MAD

APRIL 2019

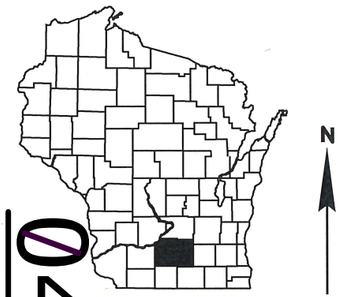
PROJECT ID: 1206-06-78
WITH: N/A

COUNTY: DANE

ORDER OF SHEETS

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

TOTAL SHEETS = 326



04

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

MADISON - CAMBRIDGE

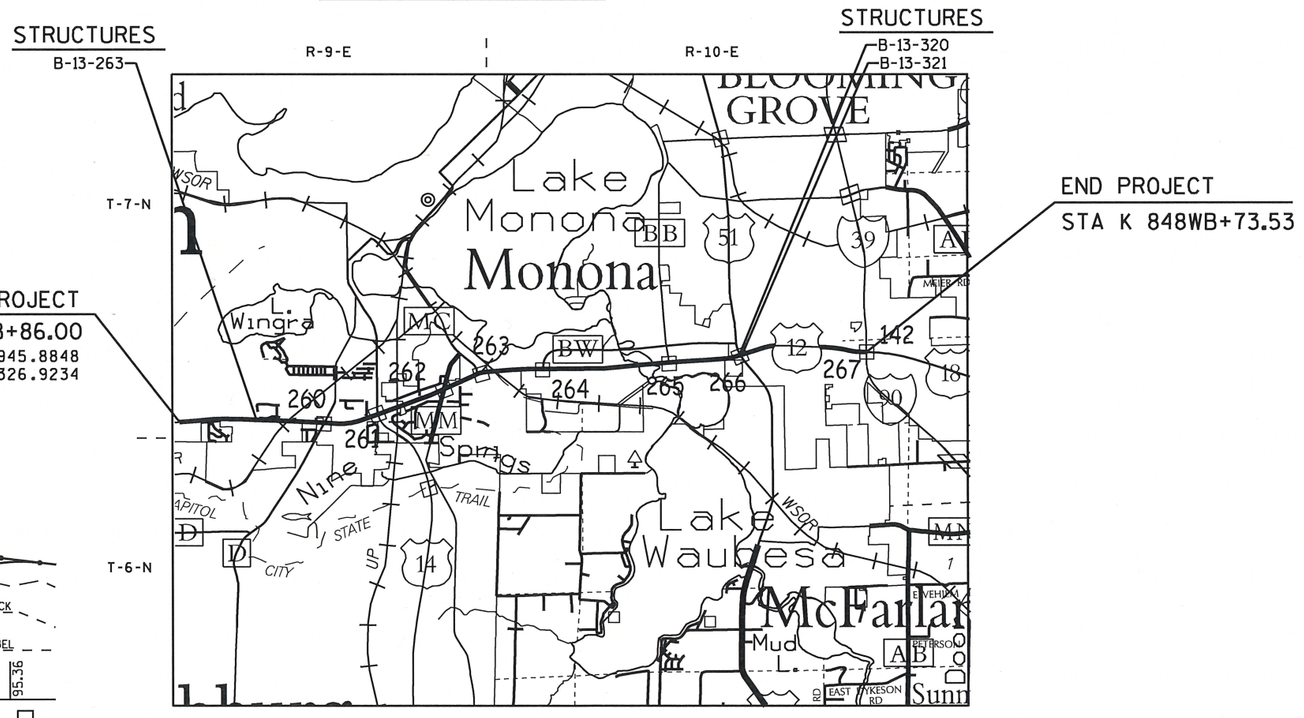
SEMINOLE HIGHWAY TO IH 39/90

USH 12

DANE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
1206-06-78	WISC 2019213	1

STATE PROJECT NUMBER
1206-06-78



LAYOUT
SCALE 0 1.0 MI.

TOTAL NET LENGTH OF USH 12 MADISON BELTLINE CENTERLINE = 8.047 MI.

DESIGN DESIGNATION		USH 12/18
A.A.D.T. (2016)	=	122,130 - 141,140
A.A.D.T. (2036)	=	139,650 - 164,190
D.H.V. (2036)	=	13,686 - 15,926
D.D.	=	54/46
T.	=	6.2% - 8.0%
DESIGN SPEED	=	60 MPH
ESALS	=	11,899,000

CONVENTIONAL SYMBOLS

PLAN
- CORPORATE LIMITS
- PROPERTY LINE (PL + 58.1)
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- PROPOSED JOINT LINE
- SLOPE INTERCEPT
- REFERENCE LINE
- 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 (95.36)
- CULVERT (Profile View)

UTILITIES
- COMMUNICATION OVERHEAD (C-OH)
- COMMUNICATION UNDERGROUND (C-UG)
- ELECTRIC OVERHEAD (OH)
- ELECTRIC UNDERGROUND (E)
- GAS (G)
- SANITARY SEWER (SAN)
- STORM SEWER (SS)
- WATER (W)
- UTILITY PEDESTAL
- POWER POLE
- TELEPHONE POLE

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATES, DANE COUNTY, NAD83 (2011), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES. GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCE MAY BE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCE TO THE NORTH AMERICAN VERTICAL DATUM OF 1988, NAVD (2012).

ORIGINAL PLANS PREPARED BY

HNTB
10 W MIFFLIN STREET
SUITE 300
MADISON, WI 53711
(608) 259-0045

WISCONSIN PROFESSIONAL ENGINEER
NICHOLAS E. BENNETT
E-43352-6
MADISON, WI

11/1/2018 (Date)
(Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	
Designer	HNTB
Project Manager	DEREK POTTER
Regional Examiner	SW REGION
Regional Supervisor	BRENDA SCHOENFELD
C.O. Examiner	

APPROVED FOR THE DEPARTMENT
DATE: 2/5/19 (Signature)

E

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RUSSELL.W.RYAN@FTR.COM

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SCHWASSR@TOWN.MADISON.WI.US

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KEVIN.J.PARRIS@WINDSTREAM.COM

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(608) 838-3153

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JEFFREY.MADSON@DOT.WI.GOV

WISDOT – RWIS
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MICHAEL.ADAMS@DOT.WI.GOV

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(7150 838-4406
HAMMETTER@WINS.NET

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(608) 249-0705

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

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NBENNETT@HNTB.COM

ORDER OF SECTION 2 DETAIL SHEETS

GENERAL NOTES
PROJECT OVERVIEW
TYPICAL SECTIONS
CONSTRUCTION DETAILS
REMOVALS
PLAN DETAILS
EROSION CONTROL
PAVEMENT MARKINGS
TRAFFIC CONTROL
ALIGNMENT DETAILS

GENERAL NOTES

THE CONTRACTOR SHALL BE RESPONSIBLE FOR RESHAPING AND SEEDING ANY PREVIOUSLY GRASSED AREAS WHICH ARE DISTURBED BY ANY OPERATION OUTSIDE OF THE NORMAL CONSTRUCTION LIMITS AT THE CONTRACTOR'S EXPENSE OR AS OTHERWISE DIRECTED BY THE FIELD ENGINEER. DISTURBED AREAS ARE TO BE TOPSOILED (SALVAGED), FERTILIZED, SEEDED, AND EMATTED AS DIRECTED BY THE FIELD ENGINEER.

TEMPORARY STORAGE OF ANY EXCAVATED MATERIAL OR EQUIPMENT WITHIN WETLANDS OR PROTECTED AREAS IS NOT ALLOWED. WETLAND BOUNDARIES ARE SHOWN ON PLAN SHEETS.

THERE ARE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE HIS CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.

REMOVING CONCRETE INCLUDES ANY MESH OR REINFORCEMENT THAT MAY BE PART OF THE PAVEMENT STRUCTURE. EXISTING PAVEMENT DEPTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD.

BASE PATCHING CONCRETE OVERNIGHT AND CONCRETE PAVEMENT REPAIR AND REPLACEMENT OVERNIGHT JOINT LOCATIONS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

REMOVING PAVEMENT BUTT JOINTS AT BRIDGES SHALL NOT EXTEND INTO CONCRETE PAVEMENT APPROACH SLABS.

THE CONTRACTOR'S PAVING OPERATIONS SHALL BE CONSISTENT WITH THE PLAN TYPICAL SECTIONS AND CONSTRUCTED TO PREVENT HMA LONGIDUTINAL JOINTS FROM BEING LOCATED WITHIN A DRIVING, TURNING, PASSING, OR PARKING LANE.

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

TACK COAT APPLICATION RATES ARE ESTIMATED AT 0.07 GALLONS PER SY BETWEEN THE EXISTING CONCRETE PAVEMENT AND THE 2-INCH ASPHALT OVERLAY AND BETWEEN THE MILLED ASPHALT SURFACE AND THE 2-INCH ASPHALT OVERLAY.

ALIGNMENT IDENTIFIERS	
EB	USH 12/18 EB
WB	USH 12/18 WB
FNHW	FISH HATCHERY RD TO USH 12/18 WB
HNW	IH 39 NB TO USH 12/18 WB
HSW	IH 39 SB TO USH 12/18 WB

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS
4 HT 58-28 V	2"	2" LOWER LAYER

PAVEMENT TYPE	TOTAL LAYER PAVEMENT THICKNESS	LAYERS
4 HT 58-28 V	3.5"	1.75" SURFACE LAYER 1.75" LOWER LAYER

*WHERE PAVEMENT IS 3.5" THICK.

ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
BAD	BASE AGGREGATE DENSE
BM	BENCH MARK
C&G	CURB AND GUTTER
C/L	CENTER OR CONSTRUCTION LINE
CMCP	CULVERT PIPE CORRUGATED METAL
CONC	CONCRETE
CP	CULVERT PIPE
CPRC	CULVERT PIPE REINFORCED CONCRETE
CSD	CONCRETE SURFACE DRAIN
CY	CUBIC-YARD
D	DEGREE OF CURVE
Δ	DELTA
DISCH	DISCHARGE
EAT	ENERGY ABSORBING TERMINAL
FE	FIELD ENTRANCE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LT	LEFT
MIN	MINIMUM
M/L	MATCHLINE
NB	NORTHBOUND
NC	NORMAL CROWN
PAVT	PAVEMENT
PC	POINT OF CURVE
PCC	POINT OF COMPOUND CURVE
PE	PRIVATE ENTRANCE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASMENT
PT	POINT OF TANGENT
R	RADIUS OF CURVE
R/L	REFERENCE LINE
R/W	RIGHT OF WAY
RC	REVERSE CROWN
RCAEW	APRON ENDWALL FOR CULVERT PIPE REINFORCED CONCRETE
REQD	REQUIRED
RHF	RIGHT HAND FORWARD
RO	RUN OFF LENGTH
RRSP	RAILROAD SPIKE
RT	RIGHT
SALV	SALVAGED
SAPBC	SALVAGED ASPHALTIC PAVEMENT BASE COARSE
SB	SOUTHBOUND
SDD	STANDARD DETAIL DRAWINGS
SE	SUPER ELEVATION
SF	SQUARE FOOT
SSPRC	STORM SEWER PIPE REINFORCED CONCRETE
STA	STATION
SY	SQUARE YARD
T	TANGENT LENGTH
TLE	TEMPORARY LIMITED EASEMENT
VCL	VERTICAL CURVE LENGTH
VPC	POINT OF VERTICAL CURVE
VPI	POINT OF VERTICAL INTERSECTION
VPT	POINT OF VERTICAL TANGENT

2

N

BEGIN PROJECT 1206-06-78
STA 423EB+86.00
X = 805945.8848
Y = 468326.9234

SEMINOLE HIGHWAY

TODD DRIVE

FISH HATCHERY ROAD (CTH D)

PARK STREET

RIMROCK ROAD

JOHN NOLEN DRIVE

SOUTH TOWNE ROAD

MONONA DRIVE

STOUGHTON ROAD

IH-39/90

AGRICULTURE DRIVE

USH 12/18 WB

USH 12/18 EB

STA. D 626WB+43.50 BK. =
STA. E 626WB+34.32 AH.

STA. D 628EB+06.13 BK. =
STA. E 18EB+06.50 AH.

STA. F 707WB+86.15 BK. =
STA. G 707WB+87.77 AH.

STA. E 654WB+93.03 BK. =
STA. F 654WB+91.79 AH.

STA. H 786WB+14.90 BK. =
STA. J 786WB+20.73 AH.

BRIDGE B-13-320

BRIDGE B-13-321

STA. J 817WB+28.41 BK. =
STA. K 816WB+89.42 AH.

STA. E 206EB+77.28 BK. =
STA. F 48EB+49.62 AH.

47DA141/BDA-0391 TURVILLE BAY MARSH MOUND
UN-CATALOGED ARCHAEOLOGICAL SITE

STA. C 615WB+02.31 BK. =
STA. D 615WB+39.19 AH.

STA. C 615EB+02.96 BK. =
STA. D 615EB+39.19 AH.

BRIDGE B-13-263

STA. 525WB+10.36 BK. =
STA. A 525WB+23.19 AH.

STA. 525EB+10.41 BK. =
STA. A 525EB+23.19 AH.

STA. B 589EB+62.37 BK. =
STA. C 589EB+71.76 AH.

STA. B 589EB+60.60 BK. =
STA. C 589EB+71.76 AH.

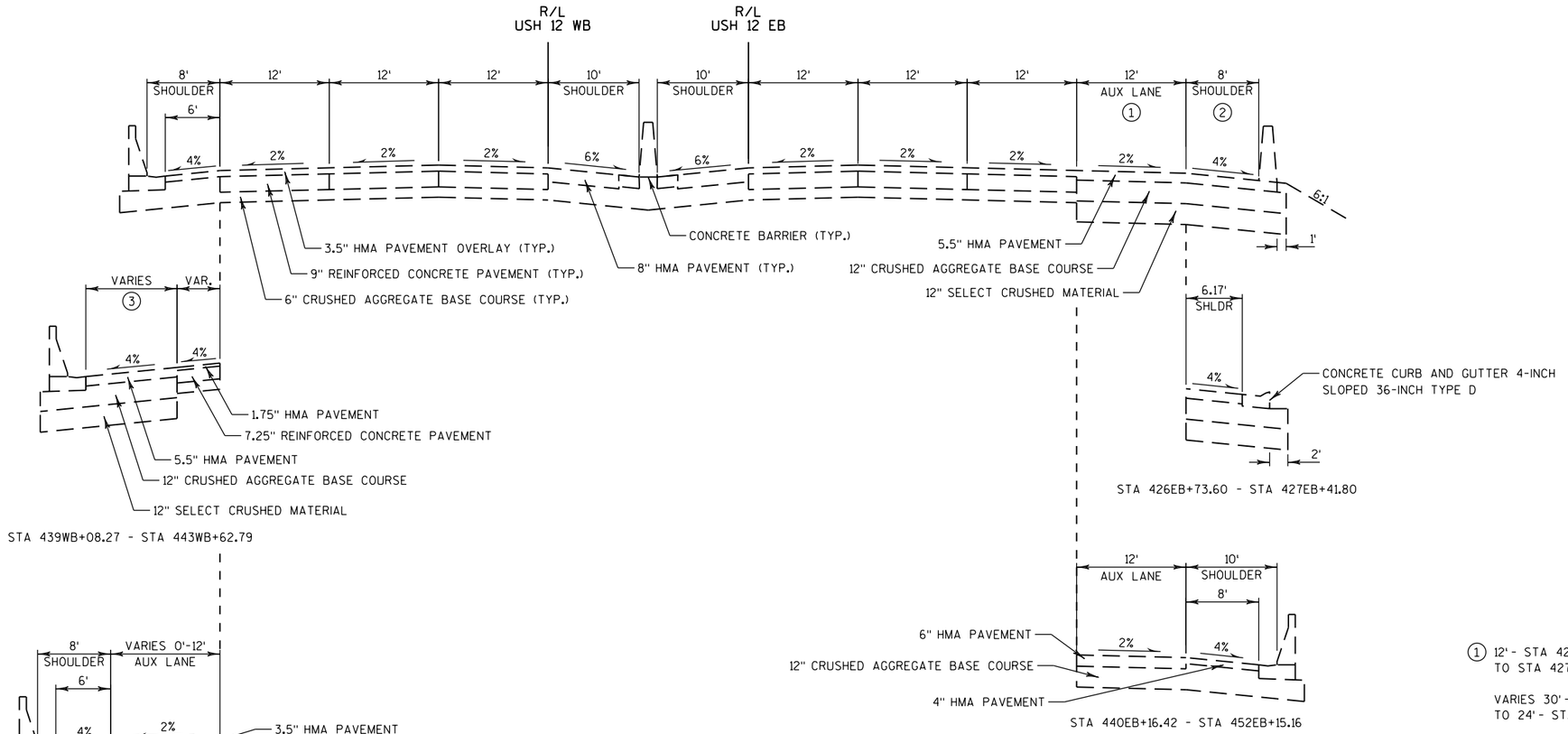
STA. A 540WB+35.73 BK. =
STA. B 540WB+46.75 AH.

STA. A 540EB+43.65 BK. =
STA. B 540EB+44.86 AH.

END PROJECT 1206-06-78
STA K 848WB+73.53

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PROJECT OVERVIEW	SHEET 4	E

2



TYPICAL EXISTING SECTION

SEMINOLE HIGHWAY TO TODD DRIVE WEST RAMPS

STA 423EB+86.00 - STA 452EB+15.16

STA 423WB+82.52 - STA 466WB+06.76

(1) 12' - STA 423EB+86.00
TO STA 427EB+41.80

VARIES 30' - STA 428EB+78.30
TO 24' - STA 431EB+78.60

24' - STA 431EB+78.60
TO STA 436EB+78.60

VARIES 24' - STA 436EB+78.60
TO 12' - STA 440EB+38.60

12' - STA 440EB+38.60
TO STA 447EB+14.00

(2) VARIES 8' - STA. 439EB+78.60
TO 10' STA. 440EB+16.42

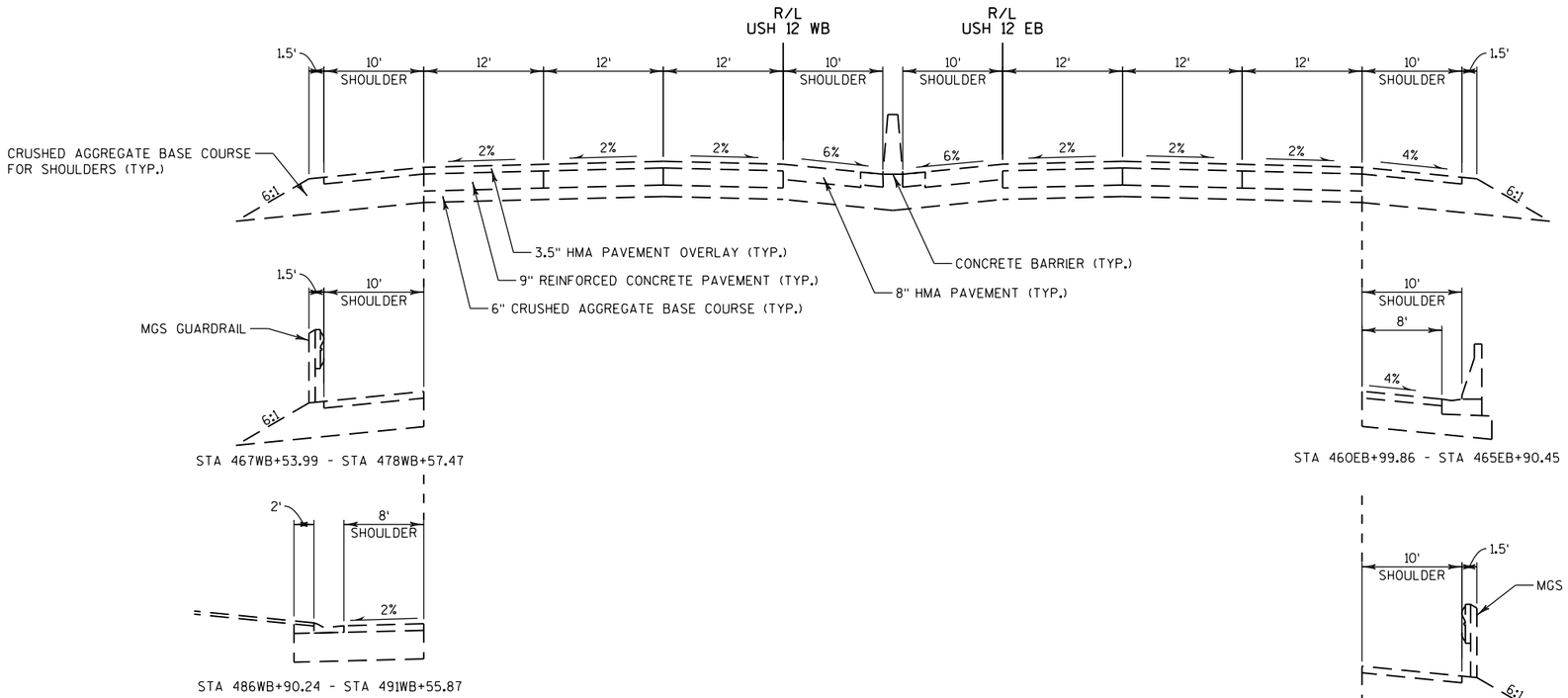
(3) VARIES 0' - STA 438WB+08.27
TO 18.5' - STA 442WB+38.20

18.5' - STA 442WB+38.20
TO STA 443WB+12.91

VARIES 18.5' - STA 443WB+12.91
TO 0' - STA 443WB+62.79

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: EXISTING	SHEET 5	E

2



TYPICAL EXISTING SECTION

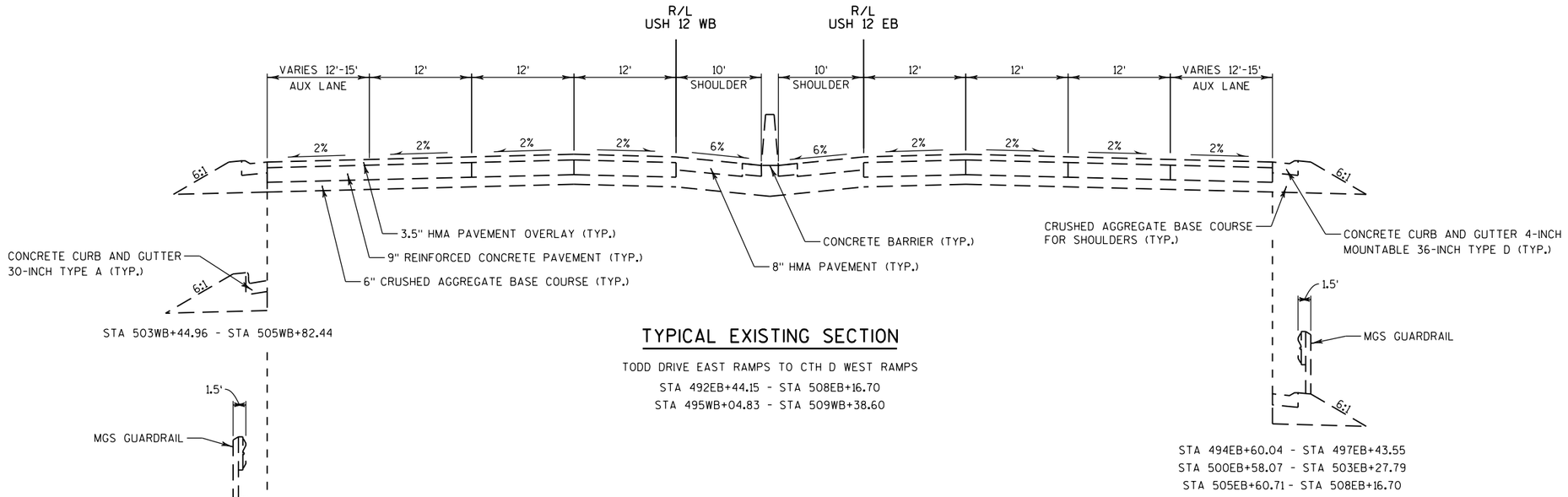
TODD DRIVE WEST RAMPS TO TODD DRIVE EAST RAMPS

STA 452EB+15.16 - STA 492EB+44.15

STA 466WB+06.76 - STA 495WB+04.83

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: EXISTING	SHEET 6	E

2



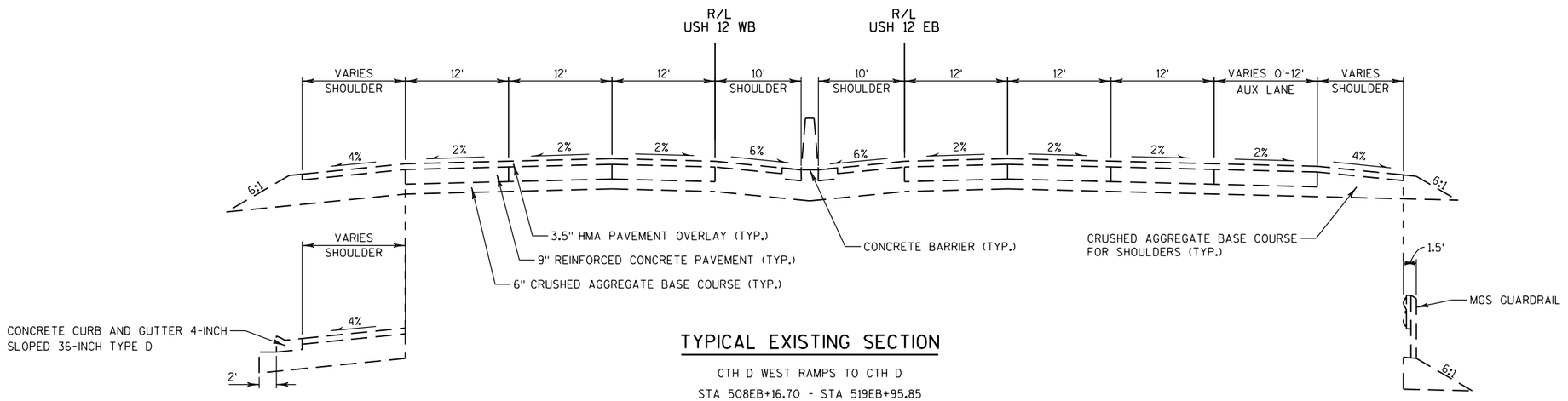
STA 503WB+44.96 - STA 505WB+82.44

STA 505WB+82.44 - STA 509WB+38.60

STA 494EB+60.04 - STA 497EB+43.55
STA 500EB+58.07 - STA 503EB+27.79
STA 505EB+60.71 - STA 508EB+16.70

TYPICAL EXISTING SECTION

TODD DRIVE EAST RAMPS TO CTH D WEST RAMPS
STA 492EB+44.15 - STA 508EB+16.70
STA 495WB+04.83 - STA 509WB+38.60



STA 513WB+00.32 - STA 515WB+43.59

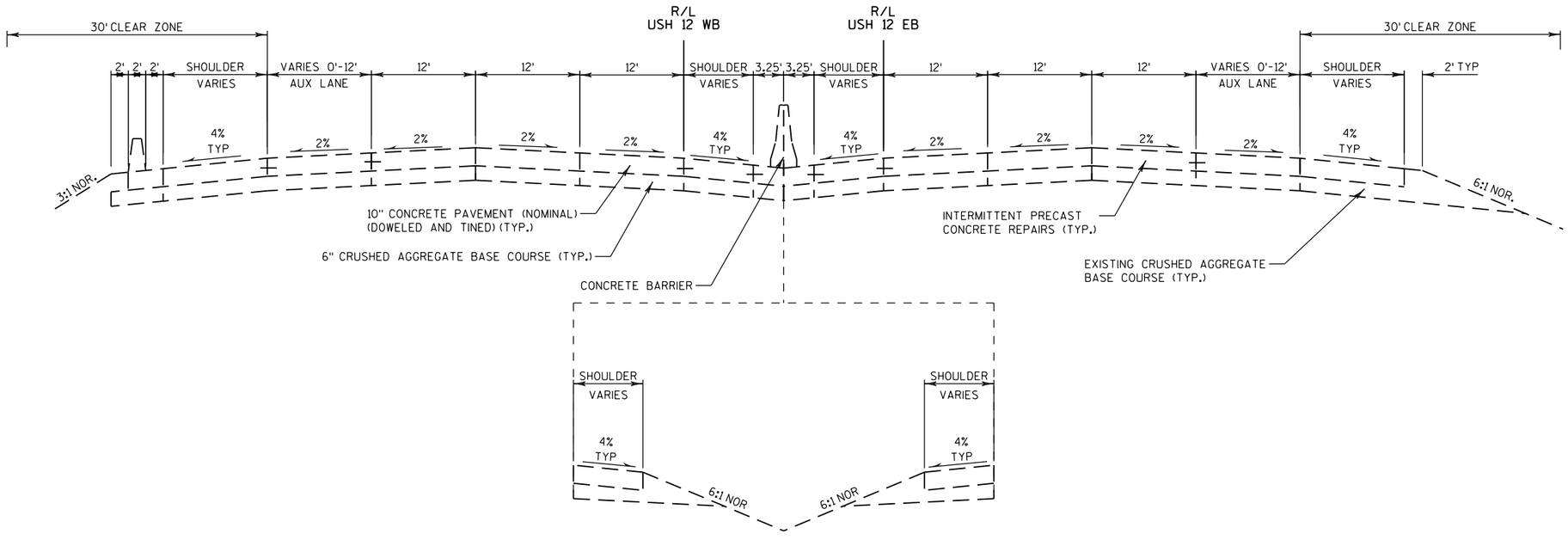
TYPICAL EXISTING SECTION

CTH D WEST RAMPS TO CTH D
STA 508EB+16.70 - STA 519EB+95.85
STA 509WB+38.60 - STA 519WB+95.79

STA 513EB+10.38 - STA 514EB+40.85

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: EXISTING	SHEET 7	E

2



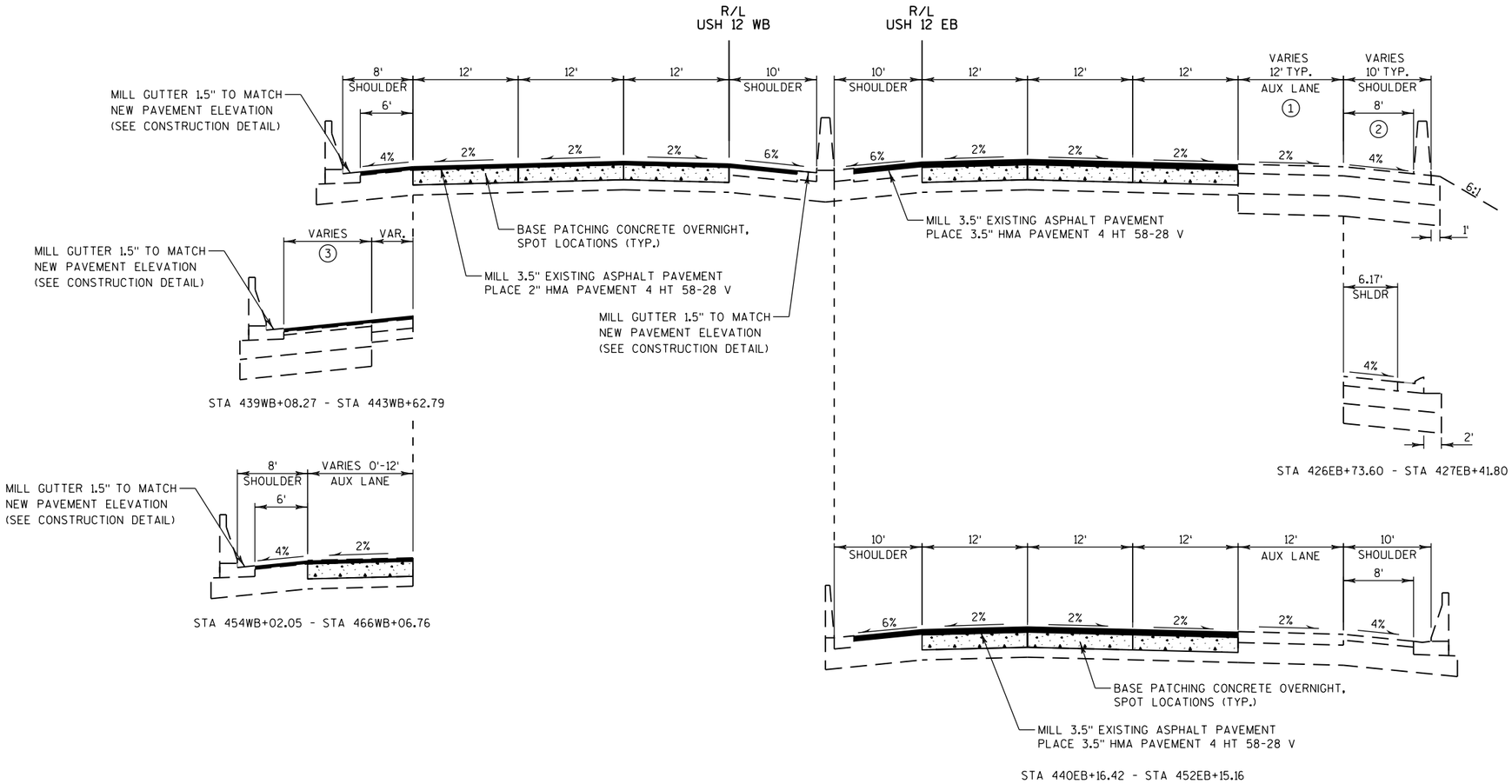
STA F 51EB+94 TO STA F 79EB+85.30
STA K 819WB+94 TO STA K 848+75.53

TYPICAL EXISTING SECTION

CTH D TO IH 39-90
STA 514EB+40.85 TO STA F 79EB+85.30
STA 514WB+34 TO STA K 848+75.53

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: EXISTING	SHEET 8	E

2



TYPICAL PROPOSED SECTION

SEMINOLE HIGHWAY TO TODD DRIVE WEST RAMPS

STA 423EB+86.00 - STA 452EB+15.16

STA 423WB+82.52 - STA 466WB+06.76

(1) 12' - STA 423EB+86.00
TO STA 427EB+41.80

VARIES 30' - STA 428EB+78.30
TO 24' - STA 431EB+78.60

24' - STA. 431EB+78.60
TO STA 436EB+78.60

VARIES 24' - STA 436EB+78.60
TO 12' - STA 440EB+38.60

12' - STA 440EB+38.60
TO STA 447EB+14.00

(2) VARIES 8' - STA 439EB+78.60
TO 10.2' STA 440EB+38.60

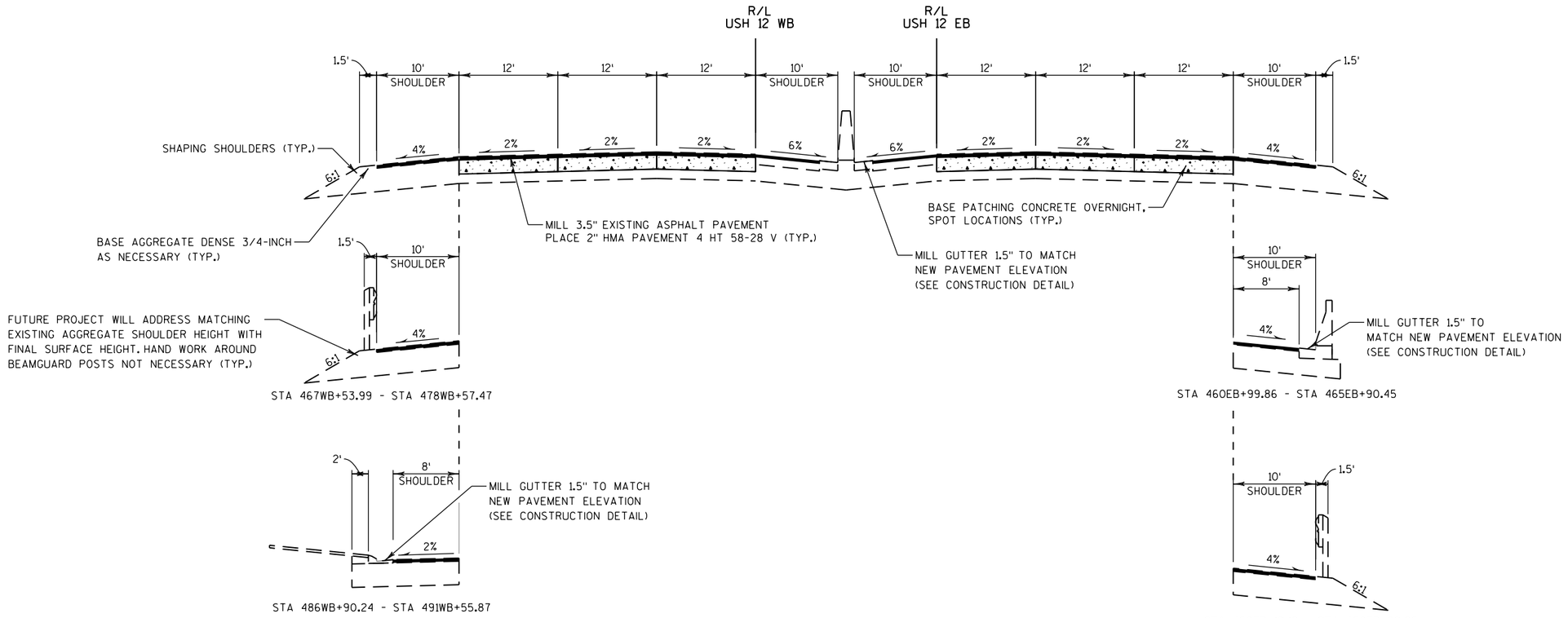
(3) VARIES 0' - STA 438WB+08.27
TO 18.5' - STA 442WB+38.20

18.5' - STA 442WB+38.20
TO STA 443WB+12.91

VARIES 18.5' - STA 443WB+12.91
TO 0' - STA 443WB+62.79

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: PROPOSED	SHEET 9	E

2

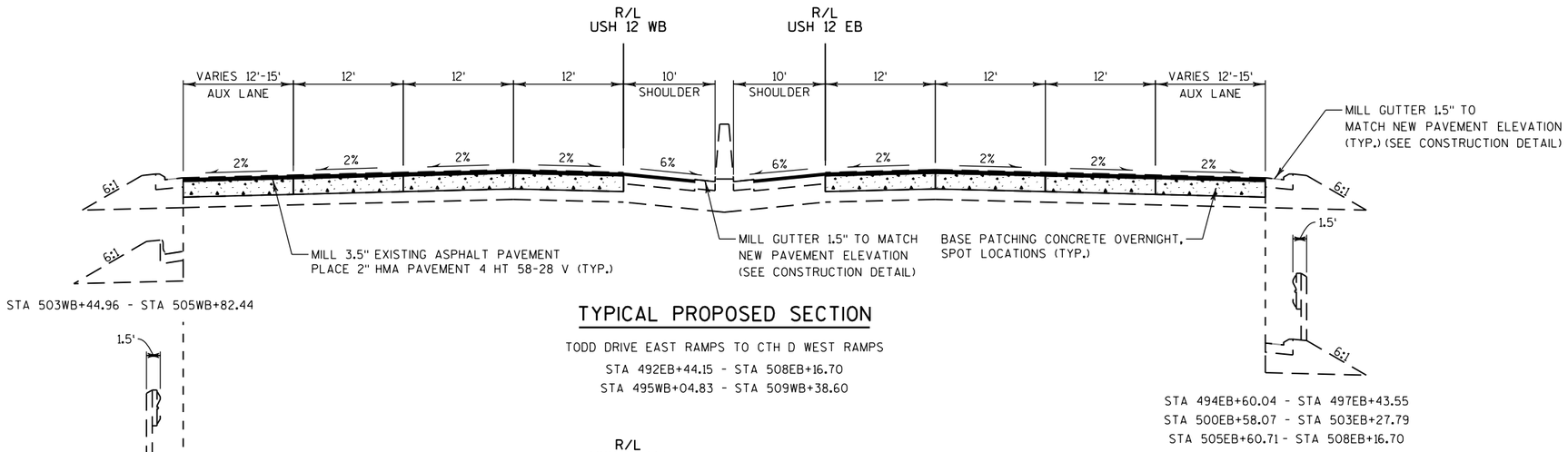


TYPICAL PROPOSED SECTION

TODD DRIVE WEST RAMPS TO TODD DRIVE EAST RAMPS

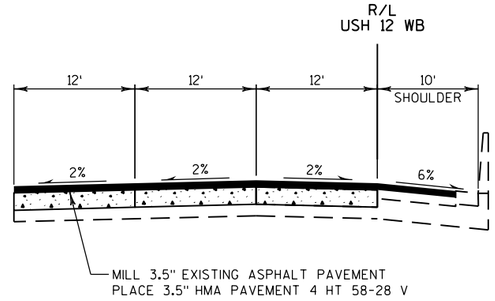
STA 452EB+15.16 - STA 471EB+60.10
STA 474EB+53.51 - STA 492EB+44.15
STA 466WB+06.76 - STA 471WB+77.93
STA 474WB+70.28 - STA 495WB+04.83

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: PROPOSED	SHEET 10	E



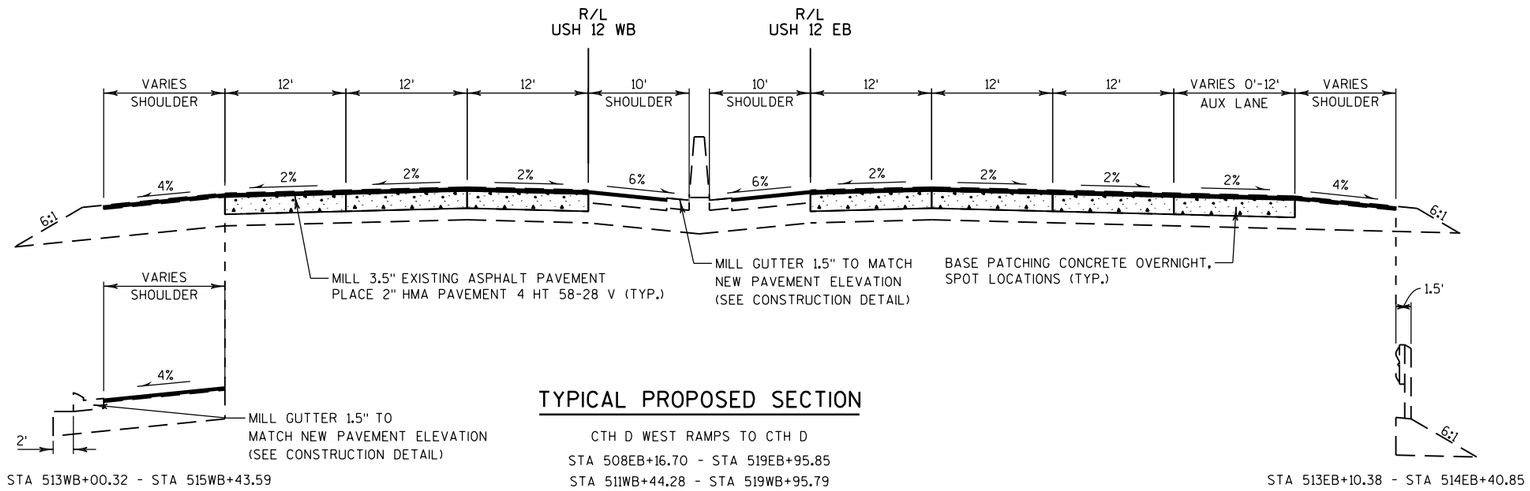
TYPICAL PROPOSED SECTION

TODD DRIVE EAST RAMPS TO CTH D WEST RAMPS
STA 492EB+44.15 - STA 508EB+16.70
STA 495WB+04.83 - STA 509WB+38.60



TYPICAL PROPOSED SECTION

FISH HATCHERY WB ON RAMP
STA 509WB+38.60 - STA 511WB+44.28

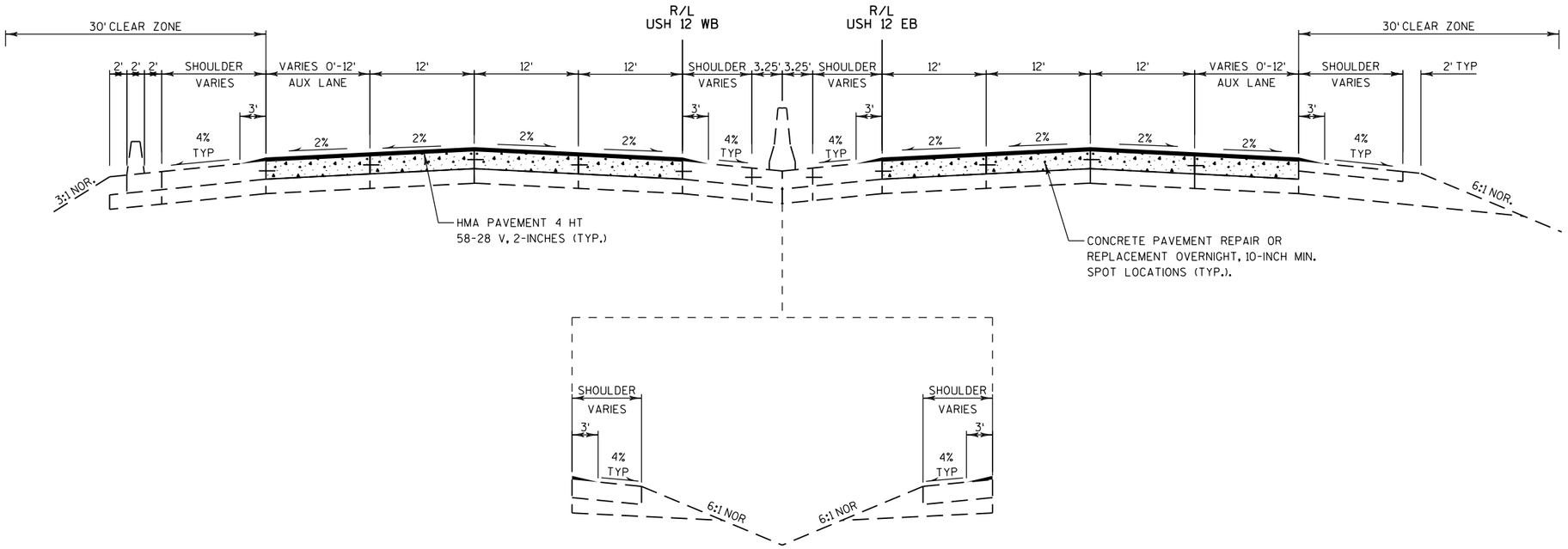


TYPICAL PROPOSED SECTION

CTH D WEST RAMPS TO CTH D
STA 508EB+16.70 - STA 519EB+95.85
STA 511WB+44.28 - STA 519WB+95.79

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: PROPOSED	SHEET 11	E

2



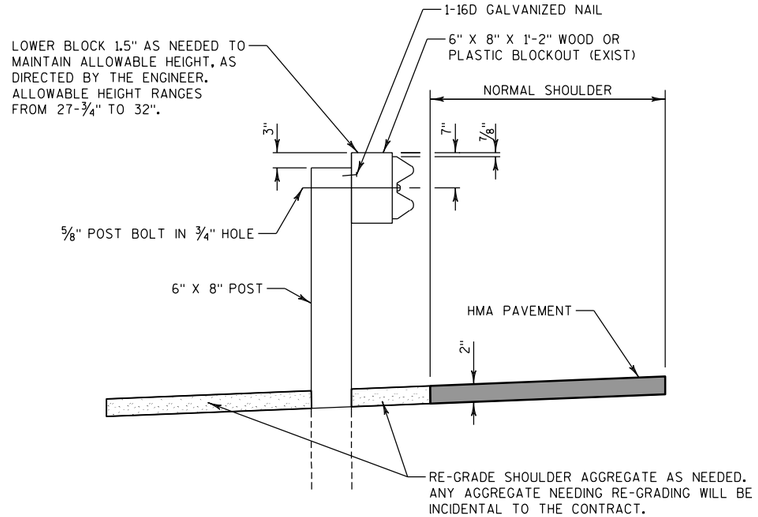
STA F 51EB+94 TO STA F 79EB+85.30
STA K 819WB+94 TO STA K 848WB+73.53

TYPICAL PROPOSED SECTION

CTH D TO IH-39

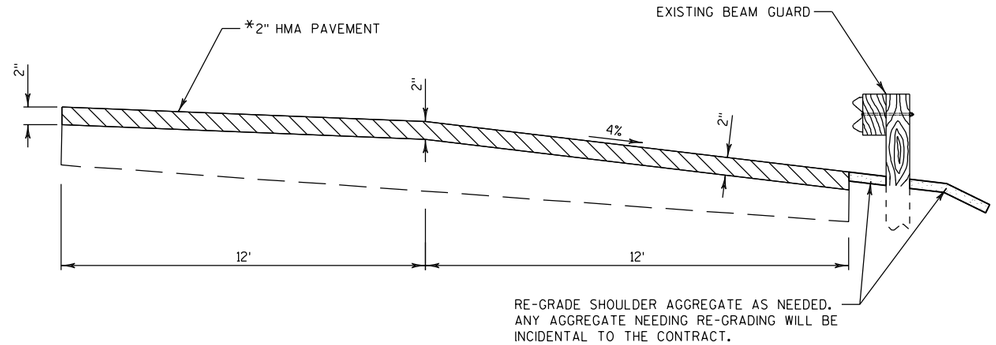
STA 519EB+95.85 TO STA B 549EB+50.40
STA B 552EB+92.08 TO STA B 562EB+64.64
STA B 564EB+55.37 TO STA D 618EB+64.49
STA D 621EB+97.66 TO STA E 19EB+71.72
STA E 24EB+19.18 TO STA E 78EB+00.00
STA E 125EB+00.00 TO STA E 131EB+89.12
STA E 135EB+06.14 TO STA E 177EB+92.51
STA E 181EB+71.96 TO STA F 79EB+85.30

STA 519WB+95.79 TO STA B 549WB+59.21
STA B 553WB+00.79 TO STA B 562WB+91.97
STA B 565WB+76.71 TO STA D 618WB+69.49
STA D 622WB+05.94 TO STA E 628WB+98.53
STA E 633WB+46.64 TO STA F 706WB+95.96
STA F 735WB+00.00 TO STA G 741WB+74.80
STA G 745WB+07.74 TO STA J 787WB+78.52
STA J 791WB+58.07 TO STA K 848WB+73.53



DETAIL OF ADJUSTING STEEL PLATE BEAMGUARD

STA 460EB+19 TO STA 461EB+00, RT
STA 465EB+90 TO STA 471EB+60, RT
STA 474EB+54 TO STA 479EB+14, RT
STA 494EB+60 TO STA 497EB+44, RT
STA 500EB+58 TO STA 503EB+28, RT
STA 505EB+61 TO STA 508EB+17, RT
STA 467WB+54 TO STA 478WB+57, LT
STA 505WB+82 TO STA 509WB+39, LT

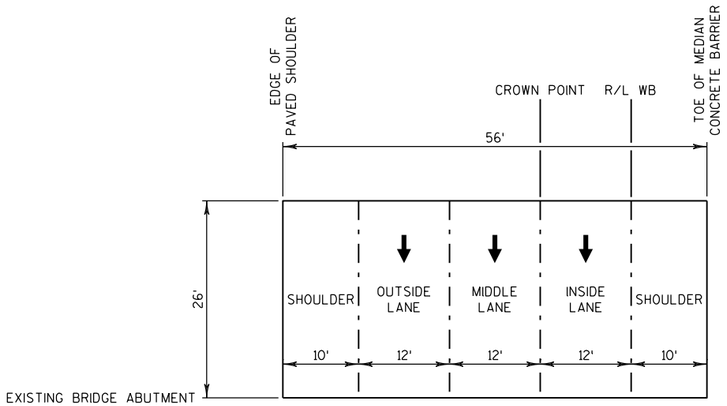


DETAIL OF PROPOSED SHOULDER PAVING AT EXISTING GUARD RAIL

STA 460EB+19 TO STA 461EB+00, RT
STA 465EB+90 TO STA 471EB+60, RT
STA 474EB+54 TO STA 479EB+14, RT
STA 494EB+60 TO STA 497EB+44, RT
STA 500EB+58 TO STA 503EB+28, RT
STA 505EB+61 TO STA 508EB+17, RT
STA 467WB+54 TO STA 478WB+57, LT
STA 505WB+82 TO STA 509WB+39, LT

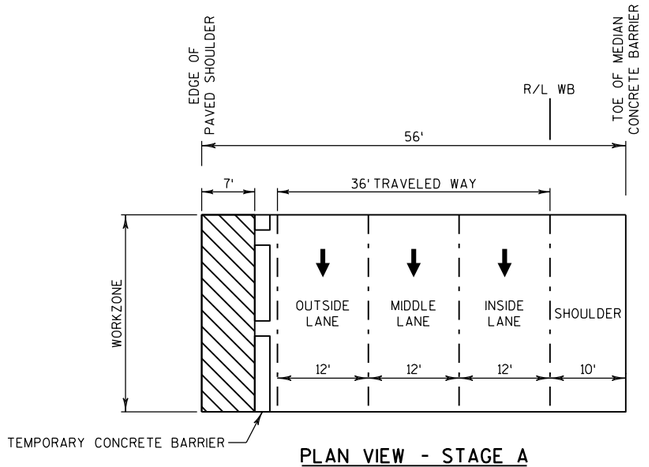
*HMA PAVEMENT TO CONSIST OF:
2" HMA PAVEMENT 4 HT 58-28 V

2

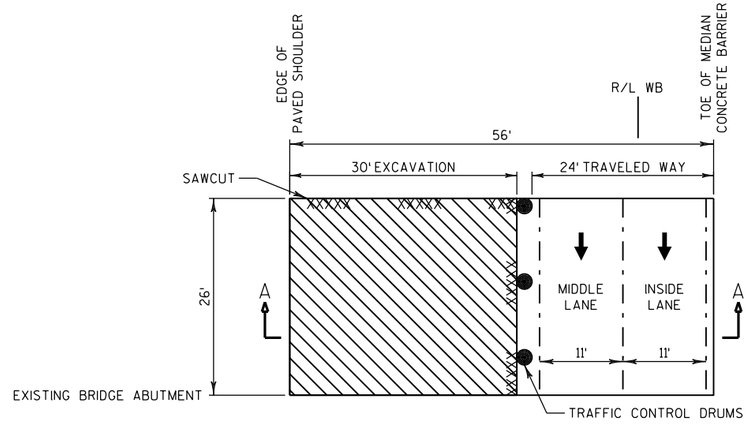


PLAN VIEW - EXISTING

WB SHOWN, EB SIMILAR

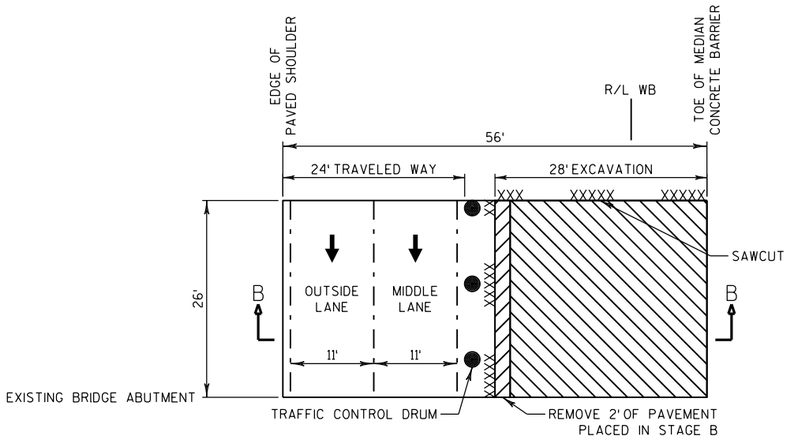


PLAN VIEW - STAGE A



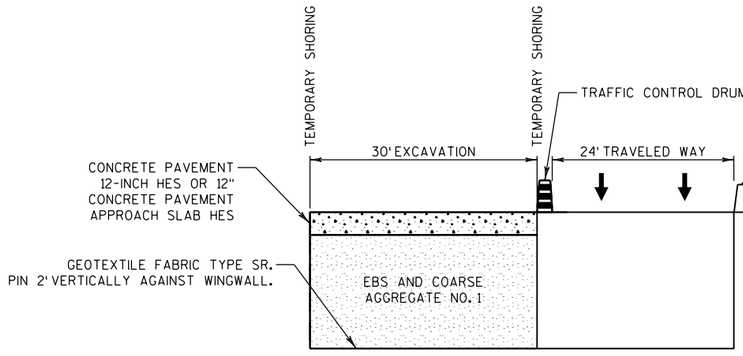
PLAN VIEW - STAGE B

WB SHOWN, EB SIMILAR



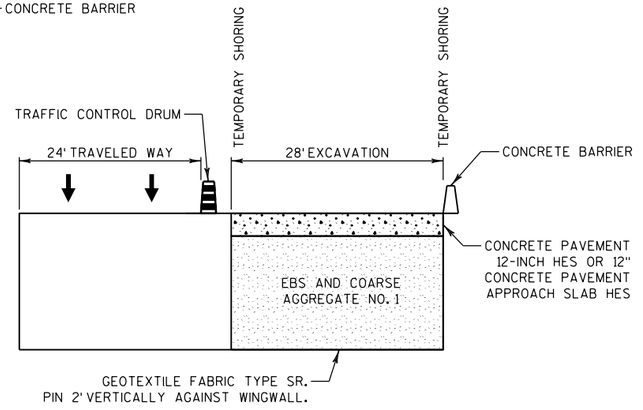
PLAN VIEW - STAGE C

WB SHOWN, EB SIMILAR



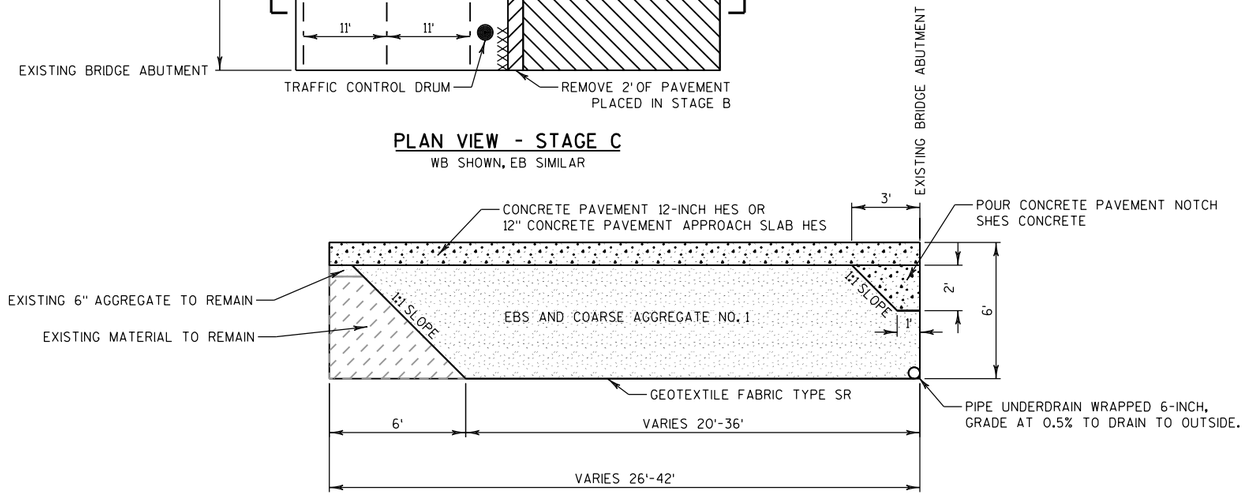
SECTION A-A

NOT TO SCALE



SECTION B-B

NOT TO SCALE



PROFILE VIEW - DOWNSTREAM TO LEFT

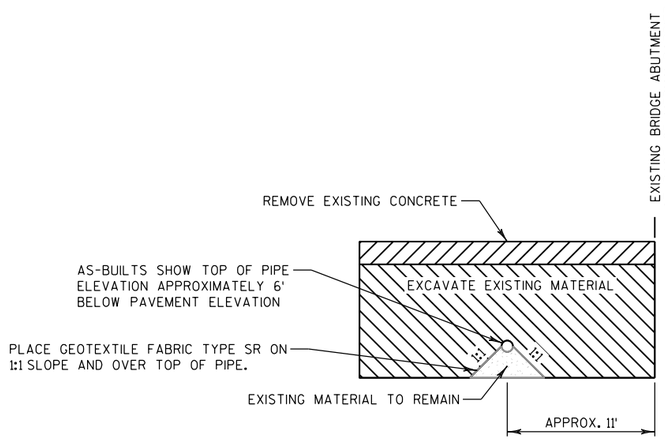
NOTES:

1. CLEAN OUT CLOGGED WEEP HOLES IN ABUTMENT (COST INCIDENTAL TO EXCAVATION COMMON).
2. ROUTE PIPE UNDERDRAIN AROUND WINGWALL AND DAYLIGHT ON EXISTING SLOPE.
3. POUR CONCRETE PAVEMENT NOTCH 29' WIDE IN STAGE B. POUR TO MATCH PAVEMENT NOTCH LIMITS IN STAGE C. CONTRACTOR MAY POUR SLUG EXTRA WIDE IN STAGE B AND SAWCUT AND REMOVE EXTRA CONCRETE IN STAGE C, AT CONTRACTOR'S EXPENSE.
4. SEE SDD 13B-2 "CONCRETE BRIDGE APPROACH SLAB" FOR ADDITIONAL DETAILS.
5. MATCH EXISTING CROWN POINT.
6. EXCAVATE AROUND EXISTING STORM SEWER PIPE AND INLETS TO PREVENT DAMAGE. PLACE GEOTEXTILE FABRIC TYPE SR OVER STORM SEWER PIPE.
7. EXISTING STORM SEWER:
   INLETS TYPE 1 WITH INLET COVERS TYPE V
   STORM SEWER PIPE REINFORCED CONCRETE CLASS IV 12-INCH
   PIPE UNDERDRAIN UNPERFORATED 12-INCH

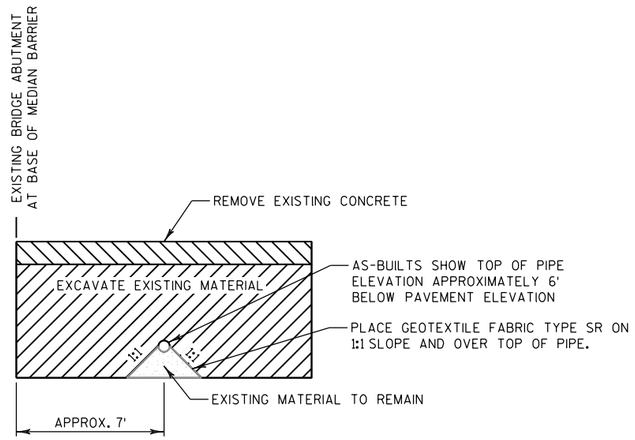
TODD DRIVE BRIDGE APPROACH SLAB REPLACEMENT AND EBS

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 14	E

2

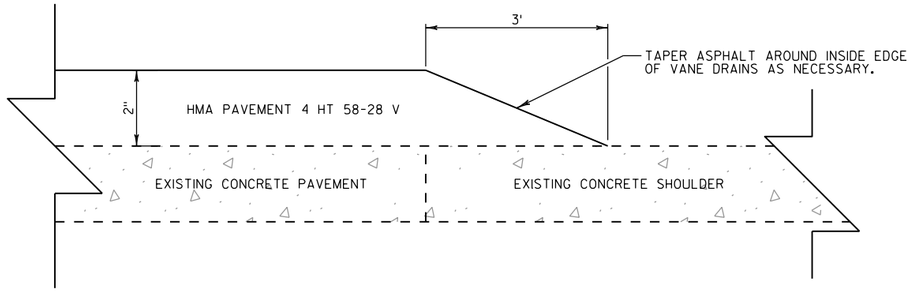


USH 12 WB NW APPROACH SLAB
PROFILE VIEW - DOWNSTREAM TO LEFT



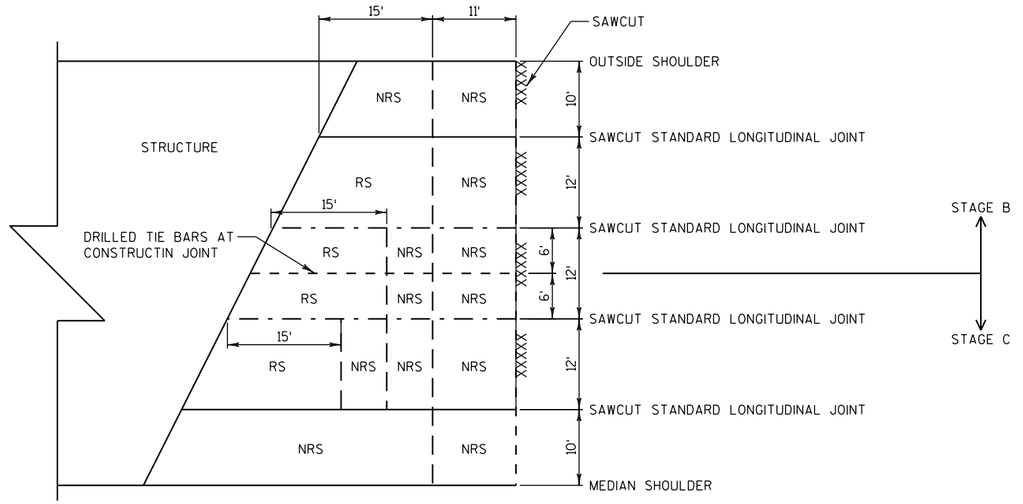
USH 12 EB SE APPROACH SLAB
PROFILE VIEW - DOWNSTREAM TO RIGHT

TODD DRIVE BRIDGE APPROACH SLAB EXCAVATION AROUND PIPES



TYPICAL PAVEMENT CROSS SECTION OF TAPERED
& LONGITUDINAL JOINTS ON SHOULDERS

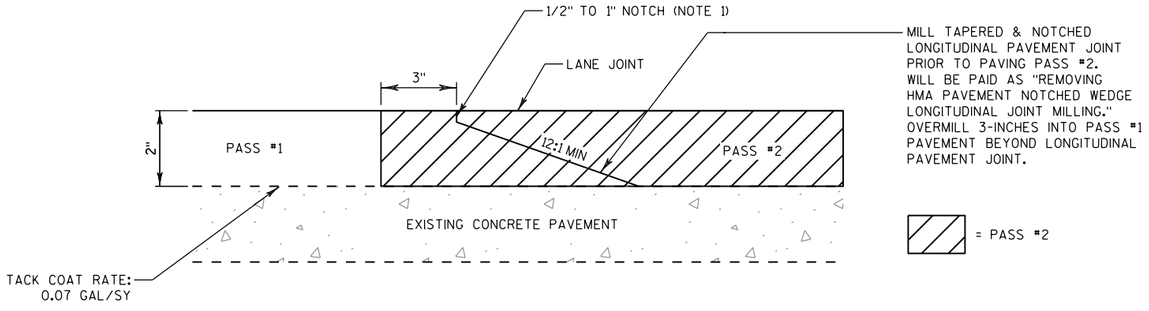
NOT TO SCALE



TODD DRIVE APPROACH SLABS JOINTING

NOTES:

1. RS = REINFORCED CONCRETE SLAB
   NRS = NON-REINFORCED CONCRETE SLAB
2. SEE SDD 13B2-A CONCRETE BRIDGE APPROACH SLAB FOR ADDITION DETAILS NOT SHOWN HERE.
3. TAKE CARE NOT TO SAW THROUGH APPROACH SLAB BAR STEEL PLACED IN STAGE B DURING STAGE C REMOVALS.

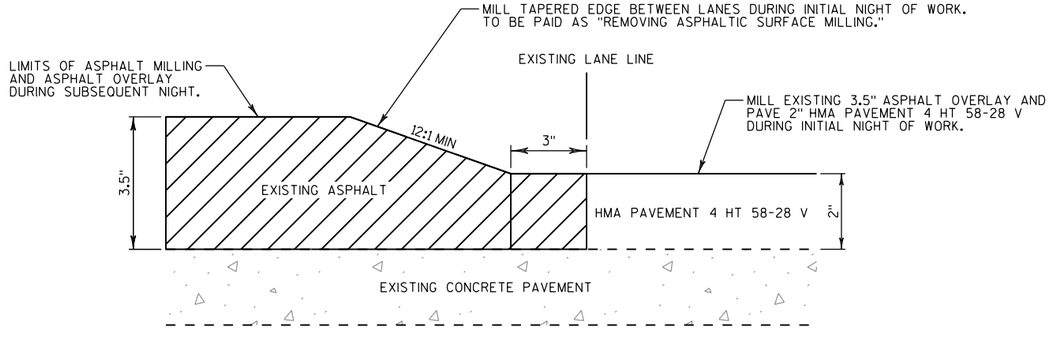


TYPICAL PAVEMENT CROSS SECTION OF
TAPERED & LONGITUDINAL JOINTS

NO SCALE

NOTES:

1. PER STANDARD SPEC 450.3.2.8(3)(4)
2. SEE SDD "TRAFFIC CONTROL FOR DROP-OFF SIGNING" FOR APPLICABLE SIGNAGE.



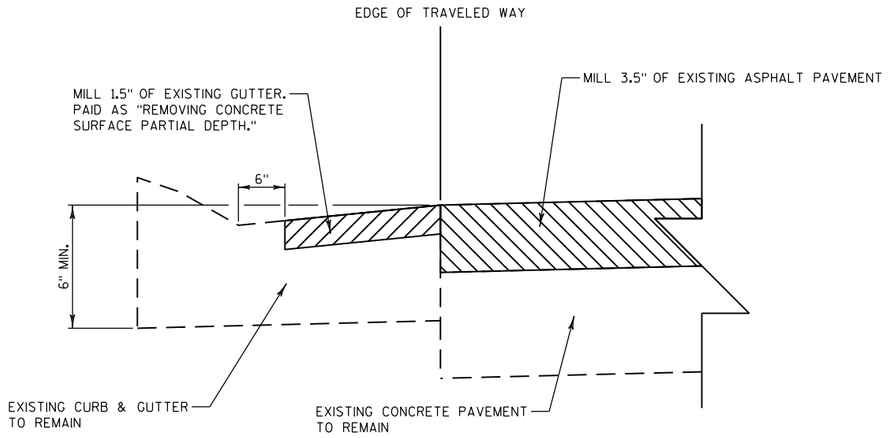
TYPICAL PAVEMENT CROSS SECTION OF LONGITUDINAL
MILLING TAPERED EDGE BETWEEN LANES

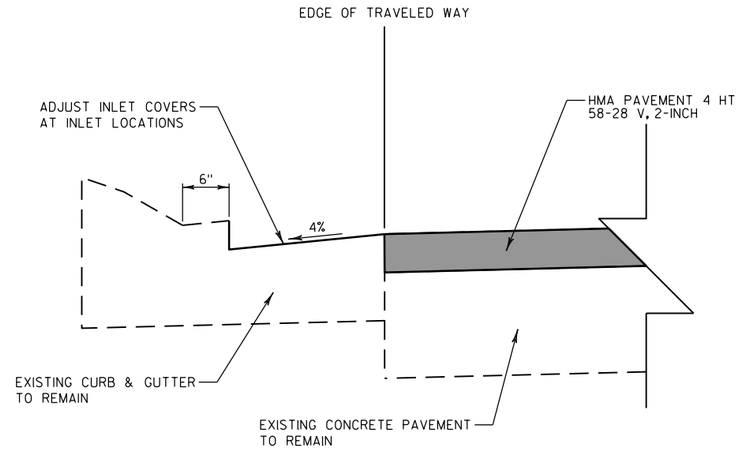
STA 423EB+86.00 - STA 519EB+95.85
STA 423WB+82.52 - STA 519WB+95.79

NO SCALE

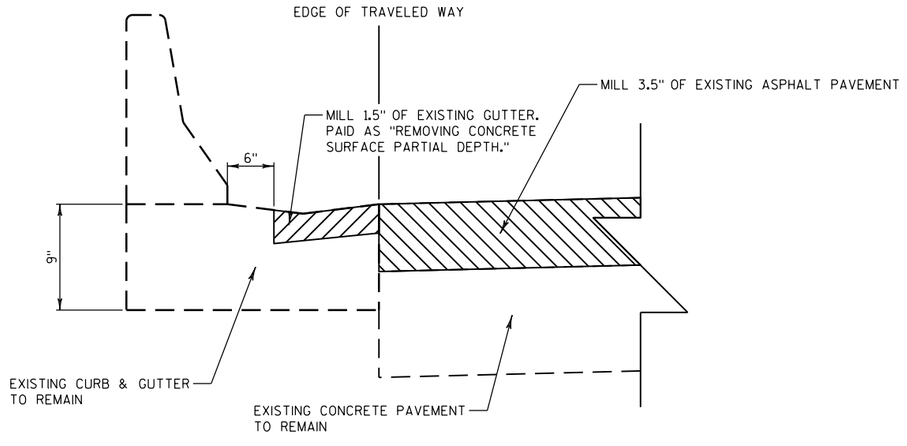
PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	CONSTRUCTION DETAILS	SHEET 16	E

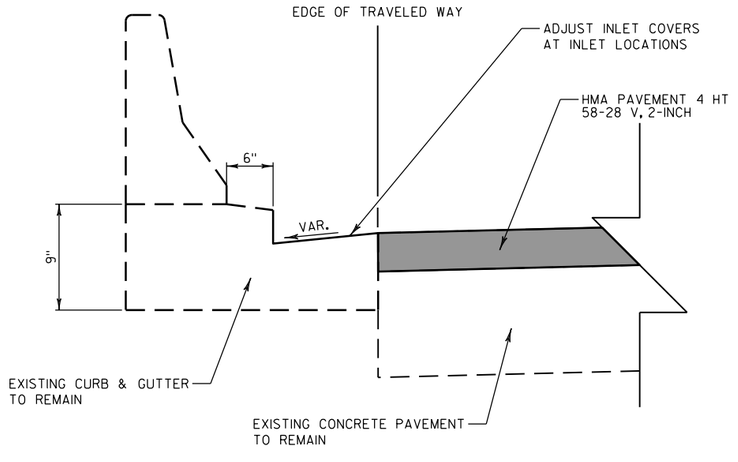
2





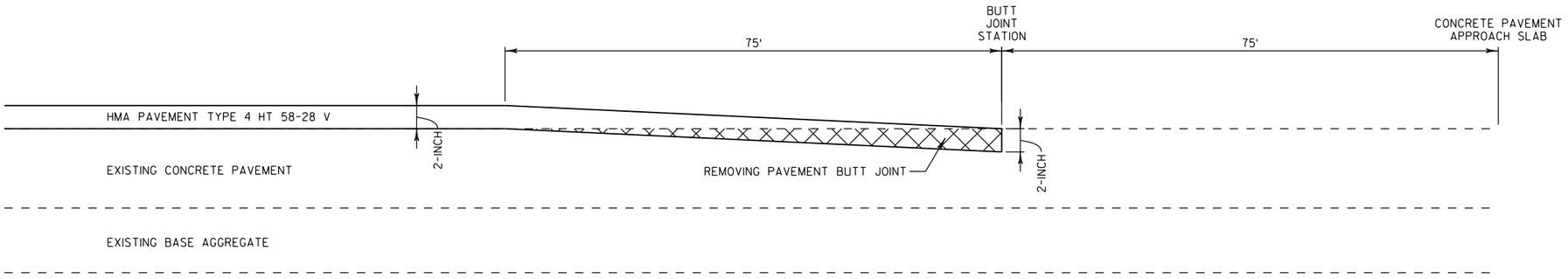
GUTTER MILLING AND ASPHALT OVERLAY AT CURB & GUTTER
SEMINOLE HIGHWAY TO FISH HATCHERY ROAD





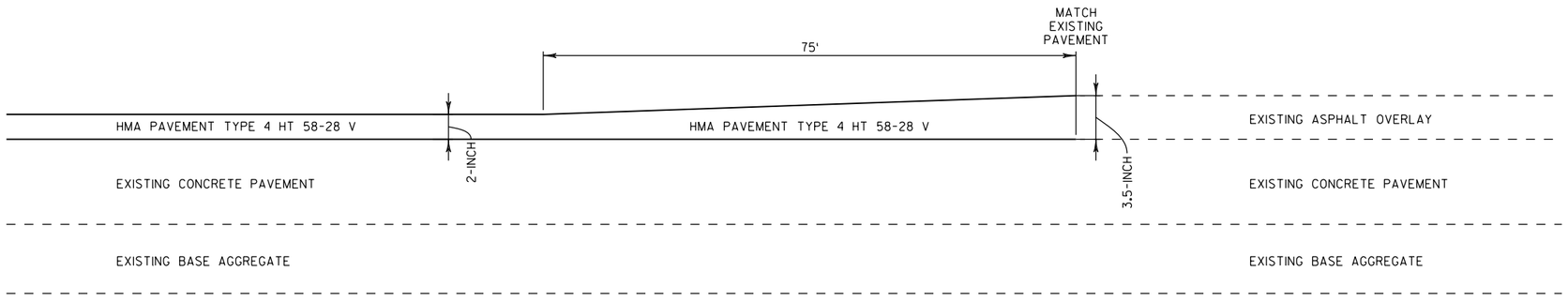
GUTTER MILLING AND ASPHALT OVERLAY AT CONCRETE BARRIER
SEMINOLE HIGHWAY TO FISH HATCHERY ROAD

2



BUTT JOINT DETAIL (CONCRETE PAVEMENT MATCH)

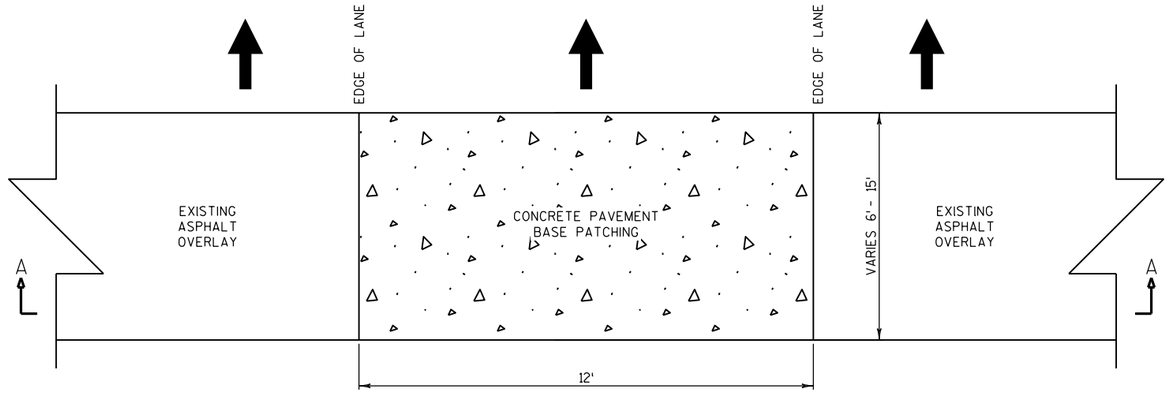
NO SCALE



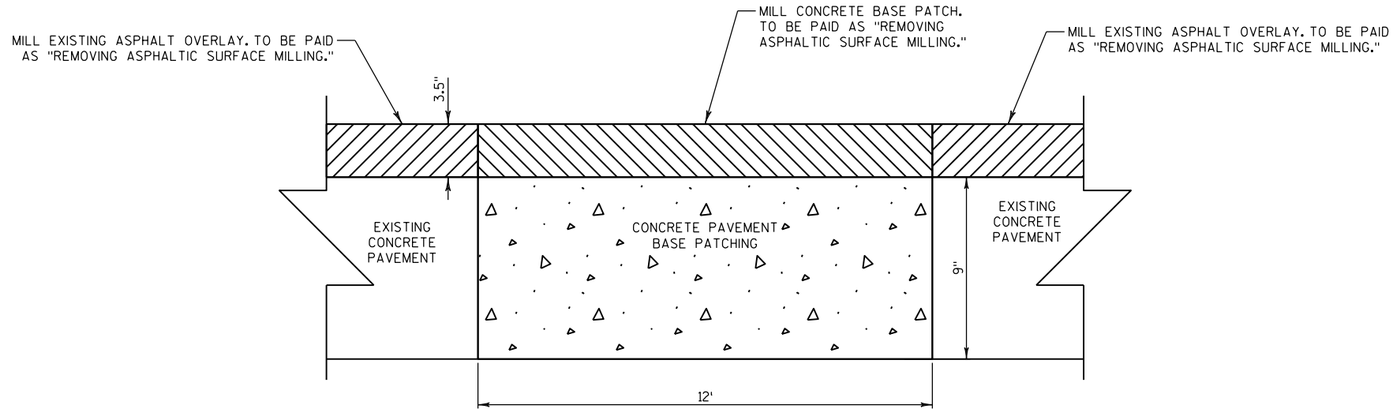
ASPHALT DEPTH TRANSITION

NO SCALE

2



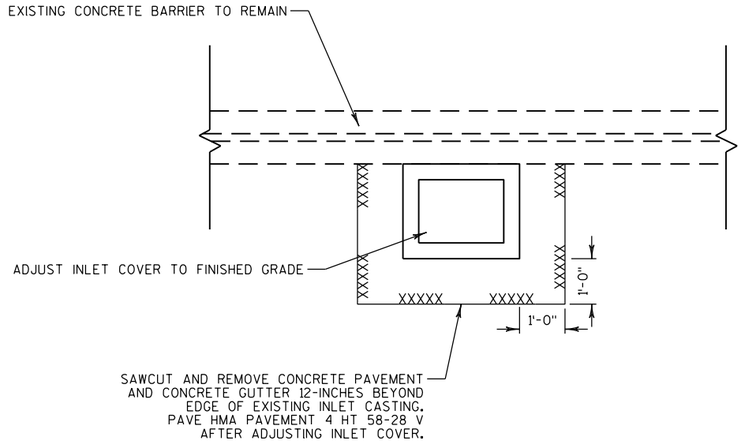
PLAN VIEW
NOT TO SCALE



SECTION A-A
NOT TO SCALE

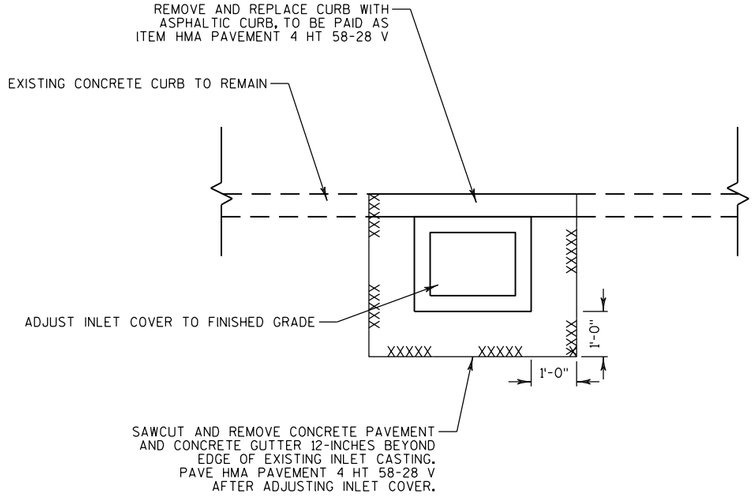
MILLING CONCRETE PAVEMENT BASE PATCHES

2



DETAIL OF PAVEMENT REMOVAL FOR INLET ADJUSTMENTS IN BARRIER SECTIONS

STA 423EB+86.00 - STA 519EB+95.85
STA 423WB+82.52 - STA 519WB+95.79



DETAIL OF PAVEMENT REMOVAL FOR INLET ADJUSTMENTS IN CURB SECTIONS

STA 423EB+86.00 - STA 519EB+95.85
STA 423WB+82.52 - STA 519WB+95.79

NOTES:

1. ADJUSTING MAY REQUIRE SAWING OFF THE TOP FEW INCHES OF STRUCTURE IF ADJUSTMENT RINGS OR BRICKS ARE NOT PRESENT.

2

STOUGHTON ROAD WB ON-RAMP

STOUGHTON ROAD WB OFF-RAMP

H 782WB | H 784WB | H 786WB | J 788WB | J 790WB | J 792WB | J 794WB | WB USH 12/18 | J 796WB

STA H 779WB+95.00 - STA J 788WB+48.26

R/L WB USH 12/18

STA J 790WB+88.47 - STA J 799WB+40.52

E 172EB | E 174EB | E 176EB | E 178EB | E 180EB | E 182EB | E 184EB | EB USH 12/18 | E 186EB

STA E 170EB+00.00 - STA E 178EB+61.89

R/L EB USH 12/18

STA E 181EB+02.33 - STA E 189EB+10.00

STOUGHTON ROAD EB OFF-RAMP

STOUGHTON ROAD EB ON-RAMP

STOUGHTON ROAD

BIKE PATH

SIGN

INL

MH

W

FILLER CAP

OMP

N

REMOVAL LEGEND

REMOVING CONCRETE SURFACE PARTIAL DEPTH
2 FT WIDE X 1.75-INCH DEEP TO
REMOVE EXISTING RUMBLE STRIP

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	REMOVALS: STOUGHTON ROAD - STAGE 1	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021101_rm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

2

STOUGHTON ROAD WB ON-RAMP

STOUGHTON ROAD WB OFF-RAMP

STA H 789WB+96.00 - STA J 788WB+48.26

STA J 790WB+88.47 - STA J 797WB+40.84

H 782WB | H 784WB | H 786WB | J 788WB | R/L WB USH 12/18 | J 790WB | J 792WB | J 794WB | WB USH 12/18 | J 796WB

E 172EB | E 174EB | E 176EB | E 178EB | E 180EB | R/L EB USH 12/18 | E 182EB | E 184EB | EB USH 12/18 | E 186EB

STA E 169EB+80.65 - STA E 178EB+61.89

STA E 181EB+02.33 - STA E 189EB+04.53

STOUGHTON ROAD EB OFF-RAMP

STOUGHTON ROAD EB ON-RAMP

STOUGHTON ROAD

BIKE PATH

SIGN

INL

MH

W

FILLER CAP

OMP

N

REMOVAL LEGEND

REMOVING CONCRETE SURFACE PARTIAL DEPTH
2 FT WIDE X 1.75-INCH DEEP TO
REMOVE EXISTING RUMBLE STRIP

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	REMOVALS: STOUGHTON ROAD - STAGE 2	SHEET 22	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021102_rm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

TODD DRIVE

TODD DRIVE WB ON-RAMP

R/L WB USH 12/18

STA 467WB+89.23 - STA 472WB+17.92

STA 474WB+13.93 - STA 482WB+59.68

466WB 468WB 470WB 472WB 474WB 476WB 478WB 480WB

WB USH 12/18

466EB 468EB 470EB 472EB 474EB 476EB 478EB 480EB

EB USH 12/18

R/L EB USH 12/18

STA 463EB+71.18 - STA 472EB+14.23

STA 474EB+13.21 - STA 478EB+42.50

BELTLINE FRONTAGE ROAD

151

REMOVAL LEGEND

REMOVING ASPHALTIC SURFACE MILLING
2 FT WIDE X 1.75-INCH DEEP TO
REMOVE EXISTING RUMBLE STRIP

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	REMOVALS: TODD DRIVE - STAGE A	SHEET 23	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021103_rm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

2

N

TODD DRIVE

TODD DRIVE WB ON-RAMP

STA 468WB+36.36 - STA 472WB+03.22

33 LF REMOVING GUARDRAIL

21 LF REMOVING GUARDRAIL

STA 474WB+45.60 - STA 481WB+59.57

466WB 468WB 470WB 472WB 474WB 476WB 478WB WB USH 12/18 480WB

R/L WB USH 12/18

466EB 468EB 470EB 472EB 474EB 476EB 478EB EB USH 12/18 480EB

R/L EB USH 12/18

STA 463EB+71.16 - STA 471EB+85.18

21 LF REMOVING GUARDRAIL

33 LF REMOVING GUARDRAIL

STA 474EB+28.51 - STA 478EB+42.51

BELTLINE FRONTAGE ROAD

INL SIGN SERV MH

REMOVAL LEGEND

- REMOVING PAVEMENT
- REMOVING ASPHALTIC SURFACE MILLING 2 FT WIDE X 1.75-INCH DEEP TO REMOVE EXISTING RUMBLE STRIP
- REMOVING GUARDRAIL
- XXXX SAWCUT

NOTES:

1. EXCAVATE AROUND EXISTING STORM SEWER PIPE AND INLETS TO PREVENT DAMAGE.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	REMOVALS: TODD DRIVE - STAGE B	SHEET 24	E

2

2

N

TODD DRIVE

TODD DRIVE WB ON-RAMP

R/L WB USH 12/18

R/L EB USH 12/18

466WB 468WB 470WB 472WB 474WB 476WB 478WB WB USH 12/18 480WB

466EB 468EB 470EB 472EB 474EB 476EB 478EB EB USH 12/18 480EB

BELTLINE FRONTAGE ROAD

INL MH SIGN SERV

151

REMOVAL LEGEND

REMOVING PAVEMENT

XXXX SAWCUT

NOTES:

1. EXCAVATE AROUND EXISTING STORM SEWER PIPE AND INLETS TO PREVENT DAMAGE.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	REMOVALS: TODD DRIVE - STAGE C	SHEET 25	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021105_rm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

SEMINOLE HIGHWAY

SEMINOLE HIGHWAY NE RAMP

INL

INL

BEGIN CONSTRUCTION
STA. 423WB+82.52

SIGN

AP01

ADJUSTING INLET COVER

AP01

AP01

AP02

418WB

WB USH 12/18

420WB

R/L WB USH 12/18

422WB

424WB

426WB

428WB

AP01

AP02

430WB

MATCHLINE 431EB+00

418EB

EB USH 12/18

420EB

R/L EB USH 12/18

422EB

424EB

426EB

428EB

AP01

AP02

430EB

SIGN

BEGIN PROJECT
STA. 423EB+86.00

SIGN

INL

BELTLINE FRONTAGE ROAD

SIGN

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

AP02 REMOVING ASPHALTIC SURFACE MILLING

ASPHALT DEPTH TRANSITION

REMOVING CONCRETE SURFACE PARTIAL DEPTH

2-INCH OVERLAY DEPTH

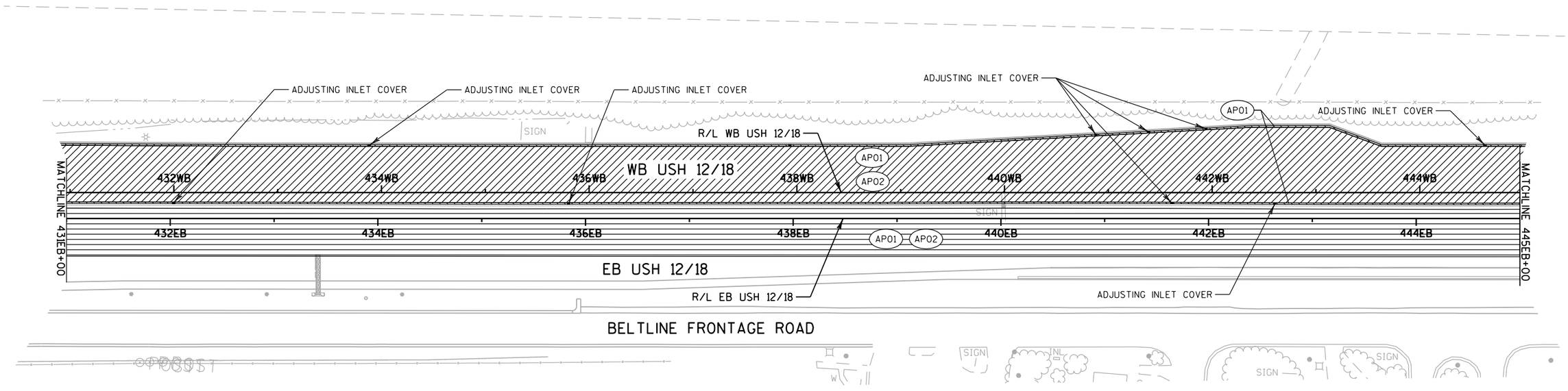
3.5-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021201_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

N



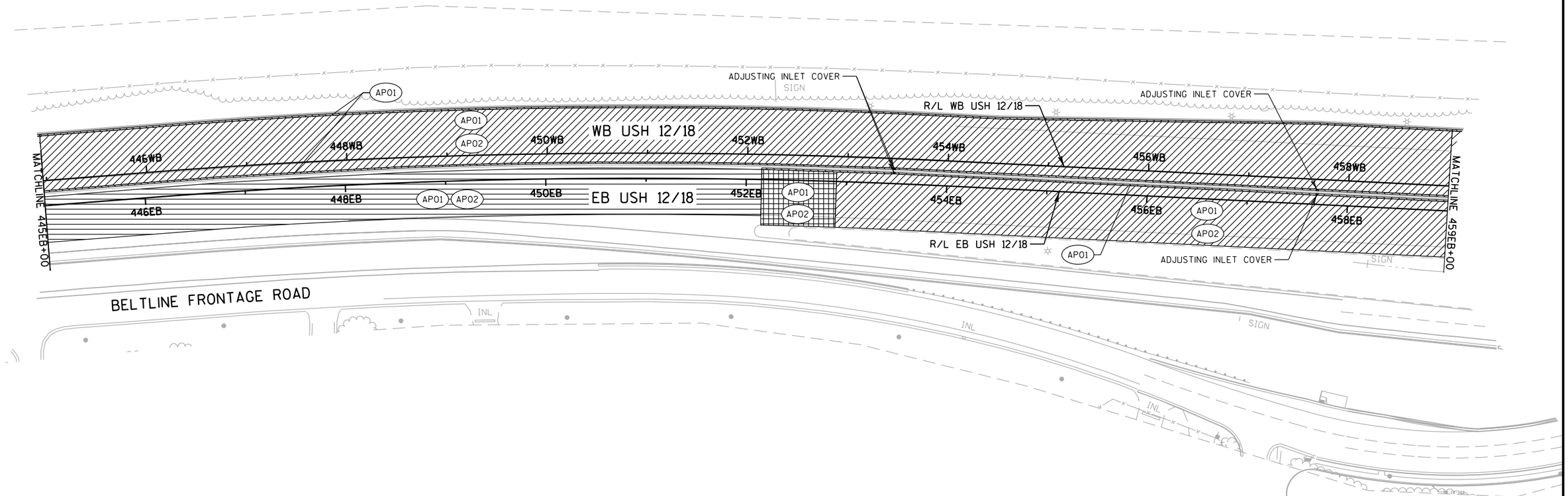
LEGEND

- (AP01) HMA PAVEMENT TYPE 4 HT 58-28 V
- (AP02) REMOVING ASPHALTIC SURFACE MILLING
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- 2-INCH OVERLAY DEPTH
- 3.5-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 27	E

2

N



LEGEND

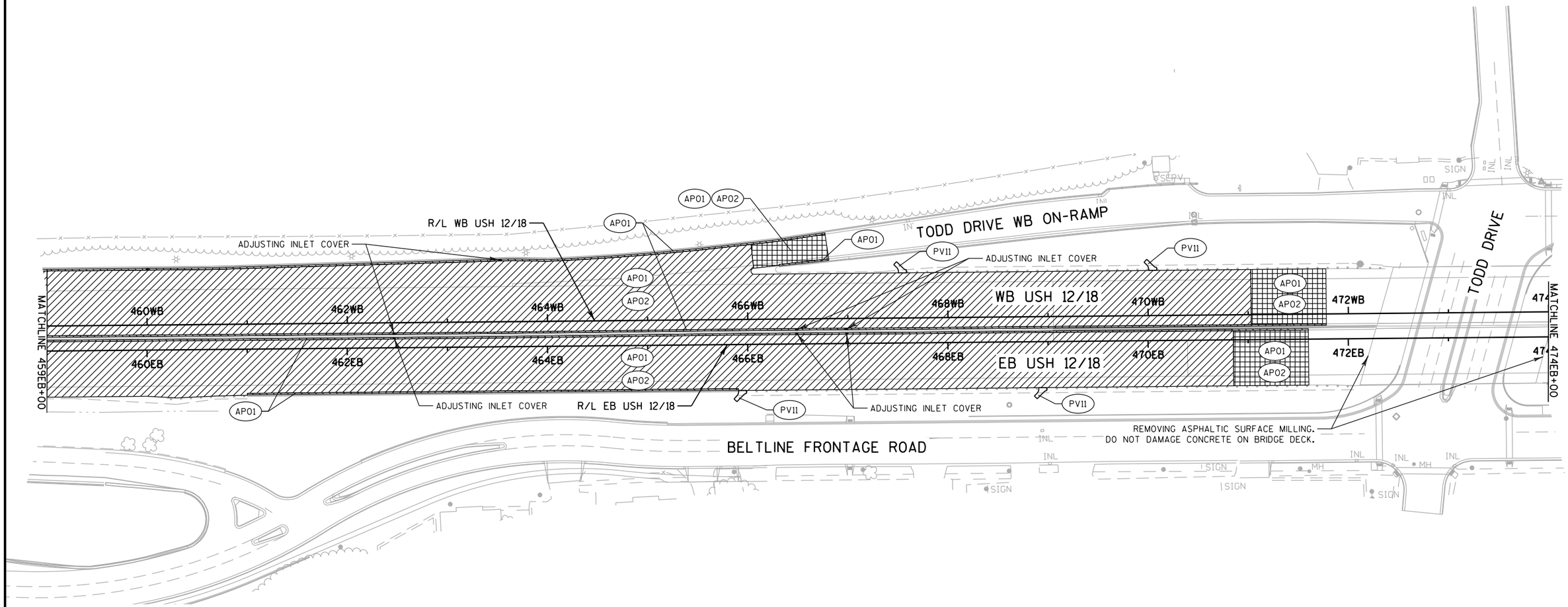
- (AP01) HMA PAVEMENT TYPE 4 HT 58-28 V
- (AP02) REMOVING ASPHALTIC SURFACE MILLING
- ASPHALT DEPTH TRANSITION
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- 2-INCH OVERLAY DEPTH
- 3.5-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 28	E

2

2

N



LEGEND

- AP01 HMA PAVEMENT TYPE 4 HT 58-28 V
- AP02 REMOVING ASPHALTIC SURFACE MILLING
- PV11 ASPHALTIC FLUME
- ASPHALT DEPTH TRANSITION
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- 2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 29	E

2

N

BELTLINE FRONTAGE ROAD

WB+06
244'LT

WB+28
214'LT

WB+05
223'LT

WB+68
184'LT

WB+94
145'LT

WB+83
123'LT

REMOVING ASPHALTIC SURFACE MILLING.
DO NOT DAMAGE CONCRETE ON BRIDGE DECK.

PV11

R/L WB USH 12/18

ADJUSTING INLET COVER

AP01

AP02

MATCHLINE 474EB+00

WB

EB

476WB

478WB

480WB

WB USH 12/18

482WB

484WB

486WB

MATCHLINE 488EB+00

476EB

478EB

480EB

EB USH 12/18

482EB

484EB

486EB

R/L EB USH 12/18

BELTLINE FRONTAGE ROAD

EB+83
90'RT

EB+44
99'RT

EB+66
105'RT

EB+87
104'RT

EB+80
116'RT

EB+63
131'RT

EB+28
181'RT

LEGEND

- AP01 HMA PAVEMENT TYPE 4 HT 58-28 V
- AP02 REMOVING ASPHALTIC SURFACE MILLING
- PV11 ASPHALTIC FLUME
- ASPHALT DEPTH TRANSITION
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- 2-INCH OVERLAY DEPTH
- REMOVING LOOSE PAVEMENT AND ASPHALTIC SURFACE PATCHING

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 30	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021205_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

2

N

CANNONBALL PATH

BELTLINE FRONTAGE ROAD

MATCHLINE 488EB+00

MATCHLINE 503EB+00

WB USH 12/18

EB USH 12/18

R/L WB USH 12/18

R/L EB USH 12/18

ADJUSTING INLET COVER

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

AP02 REMOVING ASPHALTIC SURFACE MILLING

PV11 ASPHALTIC FLUME

ASPHALT DEPTH TRANSITION

REMOVING CONCRETE SURFACE PARTIAL DEPTH

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 31	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021206_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

BELTLINE FRONTAGE ROAD

FISH HATCHERY ROAD NW RAMP

MATCHLINE 503EB+00

MATCHLINE 517EB+00

504WB 506WB WB USH 12/18 508WB 510WB 512WB 514WB 516WB

504EB 506EB EB USH 12/18 508EB 510EB 512EB 514EB 516EB

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

AP02 REMOVING ASPHALTIC SURFACE MILLING

ADJUSTING INLET COVER

R/L WB USH 12/18

R/L EB USH 12/18

BELTLINE FRONTAGE ROAD

FISH HATCHERY ROAD SW RAMP

FISH HATCHERY ROAD

LEGEND

- AP01 HMA PAVEMENT TYPE 4 HT 58-28 V
- AP02 REMOVING ASPHALTIC SURFACE MILLING
- ASPHALT DEPTH TRANSITION
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- 2-INCH OVERLAY DEPTH
- 3.5-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 32	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021207_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

FISH HATCHERY ROAD NE RAMP

ANN STREET

ADJUSTING INLET COVER

MATCHLINE 517EB+00

MATCHLINE A 532EB+00

R/L WB USH 12/18

R/L EB USH 12/18

WB USH 12/18

EB USH 12/18

518WB 520WB 522WB 524WB A 526WB A 528WB A 530WB

518EB 520EB 522EB 524EB A 526EB A 528EB A 530EB

AP01 AP02

OVERLAY INTO EXISTING GUTTER PAN. GRADE TO DRAIN WHEN TRANSITIONING TO 3" WEDGE.

CLEAN EXISTING CULVERT PIPE

FISH HATCHERY ROAD SE LOOP RAMP

FISH HATCHERY ROAD SE RAMP

APPLEGATE ROAD

LEGEND

- (AP01) HMA PAVEMENT TYPE 4 HT 58-28 V
- (AP02) REMOVING ASPHALTIC SURFACE MILLING
- ASPHALT DEPTH TRANSITION
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- REMOVING PAVEMENT BUTT JOINTS
- 2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 33	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021208_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

2

ANN STREET

APPLEGATE ROAD

PARK STREET SW RAMP

PERRY ST.

MATCHLINE A 532EB+00

MATCHLINE B 547EB+00

OVERLAY INTO EXISTING GUTTER PAN. GRADE TO DRAIN WHEN TRANSITIONING TO 3" WEDGE.

ADJUSTING INLET COVER

R/L WB USH 12/18

R/L EB USH 12/18

WB USH 12/18

EB USH 12/18

A 532WB

A 534WB

A 536WB

A 538WB

A 540WB

B 542WB

B 544WB

B 546WB

A 532EB

A 534EB

A 536EB

A 538EB

A 540EB

B 542EB

B 544EB

B 546EB

AP01

TANKS

SIGN

MH

GV

CONC

T205 687.050

T205 690.600

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 34	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021209_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

PARK STREET NW RAMP

PARK STREET

PARK STREET NE LOOP RAMP

PARK STREET NE RAMP

SIGN

MH

A/C

MATCHLINE B 547EB+00

B 548WB

B 550WB

B 552WB

B 554WB

B 556WB

WB USH 12/18

B 558WB

B 560WB

B 562EB+00

R/L WB USH 12/18

AP01

CONC

ASPH

CONC

B 548EB

B 550EB

B 552EB

B 554EB

B 556EB

EB USH 12/18

B 558EB

B 560EB

MATCHLINE B 562EB+00

R/L EB USH 12/18

OVERLAY INTO EXISTING GUTTER PAN. GRADE TO DRAIN WHEN TRANSITIONING TO 3' WEDGE.

WETLAND BOUNDARY (TYP.)

PARK STREET SE RAMP

SKILANE

PARK STREET SW LOOP RAMP

USH 14

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING CONCRETE SURFACE PARTIAL DEPTH

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 35	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021210_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

BADGER ROAD

WISCONSIN & SOUTHERN RAILROAD

SIGN

2.025

2.024

MH

GV

CONC

AP01

R/L WB USH 12/18

R/L EB USH 12/18

WB USH 12/18

EB USH 12/18

B 562EB+00

B 562WB

B 564WB

B 564EB

B 566WB

B 566EB

B 568WB

B 568EB

B 570WB

B 570EB

B 572WB

B 572EB

B 574WB

B 574EB

B 576EB+00

MATCHLINE B 562EB+00

MATCHLINE B 576EB+00

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 36	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021211_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

BADGER ROAD

RUSK AVENUE

OVERLAY INTO EXISTING GUTTER PAN. GRADE TO DRAIN WHEN TRANSITIONING TO 3' WEDGE.

R/L WB USH 12/18

R/L EB USH 12/18

WB USH 12/18

EB USH 12/18

MATCHLINE B 576EB+00

MATCHLINE C 591EB+00

B 576WB

B 578WB

B 580WB

B 582WB

B 584WB

B 586WB

B 588WB

C 590WB

B 576EB

B 578EB

B 580EB

B 582EB

B 584EB

B 586EB

B 588EB

C 590EB

AP01

PHEASANT RIDGE TRAIL

BADGER ROAD

SIGN

MH

CONC

ASPH

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021212_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

RUSK AVENUE

RIMROCK ROAD NW RAMP

RIMROCK ROAD

RIMROCK ROAD NE RAMP

RIMROCK ROAD SW RAMP

RIMROCK ROAD SE RAMP

NOB HILL ROAD

R/L WB USH 12/18

WB USH 12/18

R/L EB USH 12/18

EB USH 12/18

MATCHLINE C 591EB+00

MATCHLINE C 605EB+00

C 592WB C 594WB C 596WB C 598WB C 600WB C 602WB C 604WB

C 592EB C 594EB C 596EB C 598EB C 600EB C 602EB C 604EB

AP01

CONC

ASPH

MILL BUTT JOINT AS TO NOT IMPACT EXISTING INLET.

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING CONCRETE SURFACE PARTIAL DEPTH

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 38	E

2

2

N

JOHN NOLEN DRIVE NW RAMP

R/L WB USH 12/18

WB USH 12/18

EB USH 12/18

R/L EB USH 12/18

NOB HILL ROAD

BADGER LANE

MATCHLINE C 605EB+00

MATCHLINE D 620EB+00

C 606WB
C 608WB
C 610WB
C 612WB
C 614WB
D 616WB
D 618WB
D 62

C 606EB
C 608EB
C 610EB
C 612EB
C 614EB
D 616EB
D 618EB
D 62

APO1

PAVE HMA LEVELING LAYER IN MIDDLE LANE BETWEEN RIMROCK EB ON-RAMP AND JOHN NOLEN EB OFF-RAMP. EXACT LIMTS TO BE DETERMINED BY THE ENGINEER IN THE FIELD.

SIGN
MH
INL

LEGEND

APO1 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 39	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021214_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

JOHN NOLEN DRIVE NE RAMP

WISCONSIN & SOUTHERN RAILROAD

WB USH 12/18

EB USH 12/18

JOHN NOLEN DRIVE SW RAMP

JOHN NOLEN DRIVE SE RAMP

NOB HILL ROAD

WISCONSIN & SOUTHERN RAILROAD

D 620EB+00

MATCHLINE D 620EB+00

D 622WB

D 624WB

D 626WB

E 628WB

E 630WB

E 632WB

E 24EB+00

MATCHLINE E 24EB+00

D 622EB

D 624EB

D 626EB

D 628EB

E 20EB

E 22EB

AP01

R/L WB USH 12/18

R/L EB USH 12/18

OVERLAY INTO EXISTING GUTTER PAN. GRADE TO DRAIN WHEN TRANSITIONING TO 3' WEDGE.

WETLAND BOUNDARY

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING CONCRETE SURFACE PARTIAL DEPTH

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 40	E

2

2

N

ROYAL AVE

R/L WB USH 12/18

WB USH 12/18

E 636WB

E 638WB

E 640WB

E 642WB

E 644WB

E 646WB

E 648WB

MATCHLINE E 39EB+00

4WB

AP01

MATCHLINE E 24EB+00

4EB

E 26EB

E 28EB

E 30EB

EB USH 12/18

E 32EB

E 34EB

E 36EB

E 38EB

R/L EB USH 12/18

SIGN

INL

OMP

MH

W

106

WISCONSIN &

ROYAL AVENUE

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 41	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021216_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

N

NANA LANE

SOUTH TOWNE DRIVE

SOUTH TOWNE DRIVE NW RAMP

AP01

R/L WB USH 12/18

WB USH 12/18

E 650WB E 652WB E 654WB F 656WB F 658WB F 660WB F 662WB F 66

MATCHLINE E 39EB+00

E 40EB E 42EB E 44EB E 46EB EB USH 12/18 E 48EB E 50EB E 52EB E 5

MATCHLINE E 54EB+00

R/L EB USH 12/18

SOUTH TOWNE DRIVE SW RAMP

ROYAL AVENUE

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING CONCRETE SURFACE PARTIAL DEPTH

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 42	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021217_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

2

N

SOUTH TOWNE DRIVE

SOUTH TOWNE DRIVE NE RAMP

MILL BUTT JOINT AS TO NOT IMPACT EXISTING INLET.

APO1

OVERLAY INTO EXISTING GUTTER PAN. GRADE TO DRAIN WHEN TRANSITIONING TO 3' WEDGE.

R/L WB USH 12/18

MATCHLINE E 54EB+00

4WB F 666WB F 668WB WB USH 12/18 F 670WB F 672WB F 674WB F 676WB F 67

MATCHLINE E 68EB+00

4EB E 56EB E 58EB EB USH 12/18 E 60EB E 62EB E 64EB E 66EB E 6

R/L EB USH 12/18

MILL BUTT JOINT AS TO NOT IMPACT EXISTING INLET.

SOUTH TOWNE DRIVE SE RAMP

ROYAL AVENUE

MP

MH

SIGN

INL

IN

W

LEGEND

APO1 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING CONCRETE SURFACE PARTIAL DEPTH

REMOVING PAVEMENT BUTT JOINTS

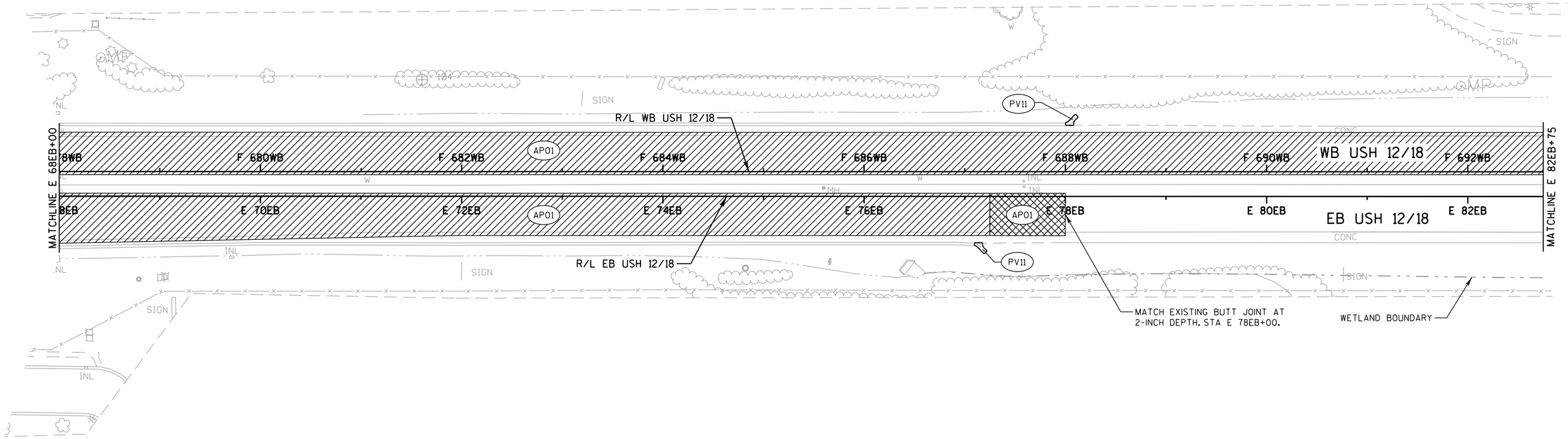
2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 43	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021218_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

N



LEGEND

(AP01) HMA PAVEMENT TYPE 4 HT 58-28 V

(PV11) ASPHALTIC FLUME

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 44	E

2

N

103

SIGN

R/L WB USH 12/18

MATCHLINE E 82EB+75

F 694WB

F 696WB

AP01

F 698WB

WB USH 12/18

F 700WB

F 702WB

F 704WB

F 706WB

AP01

G 708WB

INL CONC

INL CONC

INL

INL

INL

CURB

INL

E 84EB

E 86EB

E 88EB

E 90EB

E 92EB

E 94EB

E 96EB

E 98EB

EB USH 12/18

R/L EB USH 12/18

SIGN

WETLAND BOUNDARY

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 45	E

2

2

N

REPLACE EXISTING 18-INCH STEEL PIPE.
LENGTH OF REPLACEMENT TO BE VERIFIED
BY FIELD ENGINEER.

MONONA DRIVE NW RAMP

MONONA DRIVE

MONONA DRIVE NE RAMP

R/L WB USH 12/18

G 734WB | G 736WB | G 738WB | G 740WB | G 742WB | WB USH 12/18 | G 744WB | G 746WB | G 74

E 124EB | E 126EB | E 128EB | E 130EB | E 132EB | EB USH 12/18 | E 134EB | E 136EB | E 13

MATCHLINE E 138EB+00

R/L EB USH 12/18

MONONA DRIVE SW RAMP

MONONA DRIVE SE RAMP

REPLACE EXISTING 18-INCH STEEL PIPE.
LENGTH OF REPLACEMENT TO BE VERIFIED
BY FIELD ENGINEER.

WETLAND BOUNDARY

LEGEND

- (AP01) HMA PAVEMENT TYPE 4 HT 58-28 V
- REMOVING CONCRETE SURFACE PARTIAL DEPTH
- REMOVING PAVEMENT BUTT JOINTS
- 2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 46	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021223_pd.dgn | PLOT DATE : 11/1/2018 | PLOT BY : ctomsak | PLOT NAME : | PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

ATHLETIC FIELD

SLAB SIGN

SIGN

INL

W

MH

MP

AP01

MONONA DRIVE NE RAMP

R/L WB USH 12/18

WB USH 12/18

H 750WB

H 752WB

H 754WB

H 756WB

H 758WB

H 760WB

MATCHLINE E 138EB+00

MATCHLINE E 152EB+00

E 140EB

E 142EB

E 144EB

E 146EB

E 148EB

E 150EB

EB USH 12/18

CONC PAVT

MONONA DRIVE SE RAMP

R/L EB USH 12/18

WETLAND BOUNDARY

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING CONCRETE SURFACE PARTIAL DEPTH

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 47	E

2

2

N

SIGN

SIGN

SIGN

SIGN

R/L WB USH 12/18

MATCHLINE E 152EB+00

2WB

H 764WB

H 766WB

H 768WB

AP01

H 770WB

WB USH 12/18

H 772WB

H 774WB

H 776WB

MATCHLINE E 167EB+00

2EB

E 154EB

E 156EB

E 158EB

AP01

E 160EB

EB USH 12/18

E 162EB

E 164EB

E 166EB

R/L EB USH 12/18

SIGN

WETLAND BOUNDARY

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 48	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021225_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

STOUGHTON ROAD

STOUGHTON ROAD NW RAMP

MATCHLINE E 167EB+00

H 778WB

E 168EB

H 780WB

H 782WB

E 170EB

E 172EB

H 784WB

WB USH 12/18

H 786WB

E 174EB

EB USH 12/18

E 176EB

J 788WB

J 790WB

E 178EB

E 180EB

MATCHLINE E 182EB+00

R/L WB USH 12/18

R/L EB USH 12/18

APO1

STOUGHTON ROAD SW RAMP

WETLAND BOUNDARY

BIKE PATH

SIGN

INL

MH

N

LEGEND

APO1 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 49	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021226_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

STOUGHTON ROAD NE RAMP

WETLAND BOUNDARY

AP01

R/L WB USH 12/18

MATCHLINE E 182EB+00

2WB

J 794WB

J 796WB

J 798WB

J 800WB

WB USH 12/18

J 802WB

J 804WB

J 80

MATCHLINE E 196EB+00

2EB

E 184EB

E 186EB

E 188EB

E 190EB

EB USH 12/18

E 192EB

E 194EB

E 19

R/L EB USH 12/18

STOUGHTON ROAD SE RAMP

S DUTCH MILL RD

SIGN

INL

MH

W

OMB

FILLER CAP

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING PAVEMENT BUTT JOINTS

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 50	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021227_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

E BROADWAY

WETLAND BOUNDARY

MATCHLINE E 196EB+00

6WB

6EB

J 808WB

E 198EB

J 810WB

E 200EB

AP01

J 812WB

E 202EB

R/L WB USH 12/18

J 814WB

WB USH 12/18

J 816WB

E 204EB

R/L EB USH 12/18

EB USH 12/18

E 206EB

K 818WB

F 50EB

F 52EB

MATCHLINE F 52EB+00

INL

MH

SIGN

FLAG

W

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021228_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

AGRICULTURE DRIVE

SIGN

R/L WB USH 12/18

MATCHLINE F 52EB+00

K 820WB

K 822WB

K 824WB

AP01

K 826WB

WB USH 12/18

K 828WB

K 830WB

K 832WB

K 83

MATCHLINE F 66EB+00

F 52EB

F 54EB

F 56EB

AP01

F 58EB

EB USH 12/18

F 60EB

F 62EB

F 64EB

F 6

MATCHLINE

SIGN

R/L EB USH 12/18

SIGN

SIGN

SIGN

SIGN

RIPRAP

RIPRAP

LEGEND

AP01 HMA PAVEMENT TYPE 4 HT 58-28 V

2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 52	E

2

N

END CONSTRUCTION
STA. F 79EB+85.30

R/L WB USH 12/18

WB USH 12/18

MATCHLINE F 66EB+00

4WB K 836WB K 838WB K 840WB K 842WB K 844WB K 846WB K 84

MATCHLINE F 80EB+00

PV11

INL

6EB F 68EB F 70EB EB USH 12/18 F 72EB F 74EB F 76EB F 78EB F 8

AP01

R/L EB USH 12/18

USH 12/18 EB TO
IH 39 SB RAMP

SIGN

NOIS

MP

I-256

LEGEND

- AP01 HMA PAVEMENT TYPE 4 HT 58-28 V
- PV11 ASPHALTIC FLUME
- REMOVING PAVEMENT BUTT JOINTS
- 2-INCH OVERLAY DEPTH

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET 53	E

2

2

N

IH 39 SB TO
USH 12/18 WB RAMP

SIGN

SIGN

SIGN

END PROJECT
STA. K 848WB+73.53

T030
861.500

2 268

APO1

MATCHLINE F 80EB+00

8WB

K 850WB

K 852WB

K 854WB

R/L WB USH 12/18

K 856WB

K 858WB

WB USH 12/18

K 860WB

K 862WB

0EB

F 82EB

F 84EB

F 86EB

R/L EB USH 12/18

F 88EB

EB USH 12/18

F 90EB

F 92EB

F 94EB

USH 12/18 EB TO
IH 39 SB RAMP

LEGEND

APO1 HMA PAVEMENT TYPE 4 HT 58-28 V

REMOVING PAVEMENT BUTT JOINTS

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: ASPHALT OVERLAY	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\021231_pd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

SIGN

INL

INL

SIGN

SEPV

INL

INL MH

IQL

BELTLINE FRONTAGE ROAD

CLEAN EXISTING CULVERT PIPE

BG12

BG11

SS

CP12 CP12 CP12
CP12 PV01
CP12 PV01
CP12 PV01
CP12 PV01
CP12 CP12

TODD DRIVE

CLEAN EXISTING CULVERT PIPE

BG11

SS

CP12 CP12
PV01 CP12
PV01 CP12
PV01 CP12
PV01 CP12
CP12 CP12 CP12

R/L WB USH 12/18

WB USH 12/18

471WB 472WB 473WB 474WB 475WB 476WB

471EB 472EB 473EB 474EB 475EB 476EB

EB USH 12/18

R/L EB USH 12/18

CP12 CP12 CP12
CP12 PV01
CP12 PV01
CP12 PV01
CP12 PV01
CP12 CP12

BG11

SS

CLEAN EXISTING CULVERT PIPE

CP12 CP12
PV01 CP12
PV01 CP12
PV01 CP12
PV01 CP12
CP12 CP12 CP12

BG11

SS

BG12

CLEAN EXISTING CULVERT PIPE

BELTLINE FRONTAGE ROAD

INL

INL MH

INL

MH

SIGN

LEGEND

- CP12 — CONCRETE PAVEMENT 12-INCH HES, (DOWELED AND TINED)
- BG11 — STEEL THRIE BEAM STRUCTURE APPROACH
- BG12 — STEEL PLATE BEAM GUARD CLASS A
- PV01 — CONCRETE PAVEMENT APPROACH SLAB HES
- —SS— EXISTING STORM SEWER TO REMAIN
- EXISTING INLET TO REMAIN

NOTES:

1. EXCAVATE AROUND EXISTING STORM SEWER PIPE AND INLETS TO PREVENT DAMAGE.
2. SPACE BEAM GUARD POSTS TO AVOID IMPACTING EXISTING STORM SEWER AS DIRECTED BY THE ENGINEER.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PLAN DETAILS: TODD DRIVE APPROACH SLABS	SHEET 55	E

2

2

N

SIGN

INL

INL

SIGN

INL

INL MH

BELTLINE FRONTAGE ROAD

IOL

SEED AND FERTILIZER (TYP.)

TODD DRIVE

WB USH 12/18

R/L WB USH 12/18

WB 471WB 472WB 473WB 474WB 475WB 476WB

EB 471EB 472EB 473EB 474EB 475EB 476EB

R/L EB USH 12/18

EB USH 12/18

BELTLINE FRONTAGE ROAD

INL

INL

INL

MH

MH

SIGN

SIGN

SIGN

EROSION CONTROL LEGEND

EROSION MAT CLASS ITYPE B

SILT FENCE

NOTES

1. EROSION CONTROL FEATURES AS SHOWN ON THE PLANS ARE SUGGESTED LOCATIONS, EXACT LOCATIONS WILL BE DETERMINED BY THE ENGINEER IN THE FIELD.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	EROSION CONTROL	SHEET 56	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\022001_ec.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 40:1

2

2

N

SEMINOLE HIGHWAY

SEMINOLE HIGHWAY NE RAMP

R/L WB USH 12/18

WB USH 12/18

418WB 420WB 422WB 424WB 426WB 428WB 430WB

WB+85 MATCH EXISTING

WB+85 MATCH EXISTING

WB+85 MATCH EXISTING

WB+85 MATCH EXISTING

WB+90 MATCH EXISTING

WB+85 MATCH EXISTING

END BEGIN 1 6 WB+10

END BEGIN 6 5 WB+10

25'

12'

MATCHLINE 431EB+00

418EB 420EB 422EB 424EB 426EB 428EB 430EB

EB USH 12/18

R/L EB USH 12/18

EB+85 MATCH EXISTING

EB+85 MATCH EXISTING

EB+85 MATCH EXISTING

EB+85 MATCH EXISTING

BELTLINE FRONTAGE ROAD

INL W SIGN MH

PAVEMENT MARKINGS LEGEND

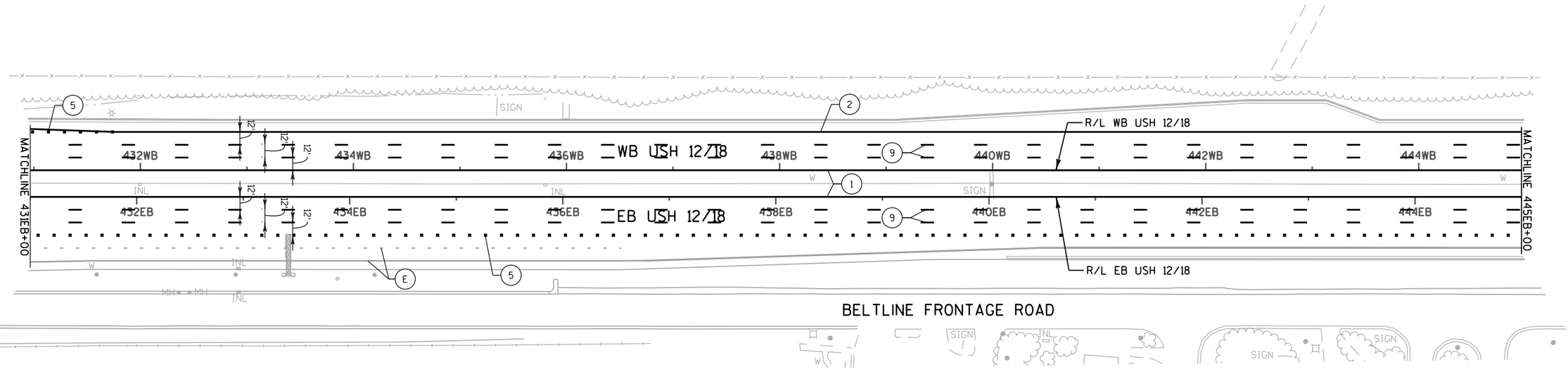
- (E) EXISTING MARKING LINE
- (1) MARKING LINE EPOXY 4-INCH (YELLOW)
- (2) MARKING LINE EPOXY 4-INCH (WHITE)
- (5) MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (6) MARKING LINE EPOXY 8-INCH (WHITE)
- (8) MARKING CHEVRON EPOXY 24-INCH (WHITE)
- (9) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 57	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024501_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2



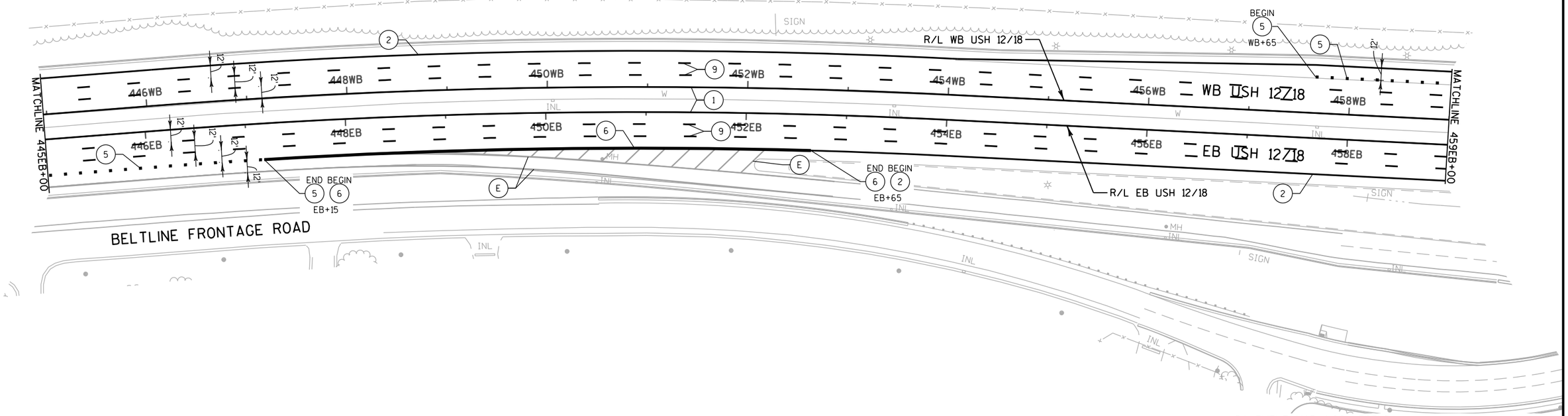
PAVEMENT MARKINGS LEGEND

- (E) EXISTING MARKING LINE
- (1) MARKING LINE EPOXY 4-INCH (YELLOW)
- (2) MARKING LINE EPOXY 4-INCH (WHITE)
- (5) MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (9) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 58	E

2

N

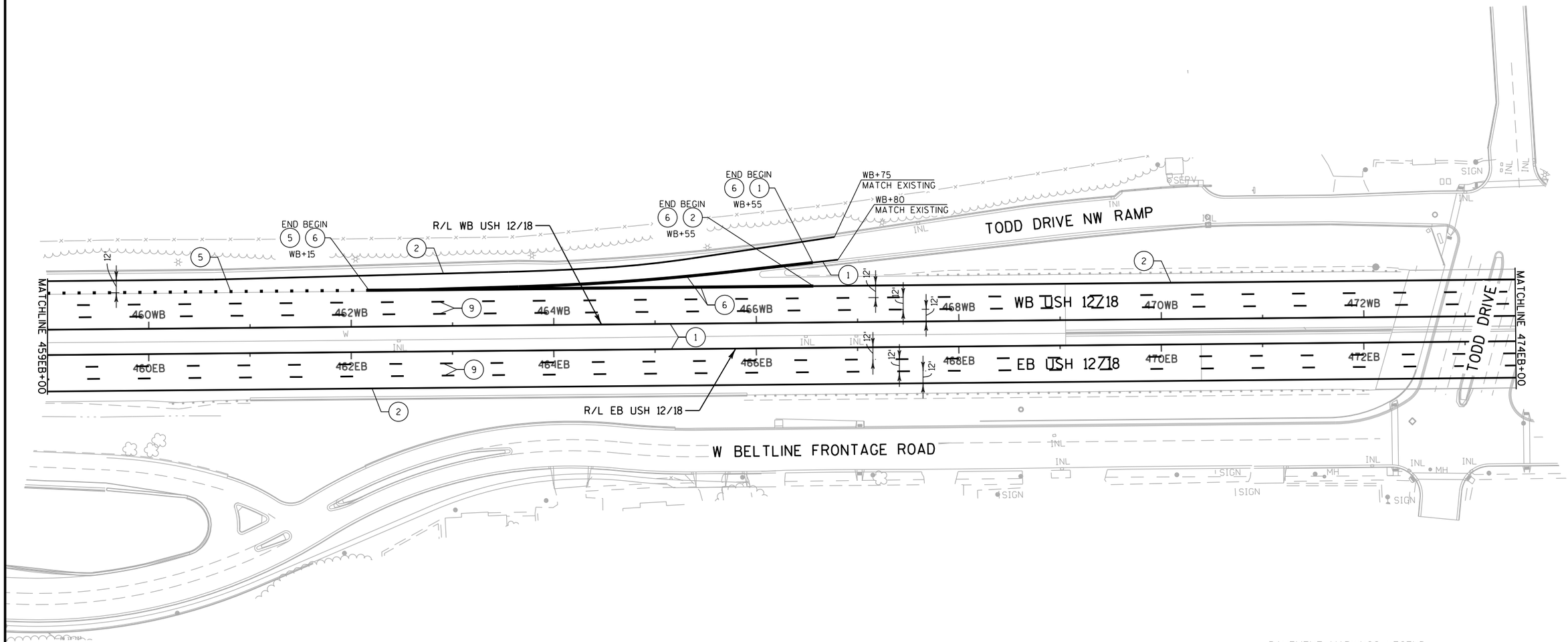


PAVEMENT MARKINGS LEGEND

- (E) EXISTING MARKING LINE
- (1) MARKING LINE EPOXY 4-INCH (YELLOW)
- (2) MARKING LINE EPOXY 4-INCH (WHITE)
- (5) MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
- (6) MARKING LINE EPOXY 8-INCH (WHITE)
- (8) MARKING CHEVRON EPOXY 24-INCH (WHITE)
- (9) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 59	E

2



PAVEMENT MARKINGS LEGEND

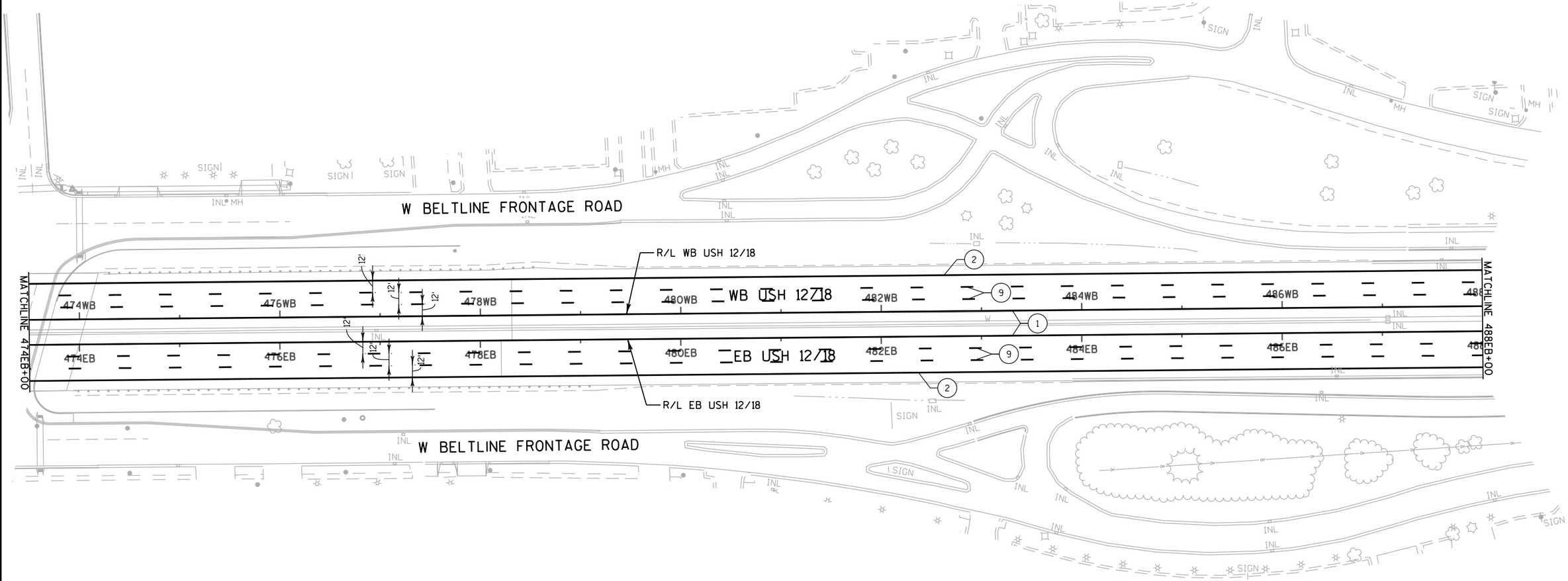
1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 60	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024504_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

N



PAVEMENT MARKINGS LEGEND

(1) MARKING LINE EPOXY 4-INCH (YELLOW)

(2) MARKING LINE EPOXY 4-INCH (WHITE)

(5) MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)

(9) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 61	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024505_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

N

CANNONBALL PATH

W BELTLINE FRONTAGE ROAD

WB+80
MATCH EXISTING

WB+80
MATCH EXISTING

END BEGIN
1 6
WB+05

END BEGIN
2 6
WB+05

END BEGIN
6 5
WB+55

R/L WB USH 12/18

WB USH 12/18

MATCHLINE 488EB+00

MATCHLINE 503EB+00

490WB 492WB 494WB 496WB 498WB 500WB 502WB

490EB 492EB 494EB 496EB 498EB 500EB 502EB

25'

12'

END BEGIN
2 6
EB+30

END BEGIN
1 6
EB+30

EB+05
MATCH EXISTING

EB+05
MATCH EXISTING

END BEGIN
6 5
EB+95

R/L EB USH 12/18

EB USH 12/18

W BELTLINE FRONTAGE ROAD

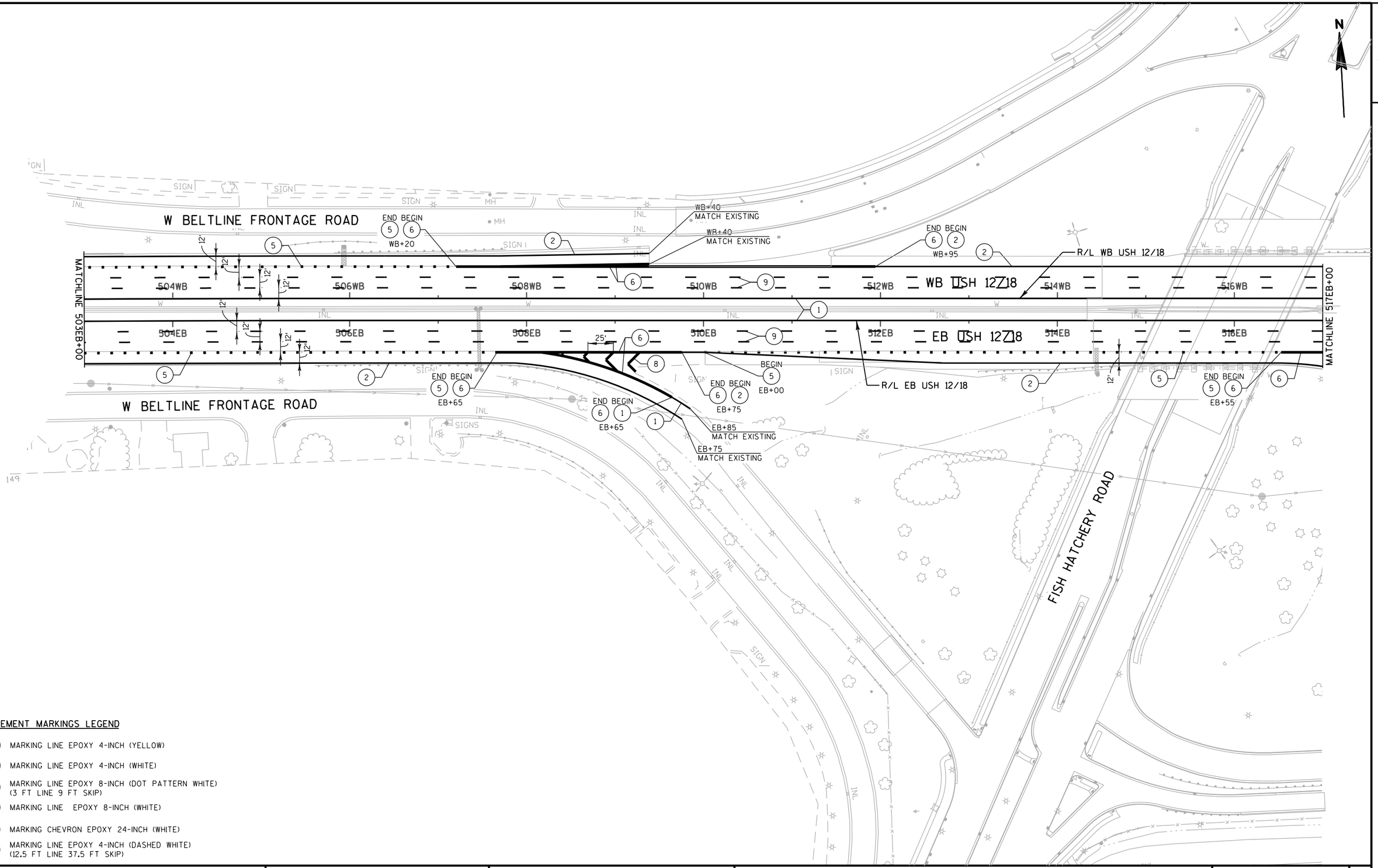
SIGN INL MH W

PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 62	E

2

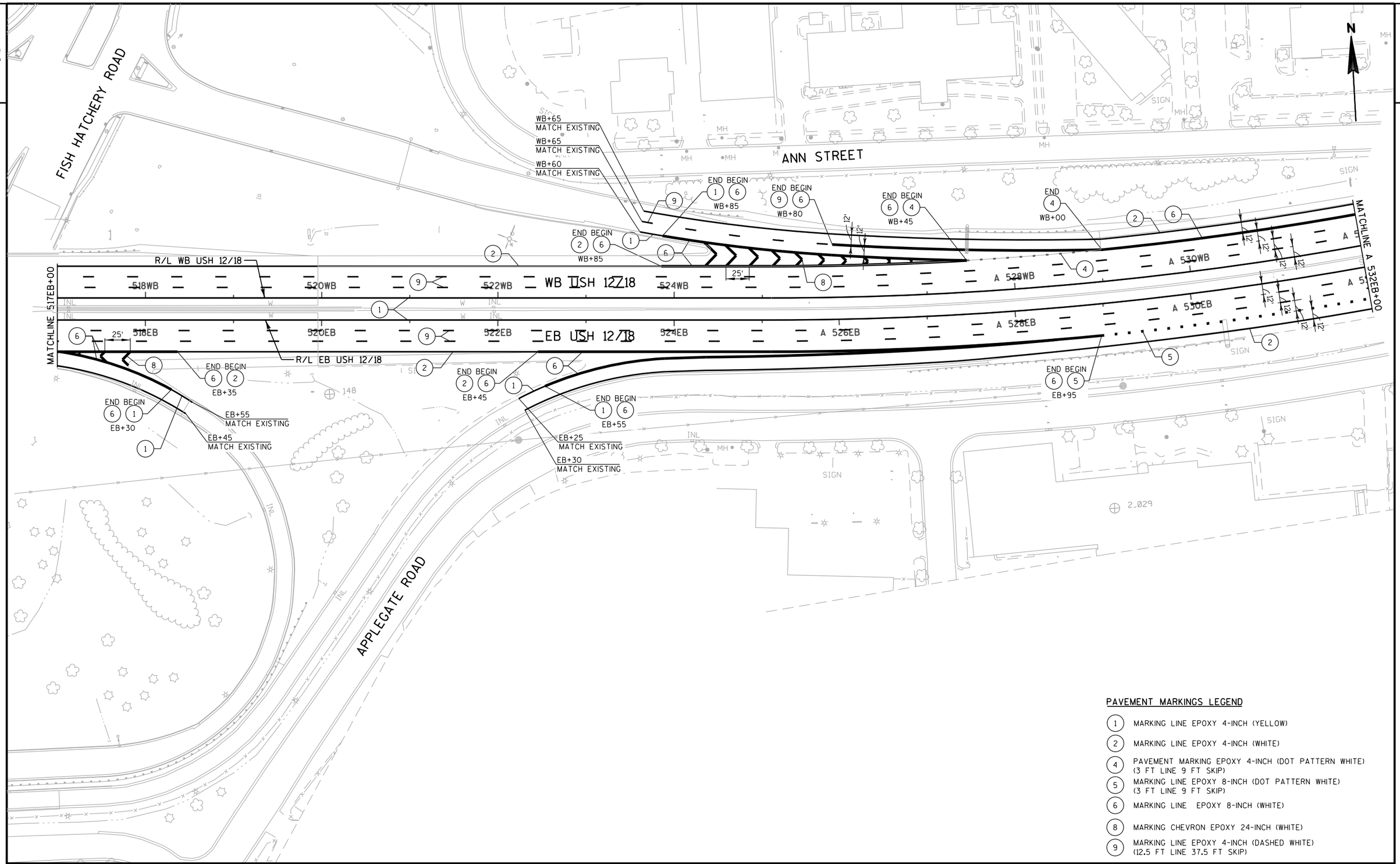


PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 63	E

2



PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
4. PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 64	E

2

N

TANKS

MH

SIGN

ANN STREET

END BEGIN
6 5
WB+00

MATCHLINE A
532EB+00

R/L WB USH 12/18

A 532WB
A 534WB
A 536WB
A 538WB
A 540WB
B 542WB
B 544WB
B 546WB

BEGIN
4
WB+75

END BEGIN
4 6
WB+65

WB USH 12/18

MATCHLINE B 246EB+50

A 534EB
A 536EB
A 538EB
A 540EB
B 542EB
B 544EB
B 546EB

R/L EB USH 12/18

EB USH 12/18

CONC

25'

12'

END BEGIN
5 6
EB+00

END BEGIN
6 2
EB+50

END BEGIN
6 1
EB+40

EB+65
MATCH EXISTING

EB+60
MATCH EXISTING

APPLEGATE ROAD

SIGNS

GV

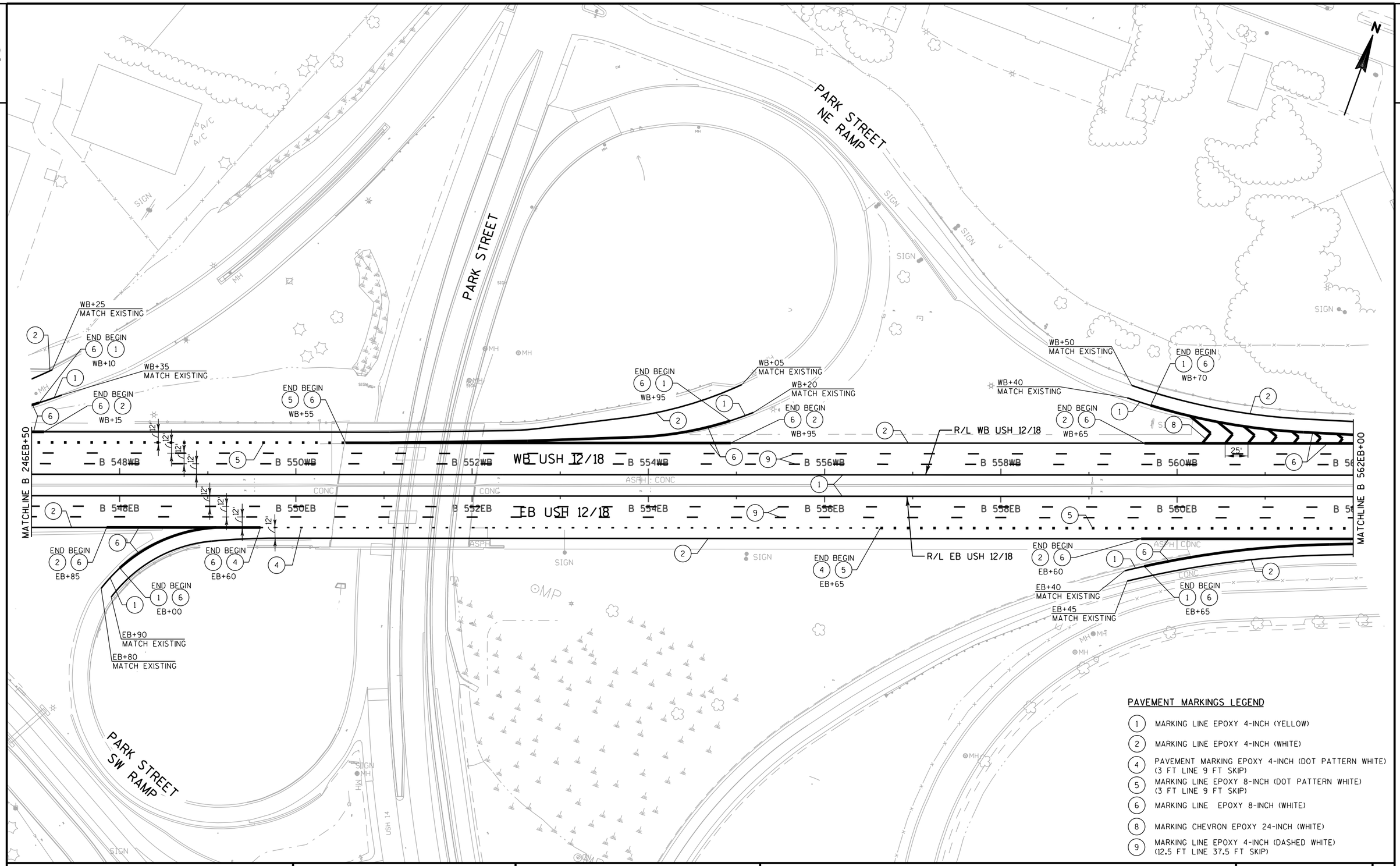
PERRY ST.

PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
4. PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 65	E

2



PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
4. PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 66	E

2

N

WISCONSIN & SOUTHERN RAILROAD

W BADGER ROAD

CIRCLE DRIVE

SIGN

END BEGIN
6 5
WB+45

8
CONCRETE
25'

2

R/L WB USH 12/18

MATCHLINE B 562EB+00

B 562WB B 564WB B 566WB B 568WB B 570WB B 572WB B 574WB B 576WB

WB USH 12/18

12'

B 562EB B 564EB B 566EB B 568EB B 570EB B 572EB B 574EB B 576EB

EB USH 12/18

MATCHLINE B 576EB+00

R/L EB USH 12/18

END BEGIN
6 5
EB+40

2 5

END
5
EB+45

E BADGER ROAD

MH

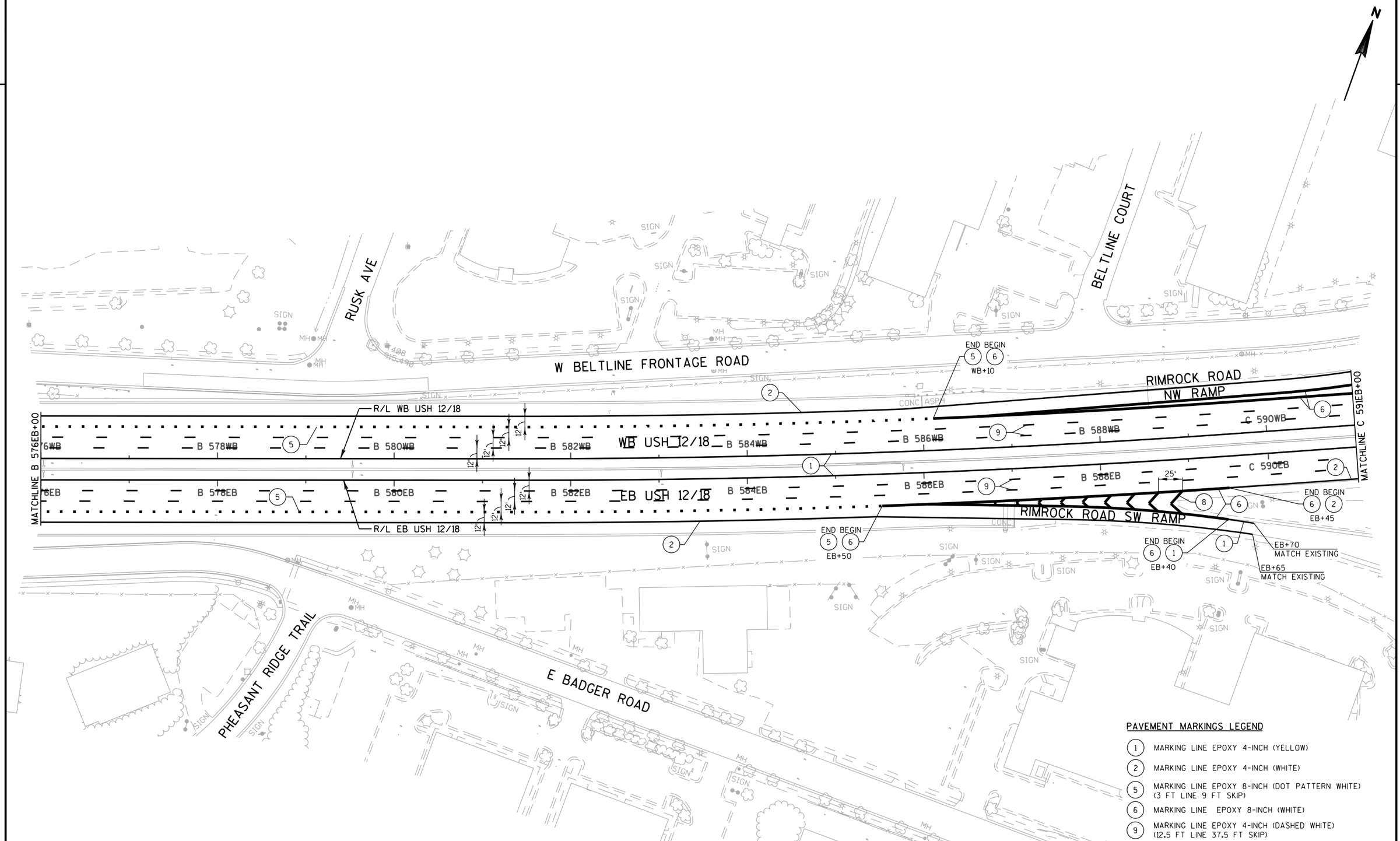
GV

PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 67	E

2

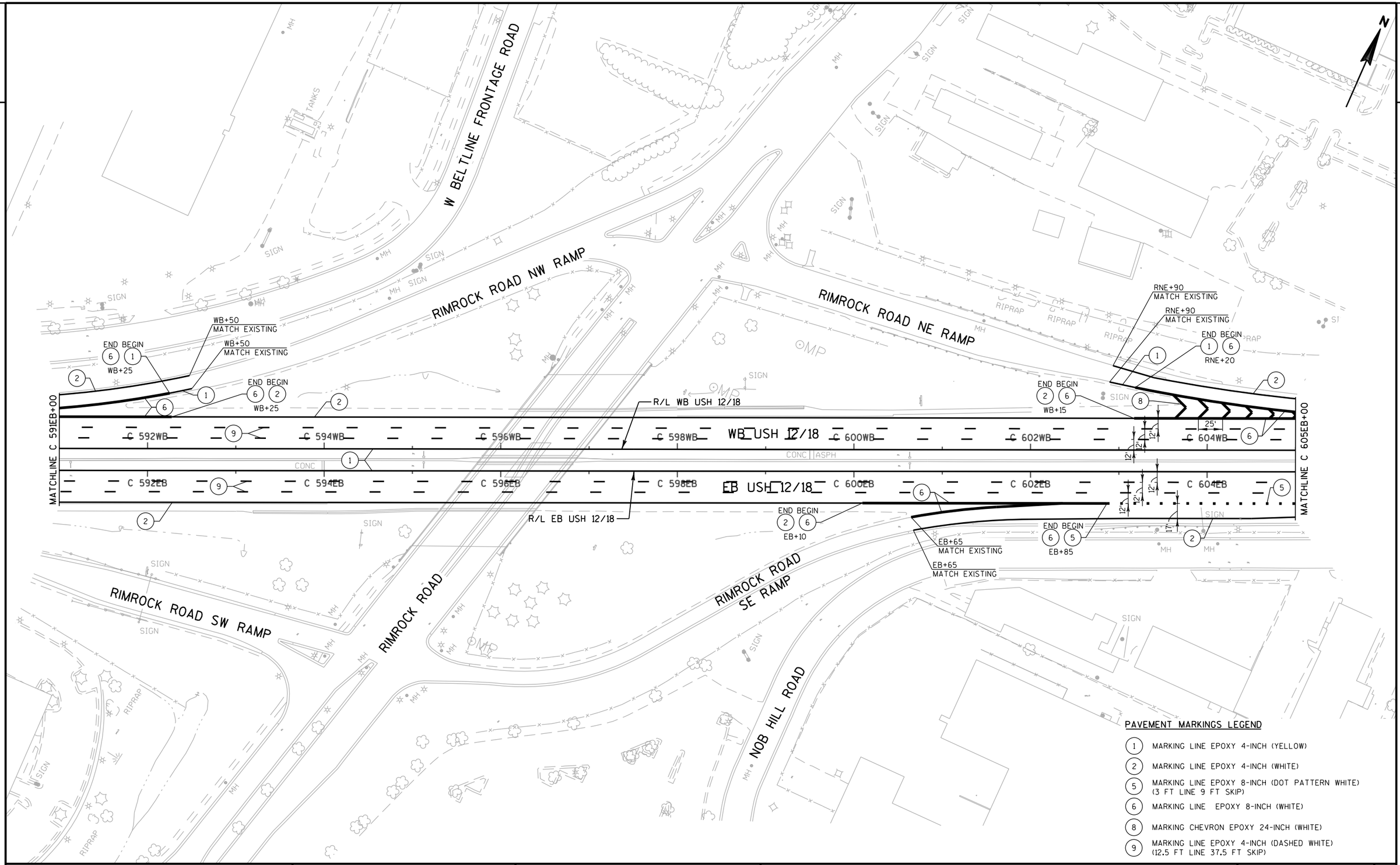


PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 68	E

2



PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 69	E

2

2

N

MH

SIGN

SIGN

SIGN

JOHN NOLEN
NW RAMP

WB+60
MATCH EXISTING

WB+70
MATCH EXISTING

END BEGIN
6 1
WB+45

END BEGIN
5 6
WB+90

END BEGIN
6 5
WB+50

END BEGIN
6 2
WB+45

R/L WB USH 12/18

WB USH 12/18

C 606WB C 608WB C 610WB C 612WB C 614WB D 616WB D 618WB D 62

MATCHLINE C 605EB+00

MATCHLINE D 620EB+00

C 606EB C 608EB C 610EB C 612EB C 614EB D 616EB D 618EB D 6

EB USH 12/18

R/L EB USH 12/18

INL

NOB HILL ROAD

BADGER LANE

SIGN

SIGN

SIGN

SIGN

SIGN

SIGN

SIGN

INL INL

INL INL

PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 70	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024514_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

JOHN NOLEN NE RAMP

WISCONSIN & SOUTHERN RAILROAD

WB+10
MATCH EXISTING

WB+95
MATCH EXISTING

END BEGIN
1 6
WB+25

END BEGIN
2 6
WB+20

25'

R/L WB USH 12/18

END BEGIN
6 5
WB+15

D 622WB

D 624WB

D 626WB

E 628WB

E 630WB

WB USH 12/18

E 632WB

MATCHLINE D 620EB+00

D 622EB

D 624EB

D 626EB

D 628EB

E 20EB

E 22EB

EB USH 12/18

MATCHLINE E 24EB+00

R/L EB USH 12/18

END BEGIN
5 6
EB+10

END BEGIN
1 6
EB+00

END BEGIN
6 2
EB+25

EB+15
MATCH EXISTING

EB+95
MATCH EXISTING

END BEGIN
2 6
EB+50

EB+30
MATCH EXISTING

END BEGIN
1 6
EB+60

EB+35
MATCH EXISTING

END BEGIN
6 5
EB+80

JOHN NOLEN
SE RAMP

JOHN NOLEN
SW RAMP

NOB HILL ROAD

PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 71	E

2

2

N

NANA LANE

ROYAL AVENUE

WISCONSIN & SOUTHERN RAILROAD

R/L WB USH 12/18

R/L EB USH 12/18

WB USH 12/18

EB USH 12/18

MATCHLINE E 24EB+00

MATCHLINE E 39EB+00

END BEGIN

EB+20

E 648WB E 646WB E 644WB E 642WB E 640WB E 638WB E 636WB

E 38EB E 36EB E 34EB E 32EB E 30EB E 28EB E 26EB

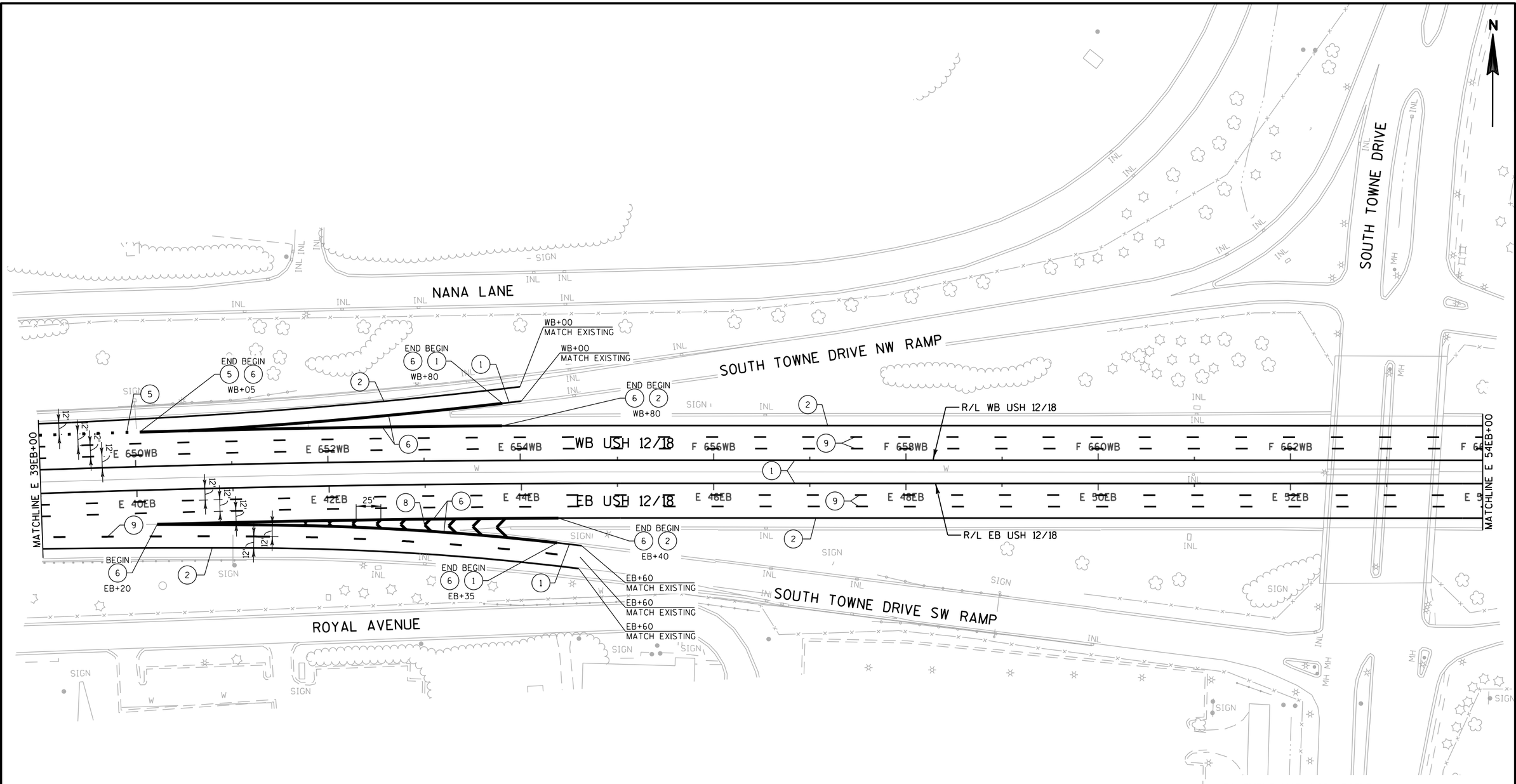
INL SIGN MH OMP W

PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 72	E

2



PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 73	E

2

N

SOUTH TOWNE DRIVE

SOUTH TOWNE DRIVE NE RAMP

R/L WB USH 12/18

WB USH 12/18

WB+55
MATCH EXISTING

WB+55
MATCH EXISTING

END BEGIN
2 6
WB+10

END BEGIN
6 4
WB+20

END BEGIN
4 2
WB+15

25'

F 664WB F 666WB F 668WB F 670WB F 672WB F 674WB F 676WB

MATCHLINE E 54EB+00

MATCHLINE E 68EB+00

E 54EB E 56EB E 58EB E 60EB E 62EB E 64EB E 66EB

EB USH 12/18

R/L EB USH 12/18

END BEGIN
2 6
EB+20

EB+70
MATCH EXISTING

EB+75
MATCH EXISTING

END
6
EB+40

SOUTH TOWNE DRIVE SE RAMP

ROYAL AVENUE

MH

MP

SIGN

INL

W

12'

PAVEMENT MARKINGS LEGEND

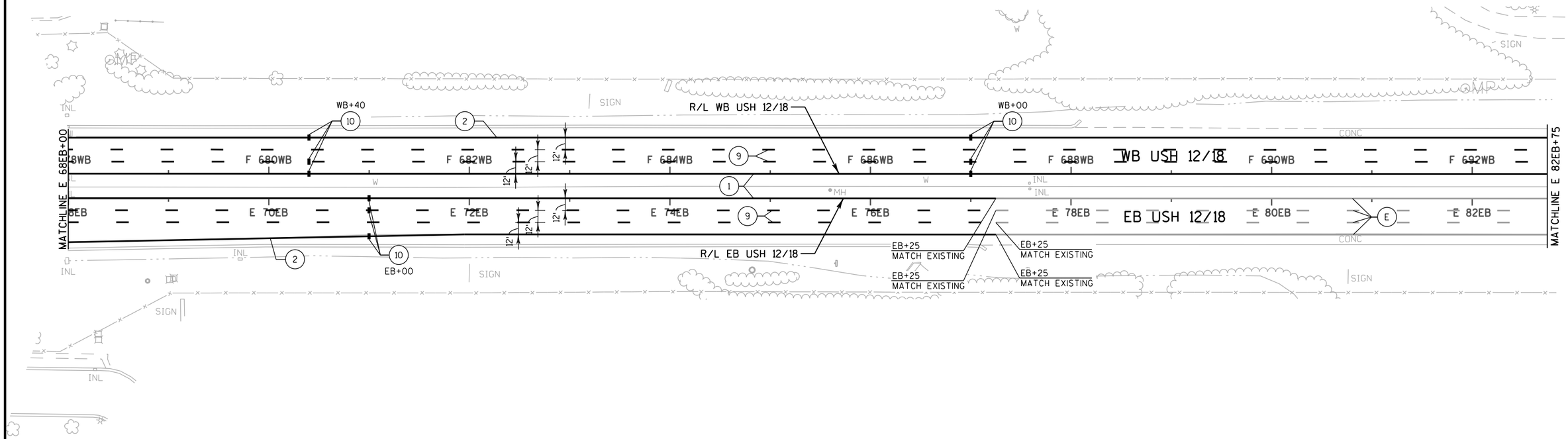
1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
4. PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 74	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024518_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

N



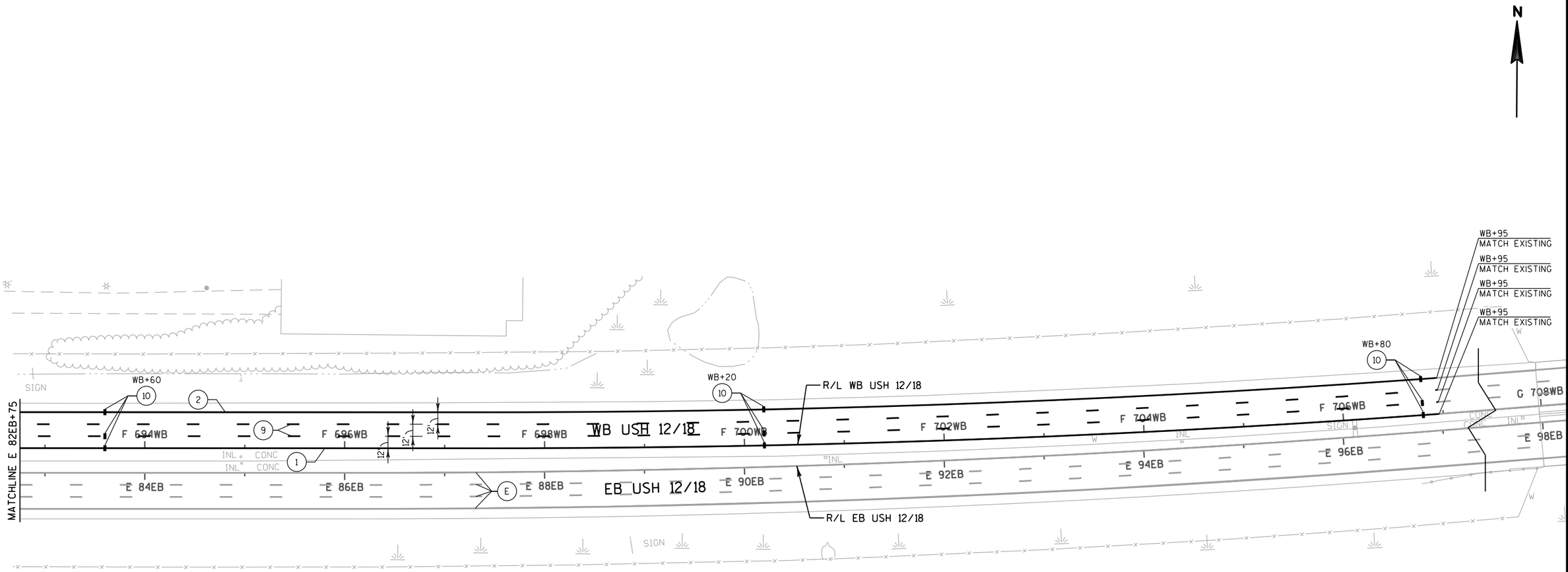
PAVEMENT MARKINGS LEGEND

- (E) EXISTING MARKING LINE
- (1) MARKING LINE EPOXY 4-INCH (YELLOW)
- (2) MARKING LINE EPOXY 4-INCH (WHITE)
- (9) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (10) MARKING AERIAL ENFORCEMENT BAR EPOXY

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 75	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024519_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2



PAVEMENT MARKINGS LEGEND

- (E) EXISTING MARKING LINE
- (1) MARKING LINE EPOXY 4-INCH (YELLOW)
- (2) MARKING LINE EPOXY 4-INCH (WHITE)
- (9) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)
- (10) MARKING AERIAL ENFORCEMENT BAR EPOXY

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 76	E

2

N

MONONA DRIVE

MONONA DRIVE NW RAMP

MONONA DRIVE NE RAMP

MONONA DRIVE SW RAMP

MONONA DRIVE SE RAMP

WB USH 12/18

EB USH 12/18

R/L WB USH 12/18

R/L EB USH 12/18

MATCHLINE E 138EB+00

WB+00 MATCH EXISTING

WB+25 MATCH EXISTING

END BEGIN WB+00

END BEGIN WB+00

EB+25 MATCH EXISTING

EB+35 MATCH EXISTING

END BEGIN EB+15

END BEGIN EB+15

END BEGIN EB+15

PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
4. PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 77	E

2

2

N

ATHLETIC FIELD

SLAB
SIGN

SIGN

⊙MP

INL

W

MH

W

W

INL

⊙MP

SIGN

SIGN

SIGN

SIGN

WB+30
MATCH EXISTING

WB+30
MATCH EXISTING

END BEGIN
1 6
WB+55

END BEGIN
2 6
WB+25

MONONA DRIVE NE RAMP

CONC | ASPH

END BEGIN
6 5
WB+45

R/L WB USH 12/18

MATCHLINE E 138EB+00

8WB

H 750WB

H 752WB

H 754WB

WB USH 12/18

H 756WB

H 758WB

H 760WB

H 76

MATCHLINE E 152EB+00

25'

12'

12'

12'

12'

12'

12'

12'

12'

INL

INL

INL

INL

8EB

E 140EB

E 142EB

E 144EB

EB USH 12/18

E 146EB

E 148EB

E 150EB

E 15

CONC | ASPH

END BEGIN
2 6
EB+60

END BEGIN
6 5
EB+70

R/L EB USH 12/18

SIGN

SIGN

SIGN

MONONA DRIVE SE RAMP

EB+35
MATCH EXISTING

EB+35
MATCH EXISTING

END BEGIN
1 6
EB+60

PAVEMENT MARKINGS LEGEND

1 MARKING LINE EPOXY 4-INCH (YELLOW)

2 MARKING LINE EPOXY 4-INCH (WHITE)

5 MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE)
(3 FT LINE 9 FT SKIP)

6 MARKING LINE EPOXY 8-INCH (WHITE)

8 MARKING CHEVRON EPOXY 24-INCH (WHITE)

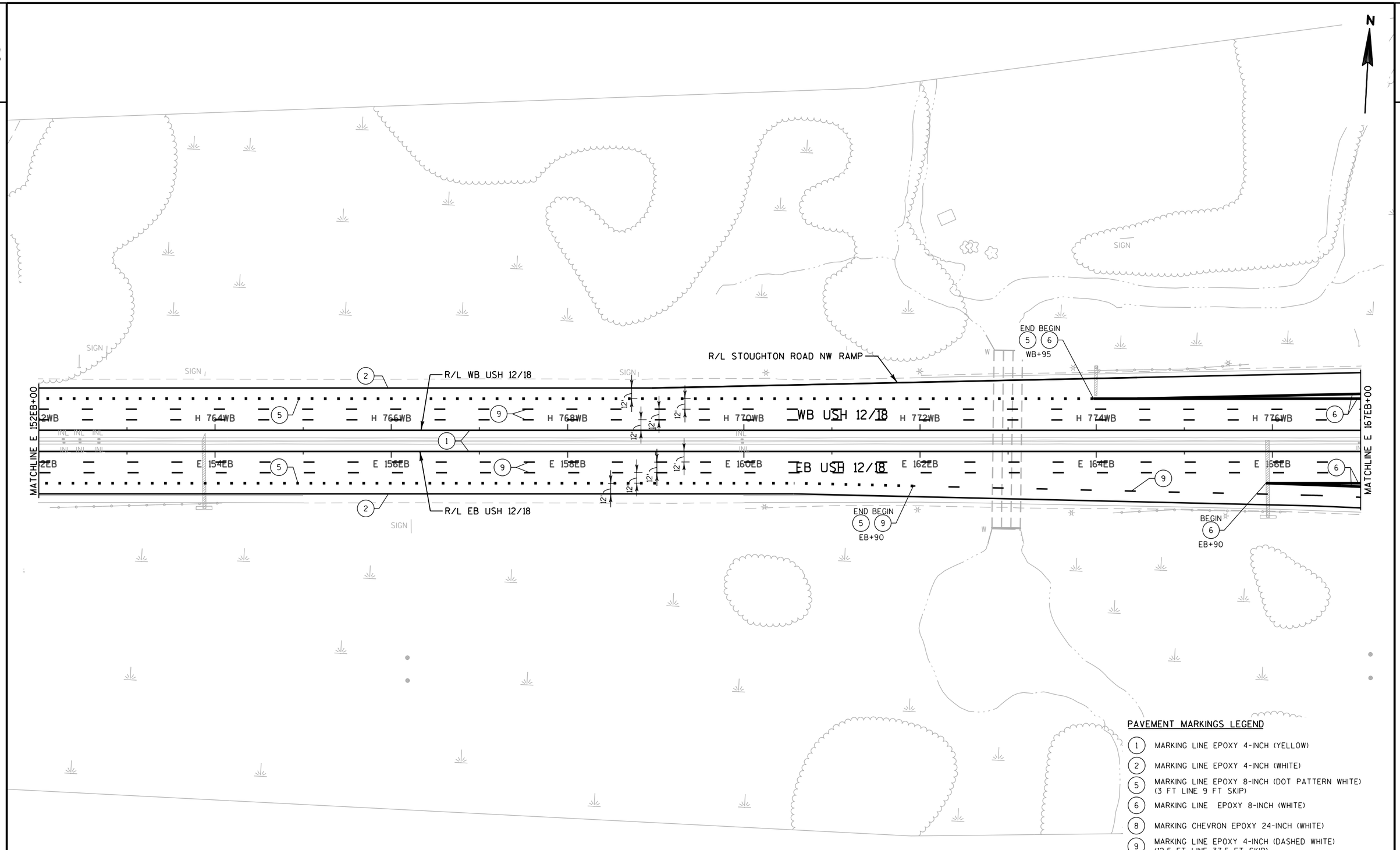
9 MARKING LINE EPOXY 4-INCH (DASHED WHITE)
(12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 78	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024524_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2



PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 79	E

2

2

STOUGHTON ROAD

STOUGHTON ROAD NW RAMP

STOUGHTON ROAD SW RAMP

MATCHLINE E 167EB+00

MATCHLINE E 182EB+00

H 778WB

H 780WB

H 782WB

H 784WB

WB USH 12/18

H 786WB

J 788WB

J 790WB

J 79

E 168EB

E 170EB

E 172EB

E 174EB

EB USH 12/18

E 176EB

E 178EB

E 180EB

E 18

25'

12'

END BEGIN
6 1
WB+30

WB+55
MATCH EXISTING

WB+60
MATCH EXISTING

END BEGIN
6 2
WB+35

R/L WB USH 12/18

END BEGIN
6 1
WB+35

END BEGIN
6 2
EB+25

R/L EB USH 12/18

WB+50
MATCH EXISTING

WB+50
MATCH EXISTING

WB+45
MATCH EXISTING

SIGN

INL

MH

BIKE PATH

W

N

PAVEMENT MARKINGS LEGEND

1 MARKING LINE EPOXY 4-INCH (YELLOW)

2 MARKING LINE EPOXY 4-INCH (WHITE)

6 MARKING LINE EPOXY 8-INCH (WHITE)

8 MARKING CHEVRON EPOXY 24-INCH (WHITE)

9 MARKING LINE EPOXY 4-INCH (DASHED WHITE)
(12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 80	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024526_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

N

COLLINS COURT

STOUGHTON ROAD NE RAMP

WB+70
MATCH EXISTING
WB+70
MATCH EXISTING
WB+65
MATCH EXISTING

END BEGIN
1 6
WB+90

END
9
WB+80

END BEGIN
2 6
WB+25

R/L WB USH 12/18

END BEGIN
6 5
WB+35

25'

12'

MATCHLINE E 182EB+00

J 794WB J 796WB WB USH 12/18 J 798WB J 800WB J 802WB J 804WB J 80

MATCHLINE E 196EB+00

E 184EB E 186EB EB USH 12/18 E 188EB E 190EB E 192EB E 194EB E 19

R/L EB USH 12/18

END BEGIN
2 6
EB+75

EB+60
MATCH EXISTING
EB+60
MATCH EXISTING

END BEGIN
1 6
EB+80

END
6
EB+30

STOUGHTON ROAD SE RAMP

S DUTCH MILLS ROAD

PATH

SIGN

INL

MH

W

FILLER CAP

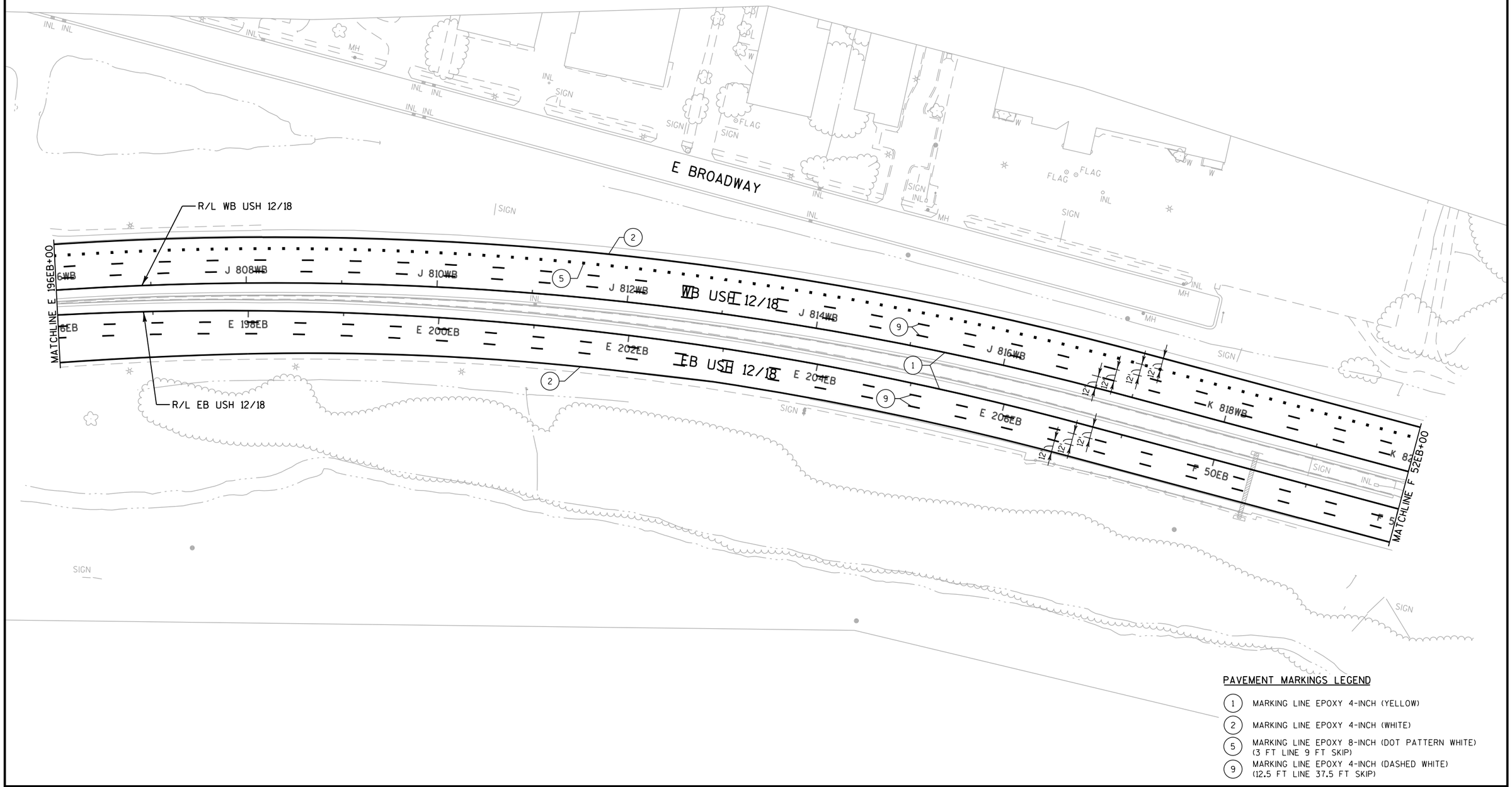
PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024527_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2



PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
5. MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 82	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024528_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

2

N

END BEGIN
WB+00

MATCHLINE F 52EB+00

MATCHLINE F 66EB+00

R/L WB USH 12/18

WB USH 12/18

EB USH 12/18

R/L EB USH 12/18

SIGN

RIPRAP

AGRICULTURE DRIVE

PAVEMENT MARKINGS LEGEND

1 MARKING LINE EPOXY 4-INCH (YELLOW)

2 MARKING LINE EPOXY 4-INCH (WHITE)

5 MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE)
(3 FT LINE 9 FT SKIP)

9 MARKING LINE EPOXY 4-INCH (DASHED WHITE)
(12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 83	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024529_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

R/L WB USH 12/18

R/L EB USH 12/18

WB USH 12/18

EB USH 12/18

MATCHLINE F 66EB+00

MATCHLINE F 80EB+00

K 836WB

K 838WB

K 840WB

K 842WB

K 844WB

K 846WB

F 68EB

F 70EB

F 72EB

F 74EB

F 76EB

F 78EB

END BEGIN
EB+35

END BEGIN
EB+90

END BEGIN
EB+25

END BEGIN
EB+30

EB+85
MATCH EXISTING

EB+60
MATCH EXISTING

EB+55
MATCH EXISTING

SIGN

INL

25'

PAVEMENT MARKINGS LEGEND

1. MARKING LINE EPOXY 4-INCH (YELLOW)
2. MARKING LINE EPOXY 4-INCH (WHITE)
4. PAVEMENT MARKING EPOXY 4-INCH (DOT PATTERN WHITE) (3 FT LINE 9 FT SKIP)
6. MARKING LINE EPOXY 8-INCH (WHITE)
8. MARKING CHEVRON EPOXY 24-INCH (WHITE)
9. MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 84	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024530_pm.dgn | PLOT DATE : 11/1/2018 | PLOT BY : ctomsak | PLOT NAME : | PLOT SCALE : 100:1

2

N

IH 39 SB TO
USH 12/18 WB RAMP

WB+75
MATCH EXISTING

WB+75
MATCH EXISTING

WB+75
MATCH EXISTING

WB+75
MATCH EXISTING

WB+75
MATCH EXISTING

T030
861.500

K 850WB

K 852WB

K 854WB

K 856WB

R/L WB USH 12/18

K 858WB

WB USH 12/18

K 860WB

K 862WB

MATCHLINE F 80EB+00

F 82EB

F 84EB

R/L EB USH 12/18

F 86EB

F 88EB

EB USH 12/18

F 90EB

F 92EB

USH 12/18 EB TO
IH 39 SB RAMP

SIGN

SIGN

SIGN

PAVEMENT MARKINGS LEGEND

- (E) EXISTING MARKING LINE
- (1) MARKING LINE EPOXY 4-INCH (YELLOW)
- (2) MARKING LINE EPOXY 4-INCH (WHITE)
- (9) MARKING LINE EPOXY 4-INCH (DASHED WHITE) (12.5 FT LINE 37.5 FT SKIP)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	PAVEMENT MARKINGS	SHEET 85	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\024531_pm.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

GENERAL NOTES FOR TRAFFIC CONTROL

1. STATIONING, DISTANCES AND OFFSETS FOR TRAFFIC CONTROL SIGNS SHOWN IN THE PLANS ARE APPROXIMATE. THE EXACT NUMBER, LOCATION, AND SPACING OF ALL SIGN DEVICES SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

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

3. FOR NIGHTTIME OPERATION, ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

4. ALL TYPE III BARRICADES SHALL BE 8' WIDE, UNLESS OTHERWISE NOTED, AND EQUIPPED WITH TWO TYPE A (LOW INTENSITY FLASHING) LIGHTS.

5. WORK AREAS SHOWN MAY NOT ILLUSTRATE ALL REMOVALS. SEE REMOVAL SHEETS FOR ADDITIONAL INFORMATION.

6. PAVEMENT MARKING THAT IS SHOWN SHADED ON TRAFFIC CONTROL PLANS ARE THERE FOR REFERENCE ONLY. PAVEMENT MARKING SHALL BE ADJUSTED TO FIT FIELD CONDITIONS AS DIRECTED BY THE ENGINEER.

7. ALL PAVEMENT MARKING STATIONING IN TRAFFIC CONTROL PLANS HAVE THE PREFIX OF THE ALIGNMENT THAT IT IS MEASURED OFF OF, IN THE STATION CALLOUT.

8. FOR ALL CONCRETE BARRIER TEMPORARY PRECAST, THERE WILL BE DELINEATORS ATTACHED PER STANDARD DETAIL DRAWING CONCRETE BARRIER TEMPORARY PRECAST 12'-6". PLACE REFLECTORS OF THE APPROPRIATE COLOR ON BOTH SIDES OF THE DELINEATOR.

9. SEE S.D.D. 15D12 "TRAFFIC CONTROL, LANE CLOSURE", S.D.D. 15D14 “TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)” AND S.D.D. 15D27 "TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H." FOR SHOULDER AND LANE CLOSURE DETAILS FOR STAGE 1, STAGE 5, AND STAGE A CONSTRUCTION.

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

11. 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 TYPE 1 OR TYPE 2."

12. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

13. TURNING TRAFFIC CONTROL DEVICES WHEN NOT IN USE TO OBSCURE THE MESSAGE IS NOT ALLOWED.

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

15. SHOULDERS MAY BE CLOSED IF REQUIRED BY WORK OPERATIONS, BUT THE RIGHT AND LEFT SHOULDER MAY NOT BE CLOSED IN THE SAME AREA AT THE SAME TIME. ALL SHOULDER CLOSURES MUST PROVIDE TRAFFIC CONTROL DEVICES PER THE “TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H.” SDD.

16. AT THE CONCLUSION OF EACH NIGHT’S WORK PLACING AN ASPHALT OVERLAY, INCLUDE A NOTCHED WEDGE LONGITUDINAL JOINT FOR ALL DROPOFF CONDITIONS BETWEEN TRAVEL LANES OR BETWEEN TRAVEL LANES AND SHOULDERS AS DIRECTED BY THE ENGINEER. DO NOT PLACE MARKING LINE EPOXY ON THE ASPHALT IF THE NOTCHED WEDGE LONGITUDINAL JOINT WILL BE REMOVED. IN THIS SCENARIO PLACE TEMPORARY MARKING LINE EPOXY ON THE NOTCHED WEDGE LONGITUDINAL JOINT AT THE EXISTING LANE OR EDGE OF PAVEMENT MARKING.

STOUGHTON ROAD BRIDGE WORK

STAGE 1 TRAFFIC AND CONSTRUCTION

STAGE ONE CONSISTS OF CONFIGURING TRAFFIC CONTROL DEVICES, PROVIDING PRE-WARNING DEVICES, REMOVE CONCRETE RUMBLE STRIPS AND FILL WITH ASPHALT IN ANTICIPATION OF SHIFTING TRAFFIC TOWARDS THE MEDIAN SHOULDERS, AND PLACING EROSION CONTROL MEASURES. ALL WORK WILL BE COMPLETED DURING ALLOWABLE NIGHTTIME CLOSURE HOURS WHILE MAINTAINING AT LEAST ONE LANE OF TRAFFIC AND 16-FEET OF CLEAR WIDTH AT ALL TIMES.

STAGE 2 TRAFFIC AND CONSTRUCTION

STAGE TWO CONSISTS OF REPLACING THE OUTSIDE THIRD OF THE EXPANSION JOINTS ON STRUCTURES B-13-320/321. THE EXPANSION JOINT WORK WILL REQUIRE SHIFTING THREE 10.5-FOOT LANES OF TRAFFIC EACH DIRECTION TOWARDS THE MEDIAN SHOULDER. THE BRIDGE WORK WILL BE SHIELDED FROM TRAFFIC USING TEMPORARY CONCRETE BARRIER AND GAWK SCREEN.

STAGE 3 TRAFFIC AND CONSTRUCTION

STAGE THREE CONSISTS OF REPLACING THE MIDDLE THIRD OF THE EXPANSION JOINTS ON STRUCTURES B-13-320/321. THE EXPANSION JOINT WORK WILL REQUIRE A TRAFFIC SPLIT SHIFTING TWO 10-FOOT LANES OF TRAFFIC EACH DIRECTION TOWARDS THE OUTSIDE SHOULDER AND ONE 12-FOOT LANE ONTO THE MEDIAN SHOULDER. THE BRIDGE WORK WILL BE SHIELDED FROM TRAFFIC USING TEMPORARY CONCRETE BARRIER AND GAWK SCREEN. US 12 WB TRAFFIC FROM EAST OF THE IH-39/90 INTERCHANGE IN THE INSIDE LANE WILL BE SEPARATED FROM THE REMAINING WB TRAVEL LANES USING CHANNELIZING CURB, TUBULAR MARKERS, AND/OR TEMPORARY CONCRETE BARRIER BEGINNING AT THE IH-39/90 RAMP MERGE GORE AND ENDING JUST WEST OF THE STOUGHTON ROAD OVERPASS, EXCLUDING ACCESS TO STOUGHTON ROAD FROM POINTS ON US 12 EAST OF THE IH-39/90 INTERCHANGE. THE EB ONRAMP FROM MONONA DRIVE WILL BE CLOSED.

STAGE 4 TRAFFIC AND CONSTRUCTION

STAGE FOUR CONSISTS OF REPLACING THE INSIDE THIRD OF THE EXPANSION JOINTS ON STRUCTURES B-13-320/321. THE EXPANSION JOINT WORK WILL REQUIRE SHIFTING THREE 12-FOOT LANES OF TRAFFIC EACH DIRECTION TOWARDS THE OUTSIDE SHOULDER. THE BRIDGE WORK WILL BE SHIELDED FROM TRAFFIC USING TEMPORARY CONCRETE BARRIER AND GAWK SCREEN.

STAGE 5 TRAFFIC AND CONSTRUCTION

STAGE FIVE INVOLVES ALL ANCILLARY ITEMS NECESSARY TO COMPLETE THE PROJECT INCLUDING PLACING FINAL PAVEMENT MARKINGS. FINAL PAVEMENT MARKINGS WILL BE PLACED ON TOP OF THE PROPOSED ASPHALT OVERLAY.

MISCELLANEOUS TRAFFIC AND CONSTRUCTION

SLOPE PAVING REPAIR AND PIER CONCRETE SURFACE REPAIRS ON STRUCTURES B-13-320/321 WILL BE COMPLETED INTERMITTENTLY DURING STAGES 1-5 USING SINGLE LANE CLOSURES ON STOUGHTON ROAD DURING ALLOWABLE NIGHTTIME CLOSURE HOURS.

TODD DRIVE BRIDGE WORK AND APPROACH SLABS REPLACEMENT

STAGE A TRAFFIC AND CONSTRUCTION

STAGE A UTILIZES A SHORT-TERM CLOSURE OF THE WB OUTSIDE SHOULDER NEAR TODD DRIVE TO FACILITATE REPLACEMENT OF THE NORTHWEST WINGWALL. THREE 12-FOOT LANES OF WB TRAFFIC WILL BE MAINTAINED AT ALL TIMES IN THEIR EXISTING LANES AND THE WORK WILL BE SHIELDED FROM TRAFFIC USING TEMPORARY CONCRETE BARRIER AND GAWK SCREEN.

STAGE B TRAFFIC AND CONSTRUCTION

STAGE B CONSISTS OF REPLACING THE OUTSIDE HALVES OF THE EB AND WB APPROACH SLABS AT THE TODD DRIVE BRIDGE (B-13-263) AND EXCAVATING POOR SOILS BENEATH THE APPROACH SLABS. THIS WILL INVOLVE A WEEKEND CLOSURE OF THE OUTSIDE HALF OF THE APPROACH. TWO 11-FOOT LANES WILL BE SHIFTED TOWARDS THE MEDIAN SHOULDER DURING DAYTIME HOURS, BUT OVERNIGHT PERIODS WILL REQUIRE AN ADDITIONAL LANE CLOSURE ADJACENT TO THE WORZONE. THE NIGHTTIME SINGLE LANE SCENARIO WILL BE COMPLETED DURING ALLOWABLE NIGHTTIME CLOSURE HOURS WHILE MAINTAINING 16-FEET OF CLEAR WIDTH AT ALL TIMES. THE WB ONRAMP FROM FISH HATCHERY ROAD AND THE EB ONRAMP FROM SEMINOLE HIGHWAY WILL BE CLOSED FOR THE DURATION OF STAGE B.

CONTRACTOR RESERVES THE OPTION TO TEMPORARY RE-STRIPE THREE 11-FOOT MAINLINE LANES ON THURSDAY NIGHT OF THE WEEKEND WORK OPERATION. TRAFFIC WILL FLOW IN THE THREE SHIFTED LANES DURING FRIDAY AND MONDAY DAYTIME HOURS. THIS WILL ALLOW ADDITIONAL TIME BETWEEN FRIDAY EVENING AND MONDAY MORNING TO PERFORM CONSTRUCTION AND PROVIDE ADDITIONAL CURE TIME FOR THE CONCRETE PAVEMENT.

THE THREE EB AND WB SHIFTED MAINLINE LANES MAY BE LEFT IN PLACE AT THE CONCLUSION OF STAGE B CONSTRUCTION UNTIL THE BEGINNING OF STAGE C CONSTRUCTION, AS APPROVED BY THE ENGINEER.

STAGE C TRAFFIC AND CONSTRUCTION

STAGE C CONSISTS OF REPLACING THE MEDIAN HALVES OF THE EB AND WB APPROACH SLABS AT THE TODD DRIVE BRIDGE (B-13-263) AND EXCAVATING POOR SOILS BENEATH THE APPROACH SLABS. THIS WILL INVOLVE A WEEKEND CLOSURE OF THE MEDIAN HALF OF THE APPROACH. TWO 11-FOOT LANES WILL BE SHIFTED TOWARDS OUTSIDE SHOULDER DURING DAYTIME HOURS, BUT OVERNIGHT PERIODS WILL REQUIRE AN ADDITIONAL LANE CLOSURE ADJACENT TO THE WORKZONE. THE NIGHTTIME SINGLE LANE SCENARIO WILL BE COMPLETED DURING ALLOWABLE NIGHTTIME CLOSURE HOURS WHILE MAINTAINING 16-FEET OF CLEAR WIDTH AT ALL TIMES. THE WB ONRAMP FROM FISH HATCHERY ROAD AND THE EB ONRAMP FROM SEMINOLE HIGHWAY WILL BE CLOSED FOR THE DURATION OF STAGE C.

ALL MAINLINE LANES MUST BE SHIFTED BACK TO THEIR EXISTING THREE 12-FOOT LANE CONFIGURATION ON MONDAY NIGHT IMMEDIATELY FOLLOWING CONCLUSION OF THE EB OR WB STAGE C WEEKEND WORK, RESPECTIVELY, OR AS APPROVED BY THE ENGINEER.

THE EB ONRAMP FROM SEMINOLE HIGHWAY AND THE WB ONRAMP FROM FISH HATCHERY ROAD MAY ONLY BE CLOSED DURING EB AND WB WEEKEND CONSTRUCTION, RESPECTIVELY. RAMPS TO REMAIN OPEN AT ALL OTHER TIMES.

MISCELLANEOUS TRAFFIC AND CONSTRUCTION

MISCELLANEOUS CONCRETE SURFACE REPAIRS BENEATH THE B-13-263 STRUCTURE WILL BE COMPLETED INTERMITTENTLY USING A SINGLE LANE CLOSURE ON TODD DRIVE DURING ALLOWABLE NIGHTTIME CLOSURE HOURS.

CONCRETE PAVEMENT REPAIR, CONCRETE BASE PATCHING, AND ASPHALT OVERLAY

PRE-WORK STAGE TRAFFIC AND CONSTRUCTION

THE PRE-WORK STAGE CONSISTS OF CONFIGURING TRAFFIC CONTROL DEVICES, PROVIDING PRE-WARNING DEVICES, AND PLACING EROSION CONTROL MEASURES. ALL WORK WILL BE COMPLETED DURING ALLOWABLE NIGHTTIME CLOSURE HOURS WHILE MAINTAINING AT LEAST ONE LANE OF TRAFFIC AND 16-FEET OF CLEAR WIDTH AT ALL TIMES.

WORK STAGE TRAFFIC AND CONSTRUCTION

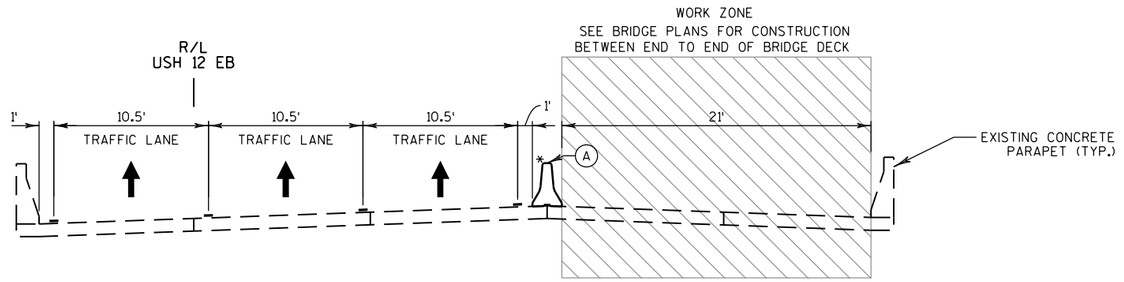
THE MAIN WORK FOR THIS TASK INCLUDES CONCRETE PAVEMENT REPAIRS, CONCRETE BASE PATCHING, MILLING THE EXISTING ASPHALT OVERLAY, REMOVING CONCRETE SURFACE PARTIAL DEPTH (CONCRETE GUTTER), ADJUSTING INLETS, AND PLACING THE NEW ASPHALT OVERLAY. ALL WORK WILL BE COMPLETED DURING ALLOWABLE NIGHTTIME CLOSURE HOURS WHILE MAINTAINING AT LEAST ONE LANE OF TRAFFIC AND 16-FEET OF CLEAR WIDTH AT ALL TIMES. STAGING AND TRAFFIC CONTROL WILL BE PER AN APPROVED CONTRACTOR STAGING PLAN.

FINAL WORK FOR THIS TASK INVOLVES ALL ANCILLARY ITEMS NECESSARY TO COMPLETE THE PROJECT INCLUDING FINAL PAVEMENT MARKINGS.

STOUGHTON ROAD RAMP CLOSURES

DURING NIGHTTIME CLOSURE OF US 51 EB AND WB ONRAMPS, PLACE A PCMS ON US 51 SB, SOUTH OF PFLAUM ROAD, DIRECTING TRAFFIC TO USE BROADWAY. DURING NIGHTTIME CLOSURE OF USH 12 EB TO US 51 EXIT RAMP, PLACE A PCMS ON USH 12 EB EAST OF SOUTH TOWNE DRIVE DIRECTING TRAFFIC TO USE MONONA DRIVE.

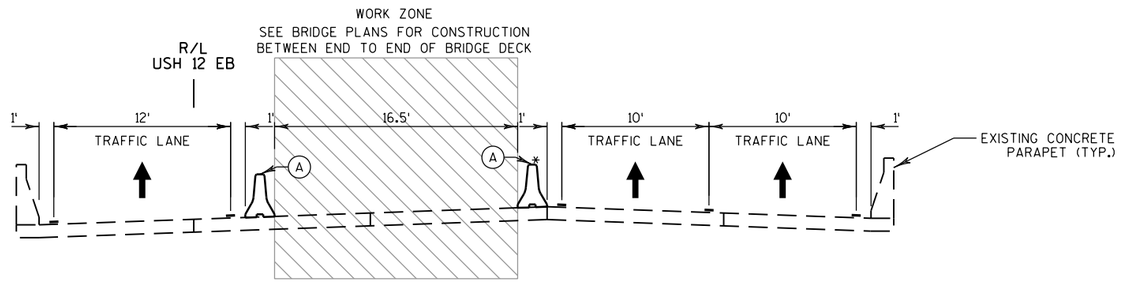
2



STAGING TYPICAL SECTION - STAGE 2

USH 12

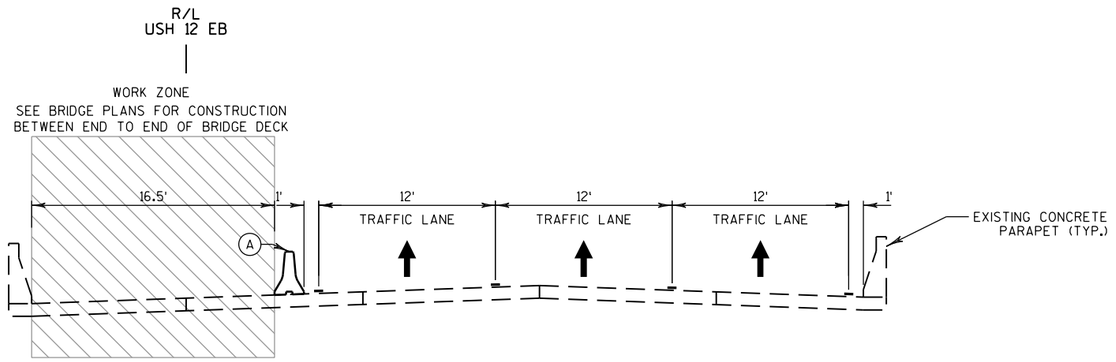
STA. E 177EB+80 - STA. E 181EB+35
STA. J 787WB+65 - STA. J 791WB+70
(EB SHOWN, WB SIMILAR)



STAGING TYPICAL SECTION - STAGE 3

USH 12

STA. E 177EB+80 - STA. E 181EB+35
STA. J 787WB+65 - STA. J 791WB+70
(EB SHOWN, WB SIMILAR)



STAGING TYPICAL SECTION - STAGE 4

USH 12

STA. E 177EB+80 - STA. E 181EB+35
STA. J 787WB+65 - STA. J 791WB+70
(EB SHOWN, WB SIMILAR)

LEGEND

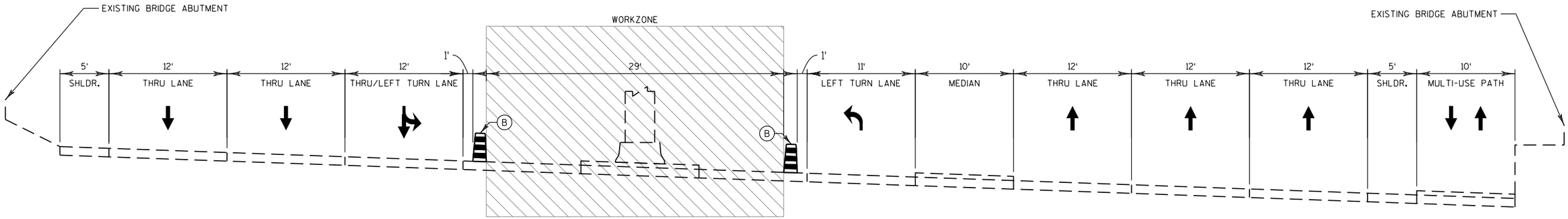
Ⓐ CONCRETE BARRIER TEMPORARY PRECAST

TRAFFIC FLOW

*GAP TEMPORARY BARRIER OVER JOINT USING TEMPORARY THRIE BEAM CONNECTION. REQUIRES WORKING UNDER BARRIER. CLOSE ADJACENT TRAFFIC LANE OVERNIGHT AS NEEDED.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: TRAFFIC CONTROL AT STOUGHTON ROAD	SHEET 87	E

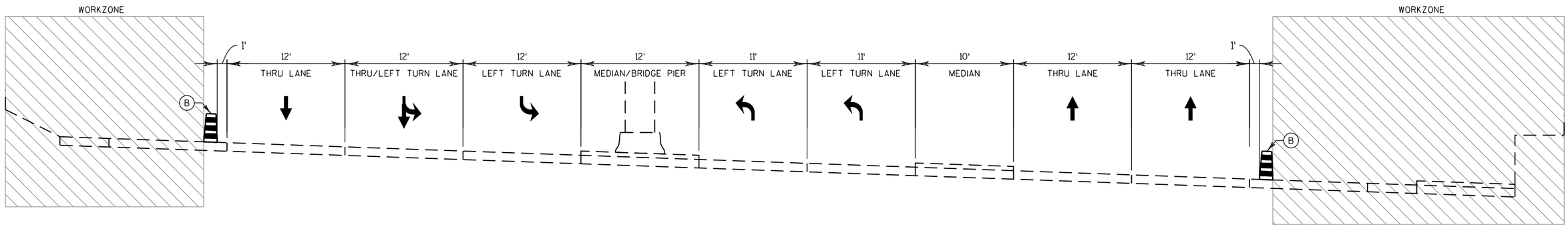
2



STAGING TYPICAL SECTION - NIGHTTIME MEDIAN PIER SURFACE REPAIRS

STOUGHTON RD

USH 12 BRIDGE REPAIR
(LOOKING NB)



STAGING TYPICAL SECTION - NIGHTTIME OUTSIDE SLOPE PAVING REPAIRS

STOUGHTON RD

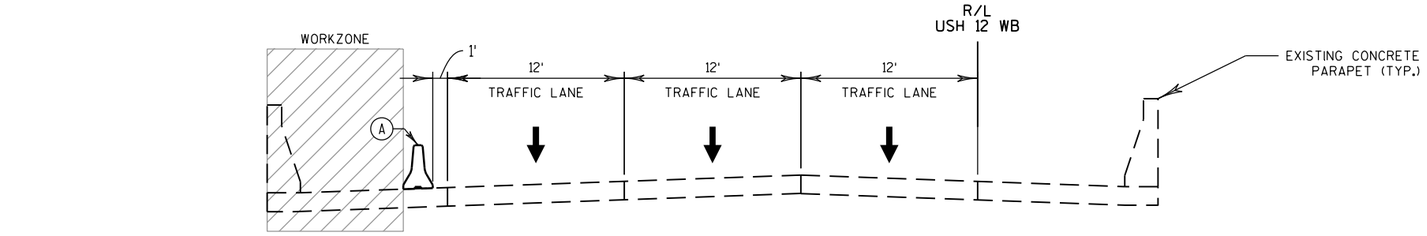
USH 12 BRIDGE REPAIR
(LOOKING NB)

LEGEND

Ⓑ DRUMS AT 50' SPACING

TRAFFIC FLOW

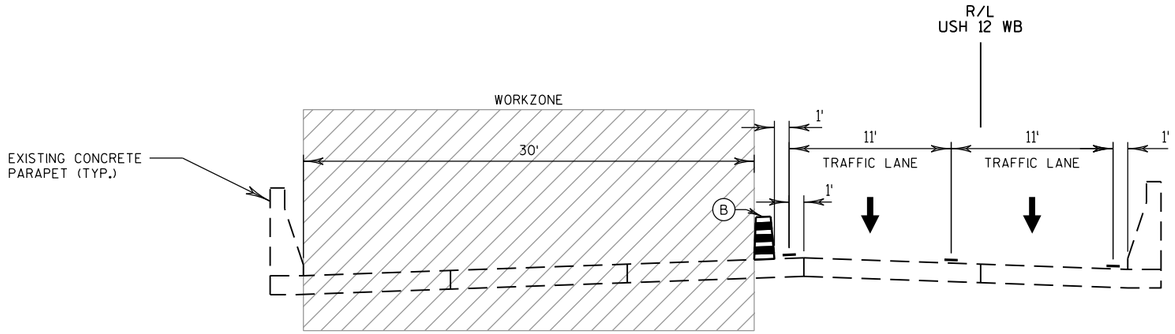
PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: TRAFFIC CONTROL AT STOUGHTON ROAD	SHEET 88	E



STAGING TYPICAL SECTION - STAGE A FOR NORTHWEST WINGWALL REPLACEMENT

USH 12

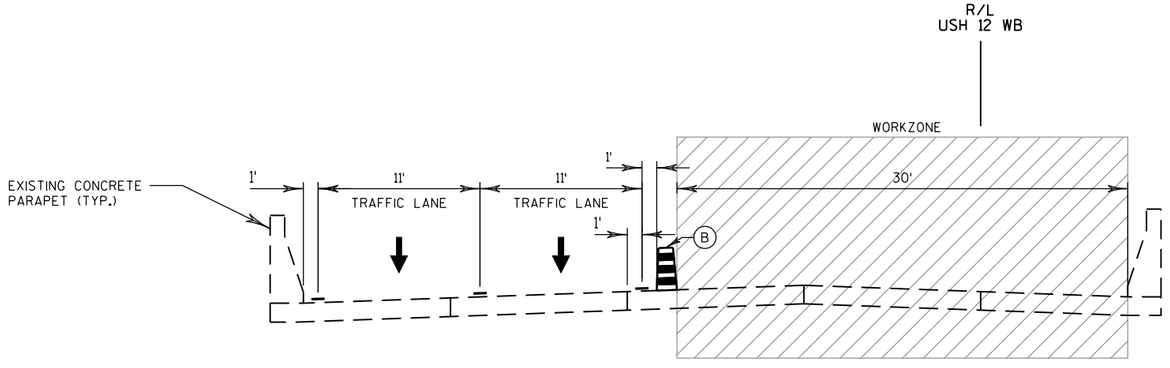
STA. 471WB+00 - STA. 478WB+00
(WB DIRECTION)



STAGING TYPICAL SECTION - STAGE B FOR APPROACH SLAB REPLACEMENT

USH 12

STA. 467EB+10 - STA. 475EB+05
STA. 471WB+30 - STA. 479WB+20
(WB SHOWN, EB SIMILAR)



STAGING TYPICAL SECTION - STAGE C FOR APPROACH SLAB REPLACEMENT

USH 12

STA. 467EB+10 - STA. 475EB+05
STA. 471WB+30 - STA. 479WB+20
(WB SHOWN, EB SIMILAR)

LEGEND

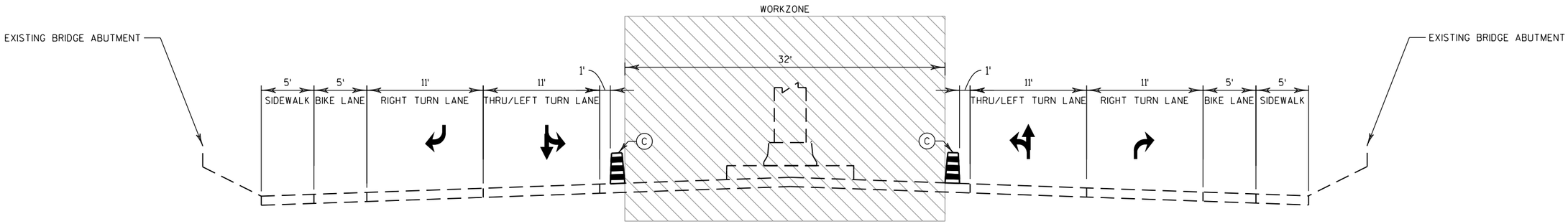
Ⓐ CONCRETE BARRIER TEMPORARY PRECAST

Ⓑ DRUMS AT 50' SPACING

TRAFFIC FLOW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: TRAFFIC CONTROL AT TODD DRIVE	SHEET 89	E

2



STAGING TYPICAL SECTION - NIGHTTIME MEDIAN PIER SURFACE REPAIRS

TODD DR

USH 12 BRIDGE REPAIR
(LOOKING NB)

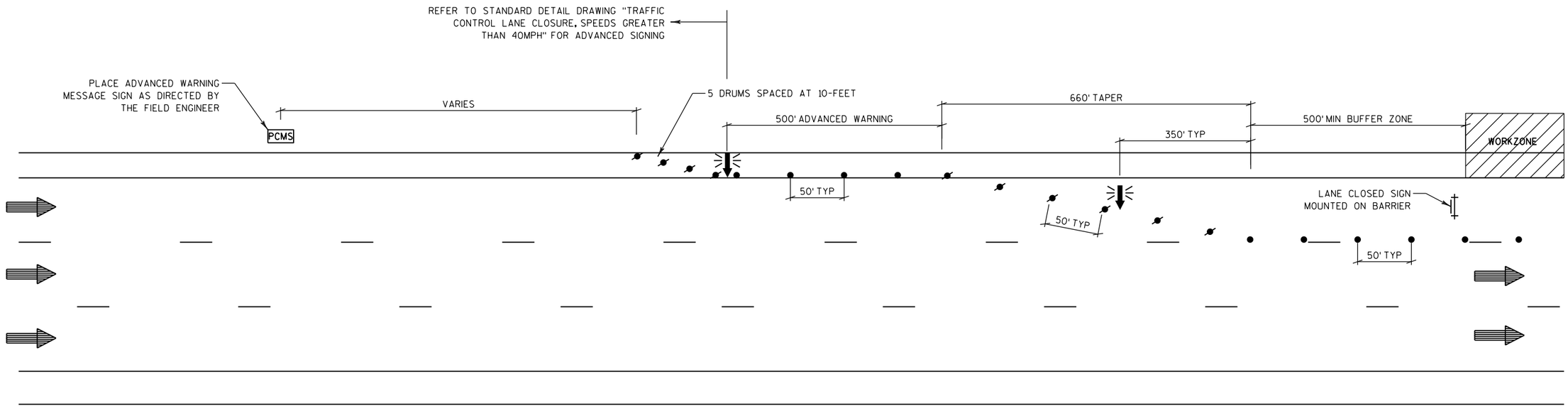
LEGEND

Ⓒ DRUMS AT 25' SPACING

TRAFFIC FLOW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TYPICAL SECTIONS: TRAFFIC CONTROL AT TODD DRIVE	SHEET 90	E

2



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS — TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- BARRICADE TYPE III, WITH SIGN

SINGLE LANE CLOSURE

TRAFFIC CONTROL NOTES

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

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

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

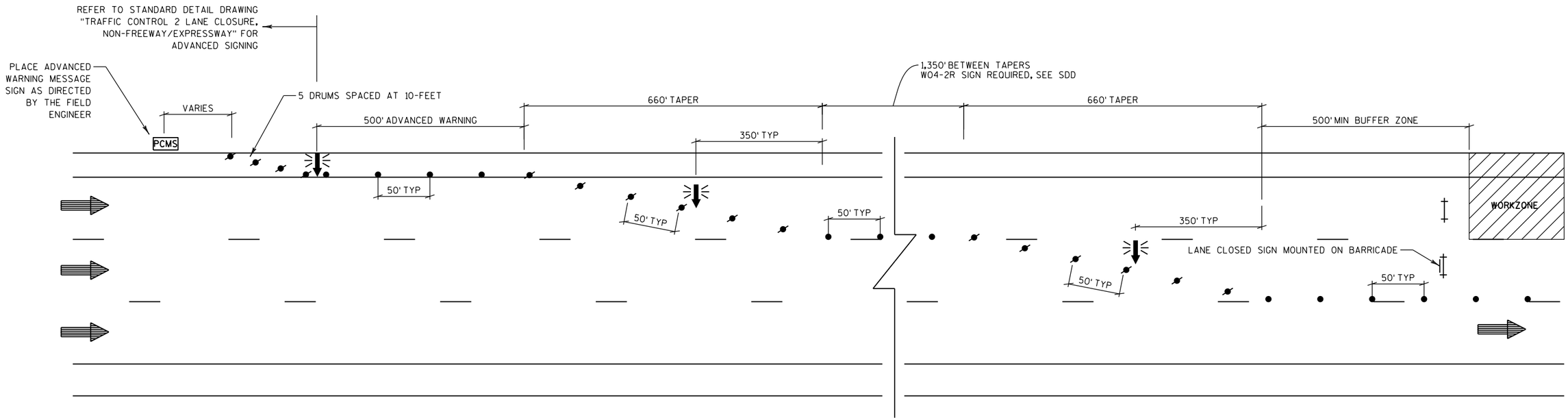
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH PREVIOUSLY PLACED TRAFFIC CONTROL SIGNS AND SHOULD PROVIDE A MINIMUM OF 200-FT CLEARANCE TO EXISTING SIGNS.

2



LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL ARROW BOARD
- DIRECTION OF TRAFFIC
- PCMS — TRAFFIC CONTROL SIGN PORTABLE CHANGEABLE MESSAGE
- BARRICADE TYPE III, WITH SIGN

DOUBLE LANE CLOSURE

TRAFFIC CONTROL NOTES

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

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

FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A WARNING LIGHT, TYPE C (STEADY BURN).

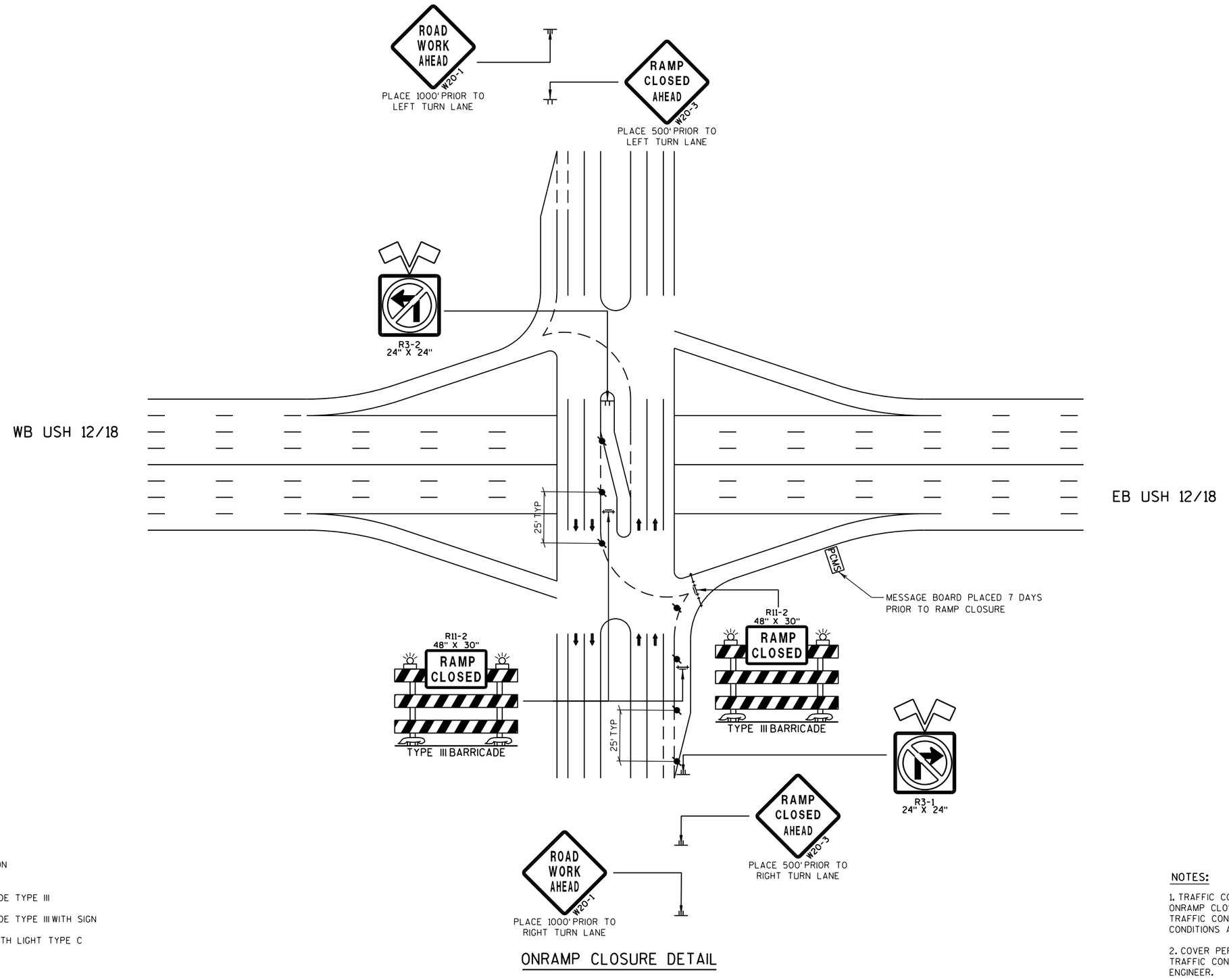
WHEN A RAMP INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR THE SPECIAL PROVISIONS OR AS DIRECTED BY THE ENGINEER.

PLACE A TYPE III BARRICADE APPROXIMATELY EVERY 1000' ACROSS THE CLOSED LANE TO HELP ENFORCE THE DRUM LINE.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE DRIVER HAS A CLEAR VIEW OF THE ARROWBOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500' IN FRONT OF DRUMS.

THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH PREVIOUSLY PLACED TRAFFIC CONTROL SIGNS AND SHOULD PROVIDE A MINIMUM OF 200-FT CLEARANCE TO EXISTING SIGNS.

2



ONRAMP CLOSURE DETAIL

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC FLOW ARROW

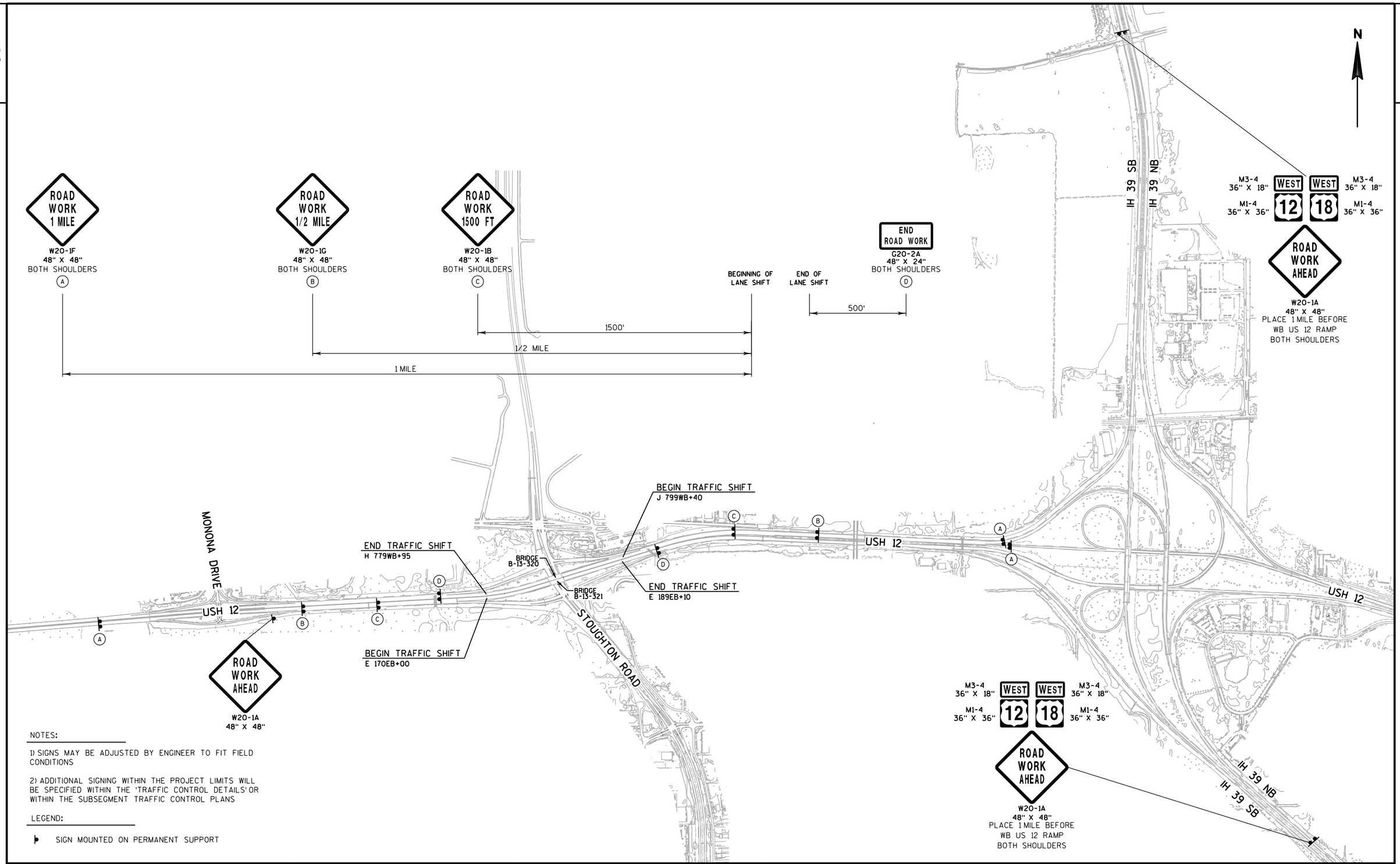
NOTES:

1. TRAFFIC CONTROL SHOWN IS FOR TYPICAL ONRAMP CLOSURE. ADJUST SIGN PLACEMENT AND TRAFFIC CONTROL DEVICES TO FIT THE SITE CONDITIONS AS DIRECTED BY THE ENGINEER.

2. COVER PERMANENT SIGNS IN CONFLICT WITH TRAFFIC CONTROL DEVICES, AS DIRECTED BY THE ENGINEER.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL CONSTRUCTION DETAILS	SHEET 93	E

2



NOTES:

1) SIGNS MAY BE ADJUSTED BY ENGINEER TO FIT FIELD CONDITIONS

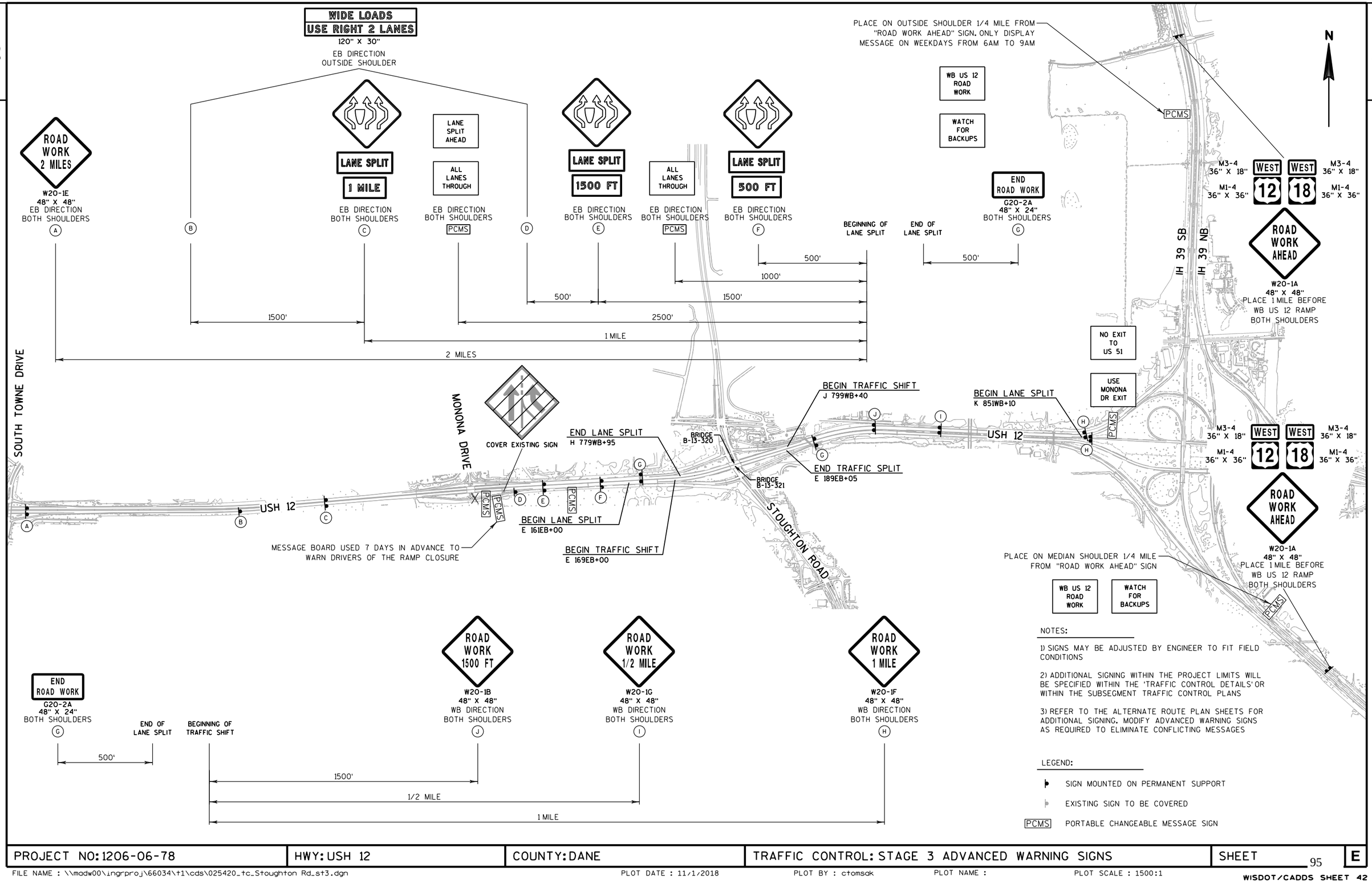
2) ADDITIONAL SIGNING WITHIN THE PROJECT LIMITS WILL BE SPECIFIED WITHIN THE 'TRAFFIC CONTROL DETAILS' OR WITHIN THE SUBSEGMENT TRAFFIC CONTROL PLANS

LEGEND:

SIGN MOUNTED ON PERMANENT SUPPORT

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STAGE 2 ADVANCED WARNING SIGNS	SHEET 94	E

2



NOTES:

1) SIGNS MAY BE ADJUSTED BY ENGINEER TO FIT FIELD CONDITIONS

2) ADDITIONAL SIGNING WITHIN THE PROJECT LIMITS WILL BE SPECIFIED WITHIN THE 'TRAFFIC CONTROL DETAILS' OR WITHIN THE SUBSEGMENT TRAFFIC CONTROL PLANS

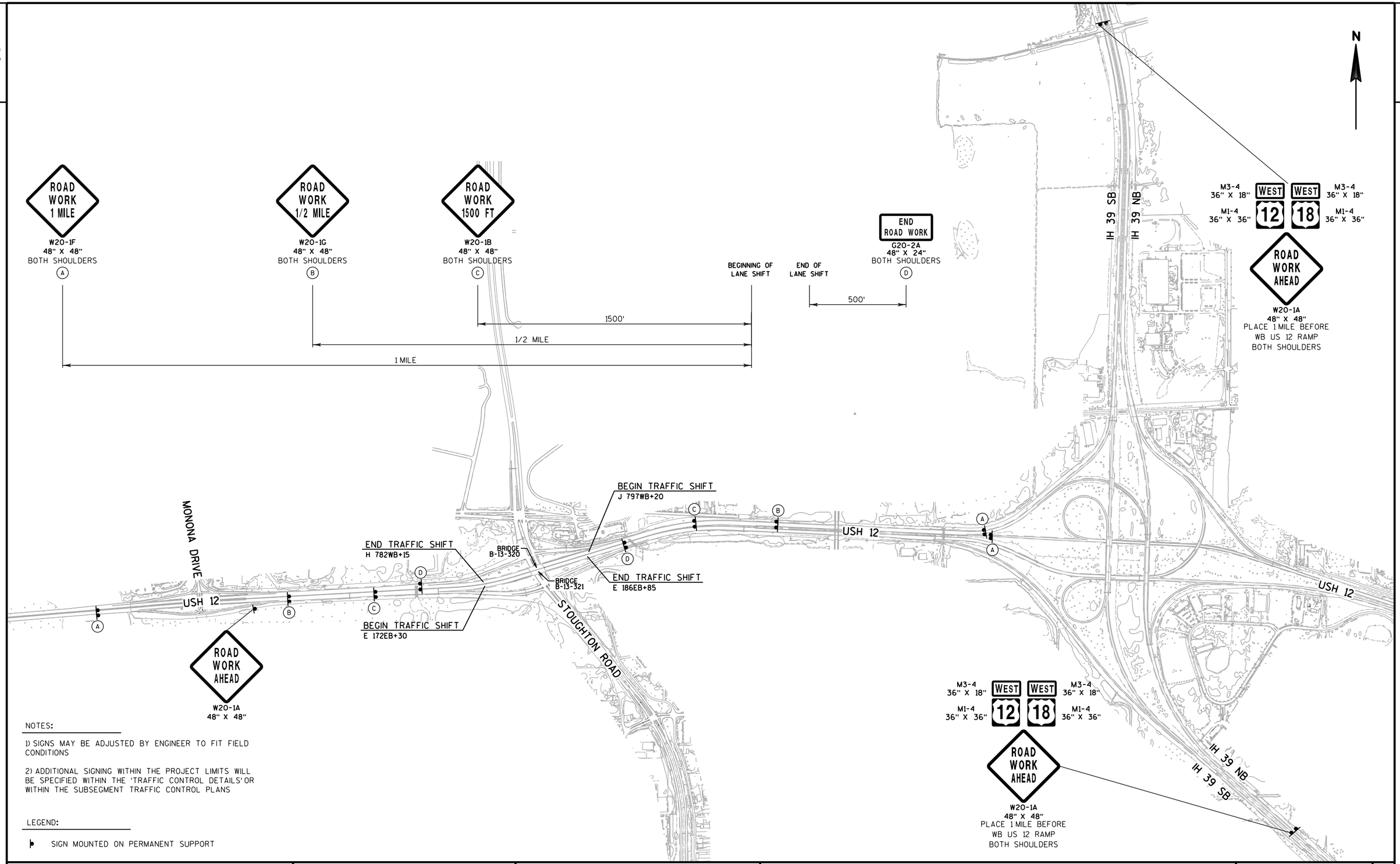
3) REFER TO THE ALTERNATE ROUTE PLAN SHEETS FOR ADDITIONAL SIGNING. MODIFY ADVANCED WARNING SIGNS AS REQUIRED TO ELIMINATE CONFLICTING MESSAGES

LEGEND:

- SIGN MOUNTED ON PERMANENT SUPPORT
- EXISTING SIGN TO BE COVERED
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STAGE 3 ADVANCED WARNING SIGNS	SHEET 95	E

2



NOTES:

1) SIGNS MAY BE ADJUSTED BY ENGINEER TO FIT FIELD CONDITIONS

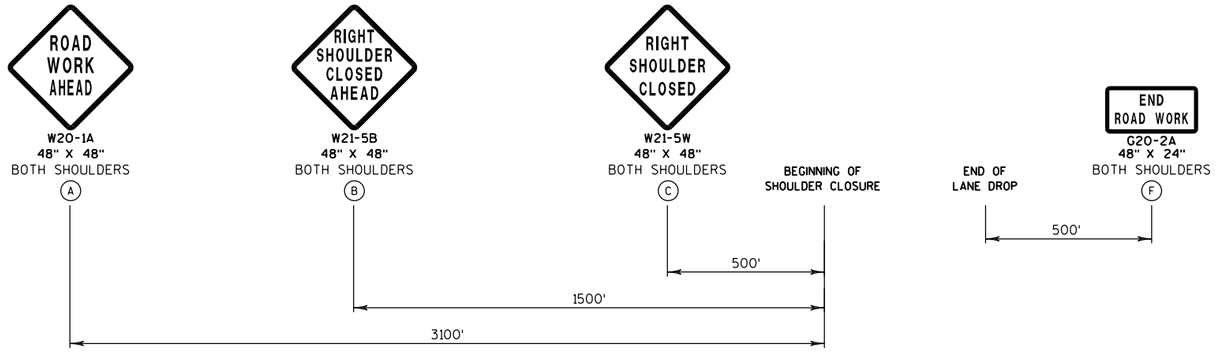
2) ADDITIONAL SIGNING WITHIN THE PROJECT LIMITS WILL BE SPECIFIED WITHIN THE 'TRAFFIC CONTROL DETAILS' OR WITHIN THE SUBSEGMENT TRAFFIC CONTROL PLANS

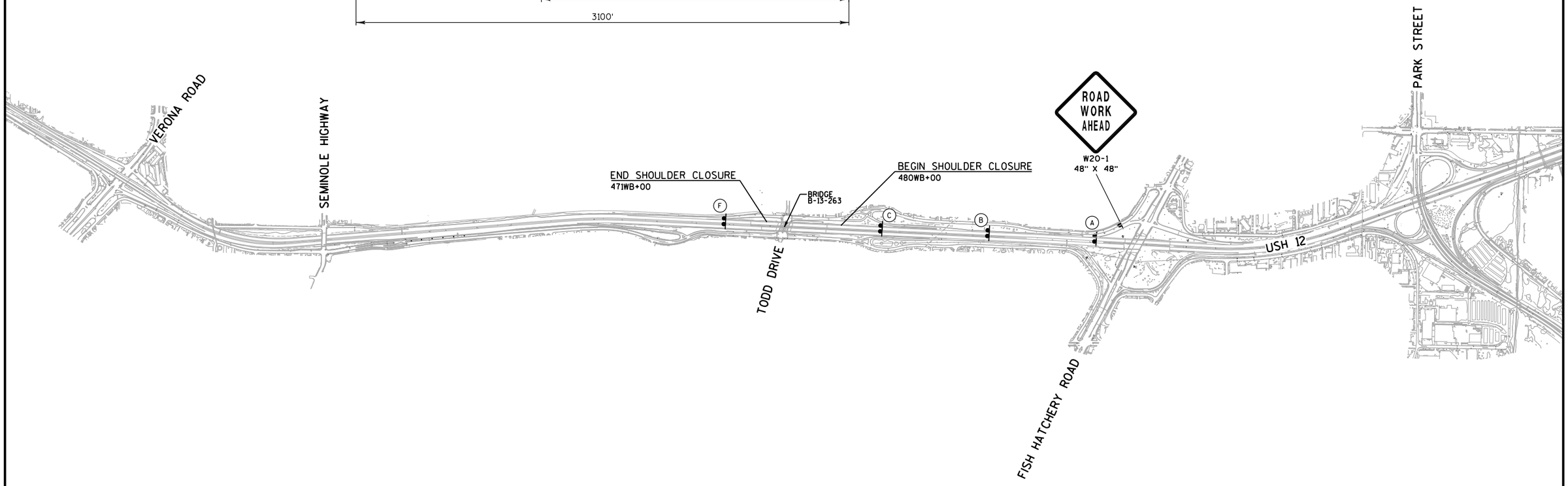
LEGEND:

SIGN MOUNTED ON PERMANENT SUPPORT

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STAGE 4 ADVANCED WARNING SIGNS	SHEET 96	E

2





NOTES:

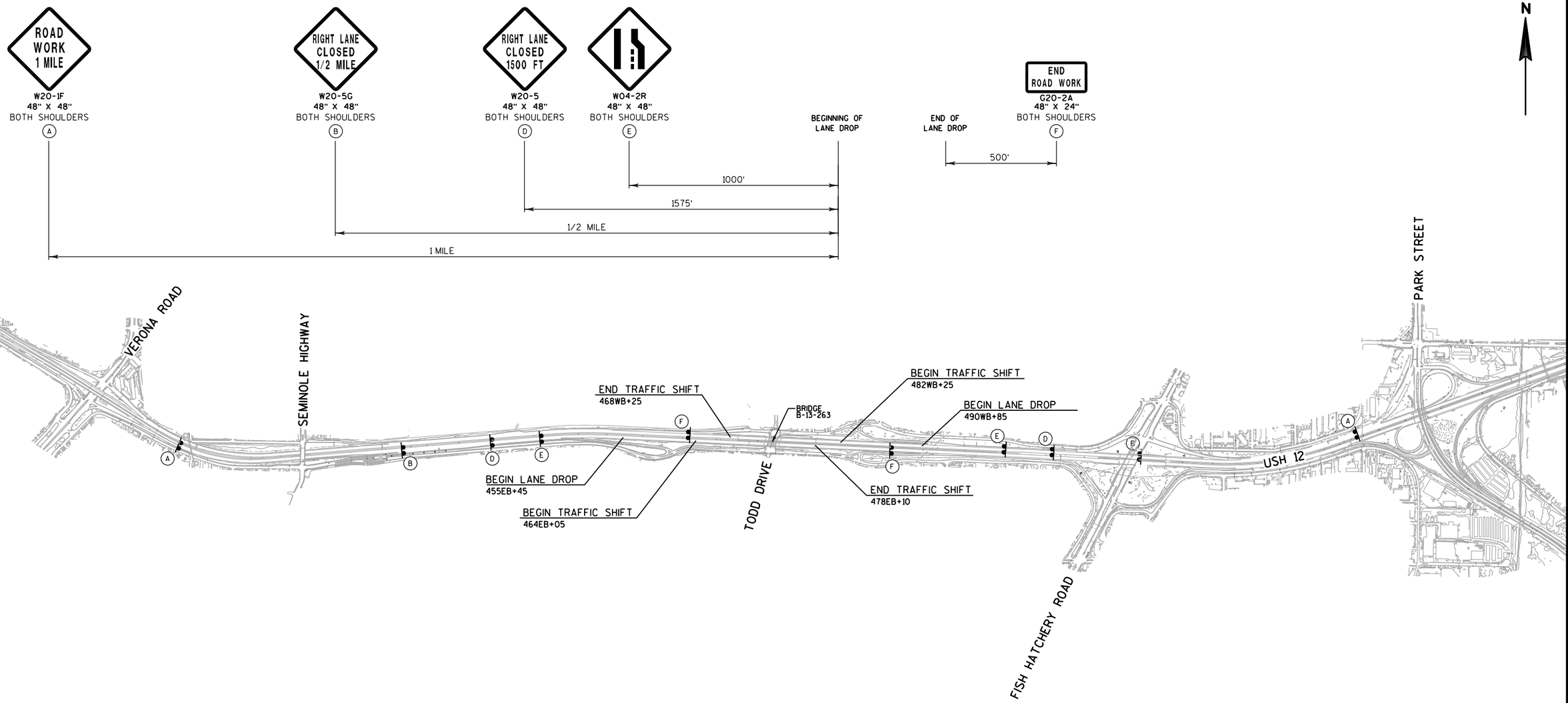
1) SIGNS MAY BE ADJUSTED BY ENGINEER TO FIT FIELD CONDITIONS

2) ADDITIONAL SIGNING WITHIN THE PROJECT LIMITS WILL BE SPECIFIED WITHIN THE 'TRAFFIC CONTROL DETAILS' OR WITHIN THE SUBSEGMENT TRAFFIC CONTROL PLANS

LEGEND:

SIGN MOUNTED ON PERMANENT SUPPORT

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STAGE A ADVANCED WARNING SIGNS	SHEET 97	E



NOTES:

1) SIGNS MAY BE ADJUSTED BY ENGINEER TO FIT FIELD CONDITIONS

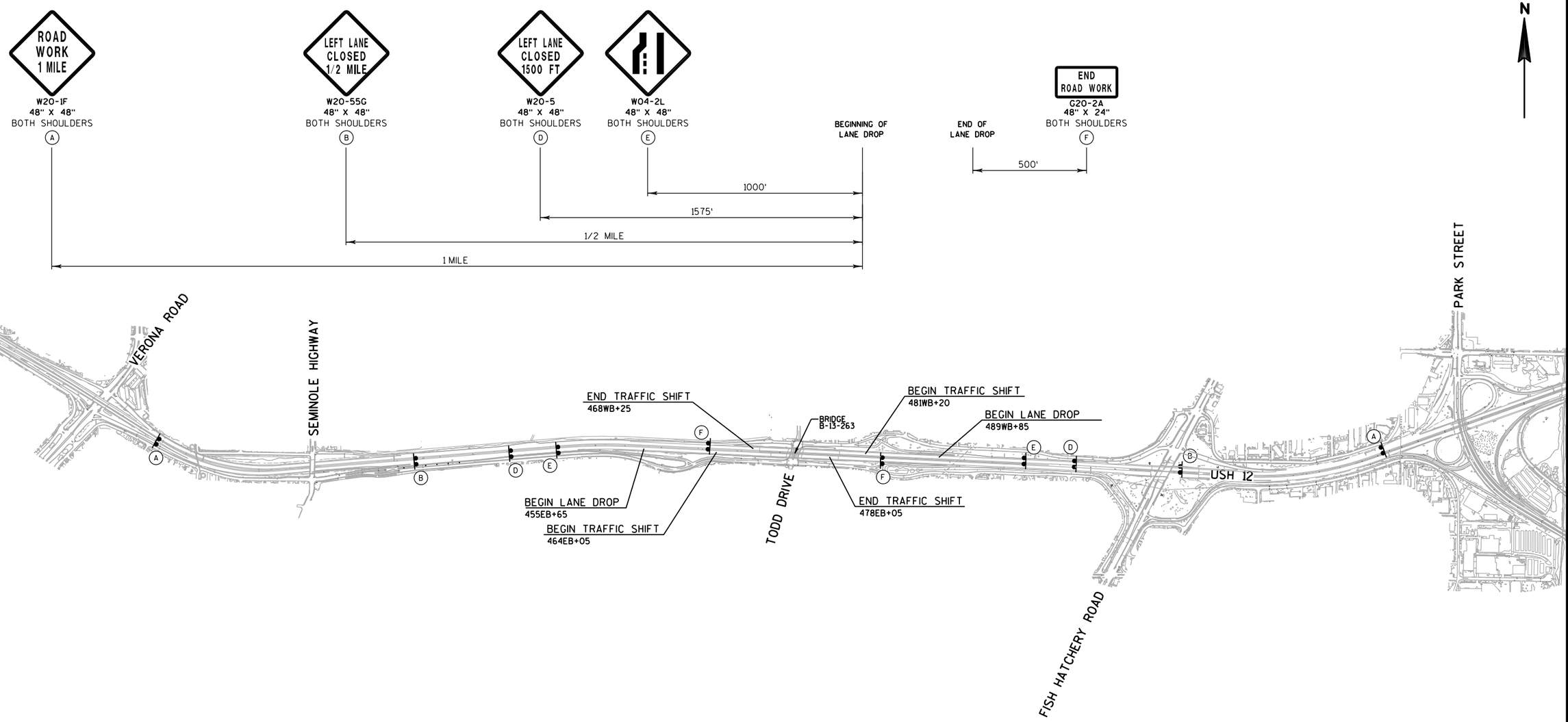
2) ADDITIONAL SIGNING WITHIN THE PROJECT LIMITS WILL BE SPECIFIED WITHIN THE 'TRAFFIC CONTROL DETAILS' OR WITHIN THE SUBSEGMENT TRAFFIC CONTROL PLANS

LEGEND:

▶ SIGN MOUNTED ON PERMANENT SUPPORT

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STAGE B ADVANCED WARNING SIGNS	SHEET 98	E

2



NOTES:

1) SIGNS MAY BE ADJUSTED BY ENGINEER TO FIT FIELD CONDITIONS

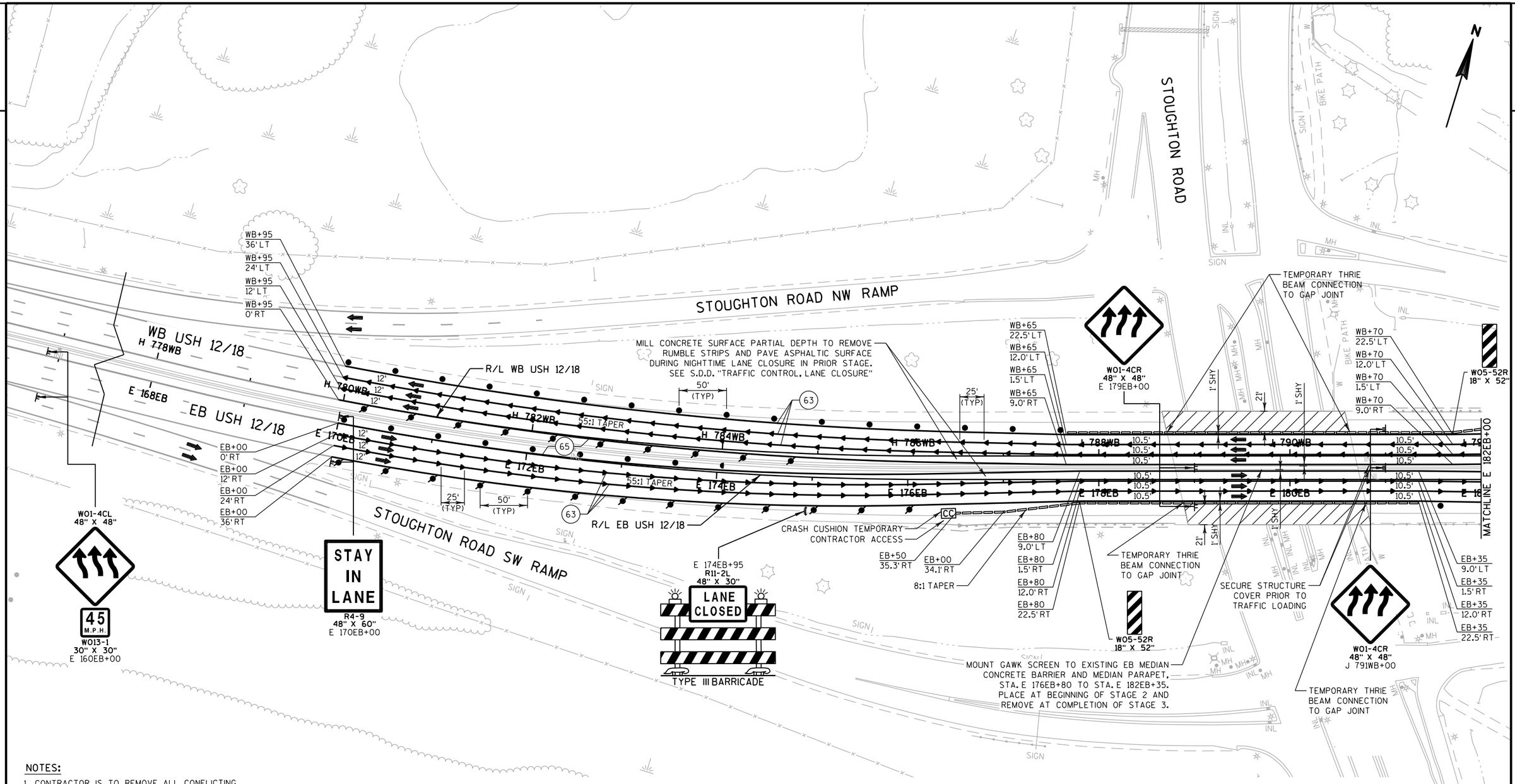
2) ADDITIONAL SIGNING WITHIN THE PROJECT LIMITS WILL BE SPECIFIED WITHIN THE 'TRAFFIC CONTROL DETAILS' OR WITHIN THE SUBSEGMENT TRAFFIC CONTROL PLANS

LEGEND:

SIGN MOUNTED ON PERMANENT SUPPORT

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STAGE C ADVANCED WARNING SIGNS	SHEET 99	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

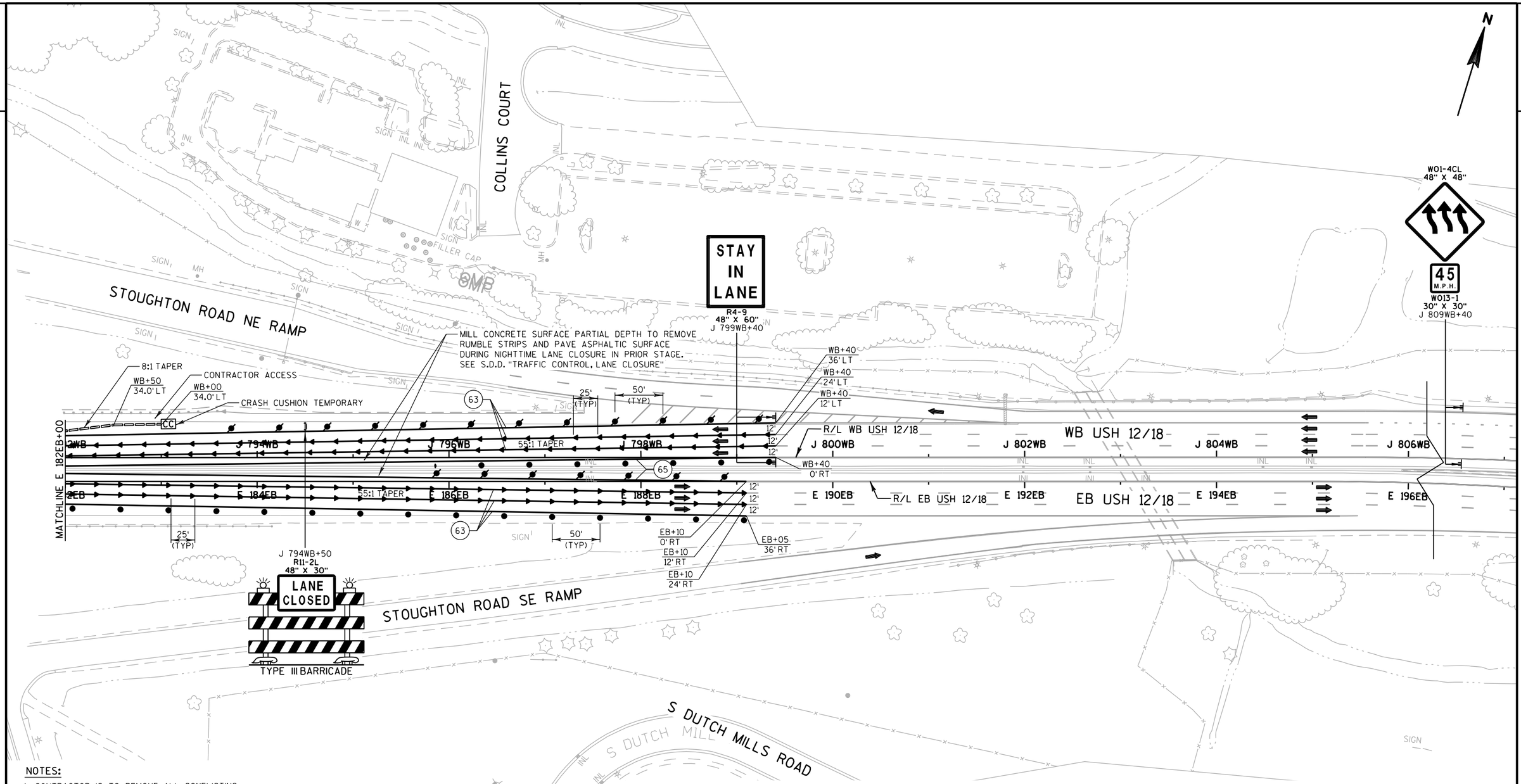
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- CONCRETE BARRIER TEMPORARY PRECAST WITH GAWK SCREEN
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

- (63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)
- (65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 2	SHEET 100	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- CONCRETE BARRIER TEMPORARY PRECAST WITH GAWK SCREEN
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

- (63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)
- (65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 2	SHEET 101	E

2

N

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE
J 810WB+60

E BROADWAY

100'
(TYP)

R/L WB USH 12/18

J 806WB

J 808WB

J 810WB

WB+00
13' LT

WB USH 12/18

J 812WB

J 814WB

50'
(TYP)

J 816WB

WB+30

E 196EB

E 198EB

E 200EB

E 202EB

EB USH 12/18

E 204EB

E 206EB

WB+15
25' LT

K 818WB

50'
(TYP)

F 50EB

K 82

F 5

MATCHLINE F 52EB+00

R/L EB USH 12/18

INL

MH

SIGN

FLAG

W

TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL BARRICADE TYPE III
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC FLOW ARROW

NOTES:

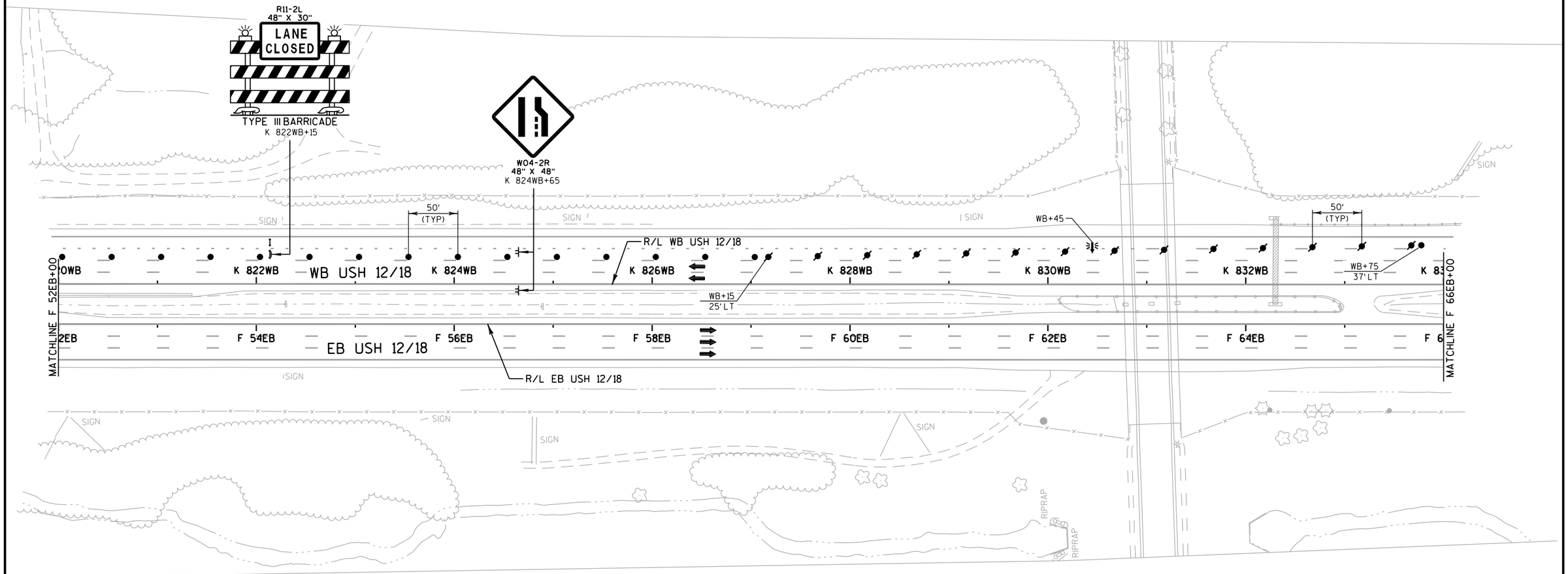
1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE," "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" AND "TRAFFIC CONTROL, RAMP WITHIN LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 2 LANE CLOSURES	SHEET 102	E

2

N



TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL BARRICADE TYPE III
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC FLOW ARROW

NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE," "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" AND "TRAFFIC CONTROL, RAMP WITHIN LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 2 LANE CLOSURES	SHEET 103	E

2

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE
K 838WB+85

W04-2R
48" X 48"
K 841WB+35

50' (TYP)

R/L WB USH 12/18

WB USH 12/18

K 836WB | K 838WB | K 840WB | K 842WB | K 844WB | K 846WB

WB+75
37' LT

76HSW | 78HSW | 80HS

HSW+35

MATCHLINE F 66EB+00

F 68EB | F 70EB | F 72EB | F 74EB | F 76EB | F 78EB | F 8

MATCHLINE F 80EB+00

EB USH 12/18

R/L EB USH 12/18

USH 12/18 EB TO
IH 39 SB RAMP

SIGN | NOIS | INL | ⊙MP | T.256

TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC FLOW ARROW

NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE," "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" AND "TRAFFIC CONTROL, RAMP WITHIN LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 2 LANE CLOSURES	SHEET 104	E

2

N

MATCHLINE 90HSW+00

IH 39 SB TO
USH 12/18 WB RAMP

88HSW

HSW+35

86HSW

50'
(TYP)

R/L IH 39 SB TO USH 12/18 WB

84HSW

50'
(TYP)

HSW

82HSW

T030
861.500

R/L WB USH 12/18

K 850WB

K 852WB

K 854WB

K 856WB

WB USH 12/18

K 858WB

MATCHLINE F 80EB+00

8WB

HSW+35
1'LT

OEB

F 82EB

F 84EB

F 86EB

F 88EB

EB USH 12/18

F 90EB

F 92EB

F 94EB

R/L EB USH 12/18

USH 12/18 EB TO
IH 39 SB RAMP

RIGHT
3 LANES
CLOSED
1500 FT

W20-5A-MOD
48" X 48"
K 863WB+75

RIGHT
3 LANES
CLOSED
1/2 MILE

W20-5A-MOD
48" X 48"
K 875WB+15

RIGHT
3 LANES
CLOSED
1 MILE

W20-5A-MOD
48" X 48"
K 901WB+55

ROAD
WORK
2 MILES

W20-1E
48" X 48"
L 954WB+35

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC FLOW ARROW

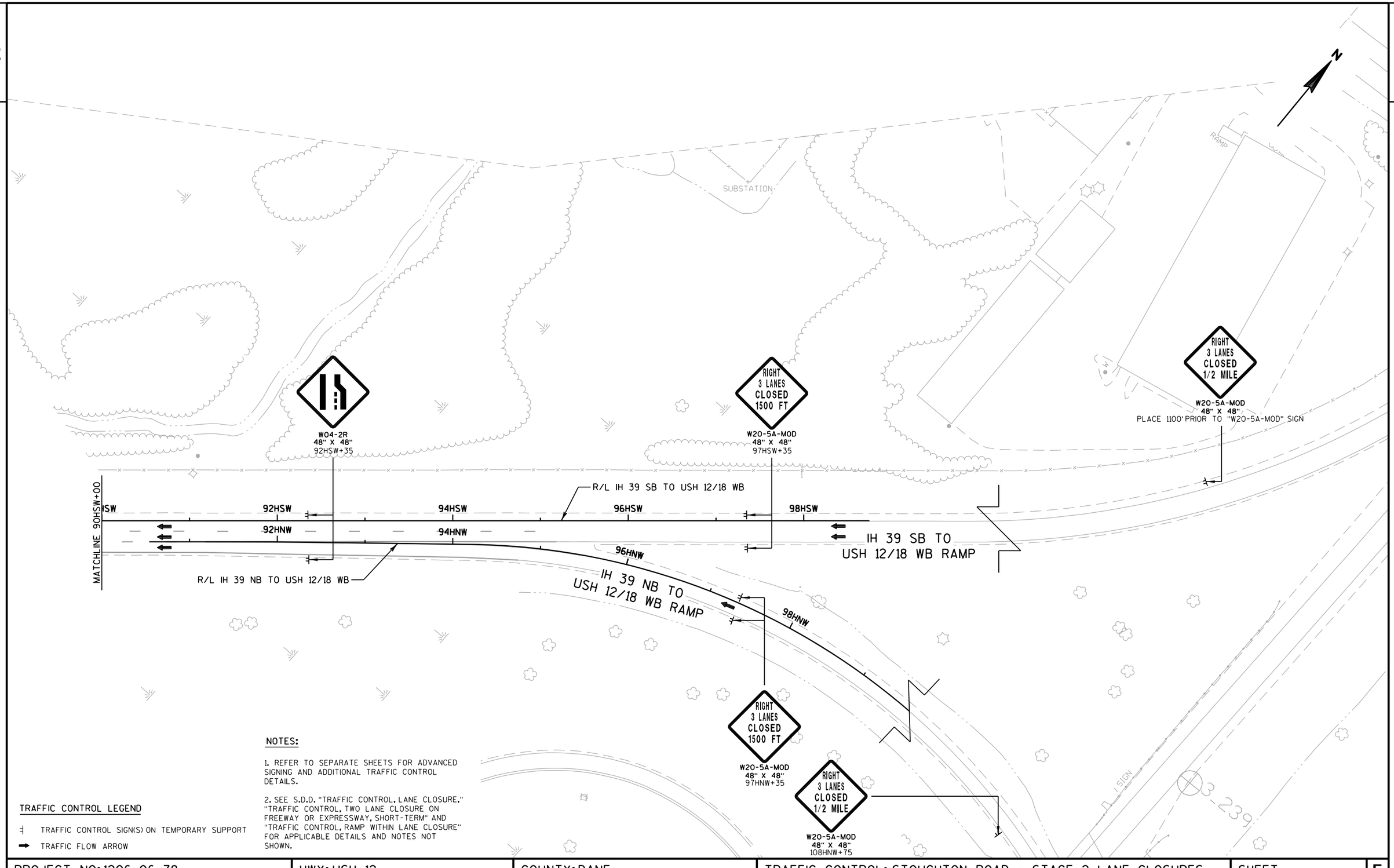
NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE," "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" AND "TRAFFIC CONTROL, RAMP WITHIN LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 2 LANE CLOSURES	SHEET 105	E

2



NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE," "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" AND "TRAFFIC CONTROL, RAMP WITHIN LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 2 LANE CLOSURES	SHEET 106	E

2

N

W01-4L
48" X 48"

45
M.P.H.

W013-1
30" X 30"
E 159EB+00

SIGN

SIGN

SIGN

SIGN

W

H 762WB

H 764WB

H 766WB

R/L WB USH 12/18

H 768WB

H 770WB

WB USH 12/18

H 772WB

H 774WB

H 776WB

INL INL INL

INL INL INL

E 152EB

E 154EB

E 156EB

R/L EB USH 12/18

E 158EB

E 160EB

EB+00
12° RT

C

E 162EB

C

E 164EB

C

E 166EB

C

EB USH 12/18

MATCHLINE E 167EB+00

SIGN

W

W01-4BR
48" X 48"

45
M.P.H.

W013-1
30" X 30"
E 159EB+00

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

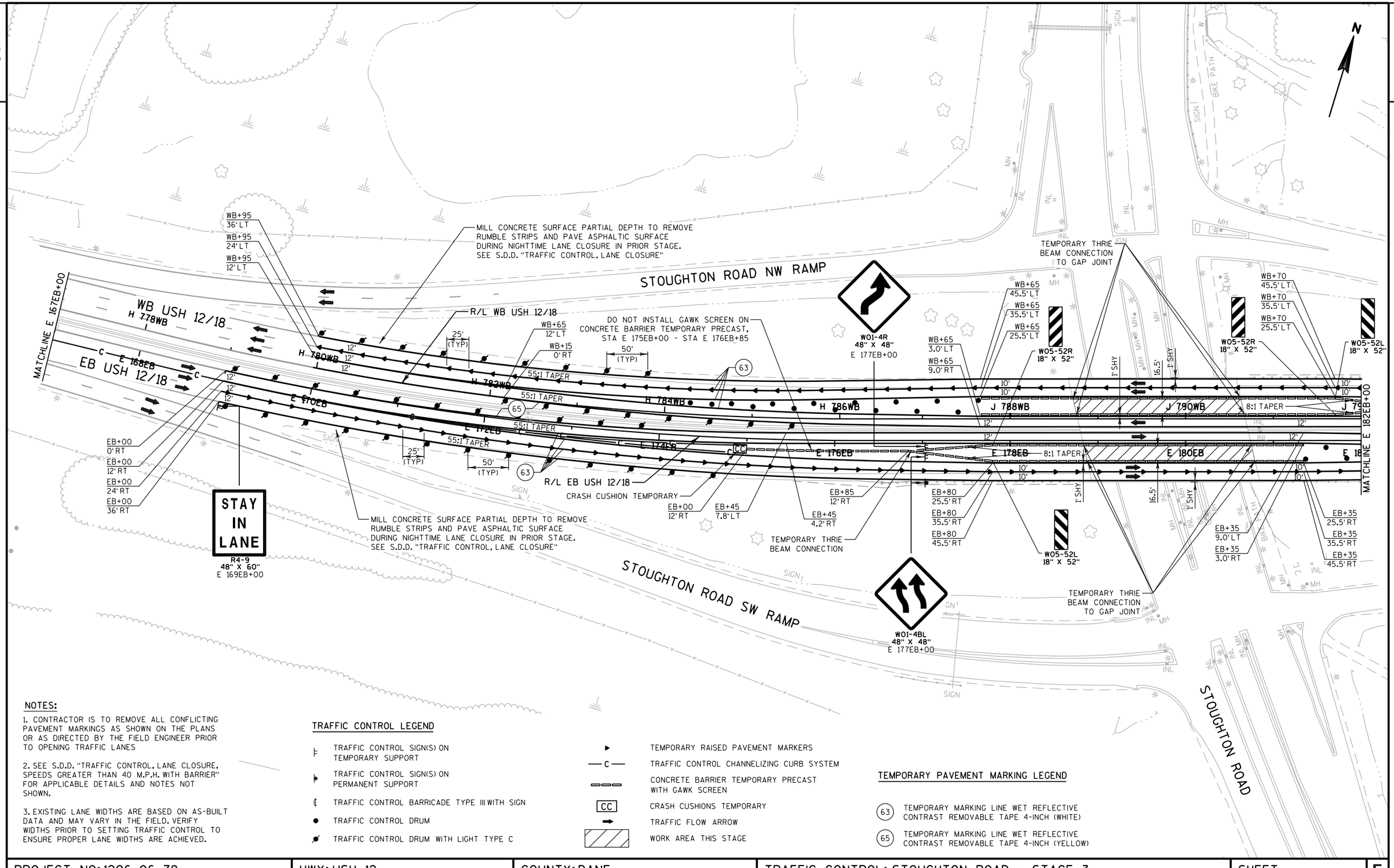
TRAFFIC CONTROL LEGEND

— C — TRAFFIC CONTROL CHANNELIZING CURB SYSTEM

➡ TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3	SHEET 107	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

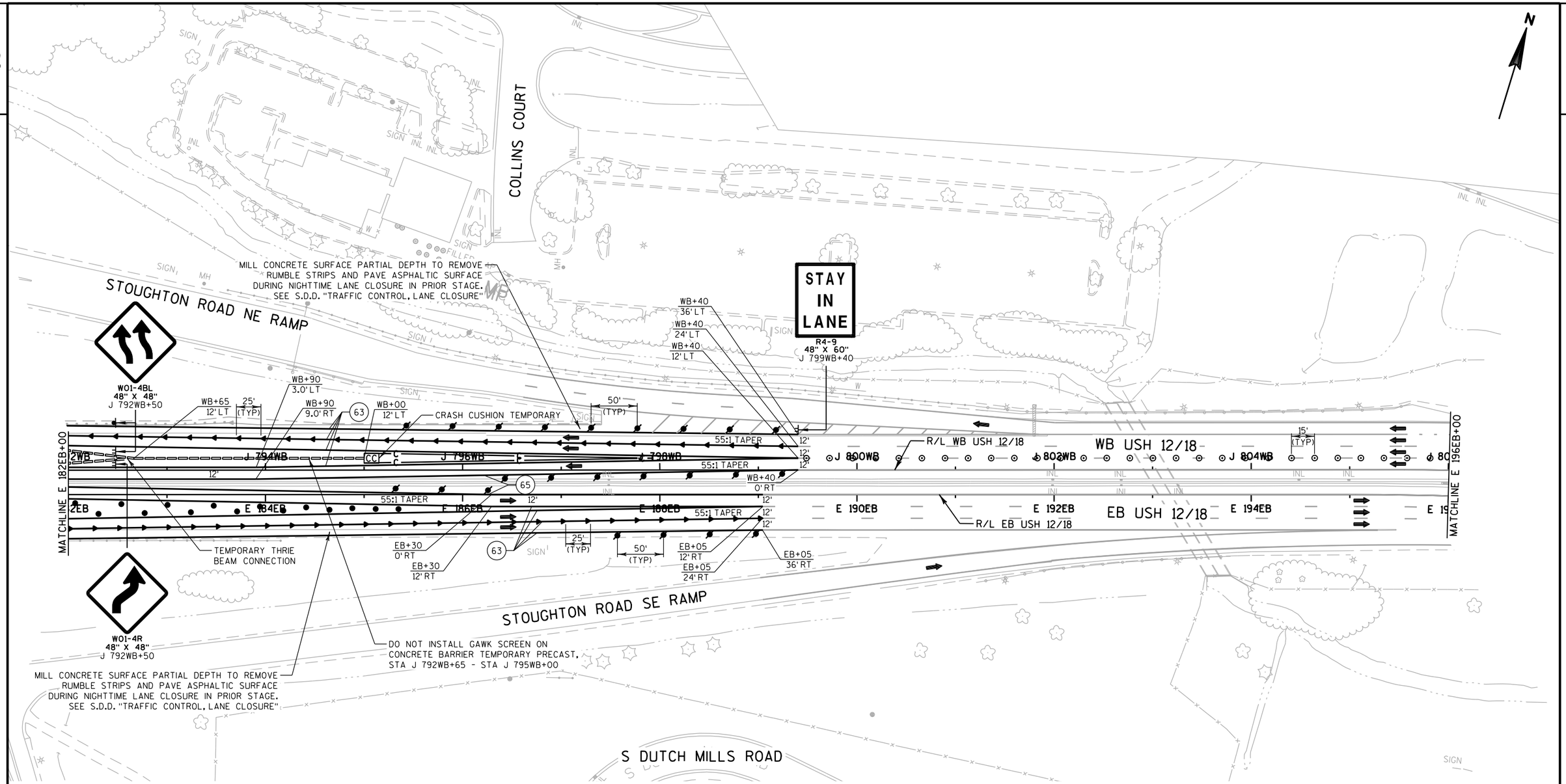
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- C — TRAFFIC CONTROL CHANNELIZING CURB SYSTEM
- CONCRETE BARRIER TEMPORARY PRECAST WITH GAWK SCREEN
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

- (63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)
- (65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3	SHEET 108	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

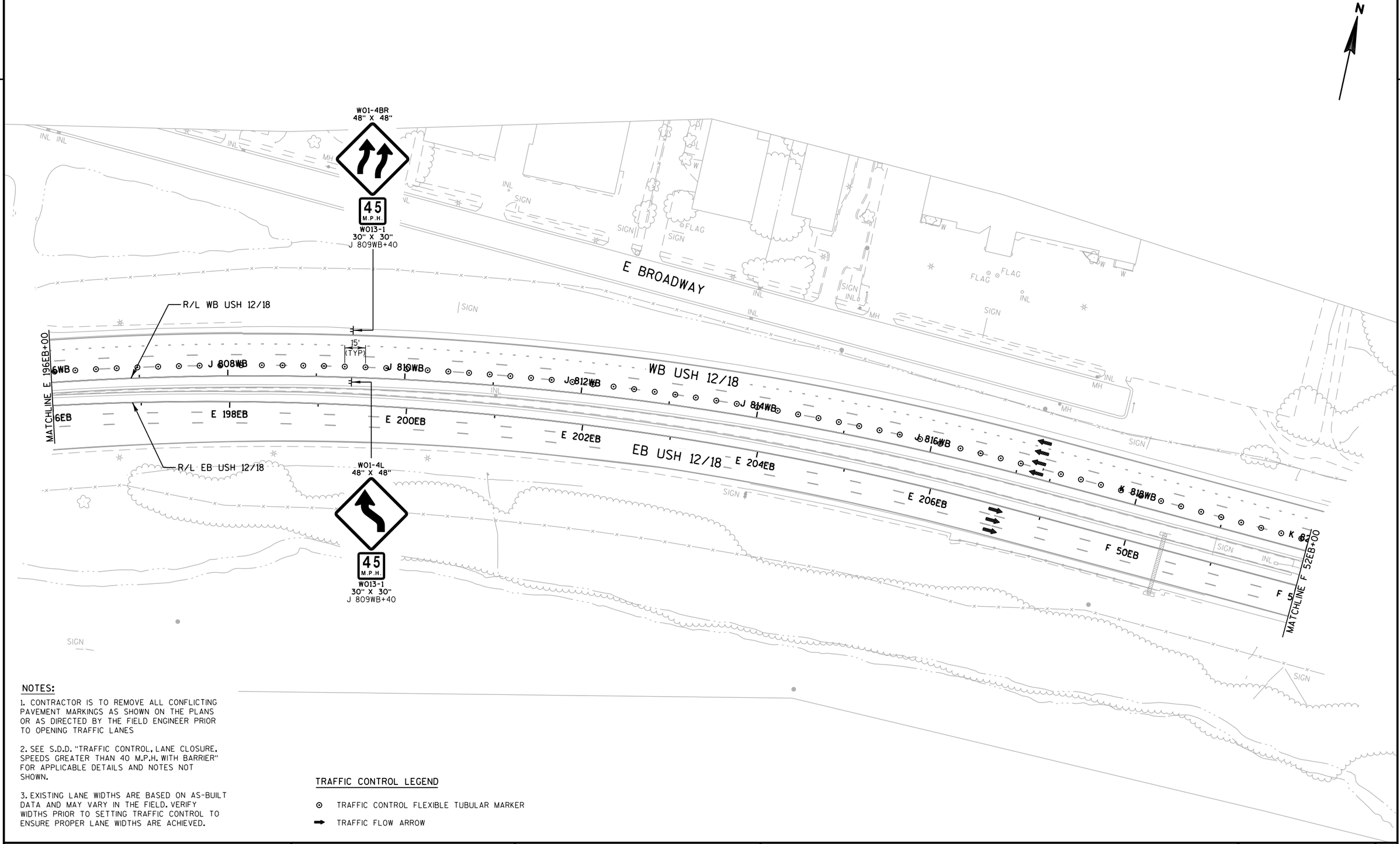
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- TEMPORARY RAISED PAVEMENT MARKERS
- — C — TRAFFIC CONTROL CHANNELIZING CURB SYSTEM
- CONCRETE BARRIER TEMPORARY PRECAST WITH GAWK SCREEN
- CC CRASH CUSHIONS TEMPORARY
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

- (63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)
- (65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3	SHEET 109	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

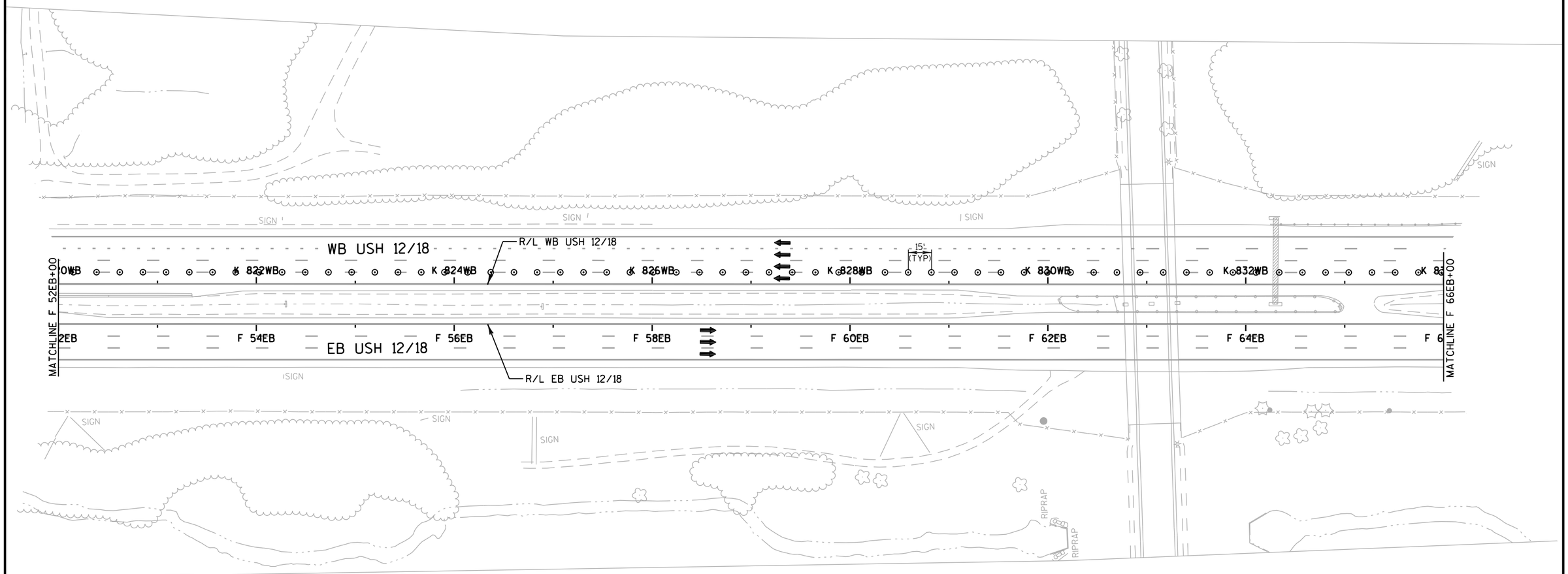
TRAFFIC CONTROL LEGEND

⊙ TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER

➡ TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3	SHEET 110	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

⊙ TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER

➡ TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3	SHEET 111	E

2

N

R/L WB USH 12/18

WB USH 12/18

15' (TYP)

K 836WB K 838WB K 840WB K 842WB K 844WB K 846WB K 84

MATCHLINE F 66EB+00

F 66EB F 68EB F 70EB F 72EB F 74EB F 76EB F 78EB F 8

MATCHLINE F 80EB+00

EB USH 12/18

R/L EB USH 12/18

USH 12/18 EB TO IH 39 SB RAMP

SIGN

INL

NOIS

MP

1256

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

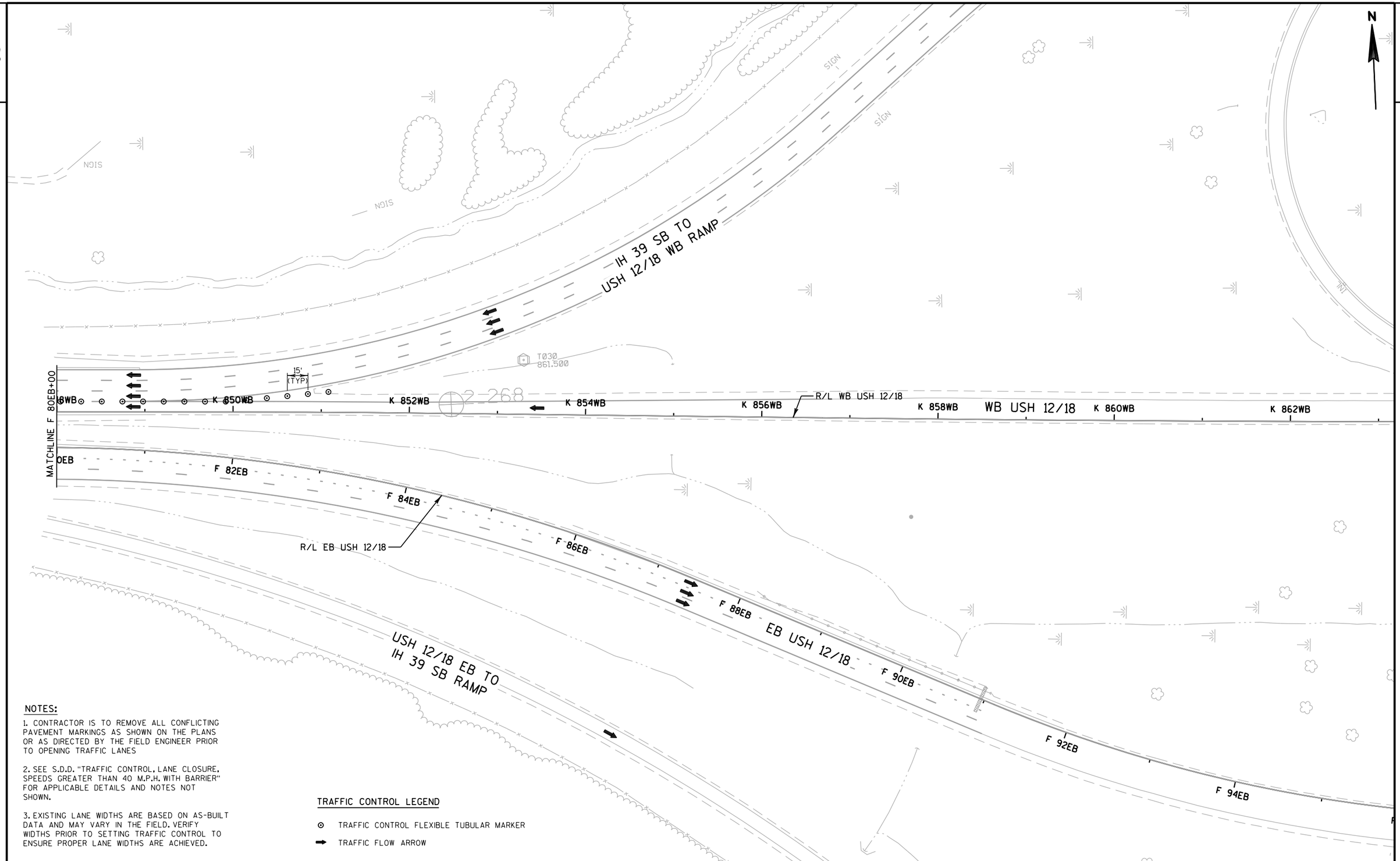
TRAFFIC CONTROL LEGEND

⊙ TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER

➡ TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3	SHEET 112	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

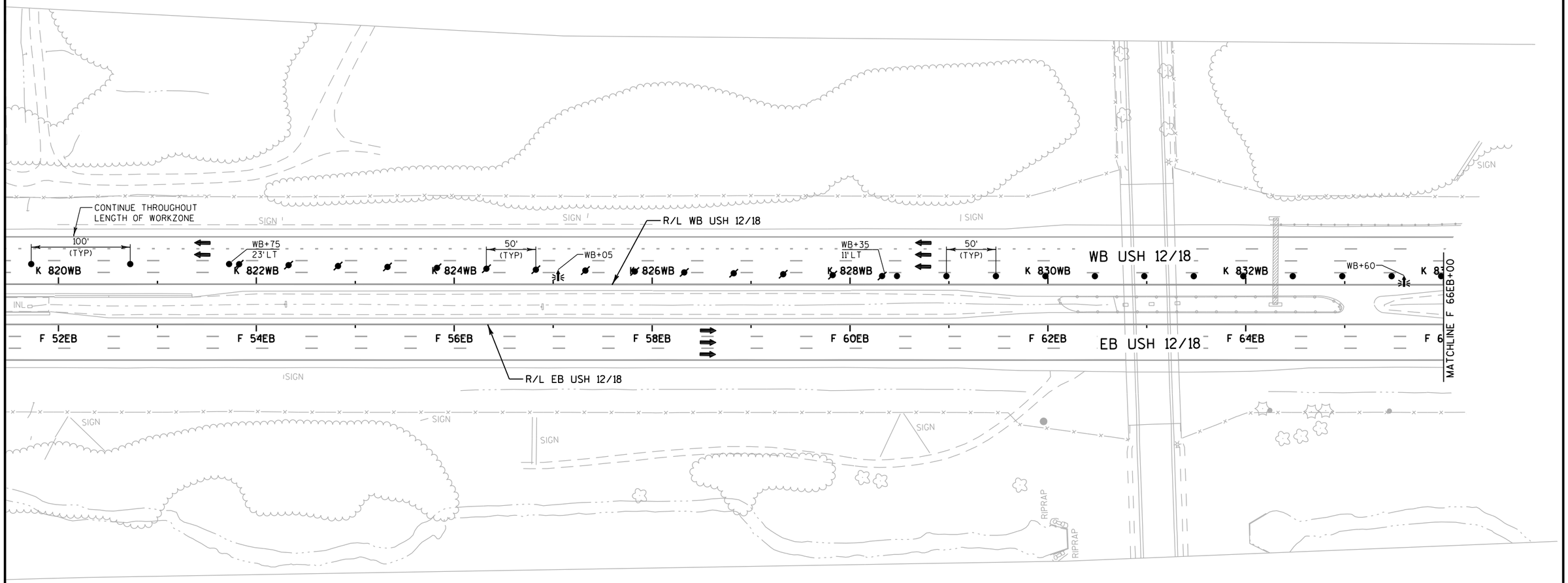
- TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER
- TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\026207_st3_Stoughton Rd.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

2

N



TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC FLOW ARROW

NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE," "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" AND "TRAFFIC CONTROL, RAMP WITHIN LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3 LANE CLOSURES	SHEET 114	E

2

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE
K 835WB+10

W04-2L
48" X 48"
K 838WB+35

LEFT LANE CLOSED 1500 FT
W20-55B
48" X 48"
K 844WB+10

R/L WB USH 12/18

WB USH 12/18

50' (TYP)

K 834WB K 836WB K 838WB K 840WB K 842WB K 844WB K 846WB

76HSW 78HSW 80HS

MATCHLINE F 66EB+00

F 66EB F 68EB F 70EB F 72EB F 74EB F 76EB F 78EB F 8

74HES 76HES 78HES 80HES

MATCHLINE F 80EB+00

EB USH 12/18

R/L EB USH 12/18

USH 12/18 EB TO IH 39 SB RAMP

1256

SIGN

INL

NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE," "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" AND "TRAFFIC CONTROL, RAMP WITHIN LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3 LANE CLOSURES	SHEET 115	E

2

N

MATCHLINE 90HSW+00

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE
K 848WB+30

88HSW
86HSW
84HSW
82HSW
HSW
IH 39 SB TO
USH 12/18 WB RAMP

50'
(TYP)

K 848WB
K 850WB
K 852WB
K 854WB
K 856WB
K 858WB
K 860WB
K 862WB
WB USH 12/18

LANE CLOSED
R/L WB USH 12/18
WB+00
11' LT

MATCHLINE F 80EB+00
F 82EB
F 84EB
F 86EB
F 88EB
F 90EB
F 92EB
F 94EB
EB USH 12/18
R/L EB USH 12/18

82HES
84HES
86HES
88HES
USH 12/18 EB TO
IH 39 SB RAMP

T030
861.500

NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

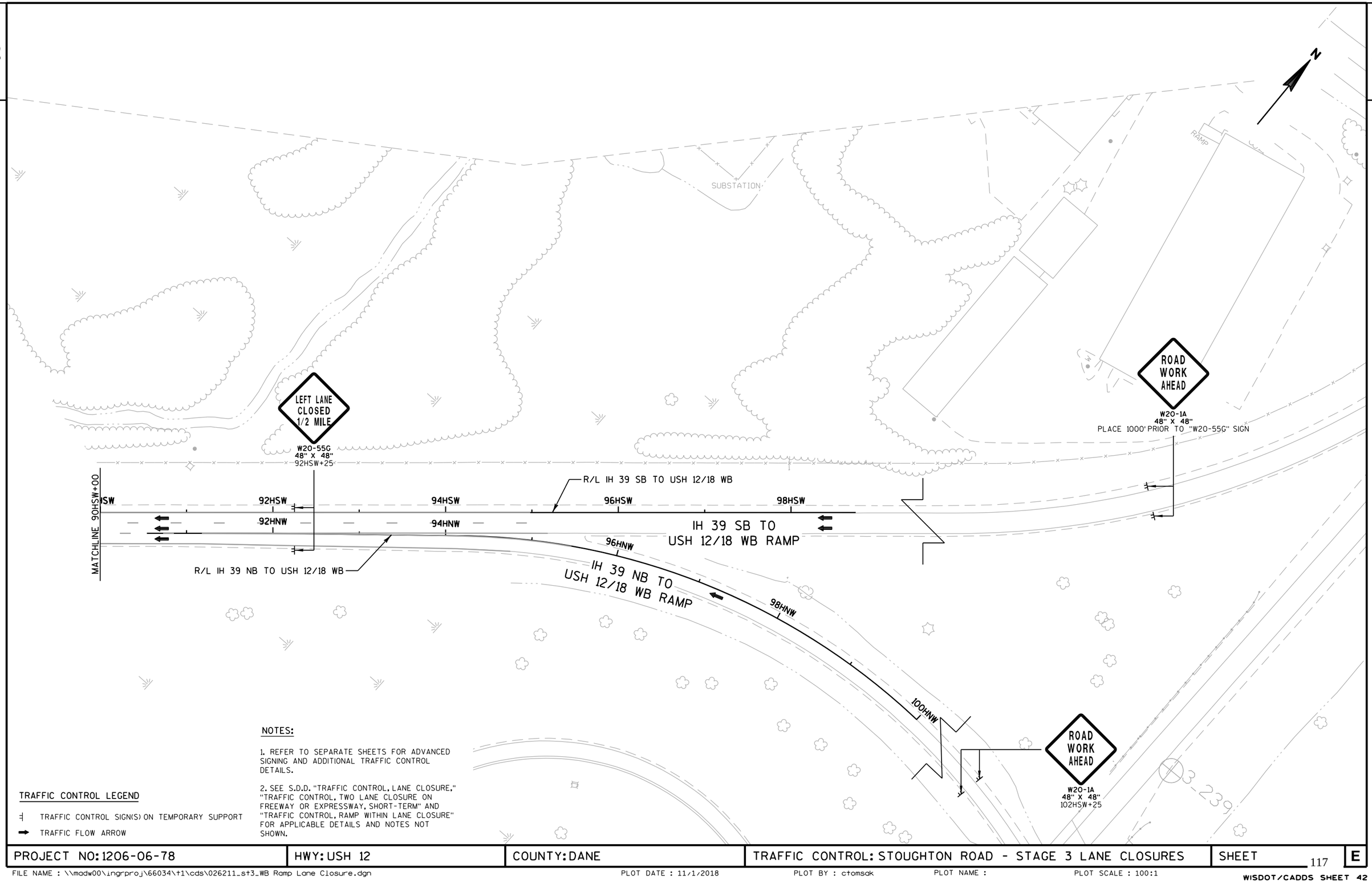
2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE," "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" AND "TRAFFIC CONTROL, RAMP WITHIN LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- ➡ TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3 LANE CLOSURES	SHEET 116	E

2



NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE," "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" AND "TRAFFIC CONTROL, RAMP WITHIN LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3 LANE CLOSURES	SHEET 117	E

2

N

USH 12/18 WB TO
IH 39 SB RAMP

IH 39 NB TO
USH 12/18 WB RAMP

108HNW

MNH011

112HNW

END
ROAD WORK
G20-2A
48" X 24"

RIPRAP

SIGN

INL

3_238

K 862WB WB USH 12/18 K 864WB K 866WB K 868WB K 870WB K 872WB K 874WB K 876WB

MATCHLINE K 877WB+00

WB+00
11' LT

25'
(TYP)

50'
(TYP)

R11-2L
48" X 30"
LANE
CLOSED
TYPE III BARRICADE
K 864WB+25

R11-2L
48" X 30"
LANE
CLOSED
TYPE III BARRICADE
K 871WB+15

IH 39 SB

IH 39 NB

USH 12/18 EB TO
IH 39 NB RAMP

110HEN

108HEN

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL BARRICADE TYPE III
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN
- TRAFFIC FLOW ARROW

NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3 LANE CLOSURES	SHEET 118	E

2

2

N

112HWN

120HEN

118HEN

116HEN

114HWN

USH 12/18 WB TO
IH 39 NB RAMP

4_008

WB US 12
CLOSED

USE
EXIT TO
SB IH 39

K 883WB+50

PCMS

118HWN

120HWN

122HWN

124HWN

MATCHLINE K 877WB+00

T028
865.960

K 878WB

WB+30

K 880WB

K 882WB

50'
(TYP)

WB+60
1' RT

K 884WB

K 886WB

WB USH 12/18

50'
(TYP)

WB+60

K 888WB

WB+35
1' RT

USH 12/18 EB TO
IH 39 NB RAMP

114HEN

RIPRAP

112HEN

LEFT LANE
CLOSED
1500 FT

W20-55B
48" X 48"
K 897WB+60

ROAD
WORK
1 MILE

W20-1
48" X 48"
L 935WB+40

W04-2L
48" X 48"
K 892WB+60

LEFT LANE
CLOSED
1/2 MILE

W20-55G
48" X 48"
L 909WB+00

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC FLOW ARROW

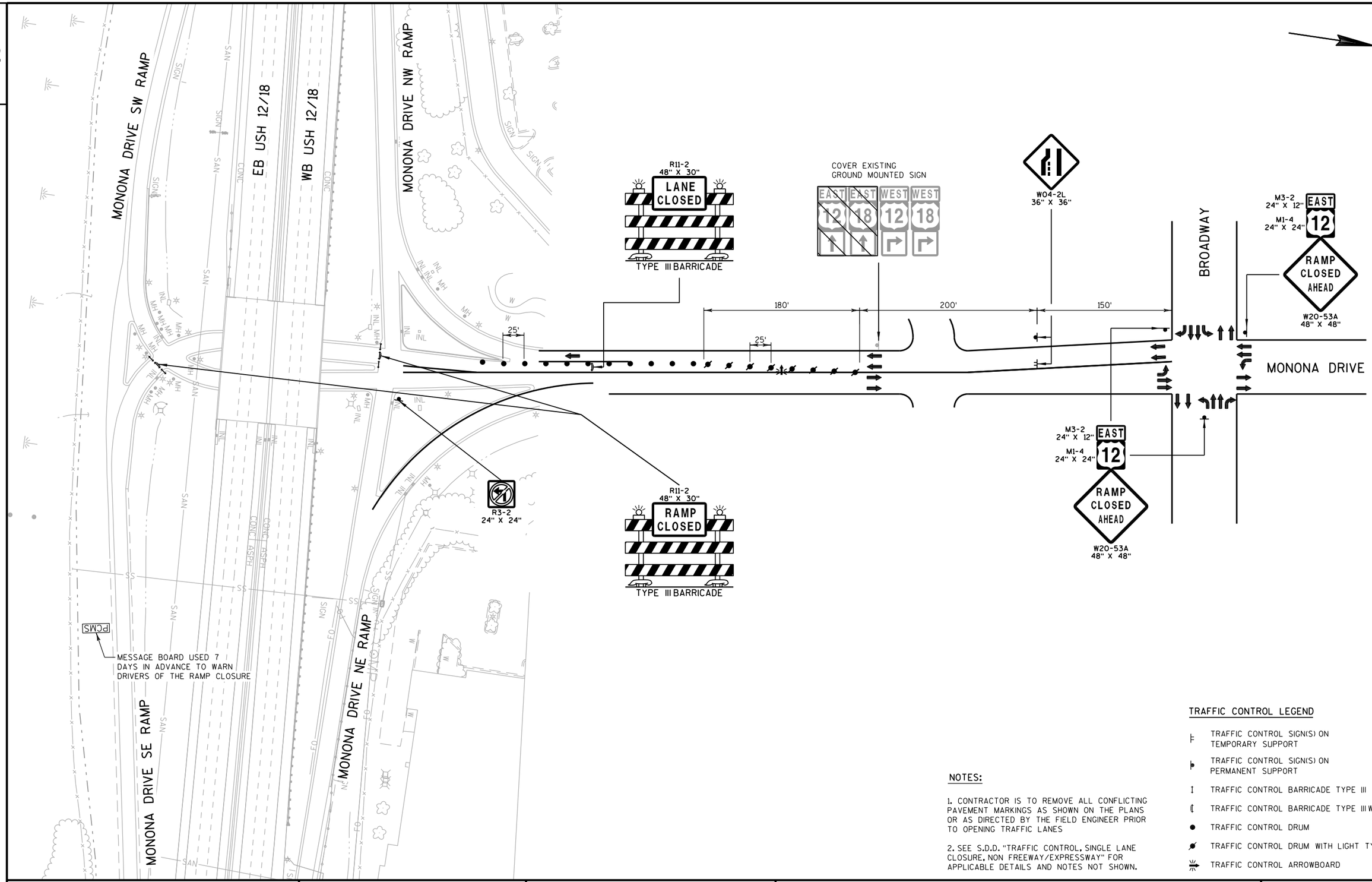
NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 3 LANE CLOSURES	SHEET 119	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, SINGLE LANE CLOSURE, NON FREEWAY/EXPRESSWAY" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL ARROWBOARD

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: MONONA DRIVE RAMP CLOSURE - STAGE 3	SHEET 120	E

2

N

USH 12

CTH AB

MILLPOND RD

DRIVEWAY

SIGGELKOW RD

VILAS RD

WIDE LOADS EXCEEDING 12 FT
R12-70B
114" X 42"
PLACE 500' PRIOR TO NB IH 39 EXIT
OUTSIDE SHOULDER ONLY

M3-4 24" X 12" WEST
M1-4 24" X 24" 12
W12-52 48" X 48" MAX. 16' WIDTH
1/2 MILE AHEAD
W057-52 48" X 36"
PLACE 1/2 MILE PRIOR TO WB US 12 EXIT
BOTH SHOULDERS

W12-52 48" X 48" MAX. 12' WIDTH
1 MILE AHEAD
W057-52 48" X 36"
PLACE 1 MILE PRIOR TO NB IH 39 EXIT
BOTH SHOULDERS

M3-4 24" X 12" WEST
M1-4 24" X 24" 12
W12-52 48" X 48" MAX. 16' WIDTH
1 MILE AHEAD
W057-52 48" X 36"
PLACE 1 MILE PRIOR TO WB US 12 EXIT
BOTH SHOULDERS

W12-52 48" X 48" MAX. 12' WIDTH
1/2 MILE AHEAD
W057-52 48" X 36"
PLACE 1/2 MILE PRIOR TO NB IH 39 EXIT
BOTH SHOULDERS

M3-4 24" X 12" WEST
M1-4 24" X 24" 12
W12-52 48" X 48" MAX. 16' WIDTH
2 MILES AHEAD
W057-52 48" X 36"
PLACE 2 MILES PRIOR TO WB US 12 EXIT
BOTH SHOULDERS

W12-52 48" X 48" MAX. 12' WIDTH
2 MILES AHEAD
W057-52 48" X 36"
PLACE 2 MILES PRIOR TO NB IH 39 EXIT
BOTH SHOULDERS

NOTES

1) ADJUST NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

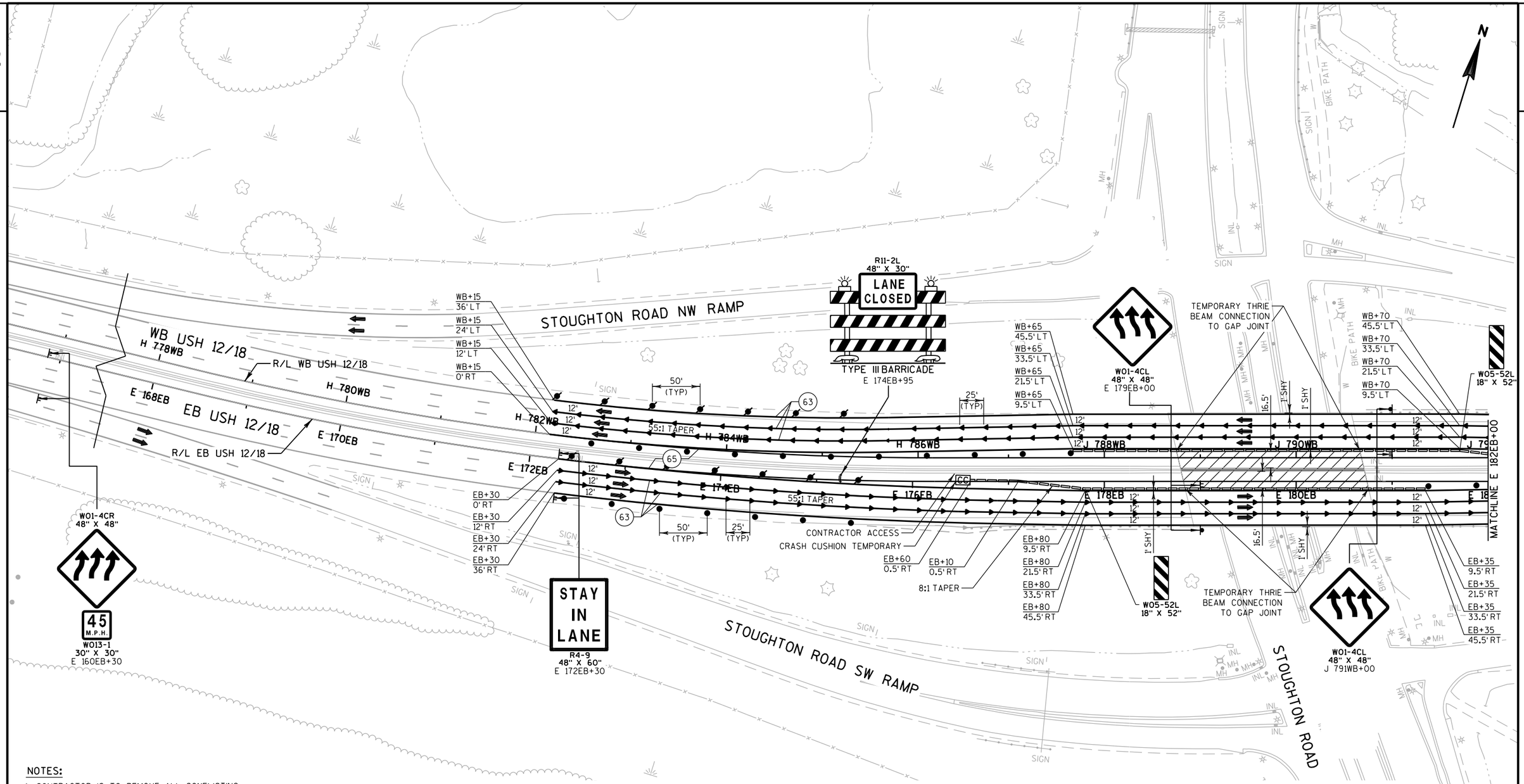
2) REMOVE OR COVER ALL SIGNS TEMPORARY OR EXISTING THAT CONFLICT WITH THE TRAFFIC CONTROL "IN USE" AS APPROVED BY THE ENGINEER.

LEGEND

⫩ SIGN ON TEMPORARY SUPPORT

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STAGE 3 OSOW SIGNING	SHEET 121	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

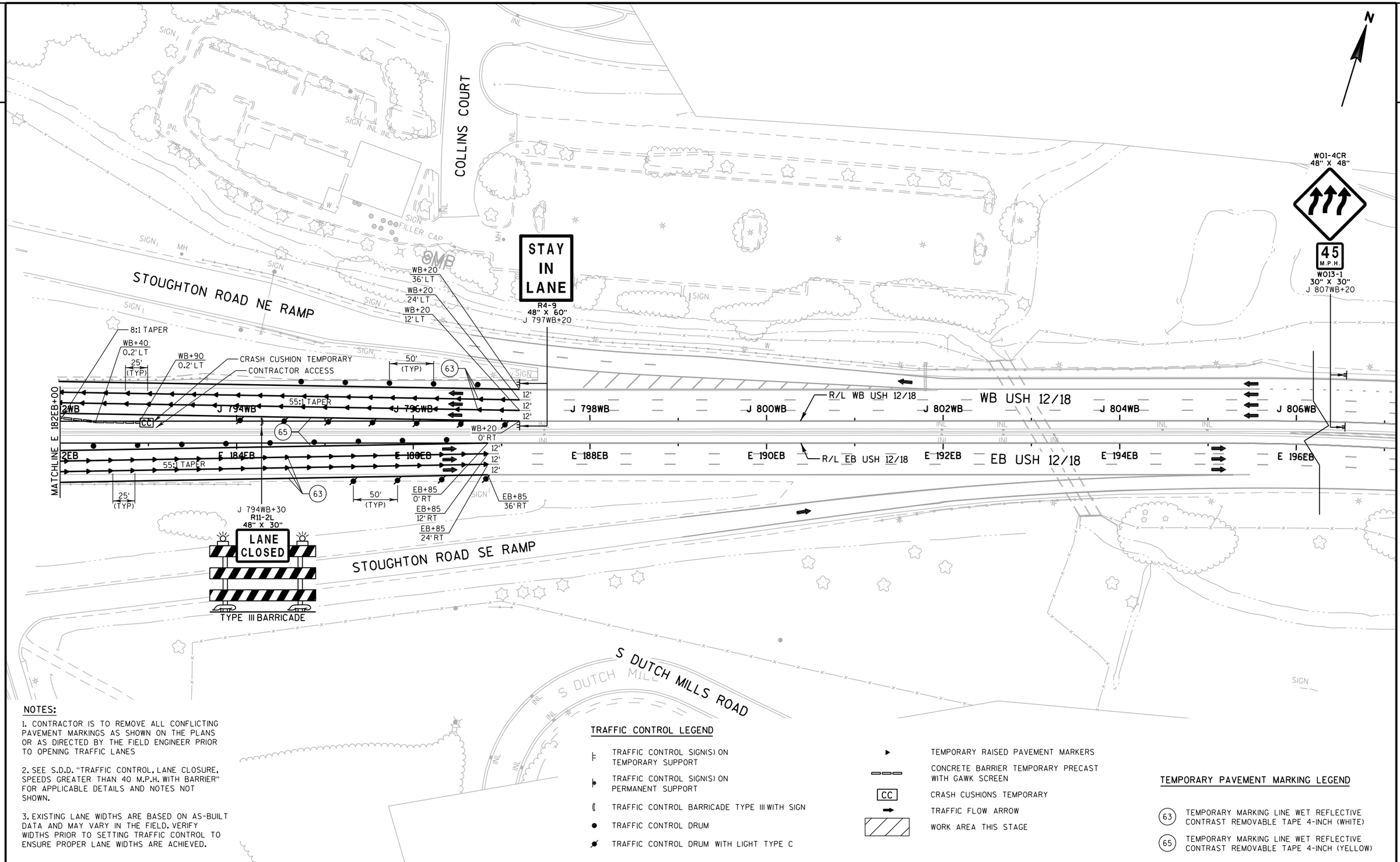
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- CONCRETE BARRIER TEMPORARY PRECAST WITH GAWK SCREEN
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

- (63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)
- (65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 4	SHEET 122	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- CONCRETE BARRIER TEMPORARY PRECAST WITH GAWK SCREEN
- CC — CRASH CUSHIONS TEMPORARY
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

- (63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)
- (65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 4	SHEET 123	E

2

N

E BROADWAY

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE
J 813WB+00

100'
(TYP)

R/L WB USH 12/18

J 806WB
J 808WB
J 810WB
J 812WB
J 814WB
J 816WB

WB USH 12/18

E 196EB
E 198EB
E 200EB
E 202EB
E 204EB
E 206EB

EB USH 12/18

R/L EB USH 12/18

WB+90
23'LT

50'
(TYP)

K 818WB

WB+85

F 50EB

F 52EB+00

MATCHLINE F 52EB+00

K 82

F 5

INL
SIGN
MH
FLAG
W

TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL BARRICADE TYPE III
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC FLOW ARROW

NOTES:

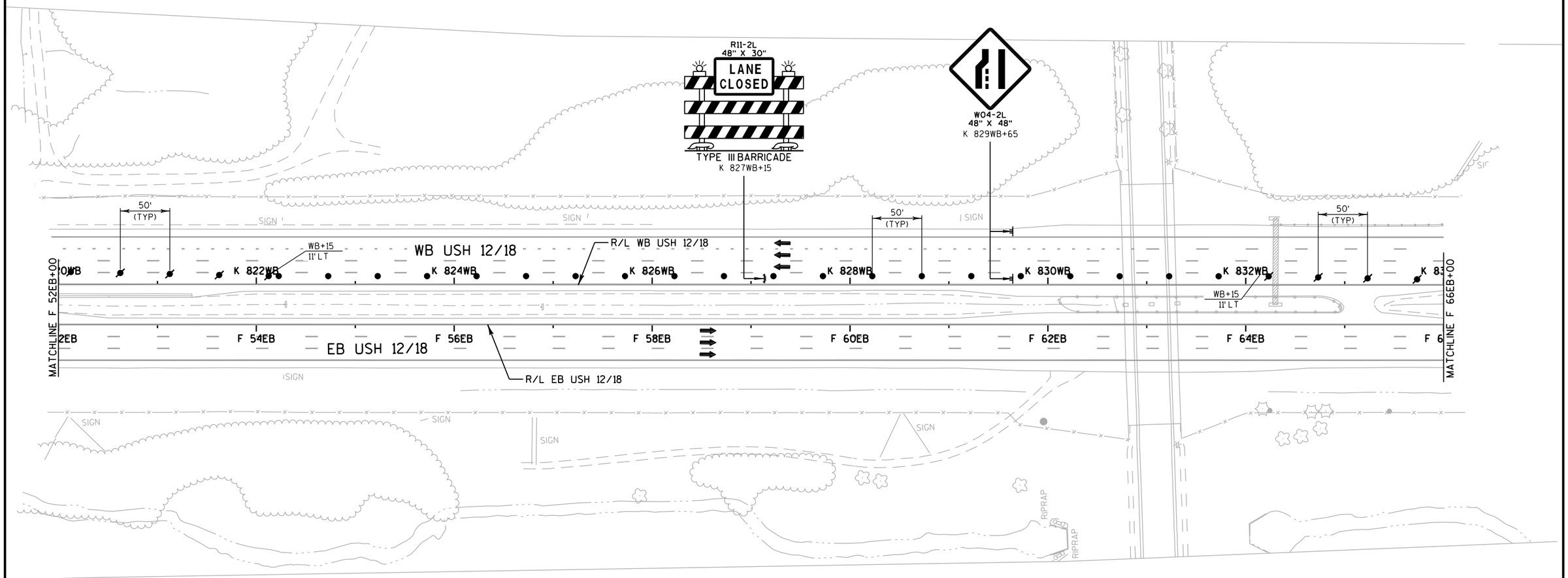
1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE" AND "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 4 LANE CLOSURES	SHEET 124	E

2

N



TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL BARRICADE TYPE III
- ➡ TRAFFIC FLOW ARROW

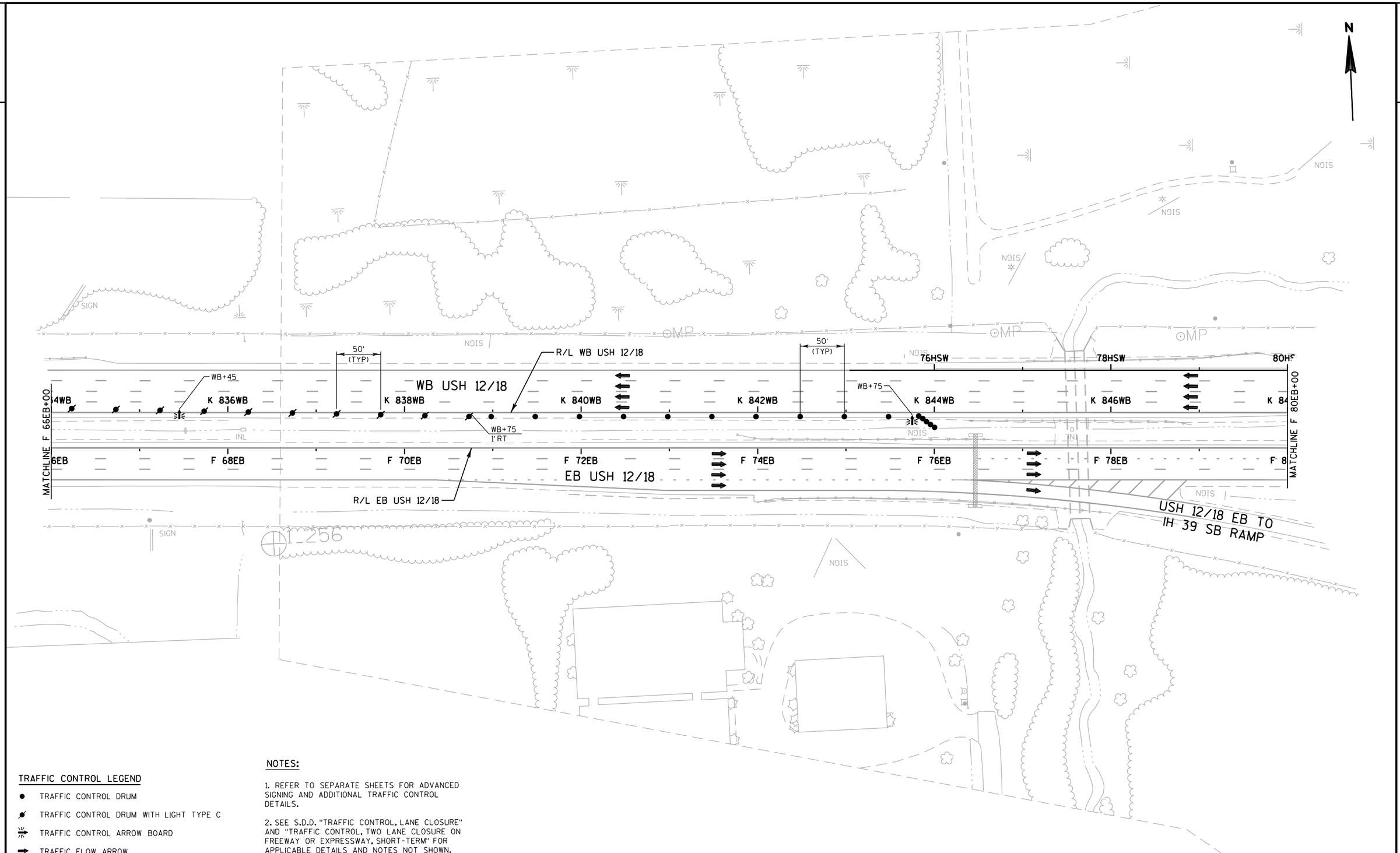
NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE" AND "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 4 LANE CLOSURES	SHEET 125	E

2



TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TRAFFIC CONTROL ARROW BOARD
- TRAFFIC FLOW ARROW

NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE" AND "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 4 LANE CLOSURES	SHEET 126	E

2

N

MATCHLINE 90HSW+00

LEFT TWO LANES CLOSED 1500 FT

W20-59B
48" X 48"
85HSW+75

88HSW

IH 39 SB TO USH 12/18 WB RAMP

86HSW

R/L IH 39 SB TO USH 12/18 WB

W04-2L
48" X 48"
K 848WB+75

84HSW

82HSW

HSW

T030
861.500

R/L WB USH 12/18

K 850WB

K 852WB

K 854WB

K 856WB

WB USH 12/18

K 858WB

LEFT TWO LANES CLOSED 1500 FT

W20-59B
48" X 48"
K 858WB+75

LEFT TWO LANES CLOSED 1/2 MILE

W20-59G
48" X 48"
K 870WB+15

LEFT TWO LANES CLOSED 1 MILE

W20-59F
48" X 48"
K 896WB+55

ROAD WORK 2 MILES

W20-1E
48" X 48"
L 949WB+35

MATCHLINE F 80EB+00

8WB

OEB

F 82EB

F 84EB

R/L EB USH 12/18

F 86EB

F 88EB

EB USH 12/18

F 90EB

F 92EB

F 94EB

NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE" AND "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

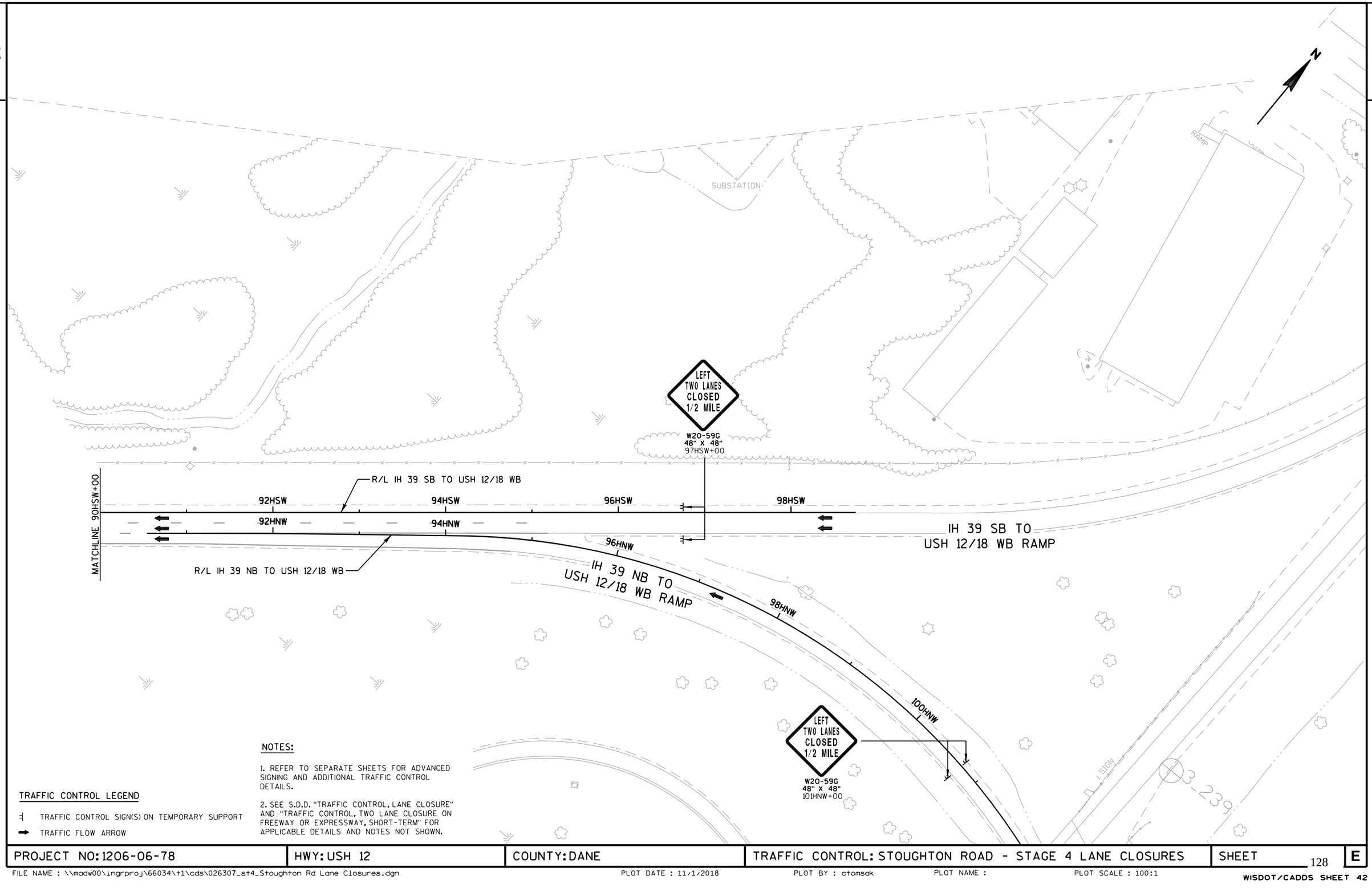
TRAFFIC CONTROL LEGEND

TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT

TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 4 LANE CLOSURES	SHEET 127	E

2



NOTES:

1. REFER TO SEPARATE SHEETS FOR ADVANCED SIGNING AND ADDITIONAL TRAFFIC CONTROL DETAILS.

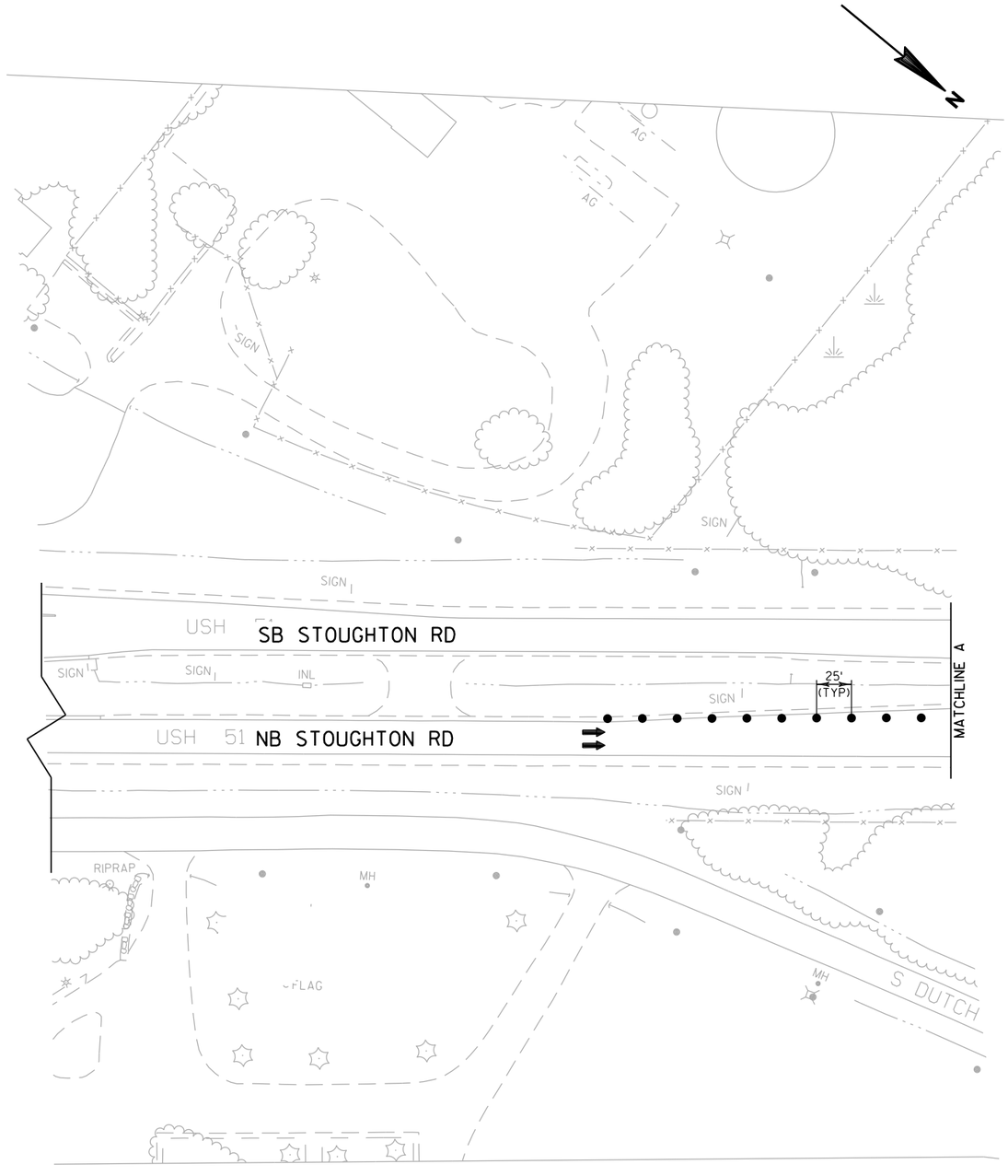
2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE" AND "TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - STAGE 4 LANE CLOSURES	SHEET 128	E

2





W20-1A
48" X 48"
PLACE 1 MILE FROM
LANE CLOSURE

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - INSIDE LANE CLOSURES	SHEET 129	E

2

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

END ROAD WORK
G20-2A
48" X 24"
PLACE 250' AFTER RAMP

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

USH 51 SB STOUGHTON RD

USH 51 NB STOUGHTON RD

MATCHLINE A

MATCHLINE B

25' (TYP)

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

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

SLAB

BIKE PATH

DUTCH MILL RD

SIGN

INL

MH

PATH

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - INSIDE LANE CLOSURES	SHEET 130	E

2

N

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

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

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

END ROAD WORK
G20-2A
48" X 24"
PLACE 250' AFTER RAMP

ROAD WORK AHEAD
W20-1A
48" X 48"
PLACE 1 MILE FROM LANE CLOSURE

SB STOUGHTON RD

NB STOUGHTON RD

MATCHLINE B

25' (TYP)

25' (TYP)

25' (TYP)

BIKE PATH

SIGN

MH

INL

HW

W

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - INSIDE LANE CLOSURES	SHEET 131	E

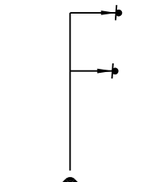
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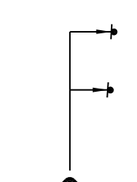
W20-1G
48" X 48"
PLACE 1/2 MILE FROM
START OF TAPER



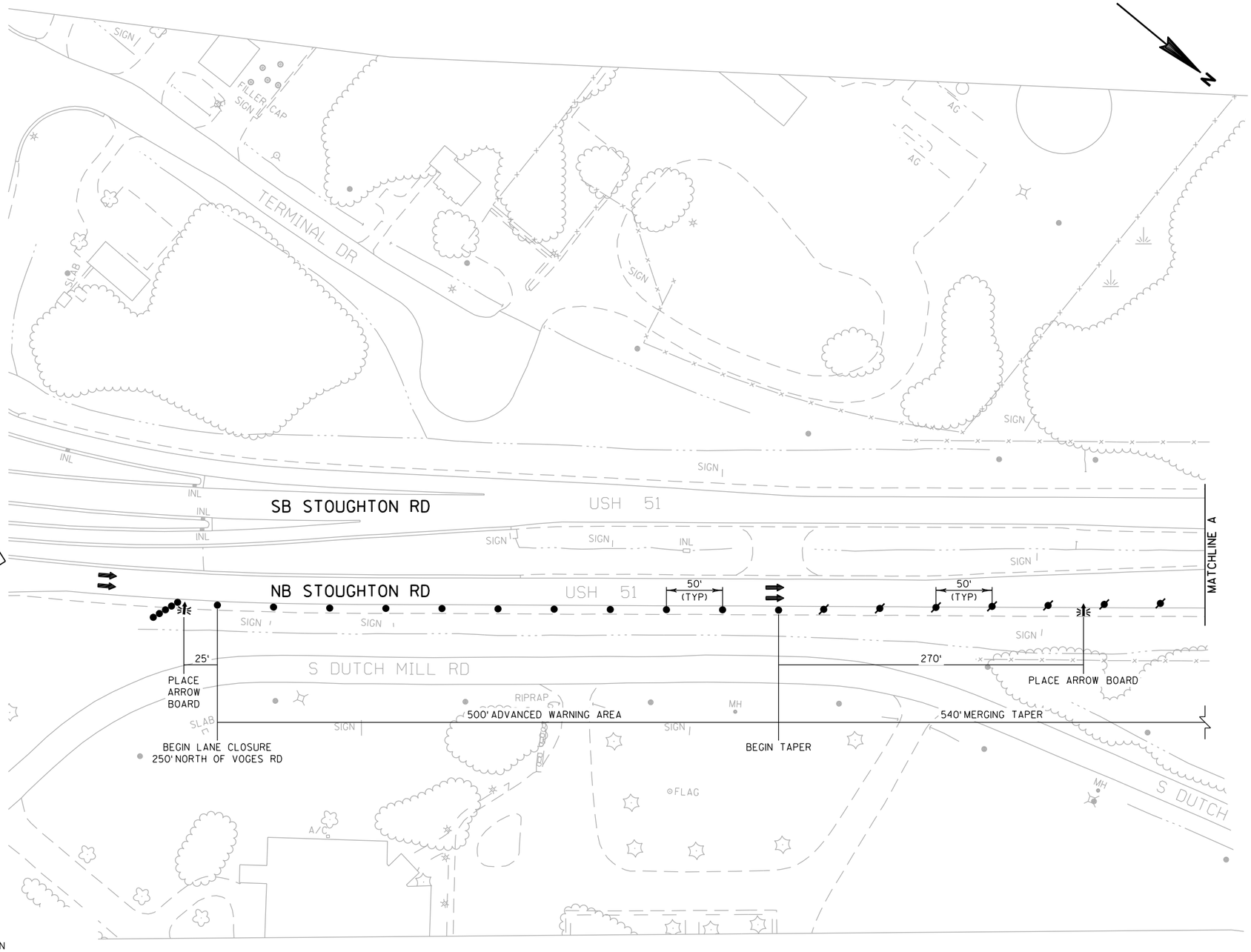
W04-2R
48" X 48"
PLACE 1000' FROM
START OF TAPER



W20-1F
48" X 48"
PLACE 1 MILE FROM
START OF TAPER



W20-5B
48" X 48"
PLACE 1575' FROM
START OF TAPER



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE" AND "TRAFFIC CONTROL, INTERSECTIN WITHIN SINGLE LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

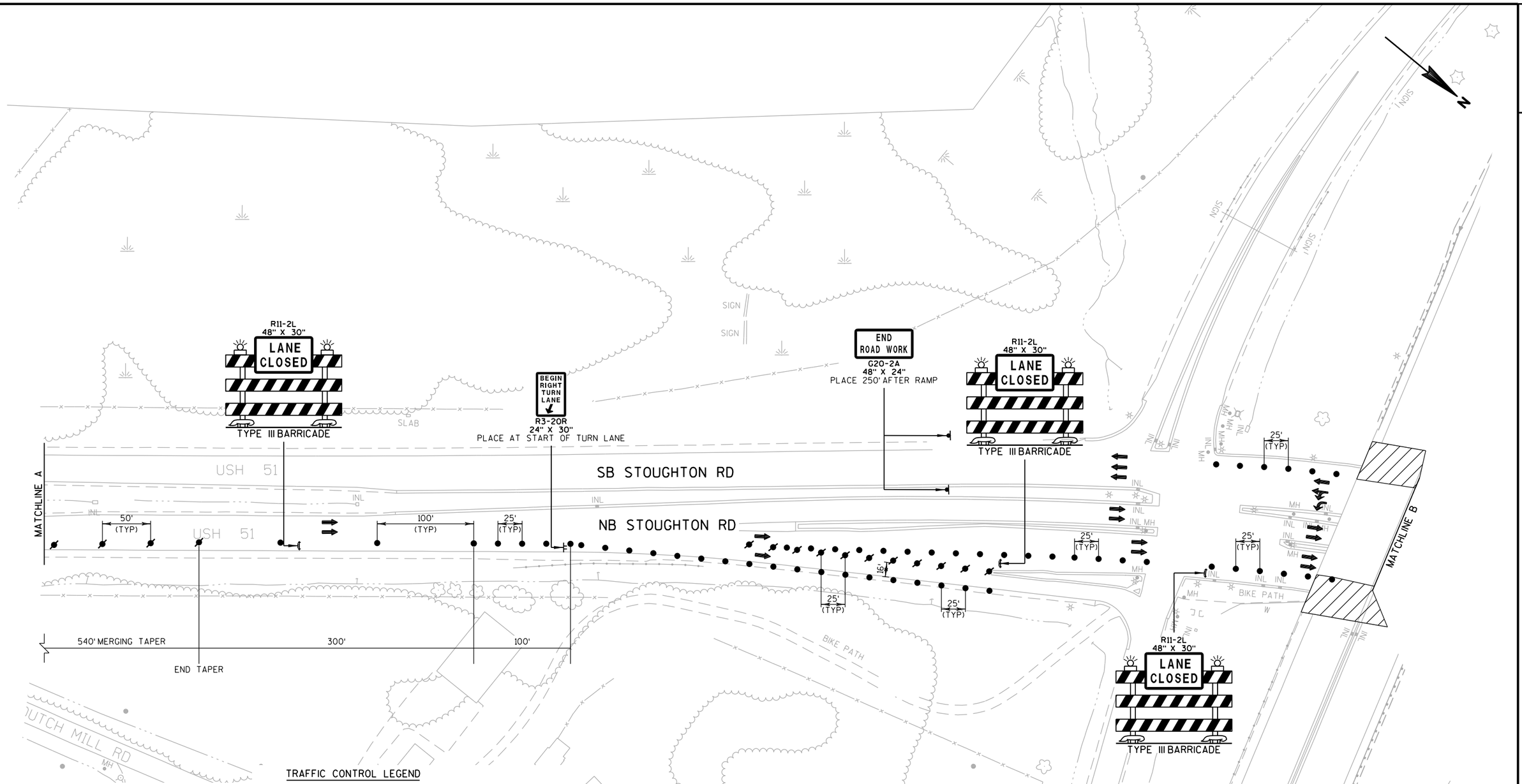
3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- FLASHING ARROW BOARD
- TRAFFIC FLOW ARROW

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - OUTSIDE LANE CLOSURES	SHEET 132	E

2



TRAFFIC CONTROL LEGEND

⊧	TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
I	TRAFFIC CONTROL BARRICADE TYPE III
◧	TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
●	TRAFFIC CONTROL DRUM
⊘	TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
➡	TRAFFIC FLOW ARROW
▨	WORK AREA THIS STAGE

NOTES:

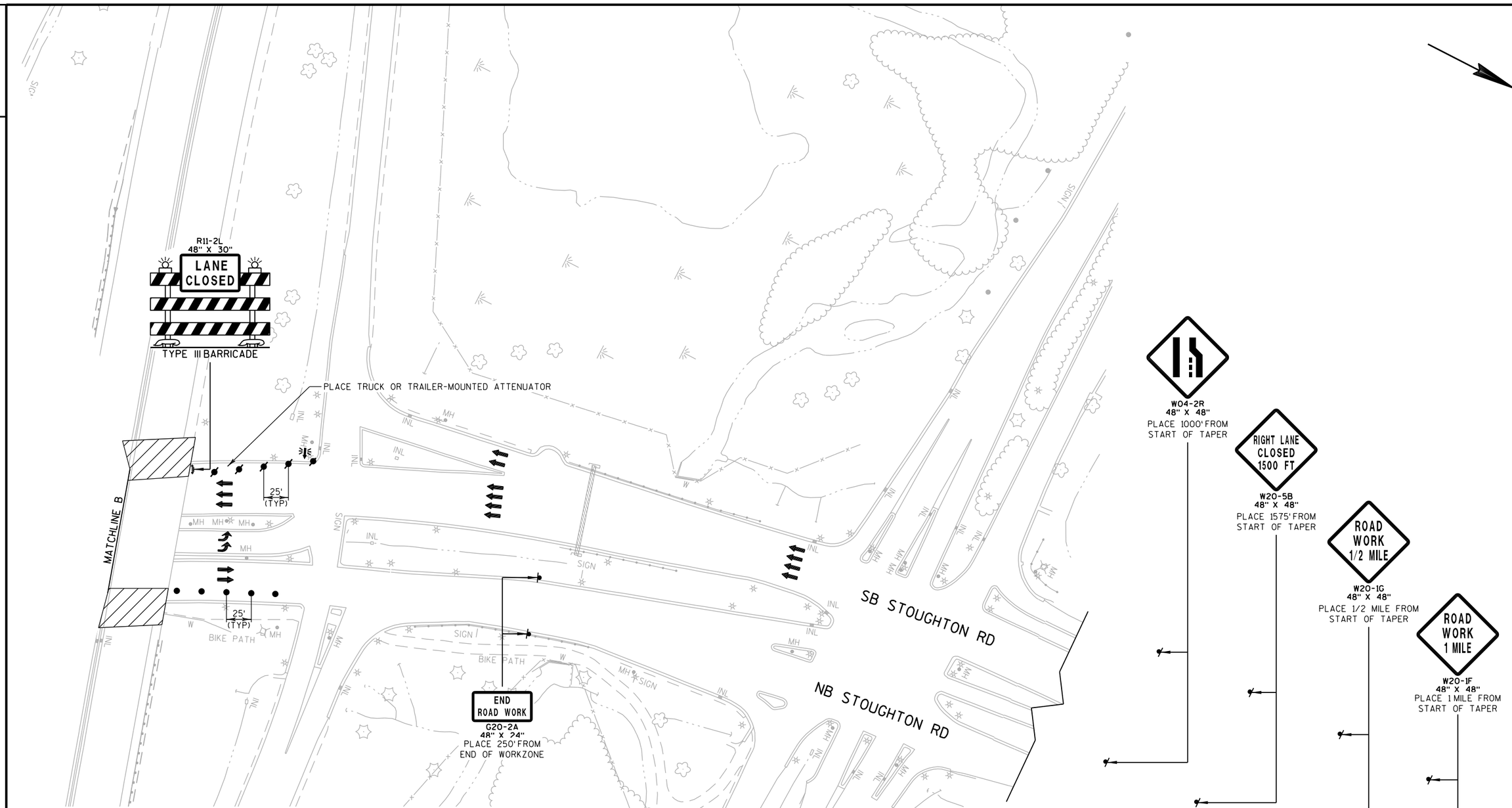
1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE" AND "TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - OUTSIDE LANE CLOSURES	SHEET 133	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE" AND "TRAFFIC CONTROL, INTERSECTIN WITHIN SINGLE LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STOUGHTON ROAD - OUTSIDE LANE CLOSURES	SHEET 134	E

2

N

TODD DRIVE WB ON-RAMP

R/L WB USH 12/18

WB+00
37.0' LT
INSIDE FACE

WB+25
37.0' LT
INSIDE FACE

TODD DRIVE

WB+65
42.0' LT
INSIDE FACE

WB+40
42.0' LT
INSIDE FACE

8:1 TAPER

CC

CRASH CUSION TEMPORARY

WB+40

OR

BELTLINE FRONTAGE ROAD

466WB 468WB 470WB WB USH 12/18 472WB 474WB 476WB 478WB 480WB

466EB 468EB 470EB EB USH 12/18 472EB 474EB 476EB 478EB 480EB

R/L EB USH 12/18

BELTLINE FRONTAGE ROAD

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, SHOULDER CLOSED ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 M.P.H." FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

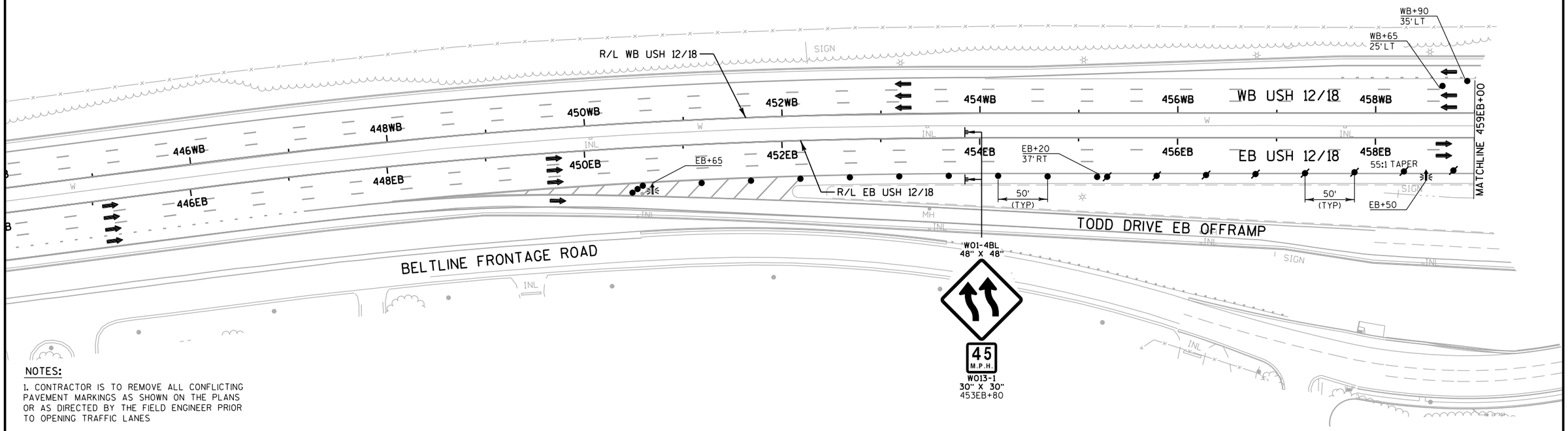
3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- CONCRETE BARRIER TEMPORARY PRECAST WITH GAWK SCREEN
- CC — CRASH CUSHIONS TEMPORARY
- FLASHING ARROW BOARD
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE A	SHEET 135	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD" AND "TRAFFIC CONTROL, LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- FLASHING ARROW BOARD
- ➡ TRAFFIC FLOW ARROW

TEMPORARY PAVEMENT MARKING LEGEND

(63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE B 2-LANE CONFIGURATION	SHEET 136	E

2

N

COVER EXISTING SIGN

W4-3
36" X 36"
466WB+50

W4-3
36" X 36"
469WB+60

STAY IN LANE
R4-9
48" X 60"
461EB+80

R/L WB USH 12/18

TODD DRIVE WB ON-RAMP

WB+00
24' LT
WB+00
12' LT
WB+00
0' RT

WB+30
13' LT
WB+30
2' LT
WB+30
9' RT

MATCHLINE 459EB+00

460WB WB USH 12/18 462WB 464WB 466WB 468WB 470WB 472WB

460EB 55:1 TAPER EB USH 12/18 462EB 464EB 466EB 468EB 470EB 472EB

27.5:1 TAPER

MATCHLINE 474EB+00

EB+80
0' RT
EB+80
12' RT
EB+80
24' RT

EB+10
9' LT
EB+10
2' RT
EB+10
13' RT

R/L EB USH 12/18

SECURE STRUCTURE COVER PRIOR TO TRAFFIC LOADING

BELTLINE FRONTAGE ROAD

48" X 24"
W01-6
TYPE III BARRICADE
465EB+45

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE
468EB+95

W01-4BR
48" X 48"
470EB+95

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

(63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)

(65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

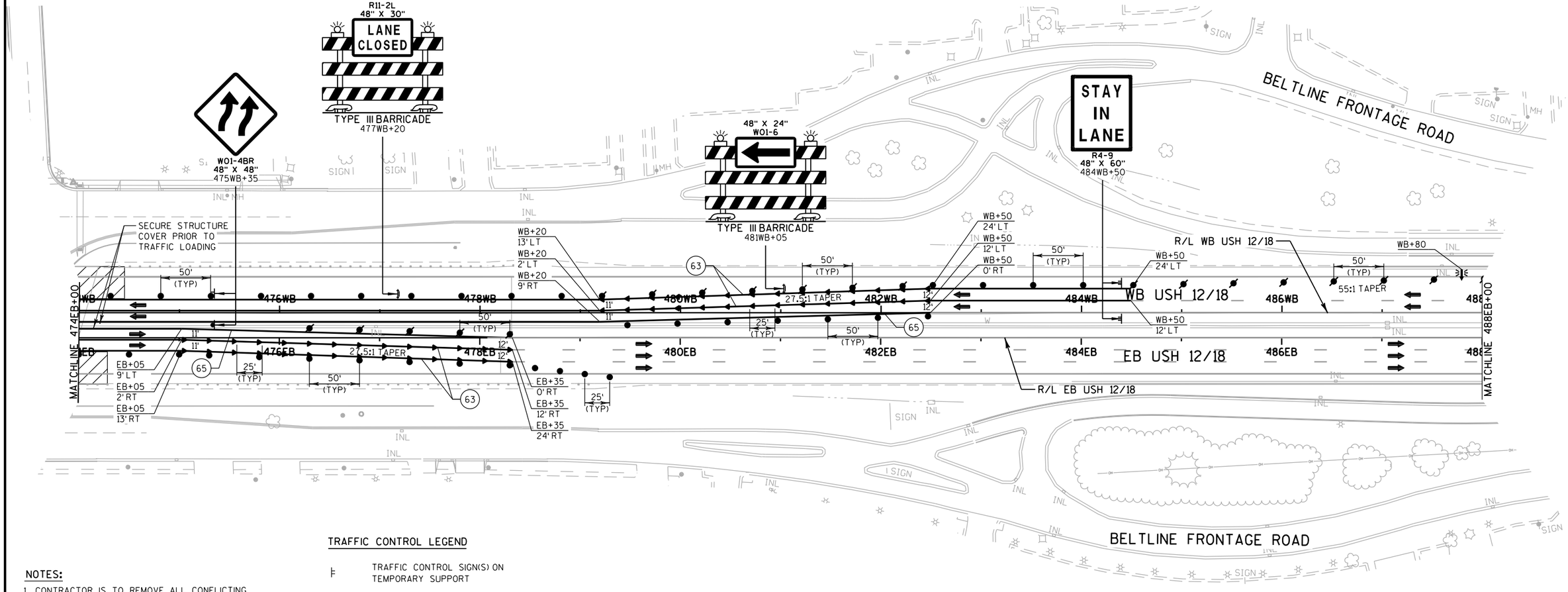
2. SEE S.D.D. "TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD" AND "TRAFFIC CONTROL, LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE B 2-LANE CONFIGURATION	SHEET 137	E

2

N



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD" AND "TRAFFIC CONTROL, LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

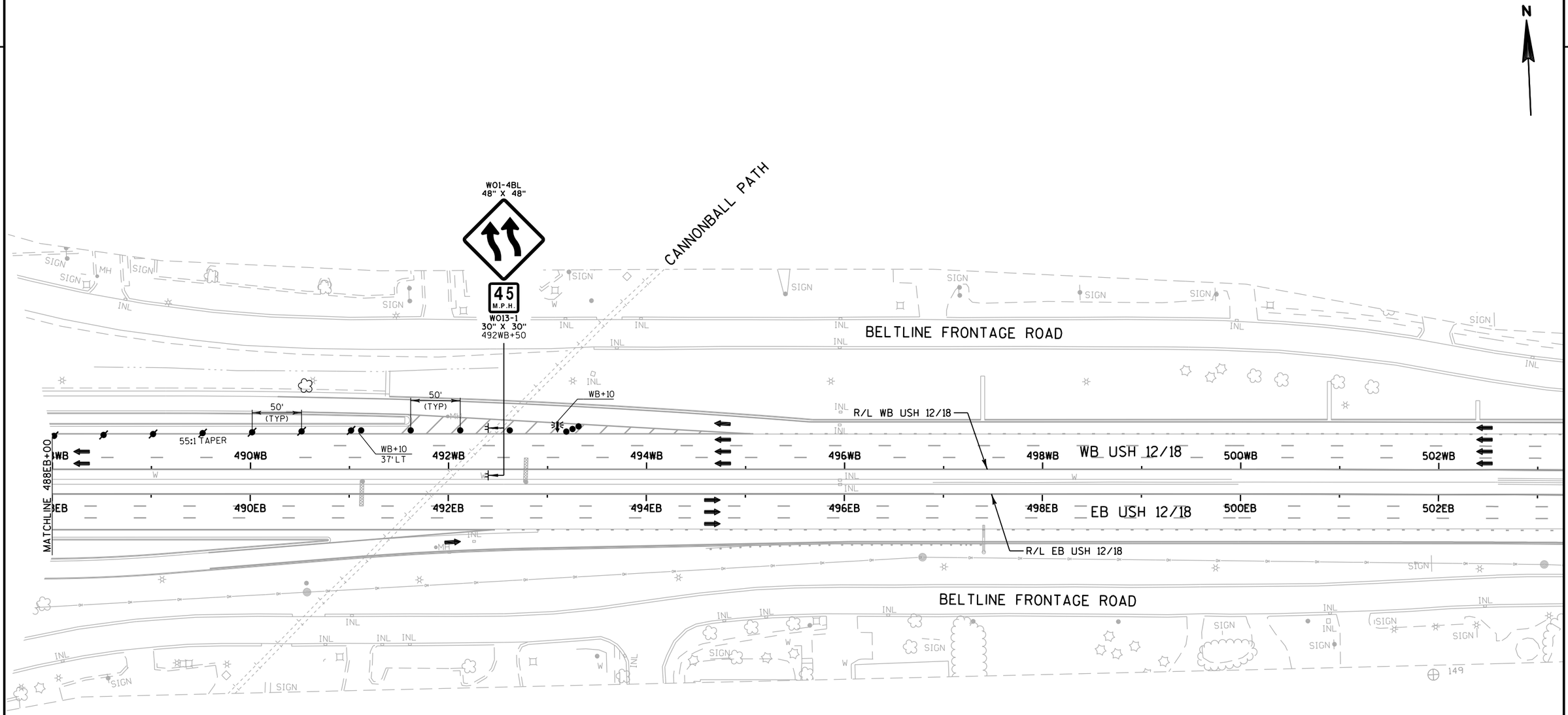
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

- (63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)
- (65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE B 2-LANE CONFIGURATION	SHEET 138	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD" AND "TRAFFIC CONTROL, LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- FLASHING ARROW BOARD
- TRAFFIC FLOW ARROW

TEMPORARY PAVEMENT MARKING LEGEND

(63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE B 2-LANE CONFIGURATION	SHEET 139	E

2

N

W01-4BL
48" X 48"

45
M.P.H.
W013-1
30" X 30"
453EB+80

STAY
IN
LANE
R4-9
48" X 60"
461EB+80

R/L WB USH 12/18

TODD DRIVE WB ON-RAMP

460WB WB USH 12/18 462WB 464WB 466WB 468WB 470WB 472WB 474WB

460EB EB USH 12/18 462EB 464EB 466EB 468EB 470EB 472EB 474EB

MATCHLINE 474EB+00

WB+00 36' LT
WB+00 24' LT
WB+00 12' LT
WB+00 0' RT

WB+30 24' LT
WB+30 13' LT
WB+30 2' LT
WB+30 9' RT

EB+80 0' RT
EB+80 12' RT
EB+80 24' RT
EB+80 36' RT

EB+10 9' LT
EB+10 2' RT
EB+10 13' RT
EB+10 24' RT

25' (TYP)
50' (TYP)
27.5:1 TAPER
12'
11'
63
65

48" X 24"
W01-6
TYPE III BARRICADE
465EB+45

R/L EB USH 12/18

R11-2L
48" X 30"
LANE
CLOSED
TYPE III BARRICADE
468EB+95

W01-4BR
48" X 48"
470EB+95

BELTLINE FRONTAGE ROAD

INL
SIGN
MH
SERV

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD" AND "TRAFFIC CONTROL, LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

- (63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)
- (65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE B 3-LANE CONFIGURATION	SHEET 140	E

2

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE
477WB+20

W01-4BR
48" X 48"
475WB+35

48" X 24"
W01-6
TYPE III BARRICADE
481WB+05

STAY IN LANE
R4-9
48" X 60"
484WB+40

W01-4BL
48" X 48"

45 M.P.H.
W013-1
30" X 30"
492WB+50

BELTLINE FRONTAGE ROAD

R/L WB USH 12/18

WB USH 12/18

EB USH 12/18

R/L EB USH 12/18

MATCH LINE 474EB+00

476WB 478WB 480WB 482WB 484WB 486WB 488WB

476EB 478EB 480EB 482EB 484EB 486EB 488EB

WB+20 24'LT
WB+20 13'LT
WB+20 2'LT
WB+20 9'RT

WB+50 36'LT
WB+50 24'LT
WB+50 12'LT
WB+50 0'RT

WB+50 24'LT
WB+50 12'LT

EB+05 9'LT
EB+05 9'LT
EB+05 2'RT
EB+05 13'RT

EB+35 0'RT
EB+35 12'RT
EB+35 24'RT
EB+35 36'RT

50' (TYP)
25' (TYP)
27.5:1 TAPER
11'
12'

63
65

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

(63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)

(65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

NOTES:

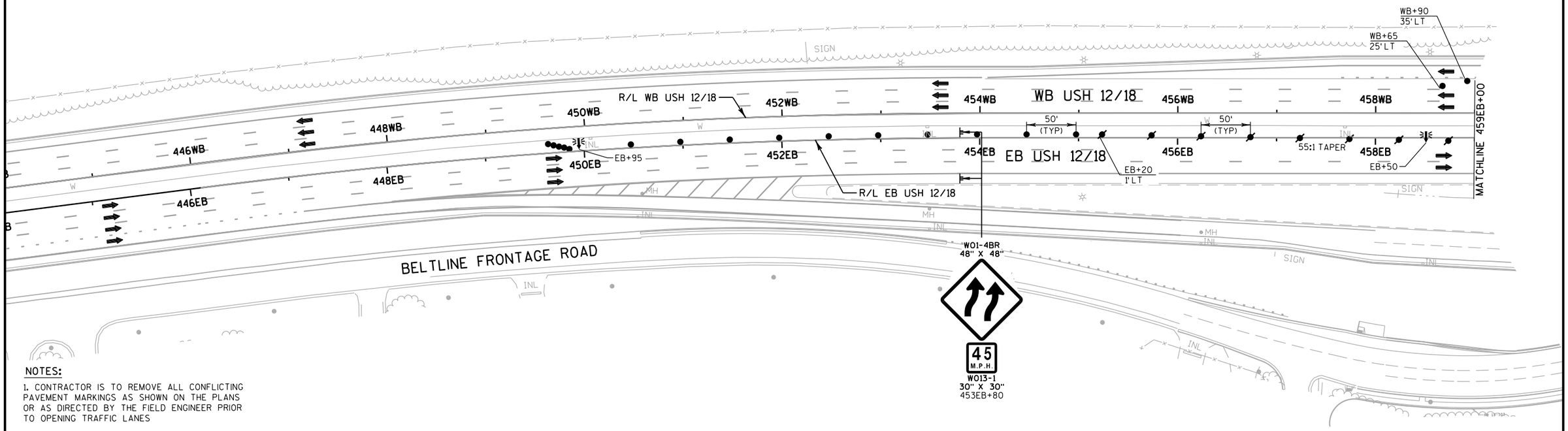
1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE SHIFT, MULTI-LANE DIVIDED OR ONE-WAY ROAD" AND "TRAFFIC CONTROL, LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE B 3-LANE CONFIGURATION	SHEET 141	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- ● TRAFFIC CONTROL DRUM
- ● TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- FLASHING ARROW BOARD
- TRAFFIC FLOW ARROW

TEMPORARY PAVEMENT MARKING LEGEND

(65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE C 2-LANE CONFIGURATION	SHEET 142	E

2

N

COVER EXISTING SIGN

W4-3
36" X 36"
466WB+50

48" X 24"
W01-6

TYPE III BARRICADE
468WB+00

W4-3
36" X 36"
469WB+60

STAY
IN
LANE
R4-9
48" X 60"
458EB+00

SECURE STRUCTURE
COVER PRIOR TO
TRAFFIC LOADING

TODD DRIVE WB ON-RAMP

TODD DRIVE

WB+70
24' LT
WB+70
12' LT
WB+70
0' RT

WB+30
45' LT
WB+30
34' LT
WB+30
23' LT

R/L WB USH 12/18

WB USH 12/18

460WB 462WB 464WB 466WB 468WB 470WB 472WB

27.5:1 TAPER

WB+00
12' LT

MATCHLINE 459EB+00

55:1 TAPER

460EB EB USH 12/18 462EB 464EB 466EB 468EB 470EB 472EB

EB+80
12' RT
EB+80
24' RT

EB+80
12' RT
EB+80
24' RT
EB+80
36' RT

27.5:1 TAPER

EB+10
23' RT
EB+10
34' RT
EB+10
45' RT

R/L EB USH 12/18

MATCHLINE 474EB+00

BELTLINE FRONTAGE ROAD

SECURE STRUCTURE
COVER PRIOR TO
TRAFFIC LOADING

48" X 24"
W01-6

TYPE III BARRICADE
465EB+45

R11-2L
48" X 30"
LANE
CLOSED

TYPE III BARRICADE
469EB+05

W01-4BL
48" X 48"
471EB+05

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

(63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)

(65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE C 2-LANE CONFIGURATION	SHEET 143	E

2

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE
477WB+30

W01-4BL
48" X 48"
475WB+30

48" X 24"
W01-6
TYPE III BARRICADE
479WB+85

STAY IN LANE
R4-9
48" X 60"
483WB+50

SECURE STRUCTURE COVER PRIOR TO TRAFFIC LOADING

SECURE STRUCTURE COVER PRIOR TO TRAFFIC LOADING

WB+20 45'LT
WB+20 34'LT
WB+20 23'LT
WB+50 36'LT
WB+50 24'LT
WB+50 12'LT
WB+50 24'LT
WB+50 12'LT
EB+05 23'RT
EB+05 34'RT
EB+05 45'RT
EB+35 12'RT
EB+35 24'RT
EB+30 36'RT

25' (TYP)
50' (TYP)
27.5:1 TAPER
55:1 TAPER
11'
12'

WB USH 12/18
EB USH 12/18
R/L WB USH 12/18
R/L EB USH 12/18
WB+80

MATCHLINE 474EB+00
MATCHLINE 488EB+00

476WB 478WB 480WB 482WB 484WB 486WB
476EB 478EB 480EB 482EB 484EB 486EB

BELTLINE FRONTAGE ROAD

SIGN INL MH OH

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- FLASHING ARROW BOARD
- TEMPORARY RAISED PAVEMENT MARKERS
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

(63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)

(65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE C 2-LANE CONFIGURATION	SHEET 144	E

2

N

W01-4BR
48" X 48"

45
M.P.H.

W013-1
30" X 30"
491WB+50

CANNONBALL PATH

BELTLINE FRONTAGE ROAD

MATCHLINE 488EB+00

WB+10
1' RT

55:1 TAPER

50'
(TYP)

490WB 492WB 494WB 496WB 498WB 500WB 502WB

WB+30

R/L WB USH 12/18

WB USH 12/18

490EB 492EB 494EB 496EB 498EB 500EB 502EB

R/L EB USH 12/18

EB USH 12/18

BELTLINE FRONTAGE ROAD

149

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- FLASHING ARROW BOARD
- TRAFFIC FLOW ARROW

TEMPORARY PAVEMENT MARKING LEGEND

(65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE C 2-LANE CONFIGURATION	SHEET 145	E

2

N

W01-4BR
48" X 48"

45
M.P.H.
W013-1
30" X 30"
453EB+80

STAY
IN
LANE
R4-9
48" X 60"
458EB+00

48" X 24"
W01-6
TYPE III BARRICADE
465EB+45

R/L WB USH 12/18

WB USH 12/18

460WB 462WB 464WB 466WB 468WB 470WB 472WB

460EB 462EB 464EB 466EB 468EB 470EB 472EB

R/L EB USH 12/18

EB+80
12' RT
EB+80
24' RT

EB+80
0' RT
EB+80
12' RT
EB+80
24' RT
EB+80
36' RT

WB+00
36' LT
WB+00
24' LT
WB+00
12' LT
WB+00
0' RT

EB+10
12' RT
EB+10
23' RT
EB+10
34' RT
EB+10
45' RT

WB+30
45' LT
WB+30
34' LT
WB+30
23' LT
WB+30
12' LT

BELTLINE FRONTAGE ROAD

BELTLINE FRONTAGE ROAD

TODD DRIVE

50' (TYP)
25' (TYP)
27.5:1 TAPER
12'
11'
21'
1' SHY

63
65

MATCHLINE 474EB+00

R11-2L
48" X 30"
LANE
CLOSED
TYPE III BARRICADE
469EB+05

W01-4CL
48" X 48"
471EB+05

INL
SERV
SIGN
MH

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- TEMPORARY RAISED PAVEMENT MARKERS
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

(63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)

(65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE C 3-LANE CONFIGURATION	SHEET 146	E

2

N

R11-2L
48" X 30"
LANE CLOSED
TYPE III BARRICADE
477WB+30

W01-4CL
48" X 48"
475WB+30

48" X 24"
W01-6
TYPE III BARRICADE
479WB+85

STAY IN LANE
R4-9
48" X 60"
483WB+35

W01-4BR
48" X 48"

45 M.P.H.
W013-1
30" X 30"
491WB+50

MATCHLINE 474EB+00

WB+20 45'LT
WB+20 34'LT
WB+20 23'LT
WB+20 12'LT

WB+50 36'LT
WB+50 24'LT
WB+50 12'LT
WB+50 0'RT

WB+50 24'LT
WB+50 12'LT

476WB 478WB 480WB 482WB 484WB 486WB 488WB

WB USH 12/18

R/L WB USH 12/18

11' 11' 11' 12' 12' 12'

27.5:1 TAPER

50' (TYP) 25' (TYP)

476EB 478EB 480EB 482EB 484EB 486EB 488EB

EB USH 12/18

R/L EB USH 12/18

EB+05 11'RT
EB+05 23'RT
EB+05 34'RT
EB+05 45'RT

EB+35 0'RT
EB+35 12'RT
EB+35 24'RT
EB+35 36'RT

BELTLINE FRONTAGE ROAD

INL SIGN MH OH

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
- FLASHING ARROW BOARD
- TEMPORARY RAISED PAVEMENT MARKERS
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

TEMPORARY PAVEMENT MARKING LEGEND

(63) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (WHITE)

(65) TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH (YELLOW)

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

3. EXISTING LANE WIDTHS ARE BASED ON AS-BUILT DATA AND MAY VARY IN THE FIELD. VERIFY WIDTHS PRIOR TO SETTING TRAFFIC CONTROL TO ENSURE PROPER LANE WIDTHS ARE ACHIEVED.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - STAGE C 3-LANE CONFIGURATION	SHEET 147	E

2

2

N

PLACE 500' FROM
LANE CLOSURE

ROAD
WORK
AHEAD
W20-1A

R11-2L
48" X 30"
LANE
CLOSED

TYPE III BARRICADE

TODD DRIVE

TODD DRIVE WB ON-RAMP

W BELTLINE FRONTAGE ROAD

R/L WB USH 12/18

466WB 468WB 470WB 472WB 474WB 476WB WB USH 12/18 478WB 480WB

466EB 468EB 470EB 472EB 474EB 476EB EB USH 12/18 478EB 480EB

25'
(TYP)

R/L EB USH 12/18

W BELTLINE FRONTAGE ROAD

ROAD
WORK
AHEAD
W20-1A

PLACE 500' FROM
LANE CLOSURE

R11-2L
48" X 30"
LANE
CLOSED

TYPE III BARRICADE

ROAD
WORK
AHEAD
W20-1A

PLACE 500' FROM
LANE CLOSURE

151

TRAFFIC CONTROL LEGEND

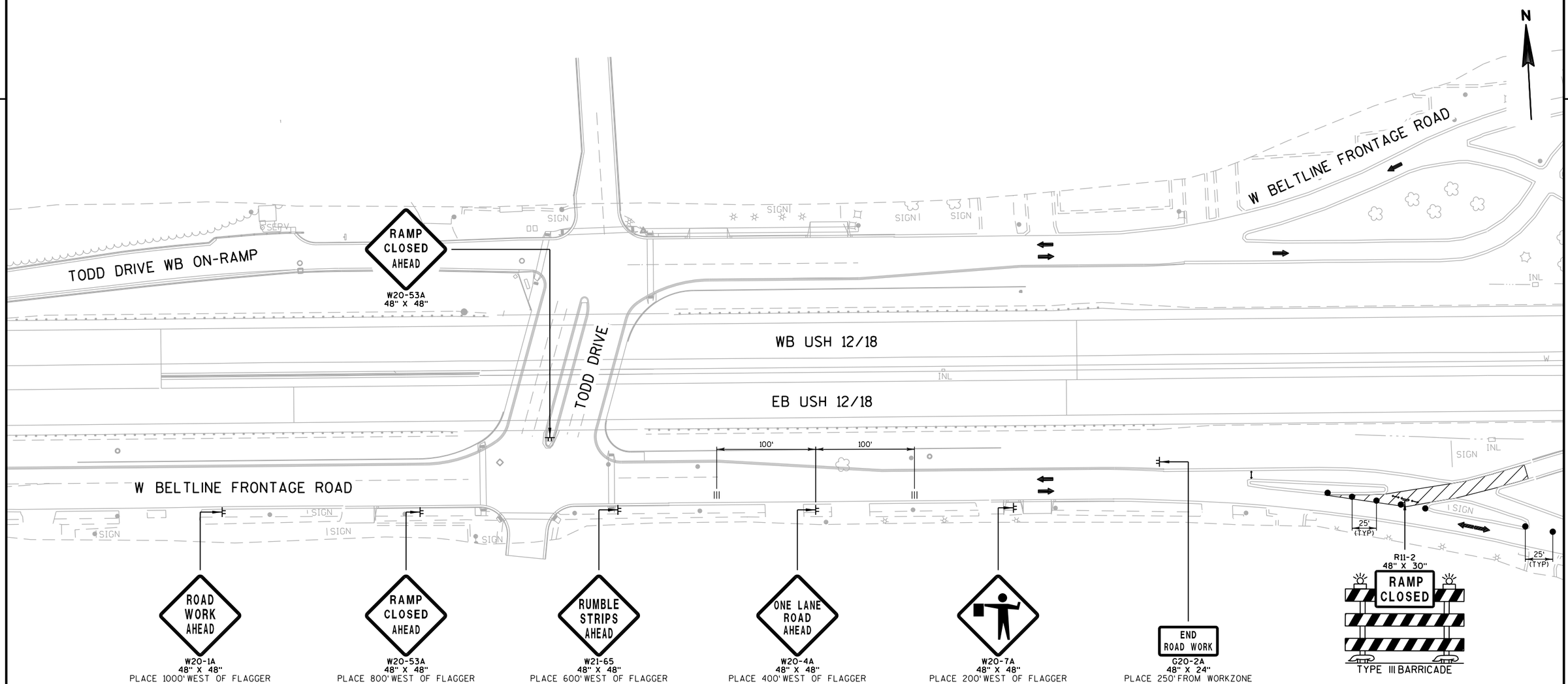
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC FLOW ARROW
- WORK AREA THIS STAGE

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE - INSIDE LANE CLOSURES	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\026909_tc_TD.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2



TRAFFIC CONTROL LEGEND

⊢	TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
↕	TRAFFIC CONTROL BARRICADE TYPE III
⇕	TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
●	TRAFFIC CONTROL DRUM
III	TEMPORARY PORTABLE RUMBLE STRIPS
➡	TRAFFIC FLOW ARROW
▨	WORK AREA THIS STAGE

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE EB ON-RAMP NIGHTTIME CLOSURE	SHEET 149	E

2

N

W BELTLINE FRONTAGE ROAD

WB USH 12/18

EB USH 12/18

W BELTLINE FRONTAGE ROAD

R11-2R
48" X 30"
RAMP CLOSED

MESSAGE BOARD USED 7 DAYS IN ADVANCE TO WARN DRIVERS OF THE RAMP CLOSURE

PCMS

TYPE III BARRICADE

25' (TYP)

100'

100'

END ROAD WORK
G20-2A
48" X 24"
PLACE 250' FROM WORKZONE

W20-7A
48" X 48"
PLACE 200' EAST OF FLAGGER

ONE LANE ROAD AHEAD
W20-4A
48" X 48"
PLACE 400' EAST OF FLAGGER

RUMBLE STRIPS AHEAD
W21-65
48" X 48"
PLACE 600' EAST OF FLAGGER

RAMP CLOSED AHEAD
W20-53A
48" X 48"
PLACE 800' EAST OF FLAGGER

ROAD WORK AHEAD
W20-1A
48" X 48"
PLACE 1000' EAST OF FLAGGER

TRAFFIC CONTROL LEGEND

⊢	TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
↕	TRAFFIC CONTROL BARRICADE TYPE III
⊢↕	TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
●	TRAFFIC CONTROL DRUM
III	TEMPORARY PORTABLE RUMBLE STRIPS
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN
➡	TRAFFIC FLOW ARROW
▨	WORK AREA THIS STAGE

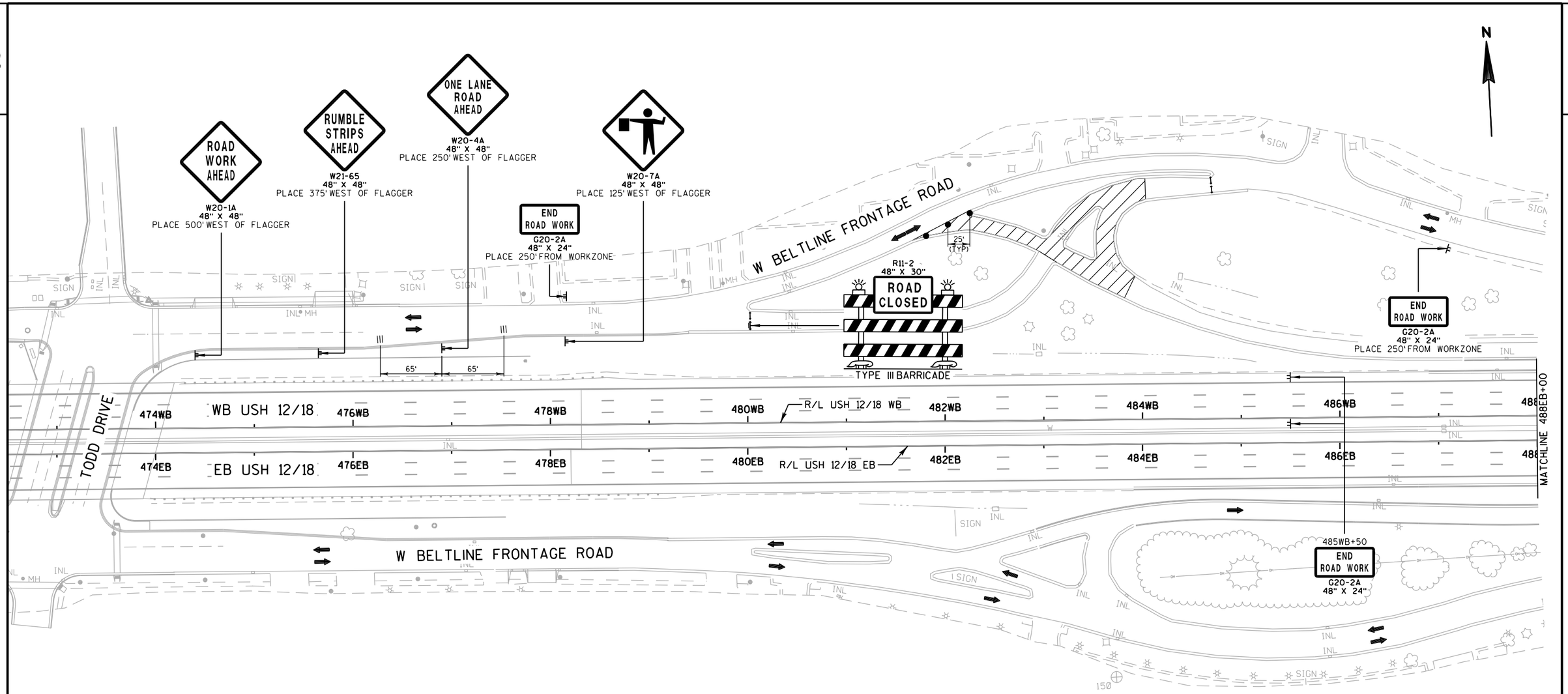
NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE EB ON-RAMP NIGHTTIME CLOSURE	SHEET 150	E

2



TRAFFIC CONTROL LEGEND

⊢	TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
I	TRAFFIC CONTROL BARRICADE TYPE III
⊥	TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
●	TRAFFIC CONTROL DRUM
III	TEMPORARY PORTABLE RUMBLE STRIPS
➡	TRAFFIC FLOW ARROW
▨	WORK AREA THIS STAGE

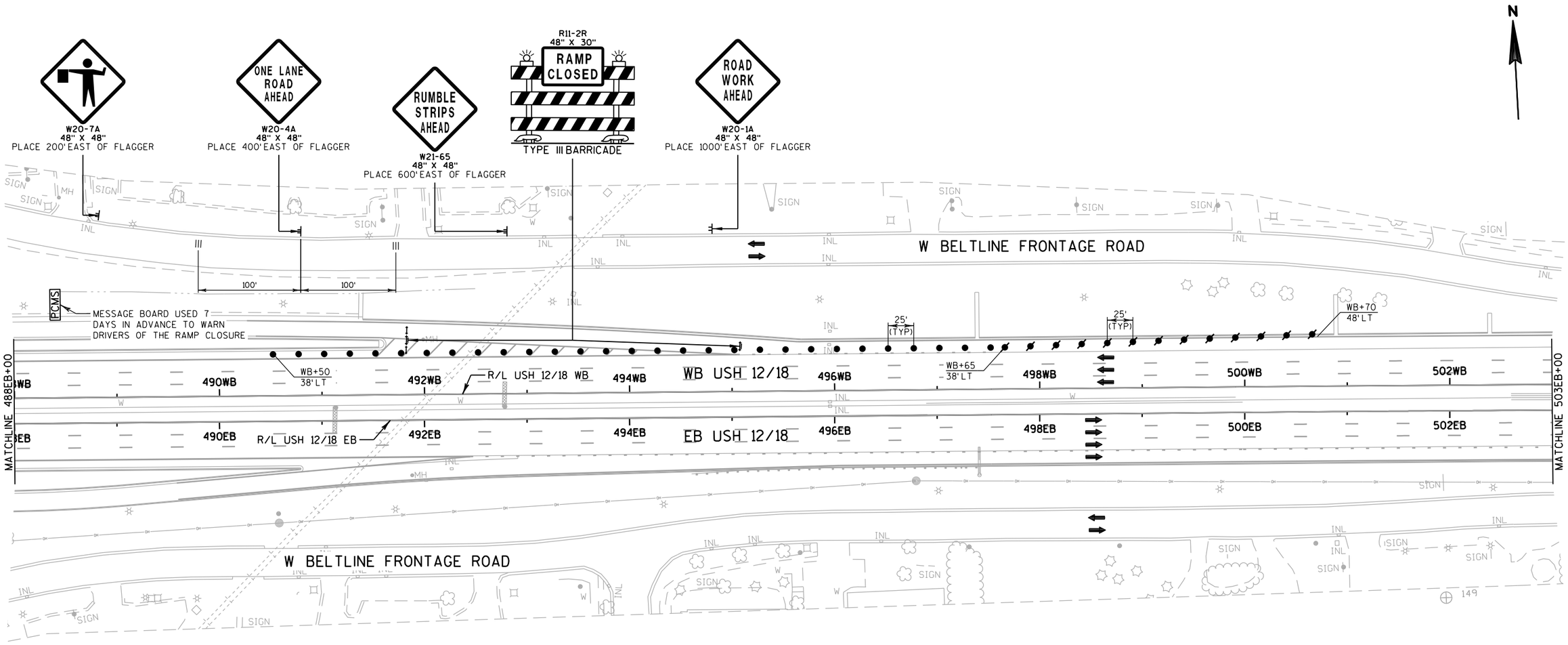
NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. SEE S.D.D. "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE WB OFF-RAMP NIGHTTIME CLOSURE	SHEET 151	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

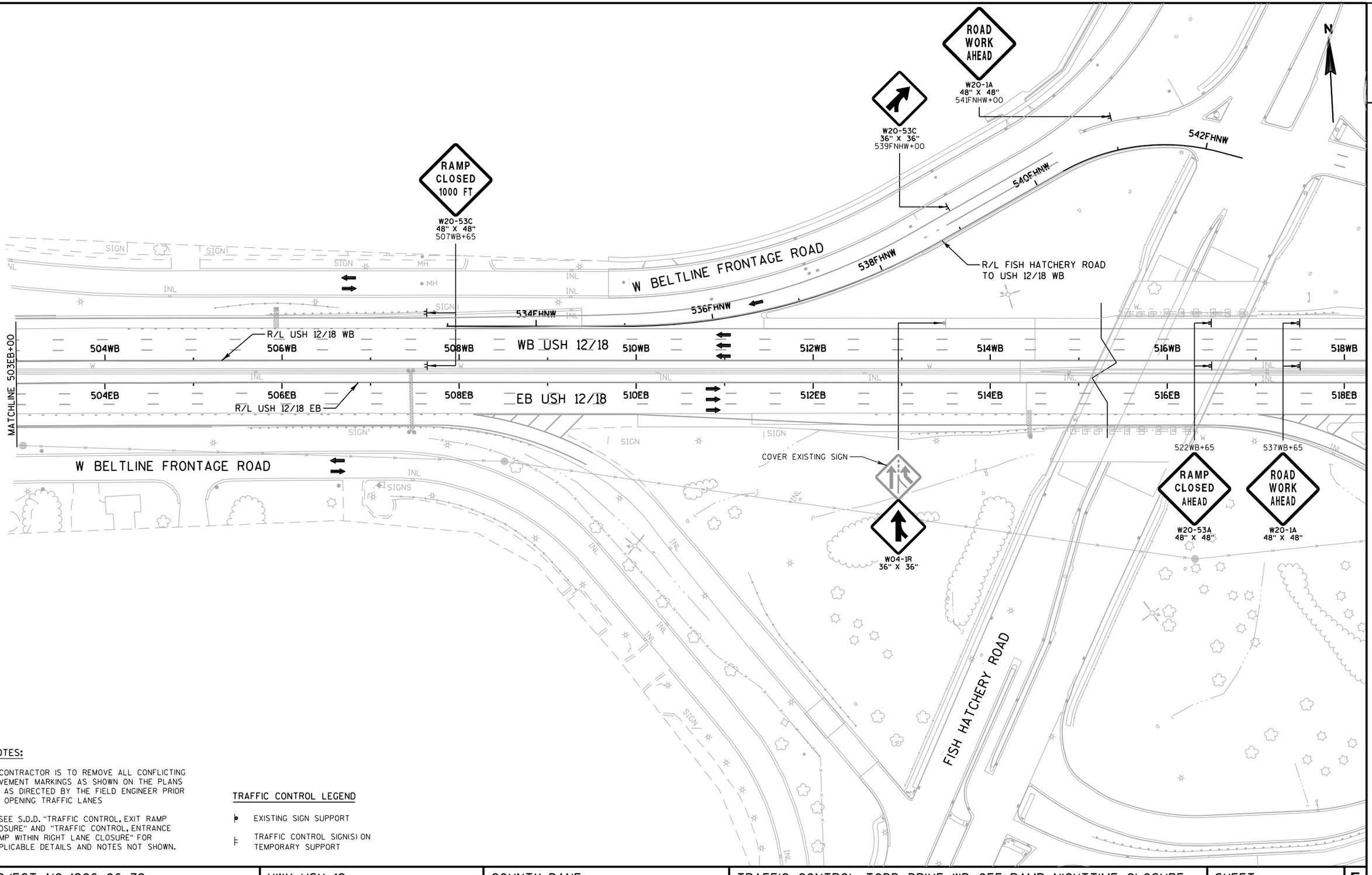
2. SEE S.D.D. "TRAFFIC CONTROL, EXIT RAMP CLOSURE," "TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE" AND "TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

TRAFFIC CONTROL LEGEND

⊢	TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT
↕	TRAFFIC CONTROL BARRICADE TYPE III
⊣	TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
●	TRAFFIC CONTROL DRUM
⊘	TRAFFIC CONTROL DRUM WITH LIGHT TYPE C
III	TEMPORARY PORTABLE RUMBLE STRIPS
PCMS	PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE WB OFF-RAMP NIGHTTIME CLOSURE	SHEET 152	E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

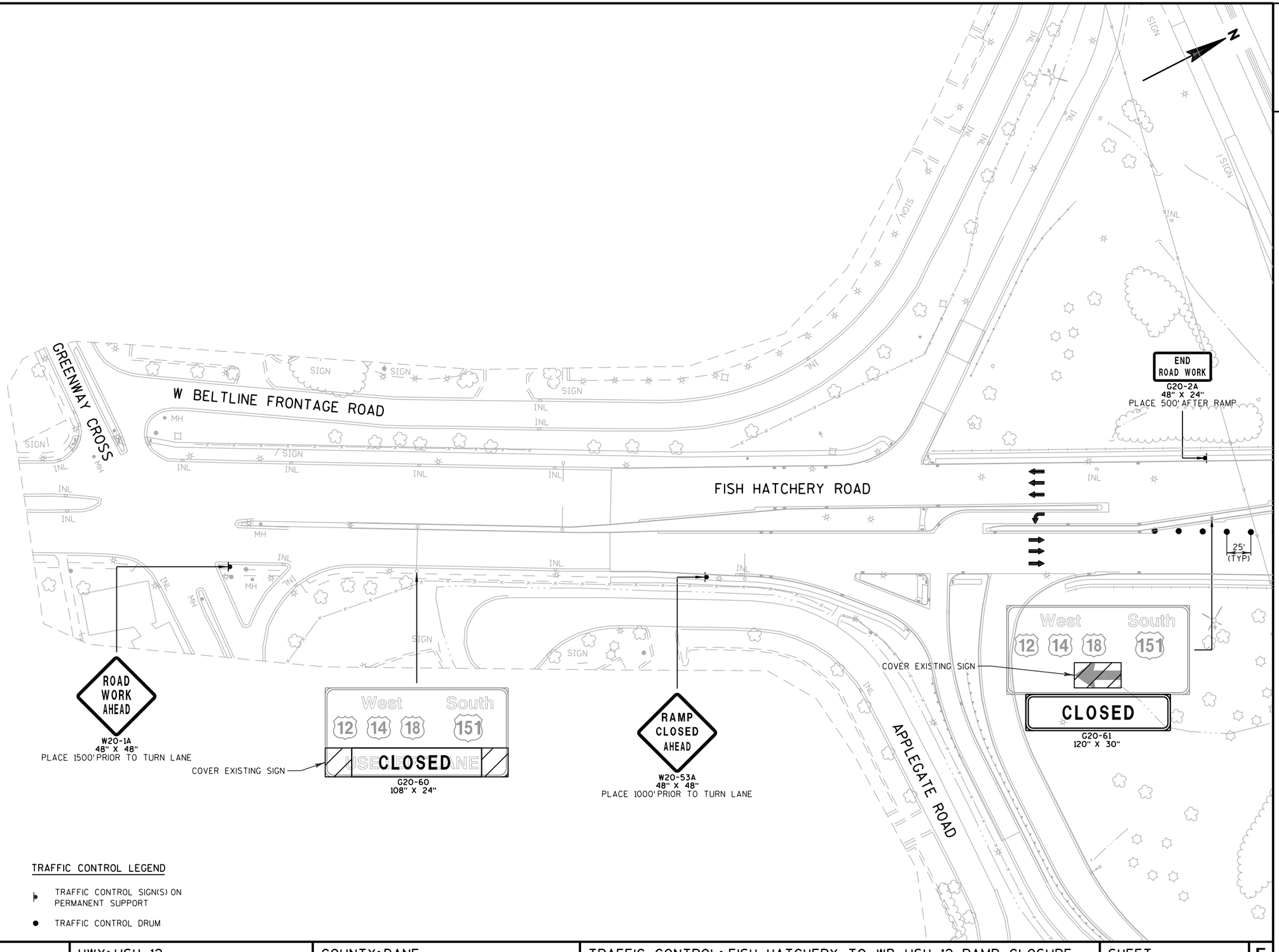
2. SEE S.D.D. "TRAFFIC CONTROL, EXIT RAMP CLOSURE" AND "TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE" FOR APPLICABLE DETAILS AND NOTES NOT SHOWN.

TRAFFIC CONTROL LEGEND

- EXISTING SIGN SUPPORT
- TRAFFIC CONTROL SIGN(S) ON TEMPORARY SUPPORT

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: TODD DRIVE WB OFF-RAMP NIGHTTIME CLOSURE	SHEET 153 E

2



NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. RAMP CLOSURE ALLOWED ONLY DURING WB WEEKEND WORK AT TODD DRIVE.

TRAFFIC CONTROL LEGEND

- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: FISH HATCHERY TO WB USH 12 RAMP CLOSURE	SHEET 154	E

2

MESSAGE BOARD USED 7 DAYS IN ADVANCE TO WARN DRIVERS OF THE RAMP CLOSURE

PCMS

COVER EXISTING SIGN

West 12 14 18 South 151

CLOSED

G20-61
120" X 30"

R11-2R
48" X 30"
RAMP CLOSED

TYPE III BARRICADE

EB USH 12/18

WB USH 12/18

DAMON ROAD

COVER EXISTING SIGN

BEGIN RIGHT TURN LANE YIELD TO BIKES

25' (TYP)

FISH HATCHERY ROAD

RAMP CLOSED AHEAD
W20-53A
48" X 48"
PLACE 1000' PRIOR TO RAMP

ROAD WORK AHEAD
W20-1A
48" X 48"
PLACE 1500' PRIOR TO RAMP

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

ONLY

COVER EXISTING SIGNS

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

END ROAD WORK
G20-2A
48" X 24"
PLACE 500' AFTER RAMP

ANN STREET

SIGN

INL

MH

TRAFFIC CONTROL LEGEND

- EXISTING SIGN SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

2. RAMP CLOSURE ALLOWED ONLY DURING USH 12 WB WEEKEND WORK AT TODD DRIVE.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: FISH HATCHERY TO WB USH 12 RAMP CLOSURE	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\026907_tc_FHWB.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2

2

N

WB USH 12/18

EB USH 12/18

SEMINOLE HWY

MESSAGE BOARD USED 7 DAYS IN ADVANCE TO WARN DRIVERS OF THE RAMP CLOSURE

PCMS

25' (TYP)

COVER EXISTING SIGN

COVER EXISTING SIGN

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

COVER EXISTING SIGN

END ROAD WORK
G20-2A
48" X 24"
PLACE 250' AFTER RAMP

ROAD WORK AHEAD
W20-1A
48" X 48"
PLACE 500' PRIOR TO RAMP

RAMP CLOSED AHEAD
W20-53A
48" X 48"
PLACE 250' PRIOR TO RAMP

Beltline East

Frontage Road

Beltline East

TRAFFIC CONTROL LEGEND

- EXISTING SIGN SUPPORT
- TRAFFIC CONTROL SIGN(S) ON PERMANENT SUPPORT
- TRAFFIC CONTROL BARRICADE TYPE III
- TRAFFIC CONTROL BARRICADE TYPE III WITH SIGN
- TRAFFIC CONTROL DRUM
- PCMS PORTABLE CHANGEABLE MESSAGE SIGN

NOTES:

1. CONTRACTOR IS TO REMOVE ALL CONFLICTING PAVEMENT MARKINGS AS SHOWN ON THE PLANS OR AS DIRECTED BY THE FIELD ENGINEER PRIOR TO OPENING TRAFFIC LANES

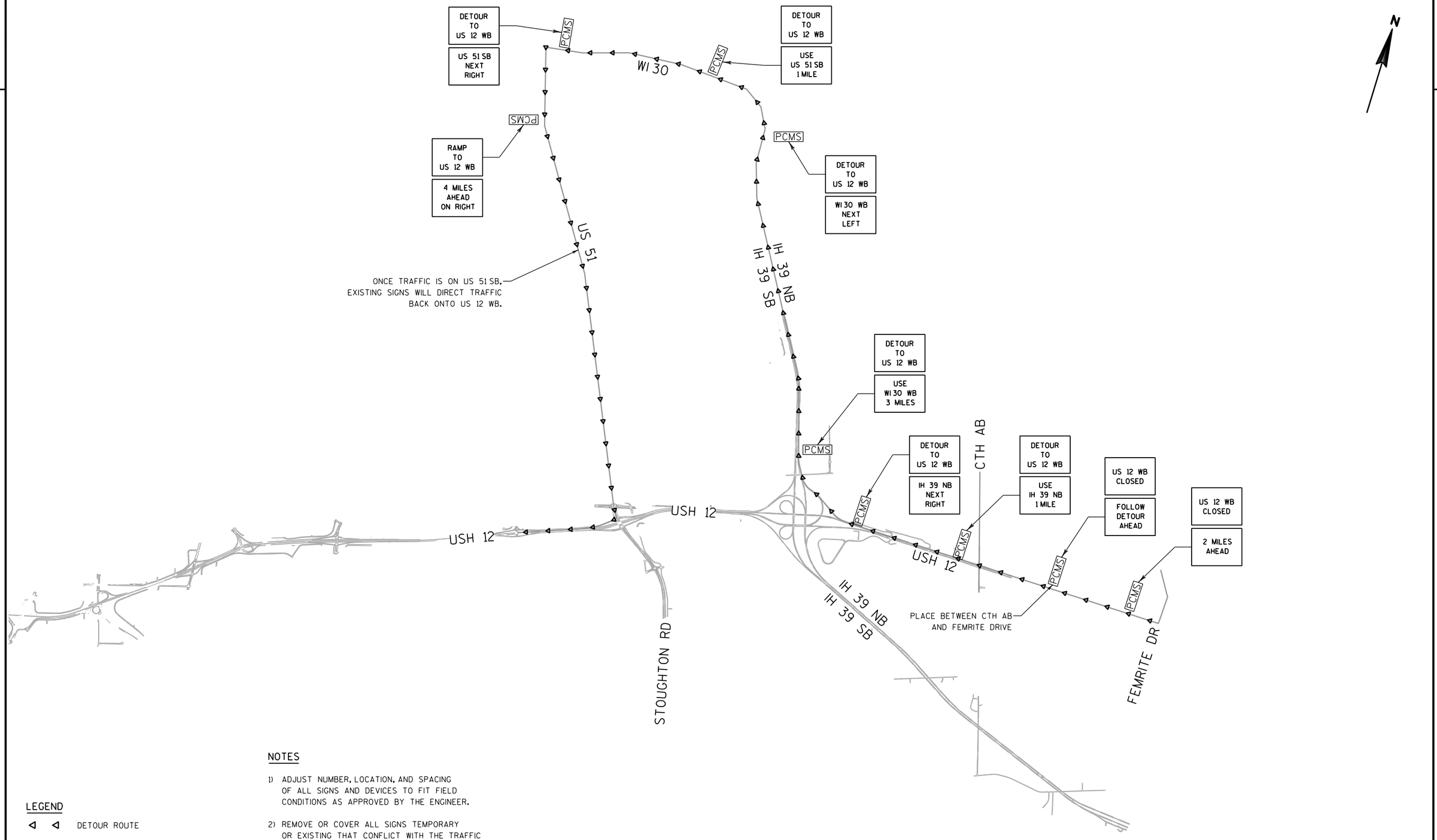
2. RAMP CLOSURE ALLOWED ONLY DURING USH 12 EB WEEKEND WORK AT TODD DRIVE.

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: SEMINOLE TO EB USH 12 RAMP CLOSURE	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\026908_tc_SEB.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 100:1

WISDOT/CADDS SHEET 42

2



NOTES

1) ADJUST NUMBER, LOCATION, AND SPACING OF ALL SIGNS AND DEVICES TO FIT FIELD CONDITIONS AS APPROVED BY THE ENGINEER.

2) REMOVE OR COVER ALL SIGNS TEMPORARY OR EXISTING THAT CONFLICT WITH THE TRAFFIC CONTROL "IN USE" AS APPROVED BY THE ENGINEER.

LEGEND

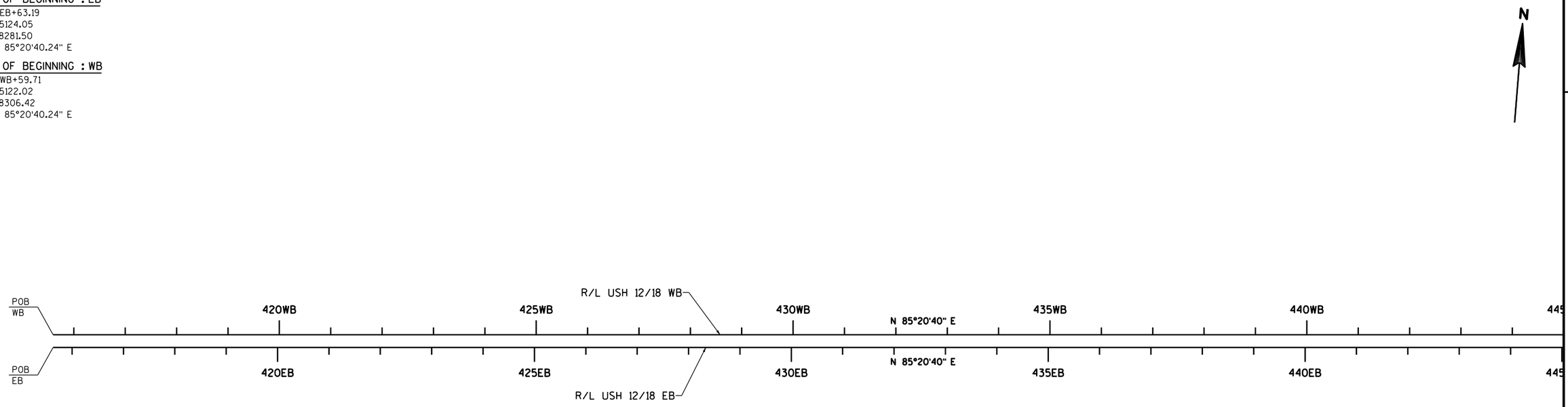
◁ ◁ DETOUR ROUTE

PCMS PORTABLE CHANGEABLE MESSAGE SIGN

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	TRAFFIC CONTROL: STAGE 3 US 12 WB CLOSURE DETOUR	SHEET 157	E

POINT OF BEGINNING : EB
PI = 415EB+63.19
X = 805124.05
Y = 468281.50
AH = N 85°20'40.24" E

POINT OF BEGINNING : WB
PI = 415WB+59.71
X = 805122.02
Y = 468306.42
AH = N 85°20'40.24" E

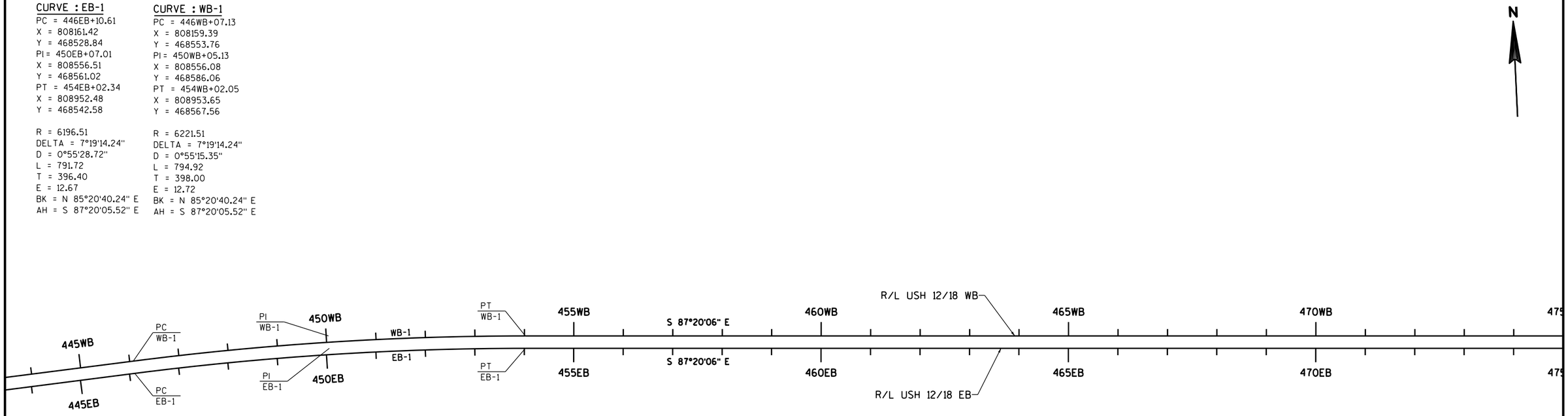


CURVE : EB-1
PC = 446EB+10.61
X = 808161.42
Y = 468528.84
PI = 450EB+07.01
X = 808556.51
Y = 468561.02
PT = 454EB+02.34
X = 808952.48
Y = 468542.58

R = 6196.51
DELTA = 7°19'14.24"
D = 0°55'28.72"
L = 791.72
T = 396.40
E = 12.67
BK = N 85°20'40.24" E
AH = S 87°20'05.52" E

CURVE : WB-1
PC = 446WB+07.13
X = 808159.39
Y = 468553.76
PI = 450WB+05.13
X = 808556.08
Y = 468586.06
PT = 454WB+02.05
X = 808953.65
Y = 468567.56

R = 6221.51
DELTA = 7°19'14.24"
D = 0°55'15.35"
L = 794.92
T = 398.00
E = 12.72
BK = N 85°20'40.24" E
AH = S 87°20'05.52" E



PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	ALIGNMENT PLAN	SHEET 158	E

2

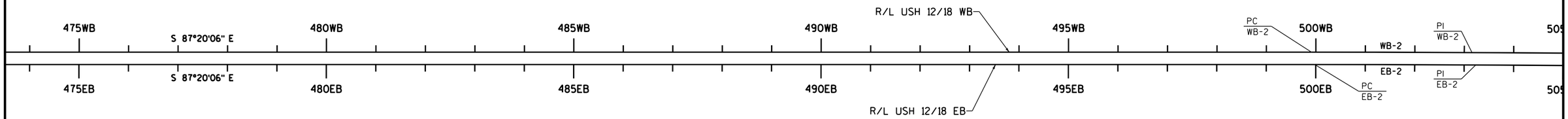
CURVE : EB-2
PC = 499EB+98.04
X = 813543.22
Y = 468328.89
PI = 503EB+24.46
X = 813869.28
Y = 468313.71
PT = 506EB+50.87
X = 814195.19
Y = 468295.47

R = 69393.56
DELTA = 0°32'20.46"
D = 0°04'57.24"
L = 652.83
T = 326.42
E = 0.77
BK = S 87°20'05.52" E
AH = S 86°47'45.06" E

CURVE : WB-2
PC = 499WB+91.03
X = 813537.66
Y = 468354.18
PI = 503WB+15.12
X = 813861.41
Y = 468339.11
PT = 506WB+39.22
X = 814185.00
Y = 468321.01

R = 69418.56
DELTA = 0°32'05.98"
D = 0°04'57.13"
L = 648.19
T = 324.10
E = 0.76
BK = S 87°20'05.52" E
AH = S 86°47'59.54" E

N



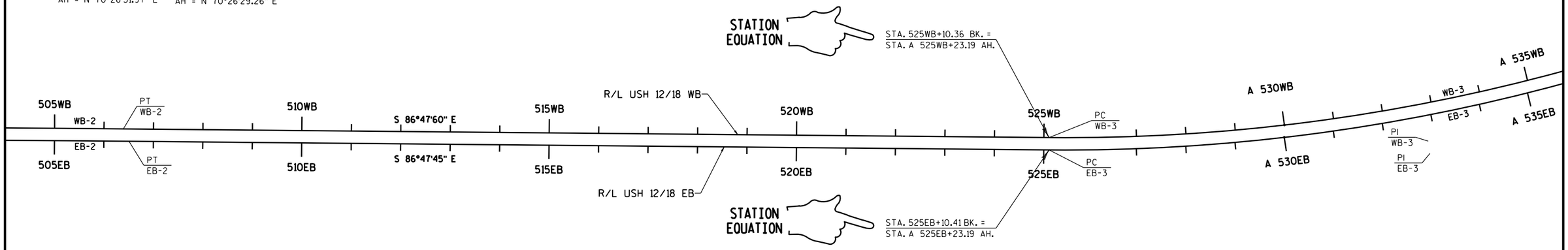
CURVE : EB-3
PC = A 525EB+23.19
X = 816051.82
Y = 46819153
PI = A 532EB+93.55
X = 816821.00
Y = 468148.85
PT = A 540EB+43.65
X = 817546.92
Y = 468406.73

R = 3832.00
DELTA = 22°44'01.78"
D = 1°29'42.69"
L = 1520.46
T = 770.36
E = 76.67
BK = S 86°49'26.25" E
AH = N 70°26'31.97" E

CURVE : WB-3
PC = A 525WB+23.54
X = 816053.57
Y = 568216.54
PI = A 532WB+89.74
X = 816818.57
Y = 468173.77
PT = A 540WB+35.73
X = 817540.56
Y = 468430.27

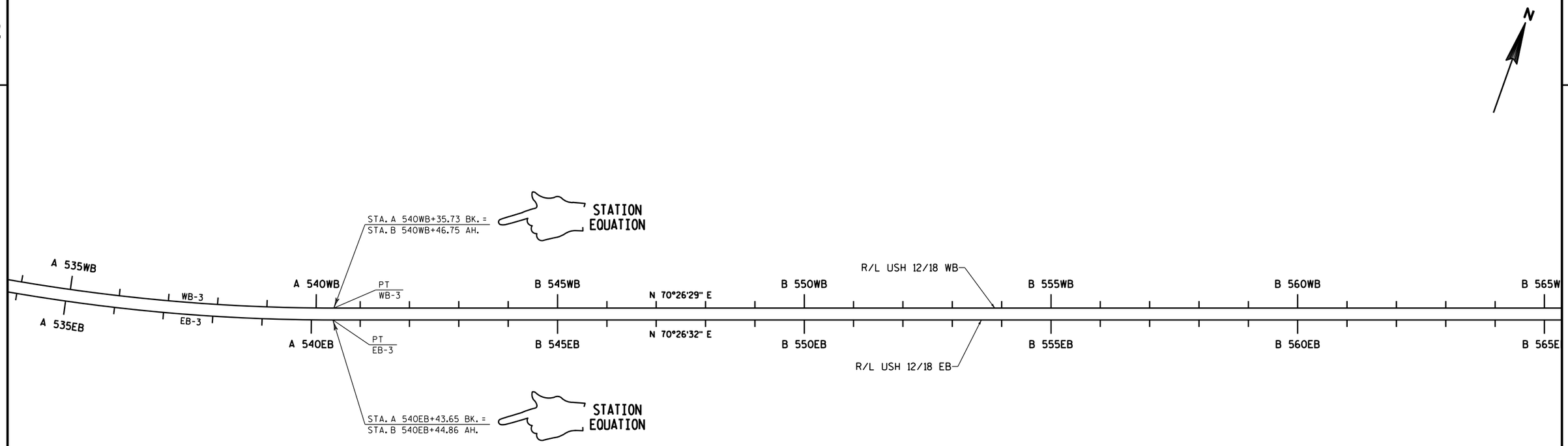
R = 3807.00
DELTA = 22°45'31.23"
D = 1°30'18.04"
L = 1512.19
T = 766.20
E = 76.34
BK = S 86°47'59.51" E
AH = N 70°26'29.26" E

N



PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	ALIGNMENT PLAN	SHEET 159	E

2



CURVE : EB-4

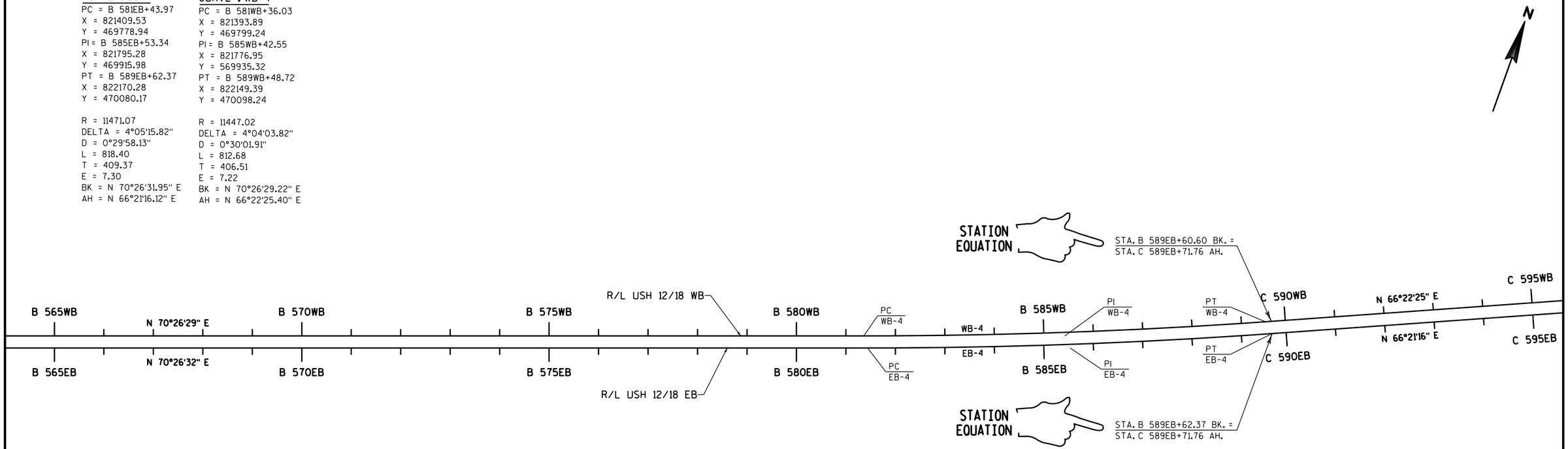
PC = B 581EB+43.97
X = 821409.53
Y = 469778.94
PI = B 585EB+53.34
X = 821795.28
Y = 469915.98
PT = B 589EB+62.37
X = 822170.28
Y = 470080.17

R = 11471.07
DELTA = 4°05'15.82"
D = 0°29'58.13"
L = 818.40
T = 409.37
E = 7.30
BK = N 70°26'31.95" E
AH = N 66°21'16.12" E

CURVE : WB-4

PC = B 581WB+36.03
X = 821393.89
Y = 469799.24
PI = B 585WB+42.55
X = 821776.95
Y = 569935.32
PT = B 589WB+48.72
X = 822149.39
Y = 470098.24

R = 11447.02
DELTA = 4°04'03.82"
D = 0°30'01.91"
L = 812.68
T = 406.51
E = 7.22
BK = N 70°26'29.22" E
AH = N 66°22'25.40" E



PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	ALIGNMENT PLAN	SHEET 160	E

2

CURVE : EB-5
PC = C 608EB+79.58
X = 823917.93
Y = 470845.35
PI = C 611EB+91.29
X = 824203.47
Y = 470970.37
PT = C 615EB+02.96
X = 824485.50
Y = 471103.11

R = 22918.81
DELTA = 1°33'30.28"
D = 0°14'59.98"
L = 623.38
T = 311.71
E = 2.12
BK = N 66°21'15.93" E
AH = N 64°47'45.64" E

CURVE : EB-6
PC = D 618EB+22.80
X = 824742.11
Y = 471223.89
PI = D 622+34.47
X = 825114.58
Y = 471399.19
PT = D 626EB+36.66
X = 825525.28
Y = 471427.48

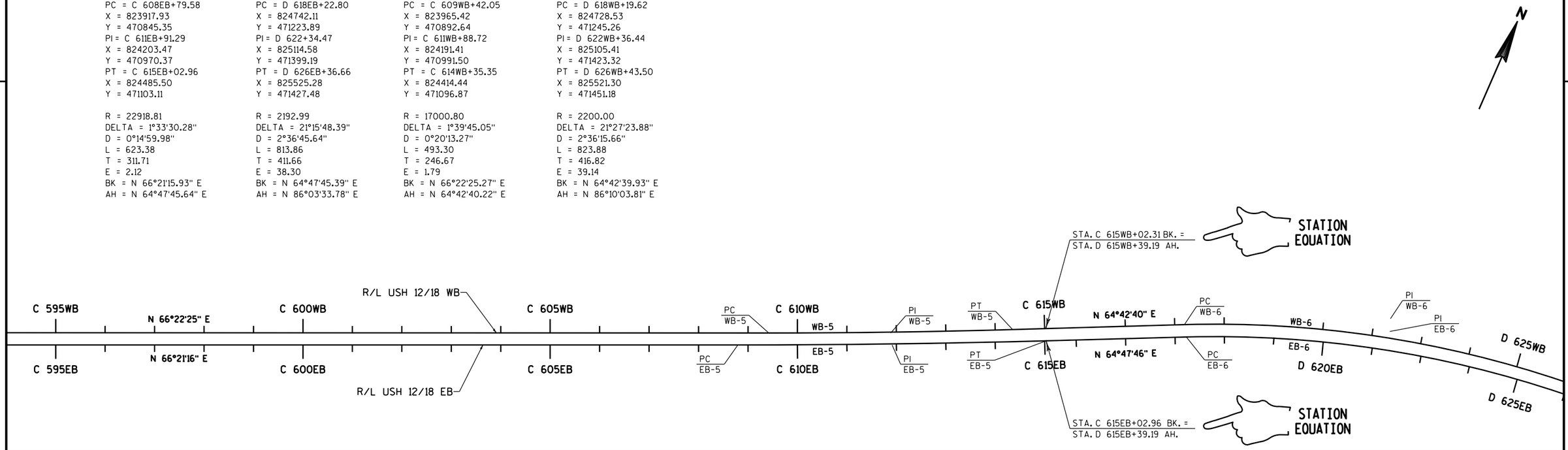
R = 2192.99
DELTA = 21°15'48.39"
D = 2°36'45.64"
L = 813.86
T = 411.66
E = 38.30
BK = N 64°47'45.39" E
AH = N 86°03'33.78" E

CURVE : WB-5
PC = C 609WB+42.05
X = 823965.42
Y = 470892.64
PI = C 611WB+88.72
X = 824191.41
Y = 470991.50
PT = C 614WB+35.35
X = 824414.44
Y = 471096.87

R = 17000.80
DELTA = 1°39'45.05"
D = 0°20'13.27"
L = 493.30
T = 246.67
E = 1.79
BK = N 66°22'25.27" E
AH = N 64°42'40.22" E

CURVE : WB-6
PC = D 618WB+19.62
X = 824728.53
Y = 471245.26
PI = D 622WB+36.44
X = 825105.41
Y = 471423.32
PT = D 626WB+43.50
X = 825521.30
Y = 471451.18

R = 2200.00
DELTA = 21°27'23.88"
D = 2°36'15.66"
L = 823.88
T = 416.82
E = 39.14
BK = N 64°42'39.93" E
AH = N 86°10'03.81" E

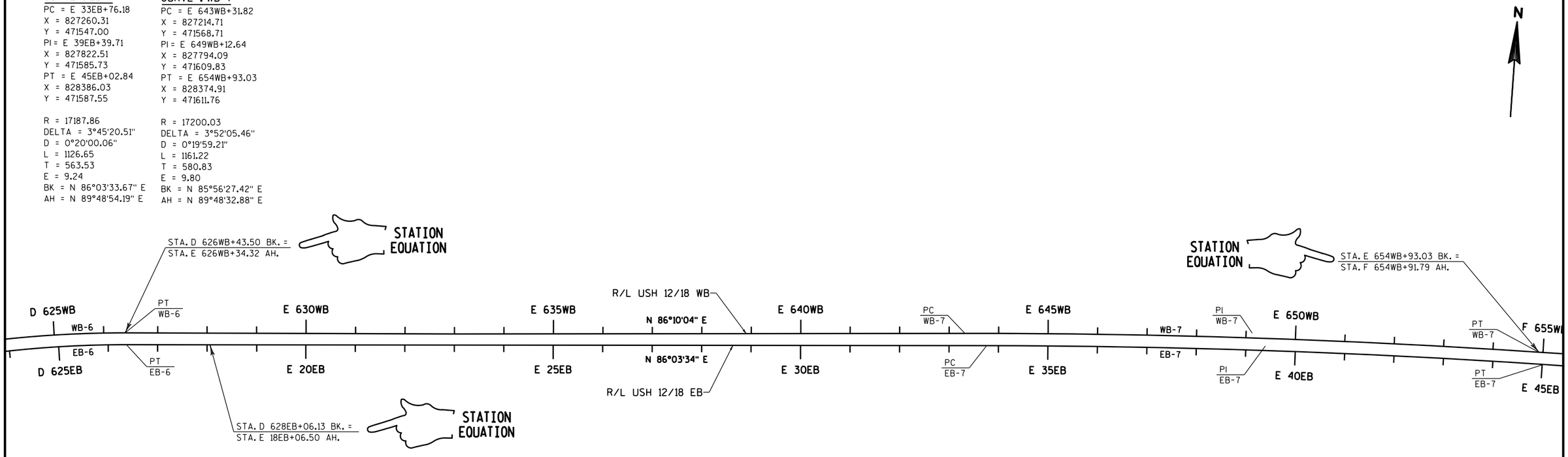


CURVE : EB-7
PC = E 33EB+76.18
X = 827260.31
Y = 471547.00
PI = E 39EB+39.71
X = 827822.51
Y = 471585.73
PT = E 45EB+02.84
X = 828386.03
Y = 471587.55

R = 17187.86
DELTA = 3°45'20.51"
D = 0°20'00.06"
L = 1126.65
T = 563.53
E = 9.24
BK = N 86°03'33.67" E
AH = N 89°48'54.19" E

CURVE : WB-7
PC = E 643WB+31.82
X = 827214.71
Y = 471568.71
PI = E 649WB+12.64
X = 827794.09
Y = 471609.83
PT = E 654WB+93.03
X = 828374.91
Y = 471611.76

R = 17200.03
DELTA = 3°52'05.46"
D = 0°19'59.21"
L = 1161.22
T = 580.83
E = 9.80
BK = N 85°56'27.42" E
AH = N 89°48'32.88" E

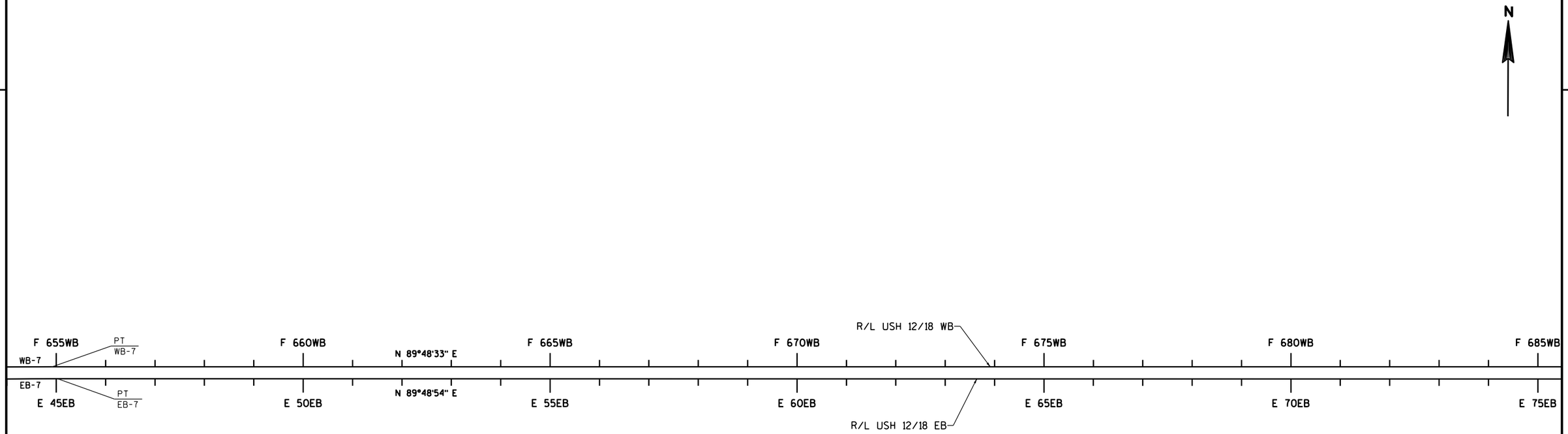


PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	ALIGNMENT PLAN	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\027204_ad.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 200:1

WISDOT/CADDS SHEET 42

2



CURVE : EB-8

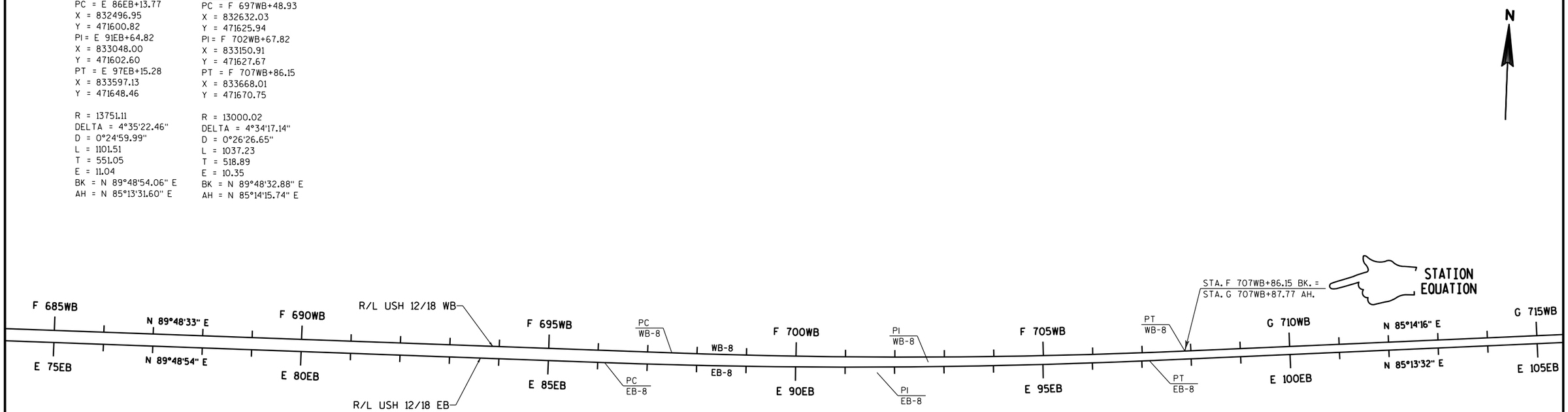
PC = E 86EB+13.77
X = 832496.95
Y = 471600.82
PI = E 91EB+64.82
X = 833048.00
Y = 471602.60
PT = E 97EB+15.28
X = 833597.13
Y = 471648.46

R = 13751.11
DELTA = 4°35'22.46"
D = 0°24'59.99"
L = 1101.51
T = 551.05
E = 11.04
BK = N 89°48'54.06" E
AH = N 85°13'31.60" E

CURVE : WB-8

PC = F 697WB+48.93
X = 832632.03
Y = 471625.94
PI = F 702WB+67.82
X = 833150.91
Y = 471627.67
PT = F 707WB+86.15
X = 833668.01
Y = 471670.75

R = 13000.02
DELTA = 4°34'17.14"
D = 0°26'26.65"
L = 1037.23
T = 518.89
E = 10.35
BK = N 89°48'32.88" E
AH = N 85°14'15.74" E



PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	ALIGNMENT PLAN	SHEET 162	E

2

CURVE : EB-9

PC = E 130EB+99.63
X = 836969.74
Y = 471930.16
PI = E 133EB+43.41
X = 837212.67
Y = 471950.45
PT = E 135EB+87.15
X = 837456.07
Y = 471963.85

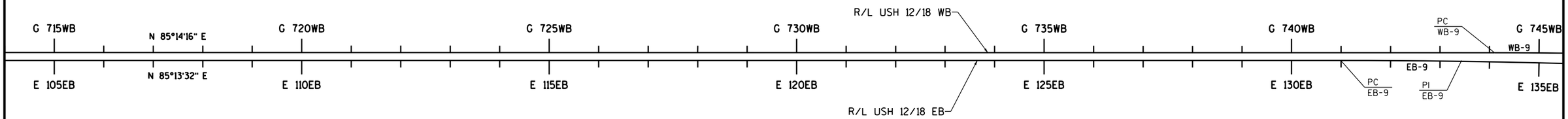
R = 17189.38
DELTA = 1°37'29.96"
D = 0°19'59.95"
L = 487.52
T = 243.77
E = 1.73
BK = N 85°13'31.65" E
AH = N 86°51'01.61" E

CURVE : WB-9

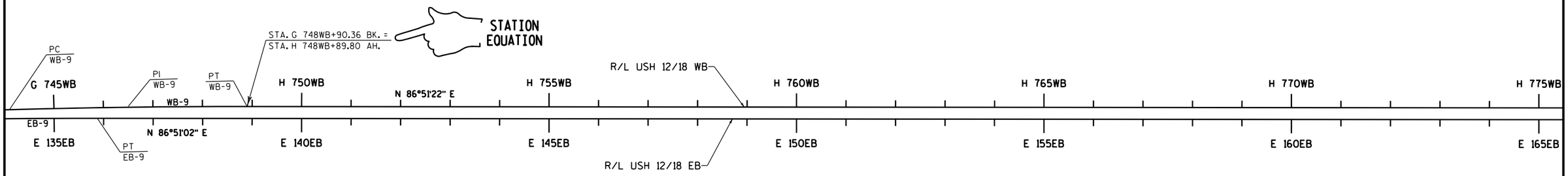
PC = G 744WB+10.15
X = 837277.89
Y = 471971.49
PI = G 746WB+50.27
X = 837517.18
Y = 471991.42
PT = H 748+89.80
X = 837756.94
Y = 472004.59

R = 17000.10
DELTA = 1°37'06.42"
D = 0°20'13.32"
L = 480.21
T = 240.12
E = 1.70
BK = N 85°14'15.74" E
AH = N 86°51'22.16" E

N



N



PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	ALIGNMENT PLAN	SHEET 163	E

2

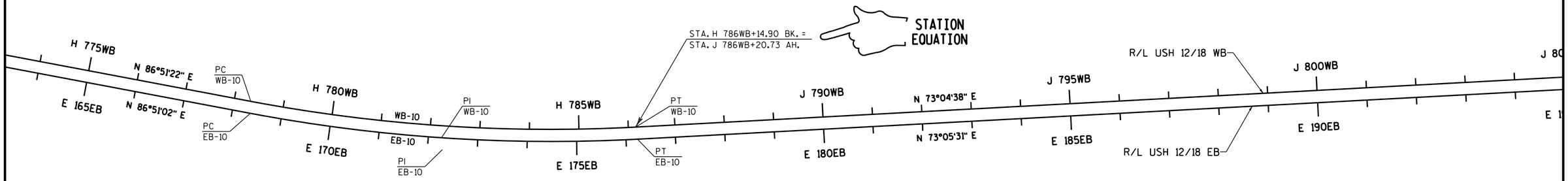
CURVE : EB-10
PC = E 168EB+36.93
X = 840700.94
Y = 472142.40
PI = E 172EB+31.92
X = 841095.34
Y = 472164.10
PT = E 176EB+23.11
X = 841473.26
Y = 4712278.98

R = 3273.99
DELTA = 13°45'30.53"
D = 1°45'00.10"
L = 786.19
T = 394.99
E = 23.74
BK = N 86°51'01.61" E
AH = N 73°05'31.08" E

CURVE : WB-10
PC = H 778WB+33.32
X = 840696.03
Y = 472166.02
PI = H 782WB+26.01
X = 841088.12
Y = 472187.56
PT = H 786WB+14.90
X = 841463.80
Y = 472301.86

R = 3249.99
DELTA = 13°46'44.14"
D = 1°45'46.62"
L = 781.58
T = 392.69
E = 23.64
BK = N 86°51'22.16" E
AH = N 73°04'38.02" E

N



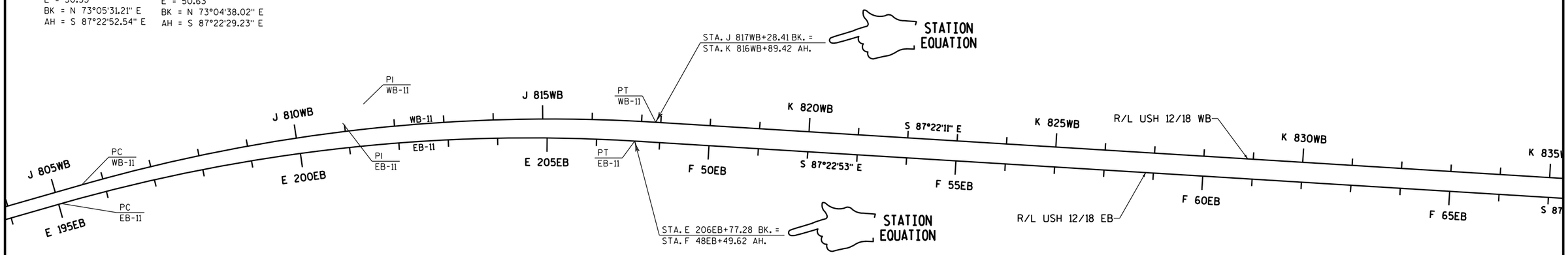
CURVE : EB-11
PC = E 195EB+05.59
X = 843274.36
Y = 472826.47
PI = E 200EB+97.18
X = 84.840.37
Y = 472998.52
PT = F 48EB+49.63
X = 844431.34
Y = 472971.49

R = 3438.01
DELTA = 19°31'36.26"
D = 1°39'59.53"
L = 1171.70
T = 591.58
E = 50.53
BK = N 73°05'31.21" E
AH = S 87°22'52.54" E

CURVE : WB-11
PC = J 805WB+55.53
X = 843314.83
Y = 472865.05
PI = J 811WB+47.73
X = 843881.38
Y = 473037.43
PT = J 817WB+28.41
X = 844472.95
Y = 473010.30

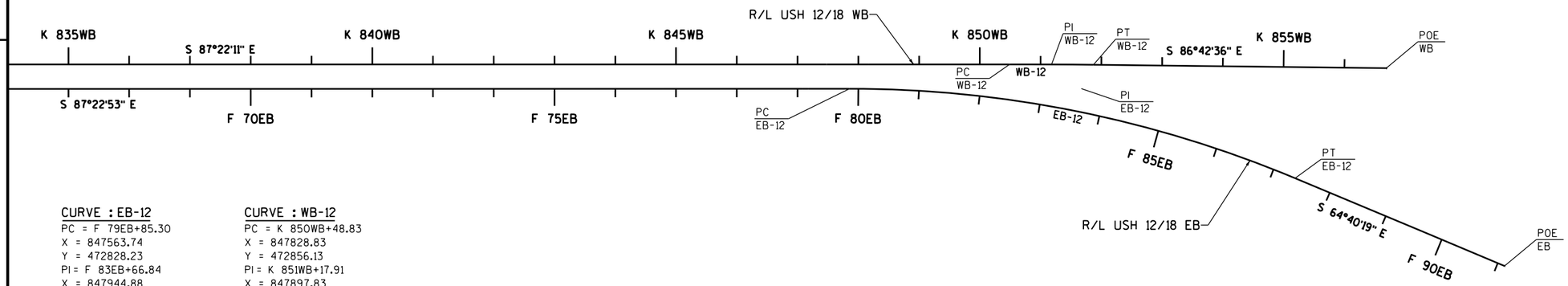
R = 3437.74
DELTA = 19°32'52.75"
D = 1°40'00.02"
L = 1172.88
T = 592.19
E = 50.63
BK = N 73°04'38.02" E
AH = S 87°22'29.23" E

N



PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	ALIGNMENT PLAN	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\027207_ad.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 200:1
WISDOT/CADDS SHEET 42





CURVE : EB-12
PC = F 79EB+85.30
X = 847563.74
Y = 472828.23
PI = F 83EB+66.84
X = 847944.88
Y = 472810.79
PT = F 87EB+38.36
X = 848289.74
Y = 472647.57

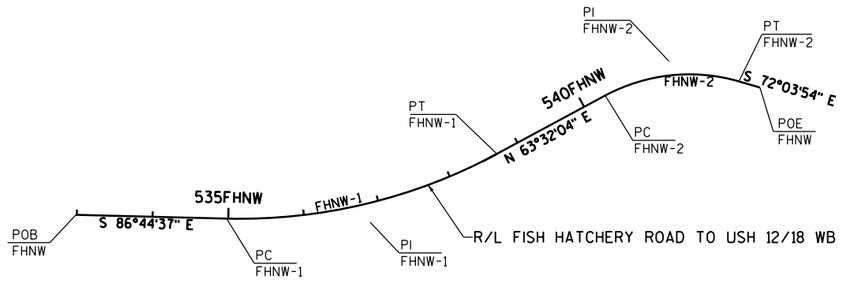
R = 1900.00
DELTA = 22°42'33.05"
D = 3°00'56.04"
L = 753.06
T = 381.54
E = 37.93
BK = S 87°22'52.54" E
AH = S 64°40'19.49" E

CURVE : WB-12
PC = K 850WB+48.83
X = 847828.83
Y = 472856.13
PI = K 851WB+17.91
X = 847897.83
Y = 472852.96
PT = K 851WB+86.98
X = 847966.79
Y = 472849.00

R = 12000.00
DELTA = 0°39'34.62"
D = 0°28'38.87"
L = 138.15
T = 39.08
E = 0.20
BK = S 87°22'10.88" E
AH = S 86°42'36.25" E

POINT OF ENDING : EB
PI = F 91EB+12.04
X = 848627.50
Y = 472487.71
AH = S 64°40'19.49" E

POINT OF BEGINNING : WB
PI = K 856WB+68.84
X = 848447.85
Y = 472821.35
AH = S 86°42'36.25" E





CURVE : FHNW-1
PC = 534FHNW+97.83
X = 814532.25
Y = 468340.22
PI = 536FHNW+87.55
X = 814721.67
Y = 468329.44
PT = 538FHNW+68.73
X = 814891.51
Y = 468413.99

R = 715.00
DELTA = 29°43'18.68"
D = 8°00'48.28"
L = 370.90
T = 189.72
E = 24.74
BK = S 86°44'37.03" E
AH = N 63°32'04.29" E

CURVE : FHNW-2
PC = 540FHNW+31.45
X = 815037.17
Y = 468486.51
PI = 541FHNW+27.35
X = 815123.03
Y = 468529.25
PT = 542FHNW+13.56
X = 815214.27
Y = 468499.72

R = 235.00
DELTA = 44°24'02.07"
D = 24°22'52.06"
L = 182.11
T = 95.90
E = 18.82
BK = N 63°32'04.28" E
AH = S 72°03'53.65" E

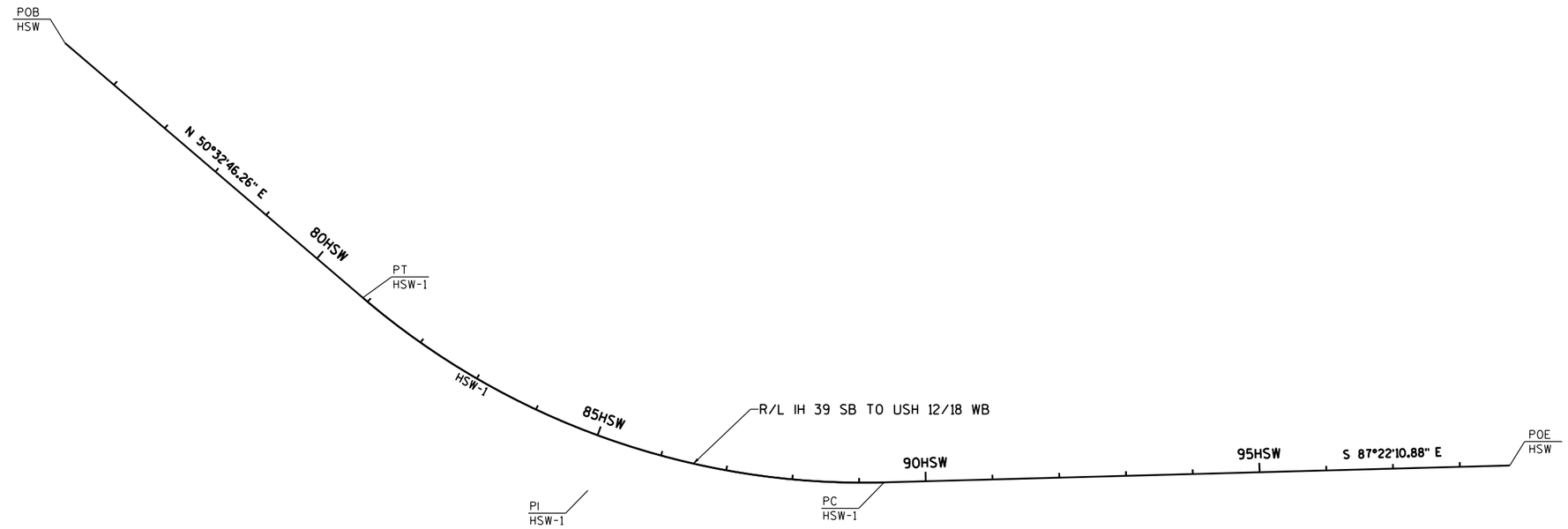
POINT OF BEGINNING : FHNW
PI = 532FHNW+98.71
X = 814333.45
Y = 468351.53
AH = S 86°44'36.80" E

POINT OF ENDING : FHNW
PI = 542FHNW+42.56
X = 815241.86
Y = 468490.78
AH = S 72°03'55.40" E

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	ALIGNMENT PLAN	SHEET	E

FILE NAME : \\madw00\ingrproj\66034\t1\cds\027208_ad.dgn PLOT DATE : 11/1/2018 PLOT BY : ctomsak PLOT NAME : PLOT SCALE : 200:1

2



CURVE : HSW-1
PC = 80HSW+90.49
X = 847672.86
Y = 472911.35
PI = 85HSW+34.17
X = 848116.07
Y = 472890.99
PT = 89HSW+37.59
X = 848458.65
Y = 473172.93

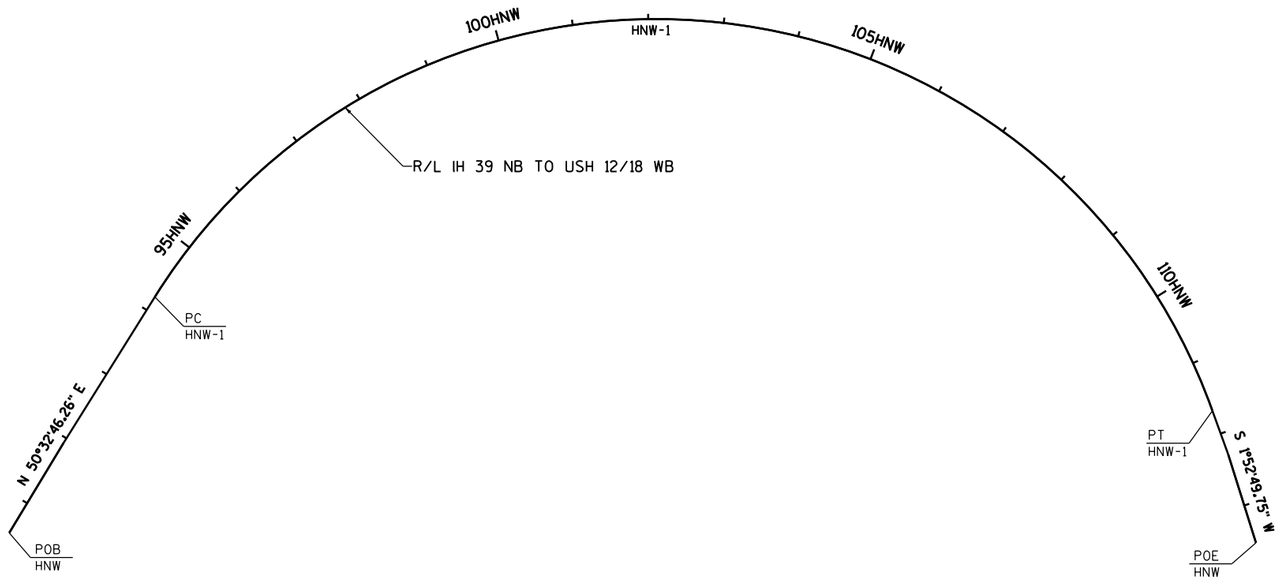
R = 1153.30
DELTA = 42°05'02.86"
D = 4°58'04.81"
L = 847.10
T = 443.68
E = 82.40
BK = S 87°22'10.88" E
AH = N 50°32'56.26" E

POINT OF BEGINNING : HSW
PI = 75HSW+03.81
X = 847086.80
Y = 472938.27
AH = S 87°22'10.88" E

POINT OF ENDING : HSW
PI = 98HSW+74.91
X = 849182.39
Y = 473768.55
AH = N 50°32'46.26" E

CURVE : HNW-1
PC = 94HNW+20.29
X = 848848.52
Y = 473458.79
PI = 102HNW+05.87
X = 850105.53
Y = 474465.56
PT = 111HNW+67.98
X = 850117.06
Y = 472855.12

R = 780.58
DELTA = 128°16'55.59"
D = 7°20'24.44"
L = 1747.68
T = 1610.48
E = 1009.10
BK = N 51°18'27.97" E
AH = S 0°24'36.44" E



POINT OF BEGINNING : HNW
PI = 90HNW+54.15
X = 848563.91
Y = 473228.47
AH = N 50°32'46.26" E

POINT OF ENDING : HNW
PI = 113HNW+51.57
X = 850113.48
Y = 472671.59
AH = S 1°52'49.75" W

PROJECT NO: 1206-06-78	HWY: USH 12	COUNTY: DANE	ALIGNMENT PLAN	SHEET 166	E

1206-06-78

Line	Item	Item Description	Unit	Total	Qty
0002	203.0200	Removing Old Structure (station) 01. 473WB+19.07	LS	1.000	1.000
0004	203.0225.S	Debris Containment (structure) 01. B-13-320	LS	1.000	1.000
0006	203.0225.S	Debris Containment (structure) 02. B-13-321	LS	1.000	1.000
0008	204.0100	Removing Pavement	SY	958.000	958.000
0010	204.0105	Removing Pavement Butt Joints	SY	25,870.000	25,870.000
0012	204.0109.S	Removing Concrete Surface Partial Depth	SF	55,358.000	55,358.000
0014	204.0115	Removing Asphaltic Surface Butt Joints	SY	5,860.000	5,860.000
0016	204.0120	Removing Asphaltic Surface Milling	SY	131,403.000	131,403.000
0018	204.0150	Removing Curb & Gutter	LF	40.000	40.000
0020	204.0165	Removing Guardrail	LF	108.000	108.000
0022	205.0100	Excavation Common	CY	1,381.000	1,381.000
0024	209.0300.S	Backfill Coarse Aggregate (size) 01. Size No. 1	CY	1,241.000	1,241.000
0026	211.0100	Prepare Foundation for Asphaltic Paving (project) 01. 1206-06-78	LS	1.000	1.000
0028	213.0100	Finishing Roadway (project) 01. 1206-06-78	EACH	1.000	1.000
0030	305.0110	Base Aggregate Dense 3/4-Inch	TON	702.000	702.000
0032	305.0500	Shaping Shoulders	STA	25.000	25.000
0034	415.1120	Concrete Pavement HES 12-Inch	SY	490.000	490.000
0036	415.1410	Concrete Pavement Approach Slab HES	SY	404.000	404.000
0038	416.0610	Drilled Tie Bars	EACH	248.000	248.000
0040	416.0620	Drilled Dowel Bars	EACH	5,550.000	5,550.000
0042	455.0605	Tack Coat	GAL	34,391.000	34,391.000
0044	460.0105.S	HMA Percent Within Limits (PWL) Test Strip Volumetrics	EACH	1.000	1.000
0046	460.0110.S	HMA Percent Within Limits (PWL) Test Strip Density	EACH	1.000	1.000
0048	460.2005	Incentive Density PWL HMA Pavement	DOL	46,000.000	46,000.000
0050	460.2010	Incentive Air Voids HMA Pavement	DOL	53,000.000	53,000.000
0052	460.4110.S	Reheating HMA Pavement Longitudinal Joints	LF	180,210.000	180,210.000
0054	460.7624	HMA Pavement 4 HT 58-28 V	TON	53,430.000	53,430.000
0056	465.0105	Asphaltic Surface	TON	254.000	254.000
0058	465.0315	Asphaltic Flumes	SY	107.000	107.000
0060	502.0100	Concrete Masonry Bridges	CY	4.000	4.000
0062	502.0717.S	Crack Sealing Epoxy	LF	230.000	230.000
0064	502.3100	Expansion Device (structure) 01. B-13-320	LS	1.000	1.000
0066	502.3100	Expansion Device (structure) 02. B-13-321	LS	1.000	1.000
0068	502.3200	Protective Surface Treatment	SY	104.000	104.000
0070	502.3210	Pigmented Surface Sealer	SY	21.000	21.000
0072	502.4204	Adhesive Anchors No. 4 Bar	EACH	4.000	4.000
0074	502.4205	Adhesive Anchors No. 5 Bar	EACH	268.000	268.000
0076	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	8,990.000	8,990.000
0078	505.0904	Bar Couplers No. 4	EACH	16.000	16.000

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Line	Item	Item Description	Unit	Total	Qty
0080	505.0905	Bar Couplers No. 5	EACH	24.000	24.000
0082	505.0906	Bar Couplers No. 6	EACH	64.000	64.000
0084	505.0907	Bar Couplers No. 7	EACH	48.000	48.000
0086	509.0301	Preparation Decks Type 1	SY	24.000	24.000
0088	509.0302	Preparation Decks Type 2	SY	10.000	10.000
0090	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	480.000	480.000
0092	509.1000	Joint Repair	SY	108.000	108.000
0094	509.1500	Concrete Surface Repair	SF	104.000	104.000
0096	509.2100.S	Concrete Masonry Deck Repair	CY	2.000	2.000
0098	509.2500	Concrete Masonry Overlay Decks	CY	46.000	46.000
0100	511.1100	Temporary Shoring	SF	3,976.000	3,976.000
0102	516.0500	Rubberized Membrane Waterproofing	SY	2.000	2.000
0104	520.8700	Cleaning Culvert Pipes	EACH	8.000	8.000
0106	521.1018	Apron Endwalls for Culvert Pipe Steel 18-Inch	EACH	2.000	2.000
0108	521.3118	Culvert Pipe Corrugated Steel 18-Inch	LF	40.000	40.000
0110	603.8000	Concrete Barrier Temporary Precast Delivered	LF	2,576.000	2,576.000
0112	603.8125	Concrete Barrier Temporary Precast Installed	LF	4,852.000	4,852.000
0114	604.9010.S	Slope Paving Repair Crushed Aggregate	CY	5.000	5.000
0116	604.9015.S	Reseal Crushed Aggregate Slope Paving	SY	220.000	220.000
0118	611.8115	Adjusting Inlet Covers	EACH	59.000	59.000
0120	612.0406	Pipe Underdrain Wrapped 6-Inch	LF	312.000	312.000
0122	614.0150	Anchor Assemblies for Steel Plate Beam Guard	EACH	1.000	1.000
0124	614.0200	Steel Thrie Beam Structure Approach	LF	58.000	58.000
0126	614.0305	Steel Plate Beam Guard Class A	LF	50.000	50.000
0128	614.0400	Adjusting Steel Plate Beam Guard	LF	300.000	300.000
0130	614.0905	Crash Cushions Temporary	EACH	7.000	7.000
0132	614.1100	MGS Guardrail Temporary Thrie Beam Transition	LF	250.000	250.000
0134	618.0100	Maintenance And Repair of Haul Roads (project) 01. 1206-06-78	EACH	1.000	1.000
0136	619.1000	Mobilization	EACH	1.000	1.000
0138	624.0100	Water	MGAL	14.000	14.000
0140	625.0500	Salvaged Topsoil	SY	313.000	313.000
0142	628.1504	Silt Fence	LF	141.000	141.000
0144	628.1520	Silt Fence Maintenance	LF	141.000	141.000
0146	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0148	628.1910	Mobilizations Emergency Erosion Control	EACH	1.000	1.000
0150	628.2004	Erosion Mat Class I Type B	SY	313.000	313.000
0152	628.7020	Inlet Protection Type D	EACH	5.000	5.000
0154	629.0210	Fertilizer Type B	CWT	0.500	0.500
0156	630.0130	Seeding Mixture No. 30	LB	8.000	8.000

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Line	Item	Item Description	Unit	Total	Qty
0158	633.5200	Markers Culvert End	EACH	2.000	2.000
0160	642.5001	Field Office Type B	EACH	1.000	1.000
0162	643.0300	Traffic Control Drums	DAY	27,391.000	27,391.000
0164	643.0310.S	Temporary Portable Rumble Strips	LS	1.000	1.000
0166	643.0420	Traffic Control Barricades Type III	DAY	3,090.000	3,090.000
0168	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	366.000	366.000
0170	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	366.000	366.000
0172	643.0705	Traffic Control Warning Lights Type A	DAY	6,180.000	6,180.000
0174	643.0715	Traffic Control Warning Lights Type C	DAY	9,248.000	9,248.000
0176	643.0800	Traffic Control Arrow Boards	DAY	370.000	370.000
0178	643.0900	Traffic Control Signs	DAY	5,902.000	5,902.000
0180	643.0910	Traffic Control Covering Signs Type I	EACH	12.000	12.000
0182	643.0920	Traffic Control Covering Signs Type II	EACH	27.000	27.000
0184	643.1000	Traffic Control Signs Fixed Message	SF	415.000	415.000
0186	643.1050	Traffic Control Signs PCMS	DAY	473.000	473.000
0188	643.1055.S	Truck or Trailer Mounted Attenuator	DAY	2.000	2.000
0190	643.5000	Traffic Control	EACH	1.000	1.000
0192	645.0135	Geotextile Type SR	SY	1,036.000	1,036.000
0194	646.1020	Marking Line Epoxy 4-Inch	LF	197,096.000	197,096.000
0196	646.3020	Marking Line Epoxy 8-Inch	LF	34,362.000	34,362.000
0198	646.5420	Marking Aerial Enforcement Bar Epoxy	EACH	21.000	21.000
0200	646.7220	Marking Chevron Epoxy 24-Inch	LF	2,667.000	2,667.000
0202	646.9010	Marking Removal Line Water Blasting 4-Inch	LF	24,188.000	24,188.000
0204	646.9110	Marking Removal Line Water Blasting 8-Inch	LF	1,751.000	1,751.000
0206	646.9210	Marking Removal Line Water Blasting Wide	LF	350.000	350.000
0208	649.0120	Temporary Marking Line Epoxy 4-Inch	LF	61,738.000	61,738.000
0210	649.0220	Temporary Marking Line Epoxy 8-Inch	LF	518.000	518.000
0212	649.0760	Temporary Marking Raised Pavement Marker Type I	EACH	953.000	953.000
0214	649.0920	Temporary Marking Diagonal Epoxy 12-Inch	LF	576.000	576.000
0216	650.8000	Construction Staking Resurfacing Reference	LF	77,328.000	77,328.000
0218	690.0250	Sawing Concrete	LF	9,729.000	9,729.000
0220	715.0415	Incentive Strength Concrete Pavement	DOL	272.000	272.000
0222	715.0502	Incentive Strength Concrete Structures	DOL	500.000	500.000
0224	740.0440	Incentive IRI Ride	DOL	90,106.000	90,106.000
0226	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	400.000	400.000
0228	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	300.000	300.000
0230	SPV.0035	Special 01. Concrete Pavement Notch SHES	CY	40.000	40.000
0232	SPV.0060	Special 01. Repositioning Traffic Control Devices for Mainline Closures	EACH	92.000	92.000
0234	SPV.0060	Special 02. Traffic Control Close-Open Freeway	EACH	200.000	200.000

Line	Item	Item Description	Unit	Total	Qty
		Entrance Ramp			
0236	SPV.0060	Special 03. Securing Structure Covers	EACH	10.000	10.000
0238	SPV.0060	Special 04. Repositioning Traffic Control Devices for Local Road Lane Closures	EACH	6.000	6.000
0240	SPV.0060	Special 05. Emergency Response to Traffic Incident Involving Concrete Barrier Temporary	EACH	1.000	1.000
0242	SPV.0060	Special 06. Emergency Response to Traffic Incident Involving Crash Cushion	EACH	1.000	1.000
0244	SPV.0060	Special 07. Emergency Response to Traffic Incident Involving Guard Rail or EAT	EACH	1.000	1.000
0246	SPV.0090	Special 01. Removing HMA Pavement Notched Wedge Longitudinal Joint Milling	LF	138,094.000	138,094.000
0248	SPV.0090	Special 02. Removing Loose Pavement and Asphaltic Surface Patching	LF	765.000	765.000
0250	SPV.0090	Special 03. Traffic Control Gawk Screen Furnished	LF	2,119.000	2,119.000
0252	SPV.0090	Special 04. Traffic Control Gawk Screen Installed	LF	4,071.000	4,071.000
0254	SPV.0090	Special 05. Traffic Channelizing Curb System	LF	2,343.000	2,343.000
0256	SPV.0090	Special 06. Temporary Marking Line Wet Reflective Contrast Removable Tape 4-Inch	LF	72,364.000	72,364.000
0258	SPV.0180	Special 01. Concrete Pavement Repair Overnight	SY	1,600.000	1,600.000
0260	SPV.0180	Special 02. Concrete Pavement Replacement Overnight	SY	400.000	400.000
0262	SPV.0180	Special 03. Base Patching Concrete Overnight	SY	960.000	960.000

REMOVING PAVEMENT

ROADWAY	DIRECTION	SEGMENT	STATION FROM	STATION TO	204.0105 REMOVING PAVEMENT BUTT JOINTS SY	204.0115 REMOVING ASPHALTIC SURFACE BUTT JOINTS SY	204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH* SF	204.0120 REMOVING ASPHALTIC SURFACE MILLING* SY	COMMENTS
USH 12/18	EB	SEMINOLE HIGHWAY TO TODD DRIVE	423EB+86	471EB+60	--	916	3,656	28,145	BUTT JOINTS FOR ASPHALT DEPTH TRANSITION LOCATIONS
	WB		423WB+86	471WB+78	--	1,296	12,801	33,847	BUTT JOINTS FOR ASPHALT DEPTH TRANSITION LOCATIONS
USH 12/18	EB	TODD DRIVE TO FISH HATCHERY ROAD	474EB+54	519EB+96	--	1,336	10,943	30,967	BUTT JOINTS FOR ASPHALT DEPTH TRANSITION LOCATIONS
	WB		474WB+70	519WB+96	--	2,033	10,392	30,193	BUTT JOINTS FOR ASPHALT DEPTH TRANSITION LOCATIONS
USH 12/18	EB	FISH HATCHERY ROAD TO PARK STREET	519EB+96	B 549EB+50	1,624	--	223	--	
	WB		519WB+96	B 549WB+59	1,516	--	--	--	
USH 12/18	EB	PARK STREET TO RAILROAD	B 552EB+92	B 562EB+65	1,293	--	--	--	
	WB		B 553WB+01	B 562WB+92	1,722	--	138	--	
USH 12/18	EB	RAILROAD TO RIMROCK ROAD	B 565EB+55	C 596EB+06	807	--	--	--	
	WB		B 565WB+77	C 596WB+54	696	--	112	--	
USH 12/18	EB	RIMROCK ROAD TO JOHN NOLEN DRIVE	C 596EB+06	D 618EB+65	667	--	112	--	
	WB		C 596WB+54	6 618WB+70	915	--	--	--	
USH 12/18	EB	JOHN NOLEN DRIVE TO RAILROAD	D 621EB+98	E 19EB+71	1,567	--	112	--	
	WB		D 622WB+05	E 628WB+99	1,190	--	--	--	
USH 12/18	EB	RAILROAD TO SOUTH TOWNE DRIVE	E 24EB+19	E 52EB+94	750	--	226	--	
	WB		E 633WB+47	F 662WB+98	679	--	225	--	
USH 12/18	EB	SOUTH TOWNE DRIVE TO YAHARA RIVER BRIDGE	E 52EB+94	E 78EB+00	613	--	344	--	
	WB		F 662WB+98	F 706WB+96	585	--	112	--	
USH 12/18	EB	YAHARA RIVER BRIDGE TO MONONA DRIVE	E 124EB+99	E 131EB+90	1,102	--	--	--	
	WB		G 734WB+99	G 741WB+90	1,106	--	110	--	
USH 12/18	EB	MONONA DRIVE TO STOUGHTON ROAD	E 135EB+06	E 177EB+93	1,303	--	--	--	
	WB		G 745WB+06	J 787WB+93	1,311	--	112	--	
USH 12/18	EB	STOUGHTON ROAD TO IH-39	E 181EB+72	F 79EB+85	1,202	--	--	--	
	WB		J 791WB+58	K 848WB+74	1,133	--	--	--	
PROJECT 1206-06-78 SUBTOTAL					21,781	5,581	39,620	123,152	
UNDISTRIBUTED					4,089	279	1,981	6,158	
PROJECT 1206-06-78 TOTALS					25,870	5,860	41,601	129,310	

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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REMOVING RUMBLE STRIPS

	STATION				204.0109.S REMOVING CONCRETE SURFACE PARTIAL DEPTH*	204.0120 REMOVING ASPHALTIC SURFACE MILLING*	455.0605 TACK COAT*	465.0105 ASPHALTIC SURFACE
ROADWAY	FROM		TO	OFFSET	SF	SY	GAL	TON
STAGE 1								
USH 12 EB	E 170EB+00	-	E 178EB+62	LT	1,723	--	13	18
	E 181EB+02	-	E 189EB+10	LT	1,615	--	13	17
USH 12 WB	H 789WB+95	-	J 788WB+48	RT	1,695	--	13	18
	J 790WB+88	-	J 799WB+41	RT	1,704	--	13	18
STAGE 1 SUBTOTAL					6,738	--	52	71
STAGE 2								
USH 12 EB	E 169EB+81	-	E 178EB+62	RT	1,777	--	14	19
	E 181EB+02	-	E 189EB+05	RT	1,604	--	12	17
USH 12 WB	H 789WB+96	-	J 788WB+48	LT	1,678	--	13	18
	J 790WB+88	-	J 797WB+41	LT	1,305	--	10	14
STAGE 2 SUBTOTAL					6,364	--	49	68
STAGE A								
USH 12 EB	463EB+71	-	472EB+14	LT	--	188	13	18
	474EB+13	-	478EB+43	LT	--	95	7	9
USH 12 WB	467WB+89	-	472WB+18	RT	--	95	7	9
	474WB+14	-	482WB+60	RT	--	188	13	18
STAGE A SUBTOTAL					--	567	40	54
STAGE B								
USH 12 EB	463EB+71	-	471EB+85	RT	--	181	13	17
	474EB+29	-	478EB+43	RT	--	92	6	9
USH 12 WB	468WB+36	-	472WB+03	LT	--	82	6	8
	474WB+42	-	481WB+60	LT	--	159	11	15
STAGE B SUBTOTAL					--	513	36	49
UNDISTRIBUTED					655	54	9	12
PROJECT 1206-06-78 TOTALS					13,757	1,134	186	254

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

EXCAVATION COMMON

ROADWAY	STATION FROM		STATION TO	OFFSET	205.0100 EXCAVATION COMMON CY	209.0300.S BACKFILL COARSE AGGREGATE SIZE NO. 1 CY	645.0135 GEOTEXTILE TYPE SR SY
STAGE A							
WB	472WB+33	-	472WB+45	LT	13	13	--
STAGE A SUBTOTALS					13	13	--
STAGE B							
EB	471EB+88	-	472EB+28	RT	150	132	145
	473EB+87	-	474EB+26	RT	192	175	116
WB	472WB+06	-	472WB+45	LT	150	175	115
	474WB+04	-	474WB+42	LT	192	132	142
STAGE B SUBTOTALS					684	614	518
STAGE C							
EB	471EB+88	-	472EB+28	RT/LT	192	175	116
	473EB+87	-	474EB+26	RT/LT	150	132	145
WB	472WB+06	-	472WB+45	RT/LT	150	132	142
	474WB+04	-	474WB+42	RT/LT	192	175	115
STAGE C SUBTOTALS					684	614	518
PROJECT 1206-06-78 TOTALS					1,381	1,241	1,036

BASE AGGREGATE DENSE

ROADWAY	305.0110 BASE AGGREGATE DENSE 3/4-INCH TON	305.0500 SHAPING SHOULDERS STA	624.0100 WATER MGAL
USH 12 EB UNDISTRIBUTED	351	15	7
USH 12 WB UNDISTRIBUTED	351	10	7
PROJECT 1206-06-78 TOTALS	702	25	14

CONCRETE ITEMS

ROADWAY	STATION FROM	STATION TO	OFFSET	204.0100 REMOVING PAVEMENT* SY	415.1120 CONCRETE PAVEMENT 12-INCH HES SY	415.1410 CONCRETE PAVEMENT APPROACH SLAB HES SY	416.0610 DRILLED TIE BARS* EACH	416.0620 DRILLED DOWEL BARS* EACH	511.1100 TEMPORARY SHORING SF	690.0250 SAWING CONCRETE* LF	SPV.0035.01 CONCRETE PAVEMENT NOTCH SHES CY
STAGE A											
USH 12 EB	471EB+88	- 472EB+28	RT	--	--	--	--	--	140	--	--
STAGE A SUBTOTAL				--	--	--	--	--	140	--	--
STAGE B											
USH 12 EB	471EB+88	- 472EB+28	RT	101	55	46	--	14	427	64	5
	473EB+87	- 474EB+26	RT	125	70	55	--	14	532	64	5
USH 12 WB	472WB+06	- 472WB+45	LT	127	73	54	--	13	532	64	5
	474WB+04	- 474WB+42	LT	101	56	44	--	13	427	64	5
STAGE B SUBTOTAL				454	254	199	--	54	1,918	256	20
STAGE C											
USH 12 EB	471EB+88	- 472EB+28	RT/LT	127	57	57	12	14	532	64	5
	473EB+87	- 474EB+26	RT/LT	100	55	46	12	14	427	64	5
USH 12 WB	472WB+06	- 472WB+45	RT/LT	101	55	46	12	14	427	64	5
	474WB+04	- 474WB+42	RT/LT	125	69	56	12	14	532	64	5
STAGE C SUBTOTAL				453	236	205	48	56	1,918	256	20
PROJECT 1206-06-78 TOTALS				907	490	404	48	110	3,976	512	40

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

MAINLINE CONCRETE REPAIR

ROADWAY	DIRECTION	STATION FROM	STATION TO	SEGMENT	LANE	204.0120 REMOVING ASPHALTIC SURFACE MILLING* SY	416.0610 DRILLED TIE BARS* EACH	416.0620 DRILLED DOWEL BARS* EACH	690.0250 SAWING CONCRETE* LF	SPV.0180.01 CONCRETE PAVEMENT REPAIR OVERNIGHT SY	SPV.0180.02 CONCRETE PAVEMENT REPLACEMENT OVERNIGHT SY	SPV.0180.03 BASE PATCHING CONCRETE OVERNIGHT SY
USH 12/18	EB	423EB+86	- 471EB+60	SEMINOLE HIGHWAY TO TODD DRIVE	INSIDE	48	--	96	144	--	--	48
					MIDDLE	112	--	224	336	--	--	112
					OUTSIDE	136	--	272	408	--	--	136
					AUXILIARY	--	--	--	--	--	--	--
	WB	423WB+86	- 471WB+78		INSIDE	112	--	224	336	--	--	112
					MIDDLE	112	--	224	336	--	--	112
					OUTSIDE	48	--	96	144	--	--	48
					AUXILIARY	16	--	32	48	--	--	16
USH 12/18	EB	474EB+54	- 519EB+96	TODD DRIVE TO FISH HATCHERY ROAD	INSIDE	32	--	64	96	--	--	32
					MIDDLE	16	--	32	48	--	--	16
					OUTSIDE	40	--	80	120	--	--	40
					AUXILIARY	8	--	16	24	--	--	8
	WB	474WB+70	- 519WB+96		INSIDE	64	--	128	192	--	--	64
					MIDDLE	128	--	256	384	--	--	128
					OUTSIDE	72	--	144	216	--	--	72
					AUXILIARY	16	--	32	48	--	--	16
USH 12/18	EB	519EB+96	- F 79EB+85	FISH HATCHERY ROAD TO IH-39	---	--	100	1,760	2,880	800	200	--
	WB	519WB+96	- K 848WB+75		---	--	100	1,760	2,880	800	200	--
PROJECT 1206-06-78 TOTALS						960	200	5,440	8,640	1,600	400	960

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

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ASPHALT OVERLAY

					455.0605	460.4110.S	460.7624	SPV.0090.01	
		STATION			TACK COAT*	REHEATING HMA PAVEMENT LONGITUDINAL JOINTS	HMA PAVEMENT 4 HT 58-28 V*	REMOVING HMA PAVEMENT NOTCHED WEDGE LONGITUDINAL JOINT MILLING	
ROADWAY	DIRECTION	FROM	TO	SEGMENT	GAL	LF	TON	LF	COMMENTS
USH 12/18	EB	423EB+86	471EB+60	SEMINOLE HIGHWAY TO TODD DRIVE	1,887	9,543	4,274	--	
	WB	423WB+86	471WB+78		2,357	9,595	3,827	--	
USH 12/18	EB	474EB+54	519EB+96	TODD DRIVE TO FISH HATCHERY ROAD	2,128	10,657	3,464	--	
	WB	474WB+70	519WB+96		2,074	10,316	3,505	--	
USH 12/18	EB	519EB+96	B 549EB+50	FISH HATCHERY ROAD TO PARK STREET	1,382	7,310	2,051	7,310	
	WB	519WB+96	B 549WB+59		1,487	8,054	2,207	8,054	
USH 12/18	EB	B 552EB+92	B 562EB+65	PARK STREET TO RAILROAD	506	2,918	753	2,918	
	WB	B 553WB+01	B 562WB+92		486	1,982	731	1,982	
USH 12/18	EB	B 565EB+55	C 596EB+06	RAILROAD TO RIMROCK ROAD	1,421	8,135	2,089	8,135	
	WB	B 565WB+77	C 596WB+54		1,406	8,214	2,065	8,214	
USH 12/18	EB	C 596EB+06	D 618EB+65	RIMROCK ROAD TO JOHN NOLEN DRIVE	996	6,036	1,459	6,036	
	EB	C 603EB+00	D 618EB+65		47	--	37	--	LEVELING LAYER QUANTIFIED AT 1" THICKNESS
	WB	C 596WB+54	6 618WB+70		972	5,297	1,431	5,297	
USH 12/18	EB	D 621EB+98	E 19EB+71	JOHN NOLEN DRIVE TO RAILROAD	384	1,540	582	1,540	
	WB	D 622WB+05	E 628WB+99		344	1,643	515	1,643	
USH 12/18	EB	E 24EB+19	E 52EB+94	RAILROAD TO SOUTH TOWNE DRIVE	1,327	7,349	1,951	7,349	
	WB	E 633WB+47	F 662WB+98		1,293	7,619	1,892	7,619	
USH 12/18	EB	E 52EB+94	E 78EB+00	SOUTH TOWNE DRIVE TO YAHARA RIVER BRIDGE	1,007	5,011	1,475	5,011	
	WB	F 662WB+98	F 706WB+96		1,599	8,792	2,314	8,792	
USH 12/18	EB	E 124EB+99	E 131EB+90	YAHARA RIVER BRIDGE TO MONONA DRIVE	290	1,378	433	1,378	
	WB	G 734WB+99	G 741WB+90		287	1,381	428	1,381	
USH 12/18	EB	E 135EB+06	E 177EB+93	MONONA DRIVE TO STOUGHTON ROAD	1,954	10,751	2,874	10,751	
	WB	G 745WB+06	J 787WB+93		1,973	10,576	2,907	10,576	
USH 12/18	EB	E 181EB+72	F 79EB+85	STOUGHTON ROAD TO IH-39	2,270	11,270	3,325	11,270	
	WB	J 791WB+58	K 848WB+74		2,680	16,261	3,928	16,261	
PROJECT 1206-06-78 SUBTOTAL					32,557	171,629	50,517	131,518	
UNDISTRIBUTED					1,628	8,581	2,862	6,576	
PROJECT 1206-06-78 TOTALS					34,185	180,210	53,379	138,094	

*ADDITIONAL QUANTITIES SHOW ELSEWHERE

FILE NAME: \\MADW00\INGRPROJ\66034\t1\cds\030201_mq.ppt PLOT DATE : 2/5/2019 3:30:47 PM PLOT BY : HNTB Corp PLOT NAME : 030201_mq5 PLOT SCALE : 1:1

ASPHALTIC FLUMES

ROADWAY	STATION	OFFSET	465.0315 ASPHALTIC FLUMES SY
USH 12 EB	465EB+94	RT	7
	468EB+94	RT	7
	477EB+47	RT	7
	482EB+41	RT	11
	513EB+07	RT	7
	E 77EB+14	RT	7
	F 76EB+00	LT	7
USH 12 WB	467WB+55	LT	7
	470WB+05	LT	7
	478WB+29	LT	7
	483WB+83	LT	12
	491WB+36	LT	7
	512WB+96	LT	7
	F 688WB+04	LT	7
PROJECT 1206-06-78 TOTALS			107

STORM SEWER PIPES

ROADWAY	STATION	OFFSET	520.8700 CLEANING CULVERT PIPES EACH	521.1018 APRON ENDWALLS FOR CULVERT PIPE STEEL 18-INCH EACH	521.3118 CULVERT PIPE CORRUGATED STEEL 18-INCH LF	612.0406 PIPE UNDERDRAIN WRAPPED 6-INCH LF	633.5200 MARKERS CULVERT END EACH
STAGE B							
USH 12 EB	471EB+90	71.0' RT	1	--	--	--	--
	472EB+19	RT	--	--	--	50	--
	473EB+95	RT	--	--	--	50	--
	474EB+24	67.9' RT	1	--	--	--	--
USH 12 WB	472WB+23	85.0' LT	1	--	--	--	--
	472WB+37	LT	--	--	--	50	--
	474WB+11	LT	--	--	--	50	--
	474WB+48	68.9' LT	1	--	--	--	--
STAGE B SUBTOTAL			4	--	--	200	--
STAGE C							
USH 12 EB	472EB+19	RT/LT	--	--	--	28	--
	473EB+95	RT/LT	--	--	--	28	--
USH 12 WB	472WB+37	RT/LT	--	--	--	28	--
	474WB+11	RT/LT	--	--	--	28	--
STAGE C SUBTOTAL			--	--	--	112	--
FISH HATCHERY ROAD TO IH-39			4	2	40	--	2
PROJECT 1206-06-78 TOTALS			8	2	40	312	2

RESTORATION

ROADWAY	625.0500 SALVAGED TOPSOIL SY	629.0210 FERTILIZER TYPE B CWT	630.0130 SEEDING MIXTURE NO. 30 LB
STAGE B			
USH 12 EB	160	0.25	4
USH 12 WB	153	0.25	4
STAGE B SUBTOTAL	313	0.50	8
PROJECT 1206-06-78 TOTALS	313	0.50	8

EROSION CONTROL

ROADWAY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION COTROL EACH	628.2004 EROSION MAT CLASS I TYPE B SY	628.7020 INLET PROTECTION TYPE D EACH
STAGE 2						
USH 12 EB	48	48	--	--	160	--
USH 12 WB	93	93	--	--	153	--
STAGE 2 SUBTOTAL	141	141	--	--	313	--
UNDISTRIBUTED	--	--	1	1	--	5
PROJECT 1206-06-78 TOTALS	141	141	1	1	313	5

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ADJUSTING INLET COVERS

ROADWAY	STATION	OFFSET	611.8115 ADJUSTING INLET COVERS EACH	204.0100 REMOVING PAVEMENT* SY	204.0150 REMOVING CURB & GUTTER LF	455.0605 TACK COAT* GAL	460.7624 HMA PAVEMENT 4 HT 58-28 V* TON	690.0250 SAWING CONCRETE* LF	COMMENTS
USH 12 EB	453EB+47	LT	1	1	--	--	1	11	
	457EB+69	LT	1	1	--	--	1	11	
	462EB+47	LT	1	1	--	--	1	11	
	466EB+49	LT	1	1	--	--	1	11	
	466EB+99	LT	1	1	--	--	1	11	
	476EB+97	LT	1	1	--	--	1	11	
	483EB+06	LT	1	1	--	--	1	11	
	486EB+54	RT	1	1	5	--	1	13	
	487EB+06	LT	1	1	--	--	1	11	
	491EB+96	LT	1	1	--	--	1	11	
	492EB+01	RT	1	1	5	--	1	13	
	495EB+96	LT	1	1	--	--	1	11	
	506EB+97	RT	1	1	5	--	1	13	
	509EB+28	LT	1	1	--	--	1	11	
	512EB+58	LT	1	1	--	--	1	11	
	514EB+86	LT	1	1	--	--	1	11	
	514EB+91	LT	1	1	--	--	1	11	
	517EB+13	LT	1	1	--	--	1	11	
USH 12 WB	427WB+03	LT	1	1	5	--	1	13	
	427WB+02	RT	1	1	--	--	1	11	
	431WB+99	RT	1	1	--	--	1	11	
	433EB+88	LT	1	1	--	--	1	11	
	435WB+80	RT	1	1	--	--	1	11	
	437WB+94	LT	1	1	--	--	1	11	
	440WB+88	LT	1	1	--	--	1	11	
	441WB+39	LT	1	1	--	--	1	11	
	441WB+61	RT	1	1	--	--	1	11	
	441WB+94	LT	1	1	--	--	1	11	

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ADJUSTING INLET COVERS (CONTINUED)

ROADWAY	STATION	OFFSET	611.8115 ADJUSTING INLET COVERS EACH	204.0100 REMOVING PAVEMENT* SY	204.0150 REMOVING CURB & GUTTER LF	455.0605 TACK COAT* GAL	460.7624 HMA PAVEMENT 4 HT 58-28 V* TON	690.0250 SAWING CONCRETE* LF	COMMENTS
	442WB+60	RT	1	1	--	--	1	11	
	444WB+63	LT	1	1	--	--	1	11	
	453WB+44	RT	1	1	--	--	1	11	
	457WB+66	RT	1	1	--	--	1	11	
	460WB+01	LT	1	1	--	--	1	11	
	462WB+47	RT	1	1	--	--	1	11	
	463WB+54	LT	1	1	--	--	1	11	
	466WB+49	RT	1	1	--	--	1	11	
	466WB+99	RT	1	1	--	--	1	11	
	476WB+97	RT	1	1	--	--	1	11	
	483WB+06	RT	1	1	--	--	1	11	
	487WB+06	RT	1	1	--	--	1	11	
	487WB+60	LT	1	1	5	--	1	13	
	491WB+96	RT	1	1	--	--	1	11	
	491WB+96	LT	1	1	5	--	1	13	
	495WB+95	LT	1	1	5	--	1	13	
	495WB+96	RT	1	1	--	--	1	11	
	509WB+27	LT	1	1	5	--	1	13	
	509WB+28	RT	1	1	--	--	1	11	
	512WB+58	RT	1	1	--	--	1	11	
	514WB+86	RT	1	1	--	--	1	11	
	514WB+91	RT	1	1	--	--	1	11	
	517WB+13	RT	1	1	--	--	1	11	
TODD DRIVE APPROACH SLABS	---	RT/LT	8	--	--	--	--	--	UNDISTRIBUTED QUANTITY IF INLETS NEED ADJUSTMENT.
PROJECT 1206-06-78 SUBTOTAL			59	51	40	--	51	577	
UNDISTRIBUTED			--	--	--	20	--	--	
PROJECT 1206-06-78 TOTALS			59	51	40	20	51	577	

*ADDITIONAL QUANTITES SHOWN ELSEWHERE

FILE NAME: \\MADW00\INGRPROJ\66034\t1\cds\030201_mq.ppt PLOT DATE : 2/5/2019 3:30:47 PM PLOT BY : HNTB Corp PLOT NAME : 030201_mq8 PLOT SCALE : 1:1

CONCRETE BARRIER TEMPORARY PRECAST ITEMS

ROADWAY	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF	614.1100 MGS GUARDRAIL TEMPORARY THRIE BEAM TRANSITION LF	SPV.0090.03 TRAFFIC CONTROL GAWK SCREEN FURNISHED LF	SPV.0090.04 TRAFFIC CONTROL GAWK SCREEN INSTALLED LF	REMARKS
STAGE 2						
USH 12 EB	488	488	25	1,043	1,043	
USH 12 WB	538	538	25	538	538	
STAGE 2 SUBTOTAL	1,026	1,026	50	1,581	1,581	
STAGE 3						
USH 12 EB	600	1,088	62.5	--	451	
USH 12 WB	700	1,238	62.5	--	501	
STAGE 3 SUBTOTAL	1,300	2,326	125	--	952	
STAGE 4						
USH 12 EB	--	475	25	--	475	
USH 12 WB	--	525	25	--	525	
STAGE 4 SUBTOTAL	--	1,000	50	--	1,000	
STAGE A						
USH 12 WB	250	500	25	538	538	PAY FOR INSTALL OF 50 LF CONCRETE BARRIER 6 DIFFERENT NIGHTS FOR MOVING AND REINSTALLING TO FACILITATE WINGWALL CONSTRUCTION
STAGE A SUBTOTAL	250	500	25	538	538	
PROJECT 1206-06-78 TOTALS	2,576	4,852	250	2,119	4,071	

BEAMGUARD

ROADWAY	STATION			OFFSET	204.0165 REMOVING GUARDRAIL LF	614.0200 STEEL THRIE BEAM STRUCTURE APPROACH LF	614.0305 STEEL PLATE BEAM GUARD CLASS A LF	614.0400 ADJUSTING STEEL PLATE BEAM GUARD LF
STAGE B								
USH 12 EB	471EB+59	-	471EB+98	RT	21	21	--	--
	473EB+99	-	474EB+41	RT	33	8	25	--
USH 12 WB	471WB+91	-	472WB+34	LT	33	8	25	--
	474WB+30	-	474WB+69	LT	21	21	--	--
STAGE B SUBTOTAL					108	58	50	--
UNDISTRIBUTED					--	--	--	300
PROJECT 1206-06-78 TOTALS					108	58	50	300

CRASH CUSHION TEMPORARY ITEMS

ROADWAY	STATION	OFFSET	614.0905 CRASH CUSHIONS TEMPORARY EACH	BACK WIDTH FT	OBJECT MARKING PATTERN	CRASH TEST LEVEL	TRAFFIC DIRECTION	TRAFFIC LOCATION	CRASH CUSHION SHIELDS
STAGE 2									
EB	E 176EB+50	35' RT	1	4	OM-3R (WO5-58M)	TL-3	UNIDIRECTIONAL	L	BLUNT END OF TEMPORARY BARRIER
WB	J 793WB+00	34' LT	1	4	OM-3R (WO5-58M)	TL-3	UNIDIRECTIONAL	L	BLUNT END OF TEMPORARY BARRIER
STAGE 2 SUBTOTAL			2						
STAGE 3									
EB	E 175EB+00	12' T	1	4	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	R/L	BLUNT END OF TEMPORARY BARRIER
WB	J 795WB+00	12' LT	1	4	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	R/L	BLUNT END OF TEMPORARY BARRIER
STAGE 3 SUBTOTAL			2						
STAGE 4									
EB	E 176EB+60	1' RT	1	4	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	R	BLUNT END OF TEMPORARY BARRIER
WB	J 792WB+90	0' RT	1	4	OM-3L (WO5-58L)	TL-3	UNIDIRECTIONAL	R	BLUNT END OF TEMPORARY BARRIER
STAGE 4 SUBTOTAL			2						
STAGE A									
WB	474+55	41' LT	1	4	OM-3R (WO5-58M)	TL-3	UNIDIRECTIONAL	L	BLUNT END OF TEMPORARY BARRIER
STAGE A SUBTOTAL			1						
PROJECT 1206-06-78 TOTAL			7						

TRAFFIC CONTROL COVERING SIGNS

ROADWAY	643.0910 TRAFFIC CONTROL COVERING SIGNS TYPE I EACH	CYCLES	SIGNS	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II EACH	CYCLES	SIGNS
TODD DRIVE WB ON-RAMP STAGE B	--	--	--	1	1	1
TODD DRIVE WB ON-RAMP STAGE C	--	--	--	1	1	1
TODD DRIVE WB OFF-RAMP CLOSURE	--	--	--	1	1	1
MONONA ROAD EB ON-RAMP CLOSURE	--	--	--	6	1	6
FISH HATCHERY ROAD WB ON-RAMP CLOSURE	6	2	3	6	2	3
SEMINOLE HIGHWAY EB ON-RAMP CLOSURE	4	2	2	2	2	1
PROJECT 1206-06-78 SUBTOTAL	10			17		
UNDISTRIBUTED	2			10		
PROJECT 1206-06-78 TOTALS	12			27		

TRAFFIC CONTROL SIGNS FIXED MESSAGE

SIGN DESCRIPTION	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE EACH	SF
LANE SPLIT	6	45.00
LANE SPLIT DIAGRAM	6	96.00
1 MILE	2	10.50
1500 FT	2	12.00
500 FT	2	10.50
WIDE LOADS USE RIGHT 2 LANES	2	49.00
RIGHT 3 LANES CLOSED 1 MILE	2	32.00
RIGHT 3 LANES CLOSED 1/2 MILE	4	64.00
RIGHT 3 LANES CLOSD 1500 FT	6	96.00
PROJECT 1206-06-78 TOTAL		415.00

TRAFFIC CONTROL ITEMS

ROADWAY	DURATION DAYS	643.5000 TRAFFIC CONTROL EACH	643.0300 TRAFFIC CONTROL DRUMS EACH*	DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH*	DAYS	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH*	DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH*	DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH*	DAYS
PRE-CONSTRUCTION														
USH 12 EB	7	--	--	--	--	--	--	--	--	--	--	--		--
USH 12 WB	7	--	--	--	--	--	--	--	--	--	--	--		--
PRE-CONSTRUCTION SUBTOTAL		--		--		--	--	--		--		--		--
TODD DRIVE STAGE A CONSTRUCTION														
USH 12 EB MEDIAN RUMBLE STRIP REMOVAL	1	--	51	51	2	2	--	--	4	4	14	14	2	2
USH 12 WB MEDIAN RUM BLE STRIP REMOVAL	1	--	51	51	2	2	--	--	4	4	14	14	2	2
USH 12 WB WINGWALL REPLACEMENT	14	--	5	70	--	--	--	--	--	--	--	--	1	14
TODD DRIVE STAGE A SUBTOTAL		--		172		4	--	--		8		28		18
TODD DRIVE STAGE B CONSTRUCTION														
USH 12 EB - WEEKDAY	5	--	42	210	2	10	--	--	4	20	12	60	--	--
USH 12 WB - WEEKDAY	5	--	43	215	2	10	--	--	4	20	13	65	--	--
USH 12 EB - WEEKEND	3		76	228	2	6	--	--	4	12	26	78	2	6
USH 12 WB - WEEKEND	3		96	288	2	6	--	--	4	12	27	81	2	6
FISH HATCHERY RD WB ONRAMP CLOSURE	3	--	34	102	10	30	--	--	20	60	--	--	--	--
SEMINOLE HWY EB ONRAMP CLOSURE	3	--	9	27	4	12	--	--	8	24	--	--	--	--
TODD DRIVE STAGE B SUBTOTAL		--		1,070		74	--	--		148		284		12
TODD DRIVE STAGE C CONSTRUCTION														
USH 12 EB - WEEKDAY	2	--	42	84	2	4	--	--	4	8	13	26	--	--
USH 12 WB - WEEKDAY	2	--	40	80	2	4	--	--	4	8	12	24	--	--
USH 12 EB - WEEKEND	3		73	219	2	6	--	--	4	12	26	78	2	6
USH 12 WB - WEEKEND	3		111	333	2	6	--	--	4	12	33	99	2	6
FISH HATCHERY RD WB ONRAMP CLOSURE	3	--	34	102	10	30	--	--	20	60	--	--	--	--
SEMINOLE HWY EB ONRAMP CLOSURE	3	--	9	27	4	12	--	--	8	24	--	--	--	--
TODD DRIVE STAGE C SUBTOTAL		--		845		62	--	--		124		227		12
STOUGHTON RD STAGE 1 CONSTRUCTION														
USH 12 EB MEDIAN RUMBLE STRIP REMOVAL	4	--	59	236	2	8	--	--	4	16	14	56	2	8
USH 12 WB MEDIAN RUM BLE STRIP REMOVAL	4	--	59	236	2	8	--	--	4	16	14	56	2	8
NIGHTLY RAMP CLOSURES		--	45	180	12	48	--	--	24	96	45	180	--	--
STAGE 1 SUBTOTAL		--		652		64	--	--		128		292		16

*FOR INFORMATION ONLY

TRAFFIC CONTROL ITEMS (CONTINUED)

ROADWAY	DURATION DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH*	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH*	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS	643.1055.S TRUCK OR TRAILER-MOUNTED ATTENUATOR DAY	SPV.0060.01 REPOSITIONING TRAFFIC CONTROL DEVICES FOR MAINLINE CLOSURE EACH	SPV.0060.02 TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP EACH	SPV.0060.04 REPOSITIONING TRAFFIC CONTROL DEVICES FOR LOCAL ROAD LANE CLOSURES EACH	SPV.0090.05 TRAFFIC CHANNELIZING CURB SYSTEM LF	REMARKS
PRE-CONSTRUCTION											
USH 12 EB	7	--	--	1	7	--	--	--	--	--	7 DAYS IN ADVANCE OF CONSTRUCTION
USH 12 WB	7	--	--	1	7	--	--	--	--	--	7 DAYS IN ADVANCE OF CONSTRUCTION
PRE-CONSTRUCTION SUBTOTAL			--		14	--	--	--	--	--	
TODD DRIVE STAGE A CONSTRUCTION											
USH 12 EB MEDIAN RUMBLE STRIP REMOVAL	1	10	10	1	1	--	--	--	--	--	
USH 12 WB MEDIAN RUM BLE STRIP REMOVAL	1	10	10	1	1	--	--	--	--	--	
USH 12 WB WINGWALL REPLACEMENT	14	9	126	1	14	--	7	--	--	--	1 PRE WARN PCMS. ASSUME CLOSURE FOR ENTIRE PROJECT LIMITS.
TODD DRIVE STAGE A SUBTOTAL			146		16	--	7	--	--	--	
TODD DRIVE STAGE B CONSTRUCTION											
USH 12 EB - WEEKDAY	5	14	70	1	5	--	--	--	--	--	1 PRE WARN PCMS. ASSUME CLOSURE FOR ENTIRE PROJECT LIMITS.
USH 12 WB - WEEKDAY	5	14	70	1	5	--	--	--	--	--	1 PRE WARN PCMS. ASSUME CLOSURE FOR ENTIRE PROJECT LIMITS.
USH 12 EB - WEEKEND	3	20	60	1	3	--	3	--	--	--	
USH 12 WB - WEEKEND	3	22	66	1	3	--	2	--	--	--	
FISH HATCHERY RD WB ONRAMP CLOSURE	3	14	42	1	7	--	--	1	--	--	
SEMINOLE HWY EB ONRAMP CLOSURE	3	5	15	1	7	--	--	1	--	--	
TODD DRIVE STAGE B SUBTOTAL			323		30	--	5	2	--	--	
TODD DRIVE STAGE C CONSTRUCTION											
USH 12 EB - WEEKDAY	2	14	28	1	2	--	--	--	--	--	1 PRE WARN PCMS. ASSUME CLOSURE FOR ENTIRE PROJECT LIMITS.
USH 12 WB - WEEKDAY	2	14	28	1	2	--	--	--	--	--	1 PRE WARN PCMS. ASSUME CLOSURE FOR ENTIRE PROJECT LIMITS.
USH 12 EB - WEEKEND	3	20	60	1	3	--	3	--	--	--	
USH 12 WB - WEEKEND	3	22	66	1	3	--	2	--	--	--	
FISH HATCHERY RD WB ONRAMP CLOSURE	3	14	42	1	7	--	--	1	--	--	
SEMINOLE HWY EB ONRAMP CLOSURE	3	5	15	1	7	--	--	1	--	--	
TODD DRIVE STAGE C SUBTOTAL			239		24	--	5	2	--	--	
STOUGHTON RD STAGE 1 CONSTRUCTION											
USH 12 EB MEDIAN RUMBLE STRIP REMOVAL	4	10	40	--	--	--	2	--	--	--	
USH 12 WB MEDIAN RUM BLE STRIP REMOVAL	4	10	40	--	--	--	2	--	--	--	
NIGHTLY RAMP CLOSURES		8	32	4	4	--	--	4	--	--	1 DAY @ EACH CONFLICTING ON RAMP FOR STRIPING.
STAGE 1 SUBTOTAL			112		4	--	4	4	--	--	

*FOR INFORMATION ONLY

TRAFFIC CONTROL ITEMS (CONTINUED)

ROADWAY	DURATION DAYS	643.5000 TRAFFIC CONTROL EACH	643.0300 TRAFFIC CONTROL DRUMS EACH*	643.0300 TRAFFIC CONTROL DRUMS DAYS	643.0420 TRAFFIC CONTROL BARRICADES TYPE III EACH*	643.0420 TRAFFIC CONTROL BARRICADES TYPE III DAYS	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH*	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAYS	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH*	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAYS	643.0800 TRAFFIC CONTROL ARROW BOARDS EACH*	643.0800 TRAFFIC CONTROL ARROW BOARDS DAYS
STOUGHTON RD STAGE 2 CONSTRUCTION														
USH 12 EB	9	--	47	423	1	9	--	--	2	18	21	189	--	--
USH 12 WB	9	--	47	423	1	9	--	--	2	18	23	207	--	--
MONONA RAMP STAGE 3 CLOSURE PREWARN	7	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 12 NIGHTLY DOUBLE LANE CLOSURES	9	--	175	1,575	16	144	--	--	32	288	28	252	3	27
NIGHTLY RAMP CLOSURES		--	45	225	12	60	--	--	24	120	45	225	--	--
STAGE 2 SUBTOTAL		--		2,646		222	--	--		444		873		27
STOUGHTON RD STAGE 3 CONSTRUCTION														
USH 12 EB	9	--	44	396	--	--	--	--	--	--	26	234	--	--
USH 12 WB	9	--	47	423	--	--	349	349	--	--	32	288	--	--
MONONA RAMP CLOSURE	9	--	19	171	7	63	--	--	14	126	8	72	1	9
OSOW SIGNING	9	--	--	--	--	--	--	--	--	--	--	--	--	--
PCMS DETOUR	4	--	--	--	--	--	--	--	--	--	--	--	--	--
USH 12 NIGHTLY DOUBLE LANE CLOSURES	9	--	175	1,575	16	144	--	--	32	288	28	252	3	27
NIGHTLY RAMP CLOSURES		--	45	225	12	60	--	--	24	120	45	225	--	--
STAGE 3 SUBTOTAL		--		2,790		267	349	349		534		1,071		36
STOUGHTON RD STAGE 4 CONSTRUCTION														
USH 12 EB	9	--	31	279	1	9	--	--	2	18	12	108	--	--
USH 12 WB	9	--	34	306	1	9	--	--	2	18	16	144	--	--
USH 12 NIGHTLY DOUBLE LANE CLOSURES	9	--	175	1,575	16	144	--	--	32	288	28	252	3	27
NIGHTLY RAMP CLOSURES		--	45	225	12	60	--	--	24	120	45	225	--	--
STAGE 4 SUBTOTAL		--		2,385		222	--	--		444		729		27
MISCELLANEOUS ITEMS CONSTRUCTION														
CONCRETE REPAIRS/BASE PATCHING	17	--	175	2,975	16	272	--	--	32	544	28	476	3	51
TODD DRIVE WB OFFRAMP PATCH CLOSURES	2	--	45	90	8	16	--	--	16	32	13	26	--	--
TODD DRIVE EB ONRAMP PATCH CLOSURES	2	--	12	24	7	14	--	--	14	28	--	--	--	--
STOUGHTON RD INSIDE LANE CLOSURES	2	--	94	188	9	18	--	--	18	36	--	--	--	--
STOUGHTON RD OUTSIDE LANE CLOSURES	1	--	101	101	4	4	--	--	8	8	27	27	3	3
TODD DR INSIDE LANE CLOSURES	2	--	12	24	2	4	--	--	4	8	--	--	--	--
MISCELLANEOUS ITEMS SUBTOTAL		--		3,402		328	--	--		656		529		54
MAINLINE HMA PAVING CONSTRUCTION														
USH 12 NIGHTLY DOUBLE LANE CLOSURES	50	--	175	8,750	16	800	--	--	32	1,600	28	1,400	3	150
NIGHTLY RAMP CLOSURES		--	45	3,375	12	900	--	--	24	1,800	45	3,375	--	--
HMA PAVING SUBTOTAL		--		12,125		1,700	--	--		3,400		4,775		150
UNDISTRIBUTED		1		1,304		147	17	17		294		440		18
PROJECT 1206-06-78 TOTALS		1		27,391		3,090	366	366		6,180		9,248		370

*FOR INFORMATION ONLY

TRAFFIC CONTROL ITEMS (CONTINUED)

ROADWAY	DURATION DAYS	643.0900 TRAFFIC CONTROL SIGNS EACH*	643.0900 TRAFFIC CONTROL SIGNS DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS EACH*	643.1050 TRAFFIC CONTROL SIGNS PCMS DAYS	643.1055.S TRUCK OR TRAILER-MOUNTED ATTENUATOR DAY	SPV.0060.01 REPOSITIONING TRAFFIC CONTROL DEVICES FOR MAINLINE CLOSURE EACH	SPV.0060.02 TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP EACH	SPV.0060.04 REPOSITIONING TRAFFIC CONTROL DEVICES FOR LOCAL ROAD LANE CLOSURES EACH	SPV.0090.05 TRAFFIC CHANNELIZING CURB SYSTEM LF	REMARKS
STOUGHTON RD STAGE 2 CONSTRUCTION											
USH 12 EB	9	19	171	1	9	--	--	--	--	--	1 PRE WARN PCMS.
USH 12 WB	9	32	288	1	9	--	--	--	--	--	1 PRE WARN PCMS.
MONONA RAMP STAGE 3 CLOSURE PREWARN	7	--	--	1	7	--	--	--	--	--	7 DAYS IN ADVANCE OF RAMP CLOSURE IN STAGE 3
USH 12 NIGHTLY DOUBLE LANE CLOSURES	9	22	198	--	--	--	9	--	--	--	ASSUME 2 MILE CLOSURE.
NIGHTLY RAMP CLOSURES		8	40	5	15	--	--	4	--	--	3 DAYS IN ADVANCE OF CLOSURE. NEED 5 ON RAMP CLOSURES .
STAGE 2 SUBTOTAL			697		40	--	9	4	--	--	
STOUGHTON RD STAGE 3 CONSTRUCTION											
USH 12 EB	9	29	261	3	27	--	--	--	--	1,646	1 PRE WARN PCMS, 2 PCMS FOR ADVANCED SIGNING
USH 12 WB	9	31	279	3	27	--	--	--	--	586	1 PRE WARN PCMS, 2 PCMS FOR ADVANCED SIGNING
MONONA RAMP CLOSURE	9	15	135	1	7	--	--	1	--	--	
OSOW SIGNING	9	19	171	--	--	--	--	--	--	--	
PCMS DETOUR	4	--	--	9	36	--	--	--	--	--	1 FOR TC SET UP, 1 FOR TC TAKE DOWN, 2 FOR OVERLAY
USH 12 NIGHTLY DOUBLE LANE CLOSURES	9	22	198	--	--	--	9	--	--	--	ASSUME 2 MILE CLOSURE.
NIGHTLY RAMP CLOSURES		8	40	5	15	--	--	4	--	--	3 DAYS IN ADVANCE OF CLOSURE. NEED 5 ON RAMP CLOSURES .
STAGE 3 SUBTOTAL			1,084		112	--	9	5	--	2,231	
STOUGHTON RD STAGE 4 CONSTRUCTION											
USH 12 EB	9	19	171	1	9	--	--	--	--	--	1 PRE WARN PCMS.
USH 12 WB	9	32	288	1	9	--	--	--	--	--	1 PRE WARN PCMS.
USH 12 NIGHTLY DOUBLE LANE CLOSURES	9	22	198	--	--	--	9	--	--	--	ASSUME 2 MILE CLOSURE.
NIGHTLY RAMP CLOSURES		8	40	17	51	--	--	4	--	--	DAYS PCMS @ EACH OF 12 CONFLICTING ON RAMPS FOR STRIPING IN STAGE 5.
STAGE 4 SUBTOTAL			697		69	--	9	4	--	--	
MISCELLANEOUS ITEMS CONSTRUCTION											
CONCRETE REPAIRS/BASE PATCHING	17	22	374	--	--	--	5	25	--	--	ASSUME 2 MILE CLOSURE.
TODD DRIVE WB OFFRAMP PATCH CLOSURES	2	23	46	1	7	--	--	2	--	--	
TODD DRIVE EB ONRAMP PATCH CLOSURES	2	15	30	1	7	--	--	2	--	--	
STOUGHTON RD INSIDE LANE CLOSURES	2	17	34	--	--	--	--	--	2	--	
STOUGHTON RD OUTSIDE LANE CLOSURES	1	25	25	--	--	1	--	--	1	--	
TODD DR INSIDE LANE CLOSURES	2	7	14	--	--	--	--	--	2	--	
MISCELLANEOUS ITEMS SUBTOTAL			523		14	1	5	29	5	--	
MAINLINE HMA PAVING CONSTRUCTION											
USH 12 NIGHTLY DOUBLE LANE CLOSURES	50	24	1,200	--	--	--	35	--	--	--	ASSUME 2 MILE CLOSURE. SOME NIGHT CLOSURES ANTICIPATED TO OVERLAP WITH OTHER STAGES.
NIGHTLY RAMP CLOSURES		8	600	75	75	--	--	75	--	--	1 DAY @ EACH CONFLICTING RAMP. ASSUME 1.5 RAMP CLOSURES PER NIGHT.
HMA PAVING SUBTOTAL			1,800		75	--	35	75	--	--	
UNDISTRIBUTED			281		75	1	4	75	1	112	
PROJECT 1206-06-78 TOTALS			5,902		473	2	92	200	6	2,343	

*FOR INFORMATION ONLY

3

PAVEMENT MARKING ITEMS

ROADWAY	DIRECTION	STATION FROM		STATION TO	SEGMENT	646.0120 MARKING LINE EPOXY 4-INCH YELLOW LF	646.0120 MARKING LINE EPOXY 4-INCH WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE LF	646.5420 MARKING AERIAL ENFORCMENT BAR EPOXY WHITE EACH	646.7220 MARKING CHEVRON EPOXY 24-INCH WHITE LF	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH* LF	646.9110 MARKING REMOVAL LINE WATER BLASTING 8-INCH* LF	646.9210 MARKING REMOVAL LINE WATER BLASTING WIDE* LF	COMMENTS
USH 12/18	EB	423EB+86	-	471EB+60	SEMINOLE TO TODD	4,930	5,059	1,128	--	--	--	--	--	
	WB	423WB+86	-	471WB+78		4,983	7,423	1,783	--	86	--	--	--	
USH 12/18	EB	474EB+54	-	519EB+96	TODD TO FISH HATCHERY	4,757	7,077	1,697	--	129	--	--	--	
	WB	474WB+70	-	519WB+96		4,705	6,791	1,781	--	179	--	--	--	
USH 12/18	EB	519EB+96	-	B 549EB+50	FISH HATCHERY TO PARK	3,205	4,766	2,321	--	95	557	--	--	REMOVAL OF EXISTING MARKINGS ON BRIDGES
	WB	519WB+96	-	B 549WB+59		3,157	4,839	2,409	--	214	515	313	--	REMOVAL OF EXISTING MARKINGS ON BRIDGES
USH 12/18	EB	B 552EB+92	-	B 562EB+65	PARK TO RAILROAD	1,223	1,968	1,277	--	--	372	335	--	REMOVAL OF EXISTING MARKINGS ON BRIDGES
	WB	B 553WB+01	-	B 562WB+92		1,356	1,878	1,766	--	228	350	176	--	REMOVAL OF EXISTING MARKINGS ON BRIDGES
USH 12/18	EB	B 565EB+55	-	C 596EB+06	RAILROAD TO RIMROCK	3,202	4,790	1,542	--	166	--	--	--	
	WB	B 565WB+77	-	C 596WB+54		3,245	4,847	1,719	--	--	--	--	--	
USH 12/18	EB	C 596EB+06	-	D 618EB+65	RIMROCK TO JOHN NOLEN	2,391	3,552	877	--	--	487	177	--	REMOVAL OF EXISTING MARKINGS ON BRIDGES
	WB	C 596WB+54	-	6 618WB+70		2,403	3,570	1,213	--	147	493	--	--	REMOVAL OF EXISTING MARKINGS ON BRIDGES
USH 12/18	EB	D 621EB+98	-	E 19EB+71	JOHN NOLEN TO RAILROAD	1,158	1,711	1,057	--	60	794	79	--	REMOVAL OF EXISTING MARKINGS ON BRIDGES
	WB	D 622WB+05	-	E 628WB+99		1,165	1,737	682	--	104	786	79	--	REMOVAL OF EXISTING MARKINGS ON BRIDGES
USH 12/18	EB	E 24EB+19	-	E 52EB+94	RAILROAD TO SOUTTOWNE	3,160	4,930	1,199	3	146	--	--	--	
	WB	E 633WB+47	-	F 662WB+98		3,161	4,735	1,167	15	--	--	--	--	
USH 12/18	EB	E 52EB+94	-	E 78EB+00	SOUTHTOWNE TO YAHARA	2,431	3,591	792	--	--	--	--	--	
	WB	F 662WB+98	-	F 706WB+96		4,472	6,609	478	--	140	--	--	62	REMOVAL OF EXISTING CHEVRONS IN GORE
USH 12/18	EB	E 124EB+99	-	E 131EB+90	YAHARA TO MONONA	947	1,430	402	--	75	517	--	--	REMOVALS FOR EXISTING MARKINGS ON BRIDGES
	WB	G 734WB+99	-	G 741WB+90		948	1,408	553	--	--	510	50	--	REMOVALS FOR EXISTING MARKINGS ON BRIDGES
USH 12/18	EB	E 135EB+06	-	E 177EB+93	MONONA TO STOUGHTON	4,680	7,095	1,878	--	188	604	--	--	REMOVALS FOR EXISTING MARKINGS ON BRIDGES
	WB	G 745WB+06	-	J 787WB+93		4,673	6,850	2,470	--	222	602	--	--	REMOVALS FOR EXISTING MARKINGS ON BRIDGES
USH 12/18	EB	E 181EB+72	-	F 79EB+85	STOUGHTON TO 39	5,889	8,925	1,730	--	138	--	--	--	
	WB	J 791WB+58	-	K 848WB+74		5,963	9,444	1,768	--	299	--	--	--	
PROJECT 1206-06-78 SUBTOTAL						193,231		33,688	18	2,614	6,587	1,209	62	
UNDISTRIBUTED						3,865		674	3	52	132	24	--	
PROJECT 1206-06-78 TOTALS						197,096		34,362	21	2,667	6,719	1,233	62	

*ADDITIONAL QUANTITIES SHOW ELSEWHERE

FILE NAME: \\MADW00\INGRPROJ\66034\t1\cds\030201_mq.ppt PLOT DATE : 2/5/2019 3:30:47 PM PLOT BY : HNTB Corp PLOT NAME : 030201_mq15 PLOT SCALE : 1:1

TEMPORARY PAVEMENT MARKINGS AND REMOVALS

ROADWAY	646.9010 MARKING REMOVAL LINE WATER BLASTING 4-INCH* LF	646.9110 MARKING REMOVAL LINE WATER BLASTING 8-INCH* LF	646.9210 MARKING REMOVAL LINE WATER BLASTING WIDE* LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH YELLOW LF	649.0120 TEMPORARY MARKING LINE EPOXY 4-INCH WHITE LF	649.0220 TEMPORARY MARKING LINE EPOXY 8-INCH LF	649.0760 TEMPORARY MARKING RAISED PAVEMENT MARKER TYPE I EACH	649.0920 TEMPORARY MARKING DIAGONAL EPOXY 12-INCH LF	SPV.0090.06 TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH YELLOW LF	SPV.0090.06 TEMPORARY MARKING LINE WET REFLECTIVE CONTRAST REMOVABLE TAPE 4-INCH WHITE LF	COMMENTS
STAGE 1											
USH 12 EB	2,867	--	--	--	--		--		--	--	
USH 12 WB	2,908	--	--				--		--	--	
STAGE 1 SUBTOTAL	5,775	--	--	--		--	--	--	--		
STAGE 2											
USH 12 EB	2,036	126	116	--	--	--	155	--	1,910	5,743	"WIDE" REMOVALS ARE FOR 24" CHEVRON MARKINGS.
USH 12 WB	1,715	216	166	--	--	--	157	--	1,940	5,808	"WIDE" REMOVALS ARE FOR 24" CHEVRON MARKINGS.
STAGE 2 SUBTOTAL	3,751	343	282	--		--	312	--	15,400		
STAGE 3											
USH 12 EB	--	--	--	--	--	--	82	--	2,004	8,038	
USH 12 WB	--	--	--	--	--	--	79	--	1,939	7,738	
STAGE 3 SUBTOTAL	--	--	--	--		--	161	--	19,719		
STAGE 4											
USH 12 EB	--	--	--	--	--	--	119	--	1,455	4,374	
USH 12 WB	--	--	--	--	--	--	122	--	1,500	4,489	
STAGE 4 SUBTOTAL	--	--	--	--		--	241	--	11,818		
STAGE 5											
USH 12 EB	--	--	--	2,010	2,893	126	--	233	--	--	PAINT 2 PASSES OF 12-INCH TO PLACE 24" CHEVRON MARKINGS.
USH 12 WB	--	--	--	1,940	2,683	216	--	333	--	--	PAINT 2 PASSES OF 12-INCH TO PLACE 24" CHEVRON MARKINGS.
STAGE 5 SUBTOTAL	--	--	--	9,526		343	--	565	--		
STAGE A											
USH 12 EB	2,277	--	--	--	--	--	--	--	--	--	
USH 12 WB	2,276	--	--	--	--	--	--	--	--	--	
STAGE A SUBTOTAL	4,553	--	--	--		--	--	--	--		
STAGE B											
USH 12 EB	1,610	--	--	--	--	--	57	--	1,452	4,755	INCLUDES STRIPING FOR THIRD LANE ON THURSDAY NIGHT.
USH 12 WB	1,437	165	--	--	--	165	57	--	1,451	4,752	INCLUDES STRIPING FOR THIRD LANE ON THURSDAY NIGHT.
STAGE B SUBTOTAL	3,047	165	--	--		165	114	--	12,409		
STAGE C											
USH 12 EB	--	--	--	--	--	--	53	--	1,400	4,601	INCLUDES STRIPING FOR THIRD LANE ON THURSDAY NIGHT.
USH 12 WB	--	--	--	--	--	--	53	--	1,300	4,298	INCLUDES STRIPING FOR THIRD LANE ON THURSDAY NIGHT.
STAGE C SUBTOTAL	--	--	--	--		--	106	--	11,599		
STAGE D											
USH 12 EB	--	--	--	1,401	2,366	--	--	--	--	--	
USH 12 WB	--	--	--	1,400	2,314	--	--	--	--	--	
STAGE D SUBTOTAL	--	--	--	7,482		--	--	--	--		
UNDISTRIBUTED	343	10	6	44,730		10	19	11	1,419		INCLUDES MARKINGS PLACED ON MICHIGAN JOINTS.
PROJECT 1206-06-78 TOTALS	17,469	518	288	61,738		518	953	576	72,364		

*ADDITIONAL QUANTITIES SHOW ELSEWHERE

3

FINISHING ROADWAY (PROJECT 1206-06-78)

ROADWAY	213.0100 FINISHING ROADWAY 1206-06-78 EACH
USH 12 EB/WB	1
PROJECT 1206-06-78 TOTAL	1

MAINTENANCE AND REPAIR OF HAUL ROADS

ROADWAY	618.0100 MAINTENANCE AND REPAIR OF HAUL ROADS EACH
USH 12 EB/WB	1
PROJECT 1206-06-78 TOTAL	1

MOBILIZATION

ROADWAY	619.1000 MOBILIZATION EACH
USH 12 EB/WB	1
PROJECT 1206-06-78 TOTAL	1

FIELD OFFICE TYPE B

ROADWAY	642.5001 FIELD OFFICE TYPE B EACH
	1
PROJECT 1206-06-78 TOTAL	1

3

REMOVING LOOSE PAVEMENT AND ASPHALTIC SURFACE PATCHING

ROADWAY	SPV.0090.02 REMOVING LOOSE PAVEMENT AND ASPHALTIC SURFACE PATCHING LF
TODD DRIVE EB ON-RAMP	315
TODD DRIVE WB OFF-RAMP	450
PROJECT 1206-06-78 TOTALS	765

CONSTRUCTION STAKING RESURFACING REFERENCE

ROADWAY	650.8000 CONSTRUCTION STAKING RESURFACING REFERENCE LF
USH 12 EB/WB	77,328
PROJECT 1206-06-78 TOTAL	77,328

PREPARING FOUNDATION FOR ASPHALTIC PAVING (PROJECT 1206-06-78)

ROADWAY	211.0100 PREPARING FOUNDATION FOR ASPHALTIC PAVING 1206-06-78 LS
USH 12 EB/WB	1
PROJECT 1206-06-78 TOTAL	1

HMA PERCENT WITHIN LIMITS TEST TRIP

ROADWAY	460.0105.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP VOLUMETRICS EACH	460.0110.S HMA PERCENT WITHIN LIMITS (PWL) TEST STRIP DENSITY EACH
USH 12 EB/WB	1	1
PROJECT 1206-06-78 TOTALS	1	1

EMERGENCY RESPONSE TO TRAFFIC INCIDENTS

ROADWAY	SPV.0060.05 EMERGENCY RESPONSE TO TRAFFIC INCIDENT INVOLVING CONCRETE BARRIER TEMPORARY EACH	SPV.0060.06 EMERGENCY RESPONSE TO TRAFFIC INCIDENT INVOLVING CRASH CUSHION EACH	SPV.0060.07 EMERGENCY RESPONSE TO TRAFFIC INCIDENT INVOLVING GUARD RAIL OR EAT EACH
USH 12 EB/WB	1	1	1
PROJECT 1206-06-78 TOTALS	1	1	1

SECURING STRUCTURE COVERS

ROADWAY	STATION	OFFSET	SPV.0060.03 SECURING STRUCTURE COVERS EACH
STAGE 2			
USH 12 EB	E 180EB+85	10.4' LT	1
USH 12 WB	J 780WB+84	10.6' RT	1
STAGE A SUBTOTAL			2
STAGE A			
USH 12 EB	471WB+90	45.0' RT	1
	474EB+04	45.0' RT	1
USH 12 WB	472WB+23	45.0' LT	1
	474WB+38	45.0' LT	1
STAGE A SUBTOTAL			4
STAGE B			
USH 12 EB	472EB+18	9.0' LT	1
	474EB+09	9.0' LT	1
USH 12 WB	472WB+18	9.0' RT	1
	474WB+09	9.0' RT	1
STAGE B SUBTOTAL			4
PROJECT 1206-06-78 TOTAL			10

Standard Detail Drawing List

08D04-05	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
08F01-11	APRON ENDWALLS FOR CULVERT PIPE
08F04-07	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
13B02-08A	CONCRETE PAVEMENT APPROACH SLAB
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-15A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-15C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C14-07A	BASE PATCHING CONCRETE
13C14-07B	BASE PATCHING CONCRETE
13C14-07C	BASE PATCHING CONCRETE
14B07-15A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-15I	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
14B11-02	CONCRETE BARRIER (DOUBLE FACED)
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
14B18-06A	STEEL PLATE BEAM GUARD, CLASS "A" (AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS)
14B20-11A	STEEL THRIE BEAM STRUCTURE APPROACH
14B20-11C	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS
14B20-11G	STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL
14B42-06A	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06B	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06C	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B42-06D	MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL
14B44-04A	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04B	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B44-04C	MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)
14B45-05A	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05B	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05C	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05D	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05E	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05F	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05G	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05H	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05I	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05J	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05K	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
14B45-05L	MIDWEST GUARDRAIL SYSTEM THRIE BEAM TRANSITION (MGS)
15A03-02A	FLEXIBLE MARKER POST FOR CULVERT END
15A03-02B	FLEXIBLE MARKER POST FOR CULVERT END
15C02-06C	DETOUR SIGNING FOR MAINLINE CLOSURES
15C08-19A	LONGITUDINAL MARKING (MAINLINE)
15C11-07A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-07B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C12-06	TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION
15C31-03A	PAVEMENT MARKING (RAMPS AND GORES)
15C31-03C	PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP
15C34-03	STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKER, TYPE 2

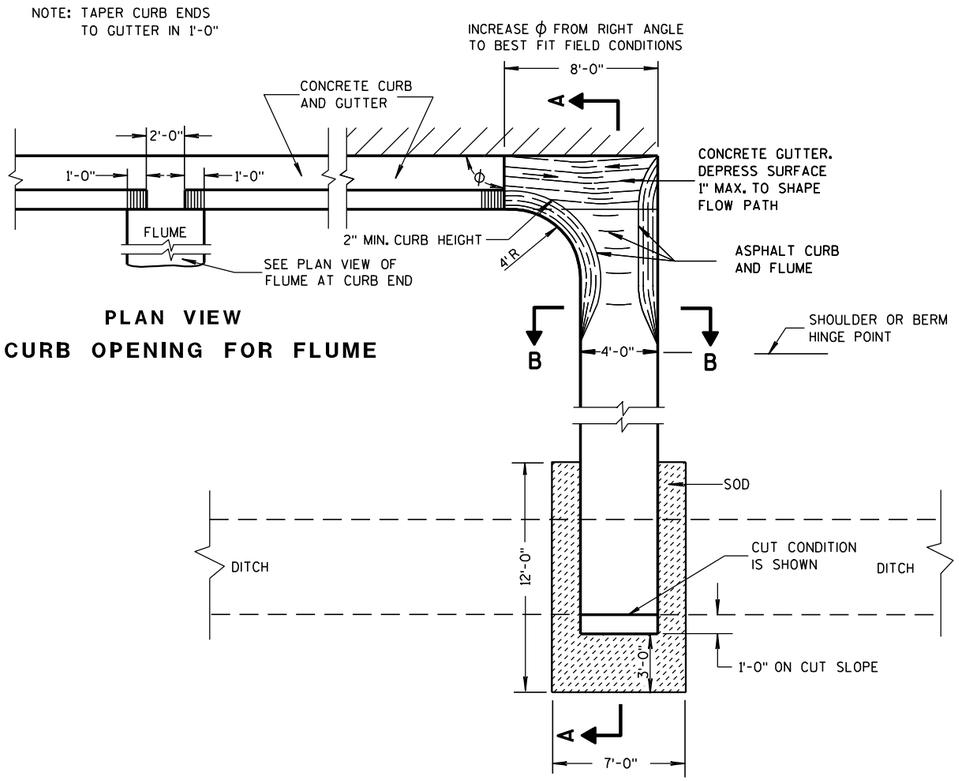
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Standard Detail Drawing List

15D03-04	TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER
15D12-06A	TRAFFIC CONTROL, LANE CLOSURE
15D12-06B	TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION
15D14-03	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT-TERM (LESS THAN 24 HOURS)
15D15-04A	TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-04B	TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE
15D15-04E	TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE
15D16-03	TRAFFIC CONTROL, EXIT RAMP CLOSURE
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D38-02A	TEMPORARY TRAFFIC CONTROL SIGN MOUNTING
15D38-02B	ATTACHMENT OF SIGNS TO POSTS
15D39-02	TRAFFIC CONTROL, DROP-OFF SIGNING

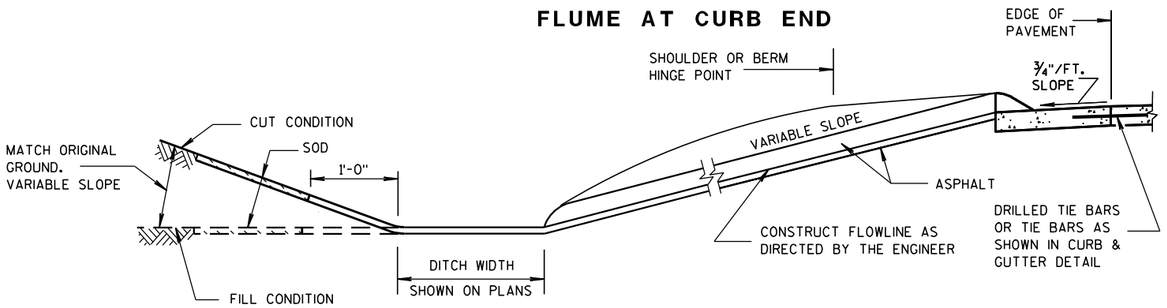
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ASPHALTIC FLUME

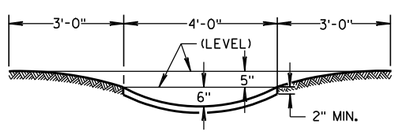


PLAN VIEW
CURB OPENING FOR FLUME

PLAN VIEW
FLUME AT CURB END



SECTION A-A



SECTION B-B

GENERAL NOTES

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

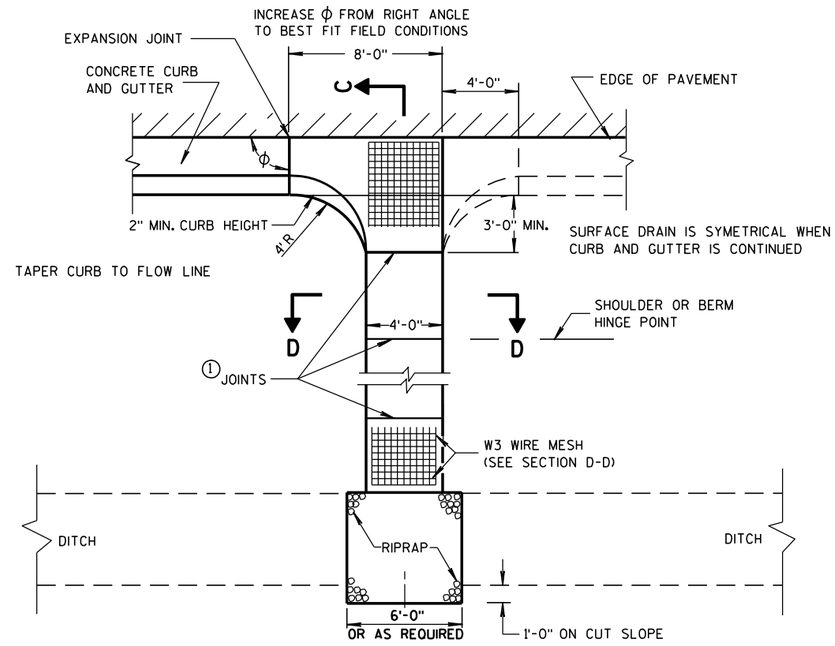
WELDED STEEL WIRE FABRIC SHALL BE IN ACCORDANCE WITH AASHTO SPECIFICATION M55.

① JOINTS SHALL BE $\frac{1}{8}$ TO $\frac{1}{4}$ INCH WIDE BY $1\frac{1}{2}$ INCHES DEEP AND SPACED AT UNIFORM INTERVALS OF APPROXIMATELY 4 FEET.

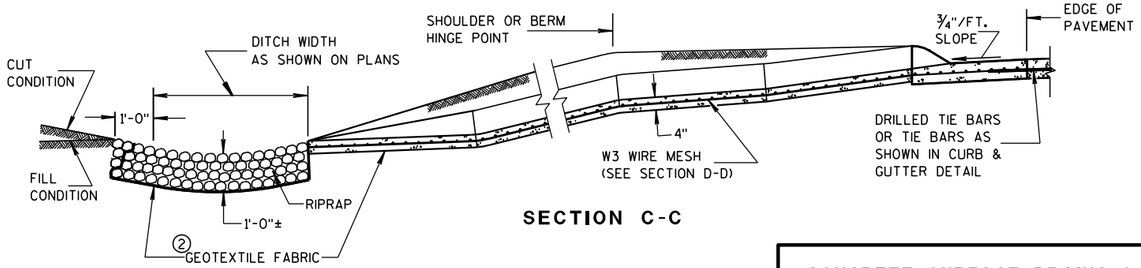
② GEOTEXTILE FABRIC TYPE "R" SHALL UNDERLAY THE FULL LENGTH AND WIDTH OF THE CONCRETE SURFACE DRAIN AND RIPRAP.

③ CONCRETE SURFACE DRAIN WITHOUT CURB AND GUTTER MAY BE USED ON BACKSLOPES WHEN SPECIFIED

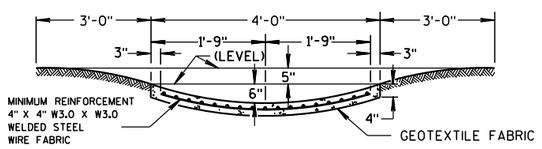
③ CONCRETE SURFACE DRAIN



PLAN VIEW



SECTION C-C



SECTION D-D

CONCRETE SURFACE DRAINS & ASPHALTIC FLUMES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

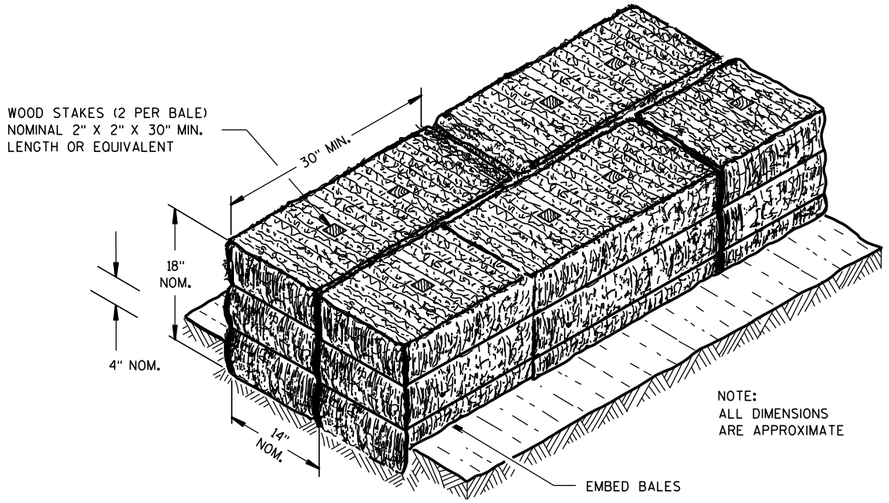
APPROVED
9-4-08 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
190
MENT
FHWA

6

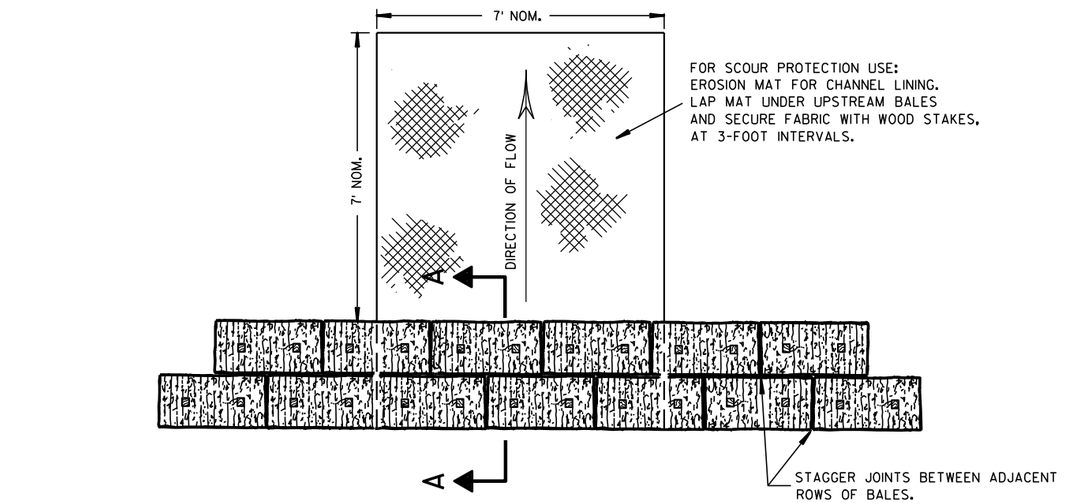
S.D.D. 8 D 4-5

6

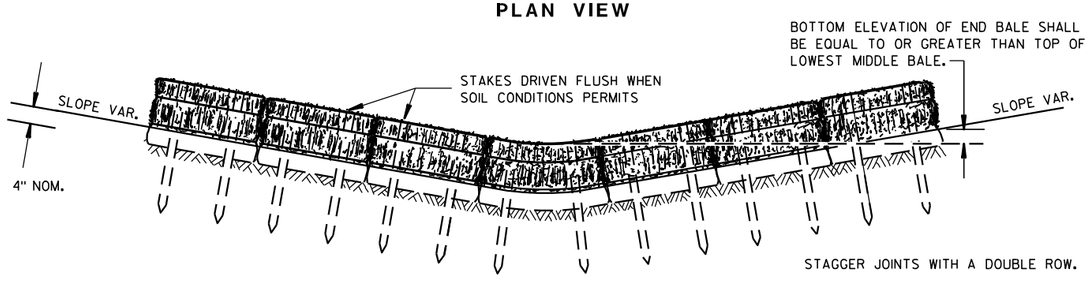
S.D.D. 8 D 4-5



SECTION A-A



PLAN VIEW



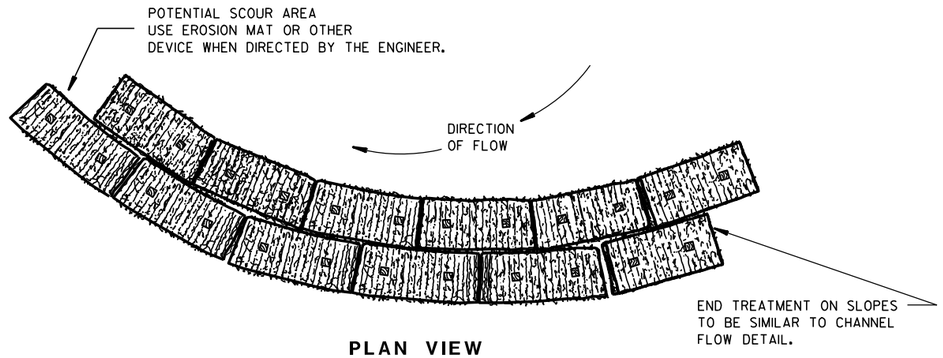
FRONT ELEVATION

TEMPORARY DITCH CHECK USING EROSION BALES (1)

GENERAL NOTES

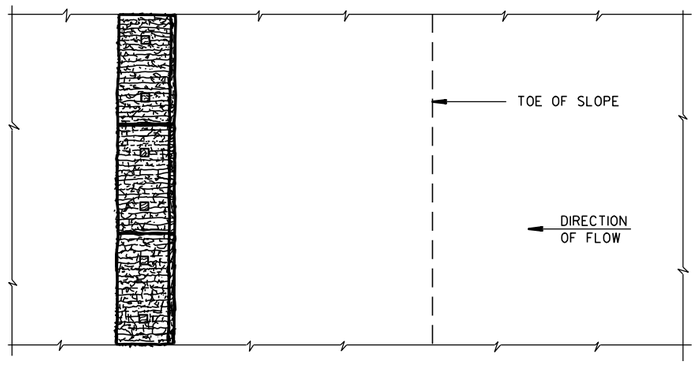
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

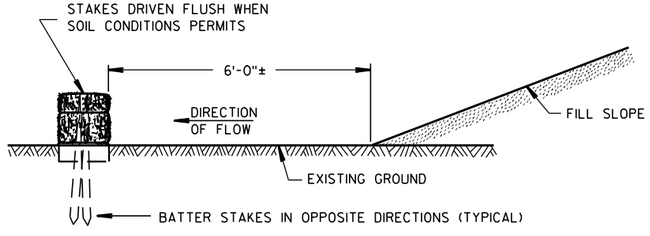


PLAN VIEW

WHEN ALTERING THE DIRECTION OF FLOW



PLAN VIEW



FRONT ELEVATION

WHEN EXISTING GROUND SLOPES AWAY FROM FILL SLOPE

EROSION BALES FOR SHEET FLOW

TYPICAL INSTALLATIONS OF EROSION BALES / TEMPORARY DITCH CHECKS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/04/02 DATE — /S/ Beth Cannestra — CHIEF ROADWAY DEVELOPMENT ENGINEER

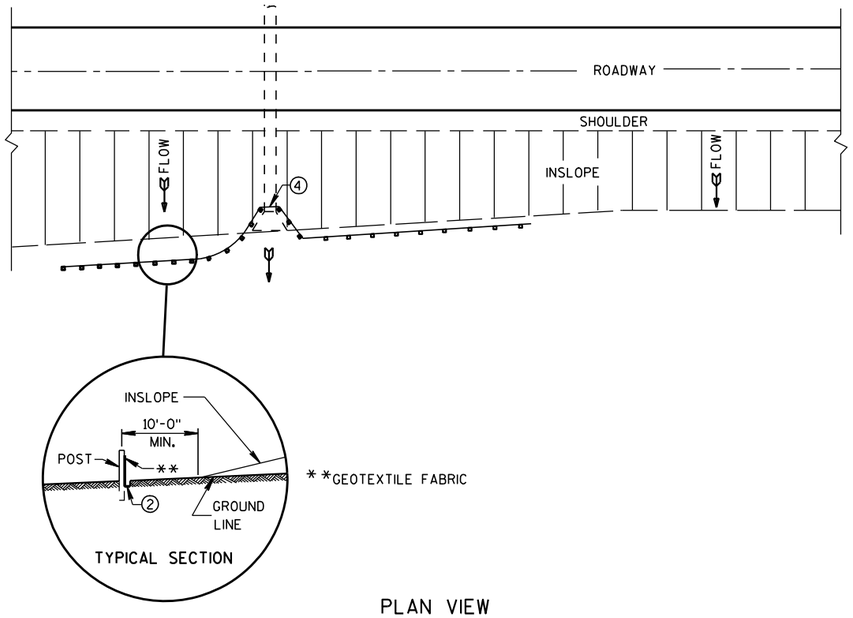
FHWA

6

S.D.D. 8 E 8-3

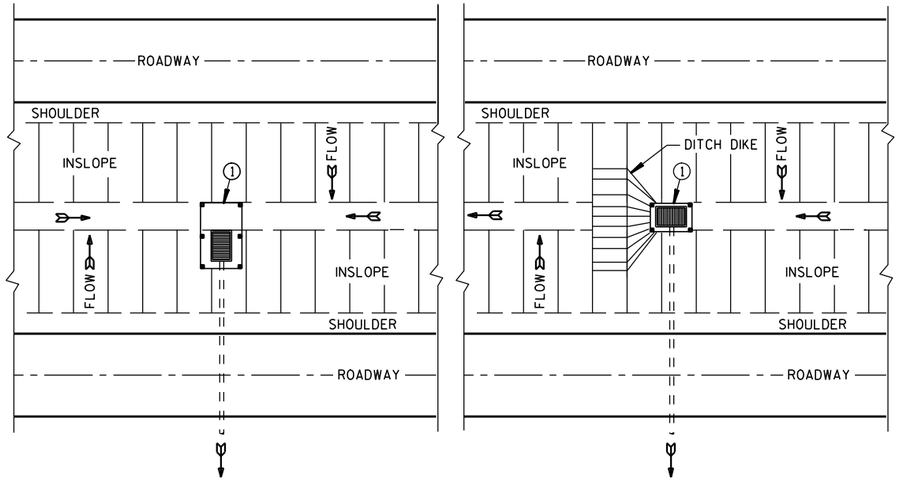
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S.D.D. 8 E 8-3



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



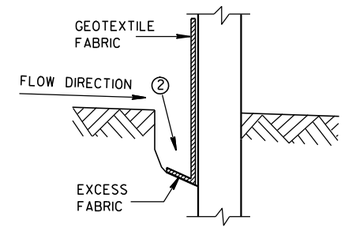
PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

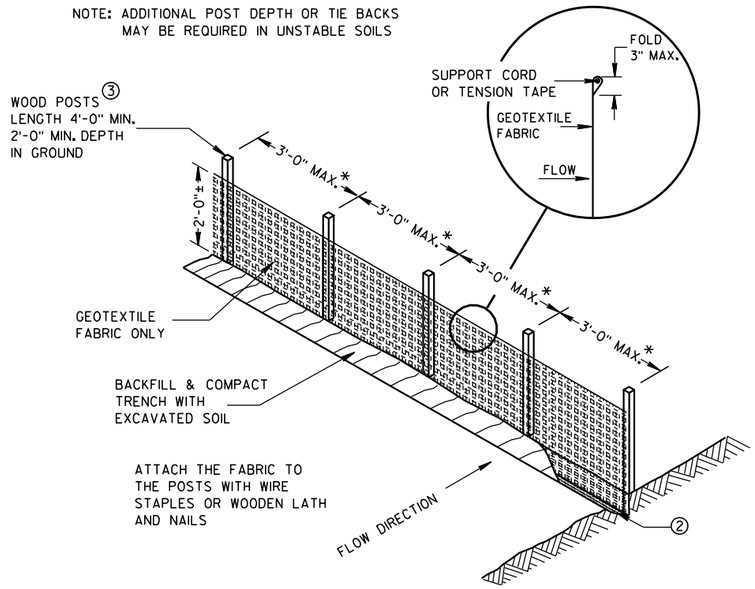
GENERAL NOTES

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.

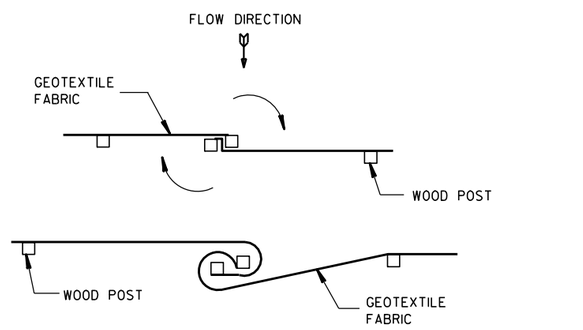


TRENCH DETAIL

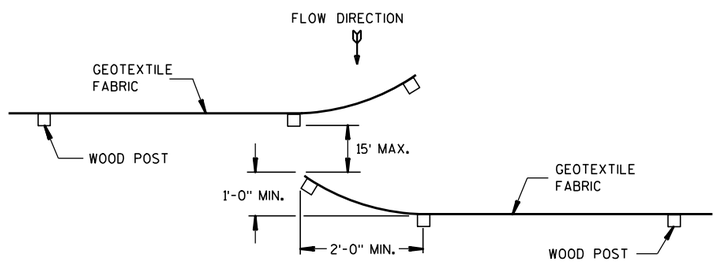


*NOTE: 8'-0" POST SPACING ALLOWED IF A WOVEN GEOTEXTILE FABRIC IS USED.

SILT FENCE

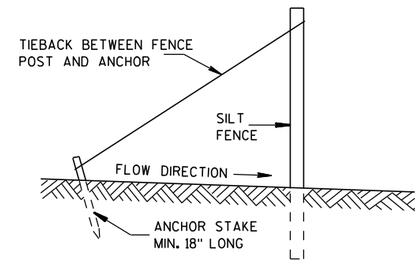


TWIST METHOD



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

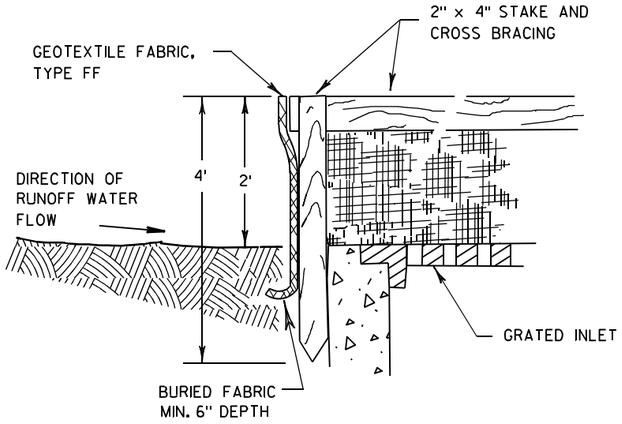
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

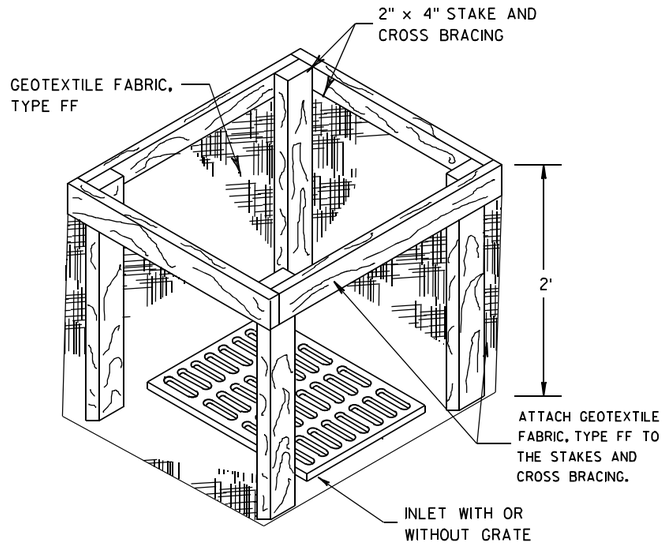
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S.D.D. 8 E 9-6

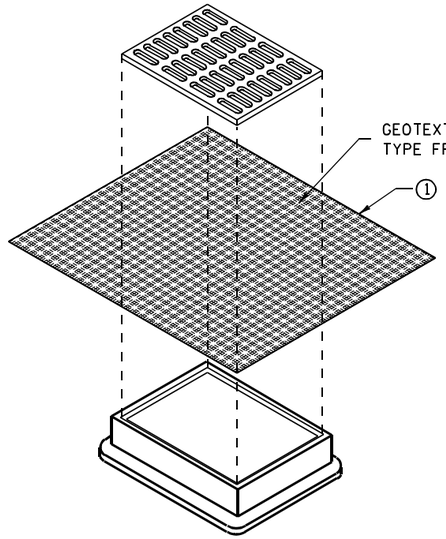
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S.D.D. 8 E 9-6



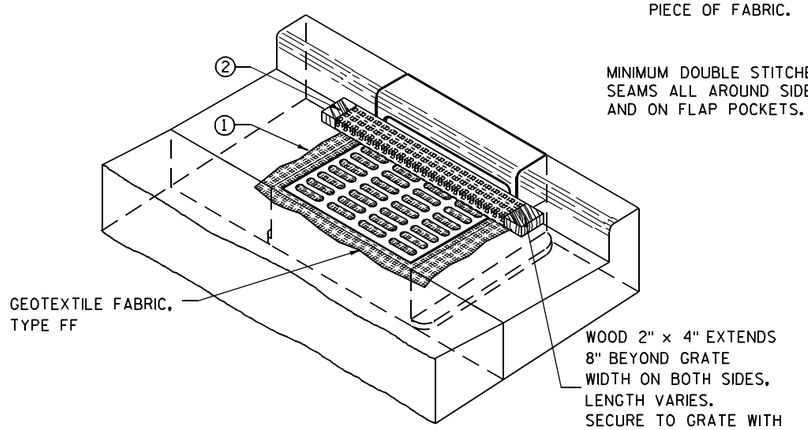


INLET PROTECTION, TYPE A

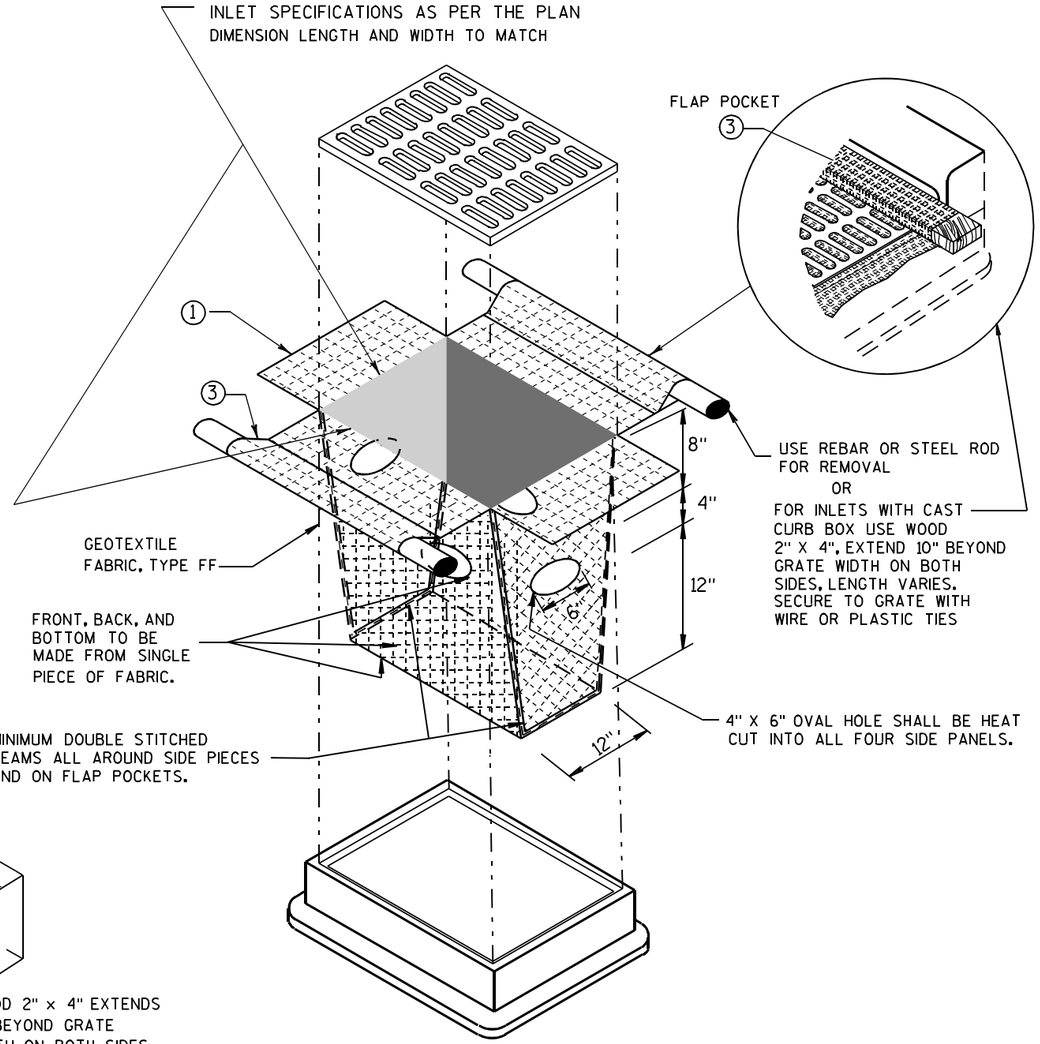


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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

METAL APRON ENDWALLS

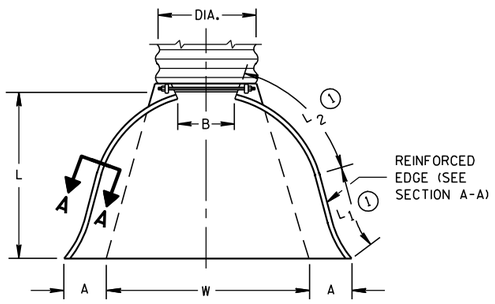
PIPE DIA. (IN.)	MIN. THICK. (Inches) STEEL	MIN. THICK. (Inches) ALUM.	DIMENSIONS (Inches) A (±1")	B (MAX.)	H (±1")	L (±1 1/2")	L1 ①	L2 ①	W (±2")	APPROX. SLOPE	BODY
12	.064	.060	6	6	6	21	12	17 1/2	24	2 1/2 to 1	1 Pc.
15	.064	.060	7	8	6	26	14	21 3/4	30	2 1/2 to 1	1 Pc.
18	.064	.060	8	10	6	31	15	28 1/4	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

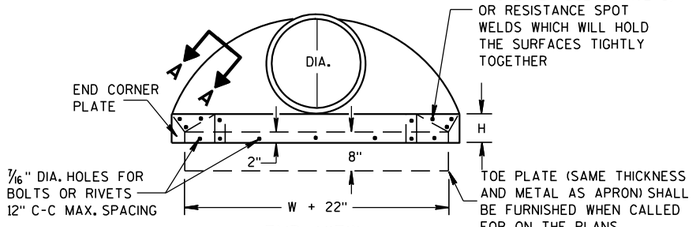
REINFORCED CONCRETE APRON ENDWALLS

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

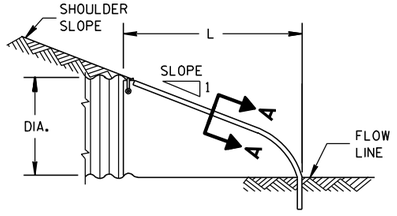
*MINIMUM
**MAXIMUM



PLAN VIEW

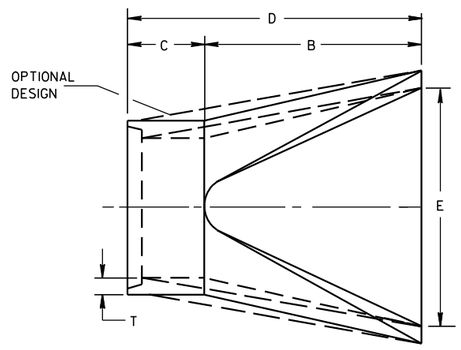


END VIEW

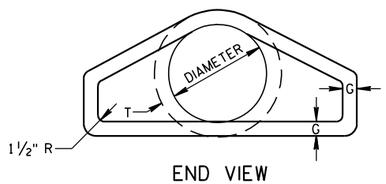


SIDE ELEVATION

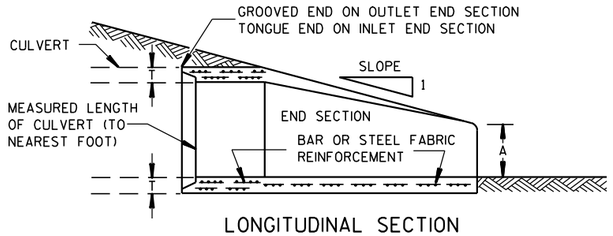
METAL ENDWALLS



PLAN

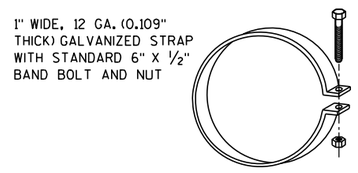


END VIEW



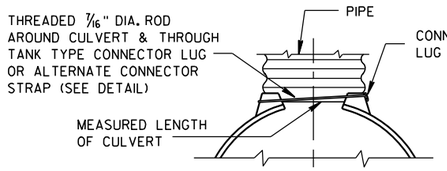
LONGITUDINAL SECTION

CONCRETE ENDWALLS

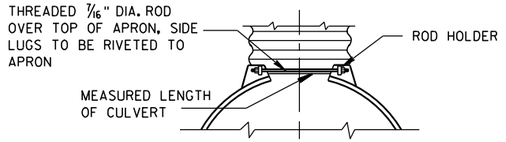


ALTERNATE FOR TYPE 1 CONNECTION

END SECTION CONNECTOR STRAP

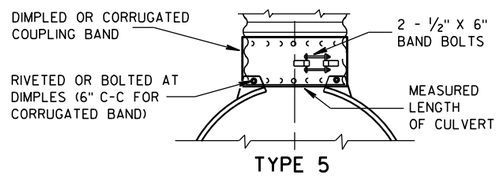


TYPE 1
FOR 12" THRU 24" CORR. PIPE



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

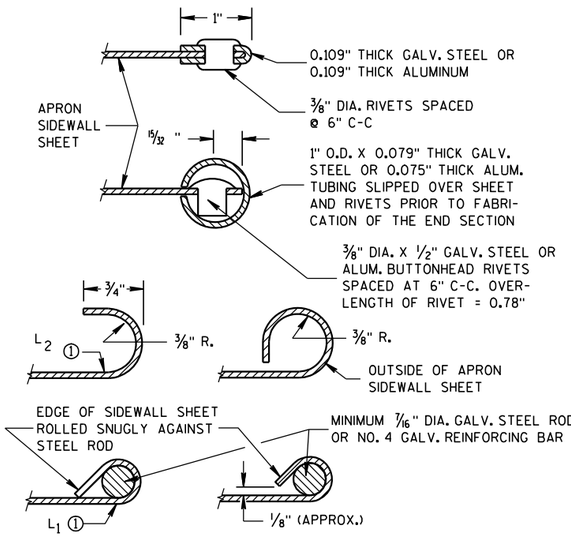
NOTE: DIMPLED BAND FITS OVER OUTSIDE OF ENDWALL. AND CORRUGATED BAND FITS INSIDE ENDWALL. DIMPLED BAND MAY BE USED WITH HELICALLY CORRUGATED PIPE.

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.

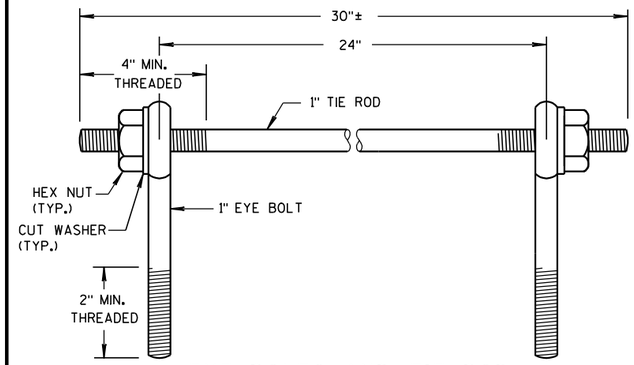
APRON ENDWALLS FOR CULVERT PIPE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

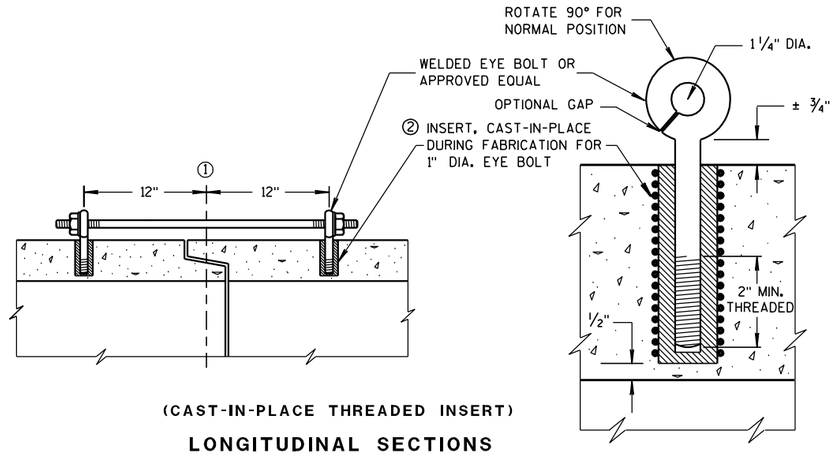
APPROVED
11/30/94 DATE
/S/ Rory L. Rhinesmith CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

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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 ℄ OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

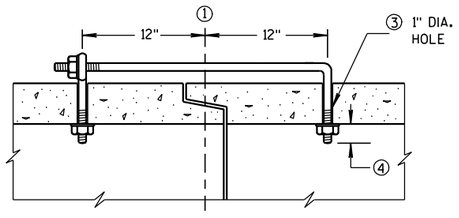
② THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

③ HOLES SHALL BE CAST-IN-PLACE OR DRILLED 12 INCHES FROM ℄ OF TONGUE AND GROOVE.

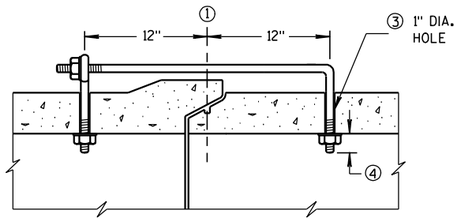
④ BOLT PROJECTION INSIDE OF PIPE SHALL NOT EXCEED 2 INCHES.

⑤ OPENING TO BE ROD DIAMETER PLUS 1 INCH.

⑥ LENGTH ADEQUATE TO EXTEND TO WITHIN 1/2 INCH OF THE INNER SURFACE OF THE PIPE.



(TONGUE & GROOVE PIPE)

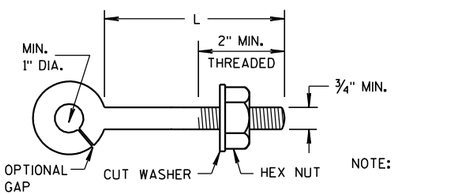


(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

EYE BOLT DIMENSION TABLE

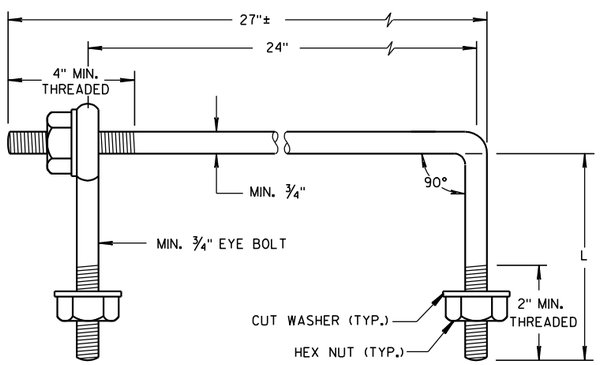
PIPE SIZE	L = LENGTH	
	TONGUE & GROOVE PIPE	MODIFIED BELL PIPE
18" TO 24"	4 1/2"	6 1/4"
30"	5"	7"
36"	5 1/2"	7"
42"	6"	
48"	6 1/2"	
60"	7 1/2"	
66"	8"	



NOTE:

EYE BOLT

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



EYE BOLT AND TIE ROD

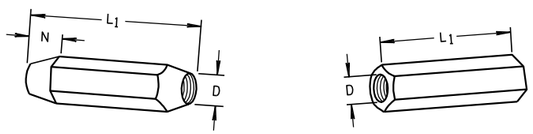
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

ADJUSTABLE TIE ROD TABLE

PIPE DIAMETER	TIE ROD DIAMETER	D	L_1	N
12-60	5/8	5/8	5	1/2
66-84	3/4	3/4	5	1/2
90-108	1	1	7	1 1/16

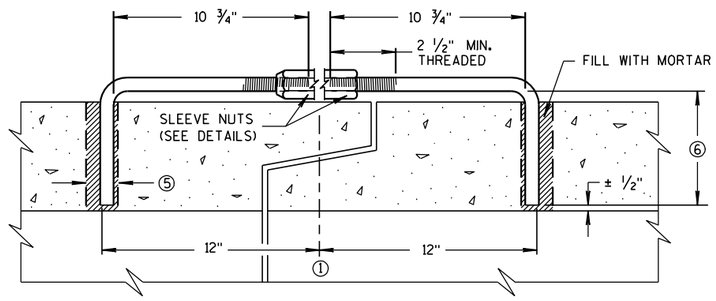
DIMENSIONS SHOWN ARE IN INCHES



TAPERED PLAIN

RIGHT AND LEFT THREADS

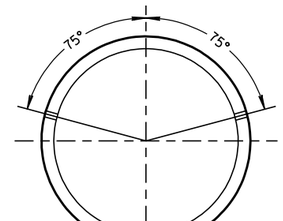
SLEEVE NUTS



LONGITUDINAL SECTION

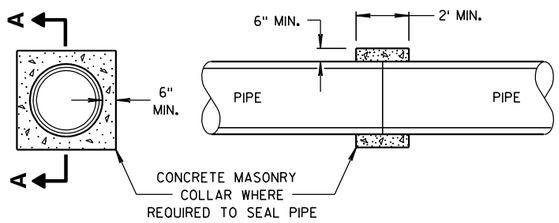
(JOINT TIES FOR 12" TO 108" DIA. CONCRETE PIPE)

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

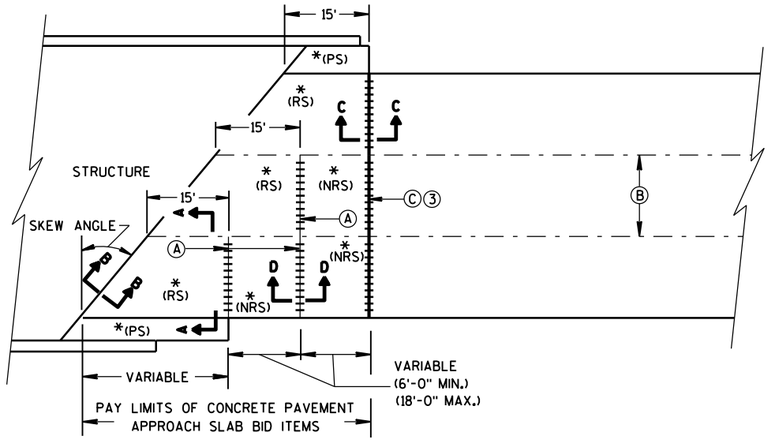
APPROVED
6/5/2012 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS ENGINEER
195
FHWA

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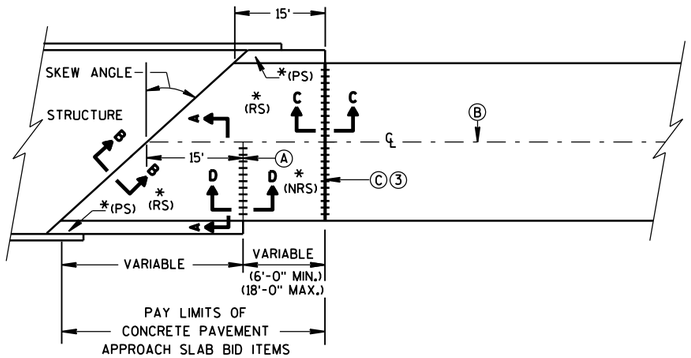
S.D.D. 8 F 4-7

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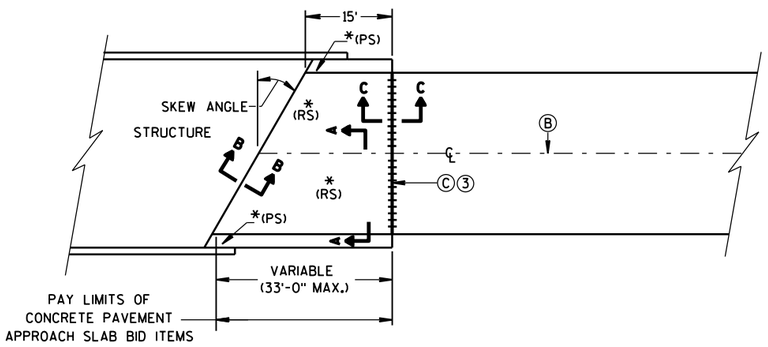
S.D.D. 8 F 4-7



SKEWED APPROACH
(PAVEMENT MORE THAN 2 LANES)



SKEWS >20°
(PAVEMENT WIDTH ≤30')



SKEWS ≤20°
(PAVEMENT WIDTH ≤30')

APPROACH SLAB AND ADJACENT PAVEMENT

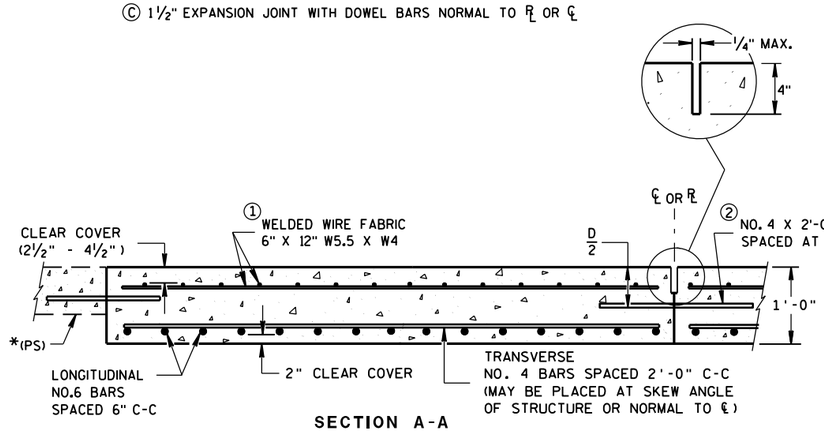
*(RS) = REINFORCED CONCRETE SLAB
*(PS) = PAVED CONCRETE SHOULDER OR CONCRETE DRAINAGE SLAB
(SEE DETAILS ELSEWHERE IN THE PLAN)
*(NRS) = NON-REINFORCED CONCRETE SLAB

***STANDARD DOWEL BAR DIAMETER
(SEE SDD 13C11, & SDD 13C13)

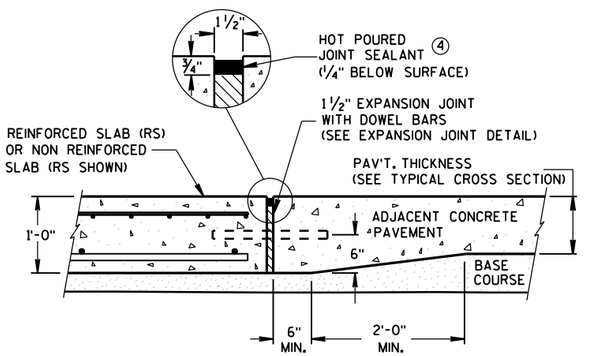
Ⓐ STANDARD CONTRACTION JOINT NORMAL TO ℄ OR ℄

Ⓑ STANDARD LONGITUDINAL JOINT WITH TIE BARS.

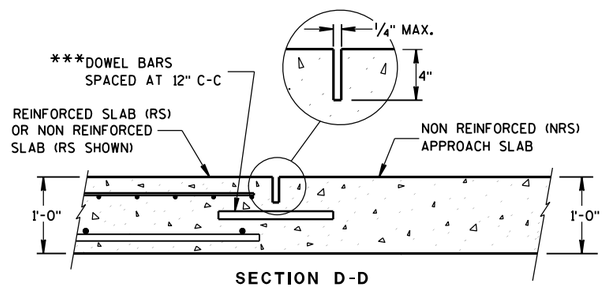
Ⓒ 1½" EXPANSION JOINT WITH DOWEL BARS NORMAL TO ℄ OR ℄



SECTION A-A
REINFORCEMENT POSITIONING DETAIL



SECTION C-C
TRANSITION DETAIL
APPROACH SLAB TO ADJACENT PAVEMENT



SECTION D-D
CONTRACTION JOINT

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.

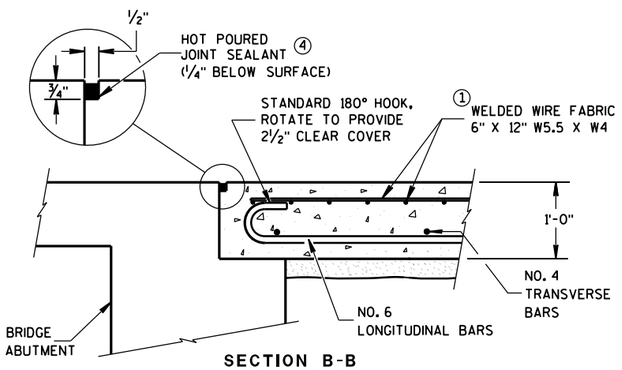
① THE CONTRACTOR MAY USE NO. 4 BARS SPACED AT 2'-0" C-C IN BOTH THE LONGITUDINAL AND TRANSVERSE DIRECTIONS FOR TOP REINFORCEMENT AS AN ALTERNATIVE TO THE WELDED WIRE FABRIC.

② THE CONTRACTOR MAY OMIT TIE BARS BETWEEN REINFORCED SLABS WHERE SLAB REINFORCEMENT BARS EXTEND ACROSS THE CENTERLINE OR REFERENCE LINE.

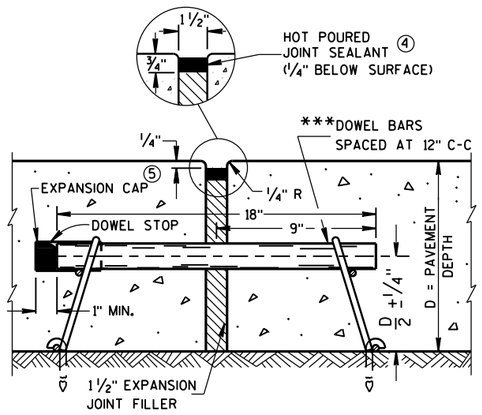
③ DO NOT CONSTRUCT AN EXPANSION JOINT OR INSTALL DOWEL BARS WHEN ABUTTING AN HMA PAVEMENT.

④ USE A JOINT SEALANT MEETING THE REQUIREMENTS OF ASTM D6690.

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.



SECTION B-B
BEND DETAIL
BOTTOM REINFORCEMENT



EXPANSION JOINT DETAIL

CONCRETE PAVEMENT APPROACH SLAB

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

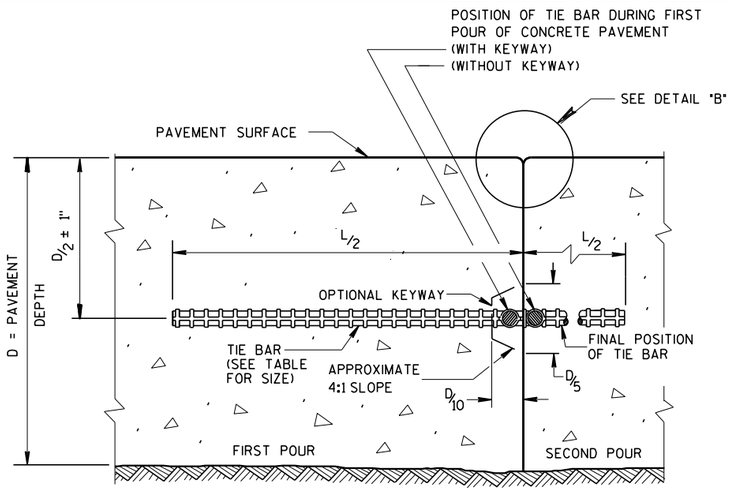
APPROVED
June, 2015
DATE
/S/ Peter Kemp, P.E.
PAVEMENT SUPER
FHWA

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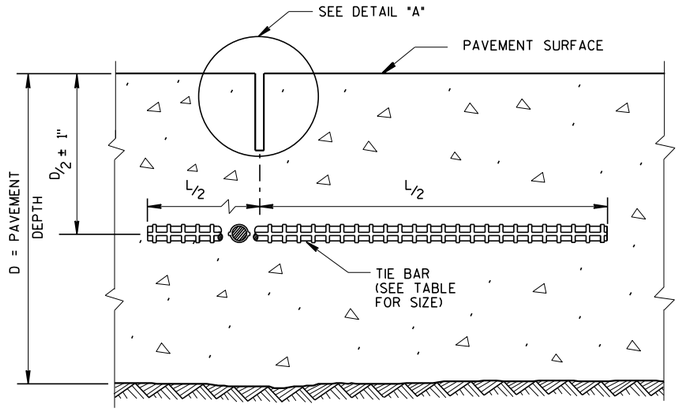
S.D.D. 13 B 2-8a

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S.D.D. 13 B 2-8a



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

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S.D.D. 13 C 1-19

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S.D.D. 13 C 1-19

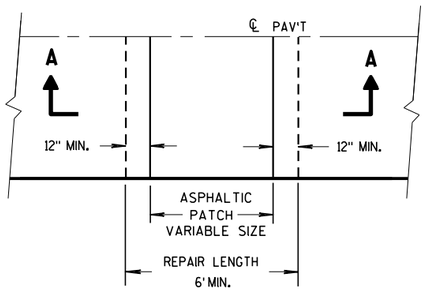
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

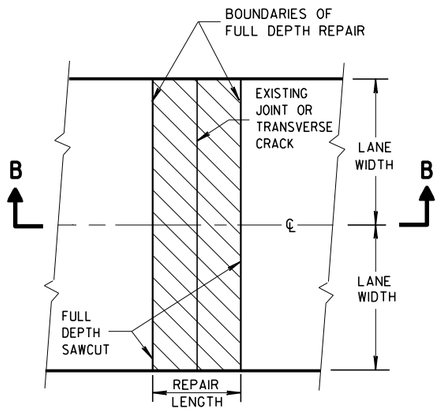
PROVIDE A 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK IN THE SAME LANE.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

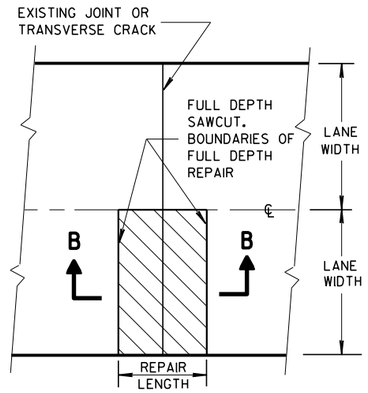
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

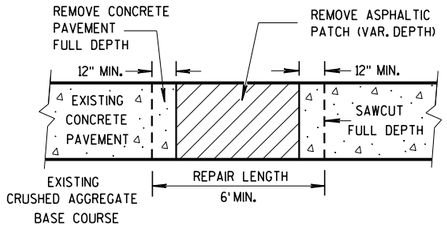


PLAN VIEW
(DOUBLE LANE REPAIR)



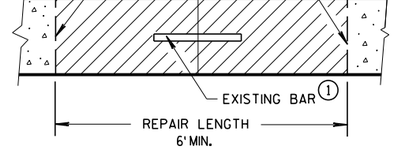
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

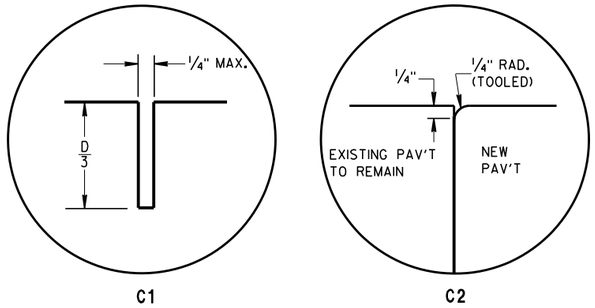
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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S.D.D. 13 C 9-15a

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S.D.D. 13 C 9-15a



C1 C2

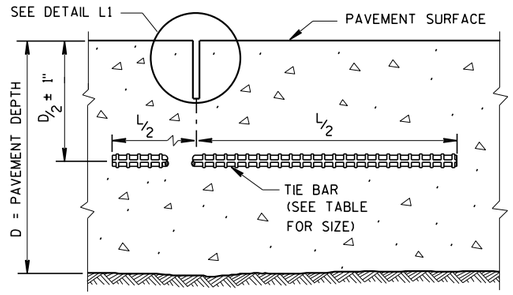
TRANSVERSE JOINTS

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.



SECTION C-C

SAWED LONGITUDINAL JOINT

GENERAL NOTES

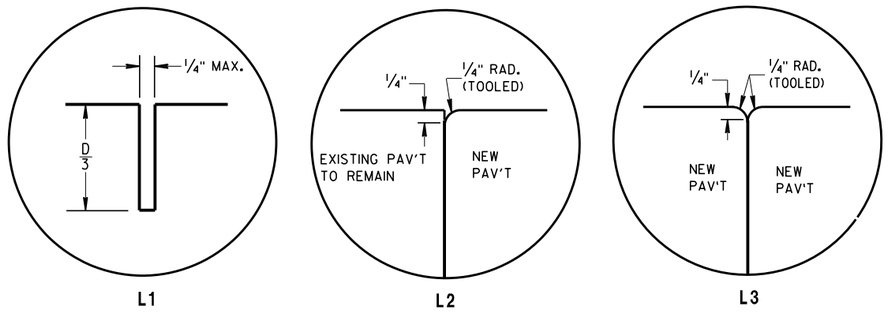
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

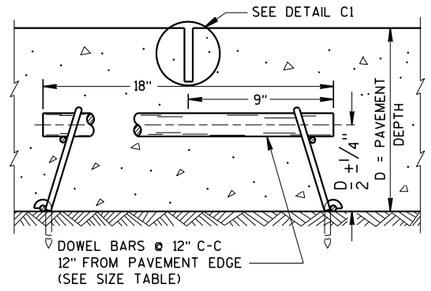
FOR MULTI-LANE CONCRETE PAVEMENT REPLACEMENTS, PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM ALL TRANSVERSE JOINTS OR EDGES OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



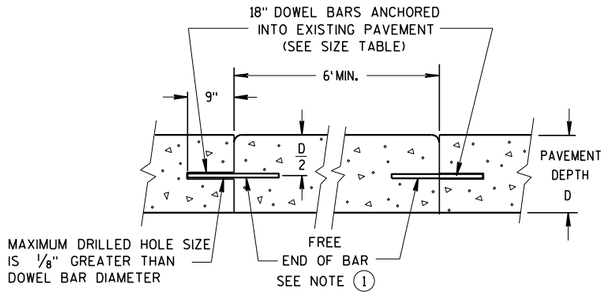
L1 L2 L3

LONGITUDINAL JOINTS

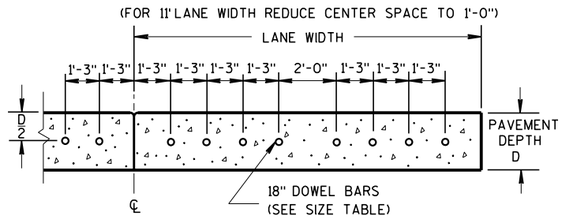


SECTION F-F

CONTRACTION JOINT



SECTION D-D

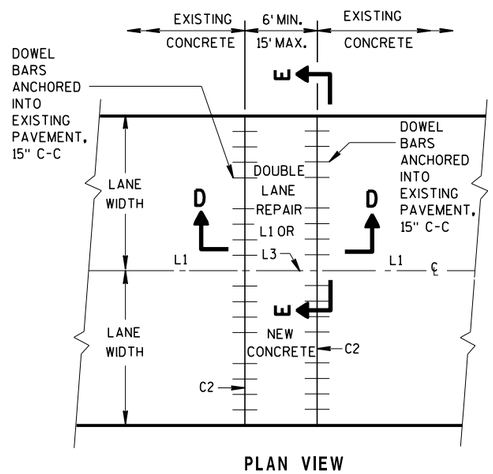


SECTION E-E

DRILLED DOWEL BAR CONSTRUCTION JOINT

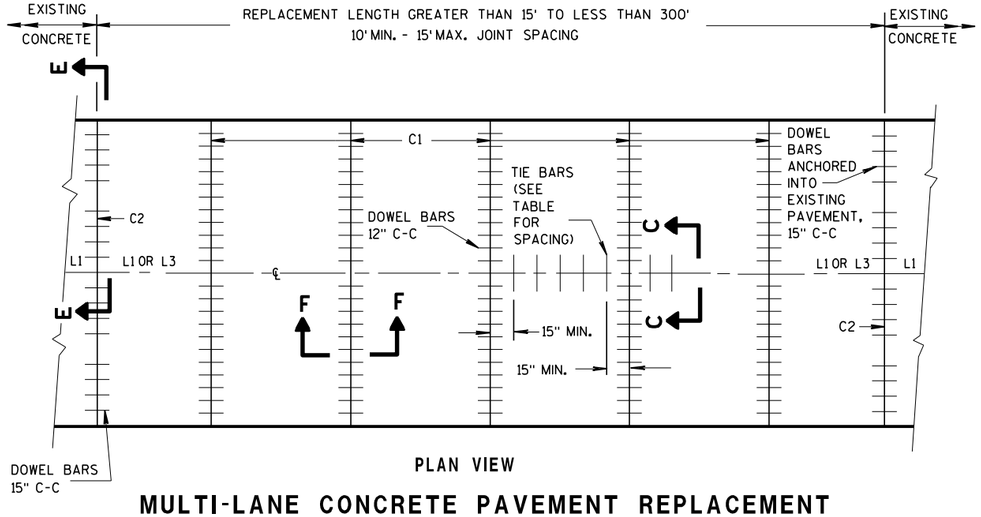
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
5 1/2", 6", 6 1/2"	NONE	NONE	12'
7", 7 1/2"	1"	1"	14'
8", 8 1/2"	1 1/4"	1 1/4"	15'
9", 9 1/2"	1 1/4"	1 1/4"	15'
10" & ABOVE	1 1/2"	1 1/4"	15'



PLAN VIEW

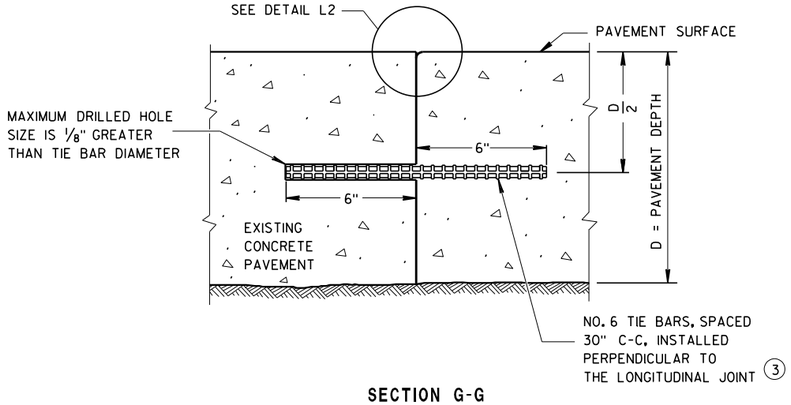
MULTI-LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

MULTI-LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT



SECTION G-G

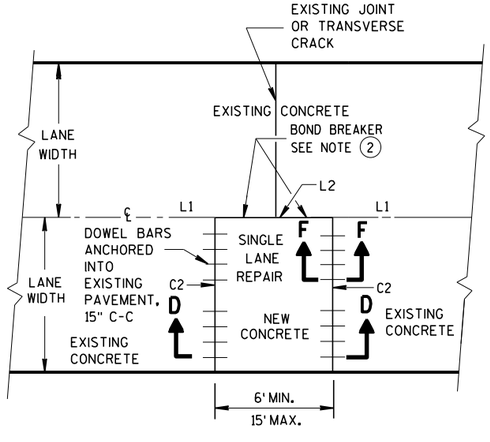
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, THE CONTRACTOR MAY INSTALL DRILLED TIE BARS ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

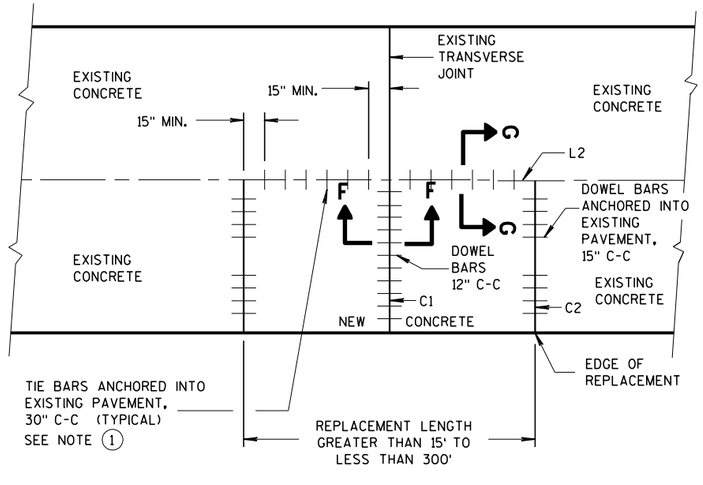
(2) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE REPAIRS UP TO 15 FEET IN LENGTH.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

SINGLE LANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2018 — DATE

/S/ Peter Ken... — PAVEMENT SUPE...

FHWA

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S.D.D. 13 C 9-15c

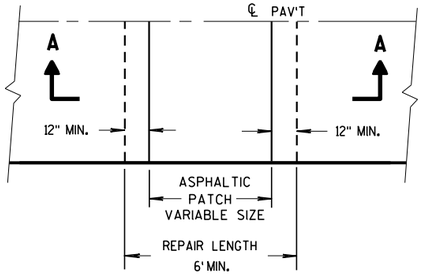
GENERAL NOTES

SAW CUT, DRILL, AND LIFT OUT EXISTING CONCRETE PAVEMENT WITHIN THE BOUNDARIES OF CONCRETE REPAIR AREAS. THE CONTRACTOR MAY MAKE ADDITIONAL SAW CUTS INSIDE THE REPAIR LIMITS TO REDUCE WEIGHT AND SIZE OF CONCRETE PIECES.

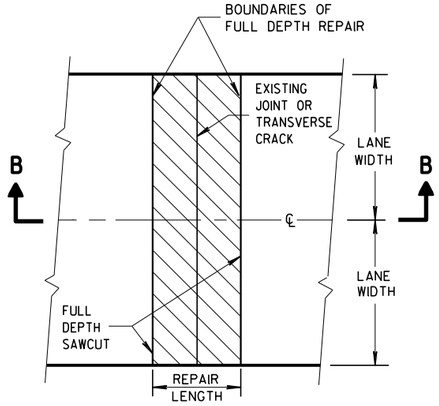
PROVIDE 6-FOOT MINIMUM DISTANCE FROM BOUNDARIES OF CONCRETE REPAIR AREAS TO ADJACENT TRANSVERSE JOINT OR CRACK.

THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NONDOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

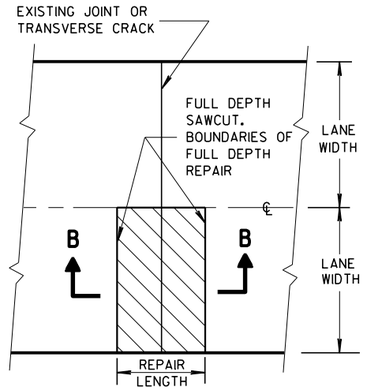
(1) DOWEL BARS MIGHT NOT EXIST.



PLAN VIEW

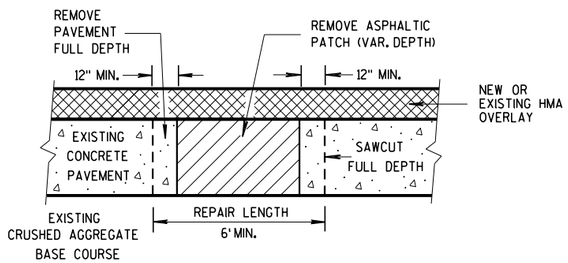


PLAN VIEW
(DOUBLE LANE REPAIR)



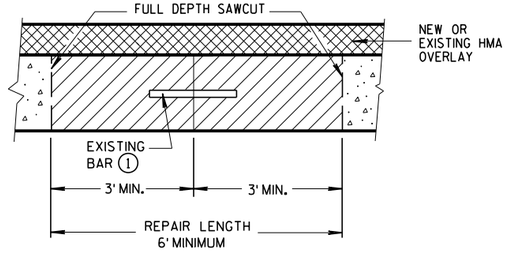
PLAN VIEW
(SINGLE LANE REPAIR)

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION A-A

HMA PATCH REMOVAL



SECTION B-B

CONCRETE REMOVAL

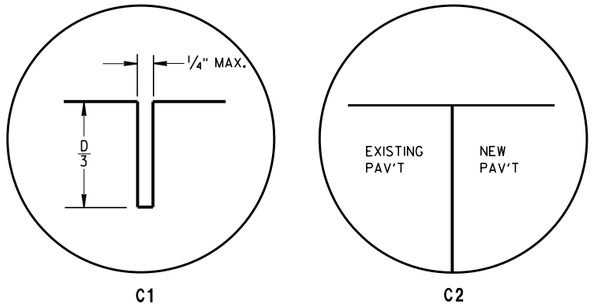
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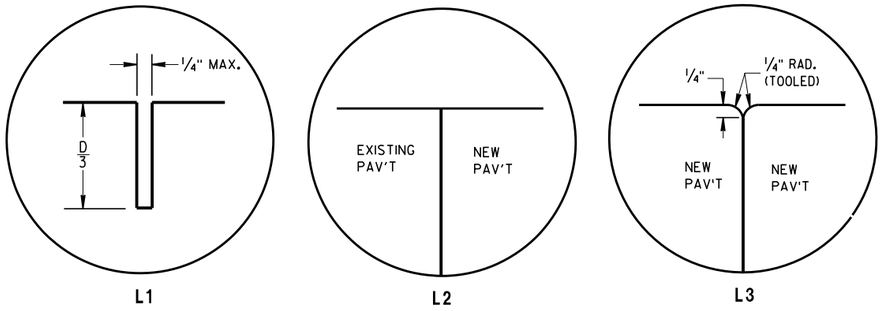
S.D.D. 13 C 14-7a

S.D.D. 13 C 14-7a

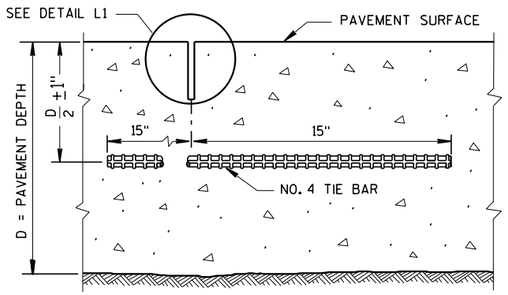
BASE PATCHING CONCRETE



TRANSVERSE JOINTS

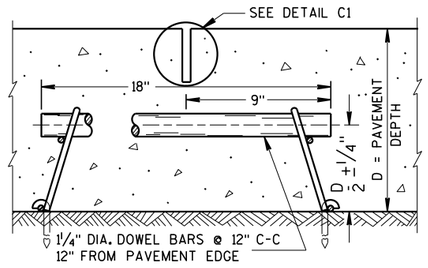


LONGITUDINAL JOINTS



SECTION C-C

SAWED LONGITUDINAL JOINT



SECTION F-F

CONTRACTION JOINT

GENERAL NOTES

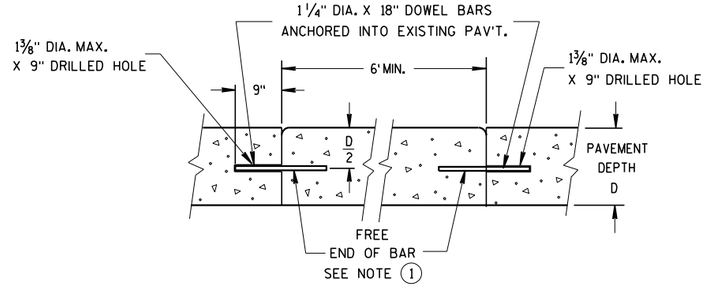
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE BASE PATCHES OF EXISTING NONDOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

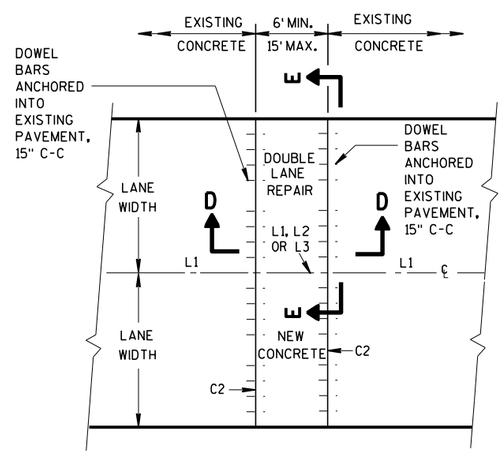
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

PROVIDE A MINIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR THE EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

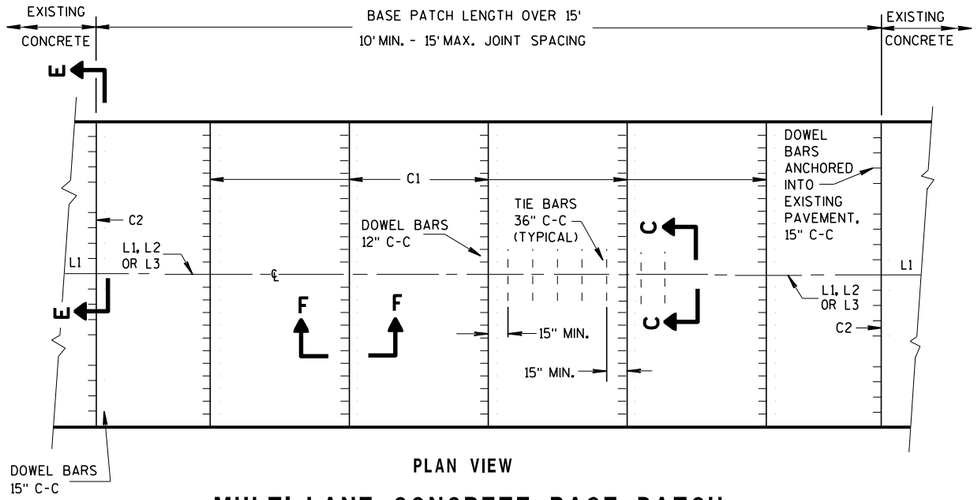


SECTION D-D



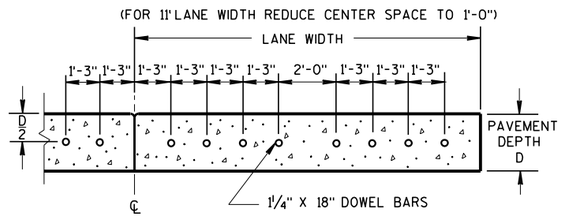
PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

MULTI-LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

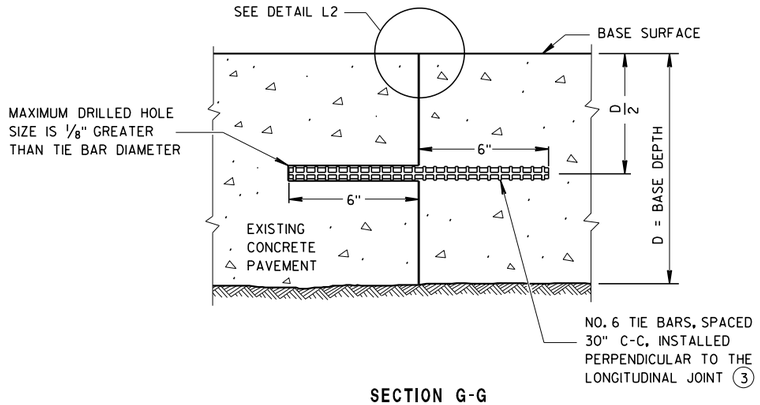


SECTION E-E

SPACING OF DOWEL BARS ANCHORED INTO EXISTING PAVEMENT

BASE PATCHING CONCRETE

6
S.D.D. 13 C 14-7b



SECTION G-G

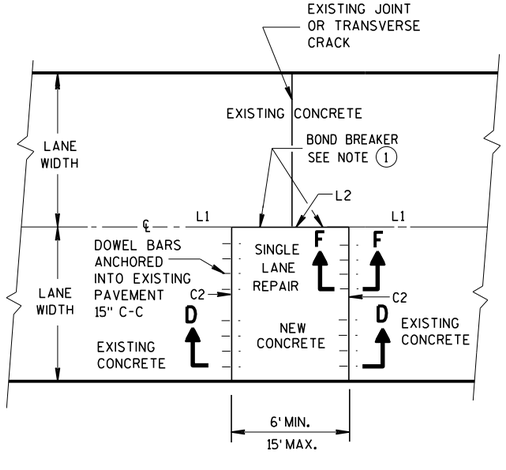
TIE BARS ANCHORED INTO EXISTING PAVEMENT

GENERAL NOTES

(1) USE AN ENGINEER-APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) FOR SINGLE LANE BASE PATCHES UP TO 15 FEET IN LENGTH.

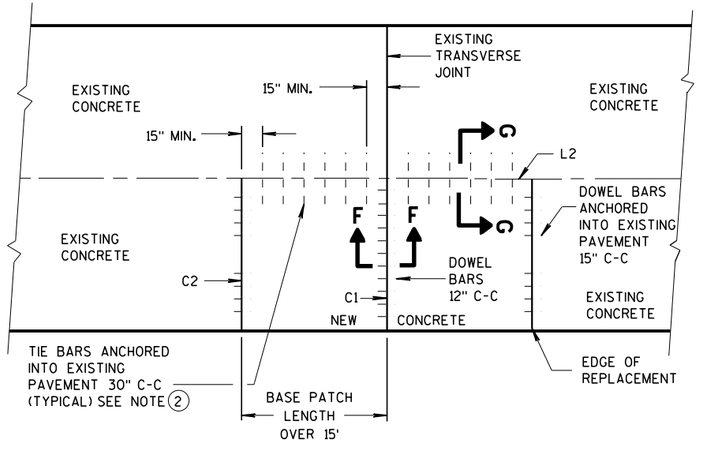
(2) WITH THE APPROVAL OF THE ENGINEER, FOR SINGLE LANE PAVEMENT REPLACEMENTS LESS THAN 30 FEET IN LENGTH, DRILLED TIE BARS MAY BE INSTALLED ON 6:1 SKEW HORIZONTALLY, DIRECTION OF SKEW ALTERNATING WITH EACH SUCCESSIVE BAR. DRIVE SKEWED TIE BARS TO A DEPTH OF 6 INCHES IN A HOLE OF SUCH A DIAMETER AS TO PROVIDE A TIGHT DRIVEN FIT.

(3) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH 15' MAXIMUM LENGTH



PLAN VIEW

SINGLE LANE CONCRETE BASE PATCH GREATER THAN 15' IN LENGTH

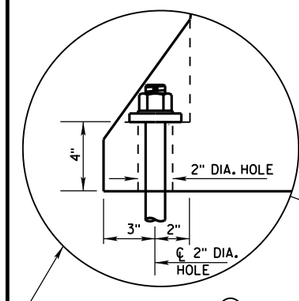
BASE PATCHING CONCRETE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

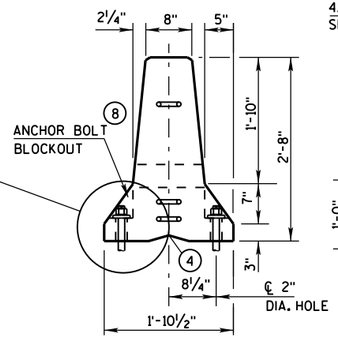
APPROVED
March 2018 — DATE
/S/ Peter Kemp P.E. — PAVEMENT SUPERVISOR
FHWA

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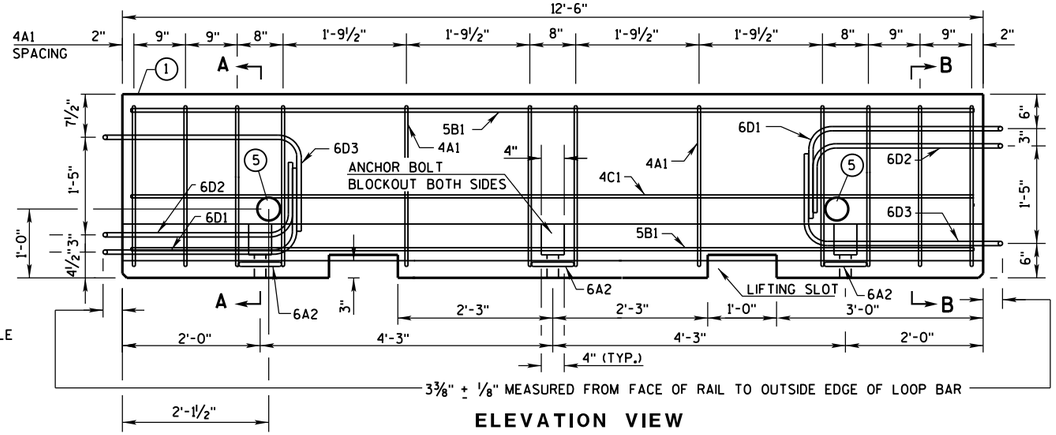
S.D.D. 13 C 14-7c



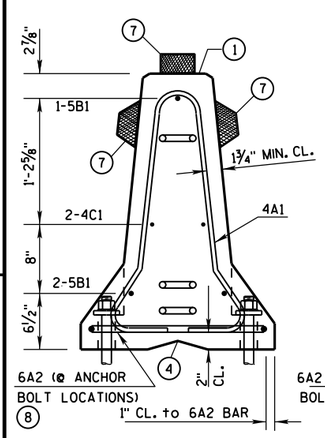
ANCHOR ON TRAFFIC SIDE (8) ONLY WHEN REQUIRED (SEE SHEET D FOR ADDITIONAL ANCHOR DETAIL)



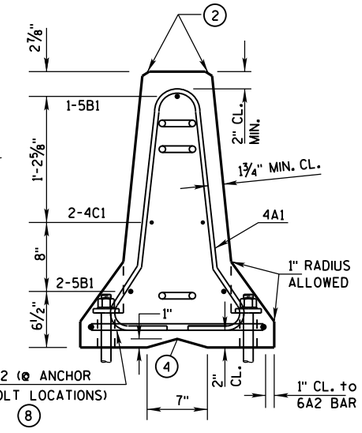
END VIEW



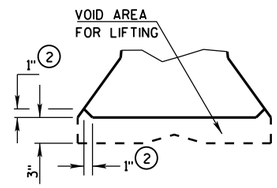
ELEVATION VIEW



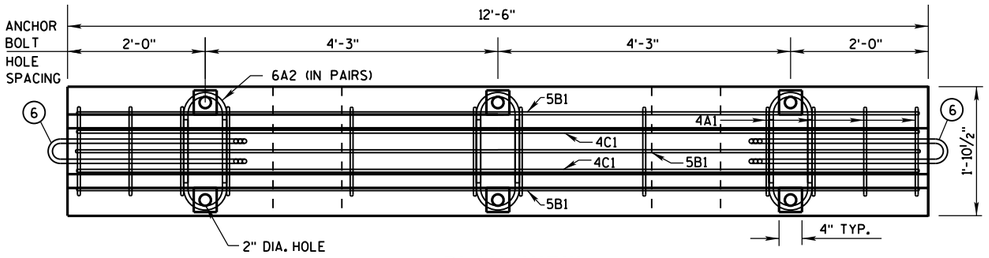
SECTION A-A
(STIRRUP PLACEMENT)



SECTION B-B
(STIRRUP PLACEMENT)

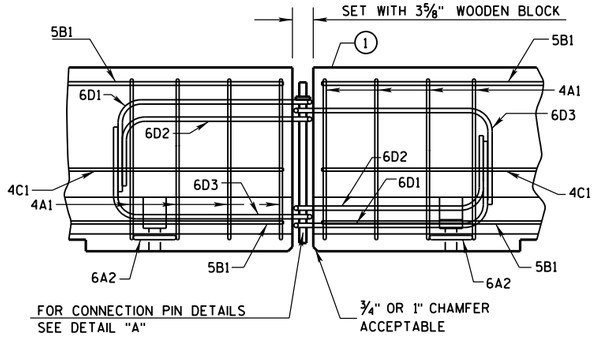


DETAIL "B"
LIFTING SLOT DETAIL

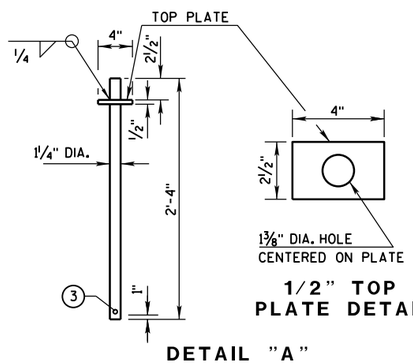


PLAN VIEW

DETAILS OF BARRIER SECTION

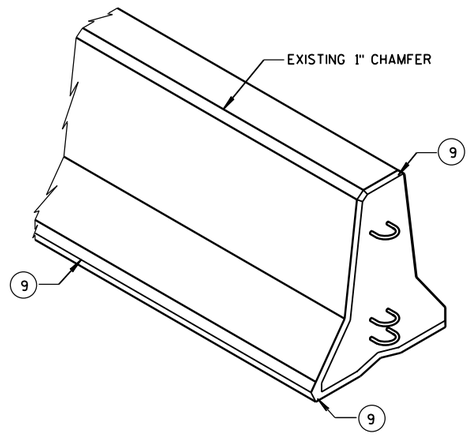


DETAILS OF BARRIER CONNECTION



1/2" TOP PLATE DETAIL

DETAIL "A"
CONNECTION PIN
(A36 STEEL (10.9 LB EACH))



GENERAL NOTES

THESE GENERAL NOTES APPLY TO SHEETS 14B7-15(a) THRU 14B7-15(i).

DO NOT INTERMIX CONCRETE BARRIER TEMPORARY PRCAST, 12'-6" (CBTP12.5) WITH OTHER TEMPORARY CONCRETE BARRIERS.

USE ASTM A-615, GRADE 60, DEFORMED STEEL BARS FOR BARS 4A1, 6A2, 5B1 AND 4C1 IN THE BARRIER SECTION AND FOR 4V1, 4V2, 4V3, 4V4, 4V5, 4V6, 4F1, 4F2 AND 5F3 IN THE BARRIER TAPER SECTION.

LOOP BARS 6D1, 6D2 AND 6D3 SHALL BE ¾" SMOOTH STEEL BARS WITH A MINIMUM YIELD STRENGTH OF 60 KSI, A TENSILE STRENGTH OF NOT LESS THAN 1.25 TIMES THE YIELD STRENGTH BUT A MINIMUM OF 80 KSI, A MINIMUM 14% ELONGATION IN 8 INCHES AND PASSING A 180 DEGREE BEND TEST USING A 3-½" PIN BEND DIAMETER FOR BEND TESTS. THE LOOPS SHALL BE INSTALLED WITHIN ⅛" OF THE PLAN DIMENSION.

CONSTRUCT LIFTING SLOTS AS SPECIFIED ON THE PLANS TO FACILITATE THE DRAINAGE OF WATER AFTER INSTALLATION.

PLACE BARRIER ON A PAVED SURFACE. REMOVE ALL LOOSE DIRT AND SAND FROM THE ROADWAY SURFACE PRIOR TO PLACEMENT OF THE BARRIER.

INSTALL MECHANICAL OR ADHESIVE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS. PROVIDE MANUFACTURER'S INFORMATION TO PROJECT ENGINEER.

(1) MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
- a. TYPE: WI CBTP
- b. MANUFACTURER
- c. DATE MANUFACTURED (MONTH AND YEAR)

(2) 1" CHAMFER TO PREVENT SPALLING.

(3) A ⅜" HOLE IN THE CONNECTION PIN, AT THE LOCATION SHOWN, IS ACCEPTABLE, BUT NOT REQUIRED..

(4) "V" NOTCH IS OPTIONAL.

(5) THE 4" DIAMETER, 11 GAUGE STEEL, ROUND MECHANICAL TUBING SLEEVE FOR LIFTING (OPTIONAL).

(6) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

(7) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MAY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURES INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED TO THE LEFT OF TRAFFIC AND WHITE REFLECTORS WHEN BARRIER IS LOCATED TO THE RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART. PROVIDE TOP MOUNTED DELINEATORS IN ADDITION TO THE SIDE MOUNTED DELINEATORS ON ALL BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAN 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

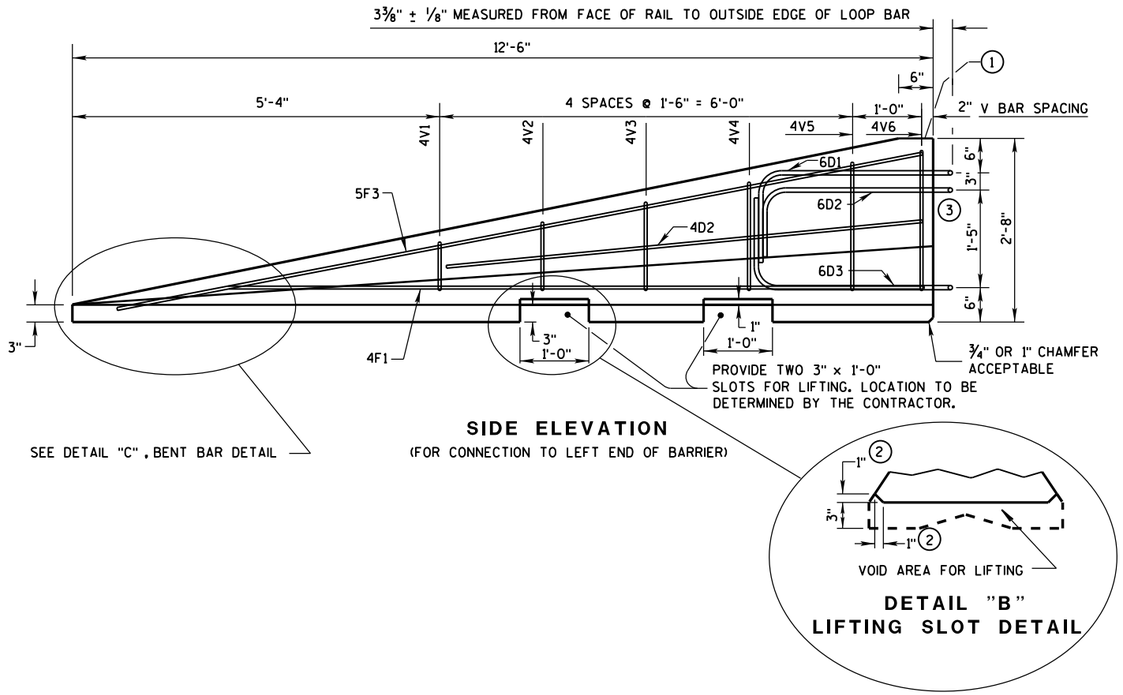
(8) SEE SHEET D FOR HOW TO ANCHOR BARRIER. SEE SHEET E FOR WHEN TO ANCHOR BARRIER.

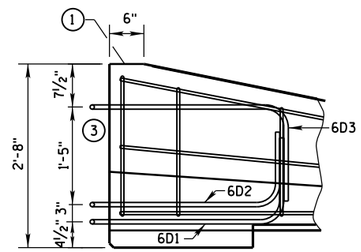
(9) 1" CHAMFER OPTIONAL.

f'c = 4,000 psi

CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"

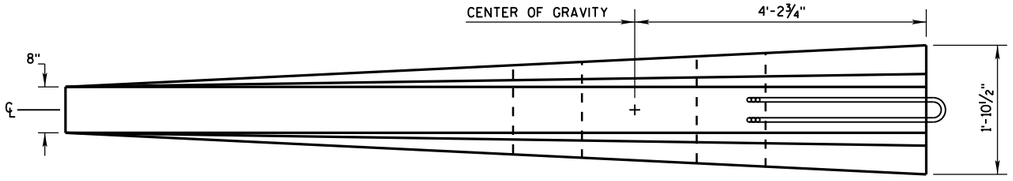
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR 204

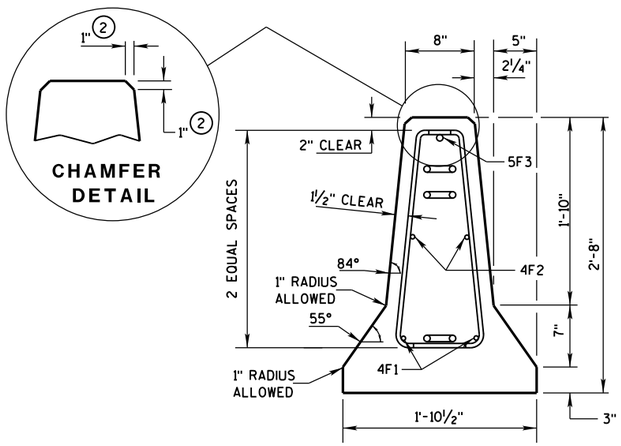


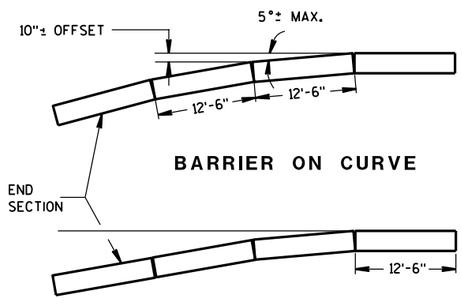


GENERAL NOTES

1. MARK ONE END OF EACH BARRIER PERMANENTLY BY FORMING INTO THE BARRIER THE FOLLOWING INFORMATION:
   a. TYPE WICBTP
   b. MANUFACTURER
   c. DATE MANUFACTURED (MONTH AND YEAR)
2. 1" CHAMFER TO PREVENT SPALLING.
3. NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.







POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1

DETAILS OF BARRIER TAPER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

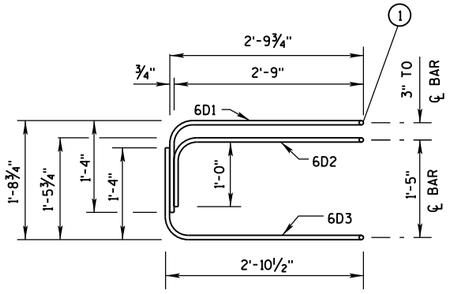
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6
S.D.D. 14 B 7-15b

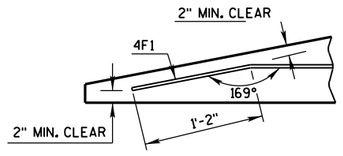
BARRIER TAPER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER TAPER SECTION)

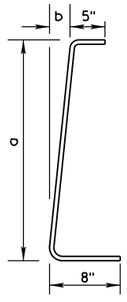
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4V1	4	2	1'-11"
4V2	4	2	2'-2"
4V3	4	2	2'-6"
4V4	4	2	2'-9"
4V5	4	2	3'-2"
4V6	4	2	3'-4"
4F1	4	2	12'-0"
4F2	4	2	7'-6"
5F3	5	1	11'-9"
LOOP ASSEMBLY			
6D1	6	1	8'-5"
6D2	6	1	7'-7"
6D3	6	1	8'-6"



ELEVATION
LOOP BAR ASSEMBLY



DETAIL "C"
BENT BAR DETAIL



BAR	a	b
V1	10"	1"
V2	1'-1"	1¼"
V3	1'-5"	1⅝"
V4	1'-8"	1⅞"
V5	2'-0½"	2⅜"
V6	2'-3"	2¾"

4V BARS
2 AT EACH SIZE REQUIRED
FOR STIRRUP ASSEMBLY

TAPER BARRIER SECTION

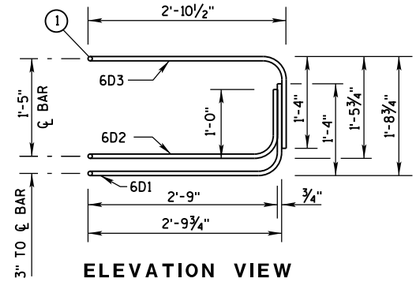
GENERAL NOTES

(1) NEVER USE LOOP BARS (6D1, 6D2 OR 6D3) TO LIFT, MOVE OR REPOSITION THE BARRIER.

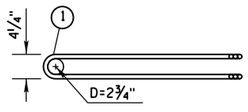
BARRIER SECTION BILL OF MATERIALS

(PER 12'-6" BARRIER SECTION)

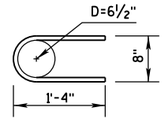
BAR	BAR SIZE	NO. OF BARS	LENGTH FT.
4A1	4	12	6'-0"
6A2	6	6	2'-11"
5B1	5	3	12'-2"
4C1	4	2	12'-2"
LOOP ASSEMBLY			
6D1	6	2	8'-5"
6D2	6	2	7'-7"
6D3	6	2	8'-6"



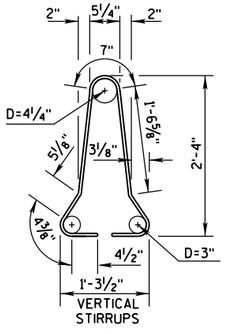
ELEVATION VIEW



PLAN VIEW
LOOP BAR ASSEMBLY
(MARKED END SHOWN, INVERT FOR OTHER END)



6A2



4A1

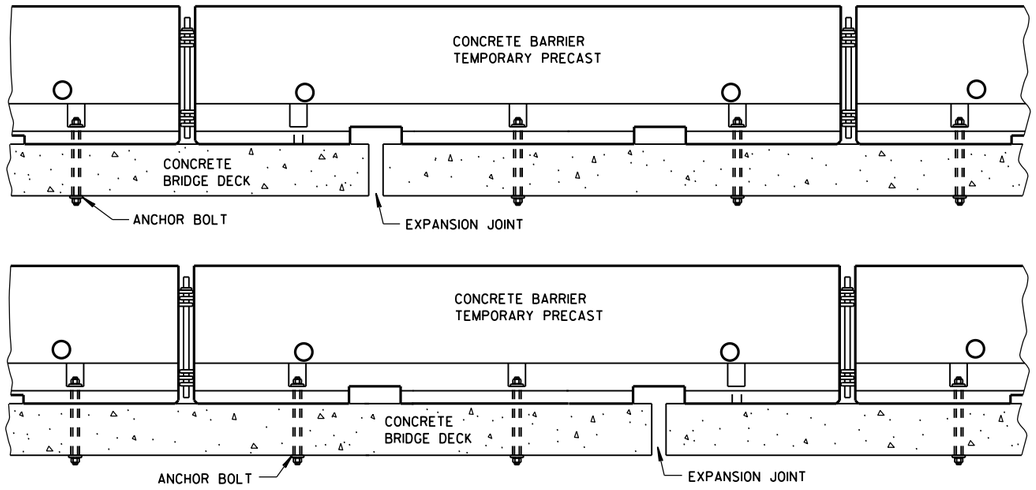
BARRIER SECTION

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

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TREATMENT AT BRIDGE DECK EXPANSION JOINTS

(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.)

GENERAL NOTES

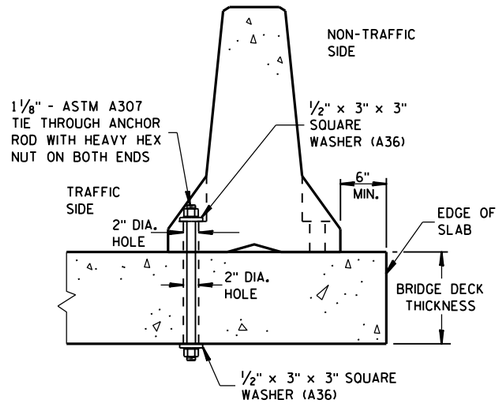
SEE SHEET E FOR WHEN TO ANCHOR. OTHER PARTS OF THE PLAN MAY SHOW ADDITIONAL LOCATIONS REQUIRING ANCHORING.

REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERICAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(1) 1⅛" DIAMENTER A307 THREADED ROD. ½" X 3" X 3" SQUARE PLATE WASHER WITH ASTM A36 STEEL. ASTM A563A HEAVY HEX NUT.

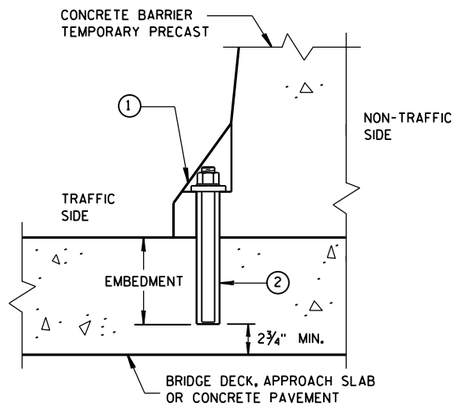
(2) ADHESIVE ANCHORS WITH A MINIMUM BOND STRENGTH OF 1,800 PSI AND 5¼" EMBEDMENT. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.

(3) ASPHALT SURFACE SHOWN. CONTRACTOR MAY DRILL THROUGH CONCRETE PAVEMENT AND THAN DRIVE ASPHALT ANCHOR PIN.



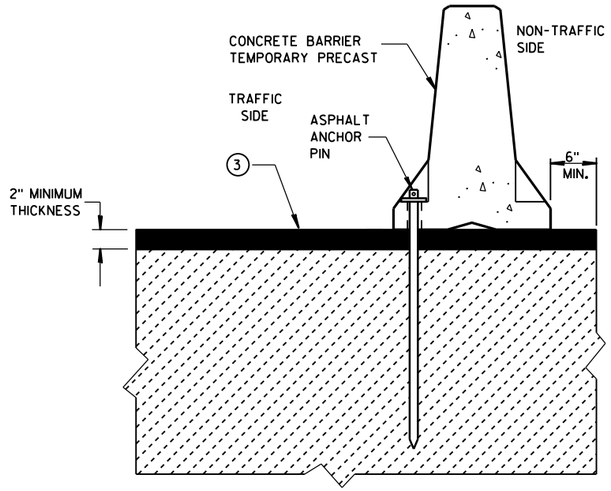
THROUGH BOLTED ANCHOR INSTALLATION ON BRIDGE DECK

(DO NOTUSE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY)

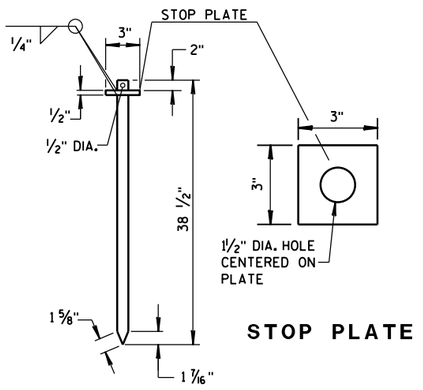


REMOVABLE ADHESIVE ANCHOR INSTALLATION ON CONCRETE BRIDGE DECK, CONCRETE APPROACH SLAB, OR CONCRETE PAVEMENT

(DO NOT USE ON CONCRETE WITH AN ASPHALTIC OVERLAY)



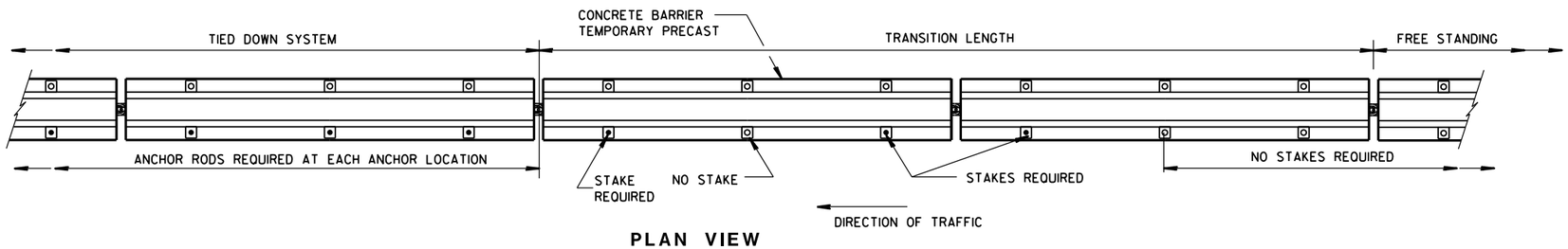
STAKE DOWN INSTALLATION FOR ASPHALTIC SURFACE



STOP PLATE

ASPHALT ANCHOR PIN

(ASTM A36 STEEL)



PLAN VIEW

FREE STANDING TRANSITION TO TIED-DOWN SYSTEM

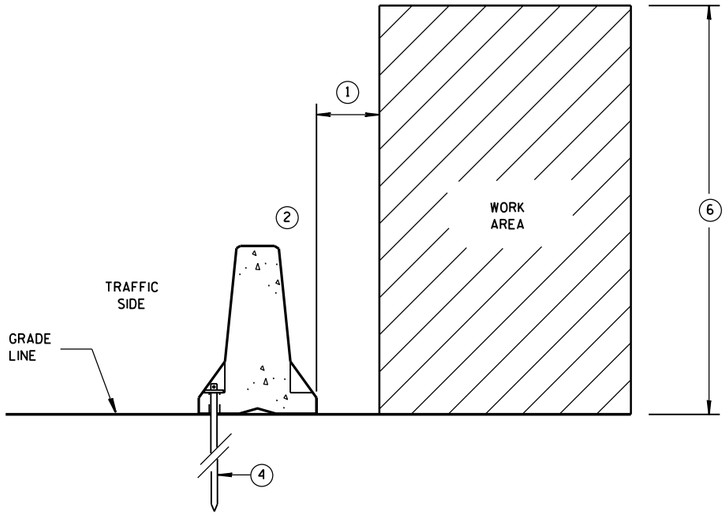
(PLACE TRANSITION IN A TANGENT SECTION OF BARRIER PARALLEL TO THE ROADWAY. IF TRANSITION OCCURS ON STRUCTURAL SLAB, ANCHOR AS SHOWN.)

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

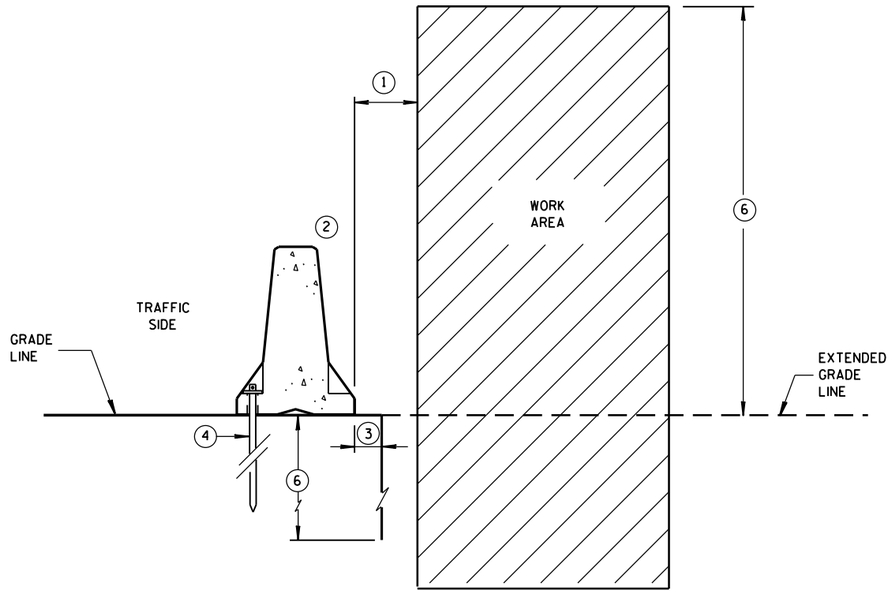
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 7-15d



ANCHORED BARRIER SPACE REQUIREMENTS FOR HAZARDS EXTENDED ABOVE THE GRADE LINE

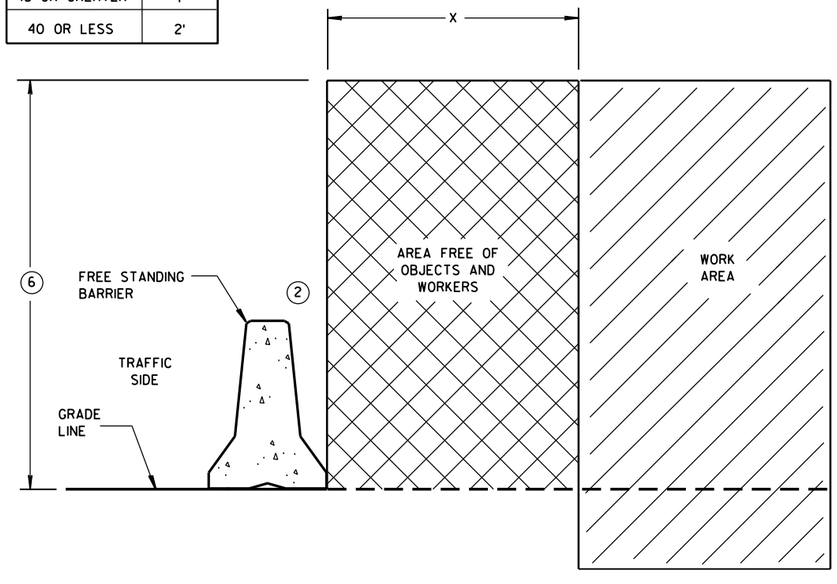


ANCHORED BARRIER SPACE REQUIREMENTS ON VERTICAL DROP OFFS

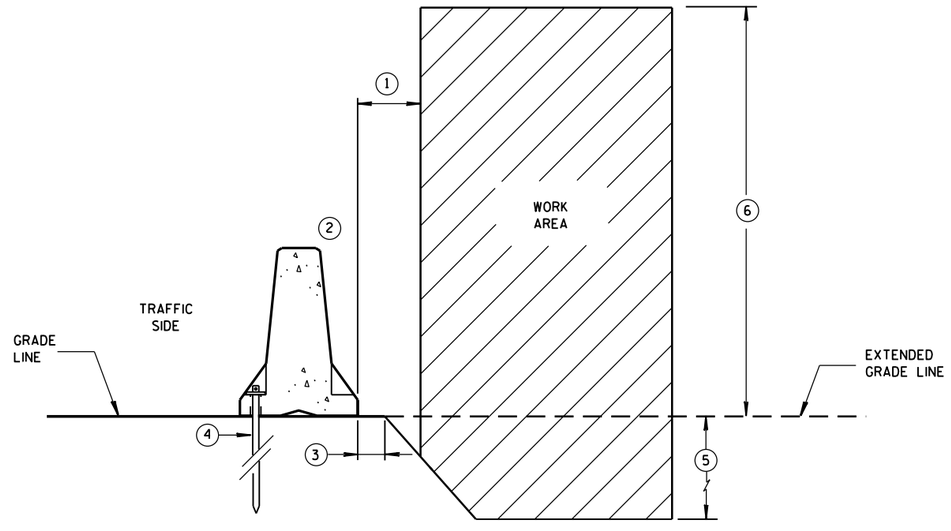
GENERAL NOTES

1. WHEN OBJECTS EXTEND ABOVE THE GRADE, A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT. SEE OTHER DETAILS FOR FOR THE MINIMUM OFFSET FROM BACK OF BARRIER TO SLOPES OR VERTICAL DROPS.
2. OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR LEANED AGAINST THE BARRIER WITHOUT PERMISSION OF THE PROJECT ENGINEER.
3. SEE OTHER DETAIL ON SHEET "D" FOR SPACE REQUIREMENTS.
4. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR A STAKE DOWN FOR ASPHALTIC SURFACE TREATMENT DETAILS. ASPHALTIC ANCHOR SHOWN.
5. DEPTH OF 3 FEET OR MORE.
6. Y = 6'-6".

POSTED SPEED MPH	X
45 OR GREATER	4'
40 OR LESS	2'



FREE STANDING BARRIER SPACE REQUIREMENTS



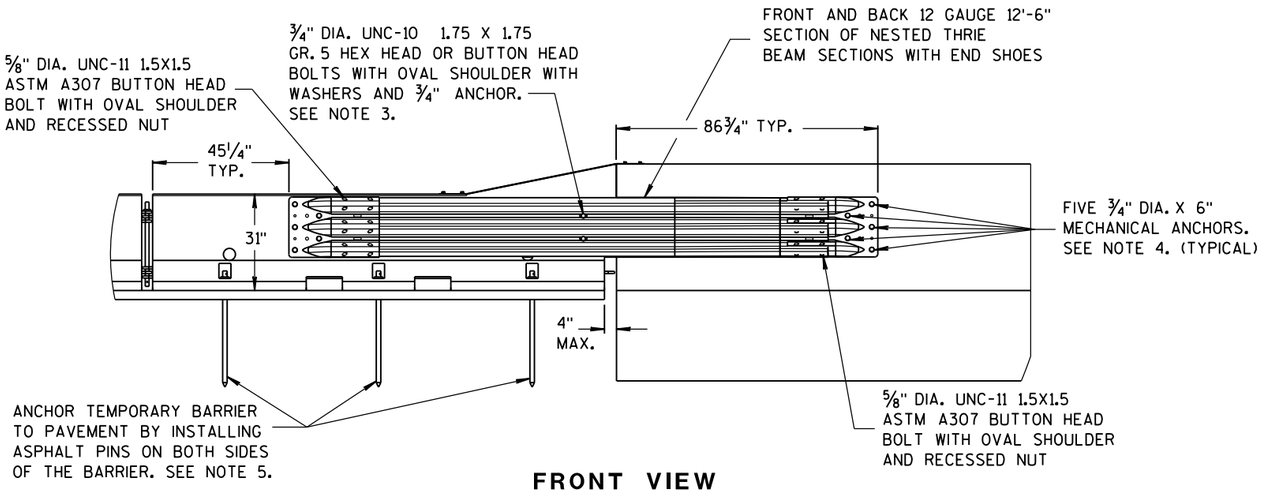
ANCHORED BARRIER SPACE REQUIREMENTS ON SLOPES

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

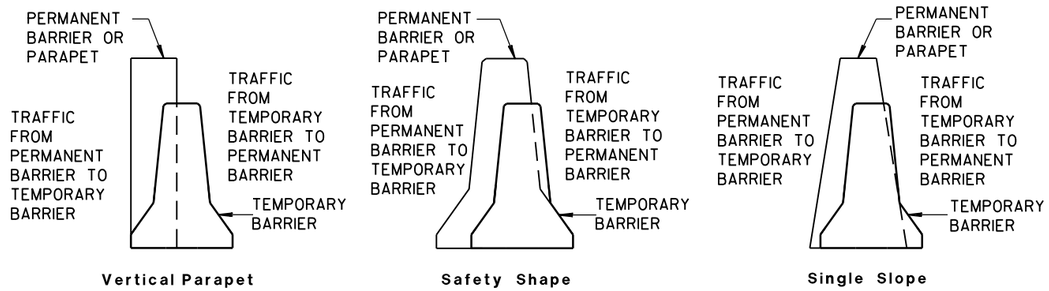
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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S.D.D. 14 B 7-15e



FRONT VIEW

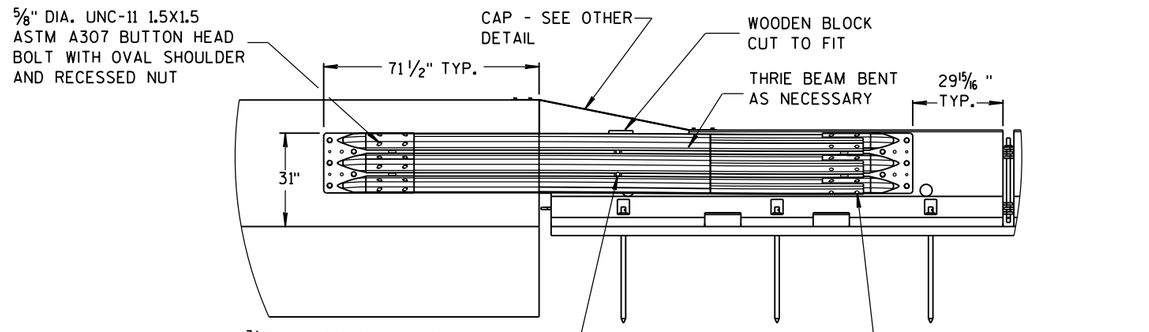


TEMPORARY BARRIER PLACEMENT FOR BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

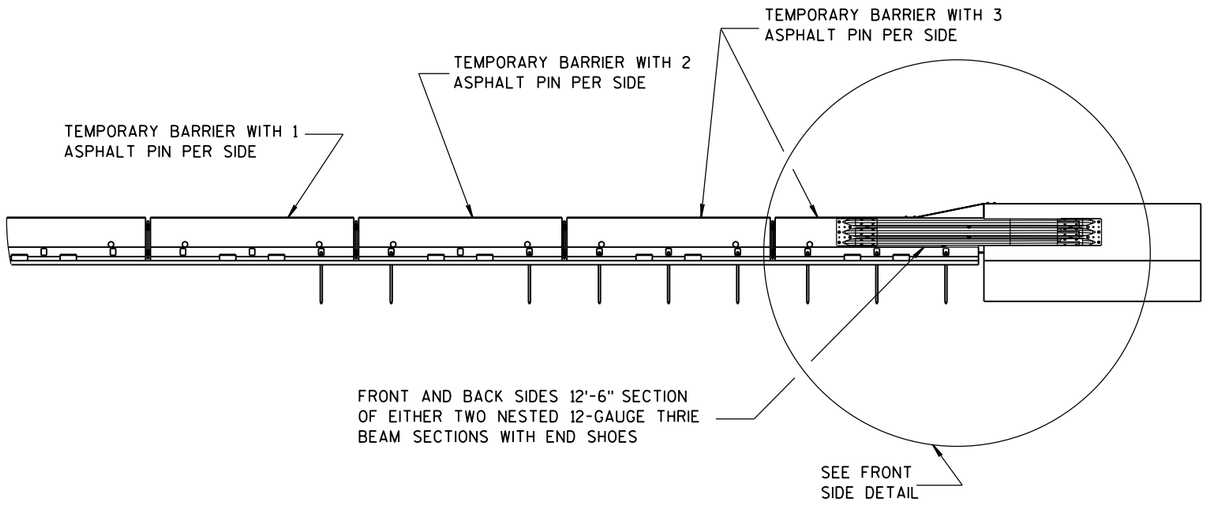
NOTES

NESTED THRIE BEAM IS REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS REGARDLESS OF TRAFFIC.

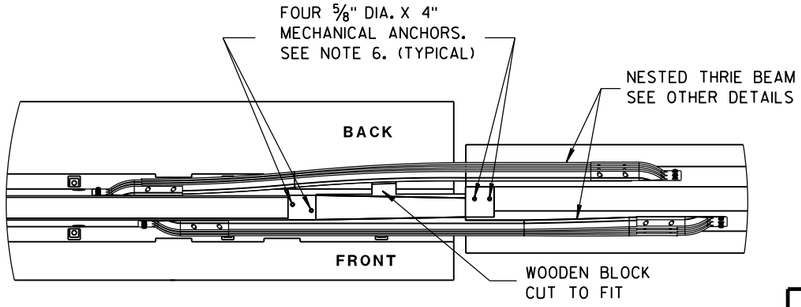
1. CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF PERMANENT BARRIER OR PARAPET.
2. THRIE BEAM PIECES ARE OFFSET 15 1/4" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.
3. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS.
4. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS.
5. MAY BE USED ON CONCRETE OR ASPHALT PAVEMENTS. ASPHALT OPTION SHOWN. FOR CONCRETE OPTION SEE OTHER DETAILS.
6. MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.



BACK VIEW



FRONT VIEW



PLAN VIEW

BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPO

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S.D.D. 14 B 7-15f

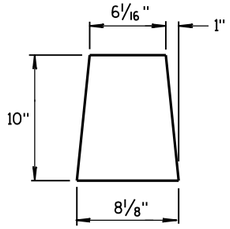
GUSSET 1

GUSSET 2

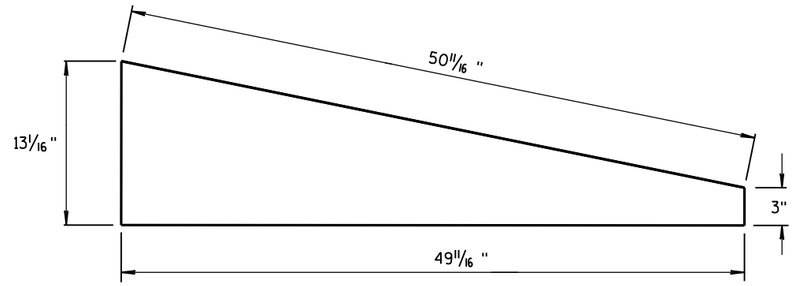
GUSSET 3

GUSSET 4

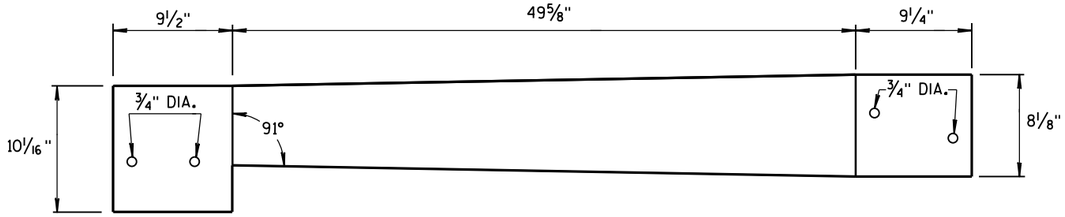
GUSSETS

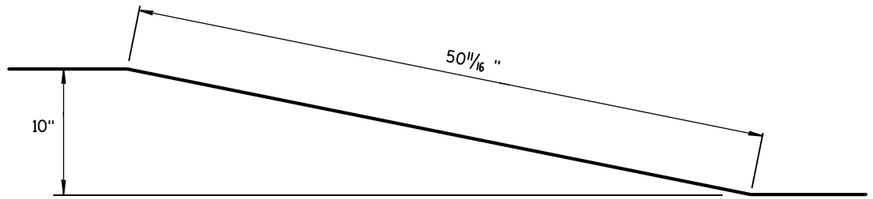


END PLATE

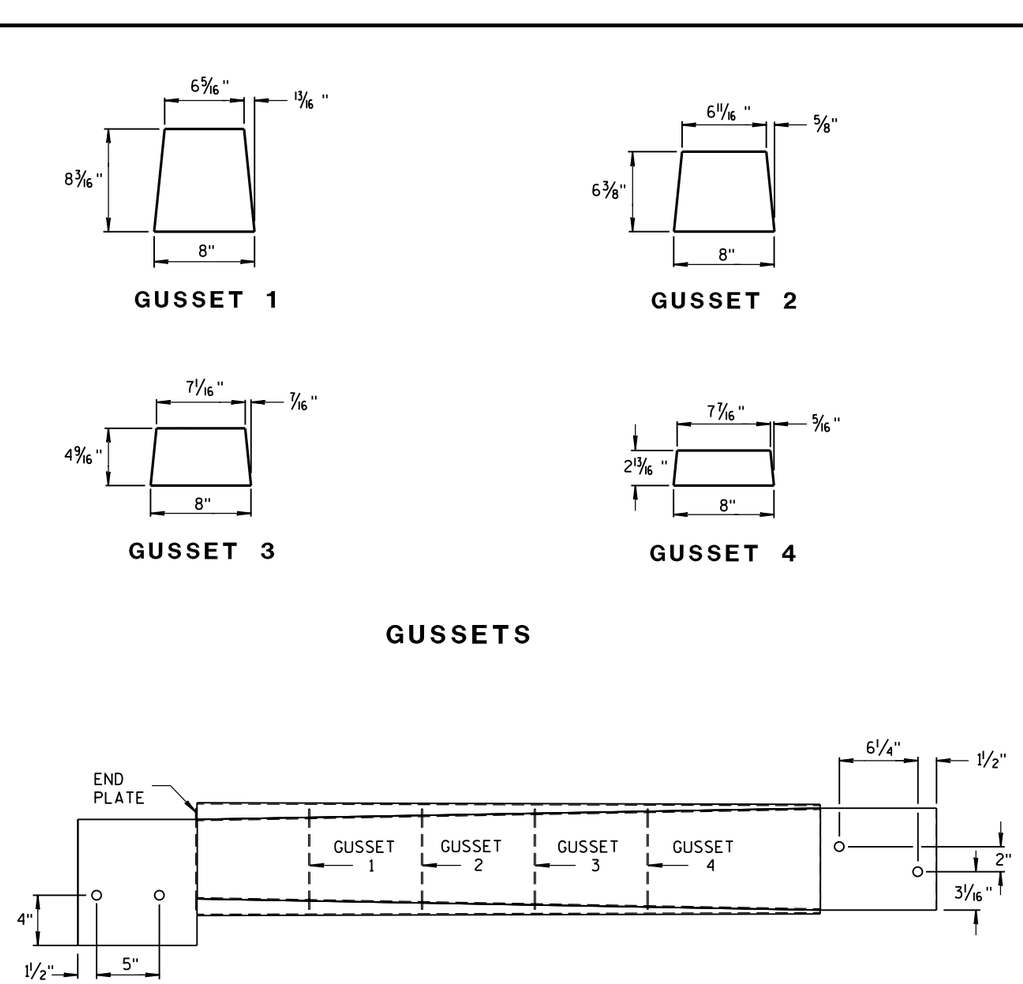


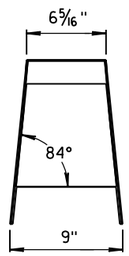
SIDE PLATE





TOP PLATE





SECTION C-C

SIDE, TOP AND END PLATES FOR CAP FROM TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

NOTES

1. FOUR GUSSETS AND END PLATE ARE STITCH WELDED ON THREE SIDES.
2. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE, AND GUSSETS.

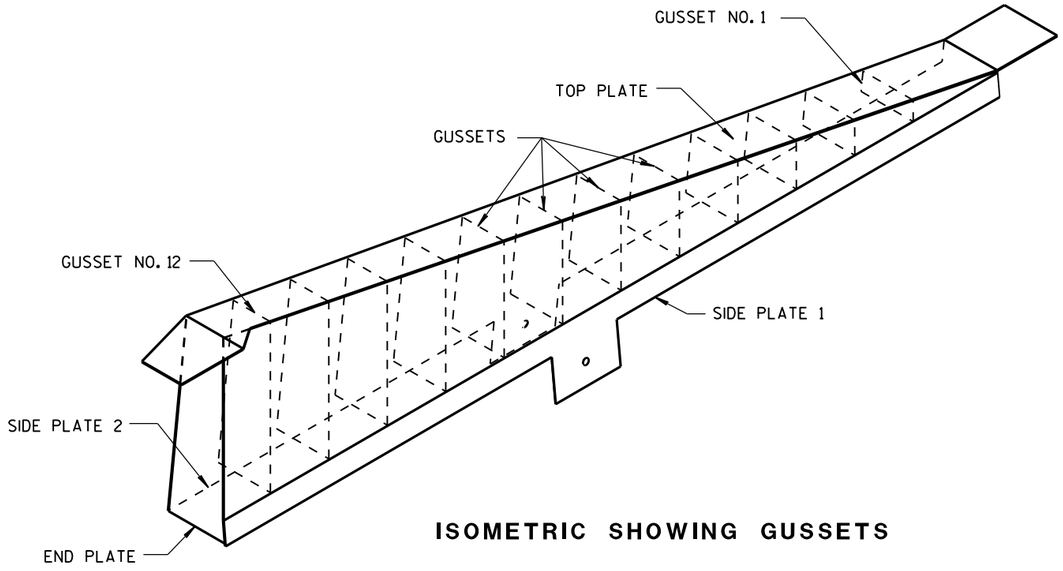
CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 42" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

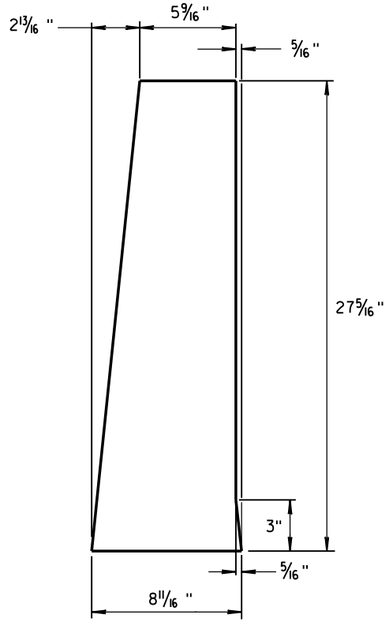
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

6

S.D.D. 14 B 7-15g

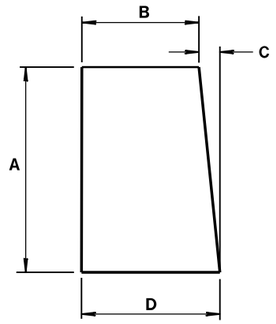


ISOMETRIC SHOWING GUSSETS



END PLATE

1/8" STEEL PLATE



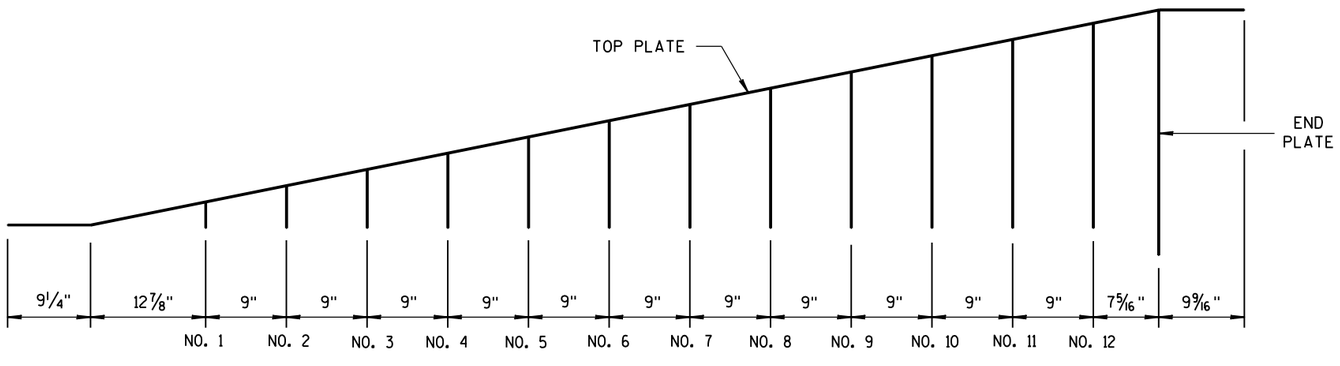
GUSSETS 1 - 12

ALL GUSSETS 1/8" STEEL PLATE

GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
1	2 7/8"	7 3/4"	1/4"	8
2	4 11/16 "	7 9/16 "	1/2"	8
3	6 1/2"	7 3/8"	11/16 "	8 1/16 "
4	8 5/16 "	7 3/16 "	7/8"	8 1/16 "
5	10 1/8"	7"	1 1/16 "	8 1/16 "
6	11 15/16 "	6 13/16 "	1 1/4"	8 1/16 "
7	13 3/4"	6 5/8"	1 7/16 "	8 1/16 "
8	15 9/16 "	6 7/16 "	1 9/16 "	8 1/16 "
9	17 3/8"	6 1/4"	1 13/16 "	8 1/16 "
10	19 3/16 "	6 1/16 "	1 15/16 "	8 1/16 "
11	21"	5 7/8"	2 3/16 "	8 1/16 "
12	22 13/16 "	5 11/16 "	2 5/16 "	8 1/16 "

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 STEEL AND GALVANIZED.

GUSSETS AND END PLATE ARE STITCH WELDED ON 3 SIDES. TWO TRIANGULAR SIDE PLATES ARE STITCH WELDED TO TOP PLATE, END PLATE AND GUSSETS.



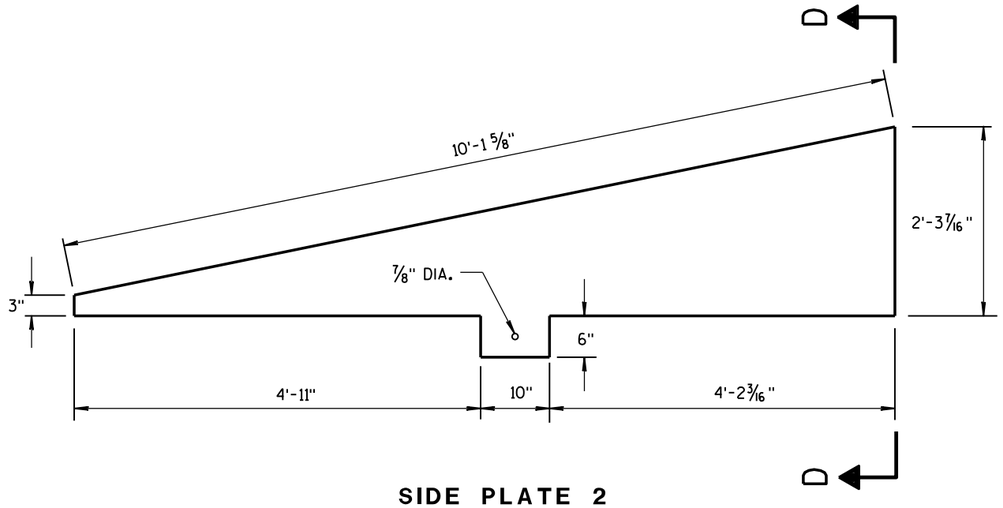
GUSSET LOCATION

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

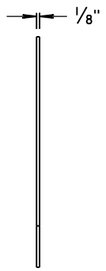
CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

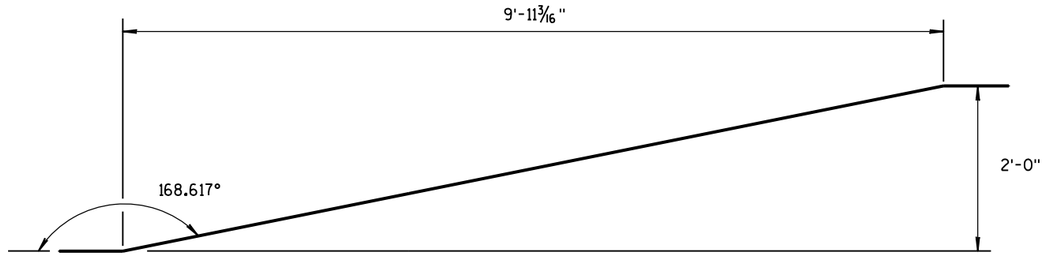
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S.D.D. 14 B 7-15h



SIDE PLATE 2

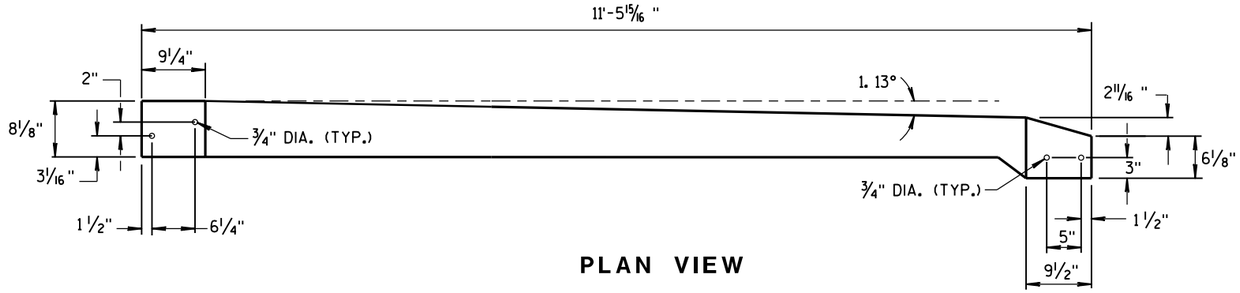


END VIEW



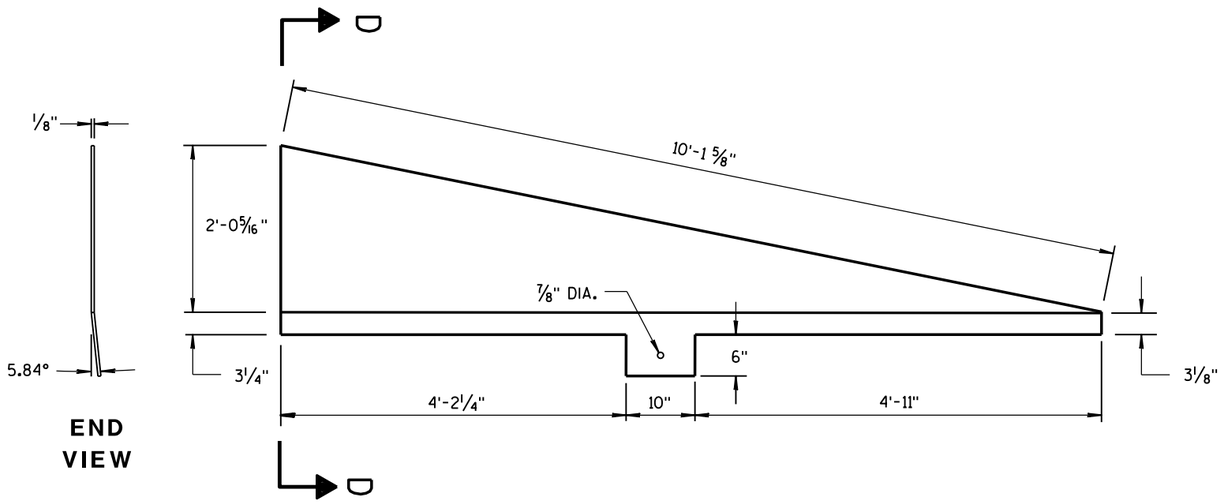
SIDE VIEW

TOP PLATE



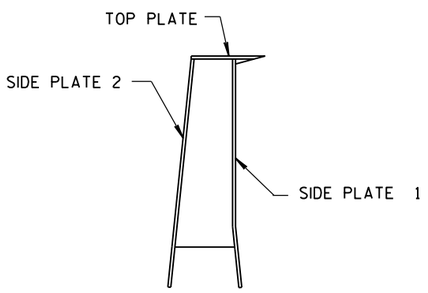
PLAN VIEW

TOP PLATE



END VIEW

SIDE PLATE 1



SECTION D-D

CAP DETAILS FOR TEMPORARY CONCRETE BARRIER TO 56" PERMANENT CONCRETE BARRIER

CONCRETE BARRIER
TEMPORARY PRECAST, 12'-6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

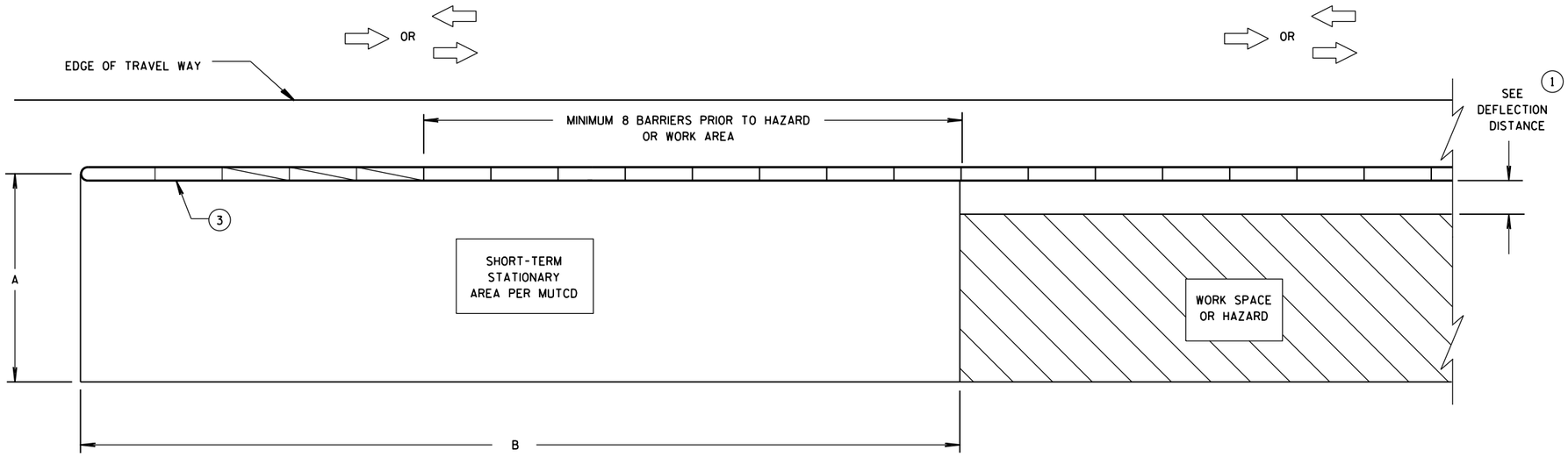
APPROVED
June 2017
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERV
212
ENT
FHWA

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S.D.D. 14 B 7-15i

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S.D.D. 14 B 7-15i



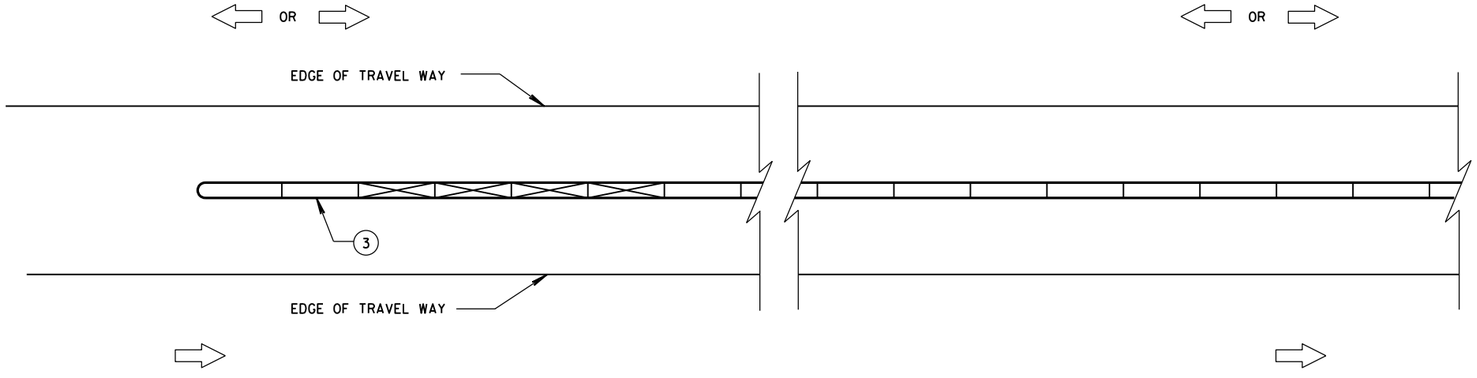
CRASH CUSHION/SAND BARREL ARRAY AND TEMPORARY BARRIER INSTALLATION FOR TRAFFIC ON ONE SIDE OF BARRIER

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.

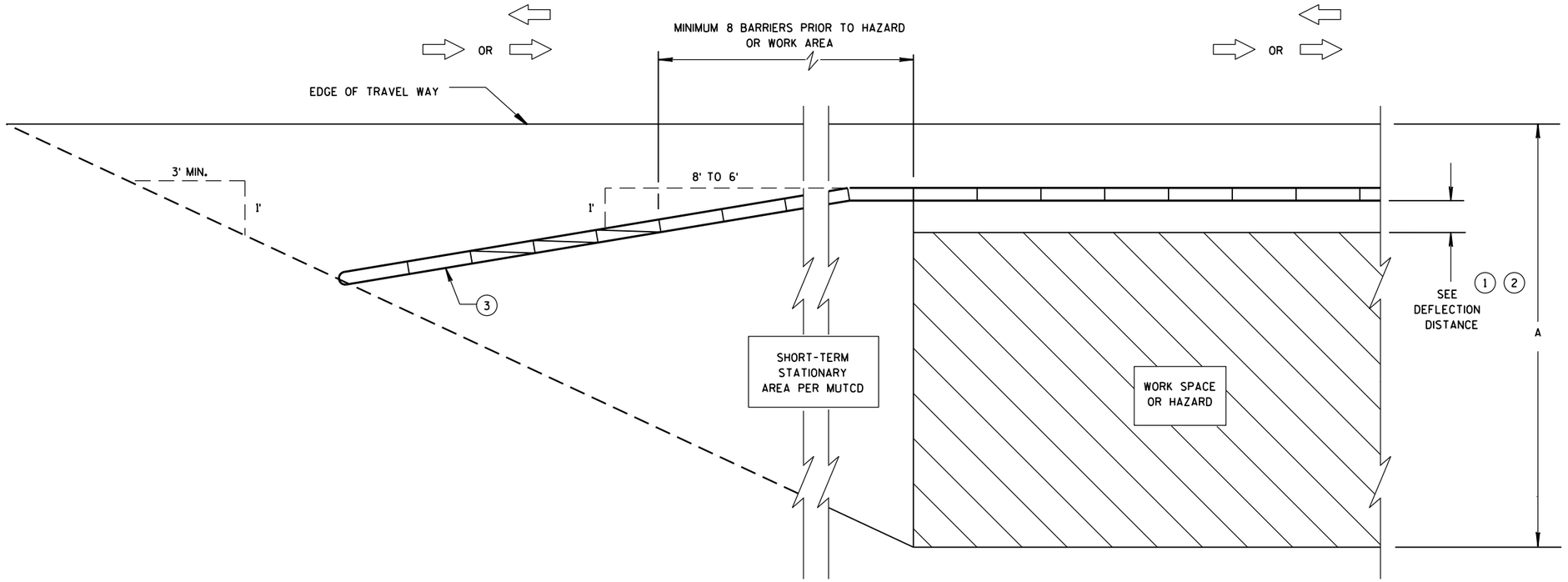
(3) ANCHOR TEMPORARY BARRIER ACCORDING TO CRASH CUSHION OR SAND BARREL MANUFACTURER'S RECOMMENDATIONS. IF MANUFACTURER'S RECOMMENDATIONS ARE NOT PROVIDED, ANCHOR 3 PINS ON TRAFFIC SIDE.

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

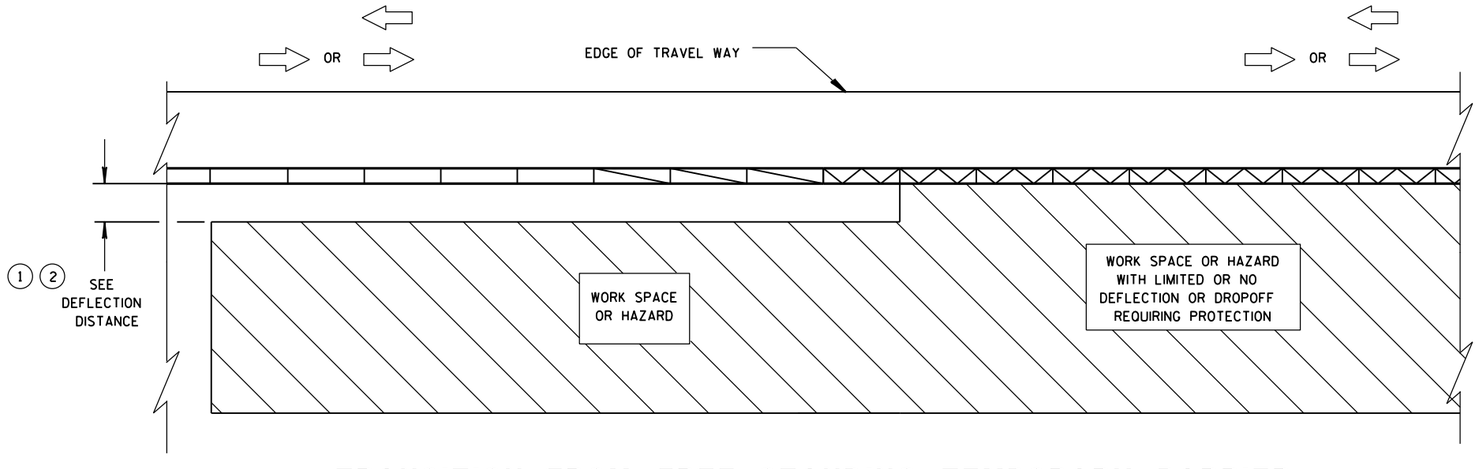
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 14 B 8-2a
S.D.D. 14 B 8-2a



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

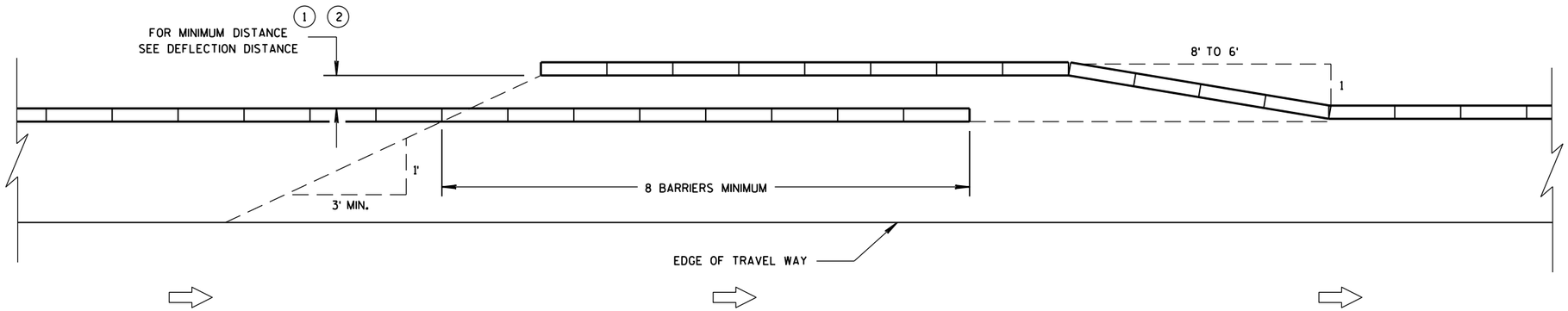
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

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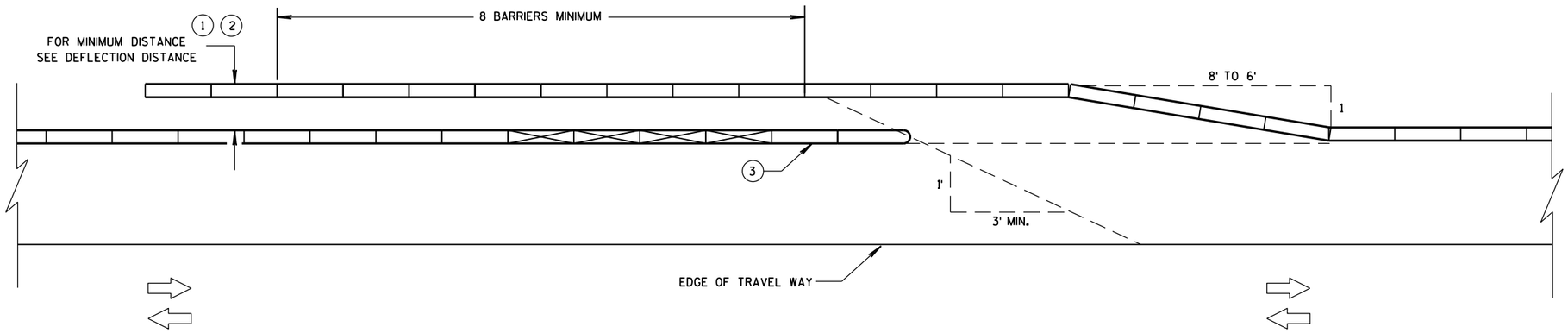
S.D.D. 14 B 8-2b

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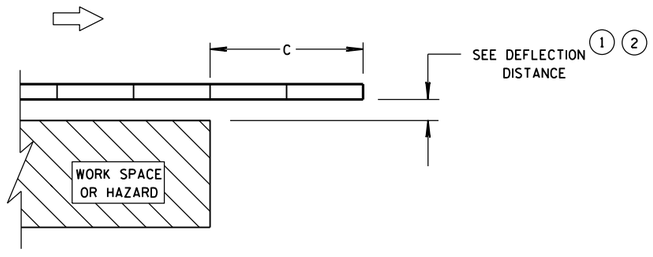
S.D.D. 14 B 8-2b



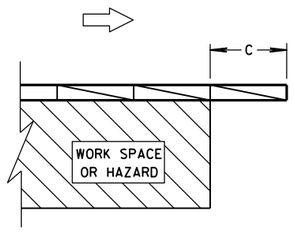
TEMPORARY BARRIER OVERLAP - ONE-WAY TRAFFIC



TEMPORARY BARRIER OVERLAP - TWO-WAY TRAFFIC



ENDING TEMPORARY BARRIER DOWNSTREAM - UNANCHORED



ENDING TEMPORARY BARRIER DOWNSTREAM - ANCHORED

LEGEND

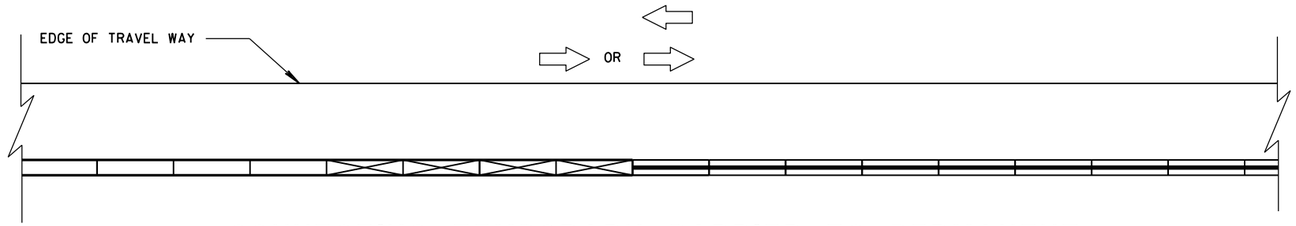
- DIRECTION OF TRAVEL
- CRASH CUSHION OR SAND BARREL ARRAY
- SEE FREE STANDING TRANSITION TO TIED-DOWN SYSTEM DETAILS
- SEE BI-DIRECTIONAL TRANSITION TO TIED-DOWN SYSTEM DETAILS
- 3 PINS PLACED ON TRAFFIC SIDE OF BARRIER
- PERMANENT CONCRETE BARRIER OR CONCRETE PARAPET
- FREE STANDING TEMPORARY BARRIER

CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

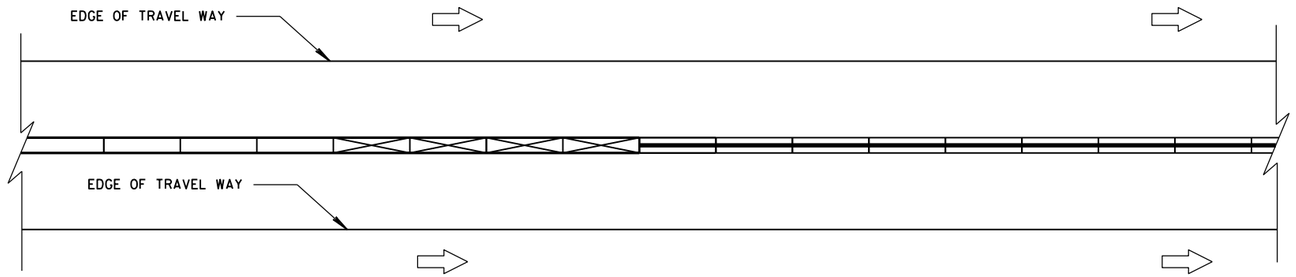
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

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S.D.D. 14 B 8-2c



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

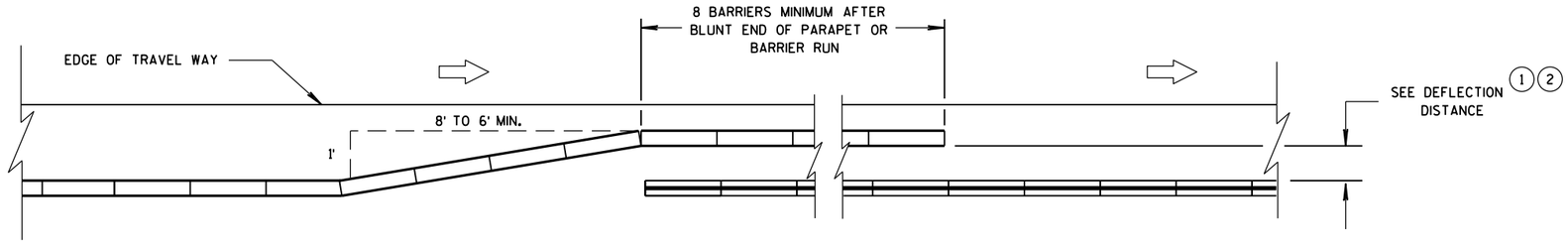
SEE FREE STANDING TRANSITION
TO TIED-DOWN SYSTEM DETAILS

SEE BI-DIRECTIONAL TRANSITION
TO TIED-DOWN SYSTEM DETAILS

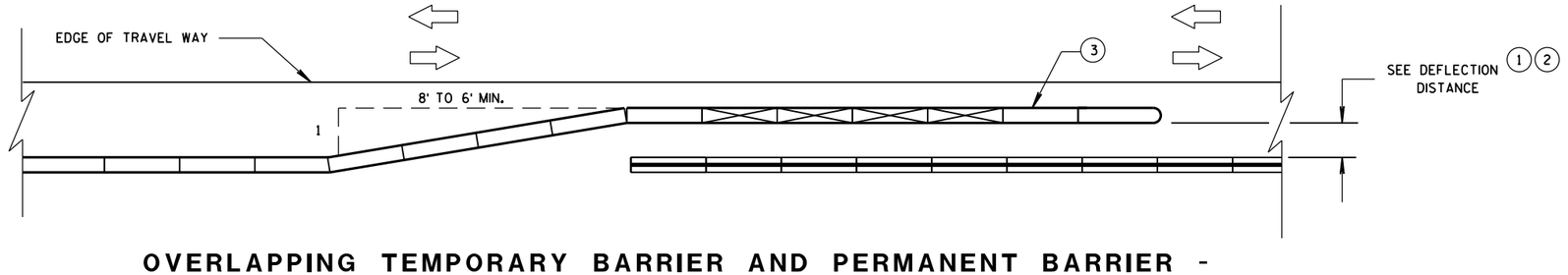
3 PINS PLACED ON
TRAFFIC SIDE OF BARRIER

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

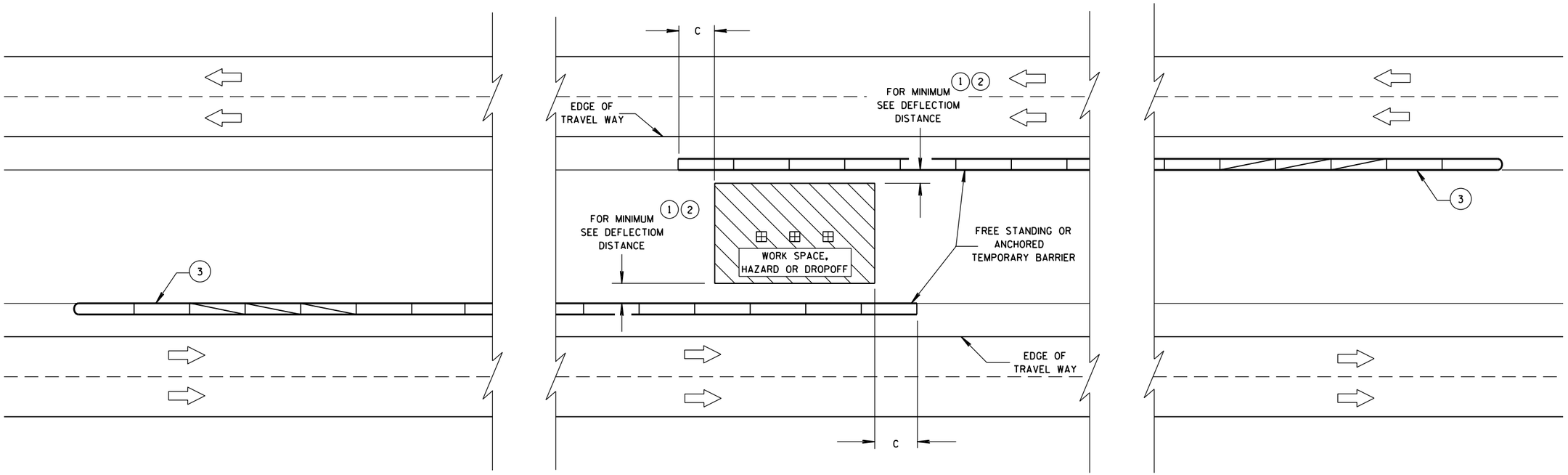
3 PINS PLACED ON TRAFFIC SIDE OF BARRIER

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



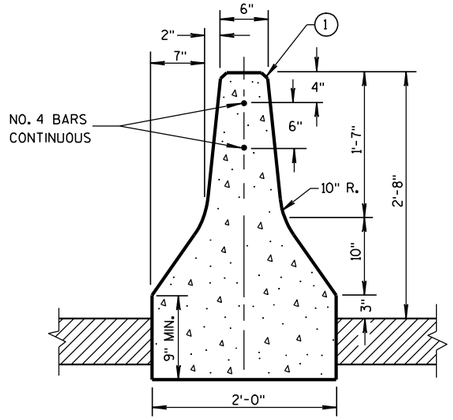
CRASH CUSHION/SAND BARREL ARRAY AND OTHER TEMPORARY BARRIER LAYOUT DETAILS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

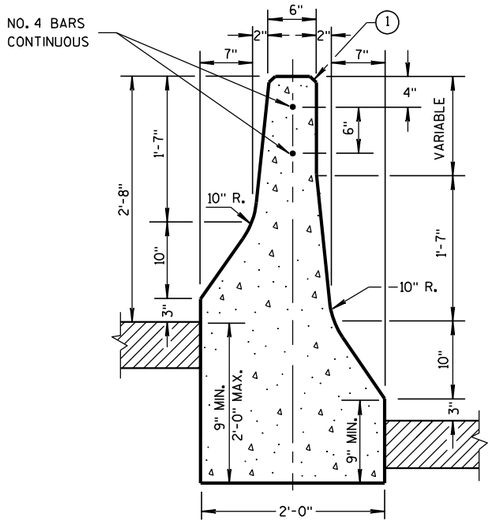
APPROVED
June, 2015
DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINNER
FHWA

6

S.D.D. 14 B 8-2e



CAST-IN-PLACE



CAST-IN-PLACE
IN STEPPED MEDIAN

CONCRETE MEDIAN BARRIER WITH INTEGRAL FOOTING

GENERAL NOTES

ALL BAR STEEL REINFORCEMENT SHALL BE EPOXY COATED IN CONFORMANCE WITH SUBSECTION 505.2.4 OF THE STANDARD SPECIFICATIONS.

SPLICES OF LONGITUDINAL BARS SHALL BE MADE WITH THE BARS LAPPED AT LEAST 18 INCHES AND FIRMLY TIED OR FASTENED TOGETHER.

ALL BAR STEEL REINFORCEMENT SHALL BE EMBEDDED AT LEAST 2 INCHES.

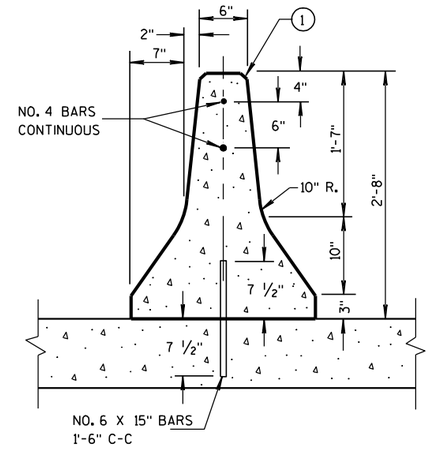
NO. 6 BARS TO ANCHOR THE BARRIERS SHALL BE EITHER INSTALLED IN THE SUPPORTING SURFACE WHEN PLACED, OR IN DRILLED HOLES USING AN EPOXY RESIN APPROVED BY THE ENGINEER.

(1) ¾ INCH BEVEL OR 1 INCH RADIUS (TYPICAL)

(2) EXPANSION JOINTS SHALL BE PLACED AT EXISTING EXPANSION JOINTS IN THE PAVEMENT AND AT STRUCTURES.

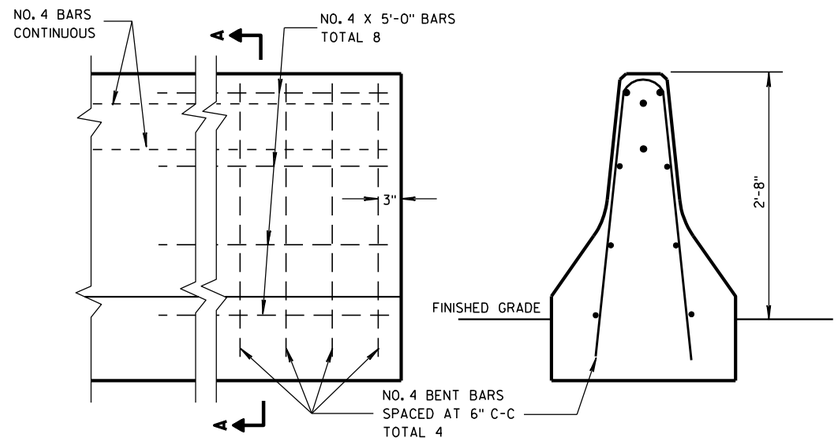
(3) NO. 4 BARS SHALL BE CONTINUED THROUGH CONSTRUCTION JOINTS.

(4) STEM REINFORCEMENT REQUIRED AT EXPANSION JOINTS AND WHERE CONCRETE BARRIER IS TERMINATED.



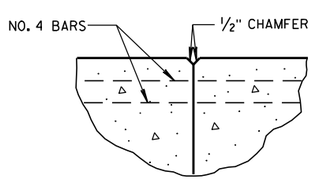
CAST-IN-PLACE

CONCRETE MEDIAN BARRIER ON NEW OR EXISTING RIGID BASE

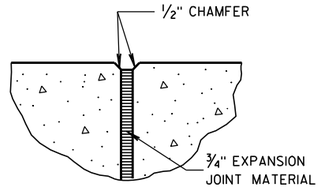


SECTION A-A

(4) STEM REINFORCEMENT AT BARRIER END
(BARRIER WITH FOOTING IS SHOWN)



(3) CONSTRUCTION JOINT



EXPANSION JOINT (2)

JOINT DETAILS

CONCRETE BARRIER
(DOUBLE FACED)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
4/12/2010
DATE
/S/ Jerry H. Zaaa
ROADWAY STANDARDS ENGINEER
FHWA

6

S.D.D. 14 B 11-2

6

S.D.D. 14 B 11-2

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.

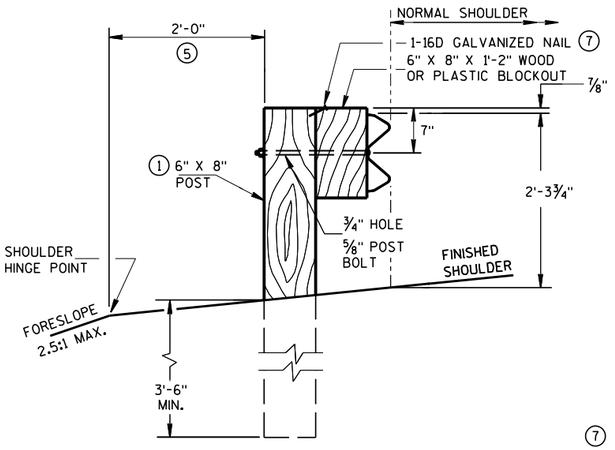
(5) IF THE DISTANCE FROM BACK OF POST TO SHOULDER HINGE POINT IS LESS THAN 2 FEET INSTALL LONGER POST AT HALF POST SPACING, W BEAM (LHW).

(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.

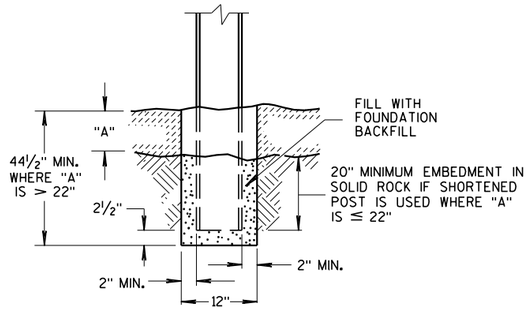
(7) WHEN USING STEEL POSTS AND WOOD BLOCKOUTS INSTALL FOUR 16D GALVANIZED NAILS. INSTALL NAILS AT THE BACK CORNERS OF THE BLOCK AND BEND THE NAILS OVER THE FLANGE OF THE STEEL POST.

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

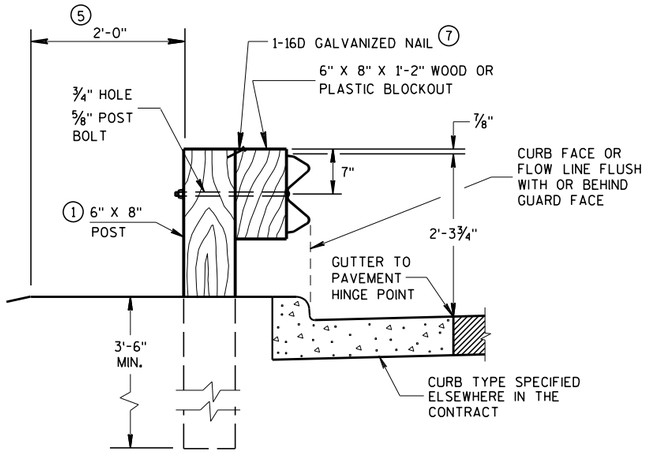
ALL DIMENSIONS ARE SUBJECT TO MANUFACTURER'S TOLERANCES EXCEPT WHERE ALLOWABLE TOLERANCES ARE SHOWN.



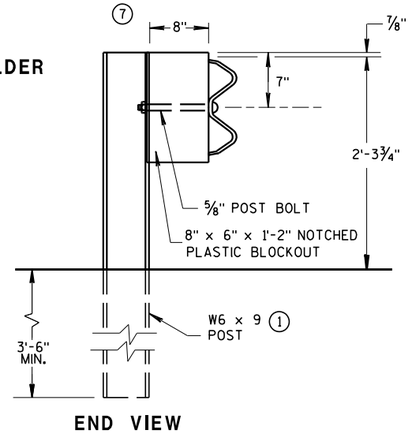
END VIEW
LOCATED ALONG A ROADWAY SHOULDER
STANDARD INSTALLATION



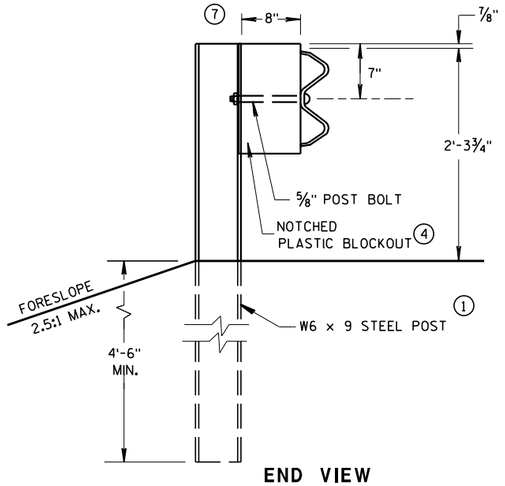
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (6)



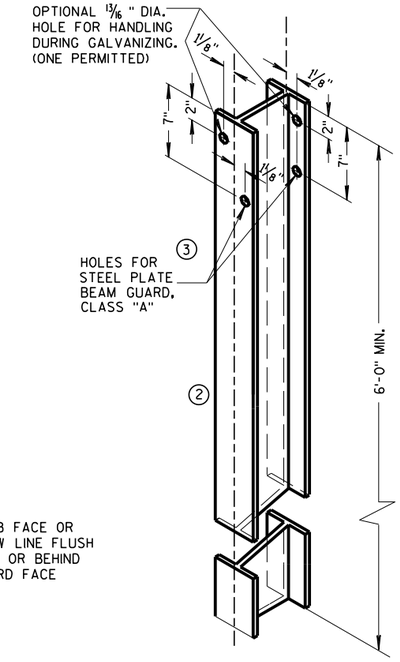
END VIEW
LOCATED ALONG A CURBED ROADWAY



END VIEW
STEEL POST & NOTCHED
PLASTIC BLOCKOUT ALTERNATIVE
STANDARD INSTALLATION

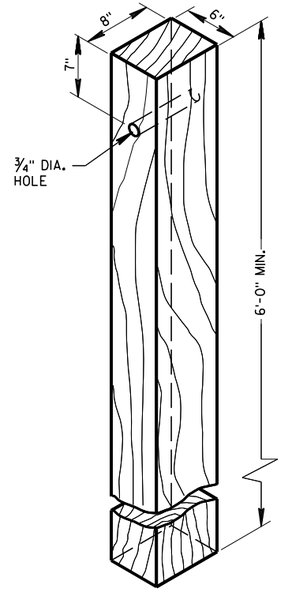


END VIEW
LONGER POST AT HALF
POST SPACING W BEAM
(LHW)

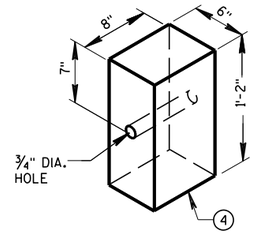


STEEL POST &
HOLE PUNCHING DETAIL
(W6 X 9) (1)

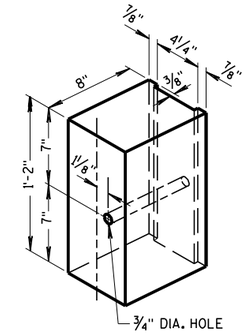
ALL HOLES 13/16" DIAMETER EXCEPT AS NOTED



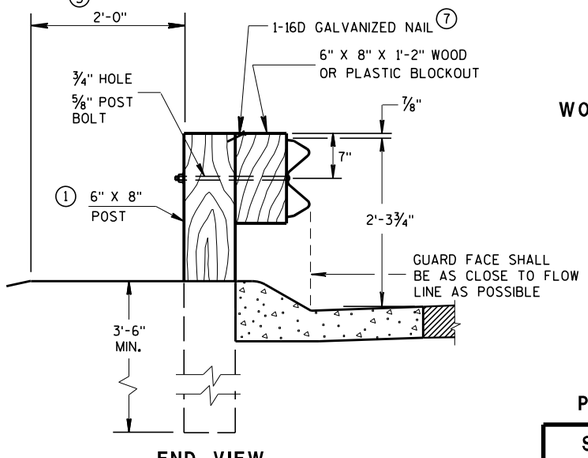
WOOD POST
(6"X8") NOMINAL



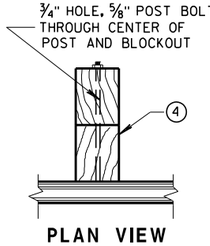
WOOD OR PLASTIC
BLOCKOUT FOR
WOOD POSTS



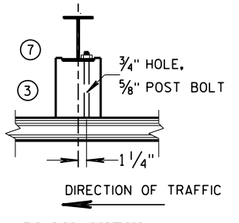
TYPICAL NOTCHED
PLASTIC BLOCKOUT
FOR STEEL POSTS (1)



END VIEW
LOCATED ALONG A
MOUNTABLE CURBED ROADWAY



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, NOTCHED
PLASTIC BLOCKOUT & BEAM

TYPICAL INSTALLATION OF STEEL PLATE BEAM GUARD

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

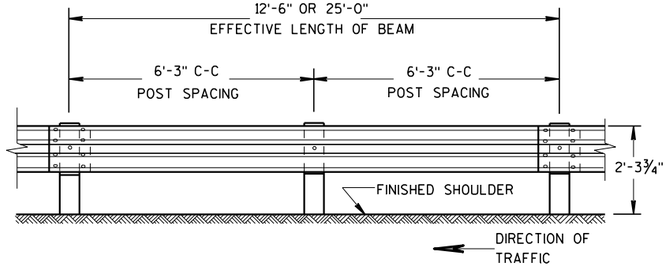
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

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

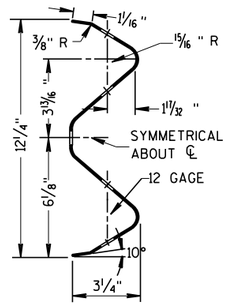
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S.D.D. 14 B 15-11a

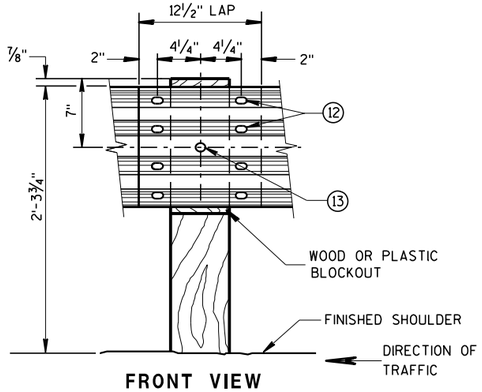


FRONT VIEW

POST SPACING STANDARD INSTALLATION



SECTION THRU W BEAM



FRONT VIEW

BEAM SPLICE AT WOOD POST AND POST MOUNTING DETAIL

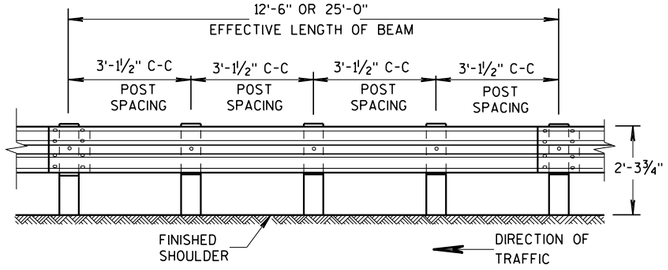
GENERAL NOTES

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.

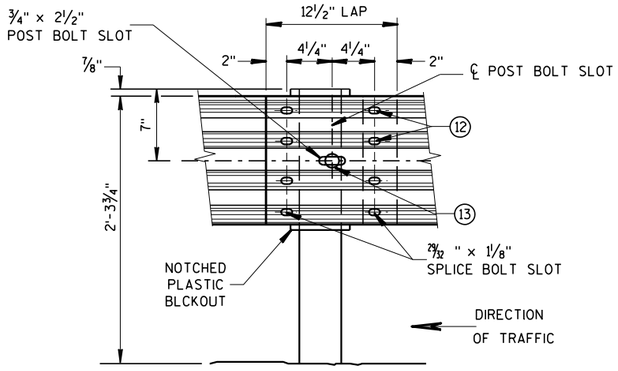
(12) 8 -⅝" ϕ X 2" BUTTON HEAD BOLTS WITH OVAL SHOULDERS & RECESS NUTS.

(13) ⅝" DIA. BUTTON HEAD BOLT AND RECESS NUT WITH ⅝" DIA. F844 FLAT WASHER UNDER NUT.



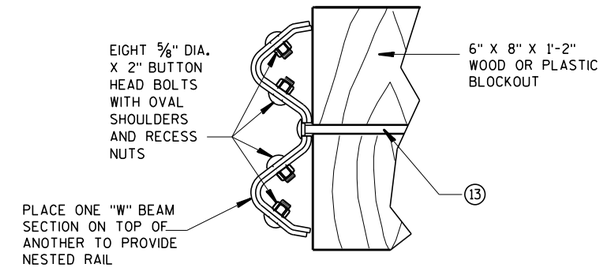
FRONT VIEW

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



FRONT VIEW

BEAM SPLICE AT STEEL POST

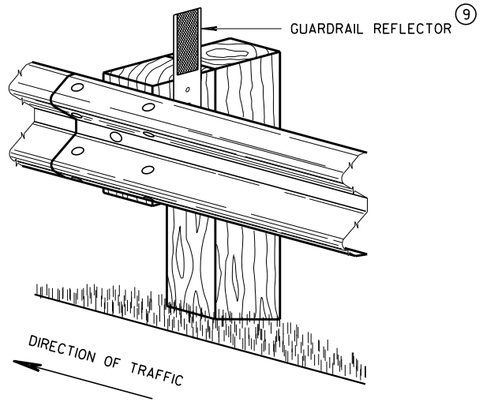


NESTED W BEAM (NW)

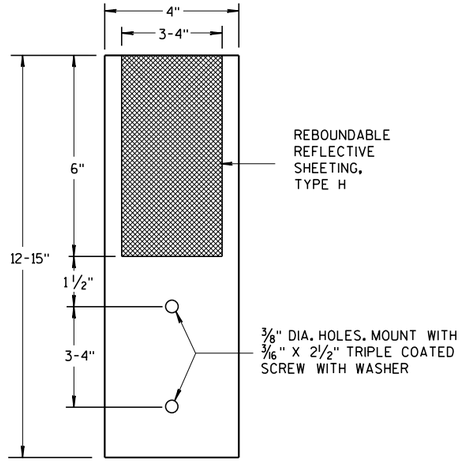
USE ALL OTHER STANDARD BEAM GUARD DETAILS FOR CONSTRUCTING NESTED W BEAM (NW)

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

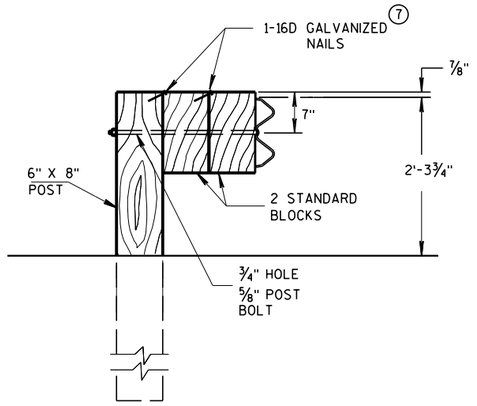
STATE OF WISCO 220
DEPARTMENT OF TRANSPORTATION

6

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

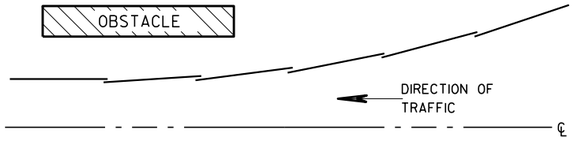
6

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

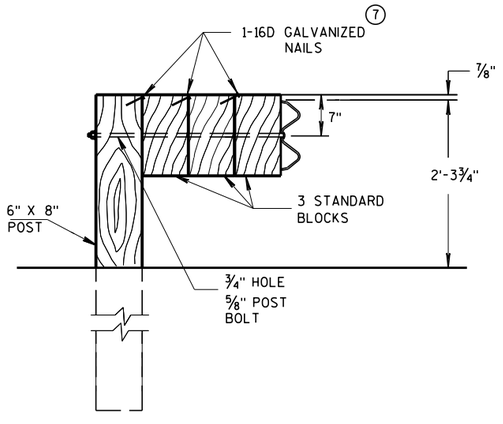


DETAIL FOR DOUBLE BLOCKS

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

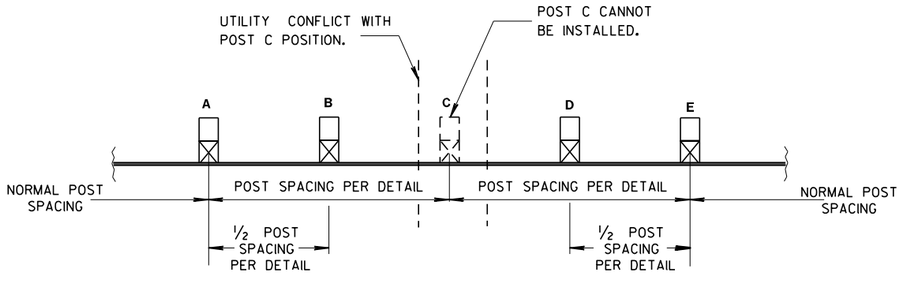


PLAN VIEW
BEAM LAPPING DETAIL



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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS UNIT SUPERVISOR

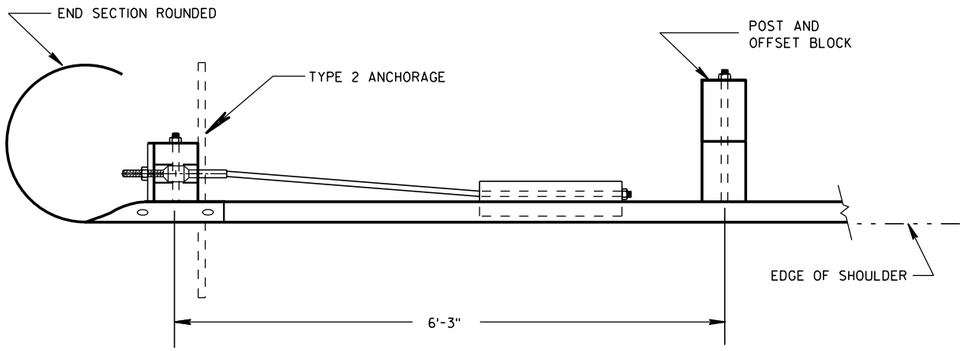
FHWA

6

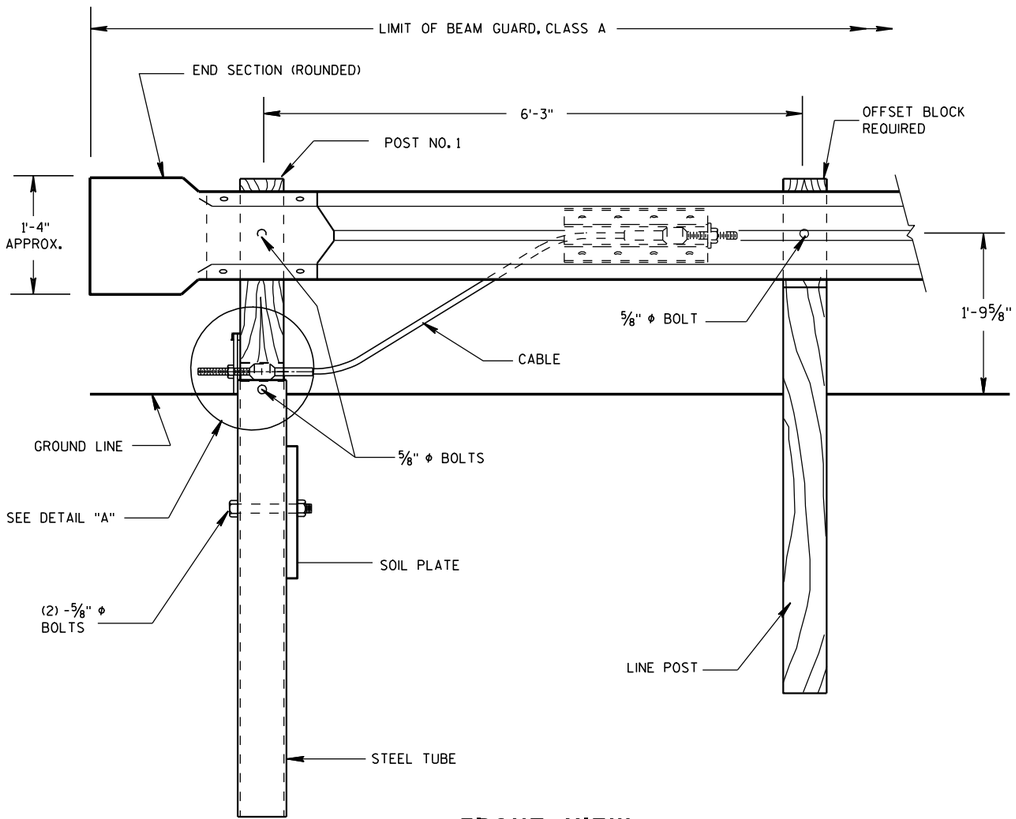
S.D.D. 14 B 15-11c

6

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



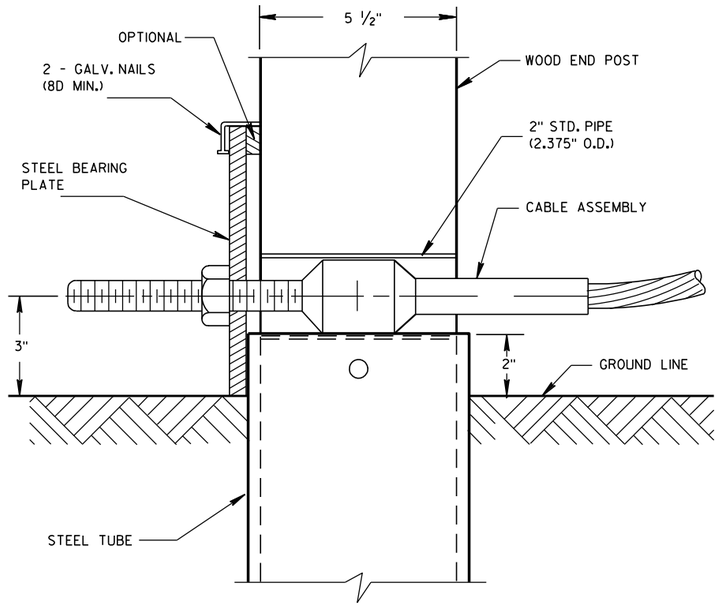
PLAN VIEW



FRONT VIEW

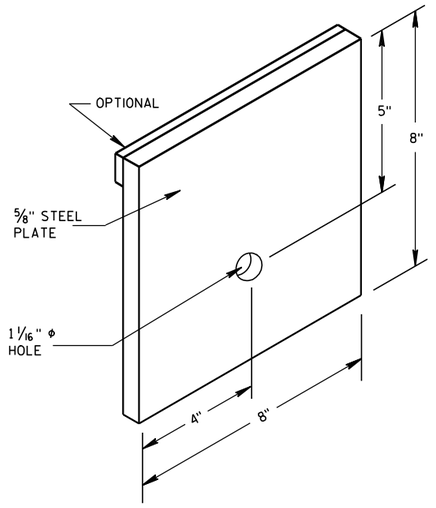
END TREATMENT WITH TYPE 2 ANCHORAGE

(USE ON ONE-WAY ROADWAYS ONLY - DEPARTING END)



DETAIL "A"

POST NO. 1



STEEL BEARING PLATE

ANCHORAGE FOR STEEL
PLATE BEAM GUARD
TYPE 2

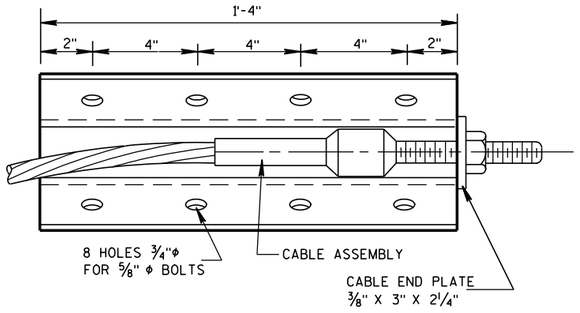
STATE OF WISCONSIN
DEPARTMENT OF TRANSPO.....T

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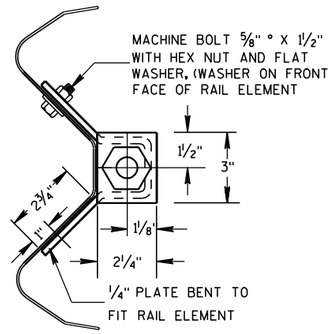
S.D.D. 14 B 16-4a

6

S.D.D. 14 B 16-4a

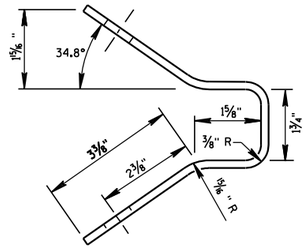


FRONT VIEW

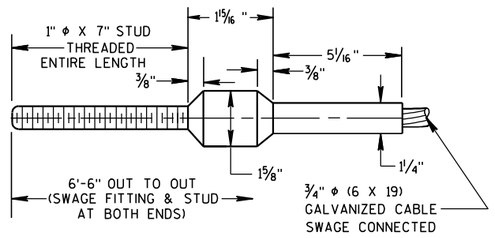


END VIEW

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)

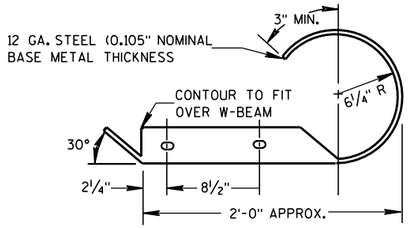
GENERAL NOTES

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.

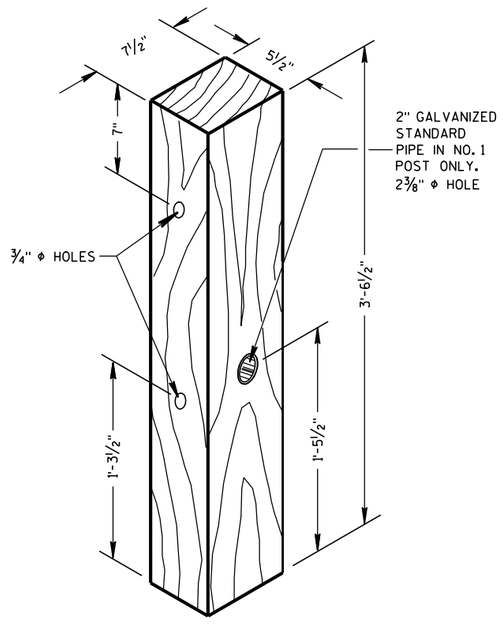
STRUCTURAL TUBING SHALL CONFORM TO THE REQUIREMENTS OF ASTM A-500 GRADE B OR ASTM A-501.

POST NO. 1 SHALL BE WOOD BREAKAWAY POST INSERTED AND BOLTED INTO STEEL TUBE.

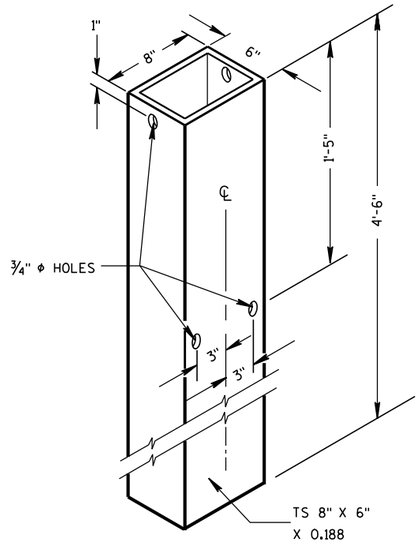
TYPE 2 ANCHORAGE SHALL CONSIST OF A STEEL TUBE, SOIL PLATE WOOD BREAKAWAY POST, BEARING PLATE, ANCHOR PLATE, CABLE ASSEMBLY AND ALL ASSOCIATED HARDWARE, ALL STEEL PARTS SHALL BE GALVANIZED.



PLAN VIEW

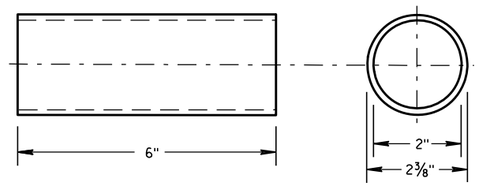


WOOD BREAKAWAY POST



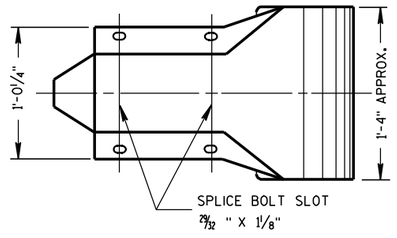
STEEL TUBE

STEEL TUBE SHALL CONFORM TO
REQUIREMENTS OF ASTM A500

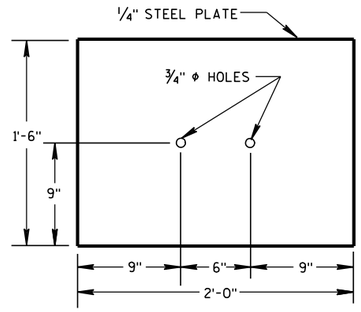


BREAKAWAY TERMINAL POST SLEEVE

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

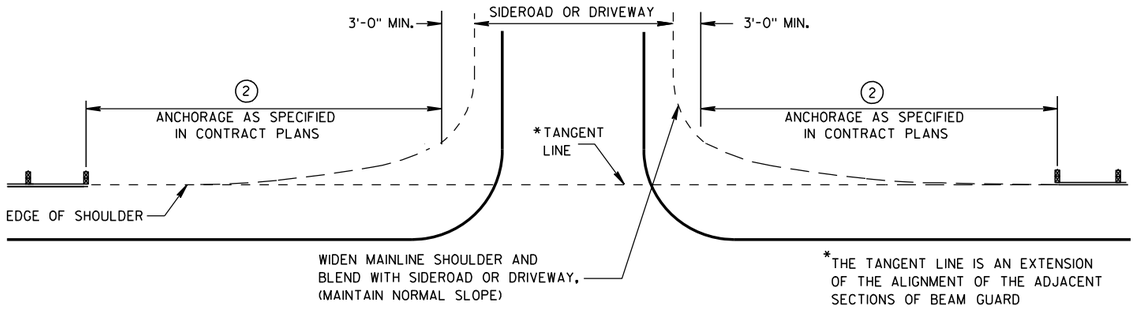
APPROVED
8/21/2007 DATE
/S/ Jerry H. [illegible]
ROADWAY STANDARDS ENGINEER
223
FHWA

6

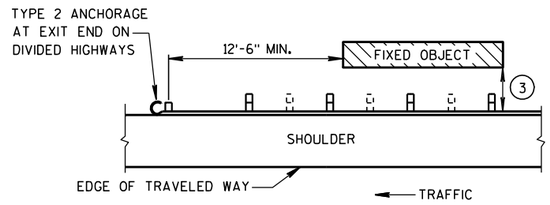
S.D.D. 14 B 16-4b

6

S.D.D. 14 B 16-4b



BEAM GUARD AT SIDEROADS OR DRIVEWAYS



BEAM GUARD AT OBSTACLES EXIT END - ONE WAY TRAFFIC

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE PERTINENT STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

W6 X 9 OR W6 X 8.5 STEEL POSTS WITH 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.

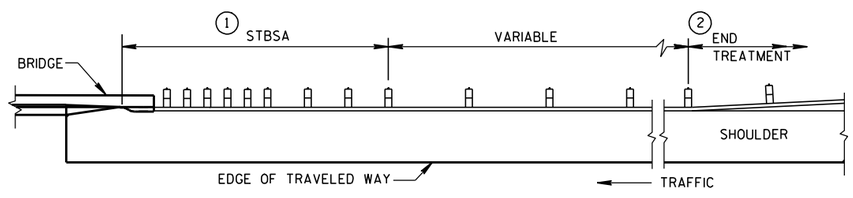
THE LOCATIONS AND LENGTHS OF BEAM GUARD ARE SHOWN ELSEWHERE IN THE PLAN.

(1) STEEL THRIE BEAM STRUCTURAL APPROACH (STBSA) - SEE CURRENT SDD 14B20.

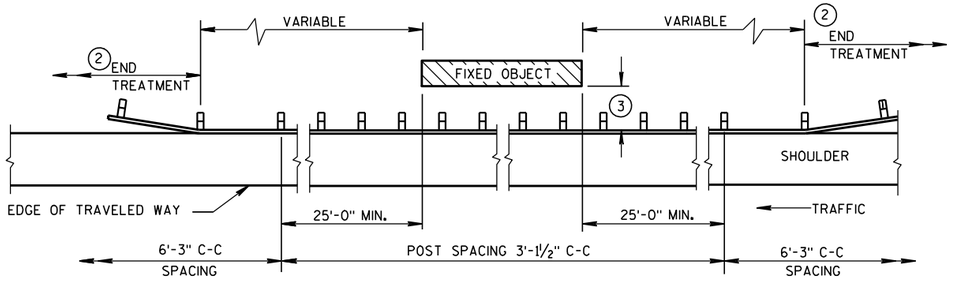
(2) USE AN APPROVED END TREATMENT FOR THE TRAFFIC APPROACH SIDE OF BRIDGE/OBSTACLES. USE TYPE 2 ANCHORAGE ONLY AT THE DOWNSTREAM ENDS OF BEAM GUARD LOCATED ALONG ROADWAYS WITH ONE WAY TRAFFIC.

(3)

MINIMUM LATERAL DISTANCE FROM FACE OF BEAM GUARD TO FIXED OBJECT	POST SPACING
3'-6"	3' - 1½"
4'-6"	6' - 3"

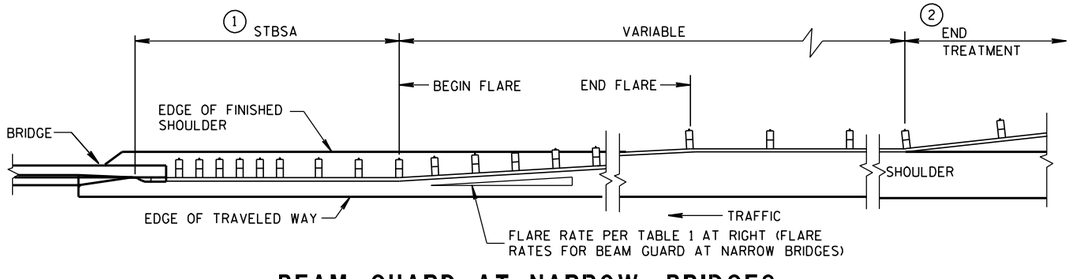


BEAM GUARD AT FULL WIDTH BRIDGES



BEAM GUARD AT OBSTACLES - TWO WAY TRAFFIC

(RAIL TO OBSTACLE CLEARANCE 3'-6" TO 4'-6")



BEAM GUARD AT NARROW BRIDGES
(FLARED TO SHOULDER EDGE, THEN PARALLEL TO ROADWAY)

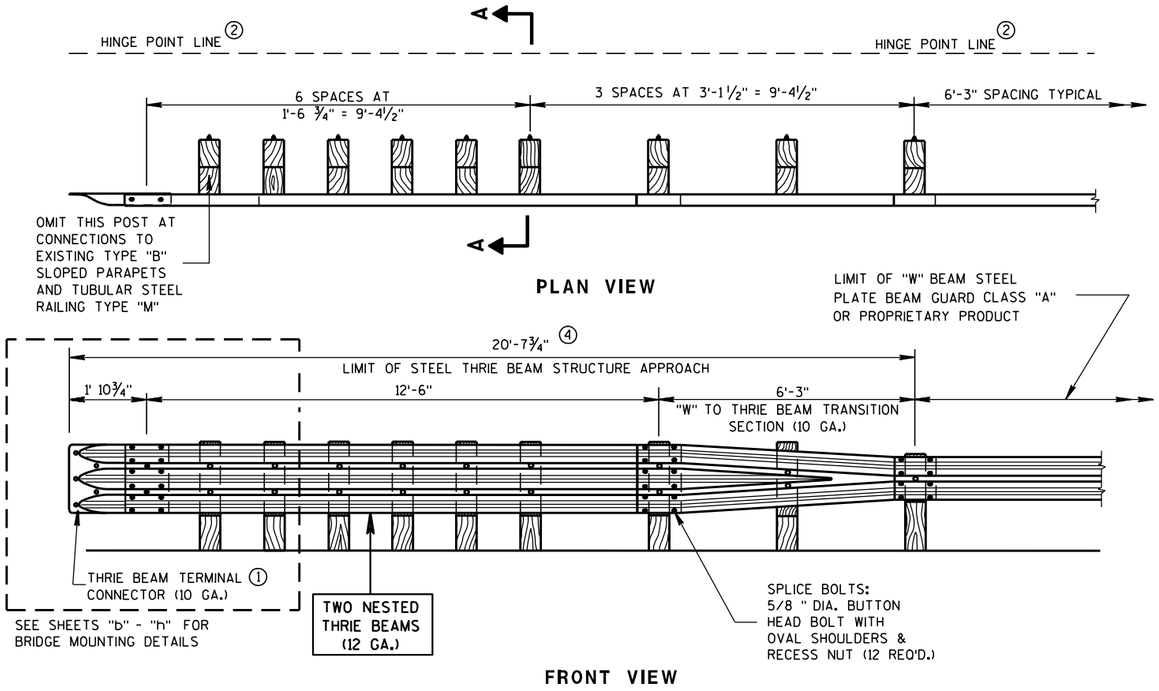
TABLE 1
FLARE RATES FOR BEAM GUARD AT NARROW BRIDGES

POSTED SPEED (MPH)	FLARE RATE
25	13:1
30	15:1
35	16:1
40	18:1
45	21:1
50	24:1
55	26:1
65	30:1

STEEL PLATE BEAM GUARD CLASS "A" AT BRIDGES, OBSTACLES AND SIDEROADS/DRIVEWAYS

STATE OF WISCONSIN
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APPROVED
8-21-07 DATE
/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER
FHWA



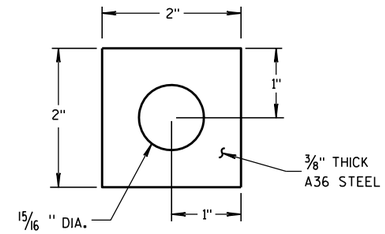


PLATE WASHER DETAIL

GENERAL NOTES

BOLT THE THRIE BEAM TO ALL POSTS AND BLOCKOUTS. DRILL OR PUNCH BOLT HOLES IN THE BEAM IF THE POST SPACING IS LESS THAN 6'-3".

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.

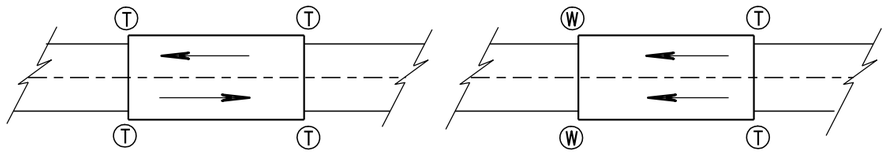
IF ROCK IS ENCOUNTERED, REMOVE ROCK TO FULL DEPTH OF POST PLUS 2 1/2" , AND 12" DIAMETER AROUND POST. SEE 14B15 FOR MORE DETAILS.

① BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

② MINIMUM EMBEDMENT SHALL BE 4'-0". WHERE EXISTING CONDITIONS DO NOT PERMIT THE APPROPRIATE EARTHWORK SHOWN ON THE PLAN TYPICAL SECTIONS OR DETAILS, THE ENGINEER MAY ALLOW THE REDUCTION OR ELIMINATION OF THE 2 FOOT DISTANCE TO THE HINGE POINT. OTHERWISE BUILD AS THE PLAN SHOWS OR AS THE ENGINEER DIRECTS. IF THE 2 FOOT DISTANCE TO THE HINGE POINT IS REDUCED OR ELIMINATED, INCREASE THE POST EMBEDMENT DEPTH TO 4'-6" OR MORE.

③ POST BOLTS ARE 5/8" DIAMETER ASTM A307 BUTTON HEAD BOLT. A POST BOLT REQUIRES A 5/8" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX AND A 5/8" DIAMETER F844 FLAT WASHER. LENGTH OF POST BOLT MAY VARY.

④ ALL WOOD POSTS MUST BE 6" X 8" AND AT LEAST 7'-0" LONG.



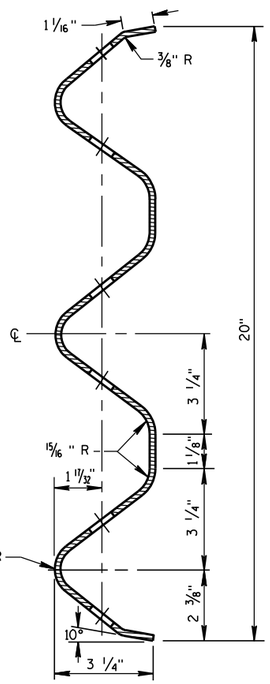
TWO WAY TRAFFIC

ONE WAY TRAFFIC

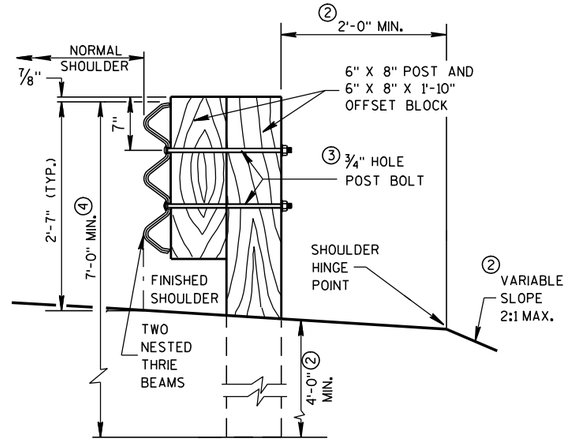
T THRIE BEAM CONNECTION

W W-BEAM CONNECTION WHEN REQUIRED

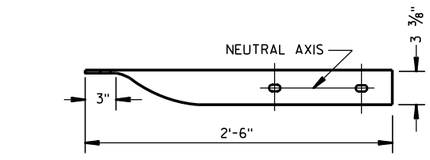
TYPICAL LOCATIONS OF THRIE BEAM AND W-BEAM CONNECTIONS TO BRIDGE

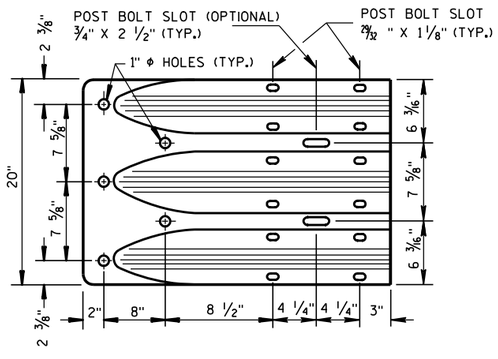


SECTION THRU THRIE BEAM RAIL ELEMENT

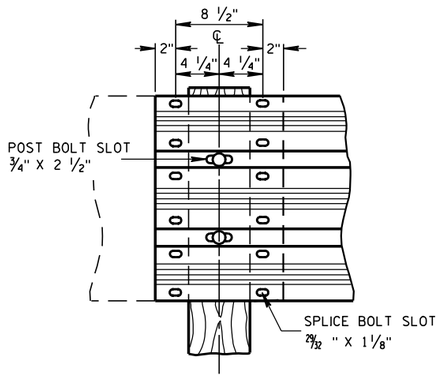


SECTION A-A





THRIE BEAM TERMINAL CONNECTOR



THRIE BEAM SPLICE

STEEL THRIE BEAM STRUCTURE APPROACH

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

8/31/2012
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

FHWA

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GENERAL NOTES

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

BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325, A449 AND GALVANIZED PER STANDARD SPECIFICATIONS 614.

① DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

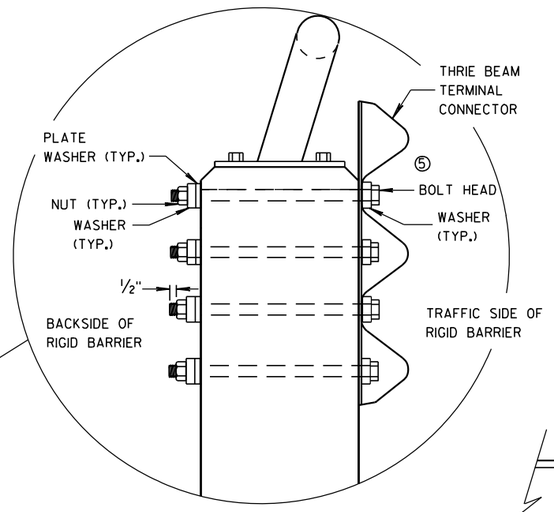
② BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM TERMINAL CONNECTOR. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

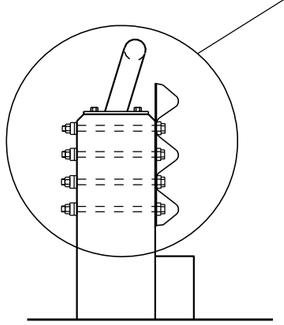
③ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 ½".

④ W6 X 9 OR W6 X 8.5 STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS ARE ACCEPTABLE ALTERNATIVES FOR 6" X 8" WOOD POST WITH WOOD OR PLASTIC BLOCKOUTS. USE APPROVED NOTCHED PLASTIC BLOCKOUTS WITH STEEL POSTS.

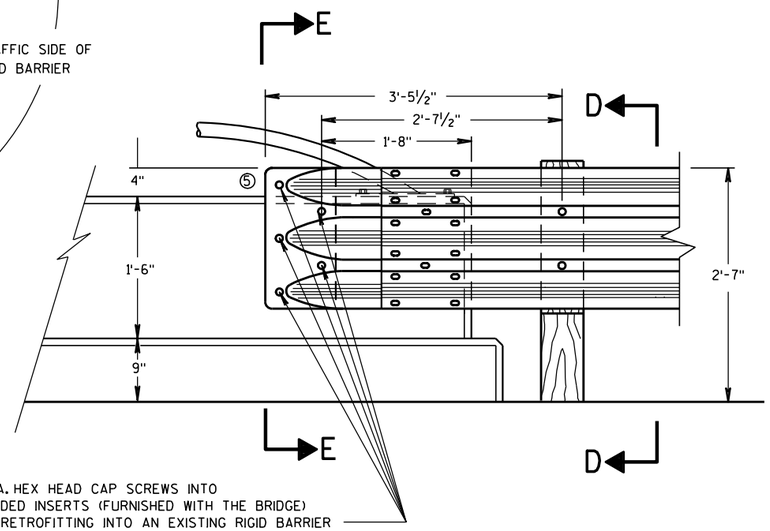
⑤ BOLT, NUT AND WASHERS NOT REQUIRED FOR THIS LOCATION WHEN RETROFITTING AN EXISTING PAPAPET AND THE HOLE IS EITHER ABOVE PARAPET OR WITHIN 4 INCHES OF THE EDGE OF PARAPET.

DO NOT USE STEEL POSTS AND NOTCHED PLASTIC BLOCKOUTS IN THE STEEL THRIE BEAM STRUCTURAL APPROACH AND THE TRANSITION SECTION OF STEEL PLATE BEAM GUARD, CLASS "A" INSTALLATIONS.





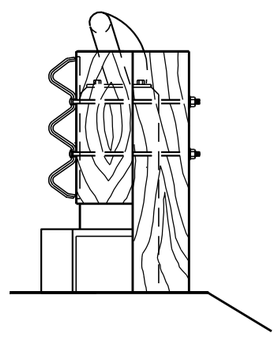
SECTION E-E



①② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)

FRONT VIEW

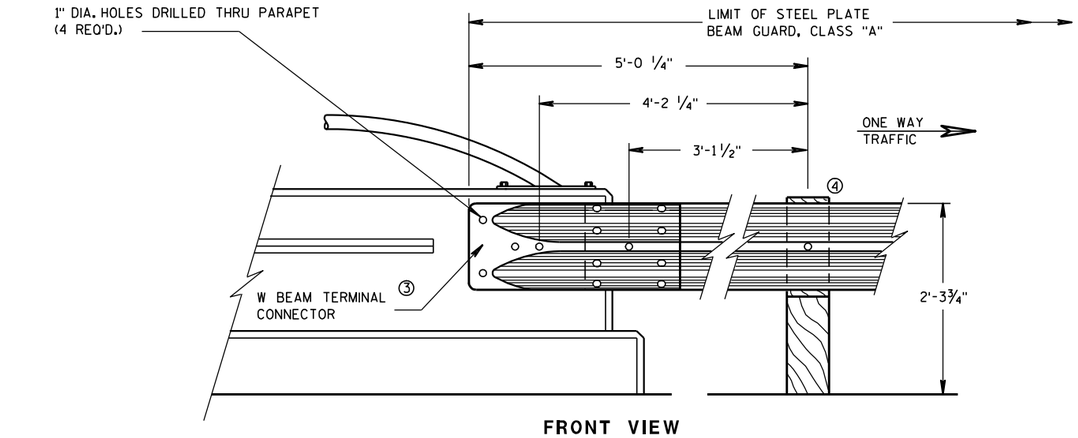


SECTION D-D

THRIE BEAM CONNECTION TO VERTICAL FACED PARAPETS

①② ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. HEX HEAD CAP SCREWS INTO THREADED INSERTS (FURNISHED WITH THE BRIDGE) WHEN RETROFITTING INTO AN EXISTING RIGID BARRIER ⅞" DIA. H.S. HEX BOLT AND WASHERS REQUIRED

1" DIA. HOLES DRILLED THRU PARAPET (4 REQ'D.)



FRONT VIEW

W BEAM CONNECTION TO VERTICAL FACE PARAPET

(USE ONLY ON THE TRAFFIC EXIT END OF ONE WAY BRIDGES)

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTION TO VERTICAL FACED PARAPETS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

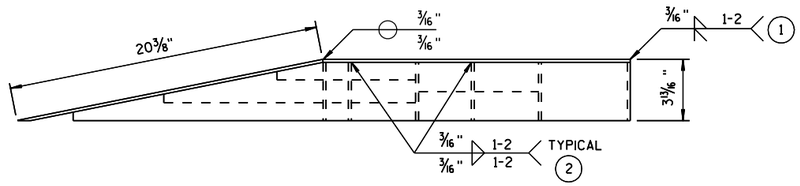
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8/31/2012 — DATE
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FHWA

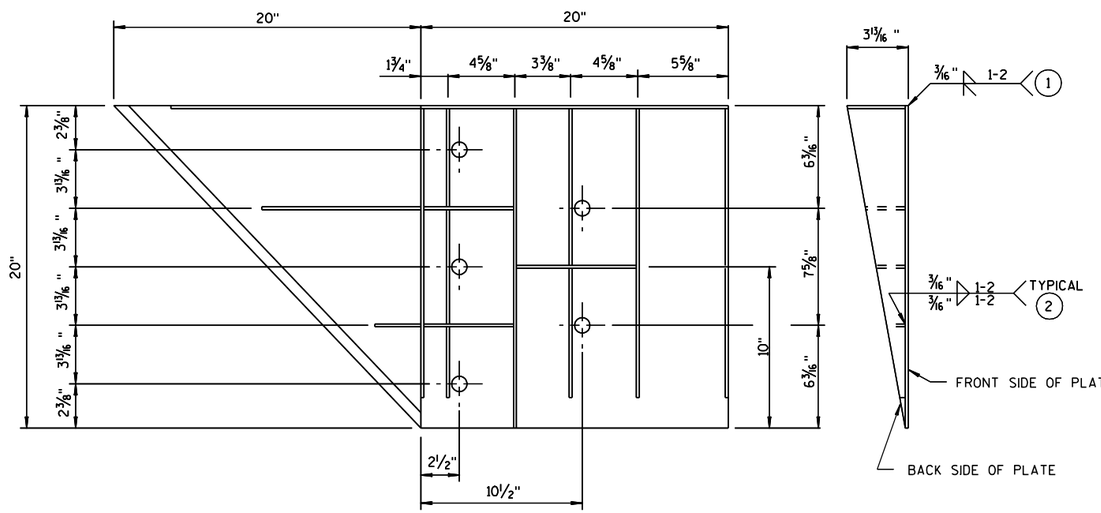
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WELDING INSTRUCTION

(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.

(1) 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.

(2) STIFFENERS LOCATED ON THE INSIDE OF THE COVER PLATE SHALL BE WELDED AS FOLLOWS:
3/16" FILLET WELD BY 1" LONG SPACED AT 2".

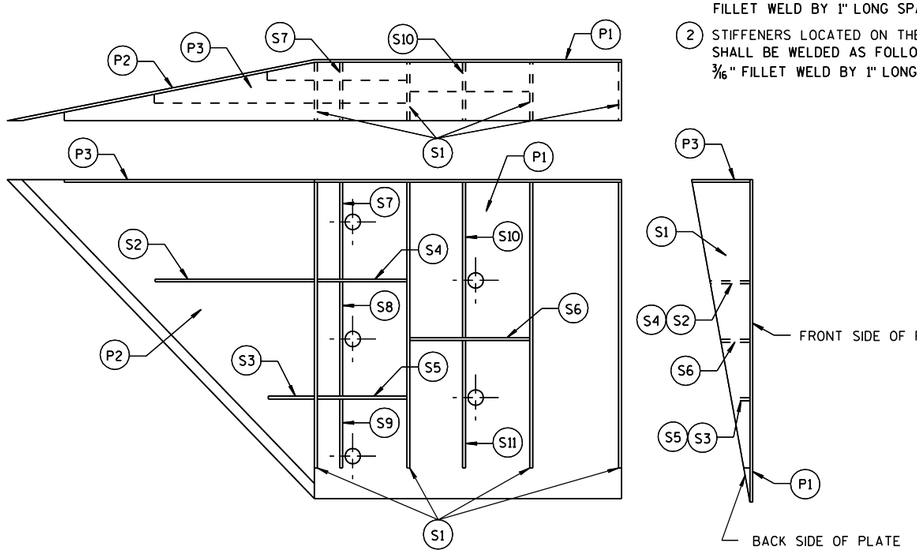


PLATE AND STIFFENER IDENTIFICATION

(VIEWED FROM BACK SIDE OF PLATE)

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"

STEEL THRIE BEAM STRUCTURE APPROACH

STEEL THRIE BEAM STRUCTURE APPROACH, CONNECTOR PLATE DETAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
8/31/2012 — DATE
/S/ Jerry H. Zogg — ROADWAY STANDARDS ENGINEER
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(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.

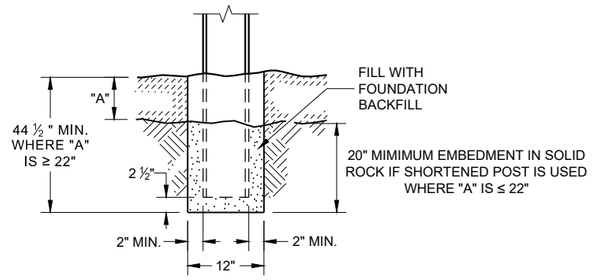
(3) IF ROCK IS ENCOUNTERED DURING EXCAVATION, PROVIDE A HOLE 12 INCHES IN DIAMETER EXTENDING 20 INCHES DEEP INTO THE ROCK. PLACE APPROXIMATELY 2 1/2" INCHES OF GRANULAR MATERIAL IN THE BOTTOM OF THE HOLE. CUT THE POSTS THE TO LENGTH AMD INSTALL. BACKFILL WITH EXCAVATED MATERIAL AND COMPACT. BACKFILL 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).

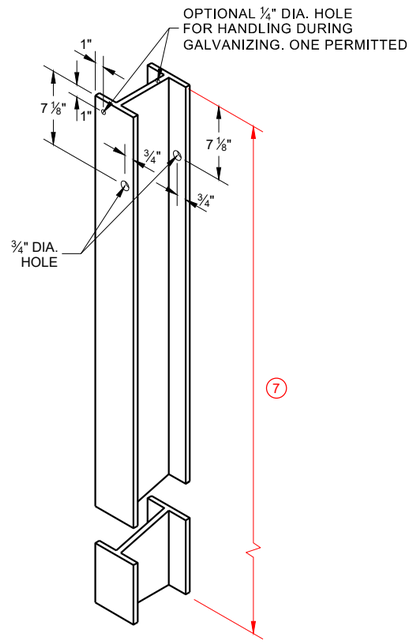
(5) FOR NEW MGS INSTALLATION TOP OF W-BEAM RAIL TOLERANCE IS ±1". FOR EXISTING MGS INSTALLATION TOP OF W-BEAM IS BETWEEN 27 ¾" TO 32".

(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.

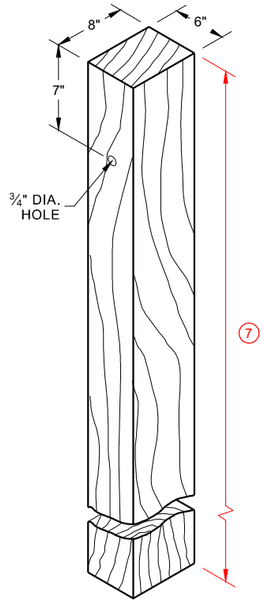
(7) TOTAL POST LENGTH FOR TYPE K IS 7' - 0".
TOTAL POST LENGTH FOR OTHER MGS TYPES IS 6' - 0".



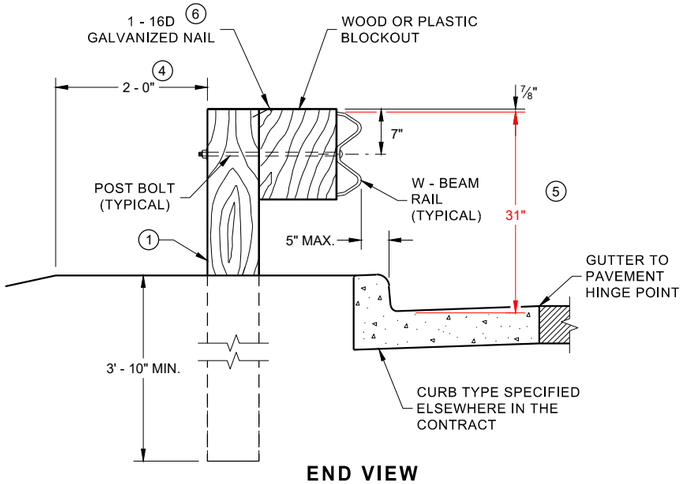
END VIEW
SETTING STEEL OR WOOD POST IN ROCK (3)



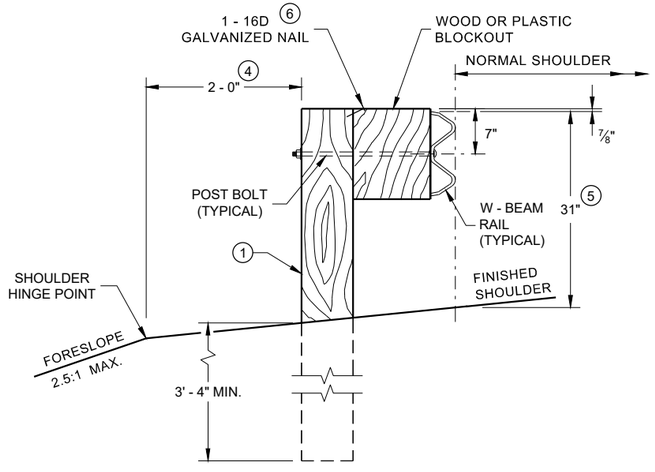
STEEL POST & HOLE PUNCHING DETAIL (W 6 X 9) (1)



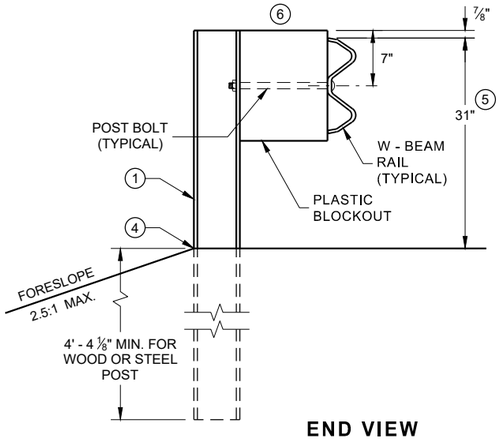
WOOD POST (6" X 8") NOMINAL (1)



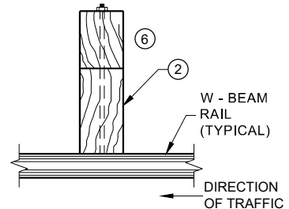
END VIEW
LOCATED ALONG A CURBED ROADWAY



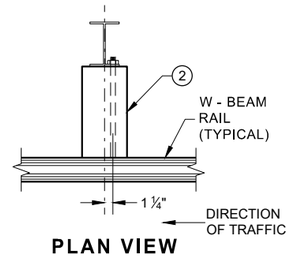
END VIEW
LOCATED ALONG A ROADWAY SHOULDER STANDARD INSTALLATION



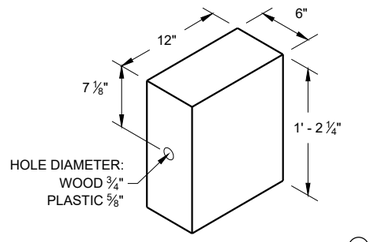
END VIEW
MGS LONGER POST AT HALFPOST SPACING W BEAM (K)



PLAN VIEW
WOOD POST, BLOCKOUT & BEAM



PLAN VIEW
STEEL POST, PLASTIC BLOCKOUT & BEAM



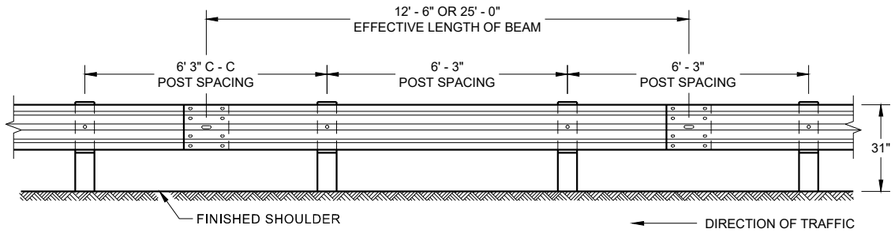
WOOD OR PLASTIC BLOCKOUT (2)

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

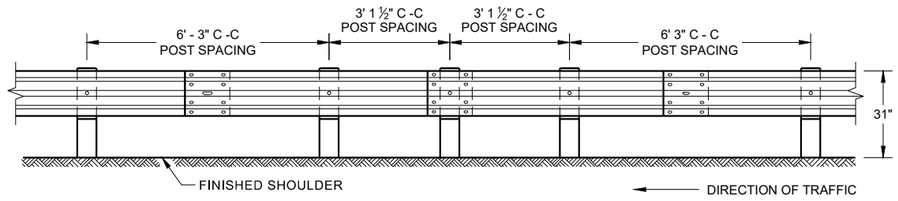
STATE OF WISCONSIN
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SDD 14B42 - 06a

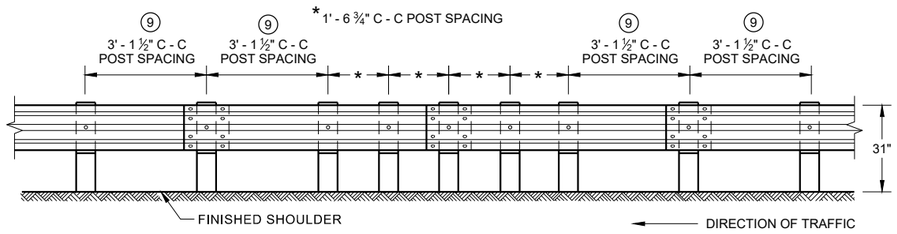
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SDD 14B42 - 06a



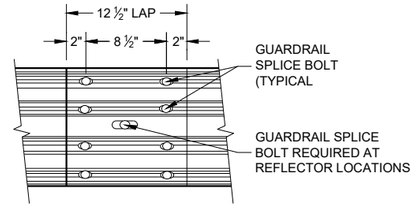
FRONT VIEW
POST SPACING STANDARD INSTALLATION



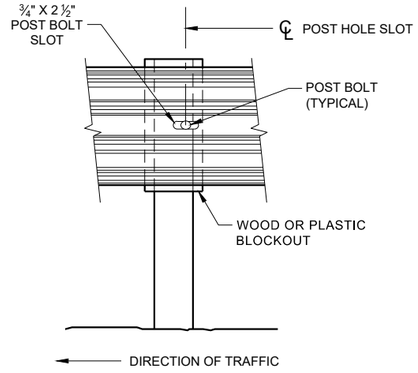
FRONT VIEW
HALF POST SPACING (HS) AND
HALF POST SPACING WITH LONGER POSTS (K)



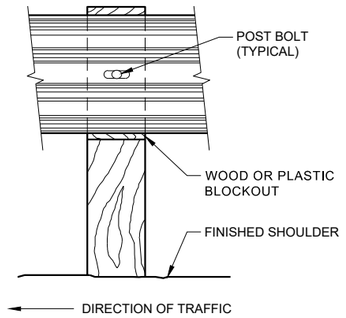
FRONT VIEW
QUARTER POST SPACING (QS)



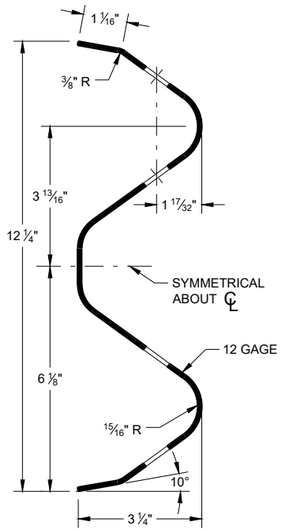
FRONT VIEW
MID-SPAN BEAM SPLICE



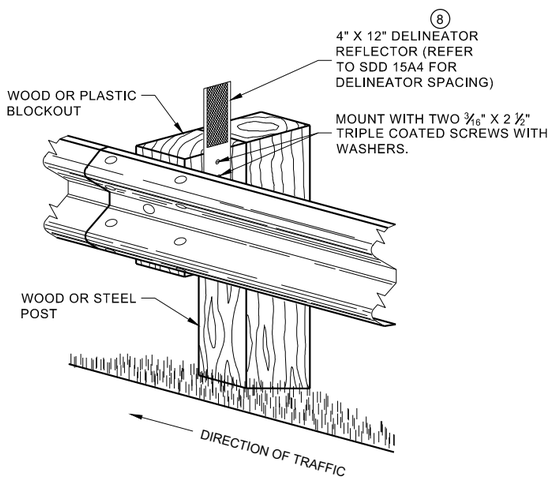
FRONT VIEW AT STEEL POST



FRONT VIEW AT WOOD POST



SECTION THRU W-BEAM RAIL



ONE SIDED REFLECTOR DETAIL
AND TYPICAL INSTALLATION

GENERAL NOTES

⑧ DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL. RAIL SPLICE LOCATIONS ARE THE ONLY ACCEPTABLE LOCATIONS FOR REFLECTORS.

⑨ 25 FEET OF HALF POST SPACING IS REQUIRED ON APPROACH AND DEPARTURE ENDS OF QUARTER POST SPACING.

POST BOLTS ARE A ¾" 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.

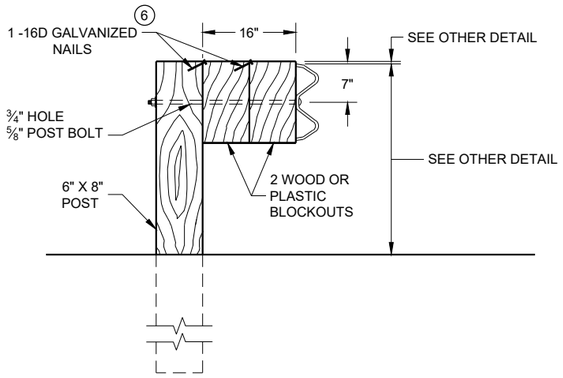
GUARD RAIL SPLICE BOLTS ARE A ⅝" DIAMETER ASTM A307 GUARDRAIL HEAD BOLT. A GUARDRAIL SPLICE BOLT REQUIRES ⅝" DIAMETER A563A DOUBLE RECESSED (DR) HEAVY HEX NUT.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B42 - 06b

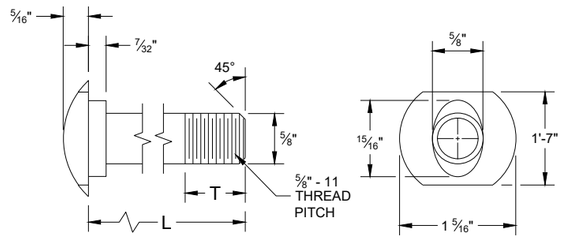


DETAIL FOR 16" BLOCKOUT DEPTH

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.

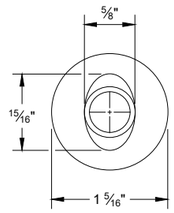
NOTE:

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.

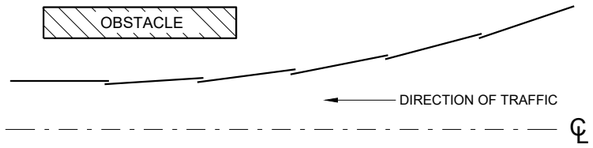


POST BOLT TABLE

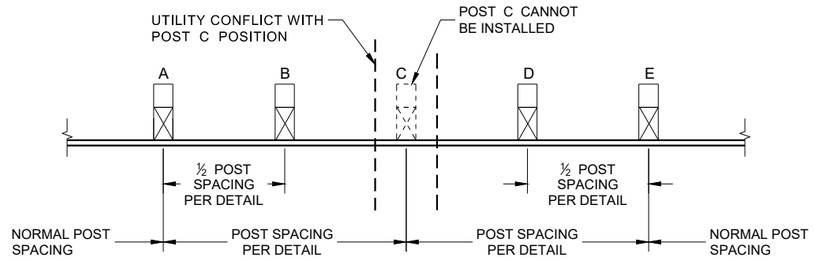
L	T (MIN.)
1 ¼"	1 ⅛"
2"	1 ¾"
10"	4"
14"	4 1⁄16"
18"	4"
21"	4 1⁄16"
25"	4"



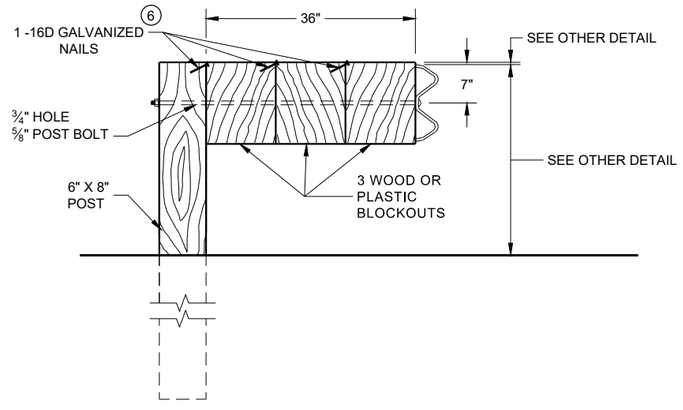
ALTERNATE BOLT HEAD



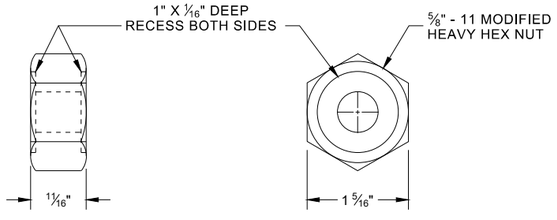
PLAN VIEW
BEAM LAPPING DETAIL



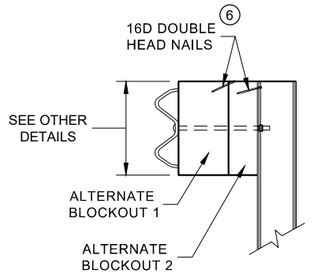
POST DRIVING FOR CONTINUOUS UNDERGROUND OBSTRUCTION



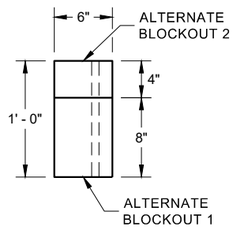
DETAIL FOR 36" BLOCKOUT DEPTH



POST BOLT, SPLICE BOLT AND RECESS NUT



SIDE VIEW



PLAN VIEW

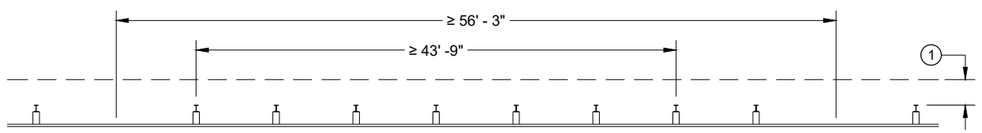
ALTERNATE WOOD BLOCKOUT DETAIL

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.

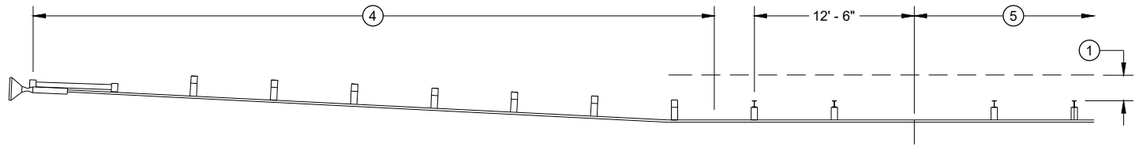
DO NOT USE 16" OR 36" BLOCKOUTS IF IT CAUSES THE POST TO BE DRIVEN BEYOND SHOULDER HINGE POINT OR CAUSES A FIXED OBJECT TO BE WITHIN THE DEFLECTION DISTANCE OF THE BARRIER.

(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.

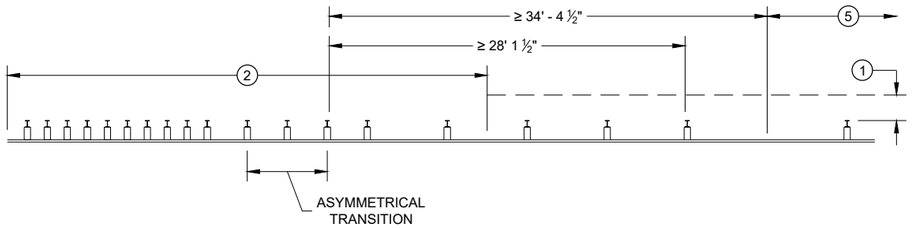
MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL



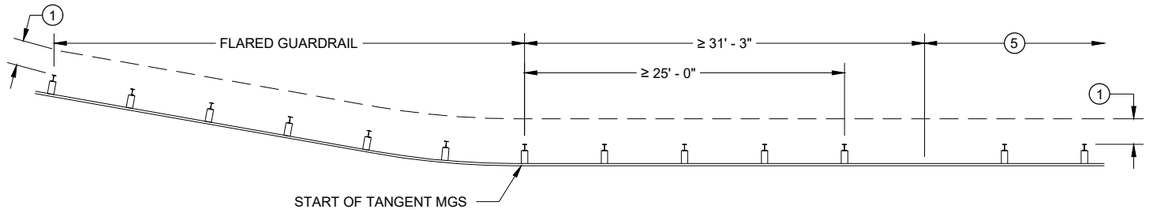
MISSING POST IN NORMAL BEAM GUARD RUN



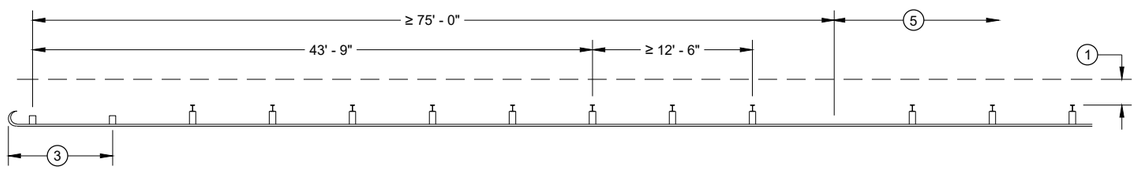
MISSING POST IN NORMAL BEAM GUARD RUN NEAR EAT



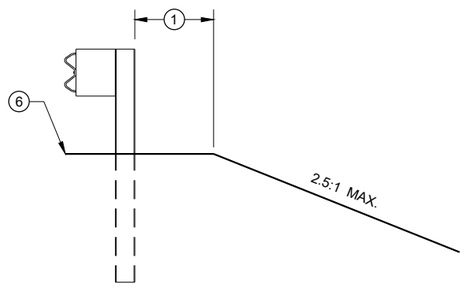
MISSING POST NEAR APPROACH THRIE BEAM TRANSITION



MISSING POST IN NORMAL BEAM GUARD RUN NEAR FLARED BEAM GUARD



MISSING POST IN NORMAL BEAM GUARD RUN NEAR TYPE 2 TERMINAL



CROSS SECTION VIEW

1. MINIMUM OF 2 FEET OF GRADING BEHIND POST.
2. SEE SDD 14B45 FOR MORE DETAILS.
3. SEE SDD 14B47 FOR MORE DETAILS.
4. SEE SDD 14B44 FOR MORE DETAILS.
5. SEE MISSING POST IN NORMAL BEAM GUARD RUN FOR DISTANCE TO NEXT MISSING POST AND AREA FOR WELL DRAINED, COMPACTED SOILS.
6. SEE PLAN FOR SHOULDER DESIGN.

MIDWEST GUARDRAIL SYSTEM (MGS) GUARDRAIL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
7/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE UNIT SUPERVISOR
FHWA

SDD 14B42 - 06d

SDD 14B42 - 06d

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.

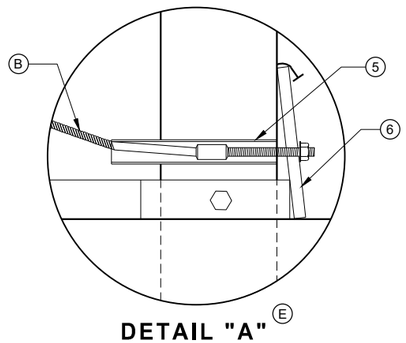
SEE SDD 14B42 FOR MORE INFORMATION.

* DO NOT ATTACH BLOCKOUTS TO POST 1 AND 2.

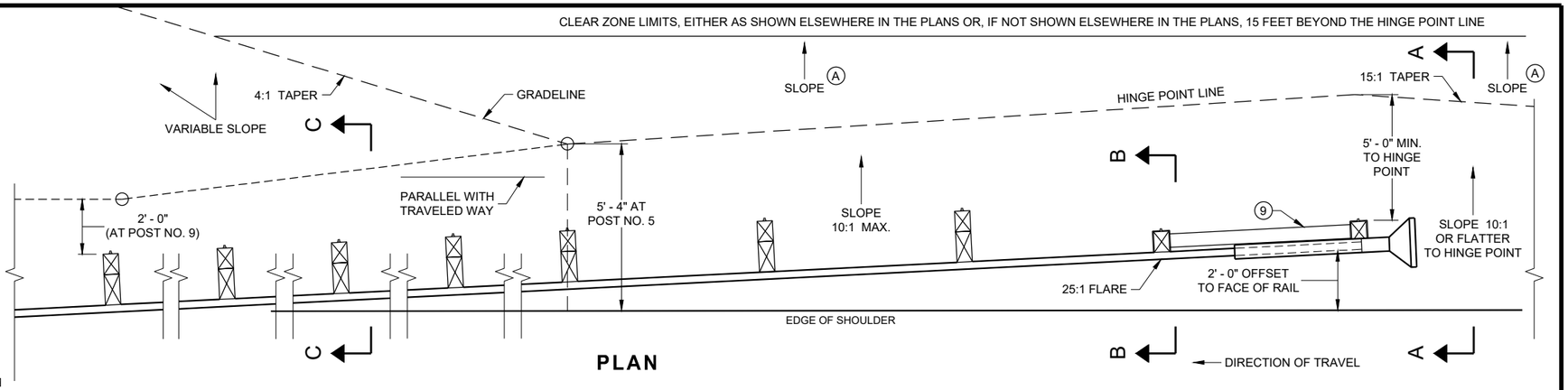
DO NOT INSTALL REFLECTORS ON THE FIRST 50 FEET OF THE APPROACH END OF THE ENERGY ABSORBING TERMINAL.

SEE MANUFACTURER'S DRAWING FOR SPLICE LOCATION, HARDWARE DIMENSIONS AND INSTALLATION INSTRUCTIONS.

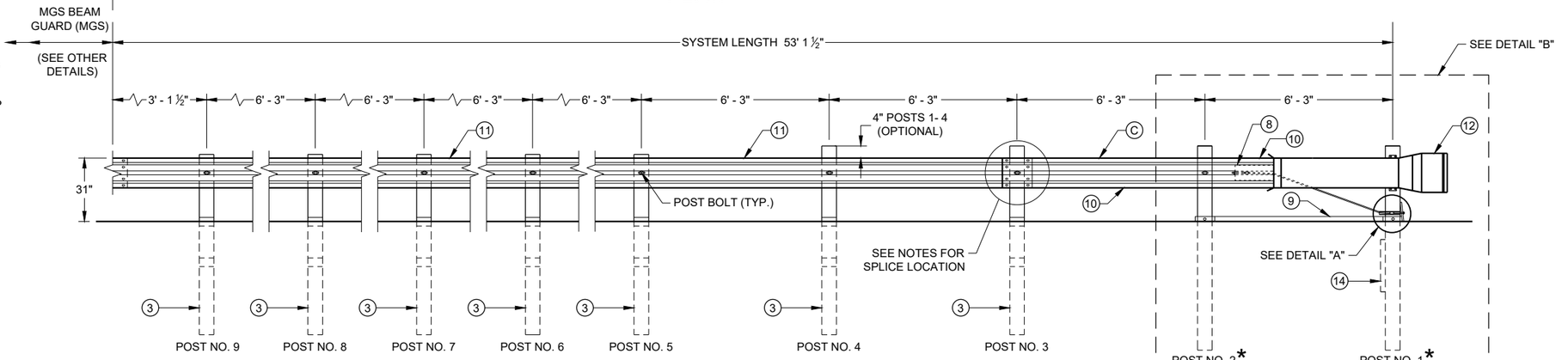
THE CENTER OF THE UPPER 3 ½" DIAMETER HOLE ON POST NUMBER 3 THROUGH POST 9 IS TO BE FLUSH WITH THE GROUND LINE UP TO A MAXIMUM OF 2" ABOVE GROUND LINE. WOOD BLOCKS ON POSTS NUMBERED 3 THROUGH 9 MAY BE ADJUSTED UP TO 3" ABOVE THE TOP OF POST.



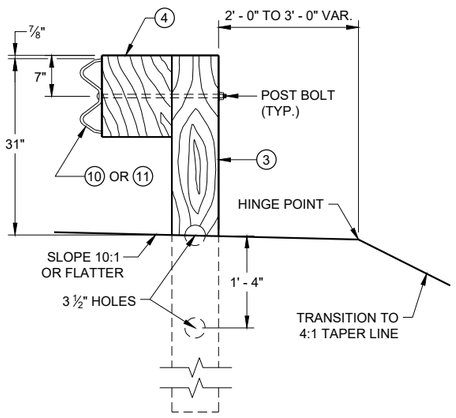
DETAIL "A" (E)



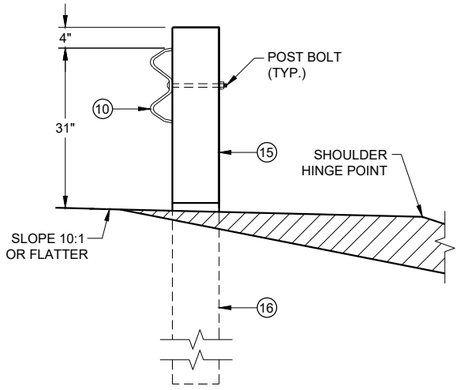
PLAN



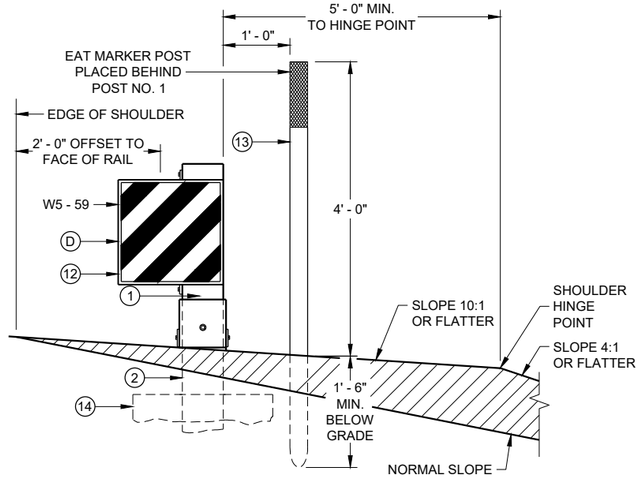
ELEVATION



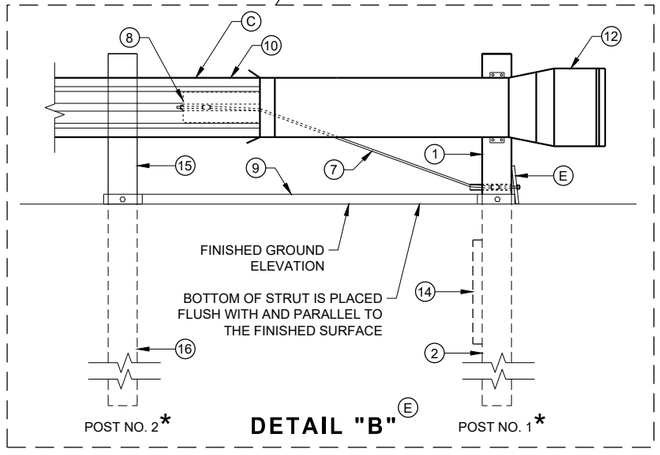
SECTION C - C
TYPICAL AT POST NOS. 3 - 9



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)

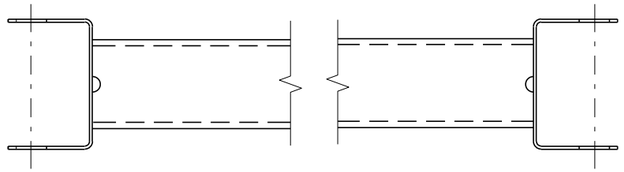
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B44 - 04a

SDD 14B44 - 04a

6

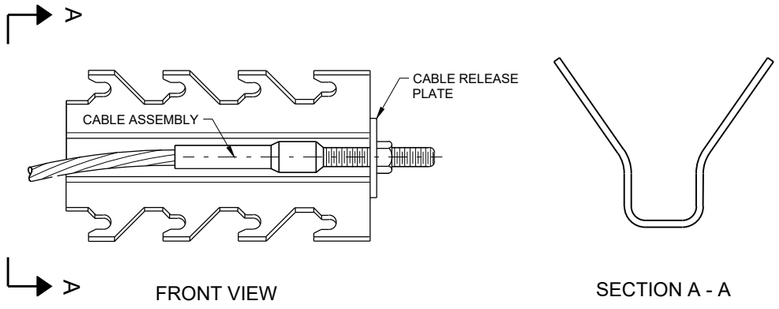
6



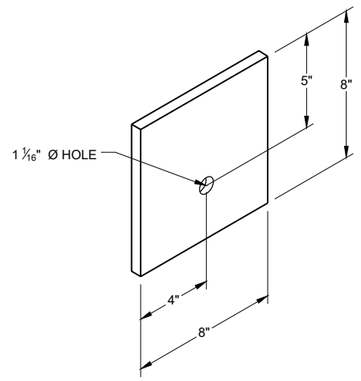
GENERIC GROUND STRUT ⑨ Ⓔ

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 Ⓔ



BEARING PLATE ⑥ Ⓔ

6

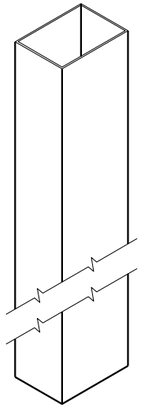
6

SDD 14B45 - 04b

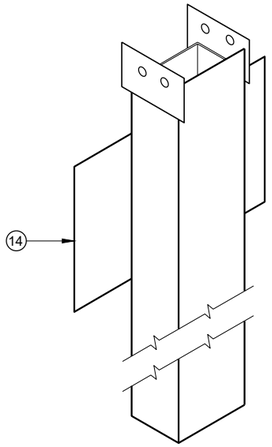
SDD 14B45 - 04b

MIDWEST GUARDRAIL SYSTEM
ENERGY ABSORBING TERMINAL
(MGS)

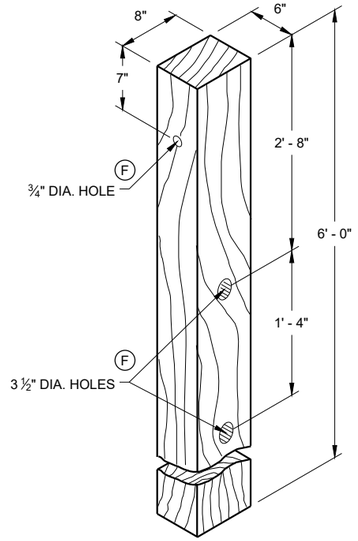
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



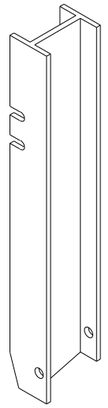
UPPER POST NO. 1 ① Ⓔ



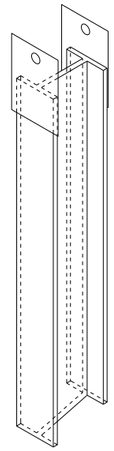
LOWER POST NO. 1 ② Ⓔ



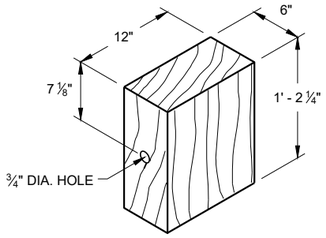
WOOD CRT POST ③ Ⓔ
POSTS NUMBER 3-9



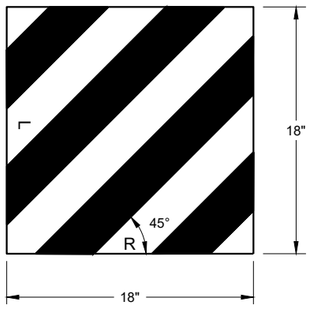
UPPER POST NO. 2 ⑮ Ⓔ



LOWER POST NO. 2 ⑯ Ⓔ

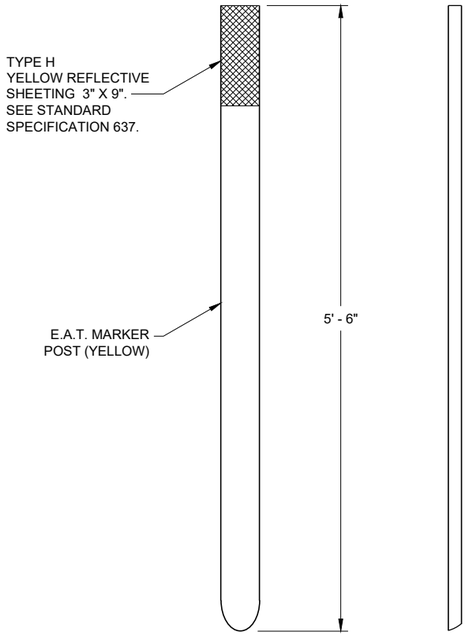


WOOD BLOCKOUT ④
REQ'D. AT ALL POSTS EXCEPT POST NO'S 1 & 2



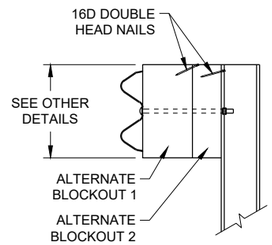
W5 - 59

REFLECTIVE SHEETING DETAIL Ⓔ

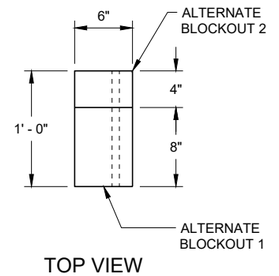


FRONT VIEW SIDE VIEW

E.A.T. MARKER POST ⑬



SIDE VIEW



TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL

MIDWEST GUARDRAIL SYSTEM ENERGY ABSORBING TERMINAL (MGS)

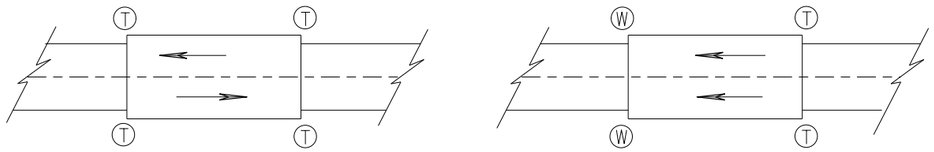
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

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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.

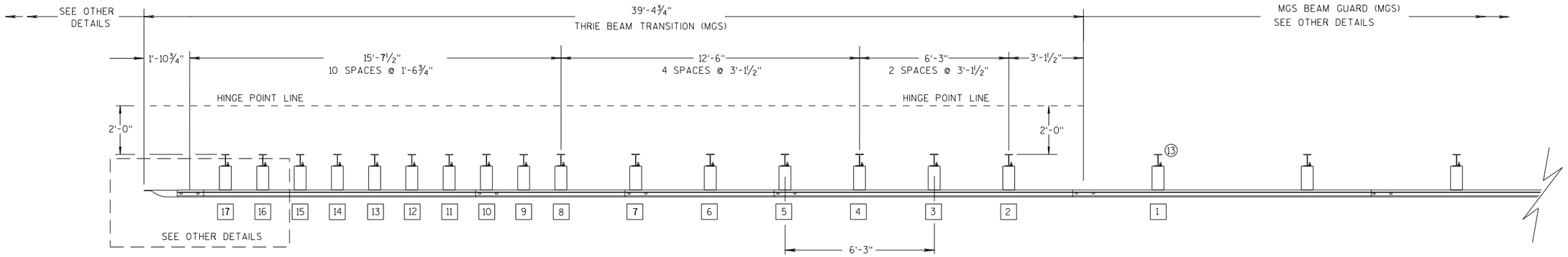
SEE STANDARD DETAIL DRAWING 14 B 42 FOR MORE INFORMATION.

POST 2 THROUGH 17 USES STEEL POST ONLY

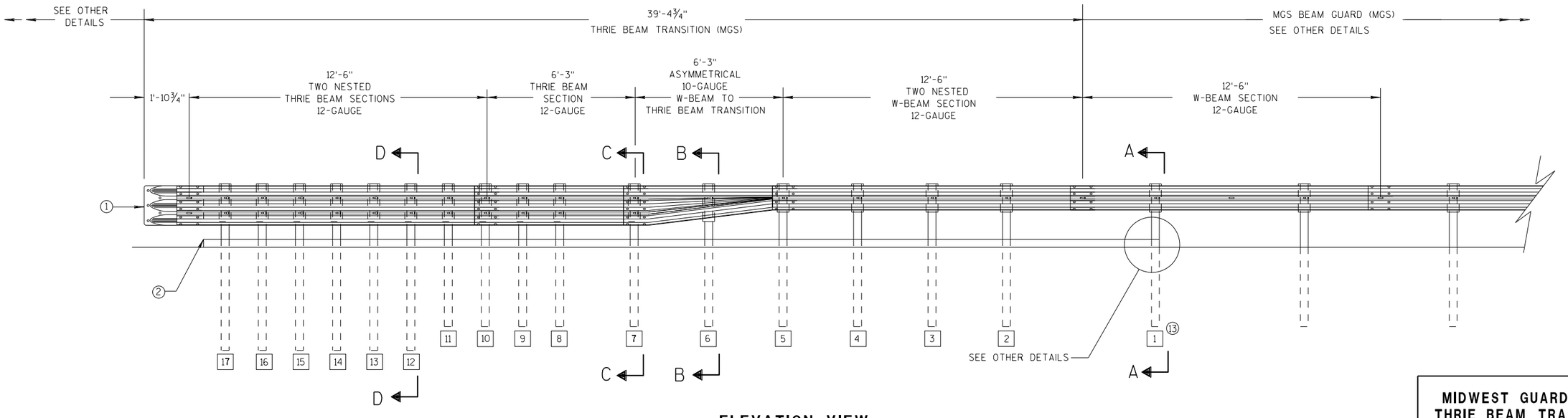
(1) BRIDGE RAILING TYPE "W" DOES NOT REQUIRE A TERMINAL CONNECTOR.

(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 235

6

S.D.D. 14 B 45-5a

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S.D.D. 14 B 45-5a

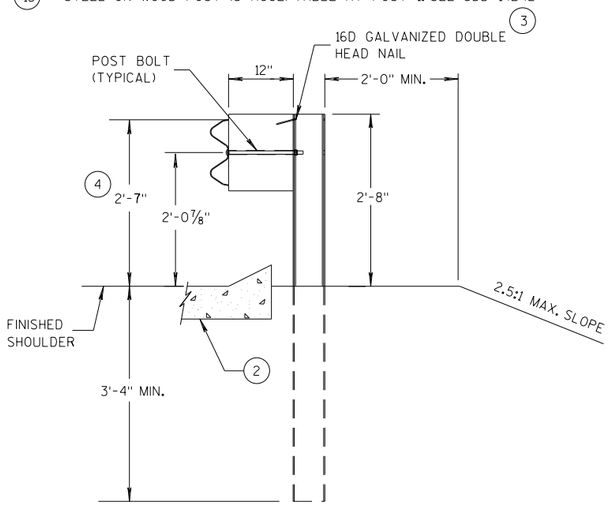
GENERAL NOTES

(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.

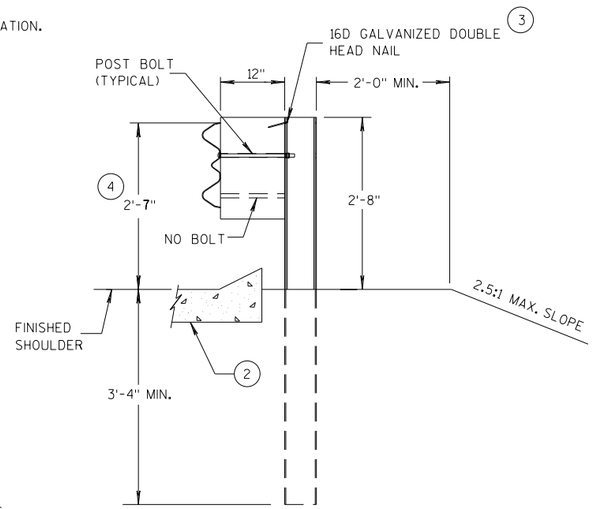
(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

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



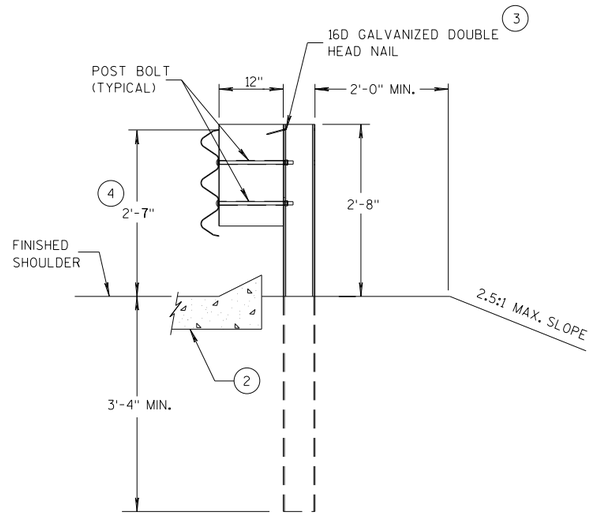
SECTION A-A (13)

POSTS 1-5



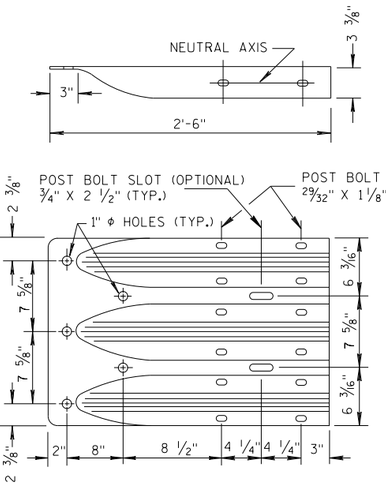
SECTION B-B

POST 6

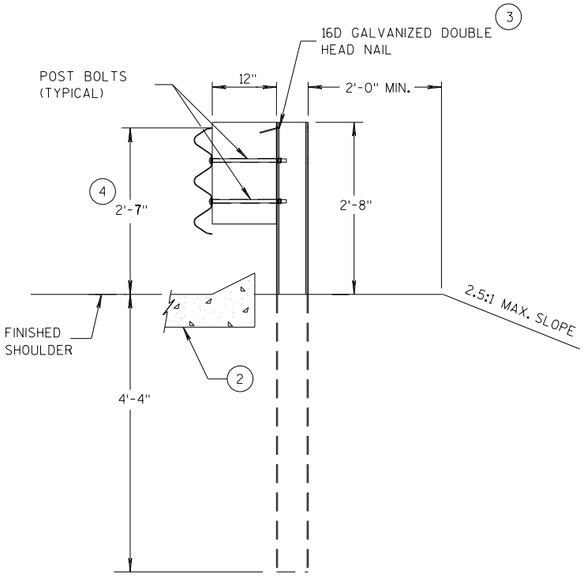


SECTION C-C

POSTS 7-11

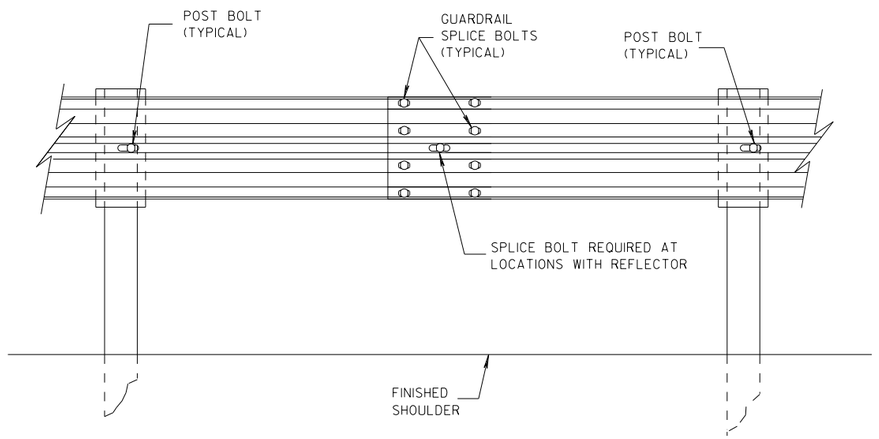


THRIE BEAM TERMINAL CONNECTOR



SECTION D-D

POSTS 12-17



SPLICE DETAIL

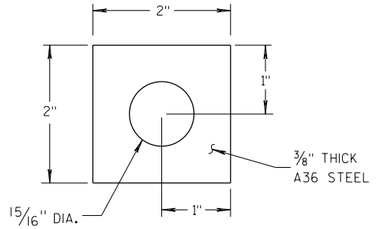
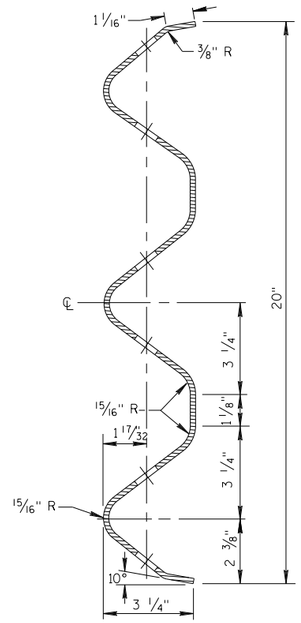


PLATE WASHER DETAIL



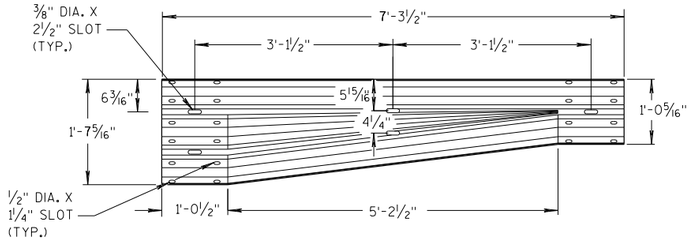
SECTION THRU THRIE BEAM RAIL ELEMENT

MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

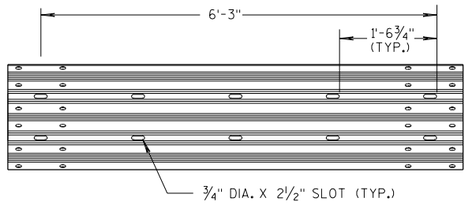
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOF

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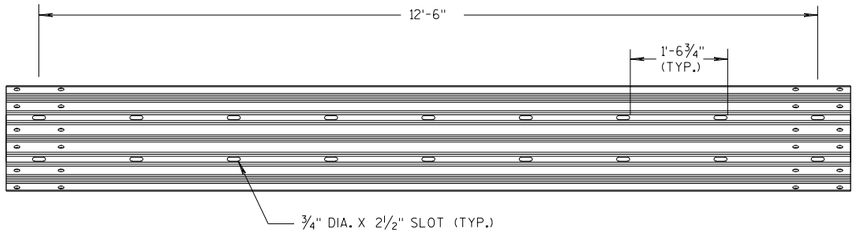
S.D.D. 14 B 45-5b



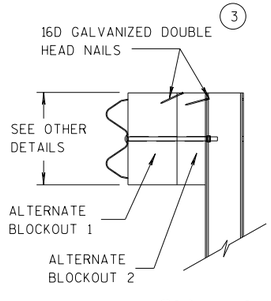
W-BEAM TO THRIE BEAM TRANSITION SECTION



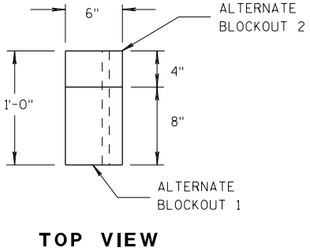
6'-3" THRIE BEAM SECTION



12'-6" THRIE BEAM SECTION

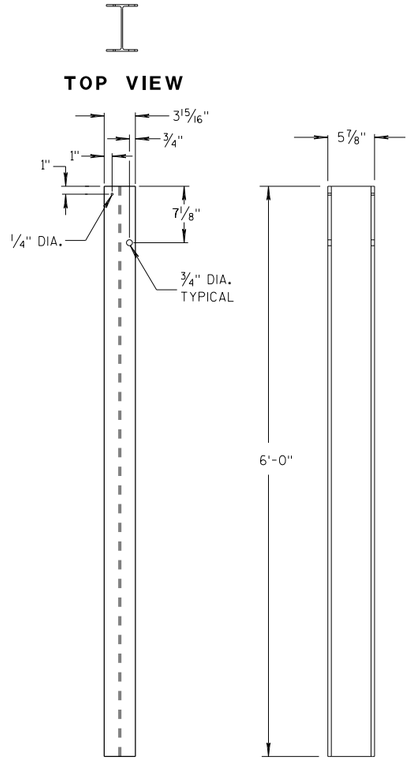


SIDE VIEW



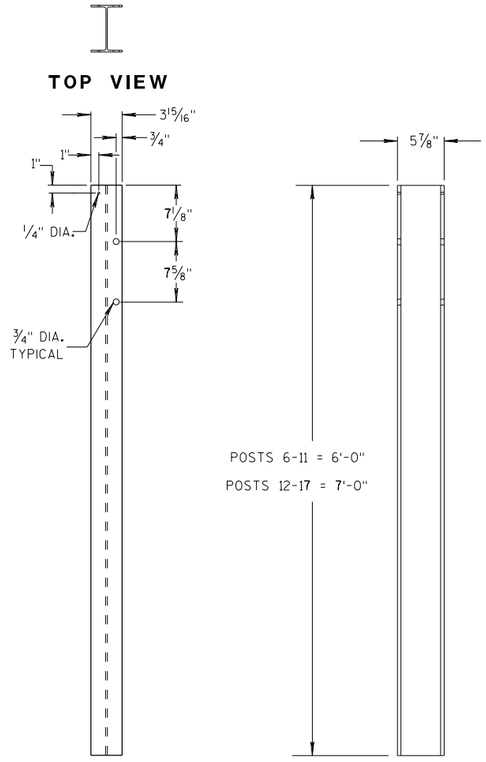
TOP VIEW

ALTERNATE WOOD BLOCKOUT DETAIL



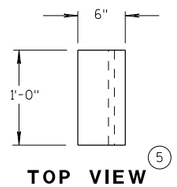
FRONT VIEW SIDE VIEW

STEEL POSTS 1-5 (13)

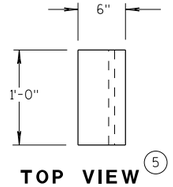


FRONT VIEW SIDE VIEW

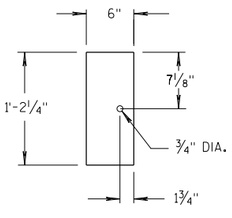
STEEL POSTS 6-17



TOP VIEW (5)

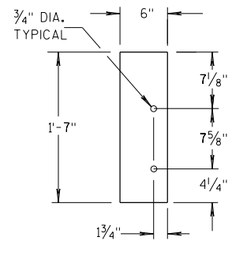


TOP VIEW (5)



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.

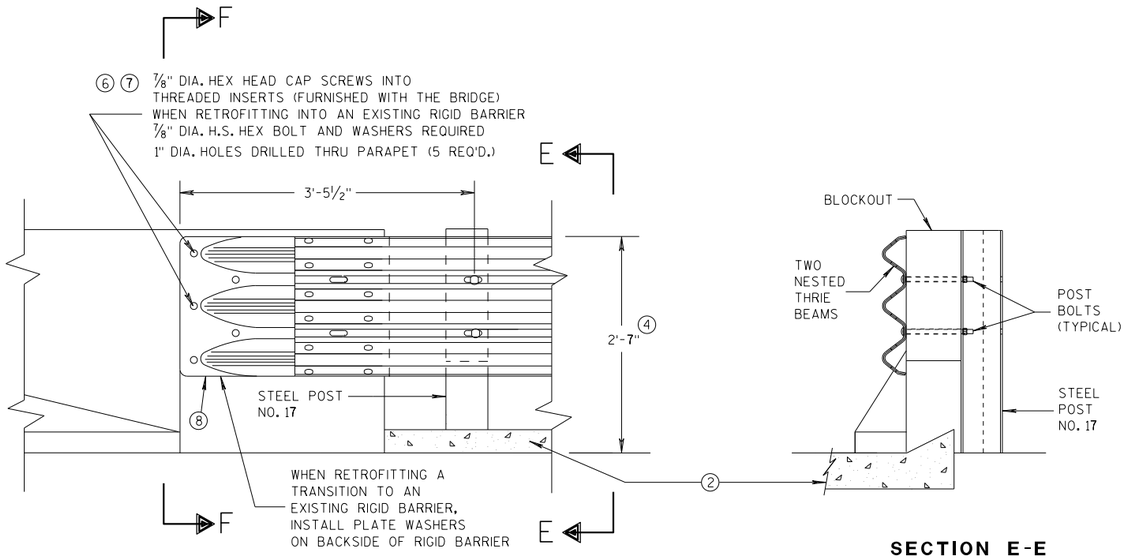
(5) WOOD BLOCKS MAY BE CONSTRUCTED OUT OF 2 WOOD BLOCKS. SEE ALTERNATE WOOD BLOCK DETAIL.

(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 237

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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.

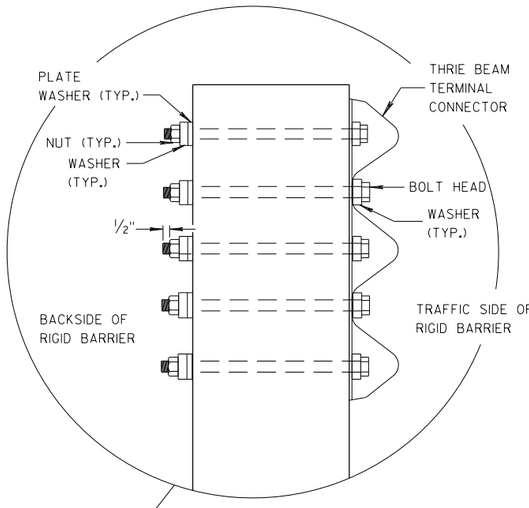
② OPTIONAL CURB AND GUTTER OR DRAINAGE FEATURE SEE PLAN FOR INFORMATION.

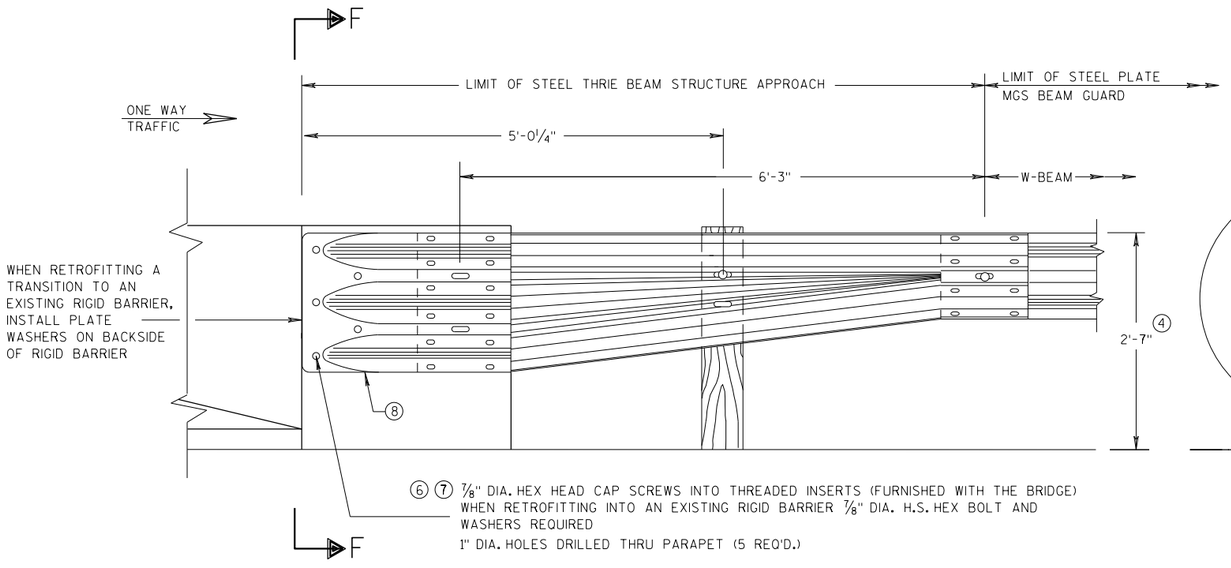
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

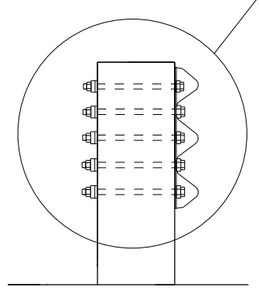
⑦ BOLTS MAY BE A325 BOLTS OR A449 BOLTS. BOLT LENGTH AND THREADING LENGTH ARE TO ALLOW FOR A TIGHT CONNECTION BETWEEN RIGID BARRIER AND THRIE BEAM CONNECTION PLATE. CONTRACTOR IS TO FIELD VERIFY BOLT LENGTH AND THREAD LENGTH. ONE ROUND WASHER REQUIRED BETWEEN BOLT HEAD AND THRIE BEAM CONNECTOR PLATE. BOLTS THAT EXTEND THROUGH THE PARAPET AND OUT THE BACK FACE REQUIRE A HARDENED ROUND STEEL WASHER THAT IS 2" O.D. X 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

⑧ THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

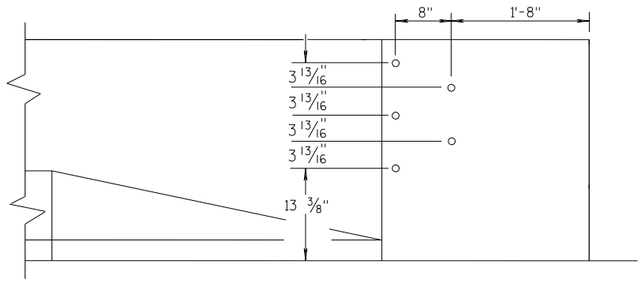




FRONT VIEW



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[illegible] UNIT SUPERVIS[illegible] 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.

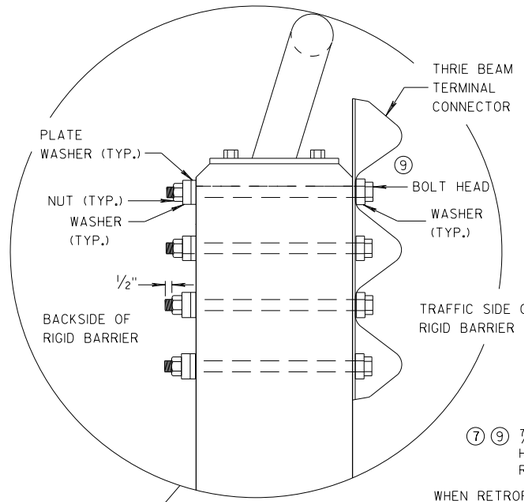
(4) TOLERANCE FOR TOP OF BEAM IS ± 1".

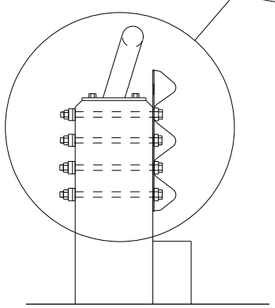
(6) DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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 5/8" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.

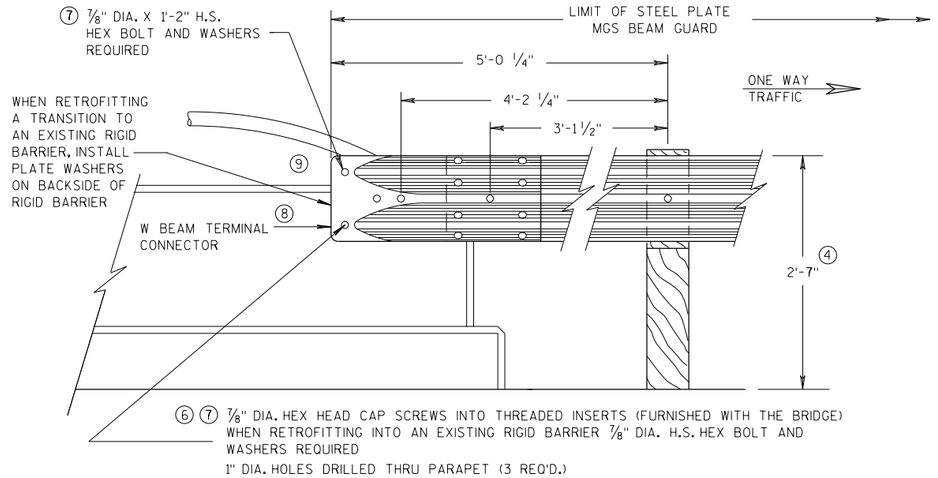
(8) THE RECESS FOR A W-BEAM CONNECTION, WHICH EXISTS ON SOME PARAPETS OF THIS TYPE, SHALL BE FILLED WITH A TREATED TIMBER BLOCKOUT. BLOCKOUT SIZE IS 1'-6" X 2'-0" X 3 1/2".

(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.





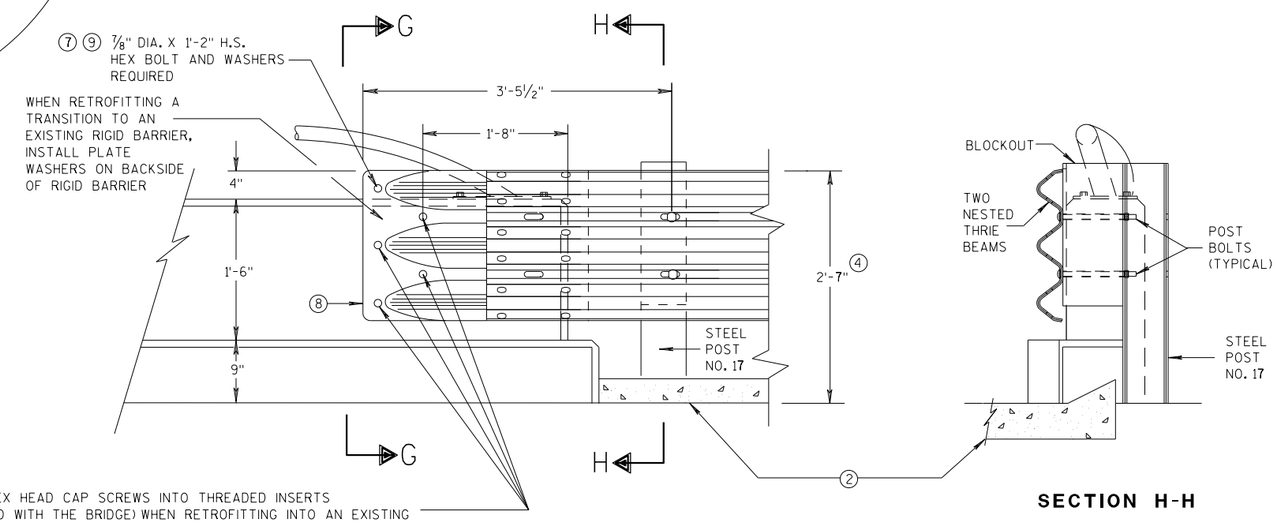
SECTION G-G



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

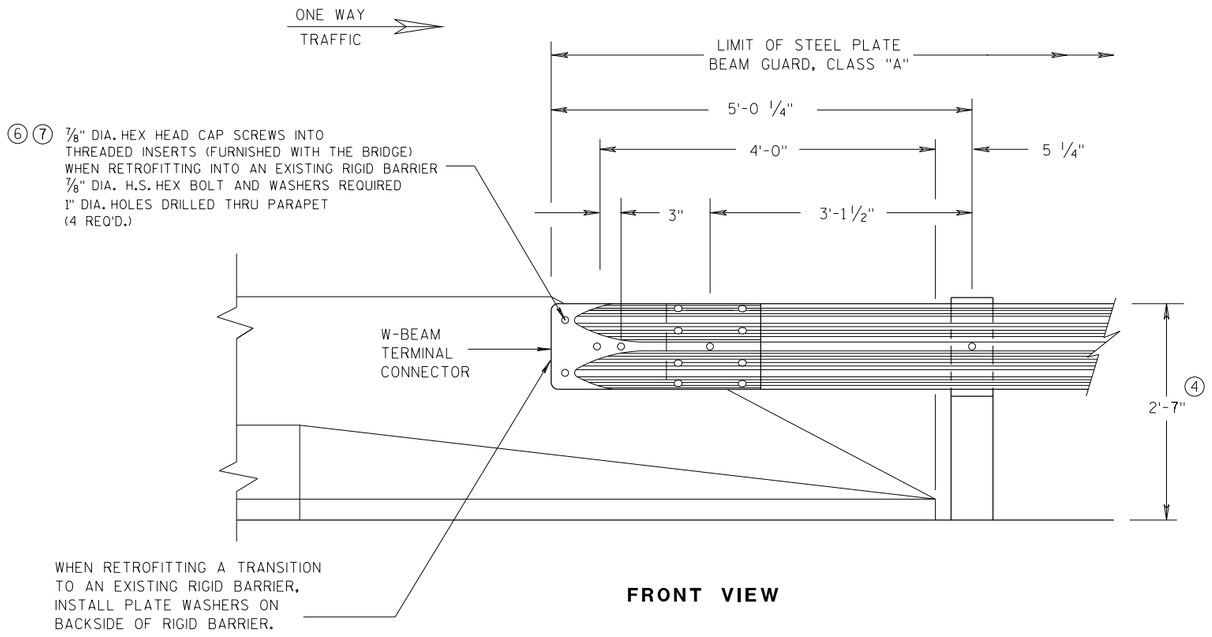
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07/2018 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS D UNIT SUPERVI
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FHWA

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S.D.D. 14 B 45-5e

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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)

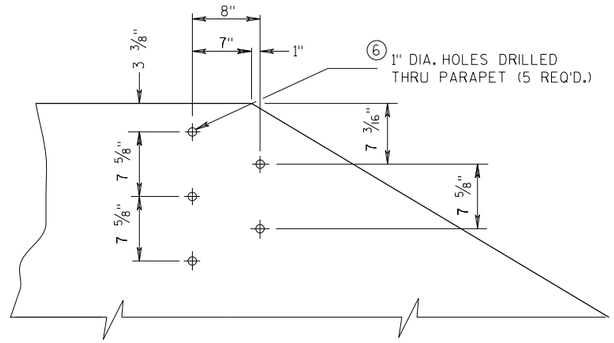
GENERAL NOTES

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

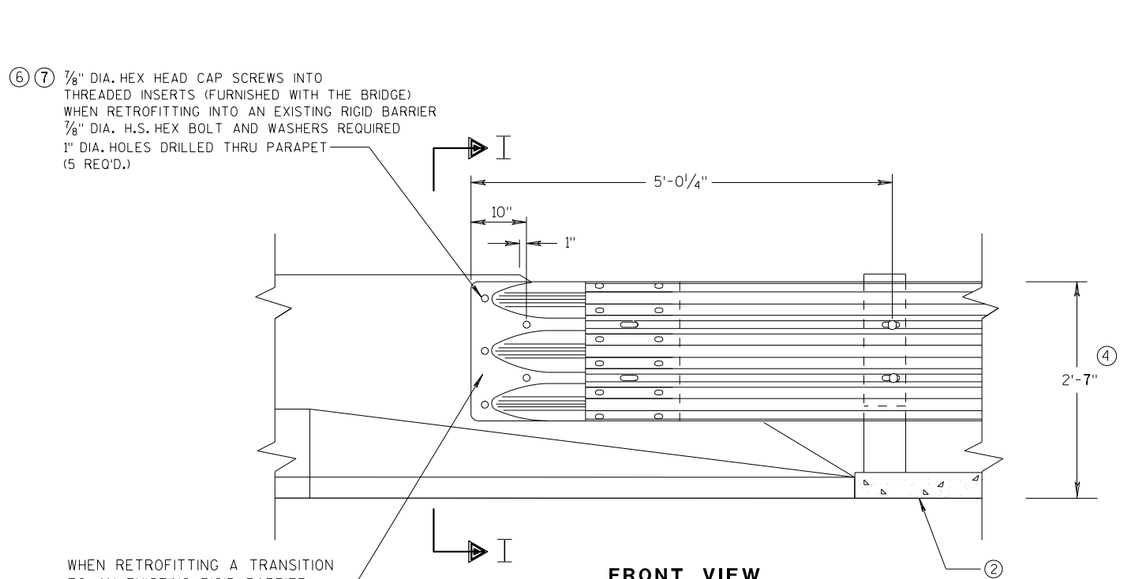
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

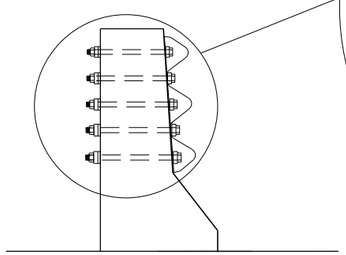
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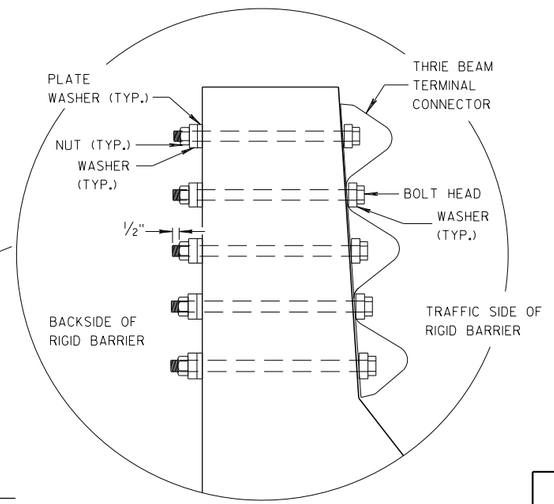
DRILL HOLE LOCATION AND PATTERN
FOR THRIE BEAM CONNECTION



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

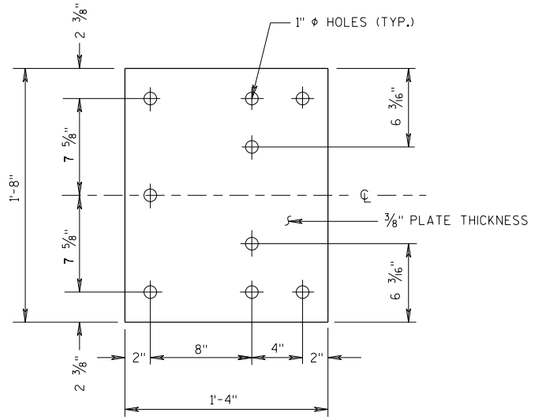
APPROVED
07/2018
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS I
UNIT SUPERVI
ENT
FHWA

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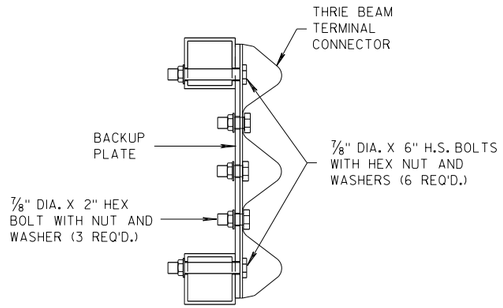
S.D.D. 14 B 45-5f

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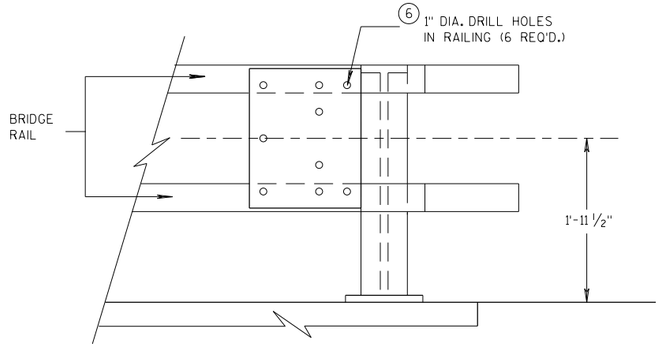
S.D.D. 14 B 45-5f



BACK-UP PLATE DETAIL



SECTION J-J

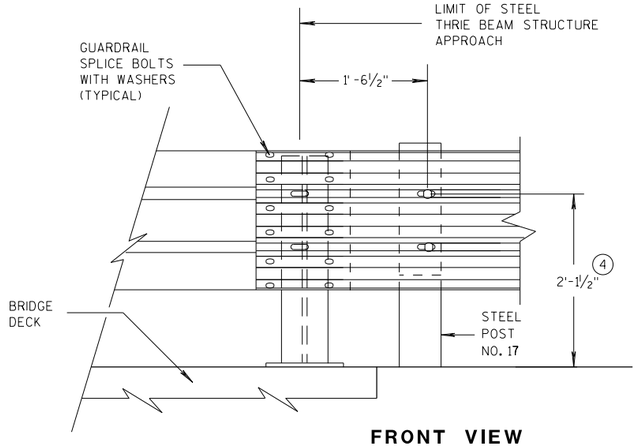


BACK-UP PLATE MOUNTING ONTO BRIDGE RAILING

GENERAL NOTES

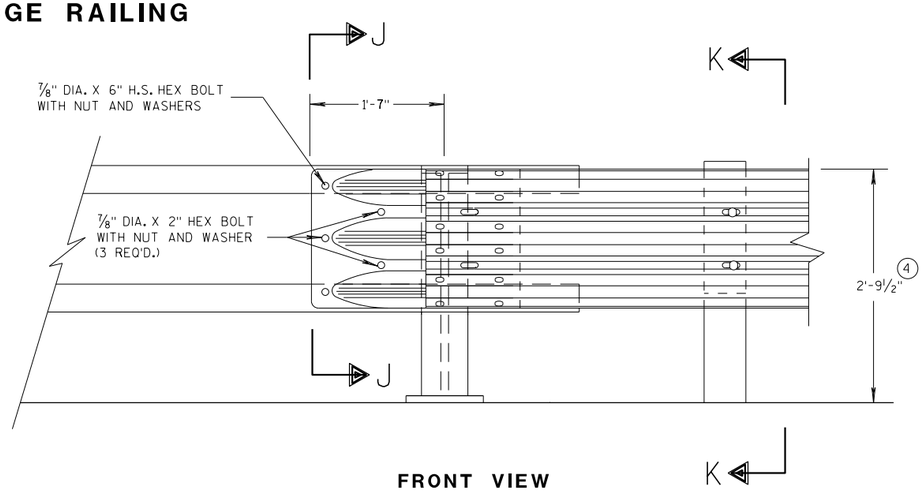
④ TOLERANCE FOR TOP OF BEAM IS ± 1".

⑥ DRILLING HOLES THROUGH THE PAPRPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

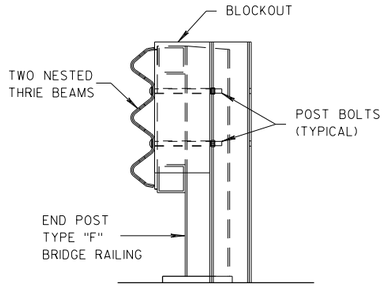


FRONT VIEW

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

/S/ Rodney Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

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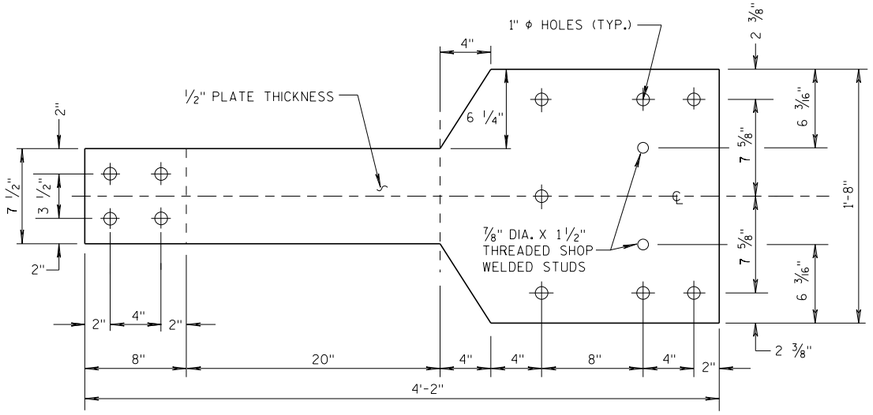
S.D.D. 14 B 45-5g

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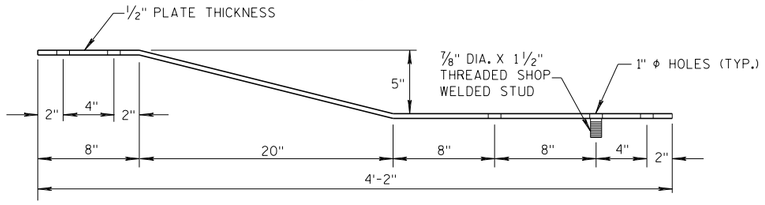
S.D.D. 14 B 45-5g

GENERAL NOTES

(4) TOLERANCE FOR TOP OF W-BEAM RAIL IS ± 1".

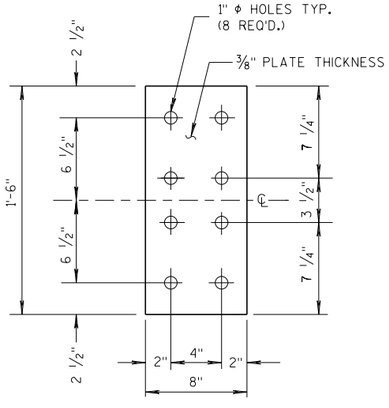


FRONT VIEW

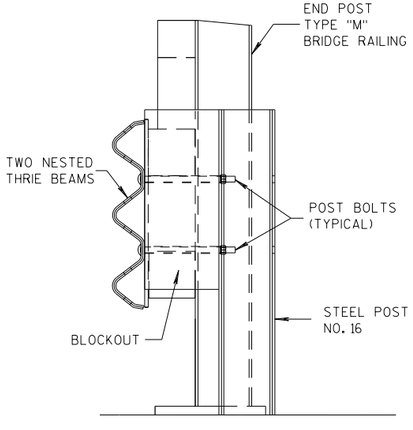


PLAN VIEW

BACK-UP PLATE DETAIL, TYPE "M"

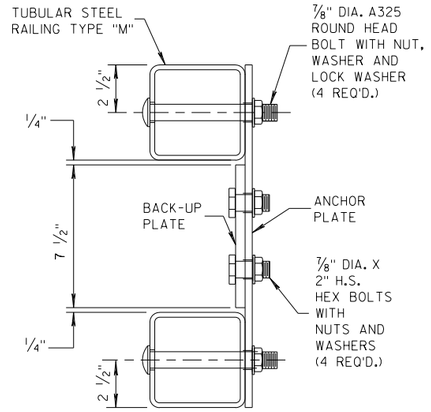


FRONT VIEW

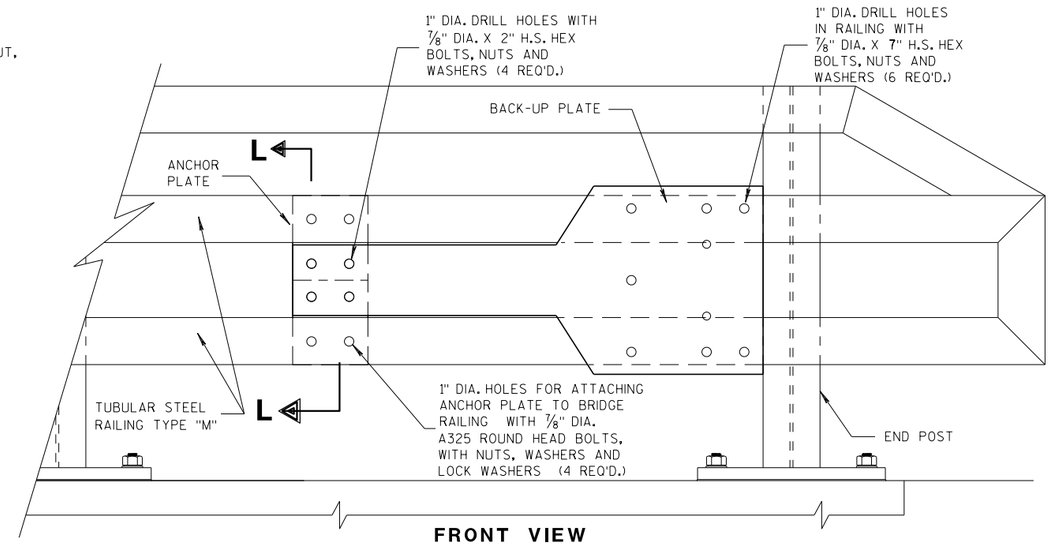


SECTION M-M

ANCHOR PLATE DETAIL, TYPE "M"

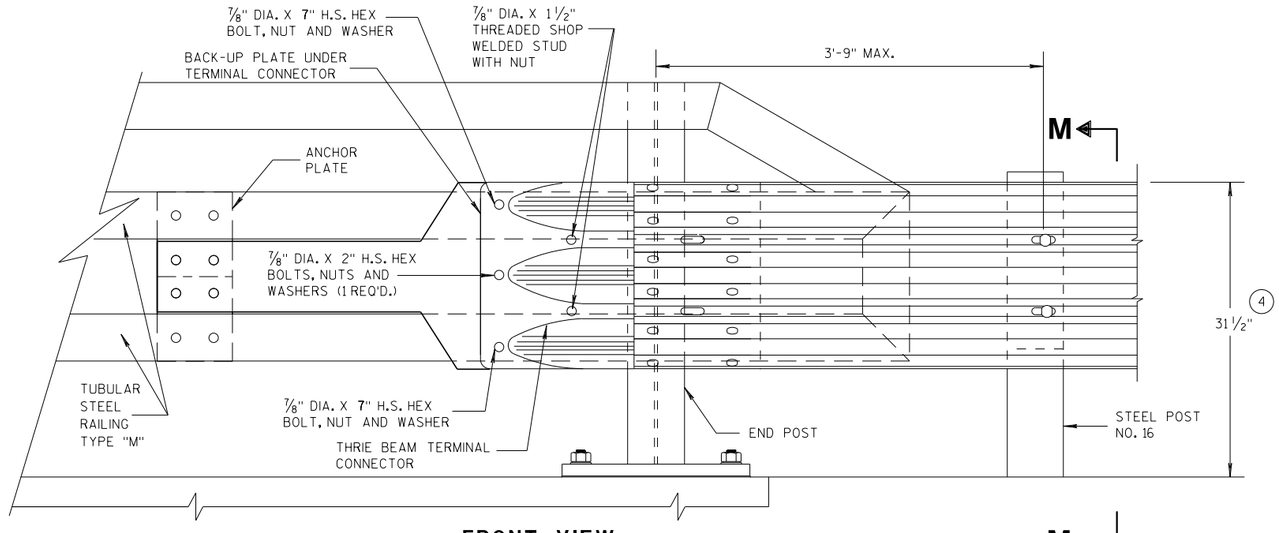


SECTION L-L

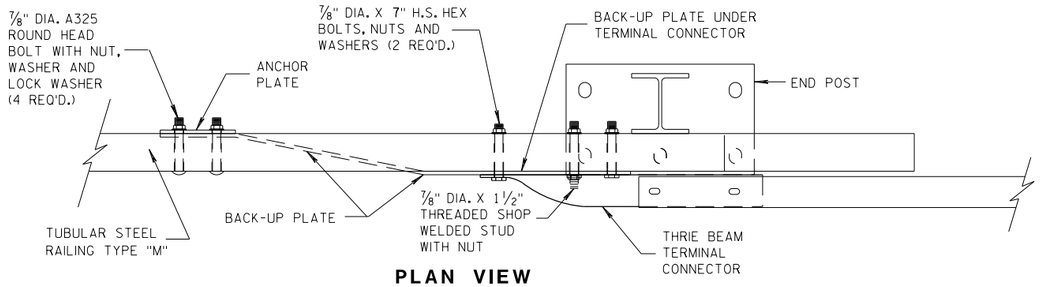


FRONT VIEW

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

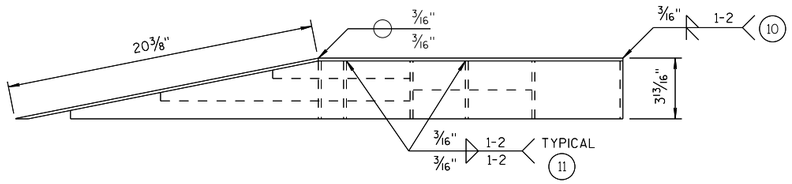
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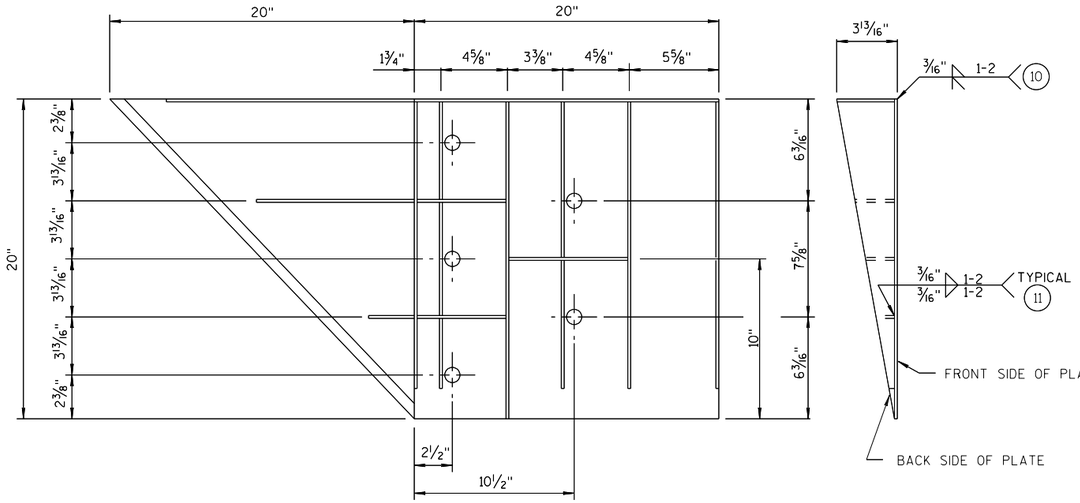
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S.D.D. 14 B 45-5h

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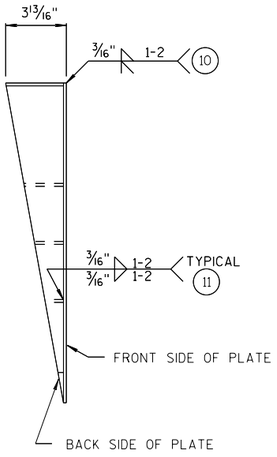
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WELDING INSTRUCTION

(VIEWED FROM BACK SIDE OF PLATE)



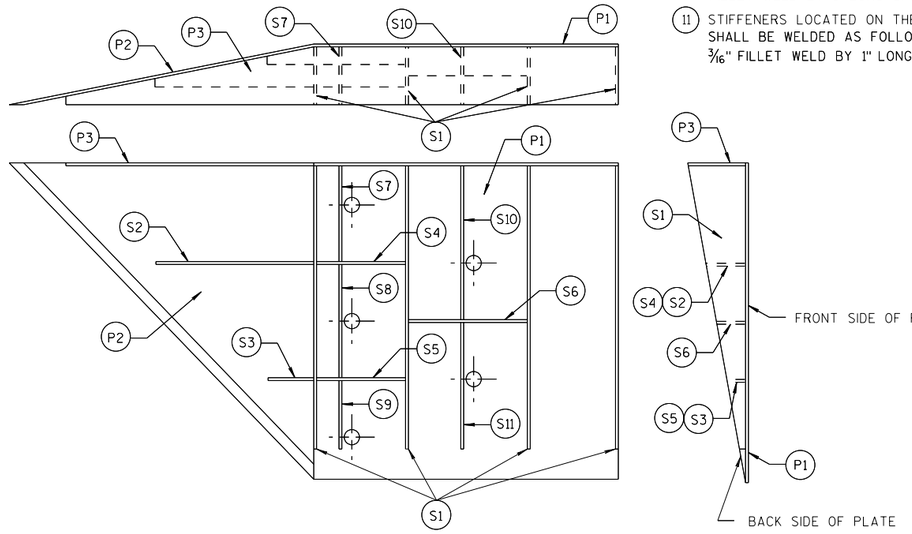


PLATE AND STIFFENER IDENTIFICATION

(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)

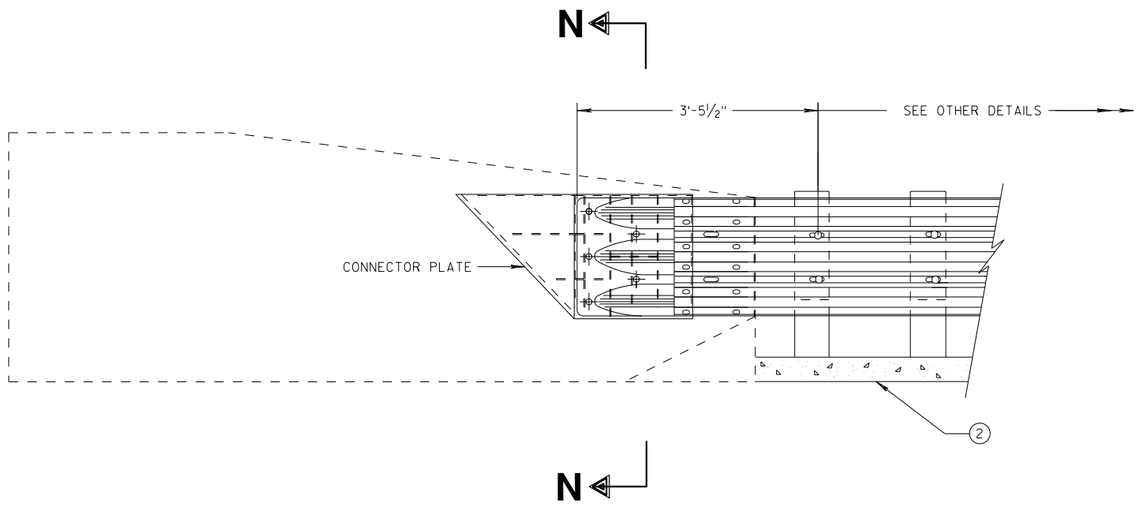
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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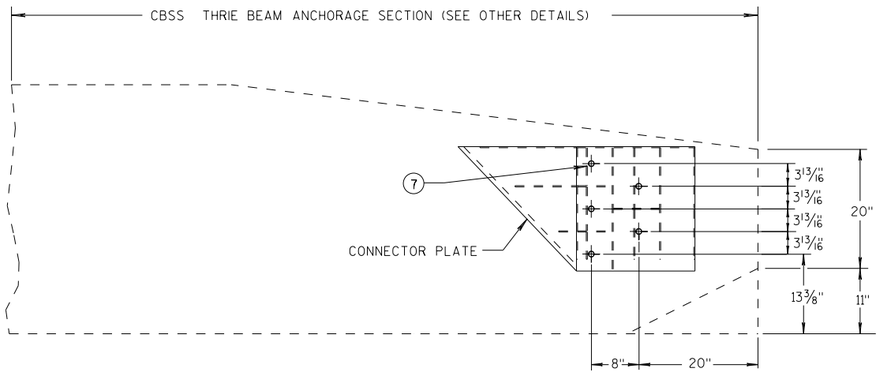
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S.D.D. 14 B 45-5i



THRIE BEAM CONNECTION TO SINGLE SLOPE BARRIER



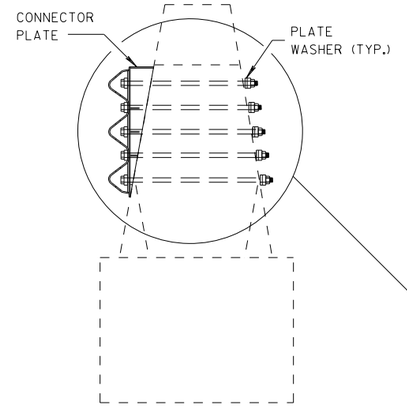
SINGLE SLOPE CONNECTION PLATE PLACEMENT

GENERAL NOTES

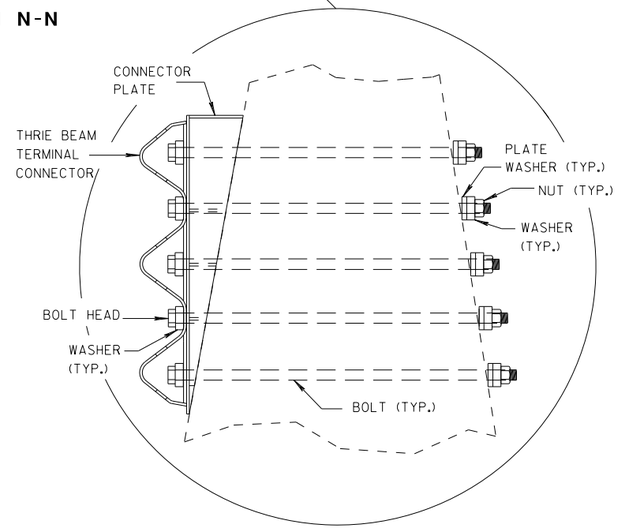
CONNECTOR PLATE, DRILLING BOLT HOLES THROUGH THE PARAPET, BOLTS, NUTS, WASHERS AND REPAIRING DAMAGED CONCRETE ARE INCIDENTAL TO THE CONTRACT.

(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 ⅝" THICK AND ONE PLATE WASHER. REPAIR ANY DAMAGED CONCRETE FROM BOLT INSTALLATION.



SECTION N-N



MIDWEST GUARDRAIL SYSTEM
THRIE BEAM TRANSITION (MGS)

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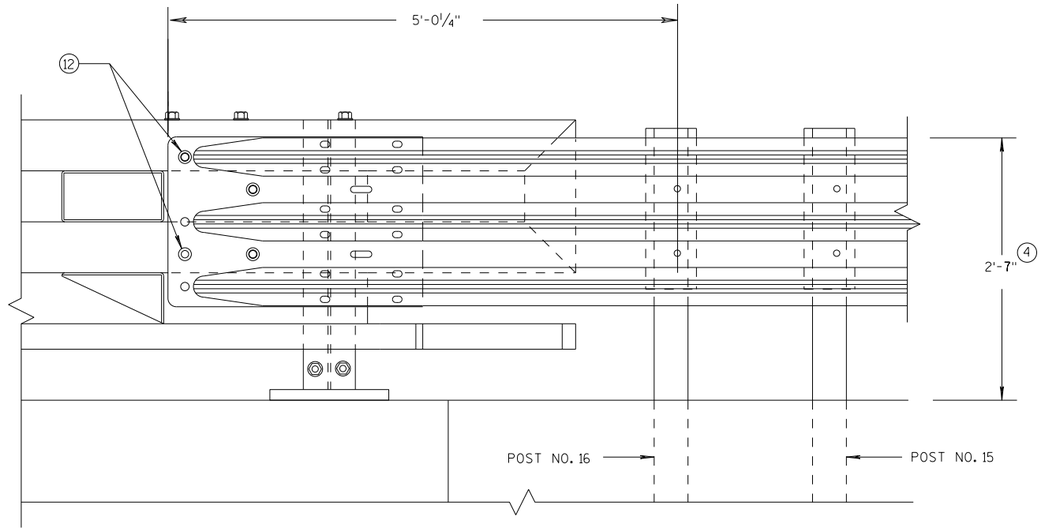
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ROADWAY STANDARDS DI
UNIT SUPERVIS

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S.D.D. 14 B 45-5j

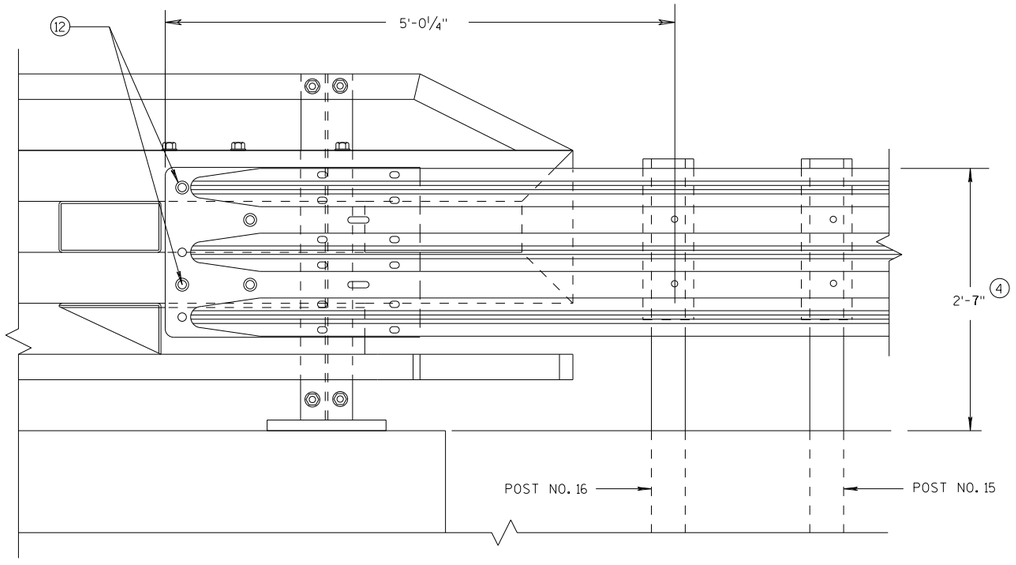
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S.D.D. 14 B 45-5j



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
DEPARTMENT OF TRANSPORTATION

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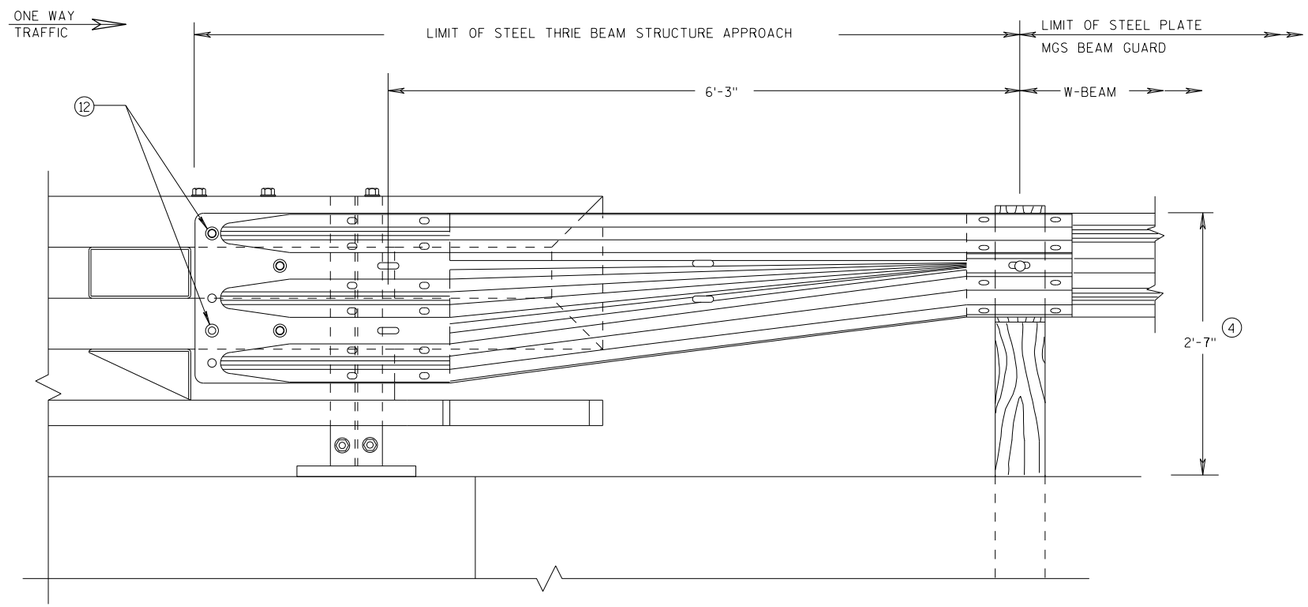
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S.D.D. 14 B 45-5k

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S.D.D. 14 B 45-5k



FRONT VIEW

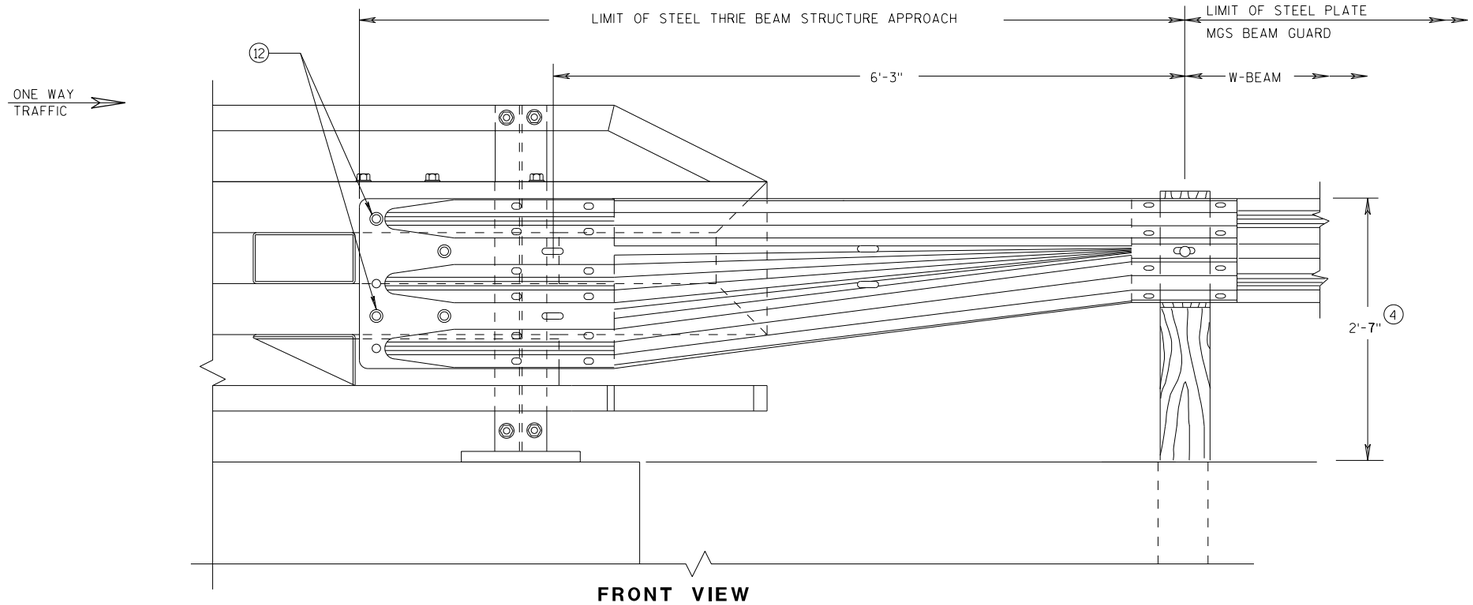
W BEAM TRANSITION AND CONNECTION TO BRIDGE RAILING TYPE "NY3"

(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

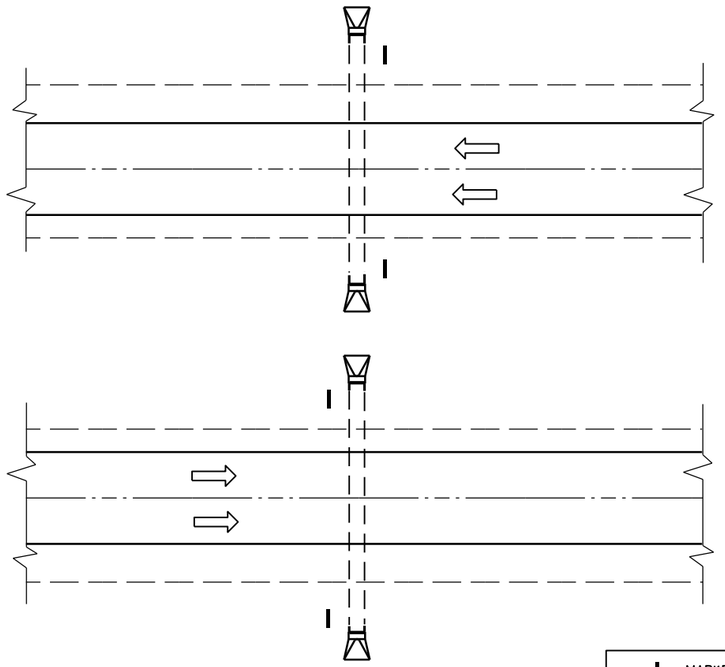
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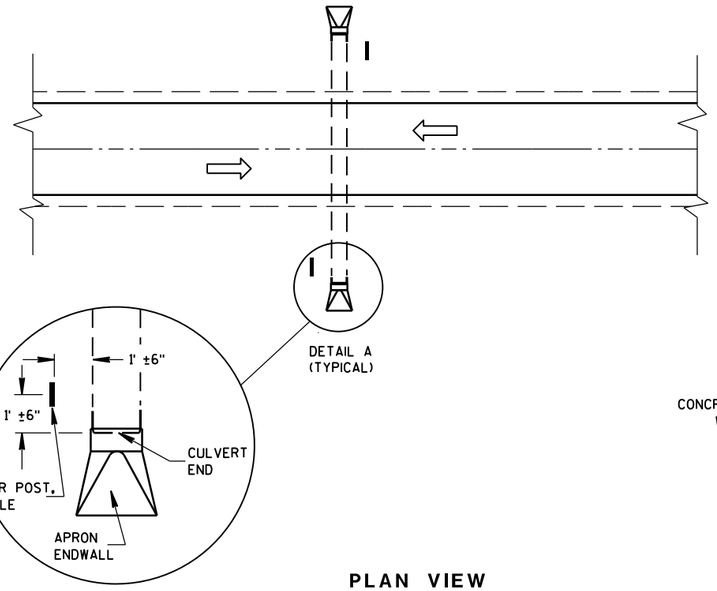
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S.D.D. 14 B 45-5L



PLAN VIEW

DIVIDED HIGHWAY



DETAIL A
(TYPICAL)

PLAN VIEW

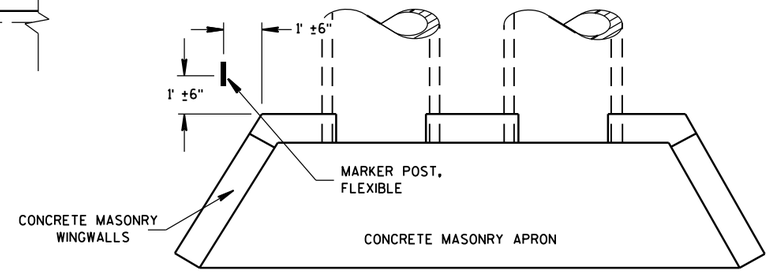
UNDIVIDED HIGHWAY

MARKER POST, FLEXIBLE

DIRECTION OF TRAFFIC FLOW

GENERAL NOTES

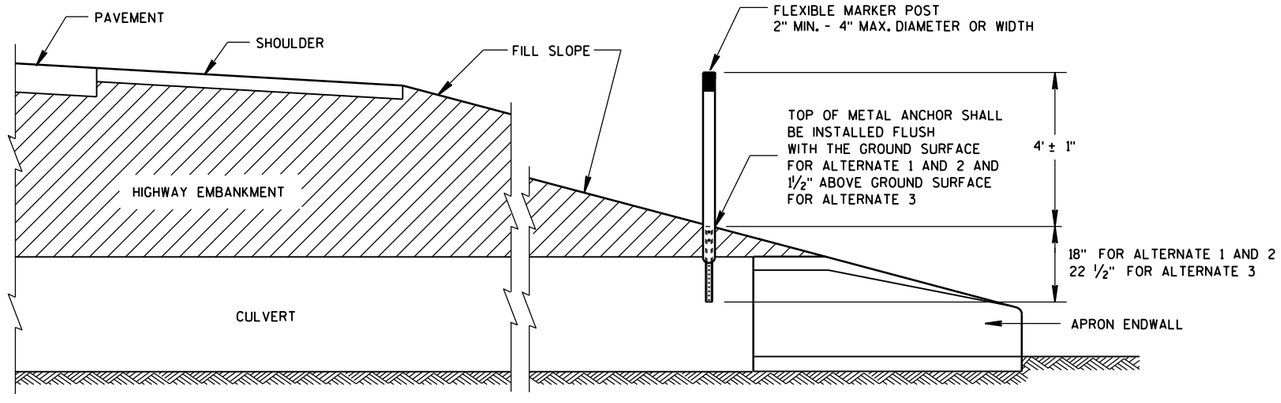
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.



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

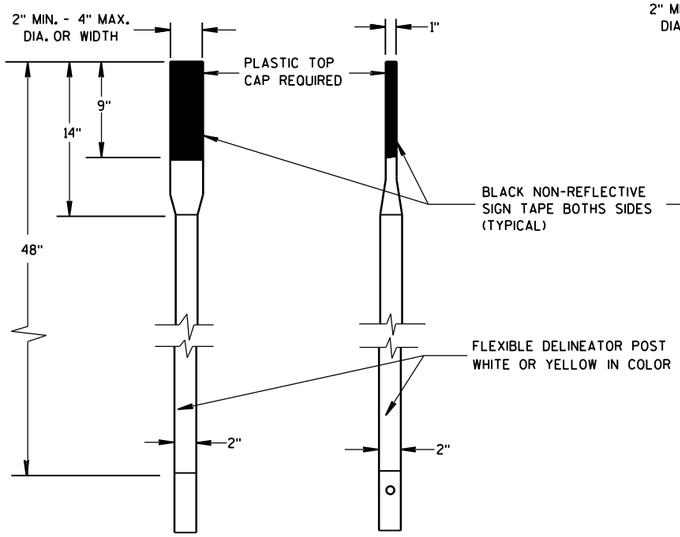
STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

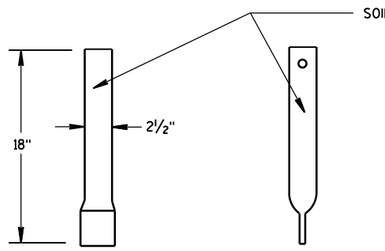
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S.D.D. 15 A 3-2a

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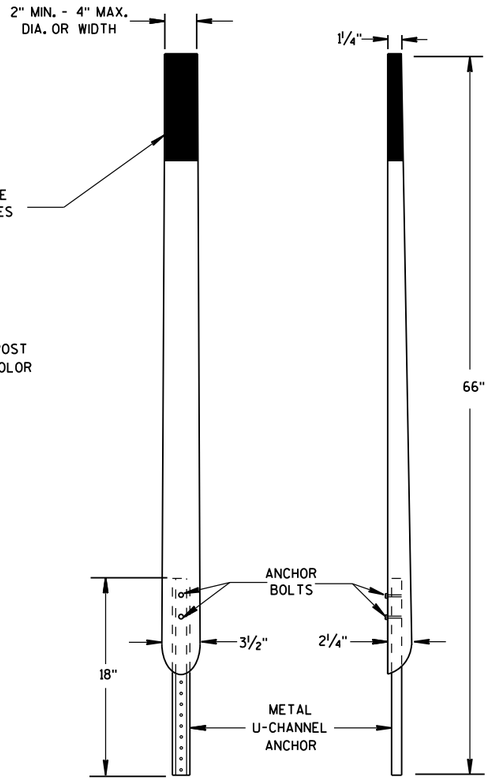
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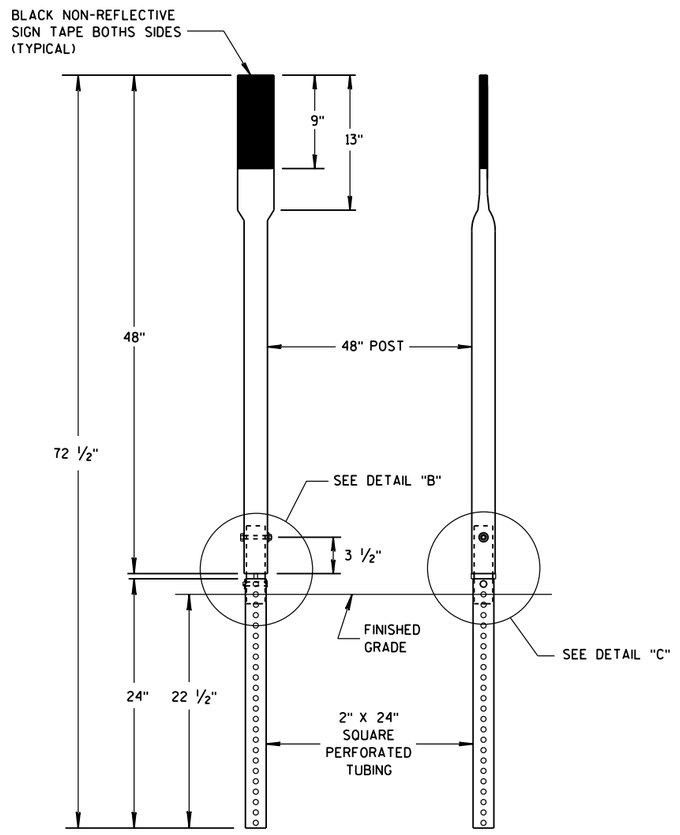
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

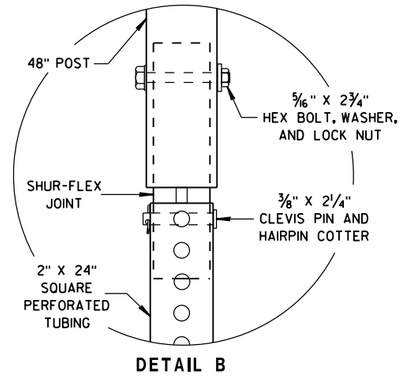
ALTERNATE 2



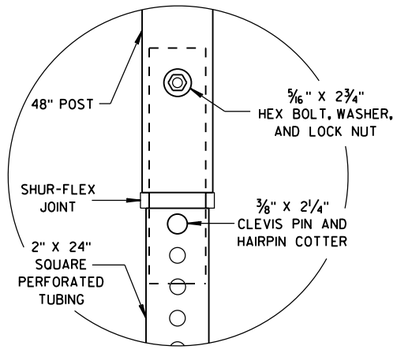
FRONT VIEW SIDE VIEW

ALTERNATE 3

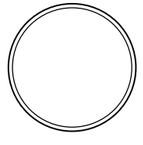
FLEXIBLE MARKER POSTS



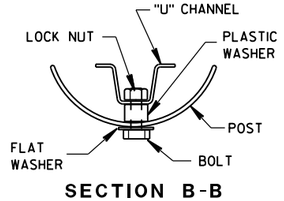
DETAIL B



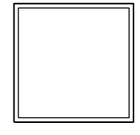
DETAIL C



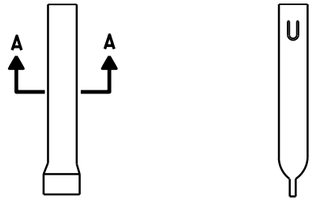
SECTION A-A



SECTION B-B

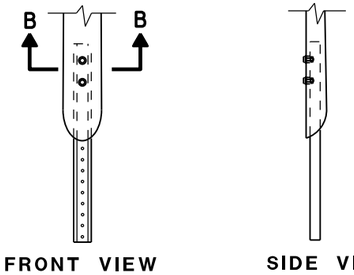


SECTION C-C



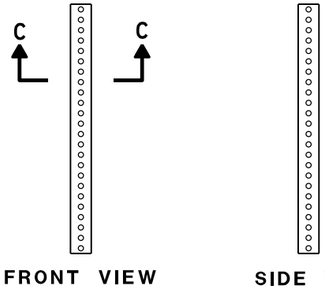
FRONT VIEW SIDE VIEW

ALTERNATE 1



FRONT VIEW SIDE VIEW

ALTERNATE 2



FRONT VIEW SIDE VIEW

ALTERNATE 3

FLEXIBLE MARKER POST ANCHORS

FLEXIBLE MARKER POST
FOR CULVERT END

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

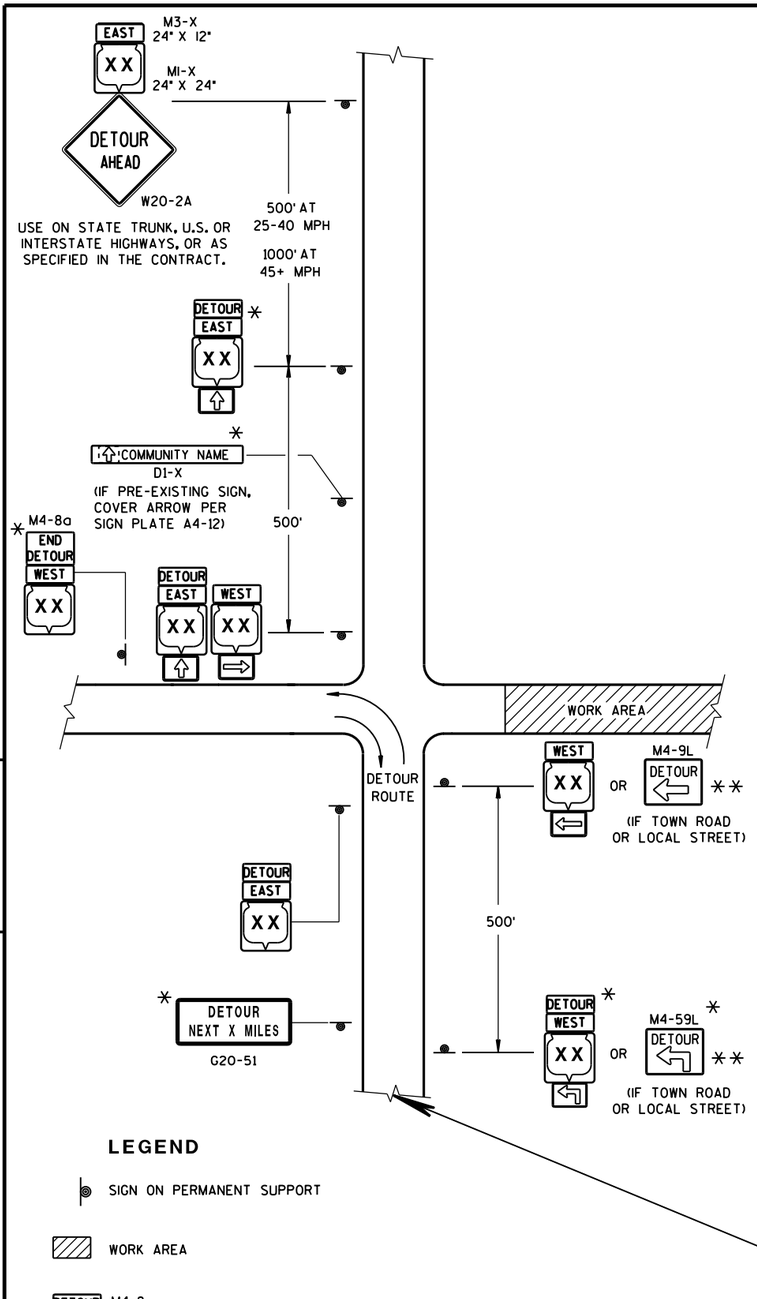
APPROVED
10/1/2012 — DATE
/S/ Travis Feltes — STATE TRAFFIC ENGINEER
FHWA

6

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

6

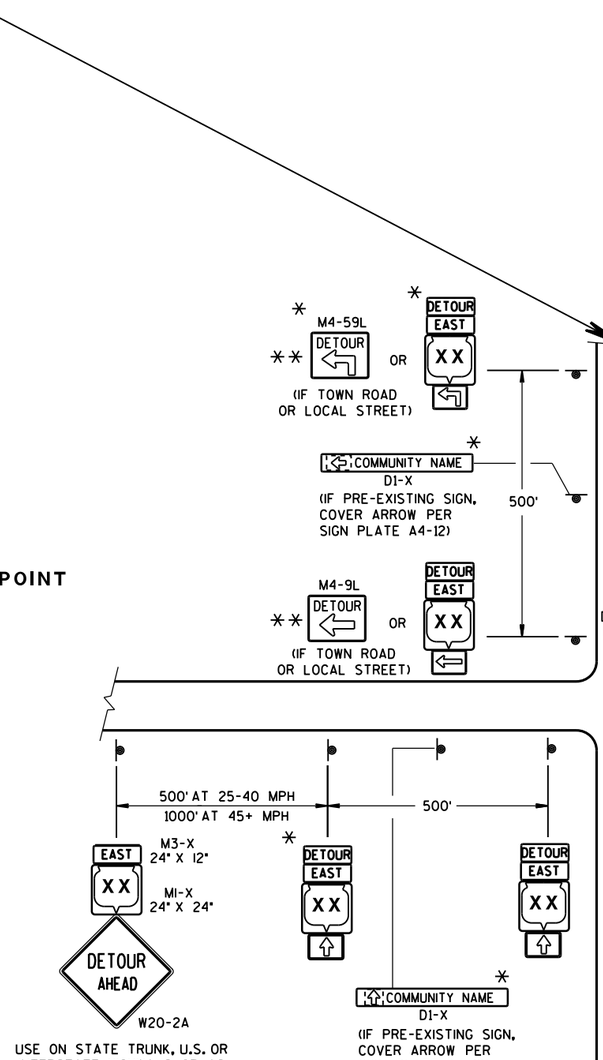
S.D.D. 15 A 3-2b

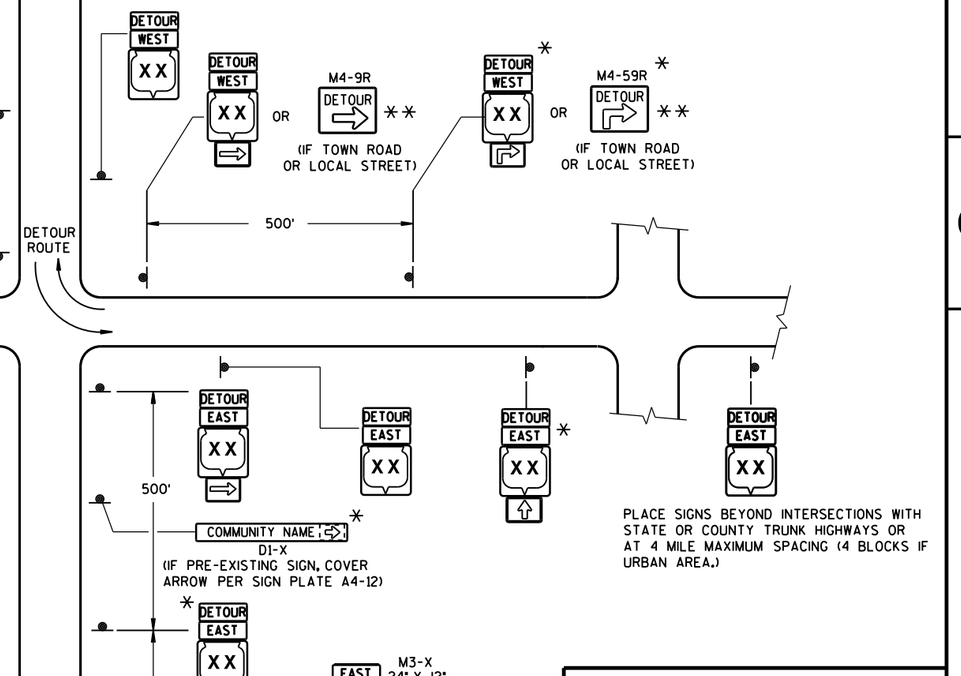


SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS AND DETAIL A OR B ON SDD 15C2-SHEET "a"

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

MATCH POINT





GENERAL NOTES

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

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

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

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

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

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

SIGN SIZES SHALL BE AS FOLLOWS:

- M3-X SHALL BE 24" X 12". (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-8 SHALL BE 24" X 12". (30" X 15" IF NEEDED TO MATCH EXISTING SIGNS.)
- M1-4, M1-5A, AND M1-6 SHALL BE 24" X 24". (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS.)
- MO5-1 AND MO6-1 SHALL BE 21" X 21". (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS.)
- M4-9 SHALL BE 30" X 24".
- M4-8a SHALL BE 24" X 18".
- G20-51 SHALL BE 60" X 24".
- W20-2 SHALL BE 48" X 48".
- D1-X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.

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

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

DETAIL F

DETOUR SIGNING

DETOUR SIGNING FOR MAINLINE CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept. 2015
DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO SAFETY ENGI

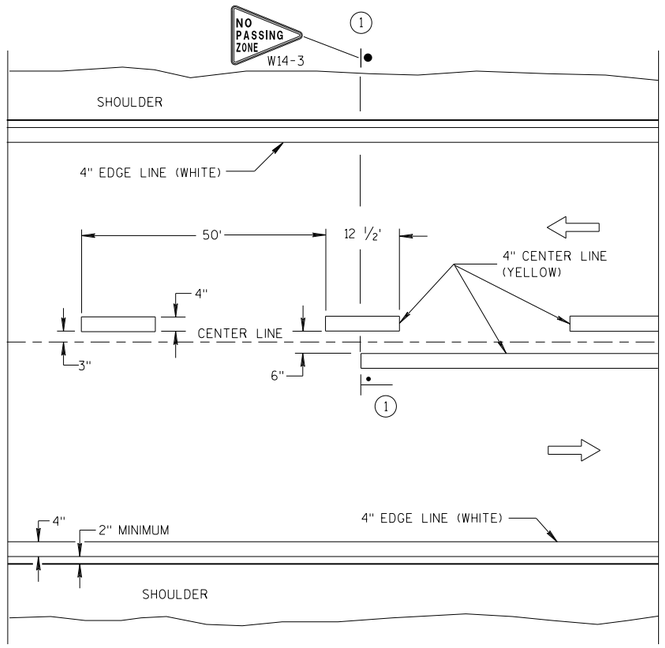
FHWA

6

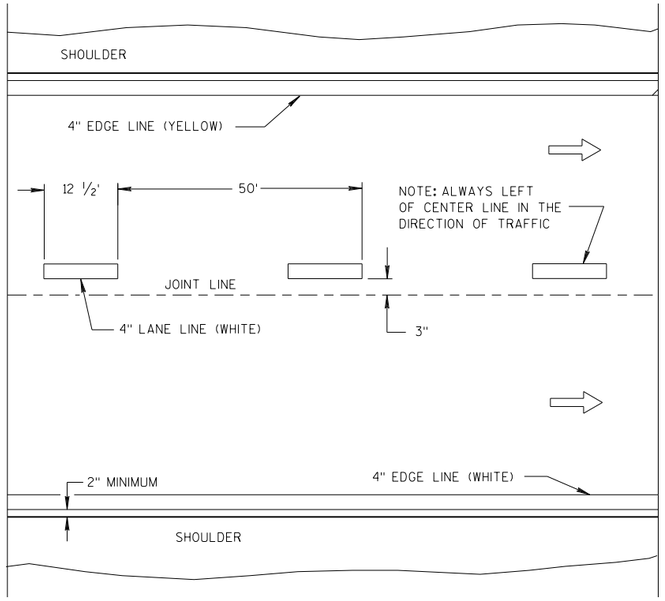
S.D.D. 15 C 2-6c

6

S.D.D. 15 C 2-6c



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

GENERAL NOTES

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

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

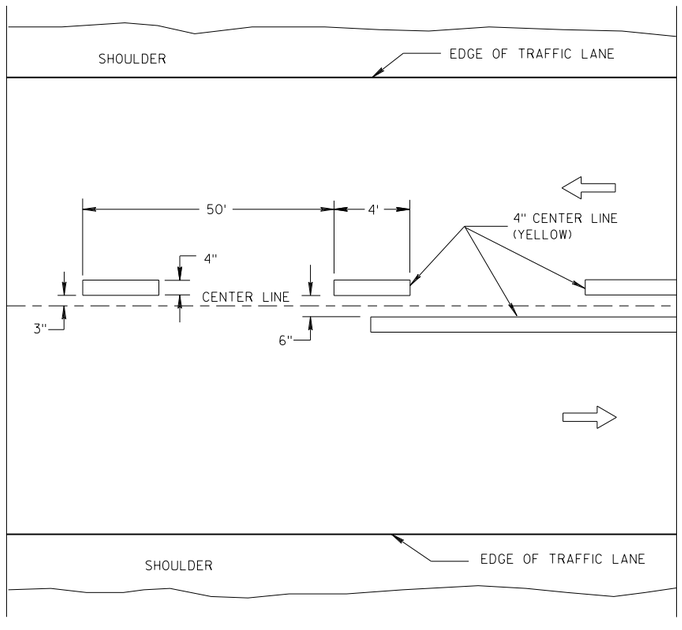
NOTE

ARROW SYMBOL (⇨) SHOWS DIRECTION OF TRAVEL

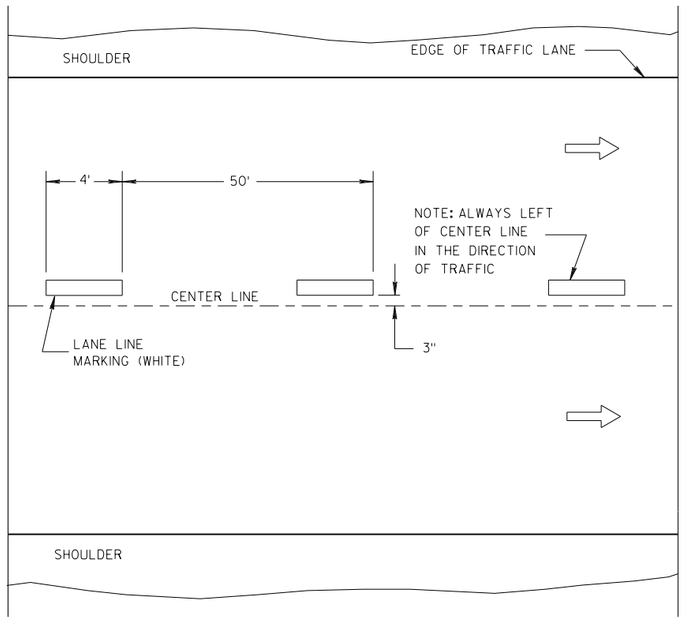
LEGEND

"T" MARKING

POST MOUNTED SIGN



TWO WAY TRAFFIC



ONE WAY TRAFFIC

TEMPORARY PAVEMENT MARKING

LONGITUDINAL MARKING (MAINLINE)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

7/2018 DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

FHWA

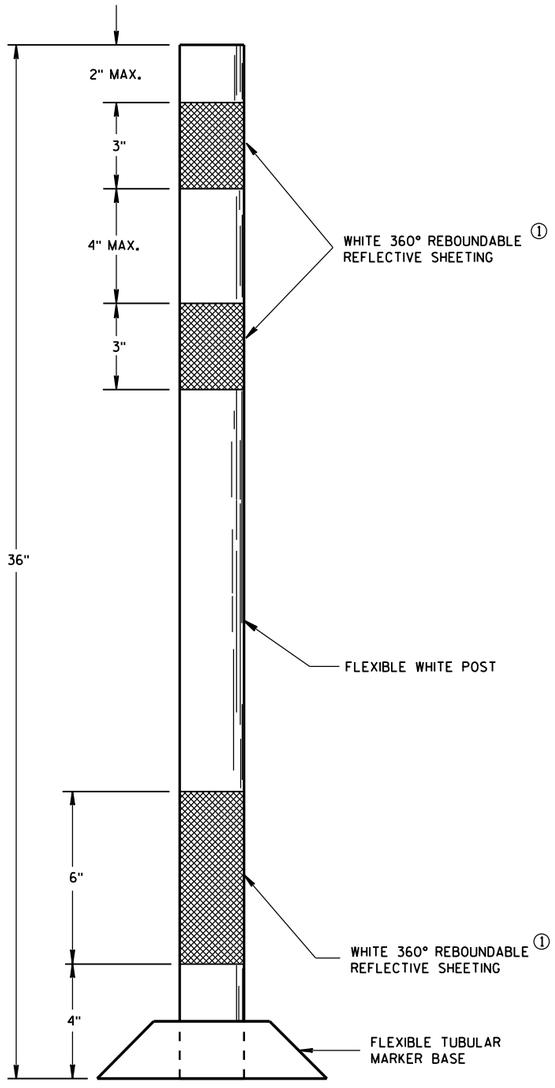
250

6

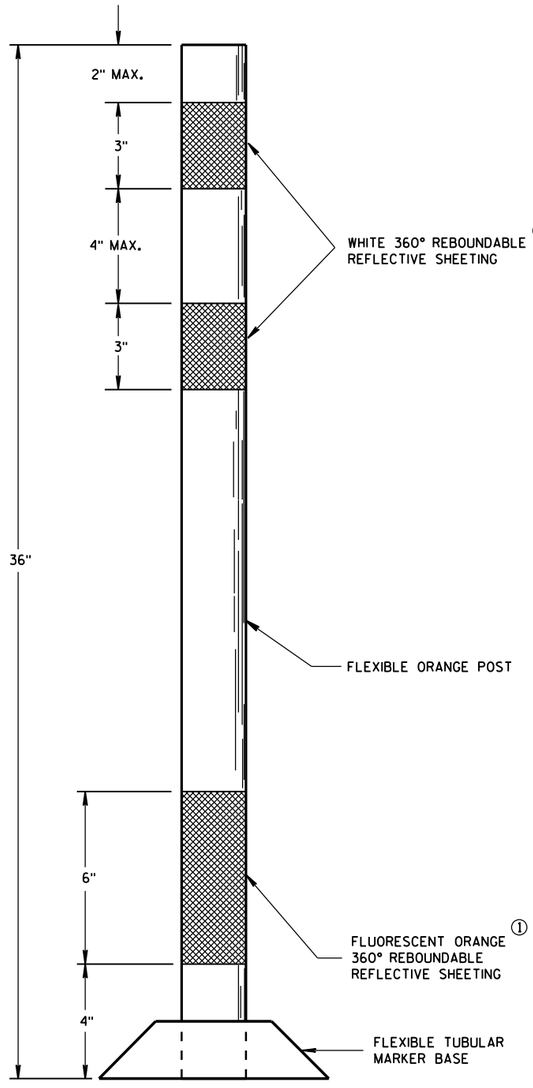
S.D.D. 15 C 8-19a

6

S.D.D. 15 C 8-19a



FLEXIBLE
TUBULAR MARKER POST
PERMANENT CROSSOVER



FLEXIBLE
TUBULAR MARKER POST
WORK ZONE

GENERAL NOTES

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

SURFACE MOUNTED BASES SHALL BE FURNISHED IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS TO BE COMPATIBLE WITH FLEXIBLE TUBULAR MARKER POSTS TO A SIZE AND SHAPE THAT WILL PROVIDE A STABLE POST FOUNDATION WHEN SECURED TO THE PAVEMENT.

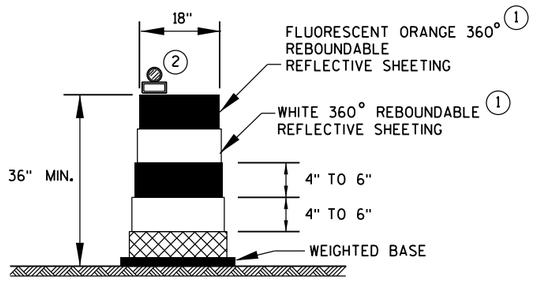
THE ASPHALTIC ADHESIVE OR BUTYL PAD FURNISHED SHALL BE IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS, UNLESS DIRECTED BY THE ENGINEER TO USE BOLTS.

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

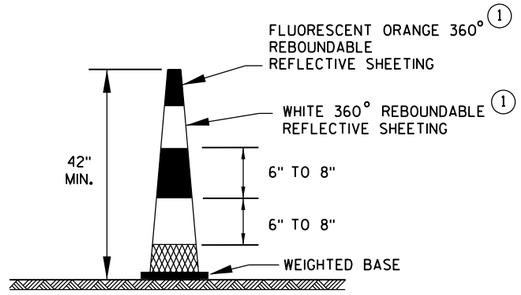
CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENGR
FHWA



DRUM

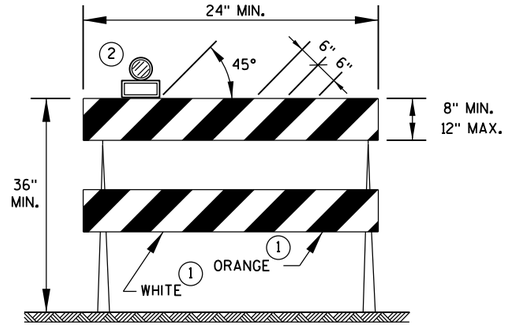


42" CONE

DO NOT USE IN TAPERS
1/2 SPACING OF DRUMS

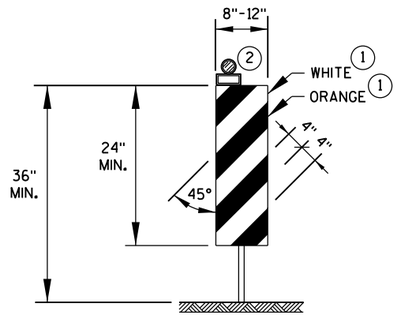
GENERAL NOTES

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



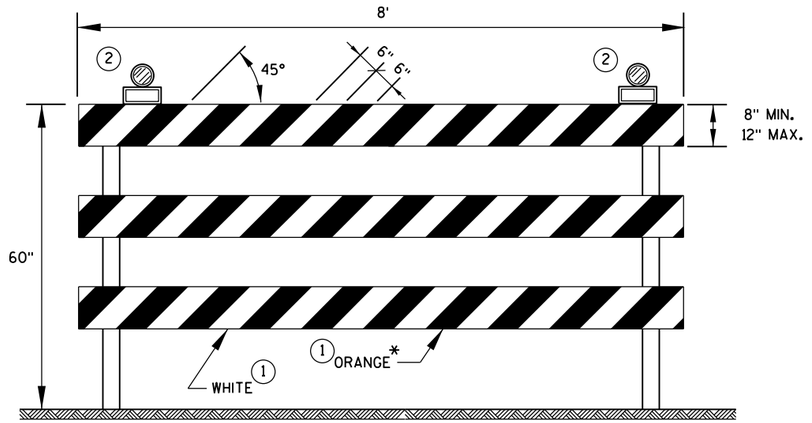
TYPE 2 BARRICADE

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



VERTICAL PANEL

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



TYPE 3 BARRICADE

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

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

CHANNELIZING DEVICES
DRUMS, CONES, BARRICADES
AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENG
FHWA

6

S.D.D. 15 C 11-7b

LEGEND

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

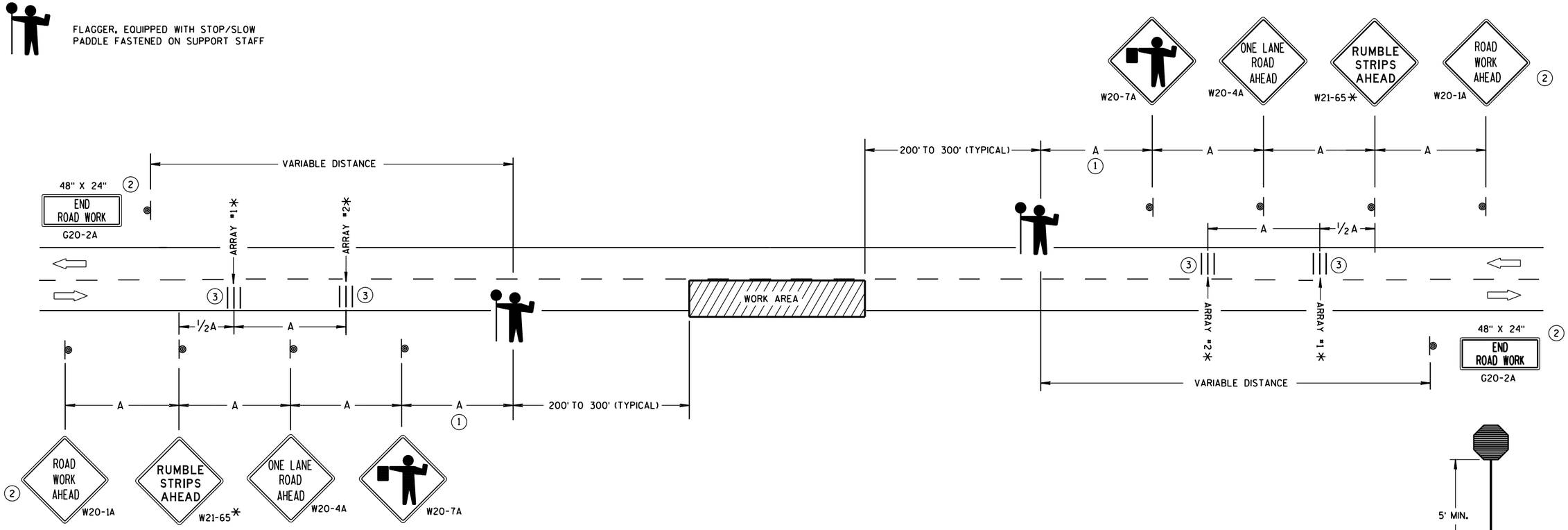
SIGN AND TEMPORARY RUMBLE STRIP ARRAY SPACING TABLE

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

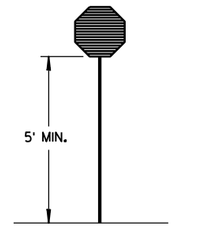


W03-4

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



TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION



STOP/SLOW PADDLE ON SUPPORT STAFF

GENERAL NOTES

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

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

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

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

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

INSTALL TEMPORARY RUMBLE STRIPS PER MANUFACTURER'S RECOMMENDATIONS.

PLACE ADVANCE SIGNING PRIOR TO INSTALLING TEMPORARY RUMBLE STRIPS.

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

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

* UTILIZE TEMPORARY RUMBLE STRIPS WHEN FLAGGING OPERATION IS ANTICIPATED TO BE STATIONARY IN EXCESS OF TWO HOURS.

(1) FOR A MOVING WORK OPERATION, SIGNING AND TEMPORARY RUMBLE STRIPS (IF USED) SHALL BE REESTABLISHED (AS SIMULTANEOUSLY AS PRACTICAL) AT APPROXIMATELY 3,500 FOOT INTERVALS IN THE MOVING WORK OPERATION OR AS APPROVED BY THE ENGINEER.

(2) SIGN NOT REQUIRED IF FLAGGING OPERATION OCCURS WITHIN A SIGNED ROAD WORK ZONE AREA.

(3) EACH TEMPORARY RUMBLE STRIP ARRAY CONSISTS OF THREE RUMBLE STRIPS SPACED ACCORDING TO MANUFACTURER'S RECOMMENDATION, PLACED TRANSVERSE ACROSS THE LANE AT LOCATIONS SHOWN.

TRAFFIC CONTROL FOR LANE CLOSURE WITH FLAGGING OPERATION

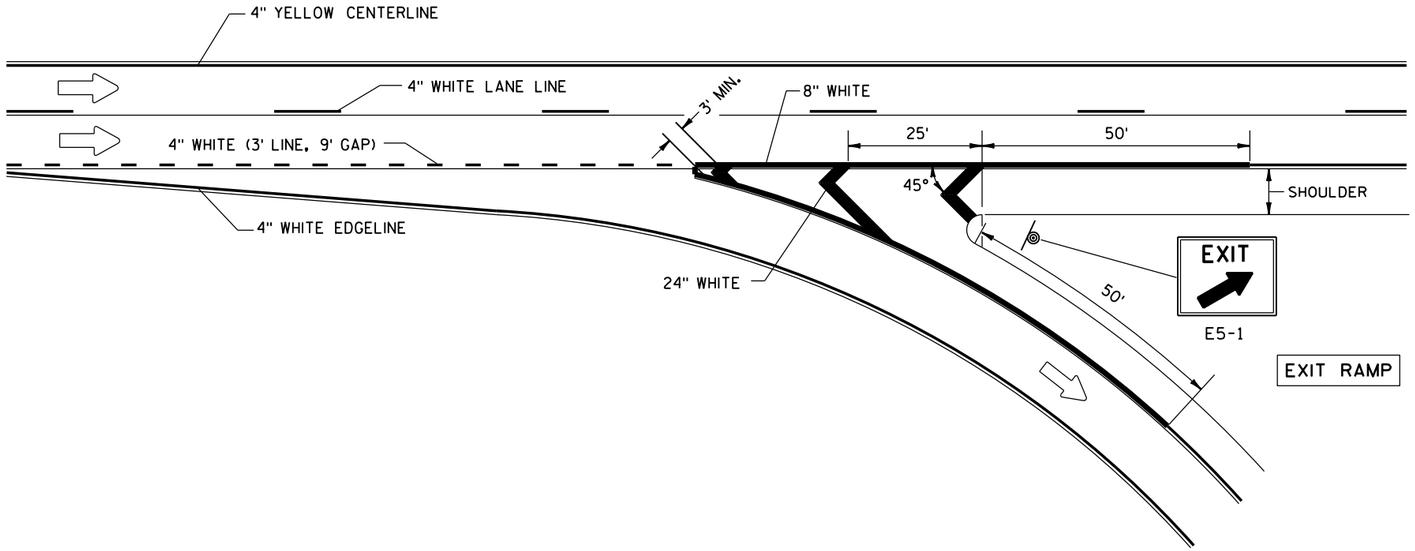
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
FHWA

6

S.D.D. 15 C 12-6

S.D.D. 15 C 12-6



PAVEMENT MARKING FOR EXIT RAMP

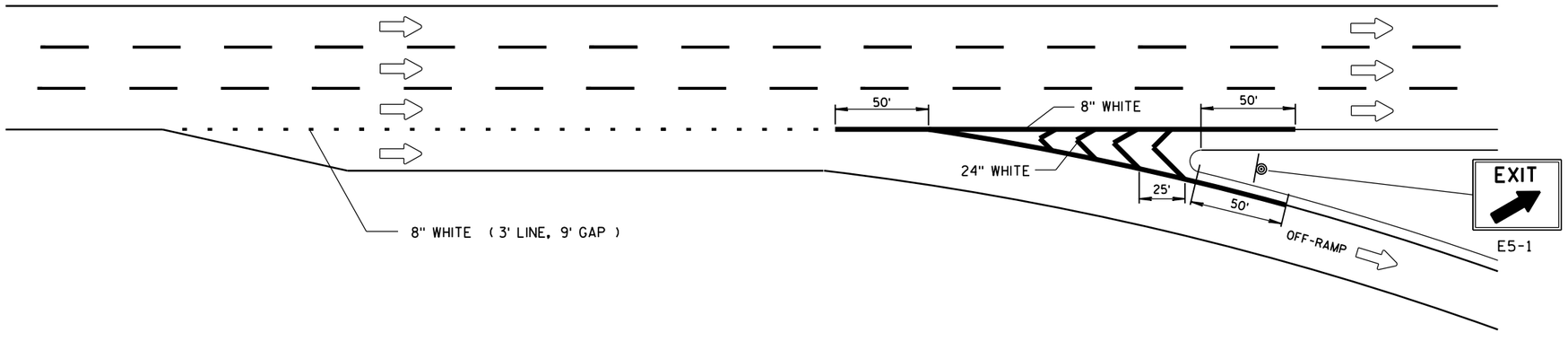
GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

LEGEND

DIRECTION OF TRAVEL

SIGN ON PERMANENT SUPPORT



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL EXIT-RAMP

6

6

S.D.D. 15 C 31-3a

S.D.D. 15 C 31-3a

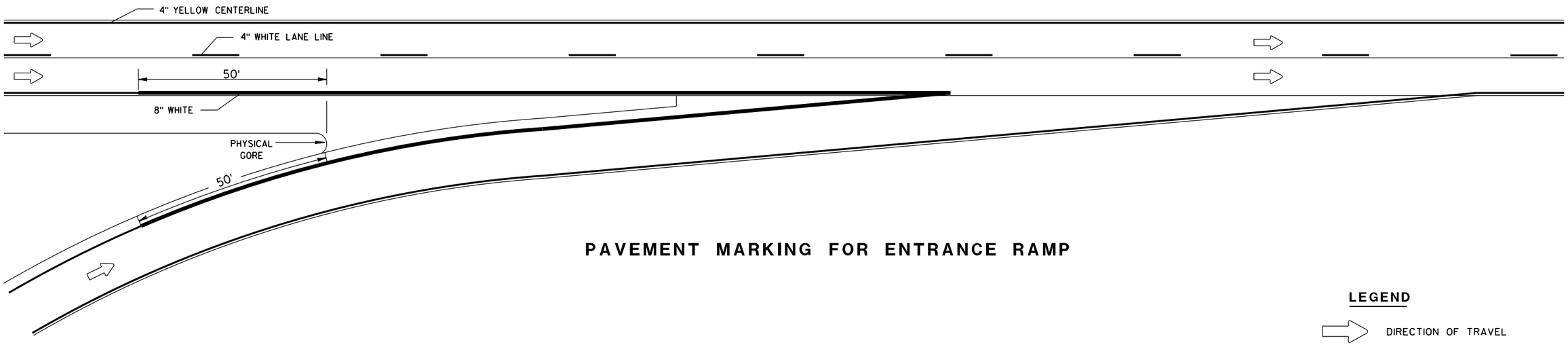
PAVEMENT MARKING (RAMPS AND GORES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOI

GENERAL NOTES

PLACE GROOVE 3 INCHES LEFT OF JOINT.

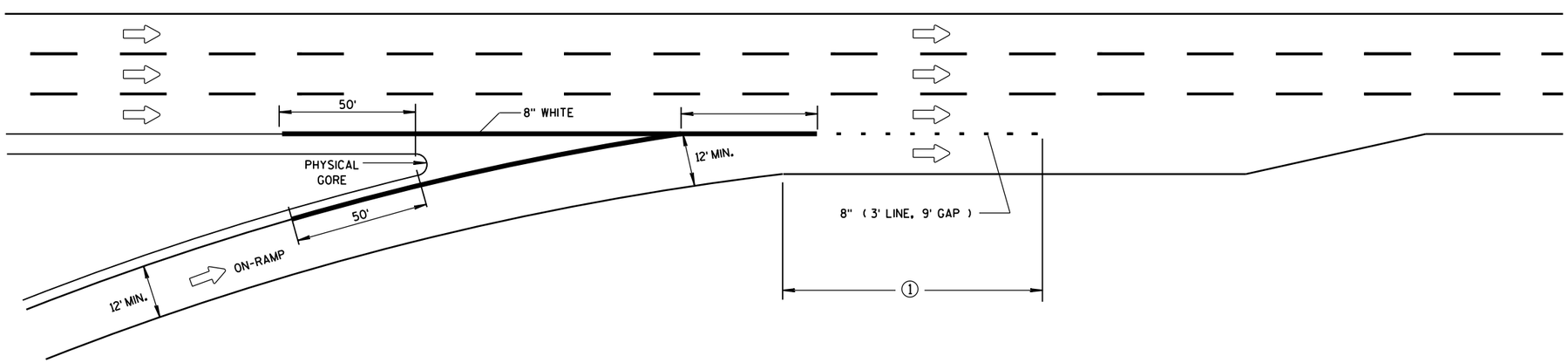
① ½ LENGTH OF FULL WIDTH ACCELERATION LANE.



PAVEMENT MARKING FOR ENTRANCE RAMP

LEGEND

DIRECTION OF TRAVEL



SERVICE INTERCHANGE PAVEMENT MARKING FOR PARALLEL ENTRANCE-RAMP

PAVEMENT MARKING FOR PARALLEL ON-RAMP AND PARALLEL OFF-RAMP

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

Sept., 2017
DATE

/S/ Matthew R. Rauch
STATE SIGNING AND MARKING ENGINEER

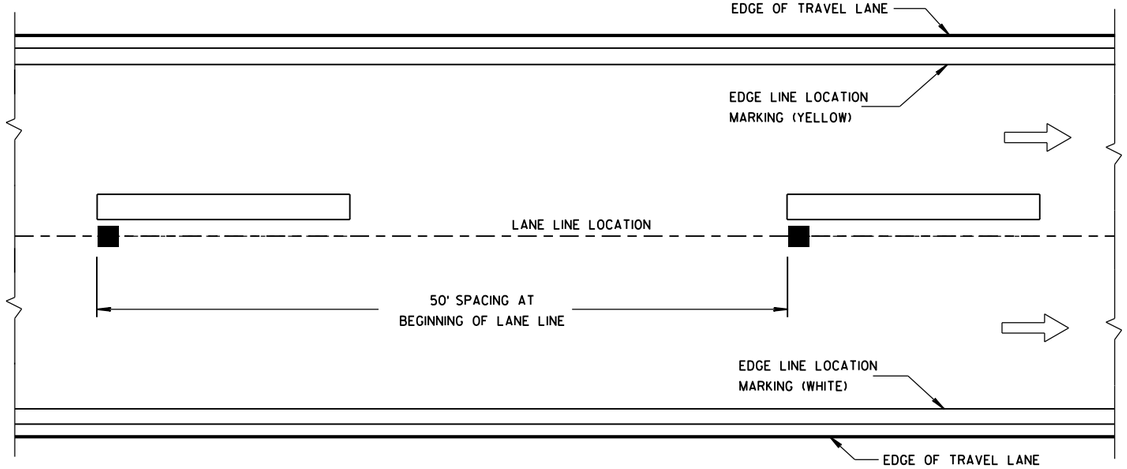
FHWA

6

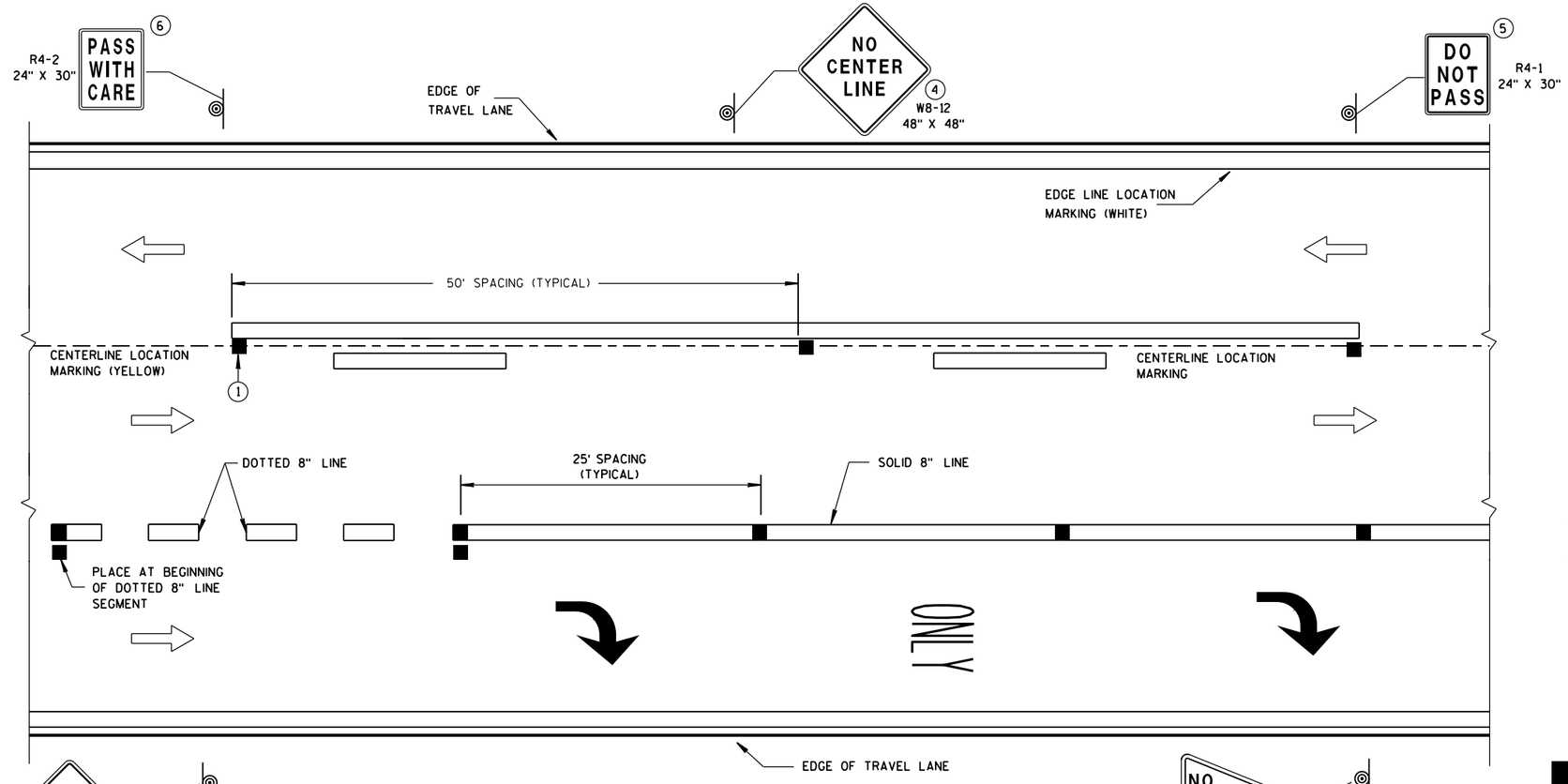
S.D.D. 15 C 31-3c

6

S.D.D. 15 C 31-3c



LONGITUDINAL PLACEMENT 4-INCH LANE LINE



LONGITUDINAL PLACEMENT 4-INCH CENTERLINE AND 8-INCH CHANNEL LINE

GENERAL NOTES

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

COLOR OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II SHALL MATCH THE COLOR OF THE MARKING THEY SUPPLEMENT.

PLACEMENT OF TEMPORARY RAISED PAVEMENT MARKERS ON EDGE LINES ARE OPTIONAL. IF PLACED ON EDGE LINES, MAXIMUM SPACING SHALL BE 50 FEET.

PROVIDE SINGLE OR MULTI-COVER TEMPORARY RAISED PAVEMENT MARKERS AS SHOWN ON PLAN.

MARK T's ON PAVEMENT FOR RE-ESTABLISHING NO PASSING ZONES.

SAME DAY TEMPORARY PAVEMENT MARKING MAY BE USED IN LIEU OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II.

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

IF TEMPORARY SAME DAY PAVEMENT MARKING IS USED, ENSURE PROPOSED PAVEMENT MARKINGS ARE PLACED IN THE EXACT LOCATIONS AS THE EXISTING MARKINGS, USING A MINIMAL AMOUNT OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II OR OTHER METHODS AS APPROVED BY THE ENGINEER.

IF ROADWAY IS DETOURED DURING CONSTRUCTION, THE DO NOT PASS, PASS WITH CARE AND NO CENTERLINE SIGNS MAY BE OMITTED, PROVIDED A LIQUID MARKING IS INSTALLED BEFORE THE ROADWAY IS REOPENED TO TRAFFIC.

(1) FOR DOUBLE SOLID YELLOW, PLACE THE MARKERS BETWEEN THE LINES.

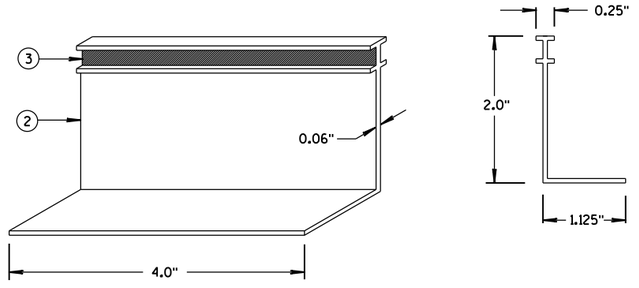
(2) MARKERS SHALL BE OF POLYURETHANE MATERIAL.

(3) MARKERS SHALL HAVE A MINIMUM SIZE REFLECTIVE SURFACE OF 4 INCH WIDTH X 0.25 INCH HEIGHT.

(4) NO CENTER LINE SIGNS SHALL BE PLACED AT THE BEGINNING OF PROJECT, AT TWO-MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS.

(5) DO NOT PASS SIGNS SHALL BE INSTALLED AT THE BEGINNING OF NO PASSING ZONES. ADDITIONAL DO NOT PASS SIGNS SHALL BE INSTALLED AT ONE MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS WITHIN THE NO PASSING ZONE.

(6) PASS WITH CARE SIGNS SHALL BE PLACED AT THE DOWNSTREAM END OF NO PASSING ZONES.



ISOMETRIC VIEW

SIDE VIEW

TEMPORARY RAISED PAVEMENT MARKER, TYPE II

LEGEND

- TEMPORARY RAISED PAVEMENT MARKER, TYPE II
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAVEL

STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKERS, TYPE II

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6-2017 /S/ Matthew R. Rauch
DATE STATE SIGNING AND MAR ENGINEER
FHWA

6

S.D.D. 15 C 34-3

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- FLASHING ARROW BOARD
- REMOVING PAVEMENT MARKING
- CONCRETE BARRIER TEMPORARY PRECAST
- DIRECTION OF TRAFFIC
- WORK AREA

L, TAPER LENGTH (MPH)							
SPEED (MPH)	W, LATERAL OFFSET (FT)						
	10	11	12	13	14	15	16
45	450	495	540	585	630	675	720
50	500	550	600	650	700	750	800
55	550	605	660	715	770	825	880
60	600	660	720	780	840	900	960
65	650	715	780	845	910	975	1040
70	700	770	840	910	980	1050	1120



INSTALL ON EACH APPROACH AT THE CLOSEST INTERSECTION WITH A STATE OR COUNTY TRUNK HIGHWAY, OR AS DIRECTED BY THE ENGINEER. WIDTH ON SIGN TO BE APPROX. 1 FOOT LESS THAN AVAILABLE WIDTH (OMIT IF AVAILABLE WIDTH IS MORE THAN 16 FEET).



OR



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



OR



R2-1
48"x60"
(BLACK AND WHITE)
LOCATED 500 FEET BEYOND W20-5G SIGN.

IF THE REGULATORY SPEED HAS BEEN REDUCED, A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES.

* INCLUDE RESUME SPEED LIMIT SIGN A MINIMUM OF 200 FEET (500 FEET DESIRABLE) AFTER END ROAD WORK SIGNS.

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

"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.

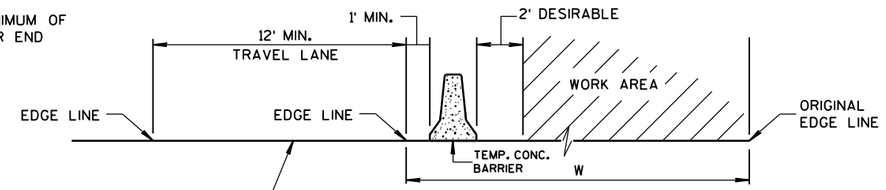
(1) CONSIDER ROADWAY GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARD SO THE DRIVER HAS A CLEAR VIEW OF THE ARROW BOARD AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF DRUM TAPER.

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

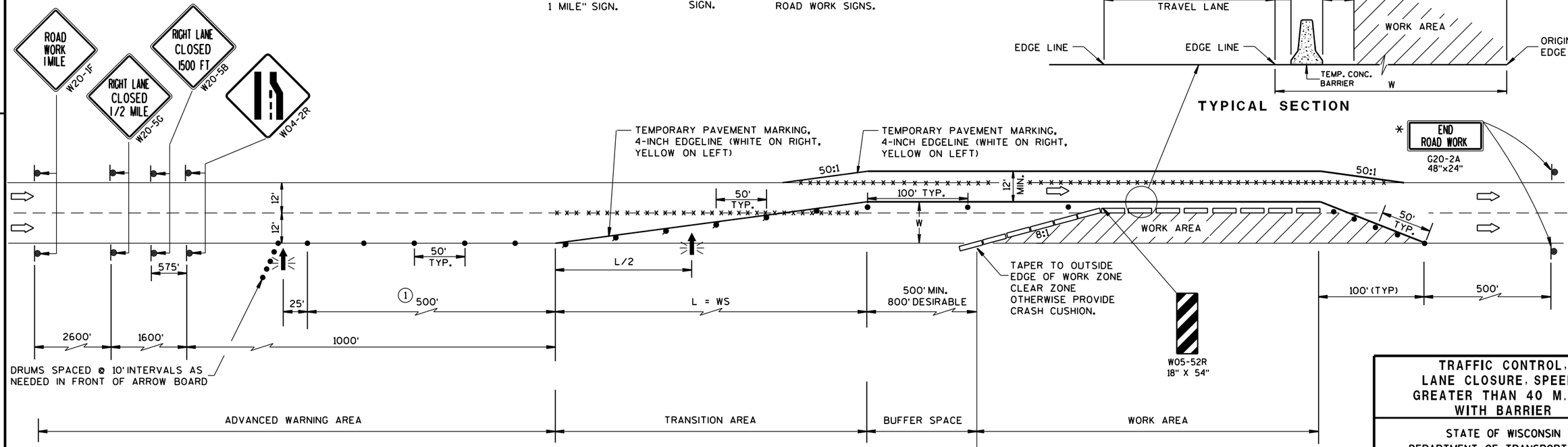
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

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



TYPICAL SECTION



TRAFFIC CONTROL, LANE CLOSURE, SPEEDS GREATER THAN 40 M.P.H. WITH BARRIER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZOI SAFETY ENGIN
257
IC
FHWA

6

S.D.D. 15 D 3-4

6

S.D.D. 15 D 3-4

LEGEND

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

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

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

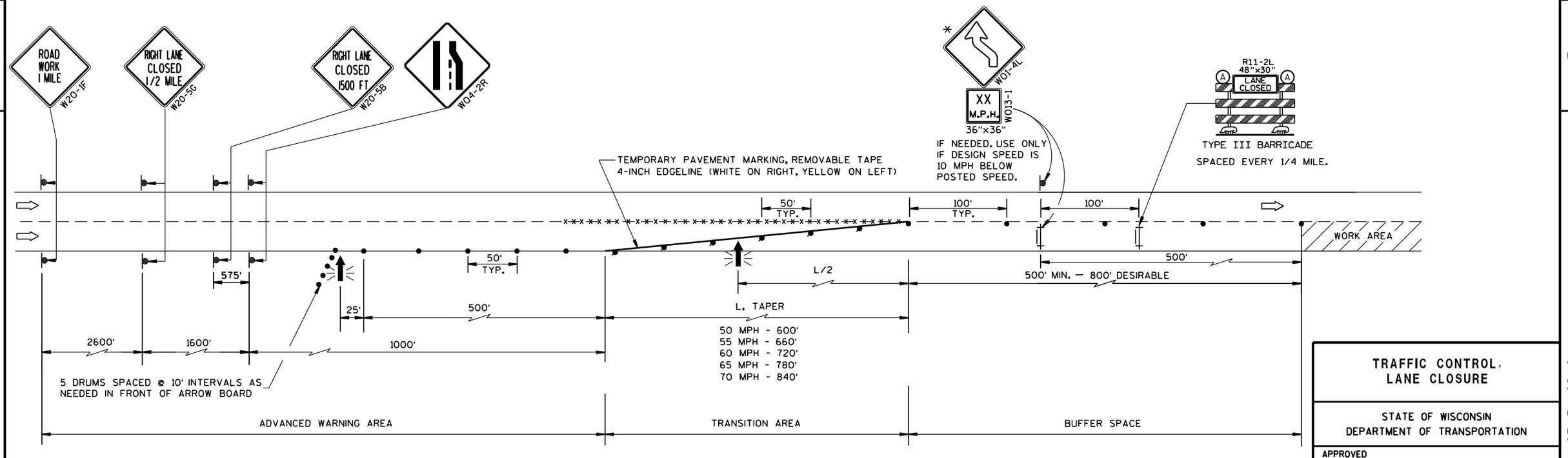
REMOVE PAVEMENT MARKINGS IF LANE CLOSURE IS TO BE IN PLACE FOR LONGER THAN 4 OR MORE DAYS AND NIGHTS.

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

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

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

* THE LEFT REVERSE CURVE SIGN (WO1-4L) IS ONLY REQUIRED WHEN THIS DETAIL IS USED IN COMBINATION WITH "SINGLE LANE CROSSOVER" DETAIL.



TRAFFIC CONTROL, LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER

FHWA

6

S.D.D. 15 D 12-6a

6

S.D.D. 15 D 12-6a

LEGEND

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

GENERAL NOTES

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

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

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

ALL SIGNS ARE 48"×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 AND AS APPROVED BY THE ENGINEER. NO WARNING LIGHTS SHALL BE WORKING ON "COVERED" OR "DOWNED" SIGNS.

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

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

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

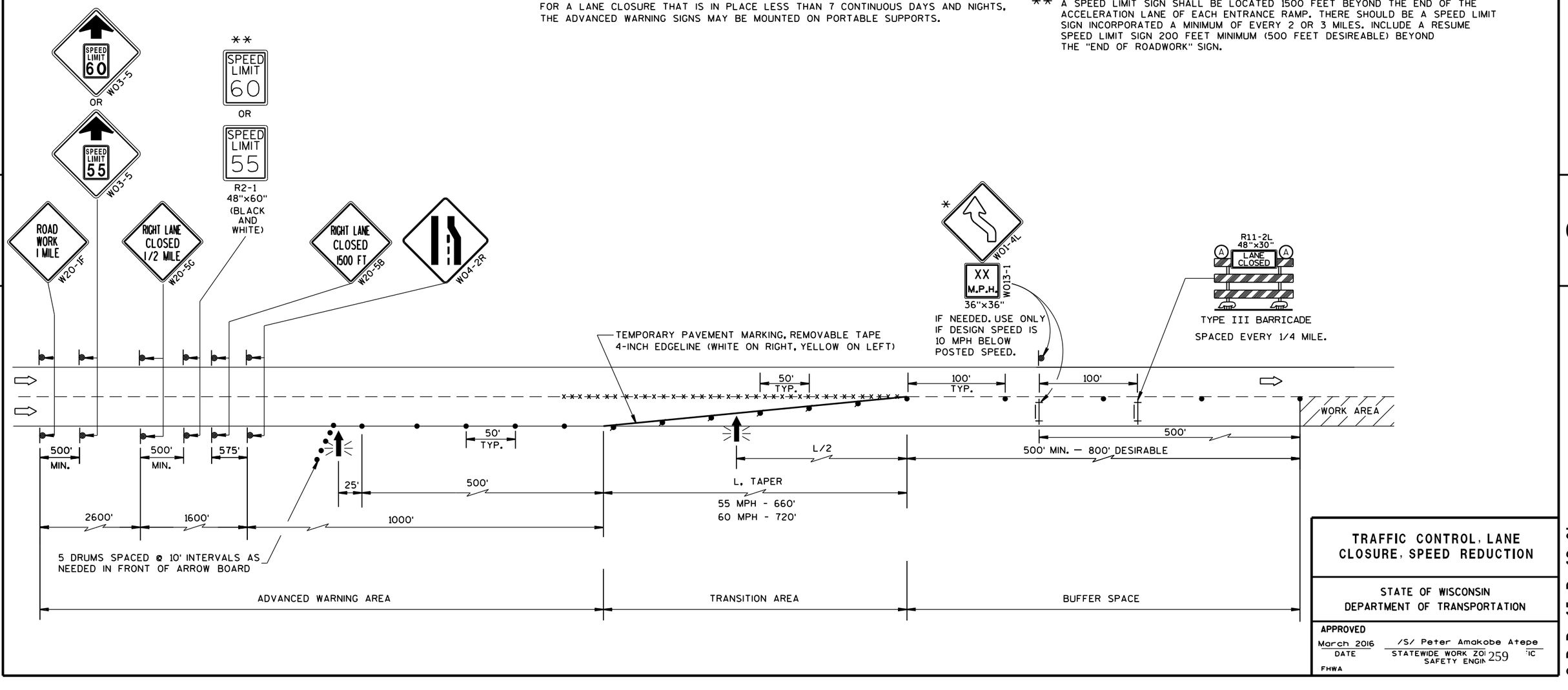
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

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

** A SPEED LIMIT SIGN SHALL BE LOCATED 1500 FEET BEYOND THE END OF THE ACCELERATION LANE OF EACH ENTRANCE RAMP. THERE SHOULD BE A SPEED LIMIT SIGN INCORPORATED A MINIMUM OF EVERY 2 OR 3 MILES. INCLUDE A RESUME SPEED LIMIT SIGN 200 FEET MINIMUM (500 FEET DESIREABLE) BEYOND THE "END OF ROADWORK" SIGN.



TRAFFIC CONTROL, LANE CLOSURE, SPEED REDUCTION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

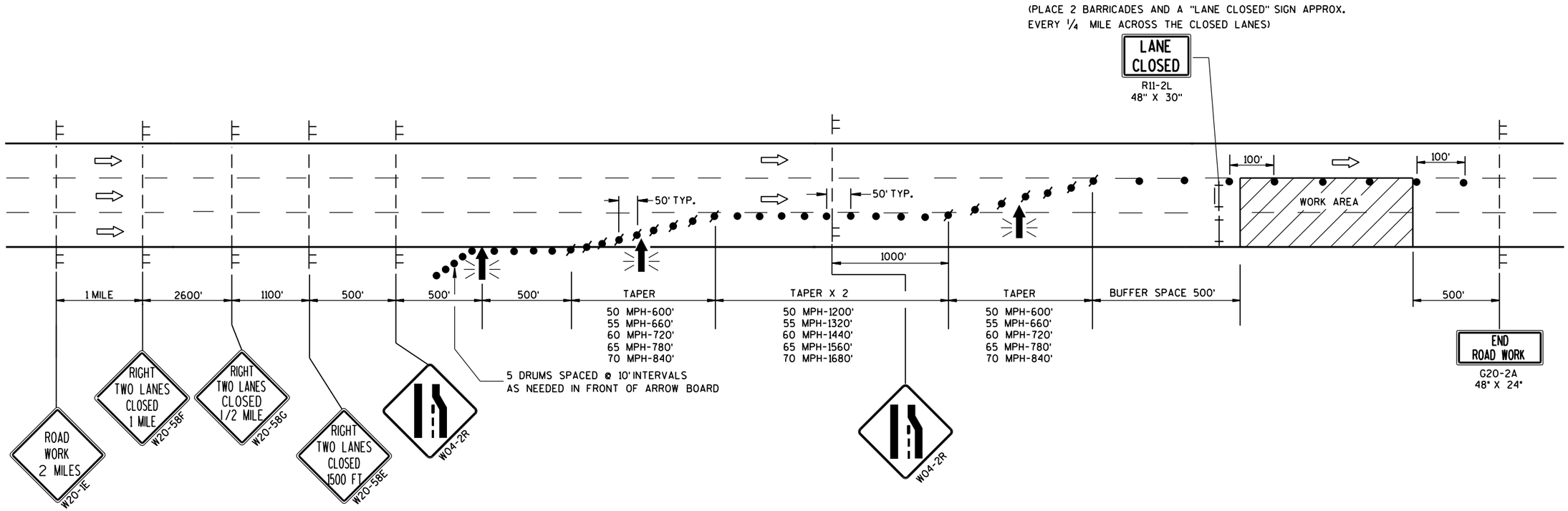
APPROVED
March 2016 — DATE
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZONE SAFETY ENGINEER
FHWA

6

S.D.D. 15 D 12-6b

6

S.D.D. 15 D 12-6b



LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TRAFFIC CONTROL DRUM
- 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.

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" 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 AND AS APPROVED BY THE ENGINEER.

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 GEOMETRICS WHEN LOCATING SIGNS AND ARROWBOARDS SO THE APPROACHING DRIVER HAS A CLEAR VIEW OF THE ARROWBOARDS AND LANE CLOSURE DRUMS FOR A MINIMUM 1500 FEET IN FRONT OF 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 RE-ESTABLISHED 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.

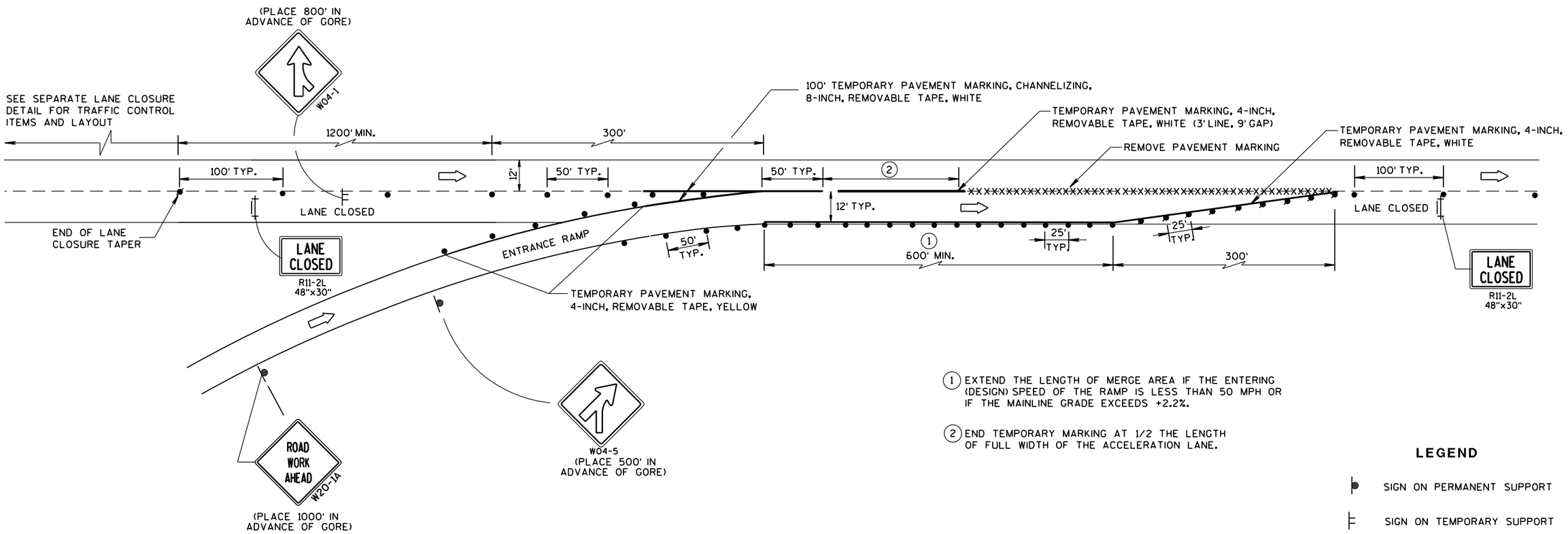
TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY, SHORT TERM (LESS THAN 24 HOURS)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 14, 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZONE TRAFFIC SAFETY ENGINEER
FHWA

6
S.D.D. 15 D 14-3

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN RIGHT LANE CLOSURE



1. EXTEND THE LENGTH OF 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 MARKING AT 1/2 THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.

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
- REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC

PARALLEL ENTRANCE RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

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

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

TRAFFIC CONTROL, PARALLEL ENTRANCE RAMP WITHIN LANE CLOSURE

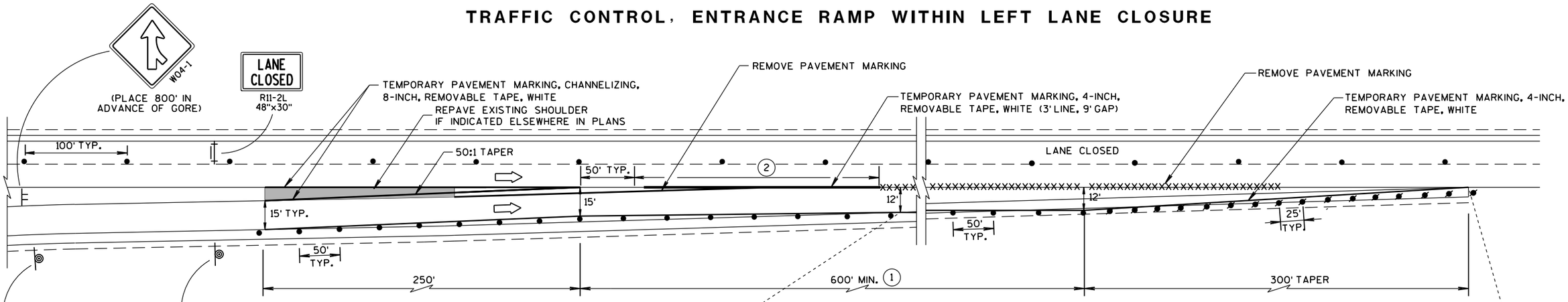
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

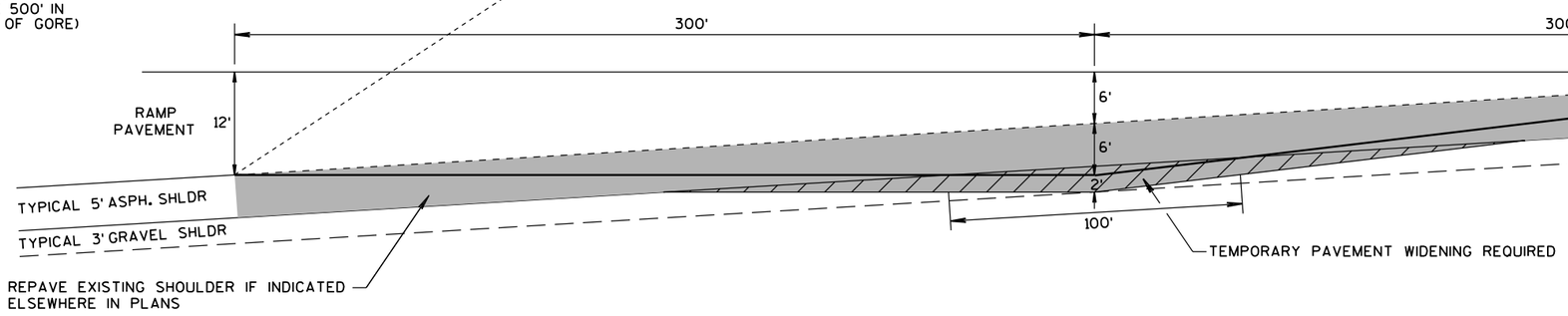
S.D.D. 15 D 15-4a

TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LEFT LANE CLOSURE



(1) EXTEND THE LENGTH OF 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 MARKING AT 1/2 THE LENGTH OF FULL WIDTH OF THE ACCELERATION LANE.



TEMPORARY PAVEMENT DETAIL

(EXISTING RAMP DIMENSIONS MAY VARY. ADJUST TEMPORARY PAVEMENT ACCORDINGLY)

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- XXXXX REMOVING PAVEMENT MARKING
- DIRECTION OF TRAFFIC

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS, OR THAT WILL BE PLACED IN A CLOSED LANE, MAY BE MOUNTED ON PORTABLE SUPPORTS. USE SUPPORTS THAT PROVIDE A MINIMUM OF 5 FEET FROM THE BOTTOM OF THE SIGN TO THE PAVEMENT.

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

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

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

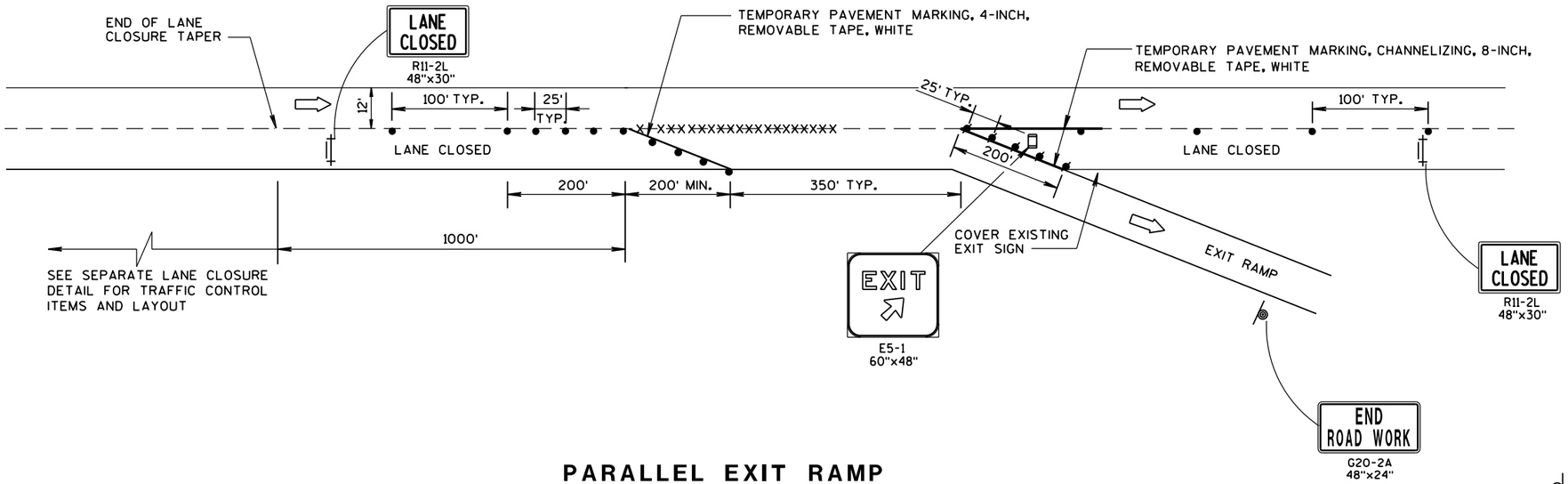
TRAFFIC CONTROL, ENTRANCE RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 — DATE
/S/ Andrew Heldtke — WORK ZONE ENG
FHWA

6

S.D.D. 15 D 15-4b



PARALLEL EXIT RAMP

GENERAL NOTES

THE INSTALLATIONS SHOWN ON THIS SHEET ARE TYPICAL EXAMPLES AND ARE NOT INTENDED TO REPRESENT ANY PARTICULAR RAMP. AT SPECIFIC FIELD LOCATIONS, SIMILAR INSTALLATIONS SHALL BE USED AND ADJUSTED TO THE GEOMETRICS OF THE RAMP AS COORDINATED WITH THE ENGINEER.

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

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

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

SEE SEPARATE LANE CLOSURE DETAIL FOR TYPICAL SPACING OF TYPE III BARRICADES AND R11-2L "LANE CLOSED" SIGNS.

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

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

IF INDICATED IN MISCELLANEOUS QUANTITIES, SUBSTITUTE FLEXIBLE TUBULAR MARKERS FOR DRUMS IN THE GORE BETWEEN THE ENTRANCE RAMP AND MAINLINE TRAFFIC.

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

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

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

LEGEND

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

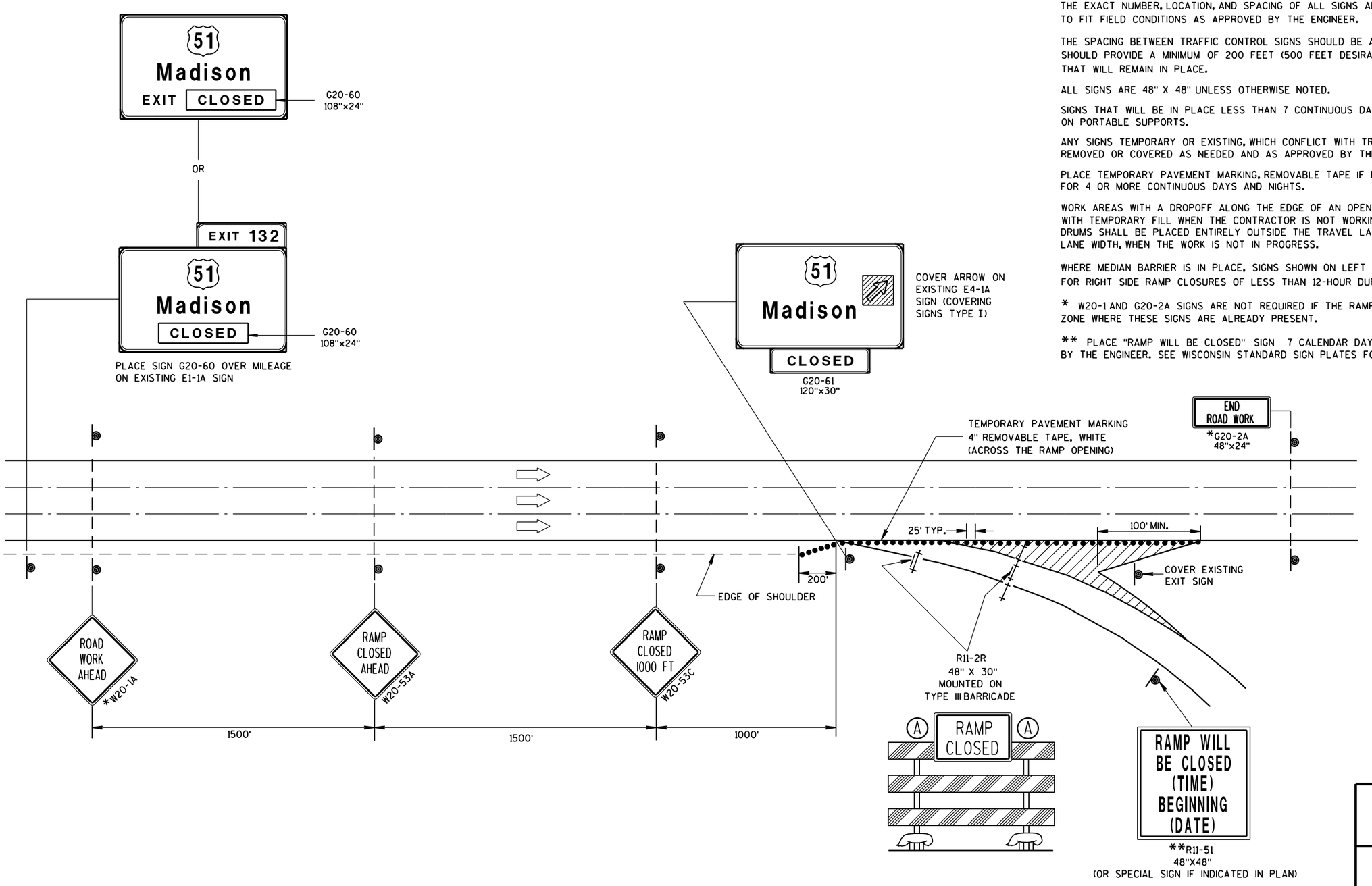
TRAFFIC CONTROL, PARALLEL EXIT RAMP WITHIN LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept., 2017 — DATE
/S/ Andrew Heidtke — WORK ZONE ENG
FHWA

6

S.D.D. 15 D 15-4e



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, REMOVABLE TAPE IF RAMP CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

WORK AREAS WITH A DROPOFF 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 THE 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.

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

** PLACE "RAMP WILL BE CLOSED" SIGN 7 CALENDAR DAYS PRIOR TO CLOSURE OR AS DIRECTED BY THE ENGINEER. SEE WISCONSIN STANDARD SIGN PLATES FOR SIGN LAYOUT.

LEGEND

- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- SIGN ON PERMANENT SUPPORT
- (A) TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC

TRAFFIC CONTROL, EXIT RAMP CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2015 — DATE
/S/ Peter Amakobe Atepe — STATEWIDE WORK ZO SAFETY ENGII
FHWA

6

S.D.D. 15 D 16-3

6

S.D.D. 15 D 16-3

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.

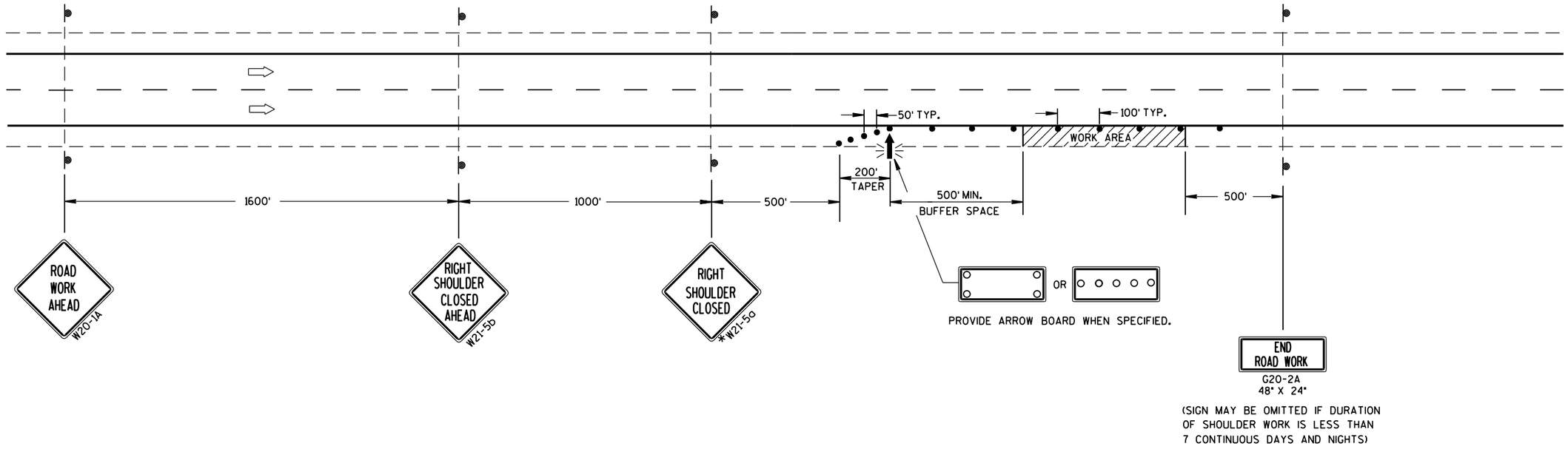
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

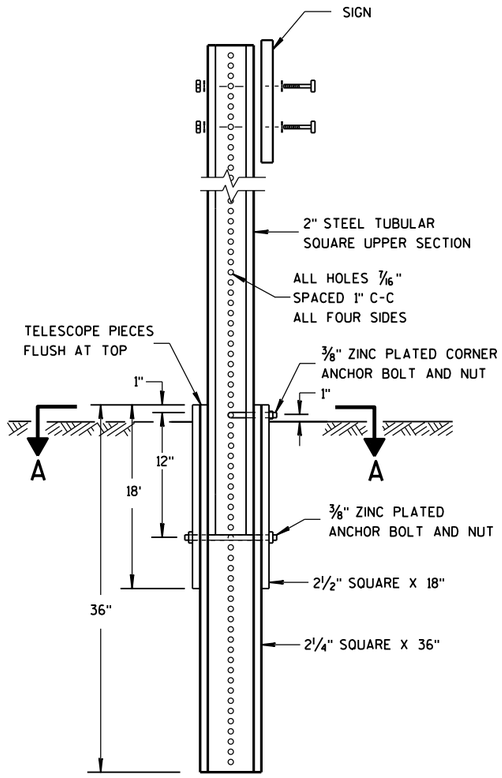
June 2016 — DATE

/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]

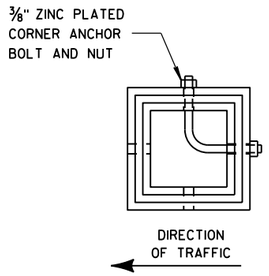
FHWA

6

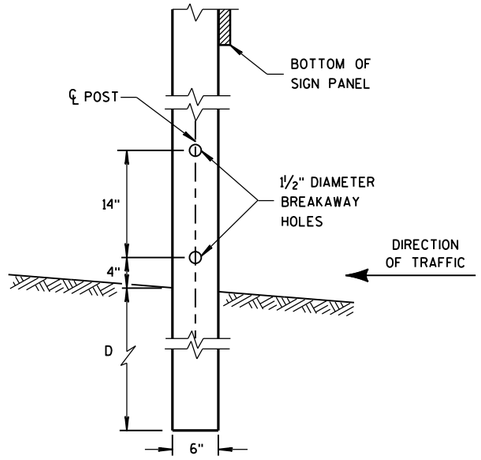
S.D.D. 15 D 27-3



DETAIL OF TUBULAR STEEL SIGN POST



SECTION A-A



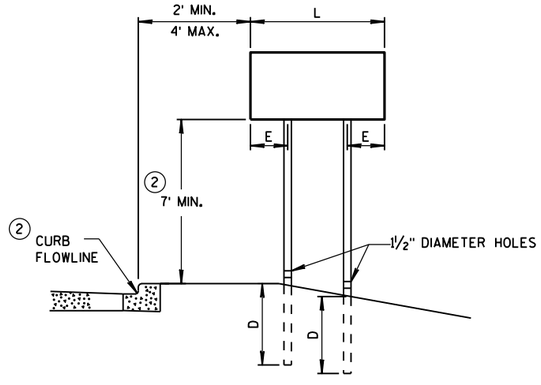
4"x6" WOOD POST MODIFICATION

GENERAL NOTES

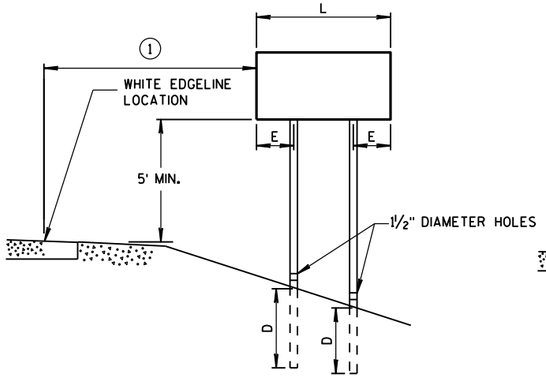
(1) 6 FEET FROM THE EDGE OF PAVEMENT (EDGE LINE LOCATION) UNLESS OTHERWISE DIRECTED BY THE PROJECT ENGINEER. LATERAL OFFSET SHOULD BE ADJUSTED TO AVOID THE DITCH FLOWLINE.

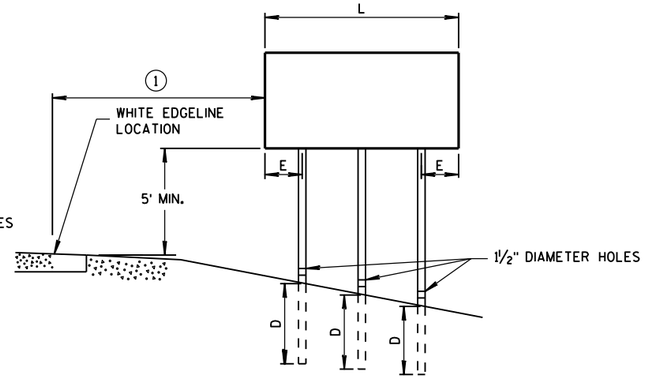
(2) THE EXISTENCE OF CURB AND GUTTER DOES NOT IN ITSELF MANDATE THE VERTICAL CLEARANCE ILLUSTRATED. THAT HEIGHT IS TYPICALLY MEASURED WHERE THERE IS SIDEWALK ADJACENT TO THE ROADWAY OR PARKING IS PERMITTED. IN THE ABSENCE OF SIDEWALK, VERTICAL CLEARANCE IS MEASURED FROM THE TOP OF THE CURB. IF NO SIDEWALK AND NO PARKING, VERTICAL CLEARANCE MAY BE REDUCED TO 5 FOOT MINIMUM. OFFSET OF SIGNS IS MEASURED FROM THE CURB FLOWLINE.

(3) FOR SIGNS REQUIRING 4 POSTS, SPACE INTERMEDIATE POSTS EVENLY.



URBAN AREA





RURAL AREA

POST MOUNTING DETAIL FOR TEMPORARY TRAFFIC CONTROL FIXED MESSAGE SIGNS

TUBULAR STEEL POSTS

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

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

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

WOOD POST EMBEDMENT DEPTH

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

4" X 6" WOOD POST

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

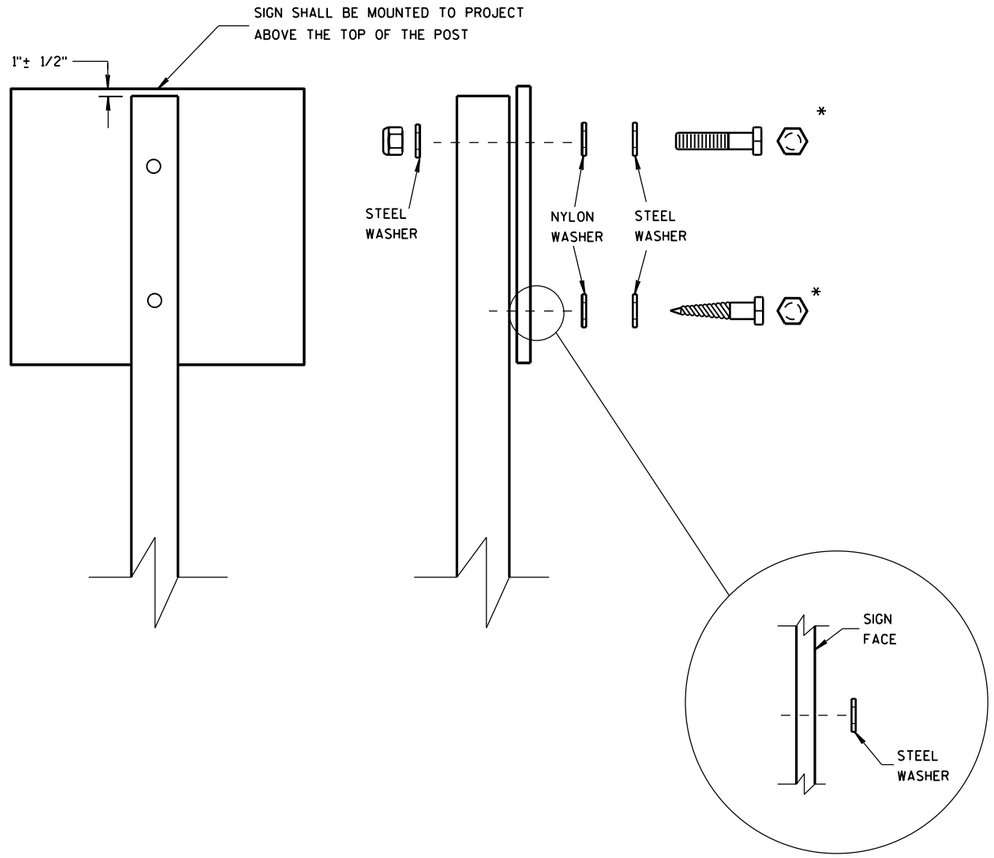
SEE NOTE (3)

TEMPORARY TRAFFIC CONTROL SIGN MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPOR

6

S.D.D. 15 D 38-2a



WASHER PLACEMENT WHEN SIGN HAS OTHER THAN TYPE H OR TYPE F FACE

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

A. HOT DIP GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: A 153, CLASS D, OR SC 3

B. ELECTRO-GALVANIZED IN ACCORDANCE WITH ASTM DESIGNATION: B 633, TYPE III, SC 3

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

WOOD POSTS (4" x 4" or 4" x 6")

LAG SCREWS - 3/8" X 3"

MACHINE BOLTS - 5/16" X 6-1/2" OR 7" LENGTH W/ NUTS

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" LENGTH W/ NUTS

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

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

1-1/4" O.D. X 3/8" I.D. X .080 NYLON FOR ALL TYPE H SIGNS

* TWO DIFFERENT FASTENING SYSTEMS ARE SHOWN FOR ILLUSTRATION PURPOSES. ON ANY INDIVIDUAL SIGN, EITHER ONE OR THE OTHER SYSTEM SHALL BE USED. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA. FOR A SINGLE POST INSTALLATION, ALL SIGNS GREATER THAN 9 SQ. FT. REQUIRE THE USE OF 3 FASTENERS.

6

6

S.D.D. 15 D 38-2b

S.D.D. 15 D 38-2b

ATTACHMENT OF SIGNS TO POSTS

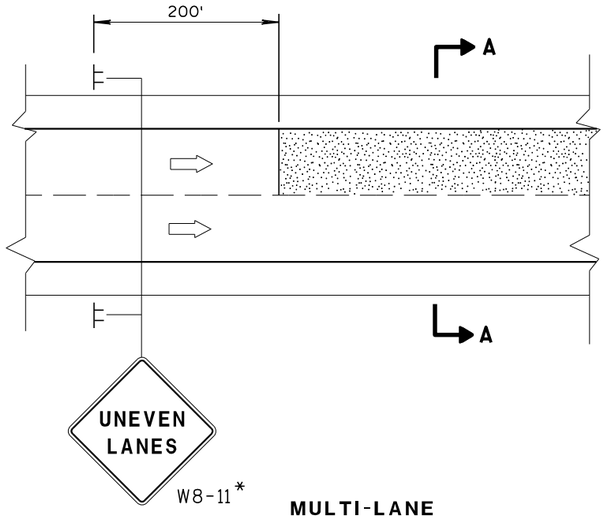
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

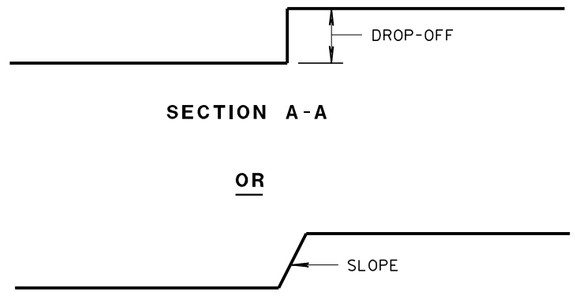
June 2017
DATE

/S/ Andrew Heldtke
WORK ZONE ENG

FHWA



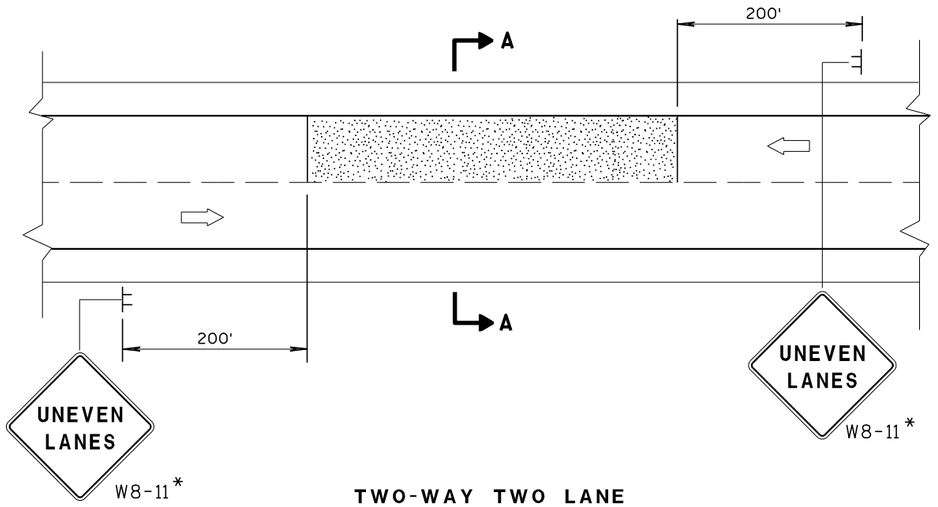
MULTI-LANE



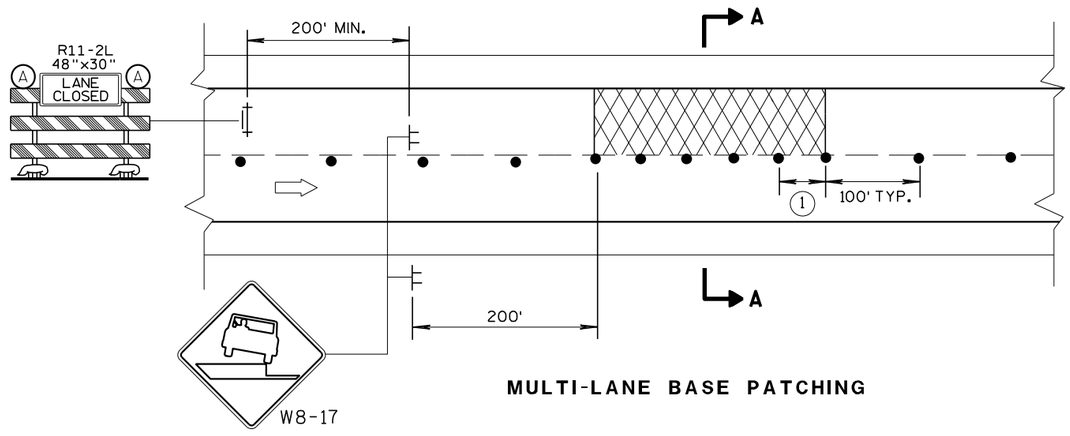
SECTION A-A

OR

SECTION A-A

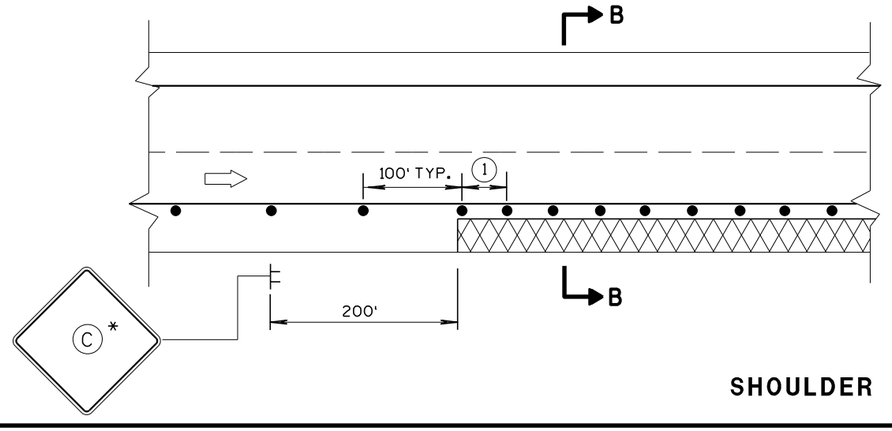


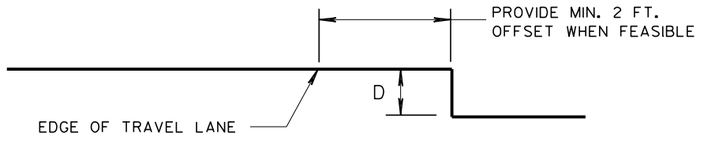
TWO-WAY TWO LANE



MULTI-LANE BASE PATCHING

ADJACENT LANE DROP-OFFS





SECTION B-B

SHOULDER DROP-OFFS

GENERAL NOTES

FOR SPOT LOCATIONS USE ENGINEERING JUDGEMENT WHEN PLACING ADDITIONAL SIGNS.

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

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

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

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

(1) USE CLOSER SPACING WHEN DELINEATING DROP-OFF.

LEGEND

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

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

TRAFFIC CONTROL, DROP-OFF SIGNING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018
DATE
/S/ Andrew H
WORK ZONE EN
FHWA

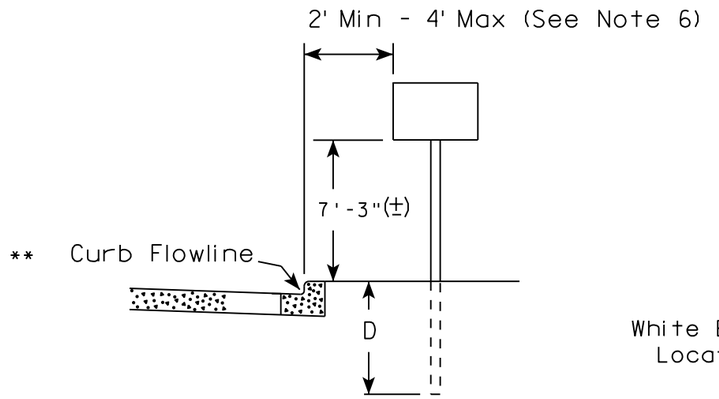
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S.D.D. 15 D 39-2

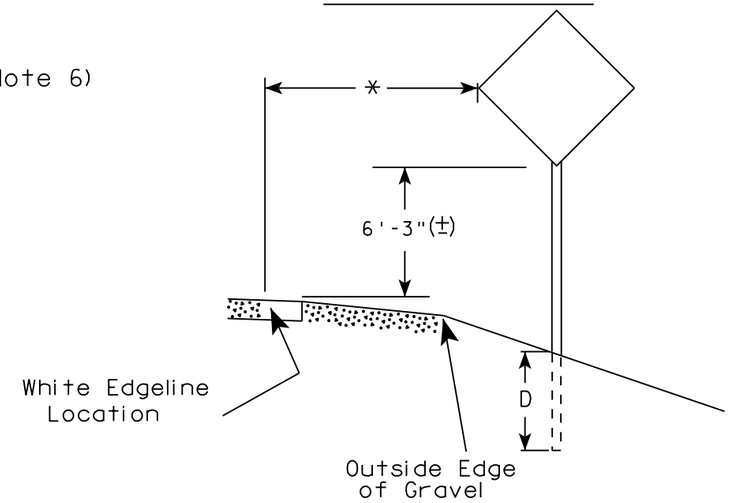
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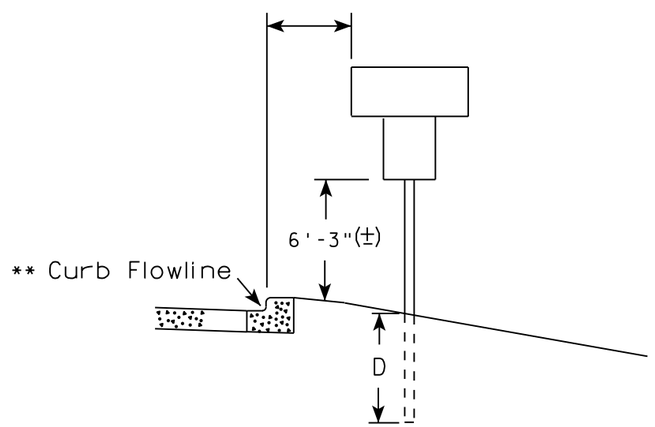
S.D.D. 15 D 39-2

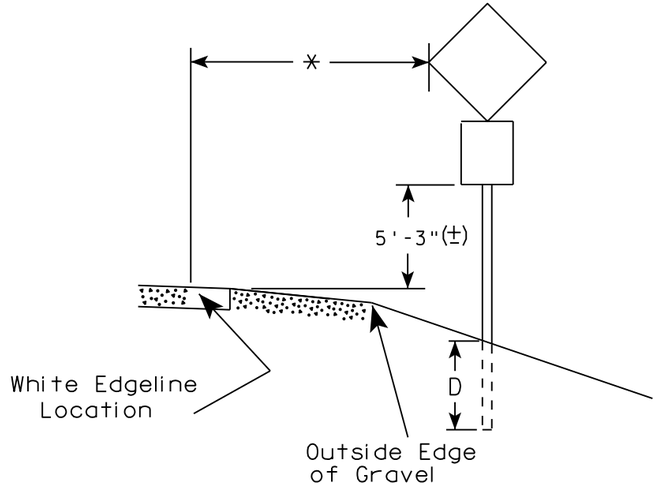
URBAN AREA



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 barrier wall, see A4-10 sign plate.
3. For expressways and freeways, mounting height is 7'- 3" (±) or 6'-3" (±) depending upon existence of a sub-sign.
4. J-Assemblies are considered to be one sign for mounting height.
5. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±).
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. The (±) tolerance for mounting height is 3 inches.
8. Folding signs shall be mounted at a height of 5'-3" (±) or as directd by the Engineer.
9. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±). The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±).

TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

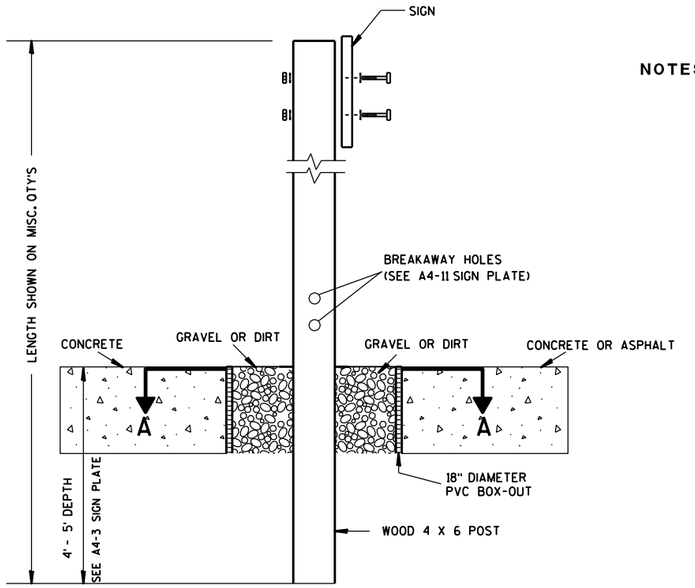
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 8/21/17 PLATE NO. A4-3.21

7

7

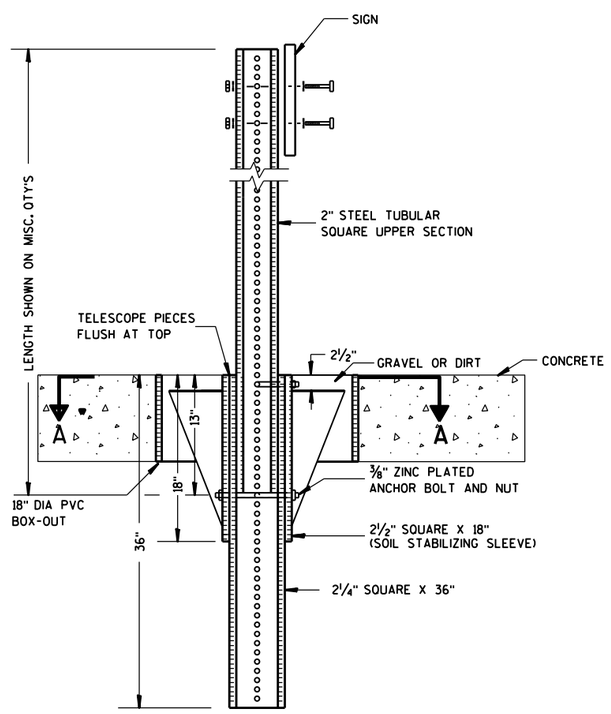
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 269	E



ELEVATION VIEW

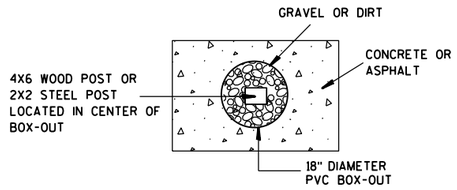
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

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

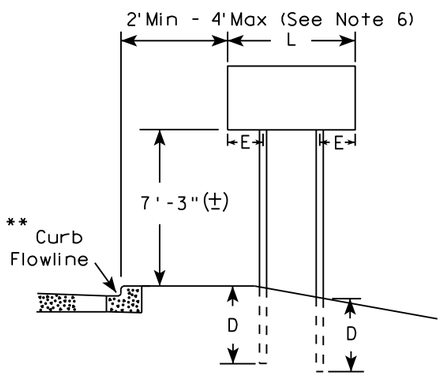
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

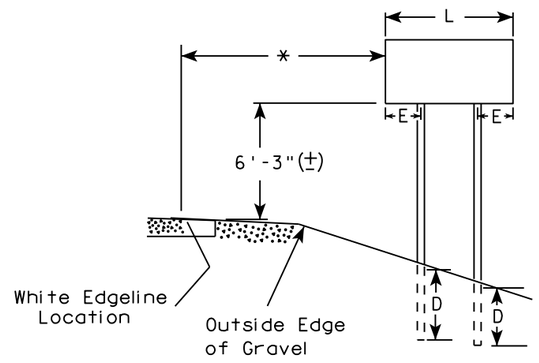
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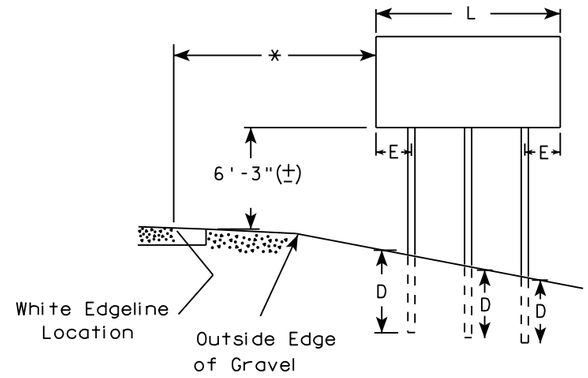
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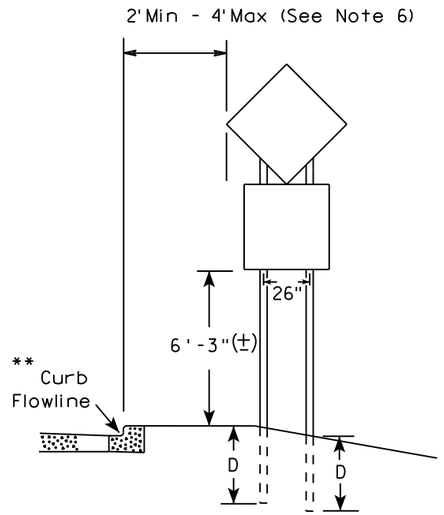
URBAN AREA



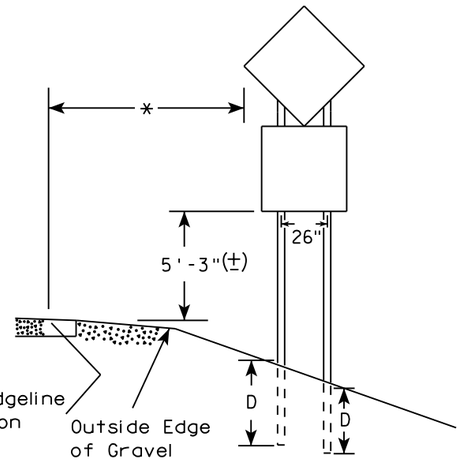
RURAL AREA (See Note 3)







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'

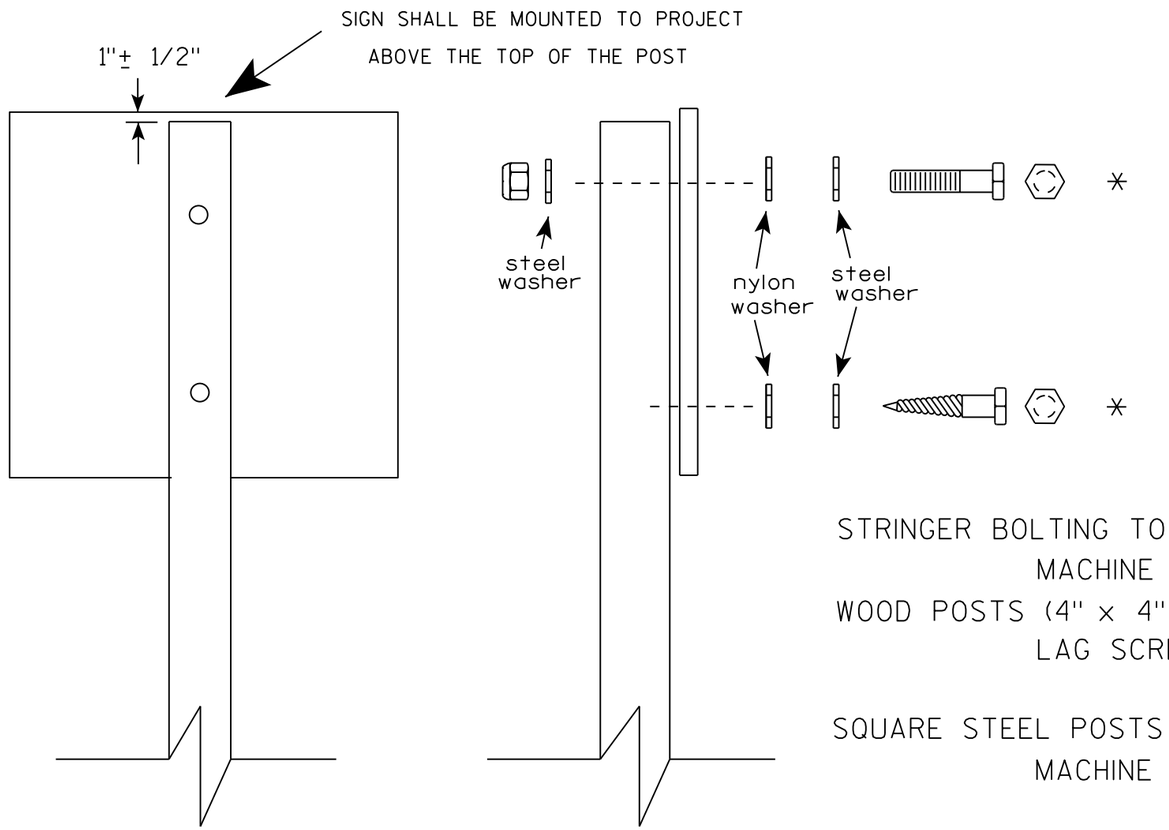
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

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: 271	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 4" or 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

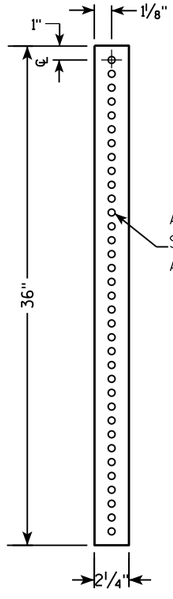
DATE 8/11/16 PLATE NO. A4-8.8

PROJECT NO: SHEET NO: E

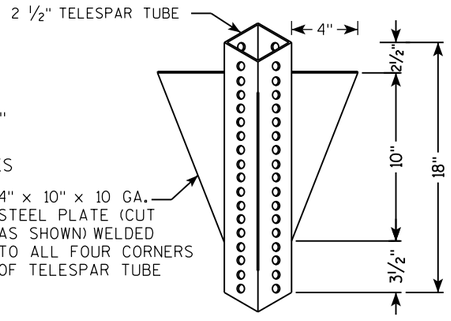
FILE NAME : C:\CADfiles\Projects\tr_stdplate\A48.DGN PLOT DATE : 11-AUG-2016 11:35 PLOT BY : $$ plotuser $$

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

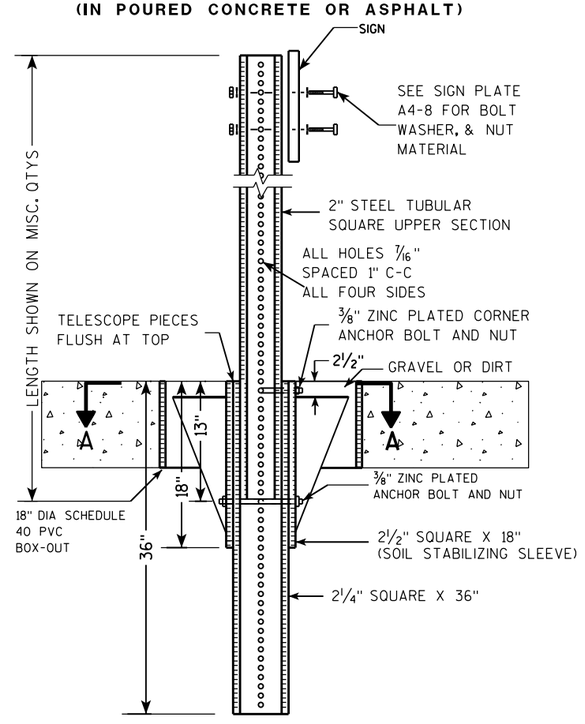
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



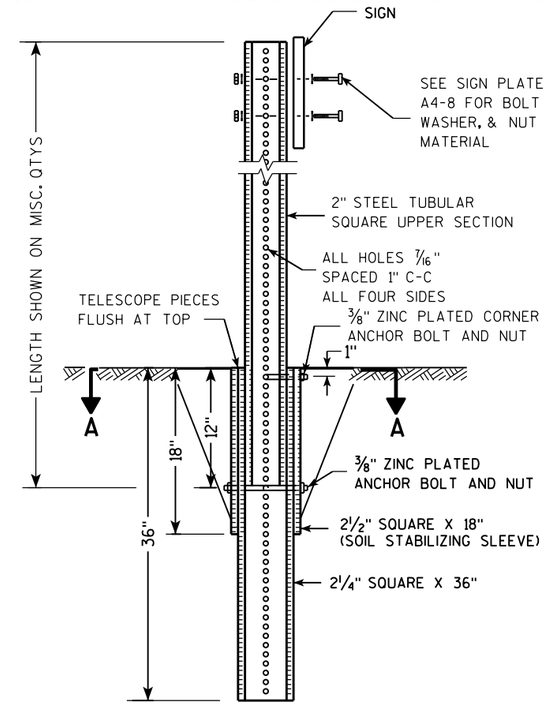
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

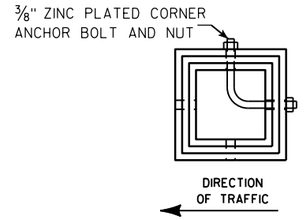


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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).

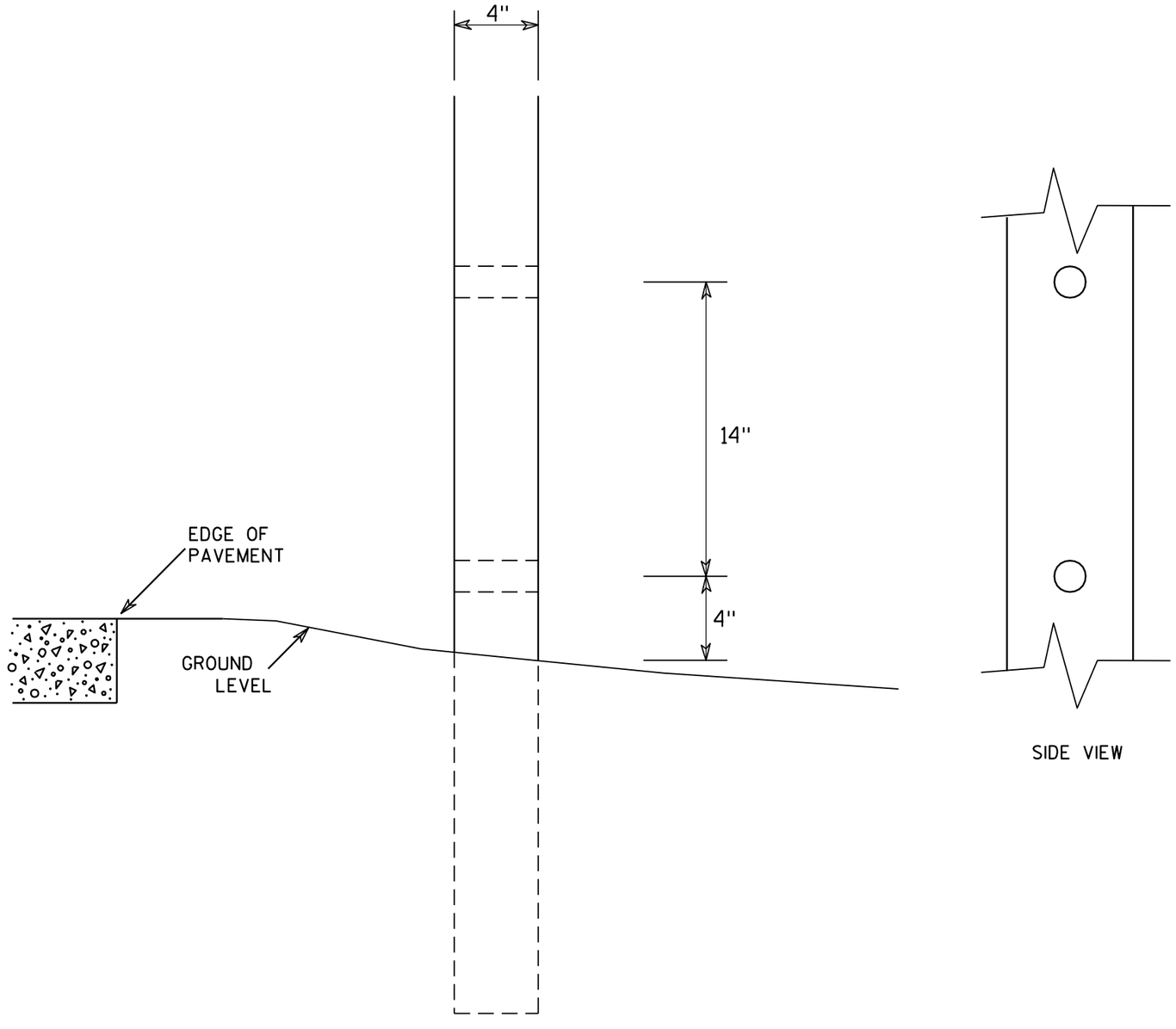
TUBULAR STEEL
SIGN POST
A4-9

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 273 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

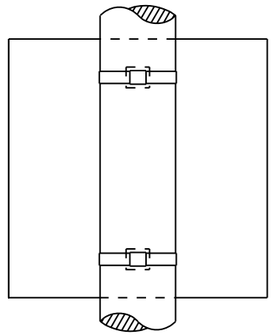
APPROVED Chester J Spang for State Traffic Engineer

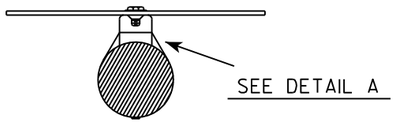
DATE 3/27/97 PLATE NO. A4-11.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 274	E

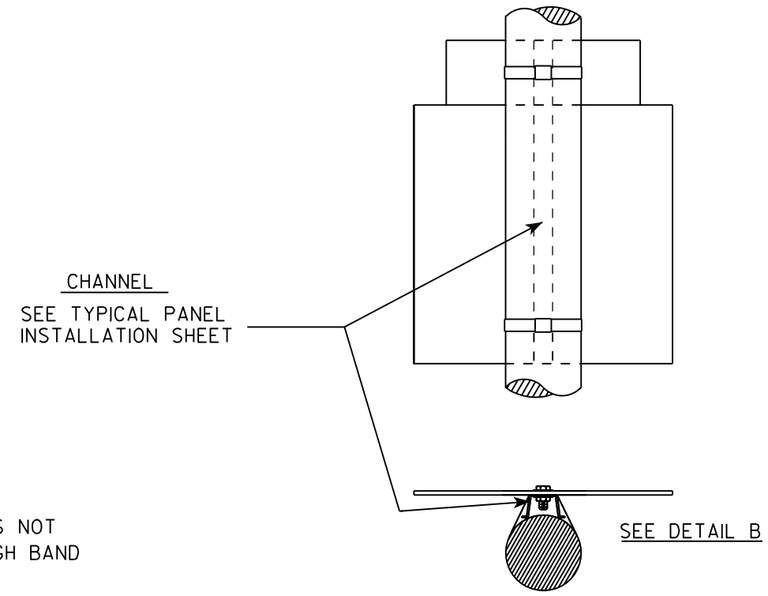
BANDING

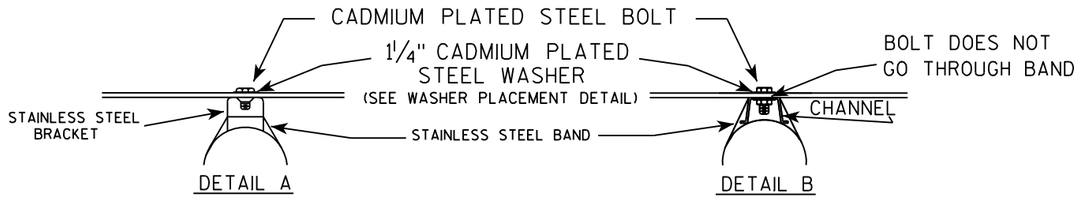
SINGLE SIGN



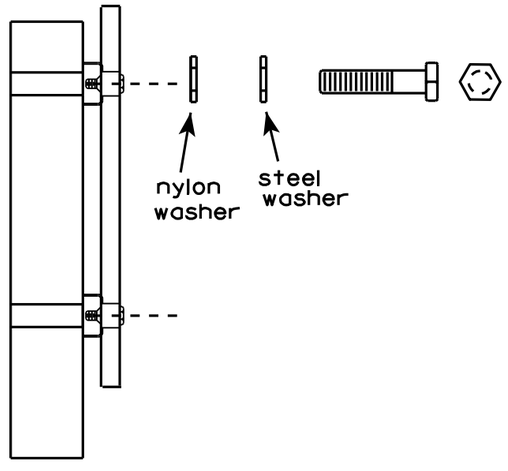


"J" ASSEMBLY





WASHER PLACEMENT



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

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.

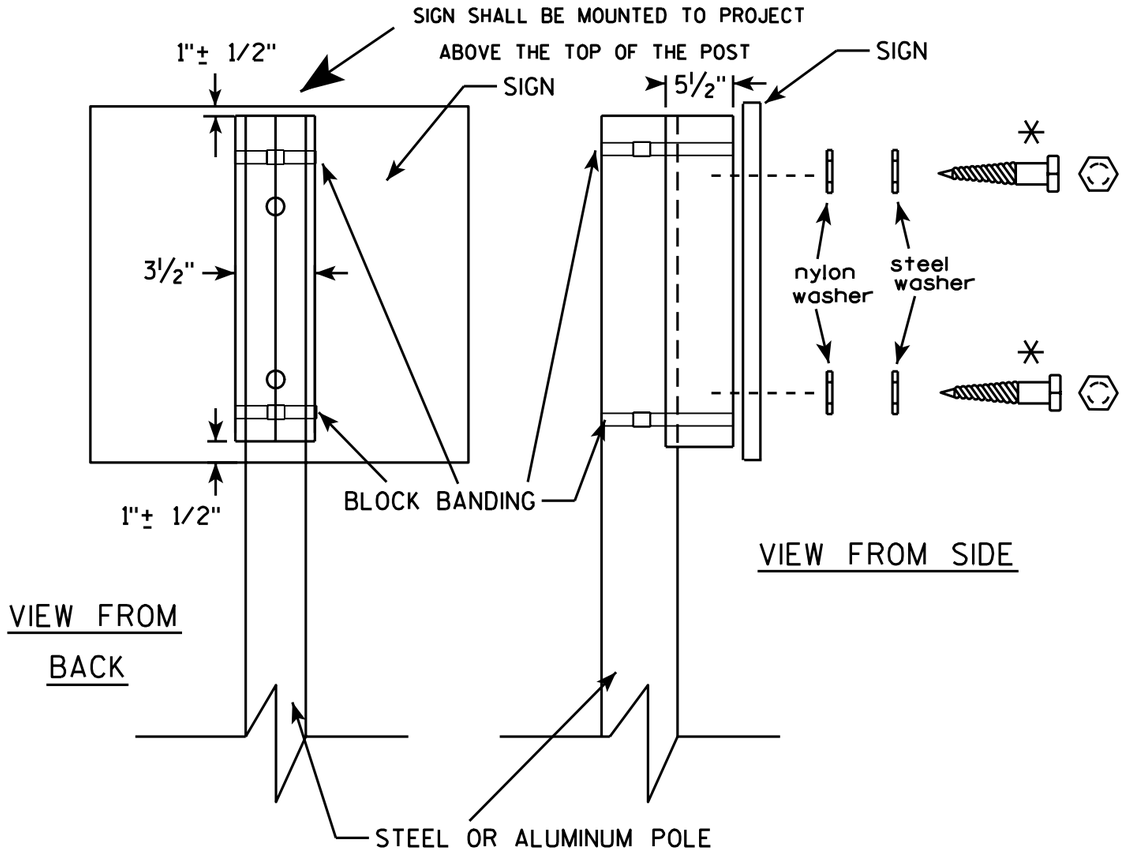
STANDARD SIGN
SIGN BANDING DETAILS

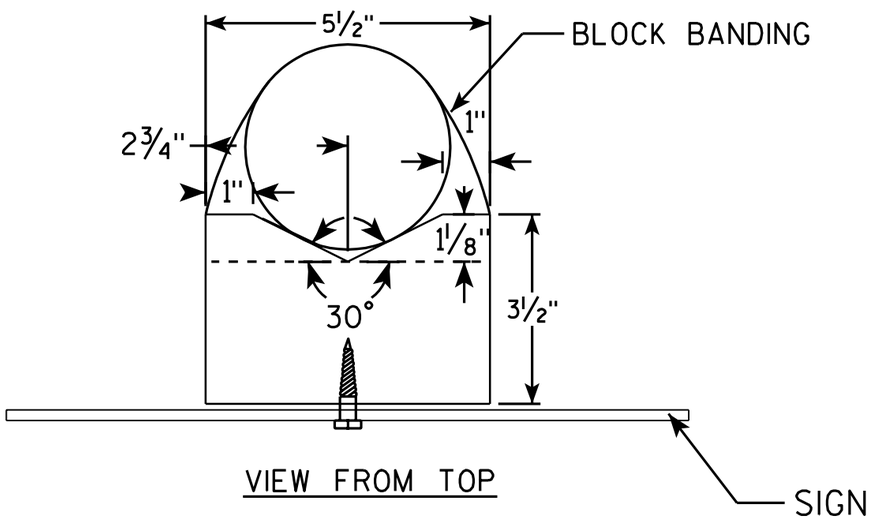
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 275	E





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, or
   b. Cadmium plated in accordance with ASTM Designation : B 766 TYPE 3, Class 12, or
   c. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 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)

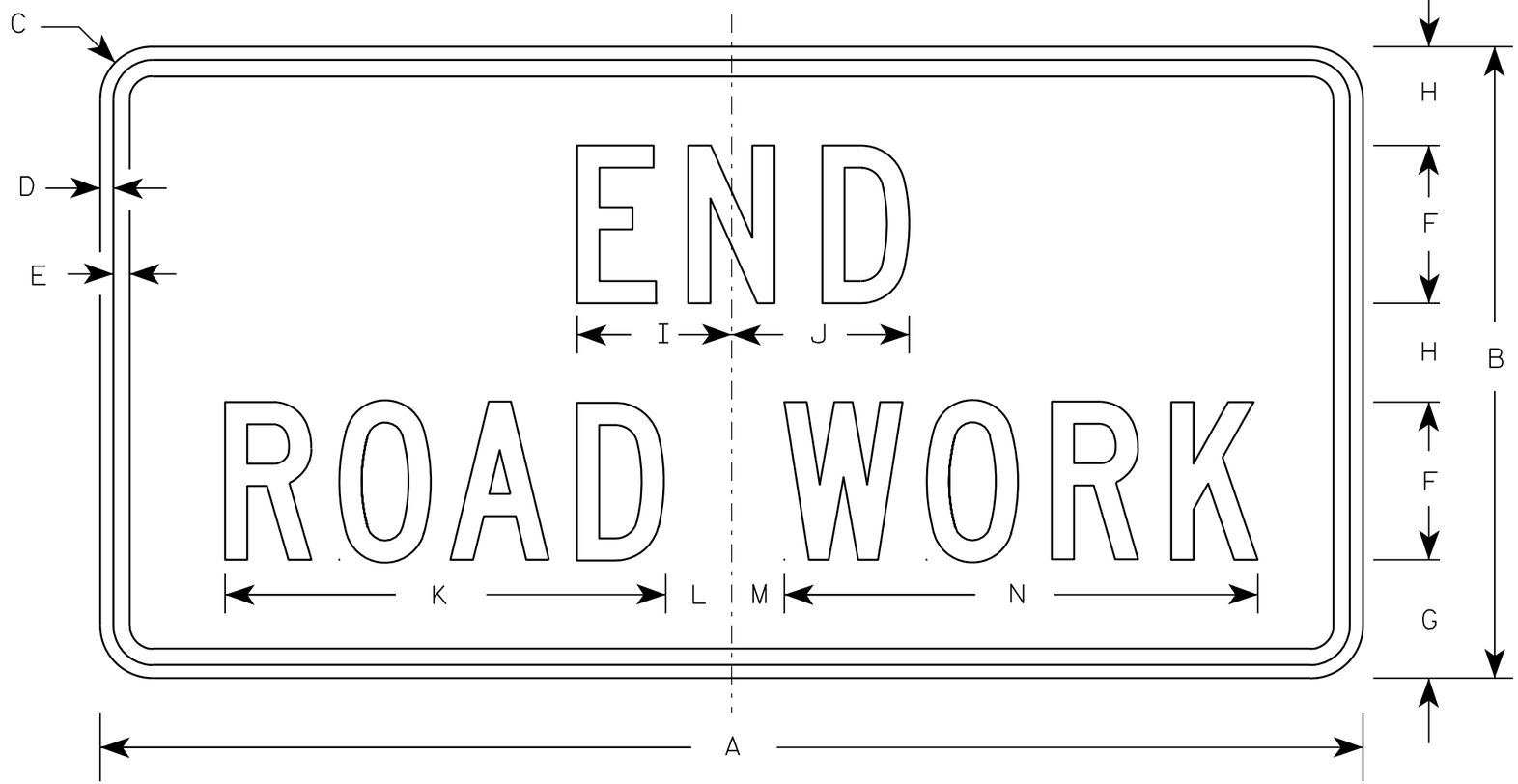
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 276 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: 277	E

FILE NAME : C:\Users\PROJECTS\tr_stdplate\G202A.DGN PLOT DATE : 30-SEP-2009 09:31 PLOT BY : ditjph PLOT NAME : PLOT SCALE : 5.561773:1.000000

7

NOTES

1. Sign is Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E
4. Material shall be .040 aluminmum



G20-60

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																											
3																											
4	108	24				12	6	14 7/8	78 1/4																		18.0
5																											

STANDARD SIGN
G20-60

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/13/15 PLATE NO G20-60.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\G2060.DGN PLOT DATE : 13-MAY-2015 08:46 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 20.431338:1.000000
WISDOT/CADDS SHEET 42

NOTES

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



G20-61

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																											
3																											
4	120	30	6		2	12	9	21	78 1/4	20 3/4																	25.0
5																											

STANDARD SIGN
G20-61

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

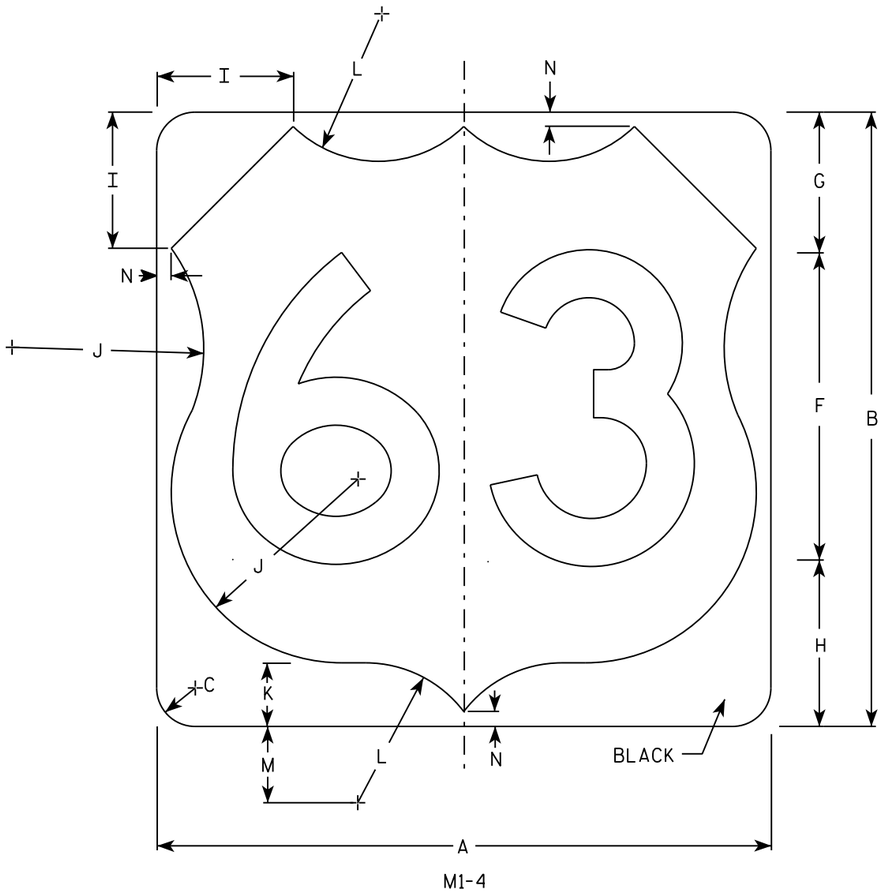
DATE 5/07/15 PLATE NO G20-61.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

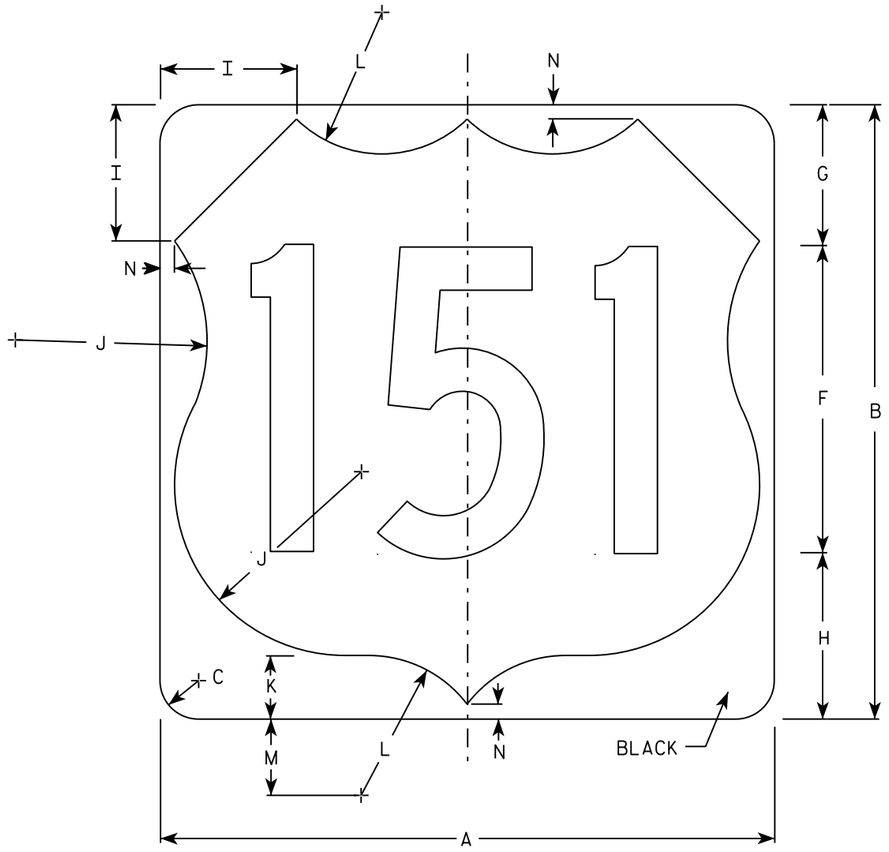
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\G2061.DGN PLOT DATE : 07-MAY-2015 13:47 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 20.431338:1.000000 WISDOT/CADDS SHEET 42

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D except 3 number signs Series C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



M1-4



M1-4

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

USH MARKER
M1-4 FOR ASSEMBLIES

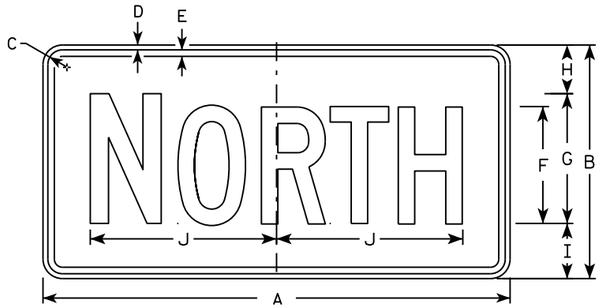
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

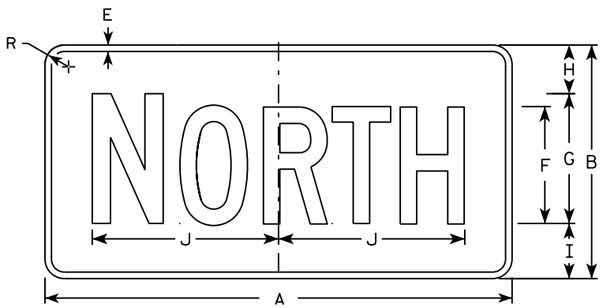
DATE 3/16/18 PLATE NO. M1-4.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 280 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M14.DGN PLOT DATE : 16-MAR-2018 14:06 PLOT BY : $$...plotuser...$$ PLOT NAME : PLOT SCALE : 5.918903:1.000000
WISDOT/CADDS SHEET 42



M3-1
MM3-1
MP3-1



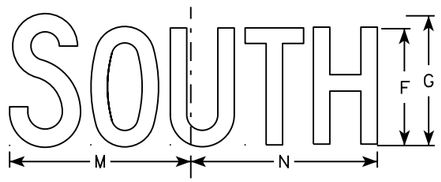
MB3-1
MK3-1
MN3-1



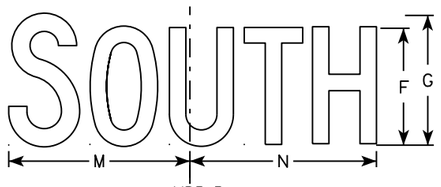
M3-2
MM3-2
MP3-2



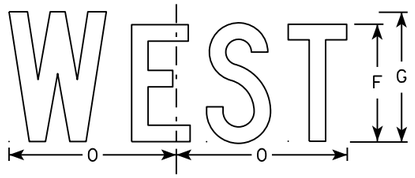
MB3-2
MK3-2
MN3-2



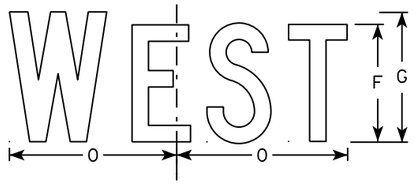
M3-3
MM3-3
MP3-3



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

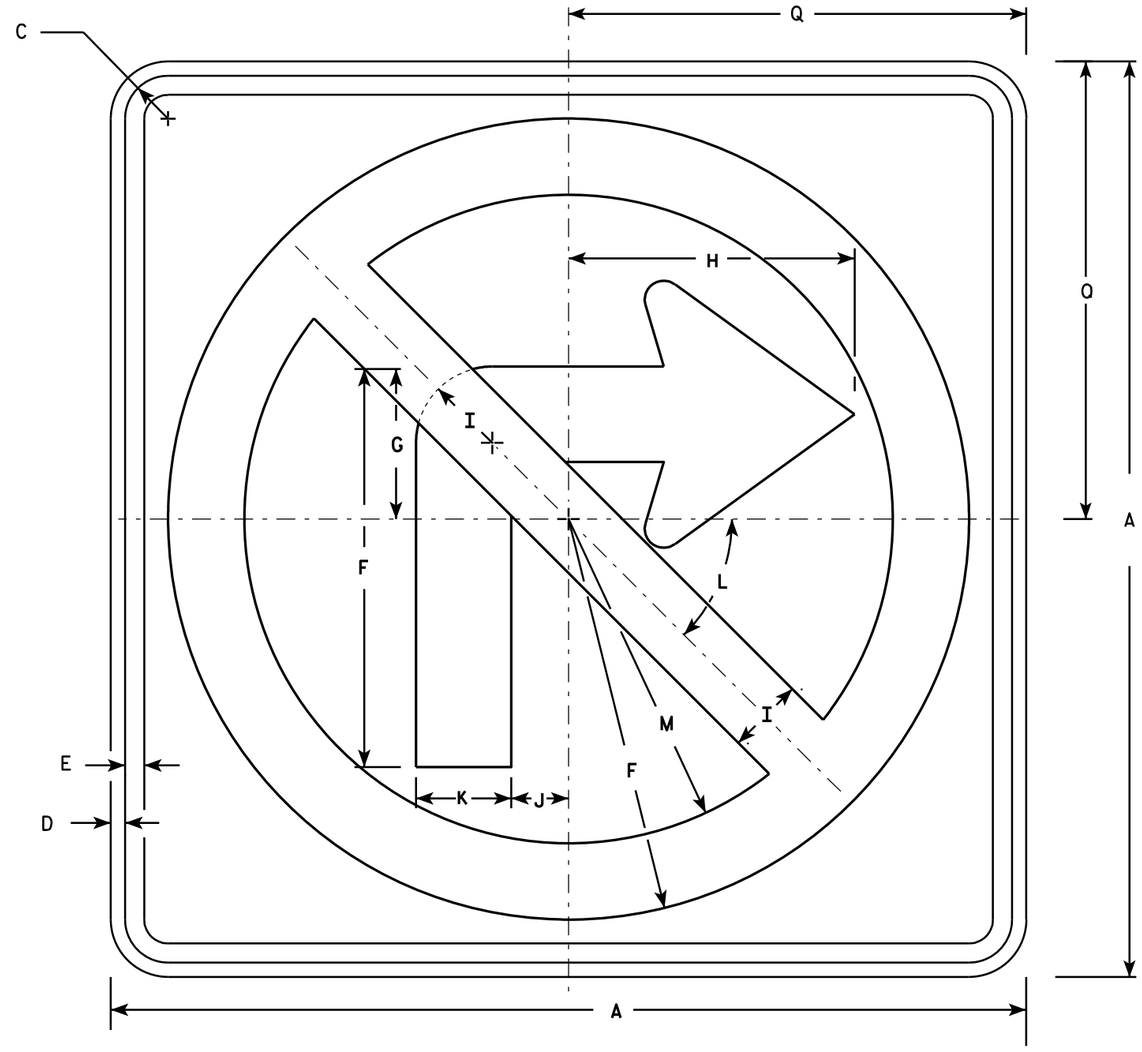
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew P Rauch for State Traffic Engineer

DATE 10/15/15 PLATE NO M3-1.14

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

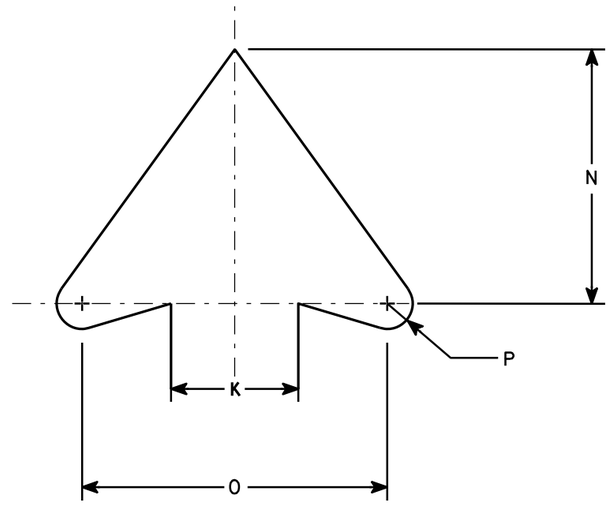
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\M31.DGN PLOT DATE : 01-DEC-2015 17:54 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 11.675051:1.000000



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

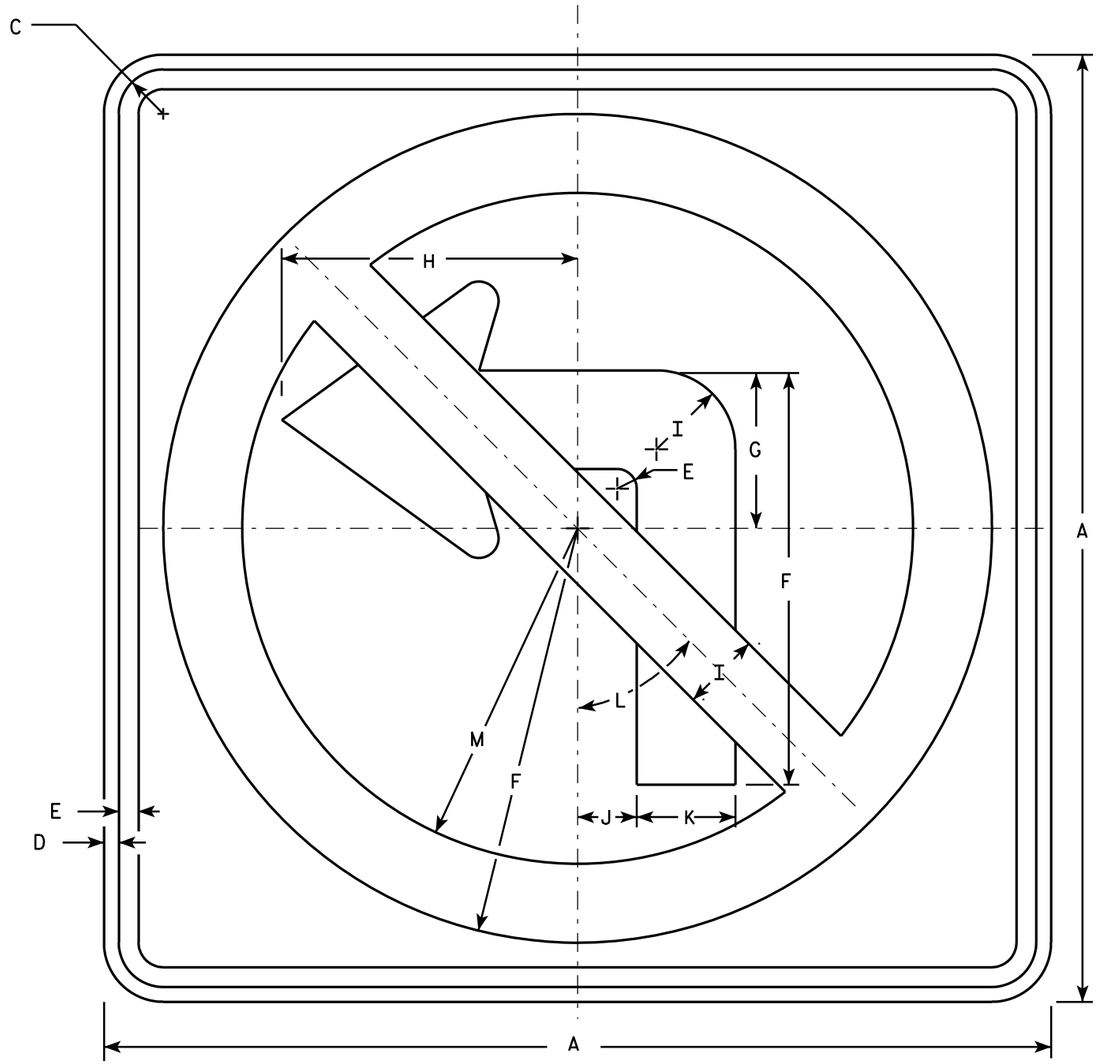
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-1.5

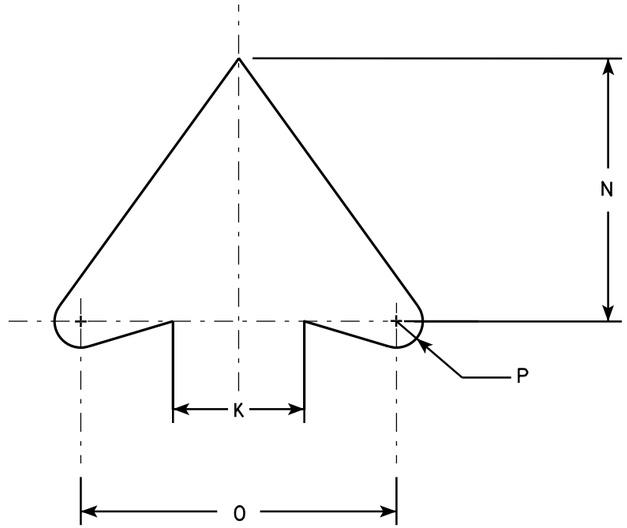
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 282	E



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

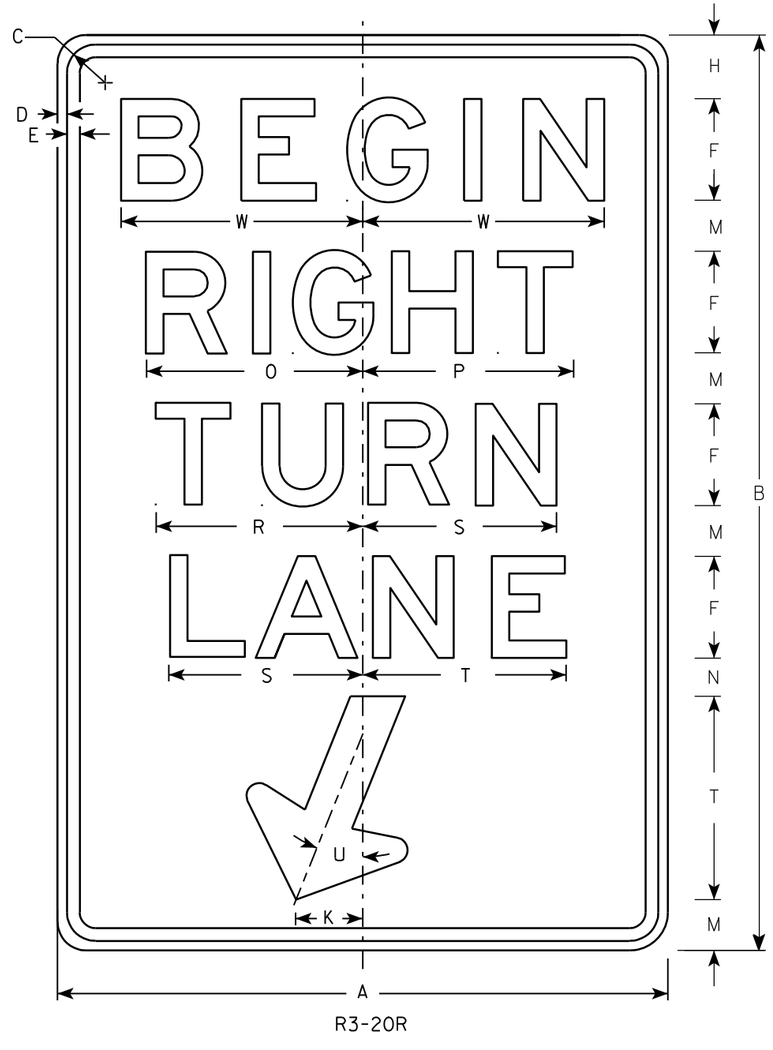
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/08/10 PLATE NO. R3-2.10

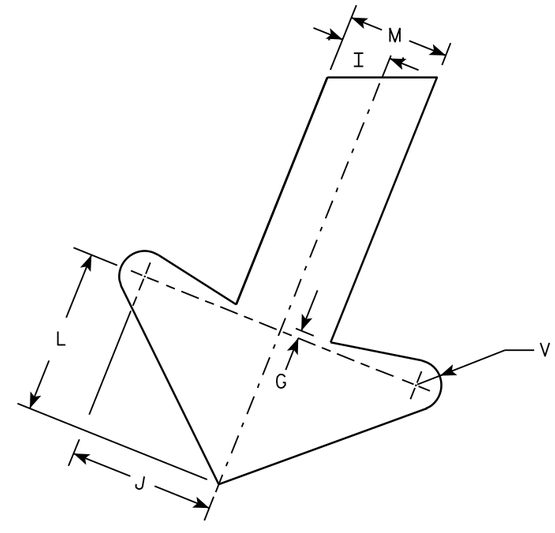
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 283	E



R3-20R

NOTES

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



ARROW DETAIL

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

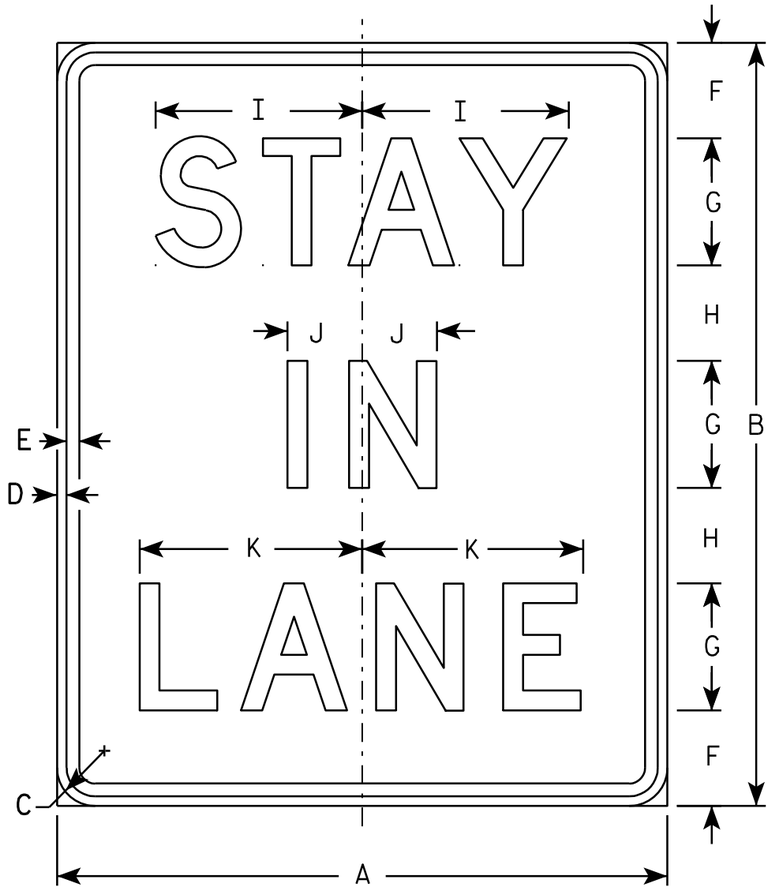
STANDARD SIGN
R3-20R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 284 | E



R4-9

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	18	24	1 1/8	3/8	3/8	3	4	3	6 1/2	2 3/8	7																3.0
2S	24	30	1 1/8	3/8	1/2	3 5/8	5	3 7/8	8 1/8	3	8 3/4																5.0
2M	24	30	1 1/8	3/8	1/2	3 5/8	5	3 7/8	8 1/8	3	8 3/4																5.0
3	36	48	1 3/8	1/2	5/8	8 1/4	7	5 1/4	11 3/8	4 1/8	12 1/4																12.0
4	36	48	1 3/8	1/2	5/8	8 1/4	7	5 1/4	11 3/8	4 1/8	12 1/4																12.0
5	48	60	2 1/4	3/4	1	7 1/2	10	7 1/2	16 1/4	5 7/8	17 1/2																20.0

STANDARD SIGN
R4-9

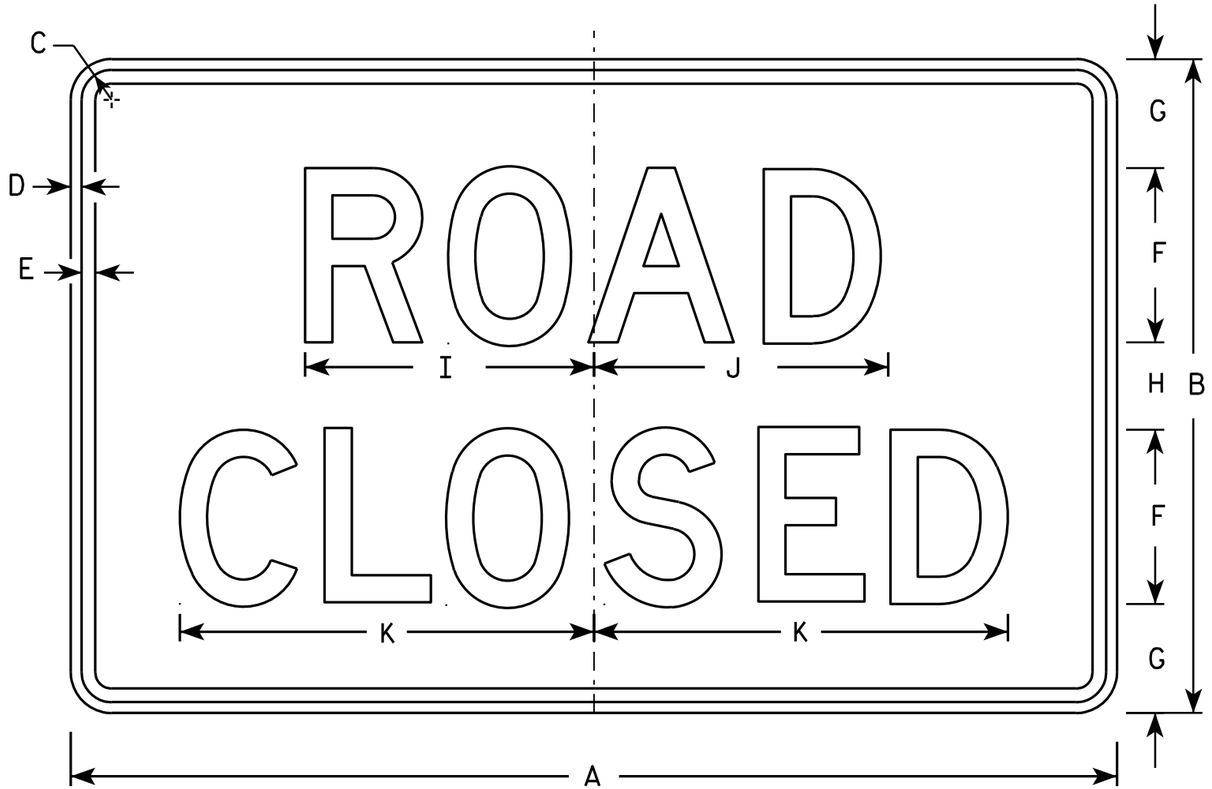
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/25/2011 PLATE NO. R4-9.2

PROJECT NO:

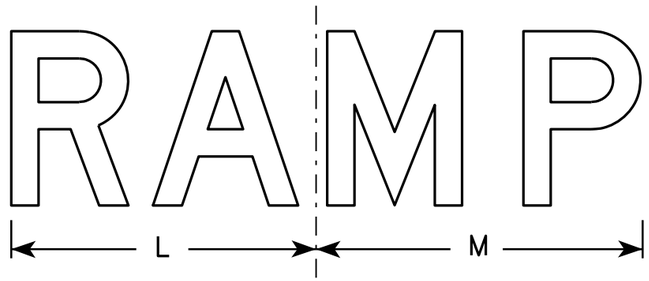
SHEET NO: 285 E



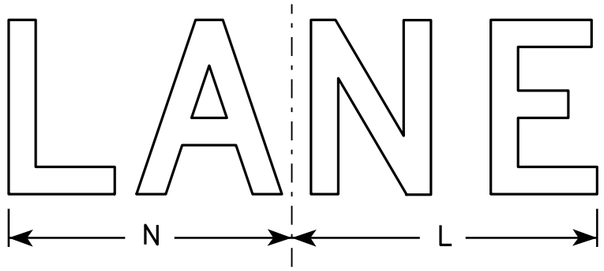
R11-2

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 - 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



R11-2L

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													10.0
2M	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
3	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
4	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0
5	48	30	1 3/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13													10.0

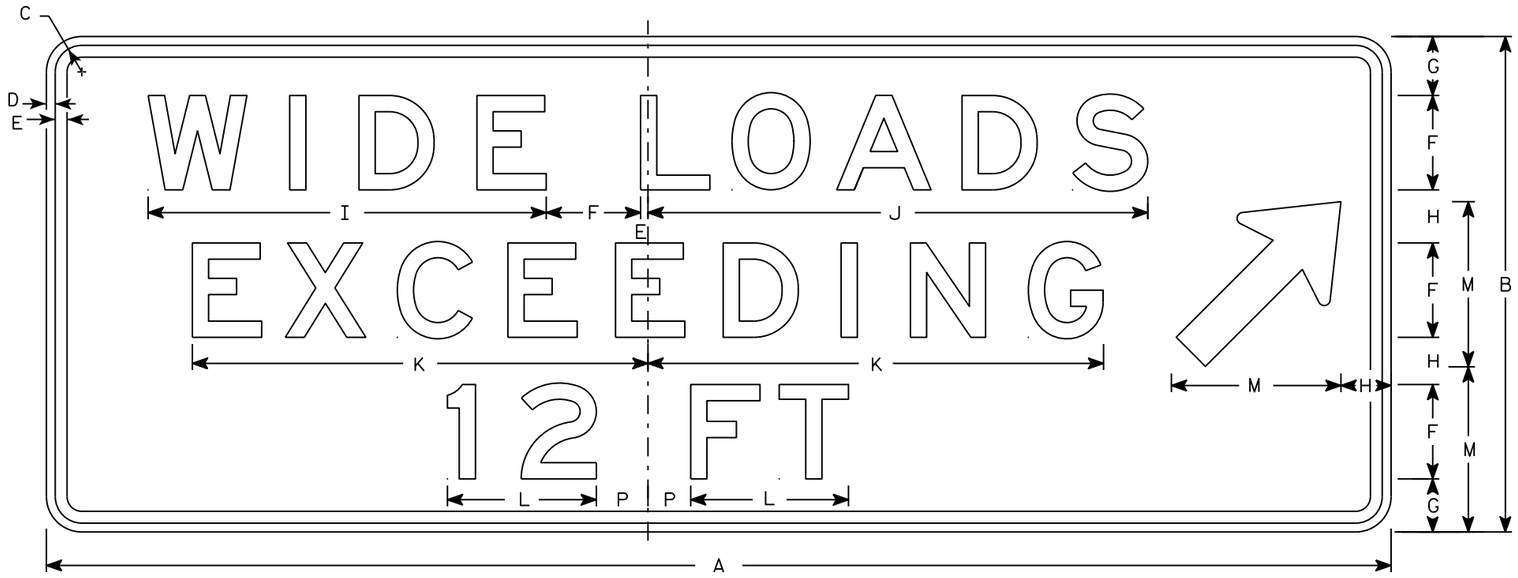
STANDARD SIGN
R11-2

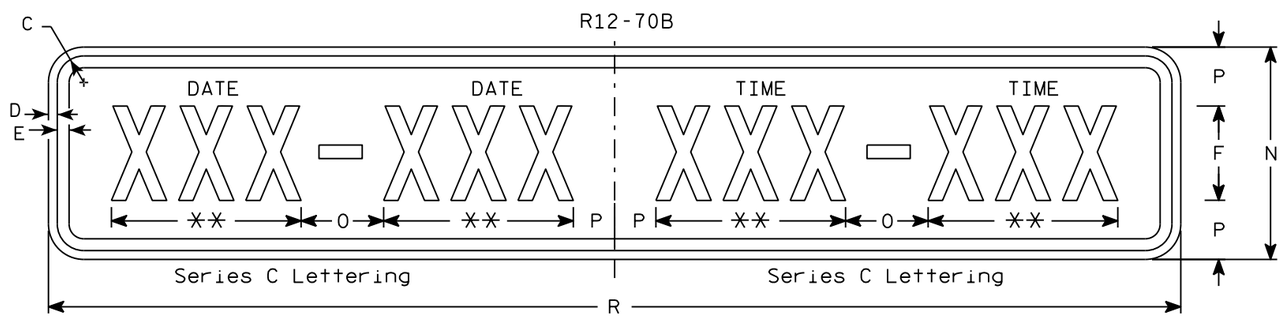
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 286 | 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

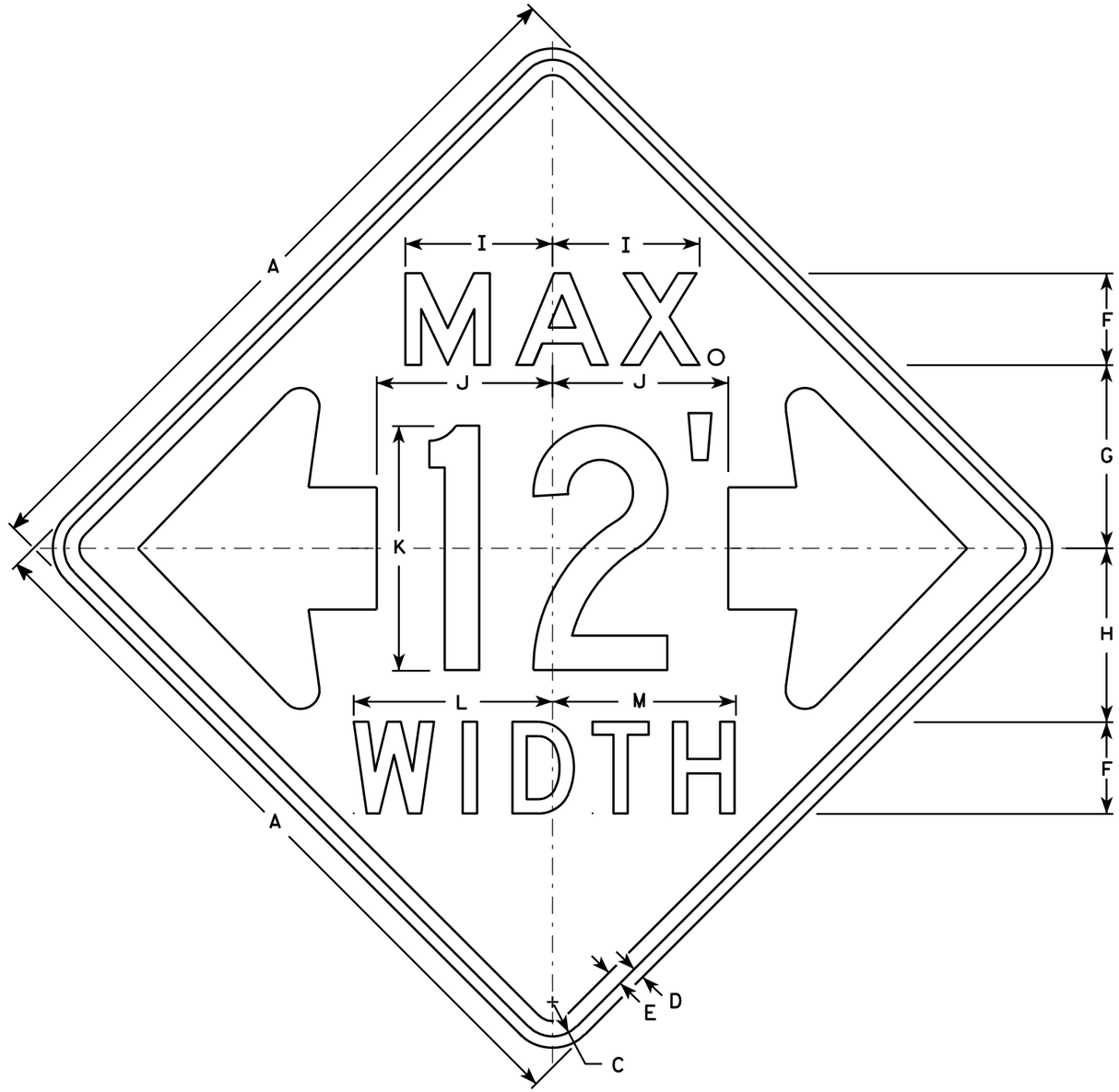
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

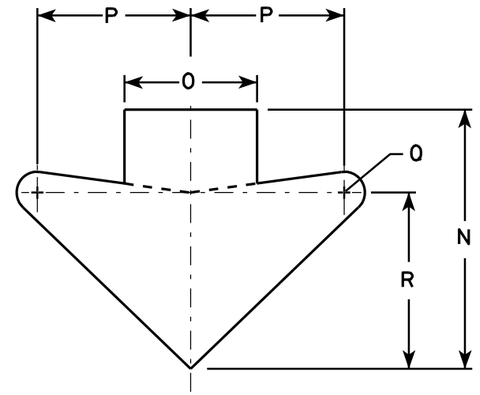
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\R1270B.DGN PLOT DATE : 01-DEC-2015 18:10 PLOT BY : $$ plotuser $$ PLOT NAME : PLOT SCALE : 12.842555:1.000000



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

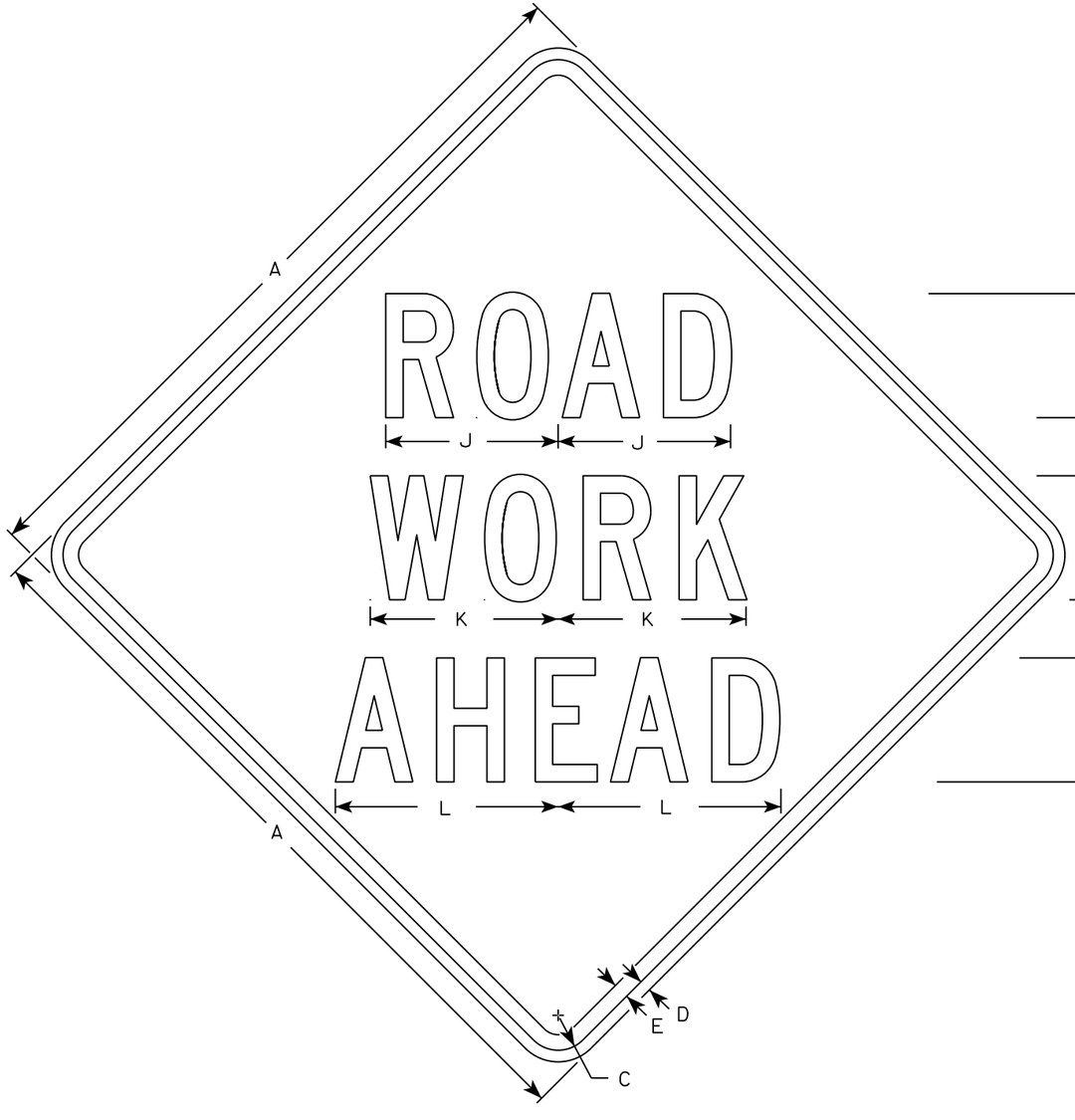
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

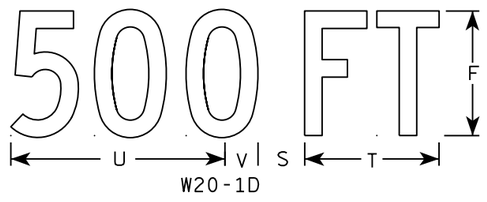
DATE 3/16/11 PLATE NO. W12-52.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 288 | E

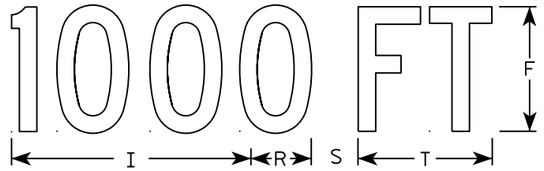
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W1252.DGN PLOT DATE : 16-MAR-2011 14:45 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.137199:1.000000
WISDOT/CADDS SHEET 42



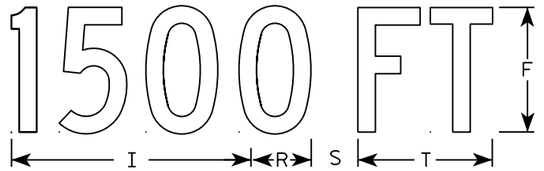
W20-1A



W20-1D



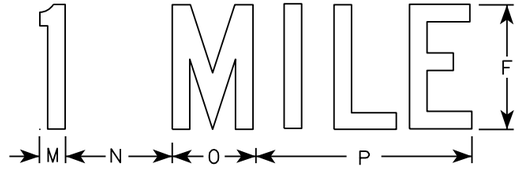
W20-1C



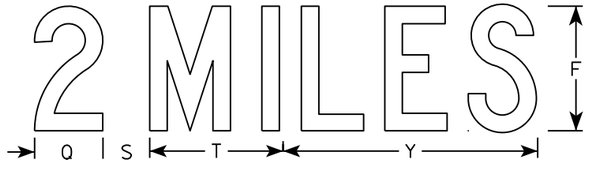
W20-1B



W20-1G



W20-1F



W20-1E

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		1 3/8	1/2	5/8	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9		2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
2M	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
3	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
4	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0
5	48		2 1/4	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

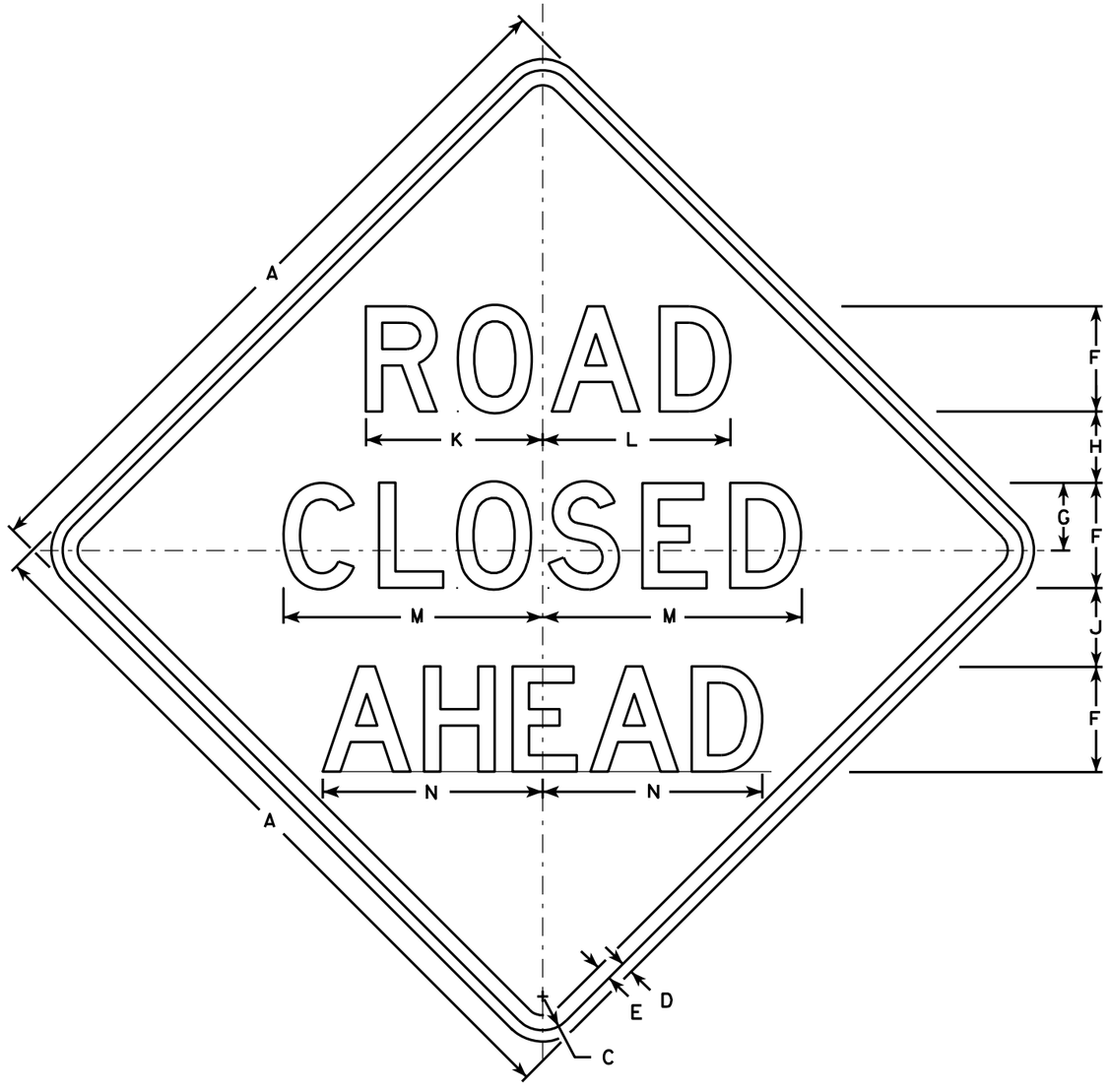
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 5/07/15 PLATE NO. W20-1.10

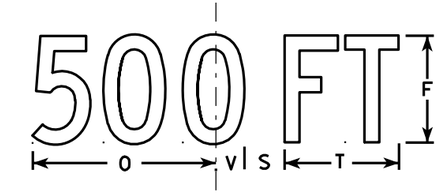
PROJECT NO:

SHEET NO: E

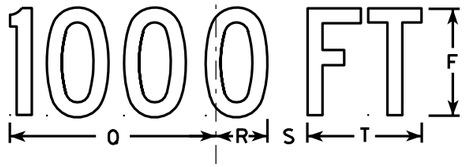
FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W201.DGN PLOT DATE : 01-DEC-2015 18:24 PLOT BY : $$ plotuser $$



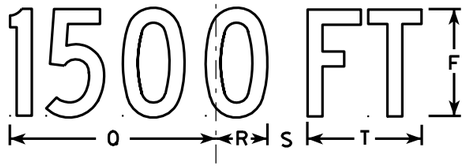
W20-3A



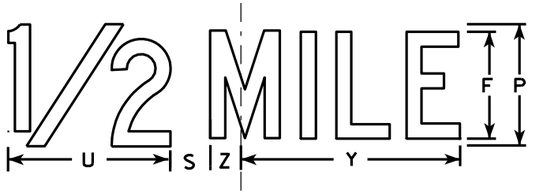
W20-3D



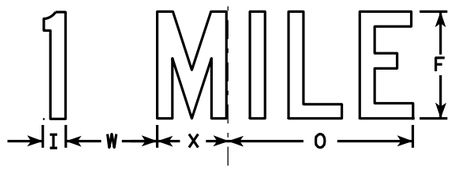
W20-3C



W20-3B



W20-3G



W20-3F

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	8 3/8	8 7/8	12 1/2	11	9	6	10 1/8	2 1/2	1 7/8	5 5/8	8	1 3/8	4 1/2	3 1/2	10 3/4	1 3/4	9.0
2S	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
2M	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
3	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
4	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0
5	48		2 1/4	3/4	1	7	4 1/2	4 3/4	1 1/2	5 1/4	11 3/4	12 1/2	17 1/4	14 5/8	12	8	13 1/2	3 3/8	2 5/8	7 1/2	10 5/8	1 7/8	6	4 5/8	14 3/8	2 3/8	16.0

STANDARD SIGN
W20-3A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer
DATE 3/18/11 PLATE NO. W20-3.7

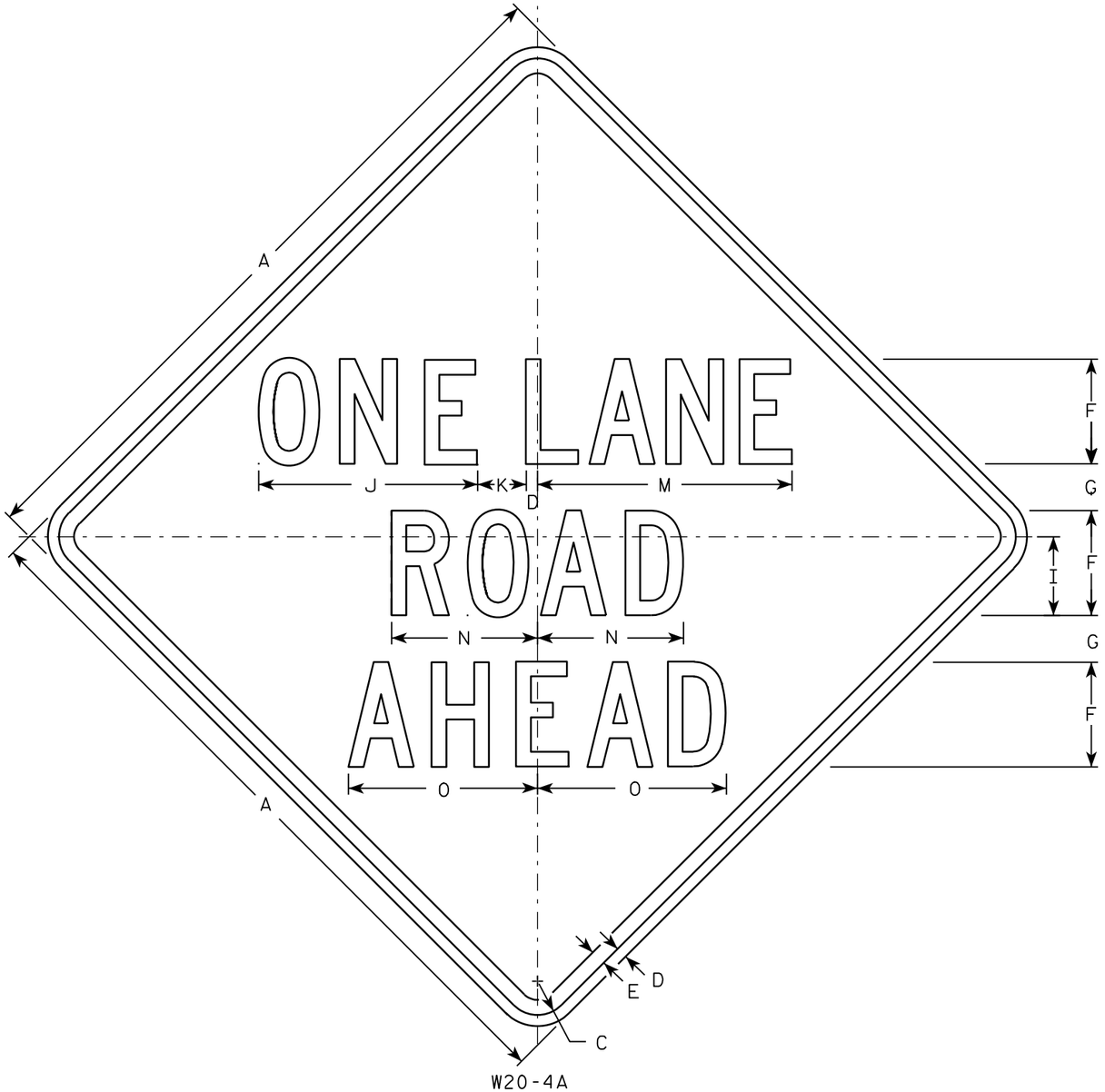
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 290 | E

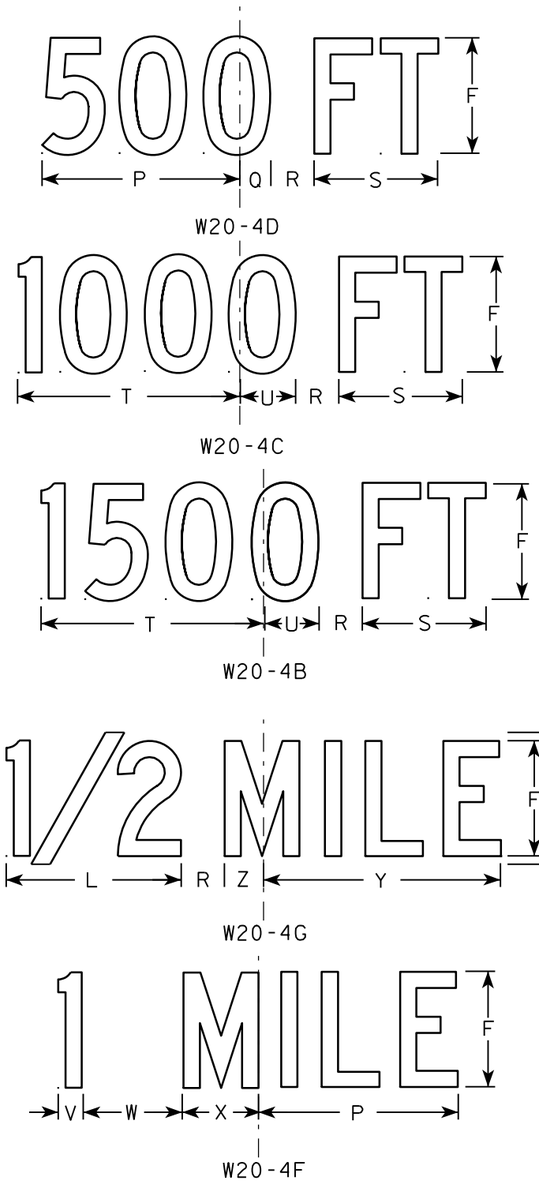
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W203.DGN PLOT DATE : 18-MAR-2011 12:08 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 9.931739:1.000000

WISDOT/CADDS SHEET 42

7

7





NOTES

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

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

STANDARD SIGN
W20-4A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

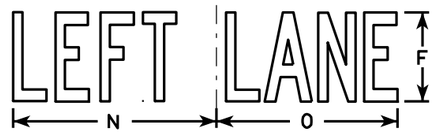
DATE 3/18/11 PLATE NO. W20-4.9

PROJECT NO:

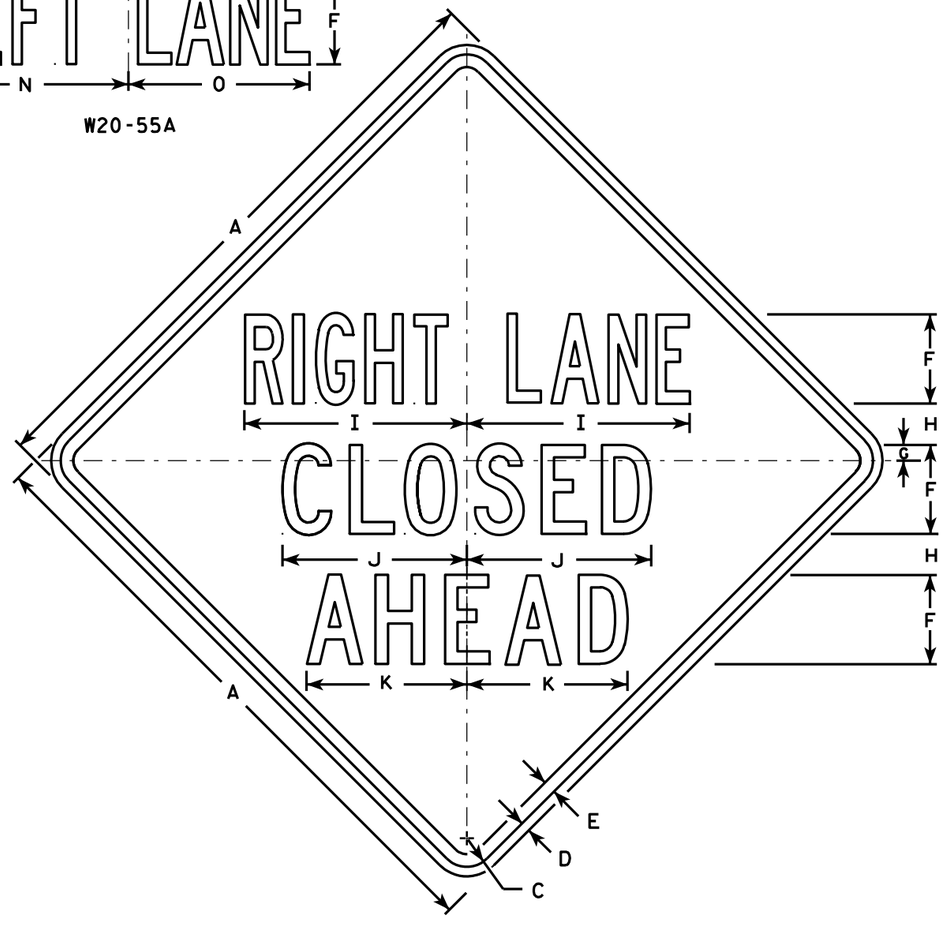
SHEET NO: 291 E



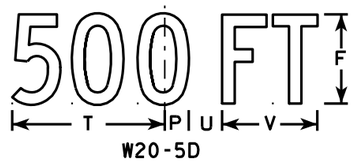
W20-56A



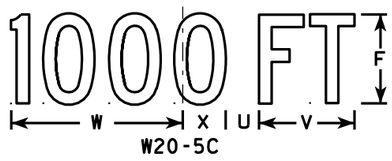
W20-55A



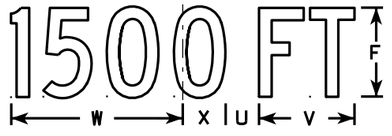
W20-5A



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

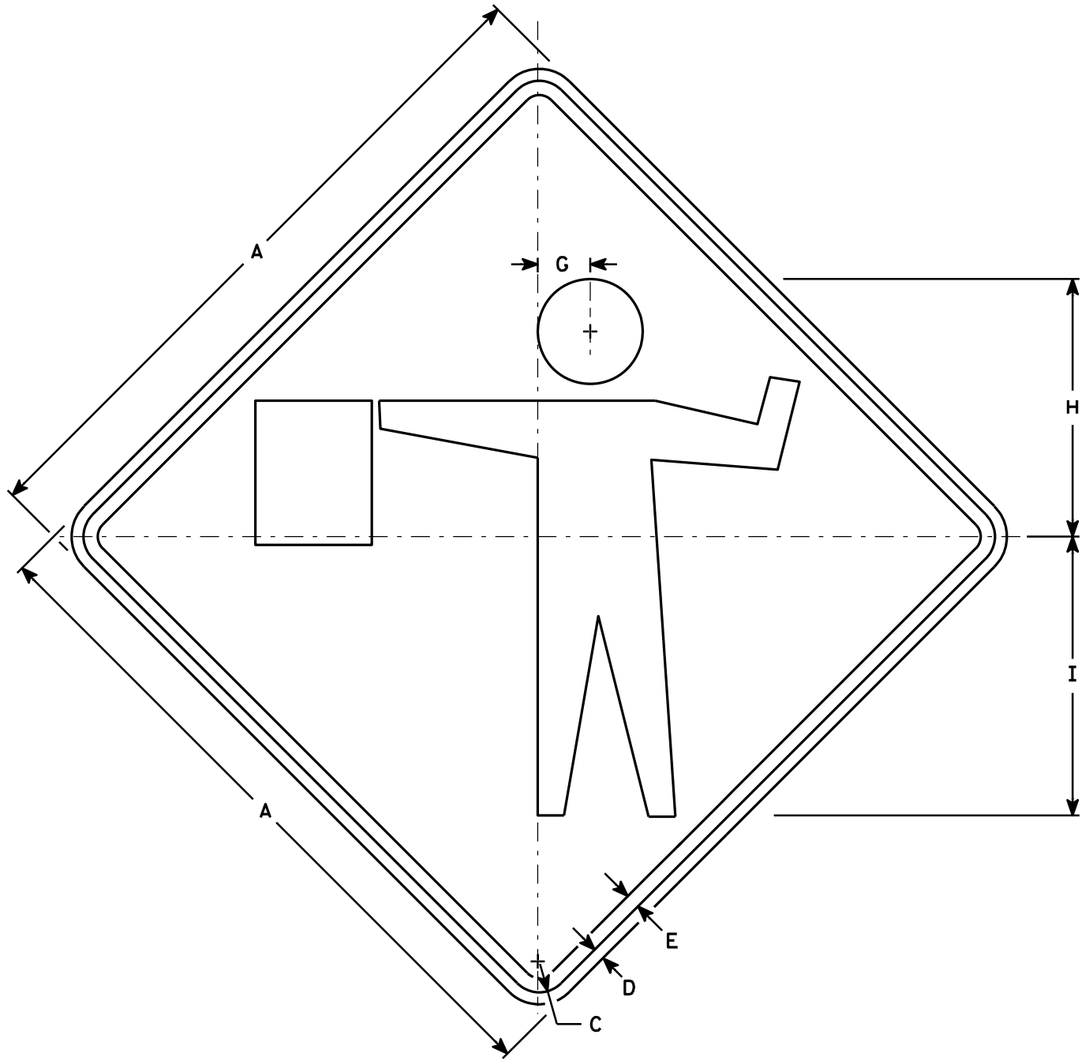
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 292 | 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



W20-7A

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.

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		2 3/4	13 1/2	14 5/8																		9.00
2S	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
2M	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
3	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
4	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00
5	48		2 1/4	3/4	1		3 3/4	18	19 1/2																		16.00

STANDARD SIGN
W20-7A

WISCONSIN DEPT OF TRANSPORTATION

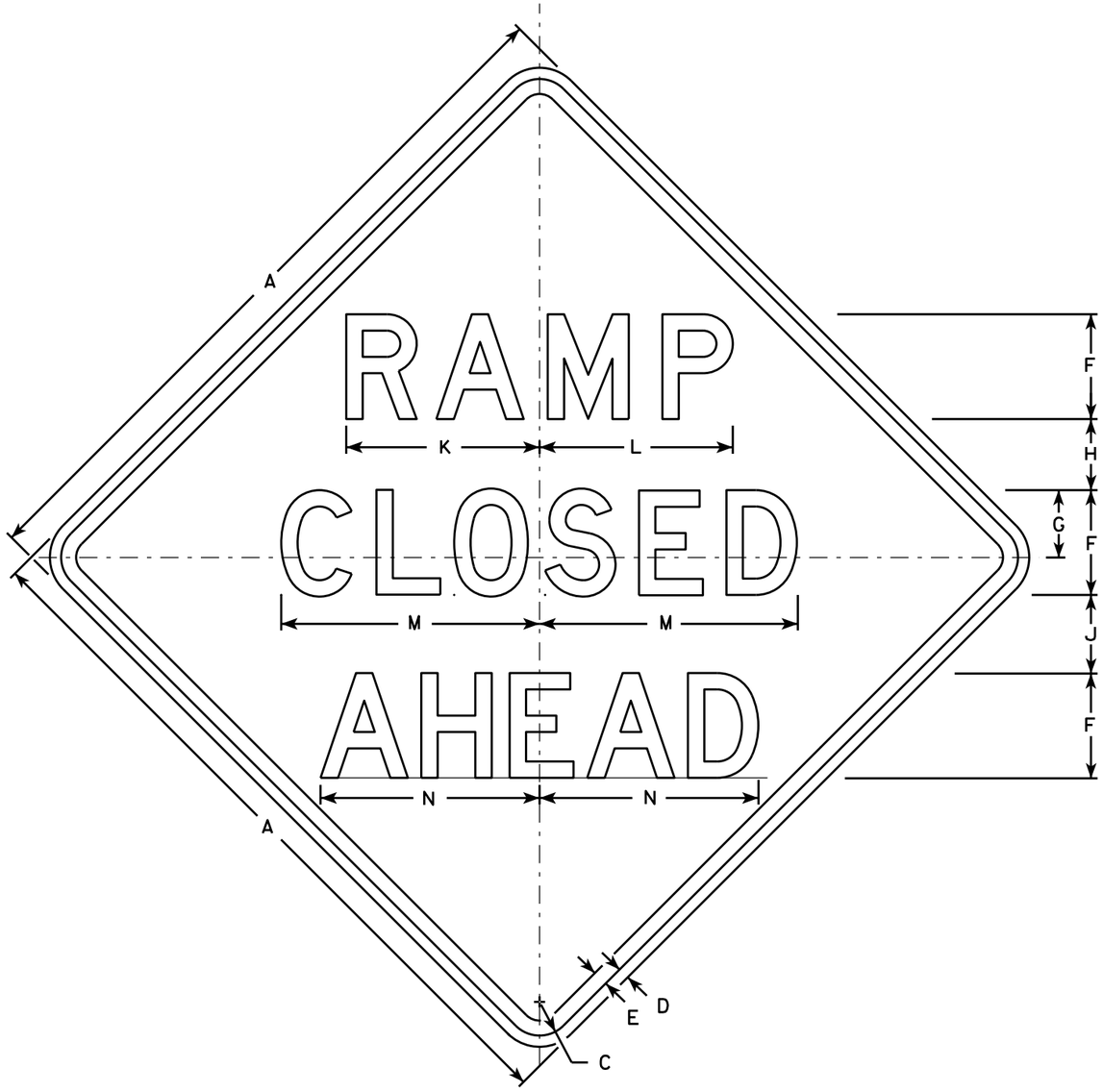
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/18/11 PLATE NO. W20-7A.5

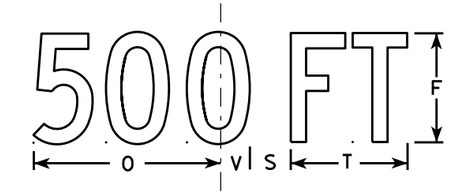
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 293 | E

7

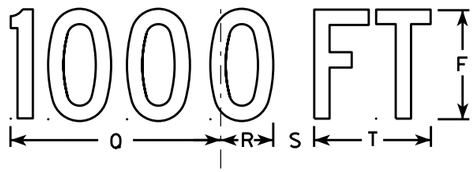
FILE NAME : C:\Users\PROJECTS\tr_stdplate\W207A.DGN PLOT DATE : 18-MAR-2011 13:14 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 7.945391:1.000000 WISDOT/CADDS SHEET 42



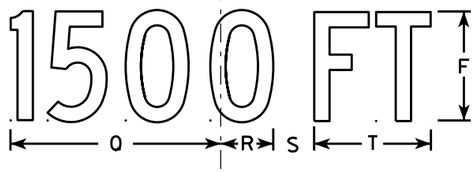
W20-53A



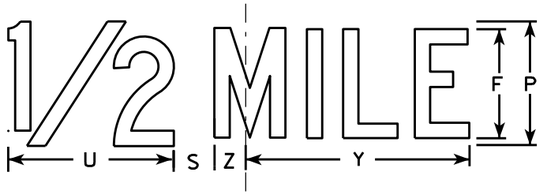
W20-53D



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

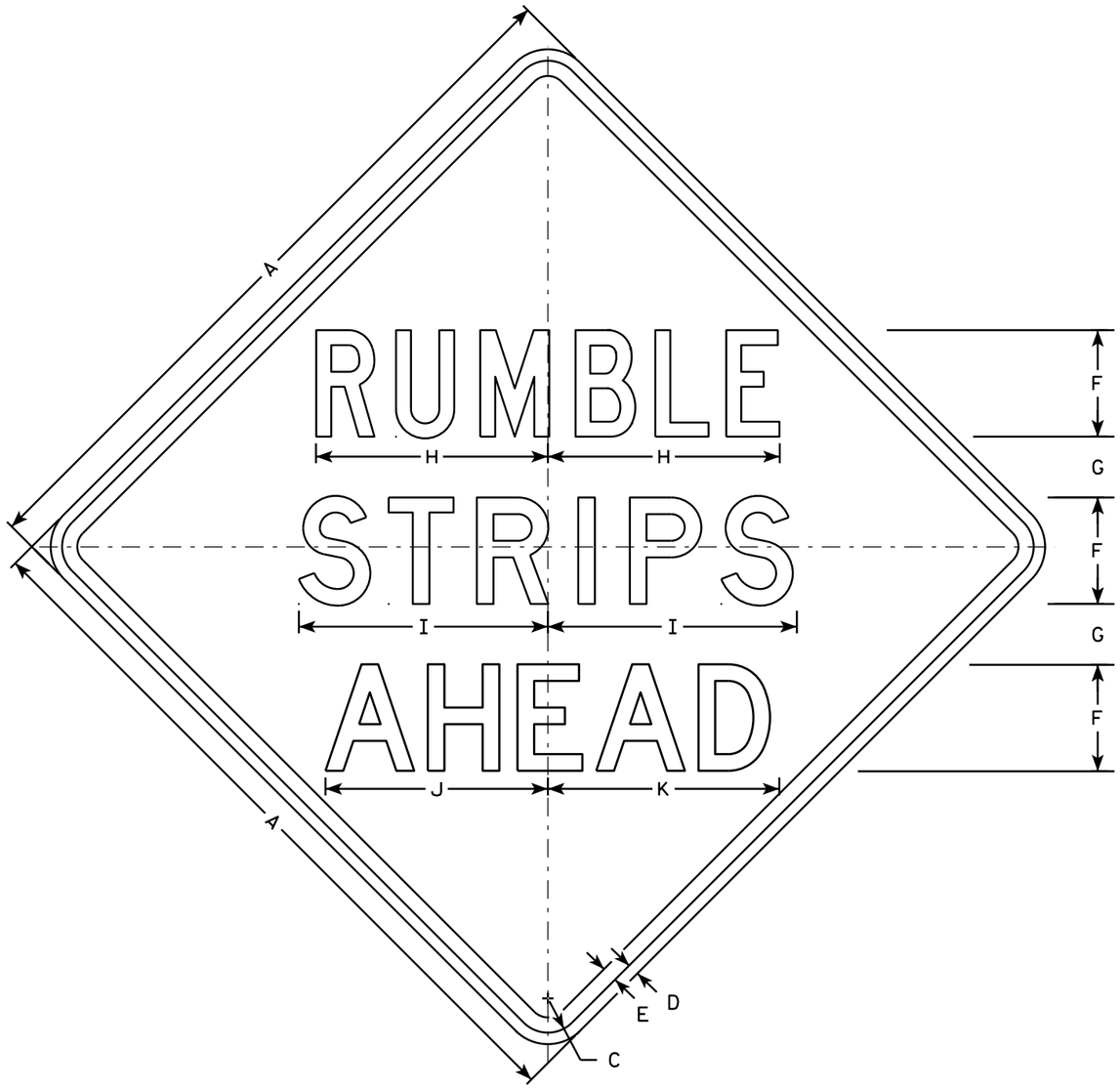
WISCONSIN DEPT OF TRANSPORTATION

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



W21-65

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - see note 5
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Line 1 is Series C
   Lines 2 and 3 are Series D

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 1/4	10 7/8	11 5/8	11	11 5/8																9.0
2S	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
2M	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
3	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
4	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0
5	48		2 1/4	3/4	1	7	4	15 1/4	16 3/8	14 5/8	15 1/4																16.0

STANDARD SIGN

W21-65

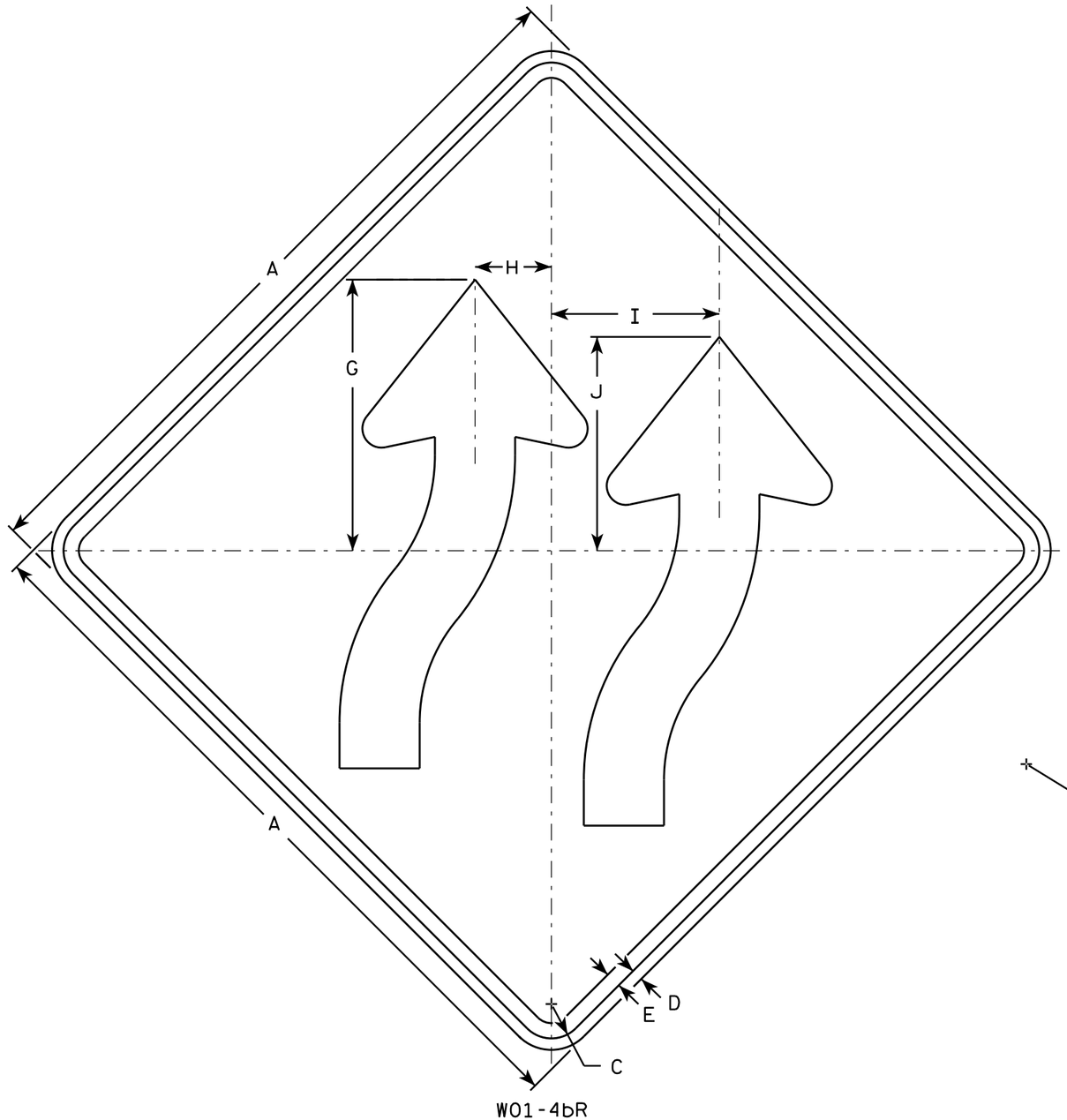
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

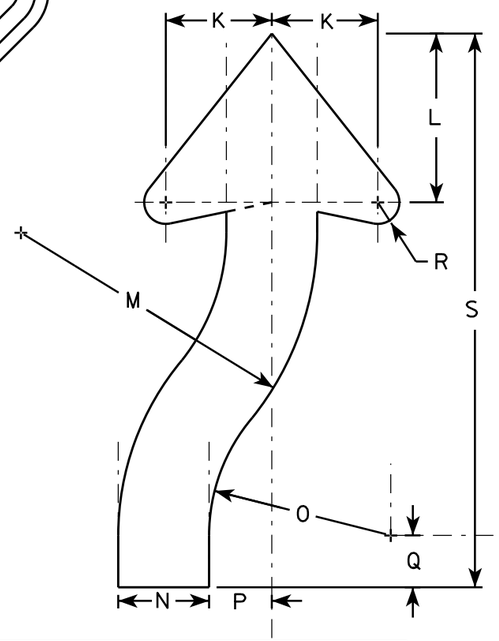
DATE 5/28/14 PLATE W21-65.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W2165.dgn PLOT DATE : 28-MAY-2014 13:24 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 9.729210:1.000000 WISDOT/CADDS SHEET 42



W01-4bR



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. W01-4bL is the same as W014-bR exept arrows are 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		13 3/8	3 3/4	8 1/4	10 1/2	4 5/8	7 3/8	12 7/8	3 7/8	7 7/8	2 3/4	2 1/4	7/8	24								9.0
2S	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
2M	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
3	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
4	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0
5	48		2 1/4	3/4	1		17 3/4	5	11	14	6 1/8	9 3/4	17 1/8	5 1/4	10 1/2	3 5/8	3	1 1/4	32								16.0

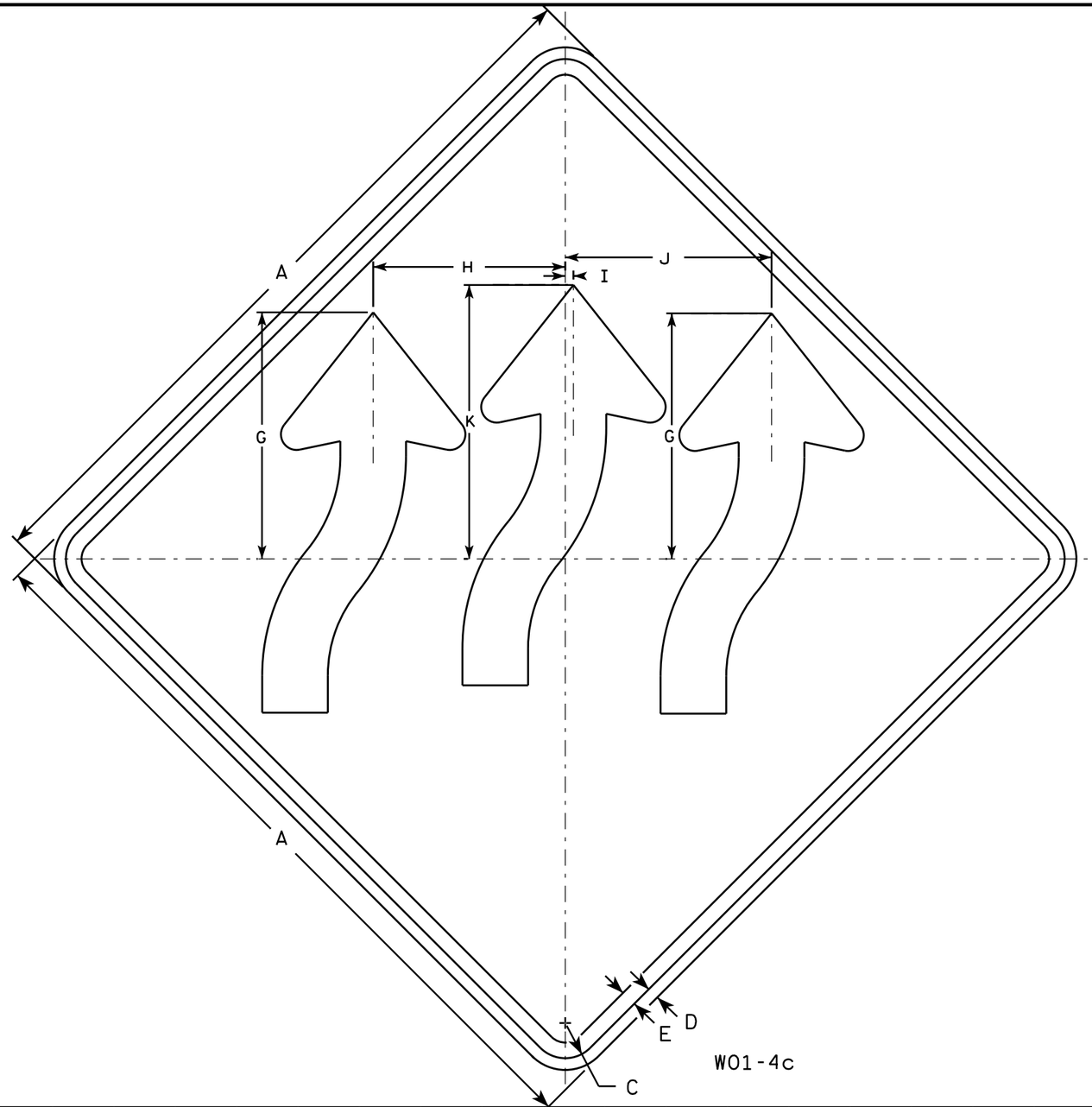
STANDARD SIGN
W01-4b

WISCONSIN DEPT OF TRANSPORTATION

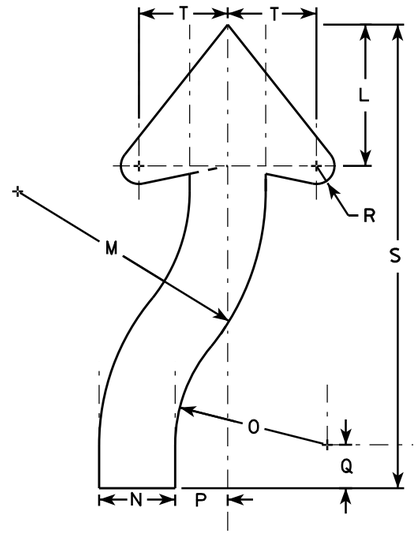
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-4b.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-4c



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.

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		11 3/4	9 1/4	3/8	9 7/8	13 1/8	5 7/8	10 1/4	3 1/8	6 1/4	2 1/4	1 7/8	3/4	19 1/4	3 3/4							9.0
2S	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
2M	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
3	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
4	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0
5	48		2 1/4	3/4	1		15 3/4	12 1/4	1/2	13 1/4	17 1/2	7 3/4	13 3/4	4 1/4	8 1/2	2 7/8	2 3/8	1	25 5/8	4 7/8							16.0

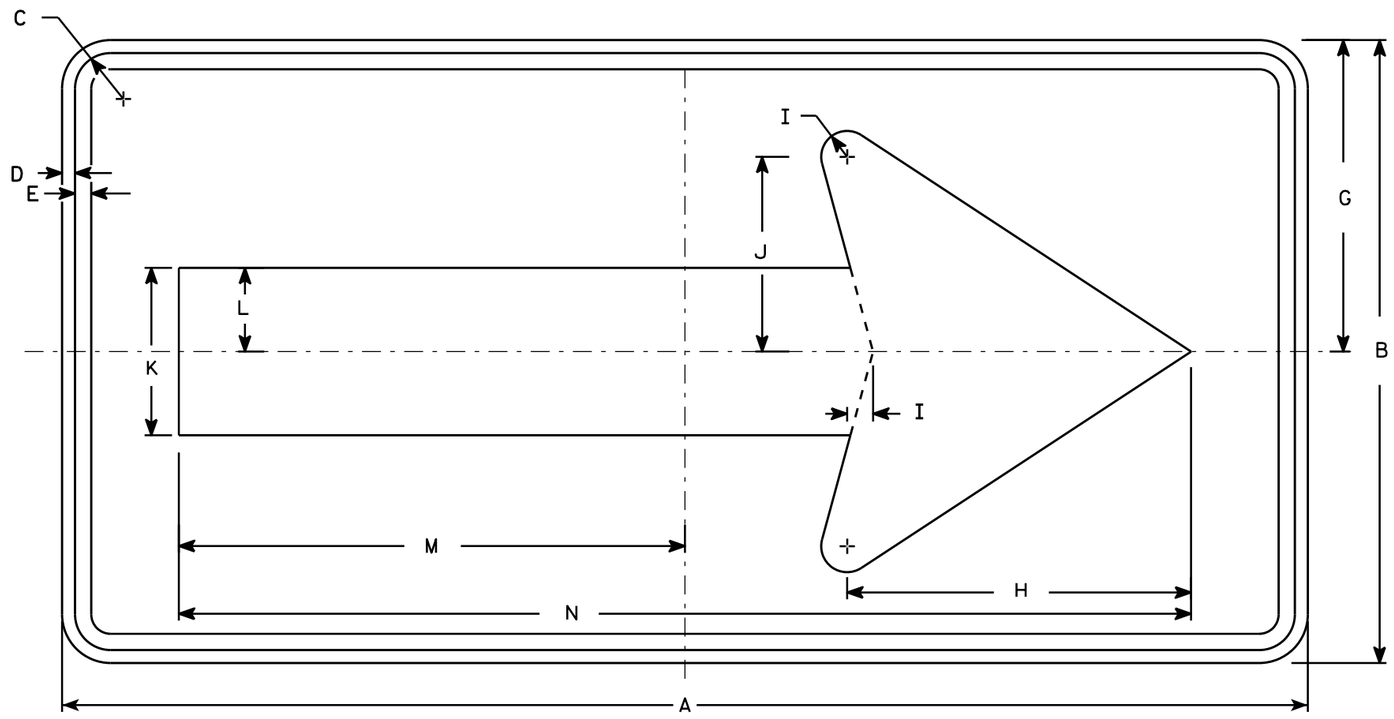
STANDARD SIGN
W01-4c

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE 297 "01-4c.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W01-6

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.

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	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
2M	48	24	1 3/8	1/2	5/8		12	13 1/4	1	7 1/2	6 1/2	3 1/4	19 1/2	39													8.0
3	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
4	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5
5	60	30	1 3/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

STANDARD SIGN
W01-6

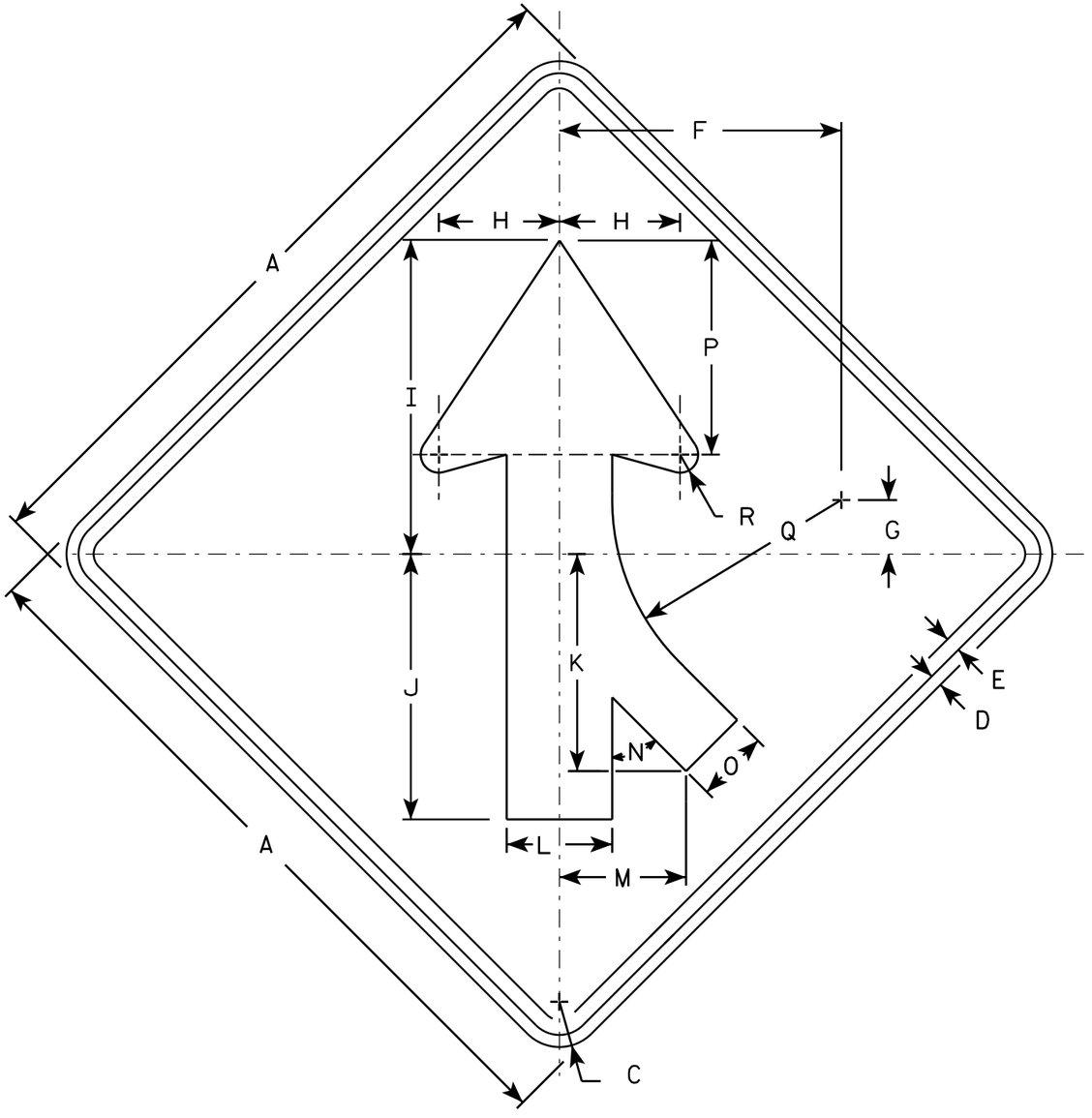
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/18/13 PLATE NO. W01-6.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W016.DGN PLOT DATE : 28-FEB-2014 11:37 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 5.837526:1.000000 WISDOT/CADDS SHEET 42



W04-1R

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. W4-1L is the same as W4-1R 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

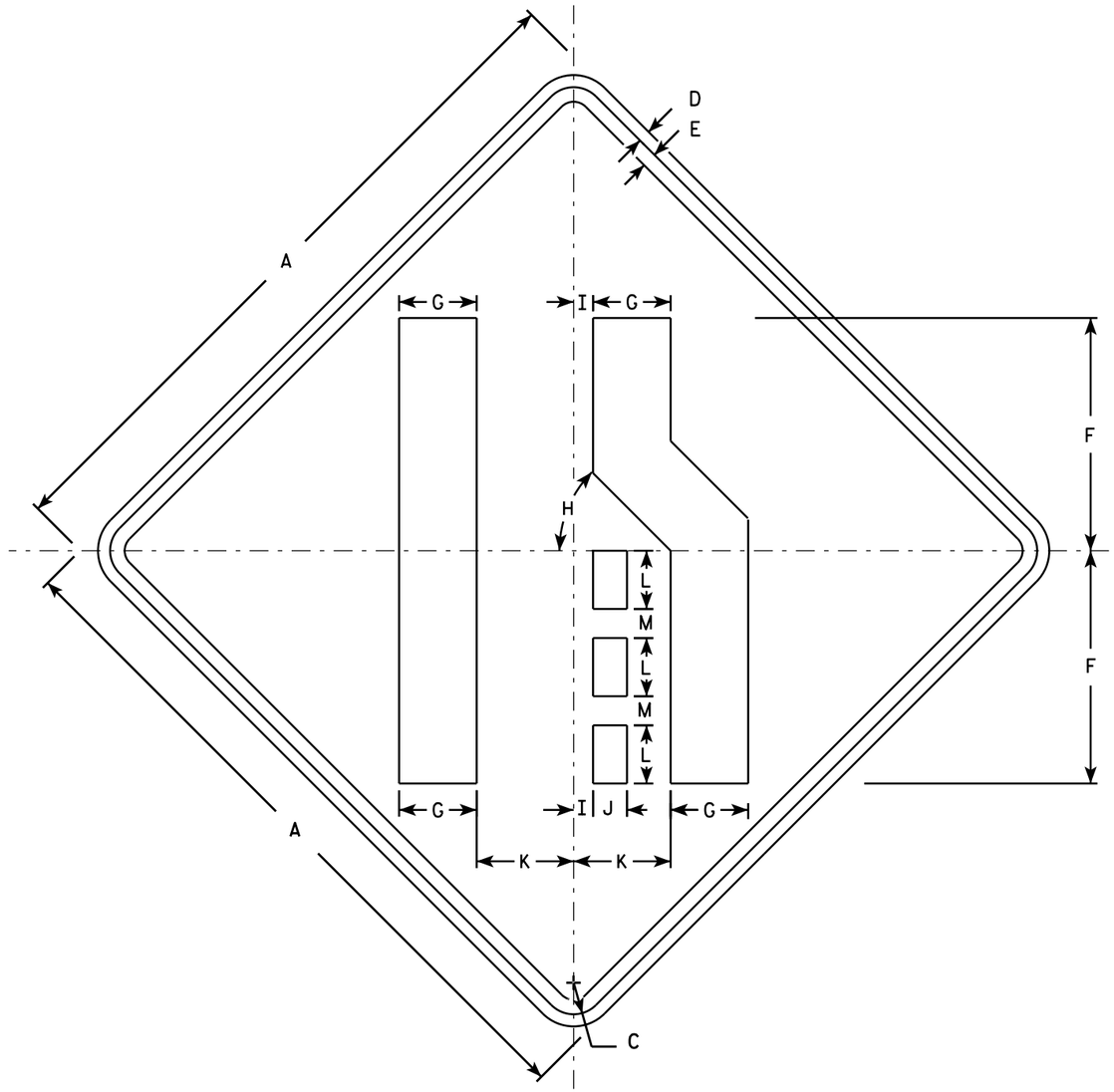
STANDARD SIGN
W04-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE NO. W04-1.1

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 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

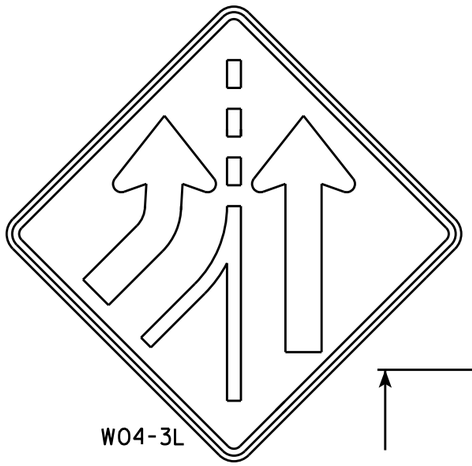
WISCONSIN DEPT OF TRANSPORTATION

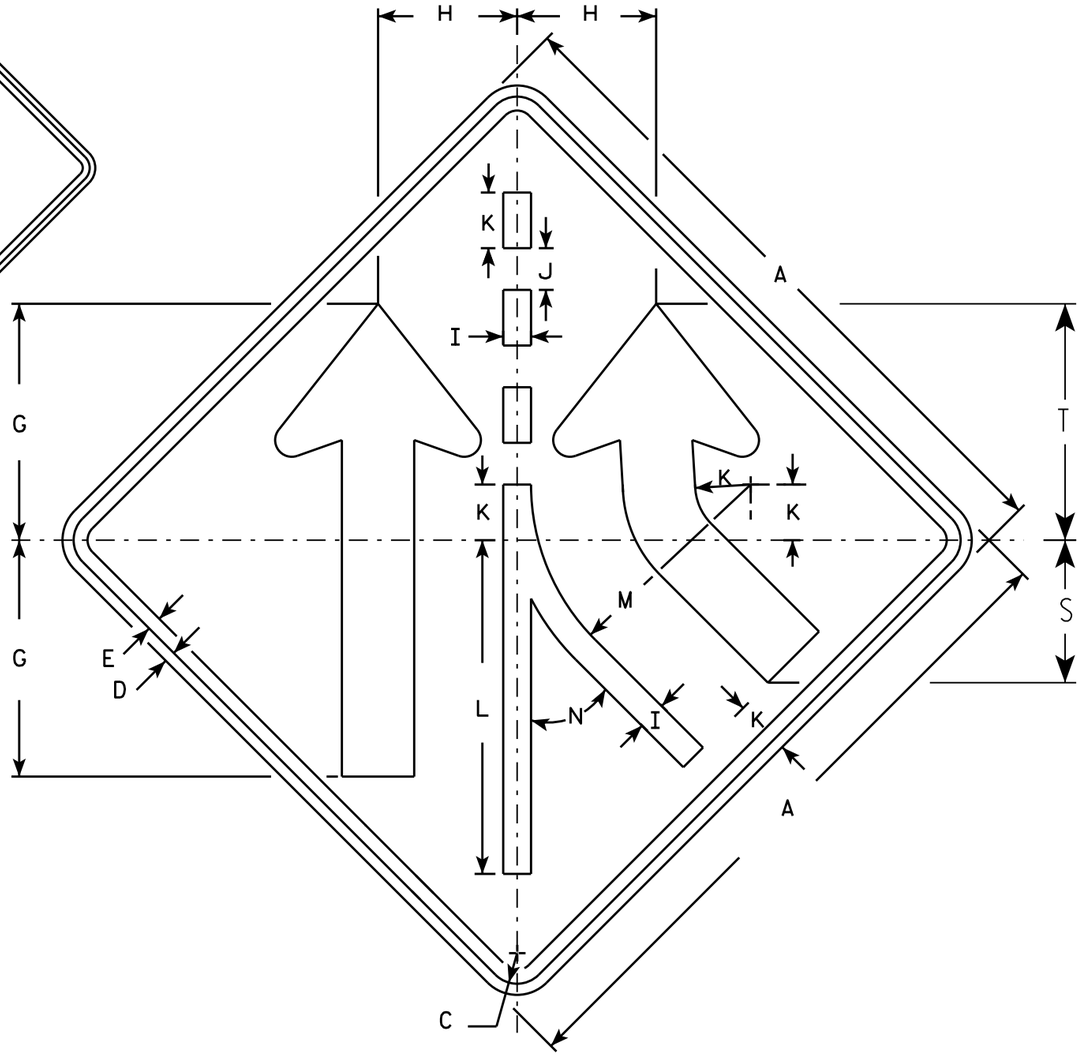
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE 300 W04-2.1

PROJECT NO:

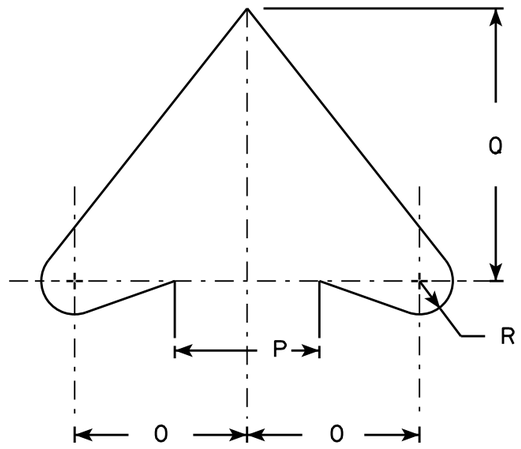
SHEET NO: E





NOTES

1. Sign is Type II - Type F Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-3 L is the same as W04-3 R 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 3/4	7 1/2	1 1/2	2 1/4	3	18	11 7/8	45°	4 5/8	4	7 3/8	7/8	7 3/4	12 3/4							9.0
2S	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
2M	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
3	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
4	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0
5	48		2 1/4	3/4	1		17	10	2	3	4	24	15 3/4	45°	6 1/4	5 1/2	9 7/8	1 1/4	10 1/4	17							16.0

STANDARD SIGN

W0433

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

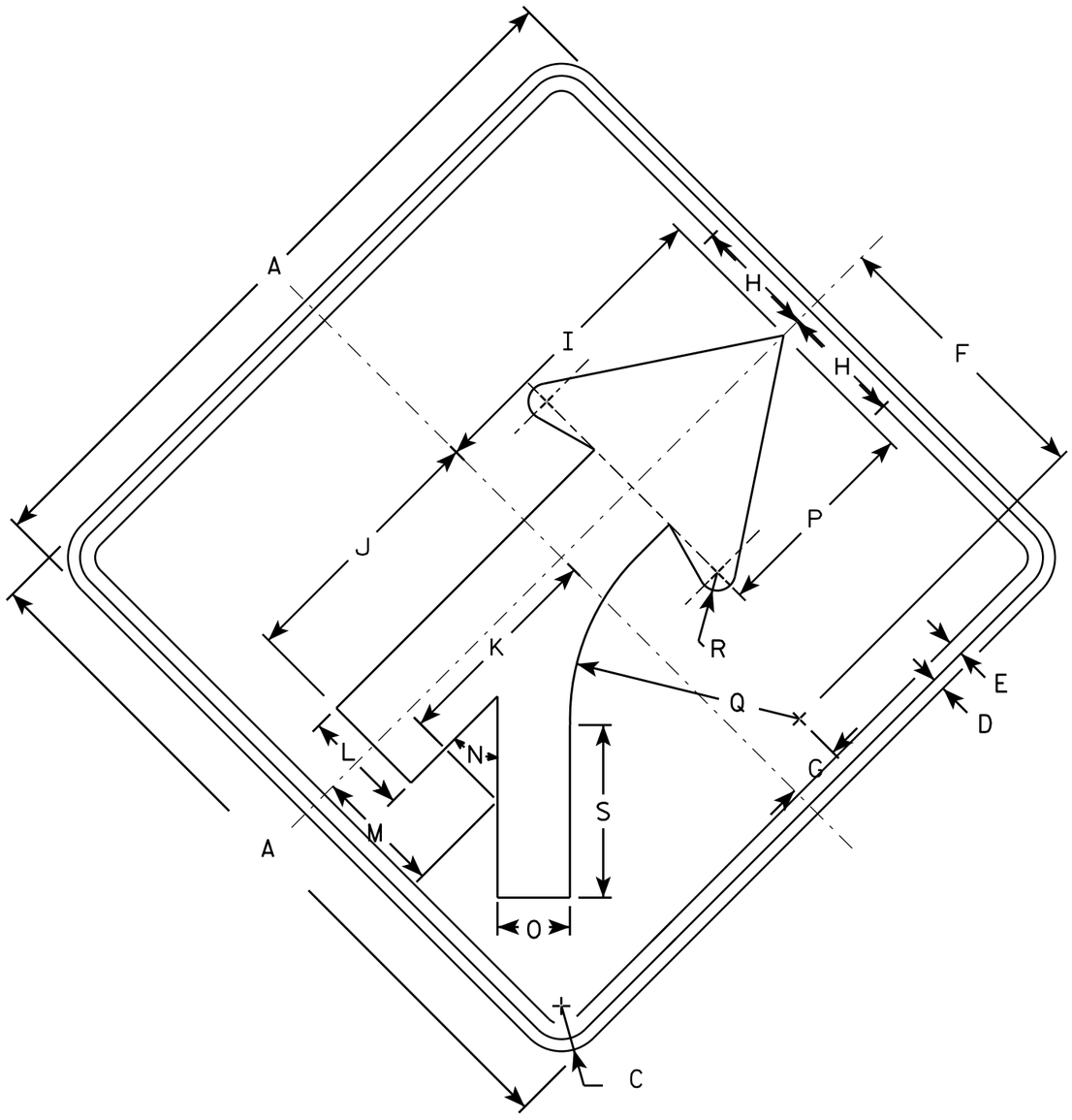
DATE 11/20/13 PLATE W04-3.1

PROJECT NO:

SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W043.DGN PLOT DATE : 20-NOV-2013 11:49 PLOT BY : mscsja 6.810449:1.000000

WISDOT/CADDS SHEET 42



W04-5

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.

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	8 1/2								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	11 3/8								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	11 3/8								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	11 3/8								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	11 3/8								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	11 3/8								16.0

STANDARD SIGN
W04-5

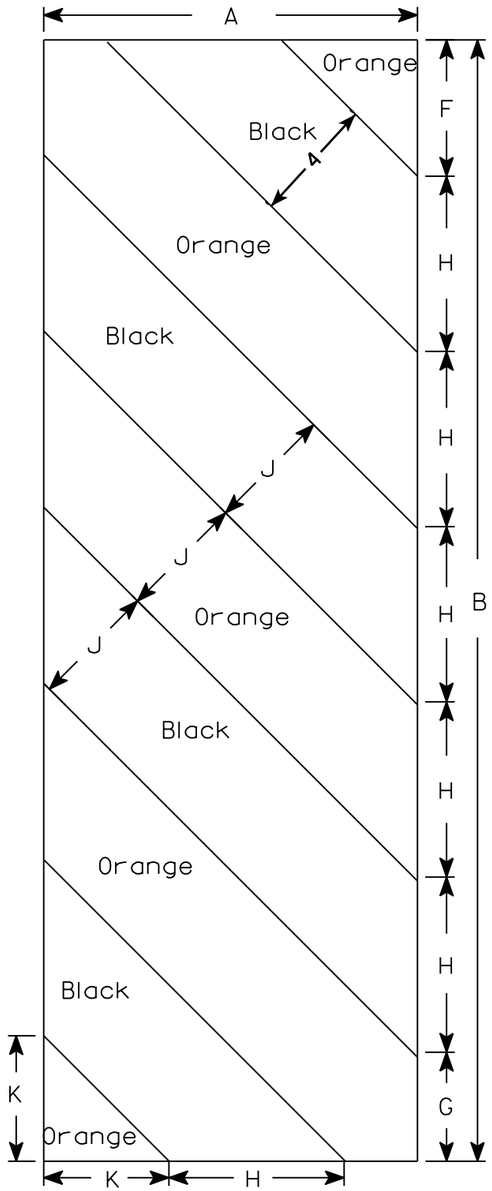
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

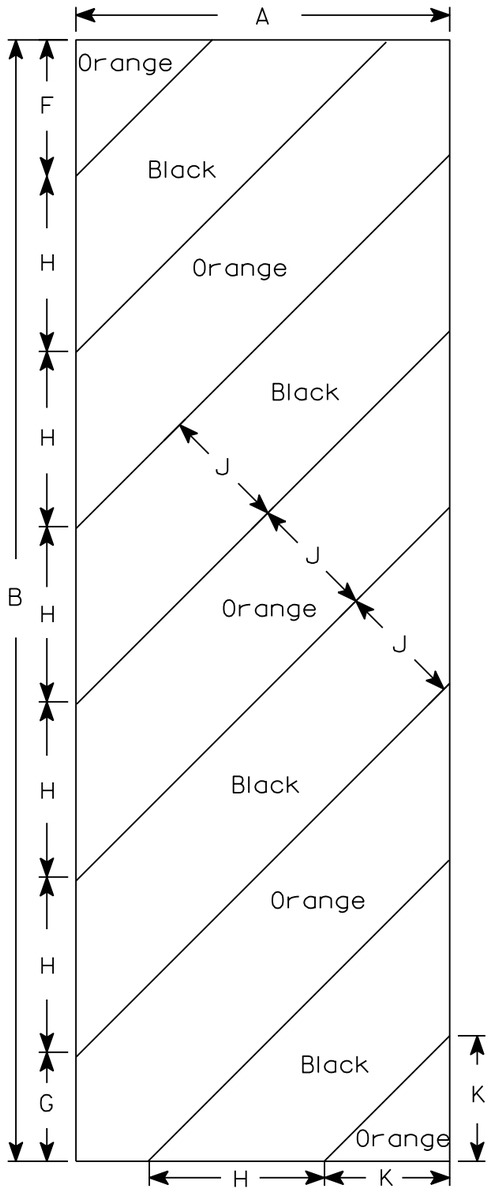
DATE 4/28/16 PLATE NO W04-5.1

PROJECT NO: | HWY: | COUNTY: | | SHEET NO: E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W045.DGN PLOT DATE : 28-APR-2016 13:30 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : 6.080757:1.000000
WISDOT/CADDS SHEET 42



W05-52L



W05-52R

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. Alternate colors of stripes as shown.

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	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36				4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54				6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

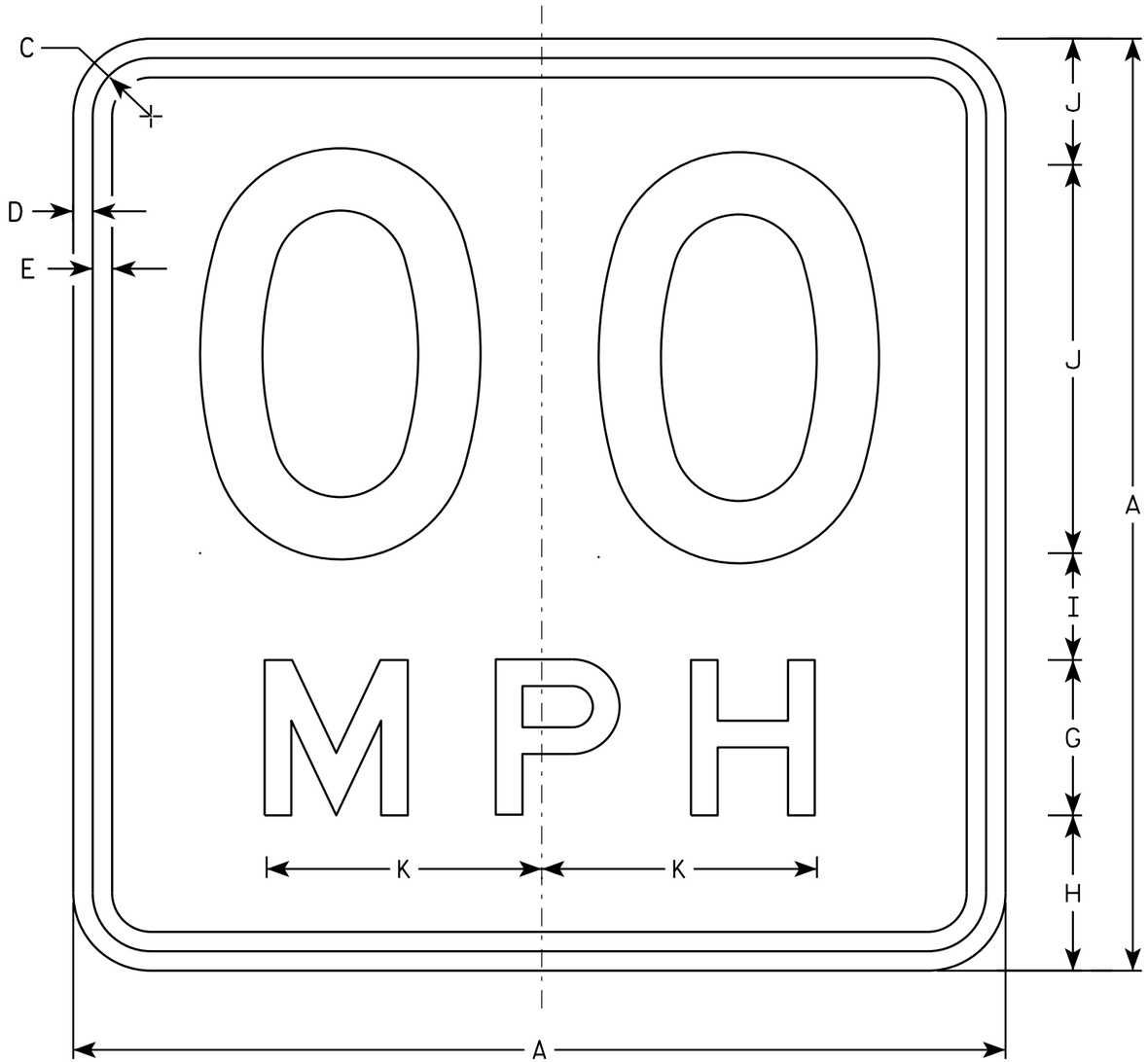
W05-52L & W05-52R

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/20/13 PLATE No. W05-52.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E



W013-1

NOTES

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

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

STANDARD SIGN
W013-1

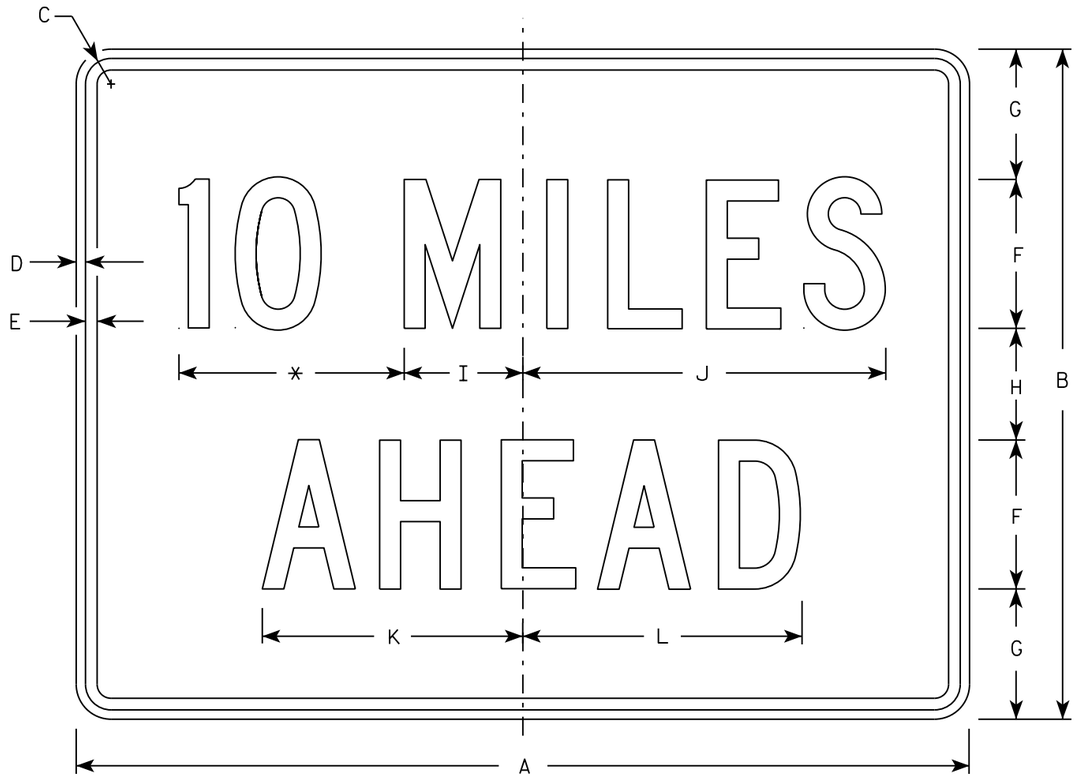
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

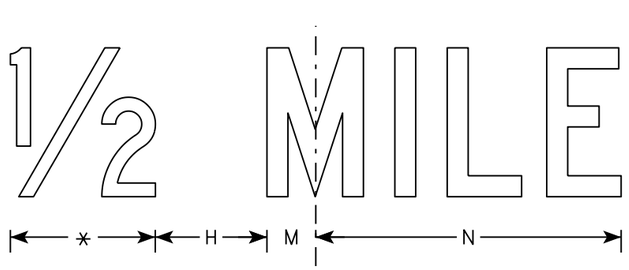
DATE 11/21/13 PLATE 304 W013-1.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\W0131.DGN PLOT DATE : 02-DEC-2013 13:55 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 3.794391:1.000000
WISDOT/CADDS SHEET 42



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

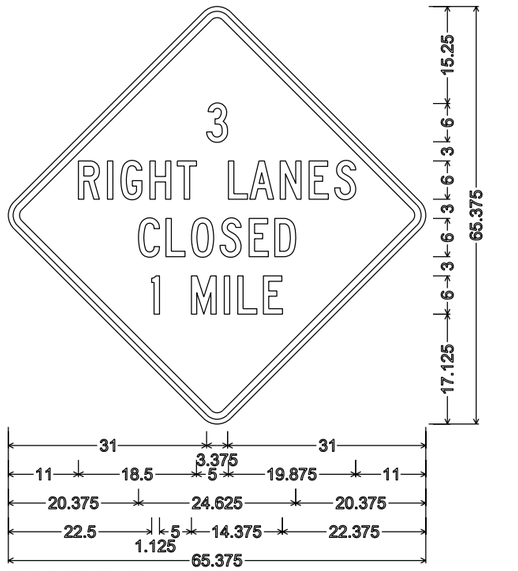
STANDARD SIGN
W057-52

WISCONSIN DEPT OF TRANSPORTATION

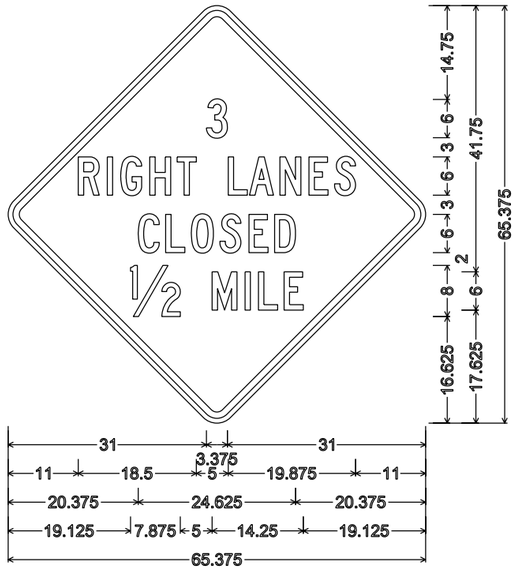
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/21/17 PLATE NO. W057-52.2

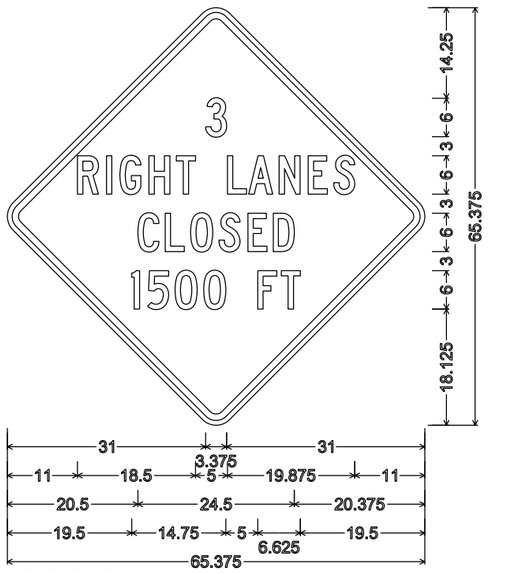
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 305	E



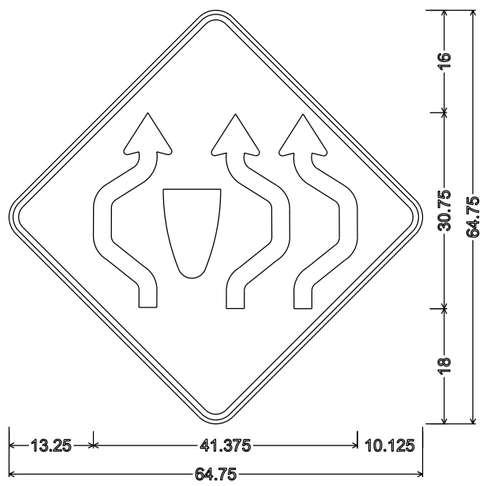
W20-5a(5)_48x48;
48.000" across sides 3.000" Radius, 1.000" Border, 0.750" Indent



W20-5a(5)_48x48
48.000" across sides 3.000" Radius, 1.000" Border, 0.750" Indent,



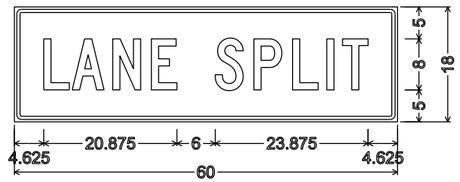
W20-5a(5)_48x48
48.000" across sides 3.000" Radius, 1.000" Border, 0.750" Indent



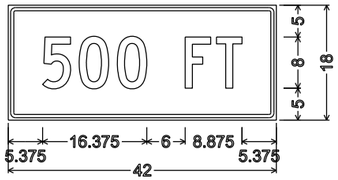
48.000" across sides 3.750" Radius, 0.875" Border, 0.625" Indent

NOTES

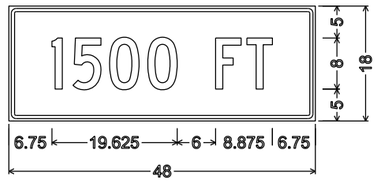
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C



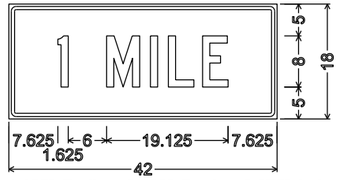
1.125" Radius, 0.500" Border, 0.375" Indent



1.125" Radius, 0.500" Border, 0.375" Indent



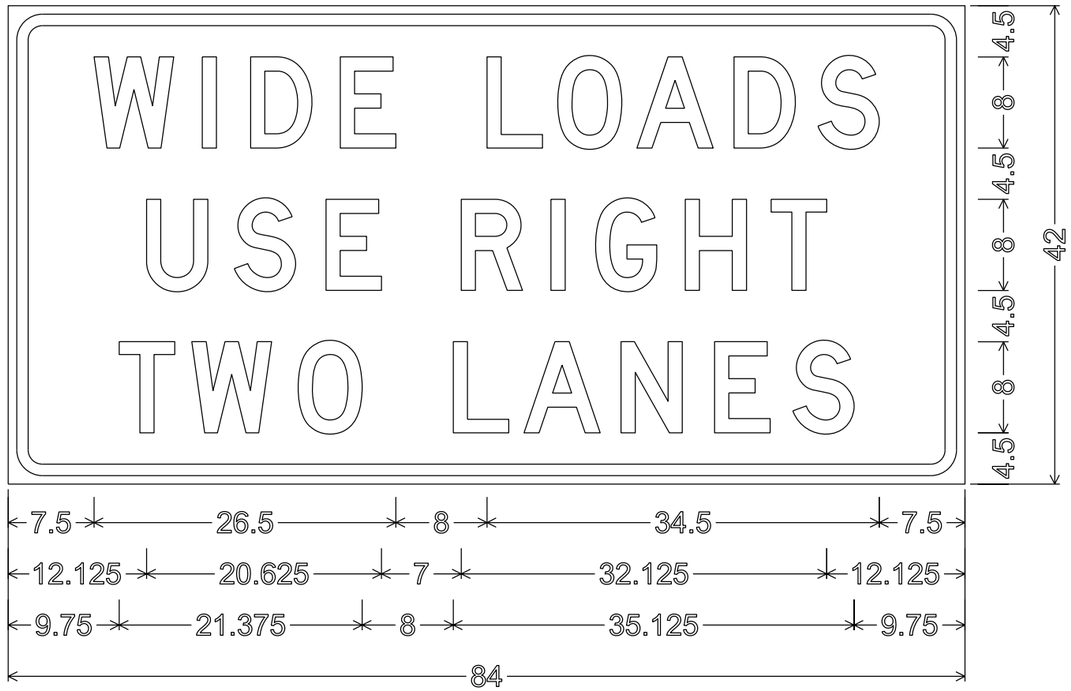
1.125" Radius, 0.500" Border, 0.375" Indent



1.125" Radius, 0.500" Border, 0.375" Indent

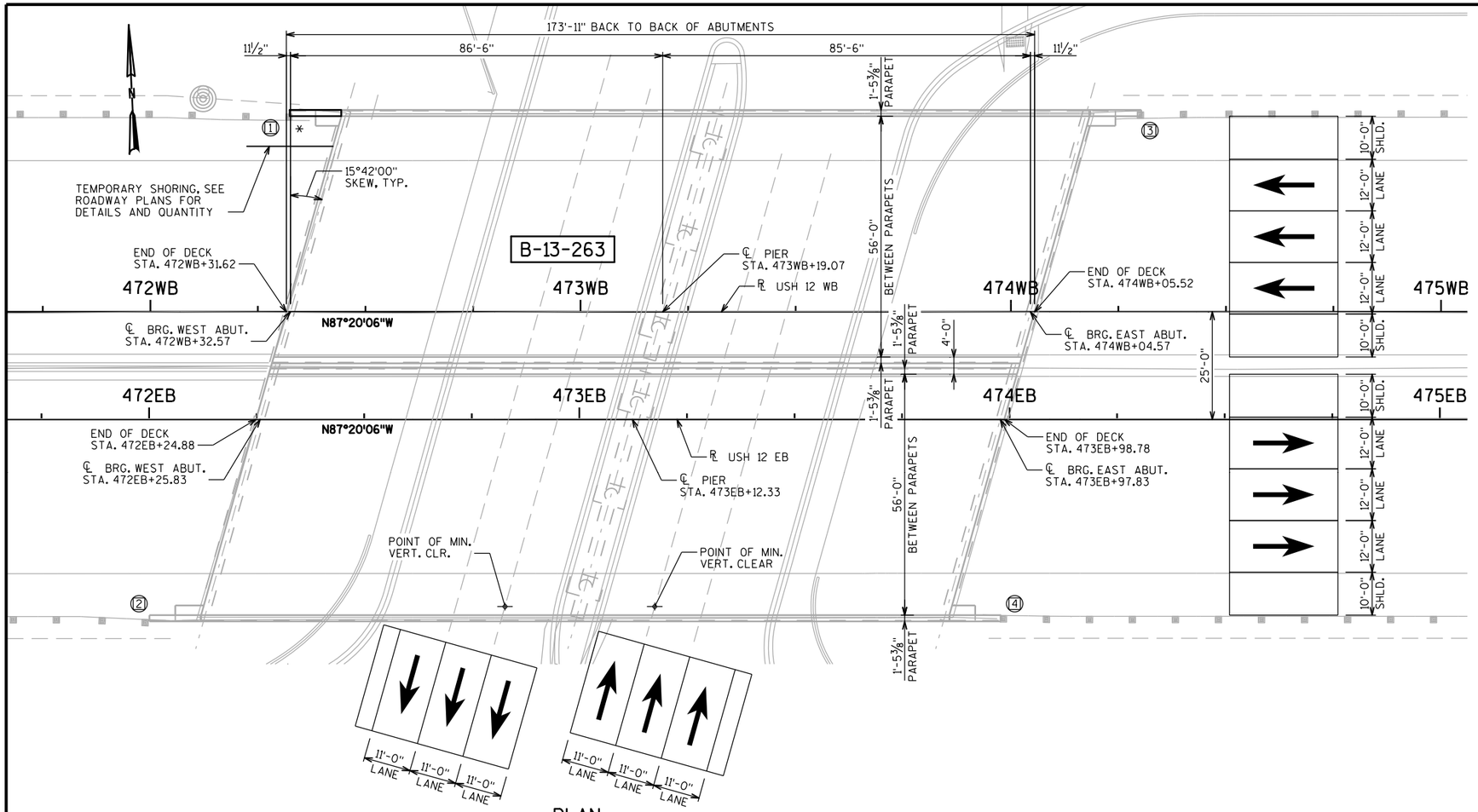
NOTES

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



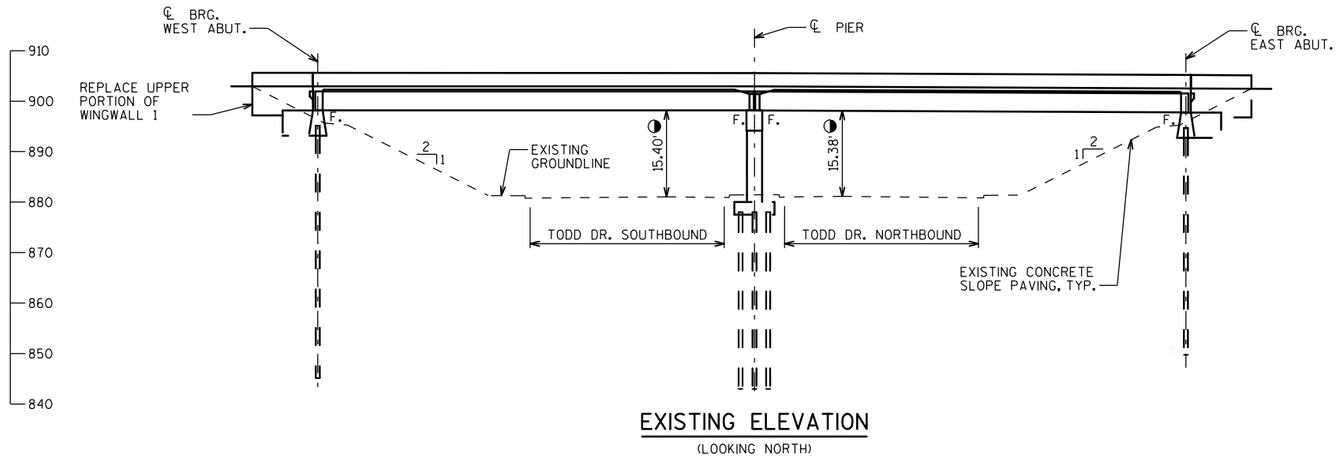
3.000" Radius, 1.000" Border, 0.750" Indent

STATE PROJECT NUMBER
1206-06-78



PLAN

(WINGWALL REPLACEMENT - EXISTING 2-SPAN 45" PRESTRESSED CONC. GIRDERS)



EXISTING ELEVATION

(LOOKING NORTH)

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. WINGWALL REPLACEMENT & QUANTITIES
3. SLOPED FACE PARAPET LF

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS15
OPERATING RATING: HS39
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 250 KIPS
EXISTING RATINGS TAKEN FROM HSI SYSTEM 9/17/2018

MATERIAL PROPERTIES

CONCRETE MASONRY:
PARAPET ..... f'c = 4,000 psi
ALL OTHER ..... f'c = 3,500 psi
BAR STEEL REINFORCEMENT ..... fy = 60,000 psi

TRAFFIC DATA

USH 12/14/18/151 EB & WB

A.D.T. = 131,000 (2015)
R.D.S. = 60 MPH

TODD DR.

A.D.T. = 12,222 (2012)
R.D.S. = 30 MPH

LEGEND

→ TRAFFIC DIRECTION

◑ LOCATION PER EXISTING PLANS AND MINIMUM CLEARANCE TAKEN FROM HSI SYSTEM 9/17/2018.

(1) INDICATES WING NUMBERS

* LOCATION OF ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
MATT SCHROEDER (608) 294-5000

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB 11414 W. PARK PLACE MILWAUKEE, WI 53224 (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 11/08/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

MATTHEW S SCHROEDER E-42428 JOHNSON CREEK WI 9-28-18 PROFESSIONAL ENGINEER WISCONSIN

STRUCTURE B-13-263

USH 12/14/18/151 EB & WB OVER TODD DR.

COUNTY	TOWN/CITY/~~VILLAGE~~
DANE	MADISON

DESIGN SPEC.
REHABILITATION N/A

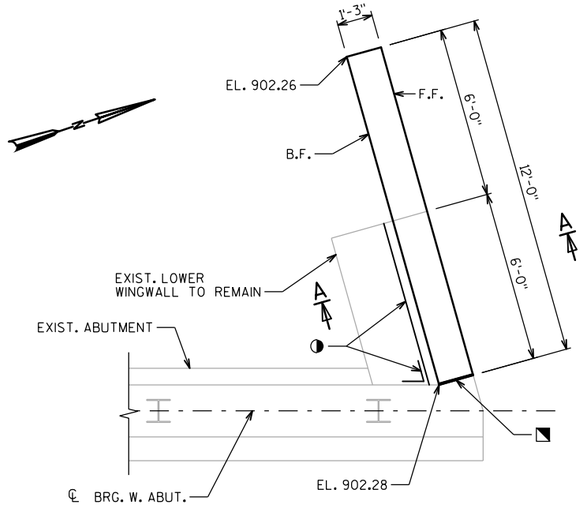
DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
MSS	HDA	MSS	HDA

GENERAL PLAN & ELEVATION

SHEET 1 OF 3

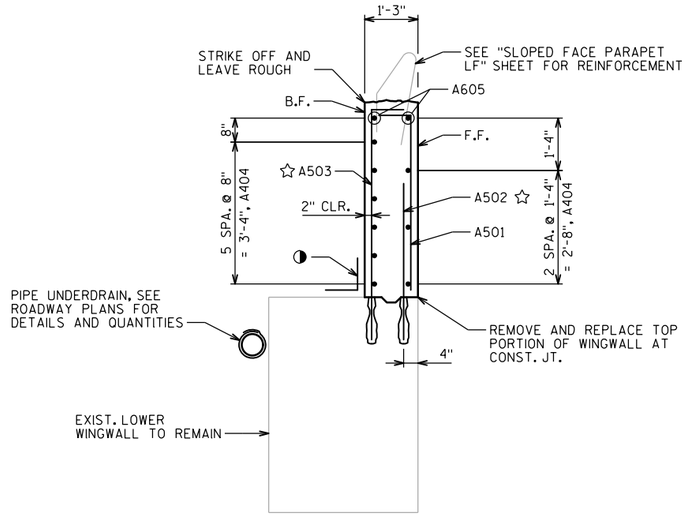
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STATE PROJECT NUMBER
1206-06-78



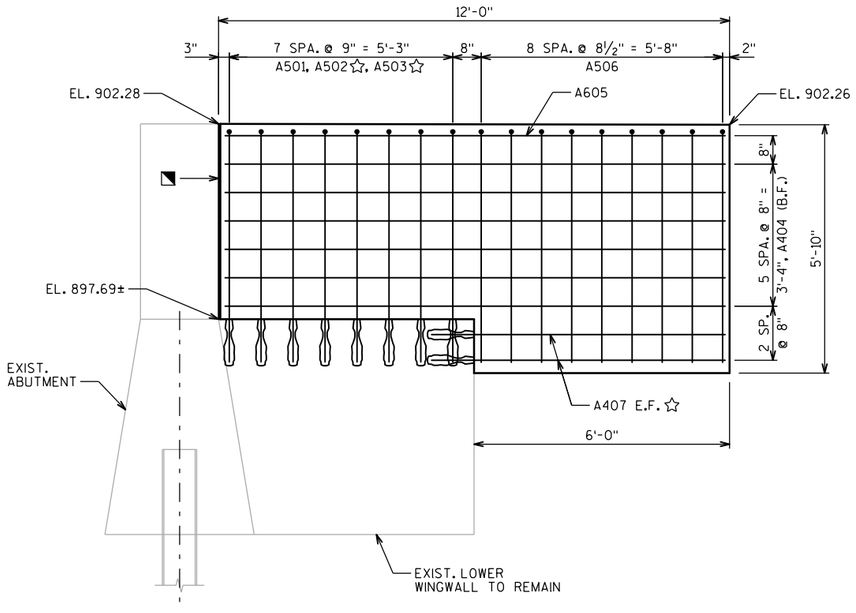
WING REPLACEMENT PLAN

ELEVATIONS TAKEN FROM EXISTING PLANS
MATCH TOP OF EXISTING FLOWLINE ELEVATIONS



SECTION A-A

EXISTING VERTICAL WINGWALL REINFORCEMENT TO BE
PRESERVED AND REUSED - NOT SHOWN FOR CLARITY

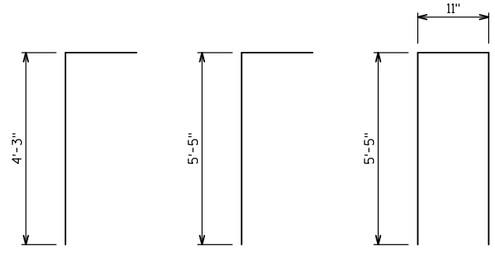


WING 1 ELEVATION

ELEVATIONS TAKEN FROM EXISTING PLANS
MATCH TOP OF EXISTING FLOWLINE ELEVATIONS

BILL OF BARS

	BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
	A501	X	8	4'-11"	X		WINGWALL VERT.
☆	A502	X	8	3'-8"			WINGWALL VERT. DOWEL
☆	A503	X	8	6'-1"	X		WINGWALL VERT. DOWEL
	A404	X	9	11'-7"			WINGWALL HORIZ.
	A605	X	2	11'-7"			WINGWALL HORIZ. TOP
	A506	X	9	11'-6"	X		WINGWALL VERT.
☆	A407	X	4	6'-8"			WINGWALL HORIZ.



TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
203.0200	REMOVING OLD STRUCTURE STA. 473WB+19.07	LS	1
502.0100	CONCRETE MASONRY BRIDGES	CY	4
502.0717.S	CRACK SEALING EPOXY	LF	230
502.3210	PIGMENTED SURFACE SEALER	SY	5
502.4204	ADHESIVE ANCHORS NO. 4 BAR	EACH	4
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	16
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	650
509.1500	CONCRETE SURFACE REPAIR	SF	35
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	2
614.0150	ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD	EACH	1
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	1/2"

ALL ITEMS ARE CATEGORY 0040

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

LOCATIONS OF THE FOLLOWING BID ITEMS SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER. QUANTITIES SHOWN FOR THESE ITEMS ARE APPROXIMATE.
- CONCRETE SURFACE REPAIR
- CRACK SEALING EPOXY

CONCRETE SURFACE REPAIR EXPECTED AT ABUTMENT CORNERS AND MEDIAN ABUTMENT DIAPHRAGMS, PIER COLUMNS, AND GIRDER ENDS AT THE EAST ABUTMENT.

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

ALL REINFORCING BARS ARE ENGLISH. THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

UNDER THE BID ITEMS "ADHESIVE ANCHORS NO. 4 BAR" AND "ADHESIVE ANCHORS NO. 5 BAR", ANCHORED REINFORCING STEEL SHALL BE PAID FOR SEPARATELY AS PROVIDED IN SECTION 505 OF THE STANDARD SPECIFICATIONS FOR BAR STEEL REINFORCEMENT.

BEVEL EDGES OF EXPOSED CONCRETE ¾" MIN OR TO MATCH EXISTING BEVELS UNLESS NOTED OTHERWISE.

CLEAN AND FILL EXISTING LONGITUDINAL AND TRANSVERSE CRACKS WITH PENETRATING EPOXY AS DIRECTED BY THE FIELD ENGINEER. EXISTING CRACKS EXPECTED BELOW THE ASPHALT PATCHES AT ENDS OF DECK. ASPHALT PATCH REMOVAL IS COVERED IN THE ROADWAY PLANS. SEE ROADWAY PLANS FOR DETAILS AND QUANTITIES.

TEMPORARY SHORING, EXCAVATION, BACKFILL AND PIPE UNDERDRAIN AT WINGWALL 1 IS COVERED IN THE ROADWAY PLANS AS PART OF THE LARGER SCOPE OF APPROACH SLAB WORK. SEE ROADWAY PLANS FOR STAGING, DETAILS AND QUANTITIES.

LEGEND

◥ ½" FILLER (INCLUDED IN WING LENGTH). 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 GUTTER LINE AT INSIDE FACE.

◑ 18" RUBBERIZED MEMBRANE WATERPROOFING. SEAL ALL HORIZONTAL AND VERTICAL JOINTS ON BACKFACE.

☆ ADHESIVE ANCHORS NO. 4 AND NO. 5 BAR. EMBED NO. 4 ANCHORS 10" INTO CONCRETE. EMBED NO. 5 ANCHORS 1'-0" INTO CONCRETE. SPACE AS SHOWN. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-263

DRAWN BY MSS | PLANS CK'D. HDA

WINGWALL REPLACEMENT & QUANTITIES

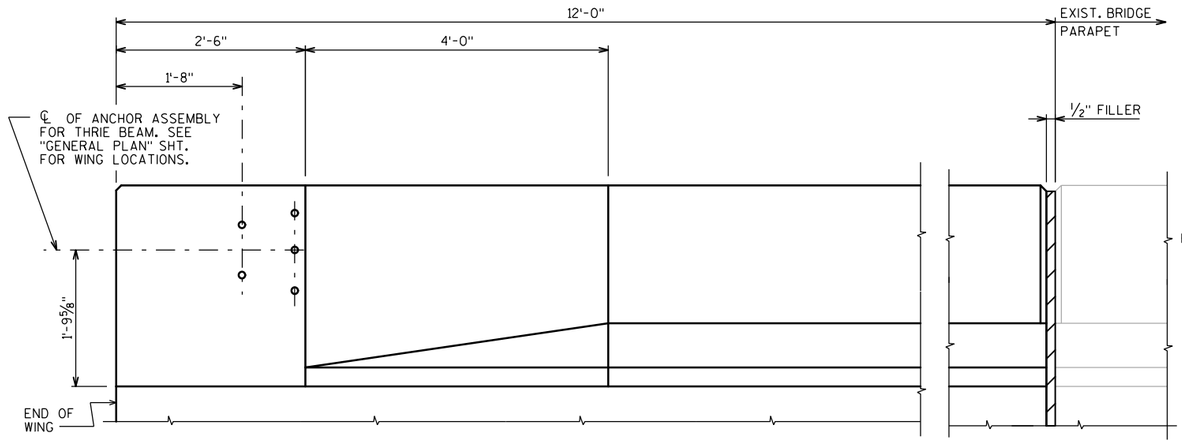
SHEET 2 OF 3

8

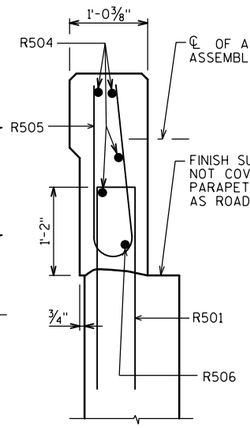
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PLOT DATE : 9/26/2018
PLOT BY : msschroeder
PLOT NAME : $FILE$
PLOT SCALE : 5.33333:1

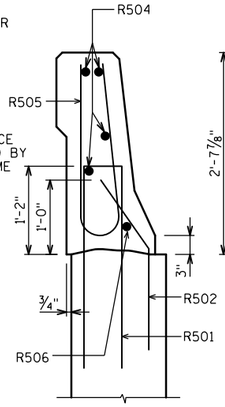
STATE PROJECT NUMBER
1206-06-78



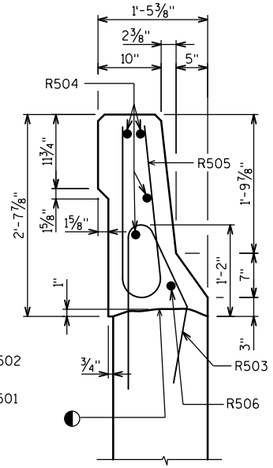
INSIDE ELEVATION



SECTION A



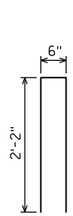
SECTION B



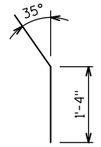
SECTION C

BILL OF BARS

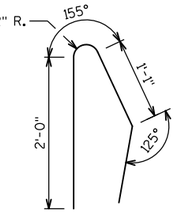
BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
R501	X	14	4'-7"	X	PARAPET VERT.
R502	X	8	2'-4"	X	PARAPET VERT.
R503	X	8	4'-7"	X	PARAPET VERT.
R504	X	4	11'-7"		PARAPET HORIZ.
R505	X	22	4'-10"	X	PARAPET VERT.
R506	X	1	11'-7"	X	PARAPET HORIZ.



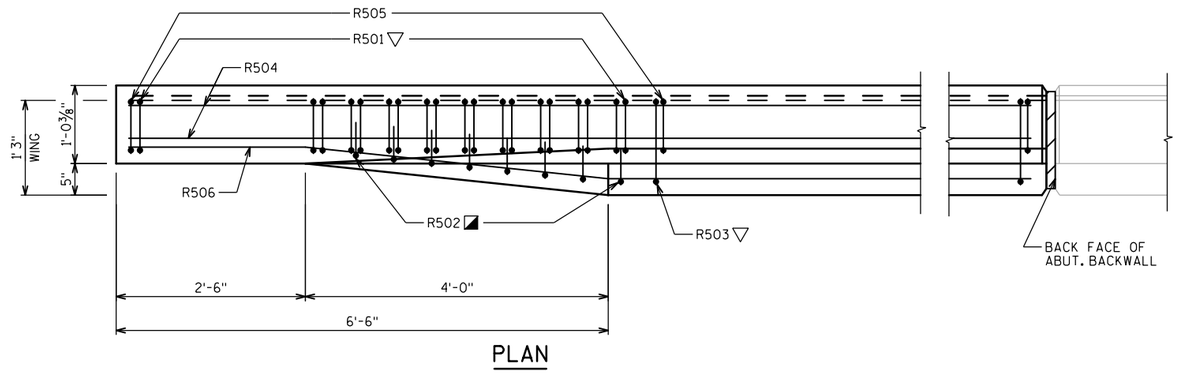
R501



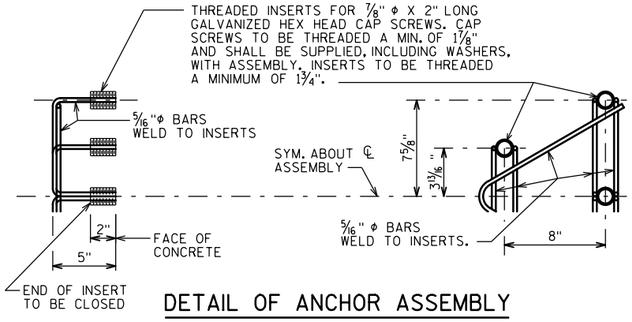
R502



R503



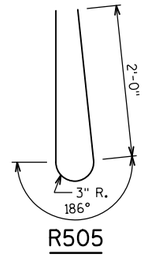
PLAN



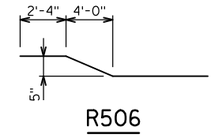
DETAIL OF ANCHOR ASSEMBLY

NOTE: HEX HEAD CAP SCREWS & WASHERS TO BE GALVANIZED IN ACCORDANCE WITH AASHTO M232 CLASS C.

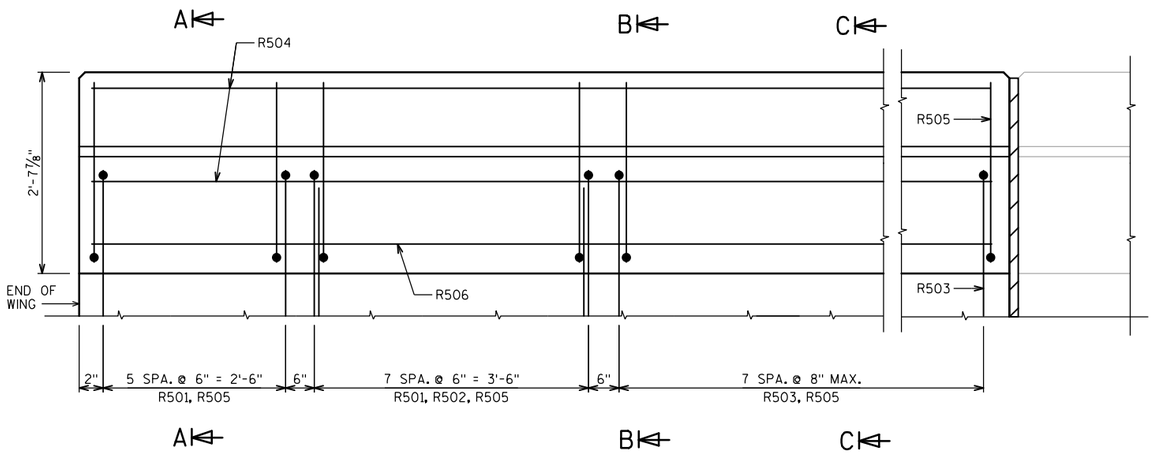
ASSEMBLY SHALL BE BID ITEM "ANCHOR ASSEMBLIES FOR STEEL PLATE BEAM GUARD", EACH.



R505



R506



OUTSIDE ELEVATION

◐ CONST. JOINT - STRIKE OFF AS SHOWN.

◪ R502 BARS MAY BE PLACED AFTER CONCRETE IS POURED BUT BEFORE INITIAL SET HAS TAKEN PLACE. USE CARE TO PLACE R502 BARS CORRECTLY ALONG TRANSITION OF PARAPET.

▽ R501 AND R503 BARS TO BE TIED TO WING STEEL BEFORE WING IS POURED.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-263

DRAWN BY MSS | PLANS CK'D. HDA

SLOPED FACE PARAPET LF

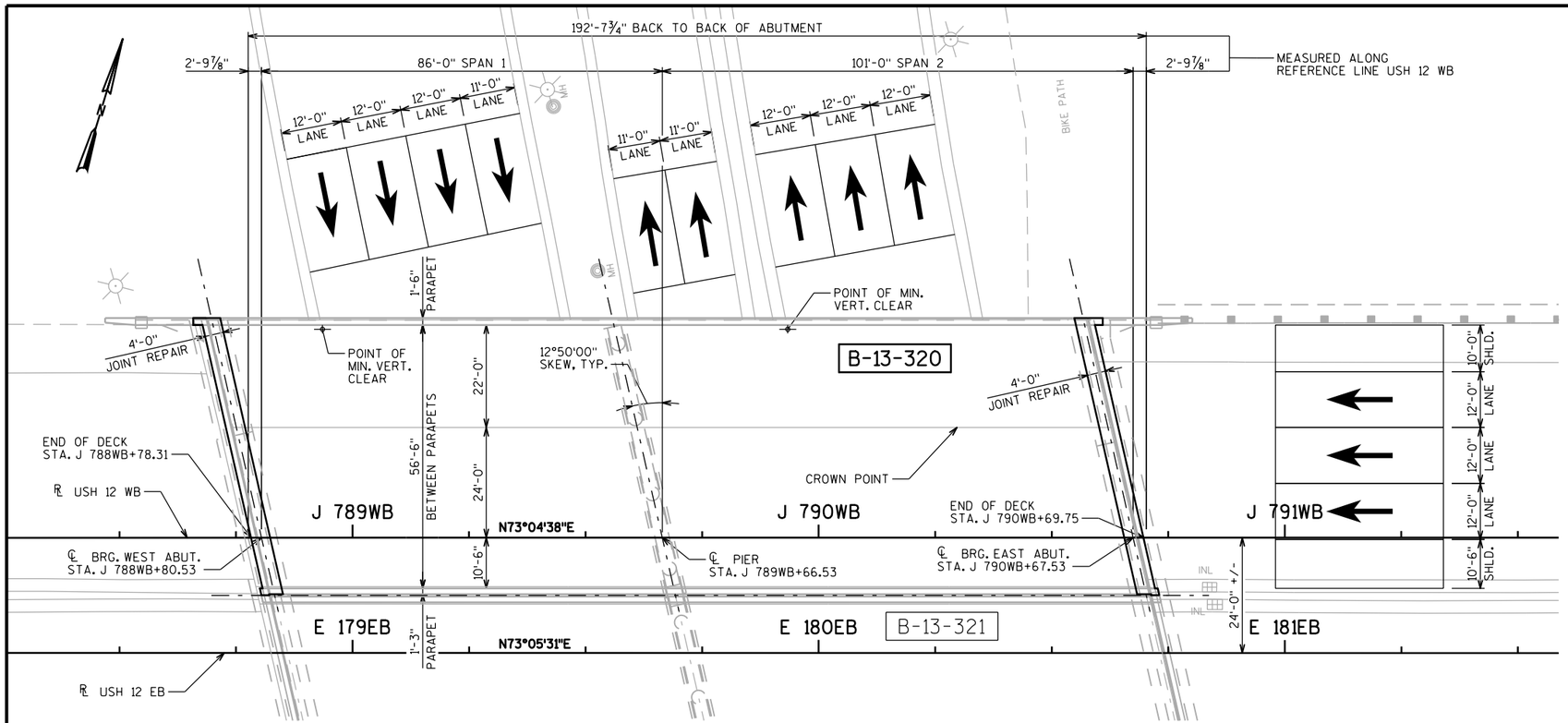
SHEET 3 OF 3

8

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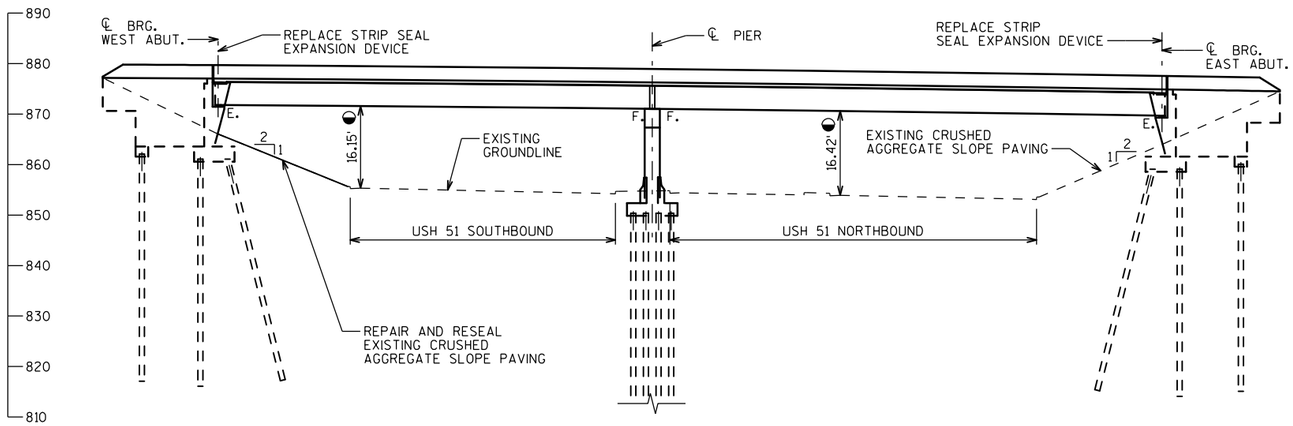
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STATE PROJECT NUMBER
1206-06-78



PLAN

(EXPANSION JOINT REPLACEMENT - EXISTING 2-SPAN 54" PRESTRESSED CONC. GIRDERS)



EXISTING ELEVATION

(LOOKING NORTH)

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION, GENERAL NOTES & QUANTITIES
3. CONSTRUCTION STAGING
4. EXPANSION DEVICE
5. EXPANSION JOINT REINFORCEMENT
6. EXPANSION JOINT DETAILS
7. PARAPET DETAILS & BILL OF BARS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS21
OPERATING RATING: HS31
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 240 KIPS
EXISTING RATINGS TAKEN FROM HSI SYSTEM 10/10/2017

MATERIAL PROPERTIES

CONCRETE MASONRY:
SUPERSTRUCTURE ..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT ..... fy = 60,000 psi

TRAFFIC DATA

USH 12/18 EB & WB

A.D.T. = 118,500 (2017)
R.D.S. = 60 MPH

USH 51

A.D.T. = 50,700 (2009)
R.D.S. = 45 MPH

LEGEND

→ TRAFFIC DIRECTION

◑ LOCATION PER EXISTING PLANS AND MINIMUM CLEARANCE TAKEN FROM HSI SYSTEM 10/10/2017.

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
HEATHER ANDERS (414) 359-2300

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB 11414 W. PARK PLACE MILWAUKEE, WI 53224 (414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 09/10/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN ELIZABETH A. JELINEK E-40123 MILWAUKEE WI 9-7-18 PROFESSIONAL ENGINEER

STRUCTURE B-13-320

USH 12 & 18 WB OVER USH 51

COUNTY	TOWN/CITY/~~VILLAGE~~
DANE	MADISON

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EAJ	MSS	EAJ	MSS

GENERAL PLAN & ELEVATION

SHEET 1 OF 7

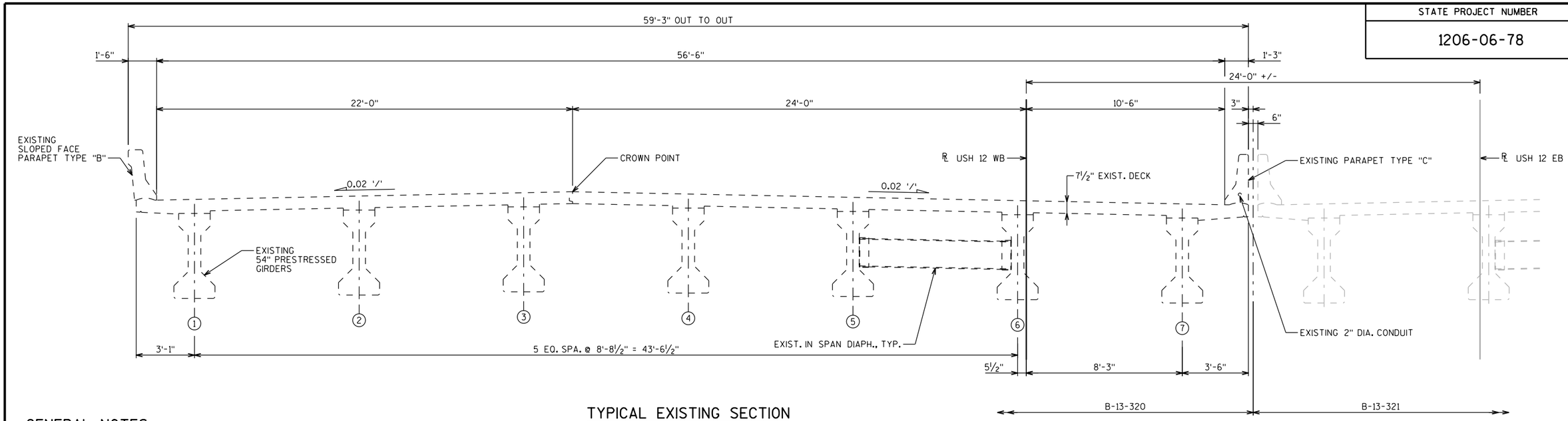
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STATE PROJECT NUMBER
1206-06-78



TYPICAL EXISTING SECTION

(LOOKING EAST)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS AS DETERMINED BY THE ENGINEER. DECK PREPARATION DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIRS AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

NEW CONCRETE AT PARAPETS AND JOINT REPAIR PAID FOR AS "CONCRETE MASONRY OVERLAY DECKS".

LOCATIONS OF THE FOLLOWING BID ITEMS SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER. QUANTITIES SHOWN FOR THESE ITEMS ARE APPROXIMATE.

- PREPARATION DECKS TYPE 1
- PREPARATION DECKS TYPE 2
- CONCRETE SURFACE REPAIR
- SLOPE PAVING REPAIR CRUSHED AGGREGATE
- RESEAL CRUSHED AGGREGATE SLOPE PAVING

CONCRETE SURFACE REPAIR EXPECTED AT PIER COLUMNS, BARRIER BETWEEN PIER COLUMNS, AND PIER DIAPHRAGM.

APPLY PROTECTIVE SURFACE TREATMENT TO THE ENTIRE TOP SURFACE OF THE NEW JOINT REPAIR AREAS.

APPLY "PIGMENTED SURFACE SEALER" TO THE TOP AND INSIDE FACES OF NEW SECTIONS OF PARAPETS.

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

ALL REINFORCING BARS ARE ENGLISH. THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

UNDER THE BID ITEMS "ADHESIVE ANCHORS NO. 5 BAR", ANCHORED REINFORCING STEEL SHALL BE PAID FOR SEPARATELY AS PROVIDED IN SECTION 505 OF THE STANDARD SPECIFICATIONS FOR BAR STEEL REINFORCEMENT.

BEVEL EDGES OF EXPOSED CONCRETE ¾" MIN OR TO MATCH EXISTING BEVELS UNLESS NOTED OTHERWISE.

EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE, SHALL BE PAID FOR IN THE LUMP SUM PRICE BID AS "EXPANSION DEVICE B-13-320".

THE EASTBOUND AND WESTBOUND ALIGNMENTS SHOWN IN THE PLANS ARE ASSUMED TO MATCH THE EXISTING ALIGNMENTS.

PRESERVE EXISTING CONDUIT RUNNING THROUGH THE MEDIAN BARRIER AT THE JOINT REPAIR LOCATIONS.

REPAIR AND RESEAL EXISTING CRUSHED AGGREGATE SLOPE PAVING AT WEST ABUTMENT. VEGETATION REMOVAL ON EXISTING SLOPE PAVING IS INCIDENTAL TO "SLOPE PAVING REPAIR CRUSHED AGGREGATE".

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
203.0225.S.01	DEBRIS CONTAINMENT B-13-320	LS	1
502.3100.01	EXPANSION DEVICE B-13-320	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	52
502.3210	PIGMENTED SURFACE SEALER	SY	8
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	126
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,170
505.0904	BAR COUPLERS NO. 4	EACH	8
505.0905	BAR COUPLERS NO. 5	EACH	12
505.0906	BAR COUPLERS NO. 6	EACH	32
505.0907	BAR COUPLERS NO. 7	EACH	24
509.0301	PREPARATION DECKS TYPE 1	SY	12
509.0302	PREPARATION DECKS TYPE 2	SY	5
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	240
509.1000	JOINT REPAIR	SY	54
509.1500	CONCRETE SURFACE REPAIR	SF	31
509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	23
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	4
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	73
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	1"

ALL ITEMS ARE CATEGORY 0020

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-320

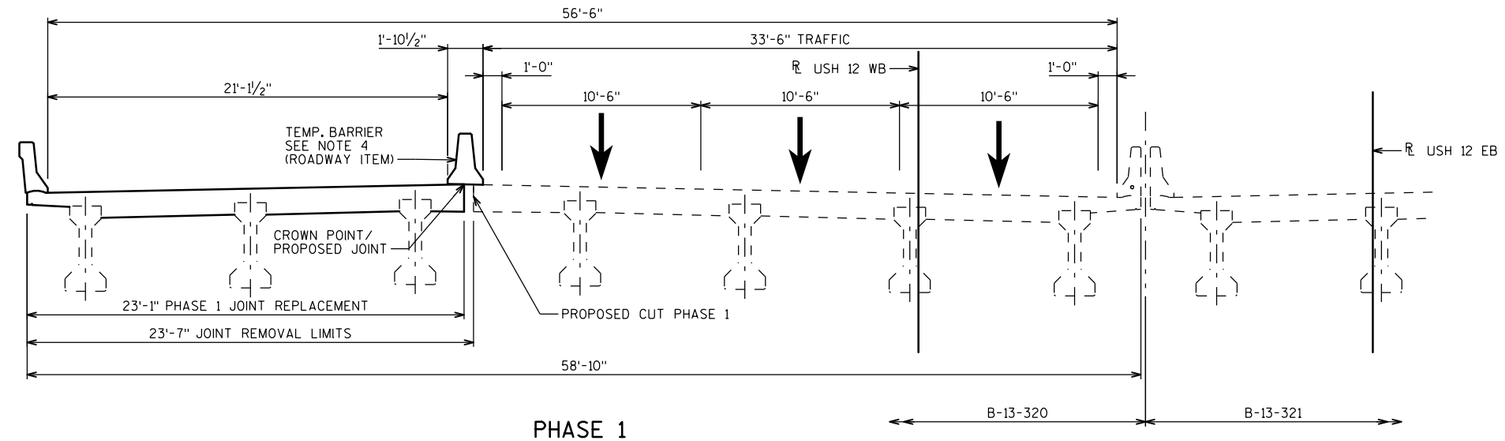
DRAWN BY EAJ | PLANS CK'D. MSS

TYPICAL SECTION, GENERAL NOTES & QUANTITIES

SHEET 2 OF 7

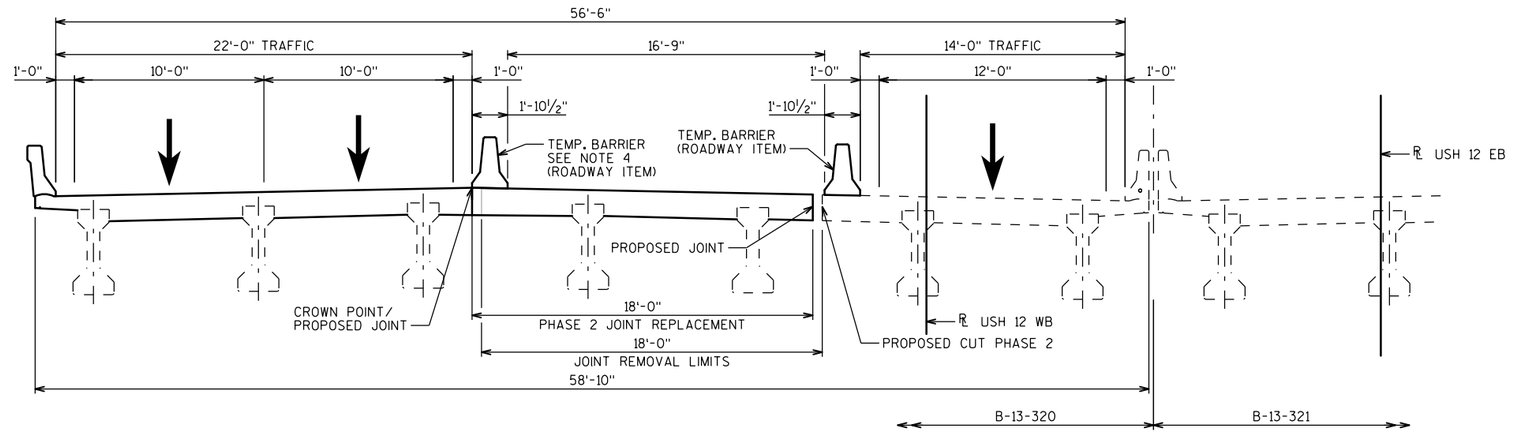
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STATE PROJECT NUMBER
1206-06-78



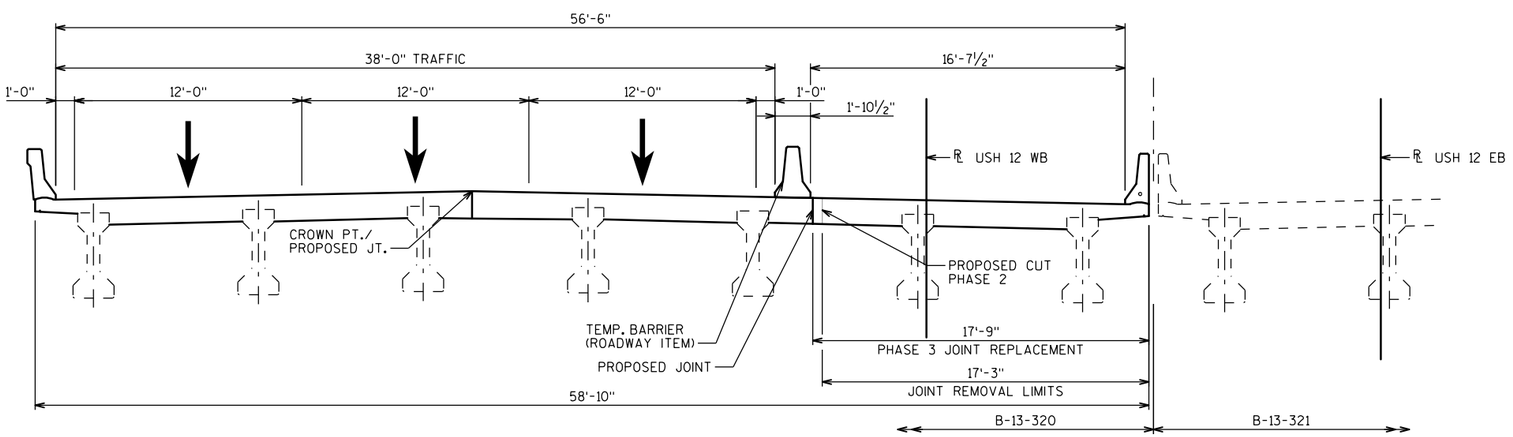
PHASE 1

(LOOKING EAST)



PHASE 2

(LOOKING EAST)



PHASE 3

(LOOKING EAST)

NOTES

1. STAGING SHOWN REPRESENTS THE ENDS OF THE BRIDGE WHERE THE JOINT REPLACEMENT WORK IS OCCURRING.
2. PHASE NUMBERS FOR STRUCTURE WORK MAY NOT MATCH ROADWAY STAGING PLAN NUMBERING.
3. SEE ROADWAY PLANS FOR COMPLETE PROJECT STAGING DETAILS.
4. GAP TEMPORARY BARRIER OVER JOINT. NEED TO WORK UNDER BARRIER. CLOSE ADJACENT TRAFFIC LANE OVERNIGHT.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-320

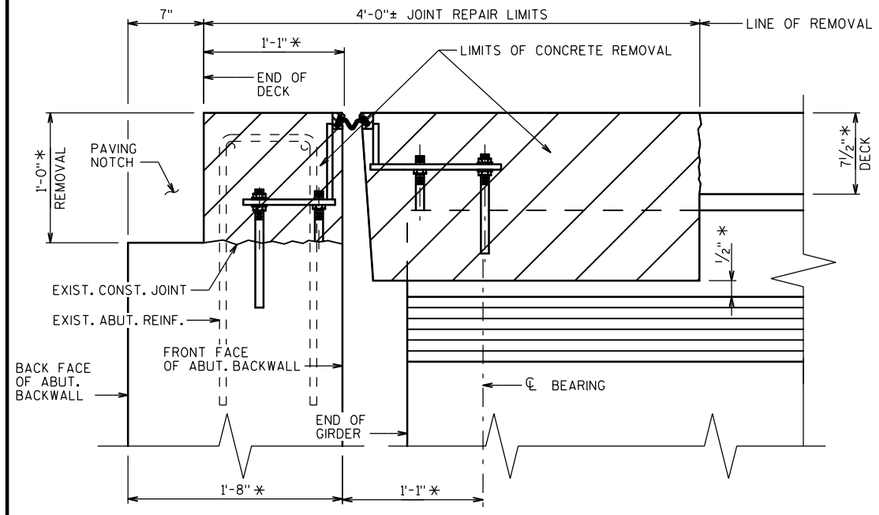
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CONSTRUCTION STAGING

SHEET 3 OF 7

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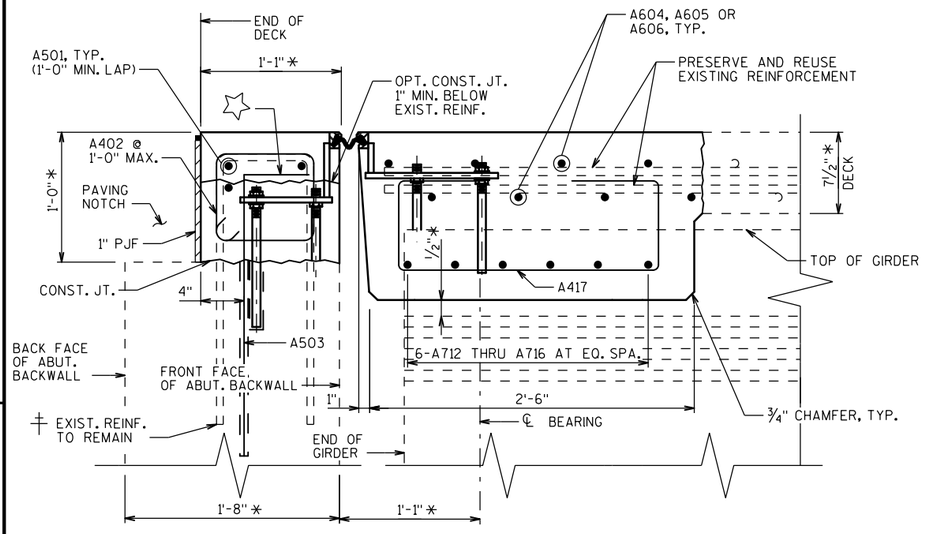
STATE PROJECT NUMBER
1206-06-78



TYP. ABUTMENT BACKWALL DECK

EXISTING SECTION AT ABUTMENTS

DIMENSIONS TAKEN NORMAL TO ℄ SUBSTRUCTURE
* DIMENSIONS SHOWN MATCH EXISTING PLANS



TYP. ABUTMENT BACKWALL DECK

PROPOSED SECTION AT ABUTMENTS (REINFORCEMENT DETAILS)

DIMENSIONS TAKEN NORMAL TO ℄ SUBSTRUCTURE
* DIMENSIONS SHOWN MATCH EXISTING PLANS

EXPANSION JOINT NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

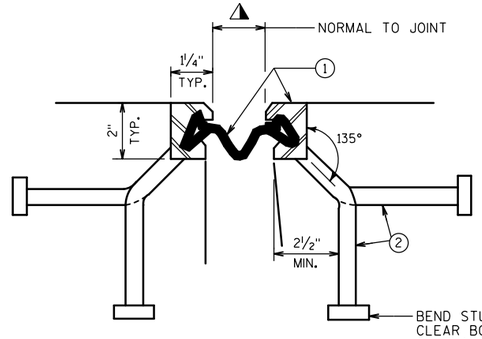
AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

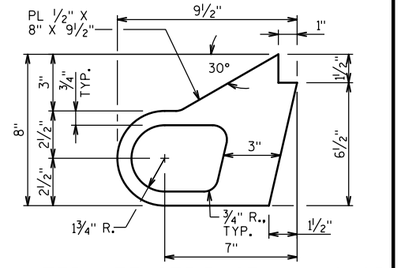
ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-13-320".

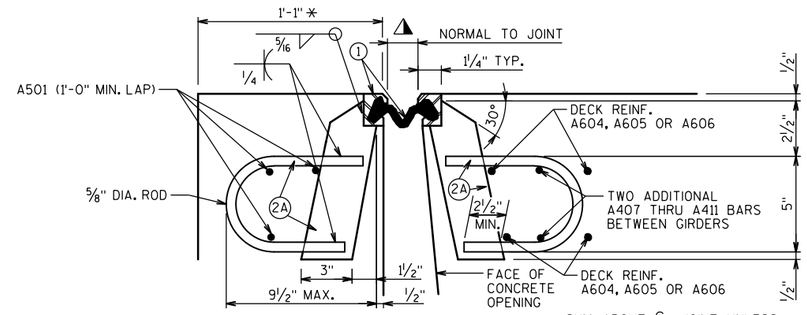


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS



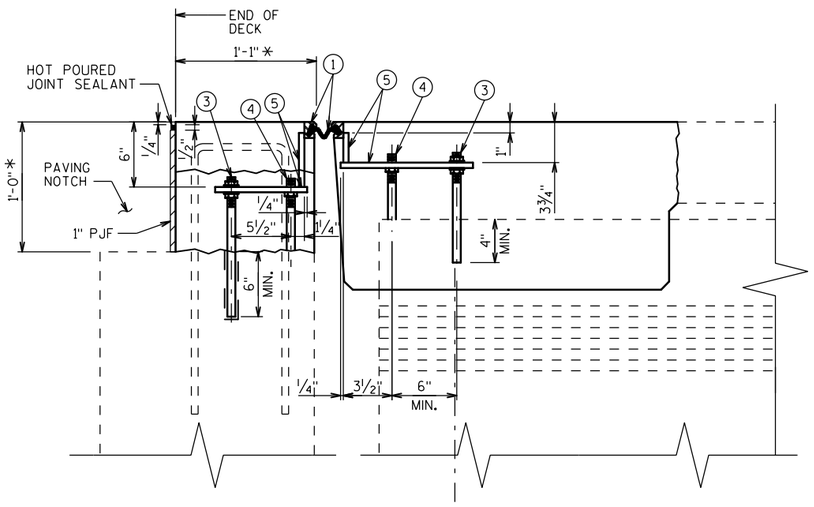
ALTERNATE STRIP SEAL ANCHOR



AT PAVING BLOCK AT DECK SYM ABOUT ℄ JOINT UNLESS OTHERWISE SHOWN OR NOTED

SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS



TYP. ABUTMENT BACKWALL DECK

PROPOSED SECTION AT ABUTMENTS (EXPANSION DEVICE COMPONENTS)

DIMENSIONS TAKEN NORMAL TO ℄ SUBSTRUCTURE
* DIMENSIONS SHOWN MATCH EXISTING PLANS

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.
2. STUDS ⅝" DIA. x 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE. WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. FOR PRESTRESSED GIRDERS, GROUT THREADED ROD INTO FIELD DRILLED HOLES ON THE ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" x ½" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" x 1'-2" x 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. ¾" DIA. x 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" DIA. x 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾" DIA. x 2¼" GALVANIZED THREADED COUPLING.
10. 1" x 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

◭ SET JOINT OPENING AT 1¾"

‡ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ ADHESIVE ANCHORS, NO. 5 BARS. EMBED A MINIMUM OF 1'-6" INTO CONCRETE SPACE AT 1'-0" MAX. AND AVOID EXPANSION JOINT HARDWARE. TURN 10" LEG AS NECESSARY TO FIT. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-320

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EXPANSION DEVICE

SHEET 4 OF 7

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STATE PROJECT NUMBER
1206-06-78

NOTES

AT THE PARAPETS, BID ITEM "JOINT REPAIR" SHALL BE MEASURED FROM OUTSIDE FACE OF PARAPET TO OUTSIDE FACE OF PARAPET AND INCLUDES PARAPET REMOVAL AS SHOWN BY HATCHED SECTIONS ON THIS SHEET.

SEE "EXPANSION DEVICE", "EXPANSION JOINT DETAILS" AND "PARAPET DETAILS & BILL OF BARS" SHEETS FOR ADDITIONAL INFORMATION.

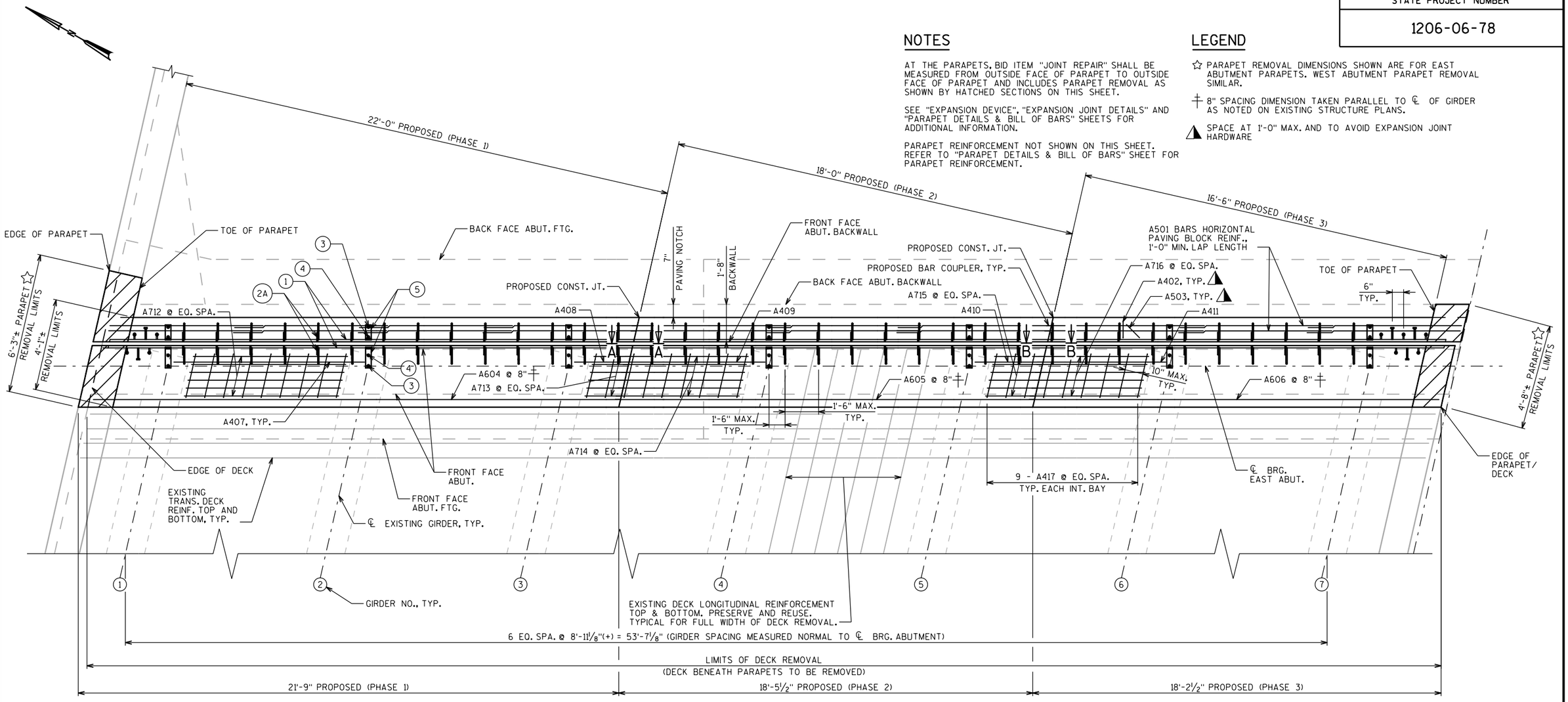
PARAPET REINFORCEMENT NOT SHOWN ON THIS SHEET. REFER TO "PARAPET DETAILS & BILL OF BARS" SHEET FOR PARAPET REINFORCEMENT.

LEGEND

☆ PARAPET REMOVAL DIMENSIONS SHOWN ARE FOR EAST ABUTMENT PARAPETS. WEST ABUTMENT PARAPET REMOVAL SIMILAR.

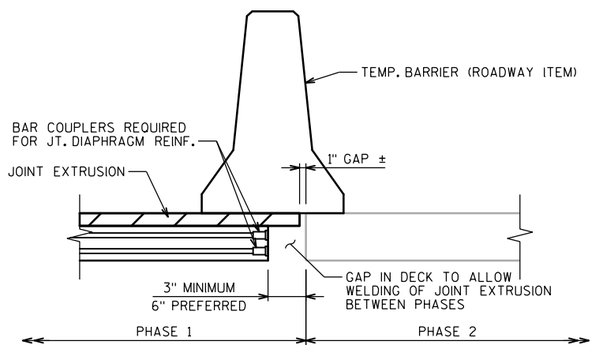
‡ 8" SPACING DIMENSION TAKEN PARALLEL TO ℄ OF GIRDER AS NOTED ON EXISTING STRUCTURE PLANS.

◭ SPACE AT 1'-0" MAX. AND TO AVOID EXPANSION JOINT HARDWARE



PLAN B-13-320 ABUTMENT EXPANSION JOINT REPLACEMENT

EAST ABUTMENT SHOWN, WEST ABUTMENT SIMILAR
(SEE "PARAPET DETAILS & BILL OF BARS" SHEET FOR REINFORCEMENT INFORMATION)



SECTION A-A (SECTION B-B SIMILAR)

SECTION B-B, TEMPORARY BARRIER IS OFFSET FROM DECK GAP BETWEEN PHASES
(REFER TO "CONSTRUCTION STAGING" SHEET)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-320

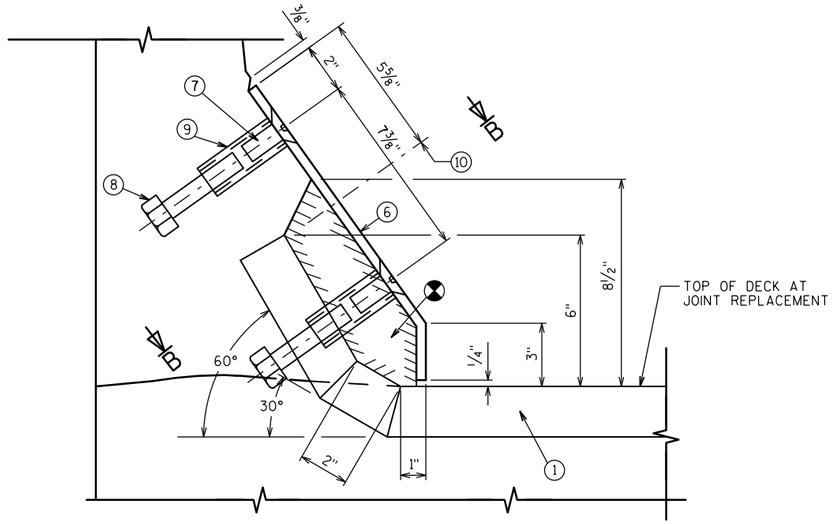
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EXPANSION JOINT REINFORCEMENT

SHEET 5 OF 7

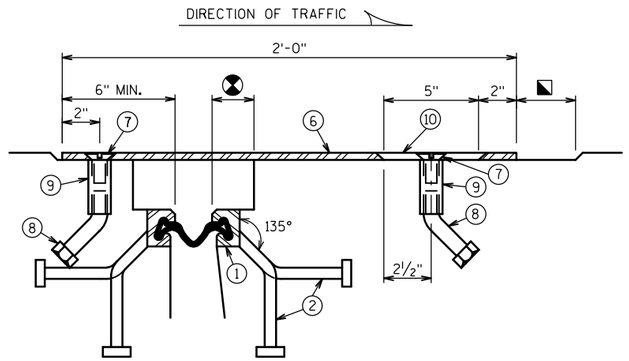
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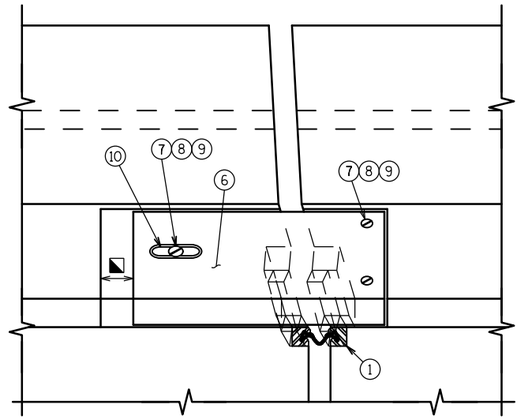


SECTION A-A

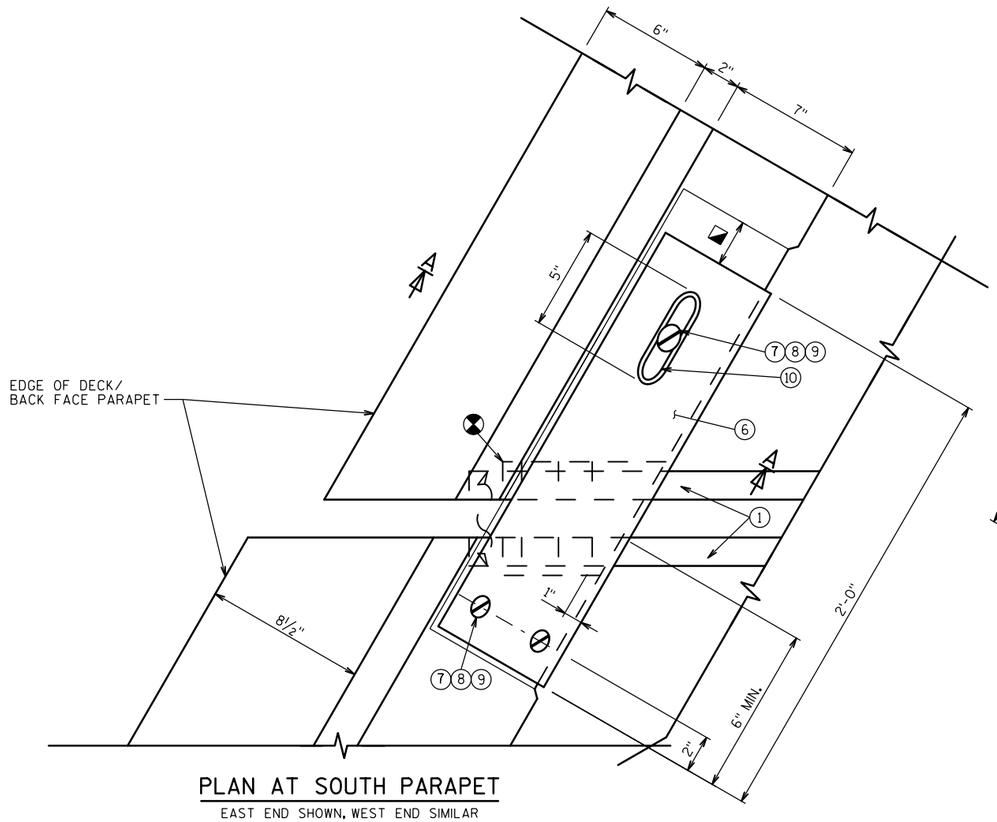
SOUTH PARAPET SHOWN, NORTH PARAPET SIMILAR



SECTION B-B

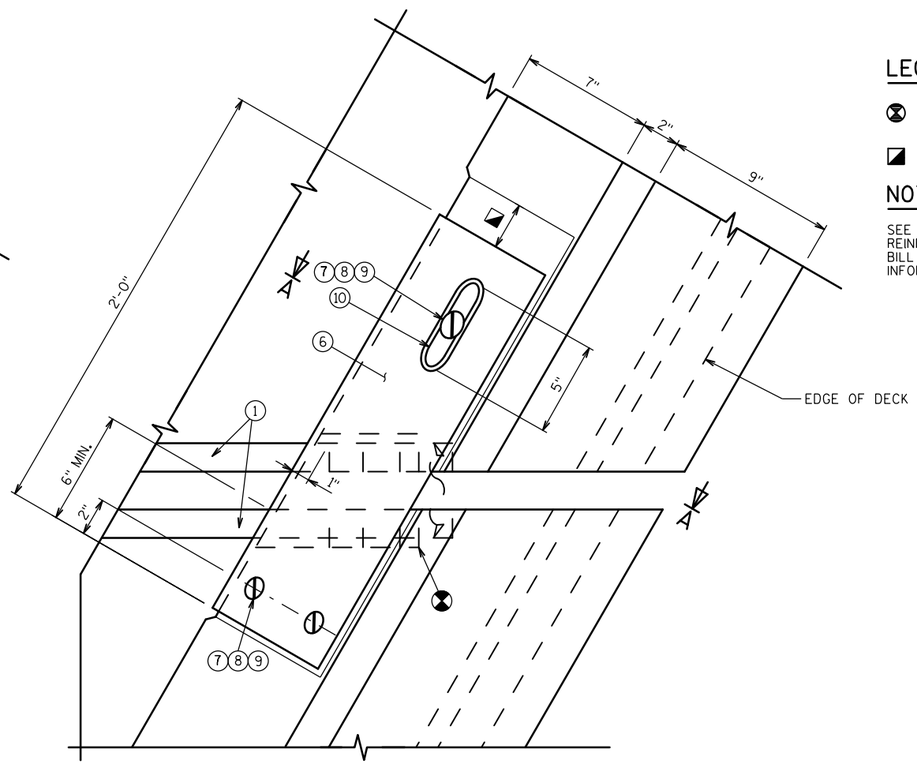


VIEW OF PARAPET PLATE
FROM ROADWAY



PLAN AT SOUTH PARAPET

EAST END SHOWN, WEST END SIMILAR



PLAN AT NORTH PARAPET

EAST END SHOWN, WEST END SIMILAR

LEGEND

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING

◪ JOINT OPENING DIM. ALONG SKEW PLUS ½"

NOTES

SEE "EXPANSION DEVICE", "EXPANSION JOINT REINFORCEMENT" AND "PARAPET DETAILS & BILL OF BARS" SHEETS FOR ADDITIONAL INFORMATION.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-320

DRAWN BY EAJ | PLANS CK'D. MSS

EXPANSION JOINT DETAILS

SHEET 6 OF 7

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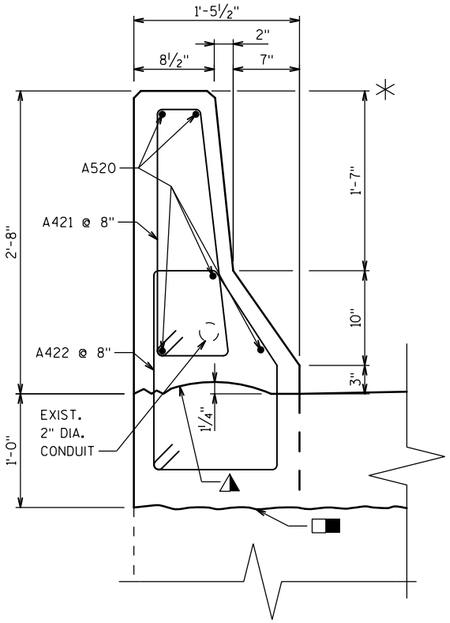
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LEGEND

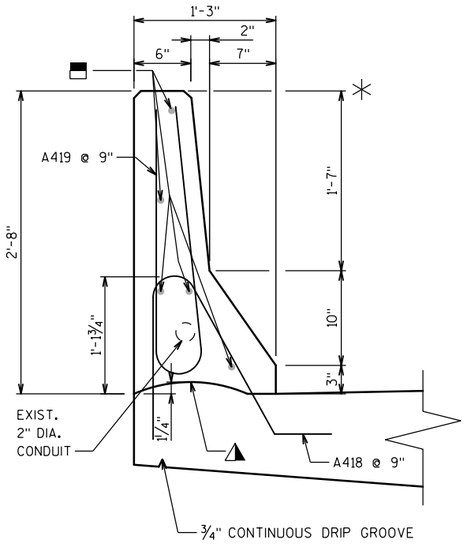
- EXISTING CONST. JOINT (NEW CONSTRUCTION JOINT SAME LOCATION. STRIKE OFF AND LEAVE ROUGH).
- CONST. JOINT LIMIT OF CONCRETE REMOVAL
- PRESERVE AND REUSE EXISTING LONGITUDINAL REINFORCEMENT
- MATCH TOP ELEVATION OF REPLACEMENT PARAPET TO TOP ELEVATION OF EXISTING PARAPET
- PRESERVE AND REUSE EXISTING VERTICAL REINFORCEMENT AT 1'-0" SECTION OF PARAPET REMOVAL WHERE WINGWALL REMAINS.
- ADHESIVE ANCHORS, NO. 5 BARS

NOTES

SEE "EXPANSION DEVICE", "EXPANSION JOINT REINFORCEMENT" AND "EXPANSION JOINT DETAILS" SHEETS FOR ADDITIONAL INFORMATION.



SECTION THRU
PARAPET 'C' ON ABUTMENT
AT JOINT REPAIR

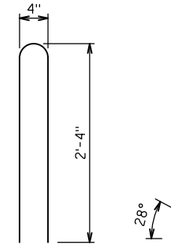


SECTION THRU
PARAPET 'C' ON BRIDGE
AT JOINT REPAIR

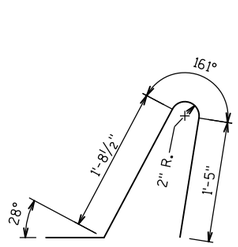
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
A501	X	60	6'-10"			PAVING BLOCK TRANSVERSE
A402	X	126	3'-4"	X		PAVING BLOCK STIRRUP
A503	X	126	3'-1"	X		PAVING BLOCK ANCHOR
A604	X	16	23'-6"			DECK TRANSVERSE - PHASE 1
A605	X	16	18'-6"			DECK TRANSVERSE - PHASE 2
A606	X	16	18'-0"			DECK TRANSVERSE - PHASE 3
A407	X	16	8'-6"			DIAPHRAGM - HORIZ.
A408	X	4	2'-5"			DIAPHRAGM - HORIZ. - PHASE 1
A409	X	4	6'-1"			DIAPHRAGM - HORIZ. - PHASE 2
A410	X	4	3'-0"			DIAPHRAGM - HORIZ. - PHASE 2
A411	X	4	5'-6"			DIAPHRAGM - HORIZ. - PHASE 3
A712	X	48	6'-10"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS
A713	X	12	1'-7"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS - PHASE 1
A714	X	12	5'-3"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS - PHASE 2
A715	X	12	2'-2"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS - PHASE 2
A716	X	12	4'-7"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS - PHASE 3
A417	X	108	4'-3"	X		DIAPHRAGM - STIRRUPS BETWEEN GIRDERS
A418	X	8	4'-0"	X		SLAB & PARAPET "C" VERT.
A419	X	8	5'-0"	X		PARAPET "C" VERT.
A520	X	10	1'-4"			PARAPET "C" HORIZ.
A421	X	6	5'-10"	X		PARAPET "C" VERT.
A422	X	6	5'-10"	X		ABUT. & PARAPET "C" VERT
A423	X	8	4'-3"	X		SLAB & PARAPET "B" VERT.
A424	X	18	4'-10"	X		PARAPET "B" VERT.
A425	X	4	4'-7"	X		ABUT. & PARAPET "B" VERT

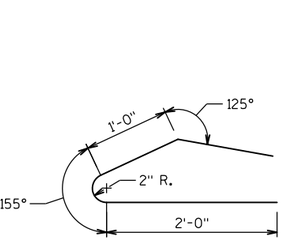
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR.
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.



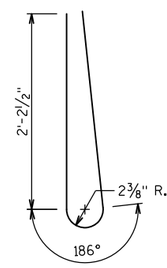
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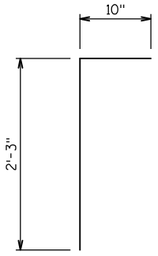
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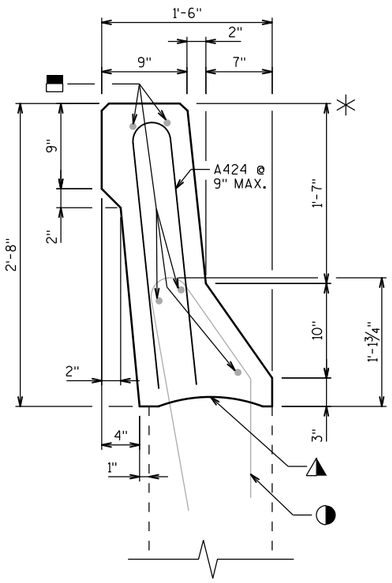
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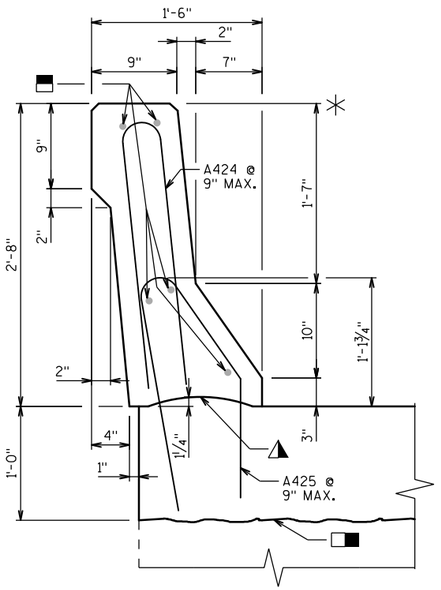
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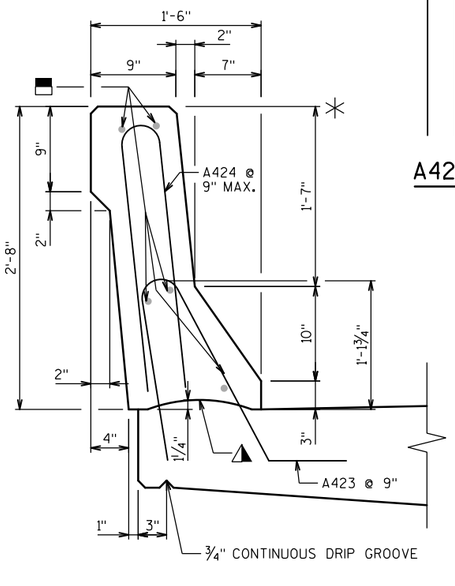
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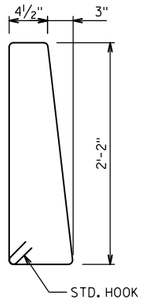
SECTION THRU
PARAPET 'B' ON WINGWALL
AT JOINT REPAIR
(WINGS 1 & 2)



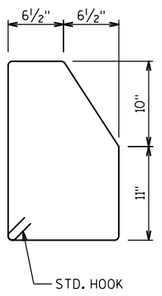
SECTION THRU
PARAPET 'B' ON ABUTMENT
AT JOINT REPAIR
(WINGS 1 & 2)



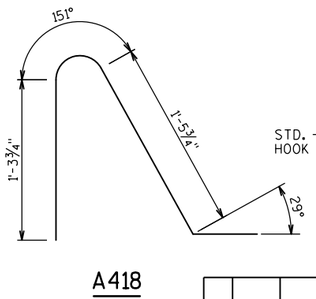
SECTION THRU
PARAPET 'B' ON BRIDGE
AT JOINT REPAIR



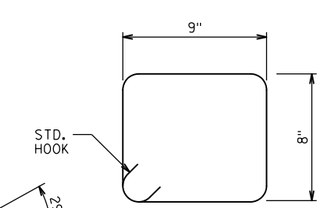
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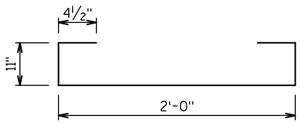
A422



A418



A402



A417

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-320

DRAWN BY EAJ | PLANS CK'D. MSS

PARAPET DETAILS & BILL OF BARS

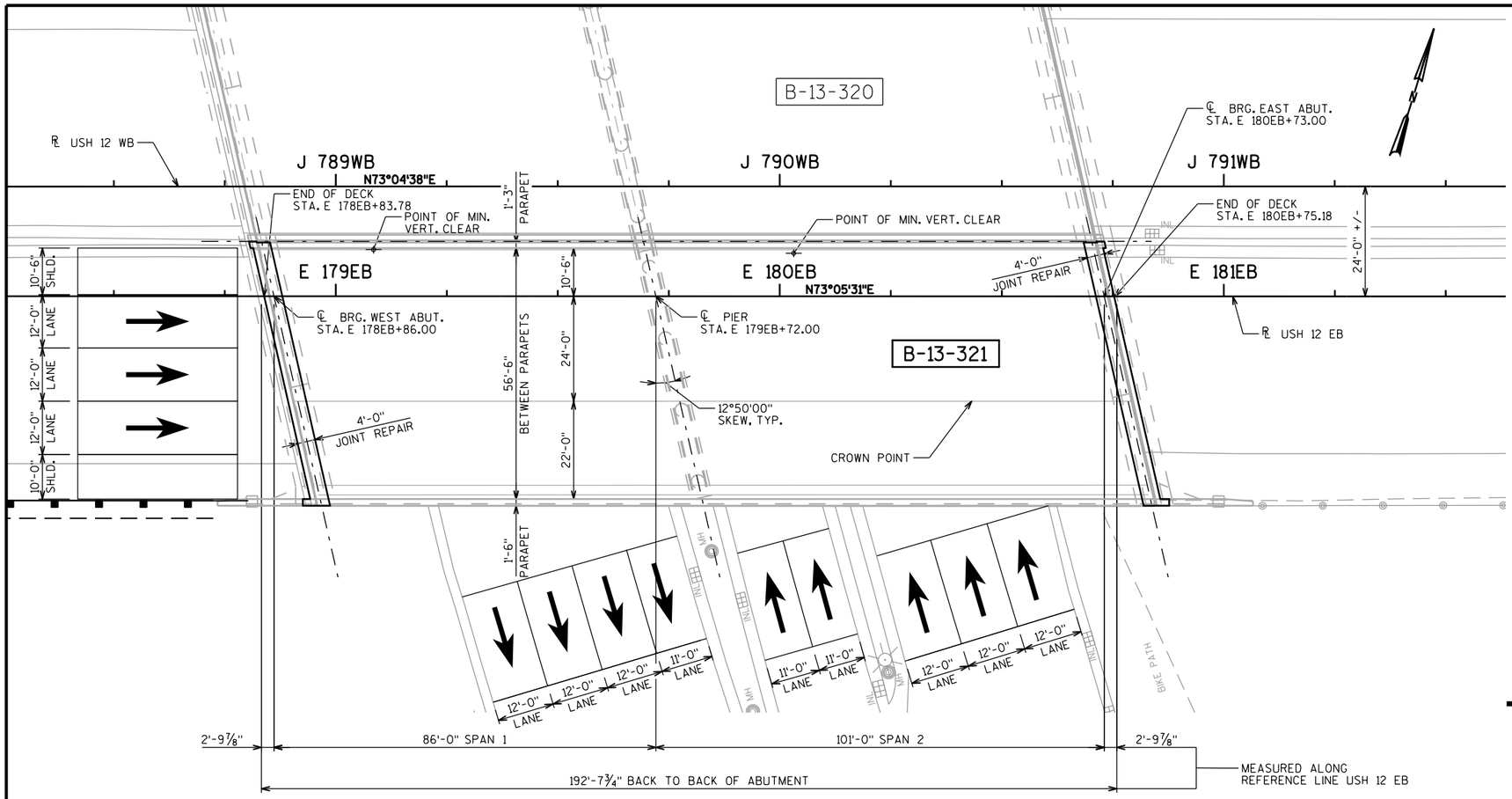
SHEET 7 OF 7

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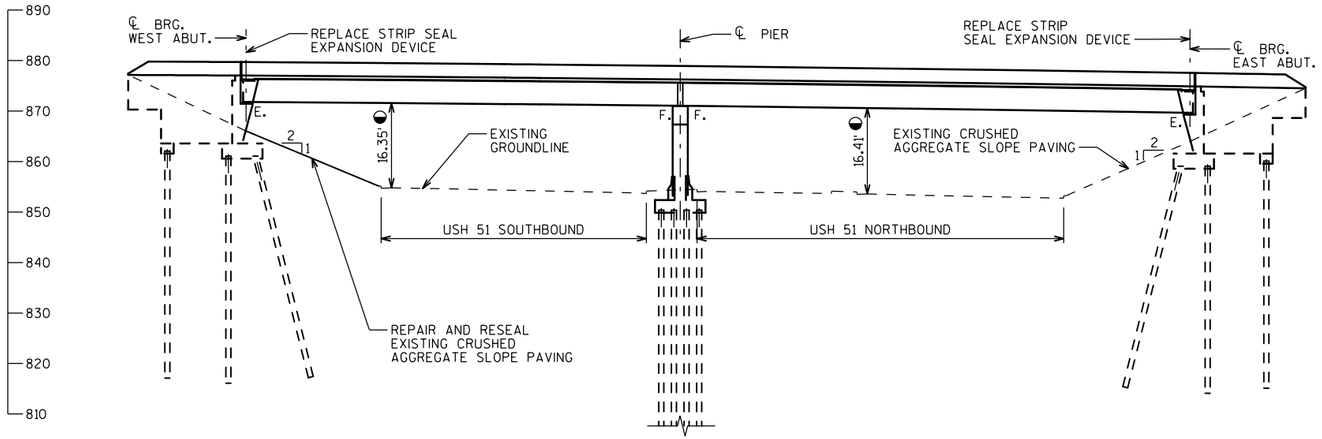
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STATE PROJECT NUMBER
1206-06-78



PLAN

(EXPANSION JOINT REPLACEMENT - EXISTING 2-SPAN 54" PRESTRESSED CONC. GIRDERS)



EXISTING ELEVATION

(LOOKING NORTH)

LIST OF DRAWINGS

1. GENERAL PLAN & ELEVATION
2. TYPICAL SECTION, GENERAL NOTES & QUANTITIES
3. CONSTRUCTION STAGING
4. EXPANSION DEVICE
5. EXPANSION JOINT REINFORCEMENT
6. EXPANSION JOINT DETAILS
7. PARAPET DETAILS & BILL OF BARS

DESIGN DATA

LIVE LOAD:

DESIGN LOADING: HS20
INVENTORY RATING: HS20
OPERATING RATING: HS30
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = 230 KIPS
EXISTING RATINGS TAKEN FROM HSI SYSTEM 10/10/2017

MATERIAL PROPERTIES

CONCRETE MASONRY:
SUPERSTRUCTURE ..... f'c = 4,000 psi
BAR STEEL REINFORCEMENT ..... fy = 60,000 psi

TRAFFIC DATA

USH 12/18 EB & WB

A.D.T. = 118,500 (2017)
R.D.S. = 60 MPH

USH 51

A.D.T. = 50,700 (2009)
R.D.S. = 45 MPH

LEGEND

→ TRAFFIC DIRECTION

◑ LOCATION PER EXISTING PLANS AND MINIMUM CLEARANCE TAKEN FROM HSI SYSTEM 10/10/2017.

STRUCTURES DESIGN CONTACTS

BRIDGE OFFICE:
WILLIAM DREHER (608) 266-8489
CONSULTANT:
HEATHER ANDERS (414) 359-2300

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY

HNTB
11414 W. PARK PLACE
MILWAUKEE, WI 53224
(414) 359-2300

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED William C. Dreher SDR 09/10/18
CHIEF STRUCTURES DESIGN ENGINEER DATE

WISCONSIN ELIZABETH A. JELINEK E-40123 MILWAUKEE WI 9/7/18 PROFESSIONAL ENGINEER

STRUCTURE B-13-321

USH 12 & 18 EB OVER USH 51

COUNTY	~~TOWN~~/CITY/~~VILLAGE~~
DANE	MADISON

DESIGN SPEC.
REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	DRAWN BY	PLANS CK'D.
EAJ	MSS	EAJ	MSS

GENERAL PLAN & ELEVATION

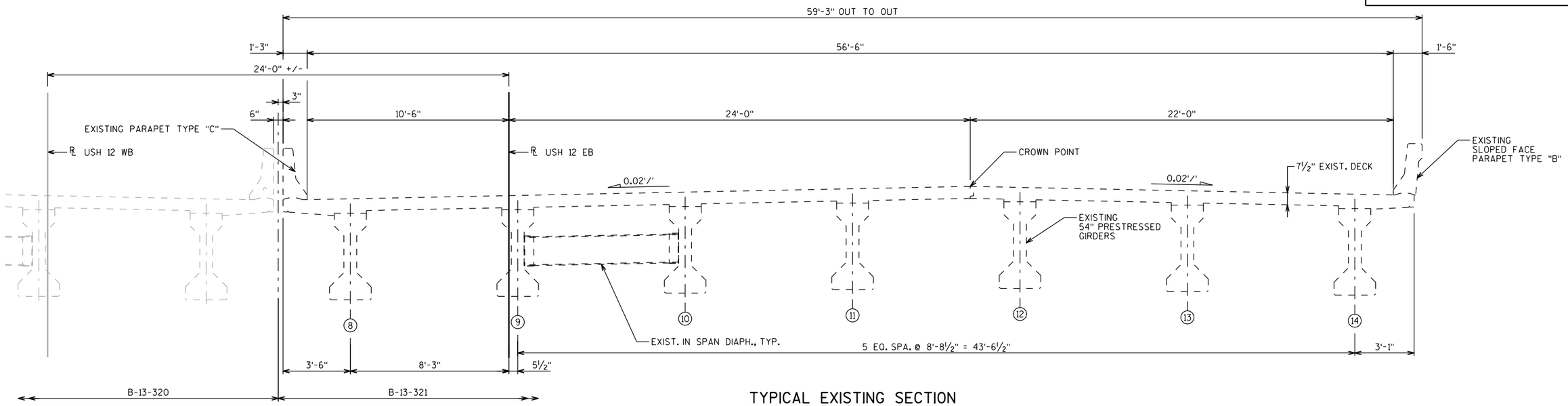
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STATE PROJECT NUMBER
1206-06-78



TYPICAL EXISTING SECTION

(LOOKING EAST)

GENERAL NOTES

DRAWINGS SHALL NOT BE SCALED.

DIMENSIONS SHOWN ARE BASED ON THE ORIGINAL STRUCTURE PLANS.

ALL DIMENSIONS ARE IN FEET AND INCHES UNLESS OTHERWISE NOTED. ALL STATIONS AND ELEVATIONS ARE IN FEET.

ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

PREPARATION DECKS TYPE 1 AND PREPARATION DECKS TYPE 2 AREAS ARE AS DETERMINED BY THE ENGINEER. DECK PREPARATION DECK REPAIRS SHALL BE FILLED WITH "CONCRETE MASONRY DECK REPAIR".

ANY EXCAVATION REQUIRED TO COMPLETE THE JOINT REPAIRS AT THE ABUTMENTS TO BE CONSIDERED INCIDENTAL TO THE BID ITEM "CONCRETE MASONRY OVERLAY DECKS".

NEW CONCRETE AT PARAPETS AND JOINT REPAIR PAID FOR AS "CONCRETE MASONRY OVERLAY DECKS".

LOCATIONS OF THE FOLLOWING BID ITEMS SHALL BE DETERMINED IN THE FIELD BY THE PROJECT ENGINEER. QUANTITIES SHOWN FOR THESE ITEMS ARE APPROXIMATE.

- PREPARATION DECKS TYPE 1
- PREPARATION DECKS TYPE 2
- CONCRETE SURFACE REPAIR
- SLOPE PAVING REPAIR CRUSHED AGGREGATE
- RESEAL CRUSHED AGGREGATE SLOPE PAVING

CONCRETE SURFACE REPAIR EXPECTED AT PIER COLUMNS, BARRIER BETWEEN COLUMNS, AND PIER DIAPHRAGM.

APPLY PROTECTIVE SURFACE TREATMENT TO THE ENTIRE TOP SURFACE OF THE NEW JOINT REPAIR AREAS.

APPLY "PIGMENTED SURFACE SEALER" TO THE TOP AND INSIDE FACES OF NEW SECTIONS OF PARAPETS.

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

ALL REINFORCING BARS ARE ENGLISH. THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE. BAR DIMENSIONS ARE OUT TO OUT OF BAR.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

UNDER THE BID ITEMS "ADHESIVE ANCHORS NO. 5 BAR", ANCHORED REINFORCING STEEL SHALL BE PAID FOR SEPARATELY AS PROVIDED IN SECTION 505 OF THE STANDARD SPECIFICATIONS FOR BAR STEEL REINFORCEMENT.

BEVEL EDGES OF EXPOSED CONCRETE ¾" MIN OR TO MATCH EXISTING BEVELS UNLESS NOTED OTHERWISE.

EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE, SHALL BE PAID FOR IN THE LUMP SUM PRICE BID AS "EXPANSION DEVICE B-13-321".

THE EASTBOUND AND WESTBOUND ALIGNMENTS SHOWN IN THE PLANS ARE ASSUMED TO MATCH THE EXISTING ALIGNMENTS.

REPAIR AND RESEAL EXISTING CRUSHED AGGREGATE SLOPE PAVING AT WEST ABUTMENT. VEGETATION REMOVAL ON EXISTING SLOPE PAVING IS INCIDENTAL TO "SLOPE PAVING REPAIR CRUSHED AGGREGATE".

TOTAL ESTIMATED QUANTITIES

ITEM NO.	BID ITEM	UNIT	TOTAL
203.0225.S.02	DEBRIS CONTAINMENT B-13-321	LS	1
502.3100.02	EXPANSION DEVICE B-13-321	LS	1
502.3200	PROTECTIVE SURFACE TREATMENT	SY	52
502.3210	PIGMENTED SURFACE SEALER	SY	8
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	126
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	4,170
505.0904	BAR COUPLERS NO. 4	EACH	8
505.0905	BAR COUPLERS NO. 5	EACH	12
505.0906	BAR COUPLERS NO. 6	EACH	32
505.0907	BAR COUPLERS NO. 7	EACH	24
509.0301	PREPARATION DECKS TYPE 1	SY	12
509.0302	PREPARATION DECKS TYPE 2	SY	5
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF	240
509.1000	JOINT REPAIR	SY	54
509.1500	CONCRETE SURFACE REPAIR	SF	38
509.2100.S	CONCRETE MASONRY DECK REPAIR	CY	1
509.2500	CONCRETE MASONRY OVERLAY DECKS	CY	23
604.9010.S	SLOPE PAVING REPAIR CRUSHED AGGREGATE	CY	1
604.9015.S	RESEAL CRUSHED AGGREGATE SLOPE PAVING	SY	147
	NON-BID ITEMS		
	PREFORMED JOINT FILLER	SIZE	1"

ALL ITEMS ARE CATEGORY 0030

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-321

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TYPICAL SECTION, GENERAL NOTES & QUANTITIES

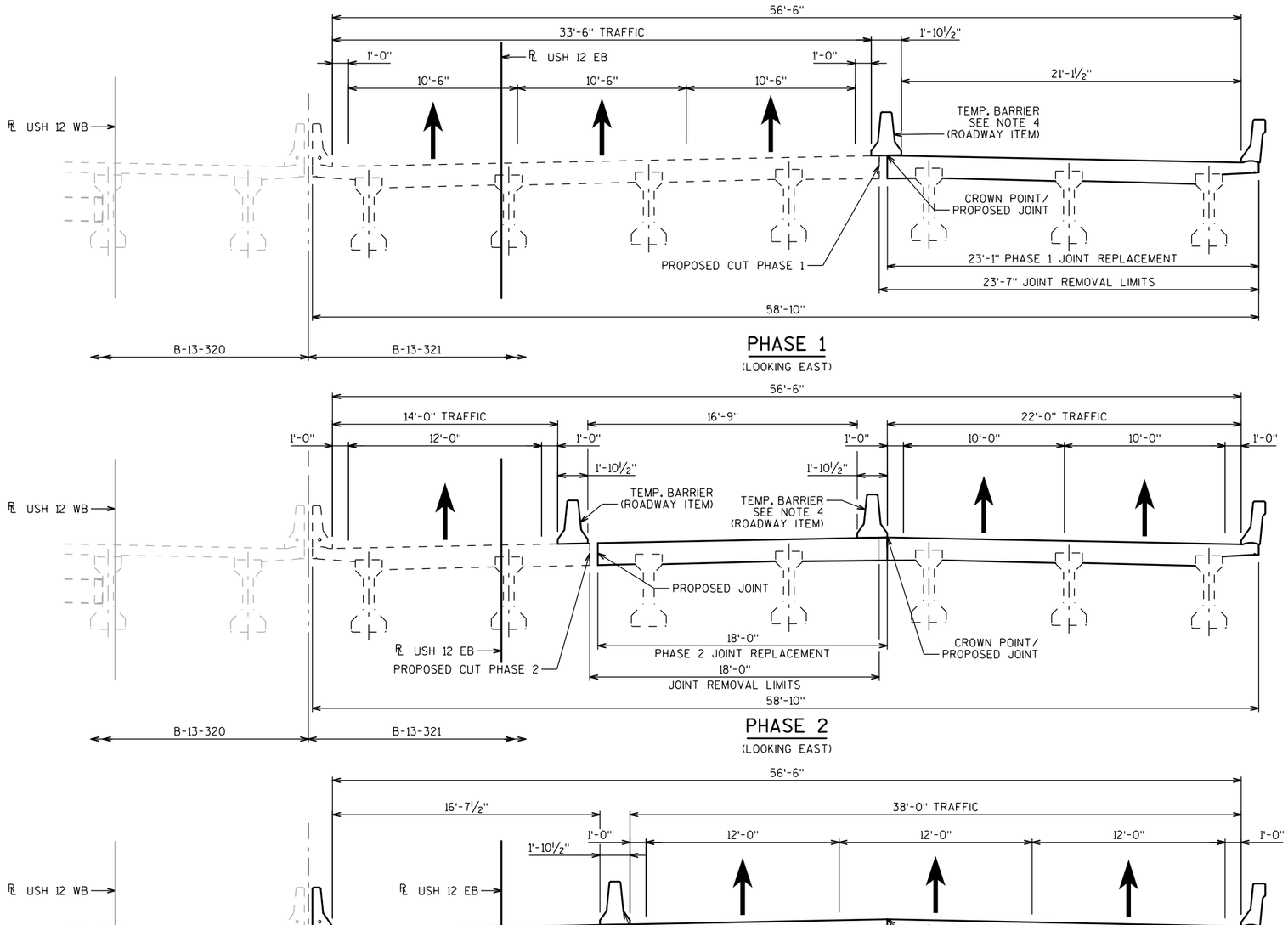
SHEET 2 OF 7

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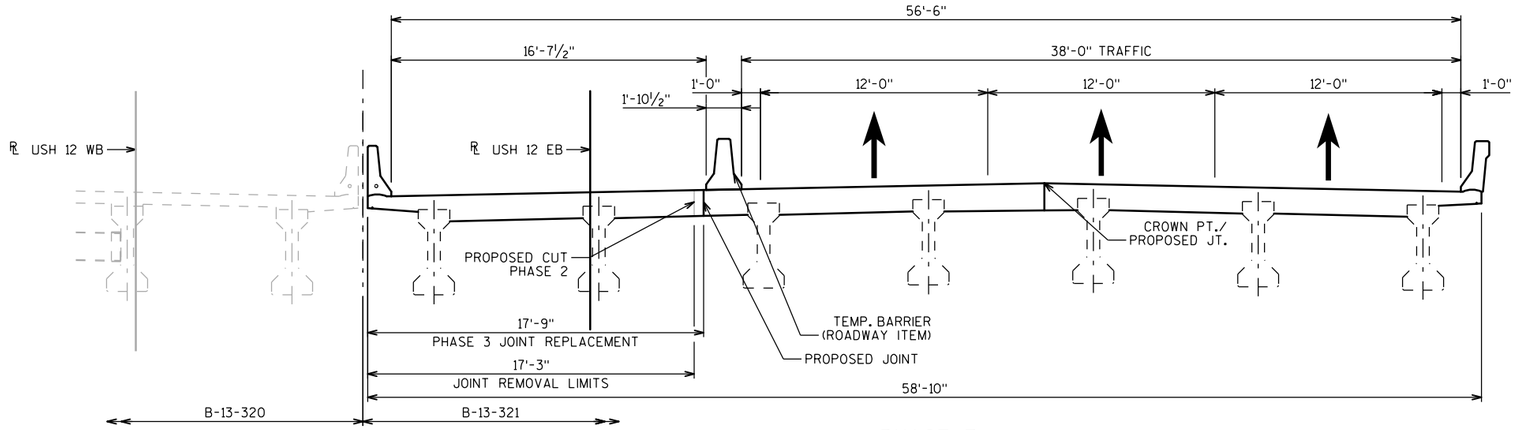
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STATE PROJECT NUMBER
1206-06-78



PHASE 1
(LOOKING EAST)

PHASE 2
(LOOKING EAST)



PHASE 3
(LOOKING EAST)

NOTES

1. STAGING SHOWN REPRESENTS THE ENDS OF THE BRIDGE WHERE THE JOINT REPLACEMENT WORK IS OCCURRING.
2. PHASE NUMBERS FOR STRUCTURE WORK MAY NOT MATCH ROADWAY STAGING PLAN NUMBERING.
3. SEE ROADWAY PLANS FOR COMPLETE PROJECT STAGING DETAILS.
4. GAP TEMPORARY BARRIER OVER JOINT. NEED TO WORK UNDER BARRIER. CLOSE ADJACENT TRAFFIC LANE OVERNIGHT.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-321

DRAWN BY EAJ | PLANS CK'D. MSS

CONSTRUCTION STAGING

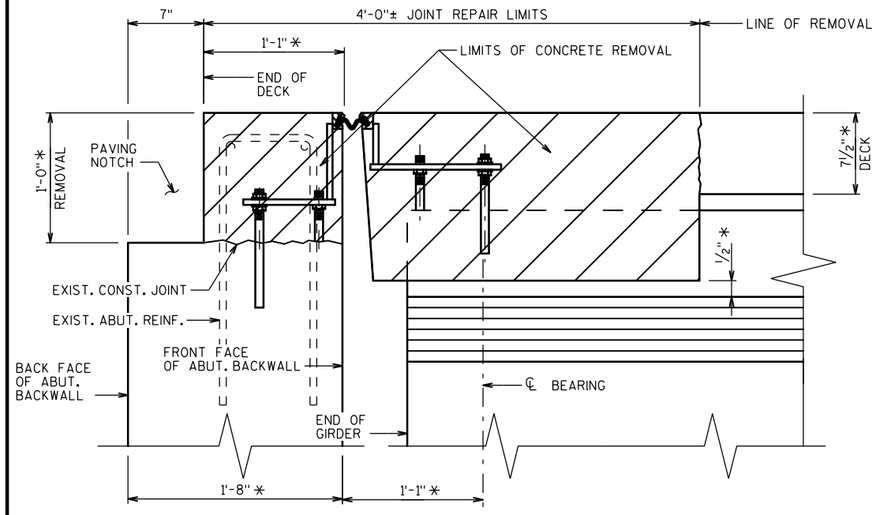
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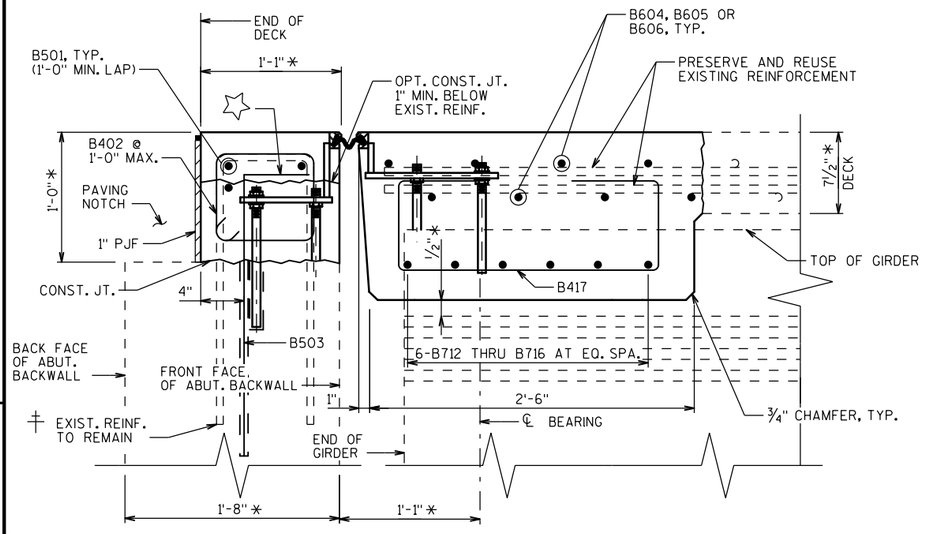
STATE PROJECT NUMBER
1206-06-78



TYP. ABUTMENT BACKWALL DECK

EXISTING SECTION AT ABUTMENTS

DIMENSIONS TAKEN NORMAL TO ℄ SUBSTRUCTURE
* DIMENSIONS SHOWN MATCH EXISTING PLANS



TYP. ABUTMENT BACKWALL DECK

PROPOSED SECTION AT ABUTMENTS (REINFORCEMENT DETAILS)

DIMENSIONS TAKEN NORMAL TO ℄ SUBSTRUCTURE
* DIMENSIONS SHOWN MATCH EXISTING PLANS

EXPANSION JOINT NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS, UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION, HANDLING OR GALVANIZING REQUIREMENTS. IF USED, DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING PERMITTED IN NEOPRENE STRIP SEAL.

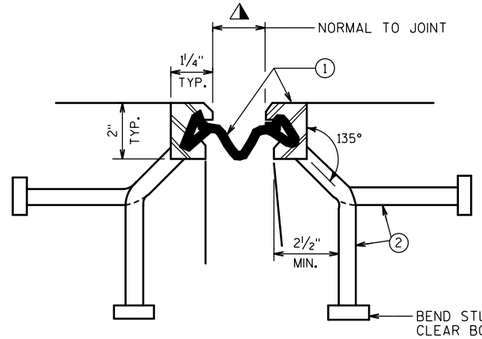
AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WARP, TWIST AND SWEEP.

FABRICATOR SHALL PROVIDE MEANS OF KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED.

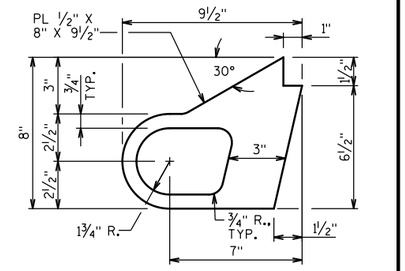
ANCHOR SYSTEM NO. 8 AND NO. 9 SHALL CONFORM TO ASTM A307 AND SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

STRIP SEAL EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE WILL BE PAID FOR AT THE LUMP SUM PRICE BID FOR "EXPANSION DEVICE B-13-321".

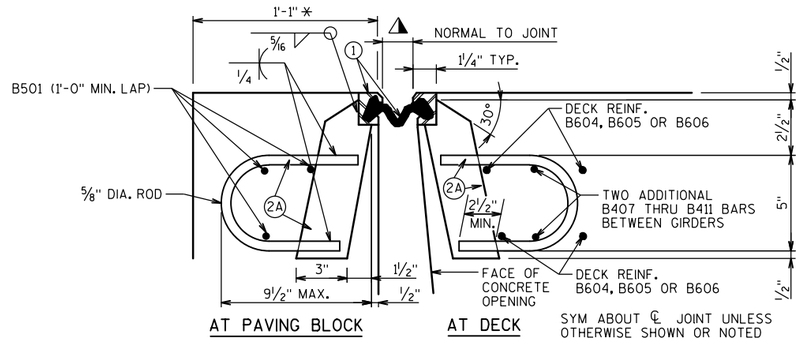


SECTION THRU JOINT

EXTERIOR GIRDER TO EDGE OF DECK AND AT PARAPETS



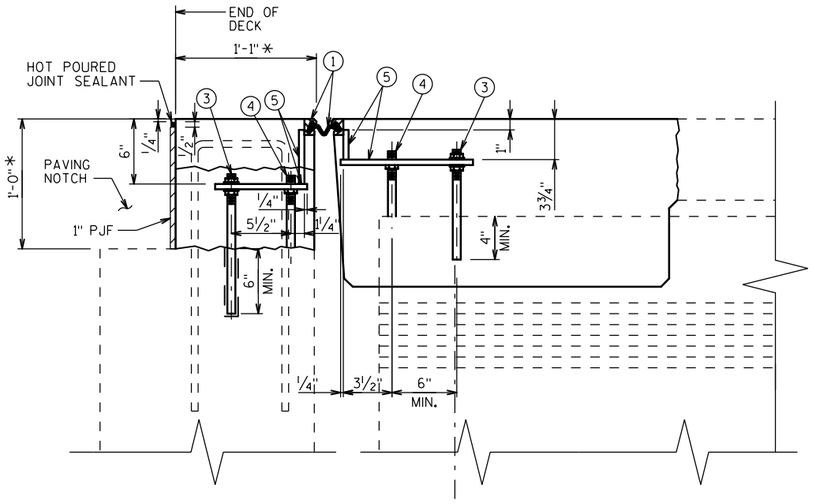
ALTERNATE STRIP SEAL ANCHOR



AT PAVING BLOCK AT DECK SYM ABOUT ℄ JOINT UNLESS OTHERWISE SHOWN OR NOTED

SECTION THRU JOINT

ROADWAY TRAFFIC AREA BETWEEN EXTERIOR GIRDERS



TYP. ABUTMENT BACKWALL DECK

PROPOSED SECTION AT ABUTMENTS (EXPANSION DEVICE COMPONENTS)

DIMESIONS TAKEN NORMAL TO ℄ SUBSTRUCTURE
* DIMENSIONS SHOWN MATCH EXISTING PLANS

LEGEND

1. NEOPRENE STRIP SEAL (4 - INCH) & STEEL EXTRUSIONS.
2. STUDS ⅝" DIA. x 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.
2A. ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.
3. ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. FOR PRESTRESSED GIRDERS, GROUT THREADED ROD INTO FIELD DRILLED HOLES ON THE ℄ OF GIRDER. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.
4. ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.
5. FABRICATE SUPPORT FROM 3" x ½" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY-COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.
6. GALVANIZED PLATE ⅜" x 1'-2" x 2'-0" LONG WITH HOLES FOR NO. 7. BEND AS SHOWN.
7. ¾" DIA. x 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SEIZE LUBRICANT. PLACE IN COUNTERSUNK HOLE. RECESS 1/16" BELOW PLATE SURFACE.
8. ¾" DIA. x 4" GALVANIZED HEX HEAD BOLT. BEND 45°.
9. ¾" DIA. x 2¼" GALVANIZED THREADED COUPLING.
10. 1" x 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

◭ SET JOINT OPENING AT 1¾"

‡ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL. SUPPLEMENT WITH THE BARS INDICATED BY ☆.

☆ ADHESIVE ANCHORS, NO. 5 BARS. EMBED A MINIMUM OF 1'-6" INTO CONCRETE SPACE AT 1'-0" MAX. AND AVOID EXPANSION JOINT HARDWARE. TURN 10" LEG AS NECESSARY TO FIT. ANCHORS SHALL BE APPROVED FOR USE IN CRACKED CONCRETE.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-321

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EXPANSION DEVICE

SHEET 4 OF 7

8

FILE NAME : J:\66224\b1\B-13-321\cds\Final\B321_080501_expjt.dgn PLOT DATE : 9/7/2018 9:44:01 AM PLOT BY : HAnders PLOT NAME : $FILE$ PLOT SCALE : 0.333333:1

STATE PROJECT NUMBER
1206-06-78

NOTES

AT THE PARAPETS, BID ITEM "JOINT REPAIR" SHALL BE MEASURED FROM OUTSIDE FACE OF PARAPET TO OUTSIDE FACE OF PARAPET AND INCLUDES PARAPET REMOVAL AS SHOWN BY HATCHED SECTIONS ON THIS SHEET.

SEE "EXPANSION DEVICE", "EXPANSION JOINT DETAILS" AND "PARAPET DETAILS & BILL OF BARS" SHEETS FOR ADDITIONAL INFORMATION.

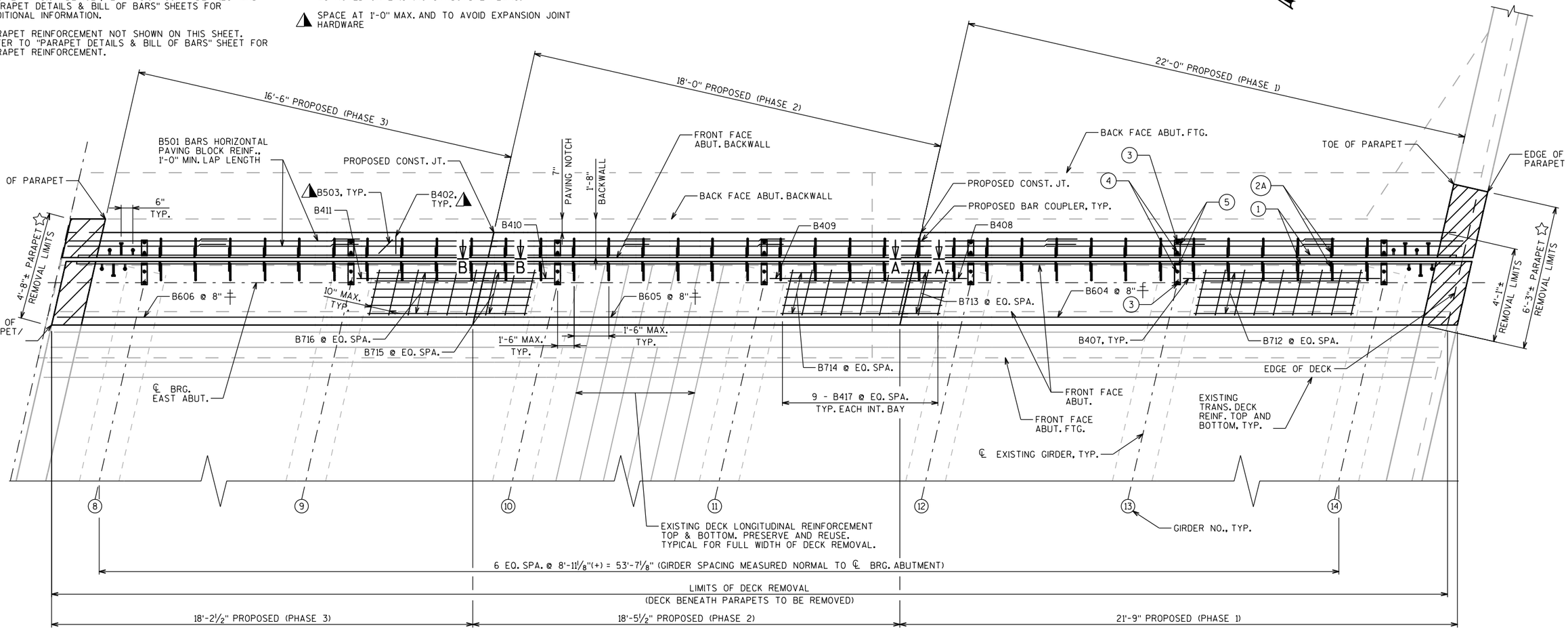
PARAPET REINFORCEMENT NOT SHOWN ON THIS SHEET. REFER TO "PARAPET DETAILS & BILL OF BARS" SHEET FOR PARAPET REINFORCEMENT.

LEGEND

☆ PARAPET REMOVAL DIMENSIONS SHOWN ARE FOR EAST ABUTMENT PARAPETS. WEST ABUTMENT PARAPET REMOVAL SIMILAR.

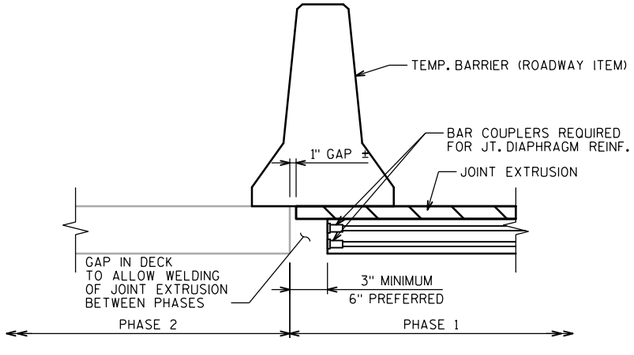
┼ 8" SPACING DIMENSION TAKEN PARALLE TO ℄ OF GIRDER AS NOTED ON EXISTING STRUCTURE PLANS.

◭ SPACE AT 1'-0" MAX. AND TO AVOID EXPANSION JOINT HARDWARE



PLAN B-13-321 ABUTMENT EXPANSION JOINT REPLACEMENT

EAST ABUTMENT SHOWN, WEST ABUTMENT SIMILAR
(SEE "PARAPET DETAILS & BILL OF BARS" SHEET FOR REINFORCEMENT INFORMATION)



SECTION A-A (SECTION B-B SIMILAR)

SECTION B-B, TEMPORARY BARRIER IS OFFSET FROM DECK GAP BETWEEN PHASES
(REFER TO "CONSTRUCTION STAGING" SHEET)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-321

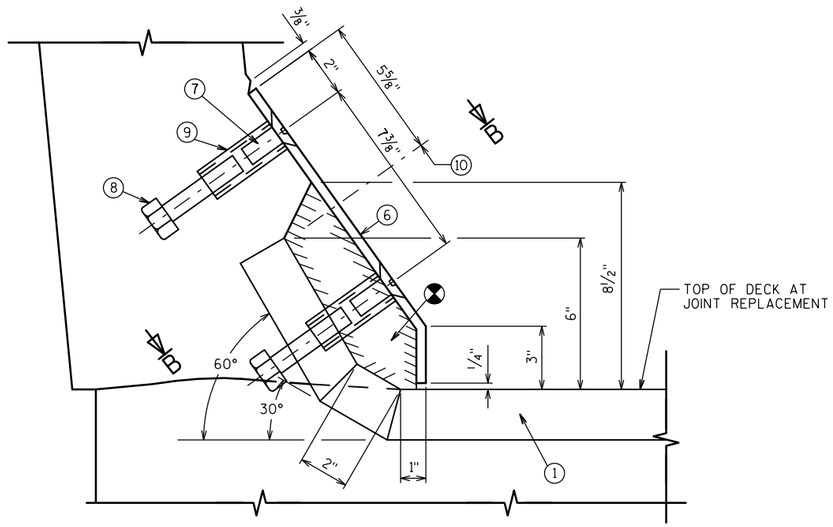
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EXPANSION JOINT REINFORCEMENT

SHEET 5 OF 7

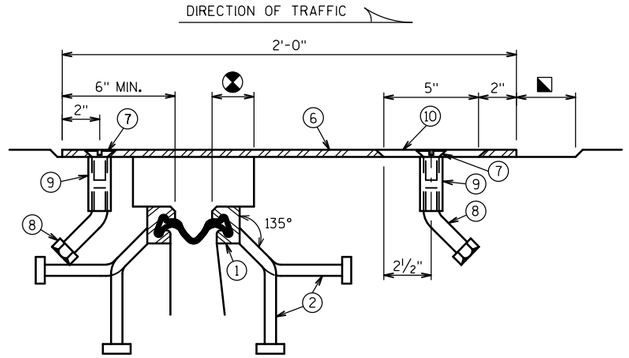
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STATE PROJECT NUMBER
1206-06-78

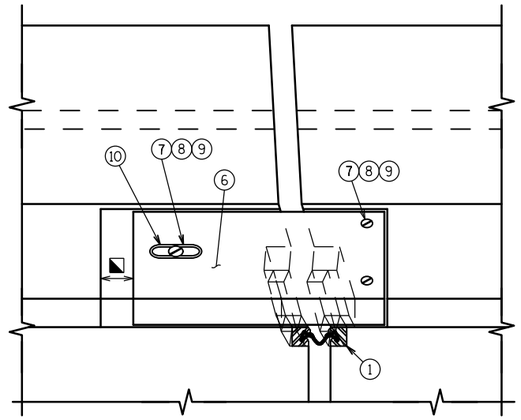


SECTION A-A

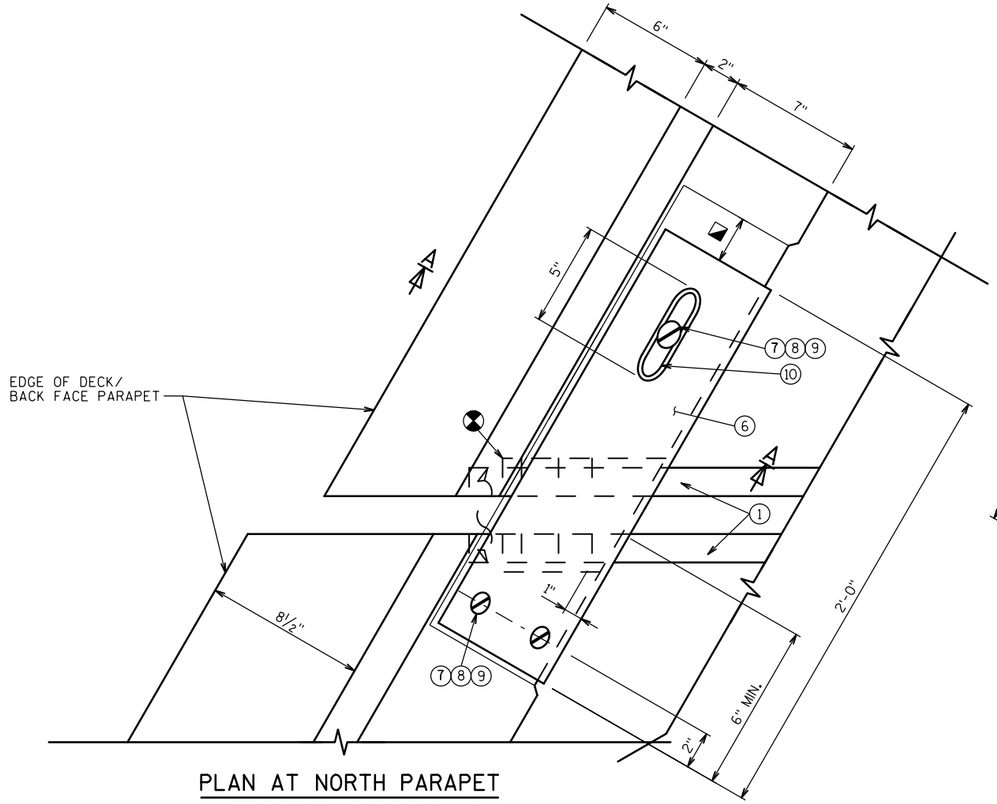
SOUTH PARAPET SHOWN, NORTH PARAPET SIMILAR



SECTION B-B

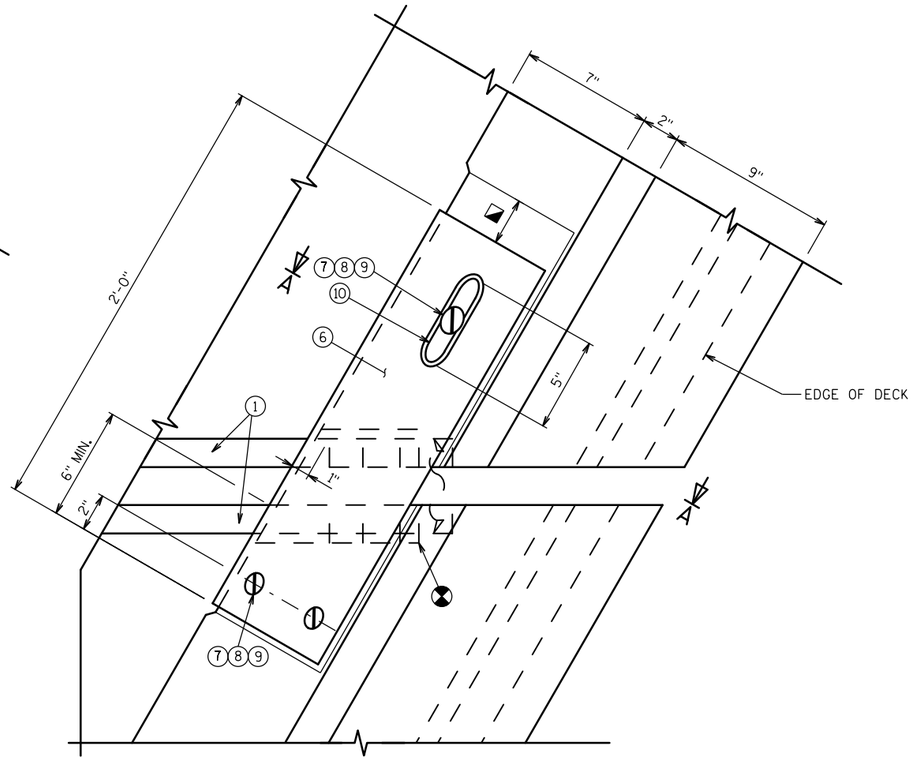


VIEW OF PARAPET PLATE FROM ROADWAY



PLAN AT NORTH PARAPET

WEST END SHOWN, EAST END SIMILAR



PLAN AT SOUTH PARAPET

WEST END SHOWN, EAST END SIMILAR

LEGEND

⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING

◪ JOINT OPENING DIM. ALONG SKEW PLUS 1/2"

NOTES

SEE "EXPANSION DEVICE", "EXPANSION JOINT REINFORCEMENT" AND "PARAPET DETAILS & BILL OF BARS" SHEETS FOR ADDITIONAL INFORMATION.

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE B-13-321

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EXPANSION JOINT DETAILS

SHEET 6 OF 7

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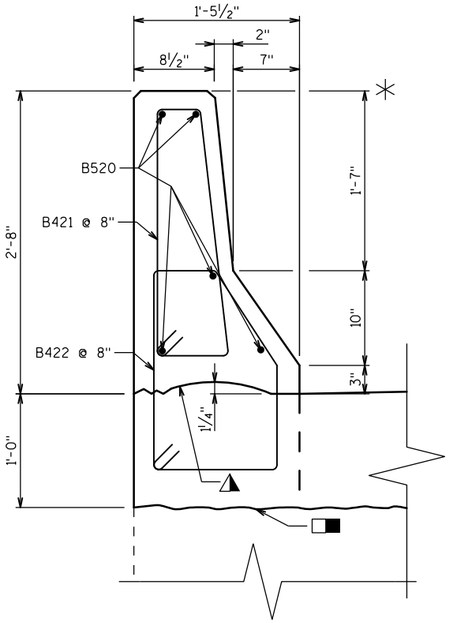
STATE PROJECT NUMBER
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LEGEND

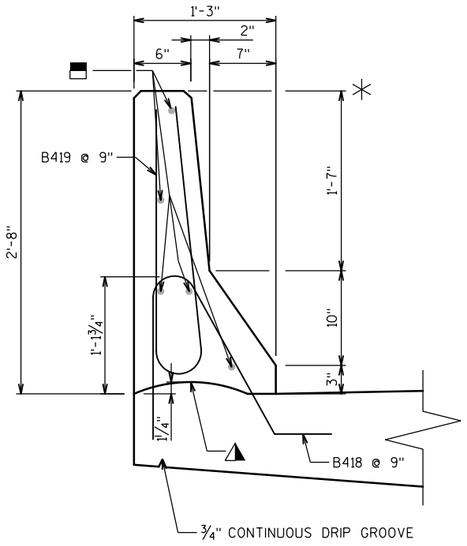
- EXISTING CONST. JOINT (NEW CONSTRUCTION JOINT SAME LOCATION. STRIKE OFF AND LEAVE ROUGH).
- CONST. JOINT LIMIT OF CONCRETE REMOVAL
- PRESERVE AND REUSE EXISTING LONGITUDINAL REINFORCEMENT
- MATCH TOP ELEVATION OF REPLACEMENT PARAPET TO TOP ELEVATION OF EXISTING PARAPET
- PRESERVE AND REUSE EXISTING VERTICAL REINFORCEMENT AT 1'-0" SECTION OF PARAPET REMOVAL WHERE WINGWALL REMAINS.
- ☆ ADHESIVE ANCHORES, NO. 5 BARS

NOTES

SEE "EXPANSION DEVICE", "EXPANSION JOINT REINFORCEMENT" AND "EXPANSION JOINT DETAILS" SHEETS FOR ADDITIONAL INFORMATION.



SECTION THRU
PARAPET 'C' ON ABUTMENT
AT JOINT REPAIR

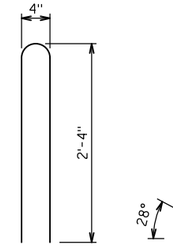


SECTION THRU
PARAPET 'C' ON BRIDGE
AT JOINT REPAIR

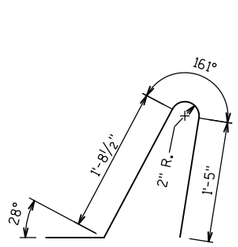
BILL OF BARS

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	SERIES	LOCATION
B501	X	60	6'-10"			PAVING BLOCK TRANSVERSE
B402	X	126	3'-4"	X		PAVING BLOCK STIRRUP
B503	X	126	3'-1"	X		PAVING BLOCK ANCHOR
B604	X	16	23'-6"			DECK TRANSVERSE - PHASE 1
B605	X	16	18'-6"			DECK TRANSVERSE - PHASE 2
B606	X	16	18'-0"			DECK TRANSVERSE - PHASE 3
B407	X	16	8'-6"			DIAPHRAGM - HORIZ.
B408	X	4	2'-5"			DIAPHRAGM - HORIZ. - PHASE 1
B409	X	4	6'-1"			DIAPHRAGM - HORIZ. - PHASE 2
B410	X	4	3'-0"			DIAPHRAGM - HORIZ. - PHASE 2
B411	X	4	5'-6"			DIAPHRAGM - HORIZ. - PHASE 3
B712	X	48	6'-10"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS
B713	X	12	1'-7"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS - PHASE 1
B714	X	12	5'-3"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS - PHASE 2
B715	X	12	2'-2"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS - PHASE 2
B716	X	12	4'-7"			DIAPHRAGM - HORIZ. BETWEEN GIRDERS - PHASE 3
B417	X	108	4'-3"	X		DIAPHRAGM - STIRRUPS BETWEEN GIRDERS
B418	X	8	4'-0"	X		SLAB & PARAPET "C" VERT.
B419	X	8	5'-0"	X		PARAPET "C" VERT.
B520	X	10	1'-4"			PARAPET "C" HORIZ.
B421	X	6	5'-10"	X		PARAPET "C" VERT.
B422	X	6	5'-10"	X		ABUT. & PARAPET "C" VERT
B423	X	8	4'-3"	X		SLAB & PARAPET "B" VERT.
B424	X	18	4'-10"	X		PARAPET "B" VERT.
B425	X	4	4'-7"	X		ABUT. & PARAPET "B" VERT

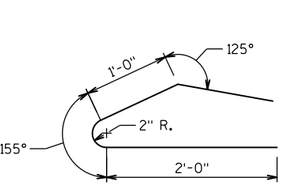
NOTE:
BAR DIMENSIONS ARE OUT TO OUT OF BAR.
THE FIRST OR FIRST TWO DIGITS OF A BAR MARK SIGNIFIES THE BAR SIZE.



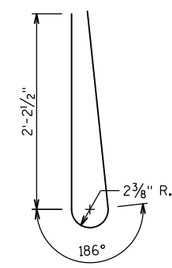
B424



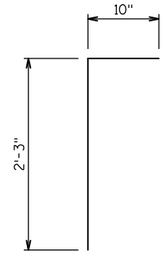
B423



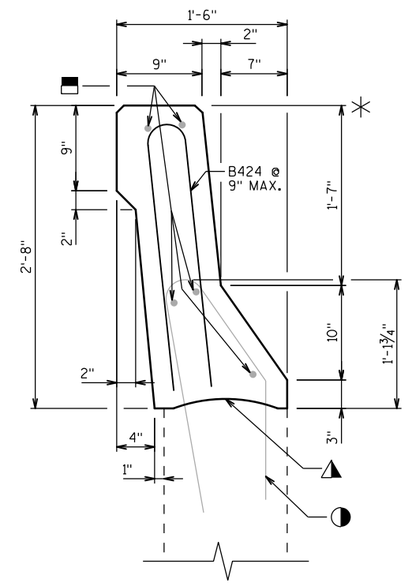
B425



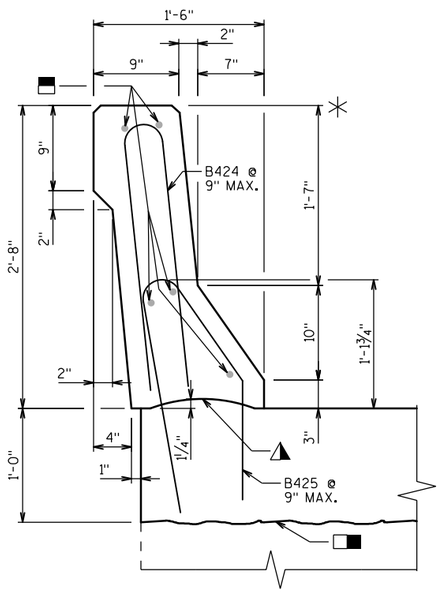
B419



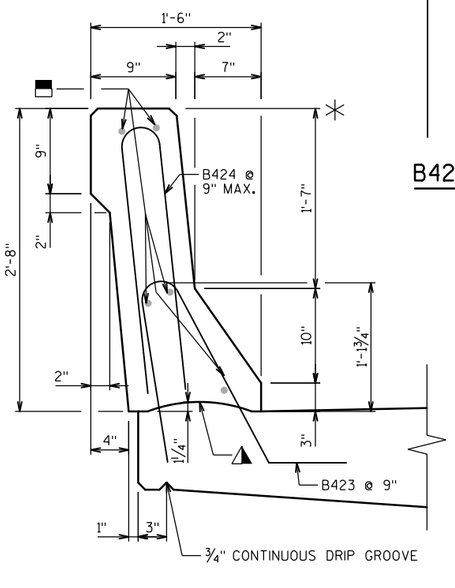
B503



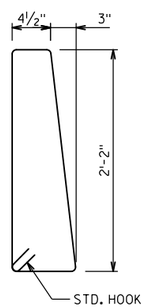
SECTION THRU
PARAPET 'B' ON WINGWALL
AT JOINT REPAIR
(WINGS 1 & 2)



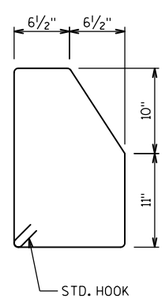
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AT JOINT REPAIR
(WINGS 1 & 2)



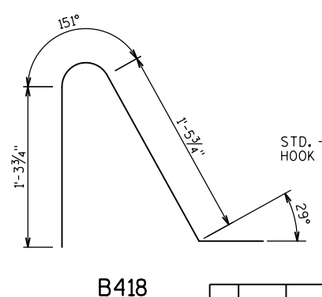
SECTION THRU
PARAPET 'B' ON BRIDGE
AT JOINT REPAIR



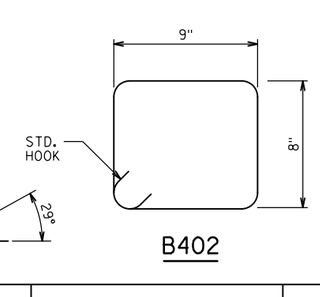
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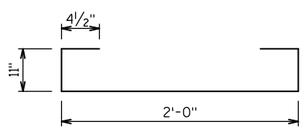
B422



B418



B402



B417

NO.	DATE	REVISION	BY

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STRUCTURE B-13-321

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PARAPET DETAILS & BILL OF BARS

SHEET 7 OF 7

8

8

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Notes

Wisconsin Department of Transportation

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