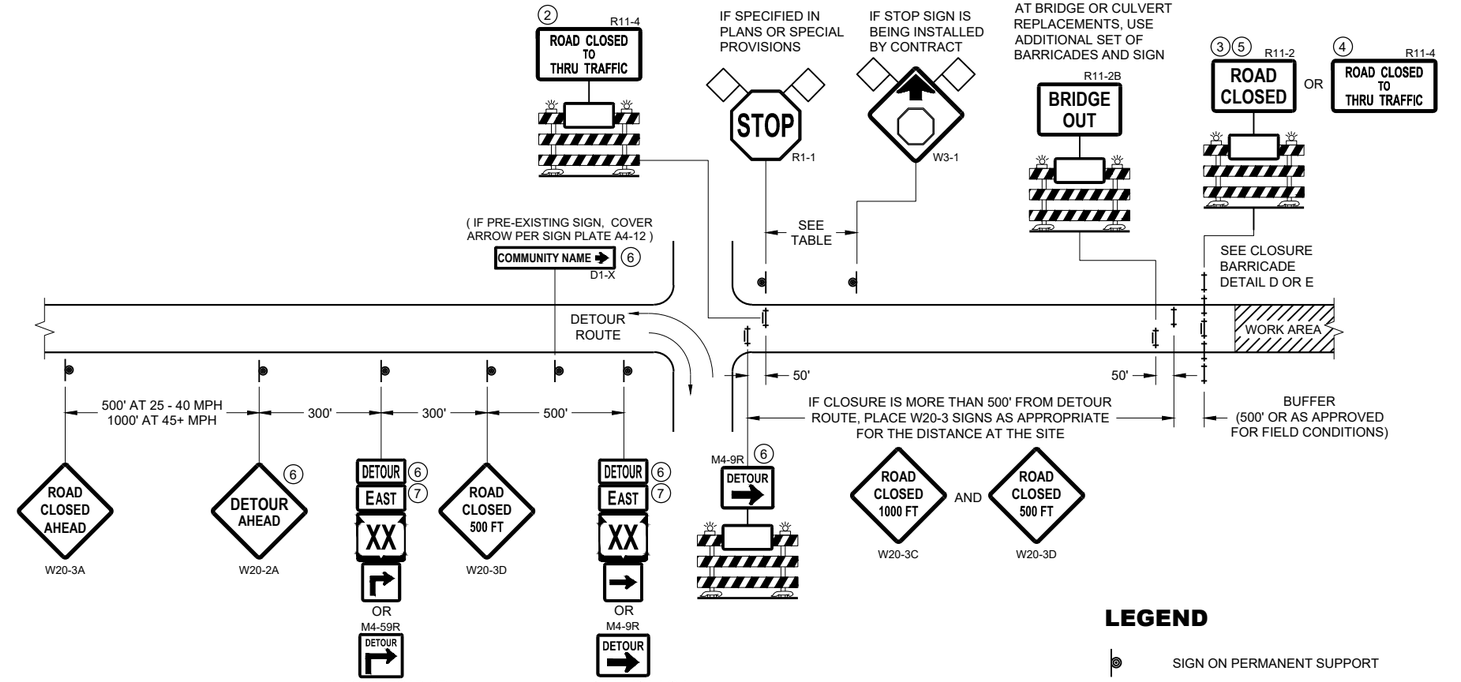
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S.D.D. 15 A 3-2b



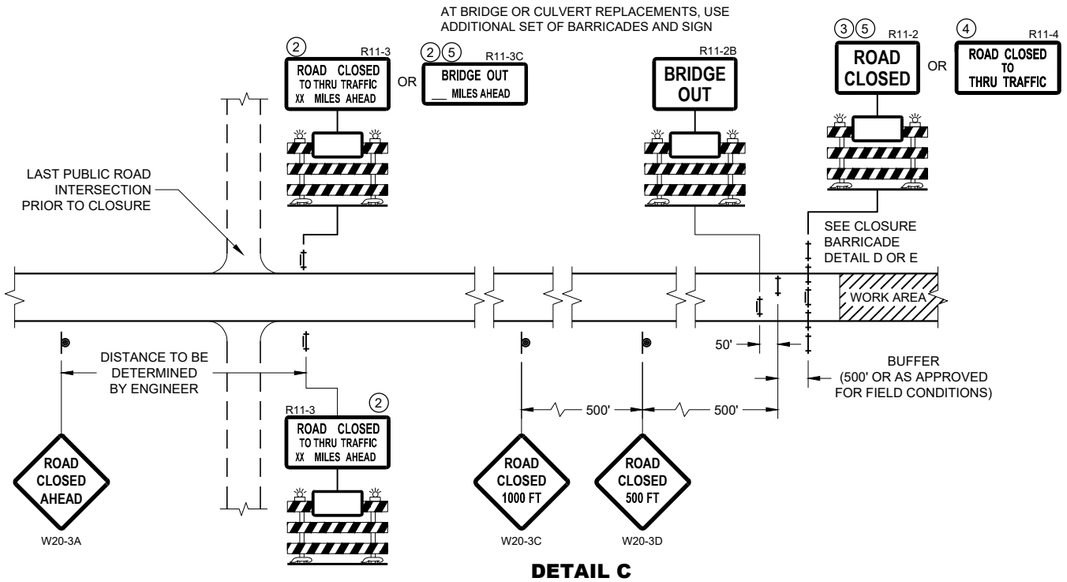
DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

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)



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

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 X — M1 - 5A
- M05 - 1 OR M06 - 1

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

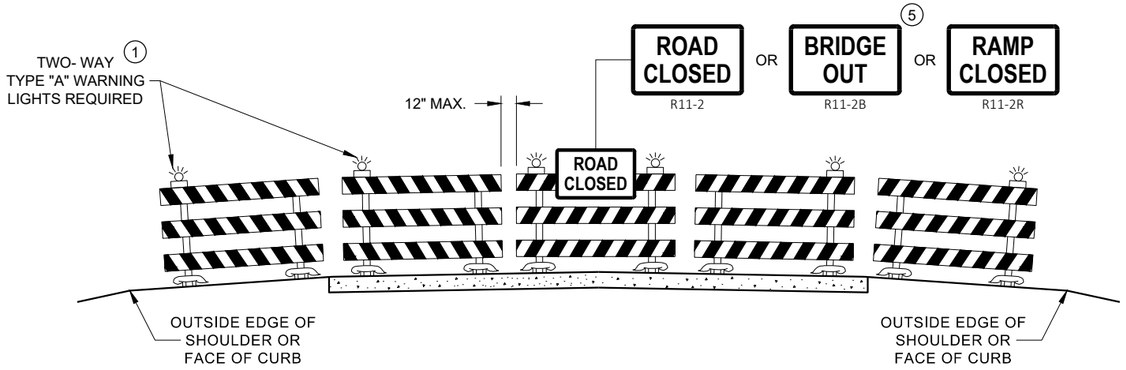
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

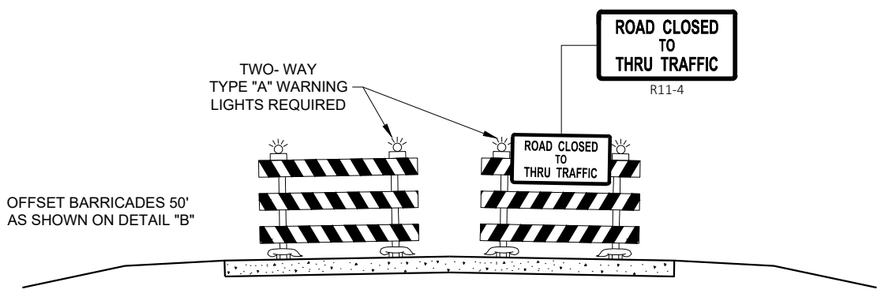
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SDD 15C02 - 09a



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
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

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SDD 15C02 - 09b

6

SDD 15C02 - 09b

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

LEGEND

- SIGN ON PERMANENT SUPPORT
- WORK AREA
- DETOUR / EAST — M4 - 8, M3 - X
- XX — M1 - 4
- OR XX — M1 - 6
- OR COUNTY X — M1 - 5A
- M05 - 1
- OR M06 - 1
- OR M06 - 1

GENERAL NOTES

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

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

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

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

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

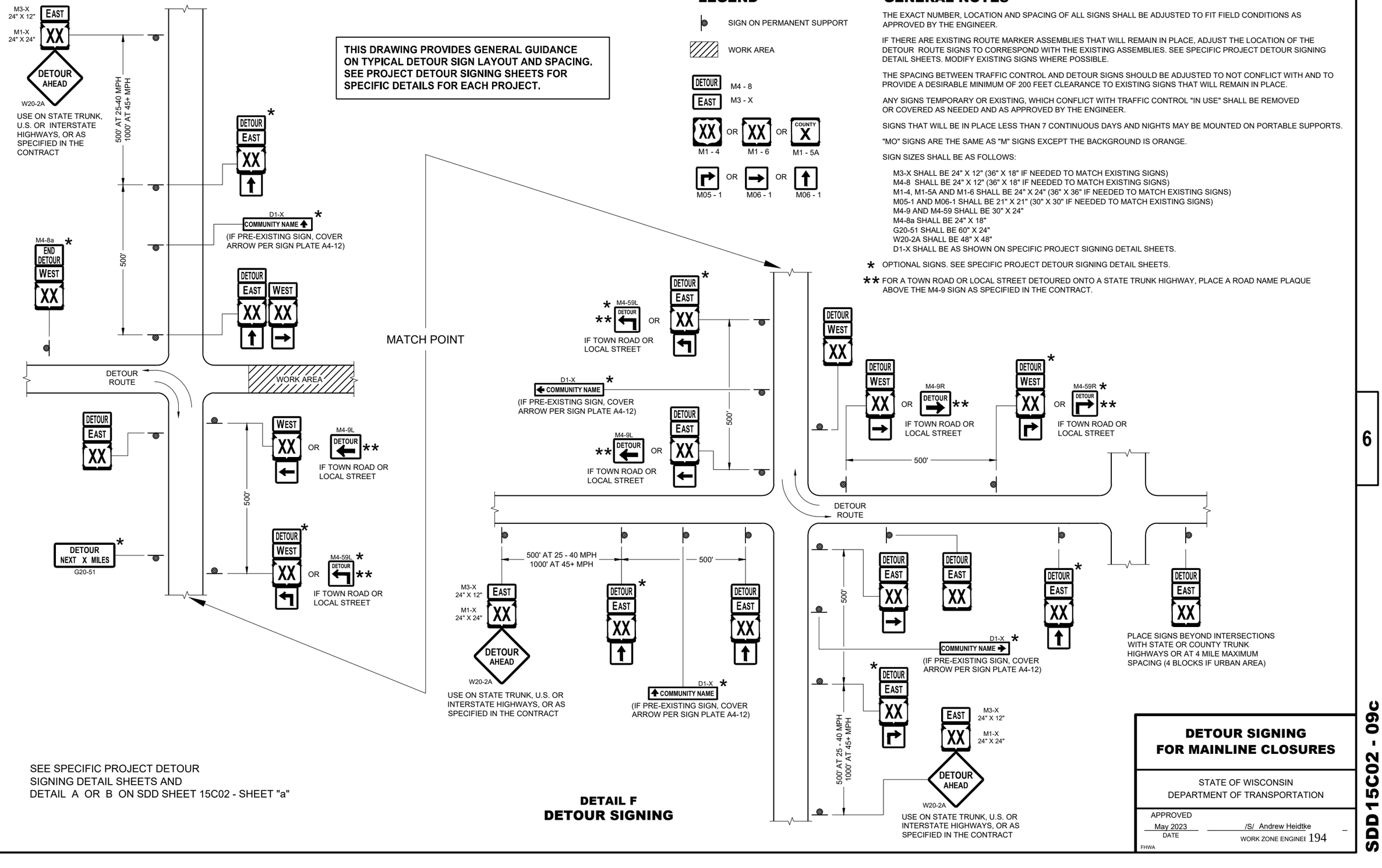
"MO" SIGNS ARE THE SAME AS "M" SIGNS EXCEPT THE BACKGROUND IS ORANGE.

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-4, M1-5A AND M1-6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- M05-1 AND M06-1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- M4-9 AND M4-59 SHALL BE 30" X 24"
- M4-8a SHALL BE 24" X 18"
- G20-51 SHALL BE 60" X 24"
- W20-2A SHALL BE 48" X 48"
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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



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

DETAIL F
DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

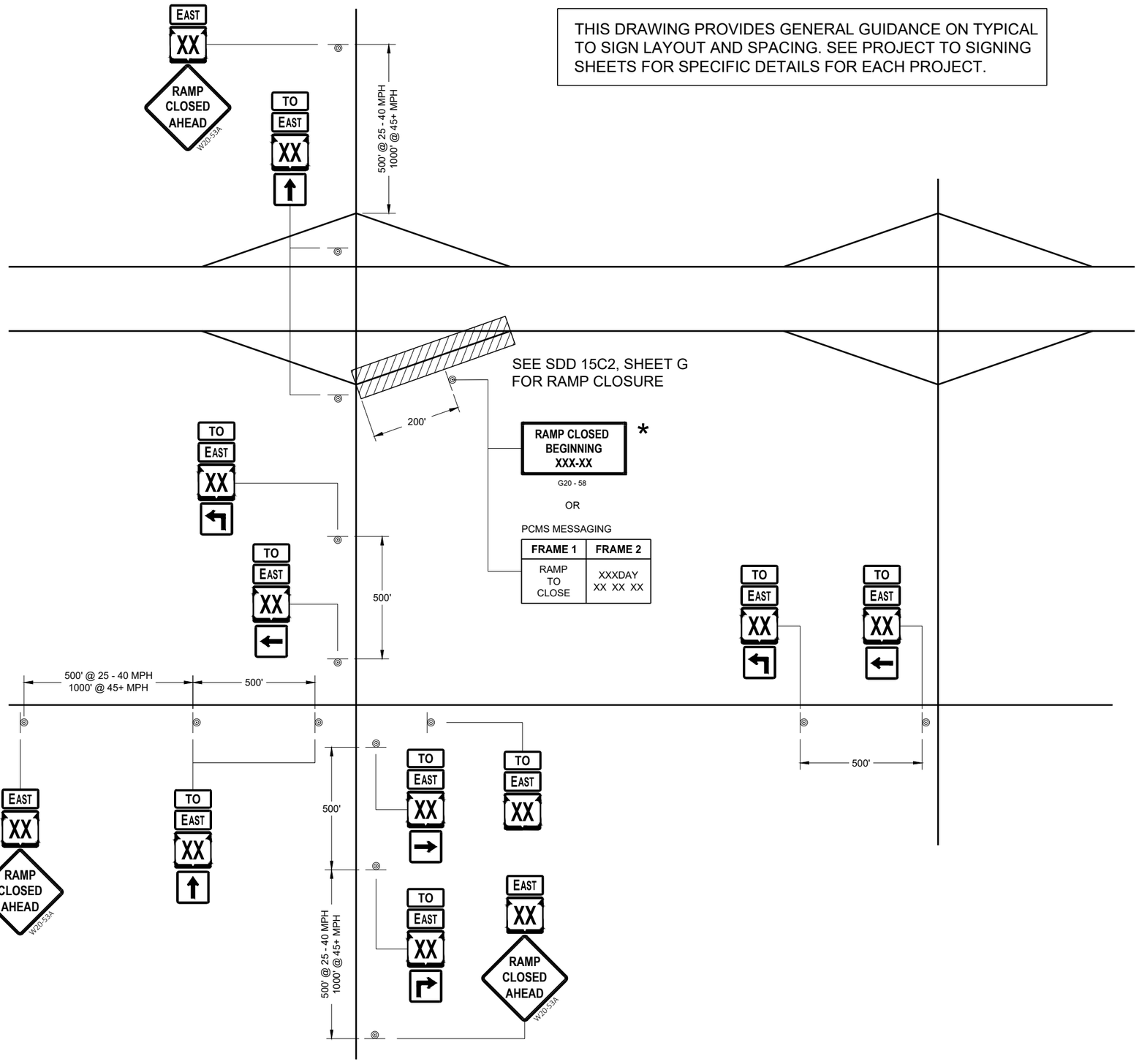
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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SDD 15C02 - 09c



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

LEGEND

SIGN ON PERMANENT SUPPORT

TO EAST — MO4 - 5, M3 - X

XX M1 - 6 OR XX M1 - 4 OR INTERSTATE XX M1 - 1

M05 - 1 OR M06 - 1 OR M06 - 1

GENERAL NOTES

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

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

THE SPACING BETWEEN TRAFFIC CONTROL AND TO 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 SHALL 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 FOLLOW:
- M3 - X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- MO4 - 5 SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS).
- M1 - 1, M1 - 4, AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS).
- MO5 - 1, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).
- W20 - 53A SHALL BE 48" X 48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

ON RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

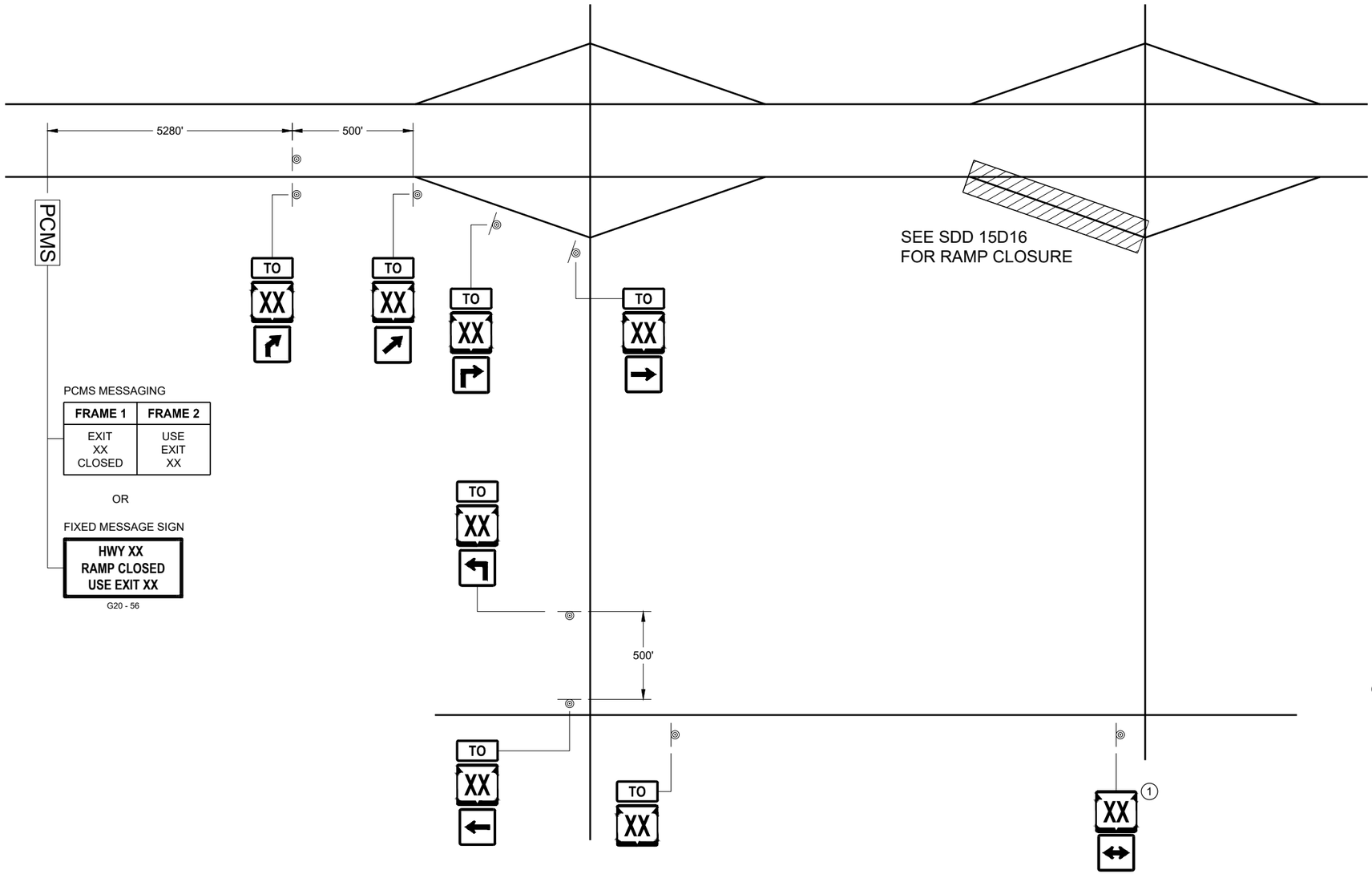
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May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

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THIS DRAWING PROVIDES GENERAL GUIDANCE ON TYPICAL "TO" MO-4 SIGN LAYOUT AND SPACING. SEE PROJECT TO SIGNING SHEETS FOR SPECIFIC DETAILS FOR EACH PROJECT.



PCMS MESSAGING

FRAME 1	FRAME 2
EXIT XX CLOSED	USE EXIT XX

OR

FIXED MESSAGE SIGN

HWY XX
RAMP CLOSED
USE EXIT XX

G20 - 56

LEGEND

SIGN ON PERMANENT SUPPORT

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

TO MO4 - 5

XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A

M05 - 1 OR M05 - 2 OR M06 - 1 OR M06 - 2 OR M06 - 4

GENERAL NOTES

SEE SDD 15D16 "TRAFFIC CONTROL, EXIT RAMP CLOSURE" DETAIL FOR TRAFFIC CONTROL AT EXIT RAMP CLOSURE.

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

IF THERE ARE ANY ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE "TO" MO-4 ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. SEE SPECIFIC PROJECT TO SIGNING DETAIL SHEETS. MODIFY EXISTING SIGNS WHERE POSSIBLE.

THE SPACING BETWEEN TRAFFIC CONTROL AND "TO" MO-4 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 SHALL 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 FOLLOW:
- MO4 - 5 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, MO5 - 2, AND MO6 - 1, SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS).

(1) ONLY ADD IF THERE ARE NO EXISTING ROUTE MARKERS FOR THE INTERSECTING ROADWAY.

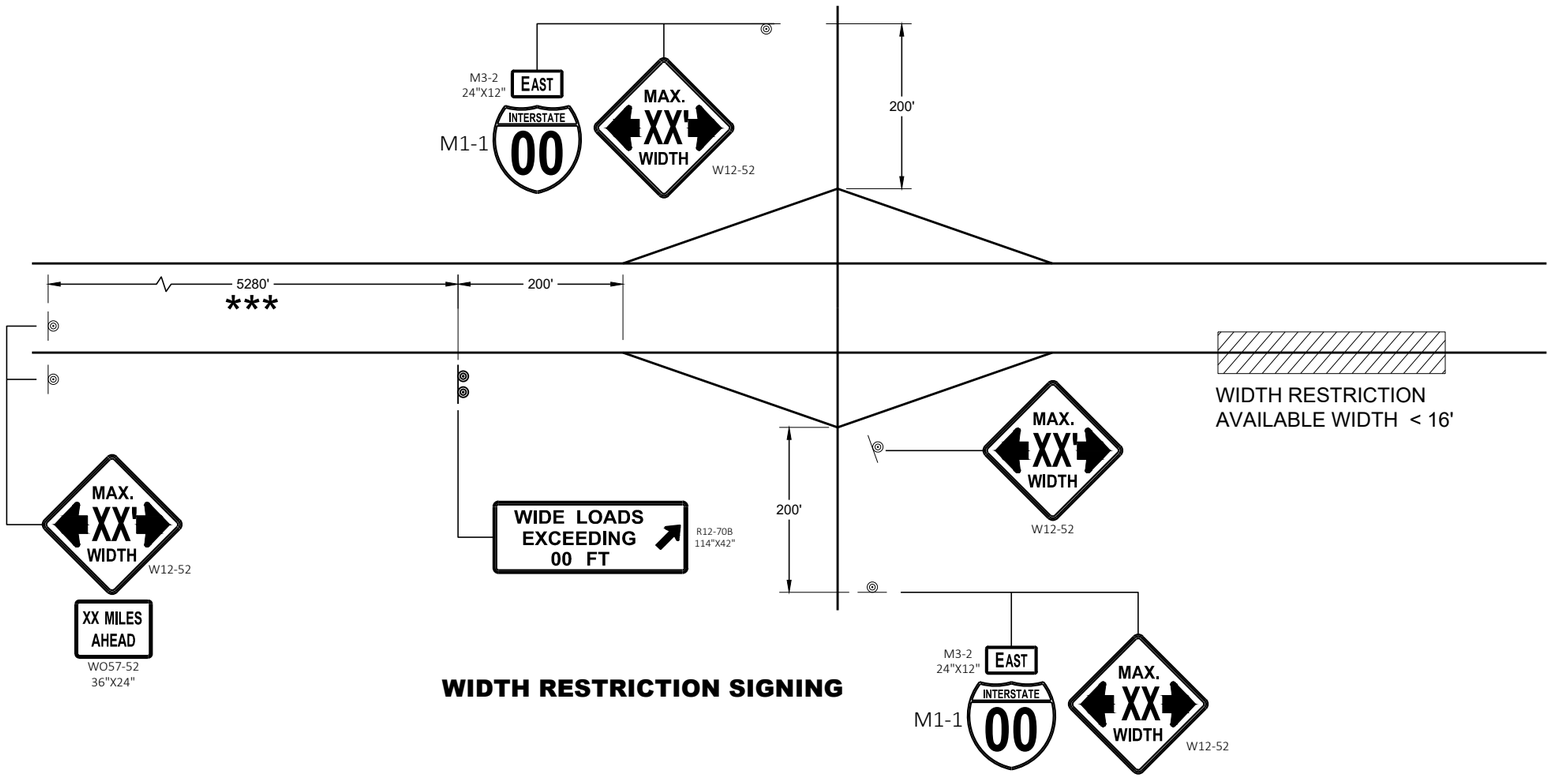
OFF RAMP LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

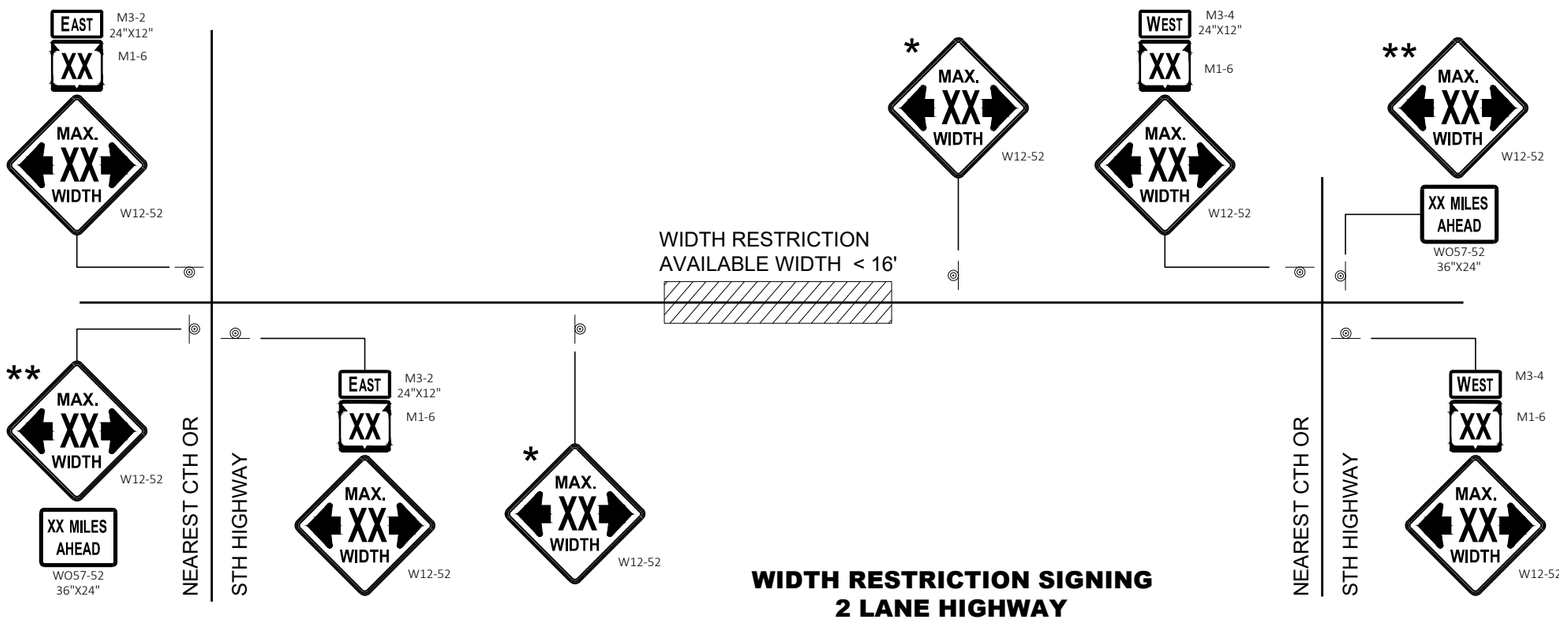
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WIDTH RESTRICTION SIGNING



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.



WIDTH ON SIGN TO BE APPROX. 1 - FOOT LESS THAN AVAILABLE WIDTH

ADVANCED WIDTH RESTRICTION SIGNING

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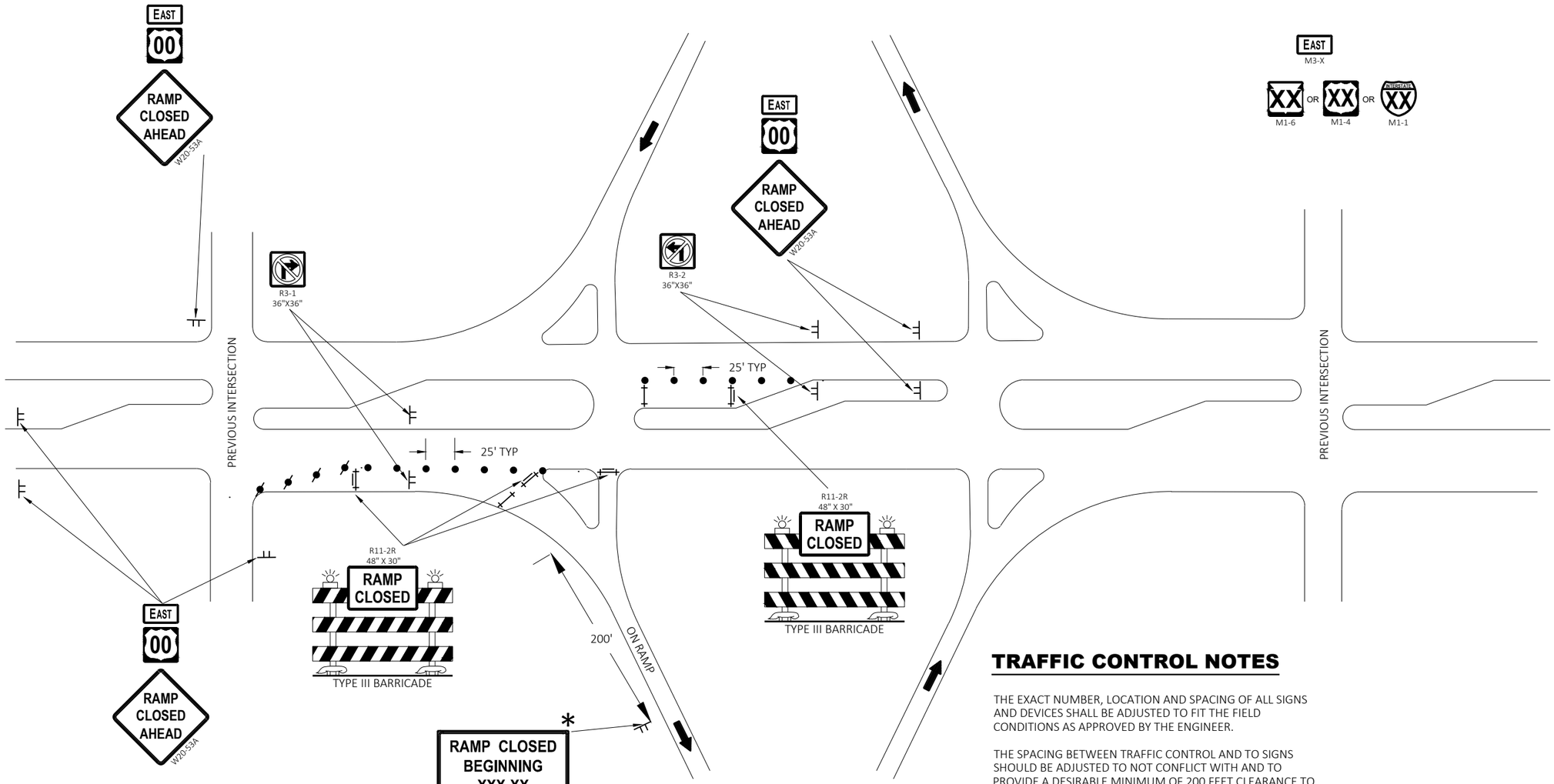
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LEGEND

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

TRAFFIC CONTROL NOTES

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

THE SPACING BETWEEN TRAFFIC CONTROL AND TO 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 THE TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24"x24" (36" x18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1-1, M1-4, AND M1-6 SHALL BE 24"x24" (36"x36" IF NEEDED TO MATCH EXISTING SIGNS)
- W20-53A SHALL BE 48"X48"

* PLACE "RAMP CLOSED BEGINNING" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR LAYOUT.

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

TRAFFIC CONTROL FOR ENTRANCE RAMP CLOSURE

STATE OF WISCONSIN
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May 2023 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEE
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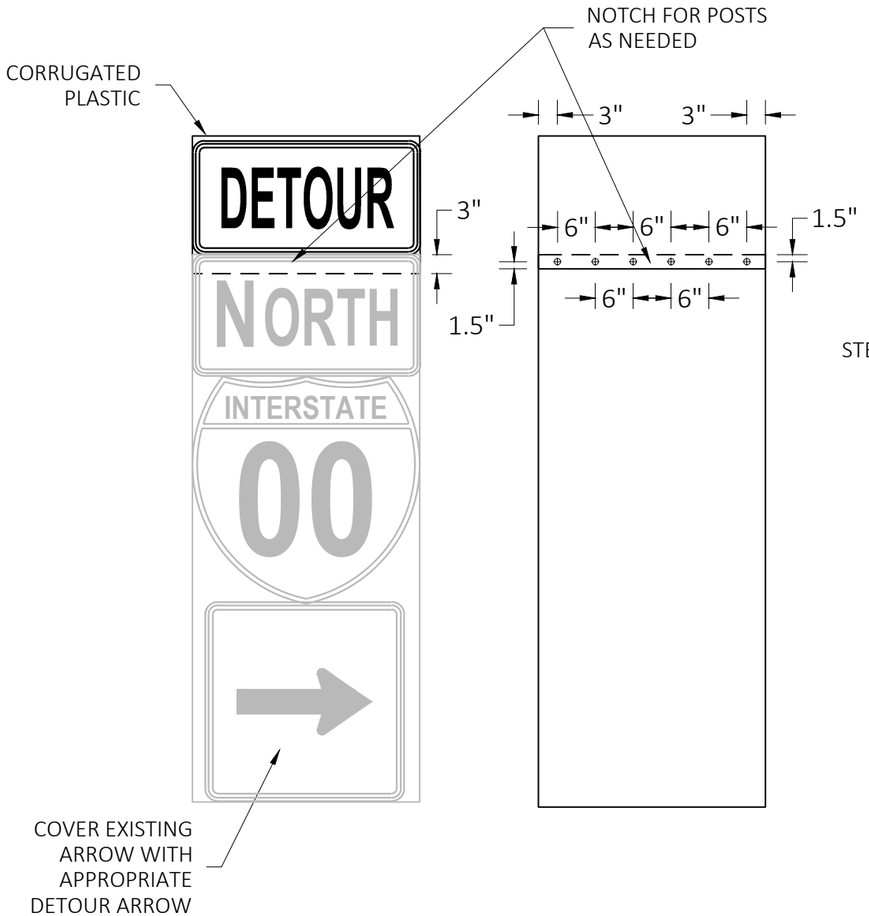
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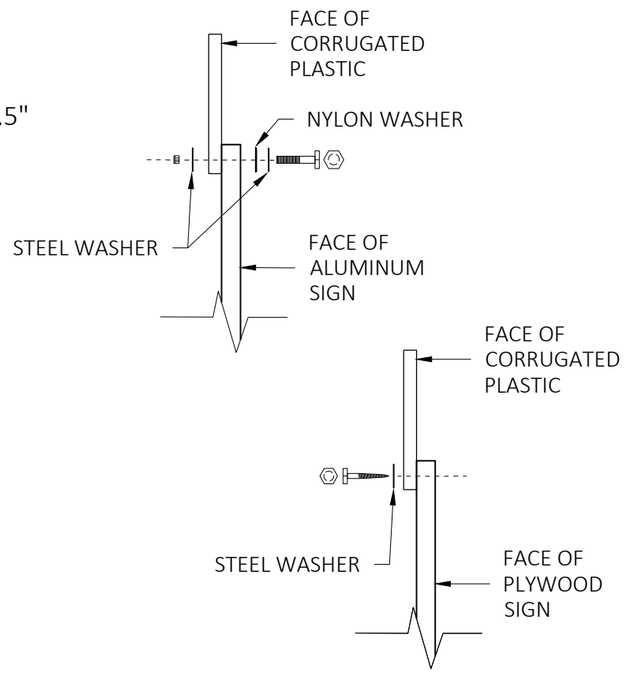
SDD 15C02-09g

FRONT SIDE

BACK SIDE

SIDE VIEW





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 DEVEL ENGINEER
FHWA

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SDD 15C02-09h

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.

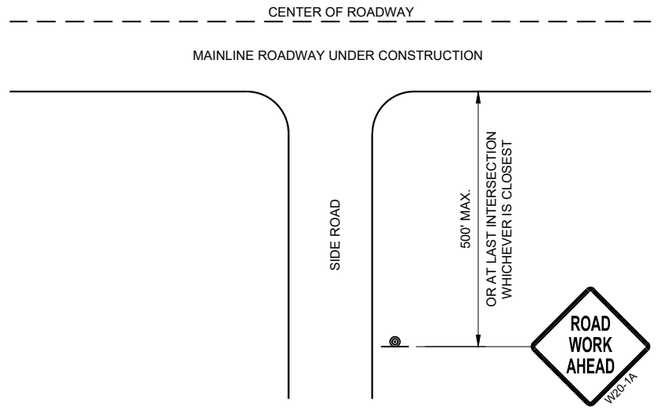
ALL SIGNS ARE 48" X 48" UNLESS OTHERWISE NOTED.

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

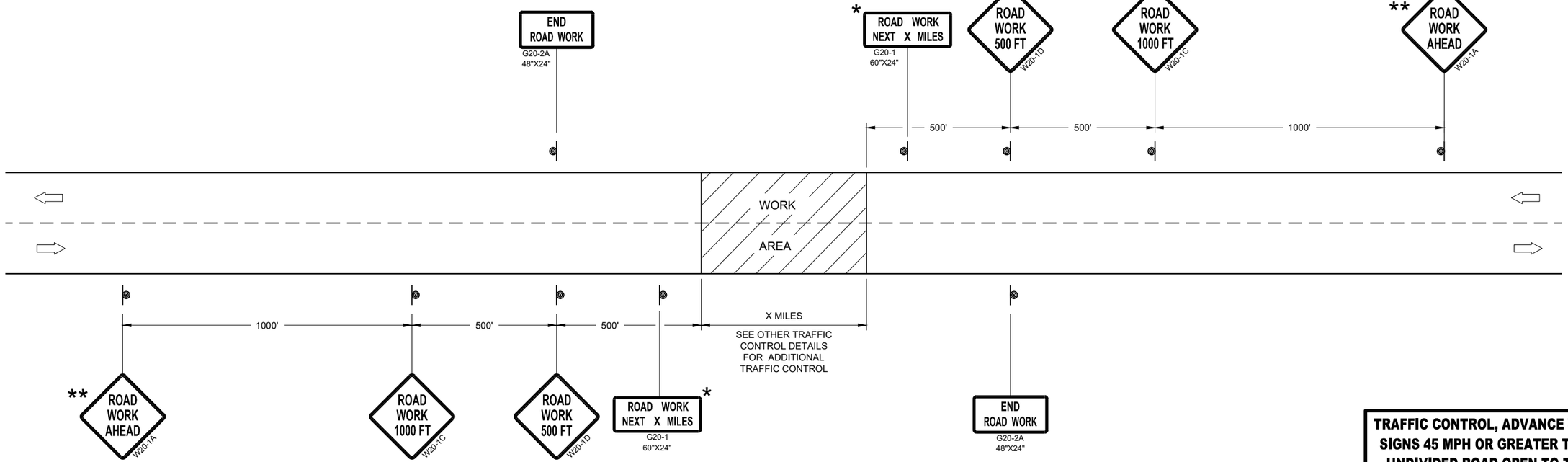
** PLACE AN ADDITIONAL W20-1A "ROAD WORK AHEAD" SIGN IF WORK AREA WITHIN THE PROJECT IS SEPARATED BY MORE THAN 2 MILES FROM PREVIOUS WORK AREA.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



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
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APPROVED
July 2018
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

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SDD 15C04 - 05

GENERAL NOTES

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

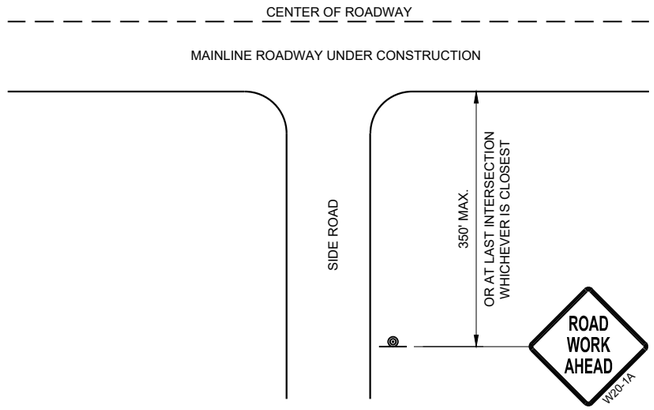
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

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



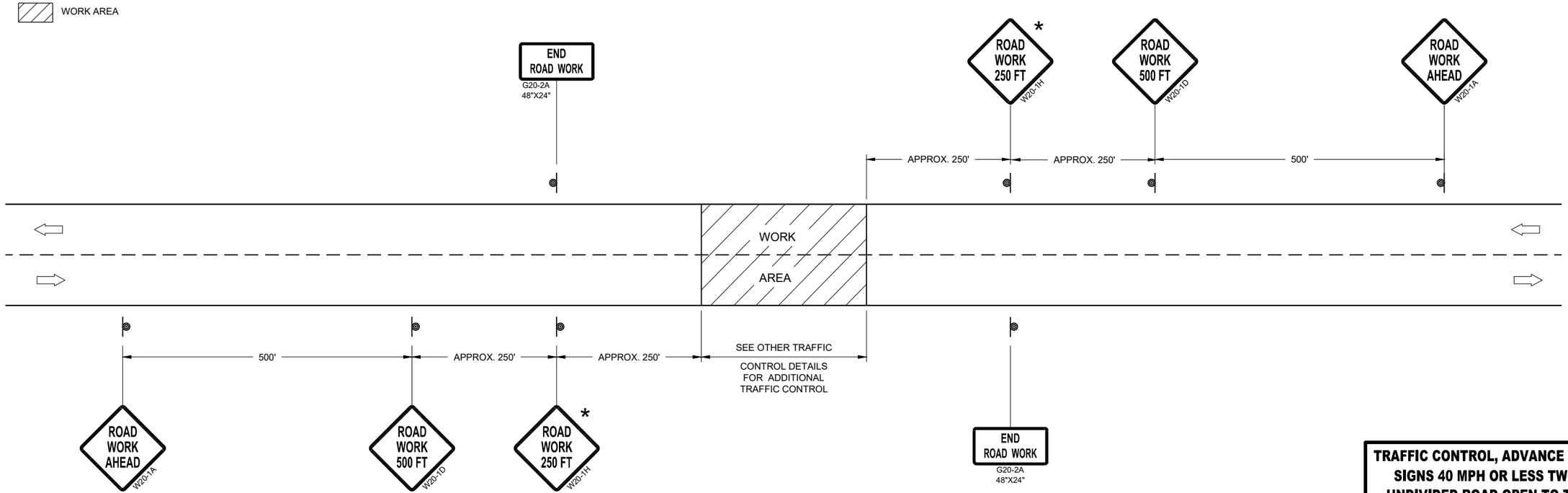
TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

WORK AREA



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

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July 2018
DATE

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WORK ZONE ENGINEE

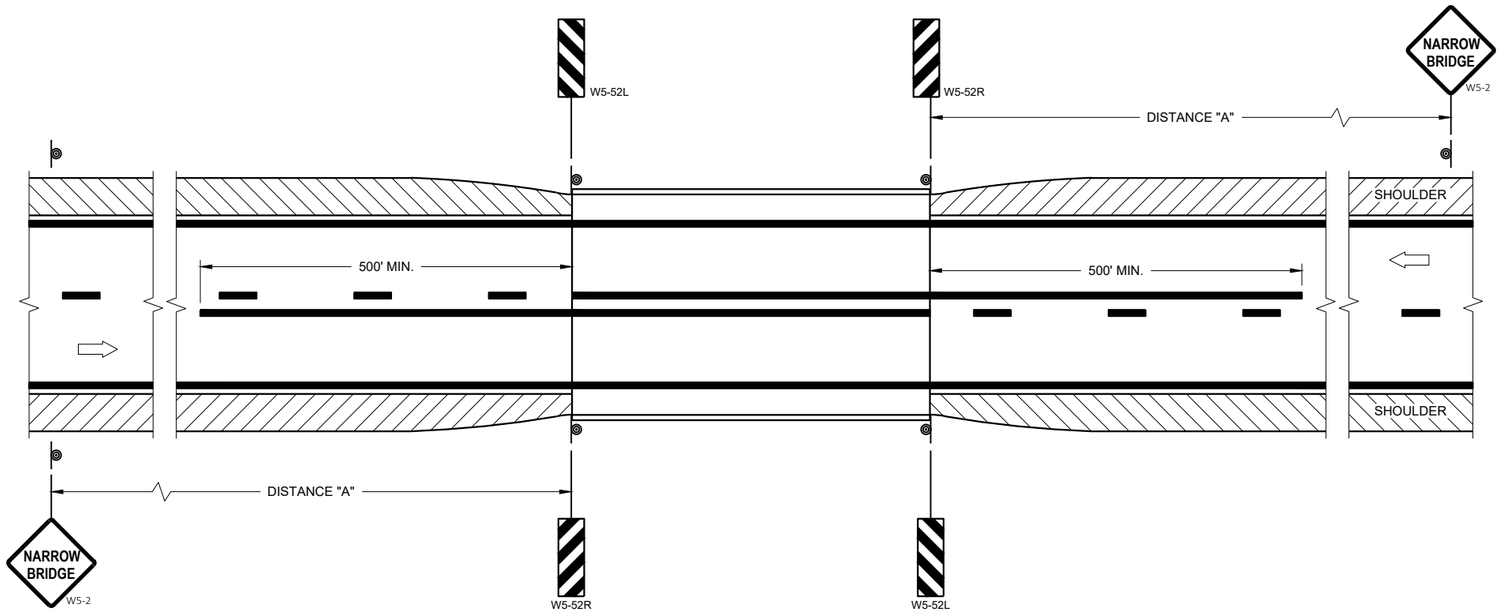
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SDD 15C05 - 05

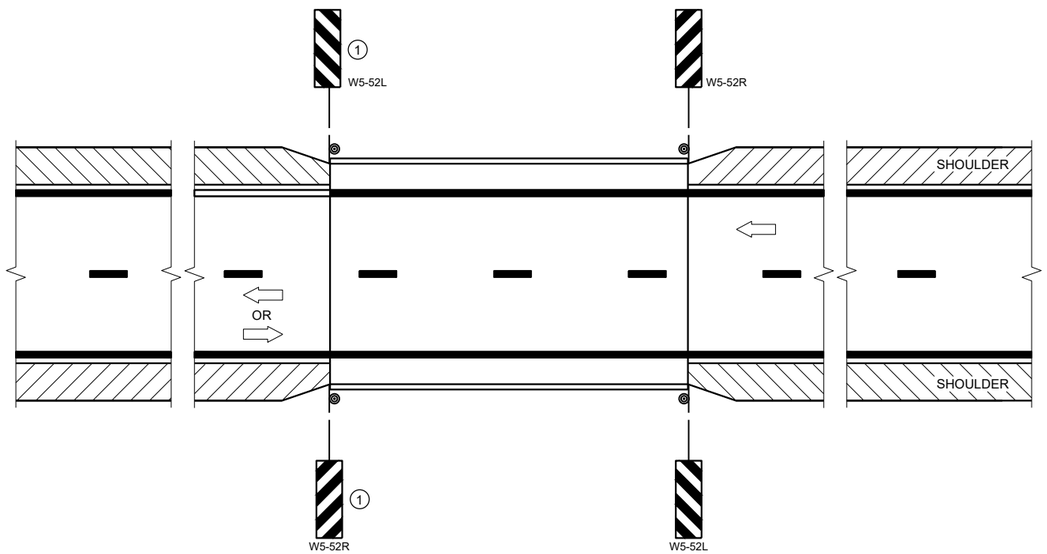
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SDD 15C05 - 05



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2

WARRANTING CRITERIA:
1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

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

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

SIGNING AND MARKING FOR TWO LANE BRIDGES

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/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER
FHWA

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SDD 15C06-12

* 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

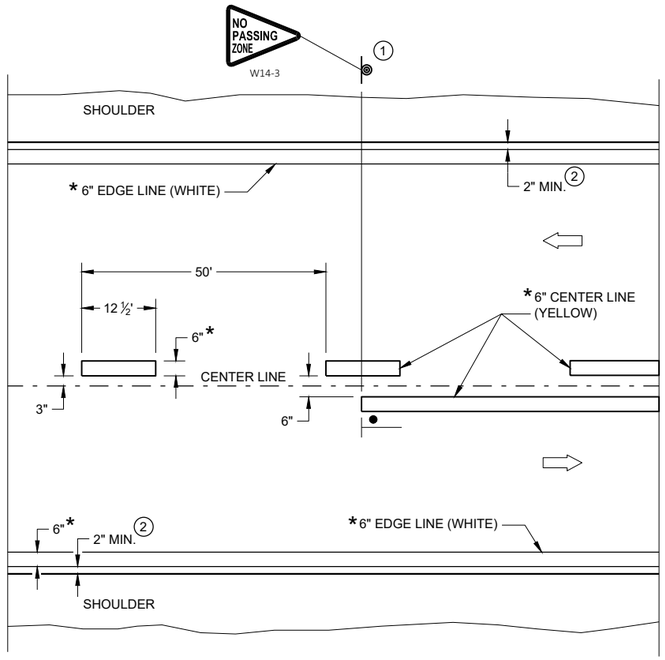
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

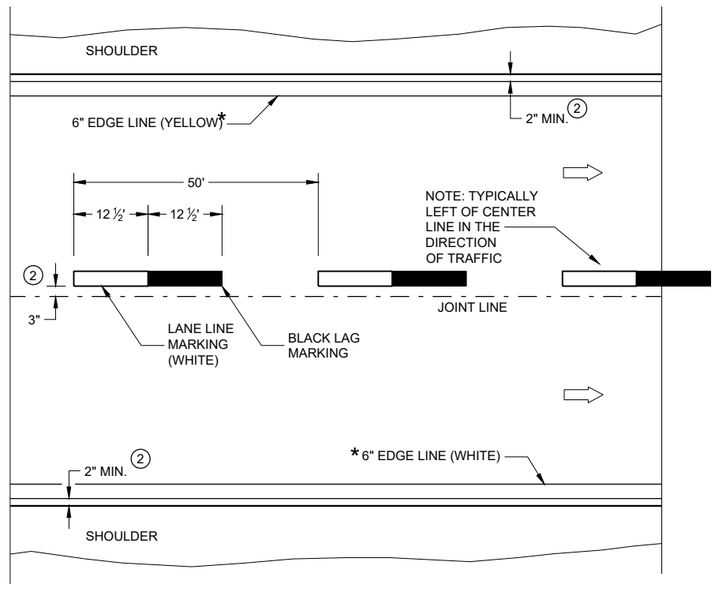
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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May 2023
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M ENGINEER

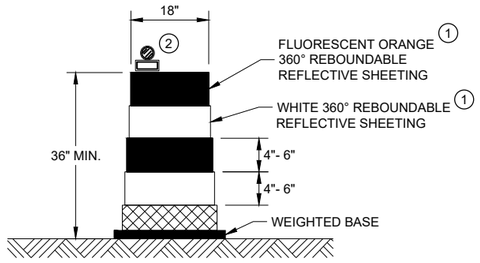
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SDD 15C08-23a

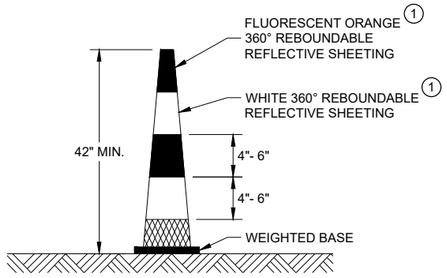
GENERAL NOTES

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.



DRUM

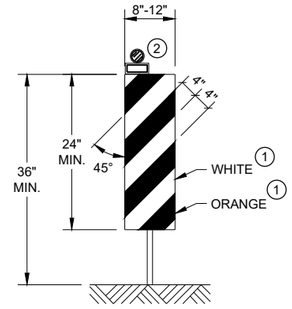
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

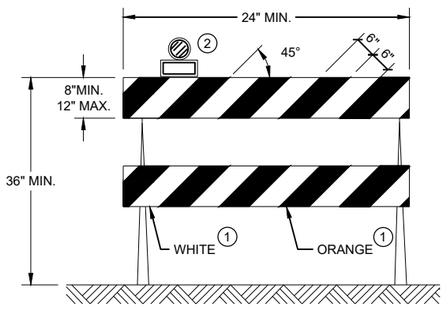
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



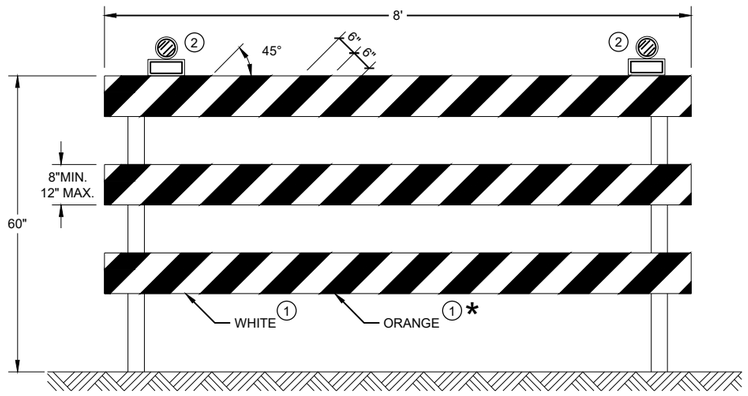
VERTICAL PANEL

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.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

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SDD 15C11 - 10b
SDD 15C11 - 10b

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

V3 TRAIL VEHICLE

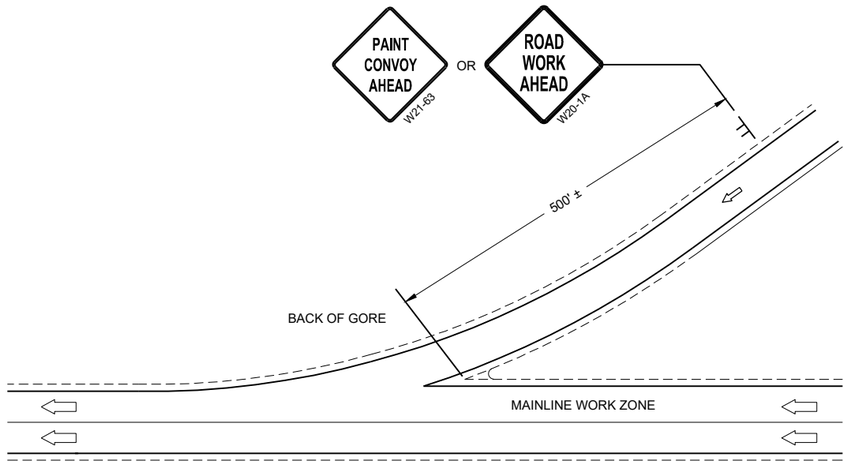
TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)

FLASHING ARROW PANEL (CAUTION)



GENERAL NOTES

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

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

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

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

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

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

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

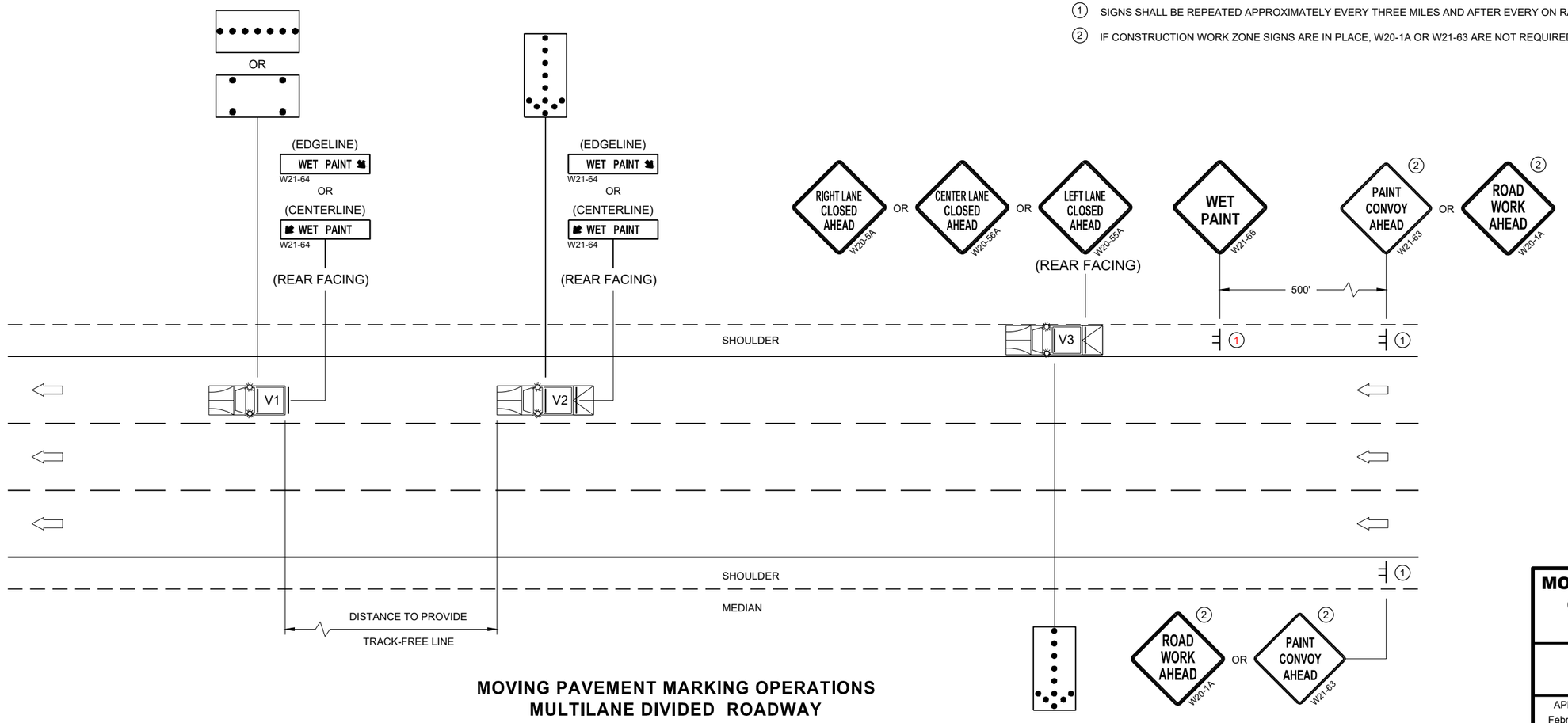
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

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

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS
MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2023
DATE

/S/ Andrew [illegible]
WORK ZONE EN

FHWA

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SDD 15C19-08c

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SDD 15C19-08c

GENERAL NOTES

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

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

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

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

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

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

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

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

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

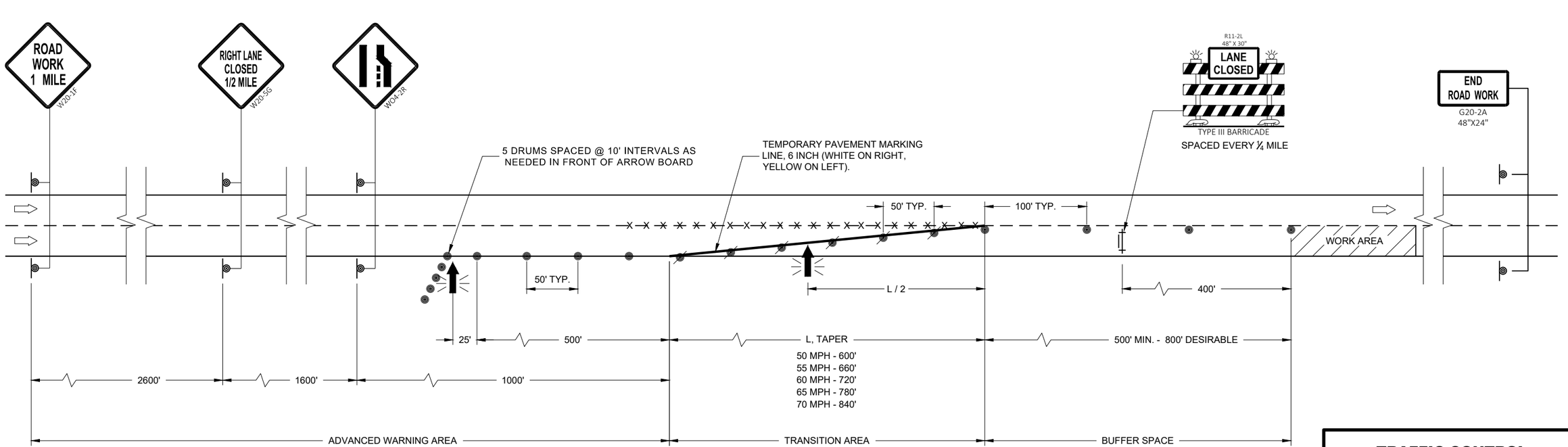
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

LEGEND

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



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

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SDD 15D12 - 11a

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SDD 15D12 - 11a

GENERAL NOTES

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

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

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

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

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

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

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

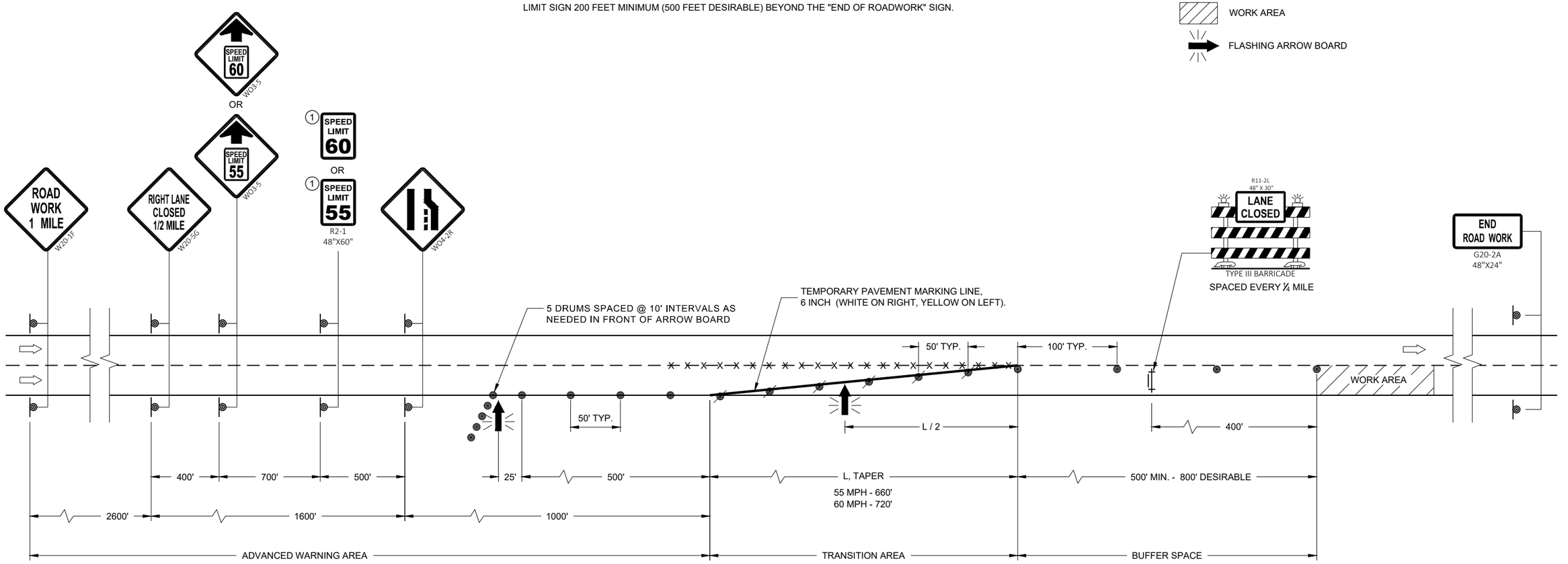
IF THE HORIZONTAL ALIGNMENT IS SUCH THAT A CURVE MAY REQUIRE ADDITIONAL DELINEATION, THE DEVICE SPACING MAY BE DECREASED TO 50 FEET.

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

(1) A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIRABLE) BEYOND THE "END OF ROADWORK" SIGN.

LEGEND

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



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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SDD 15D12 - 11b

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- (S) PORTABLE TRAFFIC SENSOR (PTS)
- FBS FLASHING BEACON SIGN

GENERAL NOTES

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

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

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

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

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

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

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS

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

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

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

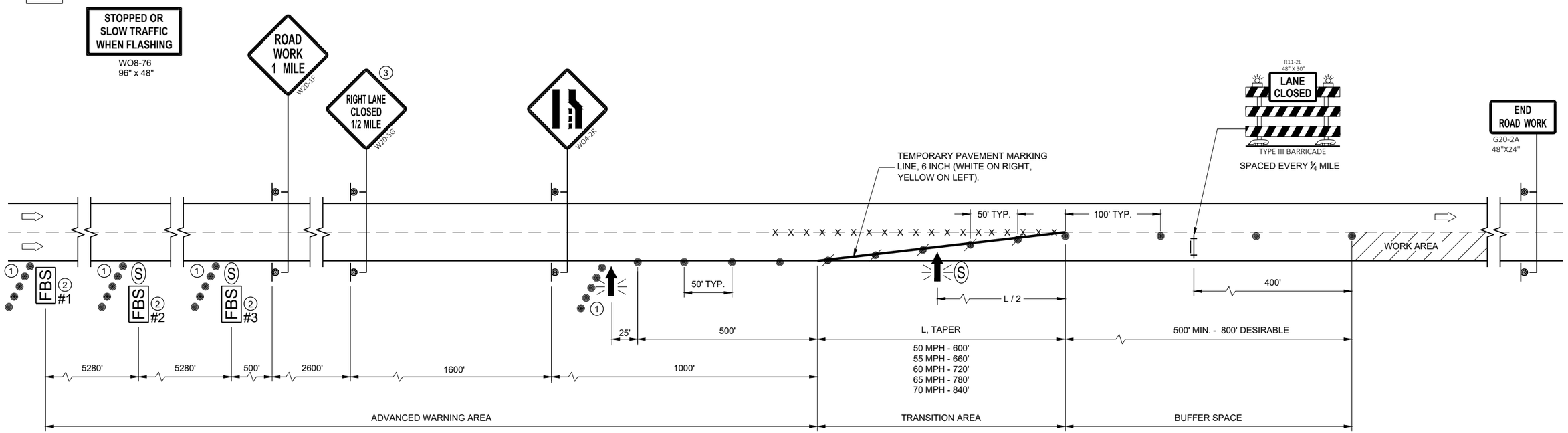
CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

PORTABLE TRAFFIC SENSOR (PTS) MAY BE MOUNTED ON THE FBS, ARROW BOARD OR OTHER TRAILER DEVICES.

① 5 DRUMS SPACED AT 10 FOOT INTERVALS AS NEEDED.

② IF THERE ARE MORE THAN TWO LANES OR IF SPECIFIED IN THE PLANS, PLACE FBS ON BOTH SIDES OF THE ROADWAY.

③ IF THERE IS AN APPROVED TEMPORARY SPEED DECLARATION, ADD WO-3-5 SIGNS 400 FEET AFTER THE W20-5G SIGNS AND ADD R2-1 SIGNS (48"x60") 700 FEET AFTER THE WO3-5 SIGNS. A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. PLACE A SPEED LIMIT SIGN A MINIMUM OF EVERY 3 MILES. INCLUDE A "RESUME SPEED LIMIT" SIGN 200 FEET MINIMUM (800 FEET DESIRABLE) BEYOND THE G30-3A "END ROAD WORK" SIGN.



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SDD 15D12 - 11d

SDD15D12 - 11d

TRAFFIC CONTROL, LANE CLOSURE, BASIC TRAFFIC QUEUE WARNING SYSTEM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Erin Schwark
WORK ZONE ENGINEE

FHWA

LEGEND

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

GENERAL NOTES

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

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

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

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

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

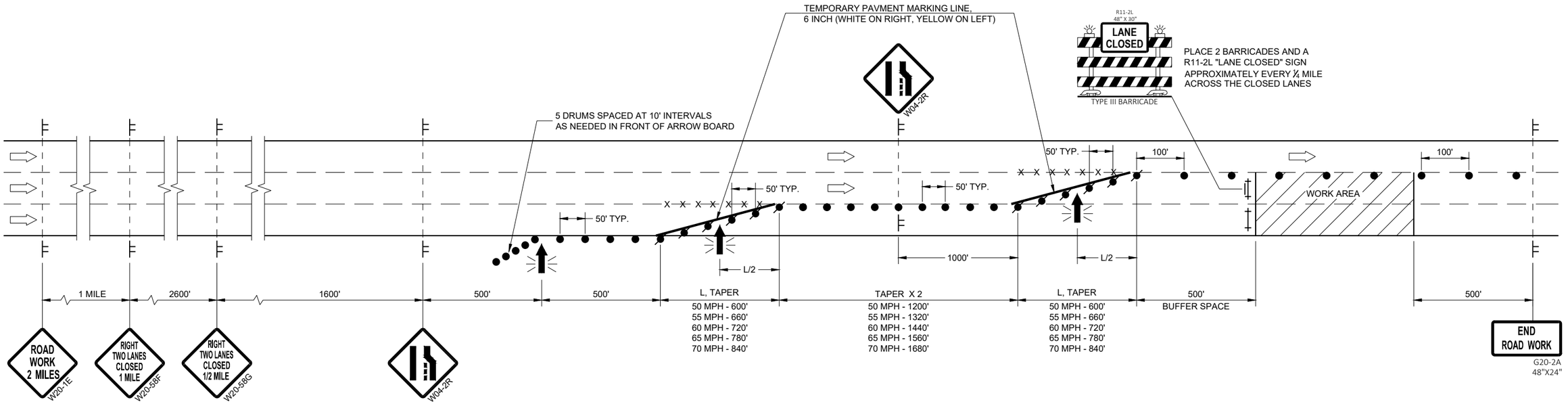
WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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

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

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

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



TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

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SDD 15D14-06

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SDD 15D14-06

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

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

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

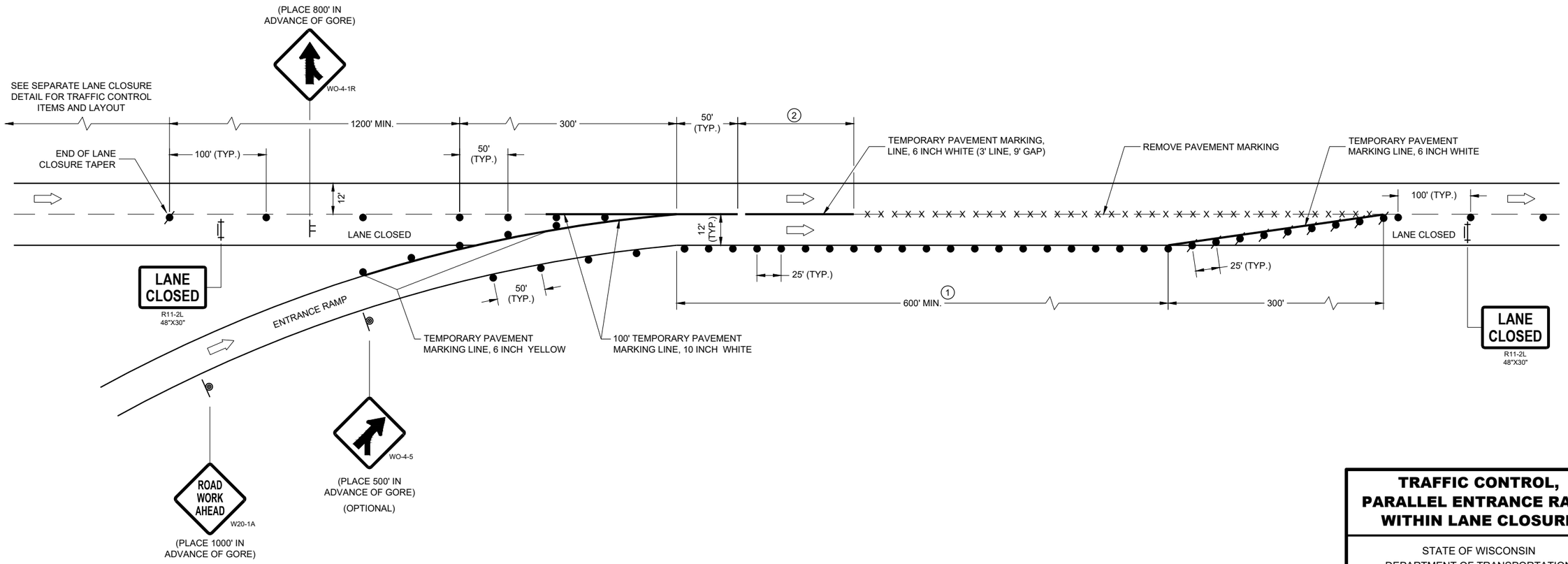
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

(1) EXTEND THE LENGTH OF THE MERGE ARE IF THE ENTERING (DESIGN) SPEED IS LESS THAN 50MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D15-07a

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SDD 15D15-07a

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

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

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS /OR DRUMS IN THE GORE BETWEEN THE EXIT RAMP AND MAINLINE TRAFFIC.

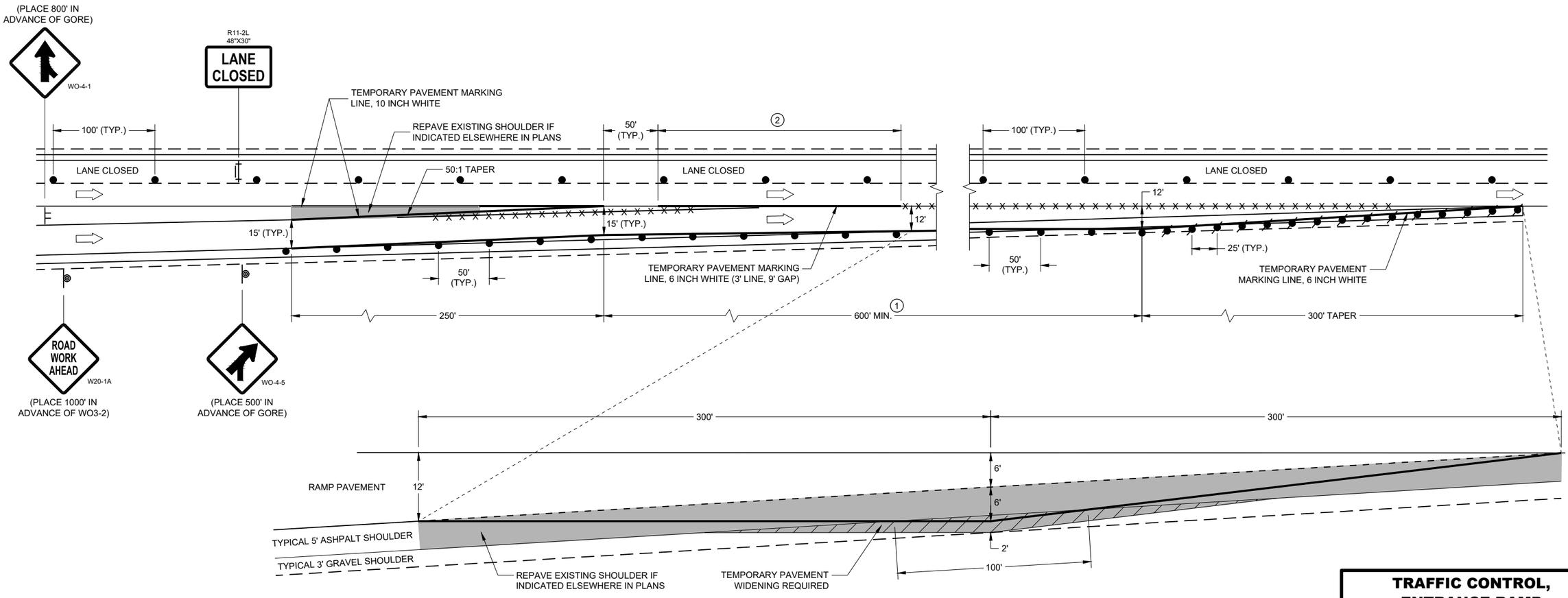
ANY SIGNS TEMPORARY OR EXISTING, WHICH CONFLICT WITH TRAFFIC CONTROL "IN USE" SHALL BE REMOVED OR COVERED AS NEEDED AND AS APPROVED BY THE ENGINEER.

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

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

(1) EXTEND THE LENGTH OF THE MERGE AREA IF THE ENTERING (DESIGN) SPEED OF THE RAMP IS LESS THAN 50 MPH OR IF THE MAINLINE GRADE EXCEEDS ±2.2%.

(2) END TEMPORARY PAVEMENT MARKING LINE AT ½ THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TEMPORARY PAVEMENT DETAIL

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

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15D15-07b

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SDD 15D15-07b

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

REMOVING PAVEMENT MARKING (SEE GENERAL NOTES)

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

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

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

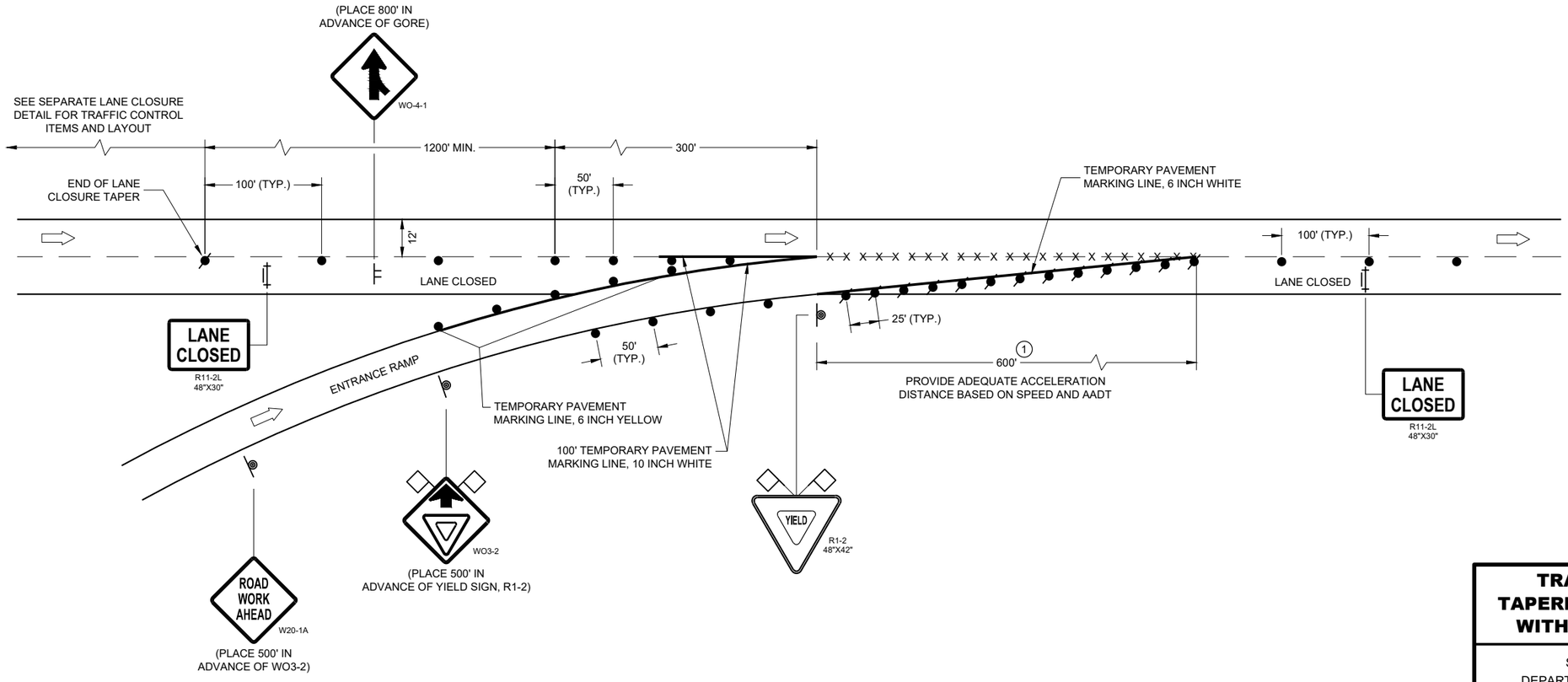
IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

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

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

(1) CONSULT WITH REGIONAL WORK ZONE ENGINEER IF NEED TO REDUCE LENGTH EXISTS.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15D15-07c

6

SDD 15D15-07c

LEGEND

SIGN ON PERMANENT SUPPORT

SIGN ON TEMPORARY SUPPORT

TRAFFIC CONTROL DRUM

TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT

TYPE III BARRICADE WITH ATTACHED SIGN

FLAGS, 16" X 16" MIN., ORANGE

DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

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

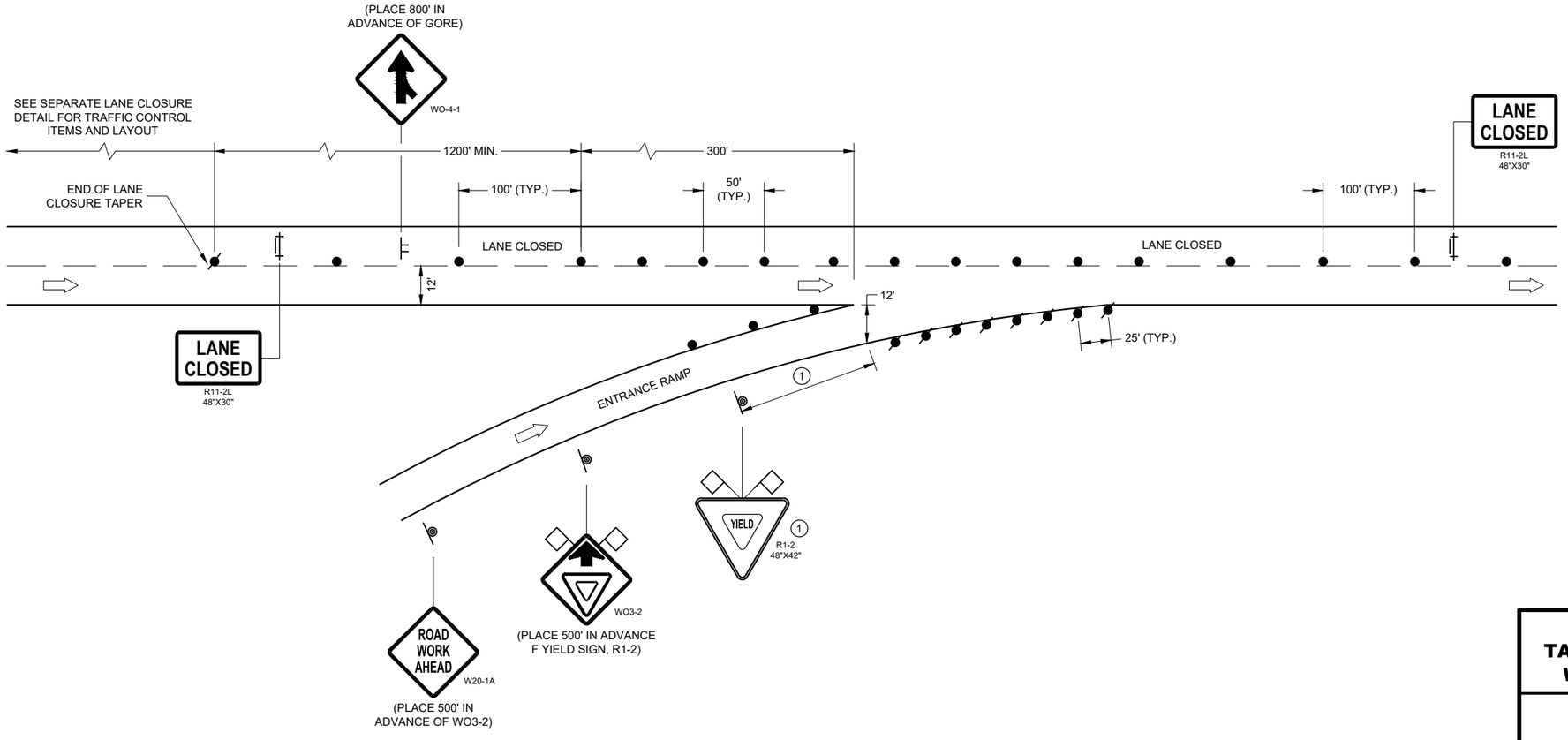
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

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

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

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

(1) PLACE YIELD SIGN TO PROVIDE ADEQUATE SIGHT DISTANCE AND ACCELERATION DISTANCE.



TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15-07d

6

SDD 15D15-07d

LEGEND

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

GENERAL NOTES

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

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

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

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

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

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

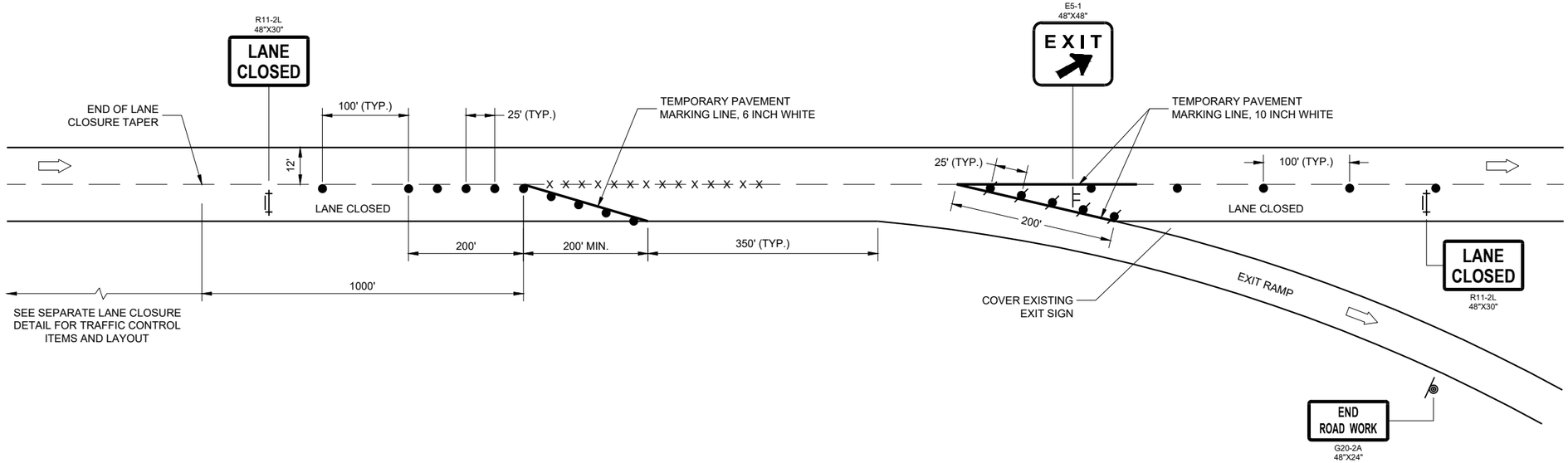
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONSECUTIVE DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

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



TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D15-07e

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

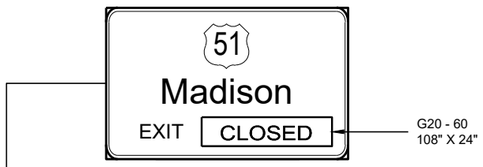
PLACE TEMPORARY PAVEMENT MARKING LINE IF RAMP CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROP OFF ALONG THE EDGE OF AN OPEN TRAVEL LANE SHALL BE LEVELED WITH TEMPORARY FILL WHEN THE CONTRACTOR IS NOT WORKING ADJACENT TO THE TRAVEL LANE. DRUMS SHALL BE PLACED ENTIRELY OUTSIDE THE TRAVEL LANE, ALLOWING THE FULL UNOBSTRUCTED LANE WIDTH, WHEN WORK IS NOT IN PROGRESS.

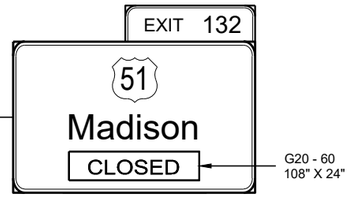
WHERE MEDIAN BARRIER IS IN PLACE, SIGNS SHOWN ON LEFT SIDE OF ROADWAY MAY BE OMITTED FOR RIGHT SIDE RAMP CLOSURES OF LESS THAN 12 - HOUR DURATION.

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

(2) PLACE "RAMP CLOSED BEGINNING" SIGN OR PCMS 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.



OR

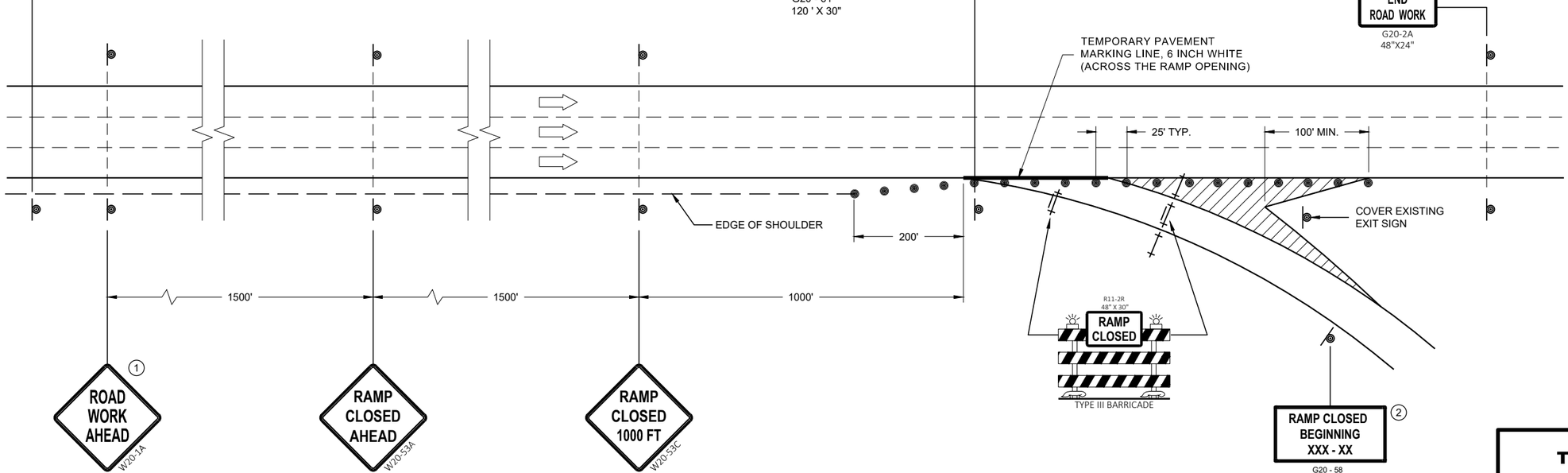


PLACE SIGN G20 - 60 OVER MILEAGE ON EXISTING E1 - 1A SIGN



G20 - 61
120 ' X 30"

COVER ARROW ON EXISTING E4 - 1 SIGN (COVERING SIGNS TYPE I)



OR

PCMS MESSAGING

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

SDD 15D16-06

LEGEND

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

GENERAL NOTES

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

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

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

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

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

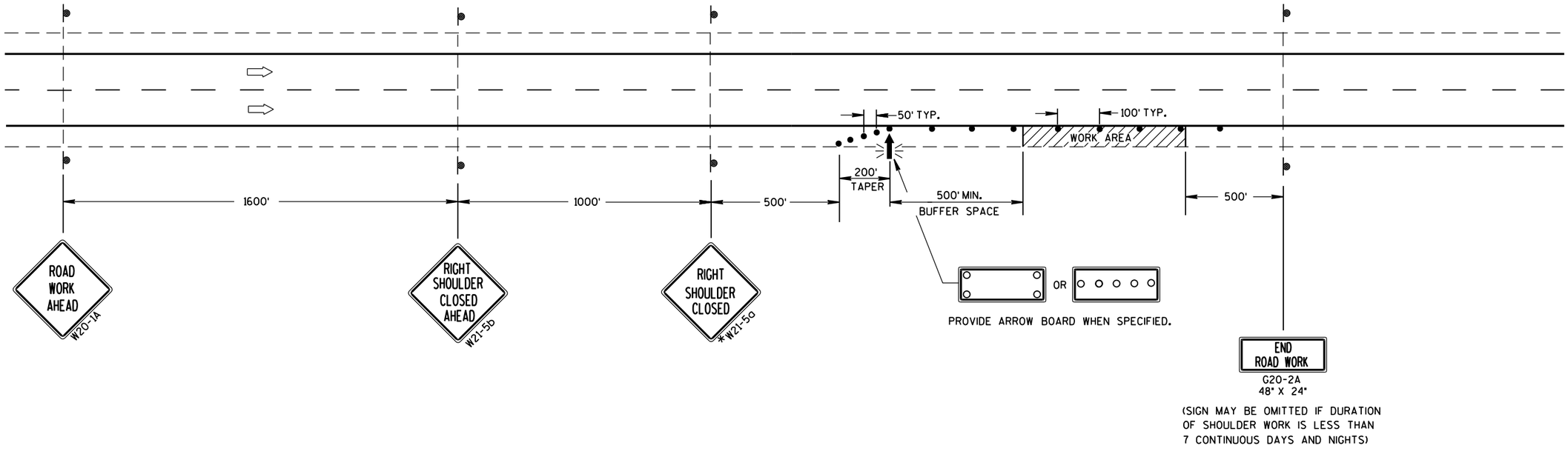
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

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

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

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



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2016 — DATE

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

FHWA

6

S.D.D. 15 D 27-3

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK AREA
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE SIGN

GENERAL NOTES

RIGHT CLOSURE SHOWN (LEFT LANE CLOSURE SIMILAR)

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

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

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

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

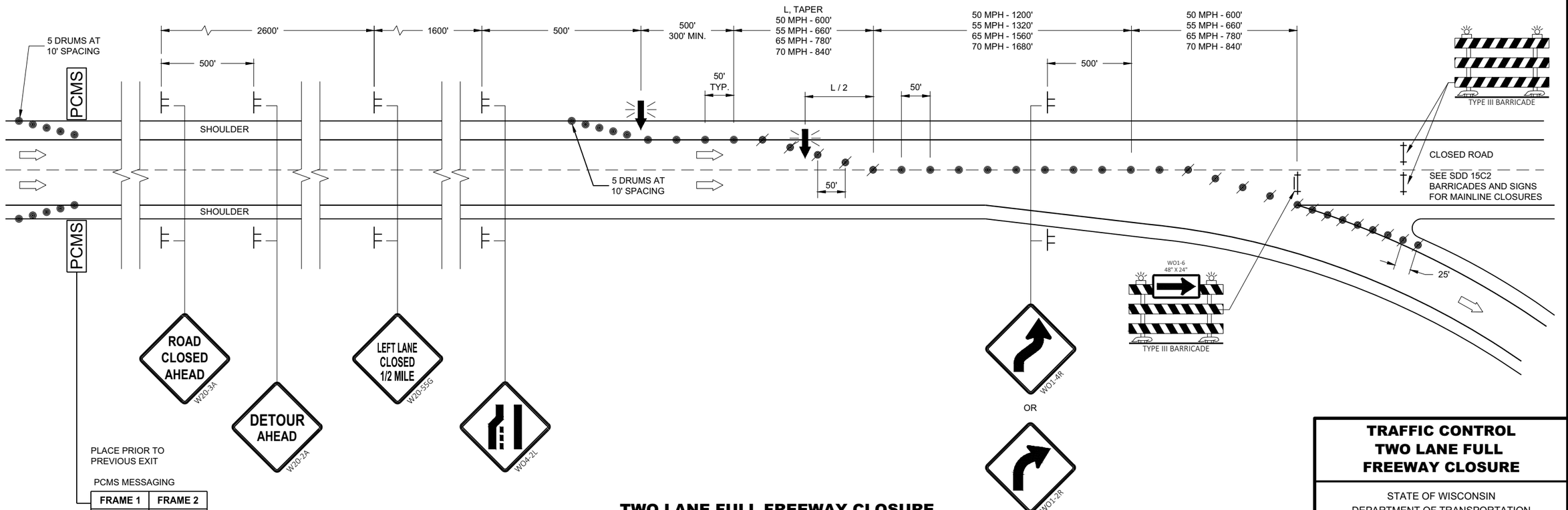
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROL SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND / OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS EACH CLOSED LANE TO HELP REINFORCE THE DRUM LINE.

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

REFER TO DETOUR ROUTES FOR TRAFFIC GUIDANCE SIGNING.

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



PLACE PRIOR TO PREVIOUS EXIT

PCMS MESSAGING

FRAME 1	FRAME 2
FREEWAY CLOSED	EXIT AHEAD

TWO LANE FULL FREEWAY CLOSURE

TRAFFIC CONTROL TWO LANE FULL FREEWAY CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2019
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

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6

SDD 15D42 - 01

SDD 15D42 - 01

LEGEND

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

TABLE 1

S (MPH)	INGRESS, L	EGRESS, L
50	435'	720'
55	480'	960'
60	530'	1200'
65	570'	1410'
70	615'	1620'

LEGEND

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

WORK ZONE INGRESS/EGRESS LOCATIONS SHALL BE APPROVED BY THE ENGINEER. LOCATIONS FOR WORK ZONE ACCESS TO/FROM THE FREEWAY SHALL NOT BE USED FOR INGRESS AND EGRESS AT THE SAME TIME.

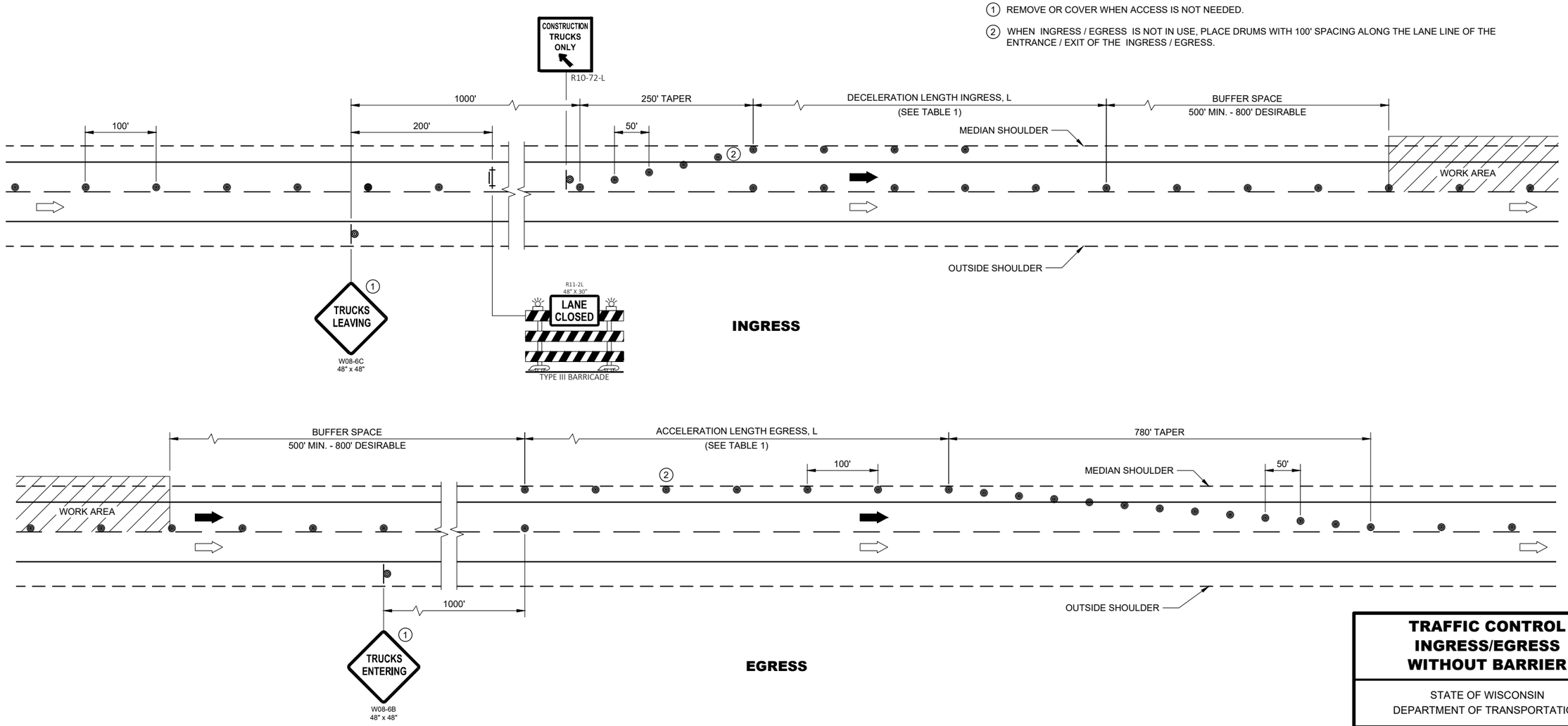
THIS ACCESS DETAIL IS TYPICAL FOR LEFT LANE ACCESS, FOR RIGHT LANE ACCESS, REVERSE THE TRAFFIC CONTROL

TEMPORARY SUPPORTS MAY BE USED IF PLACED BEHIND TEMPORARY BARRIER WALL

TRUCKS SHALL USE FLASHING YELLOW BEACON WHEN ENTERING AND EXITING LIVE TRAFFIC.

(1) REMOVE OR COVER WHEN ACCESS IS NOT NEEDED.

(2) WHEN INGRESS / EGRESS IS NOT IN USE, PLACE DRUMS WITH 100' SPACING ALONG THE LANE LINE OF THE ENTRANCE / EXIT OF THE INGRESS / EGRESS.



TRAFFIC CONTROL INGRESS/EGRESS WITHOUT BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15D47-03b

6

SDD 15D47-03b

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- FLASHING ARROW BOARD
- PCMS — PORTABLE CHANGEABLE MESSAGE BOARD

GENERAL NOTES

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

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

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

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

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

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

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

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

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

CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS.

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

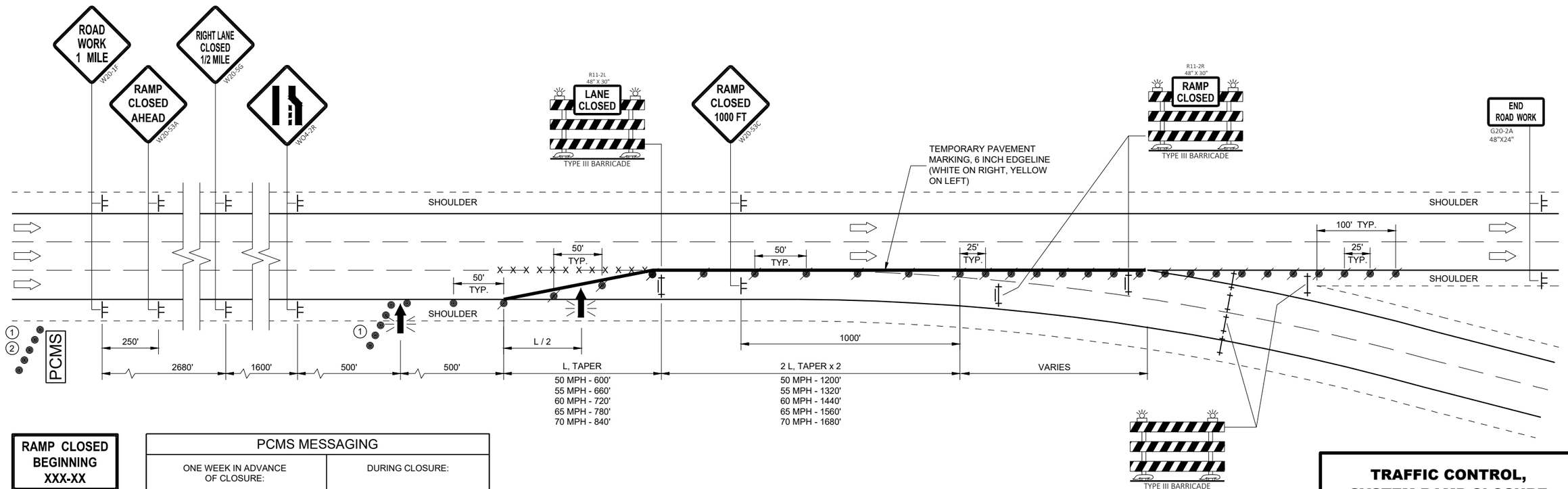
REMOVE ALL ARROW BOARDS AND DEVICES BEYOND THE SHOULDER WHEN THE WORK IS NOT IN PROGRESS.

REFER TO SDD 15C2 FOR SETTING DETOUR SIGNAGE.

ADD FREEWAY SHIELD AND DIRECTION IF APPLICABLE. COVER EXISTING RAMP AND LANE SIGNS IF APPLICABLE.

(1) 5 DRUMS SPACED AT 10 FOOT INTERVALS.

(2) DURING THE PRE-WARNING PERIOD, PLACE THE PCMS AT THE SYSTEM RAMP THAT IS TO BE CLOSED. DURING CLOSURE PERIOD, PLACE PCMS OR FMS AT LAST AVAILABLE EXIT IN ADVANCE OF SYSTEM RAMP CLOSURE. IF DYNAMIC MESSAGE SIGNS (DMS) ARE AVAILABLE, COORDINATE POTENTIAL SIGN MESSAGES WITH THE TRAFFIC MANAGEMENT CENTER (TMC).



SEE SDD 15C2 (SHEET "b"), DETAIL "D" "BARRICADES AND SIGNS FOR MAINLINE CLOSURES" PLACE BARRICADES TO FULLY SEAL OFF ROAD

RAMP CLOSED BEGINNING XXX-XX
G20-58

PCMS MESSAGING

ONE WEEK IN ADVANCE OF CLOSURE:

FRAME 1	FRAME 2
RAMP TO CLOSE	XXXDAY XX XX XX

DURING CLOSURE:

FRAME 1	FRAME 2
HWY XX RAMP CLOSED	USE ALT ROUTE

TRAFFIC CONTROL, SYSTEM RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

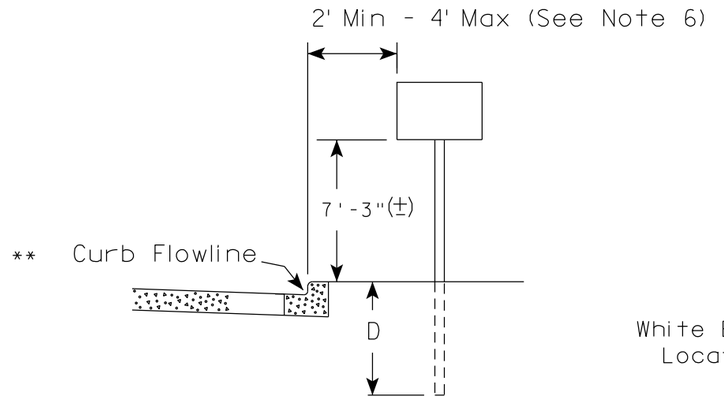
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SDD 15D49-02

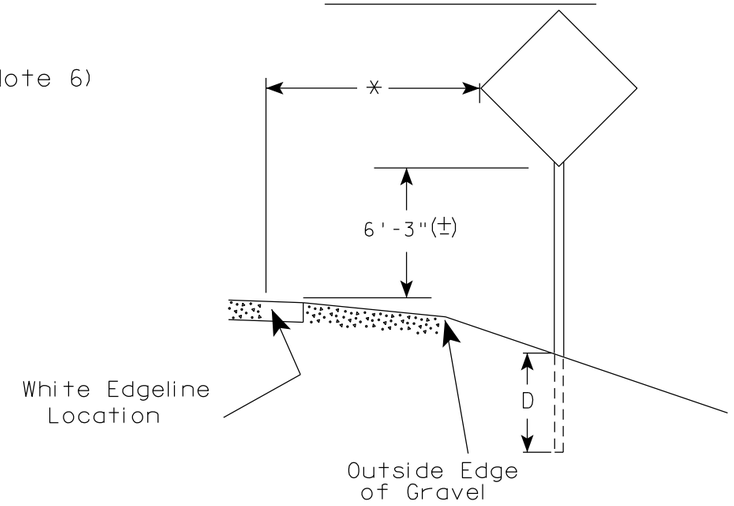
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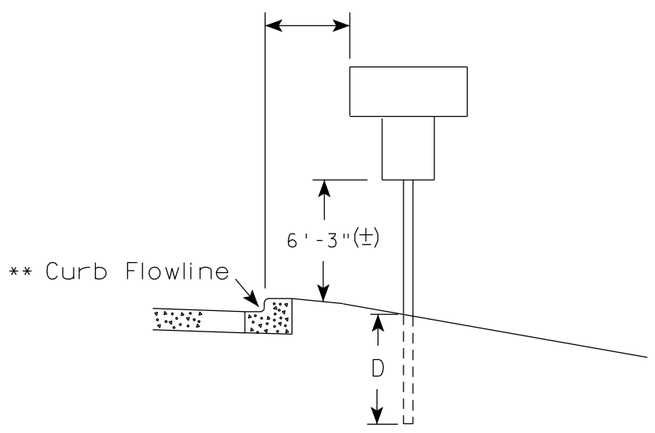
SDD 15D49-02

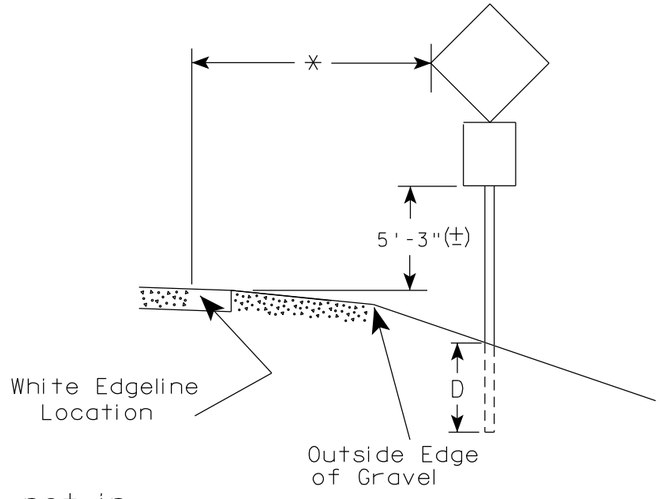
URBAN AREA



RURAL AREA (See Note 2)







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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. The (±) tolerance for mounting height is 3 inches.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.

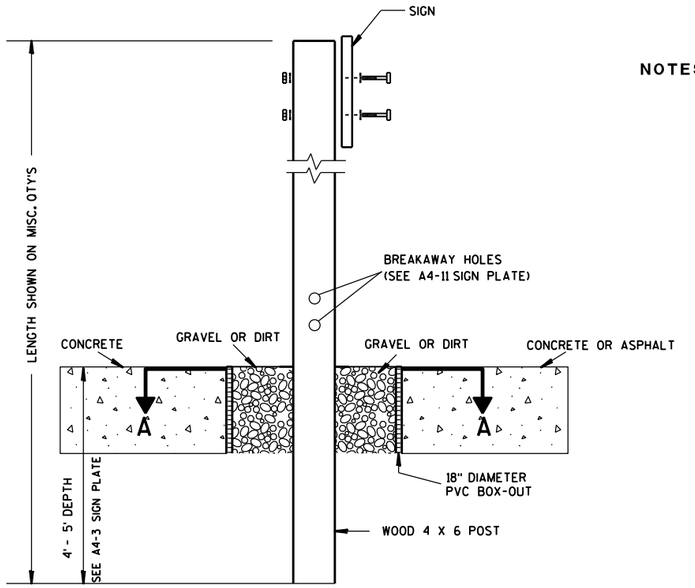
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

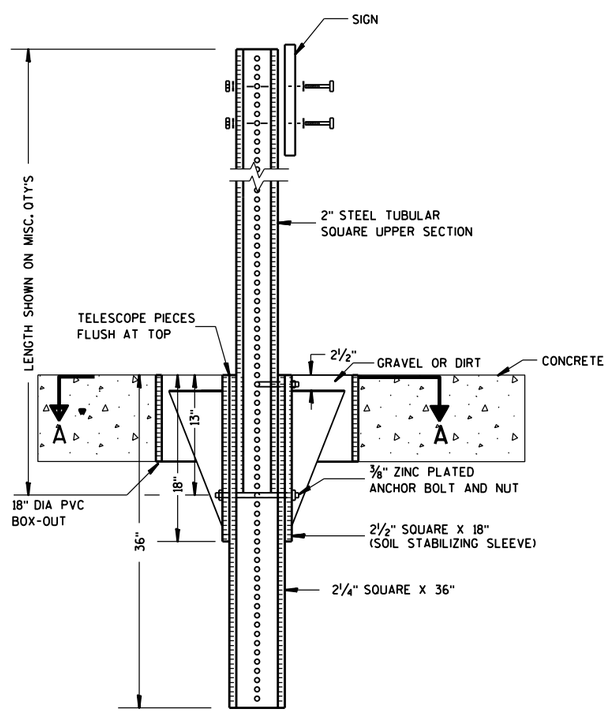
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 220	E



ELEVATION VIEW

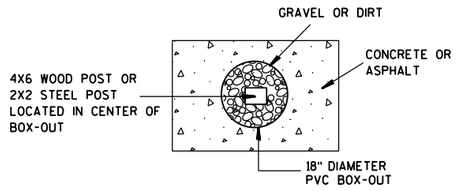
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

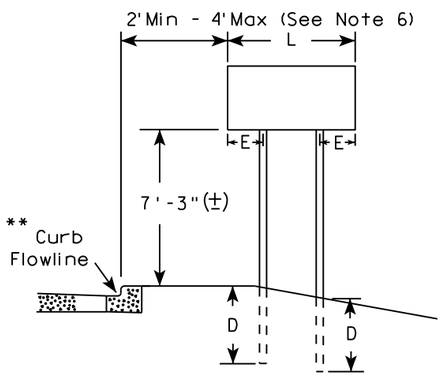
APPROVED Matthew R Rauch
for State Traffic Engineer

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

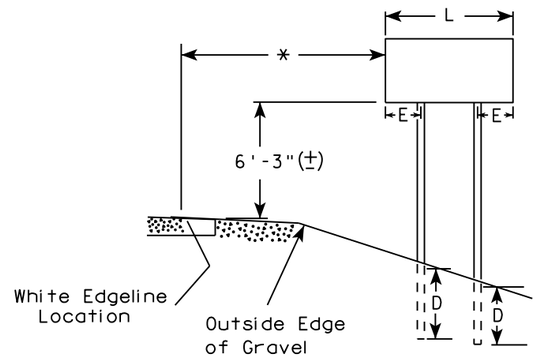
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

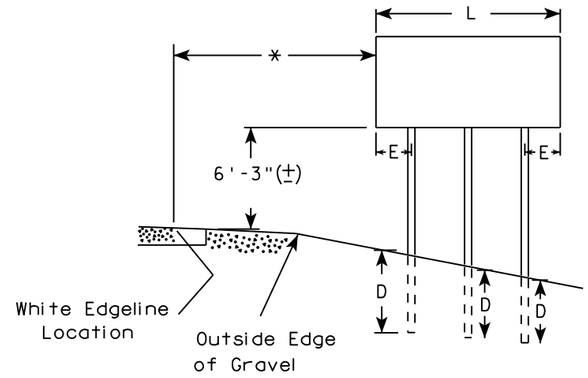
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

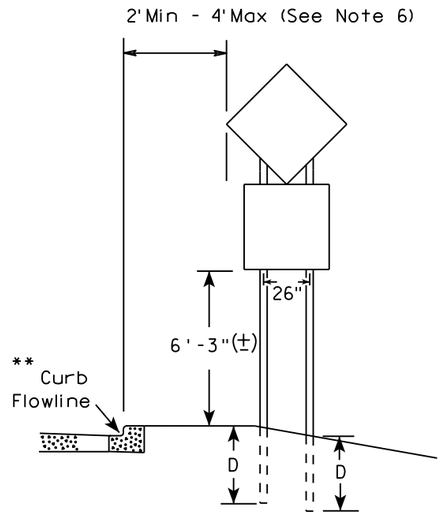
URBAN AREA



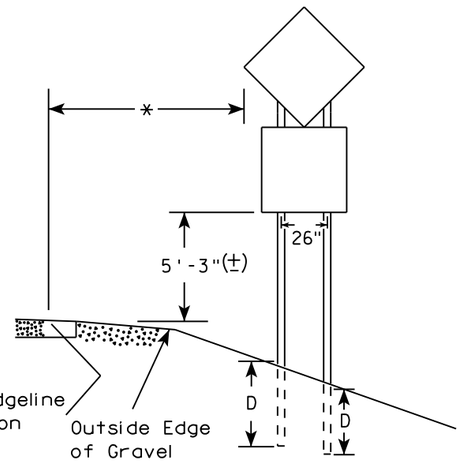
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

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"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) or 6'-3" (±) depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±).

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

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

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

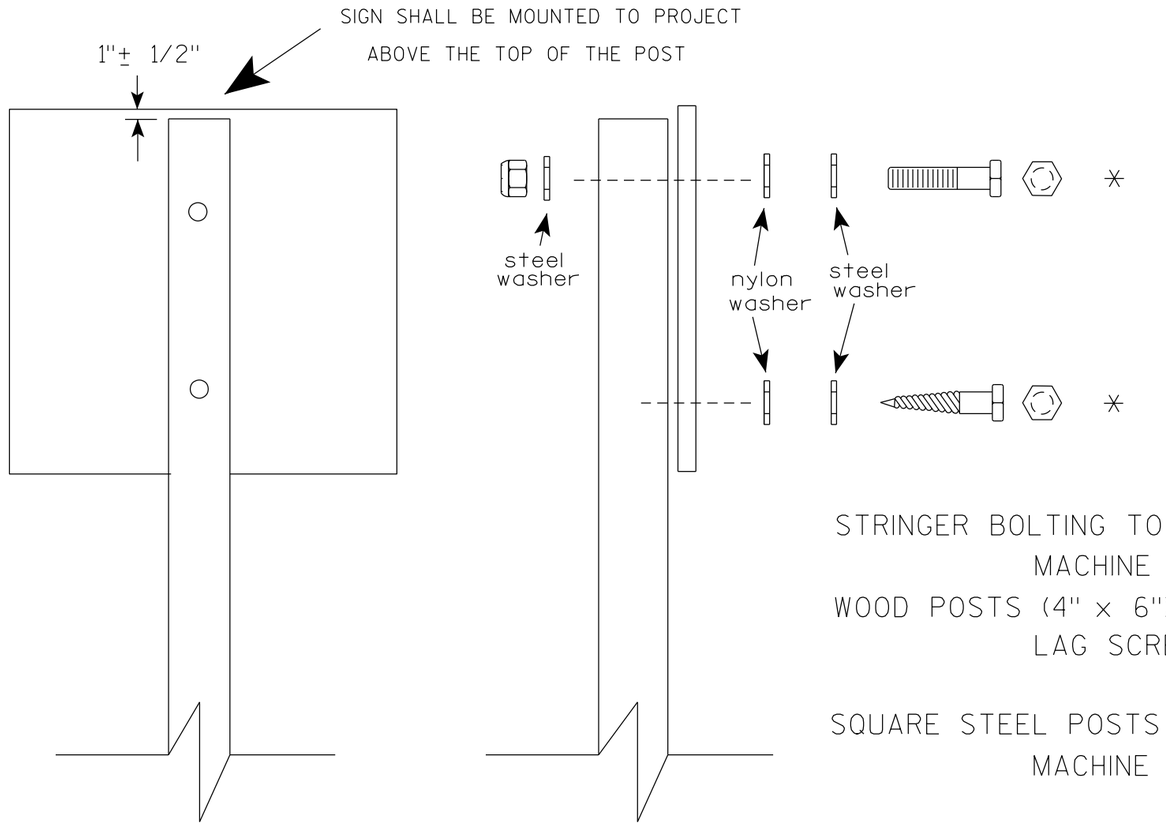
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 222	E



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

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

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

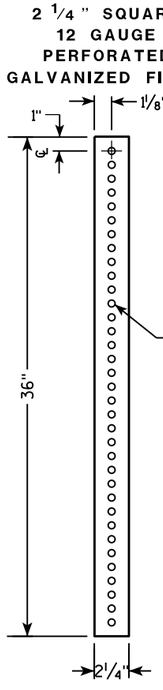
DATE 4/1/2020 PLATE NO. A4-8.9

PROJECT NO:

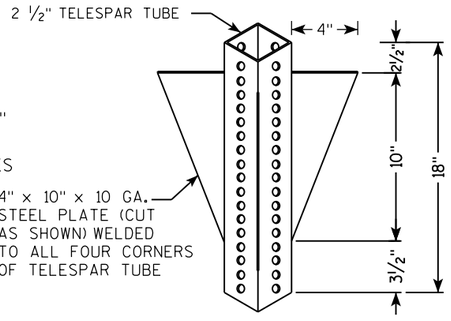
SHEET NO: 223 E

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

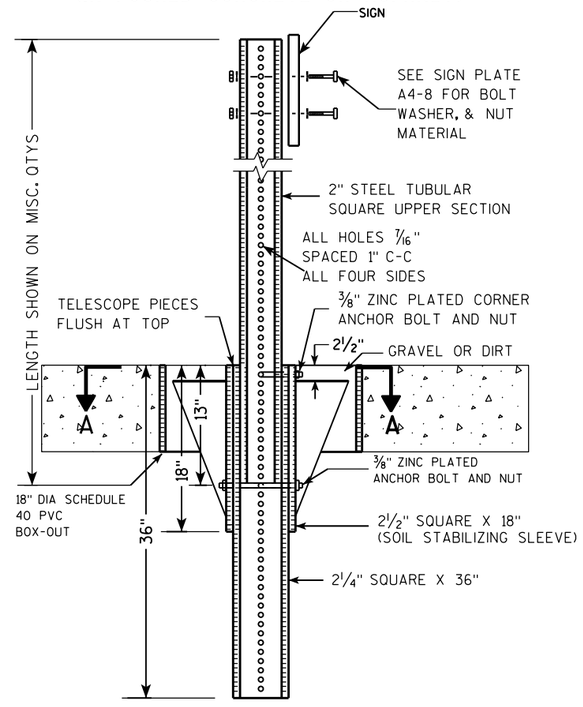
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



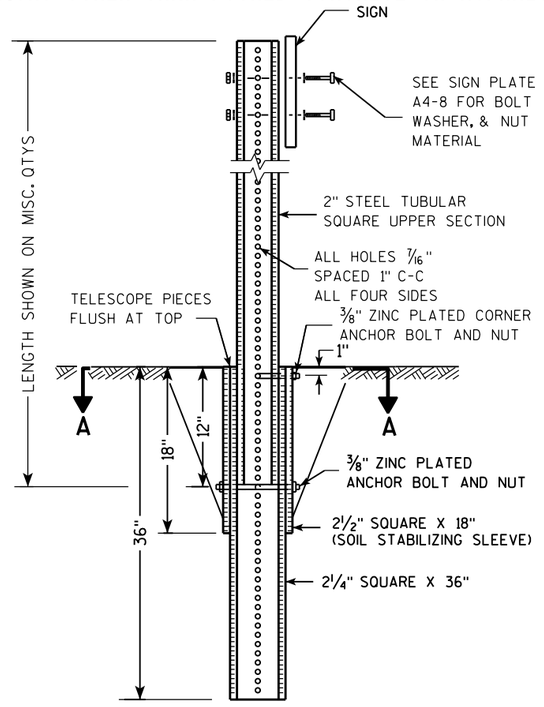
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

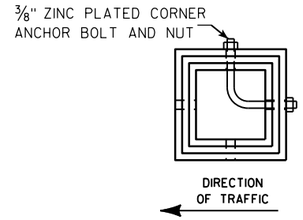


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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





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).

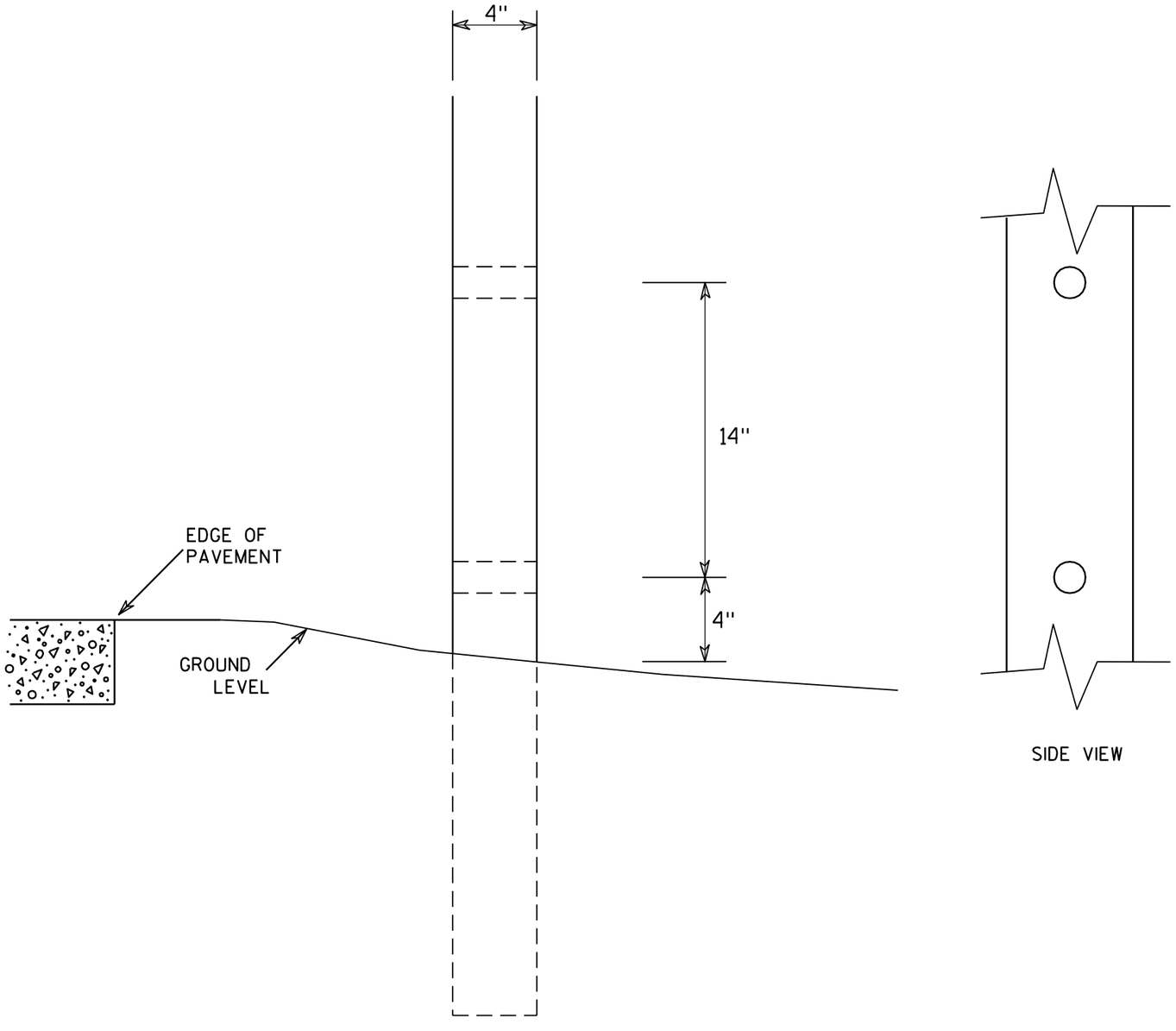
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 224 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



SIDE VIEW

GENERAL NOTES

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

7

7

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

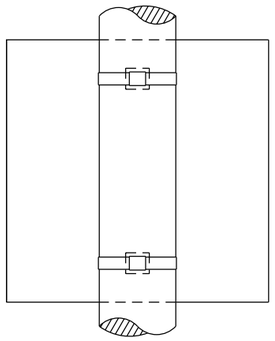
APPROVED Chester J Spang for State Traffic Engineer

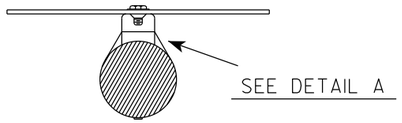
DATE 3/27/97 PLATE NO. A4-11.2

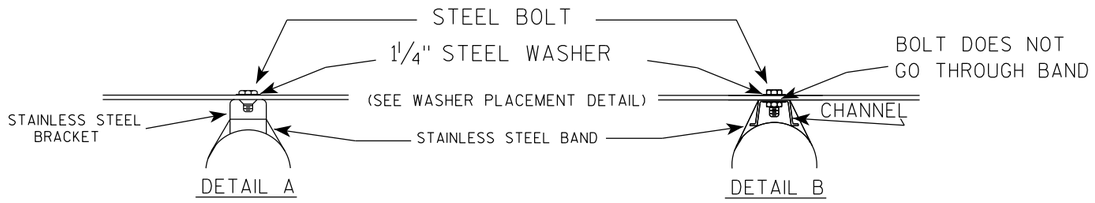
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 225	E

BANDING

SINGLE SIGN



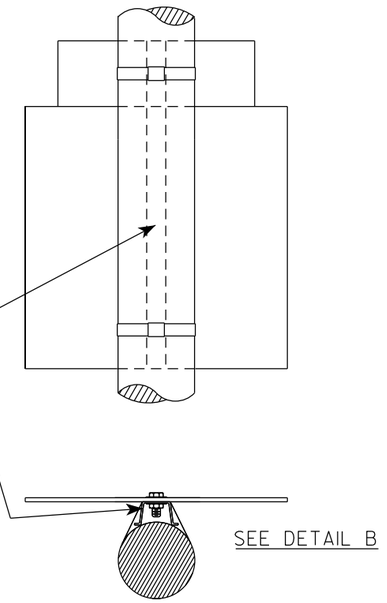




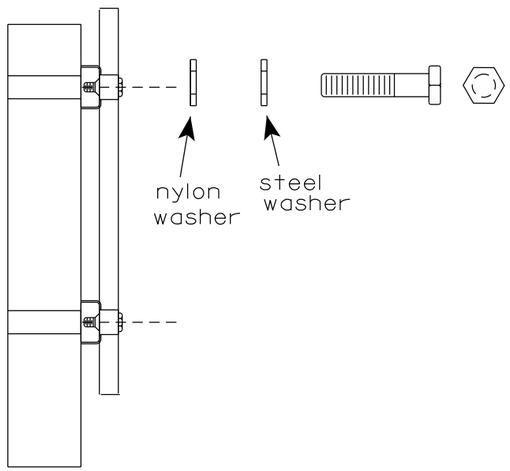
GENERAL NOTES

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 ¾" 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



WASHER PLACEMENT



WASHERS (ALL POSTS) -
1-1/4" O.D. X ⅜" I.D. X 1/16" STEEL
1-1/4" O.D. X ⅜" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

STANDARD SIGN
SIGN BANDING DETAILS

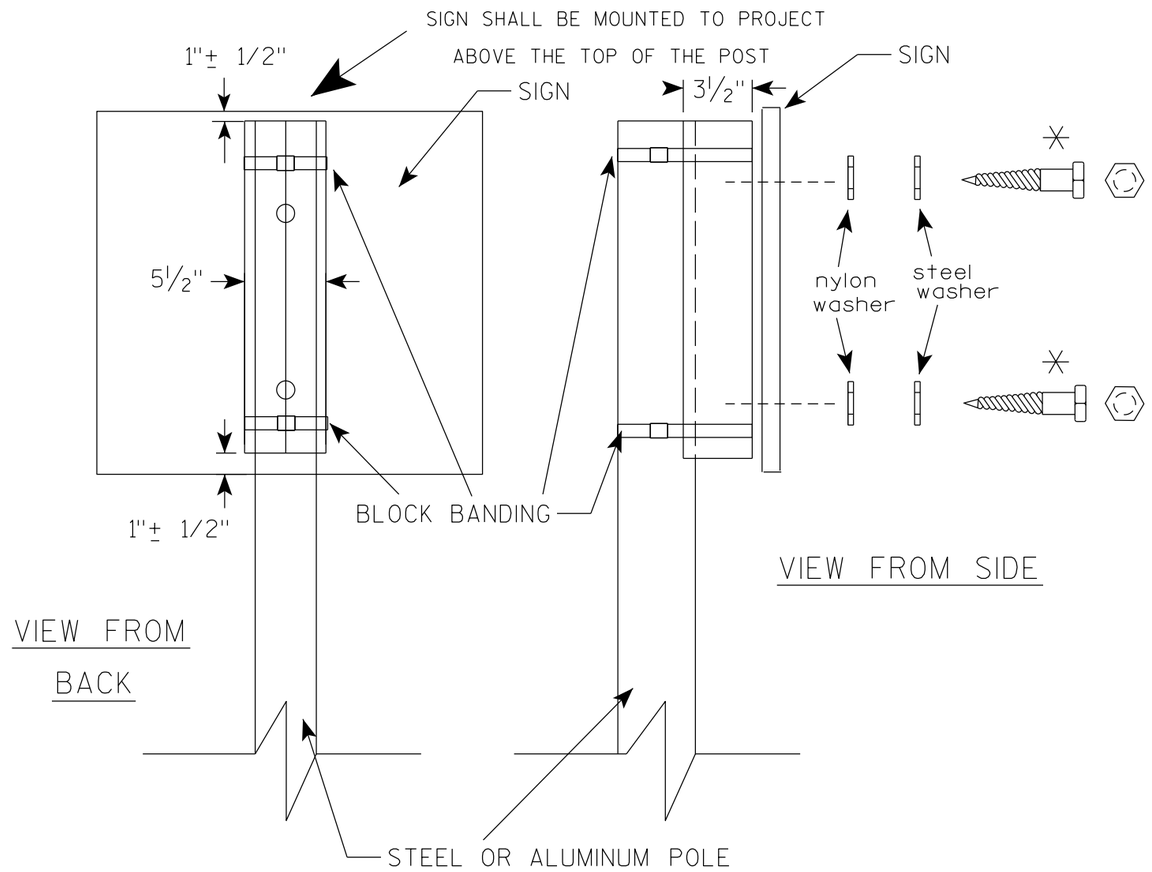
WISCONSIN DEPT OF TRANSPORTATION

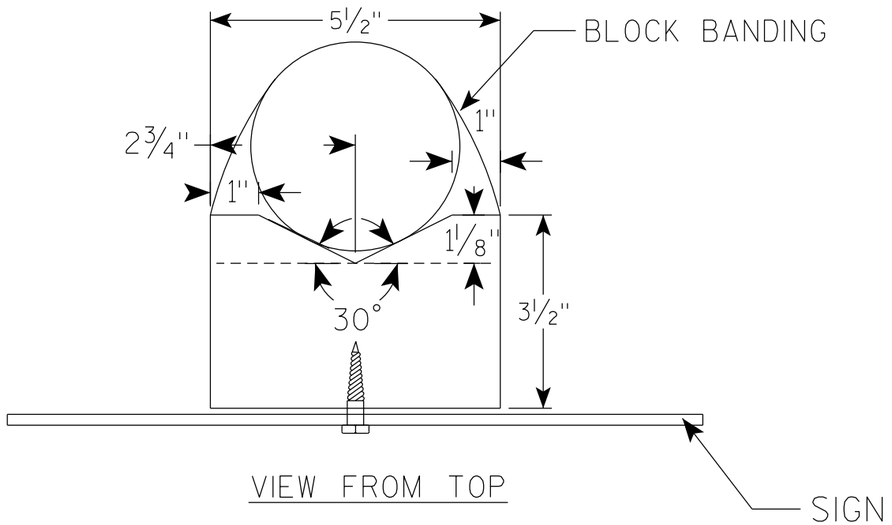
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 226	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$





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, ¾" 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 NORNALLY 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 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

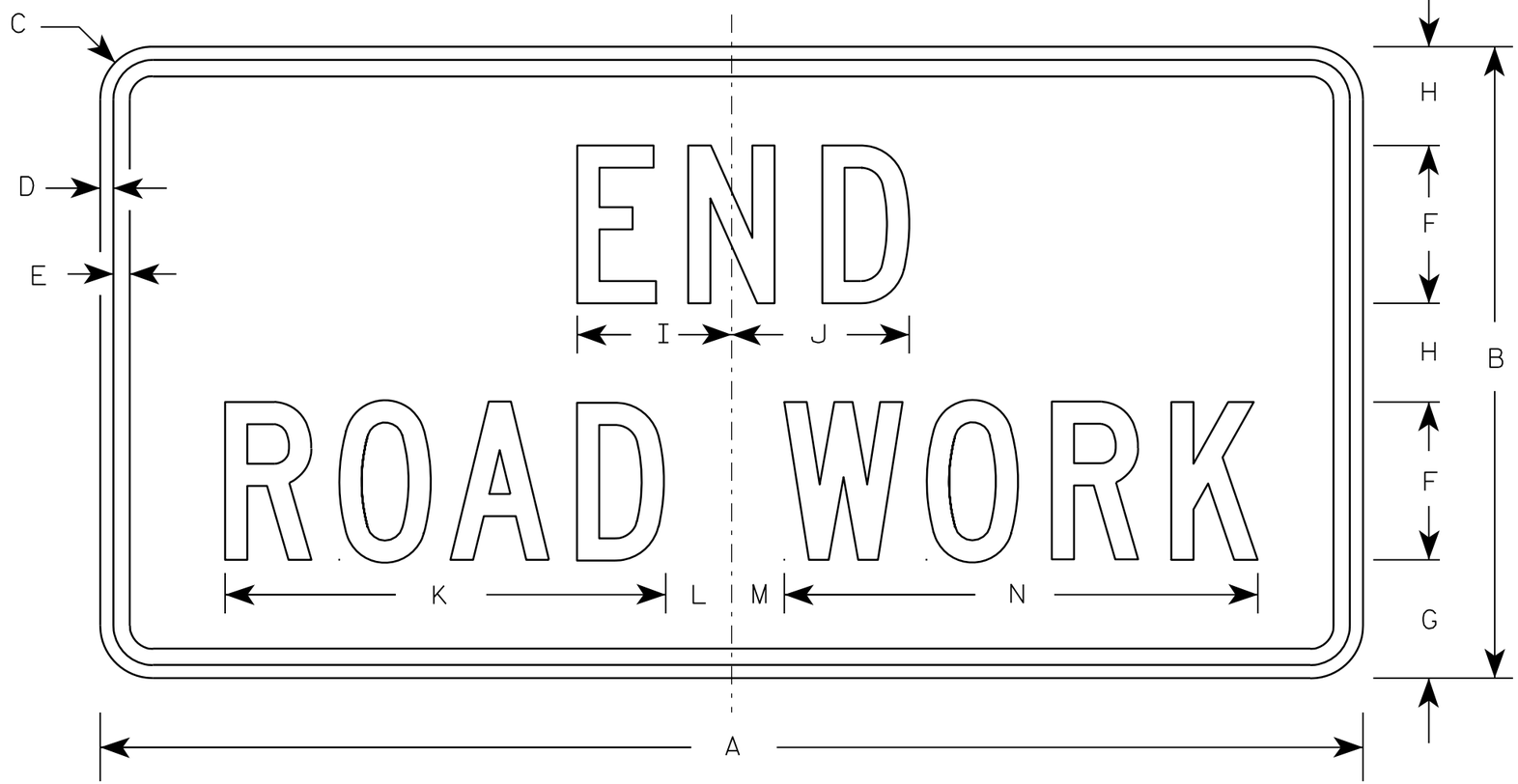
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 227 E



G20-2A

NOTES

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

Metric equivalent for this sign is:

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.	Area m2
1	36	18	1 1/8	3/8	1/2	4	3 3/4	2 1/2	4 1/8	4 1/8	11 1/8	2	1	12 1/8													4.5	0.41
2	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
3	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
4	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72
5	48	24	1 1/2	1/2	5/8	6	4 1/2	3 3/4	5 7/8	6 3/4	16 3/4	2 1/2	1 3/4	18 1/2													8.0	0.72

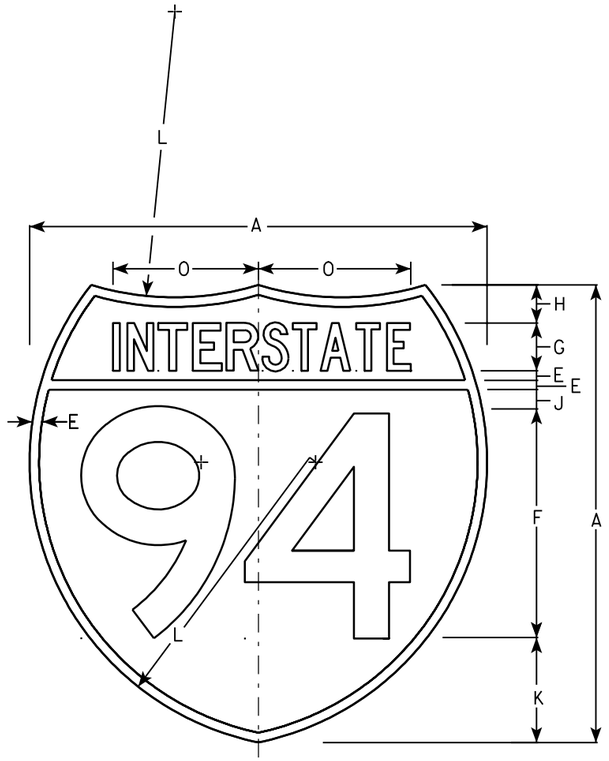
STANDARD SIGN
G20-2A

WISCONSIN DEPT OF TRANSPORTATION

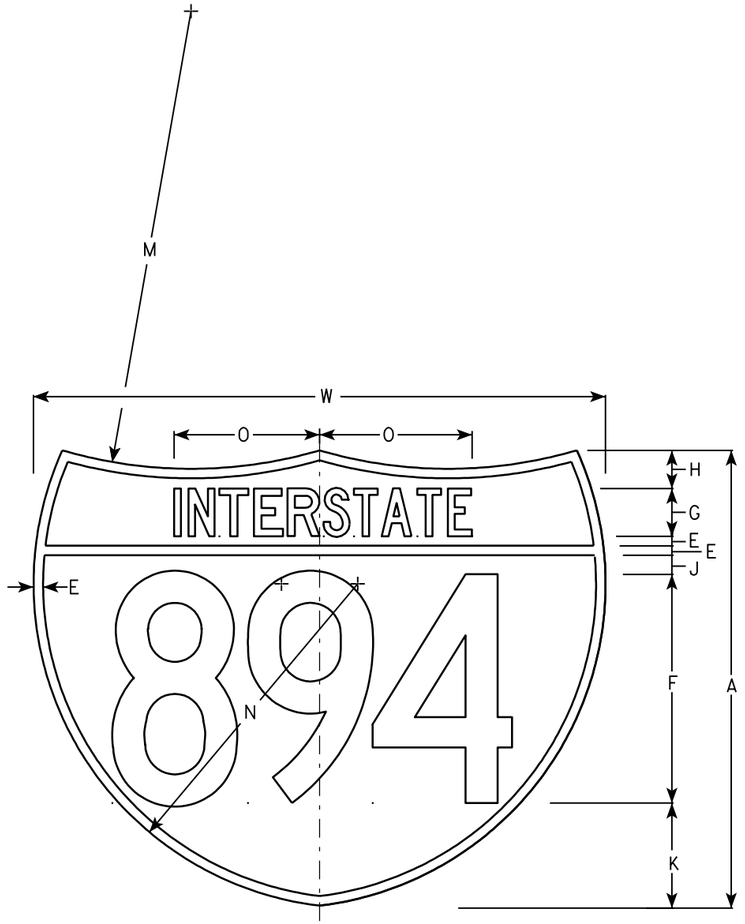
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/30/09 PLATE NO. G20-2A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 228	E



M1-1



M1-1A

NOTES

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

Metric equivalent for these signs are:

SIZE	M1-1	SIZE	M1-1A
1			
2	600 mm X 600 mm	2	600 mm X 750 mm
3	900 mm X 900 mm	3	900 mm X 1125 mm
4	900 mm X 900 mm	4	900 mm X 1125 mm
5	900 mm X 900 mm	5	900 mm X 1125 mm

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.	M1-1 Area m2	M1-1A Area m2
1																													
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91	.36	.46
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79	.81	1.05

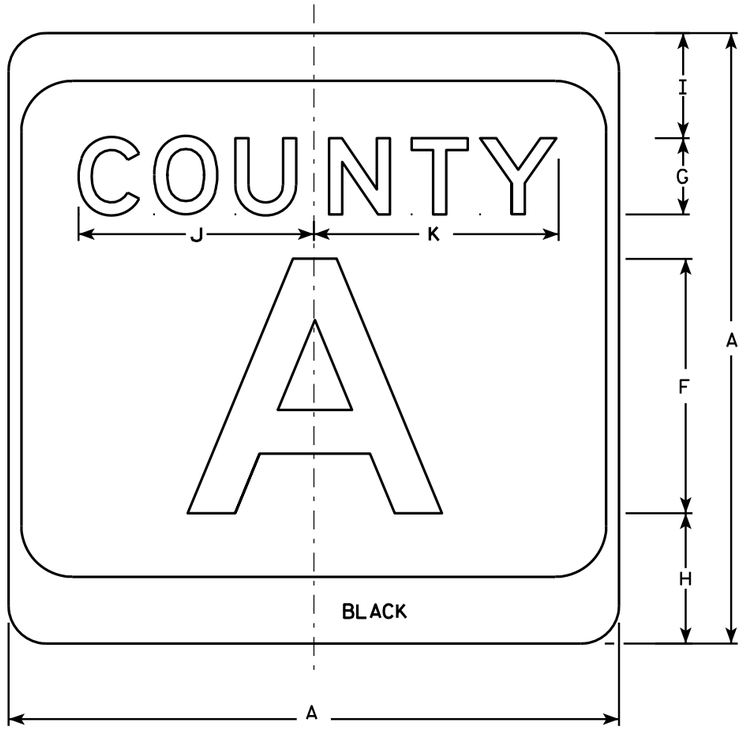
INTERSTATE ROUTE MARKER
M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

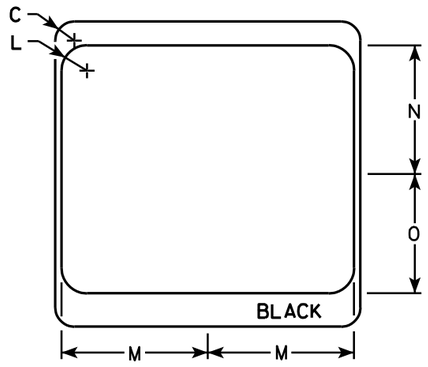
APPROVED Matthew R Rauch
for State Traffic Engineer

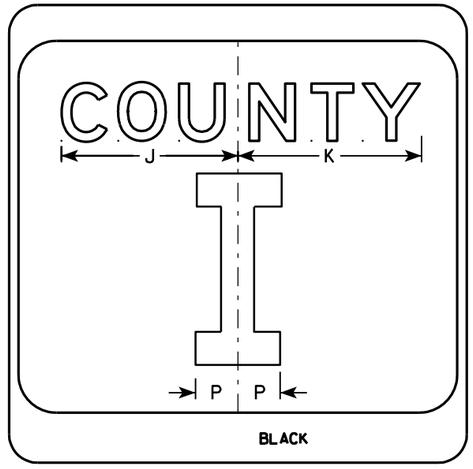
DATE 08/23/05 PLATE NO. M1-1.8

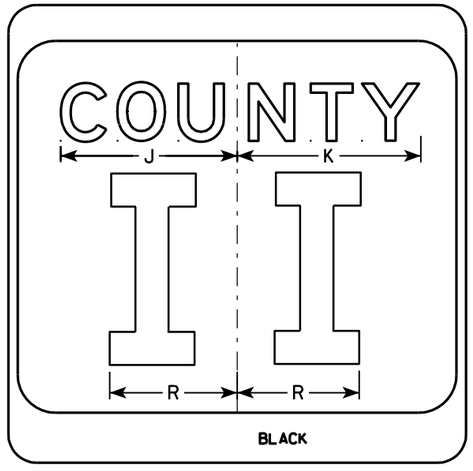
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 229	E



M1-5A







NOTES

1. Sign is Type II - see Note 7 - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White & Black - See Note 7
   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. Message Series E for 1 letter.
   Message Series D for 2 letters unless message is too big then Series C.
   Message Series C for 3 letters unless message is too big then Series B.
6. Substitute appropriate letters & optically center to achieve proper balance.
7. Permanent Signs
   Background - Type H Reflective
   Detour or temporary Signs
   Background - Reflective

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			10	3	5 1/8	4 1/8	9 1/4	9 5/8	2	11 1/2	10 1/8	9 3/8	2 1/4		6 5/8									4.0
3	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
4	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0
5	36		2 1/4			16	4	7 5/8	5 5/8	12 1/4	12 7/8	3	17 1/8	15 1/4	14	3 3/8		10									9.0

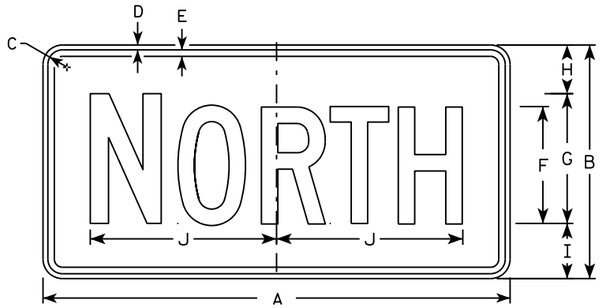
CTH MARKER
M1-5A FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

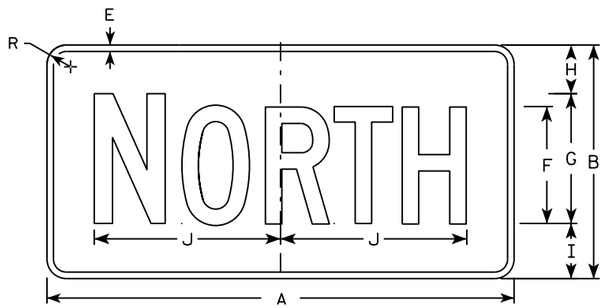
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/27/11 PLATE NO. M1-5A.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 230	E



M3-1
MM3-1
MP3-1



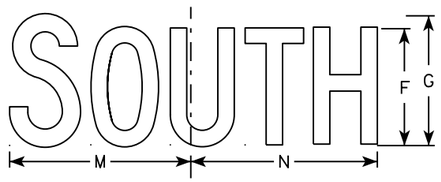
MB3-1
MK3-1
MN3-1



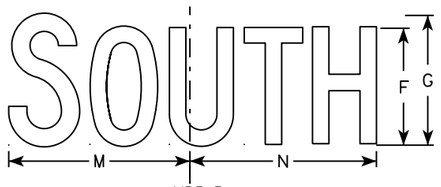
M3-2
MM3-2
MP3-2



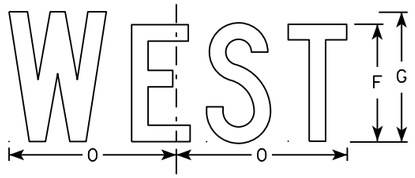
MB3-2
MK3-2
MN3-2



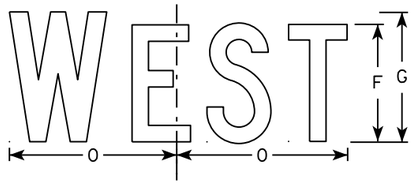
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M3-1 thru M3-4 Background - White
   Message - Black
   MB3-1 thru MB3-4 Background - Blue
   Message - White
   MK3-1 thru MK3-4 Background - Green
   Message - White
   MM3-1 thru MM3-4 Background - White
   Message - Green
   MN3-1 thru MN3-4 Background - Brown
   Message - White
   MP3-1 thru MP3-4 Background - White
   Message - Blue
6. Note the first letter of each direction is larger than the remainder of the message.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24	12	1 1/8	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4			1 1/2									2.00
3	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
4	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5
5	36	18	1 1/8	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13			1 1/2									4.5

STANDARD SIGNS
M3-1 thur M3-4
SERIES

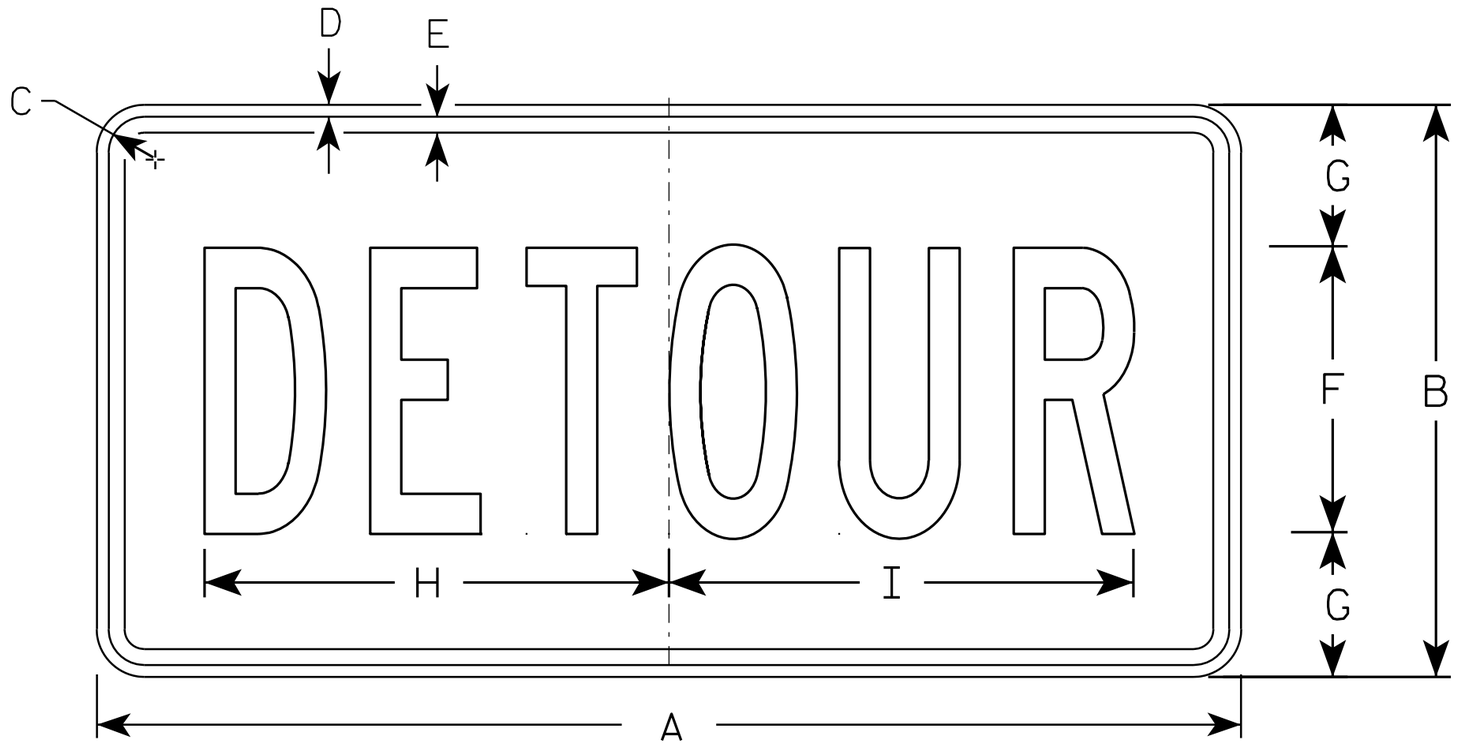
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

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

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



M4-8

NOTES

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

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

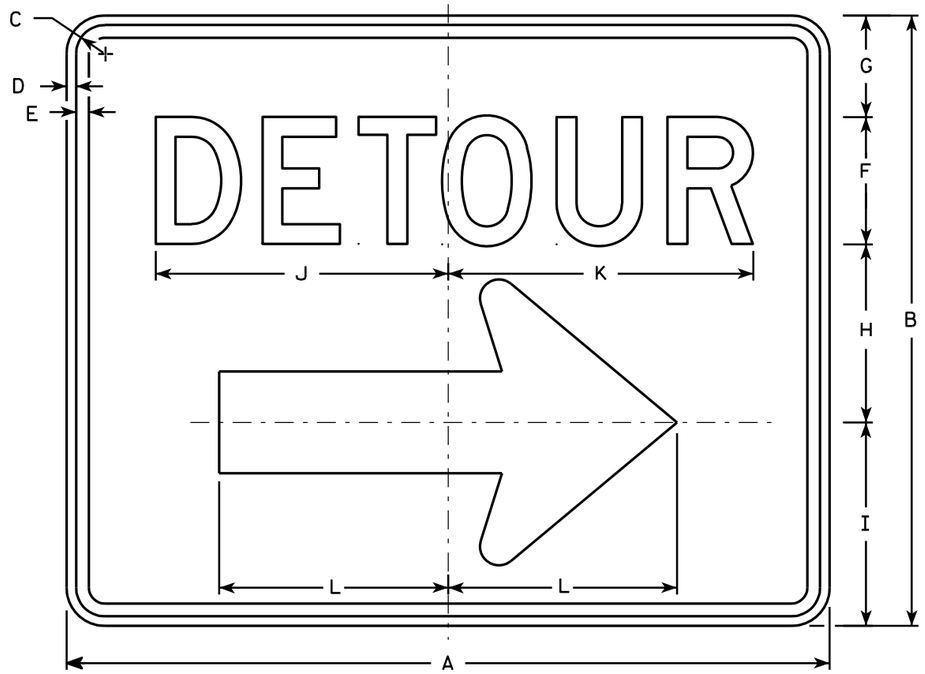
STANDARD SIGN
M4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

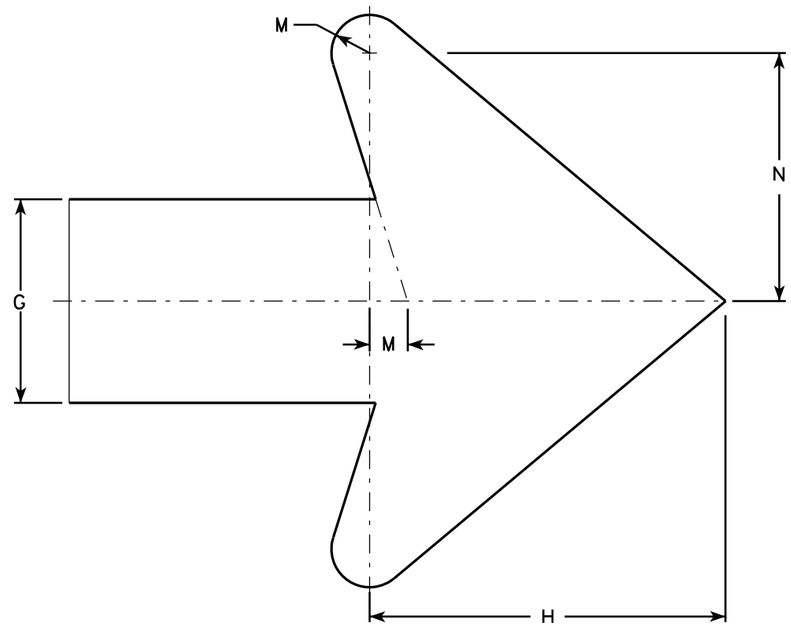
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 232	E



M4-9R

NOTES

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



Arrow Detail

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

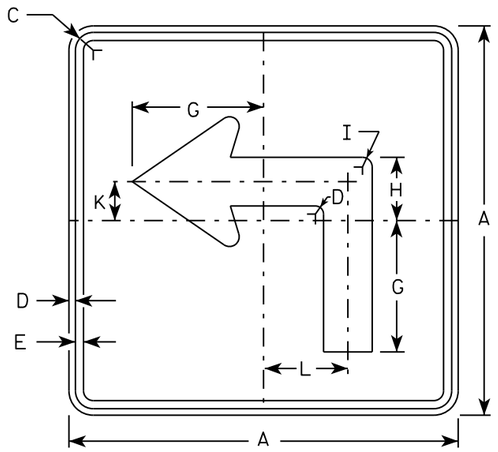
STANDARD SIGN
M4-9 R & L

WISCONSIN DEPT OF TRANSPORTATION

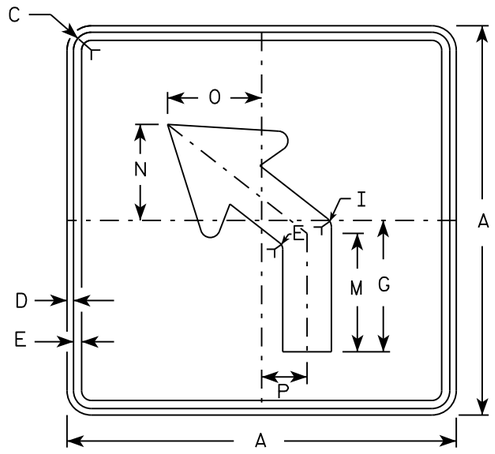
APPROVED Matthew R Rauch
for State Traffic Engineer

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

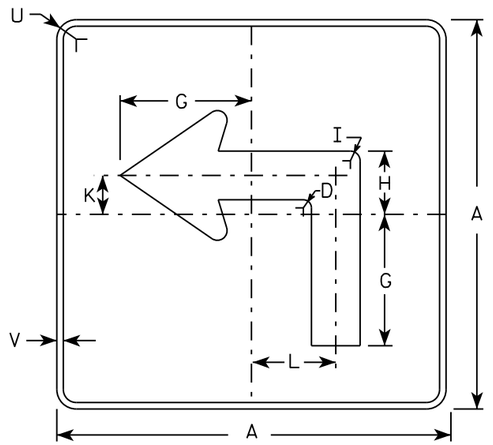
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 233 | E



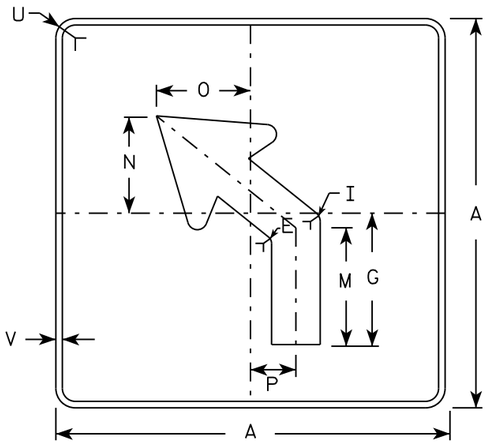
M5-1L
MM5-1L
MO5-1L
MP5-1L



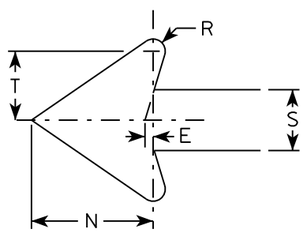
M5-2L
MM5-2L
MO5-2L
MP5-2L



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



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



NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. 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
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White - Type H Reflective
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

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

STANDARD SIGN
M5-1 & M5-2

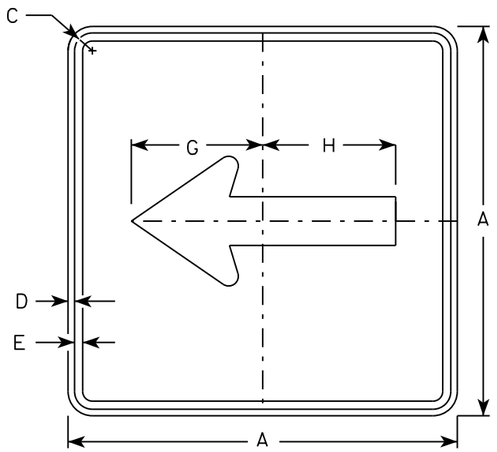
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

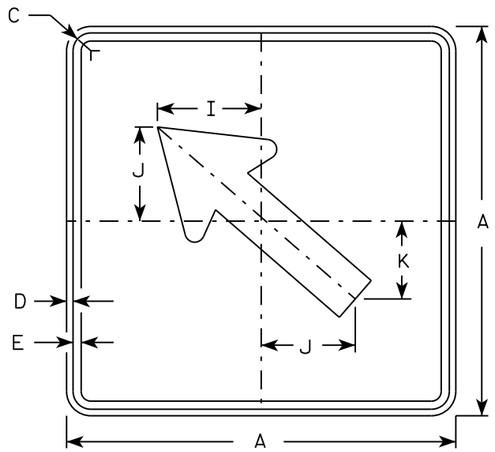
DATE 10/15/15 PLATE NO. M5-1.13

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

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M51.DGN PLOT DATE : 01-DEC-2015 18:07 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



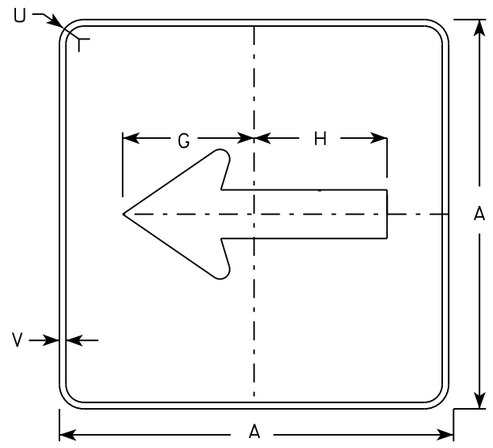
M6-1
MM6-1
MO6-1
MP6-1



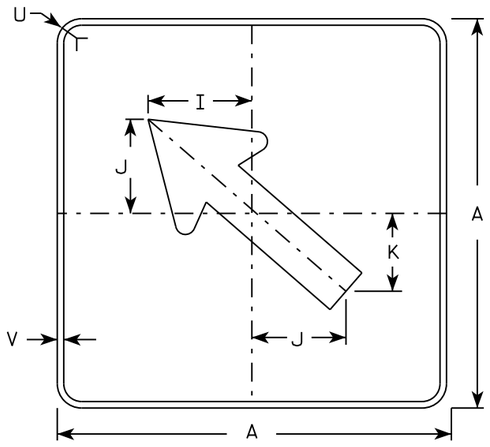
M6-2
MM6-2
MO6-2
MP6-2

NOTES

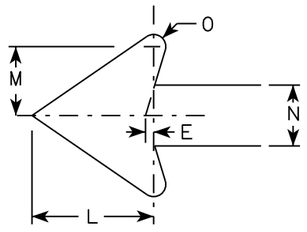
1. Signs are Type II - Type H except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 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



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



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



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

STANDARD SIGN
M6-1 & M6-2
SERIES

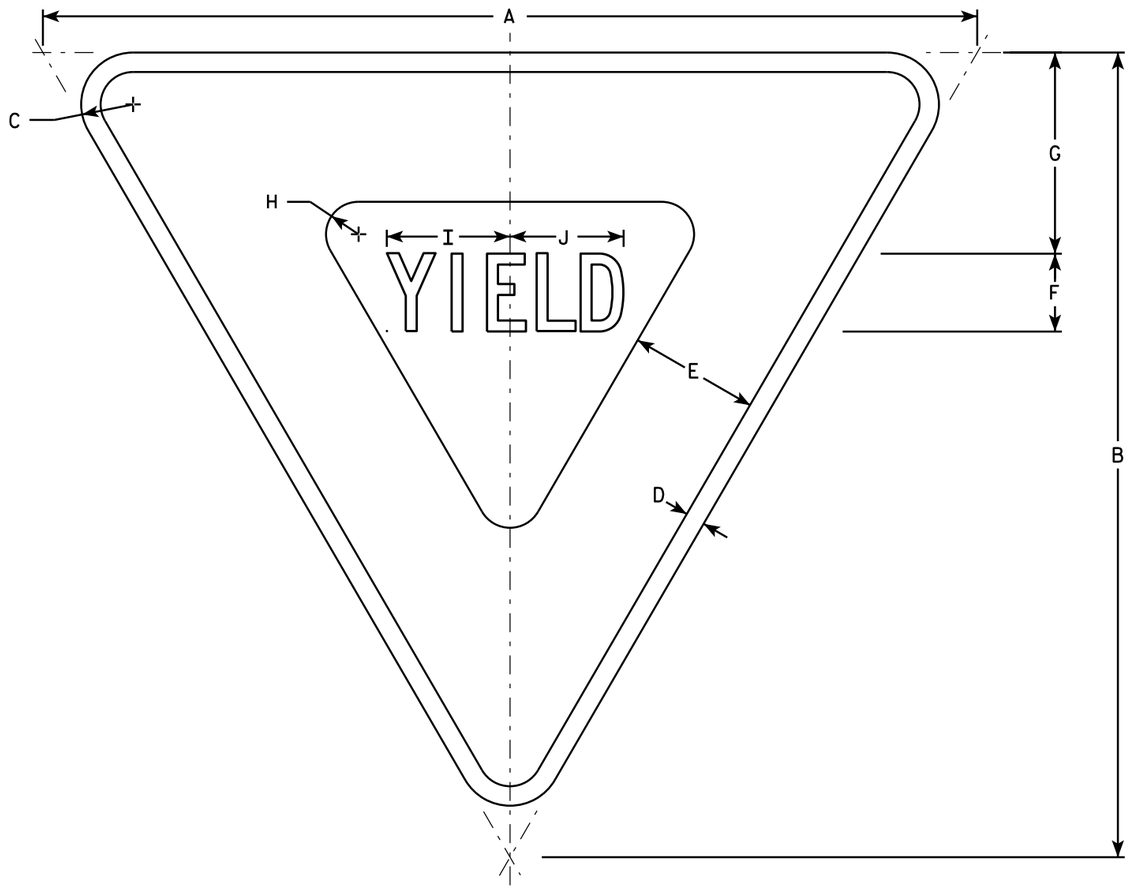
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/15/15 PLATE 235 M6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M61.DGN PLOT DATE : 01-DEC-2015 17:57 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

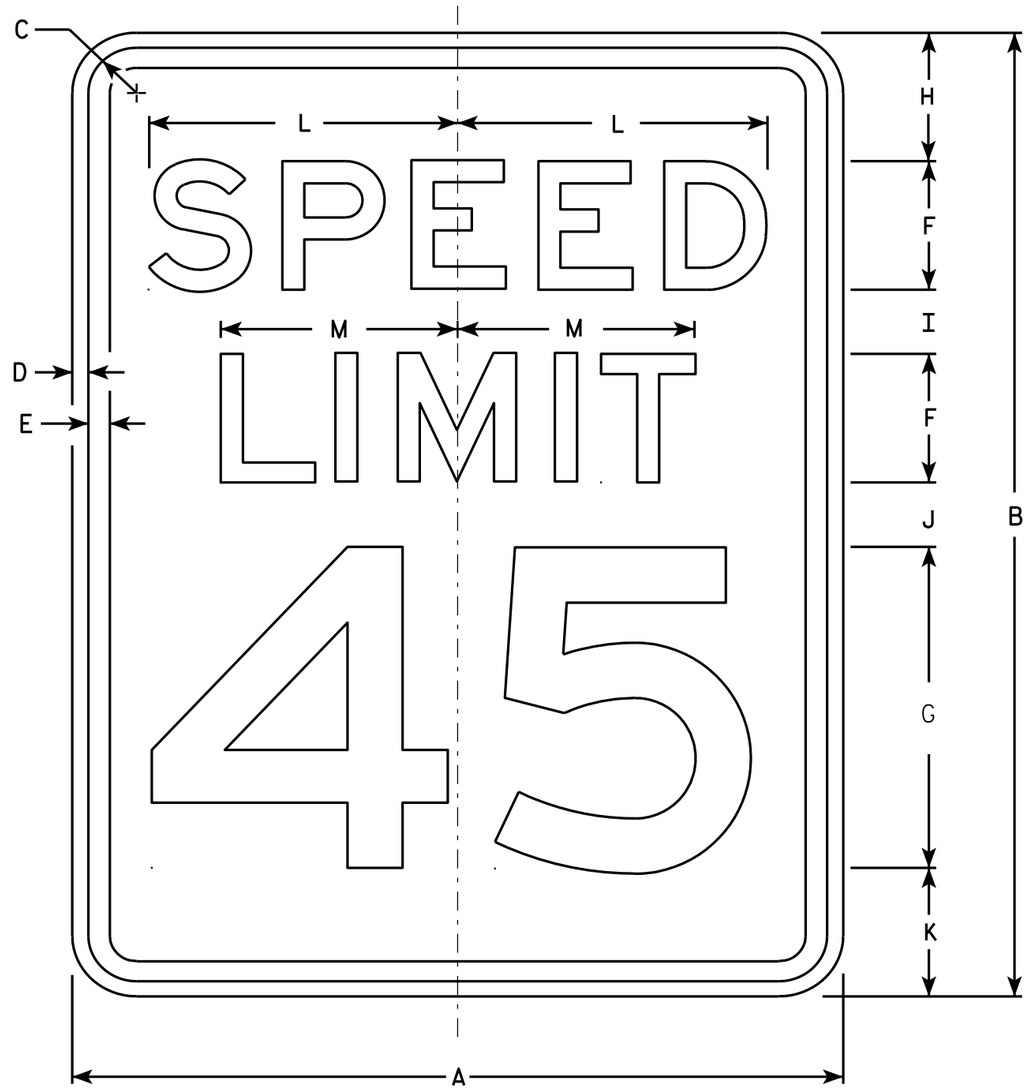
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R2-1

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/8	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/8	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 3/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 3/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	2 1/4	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

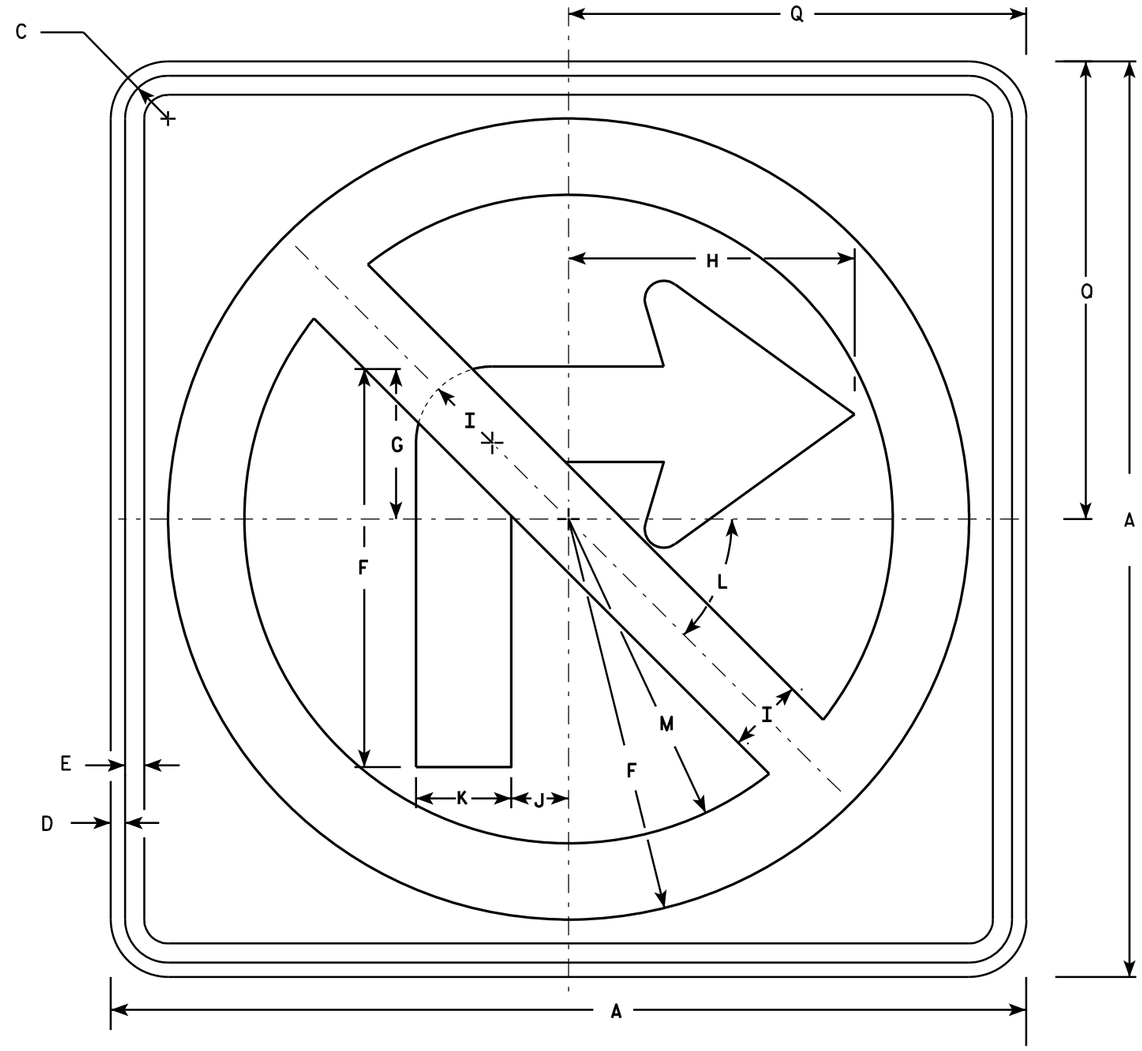
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

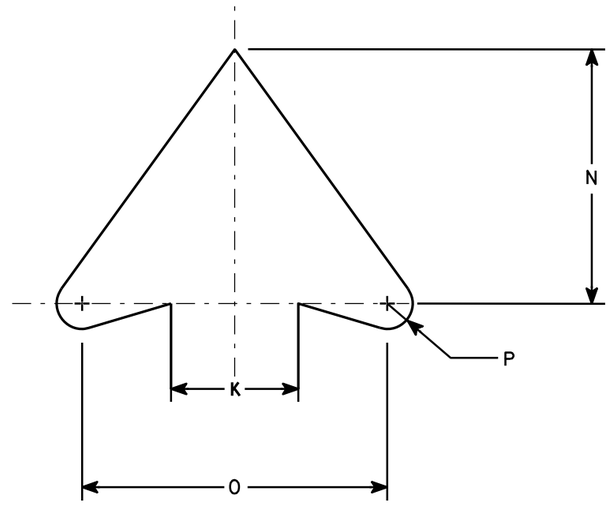
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 237 | E



R3-1

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45	8 1/2	5	6	1/2	12										4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2	12										4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45	12 3/4	7 1/2	9	3/4	18										9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4	18										9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

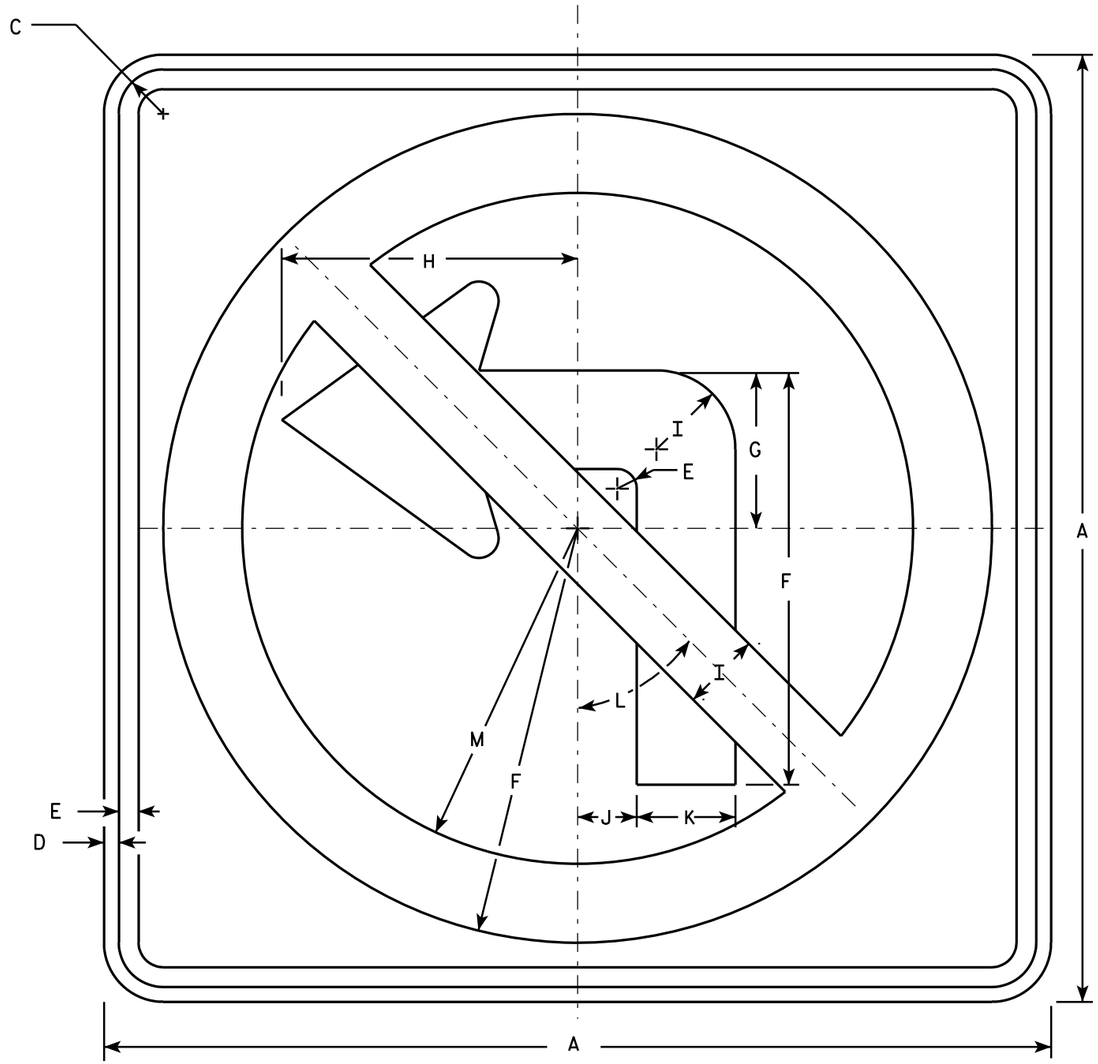
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

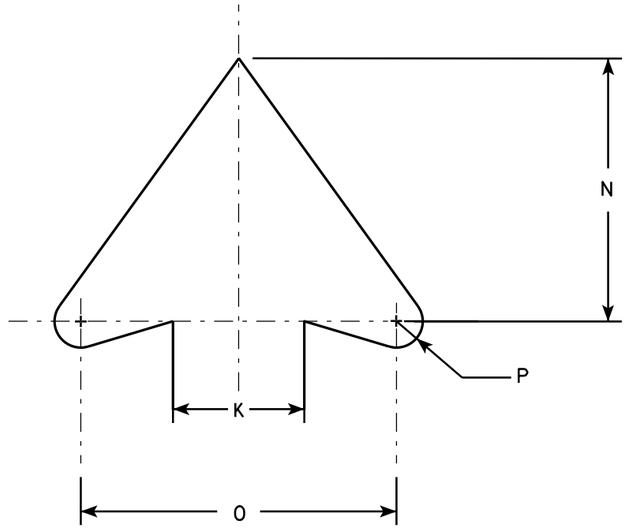
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 238	E



R3-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. Border & Arrow are non reflective black, the circle with diagonal bar is reflective red.



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2S	24		1 1/8	3/8	1/2	10 1/2	4	7 1/2	2	1 1/2	2 1/2	45°	8 1/2	5	6	1/2											4.0
2M	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
3	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
4	36		1 5/8	5/8	3/4	15 3/4	6	11 1/4	3	2 1/4	3 3/4	45°	12 3/4	7 1/2	9	3/4											9.0
5	48		2 1/4	3/4	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

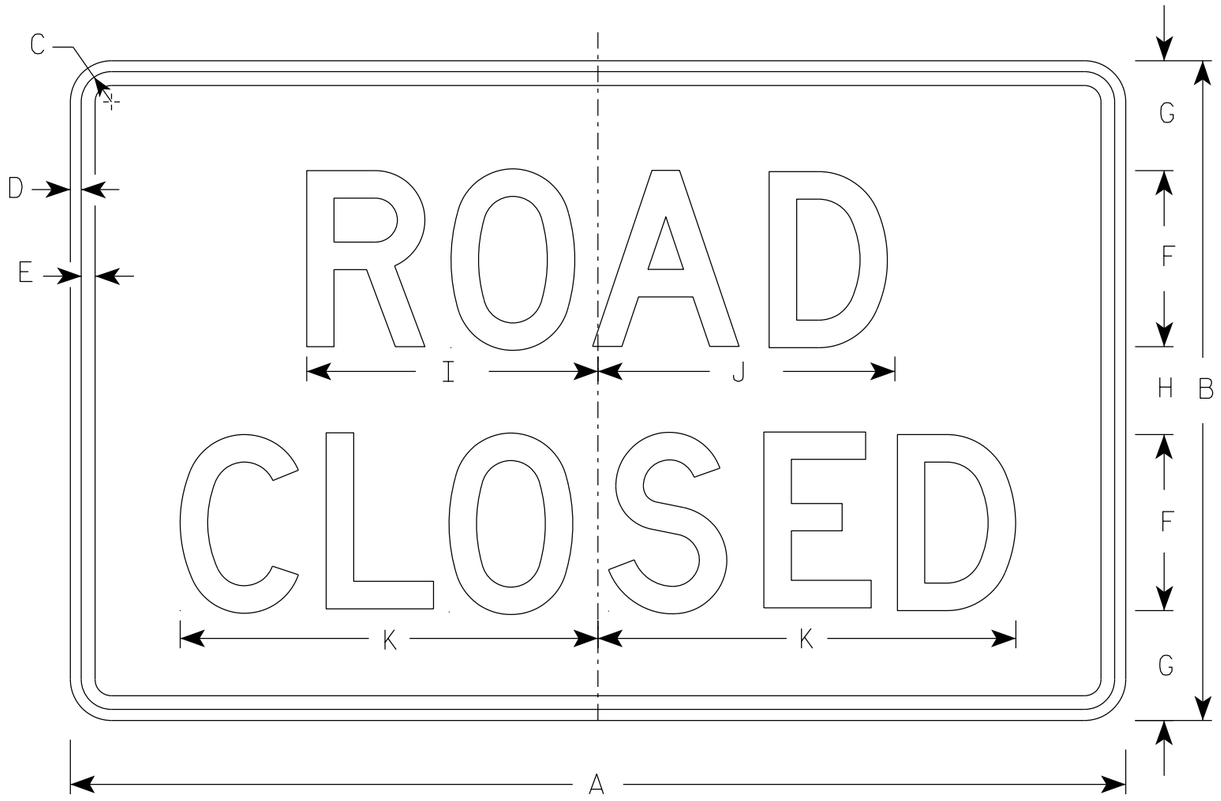
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

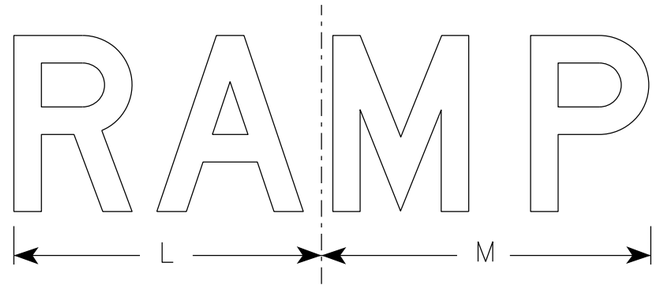
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 239 | E



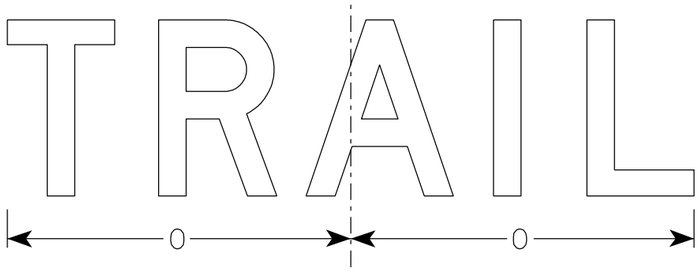
R11-2

NOTES

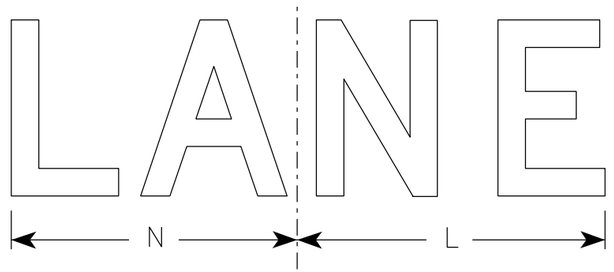
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2T



R11-2L

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

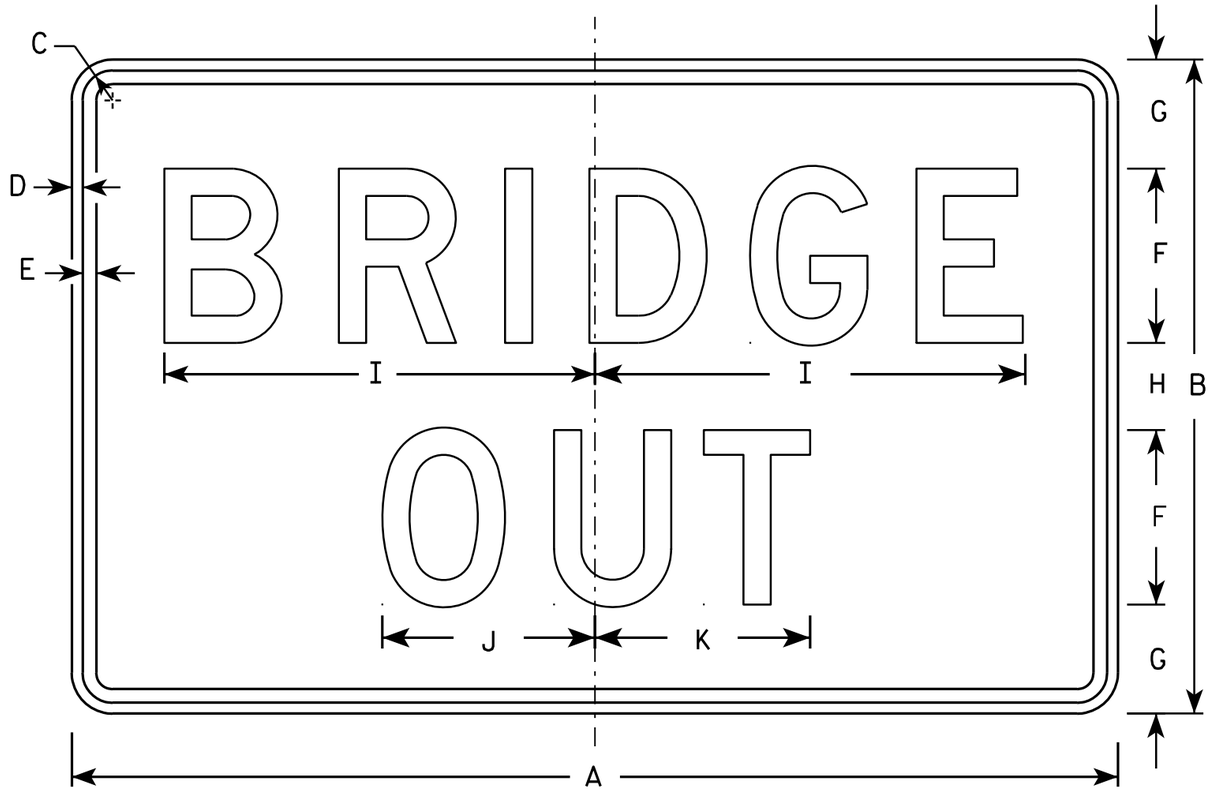
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/29/2021 PLATE NO. R11-2.11

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 240	E



R11-2B

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	19 3/4	9 3/4	9 7/8																10.0

STANDARD SIGN
R11-2B

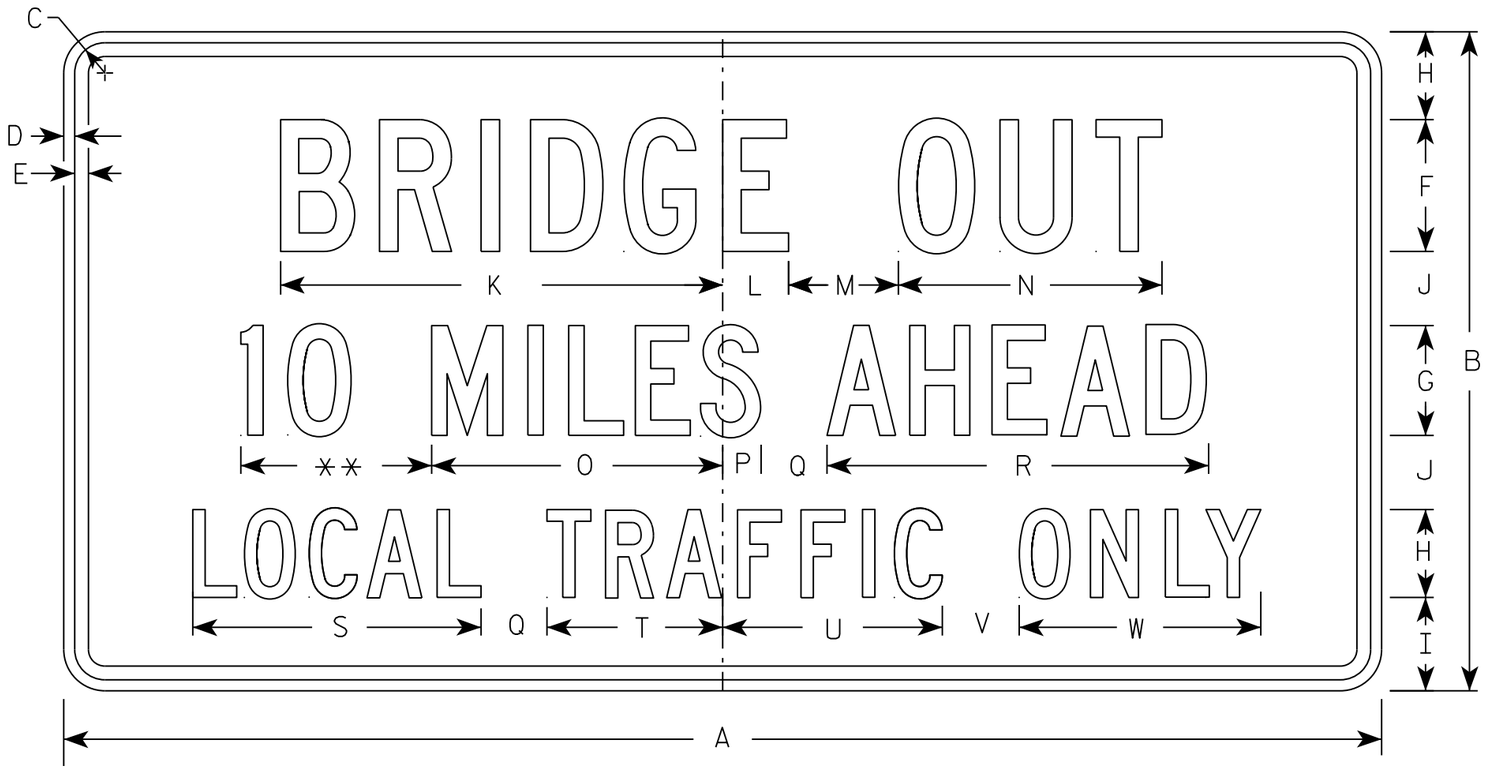
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-2B.2

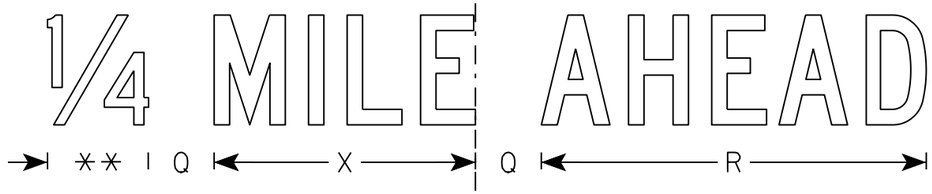
PROJECT NO:

SHEET NO: 241 E



R11-3B

** See Note 5



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.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36	18	1 3/8	1/2	5/8	4	3	2 1/2	2	2	13 1/4	2 1/4	3	8	8	1 1/2	2	10 3/4	8 3/8	4 3/4	6 1/2	2	6 3/4	7 1/8			4.5
2S	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	4 1/4	3 3/8	20 1/8	3	5	12	13 1/4	1 3/4	3	17 3/8	13 1/8	8	10	3 1/2	11	11 7/8			12.5
3																											
4																											
5																											

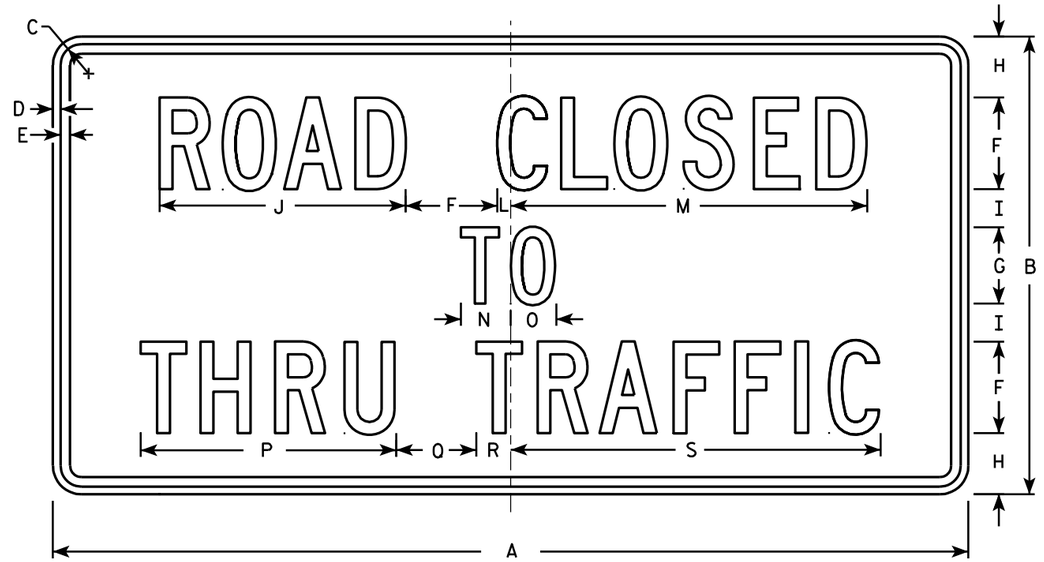
STANDARD SIGN
R11-3B

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. R11-3B.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 242 | E



R11-4

NOTES

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

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	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
2M	60	30	1 3/8	1/2	5/8	6	5	4	2 1/2	16 1/8		7/8	23 3/8	3 1/4	3	16 3/4	5 1/4	2 1/4	24 1/4								12.5
3																											
4																											
5																											

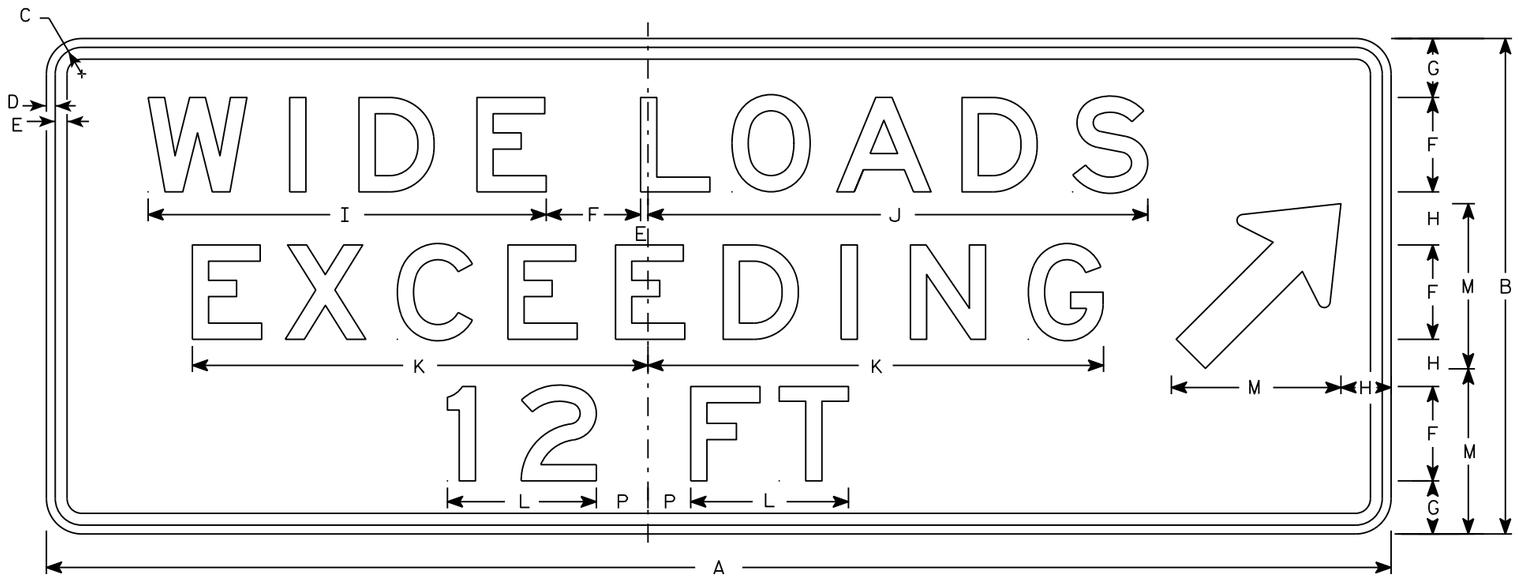
STANDARD SIGN
R11 - 4

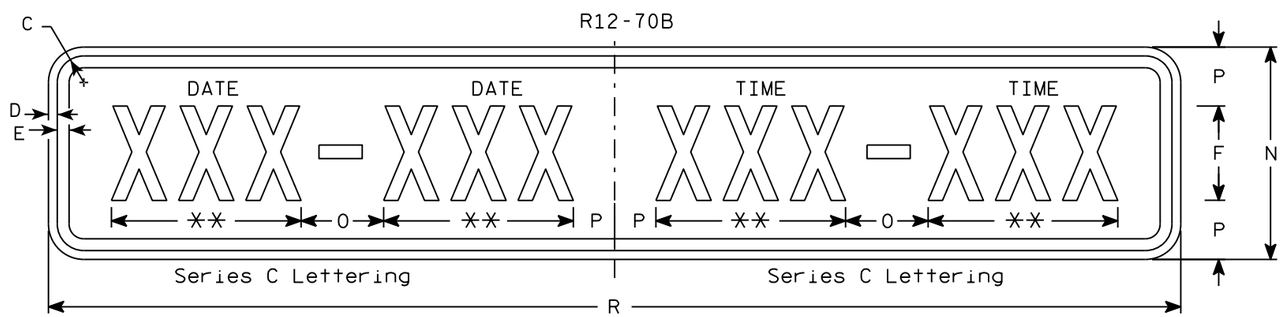
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 4/1/11 PLATE NO. R11-4.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 243 | E





R12-70C

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

NOTES

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

** Substitute appropriate message, optically center message

TYPICAL SIGN
R12-70B

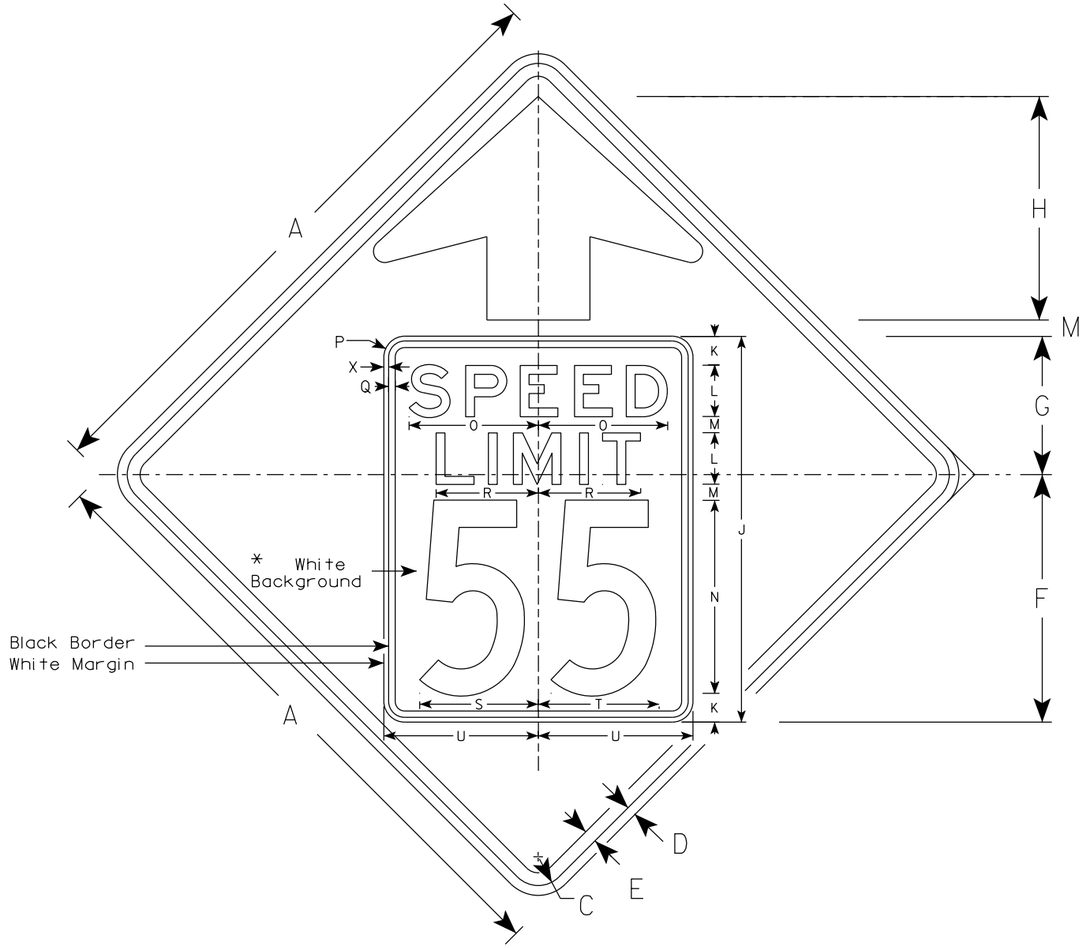
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R1270B.DGN PLOT DATE : 01-DEC-2015 18:10 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 12.842555:1.000000

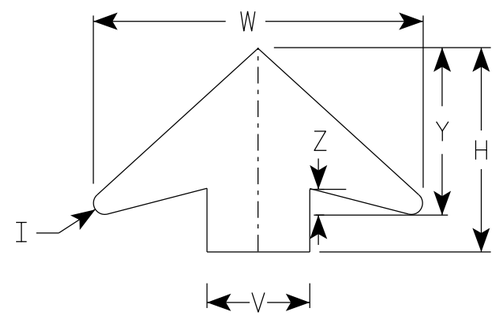


W3-5

NOTES

1. Sign is Type II - See Note 2 for Sheeting Type
2. Color: *
   Background - Yellow* (Type F Reflective)
   Message - Black
3. Message Series - C for numbers Series E for wording
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance

*Speed Limit Sign shall have a White Background with black message (Type SH Reflective)



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	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
2M	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
3	36		1 5/8	5/8	3/4	14 1/2	9 1/2	11 1/2	5/8	24	2	3	1	12	7 1/8	1 1/2	3/8	5 3/4	7 1/4	7 1/8	9	6	19 1/4	3/8	9 3/4	1 5/8	9.0
4	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0
5	48		2 1/4	3/4	1	19 1/4	10 3/4	17 3/8	7/8	30	2 1/4	4	1 1/4	15	10	1 5/8	1/2	8	9 1/4	9 3/8	12	8	25 5/8	3/8	13	2	16.0

STANDARD SIGN
W3-5

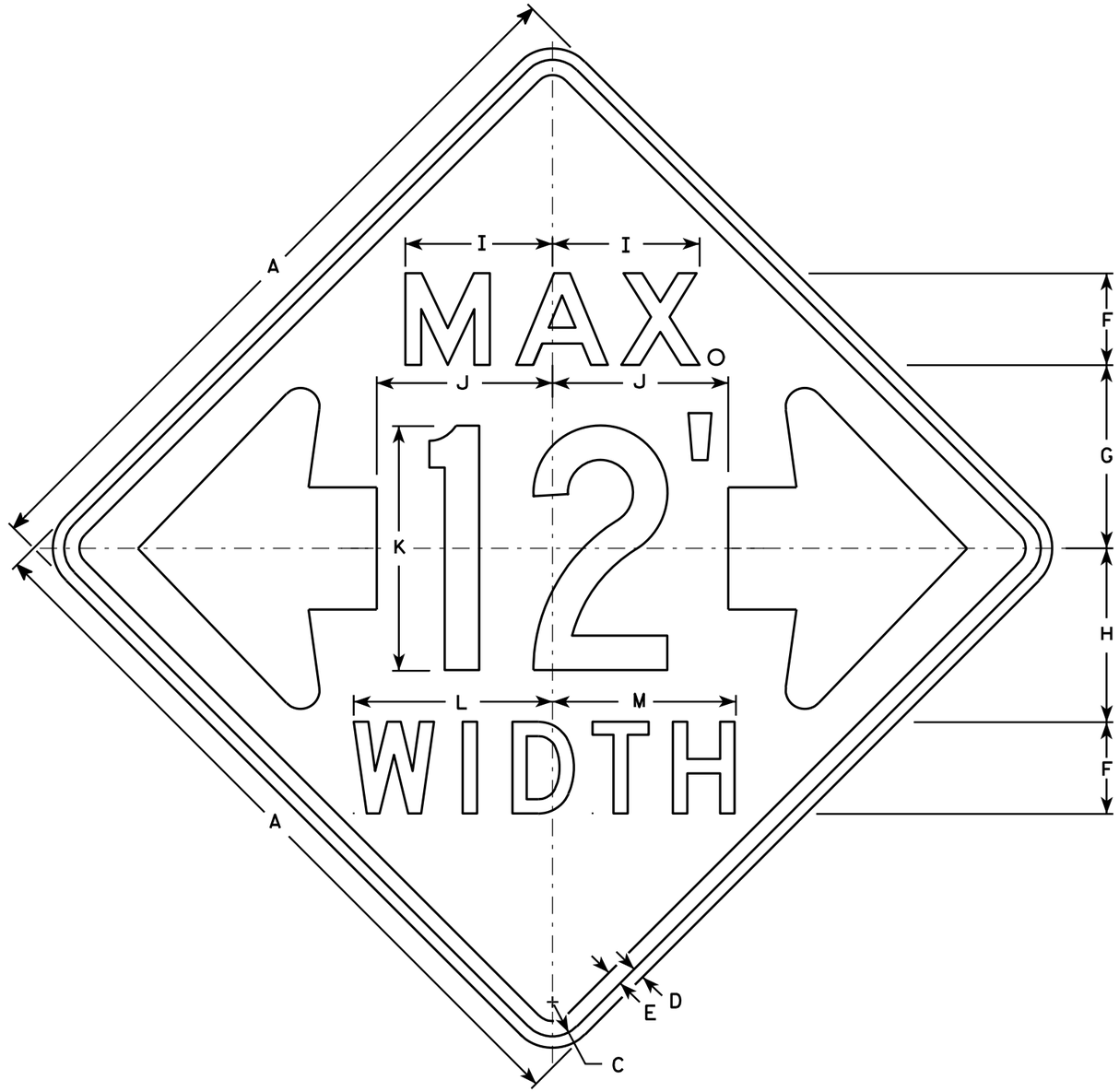
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew L Rauch
for State Traffic Engineer

DATE 7/27/2020 PLATE NO. W3-5.6

PROJECT NO:

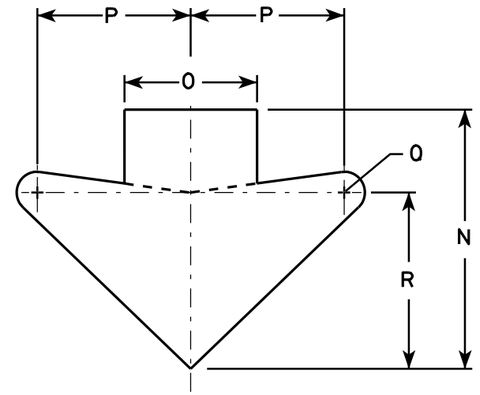
SHEET NO: 245 E



W12-52

NOTES

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



ARROW DETAIL

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

STANDARD SIGN
W12-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

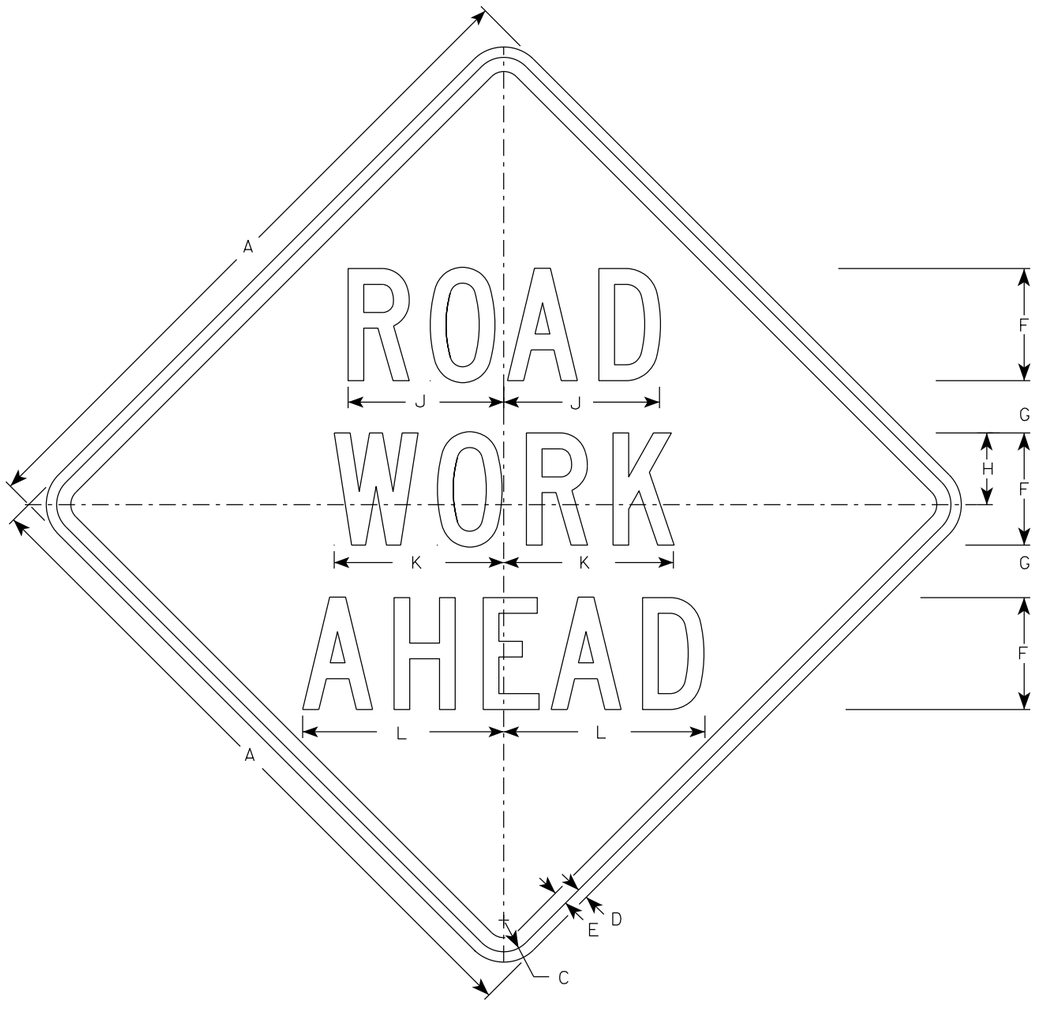
DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 246 | E

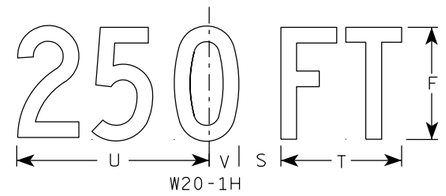
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42

NOTES

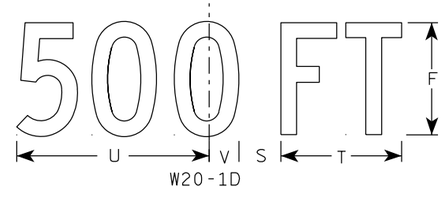
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1A



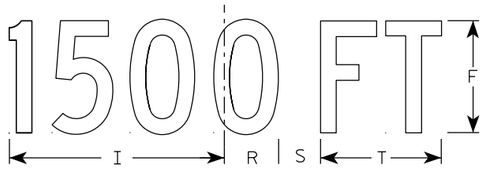
W20-1H



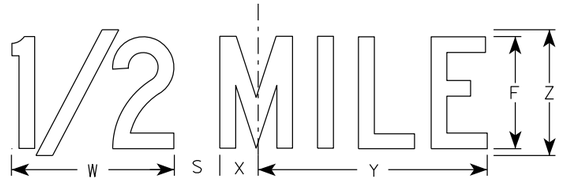
W20-1D



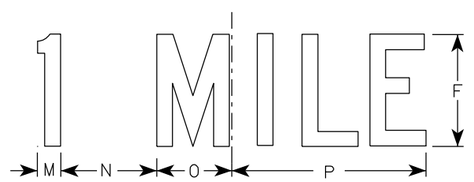
W20-1C



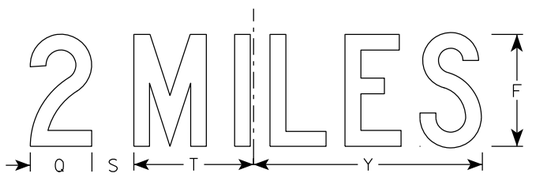
W20-1B



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

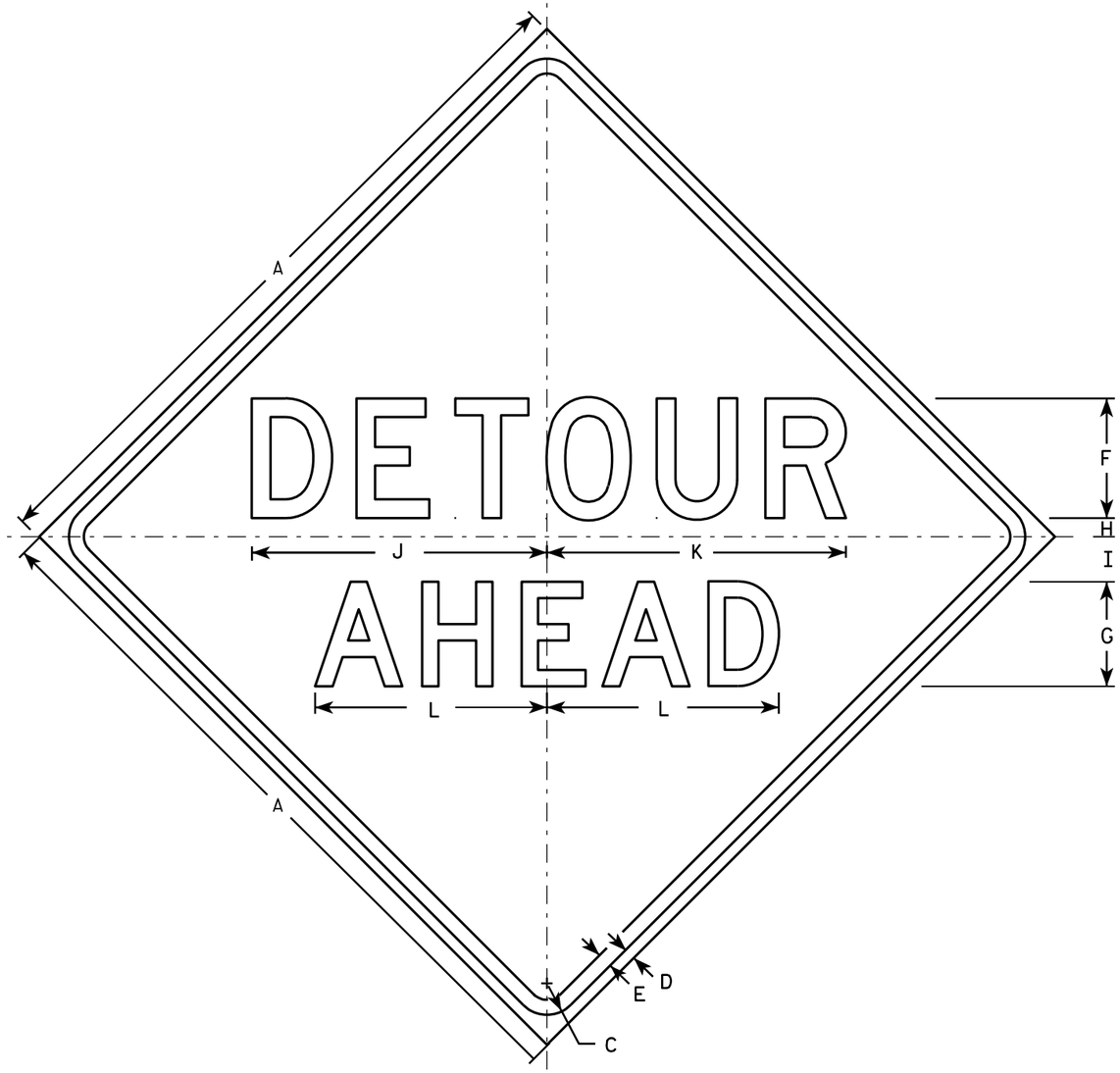
SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 25-MARCH-2020 PLOT BY : dotc4c

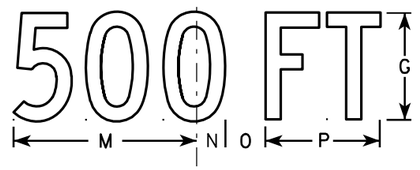
WISDOT/CADDS SHEET 42

7

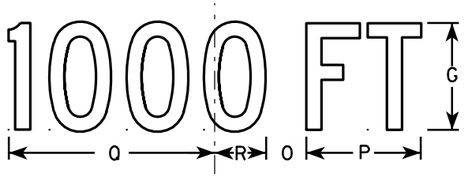
7



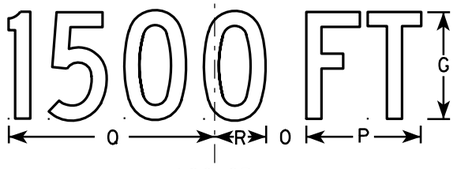
W20-2A



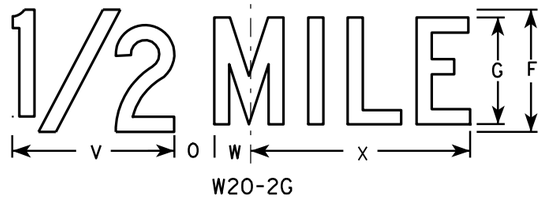
W20-2D



W20-2C



W20-2B



W20-2G



W20-2F

NOTES

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

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

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

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

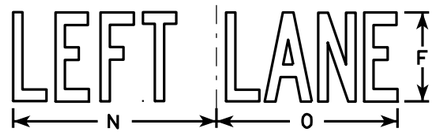
DATE 3/18/11 PLATE NO. W20-2.6

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 248 | E

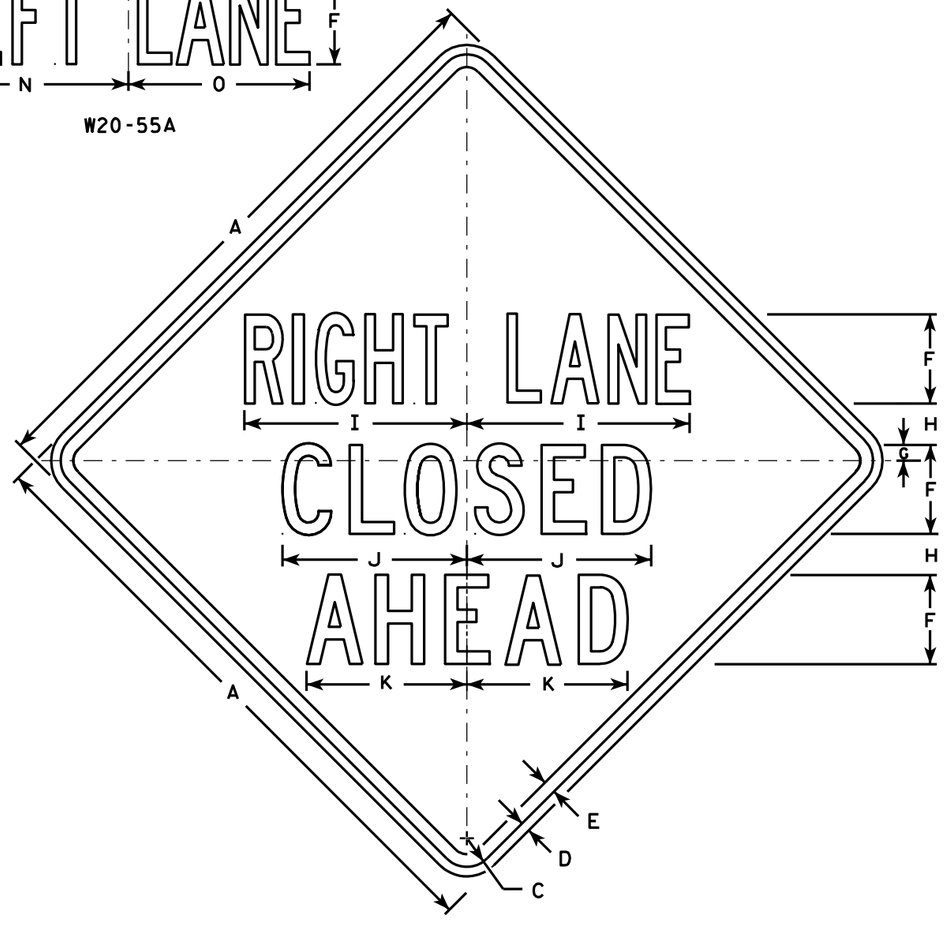
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W202.DGN PLOT DATE : 18-MAR-2011 10:00 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000
WISDOT/CADDS SHEET 42



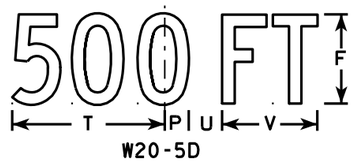
W20-56A



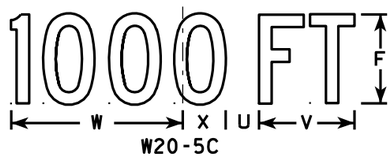
W20-55A



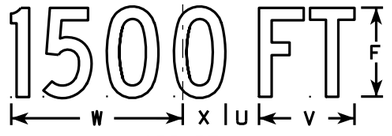
W20-5A



W20-5D



W20-5C



W20-5B



W20-5G



W20-5F

NOTES

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

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	6	1 5/8	5/8	3/4	5	1/8	2 1/2	13 1/8	10 3/4	9 1/2	14 1/4	13 5/8	12	12	1 3/8	1 1/8	4 1/2	3 1/2	9	1 1/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
2M	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
3	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
4	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0
5	48	8	2 1/4	3/4	1	7	1 1/4	3 1/4	17 1/2	14 3/8	12 5/8	19	18 3/8	16	14 1/4	1 7/8	1 1/2	6	4 5/8	12	2 5/8	7 1/2	13 1/2	3 3/8	2 3/8	10 5/8	16.0

STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

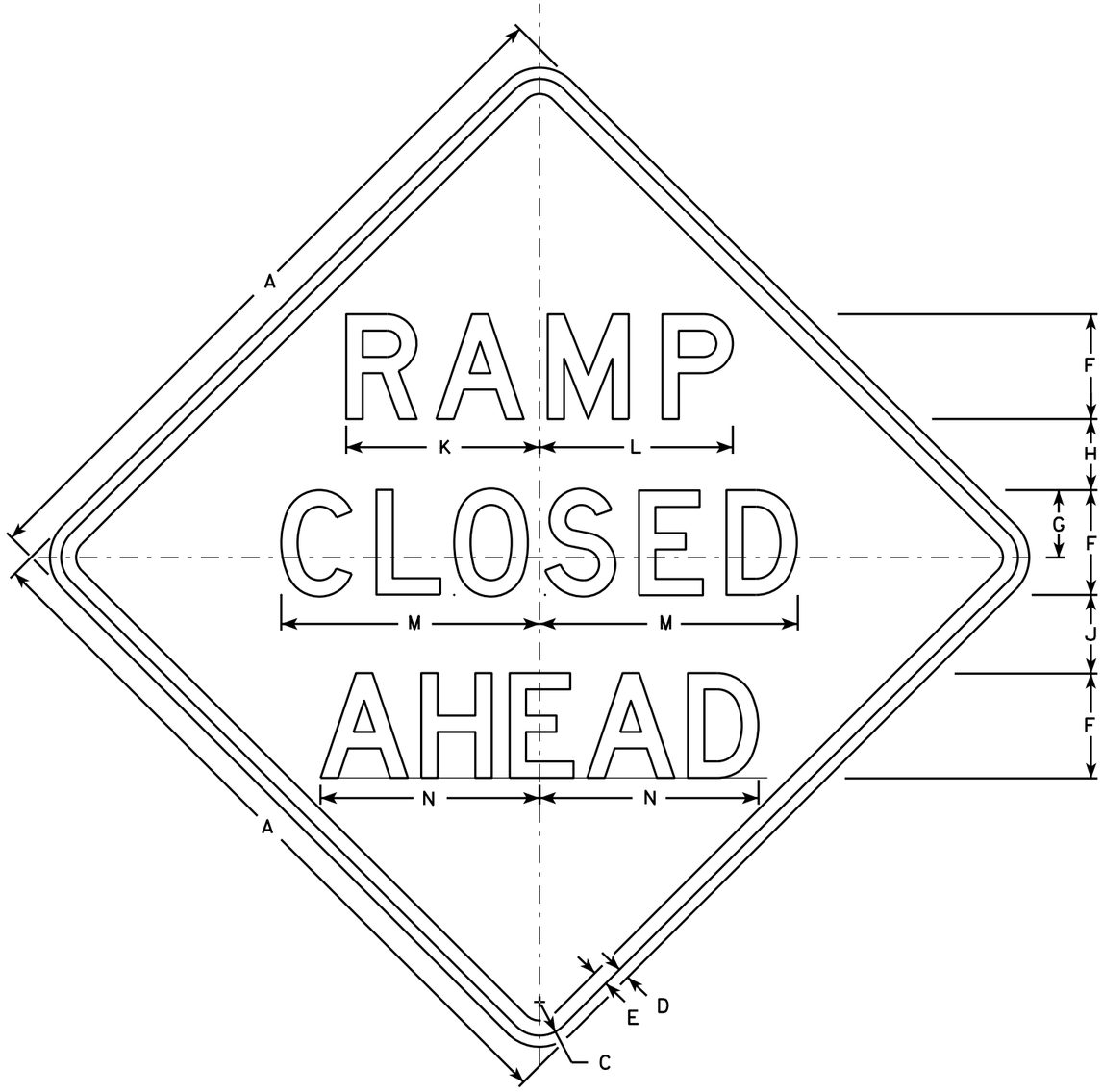
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

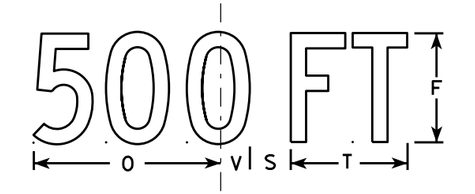
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 249 | E

7

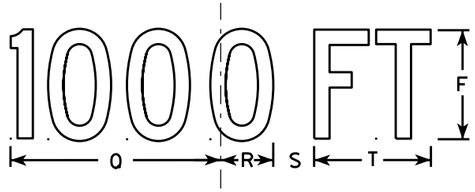
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W205.DGN PLOT DATE : 18-MAR-2011 12:15 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 11.918087:1.000000
WISDOT/CADDS SHEET 42



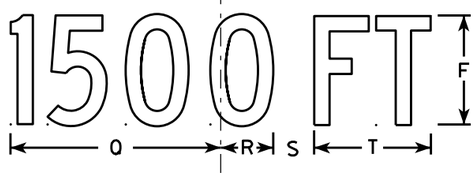
W20-53A



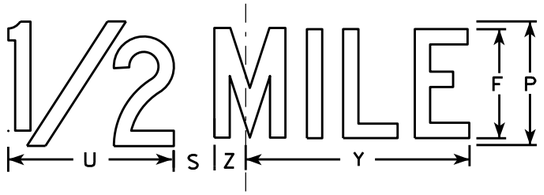
W20-53D



W20-53C



W20-53B



W20-53G



W20-53F

NOTES

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

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

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

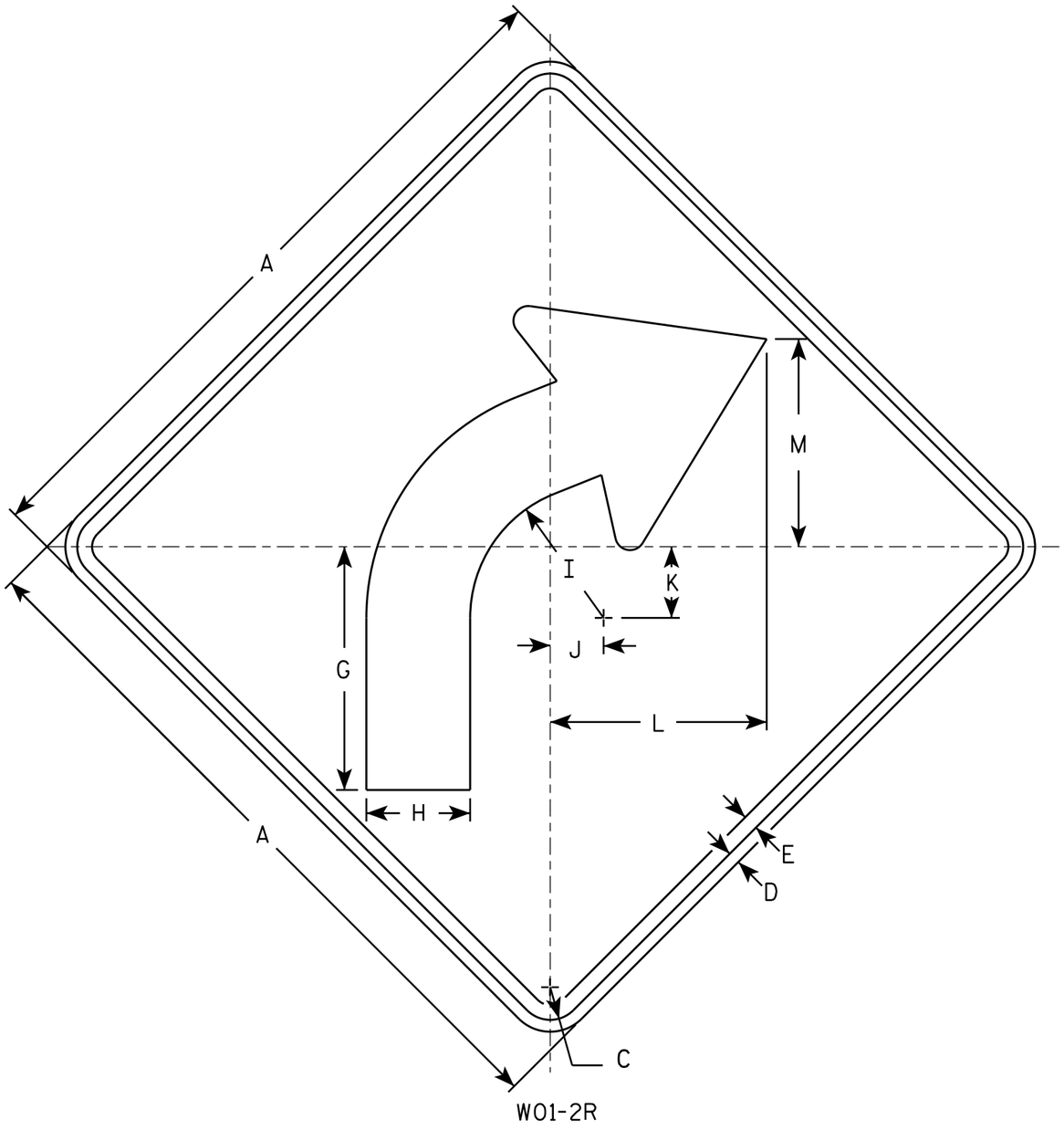
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

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

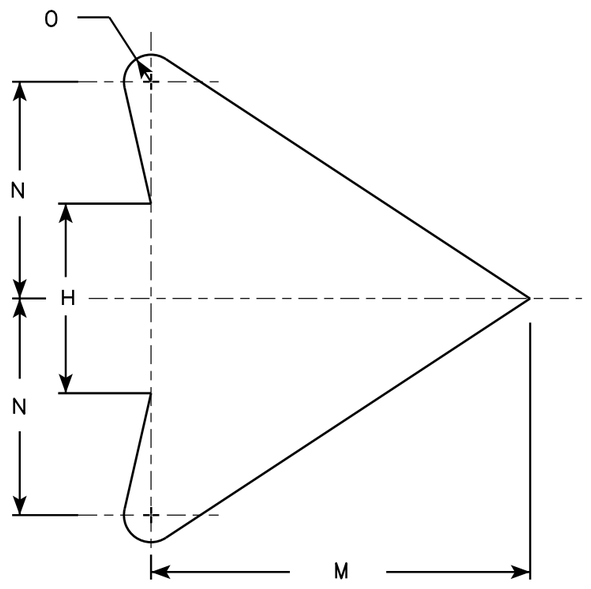
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W2053.DGN PLOT DATE : 27-MAY-2015 19:40 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.729210:1.000000
WISDOT/CADDS SHEET 42



W01-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-2L is the same as W01-2R except the arrow is reversed along the vertical centerline.



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	36		1 5/8	5/8	3/4		12 3/8	5 1/4	6 3/4	2 5/8	3 1/2	10 7/8	10 1/2	6	3/4												4.0
2S	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0
2M	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0
3	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0
4	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0
5	48		2 1/4	3/4	1		16 1/2	7	9	3 1/2	4 5/8	14 1/2	14	8	1												16.0

STANDARD SIGN
W01-2

WISCONSIN DEPT OF TRANSPORTATION

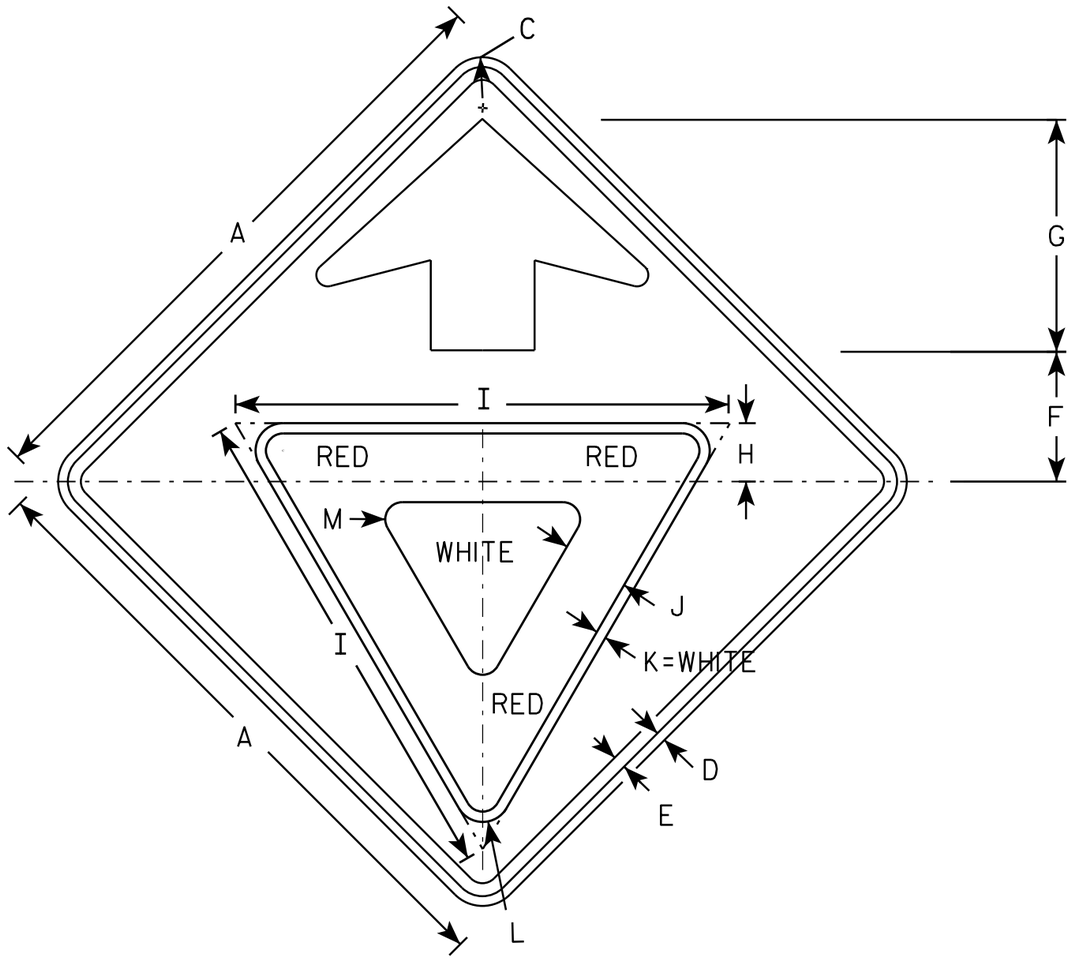
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO W01-1.1

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

7

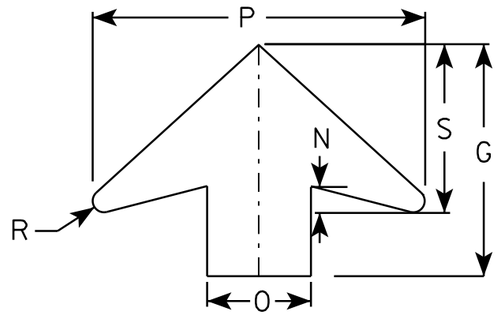
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W012.DGN PLOT DATE : 28-FEB-2014 11:34 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.992871:1.000000 WISDOT/CADDS SHEET 42



W03-2

NOTES

1. All Signs Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - ORANGE
   Arrow & Border - BLACK
   Yield Symbol - WHITE BORDER ON RED BACKGROUND



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	36		1 5/8	5/8	3/4	7 1/2	13 1/2	3 3/8	28	3 3/4	5/8	1 1/2	1	1 5/8	6	19 1/4		5/8	9 3/4								9.0
2S	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
2M	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
3	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
4	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0
5	48		2 1/4	3/4	1	10	17 7/8	4 1/2	38	5	3/4	2 1/8	1 3/8	2	8	25 5/8		7/8	13								16.0

STANDARD SIGN
W03-2

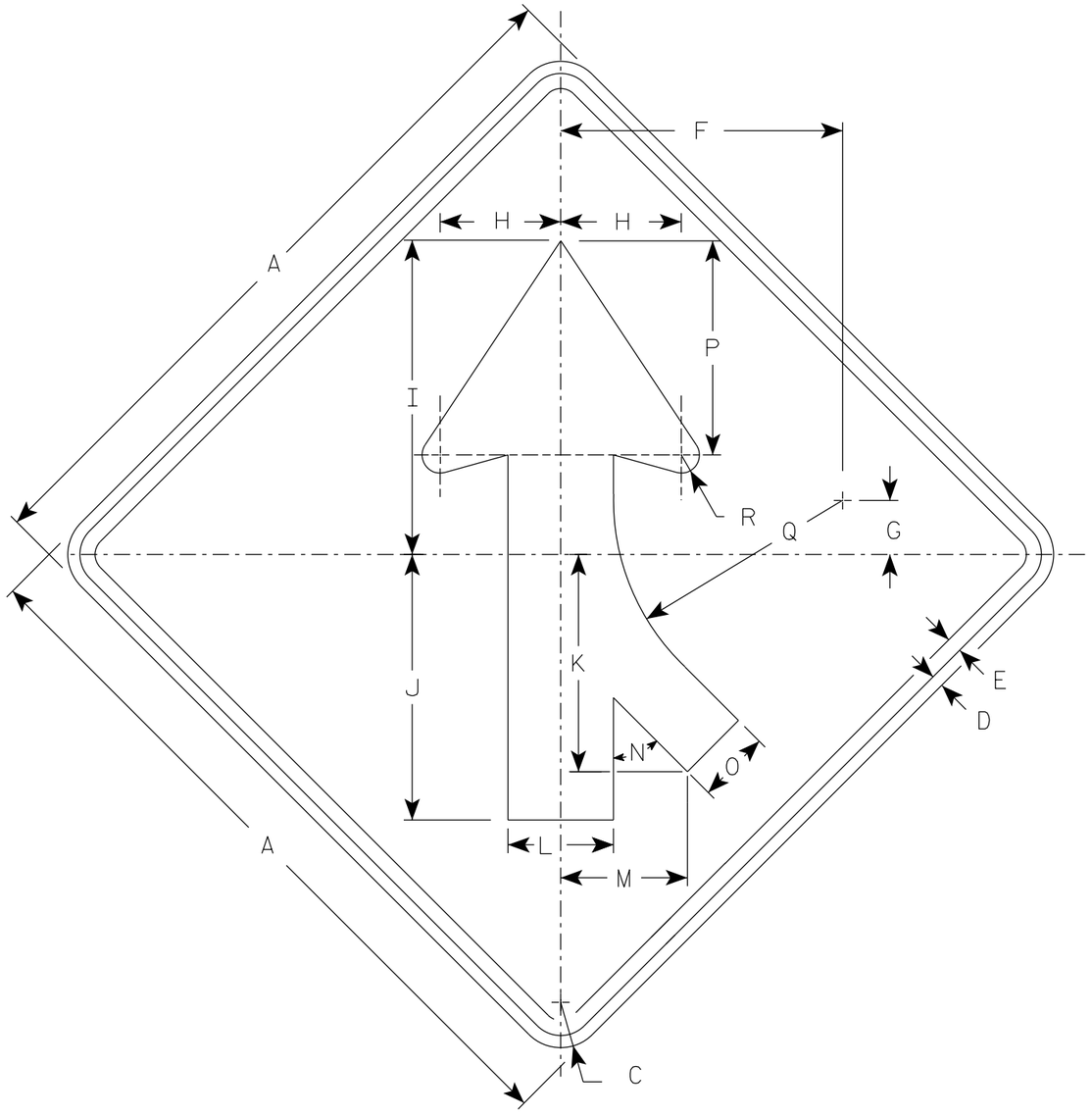
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE W03-2.1

PROJECT NO:

SHEET NO: E



W04-1R

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. W04-1L is the same as W04-1R except the arrow is reversed along the vertical centerline.

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

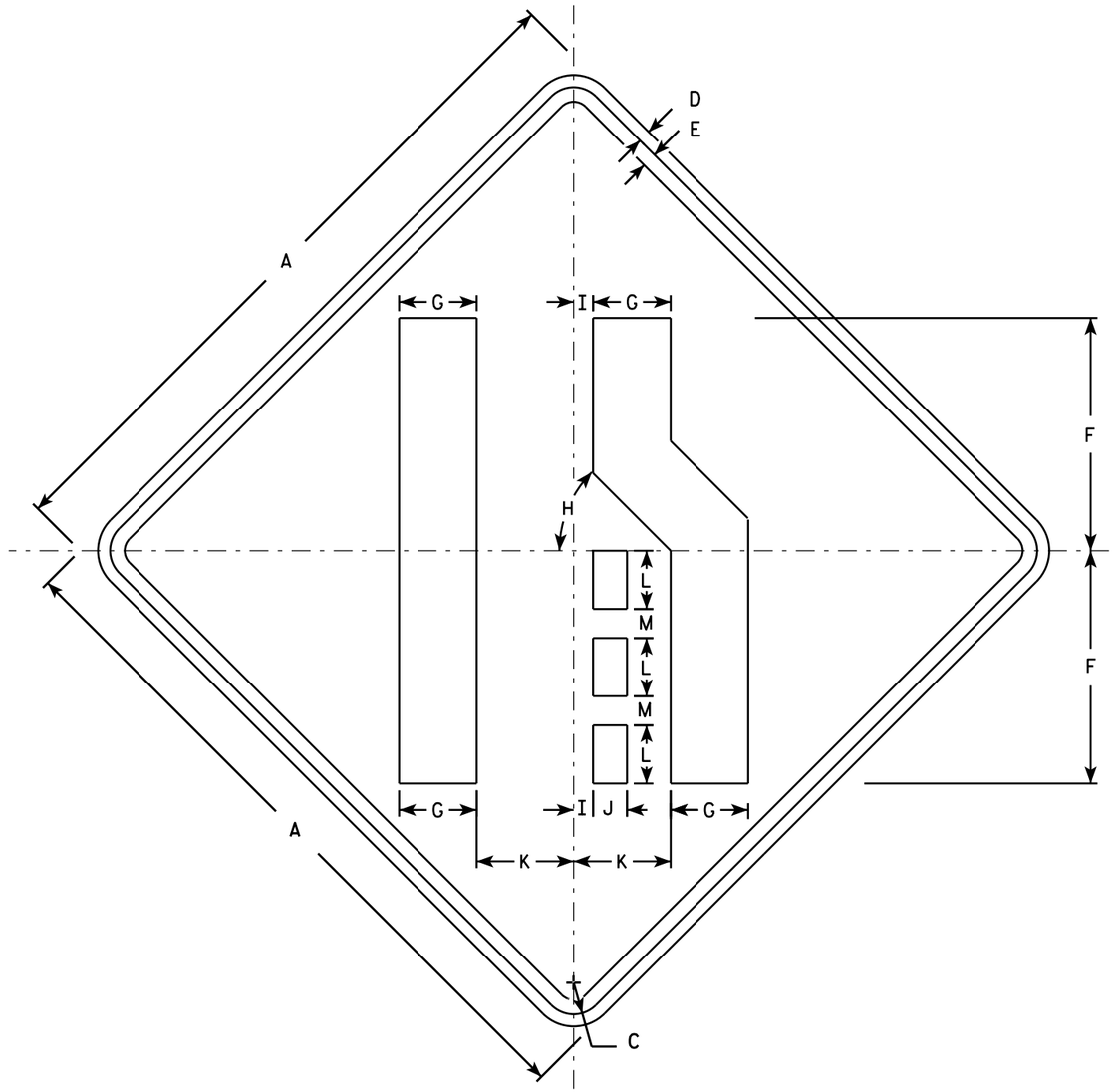
STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/31/2021 PLATE NO. W04-1.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 253 | E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L is the same as W04-2R except the symbol is reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 5/8	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		2 1/4	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W04-2

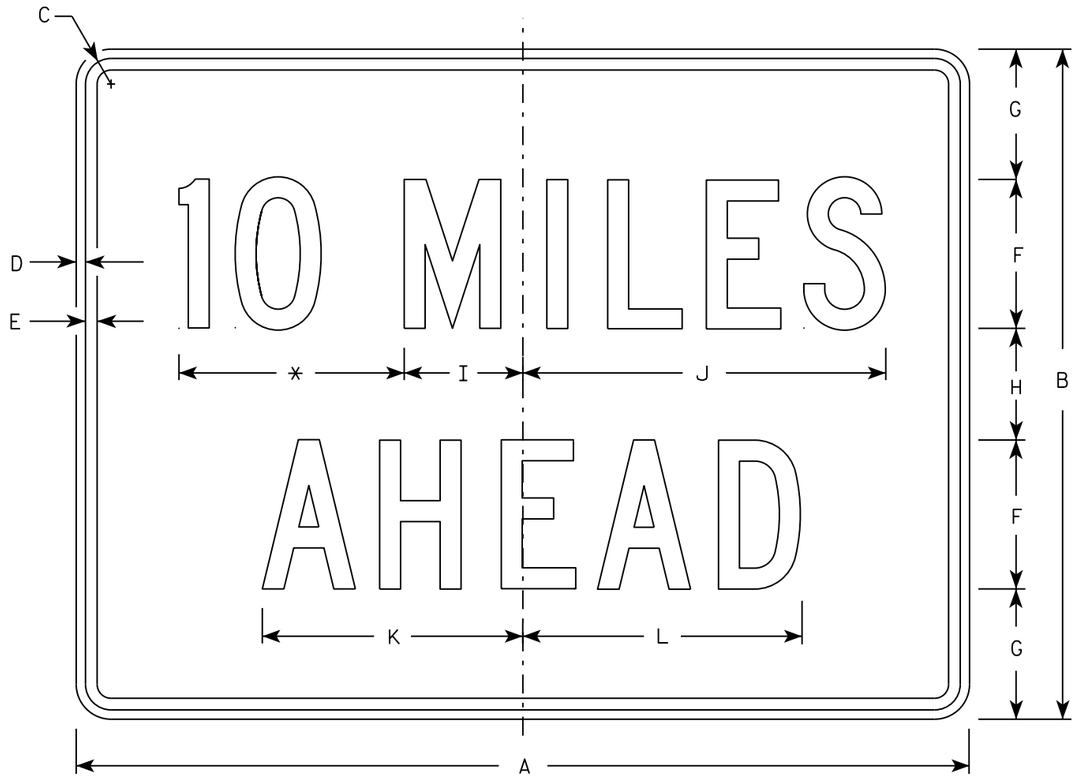
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

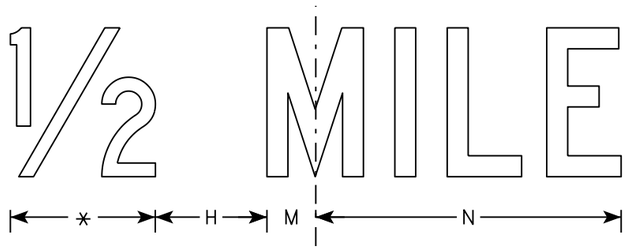
DATE 11/20/13 PLATE 254 W04-2.1

PROJECT NO:

SHEET NO: E



W057-52



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.

* 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	24	1 1/8	3/8	1/2	6	4 1/2	3	4 3/4	14 5/8	10 5/8	11 3/8	2	12													6.0
2S	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
2M	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
3	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
4	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0
5	48	36	1 3/8	1/2	5/8	8	7	6	6 3/8	19 1/2	14	15	2 3/4	16 3/8													12.0

STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

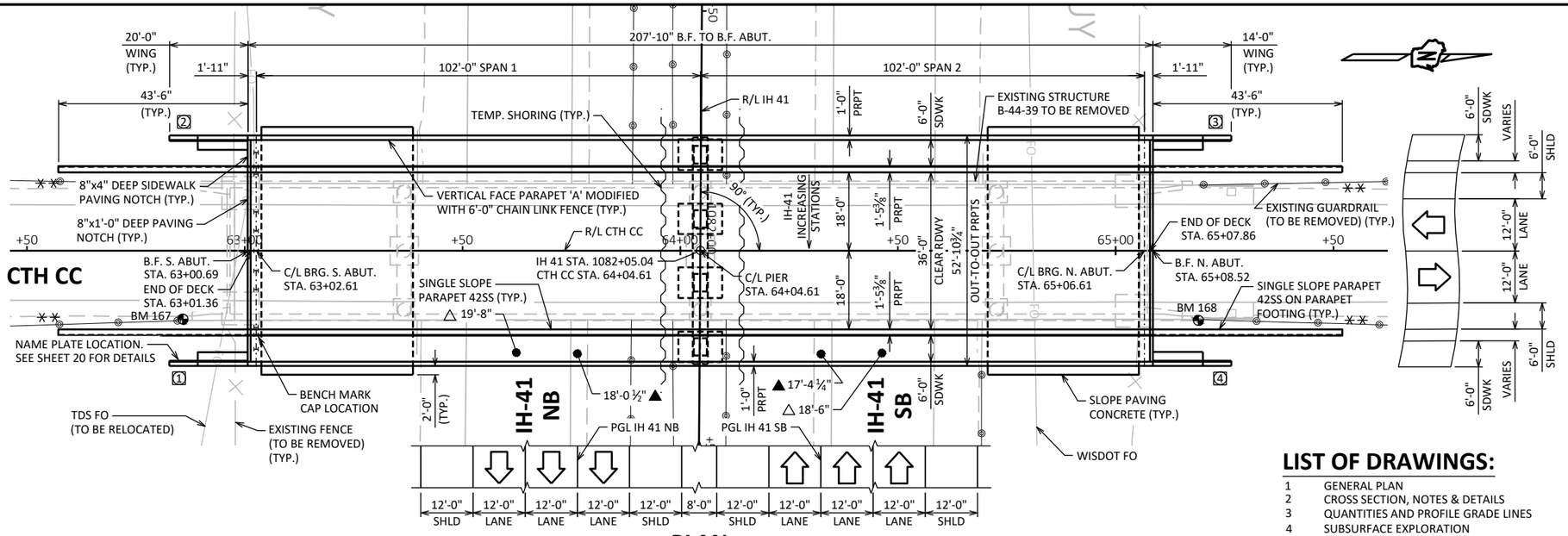
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 255	E

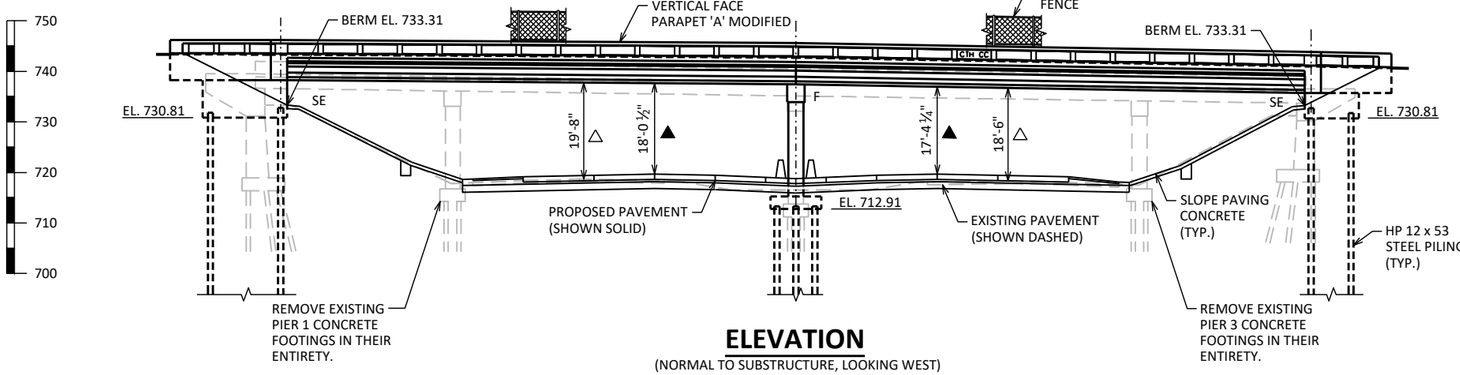
STATE PROJECT NUMBER

1130-66-83



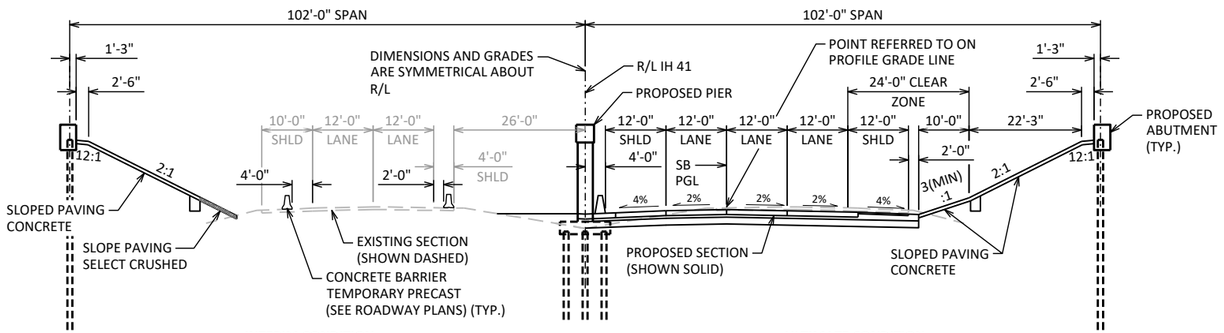
PLAN

(TWO-SPAN 45W-INCH PRESTRESSED GIRDERS)



ELEVATION

(NORMAL TO SUBSTRUCTURE, LOOKING WEST)



INTERIM CONDITION
(SHOWING EXISTING NB IH 41 DIMENSIONS AND GRADES)
(SB SIMILAR)

ULTIMATE CONDITION
(SHOWING PROPOSED SB IH 41 DIMENSIONS AND GRADES)
(NB SIMILAR)

TYPICAL SECTION

(LOOKING WEST, NORMAL TO IH41)

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HL-93
INVENTORY RATING: RF = 1.27
OPERATING RATING: RF = 1.70
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV): 250 (KIPS)

STRUCTURE IS DESIGNED FOR A FUTURE WEARING SURFACE OF 20 POUNDS PER SQUARE FOOT.

MATERIAL PROPERTIES:

CONCRETE MASONRY:
SUPERSTRUCTURE — f'_c = 4,000 PSI
ALL OTHER — f'_c = 3,500 PSI

BAR STEEL REINFORCEMENT
GRADE 60 — f_y = 60,000 PSI

45-W" PRESTRESSED GIRDERS:
CONCRETE MASONRY — f'_c = 8,000 PSI
STRANDS: 0.6" DIA. WITH ULTIMATE TENSILE STRENGTH OF 270,000 P.S.I.

FOUNDATION DATA

ABUTMENTS TO BE SUPPORTED ON PILING STEEL HP 12-INCH X 53 LB DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 220 TONS ** PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA.

**THE FACTORED AXIAL RESISTANCE OF PILES IN COMPRESSION USED FOR DESIGN IS THE REQUIRED DRIVING RESISTANCE MULTIPLIED BY A RESISTANCE FACTOR OF 0.5 USING MODIFIED GATES TO DETERMINE PILE CAPACITY.

ESTIMATED PILE LENGTHS:
SOUTH ABUTMENT — 80 FEET EACH
PIER — 60 FEET EACH
NORTH ABUTMENT — 80 FEET EACH

TRAFFIC DATA

	ADT (2026)	ADT (2046)	DESIGN SPEED (MPH)
IH 41 =	55,380	74,270	75
CTH CC =	2,000	3,000	55

LIST OF DRAWINGS:

1 GENERAL PLAN
2 CROSS SECTION, NOTES & DETAILS
3 QUANTITIES AND PROFILE GRADE LINES
4 SUBSURFACE EXPLORATION
5 SOUTH ABUTMENT
6 SOUTH ABUTMENT DETAILS
7 NORTH ABUTMENT
8 NORTH ABUTMENT DETAILS
9 ABUTMENT DETAILS
10 PIER
11 PIER DETAILS
12 45W" PRESTRESSED GIRDER DETAILS - 1
13 45W" PRESTRESSED GIRDER DETAILS - 2
14 STEEL DIAPHRAGMS
15 SUPERSTRUCTURE PLAN
16 SUPERSTRUCTURE SECTION
17 SUPERSTRUCTURE DETAILS - 1
18 SUPERSTRUCTURE DETAILS - 2
19 PARAPET FOOTING
20 VERTICAL FACE PARAPET 'A' MODIFIED
21 SINGLE SLOPE PARAPET 42SS
22 CONDUIT DETAILS AND NOTES
23 CHAIN LINK FENCE DETAILS
24 AESTHETIC DETAILS - 1
25 AESTHETIC DETAILS - 2

LEGEND

- BENCH MARK
- (#) INDICATES WING NUMBER
- ▲ POINT OF MINIMUM VERTICAL CLEARANCE FOR PROPOSED PAVEMENT (FINAL CONDITION)
- △ POINT OF MINIMUM VERTICAL CLEARANCE FOR EXISTING PAVEMENT (INTERIM CONDITION)
- ✳✳ PROVIDE FOR THRIE BEAM TRANSITION ATTACHMENT.

WISCONSIN
KEITH R. BEHREND
E-42073
MADISON
WI
PROFESSIONAL ENGINEER
10/18/2023

STRUCTURE DESIGN CONTACTS:
DESIGN CONSULTANT CONTACT:
KEITH BEHREND (608) 251-4843

BUREAU OF STRUCTURES CONTACT:
AARON BONK (608) 261-0261

BENCH MARK

NO.	STATION	DESCRIPTION	ELEV.
BM 167	62+85.71, 15.75' RT	CHISELED SQUARE SE WINGWALL	741.98
BM 168	65+18.95, 15.99' RT	DISK NE WINGWALL	740.10

NOTE: SEE ROADWAY PLANS FOR ADDITIONAL BENCHMARK AND CONTROL POINT INFORMATION.

NO.	DATE	REVISION	BY

STRAND ASSOCIATES®
MADISON, WISCONSIN 53715
(608)–251–4843
(608) 251–8655 FAX
WWW.STRAND.COM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORATION

ACCEPTED — SDR — 11/07/23
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE B-44-333

CTH CC (ROSE HILL RD) OVER IH 41

COUNTY: OUTAGAMIE
TOWN/~~CITY/VILLAGE~~: VANDENBROEK

DESIGN SPEC.
AASHTO LRFD BRIDGE DESIGN SPECIFICATION

DESIGNED BY	JFG	DESIGNED CK'D	KRB	DRAWN BY	ZHC	PLANS CK'D	KRB

GENERAL PLAN

SHEET 1 OF 25
256

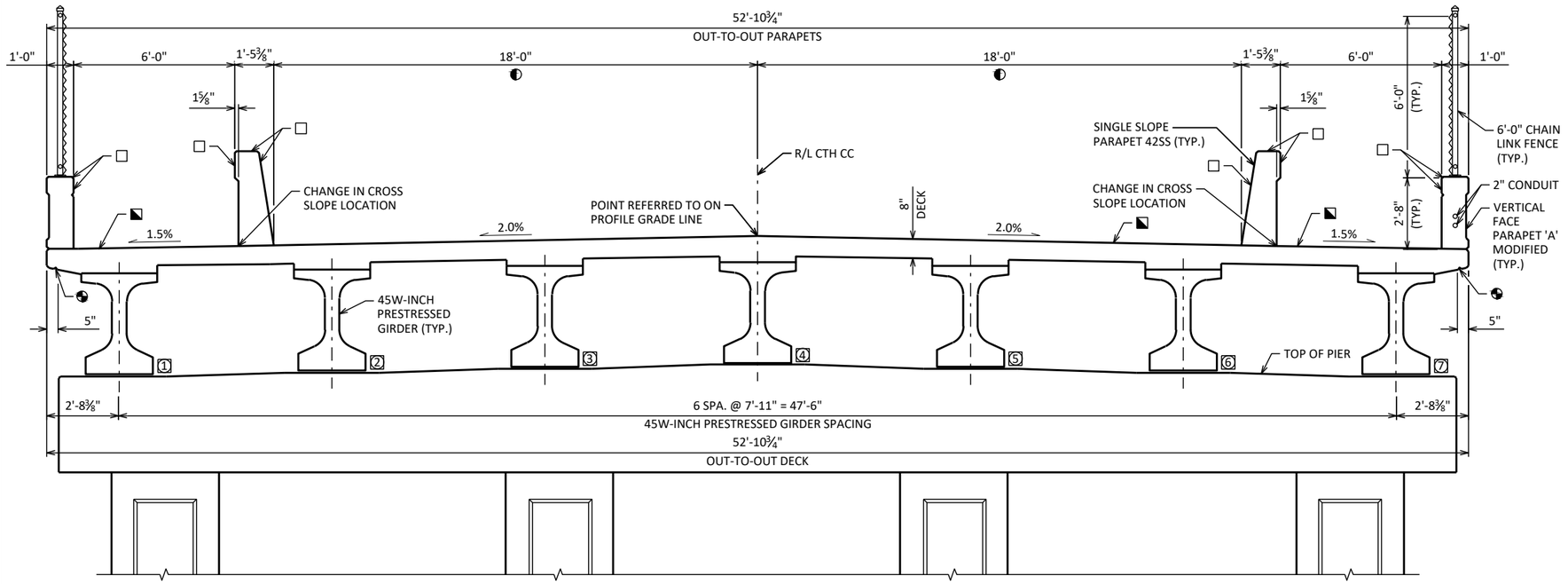
I.D.
DATE:
SCALE =

8

8

STATE PROJECT NUMBER

1130-66-83



CROSS SECTION THRU SUPERSTRUCTURE

(LOOKING NORTH)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

ALL STATIONS AND ELEVATIONS ARE IN FEET.

BAR STEEL REINFORCEMENT SHALL BE EMBEDDED 2" CLEAR UNLESS OTHERWISE SHOWN OR NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BAR DIMENSIONS FOR BENDING ARE OUT-TO-OUT OF BARS.

BEVEL EXPOSED EDGES OF CONCRETE ¾" UNLESS OTHERWISE NOTED.

THE UPPER LIMITS OF "EXCAVATION FOR STRUCTURES BRIDGES B-44-333" SHALL BE THE EXISTING GROUNDLINE.

AT THE BACK FACE OF ABUTMENTS, ALL VOLUME WHICH CANNOT BE PLACED BEFORE ABUTMENT CONSTRUCTION AND IS NOT OCCUPIED BY THE NEW STRUCTURE SHALL BE BACKFILLED WITH STRUCTURE BACKFILL TYPE A.

EXCAVATION BELOW THE ABUTMENT AND ABUTMENT BEDDING MATERIALS REQUIRES ENGINEER APPROVAL. GEOTEXTILE SHALL BE SET AT THE BOTTOM OF EXCAVATION AND EXTEND 2'-0" ABOVE BOTTOM OF ABUTMENT.

THE SLOPE OF THE FILL IN FRONT OF THE ABUTMENTS SHALL BE COVERED WITH SLOPE PAVING MATERIAL TO THE EXTENT SHOWN ON SHEET 1 AND THE ABUTMENT DETAILS.

THE HAUNCH CONCRETE QUANTITY IS BASED ON THE AVERAGE HAUNCH SHOWN ON THE PRESTRESSED GIRDERS DETAIL SHEET.

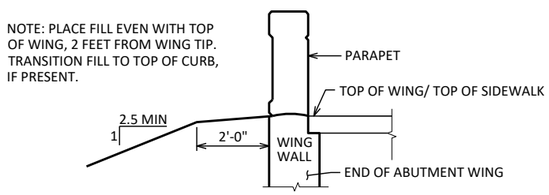
THE BACKFILL QUANTITIES ARE BASED ON THE PAY LIMITS SHOWN ON THE PLANS AND MAY NOT REFLECT ACTUAL PLACED QUANTITIES. "BACKFILL STRUCTURE TYPE A" REQUIRED DIRECTLY BEHIND ABUTMENTS AND ABUTMENT WINGS FOR 3 FEET. BACKFILL PLACED BEYOND PAY LIMITS OR EXCEEDING PLAN QUANTITIES SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES.

THE EXISTING STRUCTURE B-44-39, A 4-SPAN PRESTRESSED GIRDER BRIDGE 210' LONG BY 32' WIDE, IS TO BE REMOVED.

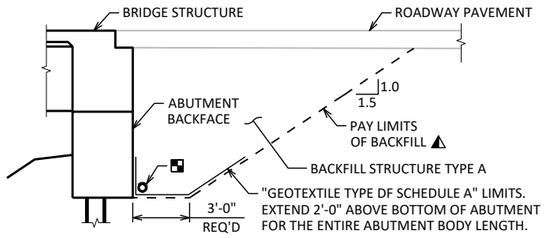
ALL CAST-IN-PLACE SUPERSTRUCTURE CONCRETE SHALL BE HIGH PERFORMANCE CONCRETE.

LEGEND

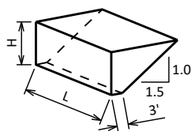
- ◔ ¾" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUTMENT DIAPHRAGMS.
- ◪ PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF DECK AND HORIZONTAL AND VERTICAL SURFACES OF PAVING NOTCH.
- ◭ BACKFILL PAY LIMITS. BACKFILL BEYOND BACKFILL PAY LIMITS SHALL BE INCIDENTAL TO EXCAVATION FOR STRUCTURES. LIMITS OF EXCAVATION SHALL BE DETERMINED BY THE CONTRACTOR.
- ◾ PIPE UNDERDRAIN WRAPPED 6-INCH. SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN. SEE DETAIL ON "SOUTH ABUTMENT" SHEET.
- ☐ PIGMENTED SURFACE SEALER SHALL BE APPLIED TO THE INSIDE FACE, TOP AND ENDS OF THE VERTICAL FACE PARAPET 'A' MODIFIED CONCRETE PARAPETS AND BOTH FACES, TOP AND ENDS OF THE SINGLE SLOPE PARAPET 42SS CONCRETE PARAPETS.
- [#] INDICATES GIRDER NUMBER.
- ◐ LONGITUDINAL GROOVING BRIDGE DECK.



TYPICAL FILL SECTION AT WING TIPS



TYPICAL SECTION THRU ABUTMENT



ABUTMENT BACKFILL DIAGRAM

L = OUT TO OUT OF ABUTMENT BODY INCLUDING WINGS (FT)
H = AVERAGE ABUTMENT FILL HEIGHT (FT)
EF = EXPANSION FACTOR (1.20 FOR CY BID ITEMS AND 1.00 FOR TON BID ITEMS)
V_{CF} = (L)(3.0')(H) + (L)(0.5)(1.5H)(H)
V_{CY} = V_{CF}(EF)/27
V_{TON} = V_{CY}(2.0)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

CROSS SECTION, NOTES & DETAILS

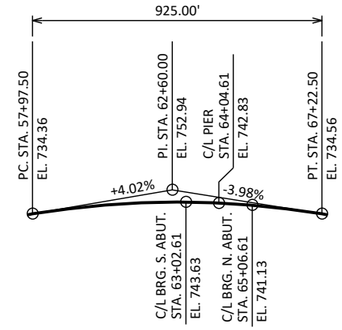
SHEET 2
257

SCALE =

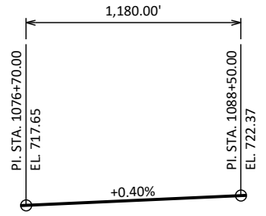
STATE PROJECT NUMBER
1130-66-83

TOTAL ESTIMATED QUANTITIES

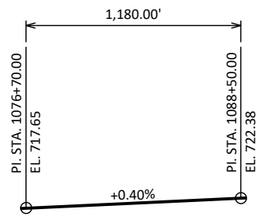
BID NUMBER	BID ITEM	UNIT	S. ABUT.	PIER	N. ABUT.	SUPER.	TOTAL
203.0220	REMOVING STRUCTURE B-44-39	EACH	---	---	---	---	1
203.0330	DEBRIS CONTAINMENT B-44-39	EACH	---	---	---	---	1
206.1001	EXCAVATION FOR STRUCTURES BRIDGES B-44-333	EACH	---	---	---	---	1
210.1500	BACKFILL STRUCTURE TYPE A	TON	516	---	312	---	828
501.1000.S	ICE HOT WEATHER CONCRETING	LB	---	---	---	3,495	3,495
502.0100	CONCRETE MASONRY BRIDGES	CY	110.6	95.4	75.8	---	282
502.3200	PROTECTIVE SURFACE TREATMENT	SY	---	---	---	1,125	1,125
502.3210	PIGMENTED SURFACE SEALER	SY	95	---	91	533	719
503.0146	PRESTRESSED GIRDER TYPE I 45W-INCH	LF	---	---	---	1,433	1,433
505.0400	BAR STEEL REINFORCEMENT HS STRUCTURES	LB	4,760	2,490	3,590	---	10,840
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	7,840	15,520	5,950	107,630	136,940
506.2605	BEARING PADS ELASTOMERIC NON-LAMINATED	EACH	7	14	7	---	28
506.4000	STEEL DIAPHRAGMS B-44-333	EACH	---	---	---	24	24
511.1200	TEMPORARY SHORING B-44-333	SF	---	480	---	---	480
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	22	---	18	---	40
550.0010	PRE-BORING UNCONSOLIDATED MATERIALS	LF	48	---	40	---	88
550.1120	PILING STEEL HP 12-INCH X 53 LB	LF	1,040	1,680	1,040	---	3,760
604.0400	SLOPE PAVING CONCRETE	SY	173	---	173	---	346
604.0600	SLOPE PAVING SELECT CRUSHED MATERIAL	SY	48	---	48	---	96
612.0406	PIPE UNDERDRAIN WRAPPED 6-INCH	LF	300	---	290	---	590
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	2	---	2	---	4
645.0111	GEOTEXTILE TYPE DF SCHEDULE A	SY	51	---	51	---	102
652.0125	CONDUIT RIGID METALLIC 2-INCH	LF	6	---	6	12	24
652.0225	CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH	LF	36	---	24	404	464
653.0222	JUNCTION BOXES 18X12X6-INCH	EACH	---	---	---	1	1
SPV.0035.01	HIGH PERFORMANCE CONCRETE (HPC) MASONRY STRUCTURES	CY	---	---	---	466.4	466
SPV.0060.01	EXISTING FOOTING OPENING	EACH	4	---	4	---	8
SPV.0090.01	FENCE CHAIN LINK POLYMER-COATED 6-FT B-44-333	LF	39	---	27	416	482
SPV.0165.01	LONGITUDINAL GROOVING BRIDGE DECK	SF	---	---	---	7,434	7,434
	NON-BID ITEMS						
	NAME PLATE	EACH					1
	FILLER	SIZE					1/2", 3/4", & 1"



PROFILE GRADE LINE CTH CC



PROFILE GRADE LINE
IH 41 NB



PROFILE GRADE LINE
IH 41 SB

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

QUANTITIES AND PROFILE GRADE LINES

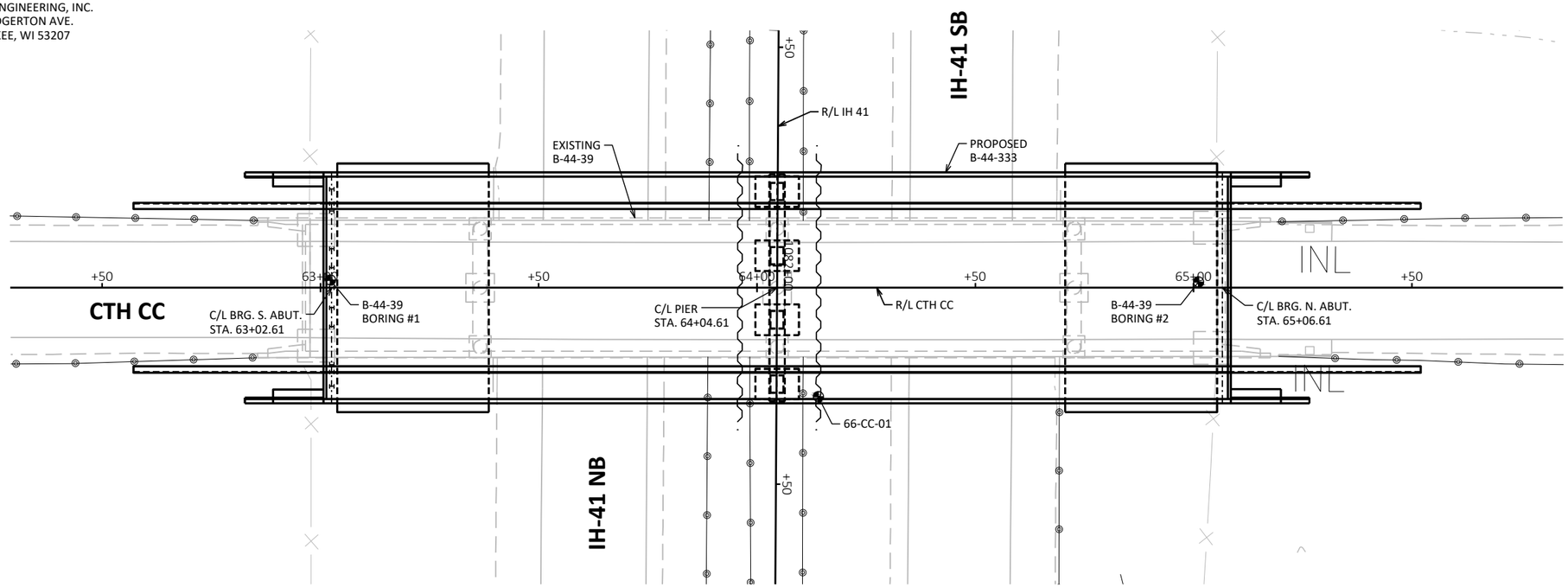
SHEET 3
258

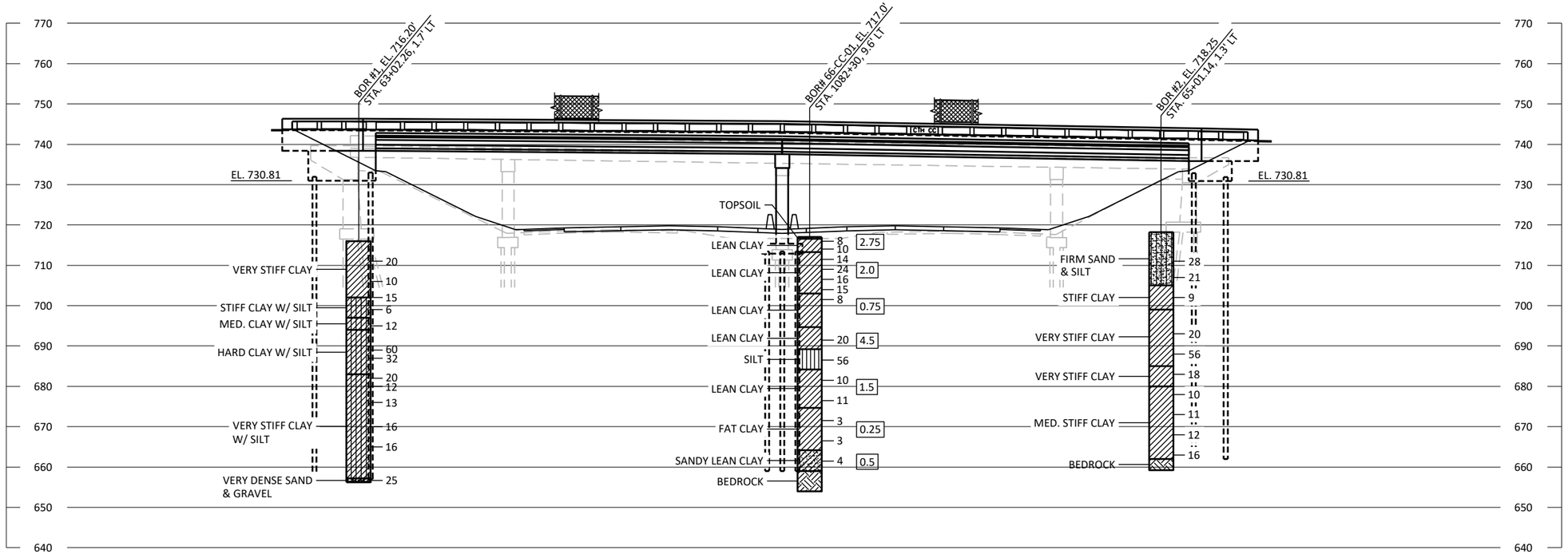
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BORING #	DATE COMPLETED	NORTHING (Y)	EASTING (X)
66-CC-01	5/17/2022	575369	858565
BORINGS COMPLETED BY: GESTRA ENGINEERING, INC.			
REPORT COMPLETED BY: GESTRA ENGINEERING, INC.			
ALL COORDINATES REFERENCED TO WCCS NAD 83(91) OUTAGAMIE COUNTY			

BORINGS PERFORMED AND REPORT COMPLETED BY:
GESTRA ENGINEERING, INC.
191 W. EDGERTON AVE.
MILWAUKEE, WI 53207

NOTE:
B-44-39 BORINGS #1 AND #2 ARE HISTORICAL BORINGS COMPLETED AROUND 1960 PRIOR TO CONSTRUCTION OF THE EXISTING B-44-39 BRIDGE. BORING INFORMATION SHOWN ON THIS DRAWING FOR THESE BORINGS IS REPRODUCED FROM THE ORIGINAL B-44-39 STRUCTURE PLANS.





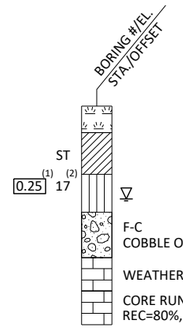
STATE PROJECT NUMBER

1130-66-83

MATERIAL SYMBOLS

ASPHALT	TOPSOIL	PEAT
CONCRETE	FILL	GRAVEL
SAND	CLAY	SILT
BOULDERS OR COBBLES	LIMESTONE	BEDROCK (UNKNOWN)
SHALE	SANDSTONE	IGNEOUS/ META

LEGEND OF BORING



(1) UNCONFINED STRENGTH, AS DETERMINED BY A POCKET PENETROMETER (TSF)

(2) UNLESS OTHERWISE, SPECIFIED THE SPT 'N' VALUE IS BASED ON AASHTO T-206, STANDARD PENETRATION TEST. THE SPT 'N' VALUE PRESENTED HAS NOT BEEN CORRECTED FOR OVERBURDEN PRESSURE OR HAMMER EFFICIENCY.

GROUND WATER ELEVATION

- AT TIME OF DRILLING
- END OF DRILLING
- AFTER DRILLING

ABBREVIATIONS

F-FINE M-MEDIUM C-COARSE ST-SHELBY TUBE

SUBSURFACE EXPLORATION FOR FOUNDATION DESIGN AND BIDDERS INFORMATION

BORINGS WERE COMPLETED AT POINTS APPROXIMATELY AS INDICATED ON THIS DRAWING TO OBTAIN INFORMATION CONCERNING THE CHARACTER OF SUBSURFACE MATERIALS FOUND AT THE SITE. BECAUSE THE INVESTIGATED DEPTHS ARE LIMITED AND THE AREA OF THE BORINGS IS VERY SMALL IN RELATION TO THE ENTIRE SITE, THE WISCONSIN DEPARTMENT OF TRANSPORTATION DOES NOT WARRANT SIMILAR SUBSURFACE CONDITIONS BELOW, BETWEEN, OR BEYOND THESE BORINGS. VARIATIONS IN SOIL CONDITIONS SHOULD BE EXPECTED AND FLUCTUATIONS IN GROUNDWATER LEVELS MAY OCCUR.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

SUBSURFACE EXPLORATION

SHEET 4
259

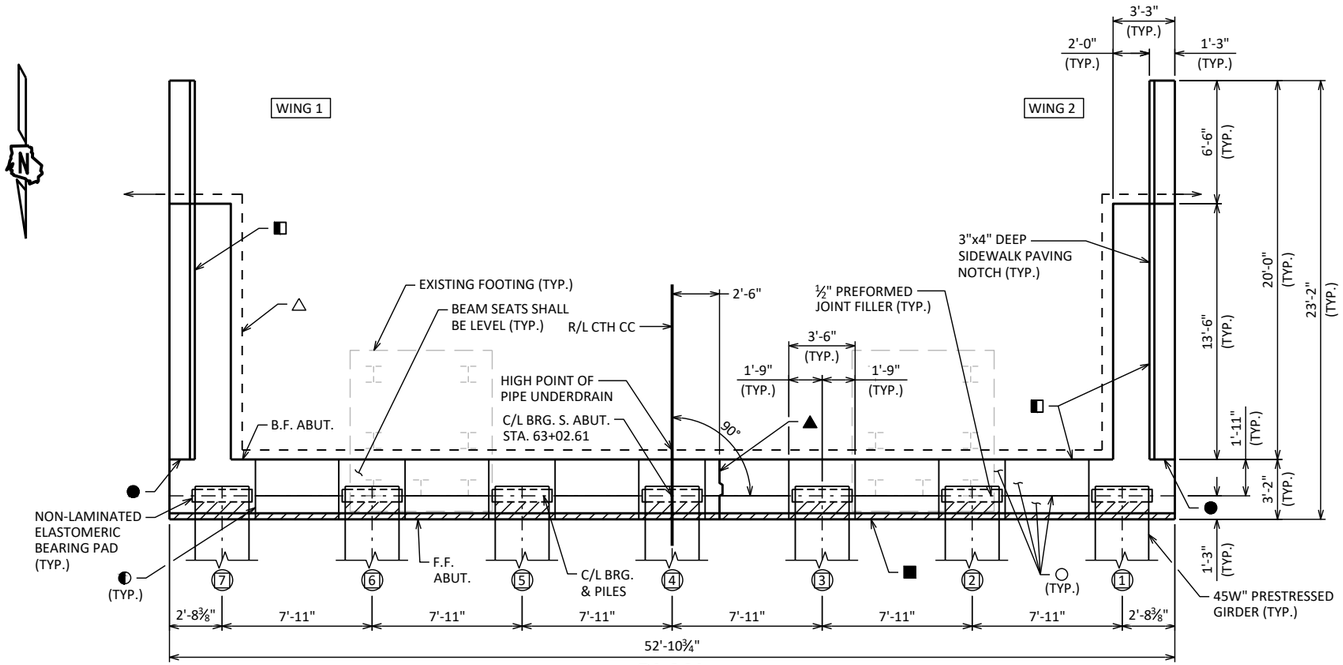
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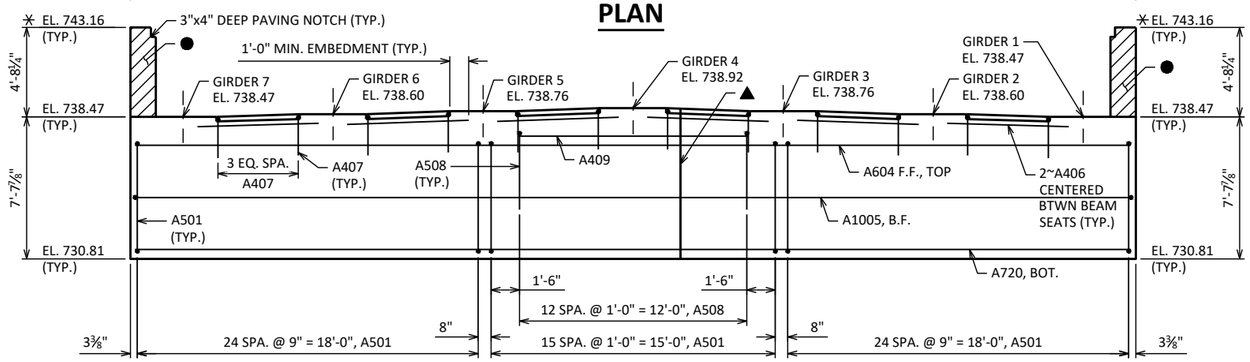
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STATE PROJECT NUMBER

1130-66-83

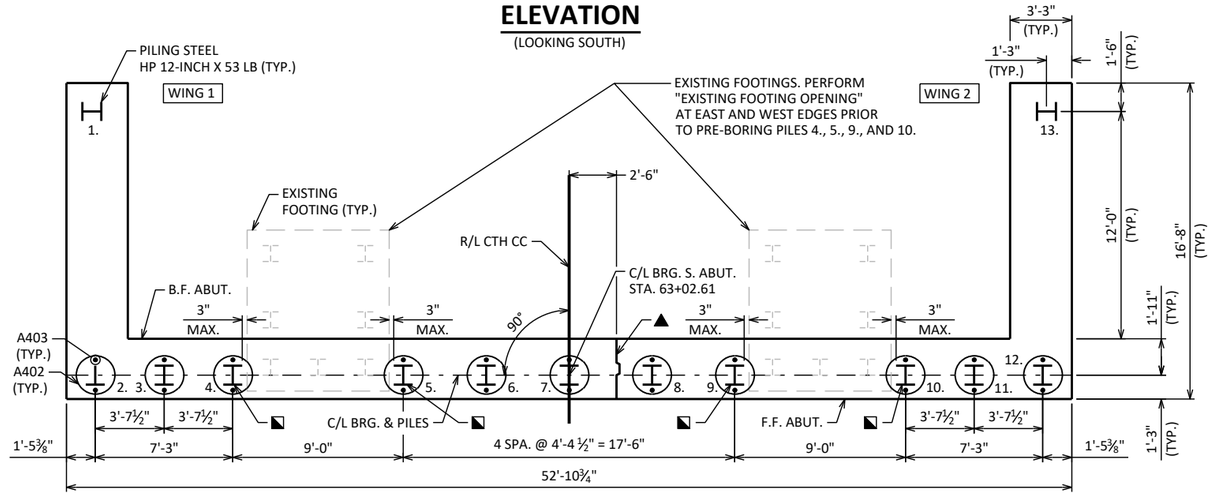


PLAN



ELEVATION

(LOOKING SOUTH)



PILE PLAN

NOTES

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INSIDE FACE.

ADJUST A501 BARS INTERFERING WITH PILES.

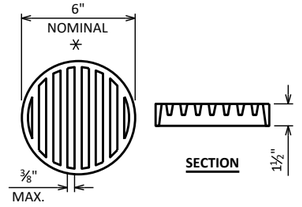
SEE SHEET 9 FOR PILE SPLICE DETAILS.

SEE SHEET 6 FOR REINFORCING DETAILS.

SOUTH ABUTMENT TO BE SUPPORTED ON PILING STEEL 12-INCH X 53 LB WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. ESTIMATED 80 FEET LONG EACH.

LEGEND

- ● ½" FILLER. EXTEND FROM ABUT. SEAT TO TOP OF PARAPET. FILLER INCLUDED IN WING LENGTH.
- ◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- (#) INDICATES GIRDER NUMBER.
- ✳ ELEVATION GIVEN AT B.F. ABUTMENT.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE. SEE DETAIL THIS SHEET.
- ○ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ■ 4"x½" PREFORMED JOINT FILLER, LENGTH OF ABUTMENT.
- ◐ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDERS.
- ▲ VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2"x8". PROVIDE ¾" V-GROOVE AT F.F. RUN BAR STEEL THRU JOINT. SEAL JOINT WITH 18" RUBBERIZED MEMBRANE WATERPROOFING (B.F.). SEE ABUTMENT DETAILS SHEET FOR ALTERNATE CONSTRUCTION JOINT DETAIL.
- ◪ PRE-BORE PILES 4., 5., 9., AND 10. FROM BOTTOM OF ABUTMENT ELEVATION TO TOP OF EXISTING FOOTING. CONTACT ENGINEER IF 9'-0" SPACING CANNOT BE MET.



RODENT SHIELD DETAIL

✳ DIMENSIONS ARE APPROXIMATE. THE GRATE IS SIZED TO FIT INTO A PIPE COUPLING. ORIENT SO SLOTS ARE VERTICAL.

THE RODENT SHIELD, PIPE COUPLING AND SCREWS SHALL BE CONSIDERED INCIDENTAL TO THE BID ITEM "PIPE UNDERDRAIN WRAPPED 6-INCH".

THE RODENT SHIELD SHALL BE A PVC GRATE SIMILAR TO THIS DETAIL. THE GRATE IS COMMERCIALLY AVAILABLE AS A FLOOR STRAINER. A PIPE COUPLING IS REQUIRED FOR THE ATTACHMENT OF THIS SHIELD TO THE EXPOSED END OF THE PIPE UNDERDRAIN. THE SHIELD SHALL BE FASTENED TO THE PIPE COUPLING WITH TWO OR MORE NO. 10 X 1-INCH STAINLESS STEEL SHEET METAL SCREWS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

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SOUTH ABUTMENT

SHEET 5
260

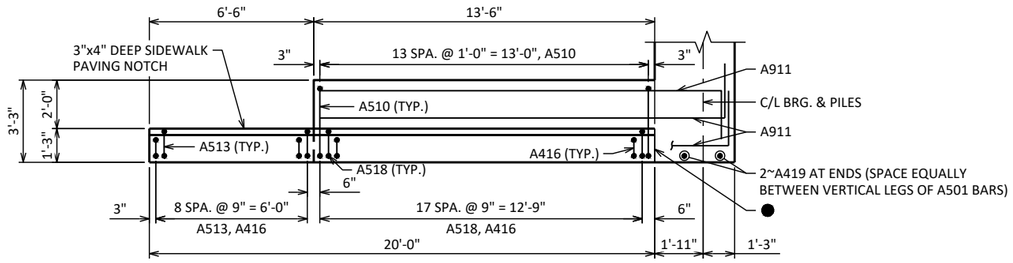
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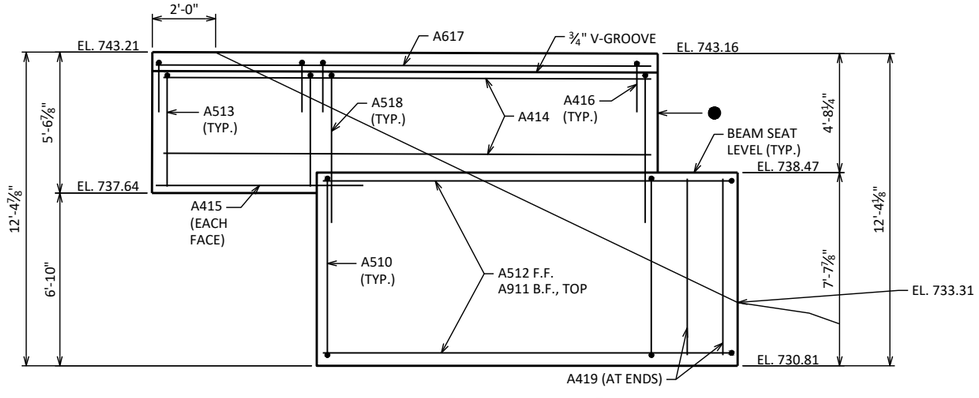
STATE PROJECT NUMBER

1130-66-83



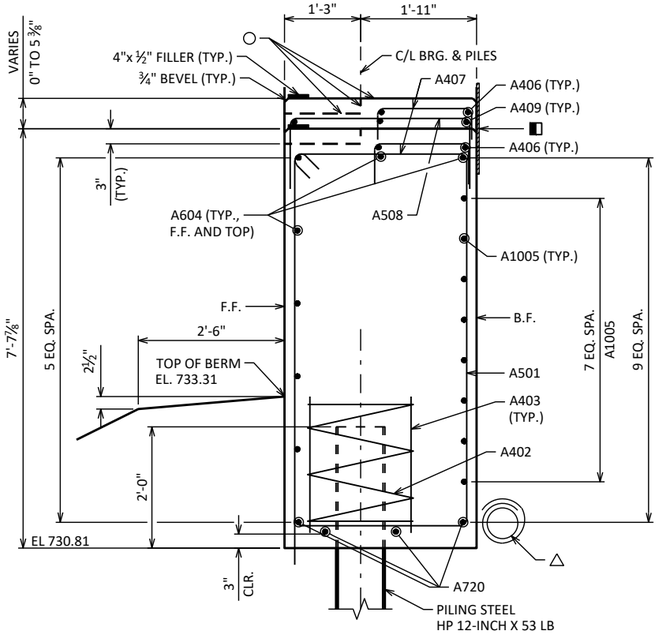
WING 1 PLAN

(WING 2 SIMILAR)

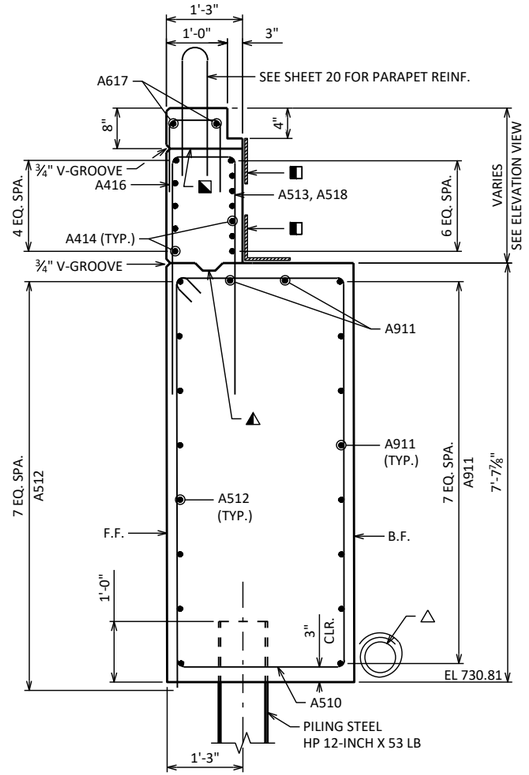


WING 1 ELEVATION

(LOOKING AT FRONT FACE)
(WING 2 SIMILAR)



BODY SECTION



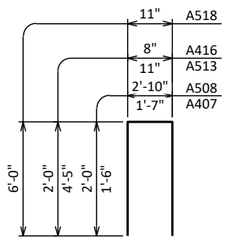
WING 1 SECTION

(WING 2 SIMILAR)

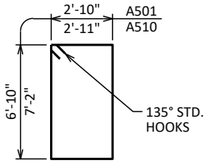
SOUTH ABUTMENT BILL OF BARS

UNCOATED: 4,760 LBS.
COATED: 3,350 LBS.

BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
A501	66	20'-0"	X		LOWER BODY - VERT. STIRRUPS
A402	11	28'-0"	X		LOWER BODY - PILES - SPIRAL
A403	22	2'-3"			LOWER BODY - PILES - VERT.
A604	7	52'-6"			BODY - F.F., TOP, - HORIZ.
A1005	8	55'-4"	X		BODY - B.F. - HORIZ.
A406	12	6'-6"			BODY - TOP - HORIZ.
A407	24	4'-5"	X		BODY - TOP - VERT.
A508	13	6'-7"	X		BODY - TOP - VERT.
A409	3	12'-0"			BODY - TOP - HORIZ.
A510	28	20'-10"	X	X	WINGS - LOWER STIRRUPS
A911	20	17'-7"	X	X	WINGS - LOWER - B.F. - HORIZ, TOP
A512	16	16'-4"		X	WINGS - LOWER - F.F. - HORIZ.
A513	18	9'-6"	X	X	WINGS - UPPER - VERT.
A414	24	19'-7"		X	WINGS - UPPER - F.F., B.F. - HORIZ.
A415	4	7'-9"		X	WINGS - UPPER - F.F., B.F. - HORIZ.
A416	54	4'-6"	X	X	WINGS - UPPER - SIDEWALK NOTCH - VERT.
A617	4	19'-7"		X	WINGS - UPPER - SIDEWALK NOTCH - HORIZ.
A518	36	12'-8"	X	X	WINGS - UPPER - VERT.
A419	4	7'-2"			BODY - ENDS - VERT.
A720	4	52'-6"			BODY - BTM. - HORIZ.



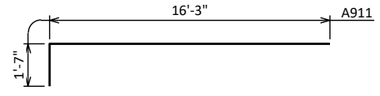
A407, A508, A513, A416, A518



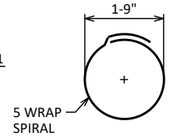
A501, A510

LEGEND

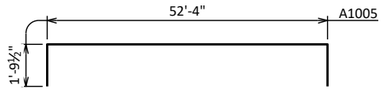
- ◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 5.
- ◭ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- ○ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ● ½" FILLER, INCLUDED IN WING LENGTH.
- ◪ CONSTRUCTION JOINT. LEAVE ROUGH. POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE.



A911



A402



A1005

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

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SOUTH ABUTMENT DETAILS

SHEET 6
261

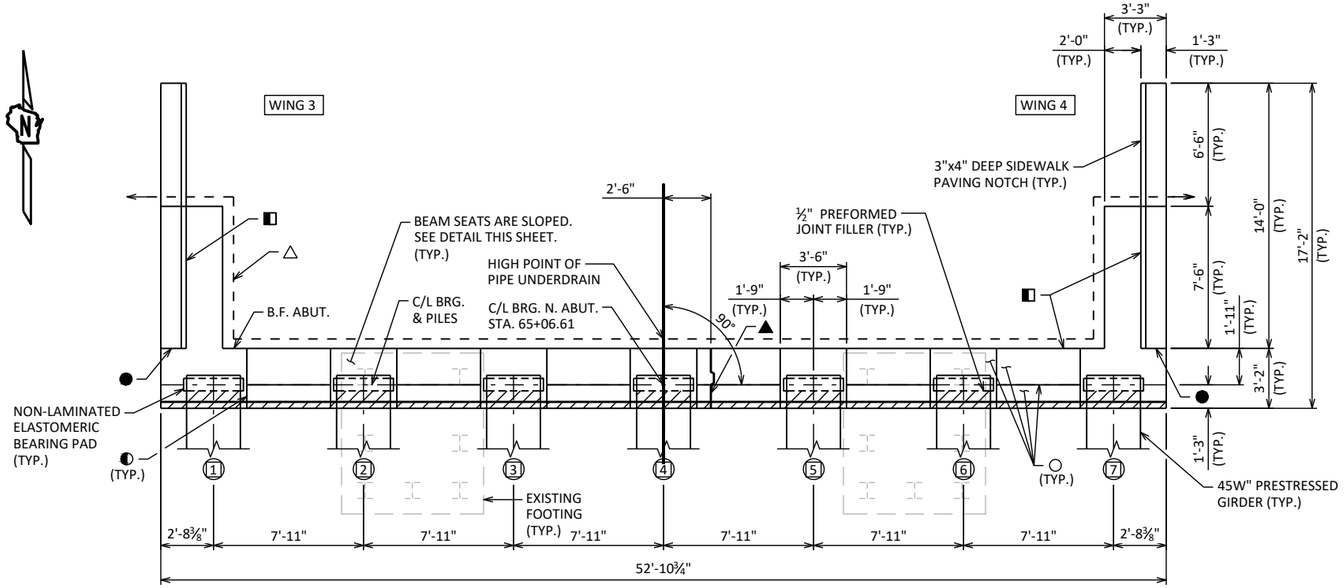
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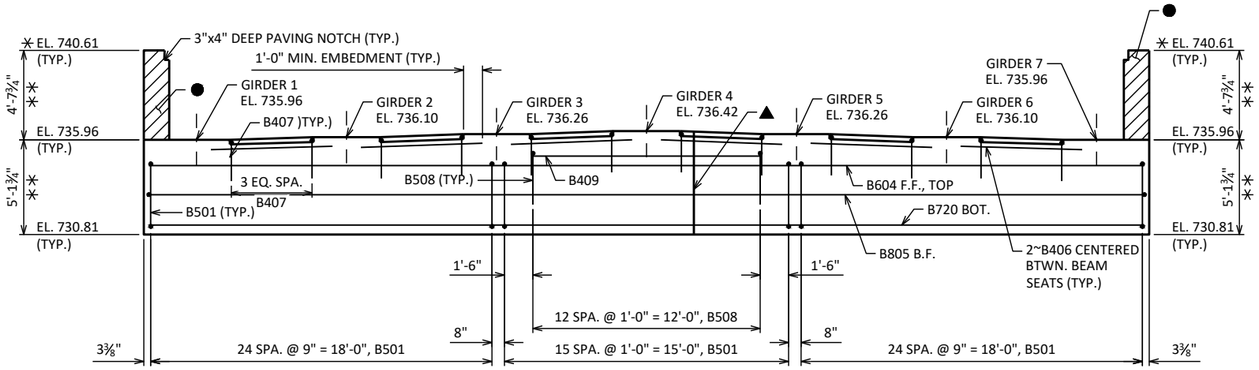
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STATE PROJECT NUMBER

1130-66-83

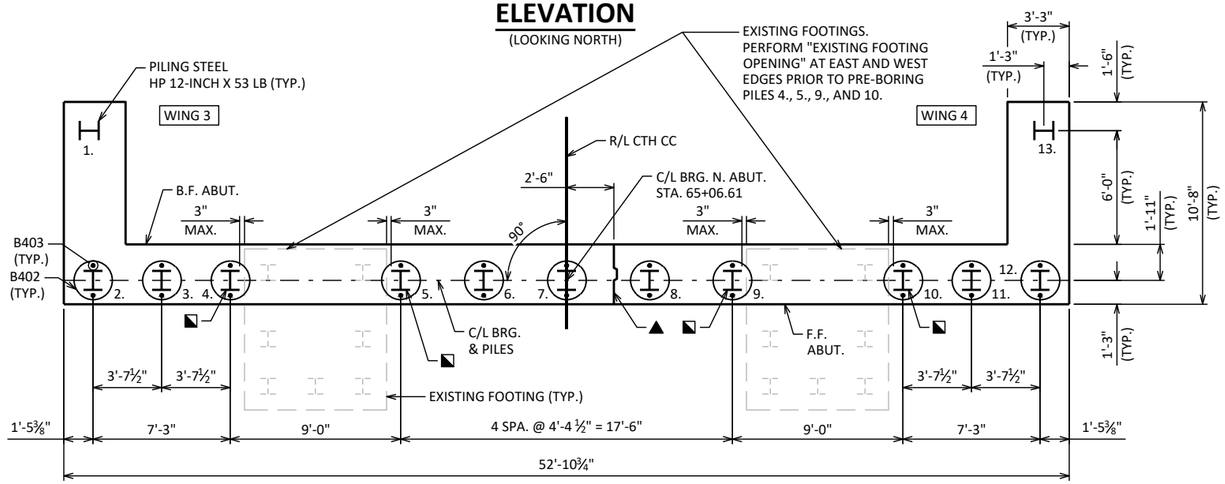


PLAN

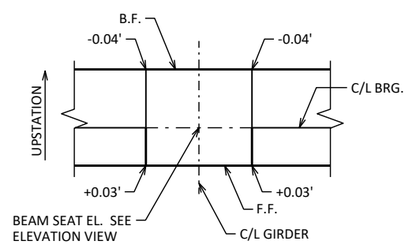


ELEVATION

(LOOKING NORTH)



PILE PLAN



SLOPED BEAM SEAT DETAIL

NOTES

SEAL ALL EXPOSED HORIZONTAL AND VERTICAL SURFACES OF ½" FILLER WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER (1" DEEP AND HOLD ⅛" BELOW SURFACE OF CONCRETE). EXTEND SEALER 3" BELOW FINISHED ROADWAY SURFACE AT INSIDE FACE.

ADJUST B501 BARS INTERFERING WITH PILES.

SEE SHEET 9 FOR PILE SPLICE DETAILS.

SEE SHEET 8 FOR REINFORCING DETAILS.

NORTH ABUTMENT TO BE SUPPORTED ON PILING STEEL 12-INCH X 53 LB WITH A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE. ESTIMATED 80 FEET LONG EACH.

LEGEND

- ● ½" FILLER. EXTEND FROM ABUT. SEAT TO TOP OF PARAPET. FILLER INCLUDED IN WING LENGTH.
- ◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- (#) INDICATES GIRDER NUMBER.
- ✳ ELEVATION GIVEN AT B.F. ABUTMENT.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE. SEE DETAIL ON SHEET 5.
- ○ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ■ 4"x½" PREFORMED JOINT FILLER, LENGTH OF ABUTMENT.
- ◐ ¾" CORK FILLER ON VERTICAL BEAM SEAT FACES THAT RUN PARALLEL WITH GIRDERS.
- ▲ VERTICAL CONSTRUCTION JOINT KEYWAY FORMED BY BEVELED 2"x8". PROVIDE ¾" V-GROOVE AT F.F. RUN BAR STEEL THRU JOINT. SEAL JOINT WITH 18" RUBBERIZED MEMBRANE WATERPROOFING (B.F.). SEE ABUTMENT DETAILS SHEET FOR ALTERNATE CONSTRUCTION JOINT DETAIL.
- ◥ PRE-BORE PILES 4., 5., 9., 10. FROM BOTTOM OF ABUTMENT ELEVATION TO TOP OF EXISTING FOOTING. CONTACT ENGINEER IF 9'-0" SPACING CANNOT BE MET.
- ✳✳ DIMENSION MEASURED TO BEAM SEAT ELEVATION AT C/L BRG.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

NORTH ABUTMENT

SHEET 7
262

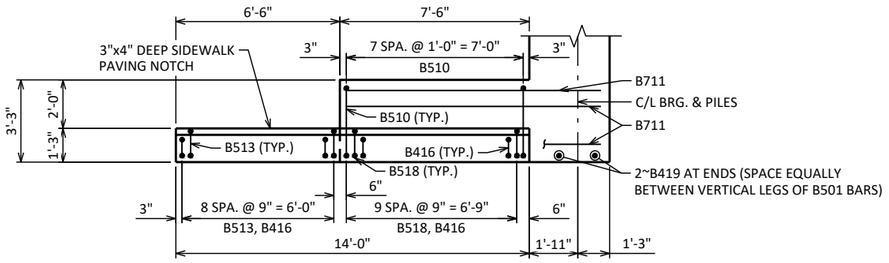
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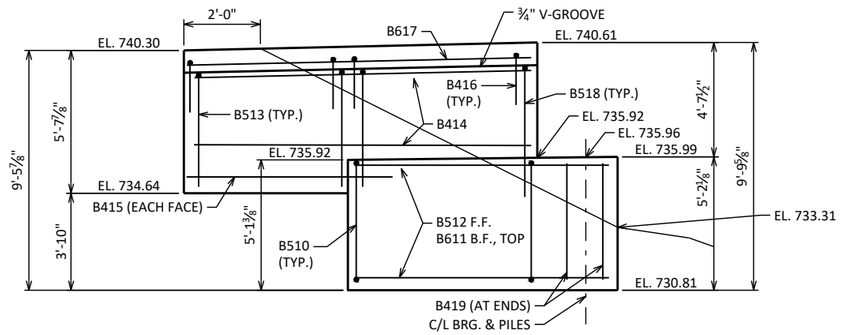
STATE PROJECT NUMBER

1130-66-83



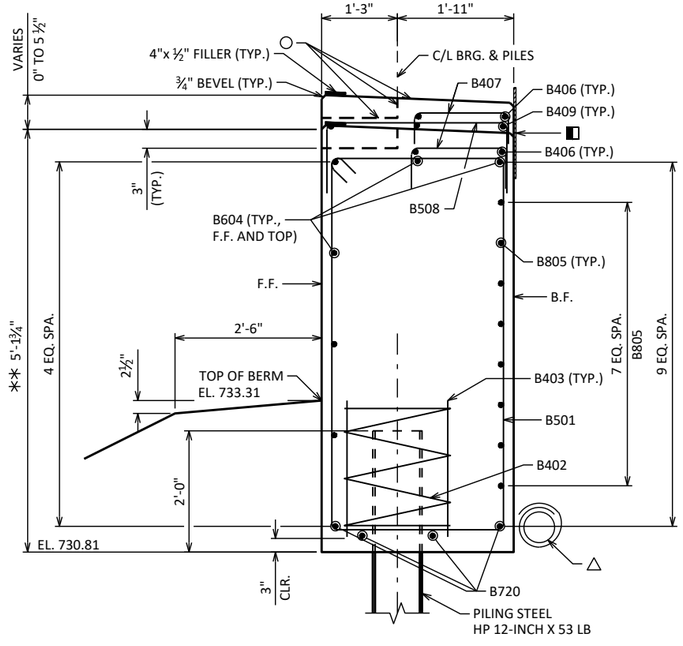
WING 3 PLAN

(WING 4 SIMILAR)

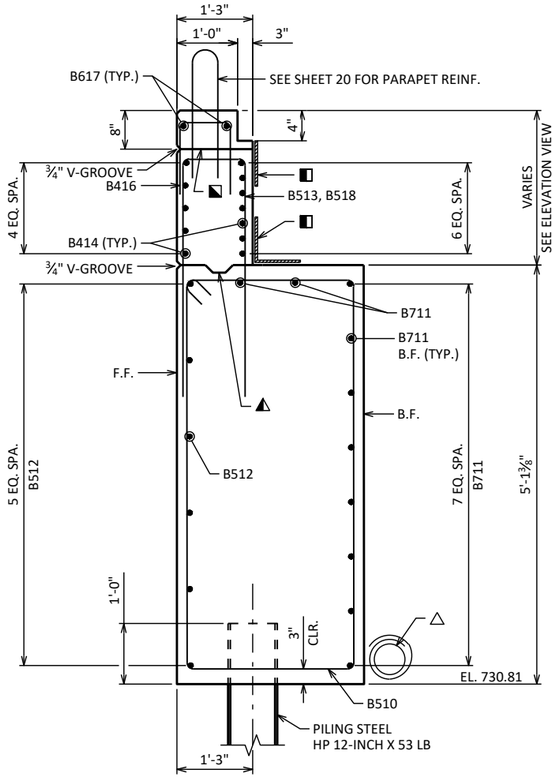


WING 3 ELEVATION

(LOOKING AT FRONT FACE)
(WING 4 SIMILAR)

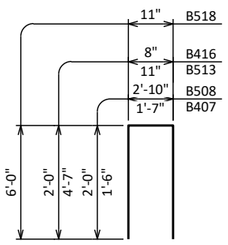


BODY SECTION

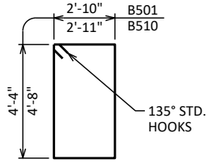


WING 3 SECTION

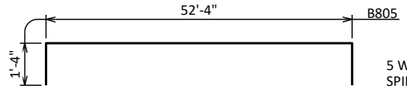
(WING 4 SIMILAR)



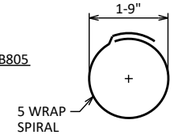
B407, B508, B513, B416, B518



B501, B510



B805



B402

NORTH ABUTMENT BILL OF BARS

UNCOATED: 3,590 LBS.
COATED: 1,700 LBS.

BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
B501	66	15'-0"	X		LOWER BODY - VERT. STIRRUPS
B402	11	28'-0"	X		LOWER BODY - PILES - SPIRAL
B403	22	2'-3"			LOWER BODY - PILES - VERT.
B604	6	52'-6"			BODY- F.F., TOP, - HORIZ.
B805	8	54'-7"	X		BODY - B.F. - HORIZ.
B406	12	6'-6"			BODY - TOP- HORIZ.
B407	24	4'-5"	X		BODY - TOP- VERT.
B508	13	6'-7"	X		BODY - TOP- VERT.
B409	3	12'-0"			BODY - TOP- HORIZ.
B510	16	15'-10"	X	X	WINGS - LOWER- STIRRUPS
B711	20	10'-4"		X	WINGS - LOWER- B.F. - HORIZ.
B512	12	10'-4"		X	WINGS - LOWER- F.F. - HORIZ.
B513	18	9'-10"	X	X	WINGS - UPPER - VERT.
B414	24	13'-7"		X	WINGS - UPPER - F.F., B.F. - HORIZ.
B415	4	7'-9"		X	WINGS - UPPER - F.F., B.F. - HORIZ.
B416	38	4'-6"	X	X	WINGS - UPPER - SIDEWALK NOTCH - VERT.
B617	4	13'-7"		X	WINGS - UPPER- SIDEWALK NOTCH - HORIZ.
B518	20	12'-8"	X	X	WINGS - UPPER - VERT.
B419	4	4'-8"			BODY - ENDS - VERT.
B720	4	52'-6"			BODY- BTM. - HORIZ.

LEGEND

- ◧ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.
- △ PIPE UNDERDRAIN WRAPPED (6-INCH). SLOPE 0.5% MIN. TO SUITABLE DRAINAGE. ATTACH RODENT SHIELD AT ENDS OF PIPE UNDERDRAIN AS DETAILED ON SHEET 5.
- ◭ OPTIONAL KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2"x6".
- ○ STEEL TROWEL TOP SURFACE OF ABUTMENT. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT TOP BEFORE PLACING BEARING PADS AND SUPERSTRUCTURE. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".
- ● ½" FILLER, INCLUDED IN WING LENGTH.
- ◪ CONSTRUCTION JOINT. LEAVE ROUGH. POUR CONCRETE ABOVE THIS JOINT AFTER SUPERSTRUCTURE IS IN PLACE.
- ** DIMENSION MEASURED TO BEAM SEAT ELEVATION AT C/L BRG.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

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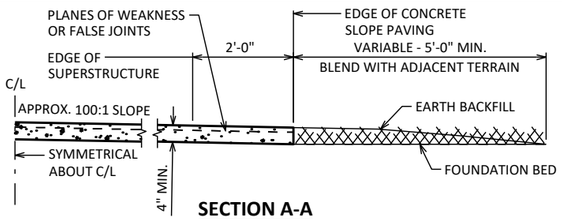
NORTH ABUTMENT DETAILS

SHEET 8
263

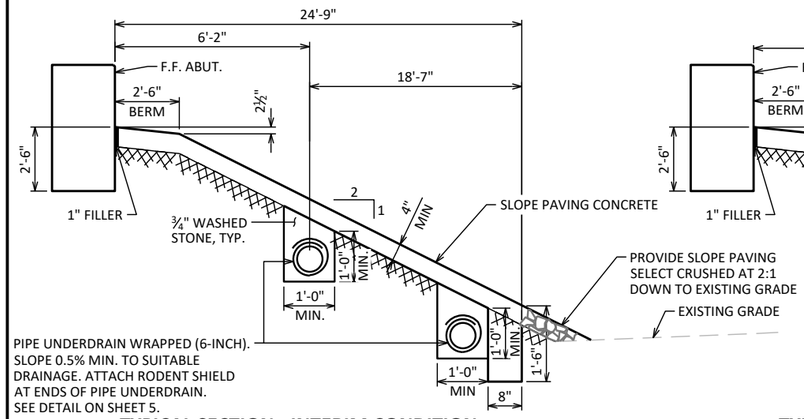
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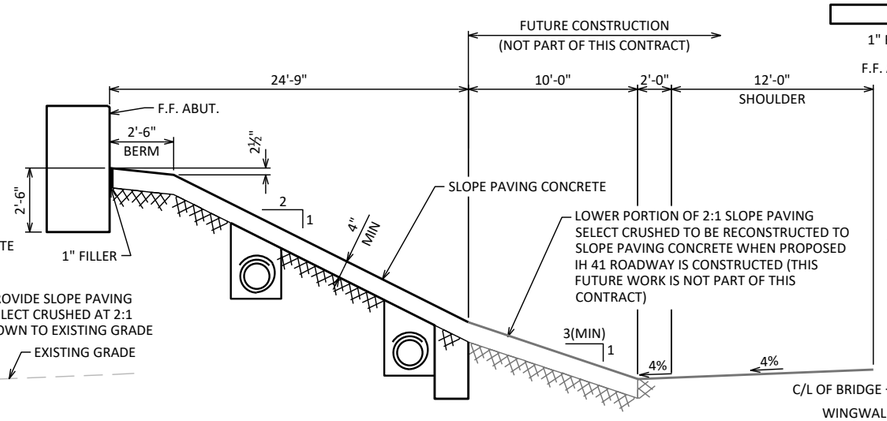
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SECTION A-A



TYPICAL SECTION - INTERIM CONDITION



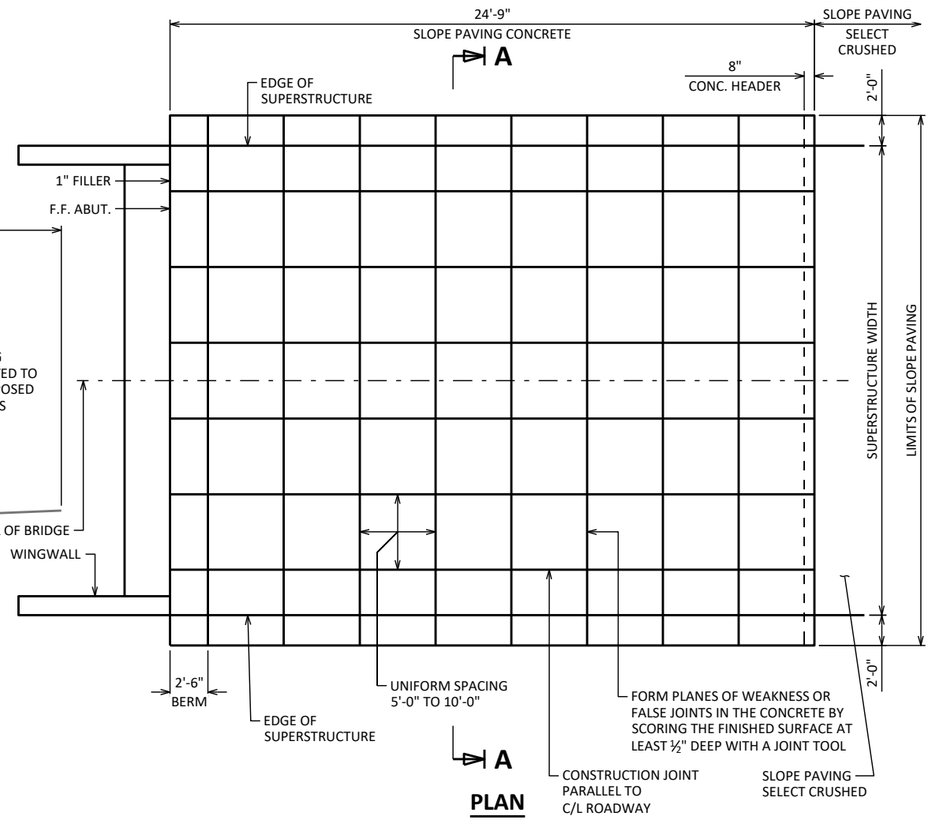
TYPICAL SECTION - ULTIMATE CONDITION

SLOPE PAVING

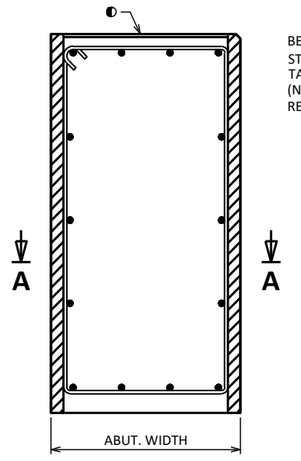
SLOPE PAVING NOTES

BID ITEMS SHALL BE "SLOPE PAVING CONCRETE", "SLOPE PAVING SELECT CRUSHED", AND "PIPE UNDERDRAIN WRAPPED 6-INCH".

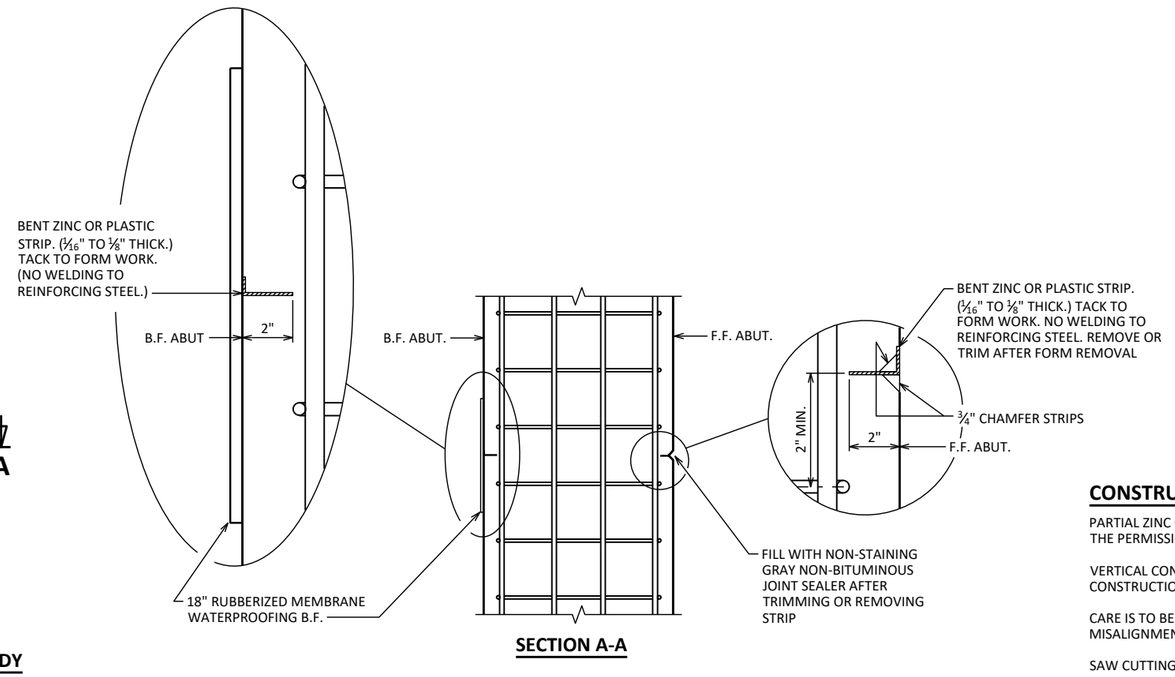
STATE PROJECT NUMBER
1130-66-83



PLAN

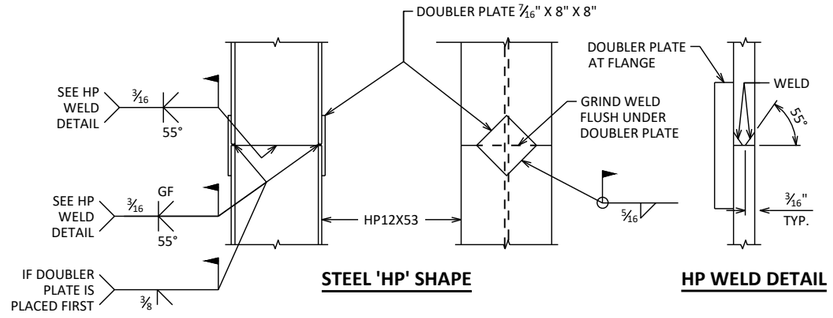


SECTION THRU ABUTMENT BODY



SECTION A-A

ALTERNATE CONSTRUCTION JOINT AT ABUTMENT



STEEL 'HP' SHAPE **HP WELD DETAIL**

'HP' PILE DETAILS

CONSTRUCTION JOINT NOTES

PARTIAL ZINC OR PLASTIC BULKHEAD MAY BE USED AS ALTERNATE CONSTRUCTION JOINT, WITH THE PERMISSION OF THE ENGINEER, AT THE CONTRACTOR'S EXPENSE.

VERTICAL CONSTRUCTION JOINT KEYWAY IS NOT REQUIRED WHEN USING ALTERNATE CONSTRUCTION JOINT.

CARE IS TO BE USED IN CASTING CONCRETE AROUND BULKHEAD TO PREVENT DISLOCATION OR MISALIGNMENT OF THE BULKHEAD.

SAW CUTTING JOINT IS NOT ALLOWED.

◐ USE A JOINT TOOL TO CONSTRUCT A CONTRACTION JOINT APPROXIMATELY ½" DEEP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY	ZHC	PLANS CK'D	KRB

ABUTMENT DETAILS

SHEET 9
264

SCALE =

8

8

STATE PROJECT NUMBER

1130-66-83

NOTES

PIER TO BE SUPPORTED ON HP 12-INCH X 53 LB. STEEL PILING DRIVEN TO A REQUIRED DRIVING RESISTANCE OF 220 TONS PER PILE AS DETERMINED BY THE MODIFIED GATES DYNAMIC FORMULA. ESTIMATED PILE LENGTH 60 FT EACH.

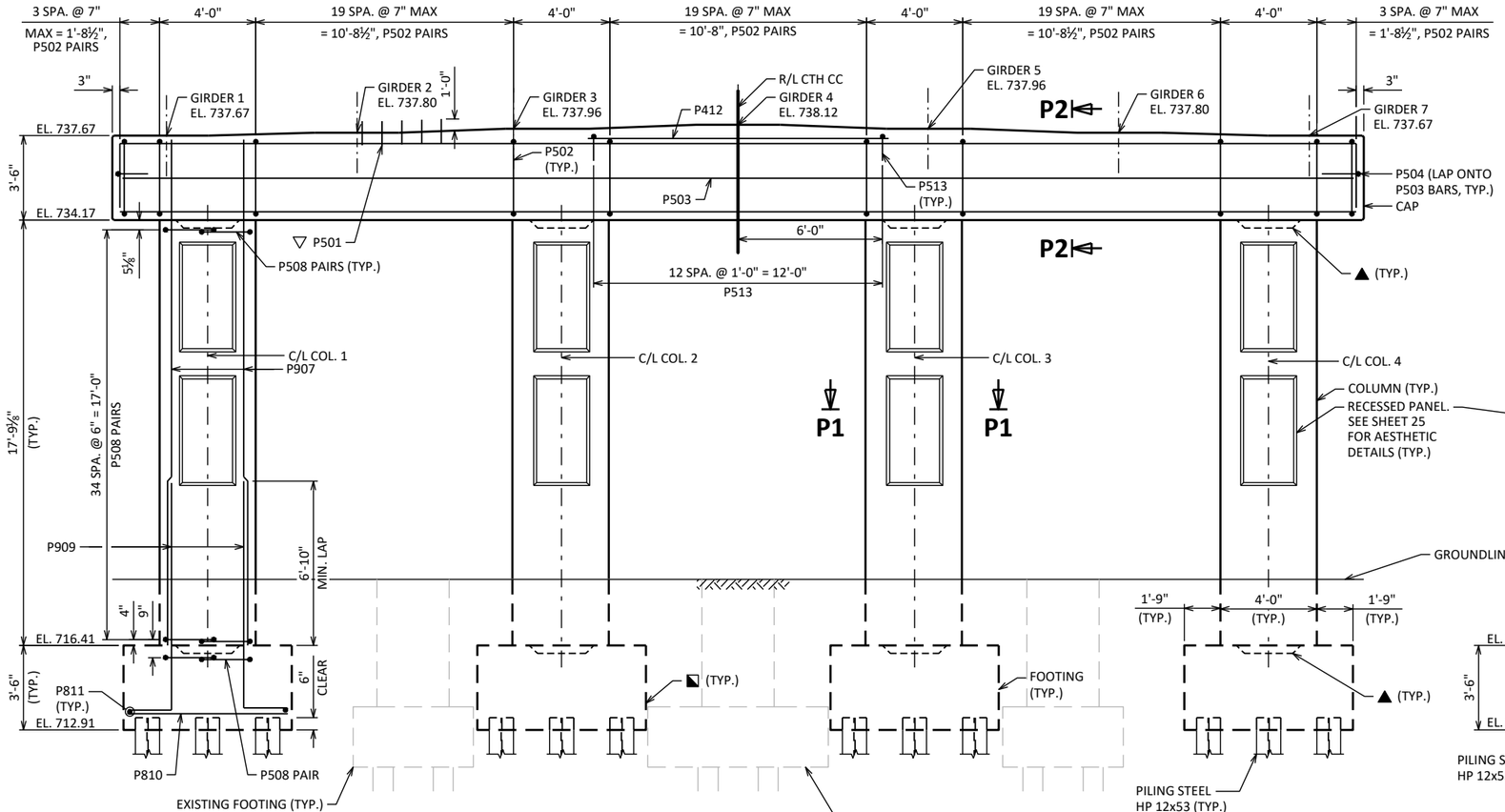
SEE SHEET 9 FOR PILE SPLICE DETAILS.

SEE SHEET 11 FOR PIER DETAILS.

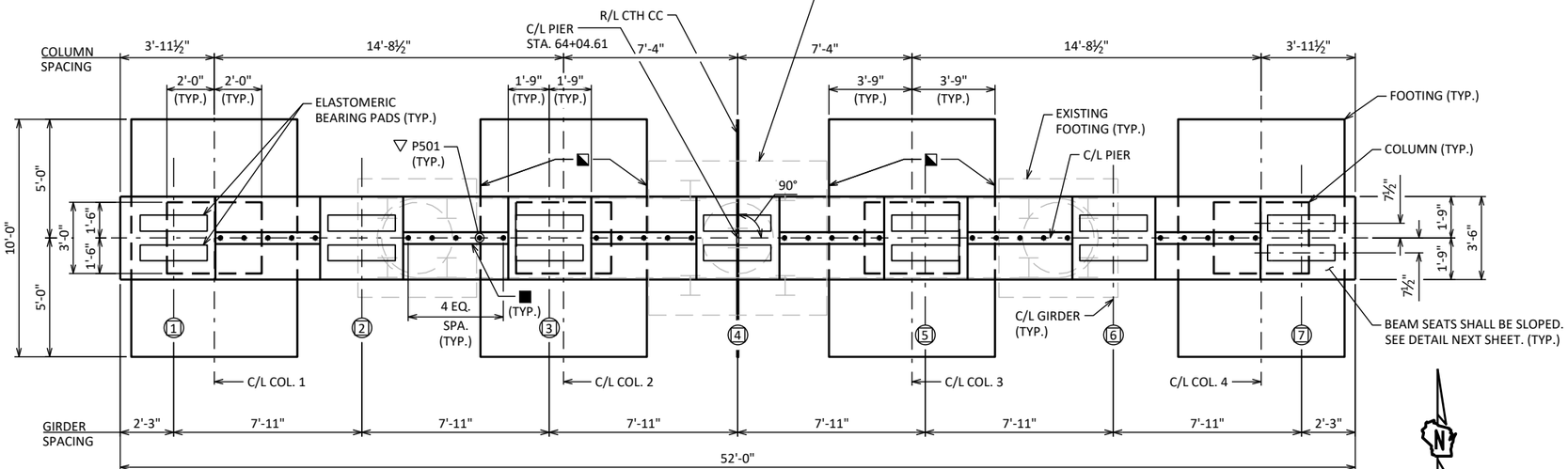
SEE SHEET 25 FOR AESTHETIC DETAILS.

LEGEND

- (#) INDICATES GIRDER NUMBER.
- ▲ 1'-3" x 2'-0" x 4" DEEP CONSTRUCTION JOINT FORMED BY BEVELED KEYWAY. (TYP.)
- ▽ P501 BARS @ 1'-0" MAX. BETWEEN BEAM SEATS, EMBED 1'-0". BARS MAY BE PLACED AFTER CONCRETE IS PIURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.
- ■ KEYED CONSTRUCTION JOINT FORMED BY BEVELED 2" x 6" BETWEEN BEAM SEATS. (TYP.)
- ◹ IF PLACING NEW CONCRETE ADJACENT TO EXISTING, SEPARATE WITH ½" PREFORMED JOINT FILLER.



END VIEW



PLAN

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

PIER

SHEET 10
265

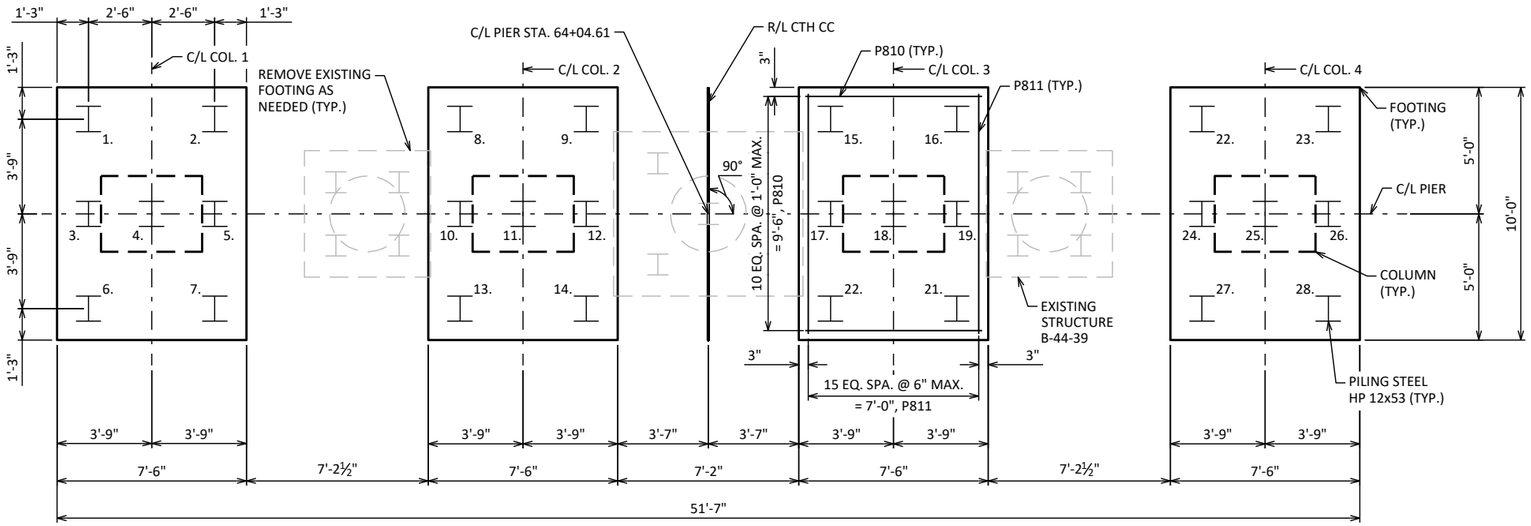
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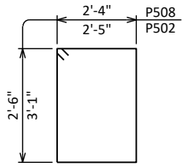
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STATE PROJECT NUMBER

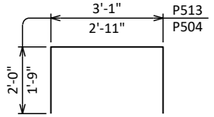
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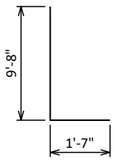
FOUNDATION PLAN



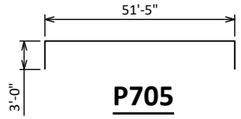
P502, P508



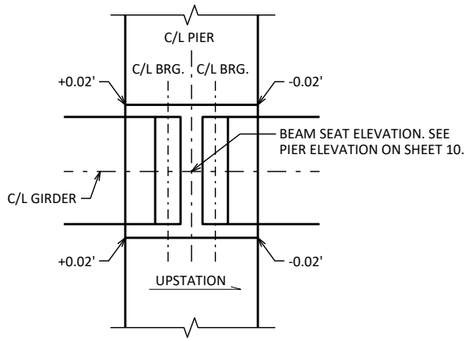
P504, P513



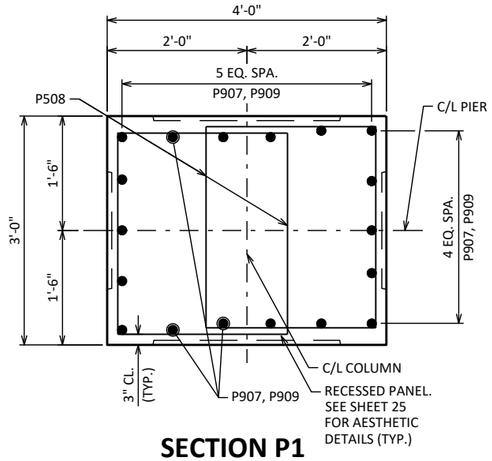
P909



P705

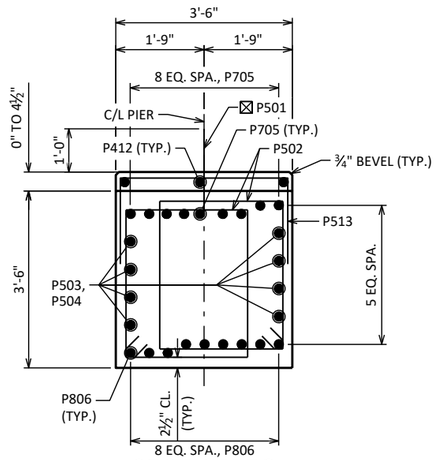


SLOPED BEAM SEAT DETAIL



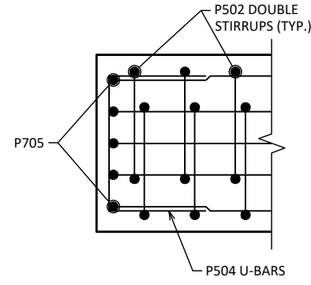
SECTION P1

(THRU COLUMN)



SECTION P2

(THRU CAP)



PLAN VIEW SHOWING END OF CAP REINF.

PIER BILL OF BARS

UNCOATED: 2,490 LBS
COATED: 15,520 LBS

BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
P501	30	2'-0"		X	CAP - DOWEL - VERT.
P502	136	11'-8"	X	X	CAP - STIRRUPS - VERT.
P503	8	51'-6"		X	CAP - SIDES - HORIZ.
P504	8	6'-2"	X	X	CAP - ENDS - HORIZ.
P705	9	57'-1"	X	X	CAP - TOP - HORIZ.
P806	9	51'-6"		X	CAP - BOT. - HORIZ.
P907	72	20'-11"		X	COLUMN - VERT.
P508	288	10'-4"	X	X	COLUMN - STIRRUPS
P909	72	11'-0"	X	X	FOOTING/COLUMN - VERT.
P810	44	7'-2"			FOOTING - HORIZ.
P811	64	9'-8"			FOOTING - HORIZ.
P412	3	12'-0"		x	CAP - TOP - HORIZ.
P513	13	6'-10"	x	x	CAP - STIRRUPS - VERT.

LEGEND

☒ P501 BARS @ 1'-0" MAX. BETWEEN BEAM SEATS, EMBED 1'-0". BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

PIER DETAILS

SHEET 11
266

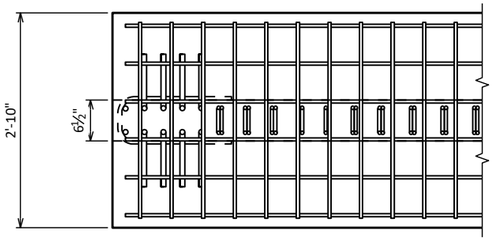
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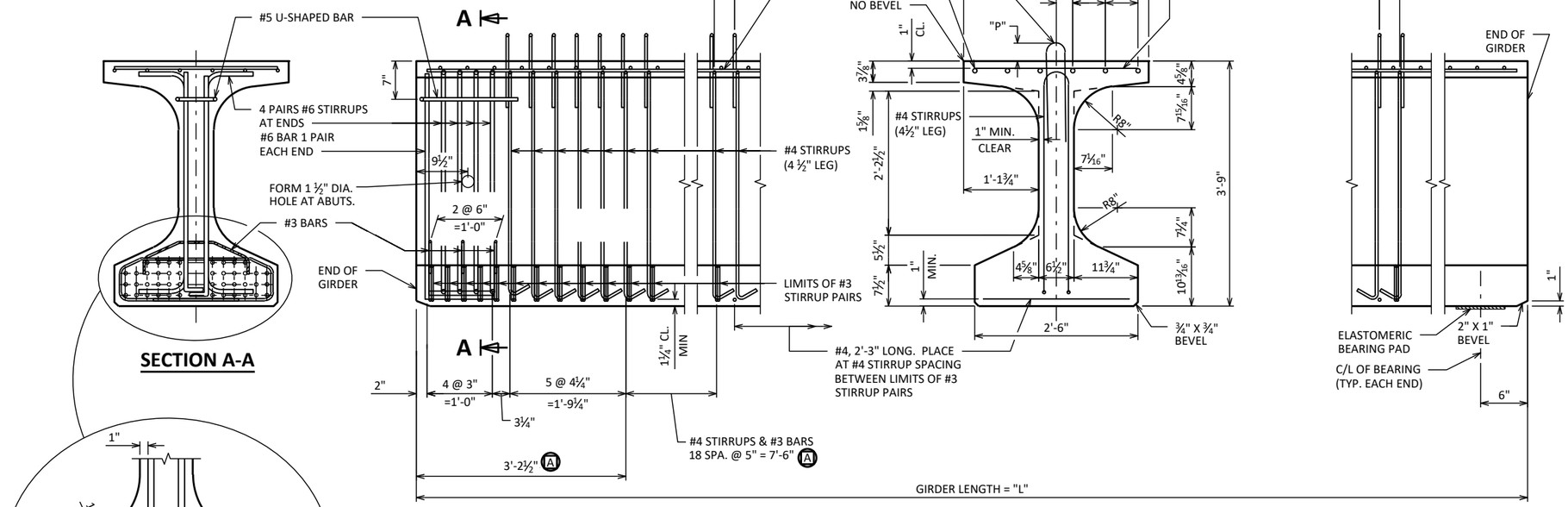
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STATE PROJECT NUMBER

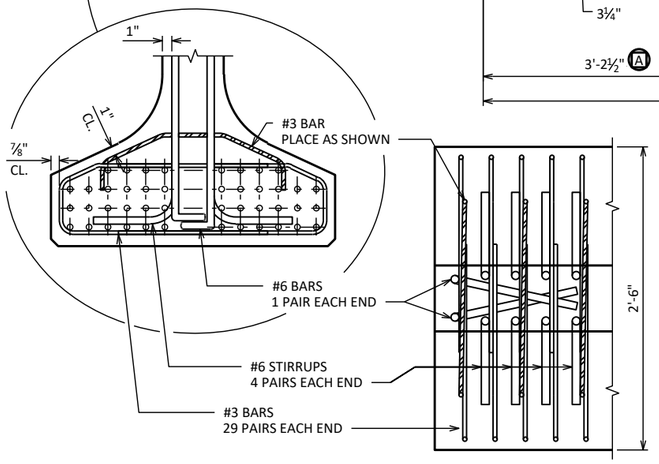
1130-66-83



TOP FLANGE



SECTION A-A

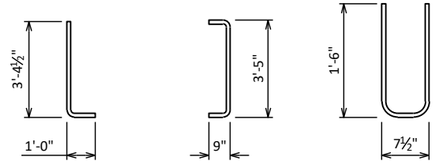


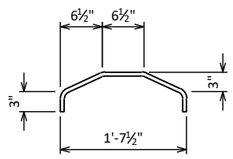
BOTTOM FLANGE

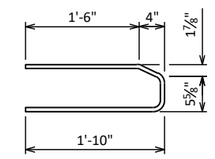
SIDE VIEW & TYPICAL SECTION IN SPAN

Ⓐ DETAIL TYP. AT EACH END

Ⓑ 6 - #5 BARS, FULL LENGTH, MIN. LAP = 2'-5"







NOTES

TOP OF GIRDER TO BE ROUGH FLOATED AND BROOMED TRANSVERSELY, EXCEPT THE OUTSIDE 8" OF GIRDER, WHICH SHALL RECEIVE A SMOOTH FINISH. AN APPROVED CONCRETE SEALER SHALL BE APPLIED TO ALL SMOOTH SURFACES INCLUDING THE OUTSIDE 8" OF THE TOP FLANGE.

THE GIRDERS SHALL BE PROVIDED WITH A SUITABLE LIFTING DEVICE FOR HANDLING AND ERECTING THE GIRDERS. SEE SECT. 503.3.4 OF STANDARD SPECIFICATIONS FOR GUIDANCE.

STRANDS SHALL BE FLUSH WITH END OF GIRDER. FOR GIRDER ENDS EMBEDDED COMPLETELY IN CONCRETE, END OF STRANDS SHALL BE COATED WITH NON-BITUMINOUS JOINT SEALER.

ALL GIRDERS SHALL BE CAST FULL LENGTH AS SHOWN.

SPACING SHOWN FOR #4 STIRRUPS IS FOR GRADE 60 REINFORCEMENT.

AN EQUIVALENT OF WELDED WIRE FABRIC (WWF) ASTM A1064 MAY BE SUBSTITUTED FOR THE STIRRUP REINFORCEMENT SHOWN, UPON ACCEPTANCE OF THE STRUCTURES MAINTENANCE SECTION. IF USED, WWF SUBSTITUTION DETAILS SHALL BE SUBMITTED ELECTRONICALLY TO THE WISDOT FABRICATION LIBRARY AND ACCEPTED PRIOR TO SHOP DRAWING SUBMITTAL.

PRESTRESSING STRANDS SHALL BE (0.6" DIA.)-7 WIRE LOW-RELAXATION STRANDS WITH AN ULTIMATE STRENGTH OF 270,000 PSI.

FOR DIAPHRAGM INSERT & CONNECTION DETAILS SEE "STEEL DIAPHRAGM" SHEET.

⚹ MINIMUM CYLINDER STRENGTH OF CONCRETE @ TIME OF TRANSFER OF PRESTRESS FORCE.

GIRDER DATA

SPAN	GIRDER	GIRDER LENGTH "L" (FEET)	DEAD LOAD DEFL. (IN.)									CONC. STRGTH. f'c (P.S.I.)	"P" (IN.)			DIA. OF STRAND (IN.)	DRAPED PATTERN					
			1/10	2/10	3/10	4/10	5/10	6/10	7/10	8/10	9/10		1ST ⅓ OF GIRDER	MID ⅓ OF GIRDER	END ⅓ OF GIRDER		TOTAL NO. OF STRANDS	f'ci (P.S.I.) ⚹	(IN.) "A"	"B" MIN.	"B" MAX.	"C"
1	1,7	102'-4 1/2"	0.52	1.02	1.41	1.65	1.73	1.64	1.39	0.99	0.51	8,000	7.00	7.00	7.00	0.6	32	6800	39.0	13.50	16.50	5.0
1	2-6	102'-4 1/2"	0.60	1.17	1.61	1.88	1.97	1.86	1.57	1.13	0.57	8,000	7.00	7.00	7.00	0.6	32	6800	39.0	13.50	16.50	5.0
2	1,7	102'-4 1/2"	0.51	0.99	1.39	1.64	1.73	1.65	1.41	1.02	0.52	8,000	7.00	7.00	7.00	0.6	32	6800	39.0	13.50	16.50	5.0
2	2-6	102'-4 1/2"	0.57	1.13	1.57	1.86	1.97	1.88	1.61	1.17	0.60	8,000	7.00	7.00	7.00	0.6	32	6800	39.0	13.50	16.50	5.0

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

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45W" PRESTRESSED GIRDER DETAILS - 1

SHEET 12
267

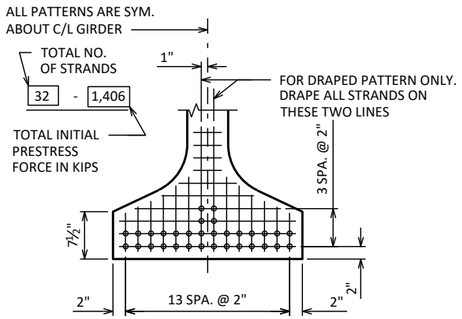
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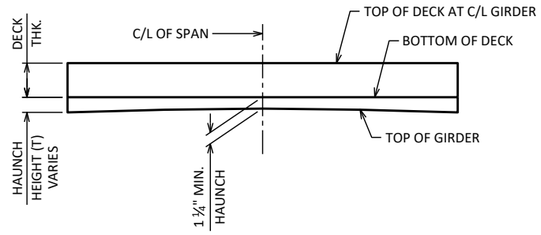
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STATE PROJECT NUMBER

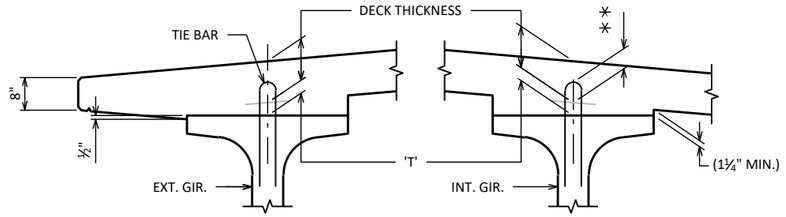
1130-66-83



TYP. STRAND PATTERN



ELEVATION



DECK HAUNCH DETAIL

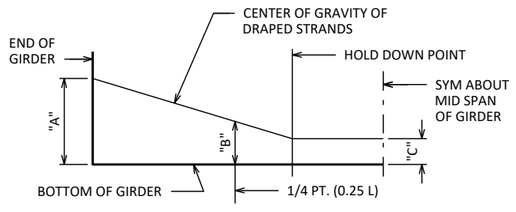
IF 1¼" MINIMUM HAUNCH HEIGHT AT EDGE OF GIRDER CANNOT BE MAINTAINED, THE GRADE LINE MAY BE REVISED BY THE ENGINEER AT THE OPTION OF THE CONTRACTOR, THE PLAN DECK THICKNESS SHALL BE HELD. NOTIFY THE STRUCTURES SECTION IF THE GRADE LINE IS RAISED FROM THE PLAN PROFILE BY MORE THAN ½" OR,

⁂ IF 3" MINIMUM DECK EMBEDMENT OF TIE BAR CANNOT BE OBTAINED.

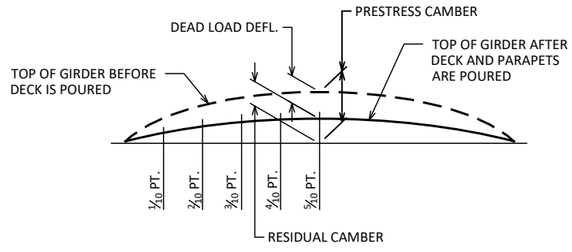
TO DETERMINE 'T', ELEV. OF TOP OF GIR'S. AT C/L OF SUBSTRUCTURE UNITS & AT 1/10 POINTS OF EACH SPAN SHALL BE TAKEN. THEN FOLLOW THIS PROCESS:

	TOP OF DECK ELEV. AT FINAL GRADE
-	TOP OF GIRDER ELEVATION
+	DEAD LOAD DEFLECTION
-	DECK THICKNESS
=	HAUNCH HEIGHT 'T'

NOTE: AN AVERAGE HAUNCH ('T') OF 3" WAS USED IN THE QUANTITY "CONCRETE MASONRY BRIDGES".



DRAPED STRAND PROFILE



CAMBER AND DEFLECTION DIAGRAM

⁂ THE THEORETICAL INITIAL CAMBER VALUE AT THE TIME OF STRAND RELEASE AT MIDSPAN MULTIPLIED BY A FACTOR OF 1.4 TO ACCOUNT FOR CAMBER GROWTH FROM THE TIME OF STRAND RELEASE TO JOBSITE PLACEMENT.

SPAN	GIRDER	CAMBER (IN.) ⁂
1	1,8	3.23
2	1,8	3.23
1	2-7	3.23
2	2-7	3.23

THESE VALUES ARE NOT TO BE USED IN DETERMINING 'T', USE ACTUAL GIRDER SHOTS.

THESE VALUES ARE FOR INFORMATIONAL PURPOSES ONLY.

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

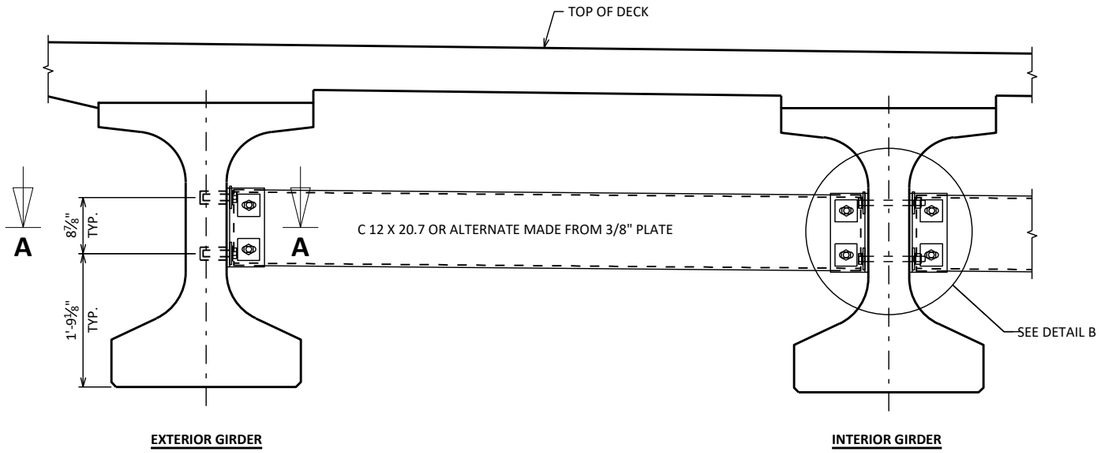
45W" PRESTRESSED GIRDER DETAILS - 2

SHEET 13
268

SCALE =

STATE PROJECT NUMBER

1130-66-83



PART TRANSVERSE SECTION AT DIAPHRAGM

NOTES

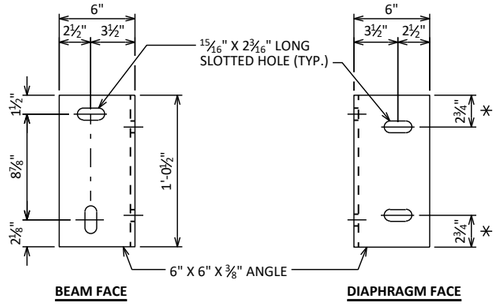
ALL DIAPHRAGM MATERIAL NOT EMBEDDED IN THE CONCRETE GIRDER SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "STEEL DIAPHRAGMS B-44-333", EACH.

EACH DIAPHRAGM BETWEEN GIRDERS SHALL CONSTITUTE ONE UNIT.

ALL DIAPHRAGM STRUCTURAL STEEL SHALL BE ASTM A709 GRADE 36.

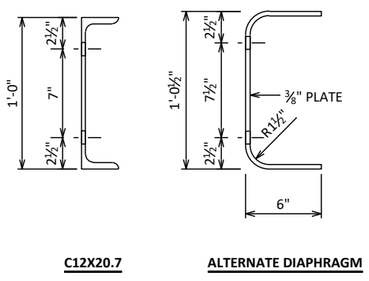
ALL DIAPHRAGM MATERIAL INCLUDING BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED AFTER FABRICATION.

STEEL DIAPHRAGM TO CONCRETE WEB CONNECTION SHALL BE SNUG-TIGHT PLUS 1/4 TURN, UNLESS NOTED OTHERWISE. HIGH STRENGTH BOLTS FOR WEB CONNECTION SHALL MEET THE REQUIREMENTS FOR ASTM A325 OR ASTM A449.

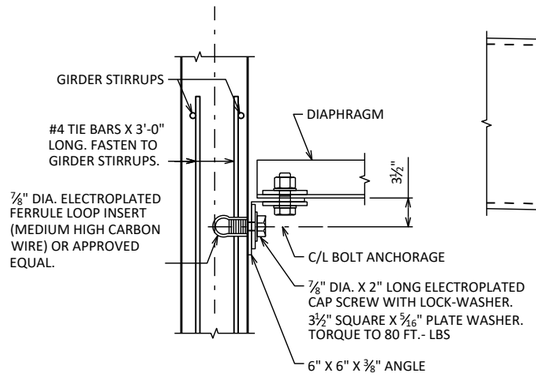


DIAPHRAGM SUPPORT

* 2½" FOR ALTERNATE PLATE DIAPHRAGM

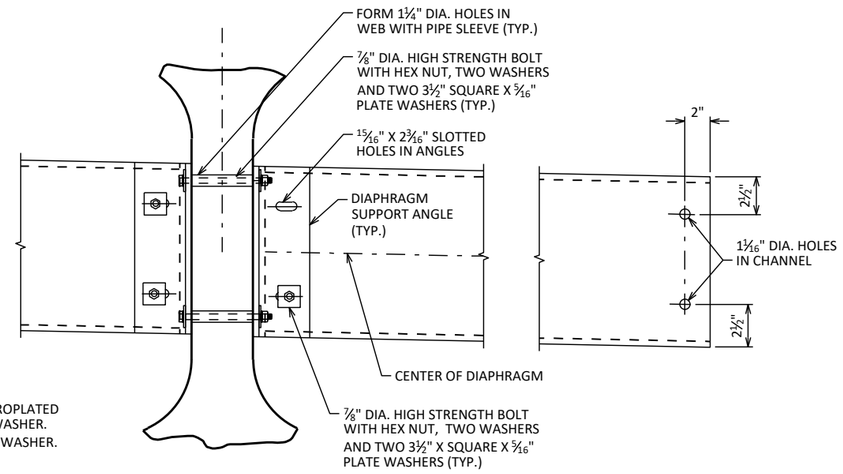


SECTION THRU DIAPHRAGM

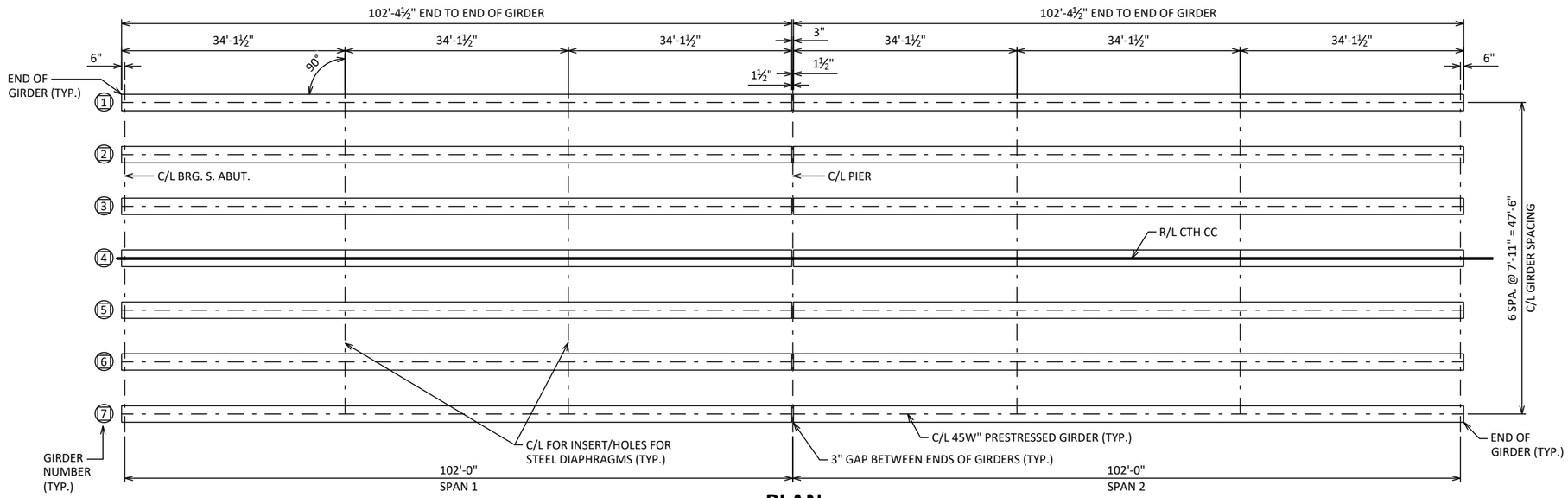


SECTION A-A

(FOR EXTERIOR ATTACHMENT)



DETAIL B



PLAN

(SHOWING STEEL DIAPHRAGM LAYOUT)

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

STEEL DIAPHRAGMS

SHEET 14

269

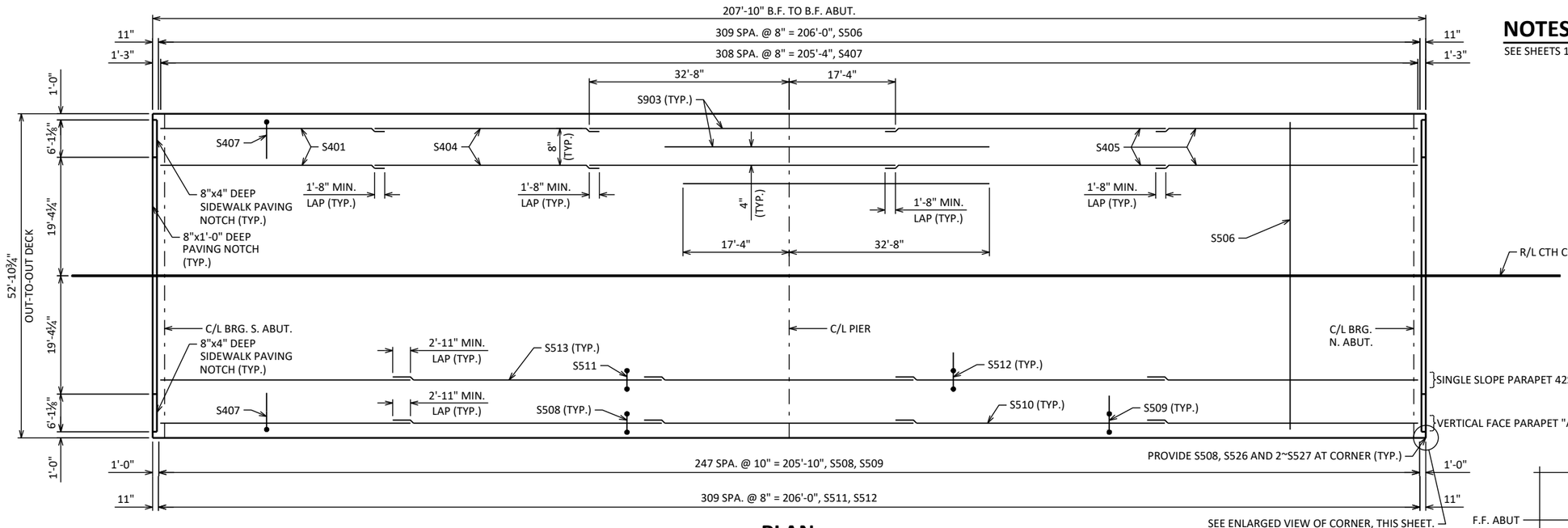
SCALE =

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8

STATE PROJECT NUMBER

1130-66-83

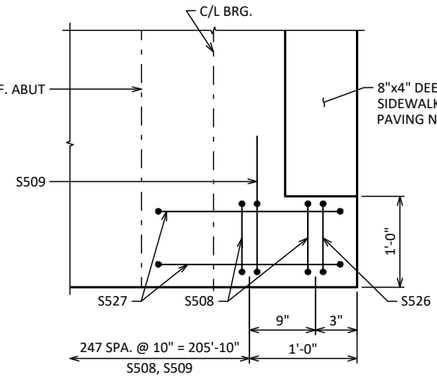


PLAN

(SHOWING TOP MAT SLAB REINFORCING)

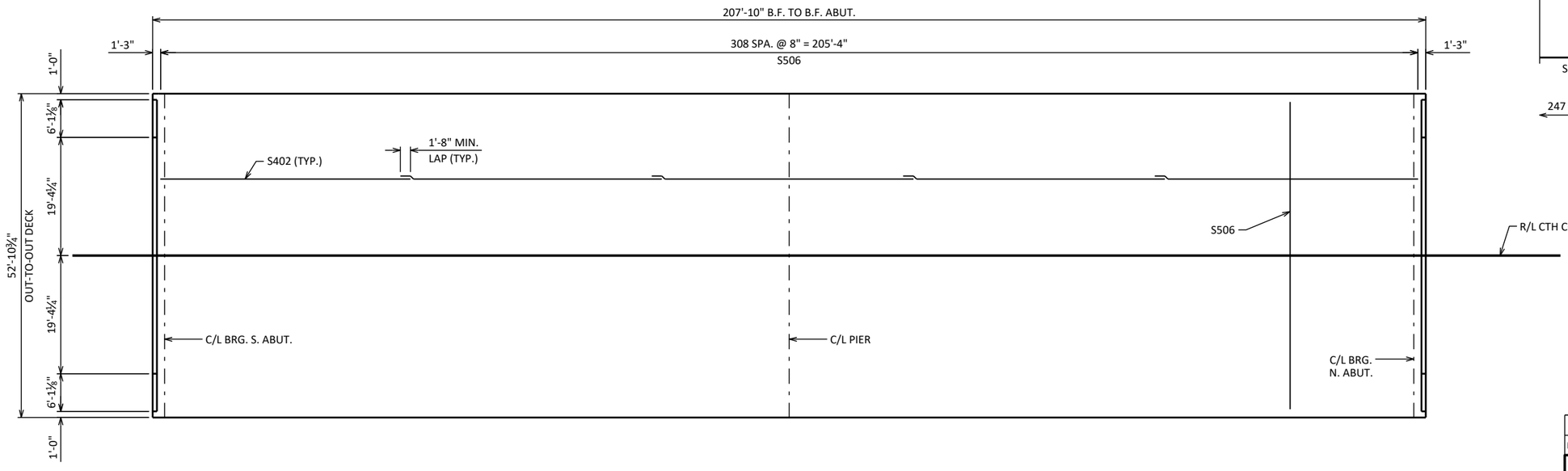
NOTES

SEE SHEETS 16-18 FOR REINFORCING DETAILS.



ENLARGED VIEW AT NE CORNER

(OTHER CORNERS SIMLAR)



PLAN

(SHOWING BOTTOM MAT SLAB REINFORCING)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

SUPERSTRUCTURE PLAN

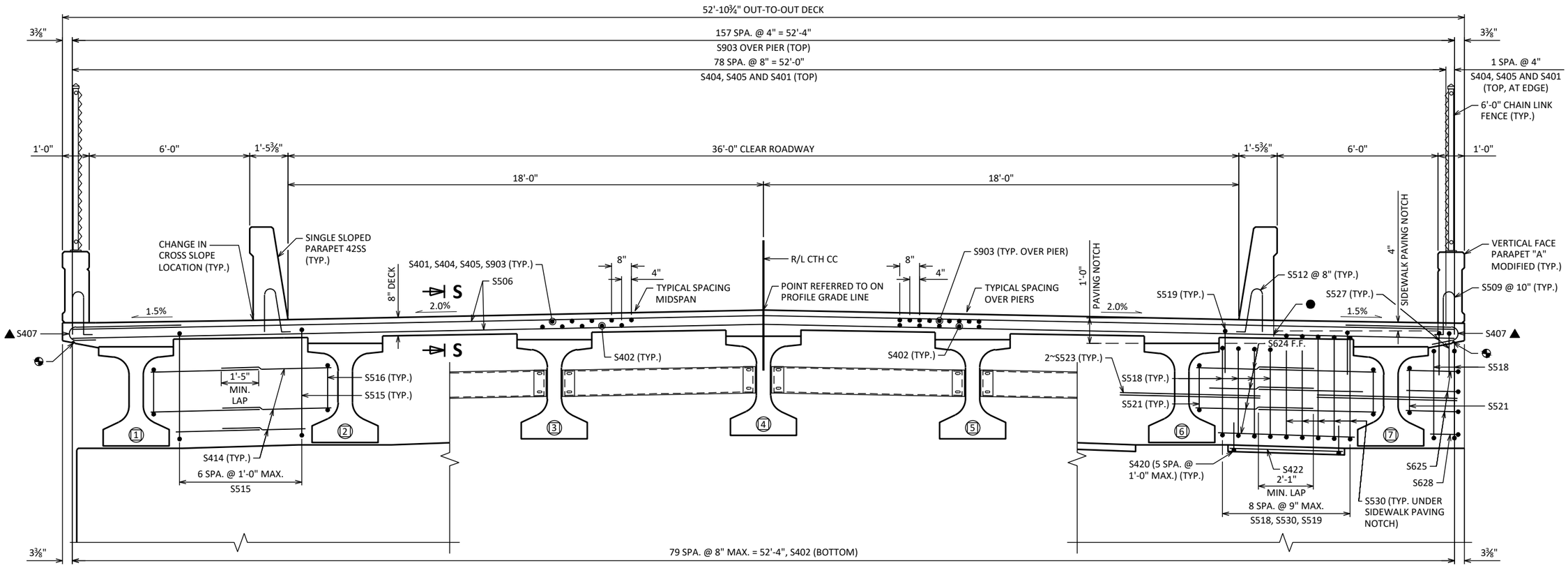
SHEET 15
270

SCALE =

8

8

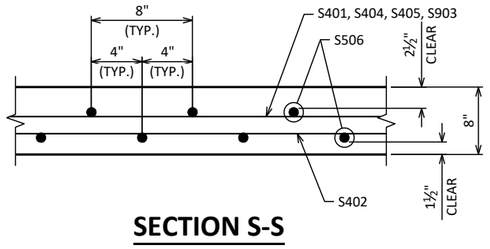
STATE PROJECT NUMBER
1130-66-83



CONCRETE DIAPHRAGM AT PIER | **IN-SPAN DIAPHRAGM** | **CONCRETE DIAPHRAGM AT ABUTMENTS**

CROSS SECTION THROUGH DECK

(LOOKING NORTH)



SECTION S-S

LEGEND

- (#) INDICATES GIRDER NUMBER.
- ¾" V-GROOVE REQ'D. EXTEND TO 6" FROM F.F. OF ABUTMENT DIAPHRAGMS.
- ▲ LOCATE S407 BETWEEN S506.
- ● ½" FILLER BETWEEN SIDEWALK PAVING NOTCH AND PARAPET FOOTING

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

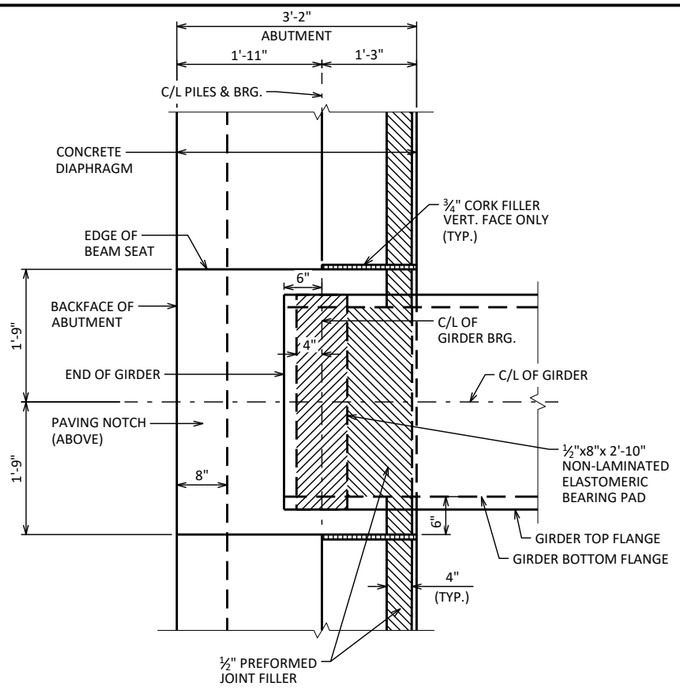
SUPERSTRUCTURE SECTION

SHEET 16
271

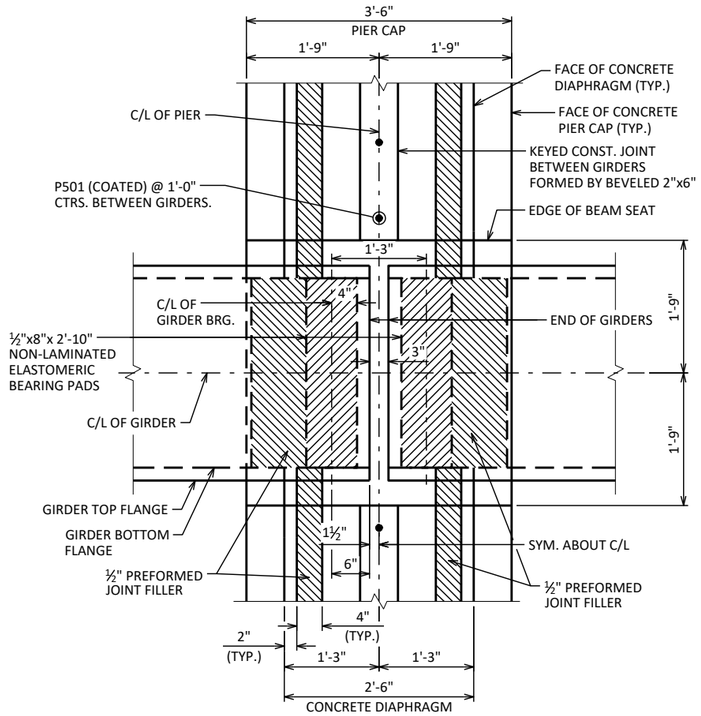
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STATE PROJECT NUMBER

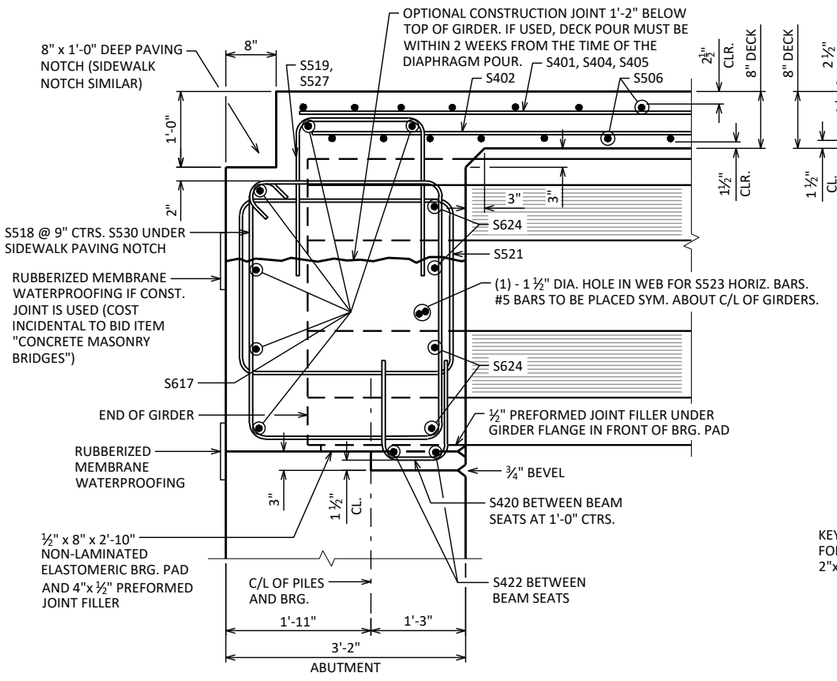
1130-66-83



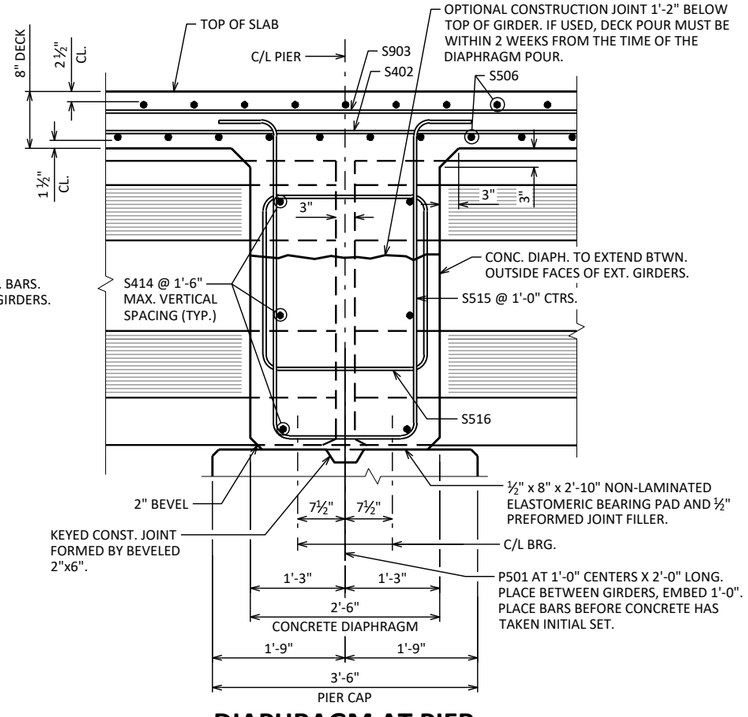
BEARING PAD AT ABUTMENT



BEARING PAD AT PIER



PRESTRESSED GIRDER WITH SEMI-EXPANSION SEAT



DIAPHRAGM AT PIER

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

SUPERSTRUCTURE DETAILS - 1

SHEET 17
272

SCALE =

STATE PROJECT NUMBER

1130-66-83

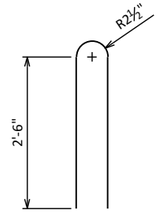
TOP OF DECK ELEVATIONS

LOCATION	STATION	LOCATION 'A'	LOCATION 'B'	LOCATION 'C'	LOCATION 'D'	LOCATION 'E'	LOCATION 'F'	LOCATION 'G'
		WEST EDGE OF DECK (OFFSET = 26.45' LT)	INSIDE FACE PARAPET 'A' (OFFSET = 25.20' LT)	C/L GIRDER 1 (OFFSET = 23.75' LT)	BACK FACE 42SS PARAPET (OFFSET = 19.31' LT)	C/L GIRDER 2 (OFFSET = 15.83' LT)	C/L GIRDER 3 (OFFSET = 7.92' LT)	C/L GIRDER 4 (OFFSET = 0.00') (R/L CTH CC)
		EAST EDGE OF DECK (OFFSET = 26.45' RT)	INSIDE FACE PARAPET 'A' (OFFSET = 25.20' RT)	C/L GIRDER 7 (OFFSET = 23.75' RT)	BACK FACE 42SS PARAPET (OFFSET = 19.31' RT)	C/L GIRDER 6 (OFFSET = 15.83' RT)	C/L GIRDER 5 (OFFSET = 7.92' RT)	
C/L BRG. S. ABUT.	63+02.61	743.16	743.16	743.18	743.24	743.31	743.47	743.63
0.1 SPAN	63+12.81	743.12	743.12	743.14	743.20	743.27	743.43	743.59
0.2 SPAN	63+23.01	743.07	743.07	743.09	743.15	743.22	743.38	743.54
0.3 SPAN	63+33.21	743.01	743.01	743.03	743.10	743.17	743.32	743.48
0.4 SPAN	63+43.41	742.94	742.94	742.96	743.03	743.10	743.26	743.42
0.5 SPAN	63+53.61	742.87	742.87	742.89	742.95	743.02	743.18	743.34
0.6 SPAN	63+63.81	742.78	742.78	742.80	742.87	742.94	743.10	743.26
0.7 SPAN	63+74.01	742.69	742.69	742.71	742.78	742.85	743.00	743.16
0.8 SPAN	63+84.21	742.58	742.58	742.61	742.67	742.74	742.90	743.06
0.9 SPAN	63+94.41	742.47	742.47	742.49	742.56	742.63	742.79	742.95
C/L PIER	64+04.61	742.35	742.35	742.37	742.44	742.51	742.67	742.83
0.1 SPAN	64+14.81	742.22	742.22	742.24	742.31	742.38	742.54	742.70
0.2 SPAN	64+25.01	742.08	742.08	742.11	742.17	742.24	742.40	742.56
0.3 SPAN	64+35.21	741.94	741.94	741.96	742.02	742.09	742.25	742.41
0.4 SPAN	64+45.41	741.78	741.78	741.80	741.87	741.94	742.10	742.25
0.5 SPAN	64+55.61	741.61	741.61	741.64	741.70	741.77	741.93	742.09
0.6 SPAN	64+65.81	741.44	741.44	741.46	741.53	741.60	741.76	741.91
0.7 SPAN	64+76.01	741.26	741.26	741.28	741.34	741.41	741.57	741.73
0.8 SPAN	64+86.21	741.06	741.06	741.08	741.15	741.22	741.38	741.54
0.9 SPAN	64+96.41	740.86	740.86	740.88	740.95	741.02	741.18	741.34
C/L BRG. N. ABUT.	65+06.61	740.65	740.65	740.67	740.74	740.81	740.97	741.13

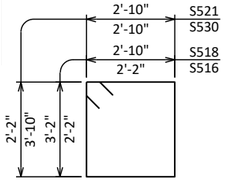
SUPERSTRUCTURE BILL OF BARS

COATED: 107,630 LBS

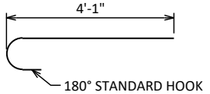
BAR MARK	NO. REQ'D	LENGTH	BENT	COAT	LOCATION
S401	80	37'-9"		X	SLAB - LONG. - TOP - SPANS 1&2
S402	400	42'-7"		X	SLAB - LONG. - BOTTOM - SPANS 1&2
S903	158	50'-0"		X	SLAB - LONG. - TOP AT PIER
S404	80	36'-0"		X	SLAB - LONG. - TOP - SPAN 1
S405	160	44'-7"		X	SLAB - LONG. - TOP - SPAN 2
S506	619	52'-6"		X	SLAB - TRANS. - TOP & BOTTOM - SPANS 1 & 2
S407	618	4'-7"	X	X	SLAB - TRANS. - TOP - OVERHANG
S508	500	4'-9"	X	X	PARAPET - VERT. - TYPE 'A'
S509	498	4'-4"	X	X	PARAPET - VERT. - TYPE 'A'
S510	80	43'-10"		X	PARAPET - LONG. - TYPE 'A'
S511	620	6'-8"	X	X	PARAPET VERT. - 42SS
S512	620	4'-5"	X	X	PARAPET VERT. - 42SS
S513	80	43'-7"		X	PARAPET LONG. - 42SS
S414	72	4'-3"		X	PIER DIAPHRAGM - HORIZ.
S515	42	11'-8"	X	X	PIER DIAPHRAGM - VERT.
S516	12	9'-4"	X	X	PIER DIAPHRAGM - VERT.
S617	12	52'-6"		X	ABUT. DIAPHRAGM - HORIZ -B.F., TOP
S518	96	12'-8"	X	X	ABUT. DIAPHRAGM - VERT.
S519	108	6'-11"	X	X	ABUT. DIAPHRAGM - VERT.
S420	72	3'-5"	X	X	ABUT. DIAPHRAGM - VERT.
S521	28	10'-8"	X	X	ABUT. DIAPHRAGM - VERT.
S422	24	4'-2"		X	ABUT. DIAPHRAGM - HORIZ
S523	28	6'-0"		X	ABUT. DIAPHRAGM. - GIRDER ENDS
S624	84	5'-1"		X	ABUT. DIAPHRAGM - HORIZ
S625	12	6'-4"	X	X	ABUT. DIAPHRAGM - HORIZ
S526	4	5'-9"	X	X	PARAPET - VERT. - TYPE 'A' CORNERS
S527	8	7'-7"	X	X	ABUT. DIAPHRAGM - VERT. - CORNERS
S628	4	4'-6"	X	X	ABUT. DIAPHRAGM - HORIZ - ENDS
S529	2	2'-2"		X	PARAPET - VERT. - TYPE 'A' JUNCTION BOX
S530	20	14'-0"	X	X	ABUT. DIAPHRAGM - VERT.



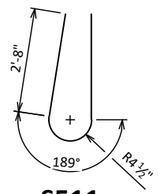
S526



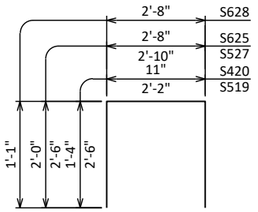
S516, S518, S521, S530



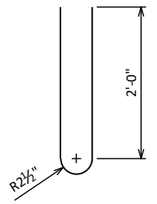
S407



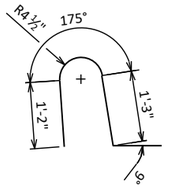
S511



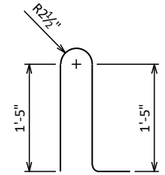
S519, S420, S625, S527, S628



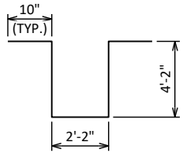
S508



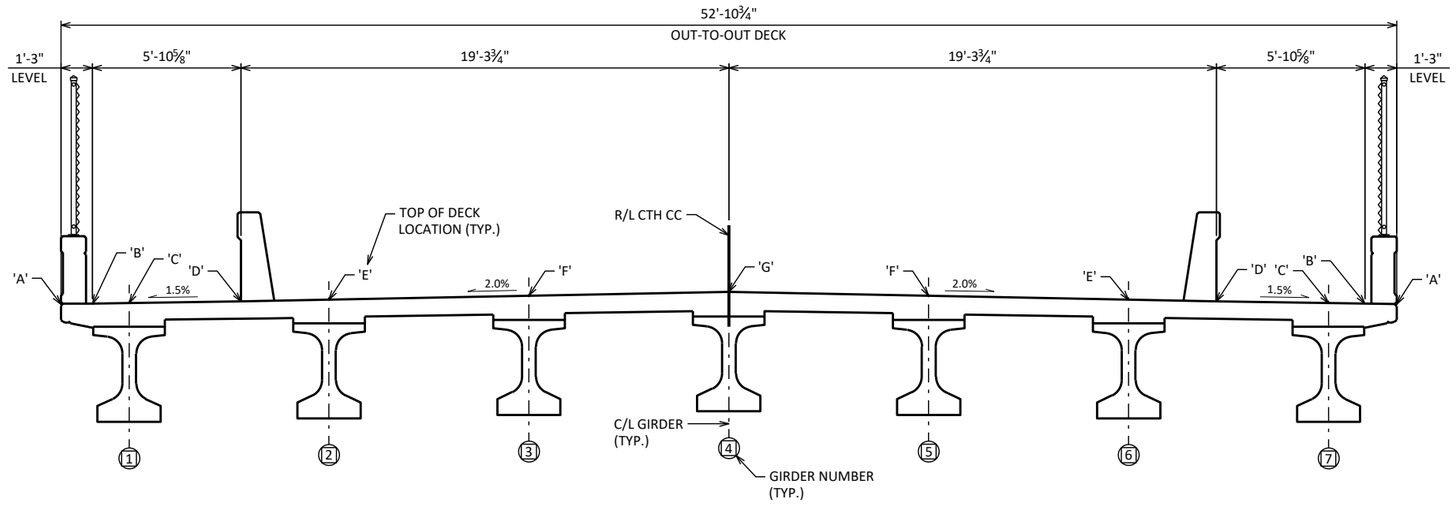
S512



S509



S515



CROSS SECTION THRU DECK

(LOOKING NORTH-SHOWING TOP OF DECK ELEVATION LOCATIONS)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

SUPERSTRUCTURE DETAILS - 2

SHEET 18
273

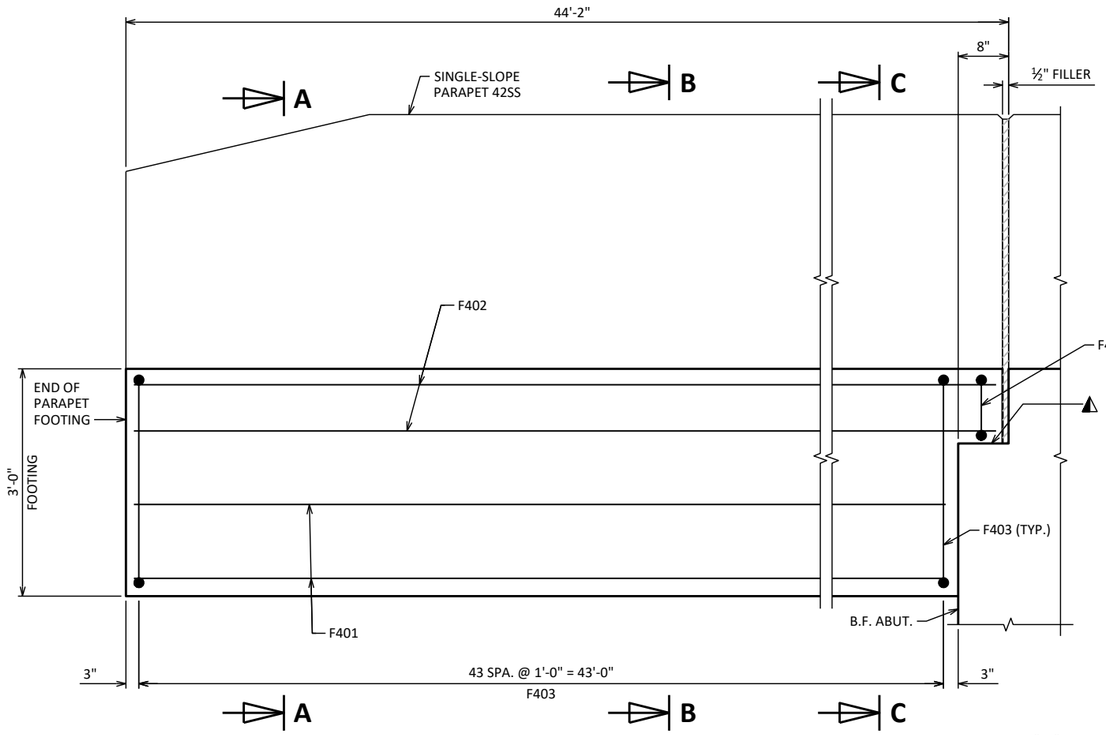
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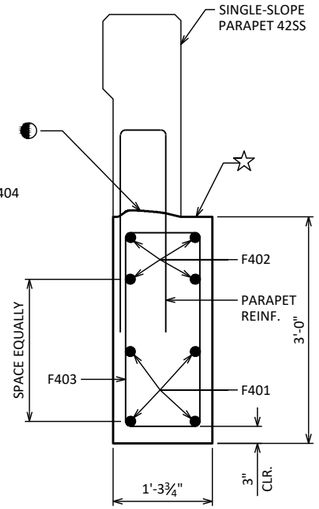
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STATE PROJECT NUMBER

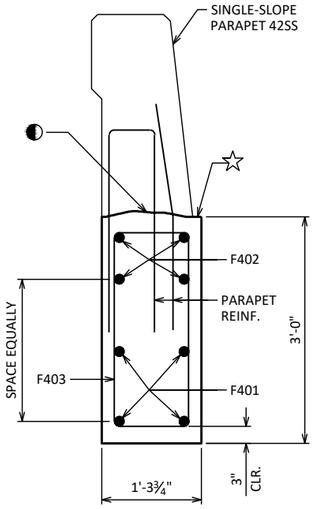
1130-66-83



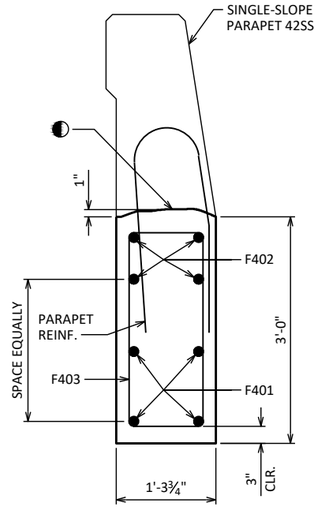
INSIDE ELEVATION



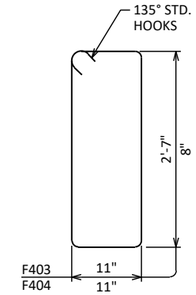
SECTION A-A



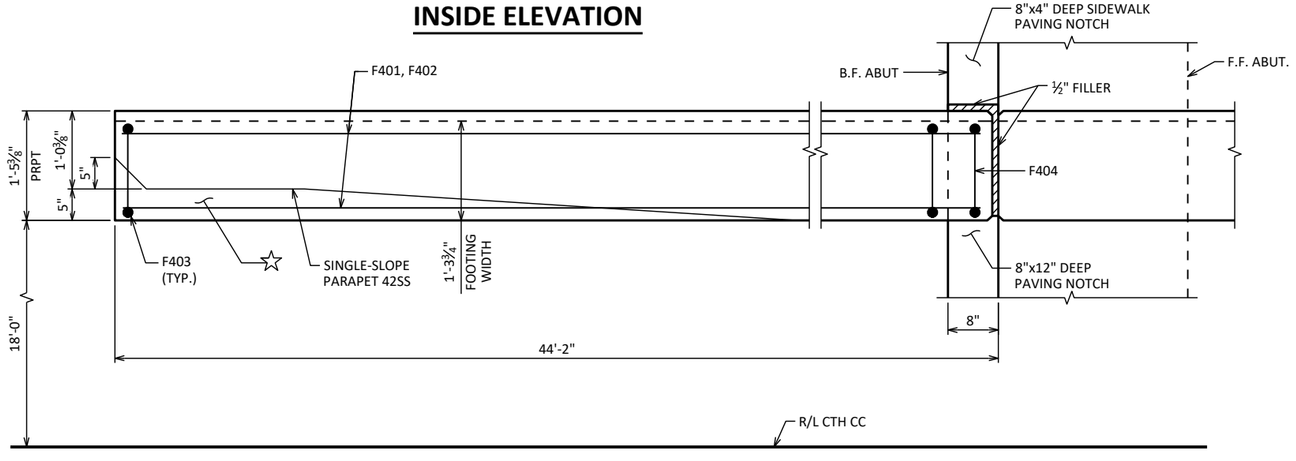
SECTION B-B



SECTION C-C



F403, F404



PLAN

(SHOWING SW QUADRANT. OTHERS SIMILAR)

PARAPET FOOTING BILL OF BARS

COATED: 1,820 LBS

BAR MARK	NO. REQ'D		LENGTH	BENT	COAT	LOCATION
	S. ABUT.	N. ABUT.				
F401	8	8	43'-2"		X	FOOTING - BOTTOM - HORIZ.
F402	8	8	43'-9"		X	FOOTING - TOP - HORIZ.
F403	88	88	7'-6"	X	X	FOOTING - VERT.
F404	2	2	3'-8"	X	X	FOOTING - VERT. - ADJACENT TO ABUTMENT

NOTES

PARAPET SHOWN FOR INFORMATION ONLY. SEE PARAPET SHEETS FOR PARAPET DETAILS AND REINFORCEMENT.

LEGEND

▲ STEEL TROWEL HORIZ. SURFACE OF ABUTMENT PAVING NOTCH. PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS BETWEEN PARAPET FOOTING AND HORIZ. SURFACE OF PAVING NOTCH. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

◐ CONSTR. JOINT - STRIKE OFF AS SHOWN.

☆ FINISH SURFACE NOT COVERED BY PARAPET SAME AS ROADWAY.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

PARAPET FOOTING

SHEET 19
274

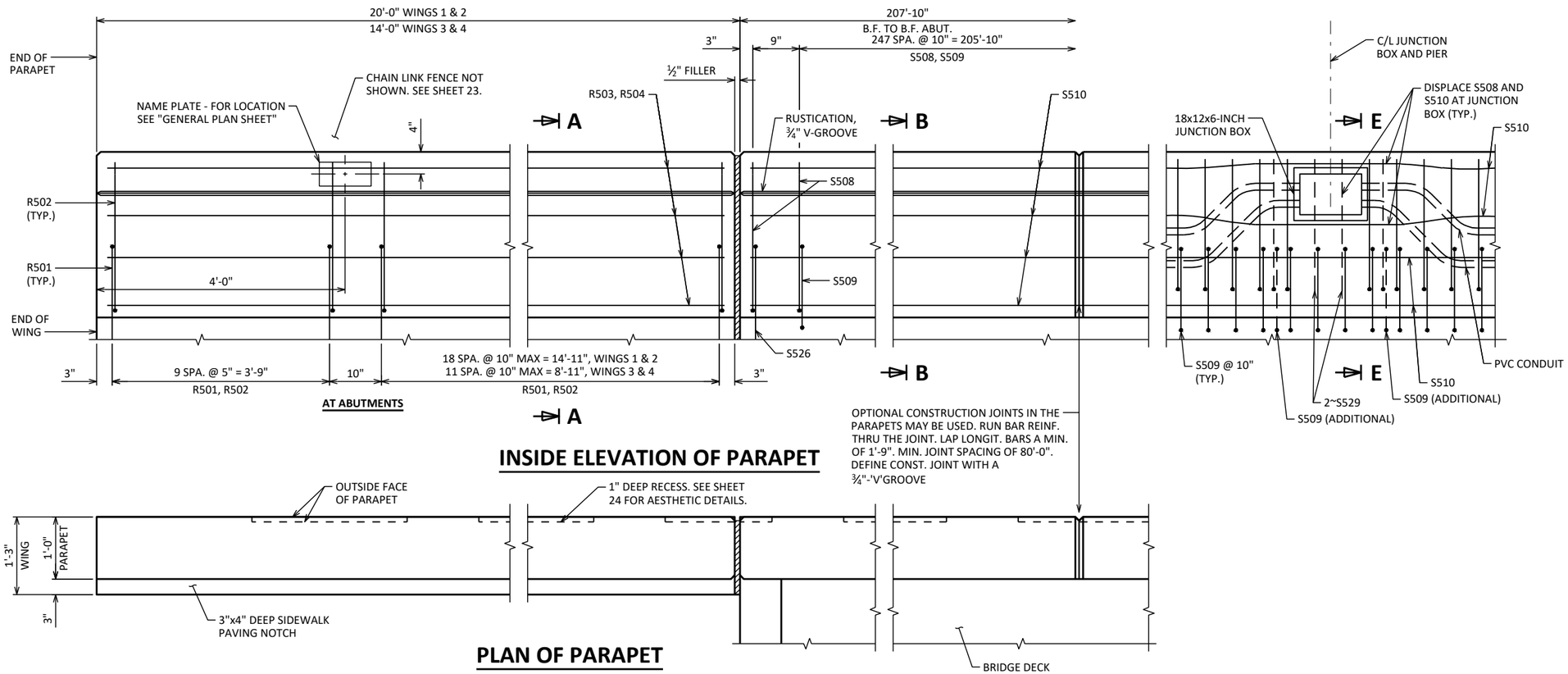
SCALE =

8

8

STATE PROJECT NUMBER

1130-66-83

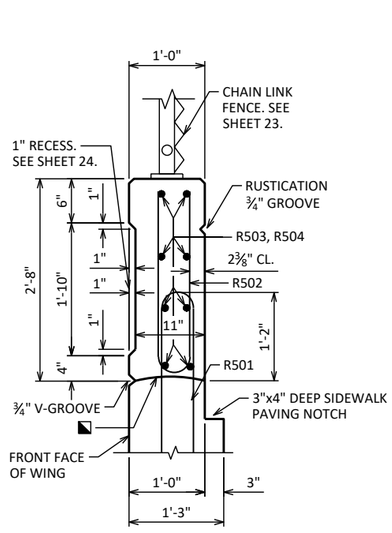


NOTES

SEE SHEET 24 FOR AESTHETIC REQUIREMENTS.

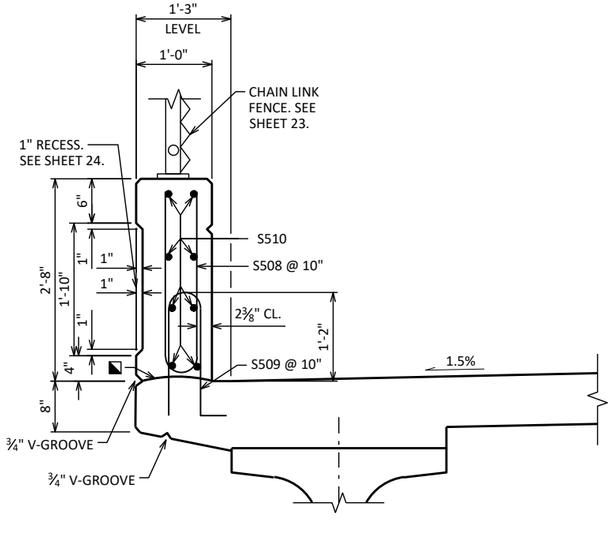
LEGEND

- CONST. JOINT. STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- CUT OUT ± 1" GASKET AT BOTTOM OF JUNCTION BOX COVER TO ALLOW FOR DRAINAGE.
- LOCATION OF CONDUIT IS MEASURED FROM OUTSIDE EDGE OF JUNCTION BOX.



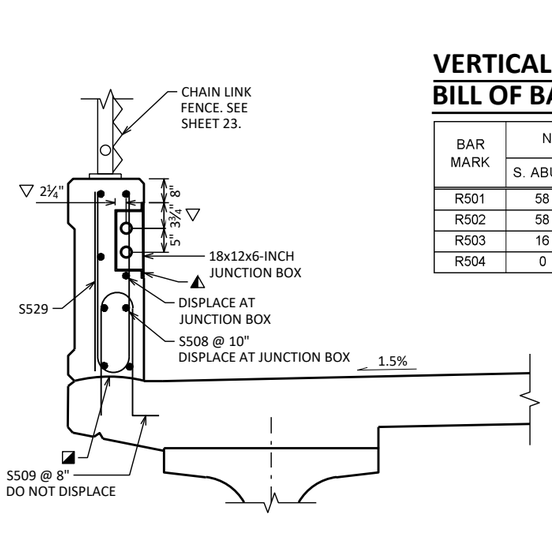
SECTION A-A

(THRU ABUT. WING)



SECTION B-B

(THRU DECK)

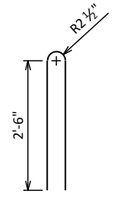


SECTION E-E

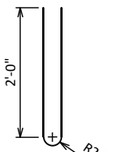
VERTICAL FACE PARAPET 'A'
BILL OF BARS

COATED: 1,670 LBS

BAR MARK	NO. REQ'D		LENGTH	BENT	COAT	LOCATION
	S. ABUT.	N. ABUT.				
R501	58	44	5'-9"	X	X	PARAPET - VERT.
R502	58	44	4'-9"	X	X	PARAPET - VERT.
R503	16	0	19'-7"		X	PARAPET - HORIZ. - WINGS 1 AND 2
R504	0	16	13'-7"		X	PARAPET - HORIZ. - WINGS 3 AND 4



R501



R502

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

VERTICAL FACE PARAPET A MODIFIED

SHEET 20
275

SCALE =

8

8

STATE PROJECT NUMBER

1130-66-83

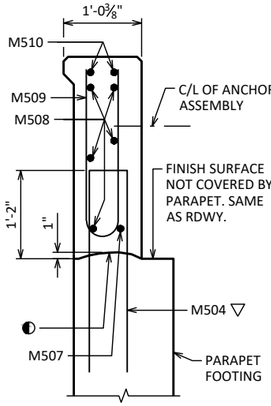
SINGLE SLOPE PARAPET 42SS

BILL OF BARS

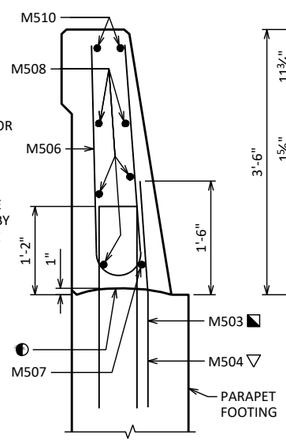
COATED: 5,250 LBS

BAR MARK	NO. REQ'D		LENGTH	BENT	COAT	LOCATION
	S. ABUT.	N. ABUT.				
M501	106	106	5'-10"	X	X	PARAPET - VERT.
M502	108	108	6'-8"	X	X	PARAPET - VERT.
M503	24	24	3'-0"	X	X	PARAPET - VERT.
M504	34	34	5'-7"	X	X	PARAPET - VERT.
M505	10	10	6'-5"	X	X	PARAPET - VERT.
M506	12	12	6'-6"	X	X	PARAPET - VERT.
M507	2	2	43'-9"	X	X	PARAPET - HORIZ.
M508	10	10	43'-9"		X	PARAPET - HORIZ.
M509	12	12	5'-5"	X	X	PARAPET - VERT.
M510	4	4	43'-9"	X	X	PARAPET - HORIZ.
M511	2	2	4'-8"	X	X	PARAPET - VERT. - ADJACENT TO ABUTS.

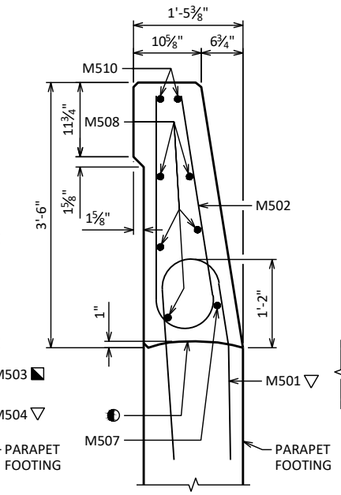
⚠ LENGTH SHOWN FOR BAR IS AN AVERAGE LENGTH AND SHOULD ONLY BE USED FOR BAR WEIGHT CALCULATIONS. SEE BAR SERIES TABLE FOR ACTUAL LENGTHS.



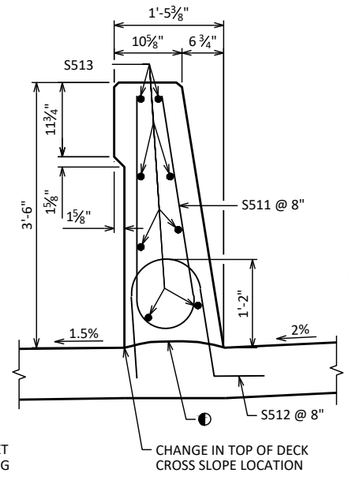
SECTION A-A



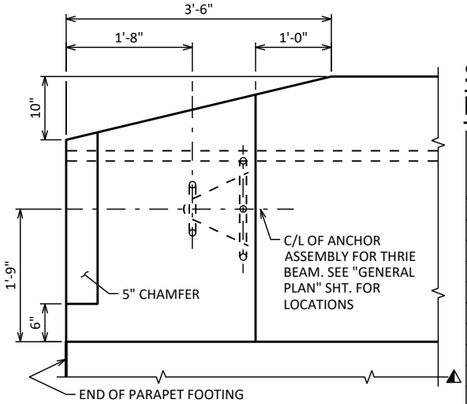
SECTION B-B



SECTION C-C

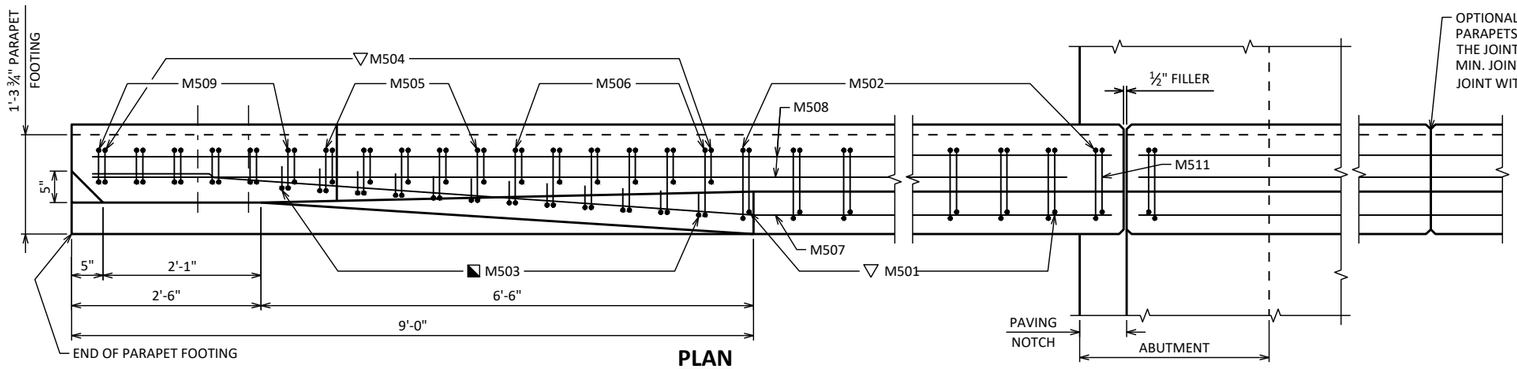


SECTION THRU PARAPET ON DECK



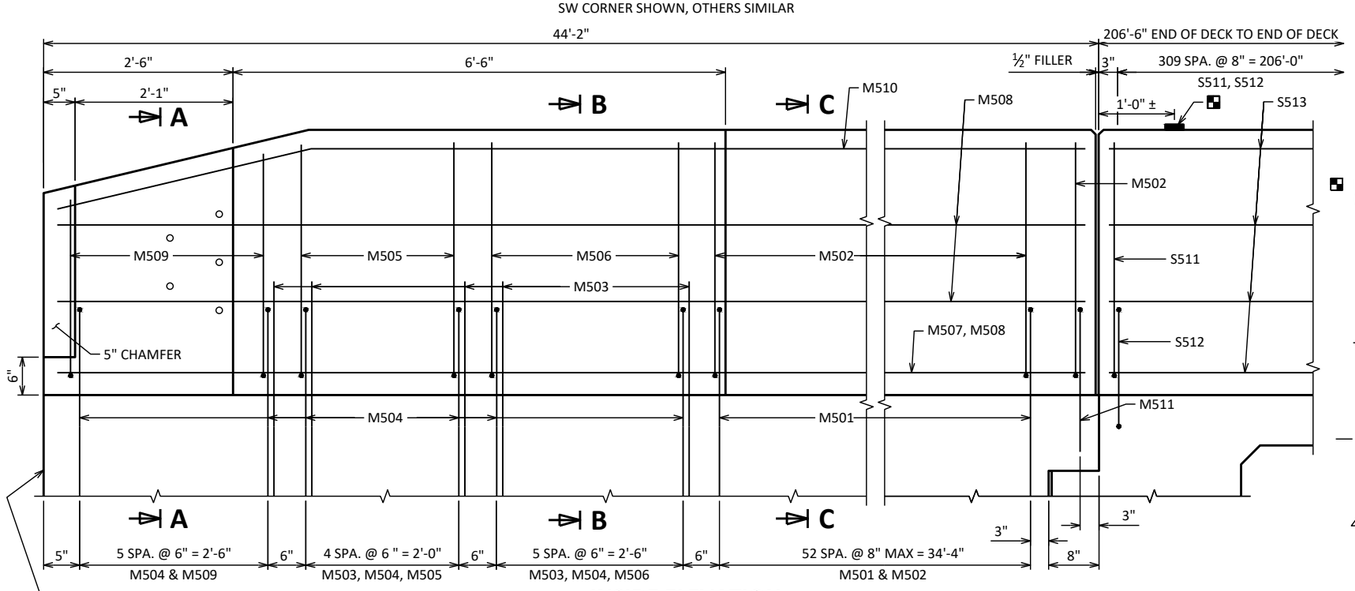
PARAPET END TREATMENT DETAIL

LOOKING AT INSIDE FACE OF PARAPET



PLAN

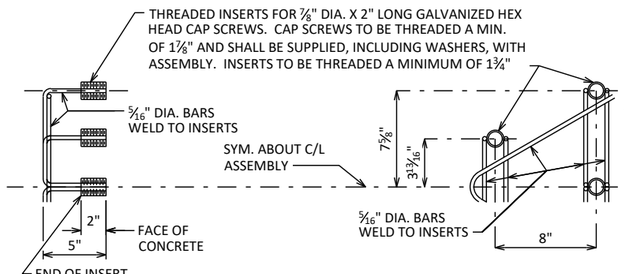
SW CORNER SHOWN, OTHERS SIMILAR



INSIDE ELEVATION

SW CORNER SHOWN, OTHERS SIMILAR

BENCH MARK CAP (WHEN SUPPLIED).



DETAIL OF ANCHOR ASSEMBLY

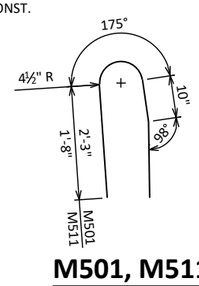
NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.

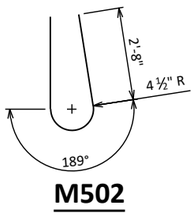
BAR SERIES TABLE

BUNDLE AND TAG EACH SERIES SEPARATELY.

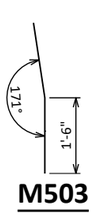
BAR MARK	NO. REQ'D.	LENGTH
M509	4 SERIES OF 6	4'-9" TO 6'-1"



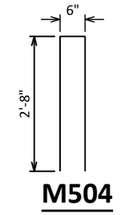
M501, M511



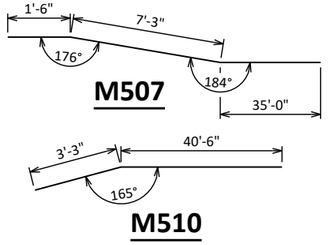
M502



M503

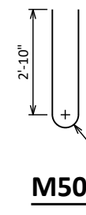


M504

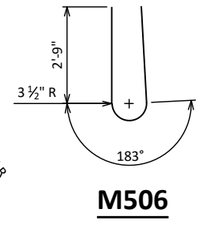


M507

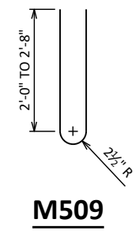
M510



M505



M506



M509

LEGEND

- ◐ CONST. JOINT - STRIKE OFF AS SHOWN AND LEAVE ROUGH.
- ◪ M503 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE M503 BARS CORRECTLY ALONG TRANSITION OF PARAPET.
- ▽ M501 AND M504 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

SINGLE SLOPE PARAPET 42SS

SHEET 21
276

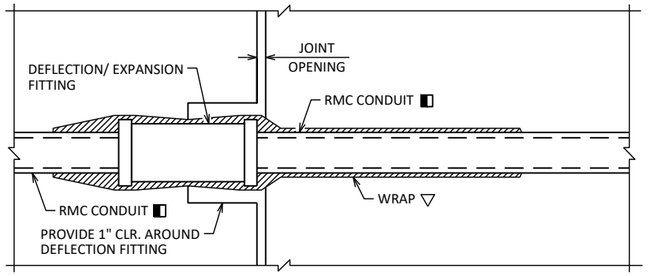
SCALE =

8

8

STATE PROJECT NUMBER

1130-66-83



DEFLECTION/EXPANSION FITTING

THIS DETAIL ACCOMMODATES A MAXIMUM OF ¾" TOTAL MOVEMENT
AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION.
BOND JUMPER NOT SHOWN FOR CLARITY.
(CONCRETE TO CONCRETE FITTING)

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR, MIN.

USE 2" DIA. RIGID NONMETALLIC CONDUIT (PVC) UNLESS NOTED OTHERWISE.

CONDUIT FITTINGS, CONDUIT BENDS, AND ADAPTER FITTINGS INCIDENTAL TO CONDUIT WORK.

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES FROM THE APPROVED PRODUCTS LIST.

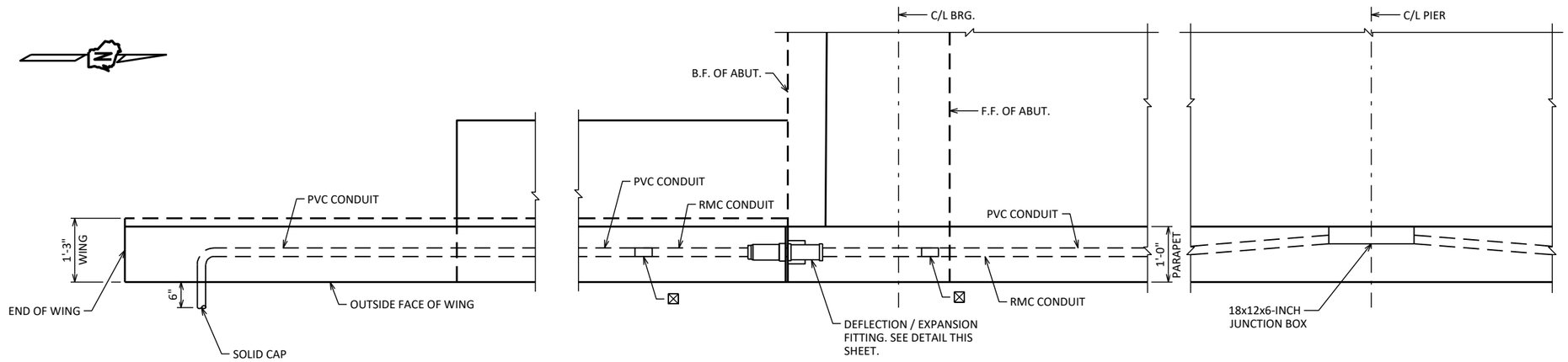
LEGEND

◧ USE 2" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR 3'-0" MIN. ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.

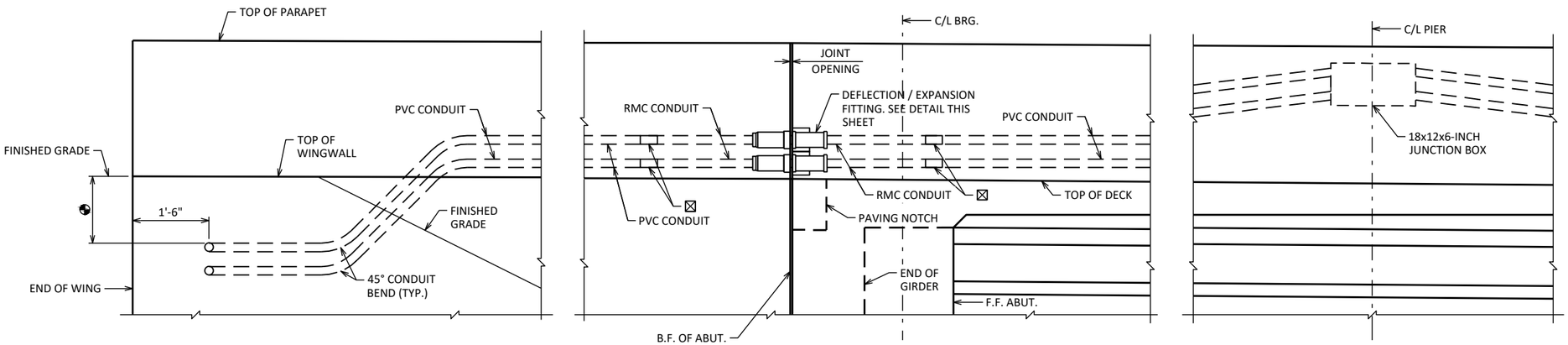
⊠ NONMETALLIC CONDUIT TO METALLIC CONDUIT ADAPTER FITTING (UL OR NRTL LISTED FOR ELECTRICAL USE SHALL BE USED).

▽ SPONGE RUBBER WRAP TO BE AASHTO M153, TYPE 1 OR EQUIVALENT - ¼" MINIMUM THICKNESS. PROVIDE WRAP FOR THE ENTIRE LENGTH OF THE FITTING OR AS SHOWN. SPONGE RUBBER WRAP INCIDENTAL TO "CONDUIT RIGID METALLIC 2-INCH".

◓ 1'-6" MIN. CONDUIT COVER. CONDUIT COVER SHOULD NOT EXCEED 3'-0".



PLAN OF WING 1 PARAPET AT WINGWALL



OUTSIDE ELEVATION OF WING 1 PARAPET AT WINGWALL

(AESTHETIC RECESSES NOT SHOWN)

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

CONDUIT DETAILS AND NOTES

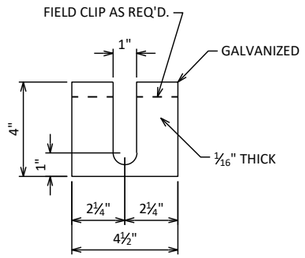
SHEET 22
277

SCALE =

STATE PROJECT NUMBER
1130-66-83

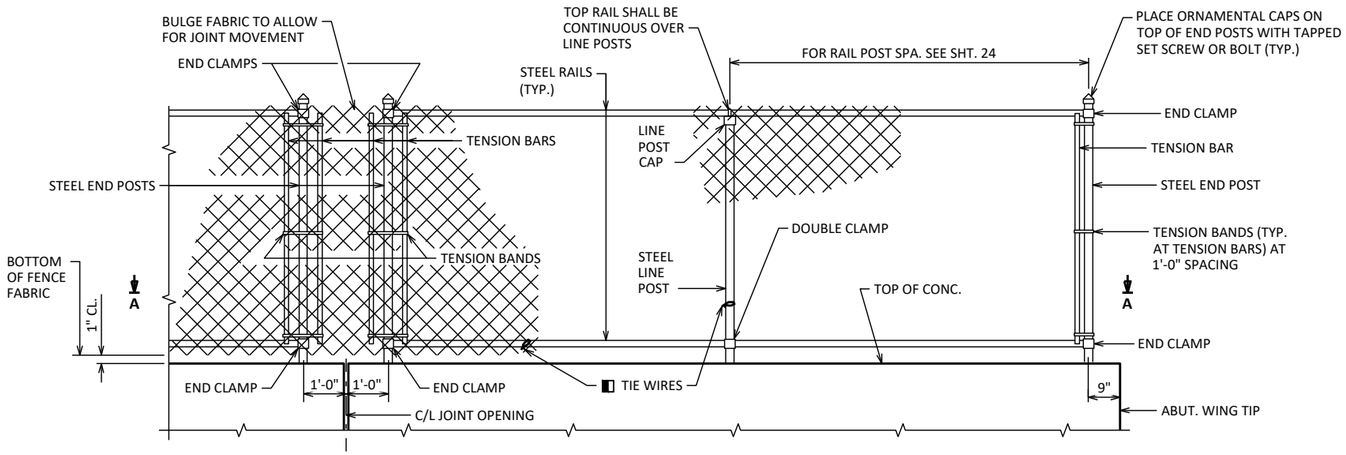
FENCE MEMBER SIZE & WEIGHT

STEEL FENCE MEMBER	OUTSIDE DIAMETER (INCHES)	WEIGHT (LB/FT)
RAILS	1.660	2.27
END POST	2.875	5.80
LINE POST	2.375	3.65
POST SLEEVE	4.000	9.12



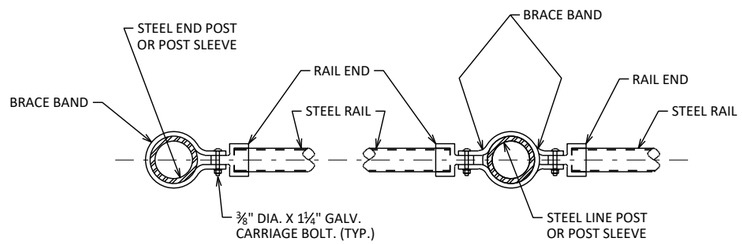
POST SHIM DETAILS

SHIMS REQUIRED ONLY WHEN END POSTS AND LINE POSTS ARE WELDED TO BASE PLATES. PROVIDE 4 SHIMS PER POST. USE WHERE REQUIRED FOR ALIGNMENT.



FENCE PART ELEVATION

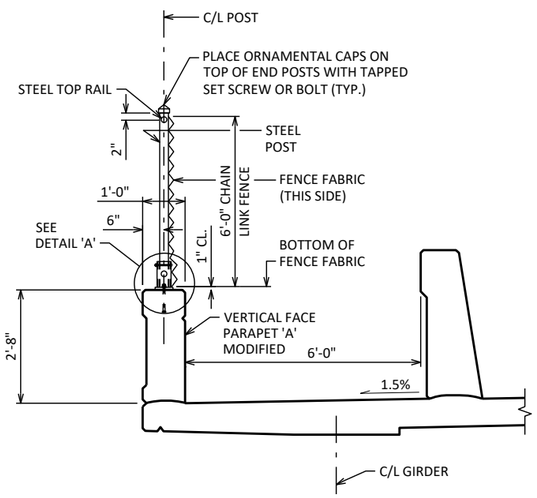
OUTSIDE VIEW OF WING 4 SHOWN. OTHERS SIMILAR.



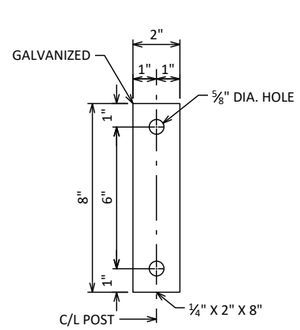
END CLAMP **✳ DOUBLE CLAMP**

SECTION A-A

NOTE: PLACE ALL BOLT HEADS ON SIDE OF FENCE ADJACENT TO PEDESTRIANS

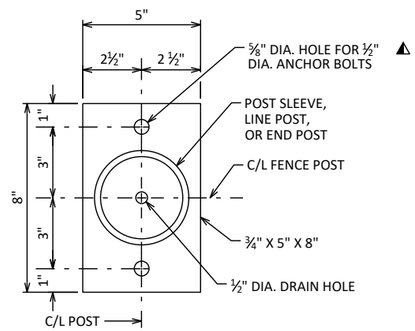


SECTION THRU FENCE



ANCHOR PLATE

☆ NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.

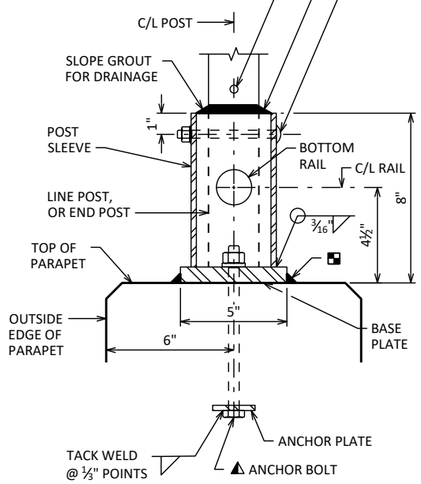


BASE PLATE

⅜" DIA. GALV. CARRIAGE BOLT WITH LOCKING NUT. (TO BE SUPPLIED WITH ASSEMBLY)

FILL SLEEVE AND BEVEL AWAY FROM POST WITH NON-SHRINK GROUT AFTER SETTING POST. (LEAVE NO VOIDS)

DRILL 3/16" DIA. DRAIN HOLE PARALLEL TO ROADWAY IMMEDIATELY ABOVE GROUT IN POST. SLEEVE LOCATIONS ONLY.



DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

NOTES

POSTS ARE TO BE SET VERTICAL.

ALL FENCE COMPONENTS SHALL BE GALVANIZED STEEL WITH A COLORED POLYMER-COATING ON THE OUTSIDE.

FABRIC SHALL CONFORM TO ASTM F668, CLASS 2B. STEEL RAILS, POSTS AND POST SLEEVES SHALL CONFORM TO ASTM F1083, STANDARD WEIGHT PIPE (SCHEDULE 40). FITTINGS SHALL CONFORM TO ASTM F626. SEE THE "BRIDGE SPECIAL PROVISIONS" FOR ADDITIONAL DETAILS.

THE COLOR OF POLYMER-COATING FOR THIS STRUCTURE SHALL BE (BLACK) IN ACCORDANCE WITH ASTM F934.

THE BID ITEM SHALL BE "FENCE CHAIN LINK POLYMER- COATED 6- FT. B-44-333".

COMPLETE ANY REQUIRED WELDING OF COMPONENTS BEFORE GALVANIZING.

POST BASE PLATES SHALL BE FLAT WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL. ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

BASE PLATES, ANCHOR PLATES AND SHIMS SHALL BE ASTM A709, GRADE 36.

ALL POST SPACINGS ARE MEASURED HORIZONTALLY ALONG THE C/L OF THE POST.

▪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.

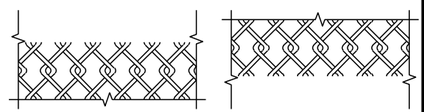
✳ ALTERNATE TO DOUBLE CLAMP: USE LINE RAIL CLAMP (BOULEVARD) OR 180° BRACE BAND, WHICH MAY BE USED WHEN THE POSTS ARE EITHER BOLTED TO THE POST SLEEVES OR DIRECTLY WELDED TO THE BASE PLATE.

◭ ½" DIA. X 6⅞" LONG STAINLESS STEEL OR GALVANIZED ASTM A307 HEX BOLT WITH NUT & WASHER. ☆

☆ ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS ½-INCH. EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.

◧ ATTACH FABRIC TO RAILS, AND TO POSTS WITHOUT TENSION BANDS, WITH TIE WIRES (ROUND, 9-GAGE) SPACED AT 1'-0".

MINIMUM LENGTH OF TOP RAIL BETWEEN SPLICES SHALL BE 20'-0". LOCATE SPLICES NEAR ¼ POINT OF POST SPACING.



TOP DETAIL **BOTTOM DETAIL**

FENCE FABRIC

FENCE FABRIC WOVEN OF 9-GAGE WIRE IN 2" DIAMOND PATTERN MESH WITH BOTH THE TOP AND BOTTOM SELVAGES KNUCKLED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

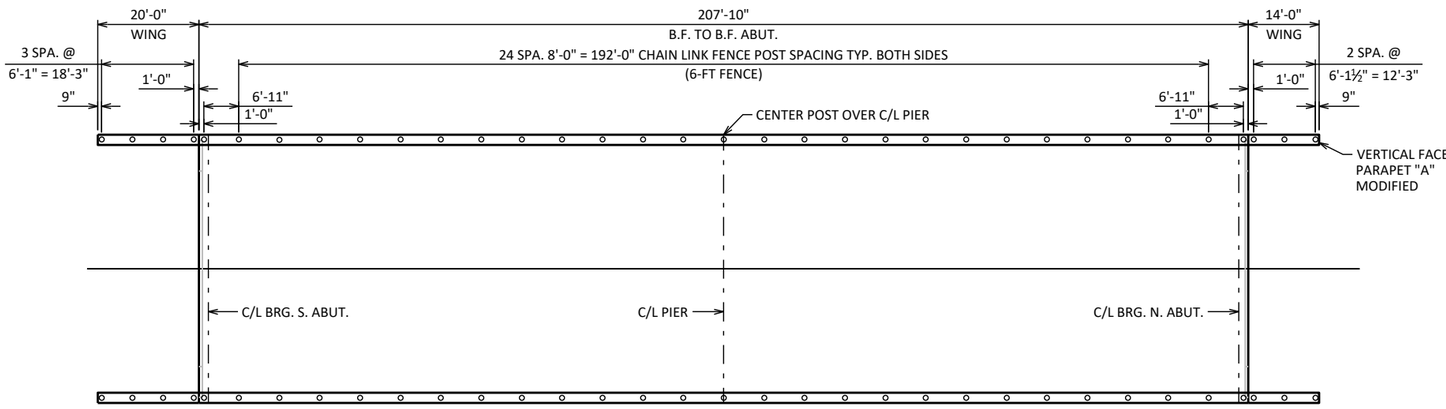
CHAIN LINK FENCE DETAILS

SHEET 23
278

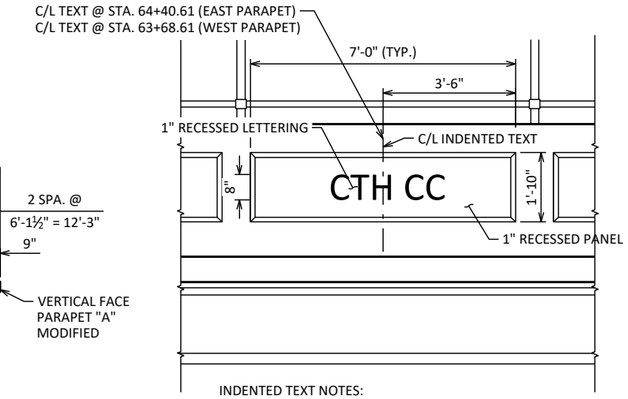
SCALE =

8

8

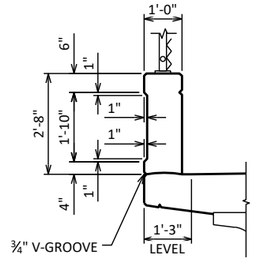


PARAPET FENCE POST PLAN



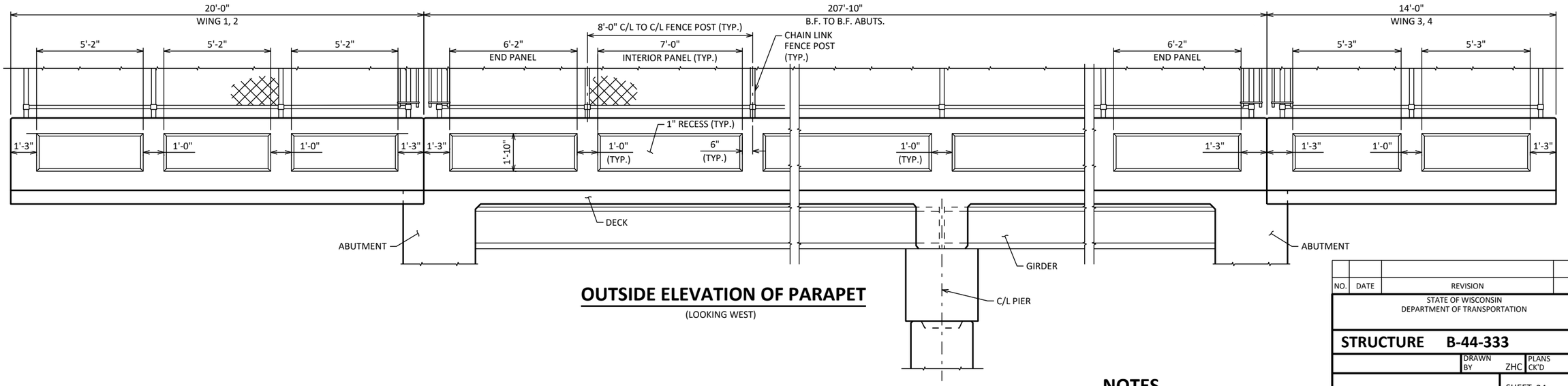
INDENTED TEXT NOTES:

1. LETTERING SHALL BE HELVETICA . 8" HEIGHT. UPPER CASE.
2. LETTERING SHALL BE CENTERED HORIZONTALLY AND VERTICALLY IN PANEL.
3. LETTERING IS ONLY ON EXTERIOR FACE OF PARAPET IN LOCATIONS AS INDICATED ON THIS SHEET.
4. FORMING OF LETTERING INCIDENTAL TO "HPC MASONRY STRUCTURES".
5. STAIN RECESSED LETTING BLACK, FEDERAL COLOR #37038. INCIDENTAL TO "HPC MASONRY STRUCTURES".



SECTION THRU PARAPET ON BRIDGE

VERTICAL FACE PARAPET 'A' - MODIFIED



OUTSIDE ELEVATION OF PARAPET

(LOOKING WEST)

NOTES

PARAPET PANELS ARE CENTERED BETWEEN RAILING POSTS EXCEPT AS SHOWN NEAR ABUTMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

AESTHETIC DETAILS - 1

SHEET 24
279

SCALE =

STATE PROJECT NUMBER

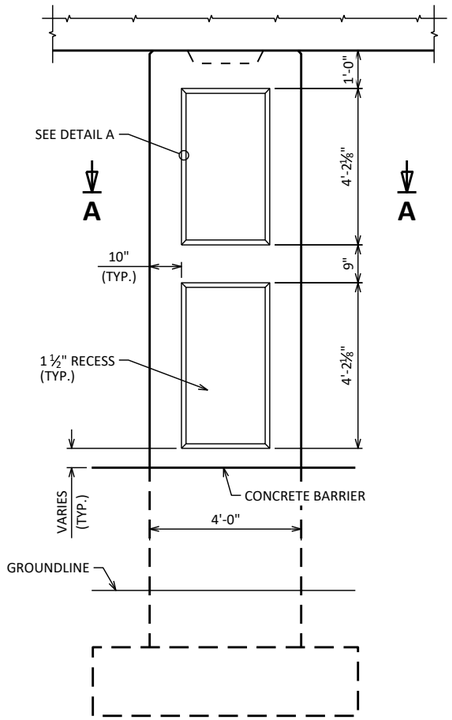
1130-66-83

8

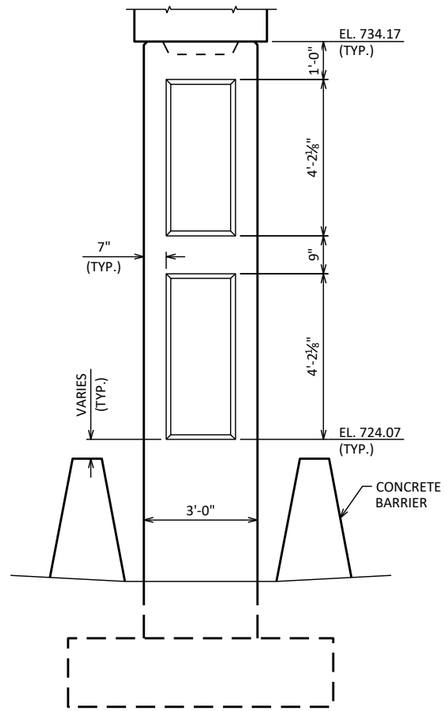
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STATE PROJECT NUMBER

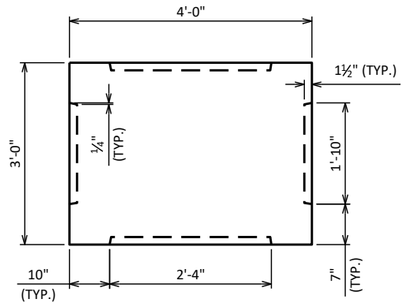
1130-66-83



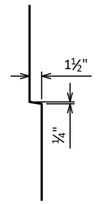
FRONT VIEW
(TYPICAL AT ALL COLUMNS)



END VIEW
(TYPICAL AT ALL COLUMNS)



SECTION A-A
(THRU TYPICAL PIER COLUMN)



DETAIL A

PIER ELEVATIONS WITH FINAL ROADWAY CONDITION

8

8

NOTES

PARAPET PANELS ARE CENTERED BETWEEN RAILING POSTS EXCEPT AS SHOWN NEAR ABUTMENTS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-44-333

DRAWN BY ZHC | PLANS CK'D KRB

AESTHETIC DETAILS - 2

SHEET 25
280

SCALE =

DIVISION 1 - CC-OCO-6670

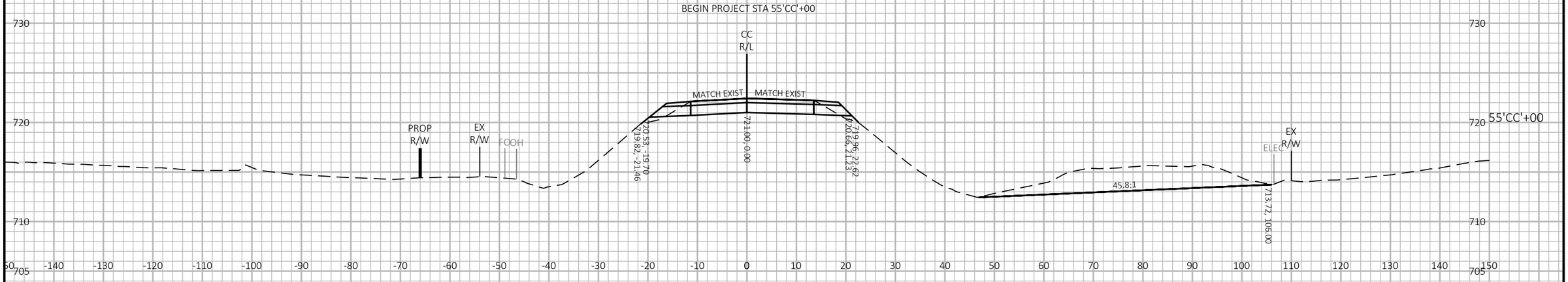
STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	EXPANDED FILL	MASS ORDINATE
									1.00	1.33	
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
55+00.00	5500.00	0.00	95.56	0.00	12.40	0	0	0	0	0	0
55+25.00	5525.00	25.00	174.33	0.00	296.44	125	0	143	125	190	-65
56+00.00	5600.00	75.00	167.89	0.00	361.51	475	0	914	600	1,406	-806
57+00.00	5700.00	100.00	101.35	0.00	510.21	499	0	1,614	1,099	3,552	-2,453
58+00.00	5800.00	100.00	51.93	0.00	753.37	284	0	2,340	1,383	6,665	-5,282
59+00.00	5900.00	100.00	9.92	0.00	986.26	115	0	3,222	1,498	10,950	-9,452
60+00.00	6000.00	100.00	1.20	0.00	1176.82	21	0	4,006	1,519	16,278	-14,759
60+92.20	6092.20	92.20	5.38	0.00	1470.52	11	0	4,520	1,530	22,289	-20,759
61+00.00	6100.00	7.80	5.35	0.00	1459.97	2	0	423	1,532	22,852	-21,320
61+17.18	6117.18	17.18	4.51	0.00	1502.78	3	0	943	1,535	24,106	-22,571
61+42.16	6142.16	24.98	4.10	0.00	1476.34	4	0	1,378	1,539	25,939	-24,400
62+00.00	6200.00	57.84	12.84	0.00	1259.70	18	0	2,931	1,557	29,837	-28,280
63+00.00	6300.00	100.00	16.89	0.00	1616.63	55	0	5,327	1,612	36,922	-35,310
63+01.36	6301.36	1.36	17.57	0.00	1773.11	1	0	85	1,613	37,035	-35,422
63+01.37	6301.37	0.01	0.00	0.00	0.00	0	0	0	1,613	37,035	-35,422
65+07.85	6507.85	206.48	0.00	0.00	0.00	0	0	0	1,613	37,035	-35,422
65+07.86	6507.86	0.01	0.00	0.00	1162.55	0	0	1	1,613	37,037	-35,424
66+00.00	6600.00	92.14	3.23	0.00	690.74	6	0	3,162	1,619	41,242	-39,623
66+67.05	6667.05	67.05	32.10	0.00	732.14	44	0	1,767	1,663	43,592	-41,929
66+92.03	6692.03	24.98	38.16	0.00	653.05	33	0	641	1,696	44,445	-42,749
67+00.00	6700.00	7.97	40.69	0.00	629.29	12	0	189	1,708	44,696	-42,988
67+17.01	6717.01	17.01	48.34	0.00	534.08	28	0	366	1,736	45,183	-43,447
68+00.00	6800.00	82.99	76.76	0.00	181.83	192	0	1,100	1,928	46,646	-44,718
68+77.94	6877.94	77.94	130.82	0.00	67.01	300	0	359	2,228	47,123	-44,895
69+00.00	6900.00	22.06	101.64	0.00	83.67	95	0	62	2,323	47,206	-44,883

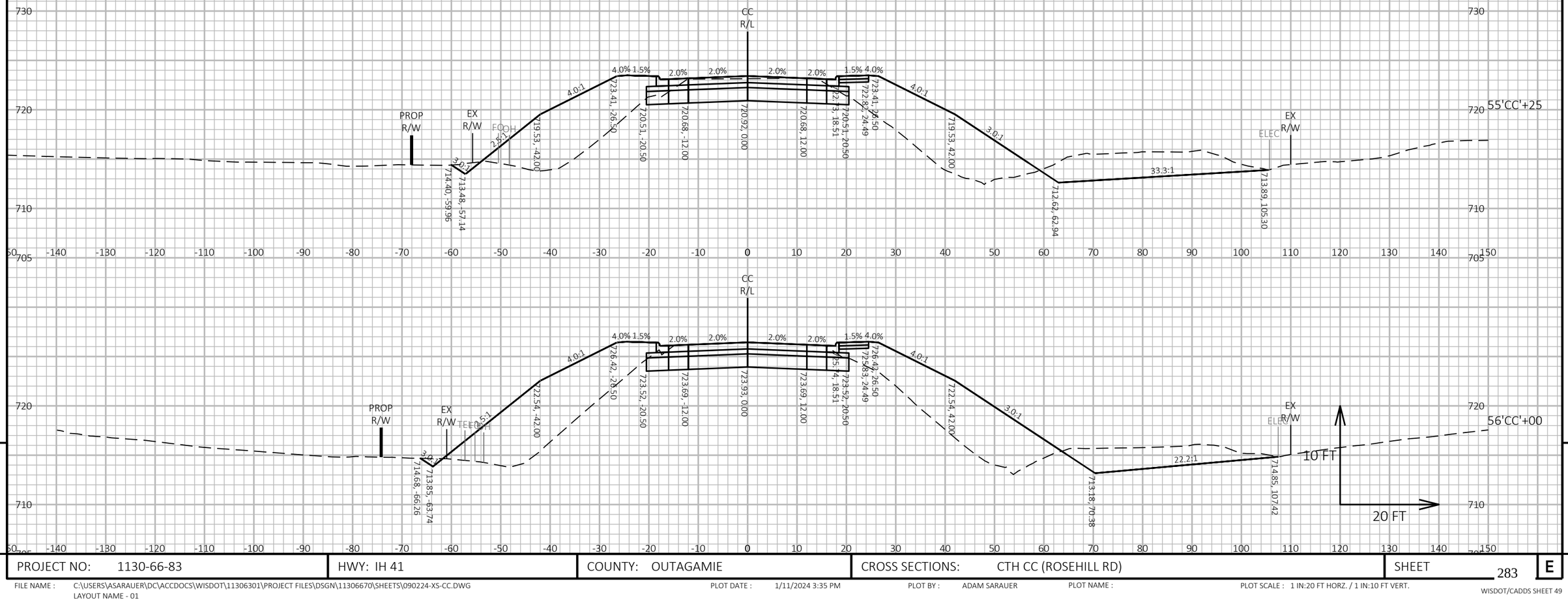
NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]

DIVISION 2 - 41 MEDIAN CC

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY) (UNADJUSTED)			CUMULATIVE VOL (CY)		
			CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT	SALVAGED/UNUSABLE PAVEMENT MATERIAL	FILL	CUT 1.00	EXPANDED FILL 1.33	MASS ORDINATE
						NOTE 1	NOTE 2	NOTE 3	NOTE 1		NOTE 8
1079+04.21	107904.21	0.00	0.00	0.00	0.38	0	0	0	0	0	0
1080+00.00	108000.00	95.79	0.00	0.00	0.73	0	0	2	0	3	-3
1080+54.21	108054.21	54.21	0.03	0.00	10.21	0	0	11	0	17	-17
1081+00.00	108100.00	45.79	0.00	0.00	4.80	0	0	13	0	35	-35
1081+19.81	108119.81	19.81	0.00	0.00	1.82	0	0	2	0	37	-37
1081+30.05	108130.05	10.24	0.00	0.00	1.23	0	0	1	0	39	-39
1081+81.01	108181.01	50.96	0.06	0.00	0.37	0	0	2	0	41	-41
1082+00.00	108200.00	18.99	0.00	0.00	0.35	0	0	0	0	41	-41
1082+29.07	108229.07	29.07	0.00	0.00	0.26	0	0	0	0	41	-41
1082+80.04	108280.04	50.97	0.07	0.00	0.29	0	0	1	0	43	-43
1082+90.27	108290.27	10.23	0.01	0.00	1.21	0	0	0	0	43	-43
1083+00.00	108300.00	9.73	0.00	0.00	3.30	0	0	1	0	44	-44
1083+55.87	108355.87	55.87	0.00	0.00	14.25	0	0	18	0	68	-68
1084+00.00	108400.00	44.13	0.01	0.00	17.29	0	0	26	0	102	-102
1085+00.00	108500.00	100.00	0.00	0.00	0.25	0	0	32	0	145	-145
1085+05.87	108505.87	5.87	0.00	0.00	0.25	0	0	0	0	145	-145

NOTES:	
1 - CUT	CUT INCLUDES SALVAGED/UNUSABLE PAVEMENT MATERIAL
2 - SALVAGED/UNUSABLE PAVEMENT MATERIAL	THIS DOES NOT SHOW UP IN CROSS SECTIONS
3 - FILL	DOES NOT INCLUDE UNUSABLE PAVEMENT EXC VOLUME
8 - MASS ORDINATE	IF MARSH OR EBS TO BE BACKFILLED WITH COMMON OR BORROW: [(CUT - SALVAGED PAVT - EXPANDED MARSH EXC - EXPANDED EBS) - ((FILL - REDUCED MARSH IN FILL - REDUCED EBS IN FILL - EXPANDED ROCK) * FILL FACTOR)]





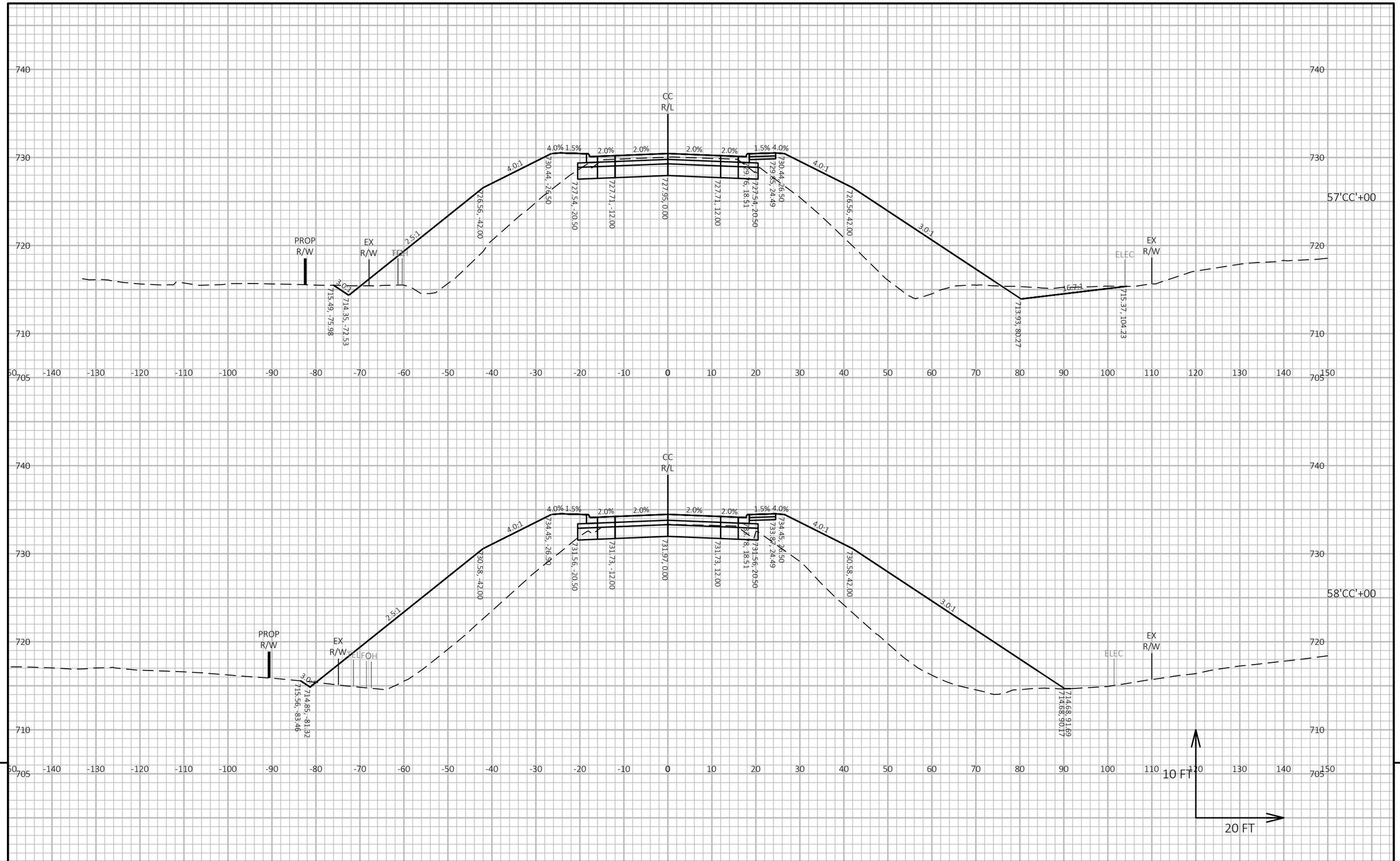
PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 283 E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 01

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

9 9



9

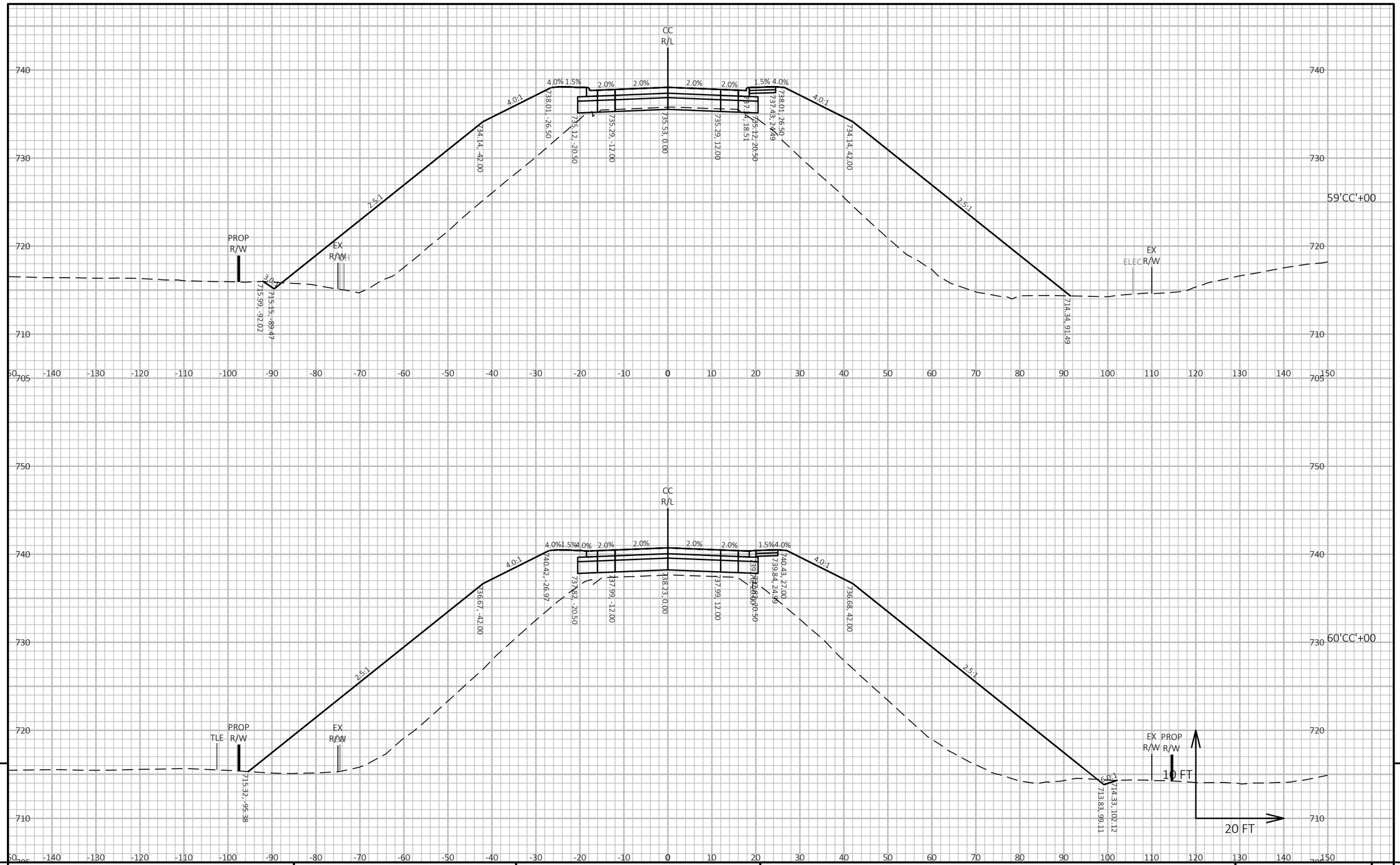
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 284	E

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LAYOUT NAME - 02

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



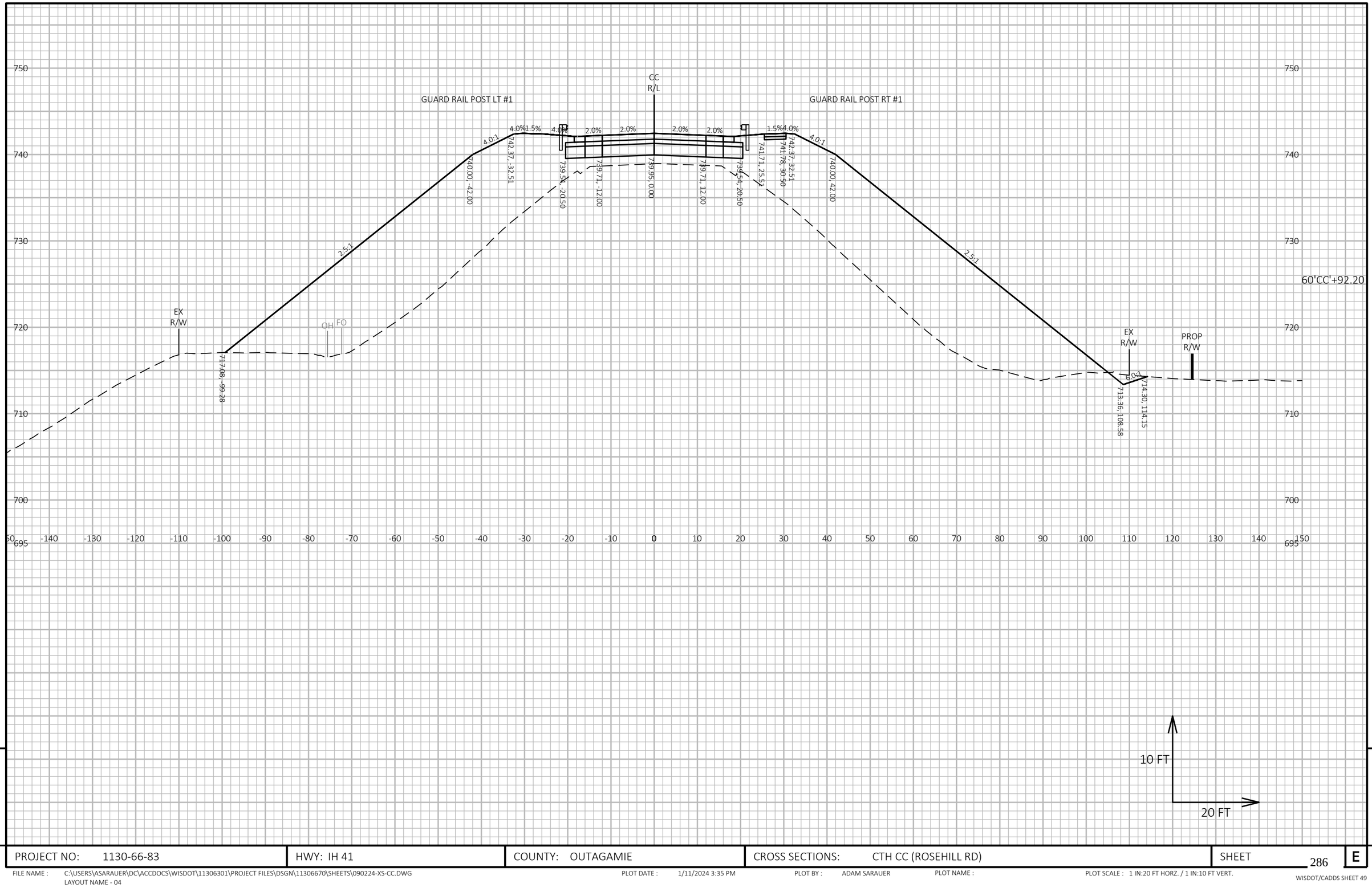
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 285	E

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LAYOUT NAME - 03

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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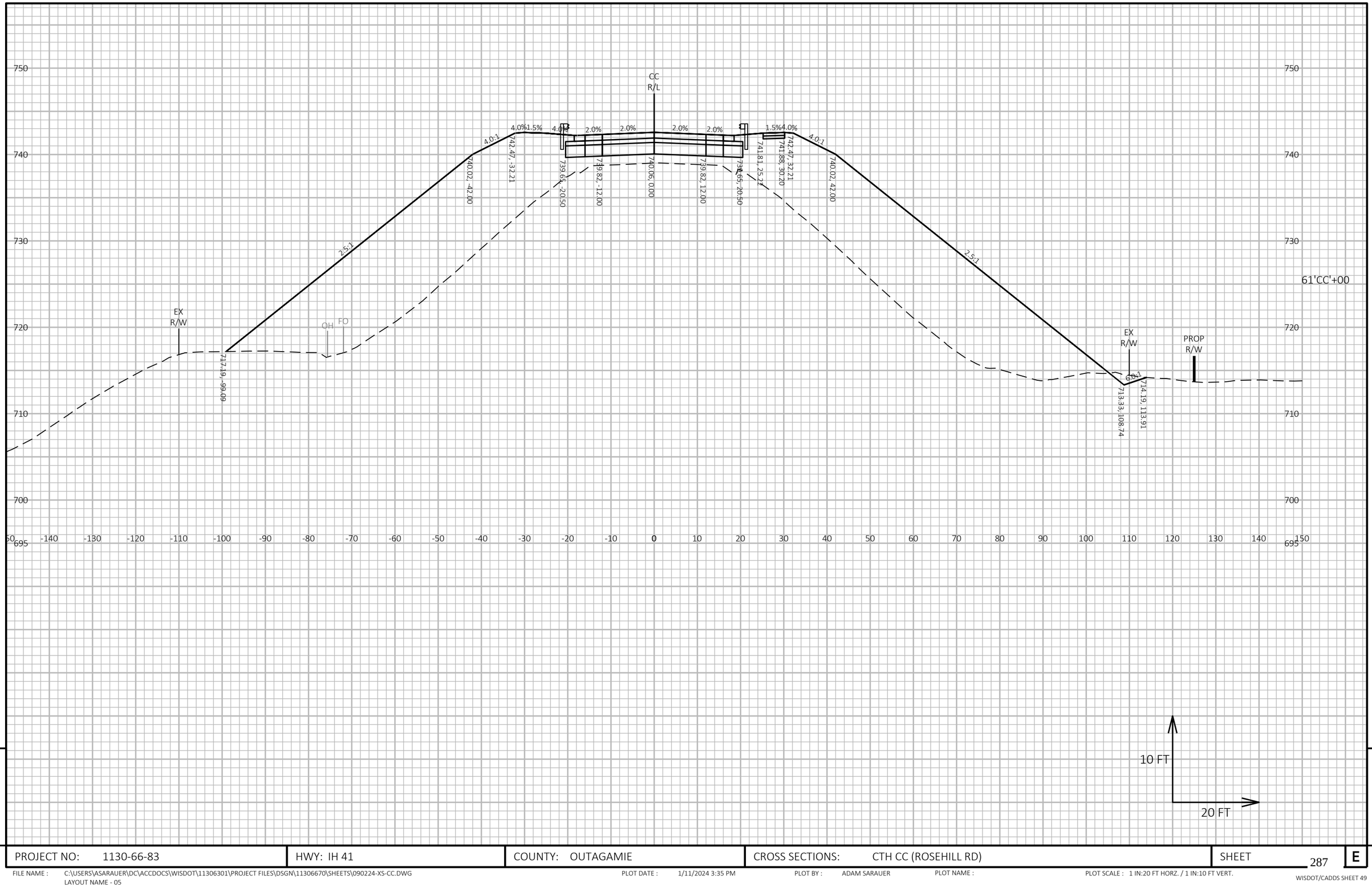
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 286	E

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LAYOUT NAME - 04

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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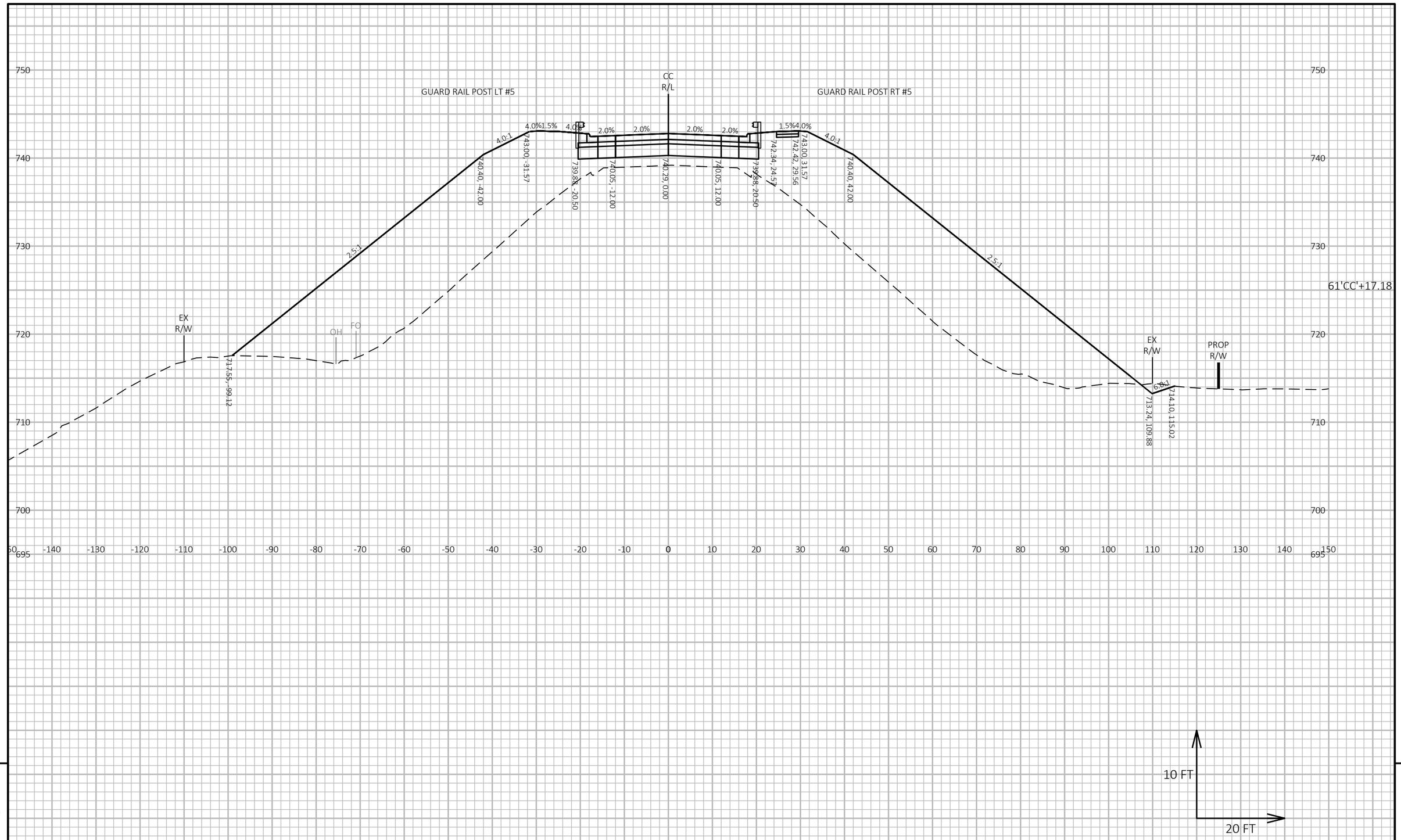
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 287	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 05

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

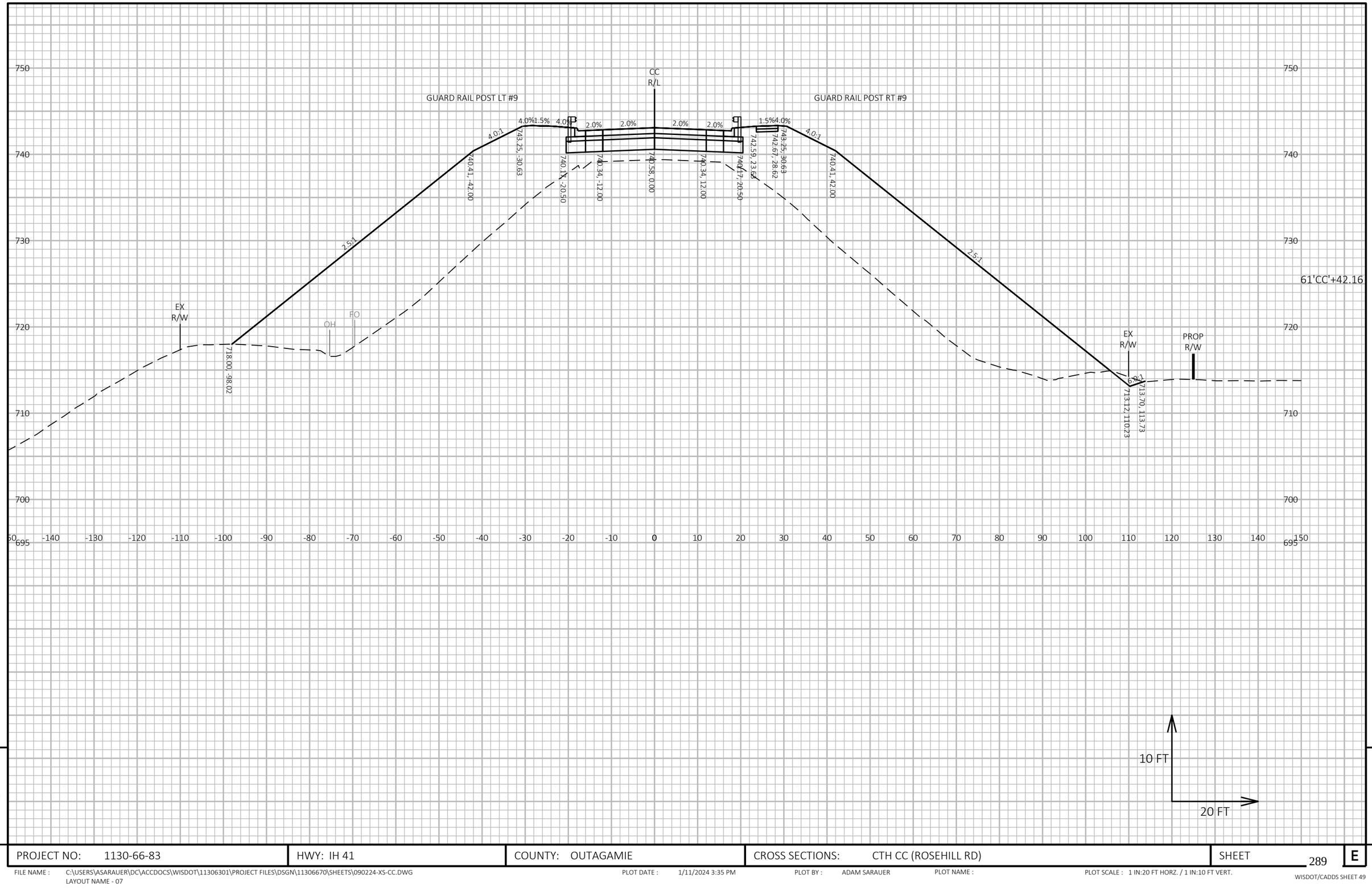


PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 288	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 06

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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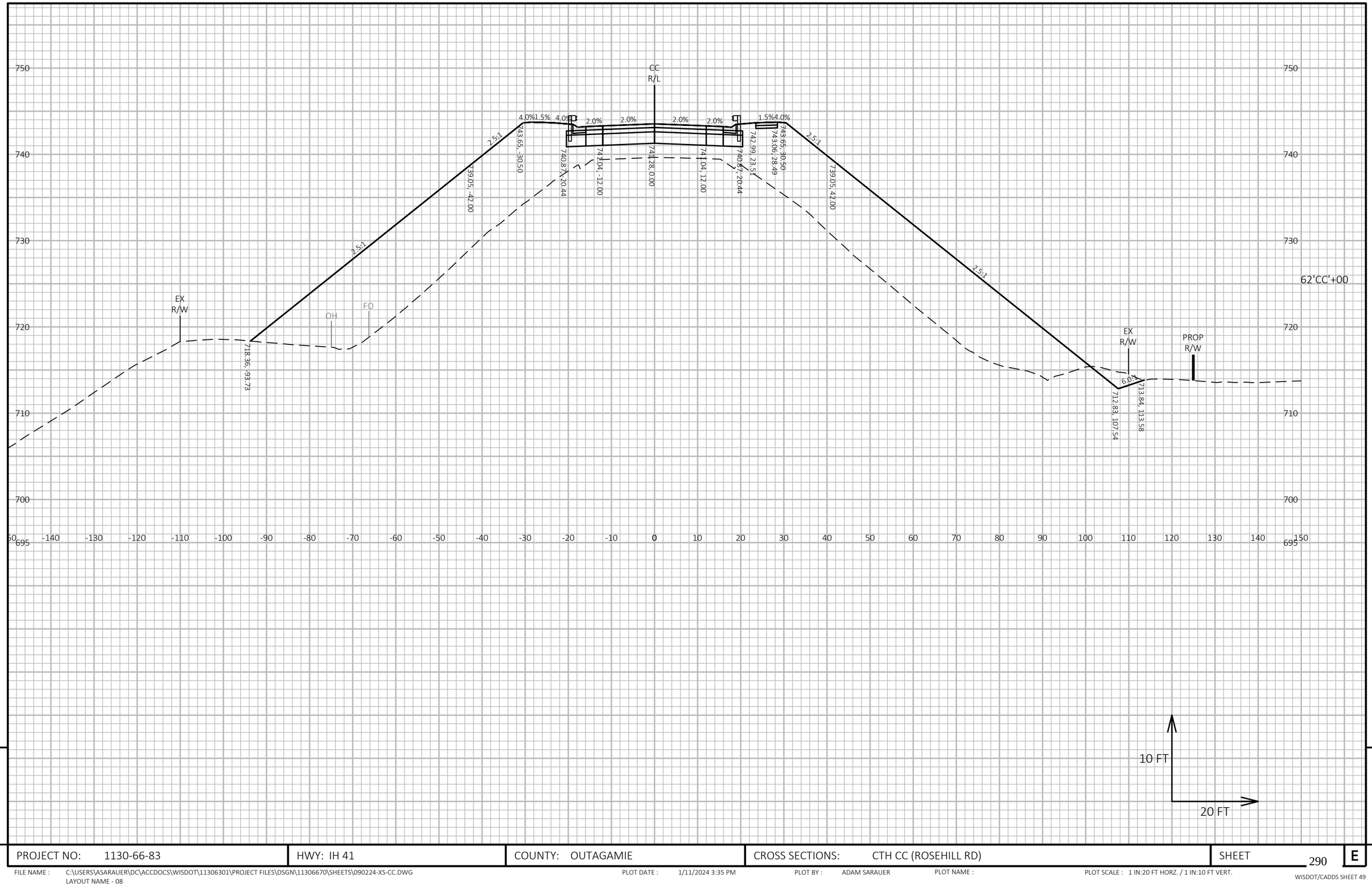
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 289	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 07

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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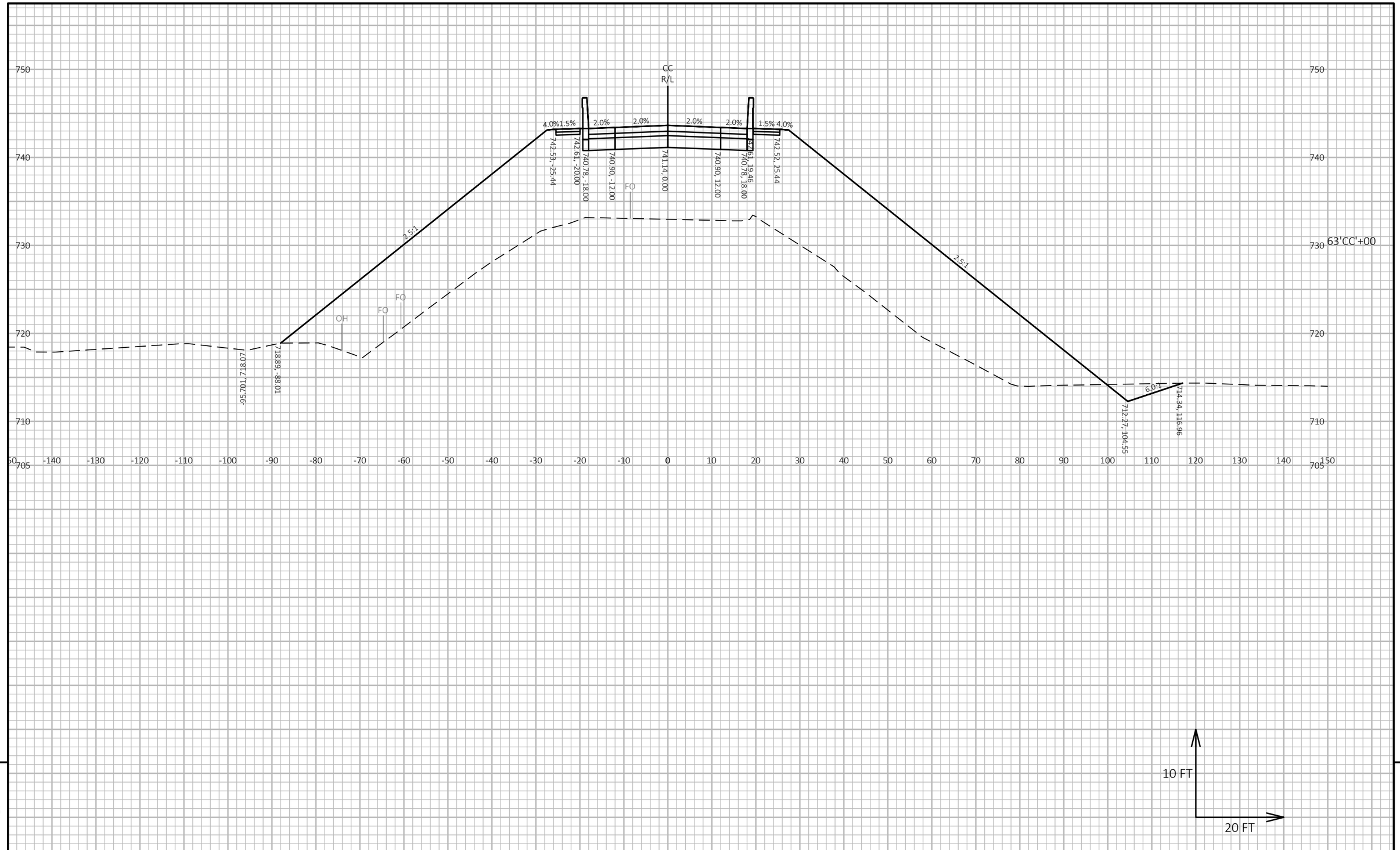
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 290	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 08

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

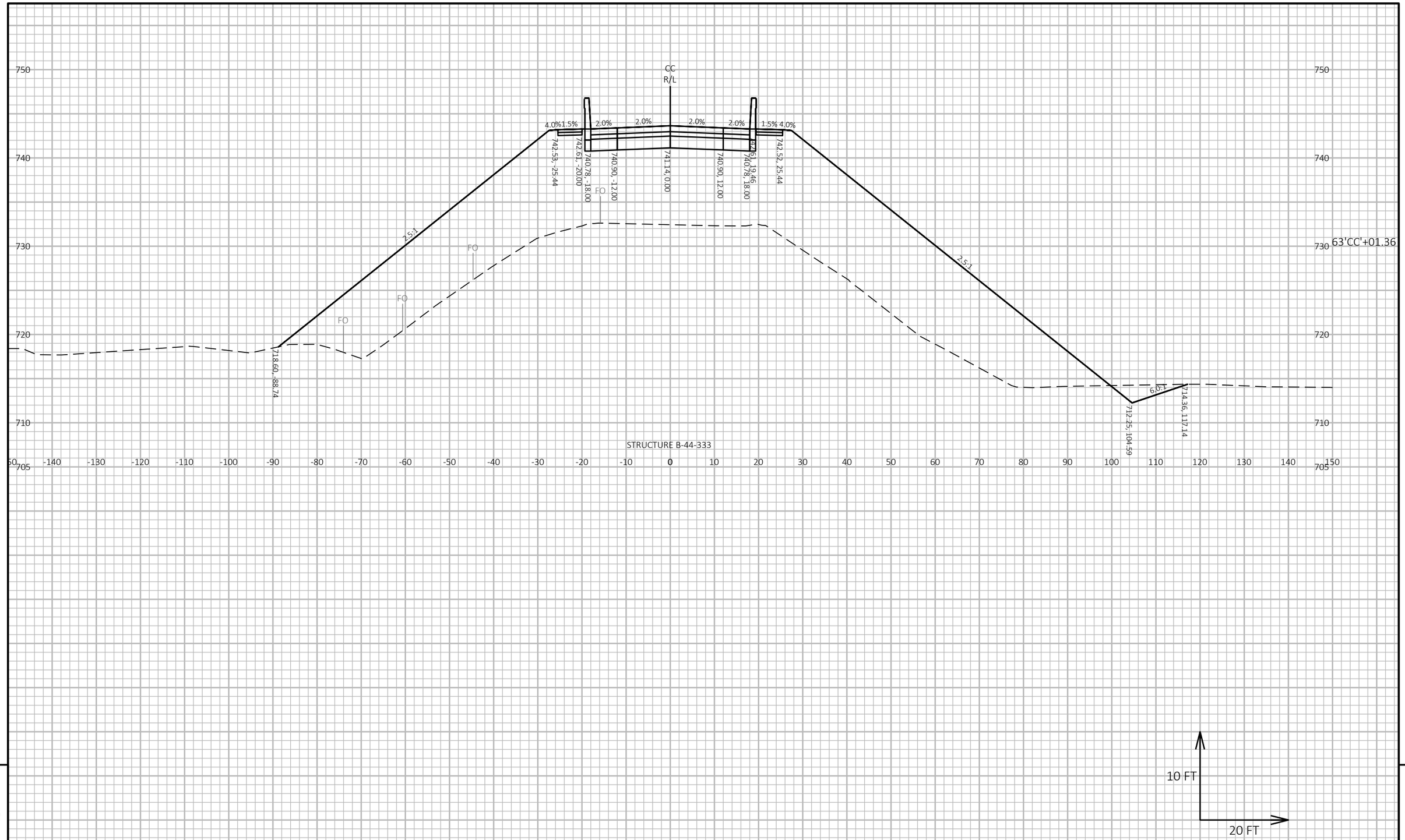


PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 291	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 09

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

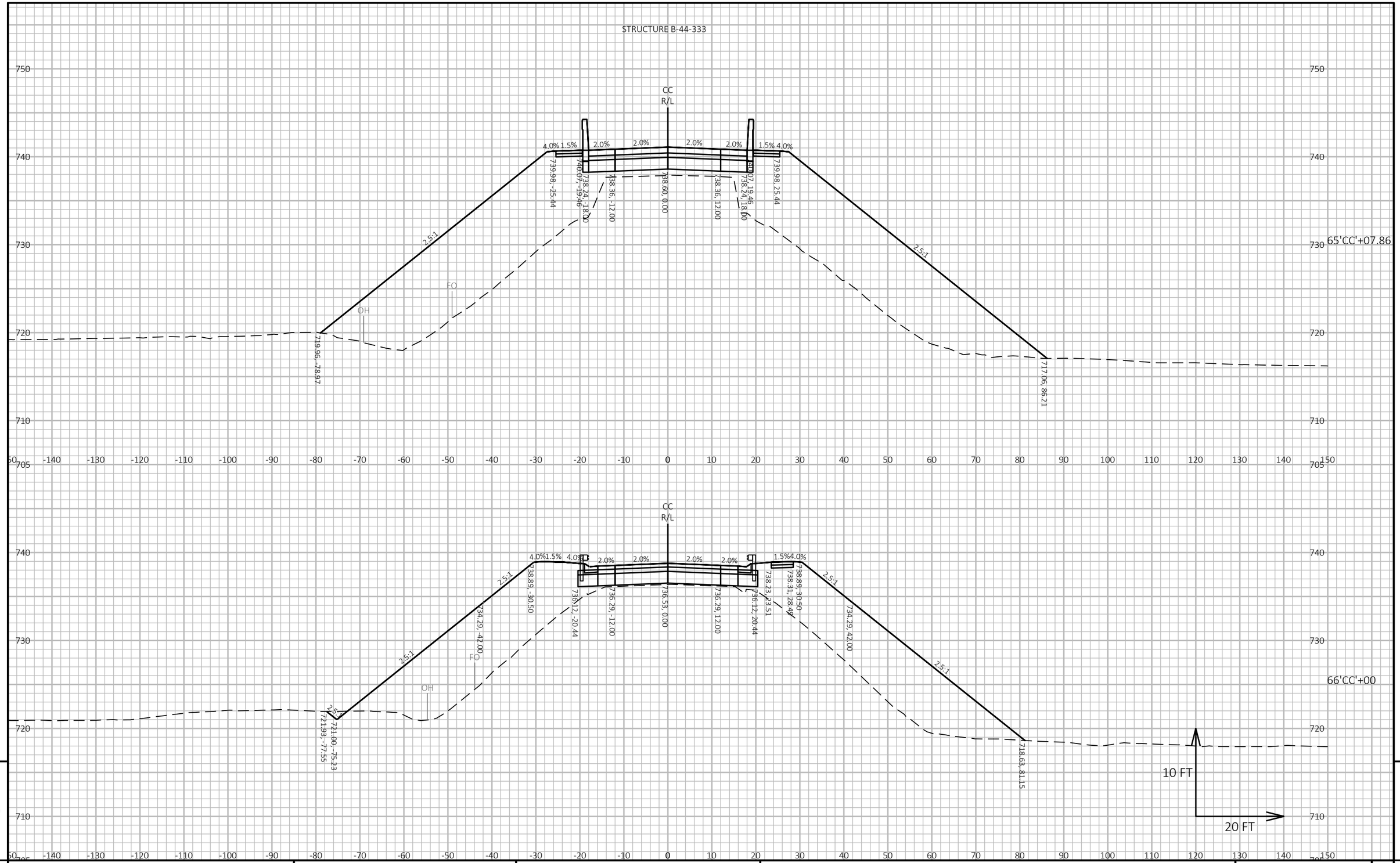
PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 292	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 10

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

STRUCTURE B-44-333

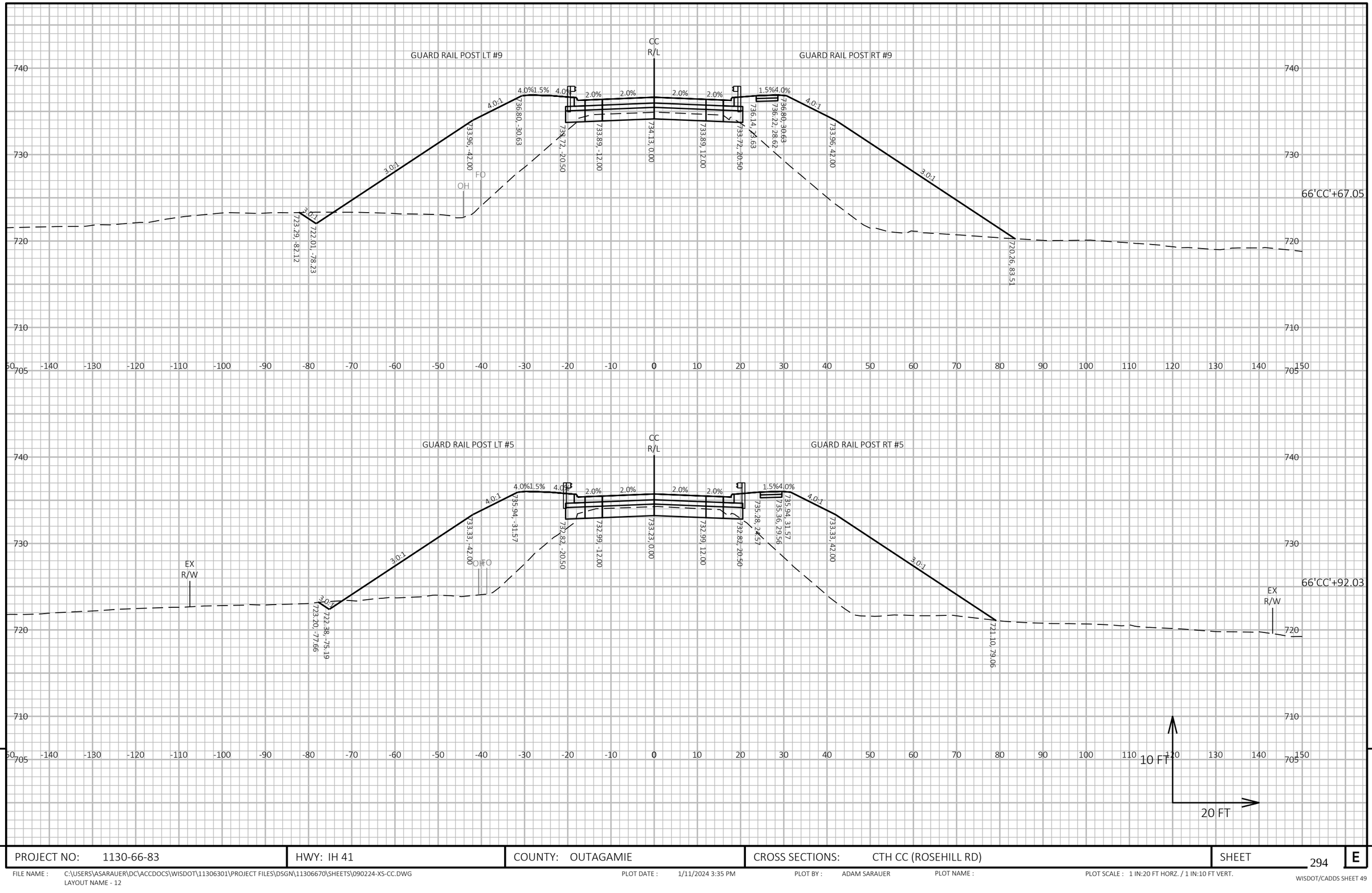


PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 293 E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 11

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



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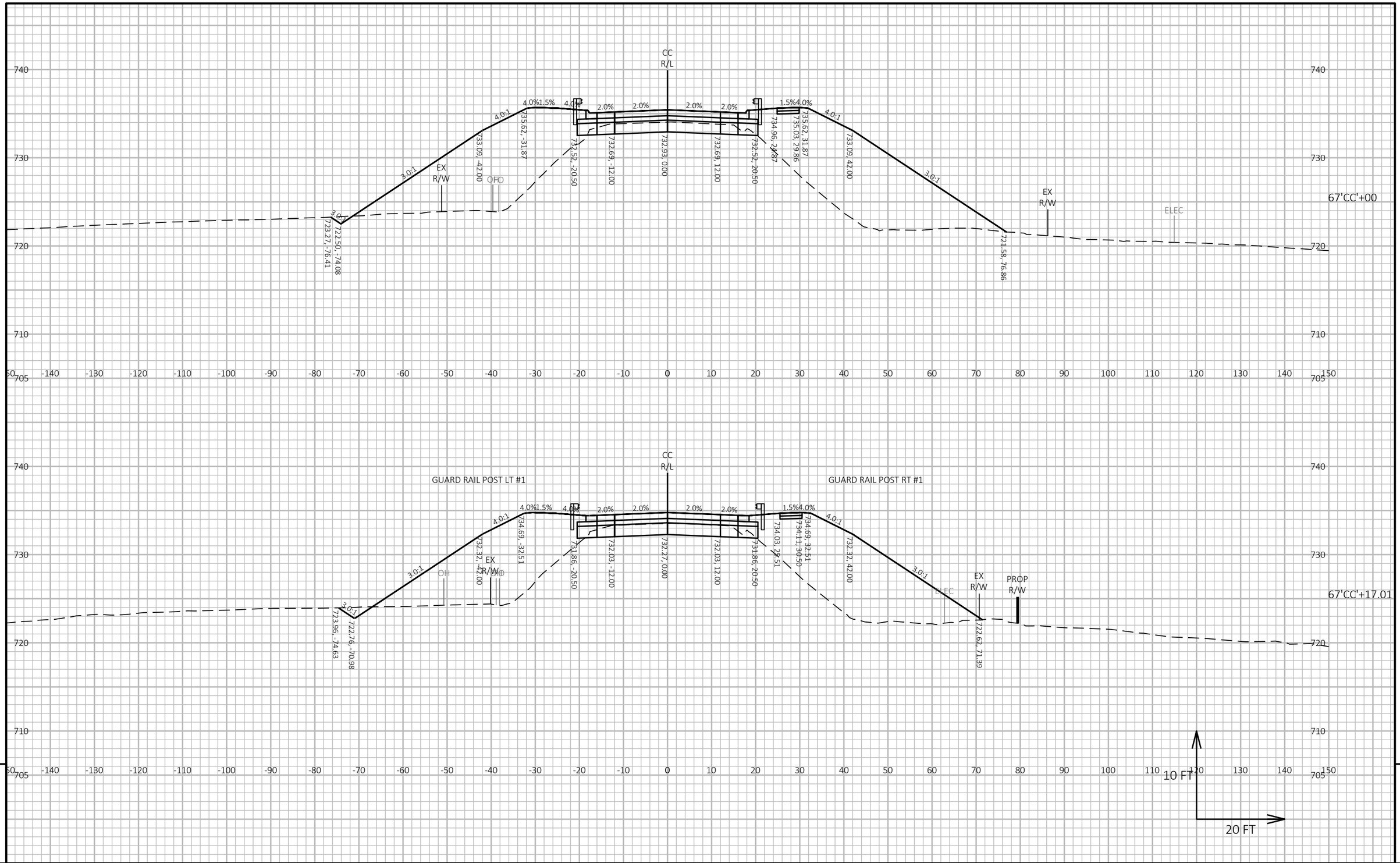
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 294	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 12

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

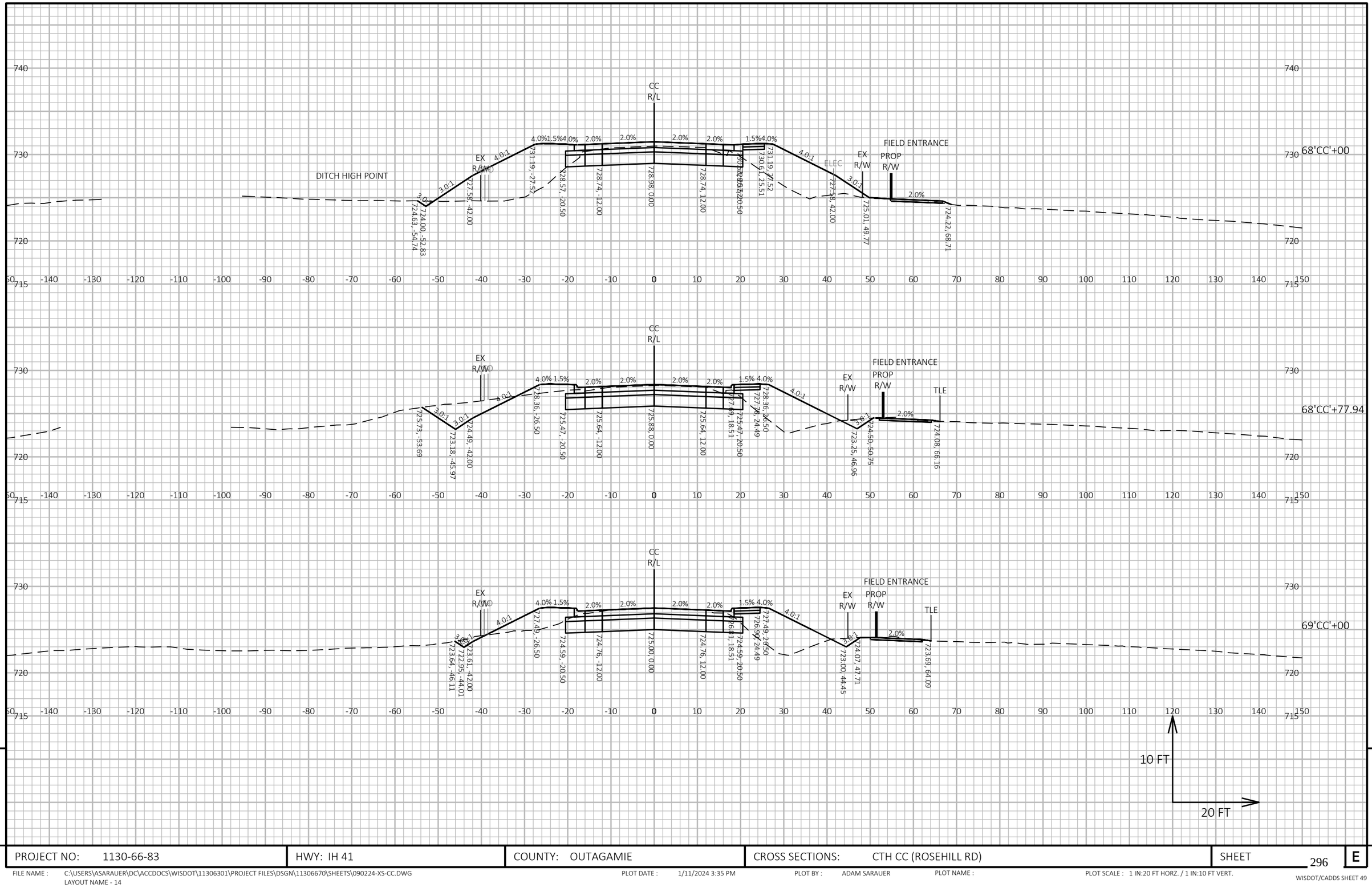
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 295	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 13

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

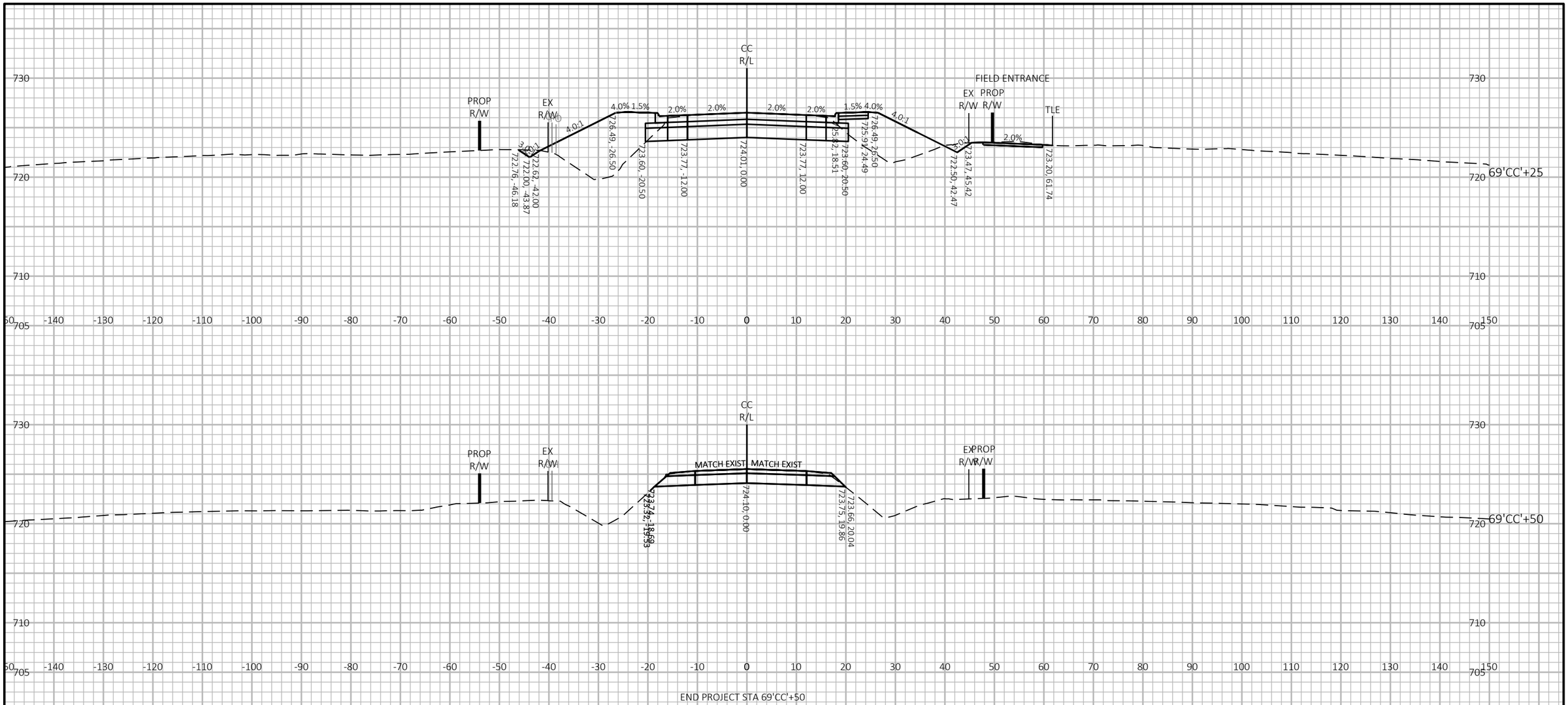
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 296	E

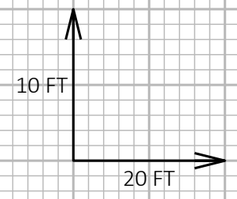
FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 14

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



END PROJECT STA 69'CC'+50



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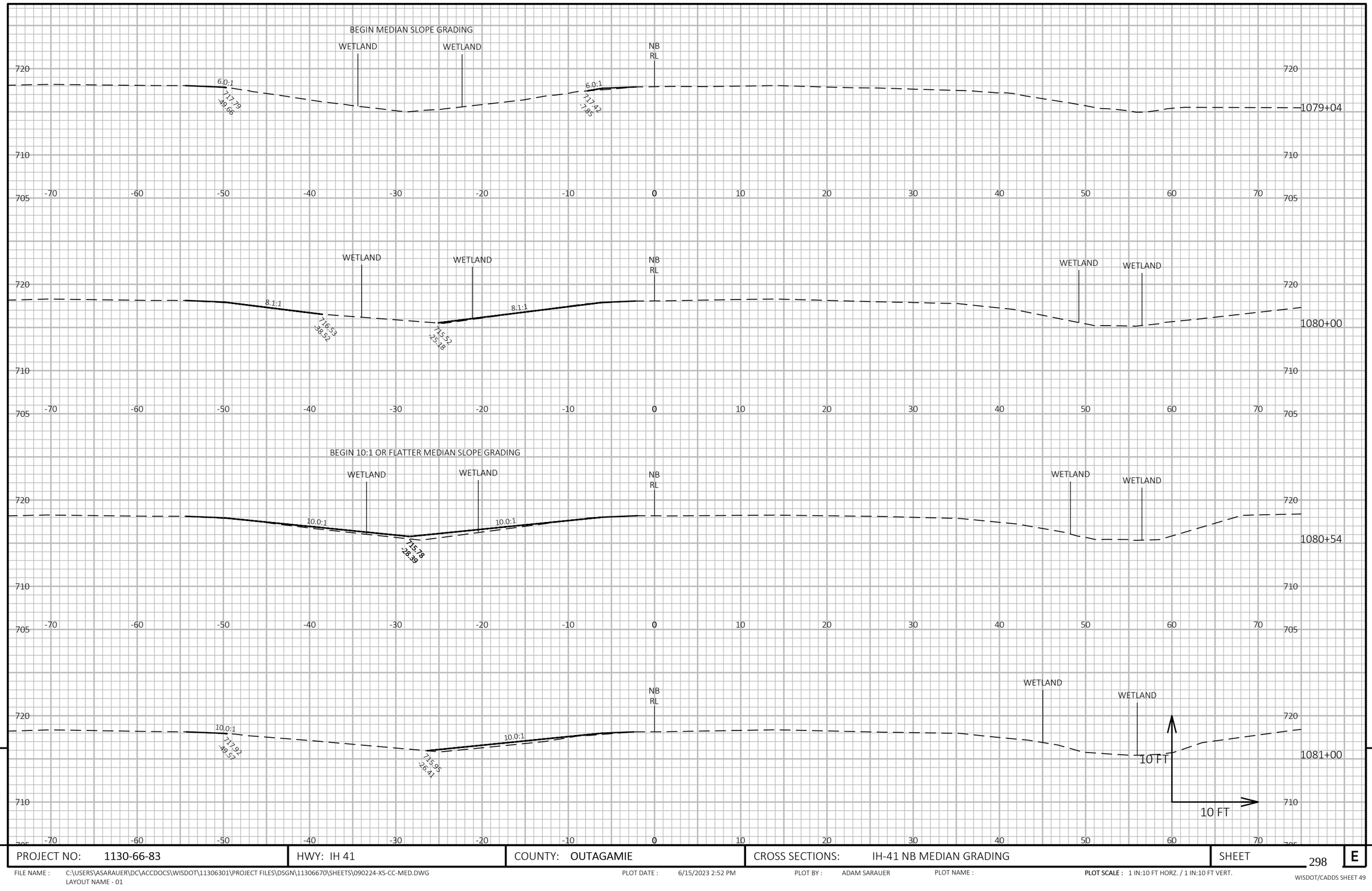
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: CTH CC (ROSEHILL RD)	SHEET 297	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC.DWG
LAYOUT NAME - 15

PLOT DATE : 1/11/2024 3:35 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: IH-41 NB MEDIAN GRADING	SHEET 298	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC-MED.DWG
LAYOUT NAME - 01

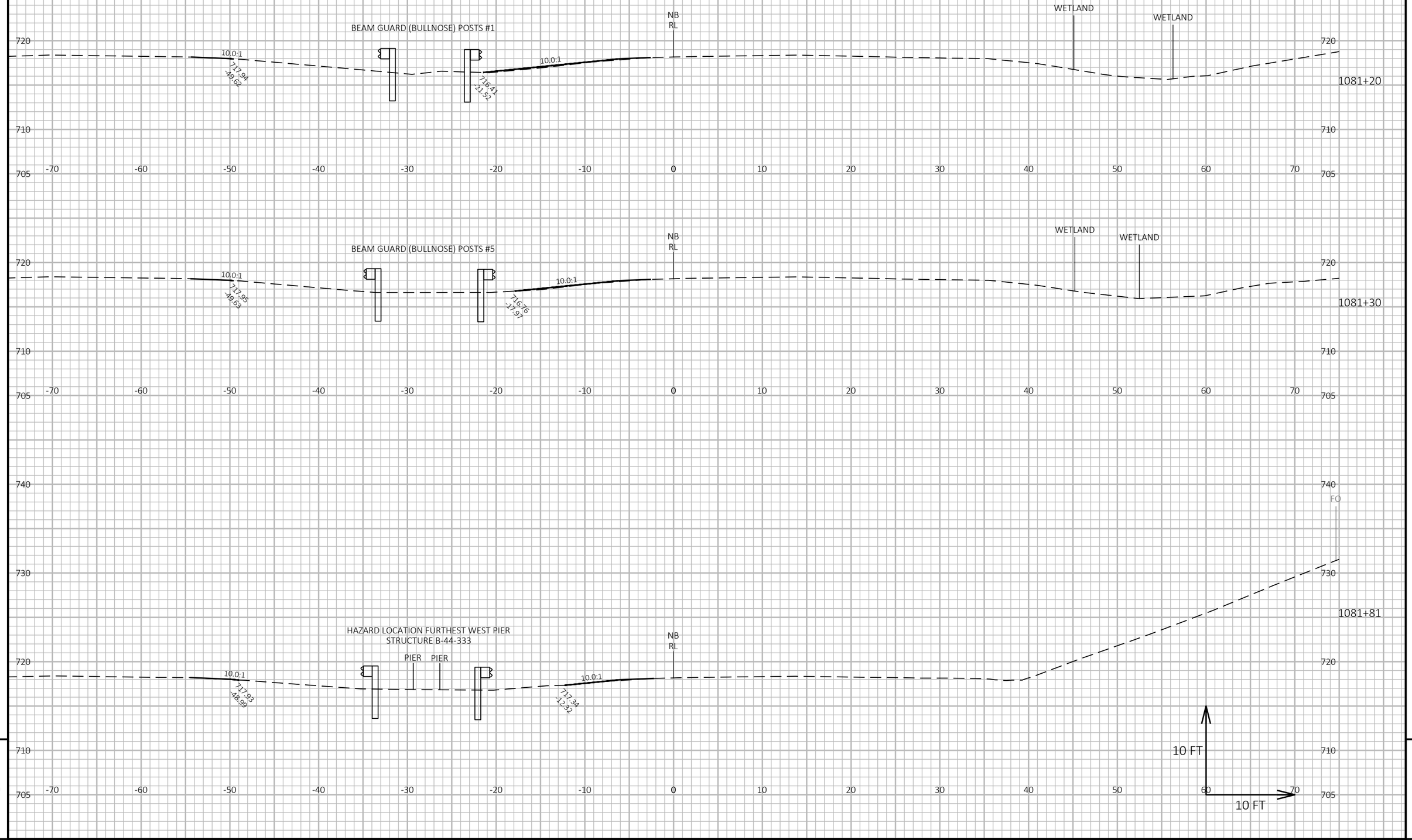
PLOT DATE : 6/15/2023 2:52 PM

PLOT BY : ADAM SARAUER

PLOT NAME :

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

WISDOT/CADDS SHEET 49



9

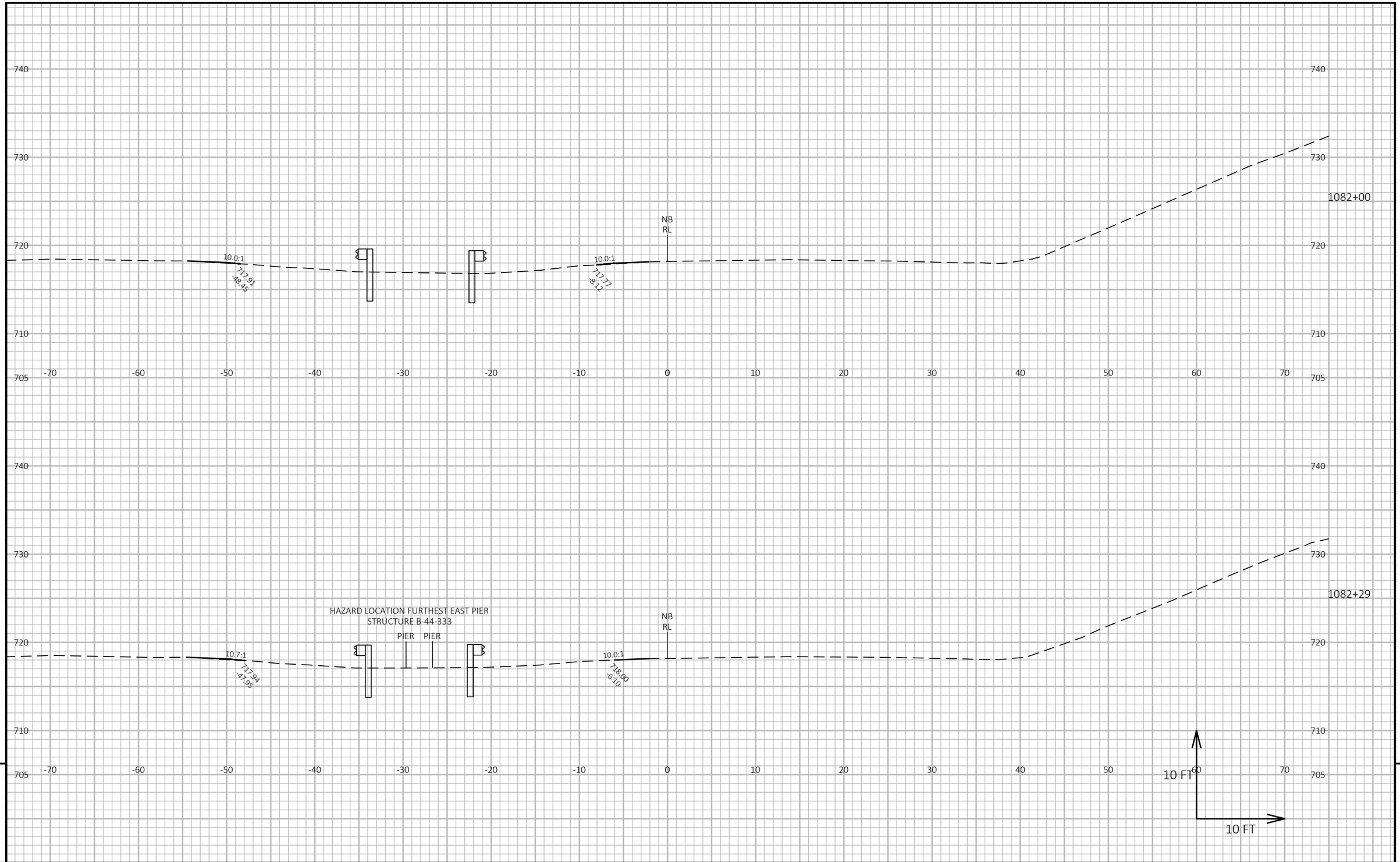
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: IH-41 NB MEDIAN GRADING	SHEET 299	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC-MED.DWG
LAYOUT NAME - 02

PLOT DATE : 6/15/2023 2:53 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

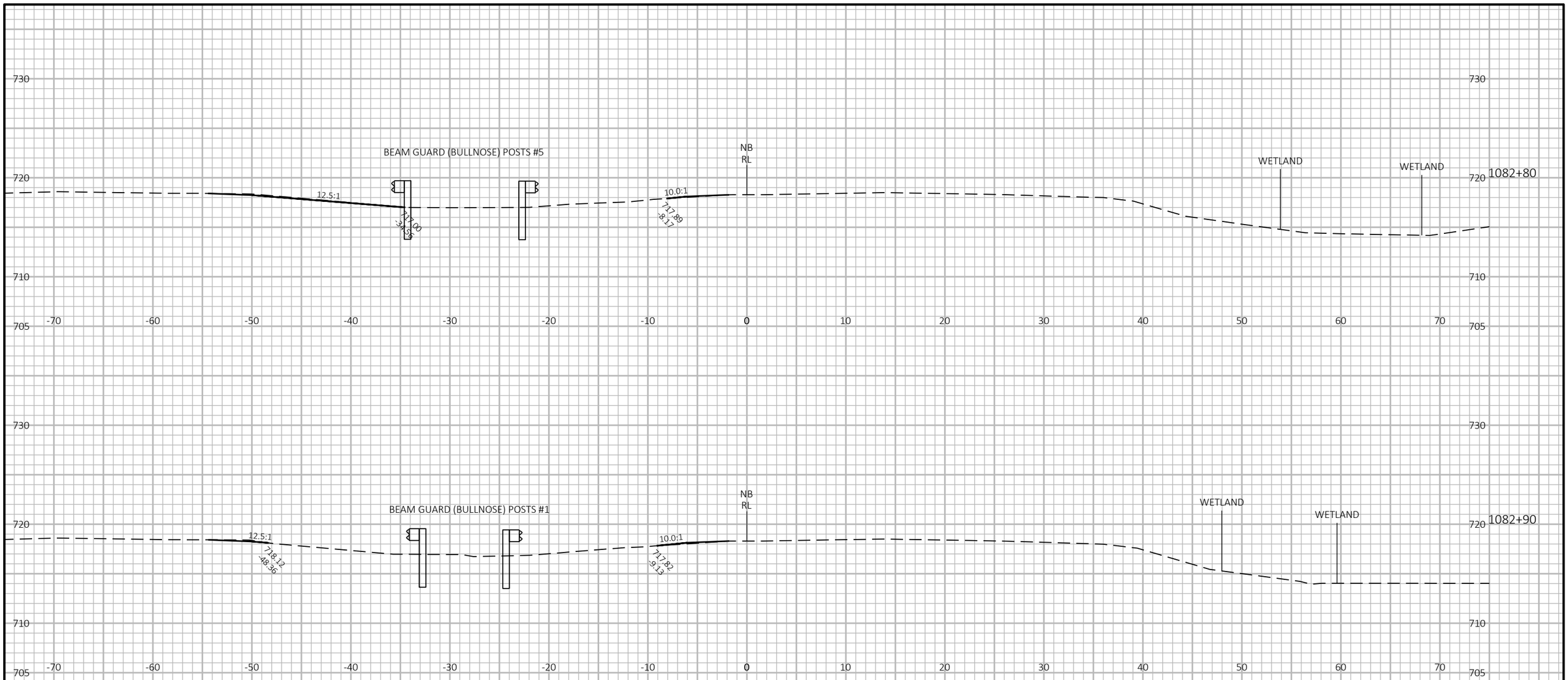
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: IH-41 NB MEDIAN GRADING	SHEET 300	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC-MED.DWG
LAYOUT NAME - 03

PLOT DATE : 6/15/2023 2:53 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

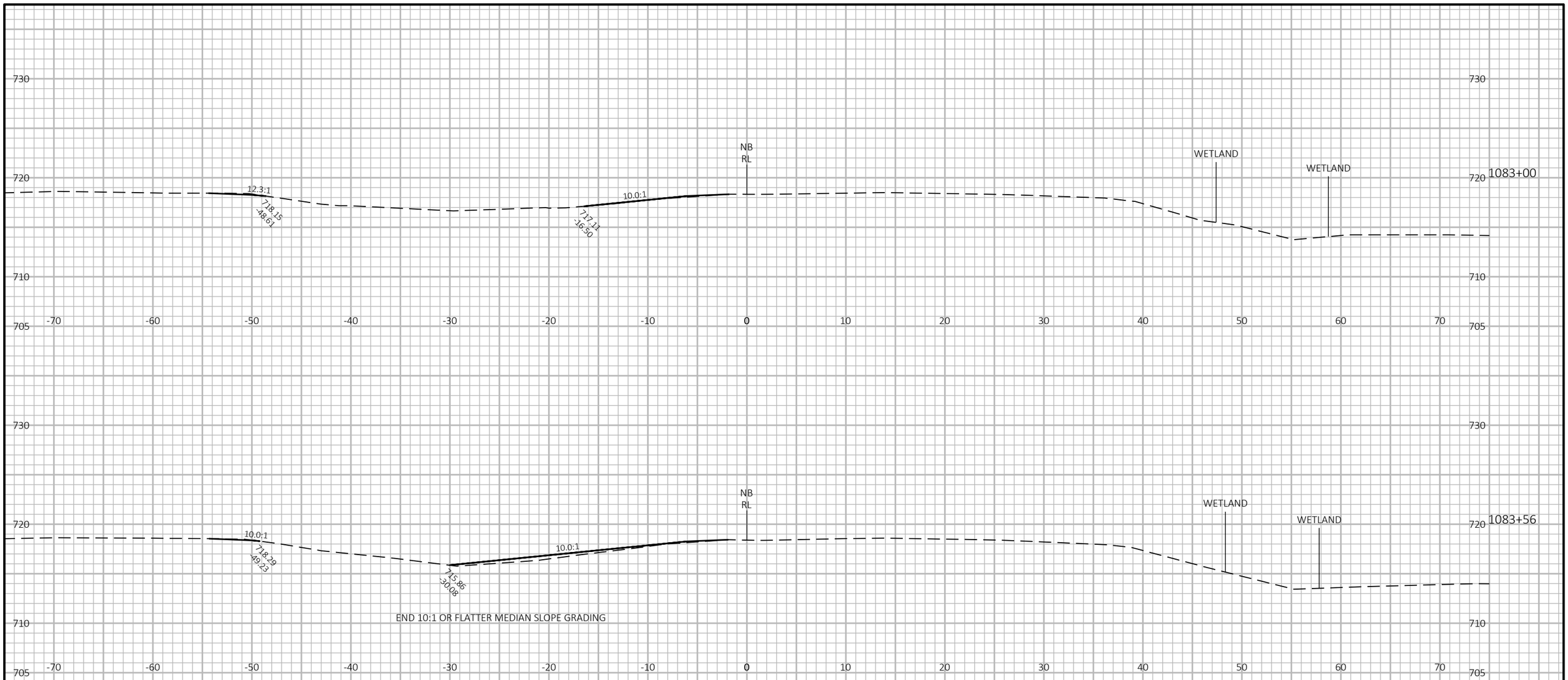
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: IH-41 NB MEDIAN GRADING	SHEET 301	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC-MED.DWG
LAYOUT NAME - 04

PLOT DATE : 6/15/2023 2:54 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

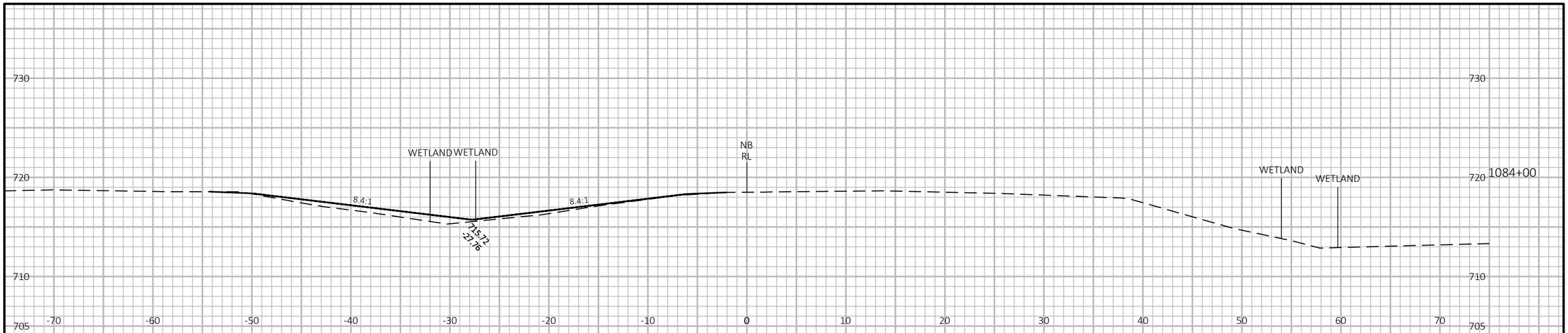


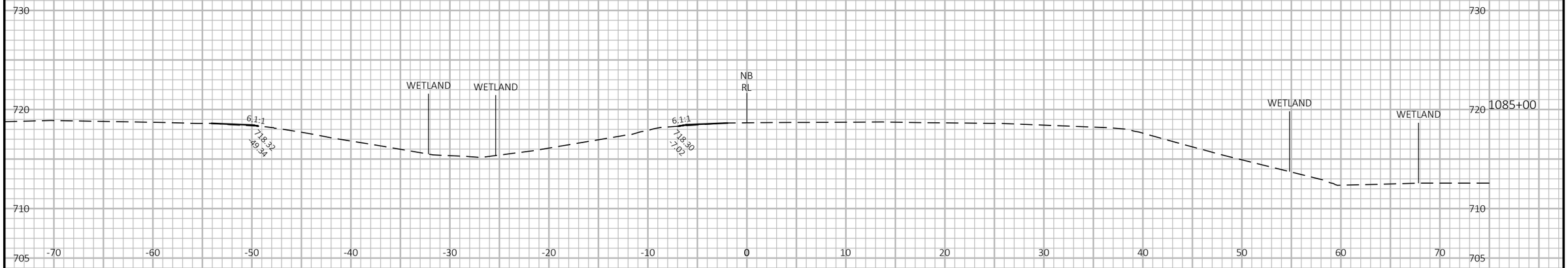
PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: IH-41 NB MEDIAN GRADING	SHEET 302	E

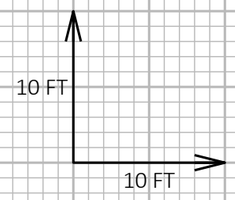
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LAYOUT NAME - 05

PLOT DATE : 6/15/2023 2:54 PM PLOT BY : ADAM SARAUER PLOT NAME : PLOT SCALE : 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49







9

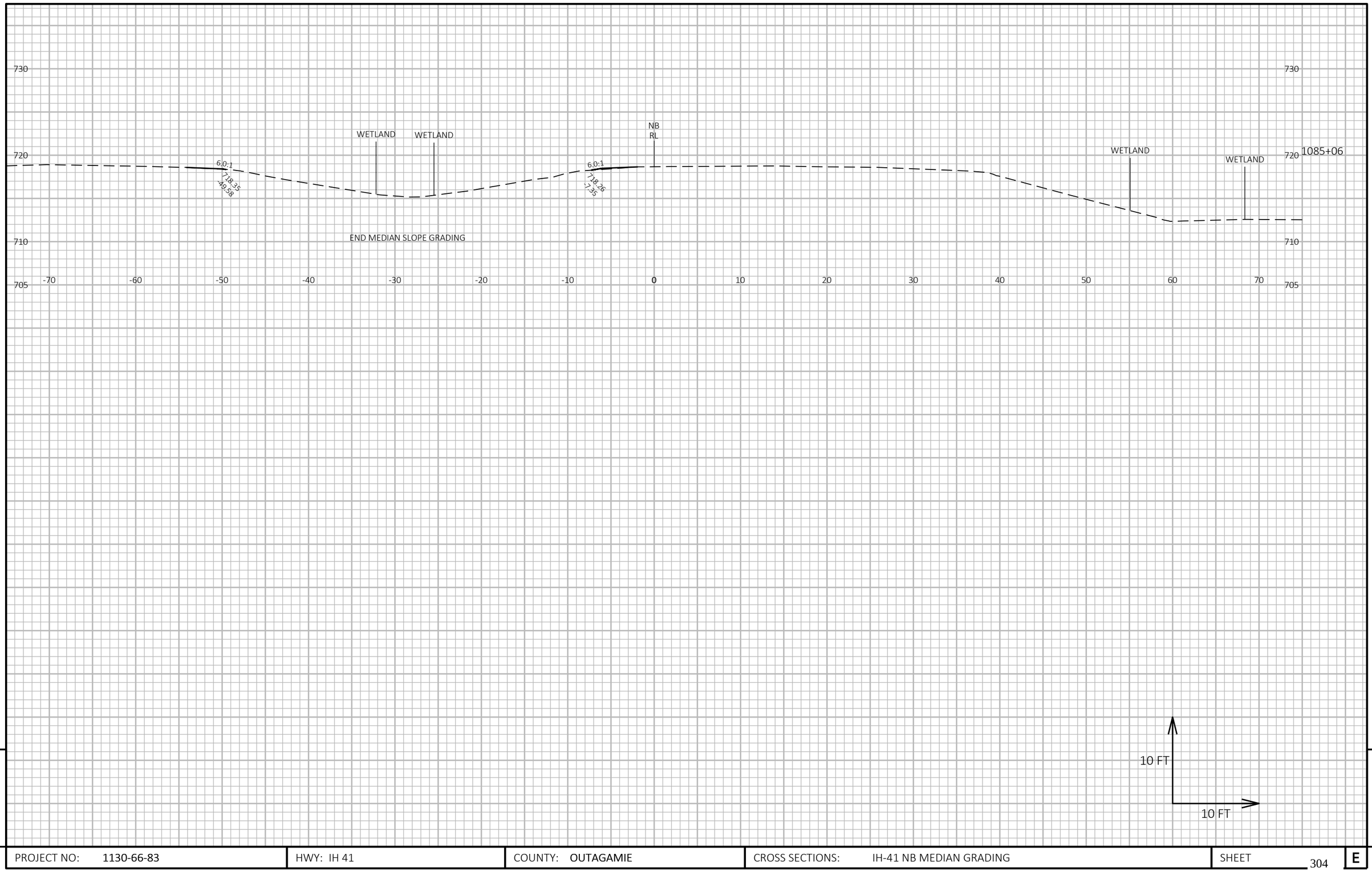
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PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: IH-41 NB MEDIAN GRADING	SHEET 303	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC-MED.DWG
LAYOUT NAME - 06

PLOT DATE : 6/15/2023 2:55 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

9

PROJECT NO: 1130-66-83	HWY: IH 41	COUNTY: OUTAGAMIE	CROSS SECTIONS: IH-41 NB MEDIAN GRADING	SHEET 304	E

FILE NAME : C:\USERS\ASARAUER\DC\ACCDOCS\WISDOT\11306301\PROJECT FILES\DSGN\11306670\SHEETS\090224-XS-CC-MED.DWG
LAYOUT NAME - 07

PLOT DATE : 6/15/2023 2:55 PM PLOT BY : ADAM SARAUER PLOT NAME : **PLOT SCALE :** 1 IN:10 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

Notes

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

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