WKE

PROJECT ID: **2410-47-70**

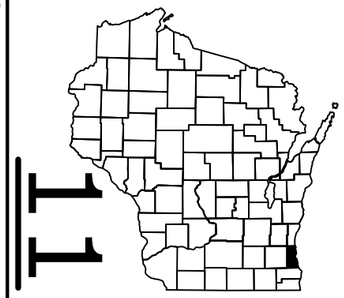
COUNTY: **MILWAUKEE**

MAY 2025

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 = 466



N

DESIGN DESIGNATION			BREWERS BOULEVARD BETWEEN STADIUM INT AND CANAL STREET	W. NATIONAL AVE/STH59 WEST OF MILLER PARK WAY
A.A.D.T.	2019	=	56,100	18,400
A.A.D.T.	2050	=	54,500	18,900
D.H.V.	2050	=	1,815 NB / 1,840 SB	1990
D.D.		=	50%/50%	54% WB / 46% EB
T.		=	3.8%	2.4%
DESIGN SPEED		=	50 MPH	35 MPH
ESALS		=	XXXX	XXXX

CONVENTIONAL SYMBOLS

PLAN

- CORPORATE LIMITS
- PROPERTY LINE
- LOT LINE
- LIMITED HIGHWAY EASEMENT
- EXISTING RIGHT OF WAY
- PROPOSED OR NEW R/W LINE
- SLOPE INTERCEPT
- REFERENCE LINE (300'EB')
- 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

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

IH 94 EAST WEST, NATIONAL AVENUE

70TH STREET TO MILLER PARK WAY

STH 59

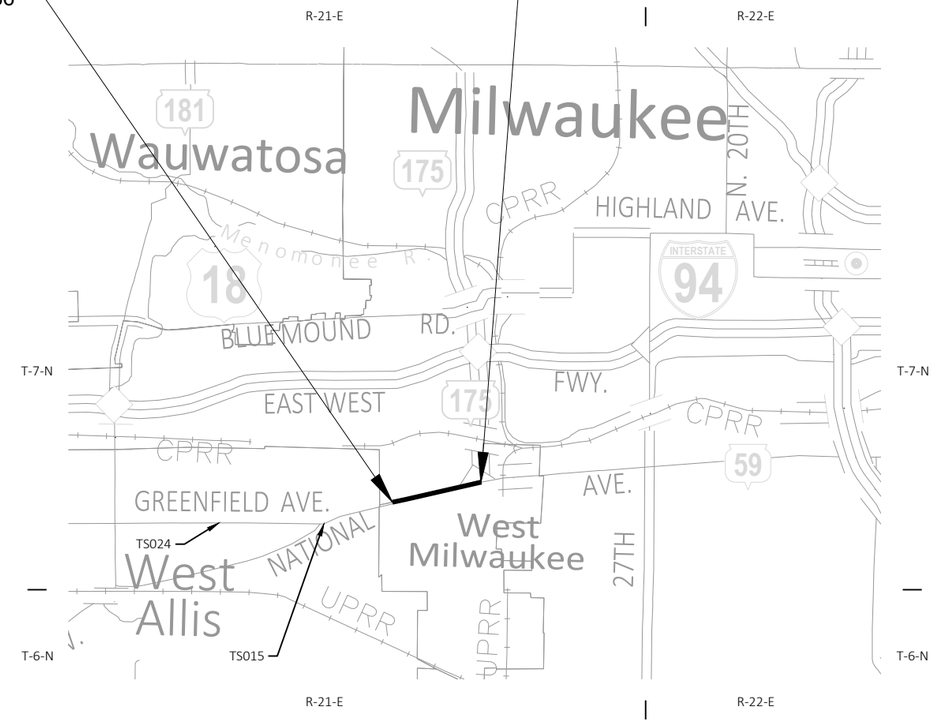
MILWAUKEE COUNTY

STATE PROJECT NUMBER
2410-47-70

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2410-47-70		

BEGIN PROJECT
STA 43NL+02.86
X = 588312.52
Y = 292666.77

END PROJECT
STA 59NL+94.06



LAYOUT

SCALE 0 — 1 MI

TOTAL NET LENGTH OF CENTERLINE = 0.320 MI

HORIZONTAL POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COUNTY COORDINATE SYSTEM (WCCS), MILWAUKEE COUNTY, NAD83 (2007), IN U.S. SURVEY FEET. POSITIONS SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES ARE THE SAME AS GROUND DISTANCES.

ELEVATIONS ARE REFERENCED TO NAVD 88 (2007). GPS DERIVED ELEVATIONS ARE BASED ON GEOID 9

ORIGINAL PLANS PREPARED BY

Lakeside ENGINEERS
909 N. MAYFAIR ROAD #100
WAUWATOSA, WI 53226

WISCONSIN — ANTHONY DUBLITZ — 44355-6 — MILWAUKEE, WI — PROFESSIONAL ENGINEER

1/28/2025 (Date) (Signature)

ORIGINAL PLANS PREPARED BY

Jacobs
1610 N. 2ND STREET #201
MILWAUKEE, WI 53212

WISCONSIN — JOEL D. JURSS — E-32142 — WAUKESHA, WI — PROFESSIONAL ENGINEER

1/31/2025 (Date) (Signature)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY

Surveyor	KAPUR & ASSOCIATES
Designer	JACOBS ENGINEERING/LAKESIDE ENGINEERS
Project Manager	CHRISTOPHER ZACHARIAS, P.E.
Regional Examiner	
Regional Supervisor	WILLIAM S. MOHR, P.E.

APPROVED FOR THE DEPARTMENT

DATE: 1/23/2025 (Signature)

E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\01 TITLE\24104770-010101-TI.DWG PLOT DATE : 1/23/2025 10:04 AM PLOT BY : TONY BUBLITZ PLOT NAME :

ORIGINAL PLANS PREPARED BY

Jacobs 1610 N. 2ND STREET #201 MILWAUKEE, WI 53212

WISCONSIN ROBERT J. WOOD JR. 44081-6 MILWAUKEE, WIS. PROFESSIONAL ENGINEER

1/31/2025 (Date) Robert J. Wood Jr (Signature)

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING DESIGN:

ROADWAY PLANS
- LIGHTING PLANS

ORIGINAL PLANS PREPARED BY

kapur 7711 N. Port Washington Rd. MILWAUKEE, WI 53217

WISCONSIN BRIAN C. ADAMS E - 40090 PORT WASHINGTON WI PROFESSIONAL ENGINEER

1/31/25 (Date) Brian C. Adams (Signature)

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING DESIGN:

ROADWAY PLANS
- STORM SEWER

ORIGINAL PLANS PREPARED BY

HNTB 250 E. WISCONSIN AVE MILWAUKEE, WI 53202

WISCONSIN ALICIA M. DOUGHERTY E-43022 PEWAUKEE, WI PROFESSIONAL ENGINEER

1-23-2025 (Date) Alicia M Dougherty (Signature)

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING DESIGN:

ROADWAY PLANS
- TRAFFIC SIGNALS AT STH 59 (GREENFIELD AVE) & 70TH ST
- TRAFFIC SIGNALS AT STH 59 (GREENFIELD AVE) & STH 59 (NATIONAL AVE)

ORIGINAL PLANS PREPARED BY

HNTB 250 E. WISCONSIN AVE MILWAUKEE, WI 53202

WISCONSIN PAUL KUTZ E-37837 MILWAUKEE, WI PROFESSIONAL ENGINEER

1-23-2025 (Date) Paul Kutz (Signature)

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE FOLLOWING DESIGN:

ROADWAY PLANS
- FTMS

NOTE:
ADDITIONAL PROFESSIONAL ENGINEER STAMPS SHOWN ON TRAFFIC SIGNAL PLAN SHEETS

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PLAN PROFESSIONAL ENGINEER STAMPS	SHEET 2	E

2

REFERENCE LINE ALIGNMENT ABBREVIATIONS

ABBREVIATION	ROAD NAME	DESCRIPTION
MK	MILLER PARK WAY	MILLER PARK WAY / BREWERS BOULEVARD
NL	W. NATIONAL AVENUE	W. NATIONAL AVENUE

STANDARD ABBREVIATIONS

AEW	APRON END WALL
AGG	AGGREGATE
ASPH	ASPHALTIC
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
EB	EASTBOUND
FE	FIELD ENTRANCE
FL	FLOW LINE
HMA	HOT MIX ASPHALT
INV	INVERT
L	LENGTH OF CURVE
LHF	LEFT HAND FORWARD
LP	LOW POINT
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
PGL	PROFILE GRADE LINE
PI	POINT OF INTERSECTION
PLE	PERMANENT LIMITED EASEMENT
PRC	POINT OF REVERSE CURVE
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 DRAWING
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
WB	WESTBOUND

UTILITIES CONTACTS

AT&T WISCONSIN
COMMUNICATION LINE
NATHAN GIBERT
411 7TH ST
RACINE, WI 53403
PHONE: (262) 720-8235
NG952W@ATT.COM

SPECTRUM
COMMUNICATION LINE
LUIS ROSADO
1320 N DR MARTIN LUTHER KING JR DR
MILWAUKEE, WI 53212
PHONE: (414) 335-6994
LUIS.ROSADO@CHARTER.COM

CITY OF MILWAUKEE
WATER
JOSHUA IWEN
841 N BROADWAY
MILWAUKEE, WI 53202
PHONE: (414) 286-3710
JIWEN@MILWAUKEE.GOV

CITY OF WEST ALLIS
SEWER
MELINDA DEJEWSKI
CITY ENGINEER
7525 W GREENFIELD AVENUE
WEST ALLIS, WI 53214
PHONE: (414) 302-8374
MDEJEWSKI@WESTALLISWI.GOV

CITY OF WEST ALLIS
WATER
MELINDA DEJEWSKI
CITY ENGINEER
7525 W GREENFIELD AVENUE
WEST ALLIS, WI 53214
PHONE: (414) 302-8374
MDEJEWSKI@WESTALLISWI.GOV

EVERSTREAM
COMMUNICATION LINE
SHAD GARCIA
324 E WISCONSIN AVE, SUITE 730
MILWAUKEE, WI 53202
PHONE: (414) 522-6685
SGARCIA@EVERSTREAM.NET

LEVEL 3 COMMUNICATIONS LLC
COMMUNICATION LINE
BRAHIM GADDOUR
3235 INTERTECH DR SUITE 600
BROOKFIELD, WI 53045
PHONE: (414) 908-1027
BRAHIM.GADDOUR@LUMEN.COM

MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
SEWER
MICHAEL LEE
260 W SEEBOTH ST
MILWAUKEE, WI 53204
PHONE: (414) 225-2241
MLEE@MMSD.COM

VERIZON BUSINESS
COMMUNICATION LINE
RJ CICATELLO
15725 WEST RYERSON ROAD
NEW BERLIN, WI 53151
PHONE: (262) 232-1323
RANDY.CICATELLO@VERIZON.COM

WE ENERGIES
ELECTRICITY
TRAVIS BANGART
500 S 116TH STREET
WEST ALLIS, WI 53214
PHONE: (414) 944-5634
TRAVIS.BANGART@WE-ENERGIES.COM

WE ENERGIES
GAS/PETROLEUM
SPENSER DOONER
700 S KANE ST
BURLINGTON, WI 53105
PHONE: (262) 763-1083
SPENSER.DOONER@WE-ENERGIES.COM

VILLAGE OF WEST MILWAUKEE
WATER
JASON JOURDAN
4517 WEST BURNHAM STREET
WEST MILWAUKEE, WI 53217
PHONE: (414) 645-6238
JASON.JOURDAN@WESTMILWAUKEEWI.GOV

VILLAGE OF WEST MILWAUKEE
SEWER
JASON JOURDAN
4517 WEST BURNHAM STREET
WEST MILWAUKEE, WI 53217
PHONE: (414) 645-6238
JASON.JOURDAN@WESTMILWAUKEEWI.GOV

STATE AGENCIES

WISCONSIN DEPARTMENT OF NATURAL RESOURCES
RYAN PAPPAS
DNR SERVICE CENTER
2300 N. MARTIN LUTHER KING JR.
MILWAUKEE, WI 53212
PHONE: (414) 750-7495
RYAN.PAPPAS@WISCONSIN.GOV

WISDOT ATR PULL BOXES
ELECTRICITY
CHAD BIGLER
TRAVEL SURVEY SHOP, 3633 PIERSTORFF ST.
P.O. BOX 2583
MADISON, WI 53704-2583
CHAD.BIGLER@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
COMMUNICATION LINE
JEFF MADSON
STE. 300
433 W. ST. PAUL AVE.
MILWAUKEE, WI 53203-3007
PHONE: (414) 255-3723
JEFFREY.MADSON@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
CHRIS ZACHARIAS PROJECT MANAGER
141 NW BARSTOW ST
WAUKESHA, WI 53188
PHONE: (262) 548-6716
CHRISTOPHER.ZACHARIAS@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
STREET LIGHTING
ERIC PEREA
141 NW BARSTOW STREET
WAUKESHA, WI 53188
PHONE: (262) 574-5422
ERIC.PEREA@DOT.WI.GOV

WISCONSIN DEPARTMENT OF TRANSPORTATION
WISCONSIN SIGNAL
JARRETT GATES
141 NW BARSTOW STREET
WAUKESHA, WI 53188
PHONE: (262) 548-5894
JARRETT.GATES@DOT.WI.GOV

OTHER AGENCIES

VILLAGE OF WEST MILWAUKEE
JAMES STENZEL
DPW SUPERINTENDENT
4517 WEST BURNHAM STREET
WEST MILWAUKEE, WI 53217
PHONE: (414) 645-6238
GENERAL@WESTMILWAUKEEWI.GOV

VILLAGE OF WEST MILWAUKEE
JASON JOURDAN
DPW FOREMAN
4517 WEST BURNHAM STREET
WEST MILWAUKEE, WI 53217
PHONE: (414) 645-6238
JASON.JOURDAN@WESTMILWAUKEEWI.GOV

CITY OF WEST ALLIS
MELINDA DEJEWSKI
CITY ENGINEER
7525 W. GREENFIELD AVENUE
WEST ALLIS, WI 53214
PHONE: (414) 302-8374
MDEJEWSKI@WESTALLISWI.GOV

MILWAUKEE COUNTY TRANSIT SYSTEM
DAN ADAMS
TRANSIT SPECIALIST
1942 N 17TH STREET
MILWAUKEE, WI 53205
PHONE: (414) 937-3273
DADAMS@MCTS.ORG

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

GENERAL NOTES

DO NOT REMOVE ANY TREES OR SHRUBS WITHOUT APPROVAL OF THE ENGINEER.

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

THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH DIGGERS HOTLINE AND AFFECTED UTILITIES TO FIELD LOCATE UTILITIES PRIOR TO THE START OF WORK. THE CONTRACTOR IS RESPONSIBLE FOR CONTACTING ANY LOCAL MUNICIPAL UTILITY WHICH IS NOT A MEMBER OF THE DIGGERS HOTLINE SEPARATELY.

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

CROSS SECTIONS SHOWN INCLUDE THE THICKNESS OF TOPSOIL WHERE REQUIRED. TOPSOIL SHALL BE REPLACED WITH 6-INCH TYPICAL DEPTH.

RE-TOPSOIL OF GRADED AREAS, AS DESIGNATED BY THE ENGINEER, IMMEDIATELY AFTER GRADING IS COMPLETED WITH IN THOSE AREAS. SOD, AND FERTILIZE TOP-SOILED AREAS, AS DESIGNATED BY THE ENGINEER, WITHIN FIVE (5) CALENDAR DAYS AFTER PLACEMENT OF TOPSOIL. IF GRADED AREAS ARE LEFT EXPOSED FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THOSE AREAS WITH TEMPORARY SEED AND MULCH WITHIN FIVE (5) DAYS OF THE INITIAL AND ANY NEW DISTURBANCES.

WETLAND AND STREAM BANK AREAS, AS DESIGNATED BY THE ENGINEER, SHALL BE RESTORED WITHIN 48 HOURS OF ANY DISTURBANCE.

STOCKPILE EXCESS MATERIAL OR SOILS ON UPLAND AREAS AWAY FROM WETLANDS, FLOOD PLAINS, AND WATERWAYS. STOCKPILED SOIL SHALL BE PROTECTED AGAINST EROSION. IF STOCKPILED MATERIAL IS LEFT FOR MORE THAN FOURTEEN (14) CALENDAR DAYS, SEED THE STOCKPILE WITH TEMPORARY SEED AND EROSION MAT.

EROSION CONTROL DEVICES ARE AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTORS ECIP AND BY THE ENGINEER. EROSION CONTROL BMPS SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER REQUIRED.

PRIOR TO ORDERING DRAINAGE PIPES, THE CONTRACTOR SHALL FIELD VERIFY RELATED DRAINAGE INFORMATION IN THE PLAN WITH THE ENGINEER.

EXCAVATION BELOW SUBGRADE (EBS) IS NOT USED TO BALANCE EARTHWORK, EBS IS MEASURED AND PAID FOR AS EXCAVATION COMMON. EXACT LOCATIONS OF EBS WILL BE DETERMINED BY THE ENGINEER.

A SAWED JOINT WILL BE REQUIRED WHERE NEW PAVEMENT IS TO MEET AN EXISTING PAVED SURFACE.

WHEN PERFORMING CONCRETE OR ASPHALT SAWCUTTING OPERATIONS, THE SLURRY SHALL BE SQUEEGEED OFF TO THE SHOULDER GRAVEL OR SHOVELED INTO THE GRAVEL BEHIND CURBS AND NOT ALLOWED INTO STORM SEWERS, DITCHES, WATERWAYS, OR WETLANDS. INCIDENTAL TO SAWCUTTING.

STATIONING, DISTANCES, AND OFFSETS FOR SIGNS SHOWN IN THE PLANS ARE APPROXIMATE AND THE FINAL LOCATIONS OF SIGNS ARE TO BE DETERMINED BY THE ENGINEER.

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

CURVE DATA IS BASED ON THE RADIUS DEFINITION.

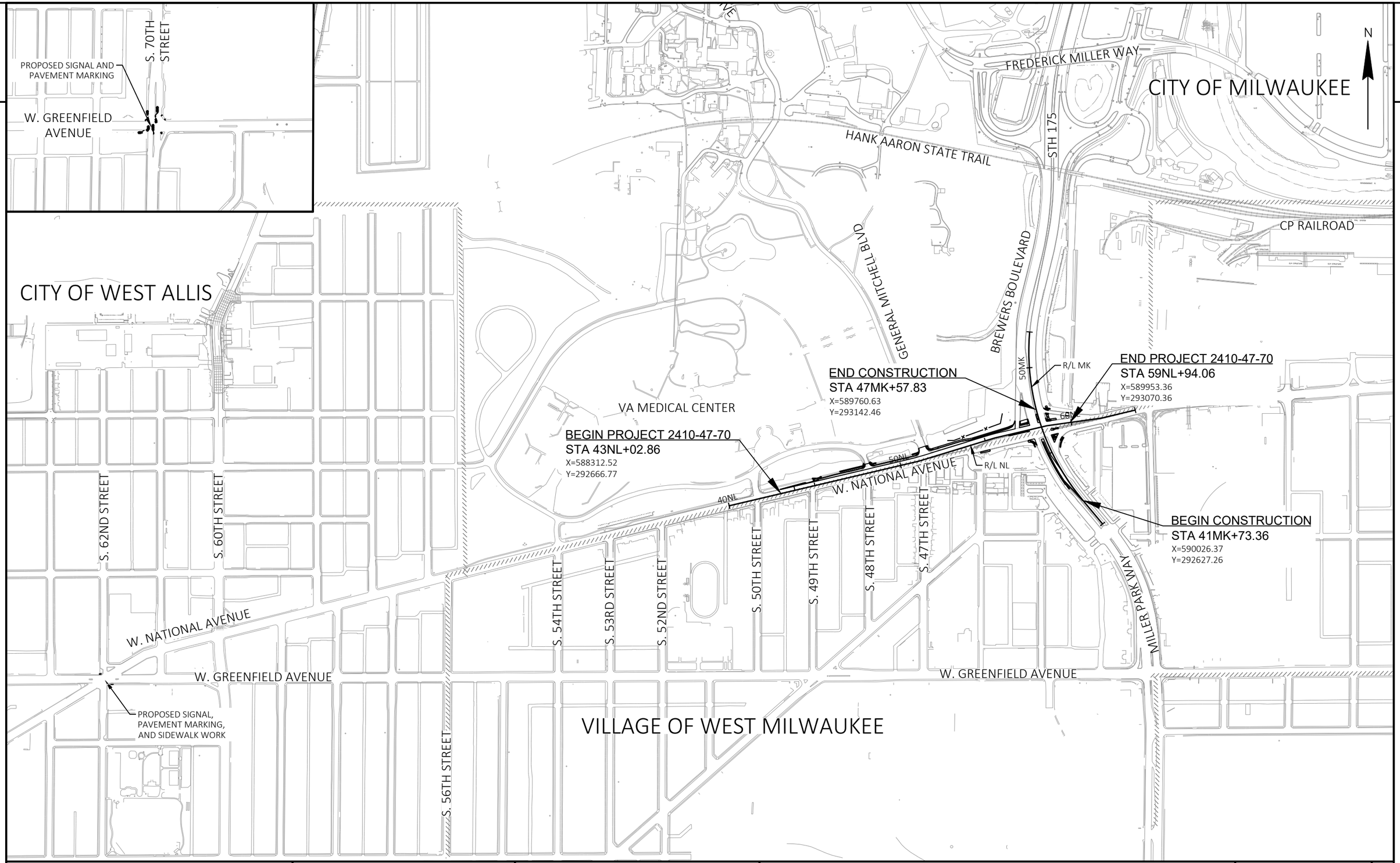
VERIFY EXISTING PAVEMENT ELEVATIONS AT ALL TIE-INS TO EXISTING PAVEMENT PRIOR TO CONSTRUCTION. IF A DISCREPANCY IS FOUND BETWEEN PROPOSED PLAN ELEVATIONS AND EXISTING PAVEMENT ELEVATIONS, CONTRACTOR IS TO NOTIFY THE ENGINEER.

GUTTER SLOPE AT THE END OF CURB AND GUTTER SHALL BE TAPERED FROM 4% TO EXISTING IN 6 FEET.

(P) UTILITY LINETYPE INDICATES A UTILITY THAT WAS DRAWN BASED ON FACILITY MAPPING AND NOT FIELD LOCATED.

ORDER OF SECTION 2 DETAIL SHEETS

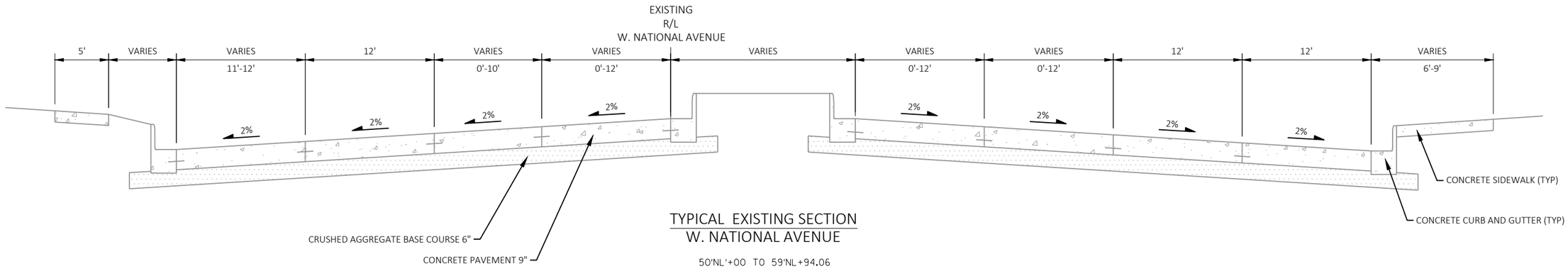
GENERAL NOTES
PROJECT OVERVIEWS
TYPICAL SECTIONS
CONSTRUCTION DETAILS
PLAN DETAILS
FTMS PLANS
EROSION CONTROL
STORM SEWER
EXISTING UTILITY PLANS
EXISTING SIGNING
PERMANENT SIGNING
LIGHTING
TRAFFIC SIGNALS
PAVEMENT MARKING
TRAFFIC CONTROL
STAGE CONSTRUCTION
ALIGNMENT LAYOUT



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SHEET 6	E

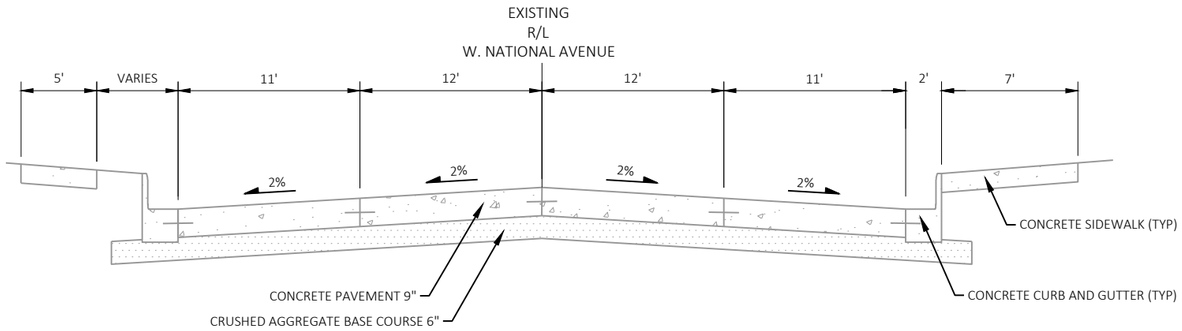
FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-020201-PO.DWG
LAYOUT NAME - 001
PLOT DATE : 1/27/2025 8:10 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

2



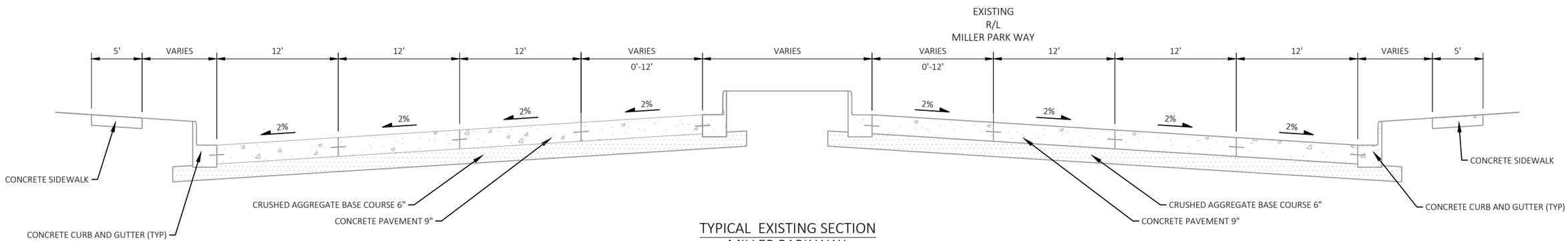
TYPICAL EXISTING SECTION
W. NATIONAL AVENUE

50'NL'+00 TO 59'NL+94.06



TYPICAL EXISTING SECTION
W. NATIONAL AVENUE

43'NL'+02.86 TO 50'NL+00

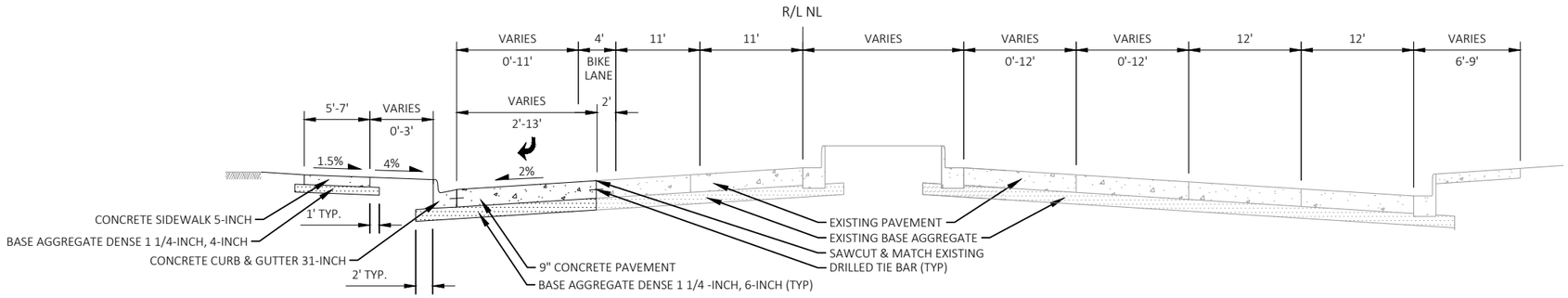


TYPICAL EXISTING SECTION
MILLER PARK WAY

41'MK'+73.36 TO 45'MK+91

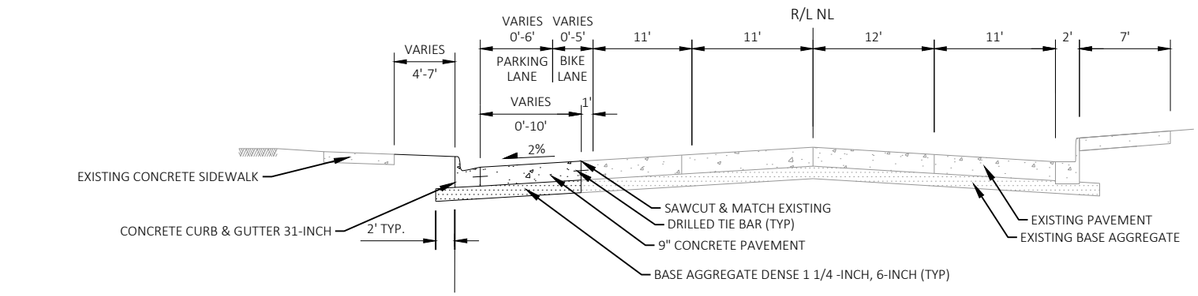
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 7	E

2



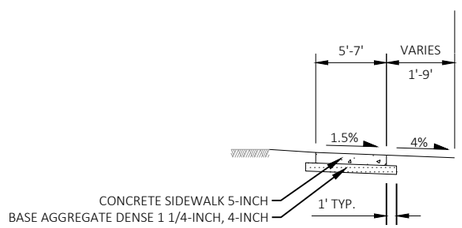
TYPICAL FINISHED SECTION
W. NATIONAL AVENUE

51'NL'+50 TO 56'NL+91



TYPICAL FINISHED SECTION
W. NATIONAL AVENUE

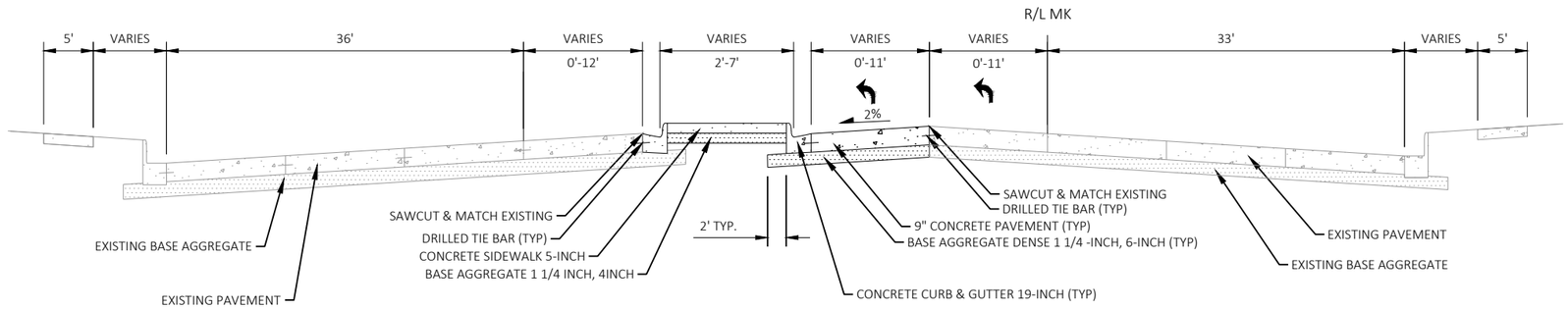
43'NL'+02.86 TO 51'NL+50



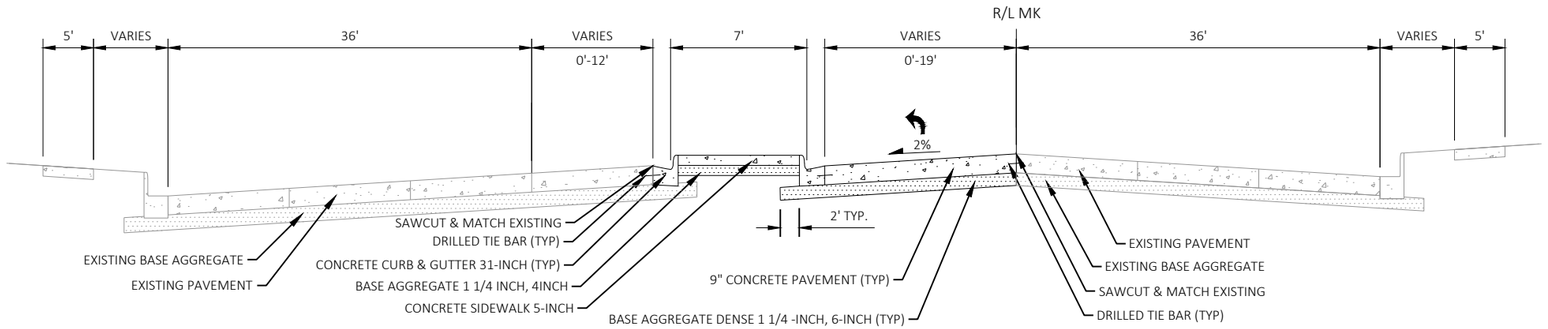
44'NL'+59 TO 45'NL+42
46'NL'+55 TO 48'NL+63
50'NL'+76 TO 51'NL+50

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TYPICAL SECTIONS	SHEET 8	E

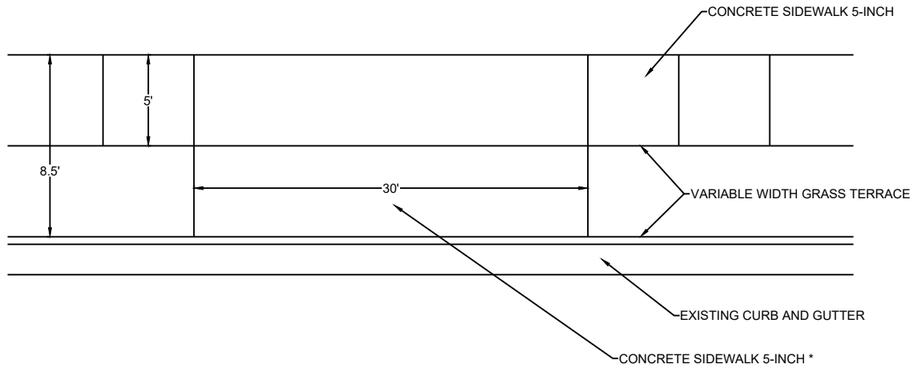
FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-020404-TS.DWG
LAYOUT NAME - 02
PLOT DATE : 1/27/2025 9:53 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:15 FT
WISDOT/CADDS SHEET 42



TYPICAL FINSIHED SECTION
MILLER PARK WAY
43'MK'+73 TO 45'MK+91



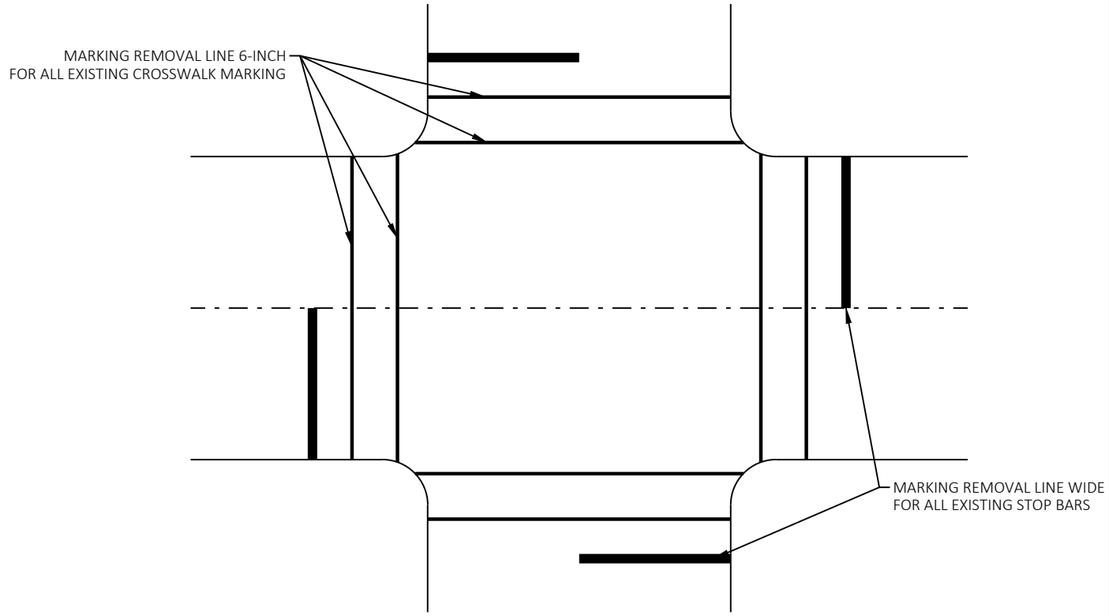
TYPICAL FINSIHED SECTION
MILLER PARK WAY
41'MK'+73.36 TO 43'MK+73



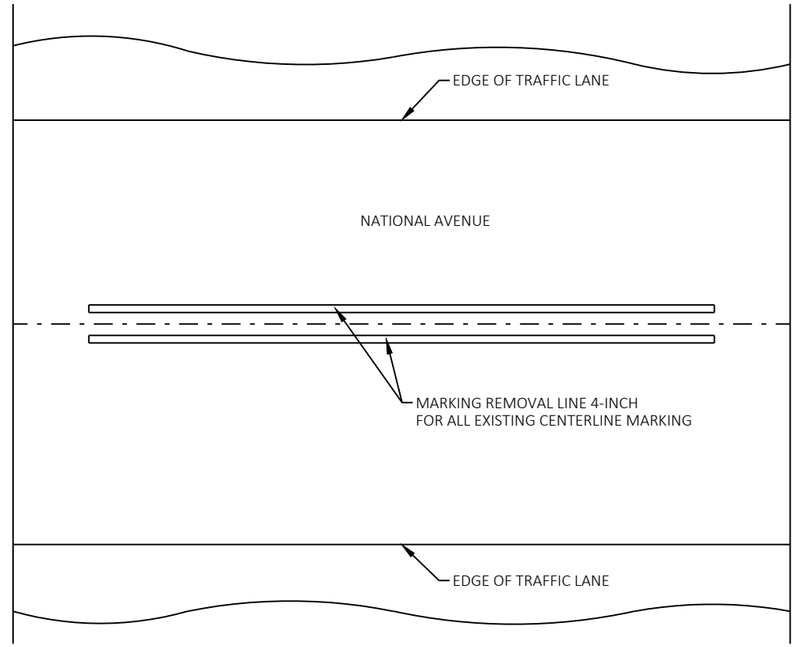
* CONCRETE SIDEWALK 5-INCH REQUIRED

NOTES
1. MAXIMUM SLOPE OF BUS STOP SHALL BE 1.5%
2. NON SLIP SURFACE REQUIRED (BROOM FINISH)

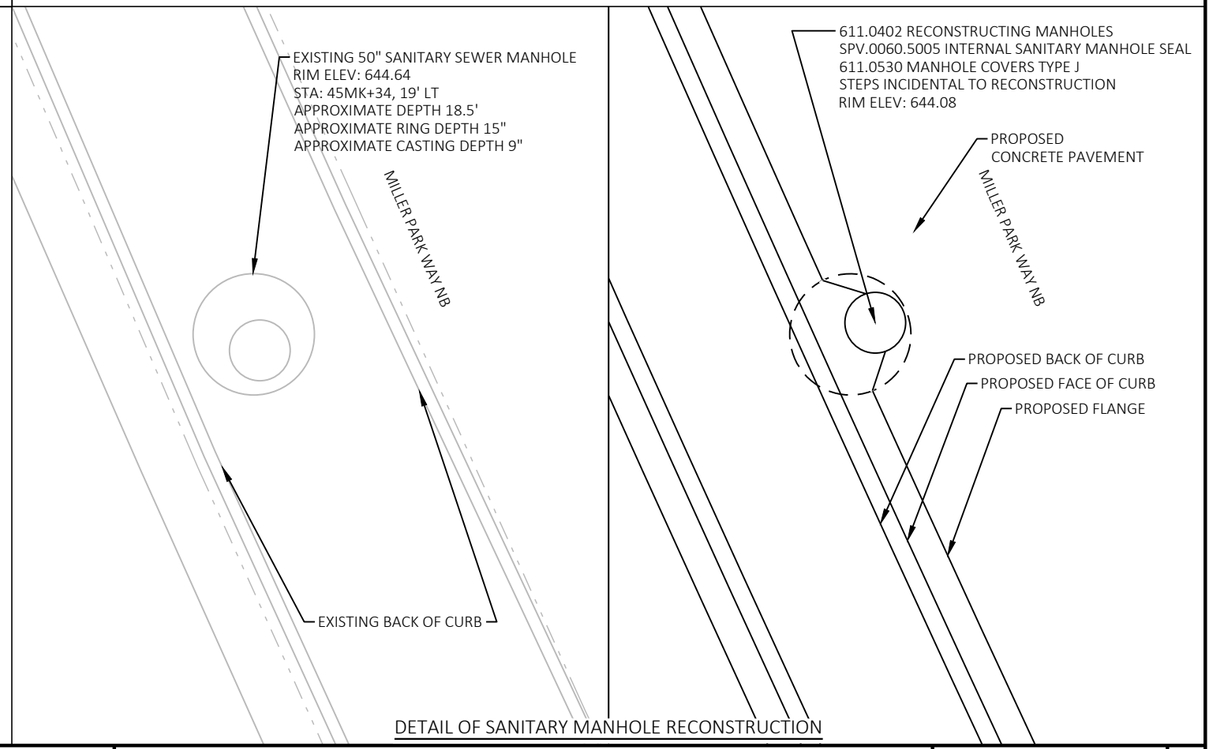
DETAIL OF ADA BUS STOP PAD



DETAIL OF INTERSECTION PAVEMENT MARKING REMOVAL



DETAIL OF NATIONAL AVENUE PAVEMENT MARKING REMOVAL



DETAIL OF SANITARY MANHOLE RECONSTRUCTION

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CONSTRUCTION DETAILS	SHEET 10	E

2

EXCAVATING, PREPARING THE FOUNDATION AND SHIMMING ARE INCIDENTAL TO THE MANHOLE BID ITEMS.

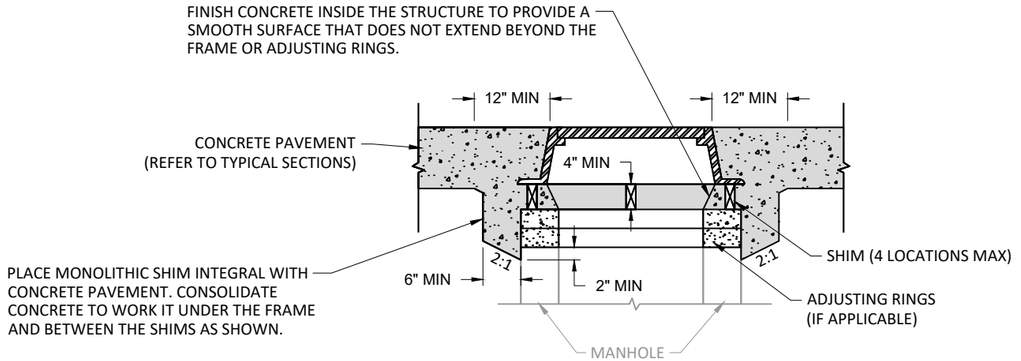
MONOLITHIC SHIM CONCRETE, CONCRETE PLACEMENT AND FINISHING IS INCIDENTAL TO THE CONCRETE PAVEMENT BID ITEMS.

PREVENT CONCRETE AND OTHER DEBRIS FROM FALLING INTO STRUCTURE.

REFER TO PLAN DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.

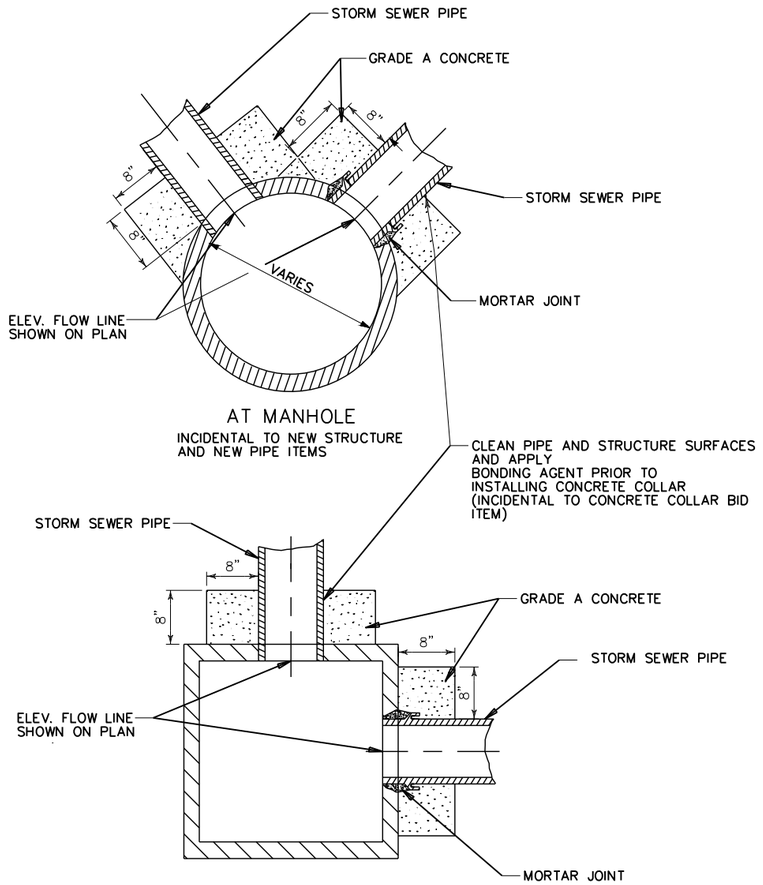


MONOLITHIC CONCRETE



MANHOLE - MONOLITHIC SHIM

2



AT MANHOLE

INCIDENTAL TO NEW STRUCTURE AND NEW PIPE ITEMS

AT STORM SEWER INLET

INCIDENTAL TO NEW STRUCTURE AND NEW PIPE ITEMS

NOTE

CONCRETE COLLAR TO BE PAID AS A BID ITEM WHEN CONNECTING AN EXISTING PIPE TO A NEW STRUCTURE.

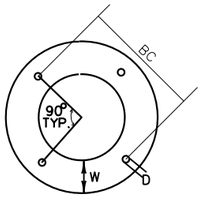
CONCRETE COLLAR DETAIL

FOR LOCATIONS SEE MISCELLANEOUS QUANTITIES SHEETS

2

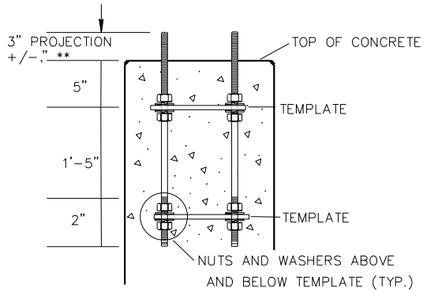
SPREAD FOOTING DIMENSIONS
STEEL AND CONCRETE QUANTITIES ARE APPROXIMATE

TYPE OF BASE	IF D =	THEN L=	401 HOOPS LBS.	402 VERTICAL BARS LBS.	602 VERTICAL BARS LBS.	403 HORIZ BARS LBS.	TOTAL LBS. STEEL	CONCR YDS.
TYPE 1	2'	5' 0"	8	7	–	36	51	1.9
TYPE 1	3'	4' 6"	12	13	–	36	61	1.6
TYPE 1	4'	4' 6"	8	18	–	36	62	1.6
TYPE 2 OR 5	2'	6' 6"	8	–	14	72	94	3.1
TYPE 2 OR 5	3'	6' 6"	12	–	26	72	110	3.2
TYPE 2 OR 5	4'	6' 0"	12	–	35	55	102	2.8
TYPE 2 OR 5	5'	6' 0"	15	–	44	55	114	2.9
TYPE 2 OR 5	6'	6' 0"	20	–	53	55	128	3.0



	TYPE 1	TYPE 2 OR 5
THICKNESS OF PLATE	?"	?"
BOLT CIRCLE "BC"	12.75"	11.50"
WIDTH "W"	3" +/-	3" +/-
HOLE DIAMETER "D"	1.125"	1.125"
ANCHOR ROD	1" X 2'-3"	1" X 2'-3"

ANCHOR ROD TEMPLATE



ANCHOR ROD ASSEMBLY

ANCHOR ROD SHALL BE ASTM A449/AASHTO M314-90 GR55 THREADED 12-INCH AT TOP; 4-INCH AT BOTTOM, HOT-DIP GALVANIZED TO ASTM A153, GR C

REQUIRED:

2 TEMPLATES
4 ANCHOR RODS
16 FLAT WASHERS HOT-DIP GALVANIZED
16 HEAVY DUTY HEX NUTS* HOT-DIP GALVANIZED

*CHASE THREADS FOR HOT-DIP GALVANIZED ANCHOR RODS
** FAILURE TO MEET TOLERANCE CONDEMNS THE BASE

GENERAL NOTES

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

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

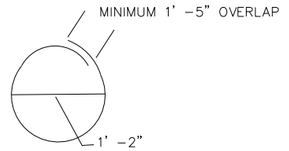
CONDUIT SIZES AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN AT THE ENTRANCE OF THE BASE.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.



(401) HOOP
QUANTITY VARIES

(402) OR (602) VERTICAL "D" - 4"
QUANTITY 6, LENGTH VARIES

(403) HORIZONTAL "L" - 6"
QUANTITY AND LENGTH VARY

GENERAL NOTES (CONTINUED)

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

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

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2 AND TYPE 5 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE OF THE TYPE 2 AND TYPE 5 BASES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

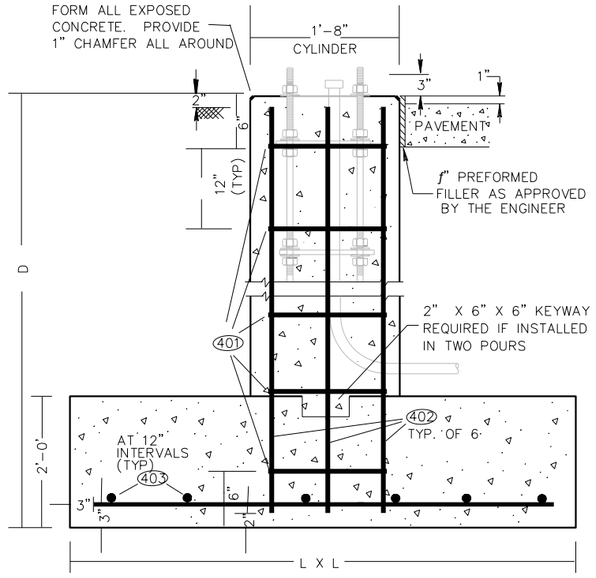
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1 : 40 FROM VERTICAL PER SECTION 5.17.6.3, AASHTO 2001 4TH EDITION STANDARD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINARIES AND TRAFFIC SIGNALS.

WELDING OF THE ANCHOR RODS TO THE CAGE OR TEMPLATE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

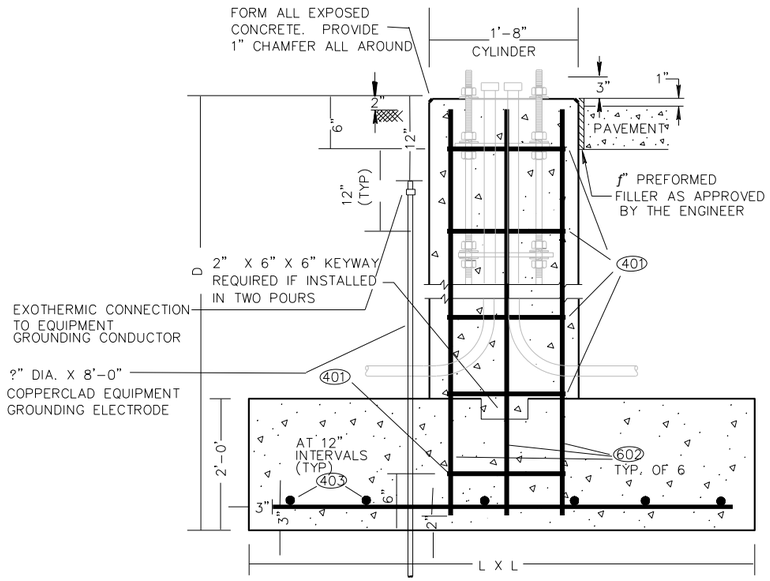
BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

CONDUIT SHOWN FOR ILLUSTRATION ONLY AND VARIES BY "D"

ANCHOR ROD PATTERN SHALL BE PARALLEL TO THE ROADWAY



SPREAD FOOTING TYPE 1

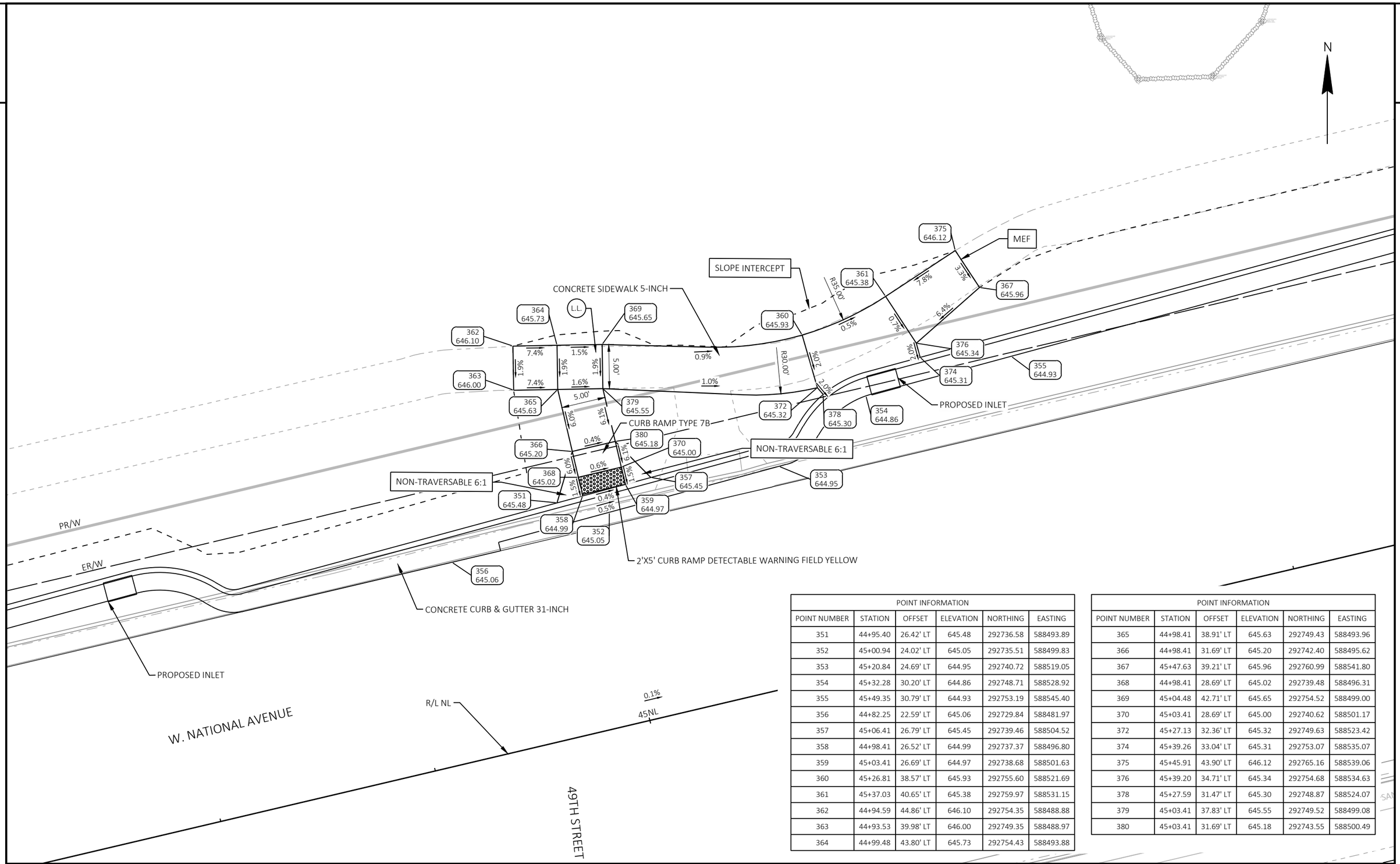


SPREAD FOOTING TYPE 2 OR 5

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL DETAILS	SHEET 13	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024000_SP_CD.DWG
LAYOUT NAME - 024000_sp_cd
PLOT DATE : 12/3/2024 9:03 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:200 FT
WISDOT/CADDS SHEET 42

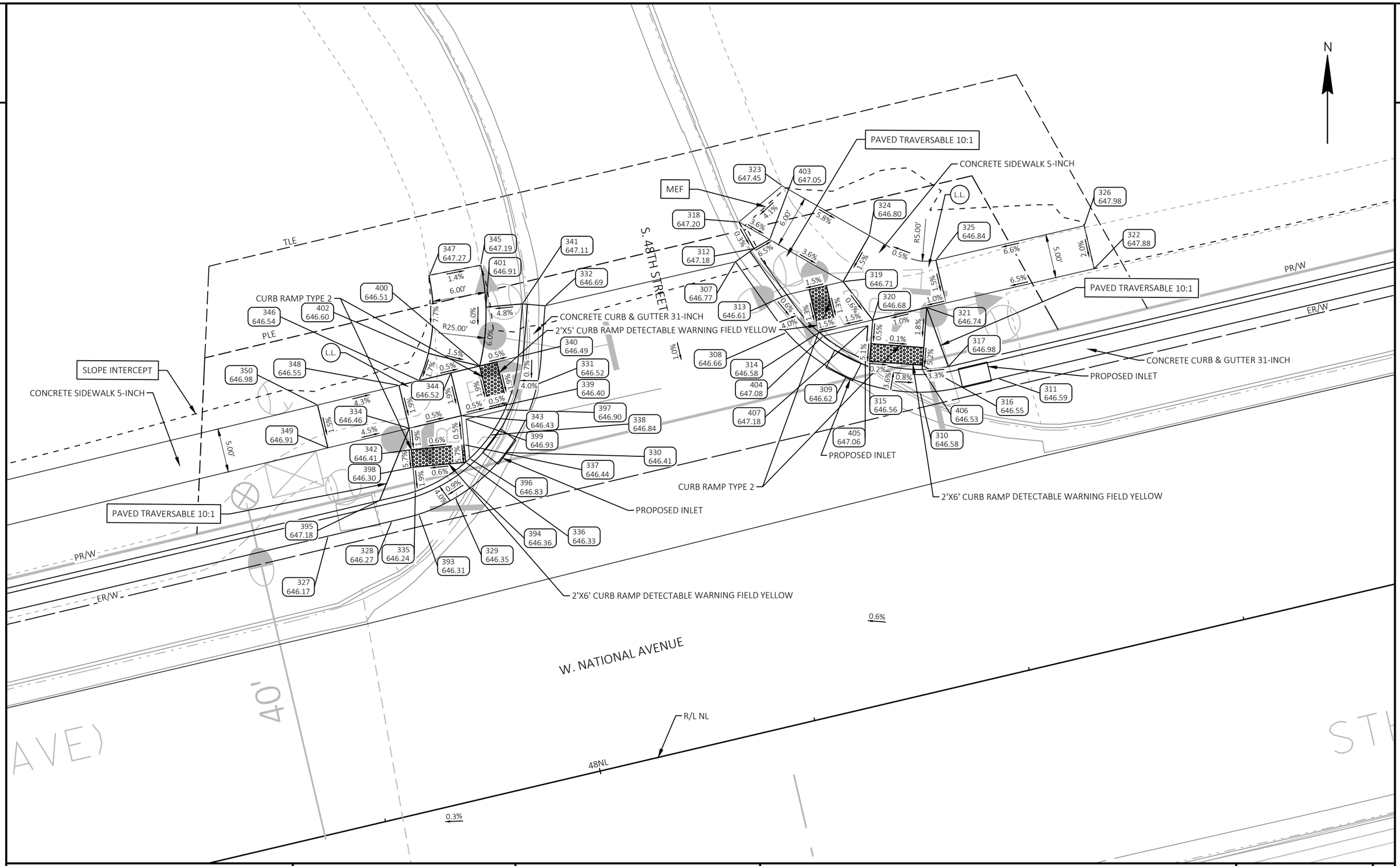
2



POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
351	44+95.40	26.42' LT	645.48	292736.58	588493.89
352	45+00.94	24.02' LT	645.05	292735.51	588499.83
353	45+20.84	24.69' LT	644.95	292740.72	588519.05
354	45+32.28	30.20' LT	644.86	292748.71	588528.92
355	45+49.35	30.79' LT	644.93	292753.19	588545.40
356	44+82.25	22.59' LT	645.06	292729.84	588481.97
357	45+06.41	26.79' LT	645.45	292739.46	588504.52
358	44+98.41	26.52' LT	644.99	292737.37	588496.80
359	45+03.41	26.69' LT	644.97	292738.68	588501.63
360	45+26.81	38.57' LT	645.93	292755.60	588521.69
361	45+37.03	40.65' LT	645.38	292759.97	588531.15
362	44+94.59	44.86' LT	646.10	292754.35	588488.88
363	44+93.53	39.98' LT	646.00	292749.35	588488.97
364	44+99.48	43.80' LT	645.73	292754.43	588493.88

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
365	44+98.41	38.91' LT	645.63	292749.43	588493.96
366	44+98.41	31.69' LT	645.20	292742.40	588495.62
367	45+47.63	39.21' LT	645.96	292760.99	588541.80
368	44+98.41	28.69' LT	645.02	292739.48	588496.31
369	45+04.48	42.71' LT	645.65	292754.52	588499.00
370	45+03.41	28.69' LT	645.00	292740.62	588501.17
372	45+27.13	32.36' LT	645.32	292749.63	588523.42
374	45+39.26	33.04' LT	645.31	292753.07	588535.07
375	45+45.91	43.90' LT	646.12	292765.16	588539.06
376	45+39.20	34.71' LT	645.34	292754.68	588534.63
378	45+27.59	31.47' LT	645.30	292748.87	588524.07
379	45+03.41	37.83' LT	645.55	292749.52	588499.08
380	45+03.41	31.69' LT	645.18	292743.55	588500.49

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 14	E



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 15	E

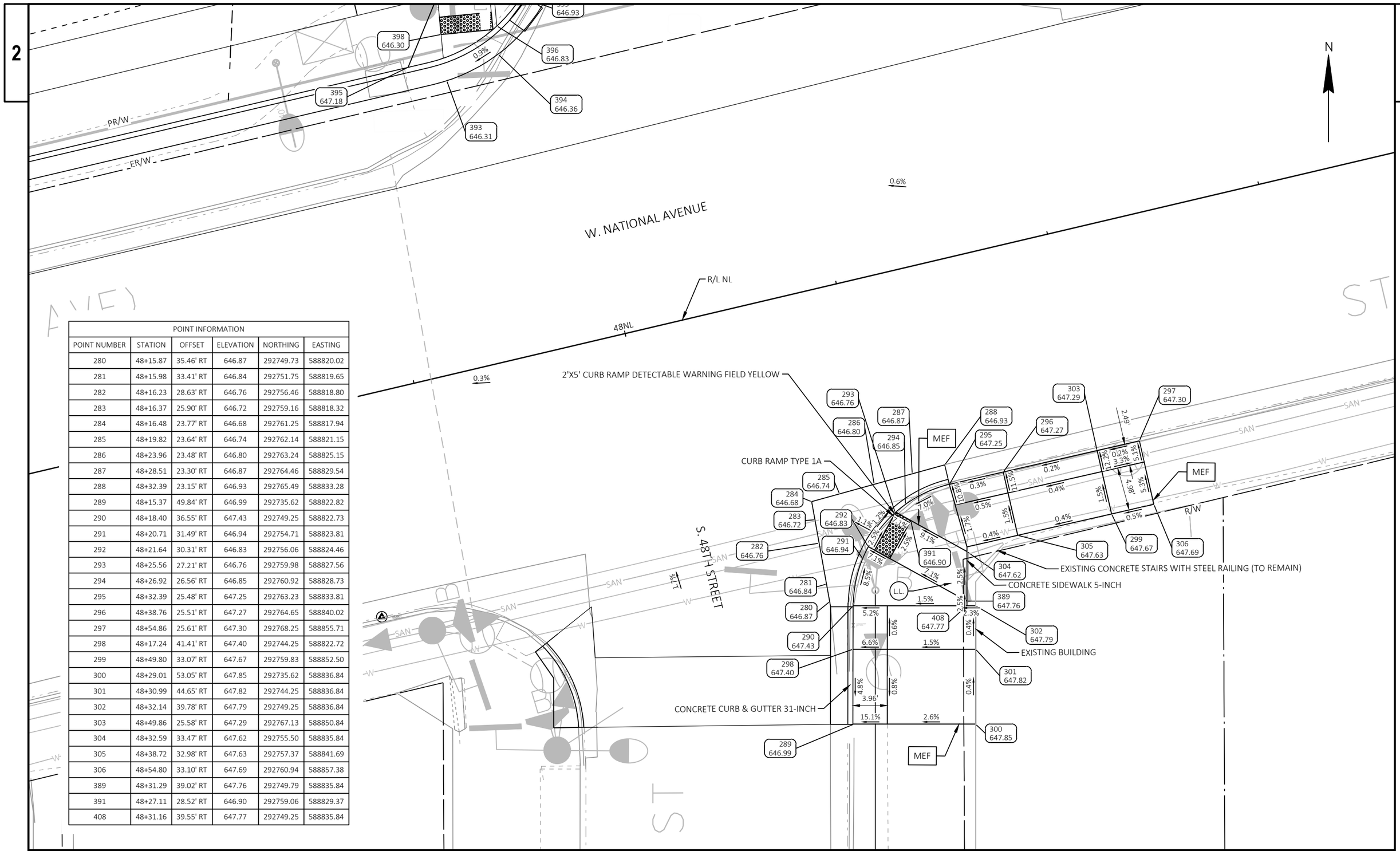
FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\FLANAGAN\24104770-021002-CD.DWG
LAYOUT NAME - 48 N
PLOT DATE : 1/14/2025 10:09 AM PLOT BY : KATHRYN FLANAGAN PLOT NAME : PLOT SCALE : 1 IN:10 FT

48TH STREET NORTHWEST CORNER

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
307	48+28.17	52.70' LT	646.77	292838.36	588811.80
308	48+31.93	43.56' LT	646.66	292830.32	588817.55
309	48+37.43	37.15' LT	646.62	292825.35	588824.38
310	48+45.17	33.50' LT	646.58	292823.57	588832.74
311	48+54.13	33.00' LT	646.59	292825.13	588841.58
312	48+30.56	53.67' LT	647.18	292839.85	588813.91
313	48+33.03	47.74' LT	646.61	292834.64	588817.67
314	48+35.57	42.73' LT	646.58	292830.35	588821.28
315	48+40.40	38.23' LT	646.56	292827.08	588827.02
316	48+46.09	36.43' LT	646.55	292826.63	588832.97
317	48+48.95	35.60' LT	646.98	292826.47	588835.94
318	48+29.58	56.99' LT	647.20	292842.87	588812.19
319	48+39.54	47.71' LT	646.71	292836.11	588824.01
320	48+41.81	42.70' LT	646.68	292831.76	588827.36
321	48+48.09	42.68' LT	646.74	292833.17	588833.49
322	48+67.59	42.62' LT	647.88	292837.57	588852.48
323	48+35.29	59.87' LT	647.45	292846.97	588817.09
324	48+43.63	52.10' LT	646.80	292841.32	588826.99
325	48+50.33	47.68' LT	646.84	292838.55	588834.52
326	48+67.60	47.62' LT	647.98	292842.44	588851.35
403	48+32.52	54.25' LT	647.05	292840.87	588815.68
404	48+35.95	42.23' LT	647.08	292829.95	588821.77
405	48+39.96	38.51' LT	647.06	292827.25	588826.53
406	48+45.98	35.97' LT	646.53	292826.16	588832.97
407	48+41.13	42.21' LT	647.18	292831.12	588826.82

48TH STREET NORTHEAST CORNER

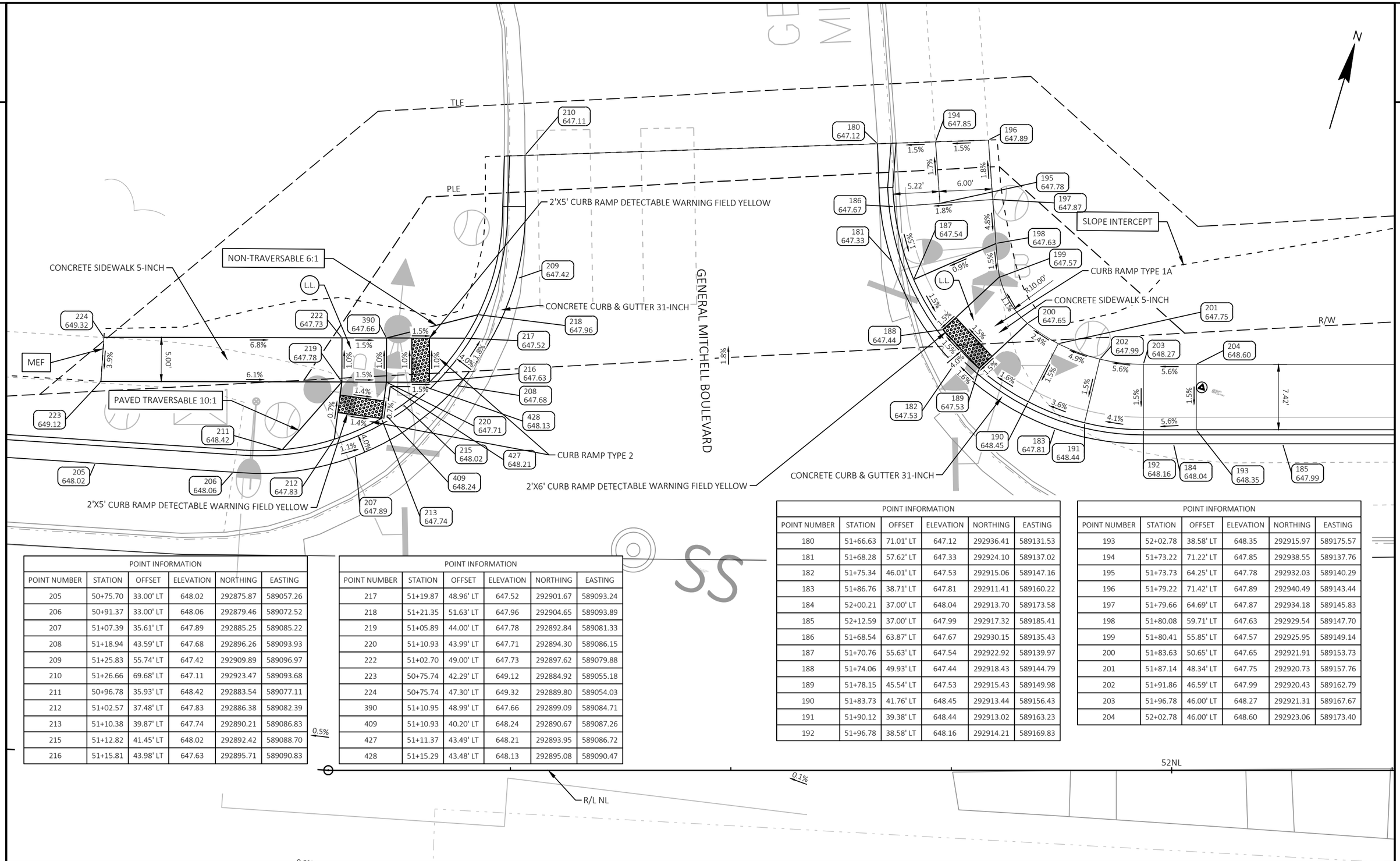
POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
327	47+76.07	33.00' LT	646.17	292807.26	588765.59
328	47+83.50	33.00' LT	646.27	292808.96	588772.83
329	47+91.12	33.94' LT	646.35	292811.62	588780.03
330	47+97.85	37.61' LT	646.41	292816.73	588785.74
331	48+03.10	44.33' LT	646.52	292824.47	588789.32
332	48+06.01	52.78' LT	646.69	292833.37	588790.21
334	47+87.83	42.79' LT	646.46	292819.48	588774.81
335	47+86.86	35.67' LT	646.24	292812.33	588775.49
336	47+93.18	37.58' LT	646.33	292815.63	588781.20
337	47+93.45	39.56' LT	646.44	292817.62	588781.01
338	47+96.59	39.94' LT	646.84	292818.71	588783.98
339	47+99.24	42.85' LT	646.40	292822.15	588785.89
340	48+01.72	47.86' LT	646.49	292827.60	588787.17
341	48+03.55	53.58' LT	647.11	292833.58	588787.63
342	47+87.50	40.37' LT	646.41	292817.05	588775.04
343	47+93.89	42.82' LT	646.43	292820.90	588780.70
344	47+93.87	47.82' LT	646.52	292825.76	588779.53
345	47+99.95	58.93' LT	647.19	292837.97	588782.90
346	47+90.16	47.80' LT	646.54	292824.89	588775.92
347	47+94.05	59.16' LT	647.27	292836.84	588777.10
348	47+87.81	47.79' LT	646.55	292824.34	588773.64
349	47+78.34	42.74' LT	646.91	292817.26	588765.57
350	47+78.31	47.74' LT	646.98	292822.12	588764.40
393	47+86.65	33.06' LT	646.31	292809.74	588775.88
394	47+93.11	34.68' LT	646.36	292812.79	588781.80
395	47+82.67	35.58' LT	647.18	292811.28	588771.43
396	47+93.72	37.88' LT	646.83	292816.05	588781.66
397	47+98.86	42.35' LT	646.90	292821.58	588785.64
398	47+87.23	38.39' LT	646.30	292815.06	588775.23
399	47+94.33	42.33' LT	646.93	292820.52	588781.24
400	47+97.21	47.84' LT	646.51	292826.54	588782.78
401	47+99.44	54.17' LT	646.91	292833.21	588783.49
402	47+91.88	50.57' LT	646.60	292827.97	588776.96



POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
280	48+15.87	35.46' RT	646.87	292749.73	588820.02
281	48+15.98	33.41' RT	646.84	292751.75	588819.65
282	48+16.23	28.63' RT	646.76	292756.46	588818.80
283	48+16.37	25.90' RT	646.72	292759.16	588818.32
284	48+16.48	23.77' RT	646.68	292761.25	588817.94
285	48+19.82	23.64' RT	646.74	292762.14	588821.15
286	48+23.96	23.48' RT	646.80	292763.24	588825.15
287	48+28.51	23.30' RT	646.87	292764.46	588829.54
288	48+32.39	23.15' RT	646.93	292765.49	588833.28
289	48+15.37	49.84' RT	646.99	292735.62	588822.82
290	48+18.40	36.55' RT	647.43	292749.25	588822.73
291	48+20.71	31.49' RT	646.94	292754.71	588823.81
292	48+21.64	30.31' RT	646.83	292756.06	588824.46
293	48+25.56	27.21' RT	646.76	292759.98	588827.56
294	48+26.92	26.56' RT	646.85	292760.92	588828.73
295	48+32.39	25.48' RT	647.25	292763.23	588833.81
296	48+38.76	25.51' RT	647.27	292764.65	588840.02
297	48+54.86	25.61' RT	647.30	292768.25	588855.71
298	48+17.24	41.41' RT	647.40	292744.25	588822.72
299	48+49.80	33.07' RT	647.67	292759.83	588852.50
300	48+29.01	53.05' RT	647.85	292735.62	588836.84
301	48+30.99	44.65' RT	647.82	292744.25	588836.84
302	48+32.14	39.78' RT	647.79	292749.25	588836.84
303	48+49.86	25.58' RT	647.29	292767.13	588850.84
304	48+32.59	33.47' RT	647.62	292755.50	588835.84
305	48+38.72	32.98' RT	647.63	292757.37	588841.69
306	48+54.80	33.10' RT	647.69	292760.94	588857.38
389	48+31.29	39.02' RT	647.76	292749.79	588835.84
391	48+27.11	28.52' RT	646.90	292759.06	588829.37
408	48+31.16	39.55' RT	647.77	292749.25	588835.84

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 17	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021002-CD.DWG
LAYOUT NAME - 48 S
PLOT DATE : 1/24/2025 8:46 AM
PLOT BY : KATHRYN FLANAGAN
PLOT NAME :
PLOT SCALE : 1 IN:10 FT
WISDOT/CADDS SHEET 42



POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
205	50+75.70	33.00' LT	648.02	292875.87	589057.26
206	50+91.37	33.00' LT	648.06	292879.46	589072.52
207	51+07.39	35.61' LT	647.89	292885.25	589085.22
208	51+18.94	43.59' LT	647.68	292896.26	589093.93
209	51+25.83	55.74' LT	647.42	292909.89	589096.97
210	51+26.66	69.68' LT	647.11	292923.47	589093.68
211	50+96.78	35.93' LT	648.42	292883.54	589077.11
212	51+02.57	37.48' LT	647.83	292886.38	589082.39
213	51+10.38	39.87' LT	647.74	292890.21	589086.83
215	51+12.82	41.45' LT	648.02	292892.42	589088.70
216	51+15.81	43.98' LT	647.63	292895.71	589090.83

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
217	51+19.87	48.96' LT	647.52	292901.67	589093.24
218	51+21.35	51.63' LT	647.96	292904.65	589093.89
219	51+05.89	44.00' LT	647.78	292892.84	589081.33
220	51+10.93	43.99' LT	647.71	292894.30	589086.15
222	51+02.70	49.00' LT	647.73	292897.62	589079.88
223	50+75.74	42.29' LT	649.12	292884.92	589055.18
224	50+75.74	47.30' LT	649.32	292889.80	589054.03
390	51+10.95	48.99' LT	647.66	292899.09	589084.71
409	51+10.93	40.20' LT	648.24	292890.67	589087.26
427	51+11.37	43.49' LT	648.21	292893.95	589086.72
428	51+15.29	43.48' LT	648.13	292895.08	589090.47

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
180	51+66.63	71.01' LT	647.12	292936.41	589131.53
181	51+68.28	57.62' LT	647.33	292924.10	589137.02
182	51+75.34	46.01' LT	647.53	292915.06	589147.16
183	51+86.76	38.71' LT	647.81	292911.41	589160.22
184	52+00.21	37.00' LT	648.04	292913.70	589173.58
185	52+12.59	37.00' LT	647.99	292917.32	589185.41
186	51+68.54	63.87' LT	647.67	292930.15	589135.43
187	51+70.76	55.63' LT	647.54	292922.92	589139.97
188	51+74.06	49.93' LT	647.44	292918.43	589144.79
189	51+78.15	45.54' LT	647.53	292915.43	589149.98
190	51+83.73	41.76' LT	648.45	292913.44	589156.43
191	51+90.12	39.38' LT	648.44	292913.02	589163.23
192	51+96.78	38.58' LT	648.16	292914.21	589169.83

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
193	52+02.78	38.58' LT	648.35	292915.97	589175.57
194	51+73.22	71.22' LT	647.85	292938.55	589137.76
195	51+73.73	64.25' LT	647.78	292932.03	589140.29
196	51+79.22	71.42' LT	647.89	292940.49	589143.44
197	51+79.66	64.69' LT	647.87	292934.18	589145.83
198	51+80.08	59.71' LT	647.63	292929.54	589147.70
199	51+80.41	55.85' LT	647.57	292925.95	589149.14
200	51+83.63	50.65' LT	647.65	292921.91	589153.73
201	51+87.14	48.34' LT	647.75	292920.73	589157.76
202	51+91.86	46.59' LT	647.99	292920.43	589162.79
203	51+96.78	46.00' LT	648.27	292921.31	589167.67
204	52+02.78	46.00' LT	648.60	292923.06	589173.40

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 18	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021002-CD.DWG
LAYOUT NAME - 47 N
PLOT DATE : 3/20/2025 9:12 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
254	50+92.81	22.95' RT	648.30	292825.32	589086.74
255	50+98.25	22.97' RT	648.29	292826.55	589092.03
256	51+03.00	22.98' RT	648.31	292827.63	589096.66
257	51+06.25	23.16' RT	648.34	292828.71	589101.29
258	51+10.46	23.45' RT	648.37	292829.66	589105.40
259	51+09.28	28.84' RT	648.42	292824.17	589105.85
260	51+08.24	33.64' RT	648.47	292819.27	589106.26
261	51+07.10	38.86' RT	648.52	292813.95	589106.70
262	51+05.94	43.96' RT	648.55	292808.73	589107.07
263	50+74.44	25.61' RT	648.55	292818.53	589069.46
264	50+79.44	25.62' RT	648.57	292819.66	589074.33
265	50+92.86	25.69' RT	648.28	292822.67	589087.40
266	50+99.21	27.23' RT	648.24	292822.63	589093.94

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
267	51+03.22	30.22' RT	648.27	292820.63	589098.53
268	51+04.49	38.03' RT	648.32	292813.98	589103.95
269	50+79.43	28.27' RT	648.82	292817.08	589074.93
270	50+92.83	28.10' RT	648.30	292820.32	589087.94
271	51+03.18	37.04' RT	648.34	292813.99	589100.05
272	50+99.74	51.64' RT	649.26	292798.99	589100.04
273	50+74.42	33.33' RT	648.94	292811.01	589071.20
274	50+79.42	33.27' RT	648.91	292812.21	589076.06
275	50+92.79	33.10' RT	648.35	292815.44	589089.04
276	50+95.07	33.51' RT	648.32	292815.56	589091.35
277	50+98.31	35.89' RT	648.39	292813.99	589095.05
278	50+99.33	36.13' RT	648.37	292813.99	589096.10
279	50+94.87	50.49' RT	649.25	292798.99	589095.04

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
225	51+36.60	38.92' RT	648.31	292822.51	589134.92
226	51+34.75	35.21' RT	648.39	292825.51	589132.08
227	51+32.95	31.59' RT	648.39	292828.45	589129.29
228	51+31.27	28.21' RT	648.36	292831.19	589126.69
229	51+29.50	24.66' RT	648.31	292834.07	589123.96
230	51+35.49	25.02' RT	648.33	292835.48	589129.80
231	51+41.71	25.39' RT	648.35	292836.94	589135.86
232	51+47.65	25.74' RT	648.35	292838.34	589141.64
233	51+53.91	26.13' RT	648.32	292839.80	589147.74
234	51+36.83	45.74' RT	648.77	292816.05	589137.13
235	51+38.96	39.28' RT	648.76	292822.86	589137.29
236	51+59.85	32.62' RT	649.08	292835.32	589155.31
237	51+43.08	32.58' RT	648.35	292830.46	589139.27
238	51+47.32	29.87' RT	648.36	292834.30	589142.53
239	51+89.17	34.60' RT	649.09	292842.01	589183.94

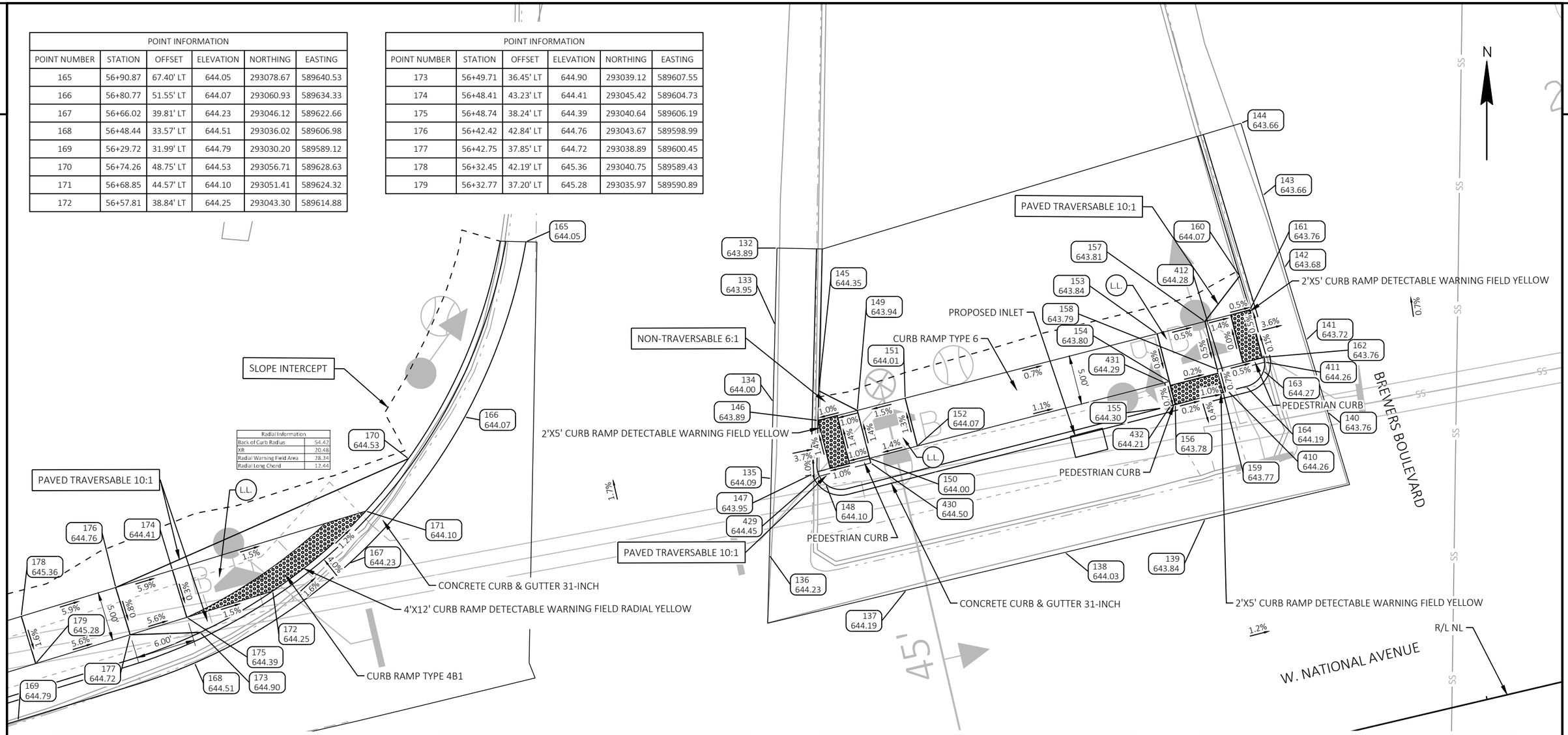
POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
240	51+55.08	28.88' RT	648.70	292837.51	589149.67
241	51+60.06	29.24' RT	648.74	292838.62	589154.54
242	51+89.41	31.18' RT	648.79	292845.34	589183.17
243	51+94.40	31.51' RT	648.73	292846.48	589188.04
244	51+40.88	46.95' RT	648.95	292816.08	589141.36
245	51+54.86	32.29' RT	649.10	292834.19	589150.45
246	51+49.84	49.63' RT	649.35	292816.13	589150.72
247	51+51.81	43.20' RT	649.61	292822.86	589150.72
248	51+42.86	40.47' RT	649.10	292822.86	589141.36
249	51+53.64	37.22' RT	649.18	292829.12	589150.72
250	51+54.52	37.27' RT	649.18	292829.32	589151.58
251	51+59.54	37.61' RT	649.16	292830.46	589156.48
252	51+88.83	39.58' RT	649.17	292837.13	589185.06
253	51+93.81	39.92' RT	649.05	292838.27	589189.93
392	51+48.59	31.41' RT	648.49	292833.19	589144.19

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 19	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\FLANAGAN\24104770-021002-CD.DWG
LAYOUT NAME - 47 S
PLOT DATE : 1/14/2025 10:14 AM
PLOT BY : KATHRYN FLANAGAN
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
165	56+90.87	67.40' LT	644.05	293078.67	589640.53
166	56+80.77	51.55' LT	644.07	293060.93	589634.33
167	56+66.02	39.81' LT	644.23	293046.12	589622.66
168	56+48.44	33.57' LT	644.51	293036.02	589606.98
169	56+29.72	31.99' LT	644.79	293030.20	589589.12
170	56+74.26	48.75' LT	644.53	293056.71	589628.63
171	56+68.85	44.57' LT	644.10	293051.41	589624.32
172	56+57.81	38.84' LT	644.25	293043.30	589614.88

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
173	56+49.71	36.45' LT	644.90	293039.12	589607.55
174	56+48.41	43.23' LT	644.41	293045.42	589604.73
175	56+48.74	38.24' LT	644.39	293040.64	589606.19
176	56+42.42	42.84' LT	644.76	293043.67	589598.99
177	56+42.75	37.85' LT	644.72	293038.89	589600.45
178	56+32.45	42.19' LT	645.36	293040.75	589589.43
179	56+32.77	37.20' LT	645.28	293035.97	589590.89



POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
132	57+15.48	60.96' LT	643.89	293078.04	589665.95
133	57+13.51	53.44' LT	643.95	293070.26	589665.76
134	57+11.54	45.91' LT	644.00	293062.49	589665.57
135	57+09.57	38.38' LT	644.09	293054.71	589665.37
136	57+07.60	30.86' LT	644.23	293046.93	589665.18
137	57+20.27	24.24' LT	644.19	293043.39	589679.03
138	57+36.80	24.29' LT	644.03	293047.22	589695.11
139	57+51.39	24.33' LT	643.84	293050.60	589709.31
140	57+65.96	32.00' LT	643.76	293061.41	589721.73
141	57+65.50	39.63' LT	643.72	293068.73	589719.53

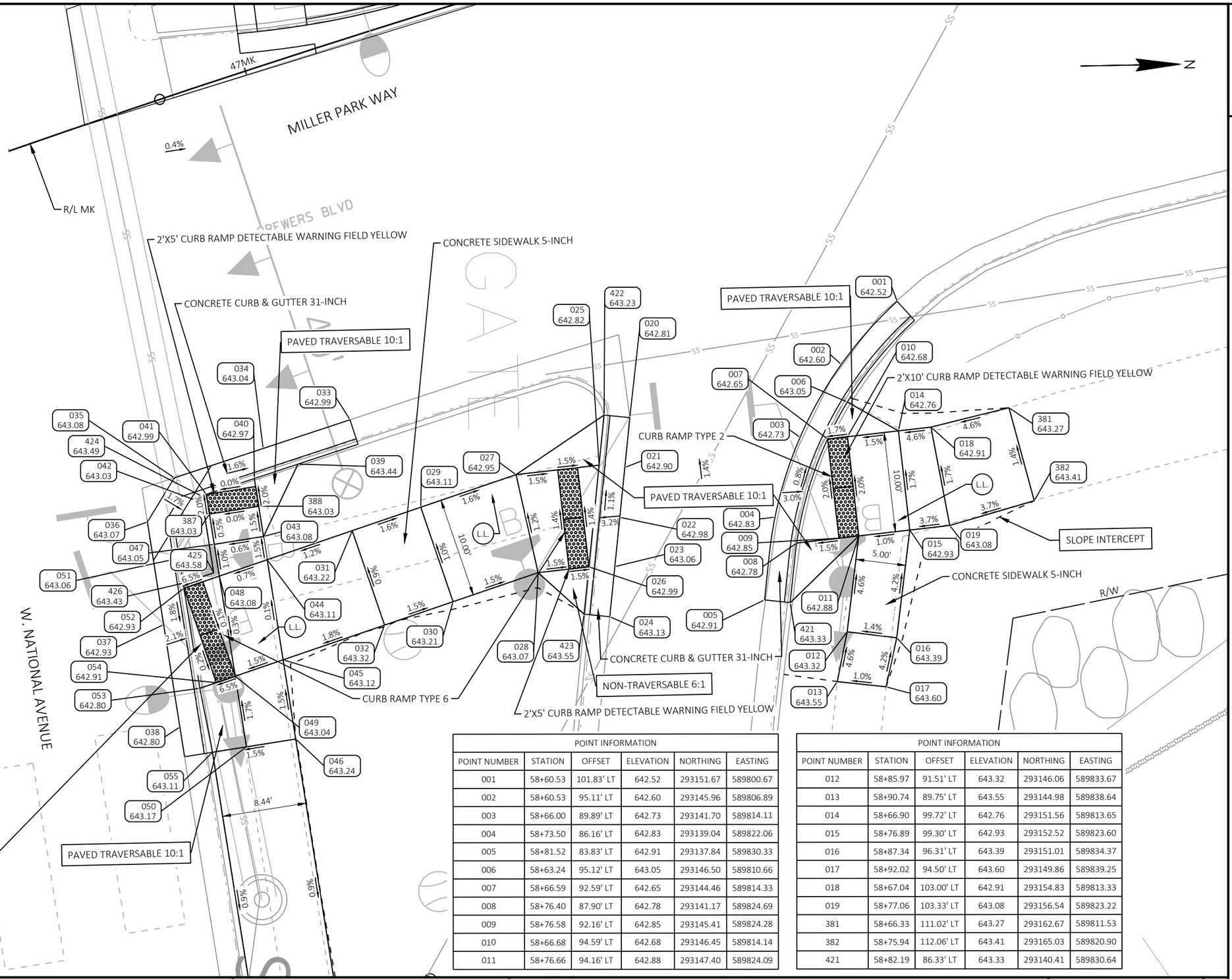
POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
142	57+65.03	47.25' LT	643.68	293076.05	589717.33
143	57+64.57	54.88' LT	643.66	293083.36	589715.14
144	57+64.11	62.51' LT	643.66	293090.68	589712.94
145	57+16.28	45.93' LT	644.35	293063.59	589670.18
146	57+15.52	43.02' LT	643.89	293060.58	589670.10
147	57+14.30	37.99' LT	643.95	293055.41	589670.07
148	57+14.81	36.54' LT	644.10	293054.12	589670.90
149	57+19.63	43.10' LT	643.94	293061.60	589674.09
150	57+19.72	38.10' LT	644.00	293056.76	589675.33
151	57+24.63	43.19' LT	644.01	293062.84	589678.93

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
152	57+24.72	38.20' LT	644.07	293058.00	589680.17
153	57+50.96	43.71' LT	643.84	293069.37	589704.44
154	57+51.06	38.71' LT	643.80	293064.53	589705.68
155	57+49.66	36.27' LT	644.30	293061.83	589704.89
156	57+51.10	36.30' LT	643.78	293062.19	589706.28
157	57+55.96	43.81' LT	643.81	293070.61	589709.29
158	57+56.06	38.81' LT	643.79	293065.77	589710.53
159	57+56.10	36.39' LT	643.77	293063.43	589711.13
160	57+60.43	47.48' LT	644.07	293075.21	589712.80
161	57+60.65	43.90' LT	643.76	293071.78	589713.83

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
162	57+60.95	38.91' LT	643.76	293066.98	589715.27
163	57+60.58	37.57' LT	644.27	293065.60	589715.21
164	57+58.50	36.44' LT	644.19	293064.02	589713.45
410	57+56.60	36.40' LT	644.26	293063.55	589711.61
411	57+60.91	38.41' LT	644.26	293066.49	589715.34
412	57+56.57	38.32' LT	644.28	293065.41	589711.14
429	57+14.36	37.49' LT	644.45	293054.94	589670.24
430	57+19.73	37.60' LT	644.50	293056.27	589675.45
431	57+50.56	38.70' LT	644.29	293064.41	589705.20
432	57+50.60	36.29' LT	644.21	293062.06	589705.80

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 20	E

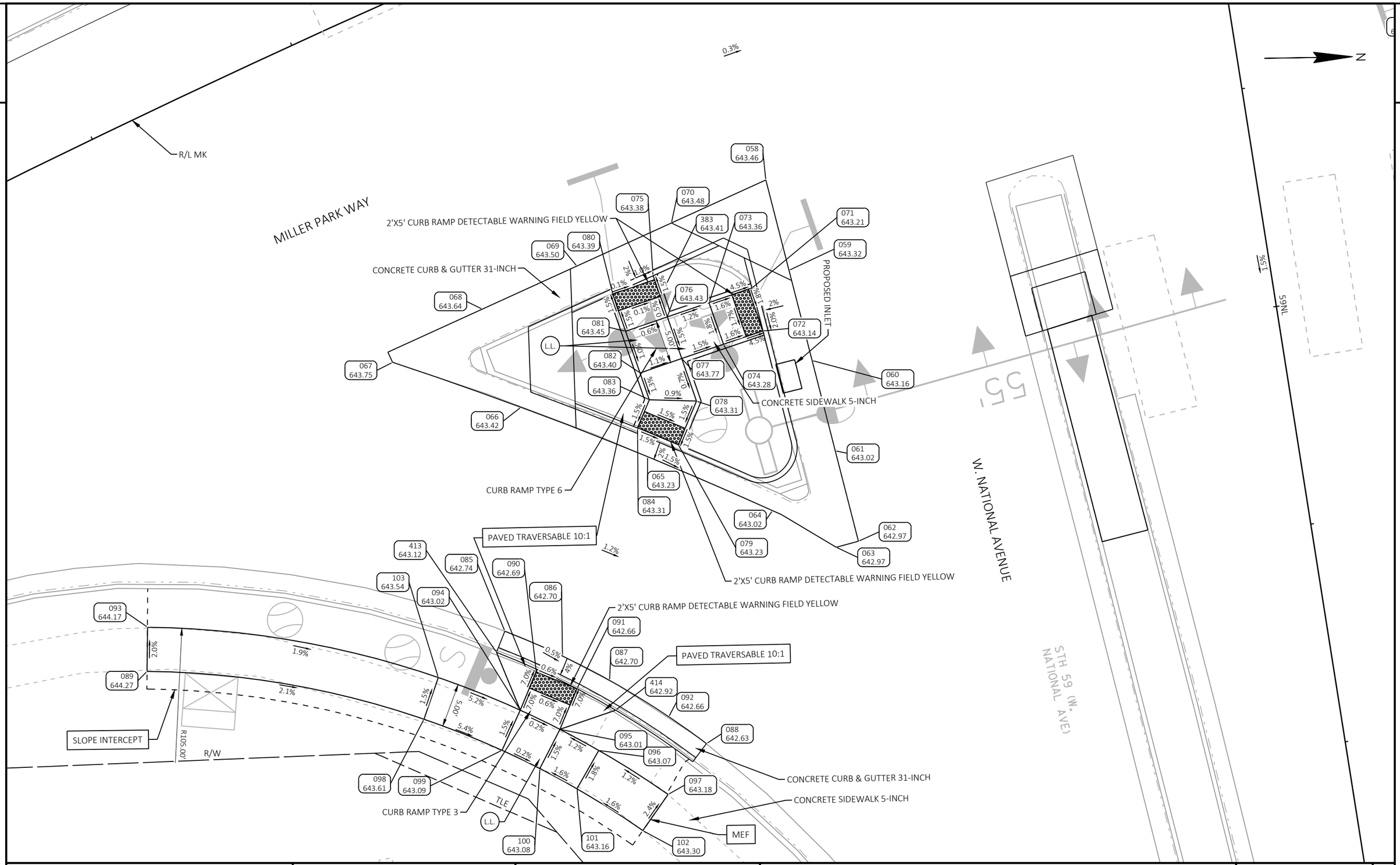
POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
020	58+61.39	73.35' LT	642.81	293124.68	589811.83
021	58+66.23	72.09' LT	642.90	293124.11	589816.81
022	58+71.08	70.80' LT	642.98	293123.50	589821.79
023	58+75.89	69.54' LT	643.06	293122.91	589826.73
024	58+80.77	68.26' LT	643.13	293122.31	589831.73
025	58+65.60	69.57' LT	642.82	293121.52	589816.53
026	58+75.50	66.97' LT	642.99	293120.31	589826.69
027	58+65.24	61.20' LT	642.95	293113.19	589817.33
028	58+75.28	61.86' LT	643.07	293115.22	589827.18
029	58+66.98	51.27' LT	643.11	293103.59	589820.42
030	58+76.83	52.99' LT	643.21	293106.65	589829.94
031	58+68.22	44.13' LT	643.22	293096.68	589822.64
032	58+78.07	45.84' LT	643.32	293099.74	589832.16
033	58+60.53	45.76' LT	642.99	293096.66	589811.53
034	58+60.53	36.64' LT	643.04	293087.90	589814.25
035	58+60.53	27.35' LT	643.08	293078.96	589817.02
036	58+64.15	24.00' LT	643.07	293076.18	589821.39
037	58+74.56	24.00' LT	642.93	293077.62	589831.70
038	58+84.95	24.00' LT	642.80	293079.06	589841.99
039	58+60.79	39.80' LT	643.44	293091.37	589815.87
040	58+61.53	35.25' LT	642.97	293086.97	589817.24
041	58+62.35	30.25' LT	642.99	293082.13	589818.74
042	58+62.59	28.79' LT	643.03	293080.71	589819.18
043	58+67.41	35.26' LT	643.08	293087.79	589823.06
044	58+69.77	35.26' LT	643.11	293088.11	589825.39
045	58+79.92	35.27' LT	643.12	293089.52	589835.45
046	58+87.95	35.27' LT	643.24	293090.64	589843.40
047	58+67.41	30.26' LT	643.05	293082.83	589823.75
048	58+70.64	30.26' LT	643.08	293083.28	589826.95
049	58+80.79	30.27' LT	643.04	293084.69	589837.00
050	58+87.95	30.27' LT	643.17	293085.69	589844.09
051	58+68.24	26.58' LT	643.06	293079.31	589825.08
052	58+71.28	26.58' LT	642.93	293079.73	589828.09
053	58+81.43	26.58' LT	642.80	293081.13	589838.14
054	58+81.13	28.30' LT	642.91	293082.79	589837.61
055	58+87.95	26.83' LT	643.11	293082.28	589844.57
422	58+60.73	70.85' LT	643.23	293122.12	589811.53
423	58+80.11	65.76' LT	643.55	293119.75	589831.42
424	58+62.43	29.75' LT	643.49	293081.65	589818.89
425	58+70.22	29.76' LT	643.58	293082.73	589826.60
426	58+70.77	26.58' LT	643.43	293079.66	589827.59



POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
001	58+60.53	101.83' LT	642.52	293151.67	589800.67
002	58+60.53	95.11' LT	642.60	293145.96	589806.89
003	58+66.00	89.89' LT	642.73	293141.70	589814.11
004	58+73.50	86.16' LT	642.83	293139.04	589822.06
005	58+81.52	83.83' LT	642.91	293137.84	589830.33
006	58+63.24	95.12' LT	643.05	293146.50	589810.66
007	58+66.59	92.59' LT	642.65	293144.46	589814.33
008	58+76.40	87.90' LT	642.78	293141.17	589824.69
009	58+76.58	92.16' LT	642.85	293145.41	589824.28
010	58+66.68	94.59' LT	642.68	293146.45	589814.14
011	58+76.66	94.16' LT	642.88	293147.40	589824.09

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
012	58+85.97	91.51' LT	643.32	293146.06	589833.67
013	58+90.74	89.75' LT	643.55	293144.98	589838.64
014	58+66.90	99.72' LT	642.76	293151.56	589813.65
015	58+76.89	99.30' LT	642.93	293152.52	589823.60
016	58+87.34	96.31' LT	643.39	293151.01	589834.37
017	58+92.02	94.50' LT	643.60	293149.86	589839.25
018	58+67.04	103.00' LT	642.91	293154.83	589813.33
019	58+77.06	103.33' LT	643.08	293156.54	589823.22
381	58+66.33	111.02' LT	643.27	293162.67	589811.53
382	58+75.94	112.06' LT	643.41	293165.03	589820.90
421	58+82.19	86.33' LT	643.33	293140.41	589830.64

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 21	E



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 22	E

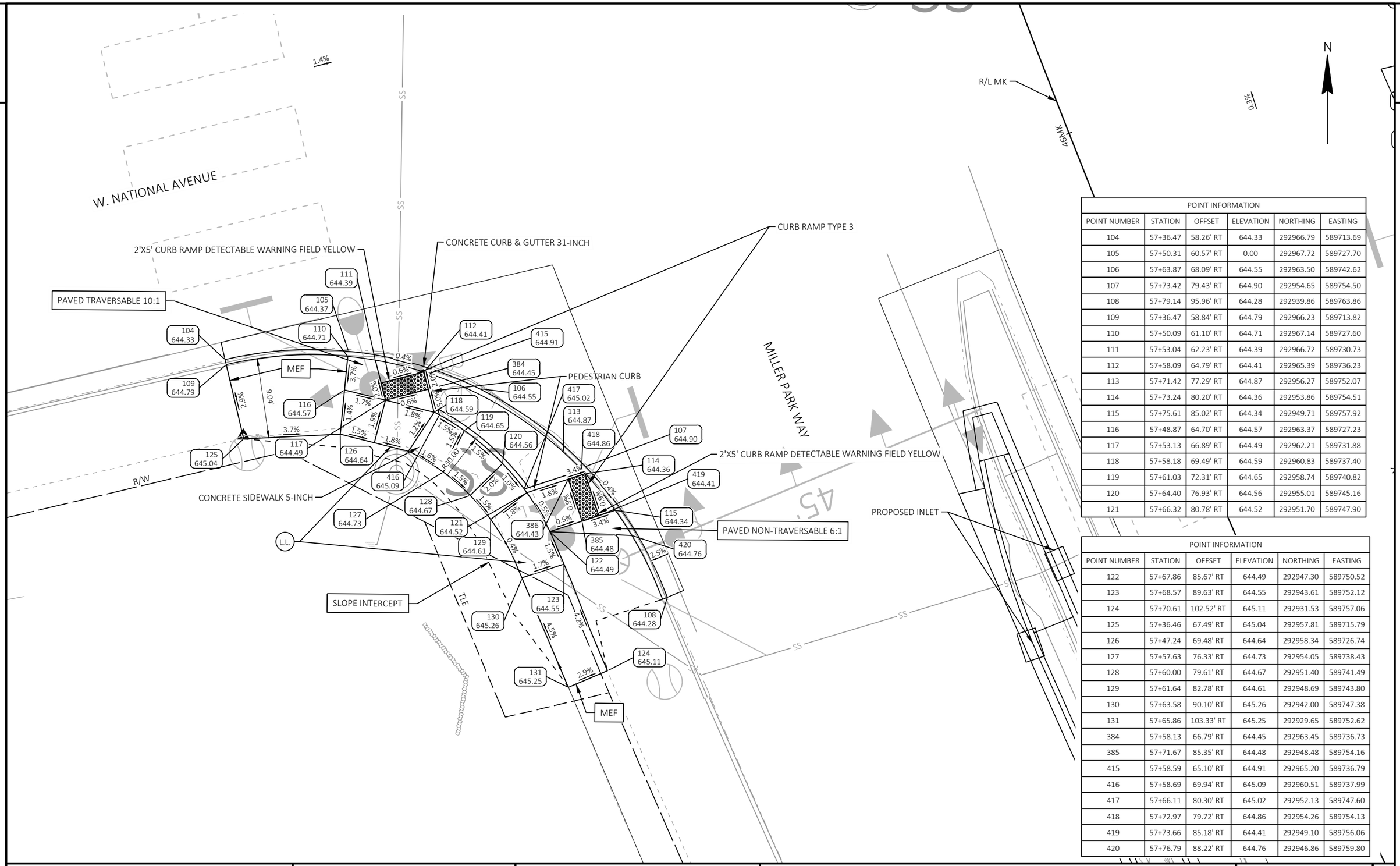
MILLER PARK WAY SOUTHEAST ISLAND

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
058	58+76.79	54.95' RT	643.46	292999.74	589844.81
059	58+87.32	53.95' RT	643.32	293002.18	589855.09
060	58+97.84	52.96' RT	643.16	293004.61	589865.38
061	59+08.37	51.97' RT	643.02	293007.05	589875.67
062	59+18.89	50.98' RT	642.97	293009.49	589885.96
063	59+19.19	53.57' RT	642.97	293006.95	589886.61
064	59+13.95	60.06' RT	643.02	292999.81	589882.32
065	59+05.70	73.10' RT	643.23	292985.76	589875.95
066	58+97.92	86.42' RT	643.42	292971.49	589870.08
067	58+90.60	100.00' RT	643.75	292957.03	589864.71
068	58+86.23	88.99' RT	643.64	292967.33	589858.86
069	58+83.08	77.64' RT	643.50	292978.13	589854.17
070	58+79.94	66.29' RT	643.48	292988.94	589849.49
071	58+88.65	58.43' RT	643.21	292997.93	589857.04
072	58+93.65	57.96' RT	643.14	292999.08	589861.92
073	58+89.52	63.48' RT	643.36	292993.04	589858.60
074	58+94.44	62.61' RT	643.28	292994.59	589863.35
075	58+85.52	69.28' RT	643.38	292986.75	589855.43
076	58+90.38	68.41' RT	643.43	292988.28	589860.13
077	58+95.30	67.53' RT	643.77	292989.83	589864.88
078	59+00.34	66.63' RT	643.31	292991.42	589869.74
079	59+04.90	69.44' RT	643.23	292989.27	589874.65
080	58+86.86	74.12' RT	643.39	292982.15	589857.43
081	58+91.26	73.33' RT	643.45	292983.53	589861.68
082	58+96.18	72.45' RT	643.40	292985.08	589866.43
083	58+99.34	71.89' RT	643.36	292986.07	589869.48
084	59+02.30	73.71' RT	643.31	292984.68	589872.66
383	58+87.95	68.84' RT	643.41	292987.52	589857.78

MILLER PARK WAY SOUTHEAST CORNER

POINT INFORMATION					
POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
085	59+22.70	92.19' RT	642.74	292969.20	589895.42
086	59+26.51	86.17' RT	642.70	292975.68	589898.36
087	59+30.08	81.32' RT	642.70	292980.98	589901.22
088	59+38.88	71.58' RT	642.63	292991.84	589908.60
089	59+20.88	132.97' RT	644.27	292928.55	589899.24
090	59+27.81	89.38' RT	642.69	292972.68	589900.09
091	59+30.43	85.12' RT	642.66	292977.26	589902.10
093	59+15.95	132.14' RT	644.17	292928.70	589894.25
094	59+31.83	91.85' RT	643.02	292970.79	589904.41
095	59+34.68	87.74' RT	643.01	292975.26	589906.67
096	59+37.73	83.77' RT	643.07	292979.61	589909.14
097	59+43.89	76.79' RT	643.18	292987.38	589914.28
098	59+31.14	102.80' RT	643.61	292959.86	589905.24
099	59+36.00	94.61' RT	643.09	292968.64	589908.93
100	59+38.72	90.69' RT	643.08	292972.89	589911.08
101	59+41.64	86.88' RT	643.16	292977.07	589913.44
102	59+47.49	80.26' RT	643.30	292984.44	589918.33
103	59+26.72	100.45' RT	643.54	292961.57	589900.55
413	59+24.93	93.49' RT	643.12	292968.21	589897.81
414	59+33.52	81.16' RT	642.92	292981.62	589904.62

2



POINT INFORMATION

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
104	57+36.47	58.26' RT	644.33	292966.79	589713.69
105	57+50.31	60.57' RT	0.00	292967.72	589727.70
106	57+63.87	68.09' RT	644.55	292963.50	589742.62
107	57+73.42	79.43' RT	644.90	292954.65	589754.50
108	57+79.14	95.96' RT	644.28	292939.86	589763.86
109	57+36.47	58.84' RT	644.79	292966.23	589713.82
110	57+50.09	61.10' RT	644.71	292967.14	589727.60
111	57+53.04	62.23' RT	644.39	292966.72	589730.73
112	57+58.09	64.79' RT	644.41	292965.39	589736.23
113	57+71.42	77.29' RT	644.87	292956.27	589752.07
114	57+73.24	80.20' RT	644.36	292953.86	589754.51
115	57+75.61	85.02' RT	644.34	292949.71	589757.92
116	57+48.87	64.70' RT	644.57	292963.37	589727.23
117	57+53.13	66.89' RT	644.49	292962.21	589731.88
118	57+58.18	69.49' RT	644.59	292960.83	589737.40
119	57+61.03	72.31' RT	644.65	292958.74	589740.82
120	57+64.40	76.93' RT	644.56	292955.01	589745.16
121	57+66.32	80.78' RT	644.52	292951.70	589747.90

POINT INFORMATION

POINT NUMBER	STATION	OFFSET	ELEVATION	NORTHING	EASTING
122	57+67.86	85.67' RT	644.49	292947.30	589750.52
123	57+68.57	89.63' RT	644.55	292943.61	589752.12
124	57+70.61	102.52' RT	645.11	292931.53	589757.06
125	57+36.46	67.49' RT	645.04	292957.81	589715.79
126	57+47.24	69.48' RT	644.64	292958.34	589726.74
127	57+57.63	76.33' RT	644.73	292954.05	589738.43
128	57+60.00	79.61' RT	644.67	292951.40	589741.49
129	57+61.64	82.78' RT	644.61	292948.69	589743.80
130	57+63.58	90.10' RT	645.26	292942.00	589747.38
131	57+65.86	103.33' RT	645.25	292929.65	589752.62
384	57+58.13	66.79' RT	644.45	292963.45	589736.73
385	57+71.67	85.35' RT	644.48	292948.48	589754.16
415	57+58.59	65.10' RT	644.91	292965.20	589736.79
416	57+58.69	69.94' RT	645.09	292960.51	589737.99
417	57+66.11	80.30' RT	645.02	292952.13	589747.60
418	57+72.97	79.72' RT	644.86	292954.26	589754.13
419	57+73.66	85.18' RT	644.41	292949.10	589756.06
420	57+76.79	88.22' RT	644.76	292946.86	589759.80

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CURB RAMP DETAILS	SHEET 24	E

2

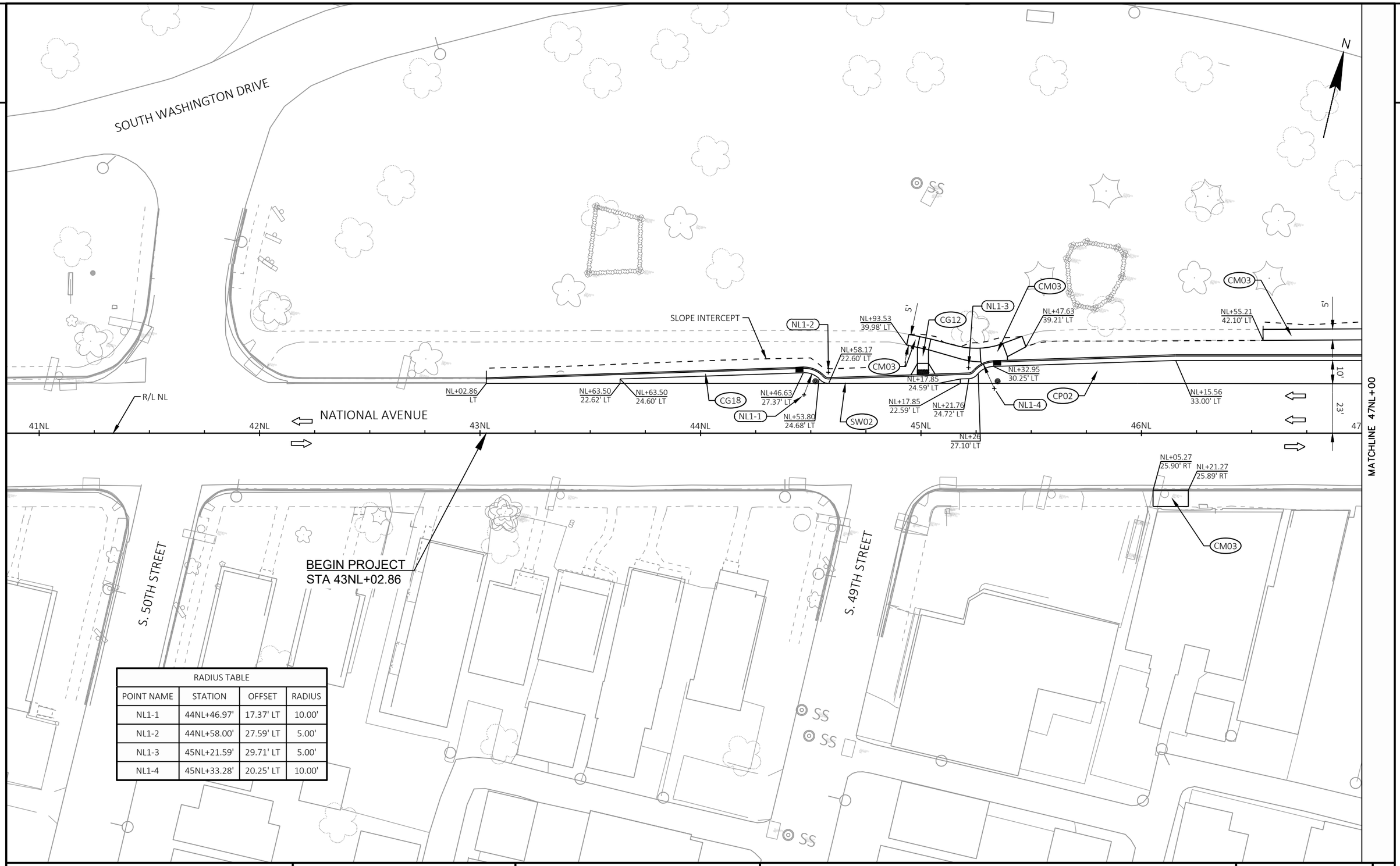
PLAN DETAIL LEGEND

- CG02 CURB RAMP TYPE 1A
- CG03 CURB RAMP TYPE 2
- CG04 CURB RAMP TYPE 3
- CG08 CURB RAMP TYPE 4B1
- CG10 CURB RAMP TYPE 6
- CG12 CURB RAMP TYPE 7B
- CG14 CONCRETE CURB PEDESTRIAN
- CG17 CONCRETE CURB AND GUTTER 19-INCH
- CG18 CONCRETE CURB AND GUTTER 31-INCH

- CM01 CONCRETE MEDIAN SLOPED NOSE TYPE 1
- CM02 CONCRETE MEDIAN SLOPED NOSE TYPE 2
- CM03 CONCRETE SIDEWALK 5-INCH
- AG02 BASE AGGREGATE DENSE 1 1/4-INCH
- CP02 CONCRETE PAVEMENT 9-INCH, DOWELED AND TINED
- CP03 CONCRETE PAVEMENT REPLACEMENT
- SW01 SAWING ASPHALT
- SW02 SAWING CONCRETE
- EC01 SOD LAWN
- BS01 BUS STOP

* ALL CURB AND GUTTER RADII ARE DIMENSIONED TO FACE OF CURB
** SEE MQ TABLE FOR CP03 CONCRETE TYPE

2



RADIUS TABLE			
POINT NAME	STATION	OFFSET	RADIUS
NL1-1	44NL+46.97'	17.37' LT	10.00'
NL1-2	44NL+58.00'	27.59' LT	5.00'
NL1-3	45NL+21.59'	29.71' LT	5.00'
NL1-4	45NL+33.28'	20.25' LT	10.00'

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 26	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021201-PD.DWG
LAYOUT NAME - 01-NL-01
PLOT DATE : 1/27/2025 4:25 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

SOUTH WASHINGTON DRIVE

GENERAL MITCHELL BOULEVARD

MH SS

MATCHLINE 47NL+00

MATCHLINE 53NL+00

47NL

48NL

49NL

50NL

51NL

52NL

53NL

NATIONAL AVENUE

S. 48TH STREET

S. 47TH STREET

SLOPE INTERCEPT

FENCE SAFETY

POST

SS

NL+93.95 59.17' LT

NL+99.95 58.93' LT

NL+28.17 52.70' LT

NL+06.01 52.78' LT

NL+29.58 56.99' LT

NL+35.29 59.87' LT

NL+67.60 47.62' LT

NL+67.59 42.62' LT

NL+85.08 33.00' LT

NL+49.63 33.00' LT

R/L NL

NL+75.74 42.29' LT

NL+92.56 33.00' LT

NL+66.63 71.01' LT

NL+26.66 69.68' LT

NL+26.70 63.89' LT

NL+66.80 66.01' LT

NL+79.22 71.42' LT

NL+94.15 64.59' LT

NL+02.78 38.58' LT

NL+96.78 37.00' LT

NL+89 29.76' RT

NL+83.01 32.63' RT

NL+88.08 35.57' RT

NL+84.94 43.07' RT

NL+16.48 23.77' RT

NL+15.84 36.00' RT

NL+15.25 49.81' RT

NL+32.39 23.06' RT

NL+54.86 25.61' RT

NL+54.80 33.10' RT

NL+29.02 53.05' RT

NL+06.33 25.66' RT

NL+18.33 25.62' RT

NL+74.44 25.61' RT

NL+86.16 23.07' RT

NL+92.81 22.95' RT

NL+10.46 23.45' RT

NL+29.50 24.66' RT

NL+36.60 38.92' RT

NL+36.83 45.74' RT

NL+53.91 26.13' RT

NL+94.40 31.51' RT

NL+93.81 39.92' RT

NL+74.42 33.33' RT

NL+94.87 50.49' RT

NL+99.74 51.64' RT

NL+06.74 40.41' RT

NL+05.93 43.95' RT

NL+33.01 49.91' RT

NL+49.84 49.63' RT

NL+31.53 54.44' RT

RADIUS TABLE			
POINT NAME	STATION	OFFSET	RADIUS
NL2-1	47NL+85.08'	53.00' LT	18.00'
NL2-2	48NL+49.63'	53.00' LT	18.00'
NL2-3	50NL+92.56'	63.00' LT	28.00'
NL2-4	51NL+96.78'	67.00' LT	29.00'
NL2-5	48NL+32.42'	39.89' RT	15.00'
NL2-6	50NL+92.72'	40.10' RT	15.00'
NL2-7	51NL+52.85'	43.18' RT	15.00'

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 27	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021201-PD.DWG
LAYOUT NAME - 01-NL-02
PLOT DATE : 1/27/2025 4:28 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

MATCHLINE 53NL+00

MATCHLINE 57NL+00

EXISTING TREE TO REMAIN (SIGNIFICANT TREE #209)

FENCE SAFETY

SLOPE INTERCEPT

NL+31.06
54.44' LT

NL+30.63
32.00' LT

NL+65.29
37.00' LT

NL+30.53
27.00' LT

R/L NL

NATIONAL AVENUE

54NL

55NL

56NL

NL+29.91
125.94' LT

NL3-1

NL+06.03
72.88' LT

CG08

NL+91.96
67.12' LT

NL+90.87
67.40' LT

NL+42.75
37.85' LT

NL+42.13
32.80' LT

NL+81.42
25.82' LT

NL+81.67
24.20' LT

NL+37.19
2.51' RT

NL+37.21
7.40' RT

CM03

CP02

CG17

CG18

SW02

EC01

CM03

NL+55.29
52.40' RT

CM03

NL+10.81
55.98' RT

SS

U/C

8'

13'

3'

5'

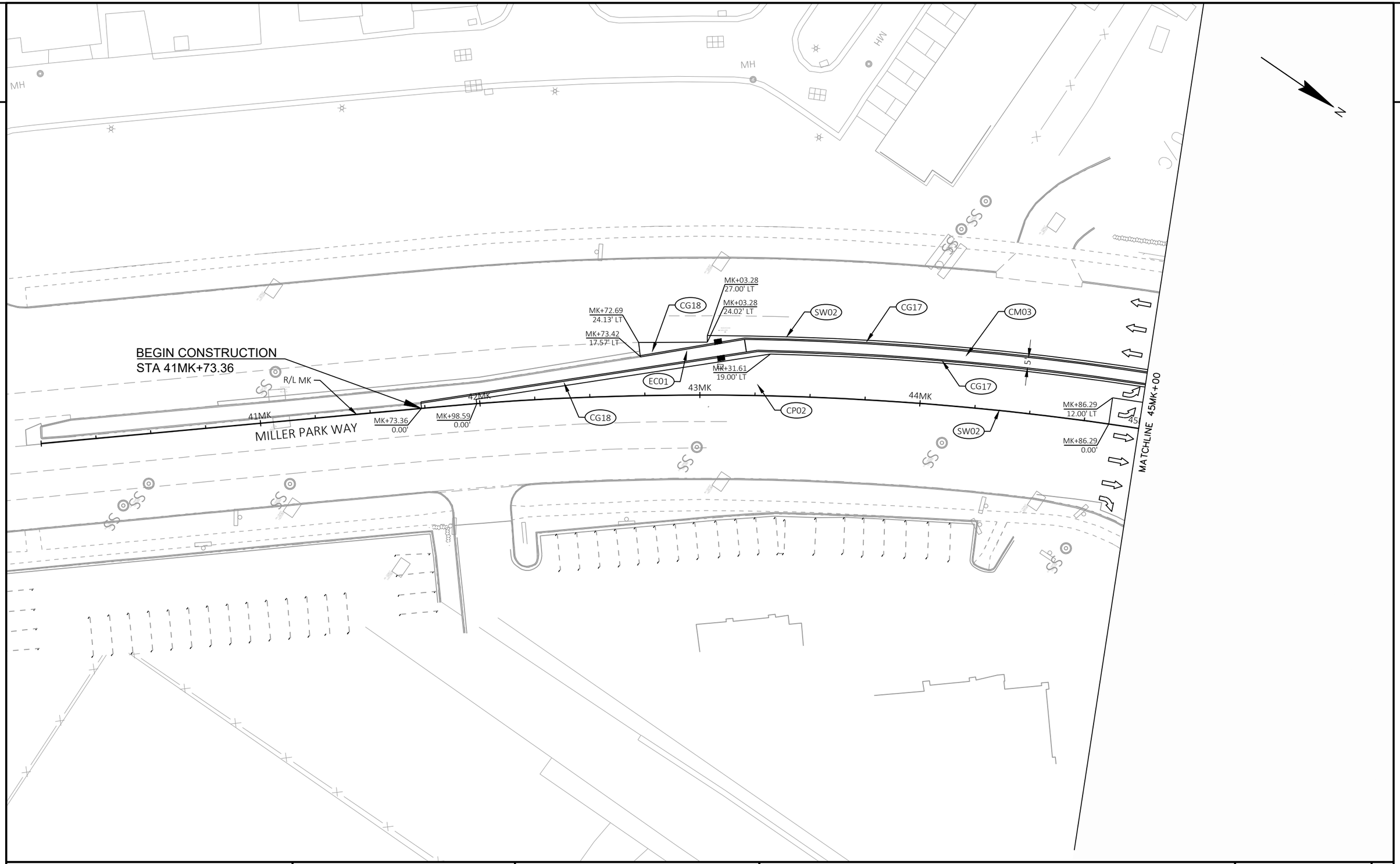
3'

RADIUS TABLE			
POINT NAME	STATION	OFFSET	RADIUS
NL3-1	56NL+38.40'	89.68' LT	55.00'

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 28 E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021201-PD.DWG
LAYOUT NAME - 01-NL-03
PLOT DATE : 1/27/2025 4:31 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2


MH
MH
MH
SS
SS
SS

2

MATCHLINE 57NL+00

MATCHLINE 45MK+00

NATIONAL AVENUE

BREWERS BOULEVARD

46MK 47MK 48MK 49MK 50MK 51MK

58NL 59NL 60NL

R/L NL

R/L MK

MK2-1 NL+36.46 67.49' RT NL+36.47 56.20' RT CG14 CG04 SW02 CM03 CM01 NL+42.51 9.91' RT NL+49.51 9.88' RT

MK+64.37 76.32' LT MK+64.37 71.51' LT CG14 CG18 CG04 MK+69.15 60.00' LT NL+75.08 56.30' RT

CM01 SW02 CM03 MK+67.19 27.00' LT MK+75.54 22.92' LT MK+90.68 27.00' LT MK+46.72 27.00' LT CP02 MK+90.68 11.96' LT MK+75.01 19.00' LT MK+49.57 20.58' LT

CG17 MK+93.68 35.60' RT CG18 CM02 SW02 CM01 CG14 CM03 MK+45.25 36.14' RT MK+45.25 37.42' RT NL+91.91 29.26' RT NL+98.89 28.60' RT NL+90.43 19.03' RT NL+97.40 18.35' RT

NL+15.95 132.14' RT NL+22.70 92.19' RT CM01 CG10 MK2-3 CG18 NL+18.89 50.98' RT NL+19.19 53.57' RT NL+23.27 23.68' RT CM03 NL+22.76 18.35' RT

NL+20.74 132.95' RT MK2-2 CG04 SW02 CM03 NL+38.88 71.58' RT NL+47.49 80.26' RT NL+43.89 76.79' RT

CG10 CG18 NL+05.86 24.20' LT NL+15.48 60.96' LT MK2-6 CG14 MK2-4 5' CM03 CG10 CG18 CG14 MK2-5 NL+42.49 0.18' LT NL+49.49 0.20' LT

MK+84.83 59.88' LT MK+21.38 59.72' LT SW02 CM01 MK+01.87 11.55' LT CG18 MK+33.75 11.40' LT

MK+00.05 1.84' LT MK+33.63 0.60' RT MK+07.29 0.55' RT CG18 CG18 CM03

SW02 CM02 CG14 CG18 CM03 MK+99.05 36.45' RT MK+26.68 44.72' RT SW02 CG10 CG18 MK+56.63 41.07' RT CG03 MK+64.87 54.33' RT MK+64.85 63.99' RT CM03 MK+44.41 77.89' RT MK+39.58 76.01' RT

5' SW02 MK+34.66 66.09' RT MK+18.55 63.18' RT NL+87.96 23.99' LT BS01 NL+17.95 35.30' LT NL+17.95 26.86' LT

EC01 NL+73.44 43.88' LT CG18 NL+77.96 58.27' LT EC01 NL+89.36 39.70' LT NL+93.37 54.22' LT SW02

END CONSTRUCTION
STA 47MK+57.83

EXISTING SIDEWALK TO BE REMOVED

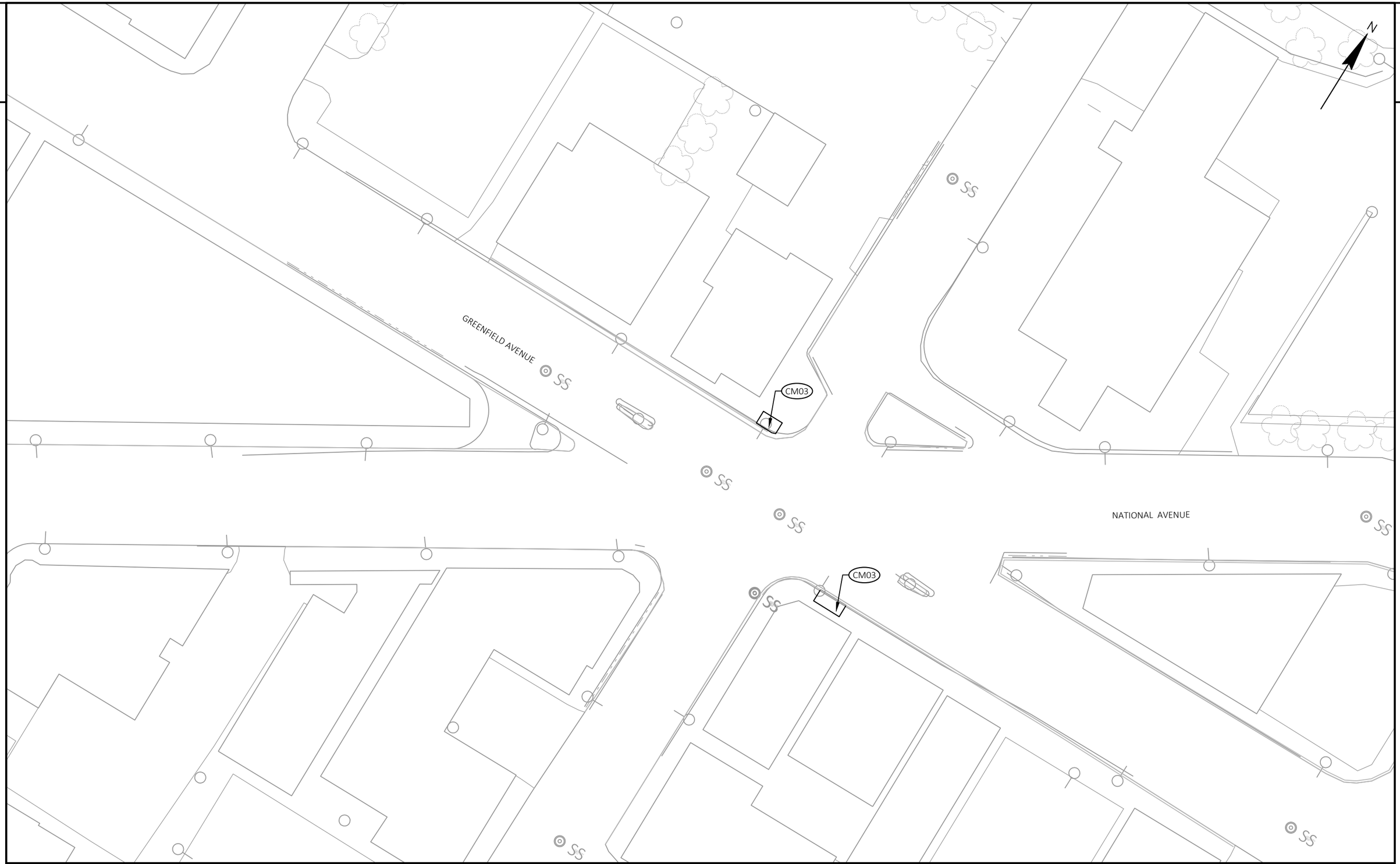
END PROJECT
STA 59NL+94.06

RADIUS TABLE			
POINT NAME	STATION	OFFSET	RADIUS
MK2-1	45MK+70.88'	105.00' LT	43.00'
MK2-2	44MK+67.57'	134.25' RT	93.00'
MK2-3	45MK+80.87'	63.36' RT	4.00'
MK2-4	47MK+01.04'	108.47' LT	3.00'
MK2-5	46MK+99.17'	66.69' LT	3.00'
MK2-6	47MK+34.56'	99.39' LT	100.00'

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PLAN DETAILS	SHEET 30	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021201-PD.DWG
LAYOUT NAME - 02-MK-02
PLOT DATE : 3/17/2025 9:18 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWUAKEE	PLAN DETAILS	SHEET 31	E

2

LEGEND

(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION

SOUTH WASHINGTON DRIVE

N

SAN MH SAN SS SAN

4% 645.14 1% 4% 1% 645.04

(647.59) (647.12) (646.62) (646.22) (645.86) (645.56) (645.23) (645.09) (645.01) 644.94 644.93 645.03 645.11 645.26 645.41 645.58 645

(645.09) (645.21) (645.31) (645.47) (645.62) (645.79) (645

R/L NL

NATIONAL AVENUE

41NL 42NL 43NL 44NL 45NL 46NL 47

MATCHLINE 47NL+00

S. 50TH STREET

S. 49TH STREET

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 32 E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021202-PD.DWG
LAYOUT NAME - 01-NL-01

PLOT DATE : 1/23/2025 11:23 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION

SOUTH WASHINGTON DRIVE

GENERAL MITCHELL BOULEVARD

NATIONAL AVENUE

S. 48TH STREET

S. 47TH STREET

MATCHLINE 47NL+00

MATCHLINE 53NL+00

48NL 49NL 50NL 51NL 52NL

R/L NL

(646.69) (646.77) (646.92) 646.41 646.60 646.63 646.57 646.69 646.82 647.01 647.18 647.40 647.55 647.72 647.84 648.01 647.95 647.65 647.85 647.54 (647.11) (647.12) (647.25) 648.04 647.93 647.85 647.73

645.87 646.00 646.15 (646.09) (646.21) (646.37) (646.59) (646.76) (646.76) (646.89) (647.02) (647.20) (647.38) (647.60) (647.75) (647.91) (648.04) (648.21) (648.27) (648.26) (648.31) (648.43) (648.31) (648.19) (648.10) (647.98)

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 33 E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021202-PD.DWG
LAYOUT NAME - 01-NL-02

PLOT DATE : 12/20/2024 11:20 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION

N

2

MATCHLINE 53NL+00

MATCHLINE 57NL+00

R/L NL

NATIONAL AVENUE

54NL

55NL

56NL

57

647.70 (647.96) 647.82 (647.95) 647.78 (647.89) 647.67 (647.82) 647.59 (647.68) 647.43 (647.49) 647.29 (647.36) 647.09 (647.15) 646.77 (646.82) 646.34 (646.40) 645.75 (645.83) 645.24 (645.35) 644.85 (645.00) 644.48 (644.73) 644.12 (644.52) 644.05 (644.50)

SAN

SS

WV

GV

FO

G

TEL

SANMH RIM 648.08
18"S/W IN IE 632.48
18"S/E IE 634.28
RINGS: 3X 24" STEEL
STRU: CONC. CAST

U/C

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 34	E

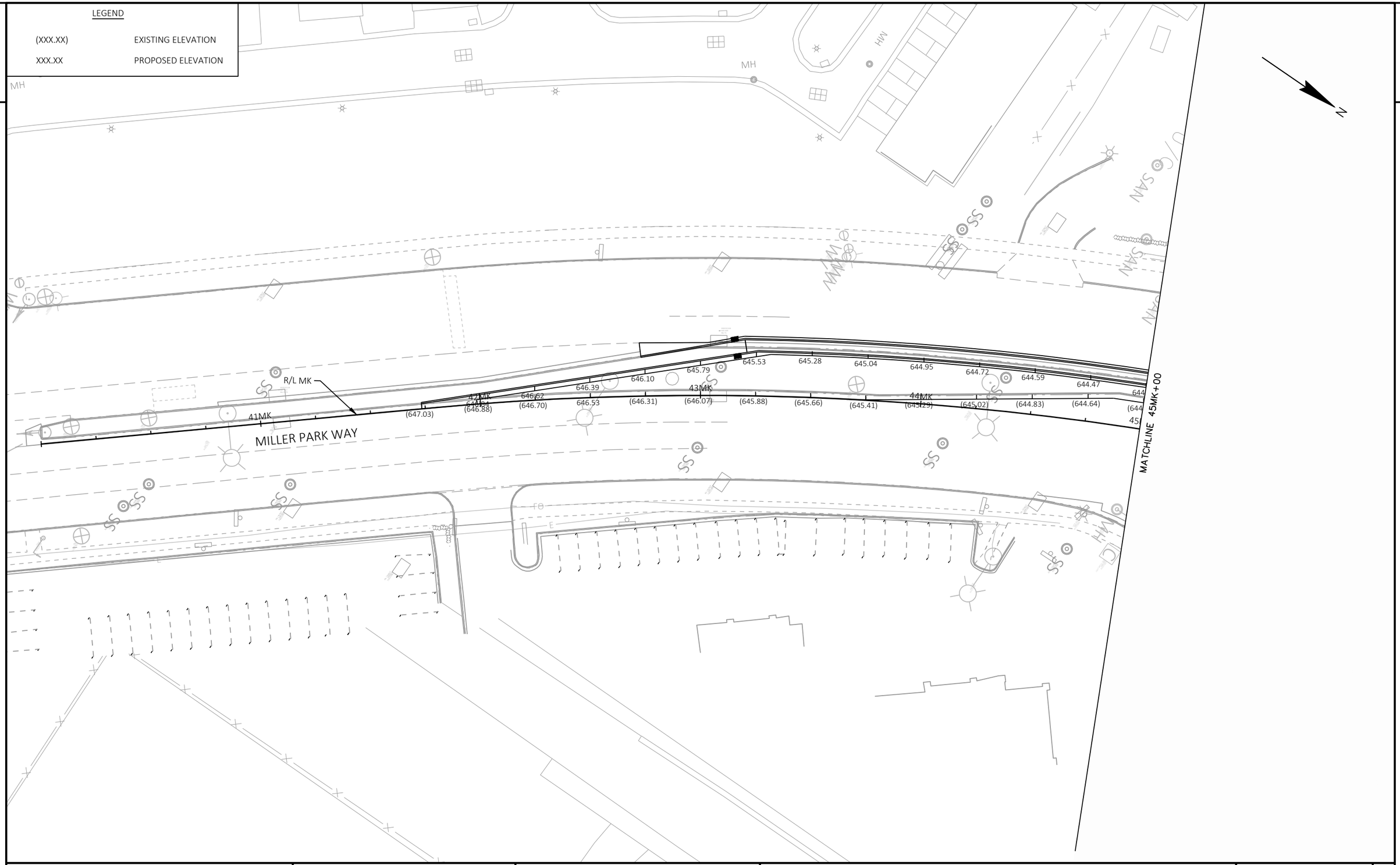
FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021202-PD.DWG
LAYOUT NAME - 01-NL-03

PLOT DATE : 12/20/2024 11:23 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

LEGEND

(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION


MH
MH
MH
SAN
SAN
SAN
SS
SS
SS

LEGEND

(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION

MATCHLINE 57NL+00

NATIONAL AVENUE

58NL

59NL

60NL

R/L NL

MATCHLINE 45MK+00

46MK

47MK

48MK

49MK

50MK

51MK

R/L MK

BREWERS BOULEVARD

(644.40) 644.34 644.40 644.44 (644.28) (644.20) 644.24 (644.32) (644.34)

(644.22) (644.33) (644.05) 643.91 (643.89) (643.76) (644.14) (643.85) (643.78) 643.80 (643.76) 643.83 (643.72) (643.66)

(644.00) (644.07) 644.04 644.01 (643.87) 644.07 (643.96) 644.21 (644.21) (644.35)

(643.54) (643.49) (643.20) (643.39) (643.22) (643.19)

(643.46) (643.49) (643.78) 643.37 643.01 (643.13) 643.12 (643.08) (642.97)

(643.27) (643.26) (643.07) (643.04)

(643.08) (642.99) (643.07) (642.80)

MH

SS

TEL

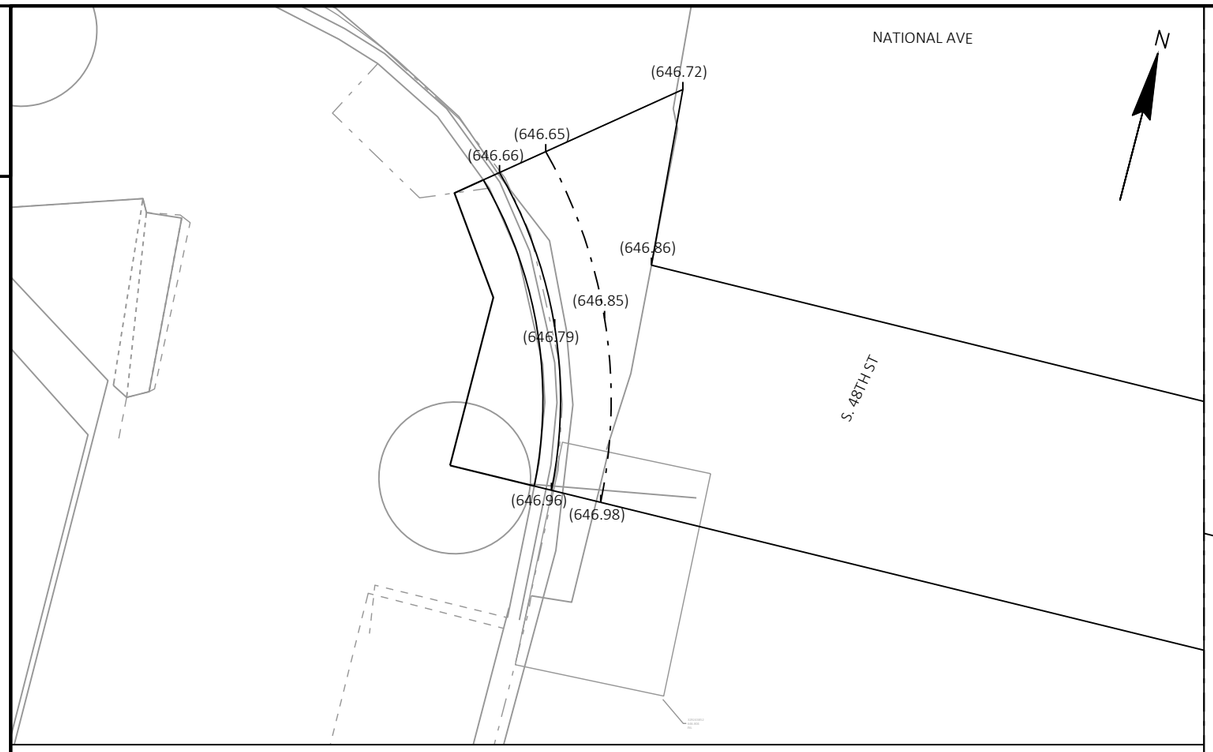
GV

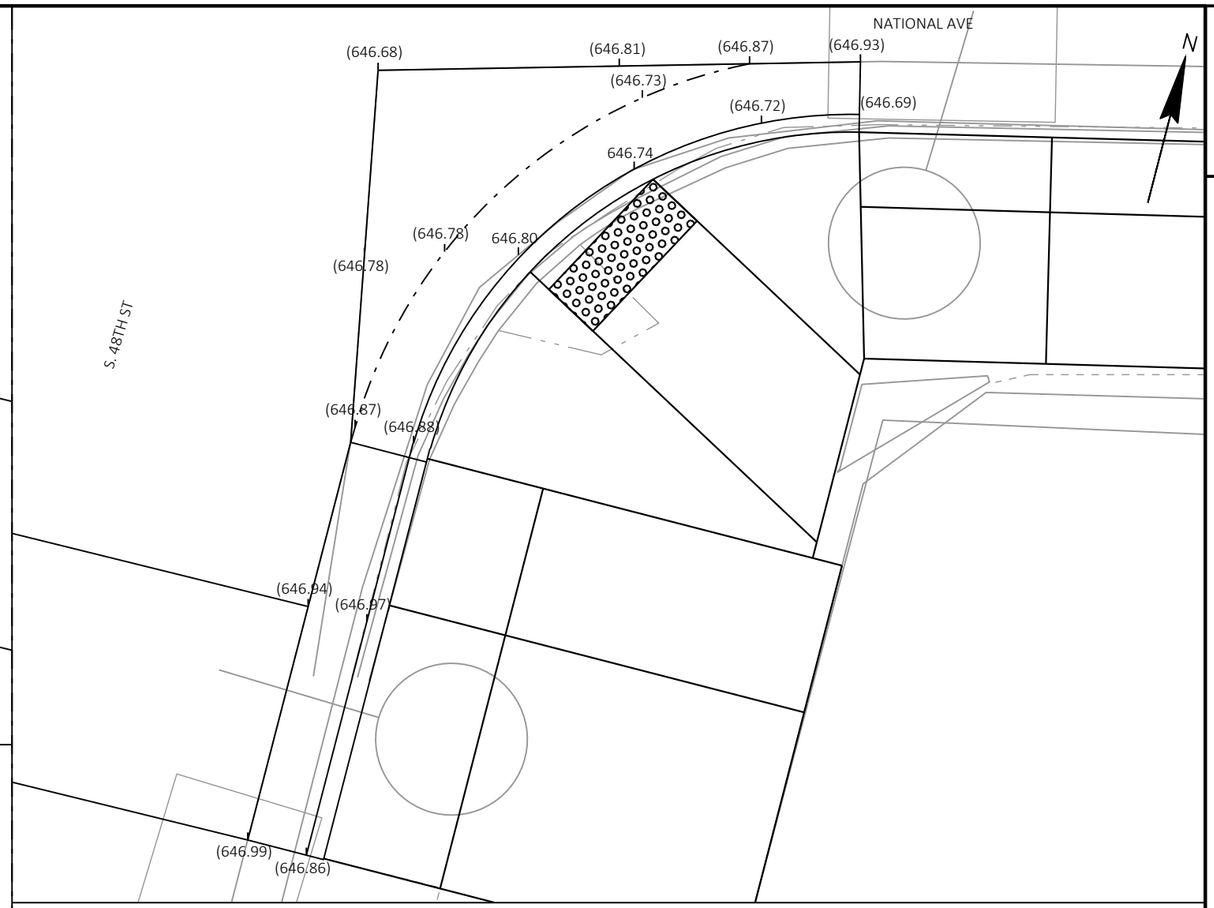
W

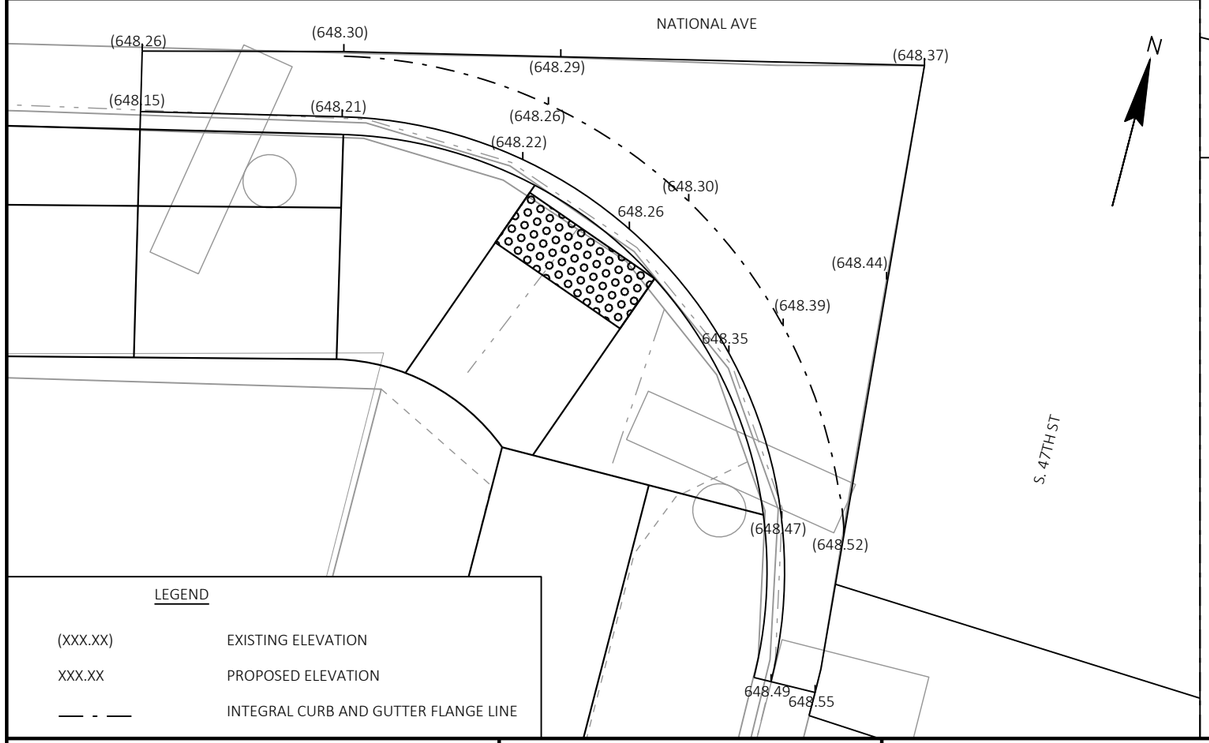
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 36 E

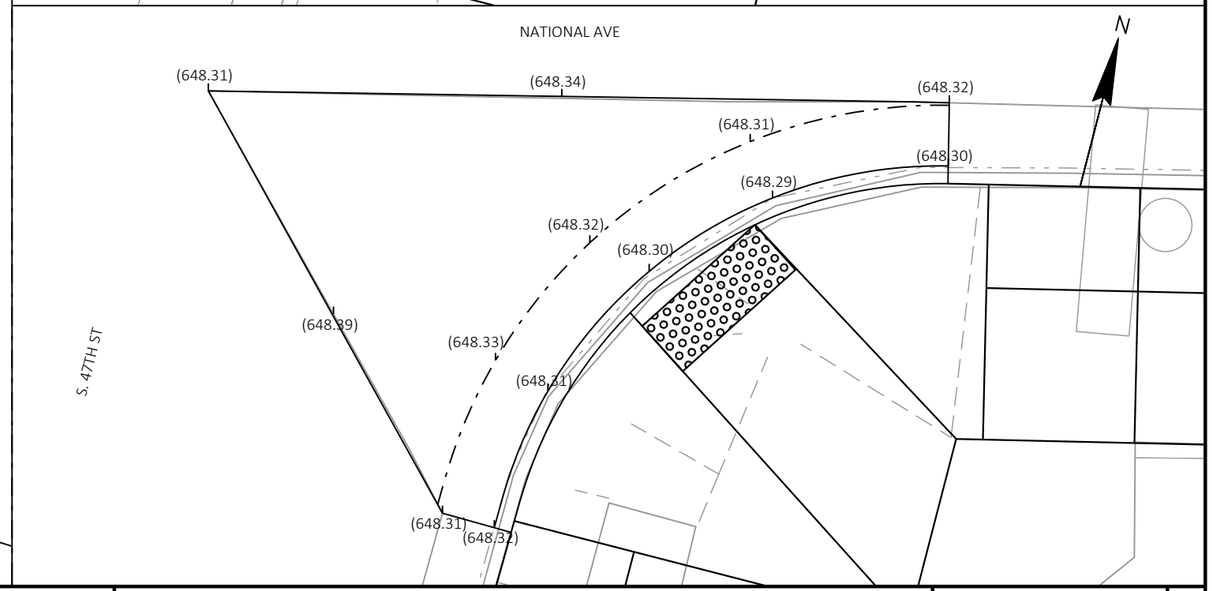
FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021202-PD.DWG
LAYOUT NAME - 02-MK-02

PLOT DATE : 3/17/2025 9:23 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT







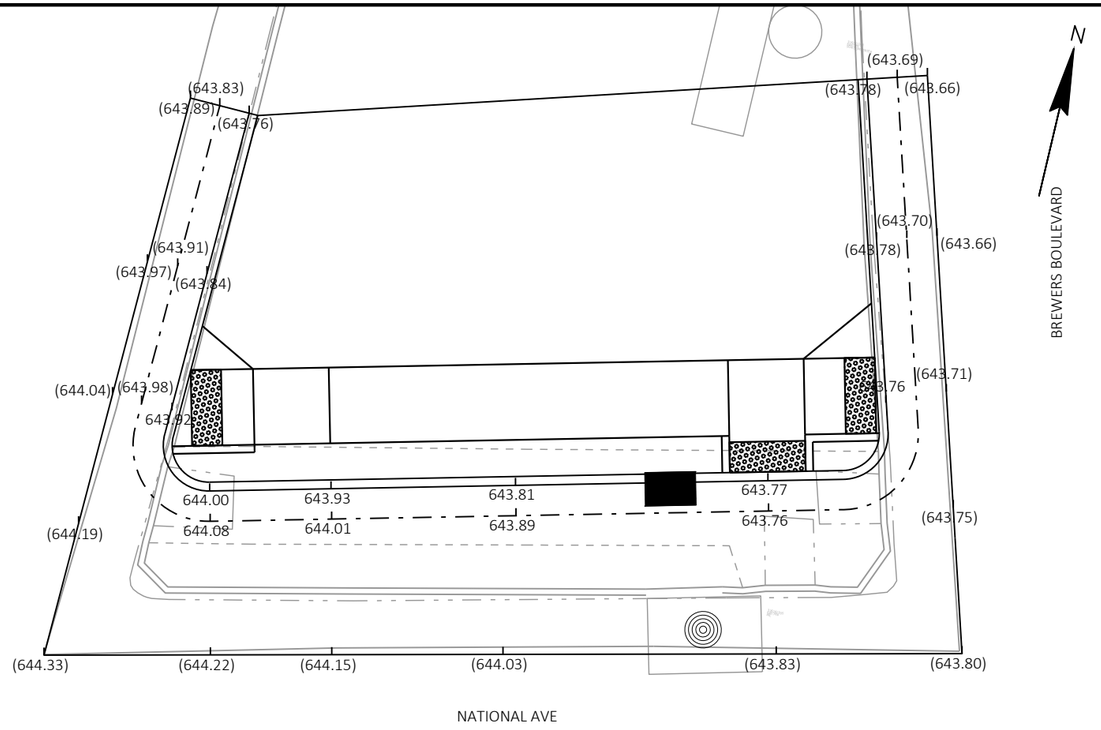


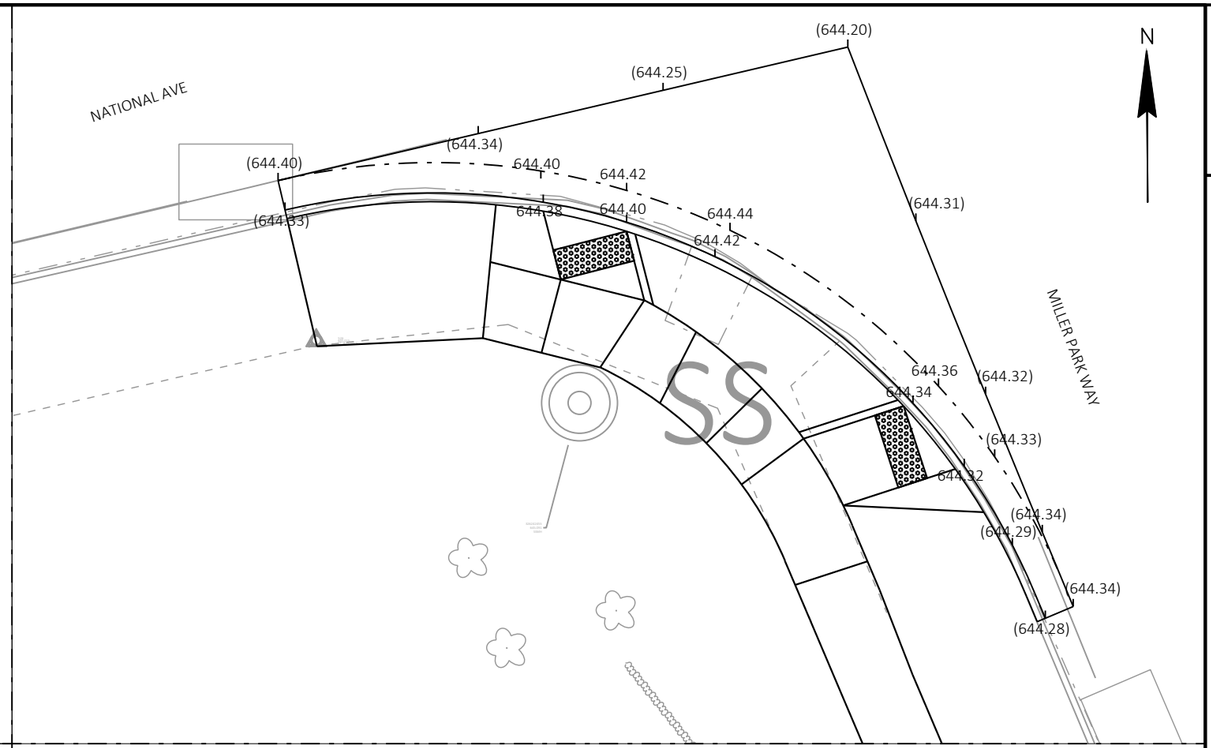
LEGEND

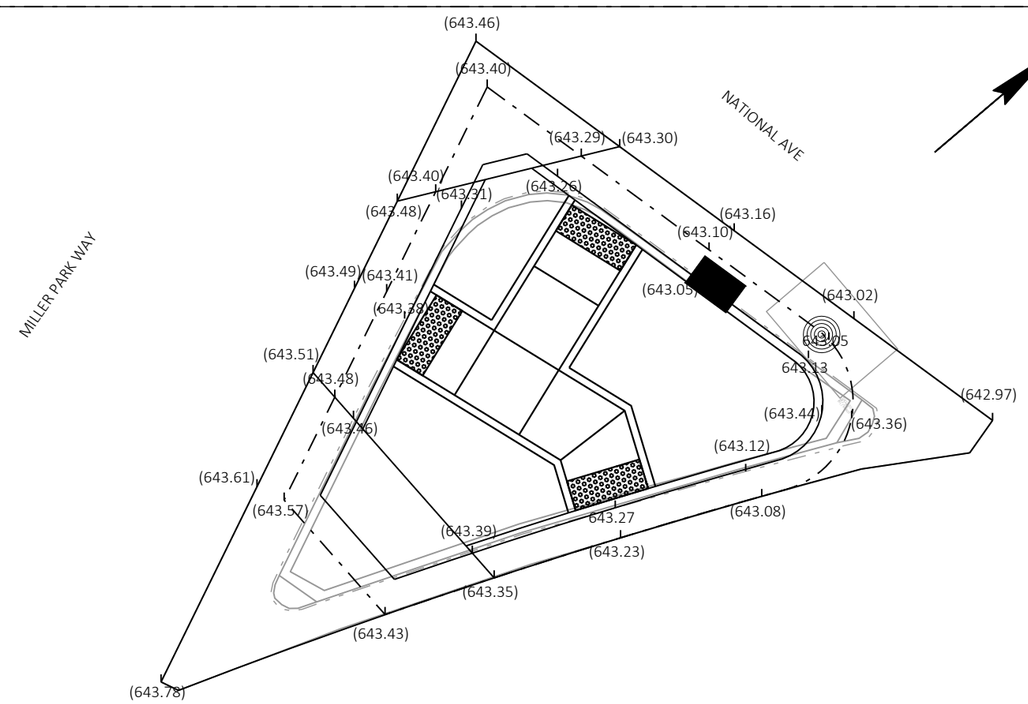
(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION
— - —	INTEGRAL CURB AND GUTTER FLANGE LINE

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 37	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021203-PD.DWG
LAYOUT NAME - 01-NL-02
PLOT DATE : 1/13/2025 12:20 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:5 FT







LEGEND

(XXX.XX)	EXISTING ELEVATION
XXX.XX	PROPOSED ELEVATION
___ - ___	INTEGRAL CURB AND GUTTER FLANGE LINE

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVING GRADES	SHEET 38	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021203-PD.DWG
LAYOUT NAME - 01-NL-02 (2)
PLOT DATE : 1/13/2025 12:41 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

LEGEND

	PROPOSED	EXISTING
FTMS CONVENTIONAL SYMBOLS		
POLE MOUNTED CABINET		
METER BREAKER PEDESTAL		
CSCP PULL BOX		
FTMS (ITS) CONDUIT		
BREAKER DISCONNECT BOX		
CCTV BASE, POLE, AND CAMERA		
ITS FIELD CABINET AND CONCRETE BASE		
MANHOLE		
GROUND MOUNT DMS		

FTMS STANDARD ABBREVIATIONS

CB	CONTROLLER CABINET
CCTV	CLOSED CIRCUIT TELEVISION SITE
PB	PULL BOX
EX	EXISTING
FOC	FIBER OPTIC CABLE
F.O.	FIBER OPTIC
S-F	STATE-FURNISHED
DMS	DYNAMIC MESSAGE SIGN

1. THESE PLANS AND THE ASSOCIATED SPECIAL PROVISIONS REFLECT CONDITIONS KNOWN DURING THE DEVELOPMENT OF THE PLANS AND TECHNICAL SPECIAL PROVISIONS. ALL SCALES, DIMENSIONS AND LOCATIONS SHOWN IN THESE PLANS ARE APPROXIMATE. ACTUAL PHYSICAL FIELD CONDITIONS SHALL PROVIDE THE BASIS FOR THE APPLICATION OF WORK SHOWN IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR THE APPLICATION OF ALL WORK SHOWN IN THE PLANS TO THE ACTUAL PHYSICAL FIELD CONDITIONS TO PROVIDE A COMPLETE AND ACCEPTED PROJECT. IN THE EVENT THAT ACTUAL PHYSICAL FIELD CONDITIONS AFFECT OR PREVENT THE APPLICATION OR PROGRESSION OF ANY WORK SHOWN IN THE PLANS OR TECHNICAL SPECIAL PROVISIONS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY, AND PRIOR TO ANY FURTHER WORK ACTIVITY. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY LOCATION CHANGES OTHER THAN MINOR ADJUSTMENTS.

2. BE AWARE THAT ALL EXISTING UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES WITHIN THE SCOPE OF THIS PROJECT MAY NOT BE LOCATED IN THE PLANS. THE CONTRACTOR IS FULLY RESPONSIBLE FOR LOCATING AND AVOIDING ALL UNDERGROUND AND ABOVE GROUND STRUCTURES AND FACILITIES.

3. BE AWARE THAT NO TEST BORINGS WERE MADE WHERE CONDUITS, PULLBOXES, POLES, CABINET FOUNDATIONS, OR OTHER EQUIPMENT IS TO BE INSTALLED. THE CONTRACTOR IS FULLY RESPONSIBLE FOR EXAMINING THE JOB SITE CONDITIONS BEFORE SUBMITTING BID PROPOSALS.

4. NO TREES (AND/OR SHRUBS) SHALL BE REMOVED WITHOUT APPROVAL OF THE ENGINEER.

5. AREAS WITHIN THE RIGHT-OF-WAY DISTURBED SPECIFICALLY FOR FTMS CONSTRUCTION SHALL BE RESTORED TO THE ORIGINAL CONDITION WITH TOPSOIL, FERTILIZER, SEED, AND EROSION MAT, AND SHALL BE INCLUDED IN THE COST OF INSTALLING FTMS ITEMS. RESTORATION FOR AREAS DISTURBED FOR OTHER CONSTRUCTION OPERATIONS BUT ALSO CONTAINING FTMS CONSTRUCTION SHALL BE DONE ACCORDING TO REQUIREMENTS AND PAYMENT PROVISIONS FOR THE OTHER CONSTRUCTION OPERATIONS.

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

7. DUE TO RAMP, LANE, SHOULDER CLOSURE RESTRICTIONS, AND WORK UNDER OTHER CONTRACTS, SOME WORK MAY BE REQUIRED TO BE PERFORMED AT NIGHT.

8. THE CONTRACTOR IS FULLY RESPONSIBLE FOR COORDINATING RAMP, LANE, SHOULDER, AND ROADWAY CLOSURES WITH OTHER CONTRACTS IN THE AREA.

9. THE CONTRACTOR SHALL CONTACT THE WISDOT STATEWIDE TRAFFIC MANAGEMENT CENTER AT (414)227-2166 FIVE (5) WORKING DAYS PRIOR TO ENTERING ANY EXISTING WISDOT FTMS OR ITS CABINET.

10. ALL LOOP DETECTORS ARE STATIONED TO CENTER OF LEADING EDGE AS APPROACHED BY NORMAL VEHICLE PATH.

11. HAND DIG TRENCHES CROSSING EXISTING CONDUIT CONTAINING FIBER OPTIC CABLE.

12. VISUALLY VERIFY DEPTHS OF EXISTING CONDUITS CONTAINING FIBER OPTIC CABLE PRIOR TO CROSSING BY DIRECTIONAL BORE OR SPECIAL METHOD.

2

2

N

EXMH48MK
STEP 1
DISCONNECT FOC TO VILLAGE OF WEST MILWAUKEE VILLAGE HALL
(1) ENTER EXISTING FIBER OPTIC SPLICE ENCLOSURE
(DO NOT DISTURB OTHER SPLICES)
STEP 3
SPLICE RE-INSTALLED FOC TO EXISTING 72-COUNT FOC
TO RE-ESTABLISH CONNECTION TO VILLAGE OF WEST MILWAUKEE
VILLAGE HALL IN EXISTING SPLICE ENCLOSURE
(1) ENTER EXISTING FIBER OPTIC SPLICE ENCLOSURE
(4) F.O. SPLICES)
(DO NOT DISTURB OTHER SPLICES)
TOTALS
(2) ENTER EXISTING FIBER OPTIC SPLICE ENCLOSURES
(4) F.O. SPLICES

STEP 1
SALVAGE FOC TO VILLAGE OF
WEST MILWAUKEE VILLAGE HALL
(DO NOT DISTURB OTHER CABLES)
STEP 3
INSTALL SALVAGED FOC TO VILLAGE
OF WEST MILWAUKEE VILLAGE HALL
(DO NOT DISTURB OTHER CABLES)

BREWERS BLVD.

MH
TEL
SS
50MK090
96MK090
48MK090
CMP
MATCH LINE 47+50

PROJECT NO: 2410-47-70	HWY: HWY 59	COUNTY: MILWAUKEE	FTMS DESIGN SHEETS	SHEET 40	E

FILE NAME : C:\USERS\PKUTZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\DSGN\EDGELINE\FTMS\24104770_NAT-AVE_FTMS.DWG
LAYOUT NAME - 04
PLOT DATE : 10/17/2024 1:41 PM
PLOT BY : PAUL KUTZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

MATCH LINE 47+50

N

EX-CB-CCTV-40-0098

SEE EX-CB-CCTV-40-0098 CALL-OUTS

EXPB57NL

EXMH57NL

STEP 2
CONNECT PROPOSED CONDUITS
TO EXISTING CONDUITS

PB54NL

PB55NL

STEP 2
EXPB54NL
(1) REMOVE PULL BOX

STEP 2
(2) 3-INCH NONMETALLIC CONDUITS
STEP 3
RENSTALL SALVAGED FOC TO VILLAGE OF WEST MILWAUKEE
VILLAGE HALL,
INSTALL NEW 6-COUNT FOC (S-F) TO EX-AVMS-40-0002, AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

STEP 1
SALVAGE EXISTING FOCS TO VILLAGE OF WEST MILWAUKEE
VILLAGE HALL AND EX-AVMS-40-0002
STEP 3
RENSTALL SALVAGED FOC TO VILLAGE OF WEST MILWAUKEE VILLAGE HALL,
INSTALL NEW 6-COUNT FOC (S-F) TO EX-AVMS-40-0002, AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

STEP 1
REMOVE AND DISPOSE OF EXISTING FOC TO EX-AVMS-40-0002
STEP 3
INSTALL NEW 6-COUNT FOC (S-F) TO EX-AVMS-40-0002 AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

HWY 59 / W. NATIONAL AVE.

MILLER PARK WAY

STEP 2
CONNECT PROPOSED CONDUITS
TO EXISTING CONDUITS

EXPB53NL

EXPB46MK

STEP 1
REMOVE AND SALVAGE EXISTING FOC TO VILLAGE OF WEST MILWAUKEE
REMOVE AND DISPOSE OF EXISTING FOC TO EX-AVMS-40-0002
STEP 3
RENSTALL SALVAGED FOC TO VILLAGE OF WEST MILWAUKEE VILLAGE HALL,
INSTALL NEW 6-COUNT FOC (S-F) TO EX-AVMS-40-0002, AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

EXPB52NL
PROTECT AND STORE SALVAGED FOC TO
VILLAGE OF WEST MILWAUKEE VILLAGE HALL
UNTIL CONDUIT ADJUSTMENTS ARE COMPLETED.
STORE SALVAGED CABLE IN FIELD CABINET (S-F)
PLACED OVER EXPB52NL.

EX-CB-CCTV-40-0098 CALL-OUTS
STEP 1
EX-CB-CCTV-40-0098
DISCONNECT EXISTING FOC TO EX-AVMS-40-0002 FROM EXISTING F.O. TERMINATION PANEL
EX-CB-CCTV-40-0098 - EXPB57NL
REMOVE AND DISPOSE OF EXISTING FOC TO EX-AVMS-40-0002
STEP 3
EX-CB-CCTV-40-0098
RETERMINATE REINSTALLED FOC TO EX-AVMS-40-0002 IN EXISTING F.O. TERMINATION PANEL
(6) F.O. TERMINATIONS
EX-CB-CCTV-40-0098 - EXPB57NL
INSTALL NEW 6-COUNT FOC (S-F) TO EX-AVMS-40-0002 AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

MATCH LINE 44+00

PROJECT NO: 2410-47-70	HWY: HWY 59	COUNTY: MILWAUKEE	FTMS DESIGN SHEETS	SHEET 41	E

FILE NAME : C:\USERS\PKUTZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\DSGN\EDGELINE\FTMS\24104770_NAT-AVE_FTMS.DWG
LAYOUT NAME - 03
PLOT DATE : 10/17/2024 1:42 PM
PLOT BY : PAUL KUTZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

MATCH LINE 44+00

STEP 1
REMOVE AND DISPOSE OF EXISTING FOC TO EX-AVMS-40-0002
(ABANDON CONDUIT)

EXPB44MK
(1) REMOVE PULL BOX

STEP 1
REMOVE AND DISPOSE OF EXISTING FOC TO EX-AVMS-40-0002
STEP 3
INSTALL NEW 6-COUNT FOC (S-F) TO EX-AVMS-40-0002 AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

PB44MK
INTERCEPT EXISTING CONDUIT
WITH PROPOSED PULL BOX

STEP 2
(1) 3-INCH NONMETALLIC CONDUIT
STEP 3
NEW 6-COUNT FOC (S-F) TO EX-AVMS-40-0002 AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

PB43MK
INTERCEPT EXISTING CONDUIT
WITH PROPOSED PULL BOX

MILLER PARK WAY

STEP 1
REMOVE AND DISPOSE OF EXISTING FOC TO EX-AVMS-40-0002
STEP 3
INSTALL NEW 6-COUNT FOC (S-F) TO EX-AVMS-40-0002 AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

MH

MH

N

MATCH LINE 40+50

PROJECT NO: 2410-47-70	HWY: HWY 59	COUNTY: MILWAUKEE	FTMS DESIGN SHEETS	SHEET 42	E

FILE NAME : C:\USERS\PKUTZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\DSGN\EDGELINE\FTMS\24104770_NAT-AVE_FTMS.DWG
LAYOUT NAME - 02

PLOT DATE : 10/17/2024 1:43 PM PLOT BY : PAUL KUTZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

MATCH LINE 40+50

N

SS

SS

WV

WV

SAN

SAN

MH

MILLER PARK WAY

EXPB38MK

STEP 1
REMOVE AND DISPOSE OF EXISTING FOC TO EX-AVMS-40-0002
STEP 3
INSTALL NEW 6-COUNT FOC (S-F) TO EX-AVMS-40-0002 AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

EX-AVMS-40-0002
STEP 1
DISCONNECT EXISTING FOC TO EX-AVMS-40-0002
FROM EXISTING F.O. TERMINATION PANEL AND
(1) INSTALL CELLULAR MODEM (S-F) FOR
COMMUNICATIONS UNTIL FIBER OPTIC COMMUNICATIONS
IS RE-ESTABLISHED
STEP 3
RETERMINATE REINSTALLED FOC TO EX-AVMS-40-0002 IN EXISTING F.O. TERMINATION PANEL
(6) F.O. TERMINATIONS
STEP 4
(1) REMOVE CELLULAR MODEM

STEP 1
REMOVE AND DISPOSE OF EXISTING FOC TO EX-AVMS-40-0002
STEP 3
INSTALL NEW 6-COUNT FOC (S-F) TO EX-AVMS-40-0002 AND
(1) NO. 10 AWG TRAFFIC SIGNAL WIRE

EXPB34MK

EXPB35MK

PROJECT NO: 2410-47-70	HWY: HWY 59	COUNTY: MILWAUKEE	FTMS DESIGN SHEETS	SHEET 43	E

2

2

N

STH 175 (BREWERS BOULEVARD)

48+00

47+00

REMOVING CONCRETE BASES

R/L NL

56+00

57+00

58+00

59+00

60+00

61+00

STH 59 (NATIONAL AVENUE)

R/L MK

46+00

45+00

MILLER PARK WAY

MP

POST

U/C

MH

FLAG

GATE

SS

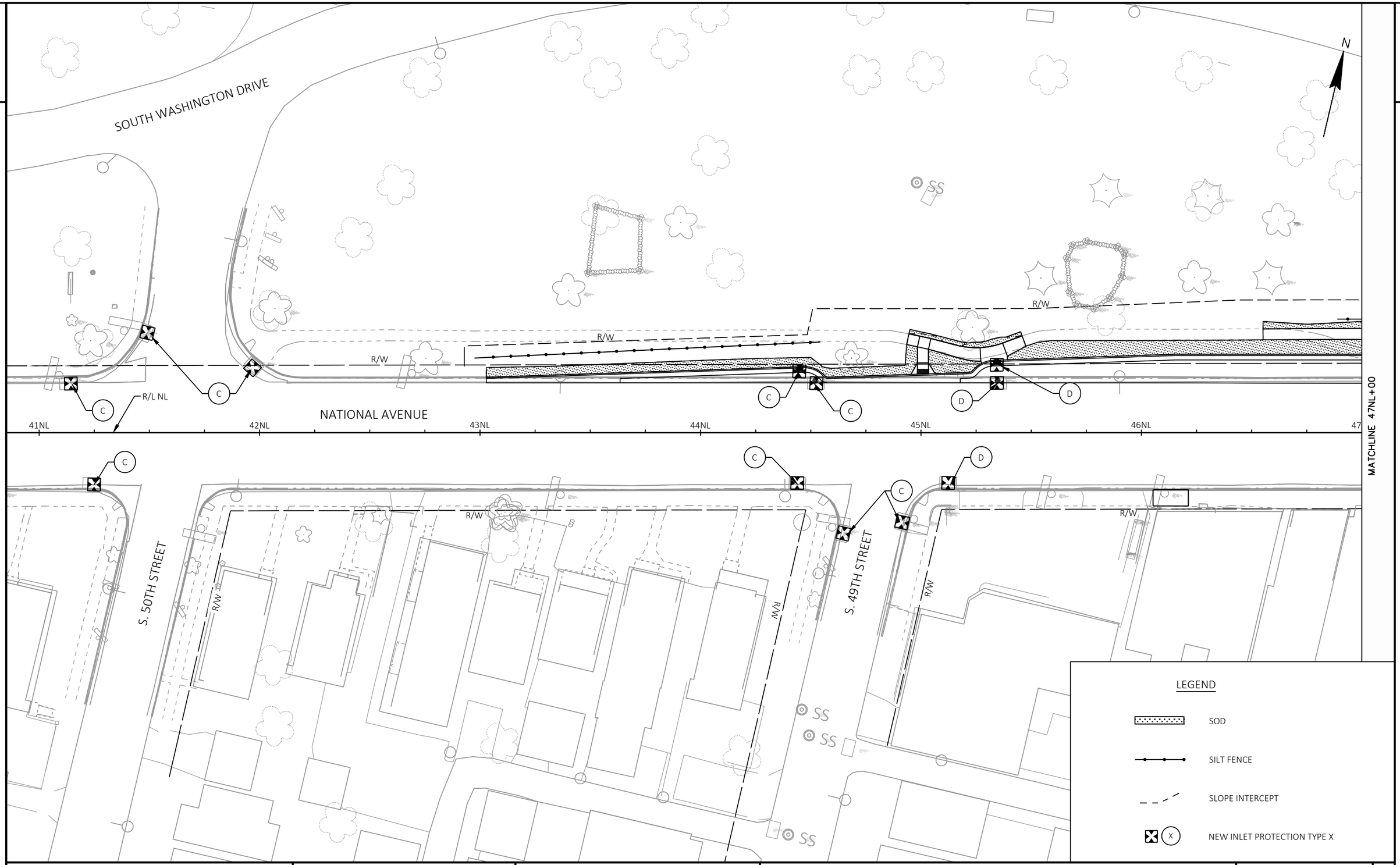
W

NOTE:
- DISCONNECT AND ABANDON CONDUIT PRIOR TO BASE REMOVAL.
  DISCONNECT INCIDENTAL TO REMOVING CONCRETE BASES.
- CONTACT WISDOT EFU IN ADVANCE OF REMOVALS FOR REMOVAL OF EQUIPEMENT ON EACH BASE

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	RAMP GATE REMOVAL	SHEET 44	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-021501-FM.DWG
LAYOUT NAME - 021501

PLOT DATE : 11/18/2024 3:17 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 45	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-022001-EC.DWG
LAYOUT NAME - 01-NL-01
PLOT DATE : 1/28/2025 8:57 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

N

SOUTH WASHINGTON DRIVE

GENERAL MITCHELL BOULEVARD

MH SS

SS

TLE

TLE

R/W

R/W

R/W

C

C

C

D

C

C

C

MATCHLINE 47NL+00

MATCHLINE 53NL+00

NL

48NL

49NL

50NL

51NL

52NL

53

R/L NL

NATIONAL AVENUE

R/W

POST

R/W

R/W

R/W

R/W

S. 48TH STREET

S. 47TH STREET

SS

SS

SS

LEGEND

SOD

SILT FENCE

SLOPE INTERCEPT

X NEW INLET PROTECTION TYPE X

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 46	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-022001-EC.DWG
LAYOUT NAME - 01-NL-02
PLOT DATE : 1/28/2025 9:01 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

MATCHLINE 53NL+00

MATCHLINE 57NL+00

R/W

R/L NL

NATIONAL AVENUE

54NL

55NL

56NL

57

C

SS

R/W

U/C

LEGEND

SOD

SILT FENCE

SLOPE INTERCEPT

X NEW INLET PROTECTION TYPE X

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 47	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-022001-EC.DWG
LAYOUT NAME - 01-NL-03

PLOT DATE : 1/13/2025 1:54 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

MH

MH

MH

R/W

C

C

C

C

C

C

R/L MK

41MK

42MK

43MK

44MK

45

MILLER PARK WAY

MATCHLINE 45MK+00

R/W

N

LEGEND

SOD

SILT FENCE

SLOPE INTERCEPT

X NEW INLET PROTECTION TYPE X

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 48	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-022001-EC.DWG
LAYOUT NAME - 02-MK-01

PLOT DATE : 1/13/2025 2:04 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

MATCHLINE 57NL+00

NATIONAL AVENUE

58NL

59NL

60NL

R/W

R/L NL

MATCHLINE 45MK+00

46MK

47MK

48MK

49MK

50MK

51MK

BREWERS BOULEVARD

R/L MK

MH

SS

C

B

N

LEGEND

SOD

SILT FENCE

SLOPE INTERCEPT

NEW INLET PROTECTION TYPE X

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	EROSION CONTROL	SHEET 49	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-022001-EC.DWG
LAYOUT NAME - 02-MK-02

PLOT DATE : 3/17/2025 9:07 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

GENERAL DRAINAGE NOTES

LOCATION OF STRUCTURES REFER TO CENTER OF STRUCTURE OR AS NOTED ON PLAN.

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

UTILITY INFORMATION SHOWN ON THE PLANS IS APPROXIMATE. LOCATIONS SHOWN ARE TAKEN FROM EXISTING RECORDS AND BEST INFORMATION AVAILABLE FROM EXISTING PLANS. IT IS EXPECTED THAT THERE MAY BE DISCREPANCIES AND OMISSIONS IN THE LOCATION OF UTILITIES AND STRUCTURES SHOWN. VERIFY ALL LOCATIONS IN THE FIELD.

COORDINATE WITH DIGGERS HOTLINE TO FIELD LOCATE UTILITIES. SHEETING SHALL NOT GO THROUGH UTILITIES. ANY UTILITIES DAMAGED DUE TO CONTRACTOR ACTIVITIES SHALL BE REPAIRED AT CONTRACTOR'S EXPENSE TO THE COMPLETE SATISFACTION OF THE UTILITY FACILITY.

VERIFY THE EXISTING DRAINAGE SYSTEM CONNECTION LOCATIONS AND ELEVATIONS PRIOR TO ORDERING DRAINAGE STRUCTURES AND PIPES. NOTIFY THE ENGINEER OF ANY DEVIATIONS FROM THE INFORMATION SHOWN ON THE PLANS PRIOR TO INSTALLING THE PROPOSED STORM SEWER.

PROVIDE TEMPORARY POSITIVE DRAINAGE THROUGHOUT THE PROJECT DURING ALL PROJECT STAGES. PROVIDING TEMPORARY POSITIVE DRAINAGE IS INCIDENTAL TO CONSTRUCTION.

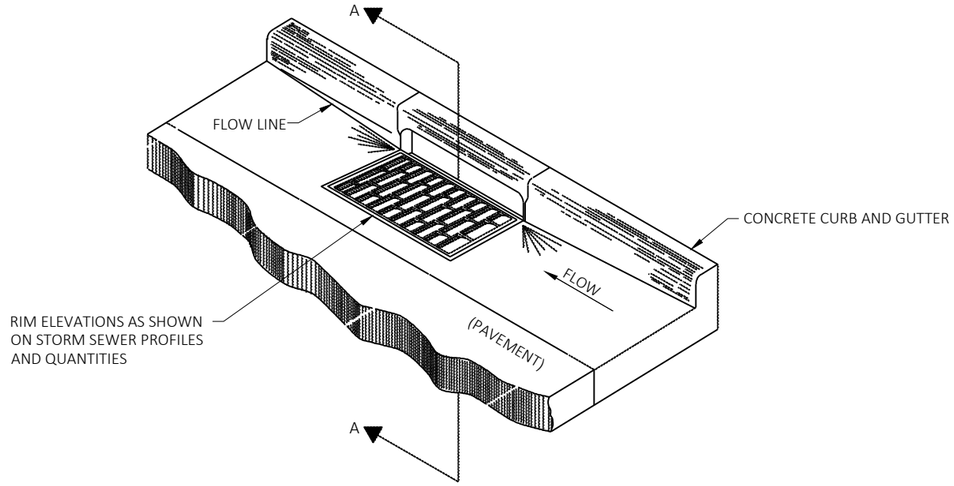
SUPPORTING UTILITIES DURING DRAINAGE CONSTRUCTION IS INCIDENTAL TO DRAINAGE PIPE AND/OR DRAINAGE STRUCTURE.

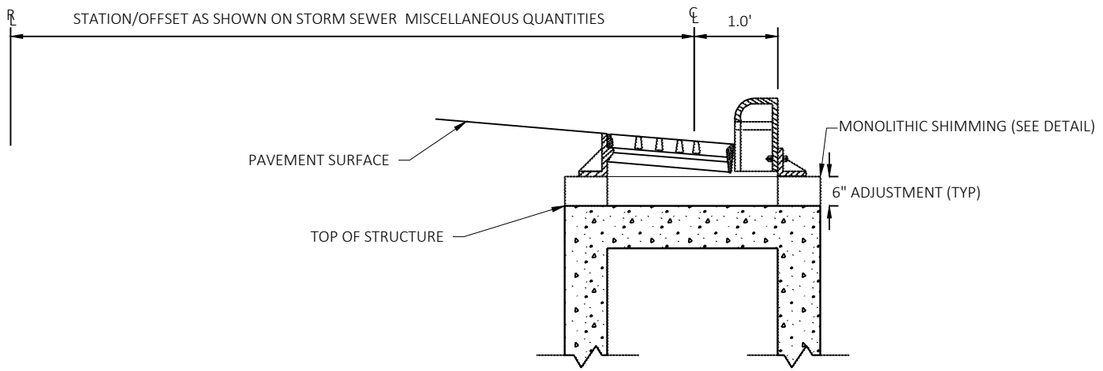
STORM SEWER LEGEND

E##	EXISTING DRAINAGE STRUCTURE
###	PROPOSED DRAINAGE STRUCTURE
●	PROPOSED MANHOLE
■	PROPOSED INLET
——►	PROPOSED STORM SEWER/CULVERT PIPE PLAN VIEW

2

2





SECTION A-A

STORM SEWER STRUCTURES

STATION/OFFSET LOCATION AND RIM ELEV

REPLACES STANDARD DETAIL 08D01-23B - DETAIL OF CURB AND GUTTER AT INLETS

NOTES

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

EXCAVATING, PREPARING THE FOUNDATION AND SHIMMING ARE INCIDENTAL TO THE COVER.

MONOLITHIC SHIM CONCRETE, CONCRETE PLACEMENT AND FINISHING ARE INCIDENTAL TO THE CONCRETE CURB & GUTTER BID ITEM.

PREVENT CONCRETE AND OTHER DEBRIS FROM FALLING INTO STRUCTURE.

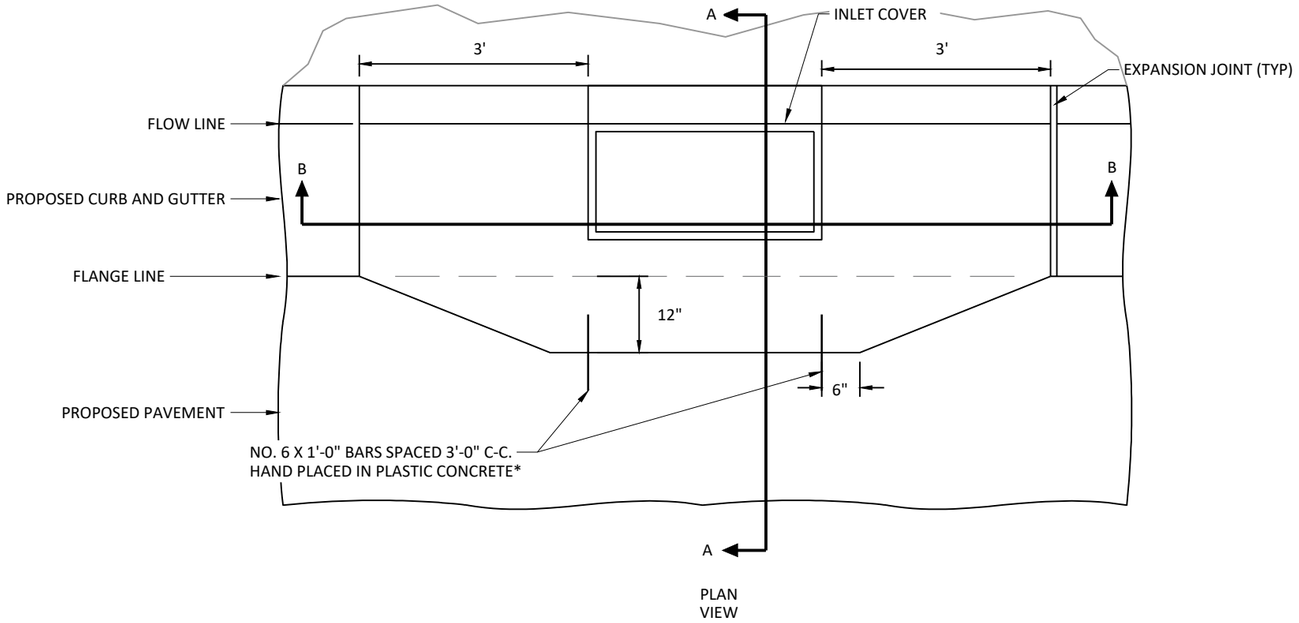
REFER TO PLAN DETAILS AND MISCELLANEOUS QUANTITIES FOR ADDITIONAL INFORMATION.

* TIE BARS ARE INTENDED TO BE PLACED IN PLASTIC CONCRETE. NO ADDITIONAL PAYMENT WILL BE MADE FOR DRILLING TIE BARS IF THE CONTRACTOR ELECTS TO DRILL BARS AFTER CONCRETE HAS HARDENED.

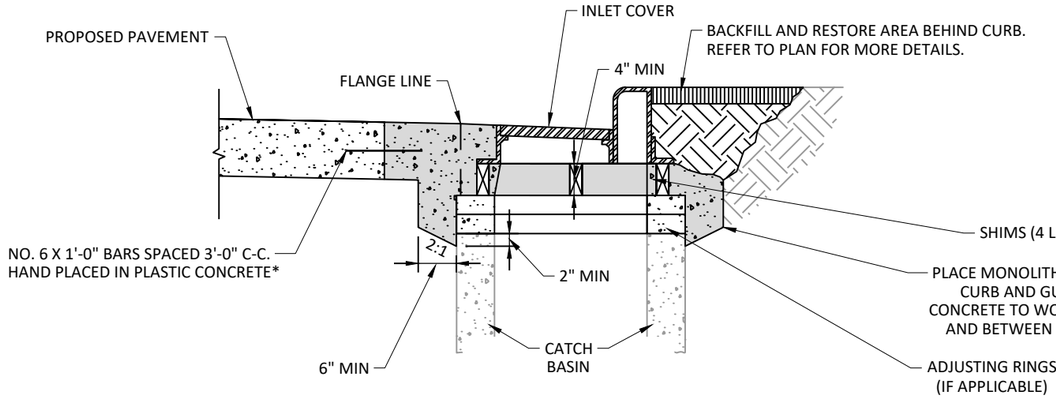


MONOLITHIC CONCRETE

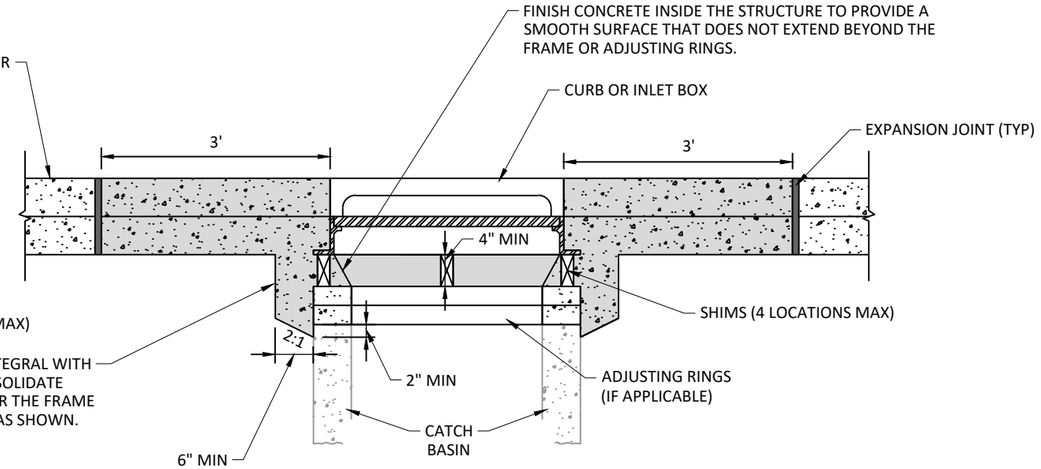
CONCRETE



PLAN VIEW



SECTION A-A

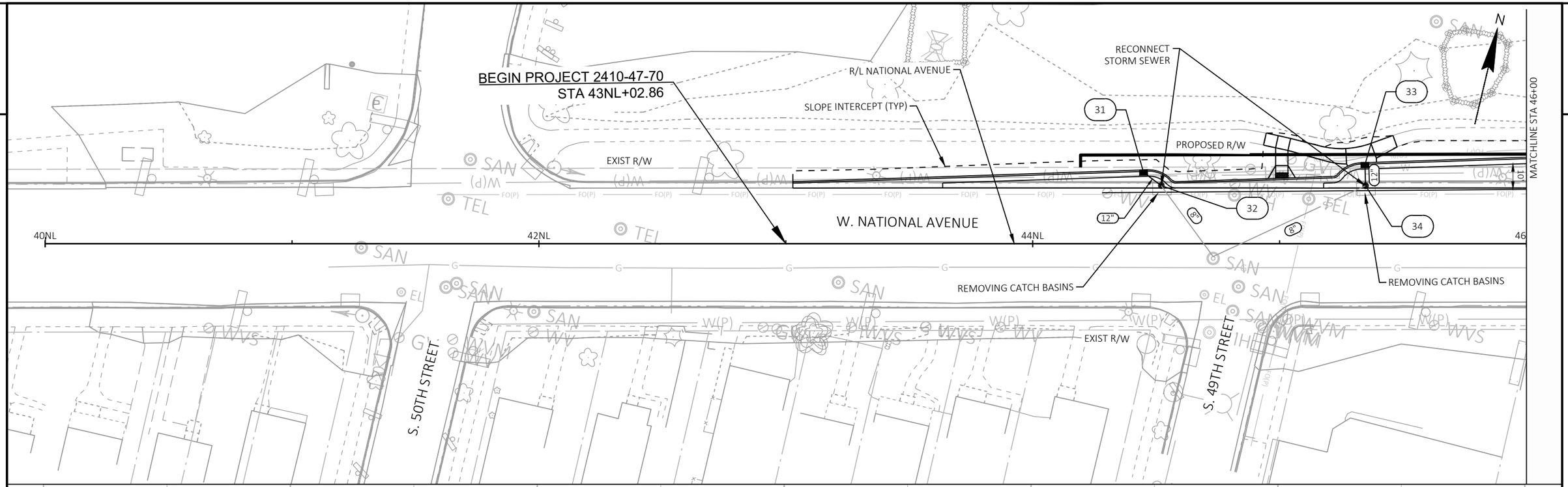


SECTION B-B

CATCH BASINS - MONOLITHIC SHIM

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STORM SEWER - CONSTRUCTION DETAILS	SHEET 52	E

2





PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE W NATIONAL AVENUE	SHEET 53	E

FILE NAME : C:\USERS\KHABIBUR\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-022501_40 SCALE-SS.DWG
LAYOUT NAME - 01-NL
PLOT DATE : 3/14/2025 9:25 AM
PLOT BY : KARIMULLAH HABIBUR
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

2

R/L NATIONAL AVENUE
SLOPE INTERCEPT (TYP)
41
44A
44
45
TLE
PLE
REMOVING CATCH BASINS
PROPOSED R/W
12"
12"
12"
REMOVING CATCH BASINS
REMOVING STORM SEWER
RECONNECT STORM SEWER
W. NATIONAL AVENUE
GENERAL MITCHELL BOULEVARD
MATCHLINE STA 52+00
48NL
50NL
46
EXIST R/W
ADJUSTING MANHOLE COVERS
S. 48TH STREET
S. 47TH STREET
MATCHLINE STA 46+00

41
RIM 646.39
12" IE 643.27 (E)
44
RIM 646.60
12" IE 642.86 (W)
12" IE 642.86 (NW)
44A
CONCRETE COLLAR
12" IE 642.81 (SE)
12" IE 642.81 (NW)
EXISTING SSPRC 12-INCH
SSPRC CLASS IV 12-INCH @ 1.00%
SSPRC CLASS IV 12-INCH @ 1.00%

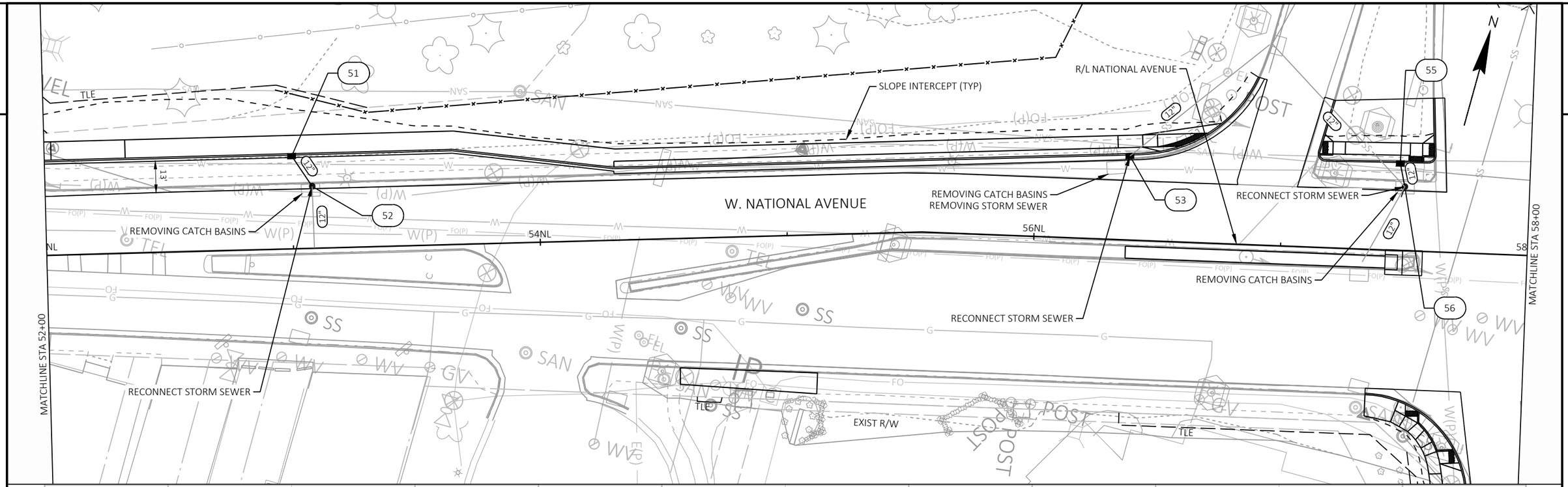
45
RIM 646.55
12" IE 642.60 (SW)
46
RIM 646.67
12" IE 642.52 (NE)
8" IE 642.12 (SW)
EXISTING 8-INCH DUCTILE STEEL PIPE
SSPRC CLASS IV 12-INCH @ 1.00%
EXISTING 24" WATER MAIN

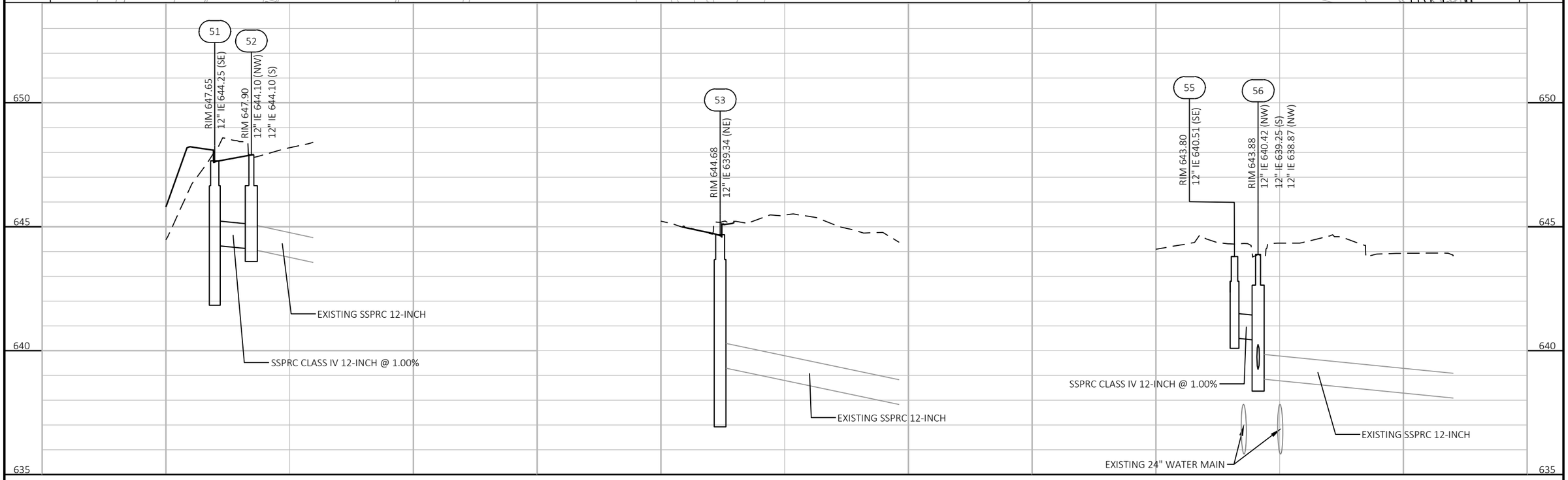
650
645
640
635

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE W NATIONAL AVENUE	SHEET 54	E

FILE NAME : C:\USERS\KHABIBUR\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-022501_40 SCALE-SS.DWG
LAYOUT NAME - 02-NL
PLOT DATE : 3/14/2025 9:25 AM
PLOT BY : KARIMULLAH HABIBUR
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

2

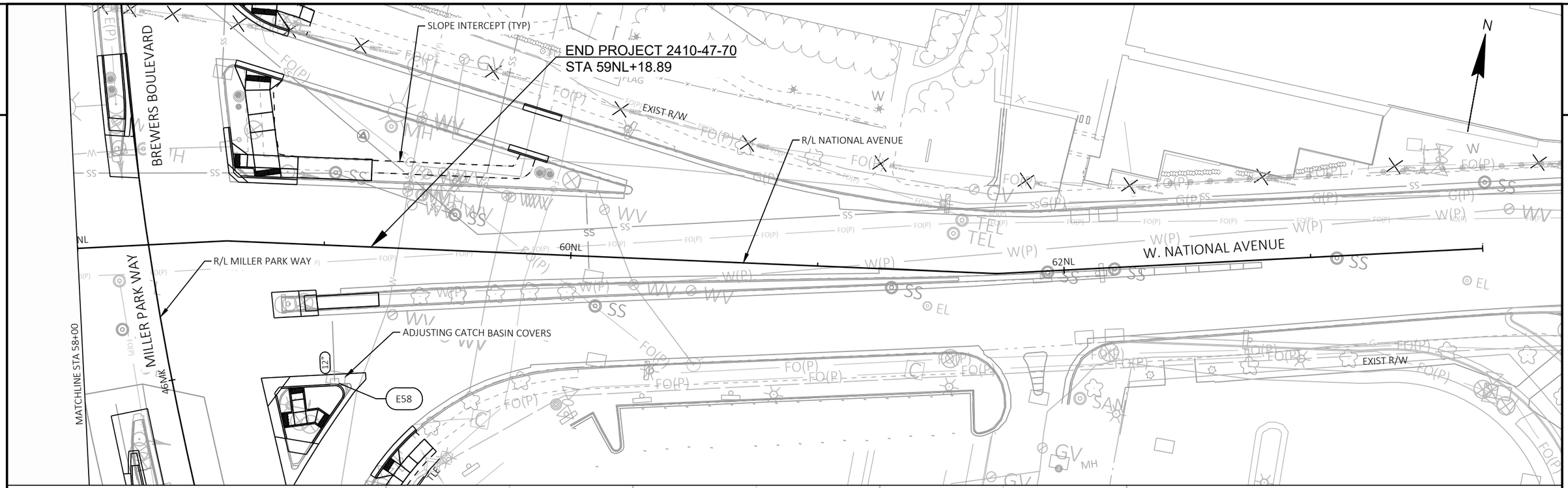


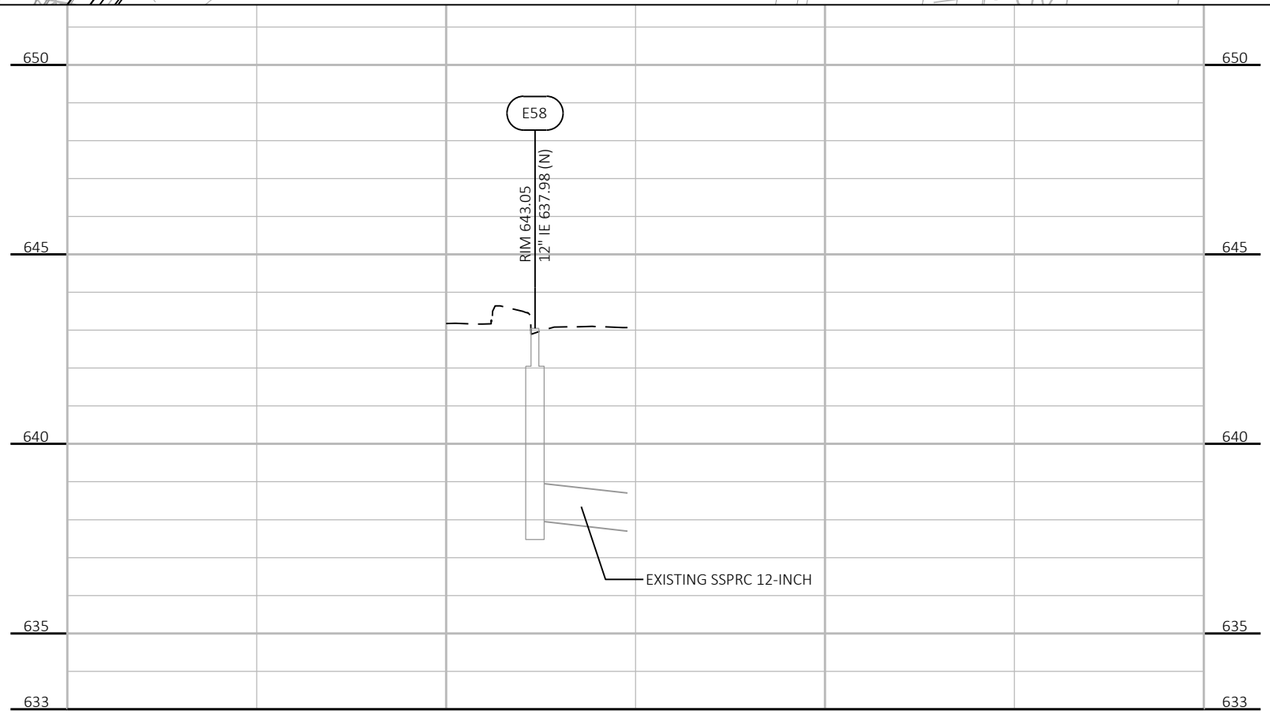


PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE W NATIONAL AVENUE	SHEET 55	E

FILE NAME : C:\USERS\KHABIBUR\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-022501_40 SCALE-SS.DWG
LAYOUT NAME - 03-NL
PLOT DATE : 3/14/2025 9:26 AM
PLOT BY : KARIMULLAH HABIBUR
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

2

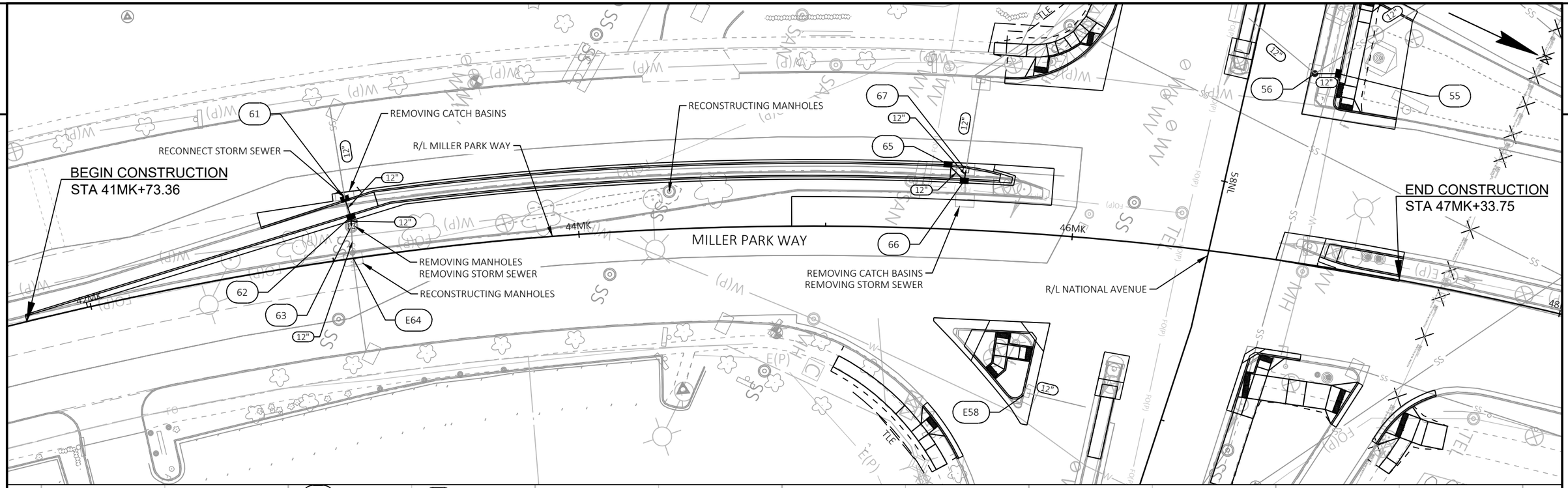




PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE W NATIONAL AVENUE	SHEET 56	E

FILE NAME : C:\USERS\KHABIBUR\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-022501_40 SCALE-SS.DWG
LAYOUT NAME - 04-NL
PLOT DATE : 3/14/2025 9:26 AM
PLOT BY : KARIMULLAH HABIBUR
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

2





PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STORM SEWER PLAN AND PROFILE MILLER PARK WAY	SHEET 57	E

FILE NAME : C:\USERS\KHABIBUR\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-022501_40 SCALE-SS.DWG
LAYOUT NAME - 05-MK
PLOT DATE : 3/14/2025 9:27 AM
PLOT BY : KARIMULLAH HABIBUR
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 41

2

2

N

MATCH LINE 47+00

ADJUSTING GAS VALVES
(WORK BY OTHERS)

ADJUSTING WATER VALVE
BOXES - MILWAUKEE

STH 59 (NATIONAL AVENUE)

R/L NL

WATER MAIN PROTECTION

41+00 42+00 43+00 44+00 45+00 46+00 47+00

50TH STREET

49TH STREET

PARKING LOT

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	UTILITY PLAN	SHEET 58	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023001_UP.DWG
LAYOUT NAME - 023001

PLOT DATE : 1/29/2025 8:07 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

MATCH LINE 47+00

MATCH LINE 53+00

2

N

WATER MAIN PROTECTION

STH 59 (NATIONAL AVENUE)

47+00

48+00

49+00

R/L NL

50+00

51+00

52+00

53+00

ADJUSTING GAS VALVES
(WORK BY OTHERS)

ADJUSTING WATER MANHOLES

ADJUSTING WATER VALVE
BOXES - WEST MILWAUKEE

ADJUSTING GAS VALVES
(WORK BY OTHERS)

48TH STREET

47TH STREET

SIGN

SIGN

SIGN

PARKING LOT

PARKING BUMPERS

MATCH LINE 47+00

MATCH LINE 53+00

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	UTILITY PLAN	SHEET 59	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023001_UP.DWG
LAYOUT NAME - 023002
PLOT DATE : 1/29/2025 8:09 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

MATCH LINE 53+00

WATER MAIN PROTECTION

ADJUSTING WATER VALVE BOXES - MILWAUKEE

STH 175 (BREWERS BLVD)

48+00

R/L NL

53+00

54+00

55+00

56+00

57+00

58+00

59+00

STH 59 (NATIONAL AVENUE)

ADJUSTING SANITARY MANHOLE (WORK BY OTHERS)

46+00

ADJUSTING WATER VALVE BOXES - WEST MILWAUKEE

R/L MK

RECONSTRUCTING MANHOLES
INTERNAL SANITARY MANHOLE SEAL
MANHOLE COVERS TYPE J

NOTE: RECONSTRUCT MANHOLE SO COVER IS NOT IN PROPOSED CURB

45+00

MILLER PARK WAY

MATCH LINE 53+00

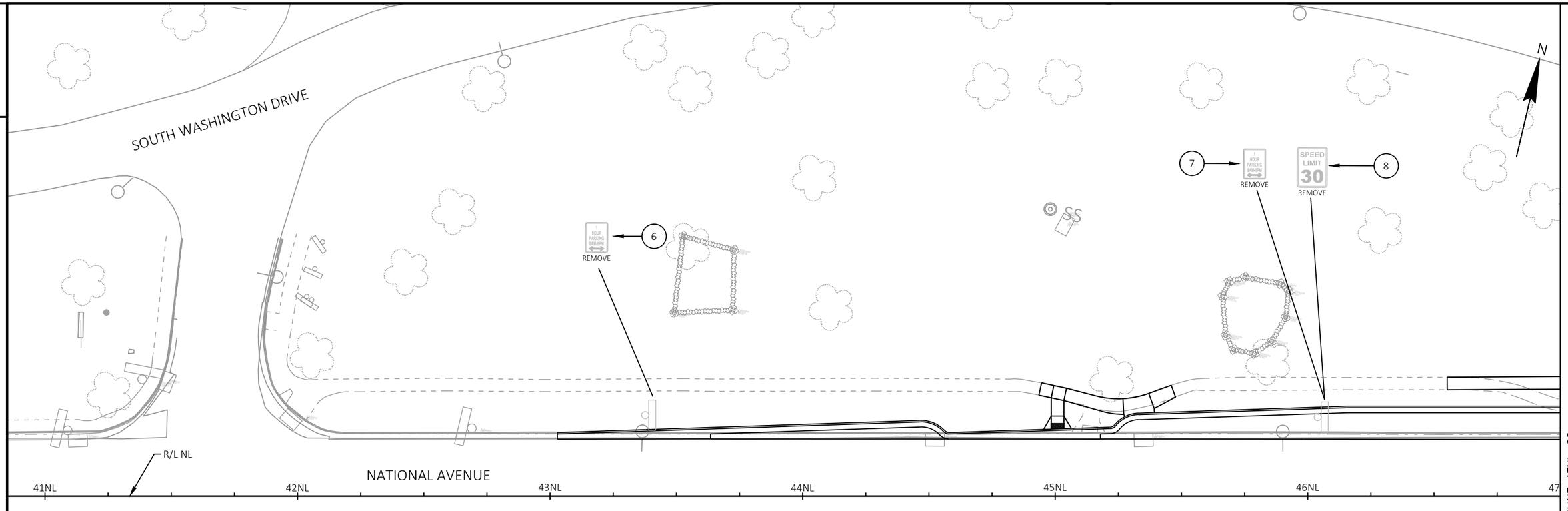
2

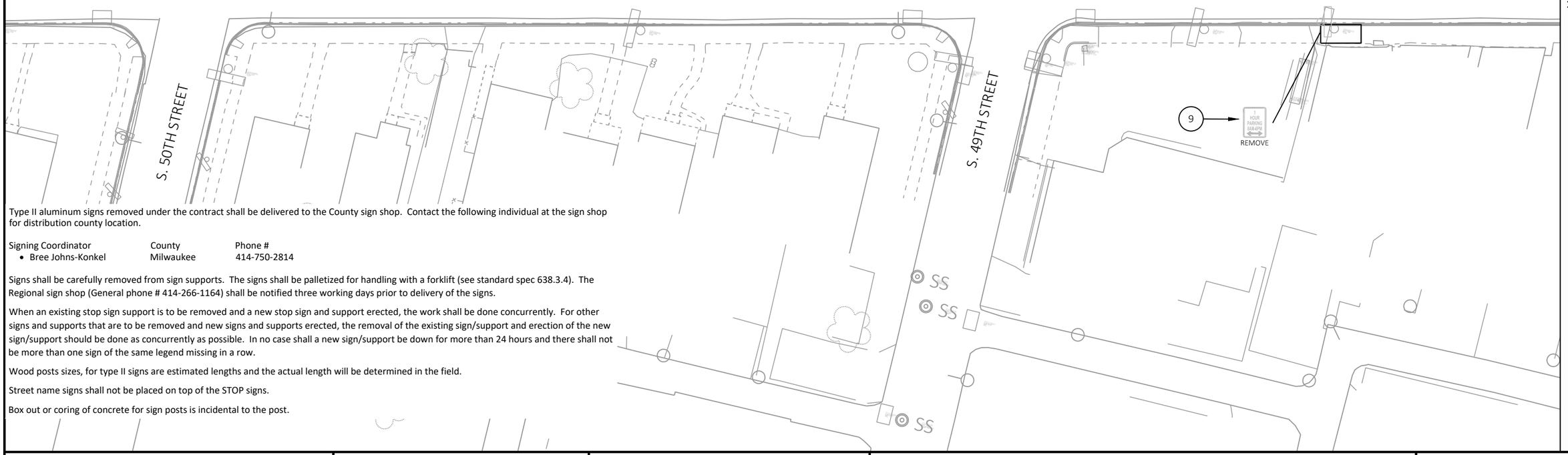
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	UTILITY PLAN	SHEET 60	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023001_UP.DWG
LAYOUT NAME - 023003

PLOT DATE : 3/17/2025 9:26 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42





Type II aluminum signs removed under the contract shall be delivered to the County sign shop. Contact the following individual at the sign shop for distribution county location.

Signing Coordinator	County	Phone #
• Bree Johns-Konkel	Milwaukee	414-750-2814

Signs shall be carefully removed from sign supports. The signs shall be palletized for handling with a forklift (see standard spec 638.3.4). The Regional sign shop (General phone # 414-266-1164) shall be notified three working days prior to delivery of the signs.

When an existing stop sign support is to be removed and a new stop sign and support erected, the work shall be done concurrently. For other signs and supports that are to be removed and new signs and supports erected, the removal of the existing sign/support and erection of the new sign/support should be done as concurrently as possible. In no case shall a new sign/support be down for more than 24 hours and there shall not be more than one sign of the same legend missing in a row.

Wood posts sizes, for type II signs are estimated lengths and the actual length will be determined in the field.

Street name signs shall not be placed on top of the STOP signs.

Box out or coring of concrete for sign posts is incidental to the post.

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 61	E

2

SOUTH WASHINGTON DRIVE

GENERAL MITCHELL BOULEVARD

NATIONAL AVENUE

MATCHLINE 47NL+00

MATCHLINE 53NL+00

47NL 48NL 49NL 50NL 51NL 52NL 53NL

R/L NL

S. 48TH STREET

S. 47TH STREET

W NATIONAL Ave

S 47TH St

S 48TH St

VILLAGE OF WEST MILWAUKEE
VILLAGE HALL
POLICE DEPT
COMMUNITY CENTRE
WELCOMES YOU

10 REMOVE
11 DO NOT ENTER REMOVE
12 STOP REMOVE
13 DO NOT ENTER REMOVE
14 REMOVE
15 REMOVE
16 STOP REMOVE
17 REMOVE
18 REMOVE
* 19 S 47TH St
* 20 W NATIONAL Ave
21 REMOVE
22 REMOVE
23 STOP REMOVE
24 REMOVE
25 STOP REMOVE
26 TO INTERSTATE 94 NORTH 175 REMOVE
27 REMOVE
28 REMOVE
29 REMOVE
30 ONE WAY REMOVE
31 STOP REMOVE
32 DO NOT ENTER REMOVE
33 ONE WAY REMOVE
34 REMOVE
35 DO NOT ENTER REMOVE
36 STOP REMOVE
37 REMOVE
38 REMOVE
* 39 S 48TH St
* 40 W NATIONAL Ave
41 REMOVE
42 REMOVE
43 STOP REMOVE
44 REMOVE
45 REMOVE
47 REMOVE
48 REMOVE
* 49

NOTE:
* MOVING SIGNS TYPE II

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 62	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023200-PSR.DWG
LAYOUT NAME - 01-NL-02
PLOT DATE : 1/29/2025 4:06 PM
PLOT BY : KATHRYN FLANAGAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

MATCHLINE 53NL+00

R/L NL

NATIONAL AVENUE

54NL

55NL

56NL

57NL

58NL

59NL

BREWERS BOULEVARD

48MK

47MK

46MK

45MK

MILLER PARK WAY

R/L MK

N

Miller Park Way

W National Ave

U/C

U/C

50 REMOVE

51 NO PARKING ANY TIME REMOVE

52 NO PARKING ANY TIME REMOVE

53 WEST 59 REMOVE

54 DO NOT ENTER REMOVE

55 REMOVE

56 59 REMOVE

57 WEST REMOVE

58 NO TURN ON RED FROM LEFT LANE REMOVE

59 DO NOT ENTER REMOVE

60 DO NOT ENTER REMOVE

* 61

62 STOP REMOVE

63 DO NOT ENTER REMOVE

64 REMOVE

65 NO PARKING ANY TIME REMOVE

66 ONE WAY REMOVE

67 NO TURN ON RED FROM LEFT LANE REMOVE

68 STOP REMOVE

69 REMOVE

70 AHEAD SIGNAL REMOVE

71 LEFT TURN SIGNAL REMOVE

72 REMOVE

73 *

74 REMOVE

75 STOP REMOVE

76 REMOVE

NOTE:
* MOVING SIGNS TYPE II

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 63	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023200-PSR.DWG
LAYOUT NAME - 01-NL-03
PLOT DATE : 1/29/2025 4:13 PM
PLOT BY : KATHRYN FLANAGAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

MH

MH

MH

N

REMOVE WEST EAST REMOVE
REMOVE 59 59 REMOVE
REMOVE REMOVE

77

79

REMOVE WEST NORTH REMOVE
REMOVE 59 175 REMOVE
REMOVE REMOVE

SPEED LIMIT 35
REMOVE

78

VILLAGE OF WEST MILWAUKEE NO PARKING 3AM TO 6AM ON ANY STREET WITHOUT POLICE PERMIT NIGHT PARKING AND SNOW EMERGENCY REGULATIONS ARE IN EFFECT IN THIS VILLAGE

80 *

107

SPEED LIMIT 35
NO PARKING ANY TIME
REMOVE

108

R/L MK

41MK

42MK

43MK

44MK

45

MILLER PARK WAY

MATCHLINE 45MK+00

NOTE:
* MOVING SIGNS TYPE II

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 64	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023200-PSR.DWG
LAYOUT NAME - 02-MK-01

PLOT DATE : 1/29/2025 4:20 PM PLOT BY : KATHRYN FLANAGAN PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

U/C

MP

MH

MH

57NL

NATIONAL AVENUE

58NL

59NL

60NL

82

83

SPEED LIMIT 35 REMOVE

STOP REMOVE

REMOVE

81

84

REMOVE

85

LEFT TURN SIGNAL REMOVE

AHEAD SIGNAL REMOVE

86

87

REMOVE

88

REMOVE

LEFT TURN SIGNAL REMOVE

89

47MK

48MK

49MK

50MK

51MK

BREWERS BOULEVARD

AHEAD SIGNAL REMOVE

90

STOP REMOVE

91

REMOVE

92

R/L NL

R/L MK

MATCHLINE 45MK+00

MILLER PARK WAY

46MK

105

106

REMOVE

REMOVE

104

STOP REMOVE

103 *

Miller Park Way

REMOVE

YIELD REMOVE

102

101

LEFT TURN SIGNAL REMOVE

100

AHEAD SIGNAL REMOVE

REMOVE

97

STOP REMOVE

98

REMOVE

99

REMOVE

96

W National Ave

STOP REMOVE

94

93 *

NOTE:
* MOVING SIGNS TYPE II

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 65	E

2

N

1
2
REMOVE

W GREENFIELD AVENUE

S. 70TH STREET

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 66	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023200-PSR.DWG
LAYOUT NAME - 00-GR--1
PLOT DATE : 1/29/2025 4:31 PM
PLOT BY : KATHRYN FLANAGAN
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

S. 62ND STREET

NATIONAL AVENUE

S. 61ST STREET

3

NO PARKING

REMOVE

4

NO PARKING

REMOVE

5

NO PARKING

REMOVE

W GREENFIELD AVENUE

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	SIGNING REMOVAL PLAN	SHEET 67	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023200-PSR.DWG
LAYOUT NAME - 00-GR-2

PLOT DATE : 1/29/2025 4:35 PM PLOT BY : KATHRYN FLANAGAN PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

N

NATIONAL AVENUE

S. 56TH STREET

BIKE LANE
R3-17
30"X24"
4

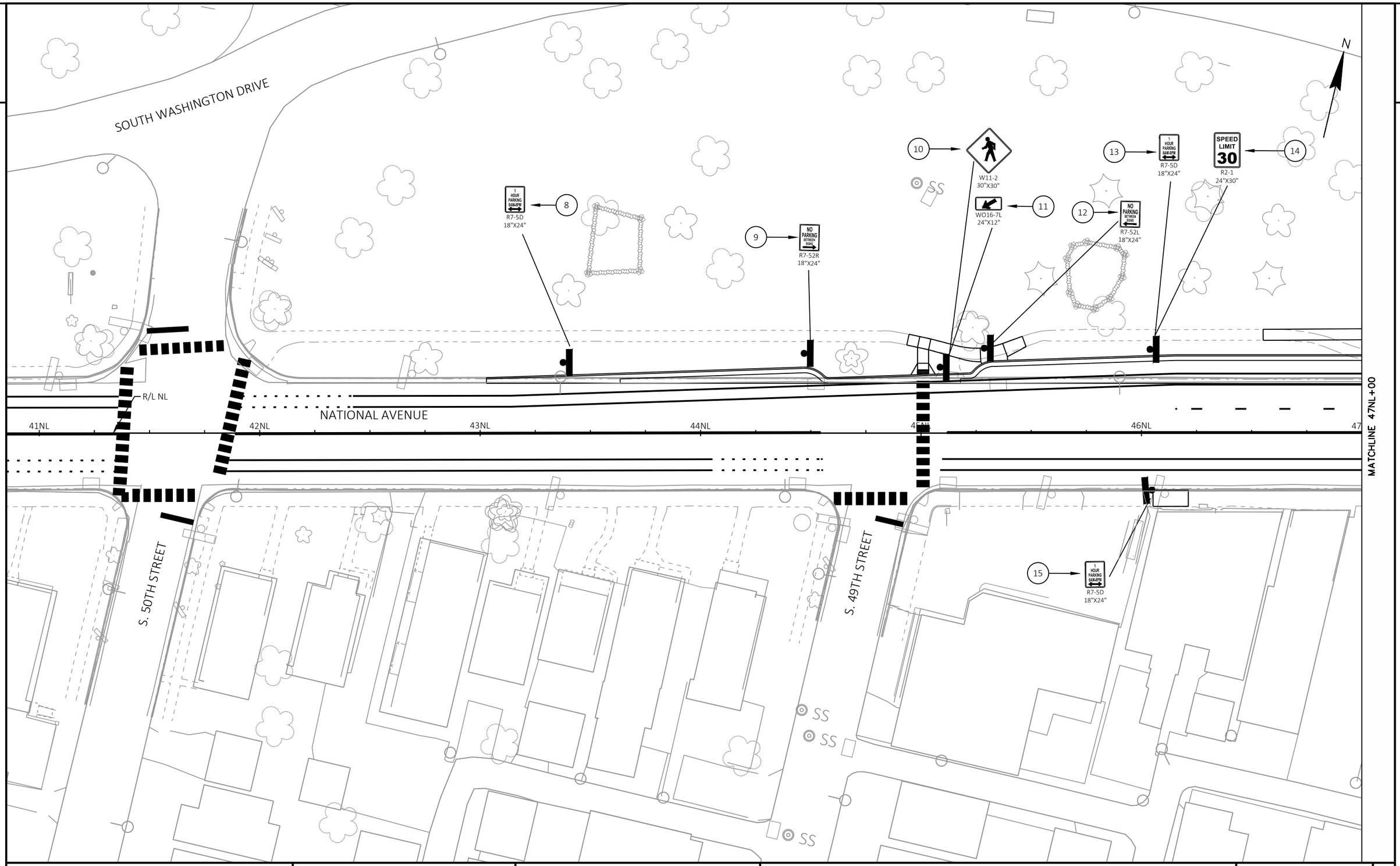
ENDS
R3-17BP
30"X12"
5

BIKE LANE
R3-17
30"X24"
6

AHEAD
R3-17AP
30"X12"
7

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 68	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 01-NL-00
PLOT DATE : 1/30/2025 8:36 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 69	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 01-NL-01
PLOT DATE : 1/30/2025 8:47 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

SOUTH WASHINGTON DRIVE

NATIONAL AVENUE

GENERAL MITCHELL BOULEVARD

S. 48TH STREET

S. 47TH STREET

MATCHLINE 47NL+00

MATCHLINE 53NL+00

47NL

48NL

49NL

50NL

51

52NL

53

19 STOP R1-1F 30"X30" MOUNT ON SIGNAL POLE

16 W4-2R 36"X36"

18 DO NOT ENTER R5-1 30"X30"

17 ONE WAY R6-2L 24"X30"

20 ONE WAY R6-2R 24"X30"

21 DO NOT ENTER R5-1 30"X30"

22 STOP R1-1F 30"X30" MOUNT ON SIGNAL POLE

23 R3-1 24"X24"

24 RIGHT LANE ENDS W9-1R 36"X36"

25 AHEAD W16-9P 24"X12"

26 1 HOUR PARKING 8AM-6PM R7-5D 18"X24"

*28 W National Ave D3-1 VARIESX18"

*27 S 47TH St D3-1 VARIESX18"

29 R3-2 24"X24"

30 STOP R1-1F 30"X30" MOUNT ON SIGNAL POLE

31 RIGHT LANE MUST TURN RIGHT R3-7R 30"X30"

32 STOP R1-1F 30"X30" MOUNT ON SIGNAL POLE

48 R3-2 24"X24"

47 STOP R1-1F 30"X30"

49 R5-2 24"X24"

*50 VILLAGE OF WEST MILWAUKEE
VILLAGE HALL
POLICE DEPT
COMMUNITY CENTRE
WELCOMES YOU

46 STOP R1-1F 30"X30" MOUNT ON SIGNAL POLE

*44 W National Ave D3-1 VARIESX18"

*45 S 48TH St D3-1 VARIESX18"

43 R3-1 24"X24"

42 STOP R1-1F 30"X30" MOUNT ON SIGNAL POLE

41 DO NOT ENTER R5-1 30"X30"

R3-2 24"X24"

40

39 ONE WAY R6-2R 24"X30"

ONE WAY R6-2L 24"X30"

38

37 DO NOT ENTER R5-1 30"X30"

36 STOP R1-1F 30"X30" MOUNT ON SIGNAL POLE

35 1 HOUR PARKING 8AM-6PM R7-5D 18"X24"

34 NO PARKING STAR TO STAR FRIDAY 7-9AM R7-2L

33 TO MB4-5 24"X12"
INTERSTATE 94 M1-1 24"X24"
NORTH M3-1 24"X12"
175 M1-6 24"X24"
MB5-1L 21"X21"
JV2-1

NOTE:
* 638.2102 MOVING SIGNS TYPE II

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 70	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 01-NL-02

PLOT DATE : 1/30/2025 8:58 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

MATCHLINE 53NL+00

NATIONAL AVE

R/L NL

54NL

55NL

56NL

57NL

58NL

59NL

BREWERS BOULEVARD

48MK

47MK

46MK

45MK

R/L MK

51 W6-2 36"X36"

52 BEGIN RIGHT TURN LANE R3-20R 24"X36"

53 NO PARKING ANY TIME R7-1D 18"X24"

54 WEST M3-4 24"X12" / 59 M1-6 24"X24" / J4-1

55 DO NOT ENTER R5-1 36"X36"

56 STOP R1-1F 36"X36"

57 WEST M3-4 24"X12" / 59 M1-6 24"X24" / M6-1 21"X21" / J1-3

58 STOP R1-1F 36"X36"

59 DO NOT ENTER R5-1 36"X36"

60 DO NOT ENTER R5-1 36"X36"

61 * Miller Park Way D3-1 VARIESX18"

62 STOP R1-1F 36"X36"

63 DO NOT ENTER R5-1 36"X36"

64 ONE WAY R6-2L 24"X30"

65 BIKE LANE R3-17 30"X24"

66 NO PARKING ANY TIME R7-1D 18"X24"

67 ONE WAY R6-2R 24"X30"

68 STOP R1-1F 30"X30" MOUNT ON SIGNAL POLE

69 R3-4 24"X24"

70 AHEAD SIGNAL R10-10A 24"X30"

71 LEFT-TURN SIGNAL R10-10L 24"X30"

72 R4-7 24"X30"

73 * W National Ave D3-1 VARIESX18"

74 ONE WAY R6-2L 24"X30"

75 STOP R1-1F 30"X30" MOUNT ON SIGNAL POLE

76 DO NOT ENTER R5-1 36"X36"

77 MAY USE FULL LANE R4-11 30"X30"

78 BIKE LANE R3-17 30"X24"

79 ENDS R3-17BP 30"X12"

U/C

SS

NOTES:
* 638.2102 MOVING SIGNS TYPE II

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 71	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 01-NL-03
PLOT DATE : 1/30/2025 9:09 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

2

N

AG

AG

W

W

W

SS

SS

SS

SS

SS

61NL

62NL

63NL

NATIONAL AVENUE

MH

MH

MAY USE FULL LANE
R4-11
30"X30"

112

BIKE LANE
R3-17
30"X24"

ENDS
R3-17BP
30"X12"

114

115

116

YIELD
R1-2
36"X31"

113

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 72	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 01-NL-04
PLOT DATE : 1/30/2025 9:21 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

MATCHLINE

MATCHLINE

2

N

NATIONAL AVENUE

S. 41ST STREET

BIKE LANE
R3-17
30"X24"

117

AHEAD
R3-17AP
30"X12"

118

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 73	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 01-NL-05

PLOT DATE : 1/30/2025 9:32 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

MATCHLINE

2

N

BIKE LANE
R3-17
30"X24"

119

NATIONAL AVENUE

S. 40TH STREET

BIKE LANE
R3-17
30"X24"

120

ENDS
R3-17BP
30"X12"

121

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 74	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 01-NL-06
PLOT DATE : 1/30/2025 9:43 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

MH

MH

MH

85 *

VILLAGE OF WEST MILWAUKEE NO PARKING 3AM TO 6AM ON ANY STREET WITHOUT POLICE PERMIT NIGHT PARKING AND SNOW EMERGENCY REGULATIONS ARE IN EFFECT IN THIS VILLAGE

81 BEGIN LEFT TURN LANE
R3-20L 24"X36"

82 ONLY ONLY
R3-8LL 36"X30"

83 SPEED LIMIT 35
R2-1 24"X30"

84 M3-4 24"X12" WEST 59 M1-6 24"X24"
M3-1 24"X12" NORTH 175 M1-6 24"X24"
M6-1 21"X21" M6-1 21"X21"
J2-2

86 SPEED LIMIT 35
R2-1 24"X30"

124 NO PARKING ANY TIME
R7-1D 18"X24"

80 M3-4 24"X12" WEST 59 M3-2 24"X12" EAST 59
M1-6 24"X24" M1-6 24"X24"
M5-1L 21"X21" M5-1R 21"X21"
J2-2

R/L MK

41MK

42MK

43MK

44MK

45

MILLER PARK WAY

87 SPEED LIMIT 35
R2-1 24"X30"

R/L

MATCHLINE 45MK+00

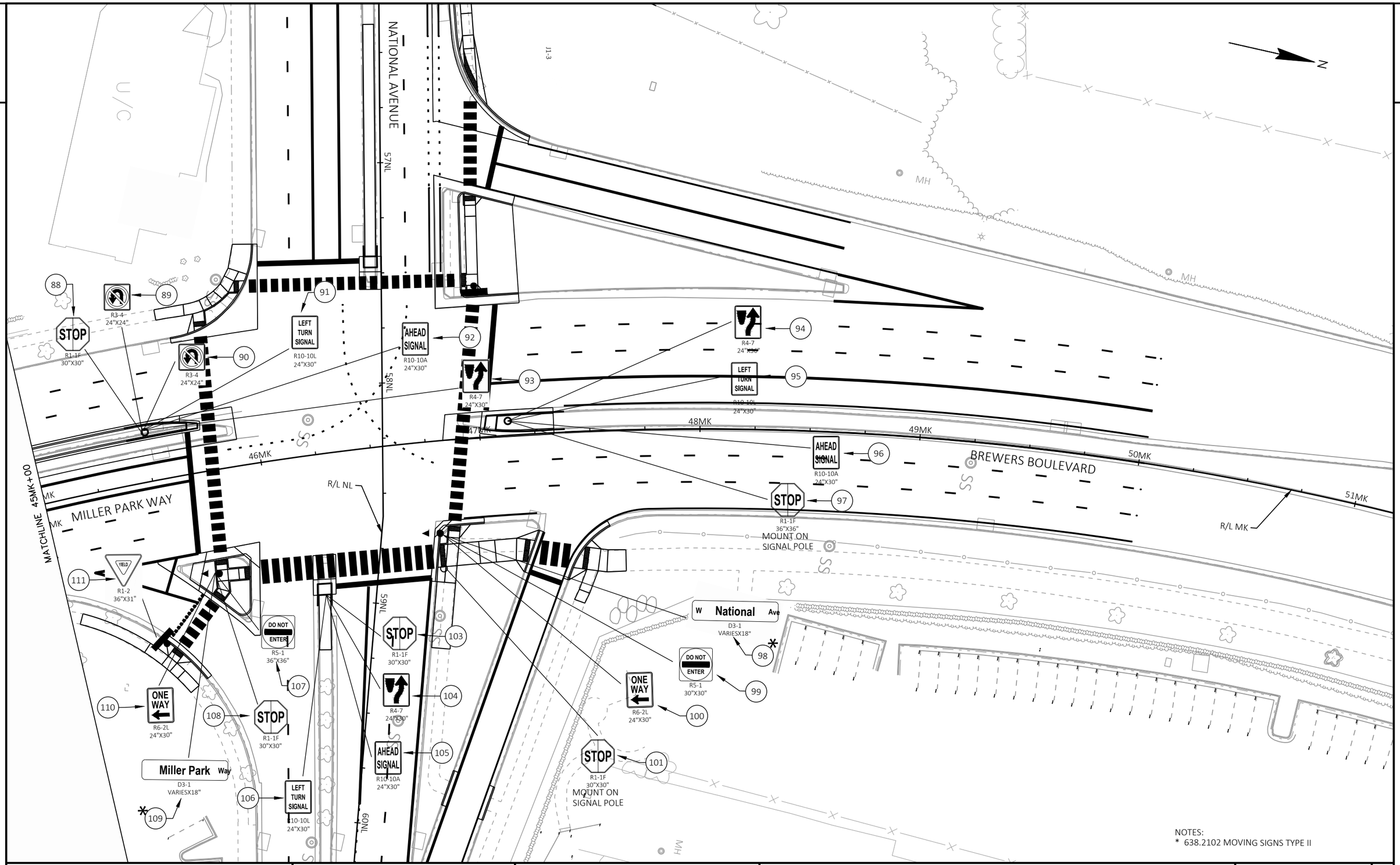
N

NOTES:
* 638.2102 MOVING SIGNS TYPE II

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 75	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 02-MK-01
PLOT DATE : 1/30/2025 9:55 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

2



NOTES:
* 638.2102 MOVING SIGNS TYPE II

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 76	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 02-MK-02
PLOT DATE : 1/30/2025 10:06 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

N

1

W5-52L
12"X36"

2

W5-52L
12"X36"

W GREENFIELD AVENUE

S. 70TH STREET

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 77	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 00-GR

PLOT DATE : 1/30/2025 10:13 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

2

N

NATIONAL AVENUE

S. 61ST STREET

W GREENFIELD AVENUE

SS

SS

SS

SS

SS

SS

SS

3

NO PARKING ANY TIME

R7-1D
18"X24"

122

NO PARKING ANY TIME

R7-1L
18"X24"

NO PARKING 10 PM TO 11 AM

R7-2R

123

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PERMANENT SIGNING	SHEET 78	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-023201-PS.DWG
LAYOUT NAME - 00-GR -02

PLOT DATE : 1/30/2025 10:20 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

2

GENERAL NOTES

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

LOCATIONS OF THE PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. APPROPRIATE ADJUSTMENT ON CONDUIT LOCATIONS MAY BE MADE IF THE FIELD CONDITIONS ARE SUCH THAT THE CONDUIT CANNOT BE INSTALLED AT THE SPECIFIED LOCATIONS. FIELD MARK EACH CONDUIT LOCATION IN RED.

THE TRENCH SHALL NOT BE BACK FILLED PRIOR TO INSPECTION OF THE CONDUIT BY THE ENGINEER.

ALL CONDUITS SHALL BE CAPPED OR PLUGGED WITH ENGINEER APPROVED FITTINGS IMMEDIATELY AFTER INSTALLATION.

ALL CUT ENDS SHALL BE TRIMMED INSIDE AND OUTSIDE TO REMOVE ALL ROUGH EDGES ON ALL CONDUITS.

CONDUIT RUNS SHALL BE THE SAME SIZE PIPE FROM ONE END TO THE OTHER (FROM PULL BOX-TO-PULL BOX OR JUNCTION BOX OR BASE-TO-BASE, ETC.) UNLESS OTHERWISE NOTED ON PLANS.

PULL ROPE (3/8-INCH NYLON) SHALL BE INSTALLED IN ALL NEW CONDUITS.

CONTRACTOR SHALL SUPPLY AS-BUILT DRAWING FOR ALL THE WORK BEING DONE.

INSTALLATION OF LATERAL UNDERGROUND CONDUIT UNDER PAVEMENT SHALL BE INSTALLED MINIMUM 30 INCHES BELOW PROPOSED GRADE. TEMPORARY CONDUIT LATERALS SHALL BE DIRECTIONAL BORED UNDER PAVEMENT. PERMANENT LATERALS CAN BE TRENCHED UNTIL EDGE OF PAVEMENT, AND THEN DIRECTIONAL BORED UNDER ROADWAY. CONTRACTOR IS RESPONSIBLE TO COORDINATE WITH ROADWAY CONSTRUCTION FOR CONDUIT LATERALS INSTALLATION.

PITCH ALL CONDUITS TOWARD PULL BOXES. INSTALL A 2" DRAIN DUCT TO STORM SEWER OR DRAIN SUMP AS REQUIRED FOR DRAINAGE. THE 2" DRAIN DUCT OR SUMP IS INCIDENTAL TO THE PULL BOX BID ITEM AND IS NOT SHOWN.

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

HAND DIGGING MAY BE REQUIRED FOR LOCATIONS ADJACENT TO EXISTING GAS AND POWER LINES. HAND EXCAVATION SHOULD BE ANTICIPATED & WILL BE CONSIDERED INCIDENTAL TO THE CONCRETE BASES BID ITEM. COORDINATE ALL WORK NEAR GAS LINE WITH WE ENERGIES.

ALL UNDERGROUND WIRING AND CONDUIT FOR POLES BEING REMOVED IS ABANDONED IN PLACE UNLESS NOTED OTHERWISE. CONTRACTOR MAY SALVAGE ABANDONED WIRING AT HIS OWN EXPENSE.

IF CID CONTAINS PHASE CONDUCTOR(S) THAT WILL NOT BE USED FOR FURTHER POLES, I.E. AT THE END OF A CIRCUIT, DO NOT ENERGIZE THE CONDUCTOR(S) LEAVING THE LAST POLE THE PHASE WAS UTILIZED. REMOVE EXCESS CONDUCTOR(S) IN ALL SUBSEQUENT POLES.

SEAL THE ENDS OF ALL CID RACEWAY WITH A UL RECOGNIZED CONDUIT SEALANT. PROVIDE A 1#2" NYLON ROPE EXTENDING BEYOND THE PLUG TO ASSIST IN REMOVING THE PLUG IN THE FUTURE.

SEE DETAIL "CONDUIT DETAILS AT STRUCTURE PARAPET TO ROADWAY BARRIER INTERFACE" WHEN CONDUIT EXITS TO GRADE FROM A BRIDGE PARAPET OR RETAINING WALL. RIGID METALLIC CONDUIT IN CONCRETE BARRIER IS INCIDENTAL TO THE RIGID NONMETALLIC CONDUIT.

PROVIDE MINIMUM CABLE SLACK AS NOTED BELOW:

PULL BOXES:	15-FT ONE WAY IN OR OUT
DISTRIBUTION CENTER/LOAD CENTER:	15-FT

STAGING NOTES

MAINTAIN LIGHTING AT ALL TIMES DURING CONSTRUCTION USING EXISTING LIGHTING, PROPOSED TEMPORARY, FINAL LIGHTING OR COMBINATIONS.

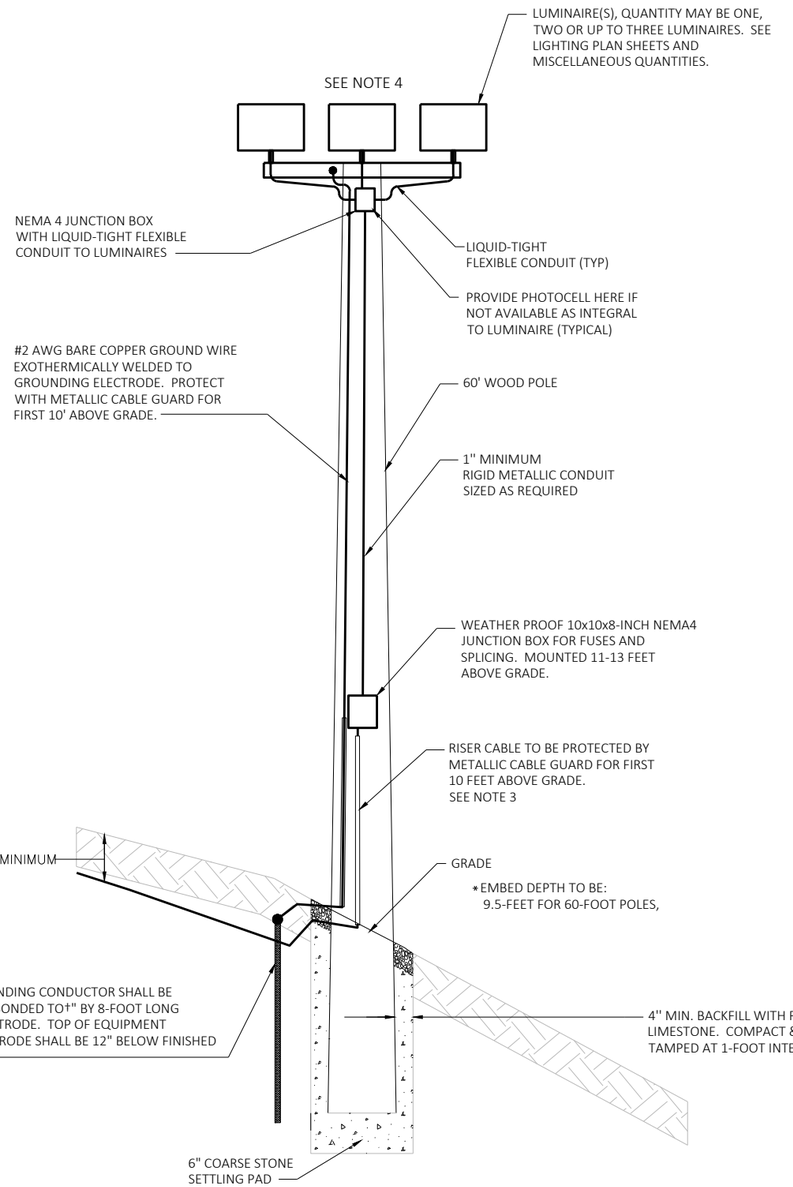
DO NOT REMOVE EXISTING LIGHTING UNTIL THE NEW OR TEMPORARY LIGHTING IS OPERATIONAL. REFER TO DRAWINGS FOR STAGING INFORMATION.

MAINTAINING SYSTEM CONTINUITY SHALL BE INCIDENTAL TO THE "REMOVE EXISTING STREET LIGHTS" BID ITEM.

DUE TO THE PHASING OF CONSTRUCTION SOME FINAL LIGHTING UNITS MAY BE ORPHANED UNTIL A LATER STAGE IS COMPLETE. IT IS AT THE DISCRETION OF THE CONTRACTOR TO SCHEDULE THESE ITEMS. THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF THE PLACEMENT OF RACEWAY THAT SPANS TWO DIFFERENT PHASES OF CONSTRUCTION.

TEMPORARY OR FINAL LIGHTING MUST ILLUMINATE AN AREA BEFORE EXISTING LIGHTING UNITS IN AN AREA CAN BE REMOVED. THE SCHEDULING OF REMOVAL IS AT THE DISCRETION OF THE CONTRACTOR WITH THE PROVISION THAT LIGHTING OF THE ROADWAY IS PROVIDED AT ALL TIMES.

COORDINATE POLE REMOVAL WITH TRAFFIC CONTROL.

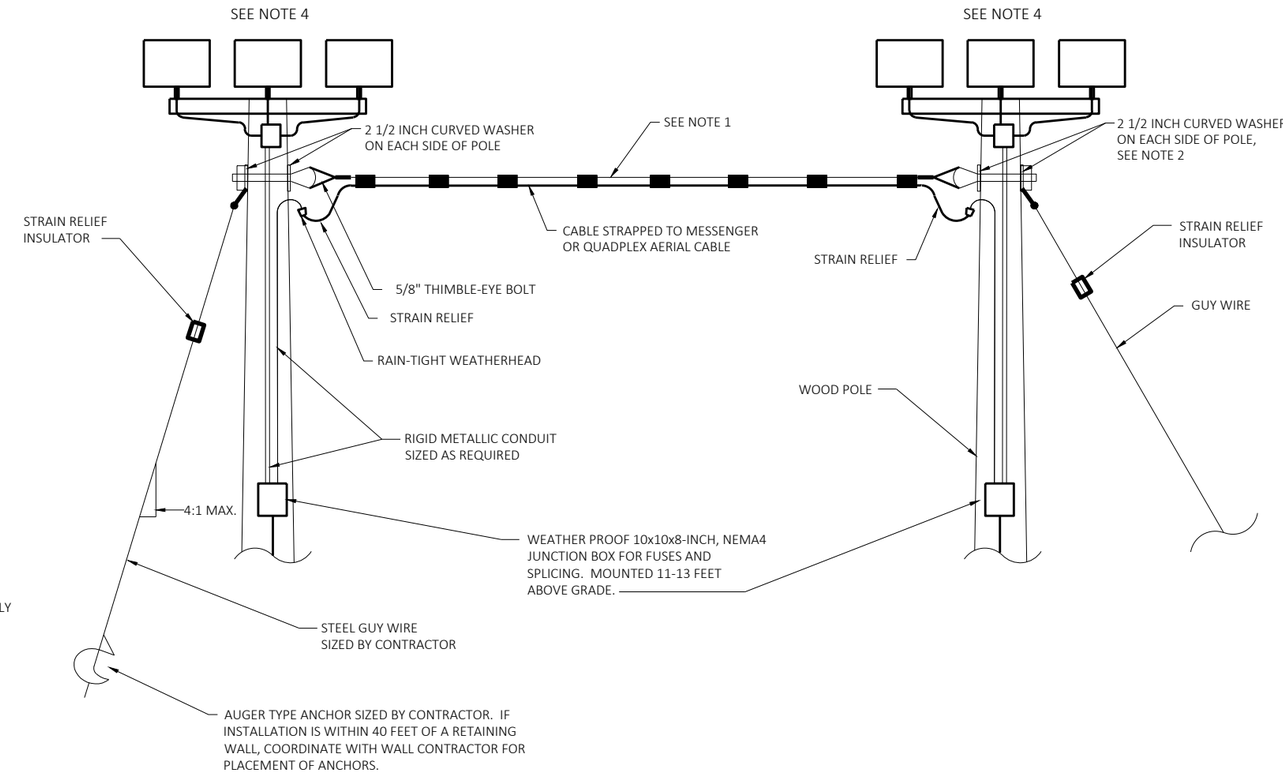


WOODEN POLE INSTALLATION DETAIL

SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
NTS

NOTES

1. MINIMUM CLEARANCE AT CENTER OF SPAN: 20-FT. ABOVE ROADWAY OR GRADE.
2. CONSTRUCT DEAD ENDS WITH SECONDARY RACK, CLEVISES, OR OTHER APPROVED METHOD.
3. SECURELY BAND OR CLAMP RISERS TO POLES. USE METALLIC CABLE GUARD TO PROTECT RISERS FOR 10-FEET ABOVE GRADE.
4. FOR CLARITY, LIGHTNING PROTECTION NOT SHOWN IN ITS ENTIRETY. PROVIDE AIR TERMINAL PROTRUDING 18" ABOVE HIGHEST FIXTURE WITH #2 AWG DOWN CONDUCTOR TO A† X 8-FOOT COPPER CLAD ELECTRODE FOR LIGHTNING PROTECTION. DOWN CONDUCTOR MAY TRAVEL ONLY IN A DOWNWARD DIRECTION UNTIL IT IS CONNECTED TO THE GROUNDING ELECTRODE. LIGHTNING PROTECTION GROUNDING ELECTRODE TO BE BONDED TO EQUIPMENT GROUNDING ELECTRODE WITH BARE, SOLID #2 COPPER CONDUCTOR; EXOTHERMIC WELD LOWER, MECHANICAL ON UPPER END.
5. LUMINAIRES AND AERIAL CABLES ARE SEPARATE BID ITEMS AND ARE NOT PART OF THE BID ITEM "WOOD POLE LIGHTING 60-FOOT. THE REMAINING ITEMS SHOWN ARE INCIDENTAL TO BID ITEM "WOOD POLES LIGHTING 60-FOOT.



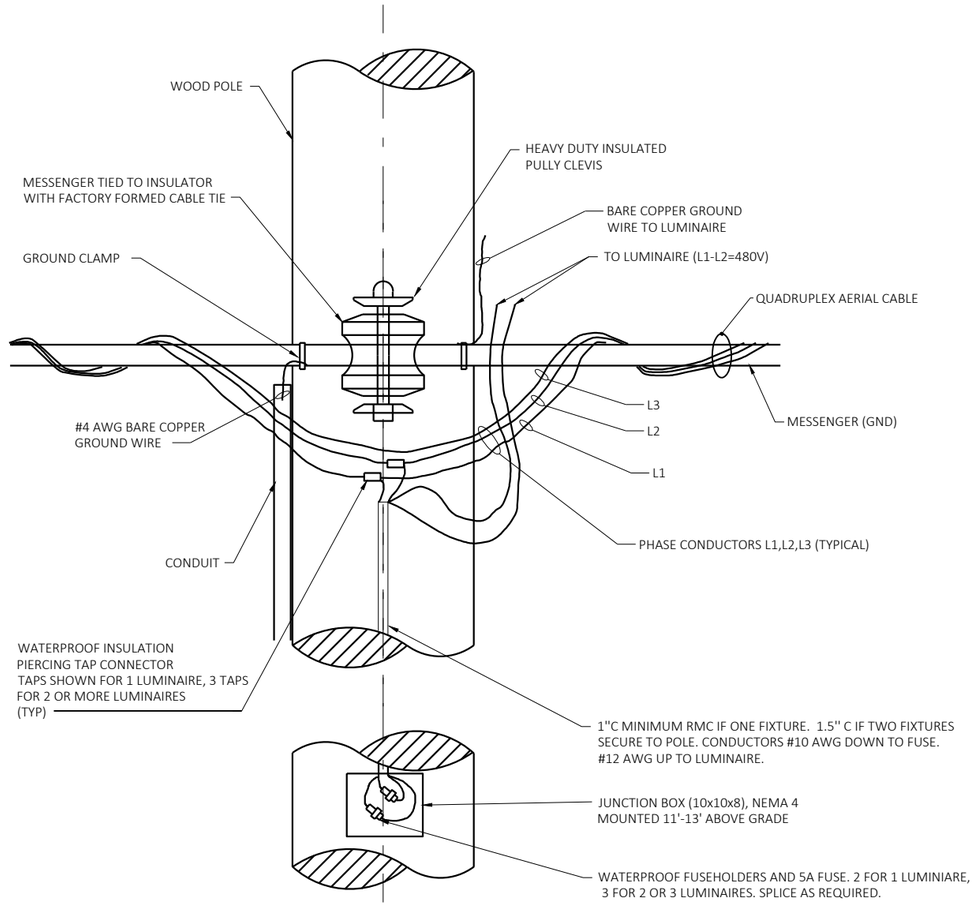
OVERHEAD WIRE DETAIL

SEE ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION
NTS

2

NOTES

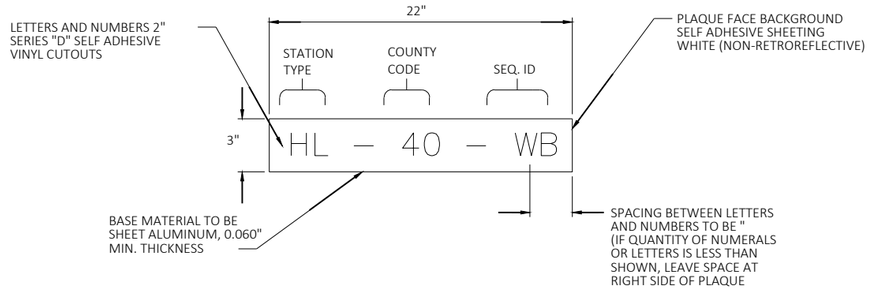
1. IF TWO OR MORE CABLES ON A POLE ARE FOR THE SAME CIRCUIT, CONNECT THE EQUIPMENT GROUNDING CONDUCTOR AND GROUNDED CONDUCTOR (NEUTRAL) AT EACH POLE.
2. TAPS, CONDUIT, JUNCTION BOX, INSULATIOR, CLEVIS FUSE HOLDERS, WIRING TO/FROM JUNCTION BOX AND TO LUMINAIRE ARE PART OF THE BID ITEM "WOOD POLE LIGHTING 60-FOOT".



OVERHEAD CABLE SPLICE AT WOOD POLE-TEMPORARY 480V FIXTURES WIRED PHASE-PHASE

NTS

2



DISTRIBUTION CENTER
IDENTIFICATION PLAQUE

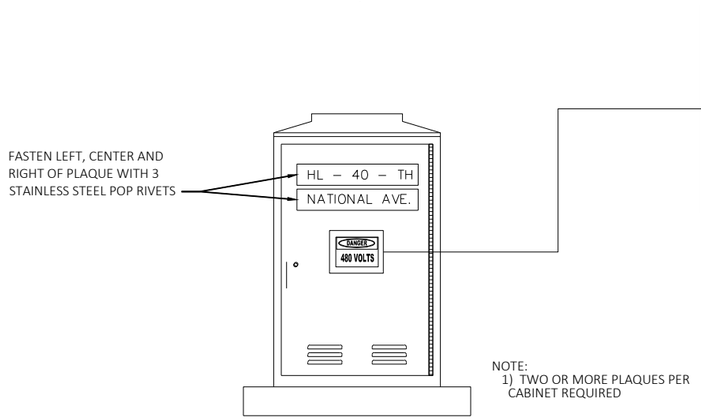
NATIONAL AVE.

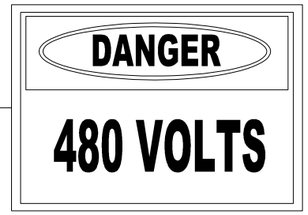
MNEMONIC

(SEE MISCELLANEOUS QUANTITIES)
(NUMBER OF CHARACTERS VARIES
THIRD PLAQUE MAY BE
NECESSARY)

GENERAL NOTE:

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





APROX. 10" x 7"
(INCIDENTAL)

DISTRIBUTION CENTER IDENTIFICATION PLAQUE
REQUIREMENTS AND PLACEMENTS

(TYPICAL ALL CONTROL CABINETS)

2

LEGEND - LIGHTING REMOVALS

- EXISTING CONDUIT & CABLING TO BE REMOVED
- XX — DENOTES THE REMOVAL STAGE NUMBER
- DISTRIBUTION CENTER
- EXISTING SINGLE ARM LOCAL LIGHTING UNIT
- EXISTING TWIN ARM LOCAL LIGHTING UNIT
- REMOVE PULLBOX
- PHOTOCELL

LEGEND - TEMPORARY LIGHTING

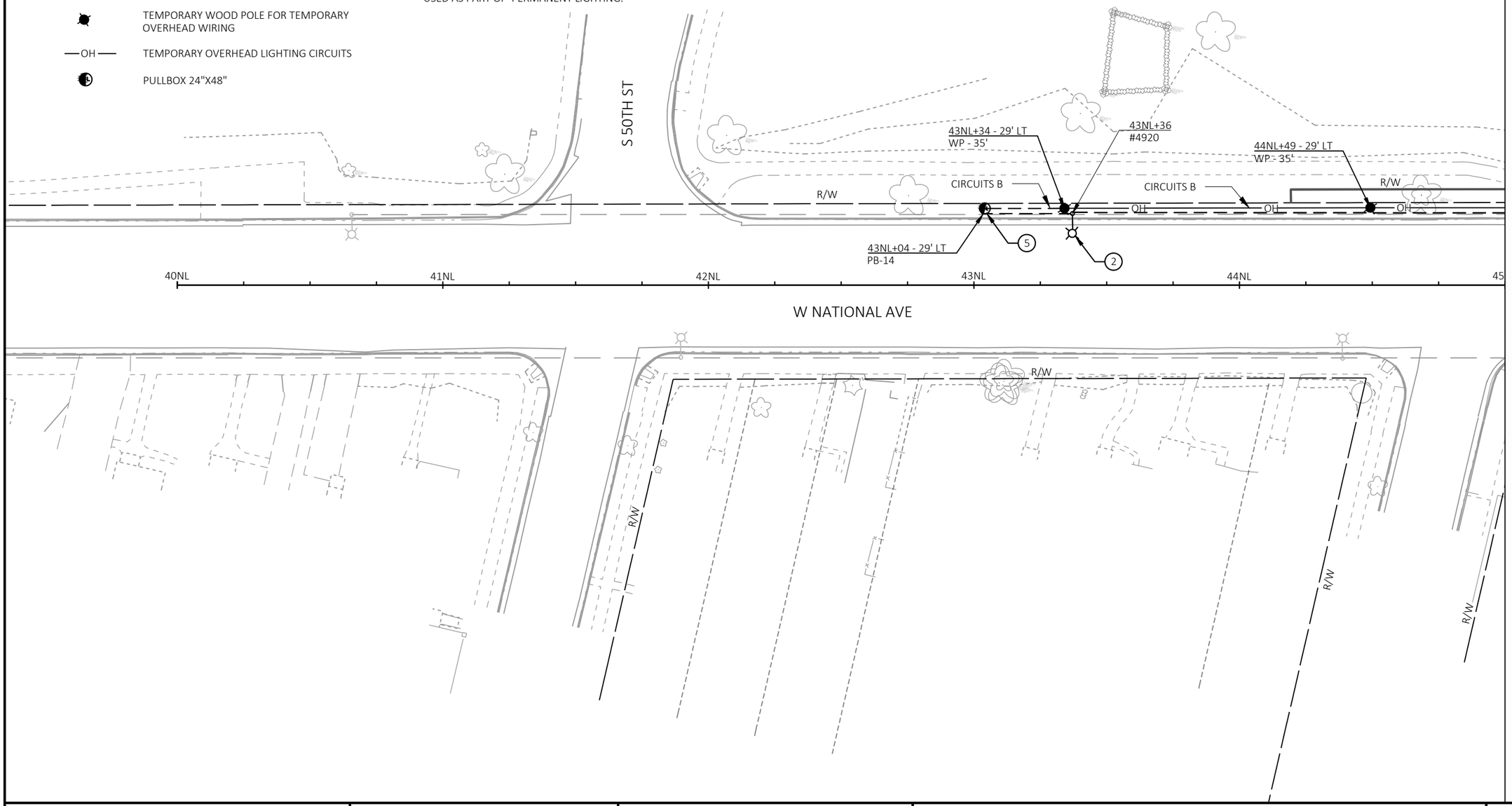
- TEMPORARY WOOD POLE FOR TEMPORARY OVERHEAD WIRING
- OH — TEMPORARY OVERHEAD LIGHTING CIRCUITS
- PULLBOX 24"X48"

KEYED NOTES

1. EXISTING LIGHT POLE TO REMAIN
2. EXISTING LIGHT POLE TO BE REMOVED
3. EXISTING PULL BOX TO BE REMOVED
4. EXISTING INTERSECTION LIGHT FIXTURE. REFER TO TRAFFIC SIGNAL REMOVAL PLAN FOR ADDITIONAL INFORMATION.
5. PROPOSED PULL BOX. INTERCEPT EXISTING CIRCUIT "B" WITH PROPOSED PULL BOX AND MAKE SPLICE CONNECTION FOR CONTINUATION OF CIRCUIT B. PULL BOX TO REMAIN AND USED AS PART OF PERMANENT LIGHTING.

NOTES

1. MAINTAIN CONDUIT, CIRCUITRY AND EXISTING LIGHTING ON SOUTH SIDE OF WEST NATIONAL AVE.



N

2

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN & TEMPORARY LIGHTING	SHEET 83	E

FILE NAME : C:\USERS\TKACHUT\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\LIGHTING\24104770-023401-LR.DWG
LAYOUT NAME - NL - (01)
PLOT DATE : 2/28/2025 11:01 AM
PLOT BY : TKACHUK, TYLER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND - LIGHTING REMOVALS

- EXISTING CONDUIT & CABLING TO BE REMOVED
- XX — DENOTES THE REMOVAL STAGE NUMBER
- DISTRIBUTION CENTER
- EXISTING SINGLE ARM LOCAL LIGHTING UNIT
- EXISTING TWIN ARM LOCAL LIGHTING UNIT
- REMOVE PULLBOX
- PHOTOCELL

LEGEND - TEMPORARY LIGHTING

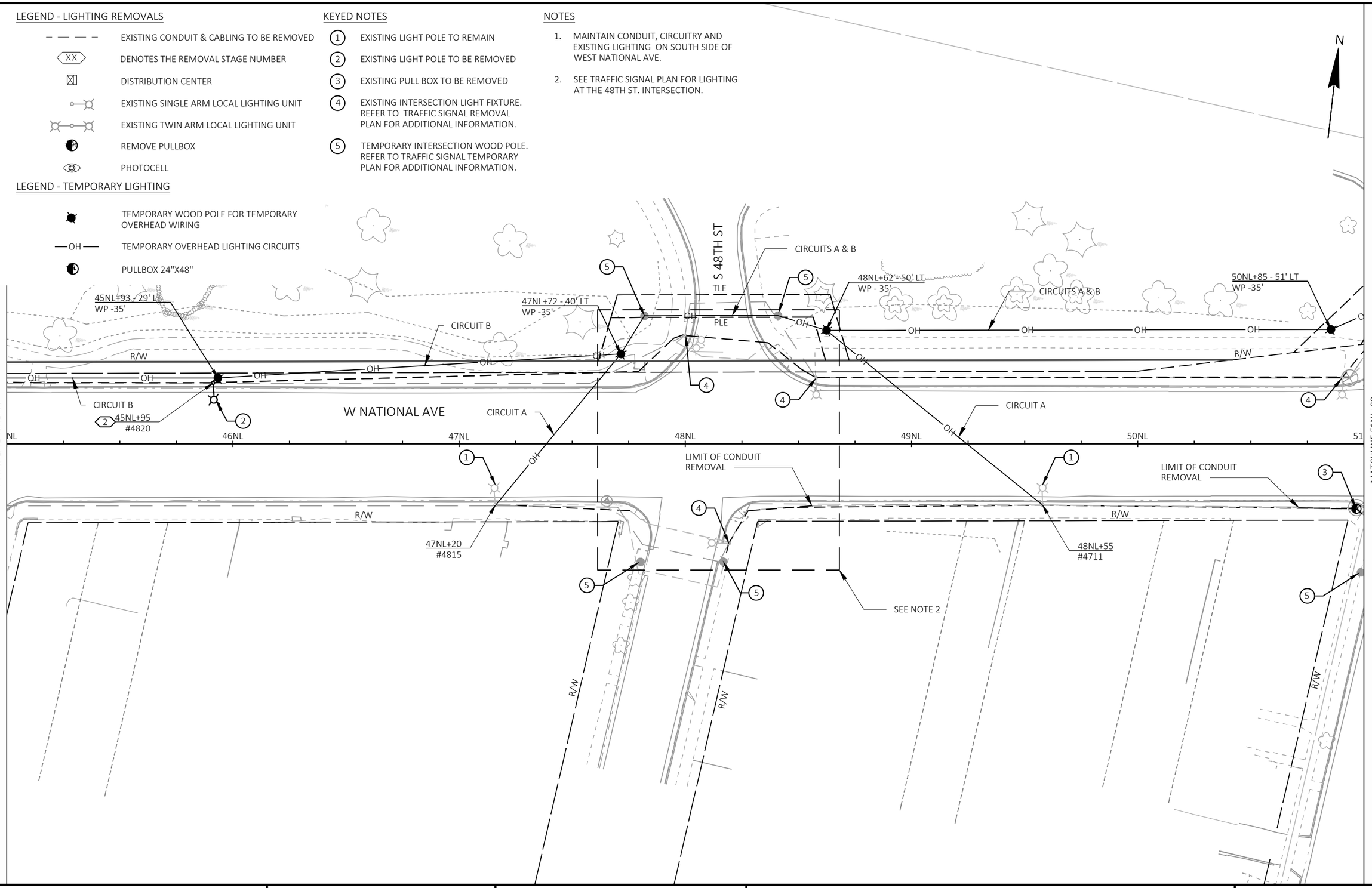
- TEMPORARY WOOD POLE FOR TEMPORARY OVERHEAD WIRING
- OH — TEMPORARY OVERHEAD LIGHTING CIRCUITS
- PULLBOX 24"X48"

KEYED NOTES

1. EXISTING LIGHT POLE TO REMAIN
2. EXISTING LIGHT POLE TO BE REMOVED
3. EXISTING PULL BOX TO BE REMOVED
4. EXISTING INTERSECTION LIGHT FIXTURE. REFER TO TRAFFIC SIGNAL REMOVAL PLAN FOR ADDITIONAL INFORMATION.
5. TEMPORARY INTERSECTION WOOD POLE. REFER TO TRAFFIC SIGNAL TEMPORARY PLAN FOR ADDITIONAL INFORMATION.

NOTES

1. MAINTAIN CONDUIT, CIRCUITRY AND EXISTING LIGHTING ON SOUTH SIDE OF WEST NATIONAL AVE.
2. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT THE 48TH ST. INTERSECTION.



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN & TEMPORARY LIGHTING	SHEET 84	E

FILE NAME : C:\USERS\TKACHUT\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\LIGHTING\24104770-023401-LR.DWG
LAYOUT NAME - NL - (02)
PLOT DATE : 2/28/2025 11:51 AM
PLOT BY : TKACHUK, TYLER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND - LIGHTING REMOVALS

- EXISTING CONDUIT & CABLING TO BE REMOVED
- XX — DENOTES THE REMOVAL STAGE NUMBER
- DISTRIBUTION CENTER
- EXISTING SINGLE ARM LOCAL LIGHTING UNIT
- EXISTING TWIN ARM LOCAL LIGHTING UNIT
- R — REMOVE PULLBOX
- PHOTOCELL

LEGEND - TEMPORARY LIGHTING

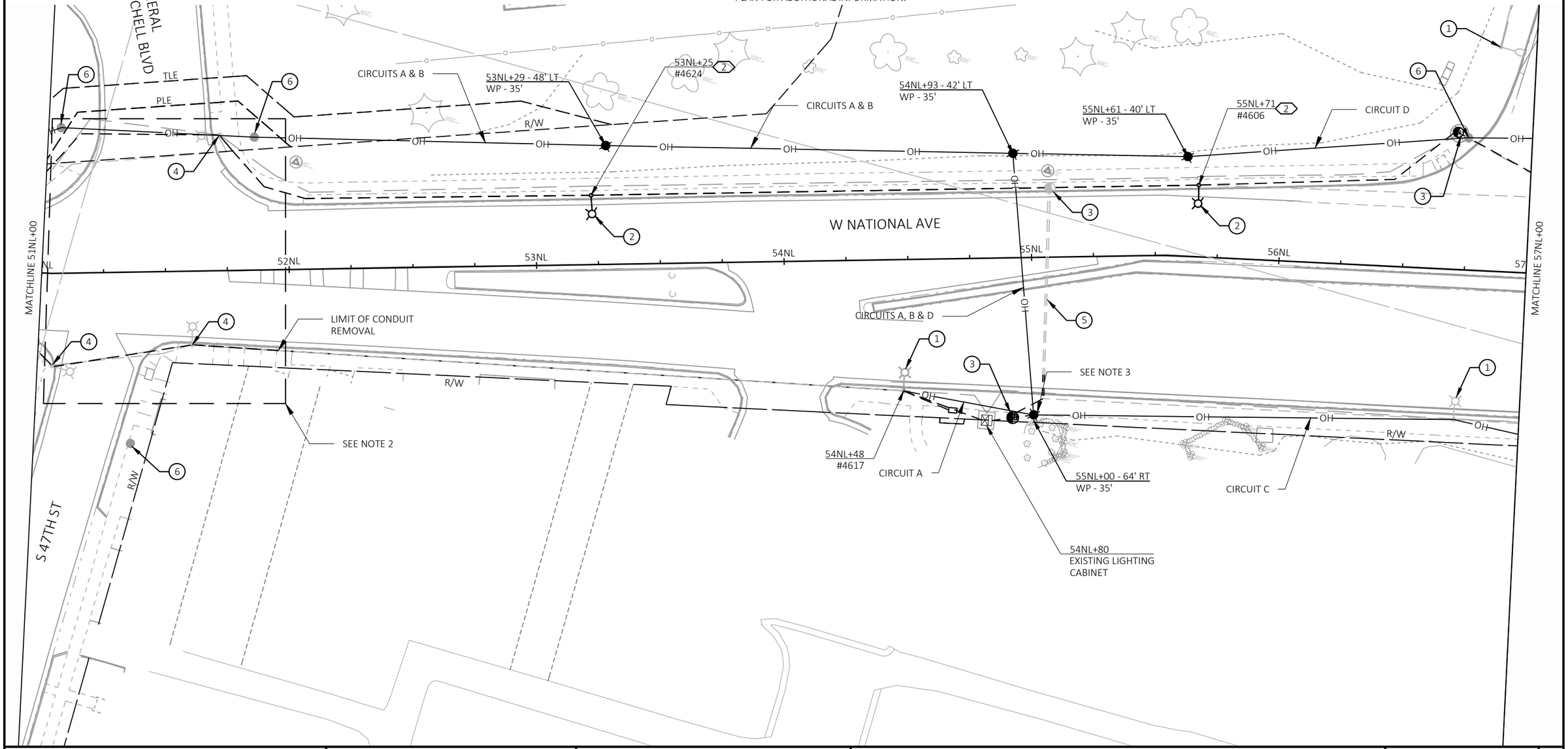
- TEMPORARY WOOD POLE FOR TEMPORARY OVERHEAD WIRING
- OH — TEMPORARY OVERHEAD LIGHTING CIRCUITS
- PB — PULLBOX 24"X48"

KEYED NOTES

1. EXISTING LIGHT POLE TO REMAIN
2. EXISTING LIGHT POLE TO BE REMOVED
3. EXISTING PULL BOX TO BE REMOVED
4. EXISTING INTERSECTION LIGHT FIXTURE. REFER TO TRAFFIC SIGNAL REMOVAL PLAN FOR ADDITIONAL INFORMATION.
5. EXISTING CABLE TO BE REMOVED EXISTING CONDUIT LATERAL TO REMAIN
6. TEMPORARY INTERSECTION WOOD POLE. REFER TO TRAFFIC SIGNAL TEMPORARY PLAN FOR ADDITIONAL INFORMATION.

NOTES

1. MAINTAIN CONDUIT, CIRCUITRY AND EXISTING LIGHTING ON SOUTH SIDE OF WEST NATIONAL AVE.
2. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT THE 47TH ST. INTERSECTION.
3. INSTALL TEMPORARY WOOD POLE , CONDUIT, AND CABLES.MAKE CONNECTIONS TO THE EXISTING CABINET FOR LIGHTING CIRCUITS "A", "B", "C" &"D".
4. EXISTING LIGHTING CABINET WILL BE USED FOR TEMPORARY LIGHTING.



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN & TEMPORARY LIGHTING	SHEET 85	E

FILE NAME : C:\USERS\TKACHUT\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\LIGHTING\24104770-023401-LR.DWG
LAYOUT NAME - NL - (03)
PLOT DATE : 2/28/2025 11:53 AM
PLOT BY : TKACHUK, TYLER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND - LIGHTING REMOVALS

- EXISTING CONDUIT & CABLING TO BE REMOVED
- XX — DENOTES THE REMOVAL STAGE NUMBER
- DISTRIBUTION CENTER
- EXISTING SINGLE ARM LOCAL LIGHTING UNIT
- EXISTING TWIN ARM LOCAL LIGHTING UNIT
- R — REMOVE PULLBOX
- PHOTOCELL

LEGEND - TEMPORARY LIGHTING

- TEMPORARY WOOD POLE FOR TEMPORARY OVERHEAD WIRING
- —OH— TEMPORARY OVERHEAD LIGHTING CIRCUITS
- TEMPORARY PULLBOX 24"X48"

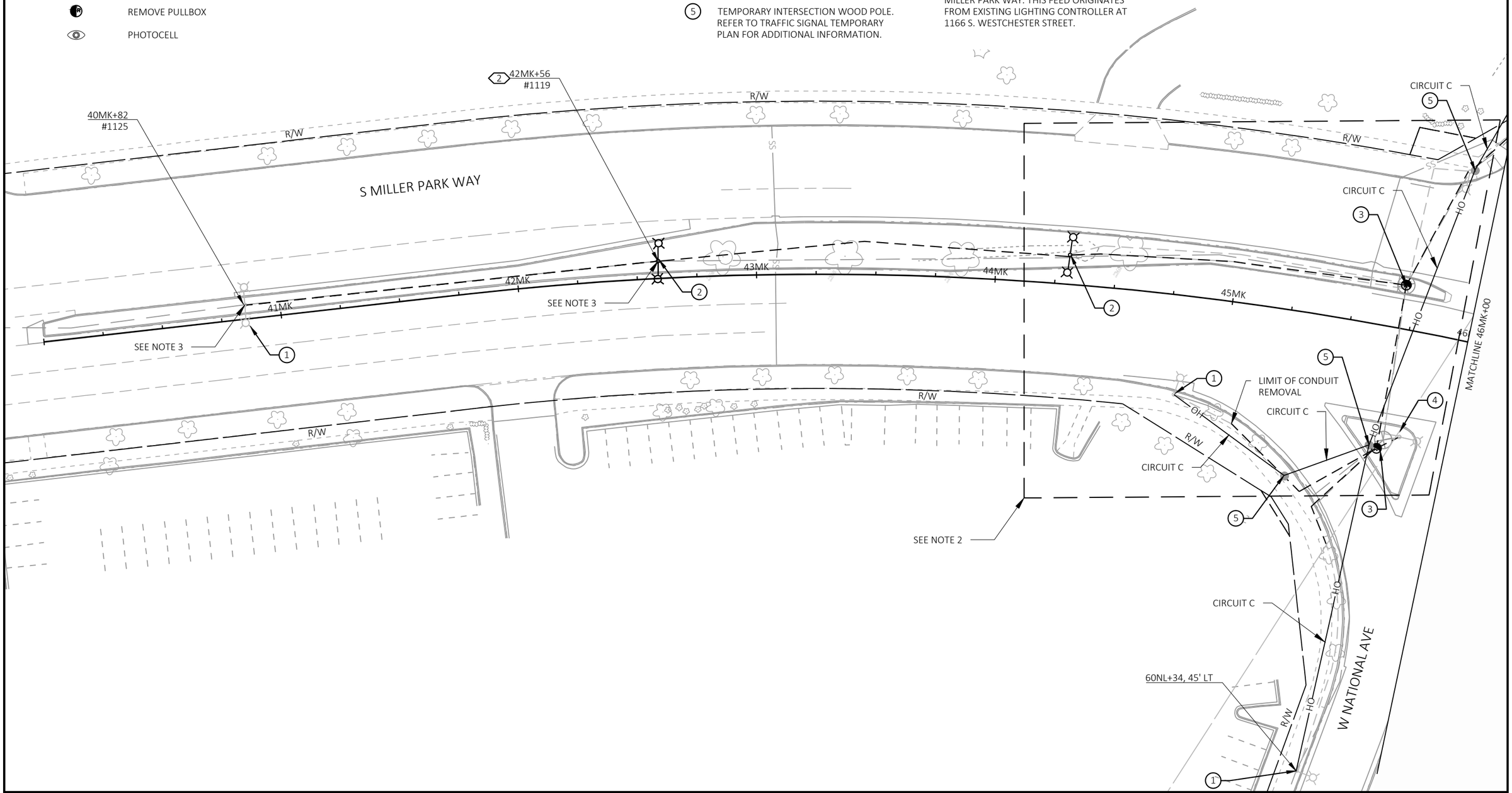
KEYED NOTES

1. EXISTING LIGHT POLE TO REMAIN
2. EXISTING LIGHT POLE TO BE REMOVED
3. EXISTING PULL BOX TO BE REMOVED
4. EXISTING INTERSECTION LIGHT FIXTURE. REFER TO TRAFFIC SIGNAL REMOVAL PLAN FOR ADDITIONAL INFORMATION.
5. TEMPORARY INTERSECTION WOOD POLE. REFER TO TRAFFIC SIGNAL TEMPORARY PLAN FOR ADDITIONAL INFORMATION.

GENERAL NOTES

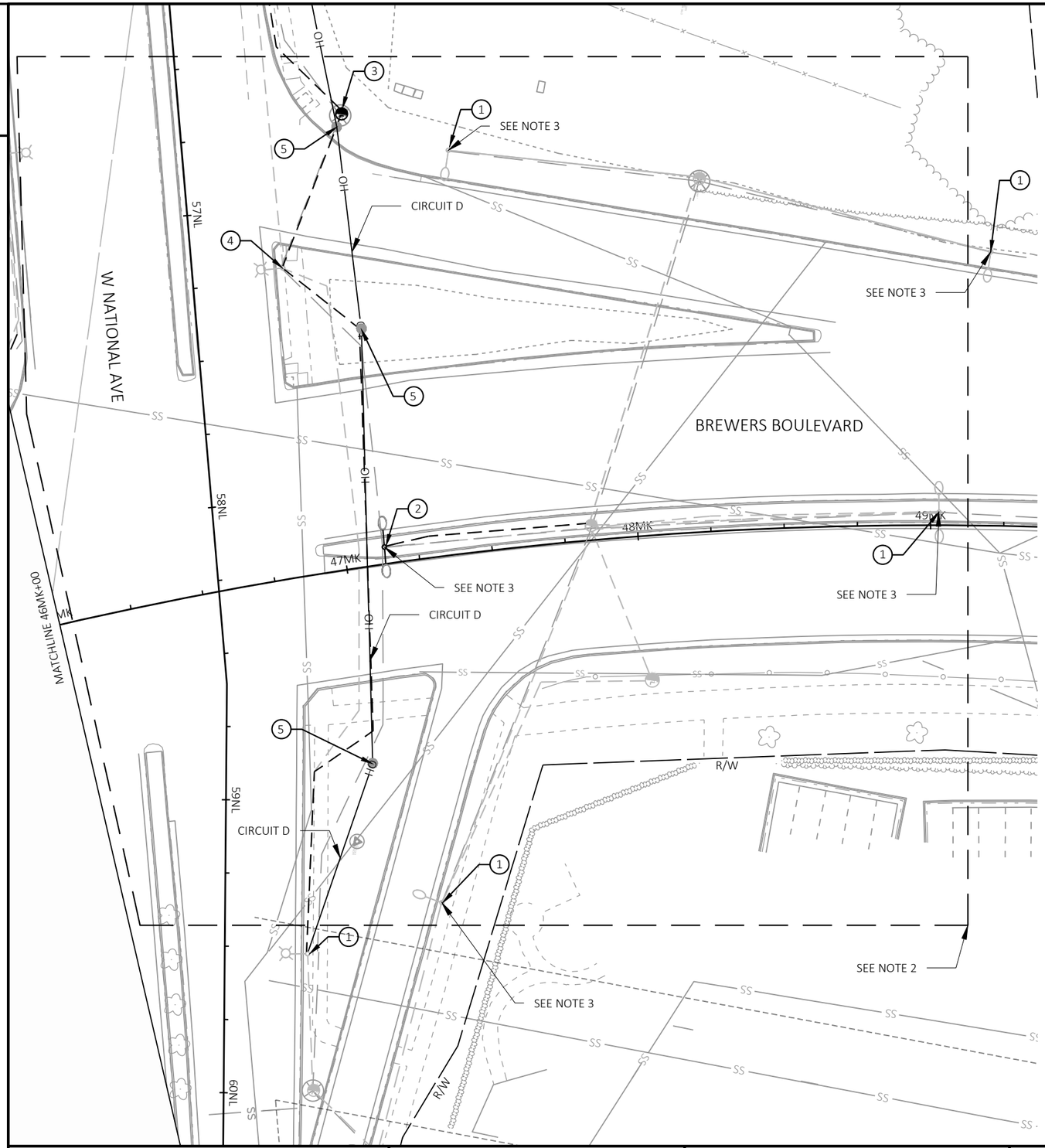
1. MAINTAIN CONDUIT, CIRCUITRY AND EXISTING LIGHTING ON SOUTH SIDE OF WEST NATIONAL AVE.
2. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT THE MILLER PARK WAY INTERSECTION.
3. EXISTING LIGHTING UNIT IS PART OF LIGHTING CIRCUIT FEED SOUTH ALONG MILLER PARK WAY. THIS FEED ORIGINATES FROM EXISTING LIGHTING CONTROLLER AT 1166 S. WESTCHESTER STREET.

N



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN & TEMPORARY LIGHTING	SHEET 86	E

FILE NAME : C:\USERS\TKACHUT\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\LIGHTING\24104770-023401-LR.DWG
LAYOUT NAME - MK - (01)
PLOT DATE : 2/28/2025 11:53 AM PLOT BY : TKACHUK, TYLER PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



LEGEND - LIGHTING REMOVALS

- EXISTING CONDUIT & CABLING TO BE REMOVED
- XX — DENOTES THE REMOVAL STAGE NUMBER
- DISTRIBUTION CENTER
- EXISTING SINGLE ARM LOCAL LIGHTING UNIT
- EXISTING TWIN ARM LOCAL LIGHTING UNIT
- (R) — REMOVE PULLBOX
- PHOTOCELL

LEGEND - TEMPORARY LIGHTING

- TEMPORARY WOOD POLE FOR TEMPORARY OVERHEAD WIRING
- —OH— TEMPORARY OVERHEAD LIGHTING CIRCUITS
- (L) — PULLBOX 24"X48"

KEYED NOTES

1. EXISTING LIGHT POLE TO REMAIN
2. EXISTING LIGHT POLE TO BE REMOVED
3. EXISTING PULL BOX TO BE REMOVED
4. EXISTING INTERSECTION LIGHT FIXTURE. REFER TO TRAFFIC SIGNAL REMOVAL PLAN FOR ADDITIONAL INFORMATION.
5. TEMPORARY INTERSECTION WOOD POLE. REFER TO TRAFFIC SIGNAL TEMPORARY PLAN FOR ADDITIONAL INFORMATION.

N

GENERAL NOTES

1. MAINTAIN CONDUIT, CIRCUITRY AND EXISTING LIGHTING ON NORTH SIDE OF WEST NATIONAL AVE.
2. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT THE MILLER PARK WAY INTERSECTION.
3. EXISTING LIGHTING UNIT IS PART OF LIGHTING CIRCUIT FEED NORTH ALONG MILLER PARK WAY. THIS FEED ORIGINATES FROM EXISTING WISDOT LIGHTING CONTROLLER HL-40-MP.

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	LIGHTING REMOVAL PLAN & TEMPORARY LIGHTING	SHEET 87	E

FILE NAME : C:\USERS\TKACHUT\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\LIGHTING\24104770-023401-LR.DWG
LAYOUT NAME - MK - (02)
PLOT DATE : 2/28/2025 11:54 AM
PLOT BY : TKACHUK, TYLER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND - FINAL LIGHTING

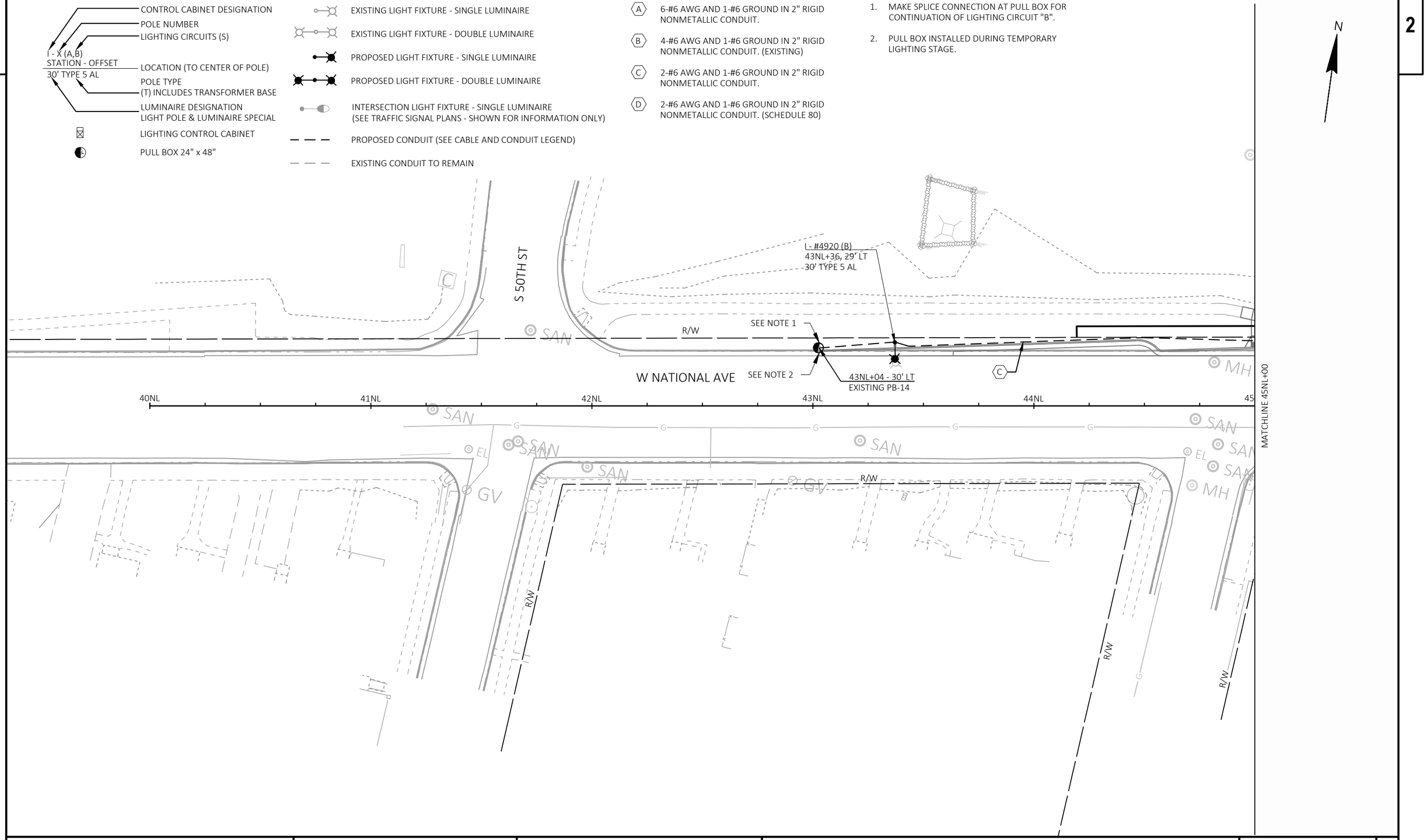
- CONTROL CABINET DESIGNATION
- POLE NUMBER
- LIGHTING CIRCUITS (S)
- I - X (A,B) / STATION - OFFSET / 30' TYPE 5 AL
  - LOCATION (TO CENTER OF POLE)
  - POLE TYPE (T) INCLUDES TRANSFORMER BASE
  - LUMINAIRE DESIGNATION LIGHT POLE & LUMINAIRE SPECIAL
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 48"
- EXISTING LIGHT FIXTURE - SINGLE LUMINAIRE
- EXISTING LIGHT FIXTURE - DOUBLE LUMINAIRE
- PROPOSED LIGHT FIXTURE - SINGLE LUMINAIRE
- PROPOSED LIGHT FIXTURE - DOUBLE LUMINAIRE
- INTERSECTION LIGHT FIXTURE - SINGLE LUMINAIRE (SEE TRAFFIC SIGNAL PLANS - SHOWN FOR INFORMATION ONLY)
- PROPOSED CONDUIT (SEE CABLE AND CONDUIT LEGEND)
- EXISTING CONDUIT TO REMAIN

CABLE AND CONDUIT LEGEND

- (A) 6-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT.
- (B) 4-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (EXISTING)
- (C) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT.
- (D) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (SCHEDULE 80)

NOTES

1. MAKE SPLICE CONNECTION AT PULL BOX FOR CONTINUATION OF LIGHTING CIRCUIT "B".
2. PULL BOX INSTALLED DURING TEMPORARY LIGHTING STAGE.



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	LIGHTING INSTALLATION PLANS	SHEET 88	E

FILE NAME : C:\USERS\TKACHUT\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\LIGHTING\24104770-023601-LP.DWG
LAYOUT NAME - NL - (01)
PLOT DATE : 2/28/2025 10:21 AM
PLOT BY : TKACHUK, TYLER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

2

LEGEND - FINAL LIGHTING

- CONTROL CABINET DESIGNATION
- POLE NUMBER
- LIGHTING CIRCUITS (S)
- I - X (A,B)
- STATION - OFFSET
- 30' TYPE 5 AL
- LOCATION (TO CENTER OF POLE)
- POLE TYPE (T) INCLUDES TRANSFORMER BASE
- LUMINAIRE DESIGNATION LIGHT POLE & LUMINAIRE SPECIAL
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 48"
- EXISTING LIGHT FIXTURE - SINGLE LUMINAIRE
- EXISTING LIGHT FIXTURE - DOUBLE LUMINAIRE
- PROPOSED LIGHT FIXTURE - SINGLE LUMINAIRE
- PROPOSED LIGHT FIXTURE - DOUBLE LUMINAIRE
- INTERSECTION LIGHT FIXTURE - SINGLE LUMINAIRE (SEE TRAFFIC SIGNAL PLANS - SHOWN FOR INFORMATION ONLY)
- PROPOSED CONDUIT (SEE CABLE AND CONDUIT LEGEND)
- EXISTING CONDUIT TO REMAIN

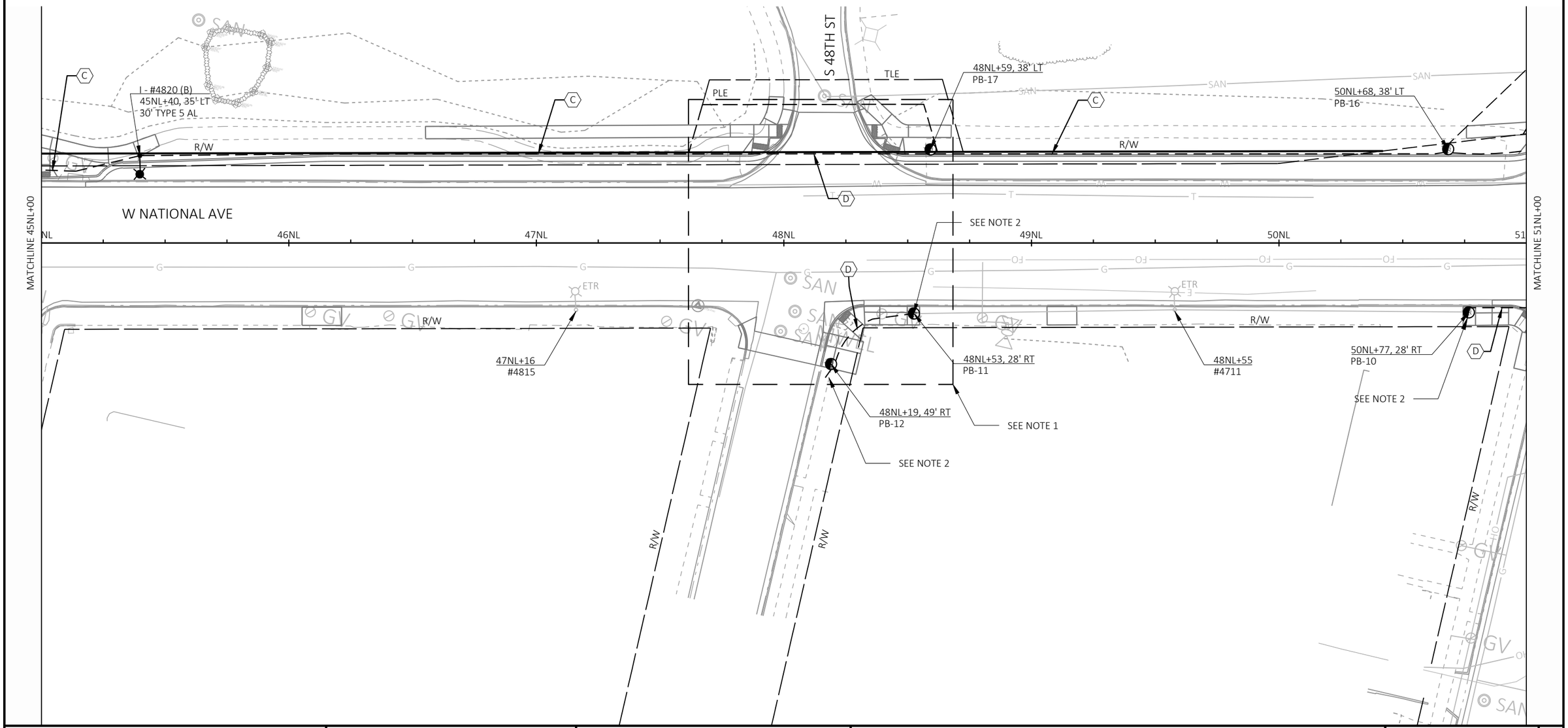
CABLE AND CONDUIT LEGEND

- (A) 6-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT.
- (B) 4-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (EXISTING)
- (C) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT.
- (D) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (SCHEDULE 80)

NOTES

1. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT THE 48TH ST. INTERSECTION.
2. PROPOSED PULL BOX. INTERCEPT EXISTING CIRCUIT "A" WITH PROPOSED PULL BOX AND MAKE SPLICE CONNECTION FOR CONTINUATION OF CIRCUIT "A".

N



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	LIGHTING INSTALLATION PLANS	SHEET 89	E

FILE NAME : C:\USERS\TKACHUT\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\LIGHTING\24104770-023601-LP.DWG
LAYOUT NAME - NL - (02)
PLOT DATE : 2/28/2025 10:22 AM
PLOT BY : TKACHUK, TYLER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND - FINAL LIGHTING

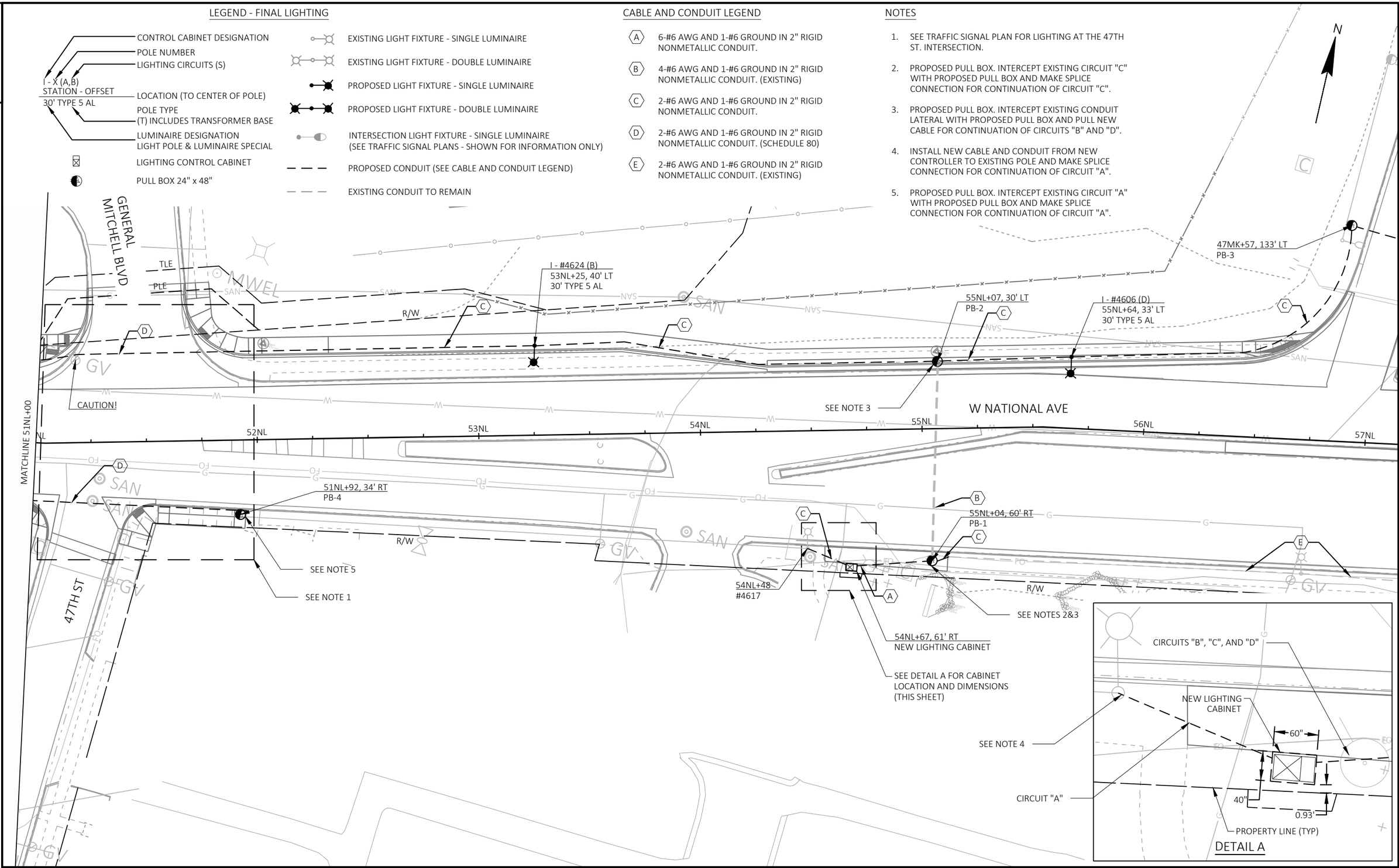
- CONTROL CABINET DESIGNATION
- POLE NUMBER
- LIGHTING CIRCUITS (S)
- I - X (A,B)
- STATION - OFFSET
- 30' TYPE 5 AL
- LOCATION (TO CENTER OF POLE)
- POLE TYPE (T) INCLUDES TRANSFORMER BASE
- LUMINAIRE DESIGNATION LIGHT POLE & LUMINAIRE SPECIAL
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 48"
- EXISTING LIGHT FIXTURE - SINGLE LUMINAIRE
- EXISTING LIGHT FIXTURE - DOUBLE LUMINAIRE
- PROPOSED LIGHT FIXTURE - SINGLE LUMINAIRE
- PROPOSED LIGHT FIXTURE - DOUBLE LUMINAIRE
- INTERSECTION LIGHT FIXTURE - SINGLE LUMINAIRE (SEE TRAFFIC SIGNAL PLANS - SHOWN FOR INFORMATION ONLY)
- PROPOSED CONDUIT (SEE CABLE AND CONDUIT LEGEND)
- EXISTING CONDUIT TO REMAIN

CABLE AND CONDUIT LEGEND

- (A) 6-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT.
- (B) 4-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (EXISTING)
- (C) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT.
- (D) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (SCHEDULE 80)
- (E) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (EXISTING)

NOTES

1. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT THE 47TH ST. INTERSECTION.
2. PROPOSED PULL BOX. INTERCEPT EXISTING CIRCUIT "C" WITH PROPOSED PULL BOX AND MAKE SPLICE CONNECTION FOR CONTINUATION OF CIRCUIT "C".
3. PROPOSED PULL BOX. INTERCEPT EXISTING CONDUIT LATERAL WITH PROPOSED PULL BOX AND PULL NEW CABLE FOR CONTINUATION OF CIRCUITS "B" AND "D".
4. INSTALL NEW CABLE AND CONDUIT FROM NEW CONTROLLER TO EXISTING POLE AND MAKE SPLICE CONNECTION FOR CONTINUATION OF CIRCUIT "A".
5. PROPOSED PULL BOX. INTERCEPT EXISTING CIRCUIT "A" WITH PROPOSED PULL BOX AND MAKE SPLICE CONNECTION FOR CONTINUATION OF CIRCUIT "A".



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	LIGHTING INSTALLATION PLANS	SHEET 90	E

FILE NAME : C:\USERS\TKACHUT\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\LIGHTING\24104770-023601-LP.DWG
LAYOUT NAME - NL - (03)
PLOT DATE : 3/2/2025 9:53 PM
PLOT BY : TKACHUK, TYLER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND - FINAL LIGHTING

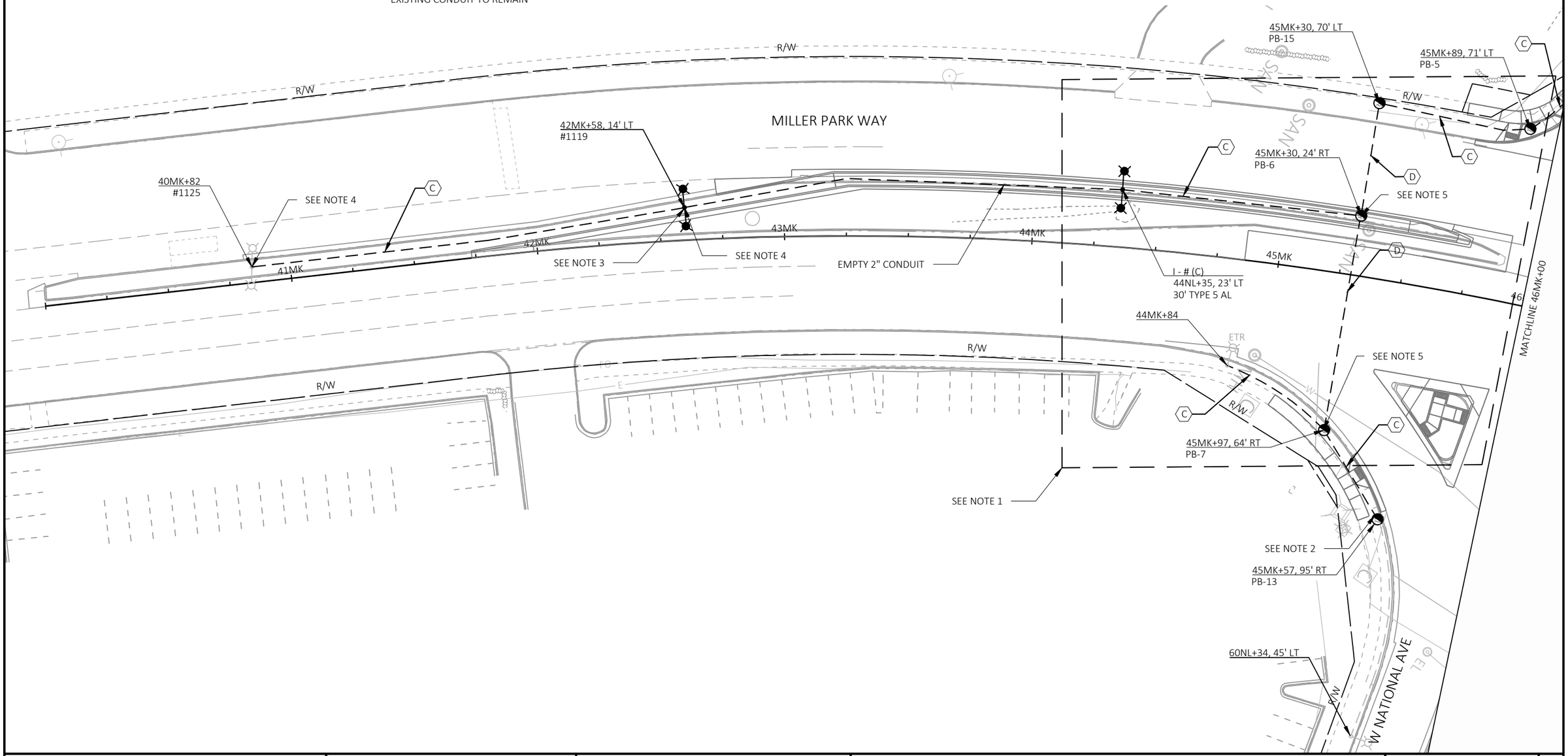
- CONTROL CABINET DESIGNATION
- POLE NUMBER
- LIGHTING CIRCUITS (S)
- I - X (A,B)
- STATION - OFFSET
- 30' TYPE 5 AL
- LOCATION (TO CENTER OF POLE)
- POLE TYPE (T) INCLUDES TRANSFORMER BASE
- LUMINAIRE DESIGNATION LIGHT POLE & LUMINAIRE SPECIAL
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 48"
- EXISTING LIGHT FIXTURE - SINGLE LUMINAIRE
- EXISTING LIGHT FIXTURE - DOUBLE LUMINAIRE
- PROPOSED LIGHT FIXTURE - SINGLE LUMINAIRE
- PROPOSED LIGHT FIXTURE - DOUBLE LUMINAIRE
- INTERSECTION LIGHT FIXTURE - SINGLE LUMINAIRE (SEE TRAFFIC SIGNAL PLANS - SHOWN FOR INFORMATION ONLY)
- PROPOSED CONDUIT (SEE CABLE AND CONDUIT LEGEND)
- EXISTING CONDUIT TO REMAIN

CABLE AND CONDUIT LEGEND

- (A) 6-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT.
- (B) 4-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (EXISTING)
- (C) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT.
- (D) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (SCHEDULE 80)

NOTES

1. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT THE MILLER PARK WAY INTERSECTION.
2. PROPOSED PULL BOX. INTERCEPT EXISTING CIRCUIT "C" WITH PROPOSED PULL BOX.MAKE SPLICE CONNECTION FOR CONTINUATION OF CIRCUIT "C" .
3. PROPOSED LIGHT POLE. INSTALL CONDUIT AND CABLE SOUTH ALONG MILLER PARK WAY AND MAKE SPLICE CONNECTION TO EXISTING LIGHTING CIRCUIT AND EXISTING LIGHT POLE TO REMAIN.
4. EXISTING LIGHTING UNIT IS PART OF LIGHTING CIRCUIT FEED SOUTH ALONG MILLER PARK WAY. THIS FEED ORIGINATES FROM EXISTING LIGHTING CONTROLLER AT 1166 S. WESTCHESTER STREET.
5. MAKE SPLICE CONNECTION FOR CONTINUATION OF CIRCUIT "C".



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	LIGHTING INSTALLATION PLANS	SHEET 91	E

LEGEND - FINAL LIGHTING

- CONTROL CABINET DESIGNATION
- POLE NUMBER
- LIGHTING CIRCUITS (S)

I - X (A,B)
STATION - OFFSET
30' TYPE 5 AL

- LOCATION (TO CENTER OF POLE)
- POLE TYPE (T) INCLUDES TRANSFORMER BASE
- LUMINAIRE DESIGNATION LIGHT POLE & LUMINAIRE SPECIAL

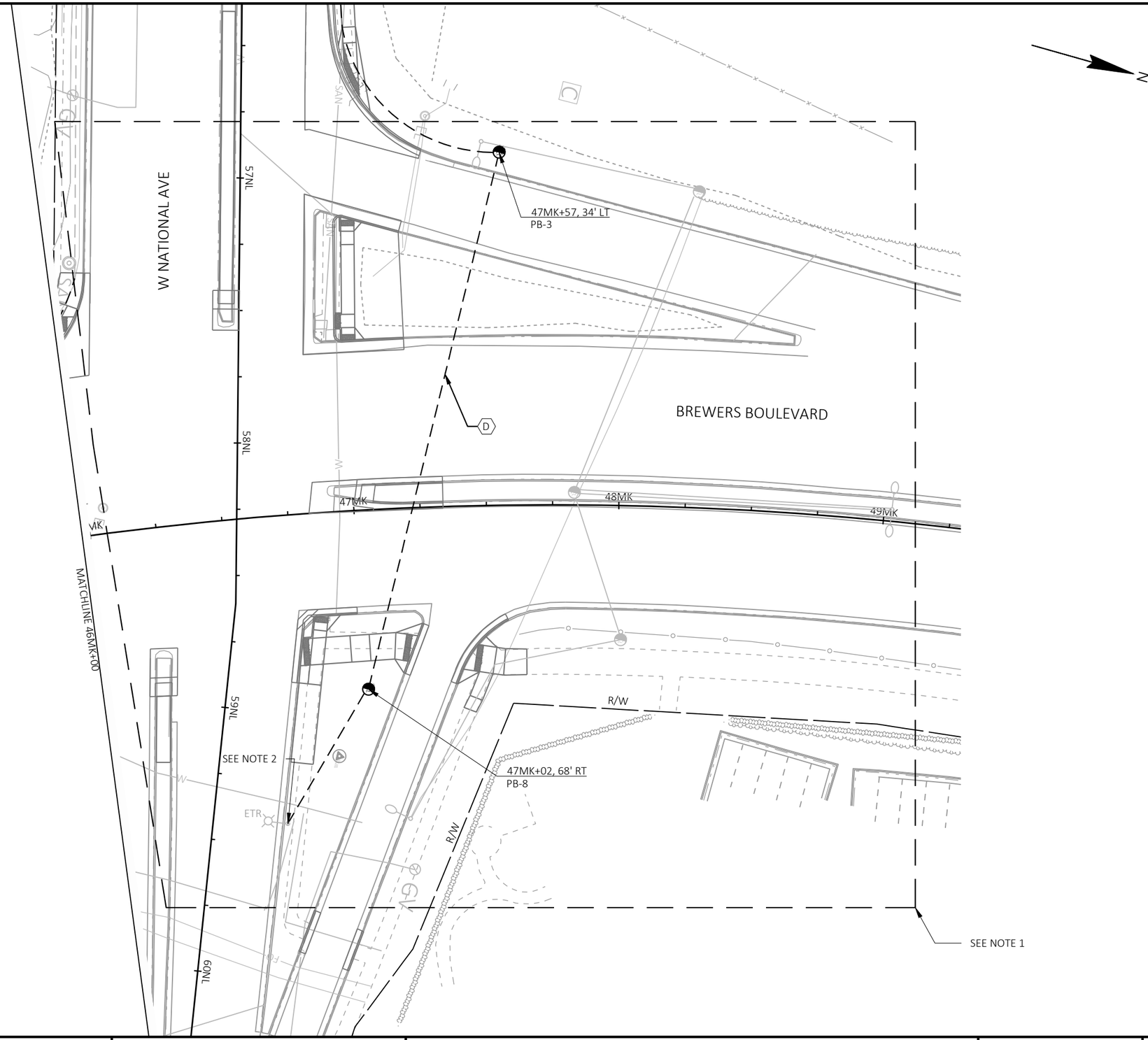
- LIGHTING CONTROL CABINET
- PULL BOX 24" x 48"
- EXISTING LIGHT FIXTURE - SINGLE LUMINAIRE
- EXISTING LIGHT FIXTURE - DOUBLE LUMINAIRE
- PROPOSED LIGHT FIXTURE - SINGLE LUMINAIRE
- PROPOSED LIGHT FIXTURE - DOUBLE LUMINAIRE
- INTERSECTION LIGHT FIXTURE - SINGLE LUMINAIRE (SEE TRAFFIC SIGNAL PLANS - SHOWN FOR INFORMATION ONLY)
- PROPOSED CONDUIT (SEE CABLE AND CONDUIT LEGEND)
- EXISTING CONDUIT TO REMAIN

CABLE AND CONDUIT LEGEND

- (A) 6-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT.
- (B) 4-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (EXISTING)
- (C) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT.
- (D) 2-#6 AWG AND 1-#6 GROUND IN 2" RIGID NONMETALLIC CONDUIT. (SCHEDULE 80)

NOTES

1. SEE TRAFFIC SIGNAL PLAN FOR LIGHTING AT THE MILLER PARK WAY INTERSECTION.
2. EXISTING LIGHT POLE TO REMAIN.MAKE SPLICE CONNECTION FOR CONTINUATION OF CIRCUIT "D".



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	LIGHTING INSTALLATION PLANS	SHEET 92	E

FILE NAME : C:\USERS\TKACHUT\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\LIGHTING\24104770-023601-LP.DWG
LAYOUT NAME - MK - (02)
PLOT DATE : 2/28/2025 10:25 AM
PLOT BY : TKACHUK, TYLER
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

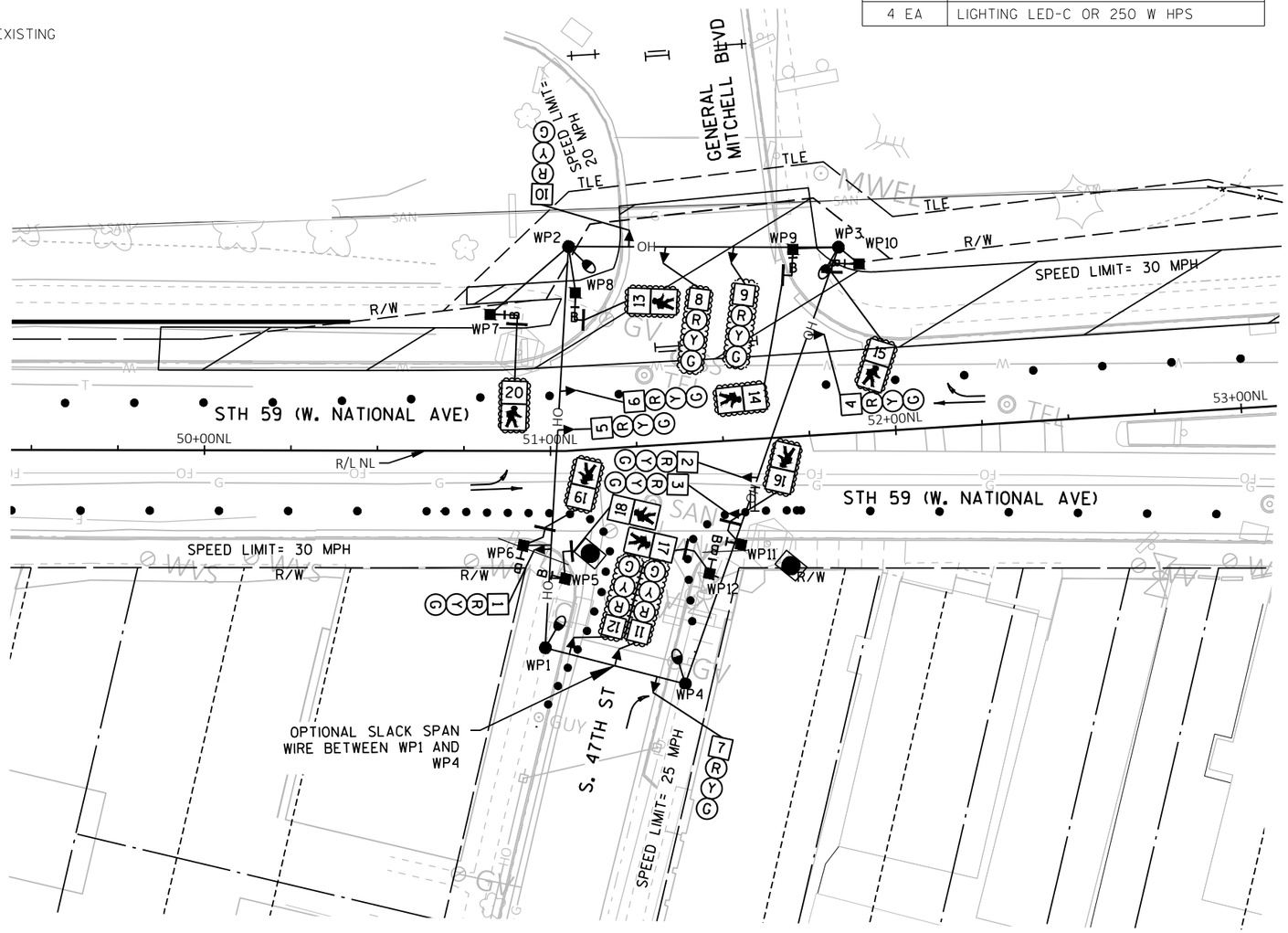
LEGEND

- SPAN WIRE
- WOOD POLE, CLASS 4
- WOOD POST OR SKID TYPE TEMPORARY
- SIGNAL HEAD, OVERHEAD MOUNT
- PEDESTRIAN HEAD
- PUSH BUTTONS
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- LUMINAIRE
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED
- LANE DESIGNATION
- YIELD SIGN
- WORK AREA
- WALK/DON'T WALK INDICATOR

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

SUMMARY OF SELECTED ITEMS FOR INFORMATION ONLY	
QUANTITY	DESCRIPTION
4 EA	WOOD POLES, CLASS 4
487 LF	SPAN WIRE
8 EA	WOOD POST/SKID TYPE TEMPORARY
12 EA	SIGNAL HEADS
8 EA	PEDESTRIAN SIGNAL HEADS
8 EA	PUSH BUTTONS
4 EA	LIGHTING LED-C OR 250 W HPS

N



CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH JASON JOURDAN, VILLAGE OF WEST MILWAUKEE, (414) 645-6238. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. ANY NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
8. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) AND S. 47TH ST

VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

PAGE 1 OF 5

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 93	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024140-ST.DWG
LAYOUT NAME - NATIONAL&47TH_ST
PLOT DATE : 2/24/2025 1:41 PM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

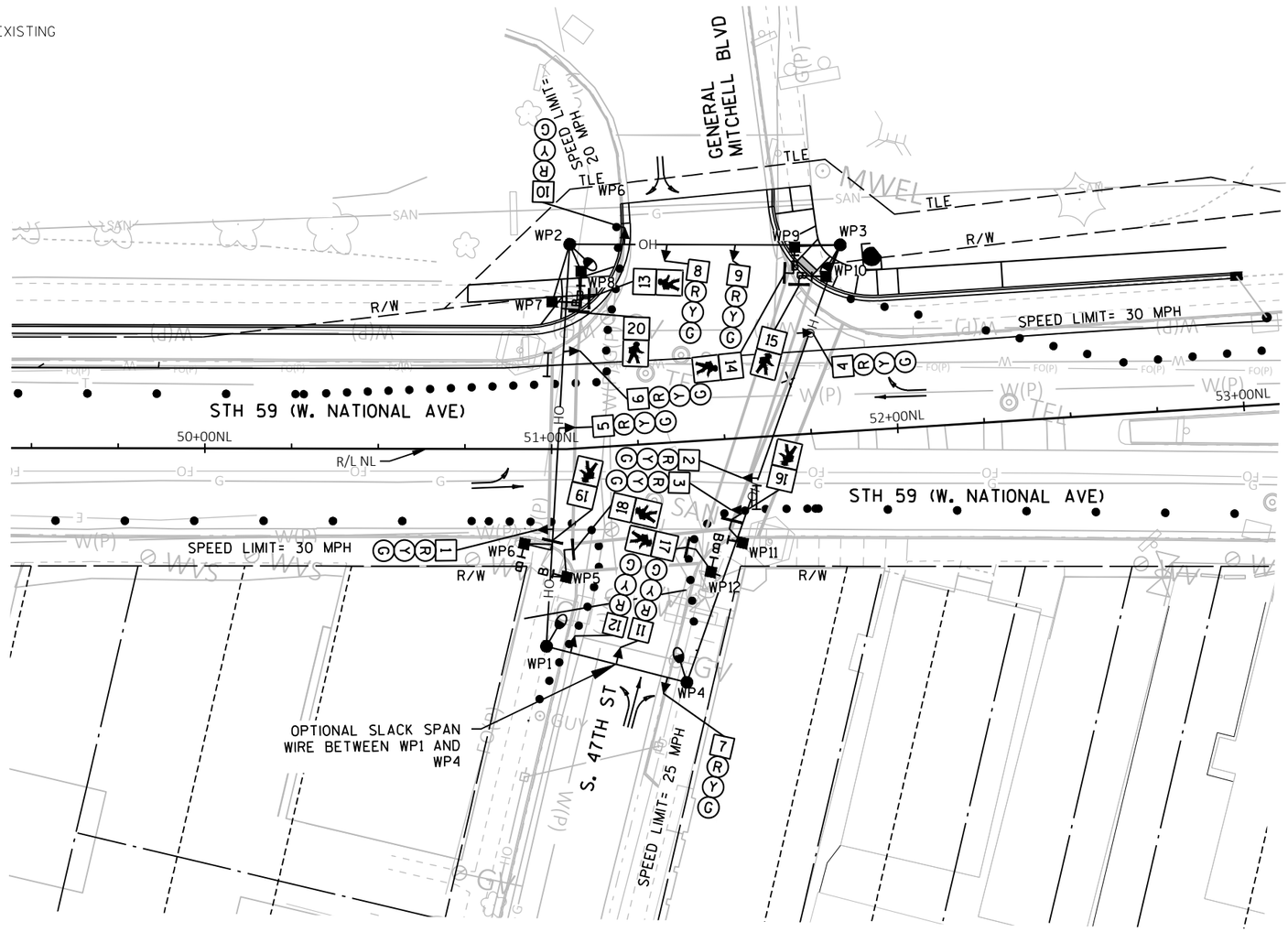
WISDOT/CADDS SHEET 42

2

LEGEND

- SPAN WIRE
- WOOD POLE, CLASS 4
- WOOD POST OR SKID TYPE TEMPORARY
- SIGNAL HEAD, OVERHEAD MOUNT
- PEDESTRIAN HEAD
- PUSH BUTTONS
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- LUMINAIRE
- LANE DESIGNATION
- Y YIELD SIGN
- WORK AREA
- WALK/DON'T WALK INDICATOR

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH JASON JOURDAN, VILLAGE OF WEST MILWAUKEE, (414) 645-6238. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. ANY NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
8. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) AND S. 47TH ST

VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

PAGE 2 OF 5

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2	SHEET 94	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024141-ST.DWG
LAYOUT NAME - NATIONAL&47TH_ST
PLOT DATE : 2/24/2025 1:42 PM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

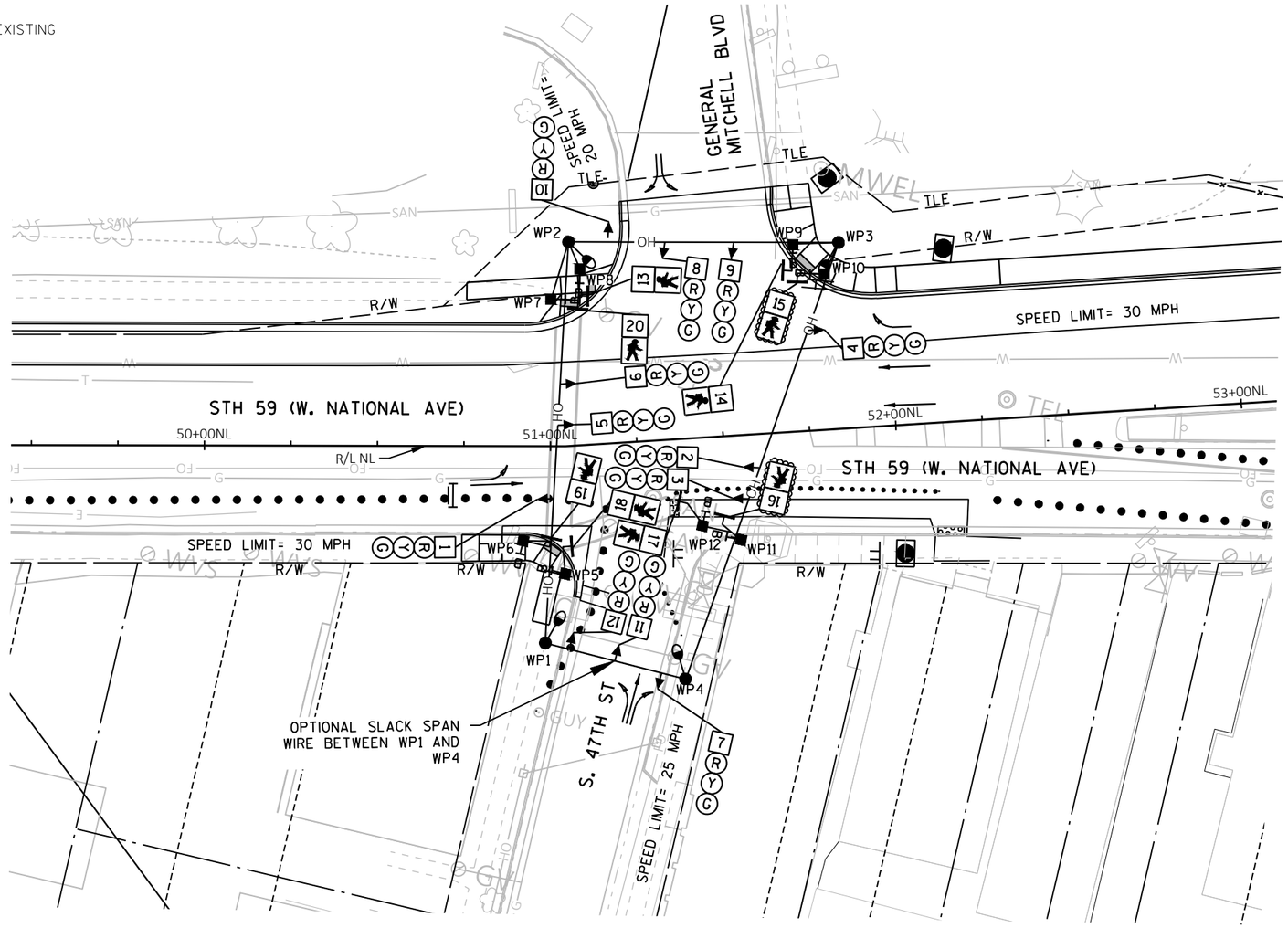
WISDOT/CADDS SHEET 42

2

LEGEND

- SPAN WIRE
- WOOD POLE, CLASS 4
- WOOD POST OR SKID TYPE TEMPORARY
- SIGNAL HEAD, OVERHEAD MOUNT
- PEDESTRIAN HEAD
- PUSH BUTTONS
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- LUMINAIRE
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED
- LANE DESIGNATION
- YIELD SIGN
- WORK AREA
- WALK/DON'T WALK INDICATOR

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH JASON JOURDAN, VILLAGE OF WEST MILWAUKEE, (414) 645-6238. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. ANY NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
8. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) AND S. 47TH ST

VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

PAGE 3 OF 5

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 3	SHEET 95	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024142-ST.DWG
LAYOUT NAME - NATIONAL&47TH_ST
PLOT DATE : 2/24/2025 1:44 PM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

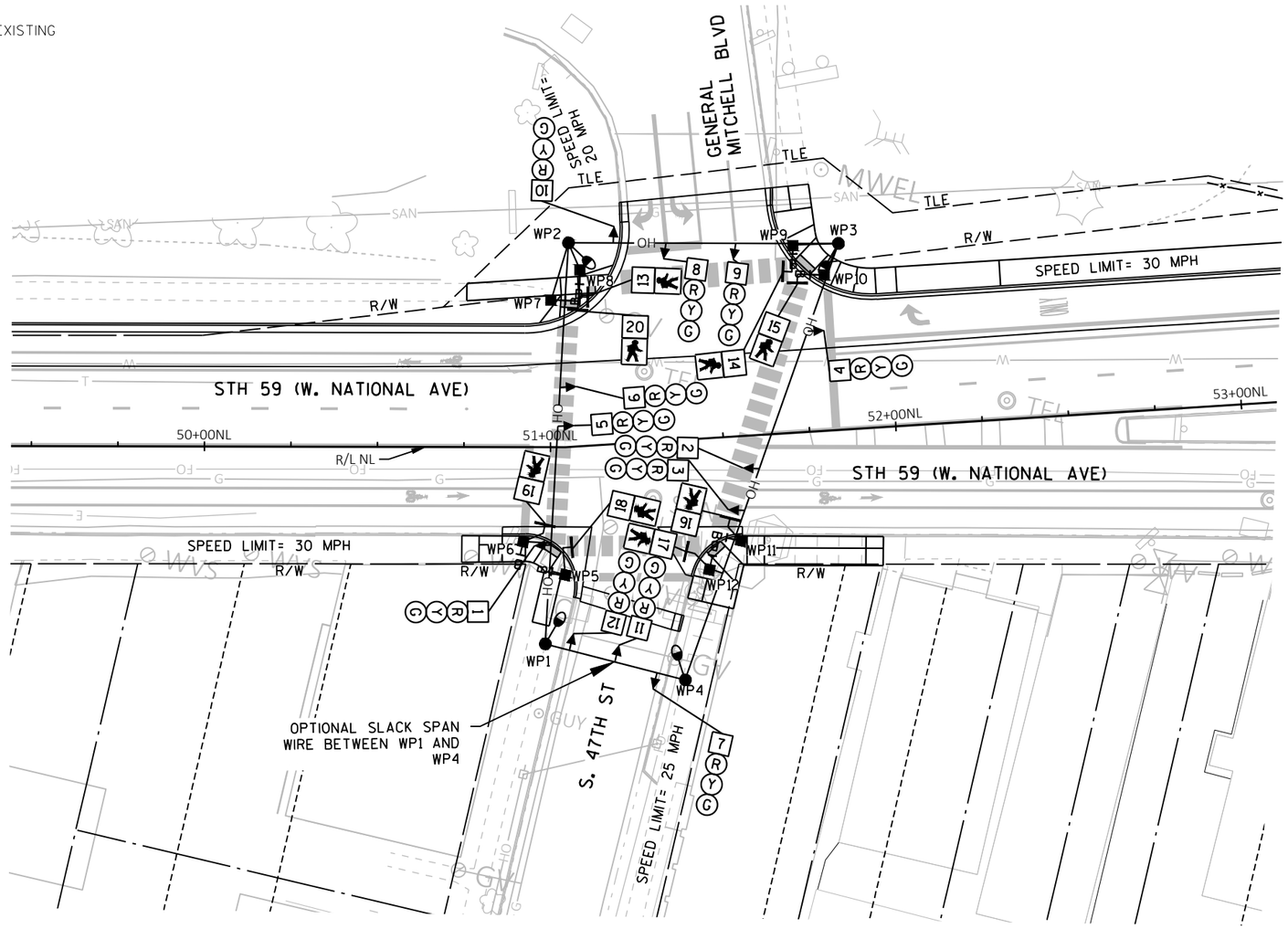
WISDOT/CADDS SHEET 42

2

LEGEND

- SPAN WIRE
- WOOD POLE, CLASS 4
- WOOD POST OR SKID TYPE TEMPORARY
- SIGNAL HEAD, OVERHEAD MOUNT
- PEDESTRIAN HEAD
- PUSH BUTTONS
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- LUMINAIRE
- LANE DESIGNATION
- Y YIELD SIGN
- WORK AREA
- WALK/DON'T WALK INDICATOR

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH JASON JOURDAN, VILLAGE OF WEST MILWAUKEE, (414) 645-6238. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. ANY NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
8. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) AND S. 47TH ST

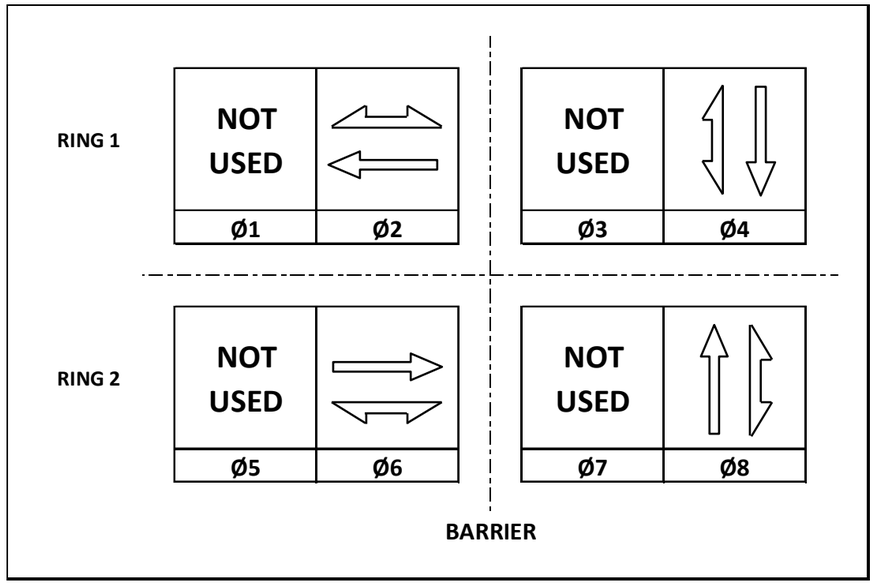
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - FINAL CONFIGURATION	SHEET 96	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\2410477O\SHEETS\02 TYPSANDDETAIL\24104770-024143-ST.DWG
LAYOUT NAME - NATIONAL&47TH_ST
PLOT DATE : 2/24/2025 1:46 PM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1		
Ø2	4,5,6	R
Ø3		
Ø4	10,11,12	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	7,8,9	R
Ø2P	13,14	
Ø4P	19,20	
Ø6P	17,18	
Ø8P	15,16	
OLE		
OLF		
OLG		
OLH		





TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION		
NONE		X
TBC		
TRAFFIC RESPONSIVE		
ADAPTIVE		
*LOCATION OF MASTER CONTROLLER NO:	S-	
SIGNAL SYSTEM NO:	SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2		6	MAX	X
3				
4		8	MAX	X
5				
6		2	MAX	X
7				
8		4	MAX	X

STH 59 (NATIONAL AVE) & S 47TH ST
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

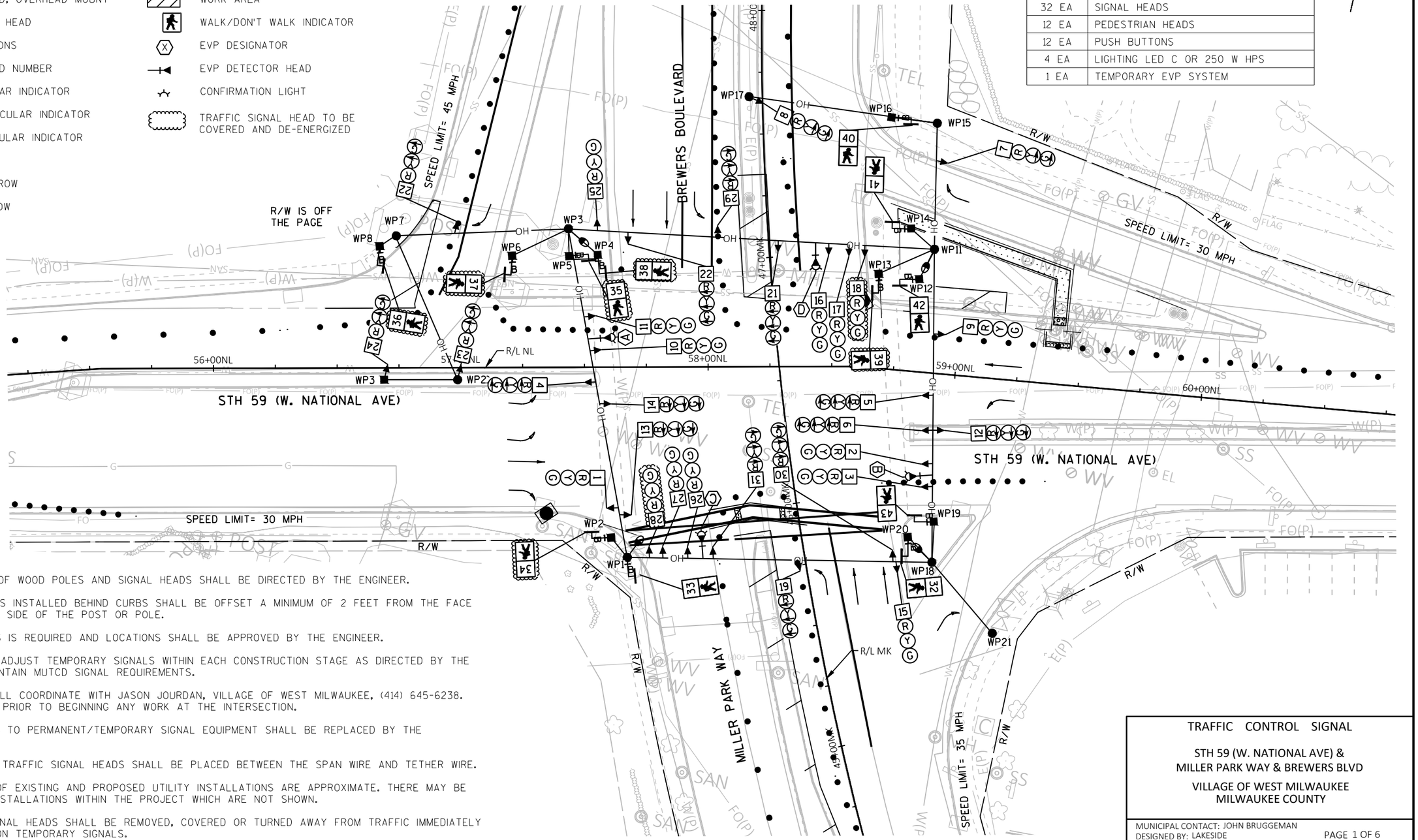
SIGNAL NO: CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP
DATE: 8/2024 PAGE NUMBER: 5 OF 5

2

LEGEND

- SPAN WIRE
- WOOD POLE, CLASS 4
- WOOD POST OR SKID TYPE TEMPORARY
- SIGNAL HEAD, OVERHEAD MOUNT
- PEDESTRIAN HEAD
- PUSH BUTTONS
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- LUMINAIRE
- LANE DESIGNATION
- YIELD SIGN
- WORK AREA
- WALK/DON'T WALK INDICATOR
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- CONFIRMATION LIGHT
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED

SUMMARY OF SELECTED ITEMS FOR INFORMATION ONLY	
QUANTITY	DESCRIPTION
9 EA	WOOD POLES, CLASS 4
1000 LF	SPAN WIRE
12 EA	WOOD POST/SKID TYPE TEMPORARY
32 EA	SIGNAL HEADS
12 EA	PEDESTRIAN HEADS
12 EA	PUSH BUTTONS
4 EA	LIGHTING LED C OR 250 W HPS
1 EA	TEMPORARY EVP SYSTEM



CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH JASON JOURDAN, VILLAGE OF WEST MILWAUKEE, (414) 645-6238. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. ANY NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
8. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) &
MILLER PARK WAY & BREWERS BLVD

VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

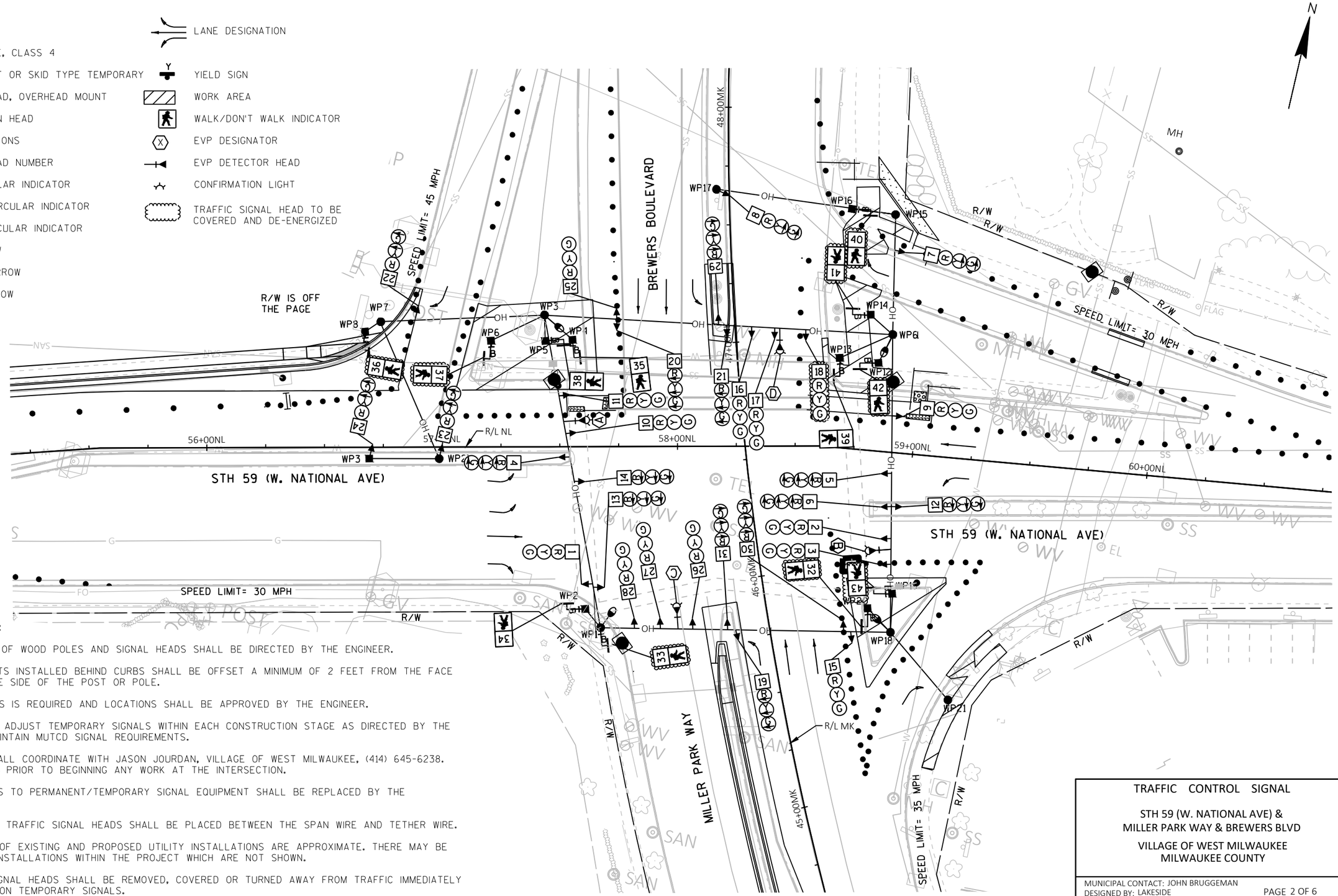
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 1	SHEET 98	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024151-ST.DWG
LAYOUT NAME - NATIONAL&MILLERPARK_ST_S1A
PLOT DATE : 1/14/2025 8:16 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- SPAN WIRE
- WOOD POLE, CLASS 4
- WOOD POST OR SKID TYPE TEMPORARY
- SIGNAL HEAD, OVERHEAD MOUNT
- PEDESTRIAN HEAD
- PUSH BUTTONS
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- LUMINAIRE
- LANE DESIGNATION
- YIELD SIGN
- WORK AREA
- WALK/DON'T WALK INDICATOR
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- CONFIRMATION LIGHT
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED



CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH JASON JOURDAN, VILLAGE OF WEST MILWAUKEE, (414) 645-6238. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. ANY NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
8. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) &
MILLER PARK WAY & BREWERS BLVD

VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

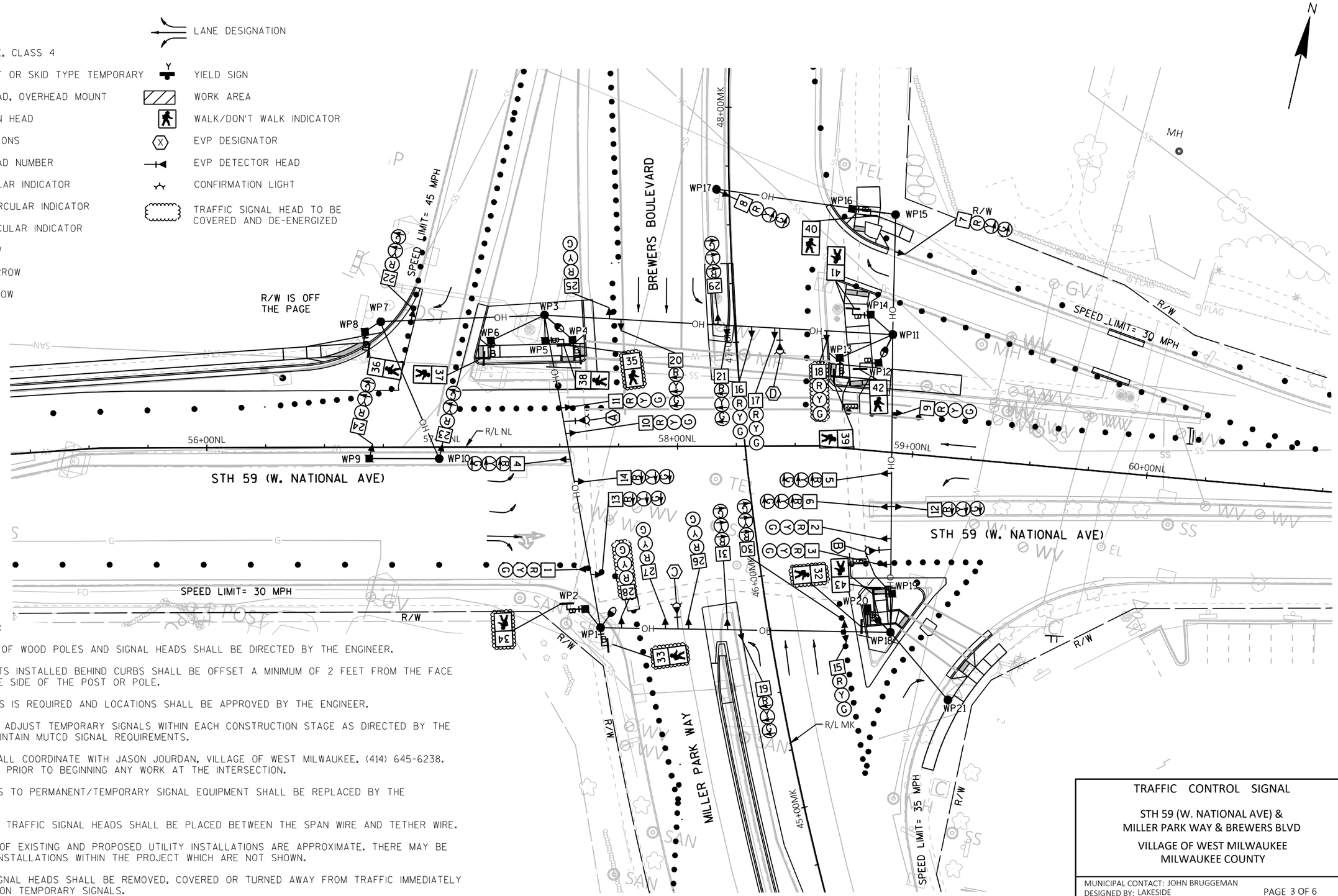
MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2A	SHEET 99	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024152-ST.DWG
LAYOUT NAME - NATIONAL&MILLERPARK_ST_S2A
PLOT DATE : 1/14/2025 8:21 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

LEGEND

- SPAN WIRE
- WOOD POLE, CLASS 4
- WOOD POST OR SKID TYPE TEMPORARY
- SIGNAL HEAD, OVERHEAD MOUNT
- PEDESTRIAN HEAD
- PUSH BUTTONS
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- LUMINAIRE
- LANE DESIGNATION
- YIELD SIGN
- WORK AREA
- WALK/DON'T WALK INDICATOR
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- CONFIRMATION LIGHT
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED



CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH JASON JOURDAN, VILLAGE OF WEST MILWAUKEE, (414) 645-6238. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. ANY NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
8. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) &
MILLER PARK WAY & BREWERS BLVD

VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 2B	SHEET 100	E

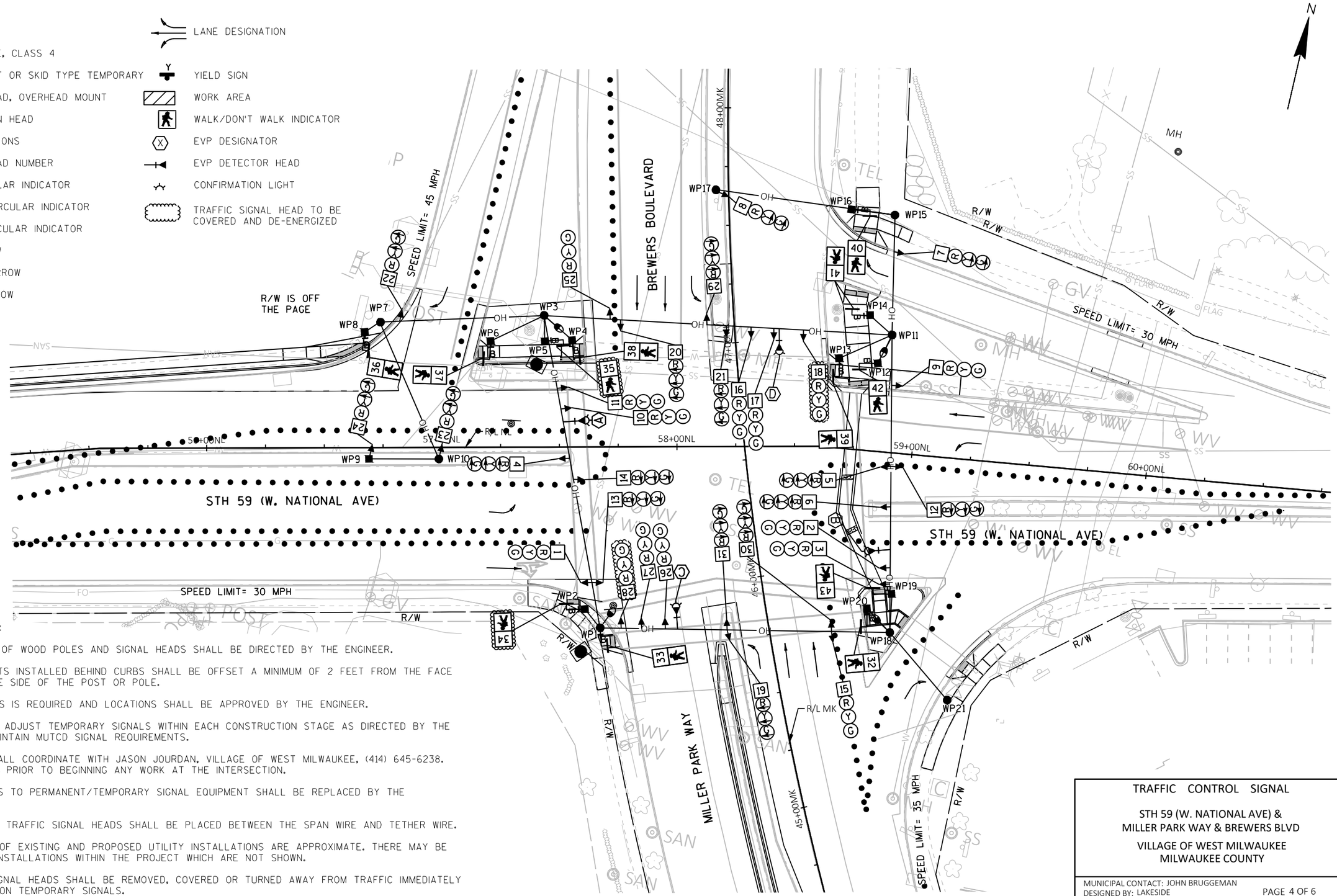
FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024153-ST.DWG
LAYOUT NAME - NATIONAL&MILLERPARK_ST_S2B
PLOT DATE : 1/14/2025 8:23 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

2

LEGEND

- SPAN WIRE
- WOOD POLE, CLASS 4
- WOOD POST OR SKID TYPE TEMPORARY
- SIGNAL HEAD, OVERHEAD MOUNT
- PEDESTRIAN HEAD
- PUSH BUTTONS
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- LUMINAIRE
- LANE DESIGNATION
- YIELD SIGN
- WORK AREA
- WALK/DON'T WALK INDICATOR
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- CONFIRMATION LIGHT
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED



CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH JASON JOURDAN, VILLAGE OF WEST MILWAUKEE, (414) 645-6238. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. ANY NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
8. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) &
MILLER PARK WAY & BREWERS BLVD

VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

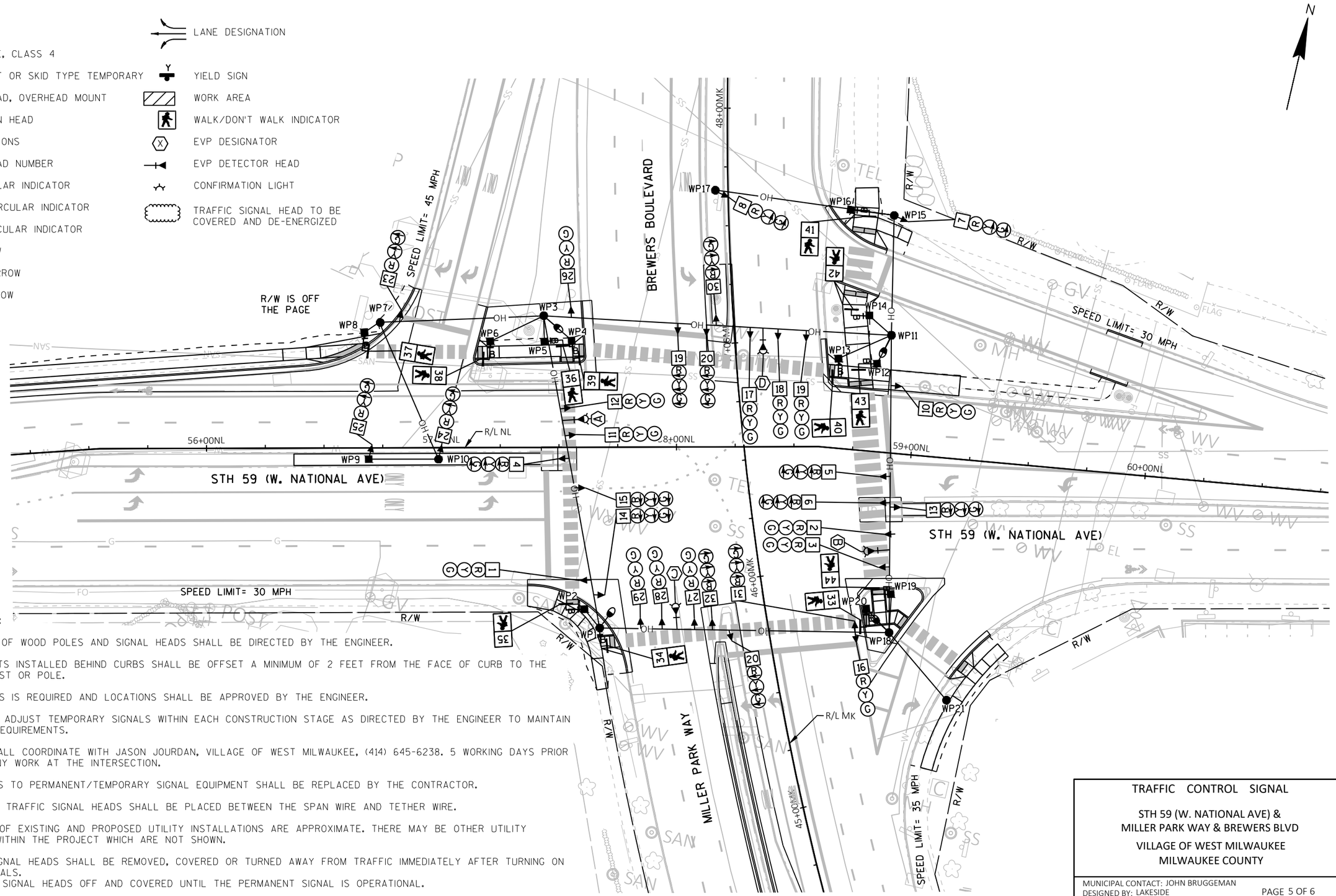
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - STAGE 3	SHEET 101	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024154-ST.DWG
LAYOUT NAME - NATIONAL&MILLERPARK_ST_S3
PLOT DATE : 1/14/2025 8:25 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- SPAN WIRE
- WOOD POLE, CLASS 4
- WOOD POST OR SKID TYPE TEMPORARY
- SIGNAL HEAD, OVERHEAD MOUNT
- PEDESTRIAN HEAD
- PUSH BUTTONS
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- LUMINAIRE
- LANE DESIGNATION
- YIELD SIGN
- WORK AREA
- WALK/DON'T WALK INDICATOR
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- CONFIRMATION LIGHT
- TRAFFIC SIGNAL HEAD TO BE COVERED AND DE-ENERGIZED



CONSTRUCTION NOTES:

1. FINAL LOCATION OF WOOD POLES AND SIGNAL HEADS SHALL BE DIRECTED BY THE ENGINEER.
2. POLES AND POSTS INSTALLED BEHIND CURBS SHALL BE OFFSET A MINIMUM OF 2 FEET FROM THE FACE OF CURB TO THE SIDE OF THE POST OR POLE.
3. GUYING OF POLES IS REQUIRED AND LOCATIONS SHALL BE APPROVED BY THE ENGINEER.
4. CONTRACTOR TO ADJUST TEMPORARY SIGNALS WITHIN EACH CONSTRUCTION STAGE AS DIRECTED BY THE ENGINEER TO MAINTAIN MUTCD SIGNAL REQUIREMENTS.
5. CONTRACTOR SHALL COORDINATE WITH JASON JOURDAN, VILLAGE OF WEST MILWAUKEE, (414) 645-6238. 5 WORKING DAYS PRIOR TO BEGINNING ANY WORK AT THE INTERSECTION.
6. ANY KNOCKDOWNS TO PERMANENT/TEMPORARY SIGNAL EQUIPMENT SHALL BE REPLACED BY THE CONTRACTOR.
7. ANY NEAR RIGHT TRAFFIC SIGNAL HEADS SHALL BE PLACED BETWEEN THE SPAN WIRE AND TETHER WIRE.
8. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
9. ALL EXISTING SIGNAL HEADS SHALL BE REMOVED, COVERED OR TURNED AWAY FROM TRAFFIC IMMEDIATELY AFTER TURNING ON TEMPORARY SIGNALS.
10. KEEP PROPOSED SIGNAL HEADS OFF AND COVERED UNTIL THE PERMANENT SIGNAL IS OPERATIONAL.

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) &
MILLER PARK WAY & BREWERS BLVD

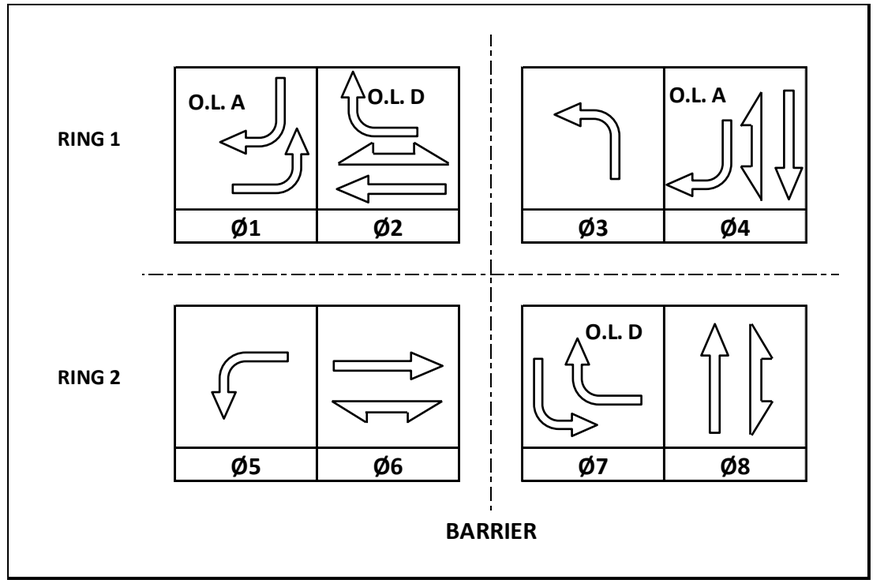
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TEMPORARY TRAFFIC SIGNAL PLAN - FINAL CONFIGURATION	SHEET 102	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024155-ST.DWG
LAYOUT NAME - NATIONAL&MILLERPARK_ST_FINAL
PLOT DATE : 1/14/2025 8:14 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1	4,5,6	R ↵
Ø2	9,10,11	R
Ø3	19,20,21	R ↵
Ø4	25,26,27,28	R
Ø5	12,13,14	R ↵
Ø6	1,2,3	R
Ø7	29,30,31	R ↵
Ø8	15,16,17,18	R
Ø2P	36,37,38,39	
Ø4P	34,35	
Ø6P	32,33	
Ø8P	40,41,42,43	
OLA	22,23,24	
OLB		
OLC		
OLD	7,8	



N

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	X
TBC	
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6	MAX	X
2		6	MAX	X
3		8	MAX	X
4		8	MAX	X
5		2	MAX	X
6		2	MAX	X
7		4	MAX	X
8		4	MAX	X

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	←	↗	↓	↑
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	X
LIFT BRIDGE	
QUEUE DETECTION	

STH 59 (NATIONAL AVE) & MILLER PARK WAY
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

SIGNAL NO: CABINET TYPE: TEMP
CONTROLLER TYPE: TEMP
DATE: 8/2024 PAGE NUMBER: 6 OF 6

2

LEGEND

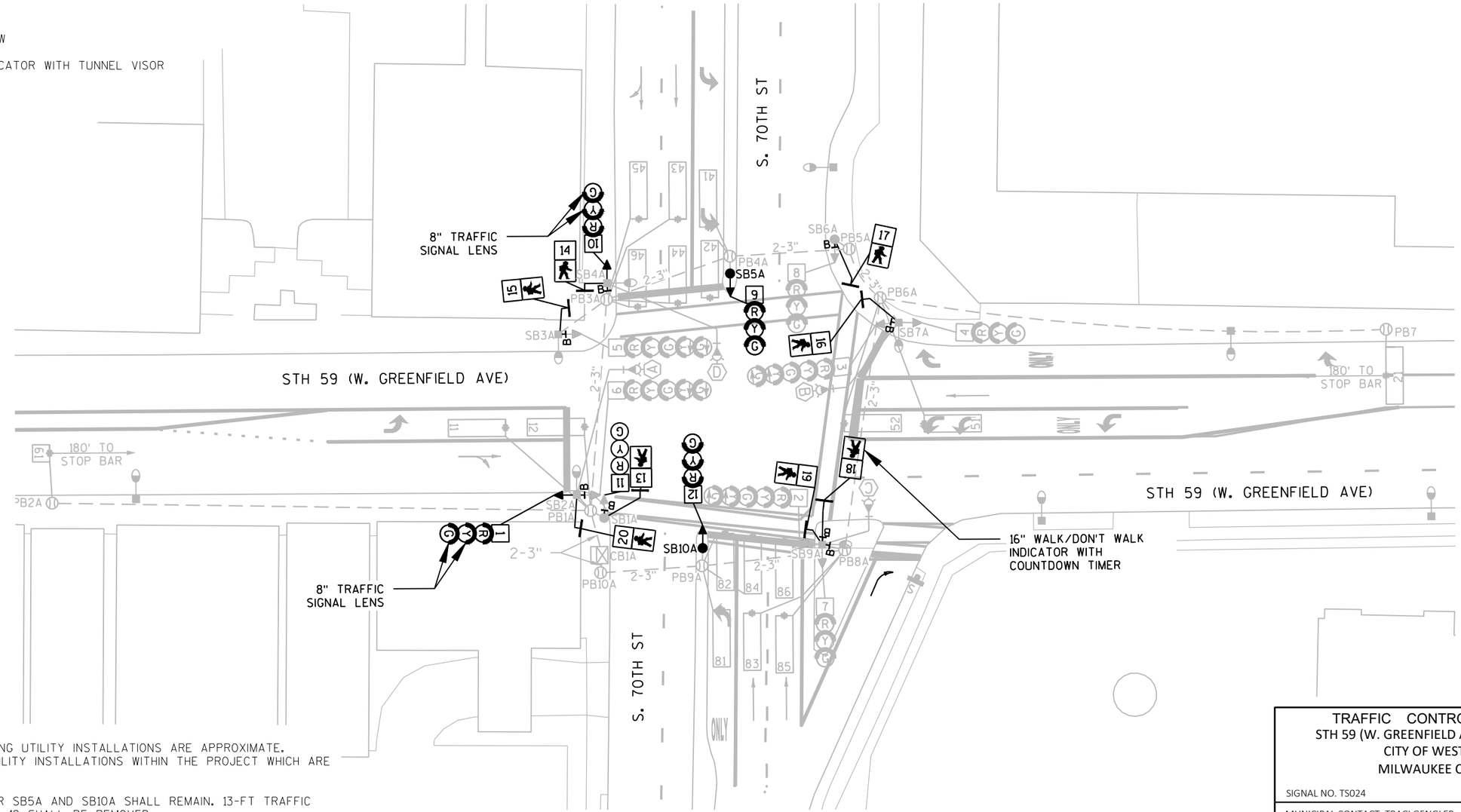
- CONTROL CABINET
- NONMETALLIC CONDUIT 3", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- CITY OF WEST ALLIS LUMINAIRE
- PULL BOX, 24" X 42"
- SIGNAL HEAD NUMBER
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- GREEN ARROW
- YELLOW ARROW
- CIRCULAR INDICATOR WITH TUNNEL VISOR
- 12" WALK/DON'T WALK INDICATOR
- PEDESTRIAN HEAD
- PUSH BUTTON
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- CONFIRMATION LIGHT
- LOOP DETECTORS
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH UNLESS OTHERWISE NOTED.

GRAYSHADE REPRESENTS EXISTING TO REMAIN. BOLD REPRESENTS ITEMS TO BE REMOVED.

N

2



CONSTRUCTION NOTES:

1. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
2. THE CONCRETE BASES FOR SB5A AND SB10A SHALL REMAIN. 13-FT TRAFFIC POLES, HEAD 9 AND HEAD 12 SHALL BE REMOVED.

TRAFFIC CONTROL SIGNAL
STH 59 (W. GREENFIELD AVE) & S. 70TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO. TS024

MUNICIPAL CONTACT: TRACI GENGLER
DESIGNED BY:
REVISED BY: HNTB

PAGE 1 OF 1

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 104	E

FILE NAME : C:\USERS\OSCHOMMER\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\DSGN\EDGELINE\SIGNALS\GREENFIELDAND70THST_SR.DWG
LAYOUT NAME - GREENFIELD_70THSTREET_SR
PLOT DATE : 1/24/2025 1:00 PM PLOT BY : OLIVIA DEMUTH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

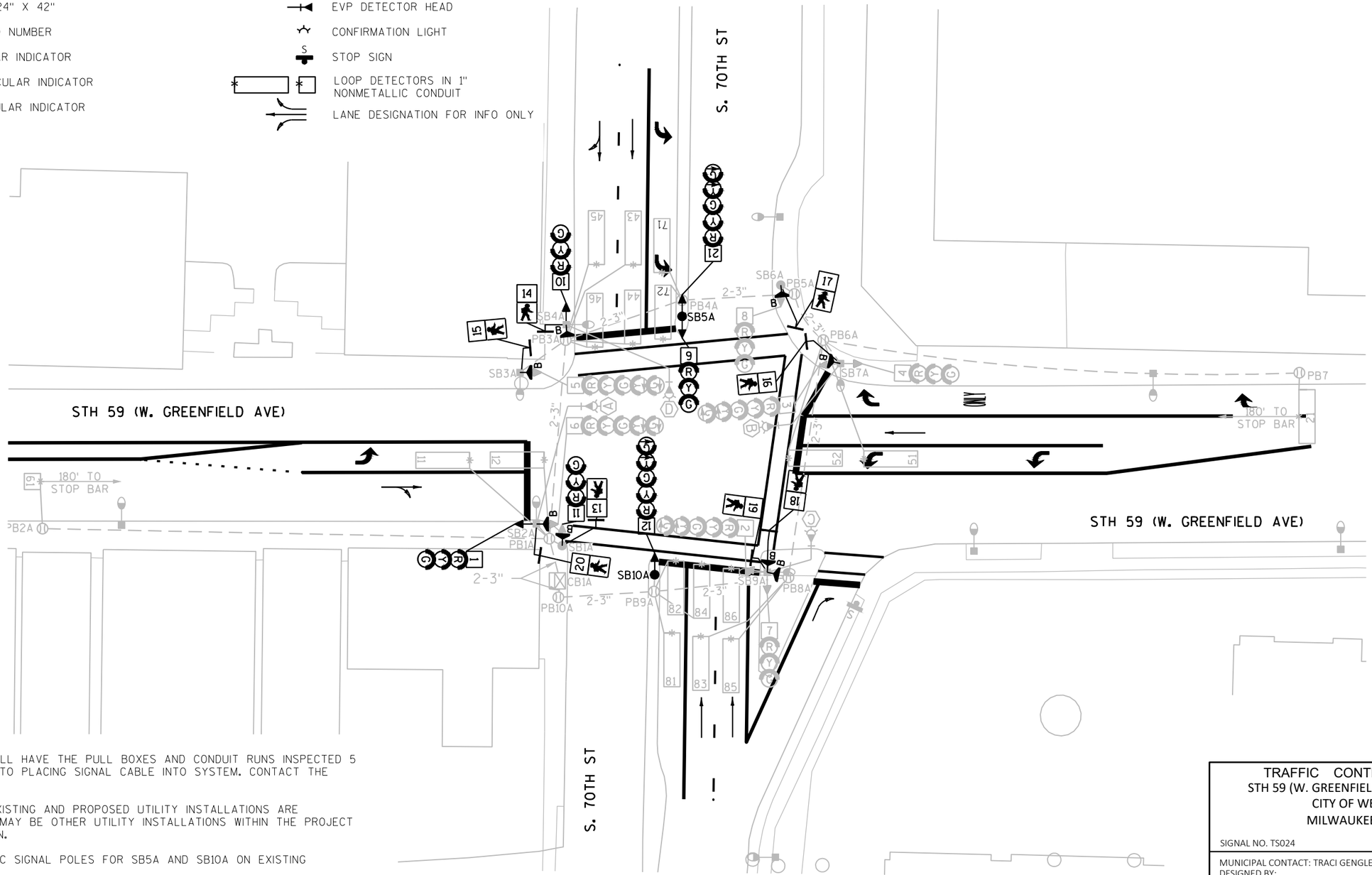
2

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 3", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- CITY OF WEST ALLIS LUMINAIRE
- PEDESTRIAN HEAD WITH PUSH BUTTON (APS)
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- GREEN ARROW
- YELLOW ARROW
- CIRCULAR INDICATOR WITH TUNNEL VISOR
- 16" WALK/DON'T WALK INDICATOR (COUNTDOWN TIMER)
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- CONFIRMATION LIGHT
- S STOP SIGN
- LOOP DETECTORS IN 1" NONMETALLIC CONDUIT
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH UNLESS OTHERWISE NOTED
GRAYSHADE REPRESENTS EXISTING

N



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE MUNICIPALITY.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. INSTALL 15-FT TRAFFIC SIGNAL POLES FOR SB5A AND SB10A ON EXISTING CONCRETE BASES.

TRAFFIC CONTROL SIGNAL
STH 59 (W. GREENFIELD AVE) & S. 70TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO. TS024

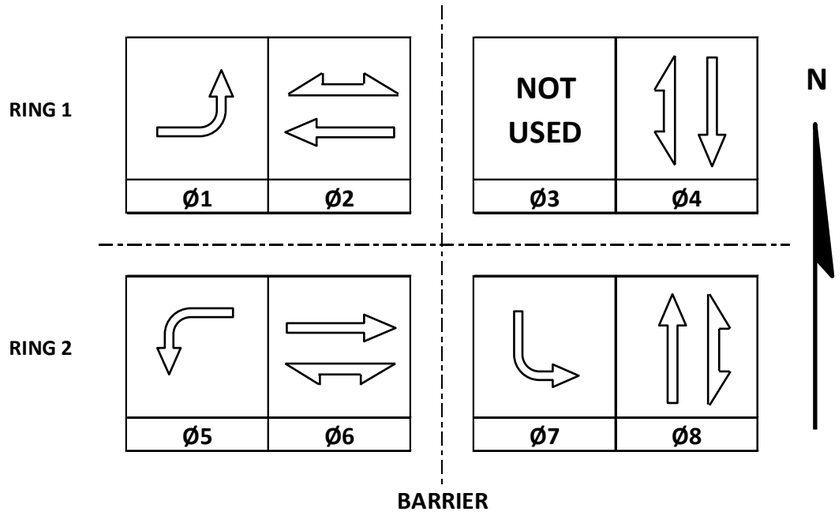
MUNICIPAL CONTACT: TRACI GENGLER
DESIGNED BY:
REVISED BY: HNTB

PAGE 1 OF 2

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 105	E

2

	HEAD NUMBERS	FLASH
Ø1	2,3	-
Ø2	4,5,6	R
Ø3		
Ø4	10,11,12,21	R
Ø5	5,6	-
Ø6	1,2,3	R
Ø7	12,21	-
Ø8	7,8,9	R
Ø2P	15,16	
Ø4P	13,14	
Ø6P	19,20	
Ø8P	17,18	



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
11	EXIST	X			1	1				EXIST	EXIST
12	EXIST	X			1	1		X		EXIST	EXIST
21	EXIST	X			2	2				EXIST	EXIST
43	EXIST	X			4	4				EXIST	EXIST
44	EXIST	X			4	4				EXIST	EXIST
45	EXIST	X			4	4		X		EXIST	EXIST
46	EXIST	X			4	4		X		EXIST	EXIST
51	EXIST	X			5	5				EXIST	EXIST
52	EXIST	X			5	5		X		EXIST	EXIST
61	EXIST	X			6	6				EXIST	EXIST
71	*	X			7	7				EXIST	EXIST
72	*	X			7	7				EXIST	EXIST
81	EXIST	X			8	8				EXIST	EXIST
82	EXIST	X			8	8				EXIST	EXIST
83	EXIST	X			8	8				EXIST	EXIST
84	EXIST	X			8	8				EXIST	EXIST
85	EXIST	X			8	8				EXIST	EXIST
86	EXIST	X			8	8				EXIST	EXIST

* LOOPS 71 AND 72 TO BE ON A SEPARATE AMPLIFIER CHANNEL.

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3				
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	X
LIFT BRIDGE	
QUEUE DETECTION	

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+5	6+1	4+7	8+4

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+7 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

STH 59 (W. GREENFIELD AVE) & S. 70TH ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY
SIGNAL NO: TS024 CABINET TYPE: TS1
CONTROLLER TYPE: EPAC
DATE: 01/25 PAGE NUMBER: 2 OF 2

2

PROJECT ID:	2410-47-70
INTERSECTION:	STH 59 (W. GREENFIELD AVE) & S. 70TH ST

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1A	5	B										BLK	WHT
SB2A	5	B										BLK	WHT
SB3A	5	B										BLK	WHT
SB4A	5	B										BLK	WHT
SB5A	7	21	RED	ORG	GRN		ORG/BLK	GRN/BLK					
SB6A	5	B										BLK	WHT
SB7A	5	B										BLK	WHT
SB9A	5	B										BLK	WHT
		B										RED	GRN
SB10A	7	12	RED	ORG	GRN		ORG/BLK	GRN/BLK					

NOTES:
USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
FOLLOW MANUFACTURER'S SPECIFICATIONS FOR PUSH BUTTON WIRING.
USE EXISTING CONDUCTORS FOR HEAD 9

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CABLE ROUTING	SHEET:	E

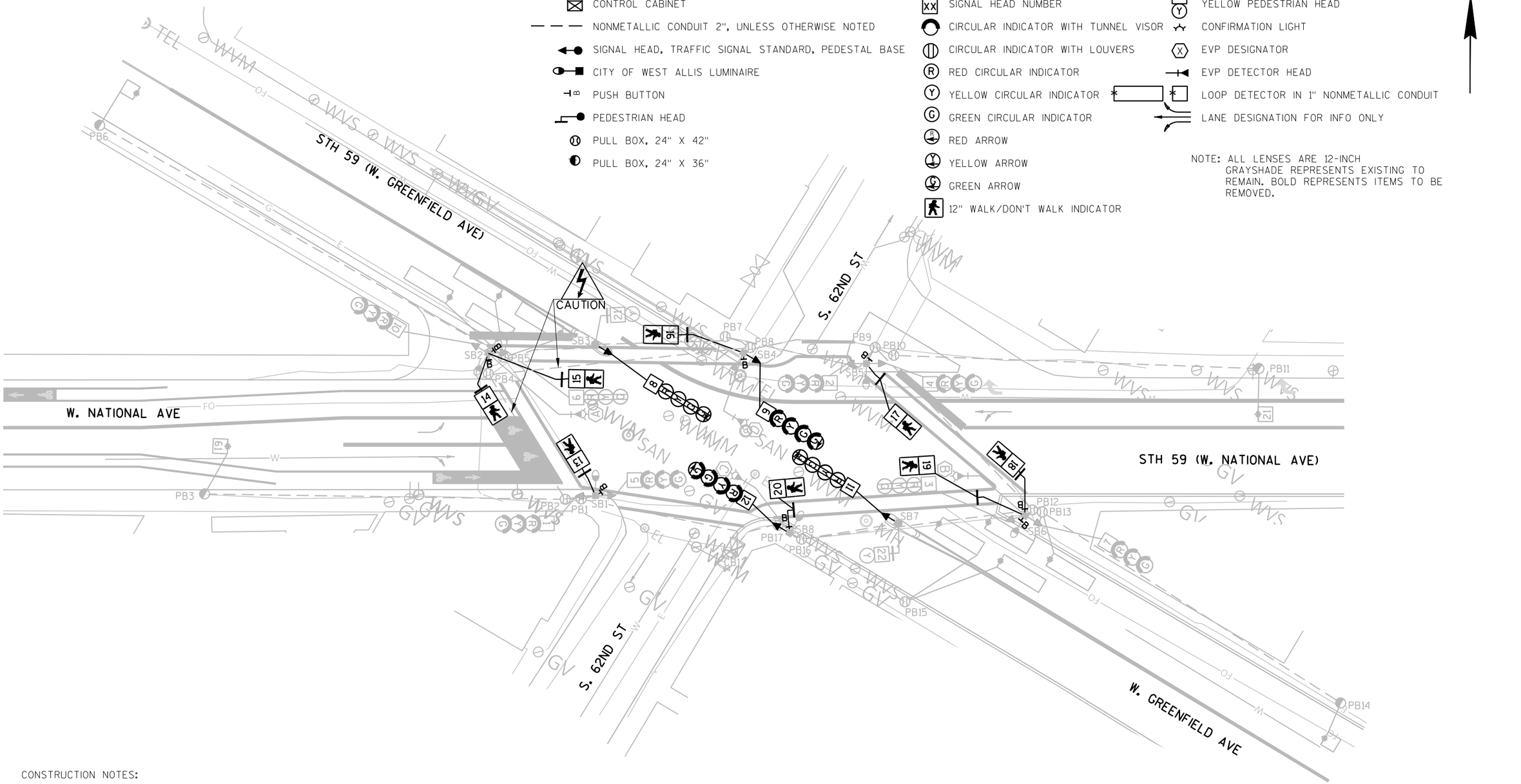
FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Madison Projects\71190 I-94 Local Roads\4_Engineering\4.4_CTH-H\4.4.1_37600070-CTH-H-South-Leg\t1\cds\024020_sp_cr.ppt
PLOT DATE : 1/7/2025 2:27:31 PM PLOT BY : HNTB PLOT NAME : 024020_sp_cr‹#› PLOT SCALE : 1:1

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- CITY OF WEST ALLIS LUMINAIRE
- PUSH BUTTON
- PEDESTRIAN HEAD
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- SIGNAL HEAD NUMBER
- CIRCULAR INDICATOR WITH TUNNEL VISOR
- CIRCULAR INDICATOR WITH LOUVERS
- RED CIRCULAR INDICATOR
- YELLOW CIRCULAR INDICATOR
- GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- 12" WALK/DON'T WALK INDICATOR
- YELLOW PEDESTRIAN HEAD
- CONFIRMATION LIGHT
- EVP DESIGNATOR
- EVP DETECTOR HEAD
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING TO REMAIN. BOLD REPRESENTS ITEMS TO BE REMOVED.

N



CONSTRUCTION NOTES:

1. CONTRACTOR TO FIELD VERIFY EXISTING PULL BOX AND CONDUIT RUNS PRIOR TO BEGINNING WORK.
2. DISCONNECT LOOPS ON GREENFIELD AVENUE IN THE TRAFFIC SIGNAL CABINET. CONTACT CITY OF WEST ALLIS AT LEAST 5 WORKING DAYS PRIOR TO DISCONNECT.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.

CAUTION

HIGH VOLTAGE CABLE IN CONDUIT.

TRAFFIC CONTROL SIGNAL
STH 59 (W. GREENFIELD AVE) &
STH 59 (W. NATIONAL AVE)
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO. TS015

MUNICIPAL CONTACT: TRACI GENGLER
DESIGNED BY:
REVISED BY: HNTB

PAGE 1 OF 1

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 108	E

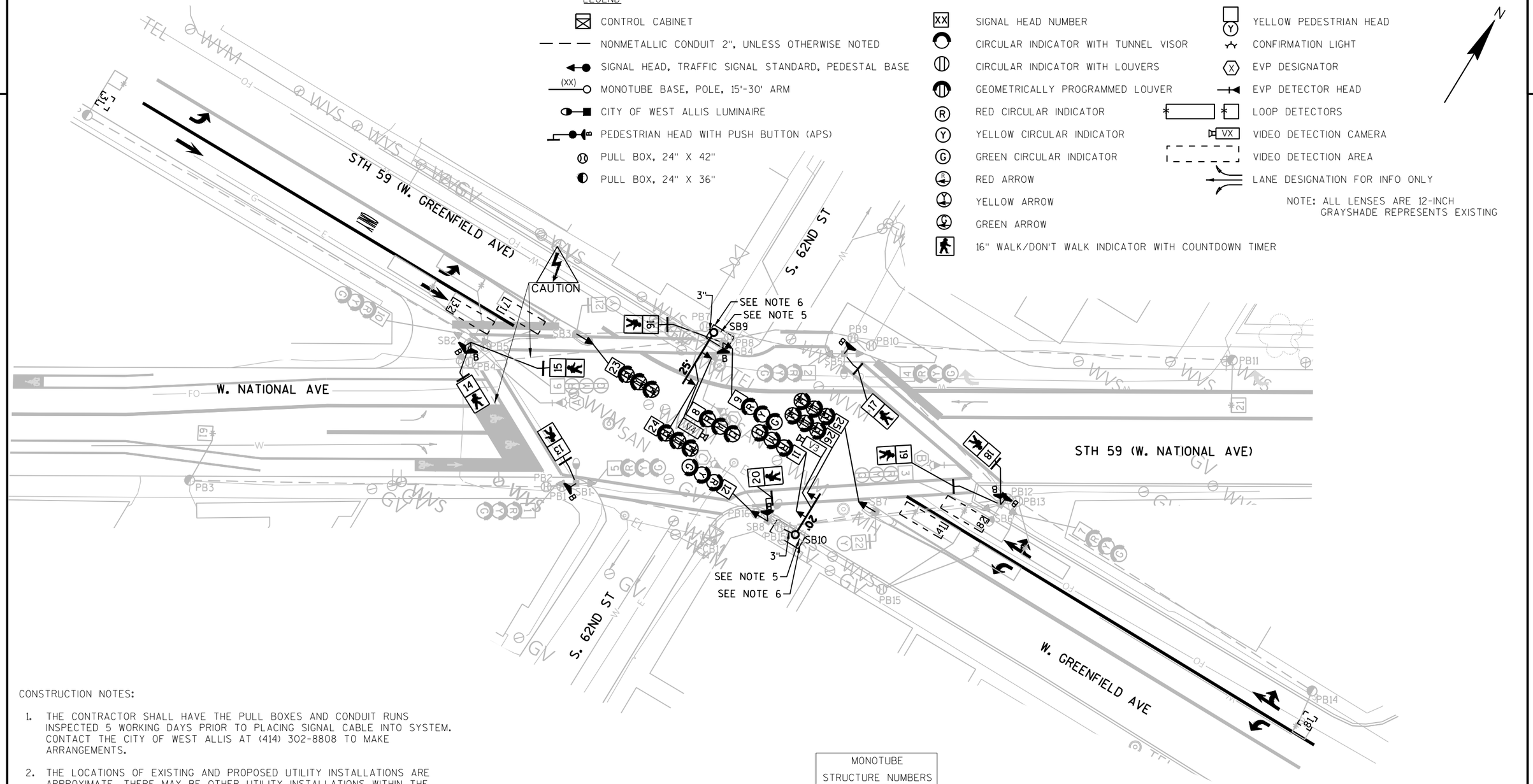
FILE NAME : C:\USERS\OSCHOMMER\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\DSGN\EDGELINE\SIGNALS\GREENFIELDANDNATIONAL_SR.DWG
LAYOUT NAME - GREENFIELD_NATIONAL_SR
PLOT DATE : 1/24/2025 1:15 PM PLOT BY : OLIVIA DEMUTH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- CITY OF WEST ALLIS LUMINAIRE
- PEDESTRIAN HEAD WITH PUSH BUTTON (APS)
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- XX SIGNAL HEAD NUMBER
- CIRCULAR INDICATOR WITH TUNNEL VISOR
- CIRCULAR INDICATOR WITH LOUVERS
- GEOMETRICALLY PROGRAMMED LOUVER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- 16" WALK/DON'T WALK INDICATOR WITH COUNTDOWN TIMER
- YELLOW PEDESTRIAN HEAD
- CONFIRMATION LIGHT
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- LOOP DETECTORS
- VX VIDEO DETECTION CAMERA
- VIDEO DETECTION AREA
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE CITY OF WEST ALLIS AT (414) 302-8808 TO MAKE ARRANGEMENTS.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. ANY CASINGS ARE INCIDENTAL TO THE CONCRETE SIGNAL BASE ITEMS.
4. HIGH VOLTAGE CABLE BASED ON AS-BUILT PLANS. CONTRACTOR TO FIELD VERIFY HIGH VOLTAGE CABLE ROUTING IN EXISTING CONDUIT RUNS.
5. ADJUST EXISTING CONDUIT AS NECESSARY.
6. SIDEWALK TO BE REMOVED AND REPLACED IN THE NW AND SE QUADRANTS. REFER TO PLAN DETAILS.

MONOTUBE STRUCTURE NUMBERS
SB9 = S40-2161-01
SB10 = S40-2161-02

⚠ CAUTION

HIGH VOLTAGE CABLE IN CONDUIT.

TRAFFIC CONTROL SIGNAL
STH 59 (W. GREENFIELD AVE) & STH 59
(W. NATIONAL AVE) & 62ND ST
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO. TS015

MUNICIPAL CONTACT: TRACI GENGLER
DESIGNED BY:
REVISED BY: HNTB

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 109	E

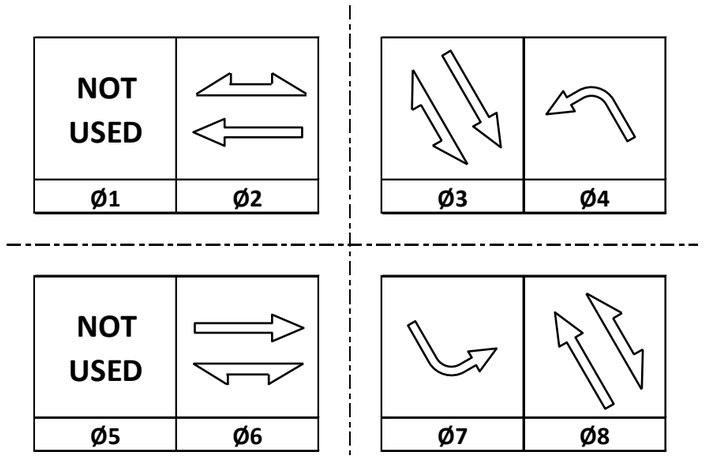
FILE NAME : C:\USERS\ADOUGHERTY\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\DSGN\EDGELINE\SIGNALS\GREENFIELDANDNATIONAL_SP.DWG
LAYOUT NAME - GREENFIELD_NATIONAL_SP
PLOT DATE : 2/28/2025 1:48 PM PLOT BY : ALICIA DOUGHERTY PLOT NAME : PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

	HEAD NUMBERS	FLASH
Ø1		
Ø2	4,5,6	R
Ø3	10,11,12	R
Ø4	23,24	R ←
Ø5		
Ø6	1,2,3	R
Ø7	25,26	R ←
Ø8	7,8,9	R
Ø2P	15,16,21	
Ø3P	13,14	
Ø6P	19,20,22	
Ø8P	17,18	

RING 1

RING 2



DETECTOR LOGIC

DETECTOR NUMBER	AMPLIFIER CHANNEL	DETECTOR OPERATION			PHASE CALLED	PHASE EXTENDED	DETECTOR DISCONNECT PHASE	CALLING DELAY	EXTENSION STRETCH	SIZE	NUMBER OF TURNS
		CALLS AND EXTENDS	CALLS ONLY	EXTENDS ONLY							
21	EXIST	X			2	2				EXIST	EXIST
31	VIDEO			X		3			X	VIDEO	VIDEO
32	VIDEO	X			3	3				VIDEO	VIDEO
41	VIDEO	X			4	4		X		VIDEO	VIDEO
61	EXIST	X			6	6				EXIST	EXIST
71	VIDEO	X			7	7		X		VIDEO	VIDEO
81	VIDEO			X		8			X	VIDEO	VIDEO
82	VIDEO	X			8	8				VIDEO	VIDEO

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	X
3		8		X
4		8		X
5				
6	X	2	MIN	X
7		3		X
8		3		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	X
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	X
LIFT BRIDGE	
QUEUE DETECTION	

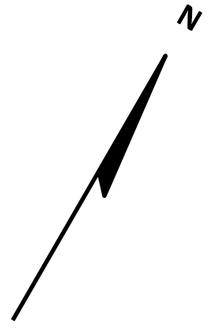
EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	← →	← →	↓	↑
PHASE	2+6	6+2	3+7	8+4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 3+7 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 3+8.

GENERAL NOTES:

1. PHASE 4 AND PHASE 7 ARE IN CONFLICT AND SHALL NOT RUN CONCURRENTLY.



STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)
CITY OF WEST ALLIS
MILWAUKEE COUNTY

SIGNAL NO: TS015 CABINET TYPE: TS1
CONTROLLER TYPE: EPAC
DATE: 01/25 PAGE NUMBER: 2 OF 2

2

PROJECT ID:	2410-47-70
INTERSECTION:	STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	NO. OF CONDUCTORS	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	5	B										BLK	WHT
SB2	5	B										BLK	WHT
		B										RED	GRN
SB4	5	B										BLK	WHT
SB5	5	B										BLK	WHT
SB6	5	B										BLK	WHT
		B										RED	GRN
SB8	5	B										BLK	WHT
SB9	12	8	RED	ORG	GRN								
		24				RED/BLK	ORG/BLK	GRN/BLK					
SB10	12	11	RED	ORG	GRN								
		26				RED/BLK	ORG/BLK	GRN/BLK					

NOTES:
USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.
FOLLOW MANUFACTURER'S SPECIFICATIONS FOR PUSH BUTTON WIRING.
USE EXISTING CONDUCTORS FOR HEADS 9, 12, 23, AND 25.

(CONTINUED ON NEXT SHEET)

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Madison Projects\71190 I-94 Local Roads\4_Engineering\4.4_CTH-H\4.4.1_37600070-CTH-H-South-Leg\t1\cds\024020_sp_cr.ppt
PLOT DATE : 1/7/2025 2:33:13 PM PLOT BY : HNTB PLOT NAME : 024020_sp_cr‹#› PLOT SCALE : 1:1

2

(CONTINUED)

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
SB4	SB9
SB8	SB10

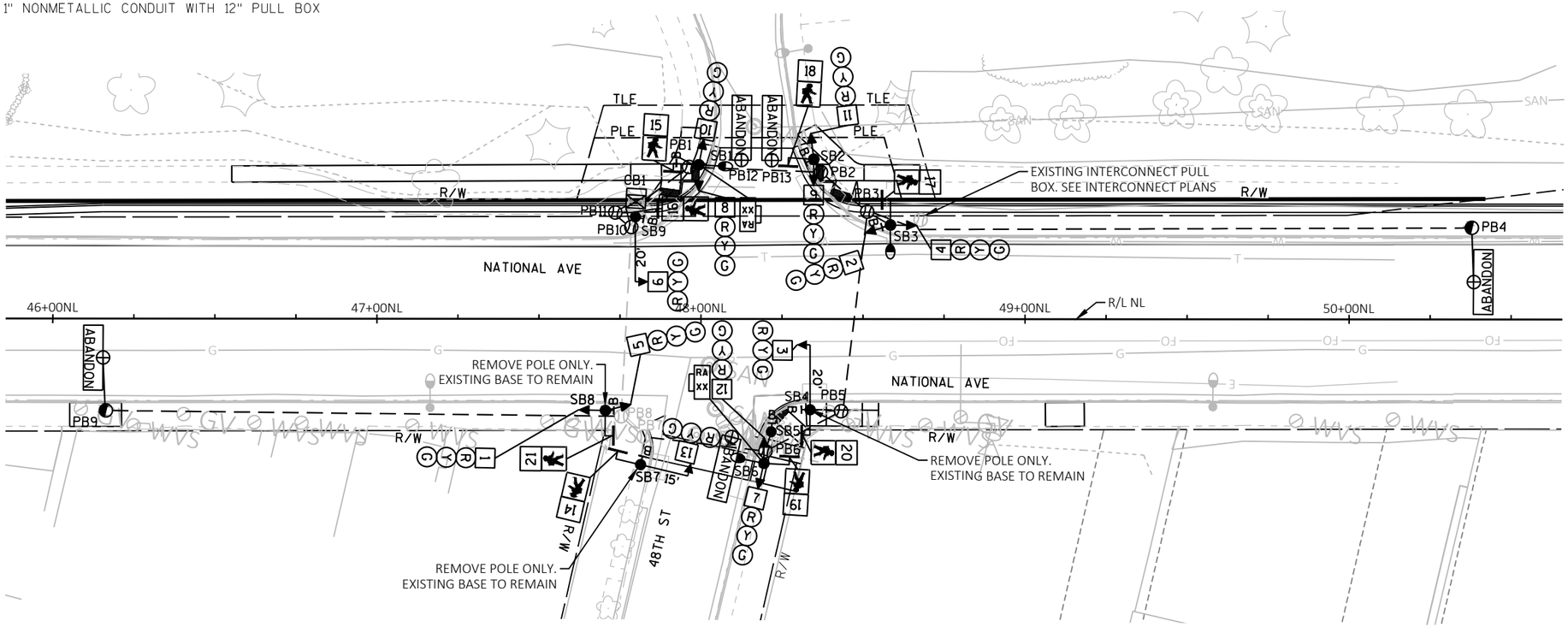
VIDEO DETECTION CABLE	
FROM	TO
CB1	SB9 (V4)
CB1	SB10 (V3)

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- PULL BOX, 24" X 42"
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- RA XX RADAR DETECTOR
- WALK/DON'T WALK INDICATOR 16"
- PEDESTRIAN HEAD
- PB PUSH BUTTON
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING TO REMAIN. BOLD REPRESENTS ITEMS TO BE REMOVED.

N



CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. EXISTING COMBINED SIGNAL AND LIGHT POLES INCLUDE SIGNAL WIRING FROM THE SIGNAL CABINET AND LIGHTING WIRE FROM A SEPARATE LIGHTING CABINET/CIRCUIT.

TRAFFIC CONTROL SIGNAL
STH 59 (W. NATIONAL AVE) AND S. 48TH ST
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

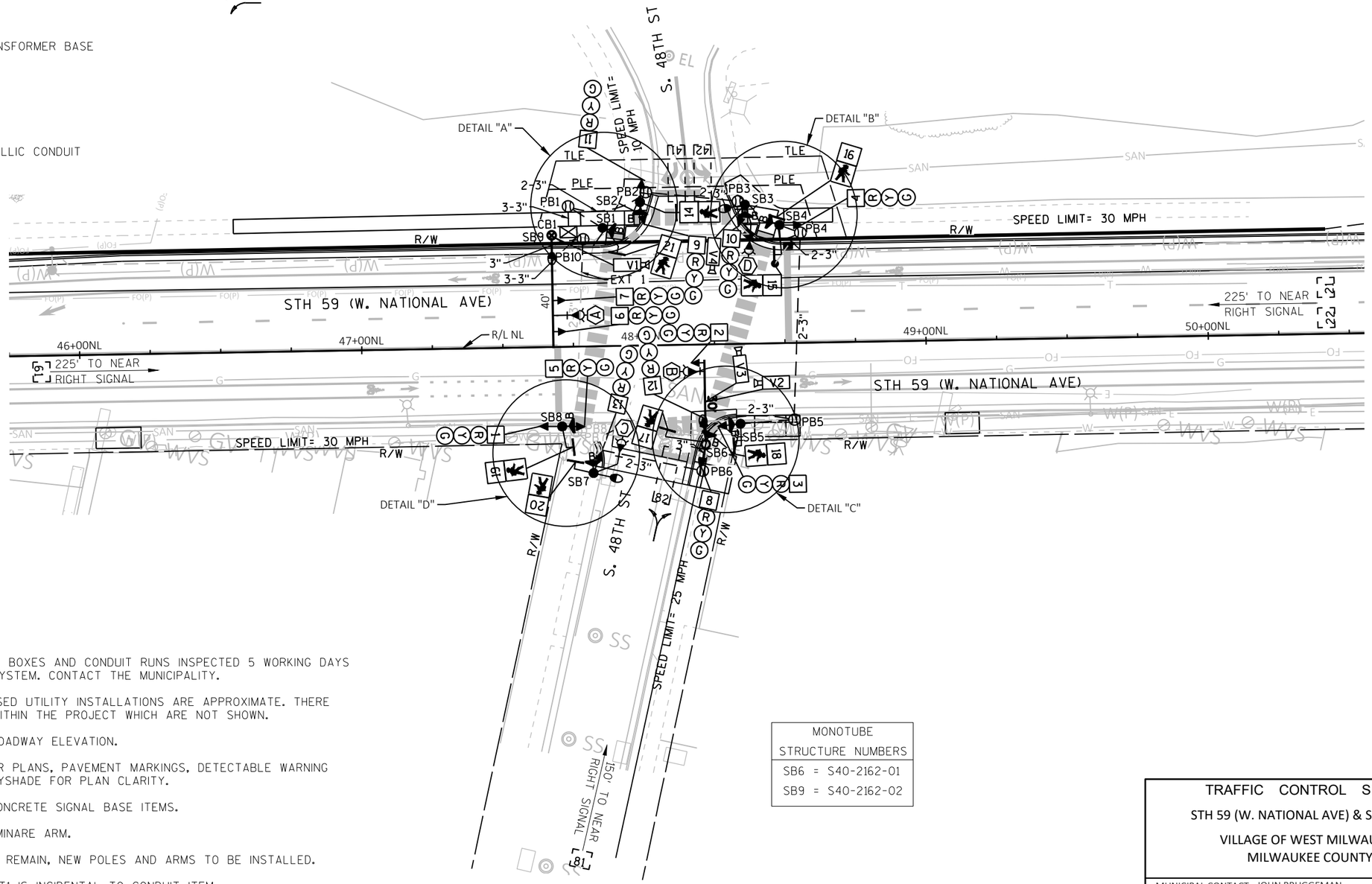
MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:
PAGE 1 OF 1

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 113	E

LEGEND

- CONTROL CABINET
- CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- APS PUSH BUTTON
- PEDESTRIAN HEAD
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- VIDEO DETECTION AREA
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- VX VIDEO DETECTION CAMERA
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- WALK/DONT WALK INDICATOR 16" (COUNTDOWN TIMER)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAY SHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE MUNICIPALITY.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. INSTALL THE CABINET BASE 6" ABOVE ROADWAY ELEVATION.
4. PROPOSED LIGHTING PLANS, STORM SEWER PLANS, PAVEMENT MARKINGS, DETECTABLE WARNING FIELDS, AND CROSSWALKS SHOWN IN GRAYSHADE FOR PLAN CLARITY.
5. ANY CASINGS ARE INCIDENTAL TO THE CONCRETE SIGNAL BASE ITEMS.
6. MOUNT VIDEO DETECTION CAMERA ON LUMINARE ARM.
7. SB5, SB7 AND SB8 CONCRETE BASES TO REMAIN, NEW POLES AND ARMS TO BE INSTALLED.
8. CONNECTING CONDUIT FROM PB 10 TO EXT1 IS INCIDENTAL TO CONDUIT ITEM.

MONOTUBE STRUCTURE NUMBERS
SB6 = S40-2162-01
SB9 = S40-2162-02

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) & S. 48TH ST

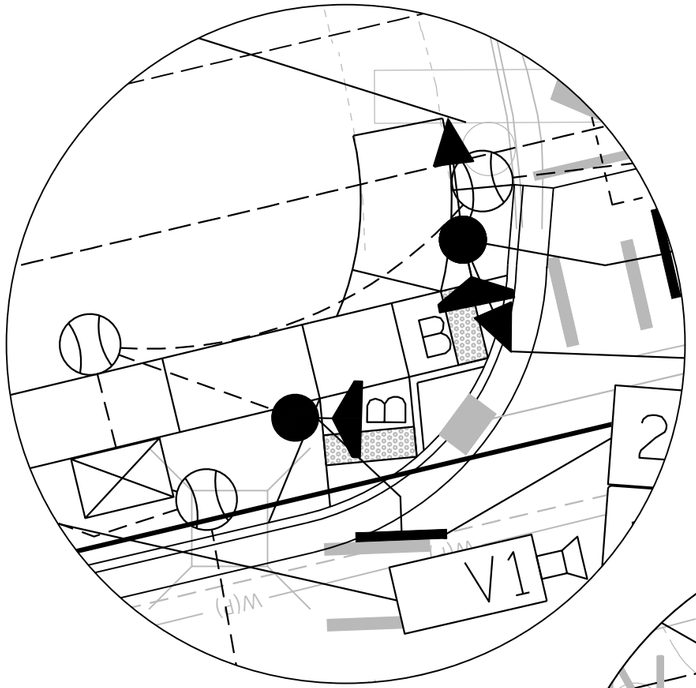
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

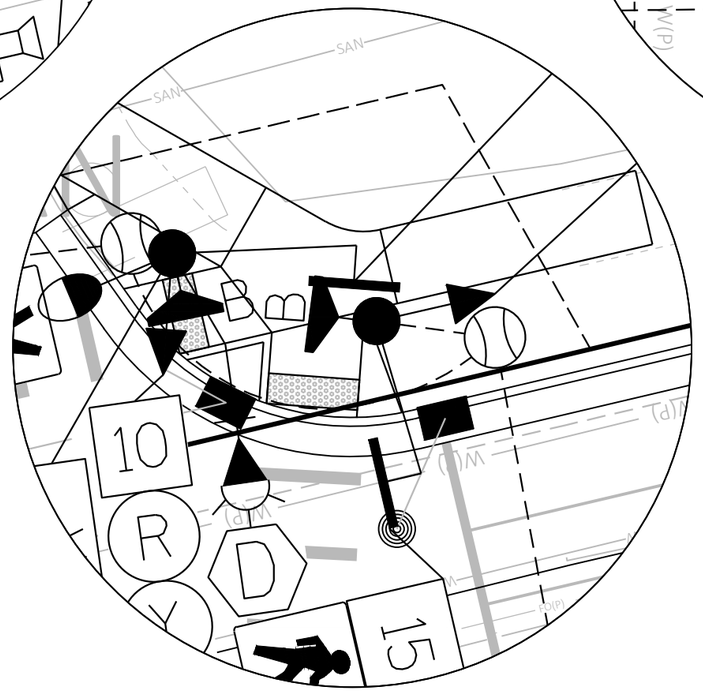
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 114	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024231_SP.DWG
LAYOUT NAME - NATIONAL&48TH_SP
PLOT DATE : 1/27/2025 8:01 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

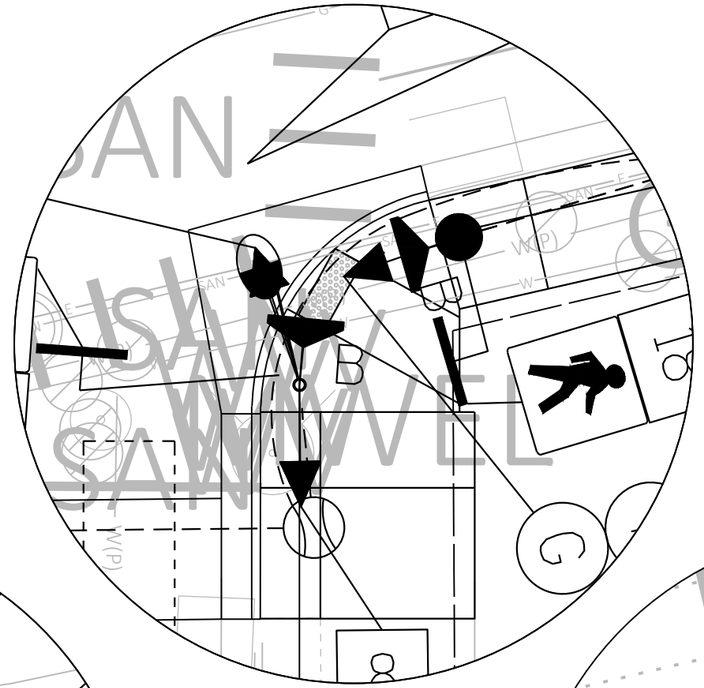
2



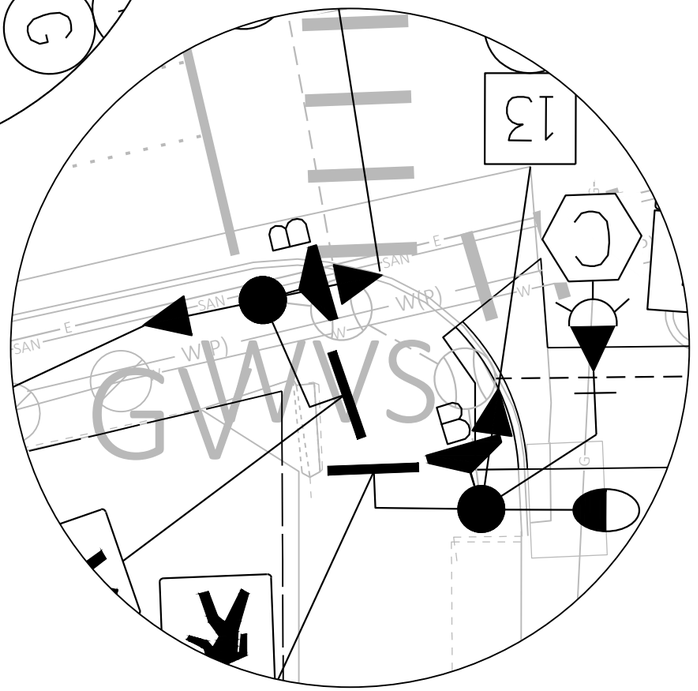
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) & S. 48TH ST

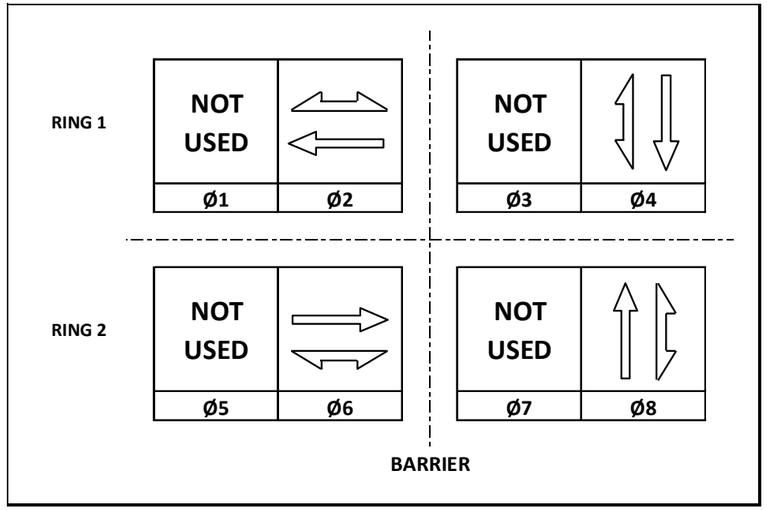
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 115	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024231_SP.DWG
LAYOUT NAME - NATIONAL&48TH_SP (2)
PLOT DATE : 1/20/2025 11:12 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : ##########

	HEAD NUMBERS	FLASH
Ø1		
Ø2	4,5,6	R
Ø3		
Ø4	10,11,12	R
Ø5		
Ø6	1,2,3	R
Ø7		
Ø8	7,8,9	R
Ø2P	13,14	
Ø4P	19,20	
Ø6P	17,18	
Ø8P	15,16	
OLE		
OLF		
OLG		
OLH		



N

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	X
3				
4		8		X
5				
6	X	2	MIN	X
7				
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	X
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	S-
SIGNAL SYSTEM NO:	SS-

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT				
PHASE	2+6	6+2	4+8	8+4

AFTER PREEMPTION SEQUENCE 2+6 OR 6+2, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+8 OR 8+4, CONTROLLER SHALL RETURN TO PHASES 4+8.

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	X
RAILROAD	
EMERGENCY VEHICLE	
GTT	
TOMAR	
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	21	41	61	81													PLAN LOOP DETECTOR*(S)
CALLED PHASE	2	4	6	8													CALLED PHASE
CALL OPTION	X	X	X	X													CALL OPTION
DELAY TIME																	DELAY TIME
EXTENTION OPTION	X	X	X	X													EXTENTION OPTION
EXTEND TIME																	EXTEND TIME
USE ADDED INITIAL	X		X	X													USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	22	42		82													PLAN LOOP DETECTOR*(S)
CALLED PHASE	2	4		8													CALLED PHASE
CALL OPTION	X	X		X													CALL OPTION
DELAY TIME																	DELAY TIME
EXTENTION OPTION	X	X		X													EXTENTION OPTION
EXTEND TIME																	EXTEND TIME
USE ADDED INITIAL	X																USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

STH 59 (W. NATIONAL AVE) & S 48TH ST
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

CABINET TYPE: TS2-S
CONTROLLER TYPE: MCCAIN
DATE: 8/2024 PAGE NUMBER: 3 OF 3

PROJECT ID:	2410-47-70
INTERSECTION:	STH 59 (NATIONAL AVE) AND S. 48TH ST

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	AWG 14 NO. OF CONDUCTORS	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	12	21								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB2	12	9	RED	ORG	GRN								
		11				RED/BLK	ORG/BLK	GRN/BLK					
		14								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB3	12	10	RED	ORG	GRN								
		16								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB4	12	4	RED	ORG	GRN								
		15								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB5	12	3	RED	ORG	GRN								
		18								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB6	15	2	RED	ORG	GRN								
		8				RED/BLK	ORG/BLK	GRN/BLK					
		12				RED/WHT	ORG/WHT	GRN/WHT					
		17								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB7	12	13	RED	ORG	GRN								
		20								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB8	12	1	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK	GRN/BLK					
		19								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB9	7	6	RED	ORG	GRN								
		7	RED	ORG	GRN								

NOTES: USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB2	SB2
PB3	SB3
PB4	SB4
PB5	SB5
PB6	SB6
PB7	SB7
PB8	SB8
PB10	CB1

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB9 (V1)
CB1	SB6 (V2)
CB1	SB6 (V3)
CB1	SB3 (V4)

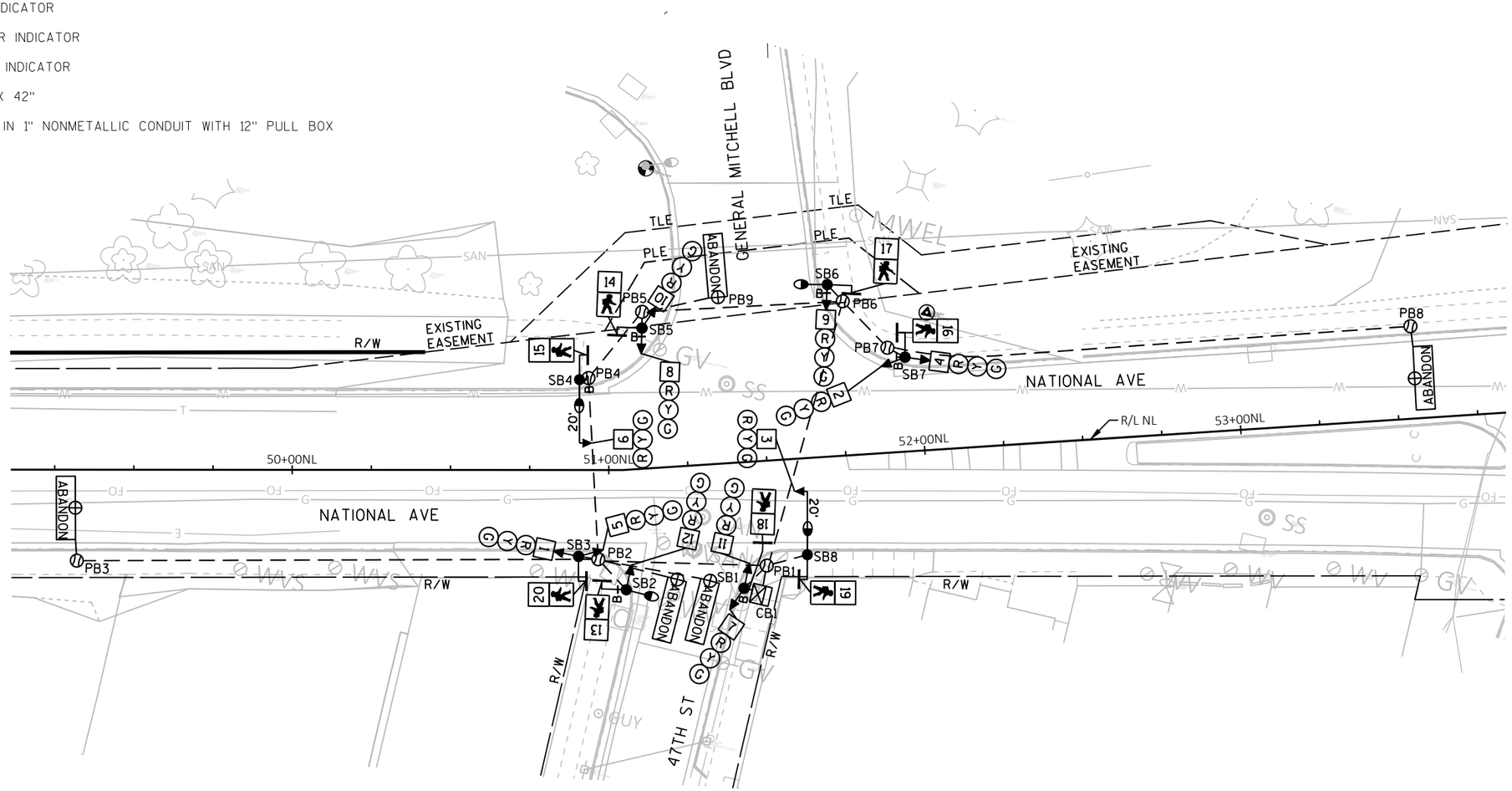
LIGHTING UF 10 AWG W/ GROUND	
FROM	TO
CB1	SB3
SB3	SB6
SB6	SB7
SB7	SB9

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB3
CB1	SB6
CB1	SB7
CB1	SB9

LEGEND

- CONTROL CABINET
- NONMETALLIC CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINAIRE UNDER PERMIT TO LOCAL MUNICIPALITY
- XX SIGNAL HEAD NUMBER
- (R) RED CIRCULAR INDICATOR
- (Y) YELLOW CIRCULAR INDICATOR
- (G) GREEN CIRCULAR INDICATOR
- PULL BOX, 24" X 42"
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- WALK/DON'T WALK INDICATOR 16"
- PEDESTRIAN HEAD
- PUSH BUTTON
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING TO REMAIN. BOLD REPRESENTS ITEMS TO BE REMOVED.



CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. EXISTING COMBINED SIGNAL AND LIGHT POLES INCLUDE SIGNAL WIRING FROM THE SIGNAL CABINET AND LIGHTING WIRE FROM A SEPARATE LIGHTING CABINET/CIRCUIT.

TRAFFIC CONTROL SIGNAL

STH 59 (W. NATIONAL AVE) AND S. 47TH ST

VILLAGE OF WEST MILWAUKEE

MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

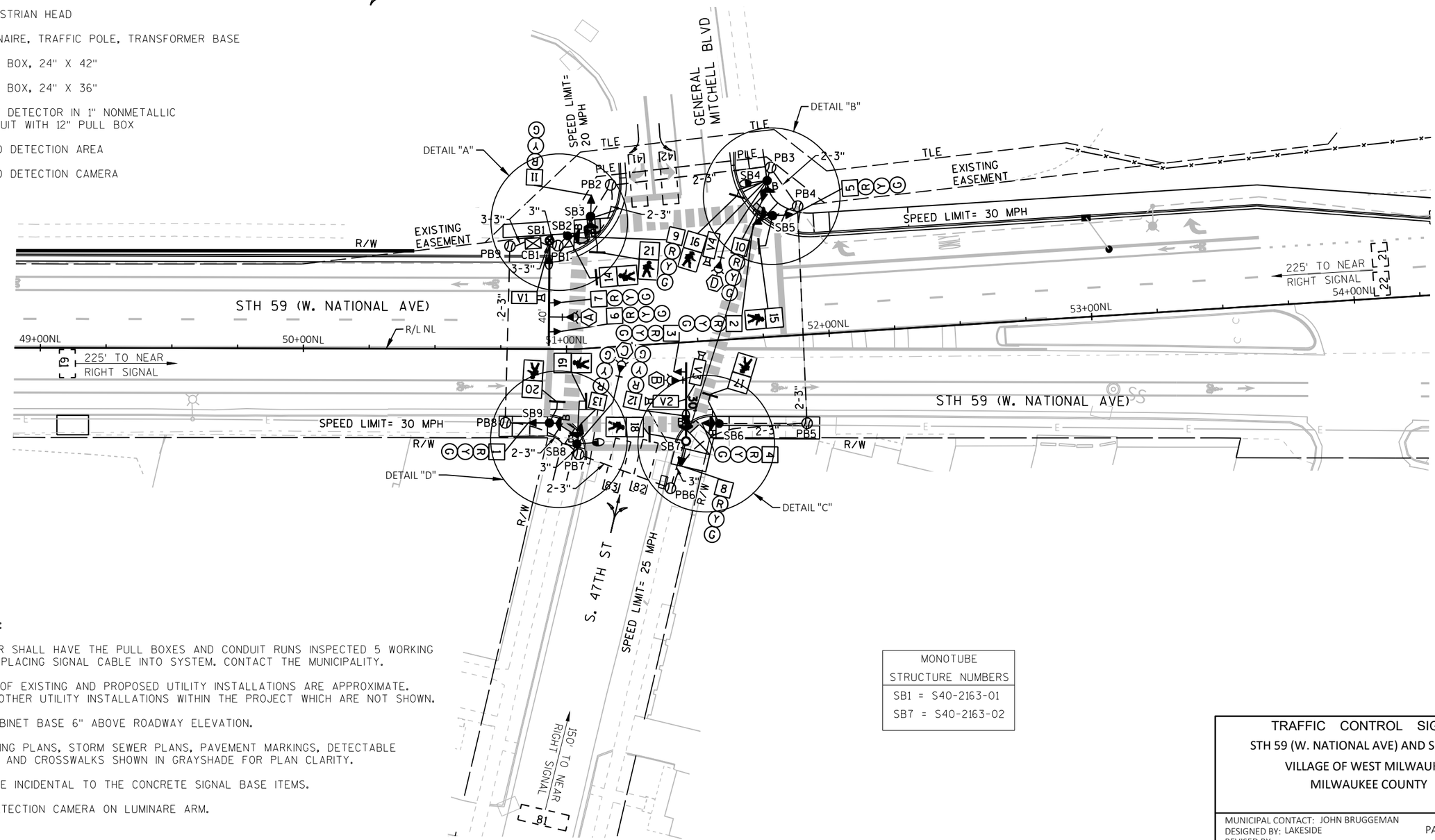
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 118	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024041-SR.DWG
LAYOUT NAME - NATIONAL&47TH_SR
PLOT DATE : 1/6/2025 2:59 PM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- APS PUSH BUTTON
- PEDESTRIAN HEAD
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"
- PULL BOX, 24" X 36"
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- VIDEO DETECTION AREA
- VX VIDEO DETECTION CAMERA
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- WALK/DONT WALK INDICATOR 16" (COUNTDOWN TIMER)
- LANE DESIGNATION FOR INFO ONLY

NOTE: ALL LENSES ARE 12-INCH
GRAY SHADE REPRESENTS EXISTING



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE MUNICIPALITY.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. INSTALL THE CABINET BASE 6" ABOVE ROADWAY ELEVATION.
4. PROPOSED LIGHTING PLANS, STORM SEWER PLANS, PAVEMENT MARKINGS, DETECTABLE WARNING FIELDS, AND CROSSWALKS SHOWN IN GRAYSHADE FOR PLAN CLARITY.
5. ANY CASINGS ARE INCIDENTAL TO THE CONCRETE SIGNAL BASE ITEMS.
6. MOUNT VIDEO DETECTION CAMERA ON LUMINARE ARM.

MONOTUBE STRUCTURE NUMBERS
SB1 = S40-2163-01
SB7 = S40-2163-02

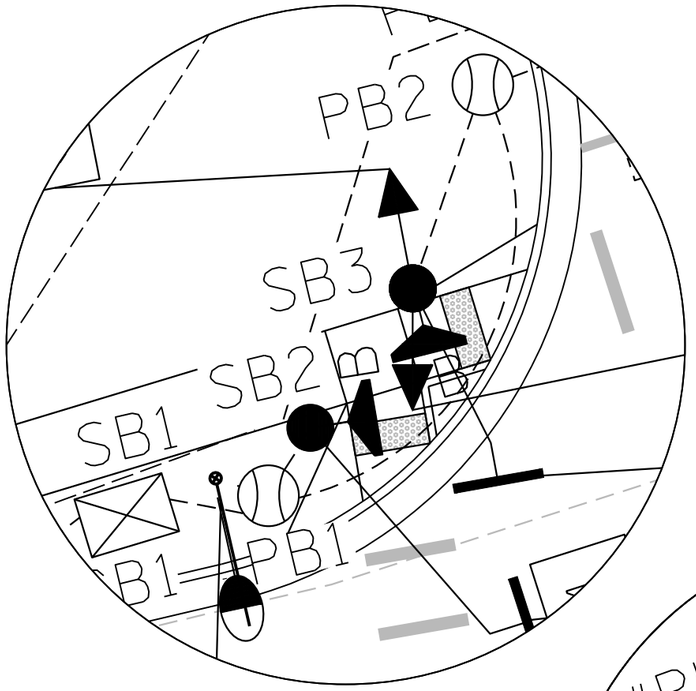
TRAFFIC CONTROL SIGNAL
STH 59 (W. NATIONAL AVE) AND S. 47TH ST
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

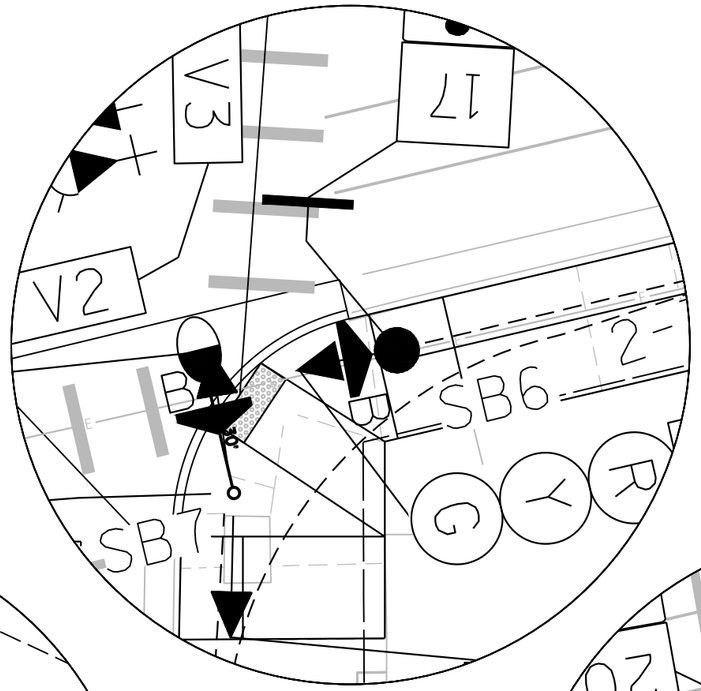
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 119	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024241_SP.DWG
LAYOUT NAME - NATIONAL&47TH_SP
PLOT DATE : 1/27/2025 8:03 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

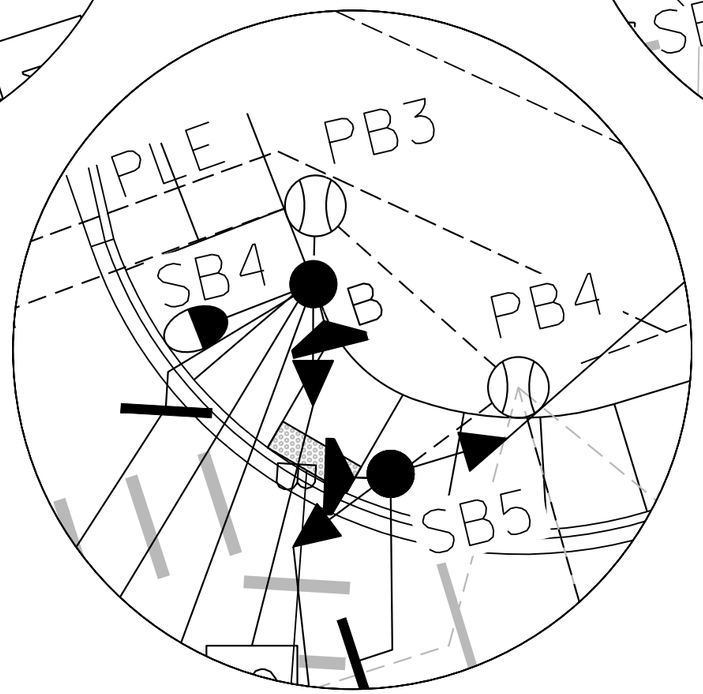
2



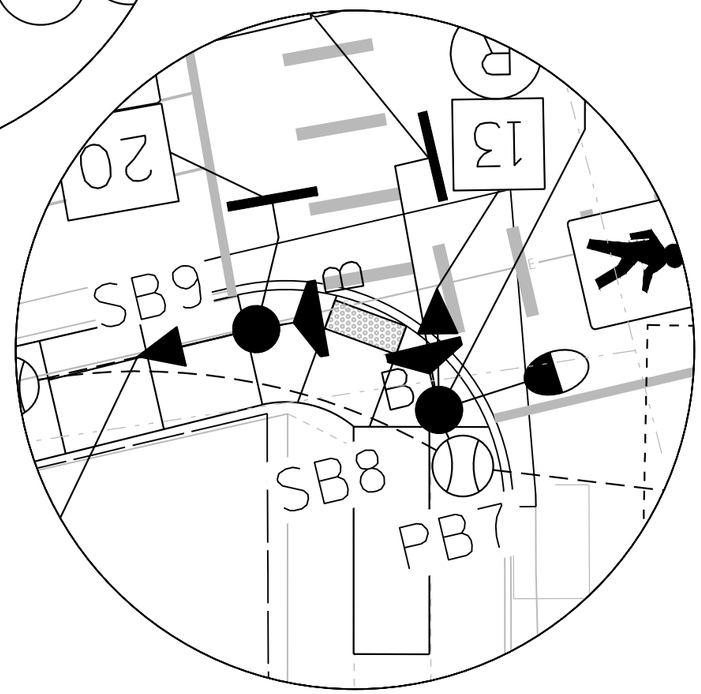
DETAIL "A"
DETAIL "A"



DETAIL "C"



DETAIL "B"



DETAIL "D"

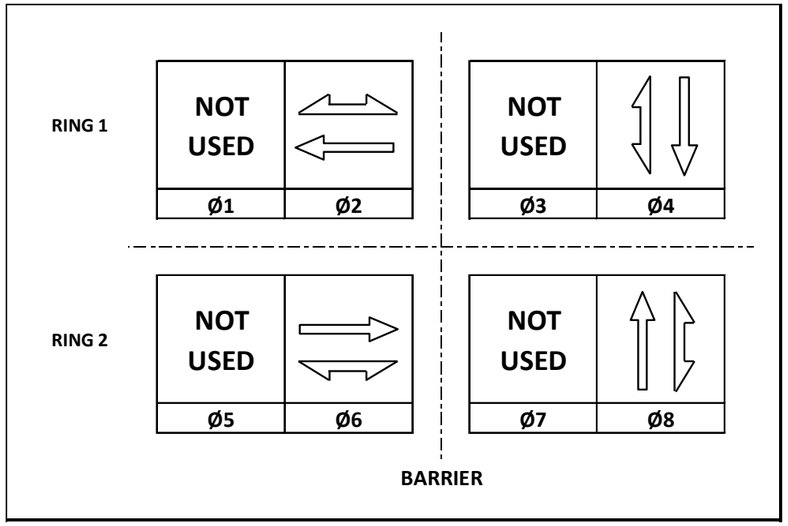
TRAFFIC CONTROL SIGNAL
STH 59 (W. NATIONAL AVE) AND S. 47TH ST
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 120	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024241_SP.DWG
LAYOUT NAME - NATIONAL&47TH_SP (2)
PLOT DATE : 1/20/2025 11:20 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : ##########

	HEAD NUMBERS	FLASH
Ø1		
Ø2	5,6,7	R
Ø3		
Ø4	11,12,13	R
Ø5		
Ø6	1,2,3,4	R
Ø7		
Ø8	8,9,10	R
Ø2P	14,15	
Ø4P	20,21	
Ø6P	18,19	
Ø8P	16,17	
OLE		
OLF		
OLG		
OLH		



N

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1				
2	X	6	MIN	X
3				
4		8		X
5				
6	X	2	MIN	X
7				
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	X
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO: S-	
SIGNAL SYSTEM NO: SS-	

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	
LIFT BRIDGE	
QUEUE DETECTION	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	21	41	61	81	83												PLAN LOOP DETECTOR*(S)
CALLED PHASE	2	4	6	8	8												CALLED PHASE
CALL OPTION	X	X	X	X	X												CALL OPTION
DELAY TIME																	DELAY TIME
EXTENTION OPTION	X	X	X	X	X												EXTENTION OPTION
EXTEND TIME																	EXTEND TIME
USE ADDED INITIAL	X		X	X													USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	22	42		82													PLAN LOOP DETECTOR*(S)
CALLED PHASE	2	4		8													CALLED PHASE
CALL OPTION	X	X		X													CALL OPTION
DELAY TIME																	DELAY TIME
EXTENTION OPTION	X	X		X													EXTENTION OPTION
EXTEND TIME																	EXTEND TIME
USE ADDED INITIAL	X																USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

STH 59 (W. NATIONAL AVE) & S 47TH ST

VILLAGE OF WEST MILWAUKEE

MILWAUKEE COUNTY

CABINET TYPE: TS2-S

CONTROLLER TYPE: MCCAIN

DATE: 8/2024 PAGE NUMBER: 3 OF 3

PROJECT ID:	2410-47-70
INTERSECTION:	STH 59 (NATIONAL AVE) AND S. 47TH ST

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	AWG 14 NO. OF CONDUCTORS	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED BUTTON	OTHER
SB1	7	6	RED	ORG	GRN								
		7	RED	ORG	GRN								
SB2	12	14								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB3	12	9	RED	ORG	GRN								
		11				RED/BLK	ORG/BLK	GRN/BLK					
		21								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB4	12	10	RED	ORG	GRN								
		16								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB5	12	2	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK	GRN/BLK					
		15								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB6	12	4	RED	ORG	GRN								
		17								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB7	15	3	RED	ORG	GRN								
		8				RED/BLK	ORG/BLK	GRN/BLK					
		12				RED/WHT	ORG/WHT	GRN/WHT					
		18								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB8	12	13	RED	ORG	GRN								
		19								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB9	12	1	RED	ORG	GRN								
		20								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK

NOTES: USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	SB1
PB2	SB3
PB3	SB4
PB4	SB5
PB5	SB6
PB6	SB7
PB7	SB8
PB8	SB9
PB9	CB1

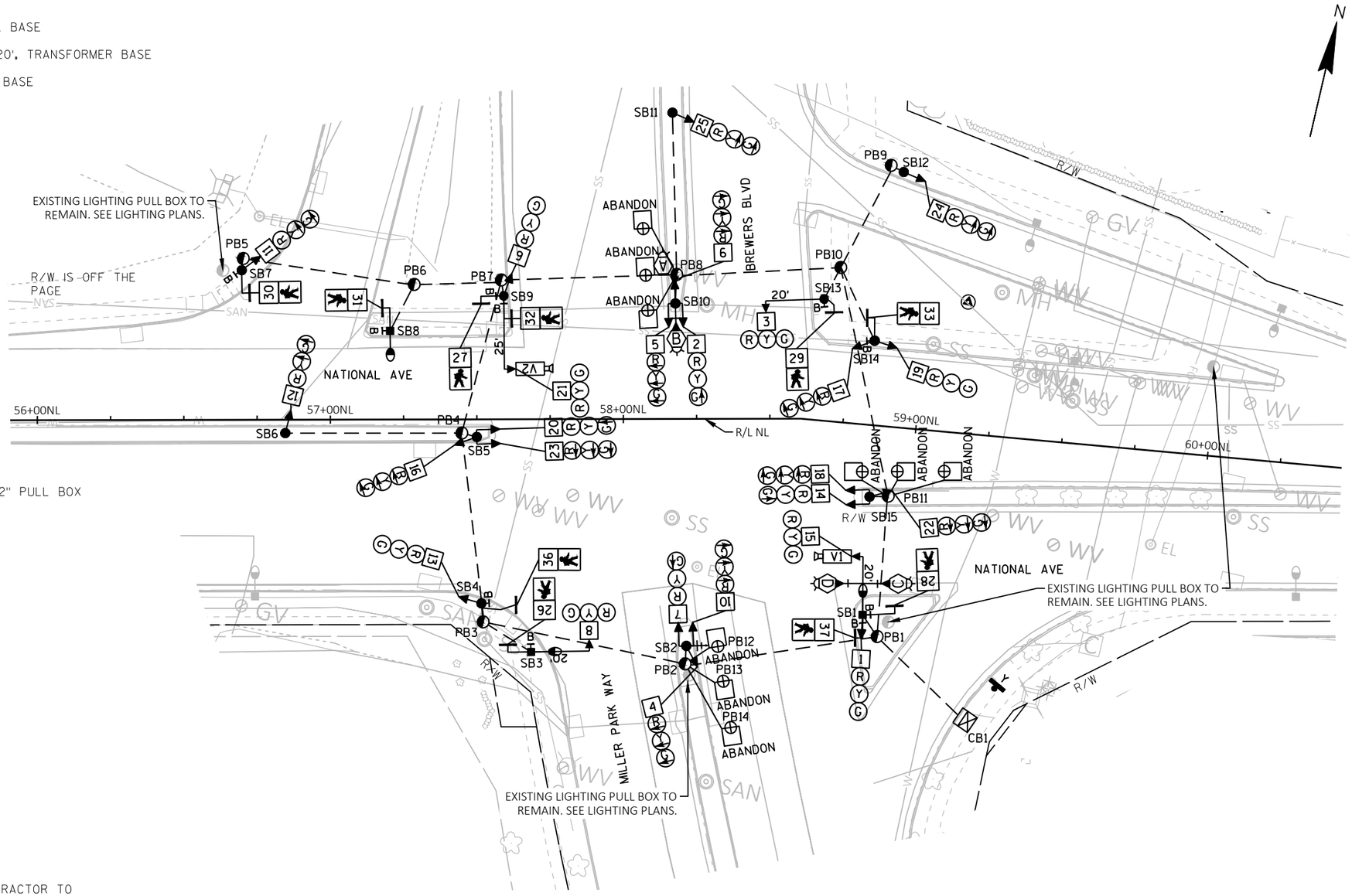
VIDEO DETECTION CABLE	
FROM	TO
CB1	SB1 (V1)
CB1	SB7 (V2)
CB1	SB7 (V3)
CB1	SB4 (V4)

LIGHTING UF 10 AWG W/ GROUND	
FROM	TO
CB1	SB1
SB1	SB4
SB4	SB7
SB7	SB8

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB1
CB1	SB4
CB1	SB7
CB1	SB8

LEGEND

- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- SIGNAL HEAD, DUAL MOUNT TRAFFIC SIGNAL POLE, 20', TRANSFORMER BASE
- (XX) SIGNAL HEAD, TRAFFIC SIGNAL POLE, TRANSFORMER BASE
- LUMINARE
- CONDUIT 2", UNLESS OTHERWISE NOTED
- CONTROL CABINET
- PUSH BUTTON
- PEDESTRIAN HEAD
- PULL BOX, 24" X 42"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RED ARROW
- YELLOW ARROW
- GREEN ARROW
- WALK/DON'T WALK INDICATOR
- LOOP DETECTOR IN 1" NONMETALLIC CONDUIT WITH 12" PULL BOX
- VX VIDEO DETECTION CAMERA
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- CONFIRMATION LIGHT



NOTES: ALL LENSES ARE 12-INCH GRAYSHADE REPRESENTS EXISTING TO REMAIN. BOLD REPRESENTS ITEMS TO BE REMOVED.

CONSTRUCTION NOTES:

1. EXISTING CONDUIT RUNS TO BE ABANDONED IN PLACE. CONTRACTOR TO REMOVE ANY CONDUCTORS REMAINING IN THE CONDUIT.
2. ABANDONED LOOP DETECTOR CONDUIT TO REMAIN IN PLACE. LOOP DETECTOR WIRE AND LEAD-IN CABLE TO BE REMOVED BY THE CONTRACTOR.
3. THE LOCATIONS OF EXISTING UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
4. EXISTING COMBINED SIGNAL AND LIGHT POLES INCLUDE SIGNAL WIRING FROM THE SIGNAL CABINET AND LIGHTING WIRE FROM A SEPARATE LIGHTING CABINET/CIRCUIT.
5. SURVEILLANCE CAMERA TO BE REMOVED BY OTHERS. COORDINATE WITH VILLAGE OF WEST MILWAUKEE

TRAFFIC CONTROL SIGNAL
STH 59 (W. NATIONAL AVE)
BREWERS BLVD & MILLER PARK WAY
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:
PAGE 1 OF 1

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL REMOVAL PLAN	SHEET 123	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024051-SR.DWG
LAYOUT NAME - NATIONALANDMILLERPARK_SR
PLOT DATE : 1/10/2025 8:50 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND

- CONTROL CABINET
- CONDUIT 2", UNLESS OTHERWISE NOTED
- SIGNAL HEAD, TRAFFIC SIGNAL STANDARD, PEDESTAL BASE
- (XX) MONOTUBE BASE, POLE, 15'-30' ARM
- (XX) MONOTUBE BASE, POLE, 35'-45' ARM
- APS PUSH BUTTON
- PEDESTRIAN HEAD
- LUMINAIRE, TRAFFIC POLE, TRANSFORMER BASE
- PULL BOX, 24" X 42"
- PULL BOX 24" X 36"
- XX SIGNAL HEAD NUMBER
- R RED CIRCULAR INDICATOR
- Y YELLOW CIRCULAR INDICATOR
- G GREEN CIRCULAR INDICATOR
- RA RED ARROW
- YA YELLOW ARROW
- GA GREEN ARROW
- WALK/DON'T WALK INDICATOR 16" (COUNTDOWN TIMER)
- X EVP DESIGNATOR
- EVP DETECTOR HEAD
- CONFIRMATION LIGHT
- S STOP SIGN
- VIDEO DETECTION AREA
- VX VIDEO DETECTION CAMERA

NOTES: ALL LENSES ARE 12-INCH
GRAYSHADE REPRESENTS EXISTING

N

STH 59 (W. NATIONAL AVE)

BREWERS BLVD

MILLER PARK WAY

SPEED LIMIT= 45 MPH

SPEED LIMIT= 30 MPH

SPEED LIMIT= 35 MPH

R/W IS OFF THE PAGE

250' TO NEAR RIGHT SIGNAL

56+00NL R/L NL

57+00NL

58+00NL

59+00NL

60+00NL

61+00NL

46+00MK

47+00MK

45+00MK

R/L MK

SB1 SB2 SB3 SB4 SB5 SB6 SB8 SB9 SB10 SB11 SB12 SB13 SB14 SB15 SB16 SB17 SB18 SB19 SB20

PB1 PB2 PB3 PB4 PB5 PB6 PB7 PB8 PB9 PB10 PB11 PB12 PB13 PB14 PB15 PB16

V1 V2 V3 V4

CB1

2-3" SIGNALS
1-3" INTERCONNECT

CAUTION

CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING SIGNAL CABLE INTO SYSTEM. CONTACT THE MUNICIPALITY.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. INSTALL THE CABINET BASE 6" ABOVE ROADWAY ELEVATION.
4. PROPOSED LIGHTING PLANS, STORM SEWER PLANS, PAVEMENT MARKINGS, DETECTABLE WARNING FIELDS, AND CROSSWALKS SHOWN IN GRAYSHADE FOR PLAN CLARITY.
5. ANY CASINGS ARE INCIDENTAL TO THE CONCRETE SIGNAL BASE ITEMS.
6. MOUNT VIDEO DETECTION CAMERA ON LUMINARE ARM.
7. SB10 WILL REQUIRE SPREAD FOOTING TYPE 1 WITH DEPTH D=3'.

MONOTUBE STRUCTURE NUMBERS	
SB1	= S40-2164-01
SB4	= S40-2164-02
SB5	= S40-2164-03
SB8	= S40-2164-04
SB12	= S40-2164-05
SB15	= S40-2164-06
SB18	= S40-2164-07

TRAFFIC CONTROL SIGNAL
STH 59 (W. NATIONAL AVE) &
BREWERS BLVD & MILLER PARK WAY
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

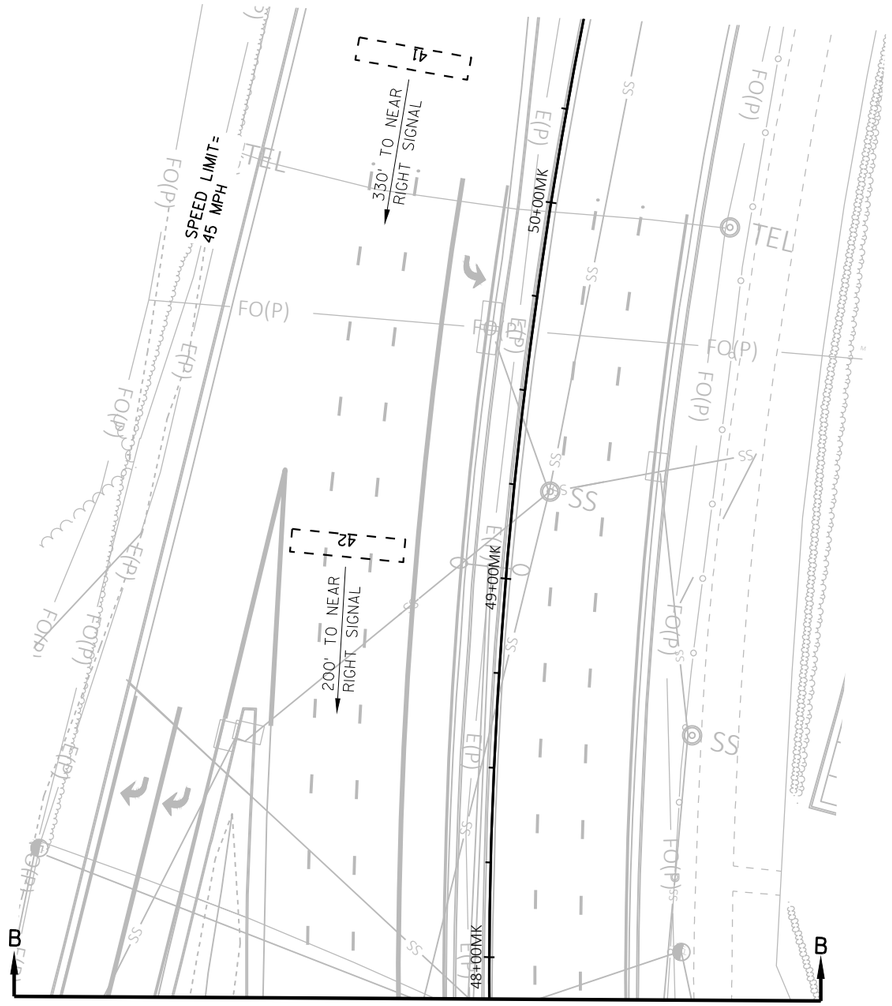
PAGE 1 OF 3

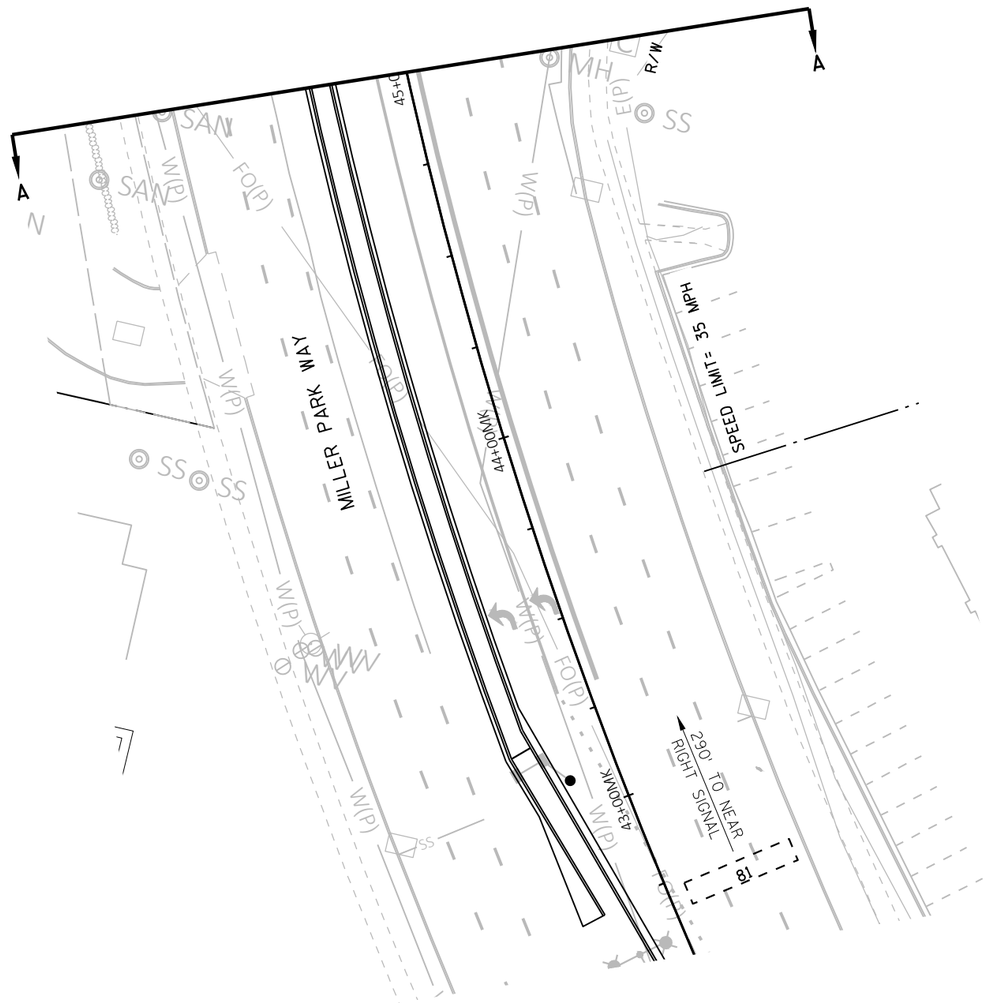
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 124	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024251_SP.DWG
LAYOUT NAME - NATIONAL&MILLERPARK_SP
PLOT DATE : 3/17/2025 9:32 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2





TRAFFIC CONTROL SIGNAL
STH 59 (W. NATIONAL AVE) &
BREWERS BLVD & MILLER PARK WAY
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY

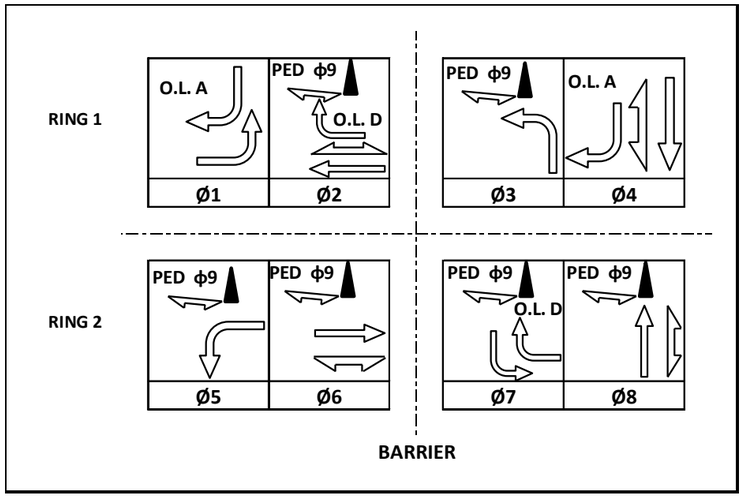
MUNICIPAL CONTACT: JOHN BRUGGEMAN
DESIGNED BY: LAKESIDE
REVISED BY:

PAGE 2 OF 3

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL PLAN	SHEET 125	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024251_SP.DWG
LAYOUT NAME - NATIONAL&MILLERPARK_SP (2)
PLOT DATE : 1/20/2025 10:50 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

	HEAD NUMBERS	FLASH
Ø1	4,5,6	R
Ø2	9,10,11	R
Ø3	19,20,21	R
Ø4	25,26,27,28	R
Ø5	12,13,14	R
Ø6	1,2,3	R
Ø7	29,30,31	R
Ø8	15,16,17,18	R
Ø2P	38,39	
Ø4P	34,35	
Ø6P	32,33	
Ø8P	40,41,42,43	
Ø9P	36,37	
OLA	22,23,24	R
OLB		
OLC		
OLD	7,8	R



N

EMERGENCY VEHICLE PREEMPTION SEQUENCE

EMERGENCY VEHICLE PREEMPTOR	A	B	C	D
MOVEMENT	←	↱	↓	↑
PHASE	2+5	6+1	4+7	8+3

AFTER PREEMPTION SEQUENCE 2+5 OR 6+1, CONTROLLER SHALL RETURN TO PHASES 2+6.
AFTER PREEMPTION SEQUENCE 4+7 OR 8+3, CONTROLLER SHALL RETURN TO PHASES 4+8.

CONTROLLER LOGIC

PHASE NUMBER	PHASE LOCKING	DUAL ENTRY W / Ø	PHASE RECALL	PHASE ACTIVE
1		6		X
2	X	6	MIN	X
3		8		X
4		8		X
5		2		X
6	X	2	MIN	X
7		4		X
8		4		X

TYPE OF INTERCONNECT/COMMUNICATION	
NONE	
CLOSED LOOP	
TWISTED PAIR	
FIBER OPTIC*	
FIBER OPTIC (ETHERNET)	
RADIO	X
CELL MODEM	

TYPE OF COORDINATION	
NONE	
TBC	X
TRAFFIC RESPONSIVE	
ADAPTIVE	
*LOCATION OF MASTER CONTROLLER NO:	MILLER PARK WAY AND NATIONAL
SIGNAL SYSTEM NO:	SS-

TYPE OF LIGHTING	
BY OTHER AGENCY	
IN TRAFFIC CABINET	X
IN SEPARATE DOT LIGHTING CABINET	

DETECTOR LOGIC

DETECTOR INPUT	3	1	7	5	11	9	15	13	19	17	23	21	27	25	31	29	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	11	21	23	31	41	51	61	63	71	81							PLAN LOOP DETECTOR*(S)
CALLED PHASE	1	2	2	3	4	5	6	6	7	8							CALLED PHASE
CALL OPTION	X	X	X	X	X	X	X	X	X	X							CALL OPTION
DELAY TIME																	DELAY TIME
EXTENTION OPTION	X	X	X	X	X	X	X	X	X	X							EXTENTION OPTION
EXTEND TIME		X					X										EXTEND TIME
USE ADDED INITIAL					X					X							USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

DETECTOR INPUT	4	2	8	6	12	10	16	14	20	18	24	22	28	26	32	30	DETECTOR INPUT
PLAN LOOP DETECTOR*(S)	12	22		32	42		62										PLAN LOOP DETECTOR*(S)
CALLED PHASE	1	2		3	4		6										CALLED PHASE
CALL OPTION	X	X		X	X		X										CALL OPTION
DELAY TIME							X										DELAY TIME
EXTENTION OPTION	X	X		X	X		X										EXTENTION OPTION
EXTEND TIME																	EXTEND TIME
USE ADDED INITIAL					X												USE ADDED INITIAL
CROSS SWITCH PHASE																	CROSS SWITCH PHASE

TYPE OF PRE-EMPT	
NONE	
RAILROAD	
EMERGENCY VEHICLE	X
GTT	
TOMAR	X
HARDWIRE	
OTHER	
CONFIRMATION LIGHTS	X
LIFT BRIDGE	
QUEUE DETECTION	

STH 59 (NATIONAL AVE) & BREWERS BLVD & MILLER PARK WAY
VILLAGE OF WEST MILWAUKEE
MILWAUKEE COUNTY
CABINET TYPE: TS2-S
CONTROLLER TYPE: MCCAIN
DATE: 8/2024 PAGE NUMBER: 3 OF 3

PROJECT ID:	2410-47-70
INTERSECTION:	STH 59 (NATIONAL AVE) AND MILLER PARK WAY

SIGNAL WIRE COLOR CODING	BLK-BLACK	RED-RED	GRN-GREEN
	WHT-WHITE	BLU-BLUE	ORG-ORANGE

CB1 TO	AWG 14 NO. OF CONDUCTORS	HEAD NO.	RED	YELLOW	GREEN	<RED>	<YELLOW>	<GREEN>	FLASHING <YELLOW>	D/WALK	WALK	PED BUTTON	PED BUTTON
SB1	15	19	RED	ORG	GRN								
		26				RED/BLK	ORG/BLK	GRN/BLK					
		27				RED/BLK	ORG/BLK	GRN/BLK					
		28				RED/BLK	ORG/BLK	GRN/BLK					
		31				RED/WHT	ORG/WHT	GRN/WHT					
SB2	12	33								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB3	12	1	RED	ORG	GRN								
		13				RED/BLK	ORG/BLK	GRN/BLK					
		34								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB4	7	23	RED	ORG	GRN								
		24	RED	ORG	GRN								
SB5	12	4	RED	ORG	GRN								
		14				RED/BLK	ORG/BLK	GRN/BLK					
SB6	12	36								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB7	7	22	RED	ORG	GRN								
SB8	12	10	RED	ORG	GRN								
		11	RED	ORG	GRN								
		37								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB9	12	BUTTON										WHT/BLK	BLU/BLK
SB10	15	25	RED	ORG	GRN								
		35								BLK	BLU		
		38								BLK/WHT	BLU/WHT		
		BUTTON										WHT/BLK	BLU/BLK
SB11	7	8	RED	ORG	GRN								
SB12	12	20	RED	ORG	GRN								
		21	RED	ORG	GRN								
		29				RED/BLK	ORG/BLK	GRN/BLK					
SB13	12	7	RED	ORG	GRN								
		40								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB14	12	41								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB15	7	16	RED	ORG	GRN								
		17	RED	ORG	GRN								
		18	RED	ORG	GRN								
SB16	12	39								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB17	12	9	RED	ORG	GRN								
		42								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB18	15	2	RED	ORG	GRN								
		3	RED	ORG	GRN								
		5				RED/BLK	ORG/BLK	GRN/BLK					
		6				RED/BLK	ORG/BLK	GRN/BLK					
		12				RED/WHT	ORG/WHT	GRN/WHT					
SB19	12	43								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK
SB20	12	15	RED	ORG	GRN								
		30				RED/BLK	ORG/BLK	GRN/BLK					
		32								BLK	BLU		
		BUTTON										WHT/BLK	BLU/BLK

NOTES: USE WHITE CONDUCTOR IN THE SIGNAL CABLE AS THE GROUNDED CONDUCTOR FOR ALL TRAFFIC SIGNAL INDICATIONS.
ENSURE THE GROUNDED CONDUCTOR IN THE FEEDER CABLE AND THE POLE CABLES ARE BOTH 18" LONGER THAN THE UNGROUNDED CONDUCTORS.

(CONTINUED ON NEXT SHEET)

2

(CONTINUED)

EQUIPMENT GROUNDING CONDUCTOR 10 AWG GRN XLP	
FROM	TO
CB1	SB1
SB1	SB2
SB2	SB3
SB3	SB4
SB4	SB5
SB5	SB6
SB6	SB7
SB7	SB8
SB8	SB9
SB9	SB10
SB10	SB11
SB11	SB12
SB12	SB13
SB13	SB14
SB14	SB15
SB15	SB16
SB16	SB17
SB17	SB18
SB18	SB19
SB19	SB20
SB20	CB1

PULL BOX BONDING JUMPER 10 AWG GRN XLP	
FROM	TO
PB1	CB1
PB2	CB1
PB3	SB1
PB4	SB2
PB5	SB3
PB6	SB3
PB7	SB5
PB8	SB8
PB9	SB7
PB10	SB8
PB11	SB11
PB12	SB13
PB13	SB14
PB14	SB14
PB15	SB18
PB16	CB1

EMERGENCY VEHICLE PREEMPTION	
FROM	TO
CB1	SB1 (HEAD C)
CB1	SB8 (HEAD A)
CB1	SB15 (HEAD D)
CB1	SB18 (HEAD B)

LIGHTING UF 10 AWG W/ GROUND	
FROM	TO
CB1	SB1
SB1	SB3
SB3	SB8
SB8	SB12
SB12	SB17
SB17	SB18

VIDEO DETECTION CABLE	
FROM	TO
CB1	SB8 (V1)
CB1	SB18 (V2)
CB1	SB1 (V3)
CB1	SB15 (V4)

2

LEGEND

EXISTING CONDUIT AND CABLE TO ABANDON

EXISTING CONDUIT TO REMAIN

EXISTING PULL BOX TO REMOVE

N

MATCH LINE 53+00

2

STH 59 (NATIONAL AVENUE)

47+00 48+00 49+00 R/L NL 50+00 51+00 52+00 53+

SIGN SIGN SIGN

MH SS

MWEL

GV SS TEL

TEL

SAN SAN SAN SAN SAN SAN

WVS WVS WVS WVS WVS WVS WVS

SAN WEST

PARKING LOT

48TH STREET

47TH STREET

GUY

SS SS SS

GV GV GV

SAN

PARKING BUMPERS

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT REMOVAL	SHEET 129	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024451_IC.DWG
LAYOUT NAME - 024451

PLOT DATE : 12/18/2024 2:47 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

LEGEND

EXISTING CONDUIT AND CABLE TO ABANDON

EXISTING CONDUIT TO REMAIN

EXISTING PULL BOX TO REMOVE

N

STH 175 (BREWERS BLVD)

48+00

47+00

54+00

55+00

56+00

57+00

58+00

59+00

R/L NL

STH 59 (NATIONAL AVENUE)

46+00

45+00

R/L MK

MILLER PARK WAY

MATCH LINE 53+00

U/C

2

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT REMOVAL	SHEET 130	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024451_IC.DWG
LAYOUT NAME - 024452

PLOT DATE : 12/18/2024 2:49 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

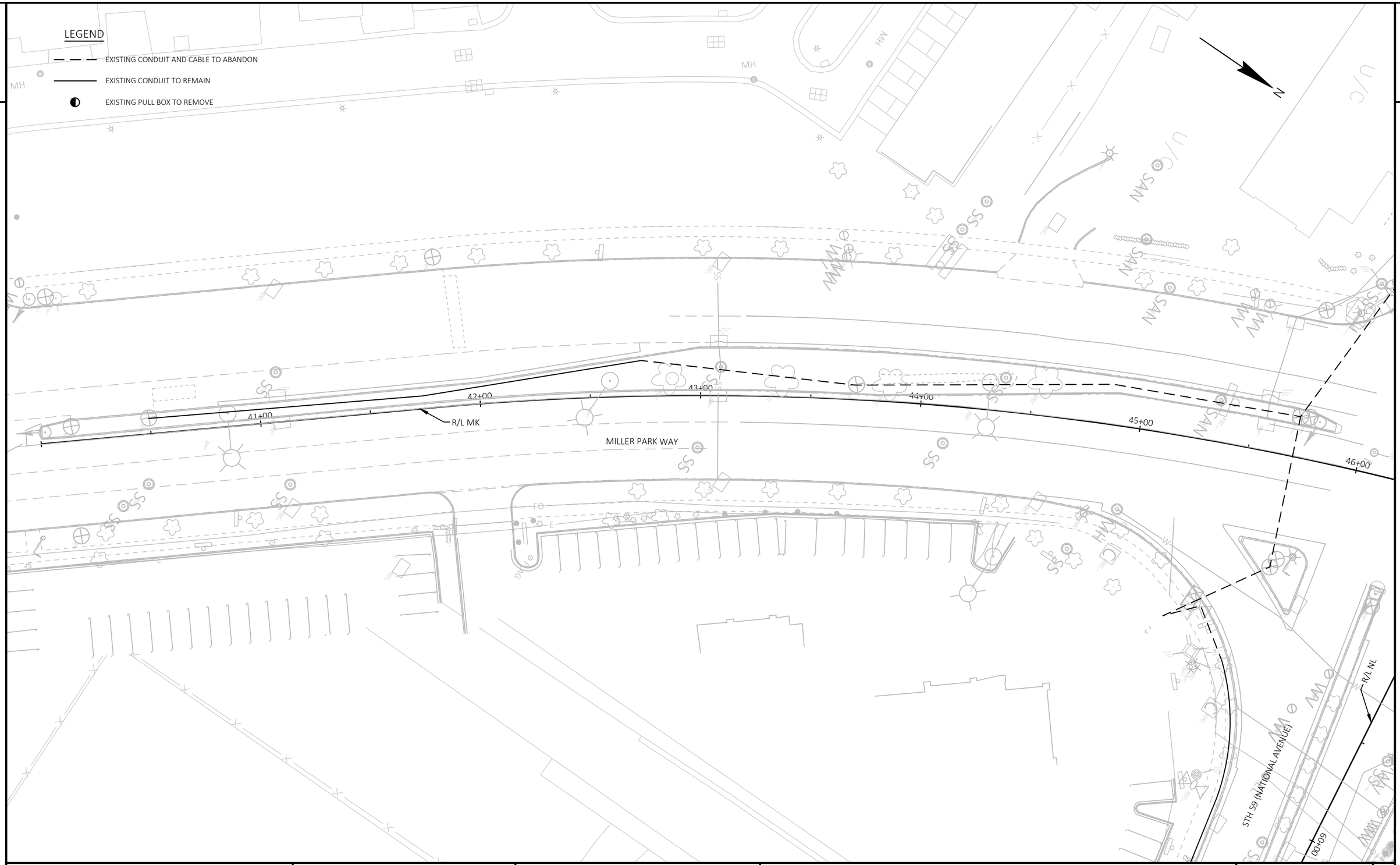
2

LEGEND

EXISTING CONDUIT AND CABLE TO ABANDON

EXISTING CONDUIT TO REMAIN

EXISTING PULL BOX TO REMOVE


MH
MH
MH
SS
SAN
SAN
SAN

LEGEND

- CONTROL CABINET
- CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- PULL BOX, 24" X 42"

TRANSPORT AND INSTALL STATE FURNISHED RADIO

48TH ST

TLE

PLE

R/W

STH 59 (W. NATIONAL AVE)

47+00NL

48+00NL

49+00NL

R/L NL

50+00NL

51+00NL

52+00NL

53+00.00

TRANSPORT AND INSTALL STATE FURNISHED RADIO

GENERAL MITCHELL BLVD

TLE

PLE

PB4

PB9

E

R/W

48TH ST

47TH ST

CONNECT TO EXISTING CONDUIT

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SHEET 132	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\DSGN\EDGELINE\SIGNALS\NATIONALAVE_INTERCONNECT_SP.DWG
LAYOUT NAME - 024454

PLOT DATE : 1/24/2025 10:45 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

LEGEND
- CONTROL CABINET
- CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- PULL BOX, 24" X 42"

STH 59 (W. NATIONAL AVE)

53+00.00

54+00NL

55+00NL

56+00NL

R/L NL

57+00NL

58+00NL

59+00NL

CONNECT TO EXISTING CONDUIT

R/W

R/L MK

46+00MK

47+00MK

48+00MK

STH 175 (BREWERS BLVD)

MILLER PARK WAY

ONLY

PB9

PB1

N

2

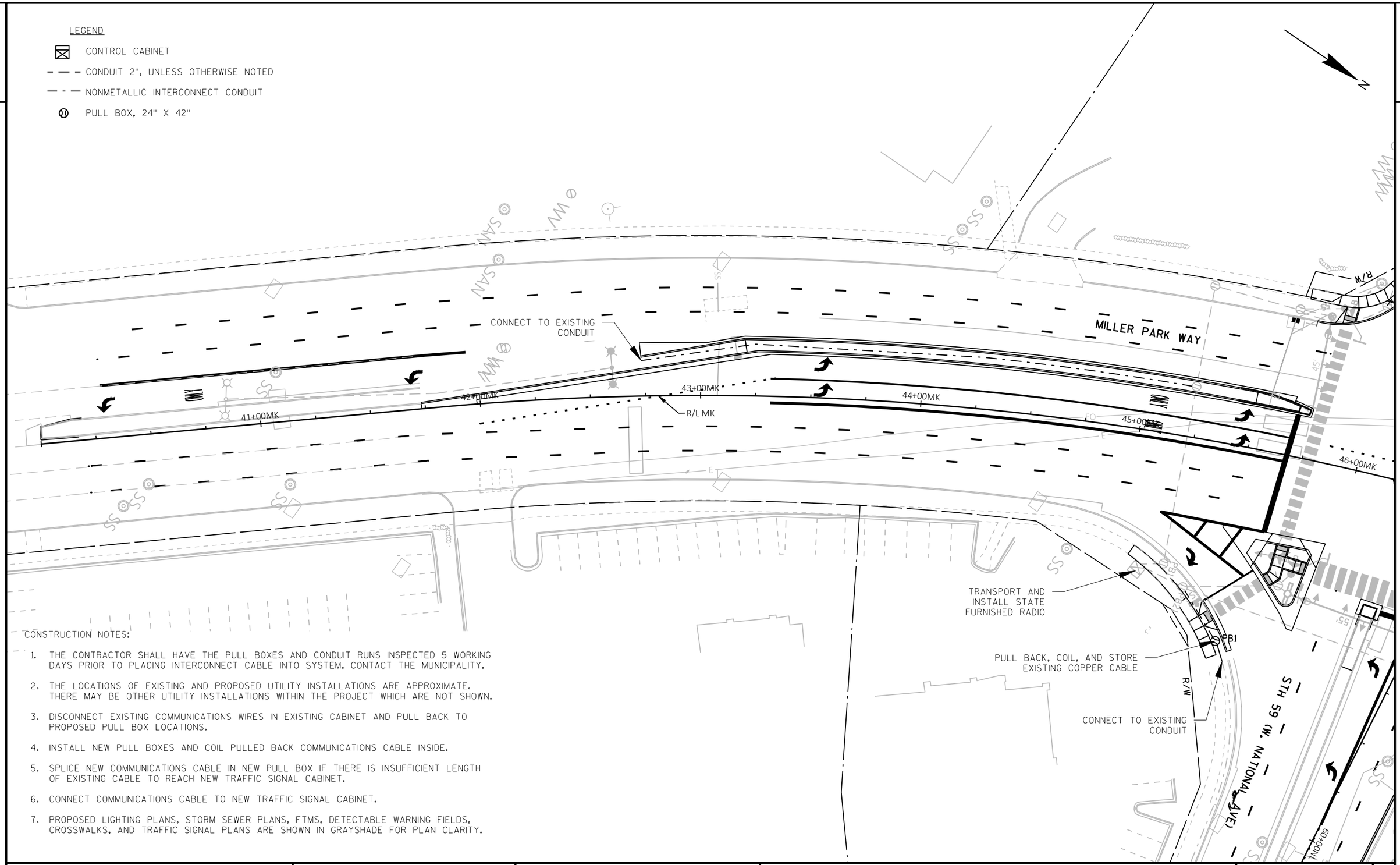
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SHEET 133	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\DSGN\EDGELINE\SIGNALS\NATIONALAVE_INTERCONNECT_SP.DWG
LAYOUT NAME - 024455
PLOT DATE : 12/18/2024 3:31 PM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

LEGEND

- CONTROL CABINET
- CONDUIT 2", UNLESS OTHERWISE NOTED
- NONMETALLIC INTERCONNECT CONDUIT
- PULL BOX, 24" X 42"



CONSTRUCTION NOTES:

1. THE CONTRACTOR SHALL HAVE THE PULL BOXES AND CONDUIT RUNS INSPECTED 5 WORKING DAYS PRIOR TO PLACING INTERCONNECT CABLE INTO SYSTEM. CONTACT THE MUNICIPALITY.
2. THE LOCATIONS OF EXISTING AND PROPOSED UTILITY INSTALLATIONS ARE APPROXIMATE. THERE MAY BE OTHER UTILITY INSTALLATIONS WITHIN THE PROJECT WHICH ARE NOT SHOWN.
3. DISCONNECT EXISTING COMMUNICATIONS WIRES IN EXISTING CABINET AND PULL BACK TO PROPOSED PULL BOX LOCATIONS.
4. INSTALL NEW PULL BOXES AND COIL PULLED BACK COMMUNICATIONS CABLE INSIDE.
5. SPLICE NEW COMMUNICATIONS CABLE IN NEW PULL BOX IF THERE IS INSUFFICIENT LENGTH OF EXISTING CABLE TO REACH NEW TRAFFIC SIGNAL CABINET.
6. CONNECT COMMUNICATIONS CABLE TO NEW TRAFFIC SIGNAL CABINET.
7. PROPOSED LIGHTING PLANS, STORM SEWER PLANS, FTMS, DETECTABLE WARNING FIELDS, CROSSWALKS, AND TRAFFIC SIGNAL PLANS ARE SHOWN IN GRAYSHADE FOR PLAN CLARITY.

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC SIGNAL INTERCONNECT	SHEET 134	E

LEGEND

1 MARKING LINE EPOXY 4-INCH (YELLOW)

2 MARKING LINE EPOXY 4-INCH (DOUBLE YELLOW)

3 MARKING LINE EPOXY 4-INCH (WHITE)

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

5 MARKING LINE EPOXY 4-INCH (DOT PATTERN WHITE)(3 FT LINE, 9 FT SKIP)

17 MARKING LINE GROOVED BLACK EPOXY 6-INCH (DASHED BLACK)(12.5 FT LINE 37.5 FT SKIP)

19 MARKING LINE GROOVED WET REF EPOXY 6-INCH (YELLOW)

20 MARKING LINE GROOVED WET REF EPOXY 6-INCH (WHITE)

21 MARKING LINE GROOVED WET REF EPOXY 6-INCH (DASHED WHITE)(12.5 FT LINE 37.5 FT SKIP)

30 MARKING LINE EPOXY 8-INCH (WHITE)

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

32 MARKING LINE EPOXY 8-INCH (DOT PATTERN WHITE)(2 FT LINE, 6 FT SKIP)

39 MARKING LINE GROOVED WET REF EPOXY 10-INCH (WHITE)

50 MARKING ARROW EPOXY, TYPE 1 (WHITE)

51 MARKING ARROW EPOXY, TYPE 2 (WHITE)

52 MARKING ARROW EPOXY, TYPE 3 (WHITE)

54 MARKING ARROW EPOXY, TYPE 5 (WHITE)

57 MARKING ARROW EPOXY, BIKE LANE (WHITE)

58 MARKING WORD EPOXY, ONLY (WHITE)

59 MARKING SYMBOL EPOXY, BIKE LANE (WHITE)

60 MARKING WORD EPOXY, BIKE (WHITE)

61 MARKING WORD EPOXY, LANE (WHITE)

62 MARKING WORD EPOXY, ENDS (WHITE)

63 MARKING SYMBOL EPOXY, BIKE LANE FOR SHARED LANE (WHITE)

65 MARKING STOP LINE EPOXY 18-INCH (WHITE)

67 MARKING YIELD LINE EPOXY 18-INCH (WHITE)

69 MARKING DIAGONAL EPOXY 12-INCH (WHITE)

72 MARKING CROSSWALK EPOXY TRANSVERSE LINE 6-INCH (WHITE)

75 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH (WHITE)

76 MARKING CURB EPOXY (YELLOW)

77 MARKING ISLAND NOSE EPOXY (YELLOW)

NOTE:
SEE SDD "STOPLINE AND CROSSWALK PAVEMENT MARKING" FOR POSITIONING OF STOP BARS

N

MATCHLINE

2

2

61
62
60
3
2
59
57
59

5'
8'
12'
NATIONAL AVENUE
12'
8'
5'

S. 56TH STREET

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 136	E

2

MATCHL

2

SOUTH WASHINGTON DRIVE

N

NATIONAL AVENUE

S. 54TH STREET

S. 53RD STREET

65 59 2 57 75 5 57 59 3 57 59 2 3

50' 8' 5' 12' 12' 8' 5' 6' 5' 12' 12' 5' 6'

57 5 75 59 57 5 2 59 57 5 75 57 59 65

29NL+00

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 137	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 01-NL--2
PLOT DATE : 1/27/2025 3:46 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

SOUTH WASHINGTON DRIVE

N

NATIONAL AVENUE

S. 52ND STREET

50'

40NL

NL+83.98
12.47' RT

12'

6'

5'

57

59

3

2

5

75

65

MATCHLINE

6NL+00

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 138	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 01-NL--3

PLOT DATE : 1/27/2025 3:48 PM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2

SOUTH WASHINGTON DRIVE

NATIONAL AVENUE

S. 50TH STREET

S. 49TH STREET

N

MATCHLINE

NL+36.09
16.61' LT

NL+35.78
11.61' LT

NL+92.61
16.74' LT

NL+91.50
11.73' LT

NL+88.86
0.03' RT

NL+35.09
0.64' RT

NL+34.30
12.38' RT

NL+33.99
17.38' RT

NL+86.14
12.28' RT

NL+85.02
17.29' RT

NL+42.62
11.82' LT

NL+42.61
16.82' LT

NL+54.49
0.47' LT

NL+54.90
11.78' RT

NL+55.07
16.78' RT

50'

NL+15.66
27.00' LT

NL+15.66
22.00' LT

NL+15.66
11.00' LT

NL+11.75
0.50' LT

NL+09.50
11.75' LT

NL+08.
16.75'

R/L NL

42NL 43NL 44NL 45NL 46NL 47

41NL+00

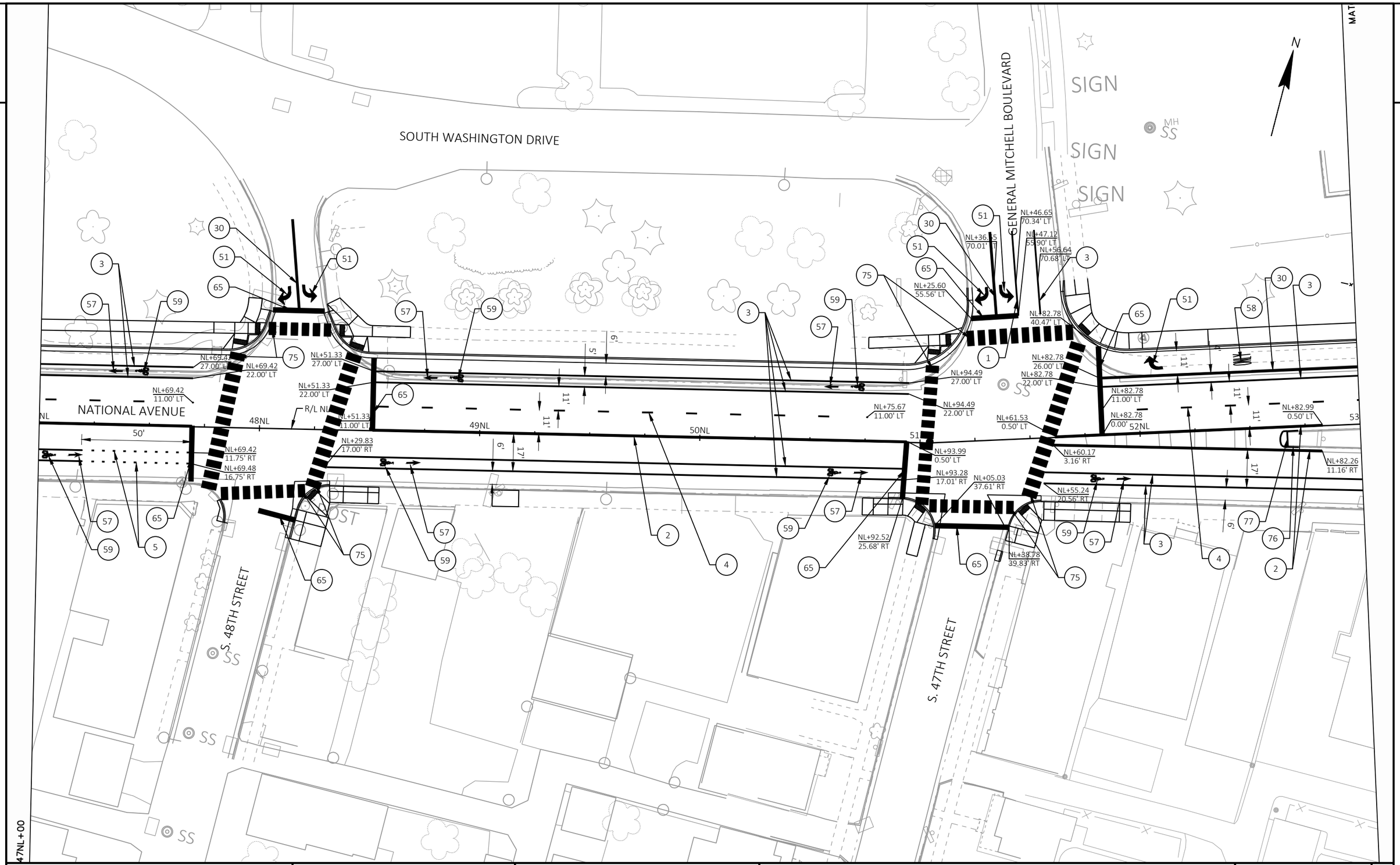
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 139	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 01-NL--4

PLOT DATE : 1/27/2025 3:51 PM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 140	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 01-NL--5
PLOT DATE : 1/27/2025 3:53 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

N

BREWERS BOULEVARD

ONLY

NATIONAL AVENUE

R/L NL

R/L MK

48MK

46MK

45MK

MILLER PARK WAY

POST

U/C

SS

54NL

55NL

56NL

57NL

58NL

59

NL+65.29
26.00' LT

NL+54.59
22.00' LT

NL+54.59
11.00' LT

NL+49.79
27.00' LT

NL+49.88
22.00' LT

NL+49.88
11.00' LT

NL+42.36
2.38' RT

NL+42.50
7.28' RT

NL+44.51
9.90' RT

NL+44.68
18.73' RT

NL+44.92
30.73' RT

NL+45.13
41.73' RT

NL+45.42
56.27' RT

NL+42.56
17.95' RT

NL+42.97
30.01' RT

NL+90.20
24.94' RT

NL+89.05
42.50' RT

NL+80.22
35.35' RT

NL+23.30
33.17' RT

NL+61.39
73.35' LT

NL+83.88
83.20' LT

NL+79.98
68.47' LT

NL+86.04
23.99' LT

NL+88.27
12.00' LT

NL+90.50
0.00

NL+91.78
6.87' RT

NL+94.34
20.62' RT

NL+93.75
41.13' RT

11'

12'

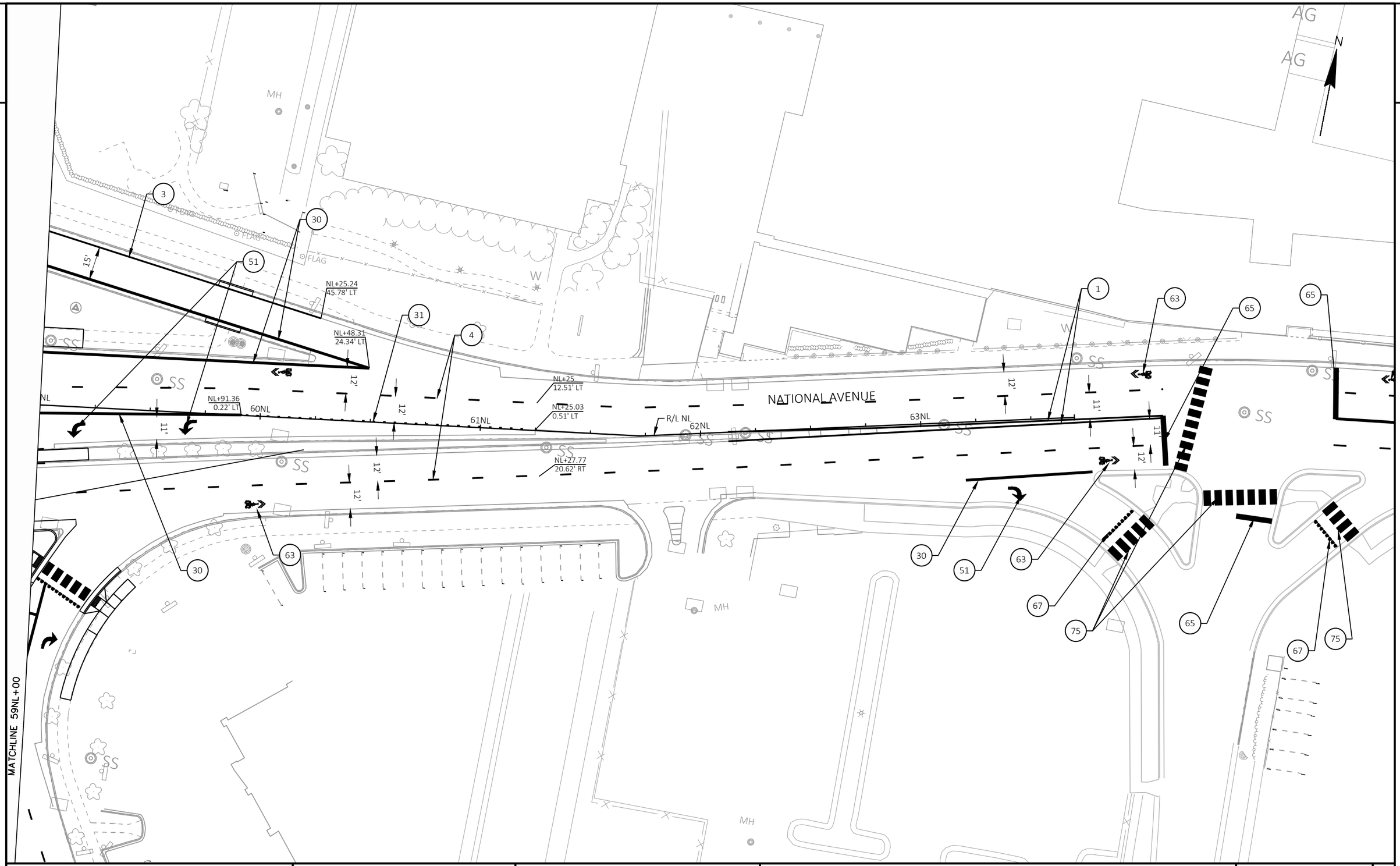
14'

+00

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 141	E

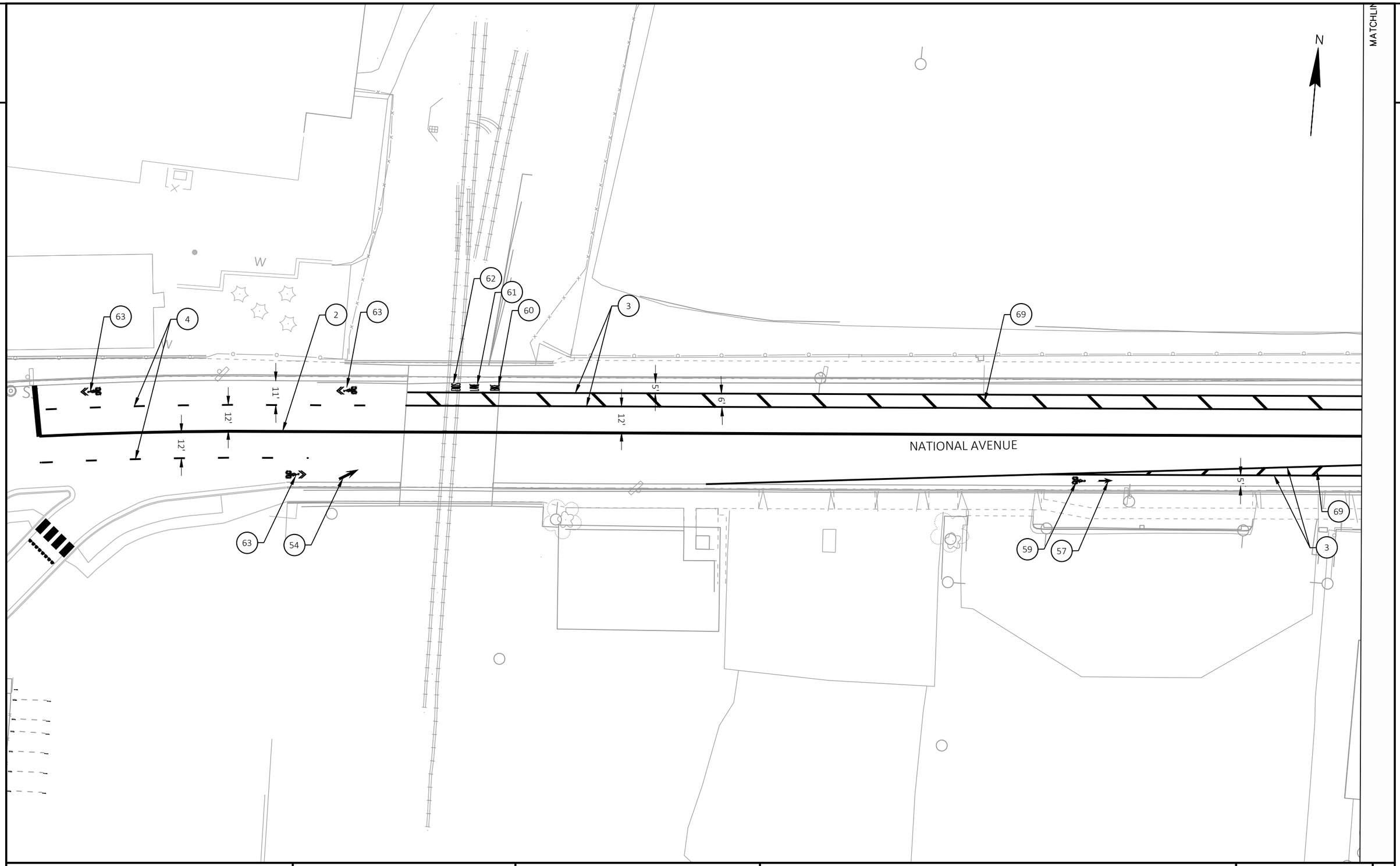
FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 01-NL--6
PLOT DATE : 1/27/2025 3:56 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 142	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 01-NL--7
PLOT DATE : 1/27/2025 3:58 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42



2

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 143	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 01-NL--8
PLOT DATE : 1/27/2025 4:01 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

2

MATCHLINE

MATCHLINE

2

N

NATIONAL AVENUE

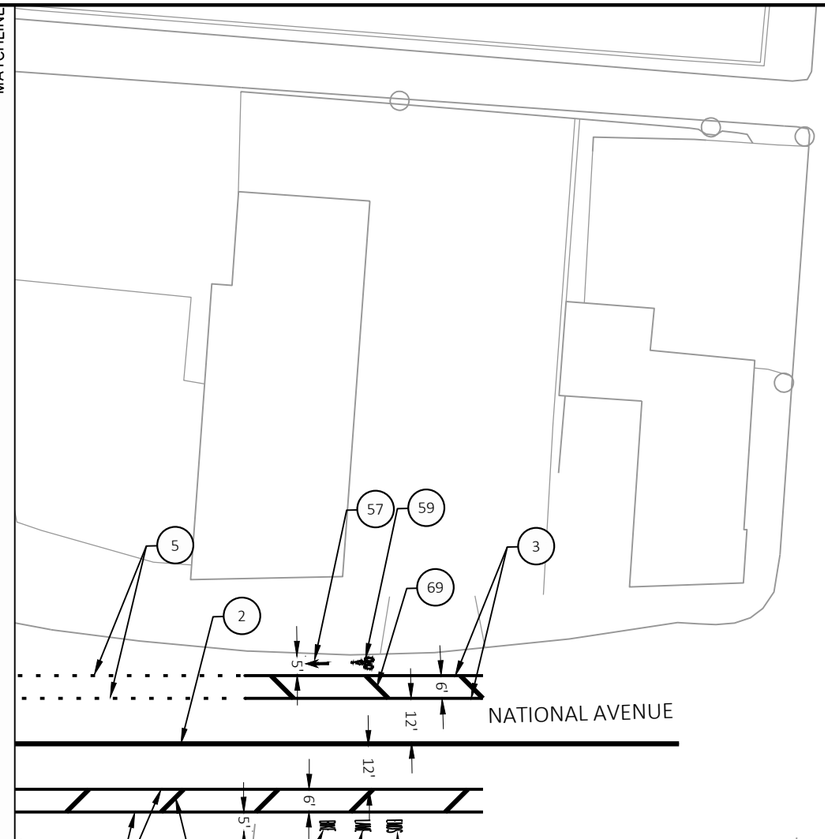
S 41ST ST

S 40ST ST

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 144	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 01-NL--9
PLOT DATE : 1/27/2025 4:03 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

MATCHLINE



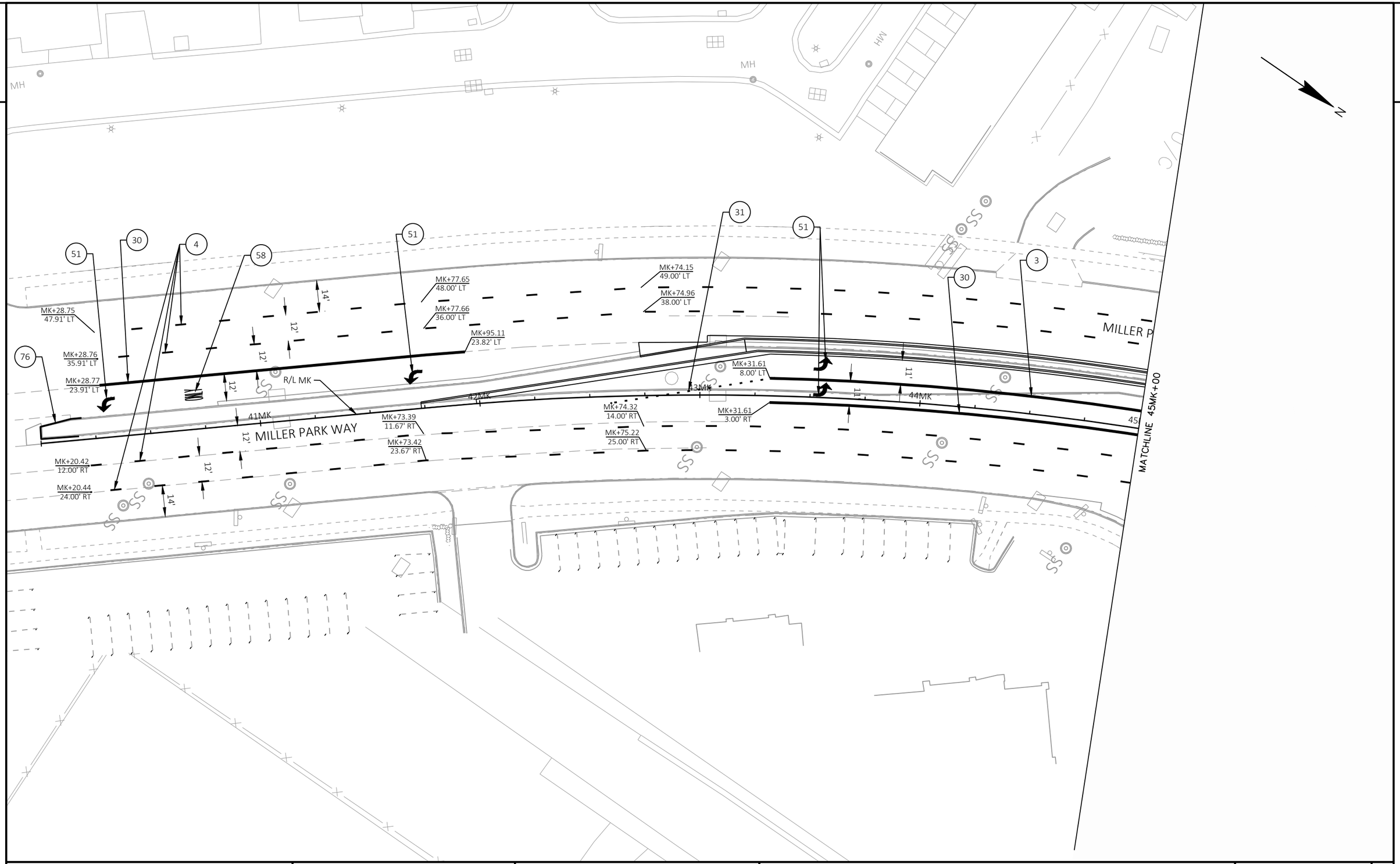


2

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 145	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 01-NL--10
PLOT DATE : 1/27/2025 4:06 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42

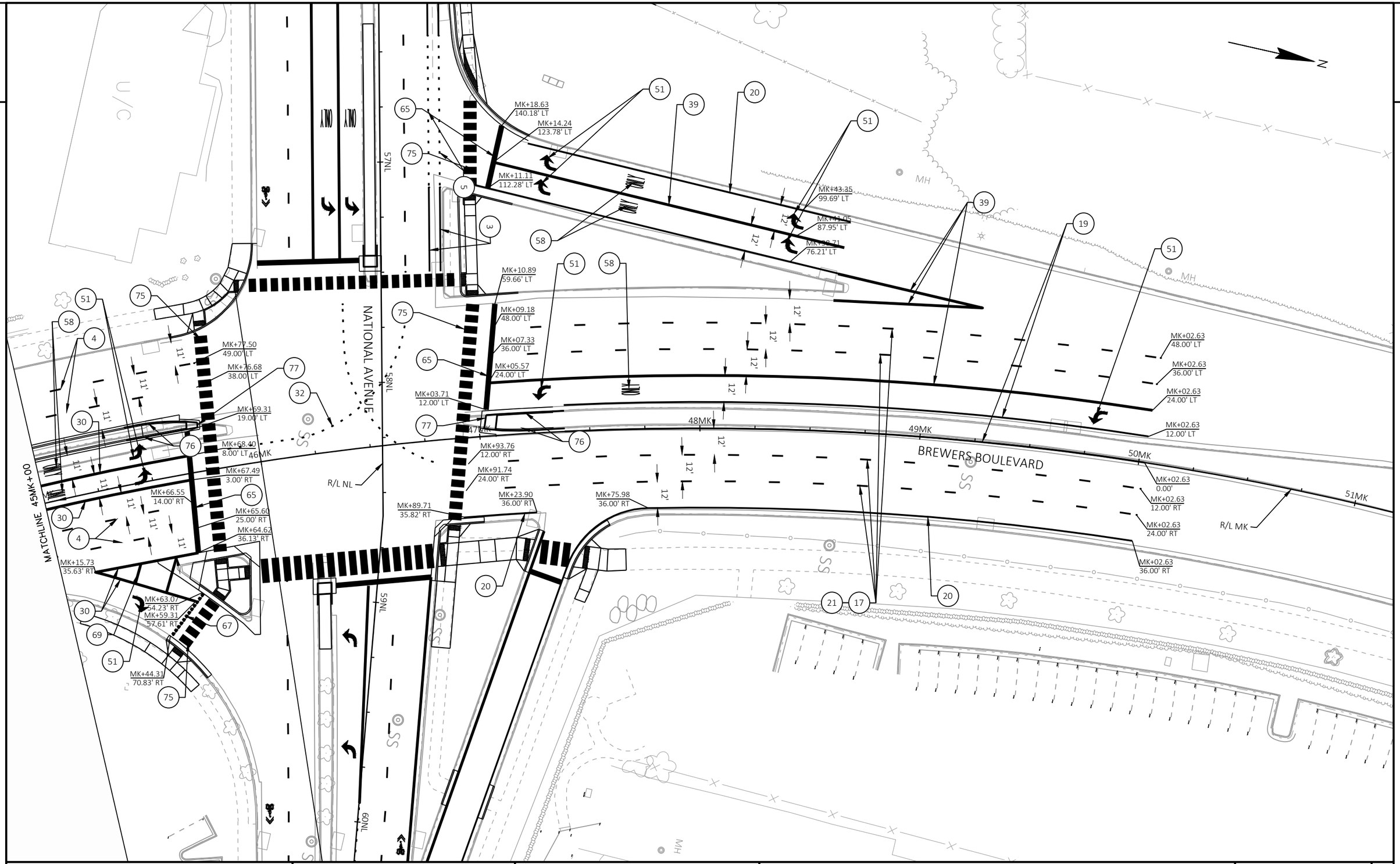
2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 146	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 02-MK-01
PLOT DATE : 1/27/2025 4:08 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT

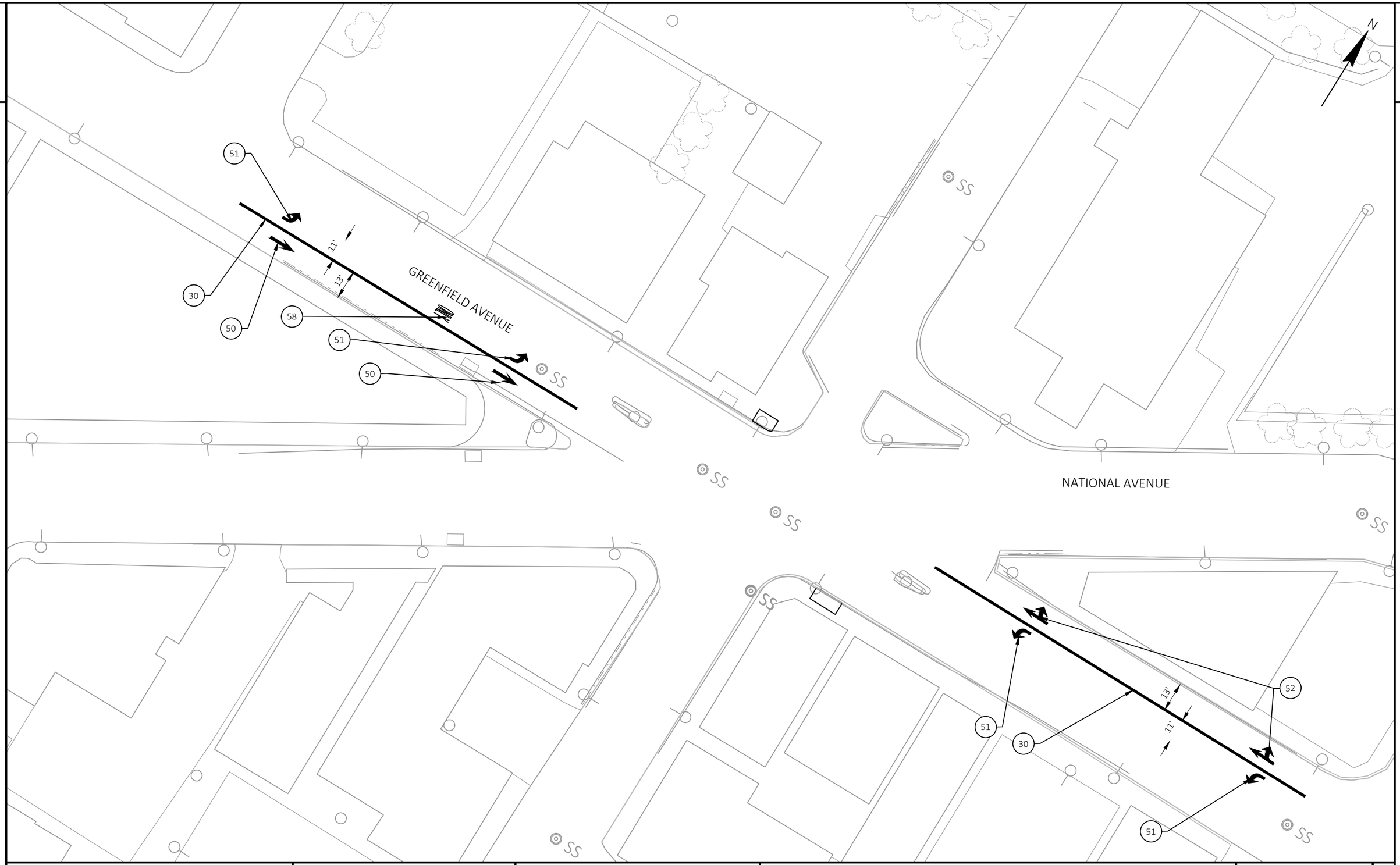
2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 147	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-024501-PM.DWG
LAYOUT NAME - 02-MK-02

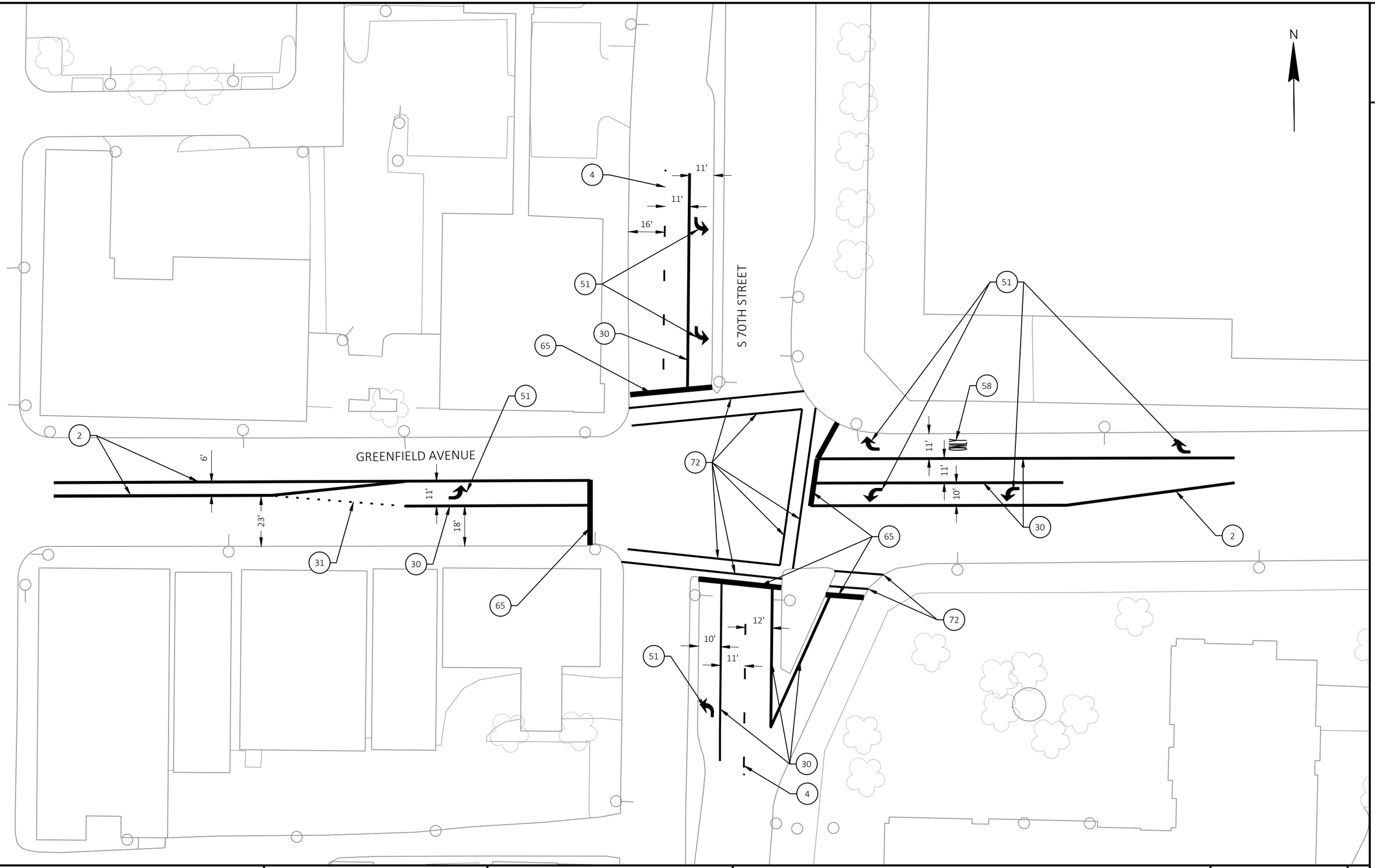
PLOT DATE : 1/27/2025 4:11 PM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:40 FT



2

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 148	E

2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PAVEMENT MARKING	SHEET 149	E

LEGEND

- TYPE II / III BARRICADE
- TYPE II / III BARRICADE WTH ATTACHED SIGN
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE C STEADY BURN LIGHT
- CONNECTED ARROW BOARD
- WZ START LOCATION MARKER
- WZ END LOCATION MARKER
- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- DELINEATOR FLEXIBLE/TUBULAR MARKER
- TRAFFIC CONTROL 42-INCH CONE
- TYPE A WARNING LIGHT (FLASHING)
- TYPE B WARNING LIGHT (HIGH INTENSITY FLASHING)
- TYPE C WARNING LIGHT (STEADY BURN)
- CONCRETE BARRIER TEMPORARY PRECAST
- WORK AREA
- TEMPORARY RAISED PAVEMENT MARKER (ONE WAY REFLECTOR)
- TEMPORARY RAISED PAVEMENT MARKER (TWO WAY REFLECTOR)
- FLAGGER, EQUIPPED WITH STOP/SLOW PADDLE FASTENED ON SUPPORT STAFF
- DIRECTION OF TRAFFIC
- MB — PORTABLE CHANGEABLE MESSAGE BOARD
- PEDESTRIAN BARRICADE
- REMOVING PAVEMENT MARKINGS
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD
- TEMPORARY PEDESTRIAN CURB RAMP
- TEMPORARY AUDIBLE MESSAGE DEVICE

PAVEMENT MARKING LEGEND

- 100 — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- 101 — TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- 113 — TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH (WHITE)
- 120 — TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH (WHITE)
- 147 — TEMPORARY MARKING ARROW REMOVABLE TAPE, TYPE 2 (WHITE)
- 149 — TEMPORARY MARKING WORD REMOVABLE TAPE (WHITE)
- 150 — TEMPORARY MARKING REMOVABLE MASK OUT TAPE 6-INCH

GENERAL NOTES

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

A FLAGGER MAY BE REQUIRED WHERE CONSTRUCTION VEHICLES ENTER OR LEAVE WORK AREAS IF WARRANTED BY CONDITIONS OR AS DIRECTED BY THE ENGINEER. FLAGGING IS NOT PERMITTED ON FREEWAY LANES.

ALL SIGNS ARE 48"x48" UNLESS OTHERWISE NOTED.

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

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

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

WHEN A SEGMENT OF THE PROJECT IS NOT SHOWN ON THE STAGING PLANS, USE THE SAME TRAFFIC CONTROL AS THE PREVIOUS STAGE FOR THE SEGMENT.

16"x16" ORANGE FLAGS SHALL BE INCIDENTAL TO TRAFFIC CONTROL SIGN BID ITEM.

INSTALL PROPOSED TRAFFIC CONTROL SIGNS ON BOTH OUTSIDE SHOULDER AND MEDIAN SIDE OF ALL DIVIDED ROADWAYS.

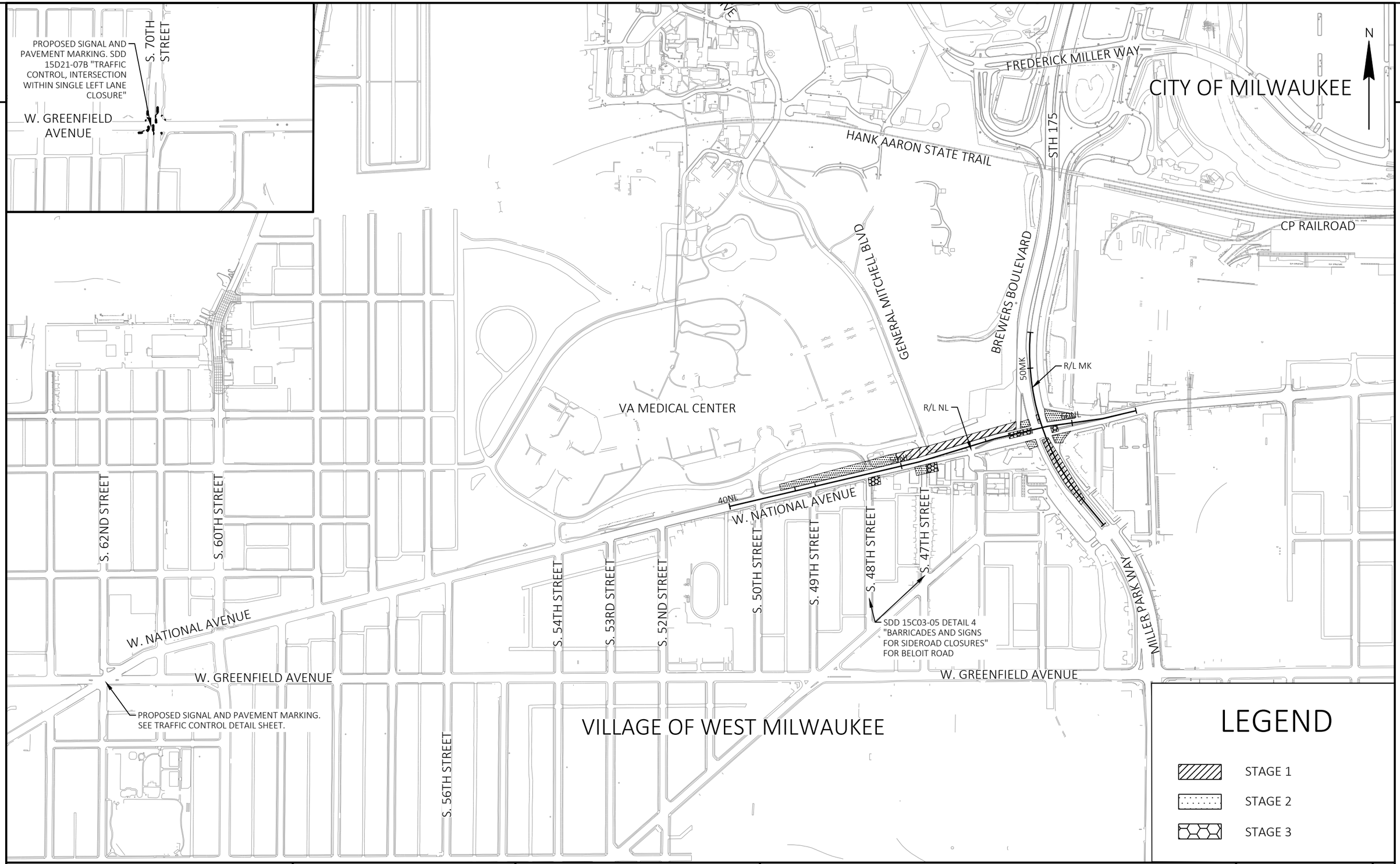
TRAFFIC CONTROL DRUMS IN TAPERS SHALL BE EQUIPPED WITH TRAFFIC CONTROL WARNING LIGHTS TYPE "C". ONE WAY LIGHTS IN TAPERS ONLY. UNLESS OTHERWISE SHOWN, DRUMS SHALL BE SPACED AT 25-FT OC IN TAPERS AND 50-FT OC ON TANGENTS OR AS OTHERWISE SHOWN. FOR NIGHTTIME OPERATION ALL DRUMS IN TAPERS SHALL HAVE A TYPE C STEADY BURN WARNING LIGHT.

ALL SIGNS TEMPORARY OR EXISTING WHICH CONFLICT WITH THE TRAFFIC CONTROL "IN USE" SHALL BE COVERED OR REMOVED AS NEEDED AND/OR AS DIRECTED BY THE ENGINEER. IN LIEU OF COVERING WOOD POST MOUNTED SIGNS, THE CONTRACTOR MAY CHOOSE TO REMOVE AND REINSTALL THEM.

ALL EXISTING CONFLICTING PAVEMENT MARKING SHALL BE REMOVED.

THE MOVING OF FIXED MESSAGE SIGNS TO/FROM WOOD POSTS AND PORTABLE SUPPORTS, INCLUDING ALL ASSOCIATED LABOR AND MATERIALS, IS INCLUDED IN THE COST OF THE 643.5000 "TRAFFIC CONTROL" BID ITEM.

2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC CONTROL PROJECT OVERVIEW	SHEET 151	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-025001-TC OVERVIEW.DWG
LAYOUT NAME - 001
PLOT DATE : 1/13/2025 3:48 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:500 FT

2

2

N

S. 65TH ST

S. 64TH ST

S. 63RD ST

S. 62ND ST

S. 61ST ST

S. 60TH ST

W. GREENFIELD AVE

W. NATIONAL AVE

W. ORCHARD ST

MAINTAIN EXISTING CROSSWALKS ON ALL APPROACHES

MAINTAIN EXISTING CROSSWALKS ON ALL APPROACHES

END ROAD WORK
G20-2A
48"X24"

((E))

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

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

SIDEWALK CLOSED
R9-9
24"X12"

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

DETOUR
M4-9BL
30"X24"

ROAD WORK AHEAD
W20-1A

ROAD CLOSED AHEAD
W20-3A

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

180' TAPER

((E))
END ROAD WORK
G20-2A
48"X24"

((S))
ROAD WORK AHEAD
W20-1A

SHOULDER WORK
W21-5

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

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STH 59 AND 62ND ST INTERSECTION TRAFFIC CONTROL	SHEET 152	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026101-S1.DWG
LAYOUT NAME - TC 01
PLOT DATE : 2/19/2025 10:48 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2

2

N

S. 60TH ST

S. 61ST ST

W. NATIONAL AVE

R11-2
48" X 30"

ROAD CLOSED

TYPE III BARRICADE

ROAD CLOSED AHEAD
W20-3A

180' TAPER

W04-2R

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

((S))

W. GREENFIELD AVE

((E))

END ROAD WORK
G20-2A
48"X24"

S. 60TH ST

S. 59TH ST

S. 58TH ST

S. 57TH ST

W. ORCHARD ST

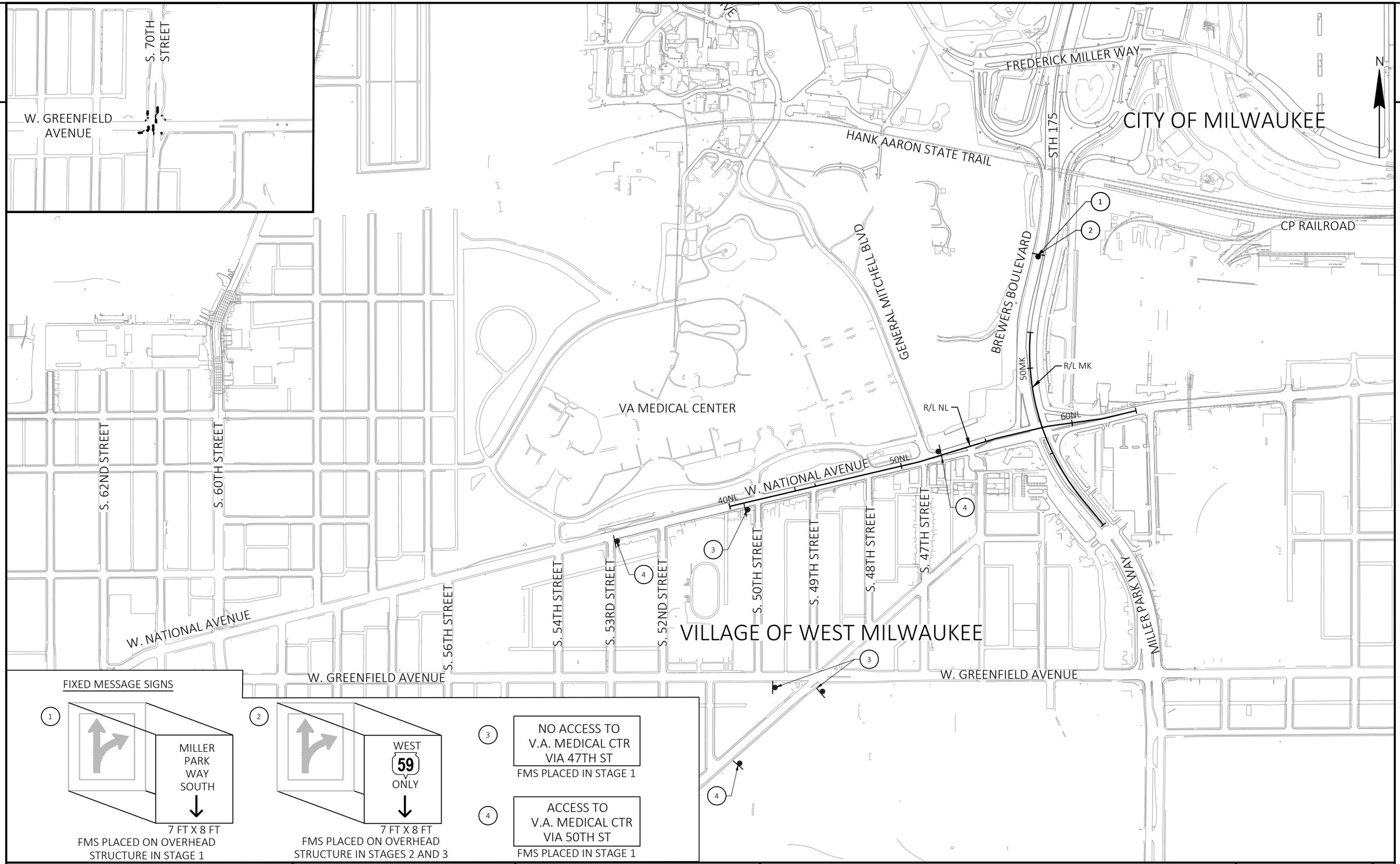
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STH 59 AND 62ND INTERSECTION TRAFFIC CONTROL	SHEET 153	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026101-S1.DWG
LAYOUT NAME - TC 02

PLOT DATE : 1/13/2025 5:02 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : ##########

WISDOT/CADDS SHEET 42

2



FIXED MESSAGE SIGNS

1

7 FT X 8 FT
FMS PLACED ON OVERHEAD STRUCTURE IN STAGE 1

2

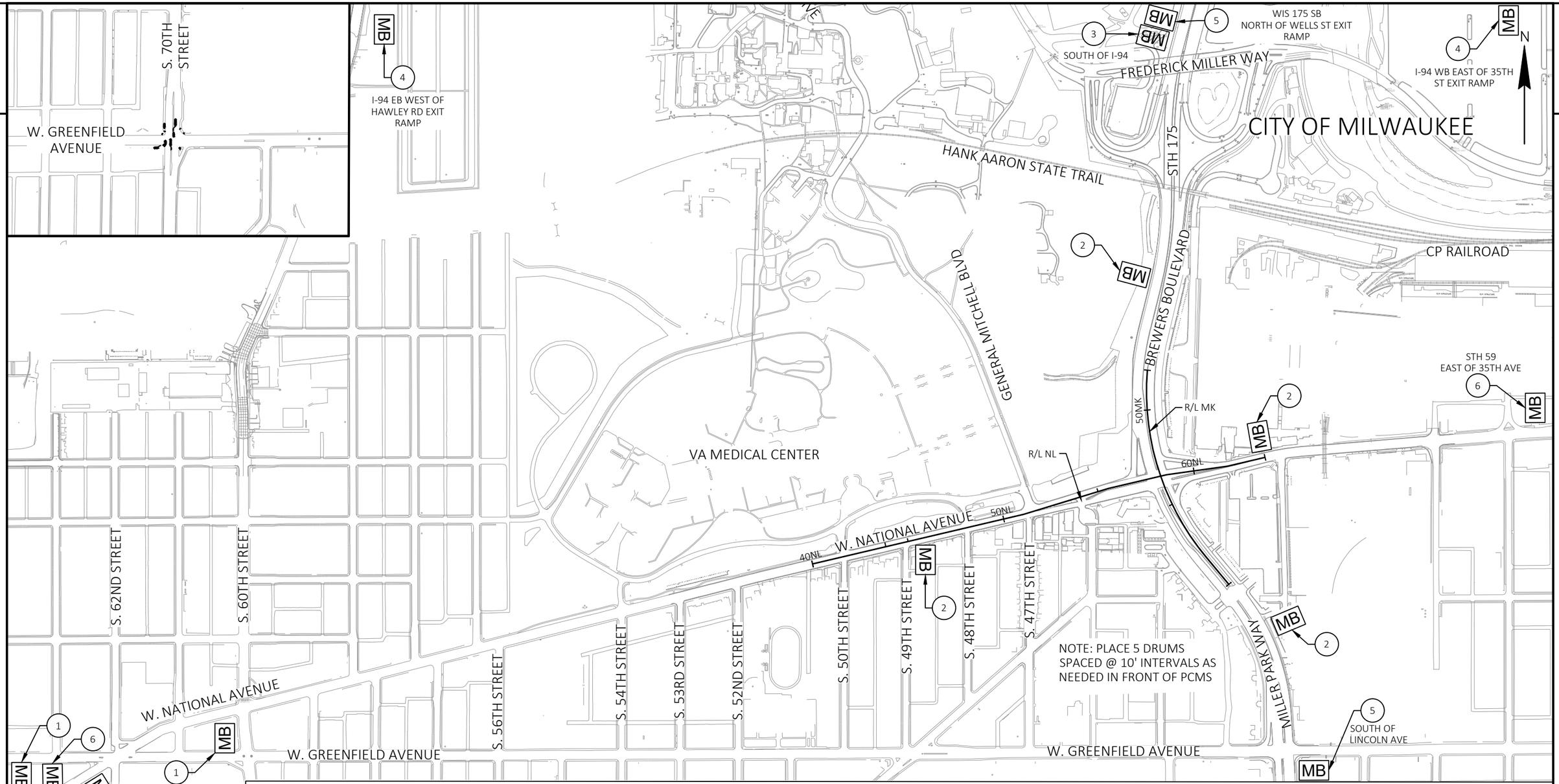
7 FT X 8 FT
FMS PLACED ON OVERHEAD STRUCTURE IN STAGES 2 AND 3

3 — NO ACCESS TO V.A. MEDICAL CTR VIA 47TH ST
FMS PLACED IN STAGE 1

4 — ACCESS TO V.A. MEDICAL CTR VIA 50TH ST
FMS PLACED IN STAGE 1

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC CONTROL - FIXED MESSAGE SIGNS	SHEET 154	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-025002-TC FMS.DWG
LAYOUT NAME - 001
PLOT DATE : 1/28/2025 9:32 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42



PORTABLE CHANGEABLE MESSAGE SIGNS

1	LANE CLOSURE BEGINS	XXX DAY XX/XX	GREENFIELD/NATIONAL AVE INTERSECTION POSTED 7 DAYS IN ADVANCE OF LANE CLOSURE
2	LANE CLOSURE BEGINS	XXX DAY XX/XX	POSTED 7 DAYS IN ADVANCE OF LANE CLOSURE
3	NEW TRAFFIC PATTERN	RT/LT LANE CLOSED	POSTED 5 DAYS AT BEGINNING OF TRAFFIC PATTERN CHANGE STAGE 1 AND 2
4	HWY 175 LANE CLOSED	EXPECT DELAYS	POSTED 5 DAYS AT BEGINNING OF TRAFFIC PATTERN CHANGE
5	LANE CLOSED AHEAD	EXPECT DELAYS	POSTED 5 DAYS AT BEGINNING OF TRAFFIC PATTERN CHANGE
6	HWY 59 LANE CLOSED	EXPECT DELAYS	POSTED 5 DAYS AT BEGINNING OF TRAFFIC PATTERN CHANGE

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TRAFFIC CONTROL -PCMS	SHEET 155	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-025003-TC PCMS.DWG
LAYOUT NAME - 001
PLOT DATE : 1/28/2025 9:23 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:500 FT
WISDOT/CADDS SHEET 42

2

STAGE 1

CONSTRUCTION

- WIDENING OF NATIONAL AVE FROM 50+00 TO 57+00.
- MEDIAN CONSTRUCTION ALONG MILLER PARK WAY FROM 41+73 TO 46+00 AND 46+83 TO 47+34.
- TEMPORARY PEDESTRIAN ACCOMMODATION CONSTRUCTION FOR TRAVERSING SOUTH LEG AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION. REMOVE EXISTING MARKING AND UTILIZE TEMPORARY PEDESTRIAN BARRICADE, DETECTABLE WARNING FIELD, CURB RAMP AND TEMPORARY CROSSWALK REMOVABLE TAPE 6-INCH.
- TEMPORARY PEDESTRIAN ACCOMMODATION CONSTRUCTION FOR TRAVERSING TO THE BUS STOP AT THE SOUTHEAST QUADRANT AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION. UTILIZE TEMPORARY PEDESTRIAN BARRICADE, DETECTABLE WARNING FIELD, AND CURB RAMP.

TRAFFIC

- CLOSE INSIDE LANE OUTSIDE RIGHT TURN LANE OF STATE TRUNK HIGHWAY 175 SOUTHBOUND.
- CLOSE INSIDE LANE OF MILLER PARK WAY NORTHBOUND.
-CLOSE OUTSIDE LANE AND PARKING LANE OF STATE TRUNK HIGHWAY 59 (NATIONAL AVENUE) EASTBOUND.
-CLOSE 47TH STREET NORTH AND SOUTH APPROACHES AT STATE TRUNK HIGHWAY 59 (NATIONAL AVENUE).
- CLOSE 48TH STREET NORTH AND SOUTH APPROACHES AT STATE TRUNK HIGHWAY 59 (NATIONAL AVENUE).
- CLOSE SIDEWALK ON NATIONAL AVENUE FROM 42+00 TO 48+00 LEFT AND 50+00 TO 57+00 LEFT.
- CLOSE SIDEWALK AT THE NORTHWEST ISLAND AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION.
- CLOSE SIDEWALK AT THE NORTHEAST CORNER (ISLAND PARTIALLY OPEN).
- CLOSE CROSSWALKS TRAVERSING NATIONAL AVENUE AT SOUTH 49TH STREET AND SOUTH 48TH STREET.

2

2

N

END ROAD WORK
G20-2A
48"X24"

((E))

S WASHINGTON DR

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

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

MARKING CROSSWALK
EPOXY TRANSVERSE LINE
6-INCH

R3-2
24"X24"

02

ROAD WORK AHEAD
W20-1A

DETOUR
M4-9BL
30"X24"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

SIDEWALK CLOSED
R9-9
24"X12"

DETOUR
M4-9BL
30"X24"

R3-2
24"X24"

SIDEWALK CLOSED
R9-9
24"X12"

WO1-7
48"X24"

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

ROAD WORK AHEAD
W20-1A

GENERAL MITCHELL BLVD.

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

EXISTING TREE TO REMAIN.
(SIGNIFICANT TREE #209)

SIDEWALK CLOSED
R9-9
24"X12"

MWEL

40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00

R/L NL

W. NATIONAL AVE

((S))

S. 50TH ST

ROAD WORK AHEAD
W20-1A

DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

RIGHT SHOULDER CLOSED
W21-5A

S. 49TH ST

ROAD WORK AHEAD
W20-1A

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

BAG NORTHBOUND
SIGNAL HEADS

SDD 15C03-05 DETAIL
4 "BARRICADES AND
SIGNS FOR SIDEROAD
CLOSURES" FOR
BELOIT ROAD

S. 48TH ST

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT BELOIT RD

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

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

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

DO NOT ENTER
R5-1
30"X30"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

R3-2
24"X24"

S. 47TH ST

STOP
R1-1
30"X30"

ONLY
R3-50R
30"X36"

DO NOT ENTER
R5-1
30"X30"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

ROAD WORK AHEAD
W20-1A

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

S. 46TH ST

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 1	SHEET 157	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026101-S1.DWG
LAYOUT NAME - 01

PLOT DATE : 2/19/2025 10:27 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

BEGIN LEFT TURN LANE
R3-20L
24"X36"

51+00
50+00
49+00
48+00
47+00

100
120
150
R/L MK

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

WO1-6
48" X 24"
TYPE III BARRICADE

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

BREWERS BLVD

SIDEWALK CLOSED
R9-9
24"X12"
DETOUR
M4-9BL
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

180' TAPER

54+00
55+00
56+00
57+00
58+00
59+00
60+00
61+00
62+00
63+00

W. NATIONAL AVE
R/L NL
W. NATIONAL AVE

113

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"
DETOUR
M4-9BR
30"X24"

DETOUR
M4-9BL
30"X24"

120
DETOUR
M4-9BR
30"X24"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

WO1-6
48" X 24"
TYPE III BARRICADE

MILLER PARK WAY

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ROAD WORK AHEAD
W20-1A

S. 43RD ST

S. 46TH ST

BEGIN LEFT TURN LANE
R3-20L
24"X36"

N

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 1	SHEET 158	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026101-S1.DWG
LAYOUT NAME - 02
PLOT DATE : 1/28/2025 10:32 AM
PLOT BY : KATHRYN FLANAGAN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

180' TAPER

W04-2R

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

((S))

101

W. NATIONAL AVE

((E))

END ROAD WORK
G20-2A
48"X24"

S. 41ST ST

S. 40TH ST

S. 39TH ST

S. 38TH ST

S. 38TH ST

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 1	SHEET 159	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026101-S1.DWG
LAYOUT NAME - 03
PLOT DATE : 1/13/2025 5:15 PM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

((E))

END ROAD WORK
G20-2A
48"X24"

((S))

ROAD WORK AHEAD
W20-1A

W01-4BR

100

MILLER PARK WAY

150

101

125' TAPER

BEGIN LEFT TURN LANE
R3-20L
24"X36"

W. ORCHARD ST

W. GREENFIELD AVE

CANADIAN PACIFIC RY

N

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 1	SHEET 160	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026101-S1.DWG
LAYOUT NAME - 04
PLOT DATE : 2/27/2025 8:41 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2

2

W. GREENFIELD AVE

CANADIAN PACIFIC RY

MILLER PARK WAY

S. 43RD ST

W. NATIONAL AVE

WO1-6
48" X 24"
TYPE III BARRICADE

BEGIN LEFT TURN LANE
R3-20L
24"X36"

WO1-6
48" X 24"
TYPE III BARRICADE

BEGIN LEFT TURN LANE
R3-20L
24"X36"

WO1-6
48" X 24"
TYPE III BARRICADE

R/L MK

41+00
42+00
43+00
44+00
45+00
46+00

113
120

R/L NL

60+00
61+00
62+00
63+00

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

ROAD WORK AHEAD
W20-1A

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 1	SHEET 161	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026101-S1.DWG
LAYOUT NAME - 05

PLOT DATE : 2/19/2025 10:19 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

N

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

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

WO1-6
48" X 24"
TYPE III BARRICADE

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

W. NATIONAL AVE

R/L NL

54+00
55+00
56+00
57+00
58+00

150
120
113

BEGIN LEFT TURN LANE
R3-20L
24"X36"

48+00
49+00
50+00
51+00
52+00

BREWERS BLVD

R/L MK

100

MILLER PARK WAY

45+00
44+00

SIDEWALK CLOSED
R9-9
24"X12"

DETOUR
M4-9BL
30"X24"

60+00
61+00
62+00
63+00

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

WO1-6
48" X 24"
TYPE III BARRICADE

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

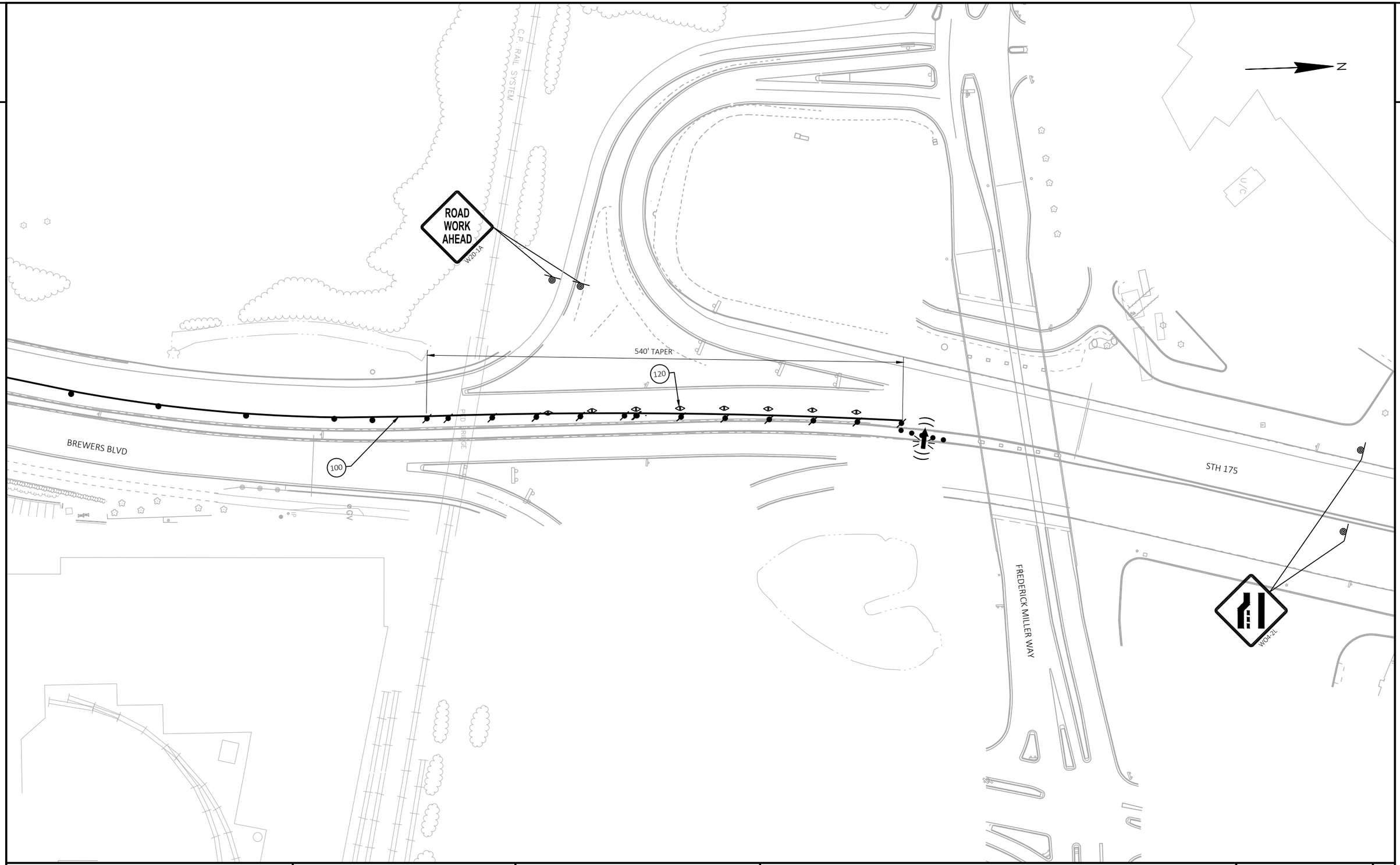
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 1	SHEET 162	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026101-S1.DWG
LAYOUT NAME - 06

PLOT DATE : 1/13/2025 5:29 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

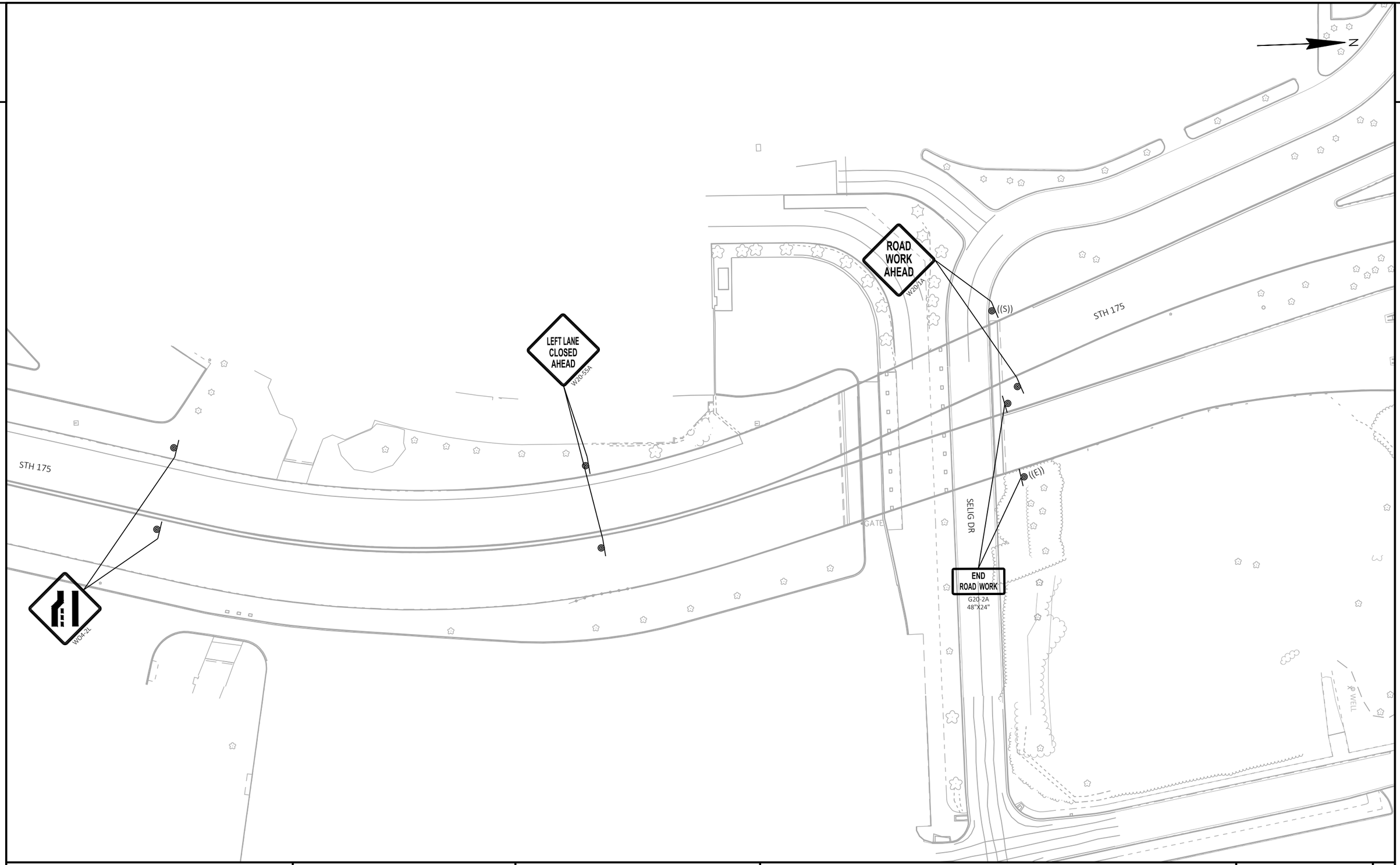
2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 1	SHEET 163	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026101-S1.DWG
LAYOUT NAME - 07
PLOT DATE : 1/13/2025 5:34 PM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 1	SHEET 164	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026101-S1.DWG
LAYOUT NAME - 08
PLOT DATE : 1/13/2025 5:38 PM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : ############
WISDOT/CADDS SHEET 42

2

STAGE 2

CONSTRUCTION

- WIDENING OF NATIONAL AVE FROM 43+00 TO 50+00 LEFT.
- SIDEWALK CONSTRUCTION IN THE SOUTHEAST QUADRANT AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION.

TRAFFIC

- CLOSE OUTSIDE LANE AND INSIDE RIGHT TURN LANE OF STATE TRUNK HIGHWAY 175 SOUTHBOUND, OUTSIDE LANE OF MILLER PARK WAY NORTHBOUND,
- CLOSE 48TH STREET NORTH AND SOUTH APPROACHES AT STATE TRUNK HIGHWAY 59 (NATIONAL AVENUE).
- CLOSE SIDEWALK ON NATIONAL AVENUE FROM 42+00 TO 51+00 LEFT AND 52+00 TO 57+00 LEFT.
- CLOSE SIDEWALK AT THE NORTHWEST AND SOUTHEAST ISLANDS AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION.
- CLOSE SIDEWALK AT THE NORTHEAST CORNER (ISLAND PARTIALLY OPEN).
- CLOSE CROSSWALKS TRAVERSING NATIONAL AVENUE AT SOUTH 49TH STREET AND SOUTH 48TH STREET.

STAGE 2A

CONSTRUCTION

- SIDEWALK CONSTRUCTION IN THE NORTHEAST AND NORTHWEST QUADRANTS AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION.
- TEMPORARY PEDESTRIAN ACCOMMODATION CONSTRUCTION FOR TRAVERSING NORTH LEG AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION. REMOVE EXISTING MARKING AND UTILIZE TEMPORARY PEDESTRIAN BARRICADE, DETECTABLE WARNING FIELD, CURB RAMP AND TEMPORARY CROSSWALK REMOVABLE TAPE 6-INCH.

TRAFFIC

- CLOSE OUTSIDE LANE AND INSIDE RIGHT TURN LANE OF STATE TRUNK HIGHWAY 175 SOUTHBOUND, OUTSIDE LANE OF MILLER PARK WAY NORTHBOUND, OUTSIDE LANE AND PARKING LANE OF STATE TRUNK HIGHWAY 59 (NATIONAL AVENUE) EASTBOUND, 48TH STREET NORTH AND SOUTH APPROACHES AT STATE TRUNK HIGHWAY 59 (NATIONAL AVENUE).

STAGE 2B

CONSTRUCTION

- SIDEWALK CONSTRUCTION IN SOUTHWEST QUADRANT AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION.
- CURB AND GUTTER CONSTRUCTION IN NORTHEAST QUADRANT AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION.
- SIDEWALK CONSTRUCTION IN SOUTHWEST QUADRANT AT 47TH STREET/NATIONAL AVENUE INTERSECTION.
- TEMPORARY PEDESTRIAN ACCOMMODATION CONSTRUCTION FOR TRAVERSING EAST LEG AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION. UTILIZE TEMPORARY PEDESTRIAN BARRICADE AND DETECTABLE WARNING FIELD.
- TEMPORARY PEDESTRIAN ACCOMMODATION CONSTRUCTION FOR TRAVERSING NORTH LEG AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION. REMOVE AND REPLACE TEMPORARY CROSSWALK REMOVABLE TAPE 6-INCH FROM STAGE 2A.
- TEMPORARY PEDESTRIAN ACCOMMODATION CONSTRUCTION FOR PATH BETWEEN CURB AND ISLAND IN SOUTHEAST QUADRANT AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION. REMOVE EXISTING MARKING AND UTILIZE TEMPORARY CROSSWALK REMOVABLE TAPE 6-INCH.

TRAFFIC

- CLOSE OUTSIDE LANE AND INSIDE RIGHT TURN LANE OF STATE TRUNK HIGHWAY 175 SOUTHBOUND, OUTSIDE LANE OF MILLER PARK WAY NORTHBOUND, OUTSIDE LANE AND PARKING LANE OF STATE TRUNK HIGHWAY 59 (NATIONAL AVENUE) EASTBOUND, 48TH STREET NORTH AND SOUTH APPROACHES AT STATE TRUNK HIGHWAY 59 (NATIONAL AVENUE).

2

2

2

N

S WASHINGTON DR

W. NATIONAL AVE

GENERAL MITCHELL BLVD.

S. 50TH ST

S. 49TH ST

S. 48TH ST

S. 47TH ST

S. 46TH ST

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

R3-2
24"X24"

R11-2L
48" X 30"

LANE CLOSED

TYPE III BARRICADE

DETOUR
M4-9BL
30"X24"

EXISTING TREE TO REMAIN.
(SIGNIFICANT TREE #209)

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

113

40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00

R/L NL

((E))

((S))

RIGHT SHOULDER CLOSED
W21-5A

R11-2
48" X 30"

ROAD CLOSED

DO NOT ENTER
R5-1
30"X30"

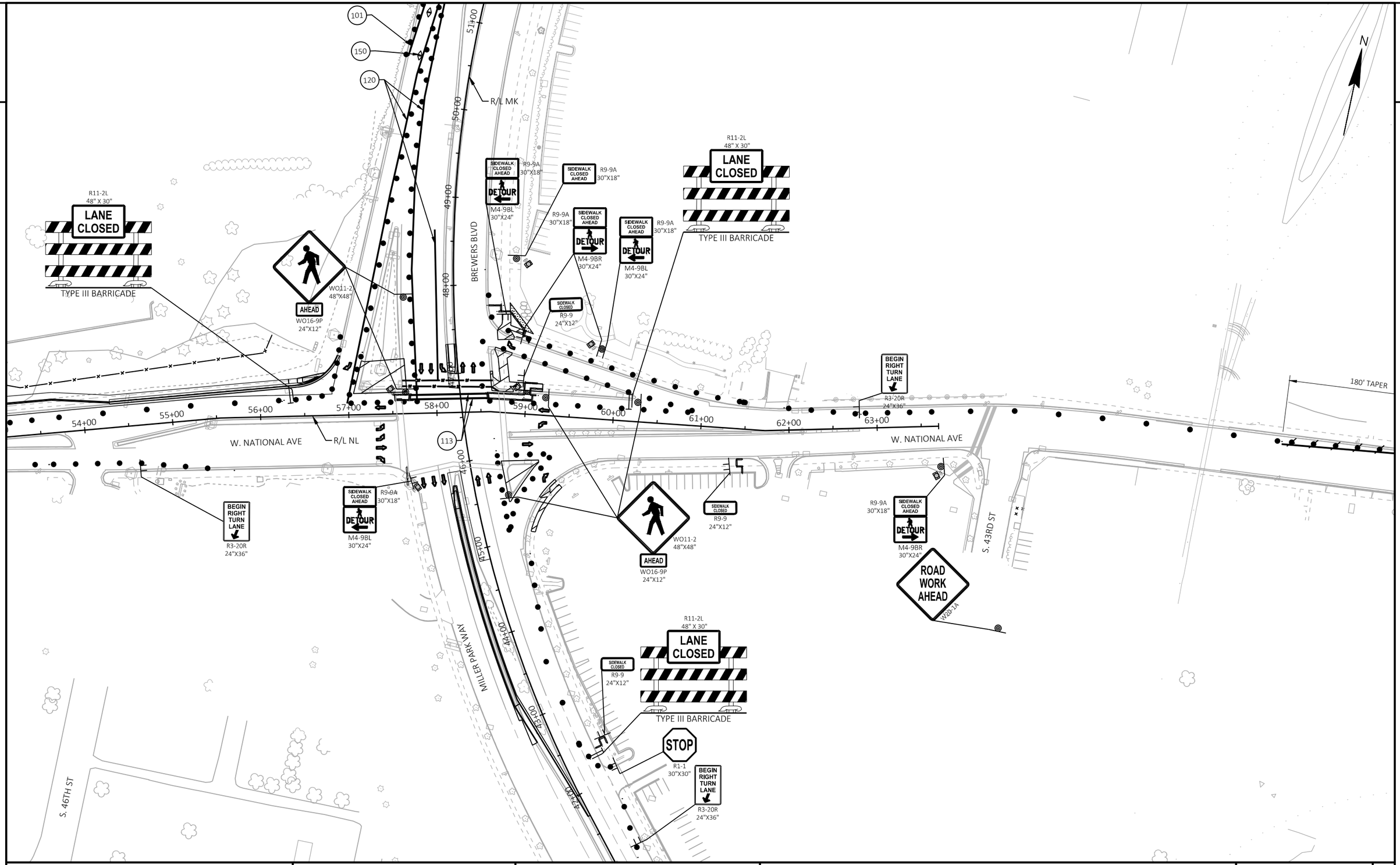
SDD 15C03-05 DETAIL 4 "BARRICADES AND SIGNS FOR SIDEROAD CLOSURES" FOR BELOIT ROAD

ROAD CLOSED AHEAD
W20-3A

PLACE SIGN AT BELOIT RD

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 2A	SHEET 166	E

2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 2A	SHEET 167	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026201-S2A.DWG
LAYOUT NAME - 02
PLOT DATE : 1/28/2025 10:36 AM
PLOT BY : KATHRYN FLANAGAN
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

180' TAPER

W04-2R

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

((S))

NAL AVE

W. NATIONAL AVE

S. 39TH ST

SIDEWALK CLOSED AHEAD

R9-9A
30"X18"

DETOUR

M4-9BR
30"X24"

S. 43RD ST

ROAD WORK AHEAD
W20-1A

((E))

END ROAD WORK
G20-2A
48"X24"

S. 41ST ST

S. 40TH ST

ONED RR

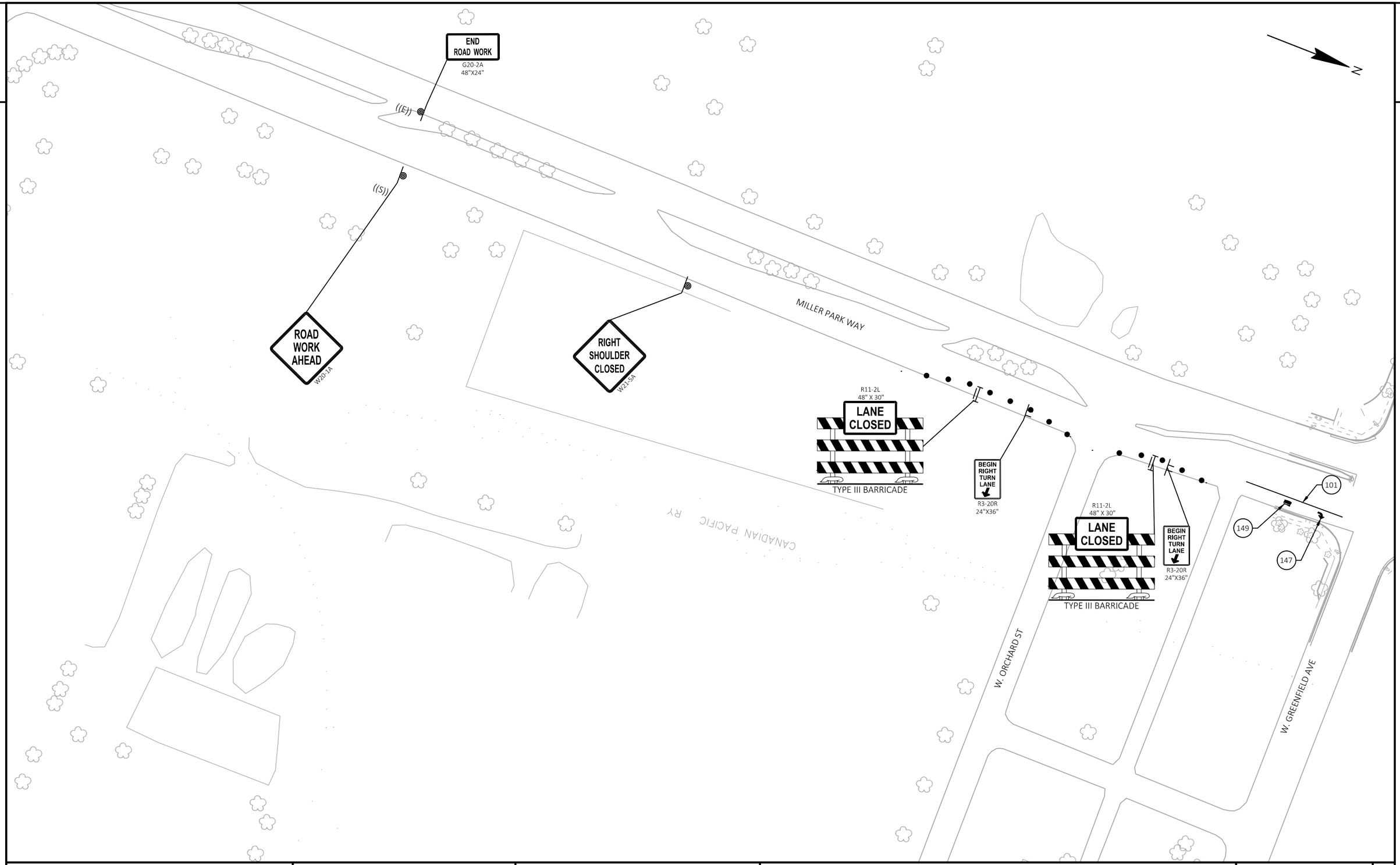
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 2A	SHEET 168	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026201-S2A.DWG
LAYOUT NAME - 03

PLOT DATE : 1/14/2025 7:53 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

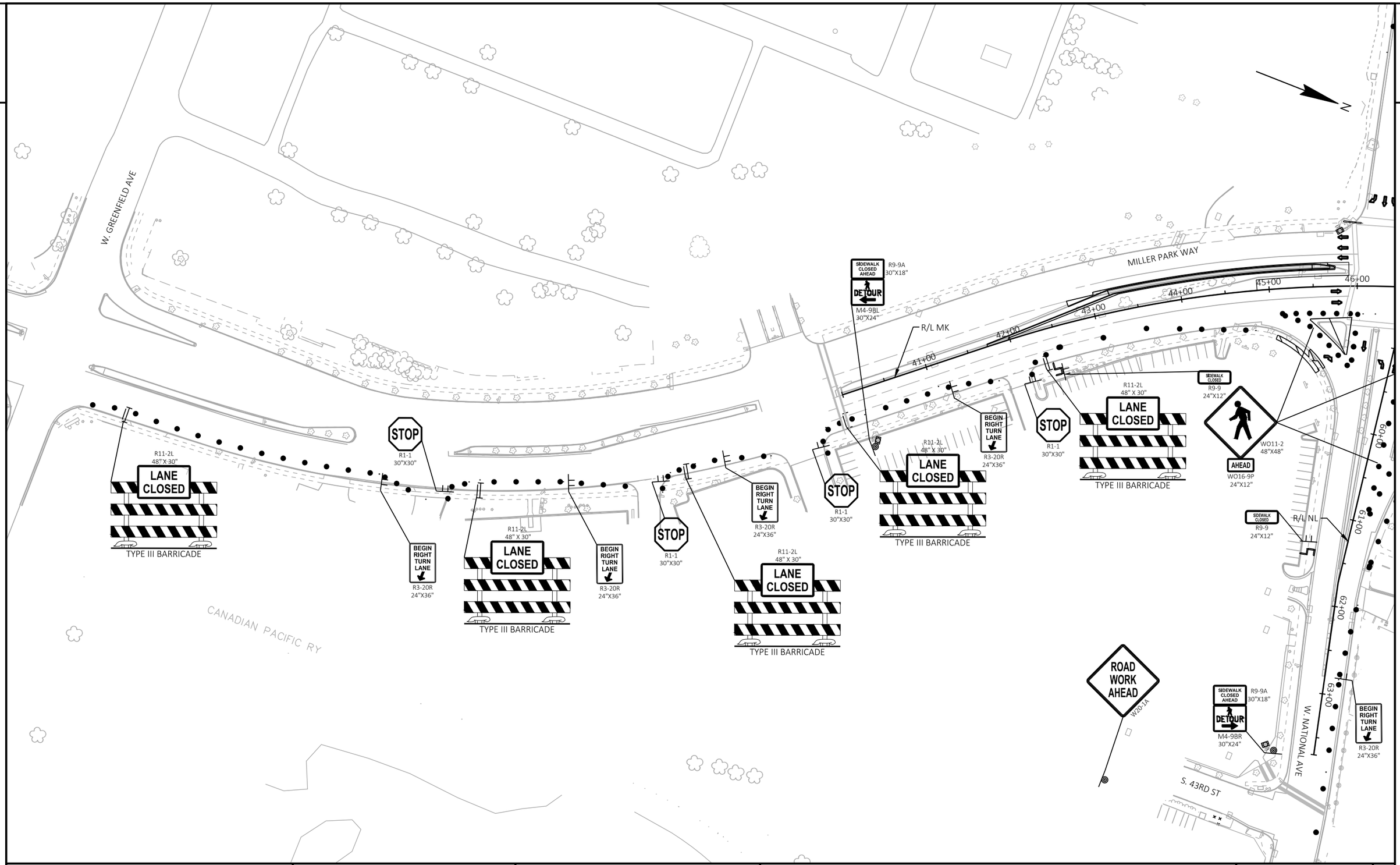
2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 2A	SHEET 169	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026201-S2A.DWG
LAYOUT NAME - 04
PLOT DATE : 2/27/2025 9:27 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : ##########
WISDOT/CADDS SHEET 42

2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 2A	SHEET 170	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026201-S2A.DWG
LAYOUT NAME - 05
PLOT DATE : 2/19/2025 11:20 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

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

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

W. NATIONAL AVE

54+00
55+00
56+00
57+00
58+00

WO11-2
48"X48"
AHEAD
WO16-9P
24"X12"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"
DETOUR
M4-9BL
30"X24"

150
101
120

48+00
49+00
50+00
51+00
52+00

R/L MK

BREWERS BLVD

MILLER PARK WAY

46+00
45+00
44+00

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"
DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"
DETOUR
M4-9BL
30"X24"

59+00
60+00
61+00
62+00
63+

WO11-2
48"X48"
AHEAD
WO16-9P
24"X12"

SIDEWALK CLOSED
R9-9
24"X12"
R/L NL

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

270' TAPE

BREWERS BLVD

101

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 2A	SHEET 171	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026201-S2A.DWG
LAYOUT NAME - 06
PLOT DATE : 1/14/2025 8:05 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

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

270' TAPER

540' TAPER

150

101

BREWERS BLVD

STH 175

FREDERICK MILLER WAY

W04-2R

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 2A	SHEET 172	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026201-S2A.DWG
LAYOUT NAME - 07

PLOT DATE : 1/14/2025 8:09 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

(S)

STH 175

STH 175

W04-2R

GATE

SEE DETAIL

(E)

END ROAD WORK
G20-2A
48"X24"

WELL

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 2A	SHEET 173	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026201-S2A.DWG
LAYOUT NAME - 08

PLOT DATE : 1/14/2025 8:13 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

2

N

S WASHINGTON DR

W. NATIONAL AVE

GENERAL MITCHELL BLVD.

S. 50TH ST

S. 49TH ST

S. 48TH ST

S. 47TH ST

S. 46TH ST

40+00 41+00 42+00 43+00 44+00 45+00 46+00 47+00 48+00 49+00 50+00 51+00 52+00 53+00 54+00

R/L NL

((E))

((S))

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

SIDEWALK CLOSED AHEAD
DETOUR
R9-9A
30"X18"
M4-9BR
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

R3-2
24"X24"

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

DETOUR
M4-9BL
30"X24"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

EXISTING TREE TO REMAIN.
(SIGNIFICANT TREE #209)

RIGHT SHOULDER CLOSED
W21-5A

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

DO NOT ENTER
R5-1
30"X30"

113

SDD 15C03-05 DETAIL
4 "BARRICADES AND
SIGNS FOR SIDEROAD
CLOSURES" FOR
BELOIT ROAD

ROAD CLOSED AHEAD
W20-3A
PLACE SIGN AT BELOIT RD

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 2B	SHEET 174	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026202-S2B.DWG
LAYOUT NAME - 01
PLOT DATE : 1/27/2025 2:11 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

101

120

113

113

R/L MK

R/L NL

BREWERS BLVD

MILLER PARKWAY

W. NATIONAL AVE

W. NATIONAL AVE

S. 43RD ST

S. 46TH ST

51+00

50+00

49+00

48+00

47+00

46+00

45+00

44+00

43+00

42+00

54+00

55+00

56+00

57+00

58+00

59+00

60+00

61+00

62+00

63+00

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

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

R9-9A
30"X18"
SIDEWALK CLOSED AHEAD
DETOUR
M4-9BL
30"X24"

R9-9A
30"X18"
SIDEWALK CLOSED AHEAD
DETOUR
M4-9BL
30"X24"

DETOUR
M4-9BL
30"X24"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"
DETOUR
M4-9BR
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

EXISTING TREE TO REMAIN.
(SIGNIFICANT TREE #209)

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

180' TAPER

ROAD WORK AHEAD
W20-1A

U/C

T103

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 2B	SHEET 175	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026202-S2B.DWG
LAYOUT NAME - 02
PLOT DATE : 1/28/2025 10:44 AM PLOT BY : KATHRYN FLANAGAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

STAGE 3

CONSTRUCTION

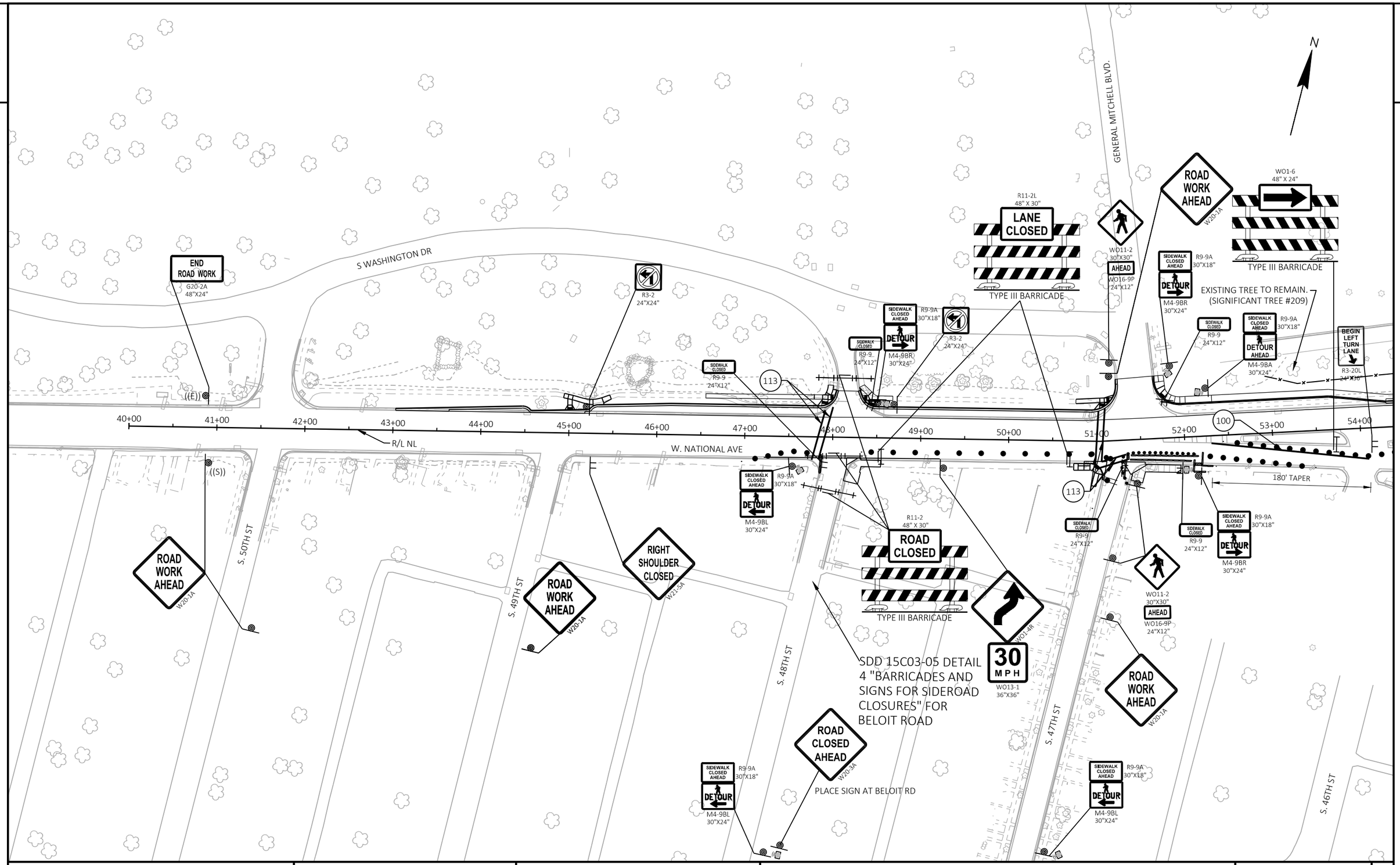
- SIDEWALK CONSTRUCTION AT 48TH STREET/NATIONAL AVENUE AND 47TH STREET/NATIONAL AVENUE INTERSECTIONS
- MEDIAN CONSTRUCTION ALONG NATIONAL AVENUE FROM 56+00 TO 59+00
- TEMPORARY PEDESTRIAN ACCOMMODATION CONSTRUCTION FOR TRAVERSING EAST LEG AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION. REMOVE EXISTING MARKING AND REPLACE WITH TEMPORARY CROSSWALK REMOVABLE TAPE 6-INCH. UTILIZE TEMPORARY PEDESTRIAN BARRICADE AND DETECTABLE WARNING FIELD.
- REMOVE TEMPORARY MARKING FROM SOUTH LEG AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION.
- REMOVE EXISTING MARKING FROM WEST LEG AT BREWERS BOULEVARD/MILLER PARK WAY AND NATIONAL AVENUE INTERSECTION.

TRAFFIC

- CLOSE OUTSIDE LANE AND INSIDE RIGHT TURN LANE OF STATE TRUNK HIGHWAY 175 SOUTHBOUND, OUTSIDE LANE OF MILLER PARK WAY NORTHBOUND, INSIDE LANE OF STATE TRUNK HIGHWAY 59 (NATIONAL AVENUE) EASTBOUND, 48TH STREET NORTH AND SOUTH APPROACHES AT STATE TRUNK HIGHWAY 59 (NATIONAL AVENUE).
- CLOSE SIDEWALK ON THE SE QUADRANT OF NATIONAL AVENUE AT SOUTH 48TH STREET AND SOUTH 47TH STREET
- CLOSE CROSSWALKS TRAVERSING NATIONAL AVENUE AT SOUTH 48TH STREET AND SOUTH 47TH STREET
- CLOSE CROSSWALK TRAVERSING NATIONAL AVENUE ON THE WEST SIDE AT MILLER PARK WAY/BREWERS BOULEVARD.

2

2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 3	SHEET 177	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026301-S3.DWG
LAYOUT NAME - 01
PLOT DATE : 1/27/2025 1:53 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

2

N

WO1-6
48" X 24"

TYPE III BARRICADE

WO1-6
48" X 24"

TYPE III BARRICADE

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BL
30"X24"

SIDEWALK CLOSED
R9-9
24"X12"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

R/L NL

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED AHEAD
R9-9A
30"X18"

DETOUR
M4-9BR
30"X24"

R/L MK

BREWERS BLVD

MILLER PARK WAY

S. 46TH ST

S. 43RD ST

W. NATIONAL AVE

W. NATIONAL AVE

180' TAPER

180' TAPER

180' TAPER

54+00
55+00
56+00
57+00
58+00
59+00
60+00
61+00
62+00
63+00
51+00
50+00
49+00
48+00
47+00
46+00
45+00
44+00
43+00
113

BEGIN LEFT TURN LANE
R3-20L
24"X36"

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

STOP
R1-1
30"X30"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

ROAD WORK AHEAD
W20-1A

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 3	SHEET 178	E

FILE NAME : C:\USERS\KATHRYN.FLANAGAN\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026301-S3.DWG
LAYOUT NAME - 02

PLOT DATE : 1/28/2025 10:50 AM PLOT BY : KATHRYN FLANAGAN PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

2

N

R/L NL

180' TAPER

W. NATIONAL AVE

S. 43RD ST

S. 41ST ST

S. 40TH ST

RR

W04-2R

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

((S))

((E))

END ROAD WORK
G20-2A
48"X24"

ROAD WORK AHEAD
W20-1A

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 3	SHEET 179	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026301-S3.DWG
LAYOUT NAME - 03

PLOT DATE : 1/24/2025 11:08 AM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2

END ROAD WORK
G20-2A
48"X24"

((E))

((S))

ROAD WORK AHEAD
W20-1A

RIGHT SHOULDER CLOSED
W21-5A

MILLER PARK WAY

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

CANADIAN PACIFIC RY

W. ORCHARD ST

W. GREENFIELD AVE

N

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 3	SHEET 180	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026301-S3.DWG
LAYOUT NAME - 04

PLOT DATE : 2/27/2025 9:36 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : ############

2

2

W. GREENFIELD AVE

MILLER PARK WAY

CANADIAN PACIFIC RY

S. 43RD ST

41+00

42+00

43+00

44+00

45+00

46+00

R/L MK

R/L NL

61+00

62+00

63+00

60+00

180' TAPER

SIDEWALK CLOSED
R9-9
24"X12"

SIDEWALK CLOSED AHEAD
DETOUR
R9-9A
30"X18"
M4-9BR
30"X24"

WO1-6
48" X 24"

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

STOP
R1-1
30"X30"

BEGIN RIGHT TURN LANE
R3-20R
24"X36"

BEGIN LEFT TURN LANE
R3-20L
24"X36"

ROAD WORK AHEAD
W20-1A

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 3	SHEET 181	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026301-S3.DWG
LAYOUT NAME - 05

PLOT DATE : 2/19/2025 11:38 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:100 FT

WISDOT/CADDS SHEET 42

2



PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 3	SHEET 182	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026301-S3.DWG
LAYOUT NAME - 06
PLOT DATE : 1/13/2025 4:54 PM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 42

2

N

R11-2L
48" X 30"
LANE CLOSED

TYPE III BARRICADE

270' TAPER

540' TAPER

BREWERS BLVD

STH 175

FREDERICK MILLER WAY

W04-2R

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 3	SHEET 183	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026301-S3.DWG
LAYOUT NAME - 07

PLOT DATE : 1/13/2025 4:56 PM PLOT BY : CIERRA SMITH PLOT NAME : PLOT SCALE : 1 IN:100 FT

2

N

RIGHT LANE CLOSED AHEAD
W20-5A

ROAD WORK AHEAD
W20-1A

((S))

STH 175

STH 175

((E))

END ROAD WORK
G20-2A
48"X24"

GATE

SELIG DR

W04-2R

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	STAGE 3	SHEET 184	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-026301-S3.DWG
LAYOUT NAME - 08

PLOT DATE : 1/13/2025 4:57 PM

PLOT BY : CIERRA SMITH

PLOT NAME :

PLOT SCALE : 1 IN:100 FT

2

2

N

T 7 N
35 35
35 35
R 21 E

Y = 294304.085
X = 587763.020

50NL

POB 40NL+00.00
X=588017.705
Y=292597.419

R/L NL

NATIONAL AVENUE

45NL

N76°45'44"E

40NL

BP: 40NL+00.00

Y = 291619.008
X = 585121.337

T 7 N
34 35
R 21 E

Y = 291631.460
X = 587776.022

T 7 N
35 35
R 21 E

Y = 291646.040
X = 590424.828

T 7 N
35 36
R 21 E

DRAFT

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET PRE_62 185	E

FILE NAME : C:\PW_WORKDIR\DEN003\JEG_DSCHARLA\D1615317\24104770-027201-AD.DWG
LAYOUT NAME - 01

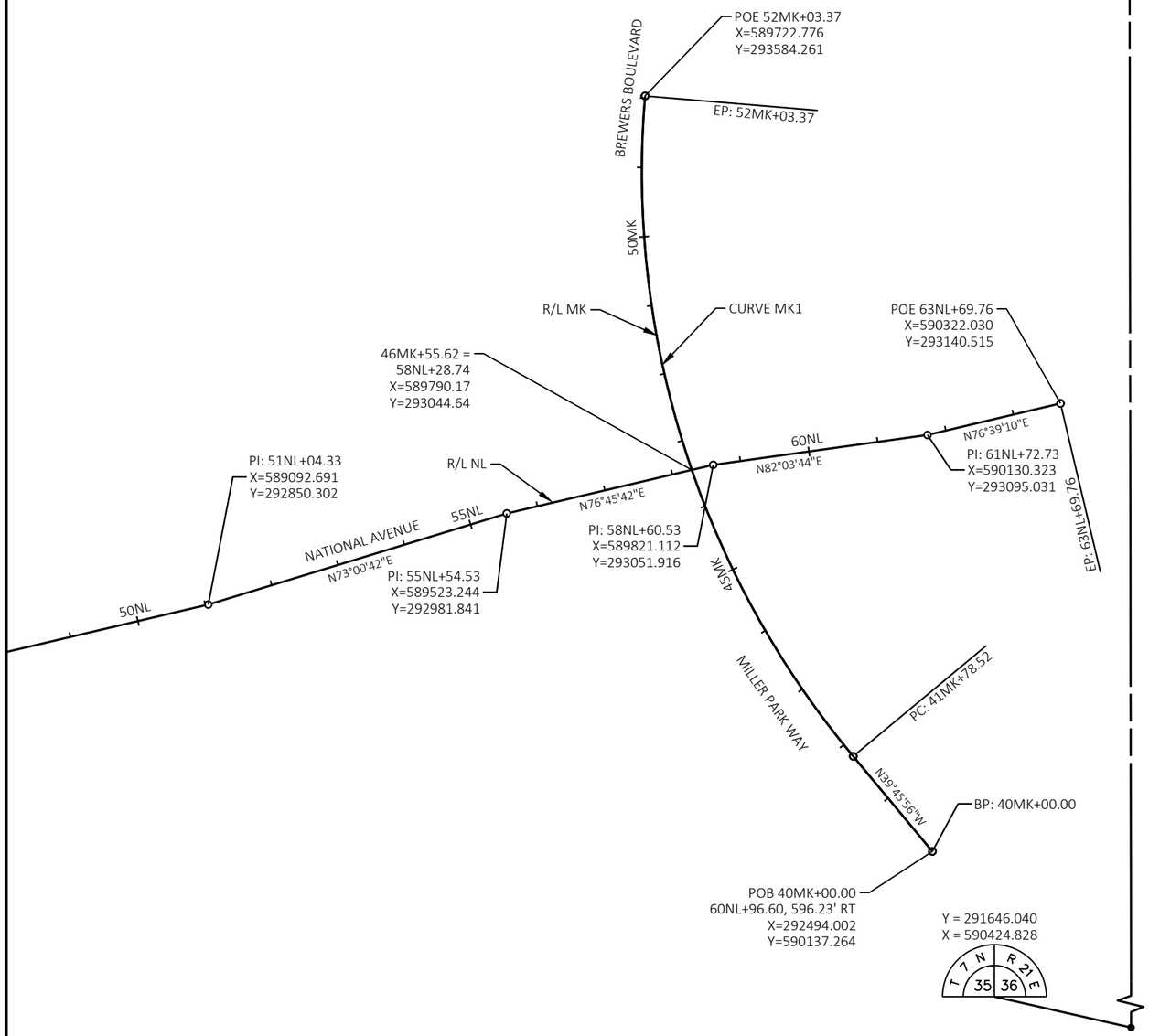
PLOT DATE : 6/13/2024 8:47 PM PLOT BY : SCHARLAU, DAVE PLOT NAME : PLOT SCALE : 1 IN:200 FT

WISDOT/CADDS SHEET 42

2

N

CURVE DATA												
CURVE NO.	PI	PI X	PI Y	Δ	D	T	L	E	R	PC	PT	SUPERELEVATION RATE
MK1	47MK+18.43	589,677.72	293,046.23	44°33'08"	4°20'50"	539.91	1024.86	106.30	1318.00	41MK+78.52	52MK+03.37	NC



DRAFT

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	ALIGNMENT LAYOUT	SHEET PRE_63 186	E

BM 423
CHIS SQR CONCRETE LIGHT POLE BASE
655.290
X=588184.92
Y=292726.86
STA 41+92.41
87.8' LT

CP 323
BERNTSEN FENO MONUMENT
649.970
X=588246.54
Y=292708.94
STA 42+48.30
56.1' LT

S 50TH ST

NATIONAL AVE

42NL

43NL

BM 424
CHIS SQR CONCRETE LIGHT POLE BASE
648.664
X=589078.04
Y=292944.66
STA 51NL+17.86
94.7' LT

SIGN

SIGN

MWEL

GENERAL MITCHELL BLVD

CP 324
BERNTSEN FENO MONUMENT
647.180
X=589174.79
Y=292920.78
STA 52NL+03.41
43.6' LT

NATIONAL AVE

51NL

52NL

BREWERS BLVD

GATE

GATE

GATE

CP 60
BERNTSEN FENO MONUMENT
643.297
X=589867.75
Y=293103.67
STA 59NL+13.87
44.8' LT

47MK

59NL

60NL

WB NATIONAL AVE

EB NATIONAL AVE

BM 161
SW FLNG BOLT HYDRANT
648.012
X=589859.00
Y=292748.00
STA 43MK+64.69
65.4' LT

44MK

NB MILLER PARK WAY

SB MILLER PARK WAY

CP 61
BERNTSEN FENO MONUMENT
649.569
X=589897.60
Y=292609.55
STA 42MK+37.20
111.9' LT

EB NATIONAL AVE

46MK

NB MILLER PARK WAY

45MK

BM 160
SE BOLT LIGHT POLE BASE
644.564
X=589897.00
Y=292902.00
STA 44MK+79.70
41.8' RT

BM 159
SE CORNER WEST SIGN BRIDGE BASE S-40-320
626.894
X=589693.00
Y=293893.00

SB BREWERS BLVD

NB BREWERS BLVD

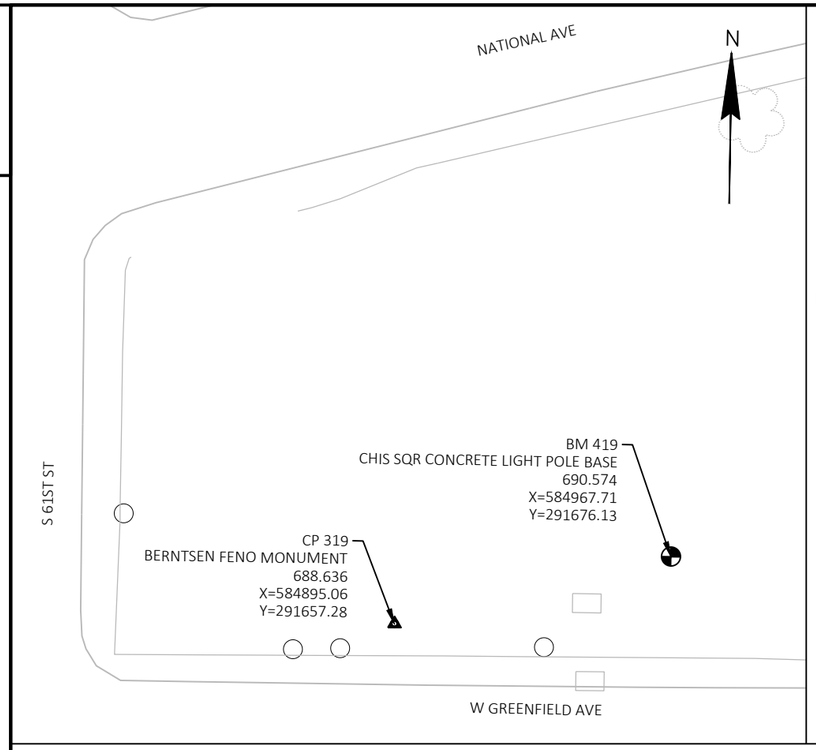
42"SS

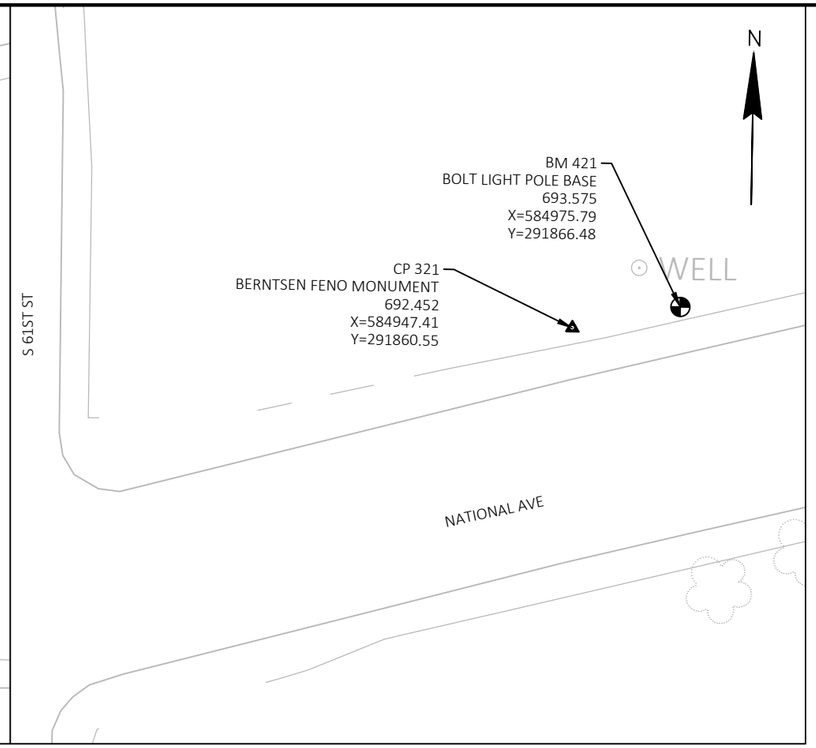
12"SS

CP 59
BERNTSEN FENO MONUMENT
628.475
X=589641.94
Y=293750.16

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	ALIGNMENT PLAN - SURVEY CONTROL	SHEET 187	E

FILE NAME : C:\USERS\CIERRA.SMITH\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\02 TYPSANDDETAIL\24104770-027202-AD.DWG
LAYOUT NAME - 01
PLOT DATE : 12/2/2024 8:33 AM
PLOT BY : CIERRA SMITH
PLOT NAME :
PLOT SCALE : 1 IN:40 FT
WISDOT/CADDS SHEET 42





2

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	ALIGNMENT PLAN - SURVEY CONTROL	SHEET 188	E

Estimate Of Quantities

2410-47-70

Line	Item	Item Description	Unit	Total	Qty
0002	201.0220	Grubbing	ID	59.000	59.000
0004	204.0100	Removing Concrete Pavement	SY	1,010.000	1,010.000
0006	204.0110	Removing Asphaltic Surface	SY	44.000	44.000
0008	204.0150	Removing Curb & Gutter	LF	1,824.000	1,824.000
0010	204.0155	Removing Concrete Sidewalk	SY	1,242.000	1,242.000
0012	204.0195	Removing Concrete Bases	EACH	42.000	42.000
0014	204.0210	Removing Manholes	EACH	1.000	1.000
0016	204.0215	Removing Catch Basins	EACH	11.000	11.000
0018	204.0245	Removing Storm Sewer (size) 0001. 12-Inch	LF	65.000	65.000
0020	204.9060.S	Removing (item description) 0001. Removing Village Banners	EACH	8.000	8.000
0022	204.9060.S	Removing (item description) 1001. Removing Distribution Center	EACH	1.000	1.000
0024	204.9060.S	Removing (item description) 1002. Removing Lighting Units	EACH	7.000	7.000
0026	204.9060.S	Removing (item description) 3010. Traffic Signals STH 59 (W. Greenfield Ave) & 70th St	EACH	1.000	1.000
0028	204.9060.S	Removing (item description) 3020. Traffic Signals STH 59 (W. Greenfield Ave) & STH 59 (W. National Ave)	EACH	1.000	1.000
0030	204.9060.S	Removing (item description) 3030. Traffic Signals STH 59 (W. National Ave) & S. 48th St	EACH	1.000	1.000
0032	204.9060.S	Removing (item description) 3031. Loop Detector Wire & Lead-In Cable STH 59 & S. 48th St	EACH	1.000	1.000
0034	204.9060.S	Removing (item description) 3040. Removing Traffic Signals STH 59 & S. 47TH ST	EACH	1.000	1.000
0036	204.9060.S	Removing (item description) 3041. Removing Loop Detector Wire and Lead-In Cable STH 59 & 47th St	EACH	1.000	1.000
0038	204.9060.S	Removing (item description) 3050. Removing Traffic Signals STH 59 & Miller Park Way	EACH	1.000	1.000
0040	204.9060.S	Removing (item description) 3051. Removing Loop Detector Wire And Lead-In Cable STH 59 & Miller Park Way	EACH	1.000	1.000
0042	205.0100	Excavation Common	CY	1,890.000	1,890.000
0044	211.0201	Prepare Foundation for Concrete Pavement (project) 1000. 2410-47-70	EACH	1.000	1.000
0046	211.0500	Prepare Foundation for Base Aggregate	STA	18.000	18.000
0048	213.0100	Finishing Roadway (project) 1000. 2410-47-70	EACH	1.000	1.000
0050	305.0120	Base Aggregate Dense 1 1/4-Inch	TON	1,480.000	1,480.000
0052	415.0090	Concrete Pavement 9-Inch	SY	2,264.000	2,264.000
0054	416.0610	Drilled Tie Bars	EACH	1,430.000	1,430.000
0056	416.0620	Drilled Dowel Bars	EACH	462.000	462.000
0058	416.1715	Concrete Pavement Repair SHES	SY	300.000	300.000
0060	416.1720	Concrete Pavement Replacement	SY	26.000	26.000
0062	416.1725	Concrete Pavement Replacement SHES	SY	1,015.000	1,015.000
0064	495.1000.S	Cold Patch	TON	20.000	20.000
0066	520.8000	Concrete Collars for Pipe	EACH	2.000	2.000
0068	601.0319	Concrete Curb & Gutter 19-Inch	LF	786.000	786.000
0070	601.0331	Concrete Curb & Gutter 31-Inch	LF	1,840.000	1,840.000
0072	601.0600	Concrete Curb Pedestrian	LF	128.000	128.000
0074	602.0410	Concrete Sidewalk 5-Inch	SF	12,074.000	12,074.000
0076	602.0505	Curb Ramp Detectable Warning Field Yellow	SF	276.000	276.000
0078	602.0605	Curb Ramp Detectable Warning Field Radial Yellow	SF	29.000	29.000
0080	608.0412	Storm Sewer Pipe Reinforced Concrete Class IV 12-Inch	LF	121.000	121.000
0082	611.0420	Reconstructing Manholes	EACH	3.000	3.000
0084	611.0530	Manhole Covers Type J	EACH	1.000	1.000
0086	611.0535	Manhole Covers Type J-Special	EACH	6.000	6.000
0088	611.0624	Inlet Covers Type H	EACH	7.000	7.000
0090	611.0639	Inlet Covers Type H-S	EACH	3.000	3.000

2410-47-70

Line	Item	Item Description	Unit	Total	Qty
0092	611.0651	Inlet Covers Type S	EACH	1.000	1.000
0094	611.0666	Inlet Covers Type Z	EACH	2.000	2.000
0096	611.1003	Catch Basins 3-FT Diameter	EACH	2.000	2.000
0098	611.1005	Catch Basins 5-FT Diameter	EACH	1.000	1.000
0100	611.1230	Catch Basins 2x3-FT	EACH	9.000	9.000
0102	611.2003	Manholes 3-FT Diameter	EACH	3.000	3.000
0104	611.2004	Manholes 4-FT Diameter	EACH	2.000	2.000
0106	611.8105	Adjusting Catch Basin Covers	EACH	1.000	1.000
0108	611.8110	Adjusting Manhole Covers	EACH	1.000	1.000
0110	616.0700.S	Fence Safety	LF	477.000	477.000
0112	619.1000	Mobilization	EACH	1.000	1.000
0114	620.0300	Concrete Median Sloped Nose	SF	414.000	414.000
0116	624.0100	Water	MGAL	149.000	149.000
0118	625.0100	Topsoil	SY	1,507.000	1,507.000
0120	627.0200	Mulching	SY	992.000	992.000
0122	628.1504	Silt Fence	LF	516.000	516.000
0124	628.1520	Silt Fence Maintenance	LF	516.000	516.000
0126	628.1905	Mobilizations Erosion Control	EACH	3.000	3.000
0128	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0130	628.7010	Inlet Protection Type B	EACH	2.000	2.000
0132	628.7015	Inlet Protection Type C	EACH	51.000	51.000
0134	628.7020	Inlet Protection Type D	EACH	4.000	4.000
0136	629.0210	Fertilizer Type B	CWT	1.000	1.000
0138	630.0200	Seeding Temporary	LB	27.000	27.000
0140	630.0500	Seed Water	MGAL	22.000	22.000
0142	631.0300	Sod Water	MGAL	91.000	91.000
0144	631.1000	Sod Lawn	SY	1,952.000	1,952.000
0146	634.0614	Posts Wood 4x6-Inch X 14-FT	EACH	3.000	3.000
0148	637.2210	Signs Type II Reflective H	SF	481.500	481.500
0150	637.2215	Signs Type II Reflective H Folding	SF	100.080	100.080
0152	637.2230	Signs Type II Reflective F	SF	34.250	34.250
0154	638.2102	Moving Signs Type II	EACH	10.000	10.000
0156	638.2602	Removing Signs Type II	EACH	96.000	96.000
0158	638.3000	Removing Small Sign Supports	EACH	14.000	14.000
0160	643.0300	Traffic Control Drums	DAY	33,509.000	33,509.000
0162	643.0420	Traffic Control Barricades Type III	DAY	1,886.000	1,886.000
0164	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	15.000	15.000
0166	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	15.000	15.000
0168	643.0705	Traffic Control Warning Lights Type A	DAY	3,772.000	3,772.000
0170	643.0715	Traffic Control Warning Lights Type C	DAY	4,866.000	4,866.000
0172	643.0810.S	Connected Arrow Board	DAY	176.000	176.000
0174	643.0900	Traffic Control Signs	DAY	8,643.000	8,643.000
0176	643.0910	Traffic Control Covering Signs Type I	EACH	2.000	2.000
0178	643.1000	Traffic Control Signs Fixed Message	SF	178.000	178.000
0180	643.1050	Traffic Control Signs PCMS	DAY	112.000	112.000
0182	643.1070	Traffic Control Cones 42-Inch	DAY	540.000	540.000
0184	643.1220.S	Connected Work Zone Start and End Location Markers	DAY	704.000	704.000
0186	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	6,973.000	6,973.000
0188	643.3180	Temporary Marking Line Removable Tape 6-Inch	LF	1,870.000	1,870.000

Estimate Of Quantities

2410-47-70

Line	Item	Item Description	Unit	Total	Qty
0190	643.3250	Temporary Marking Line Removable Tape 8-Inch	LF	1,634.000	1,634.000
0192	643.3550	Temporary Marking Arrow Removable Tape	EACH	1.000	1.000
0194	643.3650	Temporary Marking Word Removable Tape	EACH	1.000	1.000
0196	643.3960	Temporary Marking Removable Mask Out Tape 6-Inch	LF	2,247.000	2,247.000
0198	643.4100	Traffic Control Interim Lane Closure	EACH	79.000	79.000
0200	643.5000	Traffic Control	EACH	1.000	1.000
0202	644.1430	Temporary Pedestrian Surface Plate	SF	360.000	360.000
0204	644.1601	Temporary Pedestrian Curb Ramp	DAY	95.000	95.000
0206	644.1605	Temporary Pedestrian Detectable Warning Field	SF	163.000	163.000
0208	644.1810	Temporary Pedestrian Barricade	LF	1,755.000	1,755.000
0210	644.1900.S	Temporary Audible Message Devices	DAY	1,023.000	1,023.000
0212	646.1020	Marking Line Epoxy 4-Inch	LF	24,068.000	24,068.000
0214	646.2025	Marking Line Grooved Black Epoxy 6-Inch	LF	305.000	305.000
0216	646.2040	Marking Line Grooved Wet Ref Epoxy 6-Inch	LF	1,410.000	1,410.000
0218	646.3020	Marking Line Epoxy 8-Inch	LF	3,206.000	3,206.000
0220	646.4040	Marking Line Grooved Wet Ref Epoxy 10-Inch	LF	602.000	602.000
0222	646.5020	Marking Arrow Epoxy	EACH	83.000	83.000
0224	646.5120	Marking Word Epoxy	EACH	23.000	23.000
0226	646.5220	Marking Symbol Epoxy	EACH	49.000	49.000
0228	646.6120	Marking Stop Line Epoxy 18-Inch	LF	940.000	940.000
0230	646.6220	Marking Yield Line Epoxy 18-Inch	EACH	30.000	30.000
0232	646.7120	Marking Diagonal Epoxy 12-Inch	LF	363.000	363.000
0234	646.7420	Marking Crosswalk Epoxy Transverse Line 6-Inch	LF	484.000	484.000
0236	646.7520	Marking Crosswalk Epoxy Block Style 24-Inch	LF	5,198.000	5,198.000
0238	646.8120	Marking Curb Epoxy	LF	231.000	231.000
0240	646.8220	Marking Island Nose Epoxy	EACH	7.000	7.000
0242	646.9000	Marking Removal Line 4-Inch	LF	12,709.000	12,709.000
0244	646.9002	Marking Removal Line 6-Inch	LF	5,099.000	5,099.000
0246	646.9100	Marking Removal Line 8-Inch	LF	2,623.000	2,623.000
0248	646.9200	Marking Removal Line Wide	LF	1,005.000	1,005.000
0250	646.9300	Marking Removal Special Marking	EACH	45.000	45.000
0252	652.0225	Conduit Rigid Nonmetallic Schedule 40 2-Inch	LF	2,500.000	2,500.000
0254	652.0235	Conduit Rigid Nonmetallic Schedule 40 3-Inch	LF	2,031.000	2,031.000
0256	652.0325	Conduit Rigid Nonmetallic Schedule 80 2-Inch	LF	142.000	142.000
0258	652.0605	Conduit Special 2-Inch	LF	467.000	467.000
0260	652.0615	Conduit Special 3-Inch	LF	1,854.000	1,854.000
0262	653.0140	Pull Boxes Steel 24x42-Inch	EACH	37.000	37.000
0264	653.0145	Pull Boxes Steel 24x48-Inch	EACH	16.000	16.000
0266	653.0905	Removing Pull Boxes	EACH	40.000	40.000
0268	654.0101	Concrete Bases Type 1	EACH	18.000	18.000
0270	654.0102	Concrete Bases Type 2	EACH	5.000	5.000
0272	654.0105	Concrete Bases Type 5	EACH	6.000	6.000
0274	654.0110	Concrete Bases Type 10	EACH	7.000	7.000
0276	654.0113	Concrete Bases Type 13	EACH	1.000	1.000
0278	654.0120	Concrete Bases Type 10-Special	EACH	5.000	5.000
0280	654.0217	Concrete Control Cabinet Bases Type 9 Special	EACH	3.000	3.000
0282	654.0230	Concrete Control Cabinet Bases Type L30	EACH	1.000	1.000
0284	655.0230	Cable Traffic Signal 5-14 AWG	LF	5,234.000	5,234.000
0286	655.0240	Cable Traffic Signal 7-14 AWG	LF	2,878.000	2,878.000

2410-47-70

Line	Item	Item Description	Unit	Total	Qty
0288	655.0260	Cable Traffic Signal 12-14 AWG	LF	7,353.000	7,353.000
0290	655.0270	Cable Traffic Signal 15-14 AWG	LF	1,366.000	1,366.000
0292	655.0320	Cable Type UF 2-10 AWG Grounded	LF	2,631.000	2,631.000
0294	655.0515	Electrical Wire Traffic Signals 10 AWG	LF	8,227.000	8,227.000
0296	655.0610	Electrical Wire Lighting 12 AWG	LF	2,205.000	2,205.000
0298	655.0625	Electrical Wire Lighting 6 AWG	LF	9,135.000	9,135.000
0300	655.0700	Loop Detector Lead In Cable	LF	396.000	396.000
0302	655.0900	Traffic Signal EVP Detector Cable	LF	2,467.000	2,467.000
0304	656.0201	Electrical Service Meter Breaker Pedestal (location) 1000. W National Avenue	EACH	1.000	1.000
0306	656.0201	Electrical Service Meter Breaker Pedestal (location) 3030. STH 59 & S. 48TH ST	EACH	1.000	1.000
0308	656.0201	Electrical Service Meter Breaker Pedestal (location) 3040. STH 59 & S. 47TH ST	EACH	1.000	1.000
0310	656.0201	Electrical Service Meter Breaker Pedestal (location) 3050. STH 59 & Miller Park Way	EACH	1.000	1.000
0312	657.0100	Pedestal Bases	EACH	23.000	23.000
0314	657.0310	Poles Type 3	EACH	6.000	6.000
0316	657.0322	Poles Type 5-Aluminum	EACH	6.000	6.000
0318	657.0405	Traffic Signal Standards Aluminum 3.5-FT	EACH	1.000	1.000
0320	657.0420	Traffic Signal Standards Aluminum 13-FT	EACH	13.000	13.000
0322	657.0425	Traffic Signal Standards Aluminum 15-FT	EACH	2.000	2.000
0324	657.0430	Traffic Signal Standards Aluminum 10-FT	EACH	7.000	7.000
0326	657.0609	Luminaire Arms Single Member 4-Inch Clamp 6-FT	EACH	6.000	6.000
0328	657.0615	Luminaire Arms Single Member 4 1/2-Inch Clamp 8-FT	EACH	8.000	8.000
0330	658.0173	Traffic Signal Face 3S 12-Inch	EACH	69.000	69.000
0332	658.0175	Traffic Signal Face 5S 12-Inch	EACH	2.000	2.000
0334	658.0416	Pedestrian Signal Face 16-Inch	EACH	44.000	44.000
0336	658.5070	Signal Mounting Hardware (location) 3010. STH 59 & S. 70TH ST	EACH	1.000	1.000
0338	658.5070	Signal Mounting Hardware (location) 3020. STH 59 (Greenfield Ave) & STH 59 (W. National Ave)	EACH	1.000	1.000
0340	658.5070	Signal Mounting Hardware (location) 3030. STH 59 & S. 48TH ST	EACH	1.000	1.000
0342	658.5070	Signal Mounting Hardware (location) 3040. STH 59 & S. 47TH ST	EACH	1.000	1.000
0344	658.5070	Signal Mounting Hardware (location) 3050. STH 59 & Miller Park Way	EACH	1.000	1.000
0346	659.1125	Luminaires Utility LED C	EACH	23.000	23.000
0348	659.2230	Lighting Control Cabinets 240/480 30-Inch	EACH	1.000	1.000
0350	659.5000.S	Lamp, Ballast, LED, Switch Disposal by Contractor	EACH	132.000	132.000
0352	661.0201	Temporary Traffic Signals for Intersections (location) 3040. STH 59 & S. 47TH ST	EACH	1.000	1.000
0354	661.0201	Temporary Traffic Signals for Intersections (location) 3050. STH 59 & Miller Park Way	EACH	1.000	1.000
0356	661.0300	Generators	DAY	4.000	4.000
0358	670.0101	Field System Integrator	EACH	2.000	2.000
0360	670.0201	ITS Documentation	EACH	2.000	2.000
0362	674.0300	Remove Cable	LF	2,135.000	2,135.000
0364	674.0400	Reinstall Cable	LF	485.000	485.000
0366	678.0006	Install Fiber Optic Cable Outdoor Plant 6-CT	LF	2,715.000	2,715.000
0368	678.0300	Fiber Optic Splice	EACH	4.000	4.000
0370	678.0400	Fiber Optic Termination	EACH	12.000	12.000
0372	678.0501	Communication System Testing	EACH	2.000	2.000
0374	678.0800	Install Cellular Modems	EACH	1.000	1.000
0376	690.0150	Sawing Asphalt	LF	24.000	24.000
0378	690.0250	Sawing Concrete	LF	5,605.000	5,605.000
0380	715.0720	Incentive Compressive Strength Concrete Pavement	DOL	701.100	701.100
0382	SPV.0035	Special 0001. Roadway Embankment	CY	101.000	101.000

2410-47-70

Line	Item	Item Description	Unit	Total	Qty
0384	SPV.0060	Special 0001. Curb Ramp Grading, Shaping, & Finishing	EACH	25.000	25.000
0386	SPV.0060	Special 0002. Utility Line Opening	EACH	13.000	13.000
0388	SPV.0060	Special 0003. Field Facilities Office Space	EACH	1.000	1.000
0390	SPV.0060	Special 0004. Traffic Control Close-Open Freeway Entrance Ramp	EACH	10.000	10.000
0392	SPV.0060	Special 0005. Survey Project	EACH	1.000	1.000
0394	SPV.0060	Special 0006. Round Steel Sign Post System	EACH	19.000	19.000
0396	SPV.0060	Special 0007. Street Name Sign Mounting Hardware on Mast Arm	EACH	4.000	4.000
0398	SPV.0060	Special 1000. Temporary Lighting System	EACH	1.000	1.000
0400	SPV.0060	Special 1001. Maintenance Of Lighting Systems	EACH	1.000	1.000
0402	SPV.0060	Special 2000. Enter Existing Fiber Optic Splice Enclosure	EACH	2.000	2.000
0404	SPV.0060	Special 2001. Store Cable	EACH	1.000	1.000
0406	SPV.0060	Special 2002. Remove Cellular Modem	EACH	1.000	1.000
0408	SPV.0060	Special 3001. Install Poles Type 9	EACH	2.000	2.000
0410	SPV.0060	Special 3002. Install Poles Type 9 Special	EACH	1.000	1.000
0412	SPV.0060	Special 3003. Install Poles Type 9-Over Height	EACH	2.000	2.000
0414	SPV.0060	Special 3004. Install Poles Type 10	EACH	3.000	3.000
0416	SPV.0060	Special 3005. Install Poles Type 10 Special	EACH	4.000	4.000
0418	SPV.0060	Special 3006. Install Monotube Arms 15-FT	EACH	2.000	2.000
0420	SPV.0060	Special 3007. Install Monotube Arms 20-FT	EACH	2.000	2.000
0422	SPV.0060	Special 3008. Install Monotube Arms 25-FT	EACH	1.000	1.000
0424	SPV.0060	Special 3009. Install Monotube Arms 30-FT	EACH	2.000	2.000
0426	SPV.0060	Special 3010. Install Monotube Arms 40-FT-Special	EACH	3.000	3.000
0428	SPV.0060	Special 3011. Install Monotube Arms 45-FT-Special	EACH	2.000	2.000
0430	SPV.0060	Special 3012. Install Luminaire Arms STEEL 15-FT	EACH	9.000	9.000
0432	SPV.0060	Special 3013. Trnspt & Install State Furn Traffic Signal Cab STH 59 & S. 48TH ST	EACH	1.000	1.000
0434	SPV.0060	Special 3014. Trnspt & Install State Furn Traffic Signal Cab STH 59 & S. 47TH ST	EACH	1.000	1.000
0436	SPV.0060	Special 3015. Trnspt & Install State Furn Traffic Signal Cab STH 59 & Miller Park Way	EACH	1.000	1.000
0438	SPV.0060	Special 3016. Trnspt & Install State Furn EVP Heads & Con Light STH 59 & Miller Park Way	EACH	1.000	1.000
0440	SPV.0060	Special 3018. Trnspt Traffic Signals & Inter Lighting Materials STH 59 & STH 59	EACH	1.000	1.000
0442	SPV.0060	Special 3019. Trnspt Traffic Signals & Inter Lighting Materials STH 59 & S. 48TH ST	EACH	1.000	1.000
0444	SPV.0060	Special 3020. Trnspt Traffic Signals & Inter Lighting Materials STH 59 & S. 47TH ST	EACH	1.000	1.000
0446	SPV.0060	Special 3021.Trnspt Traffic Signals & Inter Lighting Materials STH 59 & Miller Park Way	EACH	1.000	1.000
0448	SPV.0060	Special 3022. Trnspt & Install State Furn Accessible Ped Sig System STH 59 & S. 70TH ST	EACH	1.000	1.000
0450	SPV.0060	Special 3023. Trnspt & Install State Furn Accessible Ped Sig System, STH 59 & STH 59	EACH	1.000	1.000
0452	SPV.0060	Special 3024. Trnspt & Install State Furn Accessible Ped Sig System STH 59 & S. 48TH ST	EACH	1.000	1.000
0454	SPV.0060	Special 3025. Trnspt & Install State Furn Accessible Ped Sig System STH 59 & S. 47TH ST	EACH	1.000	1.000
0456	SPV.0060	Special 3026. Trnspt & Install State Furn Accessible Ped Sig System STH 59 & Miller Park	EACH	1.000	1.000
0458	SPV.0060	Special 3027. Trnspt & Install State Furn Video Detection System STH 59 & STH 59	EACH	1.000	1.000
0460	SPV.0060	Special 3028. Trnspt & Install State Furn Video Detection System STH 59 & S. 48TH ST	EACH	1.000	1.000
0462	SPV.0060	Special 3029. Trnspt & Install State Furn Video Detection System STH 59 & S. 47TH ST	EACH	1.000	1.000
0464	SPV.0060	Special 3030. Trnspt & Install State Furn Video Detection System STH 59 & Miller Park	EACH	1.000	1.000
0466	SPV.0060	Special 3031. Temporary EVP System STH 59 & Miller Park Way	EACH	1.000	1.000
0468	SPV.0060	Special 3032. Trnspt & Install State Furn Radio STH 59 & S. 48TH ST	EACH	1.000	1.000
0470	SPV.0060	Special 3033. Trnspt & Install State Furn Radio STH 59 & 47TH	EACH	1.000	1.000
0472	SPV.0060	Special 3034. Trnspt & Install State Furn Radio STH 59 & Miller Park Way	EACH	1.000	1.000

2410-47-70

Line	Item	Item Description	Unit	Total	Qty
0474	SPV.0060	Special 3035. Store Existing Communications Cable STH 59 & Miller Park Way	EACH	1.000	1.000
0476	SPV.0060	Special 3036. Geometrically Programmed Louvers, STH 59 & STH 59	EACH	18.000	18.000
0478	SPV.0060	Special 3037. Trnspt & Install State Furn Transformer Base Breakaway 11-1/2" Bolt Circle	EACH	6.000	6.000
0480	SPV.0060	Special 3038. Concrete Bases Type 1 Spread Footing	EACH	1.000	1.000
0482	SPV.0060	Special 3039. Traffic Signal Controller Programming	EACH	2.000	2.000
0484	SPV.0060	Special 3040. Install Monotube Arms 55-FT	EACH	1.000	1.000
0486	SPV.0060	Special 3042. Trnspt & Install State Furn EVP Heads & Con Light STH 59 & S. 48TH ST	EACH	1.000	1.000
0488	SPV.0060	Special 3043. Trnspt & Install State Furn EVP Heads & Con Light STH 59 & S. 47TH ST	EACH	1.000	1.000
0490	SPV.0060	Special 3044. Install Poles Type 13	EACH	1.000	1.000
0492	SPV.0060	Special 5001. Water Main Protection	EACH	4.000	4.000
0494	SPV.0060	Special 5002. Adjusting Water Valve Boxes-Milwaukee	EACH	3.000	3.000
0496	SPV.0060	Special 5003. Adjusting Water Manholes	EACH	1.000	1.000
0498	SPV.0060	Special 5004. Adjusting Water Valve Boxes-Village Of West Milwaukee	EACH	4.000	4.000
0500	SPV.0060	Special 5005. Internal Sanitary Manhole Seal	EACH	1.000	1.000
0502	SPV.0060	Special 8002. Reconnect Storm Sewer	EACH	8.000	8.000
0504	SPV.0075	Special 0001. Pavement Cleanup Project	HRS	100.000	100.000
0506	SPV.0090	Special 3001. Adjust Existing Conduit	LF	20.000	20.000

3

GRUBBING

CATEGORY	STAGE	ROADWAY	STATION	OFFSET	201.0220 GRUBBING ID
1000	1	STH 59	50NL+57	35' LT	7
			52NL+57	62' LT	18
		MILLER PARK WAY	42MK+86	8' LT	3
			43MK+37	8' LT	3
			43MK+86	8' LT	3
			44MK+55	15' LT	3
				SUBTOTAL	37
1000	2A	STH 59	44NL+68	34' LT	9
			47NL+18	42' LT	13
				SUBTOTAL	22
				PROJECT TOTALS	59

REMOVING BANNERS

CATEGORY	ROADWAY	OFFSET	204.9060.S.0001 REMOVING VILLAGE BANNERS EACH
1000	STH 59	LT	6
	MILLER PARK WAY	0'	2
	PROJECT TOTALS		8

3

REMOVING CONCRETE BASES

CATEGORY	ROADWAY	STATION	OFFSET	204.0195* REMOVING CONCRETE BASES EACH
1000	STH 59	59NL+86	33' LT	1
	STH 175	47MK+07	44' RT	1
	STH 175	47MK+24	6' LT	1
	PROJECT TOTALS			3

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING PAVEMENT

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0100 REMOVING CONCRETE PAVEMENT SY	204.0110 REMOVING ASPHALTIC SURFACE SY
1000	1	STH 59	51NL+00		51NL+92	23' LT	301	--
			55NL+48		56NL+92	23' LT	153	--
		MILLER PARK WAY	41MK+73		45MK+91	0' LT	194	--
		STH 175	46MK+83		47MK+10	0' RT	21	--
					SUBTOTAL		669	--
1000	2A	STH 59	43NL+03		49NL+87	23' LT	119	44
			57NL+06		57NL+66	24' LT	65	--
			58NL+83		59NL+12	51' RT	57	--
					SUBTOTAL		241	44
1000	2B	STH 59	50NL+86		51NL+11	25' RT	19	--
			57NL+37		57NL+81	60' RT	50	--
					SUBTOTAL		69	--
1000	3	STH 59	48NL+16		48NL+33	23' RT	12	--
			51NL+29		51NL+54	28' RT	19	--
					SUBTOTAL		31	--
					PROJECT TOTALS		1010	44

3

REMOVING CURB & GUTTER

CATEGORY	STAGE	ROADWAY	STATION	TO STATION	OFFSET	204.0150 REMOVING CURB & GUTTER LF
1000	1	STH 59	49NL+87	51NL+00	23' LT	113
			51NL+92	55NL+48	23' LT	356
		Miller Park Way	41MK+73	45MK+91	0' LT	416
		STH 175	46MK+83	47MK+34	0' LT	64
				SUBTOTAL		949
1000	2A	STH 59	43NL+03	47NL+75	23' LT	473
			48NL+58	49NL+87	50' LT	129
		Miller Park Way	45MK+51	45MK+63	78' RT	26
		STH 175	46MK+73	47MK+27	44' RT	63
			47MK+35	47MK+58	45' RT	64
				SUBTOTAL		755
1000	2B	STH 59	59NL+73	59NL+88	43' LT	17
			59NL+78	59NL+93	55' LT	16
				SUBTOTAL		33
1000	3	STH 59	47NL+83	47NL+85	40' RT	11
			48NL+16	48NL+33	23' RT	14
			57NL+42	57NL+58	0' RT	28
			58NL+79	58NL+97	18' RT	34
				SUBTOTAL		87
				PROJECT TOTALS		1824

REMOVING SIDEWALK

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	204.0155 REMOVING CONCRETE SIDEWALK SY
1000	--	STH 59 AND GREENFIELD AVE			NW CORNER		7
					SE CORNER		9
					SUBTOTAL		16
1000	1	STH 59	50NL+76		51NL+16	44' LT	41
			51NL+68		56NL+75	23' LT	316
			58NL+88		59NL+84	30' LT	54
		MILLER PARK WAY	46MK+67		45MK+91	15' LT	12
		STH 175	46MK+83		47MK+34	0' LT	9
					SUBTOTAL		432
1000	2A	STH 59	44NL+54		45NL+42	40' LT	39
			46NL+55		48NL+04	40' LT	103
			48NL+25		48NL+68	45' LT	49
			57NL+13		57NL+61	35' LT	36
			58NL+61		58NL+88	35' LT	41
			58NL+83		59NL+12	51' RT	54
		MILLER PARK WAY	45MK+51		45MK+63	78' RT	39
		STH 175	47MK+35		47MK+58	45' RT	29
					SUBTOTAL		389
1000	2B	STH 59	50NL+75		51NL+05	26' RT	35
			54NL+55		55NL+11	55' RT	47
			57NL+36		57NL+71	57' RT	47
			59NL+84		59NL+89	58' LT	3
					SUBTOTAL		128
1000	3	STH 59	46NL+05		46NL+21	30' RT	13
			47NL+83		47NL+85	40' RT	2
			48NL+16		48NL+55	33' RT	54
			49NL+06		49NL+18	26' RT	9
			51NL+37		51NL+95	24' RT	64
			56NL+37		57NL+43	4' RT	61
			58NL+98		59NL+23	21' RT	23
					SUBTOTAL		226
			UNDISTRIBUTED				50
					SUBTOTAL		50
					PROJECT TOTALS		1242

STAGE	ROADWAY	FROM/TO STATION	205.0100 COMMON EXCAVATION CUT (1) CY	205.0100 COMMON EXCAVATION EBS EXCAVATION (2) CY	SPV.0035.0001 ROADWAY EMBANKMENT (3) (4) CY
STAGE 1					
	MILLER PARK WAY	41+73 TO 45+91	496	0	0
	NATIONAL AVE	43+03 TO 50+00	664	0	3
	STAGE 1 SUBTOTAL		1159	0	0
STAGE 2					
	NATIONAL AVE	50+00 TO 56+81	681	0	98
	STAGE 2 SUBTOTAL		681	0	0
UNDISTRUBUTED					
			0	50	0
PROJECT TOTAL				1890	101

NOTES:

(1) Cut volume includes concrete and asphaltic surface material.

(2) EBS excavation to be backfilled with roadway embankment. All EBS material is assumed to be wasted offsite.

(3) Roadway Embankement = Unexpanded fill

(4) Embankment volume is based on the existing surface.

BASE AGGREGATE ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	305.0120 BASE AGGREGATE DENSE 1 1/4-INCH TON	624.0100* WATER MGAL
1000	--	STH 59 AND GREENFIELD AVE					4	1
					SUBTOTAL		4	1
1000	1	STH 59	49NL+87		56NL+92	23' LT	418	7
			50NL+75		56NL+71	45' LT	83	2
			58NL+77		59NL+18	30' LT	7	1
		MILLER PARK WAY	41MK+73		45MK+91	0' LT	286	5
		STH 175	46MK+83		47MK+34	0' LT	23	1
					SUBTOTAL		817	16
1000	2A	STH 59	43NL+03		49NL+87	23' LT	328	5
			44NL+54		48NL+68	40' LT	43	1
			57NL+06		57NL+66	24' LT	42	1
			57NL+16		57NL+59	40' LT	7	1
			58NL+77		59NL+19	51' RT	38	1
		MILLER PARK WAY	45MK+51		45MK+63	78' RT	5	1
			45MK+51		45MK+63	95' RT	10	1
		STH 175	46MK+73		47MK+27	44' RT	11	1
			46MK+73		47MK+27	50' RT	14	1
			47MK+35		47MK+58	45' RT	6	1
			47MK+35		47MK+65	65' RT	9	1
					SUBTOTAL		513	15
1000	2B	STH 59	50NL+93		51NL+11	23' RT	9	1
			50NL+74		51NL+01	30' RT	7	1
			54NL+55		55NL+11	55' RT	11	1
			57NL+36		57NL+75	56' RT	22	1
			57NL+36		57NL+75	80' RT	12	1
			59NL+73		59NL+88	43' LT	3	1
			59NL+78		59NL+93	55' LT	3	1
					SUBTOTAL		67	7
1000	3	STH 59	46NL+05		46NL+21	30' RT	3	1
			47NL+81		48NL+33	23' RT	9	1
			48NL+15		48NL+55	35' RT	11	1
			49NL+06		49NL+18	26' RT	3	1
			51NL+30		51NL+53	24' RT	9	1
			51NL+36		51NL+94	32' RT	14	1
			57NL+42		57NL+58	4' RT	6	1
			56NL+37		57NL+42	4' RT	13	1
			58NL+79		58NL+97	18' RT	7	1
			58NL+98		59NL+23	18' RT	4	1
					SUBTOTAL		79	10
					PROJECT TOTALS		1480	49

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PREPARING FOUNDATIONS

CATEGORY	ROADWAY	211.0201 PREPARE FOUNDATION FOR CONCRETE PAVEMENT EACH	211.0500 PREPARE FOUNDATION FOR BASE AGGREGATE STA
1000	PROJCT NO. 2410-47-70	1	18
	PROJECT TOTALS	1	18

COLD PATCH

CATEGORY	ROADWAY	495.1000.S COLD PATCH TON
1000	PROJCT NO. 2410-47-70	20
	PROJECT TOTALS	20

CONCRETE PAVEMENT

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	415.0090 CONCRETE PAVEMENT 9-INCH SY	416.0610 DRILLED TIE BARS EACH	416.0620 DRILLED DOWEL BARS EACH	416.1720 CONCRETE PAVEMENT REPLACEMENT SY	416.1715 CONCRETE PAVEMENT REPAIR SHES SY	416.1725 CONCRETE PAVEMENT REPLACEMENT SHES SY
1000	1	W NATIONAL AVE	49NL+87		56NL+92	29' LT	921	246	--	--	--	--
			58NL+77		58NL+85	24' LT	24	19	--	--	--	--
		MILLER PARKWAY	41MK+73		54MK+91	0' LT	505	284	15	--	--	--
					SUBTOTAL		1450	549	15	--	--	--
	2A	W NATIONAL AVE	43NL+33		49NL+87	27' LT	629	218	-	--	--	--
			57NL+06		57NL+66	24' LT	75	40	19	--	--	--
			58NL+77		59NL+19	51' RT	31	35	-	--	--	--
					SUBTOTAL		735	293	19	--	--	--
	2B	W NATIONAL AVE	47NL+85		48NL+16	35' RT	--	9	53	26	--	--
			48NL+16		48NL+33	23' RT	5	8	--	--	--	--
			50NL+93		51NL+11	23' RT	9	10	--	--	--	--
			51NL+06		51NL+33	45' LT	--	3	55	--	--	15
			57NL+36		57NL+75	56' RT	34	25	--	--	--	--
					SUBTOTAL		48	55	108	26	--	15
	3	W NATIONAL AVE	51NL+30		51NL+53	24' RT	9	13	--	--	--	--
			57NL+42		57NL+58	0' RT	9	9	--	--	--	--
			58NL+79		58NL+97	18' RT	13	11	--	--	--	--
					SUBTOTAL		31	33	--	--	--	--
		UNDISTRIBUTED					--	500	320	--	300	1000
					SUBTOTAL		--	500	320	--	300	1000
					PROJECT TOTALS		2264	1430	462	26	300	1015

3

REMOVING CATCH BASINS

ROADWAY	STATION	OFFSET	204.0215 REMOVING CATCH BASINS EACH
NATIONAL AVENUE			
	44+52	24' LT	1
	45+35	24' LT	1
	48+01	43' LT	1
	48+35	43' LT	1
	48+47	28' LT	1
	53+08	25' LT	1
	56+32	30' LT	1
	57+49	26' LT	1
SUBTOTAL			8
MILLER PARK WAY			
	43+08	24' LT	1
	45+55	22' LT	1
	45+56	12' LT	1
SUBTOTAL			3
TOTAL			11

STORM SEWER PIPE REMOVALS

ROADWAY	STATION	OFFSET	TO	STATION	OFFSET	204.0245.01 REMOVING STORM SEWER 12-INCH LF
NATIONAL AVENUE						
	48+00.69	43' LT	--	48+35.46	43' LT	35
	56+32.32	30' LT	--	56+37.59	34' LT	7
SUBTOTAL						42
MILLER PARK WAY						
	43+08.27	24' LT	--	43+09.16	13' LT	11
	45+55.96	26' LT	--	45+55.48	22' LT	4
	45+55.48	22' LT	--	45+55.67	14' LT	8
SUBTOTAL						23
TOTAL						65

3

ADJUSTING/RECONSTRUCTING STRUCTURES

ROADWAY	STATION	OFFSET FT	EXISTING RIM ELEVATION	TO	PROPOSED RIM ELEVATION	611.0420* RECONSTRUCTING MANHOLES EACH	611.8105 ADJUSTING CATCH BASIN COVERS EACH	611.8110 ADJUSTING MANHOLE COVERS EACH
NATIONAL AVENUE								
	47+98	36' RT	647.01		647.01	---	---	1
	59+07	54' RT	642.78		643.05	---	1	---
SUBTOTAL						---	1	1
MILLER PARK WAY								
	43+08	0' LT	645.95		645.97	1	---	---
	44+37	15' LT	645.15		644.74	1	---	---
SUBTOTAL						2	---	---
TOTALS						2	1	1

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVING MANHOLES

ROADWAY	STATION	OFFSET	204.0210 REMOVING MANHOLES EACH
MILLER PARK WAY			
	43+09	13' LT	1
TOTAL			1

RECONNECT STORM SEWER

ROADWAY	STATION	OFFSET	PIPE SIZE ID	SPV.0060.8002 RECONNECT STORM SEWER EACH
NATIONAL AVENUE				
	44+52	24' LT	8	1
	45+35	24' LT	8	1
	48+47	28' LT	8	1
	53+08	25' LT	12	1
	56+38	34' LT	12	1
	57+49	26' LT	12	2
SUBTOTAL				7
MILLER PARK WAY				
	45+56	26' LT	12	1
SUBTOTAL				1
TOTAL				8

STORM SEWER STRUCTURES

STRUCTURE	STATION	OFFSET*	LOCATION	RIM** ELEVATION	INVERT*** ELEVATION	DEPTH**** FT	SUMP DEPTH FT	520.8000 CONCRETE COLLARS FOR PIPE EACH	611.0535 MANHOLE COVERS TYPE J-SPECIAL EACH	611.0624 INLET COVERS TYPE H EACH	611.0639 INLET COVERS TYPE H-S EACH	611.0651 INLET COVERS TYPE S EACH	611.0666 INLET COVERS TYPE Z EACH	611.1003 CATCH BASINS 3-FT DIAMETER EACH	611.1005 CATCH BASINS 5-FT DIAMETER EACH	611.1230 CATCH BASINS 2X3-FT EACH	611.2003 MANHOLES 3-FT DIAMETER EACH	611.2004 MANHOLES 4-FT DIAMETER EACH
31	44+44.90	28.90' LT	NATIONAL AVE	645.17	641.64	2.71	0.00			1						1		
32	44+52.08	23.56' LT	NATIONAL AVE	645.18	641.55	2.56	0.00		1								1	
33	45+34.58	31.88' LT	NATIONAL AVE	644.85	641.49	2.53	0.00				1					1		
34	45+34.79	23.51' LT	NATIONAL AVE	645.01	641.41	2.53	0.00		1								1	
41	47+96.93	38.90' LT	NATIONAL AVE	646.39	641.27	4.13	2.00			1						1		
44	48+37.79	38.89' LT	NATIONAL AVE	646.60	640.86	4.74	2.00			1					1			
44A	48+34.11	42.19' LT	NATIONAL AVE		642.81			1										
45	48+51.66	34.58' LT	NATIONAL AVE	646.55	642.60	3.12	0.00				1					1		
46	48+46.87	28.19' LT	NATIONAL AVE	646.67	642.12	3.36	0.00		1								1	
51	53+00.22	37.58' LT	NATIONAL AVE	647.65	642.25	4.41	2.00				1					1		
52	53+08.17	25.13' LT	NATIONAL AVE	647.90	644.10	2.72	0.00		1									1
53	56+37.60	34.09' LT	NATIONAL AVE	644.68	637.34	6.34	2.00			1						1		
55	57+47.18	35.22' LT	NATIONAL AVE	643.80	640.51	2.45	0.00		1									1
56	57+49.34	25.92' LT	NATIONAL AVE	643.88	638.87	3.94	0.00			1						1		
E58	59+06.59	55.01' RT	NATIONAL AVE	643.05	637.98	4.15	0.00					1						
61	43+08.08	24.28' LT	MILLER PARK WAY	645.53	638.70	5.83	2.00			1						1		
62	43+09.51	16.81' LT	MILLER PARK WAY	645.64	638.51	6.14	2.00			1						1		
63	43+09.16	12.97' LT	MILLER PARK WAY		640.41			1										
E64	43+07.99	0.21' LT	MILLER PARK WAY	645.97	640.05	6.41	0.00		1									
65	45+48.51	26.15' LT	MILLER PARK WAY	644.21	638.59	4.54	2.00						1	1				
66	45+55.25	19.83' LT	MILLER PARK WAY	644.09	636.15	6.86	2.00						1	1				
67	45+55.74	24.12' LT	MILLER PARK WAY		638.09			1										
TOTALS								3	6	7	3	1	2	2	1	9	3	2

REMARKS:
*STATIONS AND OFFSETS ARE TO CENTER OF STRUCTURE
**RIM ELEV IS AT THE INLET COVER FLANGE LOCATION
***FOR STRUCTURES WITH SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE SUMP. FOR STRUCTURES WITHOUT SUMPS, THE INVERT ELEVATION IS THE ELEVATION OF THE LOWEST PIPE FLOW LINE
****DEPTH = RIM ELEV - TOP OF STRUCTURE BASE ELEV - COVER HEIGHT - 6-INCH ADJUSTMENT RING HEIGHT

STORM SEWER PIPES

FROM	-	TO	LOCATION	INLET ELEVATION	DISCHARGE ELEVATION	SLOPE %	608.0412 SSPRC CL IV 12-INCH LF
31	-	32	NATIONAL AVE	641.64	641.55	1.00%	9
33	-	34	NATIONAL AVE	641.49	641.41	1.00%	8
41	-	44	NATIONAL AVE	643.27	642.86	1.00%	41
44	-	44A	NATIONAL AVE	642.86	642.81	1.00%	5
45	-	46	NATIONAL AVE	642.60	642.52	1.00%	8
51	-	52	NATIONAL AVE	644.25	644.10	1.00%	15
55	-	56	NATIONAL AVE	640.51	640.42	1.00%	10
61	-	62	MILLER PARK WAY	640.70	640.51	2.53%	8
62	-	63	MILLER PARK WAY	640.51	640.41	2.53%	4
65	-	66	MILLER PARK WAY	640.59	640.50	1.00%	9
66	-	67	MILLER PARK WAY	638.15	638.09	1.46%	4
TOTAL							121

3

CONCRETE CURB & GUTTER

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	601.0319 CONCRETE CURB & GUTTER 19-INCH LF	601.0331 CONCRETE CURB & GUTTER 31-INCH LF	601.0600 CONCRETE CURB PEDESTIAN LF
1000	1	STH 59	49NL+87		51NL+25	38' LT	--	157	7
			51NL+60		58NL+82	38' LT	284	274	--
		MILLER PARK WAY	41MK+73		45MK+91	0' LT	502	203	--
		STH 175	46MK+83		47MK+34	0' LT	--	52	--
					SUBTOTAL		786	686	7
1000	2A	STH 59	43NL+03		48NL+00	35' LT	--	514	9
			48NL+25		49NL+87	50' LT	--	167	9
			57NL+06		57NL+66	26' LT	--	97	15
			58NL+60		58NL+85	27' LT	--	39	13
			58NL+77		59NL+19	56' RT	--	64	49
		MILLER PARK WAY	45MK+51		45MK+63	78' RT	--	26	--
		STH 175	47MK+17		47MK+58	45' RT	--	48	--
					SUBTOTAL		--	955	95
1000	2B	STH 59	50NL+93		51NL+11	23' RT	--	34	--
			57NL+36		57NL+75	56' RT	--	62	25
			59NL+73		59NL+88	43' LT	--	16	--
			59NL+78		59NL+93	55' LT	--	16	--
					SUBTOTAL		--	128	25
1000	3	STH 59	47NL+82		47NL+86	40' RT	--	11	--
			48NL+16		48NL+33	40' RT	--	34	--
			51NL+30		51NL+53	24' RT	--	26	--
					SUBTOTAL		--	71	--
					PROJECT TOTALS		786	1840	128

CONCRETE SIDEWALK

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	602.0410 CONCRETE SIDEWALK 5-INCH SF	602.0505 CURB RAMP DETECTABLE WARNING FIELD YELLOW SF	602.0605 CURB RAMP RADIAL DETECTABLE WARNING FIELD YELLOW SF
1000	--	STH 59 AND GREENFIELD AVE			NW CORNER		62	--	--
					SE CORNER		82	--	--
					SUBTOTAL		144	--	--
1000	1	STH 59	50NL+76		51NL+16	44' LT	266	20	--
			51NL+68		56NL+75	23' LT	3356	12	29
			58NL+61		59NL+84	24' LT	291	--	--
		MILLER PARK WAY	43MK+20		45MK+70	20' LT	1208	--	--
					SUBTOTAL		5121	32	29
1000	2A	STH 59	44NL+54		45NL+42	40' LT	384	10	--
			46NL+55		48NL+04	40' LT	894	22	--
			48NL+25		48NL+68	45' LT	356	22	--
			57NL+13		57NL+61	35' LT	271	30	--
			58NL+61		58NL+78	27' LT	563	50	--
			58NL+83		59NL+12	51' RT	424	30	--
		MILLER PARK WAY	45MK+51		45MK+63	78' RT	358	10	--
		STH 175	47MK+35		47MK+58	45' RT	322	20	--
					SUBTOTAL		3571	194	--
1000	2B	STH 59	50NL+75		51NL+05	26' RT	314	10	--
			54NL+55		55NL+11	55' RT	419	--	--
			57NL+36		57NL+71	57' RT	511	20	--
					SUBTOTAL		1245	30	--
1000	3	STH 59	46NL+05		46NL+21	26' RT	118	--	--
			48NL+16		48NL+55	33' RT	512	10	--
			49NL+06		49NL+18	26' RT	89	--	--
			51NL+37		51NL+95	24' RT	576	10	--
			56NL+37		57NL+42	2' RT	515	--	--
			58NL+98		59NL+23	21' RT	133	--	--
					SUBTOTAL		1943	20	--
			UNDISTRIBUTED				50	--	--
					SUBTOTAL		50	--	--
					PROJECT TOTALS		12074	276	29

3

FENCE SAFETY

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	616.0700.S FENCE SAFETY LF
1000	1	NATIONAL AVE	52NL+94		53NL+69	60' LT	377
		UNDISTRIBUTED					100
					PROJECT TOTALS		477

MOBILIZATION

CATEGORY	ROADWAY	619.1000 MOBILIZATION EACH
1000	PROJECT NO. 2410-47-70	1
	PROJECT TOTALS	1

CONCRETE MEDIAN

CATEGORY	STAGE	ROADWAY	STATION	OFFSET	620.0300 CONCRETE MEDIAN SLOPED NOSE SF
1000	1	MILLER PARK WAY	45MK+72	21' LT	28
		STH 175	47MK+05	8' LT	74
			SUBTOTAL		103
1000	2A	STH 59	58NL+63	27' LT	26
		MILLER PARK WAY	45MK+58	43' RT	91
			45MK+90	41' RT	51
			SUBTOTAL		168
1000	3	STH 59	54NL+46	4' RT	71
			58NL+94	25' RT	73
			SUBTOTAL		144
			PROJECT TOTALS		414

SURVEY PROJECT

CATEGORY	ROADWAY	SPV.0060.0005 SURVEY PROJECT
1000	PROJECT NO. 2410-04-70	1
	PROJECT TOTALS	1

SAWING

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	OFFSET	690.0150 SAWING ASPHALT LF	690.0250 SAWING CONCRETE LF
1000	--	STH 59 AND GREENFIELD AVE			NW Corner		--	22
					SE Corner		--	26
					SUBTOTAL		--	48
1000	1	STH 59	49NL+87		58NL+82	23' LT	--	751
			51NL+25		51NL+79	70' LT	--	55
			58NL+88		59NL+18	31' LT	--	10
		Miller Park Way	41MK+73		45MK+91	0' LT	--	769
		STH 175	46MK+83		47MK+34	0' LT	--	123
					SUBTOTAL		--	1708
1000	2A	STH 59	43NL+03		49NL+87	23' LT	--	724
			48NL+04		48NL+29	50' LT	24	--
			57NL+06		57NL+66	24' LT	--	146
			58NL+77		59NL+19	51' RT	--	148
		Miller Park Way	45MK+51		45MK+63	78' RT	--	41
		STH 175	46MK+73		47MK+27	44' RT	--	77
			47MK+35		47MK+58	45' RT	--	54
					SUBTOTAL		24	1190
1000	2B	STH 59	50NL+93		51NL+11	23' RT	--	121
			56NL+36		57NL+75	56' RT	--	97
			54NL+55		55NL+11	55' RT	--	15
			59NL+73		59NL+88	43' LT	--	22
			59NL+78		59NL+93	55' LT	--	21
					SUBTOTAL		--	276
1000	3	STH 59	46NL+05		48NL+33	23' RT	--	182
			49NL+06		49NL+18	26' RT	--	15
			51NL+30		51NL+53	24' RT	--	79
			57NL+42		57NL+58	0' RT	--	51
			58NL+79		58NL+97	18' RT	--	57
					SUBTOTAL		--	384
			UNDISTRIBUTED				--	2000
					SUBTOTAL		--	2000
					PROJECT TOTALS		24	5605

FINISHING ROADWAY

CATEGORY	ROADWAY	213.0100 FINISHING ROADWAY 2410-47-70 EACH
1000	PROJECT NO. 2410-47-70	1
	TOTAL	1

UTILITY LINE OPENING

CATEGORY	ROADWAY	SPV.0060.0002 UTILITY LINE OPENING EACH
1000	PROJECT NO. 2410-47-70	13
	TOTAL	13

TRAFFIC CONTROL PROJECT

CATEGORY	ROADWAY	643.5000 TRAFFIC CONTROL EACH
1000	PROJECT NO. 2410-47-70	1
	TOTAL	1

CURB RAMP GRADING

CATEGORY	ROADWAY	SPV.0060.0001 CURB RAMP GRADING, SHAPING AND FINISHING EACH
1000	PROJECT NO. 2410-47-70	25
	TOTAL	25

FIELD FACILITIES OFFICE SPACE

CATEGORY	ROADWAY	SPV.0060.0003 FIELD FACILITIES OFFICE SPACE EACH
1000	PROJECT NO. 2410-47-70	1
	TOTAL	1

RESTORATION ITEMS

CATEGORY	STAGE	ROADWAY	STATION	TO	STATION	625.0100 TOPSOIL SY	627.0200 MULCHING SY	628.1504 SILT FENCE LF	628.1520 SILT FENCE MAINTENANCE LF	628.7010 INLET PROTECTION TYPE B EACH	628.7015 INLET PROTECTION TYPE C EACH	628.7020 INLET PROTECTION TYPE D EACH	629.0210 FERTILIZER TYPE B CWT	630.0200 SEEDING TEMPORARY LB	630.0500 SEED WATER MGAL	631.1000 SOD LAWN SY	631.0300 SOD WATER MGAL
1000	1	STH 59	41NL+00		45NL+00	--	--	--	--	--	8	--	--	--	--	--	--
			45NL+00		48NL+00	--	--	--	--	--	1	2	--	--	--	--	--
			48NL+00		52NL+00	49	--	--	--	--	6	--	--	--	--	49	1
			52NL+00		58NL+00	390	--	249	249	--	8	--	--	--	--	390	24
			58NL+00		61NL+00	--	--	--	--	--	4	--	--	--	--	--	--
		STH 175/MILLER PARK WAY	41MK+00		49MK+00	109	--	--	--	2	19	--	--	--	--	109	2
					SUBTOTAL	547	--	249	249	2	46	2	--	--	--	547	27
1000	2A/2B	STH 59	41NL+00		45NL+00	126	--	157	157	--	1	--	--	--	--	126	3
			45NL+00		48NL+00	225	--	109	109	--	1	1	--	--	--	225	8
			48NL+00		52NL+00	202	--	--	--	--	1	1	--	--	--	202	7
			52NL+00		58NL+00	166	--	--	--	--	1	--	--	--	--	166	5
			58NL+00		61NL+00	236	--	--	--	--	1	--	--	--	--	236	9
						954	--	266	266	--	5	2	--	--	--	954	32
1000	3	STH 59	51NL+25		51NL+50	6	--	--	--	--	--	--	--	--	--	6	1
					SUBTOTAL	6	--	--	--	--	--	--	--	--	--	6	1
1000	UNDISTRIBUTED					--	992	--	--	--	--	--	1	27	22	444	31
					SUBTOTAL	--	992	--	--	--	--	--	1	27	22	444	31
					PROJECT TOTALS	1507	992	516	516	2	51	4	1	27	22	1952	91

MOBILIZATION

CATEGORY	LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
1000	PROJECT NO. 2410-47-00	3	5
		3	5

DUST CONTROL

CATEGORY	LOCATION	SPV.0075.0001 PAVEMENT CLEANUP PROJECT HOURS	624.0100* WATER MGAL
1000	PROJECT NO. 2410-47-00	100	100
		100	100

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

				TRAFFIC CONTROL ITEMS											
				643.0300		643.0420		643.0705		643.0715		643.0900		643.0910	643.0500	643.0600
CATEGORY	ROADWAY	STAGE	STAGE DURATION DAYS	TRAFFIC CONTROL DRUMS NO.	DAYS	TRAFFIC CONTROL BARRICADES TYPE III NO.	DAYS	TRAFFIC CONTROL WARNING LIGHTS TYPE A NO.	DAYS	TRAFFIC CONTROL WARNING LIGHTS TYPE C NO.	DAYS	TRAFFIC CONTROL SIGNS NO.	DAYS	TRAFFIC CONTROL COVERING SIGNS TYPE 1 EACH	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EA	TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EA
1000	STH 59, STH 175, MILLER PARK WAY	1	35	336	12079	17	606	34	1212	31	1162	87	3133	1	15	15
	STH 59, STH 175, MILLER PARK WAY	2	28	383	11130	24	686	48	1372	63	1862	109	3164	1	--	--
	STH 59, STH 175, MILLER PARK WAY	3	18	480	9162	24	450	48	900	86	1674	98	1908	--	--	--
	STH 59 & 62ND STREET	--	14	73	1080	10	142	20	284	10	154	29	422	--	--	--
	STH 59 & 70TH STREET	--	--	--	58	--	2	--	4	--	14	--	16	--	--	--
	FINISHING	--	--	--	928	--	32	--	64	--	224	--	256	--	--	--
	PROJECT TOTALS			33509		1886		3772		4866		8643		2	15	15

3

				TRAFFIC CONTROL ITEMS								
				643.1070		643.4100	643.0810.S		643.1220.S		644.1900.S	SPV.0060.0004
CATEGORY	ROADWAY	STAGE	STAGE DURATION DAYS	TRAFFIC CONTROL CONES 42-INCH NO.	DAYS	TRAFFIC CONTROL INTERIM LANE CLOSURE EACH	CONNECTED ARROW BOARD NO.	DAYS	CONNECTED WORK ZONE START AND END LOCATION MARKERS NO.	DAYS	TEMPORARY AUDIBLE MESSAGE DEVICES NO.	DAYS	TRAFFIC CONTROL CLOSE-OPEN FREEWAY ENTRANCE RAMP EACH
1000	STH 59, STH 175, MILLER PARK WAY	1	35	--	--	11	2	70	8	280	13	455	4
	STH 59, STH 175, MILLER PARK WAY	2	28	9	252	14	2	56	8	224	13	364	3
	STH 59, STH 175, MILLER PARK WAY	3	18	16	288	18	2	36	8	144	9	162	3
	STH 59 & 62ND STREET	--	14	--	--	2	1	14	4	56	3	42	--
	STH 59 & 70TH STREET	--	--	--	--	2	--	--	--	--	--	--	--
	FINISHING	--	--	--	--	32	--	--	--	--	--	--	--
	PROJECT TOTALS			540		79	176		704		1023		10

3

FIXED MESSAGE SIGNS

CATEGORY	STAGE	ROADWAY	SIGN NUMBER	NUMBER REQUIRED	SIGN SIZE W X H FT	643.1000 TRAFFIC CONTROL SIGNS FIXED MESSAGE SF
1000	1	BREWERS BLVD	1	1	7 X 8	56
		NATIONAL AVE, GREENFIELD AVE	3	1	5.5 X 3	17
		NATIONAL AVE, 47TH ST	4	3	5.5 X 3	50
			SUBTOTAL			122
	2	BREWERS BLVD	2	1	7 X 8	56
			SUBTOTAL			56
			PROJECT TOTALS			178

PORTABLE CHANGEABLE MESSAGE SIGN

CATEGORY	STAGE	ROADWAY	PCMS NUMBER	DURATION DAYS	643.1050 TRAFFIC CONTROL SIGNS PCMS NO.	DAYS
1000	1	STH 175	3	5	1	5
	2	STH 175	3	5	1	5
	1, 2	IH 94	4	10	1	10
	1, 2	STH 175, MILLER PARK WAY	5	10	2	20
	1, 2	GREENFIELD AVE, NATIONAL AVE	6	10	3	30
	--	GREENFIELD AVE, NATIONAL AVE	1	7	2	14
	--	NATIONAL AVE, BREWERS BLVD, MILLER PARK WAY	2	7	4	28
				PROJECT TOTALS		112

3

TEMPORARY PEDESTRIAN ITEMS

CATEGORY	ROADWAY	STAGE	644.1430 TEMPORARY PEDESTRIAN SURFACE PLATE SF	644.1601 TEMPORARY PEDESTRIAN CURB RAMP NO	DAYS	644.1605 TEMPORARY PEDESTRIAN DETECTABLE WARNING FIELD SF	644.1810 TEMPORARY PEDESTRIAN BARRICADE LF
1000	STH 59, STH 175, MILLER PARK WAY	1	--	1	35	40	434
		2A	183	1	28	54	438
		2B	--	1	18	36	405
		3	--	1	14	33	385
	STH 59 & 62ND ST		77	--	--	--	93
	UNDISTRIBUTED		100	--	--	--	--
		PROJECT TOTALS	360	95		163	1755

			TEMPORARY PAVEMENT MARKING						
			643.3150		643.3180	643.3250	643.3550	643.3650	643.3960
			TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH		TEMPORARY MARKING LINE REMOVABLE TAPE 6-INCH	TEMPORARY MARKING LINE REMOVABLE TAPE 8-INCH	TEMPORARY MARKING ARROW REMOVABLE TAPE	TEMPORARY MARKING WORD REMOVABLE TAPE	TEMPORARY REMOVABLE MASK OUT TAPE 6-INCH
			YELLOW	WHITE	WHITE				
CATEGORY	STAGE	ROADWAY	LF	LF	LF	LF	LF	LF	LF
1000	--	W NATIONAL AVE	--	970	--	--	--	--	--
		SUBTOTAL	--	970	--	--	--	--	--
1000	1	W NATIONAL AVE	--	186	--	--	--	--	--
		MILLER PARK WAY	130	125	216	90	--	--	596
		BREWERS BLVD	2337	668	--	171	--	--	865
		SUBTOTAL	2467	979	216	261	--	--	1461
1000	2A	W NATIONAL AVE	--	--	181	--	--	--	--
		MILLER PARK WAY	--	120	--	--	1	1	--
		BREWERS BLVD	--	2079	291	1373	--	--	786
		SUBTOTAL	--	2199	472	1373	1	1	786
1000	2B	W NATIONAL AVE	--	--	222	--	--	--	--
		MILLER PARK WAY	--	--	60	--	--	--	--
		BREWERS BLVD	--	--	210	--	--	--	--
		SUBTOTAL	--	--	492	--	--	--	--
1000	3	W NATIONAL AVE	358	--	479	--	--	--	--
		MILLER PARK WAY	--	--	211	--	--	--	--
		BREWERS BLVD	--	--	--	--	--	--	--
		SUBTOTAL	358	--	690	--	--	--	--
		PROJECT TOTALS	6973		1870	1634	1	1	2247

ROADWAY	SIGN NO.	SIGN CODE	SIGN MESSAGE	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REMOVING SIGNS TYPE II [EA]	**638.3000** REMOVING SMALL SIGN SUPPORTS [EA]
GREENFIELD/70TH	1R	W5-52L		-	1	-
	2R	W5-52L		-	1	-
NATIONAL/GREENFIELD	3R	R7-1L		-	1	-
	4R	R7-2R	NO PARKING 3:00PM-6:00PM	-	1	-
	5R	R7-2D	NO PARKING 3:00PM-6:00PM	-	1	-
NATIONAL AVENUE	6R	R7-5D	1 HOUR PARKING 8AM - 8PM	-	1	-
	7R	R7-5D	1 HOUR PARKING 8AM - 8PM	-	1	-
	8R	R2-1	SPEED LIMIT 30	-	1	-
	9R	R7-5D	1 HOUR PARKING 8AM - 8PM	-	1	1
	10R	R10-4		-	1	-
	11R	R5-1		-	1	1
	12R	R1-1F		-	1	-
	13R	R5-1		-	1	1
	14R	R10-4		-	1	-
	15R	R10-3BD		-	1	-
	16R	R1-1F		-	1	-
	17R	R3-1		-	1	-
	18R	R7-5D	1 HOUR PARKING 8AM - 8PM	-	1	1
	19R	D3-1	S 47TH ST	1	-	-
	20R	D3-1	W NATIONAL AVE	1	-	-
	21R	R3-2		-	1	-
	22R	R10-4BL		-	1	-
	23R	R1-1F		-	1	-
	24R	R10-4L		-	1	-
	25R	R1-1F		-	1	-
	26R	JV2-1		-	1	-
		MB4-5		-	-	-
		M1-1	INTERSTATE 94	-	-	-
		M3-1	NORTH	-	-	-
		M1-6	STH 175	-	-	-
		MB5-1L		-	-	-
			SUBTOTAL	2	24	4

ROADWAY	SIGN NO.	SIGN CODE	SIGN MESSAGE	638.2102 MOVING SIGNS TYPE II [EA]	638.2602 REMOVING SIGNS TYPE II [EA]	638.3000 REMOVING SMALL SIGN SUPPORTS [EA]
NATIONAL AVENUE	27R	R7-2L	NO PARKING 6:30AM-8:30AM MONDAY-FRIDAY	-	1	-
	28R	R7-5D	1 HOUR PARKING 8AM - 8PM	-	1	-
	29R	R10-4L		-	1	-
	30R	R6-2L		-	1	1
	31R	R1-1F		-	1	-
	32R	R5-1		-	1	-
	33R	R6-2R		-	1	1
	34R	R3-2		-	1	-
	35R	R5-1		-	1	-
	36R	R1-1F		-	1	-
	37R	R3-1		-	1	-
	38R	R10-4		-	1	-
	39R	D3-1	S 48TH ST	1	-	-
	40R	D3-1	W NATIONAL AVE	1	-	-
	41R	R10-4BL		-	1	-
	42R	R10-4BR		-	1	1
	43R	R1-1F		-	1	-
	44R	R1-1F		-	1	-
	45R	R3-2		-	1	-
	47R	R10-4BL		-	1	-
	48R	R5-2		-	1	-
	49R	-	VILLAGE OF WEST MILWAUKEE...WELCOMES YOU	1	-	-
	50R	W6-2		-	1	-
	51R	R7-1D		-	1	-
	52R	R7-1D		-	1	-
	53R	J4-1		-	1	-
		M3-4	WEST	-	-	-
		M1-6	STH 59	-	-	-
NATIONAL/MILLER	54R	R5-1		-	1	1
	55R	M6-1	RIGHT ARROW	-	1	-
	56R	M1-6	STH 59	-	1	-
	57R	M3-4	WEST	-	1	-
	58R	R10-11F		-	1	-
			SUBTOTAL	3	28	4

ROADWAY	SIGN NO.	SIGN CODE	SIGN MESSAGE	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REMOVING SIGNS TYPE II [EA]	**638.3000** REMOVING SMALL SIGN SUPPORTS [EA]	REMARKS / SIGN LOCATION
NATIONAL/MILLER	59R	R5-1		-	1	1	
	60R	R5-1		-	1	1	
	61R	D3-1	MILLER PARK WAY	1	-	-	ON SIGNAL
	62R	R1-1F		-	1	-	ON SIGNAL
	63R	R5-1		-	1	-	ON SIGNAL
	64R	R10-4		-	1	-	ON SIGNAL
	65R	R7-1D		-	1	-	LIGHT POLE
	66R	R6-2R		-	1	-	ON SIGNAL
	67R	R10-11F		-	1	1	ON SIGNAL
	68R	R1-1F		-	1	-	ON SIGNAL
	69R	R3-4		-	1	-	ON SIGNAL
	70R	R10-10A		-	1	-	ON SIGNAL
	71R	R10-10L		-	1	-	ON SIGNAL
	72R	R4-7		-	1	-	ON SIGNAL
	73R	D3-1	W NATIONAL AVE	1	-	-	ON SIGNAL
	74R	R10-4L		-	1	-	ON SIGNAL
	75R	R1-1F		-	1	-	ON SIGNAL
	76R	R10-4R		-	1	-	ON SIGNAL
MILLER PARK WAY	77R	J2-2		-	1	-	LIGHT POLE
		M3-4	WEST	-	-	-	
		M1-6	STH 59	-	-	-	
		MB5-1L		-	-	-	
		M3-2	EAST	-	-	-	
		M1-6	STH 175	-	-	-	
		MB5-1R		-	-	-	
MILLER PARK WAY	78R	R2-1	SPEED LIMIT 35	-	1		LIGHT POLE
MILLER PARK WAY	79R	J2-2		-	1	-	LIGHT POLE
		M3-4		-	-	-	
		M1-6	STH 59	-	-	-	
		M6-1	LEFT ARROW	-	-	-	
		M3-2	EAST	-	-	-	
		M1-6	STH 175	-	-	-	
		M6-1	AHEAD ARROW	-	-	-	
			SUBTOTAL	2	19	3	

TYPE I & II PERMANENT SIGNING - CATEGORY 1000 2410-47-70 STH 59

ROADWAY	SIGN NO.	SIGN CODE	SIGN MESSAGE	**638.2102** MOVING SIGNS TYPE II [EA]	**638.2602** REMOVING SIGNS TYPE II [EA]	**638.3000** REMOVING SMALL SIGN SUPPORTS [EA]
MILLER PARK WAY	80R	-	VILLAGE OF WEST MILWAUKEE NO PARKING...	1	-	-
NATIONAL/MILLER	81R	R2-1	SPEED LIMIT 35	-	1	1
	82R	R1-1F		-	1	-
	83R	R3-4		-	1	-
	84R	R3-4		-	1	-
	85R	R10-10L		-	1	-
	86R	R10-10A		-	1	-
	87R	R4-7		-	1	-
	88R	R4-7		-	1	-
	89R	R10-10L		-	1	-
	90R	R10-10A		-	1	-
	91R	R1-1F		-	1	-
	92R	R10-4BL		-	1	-
	93R	D3-1	W NATIONAL AVE	1	-	-
	94R	R1-1F		-	1	-
	96R	R10-4BR		-	1	-
	97R	R3-4		-	1	-
	98R	R1-1F		-	1	-
	99R	R4-7		-	1	-
	100R	R10-10A		-	1	-
	101R	R10-10L		-	1	-
	102R	R1-2		-	1	1
	103R	D3-1	MILLER PARK WAY	1	-	-
	104R	R1-1F		-	1	-
	105R	R10-4BR		-	1	-
	106R	R10-4		-	1	-
MILLER PARK WAY	107R	R2-1	SPEED LIMIT 35	-	1	1
	108R	R7-1D		-	1	-
			SUBTOTAL	3	25	3
			TOTAL	**10**	**96**	**14**

ROADWAY	SIGN NO.	SIGN CODE	SIGN MESSAGE	W [IN.]	SIGN SIZE x x	H [IN.]	**637.2210** SIGNS TYPE II REFLC H [SF]	**637.2215** SIGNS TYPE II REFLC H FOLDING [SF]	**637.2230** SIGNS TYPE II REFLC F [SF]	**634.0614** POSTS WOOD 4" X 6" X 14' [EA]	**SPV.0060.0006** ROUND STEEL SIGN POST SYSTEM [EA]	**SPV.0060.0007** STREET NAME SIGN MOUNTING HARDWARE ON MAST ARM [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / SIGN LOCATION
GREENFIELD/70TH	1	W5-52L		12	X	36	-	-	3.00	-	-	-	-	ON SIGNAL
	2	W5-52L		12	X	36	-	-	3.00	-	-	-	-	ON SIGNAL
NATIONAL/GREENFIELD	3	R7-1D		18	X	24	3.00	-	-	-	-	-	-	LIGHT POLE
NATIONAL AVENUE	4	R3-17		30	X	24	5.00	-	-	-	-	-	-	LIGHT POLE
	5	R3-17BP		30	X	12	2.50	-	-	-	-	-	4	LIGHT POLE
	6	R3-17		30	X	24	5.00	-	-	-	-	-	-	LIGHT POLE
	7	R3-17AP		30	X	12	2.50	-	-	-	-	-	6	LIGHT POLE
	8	R7-5D	1 HOUR PARKING 8AM - 8PM	18	X	24	3.00	-	-	-	-	-	-	LIGHT POLE
	9	R7-52R		18	X	24	3.00	-	-	-	1	-	-	
	10	W11-2		30	X	30	-	-	6.25	-	1	-	-	
	11	WO16-7L		24	X	12	-	-	2.00	-	-	-	10	
	12	R7-52L		18	X	24	3.00	-	-	-	1	-	-	
	13	R7-5D	1 HOUR PARKING 8AM - 8PM	18	X	24	3.00	-	-	-	-	-	-	LIGHT POLE
	14	R2-1	SPEED LIMIT 30	24	X	30	5.00	-	-	-	-	-	13	LIGHT POLE
	15	R7-5D	1 HOUR PARKING 8AM - 8PM	18	X	24	3.00	-	-	-	1	-	-	
	16	W4-2R		36	X	36	-	-	9.00	-	1	-	-	
	17	R6-2L		24	X	30	5.00	-	-	-	-	-	-	ON SIGNAL
	18	R5-1		30	X	30	6.25	-	-	-	-	-	17	ON SIGNAL
	19	R1-1F		30	X	30	-	5.18	-	-	-	-	17	ON SIGNAL
	20	R6-2R		24	X	30	5.00	-	-	-	-	-	-	ON SIGNAL
	21	R5-1		30	X	30	6.25	-	-	-	-	-	20	ON SIGNAL
	22	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	23	R3-1		24	X	24	4.00	-	-	-	-	-	22	ON SIGNAL
	24	W9-1R		36	X	36	-	-	9.00	-	1	-	-	
	25	W16-9P		24	X	12	-	-	2.00	-	-	-	24	
	26	R7-5D	1 HOUR PARKING 8AM - 8PM	18	X	24	3.00	-	-	-	-	-	24	
	27	D3-1	S 47TH ST	VARIES	X	18	-	-	-	-	-	-	-	SIGN WAS MOVED, ON SIGNAL
	28	D3-1	W NATIONAL AVE	VARIES	X	18	-	-	-	-	-	-	27	SIGN WAS MOVED, ON SIGNAL
	29	R3-2		24	X	24	4.00	-	-	-	-	-	27	ON SIGNAL
	30	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	31	R3-7R		30	X	30	6.25	-	-	-	-	-	-	ON SIGNAL
	32	R1-1F		30	X	30	-	5.18	-	-	-	-	31	ON SIGNAL

ROADWAY	SIGN NO.	SIGN CODE	SIGN MESSAGE	W [IN.]	SIGN SIZE x x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637. 2215 SIGNS TYPE II REFLC H FOLDING [SF]	637. 2230 SIGNS TYPE II REFLC F [SF]	634.0614 POSTS WOOD 4" X 6" X 14' [EA]	SPV.0060.0006 ROUND STEEL SIGN POST SYSTEM [EA]	SPV.0060.0007 STREET NAME SIGN MOUNTING HARDWARE ON MAST ARM [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / SIGN LOCATION
NATIONAL AVENUE	33	JV2-1		24	X	93	15.50	-	-	-	-	-	-	ON SIGNAL
		MB4-5		24	X	12	-	-	-	-	-	-	-	
		M1-1	INTERSTATE 94	24	X	24	-	-	-	-	-	-	-	
		M3-1	NORTH	24	X	12	-	-	-	-	-	-	-	
		M1-6	STH 175	24	X	24	-	-	-	-	-	-	-	
		MB5-1L		21	X	21	-	-	-	-	-	-	-	
	34	R7-2L	NO PARKING 6:30AM-8:30AM MONDAY-FRIDAY	18	X	24	3.00	-	-	-	-	-	33	ON SIGNAL
	35	R7-5D	1 HOUR PARKING 8AM - 8PM	18	X	24	3.00	-	-	-	-	-	33	ON SIGNAL
	36	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	37	R5-1		30	X	30	6.25	-	-	-	-	-	36	ON SIGNAL
	38	R6-2L		24	X	30	5.00	-	-	-	1	-	-	
	39	R6-2R		24	X	30	5.00	-	-	-	1	-	-	
	40	R3-2		24	X	24	4.00	-	-	-	-	-	-	ON SIGNAL
	41	R5-1		30	X	30	6.25	-	-	-	-	-	40	ON SIGNAL
	42	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	43	R3-1		24	X	24	4.00	-	-	-	-	-	42	ON SIGNAL
	44	D3-1	W NATIONAL AVE	VARIES	X	30	-	-	-	-	-	-	-	SIGN WAS MOVED, ON SIGNAL
	45	D3-1	S 48TH ST	VARIES	X	18	-	-	-	-	-	-	44	SIGN WAS MOVED, ON SIGNAL
	46	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	47	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	48	R3-2		24	X	24	4.00	-	-	-	-	-	47	ON SIGNAL
	49	R5-2		24	X	24	4.00	-	-	-	-	-	-	ON SIGNAL
	50	-	VILLAGE OF WEST MILWAUKEE...WELCOMES YOU	-	X	-	-	-	-	-	-	-	49	SIGN WAS MOVED, ON SIGNAL
	51	W6-2		36	X	36	9.00	-	-	-	-	-	-	LIGHT POLE
	52	R3-20R		24	X	36	6.00	-	-	-	1	-	-	
	53	R7-1D		18	X	24	3.00	-	-	-	-	-	-	LIGHT POLE
	54	J4-1		24	X	36	6.00	-	-	-	-	-	53	LIGHT POLE
		M3-4	WEST	24	X	12	-	-	-	-	-	-	-	
		M1-6	STH 59	24	X	24	-	-	-	-	-	-	-	
NATIONAL/MILLER	55	R5-1		36	X	36	9.00	-	-	1	-	-	-	ON SIGNAL
	56	R1-1F		36	X	36	-	5.18	-	-	-	-	55	ON SIGNAL
	57	J1-3		72	X	39	19.50	-	-	-	-	-	-	LIGHT POLE
		M3-4	WEST	24	X	12	-	-	-	-	-	-	-	
		M1-6	STH 59	24	X	24	-	-	-	-	-	-	-	
		M6-1	RIGHT ARROW	21	X	21	-	-	-	-	-	-	-	
	58	R1-1F		36	X	36	-	7.46	-	-	-	-	-	
	59	R5-1		36	X	36	9.00	-	-	1	-	-	58	
						SUBTOTAL	121.50	33.36	0.00	2.00	3.00	-	-	

ROADWAY	SIGN NO.	SIGN CODE	SIGN MESSAGE	W [IN.]	SIGN SIZE x x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637. 2215 SIGNS TYPE II REFLC H FOLDING [SF]	637. 2230 SIGNS TYPE II REFLC F [SF]	634.0614 POSTS WOOD 4" X 6" X 14' [EA]	SPV.0060.0006 ROUND STEEL SIGN POST SYSTEM [EA]	SPV.0060.0007 STREET NAME SIGN MOUNTING HARDWARE ON MAST ARM [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / SIGN LOCATION
NATIONAL/MILLER	60	R5-1		36	X	36	9.00	-	-	1	-	-	-	
	61	D3-1	MILLER PARK WAY	VARIES	X	18	-	-	-	-	-	1	-	SIGN WAS MOVED, ON SIGNAL
	62	R1-1F		36	X	36	-	7.46	-	-	-	-	61	ON SIGNAL
	63	R5-1		36	X	36	9.00	-	-	-	-	-	61	ON SIGNAL
	64	R6-2L		24	X	30	5.00	-	-	-	-	-	61	ON SIGNAL
	65	R3-17		30	X	24	5.00	-	-	-	-	-	61	ON SIGNAL
	66	R7-1D		18	X	24	3.00	-	-	-	-	-	-	LIGHT POLE
	67	R6-2R		24	X	30	5.00	-	-	-	-	-	-	ON SIGNAL
	68	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	69	R3-4		24	X	24	4.00	-	-	-	-	-	68	ON SIGNAL
	70	R10-10A		24	X	30	5.00	-	-	-	-	-	68	ON SIGNAL
	71	R10-10L		24	X	30	5.00	-	-	-	-	-	68	ON SIGNAL
	72	R4-7		24	X	30	5.00	-	-	-	-	-	68	ON SIGNAL
	73	D3-1	W NATIONAL AVE	VARIES	X	18	-	-	-	-	-	1	-	SIGN WAS MOVED, ON SIGNAL
	74	R6-2L		24	X	30	5.00	-	-	-	-	-	73	ON SIGNAL
	75	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	76	R5-1		36	X	36	9.00	-	-	-	-	-	75	ON SIGNAL
NATIONAL AVENUE	77	R4-11		30	X	30	6.25	-	-	-	-	-	-	
	78	R3-17		30	X	24	5.00	-	-	-	-	-	-	
	79	R3-17BP		30	X	12	2.50	-	-	-	-	-	78	
MILLER PARK WAY	80	J2-2		48	X	57	19.00	-	-	-	-	-	-	LIGHT POLE
		M3-4	WEST	24	X	12	-	-	-	-	-	-	-	
		M1-6	STH 59	24	X	24	-	-	-	-	-	-	-	
		MB5-1L		21	X	21	-	-	-	-	-	-	-	
		M3-2	EAST	24	X	12	-	-	-	-	-	-	-	
		M1-6	STH 175	24	X	24	-	-	-	-	-	-	-	
		MB5-1R		21	X	21	-	-	-	-	-	-	-	
	81	R3-20L		24	X	36	6.00	-	-	-	1	-	-	
	82	R3-8LL		36	X	30	7.50	-	-	-	1	-	-	
	83	R2-1	SPEED LIMIT 35	24	X	30	5.00	-	-	-	-	-	82	
	84	J2-2		48	X	57	19.00	-	-	-	-	-	-	LIGHT POLE
		M3-4	WEST	24	X	12	-	-	-	-	-	-	-	
		M1-6	STH 59	24	X	24	-	-	-	-	-	-	-	
		M6-1		21	X	21	-	-	-	-	-	-	-	
		M3-2	NORTH	24	X	12	-	-	-	-	-	-	-	
		M6-1	STH 175	24	X	24	-	-	-	-	-	-	-	
		M6-1		21	X	21	-	-	-	-	-	-	-	
						SUBTOTAL	139.25	17.82	0.00	1.00	2.00	2.00	-	

ROADWAY	SIGN NO.	SIGN CODE	SIGN MESSAGE	W [IN.]	SIGN SIZE x x	H [IN.]	637.2210 SIGNS TYPE II REFLC H [SF]	637. 2215 SIGNS TYPE II REFLC H FOLDING [SF]	637. 2230 SIGNS TYPE II REFLC F [SF]	634.0614 POSTS WOOD 4" X 6" X 14' [EA]	SPV.0060.0006 ROUND STEEL SIGN POST SYSTEM [EA]	SPV.0060.0007 STREET NAME SIGN MOUNTING HARDWARE ON MAST ARM [EA]	MOUNT ON SAME POST AS SIGN #	REMARKS / SIGN LOCATION
MILLER PARK WAY	85	-	VILLAGE OF WEST MILWAUKEE NO PARKING...	-	X	-	-	-	-	-	-	-	84	SIGN WAS MOVED, LIGHT POLE
	86	R2-1	SPEED LIMIT 35	24	X	30	5.00	-	-	-	1	-	-	
	87	R2-1	SPEED LIMIT 35	24	X	30	5.00	-	-	-	1	-	-	
NATIONAL/MILLER	88	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	89	R3-4		24	X	24	4.00	-	-	-	-	-	88	ON SIGNAL
	90	R3-4		24	X	24	4.00	-	-	-	-	-	88	ON SIGNAL
	91	R10-10L		24	X	30	5.00	-	-	-	-	-	88	ON SIGNAL
	92	R10-10A		24	X	30	5.00	-	-	-	-	-	88	ON SIGNAL
	93	R4-7		24	X	30	5.00	-	-	-	-	-	88	ON SIGNAL
	94	R4-7		24	X	36	6.00	-	-	-	-	-	-	ON SIGNAL
	95	R10-10L		24	X	30	5.00	-	-	-	-	-	94	ON SIGNAL
	96	R10-10A		24	X	30	5.00	-	-	-	-	-	94	ON SIGNAL
	97	R1-1F		36	X	36	-	7.46	-	-	-	-	94	ON SIGNAL
	98	D3-1	W NATIONAL AVE	VARIES	X	18	-	-	-	-	-	1	-	SIGN WAS MOVED, ON SIGNAL
	99	R5-1		30	X	30	6.25	-	-	-	-		98	ON SIGNAL
	100	R6-2L		24	X	30	5.00	-	-	-	-	-	98	ON SIGNAL
	101	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	103	R1-1F		30	X	30	-	5.18	-	-	-	-	-	ON SIGNAL
	104	R4-7		24	X	30	5.00	-	-	-	-	-	103	ON SIGNAL
	105	R10-10A		24	X	30	5.00	-	-	-	-	-	103	ON SIGNAL
	106	R10-10L		24	X	30	5.00	-	-	-	-	-	103	ON SIGNAL
	107	R5-1		36	X	36	9.00	-	-	-	-	-	-	
	108	R1-1F		30	X	30	-	5.18	-	-	-	-	107	ON SIGNAL
	109	D3-1	MILLER PARK WAY	VARIES	X	18	-	-	-	-	-	1	107	SIGN WAS MOVED, ON SIGNAL
	110	R6-2L		24	X	30	5.00	-	-	-	-	-	107	ON SIGNAL
	111	R1-2		36	X	31	3.88	-	-	-	1	-	-	
	112	R4-11		30	X	30	6.25	-	-	-	1	-	-	
	113	R1-2		36	X	31	3.88	-	-	-	1	-	-	
	114	R4-11		30	X	30	6.25	-	-	-	-	-	-	LIGHT POLE
	115	R3-17		30	X	24	5.00	-	-	-	1	-	-	
	116	R3-17BP		30	X	12	2.50	-	-	-	-	-	115	
	117	R3-17		30	X	24	5.00	-	-	-	1	-	-	
	118	R3-17AP		30	X	12	2.50	-	-	-	-	-	117	
	119	R3-17		30	X	24	5.00	-	-	-	-	-	-	
	120	R3-17		30	X	24	5.00	-	-	-	1	-	-	
	121	R3-17BP		30	X	12	2.50	-	-	-	-	-	120	
NATIONAL/GREENFIELD	122	R7-1L		18	X	24	3.00	-	-	-	-	-	-	LIGHT POLE
	123	R7-2R	NO PARKING 3:00PM-6:00PM	18	X	24	3.00	-	-	-	-	-	122	LIGHT POLE
MILLER PARK WAY	124	R7-1D		18	X	24	3.00	-	-	-	-	-	86	
						SUBTOTAL	143.00	28.18	0.00	0.00	8.00	2.00		
						TOTAL	**481.50**	**100.08**	**34.25**	**3.00**	**19.00**	**4.00**		

3

3

PAVEMENT MARKING REMOVALS

CATEGORY	ROADWAY	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9002 MARKING REMOVAL LINE 6-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH
1000	NATIONAL AVENUE	9395	4034	646	616	11
	MILLER PARK WAY/STH 175	2327	582	899	227	17
	NATIONAL/GREENFIELD	--	--	377	--	9
	GREENFIELD/70TH	987	484	701	162	8
	TOTAL	12709	5099	2623	1005	45

PAVEMENT MARKING ITEMS

CATEGORY	ROADWAY	646.1020 MARKING LINE EPOXY 4-INCH YELLOW LF	WHITE 12.5 FT LINE 37.5 FT SKIP LF	WHITE 3 FT LINE 9 FT SKIP LF	WHITE LF	646.2040 MARKING LINE GROOVED WET REF EPOXY 6-INCH YELLOW LF	WHITE 12.5 FT LINE 37.5 FT SKIP LF	WHITE LF	646.3020 MARKING LINE EPOXY 8-INCH WHITE 3 FT LINE 9 FT SKIP LF	WHITE 2 FT LINE 6 FT SKIP LF	WHITE LF	646.4040 MARKING LINE GROOVED WET REF EPOXY 10-INCH WHITE LF	646.2025 MARKING LINE GROOVED BLACK EPOXY 6-INCH 12.5 FT LINE 37.5 FT SKIP BLACK LF
1000	NATIONAL AVENUE	8060	13245	556	426	--	--	--	1246	63	24	--	--
	MILLER PARK WAY	--	--	551	--	--	--	--	735	18	30	--	--
	STH 175	--	--	--	--	701	405	305	--	--	--	602	305
	NATIONAL/GREENFIELD	--	--	--	--	--	--	--	377	--	--	--	--
	GREENFIELD/70TH	1183	--	47	--	--	--	--	698	15	--	--	--
	TOTAL			24068				1410			3206	602	305

PAVEMENT MARKING ITEMS

CATEGORY	ROADWAY	646.5020 MARKING ARROW EPOXY TYPE 1 EACH	TYPE 2 EACH	TYPE 3 EACH	TYPE 5 EACH	BIKE EACH	646.5120 MARKING WORD EPOXY ONLY EACH	BIKE EACH	LANE EACH	ENDS EACH	646.5220 MARKING SYMBOL EPOXY BIKE EACH	SHARED BIKE EACH
1000	NATIONAL AVENUE	--	13	--	1	40	3	4	4	4	40	9
	MILLER PARK WAY	--	7	--	--	--	3	--	--	--	--	--
	STH 175	--	6	--	--	--	3	--	--	--	--	--
	NATIONAL/GREENFIELD	2	4	2	--	--	1	--	--	--	--	--
	GREENFIELD/70TH	--	8	--	--	--	1	--	--	--	--	--
	TOTAL		83				23				49	

PAVEMENT MARKING ITEMS

CATEGORY	ROADWAY	646.6120 MARKING STOP LINE EPOXY 18-INCH WHITE LF	646.6220 MARKING YIELD LINE EPOXY 18-INCH WHITE EACH	646.7120 MARKING DIAGONAL EPOXY 12-INCH WHITE LF	646.7420 MARKING CROSSWALK EPOXY TRANVERSE LINE 6-INCH WHITE LF	646.7520 MARKING CROSSWALK EPOXY BLOCK STYLE 24-INCH WHITE LF	646.8120 MARKING CURB EPOXY YELLOW LF	646.8220 MARKING ISLAND NOSE EPOXY YELLOW EACH
1000	NATIONAL AVENUE	645	18	337	--	3677	77	4
	MILLER PARK WAY	55	12	26	--	656	93	2
	STH 175	77	--	--	--	866	62	1
	NATIONAL/GREENFIELD	--	--	--	--	--	--	--
	GREENFIELD/70TH	162	--	--	484	--	--	--
	TOTAL	940	30	363	484	5198	231	7

LIGHTING REMOVAL

CATEGORY	STAGE	DESC	LOC.	OFFSET	204.0195* REMOVING CONCRETE BASES EACH	653.0905* REMOVING PULL BOXES EACH	204.9060.S.1002 REMOVING LIGHTING UNITS EACH	659.5000.S* LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH	204.9060.S.1001 REMOVING DISTRIBUTION CENTER EACH
1100	2	#4920	43NL+36	27' LT	1		1	1	
		#4820	45NL+95	27' LT	1		1	1	
		PULL BOX	50NL+96	29' RT		1			
		#4624	53NL+25	28' LT	1		1	1	
		#4606	55NL+71	29' LT	1		1	1	
		CAB	54NL+92	64' RT					1
		PULL BOX	56NL+71	56' LT		1			
		#1119	42MK+56	7' LT	1		1	1	
			44MK+31	12' LT	1		1	1	
		PULL BOX	45MK+71	18' LT		1			
		PULL BOX	45MK+69	50' RT		1			
			47MK+14	6' LT	1		1	1	
			TOTALS		7	4	7	7	1

TEMPORARY LIGHTING

CATEGORY	STAGE	DESC.	LOC.	SPV.0060.1000 TEMPORARY LIGHTING SYSTEM EACH
1100	2	50TH TO MILLER PARKWAY	W NATIONAL AVE	1
			TOTALS	1

LIGHTING SYSTEMS

CATEGORY	STAGE	DESCRIPTION	LOC	SPV.0060.1001 MAINTENANCE OF LIGHTING SYSTEM EACH
1100	1-3	PROJECT (2410-47-70)	STH 59	1
			TOTALS	1

LIGHTING CONDUIT AND CABLE

CATEGORY	STAGE	LOC.	TO	LOC.	652.0225 * CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0325 CONDUIT RIGID NONMETALLIC SCHEDULE 80 2-INCH LF	655.0625 ELECTRICAL WIRE LIGHTING 6 AWG LF	652.0605 CONDUIT SPECIAL 2-INCH LF
1100	3	PB-14		#4920	34		132	
		#4920		#4820	205		645	
		#4820		PB-17	250	70	990	
		PB-17		PB-16	208		654	
		PB-16		#4624	185	72	801	
		PB-11		PB-12	40		150	
		PB-10		PB-4			390	120
		#4624		PB-2	183		579	
		PB-2		PB-1			30	
		CAB		PB-1	34		132	
		CAB		#4617	20		90	
		PB-2		#4606	61		213	
		#4606		PB-3	160		510	
		PB-3		PB-8			654	208
		PB-8		EX POLE TO REMAIN	60		210	
		PB-1		EX POLE TO REMAIN	5		519	
		EX POLE TO REMAIN		PB-5	9		252	
		PB-5		PB-15	62		216	
		PB-15		PB-6			174	48
		PB-6		PB-7			303	91
		PB-6		44NL+35, 23' LT	97		321	
		44NL+35, 23' LT		#1119	178			
		#1119		#1125	175		555	
		PB-7		EX POLE TO REMAIN	47		171	
		PB-7		PB-13	38		144	
		PB-13		EX POLE TO REMAIN	90		300	
				TOTALS	2,141	142	9,135	467

LIGHTING CONTROL CABINETS

CATEGORY	STAGE	STREET	STATION	OFFSET	654.0230 CONCRETE CONTROL CABINET BASE TYPE L30 EACH	656.0201.1000 ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH	659.2230 L30 LIGHTING CONTROL CABINET 240/480 30-INCH EACH
1100	3	W NATIONAL AVE	54NL+67	61' RT	1	1	1
			TOTALS		1	1	1

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

pw:\\ PLOT DATE : 3/17/2025 9:24:15 AM PLOT BY : JOHNATHAN D. OLSON PLOT NAME : 022594_MQ1 PLOT SCALE : 1:1

3

LIGHTING EQUIPMENT

CATEGORY	STAGE	DESC.	LOC.	OFFSET	654.0105 CONCRETE BASE TYPE 5 EACH	657.0322 POLES TYPE 5 ALUMINUM EACH	659.1125* LUMINAIRES UTILITY LED-C EACH	657.0615 LUMINAIRE ARMS SINGLE MEMBER 4 1/2-IN CLAMP 8-FT EACH	653.0145 PULL BOXES STEEL 24X48-IN EACH
1100	3	#4920	43NL+36	29' LT	1	1	1	1	
		#4820	45NL+40	35' LT	1	1	1	1	
		PB-12	48NL+19	49' RT					1
		PB-11	48NL+53	28' RT					1
		PB-17	48NL+59	38' LT					1
		PB-10	50NL+77	28' RT					1
		PB-16	50NL+68	38' LT					1
		PB-4	51NL+97	34' RT					1
		#4624	53NL+25	40' LT	1	1	1	1	
		#4606	55NL+64	33' LT	1	1	1	1	
		PB-2	55NL+07	30' LT					1
		PB-1	55NL+04	60' RT					1
		PB-3	47MK+57	133' LT					1
		PB-15	45MK+30	70' LT					1
		PB-5	45MK+89	71' LT					1
		PB-6	45MK+30	24' LT					1
			44NL+35	23' LT	1	1	2	2	
		#1119	42MK+58	14' LT	1	1	2	2	
		PB-7	45MK+97	64' RT					1
		PB-8	47MK+02	68' RT					1
		PB-13	45MK+57	95' RT					1
	2	PB-14	43NL+04	30' LT					1
			TOTALS		6	6	8	8	16

*ADDITIONAL QUANTITIES FOUND ELSEWHERE

pw:\\ PLOT DATE : 3/17/2025 9:24:15 AM PLOT BY : JOHNATHAN D. OLSON PLOT NAME : 022594_MQ2 PLOT SCALE : 1:1

FTMS LINEAR FOOT ITEMS

CATEGORY	ROADWAY	ITEM ID	LINEAR DISTANCE	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	655.0515* ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF	674.0300 REMOVE CABLE LF	674.0400 REINSTALL CABLE LF	678.0006 INSTALL FIBER OPTIC CABLE OUTDOOR PLANT 6-CT LF
1300	HWY 59							
		EXMH48MK - EXMH57NL	110	--	110	110	110	--
		EXMH57NL - EXPB57NL	10	--	10	10	10	60
		EXPB57NL - EX-CB-CCTV-40-0098	10	--	10	10	10	35
		EXPB57NL - EXPB54NL	285	--	--	285	--	285
		EXPB57NL - PB55NL	200	50	200	--	200	225
		PB55NL - PB54NL	75	150	75	--	75	125
		EXPB54NL - EXPB53NL	70	--	--	70	--	--
		EXPB53NL - PB54NL	25	50	25	--	25	50
		EXPB53NL - EXPB52NL	55	--	55	55	55	80
		EXPB52NL - EXPB46MK	425	--	425	425	--	450
		EXPB46MK - EXPB44MK	335	--	--	335	--	--
		EXPB46MK - PB44MK	325	--	325	--	--	375
		PB44MK - PB43MK	125	125	125	--	--	175
		PB43MK - EXPB38MK	385	--	385	--	--	410
		EXPB44MK - EXPB38MK	490	--	--	490	--	--
		EXPB38MK - EXPB35MK	255	--	255	255	--	280
		EXPB35MK - EXPB34MK	65	--	65	65	--	90
		EXPB34MK - EX-DMS-40-0002	25	--	25	25	--	75
		TOTALS		375	2,090	2,135	485	2,715

*ADDITIONAL QUANTITES SHOWN ELSEWHERE

MISCELLANEOUS ITEMS

CATEGORY	ROADWAY	670.0101* FIELD SYSTEM INTEGRATOR EACH	670.0201* ITS DOCUMENTATION EACH	678.0501* COMMUNICATION SYSTEM TESTING EACH
1300	HWY 59			
	PROJECT	1	1	1
	TOTALS	1	1	1

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

FTMS EACH ITEMS

CATEGORY	ROADWAY	ITEM ID.	LOCATION STATION	LOCATION OFFSET	653.0140* PULL BOXES STEEL 24 X 42 - INCH EACH	653.0905* REMOVING PULL BOXES EACH	678.0300 FIBER OPTIC SPLICE EACH	678.0400 FIBER OPTIC TERMINATION EACH	678.0800 INSTALL CELLULAR MODEMS EACH	SPV.0060.2000 ENTER EXISTING FIBER OPTIC SPLICE ENCLOSURE EACH	SPV.0060.2001 STORE CABLE EACH	SPV.0060.2002 REMOVE CELLULAR MODEM EACH
1300	HWY 59											
		PB44MK	43MK+90	23' LT	1	--	--	--	--	--	--	--
		EXMH48MK	--		--	--	4	--	--	2	--	--
		EX-CB-CCTV-40-0098	--		--	--	--	6	--	--	--	--
		PB55NL	54NL+95	45' LT	1	--	--	--	--	--	--	--
		PB54NL	54NL+25	45' LT	1	--	--	--	--	--	--	--
		EXPB54NL	--		--	1	--	--	--	--	--	--
		EXPB52NL	--		--	--	--	--	--	--	1	--
		EXPB44MK	--		--	1	--	--	--	--	--	--
		PB44MK	43MK+90	25' LT	1	--	--	--	--	--	--	--
		PB43MK	42MK+70	15' LT	1	--	--	--	--	--	--	--
		EX-DMS-40-0002	--		--	--	--	6	1	--	--	1
		TOTALS			5	2	4	12	1	2	1	1

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CITY OF MILWAUKEE

CATEGORY	ROADWAY	STATION	OFFSET	SPV.0060.5001 WATER MAIN PROTECTION EACH	SPV.0060.5002 ADJUSTING WATER VALVE BOXES-MILWAUKEE EACH	SPV.0060.5003 ADJUSTING WATER MANHOLES EACH
7000	NATIONAL AVE	44NL+47	29' LT	1	--	--
		45NL+34	32' LT	1	--	--
		48NL+51	34' LT	1	--	--
		57NL+47	37' LT	1	--	--
		44NL+82	24' LT	--	1	--
		44NL+88	30' LT	--	1	--
		58NL+18	51' LT	--	1	--
		51NL+39	25' LT	--	--	1
		PROJECT TOTALS		4	3	1

VILLAGE OF WEST MILWAUKEE

CATEGORY	ROADWAY	STATION	OFFSET	SPV.0060.5004 ADJUSTING WATER VALVE BOXES - WEST MILWAUKEE EACH	611.0420* RECONSTRUCTING MANHOLES EACH	611.0530 MANHOLE COVERS TYPE J EACH	SPV.0060.5005 INTERNAL SANITARY MANHOLE SEAL EACH
7030	NATIONAL AVE	48NL+46	32' RT	1	--	--	--
		50NL+77	32' RT	1	--	--	--
		51NL+15	43' RT	1	--	--	--
		54NL+70	60' RT	1	--	--	--
	MILLER PARK WAY	45MK+34	19' LT	--	1	1	1
		PROJECT TOTALS		4	1	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

STH 59 (W. GREENFIELD AVE) & S. 70TH ST

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

3

SUMMARY OF STATE FURNISHED MATERIALS - FOR INFORMATION ONLY

QUANTITY	UNIT	DESCRIPTION
1	EACH	ACCESSIBLE PEDESTRIAN SIGNAL SYSTEM

TRAFFIC SIGNAL REMOVALS
STH 59 (W. GREENFIELD AVE) & S. 70TH ST

LOCATION	204.9060.S.3010 REMOVING TRAFFIC SIGNALS EACH
STH 59 (W. GREENFIELD AVE) & S. 70TH ST	1
TOTAL	1

UNDERGROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG LF
CB1A	SB1A	56	--
CB1A	SB2A	58	--
CB1A	SB3A	161	--
CB1A	SB4A	146	--
CB1A	SB5A	--	207
CB1A	SB6A	264	--
CB1A	SB7A	272	--
CB1A	SB9A	165	--
CB1A	SB10A	--	98
	TOTALS	1122	305

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ABOVE GROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF
SB1A	B	--	--	9
SB2A	B	--	--	9
SB3A	B	--	--	9
SB4A	B	--	--	9
SB5A	HEAD 9	21	--	--
	HEAD 21	--	23	--
SB6A	B	--	--	9
SB7A	B	--	--	9
SB9A	B	--	--	9
	B	--	--	9
SB10A	HEAD 12	--	23	--
	TOTAL	21	46	72

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\S_Signals\Design\05A_S40-XXXX\eng\05A_030201-mq.ppt PLOT DATE : 3/4/2025 9:50:48 AM PLOT BY : HNTB PLOT NAME : 030241_mq_sp1 PLOT SCALE : 1:1

CAST BASES AND STANDARDS

SIGNAL BASE NO.	657.0100* PEDESTAL BASES EACH	657.0425* TRAFFIC SIGNAL STANDARDS ALUMINUM 15-FT EACH
SB5A	1	1
SB10A	1	1
TOTALS	2	2

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL AND PEDESTRIAN FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173* TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0175 TRAFFIC SIGNAL FACE 5S 12-INCH EACH	658.0416* PEDESTRIAN SIGNAL FACE 16-INCH EACH
1	SB2A	1	--	--
9	SB5A	1	--	--
10	SB4A	1	--	--
11	SB1A	1	--	--
12	SB10A	--	1	--
13	SB1A	--	--	1
14	SB4A	--	--	1
15	SB3A	--	--	1
16	SB7A	--	--	1
17	SB6A	--	--	1
18	SB9A	--	--	1
19	SB9A	--	--	1
20	SB2A	--	--	1
21	SB5A	--	1	--
	TOTALS	4	2	8

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

STH 59 (W. GREENFIELD AVE) & S. 70TH ST

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

3

SIGNAL MOUNTING HARDWARE
STH 59 (W. GREENFIELD AVE) & S. 70TH ST

LOCATION	658.5070.3010 SIGNAL MOUNTING HARDWARE EACH
STH 59 (W. GREENFIELD AVE) & S. 70TH ST	1
TOTAL	1

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\S_Signals\Design\05A_S40-XXXX\eng\05A_030201-mq.ppt PLOT DATE : 3/4/2025 9:50:49 AM PLOT BY : HNTB PLOT NAME : 030241_mq_sp2 PLOT SCALE : 1:1

3

3

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE TYPE	659.5000.S.3010 LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
TRAFFIC SIGNAL, THREE SECTION	4
TRAFFIC SIGNAL, FIVE SECTION	2
PEDESTRIAN SIGNAL FACE, 12-INCH	8
TOTAL	14

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE ON PLAN

LAMP, BALLAST, LED, SWITCH DISPOSAL
(FOR INFORMATION ONLY)

SIGNAL BASE NO.	TRAFFIC SIGNAL, THREE SECTION EACH	TRAFFIC SIGNAL, FIVE SECTION EACH	PEDESTRIAN SIGNAL FACE, 12-INCH EACH
SB1A	1	--	1
SB2A	1	--	1
SB3A	--	--	1
SB4A	1	--	1
SB5A	1	1	--
SB6A	--	--	1
SB7A	--	--	1
SB9A	--	--	2
SB10A	--	1	--
TOTAL	4	2	8

STH 59 (W. GREENFIELD AVE) & S. 70TH ST

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

3

ACCESSIBLE PEDESTRIAN PUSH BUTTONS
STH 59 (W. GREENFIELD AVE) & S. 70TH ST

LOCATION	SPV.0060.3022 TRNSPT & INSTALL STATE FURN ACCESSIBLE PED SIG SYSTEM EACH
STH 59 (W. GREENFIELD AVE) & S. 70TH ST	1
TOTAL	1

TRAFFIC SIGNAL CONTROLLER PROGRAMMING
STH 59 (W. GREENFIELD AVE) & S. 70TH ST

LOCATION	SPV.0060.3039* TRAFFIC SIGNAL CONTROLLER PROGRAMMING EACH
STH 59 (W. GREENFIELD AVE) & S. 70TH ST	1
TOTAL	1

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\S_Signals\Design\05A_S40-XXXX\eng\05A_030201-mq.ppt PLOT DATE : 3/4/2025 9:50:49 AM PLOT BY : HNTB PLOT NAME : 030241_mq_sp4 PLOT SCALE : 1:1

STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

SUMMARY OF STATE FURNISHED MATERIALS - FOR INFORMATION ONLY

QUANTITY	UNIT	DESCRIPTION
2	EACH	POLES TYPE 9- OVER HEIGHT
1	EACH	MONOTUBE ARMS 20-FT
1	EACH	MONOTUBE ARMS 25-FT
1	EACH	ACCESSIBLE PEDESTRIAN PUSH BUTTON SYSTEM
1	EACH	VIDEO VEHICLE DETECTION SYSTEM

TRAFFIC SIGNAL REMOVALS

STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

LOCATION	204.9060.S.3020 REMOVING TRAFFIC SIGNALS EACH
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)	1
TOTAL	1

CONDUIT

FROM	TO	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF
PB6	SB9	5
PB13	SB10	8
	TOTALS	13

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

CONCRETE BASES AND ADJUST CONDUIT

BASE NO.	LOCATION	LOCATION	654.0110* CONCRETE BASES TYPE 10 EACH	SPV.0090.3001 ADJUST EXISTING CONDUIT LF
SB9	3.5' OFF THE BACK OF CURB TO CENTER OF BASE	5.5' SE OF EXISTING POLE SB4 MEASURED FROM CENTER OF BASE TO CENTER OF BASE	1	10
SB10	2' OFF THE BACK OF CURB TO CENTER OF BASE	13' NW OF EXISTING POLE SB8 MEASURED FROM CENTER OF BASE TO CENTER OF BASE	1	10
		TOTALS	2	20

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE
*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

UNDERGROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0260* CABLE TRAFFIC SIGNAL 12-14 AWG LF
CB1	SB1	113	--
CB1	SB2	193	--
CB1	SB4	304	--
CB1	SB5	375	--
CB1	SB6	194	--
CB1	SB8	85	--
CB1	SB9	--	331
CB1	SB10	--	87
	TOTALS	1264	418

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\S_Signals\Design\05A_S40-XXXX\eng\05A_030201-mq.ppt PLOT DATE : 3/4/2025 9:57:58 AM PLOT BY : HNTB PLOT NAME : 030241_mq_sp2 PLOT SCALE : 1:1

STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

ABOVE GROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF
SB1	B	--	9
SB2	B	--	9
	B	--	9
SB4	B	--	9
SB5	B	--	9
SB6	B	--	9
	B	--	9
SB8	B	--	9
SB9	HEAD 8	41	--
	HEAD 24	54	--
SB10	HEAD 11	40	--
	HEAD 26	49	--
	TOTAL	184	72

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ELECTRICAL WIRE TRAFFIC SIGNALS

FROM	TO	655.0515* ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
SB4	SB9	66
SB8	SB10	44
	TOTAL	110

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL AND PEDESTRIAN FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173* TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0416* PEDESTRIAN SIGNAL FACE 16-INCH EACH
8	SB9	1	--
9	SB4	1	--
11	SB10	1	--
12	SB8	1	--
13	SB1	--	1
14	SB2	--	1
15	SB2	--	1
16	SB4	--	1
17	SB5	--	1
18	SB6	--	1
19	SB6	--	1
20	SB8	--	1
23	SB3	1	--
24	SB9	1	--
25	SB7	1	--
26	SB10	1	--
	TOTALS	8	8

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\S_Signals\Design\05A_S40-XXXX\eng\05A_030201-mq.ppt PLOT DATE : 3/4/2025 9:57:58 AM PLOT BY : HNTB PLOT NAME : 030241_mq_sp3 PLOT SCALE : 1:1

STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

3

CAST BASES, POLES, MONOTUBE ARMS

SIGNAL BASE NO.	SPV.0060.3003 INSTALL POLES TYPE 9-OVER HEIGHT EACH	SPV.0060.3007* INSTALL MONOTUBE ARMS 20-FT EACH	SPV.0060.3008 INSTALL MONOTUBE ARMS 25-FT EACH
SB9	1	--	1
SB10	1	1	--
TOTALS	2	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

SIGNAL MOUNTING HARDWARE
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

LOCATION	658.5070.3020 SIGNAL MOUNTING HARDWARE EACH
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)	1
TOTAL	1

LAMP, BALLAST, LED, SWITCH DISPOSAL

FIXTURE TYPE	659.5000.S.3020 LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
TRAFFIC SIGNAL, FOUR SECTION	4
PEDESTRIAN SIGNAL FACE, 12-INCH	8
TOTAL	12

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE ON PLAN

LAMP, BALLAST, LED, SWITCH DISPOSAL (FOR INFORMATION ONLY)

SIGNAL BASE NO.	TRAFFIC SIGNAL, FOUR SECTION EACH	PEDESTRIAN SIGNAL FACE, 12-INCH EACH
SB1	--	1
SB2	--	2
SB3	1	--
SB4	1	1
SB5	--	1
SB6	--	2
SB7	1	--
SB8	1	1
TOTAL	4	8

STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

3

ACCESSIBLE PEDESTRIAN PUSH BUTTONS
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

LOCATION	SPV.0060.3023 TRNSPT & INSTALL STATE FURN ACCESSIBLE PED SIG SYSTEM EACH
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)	1
TOTAL	1

VIDEO VEHICLE DETECTIOIN
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

LOCATION	SPV.0060.3027 TRNSPT AND INSTALL STATE FURN VIDEO DETECTION SYSTEM EACH
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)	1
TOTAL	1

FILE NAME : pw:\\pw-int.hntb.org:PWGreat_Lakes\Documents\Milwaukee Projects\62577 - 76950 - I-43 NS\S_Signals\Design\05A_S40-XXXX\eng\05A_030201-mq.ppt PLOT DATE : 3/4/2025 9:57:59 AM PLOT BY : HNTB PLOT NAME : 030241_mq_sp5 PLOT SCALE : 1:1

TRNSPT TRAFFIC SIGNAL MATERIALS
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

LOCATION	SPV.0060.3018 TRNSPT TRAFFIC SIGNAL AND INTER LIGHTING MATERIALS EACH
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)	1
TOTAL	1

STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

3

GEOMETRICALLY PROGRAMMED LOUVERS
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

LOCATION	SPV.0060.3036 GEOMETRICALLY PROGRAMMED LOUVERS EACH
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)	18
TOTAL	18

TRAFFIC SIGNAL CONTROLLER PROGRAMMING
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)

LOCATION	SPV.0060.3039* TRAFFIC SIGNAL CONTROLLER PROGRAMMING EACH
STH 59 (W. GREENFIELD AVE) & STH 59 (W. NATIONAL AVE)	1
TOTAL	1

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

STH 59 (NATIONAL AVE) & S. 48TH ST

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

SUMMARY OF STATE FURNISHED MATERIALS - FOR INFORMATION ONLY

QUANTITY	UNIT	DESCRIPTION
1	EACH	TRAFFIC SIGNAL CABINET WITH CONTROLLER
2	EACH	TRANSFORMER BASES BREAKAWAY
1	EACH	ACCESSIBLE PEDESTRIAN PUSH BUTTON SYSTEM
1	EACH	POLES TYPE 10
1	EACH	POLES TYPE 10 SPECIAL
1	EACH	MONOTUBE ARMS 30-FT
1	EACH	MONOTUBE ARMS 40-FT-SPECIAL
2	EACH	LUMINAIRE ARMS STEEL 15-FT
1	EACH	EVP CABINET EQUIPMENT
4	EACH	EVP DETECTOR HEADS (HEADS A,B,C,D)
1	EACH	VIDEO VEHICLE DETECTION SYSTEM

REMOVING CONCRETE BASES

EXISTING BASE NO.	204.0195* REMOVING CONCRETE BASES EACH
CB1	1
SB1	1
SB2	1
SB3	1
SB5	1
SB6	1
SB9	1
TOTALS	7

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVE TRAFFIC SIGNALS
STH 59 & S. 48th St

LOCATION	204.9060.S.3030 REMOVING TRAFFIC SIGNALS EACH	204.9060.S.3031 REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE EACH
STH 59 & S. 48th St	1	1
TOTALS	1	1

REMOVING PULL BOXES

EXISTING PULL BOX NO.	653.0905* REMOVING PULL BOXES EACH
PB1	1
PB2	1
PB3	1
PB4	1
PB5	1
PB6	1
PB9	1
PB10	1
PB11	1
PB12	1
PB13	1
TOTALS	11

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

CONDUIT

FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH LF
CB1	PB1	--	42	--
PB1	SB1	14	--	--
PB1	PB2	--	58	--
PB2	SB2	4	--	--
PB2	PB3	--	66	--
PB3	SB3	3	--	--
PB3	PB4	--	62	--
PB4	SB4	8	--	--
PB4	PB5	--	--	132
PB5	SB5	19	--	--
PB5	PB6	--	95	--
PB6	SB6	--	10	--
PB6	PB7	--	73	--
EXT1	PB10	--	23	--
PB10	SB9	--	12	--
PB10	CB1	--	32	--
	TOTALS	48	473	132

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PULL BOXES STEEL

PULL BOX NO.	STATION	LOCATION	653.0140* PULL BOXES STEEL 24X42-INCH EACH
PB1	47+74	50' LT	1
PB2	48+02	54' LT	1
PB3	48+34	50.5' LT	1
PB4	48+56	38.5' LT	1
PB5	48+53	27' RT	1
PB6	48+20	45' RT	1
PB10	47+79	38' LT	1
		TOTALS	7

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

UNDERGROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260* CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF
CB1	SB1	--	57	--
CB1	SB2	--	91	--
CB1	SB3	--	137	--
CB1	SB4	--	188	--
CB1	SB5	--	280	--
CB1	SB6	--	--	209
CB1	SB7	--	155	--
CB1	SB8	--	127	--
CB1	SB9	51	--	--
	TOTALS	51	1034	209

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

CONCRETE BASES

BASE NO.	STATION	LOCATION	654.0101* CONCRETE BASES TYPE 1 EACH	654.0102* CONCRETE BASES TYPE 2 EACH	654.0110* CONCRETE BASES TYPE 10 EACH	654.0120* CONCRETE BASES TYPE 10-SPECIAL EACH	654.0217* CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	47+74	41' LT	--	--	--	--	1
SB1	47+86	42' LT	1	--	--	--	--
SB2	48+00	50' LT	1	--	--	--	--
SB3	48+37	49' LT	--	1	--	--	--
SB4	48+49	41' LT	1	--	--	--	--
SB6	48+21	35' RT	--	--	1	--	--
SB9	47+68	40' LT	--	--	--	1	--
		TOTALS	3	1	1	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

3

ELECTRICAL SERVICE METER BREAKER PEDESTAL
STH 59 & S. 48TH ST

BASE NO.	656.0201.3030 ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
CB1	1
TOTALS	1

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

LIGHTING WIRE

FROM	TO	655.0320* CABLE TYPE UF 2-10 AWG GROUNDED LF	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG LF
CB1	SB3	149	--
SB3	LUMIN (1)	--	147
SB3	SB6	231	--
SB6	LUMIN (1)	--	147
SB6	SB7	102	--
SB7	LUMIN (1)	--	147
SB7	SB9	158	--
SB9	LUMIN (1)	--	147
	TOTALS	641	588

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

ABOVE GROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF
SB1	HEAD 21	18	--	--
SB1	APS	--	--	9
SB2	HEAD 9	22	--	--
SB2	HEAD 11	22	--	--
SB2	HEAD 14	18	--	--
SB2	APS	--	--	9
SB3	HEAD 10	22	--	--
SB3	HEAD 16	18	--	--
SB3	APS	--	--	9
SB4	HEAD 4	22	--	--
SB4	HEAD 15	18	--	--
SB4	APS	--	--	9
SB5	HEAD 3	22	--	--
SB5	HEAD 18	18	--	--
SB5	APS	--	--	9
SB6	HEAD 2	57	--	--
SB6	HEAD 8	22	--	--
SB6	HEAD 12	22	--	--
SB6	HEAD 17	18	--	--
SB6	APS	--	--	9
SB7	HEAD 13	22	--	--
SB7	HEAD 20	18	--	--
SB7	APS	--	--	9
SB8	HEAD 1	22	--	--
SB8	HEAD 5	22	--	--
SB8	HEAD 19	18	--	--
SB8	APS	--	--	9
SB9	HEAD 6	--	62	--
SB9	HEAD 7	51	--	--
	TOTALS	472	62	72

3

ELECTRICAL WIRE TRAFFIC SIGNALS

FROM	TO	655.0515* ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	57
SB1	SB2	81
SB2	SB3	73
SB3	SB4	75
SB4	SB5	126
SB5	SB6	109
SB6	SB7	90
SB7	SB8	56
SB8	SB9	118
SB9	CB1	51
PB1	CB1	42
PB2	SB2	22
PB3	SB3	21
PB4	SB4	26
PB5	SB5	37
PB6	SB6	28
PB7	SB7	27
PB8	SB8	23
PB10	CB1	39
	TOTALS	1098

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CAST BASES, POLES, STANDARDS, MONOTUBE ARMS, LUMINAIRES

SIGNAL BASE NO.	657.0100* PEDESTAL BASES EACH	SPV.0060.3037* TRNSPT & INSTALL STATE FURN TRANSFORMER BASE BREAKWAY 11-1/2" BOLT CIRCLE EACH	657.0310* POLES TYPE 3 EACH	657.0430* TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420* TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	SPV.0060.3004* INSTALL POLES TYPE 10	SPV.0060.3005* INSTALL POLES TYPE 10 SPECIAL EACH	SPV.0060.3009* INSTALL MONOTUBE ARMS 30-FT EACH	SPV.0060.3010* INSTALL MONOTUBE ARMS 40-FT -SPECIAL EACH	SPV.0060.3012* INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	657.0609* LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 6-FT EACH	659.1125* LUMINAIRES UTILITY LED C EACH
SB1	1	--	--	1	--	--	--	--	--	--	--	--
SB2	1	--	--	--	1	--	--	--	--	--	--	--
SB3	--	1	1	--	--	--	--	--	--	--	1	1
SB4	1	--	--	--	1	--	--	--	--	--	--	--
SB5	1	--	--	--	1	--	--	--	--	--	--	--
SB6	--	--	--	--	--	1	--	1	--	1	--	1
SB7	--	1	1	--	--	--	--	--	--	--	1	1
SB8	1	--	--	--	1	--	--	--	--	--	--	--
SB9	--	--	--	--	--	--	1	--	1	1	--	1
TOTAL:	5	2	2	1	4	1	1	1	1	2	2	4

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

TRAFFIC SIGNAL FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173* TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0416* PEDESTRIAN SIGNAL FACE 16-INCH EACH
1	SB8	1	--
2	SB6	1	--
3	SB5	1	--
4	SB4	1	--
5	SB8	1	--
6	SB9	1	--
7	SB9	1	--
8	SB6	1	--
9	SB2	1	--
10	SB3	1	--
11	SB2	1	--
12	SB6	1	--
13	SB7	1	--
14	SB2	--	1
15	SB4	--	1
16	SB3	--	1
17	SB6	--	1
18	SB5	--	1
19	SB8	--	1
20	SB7	--	1
21	SB1	--	1
	TOTAL	13	8

SIGNAL MOUNTING HARDWARE
STH 59 & S. 48TH ST

LOCATION	658.5070.3030 SIGNAL MOUNTING HARDWARE EACH
STH 59 & S. 48TH ST	1
TOTALS	1

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900* TRAFFIC SIGNAL EVP DETECTOR CABLE LF
CB1	SB3 (HEAD D)	131
CB1	SB6 (HEAD B)	212
CB1	SB7 (HEAD C)	149
CB1	SB9 (HEAD A)	103
	TOTALS	595

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET
STH 59 & S. 48TH ST

LOCATION	SPV.0060.3013 TRNSPT & INSTALL STATE FURN TRAFFIC SIGNAL CAB EACH
STH 59 & S. 48TH ST	1
TOTALS	1

3

VIDEO DETECTION SYSTEM
STH 59 & S. 48TH ST

LOCATION	SPV.0060.3028 TRSNPT & INSTALL STATE FURN VIDEO DETECTION SYSTEM EA
STH 59 & S. 48TH ST	1
TOTALS	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRANSPORT AND INSTALL STATE FURNISHED ACCESSIBLE PEDESTRIAN SIGNAL SYSTEM
STH 59 & S. 48TH ST

LOCATION	SPV.0060.3024 TRNSPRT & INSTALL STATE FURN ACCESSIBLE PED SIG SYSTEM EACH
STH 59 & S. 48TH ST	1
TOTALS	1

TRANSPORT AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS & CONFIRMATION LIGHTS
STH 59 & S. 48TH ST

LOCATION	SPV.0060.3042 TRNSPT & INSTALL STATE FURN EVP HEADS & CON LIGHT EACH
STH 59 & S. 48TH ST	1
TOTALS	1

TRANSPORT SIGNAL AND INTERSECTION LIGHTING MATERIALS
STH 59 & S. 48TH ST

LOCATION	SPV.0060.3019 TRNSPT TRAFFIC SIGNALS & INTER LIGHTING MATERIALS EACH
STH 59 & S. 48TH ST	1
TOTALS	1

LAMP, BALLAST, LED, SWITCH DISPOSAL
STH 59 & S. 48TH ST

FIXTURE TYPE	659.5000.S.3030 LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
HIGH PRESSURE SODIUM LAMP	3
PEDESTRIAN SIGNAL - 16 INCH	8
TRAFFIC SIGNAL, THREE SECTION	13
MERCURY SWITCH	1
BALLASTS	3
TOTALS	28

3

SUMMARY OF STATE FURNISHED MATERIALS - FOR INFORMATION ONLY

QUANTITY	UNIT	DESCRIPTION
1	EACH	TRAFFIC SIGNAL CABINET WITH CONTROLLER
2	EACH	TRANSFORMER BASES BREAKAWAY
1	EACH	ACCESSIBLE PEDESTRIAN PUSH BUTTON SYSTEM
1	EACH	POLES TYPE 10
1	EACH	POLES TYPE 10 SPECIAL
1	EACH	MONOTUBE ARMS 30-FT
1	EACH	MONOTUBE ARMS 40-FT-SPECIAL
2	EACH	LUMINAIRE ARMS STEEL 15-FT
1	EACH	EVP CABINET EQUIPMENT
4	EACH	EVP DETECTOR HEADS (HEADS A,B,C,D)
1	EACH	VIDEO VEHICLE DETECTION SYSTEM

REMOVING PULL BOXES

EXISTING PULL BOX NO.	653.0905* REMOVING PULL BOXES EACH
PB1	1
PB2	1
PB3	1
PB4	1
PB5	1
PB6	1
PB7	1
PB8	1
PB9	1
TOTALS	9

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

REMOVE TRAFFIC SIGNALS
STH 59 & S. 47TH ST

LOCATION	204.9060.S.3040 REMOVING TRAFFIC SIGNALS EACH	204.9060.S.3041 REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE EACH
STH 59 & S. 47TH ST	1	1
TOTALS	1	1

REMOVING CONCRETE BASES

EXISTING BASE NO.	204.0195* REMOVING CONCRETE BASES EACH
CB1	1
SB1	1
SB2	1
SB3	1
SB4	1
SB5	1
SB6	1
SB7	1
SB8	1
TOTALS	9

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PAGE 1 OF 7

3

CONDUIT

FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH LF
CB1	PB1	--	27	--
PB1	SB1	--	4	--
PB1	SB2	5	--	--
PB1	PB2	--	72	--
PB2	SB3	14	--	--
PB2	PB3	--	122	--
PB3	SB4	7	--	--
PB3	PB4	--	38	--
PB4	SB5	10	--	--
PB4	PB5	--	--	166
PB5	PB6	--	126	--
PB5	SB6	34	--	--
PB6	SB7	--	20	--
PB6	PB7	--	74	--
PB7	SB8	4	--	--
PB7	PB8	--	62	--
PB8	SB9	17	--	--
PB8	PB9	--	--	134
PB9	CB1	--	27	--
	TOTALS	91	572	300

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

PULL BOXES STEEL

PULL BOX NO.	STATION	LOCATION	653.0140* PULL BOXES STEEL 24X42-INCH EACH
PB1	50+97	39' LT	1
PB2	51+21	61' LT	1
PB3	51+82	64' LT	1
PB4	51+91	49' LT	1
PB5	51+89	34' RT	1
PB6	51+36	55' RT	1
PB7	51+04	40' RT	1
PB8	50+77	28' RT	1
PB9	50+78	39' LT	1
		TOTALS	9

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

UNDERGROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260* CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270 CABLE TRAFFIC SIGNAL 15-14 AWG LF
CB1	SB1	46	--	--
CB1	SB2	--	48	--
CB1	SB3	--	108	--
CB1	SB4	--	176	--
CB1	SB5	--	215	--
CB1	SB6	--	334	--
CB1	SB7	--	--	242
CB1	SB8	--	174	--
CB1	SB9	--	141	--
	TOTALS	46	1195	242

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONCRETE BASES

BASE NO.	STATION	LOCATION	654.0101* CONCRETE BASES TYPE 1 EACH	654.0102* CONCRETE BASES TYPE 2 EACH	654.0110* CONCRETE BASES TYPE 10 EACH	654.0120* CONCRETE BASES TYPE 10-SPECIAL EACH	654.0217* CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH
CB1	50+87	40' LT	--	--	--	--	1
SB1	50+93	41' LT	--	--	--	1	--
SB2	51+00	43' LT	1	--	--	--	--
SB3	51+12	50 LT	1	--	--	--	--
SB4	51+80	59' LT	--	1	--	--	--
SB5	51+81	46' LT	1	--	--	--	--
SB6	51+56	32' RT	1	--	--	--	--
SB7	51+43	36' RT	--	--	1	--	--
SB8	51+04	36' RT	--	1	--	--	--
SB9	50+94	28' RT	1	--	--	--	--
		TOTALS	5	2	1	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

3

ABOVE GROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF
SB1	HEAD 6	63	--	--
SB1	HEAD 7	52	--	--
SB2	HEAD 14	18	--	--
SB2	APS	--	--	9
SB3	HEAD 9	22	--	--
SB3	HEAD 11	22	--	--
SB3	HEAD 21	18	--	--
SB3	APS	--	--	9
SB4	HEAD 10	22	--	--
SB4	HEAD 16	18	--	--
SB4	APS	--	--	9
SB5	HEAD 2	22	--	--
SB5	HEAD 5	22	--	--
SB5	HEAD 15	18	--	--
SB5	APS	--	--	9
SB6	HEAD 4	22	--	--
SB6	HEAD 17	18	--	--
SB6	APS	--	--	9
SB7	HEAD 3	--	54	--
SB7	HEAD 8	22	--	--
SB7	HEAD 12	22	--	--
SB7	HEAD 18	18	--	--
SB7	APS	--	--	9
SB8	HEAD 13	22	--	--
SB8	HEAD 19	18	--	--
SB8	APS	--	--	9
SB9	HEAD 1	22	--	--
SB9	HEAD 20	18	--	--
SB9	APS	--	--	9
	TOTALS	479	54	72

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

ELECTRICAL WIRE TRAFFIC SIGNALS

FROM	TO	655.0515* ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	46
SB1	SB2	27
SB2	SB3	89
SB3	SB4	115
SB4	SB5	69
SB5	SB6	160
SB6	SB7	149
SB7	SB8	94
SB8	SB9	85
SB9	CB1	141
PB1	SB1	22
PB2	SB3	32
PB3	SB4	25
PB4	SB5	28
PB5	SB6	52
PB6	SB7	38
PB7	SB8	22
PB8	SB9	35
PB9	CB1	42
	TOTALS	1270

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

LIGHTING WIRE

FROM	TO	655.0320* CABLE TYPE UF 2-10 AWG GROUNDED LF	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG LF
CB1	SB1	58	--
SB1	LUMIN (1)	--	147
SB1	SB4	168	--
SB4	LUMIN (1)	--	147
SB4	SB7	266	--
SB7	LUMIN (1)	--	147
SB7	SB8	106	--
SB8	LUMIN (1)	--	147
	TOTALS	598	588

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ELECTRICAL SERVICE METER BREAKER PEDESTAL
STH 59 & S. 47TH ST

BASE NO.	656.0201.3040 ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
CB1	1
TOTALS	1

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

TRAFFIC SIGNAL FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173* TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0416* PEDESTRIAN SIGNAL FACE 16-INCH EACH
1	SB9	1	--
2	SB5	1	--
3	SB7	1	--
4	SB6	1	--
5	SB5	1	--
6	SB1	1	--
7	SB1	1	--
8	SB7	1	--
9	SB3	1	--
10	SB4	1	--
11	SB3	1	--
12	SB7	1	--
13	SB8	1	--
14	SB2	--	1
15	SB5	--	1
16	SB4	--	1
17	SB6	--	1
18	SB7	--	1
19	SB8	--	1
20	SB9	--	1
21	SB3	--	1
	TOTAL	13	8

3

SIGNAL MOUNTING HARDWARE
STH 59 & S. 47TH ST

LOCATION	658.5070.3040 SIGNAL MOUNTING HARDWARE EACH
STH 59 & S. 47TH ST	1
TOTALS	1

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900* TRAFFIC SIGNAL EVP DETECTOR CABLE LF
CB1	SB1 (HEAD A)	99
CB1	SB4 (HEAD D)	170
CB1	SB7 (HEAD B)	244
CB1	SB8 (HEAD C)	168
	TOTALS	682

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET
STH 59 & S. 47TH ST

3

LOCATION	SPV.0060.3014 TRNSPT & INSTALL STATE FURN TRAFFIC SIGNAL CAB EACH
STH 59 & S. 47TH ST	1
TOTALS	1

CAST BASES, POLES, STANDARDS, MONOTUBE ARMS, LUMINAIRES

SIGNAL BASE NO.	657.0100* PEDESTAL BASES EACH	SPV.0060.3037* TRNSPT & INSTALL STATE FURN TRANSFORMER BASE BREAKAWAY 11-1/2" BOLT CIRCLE EACH	657.0310* POLES TYPE 3 EACH	657.0430* TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420* TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH	SPV.0060.3004* INSTALL POLES TYPE 10 EACH	SPV.0060.3005* INSTALL POLES TYPE 10 SPECIAL EACH	SPV.0060.3009* INSTALL MONOTUBE ARMS 30-FT EACH	SPV.0060.3010 INSTALL MONOTUBE ARMS 40-FT -SPECIAL EACH	SPV.0060.3012* INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	657.0609* LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 6-FT EACH	659.1125* LUMINAIRES UTILITY LED C EACH
SB1	--	--	--	--	--	--	1	--	1	1	--	1
SB2	1	--	--	1	--	--	--	--	--	--	--	--
SB3	1	--	--	--	1	--	--	--	--	--	--	--
SB4	--	1	1	--	--	--	--	--	--	--	1	1
SB5	1	--	--	--	1	--	--	--	--	--	--	--
SB6	1	--	--	--	1	--	--	--	--	--	--	--
SB7	--	--	--	--	--	1	--	1	--	1	--	1
SB8	--	1	1	--	--	--	--	--	--	--	1	1
SB9	1	--	--	--	1	--	--	--	--	--	--	--
TOTAL:	5	2	2	1	4	1	1	1	1	2	2	4

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

STH 59 (NATIONAL AVE) & S. 47TH ST

ALL ITEMS ARE CATEGORY 1500 UNLESS OTHERWISE NOTED

3

TRANSPORT AND INSTALL STATE FURNISHED ACCESSIBLE PEDESTRIAN SIGNAL SYSTEM
STH 59 & S. 47TH ST

LOCATION	SPV.0060.3025 TRNSPRT & INSTALL STATE FURN ACCESSIBLE PED SIG SYSTEM EACH
STH 59 & S. 47TH ST	1
TOTALS	1

VIDEO VEHICLE DETECTION SYSTEM
STH 59 & S. 47TH ST

LOCATION	SPV.0060.3029 TRNSPT & INSTALL STATE FURN VIDEO DETECTION SYSTEM EA
STH 59 & S. 47TH ST	1
TOTALS	1

3

TRANSPORT SIGNAL AND INTERSECTION LIGHTING MATERIALS
STH 59 & S. 47TH ST

LOCATION	SPV.0060.3020 TRNSPT TRAFFIC SIGNALS & INTER LIGHTING MATERIALS EACH
STH 59 & S. 47TH ST	1
TOTALS	1

LAMP, BALLAST, LED, SWITCH DISPOSAL
STH 59 & S. 47TH ST

FIXTURE TYPE	659.5000.S.3040* LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
HIGH PRESSURE SODIUM LAMP	4
PEDESTRIAN SIGNAL - 16 INCH	8
TRAFFIC SIGNAL, THREE SECTION	12
MERCURY SWITCH	1
BALLASTS	4
TOTALS	29

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS
STH 59 & S. 47TH ST

LOCATION	661.0201.3040 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS EACH	661.0300* GENERATORS DAY
STH 59 & S. 47TH ST	1	2
TOTALS	1	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRANSPORT AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS & CONFIRMATION LIGHTS
STH 59 & S. 47TH ST

LOCATION	SPV.0060.3043 TRNSPT & INSTALL STATE FURN EVP HEADS & CON LIGHT EACH
STH 59 & S. 47TH ST	1
TOTALS	1

3

SUMMARY OF STATE FURNISHED MATERIALS - FOR INFORMATION ONLY

QUANTITY	UNIT	DESCRIPTION
1	EACH	TRAFFIC SIGNAL CABINET WITH CONTROLLER
2	EACH	TRANSFORMER BASES BREAKAWAY
1	EACH	ACCESSIBLE PEDESTRIAN PUSH BUTTONS SYSTEM
2	EACH	POLES TYPE 9
1	EACH	POLES TYPE 9 SPECIAL
1	EACH	POLES TYPE 10
2	EACH	POLES TYPE 10 SPECIAL
1	EACH	POLES TYPE 13
2	EACH	MONOTUBE ARMS 15-FT
1	EACH	MONOTUBE ARMS 20-FT
1	EACH	MONOTUBE ARMS 40 FT-SPECIAL
2	EACH	MONOTUBE ARMS 45 FT-SPECIAL
1	EACH	MONOTUBE ARMS 55-FT
5	EACH	LUMINAIRE ARMS STEEL 15-FT
1	EACH	EVP CABINET EQUIPMENT
4	EACH	EVP DETECTOR HEADS (HEADS A, B, C, D)
1	EACH	VIDEO VEHICLE DETECTION SYSTEM

REMOVING PULL BOXES

EXISTING PULL BOX NO.	653.0905* REMOVING PULL BOXES EACH
PB1	1
PB2	1
PB3	1
PB4	1
PB5	1
PB6	1
PB7	1
PB8	1
PB9	1
PB10	1
PB11	1
PB12	1
PB13	1
PB14	1
TOTALS	14

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

REMOVE TRAFFIC SIGNALS
STH 59 & MILLER PARK WAY

LOCATION	204.9060.S.3050 REMOVING TRAFFIC SIGNALS EACH	204.9060.S.3051 REMOVING LOOP DETECTOR WIRE AND LEAD-IN CABLE EACH
STH 59 & MILLER PARK WAY	1	1
TOTALS	1	1

REMOVING CONCRETE BASES

EXISTING BASE NO.	204.0195* REMOVING CONCRETE BASES EACH
CB1	1
SB1	1
SB2	1
SB3	1
SB4	1
SB5	1
SB6	1
SB7	1
SB8	1
SB9	1
SB10	1
SB11	1
SB12	1
SB13	1
SB14	1
SB15	1
TOTALS	16

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

CONDUIT

FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH LF
CB1	PB1	--	50	--
PB1	PB2	--	--	245
PB2	PB3	--	--	93
PB3	PB4	--	80	--
PB4	SB1	--	15	--
PB4	SB2	20	--	--
PB4	PB5	--	83	--
PB5	SB3	10	--	--
PB5	PB6	--	49	--
PB6	PB7	--	--	129
PB7	SB4	--	41	--
PB7	SB5	--	10	--
PB7	PB8	--	--	100
PB8	PB9	--	--	104
PB9	SB7	6	--	--
PB9	SB6	32	--	--
PB8	SB8	--	8	--
PB8	SB9	18	--	--
SUBTOTAL		85	335	671

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

CONTINUED

3

CONDUIT

FROM	TO	652.0225* CONDUIT RIGID NONMETALLIC SCHEDULE 40 2-INCH LF	652.0235* CONDUIT RIGID NONMETALLIC SCHEDULE 40 3-INCH LF	652.0615* CONDUIT SPECIAL 3-INCH LF
PB8	SB10	25	--	--
PB8	PB10	--	100	--
PB10	PB11	--	--	153
PB11	SB11	15	--	--
PB11	SB12	--	33	--
PB11	PB12	--	--	161
PB12	SB13	9	--	--
PB12	PB13	--	--	89
PB13	PB14	--	26	--
PB14	SB14	14	--	--
PB14	SB15	--	17	--
PB14	SB16	21	--	--
PB13	SB17	29	--	--
PB13	PB16	--	--	304
PB16	PB15	--	--	43
PB15	SB18	--	6	--
PB15	SB19	8	--	--
PB15	SB20	14	--	--
PB16	CB1	--	82	--
SUBTOTAL		135	263	751
PROJECT TOTALS		220	598	1422

*ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

PULL BOXES STEEL

PULL BOX NO.	STATION	LOCATION	653.0140* PULL BOXES STEEL 24X42-INCH EACH
PB1	59+18	117' RT	1
PB2	58+26	136' RT	1
PB3	57+81	145' RT	1
PB4	57+77	105' RT	1
PB5	57+61	69' RT	1
PB6	57+36	69' RT	1
PB7	57+34	5' RT	1
PB8	57+30	45' LT	1
PB9	56+81	62' LT	1
PB10	57+41	94' LT	1
PB11	58+17	90' LT	1
PB12	58+90	89' LT	1
PB13	59+05	47' LT	1
PB14	58+80	48' LT	1
PB15	59+03	66' RT	1
PB16	59+23	104' RT	1
		TOTALS	16

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE
** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

UNDERGROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0240* CABLE TRAFFIC SIGNAL 7-14 AWG LF	655.0260* CABLE TRAFFIC SIGNAL 12-14 AWG LF	655.0270* CABLE TRAFFIC SIGNAL 15-14 AWG LF
CB1	SB1		--	273
CB1	SB2	--	278	--
CB1	SB3	--	324	--
CB1	SB4	474	--	--
CB1	SB5	--	443	--
CB1	SB6	--	597	--
CB1	SB7	572	--	--
CB1	SB8	--	506	--
CB1	SB9	--	516	--
CB1	SB10	--	--	524
CB1	SB11	392	--	--
CB1	SB12	--	410	--
CB1	SB13	--	291	--
CB1	SB14	--	277	--
CB1	SB15	279	--	--
CB1	SB16	--	284	--
CB1	SB17	--	252	--
CB1	SB18	--	--	119
CB1	SB19	--	121	--
CB1	SB20	--	127	--
	TOTALS	2314	4706	915

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

3

CONCRETE BASES

BASE NO.	STATION	LOCATION	654.0101* CONCRETE BASES TYPE 1 EACH	654.0102* CONCRETE BASES TYPE 2 EACH	654.0110* CONCRETE BASES TYPE 10 EACH	654.0120* CONCRETE BASES TYPE 10-SPECIAL EACH	654.0113* CONCRETE BASES TYPE 13 EACH	654.0217* CONCRETE CONTROL CABINET BASES TYPE 9 SPECIAL EACH	SPV.0060.3038 CONCRETE BASE TYPE 1 SPREAD FOOTING EACH
CB1	59+24	126' RT	--	--	--	--	--	1	--
SB1	57+74.5	91' RT	--	--	--	1	--	--	--
SB2	57+69	87' RT	1	--	--	--	--	--	--
SB3	57+52	65' RT	--	1	--	--	--	--	--
SB4	56+92	4.5' RT	--	--	1	--	--	--	--
SB5	57+43	5' RT	--	--	1	--	--	--	--
SB6	56+55	45' LT	1	--	--	--	--	--	--
SB7	56+77	57' LT	1	--	--	--	--	--	--
SB8	57+22	45' LT	--	--	--	1	--	--	--
SB9	57+46	38' LT	--	--	--	--	--	--	1
SB10	57+55	45' LT	1	--	--	--	--	--	--
SB11	58+17	105' LT	1	--	--	--	--	--	--
SB12	58+18	57' LT	--	--	1	--	--	--	--
SB13	58+81	92' LT	1	--	--	--	--	--	--
SB14	58+76	61' LT	1	--	--	--	--	--	--
SB15	58+63.5	44' LT	--	--	--	1	--	--	--
SB16	58+69	29' LT	1	--	--	--	--	--	--
SB17	58+82	29' LT	--	1	--	--	--	--	--
SB18	59+05	60' RT	--	--	--	--	1	--	--
SB19	58+96	63' RT	1	--	--	--	--	--	--
SB20	58+92	74' RT	1	--	--	--	--	--	--
		TOTALS	10	2	3	3	1	1	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

3

ABOVE GROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF
SB1	HEAD 19	71	--
SB1	HEAD 26	62	--
SB1	HEAD 27	50	--
SB1	HEAD 28	38	--
SB1	HEAD 31	70	--
SB2	HEAD 33	18	--
SB2	APS	--	9
SB3	HEAD 1	22	--
SB3	HEAD 13	22	--
SB3	HEAD 34	18	--
SB3	APS	--	9
SB4	HEAD 23	22	--
SB4	HEAD 24	40	--
SB5	HEAD 4	22	--
SB5	HEAD 14	41	--
SB6	HEAD 36	18	--
SB6	APS	--	9
SB7	HEAD 22	22	--
SB8	HEAD 10	68	--
SB8	HEAD 11	57	--
SB8	HEAD 37	18	--
SB8	APS	--	9
SB9	APS	--	9
SB10	HEAD 25	22	--
SB10	HEAD 35	18	--
SB10	HEAD 38	18	--
SB10	APS	--	9
SB11	HEAD 8	22	--
SB12	HEAD 29	22	--
SB12	HEAD 20	46	--
SB12	HEAD 21	34	--
	SUBTOTAL	921	54

CONTINUED

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

ABOVE GROUND TRAFFIC SIGNAL CABLE NO. 14

FROM	TO	655.0230* CABLE TRAFFIC SIGNAL 5-14 AWG LF	655.0700* LOOP DETECTOR LEAD IN CABLE LF
SB13	HEAD 7	22	--
SB13	HEAD 40	18	--
SB13	APS	--	9
SB14	HEAD 41	18	--
SB14	APS	--	9
SB15	HEAD 16	64	--
SB15	HEAD 17	52	--
SB15	HEAD 18	40	--
SB16	HEAD 39	18	--
SB16	APS	--	9
SB17	HEAD 9	22	--
SB17	HEAD 42	18	--
SB17	APS	--	9
SB18	HEAD 2	55	--
SB18	HEAD 3	41	--
SB18	HEAD 5	80	--
SB18	HEAD 6	68	--
SB18	HEAD 12	65	--
SB19	HEAD 43	18	--
SB19	APS	--	9
SB20	HEAD 15	22	--
SB20	HEAD 30	22	--
SB20	HEAD 32	18	--
SB20	APS	--	9
	SUBTOTAL	771	54
	PROJECT TOTALS	1691	108

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

ELECTRICAL WIRE TRAFFIC SIGNALS

FROM	TO	655.0515* ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
CB1	SB1	273
SB1	SB2	68
SB2	SB3	119
SB3	SB4	203
SB4	SB5	84
SB5	SB6	207
SB6	SB7	71
SB7	SB8	114
SB8	SB9	58
SB9	SB10	76
SB10	SB11	229
SB11	SB12	81
SB12	SB13	171
SB13	SB14	156
SB14	SB15	63
SB15	SB16	71
SB16	SB17	124
SB17	SB18	294
SB18	SB19	47
SB19	SB20	54
SB20	CB1	127
	SUBTOTAL	2841

CONTINUED

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

ELECTRICAL WIRE TRAFFIC SIGNALS

FROM	TO	655.0515* ELECTRICAL WIRE TRAFFIC SIGNALS 10 AWG LF
PB1	CB1	45
PB2	CB1	141
PB3	SB1	88
PB4	SB2	38
PB5	SB3	28
PB6	SB3	67
PB7	SB5	28
PB8	SB8	26
PB9	SB7	24
PB10	SB8	91
PB11	SB11	33
PB12	SB13	27
PB13	SB14	72
PB14	SB14	32
PB15	SB18	24
PB16	CB1	55
	SUBTOTAL	818
	PROJECT TOTALS	3659

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

TRAFFIC SIGNAL EVP DETECTOR CABLE

FROM	TO	655.0900* TRAFFIC SIGNAL EVP DETECTOR CABLE LF
CB1	SB1 (HEAD C)	280
CB1	SB8 (HEAD A)	459
CB1	SB15 (HEAD D)	303
CB1	SB18 (HEAD B)	148
	TOTALS	1190

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

ELECTRICAL SERVICE METER BREAKER PEDESTAL
STH 59 & MILLER PARK WAY

BASE NO.	656.0201.3050 ELECTRICAL SERVICE METER BREAKER PEDESTAL EACH
CB1	1
TOTALS	1

*** FINAL LOCATION TO BE DETERMINED BY THE ENGINEER IN THE FIELD

3

LIGHTING WIRE

FROM	TO	655.0320* CABLE TYPE UF 2-10 AWG GROUNDED LF	655.0610* ELECTRICAL WIRE LIGHTING 12 AWG LF
CB1	SB1	285	--
SB1	LUMIN (1)	--	147
SB1	SB3	111	--
SB3	LUMIN (1)	--	147
SB3	SB8	231	--
SB8	LUMIN (1)	--	147
SB8	SB12	227	--
SB12	LUMIN (2)	--	294
SB12	SB17	247	--
SB17	LUMIN (1)	--	147
SB17	SB18	291	--
SB18	LUMIN (1)	--	147
	TOTALS	1392	1029

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

3

CAST BASES, POLES, STANDARDS, MONOTUBE ARMS, LUMINAIRES

SIGNAL BASE NO.	657.0100* PEDESTAL BASES EACH	SPV.0060.3037* TRNSPT & INSTALL STATE FURN TRANSFORMER BASE BREAKWAY 11-1/2" BOLT CIRCLE EACH	657.0310* POLES TYPE 3 EACH	657.0405 TRAFFIC SIGNAL STANDARDS ALUMINUM 3.5-FT EACH	657.0430* TRAFFIC SIGNAL STANDARDS ALUMINUM 10-FT EACH	657.0420* TRAFFIC SIGNAL STANDARDS ALUMINUM 13-FT EACH
SB1	--	--	--	--	--	--
SB2	1	--	--	--	1	--
SB3	--	1	1	--	--	--
SB4	--	--	--	--	--	--
SB5	--	--	--	--	--	--
SB6	1	--	--	--	1	--
SB7	1	--	--	--	--	1
SB8	--	--	--	--	--	--
SB9	1	--	--	1	--	--
SB10	1	--	--	--	--	1
SB11	1	--	--	--	--	1
SB12	--	--	--	--	--	--
SB13	1	--	--	--	--	1
SB14	1	--	--	--	1	--
SB15	--	--	--	--	--	--
SB16	1	--	--	--	1	--
SB17	--	1	1	--	--	--
SB18	--	--	--	--	--	--
SB19	1	--	--	--	1	--
SB20	1	--	--	--	--	1
TOTAL:	11	2	2	1	5	5

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

CAST BASES, POLES, STANDARDS, MONOTUBE ARMS, LUMINAIRES (CONT.)

SIGNAL BASE NO.	SPV.0060.3001 INSTALL POLES TYPE 9 EACH	SPV.0060.3002 INSTALL POLES TYPE 9 SPECIAL EACH	SPV.0060.3004* INSTALL POLES TYPE 10 EACH	SPV.0060.3005* INSTALL POLES TYPE 10 SPECIAL EACH	SPV.0060.3044 INSTALL POLES TYPE 13 EACH	SPV.0060.3006 INSTALL MONOTUBE ARMS 15-FT EACH	SPV.0060.3007* INSTALL MONOTUBE ARMS 20-FT EACH	SPV.0060.3010* INSTALL MONOTUBE ARMS 40-FT -SPECIAL EACH	SPV.0060.3011 INSTALL MONOTUBE ARMS 45-FT -SPECIAL EACH	SPV.0060.3040 INSTALL MONOTUBE ARMS 55-FT EACH	SPV.0060.3012* INSTALL LUMINAIRE ARMS STEEL 15-FT EACH	657.0609* LUMINAIRE ARMS SINGLE MEMBER 4-INCH CLAMP 6-FT EACH
SB1	--	--	--	1	--	--	--	--	1	--	1	--
SB2	--	--	--	--	--	--	--	--	--	--	--	--
SB3	--	--	--	--	--	--	--	--	--	--	--	1
SB4	1	--	--	--	--	1	--	--	--	--	--	--
SB5	1	--	--	--	--	1	--	--	--	--	--	--
SB6	--	--	--	--	--	--	--	--	--	--	--	--
SB7	--	--	--	--	--	--	--	--	--	--	--	--
SB8	--	--	--	1	--	--	--	--	1	--	1	--
SB9	--	--	--	--	--	--	--	--	--	--	--	--
SB10	--	--	--	--	--	--	--	--	--	--	--	--
SB11	--	--	--	--	--	--	--	--	--	--	--	--
SB12	--	--	1	--	--	--	1	--	--	--	2	--
SB13	--	--	--	--	--	--	--	--	--	--	--	--
SB14	--	--	--	--	--	--	--	--	--	--	--	--
SB15	--	1	--	--	--	--	--	1	--	--	--	--
SB16	--	--	--	--	--	--	--	--	--	--	--	--
SB17	--	--	--	--	--	--	--	--	--	--	--	1
SB18	--	--	--	--	1	--	--	--	--	1	1	--
SB19	--	--	--	--	--	--	--	--	--	--	--	--
SB20	--	--	--	--	--	--	--	--	--	--	--	--
TOTAL:	2	1	1	2	1	2	1	1	2	1	5	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

TRAFFIC SIGNAL FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173* TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0416* PEDESTRIAN SIGNAL FACE 16-INCH EACH
1	SB3	1	--
2	SB18	1	--
3	SB18	1	--
4	SB5	1	--
5	SB18	1	--
6	SB18	1	--
7	SB13	1	--
8	SB11	1	--
9	SB17	1	--
10	SB8	1	--
11	SB8	1	--
12	SB18	1	--
13	SB3	1	--
14	SB5	1	--
15	SB20	1	--
16	SB15	1	--
17	SB15	1	--
18	SB15	1	--
19	SB1	1	--
20	SB12	1	--
21	SB12	1	--
22	SB7	1	--
	SUBTOTAL	22	--

CONTINUED

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

TRAFFIC SIGNAL FACES

SIGNAL HEAD NO.	SIGNAL BASE NO.	658.0173* TRAFFIC SIGNAL FACE 3S 12-INCH EACH	658.0416* PEDESTRIAN SIGNAL FACE 16-INCH EACH
23	SB4	1	--
24	SB4	1	--
25	SB10	1	--
26	SB1	1	--
27	SB1	1	--
28	SB1	1	--
29	SB12	1	--
30	SB20	1	--
31	SB1	1	--
32	SB20	--	1
33	SB2	--	1
34	SB3	--	1
35	SB10	--	1
36	SB6	--	1
37	SB8	--	1
38	SB10	--	1
39	SB16	--	1
40	SB13	--	1
41	SB14	--	1
42	SB17	--	1
43	SB19	--	1
	SUBTOTAL	9	12
	PROJECT TOTALS	31	12

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

3

TRANSPORT AND INSTALL STATE FURNISHED TRAFFIC SIGNAL CABINET
STH 59 & MILLER PARK WAY

LOCATION	SPV.0060.3015 TRNSPT & INSTALL STATE FURN TRAFFIC SIGNAL CAB EACH
STH 59 & MILLER PARK WAY	1
TOTALS	1

SIGNAL MOUNTING HARDWARE
STH 59 & MILLER PARK WAY

LOCATION	658.5070.3050 SIGNAL MOUNTING HARDWARE EACH
STH 59 & MILLER PARK WAY	1
TOTALS	1

TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS
STH 59 & MILLER PARK WAY

LOCATION	661.0201.3050 TEMPORARY TRAFFIC SIGNALS FOR INTERSECTIONS EACH	661.0300* GENERATORS EACH
STH 59 & MILLER PARK WAY	1	2
TOTALS	1	2

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRANSPORT AND INSTALL STATE FURNISHED EMERGENCY VEHICLE PREEMPTION (EVP) DETECTOR HEADS & CONFIRMATION LIGHTS
STH 59 & MILLER PARK WAY

LOCATION	SPV.0060.3016 TRNSPT & INSTALL STATE FURN EVP HEADS & CON LIGHT EACH
STH 59 & MILLER PARK WAY	1
TOTALS	1

3

TRANSPORT AND INSTALL STATE FURNISHED ACCESSIBLE PEDESTRIAN SIGNAL SYSTEM
STH 59 & MILLER PARK WAY

LOCATION	SPV.0060.3026 TRNSPT & INSTALL STATE FURN ACCESSIBLE PED SIG SYSTEM EACH
STH 59 & MILLER PARK WAY	1
TOTALS	1

TEMPORARY EVP SYSTEM
STH 59 & MILLER PARK WAY

LOCATION	SPV.0060.3031 TEMPORARY EVP SYSTEM EACH
STH 59 & MILLER PARK WAY	1
TOTALS	1

3

TRANSPORT SIGNAL AND INTERSECTION LIGHTING MATERIALS
STH 59 & MILLER PARK WAY

LOCATION	SPV.0060.3021 TRNSPT TRAFFIC SIGNALS & INTER LIGHTING MATERIALS EACH
STH 59 & MILLER PARK WAY	1
TOTALS	1

LAMP, BALLAST, LED, SWITCH DISPOSAL
STH 59 & MILLER PARK WAY

FIXTURE TYPE	659.5000.S.1551* LAMP, BALLAST, LED, SWITCH DISPOSAL BY CONTRACTOR EACH
HIGH PRESSURE SODIUM LAMP	3
PEDESTRIAN SIGNAL - 16 INCH	10
TRAFFIC SIGNAL, THREE SECTION	25
MERCURY SWITCH	1
BALLASTS	3
TOTALS	42

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

VIDEO DETECTION SYSTEM
STH 59 & MILLER PARK WAY

LOCATION	SPV.0060.3030 TRSNPT & INSTALL STATE FURN VIDEO DETECTION SYSTEM EA
STH 59 & MILLER PARK WAY	1
TOTALS	1

* ADDITIONAL QUANTITIES SHOWN ELSEWHERE

TRAFFIC SIGNAL INTERCONNECT

CATEGORY	LOCATION	670.0101 FIELD SYSTEM INTEGRATOR EACH	670.0201 ITS DOCUMENTATION EACH	678.0501 COMMUNICATION SYSTEM TESTING EACH	SPV.0060.3032 TRNSPT & INSTALL STATE FURN RADIO EACH	SPV.0060.3033 TRNSPT & INSTALL STATE FURN RADIO EACH	SPV.0060.3034 TRNSPT & INSTALL STATE FURN RADIO EACH	SPV.0060.3035 STORE EXISTING COMMUNICATION CABLE EACH
1500	TRAFFIC SIGNAL INTERCONNECT	1	1	1	--	--	--	--
	STH 59 & S. 48TH ST	--	--	--	1	--	--	--
	STH 59 & S. 47TH ST	--	--	--	--	1	--	--
	STH 59 & MILLER PARK WAY	--	--	--	--	--	1	1
	PROJECT TOTALS	1	1	1	1	1	1	1

CONVENTIONAL SYMBOLS

SECTION LINE
QUARTER LINE
SIXTEENTH LINE
NEW REFERENCE LINE
NEW R/W LINE
EXISTING R/W OR HE LINE
PROPERTY LINE (P.L.)
LOT, TIE & OTHER MINOR LINES
SLOPE INTERCEPT
CORPORATE LIMITS
UNDERGROUND FACILITY (COMMUNICATIONS, ELECTRIC, ETC) — W (TYPE)
NEW R/W (FEE OR HE) (HATCHING VARIES BY OWNER)
TEMPORARY LIMITED EASEMENT AREA
EASEMENT AREA (PERMANENT LIMITED OR RESTRICTED DEVELOPMENT)
TRANSMISSION STRUCTURES
BUILDING — TO BE REMOVED
BRIDGE — CULVERT

SECTION CORNER SYMBOL (18, 23, 24, 26, 25, 9)
SECTION CORNER MONUMENT
GEODETIC SURVEY MONUMENT
SIXTEENTH CORNER MONUMENT
SIGN — SIGN
OFF-PREMISE SIGN — #1-25 — SIGN

R/W MONUMENT (TO BE SET)
NON-MONUMENTED R/W POINT
FOUND IRON PIN (1-INCH UNLESS NOTED) — IP

	COMPENSABLE	NON-COMPENSABLE
ELECTRIC POLE	■	□
TELEPHONE POLE	●	⌀
PEDESTAL (LABEL TYPE) (TV, TEL, ELEC, ETC.)	✖	✖

ACCESS RESTRICTED BY ACQUISITION
NO ACCESS (BY STATUTORY AUTHORITY)
ACCESS RESTRICTED (BY PREVIOUS PROJECT OR CONTROL)
NO ACCESS (NEW HIGHWAY)

PARCEL NUMBER 25 — UTILITY NUMBER 40

PARALLEL OFFSETS

CONVENTIONAL UTILITY SYMBOLS

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

	NON-COMPENSABLE	COMPENSABLE
POWER POLE	♙	♟
TELEPHONE POLE	⌀	●
TELEPHONE PEDESTAL	✖	✖

CURVE DATA ABBREVIATIONS

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

CONVENTIONAL ABBREVIATIONS

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

NOTES:

POSITIONS SHOWN ON THIS PLAT ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MILWAUKEE COUNTY, NAD 83 (2007), IN U.S. SURVEY FEET. VALUES ARE GRID COORDINATES BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAY BE USED AS GROUND DISTANCES.

ALL NEW RIGHT-OF-WAY MONUMENTS WILL BE TYPE 2 (TYPICALLY ¾" X 24" IRON REBARS), UNLESS OTHERWISE NOTED, AND WILL BE PLACED PRIOR TO THE COMPLETION OF THE PROJECT.

ALL RIGHT-OF-WAY LINES DEPICTED IN THE NON-ACQUISITION AREAS ARE INTENDED TO RE-ESTABLISH EXISTING RIGHT-OF-WAY LINES AS DETERMINED FROM PREVIOUS PROJECTS, OTHER RECORDED DOCUMENTS, CENTERLINE OF EXISTING PAVEMENTS AND/OR EXISTING OCCUPATIONAL LINES. RIGHT-OF-WAY BOUNDARIES ARE DEFINED WITH COURSES OF THE PERIMETER OF THE HIGHWAY LANDS REFERENCED TO THE U.S. PUBLIC LAND SURVEY SYSTEM OR OTHER "SURVEYS" OF PUBLIC RECORD. DIMENSIONING FOR THE NEW RIGHT-OF-WAY IS MEASURED ALONG AND PERPENDICULAR TO THE NEW REFERENCE LINES.

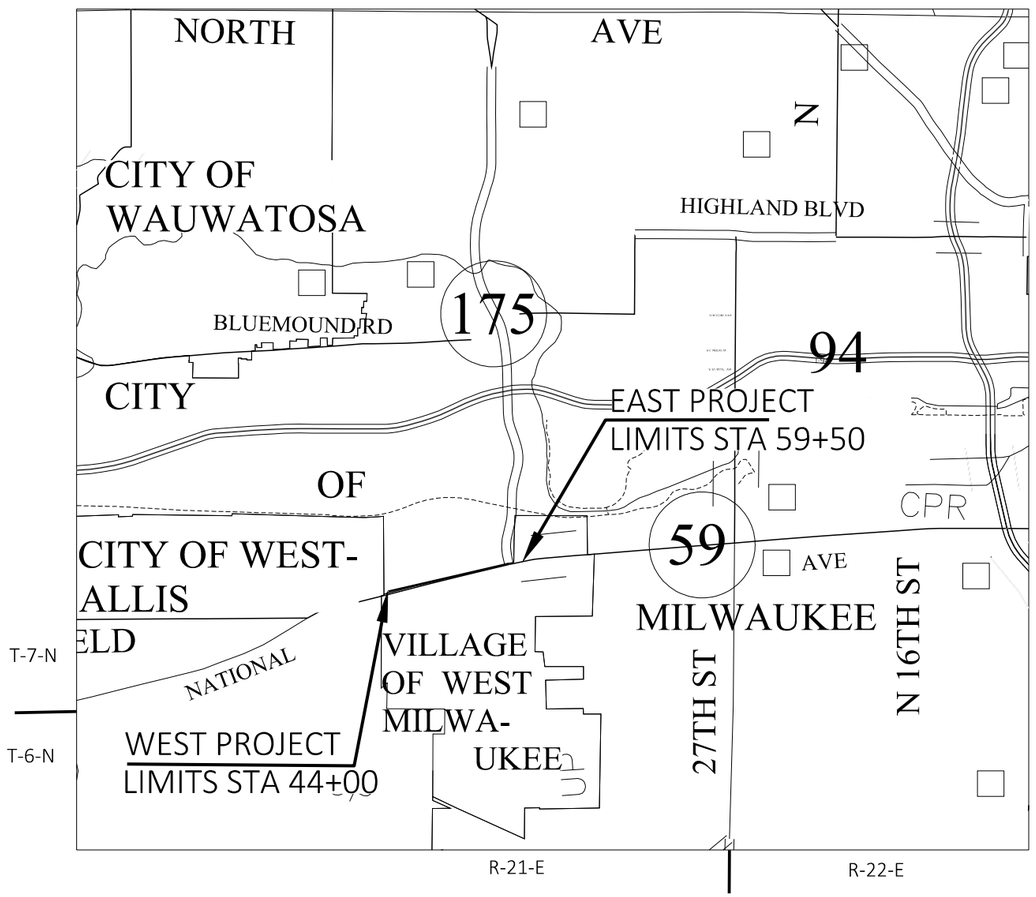
A TEMPORARY LIMITED EASEMENT (TLE) IS A RIGHT FOR CONSTRUCTION PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON, THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY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

A PERMANENT LIMITED EASEMENT (PLE) IS A RIGHT FOR CONSTRUCTION AND MAINTENANCE PURPOSES, AS DEFINED HEREIN, INCLUDING THE RIGHT TO OPERATE NECESSARY EQUIPMENT THEREON AND THE RIGHT OF INGRESS AND EGRESS, AS LONG AS REQUIRED FOR SUCH PUBLIC PURPOSE, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE, BUT WITHOUT PREJUDICE TO THE OWNER'S RIGHTS TO MAKE OR CONSTRUCT IMPROVEMENTS ON SAID LANDS OR TO FLATTEN THE SLOPES, PROVIDING SAID ACTIVITIES WILL NOT IMPAIR OR OTHERWISE ADVERSELY AFFECT THE HIGHWAY FACILITIES.

AN EASEMENT FOR HIGHWAY PURPOSES (HE), AS LONG AS SO USED, INCLUDING THE RIGHT TO PRESERVE, PROTECT, REMOVE, OR PLANT THEREON ANY VEGETATION THAT THE HIGHWAY AUTHORITIES MAY DEEM DESIRABLE.

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

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



LAYOUT
SCALE 0 1000 2000 FT

TOTAL NET LENGTH OF CENTERLINE = 0.306 MILES

THIS PLAT IS A GRAPHIC REPRESENTATION AND IS FOR REFERENCE PURPOSES ONLY. DEEDS MUST BE CHECKED TO DETERMINE PROPERTY BOUNDARIES AND ACCESS RIGHTS.

R/W PROJECT NUMBER	SHEET NUMBER	TOTAL SHEETS
2410-47-20	4.01	--

PLAT OF RIGHT OF WAY REQUIRED FOR
I-94 EAST - WEST, STH 59

70TH STREET TO MILLER PARK WAY

STH 59 — MILWAUKEE COUNTY

2410-47-70

REVISION DATE
01/29/2025

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED FOR THE DEPARTMENT

DATE: 10/08/2024 (Signature)

FILE NAME : N:\PDS\C3D\10602703\RW\DWG\2410-47-20 MIT\24104720_ TITLE.DWG
LAYOUT NAME - 1060-27-21.DWG PLAT_TITLE - TITLE 4.01
PLOT DATE : 1/29/2025 11:15 AM PLOT BY : PECK, MATTHEW PLOT NAME :

POSITIONS SHOWN ON THIS PLAT ARE BASED ON THE WISCONSIN COUNTY COORDINATE SYSTEM, MILWAUKEE COUNTY ZONE, NAD-83 (2007) ADJUSTMENT (IN US SURVEY FEET). COORDINATES SHOWN ARE GRID COORDINATES AND ARE TO BE USED AS GRID OR GROUND VALUES ON THIS PLAT.

RIGHT OF WAY MONUMENTS ARE TYPE 2 MONUMENTS (TYPICALLY 3/4"X24" REBAR) AND WILL BE PLACED PRIOR TO COMPLETION OF THE PROJECT.

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

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

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

* OWNERS NAMES ARE SHOWN FOR REFERENCE PURPOSES ONLY AND ARE SUBJECT TO CHANGE PRIOR TO THE TRANSFER OF LAND INTERESTS TO THE DEPARTMENT

ERW POINT TABLE					
	POINT NAME	Y COORDS	X COORDS	STATION	OFFSET
	ERW1	292857.510	588983.208	49+99.41	32.09
	ERW27	292940.078	589752.593	57+68.22	93.17

TLE POINT TABLE					
	POINT NAME	Y COORDS	X COORDS	STATION	OFFSET
	TLE13	292837.854	588752.084	47+69.92	65.88
	TLE14	292859.577	588843.642	48+64.02	66.06
	TLE15	292833.063	588858.515	48+72.43	36.84
	TLE16	292881.498	589048.969	50+68.91	40.38
	TLE17	292923.387	589076.282	51+09.99	74.69
	TLE18	292948.791	589145.923	51+84.02	78.64
	TLE19	292938.061	589169.010	52+02.96	61.63
	TLE20	292969.537	589255.296	52+94.68	66.52
	TLE21	292970.599	589293.225	53+31.26	56.46
	TLE22	292893.372	589453.469	54+61.95	64.22
	TLE23	292891.425	589453.928	54+61.82	66.22
	TLE24	292895.667	589463.203	54+71.93	64.87
	TLE25	292893.615	589463.213	54+71.34	66.84
	TLE26	292929.035	589757.222	57+70.20	104.98
	TLE28	292926.497	589746.458	57+59.14	104.99
	TLE29	292947.706	589737.698	57+55.47	82.34

PARCEL NUMBER	*OWNER	INTEREST REQUIRED	R/W ACRE(S) REQUIRED (SQ FT)			PLE AREA (SQ FT)	TLE AREA (SQ FT)
			HE	EXISTING	TOTAL		
1	NATIONAL ASYLUM FOR DISABLED VOLUNTEER SOLDIERS	HE, PLE, TLE	3007			3474	4040
2	LANDMARK CREDIT UNION	TLE					210

PLE POINT TABLE					
	POINT NAME	Y COORDS	X COORDS	STATION	OFFSET
	PLE5	292807.485	588750.708	47+61.63	36.63
	PLE6	292827.464	588751.613	47+67.09	55.87
	PLE7	292848.106	588838.611	48+56.50	56.04
	PLE8	292830.662	588848.396	48+62.03	36.82
	PLE9	292891.779	589077.152	50+98.70	43.93
	PLE10	292915.705	589084.403	51+15.51	64.97
	PLE11	292937.978	589145.462	51+80.42	68.43
	PLE12	292926.055	589171.115	52+01.47	49.53

HE POINT TABLE					
	POINT NAME	Y COORDS	X COORDS	STATION	OFFSET
	HE2	292723.614	588418.875	44+19.41	30.98
	HE3	292728.479	588417.720	44+19.40	35.98
	HE4	292872.216	589023.534	50+42.03	37.17

Line Table		
Line #	Direction	Length
L1	N76° 43' 56"E	110.81
L2	S76° 43' 56"W	10.00
L3	N00° 00' 00"E	2.05
L4	N76° 43' 56"E	9.53
L5	S13° 16' 04"E	2.00
L6	N01° 16' 21"W	68.40

HWY	BASIS OF EXISTING R/W	WIDTH	YEAR
NATIONAL AVE	RED BRAE SUBDIVISION	66'	1904
48 TH ST.	RED BRAE SUBDIVISION	60'	1904
47 TH ST.	RED BRAE SUBDIVISION	60'	1904
46 TH ST.	RED BRAE SUBDIVISION	60'	1904
STH 175	U5726(01) (DJ 2963)	VARIES	1953
STH 175	1350-01-22 (U03-1(102))	VARIES	1966
NATIONAL AVE	CSM 5411	40'	1990
NATIONAL AVE	CSM 9181	VARIES	2019

FOUND MONUMENT TABLE			
POINT #	Y	X	DESCRIPTION
1349	292896.658	589467.840	IPF
1350	292956.439	589720.816	IP 1IN

571 MILWAUKEE METROPOLITAN SEWERAGE DISTRICT PARCEL 1 - DOC. 10730674, DOC. 6447260, DOC. 11378763

531 VILLAGE OF WEST MILWAUKEE - UTILITY EASEMENT PARCEL 2 - DOC. 7605028

533 VILLAGE OF WEST MILWAUKEE - WATER PARCEL 2 - DOC. 10923645

UA632 VILLAGE OF WEST MILWAUKEE - SEWER

UA633 VILLAGE OF WEST MILWAUKEE - WATER

UA622 CITY OF MILWAUKEE - WATER

UA671 MILWAUKEE METROPOLITAN SEWERAGE DISTRICT

REVISION DATE 01/29/2025	DATE 10/08/2024	SCALE, FEET 0 50 100	HWY: STH 59	STATE R/W PROJECT NUMBER 2410-47-20	PLAT SHEET 4.02
	GRID FACTOR		COUNTY: MILWAUKEE	CONSTRUCTION PROJECT NUMBER 2410-47-70	PS&E SHEET 264 E

FILE NAME : 24104720_MIT_DETAILS.DWG
LAYOUT NAME - 4.02

PLOT DATE : 1/29/2025 11:15 AM PLOT BY : PECK, MATTHEW PLOT NAME : P SCALE :

WISDOT/CADDS SHEET 75

BENCH MARKS		
NO.	STATION	ELEV.
BM 426	41NL+92.41	655.290
CP 323	42NL+48.30	649.970
BM 424	51NL+17.86	648.664
CP 324	52NL+03.41	647.180

BEGIN PROJECT
STA 43NL+02.86

BM 423

CP 323

EXIST R/W

PROP R/W

25:1 TAPER

10'

R/L NL

TLE

PLE

SLOPE INTERCEPT (TYP)

BM 424

CP 324

GENERAL MITCHELL BOULEVARD

EXISTING TREE TO REMAIN
(SIGNIFICANT TREE #209)

EXIST R/W

N

13'

3'

7:1 TAPER

42NL

44NL

46NL

48NL

50NL

52NL

54NL

56

W. NATIONAL AVENUE

S. 50TH STREET

S. 49TH STREET

S. 48TH STREET

S. 47TH STREET

S. 46TH STREET

EXIST R/W

CAUTION

MATCHLINE 56NL+00

5

5

BENCH MARKS		
NO.	STATION	ELEV.
CP 60	59NL+13.87	643.297

END PROJECT
STA 59NL+94.06

CP60

R/L NL

R/L MK

48MK

49MK

44MK

WERS BOULEVARD

MILLER PARK WAY

EXIST R/W

CAUTION

58NL

60NL

62NL

W. NATIONAL AVENUE

PARKING LOT

GATE

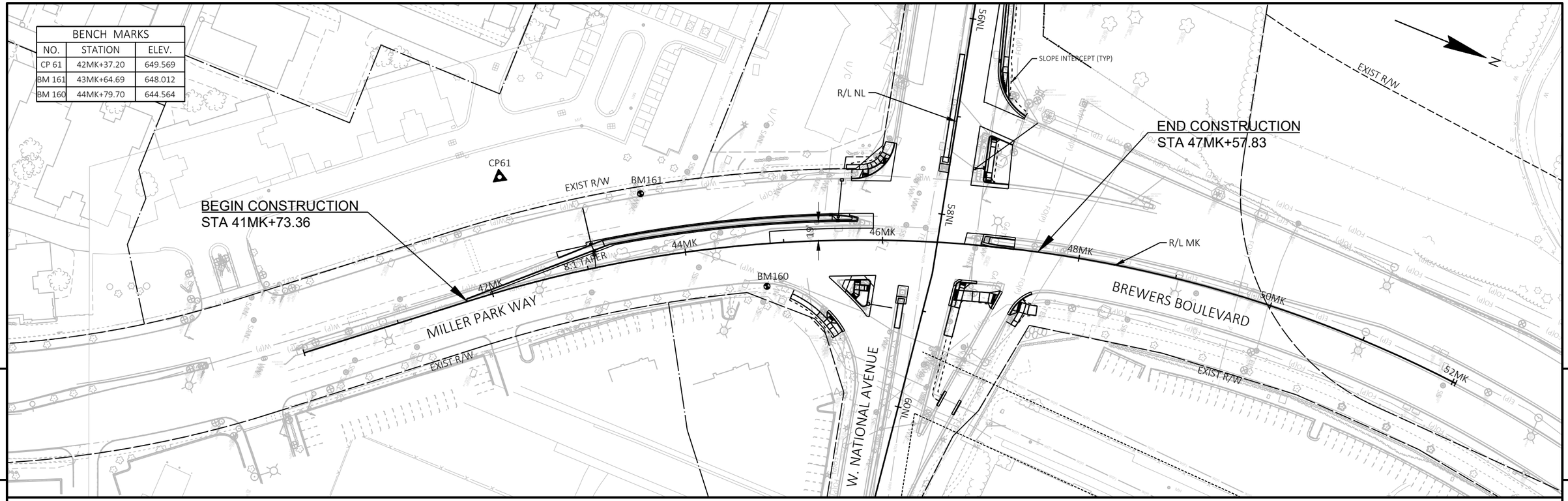
U/C

MATCHLINE 56NL+00

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PLAN: W. NATIONAL AVENUE	SHEET 265	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SHEETS\05 PP\24104770-050401-PP.DWG
LAYOUT NAME - 15-NL-01
PLOT DATE : 3/17/2025 9:29 AM
PLOT BY : TONY BUBLITZ
PLOT NAME :
PLOT SCALE : 1 IN:100 FT
WISDOT/CADDS SHEET 44

BENCH MARKS		
NO.	STATION	ELEV.
CP 61	42MK+37.20	649.569
BM 161	43MK+64.69	648.012
BM 160	44MK+79.70	644.564



5

5

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	PLAN: MILLER PARK WAY	SHEET 266	E

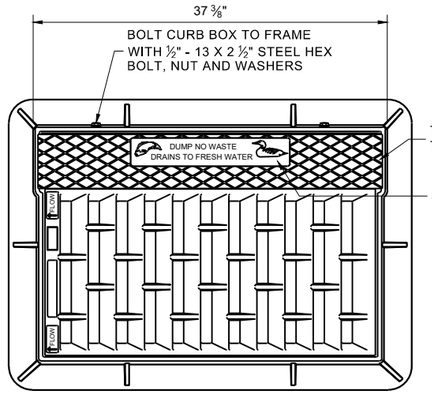
Standard Detail Drawing List

08A05-21A	INLET COVERS TYPE A, H, A-S, H-S & Z
08A05-21E	INLET COVER TYPE BW, MANHOLE COVERS, TYPE K, J, J-S, L & M
08A08-03	CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER
08A09-03	CATCH BASINS 2X3-FT AND 2.5X3-FT
08B09-04	MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT, 10-FT DIAMETER
08D01-23A	CONCRETE CURB & GUTTER
08D01-23B	CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS
08D05-21A	CURB RAMPS TYPES 1 AND 1-A
08D05-21B	CURB RAMPS TYPES 2 AND 3
08D05-21D	CURB RAMPS TYPE 4B AND 4B1
08D05-21E	CURB RAMPS TYPES 5, 6, 7A, 7B & 8
08D05-21F	CURB RAMPS RADIAL DETECTABLE WARNING FIELD APPLICATIONS
08D05-21G	CURB RAMPS RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES
08D16-11	CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES
08E09-06	SILT FENCE
08E10-02	INLET PROTECTION TYPE A, B, C AND D
08F04-08	JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL
09B02-10	CONDUIT
09B04-13	PULL BOX
09C02-09	CONCRETE BASES, TYPES 1, 2, 5, & 6
09C03-04	TRANSFORMER/PEDESTAL BASES
09C06-07	CONCRETE CONTROL CABINET BASE, TYPE 9, SPECIAL
09C11-10	CONCRETE BASE TYPE 10
09C12-09A	CONCRETE BASE TYPE 13
09C12-09B	CONCRETE BASE TYPE 13
09C14-03	CONCRETE CONTROL CABINET BASE, TYPE L
09C15-01	CONCRETE BASE TYPE 10 SPECIAL
09D01-05	CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)
09D02-03	SIGNAL CONTROL CABINET
09D05-02	L30 LIGHTING CONTROL CABINET 240/480 VOLT
09E01-15A	POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2
09E01-15B	POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS, TYPE 3 (HEAVY DUTY)
09E01-15D	POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)
09E01-15G	HARDWARE DETAILS FOR POLE MOUNTINGS
09E03-06	NON-FREEWAY LIGHTING UNIT POLE WIRING
09E06-05	TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.
09E07-06	TRAFFIC SIGNAL STANDARD PEDESTRIAN AND FLASHER TYPICAL MOUNTING DETAILS
09E08-09A	TYPE 9 POLE 15'-30' MONOTUBE ARM
09E08-09C	TYPE 9 SPECIAL POLE 40' MONOTUBE ARM
09E08-09E	TYPE 10 POLE 15'-30' MONOTUBE ARM
09E08-09F	TYPE 10 SPECIAL POLE 35' MONOTUBE ARM
09E08-09G	TYPE 10 SPECIAL POLE 40' MONOTUBE ARM
09E08-09H	TYPE 10 SPECIAL POLE 45' MONOTUBE ARM
09E08-09J	TYPE 13 POLE 35'-55' MONOTBE ARM
09E08-09K	GENERAL NOTES,HARDWARE DETAILS FOR TYPE 9/10,9/10 SPECIAL,12 & 13 POLES W/MONOTUBE ARMS
09E12-02A	OVER HEIGHT TYPE 9 POLE 15'-30' MONOTUBE ARM
09E12-02K	GENERAL NOTES AND HARDWARE FOR OVER HEIGHT TYPE 9, 10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS
09G01-04A	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04B	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04D	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04E	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04F	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
09G01-04G	SPAN WIRE TEMPORARY TRAFFIC SIGNAL
11B02-02	CONCRETE MEDIAN NOSE
13C01-19	CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES
13C09-17A	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17B	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C09-17C	CONCRETE PAVEMENT REPAIR AND REPLACEMENT
13C13-11	URBAN DOWELED CONCRETE PAVEMENT
13C15-08A	CONCRETE BASE
13C15-08B	CONCRETE BASE
13C18-08A	CONCRETE PAVEMENT JOINTING
13C18-08B	CONCRETE PAVEMENT STEEL REINFORCEMENT
13C18-08C	CONCRETE PAVEMENT JOINT TYPES
13C18-08D	CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES
13C18-08F	CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER
15C03-05	BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

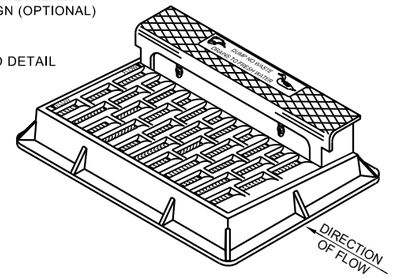
6

Standard Detail Drawing List

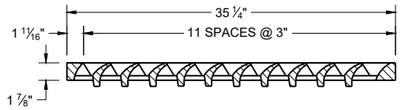
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C07-16B	PAVEMENT MARKING WORDS
15C07-16C	PAVEMENT MARKING ARROWS
15C07-16E	PAVEMENT MARKING FOR BIKE LANES
15C08-23A	PERMANENT LONGITUDINAL PAVEMENT MARKINGS
15C08-23B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C08-23D	PAVEMENT MARKING (TURN LANES)
15C11-10A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-10B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C18-09B	PAVEMENT MARKINGS, MEDIAN ISLAND NOSE
15C18-09C	MEDIAN PAVEMENT MARKINGS DOUBLE ARROW WARNING SIGN PLACEMENT
15C19-09A	MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY
15C19-09C	MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY
15C20-02	YIELD MARKING
15C29-08A	BICYCLE LANE MARKING
15C29-08B	PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS
15C33-05	STOP LINE AND CROSSWALK PAVEMENT MARKING
15D12-13A	TRAFFIC CONTROL, TAPERED ENTRANCE RAMP WITHIN LANE CLOSURE
15D14-08	TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY
15D20-09A	TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY
15D20-09B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY
15D21-07A	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D21-07B	TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LANE CLOSURE
15D22-07	TRAFFIC CONTROL, TWO LANE CLOSURE, NON-FREEWAY/EXPRESSWAY
15D27-03	TRAFFIC CONTROL, SHOULDER CLOSURE ON DIVIDED ROADWAY, SPEEDS GREATER THAN 40 MPH
15D30-10A	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10B	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10C	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10D	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10E	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10F	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10G	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10H	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10I	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10J	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10K	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D30-10L	TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION
15D40-05A	TRAFFIC CONTROL, FULL LANE SHIFT NON-FREEWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D40-05C	TRAFFIC CONTROL, PARTIAL LANE SHIFT NON-FREEWAY/EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER
15D46-01	TRAFFIC CONTROL, ONE - WAY SIGNING
15D51-01	TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

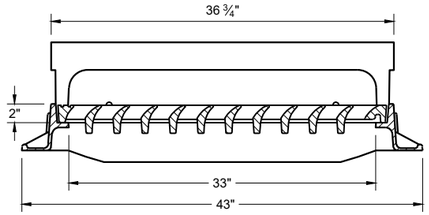


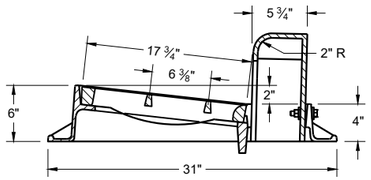
NOTE: EITHER CASTING IS ACCEPTABLE

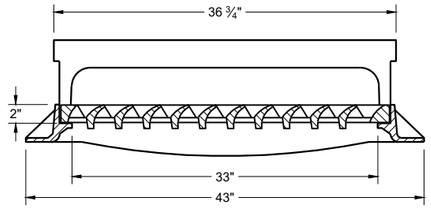


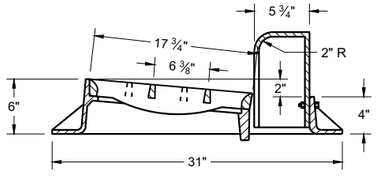
NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"







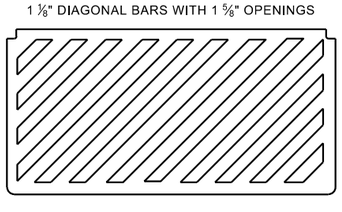




TYPE "H"

NOTE: EITHER CASTING IS ACCEPTABLE

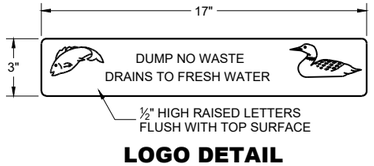
1 1/8" DIAGONAL BARS WITH 1 5/8" OPENINGS



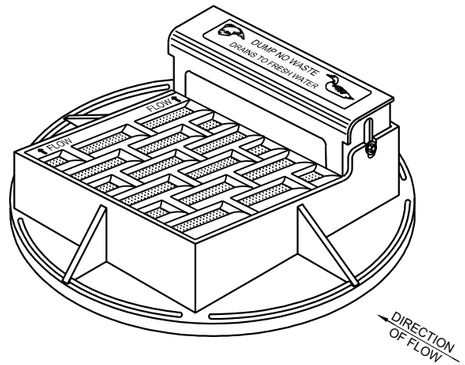
SPECIAL GRATE FOR TYPE "H" COVER

(MEASURES 35" X 17 3/4" X 2")

(NOTED AS TYPE H-S ON DRAINAGE TABLE)

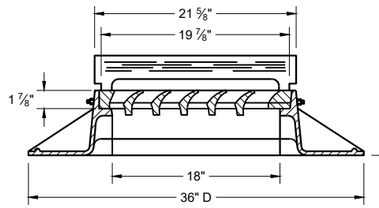


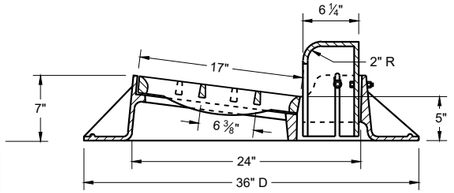
LOGO DETAIL



NOTE: CURB BOX HEIGHT ADJUSTABLE 6" - 9"

NOTE: EITHER CASTING IS ACCEPTABLE





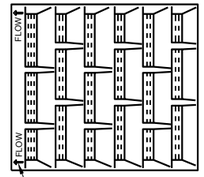
TYPE "A"

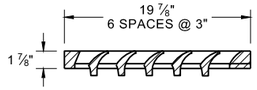
GENERAL NOTES

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.

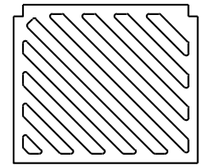
DETAIL DRAWINGS FOR PROPOSED ALTERNATE DESIGNS FOR CATCH BASIN, MANHOLE AND INLET COVERS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PROVIDING THAT SUCH ALTERNATE DESIGNS MAKE PROVISION FOR EQUIVALENT CAPACITY AND STRENGTH.

ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.





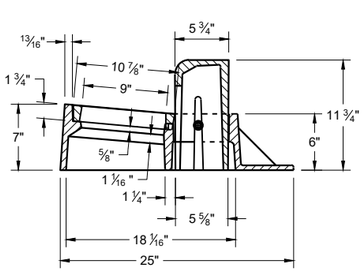
1" DIAGONAL BARS WITH 1 1/2" OPENINGS



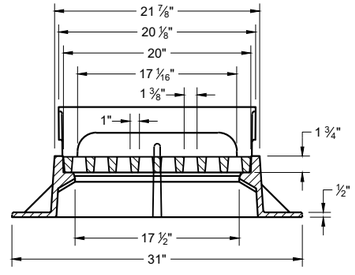
SPECIAL GRATE FOR TYPE "A" COVER

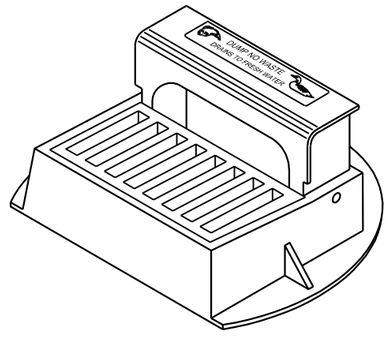
(MEASURES 19 3/4" X 17" X 1 7/8")

(NOTED AS TYPE A-S ON DRAINAGE TABLE)



TYPE "Z"





INLET COVERS
TYPES A, H, A-S, H-S AND Z

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023
DATE

/S/ Rodney Taylor
ROADWAY STANDARDS DEVELOPMENT
UNIT SUPERVISOR

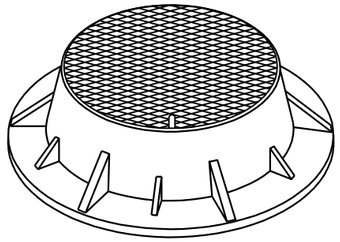
FHWA

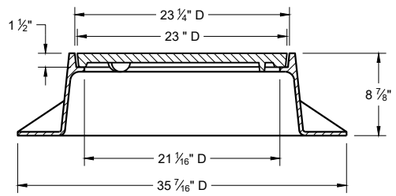
GENERAL NOTES

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

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

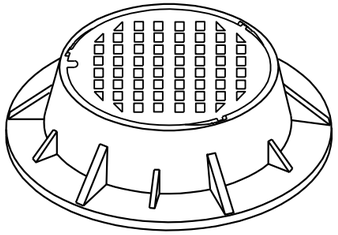
ROUND FRAMES AND COVERS SHALL HAVE CONTINUOUSLY MACHINED BEARING SURFACES TO PREVENT ROCKING AND RATTLING.

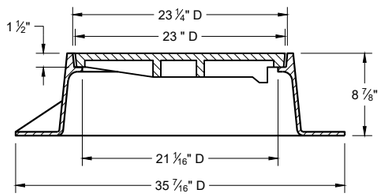




TYPE "J"

NOTE: EITHER CASTING IS ACCEPTABLE

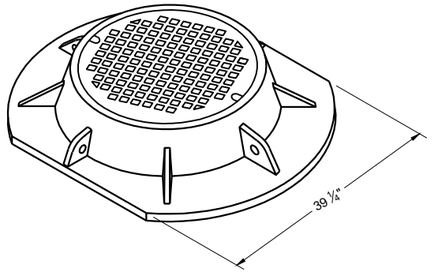


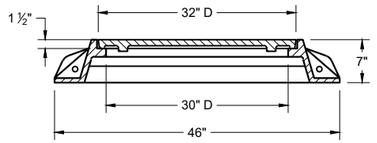


TYPE "J" SPECIAL

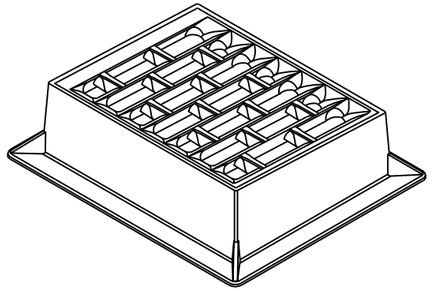
TYPE "B" NON-ROCKING SELF-SEAL LID
(NOTED AS TYPE J-S ON THE DRAINAGE TABLE)

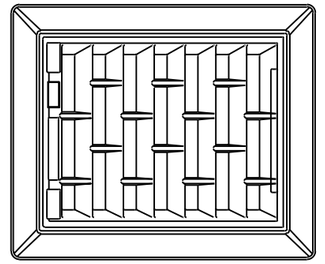
NOTE: EITHER CASTING IS ACCEPTABLE

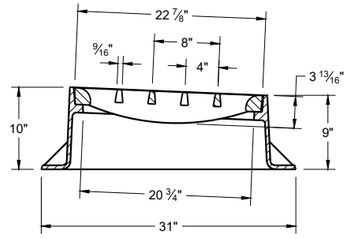


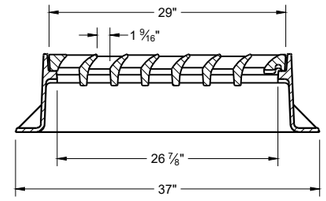


TYPE "K"

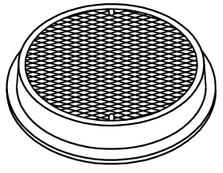


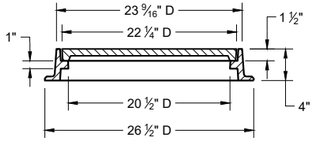




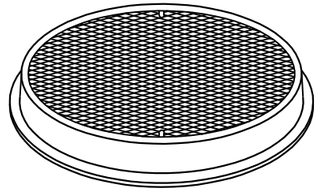


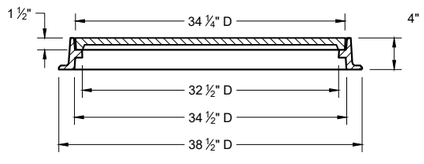
INLET COVER TYPE "BW"





TYPE "L"





TYPE "M"

INLET COVERS TYPES BW
MANHOLE COVERS TYPES K, J, J-S, L, AND M

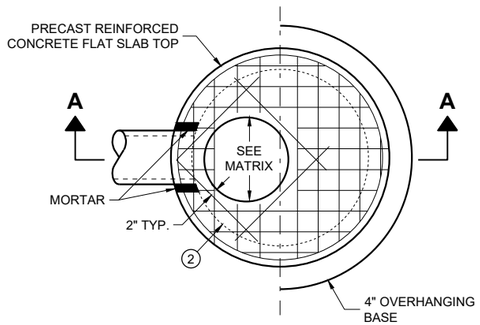
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

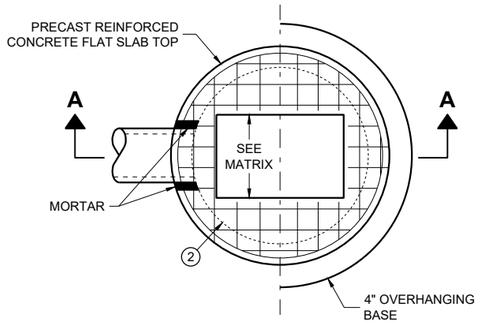
FHWA

6

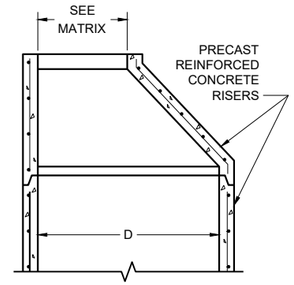
SDD 08A05-21e



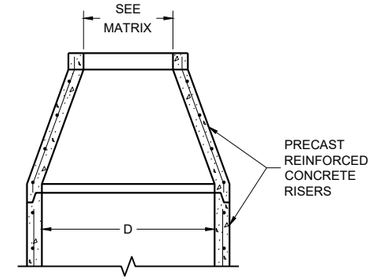
PLAN VIEW CIRCULAR OPENING



PLAN VIEW RECTANGULAR OPENING



OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

COVER MATRIX

CATCH BASIN SIZE	INLET COVER TYPE	ALL A'S	ALL B'S	BW	C	F	ALL H'S	S	T	V V-B	VV-B	WM	Z
	OPENING SIZE (FT.)												
3-FT	2 X 2	X	X					X		X			
	2 DIA.				X								X
4-FT TO 6-FT	2 X 2	X	X					X		X			
	2 X 2.5			X				X	X	X		X	
	2 DIA.				X								X
	2 X 3						X						
	2.5 X 3					X							
	2 X 3.5*										X*		

* REQUIRES 5-FT DIAMETER OR LARGER STRUCTURE

PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES	
	180° SEPARATION (IN)	90° SEPARATION (IN)
3-FT	15	12
4-FT	24	18
5-FT	36	24
6-FT	42	30

CATCH BASINS 3-FT, 4-FT, 5-FT AND 6-FT DIAMETER

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USE ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL DIMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST INLET UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

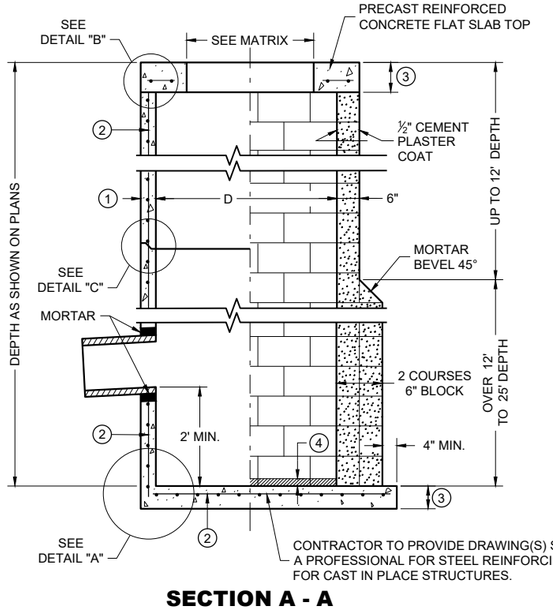
(1) MINIMUM WALL THICKNESS SHALL BE 4 INCHES FOR 3-FT, 5 INCHES FOR 4-FT, 6 INCHES FOR 5-FT AND 7 INCHES FOR 6-FT DIAMETER PRECAST CATCH BASINS.

(2) FOR PRECAST CATCH BASINS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(3) PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER OF 48" AND LESS SHALL HAVE A MINIMUM THICKNESS OF 6". PRECAST FLAT SLAB TOPS AND BASES WITH A DIAMETER LARGER THAN 48" SHALL HAVE A MINIMUM THICKNESS OF 8".

(4) 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.

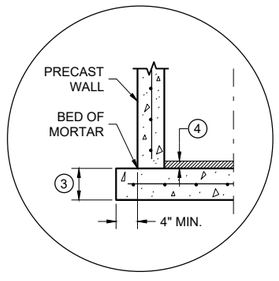
(5) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFROMING TO ASTM C443.



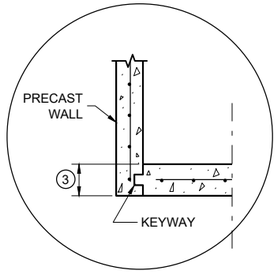
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (2)

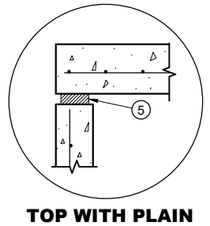


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

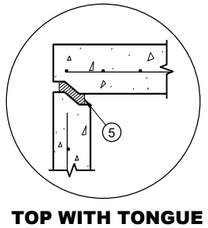


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

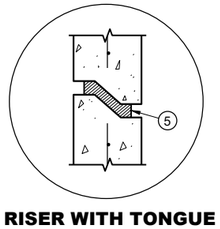
DETAIL "A"



TOP WITH PLAIN END JOINT

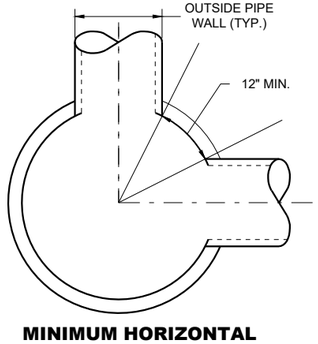


TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**



MINIMUM HORIZONTAL PIPE SEPARATION

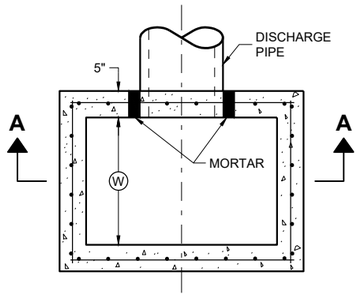
DETAIL "D"

CATCH BASINS, 3-FT. 4-FT., 5 FT., AND 6-FT. DIAMETER

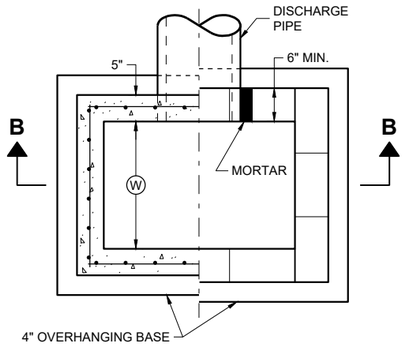
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
SDD 08A08-03



PLAN VIEW



PLAN VIEW

GENERAL NOTES

DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP N0T SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND THE APPLICABLE SPECIAL PROVISIONS.

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

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

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

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

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

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

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

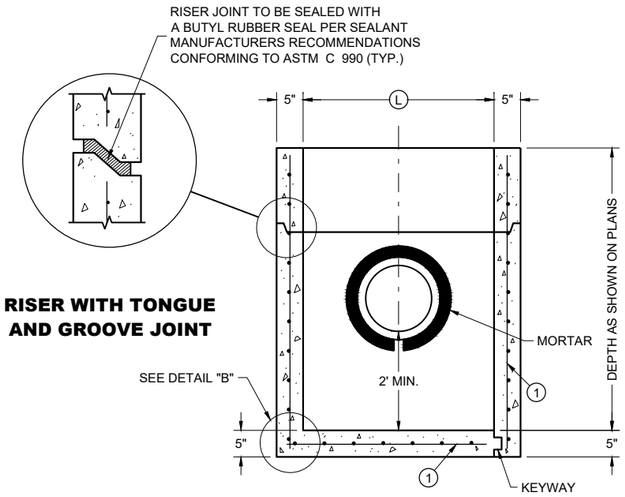
4" OVERHANGING BASES ARE REQUIRED FOR CAST-IN-PLACE REINFORCED CONCRETE AND CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

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

(1) FOR PRECAST CATCH BASINS AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO ASTM C 913.

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

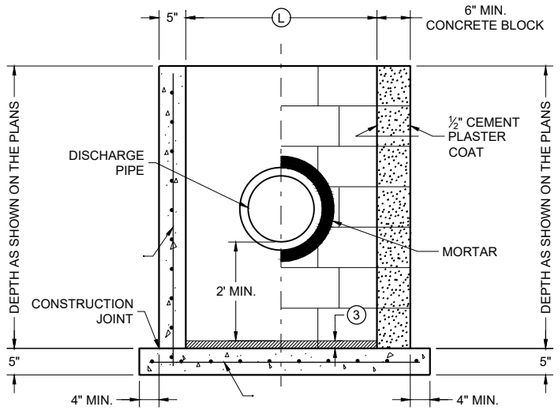
(3) 1" CONCRETE KEY POURED AFTER INSTALLATION. 2' SUMP MEASURED FROM TOP OF KEY.



PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE

SECTION A - A



CAST IN PLACE REINFORCED CONCRETE

CONCRETE BLOCK ON CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)

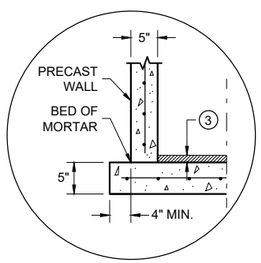
SECTION B - B

CATCH BASIN COVER MATRIX

CATCH BASIN SIZE	WIDTH (W) (FT.)	LENGTH (L) (FT.)	INLET COVER TYPE	
			F	ALL H'S
2 X 3-FT	2	3		X
2.5 X 3-FT	2.5	3	X	

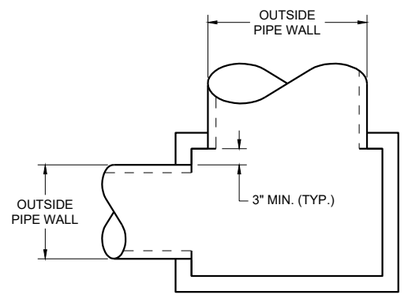
PIPE MATRIX

CATCH BASIN SIZE	MAXIMUM INSIDE PIPE DIAMETER (IN)	
	WIDTH (W)(IN)	LENGTH (L)(IN)
2 X 3-FT	12	24
2.5 X 3-FT	18	24



SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

DETAIL "B"



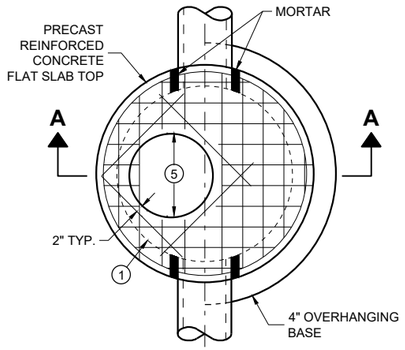
DETAIL "A"

CATCH BASINS 2X3-FT AND 2.5X3-FT

CATCH BASINS
2 X 3-FT AND 2.5 X 3-FT

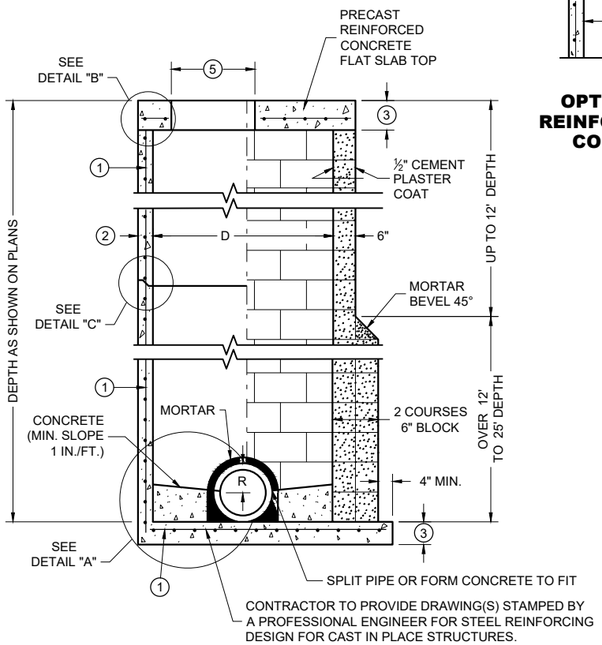
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
December 2023 — DATE
/S/ RODNEY TAYLOR — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR
FHWA



PLAN VIEW

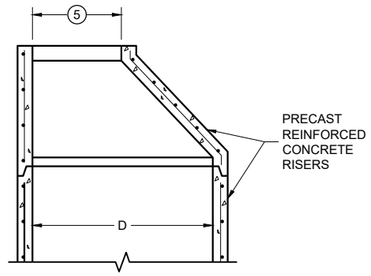
CIRCULAR OPENING



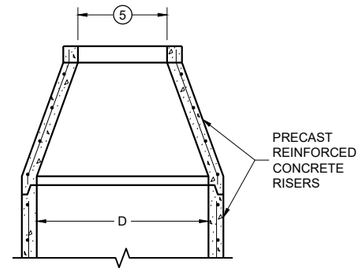
SECTION A - A

PRECAST REINFORCED CONCRETE WITH MONOLITHIC BASE

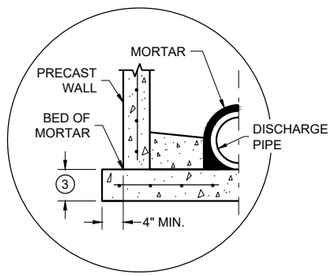
CONCRETE BLOCK WITH CAST IN PLACE OR PRECAST REINFORCED CONCRETE BASE (1)



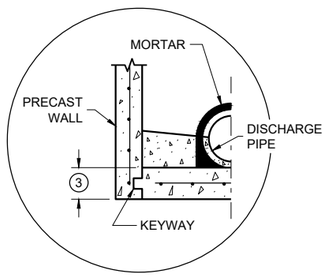
OPTIONAL PRECAST REINFORCED CONCRETE ECCENTRIC TOP



OPTIONAL PRECAST REINFORCED CONCRETE CONCENTRIC TOP

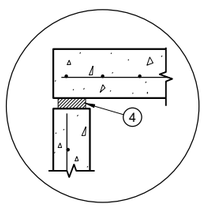


SEPARATE PRECAST REINFORCED CONCRETE BASE OPTION

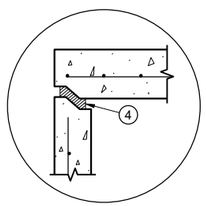


PRECAST REINFORCED CONCRETE WITH INTEGRAL BASE OPTION

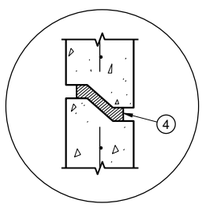
DETAIL "A"



TOP WITH PLAIN END JOINT



TOP WITH TONGUE AND GROOVE JOINT



RISER WITH TONGUE AND GROOVE JOINT

DETAIL "B" **DETAIL "C"**

MANHOLE COVER OPENING MATRIX

OPENING SIZE (FT.) (5) \ MANHOLE COVER TYPE	C	ALL J'S	K	L	M
2 DIA.	X	X		X	
3 DIA.			X		X

PIPE MATRIX

MANHOLE SIZE (DIA.)	MAXIMUM INSIDE PIPE DIAMETER FOR TWO PIPES		MINIMUM WALL THICKNESS (IN)	MINIMUM PRECAST FLAT SLAB TOP AND BASE THICKNESS
	180° SEPARATION (IN)	90° SEPARATION (IN)		
3-FT	15	12	4	6
4-FT	24	18	4	6
5-FT	36	24	5	8
6-FT	42	36	6	8
7-FT	48	36/42 *	7	8
8-FT	60	42	8	8
9-FT	66	54	9	10
10-FT	72	60	10	10

*A 36" PIPE AND A 42" PIPE CAN BE PLACED WITHIN 90 DEGREES. SEE MINIMUM HORIZONTAL PIPE SEPARATION DETAIL.

GENERAL NOTES

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

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

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

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

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

PRECAST REINFORCED CONCRETE CONE TOPS (ECCENTRIC OR CONCENTRIC) OR PRECAST REINFORCED CONCRETE FLAT SLAB TOPS MAY BE USED ON CONCRETE BLOCK STRUCTURES.

ECCENTRIC CONE TOPS MAY BE USED ON ALL STRUCTURES. CONCENTRIC CONE TOPS SHALL BE USED ONLY ON STRUCTURES 5 FEET OR LESS IN DEPTH UNLESS OTHERWISE DIRECTED BY THE ENGINEER.

STEPS MEETING AASHTO M199 AND THE FOLLOWING REQUIREMENTS SHALL BE INSTALLED IN ALL STRUCTURES OVER 5 FEET IN DEPTH: 16 INCH C-C MAXIMUM SPACING; PROJECT A MINIMUM CLEAR DISTANCE OF 4 INCHES FROM THE WALL AT THE POINT OF EMBEDMENT; MINIMUM LENGTH OF 10 INCHES; MINIMUM WALL EMBEDMENT OF 3 INCHES. FERROUS METAL STEPS NOT PAINTED OR TREATED TO RESIST CORROSION SHALL HAVE A MINIMUM CROSS SECTIONAL IMENSION OF 1 INCH.

STEPS OF APPROVED POLYPROPYLENE PLASTIC COATED REINFORCEMENT BAR ARE ACCEPTABLE. REINFORCING BAR MUST BE A MINIMUM OF ½ INCH AND MEET THE REQUIREMENTS OF ASTM A615.

CERTIFICATION SHALL BE PROVIDED THAT INSTALLED STEPS WHEN TESTED IN ACCORDANCE WITH SECTION 10 OF AASHTO T280 CAN WITHSTAND A VERTICAL LOAD OF 800 LBS. AND A HORIZONTAL LOAD OF 400 LBS.

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

ALL PRECAST MANHOLE UNITS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF AASHTO DESIGNATION M199.

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

CONCRETE BLOCK WILL NOT BE PERMITTED FOR STRUCTURES GREATER THAN 4 FEET IN DIAMETER.

4" OVERHANGING BASES ARE REQUIRED FOR ALL CONCRETE BLOCK INSTALLATIONS. 4" OVERHANG IS REQUIRED WHEN SEPARATE PRECAST BASE IS PROVIDED. OVERHANG IS NOT REQUIRED ON PRECAST STRUCTURES WITH AN INTEGRAL OR MONOLITHIC BASE.

FOR ADDITIONAL CONFIGURATIONS, MAINTAIN A MINIMUM OF 12 INCHES AS MEASURED FROM THE INSIDE OF THE STRUCTURE WALL BETWEEN THE OUTSIDE PIPE WALLS OF ADJACENT PIPES. SEE DETAIL "D".

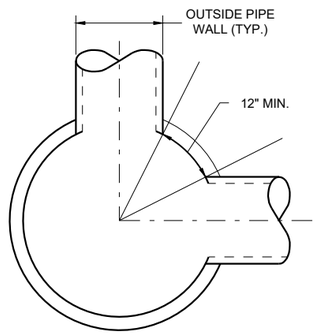
(1) FOR PRECAST MANHOLES AND REINFORCED CONCRETE BASES PROVIDE REINFORCING STEEL IN ACCORDANCE TO AASHTO M199.

(2) SEE PIPE MATRIX TABLE FOR MINIMUM WALL THICKNESS FOR PRECAST MANHOLES

(3) SEE PIPE MATRIX TABLE FOR MINIMUM THICKNESS OF PRECAST FLAT SLAB TOPS AND BASES.

(4) JOINTS TO BE SEALED WITH A BUTYL RUBBER SEAL PER SEALANT MANUFACTURERS RECOMMENDATIONS CONFORMING TO ASTM C 990 OR RUBBER GASKETS CONFORMING TO ASTM C443.

(5) SEE MANHOLE COVER OPENING MATRIX.



MINIMUM HORIZONTAL PIPE SEPARATION

DETAIL "D"

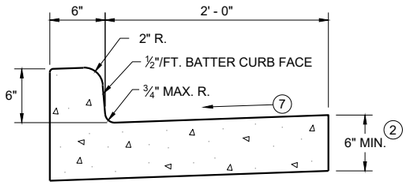
MANHOLES 3-FT, 4-FT, 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

MANHOLES, 3-FT, 4-FT 5-FT, 6-FT, 7-FT, 8-FT, 9-FT AND 10-FT DIAMETER

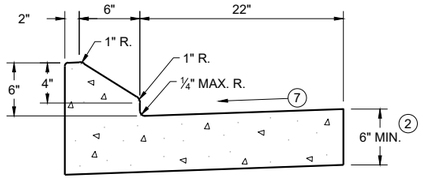
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

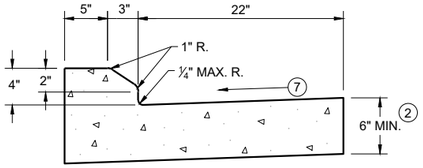
FHWA



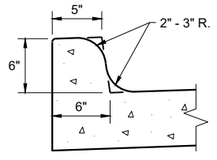
TYPES A (1) & D



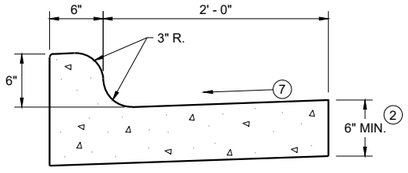
6" SLOPED CURB TYPES G (1) & J



4" SLOPED CURB TYPES G (1) & J

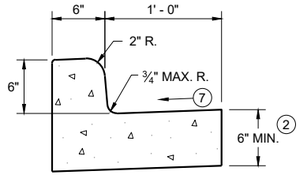


TYPES K (1) & L
(OPTIONAL CURB SHAPE)



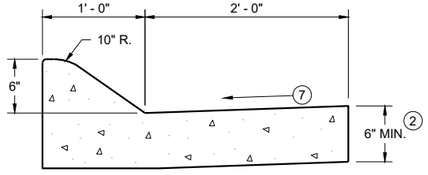
TYPES K (1) & L

CONCRETE CURB AND GUTTER 30"

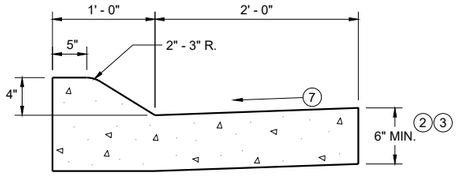


TYPES A (1) & D

CONCRETE CURB AND GUTTER 18"

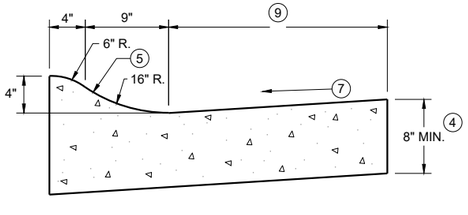


6" SLOPED CURB TYPES A (1) & D



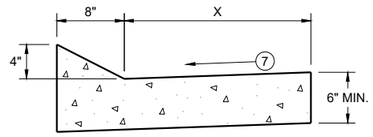
4" SLOPED CURB TYPES A (1) & D

CONCRETE CURB AND GUTTER 36"



4" SLOPED CURB TYPES R (1) & T

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

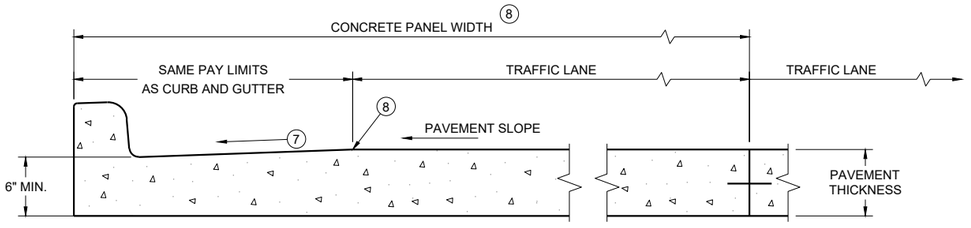


TYPES TBT & TBTT (1)

CONCRETE CURB AND GUTTER

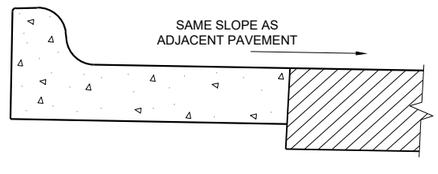
PAVEMENT THICKNESS AND MAXIMUM CONCRETE PANEL WIDTH TABLE

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



PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER *

* BIKE LANE IS NOT SHOWN



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

GENERAL NOTES

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

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

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

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

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

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

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

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

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

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

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

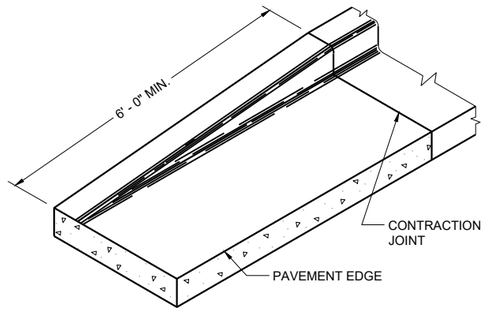
(8) INCLUDE LONGITUDINAL JOINT AND TIE BARS ALONG LANE EDGE WHEN CONCRETE PANEL WIDTH EXCEEDS THE MAXIMUM WIDTH PER TABLE BELOW. LONGITUDINAL JOINT(S) ARE NOT ALLOWED WITHIN TRAFFIC LANES AND BIKE LANES. LONGITUDINAL JOINT MAY BE SAWED.

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

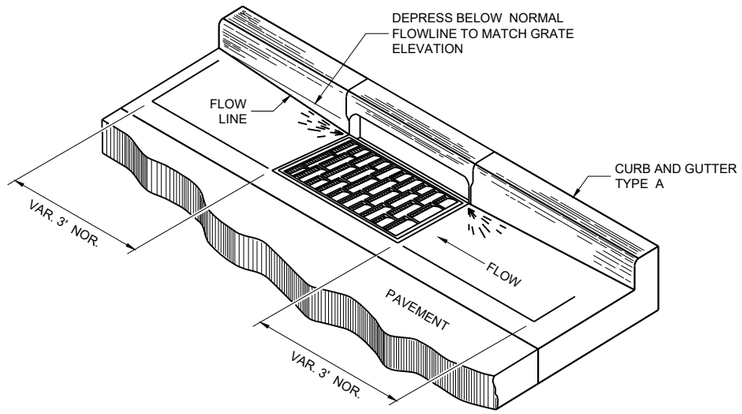
CONCRETE CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 08D01-23a



END SECTION CURB AND GUTTER



DETAIL OF CURB AND GUTTER AT INLETS

(TYPICAL H INLET COVER SHOWN)

GENERAL NOTES

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

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

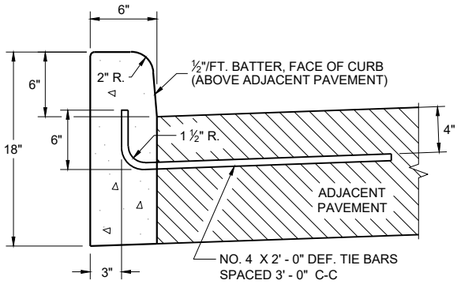
UNLESS OTHERWISE SHOWN ON THE TYPICAL CROSS SECTIONS, THE BASE AGGREGATE AND COMMON EXCAVATION LIMITS ARE 2' - 0" BEHIND THE BACK OF CURBS.

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

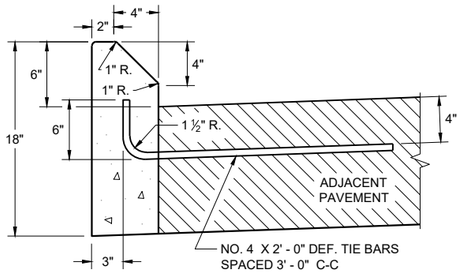
(2) THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE AGGREGATE PROVIDED A 6" MINIMUM GUTTER THICKNESS IS MAINTAINED.

(10) REFER TO SDD 08D18 AND 08D19 FOR ADDITIONAL DRIVEWAY ENTRANCE CURB DETAILS.

(11) PLACE 1" THICK EXPANSION JOINT MATERIAL BETWEEN VERTICAL FACE CURB TYPES EXTENDING FROM THE TOP OF CURB TO 1 INCH BELOW THE ADJOINING CONCRETE SURFACE. RIGID CONCRETE STRUCTURES INCLUDE RAISED CONCRETE MEDIANS, CONCRETE SAFETY ISLANDS, SPLITTER ISLANDS, OR LOCATIONS IDENTIFIED ON THE PLANS.

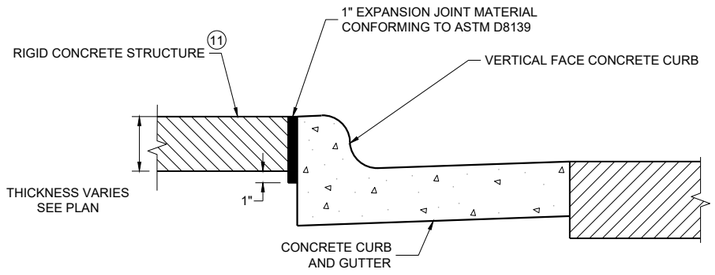


TYPES A (1) & D

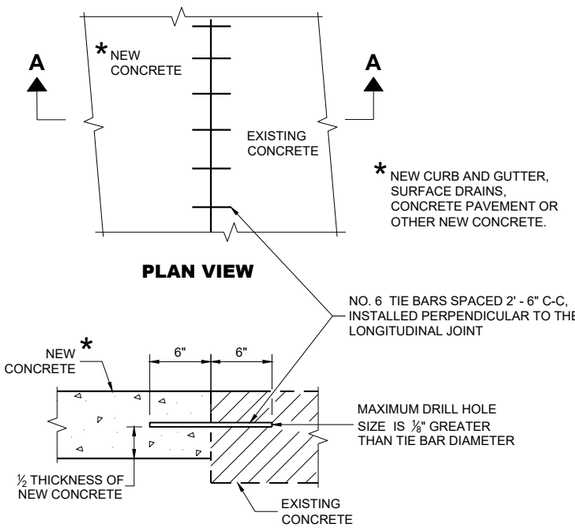


TYPES G (1) & J

CONCRETE CURB



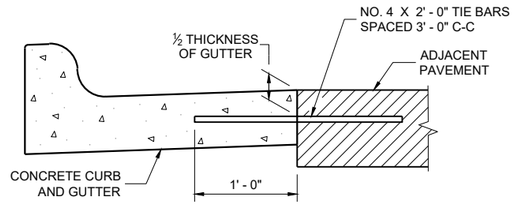
EXPANSION JOINT DETAIL FOR VERTICAL CURB ABUTTING A RIGID STRUCTURE (11)



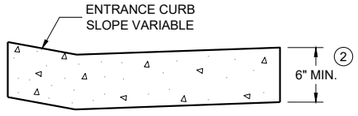
PLAN VIEW

SECTION A - A

TIE BARS DRILLED INTO EXISTING PAVEMENT



TYPICAL TIE BAR LOCATION (1)



DRIVEWAY ENTRANCE CURB (10)

(WHEN DIRECTED BY THE ENGINEER)

CONCRETE CURB, TIES AND CURB AND GUTTER APPLICATIONS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Rodnery Taylor — ROADWAY STANDARDS DEVELOPMENT UNIT SUPERVISOR

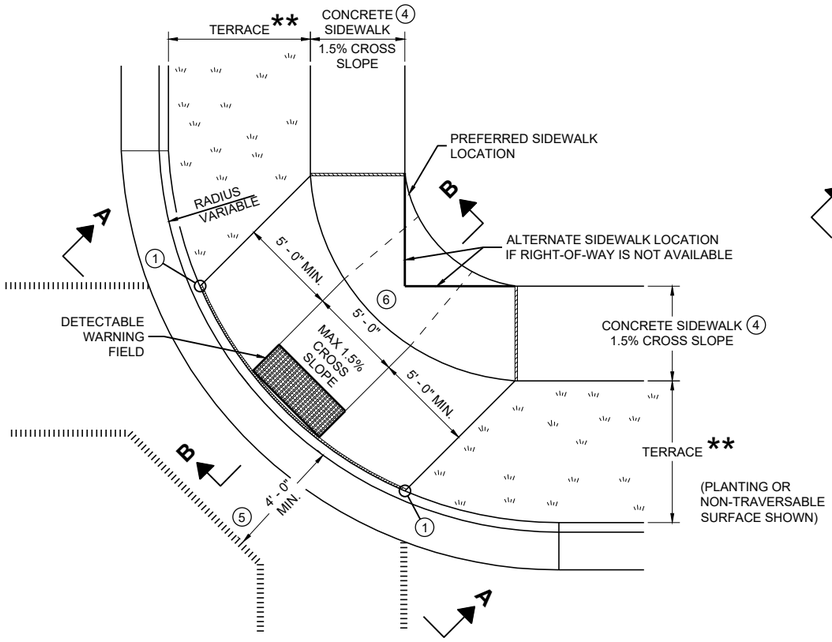
FHWA

6

SDD 08D01-23b

6

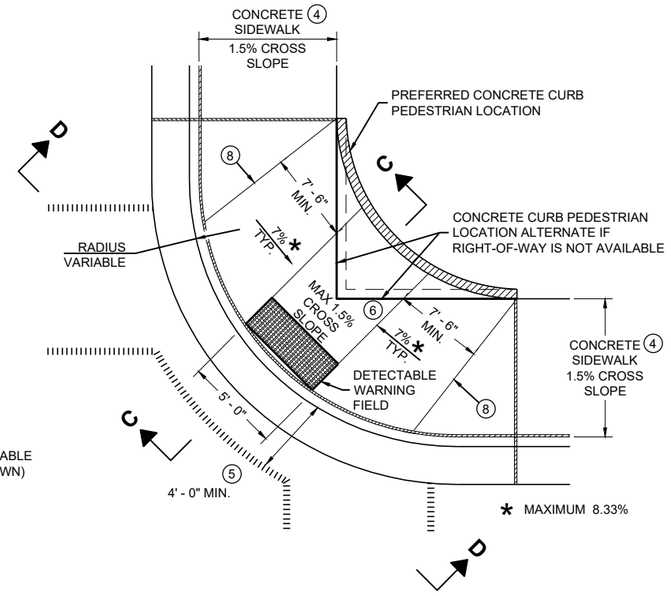
SDD 08D01-23b



PLAN VIEW

CURB RAMP TYPE 1

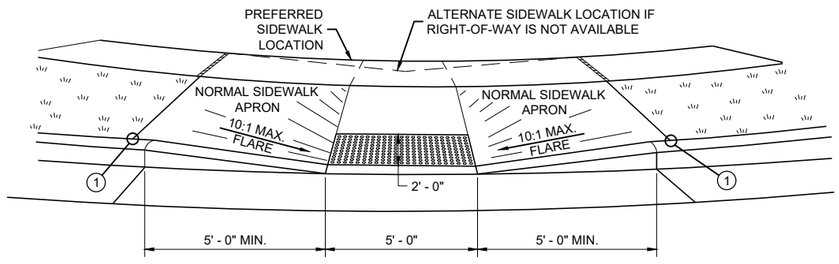
(CENTER OF CORNER RADIUS)



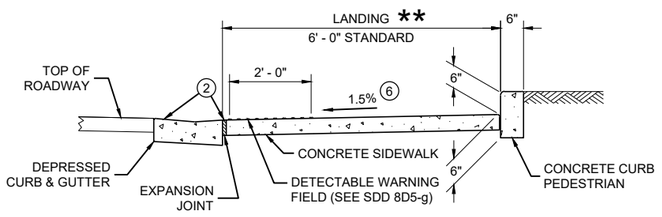
PLAN VIEW

CURB RAMP TYPE 1 - A

(NO TERRACE)

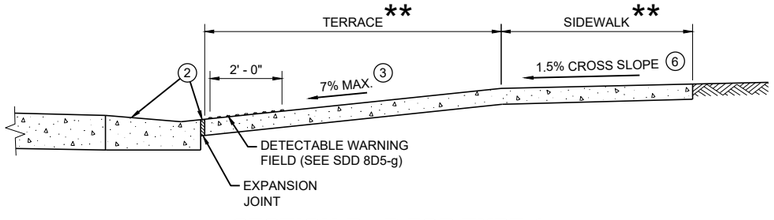


VIEW A - A FOR TYPE 1

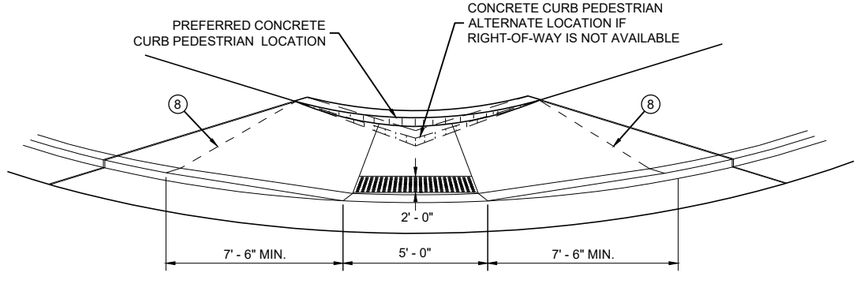


SECTION C - C FOR TYPE 1 - A

** WIDTH SHOWN ELSEWHERE IN THE PLANS



SECTION B - B FOR TYPE 1



VIEW D - D FOR TYPE 1 - A

GENERAL NOTES

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

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

WHEN NECESSARY, THE SIDEWALK ELEVATION MAY BE LOWERED TO MEET THE HIGH POINT ON THE RAMP.

TYPE 1 CURB RAMPS SHALL HAVE A NORMAL SIDEWALK APRON AND CURB ON BOTH SIDES OF RAMP.

DETECTABLE WARNING FILED SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS "CURB RAMP DETECTABLE WARNING FIELD". THE CONCRETE PEDESTRIAN CURB, IF NEEDED, SHALL BE MEASURED AND PAID BY THE LINEAR FOOT AS "CONCRETE CURB PEDESTRIAN". CONCRETE SIDEWALK IN THE CURB RAMP AREA SHALL BE MEASURED AND PAID BY THE SQUARE FOOT AS CONCRETE SIDEWALK, INCLUDING THE AREA UNDER THE DETECTABLE WARNING FIELD.

SELECT CURB RAMP DETECTABLE WARNING FIELD MATERIALS AND DEVICES FROM THE DEPARTMENT'S APPROVED MATERIALS LIST. THE COLOR OF THE DETECTABLE WARNING FIELD IS SPECIFIED ELSEWHERE AND IS INCIDENTAL TO THE BID ITEM OF "CURB RAMP DETECTABLE WARNING FIELD"

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

SURFACE TEXTURE OF THE RAMP SHALL BE OBTAINED BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP.

(1) THIS POINT IS AN EXTENSION OF OUTSIDE EDGE OF APPROACHING SIDEWALK WHERE IT MEETS THE BACK OF CONCRETE CURB. POINT LOCATION MAY BE ADJUSTED TO ALIGN WITH BEGINNING OF FULL-HEIGHT CURB IF THIS DISTANCE IS SHORT.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ½ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) MAXIMUM 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(5) PROVIDE A LEVEL LANDING IN THE STREET AND GUTTER AREA (2% MAXIMUM SLOPE IN ANY DIRECTION). WHEN THE GUTTER SLOPE EXCEEDS 2%, CONSTRUCT THE LEVEL LANDING IN THE STREET AREA. 4 FOOT WIDTH IS MEASURED FROM THE FLANGE LINE

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

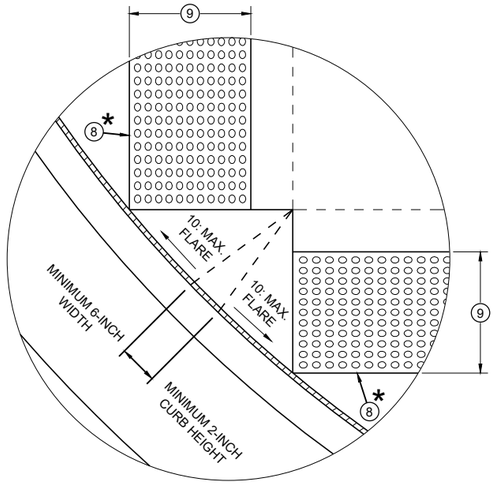
(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

LEGEND

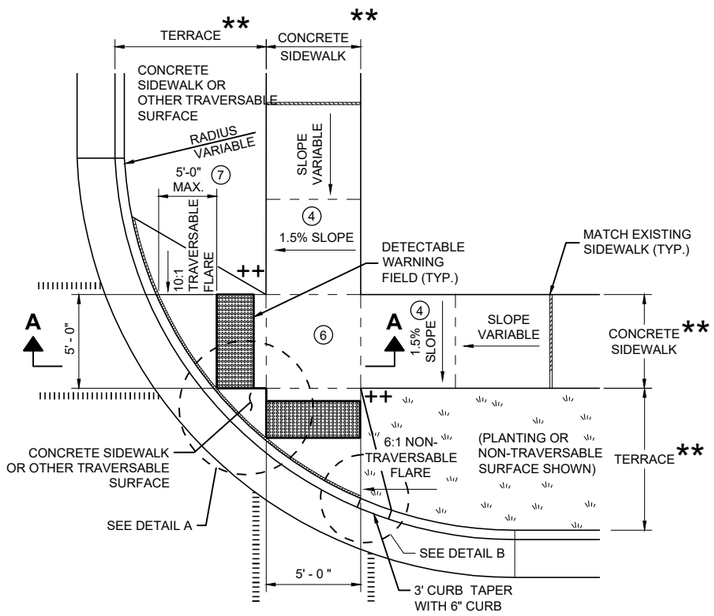
- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 1 AND 1-A

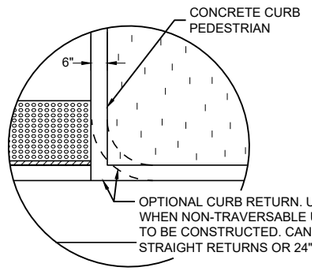
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



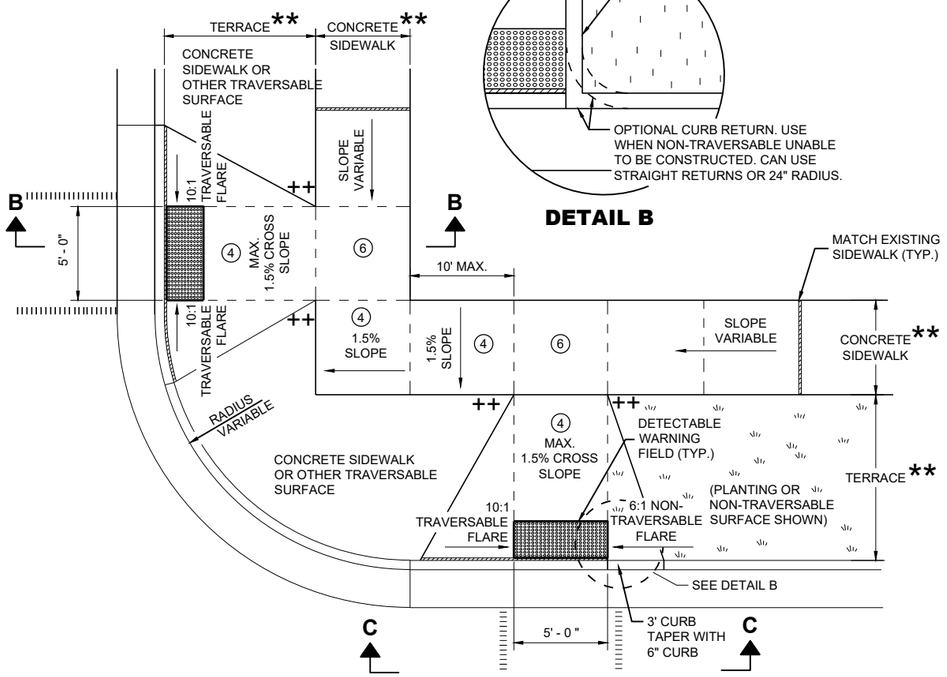
DETAIL A



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



DETAIL B



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

GENERAL NOTES

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

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE (2.67% OR LESS) AND NOT TO EXCEED 11% GRADE CHANGE.

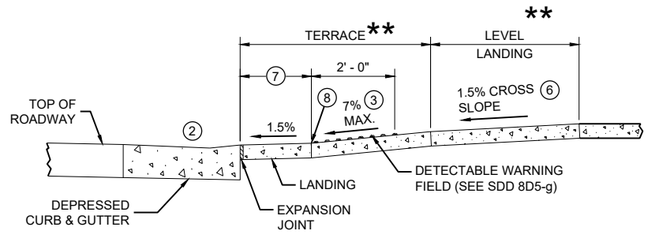
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET X 5 FEET.

(7) WHEN GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

(9) WHEN DISTANCE IS LESS THAN 6' - 0", IT MAY BE DIFFICULT TO ACHIEVE A 7% SLOPE OR FLATTER ALONG THE RAMP. REDUCE CURB HEIGHT IN TRIANGLE AREA TO ACHIEVE 7% SLOPE OR FLATTER ON RAMP. CONSTRUCT 2-INCH MINIMUM CURB HEIGHT BETWEEN 10:1 FLARES.

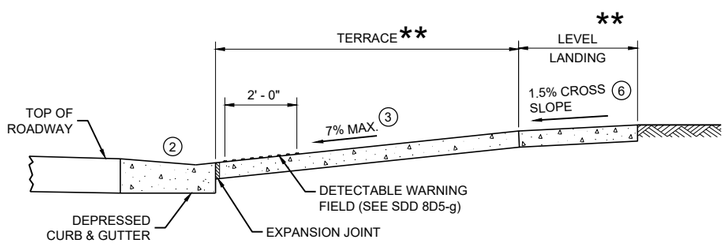


SECTION A - A FOR TYPE 2

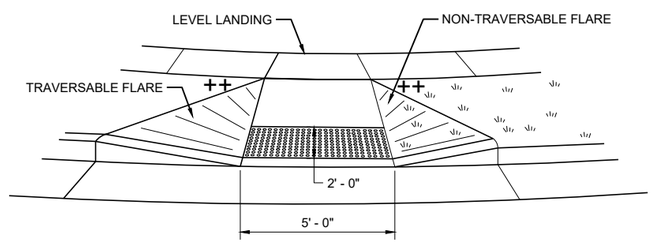
* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE



SECTION B - B FOR TYPE 3



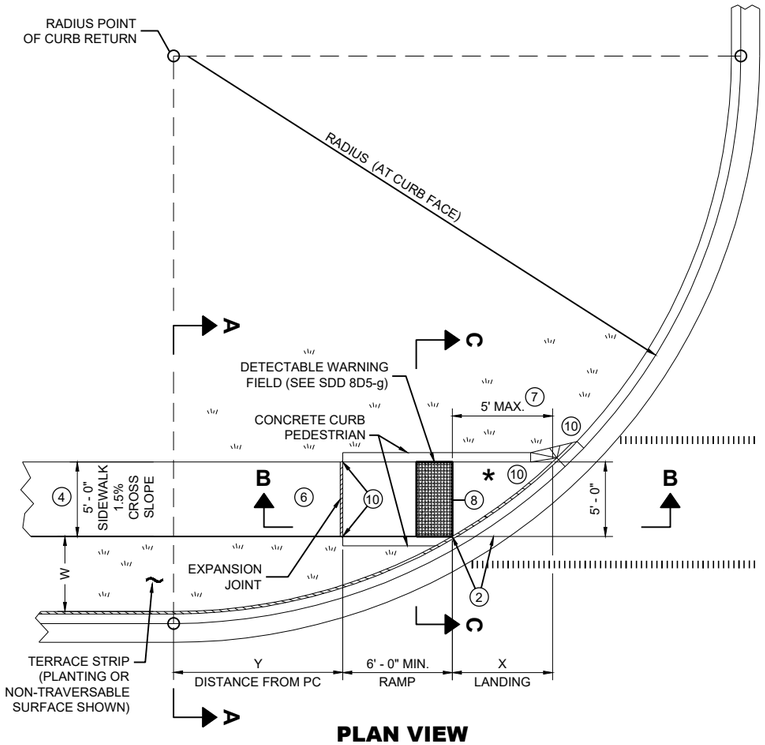
VIEW C - C FOR TYPE 3

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

CURB RAMPS TYPE 2 AND 3

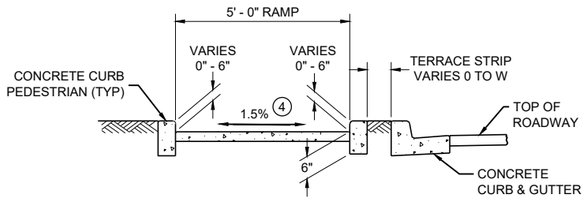
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



PLAN VIEW
CURB RAMP TYPE 4B

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

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



SECTION C - C FOR TYPE 4B

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

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

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

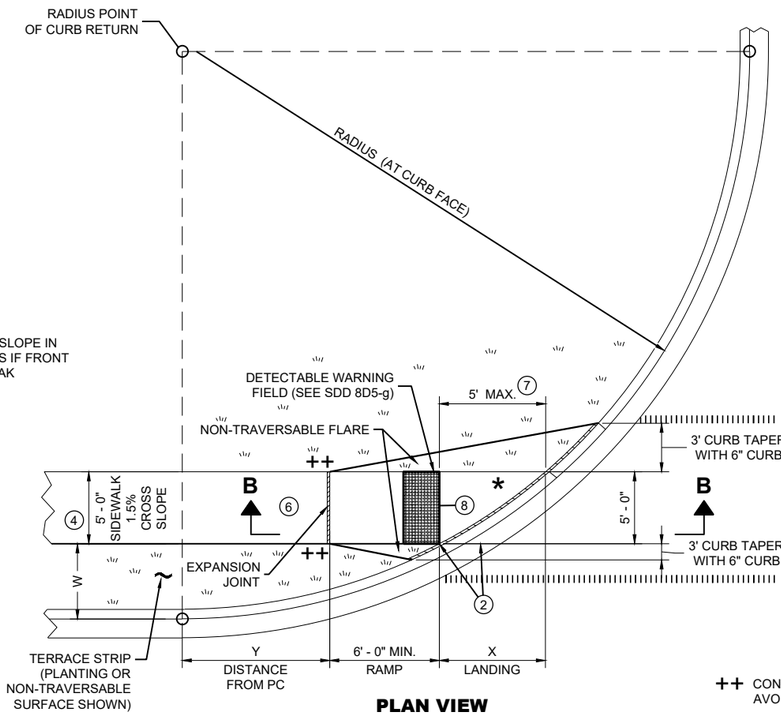
(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(7) WHEN THIS GRADE BREAK DISTANCE EXCEEDS 5 FEET, USE RADIAL DETECTABLE WARNING FIELD PER SDD 8D5-f.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

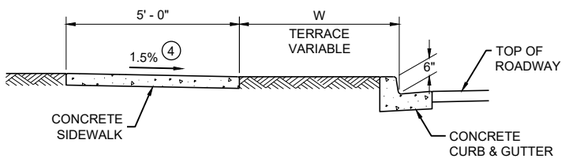
(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.



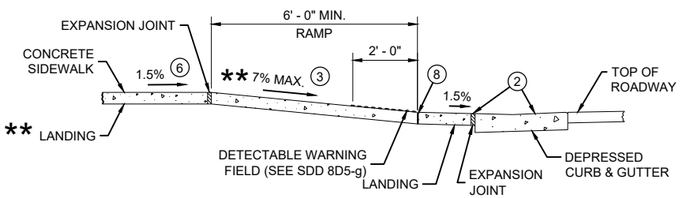
PLAN VIEW
CURB RAMP TYPE 4B1

* MAXIMUM 2.0% SLOPE IN ALL DIRECTIONS IF FRONT OF GRADE BREAK

++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

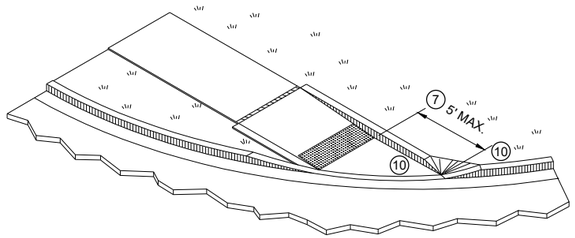


SECTION A - A FOR TYPE 4B

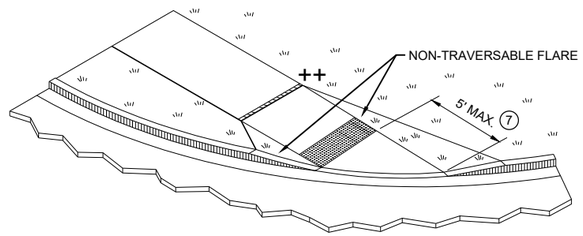


SECTION B - B FOR TYPE 4B AND TYPE 4B1

** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED



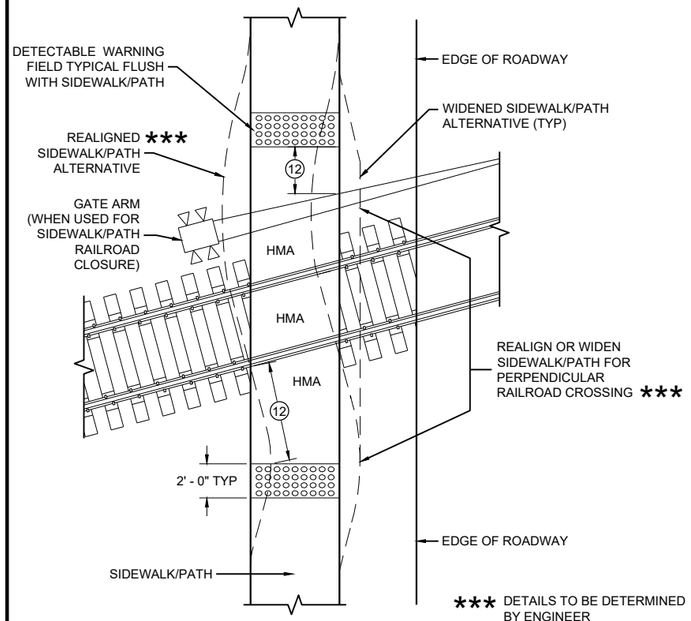
ISOMETRIC VIEW FOR TYPE 4B



ISOMETRIC VIEW FOR TYPE 4B1

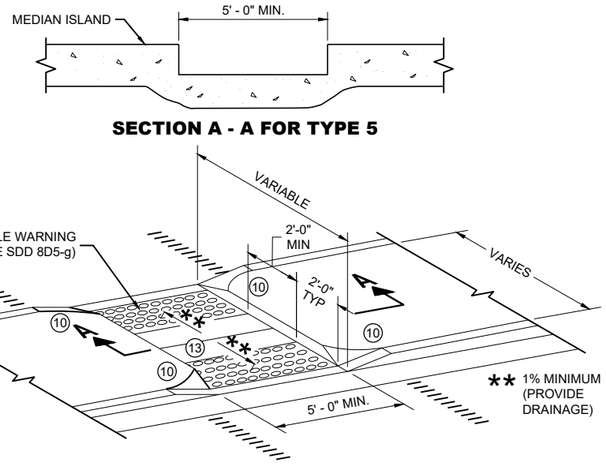
CURB RAMPS
TYPE 4B AND 4B1

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP TYPE 8

DETECTABLE WARNINGS FOR SIDEWALKS OR SHARED USE PATHS AT RAILROAD CROSSINGS



SECTION A - A FOR TYPE 5

CURB RAMP TYPE 5

MEDIAN ISLAND NON-ELEVATED PEDESTRIAN CROSSING

GENERAL NOTES

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

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

SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2%.

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LEVEL LANDING SIZE IS 5 FEET BY 5 FEET.

(10) INSTALL TRANSITION NOSE (INCIDENTAL TO OTHER PAY ITEMS). DO NOT MARK TRANSITION NOSE.

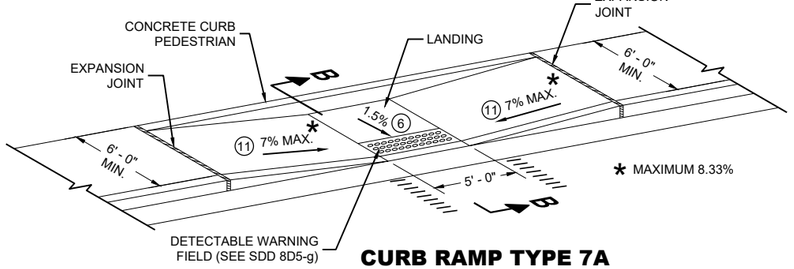
(11) SLOPE SIDEWALK TOWARD LANDING AS SHOWN WHERE THERE IS NO TERRACE OR WHERE THE TERRACE WIDTH IS LESS THAN 6 FEET WIDE.

(12) THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO A RAILROAD CROSSING SHALL BE 1.5 FEET ±0.1' FROM THE FACE OF THE GATE ARM IF THE GATE ARM EXTENDS ACROSS THE SIDEWALK/PATH. WHERE THERE IS NO PEDESTRIAN GATE, THE EDGE OF THE DETECTABLE WARNING FIELD NEAREST TO THE RAILROAD TRACK IS 15 FEET MAXIMUM AND 12 FEET MINIMUM, 15 FEET TYPICAL FROM THE NEAREST RAIL.

(13) DO NOT INSTALL DETECTABLE WARNING FIELDS AT THE EDGES OF STEET-LEVEL PEDESTRIAN REFUGE ISLANDS IF A MINIMUM 2 FOOT CONCRETE SURFACE WITHOUT DETECTABLE WARNINGS (MEASURED IN THE DIRECTION OF PEDESTRIAN TRAVEL) CANNOT BE ACHIEVED.

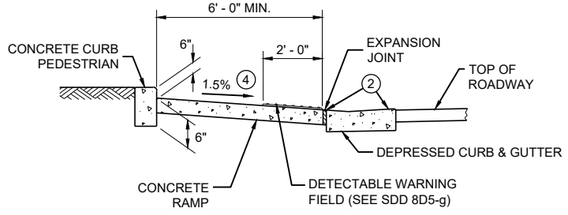
LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT FIELD LOCATED
- PAVEMENT MARKING CROSSWALK (WHITE)

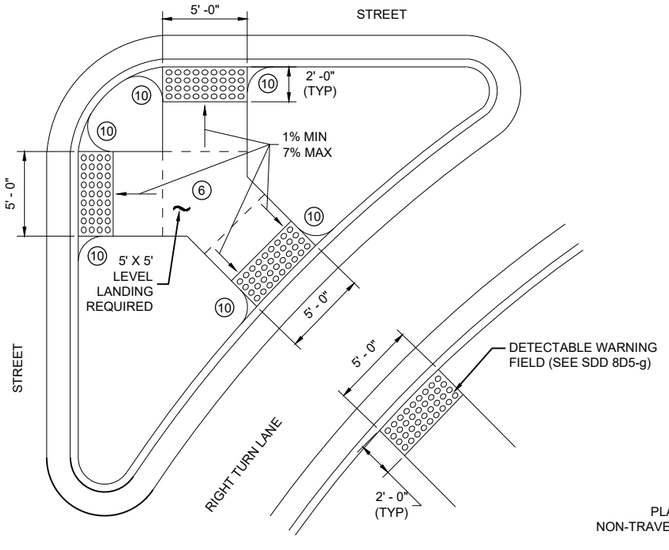


CURB RAMP TYPE 7A

FOR INTERSECTIONS AND MID BLOCK CROSSINGS



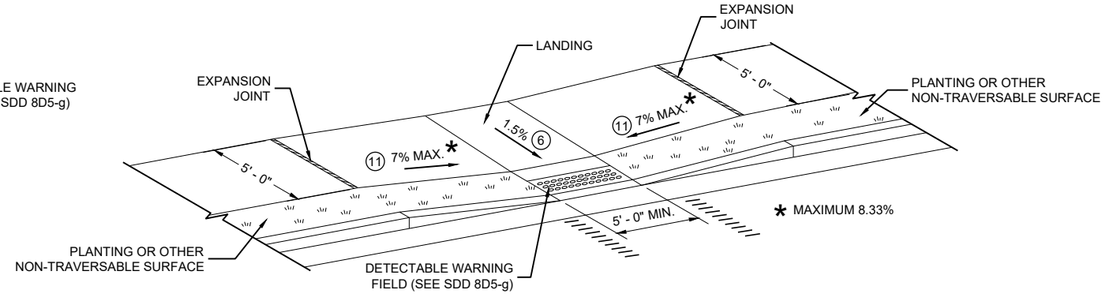
SECTION B - B FOR TYPE 7A



CURB RAMP TYPE 6

DETECTABLE WARNING AT ISLANDS

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



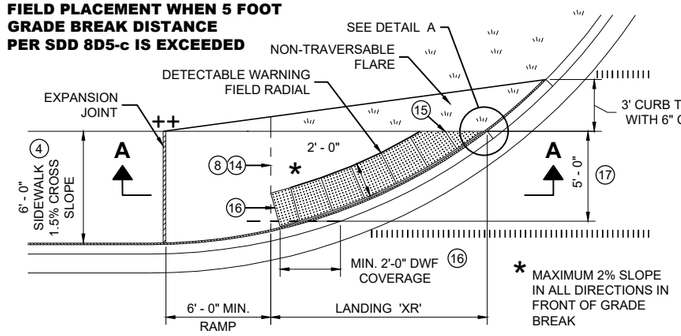
CURB RAMP TYPE 7B

FOR INTERSECTIONS AND MID BLOCK CROSSINGS

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

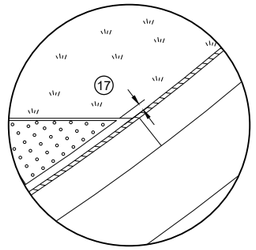
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

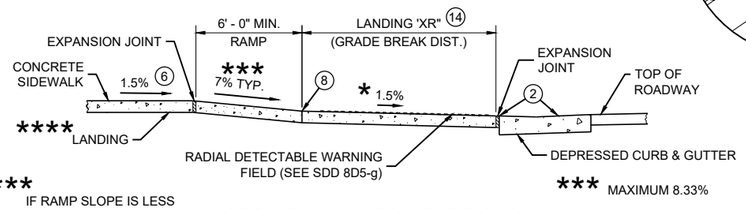


PLAN VIEW

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



DETAIL A



**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

SECTION A - A FOR TYPE 4A1

LEGEND

- ½" EXPANSION JOINT SIDEWALK
- CONTRACTION JOINT SIDEWALK
- PAVEMENT MARKING CROSSWALK (WHITE)

GENERAL NOTES

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

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

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AS A GROUP OR SIDE BY SIDE, SHALL BE FROM THE SAME MANUFACTURER.

APPLY RADIAL DETECTABLE WARNING PLACEMENT SIMILARLY FOR TYPE 4A AND 4A1 CURB RAMPS AND SIMILARLY FOR TYPE 4B AND 4B1 CURB RAMPS. TYPE 4A AND 4B CURB RAMPS ARE NOT SHOWN.

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

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

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

(2) GRADE CHANGE BETWEEN GUTTER FLAG SLOPE AND THE CURB RAMP SLOPE SHALL NOT EXCEED 11%. MAXIMUM GUTTER FLAG SLOPE IS 4%. PROVIDE LONGITUDINAL DRAINAGE AROUND CURB AND AWAY FROM CURB RAMP. NO VERTICAL LIPS OR DISCONTINUITIES GREATER THAN ¼ - INCH ARE ALLOWED. SLOPE OF CURB HEAD OPENING SHALL MATCH THE RAMP SLOPE, MINIMALLY 1.5% AND NOT TO EXCEED 7%. WHEN ADJACENT TO 1.5% LANDING, CONSTRUCT CURB HEAD OPENING AT 1.5% IN THE DIRECTION OF PEDESTRIAN TRAVEL.

(3) AN 8.33% CURB RAMP SLOPE IS ALLOWABLE WITH FLATTENED GUTTER FLAG SLOPE AND NOT TO EXCEED 11% GRADE CHANGE.

(4) ±0.5% CONSTRUCTION TOLERANCE IN SIDEWALK CROSS SLOPE. THE SIDEWALK CROSS SLOPE SHALL NOT EXCEED 2% WITHOUT PRIOR APPROVAL FROM THE ENGINEER.

(6) PROVIDE A LEVEL LANDING (MAXIMUM 2% SLOPE) IN ANY DIRECTION OF PEDESTRIAN TRAVEL. STANDARD LANDING SIZE IS 5 FEET BY 5 FEET.

(8) PROVIDE GRADE BREAK PERPENDICULAR TO DIRECTION OF WHEELCHAIR TRAVEL.

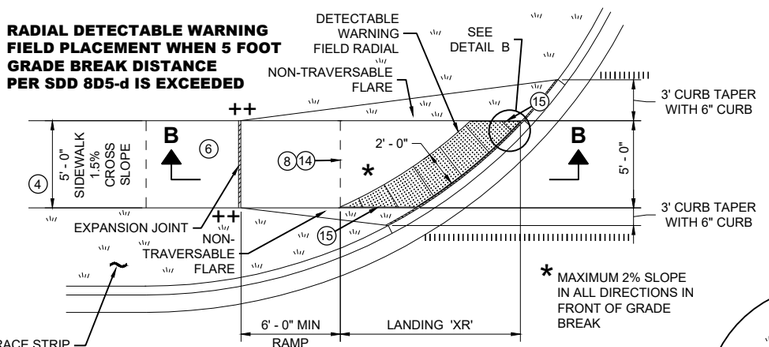
(14) CONSULT ENGINEER IF GRADE BREAK LOCATION (END OF LANDING DIMENSION "XR") REQUIRES FIELD ADJUSTMENT WHEN ESTABLISHING FINAL RADIAL DETECTABLE WARNING FIELD LOCATION.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

(16) USE 1' X 2" RECTANGULAR END PLATE AT END OF TYPE 4A1 RAMP AND PROVIDE MINIMUM 2' - 0" DETECTABLE WARNING FIELD COVERAGE (IN DIRECTION OF PEDESTRIAN TRAVEL) ALONG THE ENTIRE CURB RAMP WIDTH.

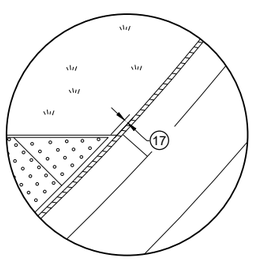
(17) A MAXIMUM 3 INCH CONCRETE BORDER WIDTH IS ALLOWABLE IN FRONT OF RADIAL DETECTABLE WARNING FIELD FOR CONSTRUCTABILITY PURPOSES. CONCRETE BORDER WIDTH MAY VARY UP TO 1 INCH.

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

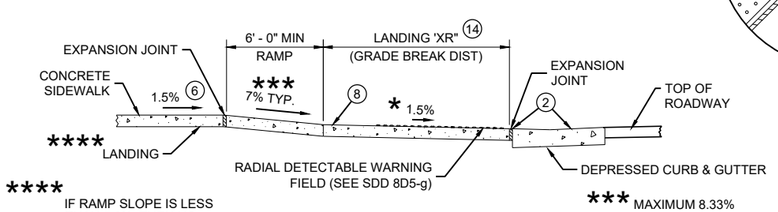


PLAN VIEW

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



DETAIL B

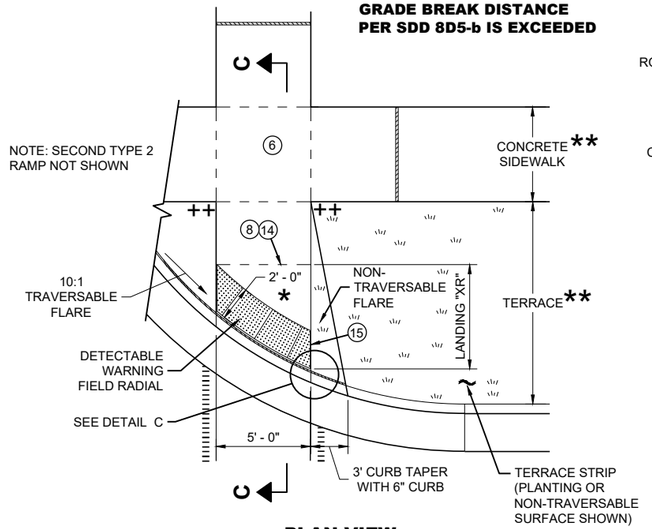


**** IF RAMP SLOPE IS LESS THAN 5.0%, THEN NO ADJACENT UPHILL LANDING IS REQUIRED

*** MAXIMUM 8.33%

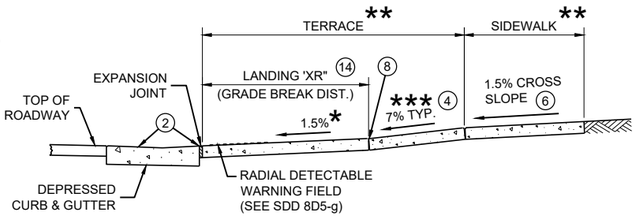
SECTION B - B FOR TYPE 4B1

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

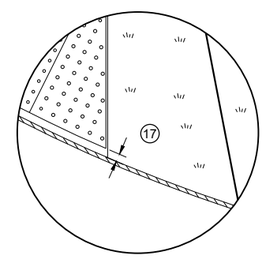


PLAN VIEW

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



SECTION C - C FOR TYPE 2



DETAIL C

* MAXIMUM 2% SLOPE IN ALL DIRECTIONS IN FRONT OF GRADE BREAK

** WIDTH SHOWN ELSEWHERE IN THE PLANS

*** MAXIMUM 8.33%

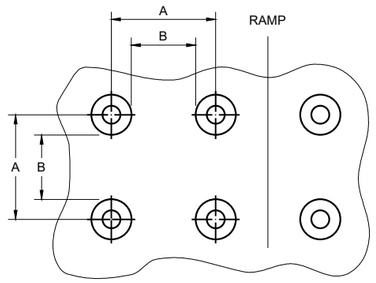
++ CONSTRUCT 6" WEDGE TO AVOID CONCRETE BREAKAGE

CURB RAMPS
RADIAL DETECTABLE WARNING

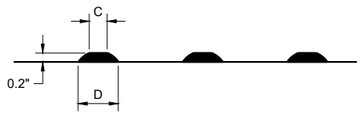
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

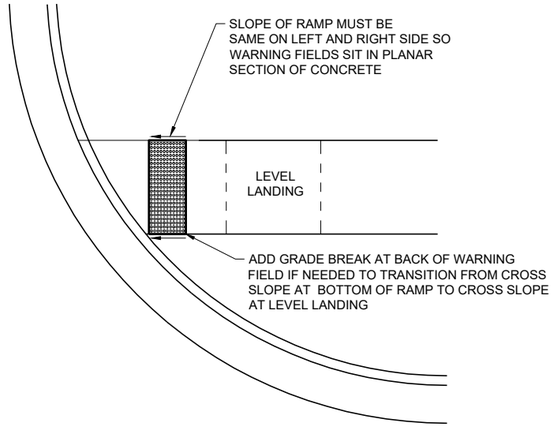
* THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.



PLAN VIEW



ELEVATION VIEW



DETECTABLE WARNING FIELD
PLANAR INSTALLATION

GENERAL NOTES

DETECTABLE WARNING FIELDS THAT ARE INSTALLED AT A CURB RAMP SHALL BE FROM THE SAME MANUFACTURER.

PLACE ALL DETECTABLE WARNING FIELD SYSTEMS IN ACCORDANCE TO THE MANUFACTURER'S RECOMMENDATION.

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

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

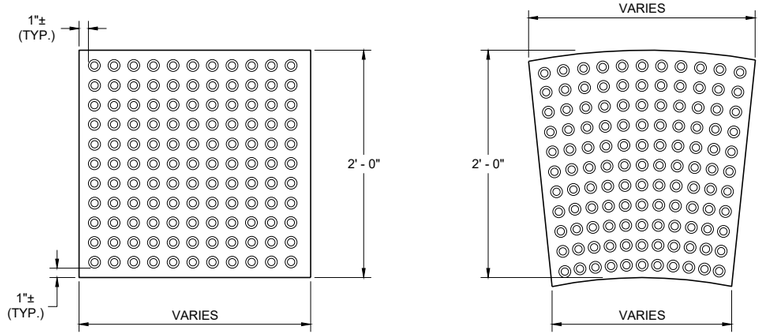
FOR RADIAL DETECTABLE WARNING FIELD APPLICATIONS WHERE STANDARD RADIAL PLATES ARE NOT AVAILABLE AT AN INTERSECTION CURB RADIUS, A COMBINATION OF SQUARE OR RECTANGULAR PLATES AND RADIAL PLATES MAY BE USED TO FORM RADIAL CONFIGURATION. RADIAL WEDGE PLATES IN COMBINATION WITH SQUARE PLATES ARE ALSO ACCEPTABLE. FOLLOW MANUFACTURER'S RECOMMENDATIONS.

REFER TO CONTRACT AND STANDARD SPECIFICATIONS FOR FIELD CUTTING REQUIREMENTS.

DO NOT EMBED IN CONCRETE ANY FIELD-CUT PLATES WITH CUT EDGES SHORTER THAN 6 INCHES. CONSULT WITH MANUFACTURER FOR RE-DRILLING AND ANCHORING REQUIREMENTS OF FIELD-CUT PLATES.

(15) FIELD SAW CUTS ALONG RADIAL DETECTABLE WARNING PLATES WILL BE NECESSARY TO MATCH EACH CURB RAMP EDGE. AVOID CUTTING THROUGH DOMES WHENEVER POSSIBLE. MAKE FIELD CUTS TRUE TO LINE AND WITHIN ⅛" DEVIATION. SMOOTH EDGES OF FIELD CUT PLATES.

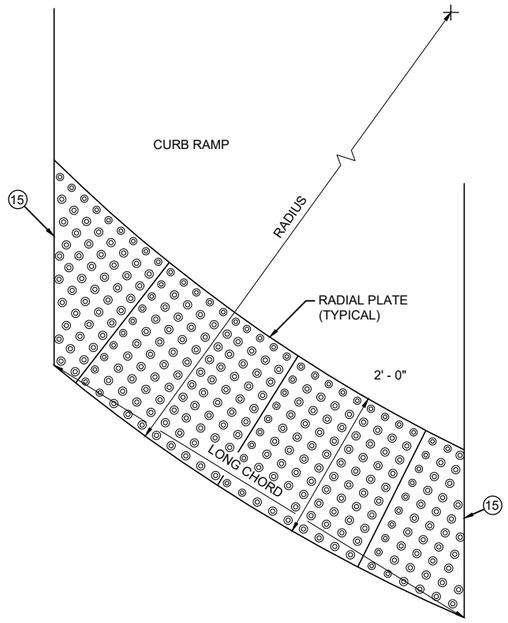
TRUNCATED DOMES
DETECTABLE WARNING PATTERN DETAIL



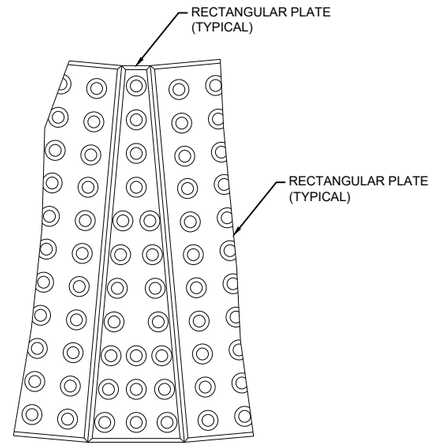
RECTANGULAR PLATES

RADIAL PLATES

PLAN VIEW
DETECTABLE WARNING FIELDS (TYPICAL)



PLAN VIEW
RADIAL DETECTABLE WARNING FIELD ATTRIBUTES



PLAN VIEW
RADIAL WEDGE PLATE CONNECTION DETAIL

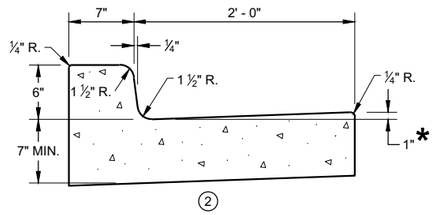
CURB RAMPS
RECTANGULAR AND RADIAL DETECTABLE WARNING PLATES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

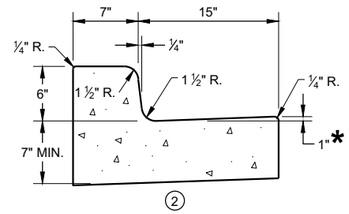
FHWA

6
SDD 08D05-21g

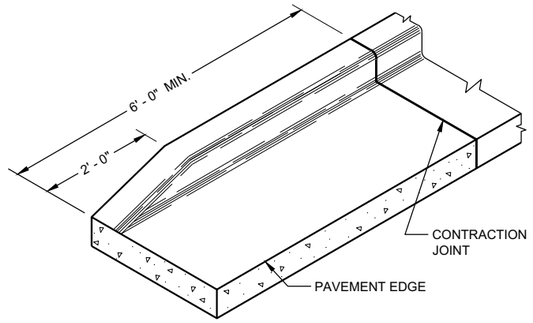


CONCRETE CURB AND GUTTER 31" ①

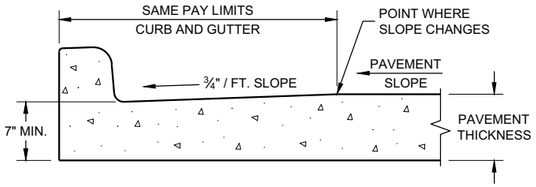
*TO BE MEASURED TO A MAXIMUM OF 3" WHERE DRAINAGE PROBLEMS EXIST.



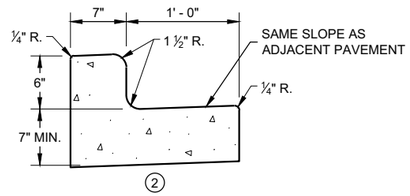
CONCRETE CURB AND GUTTER 22" ①



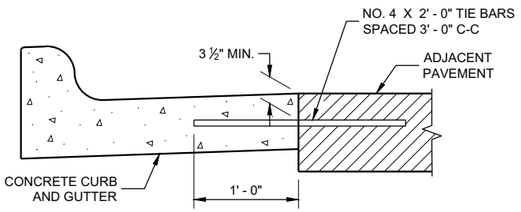
END SECTIONCURB AND GUTTER



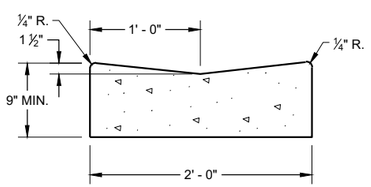
PARTIAL SECTION OF PAVEMENT WITH INTEGRAL CURB AND GUTTER



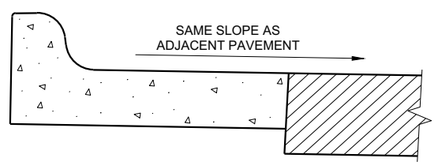
CONCRETE CURB AND GUTTER 19" ①



TYPICAL TIE BAR LOCATION ①



CONCRETE GUTTER 24" ①



HIGH SIDE SECTION ③

(TYPICAL FOR ALL CURB & GUTTER TYPES)

GENERAL NOTES

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

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

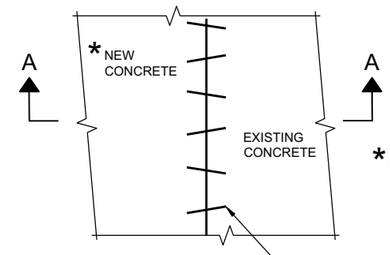
INTEGRAL CURB AND GUTTER SHALL CONFORM TO THE DETAILS SHOWN FOR CONCRETE CURB AND GUTTER INCLUDING THE TRANSVERSE GUTTER SLOPE. A LONGITUDINAL CONSTRUCTION JOINT IS NOT REQUIRED WITH INTEGRAL CURB AND GUTTER.

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

① WHEN PLACED ADJACENT TO NEW CONCRETE, TIE BARS ARE REQUITED FOR CURB AND GUTTER 31", 22", 19" AND CONCRETE GUTTER 24".

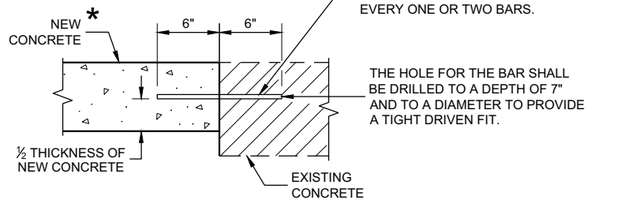
② THE BOTTOM OF CURB AND GUTTER MAY BE CONSTRUCTED EITHER LEVEL OR PARALLEL TO THE SLOPE OF THE SUBGRADE OR BASE COURSE PROVIDED A 7" MINIMUM GUTTER THICKNESS IS MAINTAINED.

③ WHEN HIGH SIDE CURB SECTION IS REQUIRED, THE LOCATION(S) WILL BE NOTED ON THE PLANS



PLAN VIEW

* EXISTING AND NEW CONCRETE MAY BE CURB AND GUTTER, SURFACE DRAINS, PAVEMENT OR OTHER CONCRETE STRUCTURE.



SECTION A - A

PAVEMENT TIES

CONCRETE GUTTER, CURB AND GUTTER AND PAVEMENT TIES

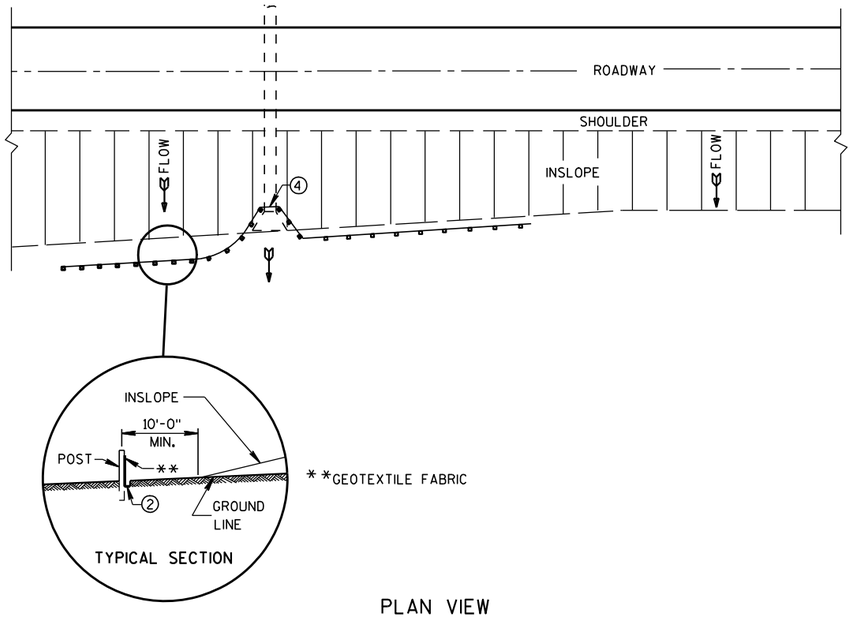
(For Optional use in Milwaukee Co. Only)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020 — DATE
/S/ Rodney Taylor — ROADWAY STANDARDS DEVE ENGINEER
FHWA

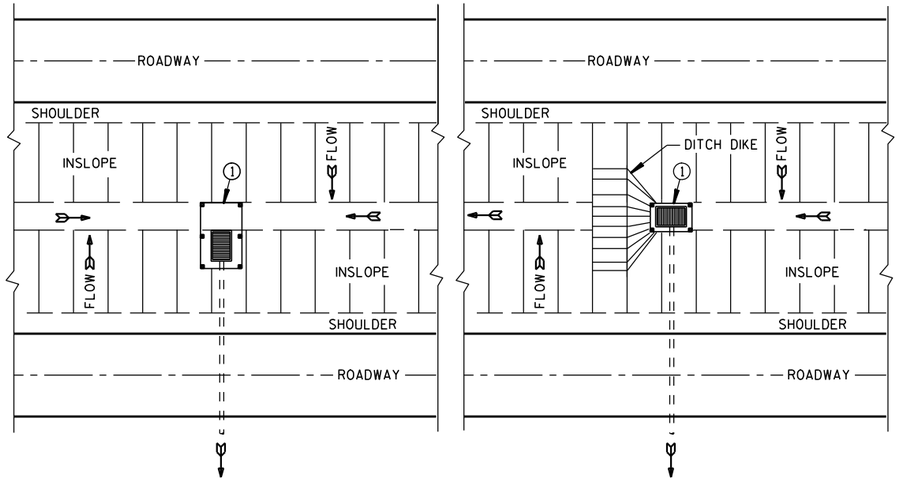
6

SDD 08D16 - 11



PLAN VIEW

TYPICAL APPLICATION OF SILT FENCE



PLAN VIEW

SILT FENCE AT MEDIAN SURFACE DRAINS

GENERAL NOTES

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

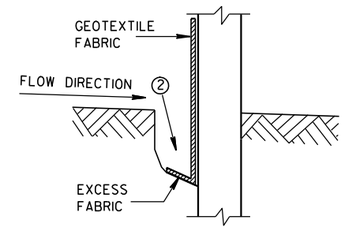
① HORIZONTAL BRACE REQUIRED WITH 2" X 4" WOODEN FRAME OR EQUIVALENT AT TOP OF POSTS.

② FOR MANUAL INSTALLATIONS THE TRENCH SHALL BE A MINIMUM OF 4" WIDE & 6" DEEP TO BURY AND ANCHOR THE GEOTEXTILE FABRIC. FOLD MATERIAL TO FIT TRENCH AND BACKFILL & COMPACT TRENCH WITH EXCAVATED SOIL.

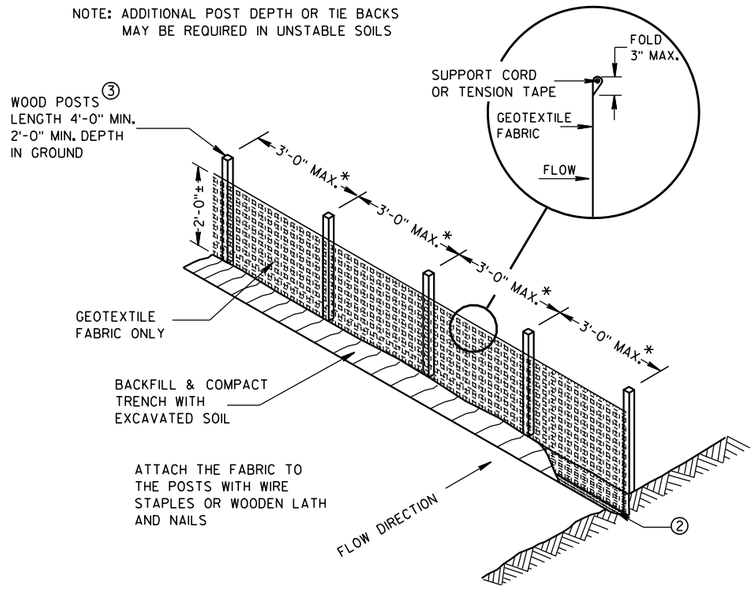
③ WOOD POSTS SHALL BE A MINIMUM SIZE OF 1⅛" X 1⅛" OF OAK OR HICKORY.

④ SILT FENCE TO EXTEND ACROSS THE TOP OF THE PIPE.

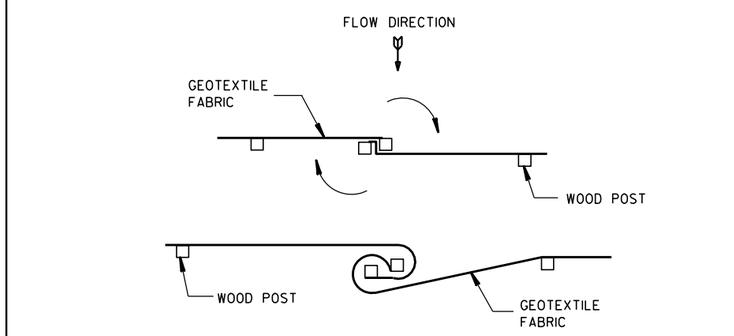
⑤ CONSTRUCT SILT FENCE FROM A CONTINUOUS ROLL IF POSSIBLE BY CUTTING LENGTHS TO AVOID JOINTS. IF A JOINT IS NECESSARY USE ONE OF THE FOLLOWING TWO METHODS; A) OVERLAP THE END POSTS AND TWIST, OR ROTATE, AT LEAST 180 DEGREES, B) HOOK THE END OF EACH SILT FENCE LENGTH.



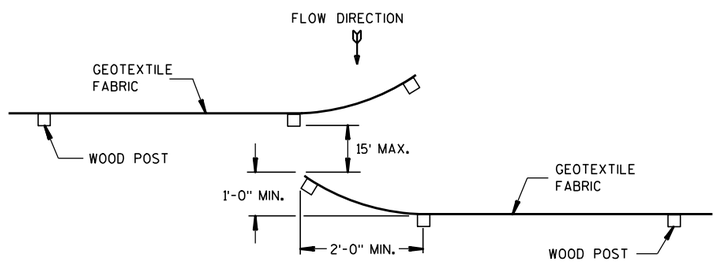
TRENCH DETAIL



SILT FENCE

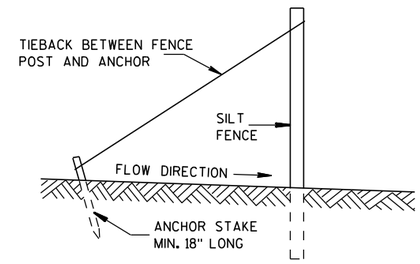


TWIST METHOD



HOOK METHOD

JOINING TWO LENGTHS OF SILT FENCE ⑤



SILT FENCE TIE BACK

(WHEN REQUIRED BY THE ENGINEER)

SILT FENCE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

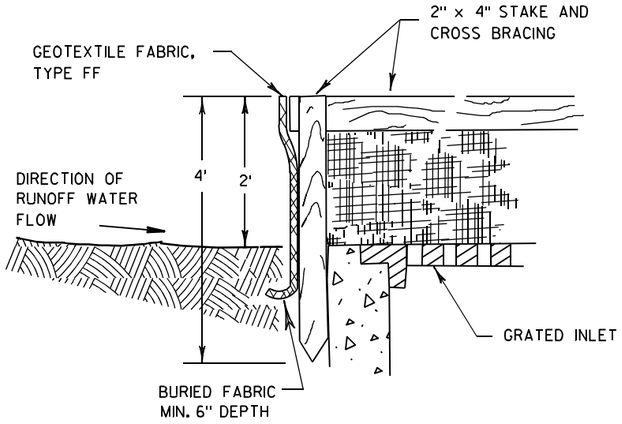
APPROVED
4-29-05 DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

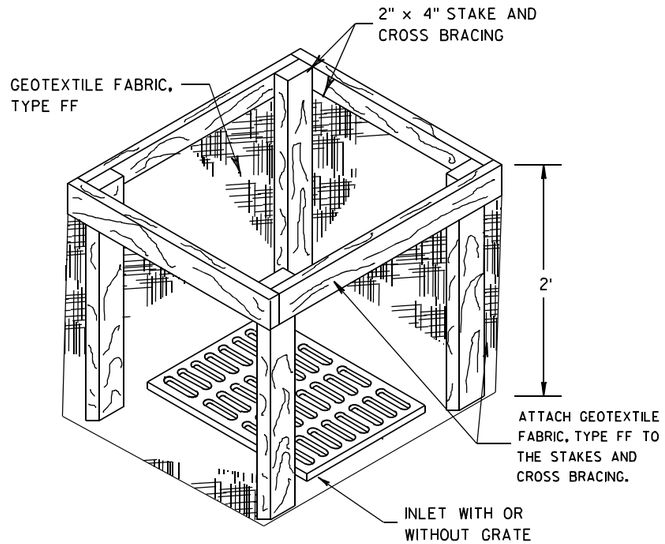
6

S.D.D. 8 E 9-6

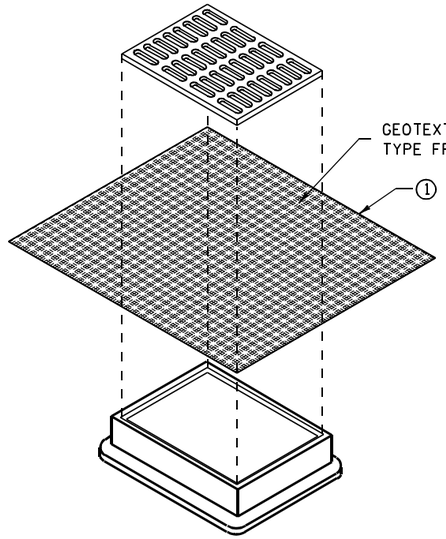
6

S.D.D. 8 E 9-6



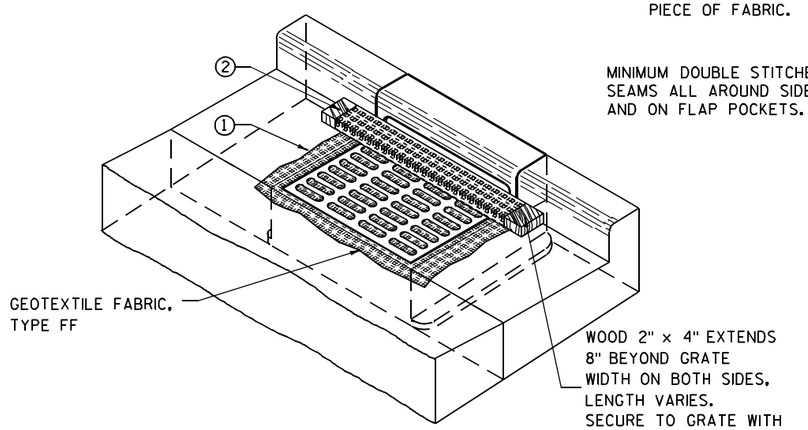


INLET PROTECTION, TYPE A

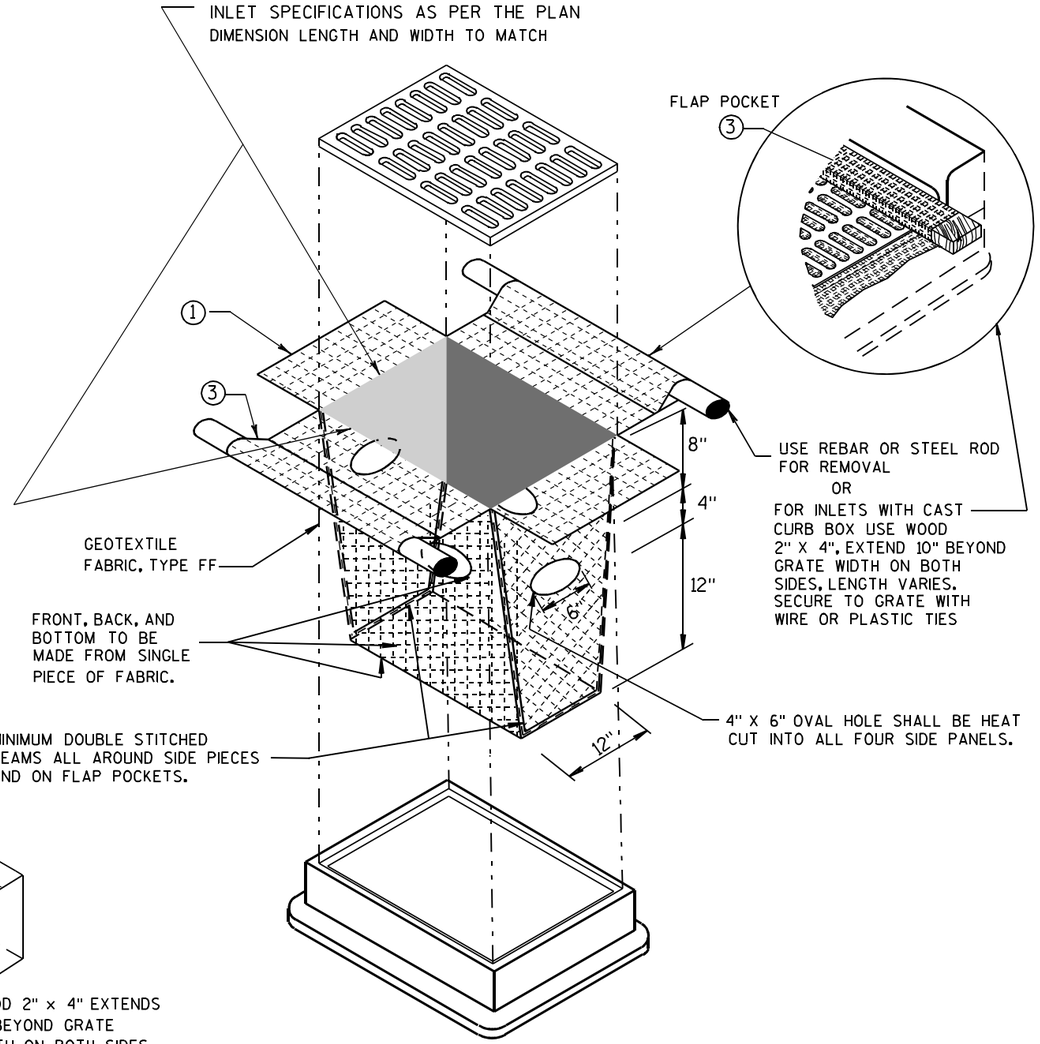


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

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



INLET PROTECTION, TYPE C (WITH CURB BOX)



INLET PROTECTION, TYPE D

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

GENERAL NOTES

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

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

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

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

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

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

INSTALLATION NOTES

TYPE B & C

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

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

TYPE D

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

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

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

INLET PROTECTION
TYPE A, B, C, AND D

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

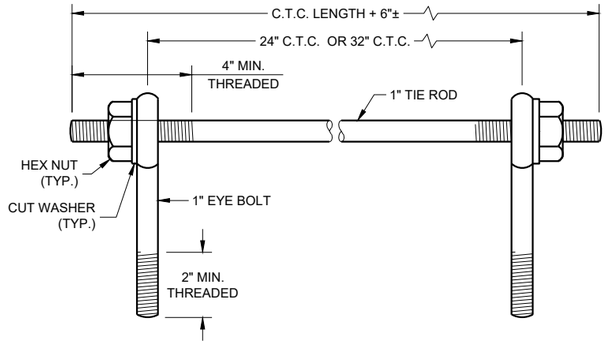
APPROVED
10/16/02
DATE
/S/ Beth Cannestra
CHIEF ROADWAY DEVELOPMENT ENGINEER
FHWA

6

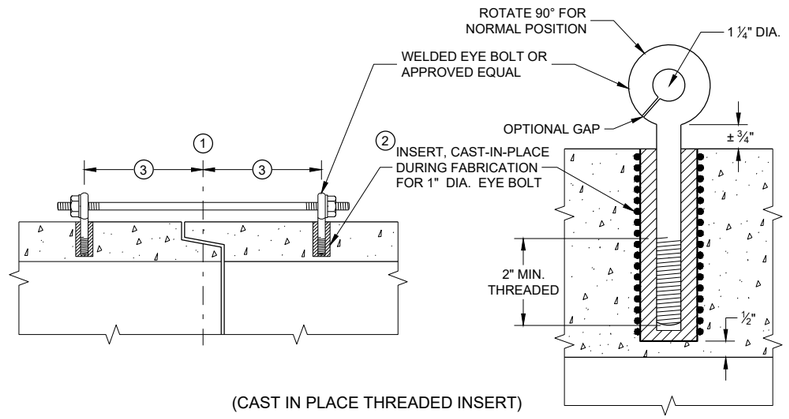
S.D.D. 8 E 10-2

6

S.D.D. 8 E 10-2



EYE BOLTS AND TIE ROD



(CAST IN PLACE THREADED INSERT)

LONGITUDINAL SECTIONS

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

GENERAL NOTES

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

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

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

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

(1) CENTER LINE OF TONGUE AND GROOVE OR BELL AND SPIGOT JOINTS.

(2) THE INSIDE OF THE THREADED INSERTS SHALL BE CLEAN TO ALLOW THE INSERTION OF THREADED EYE BOLTS.

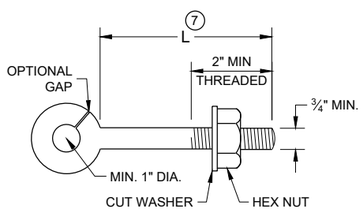
(3) HOLES SHALL BE CAST-IN-PLACE OR DRILLED PER THE APPLICABLE DETAIL, AND EQUAL DISTANCE FROM THE CENTERLINE OF THE JOINT.

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

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

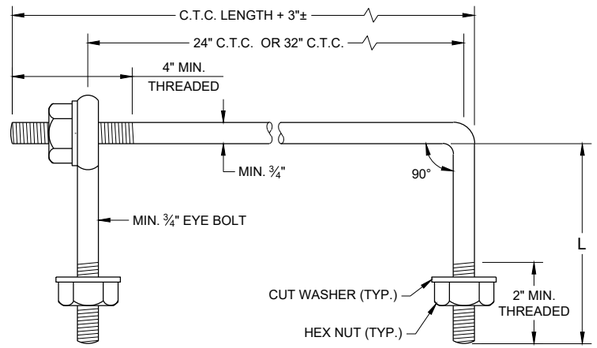
(6) LENGTH ADEQUATE TO EXTEND TO WITHIN ½ INCH OF THE INNER SURFACE OF THE PIPE.

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

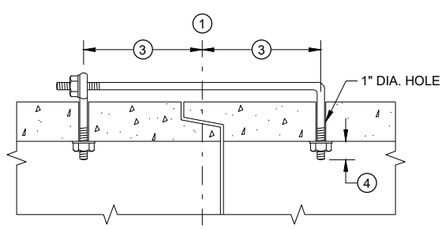


EYE BOLT (7)

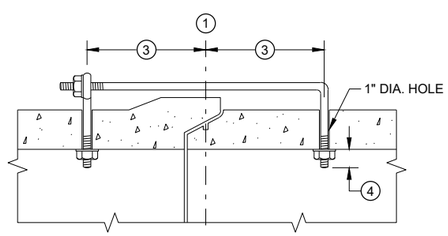
NOTE: TWO EYE BOLTS MAY BE USED WITH A 30" OR 38" LONG THREADED ROD IN LIEU OF THE 90° BENT TIE ROD.



EYE BOLT AND TIE ROD



(TONGUE AND GROOVE PIPE)



(MODIFIED BELL PIPE)

LONGITUDINAL SECTION

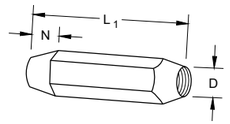
(JOINT TIES FOR 18" TO 66" DIA. CONCRETE PIPE)

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

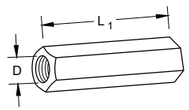
ADJUSTABLE TIE ROD TABLE

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

DIMENSIONS SHOWN ARE IN INCHES



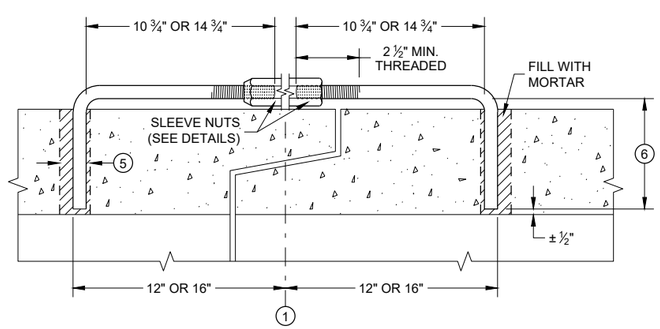
TAPERED



PLAIN

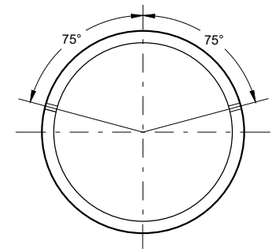
RIGHT AND LEFT THREADS

SLEEVE NUTS



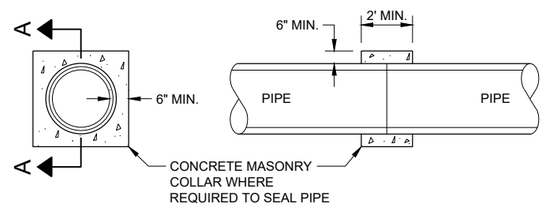
LONGITUDINAL SECTION

ADJUSTABLE TIE ROD (ALTERNATE NO. 3)



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

TRANSVERSE SECTION



SECTION A - A

CONCRETE COLLAR DETAIL

JOINT TIES FOR CONCRETE PIPE AND CONCRETE COLLAR DETAIL

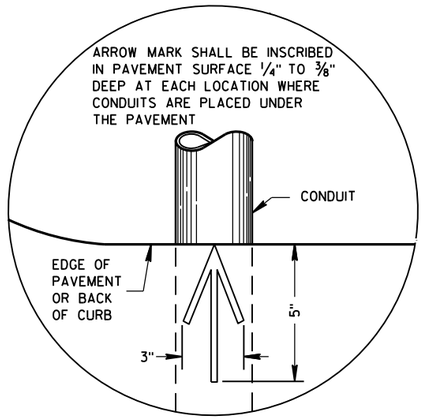
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

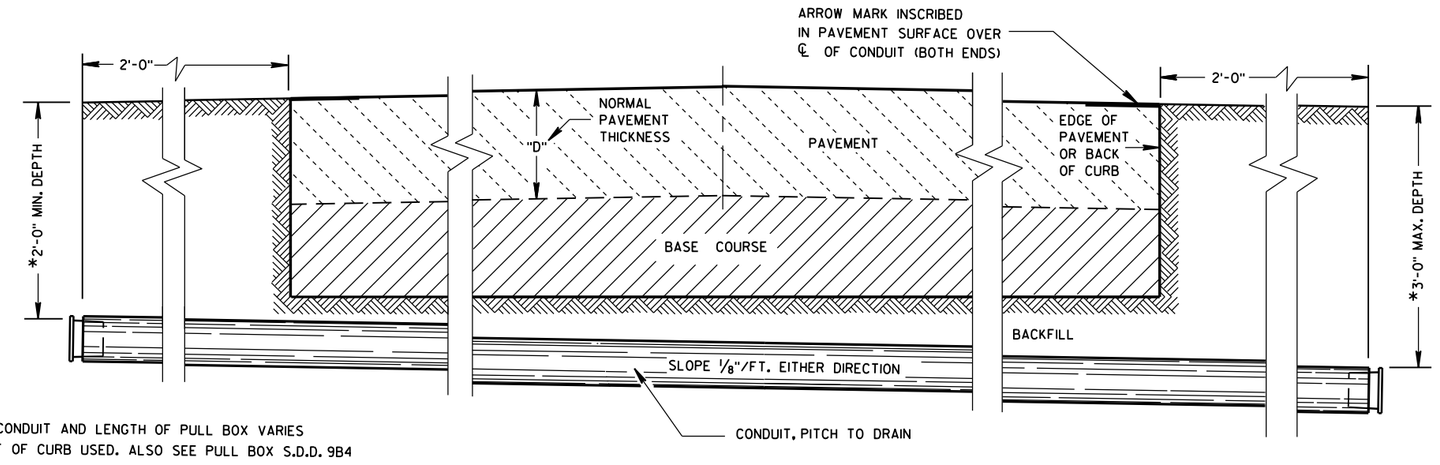
SDD 08F04 - 08

SDD 08F04 - 08



PLAN VIEW

ARROW MARK



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

SIDE ELEVATION

DETAIL FOR CONDUIT UNDER PAVED HIGHWAYS

GENERAL NOTES

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

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

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

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

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

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

ALL METALLIC CONDUIT RACEWAY ENDS SHALL BE REAMED AND THREADED.

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

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

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

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

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

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

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

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

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

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

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

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

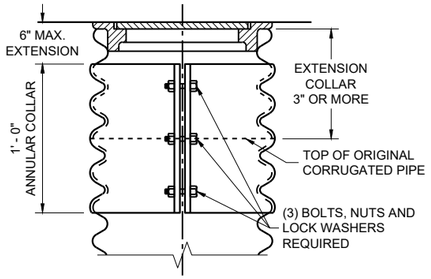
CONDUIT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

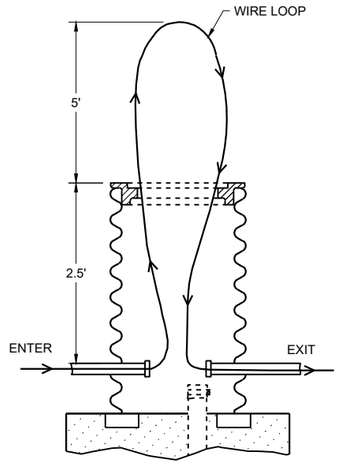
APPROVED
March, 2017 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

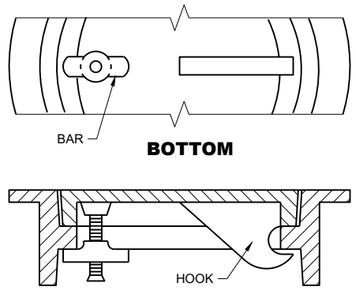
S.D.D. 9 B 2-10



CORRUGATED PIPE EXTENDER



MEASUREMENT DETAIL FOR WIRE/CABLE IN THE PULL BOX



BOTTOM

SECTION

ALTERNATE COVER (LOCKING)

TIGHTENING BAR TYPE

GENERAL NOTES

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

ALL FRAMES AND COVERS SHALL BE HEAVY DUTY TYPE, SUITABLE FOR VEHICULAR TRAFFIC LOADS.

PULL BOXES LOCATED IN THE ROADWAYS SHALL HAVE LOCKING COVERS.

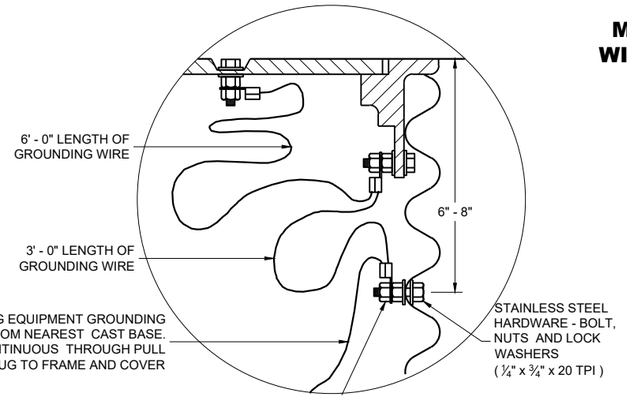
ENTRANCE HOLES INTO PULL BOXES SHALL BE CUT WITH A CIRCULAR HOLE SAW OR HYDRAULIC CONDUIT PUNCH. HOLE SIZE SHALL BE THE OUTSIDE DIAMETER OF THE CONDUIT THAT IS TO FIT IN THE OPENING PLUS NO MORE THAN ¼".

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

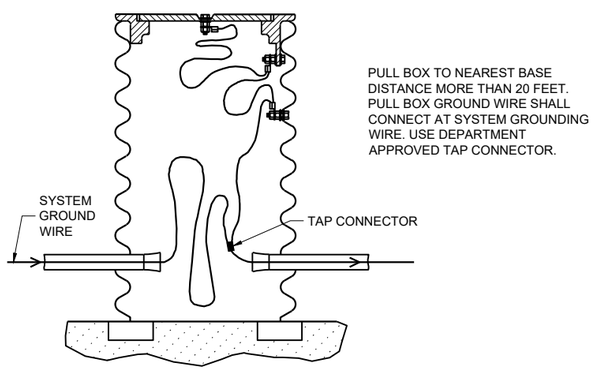
GROUNDING LUGS (MECHANICAL CONNECTORS) SHALL BE U.L. LISTED AND APPROVED FOR USE WITH COPPER WIRE.

ALL METALLIC CONDUIT IN WHICH WIRE AND/OR CABLE IS TO BE INSTALLED, SHALL BE BUSHED BEFORE INSTALLATION OF THE WIRE AND/OR CABLE.

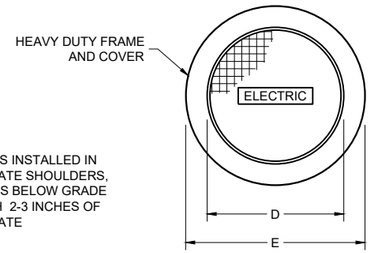
WHEN PULL BOXES ARE INSTALLED FOR FUTURE USE, DO NOT INSTALL THE EQUIPMENT GROUNDING LUG. THE EQUIPMENT GROUNDING LUG, THE EQUIPMENT GROUNDING ELECTRODE AND THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE REQUIRED AND INSTALLED UNDER A FUTURE WIRING CONTRACT.



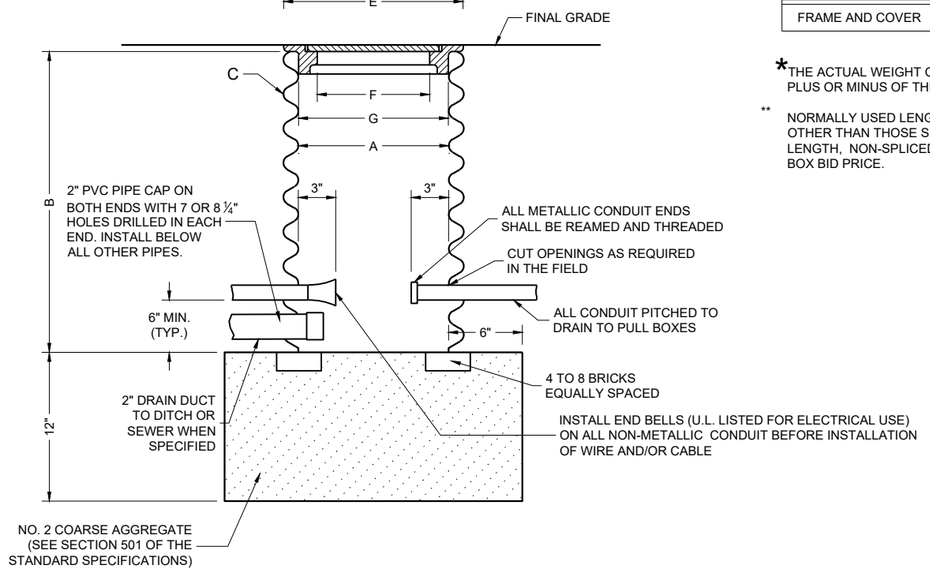
EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



EQUIPMENT GROUNDING LUG AND LOCATION IN STEEL PULL BOXES



WHEN A PULL BOX IS INSTALLED IN CRUSHED AGGREGATE SHOULDERS, PLACE IT 2-3 INCHES BELOW GRADE AND COVER IT WITH 2-3 INCHES OF CRUSHED AGGREGATE



PULL BOX

TABLE OF NOMINAL DIMENSIONS AND WEIGHTS

DIMENSION IN INCHES		CORRUGATED STEEL PIPE								
PIPE DIAMETER (INSIDE)	A	12	12	12	18	18	18	24	24	24
PIPE LENGTH **	B	24	30	36	24	30	36	36	42	48
WALL THICKNESS	C	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064	0.064
COVER	D	10 ¼	10 ¼	10 ¼	16 ¼	16 ¼	16 ¼	22 ¼	22 ¼	22 ¼
FRAME	E	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½	26 ½	26 ½	26 ½
FRAME	F	8 ½	8 ½	8 ½	14 ½	14 ½	14 ½	20 ½	20 ½	20 ½
FRAME	G	11 ½	11 ½	11 ½	17 ½	17 ½	17 ½	23 ½	23 ½	23 ½
WEIGHT IN POUNDS*										
FRAME AND COVER		60	60	60	110	110	110	155	155	155

*THE ACTUAL WEIGHT OF THE MANHOLE FRAME AND COVER MAY VARY WITHIN 5 PERCENT PLUS OR MINUS OF THE WEIGHTS SHOWN.

** NORMALLY USED LENGTHS. THE PROJECT ENGINEER SHALL DETERMINE IF PIPE LENGTHS, OTHER THAN THOSE SPECIFIED, SHALL BE USED, TO A MAXIMUM OF 48" (CONTINUOUS LENGTH, NON-SPLICED). THE ADDITIONAL LENGTH SHALL BE INCIDENTAL TO THE PULL BOX BID PRICE.

PULL BOX

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024
DATE

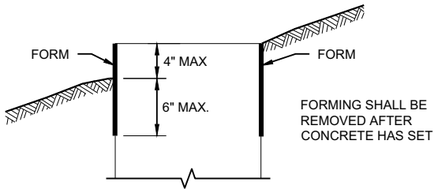
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

FHWA

6

SDD 09B04-13

FORM DEPTH SHALL BE NO MORE THAN 6" BELOW GRADE ON THE LOWER SIDE OF BASE



FORMING DETAIL

QUANTITY REQUIREMENTS	CONCRETE BASE TYPE		
	1	2	5 & 6
APPROX. CUBIC YARDS OF CONCRETE	0.40	0.57	0.40
LBS. OF HOOP BAR STEEL	NONE	23	16
LBS. OF VERTICAL BAR STEEL	NONE	60	18

GENERAL NOTES

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

BASES SHALL BE EXCAVATED BY USE OF A CIRCULAR AUGER.

TOP SURFACES OF CONCRETE BASES SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

ENDS OF CONDUIT INSTALLED BELOW GRADE FRO FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 1 INCH. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE DIRT OR FILL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD) FOR TYPE 2, TYPE 5 AND TYPE 6 BASES.

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER ALL BASE TYPES THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

ANCHOR RODS SHALL BE THREADED 12" IN LENGTH ON EACH END OF THE ROD. ANCHOR RODS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 654.2.1 OF THE STANDARD SPECIFICATIONS.

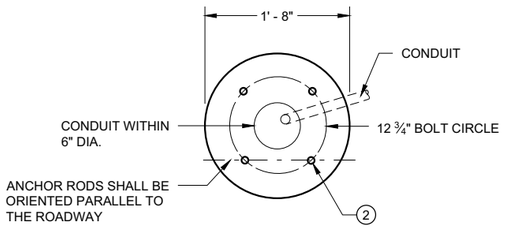
WASHERS AND LOCK WASHERS ARE REQUIRED ON ALL ANCHOR RODS.

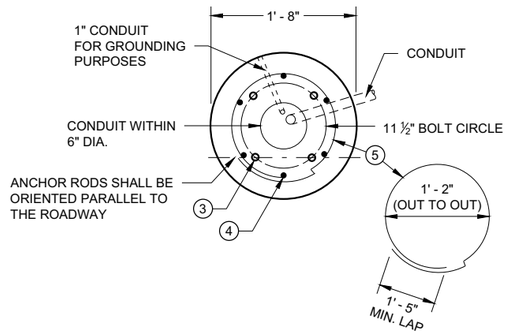
WHEN ANCHOR RODS USING THE ALTERNATE "L" BEND ARE FURNISHED, THE 4 INCH"L" BEND SHALL BE IN ADDITION TO THE SPECIFIED ANCHOR ROD BAR LENGTH. THE "L" BEND SHALL NOT BE THREADED.

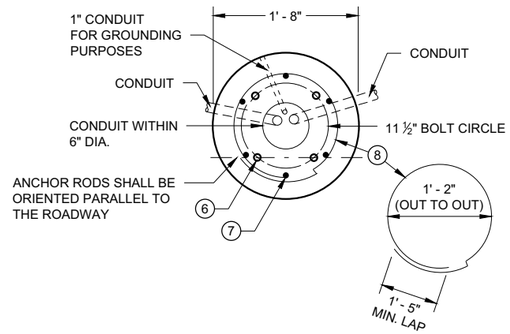
ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF THE ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TIE WIRES SHALL BE USED.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).







1 THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

2 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

3 (4) 1" DIA. X 5' - 0" ANCHOR RODS.

4 (6) NO. 6 X 6' - 8" BAR STEEL REINFORCEMENT.

5 (7) NO. 4 X 5' - 1" BAR STEEL REINFORCEMENT @ 1' - 0" C - C.

6 (4) 1" DIA. X 3' - 6" ANCHOR RODS.

7 (6) NO. 4 X 4' - 8" BAR STEEL REINFORCEMENT.

8 (5) NO. 4 X 5' - 1" BAR STELL REINFORCEMENT @ 1' - 0" C -C.

9 EXOTHERMIC CONNECTION TO EUIPMENT GROUNDING CONDUCTOR

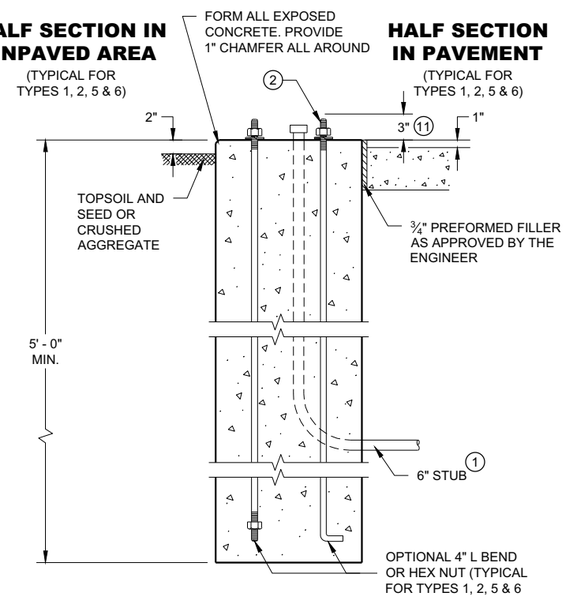
10 ⅝" DIA. X 8' -0" COPPERCLAD EQUIPMENT GROUNDING ELECTRODE REQUIRED

11 ANY ANCHOR ROD PROJECTION SHORTER THAN 2 ¾" OR LONGER THAN 3 ¼" SHALL REQUIRE THE BASE TO BE REMOVED AND REPLACED AT THE CONTRACTORS EXPENSE.

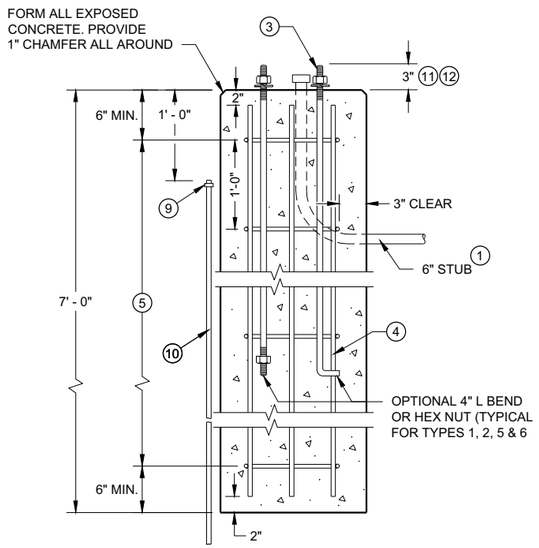
12 FOR NON - BREAKAWAY INSTALLATIONS, 4 ½" ± ANCHOR ROD PROJECTION WITH THE USE OF LEVELING NUTS. RODENT SCREEN REQUIRED.

HALF SECTION IN UNPAVED AREA
(TYPICAL FOR TYPES 1, 2, 5 & 6)

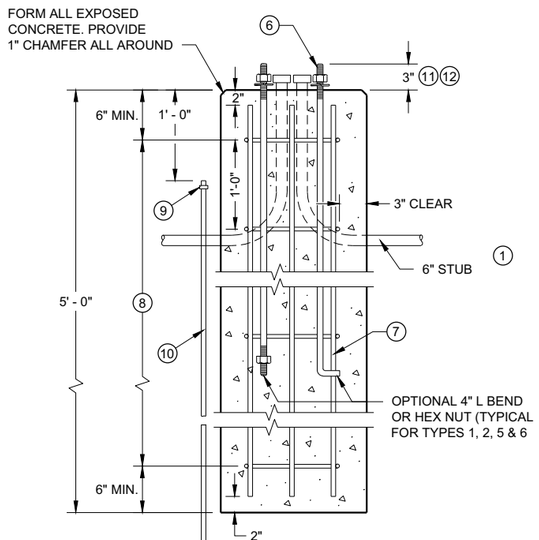
HALF SECTION IN PAVEMENT
(TYPICAL FOR TYPES 1, 2, 5 & 6)



TYPE 1



TYPE 2



TYPE 5 & 6

CONCRETE BASES

CONCRETE BASES
TYPES 1, 2, 5, & 6

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2019
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 288

FHWA

GENERAL NOTES

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

FOUR (4) BOLTS SHALL BE FURNISHED WITH EACH TRANSFORMER BASE. BOLTS SHALL BE 1" DIAMETER, 4" IN LENGTH, WITH WASHERS, LOCK WASHERS AND NUTS. BOLTS, NUTS AND WASHERS SHALL BE MANUFACTURED IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATIONS.

LEVELING SHIMS, IF NEEDED, SHALL BE DESIGNED FOR THE PURPOSE AND USED UNDER CAST BASES WHEN PLUMBING POLES OR STANDARDS DURING INSTALLATION. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE.

SHIM LENGTH SHALL BE LONG ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.

DOUBLE NUTTING IS NOT ACCEPTABLE FOR LEVELING OR MOUNTING PURPOSES.

A NEMA APPROVED, U.L. LISTED, COPPER WITH BRASS OR STAINLESS STEEL SET SCREW, DIRECT BURY RATED, MECHANICAL CONNECTOR (LUG), SIZED TO ACCEPT AWG. #10 TO #4 COPPER STRANDED WIRE SHALL BE FURNISHED AND INSTALLED IN THE PEDESTAL AND TRANSFORMER BASES.

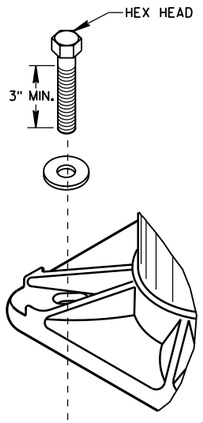
THE MECHANICAL CONNECTOR SHALL BE INSTALLED USING A 1/4" - 20 (TPI) STAINLESS STEEL HEX HEAD BOLT OF SUFFICIENT LENGTH TO FIRMLY ATTACH THE LUG TO THE BASE.

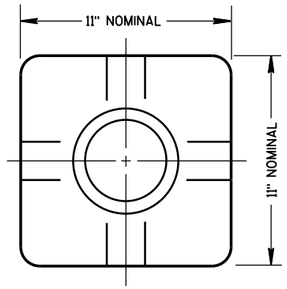
SHOULD THE MANNER OF ATTACHMENT OF THE LUG REQUIRE WASHERS, HEX NUTS, LOCK WASHER - THEY SHALL BE STAINLESS STEEL AS IS THE BOLT. THE MANNER OF ATTACHMENT SHALL NOT BLOCK ACCESSIBILITY TO WIRE PLACEMENT IN THE CONNECTOR.

PEDESTAL BASE COLLAR THREADING SHALL BE TAPERED AND IN ACCORDANCE WITH NATIONAL PIPE THREADING DIMENSIONS.

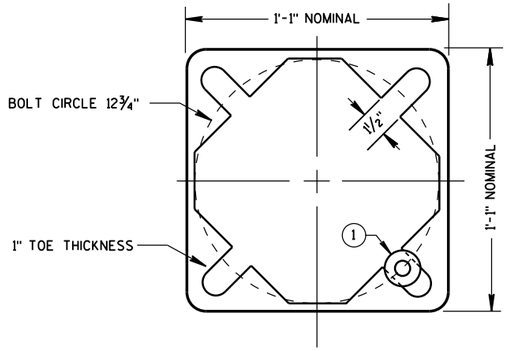
BASE COLLAR THREADING SHALL EXTEND INTO THE BASE COLLAR WITH SUFFICIENT DEPTH TO ACCEPT THE INSTALLATION OF TRAFFIC SIGNAL STANDARDS TO A DEPTH OF 1 1/2", THEN TIGHTENING TO A POINT OF BEING IMMOVABLE.

THE ACCESS DOOR SHALL BE OF THE SAME MATERIAL AS THE BASE.

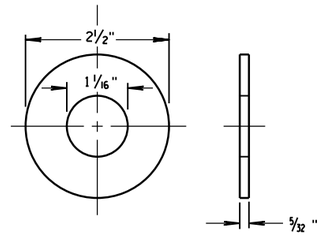




TOP VIEW
(PEDESTAL BASE)

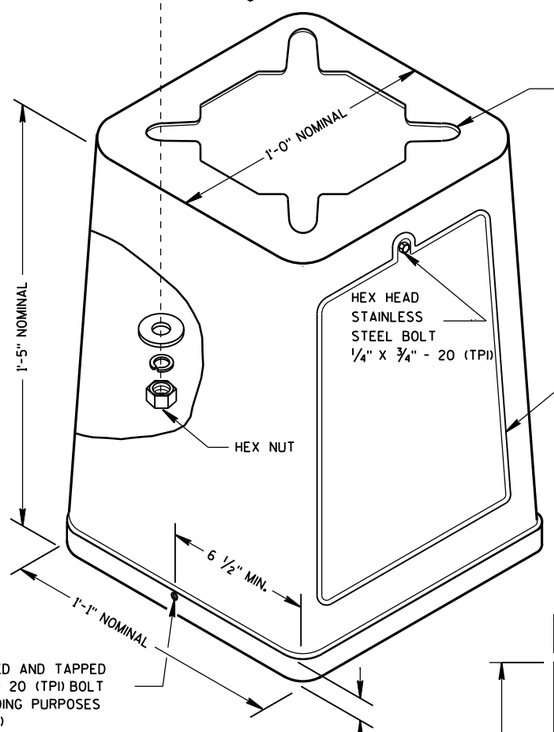


BOTTOM VIEW
(PEDESTAL BASE)

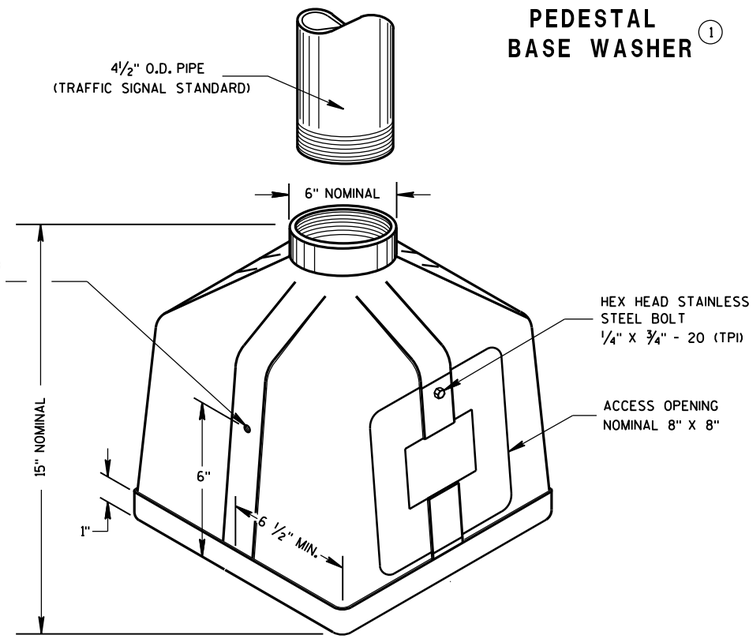


ZINC COATED STEEL WASHER
TO BE PROVIDED BY THE CONTRACTOR

PEDESTAL BASE WASHER (1)

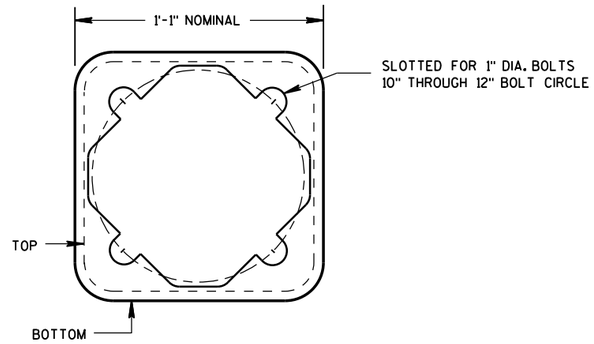


ISOMETRIC VIEW

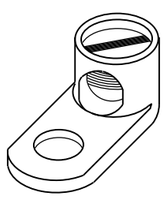


ISOMETRIC VIEW

PEDESTAL BASE



BOTTOM VIEW
(TRANSFORMER BASE)

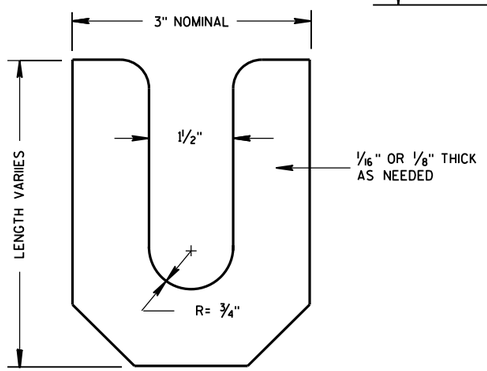


TYPICAL MECHANICAL CONNECTOR LUG

TO BE FURNISHED WITH EACH BASE

TRANSFORMER BASE

INTENDED FOR USE WITH TYPE 2, 3, 4, 5 & 6 POLES



LEVELING SHIM

TRANSFORMER/PEDESTAL BASES

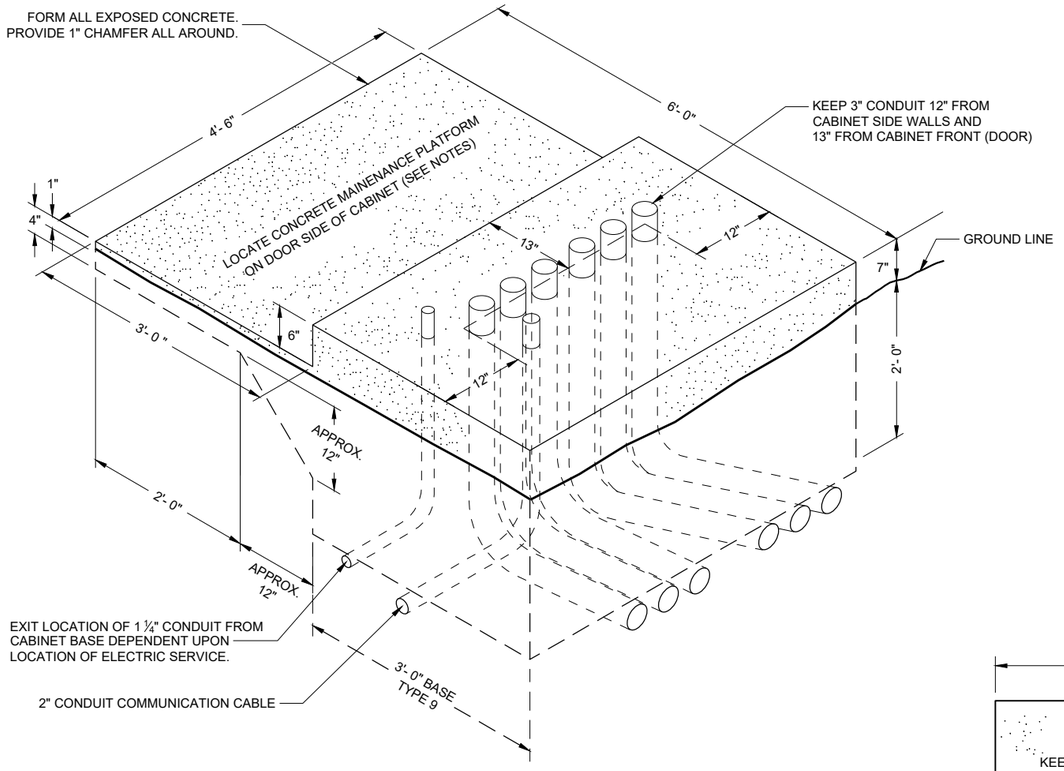
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL
FHWA

6

S.D.D. 9 C 3-4

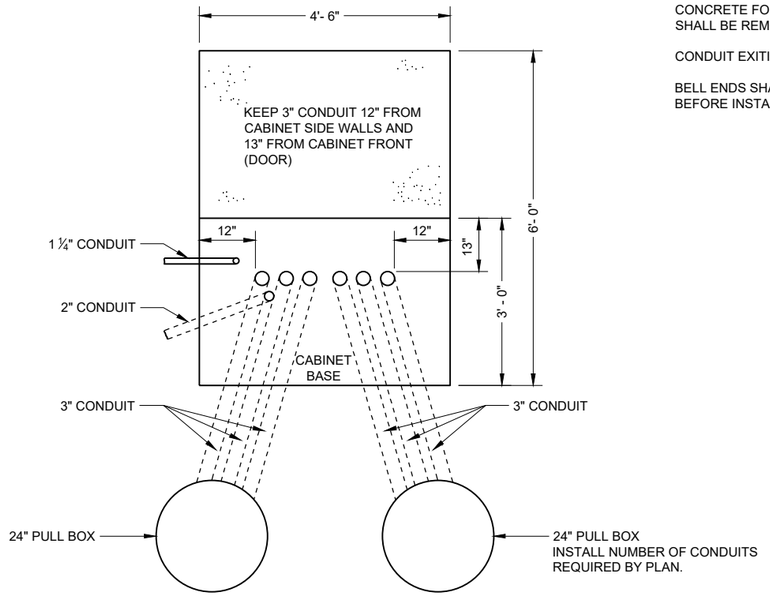
SDD 09C06 Concrete Control Cabinet Base, Type 9, Special



ISOMETRIC VIEW

TYPE 9 SPECIAL

(C.Y. CONCRETE = APPROX. 1.56)



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE 9 SPECIAL

GENERAL NOTES

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

INSTALL FOUR INCH MINIMUM DIAMETER X 4 INCH MINIMUM LENGTH STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS WITH A PULLOUT STRENGTH OF 9,000 LBS. TO ANCHOR THE CABINET TO TYPE 6, 7, 8, AND 9 BASES. THE ANCHOR STUDS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE (SIX 3") SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE TYPE 9, SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 290

FHWA

6
SDD 09C06 - 07

GENERAL NOTES

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

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

ENDS OF CONDUIT INSTALLED BELOW GRADE FOR FUTURE USE SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC.

A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

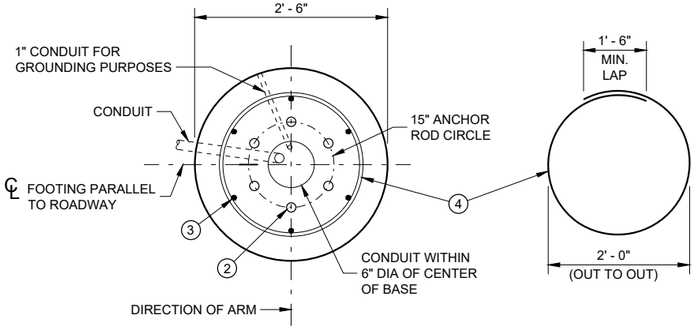
(2) (6) 1 ½ DIA. X 4' - 4" ANCHOR RODS

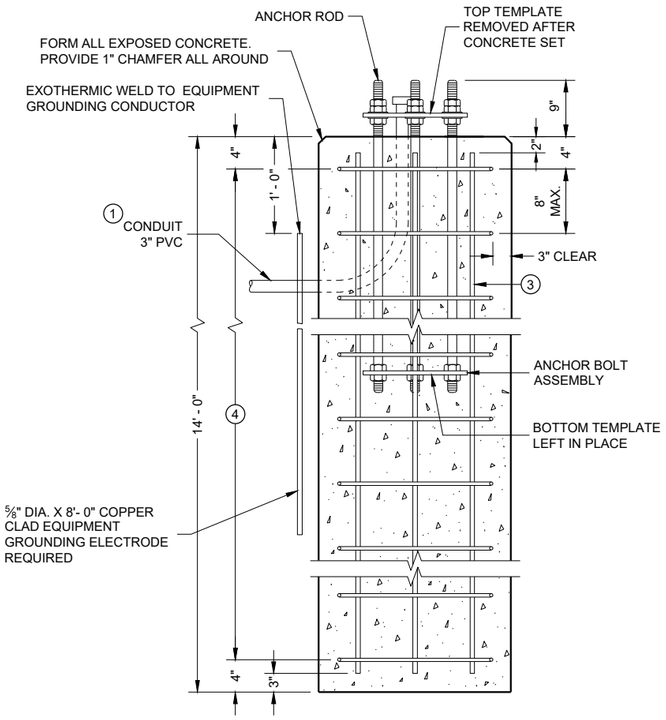
(3) (6) NO. 6 X 13' - 7" BAR STEEL REINFORCEMENT.

(4) (21) NO. 5 X 7'-10" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.

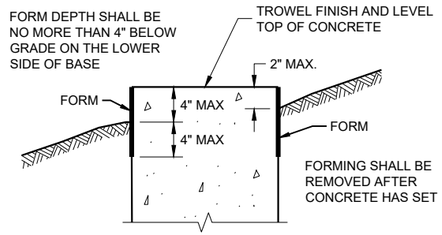
QUANTITY REQUIREMENTS	
APPROX. CUBIC YARDS OF CONCRETE	2.5
LBS. OF HOOP BAR STEEL	172
LBS. OF VERTICAL BAR STEEL	122



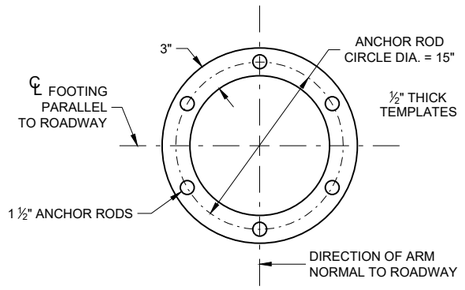


CONCRETE BASE, TYPE 10
(FOR TYPE 9, TYPE 10 AND OVER HEIGHT (OH) POLES)

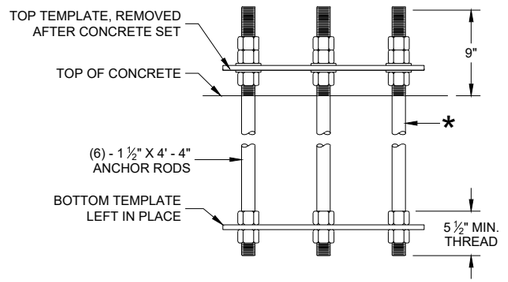
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE SDD 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION.



FORMING DETAIL



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE TYPE 10

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2017 — DATE
/S/ Ahmet Demerbilek — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

6

SDD 09C11 - 10

GENERAL NOTES

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

BASES (SHAFT), BELOW THE WING, SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF A BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING AROUND THE BASE. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BARE CONCRETE BASE IN LAYERS OF 1 FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR ROD PROJECTION ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

CONDUIT SIZE AND LOCATIONS SHALL BE AS SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 X THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASE SHALL BE 4 ½ INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NONMETALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NONMETALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NONMETALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTOR FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

A NO. 4 AWG, STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1-INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4-FOOT COIL OF WIRE ABOVE THE CONCRETE BASE, THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

THE CONTRACTOR IS RESPONSIBLE FOR MAKING HIS OWN DETERMINATION AS TO THE TYPE AND LOCATION OF THE UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVEL WAY SHALL BE 24-INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18-INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36-INCHES, (GREATER THAN 36-INCHES IF INSTALLED IN BREAKER-RUN), EXCEPT WITH THE WRITTEN APPROVAL OF THE ENGINEER.

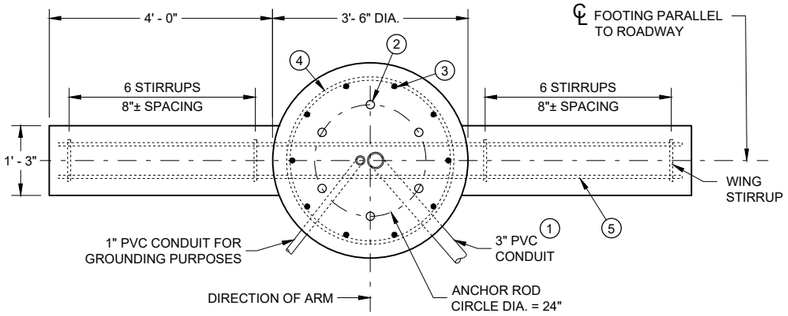
(2) (6) 1 ¾" DIA. X 7' - 2" ANCHOR RODS

(3) (10) NO. 6 X 14' - 1" BAR STEEL VERTICAL REINFORCEMENT.

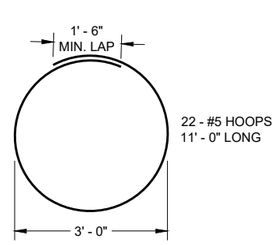
(4) (22) NO. 5 X 11'- 0" BAR STEEL REINFORCEMENT @ 8" MAX. C-C.

(5) (10) NO. 5 X 11' - 0" BAR STEEL HORIZONTAL REINFORCEMENT

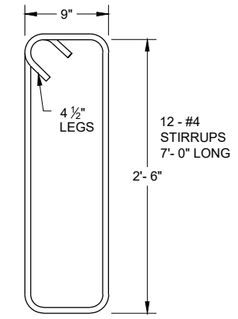
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE .....fy = 55,000 p.s.i.
WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION)
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



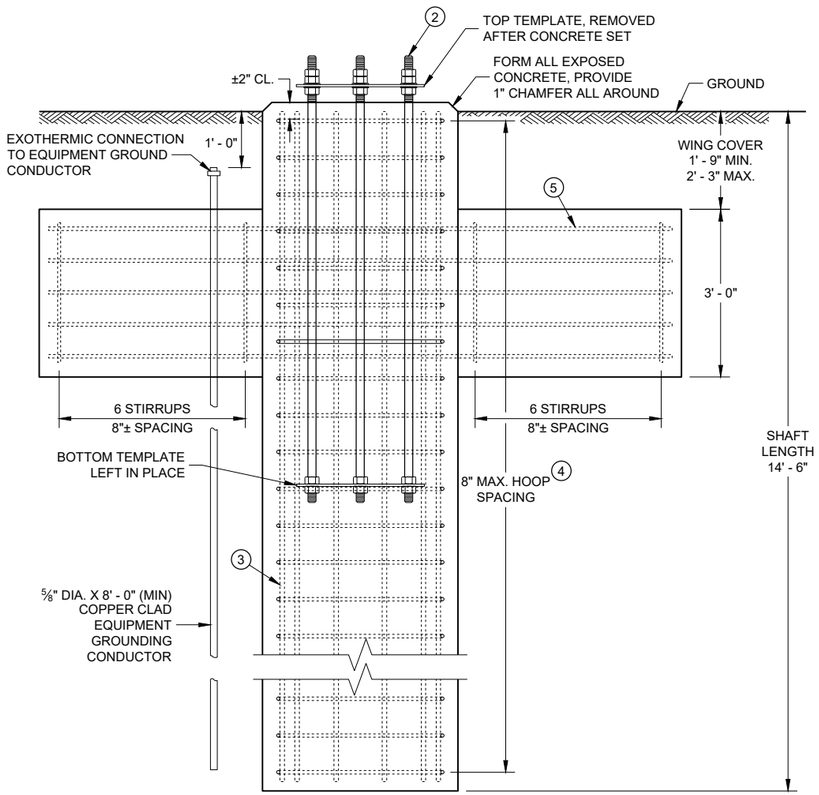
PLAN VIEW



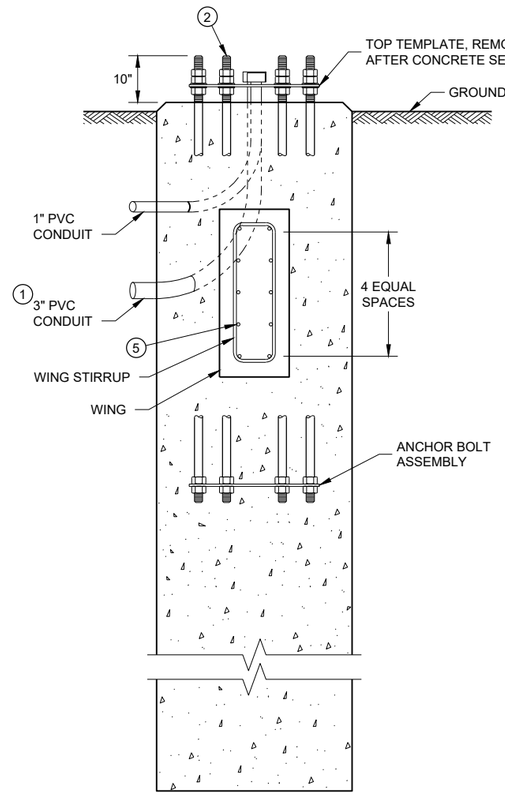
HOOP DETAIL



WING STIRRUP DETAIL



ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)

CONCRETE BASE, TYPE 13
(FOR TYPE 12, TYPE 13 AND OVER HEIGHT (OH) POLES)

CONCRETE = 6.3 CUBIC YARD
H.S. REINFORCEMENT = 635 LBS.

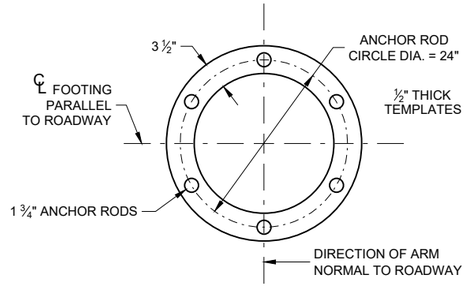
TO BE USED WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION. SEE 9C13 WHEN GROUND ELEVATION AT BASE IS LOWER THAN HIGH POINT OF ROADWAY ELEVATION

CONCRETE BASE TYPE 13

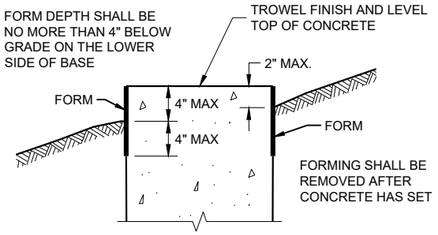
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

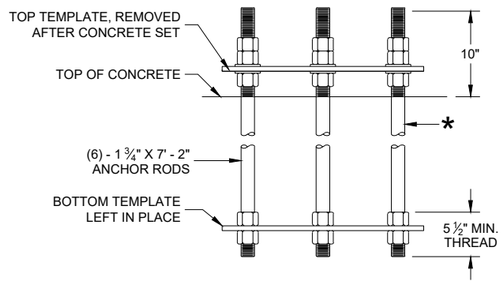
SDD 09C12 - 09a



TOP AND BOTTOM TEMPLATE



FORMING DETAIL



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 11" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE TYPE 13

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2017
DATE

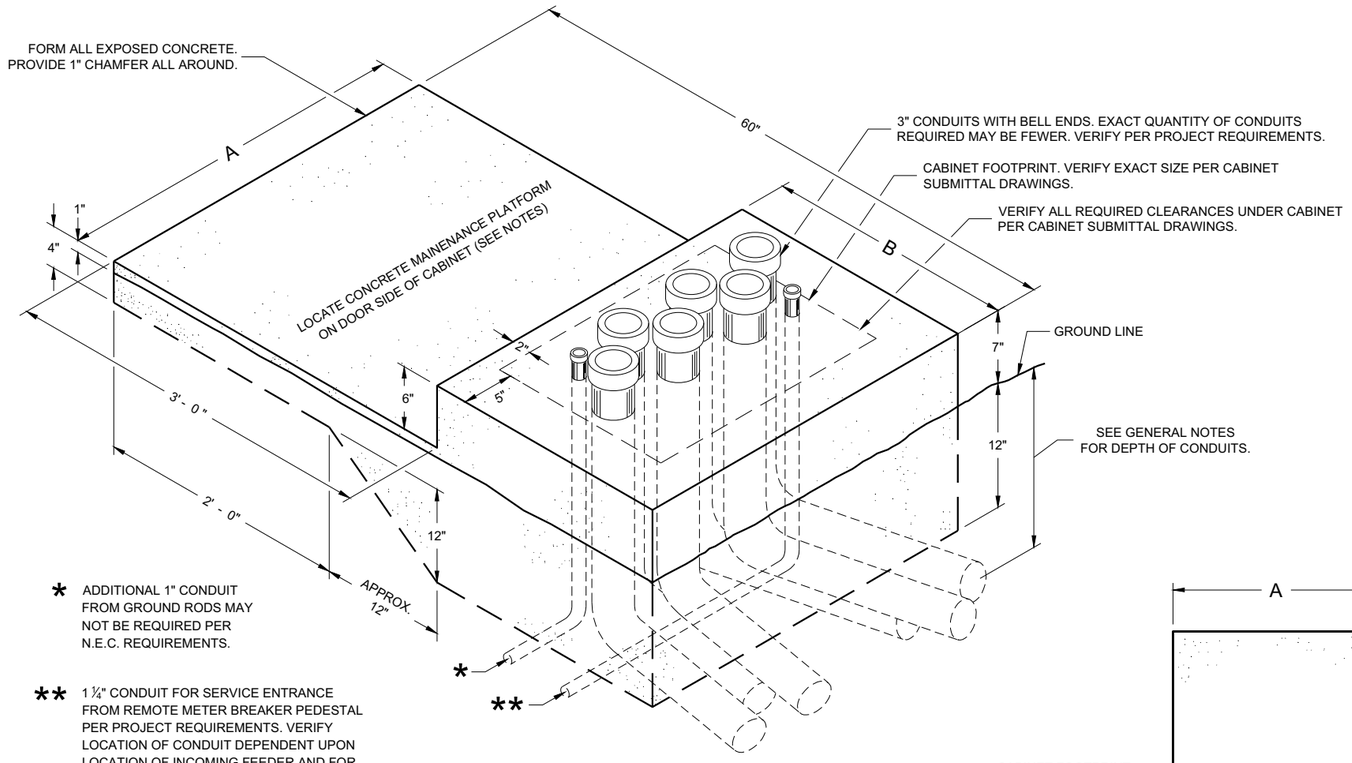
/S/ Ahmet Demirbilek
WIND LOADED STRUCTU
PROGRAM LEADER

FHWA

6

SDD 09C12 - 09b

SDD 09C12 - 09b



* ADDITIONAL 1" CONDUIT FROM GROUND RODS MAY NOT BE REQUIRED PER N.E.C. REQUIREMENTS.

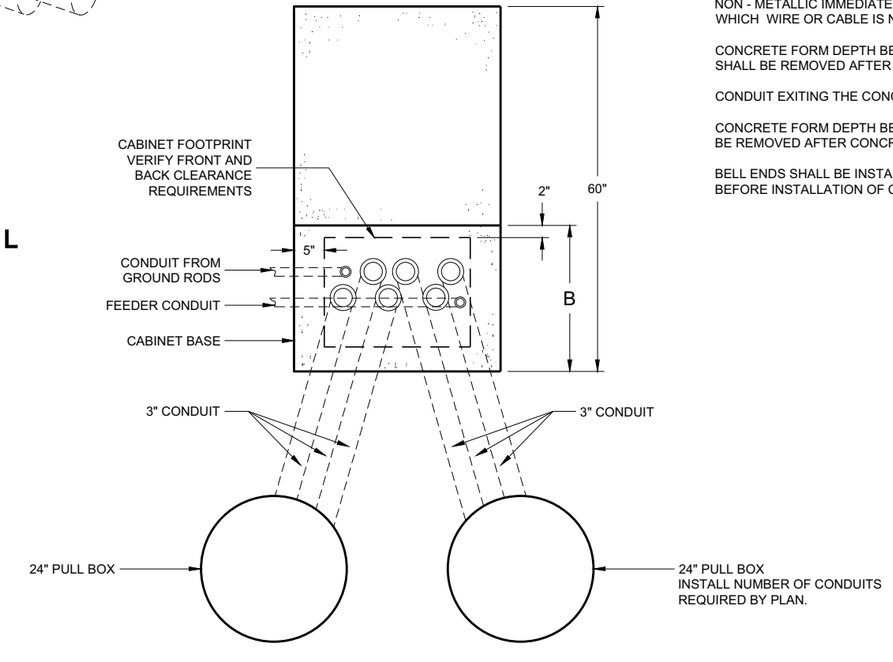
** 1 ¼" CONDUIT FOR SERVICE ENTRANCE FROM REMOTE METER BREAKER PEDESTAL PER PROJECT REQUIREMENTS. VERIFY LOCATION OF CONDUIT DEPENDENT UPON LOCATION OF INCOMING FEEDER AND FOR EASE OF CONNECTION TO LOAD CENTER.

ISOMETRIC VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

(C.Y. CONCRETE = APPROX. 0.4)

CONCRETE BASE TYPE	CABINET WIDTH	DIMENSIONS		MAXIMUM 3" CONDUITS
		A	B	
L24	24"	34"	24"	4
L30	30"	40"	24"	6



PLAN VIEW

CONCRETE CONTROL CABINET BASE, TYPE L

GENERAL NOTES

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

INSTALL FOUR STAINLESS STEEL APPROVED CONCRETE MASONRY ANCHORS TO ANCHOR THE CABINET BASES. THE ANCHORS SHALL BE LOCATED AS DIRECTED BY THE ENGINEER TO PROPERLY ANCHOR THE CONTROL CABINET TO THE BASE.

WHEN REQUIRED TO CONNECT NON - METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U. L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

CONDUIT HEIGHT ABOVE THE CONCRETE BASE SHALL BE 1 INCH.

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

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

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

LOCATIONS SHALL BE AS SHOWN ON THE PLANS UNLESS DETERMINED BY THE ENGINEER IN THE FIELD.

CONTROL CABINET BASE TOP SURFACE SHALL BE TROWEL FINISHED SMOOTH AND LEVEL.

MAINTENANCE PLATFORM SHALL BE FLOAT OR BROOM FINISHED AND LEVEL.

MAINTENANCE PLATFORMS ARE NOT REQUIRED WHEN THE SURROUNDING AREA IS PAVED.

MINIMUM BENDING RADIUS OF CONDUIT EQUALS 6 TIMES THE DIAMETER.

ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED.

CAP ALL BELOW GRADE METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

PLUG ALL BELOW GRADE NON - METALLIC CONDUIT ENDS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON - METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT BEING INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCHES MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

CONDUIT EXITING THE CONCRETE BASE SHALL TERMINATE IN PULL BOXES AS SHOWN ON THE PLANS.

CONCRETE FORM DEPTH BELOW FINISHED GRADE SHALL BE 6 INCH MAXIMUM. CONCRETE FORMS SHALL BE REMOVED AFTER CONCRETE HAS SET.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF THE CONCRETE BASE BEFORE INSTALLATION OF CABLE OR WIRE.

CONCRETE CONTROL CABINET BASE, TYPE L

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 294

FHWA

SDD 09C14 - 03

SDD 09C14 - 03

6

6

GENERAL NOTES

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

THE CONTRACTOR IS RESPONSIBLE FOR MAKING THEIR OWN DETERMINATION AS TO THE TYPE AND LOCATION OF UNDERGROUND UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

BASES (SHAFT) SHALL BE EXCAVATED BY THE USE OF A CIRCULAR AUGER. IF BASE REQUIRES A DEEP FORM BECAUSE OF LOOSE SOIL, THE FORM SHALL BE REMOVED BEFORE BACKFILLING. A STEEL CASING OR CORRUGATED METAL PIPE IS ALLOWED TO REMAIN. BACKFILL SHALL BE TAMPED TIGHT AGAINST THE BASE IN LAYERS OF ONE FOOT OR LESS.

TOP SURFACE OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

ANY DAMAGE TO THE CONCRETE BASE AND ANCHOR RODS DURING CONSTRUCTION OPERATIONS SHALL BE REPAIRED AT THE ENGINEER'S DIRECTION, AT THE EXPENSE OF THE CONTRACTOR.

THE REINFORCEMENT AND ANCHOR RODS SHALL BE ADEQUATELY SUPPORTED IN THE PROPER POSITIONS SO NO MOVEMENT OCCURS DURING CONCRETE PLACEMENT.

ORIENT ANCHOR RODS IN FOOTING AND PROVIDE ANCHOR RODS STICK OUT ABOVE TOP OF CONCRETE FOOTING BASE PER THIS SHEET.

ANCHOR RODS SHALL BE INSTALLED WITH MISALIGNMENTS OF LESS THAN 1:40 FROM VERTICAL.

BAR STEEL REINFORCEMENT SHALL BE COATED WITH POWDERED EPOXY RESIN IN ACCORDANCE WITH SECTION 505 OF THE STANDARD SPECIFICATIONS (LATEST EDITION).

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

WELDING OF ANCHOR RODS TO THE CAGE IS UNACCEPTABLE. TEMPLATES SHALL BE USED.

USE 3" CLEAR FOR ALL REINFORCEMENT UNLESS NOTED OTHERWISE.

FORM ALL EXPOSED CONCRETE CORNERS WITH 1" CHAMFER ALL AROUND. TOP OF THE CONCRETE BASE SHALL BE TROWEL FINISHED AND LEVEL.

CONDUIT SIZES AND LOCATIONS SHALL BE SHOWN ON THE PLANS.

MINIMUM BENDING RADIUS OF CONDUIT IS EQUAL TO 6 TIMES THE DIAMETER.

CONDUIT HEIGHT ABOVE CONCRETE BASES SHALL BE 4 ½" INCHES. ALL METALLIC CONDUIT ENDS SHALL BE REAMED AND THREADED. NON-METALLIC CONDUIT SHALL HAVE BELL ENDS INSTALLED. ALL CONDUIT SHALL SLOPE TO PULL BOX.

ALL CONDUIT ENDS AT THE TOP OF CONCRETE BASES SHALL BE CAPPED IF METALLIC OR PLUGGED IF NON-METALLIC IMMEDIATELY AFTER PLACEMENT AND BEFORE CONCRETE IS POURED. CONDUITS IN WHICH WIRE OR CABLE IS NOT INSTALLED SHALL REMAIN CAPPED OR PLUGGED.

BELL ENDS SHALL BE INSTALLED ON ALL PVC CONDUIT EXPOSED AT THE TOP OF CONCRETE BASES BEFORE INSTALLATION OF CABLE OR WIRE.

WHEN REQUIRED TO CONNECT NON-METALLIC CONDUIT TO METALLIC CONDUIT, ONLY ADAPTER FITTINGS, U.L. LISTED FOR ELECTRICAL USE, SHALL BE USED.

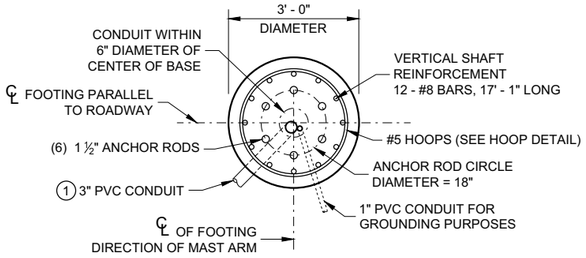
A NO. 4 AWG STRANDED COPPER EQUIPMENT GROUNDING CONDUCTOR SHALL BE EXOTHERMICALLY WELDED TO THE EQUIPMENT GROUNDING ELECTRODE (GROUND ROD).

THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE FURNISHED AND INSTALLED TO ENTER THE BASE THROUGH A 1 INCH CONDUIT INSTALLED FOR GROUNDING PURPOSES, LEAVING A 4 FOOT COIL OF WIRE ABOVE THE CONCRETE BASE. THE EQUIPMENT GROUNDING CONDUCTOR SHALL BE NEATLY COILED AND THE COILS TIED TOGETHER.

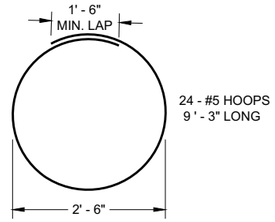
THE FINAL OR TERMINATING CONCRETE BASE IN A CONDUIT RUN SHALL HAVE A 6" EXIT STUB INSTALLED FOR FUTURE CABLING USE. THE EXIT STUB SHALL BE SIZED AS USED THROUGHOUT THE CONDUIT RUN AS SHOWN A THE ENTRANCE OF THE BASE.

(1) THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE AND INSTALLED BELOW THE TRAVELED WAY SHALL BE 24 INCHES. THE MINIMUM DEPTH OF CONDUIT EXITING THE CONCRETE BASE THAT IS NOT INSTALLED BELOW THE TRAVELED WAY SHALL BE 18 INCHES. THE MAXIMUM DEPTH OF ALL CONDUIT SHALL BE 36 INCHES (GREATER THAN 36 INCHES IF INSTALLED IN BREAKER RUN) EXCEPT WITH WRITTEN APPROVAL OF THE ENGINEER.

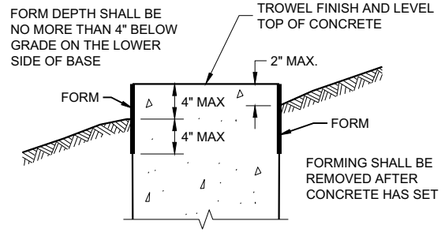
CONCRETE MASONRY.....fc = 3,500 p.s.i
HIGH STRENGTH BAR STEEL REINFORCEMENT, GRADE 60.....fy = 60,000 p.s.i.
ANCHOR RODS, ASTM F1554 GRADE 55 (IN ACCORDANCE WITH SECTION 531.2.2 OF THE STANDARD SPECIFICATION).....fy = 55,000 p.s.i.
TEMPLATES, ASTM A709, GRADE 36.....fy = 36,000 p.s.i.



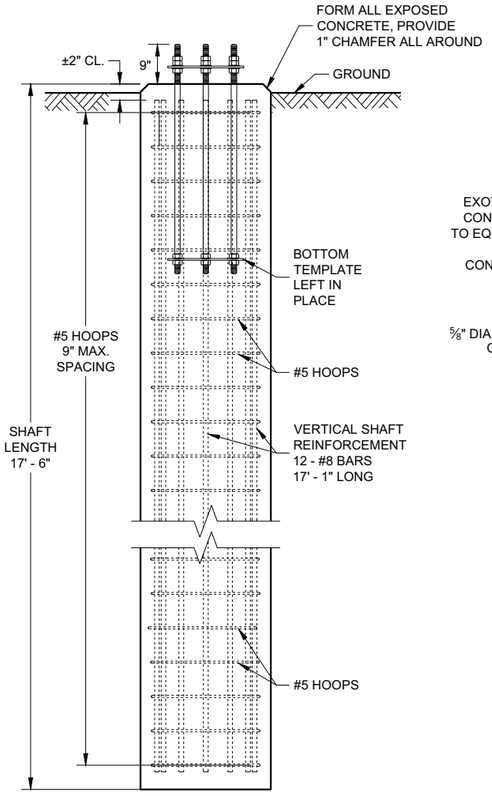
PLAN VIEW



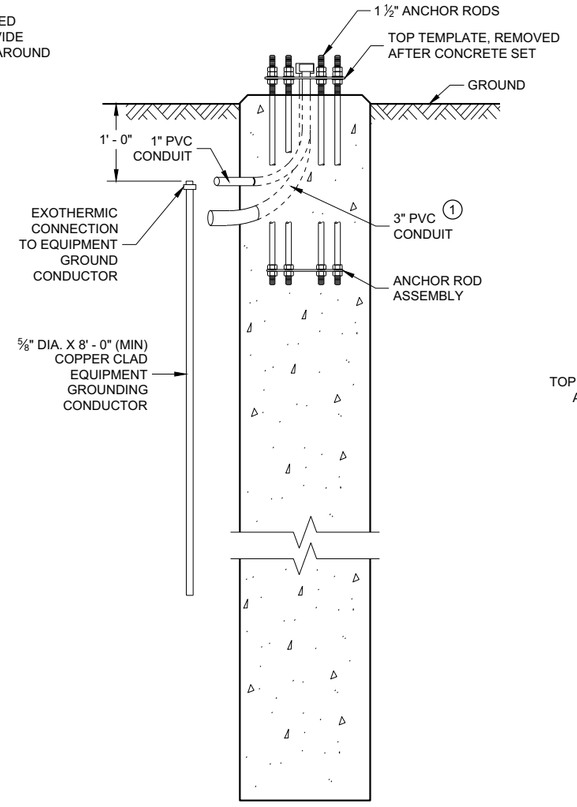
HOOP DETAIL



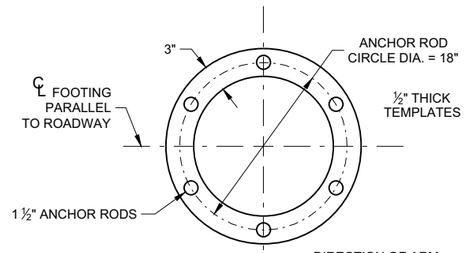
FORMING DETAIL



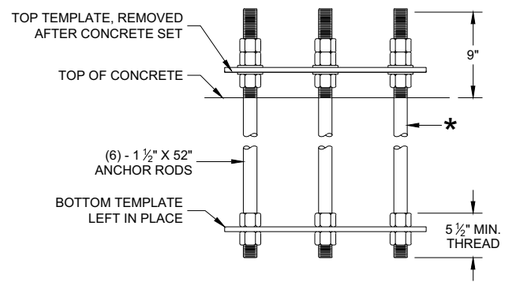
ELEVATION VIEW
(CONDUITS NOT SHOWN ON THIS VIEW FOR CLARITY)



SIDE VIEW
(HOOPS AND VERTICAL SHAFT REINFORCEMENT NOT SHOWN ON THIS VIEW FOR CLARITY)



TOP AND BOTTOM TEMPLATE



ANCHOR ROD ASSEMBLY DETAILS

* THREAD TOP 10" OF ANCHOR ROD FOR 3 NUTS AND 2 WASHERS AND BOTTOM 5 ½" FOR 2 NUTS PER ANCHOR ROD. HOT DIP GALVANIZE THE ENTIRE LENGTH OF THE ANCHOR ROD (ASTM A123) AND HOT DIP NUTS AND WASHERS (ASTM A153. USE ZINC COATED NUTS MANUFACTURED WITH SUFFICIENT ALLOWANCE TO ALLOW NUTS TO RUN FREELY ON THE THREADS.

CONCRETE BASE, TYPE 10 SPECIAL
(FOR TYPE 9 SPECIAL AND TYPE 10 SPECIAL POLES)

CONCRETE = 4.6 CUBIC YARD
H.S. REINFORCEMENT = 779 LBS.

FOR USE WHEN GROUND ELEVATION AT BASE EQUALS OR IS GREATER THAN HIGH POINT OF ROADWAY ELEVATION.

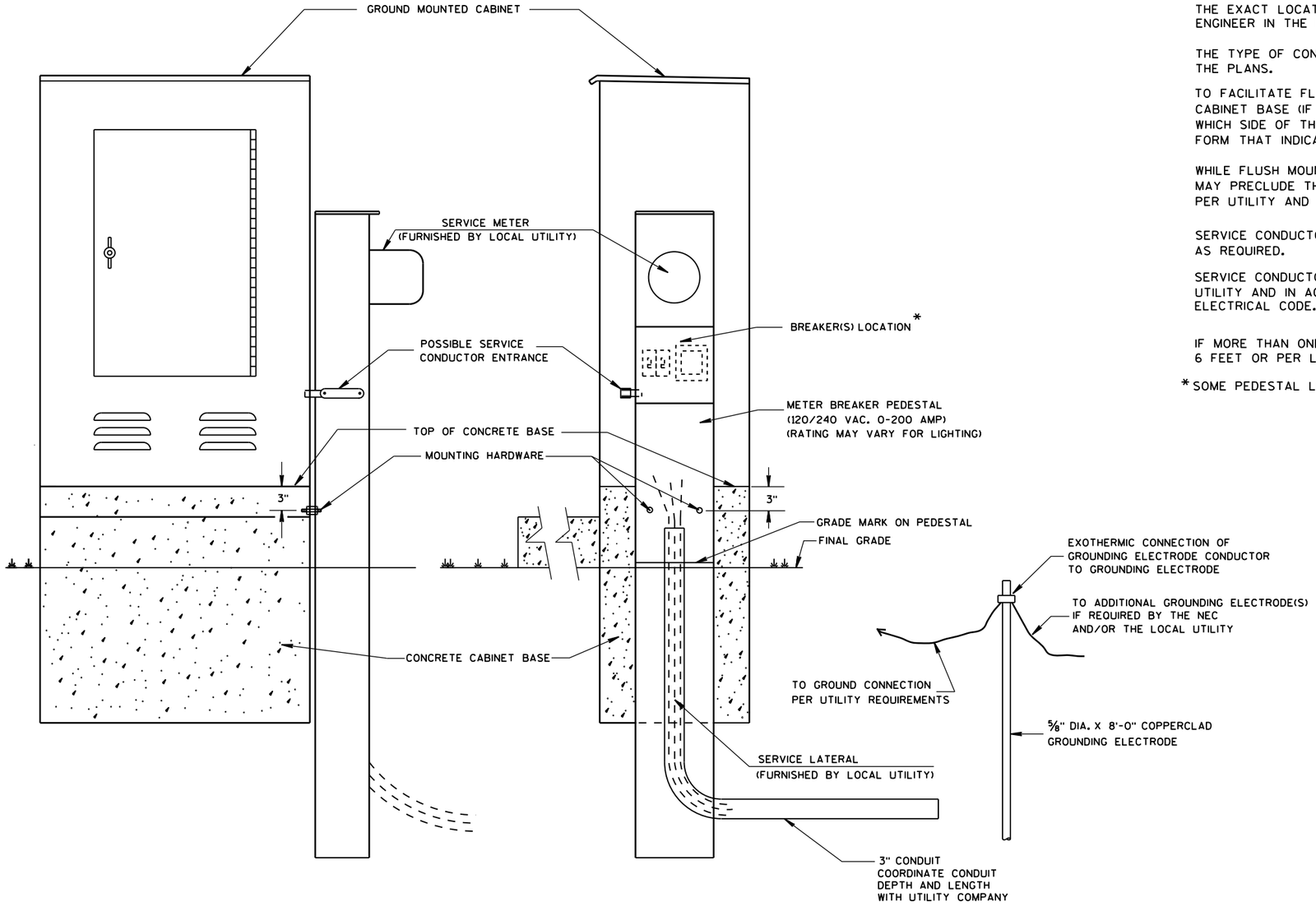
CONCRETE BASE TYPE 10 SPECIAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Alex Crabtree — WIND LOADED STRUCTU PROGRAM LEADER
FHWA

SDD 09C15 - 01

SDD 09C15 - 01



TYPICAL CABINET SERVICE INSTALLATION

GENERAL NOTES

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

THE EXACT LOCATION OF THE METER BREAKER PEDESTAL SHALL BE DETERMINED BY THE ENGINEER IN THE FIELD.

THE TYPE OF CONCRETE CABINET BASE TO BE INSTALLED SHALL BE AS CALLED FOR IN THE PLANS.

TO FACILITATE FLUSH MOUNTING OF THE METER BREAKER PEDESTAL AGAINST THE SIDE OF THE CABINET BASE (IF FLUSH MOUNTING POSSIBLE. CONFER WITH THE LOCAL UTILITY TO DETERMINE WHICH SIDE OF THE CONCRETE BASE THE ELECTRICAL SERVICE LATERAL WILL APPROACH. THEN FORM THAT INDICATED SIDE FOR FULL SIDE DEPTH.

WHILE FLUSH MOUNTING IS THE MOST DESIRABLE MOUNTING CONFIGURATION UTILITY REQUIREMENTS MAY PRECLUDE THIS OPTION. CONTRACTOR MUST PROVIDE UTILITY APPROVED PEDESTAL AND INSTALL PER UTILITY AND MANUFACTURERS REQUIREMENTS.

SERVICE CONDUCTOR ENTRANCES SHALL BE RIGID METALLIC CONDUIT, NIPPLES AND/OR CONDULETS AS REQUIRED.

SERVICE CONDUCTOR ENTRANCES SHALL BE SIZED AND LOCATED AS REQUIRED BY THE LOCAL UTILITY AND IN ACCORDANCE WITH APPROPRIATE ARTICLES OF THE LATEST ACCEPTED NATIONAL ELECTRICAL CODE.

IF MORE THAN ONE GROUNDING ELECTRODE IS REQUIRED, THE DISTANCE APART SHALL BE 6 FEET OR PER LOCAL UTILITY REGULATIONS.

* SOME PEDESTAL LIGHTING PLANS SHOW MAIN LUGS ONLY.

6

S.D.D. 9 D 1-5

6

S.D.D. 9 D 1-5

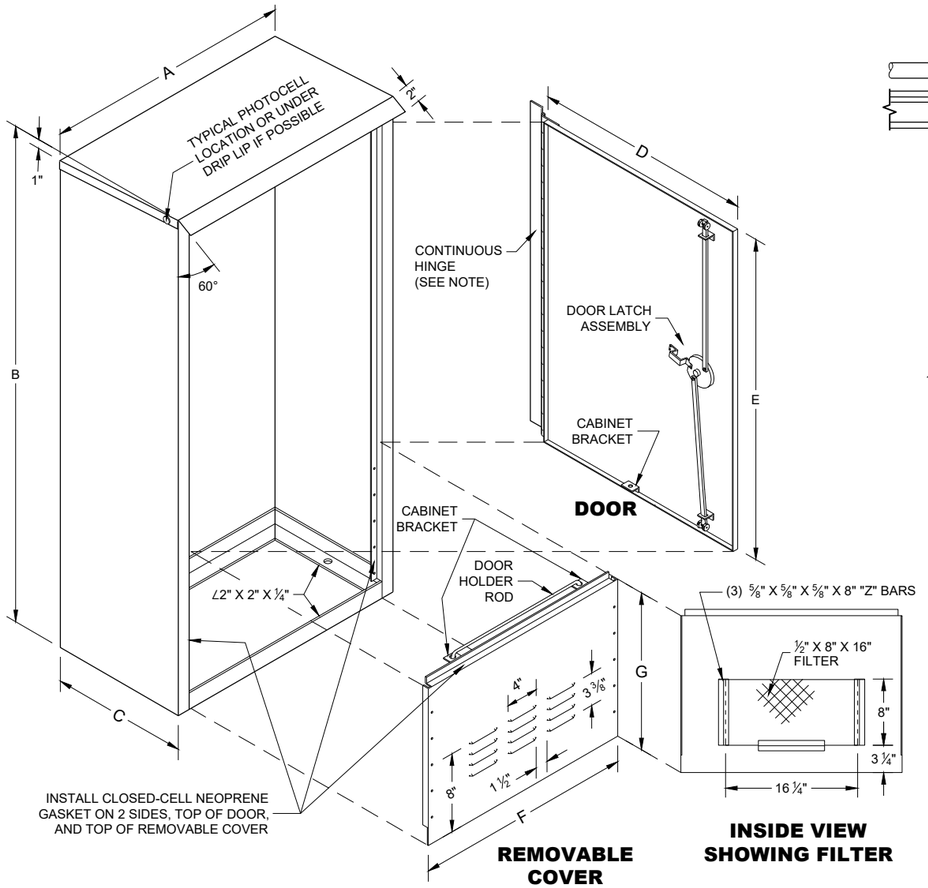
CABINET SERVICE INSTALLATION (METER BREAKER PEDESTAL)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
Sept. 2014
DATE

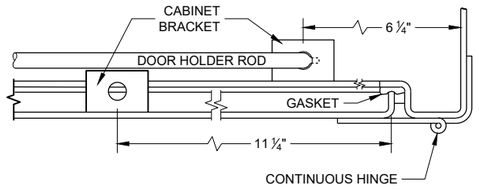
/S/ Ahmet Demirbilek
STATE ELECTRICAL

FHWA

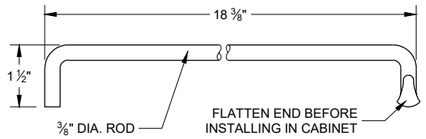


REMOVABLE COVER

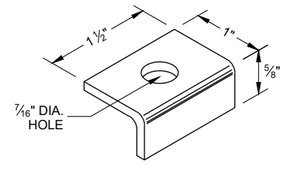
INSIDE VIEW SHOWING FILTER



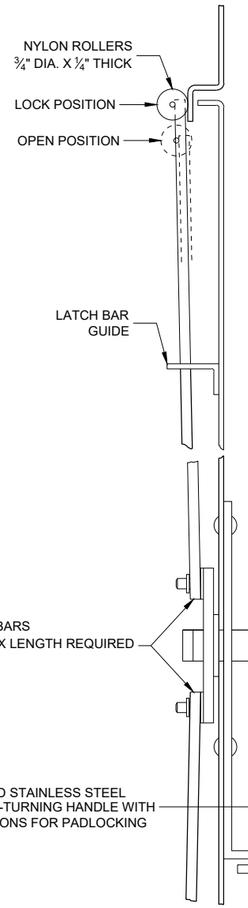
HINGE AND DOOR HOLDER



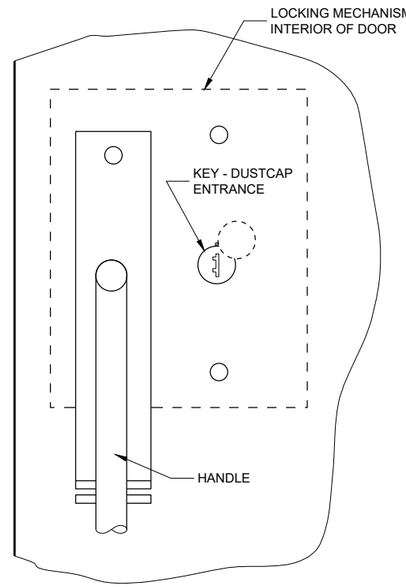
HOLDER ROD



CABINET BRACKET



SIDE VIEW



FRONT VIEW

LATCH ASSEMBLY

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.

PRIME WITH PHOSPHATE TREATMENT AND PRIMER.

FINISH EXTERIOR SURFACES WITH RUSTOLEUM #906 SILVER GRAY OR APPROVED EQUAL.

FINISH INTERIOR WITH RUSTOLEUM #2766 HIGH GLOSS WHITE ENAMEL OR APPROVED EQUAL.

ALL SHEET METAL PARTS SHALL BE .125 INCH THICK ALUMINUM.

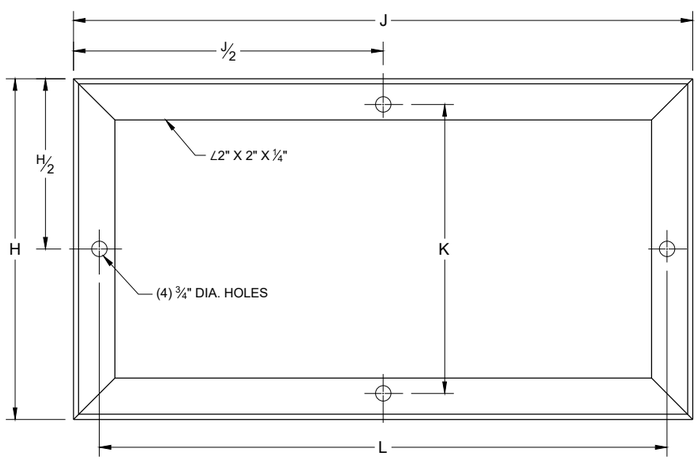
ALL SEAMS SHALL BE CONTINUOUSLY WELDED.

ALUMINUM SHALL BE TYPE 5052-H32.

CONTINUOUS HINGE SHALL BE HEAVY GAUGE ALUMINUM WITH ¼" DIAMETER STAINLESS STEEL HINGE PIN. HINGE IS SECURED WITH ¼" X 20 TPI STAINLESS STEEL CARRIAGE BOLTS AND STAINLESS STEEL NYLOCK NUTS.

A SINGLE PHOTOCELL SHALL BE LOCATED ON THE NORTH - NORTHEAST SIDE OF THE CABINET UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISIONS. THE PHOTOCELL SHALL BE PLACED AS SHOWN AND SHALL BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.

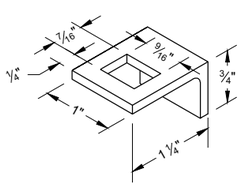
DOOR LATCH ASSEMBLY TO BE PROVIDED WITH THREE-POINT LOCKING MECHANISM.



MOUNTING BASE

TABLE OF DIMENSIONS (INCHES)

MARK	CABINET TYPE		
	3060	3860	3866
A	30	38	38
B	60	60	66
C	16 ½	16 ½	24
D	26 ½	34 ¾	33 ¾
E	38 ¾	38 ¾	38 ¾
F	26 ½	34 ¾	33 ¾
G	19	19	25
H	16 ½	16 ½	24
H/2	8 ¼	8 ¼	12
J	30	38	38
J/2	15	19	19
K	13 ¾	13 ¾	21 ¼
L	27 ½	35 ½	35 ½



LATCH BAR GUIDE

SIGNAL CONTROL CABINET

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
September 2014
DATE

/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI 297

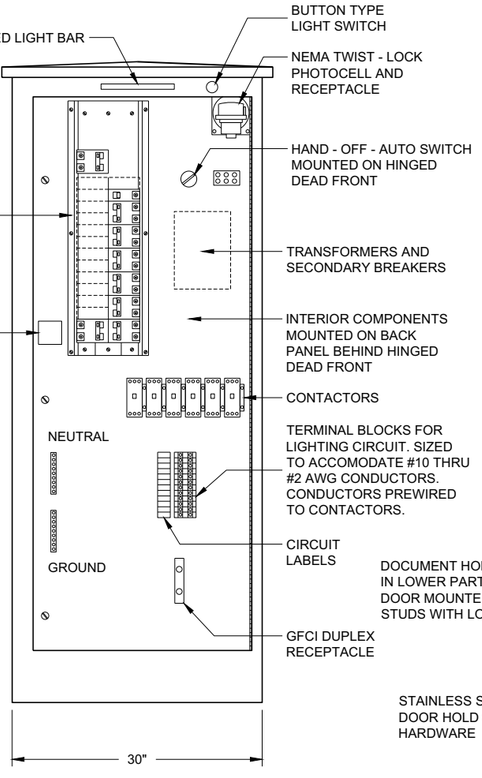
FHWA

SDD 09D02 - 03

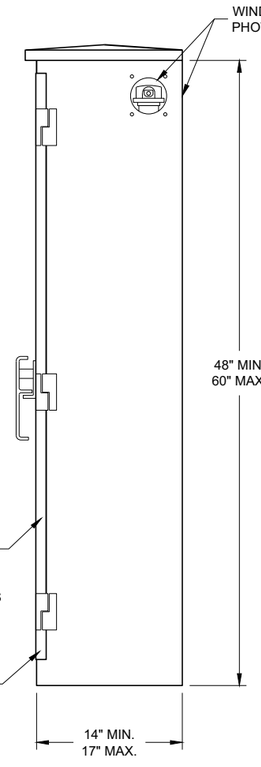
SDD 09D02 - 03

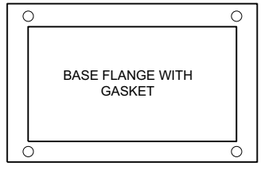
6

FRONT INTERIOR ELEVATION

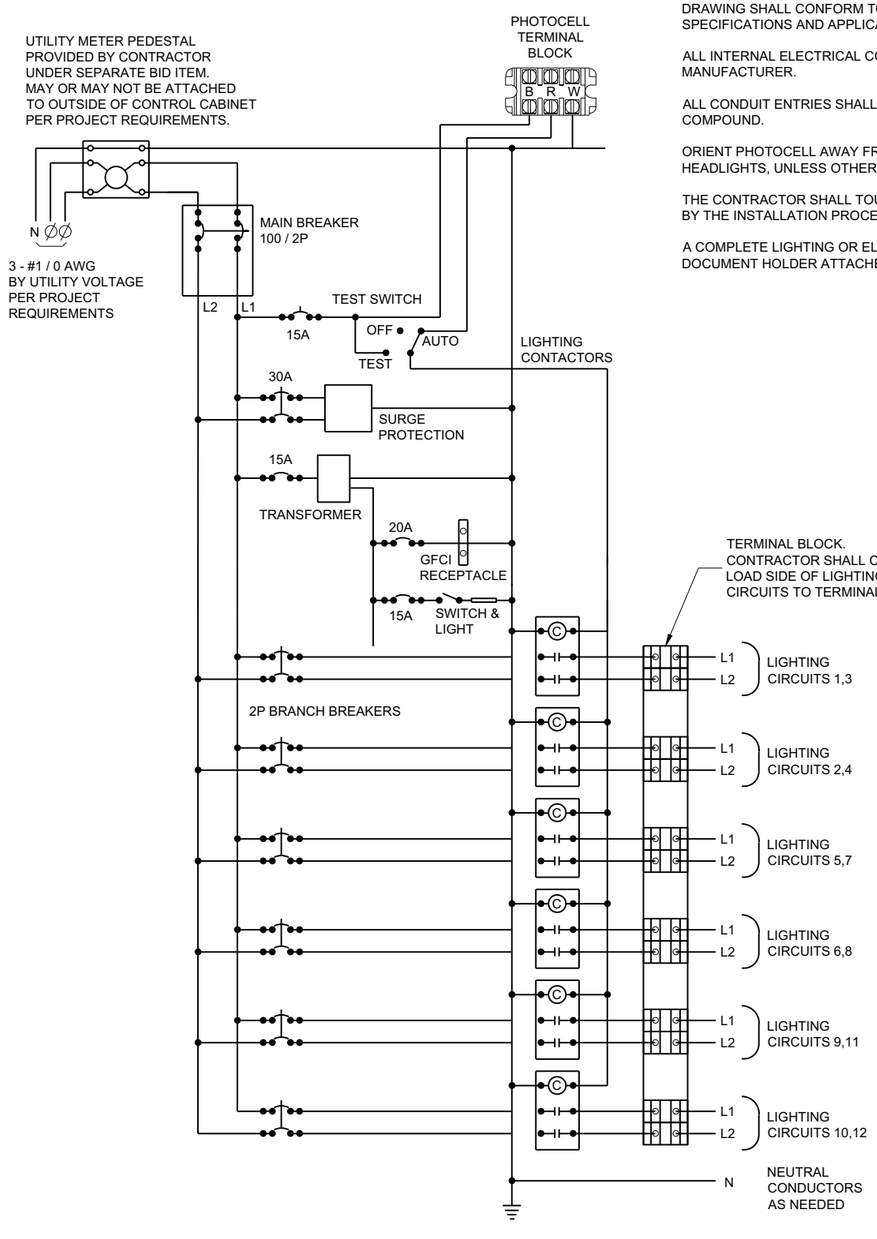


SIDE VIEW





LIGHTING CONTROL CABINET



CONTROL CABINET SCHEMATIC

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.

ALL INTERNAL ELECTRICAL COMPONENTS WILL BE PRE - WIRED BY THE CABINENT MANUFACTURER.

ALL CONDUIT ENTRIES SHALL BE SEALED WITH AN APPROPRIATE DUCT SEALING COMPOUND.

ORIENT PHOTOCELL AWAY FROM AMBIENT LIGHT SOURCES AND ONCOMING TRAFFIC HEADLIGHTS, UNLESS OTHERWISE CALLED FOR IN THE SPECIAL PROVISION.

THE CONTRACTOR SHALL TOUCH UP ANY DAMAGE TO THE ANODIZED FINISH CAUSED BY THE INSTALLATION PROCESS. COLOR MATCH PAINT SHALL BE USED.

A COMPLETE LIGHTING OR ELECTRICAL PLAN SHALL BE SECURELY PLACED IN THE DOCUMENT HOLDER ATTACHED TO THE DOOR.

L30
LIGHTING CONTROL CABINET 240 / 480 VOLT

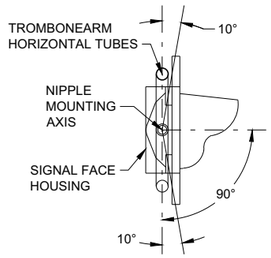
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 298

FHWA

6
SDD 09D05 - 02

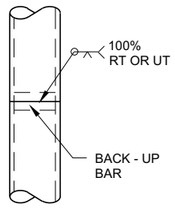


SECTION A-A

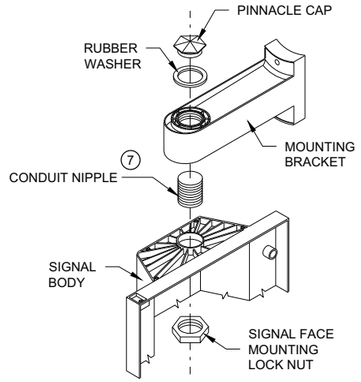
(10 DEGREES TILT REQUIREMENT OF FACE(S) IN THE TROMBONE MOUNTING)

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.



POLE SPLICE DETAIL



SIGNAL FACE MOUNTING DETAIL

(BANDED)

GENERAL NOTES

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

POLES SHALL BE EITHER ALUMINUM OR GALVANIZED STEEL AS CALLED FOR IN THE CONTRACT.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

TYPE 2 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING,PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) ASREQUIRED, TO PLUMB THE SIGNAL FACES.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

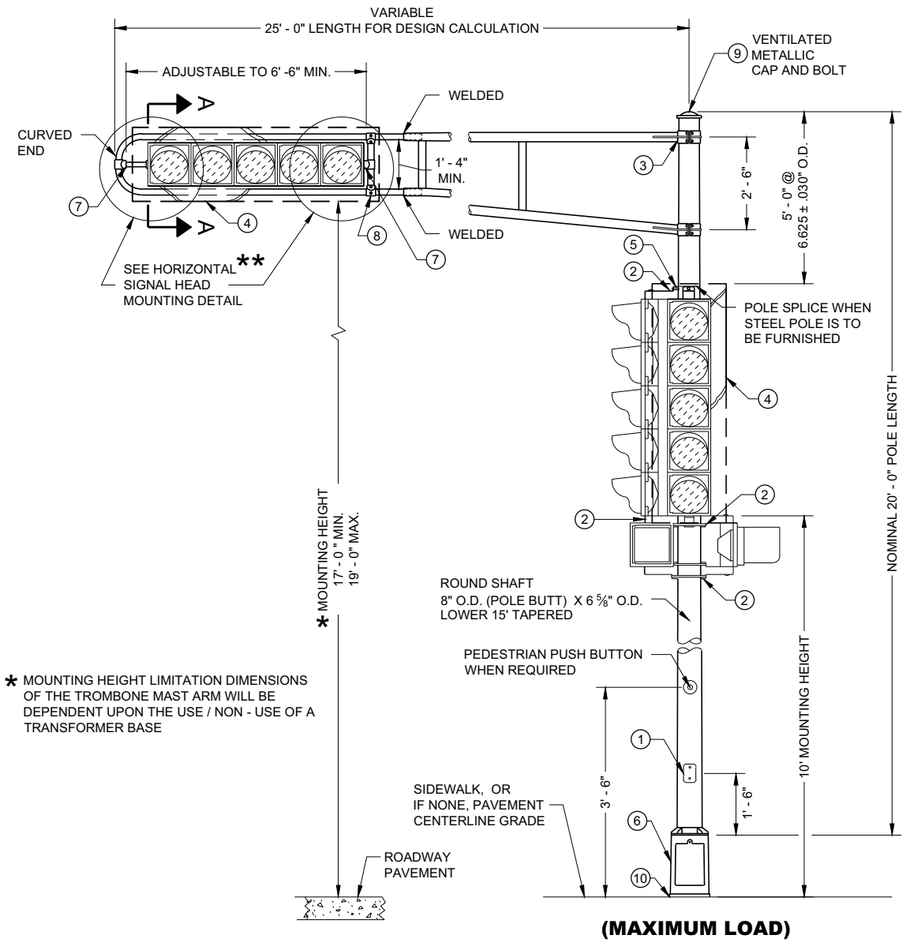
(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOTINTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUTIS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

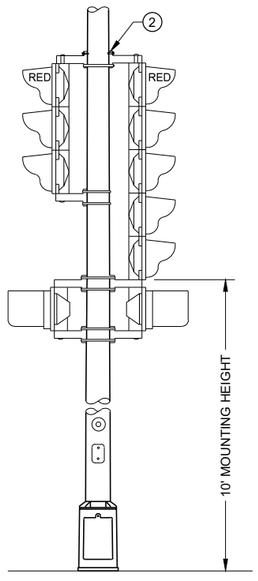
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND THE TRANSFORMER BASE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

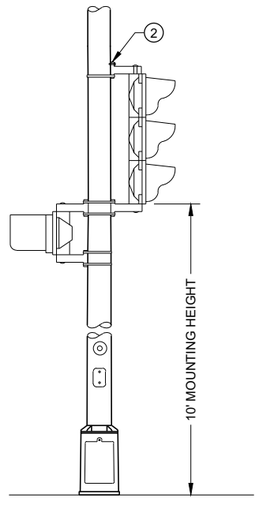


* MOUNTING HEIGHT LIMITATION DIMENSIONS OF THE TROMBONE MAST ARM WILL BE DEPENDENT UPON THE USE / NON - USE OF A TRANSFORMER BASE

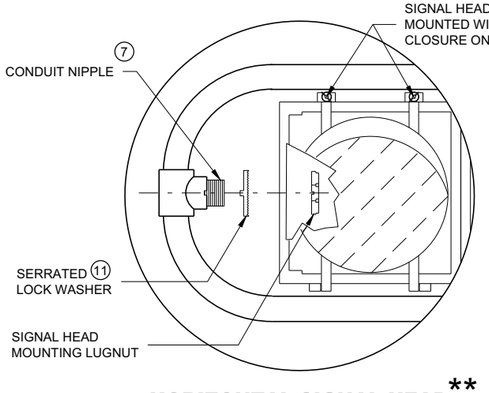
(MAXIMUM LOAD)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD MOUNTING DETAIL **

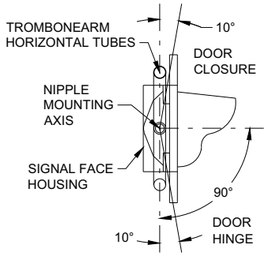
** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 2 POLE MOUNTING CONFIGURATION

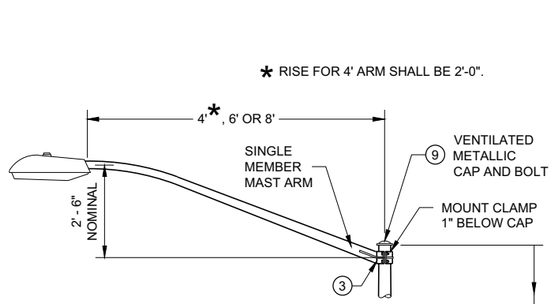
POLE MOUNTINGS FOR TRAFFIC SIGNALS TYPE 2

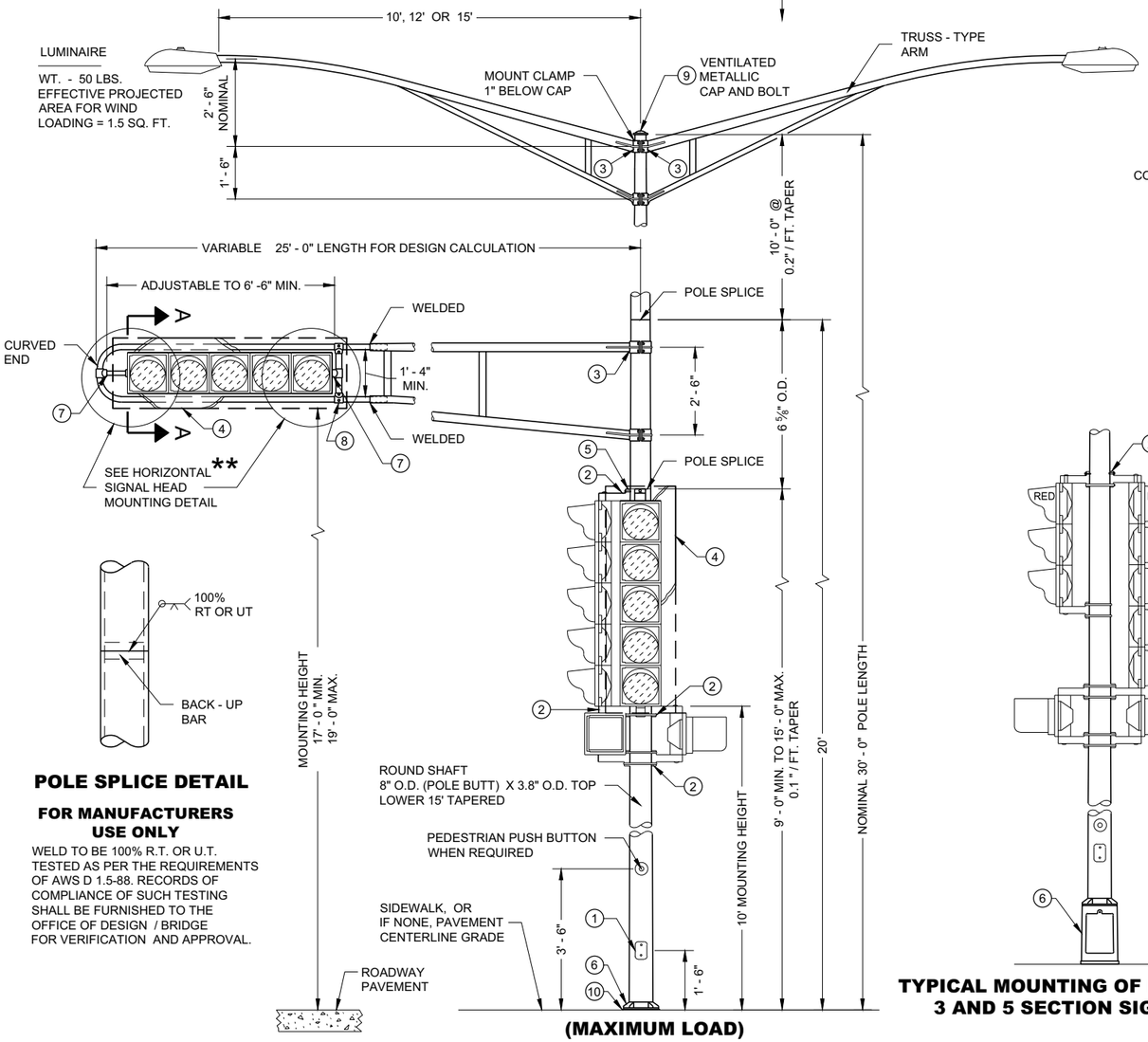
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTA

6
SDD 09E01 - 15a

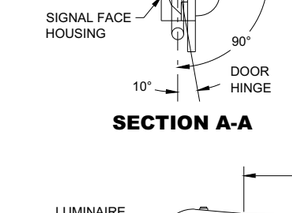


SECTION A-A





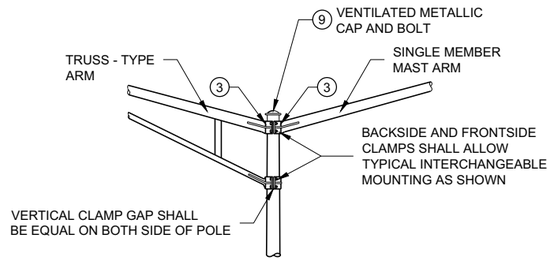
(MAXIMUM LOAD)



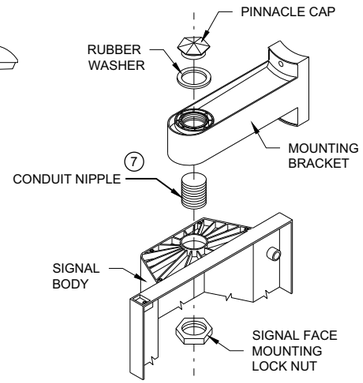
POLE SPLICE DETAIL

FOR MANUFACTURERS USE ONLY

WELD TO BE 100% R.T. OR U.T. TESTED AS PER THE REQUIREMENTS OF AWS D 1.5-88. RECORDS OF COMPLIANCE OF SUCH TESTING SHALL BE FURNISHED TO THE OFFICE OF DESIGN / BRIDGE FOR VERIFICATION AND APPROVAL.

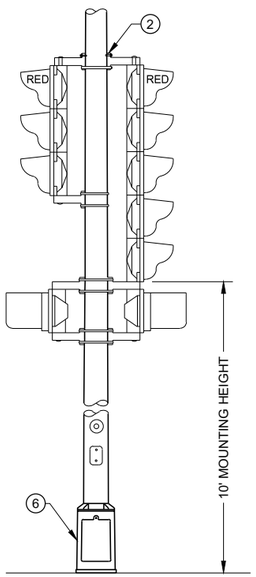


INTERCHANGEABLE MOUNTING DETAIL

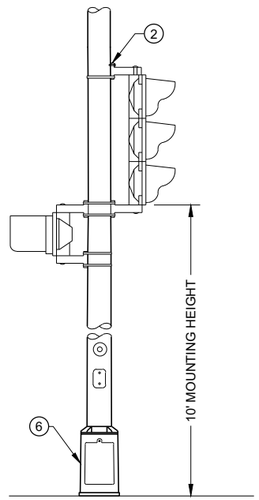


SIGNAL FACE MOUNTING DETAIL

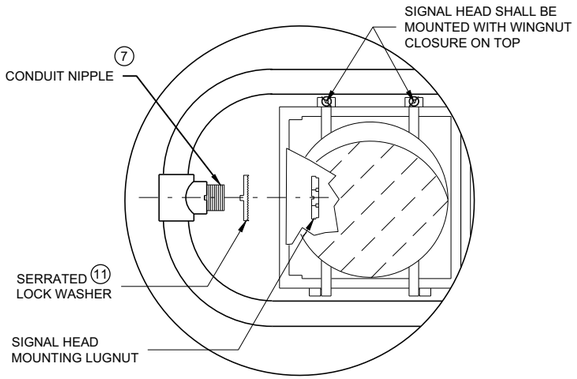
(BANDED)



TYPICAL MOUNTING OF BACK TO BACK 3 AND 5 SECTION SIGNAL FACES



TYPICAL MOUNTING OF 3 SECTION SIGNAL FACE



HORIZONTAL SIGNAL HEAD ** MOUNTING DETAIL

** SIGNAL HEAD ATTACHMENT ALSO APPLIES TO MOUNTING AT CROSS BAR

TYPE 3 POLE MOUNTING CONFIGURATION

GENERAL NOTES

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

ALL TYPE 3 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL.

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

A PULL WIRE / ROPE SHALL BE INSTALLED IN EACH TROMBONE ARM RACEWAY DURING THE MANUFACTURING PROCESS.

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 3/8 INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

(2) SIGNAL FACE MOUNTING BRACKETS. MOUNT WITH CAP SCREWS AND BANDING.

(3) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 3/8" HOLE IN POLE SHAFT FOR WIRING.

(4) SECURELY MOUNT DULL BLACK POLYCARBONATE BACKPLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURER'S RECOMMENDATIONS.

(5) POLE MOUNTED SIGNAL FACES SHALL REQUIRE ONE OR MORE MOUNTING SPACERS UNDER THE TOP MOUNTING BRACKET(S) AS REQUIRED, TO PLUMB THE SIGNAL FACE.

(6) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED. UNDER MAX LOADING, TYPE 3 POLE SHALL BE MOUNTED DIRECTLY TO ITS CONCRETE BASE.

(7) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACES AND BRACKET ENDS.

(8) VERTICAL STRUT (ADJUSTABLE). ONE (1) SET SCREW (¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD) INTO EACH ARM MEMBER IF STRUT IS THE SLIDING TYPE.

(9) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

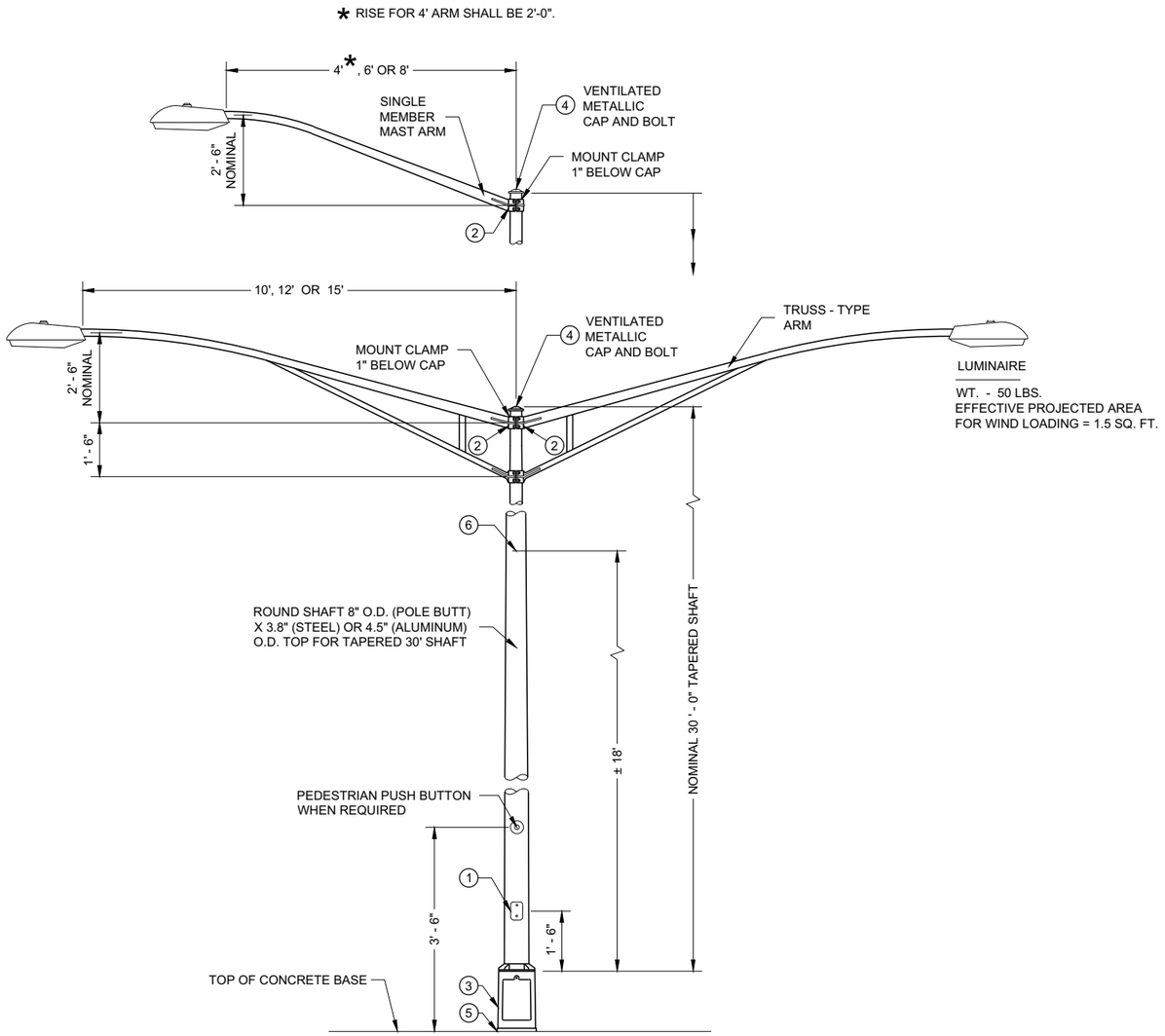
(10) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(11) USE SERRATED LOCK WASHERS WITH NOTCHES BETWEEN END TEE AND SIGNAL HEAD.

POLE MOUNTINGS FOR TRAFFIC SIGNALS AND LIGHTING UNITS TYPE 3 (HEAVY DUTY)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 09E01 - 15b



TYPE 5 POLE MOUNTING CONFIGURATION

(MAXIMUM LOAD)

LIGHTING ONLY

GENERAL NOTES

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

SECTION 657, POLES, OF THE STANDARD SPECIFICATIONS SHALL APPLY TO THIS DRAWING.

ALL TYPE 5 POLE MOUNTINGS SHALL BE DESIGNED TO INCLUDE TWIN 15' ARMS WITH LUMINAIRES.

POLES SHALL BE GALVANIZED STEEL OR ALUMINUM, AS CALLED FOR IN THE CONTRACT.

TYPE 5 ALUMINUM POLES SHALL BE CONSTRUCTED OF 6063 - T6 ALUMINUM ALLOY. SLEEVING INSIDE THE POLE IS NOT ACCEPTABLE.

TYPE 5 ALUMINUM POLES SHALL HAVE A MINIMUM WALL THICKNESS OF 0.1888".

TYPE 5 STEEL POLES SHALL HAVE A MINIMUM WALL THICKNESS OF U.S. STANDARD 11 GAGE (0.1196").

THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 2 ⅜ INCHES IN OUTSIDE DIAMETER. THE STRAIGHT PORTION OF THE SLIPFITTER END OF THE LUMINAIRE MAST ARM SHALL BE A NOMINAL 12 INCHES IN LENGTH.

WHEN TRANSFORMER BASES ARE USED, WIRE CONNECTIONS SHALL BE MADE IN THE TRANSFORMER BASE.

(1) 4" X 6" REINFORCED HANDHOLE AND COVER ASSEMBLY WITH TWO (2) ¼" X ¾" - 20 TPI , STAINLESS STEEL, HEX HEAD BOLTS.

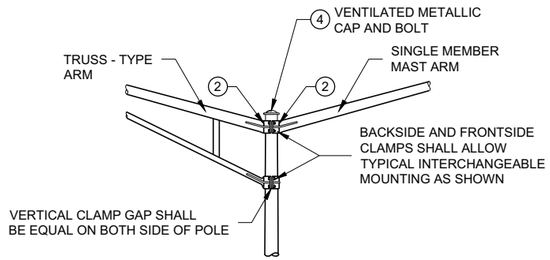
(2) GROMMETS. 1" CHASE NIPPLES OR 1" CLOSE CONDUIT NIPPLES WITH BUSHINGS SHALL BE PROVIDED FOR 1 ⅜" HOLE IN POLE SHAFT FOR WIRING.

(3) CAST ALUMINUM TRANSFORMER BASE, WHEN REQUIRED.

(4) FURNISH AND INSTALL VENTILATED, CAST METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

(5) SHIMMING, IF NEEDED, SHALL BE LOCATED BETWEEN THE CONCRETE FOUNDATION AND POLE.

(6) INTERNAL DUMBBELL - TYPE VIBRATION DAMPER.



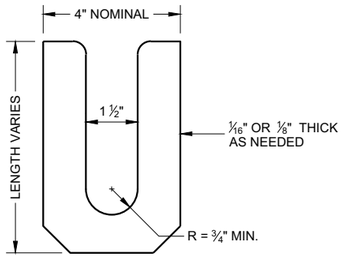
INTERCHANGEABLE MOUNTING DETAIL

POLE MOUNTINGS FOR LIGHTING UNITS, TYPE 5 (30 FEET)

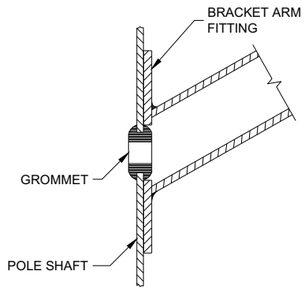
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

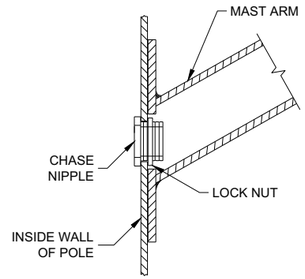
SDD 09E01 - 15d



LEVELING SHIM (1)
SHALL BE ALUMINUM



TYPICAL APPLICATION OF GROMMET IN POLE SHAFT



TYPICAL APPLICATION OF CHASE NIPPLE IN POLE SHAFT

GENERAL NOTES

CLAMP BOLT-NUT TIGHTENING TORQUE SHALL BE INDICATED BY INDENT STAMPING (1/2 INCH NUMERALS AND LETTERS) OR WEATHERPROOF PRINTING ON THE INSIDE OF THE CLAMP THAT IS WELDED TO THE ARM MEMBER.

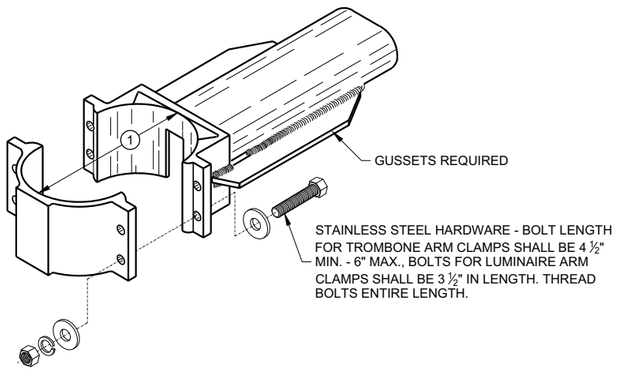
(1) 4.5" I.D. FOR LUMINAIRE MAST ARM CLAMP. 6.625" I.D. FOR TROMBONE MAST ARM CLAMP.

(2) INDIVIDUAL BASE PLATE ANCHOR ROD COVERS. (4 REQUIRED)

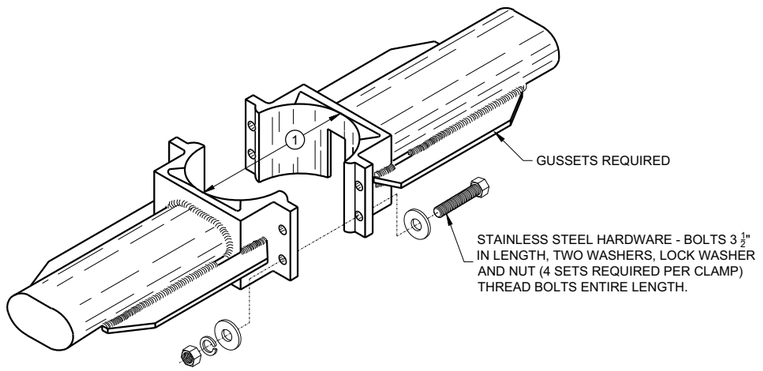
(3) BASE PLATE SLOTTED TO ACCEPT 11" THROUGH 12" BOLT CIRCLE USING 1" DIAMETER ANCHOR RODS.

(4) LEVELING SHIMS, DESIGNED FOR THE PURPOSE, SHALL BE USED WHEN PLUMBING POLES. THE USE OF WASHERS IN LIEU OF PROPER LEVELING SHIMS IS NOT ACCEPTABLE. LEVELING SHIMS SHALL BE USED ONLY BETWEEN THE TOP OF THE CONCRETE BASE AND A METALLIC BASE PLATE.

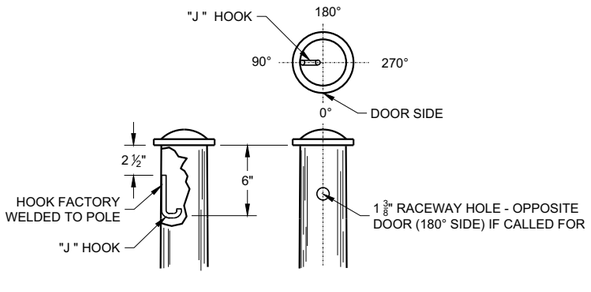
SHIMS SHALL BE LONG ENOUGH AND WIDE ENOUGH TO COMPLETELY COVER THE AREA UNDER THE LENGTH AND WIDTH OF THE BASE MOUNTING FLANGE.



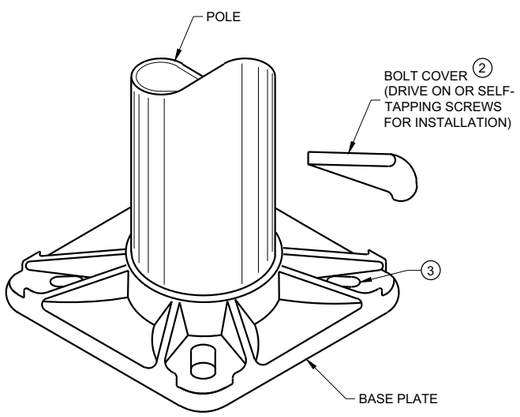
TYPICAL TROMBONE MAST ARM AND SINGLE LUMINAIRE MAST ARM MOUNTING CLAMP



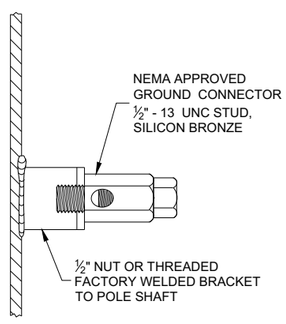
TYPICAL LUMINAIRE MAST ARM (DOUBLE) MOUNTING BRACKETS

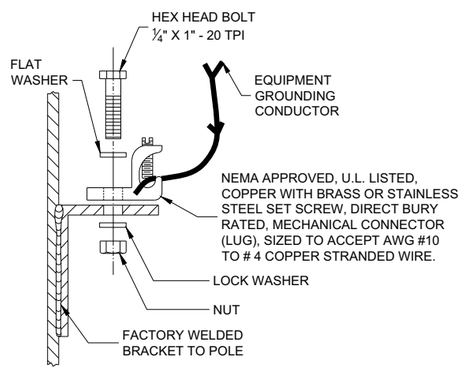


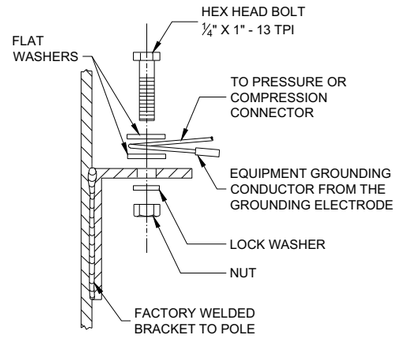
TYPICAL "J" HOOK LOCATION



BASE PLATE







TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL

HARDWARE DETAILS FOR POLE MOUNTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 302

FHWA

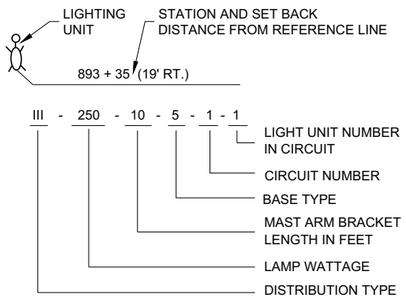
6
SDD 09E01 - 15g

GENERAL NOTES

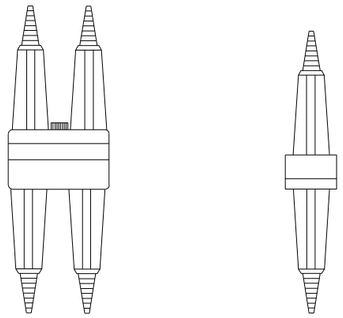
DETAILS OF CONSTRUCTION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

THE EQUIPMENT GROUND CONNECTOR SHALL BE TAPED WITH 3 WRAPS (MINIMUM) OF APPROVED RUBBER TAPE AND 3 WRAPS (MINIMUM) OF APPROVED VINYL TAPE TO COVER SHARP WIRE ENDS AFTER THE CONNECTION IS COMPLETED.

WHEN TRANSFORMER BASES ARE USED, ALL WIRING CONNECTIONS SHALL OCCUR WITHIN THE TRANSFORMER BASES.

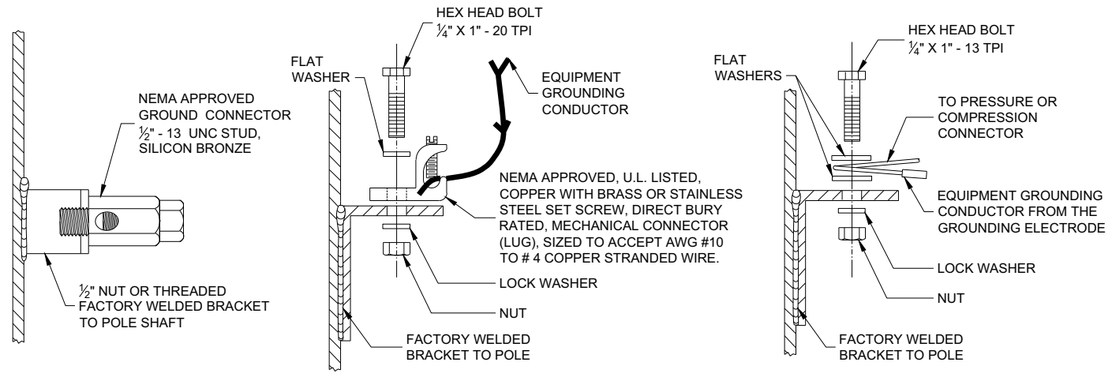


LIGHTING UNIT CODE
(TYPICAL)

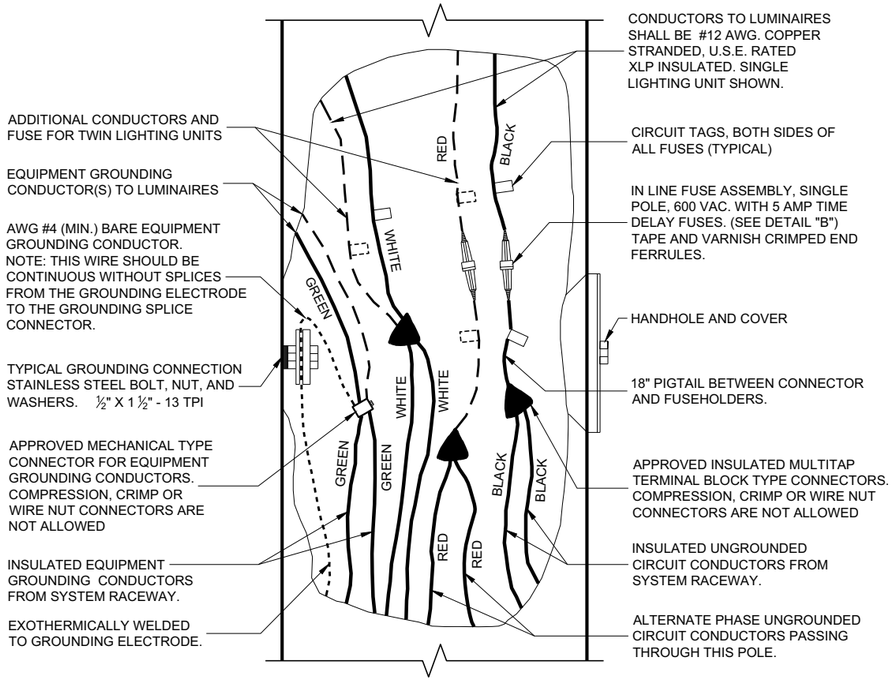


DETAIL "A"
BREAKAWAY DOUBLE POLE WITH WATERPROOF INSULATING BOOT

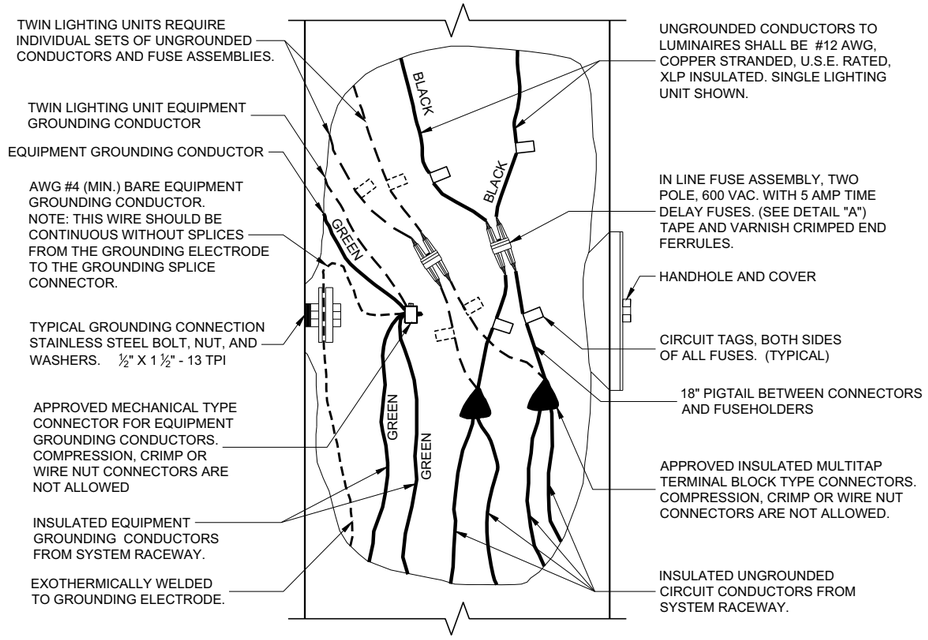
DETAIL "B"
BREAKAWAY SINGLE POLE WITH WATERPROOF INSULATING BOOT



TYPICAL GROUNDING CONNECTIONS
NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



3 WIRE - 120, 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH GROUNDING CONDUCTOR AND EQUIPMENT GROUNDING CONDUCTOR



2 WIRE - 240 OR 480 VAC (UNGROUNDED CONDUCTORS) WITH EQUIPMENT GROUNDING CONDUCTOR

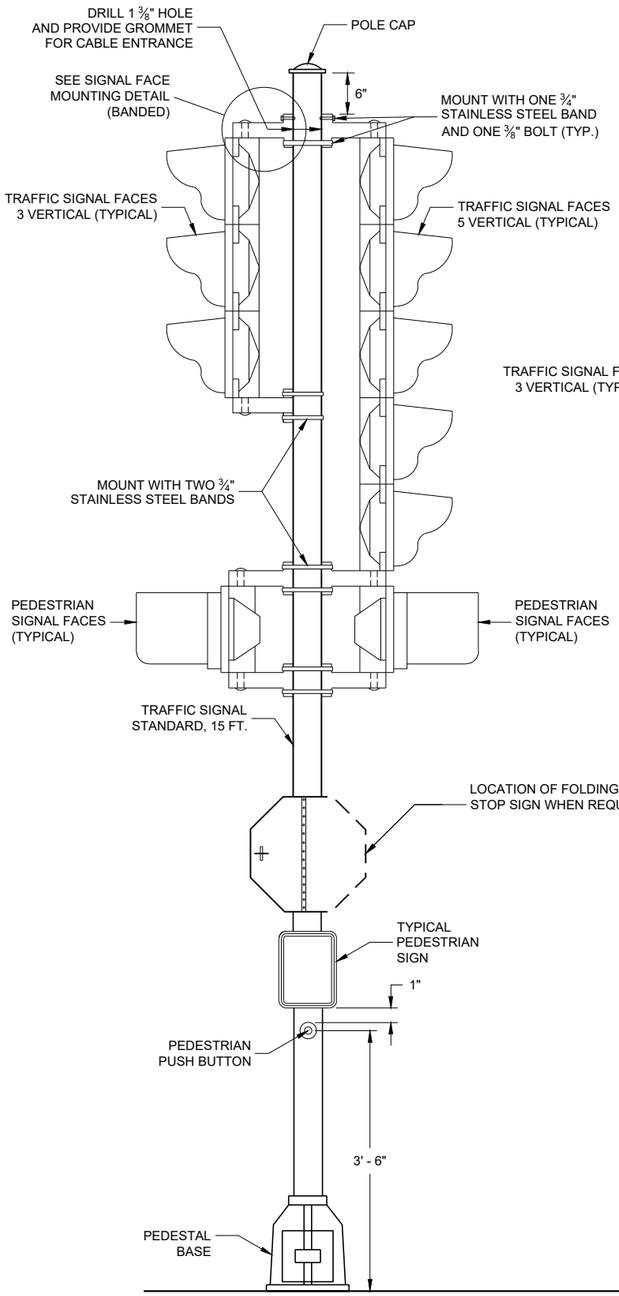
NON - FREEWAY LIGHTING UNIT POLE WIRING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

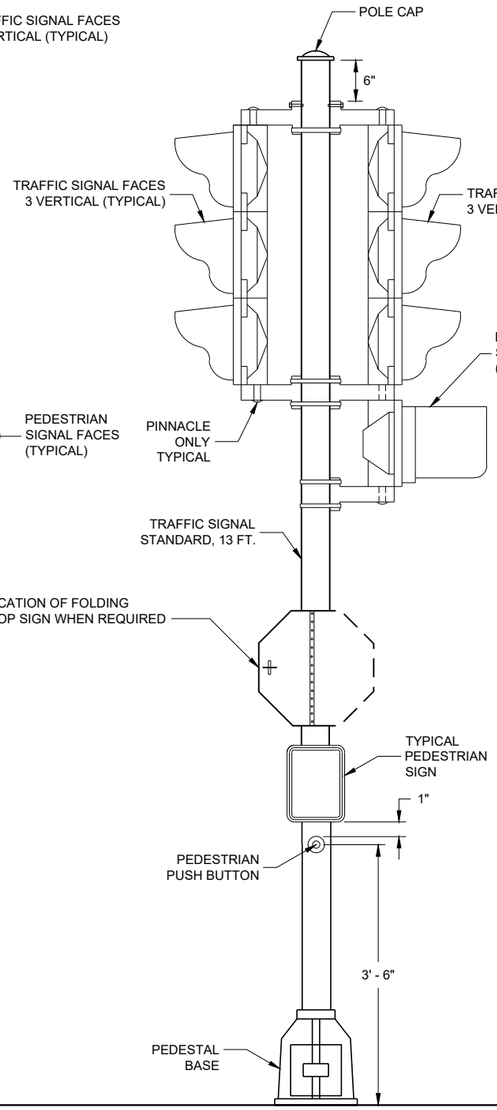
APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

FHWA

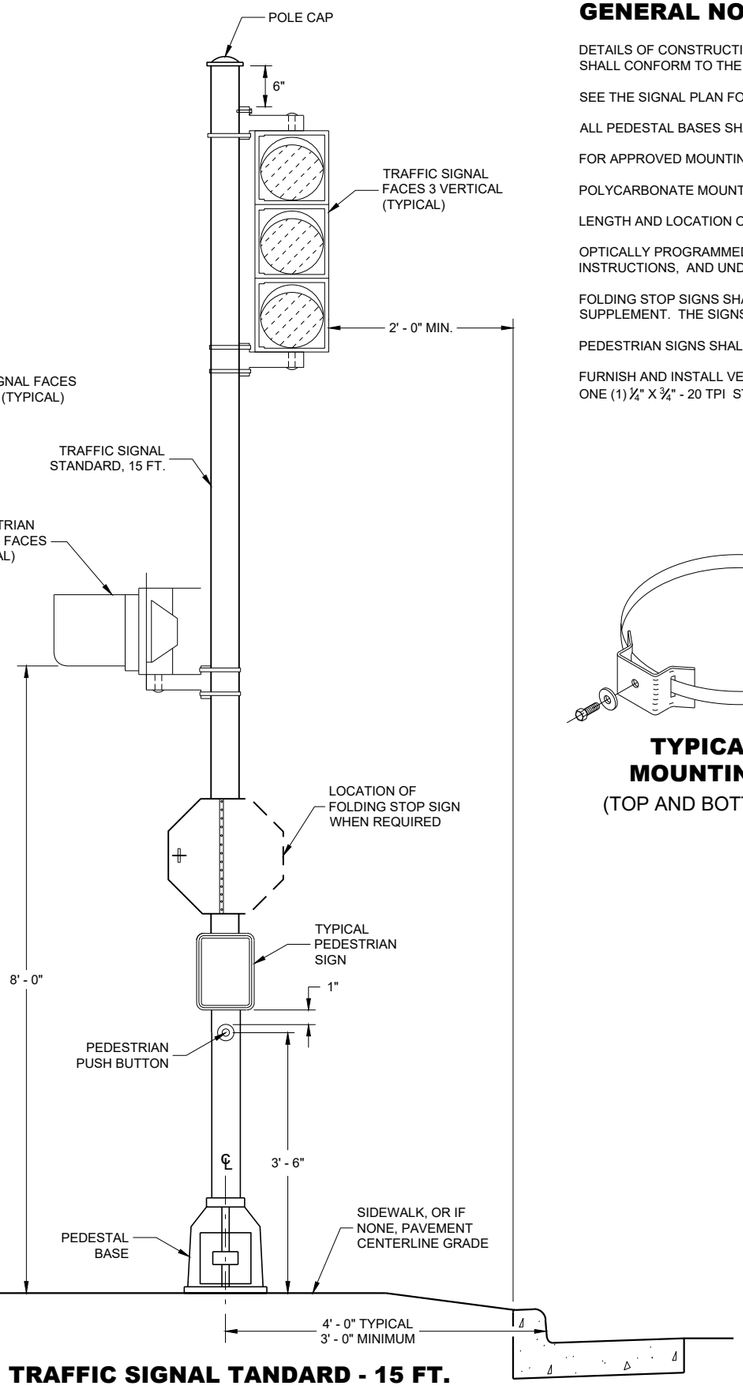
6
SDD 09E03 - 06



TRAFFIC SIGNAL STANDARD - 15 FT.



TRAFFIC SIGNAL STANDARD - 13 FT.



TRAFFIC SIGNAL TANDARD - 15 FT.
3M MOUNTING (TYPICAL)

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIAL PROVISIONS.

POLYCARBONATE MOUNTING BRACKETS SHALL BE USED.

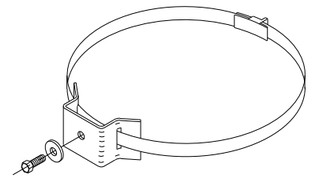
LENGTH AND LOCATION OF TRAFFIC SIGNAL STANDARDS SHALL BE AS SHOWN ON THE PLANS.

OPTICALLY PROGRAMMED SIGNAL FACES SHALL BE MASKED IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS, AND UNDER THE DIRECTIONS OF THE REGION TRAFFIC ENGINEER.

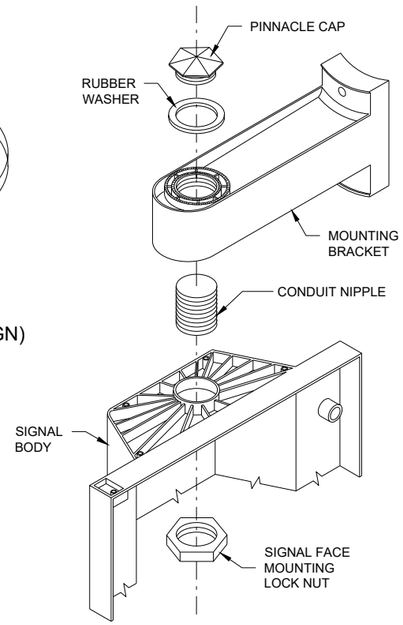
FOLDING STOP SIGNS SHALL BE IN ACCORDANCE WITH THE MUTCD AND/OR THE LATEST WISCONSIN SUPPLEMENT. THE SIGNS SHALL BE SIZED AND LOCATED AS CALLED FOR IN IN THE PLANS.

PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) 1/4" X 3/4" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.



TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



SIGNAL FACE MOUNTING DETAIL (BANDED)

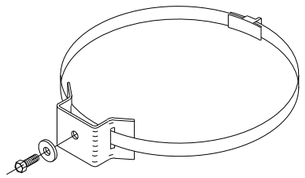
TRAFFIC SIGNAL STANDARD POLY BRACKET MOUNTINGS (TYPICAL) 13 FT. OR 15 FT.

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

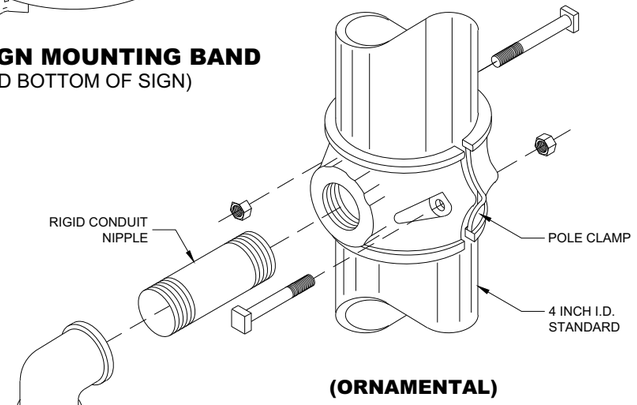
APPROVED
2/28/2013
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 304

FHWA

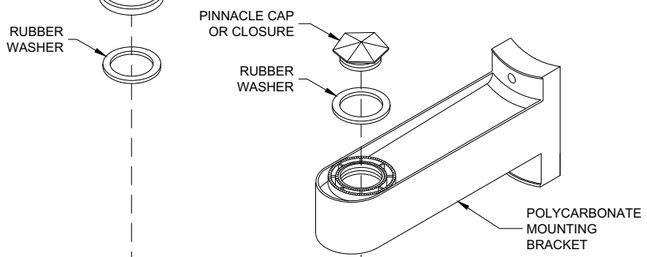
6
SDD 09E06 - 05



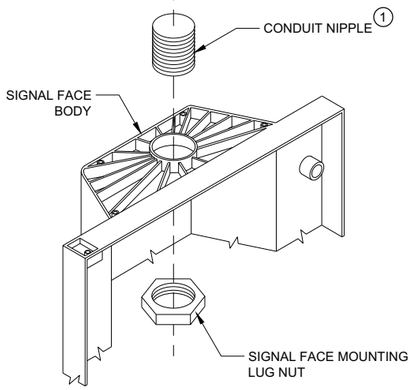
TYPICAL SIGN MOUNTING BAND
(TOP AND BOTTOM OF SIGN)



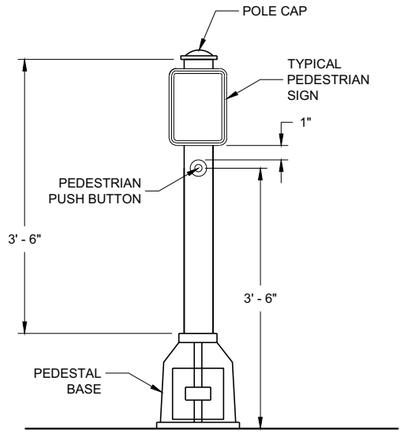
(ORNAMENTAL)



(BANDED)



SIGNAL FACE MOUNTING DETAILS



PEDESTRIAN PUSH BUTTON TYPICAL MOUNTING

GENERAL NOTES

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

SEE THE SIGNAL PLAN FOR REQUIRED SIGNAL FACE SIZES.

LOCATIONS SHALL BE AS SHOWN ON THE PLANS, UNLESS APPROVED BY THE ENGINEER IN THE FIELD.

ALL PEDESTAL BASES SHALL BE MOUNTED ON CONCRETE BASE - TYPE 1.

FOR APPROVED MOUNTING HARDWARE, SEE THE CONTRACT SPECIFICATIONS.

POLYCARBONATE SIGNAL FACE MOUNTING BRACKETS SHALL BE USED UNLESS ORNAMENTAL POLE CLAMPS ARE SPECIFIED.

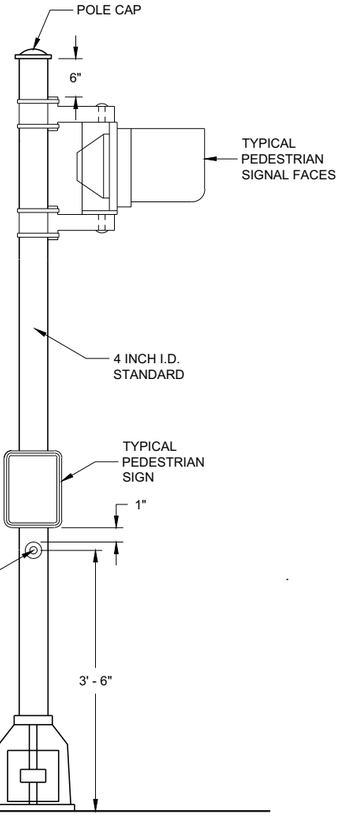
LENGTH OF TRAFFIC STANDARDS SHALL BE AS SHOWN ON THE PLANS.

MOUNTINGS AND BRACKETS SHALL BE AS SHOWN ON THE PLANS OR DESCRIBED IN THE SPECIAL PROVISIONS (BY THE REGION TRAFFIC ENGINEER).

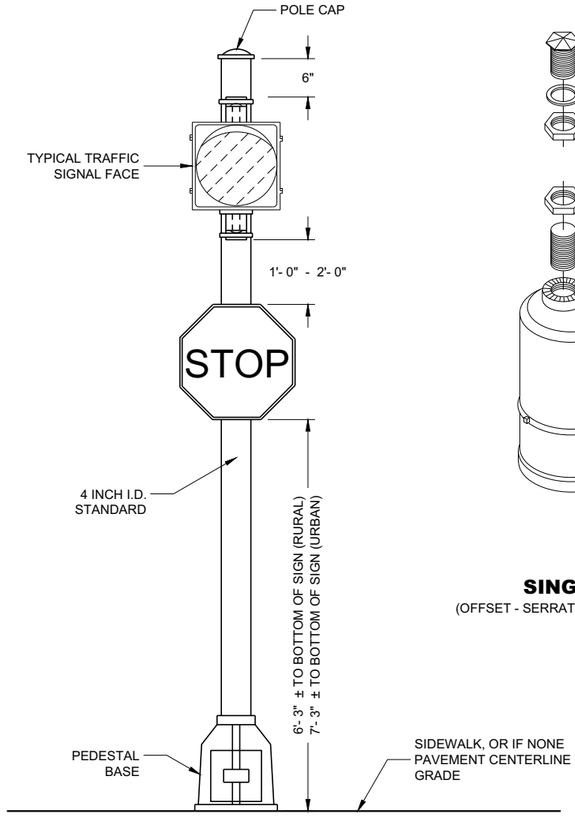
PEDESTRIAN SIGNS SHALL BE AS DESIGNATED IN THE PLANS.

FURNISH AND INSTALL VENTILATED, CAST, METALLIC (ALUMINUM ALLOY) CAPS. FASTEN CAPS WITH ONE (1) ¼" X ¾" - 20 TPI STAINLESS STEEL, HEX HEAD BOLT.

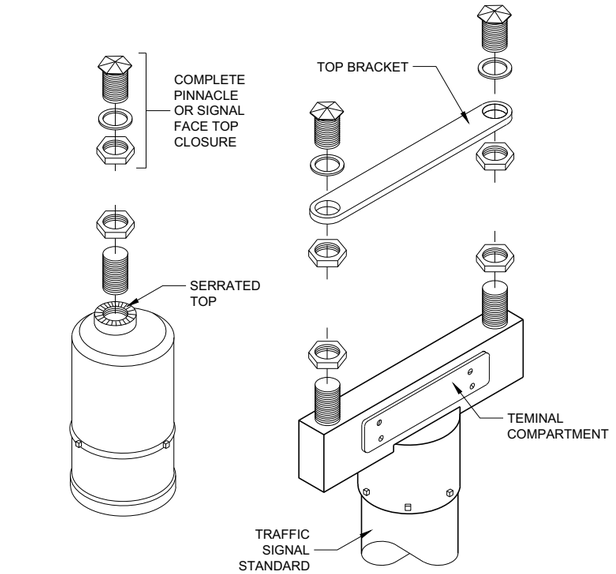
(1) USE 1 ½" ID NIPPLES ZINC-COATED RIGID METAL CONDUIT, LONG ENOUGH TO ACCOMMODATE FULL DEPTH THREADING INTO THE HEAD MOUNTING LOCK NUT IN ORDER TO TIGHTEN THE FACE, BUT THAT DO NOT INTERFERE WITH REFLECTOR CLOSURE. THREAD THE NIPPLE INTO THE MOUNTING BRACKET/ELBOW UNTIL TIGHT. USE APPROVED PINNACLE TYPE HARDWARE FROM A DEPARTMENT APPROVED MANUFACTURER TO CLOSE THE UNUSED 1 ½" OPENING IN SIGNAL FACESAND BRACKET ENDS.



PEDESTRIAN FACE STANDARD - 10 FT.
(WALK - DON'T WALK)



STANDARD FLASHER
10 FOOT, 13 FOOT OR 15 FOOT AS REQUIRED



SINGLE
(OFFSET - SERRATED MOUNTING)

DOUBLE
(SERRATED MOUNTING)

SLIPFITTERS

TRAFFIC SIGNAL STANDARD
PEDESTRIAN AND FLASHER
TYPICAL MOUNTING DETAILS

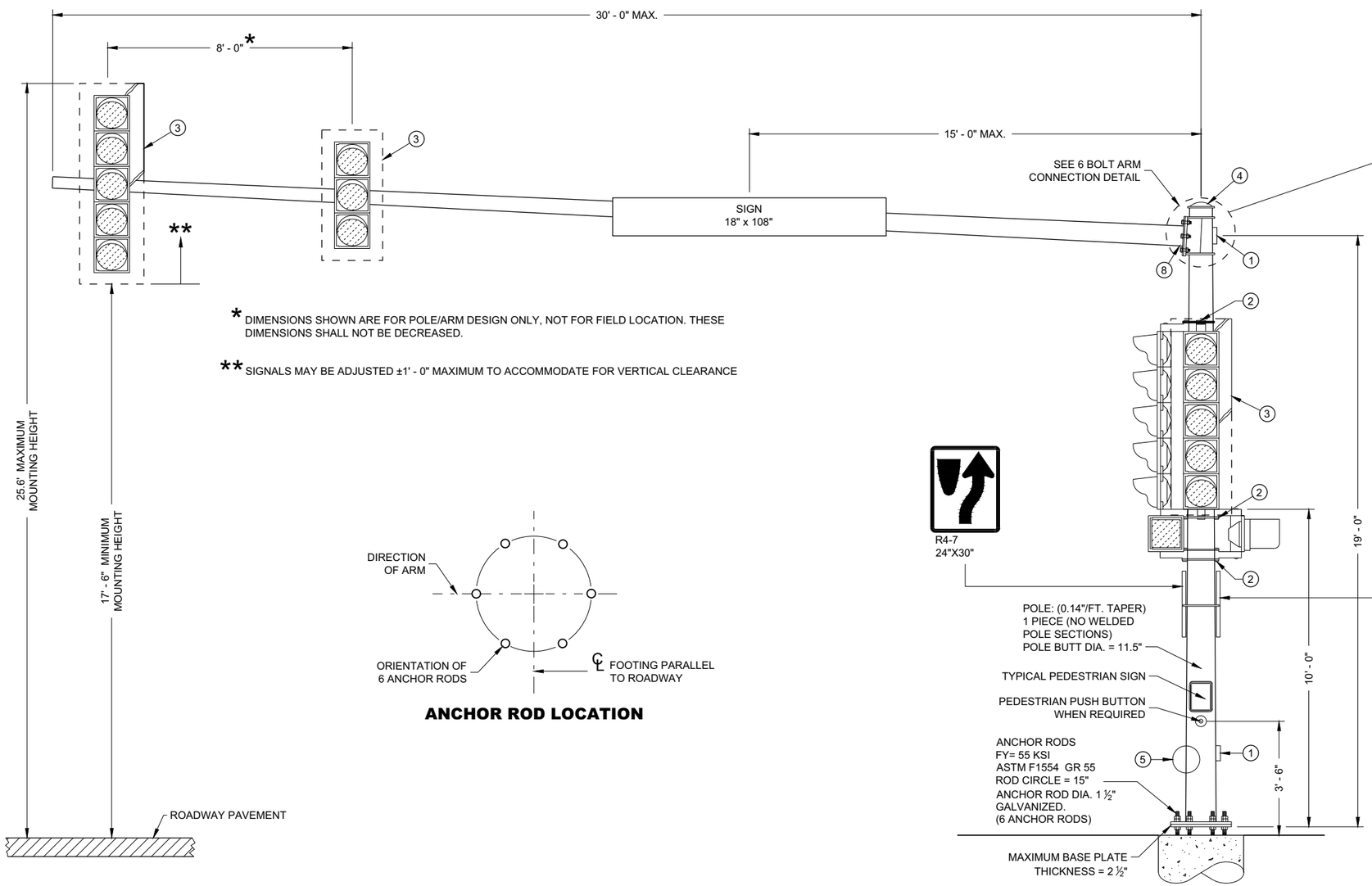
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2018
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 305

FHWA

6

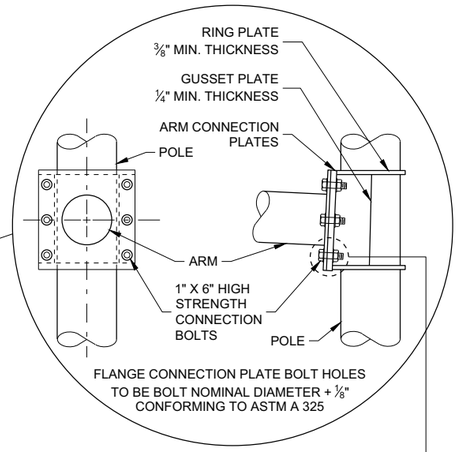
SDD 09E07 - 06



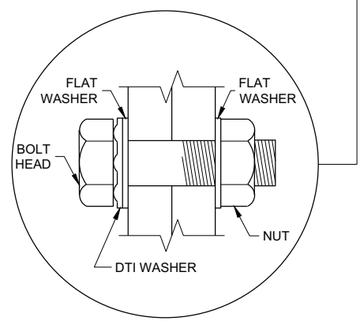
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

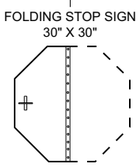
ANCHOR ROD LOCATION



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



TYPE 9 POLE
15' - 30' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 9 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

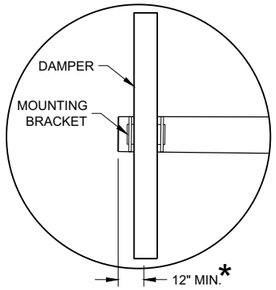
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

306

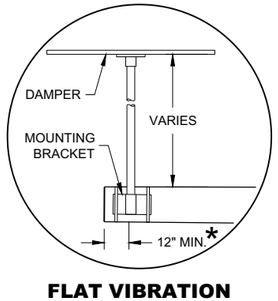
FHWA

6

SDD 09E08 - 09a

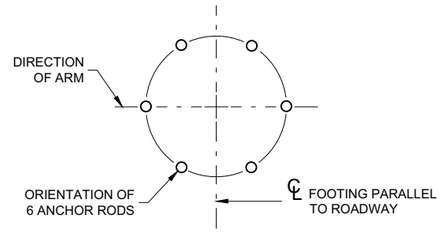


DUMBBELL VIBRATION DAMPER

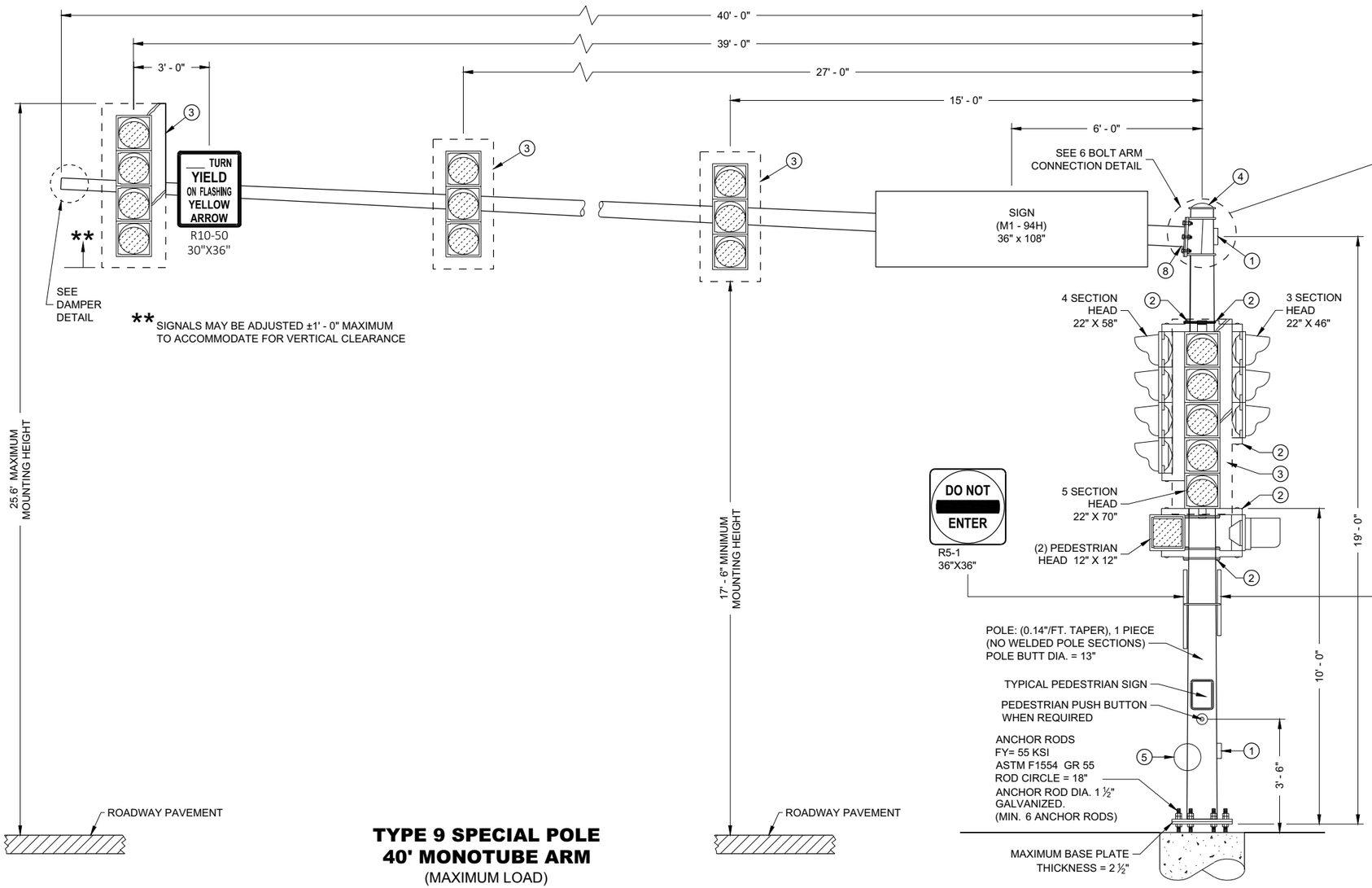


FLAT VIBRATION DAMPER

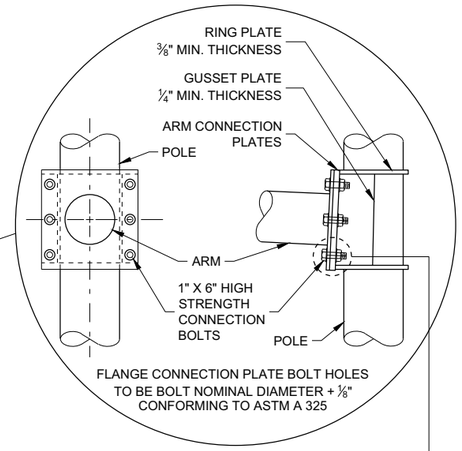
* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.



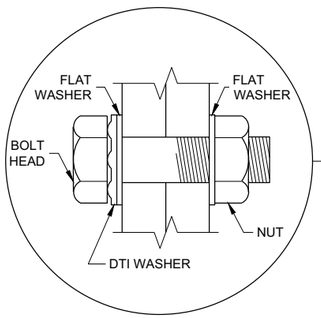
ANCHOR ROD LOCATION



TYPE 9 SPECIAL POLE 40' MONOTUBE ARM
(MAXIMUM LOAD)



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 9 SPECIAL POLE 40' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 307

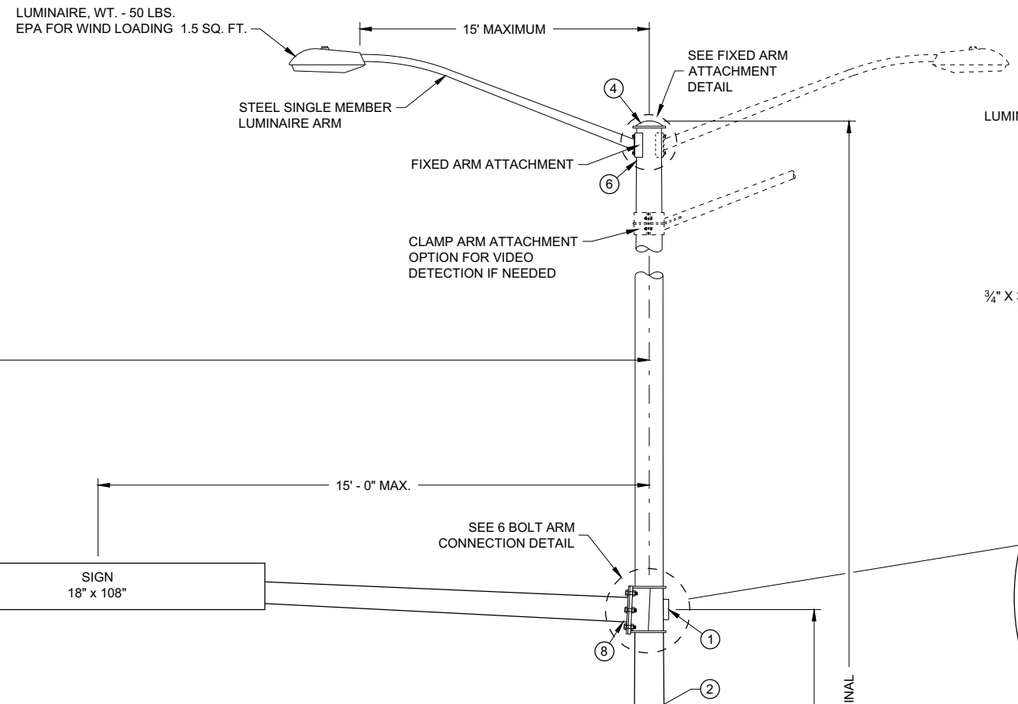
FHWA

6

SDD 09E08 - 09c

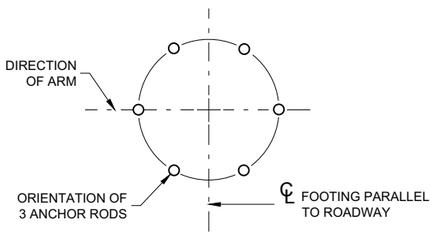
6

SDD 09E08 - 09c

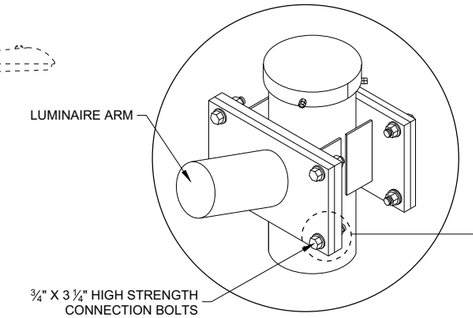


* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

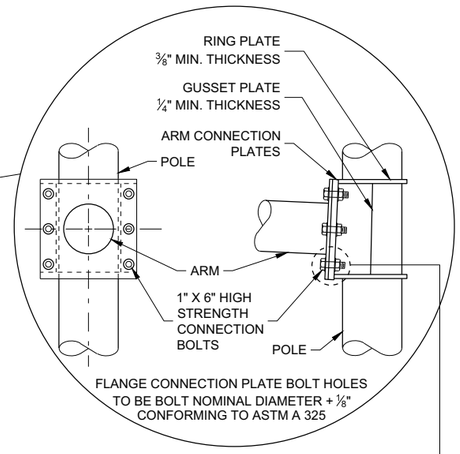
** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE



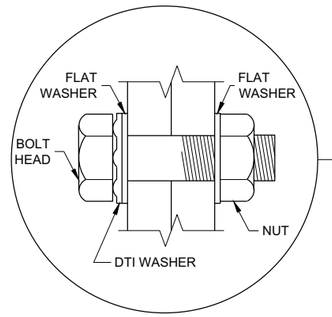
ANCHOR ROD LOCATION



FIXED ARM ATTACHMENT DETAIL



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 POLE
15' - 30' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 10 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

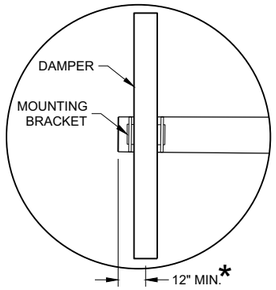
APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 308

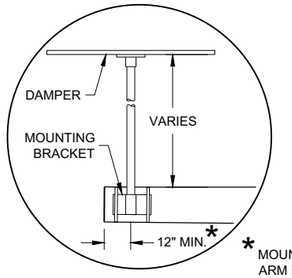
FHWA

6

SDD 09E08 - 09e

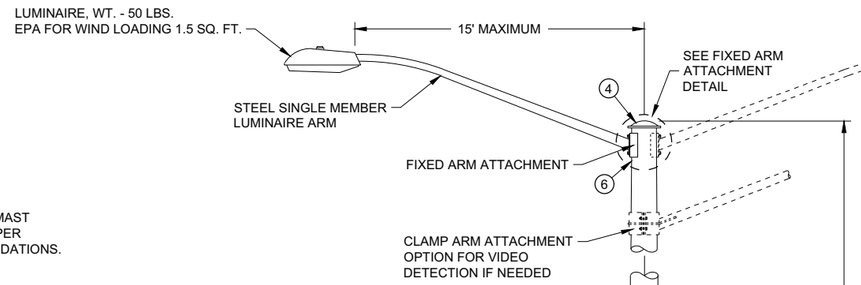


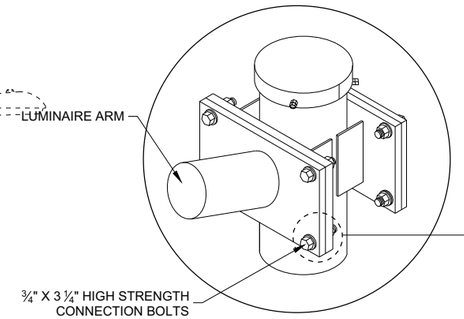
DUMBBELL VIBRATION DAMPER



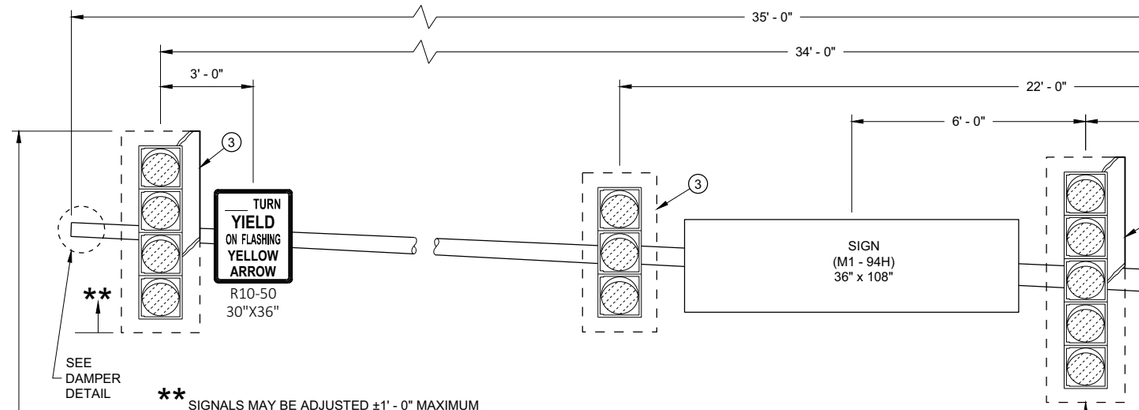
FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.

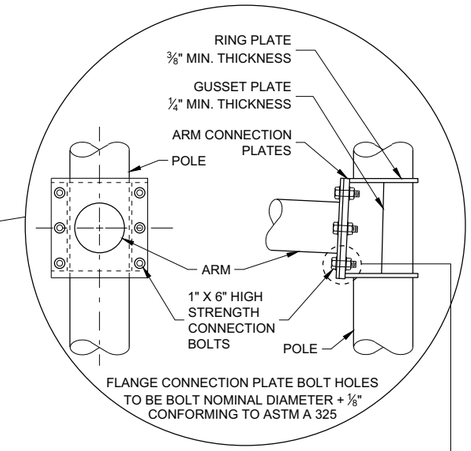




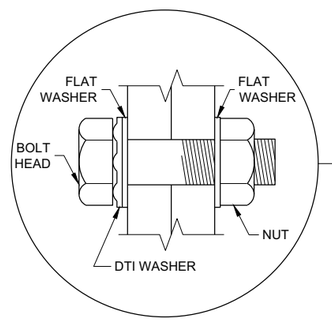
FIXED ARM ATTACHMENT DETAIL



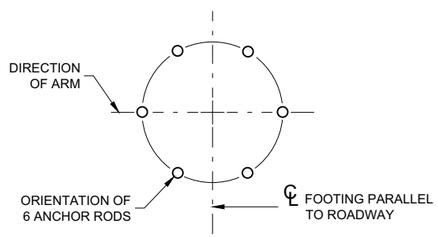
** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL



ANCHOR ROD LOCATION

TYPE 10 SPECIAL POLE
35' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 10 SPECIAL POLE
35' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

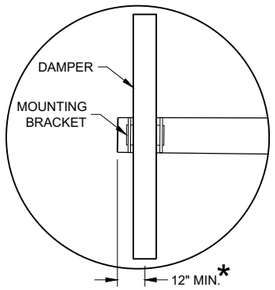
APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

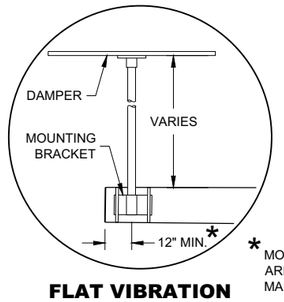
FHWA

6

SDD 09E08 - 09f

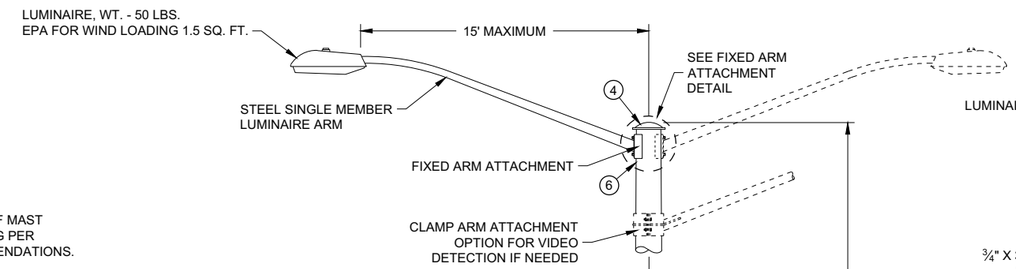


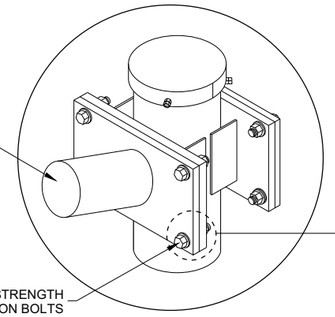
DUMBBELL VIBRATION DAMPER



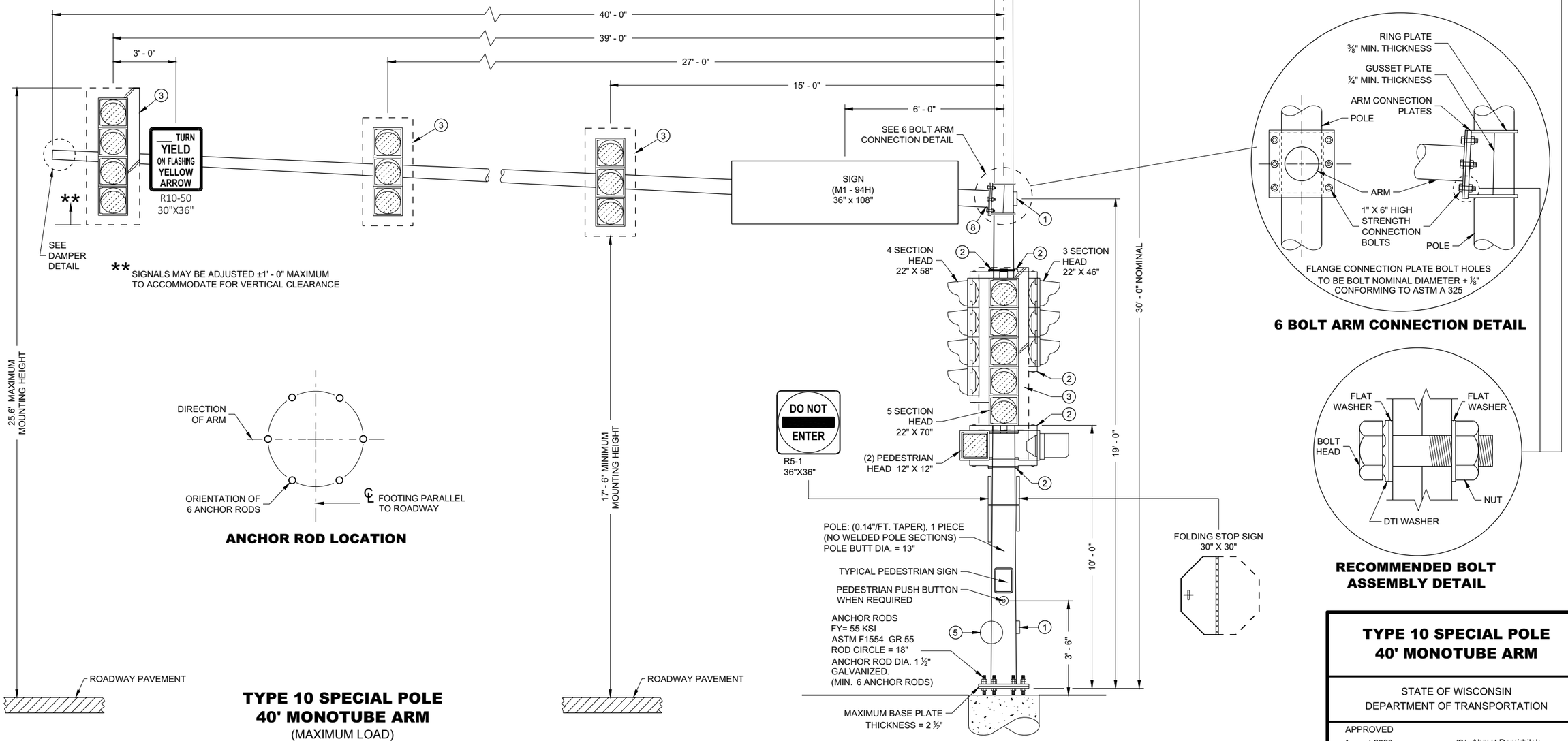
FLAT VIBRATION DAMPER

* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.





FIXED ARM ATTACHMENT DETAIL



** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

ANCHOR ROD LOCATION

6 BOLT ARM CONNECTION DETAIL

RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 SPECIAL POLE
40' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 10 SPECIAL POLE
40' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI

310

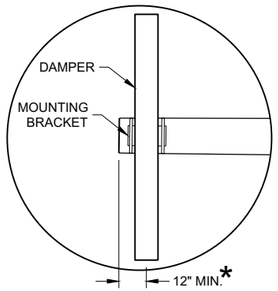
FHWA

6

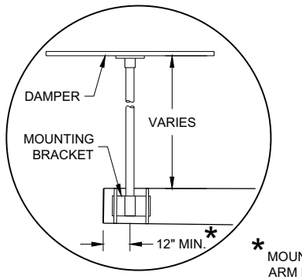
SDD 09E08 - 09g

6

SDD 09E08 - 09g

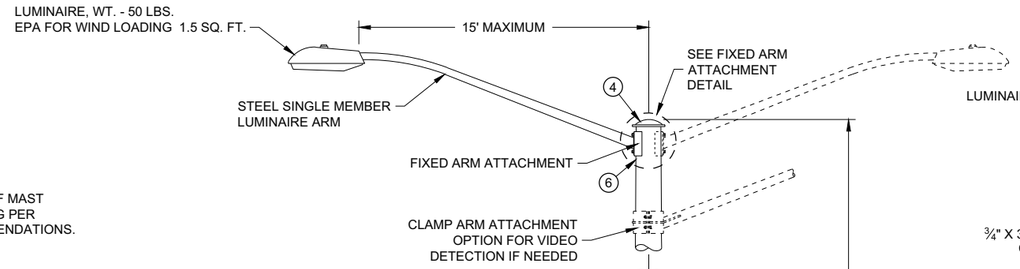


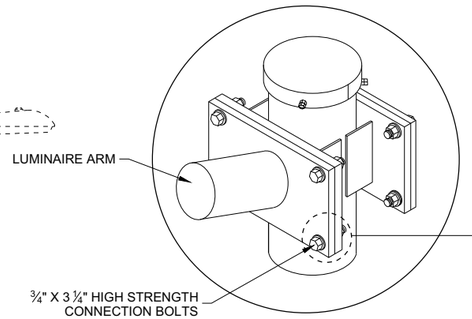
DUMBBELL VIBRATION DAMPER



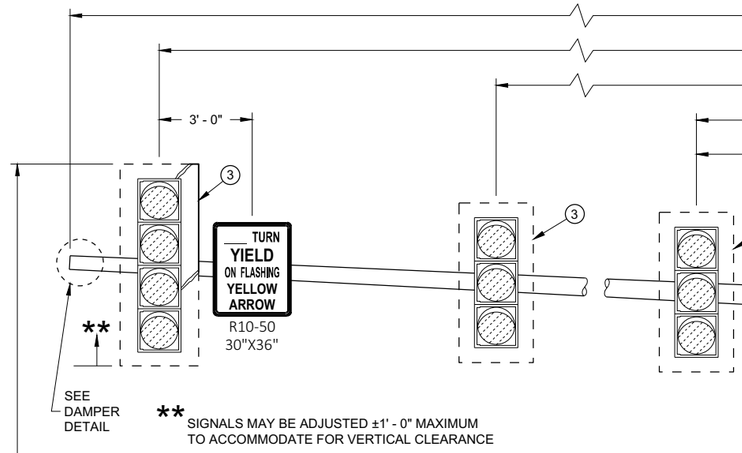
FLAT VIBRATION DAMPER

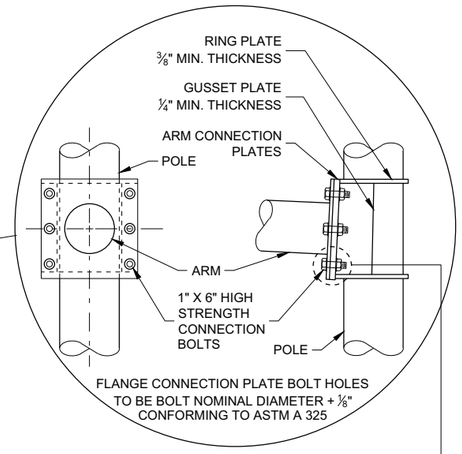
* MOUNT AS CLOSE TO END OF MAST ARM FOR MAXIMUM DAMPING PER MANUFACTURER'S RECOMMENDATIONS.



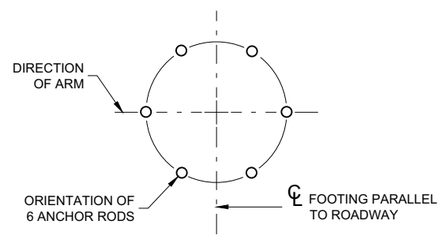


FIXED ARM ATTACHMENT DETAIL

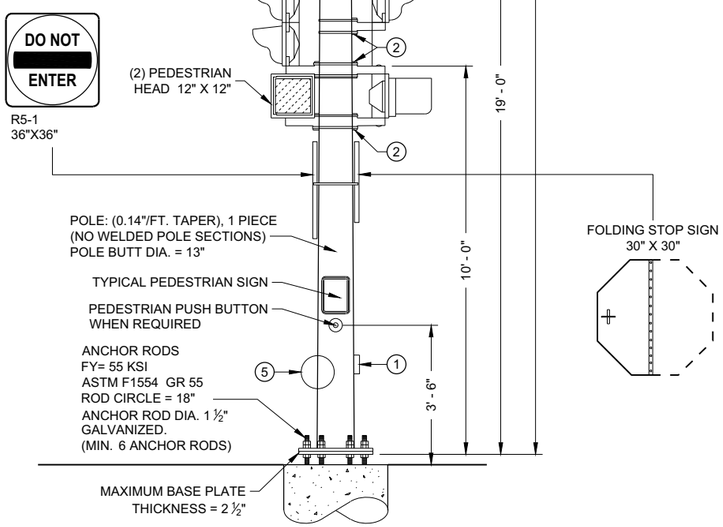


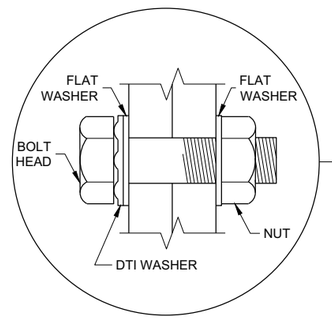


6 BOLT ARM CONNECTION DETAIL



ANCHOR ROD LOCATION





RECOMMENDED BOLT ASSEMBLY DETAIL

TYPE 10 SPECIAL POLE
45' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 10 SPECIAL POLE
45' MONTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 311

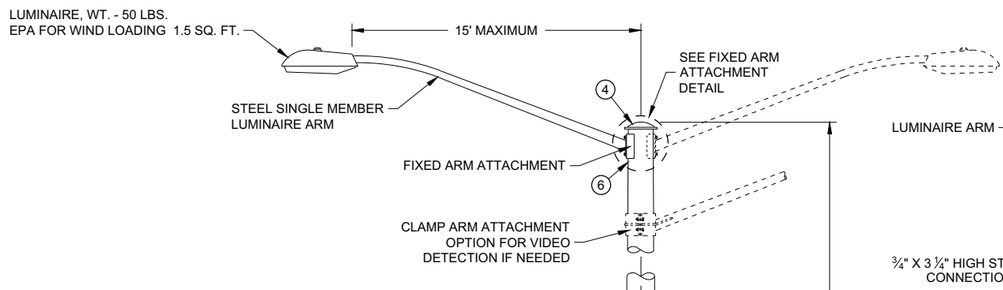
FHWA

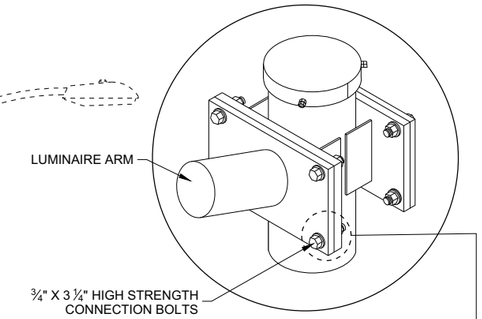
SDD 09E08 - 08h

SDD 09E08 - 08h

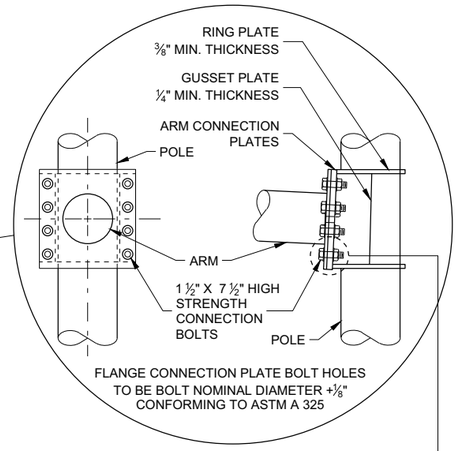
6

6

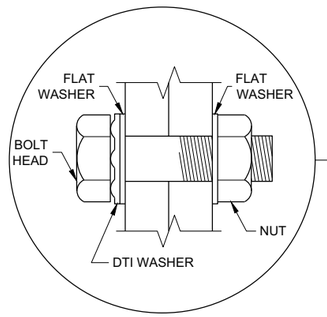




FIXED ARM ATTACHMENT DETAIL



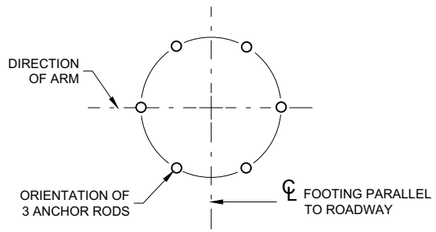
8 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE



ANCHOR ROD LOCATION

TYPE 13 POLE
35' - 55' MONOTUBE ARM
(MAXIMUM LOAD)

TYPE 13 POLE
35' - 55' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020
DATE

/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGI 312

FHWA

6
SDD 09E08 - 09j

GENERAL NOTES

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

POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT.

POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF TYPE12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR A S DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEAD AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).

(3) SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

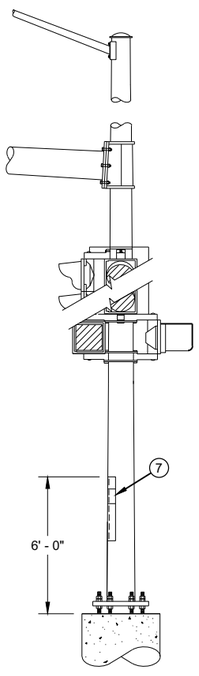
(6) FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

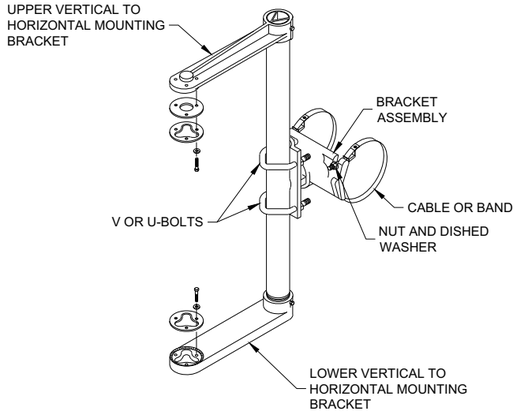
STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.



STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT

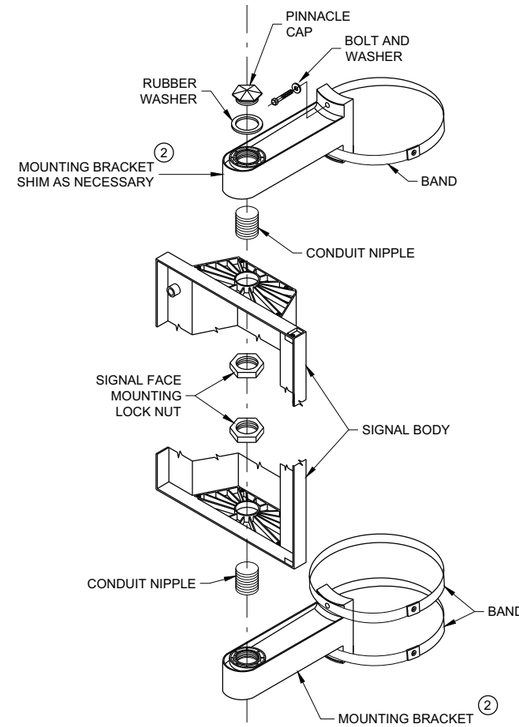


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

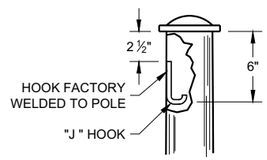
(MOUNT PER MANFACTURER'S RECOMMENDATION)

TYPICAL GROUNDING (5) CONNECTIONS

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



SIGNAL FACE VERTICAL MOUNTING DETAIL



TYPICAL "J" HOOK (6) WIRE SUPPORT

GENERAL NOTES AND HARDWARE FOR TYPES 9,10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

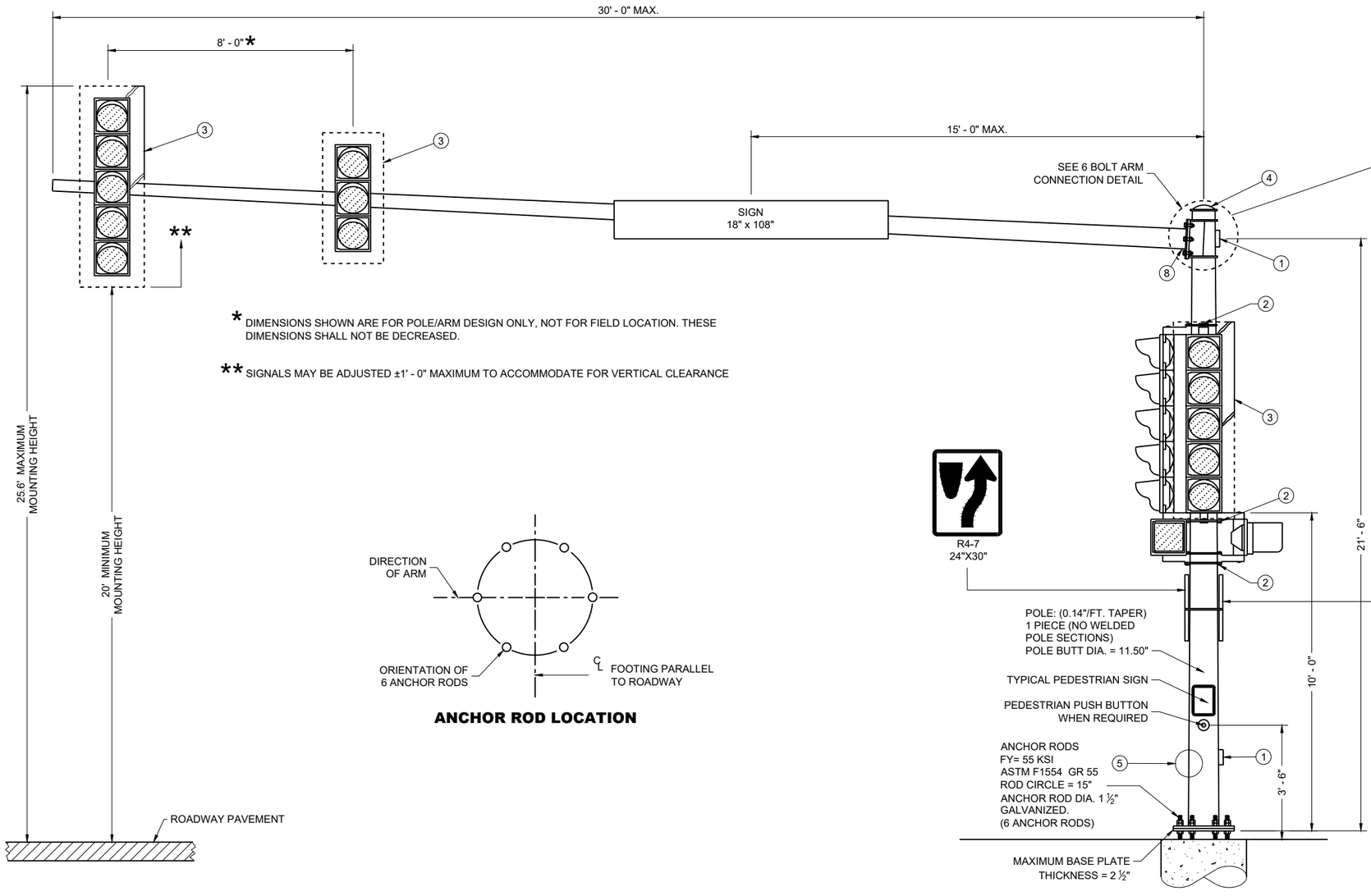
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2020 — DATE
/S/ Ahmet Demirbilek — STATE ELECTRICAL ENGINEER

FHWA

6

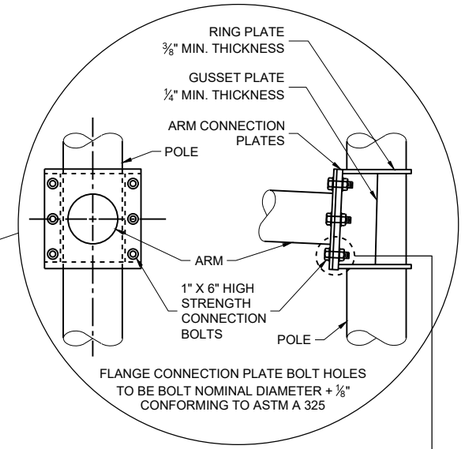
SDD 09E08 - 09k



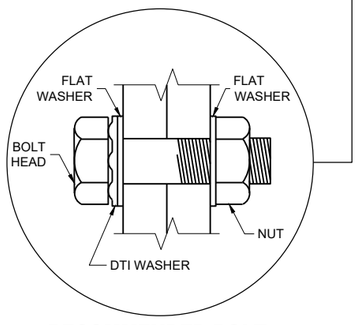
* DIMENSIONS SHOWN ARE FOR POLE/ARM DESIGN ONLY, NOT FOR FIELD LOCATION. THESE DIMENSIONS SHALL NOT BE DECREASED.

** SIGNALS MAY BE ADJUSTED ±1' - 0" MAXIMUM TO ACCOMMODATE FOR VERTICAL CLEARANCE

ANCHOR ROD LOCATION



6 BOLT ARM CONNECTION DETAIL



RECOMMENDED BOLT ASSEMBLY DETAIL

OVER HEIGHT TYPE 9 POLE
15' - 30' MONOTUBE ARM
(MAXIMUM LOAD)

OVER HEIGHT TYPE 9 POLE
15' - 30' MONOTUBE ARM

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2024 — DATE
/S/ Ahmet Demerbilek — STATE ELECTRICAL ENGINEER

FHWA

SDD 09E12-02a

6

SDD 09E12-02a

GENERAL NOTES

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

OVER HEIGHT POLE TYPES 9 AND 10 ARE FOR ARM LENGTHS 15 FOOT TO 30 FOOT.

OVER HEIGHT POLE TYPES 9 SPECIAL AND 10 SPECIAL ARE FOR ARM LENGTHS 35 FOOT, 40 FOOT, AND 45 FOOT

OVER HEIGHT POLE TYPES 12 AND 13 ARE FOR ARM LENGTHS 35 FOOT TO 55 FOOT.

MONOTUBE POLES AND ARMS SHALL BE GALVANIZED STEEL.

RING STIFFENED BUILT UP BOX TYPE OF ATTACHMENT FOR TRAFFIC SIGNAL ARM.

ONE (1) PIECE POLE CONSTRUCTION (NO WELDED POLE SECTIONS).

STANDARD STRAIGHT ARM DESIGN (3% ± RISE).

SECTION 657, POLES OF THE STANDARD SPECIFICATION SHALL APPLY TO THIS DRAWING.

PROVIDE WIREWAY THRU POLE WALL AND ARM CONNECTION PLATES. PROVIDE ROUND, SMOOTH INSIDE SURFACE.

MANUFACTURER'S SUBMITTED POLE DESIGNS AND DRAWINGS SHALL BE SIGNED AND STAMPED BY A REGISTERED PROFESSIONAL ENGINEER AND CERTIFIED AS BEING IN COMPLIANCE WITH THE AASHTO "LRFD SPECIFICATIONS FOR STRUCTURAL SUPPORTS FOR HIGHWAY SIGNS, LUMINAIRES AND TRAFFIC SIGNAL 2015 1ST EDITION (INCLUDING INTERIM REVISIONS)" AND ALL PERTINENT WISDOT SPECIFICATIONS AND DRAWINGS FOR THE LIGHTING STRUCTURES AS FOLLOWS:

CATEGORY III FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF OVER HEIGHT TYPE 9 AND TYPE 10 STRUCTURES.

CATEGORY II FATIGUE LOADS OF TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF OVER HEIGHT TYPE 9 SPECIAL AND TYPE 10 SPECIAL STRUCTURES. IN LIEU OF DESIGNING FOR GALLOPING, A VIBRATION DAMPER MITIGATION DEVICE IS REQUIRED TO BE SUPPLIED AND INSTALLED AT THE END OF THE MAST ARM.

CATEGORY II FATIGUE FATIGUE LOADS OF GALLOPING, TRUCK GUSTS (AT 45 MPH VEHICLE VELOCITY) AND NATURAL WIND GUSTS FOR DESIGN OF OVER HEIGHT TYPE 12 AND TYPE 13 STRUCTURES.

115 MPH (700 YEAR MRI BASIC WIND SPEED).

SECURE THE OPENING BELOW THE BASE PLATE WITH STAINLESS STEEL OR GALVANIZED STEEL MESH AND SECURE THE MESH WITH ¾" STAINLESS STEEL BANDING AROUND THE LEVELING NUTS.

INDENT PRINT (NOMINAL ½" HIGH) THE POLE LENGTH AND FIRST TWO LETTERS OF THE MANUFACTURERS NAME ON TWO SIDES OF THE BASE PLATE 180 DEGREES APART, BEFORE GALVANIZING. THE ARM SHALL BE IDENTIFIED WITH THE SAME INFORMATION BY INDENT PRINT.

SIGNAL FACE SHALL BE MOUNTED 6 INCHES (NOMINAL) FROM THE END OF THE MONOTUBE ARM OR AS SHOWN ON THE PLAN CONSTRUCTION DETAIL OR AS DIRECTED BY THE PROJECT ENGINEER/ELECTRICAL OPERATIONS PERSONNEL. MOUNT ALL LIKE HEADS AT SAME ELEVATION.

SIGN MOUNTING BRACKETS SHALL BE FURNISHED IN ACCORDANCE WITH SECTION 637 OF THE STANDARD SPECIFICATIONS FOR HIGHWAY AND STRUCTURE CONSTRUCTION.

(1) DESIGN FOR MAXIMUM ALLOWABLE HAND HOLE WITH COVER ASSEMBLY WITH TWO ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLTS.

(2) SIGNAL MOUNTING BRACKETS FOR POLE MOUNTING, MOUNT WITH CAP SCREW AND BANDING (SEE SPECIFICATION SECTION 658).

(3) SECURELY MOUNT BACK PLATES, PROJECTING 5" BEYOND ALL SIDES OF THE SIGNAL FACE HOUSING, PER MANUFACTURERS RECOMMENDATIONS.

(4) THE TOP OF THE POLE SHAFT AND THE MONOTUBE ARM SHALL BE EQUIPPED WITH A REMOVABLE, VENTILATED CAP HELD SECURELY IN PLACE WITH SET SCREWS.

(5) FACTORY WELDED BRACKET FOR GROUNDING LUG, OPPOSITE HAND HOLD, (LUG AND HARDWARE PAID UNDER SEPARATE ITEM). PROVIDE HOLE IN BRACKET FOR ¼" X ¾" - 20 TPI STAINLESS STEEL HEX HEAD BOLT.

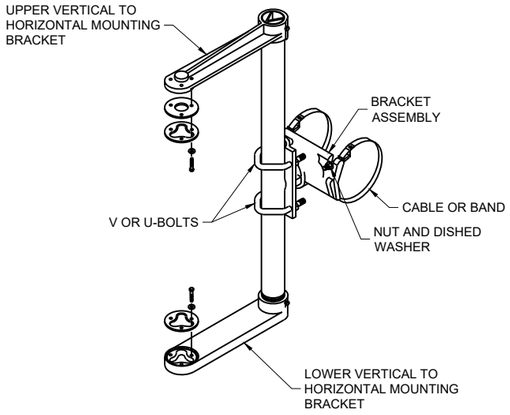
(6) FACTORY WELDED "J" HOOK FOR STRAIN RELIEF FOR POLE LUMINAIRE WIRE.

(7) INSTALL STRUCTURAL IDENTIFICATION PLAQUES.

STRUCTURAL IDENTIFICATION PLAQUES SHALL BE PLACED ON THE POLES IN THE SAME DIRECTION AS THE ARM.

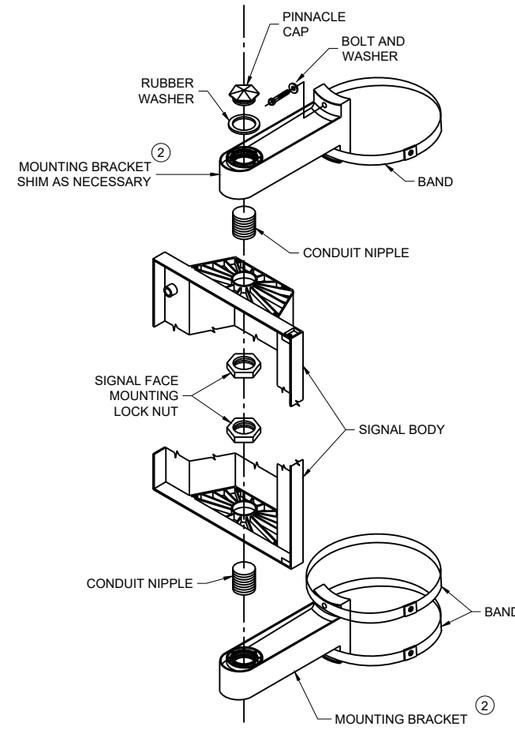
MOUNTING HEIGHT SHALL BE 6' - 0" ABOVE THE CURB OR SHOULDER. ADJUST IF IT IS KNOWN THAT REQUIRED TRAFFIC SIGNS WILL BE OBSTRUCTED.

(8) FACTORY DRILLED ½" DRAIN HOLE 2" FROM FLANGE CONNECTION PLATE.

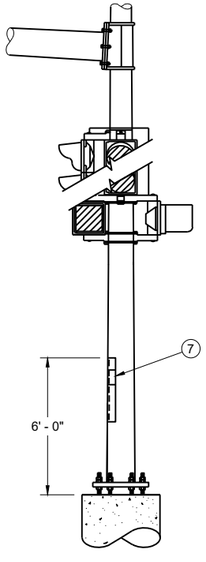


SIGNAL FACE MOUNTING BRACKET DETAIL FOR MONOTUBE ARM

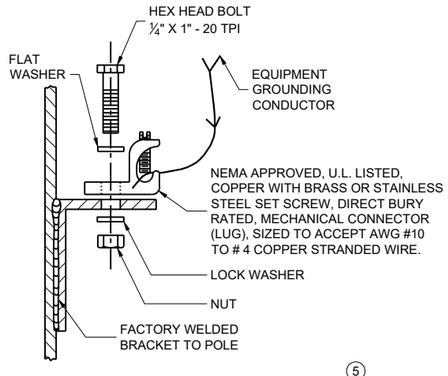
(MOUNT PER MANFACTURER'S RECOMMENDATION)



SIGNAL FACE VERTICAL MOUNTING DETAIL

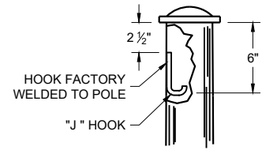


STRUCTURAL IDENTIFICATION PLAQUE PLACEMENT



TYPICAL GROUNDING CONNECTIONS (5)

NUT, BOLT AND WASHERS SHALL BE STAINLESS STEEL



(6)

TYPICAL "J" HOOK WIRE SUPPORT

GENERAL NOTES AND HARDWARE FOR OVER HEIGHT TYPE 9, 10, 9/10 SPECIAL, 12 AND 13 POLES WITH MONOTUBE ARMS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
AUGUST 2024
DATE

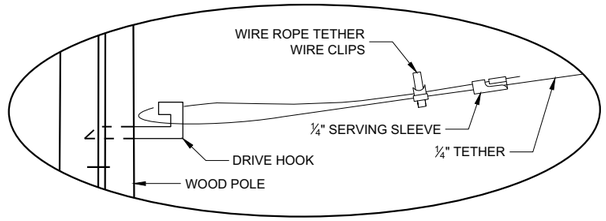
/S/ Ahmet Demirbilek
STATE ELECTRICAL ENGINEER

FHWA

6

SDD 09E12-02k

MINIMUM POLE LENGTHS	POLE BURIAL DEPTHS
25'	5'
30'	6'
35'	7'
40'	8'
45'	9'

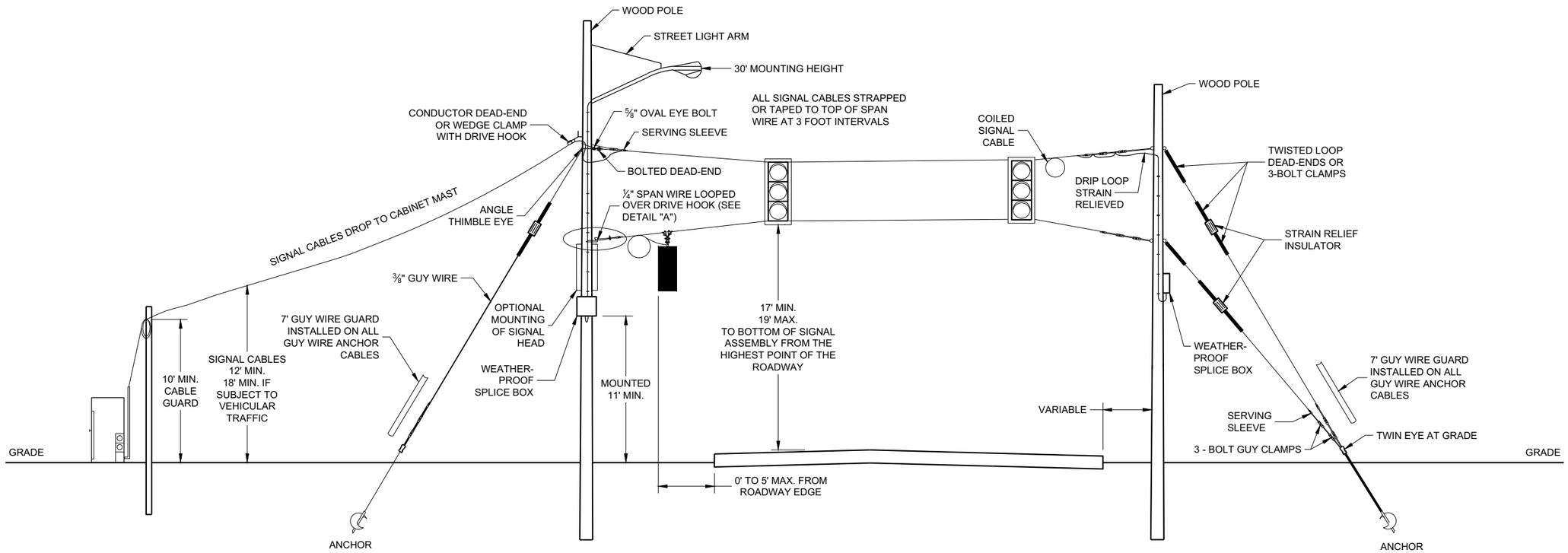


DETAIL "A"

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
June 2015
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI

FHWA

316

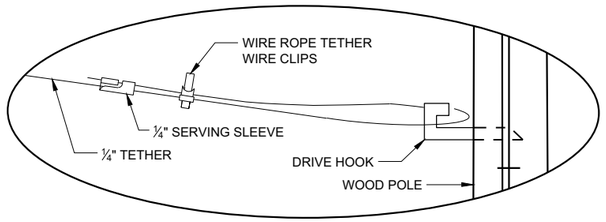
6

SDD09G01 - 04a

6

SDD09G01 - 04a

MINIMUM POLE LENGTHS	CLASS	POLE BURIAL DEPTHS
25'	V	5'
30'	V	6'
35'	IV	7'
40'	IV	8'
45'	IV	9'

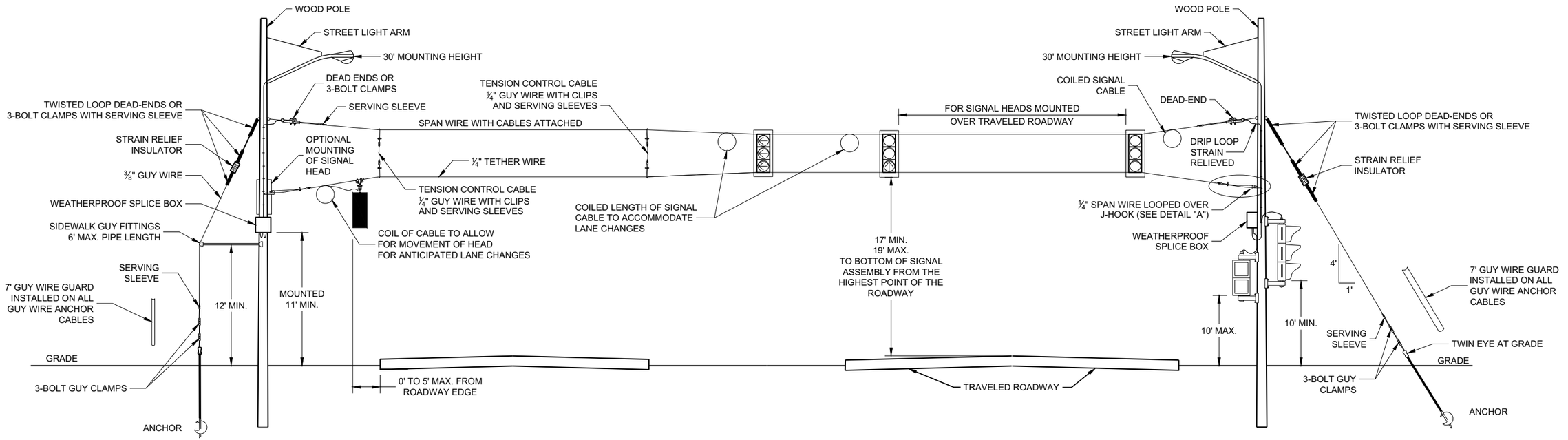


DETAIL "A"

GENERAL NOTES

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

1. WOOD POLES SHALL BE CLASS 4. LENGTH DETERMINED BY SIGNAL PLAN.
2. SIGNAL FACES:
   A. ALL SECTIONS SHALL BE 12" AND POLYCARBONATE.
   B. EACH SHALL CONTAIN A 5" WIDE DULL BLACK POLYCARBONATE BACKPLATE.
   C. EACH SHALL BE WIRED FROM THE TOP SIGNAL MOUNTING BRACKET.
   D. NEAR RIGHT SIGNAL FACE SUSPENDED ON THE TETHER (NO BACKPLATE) SHALL NOT BE OVER THE TRAVELED WAY. IF THE POLE IS WITHIN 5 FEET OF THE TRAVELED WAY MOUNT THE SIGNAL FACE ON THE WOOD POLE WITH BACKPLATE.
   E. FAR INDICATION SHALL BE MAINTAINED OVER CENTER OF TRAFFIC LANE.
3. SPAN WIRE:
   A. EACH SPAN WIRE SHALL BE INDIVIDUALLY DOWN GUYED
   B. SIGNAL AND LIGHTING CABLES SHALL ONLY BE ATTACHED TO THE UPPER SPAN WIRE.
   C. THE SIGNAL ASSEMBLY SHALL HAVE A 17' MIN. HEIGHT ABOVE THE ROADWAY. THIS SHALL BE MEASURED AFTER THE SPAN WIRE INSTALLATION IS COMPLETED WITH ALL CABLES AND SIGNAL FACES IN PLACE. MAINTAIN MINIMUM AND MAXIMUM HEIGHTS AS ROADWAY WORK PROGRESSES.



SPAN WIRE
TEMPORARY SIGNALS
4 LANE ROADWAYS

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

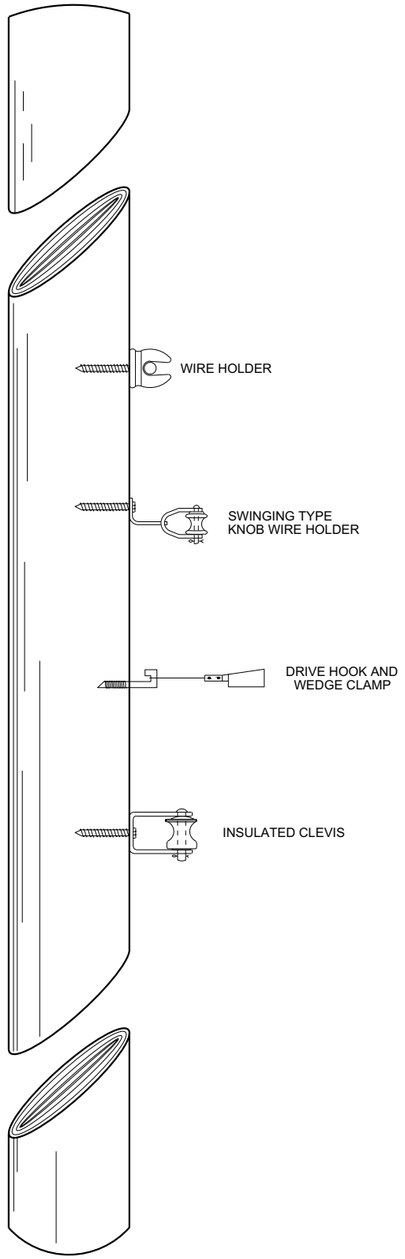
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

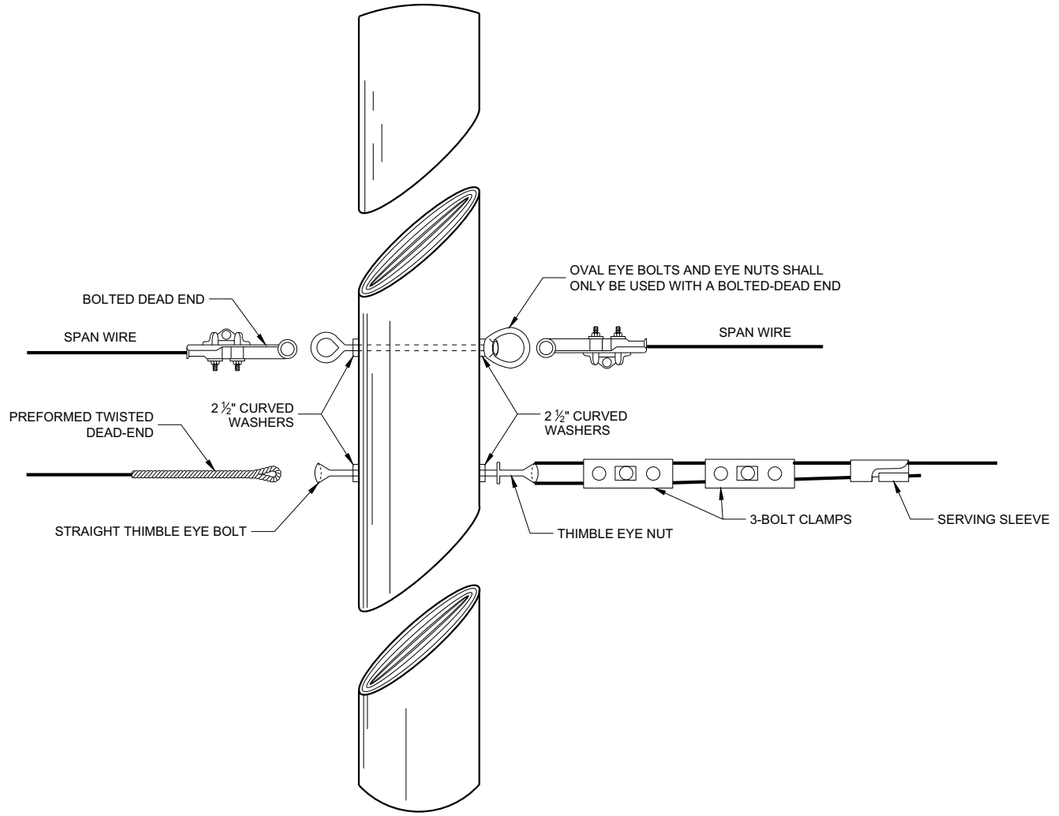
APPROVED
June 2015
DATE
/S/ Ahmet Demerbilek
STATE ELECTRICAL ENGI

FHWA

SDD09G01 - 04b

SDD09G01 - 04b





SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

June 2015
DATE

/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

FHWA

6

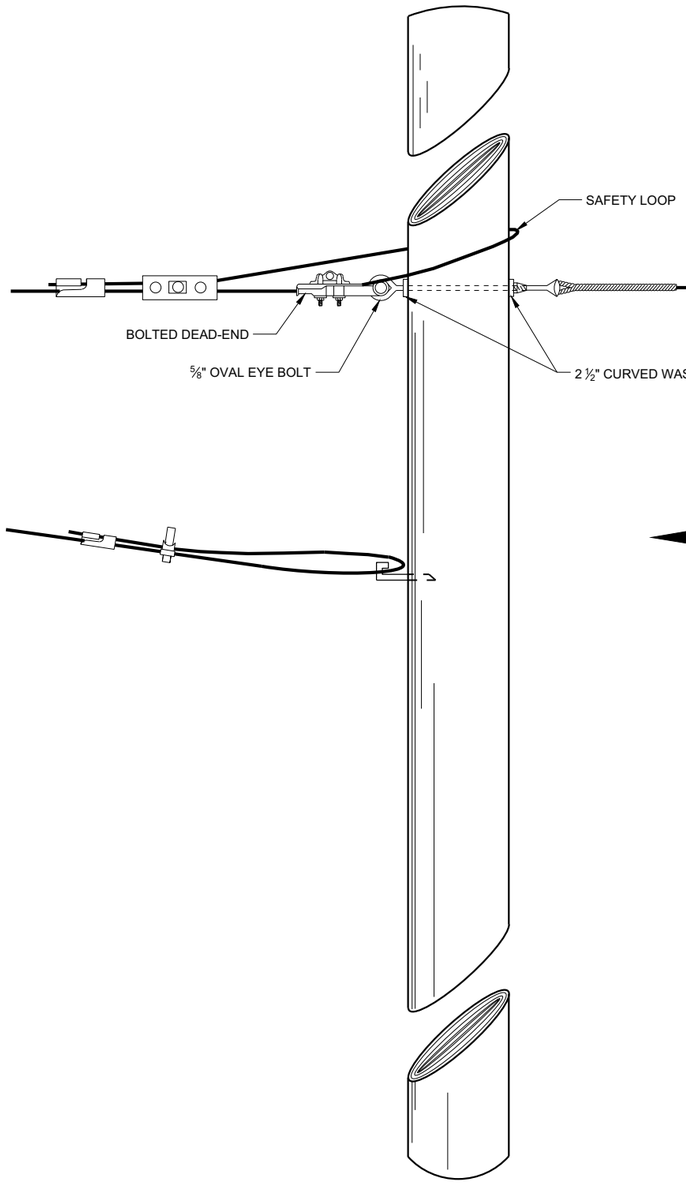
SDD 09G01 - 4d

6

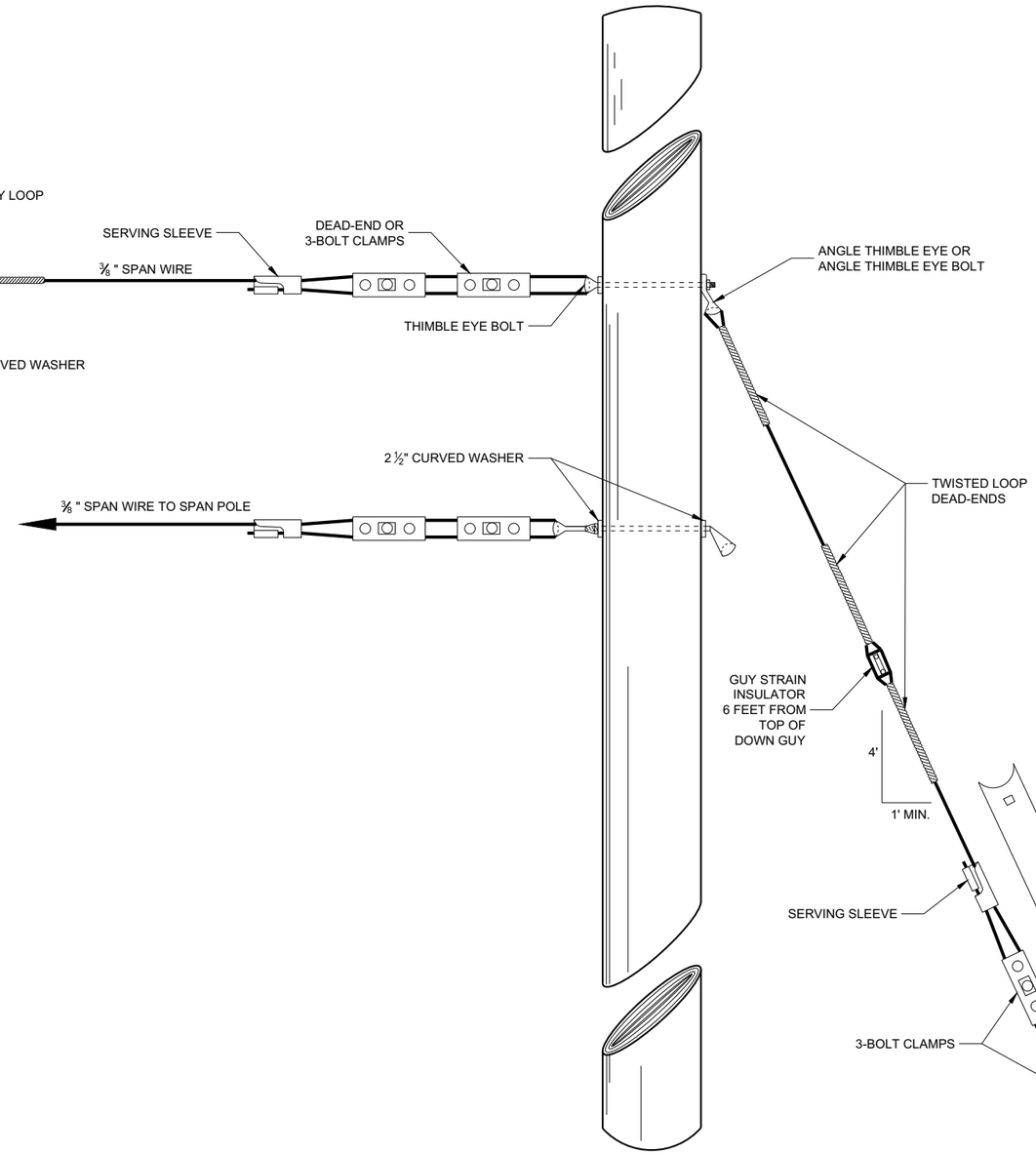
SDD 09G01 - 4d

GENERAL NOTES

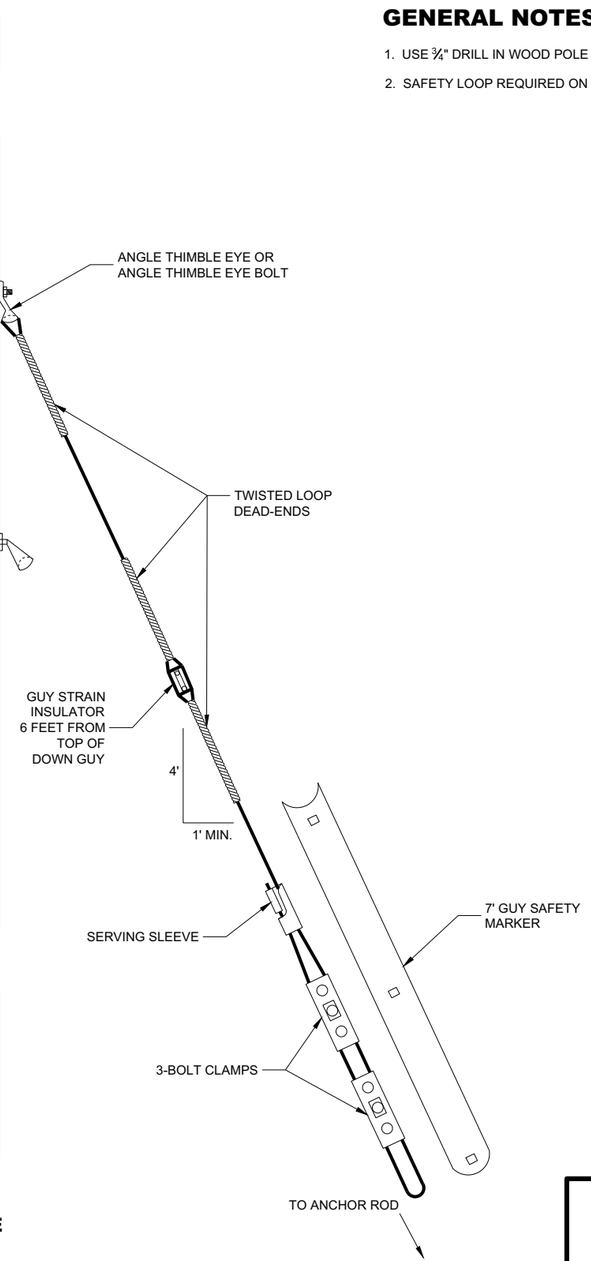
1. USE ¾" DRILL IN WOOD POLE TO PROVIDE FOR ⅝" BOLTS.
2. SAFETY LOOP REQUIRED ON EACH END OF ALL SPAN WIRES.



SPAN WIRE POLE



GUY POLE



TYPICAL DEAD-ENDINGS OR GUYING

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

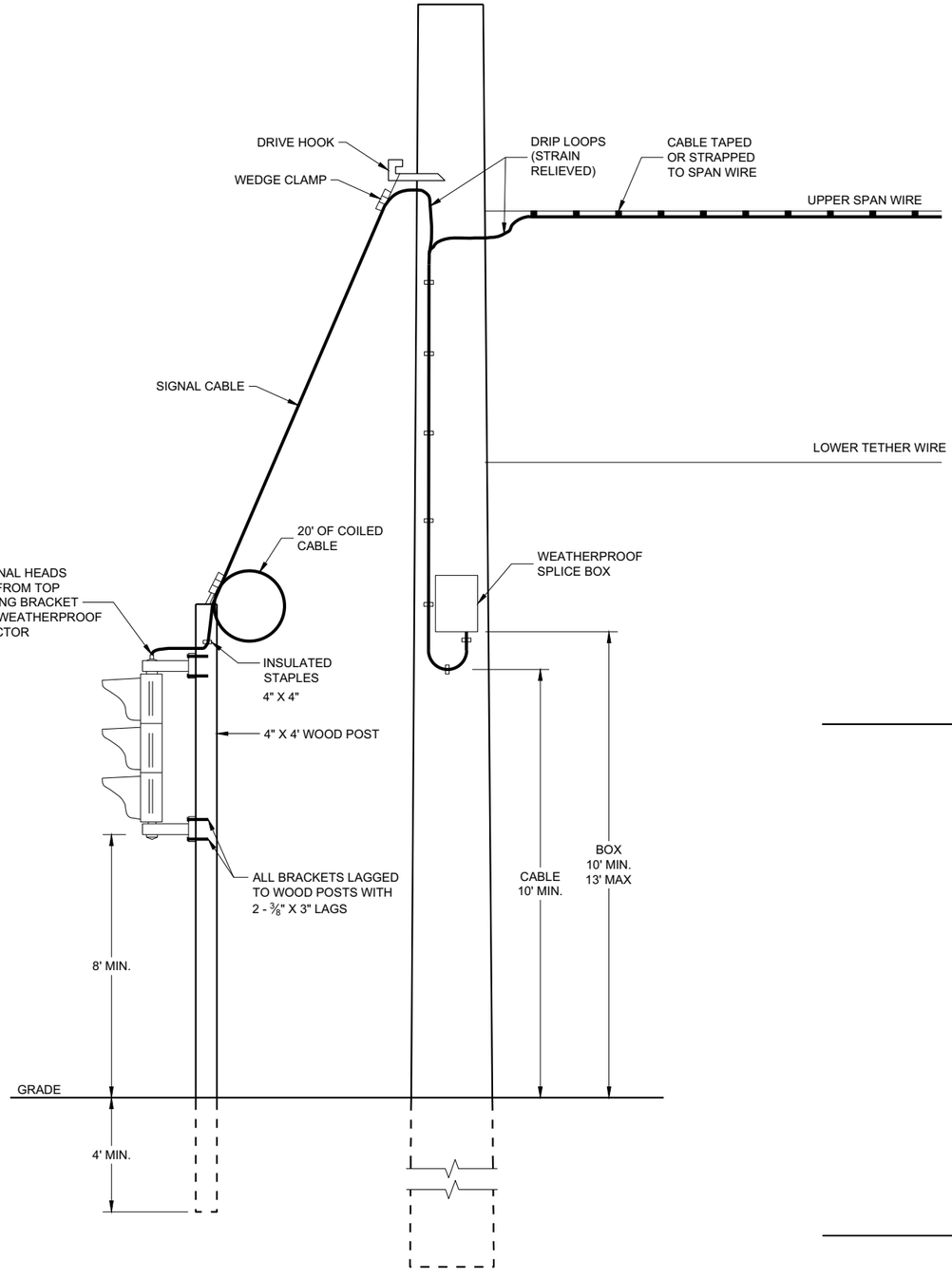
APPROVED
June 2015 — DATE
/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVE ENGINEER
FHWA

6

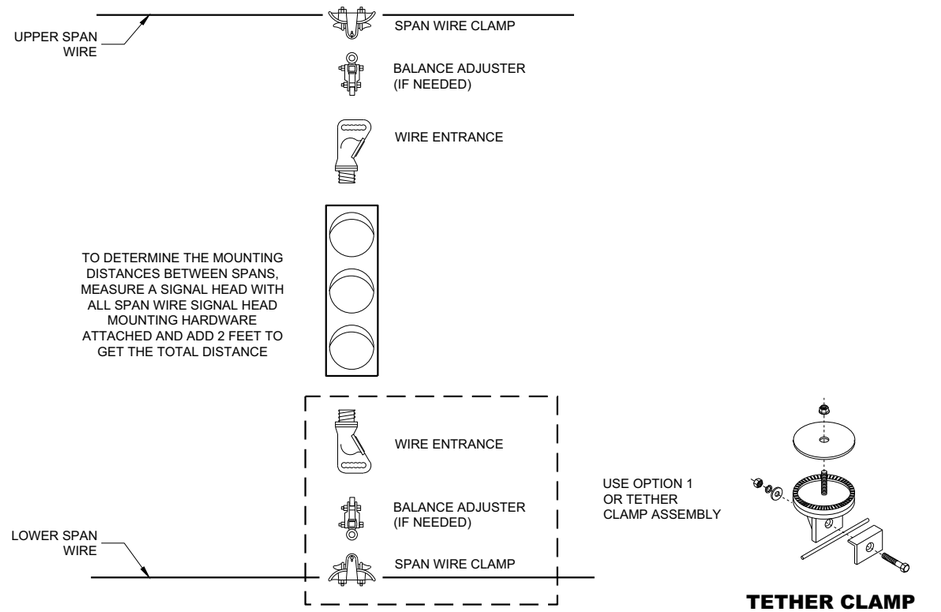
SDD 09G01 - 4e

6

SDD 09G01 - 4e



TYPICAL DROP TO TEMPORARY MOVEABLE SIGNAL

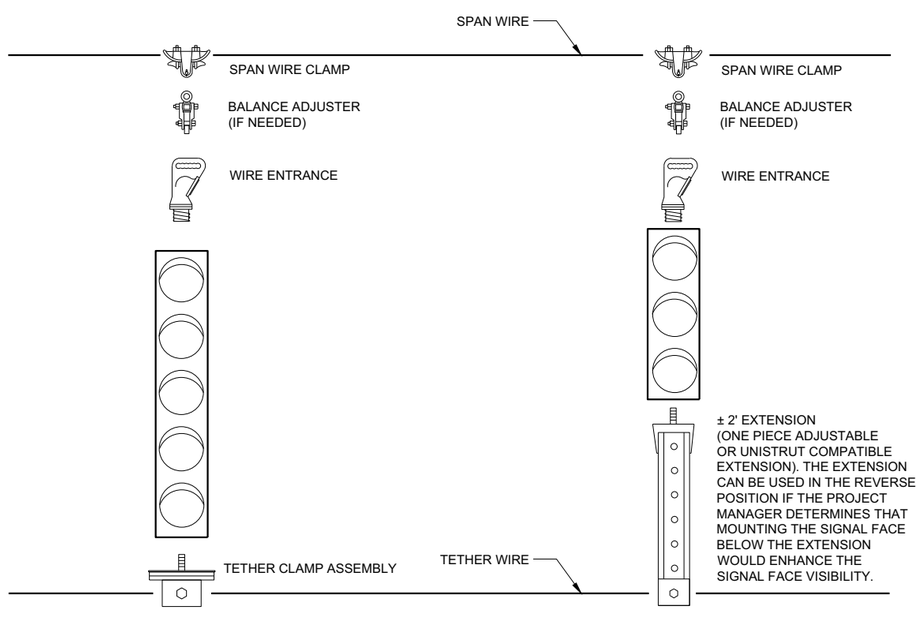


OPTION 1

USE OPTION 1 OR TETHER CLAMP ASSEMBLY

TETHER CLAMP ASSEMBLY OPTION

TYPICAL SPAN WIRE MOUNTING HARDWARE



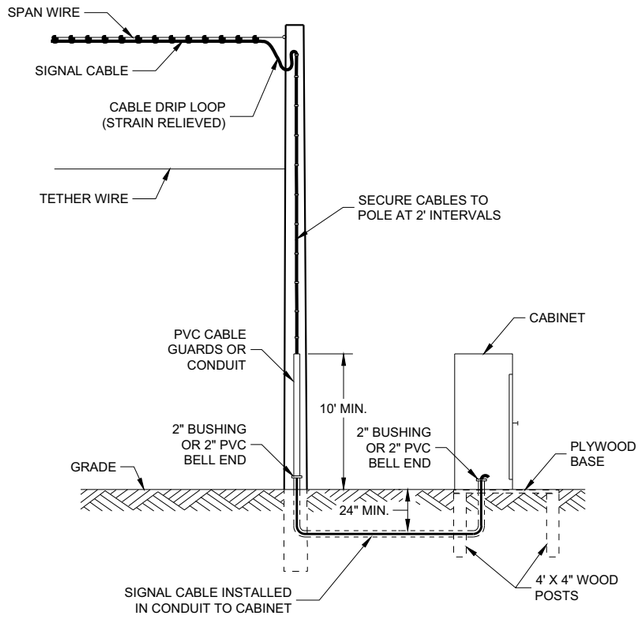
5 SECTION VERTICAL WITH 3 SECTION VERTICAL ON ONE SPAN WIRE

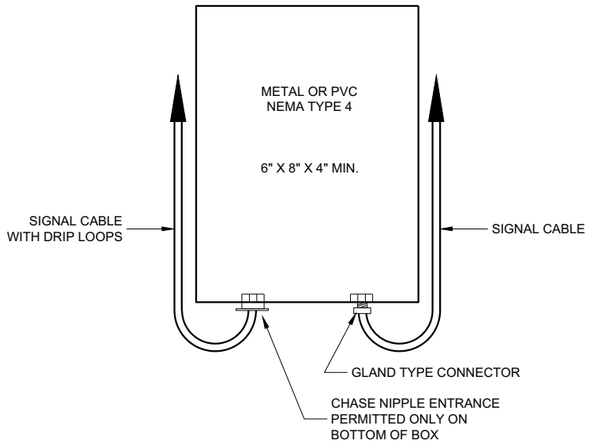
SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

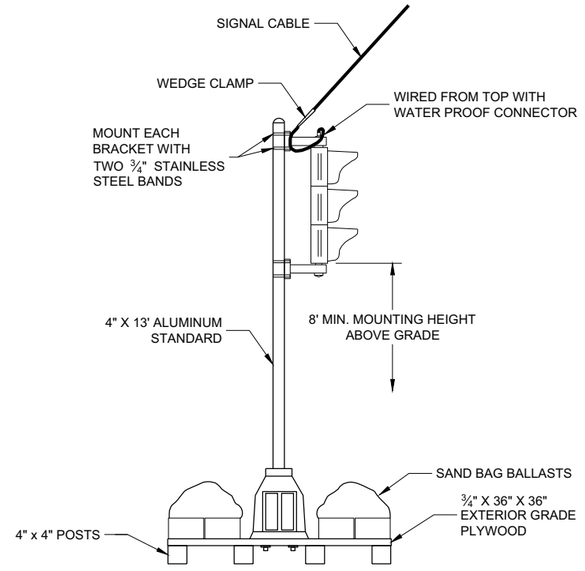
APPROVED
June 2015 — DATE
/S/ Ahmet Demerbilek — ROADWAY STANDARDS DEVE ENGINEER
320
FHWA

6
SDD 09G01 - 4f

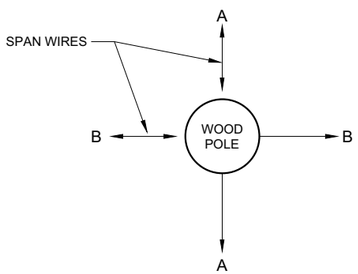




SPLICE BOX

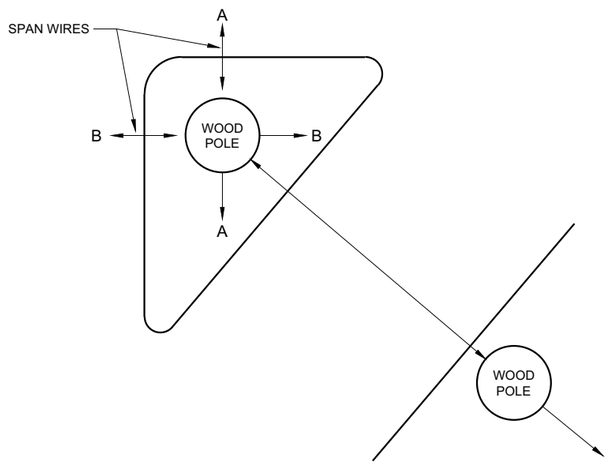


TYPICAL SKID TYPE TEMPORARY

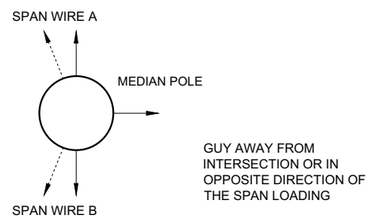


ALL DOWN OR SIDEWALK GUYS
SHALL BE INSTALLED IN THE
OPOSITE DIRECTION OF THE
STRAIN OF THE SPAN WIRE

CORNER POLES



ISLAND POLES



GUY AWAY FROM
INTERSECTION OR IN
OPPOSITE DIRECTION OF
THE SPAN LOADING

MEDIAN POLES

SPAN WIRE TEMPORARY TRAFFIC SIGNAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

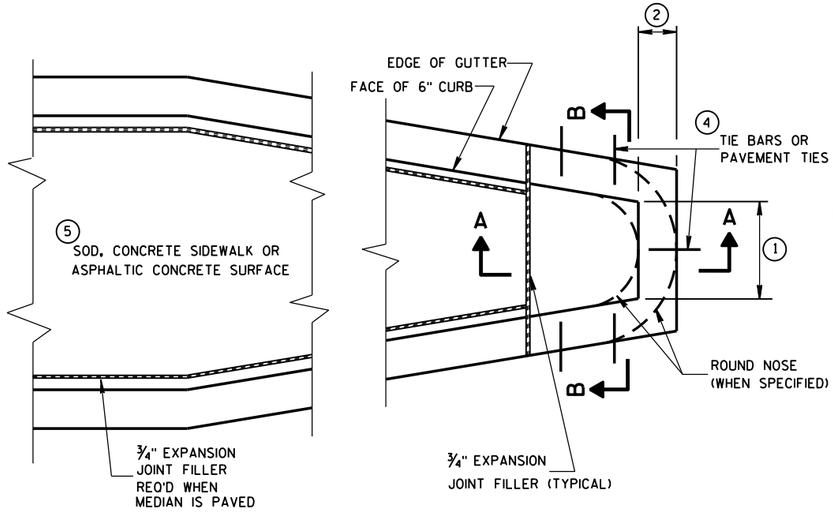
APPROVED
June 2015
DATE

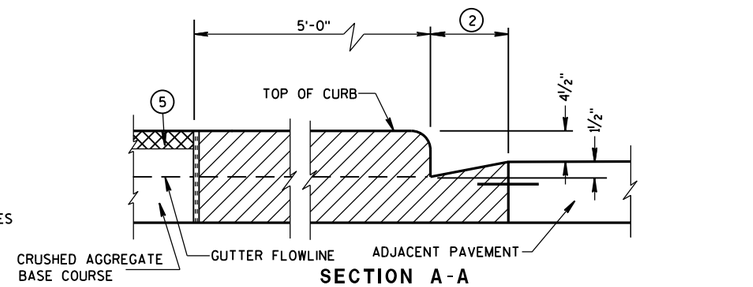
/S/ Ahmet Demerbilek
ROADWAY STANDARDS DEVE ENGINEER

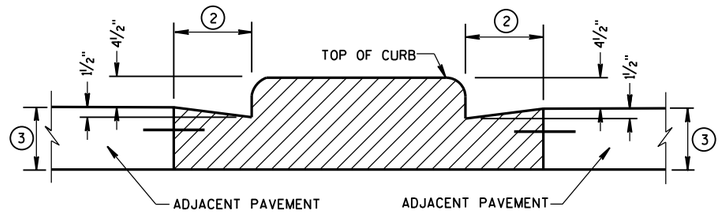
FHWA

SDD 09G01 - 4g

6







CONCRETE MEDIAN BLUNT NOSE DETAIL

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) SEE PLAN FOR MEDIAN NOSE WIDTH AND RADIUS (FOR ROUND NOSE ALTERNATE).

(2) WIDTH OF GUTTER TO MATCH EXISTING ADJACENT GUTTER OR AS SPECIFIED ELSEWHERE IN THE PLAN.

(3) DEPTH EQUAL TO ADJACENT PAVEMENT. ADJACENT PAVEMENT STRUCTURE DETAILS ARE SHOWN ON THE PLAN. TYPICAL OPTIONS ARE:

(1) NEW OR EXISTING CONCRETE PAVEMENT.

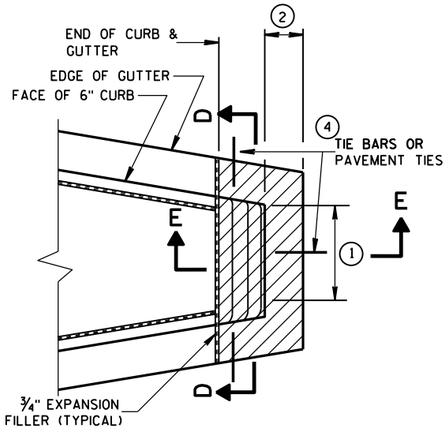
(2) ASPHALTIC CONCRETE PAVEMENT OVER NEW OR EXISTING CONCRETE BASE COURSE.

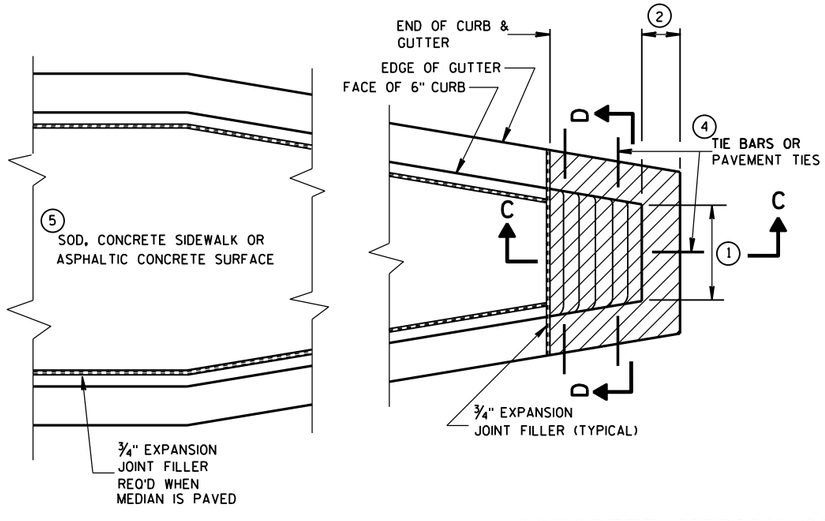
(3) ASPHALTIC CONCRETE PAVEMENT OVER CRUSHED AGGREGATE BASE COURSE.

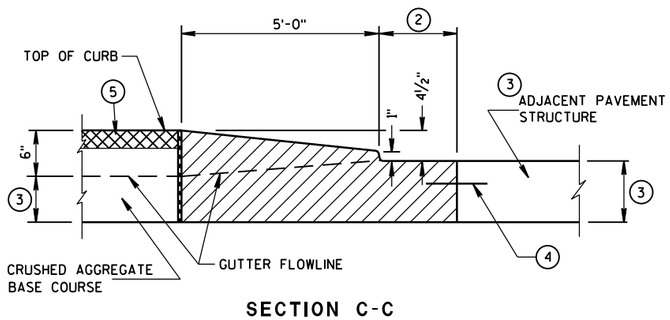
(4) TIE BARS OR PAVEMENT TIES REQUIRED IN NEW CONCRETE PAVEMENT OR CONCRETE BASE COURSE. TIE BARS SHALL BE NO. 4 X 2'-0" SPACED AT 2'-0" C-C.

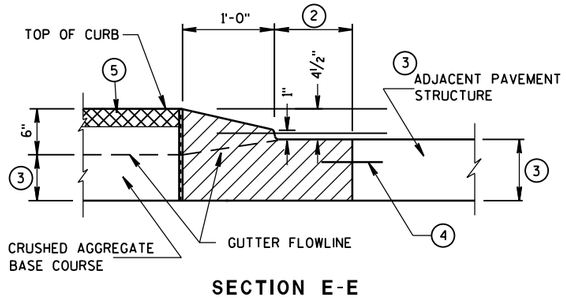
PAVEMENT TIES REQUIRED IN EXISTING CONCRETE BASE COURSE. PAVEMENT TIES SHALL BE NO. 6 X 1'-0" SPACED AT 3'-0" C-C INSTALLED ON A HORIZONTAL SKEW OF 6:1. THE DIRECTION OF SKEW SHALL ALTERNATE AFTER EVERY ONE OR TWO BARS.

(5) SURFACE TYPE AND DETAILS ARE SHOWN ELSEWHERE IN THE PLAN.



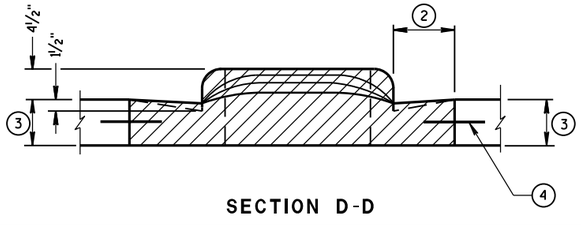






CONCRETE MEDIAN SLOPED NOSE TYPE 1

CONCRETE MEDIAN SLOPED NOSE TYPE 2



CONCRETE MEDIAN NOSE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

6/8/2006
DATE

/S/ Jerry H. Zogg
ROADWAY STANDARDS DEVELOPMENT ENGINEER

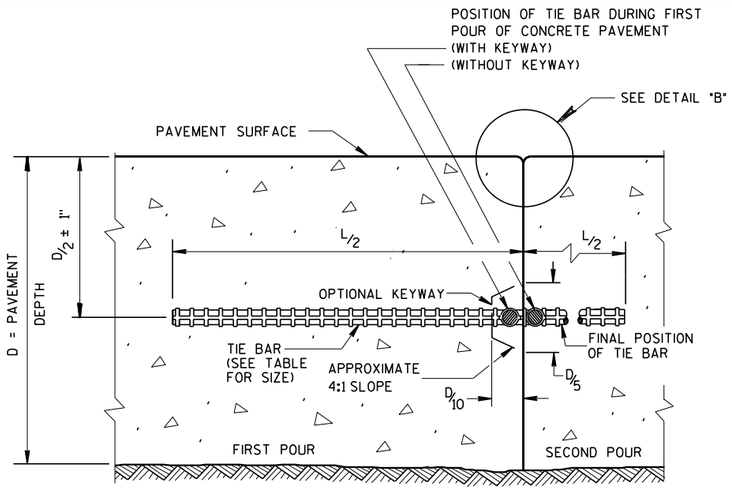
FHWA

6

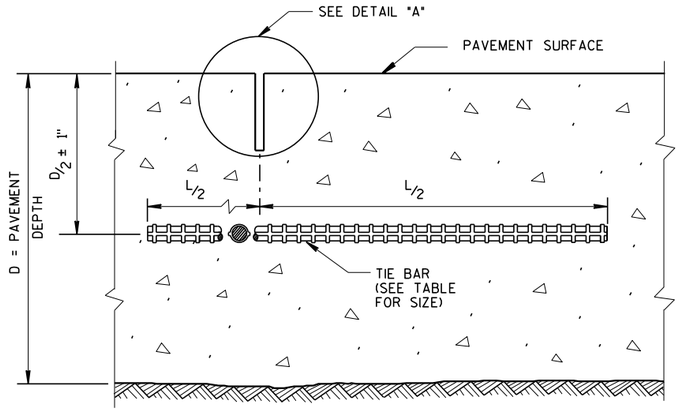
S.D.D. 11 B 2-2

6

S.D.D. 11 B 2-2



CONSTRUCTION JOINT



SAWED JOINT

GENERAL NOTES

CREATE A LONGITUDINAL JOINT FOR PAVEMENT WIDTHS GREATER THAN 15 FEET.

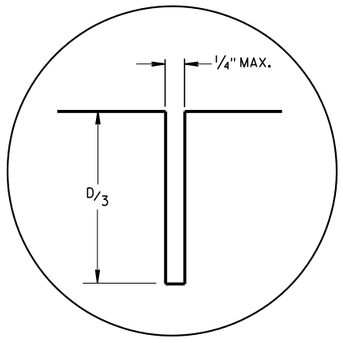
CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

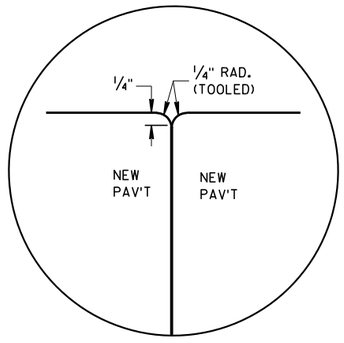
(2) PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

PLAN VIEW

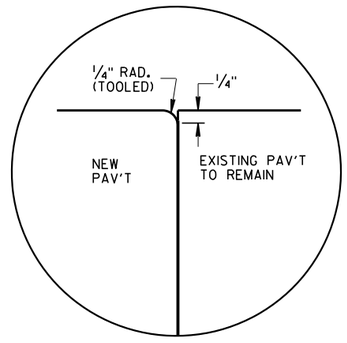
SECTION A-A
LONGITUDINAL CONSTRUCTION JOINT TIE BARS ANCHORED INTO EXISTING PAVEMENT



DETAIL "A"



DETAIL "B"



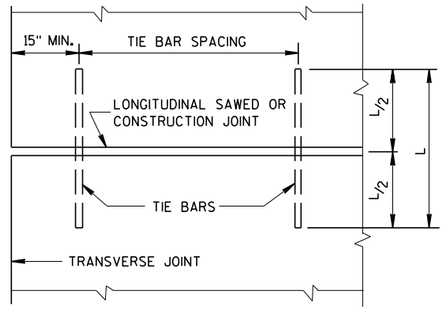
DETAIL "C"

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.



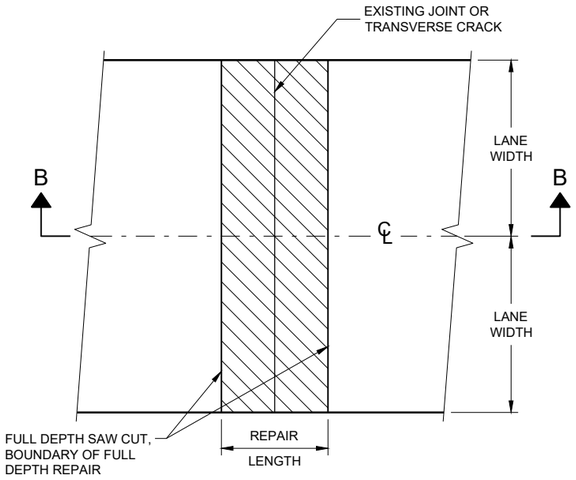
PLAN VIEW
SHOWING LOCATION OF TIE BARS

CONCRETE PAVEMENT LONGITUDINAL JOINTS AND TIES

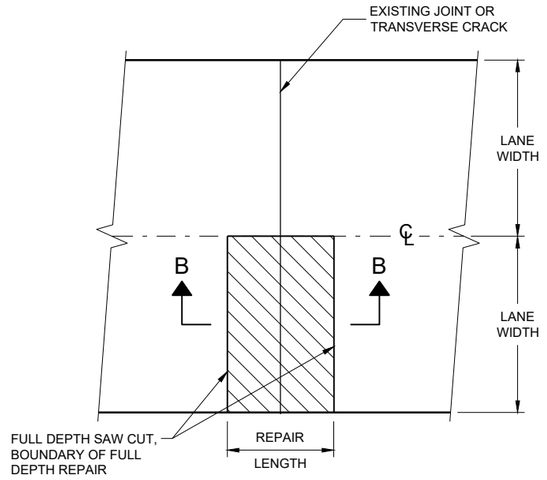
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2018 — DATE
/S/ Peter Kemp PE — PAVEMENT SUPE
FHWA

6
S.D.D. 13 C 1-19



PLAN VIEW
(DOUBLE LANE REPAIR)



PLAN VIEW
(SINGLE LANE REPAIR)

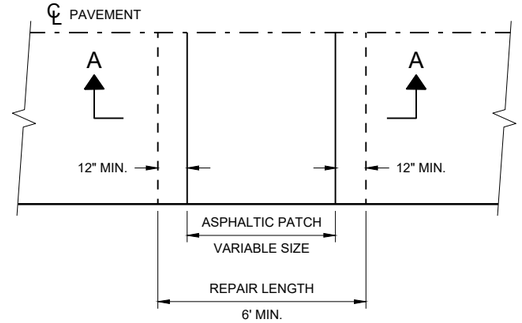
GENERAL NOTES

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 AREA TO ADJACENT TRANSVERSE JOINT OR CRACK.

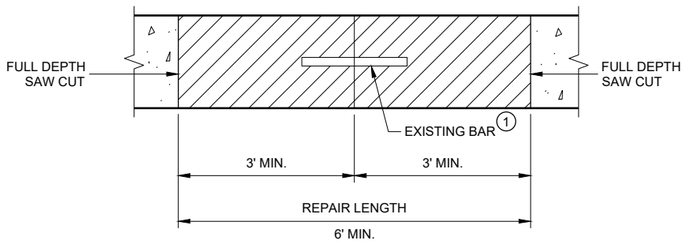
THE LENGTH OF THE REPAIRS MAY VARY FROM THE DIMENSIONS SHOWN IF THE EXISTING CONCRETE PAVEMENT IS NON-DOWELED AND THE PAVEMENT IS TO BE OVERLAID AFTER REPAIRING.

(1) DOWEL BARS MAY NOT BE PRESENT.



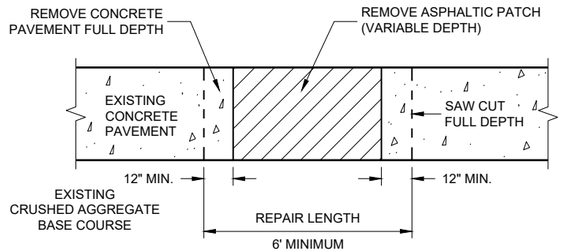
PLAN VIEW

FULL DEPTH CONCRETE PAVEMENT REMOVAL



SECTION B - B

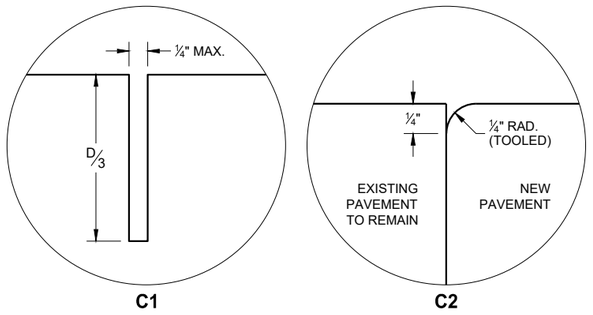
CONCRETE REMOVAL



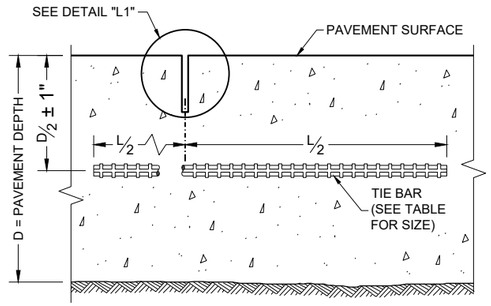
SECTION A - A

HMA PATCH REMOVAL

CONCRETE PAVEMENT
REPAIR AND REPLACEMENT

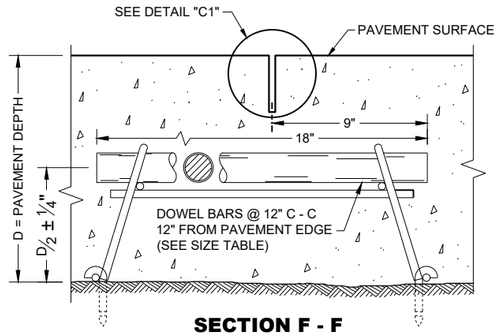


TRANSVERSE JOINTS



SECTION C - C

SAWED LONGITUDINAL JOINT



SECTION F - F

DOWELED CONTRACTION JOINT

GENERAL NOTES

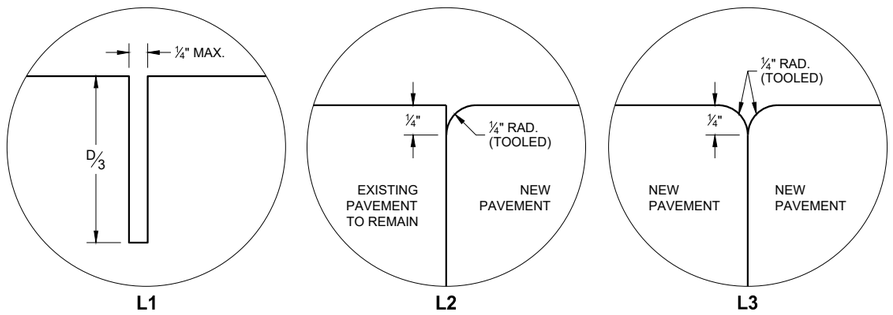
INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

CONCRETE PAVEMENT REPAIRS OF EXISTING NON-DOWELED CONCRETE PAVEMENTS DO NOT NEED TO BE DOWELED.

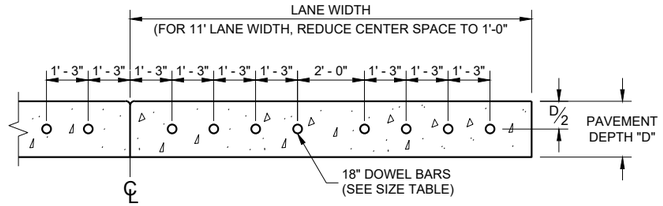
ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

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.

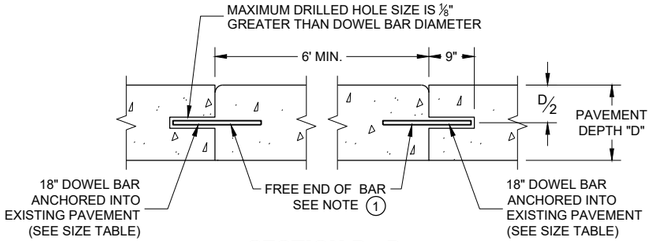


LONGITUDINAL JOINTS



SECTION E - E

DRILLED DOWEL BAR CONSTRUCTION JOINT



SECTION D - D

TIE BAR TABLE

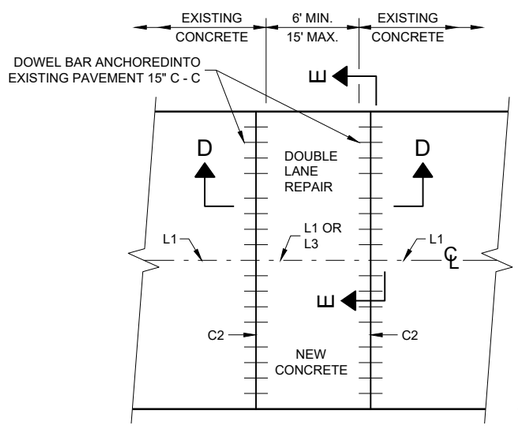
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

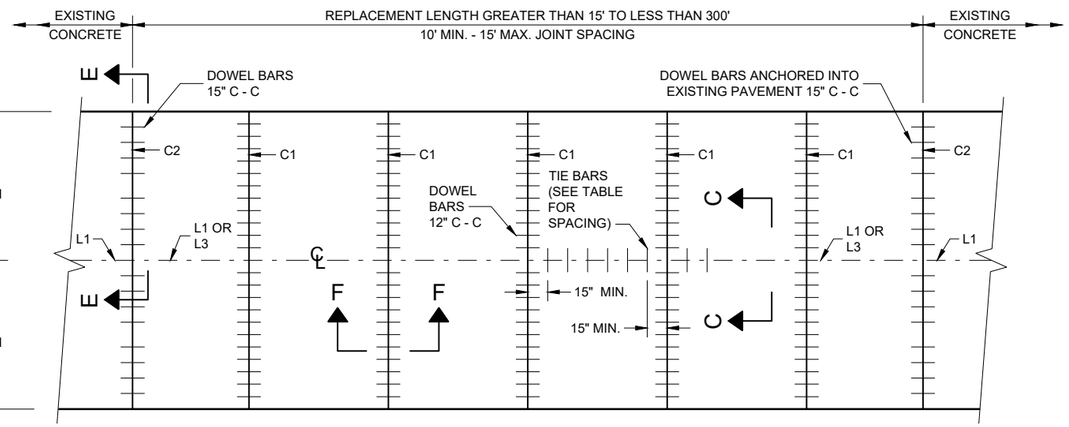
PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	DRILLED DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	NONE	12'
7", 7 ½"	1"	1"	14'
8" & ABOVE	1 ¼"	1 ¼"	15'



PLAN VIEW

MULTILANE CONCRETE PAVEMENT REPAIR



PLAN VIEW

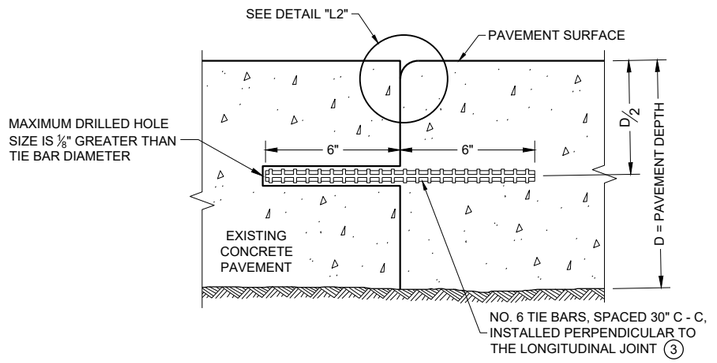
MULTILANE CONCRETE PAVEMENT REPLACEMENT

CONCRETE PAVEMENT REPAIR AND REPLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C09 - 17b
SDD 13C09 - 17b

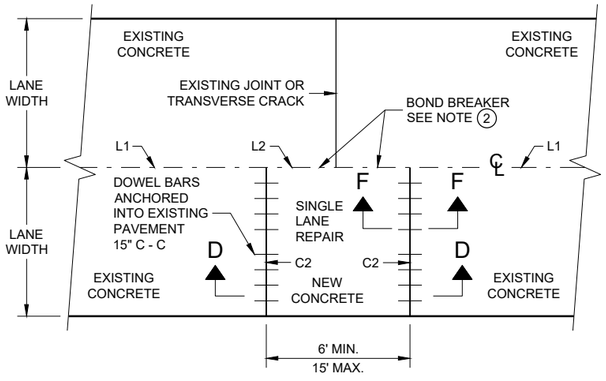


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT

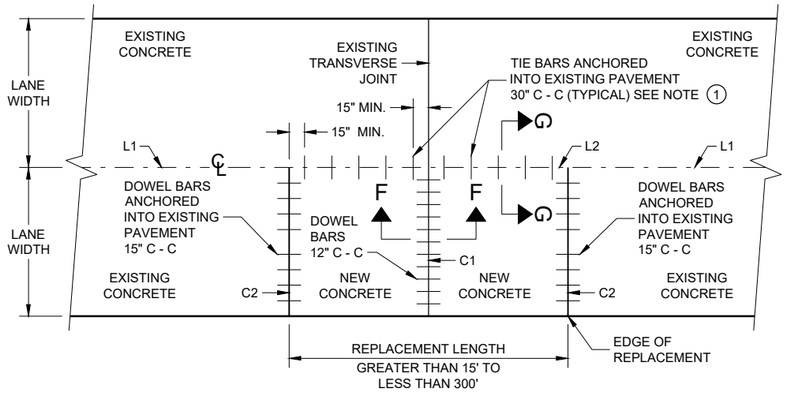
GENERAL NOTES

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 REPAIR AND REPLACEMENT

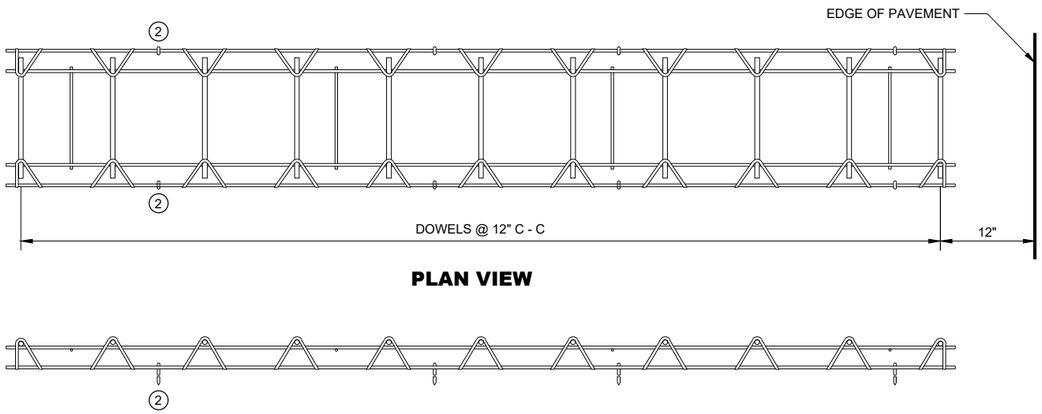
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE
/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

FHWA

6

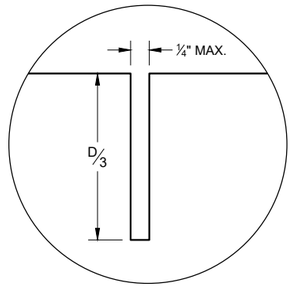
SDD 13C09 - 17c



PLAN VIEW

SIDE VIEW

CONTRACTION JOINT DOWEL ASSEMBLY (1)



JOINT DETAIL

GENERAL NOTES

CONTRACTION JOINTS

CONSTRUCT TRANSVERSE CONTRACTION JOINTS NORMAL TO THE CENTERLINE. SHOW THE LOCATION OF CONTRACTION JOINTS THROUGH INTERSECTIONS ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

FOR PAVEMENT SLABS OF VARYING WIDTHS, LOCATE THE OUTER MOST DOWEL BAR SO THAT THE CENTER OF THE BAR IS A MINIMUM OF 6 INCHES FROM AND A MAXIMUM OF 18 INCHES FROM THE FREE EDGE OF PAVEMENT.

CONSTRUCTION JOINTS

LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO THE CONTRACTION JOINTS.

(1) OBTAIN THE ENGINEER'S APPROVAL FOR THE USE OF ALTERNATIVE DESIGNS OF THE DOWEL ASSEMBLY. USE MECHANICAL DOWEL BAR INSERTERS OR DOWEL ASSEMBLIES WHEN CONSTRUCTION CONTRACTION JOINTS.

(2) SECURE BASKETS WITH ANCHORS TO HOLD DOWEL BARS IN THE CORRECT POSITION AND ALIGNMENT. TYPE, LOCATION, NUMBER AND LENGTH OF ANCHORS ARE DEPENDENT UPON FIELD CONDITIONS.

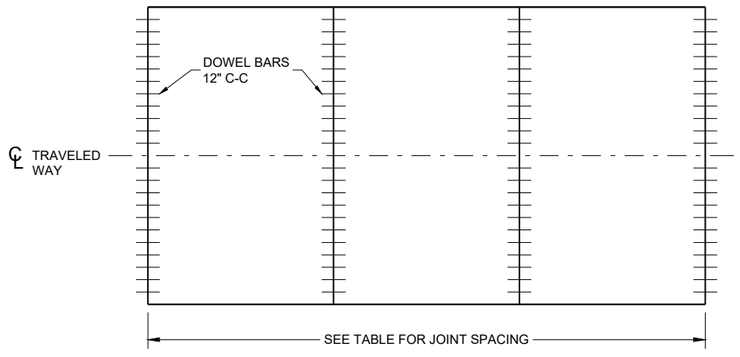
(3) FORM OR SAW CONSTRUCTION JOINTS. PROVIDE A ¼" RADIUS AT FORMED JOINTS.

(4) PROVIDE A SMOOTH VERTICAL FACE FOR THE ENTIRE DEPTH OF THE PAVEMENT WHEN FORMING CONSTRUCTION JOINTS.

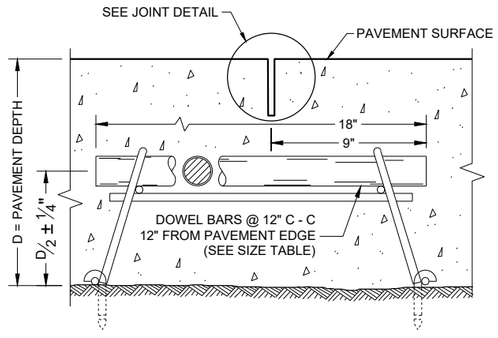
(5) INSTALL DOWEL BARS AT CONSTRUCTION JOINTS BY FORMING OR DRILLING. INSTALL FORMED DOWEL BARS 12 INCHES C - C AND 12 INCHES FROM PAVEMENT EDGE. REMOVE EXCESS CONCRETE FROM THE FREE END OF THE DOWEL BAR IF DOWEL BARS ARE FORMED THROUGH A HEADER BOARD. INSTALL DRILLED DOWEL BARS ACCORDING TO THE "DRILLED DOWEL BAR CONSTRUCTION JOINT" DETAIL.

(6) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.

(7) ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY. MAXIMUM DRILLED HOLE SIZE IS ⅛" GREATER THAN DOWEL BAR DIAMETER, 9 INCHES IN LENGTH.



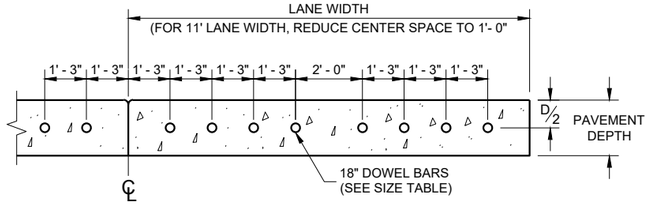
CONTRACTION JOINT LOCATIONS



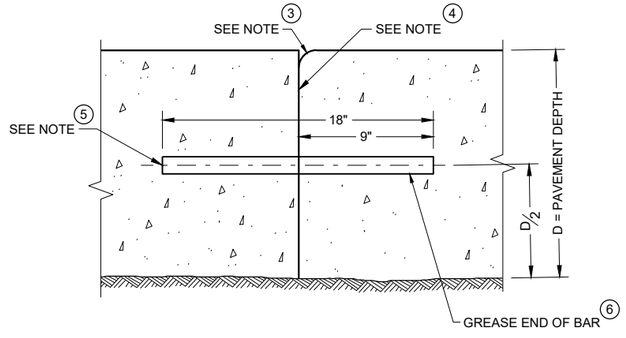
DOWELED CONTRACTION JOINT

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'



DRILLED DOWEL BAR CONSTRUCTION JOINT (7)



TRANSVERSE CONSTRUCTION JOINT

URBAN DOWELED CONCRETE PAVEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

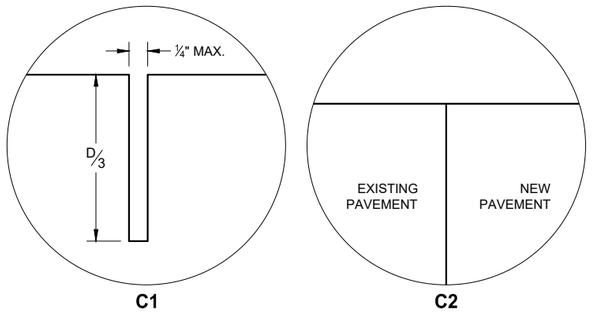
APPROVED
November 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

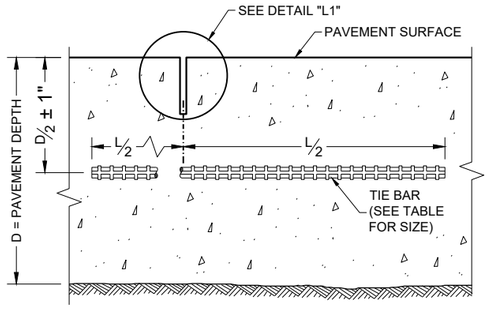
FHWA

6

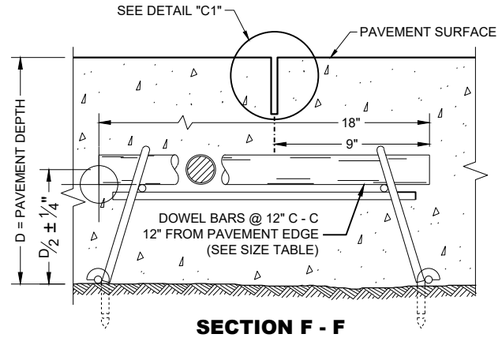
SDD 13C13 - 11



TRANSVERSE JOINTS



SECTION C - C
SAWED JOINT



SECTION F - F
CONTRACTION JOINT

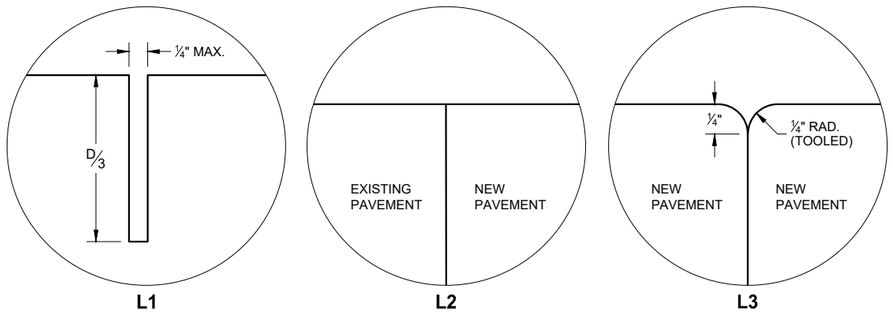
GENERAL NOTES

ANCHOR DOWEL BARS AND TIE BARS INTO DRILLED HOLES WITH AN EPOXY.

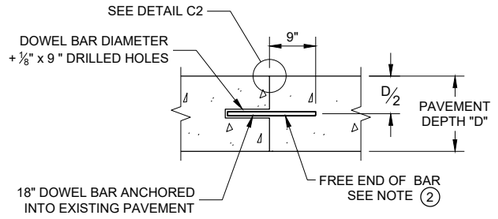
PROVIDE A MIMIMUM DISTANCE OF 15 INCHES FROM AN EXISTING TRANSVERSE JOINT OR EDGE OF REPLACEMENT TO THE CENTER OF THE TIE BAR NEAREST THAT JOINT OR EDGE.

(1) INSTALL DOWEL BARS PARALLEL TO THE PAVEMENT CENTERLINE AND PAVEMENT SURFACE.

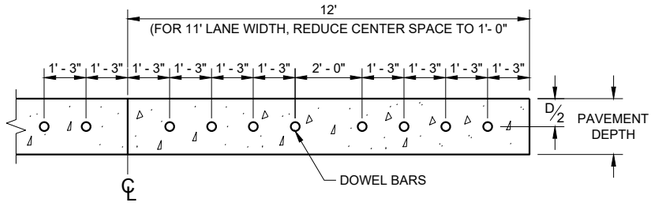
(2) APPLY A THIN UNIFORM COATING OF SURFACE TREATMENT TO THE FREE END OF DOWEL BARS TO PREVENT BONDING.



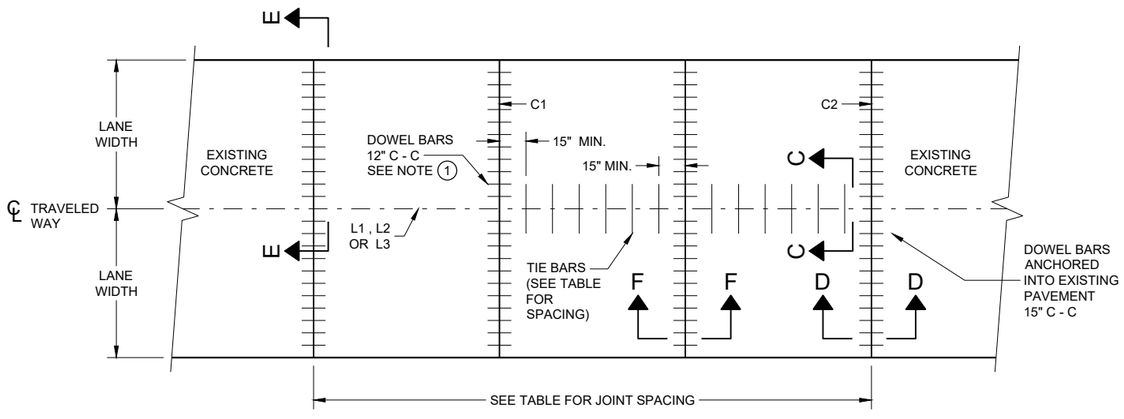
LONGITUDINAL JOINTS



SECTION D - D



SECTION E - E
SPACING OF DOWEL BARS
ANCHORED INTO EXISTING PAVEMENT



PLAN VIEW
CONCRETE BASE
CONTRACTION JOINT LOCATIONS

TIE BAR TABLE

PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4*	30"	24"**

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

PAVEMENT DEPTH, DOWEL BAR SIZE AND JOINT SPACING TABLE

PAVEMENT DEPTH (D)	DOWEL BAR DIAMETER	CONTRACTION JOINT SPACING
6", 6 ½"	NONE	12'
7", 7 ½"	1"	14'
8" & ABOVE	1 ¼"	15'

CONCRETE BASE

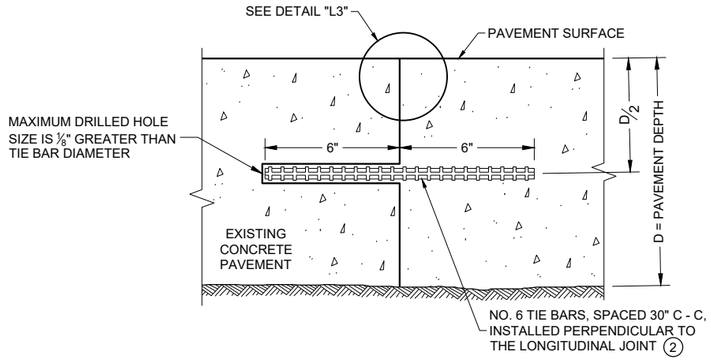
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C15 - 08a
SDD 13C15 - 08a

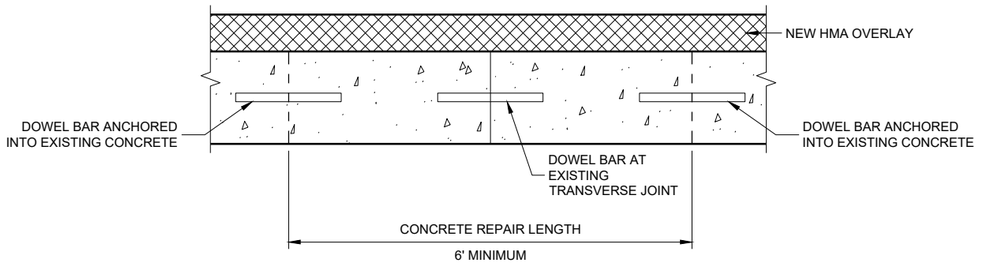
GENERAL NOTES

1. USE AN ENGINEER APPROVED BOND BREAKER (E.G. RELEASE AGENT, CURING COMPOUND) AT THE LONGITUDINAL JOINT IN LIEU OF TIE BARS FOR SINGLE LANE CONCRETE BASE REPAIRS UP TO 15 FEET IN LENGTH.
2. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.
3. PAVEMENT THAT WAS IN PLACE PRIOR TO THE CONTRACT.

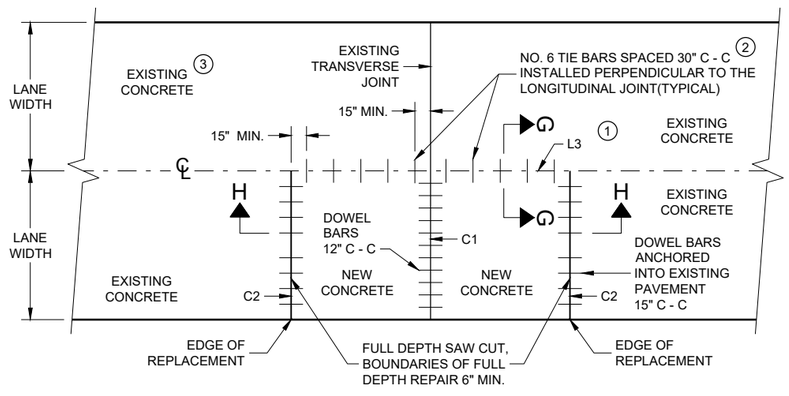


SECTION G - G

TIE BARS ANCHORED INTO EXISTING PAVEMENT



SECTION H - H



PLAN VIEW

SINGLE LANE CONCRETE BASE REPAIR

CONCRETE BASE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

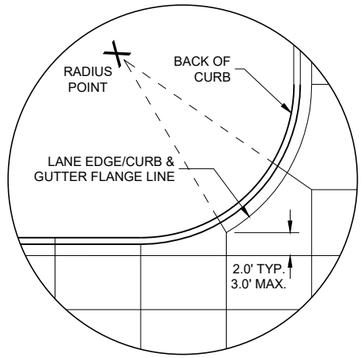
APPROVED
November 2022
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

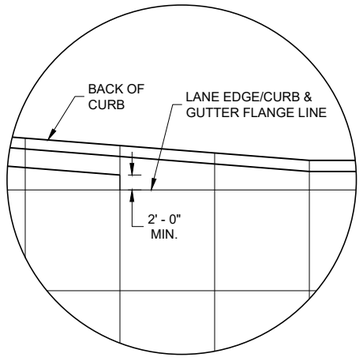
FHWA

6

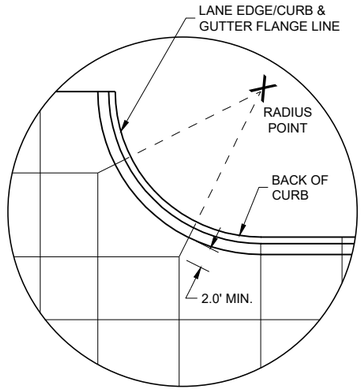
SDD 13C15 - 08b



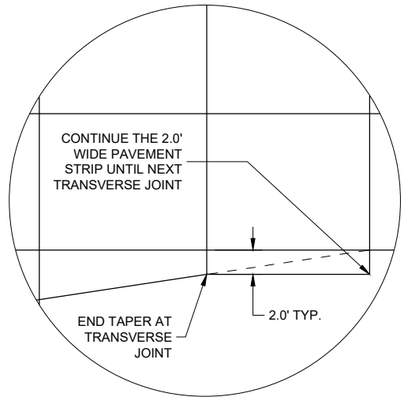
DETAIL "A"



DETAIL "B"



DETAIL "C"



DETAIL "D"

GENERAL NOTES

THE PRIMARY ROADWAY CONTROLS THE TRANSVERSE JOINT PATTERN.

ALIGN NEW JOINTS WITH EXISTING JOINTS OR CRACKS.

CONSTRUCT TRANSVERSE JOINTS PERPENDICULAR TO THE ROADWAY.

ADJUST TRANSVERSE JOINTS TO ALIGN WITH UTILITY FIXTURES (E.G MANHOLES AND INLETS) IN THE PAVEMENT STRUCTURE WHEN POSSIBLE. WATER VALVES DO NOT REQUIRE JOINT ADJUSTMENT.

AVOID SLABS LESS THAN 2 FEET WIDE OR GREATER THAN 15 FEET WIDE.

SEE TABLE FOR TRANSVERSE JOINT SPACING. JOINT SPACING SPECIFIED IS MAXIMUM AND ACTUAL SPACING CAN BE ADJUSTED TO ACCOMMODATE INTERSECTIONS.

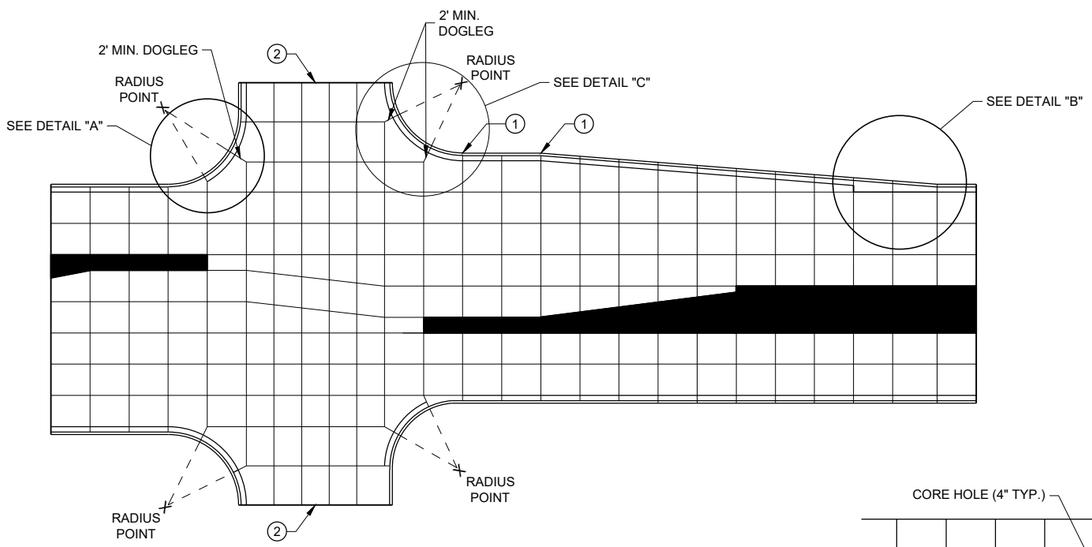
AVOID ANGLES LESS THAN 60° BY DOGLEGGING JOINTS THROUGH CURVE RADIUS POINTS. USE 90° ANGLES WHEN POSSIBLE.

CORRELATE LONGITUDINAL JOINTS WITH LANE LINES WHEN POSSIBLE.

(1) PROVIDE TRANSVERSE JOINTS AT ALL PAVEMENT WIDTH CHANGES.

(2) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH EDGE OF RADIUS.

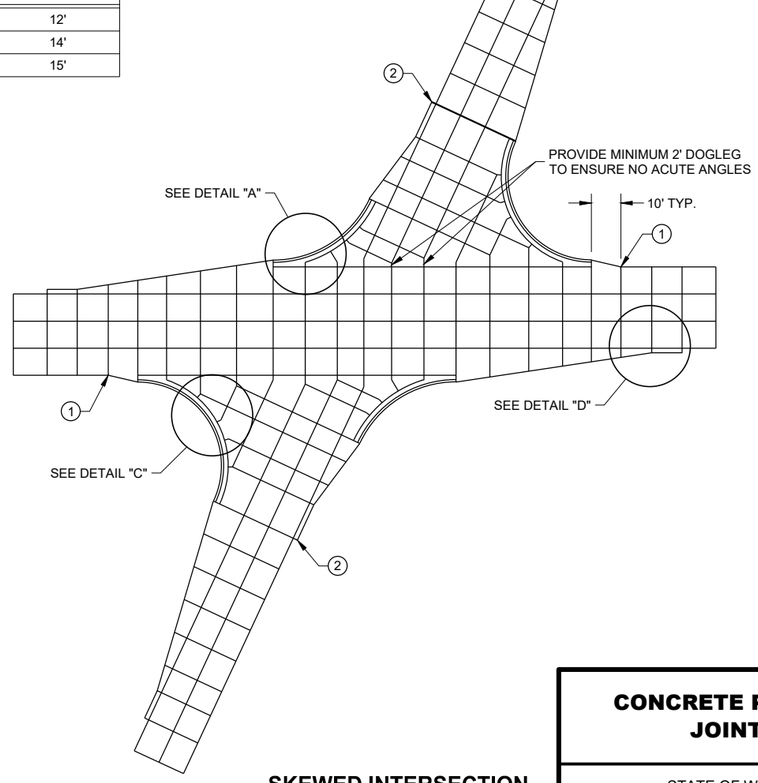
(3) THE ENGINEER MAY APPROVE SLIGHT VARIATIONS FROM THESE JOINTING DETAILS.



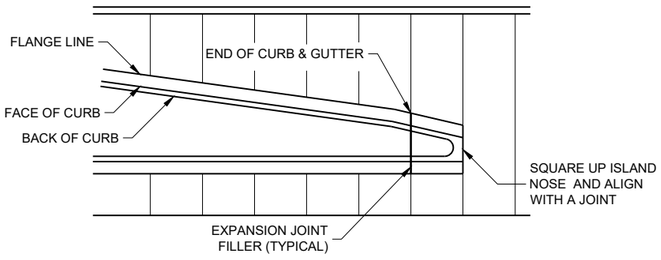
STANDARD INTERSECTION

PAVEMENT DEPTH AND JOINT SPACING TABLE

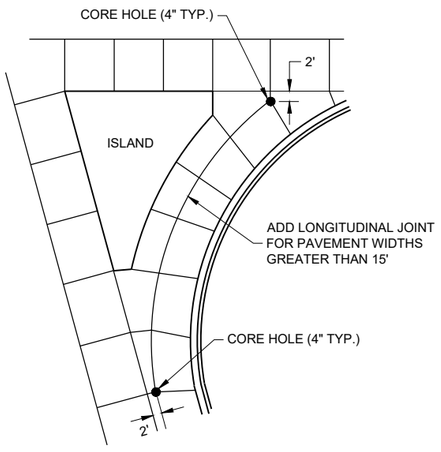
PAVEMENT DEPTH (D)	CONTRACTION JOINT SPACING
6", 6 ½"	12'
7", 7 ½"	14'
8" & ABOVE	15'



SKEWED INTERSECTION



APPROACH TO MEDIAN



LARGE RIGHT TURN

CONCRETE PAVEMENT JOINTING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

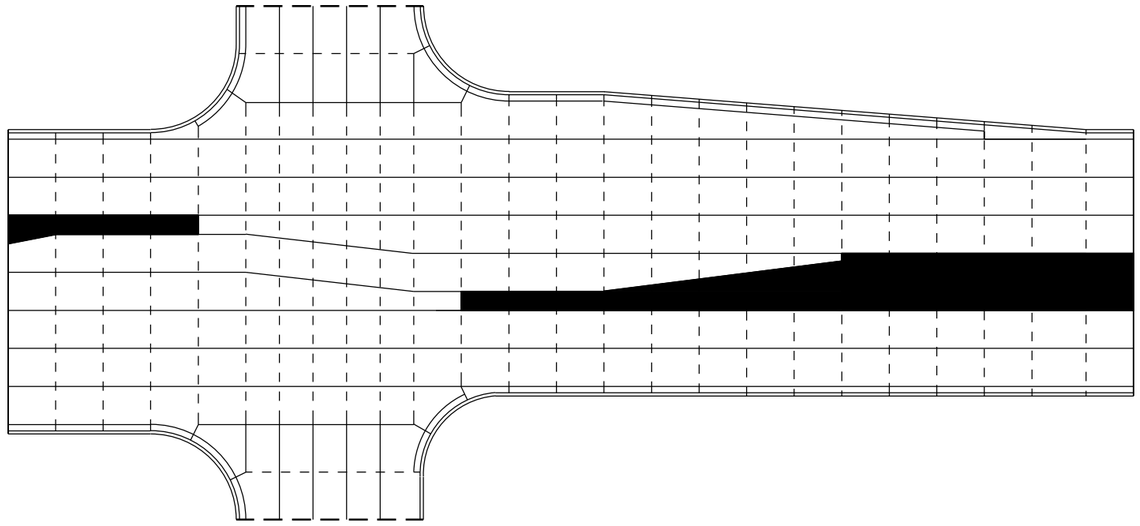
6
SDD 13C18 - 08a

LEGEND

POTENTIAL DOWELED EXPANSION JOINT

DOWELED JOINT

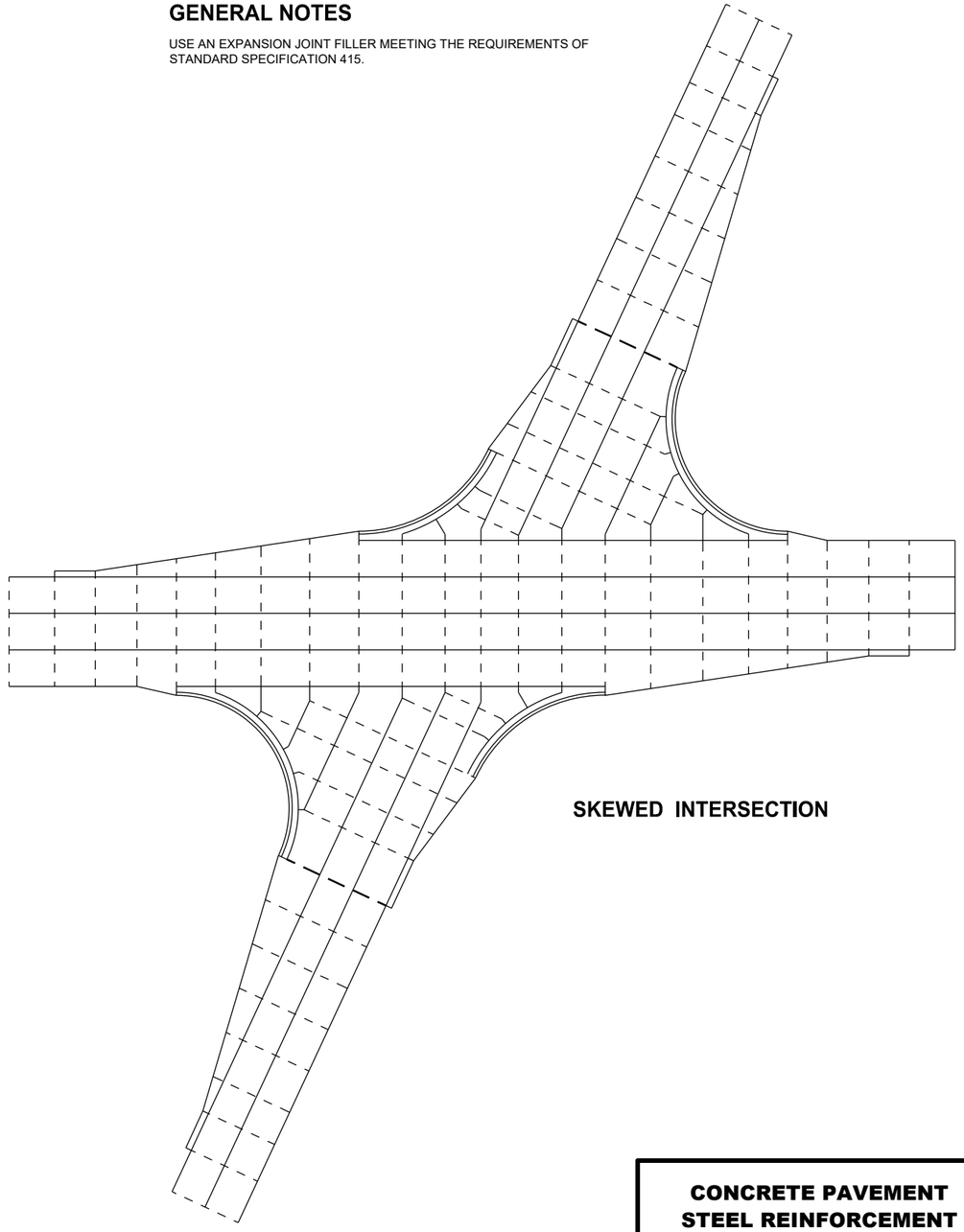
TIED JOINT



STANDARD INTERSECTION

GENERAL NOTES

USE AN EXPANSION JOINT FILLER MEETING THE REQUIREMENTS OF STANDARD SPECIFICATION 415.



SKEWED INTERSECTION

6

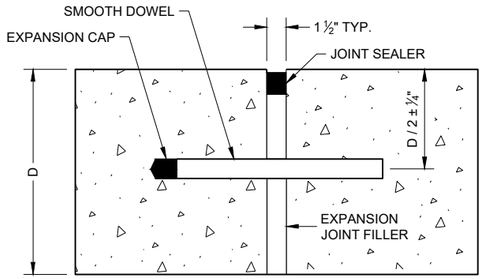
SDD 13C18 - 08b

CONCRETE PAVEMENT STEEL REINFORCEMENT

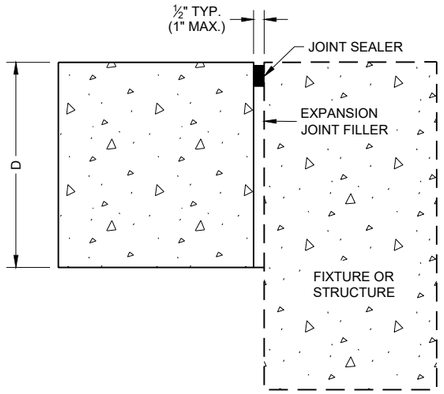
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 13C18 - 08b



DOWELED TRANSVERSE (1)



UNTIED - LONGITUDINAL

EXPANSION JOINTS

TIE BAR TABLE

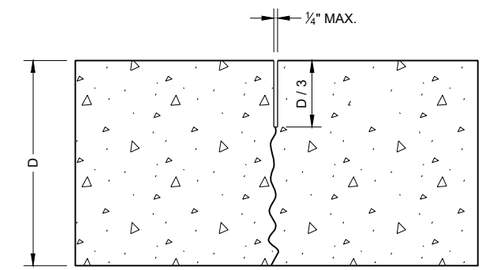
PAVEMENT DEPTH (D)	TIE BAR SIZE	TIE BAR LENGTH (L)	MAX. TIE BAR SPACING
< 10 ½"	NO. 4	30"	36"
≥ 10 ½"	NO. 5	36"	36"
	NO. 4 *	30"	24" **

* SUBSTITUTE BENT BARS AT LONGITUDINAL JOINTS WHEN EQUIPMENT LIMITATIONS DURING CONSTRUCTION WARRANT (e.g. AUXILIARY LANES OR TURN LANES)

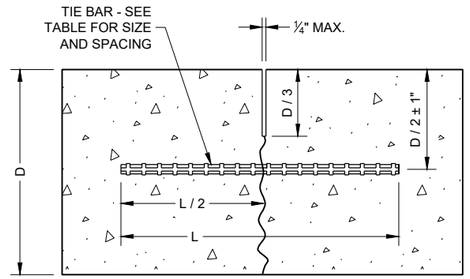
** CONFORM TO 15" MINIMUM SPACING FROM TRANSVERSE JOINTS; SPACING BETWEEN TIE BARS WILL BE 30" AT TRANSVERSE JOINTS.

GENERAL NOTES

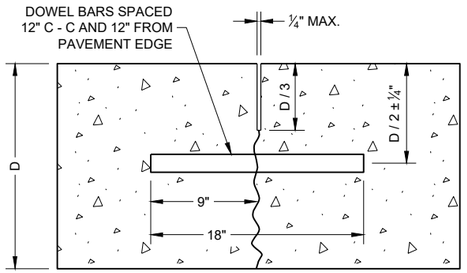
1. USE DOWELED EXPANSION JOINTS ON SIDE ROADS AT INTERSECTIONS (TO ISOLATETHE SIDE ROAD FROM THE THROUGH STREET) IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH.
2. SPACE CONTRACTION JOINTS IN ACCORDANCE WITH SDD 13C4, 13C11 OR 13C13.
3. LOCATE CONSTRUCTION JOINTS A MINIMUM OF 6 FEET FROM THE NEAREST CONTRACTION JOINT AND ALIGN PARALLEL TO CONTRACTION JOINTS.
4. CONSTRUCTION JOINTS CAN BE FORMED OR SAWED.
5. IF JOINT IS FORMED, PROVIDE A ¼" RADIUS.
6. ANCHOR TIE BARS INTO DRILLED HOLES WITH AN EPOXY.



UNDOWELED TRANSVERSE

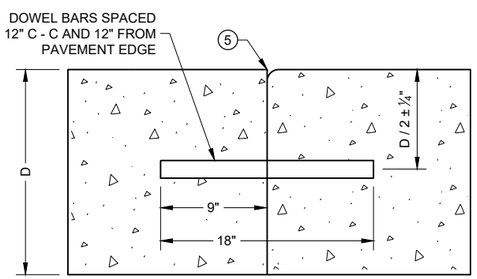


TIED LONGITUDINAL

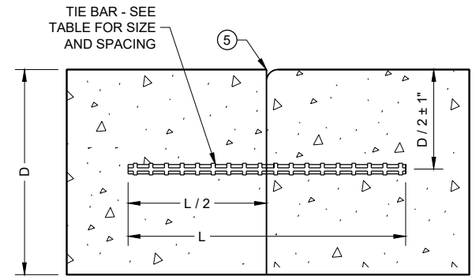


DOWELED TRANSVERSE

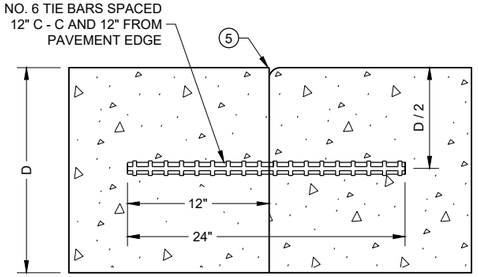
CONTRACTION JOINTS (2)



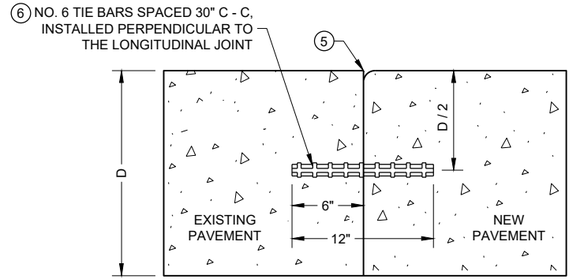
DOWELED TRANSVERSE (3)



TIED LONGITUDINAL



TIED TRANSVERSE (3)
(FOR USE ON NON-DOWELED PAVEMENTS ONLY)



TIED LONGITUDINAL TO EXISTING

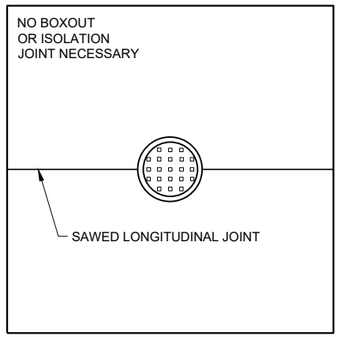
CONSTRUCTION JOINTS (4)

CONCRETE PAVEMENT JOINT TYPES

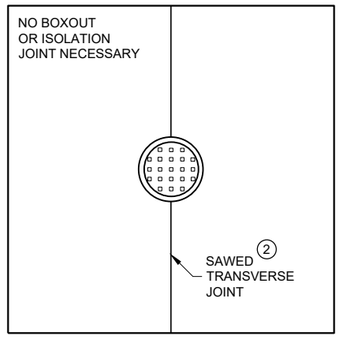
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

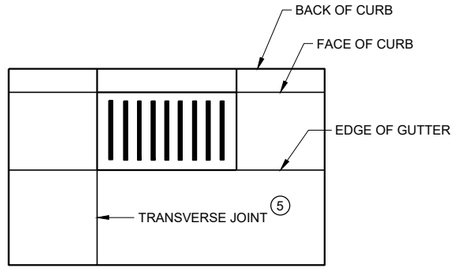
SDD 13C18 - 08c



MANHOLE WITH LONGITUDINAL JOINT



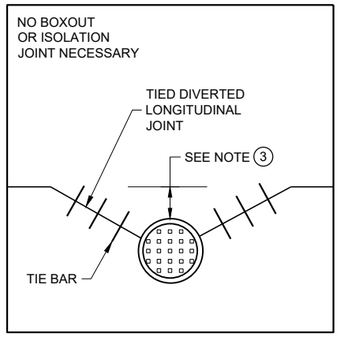
MANHOLE WITH TRANSVERSE JOINT



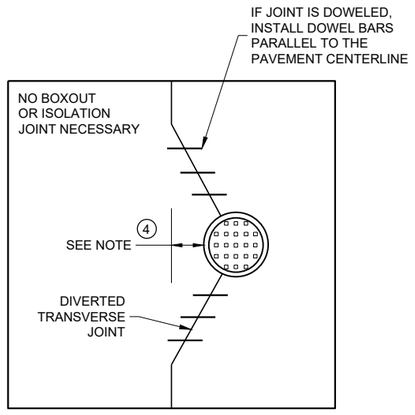
INLET WITH TRANSVERSE JOINT

GENERAL NOTES

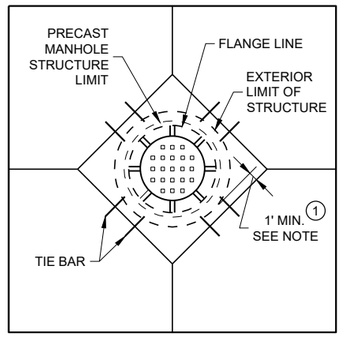
1. USE BOXOUTS WHEN UTILITY STRUCTURE IS IN THE PATH OF CONSTRUCTION JOINTS. PROVIDE A 1 FOOT MINIMUM CLEARANCE BETWEEN THE EXTERIOR LIMIT OF THE STRUCTURE TO THE DIAMOND BOXOUT.
2. ADJUST TRANSVERSE JOINT TO INTERSECT MANHOLE IF POSSIBLE.
3. IF DISTANCE BETWEEN THE LONGITUDINAL JOINT AND THE EDGE OF MANHOLE IS 2 FEET OR LESS, DIVERT THE LONGITUDINAL JOINT AT A 2:1 TAPER RATE TO THE CENTER OF THE MANHOLE. IF THE DISTANCE IS GREATER THAN 2 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
4. IF THE DISTANCE FROM THE EDGE OF THE MANHOLE TO THE NEAREST TRANSVERSE JOINT IS LESS 4 FEET OR LESS, REDIRECT JOINT TO INTERSECT THE CENTER OF THE MANHOLE. IF DISTANCE IS GREATER THAN 4 FEET, DO NOT DIVERT THE JOINT AND SAW AS NORMAL. PLACE REINFORCEMENT REBAR AROUND THE MANHOLE.
5. ALIGN TRANSVERSE JOINT WITH ONE EDGE OF INLET WHEN PRACTICAL.



MANHOLE WITH DIVERTED LONGITUDINAL CONTRACTION JOINT



MANHOLE WITH DIVERTED TRANSVERSE CONTRACTION JOINT



DIAGONAL MANHOLE BOXOUT FOR CONSTRUCTION JOINTS

CONCRETE PAVEMENT JOINTING AT UTILITY FIXTURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

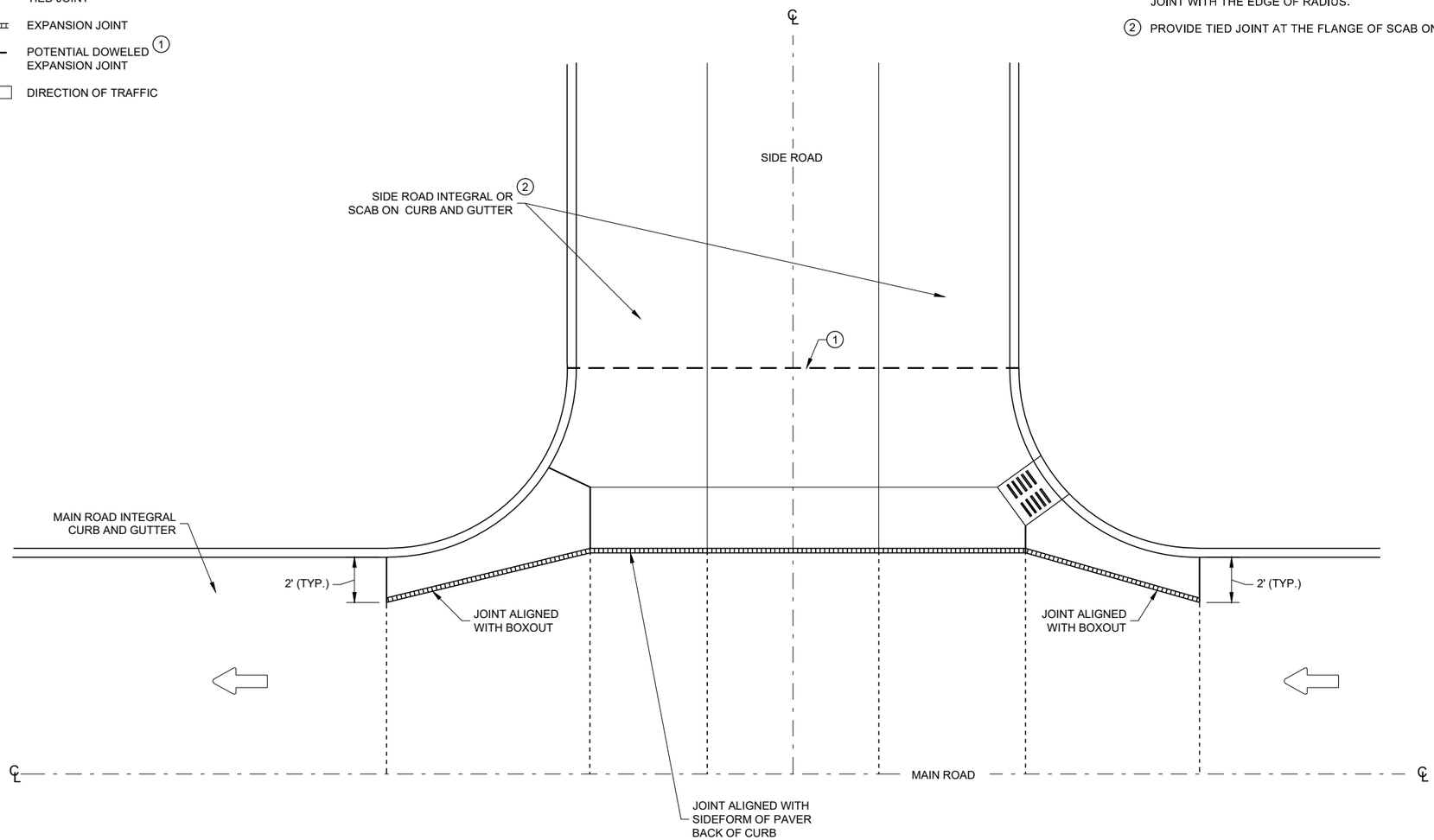
FHWA

6

SDD13C18 - 08d
SDD13C18 - 08d

LEGEND

- DOWELED JOINT
- TIED JOINT
- EXPANSION JOINT
- POTENTIAL DOWELED EXPANSION JOINT (1)
- DIRECTION OF TRAFFIC



GENERAL NOTES

(1) CONSTRUCT DOWELED EXPANSION JOINT ON THE SIDE ROAD OF AN INTERSECTION IF THE SIDE ROAD IS CONCRETE PAVEMENT AND GREATER THAN 300 FEET IN LENGTH. ALIGN EXPANSION JOINT WITH THE EDGE OF RADIUS.

(2) PROVIDE TIED JOINT AT THE FLANGE OF SCAB ON CURB IF SCAB ON CURB AND GUTTER IS USE.

INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

CONCRETE PAVEMENT INTERSECTION BOXOUT FOR INTEGRAL CURB AND GUTTER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Peter Kemp P.E.
PAVEMENT SUPERVIS

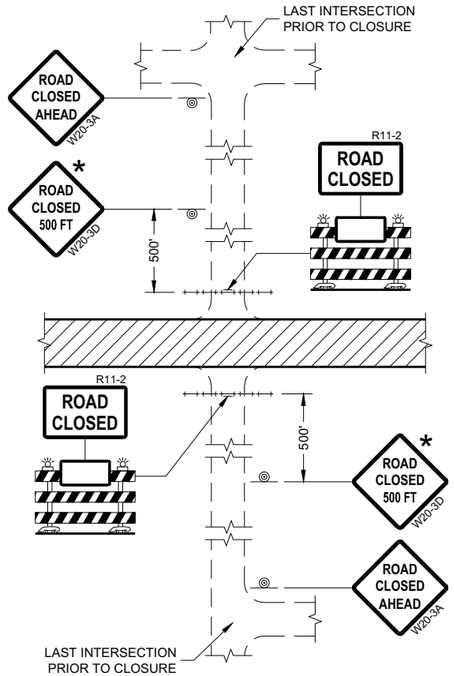
FHWA

6

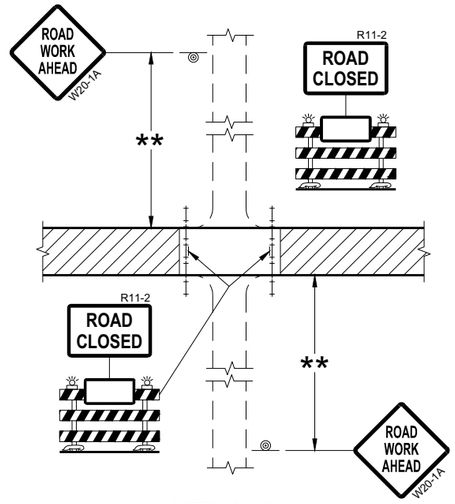
SDD 13C18 - 08f

6

SDD 13C18 - 08f



DETAIL 1
(NO ACCESS TO PROJECT)



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

GENERAL NOTES

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

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

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

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

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

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

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

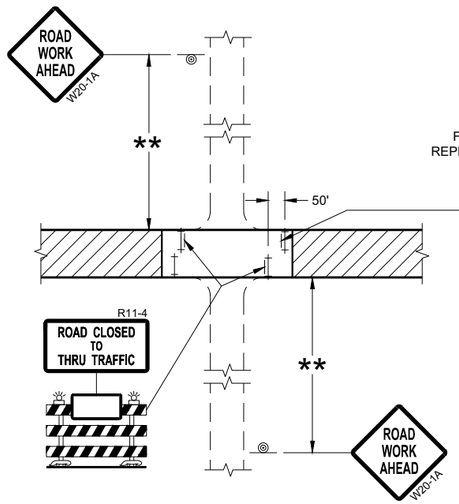
TYPE "A" LOW-INTENSITY FLASHING WARNING LIGHTS SHALL BE VISIBLE ON BOTH SIDES OF THE BARRICADE.

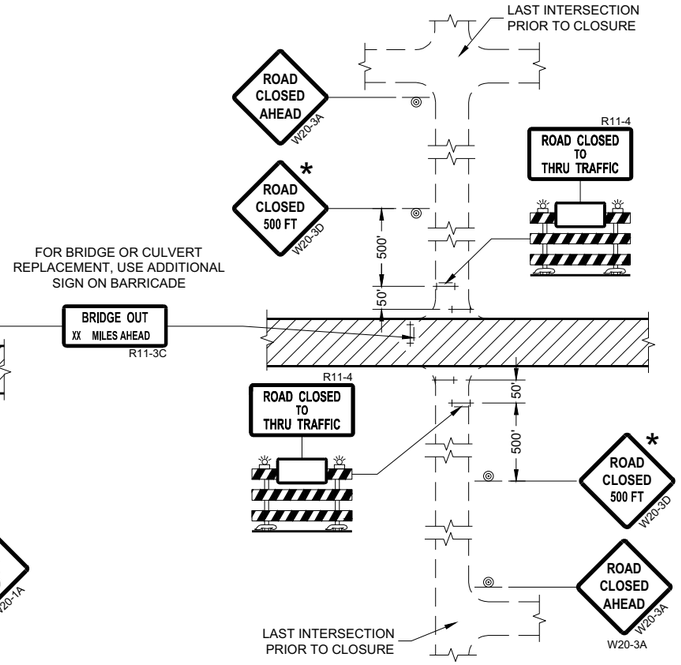
THE R11-2, R11-3, AND R11-4 SIGNS PLACED ON BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE OR BOTTOM RAILS.

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

* OMIT THE "ROAD CLOSED 500 FT." SIGN IF THE LAST INTERSECTION IS 500 FEET OR LESS FROM THE WORK ZONE.

** 500' MAX. OR AT LAST INTERSECTION, WHICHEVER IS CLOSEST.





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

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

LEGEND

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

BARRICADES AND SIGNS FOR SIDEROAD CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
July 2018
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15C03 - 05

6

SDD 15C03 - 05

GENERAL NOTES

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

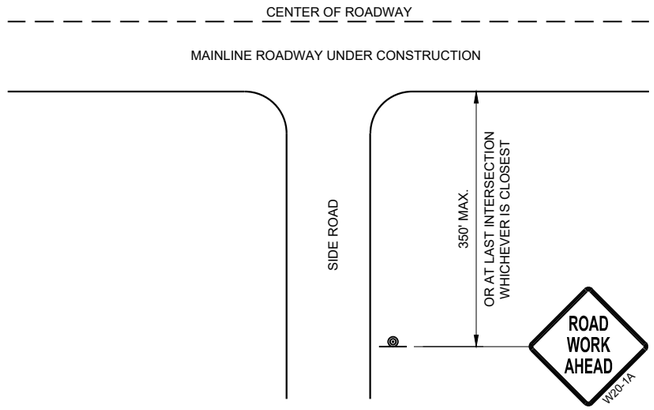
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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

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

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

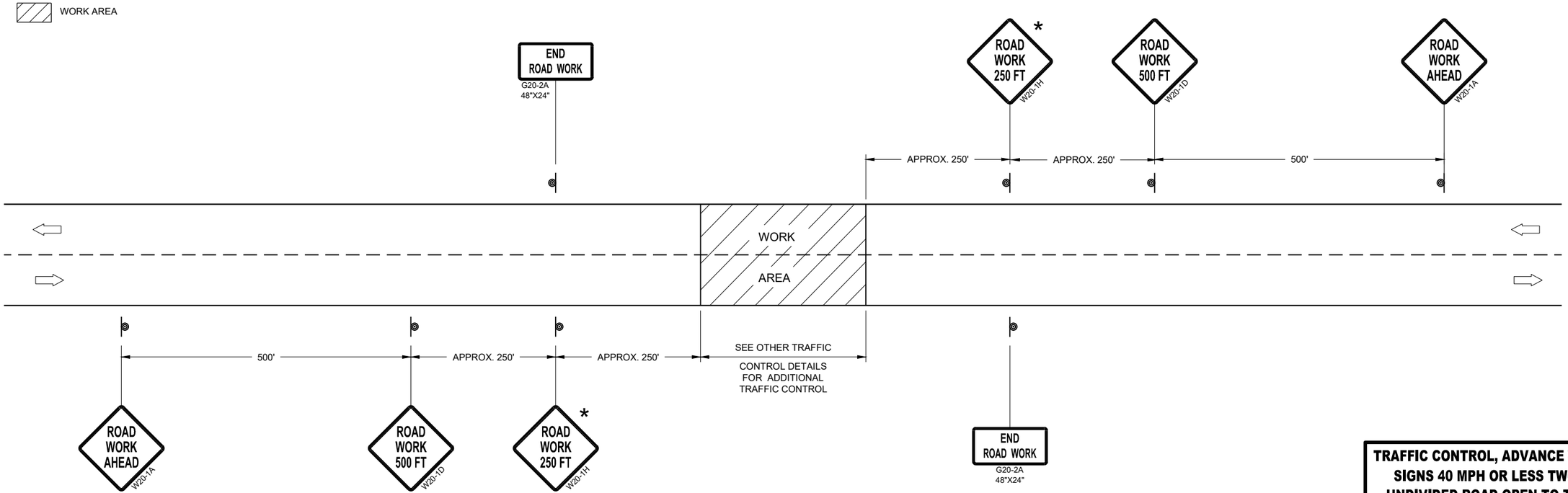
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



TYPICAL SIDE ROAD APPROACH WARNING SIGN DETAIL

LEGEND

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



TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40MPH OR LESS

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

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

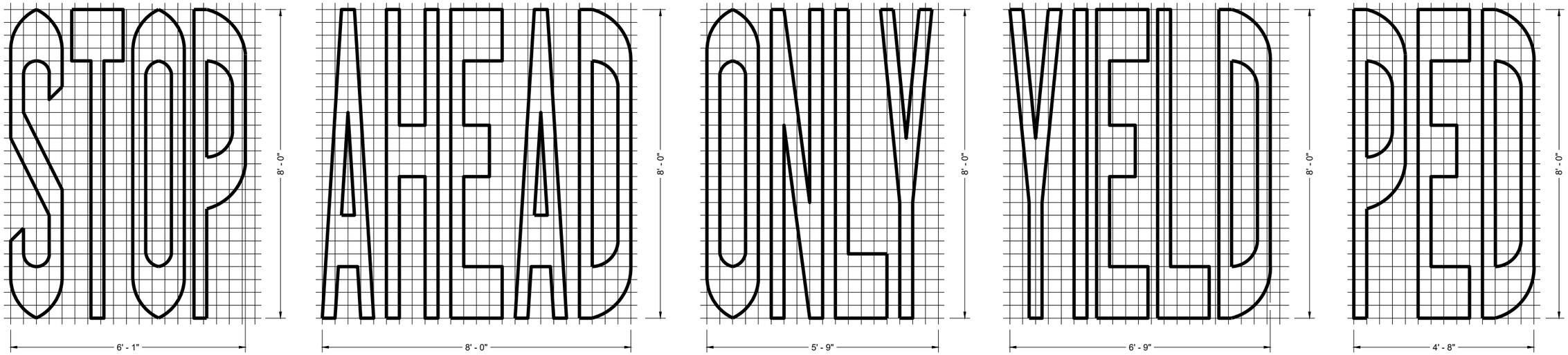
APPROVED
July 2018
DATE

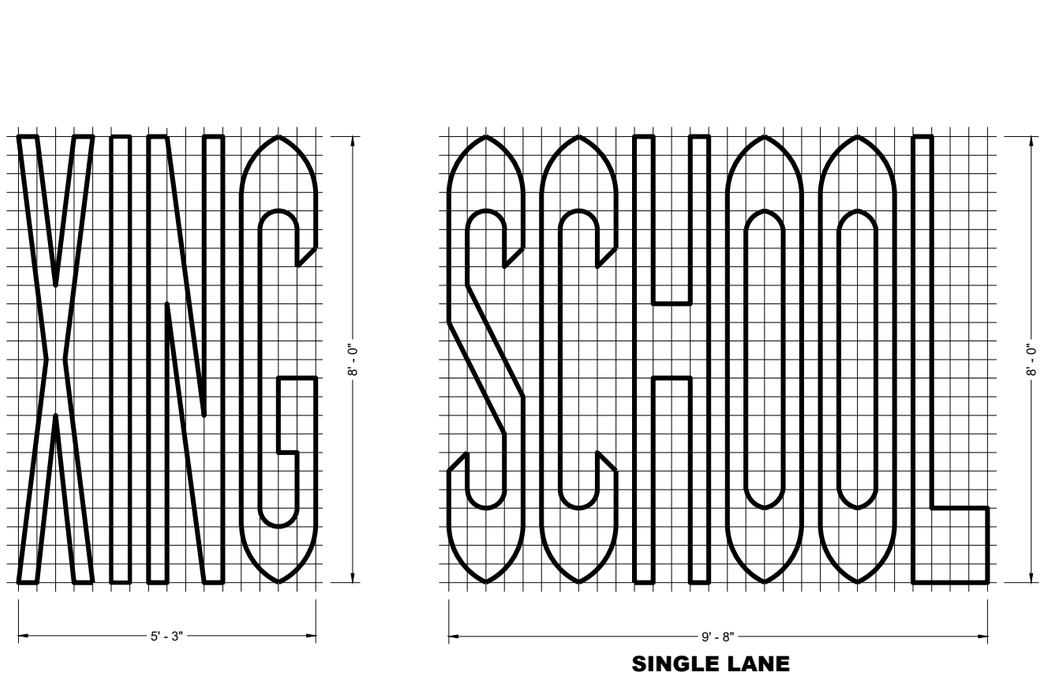
/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

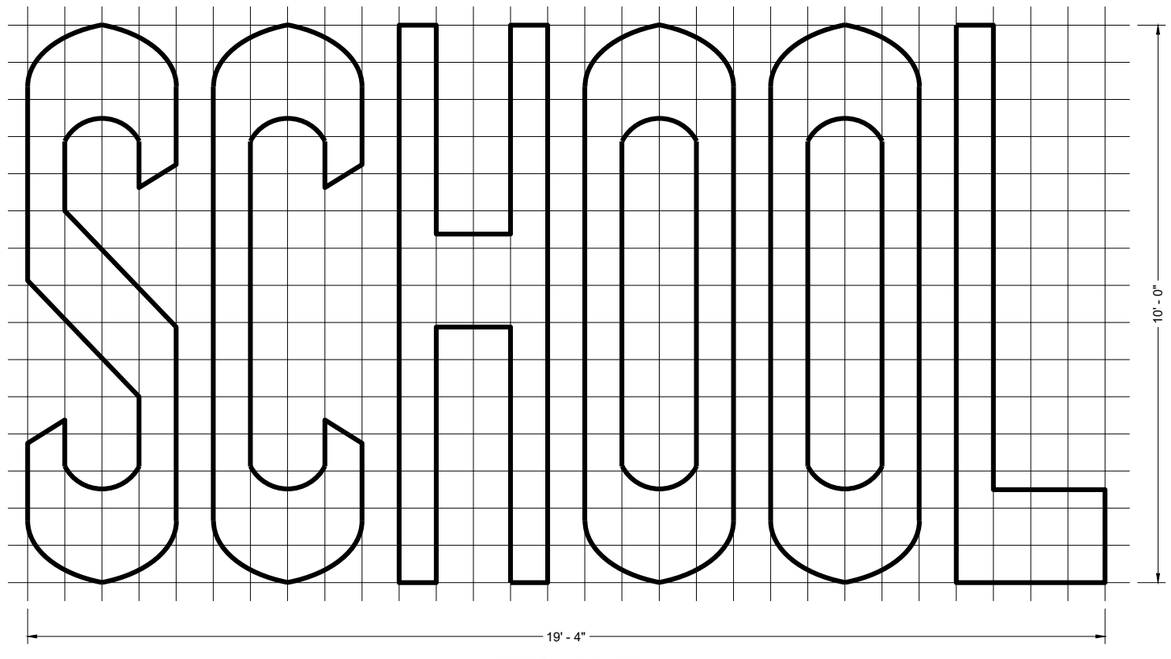
6

SDD 15C05 - 05





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

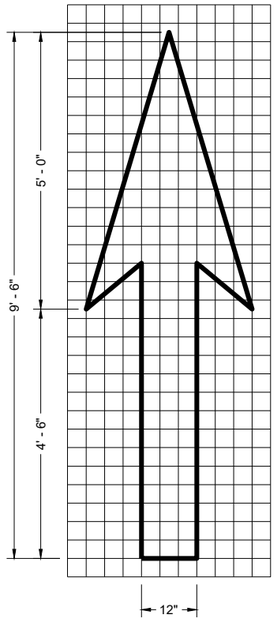
FHWA

6

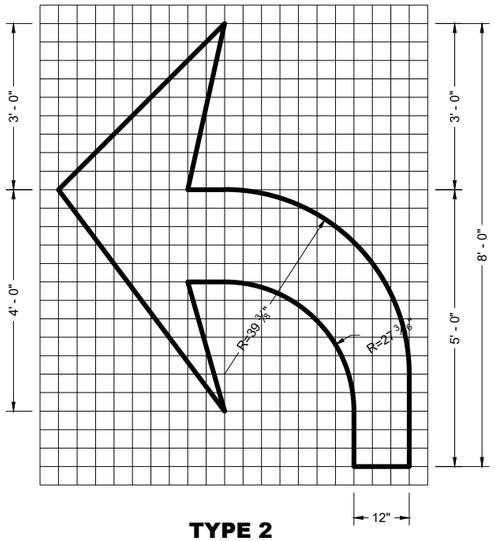
SDD 15C07-16b

6

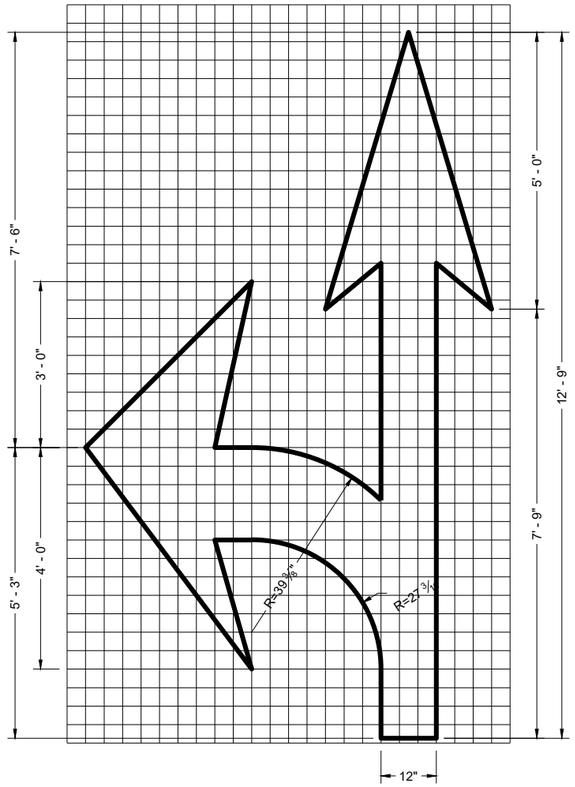
SDD 15C07-16b



TYPE 1



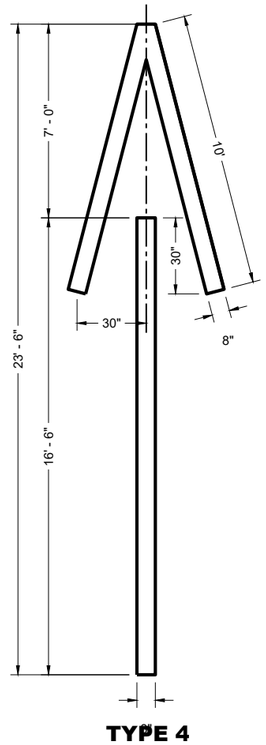
TYPE 2



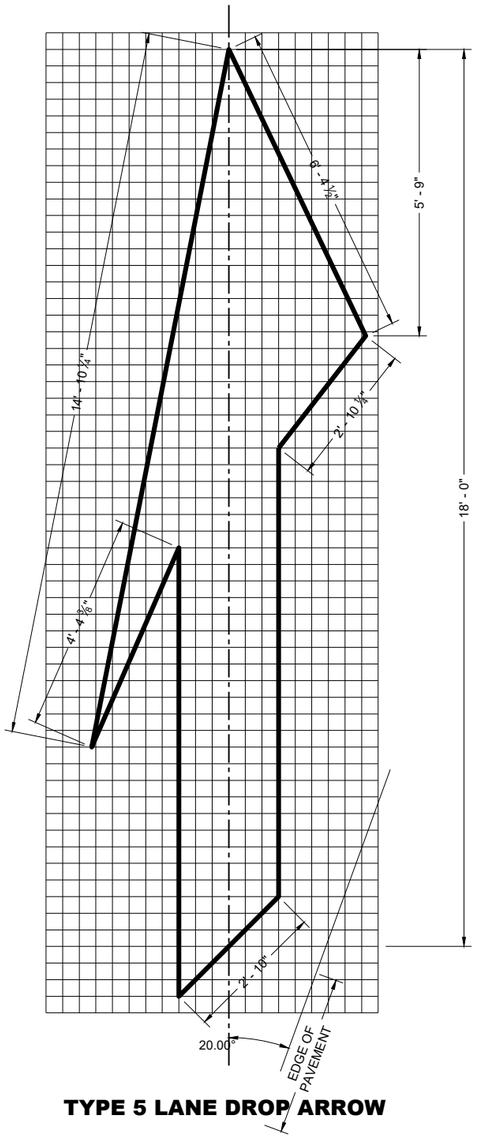
TYPE 3

GENERAL NOTES

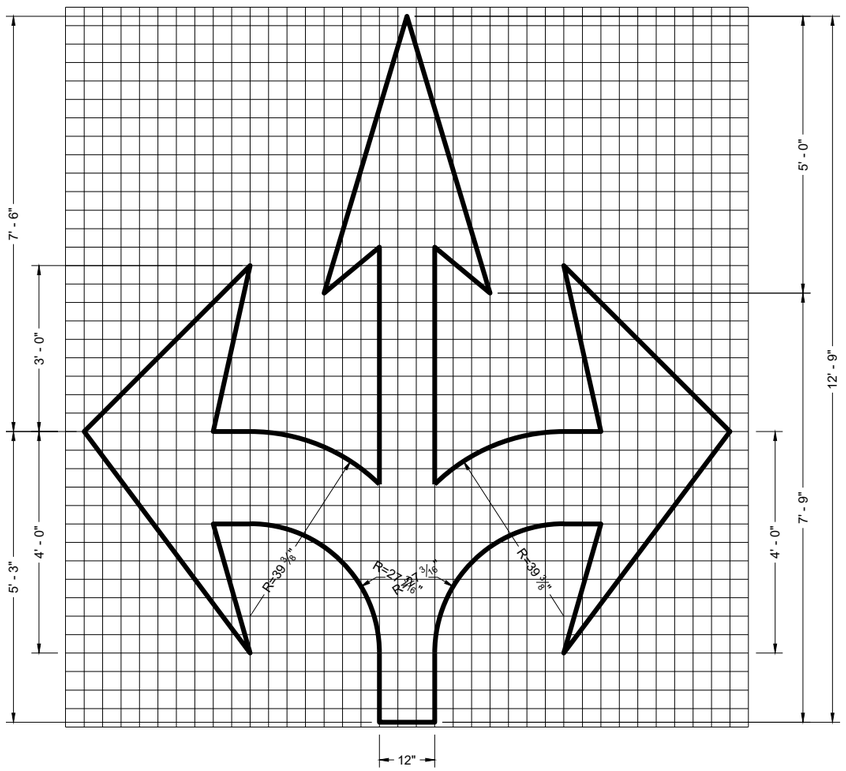
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



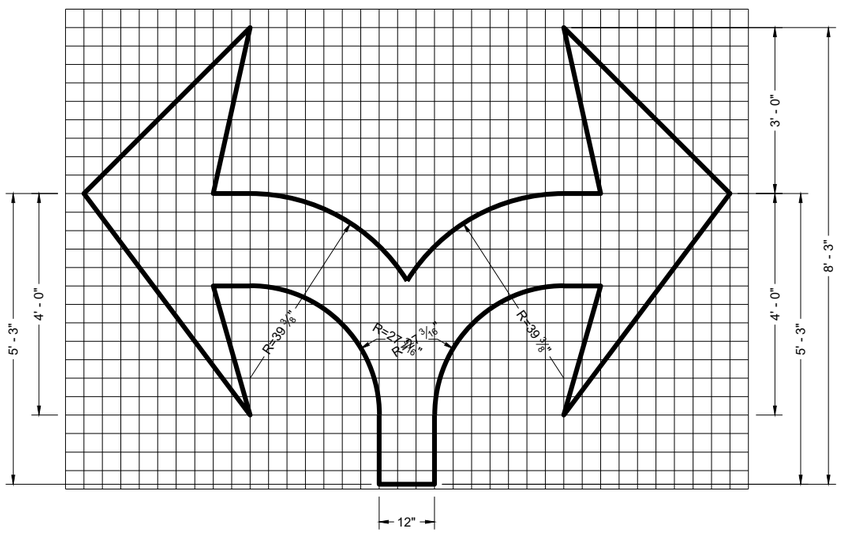
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

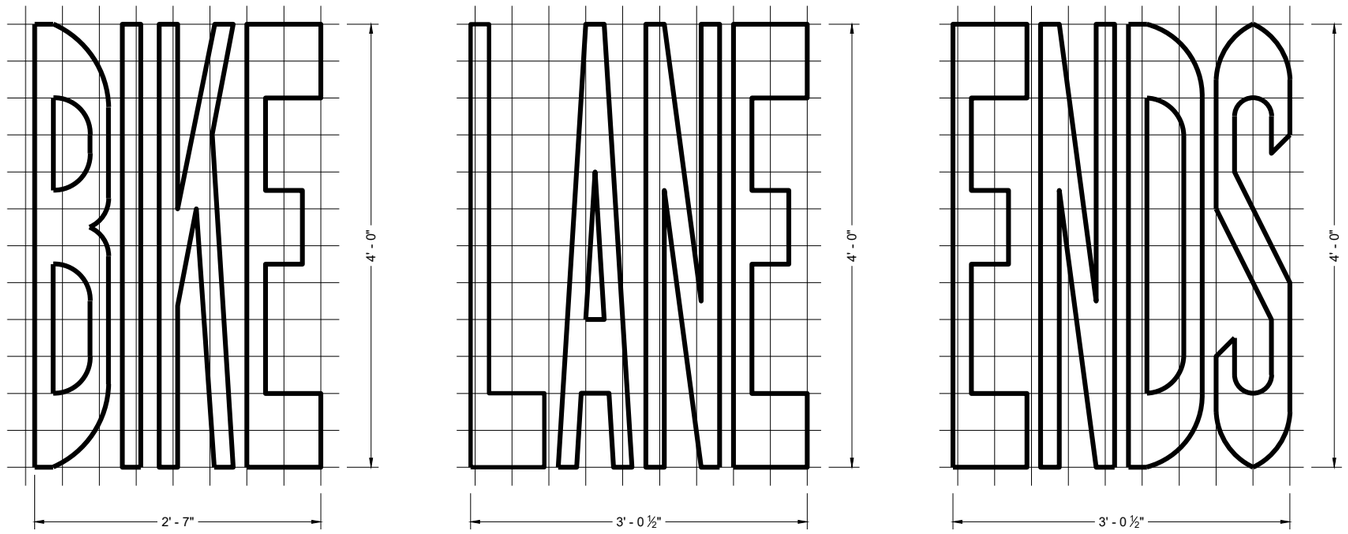
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6

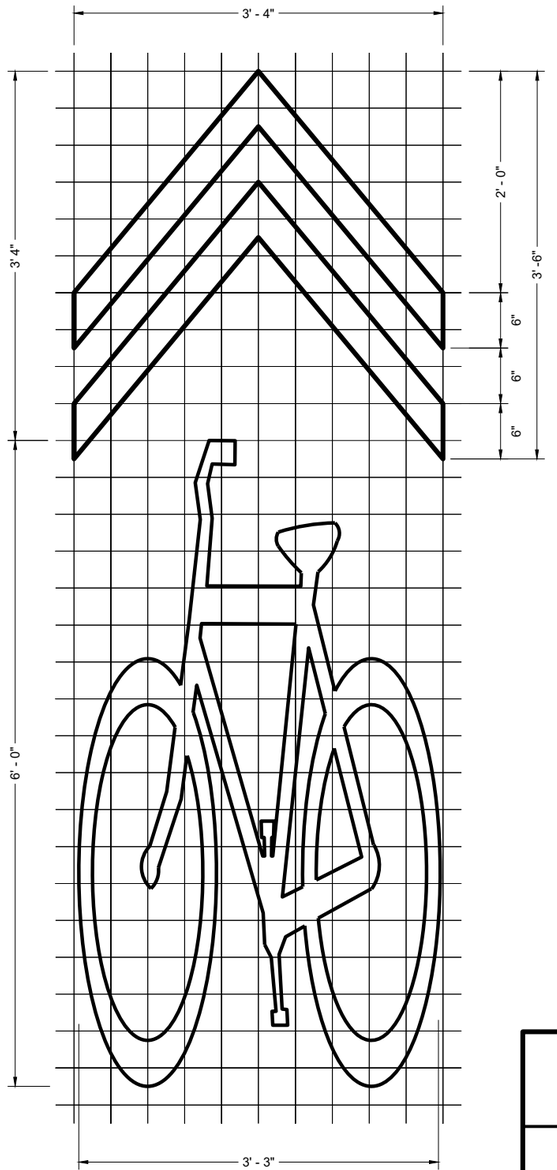
SDD 15C07-16c



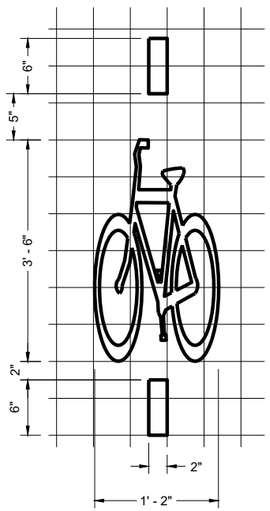
BIKE LANE WORDS

GENERAL NOTES

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



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING

BIKE LANE SYMBOL

BIKE LANE SYMBOL FOR SHARED LANE

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6

SDD 15C07-16e

6

SDD 15C07-16e

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

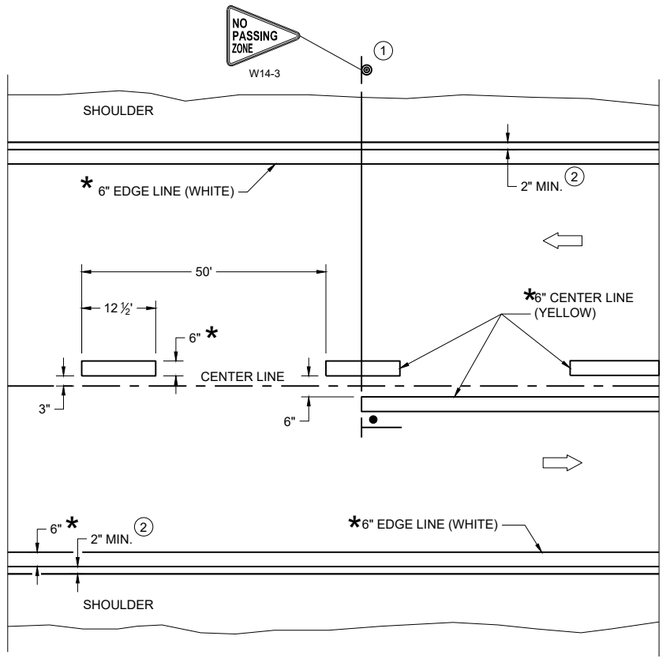
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

LEGEND

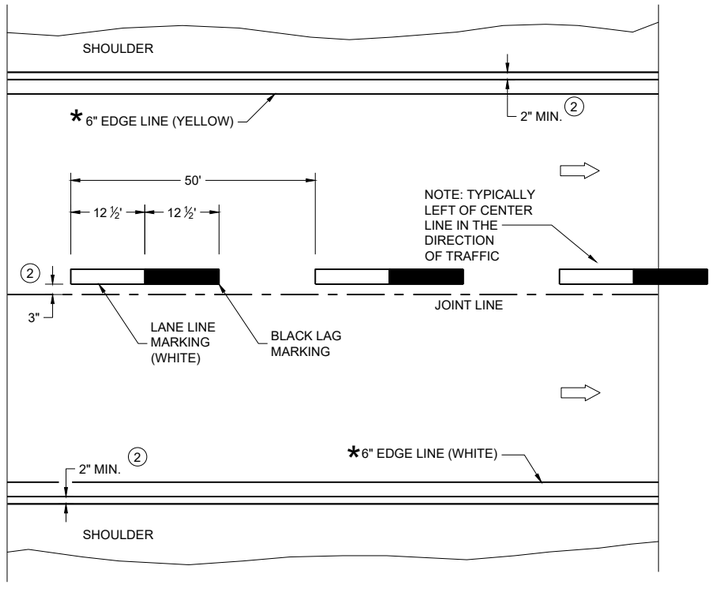
"T" MARKING

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC

PERMANENT PAVEMENT MARKING

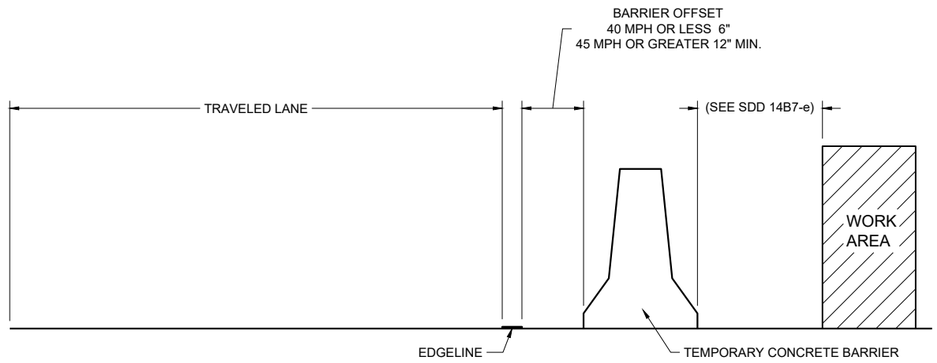
PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15C08-23a



TEMPORARY BARRIER OFFSET FROM EDGELINE

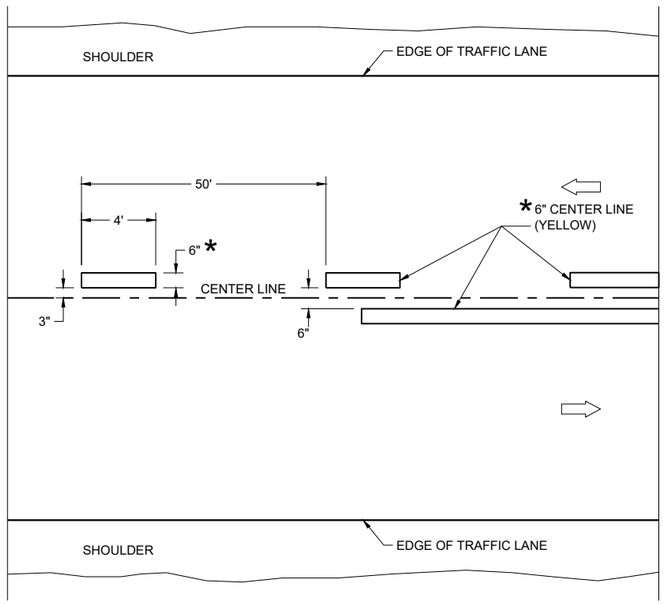
GENERAL NOTES

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

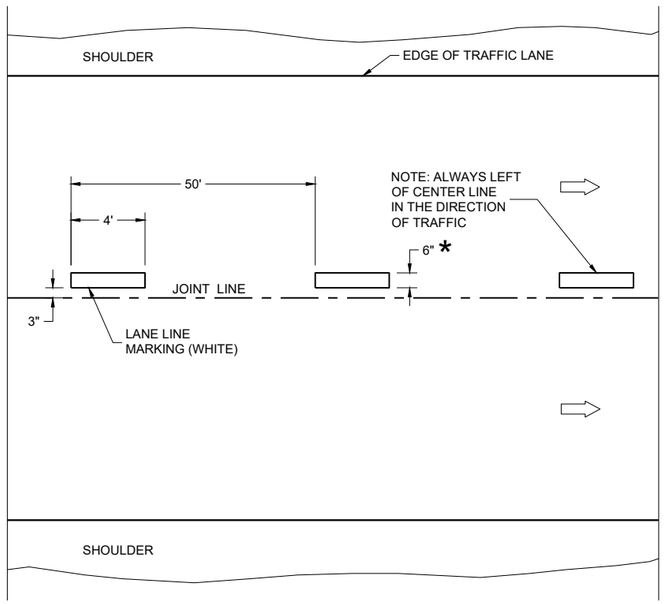
LEGEND

DIRECTION OF TRAFFIC

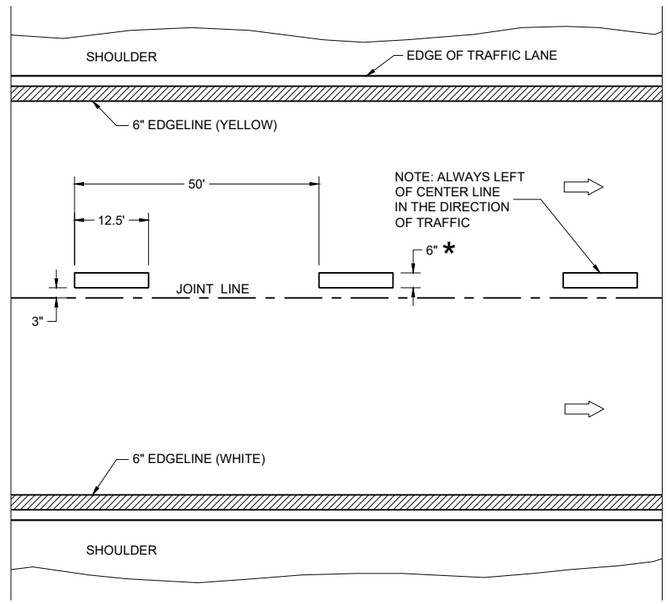
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

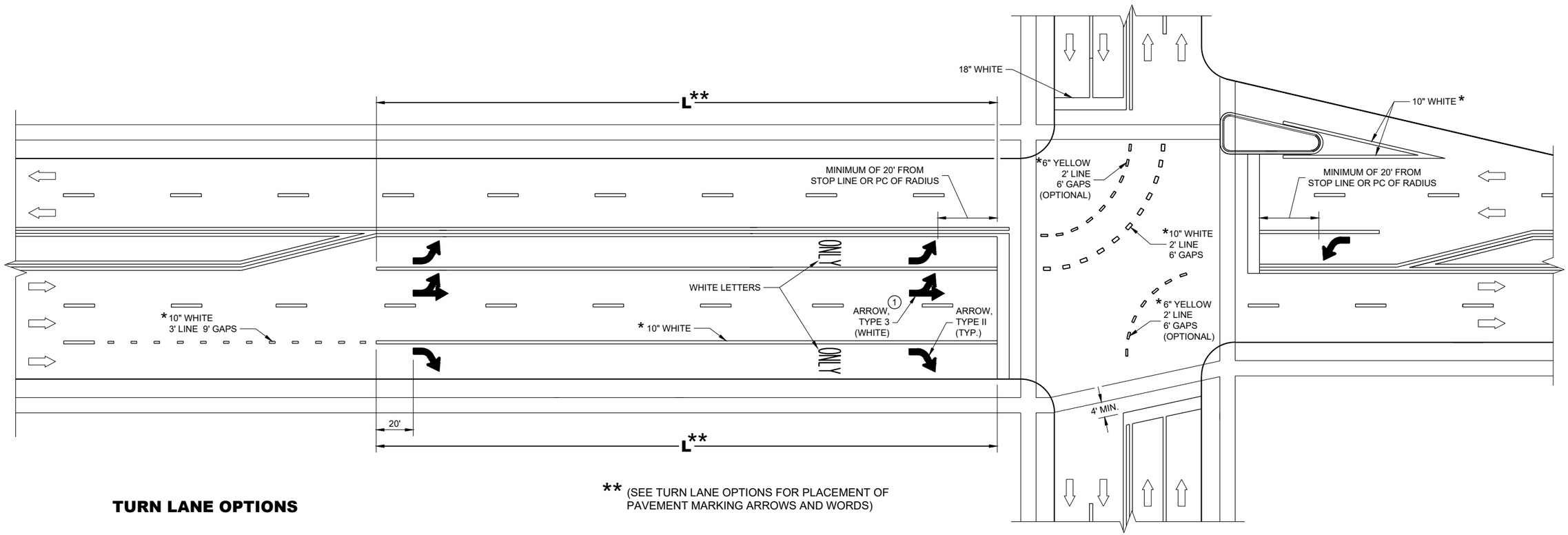
APPROVED
May 2023
DATE
/S/ Jeannie Silver
Statewide Pavement Marking Engineer
FHWA

6

SDD 15C08-23b

6

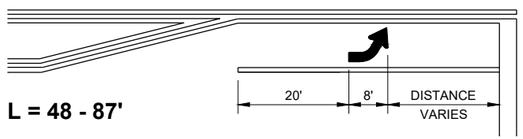
SDD 15C08-23b



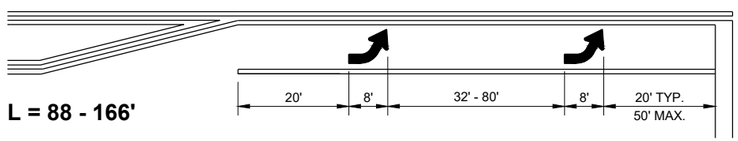
** (SEE TURN LANE OPTIONS FOR PLACEMENT OF PAVEMENT MARKING ARROWS AND WORDS)

TURN LANE OPTIONS

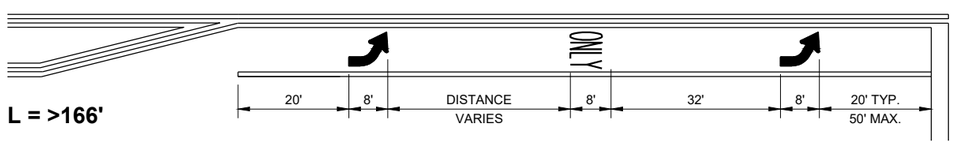
LENGTH OF TURN BAY (**L**) OF 0 - 47' DOES NOT REQUIRE PAVEMENT MARKING ARROWS OR WORDS



L = 48 - 87'



L = 88 - 166'



L = >166'

GENERAL NOTES

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

DIRECTION OF TRAFFIC

L = LENGTH OF TURN BAY

* CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES

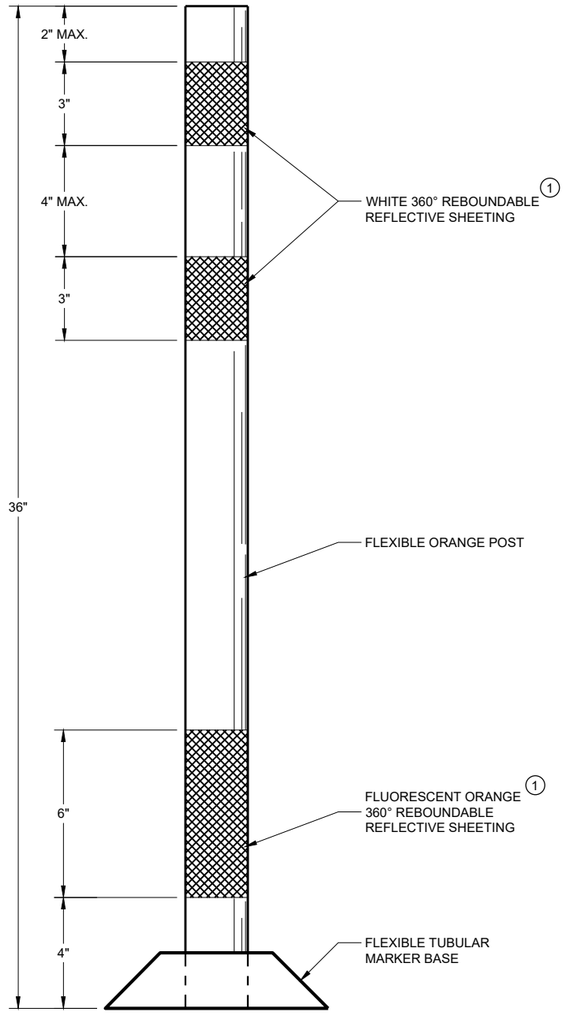
PAVEMENT MARKING (TURN LANES)

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15C08-23d

SDD 15C08-23d



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 THE 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.

6

CHANNELIZING DEVICES
FLEXIBLE TUBULAR MARKER POST

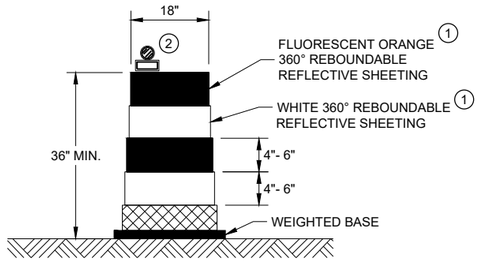
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

SDD 15C11 - 10a

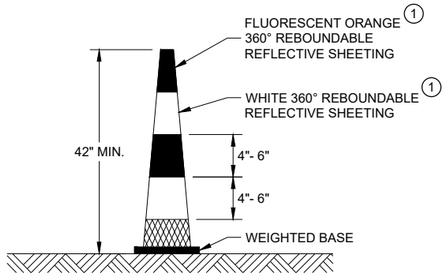
GENERAL NOTES

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



DRUM

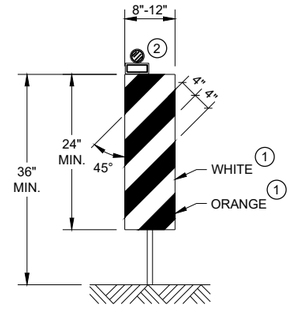
BALLAST WIDTHS
RANGE FROM 24"-36"



42" CONE

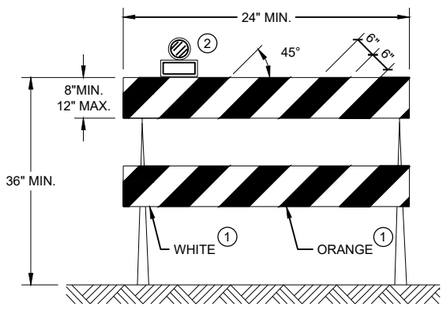
DO NOT USE IN TAPERS
½ SPACING OF DRUMS

BALLAST WIDTHS
RANGE FROM 14"-20"



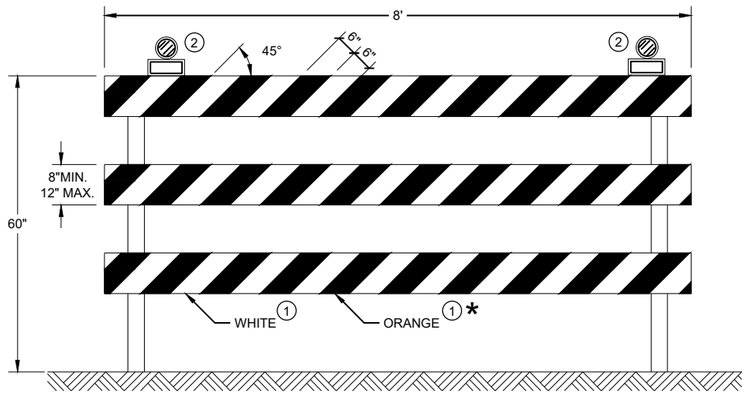
VERTICAL PANEL

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



TYPE II BARRICADE

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



TYPE III BARRICADE

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

* IF USED FOR A PERMANENT APPLICATION USE RED SHEETING.

CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

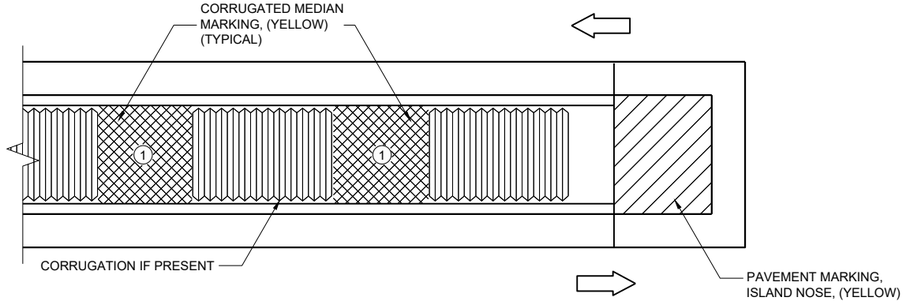
FHWA

6

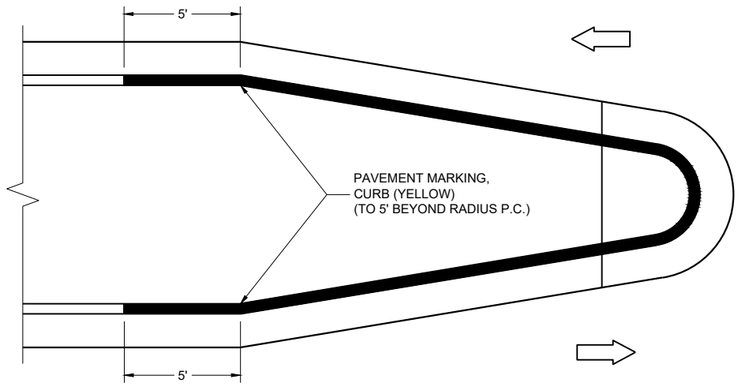
SDD 15C11 - 10b

6

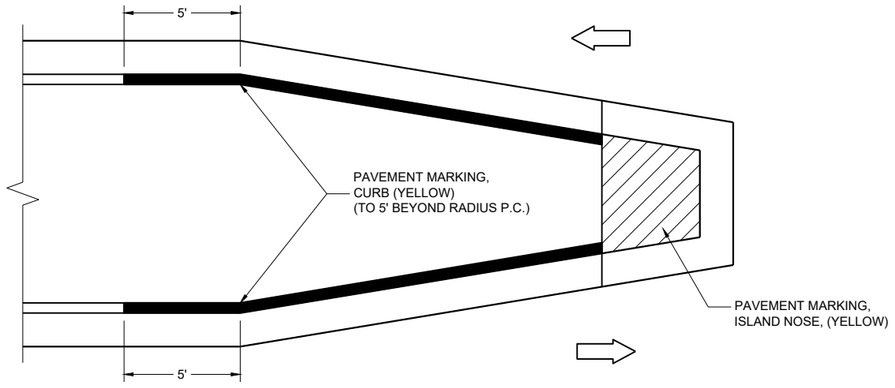
SDD 15C11 - 10b



MEDIAN ISLAND WITH SQUARE BLUNT NOSE



MEDIAN ISLAND WITH ROUND BLUNT NOSE



MEDIAN ISLAND WITH SLOPED NOSE

**TYPICAL PLACEMENT OF
PAVEMENT MARKING ON MEDIAN ISLANDS**

GENERAL NOTES

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

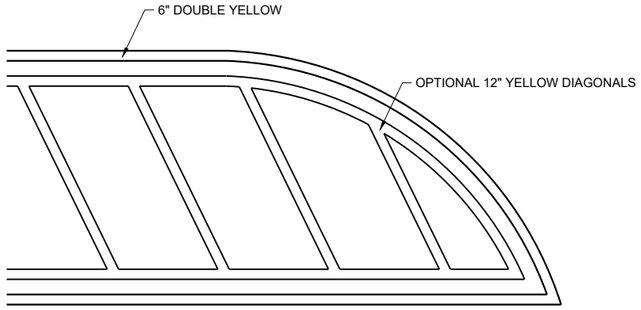
(1) APPLY PAVEMENT MARKING TO THE FLAT PORTION OF CORRUGATED MEDIAN.

ISLAND NOSE MARKING

CURB MARKING

CORRUGATED MEDIAN MARKING

DIRECTION OF TRAVEL



FLUSH MEDIAN ISLAND NOSE

**PAVEMENT MARKINGS,
MEDIAN ISLAND NOSE**

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
August 2024
DATE

/S/ Jeannie Silver
Statewide Pavement Marking Engineer

FHWA

6

SDD 15C18-09b

REQUIREMENTS FOR EDGE LINES		
POSTED SPEED	IS THERE CONTINUOUS LIGHTING?	
	YES	NO
≤ 30 MPH	NO	OPTIONAL
35 OR 40 MPH	OPTIONAL	RECOMMENDED
≥ 45 MPH	RECOMMENDED	REQUIRED

GENERAL NOTES

APPLIES TO ISLANDS AT LEFT TURNS AT ONE WAY ROADWAYS AS WELL.

SEE MISCELLANEOUS QUANTITIES FOR SIGN SIZE.

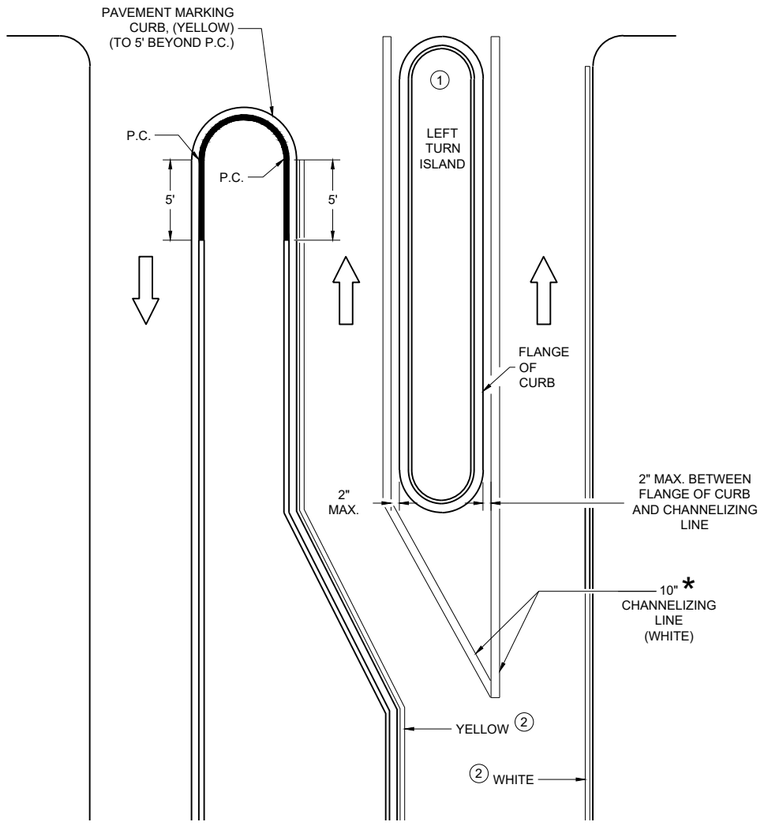
(1) MARK CURB NOSES YELLOW.

(2) MARK ACCORDING TO TABLE.

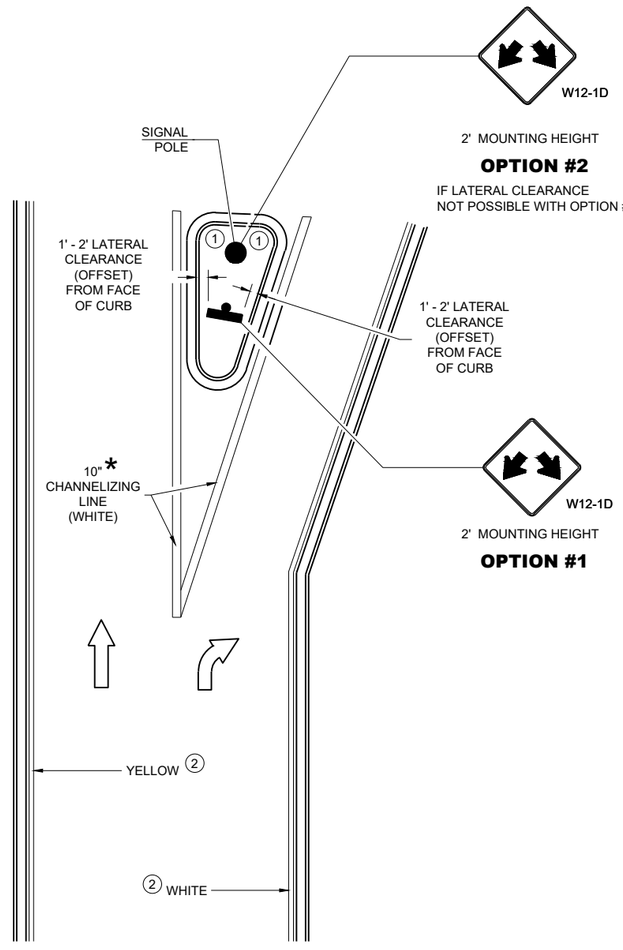
(3) CHEVRON MAY BE OMITTED IF LESS THAN 4" WIDE

DIRECTION OF TRAVEL

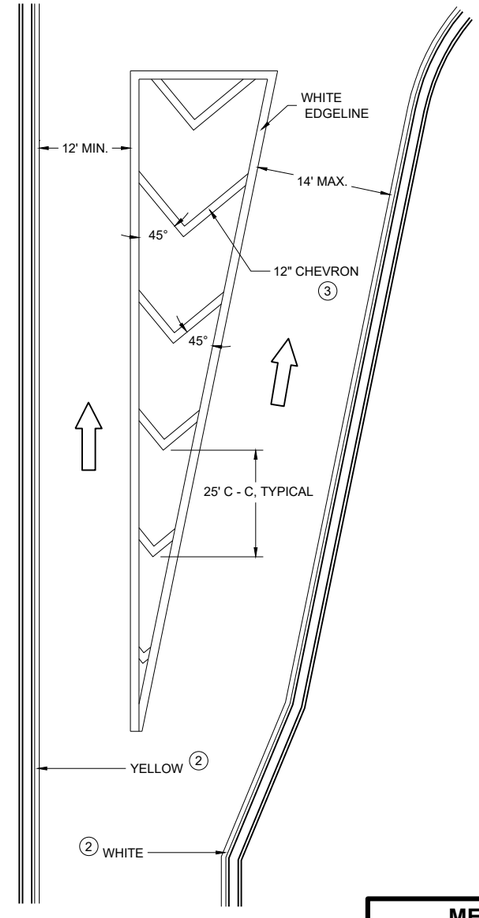
*CONFIRM MARKING LINE WIDTH WITH THE MISCELLANEOUS QUANTITIES



LEFT TURN & MEDIAN ISLAND



RIGHT TURN ISLAND



TURN LANE DETAIL

MEDIAN PAVEMENT MARKINGS, DOUBLE ARROW WARNING SIGN PLACEMENT

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

FHWA

6

SDD 15C18-09c

6

SDD 15C18-09c

LEGEND

V1 LEAD VEHICLE

V2 MARKING VEHICLE

V3 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

GENERAL NOTES

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

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

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

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

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

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

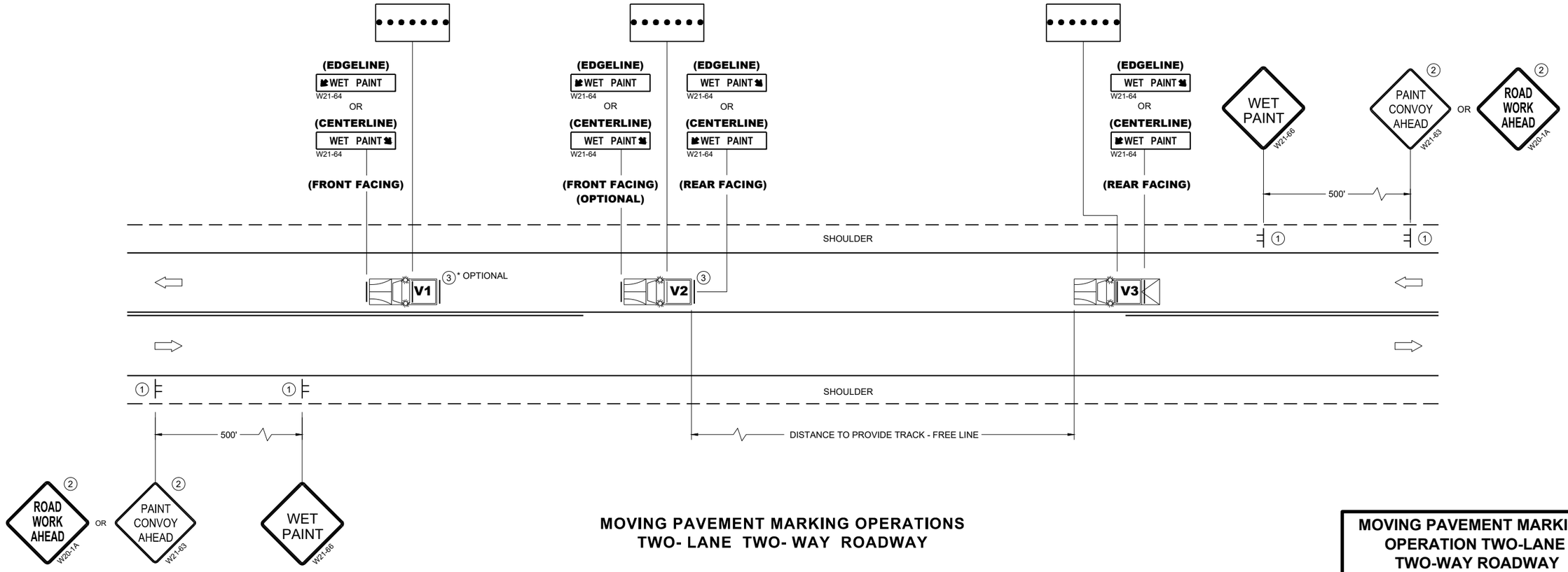
CONES SHOULD BE USED BETWEEN THE MARKING AND SHADOW VEHICLE AT 100 FOOT SPACING. CONES MAY BE OMITTED ON PAINTED LINE IF APPROVED BY THE ENGINEER. CONSIDER PAVEMENT MARKING DRY OR CURE TIMES AND TRAFFIC VOLUME.

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY MAJOR INTERSECTION.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.

(3) V1 AND V2 CAN BE SWITCHED SO THAT THE MARKER IS THE LEAD VEHICLE.



MOVING PAVEMENT MARKING OPERATIONS
TWO- LANE TWO- WAY ROADWAY

MOVING PAVEMENT MARKING OPERATION TWO-LANE TWO-WAY ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEER
FHWA

6
SDD 15C19-9a

LEGEND

V1 MARKING VEHICLE

V2 SHADOW VEHICLE

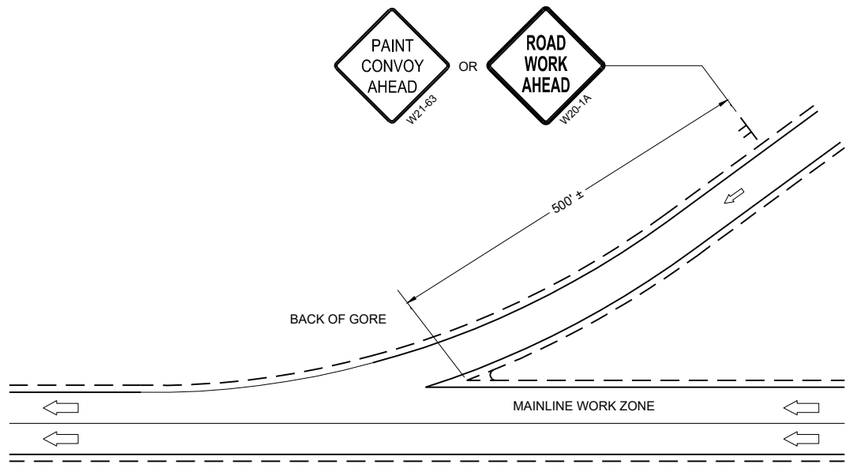
V3 TRAIL VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

SIGN ON TEMPORARY SUPPORT

DIRECTION OF TRAFFIC

FLASHING ARROW PANEL (MERGE)



GENERAL NOTES

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

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

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

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

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

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

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

IF THE SHOULDER IS TOO NARROW TO ACCOMMODATE THE LAST TRAILING VEHICLE, THE VEHICLE SHOULD STRADDLE THE EDGE LINE.

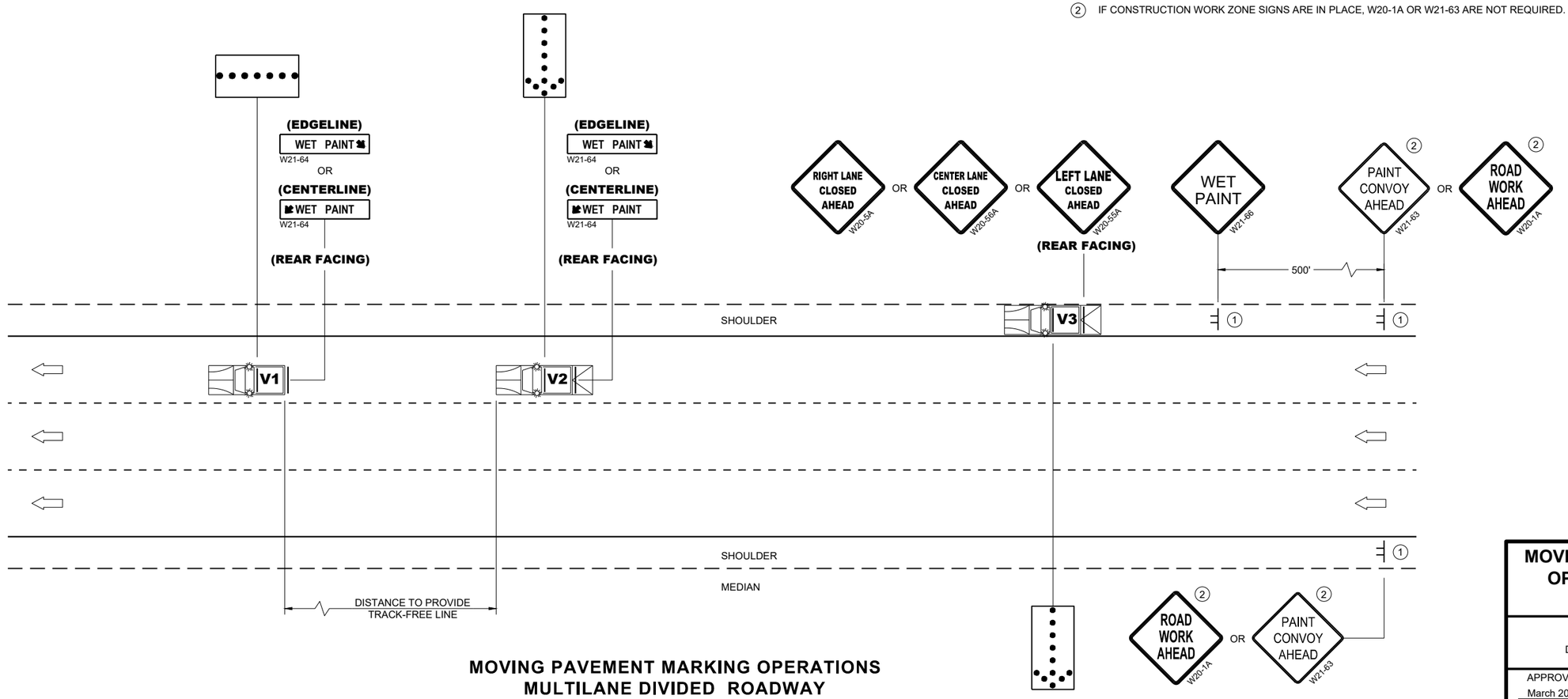
WHEN NO WORK ACTIVITY IS TAKING PLACE, REMOVE OR LAY STATIONARY SIGNS AND SUPPORTS FLAT ON THE GRADE WITH UPRIGHTS ORIENTED PARALLEL TO AND DOWNSTREAM FROM TRAFFIC

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

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

(1) SIGNS SHALL BE REPEATED APPROXIMATELY EVERY THREE MILES AND AFTER EVERY ON RAMP.

(2) IF CONSTRUCTION WORK ZONE SIGNS ARE IN PLACE, W20-1A OR W21-63 ARE NOT REQUIRED.



MOVING PAVEMENT MARKING OPERATIONS MULTILANE DIVIDED ROADWAY

MOVING PAVEMENT MARKING OPERATION MULTI-LANE DIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15C19-9c

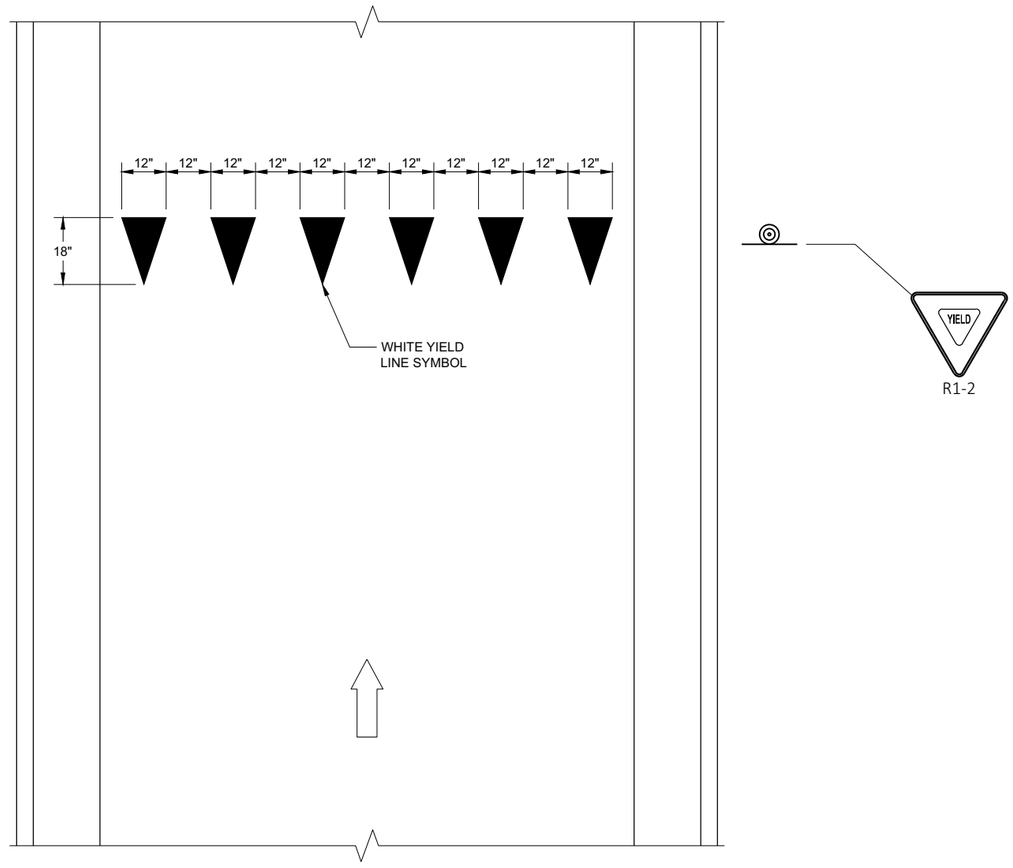
6

SDD 15C19-9c

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAVEL



YIELD LINE

YIELD MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

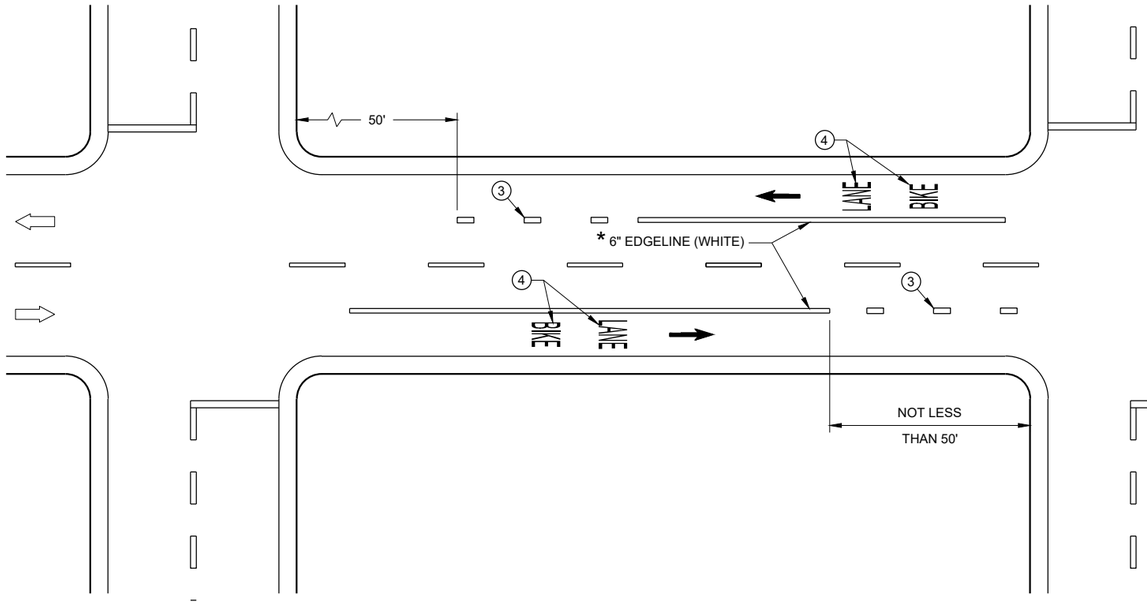
4-81-2016
DATE

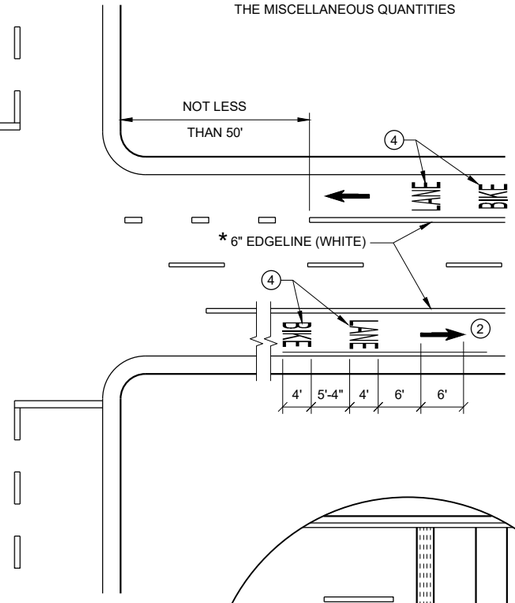
/S/ Matthew R. Rauch
STATE SIGNING AND MAR ENGINEER

FHWA

6

SDD 15C20 - 02



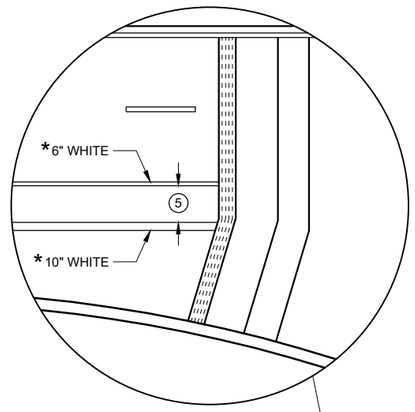


GENERAL NOTES

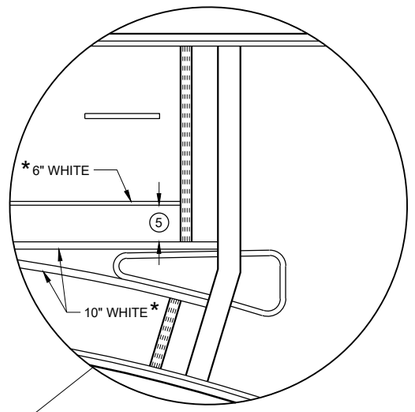
1. DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.
2. MINIMUM OF ONE PER BLOCK. MAXIMUM OF 250 FEET.
3. DOTTED LINES (3' LINE, 9' GAP) SHOULD BE USED 50 FEET TO 200 FEET IN ADVANCE OF AN INTERSECTION WHERE THERE IS NO RIGHT TURN ONLY LANE AND THERE IS HEAVY RIGHT TURN TRAFFIC OR THERE IS A NEAR-SIDE BUS STOP. AT OTHER INTERSECTIONS WHERE RIGHT TURN TRAFFIC IS LIGHT TO MODERATE, A SOLID LINE CAN BE USED UP TO THE INTERSECTION.
4. BIKE SYMBOLS OR WORDS MAY BE USED.
5. BIKE ACCOMMODATION IS TYPICAL 5 FEET WIDE AND MINIMUM OF 4 FEET FROM A LONGITUDINAL JOINT. USE 5 FEET AT ≥ 45 MPH.
6. OMIT THESE MARKINGS FOR WIDER TURN LANE APPLICATIONS (MINIMUM OF 15 FOOT WIDE TURN LANE).
7. REFER TO CONTRACT PLANS FOR LANE WIDTH.

DIRECTION OF TRAVEL

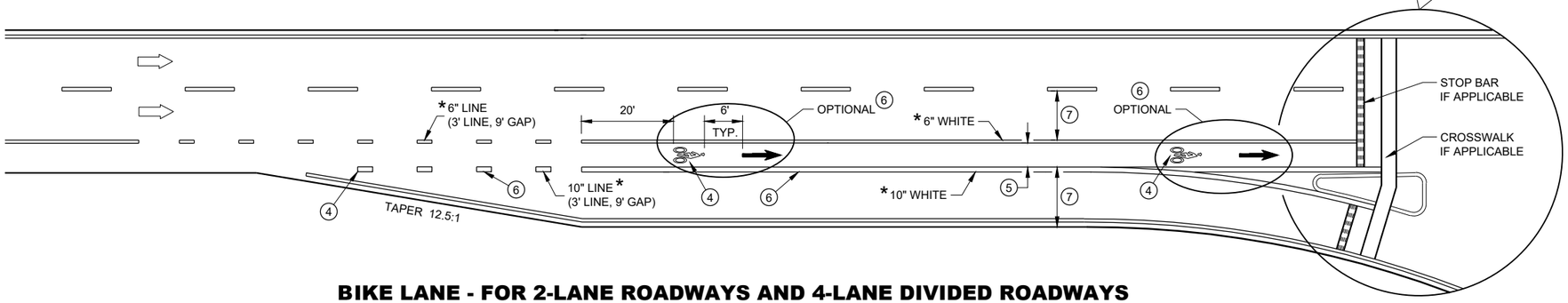
DESIGNATED BIKE LANE - NO PARKING



4 LANE DIVIDED WITHOUT ISLAND



4 LANE DIVIDED WITH ISLAND



BIKE LANE - FOR 2-LANE ROADWAYS AND 4-LANE DIVIDED ROADWAYS
(4-LANE DIVIDED WITH RIGHT TURN LANE SHOWN)

BIKE LANE MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER
FHWA

6

SDD 15C29-08a

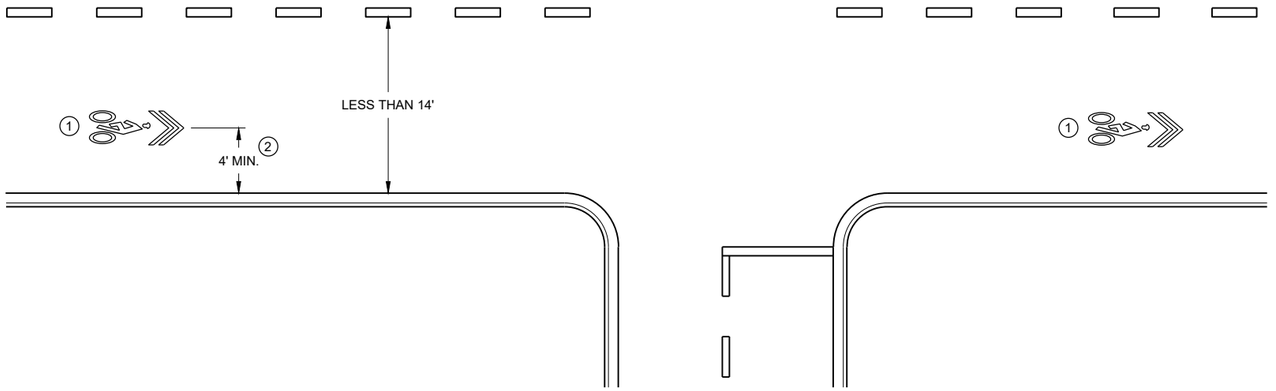
6

SDD 15C29-08a

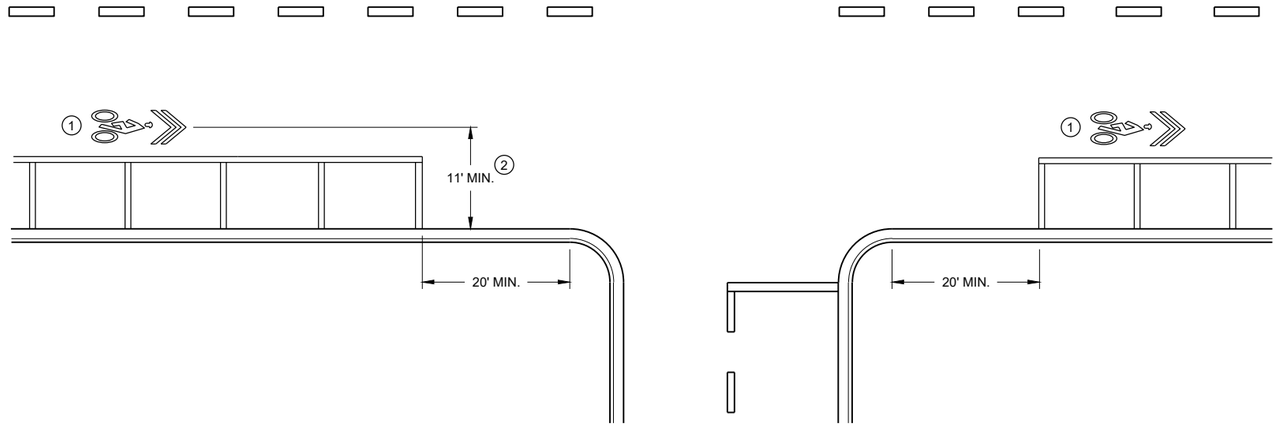
GENERAL NOTES

(1) MINIMUM OF ONE PER BLOCK, MAXIMUM OF 250 FEET.

(2) OR TO EDGE OF PAVEMENT WITHOUT CURB.



WITHOUT PARKING



WITH PARKING

6

SDD 15C29-08b

PAVEMENT MARKING FOR SHARED LANE 35 MPH OR LESS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

May 2023
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

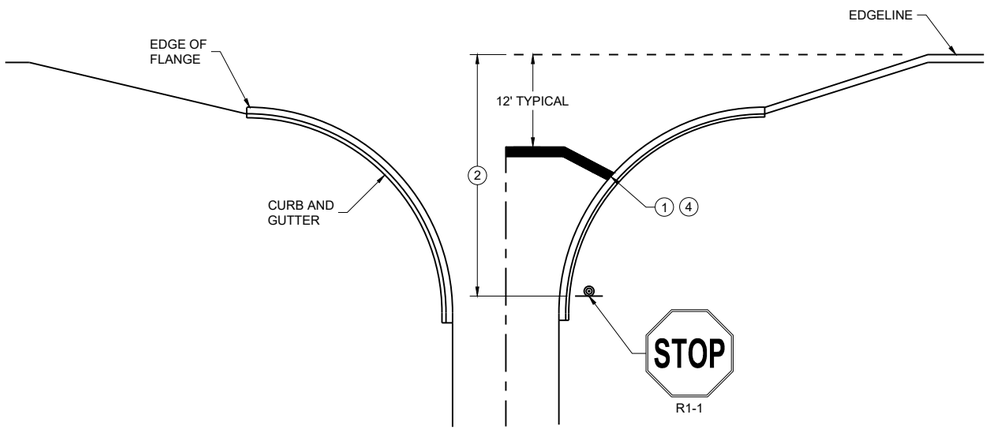
6

SDD 15C29-08b

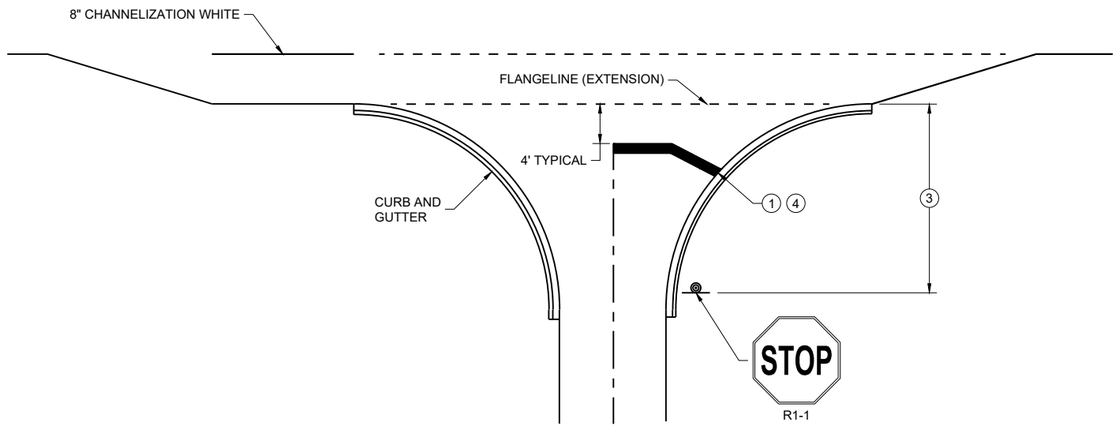
GENERAL NOTES

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

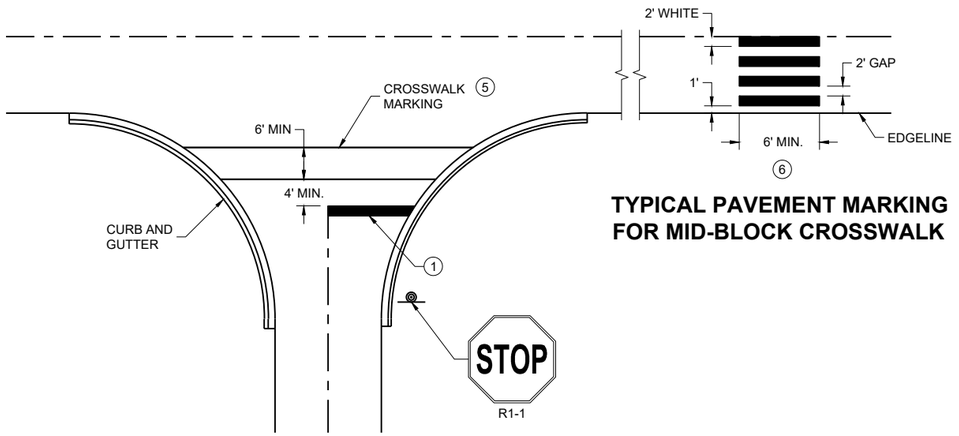
1. 18-INCH STOP LINES MAY BE DELETED OR ADDED BY THE REGION MARKING ENGINEER BASED ON VISIBILITY AND SIGHT LINES.
2. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 40 FEET FROM THE EDGELINE.
3. NO STOP LINE IS REQUIRED IF STOP SIGN IS LESS THAN OR EQUAL TO 30 FEET FROM THE FLANGE LINE EXTENSION.
4. MOVE CLOSER TO THE EDGE OF TRAVEL LINE AS NEEDED FOR VISIBILITY AND SIGHT LINES (NO CLOSER THAN 4 FEET).
5. LADDER BAR CROSSWALKS SHOULD ONLY BE USED FOR MID BLOCK CROSSINGS. USE 2 - 6" TRANSVERSE LINES.
6. POSTED SPEED LIMITS OF 40 MPH OR GREATER USE A MINIMUM WIDTH OF 8' FOR MIDBLOCK CROSSWALKS



TYPICAL STOP LINE PAVEMENT MARKING WITH CURB AND GUTTER

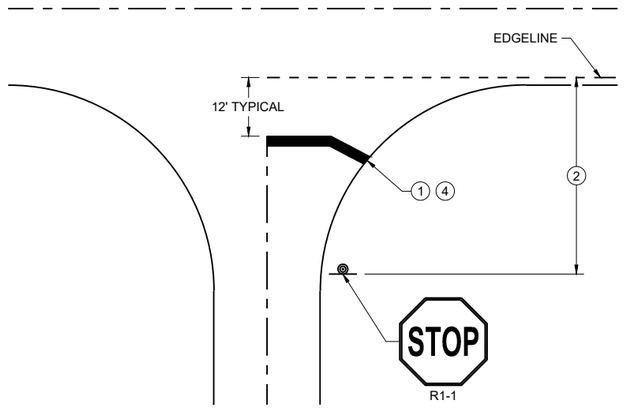


TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH RIGHT TURN LANE



TYPICAL PAVEMENT MARKING FOR MID-BLOCK CROSSWALK (5)

TYPICAL STOP LINE PAVEMENT MARKING FOR SIDE ROADS WITH CROSSWALK MARKING



TYPICAL STOP LINE PAVEMENT MARKING WITHOUT CURB AND GUTTER

STOP LINE AND CROSSWALK PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

March 2024 — DATE

/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

6

SDD 15C33-05

GENERAL NOTES

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

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

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

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

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

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

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

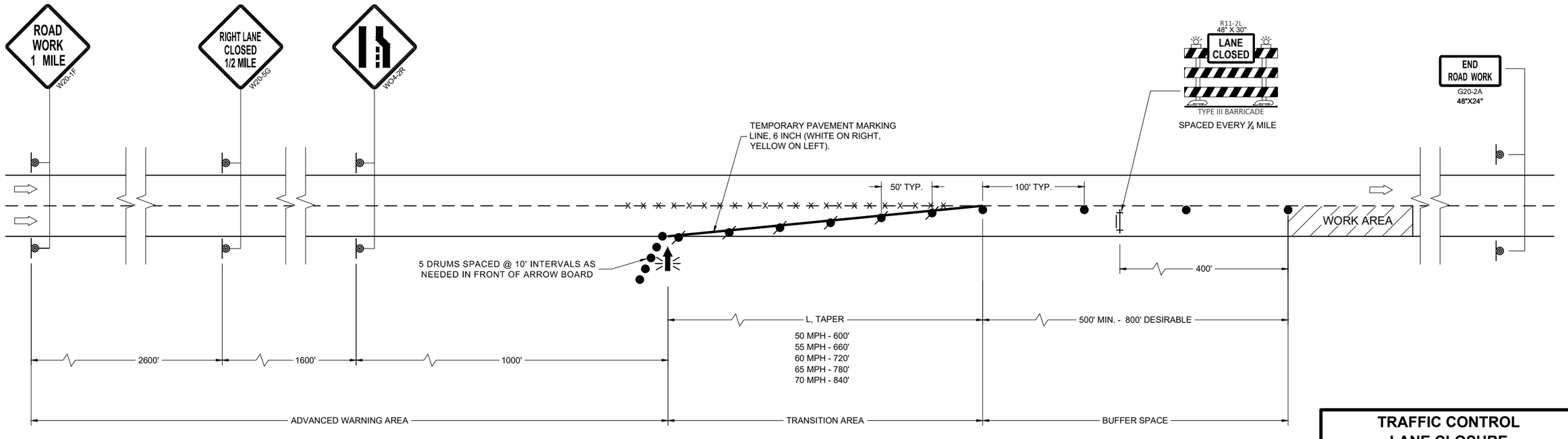
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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

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

LEGEND

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



TRAFFIC CONTROL LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
March 2024
DATE

/S/ Andrew Heidtke
Work Zone Engineer

FHWA

6

SDD 15D12-13a

6

SDD 15D12-13a

LEGEND

- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- WZ START LOCATION MARKER
- WZ END LOCATION MARKER

GENERAL NOTES

THIS DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES. FOR CLOSING THE LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

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

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

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

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

W20-1E AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

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

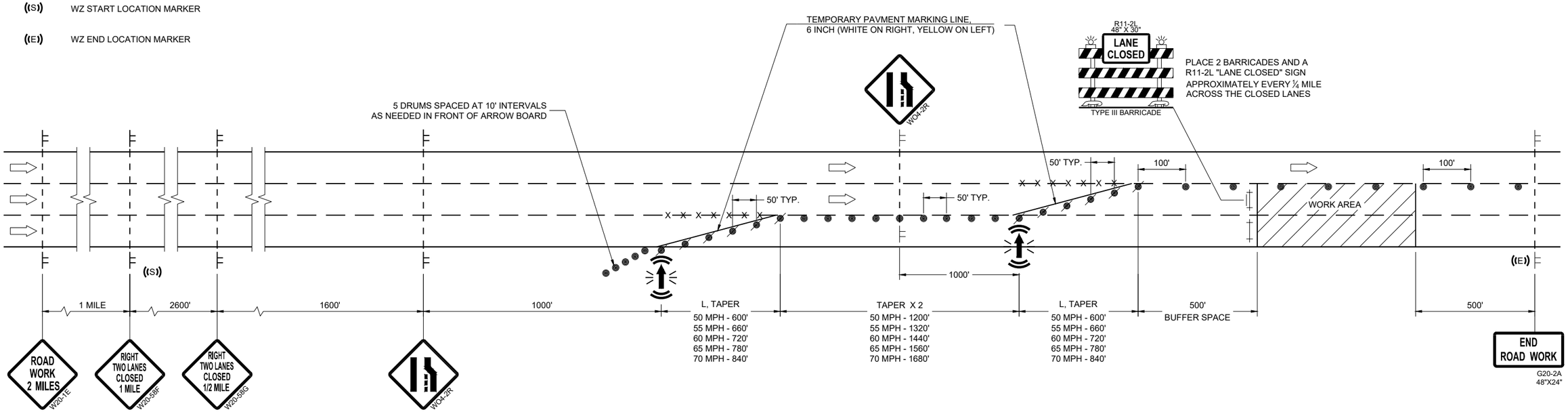
WHEN A RAMP OR SIDE ROAD INTERSECTS THE FACILITY ON WHICH THE WORK IS BEING PERFORMED, ADDITIONAL TRAFFIC CONTROLS SHALL BE PROVIDED AS SPECIFIED IN THE PLANS AND/OR SPECIAL PROVISIONS OR AS APPROVED BY THE ENGINEER.

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

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

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

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE 4 OR MORE CONTINUOUS DAYS AND NIGHTS.



TRAFFIC CONTROL, TWO LANE CLOSURE ON FREEWAY OR EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEFR

FHWA

6

SDD 15D14-08

6

SDD 15D14-08

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- WZ START LOCATION MARKER
- WZ END LOCATION MARKER

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45MPH, USE SDD 15D12.

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

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

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

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

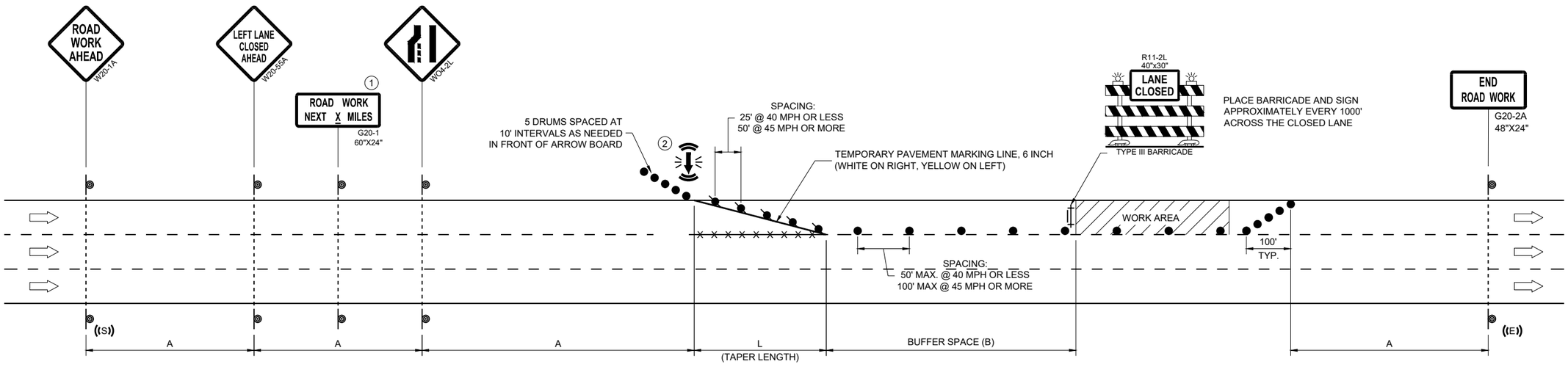
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

(2) WHERE THE SHOULDER OR TERRACE HAS INSUFFICIENT SPACE TO PLACE THE ARROW BOARD AS SHOWN, PLACE THE ARROW BOARD AT THE END OF THE TAPER.



POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'

TRAFFIC CONTROL, SINGLE LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D20-09a

6

SDD 15D20-09a

LEGEND

- SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- REMOVING PAVEMENT MARKINGS
- DIRECTION OF TRAFFIC
- WORK AREA
- CONNECTED ARROW BOARD
- WZ START LOCATION MARKER
- WZ END LOCATION MARKER

GENERAL NOTES

THIS DETAIL MAY BE USED FOR ROADWAYS WITH EITHER TWO OR THREE LANES IN EACH DIRECTION.

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

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

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

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINE IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

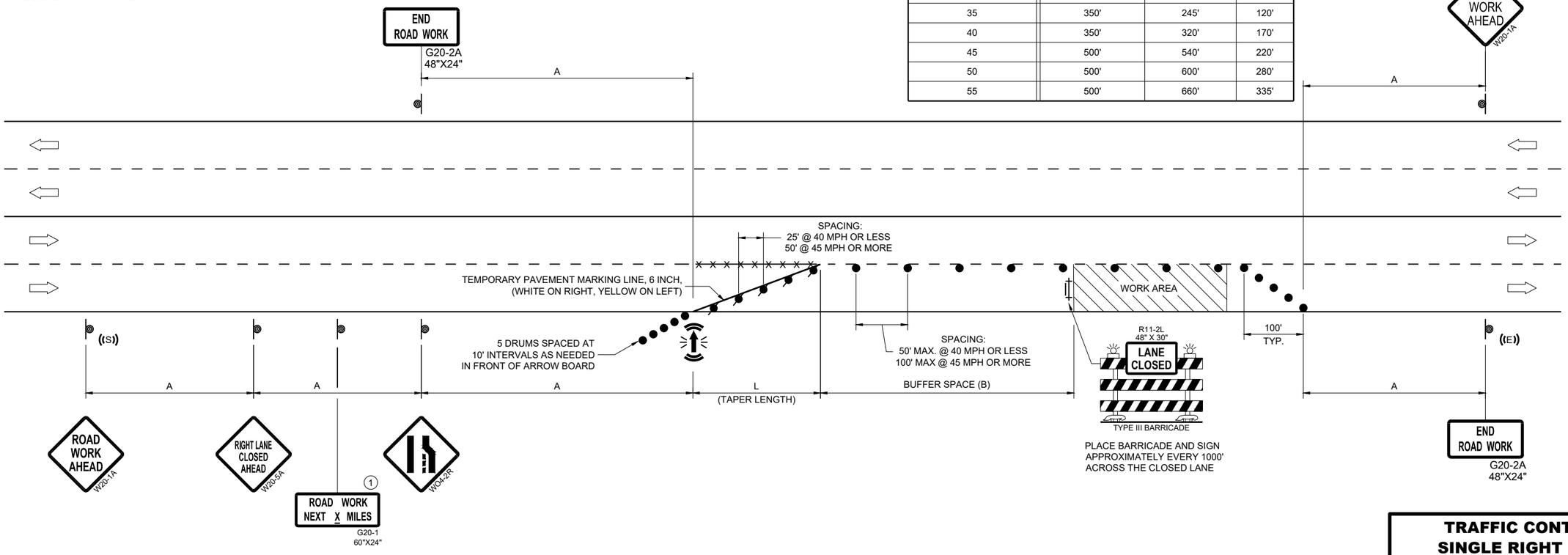
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'
50	500'	600'	280'
55	500'	660'	335'



TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

November 2024
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

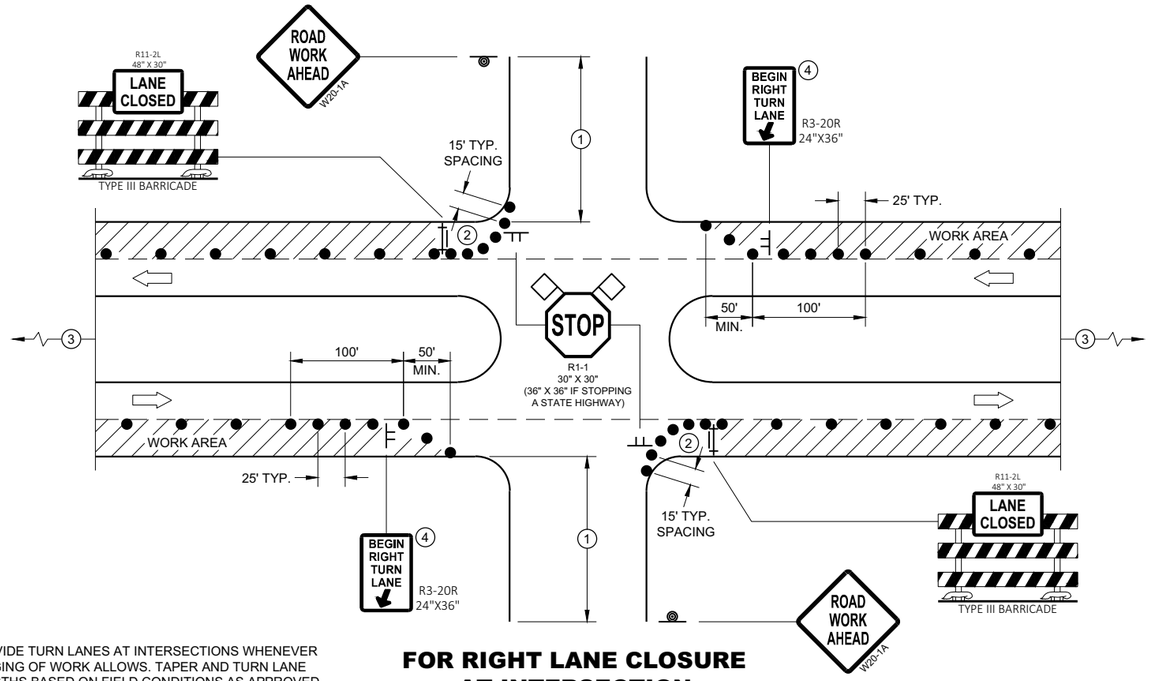
FHWA

6

SDD 15D20-09b

6

SDD 15D20-09b



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

FOR RIGHT LANE CLOSURE AT INTERSECTION

GENERAL NOTES

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

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

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

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

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

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

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

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

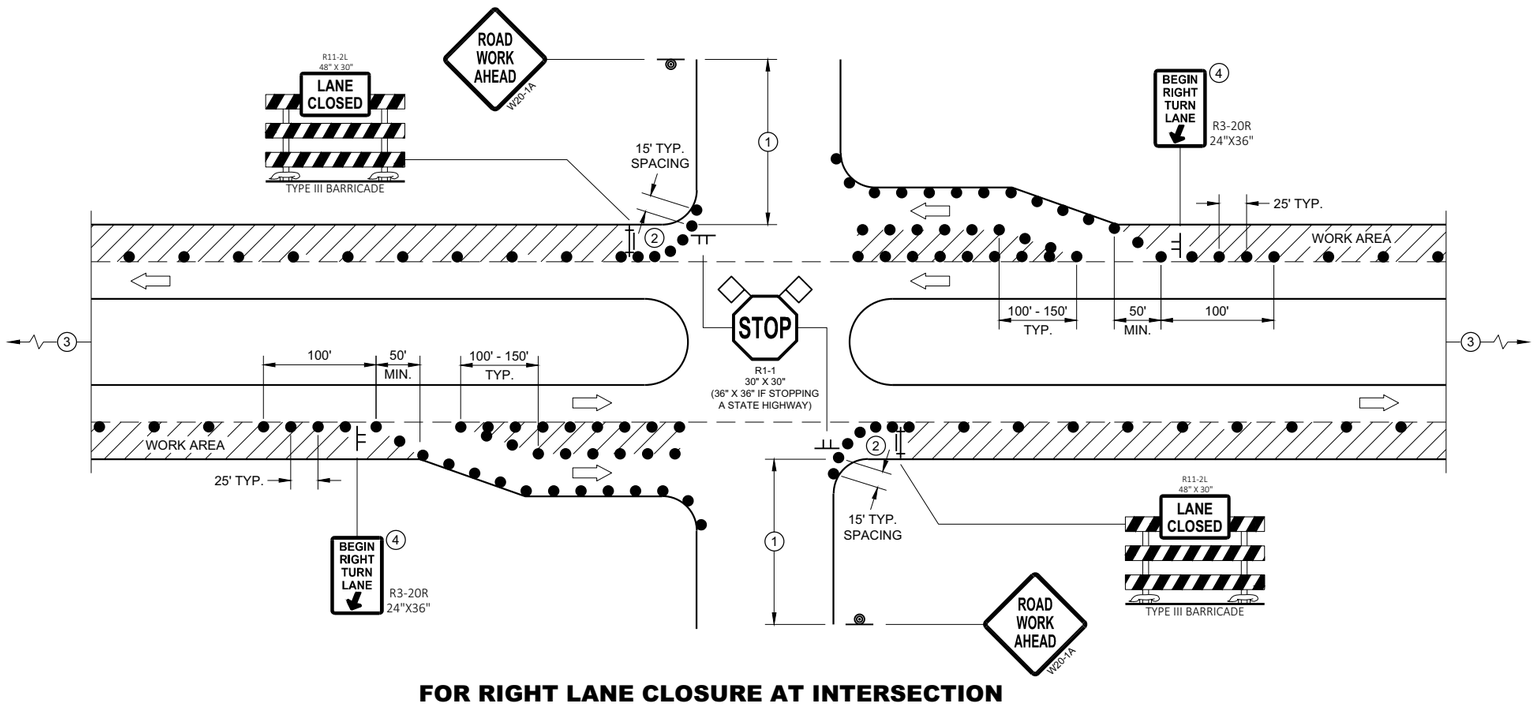
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



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

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE RIGHT LANE CLOSURE

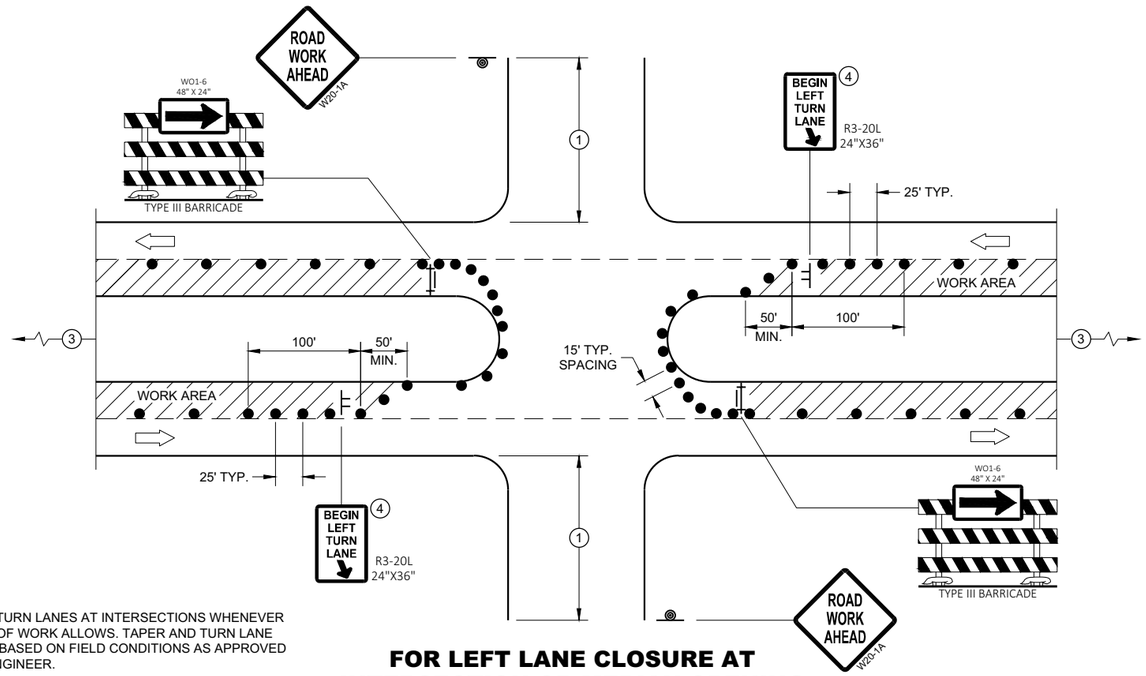
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D21 - 07a

6

SDD 15D21 - 07a



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

FOR LEFT LANE CLOSURE AT INTERSECTION OR MEDIAN OPENING

GENERAL NOTES

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

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

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

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

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

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

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

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

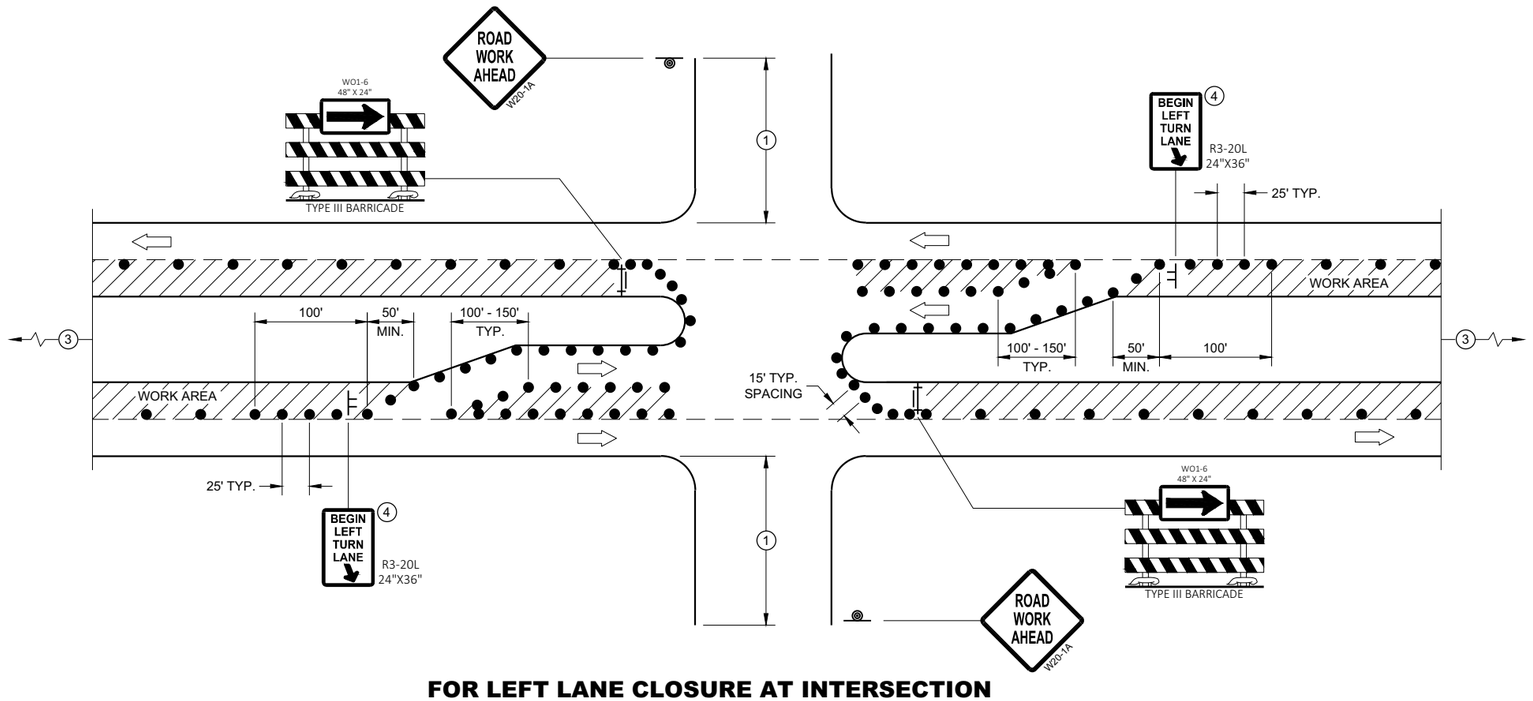
CHANNELIZING DEVICES PLACED ADJACENT TO WORK AREA SHALL BE PULLED BACK FROM THE TRAVEL LANE WHEN WORK IS NOT IN PROGRESS.

(1) 500' TYPICAL OR AT LAST INTERSECTION, WHICHEVER IS CLOSER.
350' IF 35 - 40 MPH.
200' IF 25 - 30 MPH.

(2) ALSO USE BARRICADE AND 15 FOOT TYPICAL DRUM SPACING AT COMMERCIAL DRIVEWAYS

(3) SEE SEPARATE LANE CLOSURE DETAIL FOR ADDITIONAL TRAFFIC CONTROL.

(4) MINIMUM MOUNTING HEIGHT OF 5 FEET FROM EDGE OF PAVEMENT (AT EDGE LINE LOCATION) TO BOTTOM OF SIGN.



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

LEGEND

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

TRAFFIC CONTROL, INTERSECTION WITHIN SINGLE LEFT LANE CLOSURE

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6

SDD 15D21 - 07b

6

SDD 15D21 - 07b

LEGEND

- SIGN ON PERMANENT SUPPORT
- SIGN ON TEMPORARY SUPPORT
- TRAFFIC CONTROL DRUM
- TRAFFIC CONTROL DRUM WITH TYPE "C" STEADY BURN LIGHT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA
- CONNECTED ARROW BOARD
- WZ START LOCATION MARKER
- WZ END LOCATION MARKER

GENERAL NOTES

FOR WORK ON ROADWAYS WITH SPEEDS GREATER THAN 45 MPH, USE SDD 15D14.

THIS LANE CLOSURE DETAIL IS TYPICAL FOR CLOSING THE RIGHT TWO LANES.
FOR CLOSING LEFT TWO LANES, REVERSE THE TRAFFIC CONTROL.

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

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

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

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

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

W20-1A, G20-1 AND G20-2A SIGNS ARE NOT REQUIRED IF THE LANE CLOSURE IS WITHIN A LARGER WORK ZONE WHERE THESE SIGNS ARE ALREADY PRESENT.

REMOVE PAVEMENT MARKINGS AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

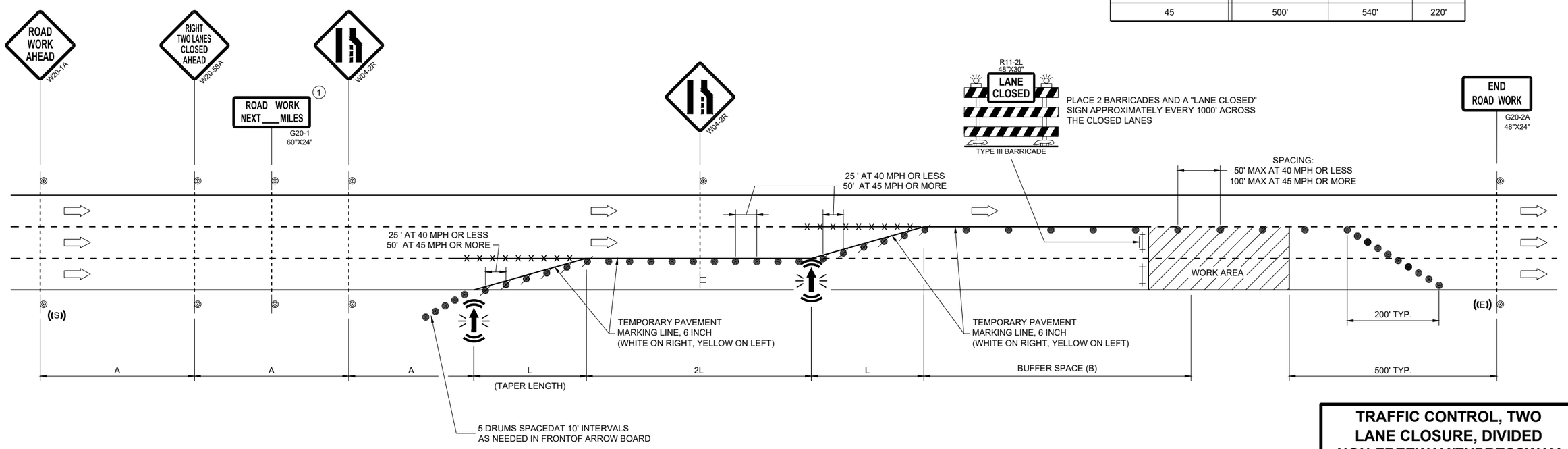
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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

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

(1) OMIT G20-1 SIGNS IF LENGTH OF WORK AREA IS 2 MILES OR LESS.

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	TAPER LENGTH (12 FT. LANE) (L) FEET	BUFFER SPACE (B) FEET
25	200'	125'	55'
30	200'	180'	85'
35	350'	245'	120'
40	350'	320'	170'
45	500'	540'	220'



TRAFFIC CONTROL, TWO LANE CLOSURE, DIVIDED NON-FREEWAY/EXPRESSWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2024 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER

FHWA

6

SDD 15D22-07

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.

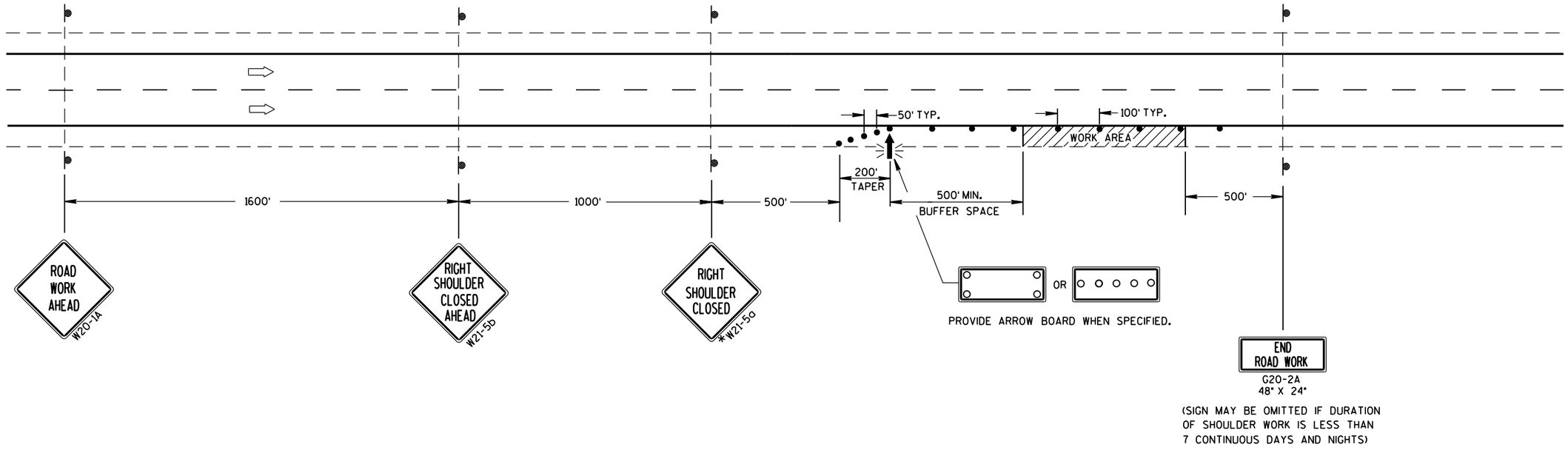
SIGNS THAT WILL BE IN PLACE LESS THAN 7 CONTINUOUS DAYS AND NIGHTS MAY BE MOUNTED ON PORTABLE SUPPORTS.

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

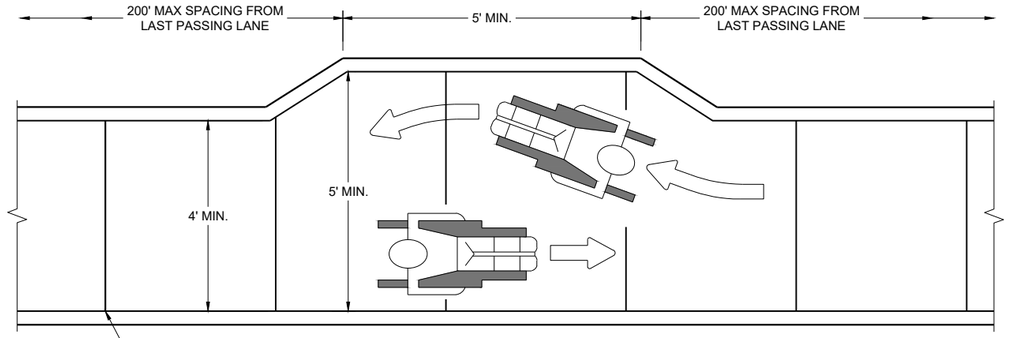
APPROVED

June 2016 — DATE

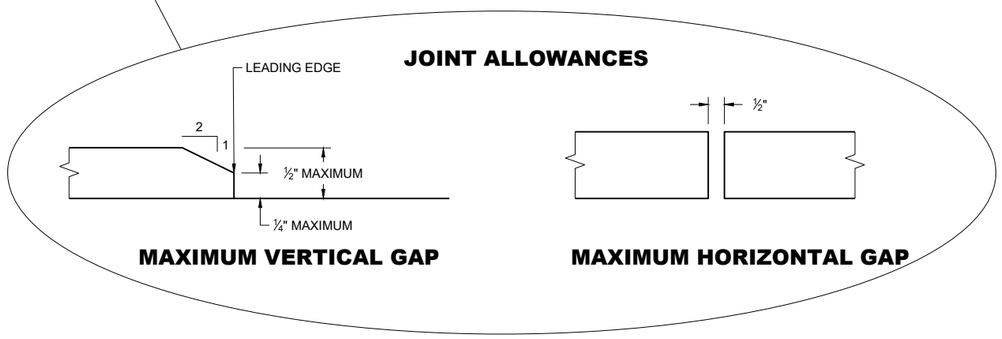
/S/ Peter Amakobe Atepe
STATEWIDE WORK ZO[illegible] SAFETY ENGI[illegible]
FHWA

6

S.D.D. 15 D 27-3



NARROW SIDEWALK PASSING DETAIL



MAXIMUM VERTICAL GAP

MAXIMUM HORIZONTAL GAP

GENERAL NOTES

BARRICADE DEVICE SELECTED FROM APPROVED PRODUCT LIST

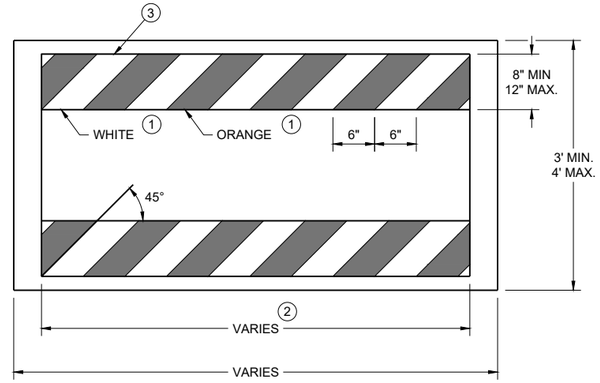
(1) REFLECTIVE SHEETING SHALL FOLLOW THE REQUIREMENTS IN THE APPROVED PRODUCTS LISTING FOR SIGN SHEETING.

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

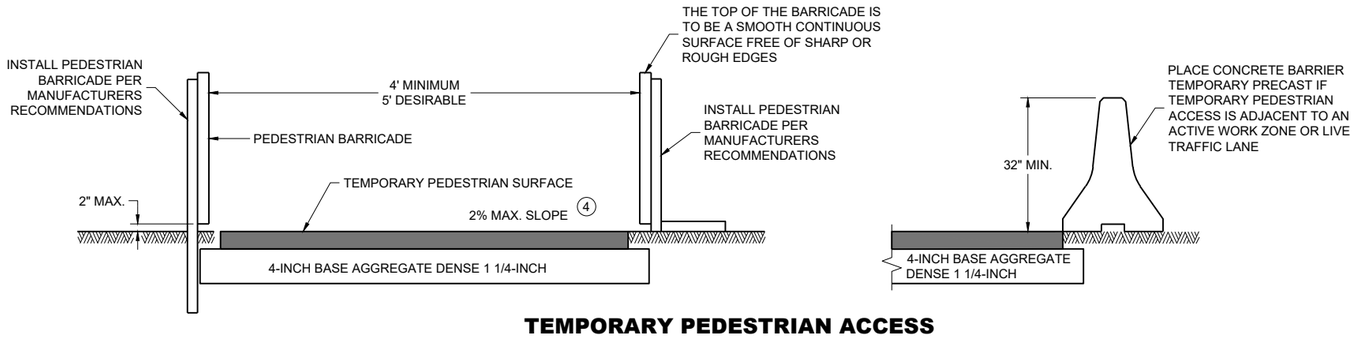
(3) PLACE SHEETING ON BOTH SIDES OF THE BARRICADE.

* USE THIS DETAIL FOR SHEETING PLACEMENT REFERENCE.

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



TEMPORARY PEDESTRIAN BARRICADE *

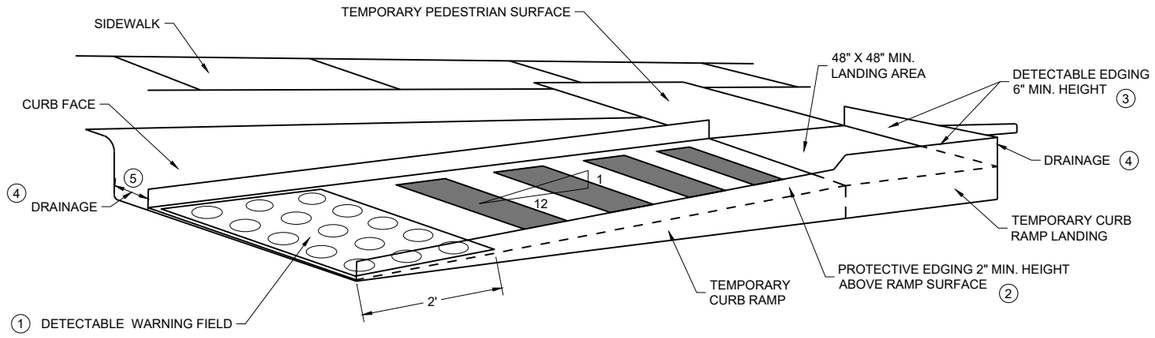


TEMPORARY PEDESTRIAN ACCESS

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15D30-10a



PERSPECTIVE VIEW

GENERAL NOTES

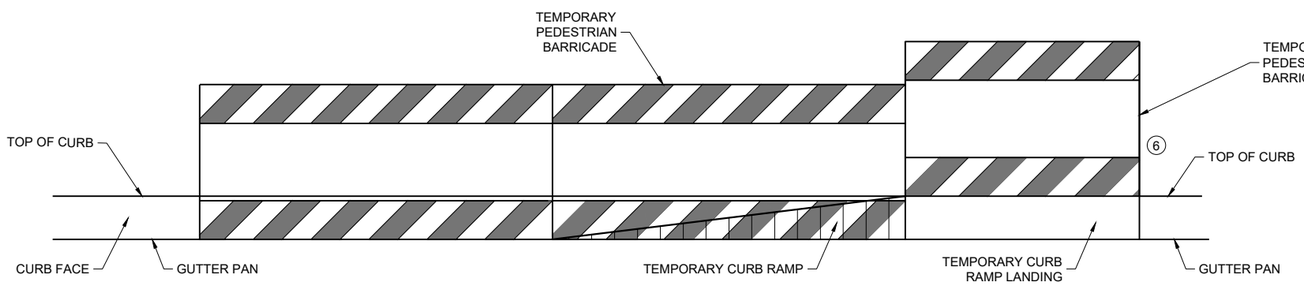
CURB RAMPS SHALL BE 48" MIN. WIDTH WITH A FIRM, STABLE AND SLIP RESISTANT SURFACE.

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

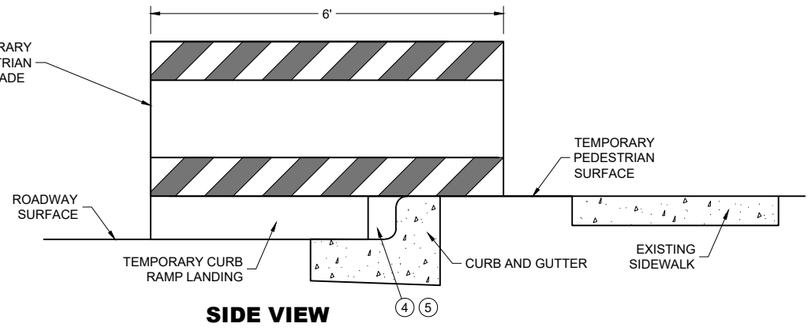
CLEAR SPACE OF 48" X 48" SHALL BE PROVIDED ABOVE AND BELOW THE CURB RAMP. LATERAL JOINTS OR GAPS BETWEEN SURFACES SHALL BE LESS THAN ½" WIDTH.

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

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



FRONT VIEW



SIDE VIEW

TEMPORARY CURB RAMP PARALLEL TO CURB

6

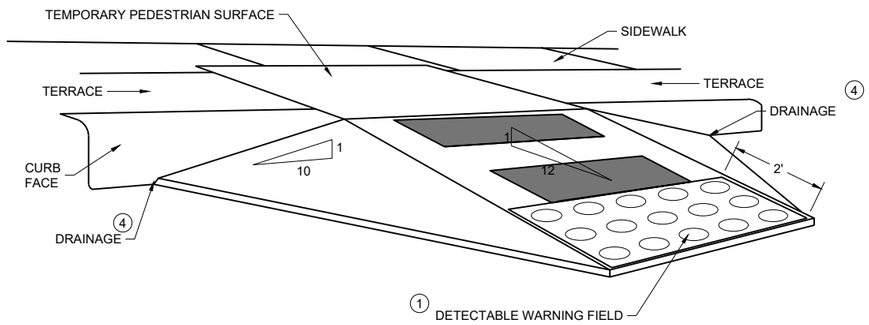
SDD 15D30-10b

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

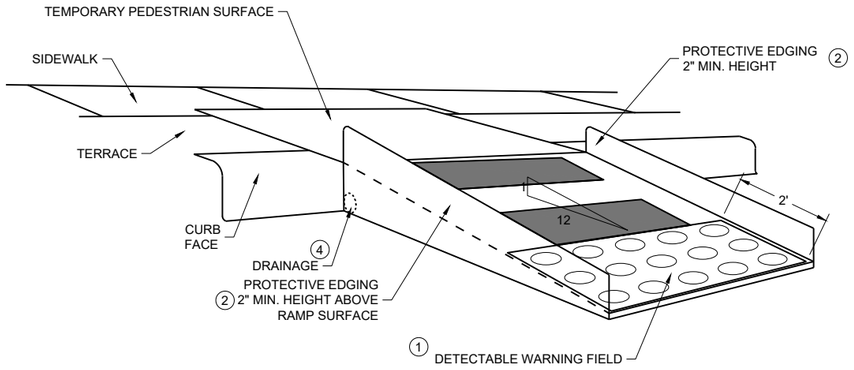
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-10b



WITH SIDE APRON (5)



WITH PROTECTIVE EDGE

TEMPORARY CURB RAMP PERPENDICULAR TO CURB

GENERAL NOTES

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

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

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

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

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

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

(1) INSTALL CONTRASTING TEMPORARY DETECTABLE WARNING FIELD AT PEDESTRIAN STREET CROSSINGS, AS SHOWN IN THE PLANS

(2) PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

(3) DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

(4) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(5) CAN ONLY BE USED FOR RAMPS WITH 6" OR LESS OF VERTICAL CHANGE.

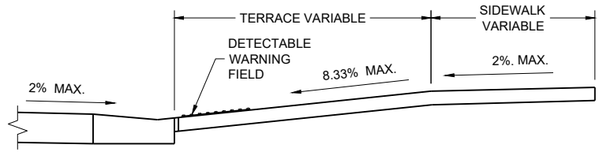
6

SDD 15D30-10c

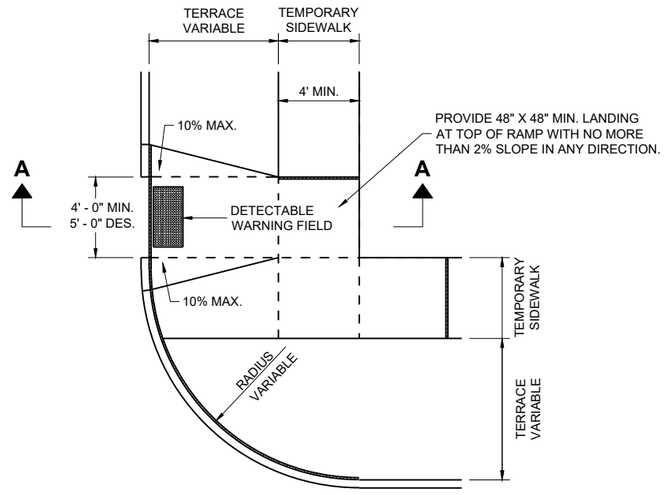
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

GENERAL NOTES



SECTION A - A



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

6

SDD 15D30-10d

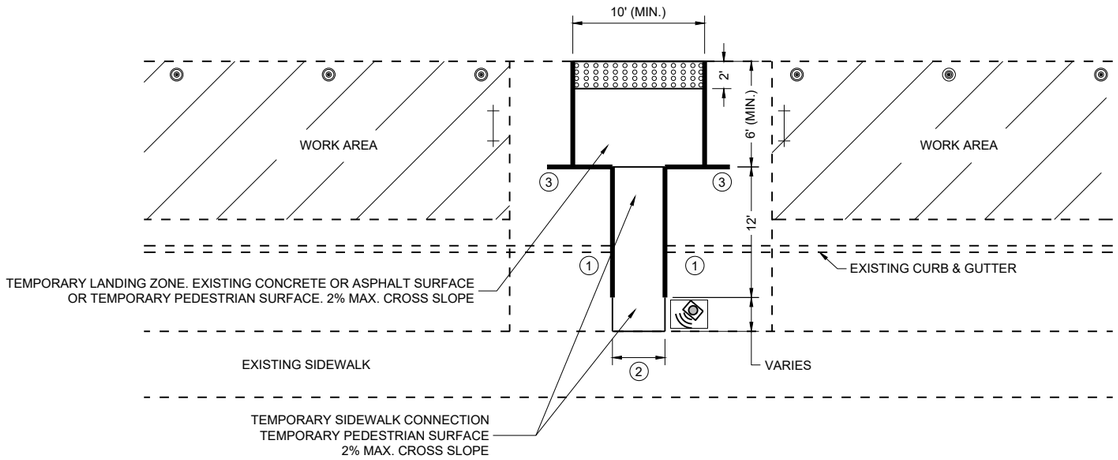
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

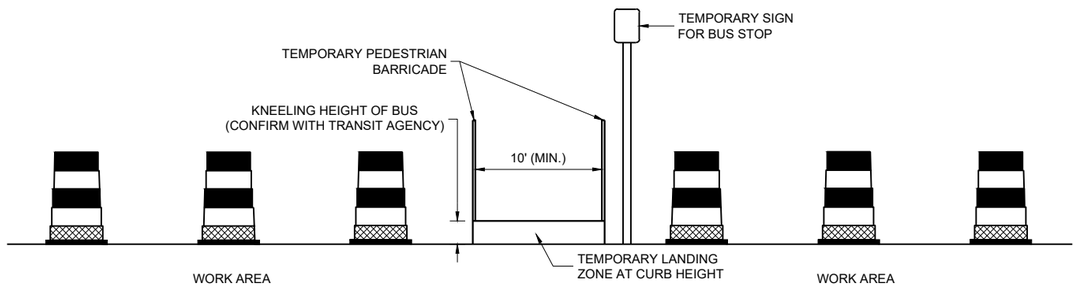
APPROVED
May 2023 — DATE
/S/ Andrew Heidtke — <position>
FHWA

6

SDD 15D30-10d



PLAN VIEW



PROFILE VIEW TEMPORARY BUS STOP PAD

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

NOTIFY THE BUS COMPANY 7 DAYS IN ADVANCE OF THE BUS STOP RELOCATION.

PROTECTIVE EDGING WITH A 2" MIN. HEIGHT SHALL BE INSTALLED WHEN A CURB RAMP OR LANDING PLATFORM HAS A VERTICAL DROP OF 6" OR GREATER OR HAS A SIDE APRON SLOPE STEEPER THAN 1:3 (33%). PROTECTIVE EDGING SHOULD BE CONSIDERED WHEN CURB RAMPS OR LANDING PLATFORMS HAVE A VERTICAL DROP OF 3" OR MORE.

DETECTABLE EDGING WITH 6" MIN. HEIGHT AND CONTRASTING COLOR SHALL BE INSTALLED ON ALL CURB RAMP LANDINGS WHERE THE WALKWAY CHANGES DIRECTION (TURNS).

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

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

CURB RAMPS AND LANDINGS SHALL HAVE A 1:50 (2%) MAX. CROSS-SLOPE.

(1) DO NOT RESTRICT WATER FLOW IN THE GUTTER SYSTEM.

(2) 5' WIDE MIN. WITH TEMPORARY PEDESTRIAN BARRICADE, 10' WIDE MIN. WITHOUT TEMPORARY PEDESTRIAN BARRICADE.

(3) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE INTO THIS SPACE.

LEGEND

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

6

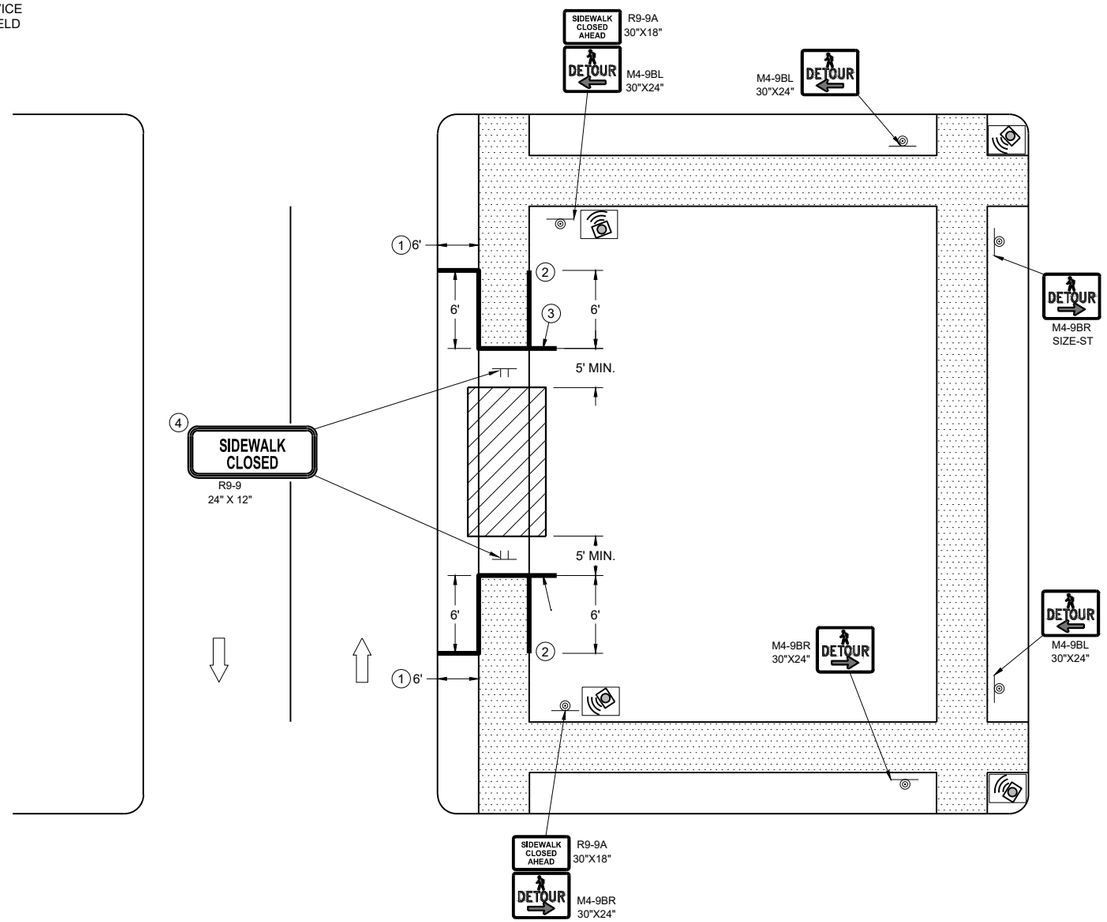
SDD 15D30-10e

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

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



GENERAL NOTES

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

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

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

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

SIDEWALK DETOUR, SIDEWALK ONLY ON ONE SIDE

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

- SIGN ON TEMPORARY SUPPORT
- WORK AREA
- UNDER PEDESTRIAN TRAFFIC
- TEMPORARY PEDESTRIAN SURFACE
- TEMPORARY PEDESTRIAN BARRICADE
- OPTIONAL TEMPORARY PEDESTRIAN BARRICADE
- DIRECTION OF TRAFFIC

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

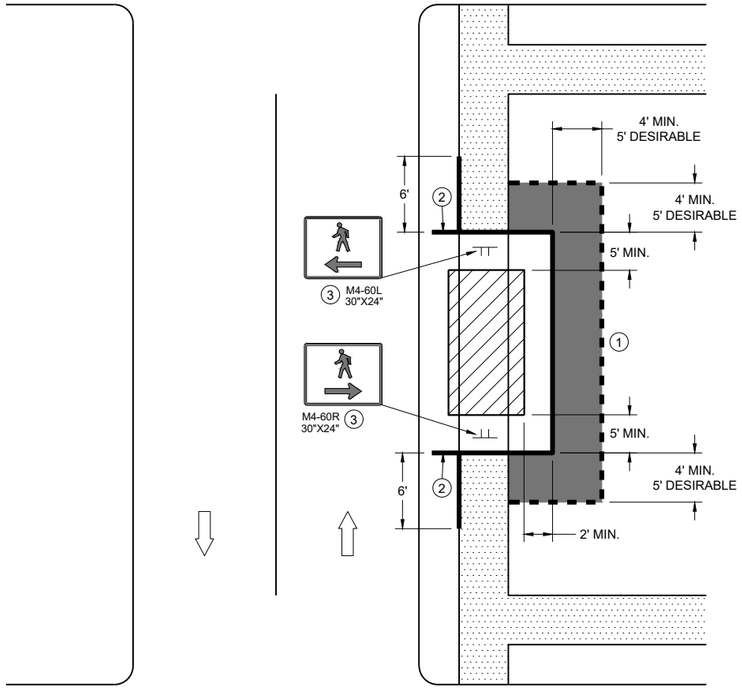
WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

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

(1) USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.

(2) IF TEMPORARY PEDESTRIAN BARRICADE PANEL IS WIDER THAN THE SIDEWALK WIDTH, THE PORTION OF EXCESS PANEL SHOULD EXTEND INTO THE TERRACE.

(3) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.



SIDEWALK BYPASS
SINGLE SIDE

6

SDD 15D30-10g

6

SDD 15D30-10g

TRAFFIC CONTROL,
PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

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

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

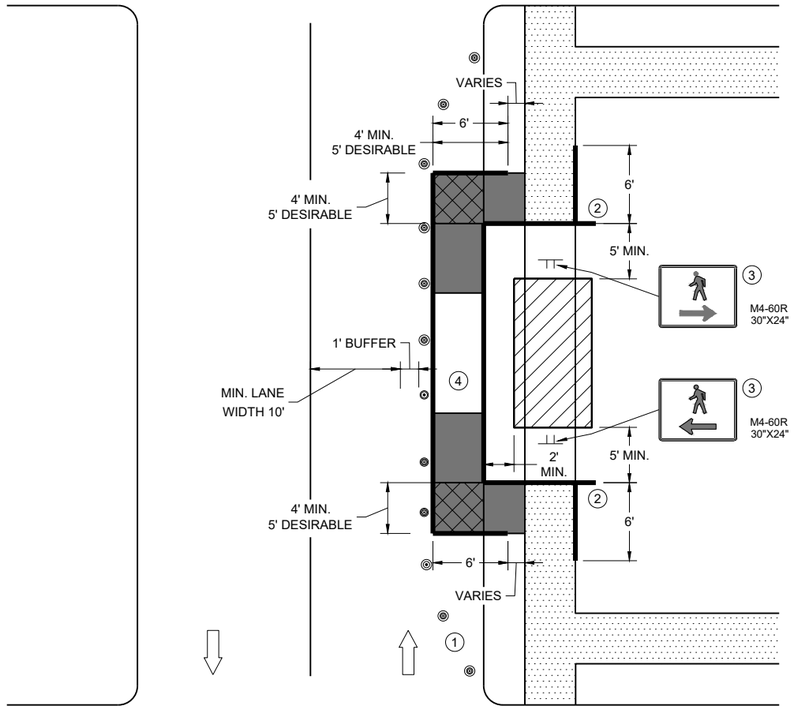
WHERE TEMPORARY BARRICADE RUNS PARALLEL ALONG SIDEWALK, PLACE THE FACE OF THE BARRICADE AT THE EDGE OF THE SIDEWALK.

(1) SHOULDER OR LANE CLOSURE ADVANCE WARNING AND BUFFER SPACE REQUIRED.

(2) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL PAST THE SIDEWALK ON THE SIDE AWAY FROM THE ROAD.

(3) MOUNTING HEIGHT OF 5 FEET FROM THE SURFACE TO THE BOTTOM OF SIGN.

(4) USE EXISTING PAVEMENT SURFACE. IF EXISTING PAVEMENT SURFACE HAS BEEN REMOVED, USE A TEMPORARY PEDESTRIAN SURFACE. WHEN THE TEMPORARY PEDESTRIAN ACCESS ROUTE RUNS PARALLEL ON THE ROADWAY SURFACE, THE MAXIMUM CROSS SLOPE WILL MATCH THE EXISTING ROADWAY CROSS SLOPE.



SIDEWALK BYPASS, SINGLE SIDE

6

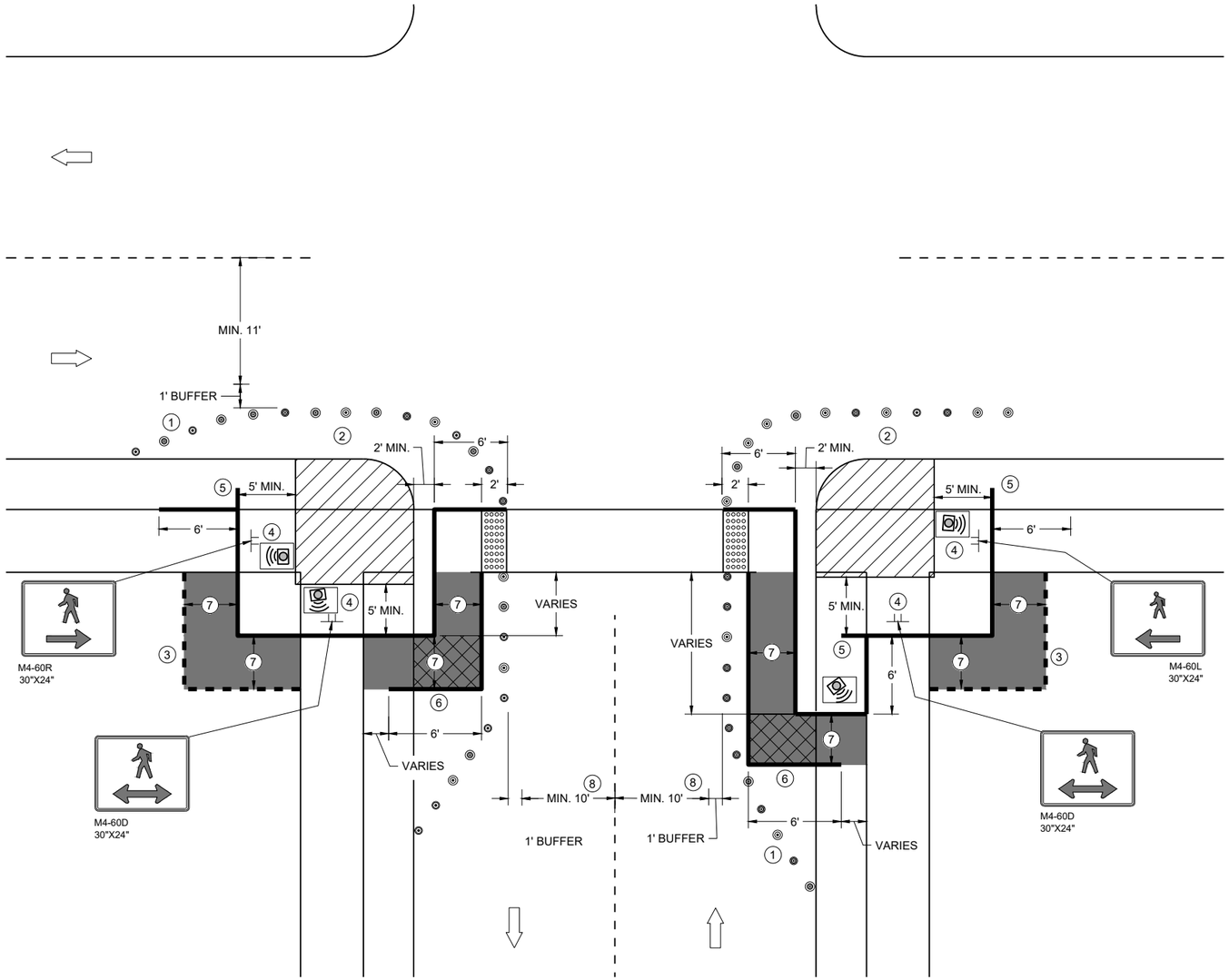
SDD 15D30-10h

6

SDD 15D30-10h

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION



CURB RAMP PEDESTRIAN TRAFFIC CONTROL
SIDEWALK ON SINGLE SIDE

GENERAL NOTES

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

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

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

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

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

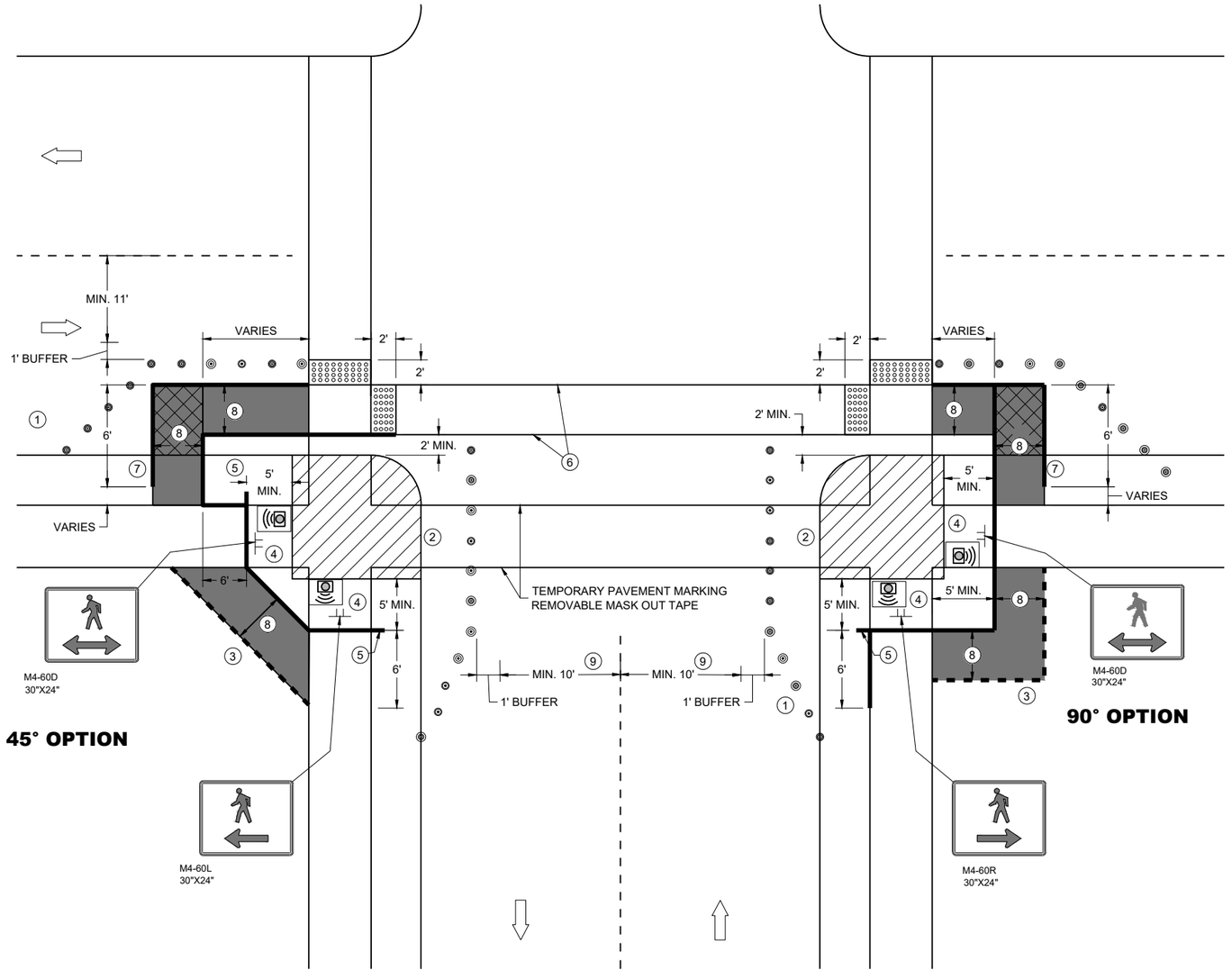
LEGEND

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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15D30-10i



CURB RAMP PEDESTRIAN TRAFFIC CONTROL

GENERAL NOTES

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

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG

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

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

(1) SHOULDER OR LANE CLOSURE ADVANCE WARNING AND PROPER BUFFER SPACE REQUIRED.

(2) PROVIDE ADEQUATE SPACE FOR CONTRACTOR OPERATIONS

(3) USE TEMPORARY PEDESTRIAN BARRICADE TO SEPARATE PEDESTRIANS FROM DROP OFFS OR FOR ADDITIONAL PEDESTRIAN CHANNELIZATION.

(4) MOUNTING HEIGHT OF 5 FEET FROM SIDEWALK SURFACE TO BOTTOM OF SIGN.

(5) PLACE EXCESS PORTION OF TEMPORARY PEDESTRIAN BARRICADE PANEL IN THE SIDEWALK TERRACE.

(6) WHITE 6" TEMPORARY PAVEMENT MARKING

(7) IF TEMPORARY PEDESTRIAN BARRICADE DOES NOT REACH THE FACE OF THE CURB, USE AN ADDITIONAL PANEL AND EXTEND INTO THE TERRACE.

(8) 4 FEET MINIMUM, 5 FEET DESIRABLE

(9) IF MINIMUM LANE WIDTHS CAN'T BE ATTAINED, CURB RAMPS MAY NEED TO BE CONSTRUCTED AT SEPARATE TIMES.

LEGEND

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

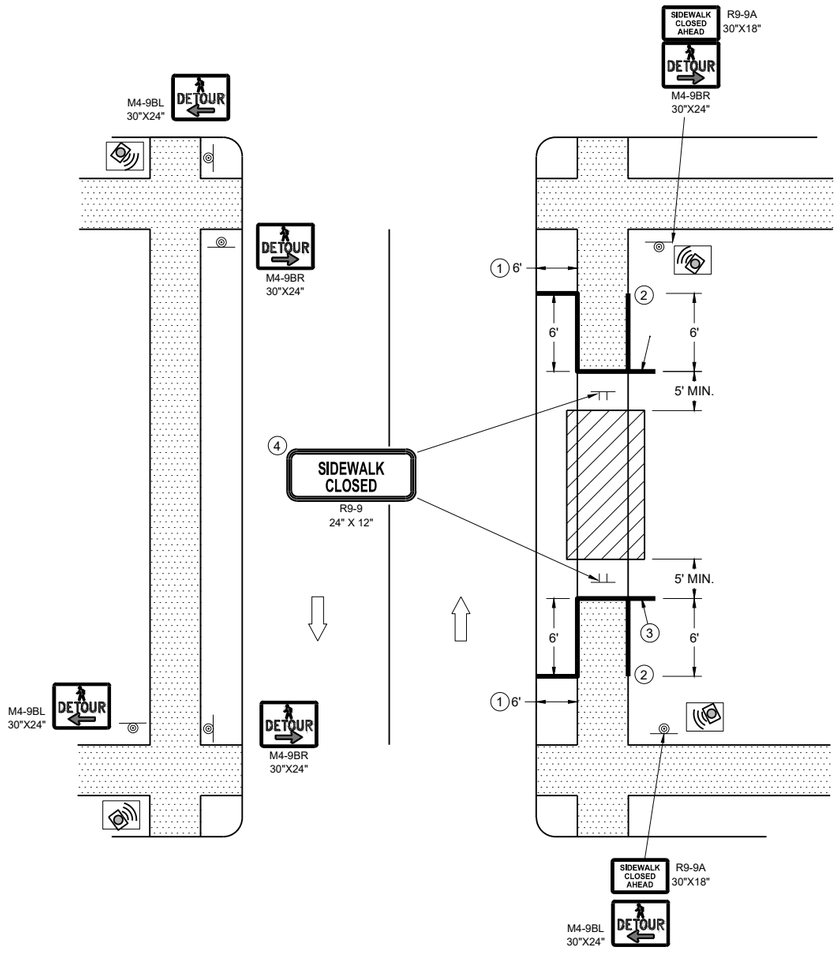
TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 15D30-10j

LEGEND

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



SIDEWALK DETOUR, SIDEWALK ON BOTH SIDES

GENERAL NOTES

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

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

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

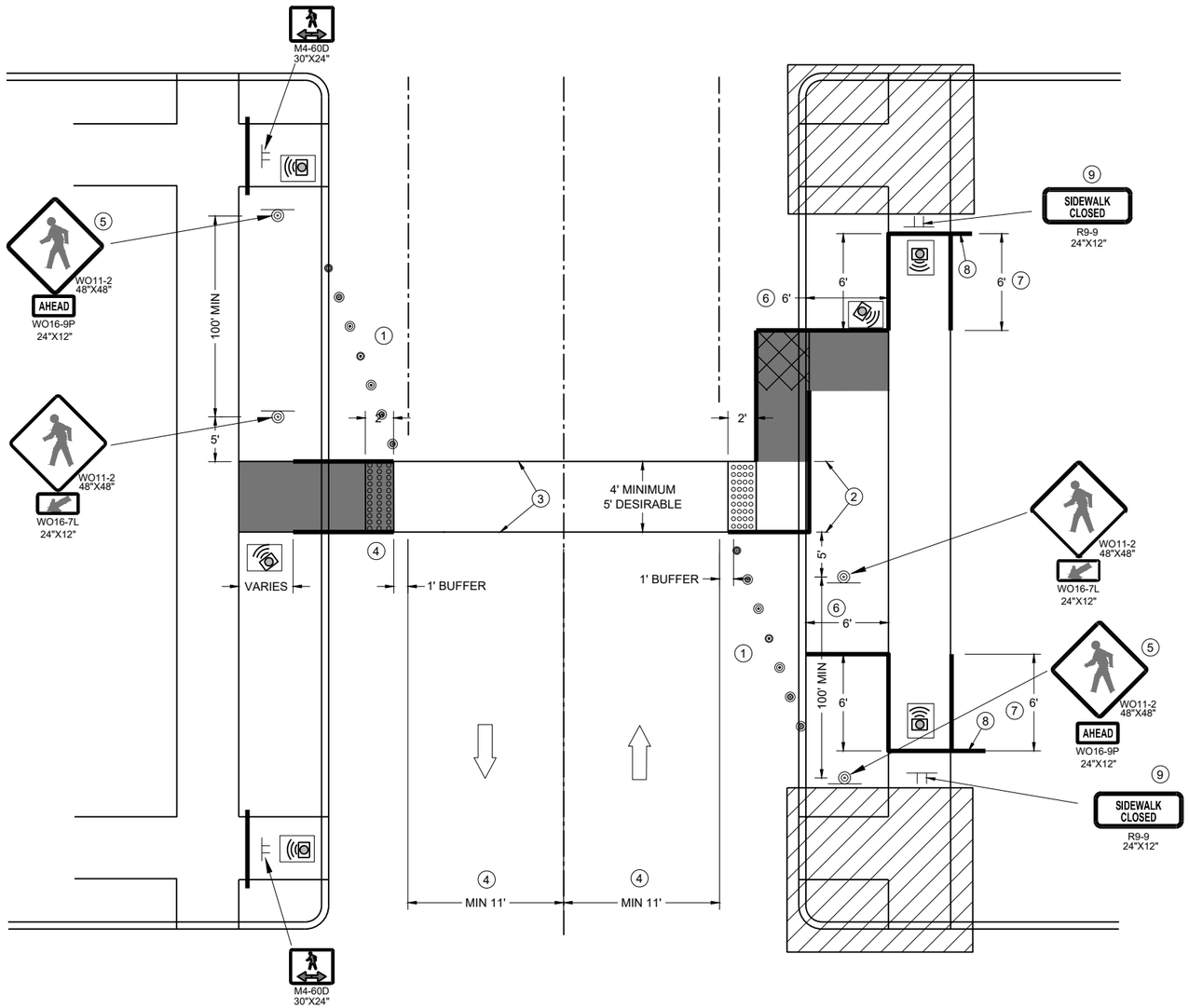
1. IF TERRACE IS LESS THAN 6 FEET WIDE, OMIT TEMPORARY PEDESTRIAN BARRICADE FROM THE SIDEWALK TO THE CURB.
2. PLACE BARRICADE CLOSURE SO THAT THE TEMPORARY PEDESTRIAN BARRICADE END IS AT THE LAST OPEN SIDEWALK ACCESS TO RESIDENCES OR BUSINESSES BEFORE THE SIDEWALK CLOSURE.
3. IF TEMPORARY PEDESTRIAN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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 15D30-10k



TEMPORARY PEDESTRIAN CROSSING

GENERAL NOTES

TYPICAL TEMPORARY PEDESTRIAN BARRICADE PANEL IS 6 FEET LONG.

SEE OTHER PEDESTRIAN ACCOMMODATION DETAILS FOR SIGNING AND DEVICES FOR DIFFERENT PEDESTRIAN FACILITIES CLOSURES.

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

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

LEGEND

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

TRAFFIC CONTROL, PEDESTRIAN ACCOMMODATION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

LEGEND

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

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)					BUFFER SPACE (B) FEET
		10	11	12	13	14	
25	200	52	57	63	68	73	55
30	200	75	83	90	98	105	85
35	350	102	112	123	133	143	120
40	350	133	147	160	173	187	170
45	500	225	248	270	293	315	220

GENERAL NOTES

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

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

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

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 ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS 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 AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

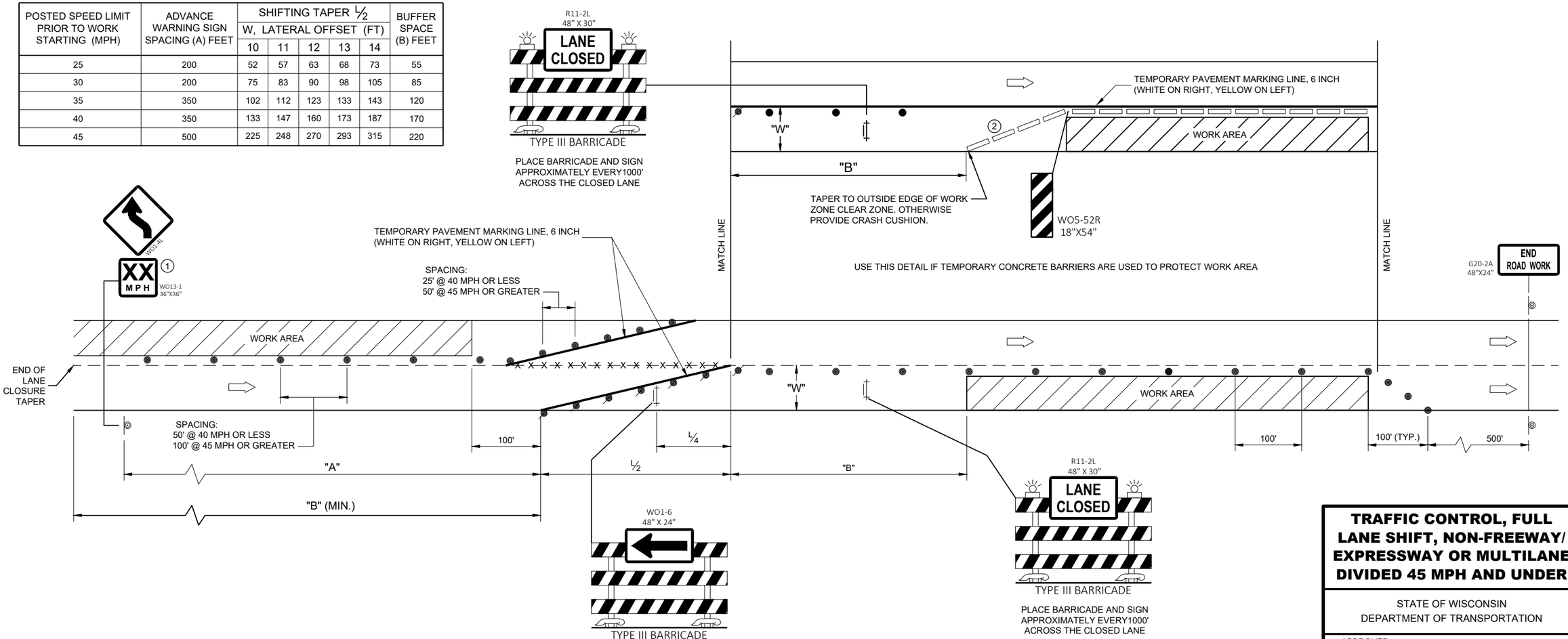
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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 SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT 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.

(1) USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(2) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER



TRAFFIC CONTROL, FULL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D40-05a

6

SDD 15D40-05a

LEGEND

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

GENERAL NOTES

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

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

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

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 ANY "COVERED" OR "DOWNED" SIGNS.

CONSIDER GEOMETRICS WHEN LOCATING SIGNS AND ARROW BOARDS 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 AND PLACE TEMPORARY PAVEMENT MARKING LINES IF LANE CLOSURE IS TO BE IN PLACE FOR 4 OR MORE CONTINUOUS DAYS AND NIGHTS.

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

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

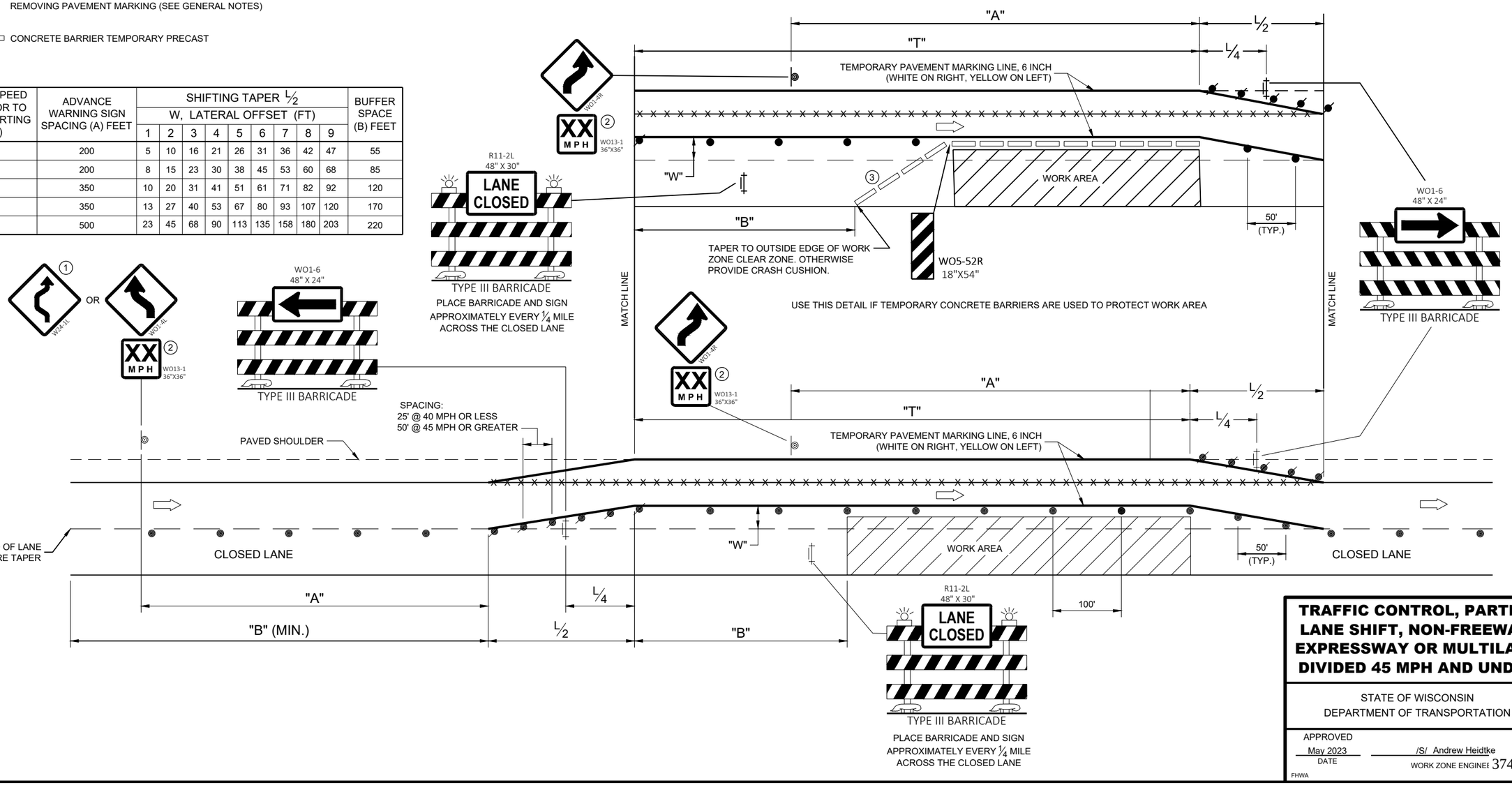
ADJUSTMENTS IN BUFFER SPACE NEED TO BE INCORPORATED WHEN THE LANE SHIFT OCCURS NEAR AN INTERCHANGE EXIT OR ENTRANCE RAMP. THE LANE SHIFT MUST TAKE PLACE FAR ENOUGH IN ADVANCE OF AN EXIT OR ENTRANCE RAMP TO STILL ALLOW FOR ADEQUATE BUFFER SPACE. THE MINIMUM LENGTH OF THE BUFFER SPACE BEFORE AN EXIT RAMP 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.

(1) USE ONLY WHEN T<600', OMIT WO1-4R.

(2) IF NEEDED, USE ONLY IF DESIGN SPEED IS 10 MPH BELOW POSTED SPEED.

(3) BARRIER FLARE RATE: 6:1 @ 40 MPH OR LESS
8:1 @ 45 MPH OR GREATER

POSTED SPEED LIMIT PRIOR TO WORK STARTING (MPH)	ADVANCE WARNING SIGN SPACING (A) FEET	SHIFTING TAPER L/2 W, LATERAL OFFSET (FT)									BUFFER SPACE (B) FEET
		1	2	3	4	5	6	7	8	9	
25	200	5	10	16	21	26	31	36	42	47	55
30	200	8	15	23	30	38	45	53	60	68	85
35	350	10	20	31	41	51	61	71	82	92	120
40	350	13	27	40	53	67	80	93	107	120	170
45	500	23	45	68	90	113	135	158	180	203	220



TRAFFIC CONTROL, PARTIAL LANE SHIFT, NON-FREEWAY/ EXPRESSWAY OR MULTILANE DIVIDED 45 MPH AND UNDER

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2023
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

6

SDD 15D40-05c

6

SDD 15D40-05c

LEGEND

- EXISTING SIGN ON PERMANENT SUPPORT
- NEW SIGN ON PERMANENT SUPPORT
- TRAFFIC CONTROL DRUM
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- DIRECTION OF TRAFFIC
- WORK ZONE

GENERAL NOTES

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

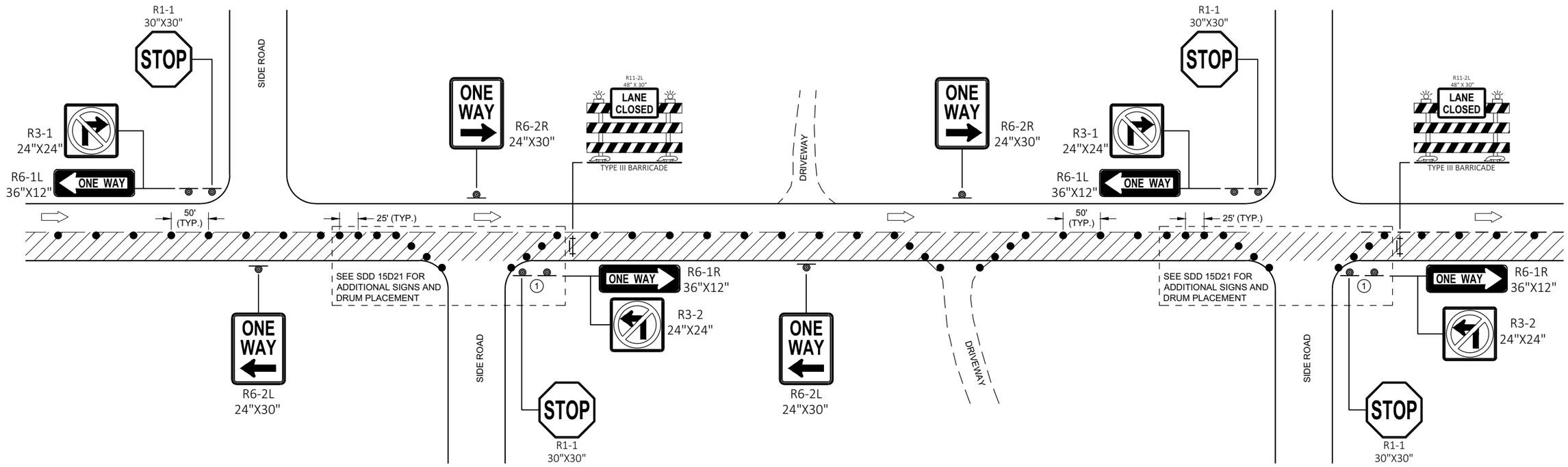
ALL SIGNS AND DEVICES SHALL BE IN CONFORMANCE WITH THE WISCONSIN MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (WMUTCD). SIGN LAYOUTS SHALL BE IN ACCORDANCE WITH THE WISDOT STANDARD SIGN PLATES.

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

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

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

(1) IF WORK OPERATIONS ALLOWS, MOVE R1-1, R6-1R, AND R3-2 CLOSER TO INTERSECTION.



TRAFFIC CONTROL
ONE - WAY SIGNING

TRAFFIC CONTROL ONE-WAY SIGNING	
STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION	
APPROVED May 2020 DATE	/S/ Andrew Heidtke WORK ZONE ENGINEE
FHWA	

SDD 15D46 - 01

SDD 15D46 - 01

LEGEND

V1 WORK VEHICLE

V2 SHADOW VEHICLE

TRUCK MOUNTED ATTENUATOR (TMA)

FLASHING ARROW PANEL (CAUTION)

WORK AREA

DIRECTION OF TRAFFIC

POSTED SPEED PRIOR TO WORK STARTING (MPH)	DECISION SIGHT DISTANCE (D)
0 - 25	550'
30	550'
35	700'
40	700'
45	900'
50	900'
55	1200'

GENERAL NOTES

ALL SIGNS ARE 48"X48" UNLESS OTHERWISE NOTED.

MOBILE IS WORK THAT MOVES CONTINUOUSLY OR MOVES AT LEAST THE DECISION SIGHT DISTANCE EVERY 15 MINUTES.

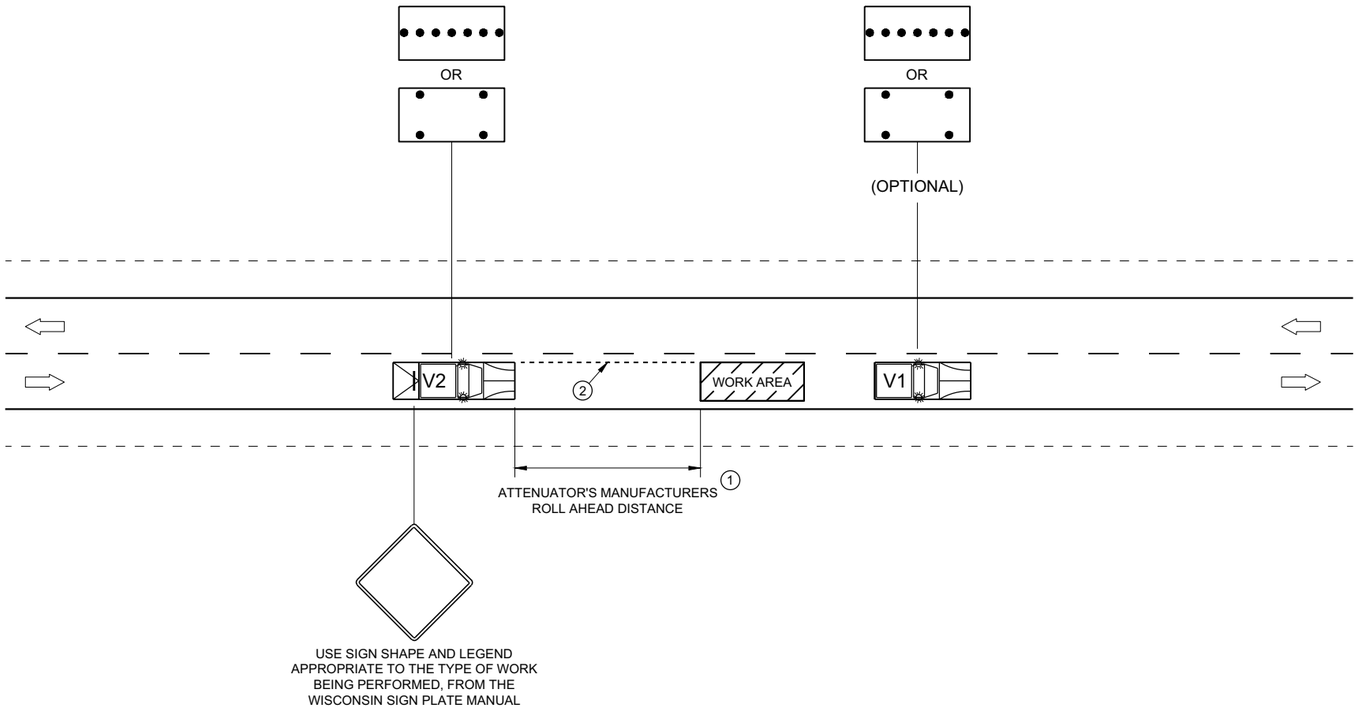
ALL VEHICLES SHALL BE EQUIPPED WITH TWO 360 DEGREE HIGH INTENSITY YELLOW FLASHING LIGHTS OR STROBE LIGHTS AND OPERATED WITH HEADLIGHTS TURNED ON.

ALL ARROW PANELS SHALL BE REAR FACING, TYPE "B" OR "C", AND DISPLAYING THE FLASHING CAUTION MODE. SIGNS PLACED ON VEHICLES MUST NOT OBSCURE THE ARROW PANEL.

USE AN ATTENUATOR ON THE REARMOST VEHICLE THAT BLOCKS ALL OR PART OF THE TRAFFIC LANE.

(1) DISTANCE BETWEEN VEHICLES MAY INCREASE FROM THE ATTENUATOR'S ROLL AHEAD BASED ON TERRAIN, SIGHT DISTANCE, AND OTHER FACTORS. WHENEVER ADEQUATE STOPPING SIGHT DISTANCE EXISTS TO THE REAR, SHADOW VEHICLES SHOULD MAINTAIN THE MINIMUM DISTANCE FROM THE WORK VEHICLE AND PROCEED AT THE SAME SPEED AS THE WORK VEHICLE. SHADOW VEHICLES SHOULD SLOW DOWN IN ADVANCE OF VERTICAL OR HORIZONTAL CURVES THAT RESTRICT SIGHT DISTANCE.

(2) ALIGN LEFT SIDE OF SHADOW VEHICLE WITH EDGE OF WORK AREA.



TRAFFIC CONTROL, MOBILE OPERATIONS ON AN UNDIVIDED ROADWAY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

February 2021
DATE

/S/ Andrew Heidtke
STATEWIDE WORK ZONE T SAFETY ENGINEER

FHWA

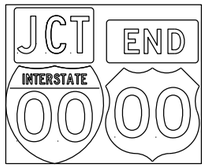
6

SDD 15D51 - 01

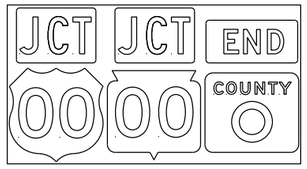
TYPICAL ASSEMBLIES



J1-1



J1-2



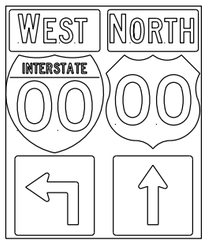
J1-3



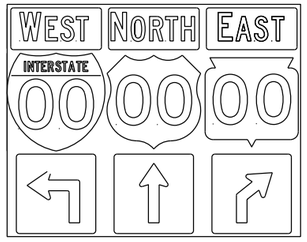
JR1-1



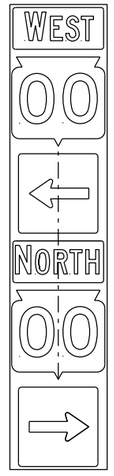
J2-1



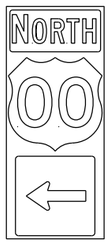
J2-2



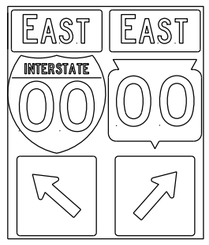
J2-3



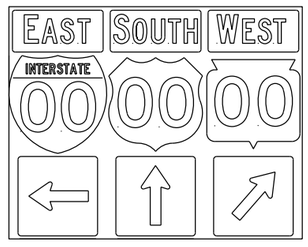
JV
(Typical Vertical J-Assembly
See Note 10 and 11)



J3-1



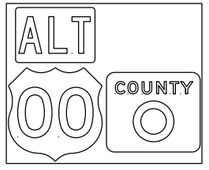
J3-2



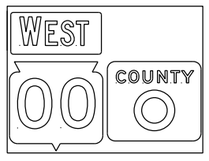
J3-3



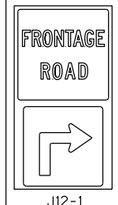
J4-1



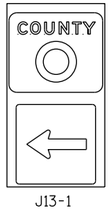
J4-2



J4-2



J12-1



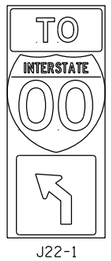
J13-1



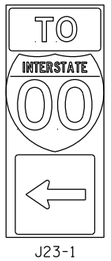
J32-1



J33-1



J22-1



J23-1



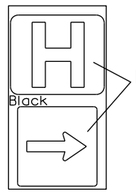
JR13-1



JR23-1



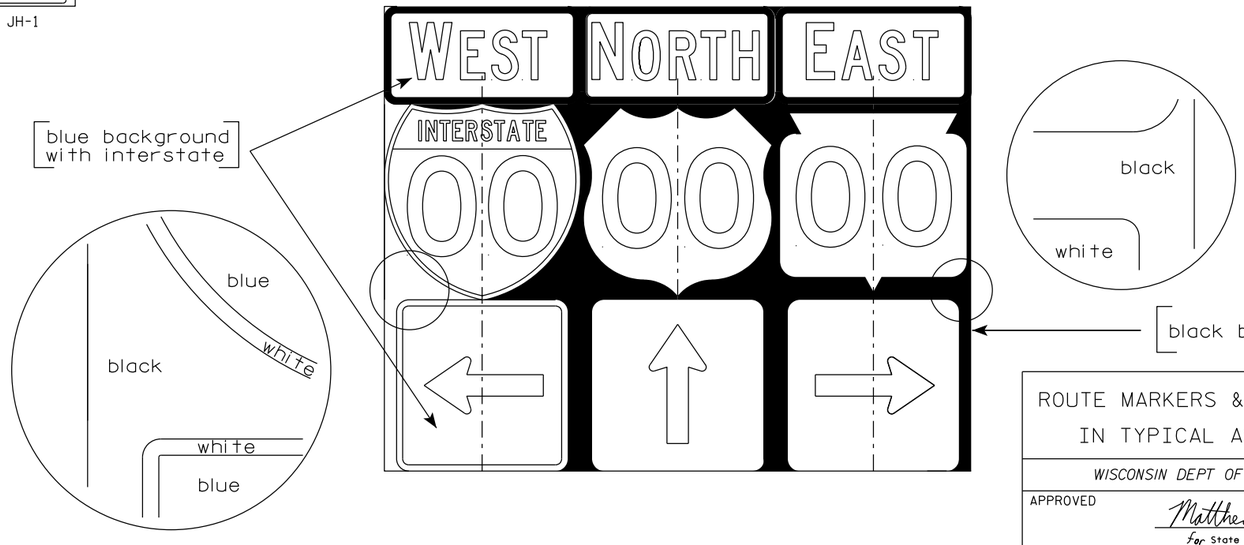
JR99-1



JH-1

NOTES

1. Signs are Type II - Type H Reflective
2. Color:
   Background - Black Non-reflective
   Message - see Note 4
3. Message Series - See Note 4
4. The colors and message spacing on each marker shall be according to the applicable route marker panel specifications.
5. Certain marker heads require the component pieces to be the same color. As an example, all the components used with an M1-1 Interstate marker shall be blue.
6. Single panel j-assemblies shall only be used with route marker shields that are same size. If the route marker shields are different size use multiple piece component.
7. Route assemblies that have 24 inch route shields and have dimensions greater than 48 inches (both vertical and horizontal) shall have one horizontal splice between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 inches or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
8. Route assemblies that have 36 inch shields and have dimensions greater than 48 inchs (both vertical and horizontal) shall have two horizontal splices. One horizontal splice shall be between the cardinal direction and route shields and the other horizontal splice shall be between the arrows and route shields. Vertical splices shall not be used on route assemblies with a horizontal dimension of 144 or less. The contractor shall not use more than one vertical joint per sign and the joint shall be between route shields.
9. All Vertical J Assemblies are given a Sign Code of JV
10. For JV Assemblies that have a mixture of Interstate and Non-Interstate shields, arrows and cardinals shall be white on blue.
11. For JV Assemblies that have a mixture of Non-Interstate and Auto-Tour shields, arrows and cardinals shall be black on white.



ROUTE MARKERS & COMPONENTS IN TYPICAL ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

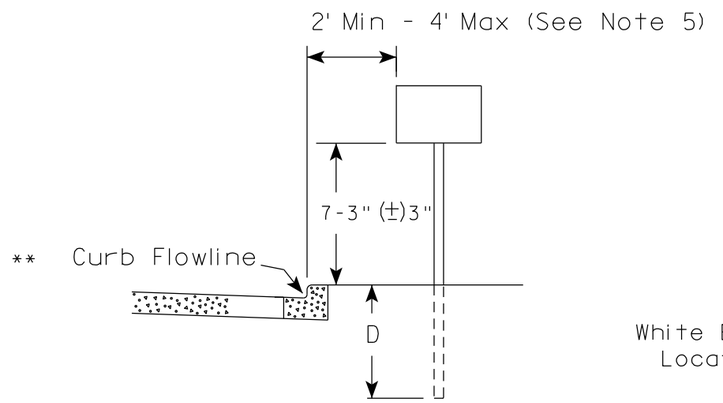
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 6/7/23 PLATE NO. A2-1S.10

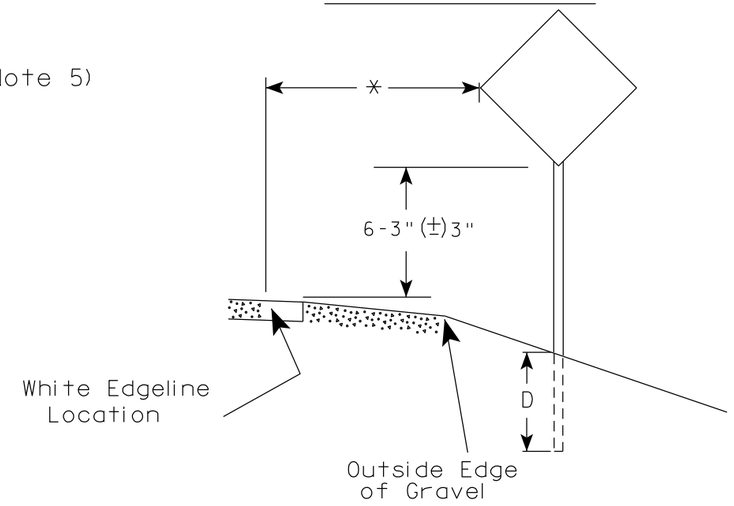
PROJECT NO:

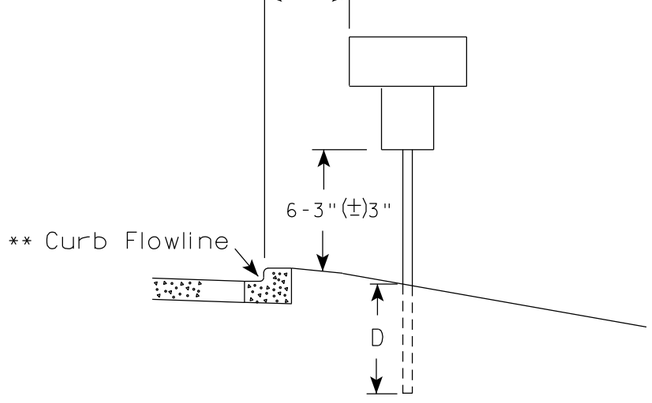
SHEET NO: 377 E

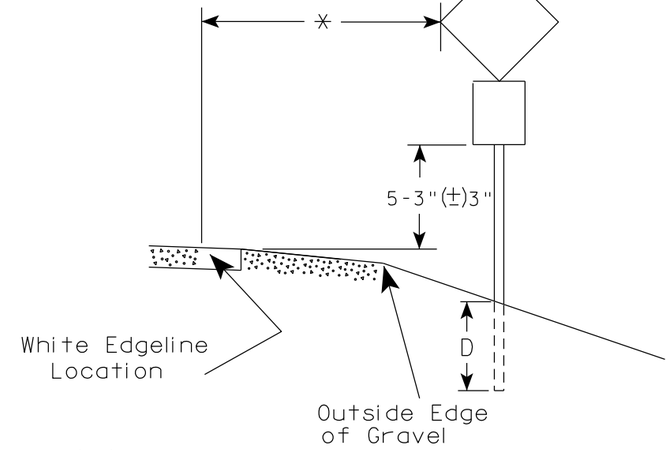
URBAN AREA



RURAL AREA (See Note 2)







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

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

POST EMBEDMENT DEPTH

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

GENERAL NOTES

1. Signs wider than 4 feet or 20 sq.ft or larger, shall be mounted on multiple posts. Refer to plate A4-4.
2. If signs are mounted on or behind barrier wall, see A4-10 sign plate.
   The Double Arrow sign (W12-1D) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Enhanced Reference Markers, Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4'-3" (±) 3".
3. For expressways and freeways, mounting height is 7'- 3" (±) 3" or 6'-3" (±) 3" depending upon existence of a sub-sign.
4. Minimum mounting height for signs mounted on traffic signal poles is 5'- 3" (±) 3".
5. Offset distance shall be consistent with existing signs or consistent throughout length of project.
6. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directd by the Engineer.

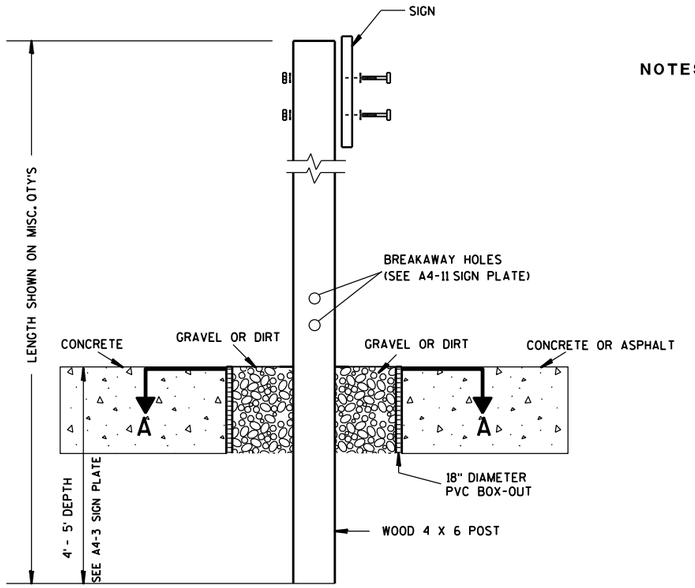
TYPICAL INSTALLATION OF PERMANENT TYPE II SIGNS ON SINGLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

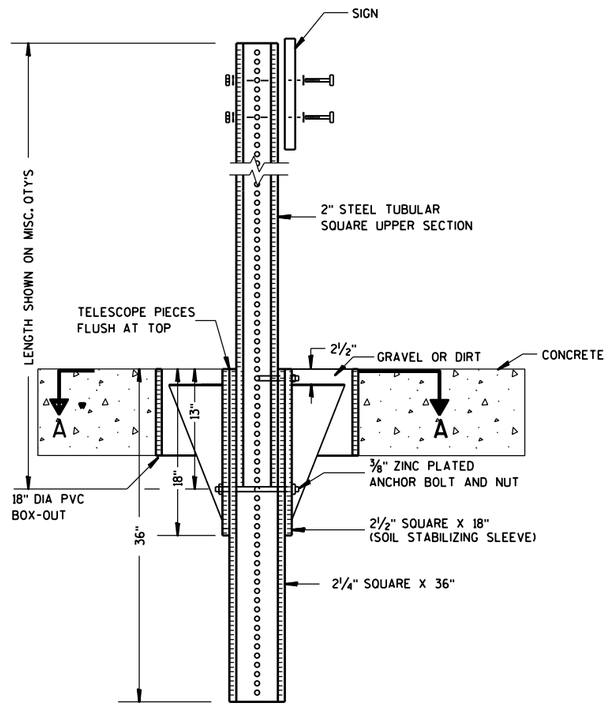
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 378	E



ELEVATION VIEW

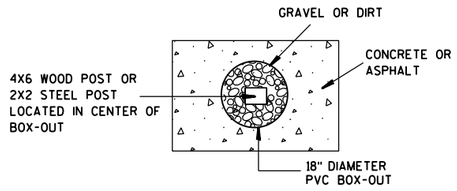
DETAIL OF WOOD 4 X 6 SIGN POST IN BOX-OUT

NOTES:
1. ALL MATERIAL TO BE APPROVED BY ENGINEER PRIOR TO INSTALLATION
2. SEE SIGN PLATE A4-8 FOR SIGN HARDWARE REQUIREMENTS
3. 18 INCH X 18 INCH SQUARE BOX-OUTS MAY BE USED FOR INSTALLATIONS IN EXISTING CONCRETE OR ASPHALT LOCATIONS.



ELEVATION VIEW

DETAIL OF STEEL 2 X 2 SIGN POST IN BOX-OUT



PLAN VIEW

FOR NEW CONCRETE/ASPHALT INSTALLATIONS

SIGN POST BOX-OUTS A4-3B

WISCONSIN DEPT OF TRANSPORTATION

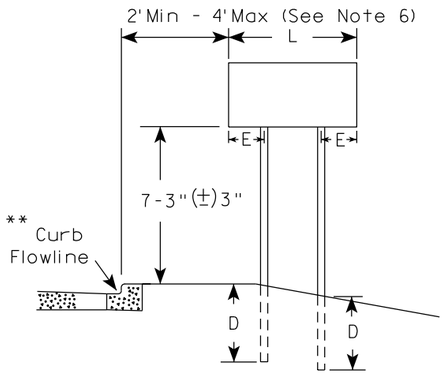
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/27/14 PLATE NO. A4-3B.1

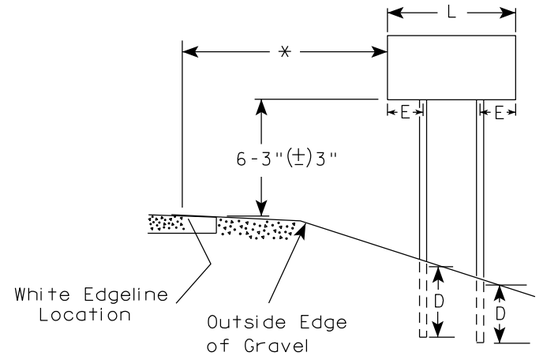
PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

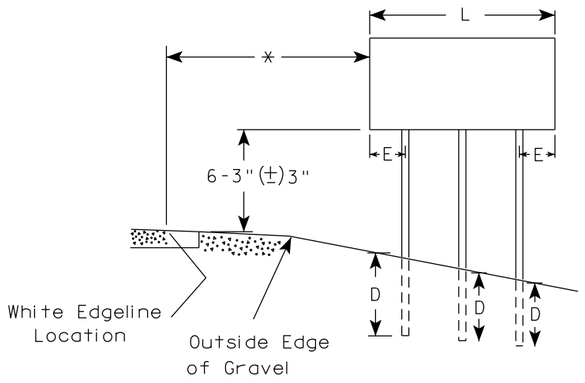
FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A43B.DGN PLOT DATE : 27-JAN-2014 09:48 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000 WISDOT/CADDS SHEET 42

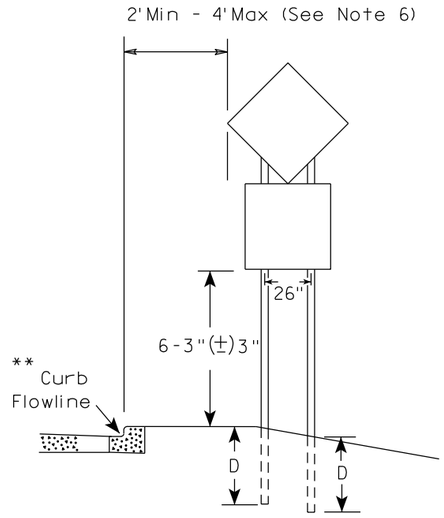
URBAN AREA



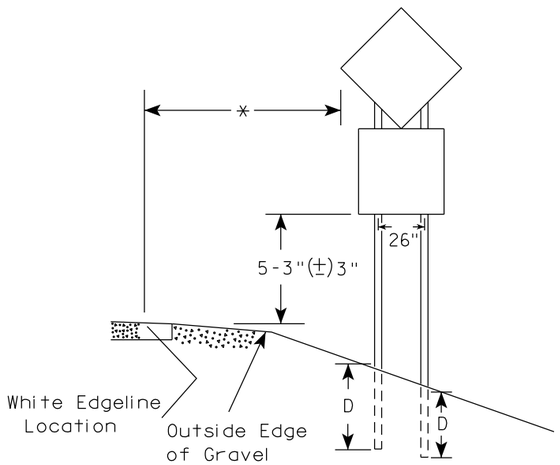
RURAL AREA (See Note 3)







48" DIAMOND WARNING SIGN



48" DIAMOND WARNING SIGN

SIGN SHAPE OTHER THAN DIAMOND (TWO POSTS REQUIRED)		
	L	E
***	Greater than 48" Less than 60"	12"
	60" to 108"	L/5

SIGN SHAPE OTHER THAN DIAMOND (THREE POSTS REQUIRED)	
L	E
Greater than 108" to 144"	12"

GENERAL NOTES

1. For 3 or 4 post installations, individual post spacing shall be greater than 3'-6".
2. See tables below for required number of posts.
3. For expressways and freeways, mounting height is 7'-3" (±) 3" or 6'-3" (±) 3" depending upon existence of sub-sign.
4. The (±) tolerance for mounting height is 3 inches.
5. J-Assemblies are considered to be one sign for mounting height.
6. Offset distance shall be consistent with existing signs or consistent throughout length of project.
7. Folding signs shall be mounted at a height of 5'-3" (±) 3" or as directed by the engineer.
8. The Double Arrow sign (W12-1) shall be mounted at a height of 2'-3" (±) 3". The Chevron sign (W1-8), Roundabout Chevron panel (R6-4B), Clearance Markers (W5-52), Mile Markers (D10 series), In Road Object Markers (W5-54) & End of Road Markers (W5-56) shall be mounted at a height of 4"-3" (±) 3".

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

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

*** See A4-3 sign plate for signs 4' or less in width and less than 20 S.F. in area.

POST EMBEDMENT DEPTH

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

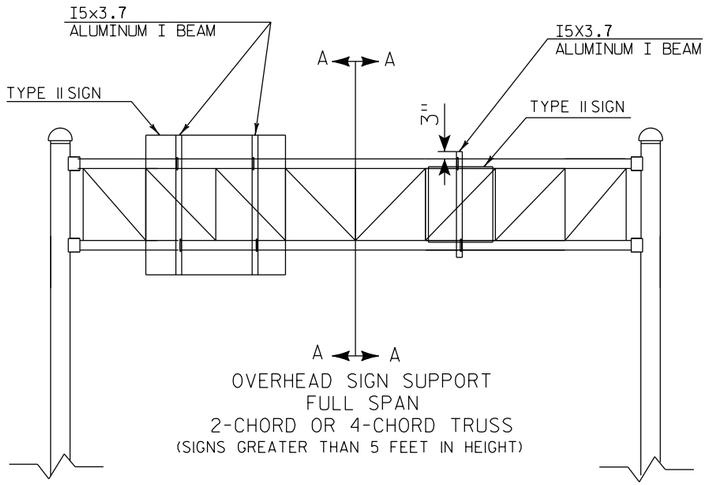
TYPICAL INSTALLATION OF TYPE II SIGNS ON MULTIPLE POSTS

WISCONSIN DEPT OF TRANSPORTATION

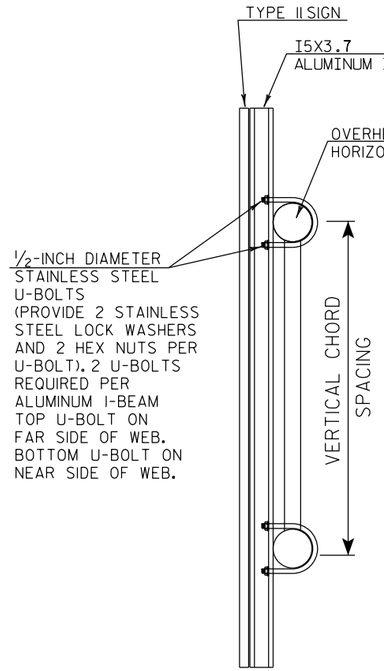
APPROVED Matthew R Rauch
for State Traffic Engineer

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

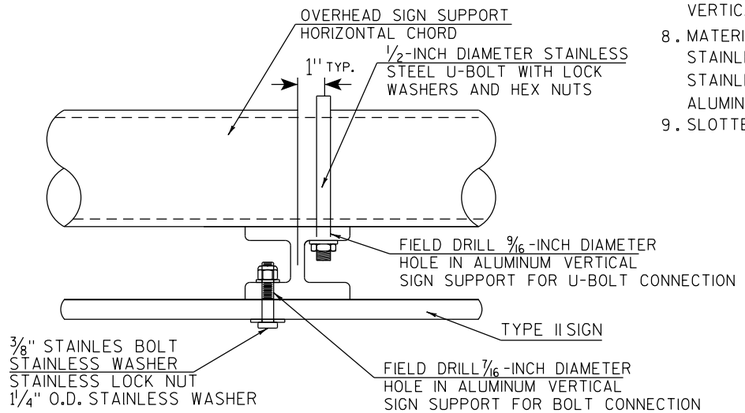
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 380	E



OVERHEAD SIGN SUPPORT
FULL SPAN
2-CHORD OR 4-CHORD TRUSS
(SIGNS GREATER THAN 5 FEET IN HEIGHT)



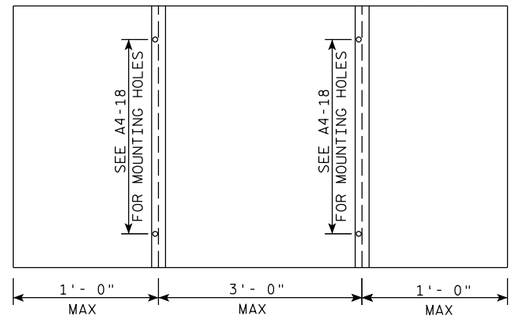
CUT SECTION A-A



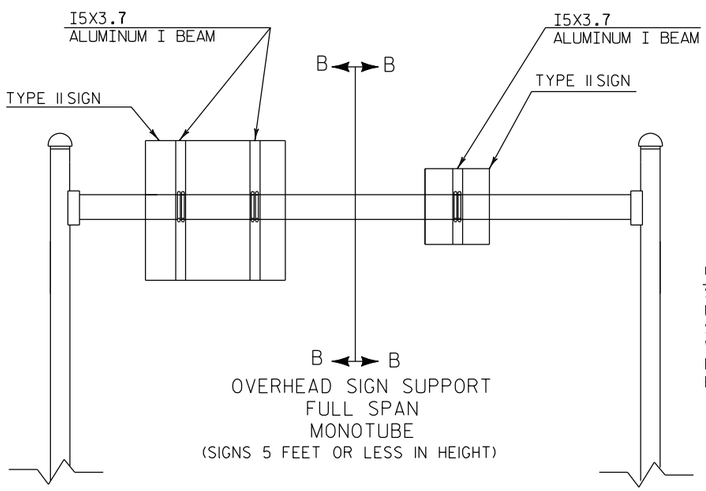
TYPICAL SIGN CONNECTION FOR
2-CHORD OR 4-CHORD TRUSS
PLAN VIEW

GENERAL NOTES

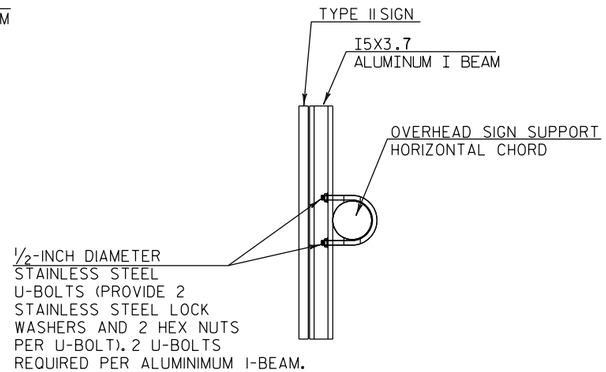
1. USE STAINLESS STEEL U-BOLTS, WASHERS, AND NUTS.
2. USE STAINLESS BOLTS AT BOLT HOLES IN SIGN PANEL PER SIGN PLATE A4-18.
3. USE ALUMINUM VERTICAL SIGN SUPPORT BEAMS HAVING A 5 INCH BEAM DEPTH AND WEIGHT OF 3.7 LBS PER FOOT.
4. U-BOLTS SHALL BE STAINLESS STEEL AND MANUFACTURED TO THE PROPER SIZE TO FIT THE CHORDS OF THE OVERHEAD SIGN STRUCTURE.
5. DIAMETER OF U-BOLTS SHALL BE AS SHOWN.
6. THE LENGTH OF THE ALUMINUM VERTICAL SIGN SUPPORT BEAMS SHALL BE THE SAME AS THE HEIGHT OF THE SIGN THEY ARE SUPPORTING. BEAM LENGTHS MAY BE LONGER FOR PROPER ATTACHMENT TO CHORDS.
7. SEE DETAIL BELOW FOR SPACING OF ALUMINUM VERTICAL SIGN SUPPORTS
8. MATERIAL NOTES:
   STAINLESS STEEL U-BOLTS, BOLTS, AND LOCKWASHERS ASTM 304.
   STAINLESS STEEL HEX NUTS ASTM A276.
   ALUMINUM I-BEAMS ARE 6061-T6.
9. SLOTTED HOLES IN I-BEAMS ARE NOT ALLOWED



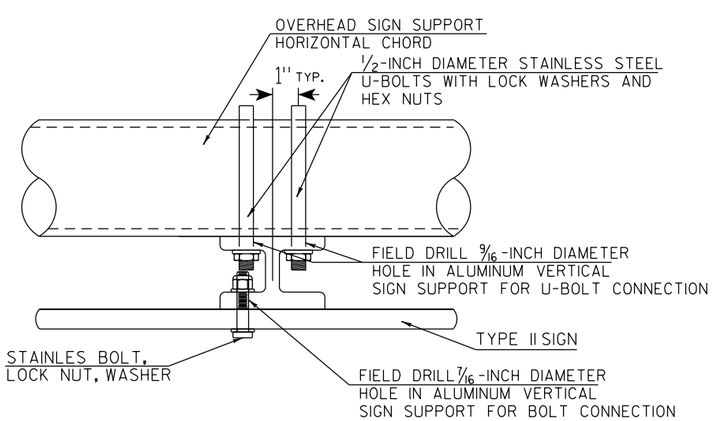
SPACING OF I5X3.7 ALUMINUM
MULTIPLE VERTICAL SIGN SUPPORTS



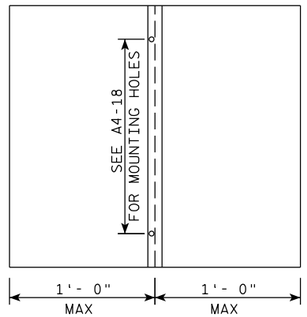
OVERHEAD SIGN SUPPORT
FULL SPAN
MONOTUBE
(SIGNS 5 FEET OR LESS IN HEIGHT)



CUT SECTION B-B



TYPICAL SIGN CONNECTION FOR
MONOTUBE
PLAN VIEW



SPACING OF I5X3.7 ALUMINUM
SINGLE VERTICAL SIGN SUPPORT

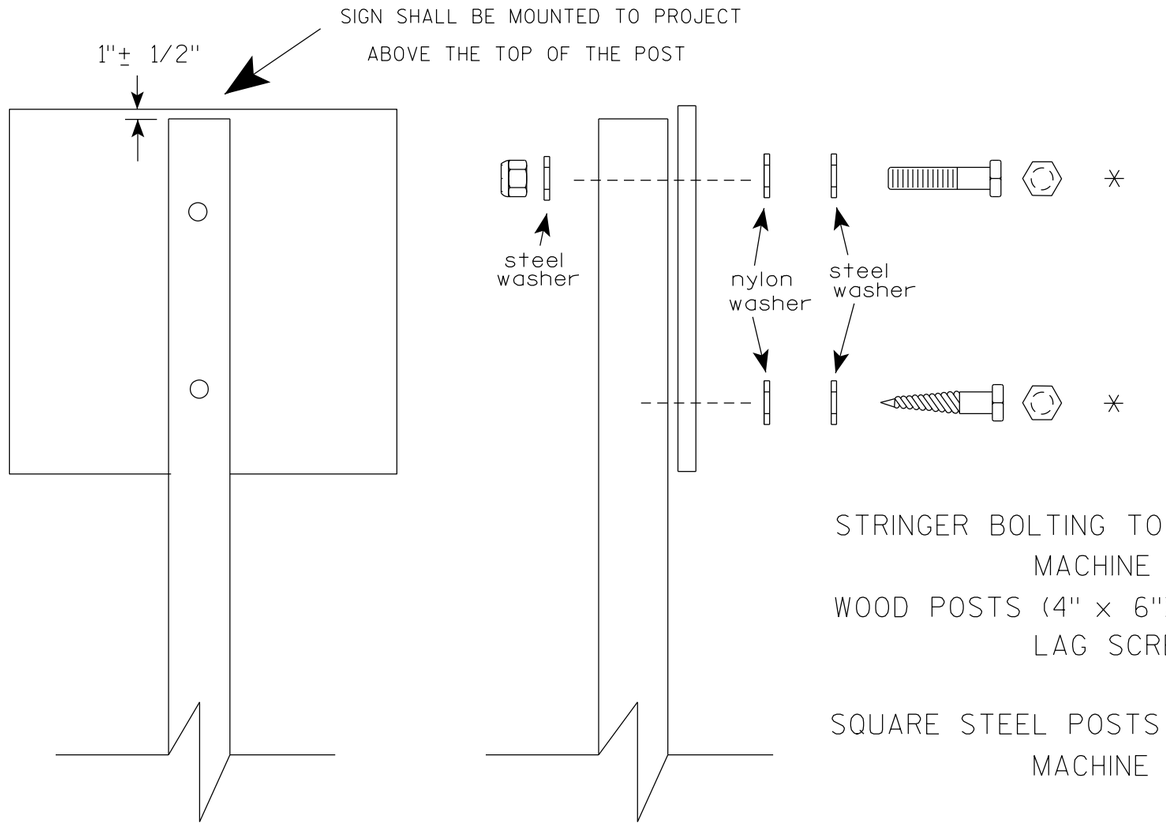
TYPE II SIGN CONNECTION
TO OVERHEAD SIGN SUPPORT

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/07/20 PLATE NO. A4-7B.1

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 381	E



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

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

b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3.

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

STRINGER BOLTING TO ALUMINUM SIGNS (SEE SIGN PLATE A4-18)

MACHINE BOLTS - 5/16" X 1-3/4" Length w/ lock nuts

WOOD POSTS (4" x 6")

LAG SCREWS - 3/8" X 3" (NO STRINGERS ON BACK OF SIGN)
3/8" X 4" (STRINGERS ON BACK OF SIGN)

SQUARE STEEL POSTS (2" x 2")

MACHINE BOLTS - 3/8" X 3-1/4" Length w/ nuts (NO STRINGER ON BACK OF SIGN)
3/8" X 5" Length w/ nuts (STRINGERS ON BACK OF SIGN)

RIVETS - 9/32" (6605-9-6) BULB-TITE, TRI-FOLD, ALUMINUM BODY/MANDREL
O.D. FLANGE .720-.765 INCH, GRIP RANGE .042-.375 INCH

WASHERS (ALL POSTS) -

1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON

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

ATTACHMENT OF SIGNS TO POSTS

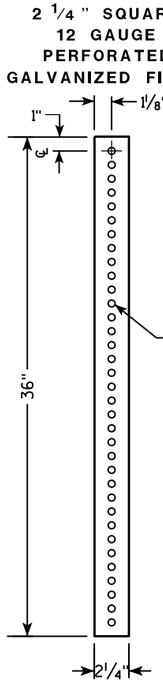
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

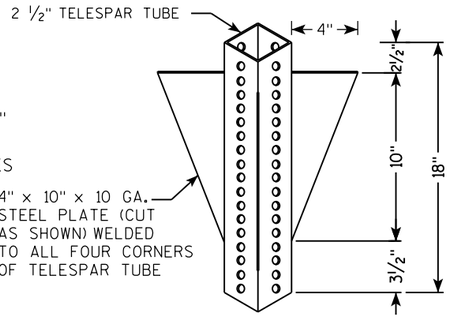
DATE 4/1/2020 PLATE NO. A4-8.9

TELESCOPIC TUBING ANCHORS
TWO PIECE SYSTEM

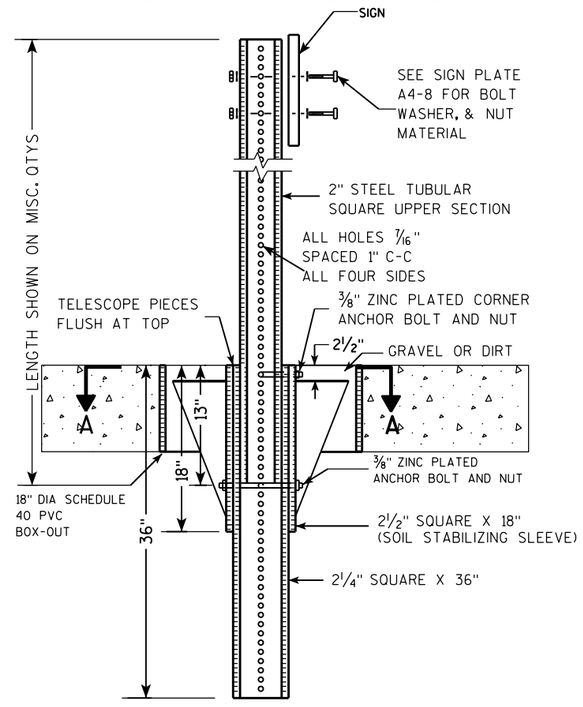
2 1/4 " SQUARE
12 GAUGE
PERFORATED
GALVANIZED FINISH



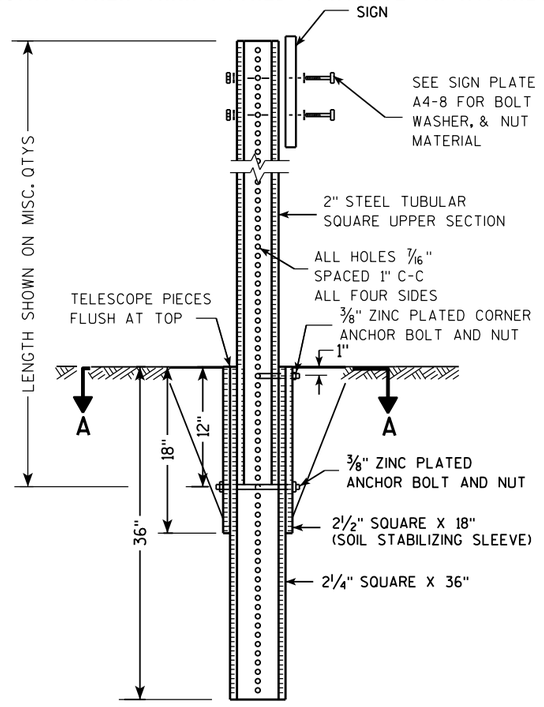
2 1/2 " SQUARE
12 GAUGE
OMNI-DIRECTIONAL
PERFORATED
SOIL STABILIZING SLEEVE
GALVANIZED FINISH

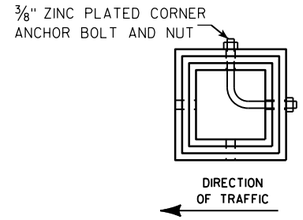


DETAIL OF TUBULAR STEEL SIGN POST
(IN POURED CONCRETE OR ASPHALT)



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

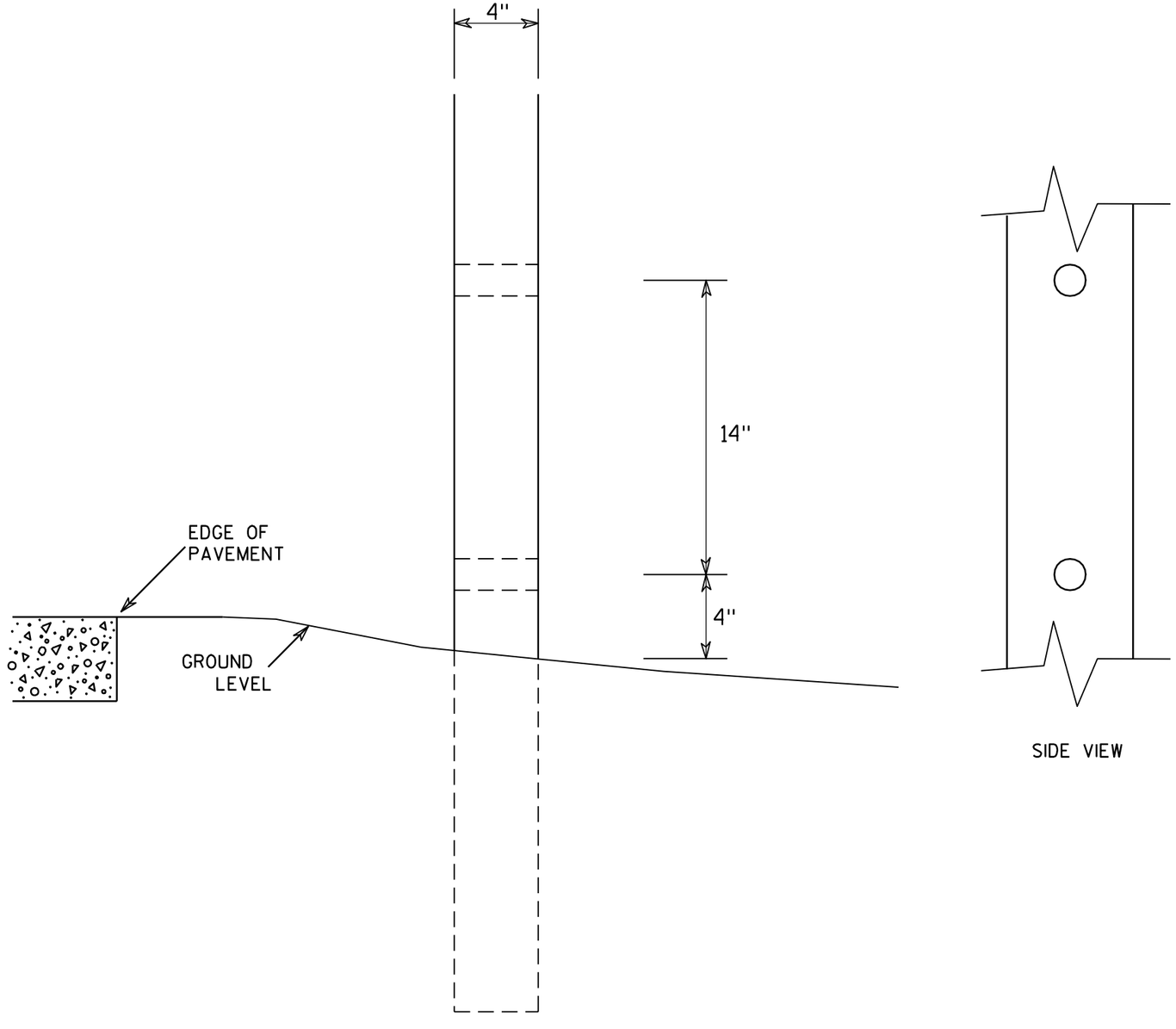
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/05/15 PLATE 383 A4-9.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\A49.DGN PLOT DATE : 05-FEB-2015 17:09 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 13.659812:1.000000

WISDOT/CADDS SHEET 42



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.

4 X 6 WOOD POST MODIFICATIONS

WISCONSIN DEPT OF TRANSPORTATION

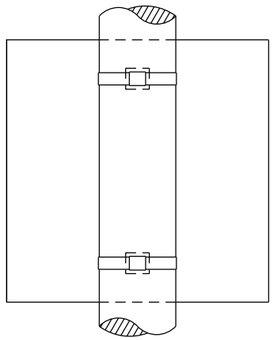
APPROVED Chester J Spang for State Traffic Engineer

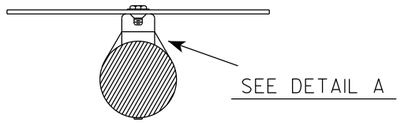
DATE 3/27/97 PLATE NO. A4-11.2

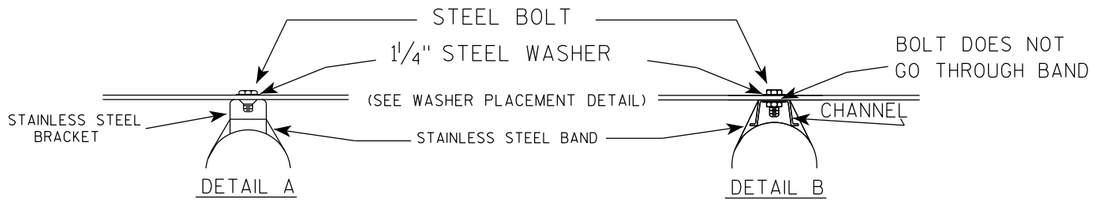
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 384	E

BANDING

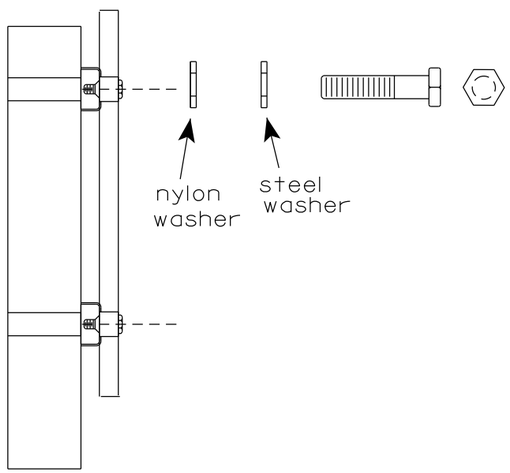
SINGLE SIGN







WASHER PLACEMENT

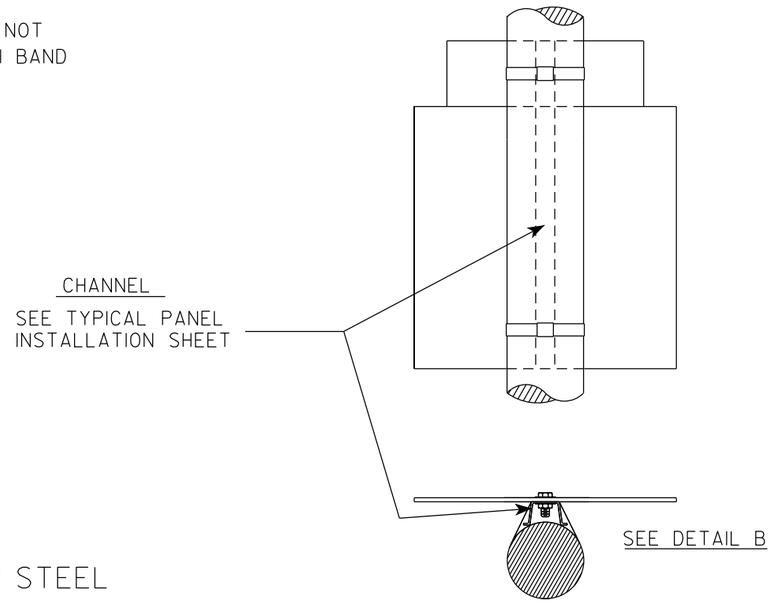


WASHERS (ALL POSTS) -
1-1/4" O.D. X 3/8" I.D. X 1/16" STEEL
1-1/4" O.D. X 3/8" I.D. X .080 NYLON
FOR ALL TYPE H SIGNS

GENERAL NOTES

1. Any sign over 3 feet in width shall use the V-Block banding method. See A5-10 standard plate.
2. Signs 3 feet or greater in height shall have three bracket bands installed. Signs less than 3 feet in height shall have two bracket bands installed.
3. Banding and assembly bracket shall be stainless steel. All bands shall be ¾" in width and 0.025" thickness.
4. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM designation: B 633, Type III, SC 3

"J" ASSEMBLY



STANDARD SIGN
SIGN BANDING DETAILS

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

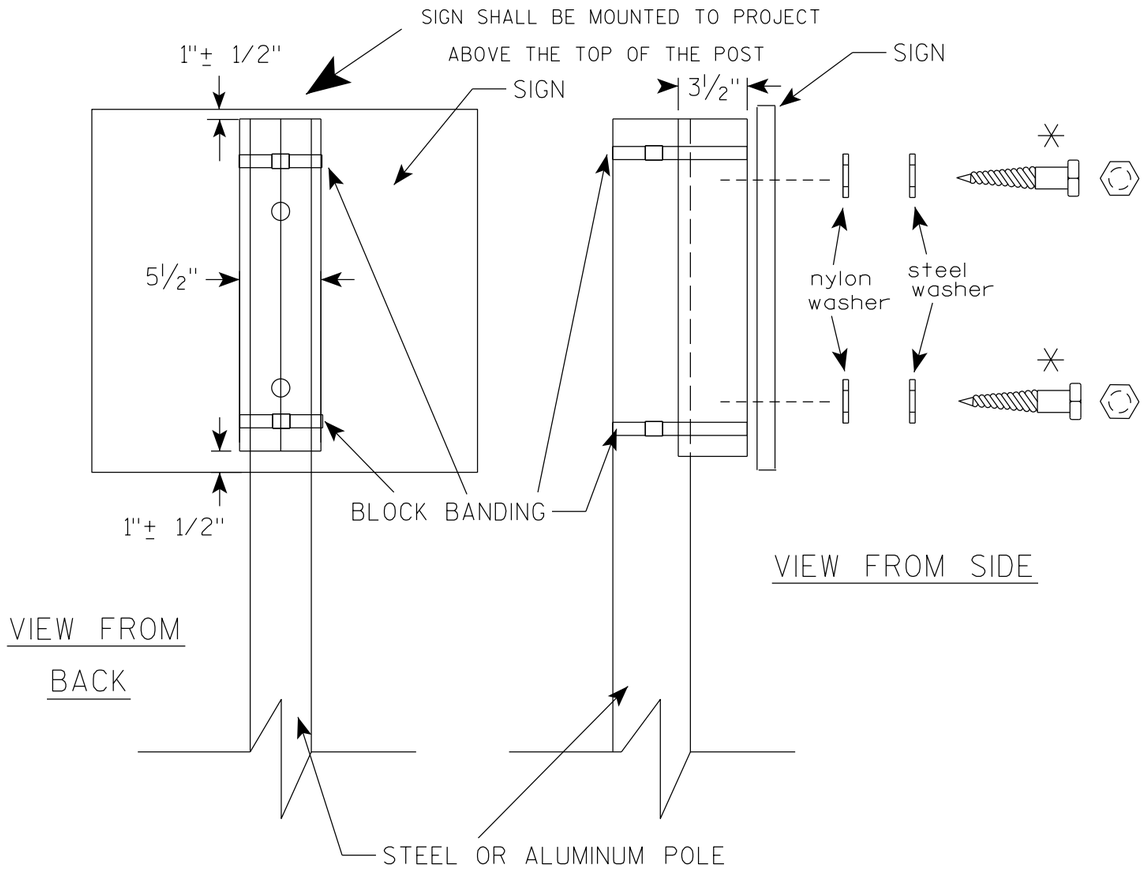
DATE 6/10/19 PLATE NO. A5-9.4

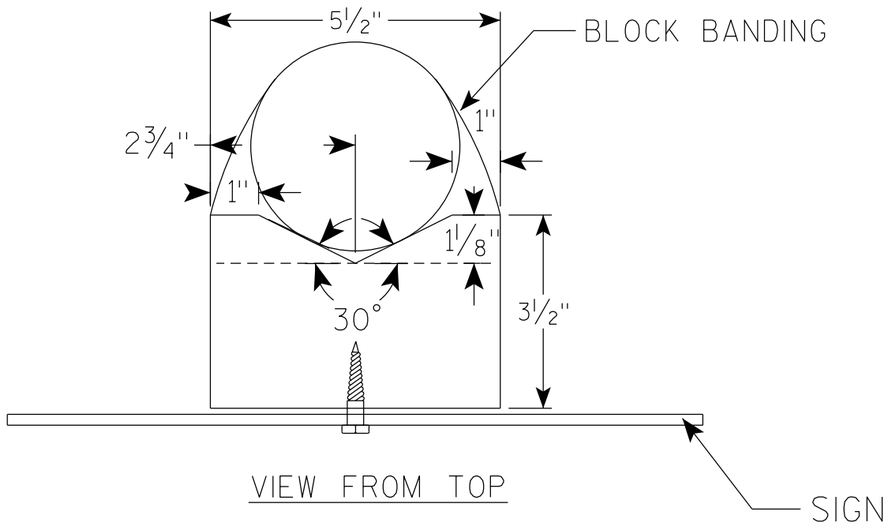
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 385	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\A59.dgn PLOT DATE : 10-JUN 2019 4:10 PLOT BY : mscj9h PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7





GENERAL NOTES

1. WOOD 4"X6" POST MATERIAL SHALL CONFORM TO 507.2.2 OF THE WisDOT STANDARD SPECIFICATIONS
2. BLOCK BANDING AND CLIPS SHALL BE STAINLESS STEEL, ¾" WIDTH AND 0.025" THICKNESS
3. SIGNS 3' OR GREATER IN HEIGHT SHALL UTILIZE 3 BLOCK BANDS. SIGNS UNDER 3' IN HEIGHT SHALL UTILIZE 2 BLOCK BANDS
4. ACTUAL NUMBER OF FASTENERS PER SIGN VARIES WITH THE SIGN AREA, BUT NORNALLY THERE ARE TWO. FOR SIGNS GREATER THAN 9 S.F. 3 FASTENERS SHALL BE USED.
5. ALL SIGN MOUNTING BOLTS AND WASHERS SHALL BE EITHER:
   a. Hot dip or mechanically galvanized in accordance with ASTM Designation: A 153, Class D
   b. Electro-galvanized in accordance with ASTM Designation : B 633, TYPE III, SC 3
6. ALL BOLTS SHALL HAVE HEXAGONAL HEADS.
7. STEEL WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X 1/16"
8. NYLON WASHERS SHALL BE 1¼" O.D. X ⅜" I.D. X .080 FOR TYPE H OR TYPE F FACE SIGN

✳ LAG BOLTS SHALL BE ⅜" X 2½"

BLOCK BANDING DETAIL (V-BLOCK OPTION)

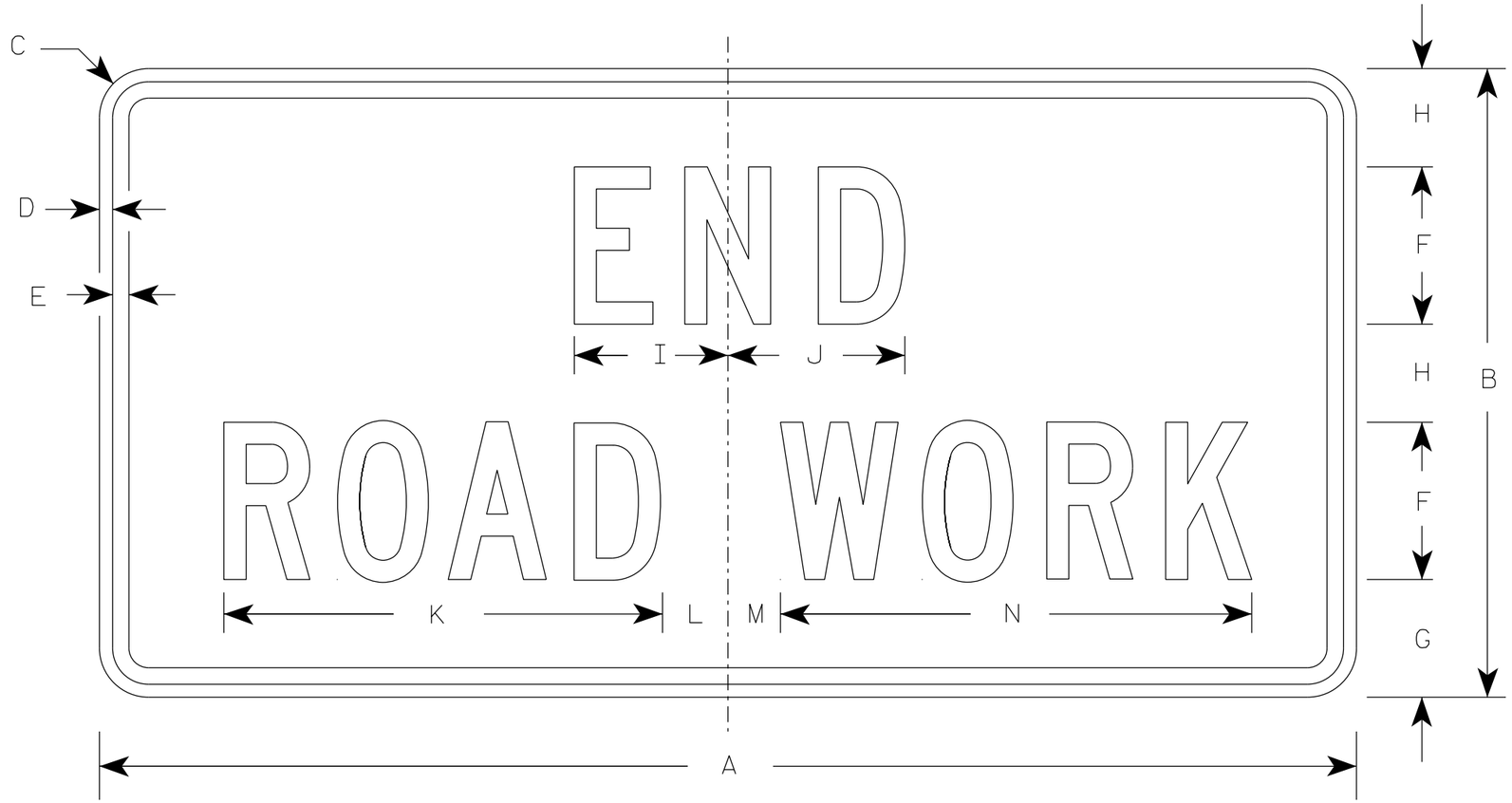
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO:

SHEET NO: 386 E



G20-2A

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	18	1 1/2	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
2	48	24	1 7/8	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
2M	48	24	1 7/8	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
3	48	24	1 7/8	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
4	48	24	1 7/8	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
5	48	24	1 7/8	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

STANDARD SIGN

G20-2A

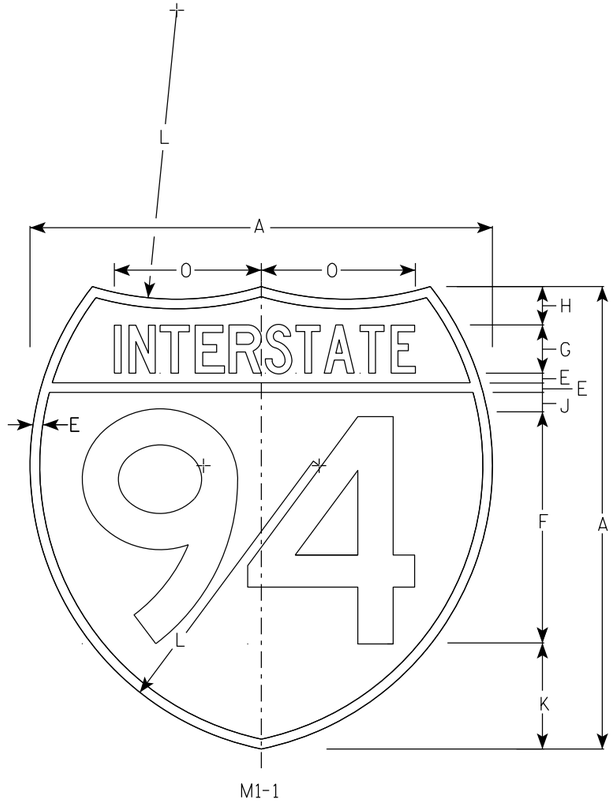
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

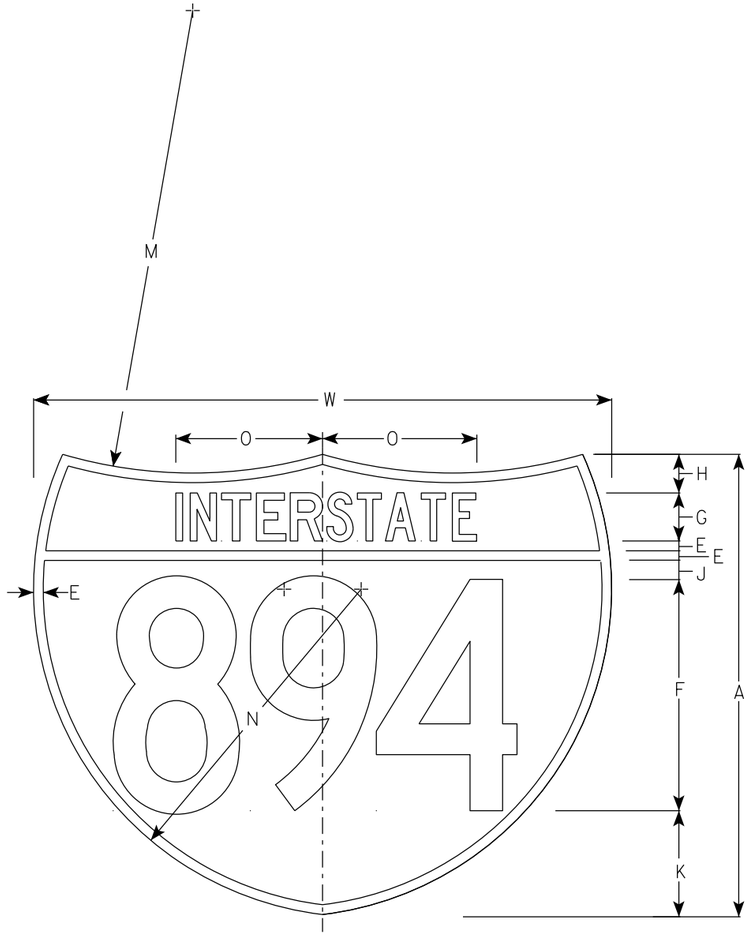
DATE 1/26/2023 PLATE NO. G20-2A.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 387 E

7



M1-1



M1-1A

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - Top Red - Bottom Blue
   Message - White
3. Message Series - See note 5
4. Substitute appropriate numerals & ajust spacing as per plate A10-1.
5. M1-1 - Numerals - D
   Interstate - C
   M1-1A - All copy - C

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	M1-1 Area sq. ft.	M1-1A Area sq. ft.
1																											
2	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91
2M	24				1/2	12	2 1/2	2		1	5 1/2	15	24	17	7 7/8								30			3.13	3.91
3	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79
4	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79
5	36				3/4	18	3 3/4	3		1 1/2	8 1/4	22 1/2	36	25 1/2	11 3/4								45			7.03	8.79

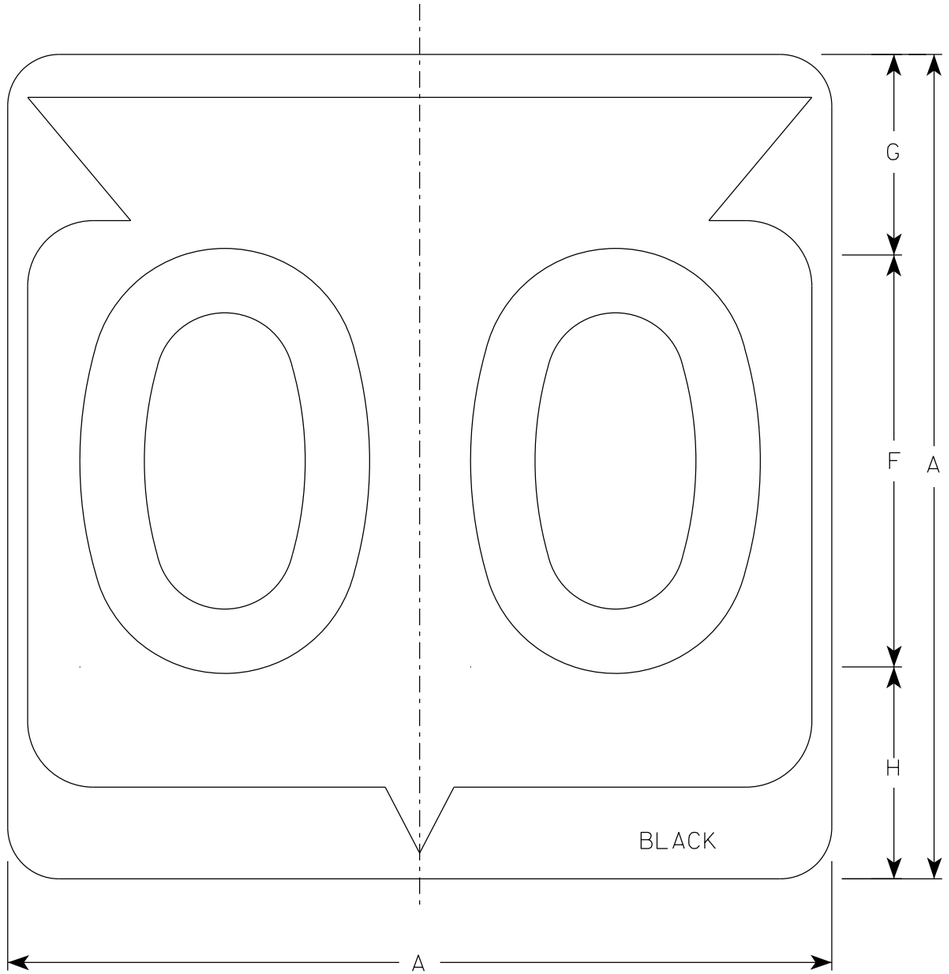
INTERSTATE ROUTE MARKER M1-1 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

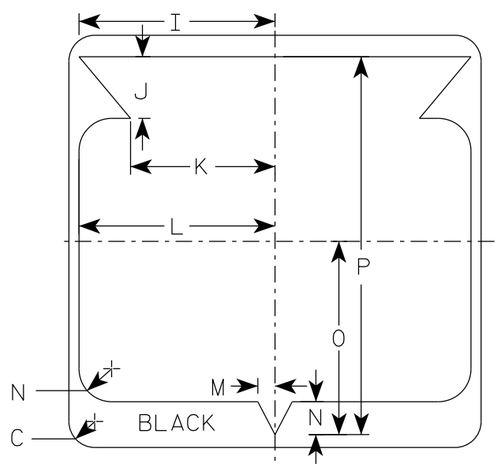
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 11/7/2022 PLATE NO. M1-1.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 388 | E



M1-6



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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
2M	24		1 1/2			12	5 1/2	6 1/2	10 1/4	2 1/2	8 7/8	11 1/2	1	1 7/8	11 1/4	21 7/8											4.0
3	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
4	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0
5	36		2 1/4			18	8 3/4	9 1/4	15 3/8	5 3/8	12 5/8	17 1/8	1 1/2	2 7/8	16 7/8	33											9.0

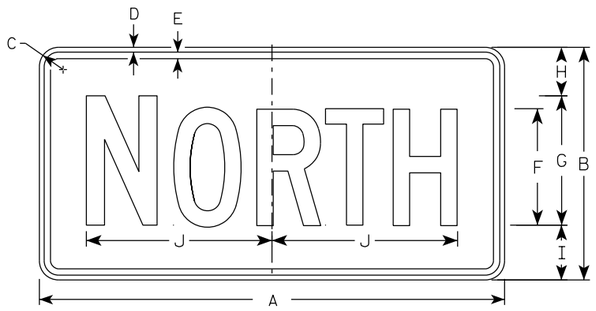
STATE ROUTE MARKER
M1-6 FOR ASSEMBLIES

WISCONSIN DEPT OF TRANSPORTATION

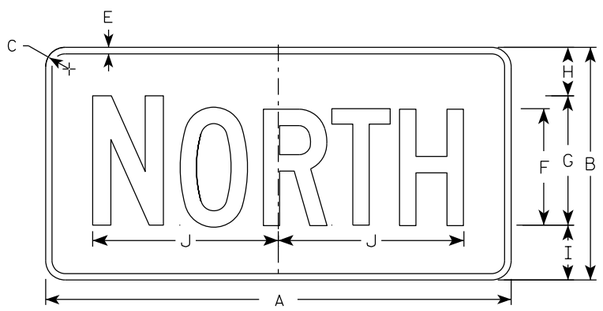
APPROVED Matthew R Rauch
for State Traffic Engineer

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

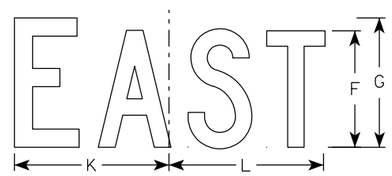
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 389	E



M3-1
MM3-1
MP3-1



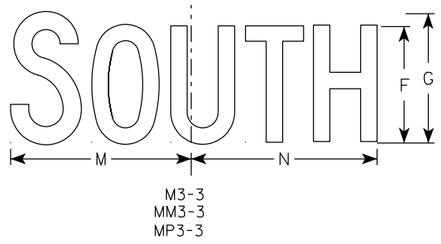
MB3-1
MK3-1
MN3-1



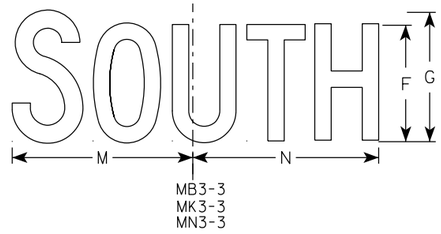
M3-2
MM3-2
MP3-2



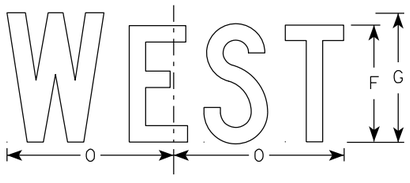
MB3-2
MK3-2
MN3-2



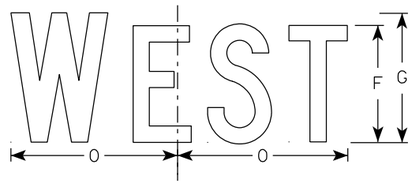
M3-3
MM3-3
MP3-3



MB3-3
MK3-3
MN3-3



M3-4
MM3-4
MP3-4



MB3-4
MK3-4
MN3-4

NOTES

1. All Signs Type II - Type H Reflective
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																											
2S	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
2M	24	12	1 1/2	3/8	3/8	6	7	2 1/4	2 3/4	10 1/4	7 7/8	8 3/8	10 1/4	9 3/4	8 3/4												2.00
3	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
4	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5
5	36	18	1 1/2	3/8	1/2	9	10	3 3/4	4 1/4	14 3/8	12	12 1/8	14	14 1/8	13												4.5

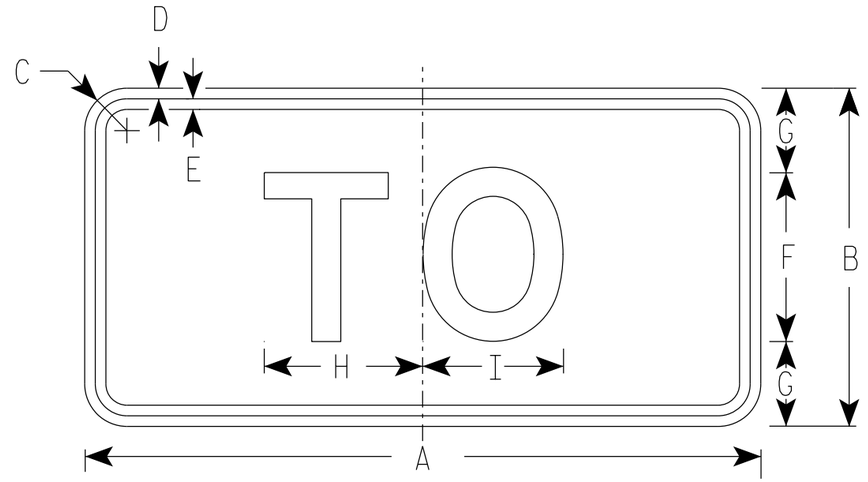
STANDARD SIGNS
M3-1 THRU M3-4
SERIES

WISCONSIN DEPT OF TRANSPORTATION

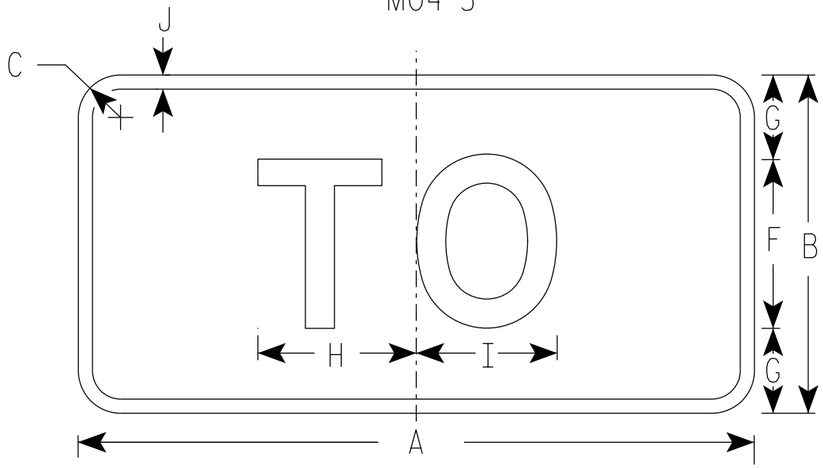
APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 390 | E



M4-5
MM4-5
MP4-5
M04-5



MB4-5
MK4-5
MN4-5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See note 5
   Message - See note 5
3. Message Series - E
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. M4-5 Background - White
   Message - Black
   MB4-5 Background - Blue
   Message - White
   MK4-5 Background - Green
   Message - White
   MM4-5 Background - White
   Message - Green
   MN4-5 Background - Brown
   Message - White
   MP4-5 Background - White
   Message - Blue
   M04-5 Background - Orange Type F Reflective
   Message - Black

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 1/2	3/8	3/8	6	3	5 3/8	5 1/4	1/2																	2.00
2M	24	12	1 1/2	3/8	3/8	6	3	5 3/8	5 1/4	1/2																	2.00
3	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																	4.5
4	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																	4.5
5	36	18	1 1/2	3/8	1/2	9	4 1/2	8 1/4	8 3/8	1/2																	4.5

STANDARD SIGN
M4-5

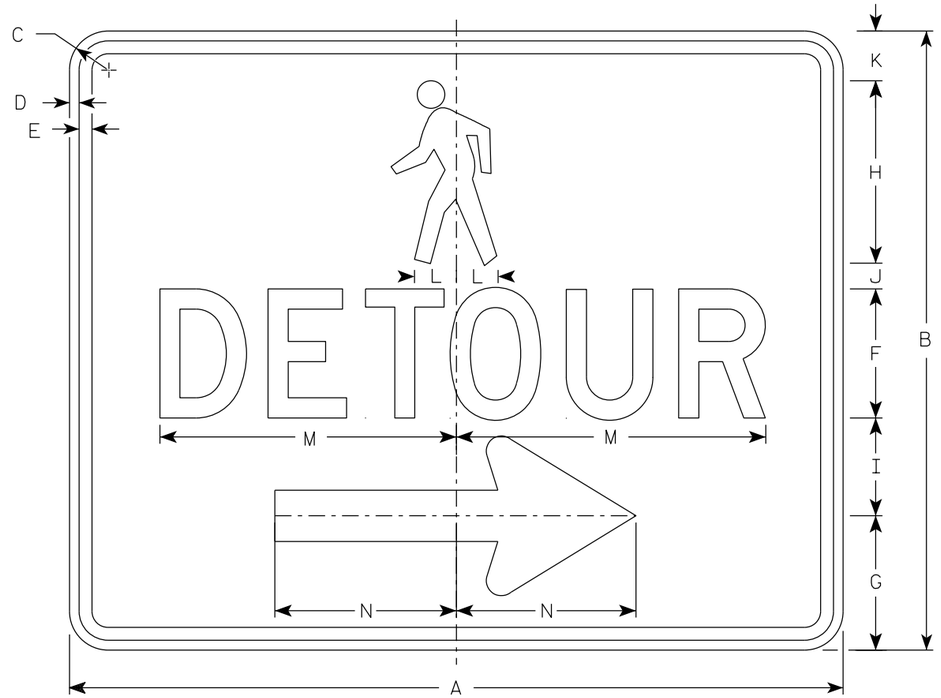
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/8/2023 PLATE NO. M4-5.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 391 E

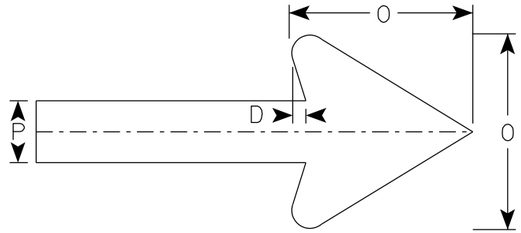
7



M4-9BR

NOTES

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



Arrow Detail

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
2M	30	24	1 1/2	3/8	1/2	5	5 1/4	7 1/8	3 3/4	1	1 1/8	1 5/8	11 3/4	7	6	2											5.0
3																											
4																											
5																											

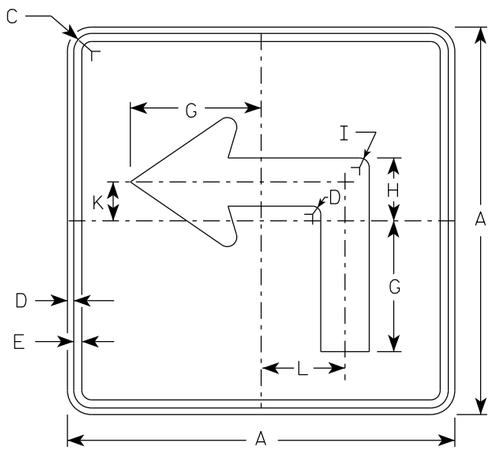
STANDARD SIGN
M4-9B L&R

WISCONSIN DEPT OF TRANSPORTATION

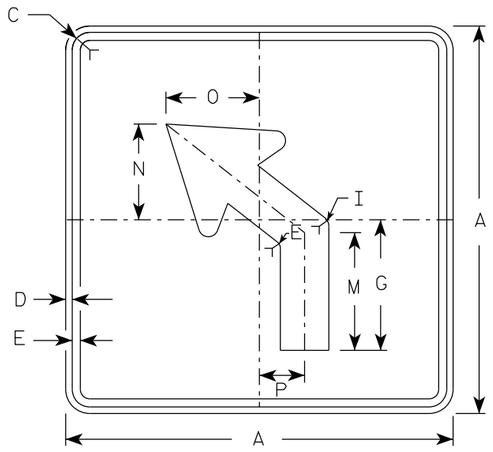
APPROVED Matthew R Rauch
For State Traffic Engineer

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

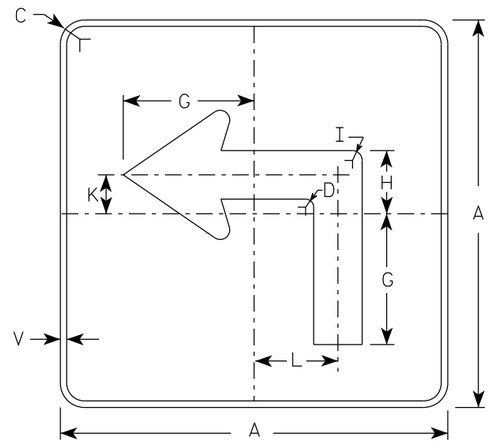
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 392 | E



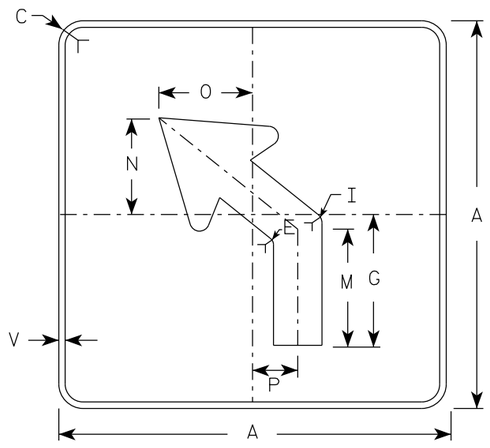
M5-1L
MM5-1L
MO5-1L
MP5-1L



M5-2L
MM5-2L
MO5-2L
MP5-2L



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

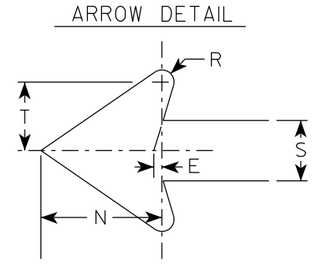


MB5-2L
MK5-2L
MN5-2L
MR5-2L

NOTES

1. Signs are Type II - Type H reflective except as shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M5-1 and M5-2 Background - White
   Message - Black
   MB5-1 and MB5-2 Background - Blue
   Message - White
   MK5-1 and MK5-2 Background - Green
   Message - White
   MM5-1 and MM5-2 Background - White
   Message - Green
   MN5-1 and MN5-2 Background - Brown
   Message - White
   MO5-1 and MO5-2 Background - Orange - Type F Reflective
   Message - Black
   MP5-1 and MP5-2 Background - White
   Message - Blue
   MR5-1 and MR5-2 Background - Brown
   Message - Yellow
5. M5-1R same as M5-1L except arrow points right.
6. M5-2R same as M5-2L except arrow tilts right.

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
2M	21		1 1/2	3/8	3/8		7	3 3/8	5/8		2 1/8	4 1/2	6 3/8	5 1/4	5	2 1/2		1/2	2 5/8	3		1/2					3.06
3	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
4	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25
5	30		1 7/8	1/2	5/8		10 1/8	4 7/8	7/8		3	6 1/2	9 1/8	7 1/2	7 1/4	3 1/2		3/4	3 3/4	4 1/4		1/2					6.25

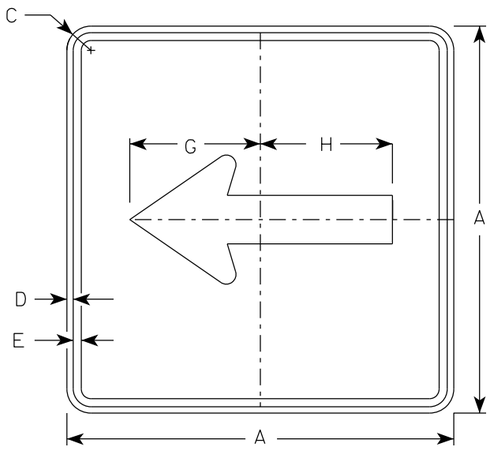
STANDARD SIGN
M5-1 & M5-2

WISCONSIN DEPT OF TRANSPORTATION

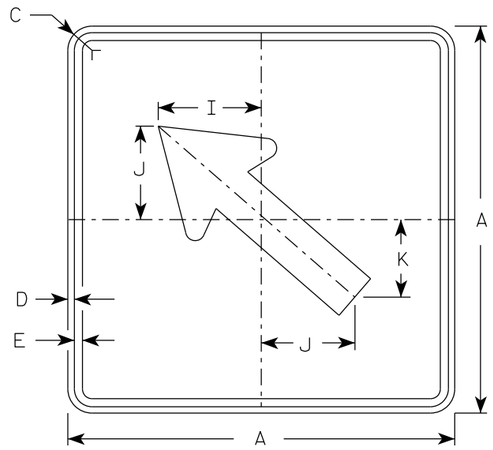
APPROVED Matthew R Rauch
for State Traffic Engineer

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

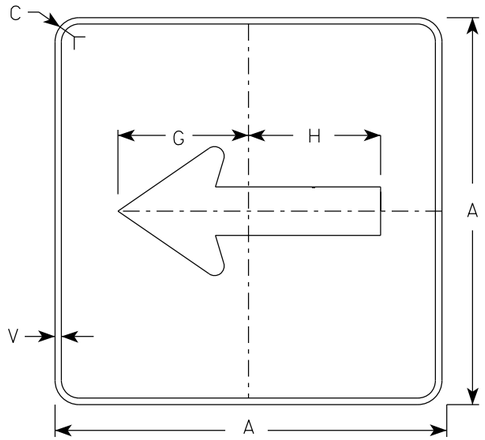
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 393 | E



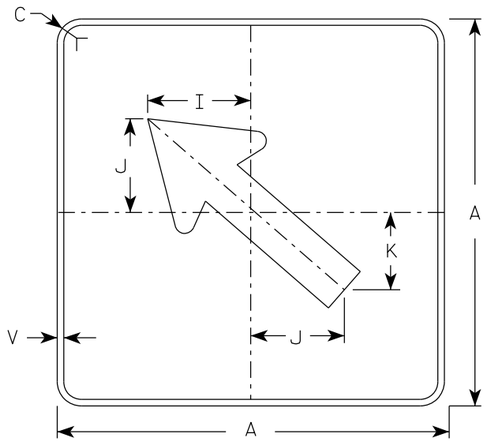
M6-1
MM6-1
MO6-1
MP6-1



M6-2
MM6-2
MO6-2
MP6-2



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

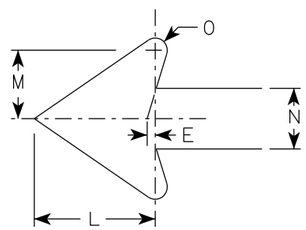


MB6-2
MK6-2
MN6-2
MR6-2

NOTES

1. Signs are Type II - Type H Reflective except as Shown
2. Color:
   Background - See note 4
   Message - See note 4
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. M6-1 and M6-2 Background - White
   Message - Black
   MB6-1 and MB6-2 Background - Blue
   Message - White
   MK6-1 and MK6-2 Background - Green
   Message - White
   MM6-1 and MM6-2 Background - White
   Message - Green
   MN6-1 and MN6-2 Background - Brown
   Message - White
   MO6-1 and MO6-2 Background - Orange - Type F Reflective
   Message - Black
   MP6-1 and MP6-2 Background - White
   Message - Blue
   MR6-1 and MR6-2 Background - Brown
   Message - Yellow

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
2M	21		1 1/2	3/8	3/8		7 1/2	7 1/8	5 5/8	5	4 1/4	5 1/4	3	2 5/8	1/2							1/2					3.06
3	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
4	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25
5	30		1 7/8	1/2	5/8		10 3/4	10 1/4	8	7 1/4	6	7 1/2	4 1/4	3 3/4	3/4							1/2					6.25

STANDARD SIGN
M6-1 & M6-2
SERIES

WISCONSIN DEPT OF TRANSPORTATION

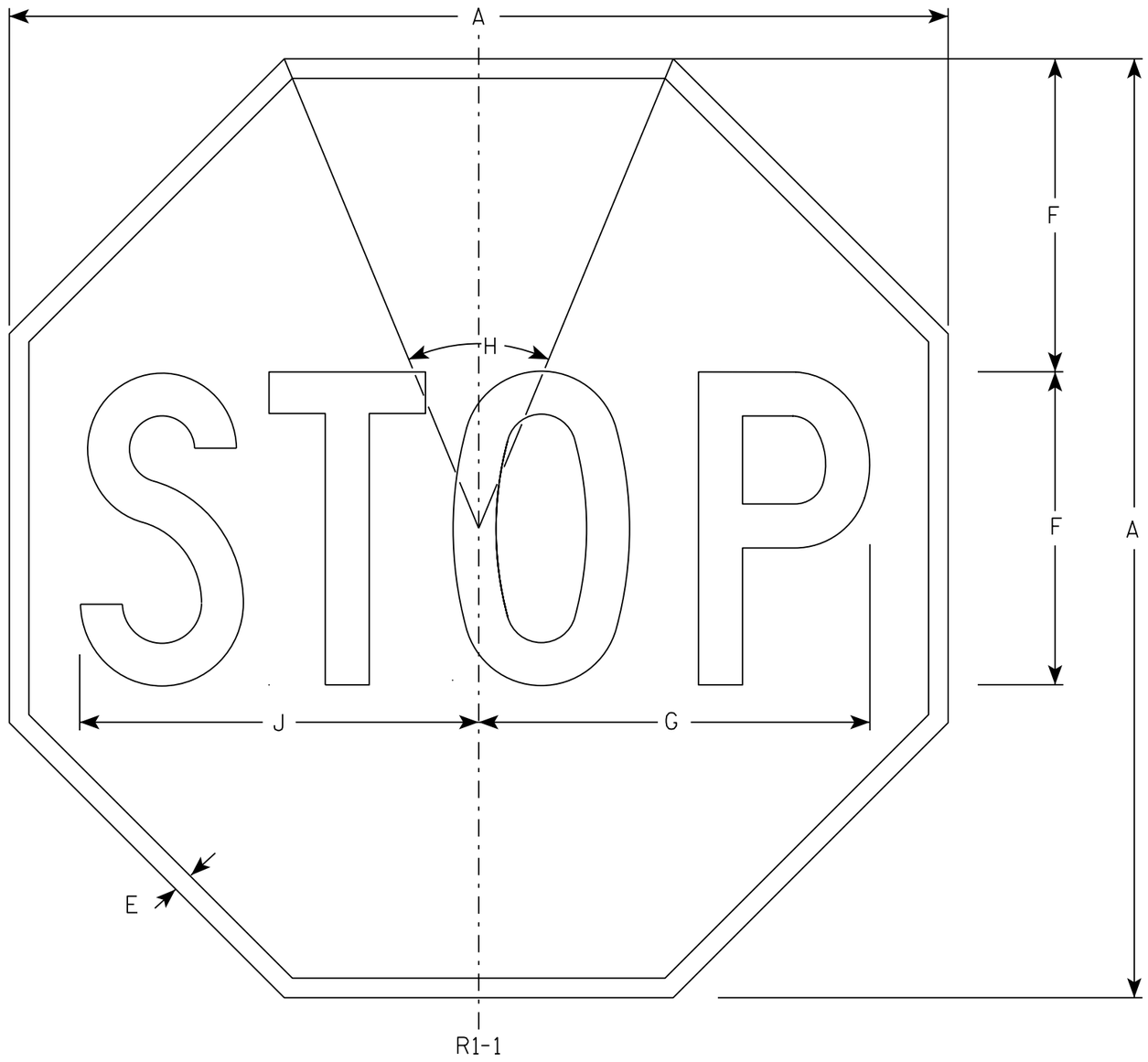
APPROVED Matthew R Rauch
For State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 394 | E

7

7



NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message 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	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2S	30				5/8	10	12 1/2	45°		12 3/4																	5.18
2M	36				3/4	12	15	45°		15 3/8																	7.46
3	36				3/4	12	15	45°		15 3/8																	7.46
4	48				1	16	20	45°		20 1/2																	13.25
5	48				1	16	20	45°		20 1/2																	13.25
6	18				3/8	6	7 3/4	45°		7 3/4																	1.86
7	12				1/4	4	5	45°		5 1/8																	0.78

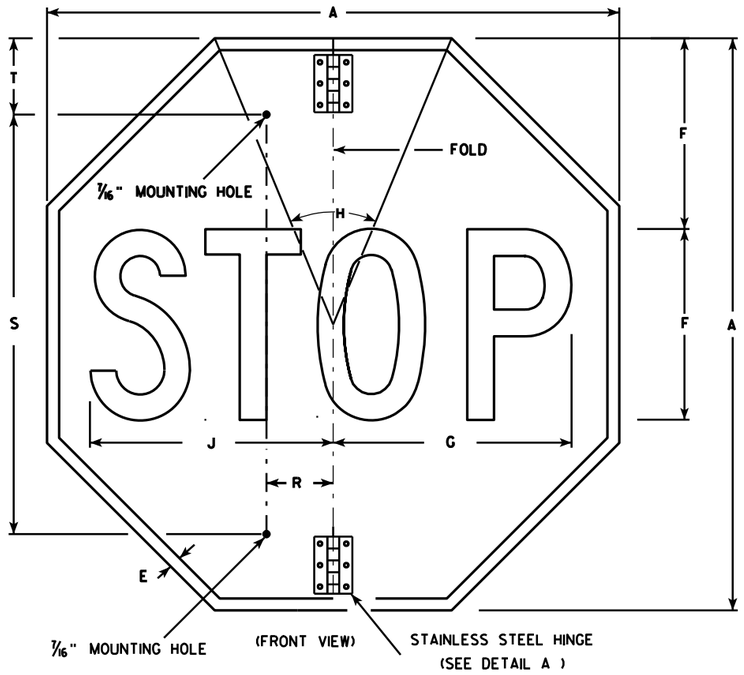
STANDARD SIGN
R1-1

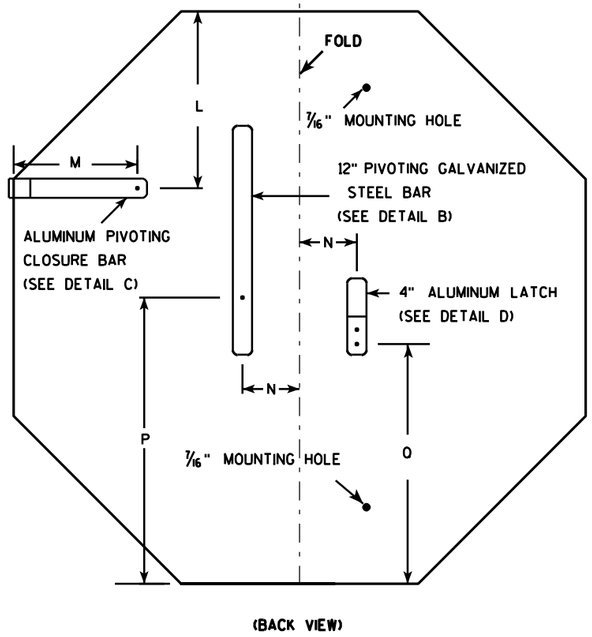
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/12/15 PLATE NO. R1-1.13

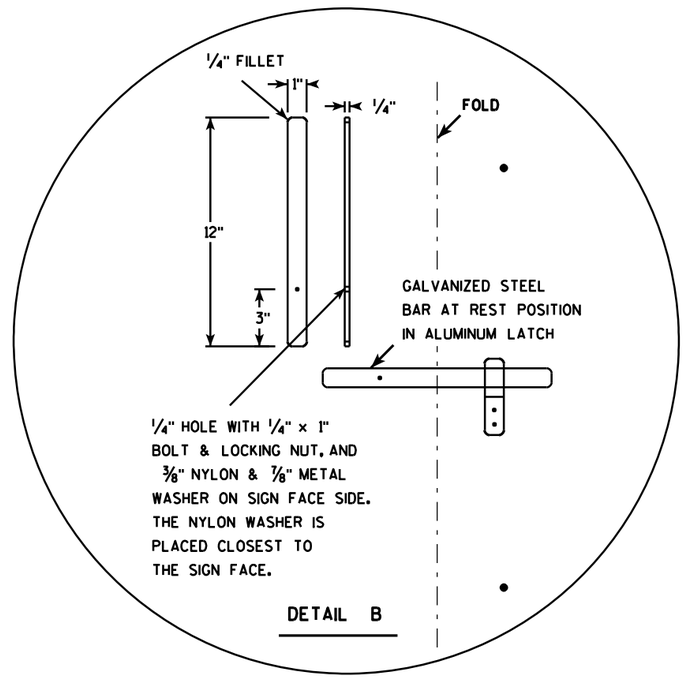
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 395	E

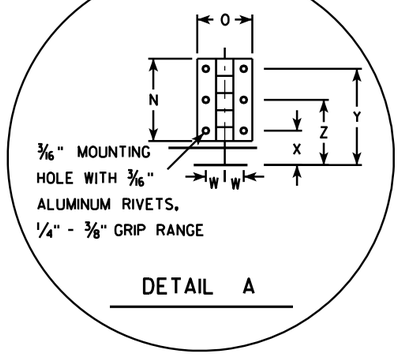


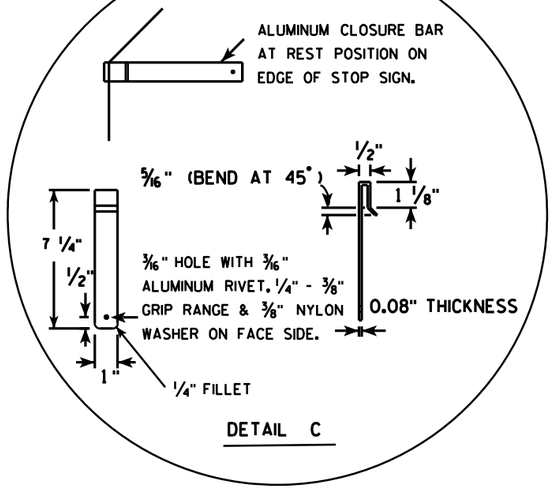


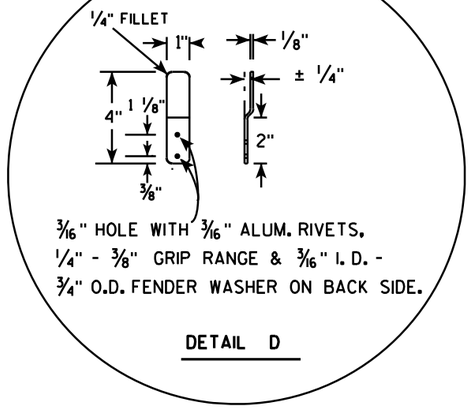
NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - Red
   Message - White
3. Message Series - C
4. All hardware used on the folding STOP sign installation shall conform to 637.2.4 of the WIS DOT Standard Specification.









SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	O	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30				5/8	10	12 1/2	45		12 3/4		9 1/4	6 1/2	3	2	15	12 3/8	2 1/2	22	5			11/16	1 1/4	3 1/2	2 3/8	5.18
2M	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
3	36				3/4	12	15	45		15 3/8		11	6 1/2	3	2	18	15 3/8	2 1/2	26	5			11/16	1 1/4	3 1/2	2 3/8	7.46
4																											
5																											

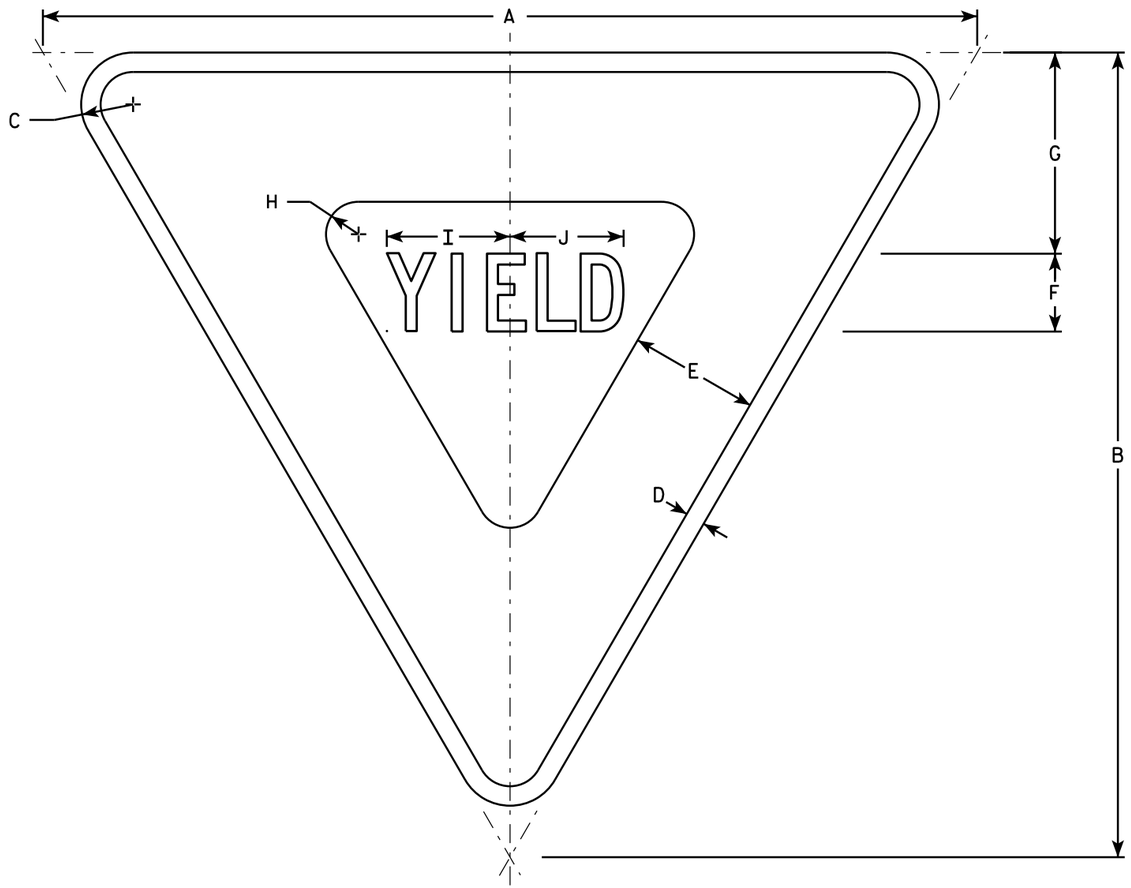
STANDARD SIGN
R1-1F

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 12/03/10 PLATE NO. R1-1F.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 396 | E



R1-2

NOTES

1. Sign is Type II - Type H Reflective - reference WIS DOT Standard Specification for HIGHWAY and STRUCTURE CONSTRUCTION latest edition.
2. Color:
   Background - White
   Message - See note 5
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. The border strip and word message are reflectorized red.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	26	1 1/2	5/8	4	2 1/2	6 3/8	7/8	4	3 5/8																	2.71
2S	36	31	2	3/4	5	3	7 3/4	1 1/4	4 3/4	4 3/8																	3.88
2M	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
3	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
4	48	42	3	1	6	4	9 3/4	2	6 1/4	5 7/8																	7.00
5	60	52	3	1 1/2	8	5	13	2 1/2	7 7/8	7 1/4																	10.83
6																											
7	18	15 1/2	1	3/8	2 1/2	1 1/2	3 7/8	5/8	2 3/8	2 1/4																	0.97

STANDARD SIGN
R1-2

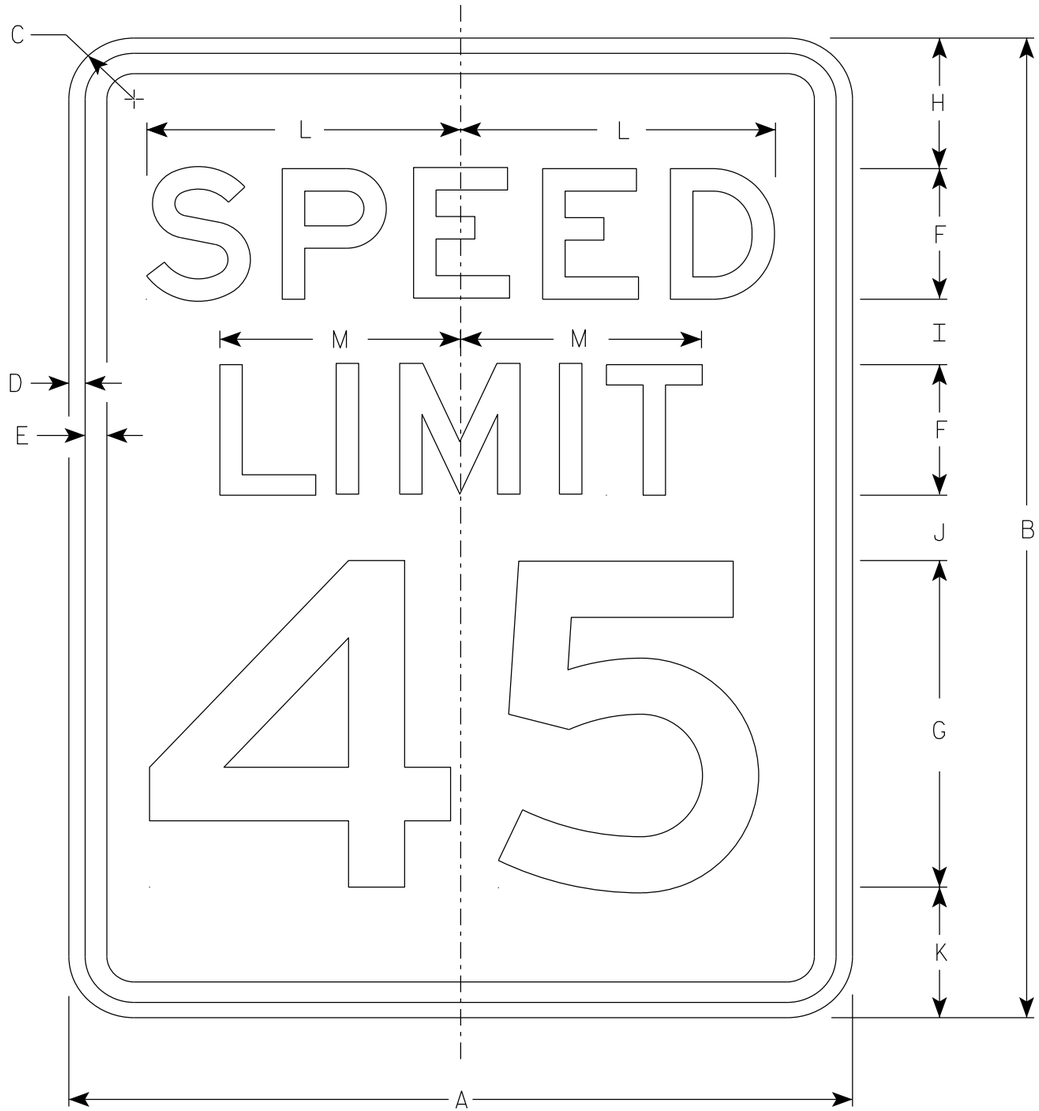
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/13/14 PLATE R1-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E

FILE NAME : C:\CAEFiles\Projects\tr_stdplate\R12.DGN PLOT DATE : 13-OCT-2014 15:12 PLOT BY : mscsja PLOT NAME : PLOT SCALE : 5.837526:1.000000
WISDOT/CADDS SHEET 42



R2-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - E
4. Substitute appropriate numerals and optically adjust spacing to achieve proper balance.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3	8	3	2	2	3	7 1/4	5 1/2														3.0
2S	24	30	1 1/2	3/8	1/2	4	10	3	2 1/4	3 3/8	3 3/8	9 5/8	7 3/8														5.0
2M	30	36	1 7/8	1/2	5/8	5	12	5	2 1/2	2 1/2	4	12	9 1/4														7.5
3	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
4	36	48	1 7/8	1/2	5/8	6	14	6	5	5	6	14 3/8	11														12.0
5	48	60	3	3/4	1	8	20	6	4 1/2	6 3/4	6 3/4	19 1/4	14 5/8														20.0

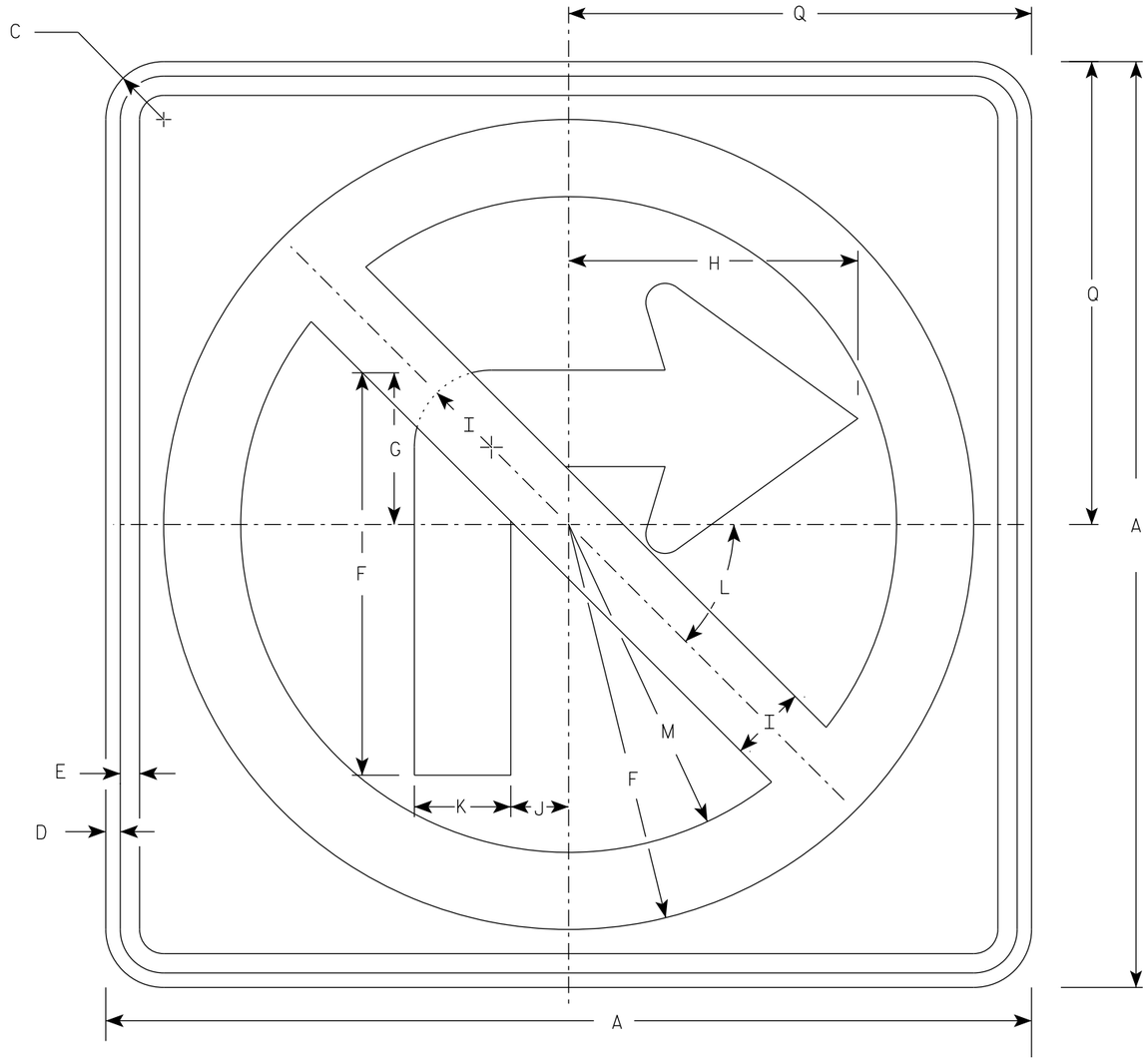
STANDARD SIGN
R2-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/23 PLATE NO. R2-1.14

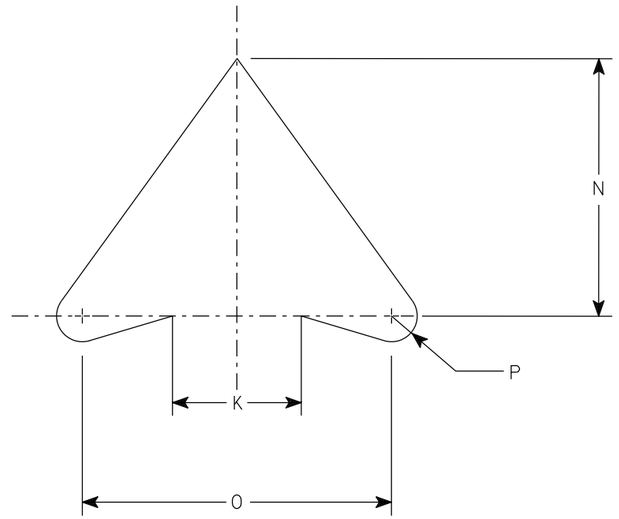
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 398 | E



R3-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. 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 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45	8 ½	5	6	½	12										4.0
2S	24		1 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45°	8 ½	5	6	½	12										4.0
2M	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45	12 ¾	7 ½	9	¾	18										9.0
3	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45	12 ¾	7 ½	9	¾	18										9.0
4	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾	18										9.0
5	48		2 ¼	¾	1	21	8	15	4	3	5	45°	17	10	12	1	24										16.0

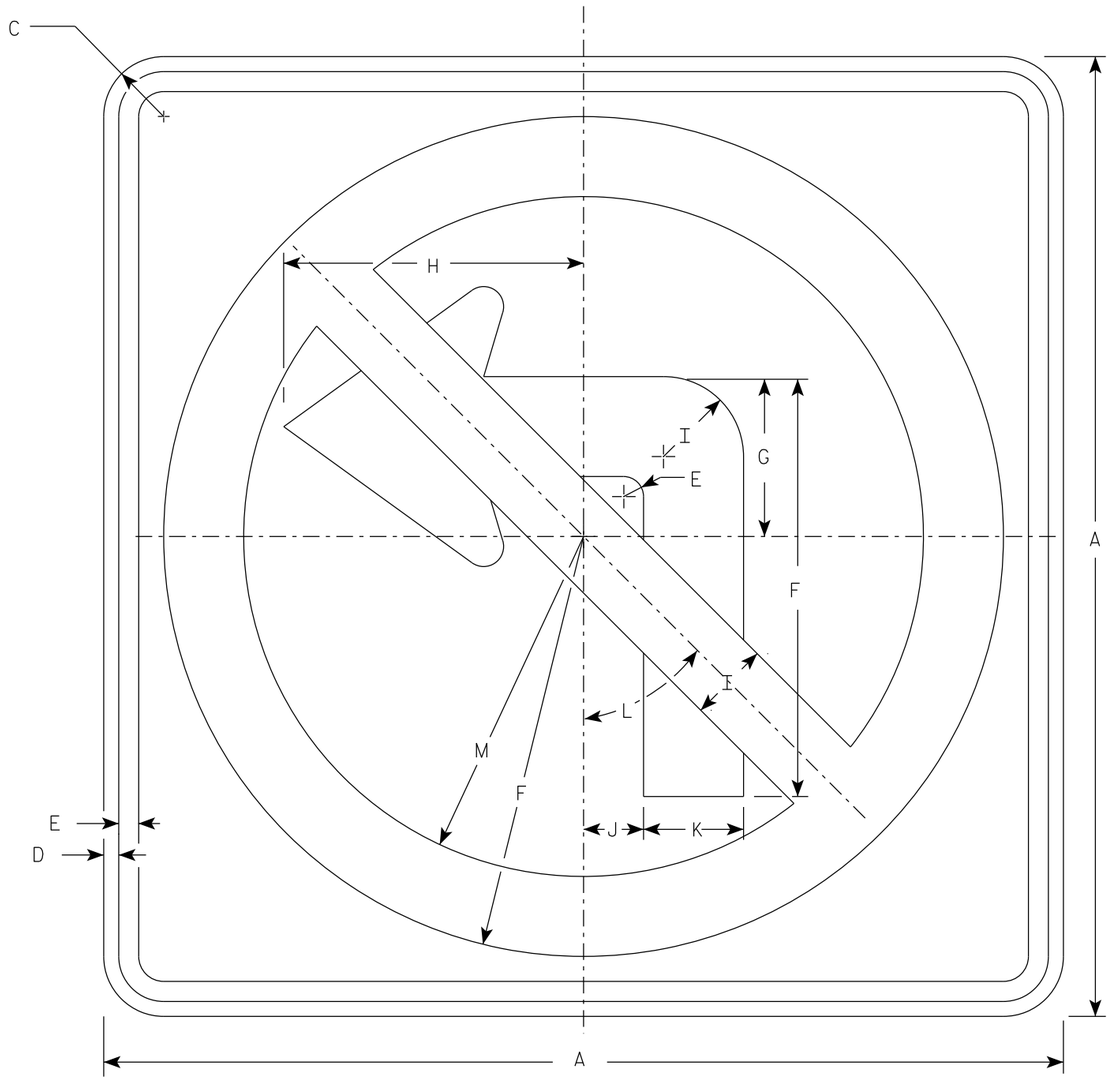
STANDARD SIGN
R3-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-1.6

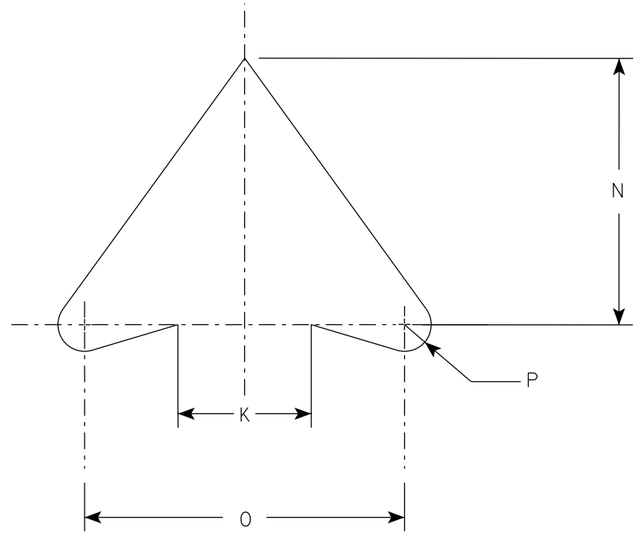
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 399 | E



R3-2

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. 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 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45°	8 ½	5	6	½											4.0
2S	24		1 ½	⅜	½	10 ½	4	7 ½	2	1 ½	2 ½	45°	8 ½	5	6	½											4.0
2M	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾											9.0
3	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾											9.0
4	36		2 ¼	⅝	¾	15 ¾	6	11 ¼	3	2 ¼	3 ¾	45°	12 ¾	7 ½	9	¾											9.0
5	48		2 ¼	¾	1	21	8	15	4	3	5	45°	17	10	12	1											16.0

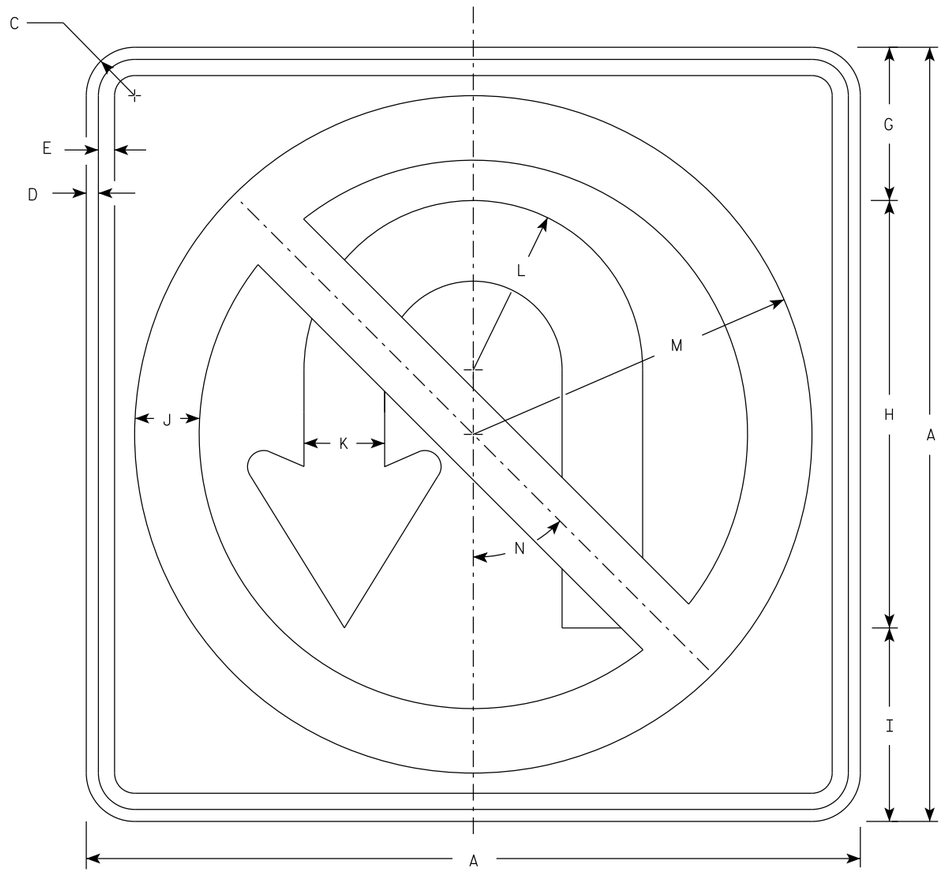
STANDARD SIGN
R3-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/2/23 PLATE NO. R3-2.11

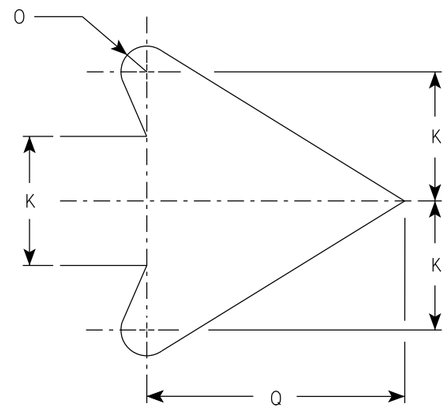
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 400 | E



R3-4

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - See note 3
3. 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																											
2S	24		1 1/2	3/8	1/2		4 3/4	13 1/4	6	2	2 1/2	5 1/4	10 1/2	45°	1/2		5										4.0
2M	36		2 1/4	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
3	36		2 1/4	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
4	36		2 1/4	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0
5	36		2 1/4	5/8	3/4		7 1/8	19 7/8	9	3	3 3/4	7 7/8	15 3/4	45°	3/4		7 5/8										9.0

STANDARD SIGN
R3-4

WISCONSIN DEPT OF TRANSPORTATION

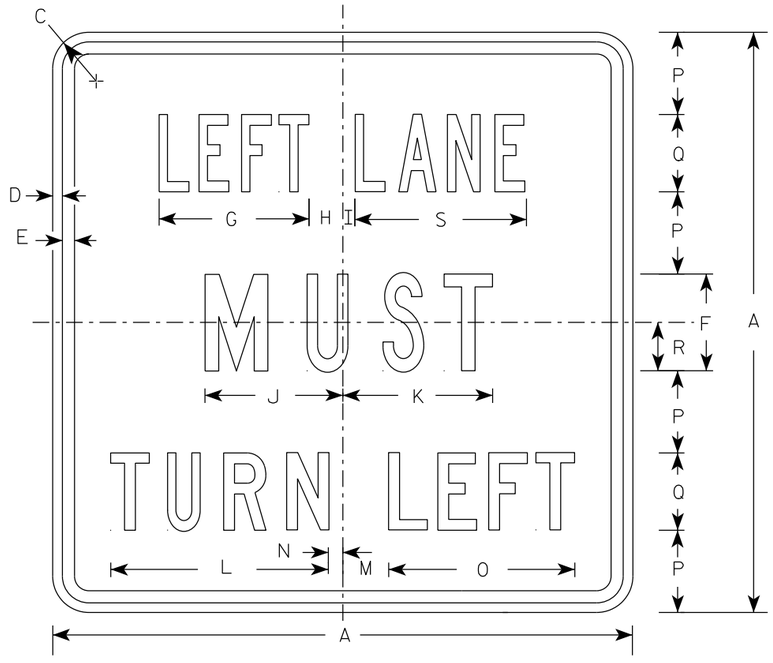
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/23 PLATE NO. R3-4.12

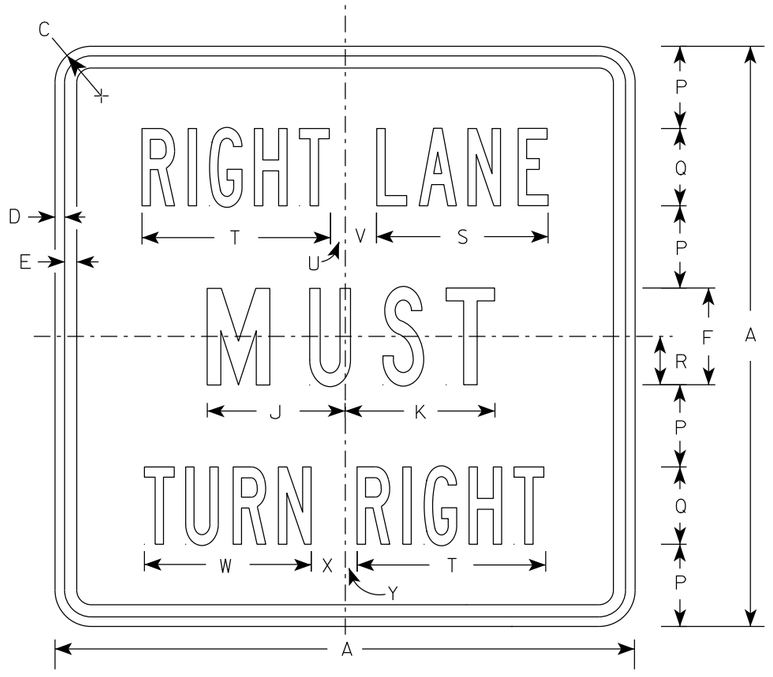
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 401	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - Line 1 is Series B.
   Line 2 is Series C.
   Line 3 on plate R3-7R is Series B and Series C on plate R3-7L.



R3-7L



R3-7R

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2S	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
2M	30		1 7/8	1/2	5/8	5	7 3/4	1 3/4	5/8	7 1/8	7 3/4	11 1/4	2 3/8	3/4	9 5/8	4 1/4	4	2 1/2	8 7/8	9 3/4	3/4	1 5/8	8 5/8	1 5/8	5/8		6.25
3	36		2 1/4	5/8	3/4	6	9 5/8	2	1 1/8	8 3/4	9	13 1/2	3 7/8	1 1/2	12 1/2	5	5	3	10 5/8	12	7/8	2 1/4	10 5/8	2 1/8	1		9.00
4	48		2 1/4	3/4	1	8	13 1/2	2 3/8	1 1/2	11 1/2	11 7/8	17 3/4	3 5/8	2 1/2	16 3/8	6 1/2	7	4	14 3/8	16 7/8	5/8	3 1/4	15 1/8	2 3/4	1 1/8		16.00
5																											

STANDARD SIGN
R3-7L & R3-7R

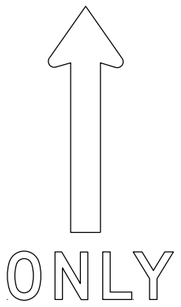
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/13/23 PLATE NO. R3-7.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 402 | E

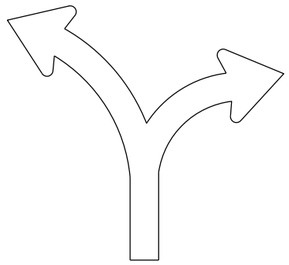
7

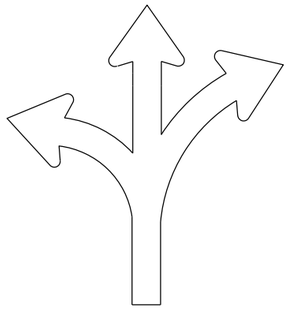


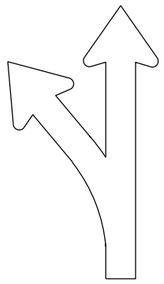
(A)

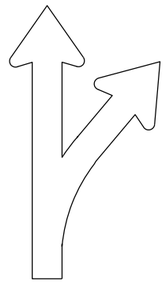


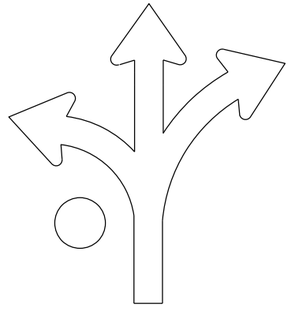
(B)

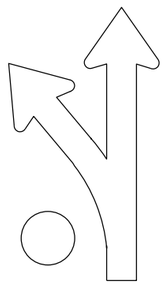

(C)

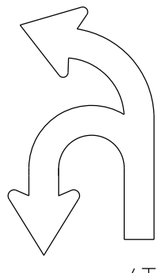

(D)

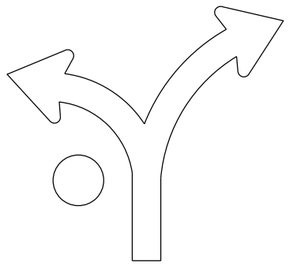

(E)

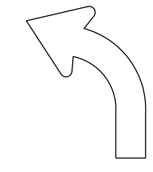

(F)


(G)

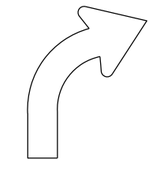

(H)


(I)


(J)



(L)



(R)

NOTES

1. Sigs are Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Use appropriate Letter for Sign Code
   Each letter added makes sign wider. Example R3-8EAR
5. Square footage of sign varies by letters

1	Letter =	3.75 sq ft for Size 2
		6.0 sq ft for Size 3
		10.0 sq ft for Size 4 or 5
2	Letters =	7.5 sq ft for Size 2
		12.0 sq ft for Size 3
		20.0 sq ft for Size 4 or 5
3	Letters =	11.25 sq ft for Size 2
		18.0 sq ft for Size 3
		30.0 sq ft for Size 4 or 5
4	Letters =	15.0 sq ft for Size 2
		24.0 sq ft for Size 3
		40.0 sq ft for Size 4 or 5
5	Letters =	18.75 sq ft for Size 2
		30.0 sq ft for Size 3
		50.0 sq ft for Size 4 or 5
6	Letters =	22.5 sq ft for Size 2
		36.0 sq ft for Size 3
		60.0 sq ft for Size 4 or 5

6. When letters C,D,G,J are used on the Left or Right end of the sign the Sq. Ft. changes.
   Add the amounts when these letters are used:
   1.25 sq ft for Size 2
   1.5 sq ft for Size 3
   2.0 sq ft for Size 4 or 5

STANDARD SIGN
R3-8 Series

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

PROJECT NO:

SHEET NO: 403 E

FILE NAME : C:\CAEfiles\Projects\stdplate_R38.dgn PLOT DATE : 14-FEB 2023 3:01 PLOT BY : mscj9h PLOT NAME :

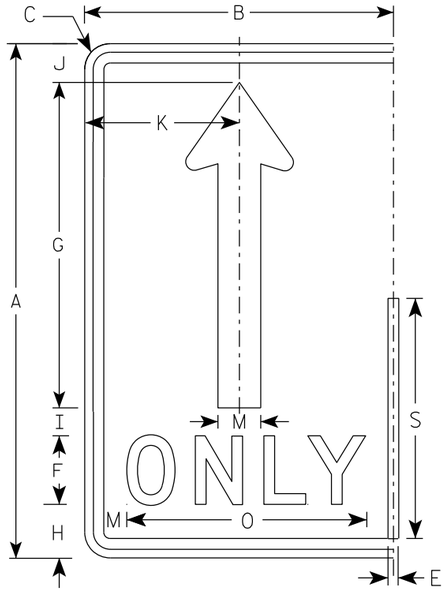
WISDOT/CADDS SHEET 42

7

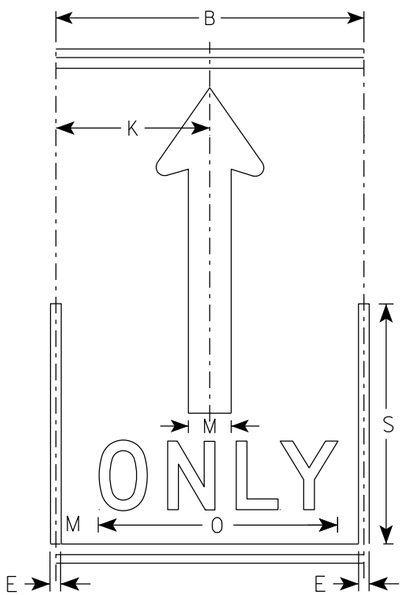
7

NOTES

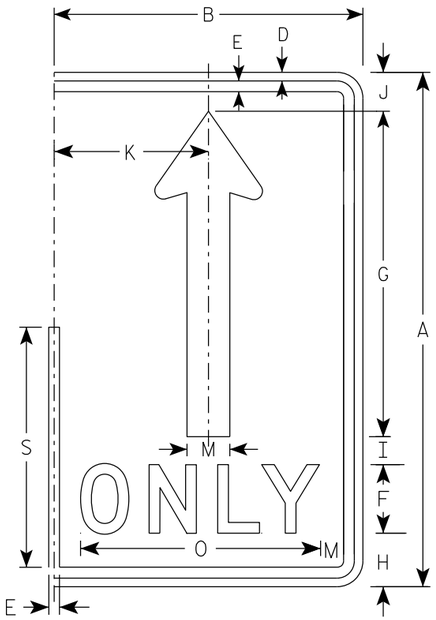
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



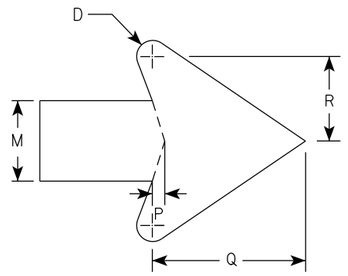
(A)



(A)



(A)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8	4	19	3 1/8	1 5/8	2 1/4	9		2 1/2		14	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8	5	22 3/4	3 3/4	1 3/4	2 3/4	12		3		17 5/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1	6	30 3/8	5 1/8	2 7/8	3 5/8	15		4		21 3/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (A) Arrow

WISCONSIN DEPT OF TRANSPORTATION

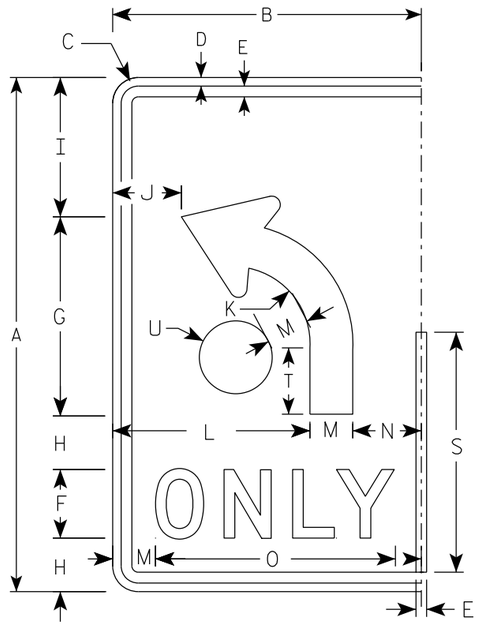
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

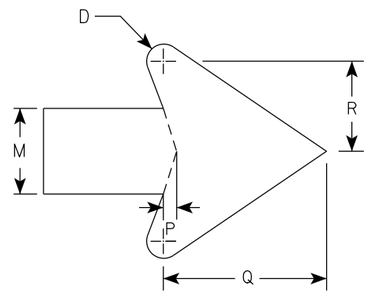
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 404 | E

NOTES

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



(B)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8	2 1/8						3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8	2 1/2						6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4	3 3/8						10.0

STANDARD SIGN

R3-8 (B) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

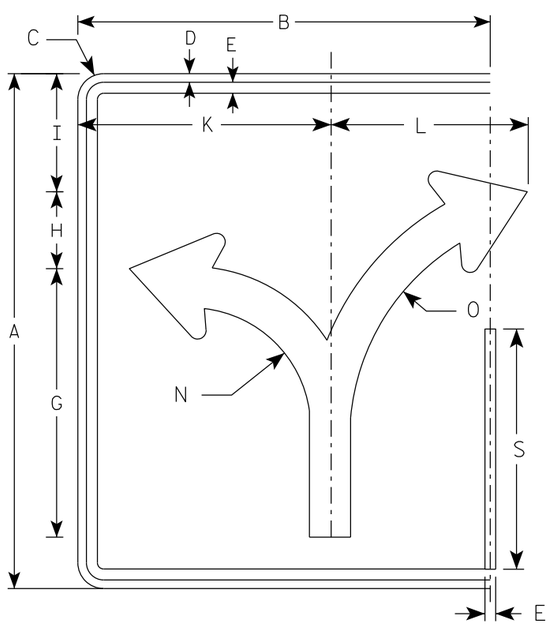
DATE 2/14/23 PLATE NO. R3-8.2

PROJECT NO:

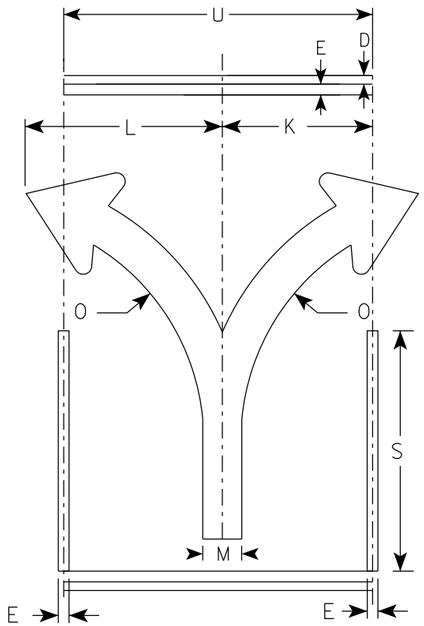
SHEET NO: 405 E

NOTES

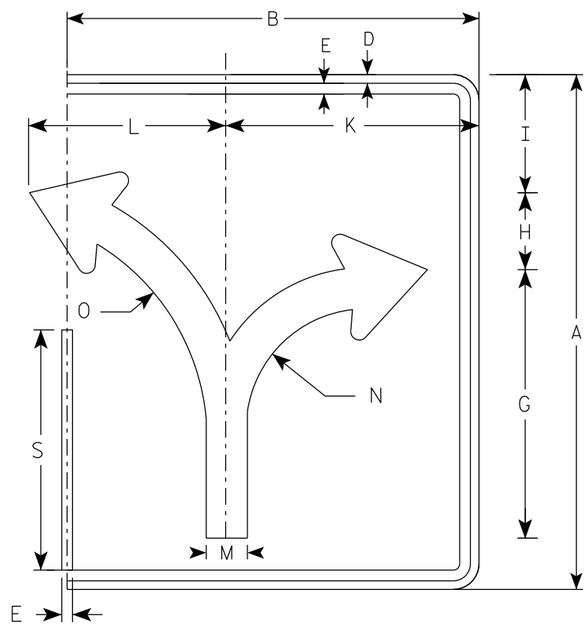
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



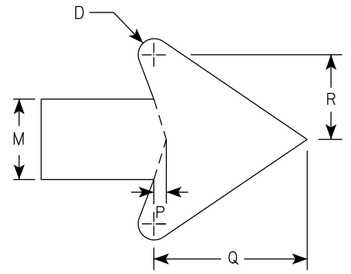
(C)



(C)



(C)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (C) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

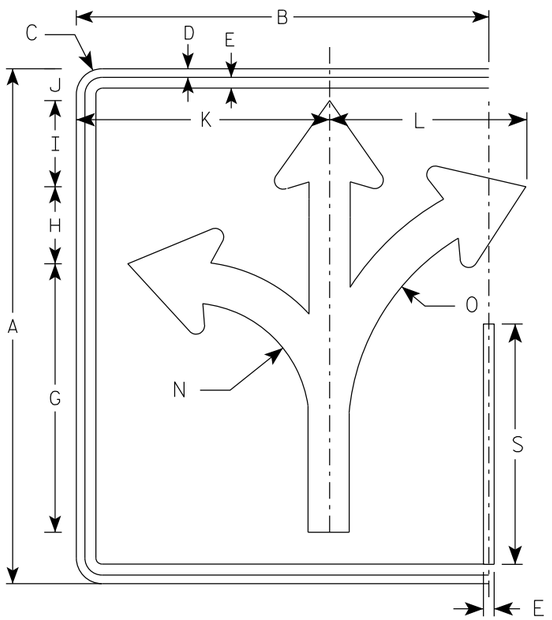
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 406 | E

7

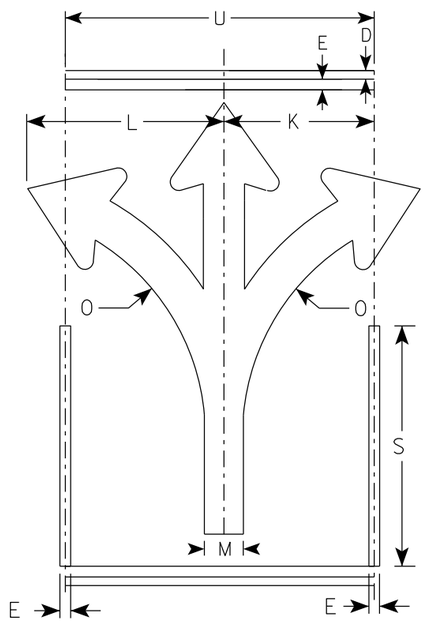
7

NOTES

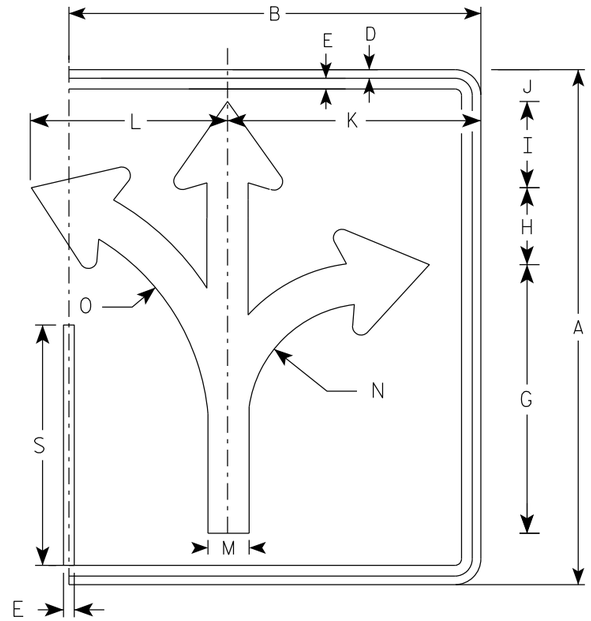
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



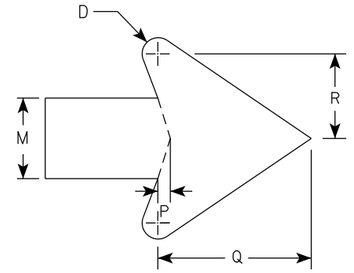
(D)



(D)



(D)



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	ENDS Area sq. ft.	MIDDLE Area sq. ft.
1																												
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		18						5.0	3.75
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	6	2 1/4	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		24						7.5	6.0
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		30						12.0	10.0

STANDARD SIGN
R3-8 (D) Arrow

WISCONSIN DEPT OF TRANSPORTATION

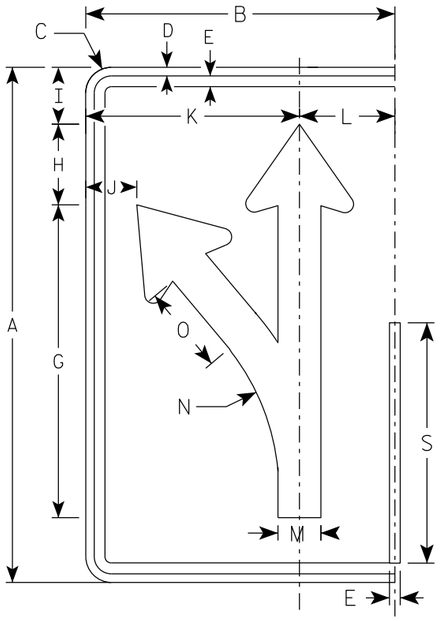
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

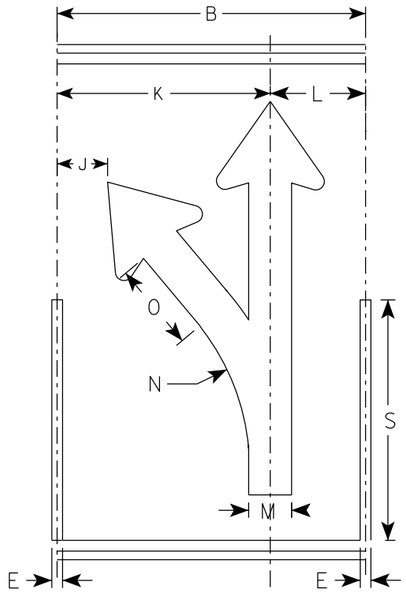
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 407 | E

NOTES

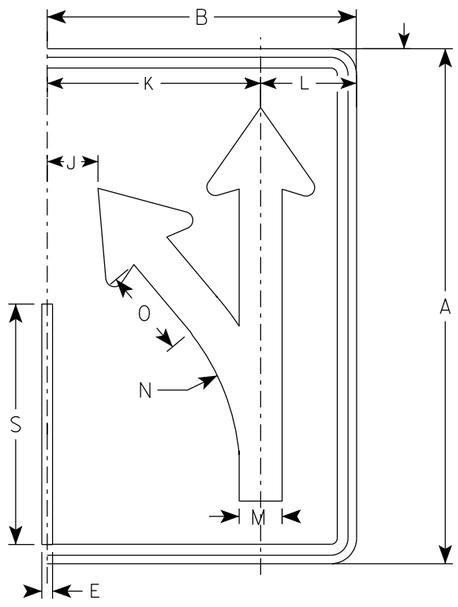
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



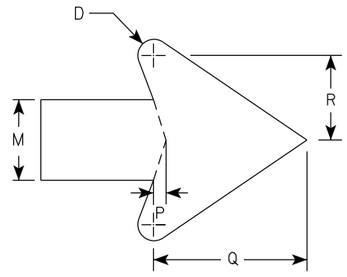
(E)



(E)



(E)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (E) Arrow

WISCONSIN DEPT OF TRANSPORTATION

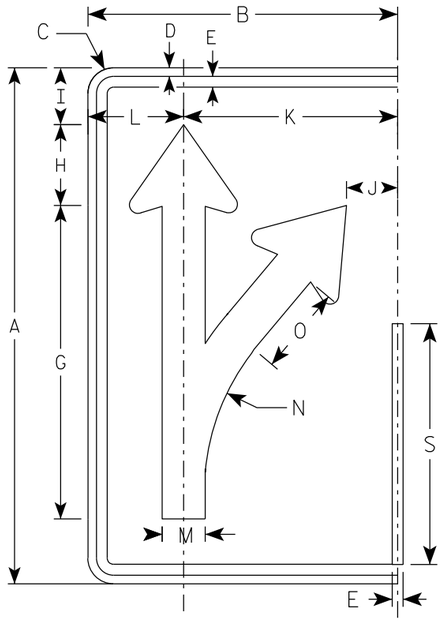
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

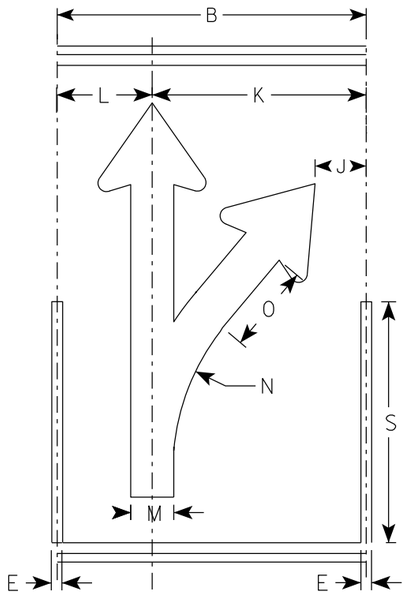
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 408 | E

NOTES

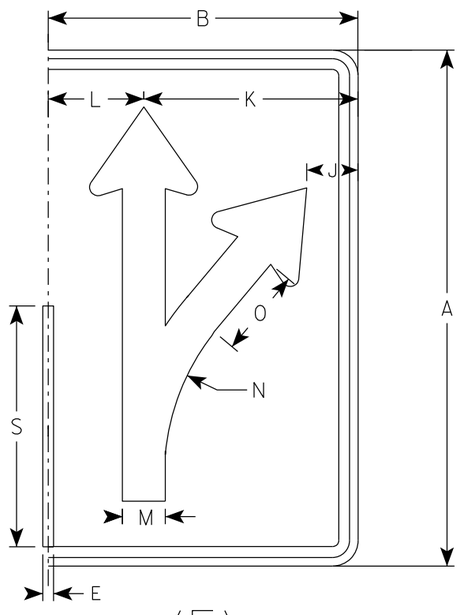
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



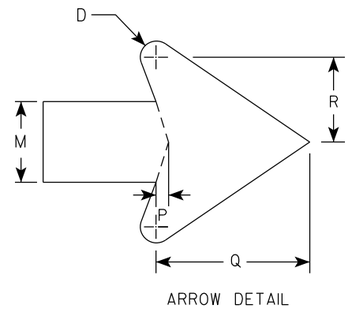
(F)



(F)



(F)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14								3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4								6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8								10.0

STANDARD SIGN
R3-8 (F) Arrow

WISCONSIN DEPT OF TRANSPORTATION

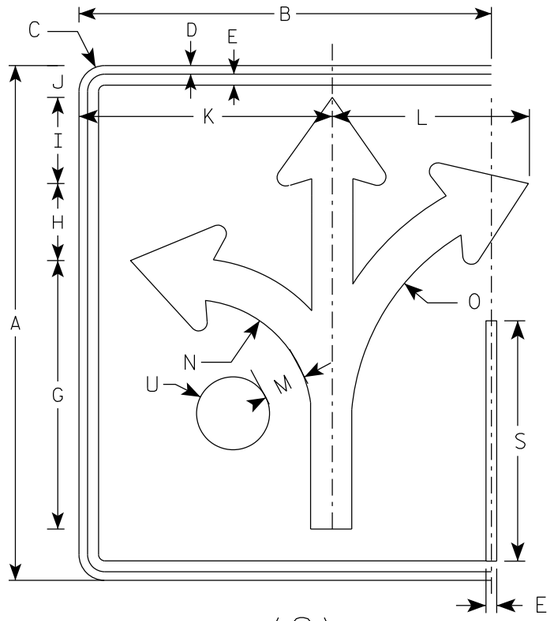
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

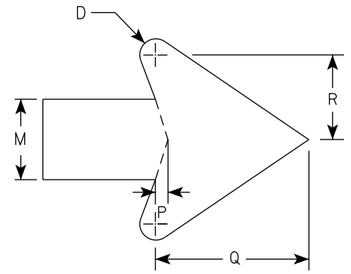
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 409 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(G)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	5	1 7/8	14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	6	3 1/8	17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	7 7/8	3 1/8	23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (G) Arrow

WISCONSIN DEPT OF TRANSPORTATION

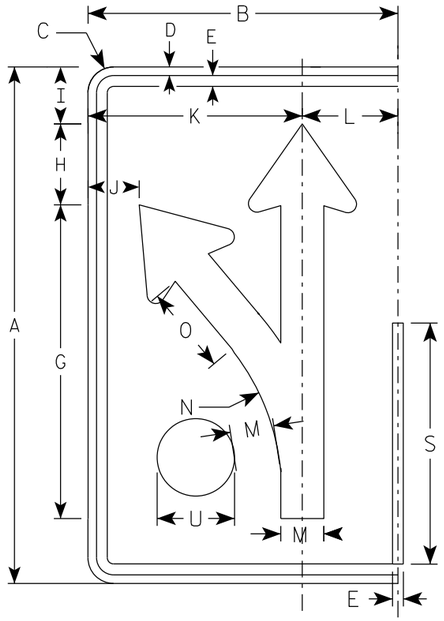
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

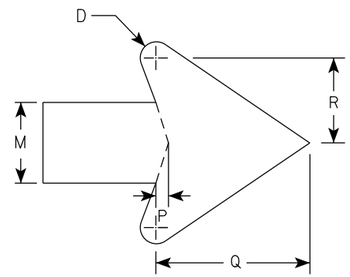
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 410	E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(H)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
2M	30	18	1 1/2	1/2	5/8		18 1/4	4 3/4	3 1/4	3	12 1/2	5 1/2	2 1/2	13 1/4	5 1/8	3/8	4 3/4	2 5/8	14		2 1/8						3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	5 5/8	4	4 7/8	16 1/8	7 3/4	3	15 7/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4		2 1/2						6.0
4	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0
5	48	30	2 1/4	3/4	1		29 1/8	7 1/2	5 1/4	5 3/8	20 1/2	9 1/2	4	21 1/4	8 1/4	5/8	7 5/8	4 1/4	22 3/8		3 3/8						10.0

STANDARD SIGN
R3-8 (H) Arrow

WISCONSIN DEPT OF TRANSPORTATION

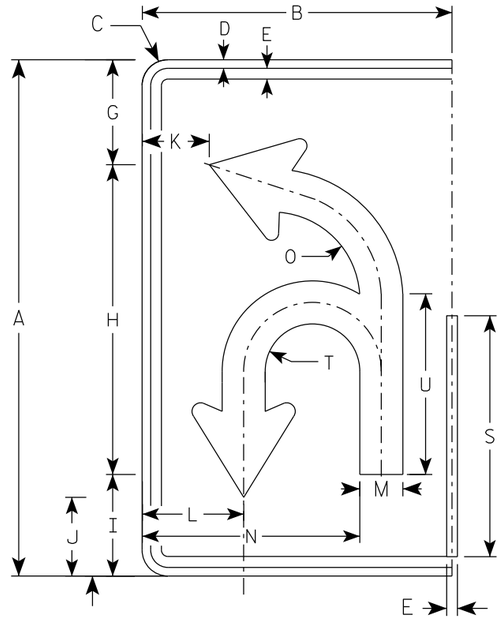
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

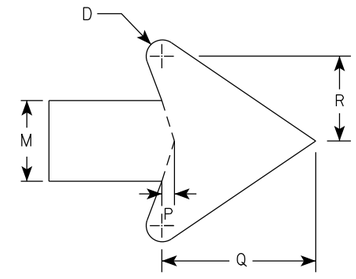
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 411 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(I)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
2M	30	18	1 1/2	1/2	5/8		6 1/8	18	5 7/8	4 5/8	3 7/8	5 7/8	2 1/2	12 5/8	5 1/8	3/8	4 3/4	2 5/8	14	2 3/4	10 1/2						3.75
3	36	24	1 1/2	1/2	5/8		21 7/8	21 5/8	7 1/8	5 1/2	5 7/8	8 1/4	3	16 3/8	6 1/8	1/2	5 3/4	3 1/8	16 3/4	3 1/4	12 5/8						6.0
4	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0
5	48	30	2 1/4	3/4	1		29 1/8	28 3/4	9 3/8	7 1/4	6 7/8	10	4	20 7/8	8 1/8	5/8	7 5/8	4 1/4	22 3/8	4 3/8	16 3/4						10.0

STANDARD SIGN
R3-8 (I) Arrow

WISCONSIN DEPT OF TRANSPORTATION

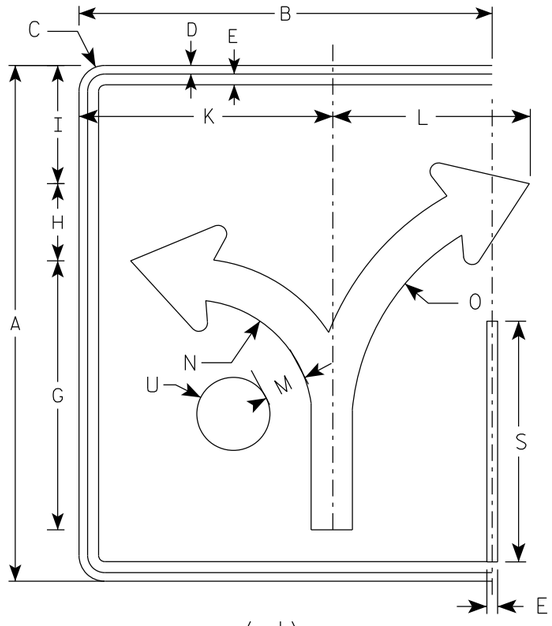
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

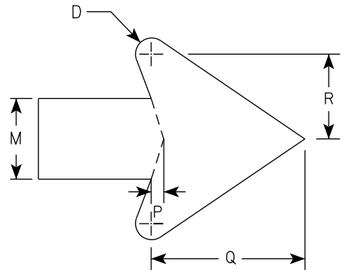
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 412 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - None



(J)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
2M	30	24	1 1/2	1/2	5/8		15 5/8	4 1/2	6 7/8		14 3/4	11 1/2	2 3/8	7	13 1/4	3/8	4 1/2	2 1/2	14		2 1/8						5.0
3	36	30	1 1/2	1/2	5/8		18 3/4	5 1/2	8 1/4		17 1/4	17 1/4	2 7/8	8 3/8	16	1/2	5 1/2	3	16 3/4		2 1/2						7.5
4	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0
5	48	36	2 1/4	3/4	1		24 7/8	7 1/4	11		23 1/8	18	3 3/4	11 1/8	21 1/4	5/8	7 1/8	4	22 3/8		3 3/8						12.0

STANDARD SIGN
R3-8 (J) Arrow

WISCONSIN DEPT OF TRANSPORTATION

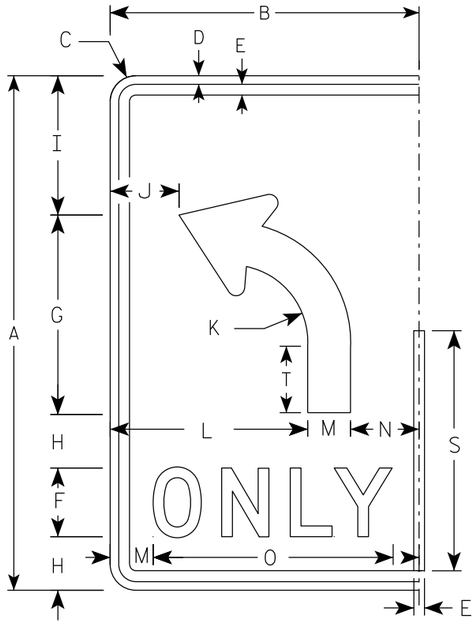
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

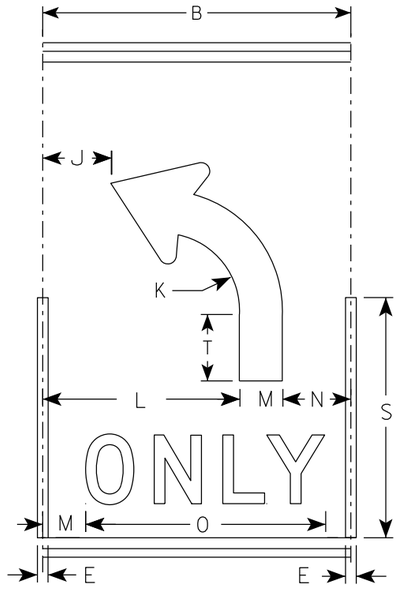
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 413 | E

NOTES

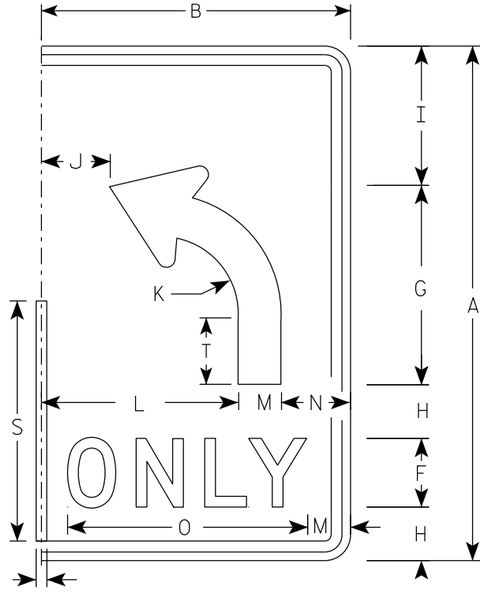
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



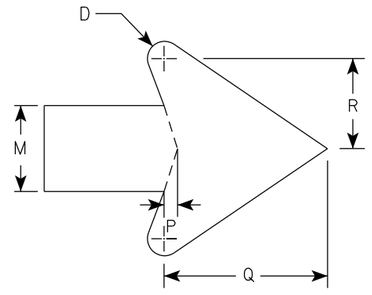
(L)



(L)



(L)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 ½	½	⅝	4	11 ⅝	3 ⅛	8 ⅛	4	4 ½	11 ½	2 ½	4	14	⅜	4 ¾	2 ⅝	14	3 ⅞							3.75
2M	30	18	1 ½	½	⅝	4	11 ⅝	3 ⅛	8 ⅛	4	4 ½	11 ½	2 ½	4	14	⅜	4 ¾	2 ⅝	14	3 ⅞							3.75
3	36	24	1 ½	½	⅝	5	14	3 ½	9 ¾	6	5 ⅜	15	3	6	17 ⅝	½	5 ¾	3 ⅛	16 ¾	4 ⅝							6.0
4	48	30	2 ¼	¾	1	6	18 ⅝	5 ⅛	13 ⅛	6 ⅛	7 ¼	18	4	8	21 ¾	⅝	7 ⅝	4 ¼	22 ⅜	6 ¼							10.0
5	48	30	2 ¼	¾	1	6	18 ⅝	5 ⅛	13 ⅛	6 ⅛	7 ¼	18	4	8	21 ¾	⅝	7 ⅝	4 ¼	22 ⅜	6 ¼							10.0

STANDARD SIGN

R3-8 (L) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

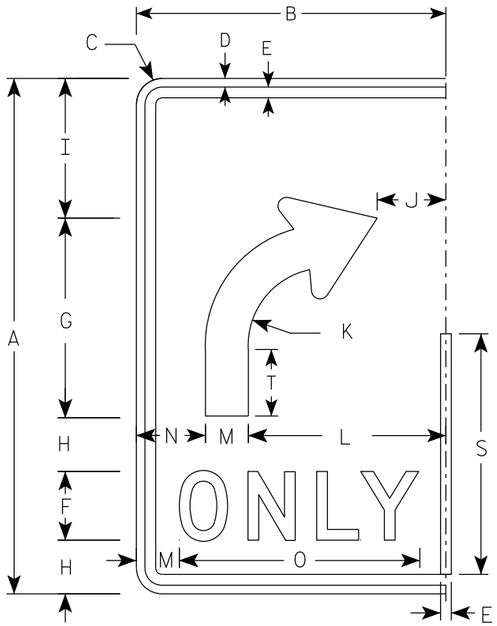
DATE 2/14/23 PLATE NO. R3-8.2

PROJECT NO:

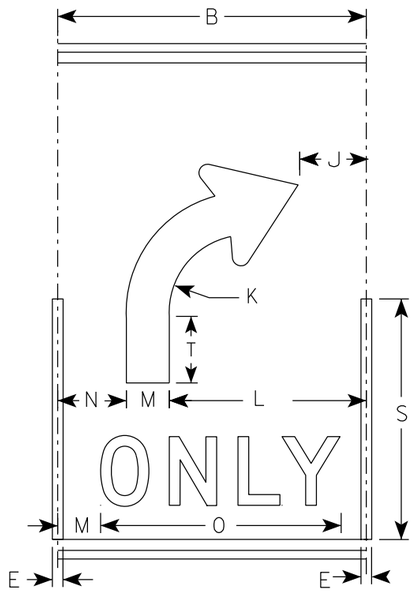
SHEET NO: 414 E

NOTES

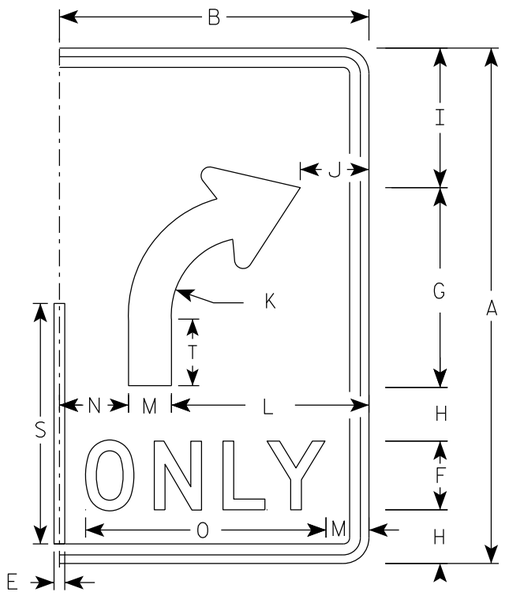
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D



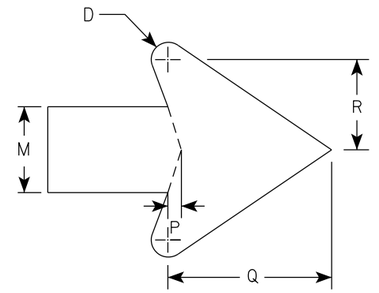
(R)



(R)



(R)



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
2M	30	18	1 1/2	1/2	5/8	4	11 5/8	3 1/8	8 1/8	4	4 1/2	11 1/2	2 1/2	4	14	3/8	4 3/4	2 5/8	14	3 7/8							3.75
3	36	24	1 1/2	1/2	5/8	5	14	3 1/2	9 3/4	6	5 3/8	15	3	6	17 5/8	1/2	5 3/4	3 1/8	16 3/4	4 5/8							6.0
4	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0
5	48	30	2 1/4	3/4	1	6	18 5/8	5 1/8	13 1/8	6 1/8	7 1/4	18	4	8	21 3/4	5/8	7 5/8	4 1/4	22 3/8	6 1/4							10.0

STANDARD SIGN

R3-8 (R) Arrow

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

for State Traffic Engineer

DATE 2/14/23 PLATE NO. R3-8.2

PROJECT NO:

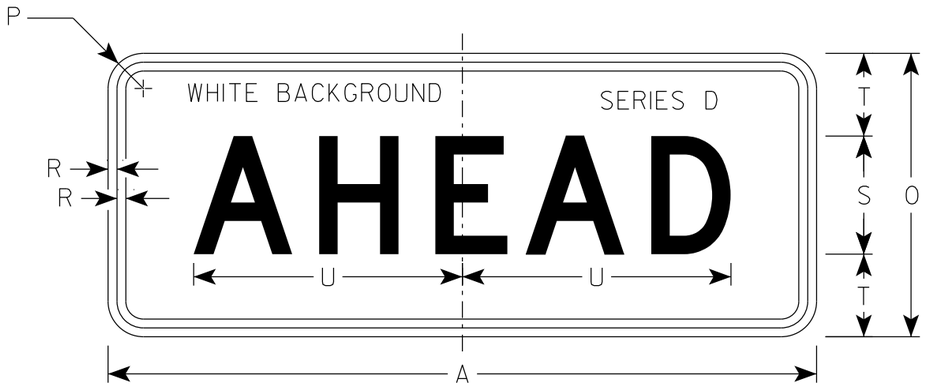
SHEET NO: 415 E



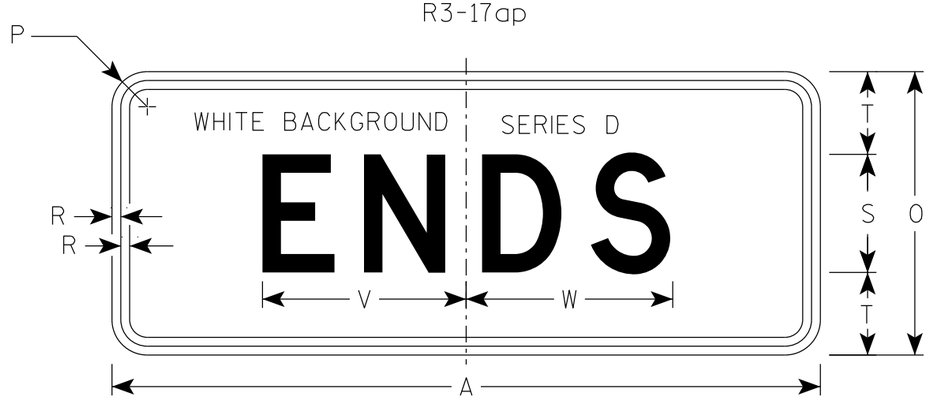
R3-17

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - AS SHOWN
   Message - BLACK
3. Message Series - C or as noted



R3-17ap



R3-17bp

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	R3-17 Area sq. ft.	R3-17ap Area sq. ft.	R3-17bp Area sq. ft.
1																													
2S	30	24	1 1/2	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/2	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
2M	30	24	1 1/2	3/8	1/2	2	4	4 1/8	7 7/8	6 3/8	9 1/2	2 5/8	7/8	13	12	1 1/2	3 3/8	3/8	5	3 1/2	11 3/8	8 5/8	8 3/4	2 3/8	15 5/8	8	5.0	2.5	2.5
3																													
4																													
5																													

STANDARD SIGN
R3-17 & R3-17a&bp

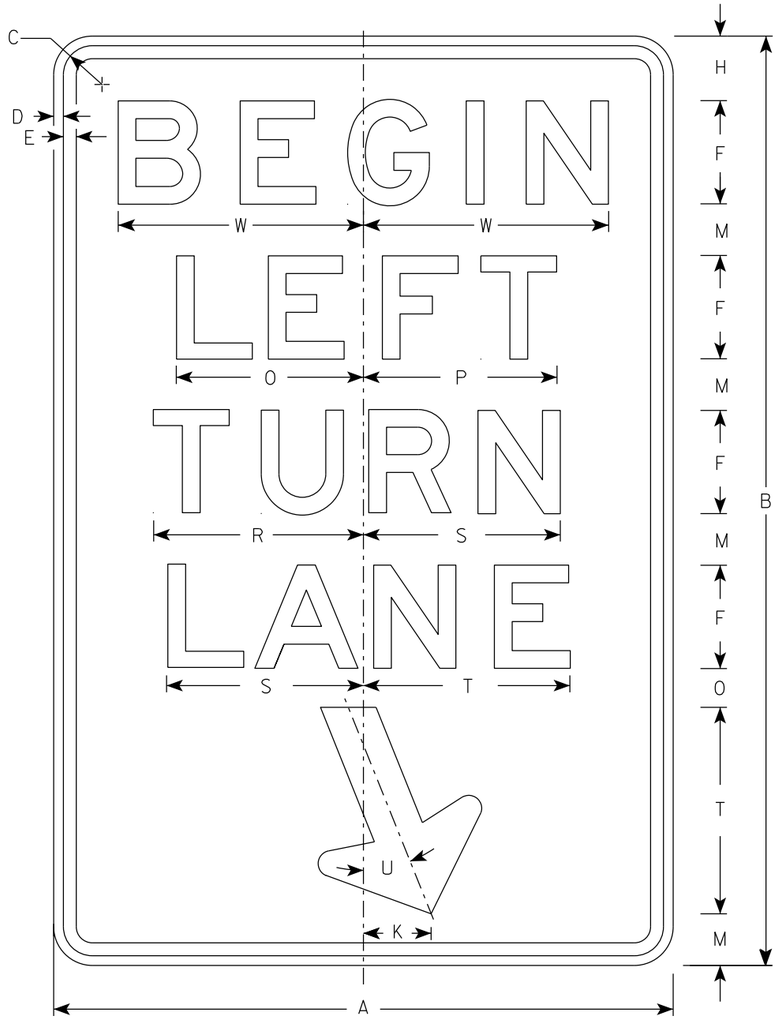
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-17.3

PROJECT NO:

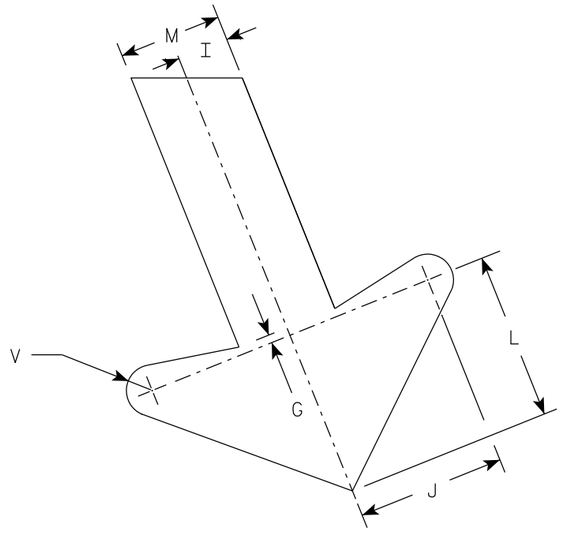
SHEET NO: 416 E



R3-20L

NOTES

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



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 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
2M	24	36	1 1/2	3/8	1/2	4	1/4	2 1/2	1	2 7/8	2 5/8	3 1/4	2	1 1/2	7 1/4	7 1/2		8 1/8	7 5/8	8	22°	1/2	9 1/2				6.0
3	36	54	1 7/8	1/2	5/8	6	3/8	3 3/4	1 1/2	4 1/4	4	4 7/8	3	2 1/4	10 7/8	11 1/4		12 1/4	11 1/2	12	22°	3/4	13 1/4				13.5
4																											
5																											

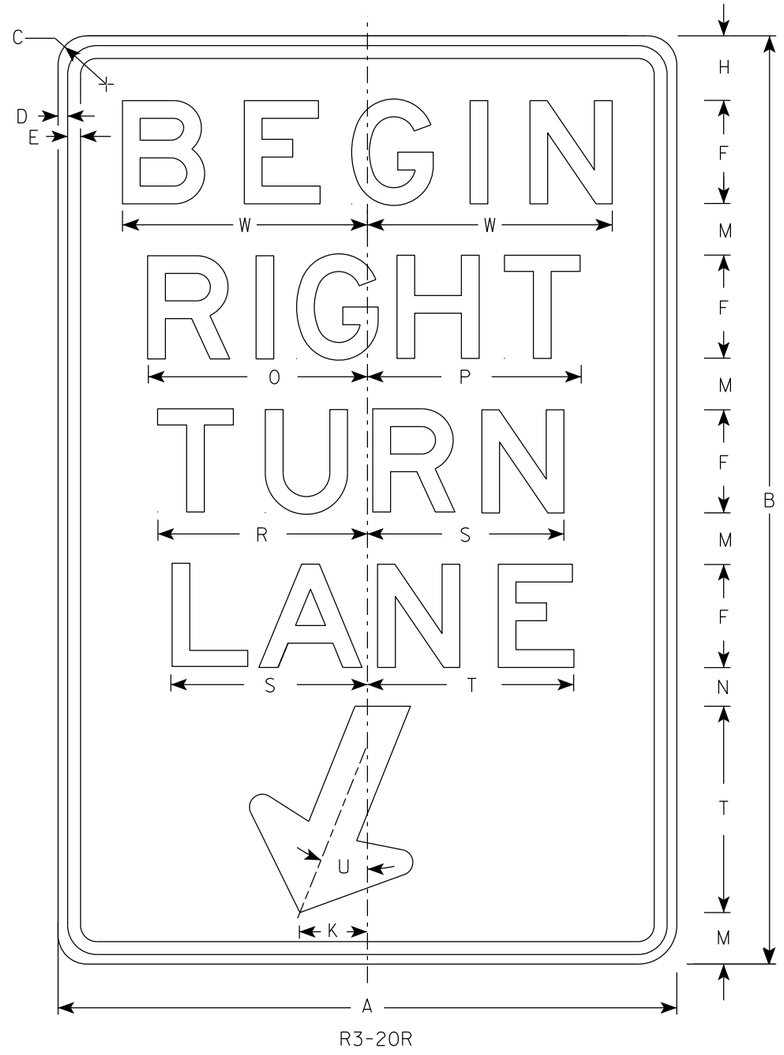
STANDARD SIGN
R3-20L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-20L.8

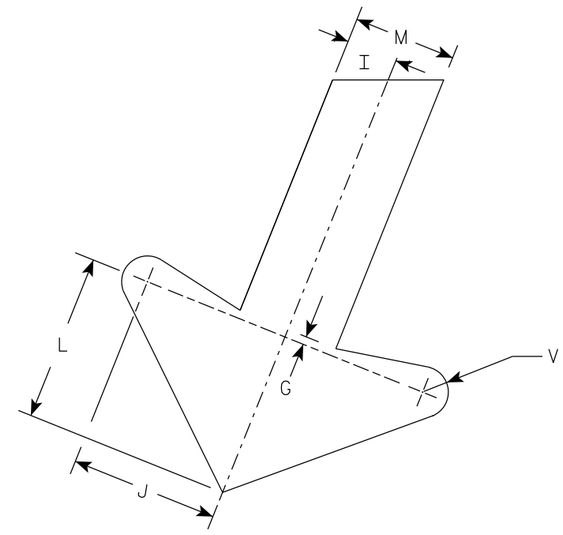
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 417 | E



R3-20R

NOTES

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



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 1/2	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 1/2	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 7/8	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

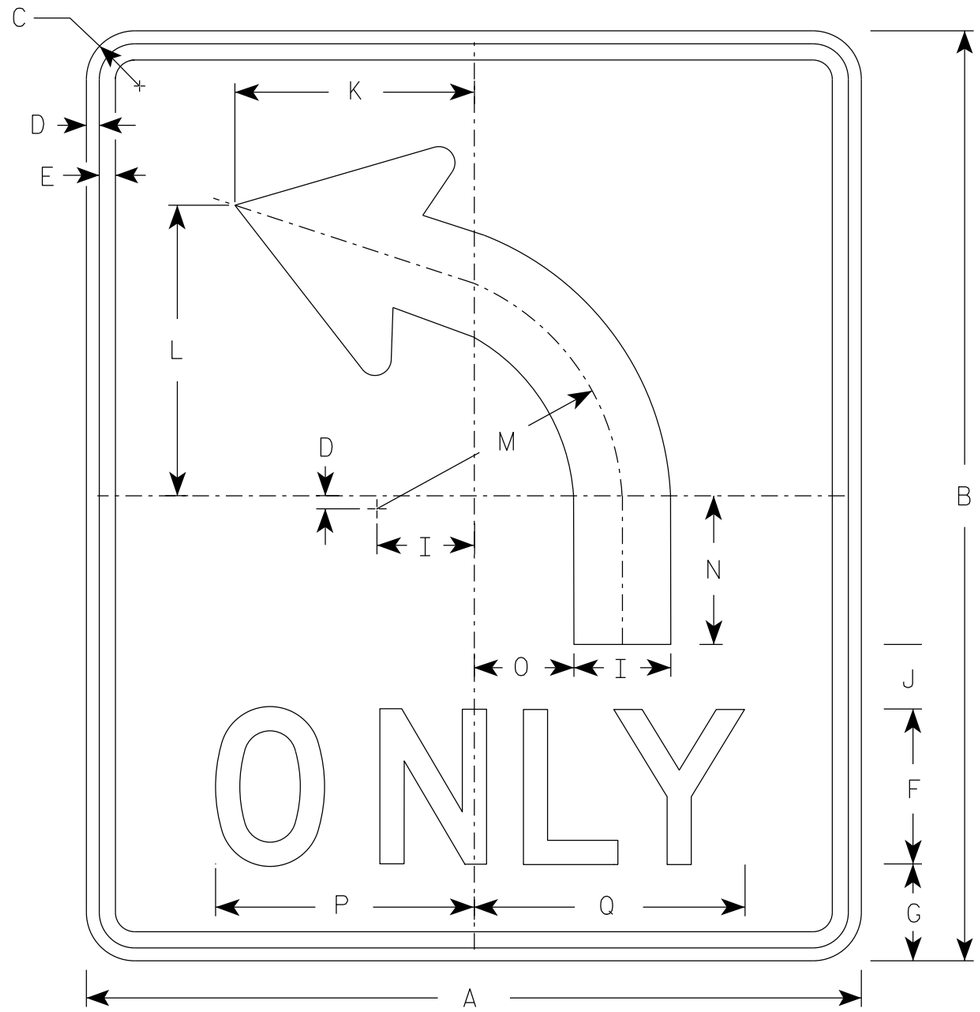
APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-20R.7

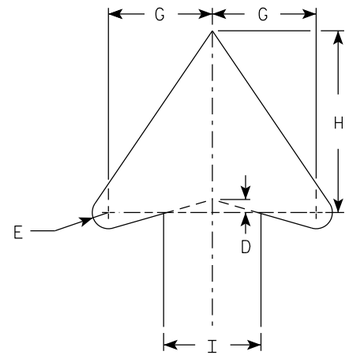
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 418 | E

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. R3-50R is the same as R3-50L except curved portion of arrow points right.



R3-50L



ARROW DETAIL

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	36	1 7/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
2M	30	36	1 7/8	1/2	5/8	6	4	7	3 3/4	2 1/2	9 1/4	11 1/4	9 1/2	5 3/4	3 7/8	10	10 1/2										7.5
3																											
4																											
5																											

STANDARD SIGN
R3-50

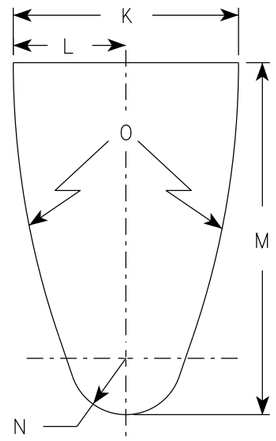
WISCONSIN DEPT OF TRANSPORTATION

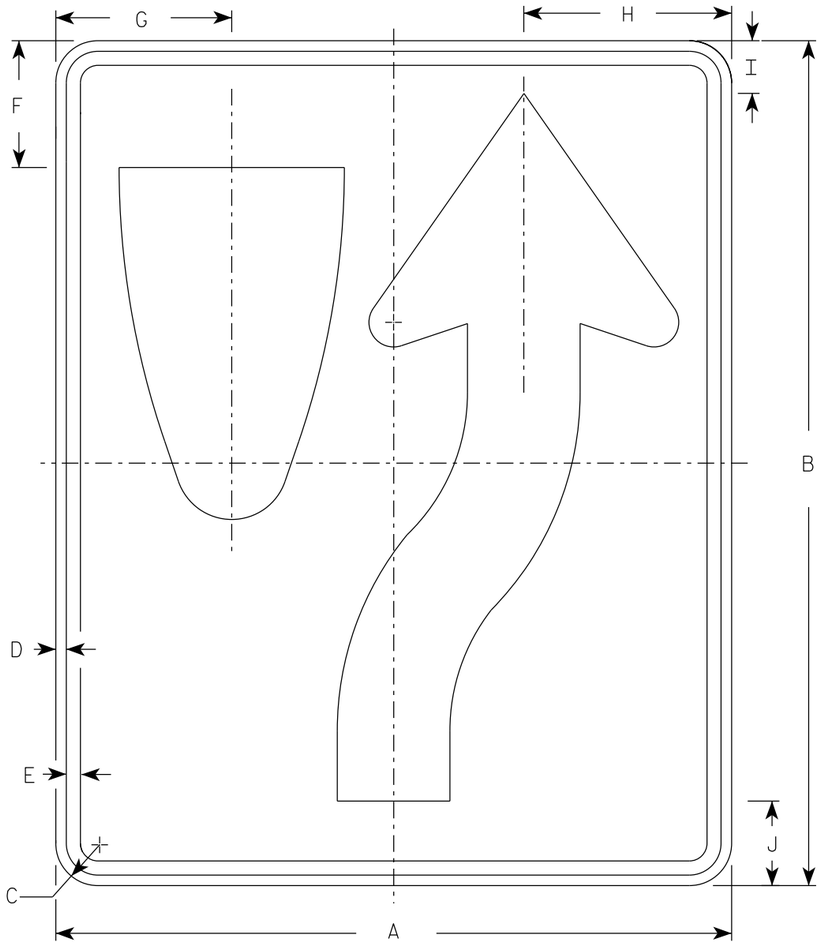
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/23/23 PLATE NO. R3-50.3

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 419	E

DIVIDER DETAIL



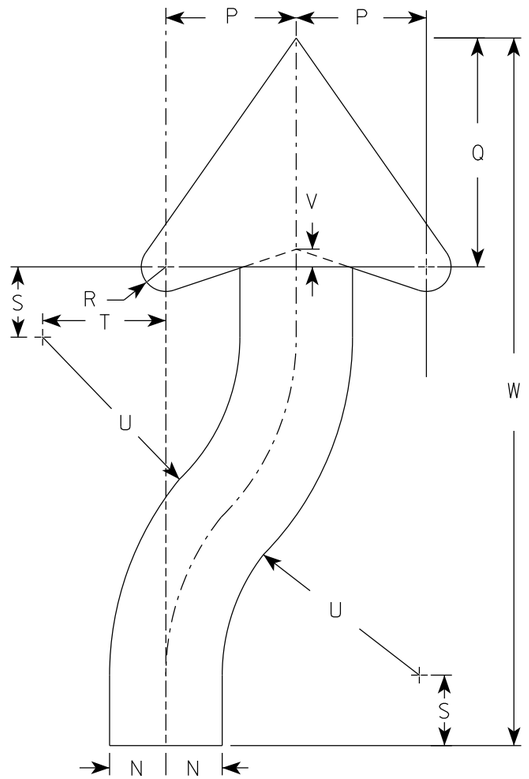


R4-7

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. R4-8 is the same as R4-7 except Legend is reversed.

ARROW DETAIL



SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	18	24	1 1/2	3/8	1/2	3 3/8	4 3/4	5 1/2	1 3/8	2 1/4	6	3	9 3/8	1 1/2	22 1/2	3 1/2	6 1/8	5/8	1 7/8	3 1/4	6 3/4	1/2	20 3/8				3.0
2S	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
2M	24	30	1 1/2	3/8	1/2	4 1/2	6 1/4	7 3/8	1 7/8	3	8	4	12 1/2	2	30	4 5/8	8 1/8	7/8	2 1/2	4 3/8	9	5/8	25 1/8				5.0
3	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
4	36	48	1 7/8	1/2	5/8	6 3/4	9 3/8	11 1/8	2 7/8	4 1/2	12	6	18 3/4	3	45	6 7/8	12 1/4	1 1/4	3 3/4	6 5/8	13 1/2	1	40 3/4				12.0
5	48	60	3	3/4	1	9	12 1/2	14 3/4	3 3/4	6	16	8	25	4	60	9 1/4	16 1/4	1 5/8	5	8 3/4	18	1 1/4	50 1/4				20.0

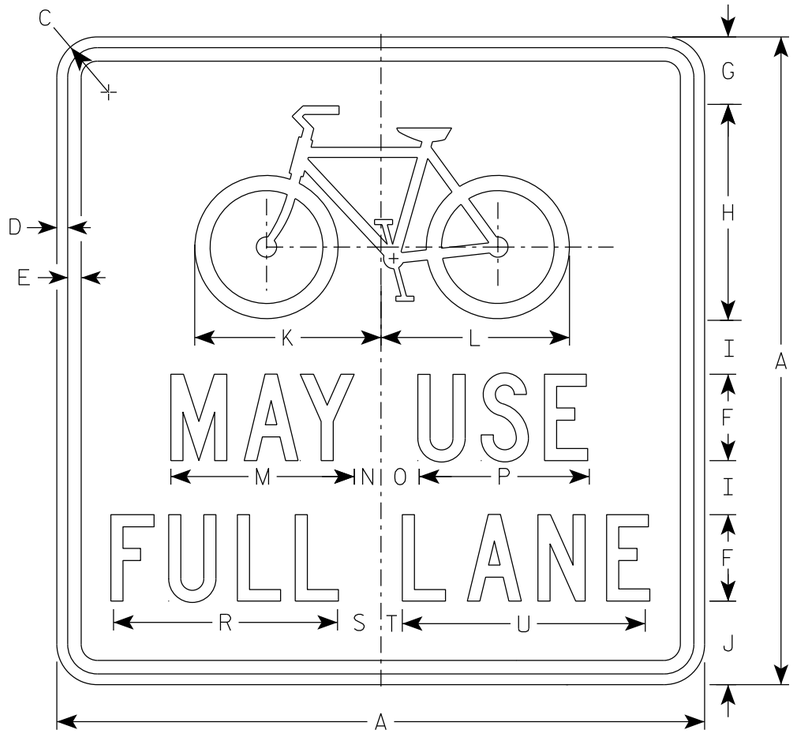
STANDARD SIGN
R4-7 & R4-8

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch for State Traffic Engineer

DATE 8/17/23 PLATE NO. R4-7.9

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 420	E



R4-11

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message 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																											
2S	30		1 7/8	1/2	5/8	4	3 1/8	10	2 1/2	3 7/8	8 5/8	8 3/4	8 1/2	1 1/4	1 3/4	7 7/8		10 3/8	2	1	11 1/4						6.25
2M	30		1 7/8	1/2	5/8	4	3 1/8	10	2 1/2	3 7/8	8 5/8	8 3/4	8 1/2	1 1/4	1 3/4	7 7/8		10 3/8	2	1	11 1/4						6.25
3																											
4																											
5																											

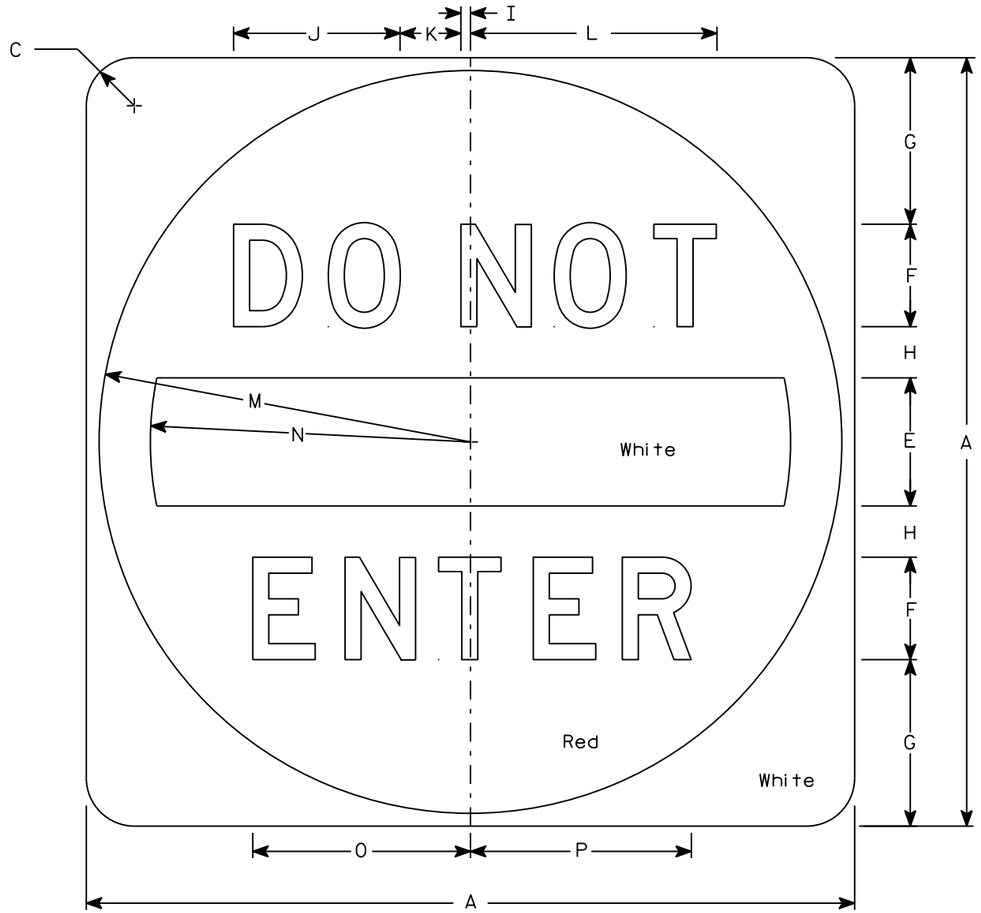
STANDARD SIGN
R4-11

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 421 | E



R5-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - See detail
   Message - White
3. Message 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																											
2S	30		1 7/8		5	4	6 1/2	2	3/8	6 1/2	2 3/8	9 5/8	14 1/2	12 1/2	8 1/2	8 5/8											6.25
2M	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
3	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
4	36		2 1/4		6	5	7 1/2	2 1/2	1/2	8 1/8	3	12 1/8	17 1/2	15	10 5/8	10 3/4											9.0
5	48		3		8	6	11	3	5/8	9 3/4	3 5/8	14 1/2	23 1/2	20	12 3/4	12 7/8											16.0

STANDARD SIGN
R5-1

WISCONSIN DEPT OF TRANSPORTATION

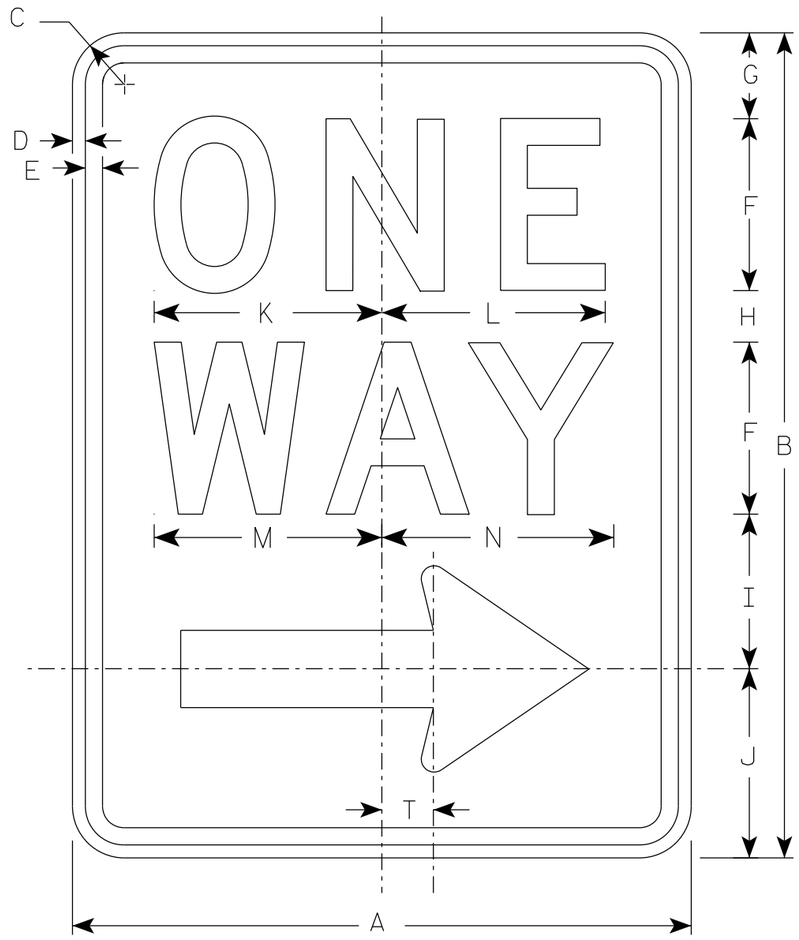
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/15/18 PLATE NO. R5-1.16

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 422 | E

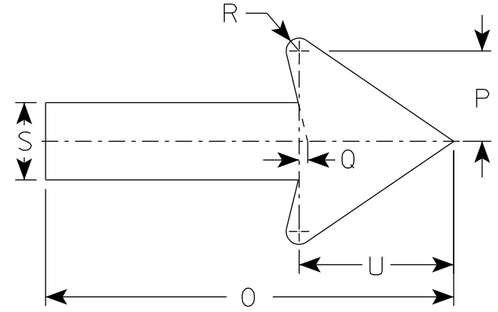
NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. R6-2L same as R6-2R except arrow points to the left.



R6-2R

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
1	18	24	1 1/2	3/8	1/2	5	2 1/2	1 1/2	4 1/2	5 1/2	6 5/8	6 1/2	6 5/8	6 3/4	11 7/8	2 5/8	1/4	3/8	2 1/4	1 1/2	4 1/2					
2S	24	1 1/2	1 1/2	3/8	1/2	6	3	2 1/2	5 1/2	7	8 1/8	8 1/8	8 1/2	8 5/8	16	3 1/2	3/8	1/2	3	2	6					
2M	30	36	1 7/8	1/2	5/8	8	2 1/2	2 5/8	6 7/8	8	10 1/2	10 1/2	11 1/4	11 1/4	20	4 3/8	1/2	5/8	3 3/4	2 1/2	7 1/2					
3	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
4	36	48	1 7/8	1/2	5/8	10	5 1/4	3 1/4	9	10 1/2	12 3/4	12 3/4	13 1/4	13 1/2	24	5 5/8	1/2	3/4	4 3/4	3	9					
5																										

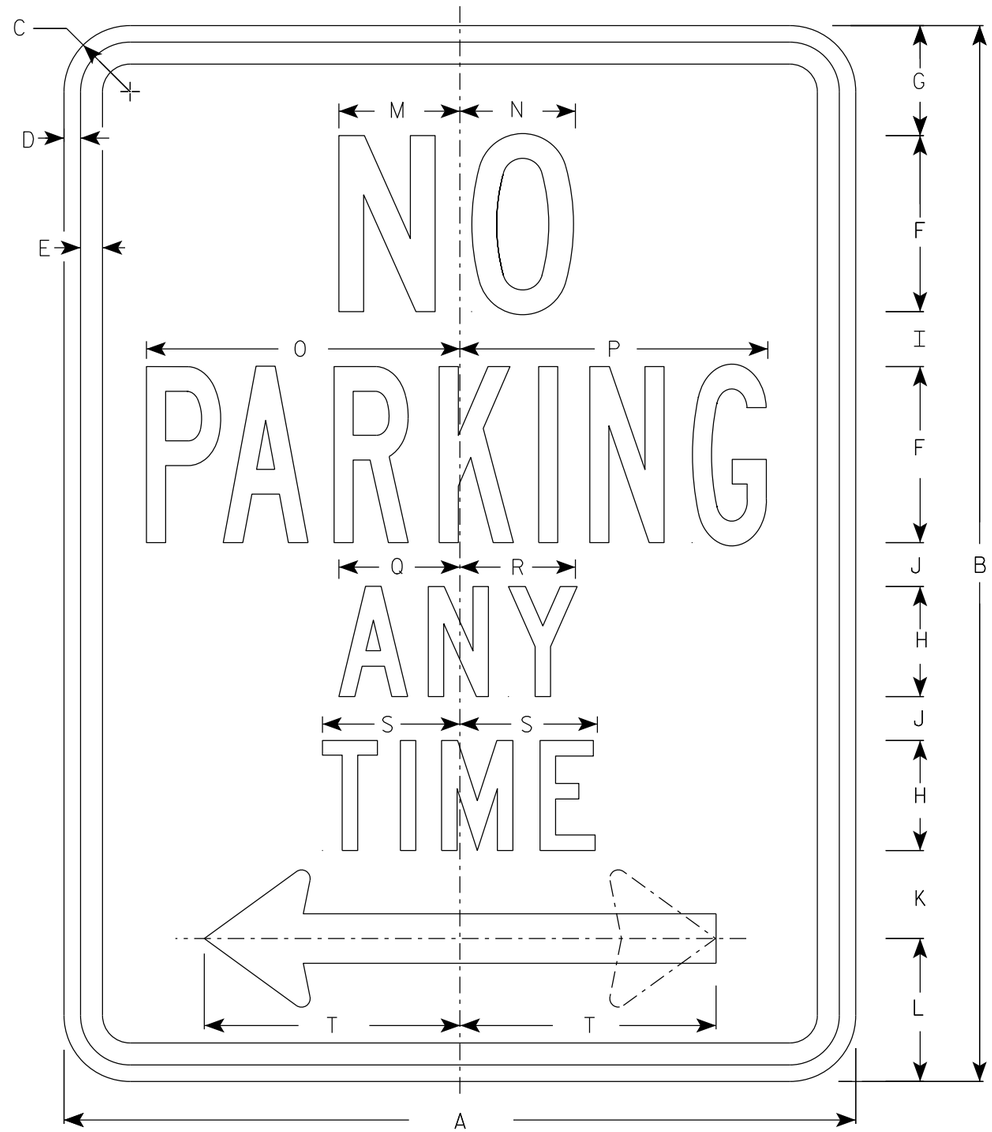
STANDARD SIGN
R6-2 R&L

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/2/10 PLATE NO. R6-2.8

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 423	E

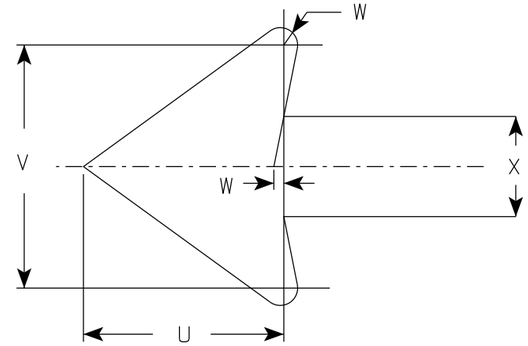


R7-1

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 4
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-1D (double arrow)
   R7-1L (left arrow)
   R7-1R (right arrow)

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	12	18	1 ½	⅜	⅜	3	1 ⅞	2	⅞	⅝	1 ½	2 ½	2	2	4 ⅞	4 ⅞	2 ¼	2 ⅛	2 ½	3 ⅞	1 ½	1 ¾	⅛	¾			1.5
2S	18	24	1 ½	⅜	½	4	2 ½	2 ½	1 ¼	1	2	3 ¼	2 ¾	2 ⅝	7 ⅛	7	2 ¾	2 ⅝	3 ⅛	5 ⅞	2 ¼	2 ⅝	¼	1 ⅛			3.0
2M	24	30	1 ½	⅜	½	5	3	3	2	1 ¼	2 ½	4	3 ¼	3 ⅜	9 ¼	9 ¼	3 ¼	3 ¼	3 ¾	7 ¾	3	3 ½	¼	1 ½			5.0
3	24	30	1 ½	⅜	½	5	3	3	2	1 ¼	2 ½	4	3 ¼	3 ⅜	9 ¼	9 ¼	3 ¼	3 ¼	3 ¾	7 ¾	3	3 ½	¼	1 ½			5.0
4																											
5																											

STANDARD SIGN
R7-1

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/26/23 PLATE NO. R7-1.11

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 424 E



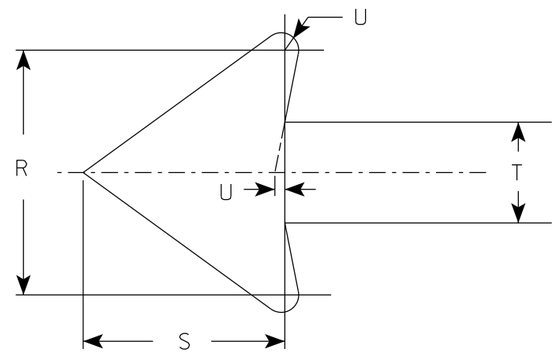
R7-2

* - See Note 5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 6
4. Substitute appropriate numerals as required & adjust spacing to achieve proper balance.
5. R7-2D (double arrow)
   R7-2L (left arrow)
   R7-2R (right arrow)
6. Lines 1, 3 and 4 are series C, line 2 is series B.

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	12	18	1 1/2	3/8	3/8	3	1 7/8	1 1/2	7/8	7/8	2	2 1/2	2	2	4 7/8	4 7/8	3 7/8	1 3/4	1 1/2	3/4	1/8						1.5
2S	18	24	1 1/2	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	5 7/8	2 5/8	2 1/4	1 1/8	1/4						3.0
2M	24	30	1 1/2	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 3/4	3 1/2	3	1 1/2	1/4						5.0
3	24	30	1 1/2	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 3/4	3 1/2	3	1 1/2	1/4						5.0
4																											
5																											

STANDARD SIGN
R7-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 10/26/23 PLATE NO. R7-2.10

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 425	E



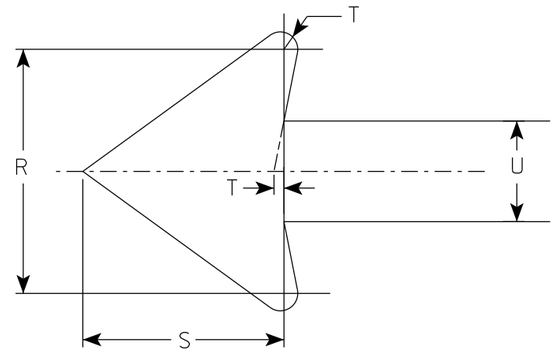
R7-5

* - See Note 5

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Green
3. Message Series - See Note 6
4. Substitute appropriate numerals as required & adjust spacing to achieve proper balance.
5. R7-5D (double arrow)
   R7-5L (left arrow)
   R7-5R (right arrow)
6. Lines 1, 2 & 3 are series C Copy
   Line 4 Series B Copy.

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	12	18	1 1/2	3/8	3/8	2	2	2 1/4	1 1/4	4	2 1/2	2 1/8	2	2 7/8	4 5/8	4 1/2	3 7/8	1 3/4	1 1/2	1/8	3/4						1.5
2S	18	24	1 1/2	3/8	1/2	3	3	2 5/8	1 1/4	5 5/8	3 1/4	3 1/8	3 1/8	4 1/4	6 7/8	6 3/4	5 7/8	2 5/8	2 1/4	1/4	1 1/8						3.0
2M	24	30	1 1/2	3/8	1/2	4	3	3	2	6	3 1/2	4 1/4	4 1/8	5 3/4	9 1/8	9 1/8	7 3/4	3 1/2	3	1/4	1 1/2						5.0
3	24	30	1 1/2	3/8	1/2	4	3	3	2	6	3 1/2	4 1/4	4 1/8	5 3/4	9 1/8	9 1/8	7 3/4	3 1/2	3	1/4	1 1/2						5.0
4																											
5																											

STANDARD SIGN
R7-5

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 10/26/23 PLATE NO. R7-5.9

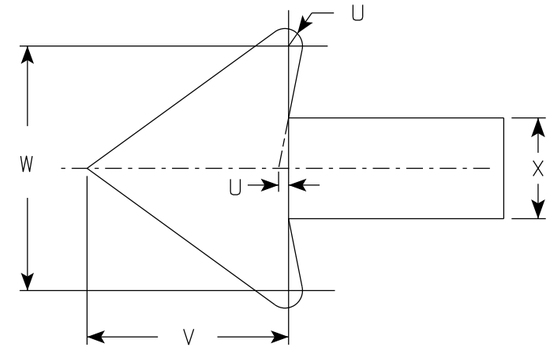
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 426	E



R7-52

NOTES

1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Red
3. Message Series - See Note 4
4. Lines 1, 3 and 4 are series C, line 2 is series B.
5. R7-52D (double arrow)
   R7-52L (left arrow)
   R7-52R (right arrow)



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	12	18	1 1/2	3/8	3/8	3	1 7/8	1 1/2	7/8	7/8	2	2 1/2	2	2	4 7/8	4 7/8	3 7/8	3 3/4	2 3/8	3 7/8	1/8	1 1/2	1 3/4	3/4			1.5
2S	18	24	1 1/2	3/8	1/2	4	2 1/2	2 1/2	1 1/4	1	2	3 1/4	2 3/4	2 5/8	7 1/8	7	6 3/8	6 1/4	3 7/8	5 7/8	1/4	2 1/4	2 5/8	1 1/8			3.0
2M	24	30	1 1/2	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 5/8	7 5/8	4 3/4	7 3/4	1/4	3	3 1/2	1 1/2			5.0
3	24	30	1 1/2	3/8	1/2	5	3	3	2	1 1/4	2 1/2	4	3 1/4	3 3/8	9 1/4	9 1/4	7 5/8	7 5/8	4 3/4	7 3/4	1/4	3	3 1/2	1 1/2			5.0
4																											
5																											

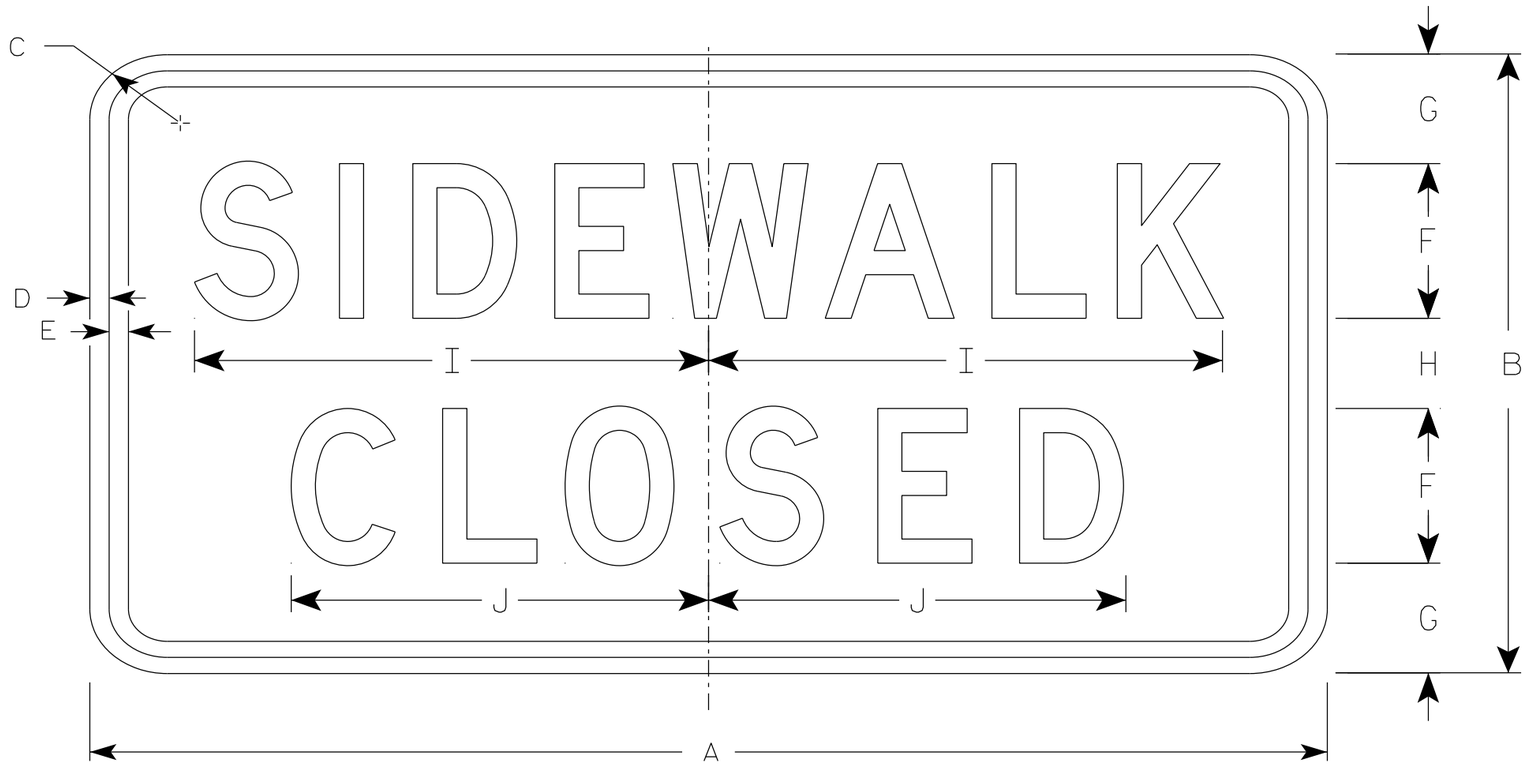
STANDARD SIGN
R7-52

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/9/23 PLATE NO. R7-52.7

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 427	E



R9-9

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	24	12	1 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
2M	24	12	1 ½	½	½	3	2 ⅛	1 ¾	10	8 ⅛																	2.0
3	30	18	1 ½	½	½	4	3 ½	3	12 ½	10 ¼																	3.75
4																											
5																											

STANDARD SIGN
R9-9

WISCONSIN DEPT OF TRANSPORTATION

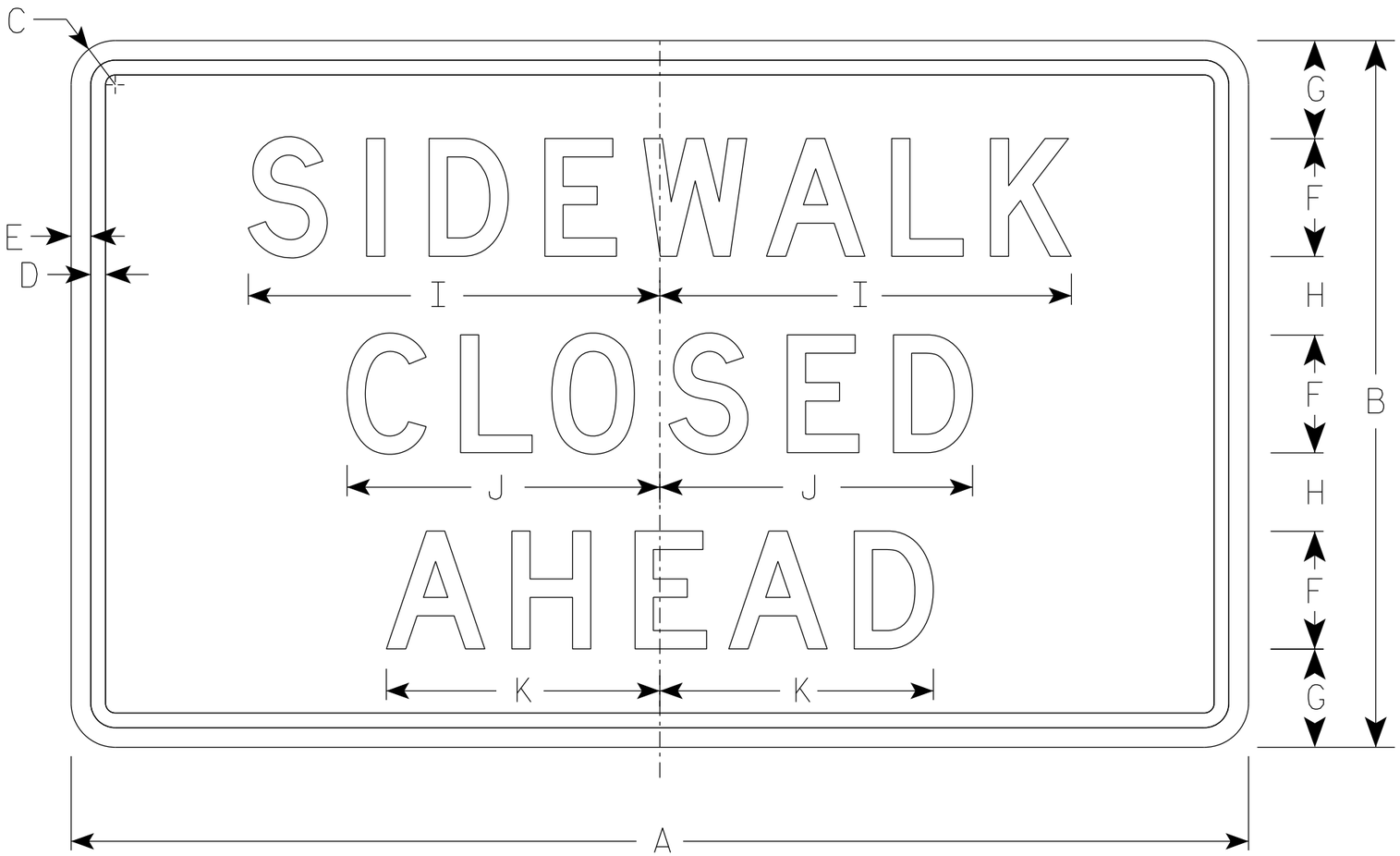
APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 428 | E

NOTES

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



R9-9A

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	30	18	1 ½	⅜	½	3	2 ½	2	10 ½	8	7																3.75
2M	30	18	1 ½	⅜	½	3	2 ½	2	10 ½	8	7																3.75
3																											
4																											
5																											

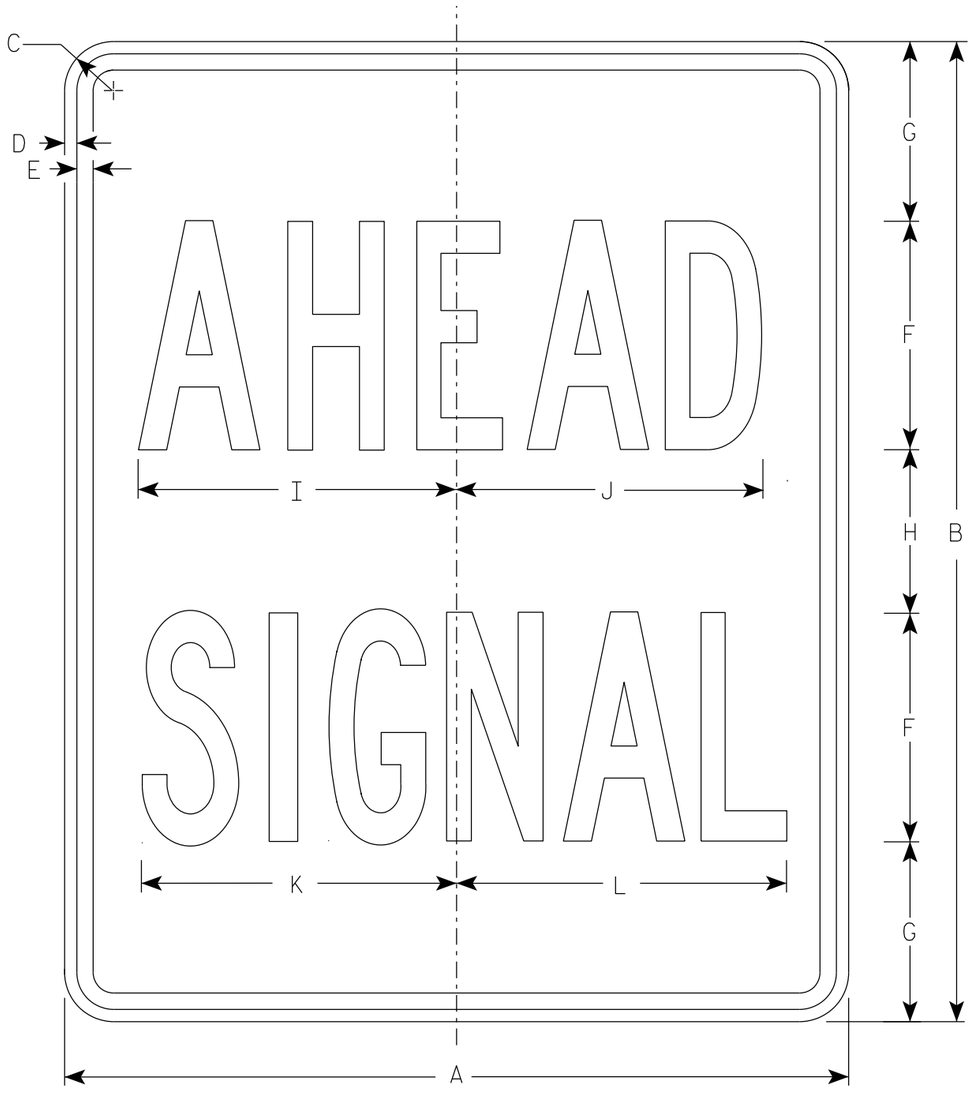
STANDARD SIGN
R9-9A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

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

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 429 | E



R10-10A

NOTES

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

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	30	1 ½	⅜	½	7	5 ½	5	9 ¾	9 ⅜	9 ⅝	10 ⅛															5.0
2M	24	30	1 ½	⅜	½	7	5 ½	5	9 ¾	9 ⅜	9 ⅝	10 ⅛															5.0
3																											
4																											
5																											

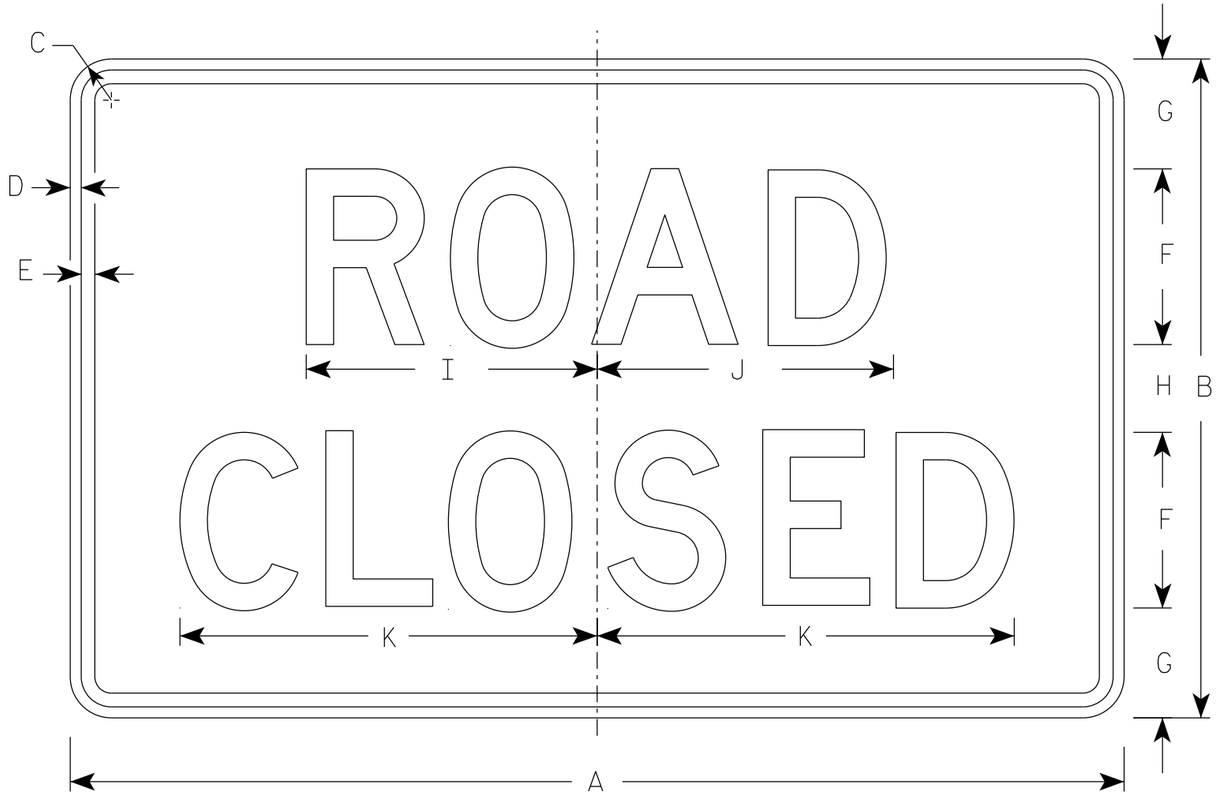
STANDARD SIGN
R10-10A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/31/24 PLATE NO. R10-10A.6

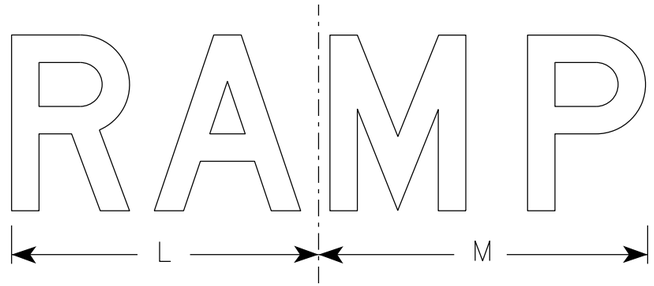
PROJECT NO:	HWY:	COUNTY:		SHEET NO: 430	E



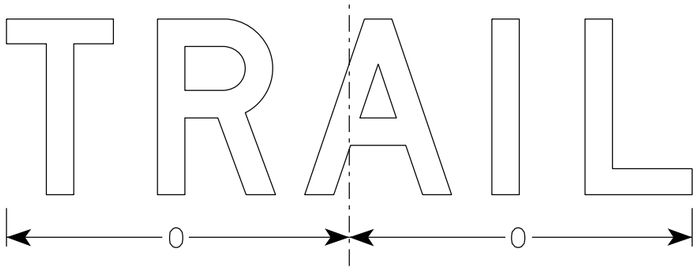
R11-2

NOTES

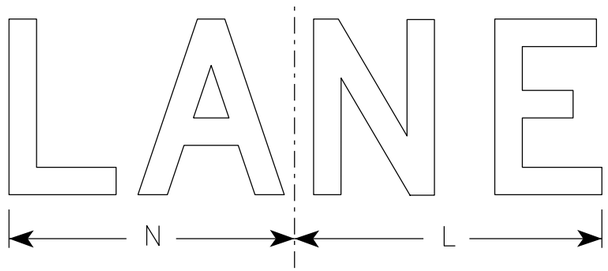
1. Sign is Type II - Type H Reflective
2. Color:
   Background - White
   Message - Black
3. Message Series - D
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
5. Modify the message as required.



R11-2R



R11-2T



R11-2L

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1																											
2S	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
2M	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
3	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
4	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0
5	48	30	1 7/8	1/2	5/8	8	5	4	13 1/4	13 1/2	19	14	15	13	15 5/8												10.0

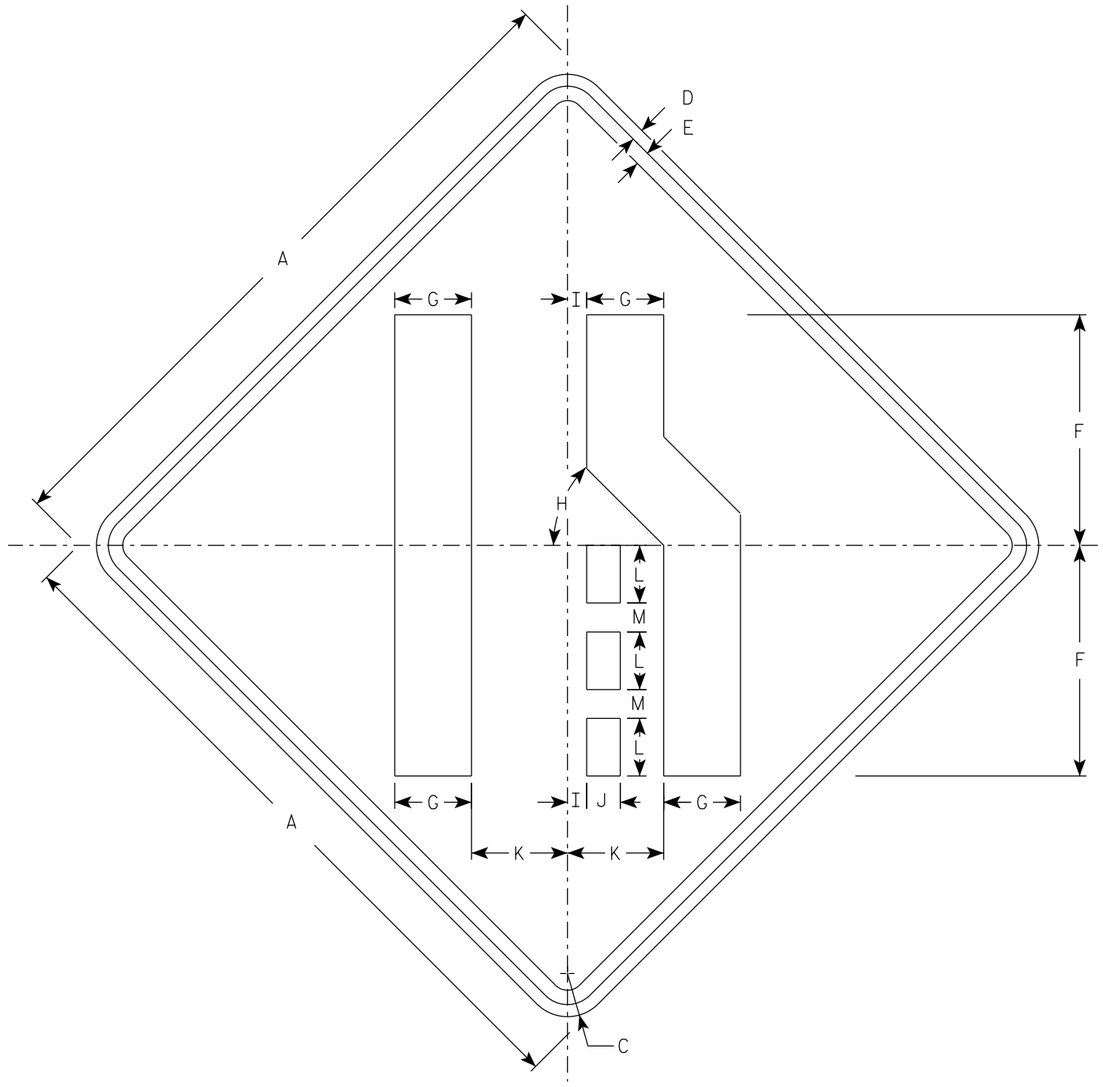
STANDARD SIGN
R11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/5/24 PLATE NO. R11-2.12

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 431 E



W4-2R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W4-2L is the same as W4-2R except the symbolis reversed along the vertical centerline.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8	10	3 3/8	45°	7/8	1 1/2	4 1/4	2 1/2	1 1/4														6.25
2S	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2M	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
3	36		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0

STANDARD SIGN
W4-2

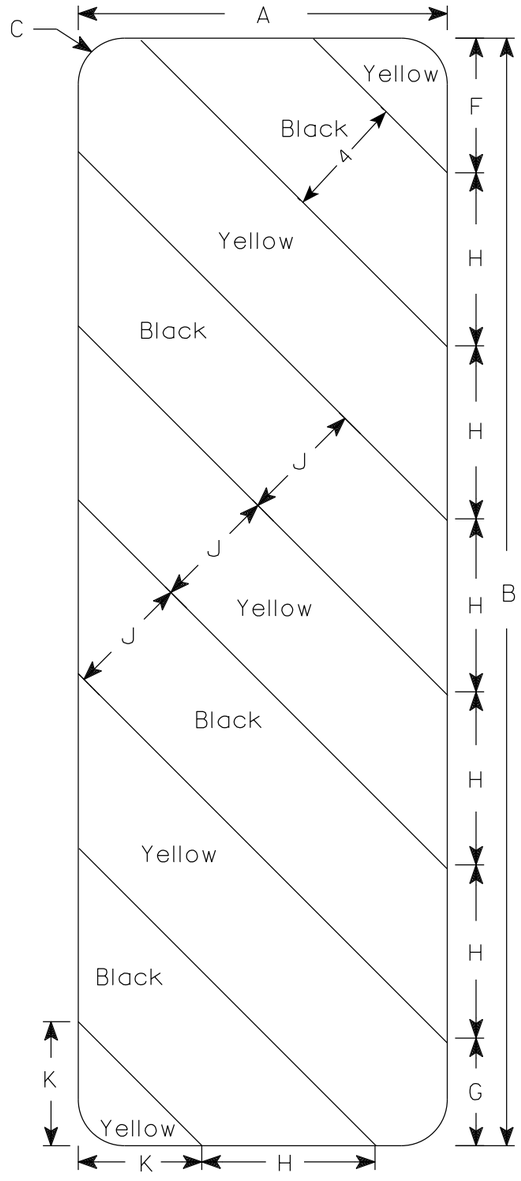
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

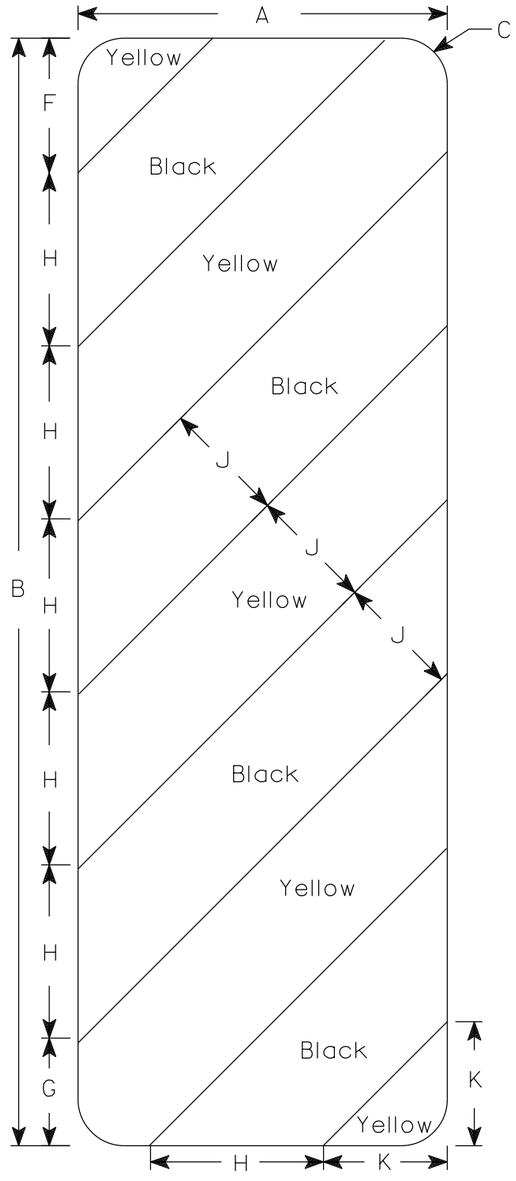
DATE 8/31/2023 PLATE NO. W4-2.15

PROJECT NO:

SHEET NO: E



W5-52L



W5-52R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. 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	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
2M	12	36	1 1/2			4 3/8	3 1/2	5 5/8	45°	4	4																3.0
3	18	54	1 1/2			6	5 1/2	8 1/2	45°	6	6 9/16																6.75
4																											
5																											

STANDARD SIGN

W5-52L & W5-52R

WISCONSIN DEPT OF TRANSPORTATION

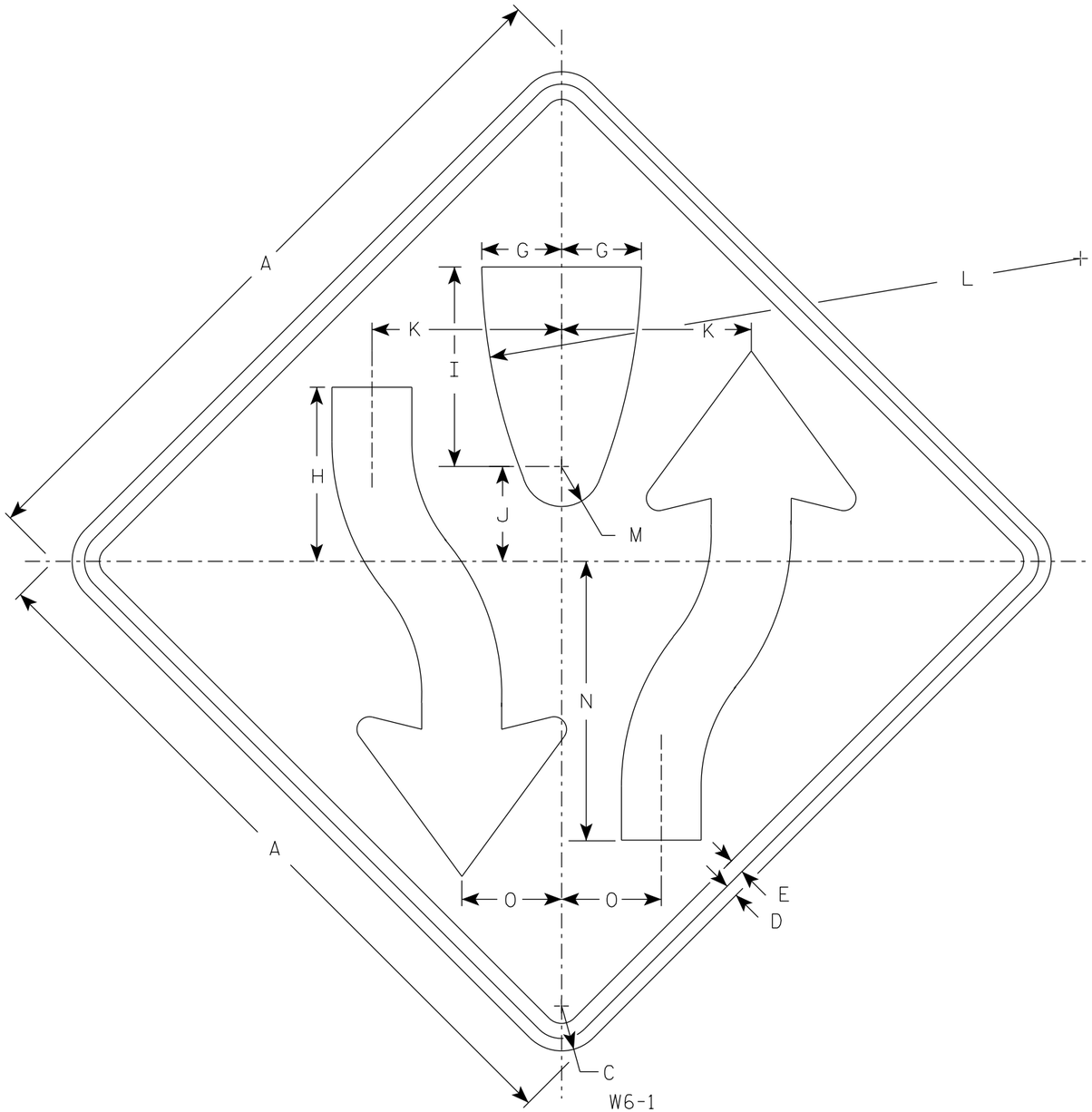
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/4/2024 PLATE NO. W5-52.10

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 433 E

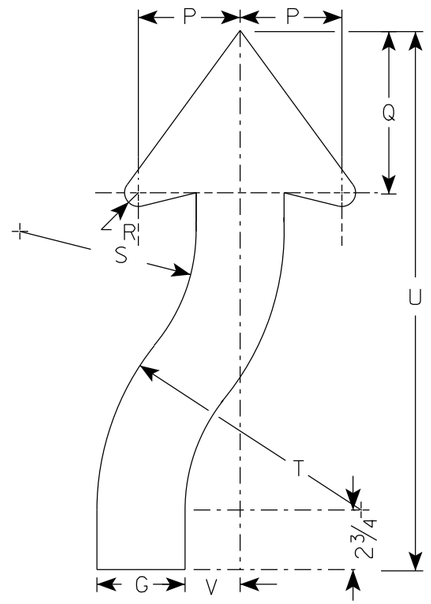
7

7



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W6-2 same as W6-1 but is rotated 180° when mounted.



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	30		1 7/8	1/2	5/8		3 1/4	8	8 1/4	4 1/8	7 7/8	25	1 3/4	11 5/8	4 1/8	3 7/8	6 3/4	5/8	6 5/8	9 7/8	21 5/8	2					6.25
2S	36		2 1/4	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
2M	36		2 1/4	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
3	36		2 1/4	5/8	3/4		4	8 3/4	10	4 3/4	9 1/2	30	2	14	5	4 5/8	7 3/8	7/8	8	12	24 1/2	2 1/2					9.0
4	48		3	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0
5	48		3	3/4	1		5 3/8	11 5/8	13 3/8	6 3/8	12 5/8	40	2 5/8	18 5/8	6 5/8	6 1/4	9 7/8	1 1/4	10 5/8	16	32 5/8	3 3/8					16.0

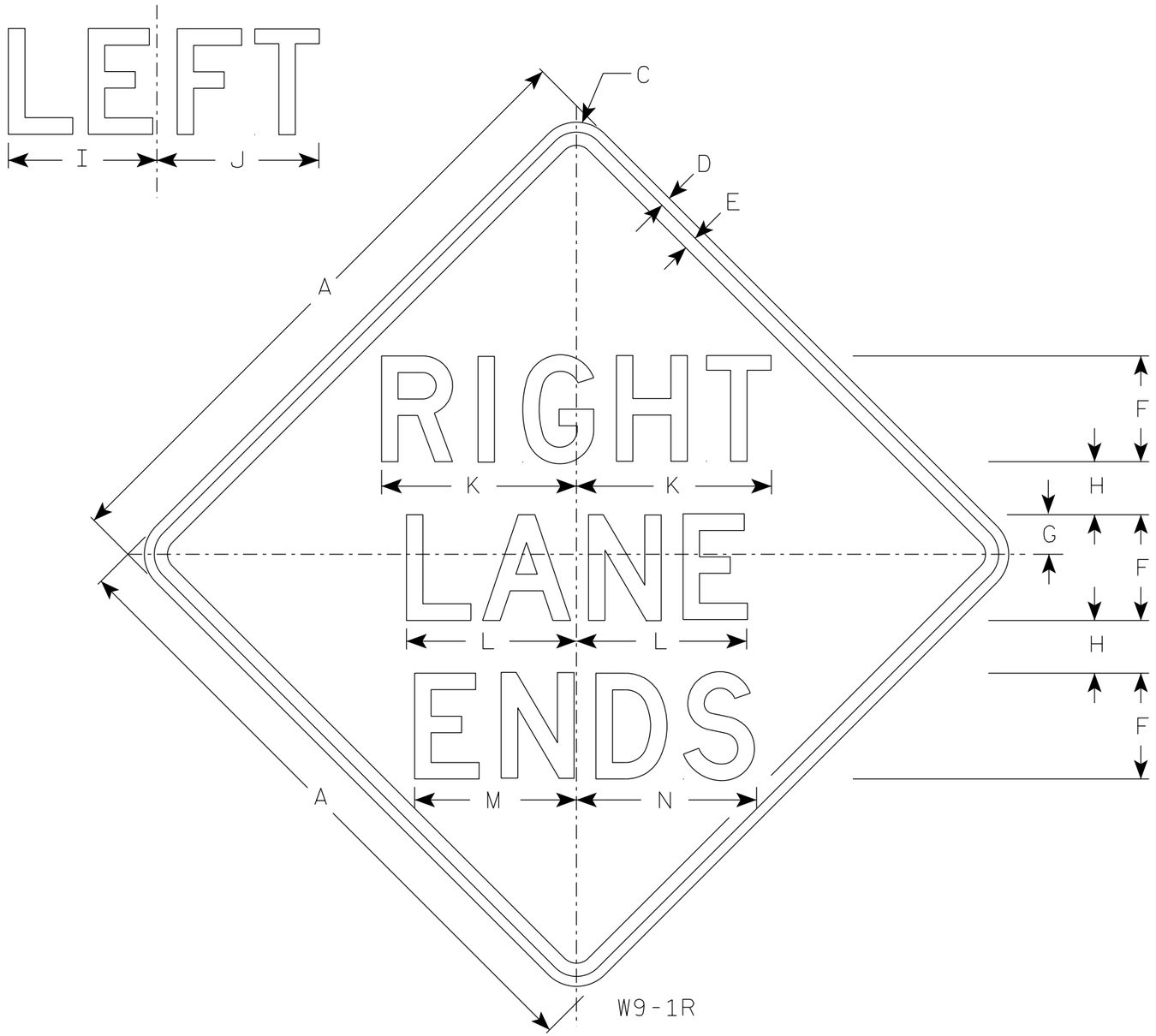
STANDARD SIGN
W6-1 & W6-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 9/6/2023 PLATE NO. W6-1.15

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 434 E



NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. Message Series - D
4. W9-1L same as W9-1R except the word Left replaces Right.

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30		1 7/8	1/2	5/8	5	1 1/2	2 1/2	7 1/8	7 5/8	9 1/4	8 1/8	7 5/8	8 5/8													6.25
2S	36		2 1/4	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
2M	36		2 1/4	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
3	36		2 1/4	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
4	36		2 1/4	5/8	3/4	6	2	3	8 1/2	9 1/8	11	9 3/4	9	10 3/8													9.0
5	48		3	3/4	1	8	3	4	11 1/4	12 1/4	14 3/4	12 7/8	12 1/4	13 5/8													16.0

STANDARD SIGN

W9-1

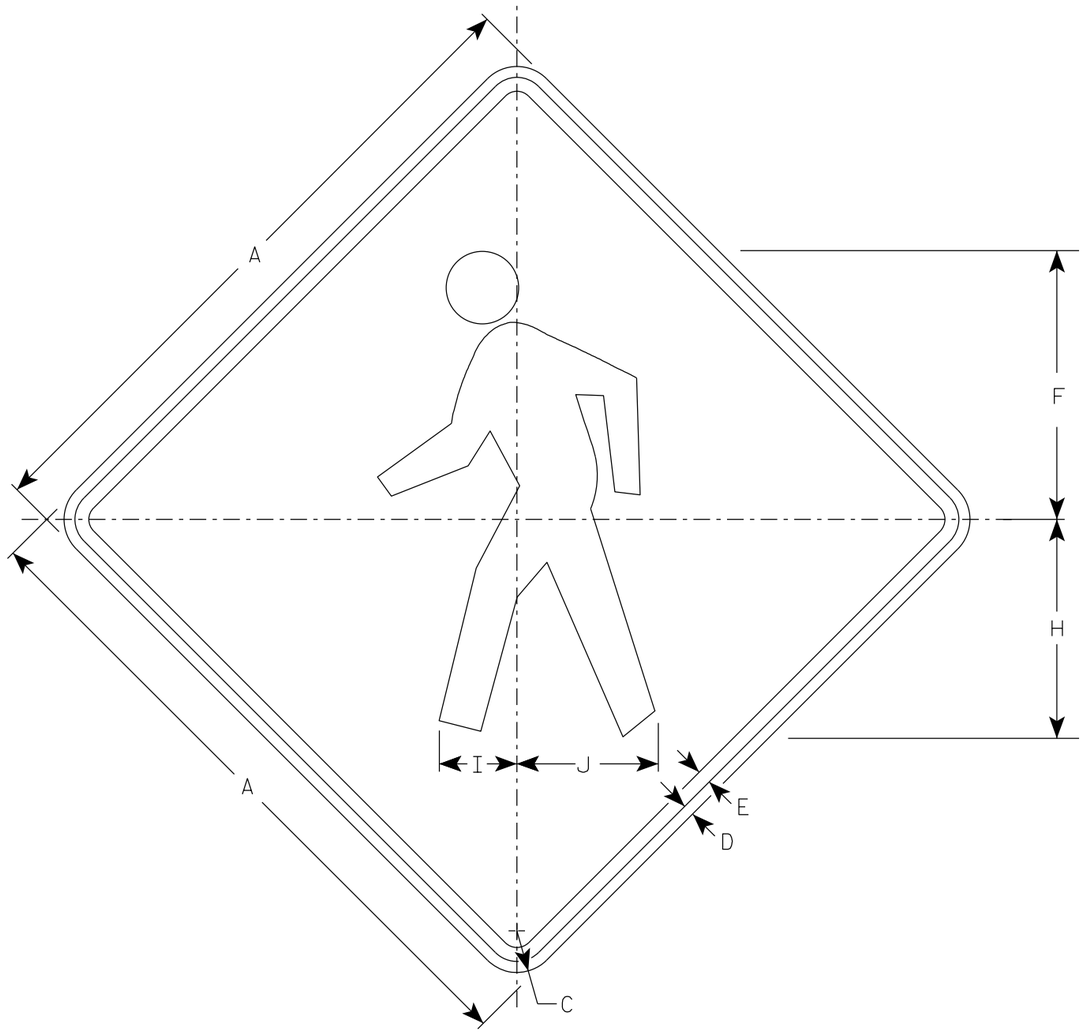
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 11/9/2023 PLATE NO. W9-1.9

PROJECT NO:

SHEET NO: 435 E



W11-2

NOTES

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

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 1/2	3/8	1/2	9 3/4		7 7/8	2 7/8	5 1/8																	4.0
2S	30		1 7/8	1/2	5/8	12 1/8		9 7/8	3 1/2	6 3/8																	6.25
2M	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
3	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

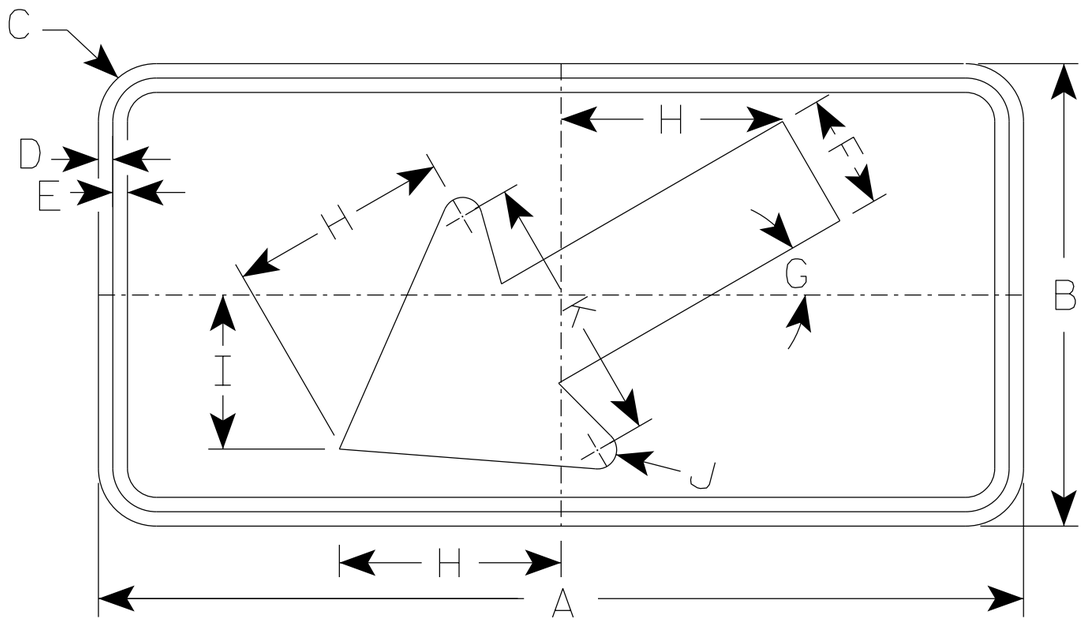
STANDARD SIGN
W11-2

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 6/15/2023 PLATE NO. W11-2.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 436 E



W16-7L

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Yellow
   Message - Black
3. W16-7R is the same as W16-7L except the arrow is reversed along the vertical centerline.

* For 36" x 36" Warning Signs, use 30" x 18" W16-7L signs.
* For 48" x 48" Warning Signs, use 48" x 24" W16-7L signs.

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1																											
	2S	24	12	1 ½	⅜	⅜	3	30°	5 ¾	4	½	7																2.0
*	2M	30	18	1 ½	⅜	½	4 ½	30°	8 ½	6	⅝	10 ¼																3.75
*	3	30	18	1 ½	⅜	½	4 ½	30°	8 ½	6	⅝	10 ¼																3.75
*	4	48	24	1 ⅞	½	⅝	6	30°	11 ½	8	1	14																8.0
	5																											

STANDARD SIGN
W16-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

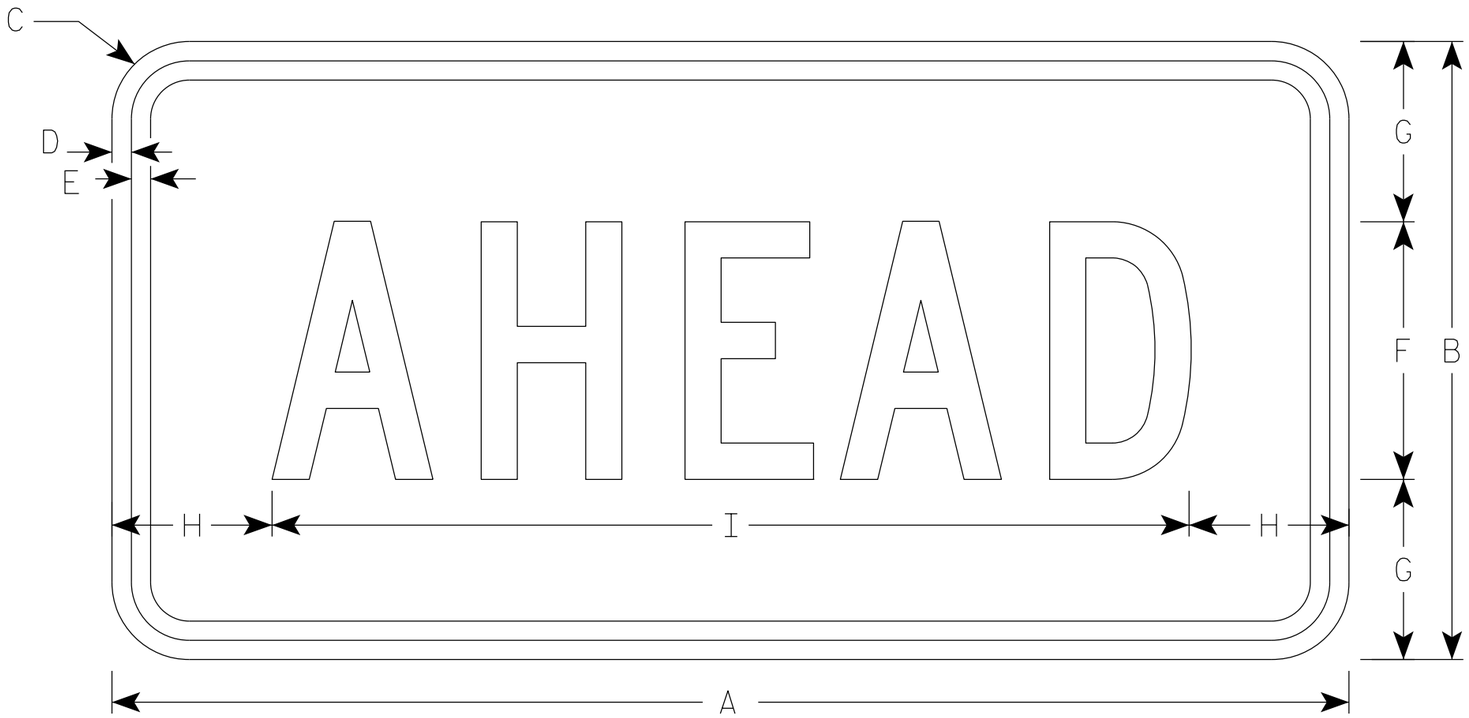
DATE 1/9/2024 PLATE NO. W16-7.9

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 437 E

7

NOTES

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



W16-9P

* For 36" x 36" Warning Signs, use 30" x 18" W16-9P signs.
* For 48" x 48" Warning Signs, use 48" x 24" W16-9P signs.

	SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
	1																											
	2S	24	12	1 1/2	3/8	3/8	5	3 1/2	3 1/8	17 3/4																		2.0
*	2M	30	18	1 1/2	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
*	3	30	18	1 1/2	3/8	1/2	7	3 1/2	2 3/4	24 1/2																		3.75
*	4	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
	5																											

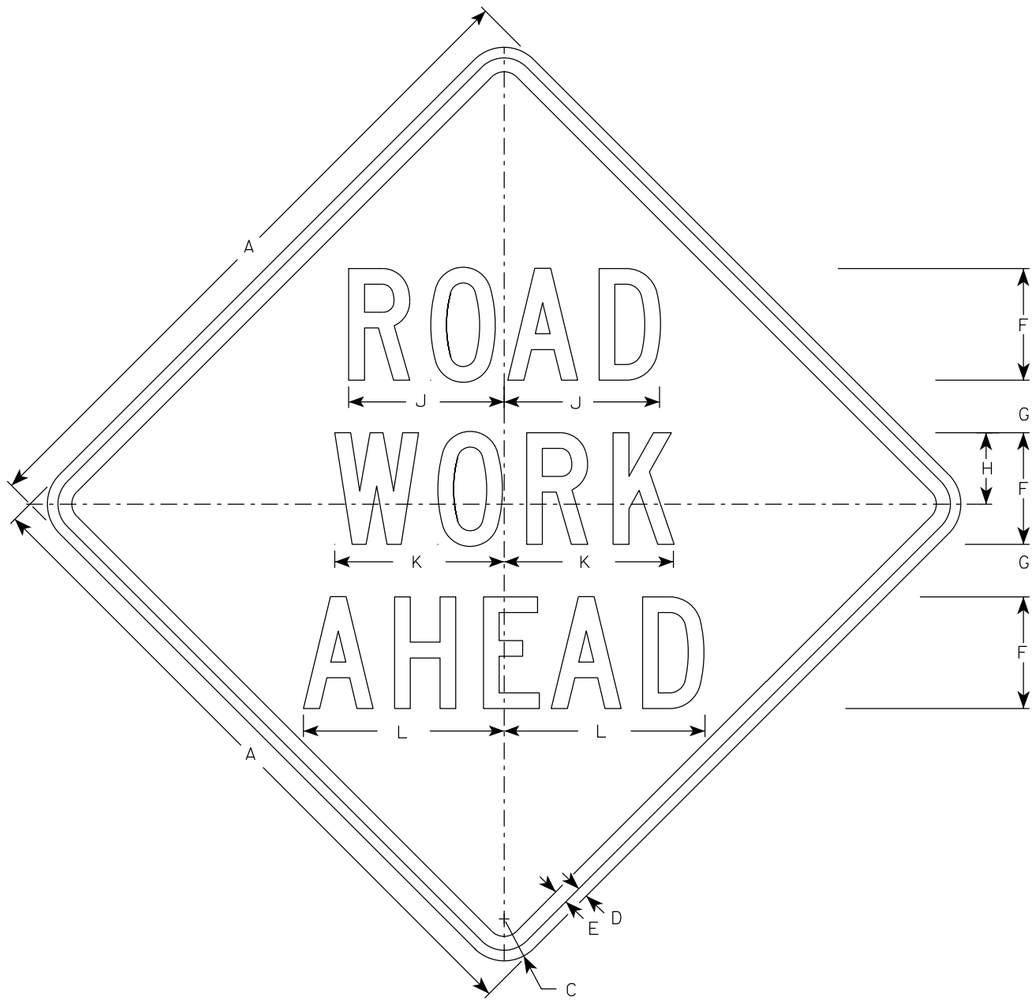
STANDARD SIGN
W16-9P

WISCONSIN DEPT OF TRANSPORTATION

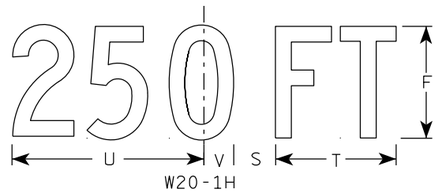
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/9/2024 PLATE NO. W16-9P.9

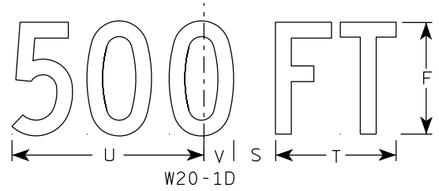
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 438 E



W20-1A



W20-1H



W20-1D



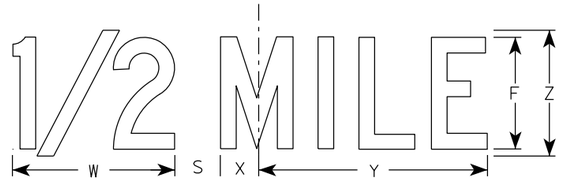
W20-1C



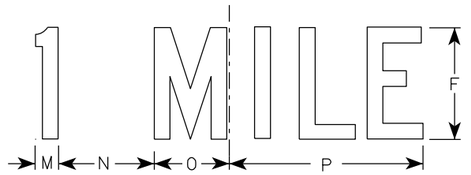
W20-1B

NOTES

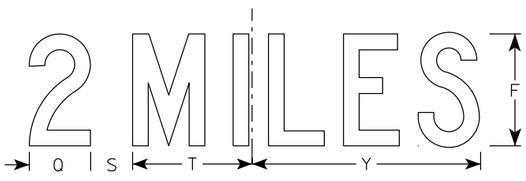
1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - C
4. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.



W20-1G



W20-1F



W20-1E

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	5	2 5/8	3 1/4	10 1/8	7	7 5/8	8 7/8	1 1/8	4 1/2	3 1/2	9	3 1/4	2 1/2	2 1/4	5 5/8	9	1 3/8	8	1 3/4	10 3/4	6	9.0
2S	48		3	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		3	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		3	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		3	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		3	3/4	1	8	3 3/4	5 1/8	15 3/8	11 1/8	12 1/8	14 3/8	1 5/8	6 7/8	5 3/8	13 7/8	4 3/8	3 7/8	3	8 5/8	13 3/4	2 1/8	11 7/8	2 3/4	16 3/8	9	16.0

STANDARD SIGN
W20-1A, B, C, D, E, F, G & H

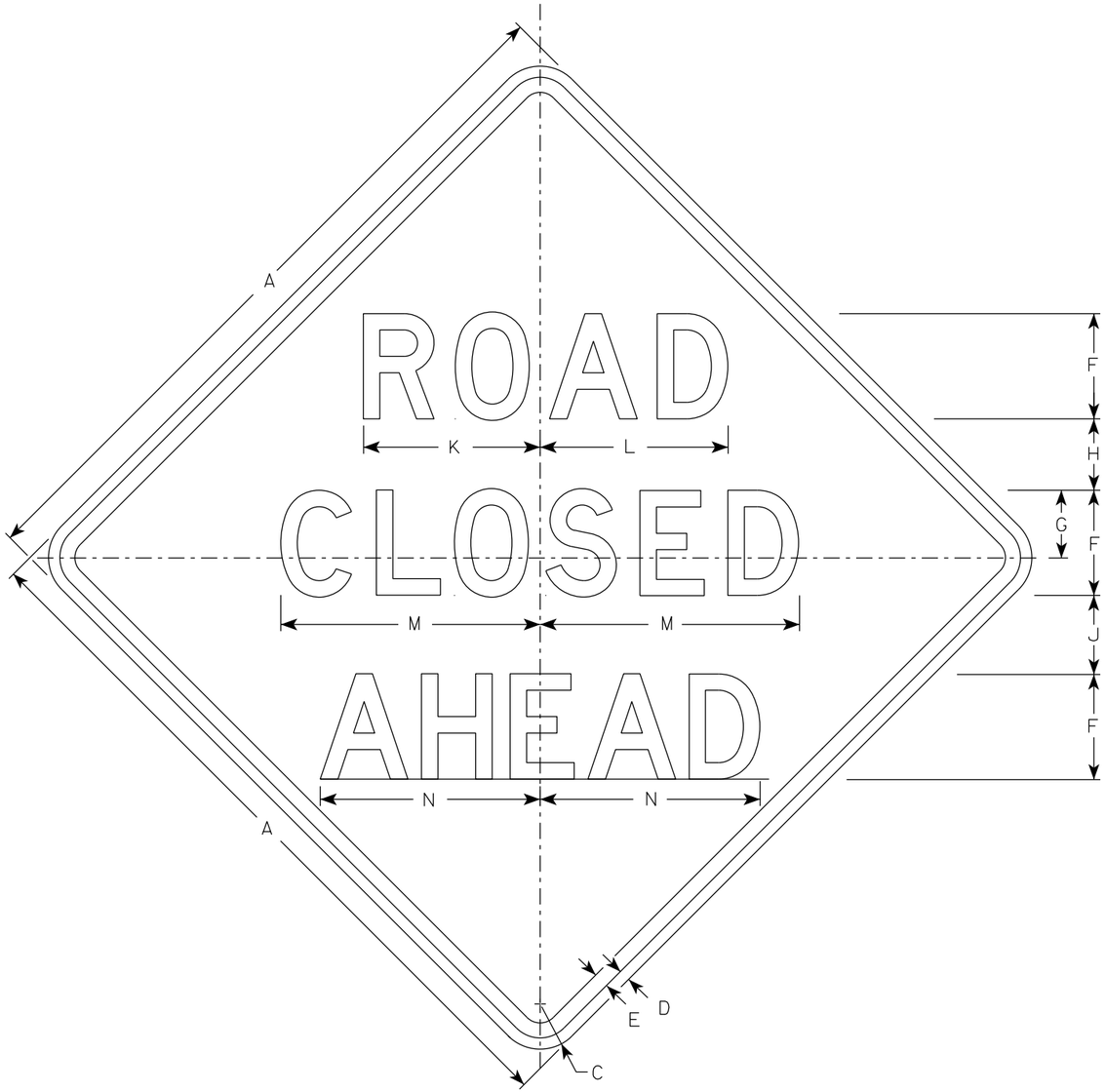
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

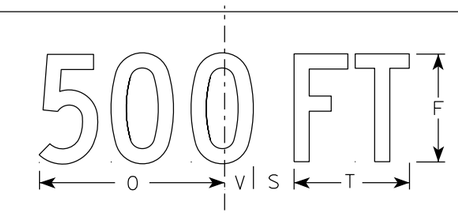
DATE 1/10/2024 PLATE NO. W20-1.12

PROJECT NO:

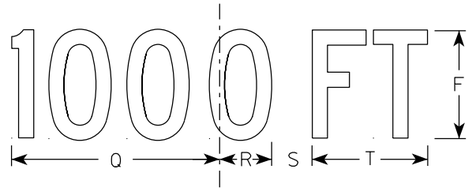
SHEET NO: 439 E



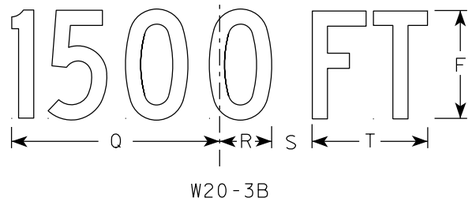
W20-3A



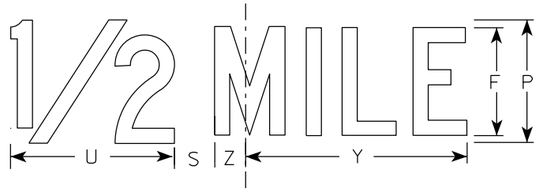
W20-3D



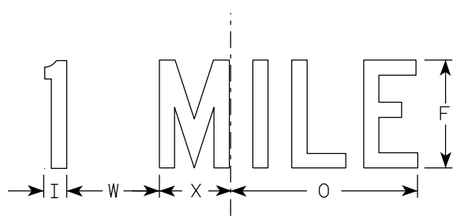
W20-3C



W20-3B



W20-3G



W20-3F

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. 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		2 1/4	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		3	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		3	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		3	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		3	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		3	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

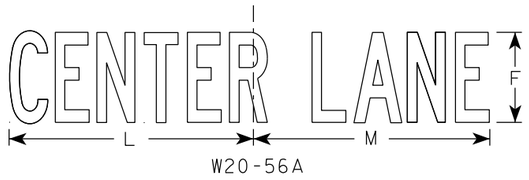
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/10/2024 PLATE NO. W20-3.8

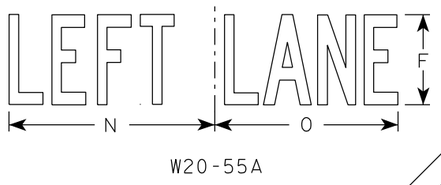
PROJECT NO: | HWY: | COUNTY: | SHEET NO: 440 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W203.DGN PLOT DATE : 10-JAN 2024 12:02 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$

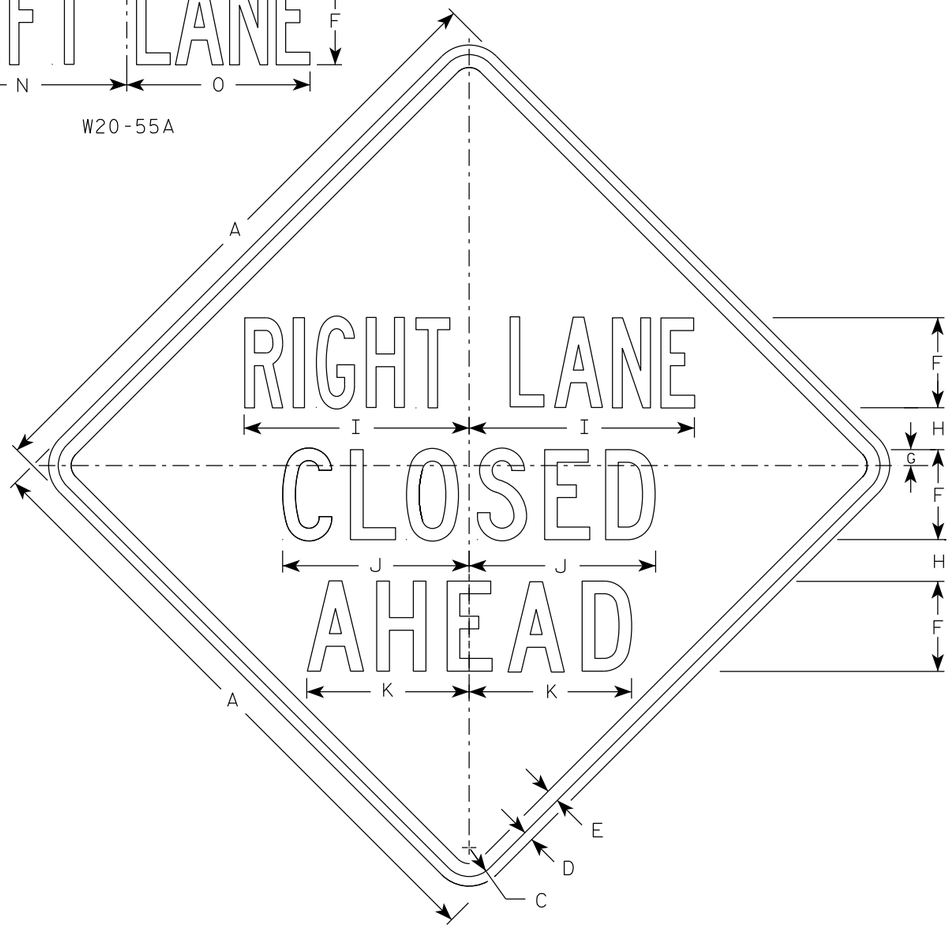
7



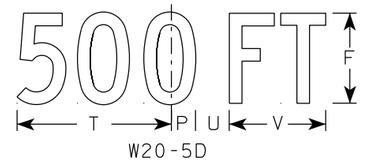
W20-56A



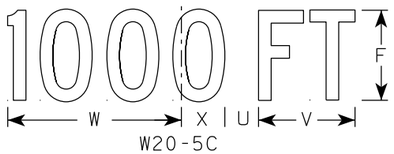
W20-55A



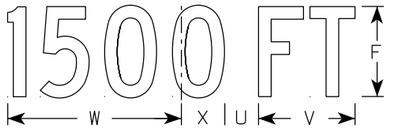
W20-5A



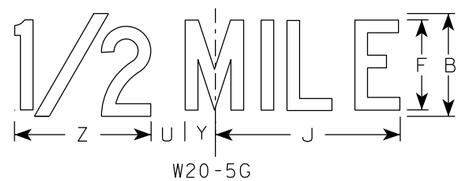
W20-5D



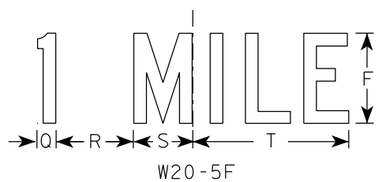
W20-5C



W20-5B



W20-5G



W20-5F

NOTES

1. Sign is Type II - Type F Reflective
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	2 1/4	5/8	3/4	5	7/8	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 7/8	5 5/8	10 1/8	2 1/2	1 3/4	8	9.0
2S	48	8	3	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	3	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	3	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	3	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	3	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

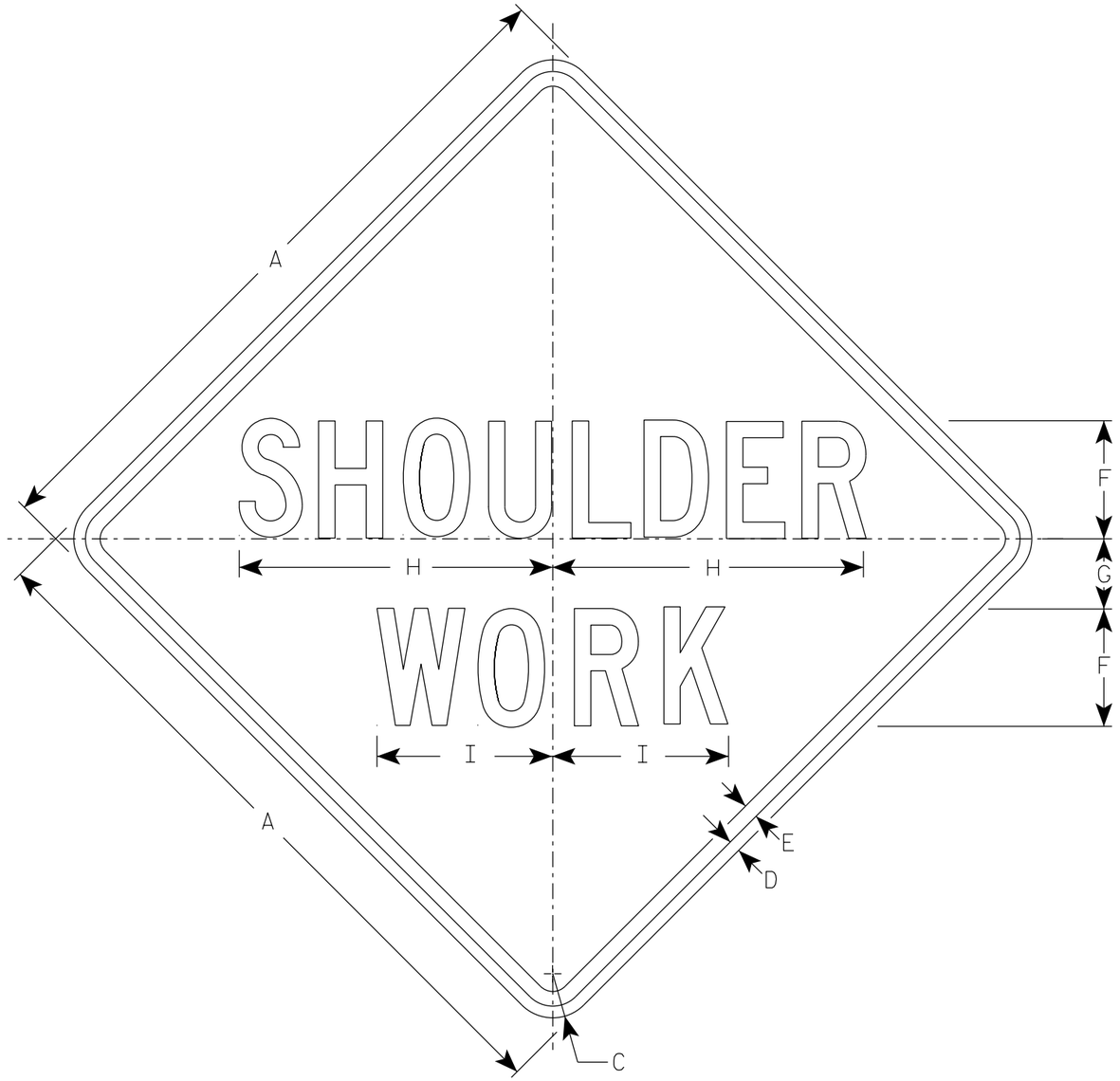
STANDARD SIGN
W20-5A, B, C, D, F & G

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 3/27/24 PLATE NO. W20-5.12

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 441	E



W21-5

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message 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		2 1/4	5/8	3/4	6	3 1/2	16	9																		9.0
2S	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
2M	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
3	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
4	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0
5	48		3	3/4	1	8	5	21 3/8	11 1/4																		16.0

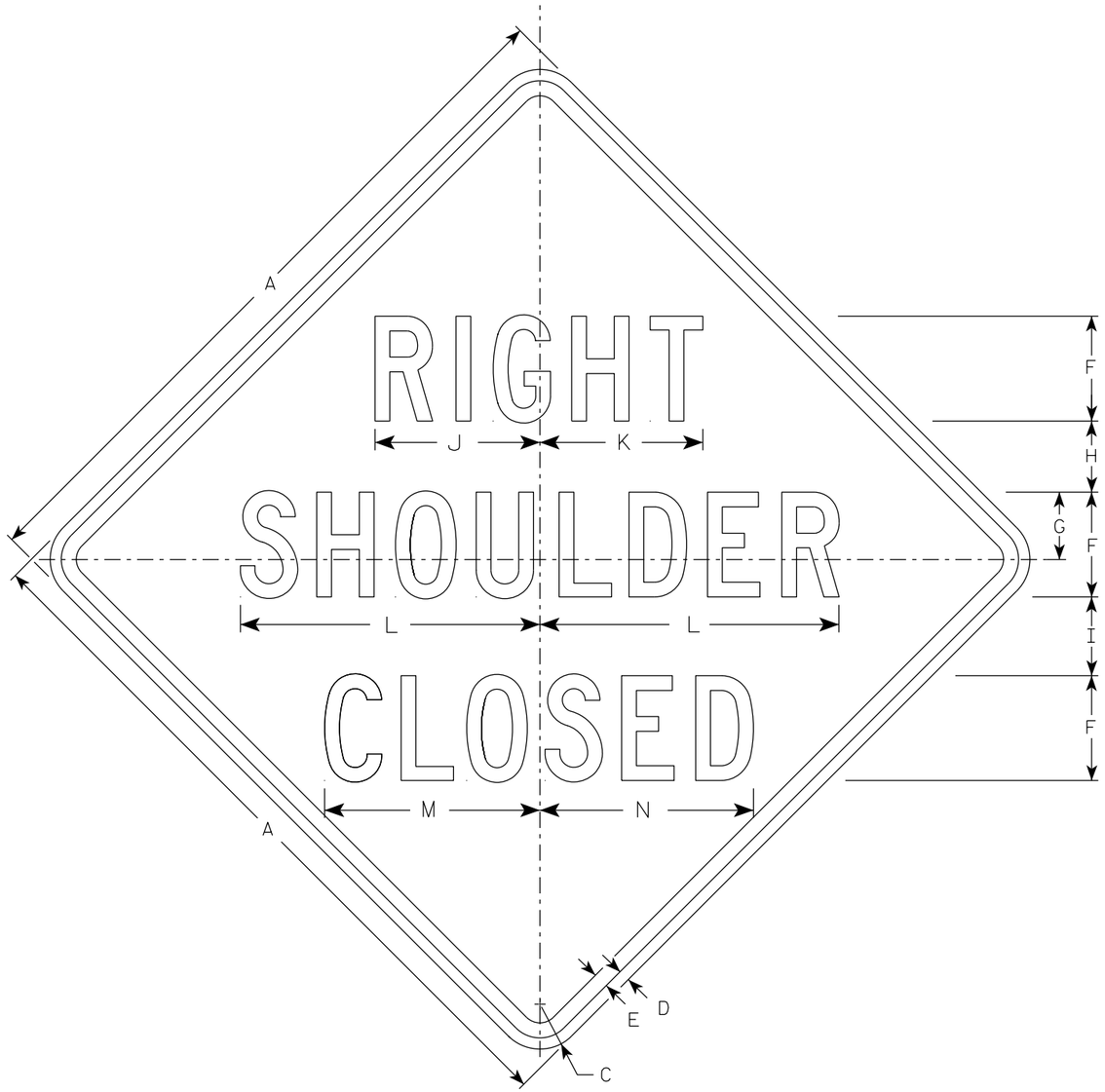
STANDARD SIGN
W21-5

WISCONSIN DEPT OF TRANSPORTATION

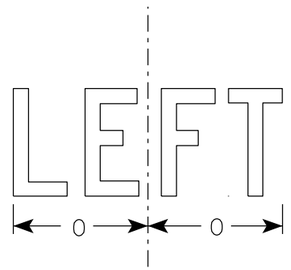
APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/11/2024 PLATE NO. W21-5.7

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 442 | E



W21-5A



W21-5AL

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message 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		2 1/4	5/8	3/4	5	3 3/8	3 1/2	4	7 7/8	7 3/4	14 1/4	10 1/4	10 1/8	6 1/4												9.0
2S	48		3	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
2M	48		3	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
3	48		3	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
4	48		3	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0
5	48		3	3/4	1	7	4 1/2	4 3/4	5 1/4	11	10 7/8	20	14 3/8	14 1/4	8 3/4												16.0

STANDARD SIGN
W21-5A

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

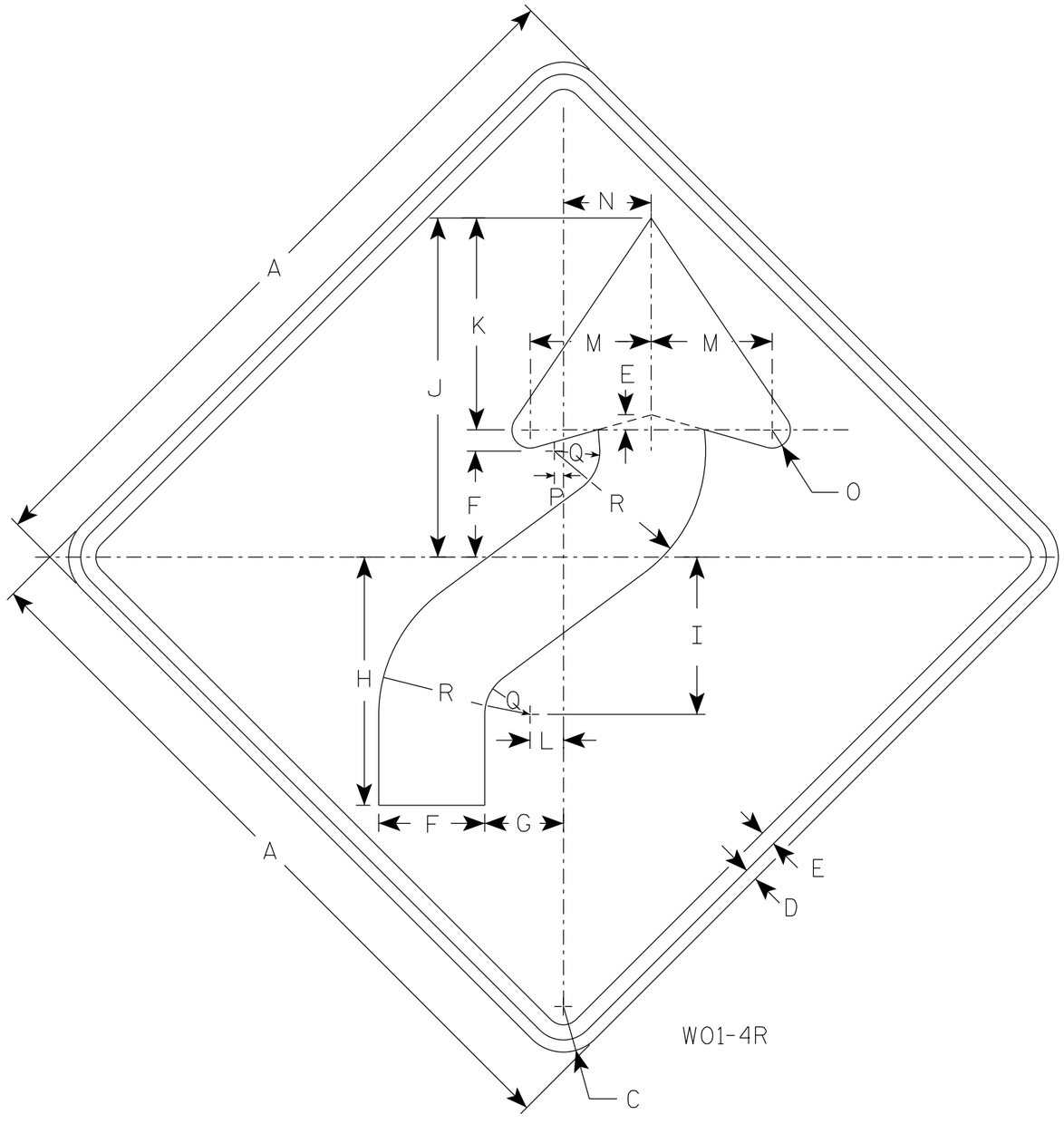
DATE 1/11/2024 PLATE NO. W21-5A.4

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 443 | E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W215A.dgn PLOT DATE : 11-JAN 2024 3:48 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42

7

7



W01-4R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W01-4L is the same as W01-4R 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		2 1/4	5/8	3/4	5 1/4	4	12 3/8	7 7/8	16 7/8	10 1/2	1 5/8	6	4 1/2	1	1/2	2 1/4	7 1/2									9.0
2S	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
2M	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
3	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
4	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0
5	48		3	3/4	1	7	5 1/4	16 1/2	10 1/2	22 1/2	14	2 1/4	8	6	1 1/4	5/8	3	10									16.0

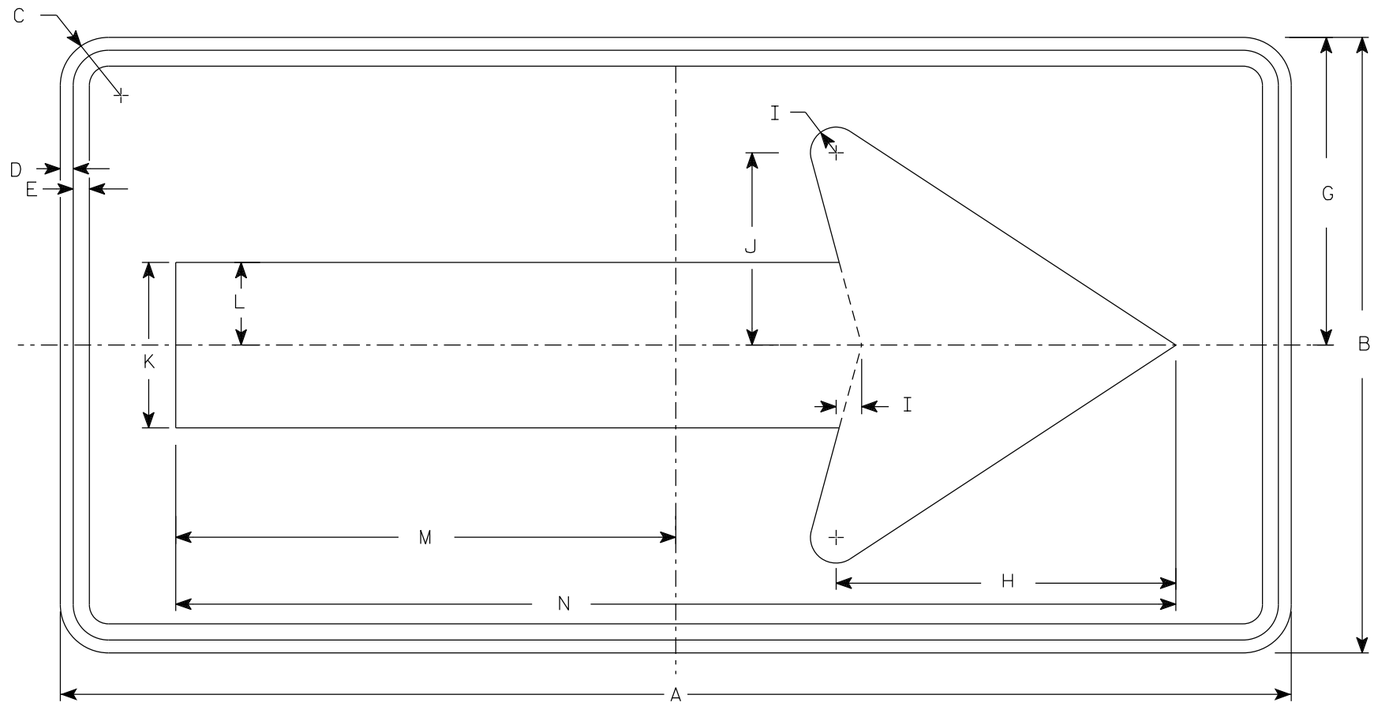
STANDARD SIGN
W01-4

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
For State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-4.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 444 E



WO1-6

NOTES

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

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 7/8	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 7/8	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 7/8	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 7/8	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 7/8	1/2	5/8		15	16 1/4	1 1/4	9 1/4	8	4	24 3/8	48 3/4													12.5

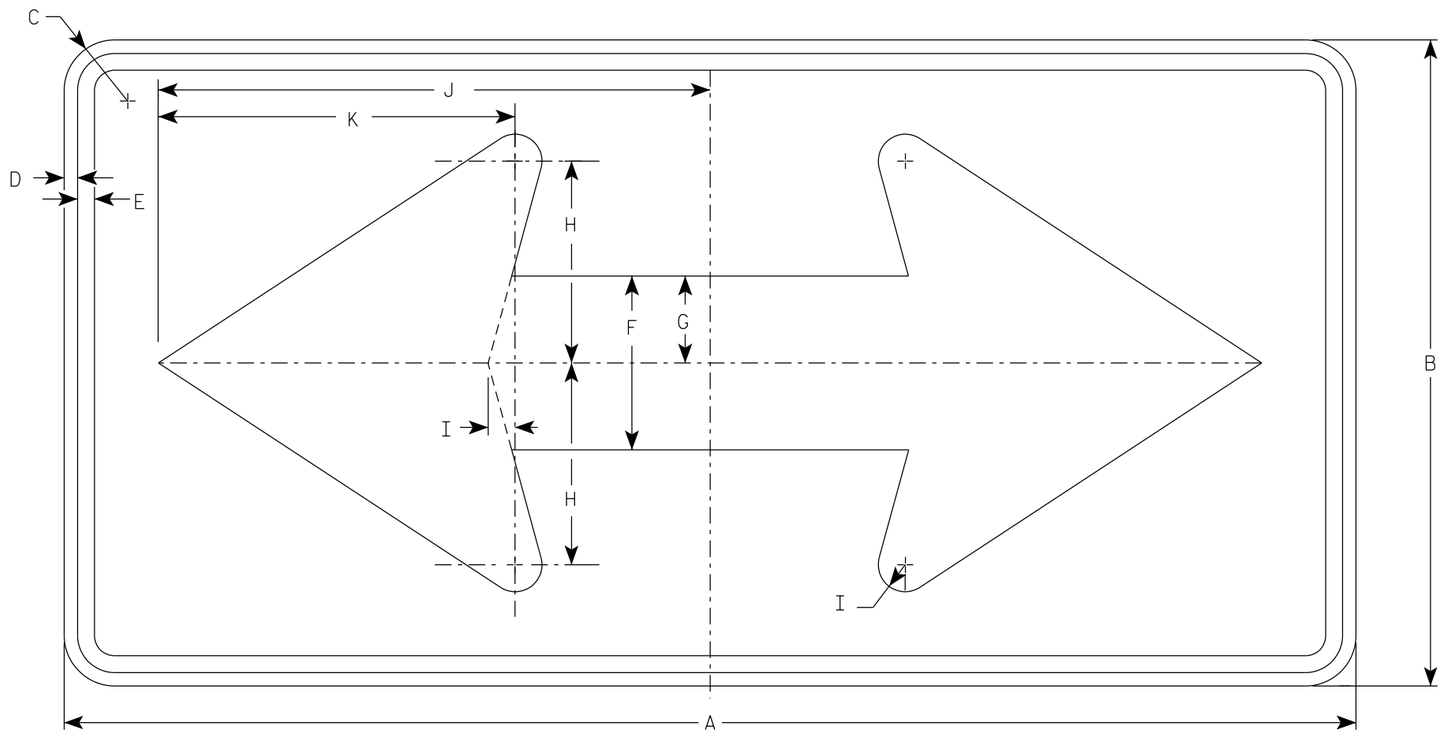
STANDARD SIGN
WO1-6

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. WO1-6.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: E



W01-7

NOTES

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

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 7/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
2M	48	24	1 7/8	1/2	5/8	6 1/2	3 1/4	7 1/2	1	20 1/2	13 1/4																8.0
3	60	30	1 7/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
4	60	30	1 7/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5
5	60	30	1 7/8	1/2	5/8	8	4	9 1/4	1 1/4	25 3/8	16 1/4																12.5

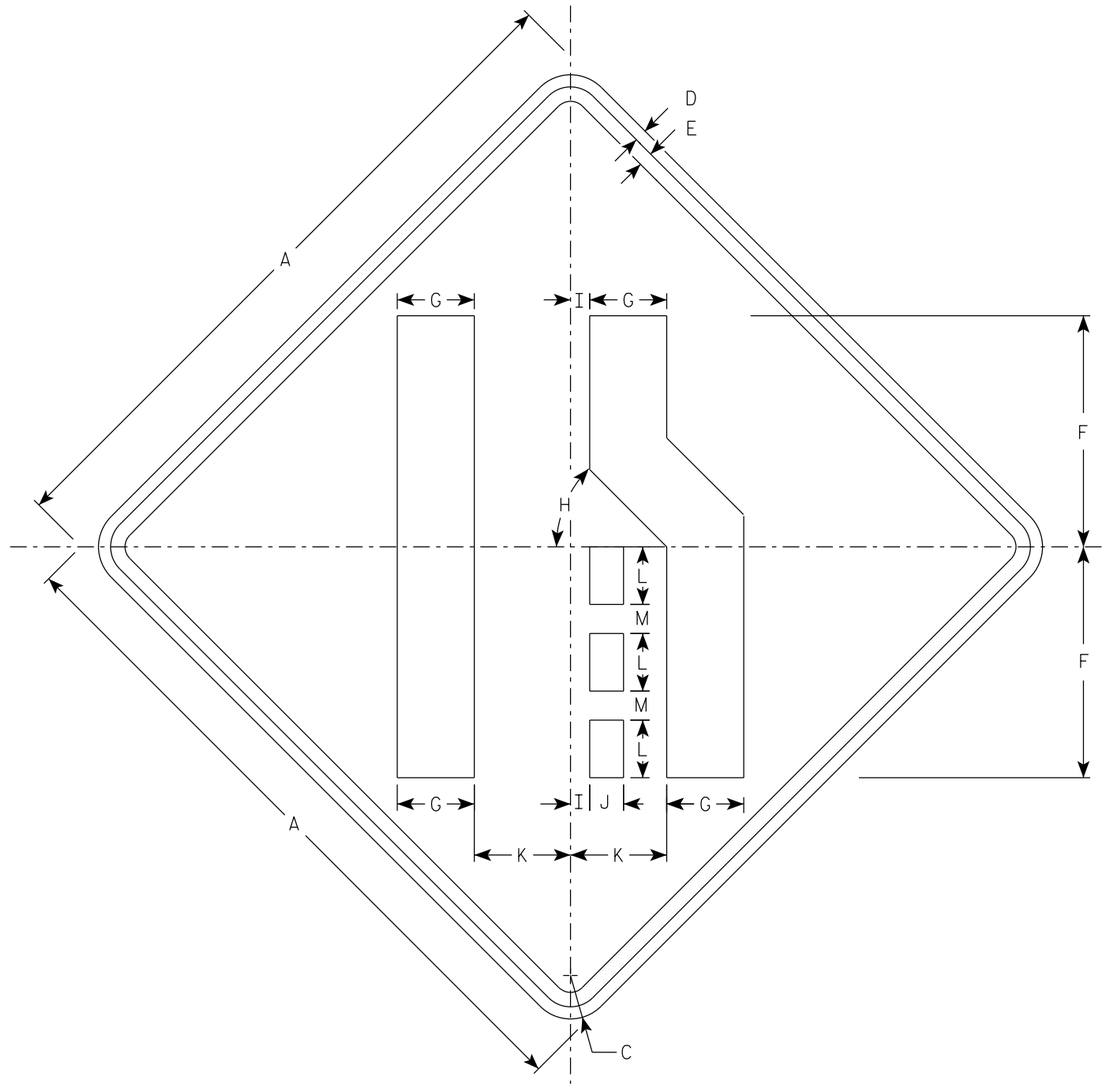
STANDARD SIGN
W01-7

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/24/2024 PLATE NO. W01-7.2

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 446 | E



W04-2R

NOTES

1. Sign is Type II - Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Corners may be square or rounded when base material is plywood but borders shall be rounded as shown. When base material is metal, the corners and borders shall be rounded.
4. W04-2L 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		2 1/4	5/8	3/4	12	4	45°	1	1 3/4	5	3	1 1/2														9.0
2S	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
2M	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
3	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
4	48		3	3/4	1	16	5 3/8	45°	1 1/4	2 3/8	6 3/4	4	2														16.0
5	48		3	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

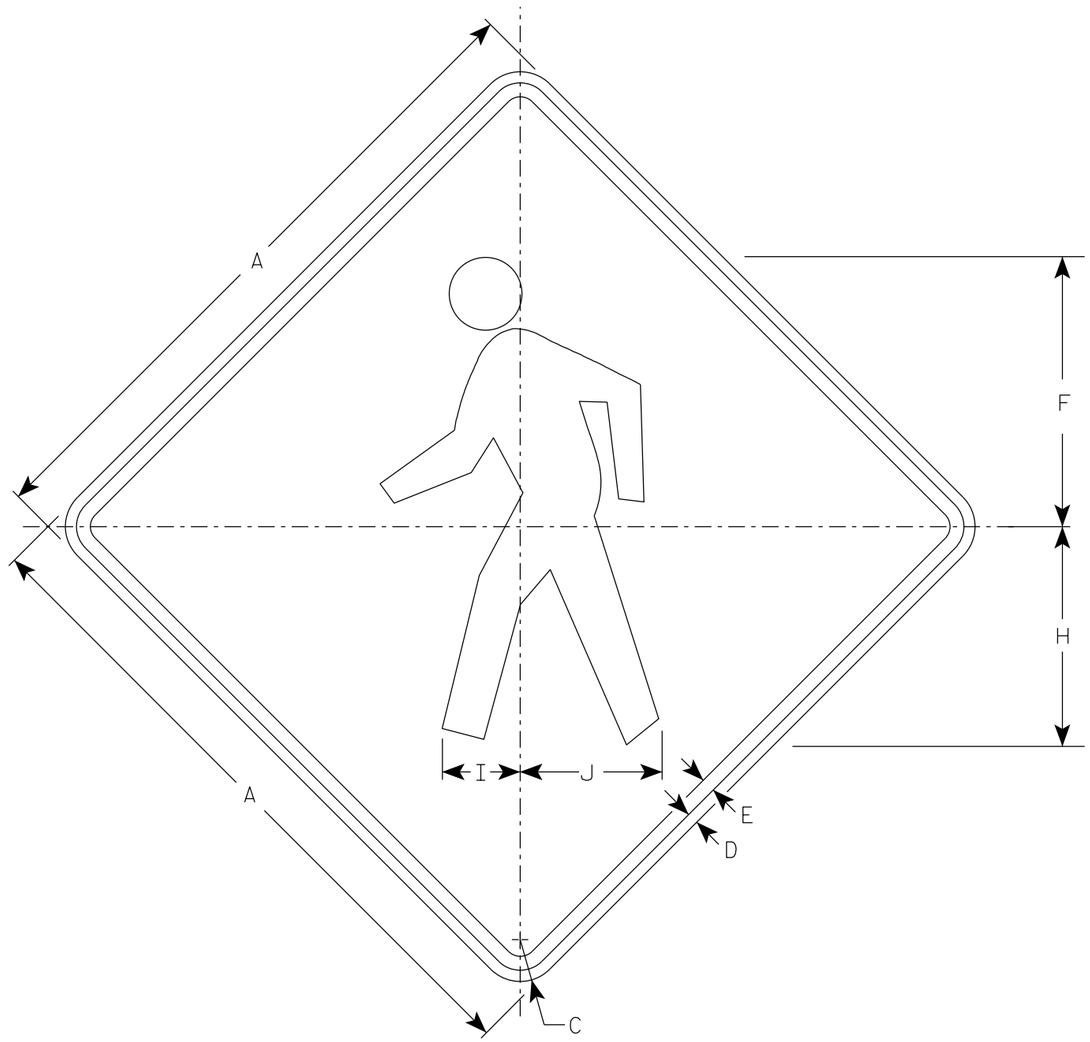
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 1/25/2024 PLATE NO. W04-2.2

PROJECT NO:

SHEET NO: 447 E



WO11-2

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	36		2 1/4	5/8	3/4	14 1/2		11 7/8	4 1/4	7 5/8																	9.0
2S	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
2M	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
3	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
4	48		3	3/4	1	19 3/8		15 3/4	5 5/8	10 1/4																	16.0
5																											

STANDARD SIGN

WO11-2

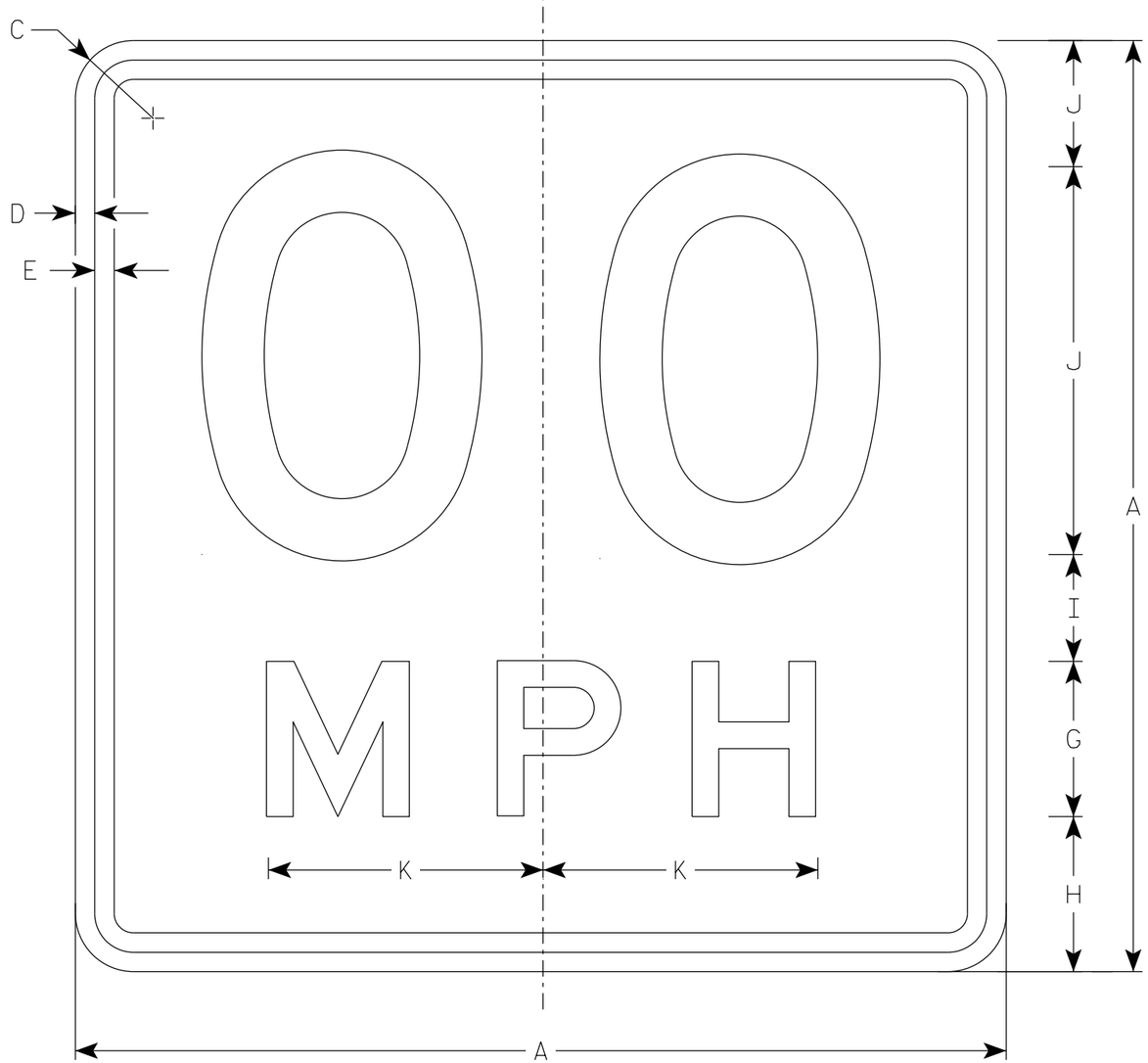
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch

For State Traffic Engineer

DATE 2/1/2024 PLATE NO. WO11-2.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO: 448	E



W013-1

NOTES

1. Sign is Type II - Type F Reflective
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 1/2	3/8	1/2	10	4	4	2 3/4	3 1/4	7 1/8																4.0
2S	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.0
2M	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.0
3	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.0
4	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.0
5	36		2 1/4	5/8	3/4	16	6	5 1/2	4	4 1/2	10 5/8																9.0

STANDARD SIGN

W013-1

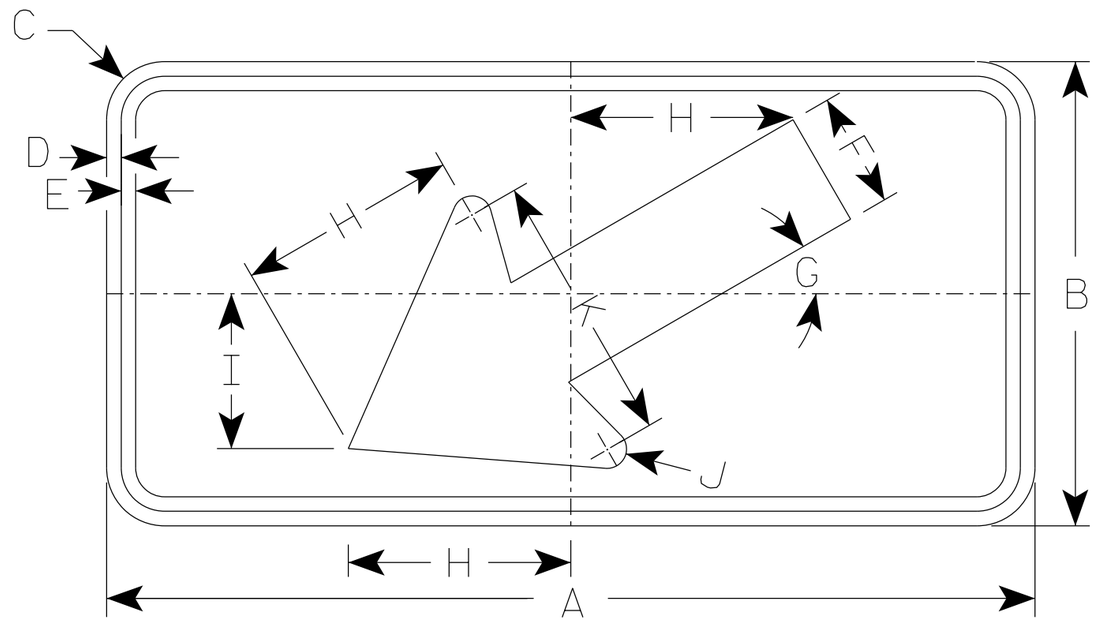
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W013-1.2

PROJECT NO:	HWY:	COUNTY:		SHEET NO:	E

FILE NAME : C:\CAEfiles\Projects\tr_stdplate\W0131.dgn PLOT DATE : 1-FEB 2024 9:56 PLOT BY : dotc4c PLOT NAME : PLOT SCALE : $$.....plotscale.....$$ WISDOT/CADDS SHEET 42



W016-7L

NOTES

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

SIZE	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y	Z	Area sq. ft.
1	30	18	1 ½	⅜	½	4 ½	30°	8 ½	6	⅝	10 ¼																3.75
2S	48	24	1 ⅞	½	⅝	6	30°	11 ½	8	1	14																8.0
2M	48	24	1 ⅞	½	⅝	6	30°	11 ½	8	1	14																8.0
3	48	24	1 ⅞	½	⅝	6	30°	11 ½	8	1	14																8.0
4	48	24	1 ⅞	½	⅝	6	30°	11 ½	8	1	14																8.0
5	48	24	1 ⅞	½	⅝	6	30°	11 ½	8	1	14																8.0

STANDARD SIGN
W016-7

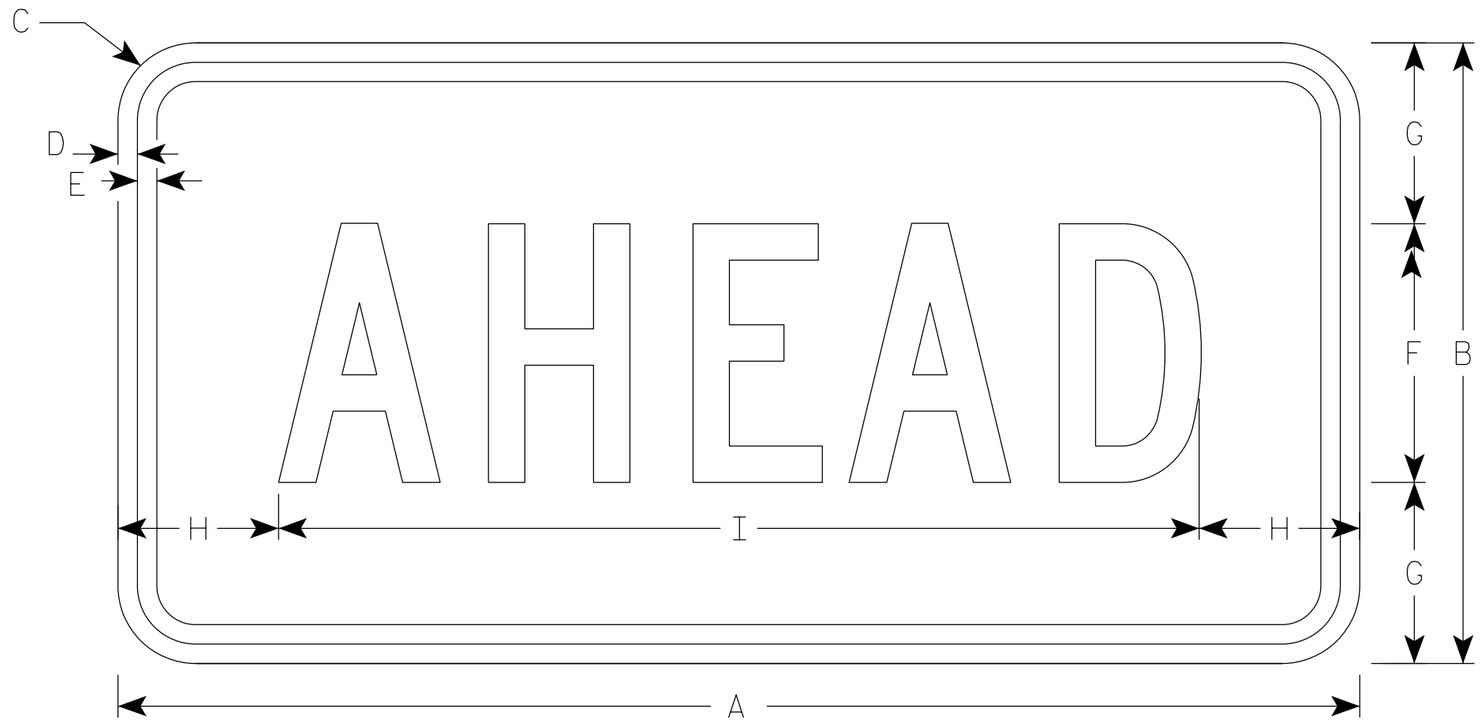
WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

DATE 2/1/2024 PLATE NO. W016-7.3

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 450 | E

7



W016-9P

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	30	18	1 1/2	3/8	1/2	7	5 1/2	2 3/4	24 1/2																		3.75
2S	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
2M	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
3	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
4	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0
5	48	24	1 7/8	1/2	5/8	10	7	6 1/8	35 3/4																		8.0

STANDARD SIGN
W016-9P

WISCONSIN DEPT OF TRANSPORTATION

APPROVED Matthew R Rauch
for State Traffic Engineer

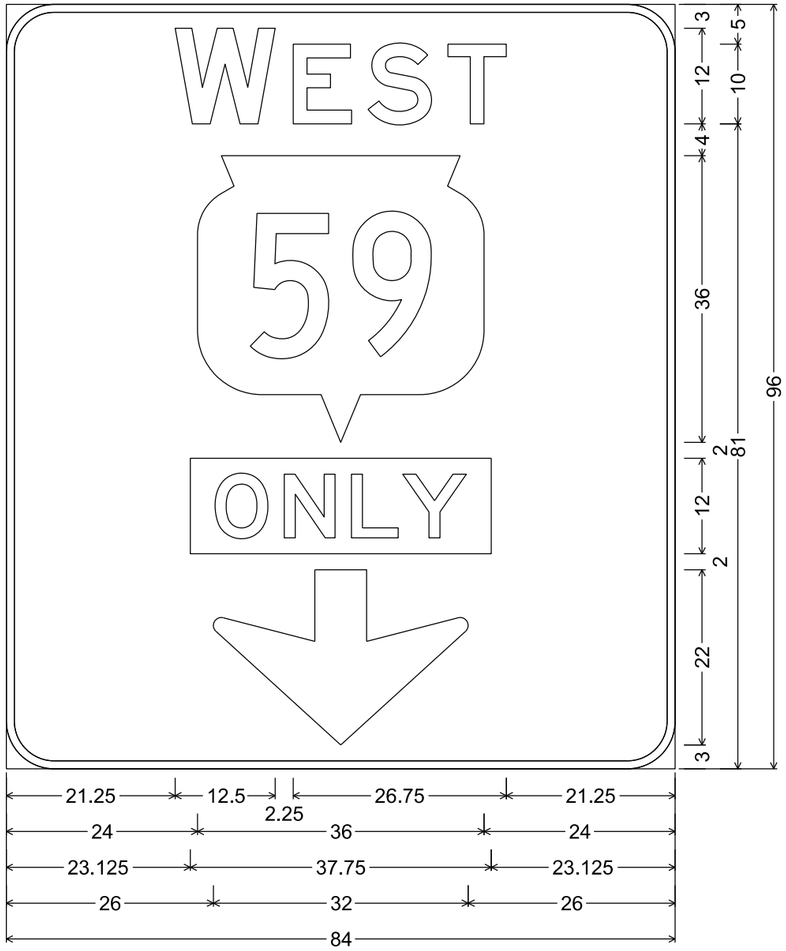
DATE 2/1/2024 PLATE NO. W016-9P.8

PROJECT NO: | HWY: | COUNTY: | SHEET NO: 451 E

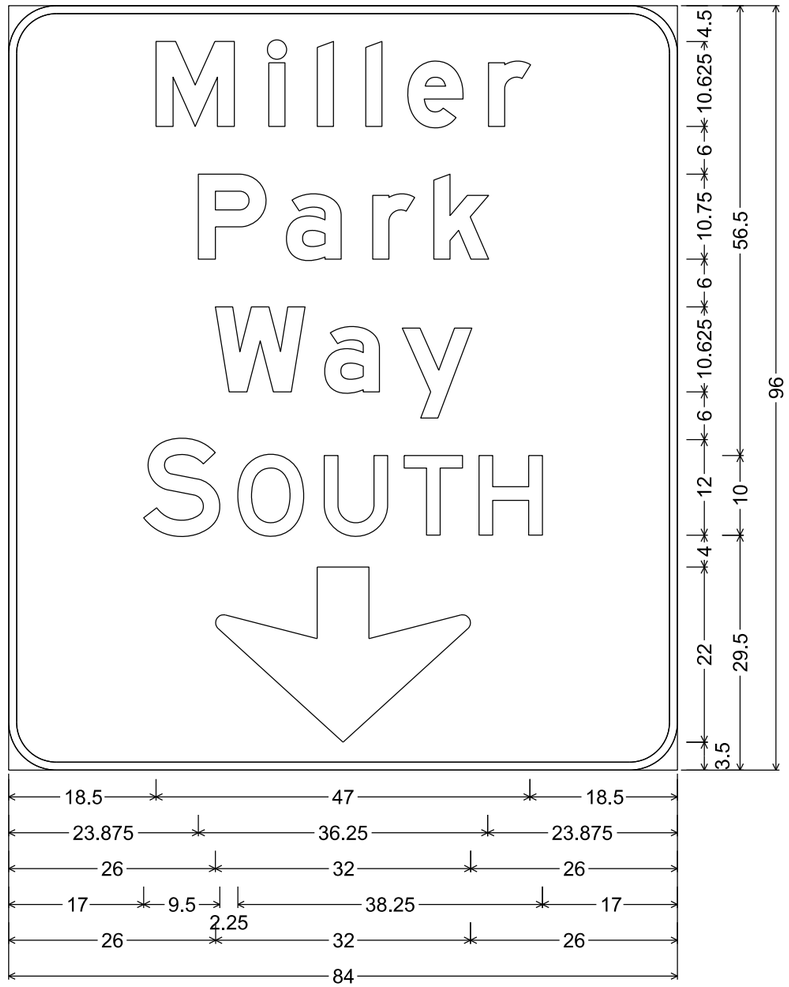
7

NOTES

1. Fixed Message Signs Type II- Type F Reflective
2. Color:
   Background - Orange
   Message - Black
3. Message Series - E Modified except all CAP words Series E
4. ONLY Plaque background on Yellow Type F Reflective Sheeting with Black Non-Reflective Message



D16-1; 6.000" Radius, 1.000" Border
"WEST", E;
No border, Black on Fluorescent yellow;
"ONLY", E;



D16-1; 6.000" Radius, 1.000" Border
"Miller", E Mod; "Park", E Mod; "Way", E Mod; "SOUTH", E

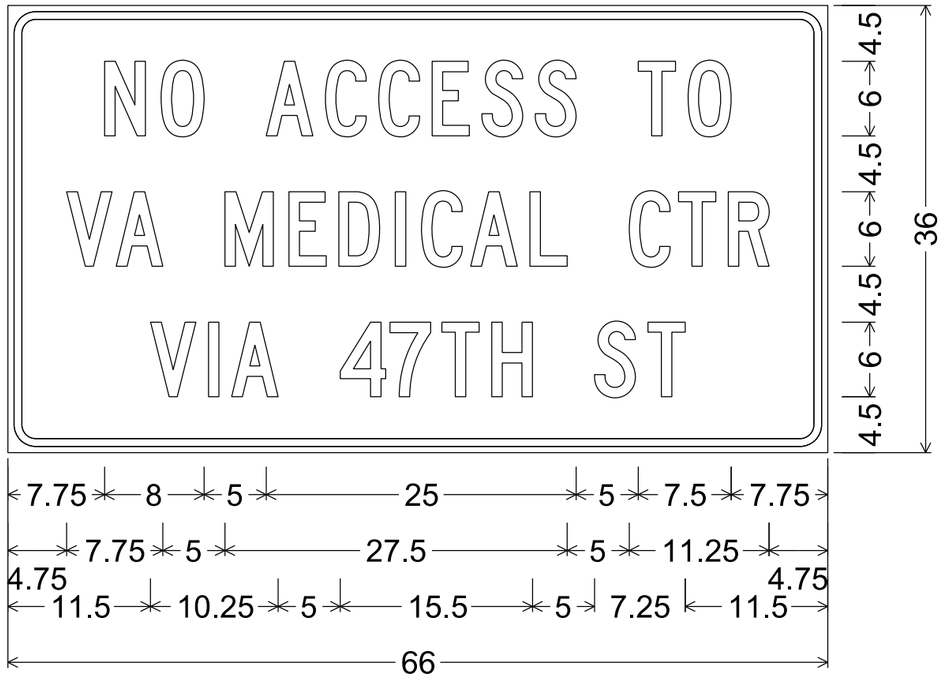
7

7

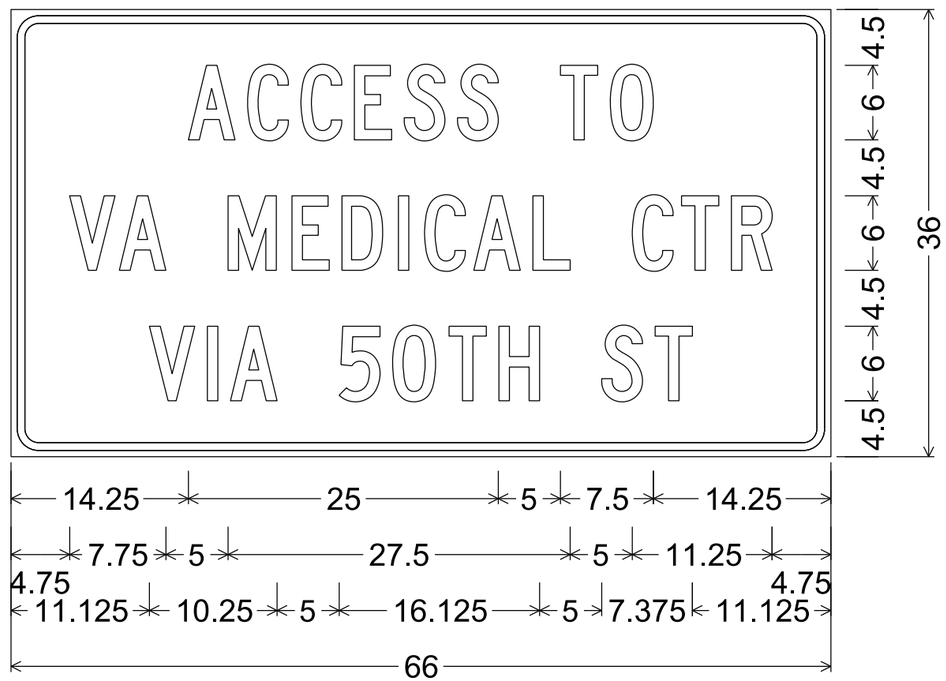
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	TEMPORARY SIGNING	SHEET NO: 452	E

NOTES

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



2.250" Radius, 0.625" Border, 0.500" Indent



2.250" Radius, 0.625" Border, 0.500" Indent

STAGE 1 MILLER PARK WAY

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY)			CUMULATIVE VOL (CY)		
			CUT	FILL	EBS	CUT Note 1	FILL Note 2	EBS Note 3	CUT	FILL	EBS
41+73	4173.00	0.00	7.40	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
42+00	4200.00	27.00	9.85	0.00	0.00	8.62	0.00	0.00	8.62	0.00	0.00
42+50	4250.00	50.00	17.01	0.00	0.00	24.87	0.00	0.00	33.50	0.00	0.00
43+00	4300.00	50.00	40.04	0.00	0.00	52.83	0.00	0.00	86.33	0.00	0.00
43+50	4350.00	50.00	43.99	0.00	0.00	77.81	0.00	0.00	164.14	0.00	0.00
44+00	4400.00	50.00	46.45	0.00	0.00	83.74	0.00	0.00	247.88	0.00	0.00
44+50	4450.00	50.00	46.01	0.00	0.00	85.61	0.00	0.00	333.49	0.00	0.00
45+00	4500.00	50.00	36.01	0.00	0.00	75.94	0.00	0.00	409.43	0.00	0.00
45+50	4550.00	50.00	23.00	0.00	0.00	54.64	0.00	0.00	464.07	0.00	0.00
45+91	4591.00	41.00	18.44	0.00	0.00	31.46	0.00	0.00	495.53	0.00	0.00
					Column Totals	495.53	0.00	0.00			

Notes:	
1-CUT	CUT VOLUME INCLUDES CONCRETE AND ASPHALTIC SURFACE MATERIAL
2-FILL	ROADWAY EMBANKMENT = UNEXPANDED FILL. FILL VOLUME IS BASED ON THE EXISTING SURFACE
3-EBS	EBS EXCAVATION TO BE BACKFILLED WITH ROADWAY EMBANKMENT. ALL EBS MATERIAL IS ASSUMED TO BE WASTED OFFSITE

STAGE 1 NATIONAL AVE

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY)			CUMULATIVE VOL (CY)		
			CUT	FILL	EBS	CUT Note 1	FILL Note 2	EBS Note 3	CUT	FILL	EBS
43+03	4303.00		6.67	0.39	0.00	0.00	0.00	0.00	443.16	0.00	0.00
43+50	4350.00	47.00	9.80	0.00	0.00	14.33	0.34	0.00	457.49	0.34	0.00
44+00	4400.00	50.00	13.29	0.00	0.00	21.38	0.00	0.00	478.87	0.34	0.00
44+50	4450.00	50.00	16.95	0.00	0.00	28.00	0.00	0.00	506.87	0.34	0.00
45+00	4500.00	50.00	24.81	0.00	0.00	38.67	0.00	0.00	545.54	0.34	0.00
45+50	4550.00	50.00	23.33	0.05	0.00	44.58	0.05	0.00	590.12	0.39	0.00
46+00	4600.00	50.00	26.88	0.01	0.00	46.49	0.06	0.00	636.61	0.44	0.00
46+50	4650.00	50.00	28.59	0.01	0.00	51.36	0.02	0.00	687.98	0.46	0.00
47+00	4700.00	50.00	33.56	1.41	0.00	57.54	1.31	0.00	745.52	1.77	0.00
47+50	4750.00	50.00	40.25	0.00	0.00	68.34	1.31	0.00	813.87	3.08	0.00
48+00	4800.00	50.00	38.11	0.00	0.00	72.56	0.00	0.00	886.42	3.08	0.00
48+50	4850.00	50.00	26.83	0.03	0.00	60.12	0.03	0.00	946.55	3.11	0.00
49+00	4900.00	50.00	30.49	0.00	0.00	53.07	0.03	0.00	999.62	3.14	0.00
49+50	4950.00	50.00	29.01	0.00	0.00	55.09	0.00	0.00	1054.71	3.14	0.00
50+00	5000.00	50.00	27.58	0.00	0.00	52.40	0.00	0.00	1107.12	3.14	0.00
					Column Totals	663.96	3.14	0.00			

Notes:	
1-CUT	CUT VOLUME INCLUDES CONCRETE AND ASPHALTIC SURFACE MATERIAL
2-FILL	ROADWAY EMBANKMENT = UNEXPANDED FILL. FILL VOLUME IS BASED ON THE EXISTING SURFACE
3-EBS	EBS EXCAVATION TO BE BACKFILLED WITH BREAKER RUN. ALL EBS MATERIAL IS ASSUMED TO BE WASTED OFFSITE

9

9

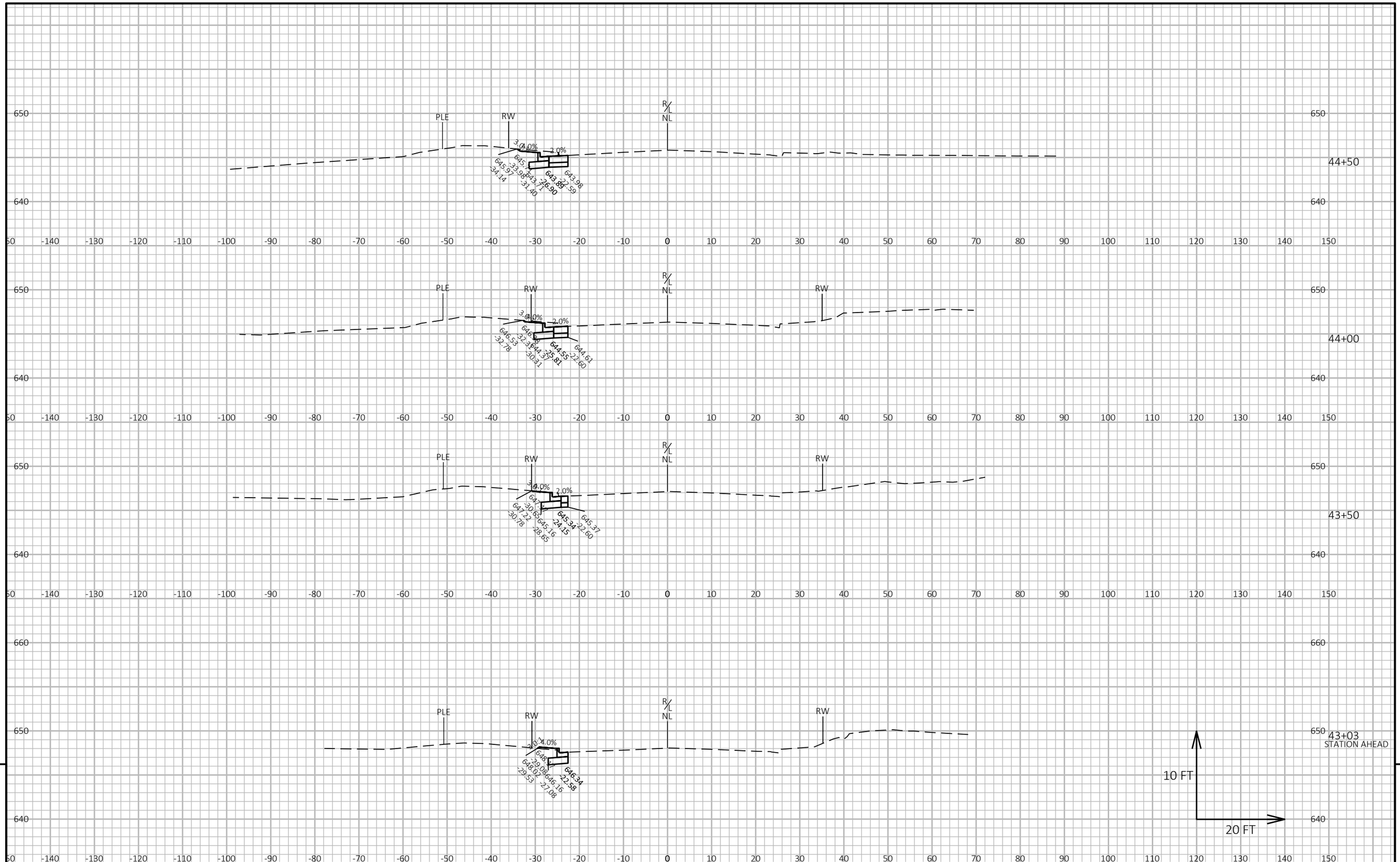
STAGE 2 NATIONAL AVE

STATION	REAL STATION	DISTANCE	AREA (SF)			INCREMENTAL VOL (CY)			CUMULATIVE VOL (CY)		
			CUT	FILL	EBS	CUT Note 1	FILL Note 2	EBS Note 3	CUT	FILL	EBS
50+00	5000	0	27.58	0.00	0.00	0.00	0.00	0.00	1107.12	3.14	0.00
50+50	5050	50	28.33	0.01	0.00	51.77	0.01	0.00	1158.89	3.15	0.00
51+00	5100	50	24.66	0.00	0.00	49.06	0.01	0.00	1207.95	3.15	0.00
51+50	5150	50	54.64	0.00	0.00	73.43	0.00	0.00	1281.38	3.15	0.00
52+00	5200	50	28.10	12.25	0.00	76.61	11.34	0.00	1357.99	14.50	0.00
52+50	5250	50	26.09	27.90	0.00	50.18	37.18	0.00	1408.16	51.67	0.00
53+00	5300	50	29.32	11.69	0.00	51.31	36.66	0.00	1459.47	88.33	0.00
53+50	5350	50	30.48	0.85	0.00	55.37	11.61	0.00	1514.84	99.94	0.00
54+00	5400	50	26.21	0.01	0.00	52.49	0.80	0.00	1567.33	100.74	0.00
54+50	5450	50	18.07	0.00	0.00	41.00	0.01	0.00	1608.33	100.75	0.00
55+00	5500	50	15.57	0.02	0.00	31.15	0.02	0.00	1639.48	100.77	0.00
55+50	5550	50	17.36	0.00	0.00	30.49	0.02	0.00	1669.97	100.78	0.00
56+00	5600	50	23.09	0.00	0.00	37.45	0.00	0.00	1707.42	100.78	0.00
56+50	5650	50	21.12	0.00	0.00	40.94	0.00	0.00	1748.36	100.78	0.00
56+81	5681	31	47.79	0.00	0.00	39.56	0.00	0.00	1787.92	100.78	0.00
					Column Totals	680.80	97.65	0.00			

Notes:	
1-CUT	CUT VOLUME INCLUDES CONCRETE AND ASPHALTIC SURFACE MATERIAL
2-FILL	ROADWAY EMBANKMENT = UNEXPANDED FILL. FILL VOLUME IS BASED ON THE EXISTING SURFACE
3-EBS	EBS EXCAVATION TO BE BACKFILLED WITH BREAKER RUN. ALL EBS MATERIAL IS ASSUMED TO BE WASTED OFFSITE

9

9



9

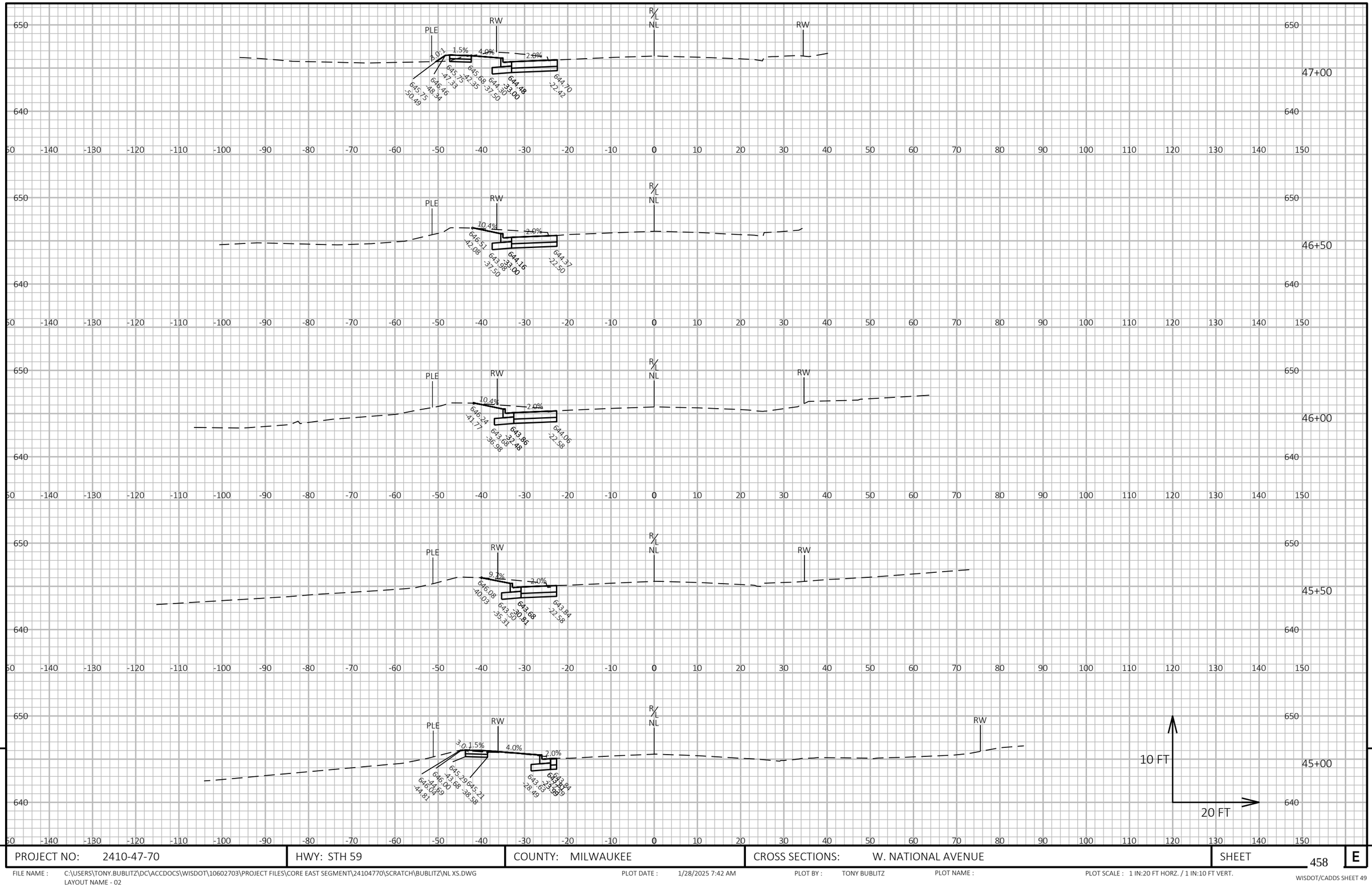
9

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CROSS SECTIONS: W. NATIONAL AVENUE	SHEET 457	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\BUBLITZ\NL XS.DWG
LAYOUT NAME - 01

PLOT DATE : 1/28/2025 7:42 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

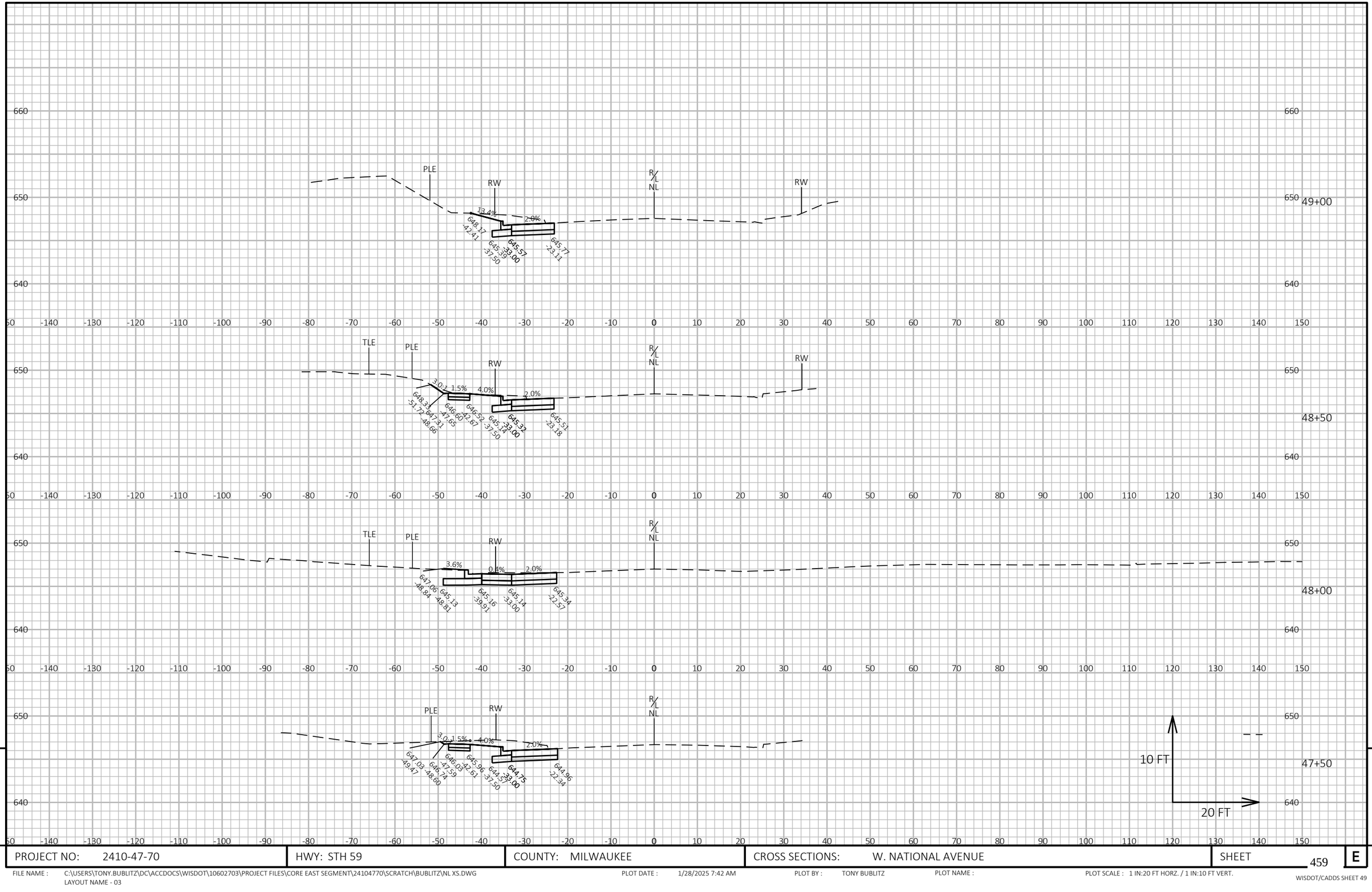
9

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CROSS SECTIONS: W. NATIONAL AVENUE	SHEET 458 E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\BUBLITZ\NL XS.DWG
LAYOUT NAME - 02

PLOT DATE : 1/28/2025 7:42 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49

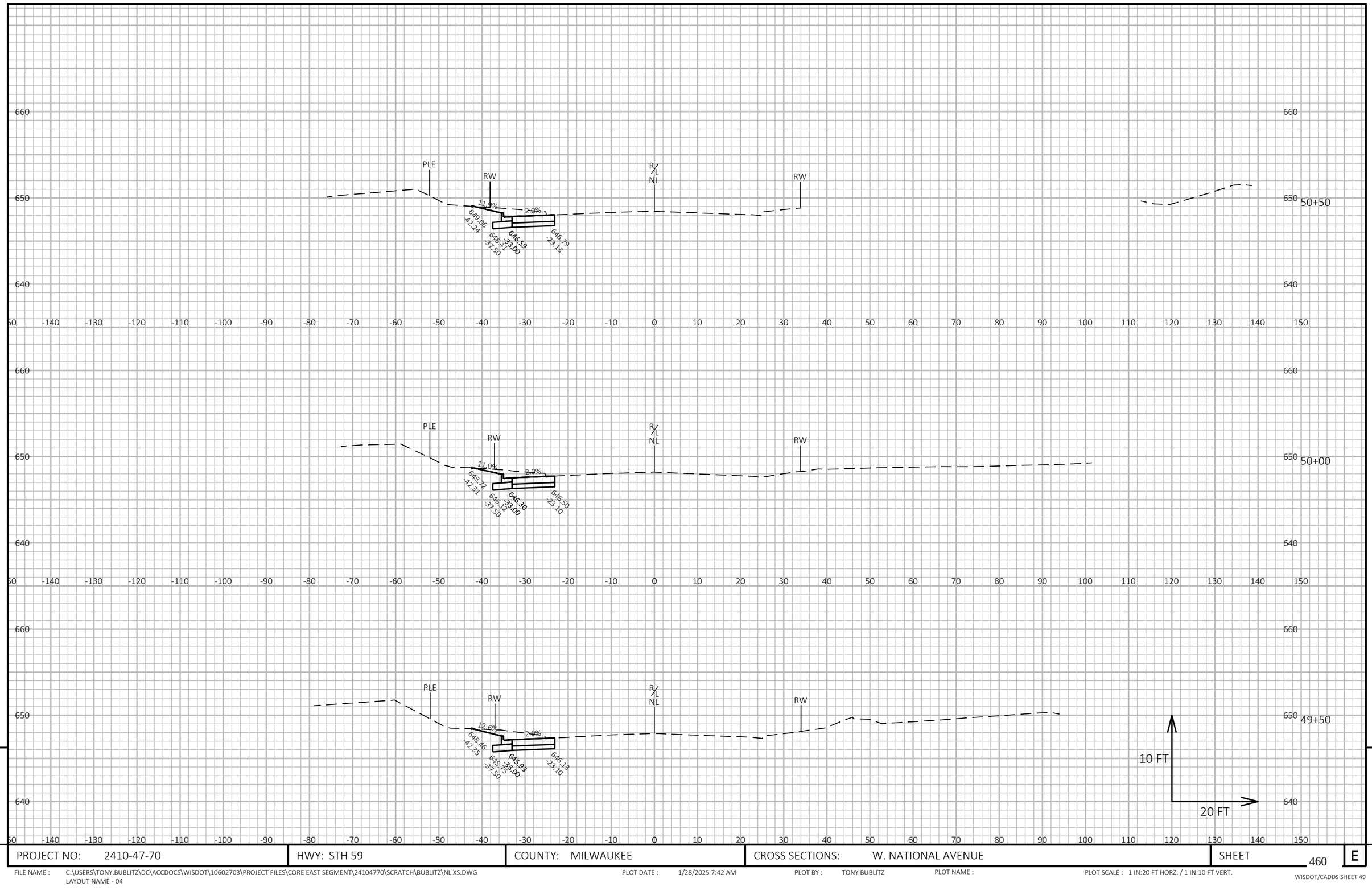


PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CROSS SECTIONS: W. NATIONAL AVENUE	SHEET 459	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\BUBLITZ\NL XS.DWG
LAYOUT NAME - 03

PLOT DATE : 1/28/2025 7:42 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

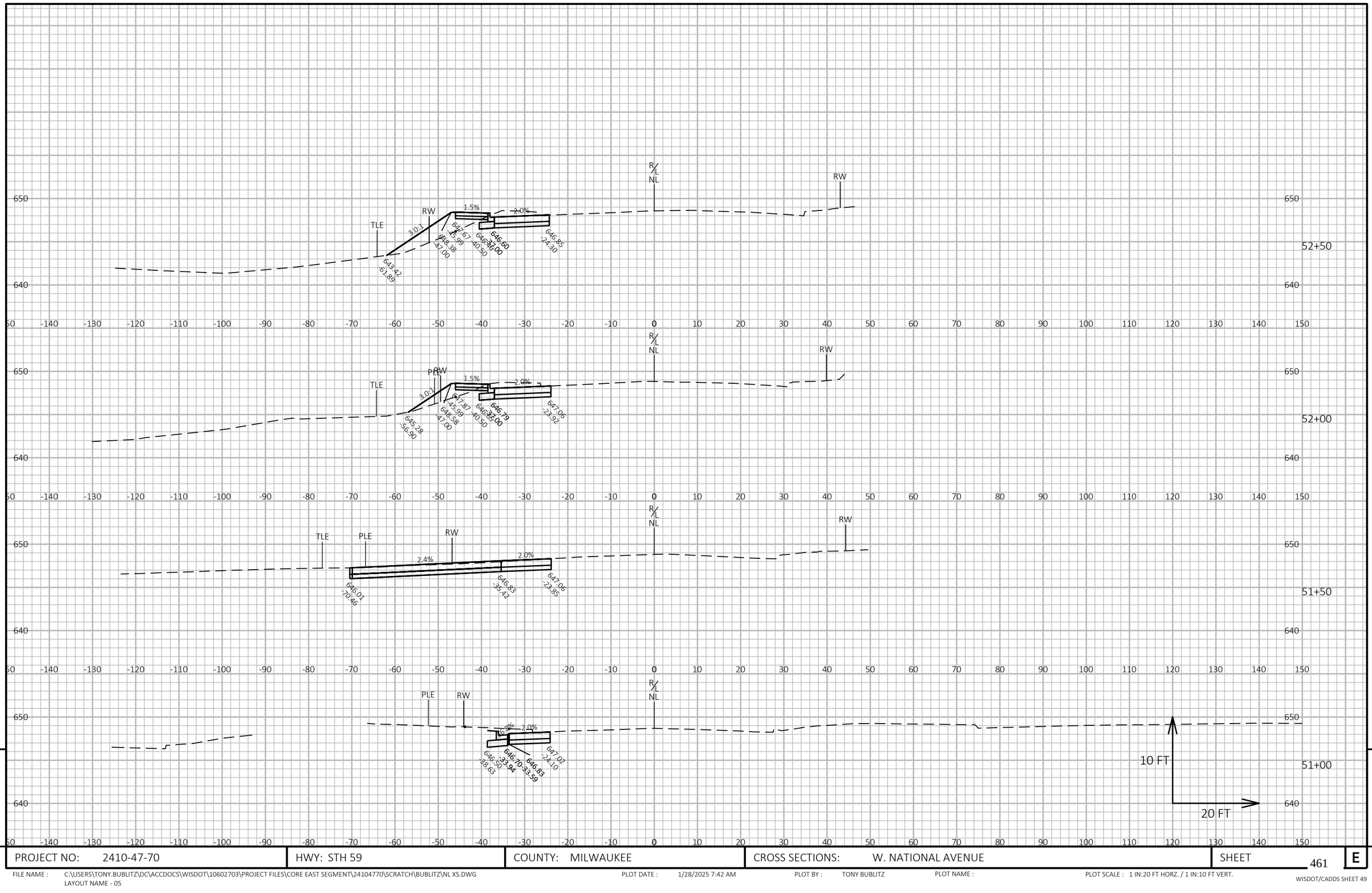
9

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CROSS SECTIONS: W. NATIONAL AVENUE	SHEET 460	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\BUBLITZ\NL XS.DWG
LAYOUT NAME - 04

PLOT DATE : 1/28/2025 7:42 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



9

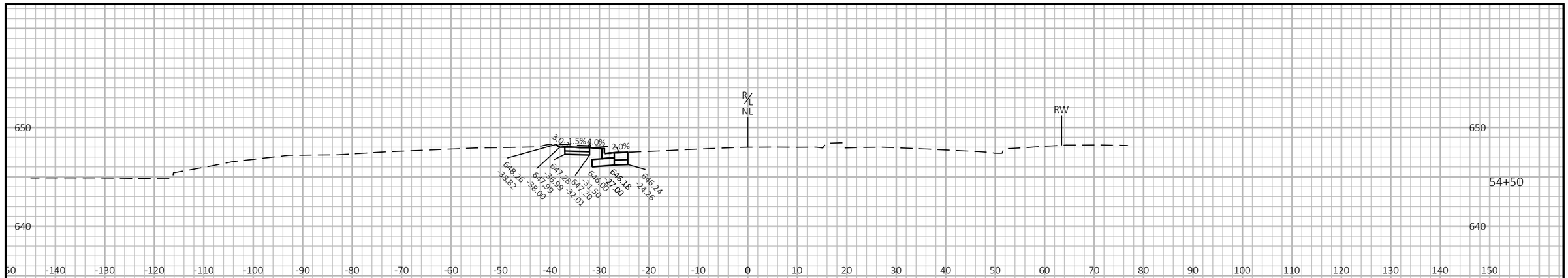
9

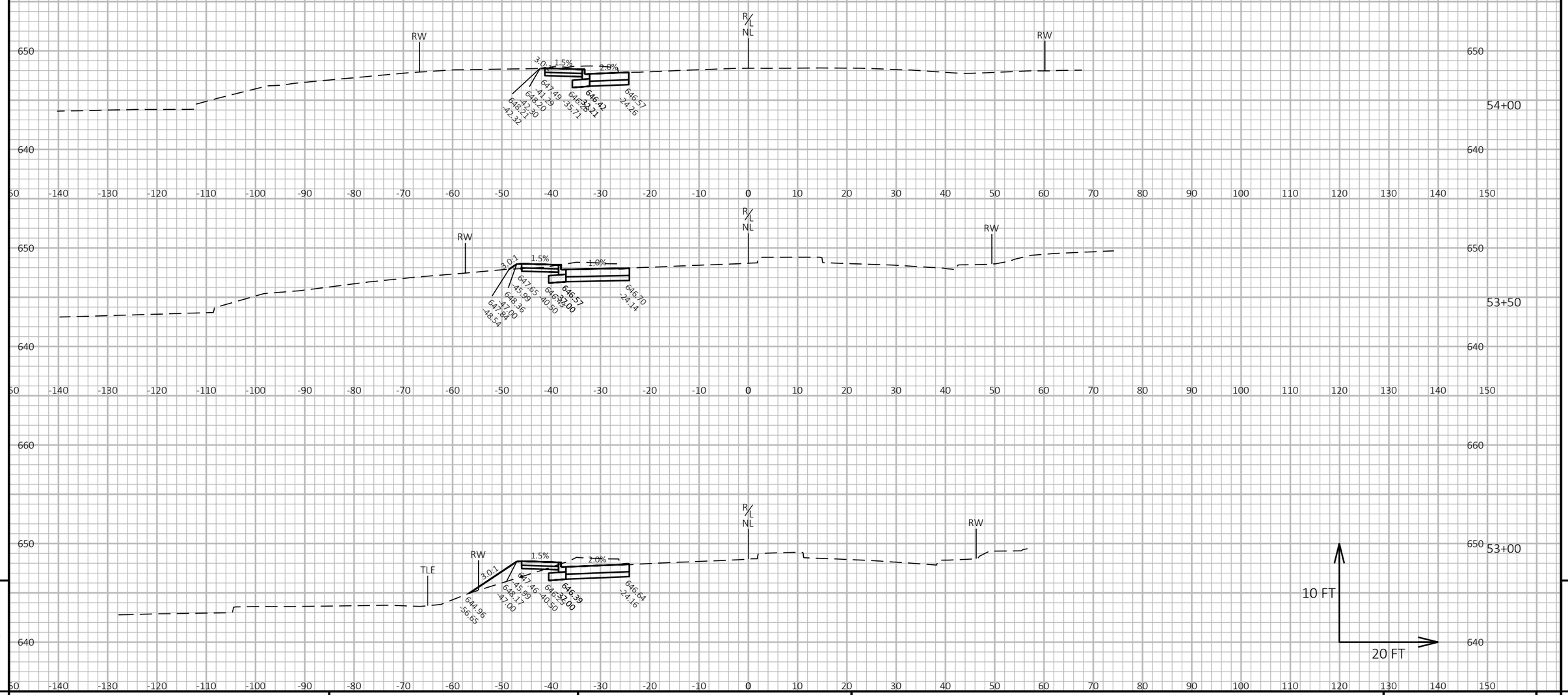
PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CROSS SECTIONS: W. NATIONAL AVENUE	SHEET 461	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\BUBLITZ\NL XS.DWG
LAYOUT NAME - 05

PLOT DATE : 1/28/2025 7:42 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49





9

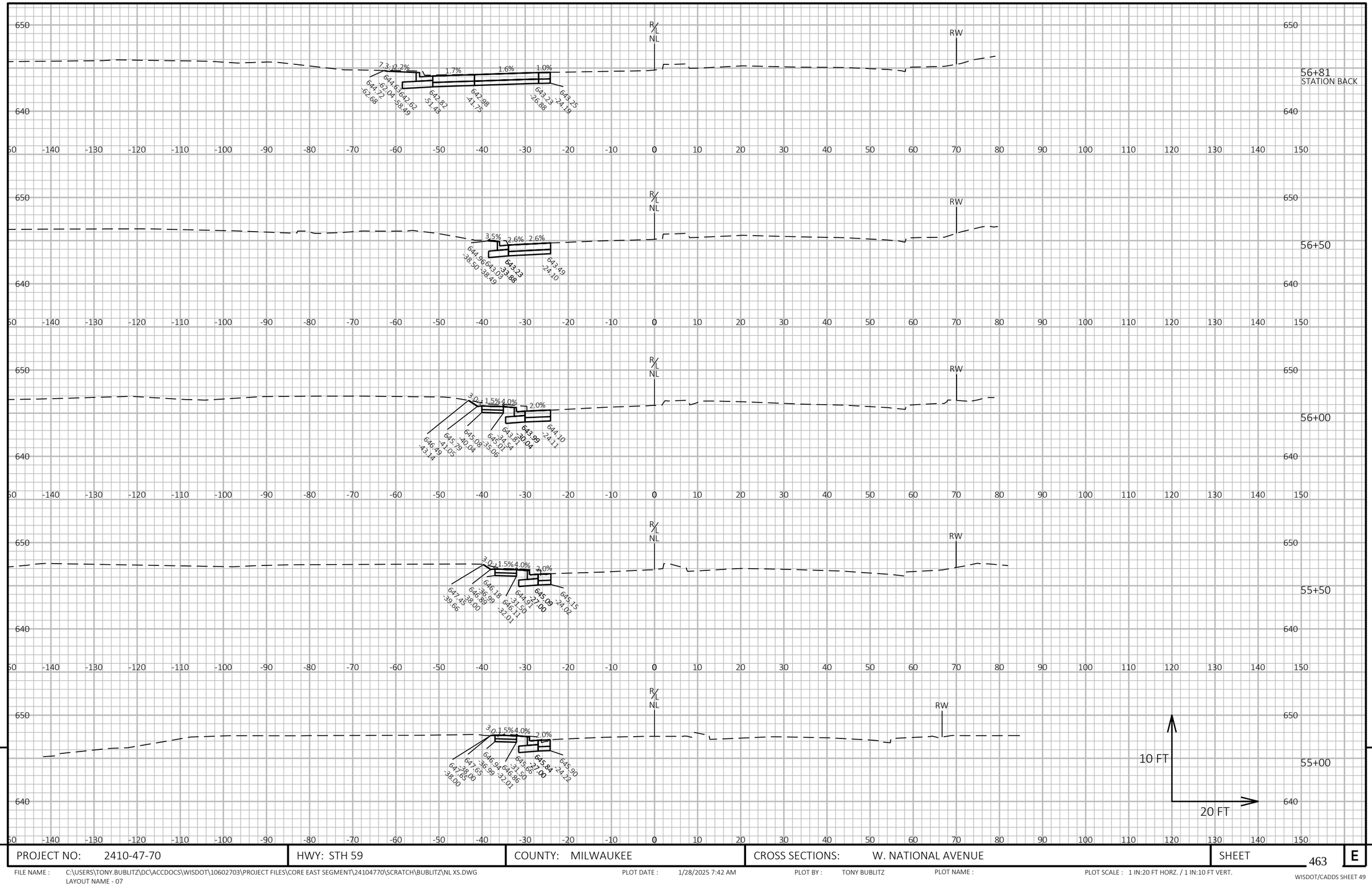
9

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CROSS SECTIONS: W. NATIONAL AVENUE	SHEET 462	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\BUBLITZ\NL XS.DWG
LAYOUT NAME - 06

PLOT DATE : 1/28/2025 7:42 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

WISDOT/CADDS SHEET 49



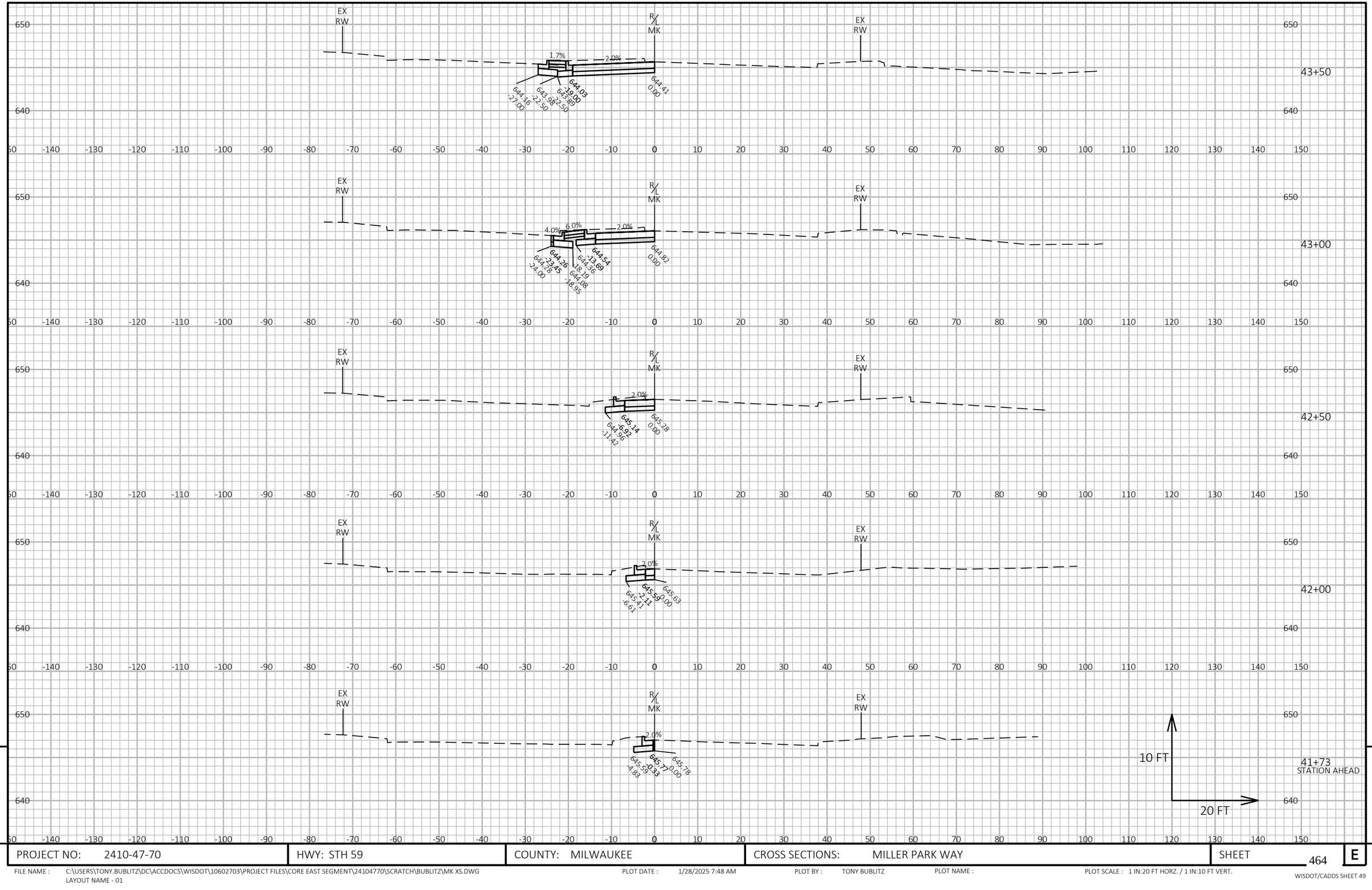
9

9

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CROSS SECTIONS: W. NATIONAL AVENUE	SHEET 463	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\BUBLITZ\NL XS.DWG
LAYOUT NAME - 07

PLOT DATE : 1/28/2025 7:42 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



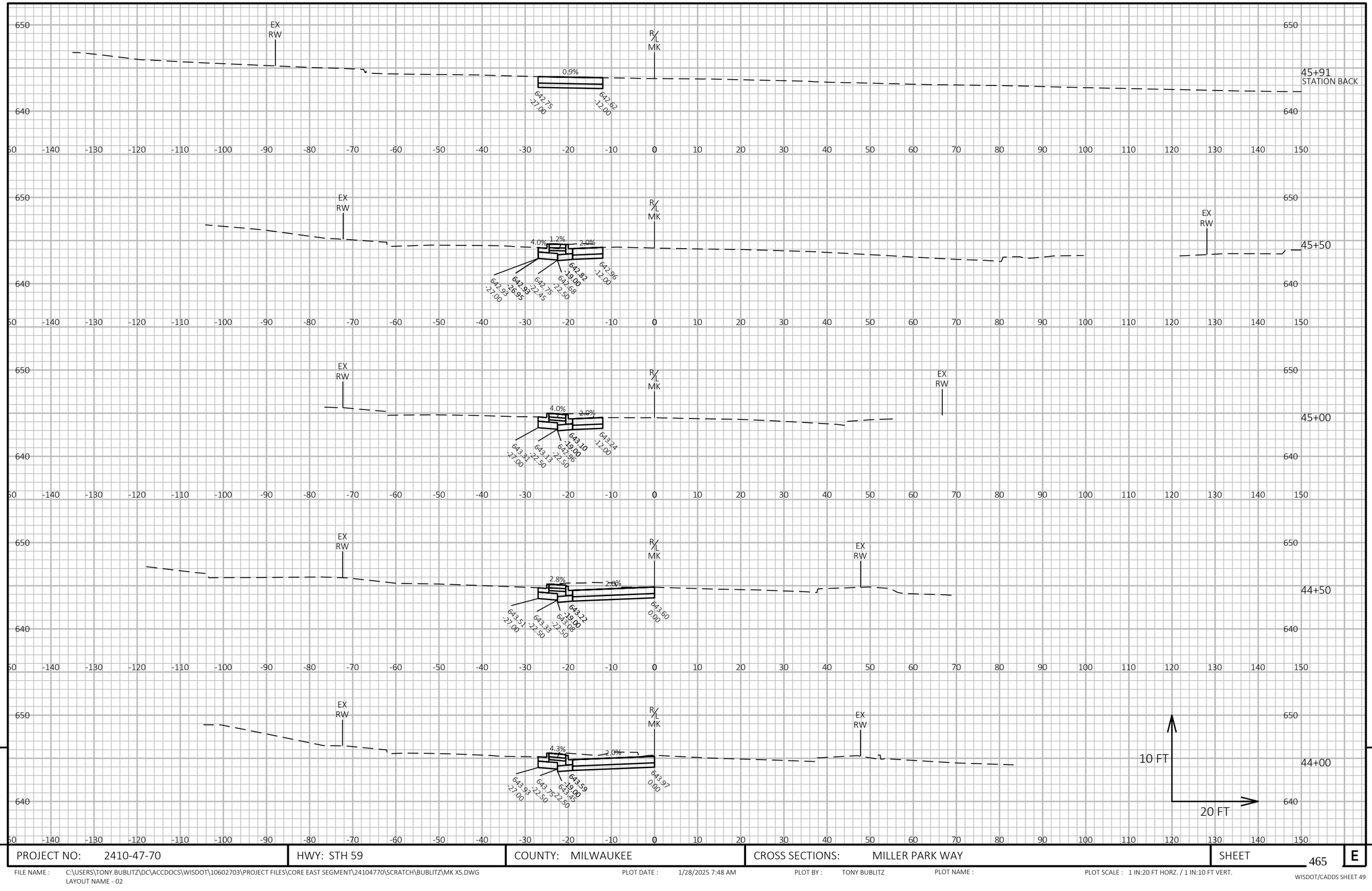
9

9

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CROSS SECTIONS: MILLER PARK WAY	SHEET 464	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\BUBLITZ\MK XS.DWG
LAYOUT NAME - 01

PLOT DATE : 1/28/2025 7:48 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.



9

PROJECT NO: 2410-47-70	HWY: STH 59	COUNTY: MILWAUKEE	CROSS SECTIONS: MILLER PARK WAY	SHEET 465	E

FILE NAME : C:\USERS\TONY.BUBLITZ\DC\ACCDOCS\WISDOT\10602703\PROJECT FILES\CORE EAST SEGMENT\24104770\SCRATCH\BUBLITZ\MK XS.DWG
LAYOUT NAME - 02

PLOT DATE : 1/28/2025 7:48 AM PLOT BY : TONY BUBLITZ PLOT NAME : PLOT SCALE : 1 IN:20 FT HORZ. / 1 IN:10 FT VERT.

Wisconsin Department of Transportation

Dedicated people creating transportation solutions
through innovation and exceptional service.

http://www.dot.wisconsin.gov