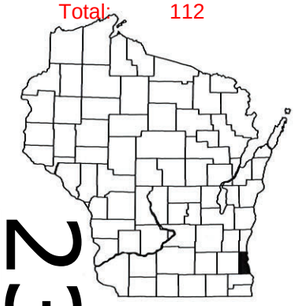
WIE Feb 14, 2023

PROJECT ID WITH: 2984-12-73

COUNTY MILWAUKEE

ORDER OF SHEETS

Total: 112



23

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PLAN OF PROPOSED IMPROVEMENT

C MILWAUKEE, N HOLTON ST PHASE I

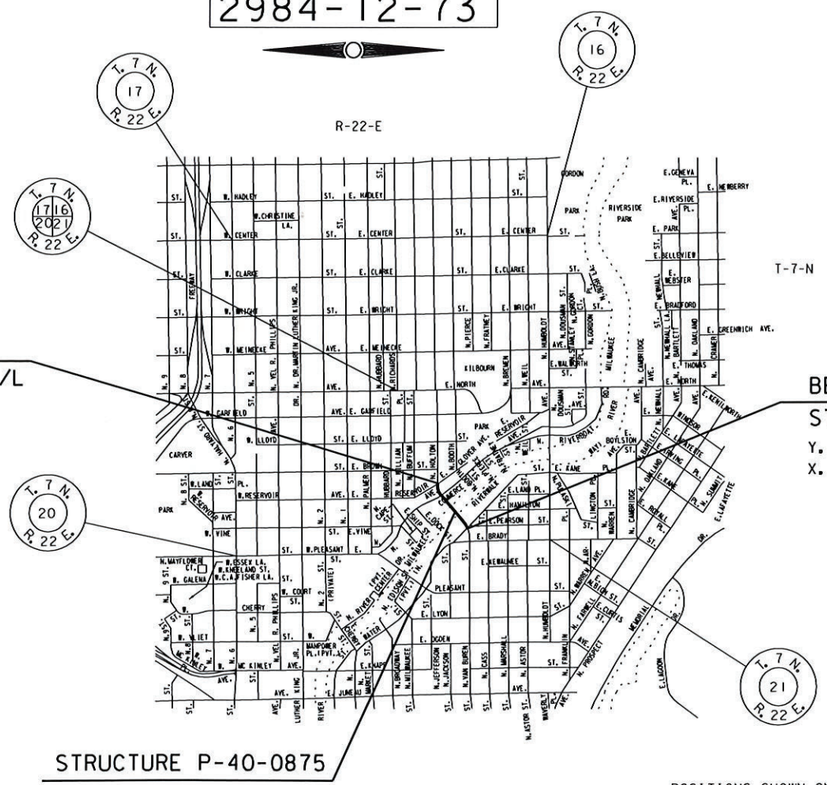
BR OVER MILW RVR, COMMERCE, WATER

P-40-0875

LOCAL STREET
MILWAUKEE COUNTY

STATE PROJECT	FEDERAL PROJECT	
	PROJECT	CONTRACT
2984-12-73	WISC 2023228	1

STATE PROJECT NUMBER
2984-12-73



N

DESIGN DESIGNATION

A.D.T. (2016)	=	10,059
A.D.T. (2058)	=	10,803
D.H.V.	=	967
D.	=	54%
T.	=	N/A
DESIGN SPEED	=	30 M.P.H.
ESALS	=	N/A

CONVENTIONAL SYMBOLS

PLAN

- COUNTY LINE
- TOWNSHIP OR RANGE LINE
- SECTION LINE
- CORPORATE OR CITY LIMITS
- PROPERTY LINE — P.L.
- STANDARD BENCH MARK
- EXISTING RIGHT OF WAY LINE — R/W
- PROPOSED SEWER LATERAL — (SIZE)
- BASE OF SURVEY LINE
- CONCRETE WALK/DWY. REMOVAL
- LIMITS OF CONCRETE PAVEMENT REMOVAL — X X X X X X
- CATCH BASIN OR INLET — EXISTING — PROPOSED

- COMBUSTIBLE FLUIDS UNDER PRESSURE — CAUTION
- RAILROADS
- FENCE — (TYPE)
- FIRE & POLICE CALL BOX
- LIGHT POLE
- POWER POLE
- TELEPHONE OR TELEGRAPH POLE
- TRAFFIC SIGNAL
- TRAFFIC SIGNAL CONTROL BOX
- HYDRANT
- GAS OR WATER GATE VALVE
- MANHOLES - SEWER — UTILITY (TYPE)
- TREES - EXISTING — TO BE REMOVED

LAYOUT

SCALE: 1 INCH = 1/2 MILE

TOTAL NET LENGTH OF CENTERLINE = 0.184 MI (URBAN)

POSITIONS SHOWN ON THIS PLAN ARE WISCONSIN COORDINATE REFERENCE SYSTEM COORDINATES (WISCRS), MILWAUKEE COUNTY, NAD 83(2011) IN US SURVEY FEET. VALUES SHOWN ARE GRID COORDINATES, GRID BEARINGS, AND GRID DISTANCES. GRID DISTANCES MAYBE USED AS GROUND DISTANCES.

ELEVATIONS SHOWN ON THIS PLAN ARE REFERENCED TO THE CITY OF MILWAUKEE DATUM.

TO CONVERT ELEVATIONS SHOWN ON THIS PLAN TO NATIONAL GEODEDIC VERTICAL DATUM OF 1929, ADD 580.603 TO ELEVATIONS SHOWN ON THIS PLAN.

Accepted For
City of Milwaukee

10-11-2022 James Washington
(Date) For Commissioner of Public Works

Original Plans Prepared By

WISCONSIN
JERREL KRUSCHKE
43536-6
MILWAUKEE, WIS.
PROFESSIONAL ENGINEER

10/11/2022 [signature]
(Date) City Engineer

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

PREPARED BY	
SURVEYOR	CITY OF MILWAUKEE
DESIGNER	CITY OF MILWAUKEE
PROJECT MANAGER	GREGORY HAFEMAN
DISTRICT EXAMINER	
DISTRICT SUPERVISOR	BRIAN BOOTHBY
C.O. EXAMINER	

APPROVED FOR DISTRICT OFFICE

DATE: 10/11/2022 [signature]
(SIGNATURE)

E

FILENAME: W:\STR\B0113\2023 PHASE I\MAJOR PROJECTS\TITLE.DGN

PLOT DATE:

REVISED DATE: 05-26-2022 BY TK

GENERAL NOTES

1. ALL ELEVATIONS ARE REFERENCED TO CITY OF MILWAUKEE DATUM.
2. THERE MAY BE UTILITY FACILITIES WITHIN THE PROJECT AREA THAT ARE NOT SHOWN ON THE PLANS. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH A CALL TO DIGGERS HOTLINE AND/OR A DIRECT CALL TO THE UTILITIES THAT HAVE FACILITIES IN THE AREA. NOT ALL UTILITIES ARE MEMBERS OF DIGGERS HOTLINE.
3. EROSION CONTROL BMP'S ARE SHOWN AT SUGGESTED LOCATIONS. THE ACTUAL LOCATIONS WILL BE DETERMINED BY THE CONTRACTOR'S ECIP AND BY THE ENGINEER. EROSION CONTROL BMP'S SHALL BE MAINTAINED UNTIL PERMANENT VEGETATION IS ESTABLISHED OR UNTIL THE ENGINEER DETERMINES THAT THE BMP IS NO LONGER NECESSARY.

STANDARD ABBREVIATIONS

ASPH.	- ASPHALT
B.M.	- BENCH MARK
CTR.	- CENTER
C/L	- CENTER LINE
COMB.	- COMBINED
CONC.	- CONCRETE
C.W.	- CONCRETE WALK
COR.	- CORNER
C	- CURB
ELEV.	- ELEVATION
ENT.	- ENTRANCE
EXIST.	- EXISTING
F	- FLANGE
G	- GUTTER, OR GAS
HYD.	- HYDRANT
LT	- LEFT
MMSD	- MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
NB	- NORTHBOUND
P/L	- PROPERTY LINE
PGL	- PROFILE GRADE LINE
R OR RAD.	- RADIUS
RET.	- RETAINING
RT	- RIGHT
R/W	- RIGHT OF WAY
SB	- SOUTHBOUND
TEL	- AMERITECH
TES	- TRAFFIC ENGINEERING, AND ELECTRICAL SERVICES
T/L	- TRANSIT LINE
V.T. 0R VT	- VARIABLE THICKNESS
WEP	- WISCONSIN ELECTRIC POWER

ORDER OF SECTION 2 SHEETS

UTILITY CONTACTS

AT&T WISCONSIN
JAY C. BULANEK
435 S. 95TH STREET
MILWAUKEE, WI 53214
PHONE: 414-491-2855
EMAIL: jb5175@att.com

CITY OF MILWAUKEE, WATER WORKS
JOSHUA IWEN
841 N. BROADWAY, ROOM 409
MILWAUKEE, WI 53202
PHONE: 414-286-3640
EMAIL: jiwen@milwaukee.gov

CHARTER / SPECTRUM
CHARLES BRASILE
1320 N. DR. MARTIN LUTHER KING JR. DR.
MILWAUKEE, WI 53212
PHONE: 414-430-5812
EMAIL: charles.brasile@charter.com

LUMEN TECHNOLOGIES
BRAHIM GADDOUR
3235 INTERTECH DRIVE, SUITE 600
BROOKFIELD, WI 53045
PHONE: 414-704-1026
EMAIL: brahim.gaddour@lumen.com

TELEPORT COMMUNICATIONS AMERICA, LLC
(AT&T LNS)
TIM LAPOINTE
PHONE: 281-352-3631
EMAIL: tl0695@att.com

VERIZON BUSINESS (MCI)
RANDY CICATELLO
15725 W. RYERSON ROAD
NEW BERLIN, WI 53151
PHONE: 262-232-1323
EMAIL: randy.cicatello@verizon.com

WE ENERGIES - ELECTRIC
ALEX DANTINNE
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: 920-621-6903
EMAIL: Alex.dantinne@we-energies.com
We Energies Electric Dispatch # 1-800-662-4797

WE ENERGIES - GAS
ALEX DANTINNE
500 S. 116TH STREET
WEST ALLIS, WI 53214
PHONE: 920-621-6903
EMAIL: Alex.dantinne@we-energies.com
We Energies Gas Dispatch # 1-800-261-5325

OTHER CONTACTS

CITY OF MILWAUKEE, COMMUNICATIONS
COMMUNICATIONS DISPATCH
1440 WEST CANAL STREET
MILWAUKEE, WI 53233
PHONE: 414-286-3686

CITY OF MILWAUKEE, STREET LIGHTING
NEAL KARWEIK
1540 W. CANAL STREET
MILWAUKEE, WI 53233
PHONE: 414-708-4245
EMAIL: nkarwe@milwaukee.gov

MILWAUKEE COUNTY TRANSIT SYSTEM
ARMOND SENSABAUGH
1942 N. 17TH STREET
MILWAUKEE, WI 53205
PHONE: 414-343-1728
EMAIL: asensabaugh@mcts.org

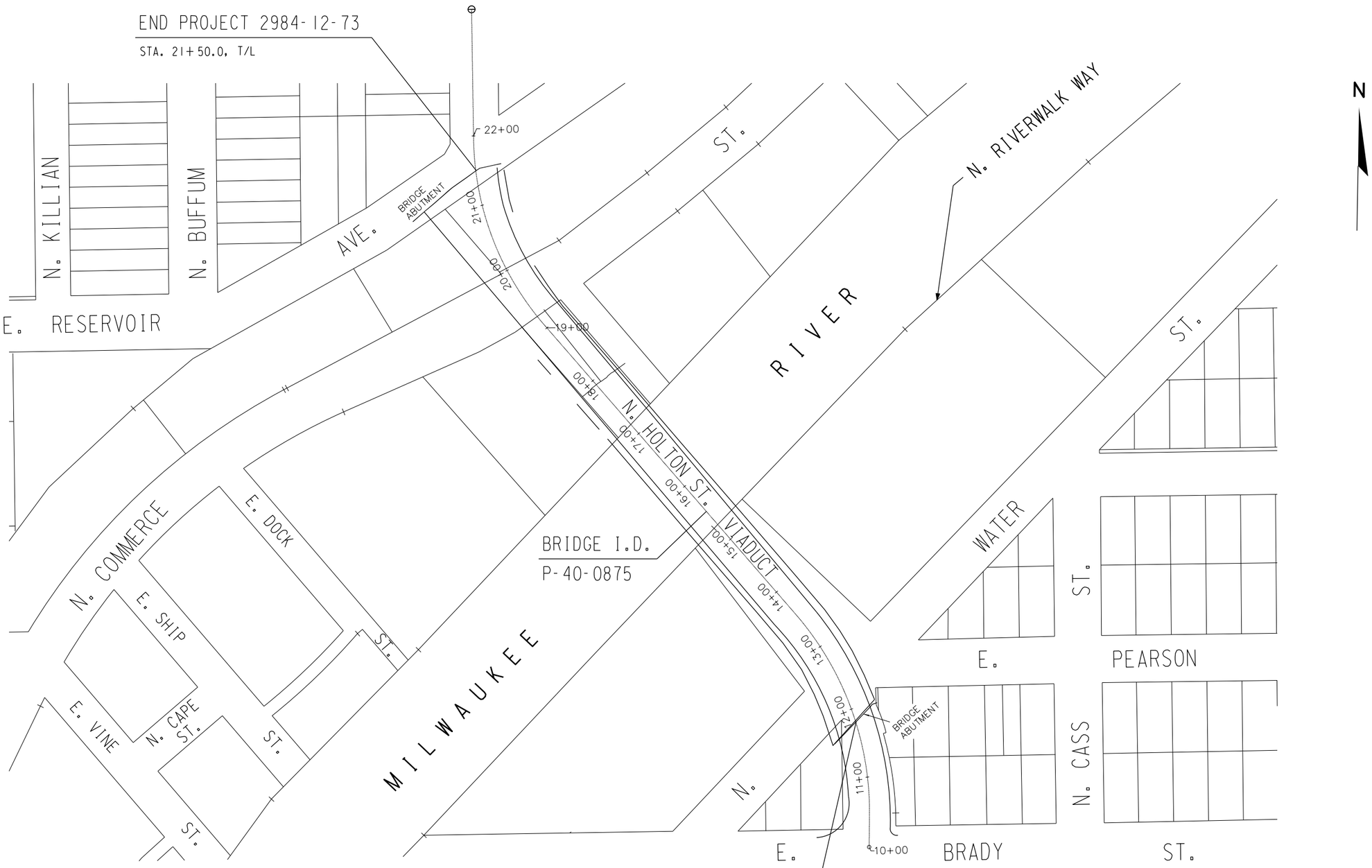
MILWAUKEE METROPOLITAN SEWERAGE DISTRICT
MICHAEL LEE
260 W. SEEBOTH STREET
MILWAUKEE, WI 53204
PHONE: 414-617-1429
EMAIL: mlee@mmsd.com

SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION
JOHN WASHBURN
W239 N1812 ROCKWOOD DRIVE
P.O. BOX 1607
WAUKESHA, WI 53187-1607
PHONE: 262-547-6721

WISCONSIN DEPT. OF NATURAL RESOURCES
KRISTINA BETZOLD
1027 W. ST. PAUL AVENUE
MILWAUKEE, WI 53233
PHONE: 414-263-8517
EMAIL: kristina.betzold@wisconsin.gov

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

2



STATE PROJECT NUMBER 2984-12-73	HWY: N HOLTON ST	COUNTY: MILWAUKEE	PROJECT OVERVIEW	SCALE FEET 0' 150'	SHEET NO: 4	E

FILENAME: W:\STR\B0113\2023 PHASE 1\MAJOR PROJECTS\OVERVIEW.DGN

REVISED DATE: 12-07-2021 BY SB

2

E. GLOVER AVE.

N. HOLTON ST.

E. GLOVER AVE.

N. COMMERCE ST.

LOCATED ON
N. COMMERCE ST.

RIVER

N. HOLTON ST.

N. WATER ST.

LOCATED ON
N. WATER ST.

N. HOLTON ST. VIADUCT

N. COMMERCE ST.

MILWAUKEE

N. WATER ST.

E. BRADY ST.

N. VAN BUREN AVE.

INSET (A)

E. BRADY ST.

N. VAN BUREN AVE.

LEGEND

(C) INLET PROTECTION TYPE C

SURFACE WATER FLOW

(C) INLET PROTECTION TYPE C
TO BE PLACED AT INTERSECTION OF
N HOLTON ST/N VAN BUREN ST
AND E BRADY ST

STATE PROJECT NUMBER 2984-12-73	HWY: N HOLTON ST	COUNTY: MILWAUKEE	EROSION CONTROL	SCALE FEET 0' 80'	SHEET NO: 5	E

FILENAME: W:\STR\B0113\2023 PHASE 1\MAJOR PROJECTS\EC.DGN

REVISED DATE: 10-10-2022 BY ES

STREET LIGHTING GENERAL NOTES:

PRIOR TO CONSTRUCTION, THE LOCATION OF UNDERGROUND UTILITIES SHALL BE DETERMINED IN THE FIELD BY CONTACTING "DIGGERS HOTLINE."

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.

STREET LIGHTING SHALL BE INSTALLED IN COMPLIANCE WITH WISCONSIN DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS SECTIONS 652 TO 657 AND 659 EXCEPT:

ALL CHANGES OR ANY DEVIATIONS FROM PLANS MUST BE APPROVED BY STREET LIGHTING ENGINEERING.

1 DETAILS OF CONSTRUCTION MATERIALS AND WORKMANSHIP NOT SHOWN ON THESE DRAWINGS SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE CONTRACT.

2 THE CONTRACTOR IS RESPONSIBLE FOR ALL COSTS INCLUDING REPAIRS, REPLACEMENT OR RELOCATION ETC. OF STREET LIGHTING FACILITIES IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

3 LOCATIONS OF THE HDPE AND NONMETALLIC PVC CONDUITS ARE IDENTIFIED IN THE PLANS WHERE THEY ARE REQUIRED. HOWEVER, INSTALLATION MAY REQUIRE INTEGRATION WITH EXISTING FIELD CONDITIONS. UNDER THE APPROVAL OF THE CITY OF MILWAUKEE DPW STREET LIGHTING, 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 TO ILLUSTRATE AS BUILT CONDITIONS.

4 CONDUIT INSTALLED BEHIND CURB, AND UNDER DRIVEWAYS SHALL BE INSTALLED AT A DISTANCE OF MINIMUM OF 6 INCHES AWAY FROM THE BACK OF CURB TO THE CENTER LINE OF CONDUIT, AND MINIMUM 24 INCHES DOWN MEASURED FROM THE TOP OF CURB OR FINISHED GRADE TO THE TOP OF CONDUIT.

5 DEPTH OF CONDUIT INSTALLED BELOW STREETS, HIGHWAYS, AND ALLEYS SHALL BE 24-INCHES MINIMUM AND 36-INCHES MAXIMUM. (MEASURED FROM FINISHED FLANGE LINE) IF THE CONTRACTOR DOES ANY DEVIATION FROM THE STREET LIGHTING DESIGN WITHOUT THE STREET LIGHTING ENGINEERS SIGNED PERMISSION.

6 CONDUIT LATERALS SHALL BE TRENCHED UNDER PAVEMENT BEFORE PAVEMENT CONSTRUCTION.

7 WHEN THERE IS MORE THAN ONE CONDUIT TO BE INSTALLED, PLACE ALL CONDUITS IN THE SAME TRENCH, OR BORE MULTIPLE CONDUITS TOGETHER AT THE SAME TIME.

8 CONDUIT INSTALLATION THAT REQUIRE TRENCHING SHALL NOT BE BACKFILLED PRIOR TO INSPECTION ON THE CONDUIT.

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

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

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

12 PRIOR TO CONDUIT ACCEPTANCE, ALL OPEN CONDUIT ENDS, AND UN-TERMINATED CONDUITS SHALL BE THOROUGHLY CLEANED AND BE CAPPED IMMEDIATELY AFTER INSTALLATION WITH THE APPROPRIATE CAST PLASTIC CAP WHICH FITS SNUGGLY ON THE CONDUIT, BUT EASILY REMOVED. DUCT TAPE OR ANY OTHER CAPPING METHOD IS NOT ACCEPTABLE.

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

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

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

16 UNLESS THE CONDUIT IS DESIGNED AND SHOWN WITH BENDS ON THE PLANS, ALL CONDUIT RUNS SHALL BE STRAIGHT (WITHOUT BENDS) FROM PULL BOX TO PULL BOX, PULL BOX TO CONCRETE BASE, AND PULL BOX TO ENCLOSURE. OTHERWISE IT MUST BE APPROVED BY THE STREET LIGHTING ENGINEER.

STREET LIGHTING GENERAL NOTES:

17 MINIMUM CONDUIT CLEARANCES FOR CONDUIT CROSSINGS AND PULL BOXES FROM THE FOLLOWING:
FIRE HYDRANTS: 6-FT TREE TRUNKS: 10-FT END OF DRIVEWAY FLARES: 6-FT
UNLESS NOTED OTHERWISE, OR APPROVED BY THE STREET LIGHTING ENGINEER.

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

19 TYPICAL RECTANGULAR PULL BOXES / VAULTS SHOULD BE INSTALLED AS SHOWN ON PLANS, BUT WHEN IT IS NOT POSSIBLE, A 5 FT. TO 6 FT. OFFSET FROM STREET LIGHT POLES, SIGNAL STANDARDS AND FIRE HYDRANTS SHOULD BE USED, OTHERWISE APPROVED BY THE STREET LIGHTING ENGINEER.

20 TYPICAL CONDUIT INSTALLATION FROM THE PULL BOX TO A DIRECT BURIED STREET LIGHT POLE IS AS FOLLOWS: USE A NYLON LIQUIDTIGHT CONNECTOR (UL APPROVED) TO CONNECT THE 1 1/2-INCH LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT LFNC-B (UL APPROVED) TO THE PULL BOX AND CONNECT TO STREET LIGHT POLE BY STUBBING UP A MINIMUM OF 6 INCHES OF THE LIQUIDTIGHT FLEXIBLE NONMETALLIC CONDUIT (LFNC-B) INTO THE CABLE SLOT.

21 ALL CONDUITS AND JUNCTION BOXES EMBEDDED IN STRUCTURE SHALL BE PAID UNDER STRUCTURE PAY ITEMS. CONTRACTOR SHALL COORDINATE THE EXACT LOCATION OF EMBEDDED CONDUITS.

22 AT EVERY BRIDGE JOINT, EXPANSION/DEFLECTION FITTINGS MUST BE USED TO PREVENT DAMAGE TO CONDUIT AND LIGHTING CIRCUITS. THIS ITEM IS INCIDENTAL TO THE CONDUIT BID ITEM, AND SHALL BE PAID UNDER STRUCTURE PAY ITEMS.

23 THE SUPPORT CHANNELS FOR INSTALLATION OF CONDUITS, LUMINAIRES, JUNCTION BOXES AND ENCLOSURES SHALL BE STAINLESS STEEL UNISTRUT P1000 SERIES OR APPROVED EQUAL, CHANNELS SHALL BE SLOTTED OR PERFORATED.

24 ALL HDPE OR NONMETALLIC PVC CONDUITS THAT CONNECT TO PULL BOXES REQUIRE A PVC END BELL CONNECTOR INSIDE THE PULL BOX

25 PROVIDE REMOVABLE SEALANT SUCH AS DUCT SEAL IN THE CONDUITS AT THE CABINETS, PULL BOXES AND JUNCTION BOXES TO AVOID CONDENSATION CAUSED BY AIRFLOW THROUGH THE CONDUITS DUE TO TEMPERATURE DIFFERENCE. THIS WORK SHALL BE INCIDENTAL TO ASSOCIATED CONDUIT PAY ITEM.

26 PROVIDE 3 INCH PVC SCHEDULE 40 CONDUIT ELBOWS IN ALL GROUND MOUNTED CONCRETE LIGHT BASES FOR CABLE IN DUCT TYPE INSTALLATION. THIS WORK IS INCIDENTAL TO CONCRETE BASES PAY ITEMS.

27 AT EACH SIGNAL STANDARD BASE PROVIDE 2 INCH PVC SCHEDULE 40 CONDUIT FROM PULL BOX TO SIGNAL STANDARD BASE. INSTALLATION OF PULL BOX AND CONDUIT ARE INCIDENTAL TO SIGNAL STANDARD BASE INSTALLATION WORK.

28 CONDUCTOR COLORS: 240/480, 1 PHASE - BLACK (HOT) /WHITE (NEUTRAL) // RED (HOT) /GRAY (NEUTRAL) / GREEN (GROUND)

29 INSTALL COMMON GROUND CONDUCTOR IN CONDUIT WHERE MULTIPLE BRANCH CIRCUITS CONDUCTORS ARE INSTALLED IN SAME CONDUIT AND SPLICE THE GROUND CONDUCTOR WITH TAP CONNECTOR IN PULLBOX.

30 PROVIDE MINIMUM WIRES / CONDUCTOR(S) SLACK AS NOTED BELOW:
PULL BOXES: SEE DETAIL 142
- CONNECTED WIRES TO LIGHT POLE IN PULL BOX MUST BE EXTENDED MINIMUM 3 FT. BEYOND TOP OF PUL BOX
- UNCONNECTED WIRES THAT BY PASS THROUGH PULL BOX MUST HAVE A MINIMUM OF 6 FT. SLACK COIL LEFT INSIDE PULL BOX

EMBEDDED JUNCTION BOXES IN PARAPIT WALL :
- CONNECTED WIRES IN JUNCTION BOX EXTEND MINIMUM 2 FT. BEYOND TOP OF JUNCTION BOX
- UNCONNECTED WIRES IN JUNCTION BOX LEAVE MINIMUM OF 4 FT. SLACK COIL IN JUNCTION BOX

DISTRIBUTION CENTER/LOAD CENTER: 10-FT
BREAK AWAY TRANSFORMER BASE: 2-FT

31 UNDERGROUND WIRE & CONDUIT SHOWN ON PLANS TO BE ABANDONED IN PLACE UNLESS DIRECTED BY THE ENGINEER. CONTRACTOR MAY CHOOSE TO REMOVE CONDUCTOR AT THEIR OWN EXPENSE.

32 LIGHT POLES INSTALLED BEHIND THE CURB NEED TO BE SET 30 INCHES BACK FROM FACE OF CURB TO CENTER OF POLE, SO TO MEET THE MINIMUM DISTANCE OF 24 INCHES FROM THE CURB FACE TO THE CURB SIDE FACE OF THE POLE.

33 ON ALL NEW STREET LIGHT POLES A PLAQUE WITH THE POLE NUMBER AS SHOWN ON THE PLANS SHALL BE AFFIXED ONTO THE POLE SHAFT.

SHEET 1 OF 4

PROJECT NO. 2984-12-73	HWY: N. HOLTON ST.	COUNTY: MILWAUKEE	STREET LIGHTING - PHASE 1 - NOTES AND DETAILS	SHEET 6	E

STREET LIGHTING GENERAL NOTES:

34 ALL WIRE CONNECTIONS REQUIRE ANTI-OXIDANT TO BE APPLIED TO THE CONNECTIONS

35 ALL HARDWARE NUT AND BOLT CONNECTIONS REQUIRE ANTI SEIZE TO BE APPLIED TO THEM

36 COORDINATE NEW CONDUIT CONNECTIONS WITH EXISTING CONDUIT, DUCT PACKAGES, AND PULL BOXES/ VAULTS/ MANHOLES WITH CITY OF MILWAUKEE STREET LIGHTING. THE CITY REQUIRES THREE WORKING DAYS ADVANCED NOTICE. CONTACT ELECTRICAL SUPERVISOR
STREET LIGHTING - NEAL KARWEIK (OFFICE 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - WILLIE COTTON (OFFICE) 414-286-5997 (CELL) 414-708-1629
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - RUDY GUTIERREZ (OFFICE) 414-286-5941 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

37 IMMEDIATELY AFTER THE CONTRACTOR HAS COMPLETED ALL THE ELECTRICAL PULL BOXES / VAULTS, CONDUIT AND CONDUIT CONNECTIONS, AND JUST BEFORE ELECTRICAL WORK IS COVERED UP WITH CONRETE, SOIL, OR ETC. THE CONTRACTOR IS REQUIRED TO CONTACT THE CITY OF MILWAUKEE ELECTRICAL SHOP SUPERVISORS FOR FINAL INSPECTION AND APPROVAL OF ALL WORK.
STREET LIGHTING - NEAL KARWEIK (OFFICE) 414-286-5943 (CELL) 414-708-4245
STREET LIGHTING - WILLIE COTTON (OFFICE) 414-286-5997 (CELL) 414-708-1629
STREET LIGHTING - STEVEN RHODA (OFFICE) 414-286-5942 (CELL) 414-708-4251
STREET LIGHTING - DISPATCHER @ 414-286-5944
TRAFFIC SIGNALS - RUDY GUTIERREZ (OFFICE) 414-286-5941 (CELL) 414-708-5148
TRAFFIC SIGNALS - DISPATCHER @ 414-286-3687

38 CONTRACTOR SHALL SUPPLY AS-BUILT DRAWINGS FOR ALL WORK BEING DONE DETAILING THE FINAL PLACEMENT OF CONDUIT, CABLING, EQUIPMENT, AND GEOMETRIC MODIFICATIONS UNDER THE CONTRACT. PROVIDE (.PDF FORMAT) COPY CONFORMING TO CMM 1-65.14, OR RECORD ALL CHANGES IN RED INK ONLY ON THE AS-LET (DESIGN) PAPER DRAWINGS. THE CITY OF MILWAUKEE DPW ENGINEER WILL REJECT AS-BUILTS WITH INCOMPLETE OR INCORRECT CONTENT OR NOT CONFORMING TO CMM STANDARDS.

39 CONTRACTOR TO DELIVER THE FOLLOWING REMOVED STREET LIGHTING MATERIALS:
-ALUMINUM AND WOOD POLES
-LUMINAIRE BRACKET ARMS
-LUMINAIRES
-BREAKAWAY TRANSFORMER PEDESTALS
-WIRING PEDESTALS (GREEN IN COLOR)
TO CITY OF MILWAUKEE STREET LIGHTING YARD AT 1540 W. CANAL ST.
CALL RICO LOPEZ AT 414-286-5983 (CANAL OFFICE) OR 414-286-6123 (DPW FIELD OFFICE) OR DISPATCHER AT 414-286-5944
THREE (3) WORKING BEFORE TO COORDINATE DELIVERY OF MATERIALS

40 CONTRACTOR WILL BE RESPONSIBLE FOR THE DISPOSAL OF CONCRETE POLES, CONCRETE BASES, AND WIRING.

41 CONTRACTOR SHALL DISPOSE OF REMOVED EXISTING LAMPS IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

42 ONLY WHEN THE CITY OF MILWAUKE IS FURNISHING MATERIALS FOR A PROJECT THE CONTRACTOR IS RESPONSIBLE TO CONTACT THE STREET LIGHTING SHOP YARD CONTACT PERSON FOUR (4) WORKING DAYS BEFORE, AND WILL NEED TO PROVIDE THE EXACT QUANTITY OF MATERIALS NEEDED. THE ADVANCE NOTICE WILL ALLOW THE SHOP TO GATHER THE REQUEST ITEMS FOR THE CONTRACTOR TO PICK UP AND SIGN FOR TAKING POSSESSION OF THE MATERIALS.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE MATERIALS THAT THEY TAKE POSSESSION OF AND FOR THE ANY RETURNING OF ANY UNSED MATERIALS BACK TO THE SHOP IN GOOD CONDITION. IF ANY MATERIALS COME BACK DAMAGED OR BROKEN THE CONTRACTOR WILL BE RESPONSIBLE FOR REPLACING THE BROKEN OR DAMAGED ITEMS.

STREET LIGHTING SHOP YARD CONTACT PERSON:
NEAL KARWEIK 414-286-5943 (OFFICE) 414-708-4245 (CELL)
ALL THE MATERIALS MUST BE EITHER PICKED OR DROPPED OFF ALL AT ONE TIME.
THE STREET LIGHTING SHOP YARD HOURS FOR PICKING UP MATERIALS IS FROM 8AM TO 2PM:
MONDAY THROUGH FRIDAY.

CONTRACTOR MUST BE OUT OF THE SHOP YARD BY 2PM NO LATER.

STREET LIGHTING GENERAL NOTES:

2

AS-BUILT GUIDELINES:

PROVIDE AS-BUILT DRAWINGS DETAILING THE FINAL PLACEMENT OF CONDUIT, CABLING, EQUIPMENT, AND GEOMETRIC MODIFICATIONS UNDER THE CONTRACT. PROVIDE PDF COPY CONFORMING TO CMM 1-65.14, OR RECORD ALL CHANGES IN RED INK ONLY ON THE AS-LET (DESIGN) PAPER DRAWINGS. THE ENGINEER WILL REJECT AS-BUILTS WITH INCOMPLETE OR INCORRECT CONTENT OR NOT CONFORMING TO CMM STANDARDS.

IT IS CRITICAL THAT THE CONTRACTOR WORK ON THE AS-BUILT DRAWINGS WHILE THE JOB IS PROGRESSING, SO CHANGES ARE DOCUMENTED WHILE THEY ARE STILL FRESH IN YOUR MIND.

IF THERE IS A STRUCTURE DRAWING, INCLUDE ALL STRUCTURES DRAWING SHEETS. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSERT ANY ADDENDUM OR REPLACEMENT DRAWING SHEETS. TO DO THIS, RENUMBER THEM SIMILARLY TO THE ORIGINAL DRAWING SHEET.
FOR EXAMPLE:
REVISED SHEET 5 WOULD REPLACE SHEET 5. HOWEVER, ALL THE ORIGINAL SHEETS SHALL REMAIN IN THE AS-BUILT. IF THE SHEET HAS BEEN REPLACED CROSS IT OUT WITH AN X AND INDICATE THE NUMBER OF ITS REPLACEMENT SHEET. IF ADDITIONAL SHEETS WERE ADDED, INSERT THEM IN THE ORIGINAL LOCATION AND LABEL THEM WITH THE PREVIOUS SHEET NUMBER FOLLOWED BY AN "A", "B", "C", ETC.

NOTE THE SHEET CHANGES ON THE TITLE SHEET UNDER THE ORDER OF SHEETS.

THE TITLE SHEET OF THE AS-BUILT DRAWING SHOULD INCLUDE THE FOLLOWING INFORMATION:
AS-BUILT DRAWING
SUPERVISOR:
PROJECT MANAGER:
CONTRACTOR LEADER:
CONTRACTOR COMAPNY:
WORK STARTED:
WORK COMPLETED:

LINE OUT OR CROSS OUT ALL CHANGED INFORMATION AND WRITE-IN THE CORRECTED INFORMATION ABOVE THE ORIGINAL OR CLOSE TO IT WHEREVER POSSIBLE. USE BLANK SPACES ON THE DRAWING SO NOTES ARE NOT SUPERIMPOSED. DRAWINGS WITH EXCESSIVE DETAIL MAY REQUIRE AN ALTERNATE APPROACH. NUMBERED CHANGES OR ADDITIONS MAY BE SHOWN ON SUPPLEMENTAL NON-DRAWING SHEETS.

- LOCATE AND CLEARLY LABEL ALL CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, CONCRETE BASES, TRANSFORMERS, POLES AND OTHER APPURTENANCES IN TWO DIRECTIONS. SWING TIES SHOULD BE MADE FROM THE OBJECTS THAT ARE PERMANENT IN NATURE AND VISIBLE ON THE FINISHED SURFACE.
- STREET NAMES SHALL BE ON ALL SHEETS.
- SHOW ALL SIZES AND MATERIAL TYPES OF PIPES AND CONDUITS, IF CHANGED OR MODIFIED FROM ORIGINAL DESIGN.
- ALL HORIZONTAL DISTANCES SHALL BE SHOWN TO THE NEAREST TENTH OF A FOOT (I.E., 205.3'). ALL VERTICAL DISTANCES SHALL BE TO THE NEAREST INCH (I.E., 24")
- SHOW LOCATION AND ELEVATIONS ON CONDUIT AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
- SPECIAL DETAIL DRAWINGS MAY BE REQUIRED WHERE INSTALLATIONS ARE NOT SHOWN ON APPROVED CONSTRUCTION DRAWINGS FOR WHATEVER REASON OR WHERE REQUIRED FOR CLARITY.
- TYPICAL SERVICE INSTALLATION DETAILS WITH DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.
- NO ARBITRARY MARK-UPS WILL BE PERMITTED.

IF THERE ARE NO CORRECTIONS OR ADDITIONS TO THE AS-LET PLAN(S) PUT "NO CHANGE" ON THE SHEET WITH ALL OTHER REQUIRED AS-BUILT INFORMATION.

BY MAIL SEND TO:
CITY OF MILWAUKEE
INFRASTRUCTURE SERVICES DIVISION
TRANSPORTATION SECTION - CONSTRUCTION
CHIEF CONSTRUCTION ENGINEER
TONY KOTECKI
841 NORTH BROADWAY, ROOM 701
MILWAUKEE, WISCONSIN 53202

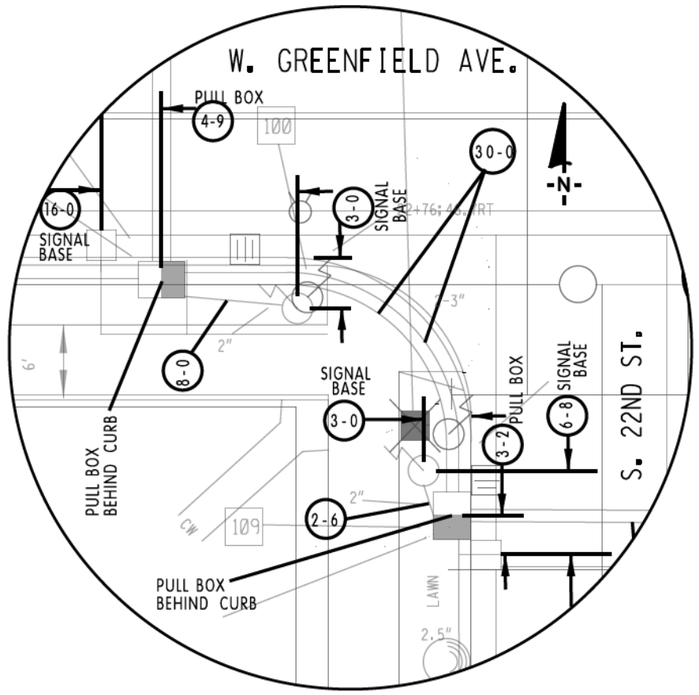
BY EMAIL SEND TO:
CITY OF MILWAUKEE
INFRASTRUCTURE SERVICES DIVISION
TRANSPORTATION SECTION - CONSTRUCTION
CHIEF CONSTRUCTION ENGINEER
TONY KOTECKI
AKOTEC@MILWAUKEE.GOV

USE RED INK TO DO AS-BUILTS

RECORD RETENTION GUIDELINES:

- CONTRACTOR TO LOCATE AND CLEARLY DIMENSION ALL OF THERE NEWLY INSTALLED CONDUIT RUNS, FITTINGS, SPLICE VAULTS, PULL BOXES, METER PEDESTALS, CONCRETE BASES, TRANSFORMERS, POLES AND OTHER APPURTENANCES IN TWO (2) DIRECTIONS. SWING TIES SHOULD BE MADE FROM OBJECTS THAT ARE PERMANENT IN NATURE AND VISIBLE ON THE FINISHED SURFACE.
- STREET NAMES SHALL BE ON ALL SHEETS.
- SHOW ALL SIZES AND MATERIAL TYPES OF PIPES AND CONDUITS, IF CHANGED OR MODIFIED FROM ORGINAL DESIGN.
- ALL HORIZONTAL DISTANCES SHALL BE SHOWN TO THE NEAREST TENTH OF A FOOT (I.E., 205.3'). ALL VERTICAL DISTANCES SHALL BE SHOWN TO THE NEAREST INCH (I.E. 24").
- SHOW LOCATION AND ELEVATIONS OF PIPES AND FITTINGS WHERE CHANGES OR DEFLECTIONS IN DIRECTION OCCUR.
- SPECIAL DETAIL DRAWINGS WILL BE SUPPLIED WHERE REQUIRED FOR CLARITY.
- DEVIATIONS FROM ORIGINAL PLANS OR STANDARD DETAILS SHALL BE NOTED ON AS-BUILT DRAWINGS.
- IF THERE ARE NO CORRECTIONS OR ADDITIONS TO THE AS-LET PLAN(S) PUT "NO CHANGE" ON THE SHEET.

SUPERVISOR: _____
PROJECT MANAGER: _____
CONTRACTOR LEADER: _____
CONTRACTOR COMPANY: _____
WORK STARTED: _____
WORK COMPLETED: _____



FIELD RECORD EXAMPLE DETAIL NOT TO SCALE

TYPICAL DIMENSIONING OF CONDUIT, PULL BOXES, AND CONCRETE BASES

MEASURING GUIDE LINES

IF CONDUIT IS NOT PLACED DIRECTLY BEHIND THE CURB IN THE ISLANDS & SIDE TERRACE AREAS, A MEASURED DISTANCE FROM THE FACE OF CURB TO THE CONDUIT WILL NEED TO BE PROVIDED.

PROVIDE A MEASURED DISTANCE OF UNINTERRUPTED CONDUIT RUNS

USE PERMANENT OBJECTS LIKE HYDRANTS, CATCH BASINS, OR EVEN CURB FACE LINES EXTENED TO MEASURE OFF WHEN LOCATING CONDUIT, PULL BOXES AND CONCRETE BASES.

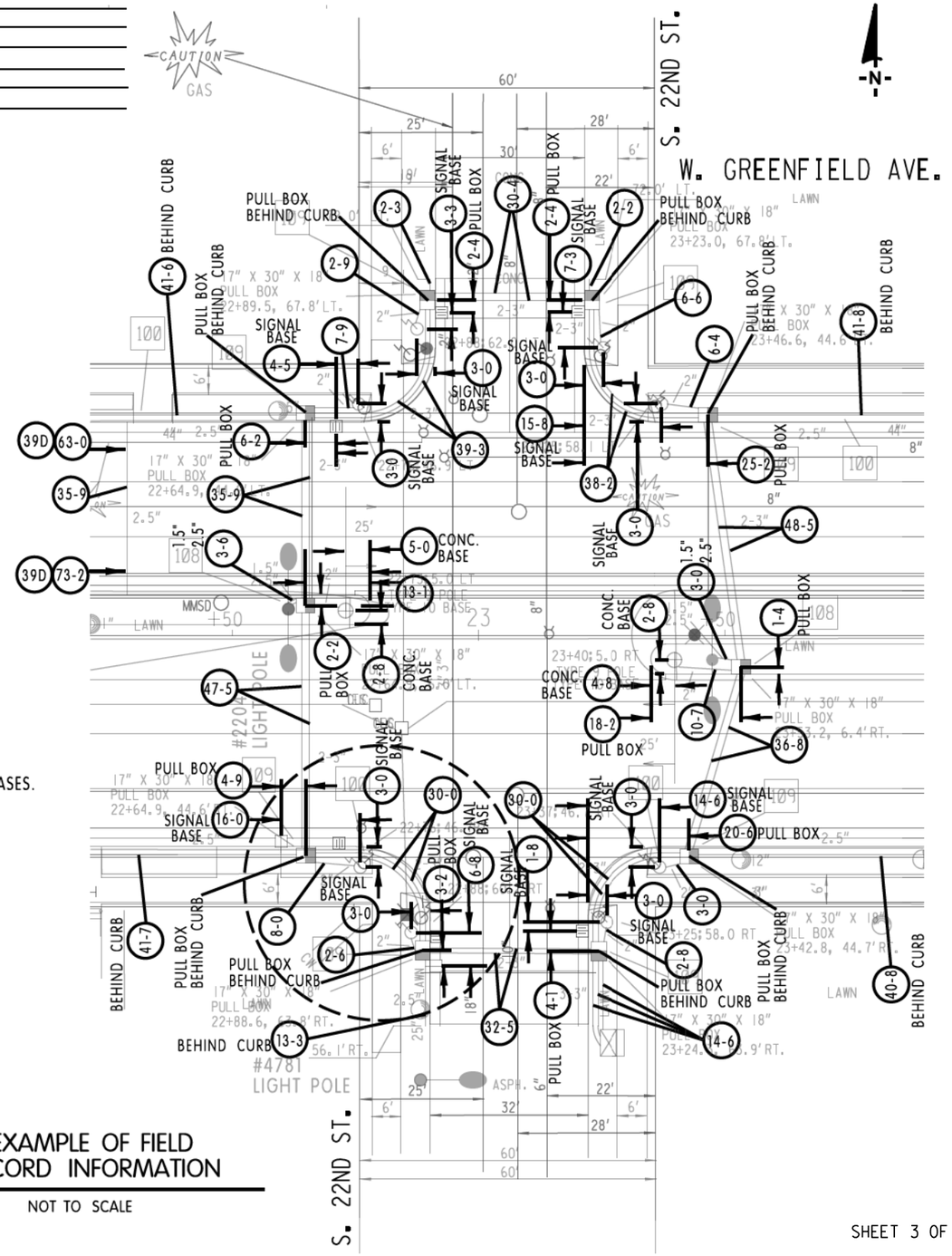
MEASURE TO OR FROM THE CENTERS OF OBJECTS FOR DISTANCE TAKING.

(39D) MEANS = CONDUIT IS 39" DEEP

(48-5) MEANS = LENGTH OF CONDUIT IS 48.5 FT. LONG (MEASURED TO NEAREST TENTH OF A FOOT)

OR

(25-6) MEANS = DISTANCE OF 25.6 FT. BETWEEN PERMANENT OBJECT OR CURB FACE TO CONDUIT, PULL BOX, AND CONCRETE BASE (MEASURED TO NEAREST TENTH OF A FOOT)



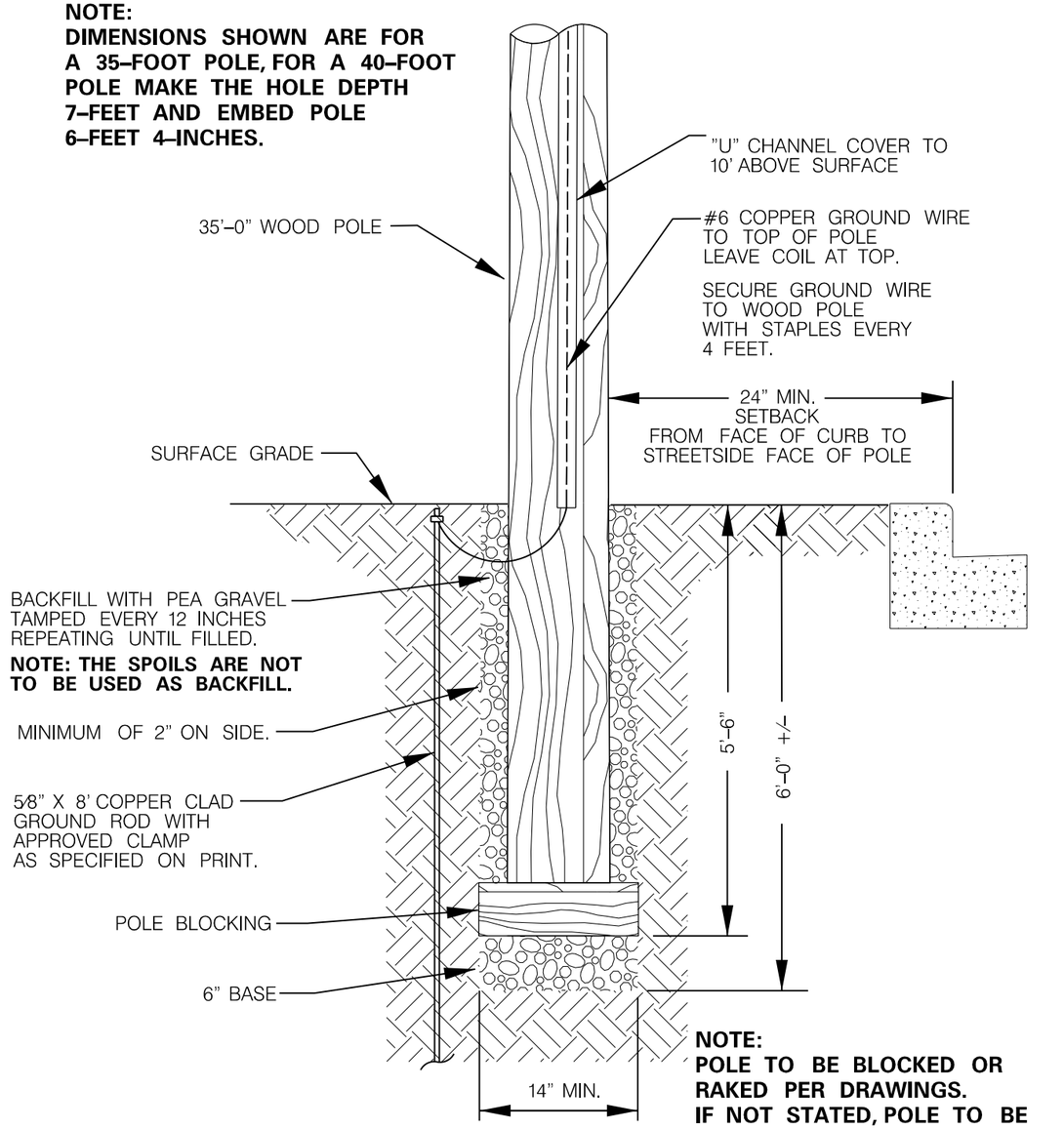
EXAMPLE OF FIELD RECORD INFORMATION

NOT TO SCALE

SHEET 3 OF 4

PROJECT NO. 2984-12-73	HWY: N. HOLTON ST.	COUNTY: MILWAUKEE	STREET LIGHTING - PHASE I - NOTES AND DETAILS	SHEET 8	E

NOTE:
DIMENSIONS SHOWN ARE FOR A 35–FOOT POLE, FOR A 40–FOOT POLE MAKE THE HOLE DEPTH 7–FEET AND EMBED POLE 6–FEET 4–INCHES.



NOTE:
POLE TO BE BLOCKED OR RAKED PER DRAWINGS.
IF NOT STATED, POLE TO BE PERPENDICULAR WITH GROUND

130A DETAIL — NOT TO SCALE

TYPICAL 35 FT.WOOD POLE INSTALLATION

SEE NOTE FOR 40 FOOT POLE

ANY DEVIATIONS FROM DETAIL WILL REQUIRE PERMISSION FROM STREET LIGHTING FORCES.
CONTACT DISPATCHER AT (414) (414) 286–5944 FOR THE APPROPRIATE SHOP SUPERVISOR.

CONTRACTOR TO DELIVER POLES AND ACCESSORIES TO CITY OF MILWAUKEE STREET LIGHTING YARD AT 1540 W. CANAL ST.

ELECTRICAL CABLE TYPE 3#6AL, CIR.ED-A
3"
CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3) BY CONTRACTOR BEFORE INSTALLING NEW WIRING

REMOVING POLES
LIGHTING UNIT #1741
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1741
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

JUNCTION BOX

N

REMOVING POLES
LIGHTING UNIT #1724
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1724
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

REMOVING POLES
LIGHTING UNIT #1715
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.

ITEMS THAT WILL BE NEEDED FOR (PHASE 3)
- NEW LIGHTING UNIT #1715
- ANCHOR BASE ADAPTER
- INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
- INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
- INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ANCHOR BOLT CIRCLE TO BE REPLACED IF DAMAGED BY BRIDGE CONTRACTOR
REMOVE AERIAL CABLE
CONTRACTOR TO LEAVE 3 FT. COIL AT TOP OF POLE.
CITY OF MILWAUKEE TO INSTALL SECONDARY RISER AND MAKE WIRING TERMINATIONS

LIGHTING UNIT #1713
EXISTING WOOD POLE
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT (WP MOUNT)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

EXISTING TEMPORARY OVERHEAD 3#6AL., CIR.ED-A
CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3) BY CONTRACTOR BEFORE INSTALLING NEW WIRING

N. WATER

13+00
4-7"
12+00
11+00

ELECTRICAL CABLE TYPE 3#6AL, CIR.ED-A
CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3) BY CONTRACTOR BEFORE INSTALLING NEW WIRING

REMOVING POLES
LIGHTING UNIT #1726
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1726
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ST.

E. PEARSON ST.

ELECTRICAL CABLE TYPE 3#6AL, CIR.ED-A
CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3) BY CONTRACTOR BEFORE INSTALLING NEW WIRING

REMOVING POLES
LIGHTING UNIT #1718
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARMS, AND LUMINAIRES.

ITEMS THAT WILL BE NEEDED FOR (PHASE 3)
- NEW LIGHTING UNIT #1718
- ANCHOR BASE ADAPTER
- INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
- TWO - INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
- TWO - INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ANCHOR BOLT CIRCLE TO BE REPLACED IF DAMAGED BY BRIDGE CONTRACTOR

LIGHTING UNIT #1714
REMOVING CONCRETE SIDEWALK
35 FT. WOOD POLES
STA.11+63.5,32.7'RT.
LOCATED 4'S. FROM END OF CONCRETE CURB BARRIER AND 2 FT. BEHIND CURB
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT (WP MOUNT)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ELECTRICAL CABLE TYPE 3#6AL, CIR.ED-A
CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3) BY CONTRACTOR BEFORE INSTALLING NEW WIRING

CONTRACTOR TO LEAVE 3 FT. COIL AT TOP OF POLE.
CITY OF MILWAUKEE TO INSTALL SECONDARY RISER AND MAKE WIRING TERMINATIONS

REMOVING POLES
LIGHTING UNIT #1706
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1706
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

N. HOLTON ST.

3#8/1#8LTP, CIR.ED-A
#626 WEP.CO.,W.P.#57-2977 MLB.PED 35S, S3LED5
3#6/1#8LTP, CIR.ED-A
#1701 P-ADAPT.,ML,R 3S3,3LED
73-0 2.5"
83-0 2.5"
60-0 2-2.5"
69-6
2.5"
3#4/1#8LTP CIR.ED-A
2.5"
EXISTING 3#4/1#8LTP, IN CONDUIT, CIR.ED-A
#706 A26-MLB.PED 35S,S3LED5
3#4/1#8LTP, CIR.ED-G 7-10 BOC
2.5"

E. BRADY ST.

PULL BOX
JUNCTION BOX
OH
HD

LEGEND

- EXISTING UTILITY POLE
- EXISTING POLE
- EXISTING POLE WITH LIGHT
- EX. POLE WITH DECORATIVE STYLE LUMINAIRE
- PROPOSED POLE
- PROPOSED POLE WITH LIGHT
- REMOVE POLE WITH LIGHT
- REMOVE POLE
- EXISTING PULL BOX / JUNCTION BOX
- EXISTING OVERHEAD PRIMARY CABLE
- EXISTING OVERHEAD SECONDARY CABLE
- PROPOSED OVERHEAD SECONDARY CABLE
- REMOVAL OF OVERHEAD SECONDARY CABLE
- EXISTING SECONDARY CABLE - (SEE NOTE)
- EX. UNDERGROUND CONDUIT - (SEE NOTE)
- (R) (B) - RED WIRE / BLACK WIRE - STREET LIGHT TERMINATION

SHEET 1 OF 3

PROJECT NO. 2984-12-73	HWY: N. HOLTON ST.	COUNTY: MILWAUKEE	STREET LIGHTING - PHASE 1 - TEMPORARY OVERHEAD	SHEET 10	E

CONTRACTOR TO DELIVER POLES AND ACCESSORIES TO
CITY OF MILWAUKEE STREET LIGHTING YARD
AT 1540 W. CANAL ST.

N

N. HOLTON ST.

N. HOLTON ST. VIADUCT

18+00

16+00

15+00

14+00

ELECTRICAL CABLE TYPE 3#6AL, CIR.T52C-D

JUNCTION BOX

REMOVING POLES
LIGHTING UNIT #1847
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1847
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3) BY CONTRACTOR BEFORE INSTALLING NEW WIRING

REMOVING POLES
LIGHTING UNIT #1840
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1840
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

REMOVING POLES
LIGHTING UNIT #1822
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1822
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

REMOVING POLES
LIGHTING UNIT #1835
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1835
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

REMOVING POLES
LIGHTING UNIT #1812
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1812
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

REMOVING POLES
LIGHTING UNIT #1821
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1821
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ELECTRICAL CABLE TYPE 3#6AL, CIR.ED-A

CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3) BY CONTRACTOR BEFORE INSTALLING NEW WIRING

REMOVING POLES
LIGHTING UNIT #1804
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1804
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

REMOVING POLES
LIGHTING UNIT #1811
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1811
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

REMOVING POLES
LIGHTING UNIT #1803
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1803
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

REMOVING POLES
LIGHTING UNIT #1742
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1742
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

LEGEND

- EXISTING UTILITY POLE
- EXISTING POLE
- EXISTING POLE WITH LIGHT
- EX. POLE WITH DECORATIVE STYLE LUMINAIRE
- PROPOSED POLE
- PROPOSED POLE WITH LIGHT
- REMOVE POLE WITH LIGHT
- REMOVE POLE
- EXISTING PULL BOX / JUNCTION BOX
- EXISTING OVERHEAD PRIMARY CABLE
- EXISTING OVERHEAD SECONDARY CABLE
- PROPOSED OVERHEAD SECONDARY CABLE
- REMOVAL OF OVERHEAD SECONDARY CABLE
- EXISTING SECONDARY CABLE - (SEE NOTE)
- EX. UNDERGROUND CONDUIT - (SEE NOTE)
- RED WIRE / BLACK WIRE - STREET LIGHT TERMINATION

SHEET 2 OF 3

PROJECT NO. 2984-12-73	HWY: N. HOLTON ST.	COUNTY: MILWAUKEE	STREET LIGHTING - PHASE I - TEMPORARY OVERHEAD	SHEET 11	E

CONTRACTOR TO DELIVER POLES AND ACCESSORIES TO
CITY OF MILWAUKEE STREET LIGHTING YARD
AT 1540 W. CANAL ST.

N

N. HOLTON ST.

E. GLOVER AV.

E. RESERVOIR AV.

E. COMMERCE ST.

N. HOLTON ST.

3#6/1#8LTP, CIR.T52C-D

2-2"

2"

20-3

PULL BOX

℄ C.B.

26-0
2.5"

#504
A21-6,R,PED
2S5, S2LED5

#1927
A26-6,R,PED,
3S3,3LED3

#440
A26-6,B,PED
2S2, 2LED2

CONTRACTOR TO LEAVE 3 FT. COIL AT TOP OF POLE.
CITY OF MILWAUKEE TO INSTALL SECONDARY RISER
AND MAKE WIRING TERMINATIONS

3#6/1#8LTP, CIR.T52C-D
TO BE DISCONNECTED AND
TAKEN OUT OF SERVICE BY CITY OF MILWAUKEE

3#6/1#8LTP, CIR.T52C-D

ELECTRICAL CABLE TYPE 3#6AL,
CIR.T52C-D
MINIMUM CLEARANCE OF 18 FT. ABOVE
CROWN OR HIGH POINT OF ROADWAY

20-0
2.5"

102-0

46-0
2.5"

2.5"

14-0

0H

18+00

14-0
2.5"

JUNCTION BOX

JUNCTION BOX IN WALK

JUNCTION BOX

UTILITY POLE

CAUTION!!!
UTILITY OVERHEAD

4-1"

3"

2"

REMOVING POLES
LIGHTING UNIT #1926
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.

ITEMS THAT WILL BE NEEDED FOR (PHASE 3)
- NEW LIGHTING UNIT #1926
- ANCHOR BASE ADAPTER
- INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
- INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
- INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ANCHOR BOLT CIRCLE TO BE REPLACED IF DAMAGED BY BRIDGE CONTRACTOR

CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3)
BY CONTRACTOR BEFORE INSTALLING NEW WIRING

REMOVING POLES
LIGHTING UNIT #1916
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1916
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ELECTRICAL CABLE TYPE 3#6AL, CIR.T52C-D
MINIMUM CLEARANCE OF 18 FT. ABOVE CROWN OR HIGH POINT OF ROADWAY

REMOVING POLES
LIGHTING UNIT #1921
28' METAL SHEPARD CROOK BOLT DOWN
POLE WITH ARM, AND LUMINAIRE.

ITEMS THAT WILL BE NEEDED FOR (PHASE 3)
- NEW LIGHTING UNIT #1921
- ANCHOR BASE ADAPTER
- INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
- INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
- INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ANCHOR BOLT CIRCLE TO BE REPLACED IF DAMAGED BY BRIDGE CONTRACTOR

ELECTRICAL CABLE TYPE 3#6AL, CIR.T52C-D

CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3)
BY CONTRACTOR BEFORE INSTALLING NEW WIRING

REMOVING POLES
LIGHTING UNIT #1913
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARMS, AND LUMINAIRES.
NEW LIGHTING UNIT #1913
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
TWO - INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
TWO - INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ELECTRICAL CABLE TYPE 3#6AL, CIR.T52C-D

CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3)
BY CONTRACTOR BEFORE INSTALLING NEW WIRING

REMOVING POLES
LIGHTING UNIT #1905
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1905
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ELECTRICAL CABLE TYPE 3#6AL, CIR.T52C-D

CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3)
BY CONTRACTOR BEFORE INSTALLING NEW WIRING

REMOVING POLES
LIGHTING UNIT #1908
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1908
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

ELECTRICAL CABLE TYPE 3#6AL, CIR.T52C-D
MINIMUM CLEARANCE OF 18 FT. ABOVE CROWN OR HIGH POINT OF ROADWAY

CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3)
BY CONTRACTOR BEFORE INSTALLING NEW WIRING

REMOVING POLES
LIGHTING UNIT #1854
28' METAL SHEPARD CROOK BOLT DOWN POLE WITH ARM, AND LUMINAIRE.
NEW LIGHTING UNIT #1854
ANCHOR BASE ADAPTER
INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD
INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-FT. (SPECIAL)
INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED

CABLE IN CONDUIT TO BE REMOVED LATER (PHASE 3)
BY CONTRACTOR BEFORE INSTALLING NEW WIRING

ELECTRICAL CABLE TYPE 3#6AL, CIR.T52C-D
MINIMUM CLEARANCE OF 18 FT. ABOVE CROWN OR HIGH POINT OF ROADWAY

20+00

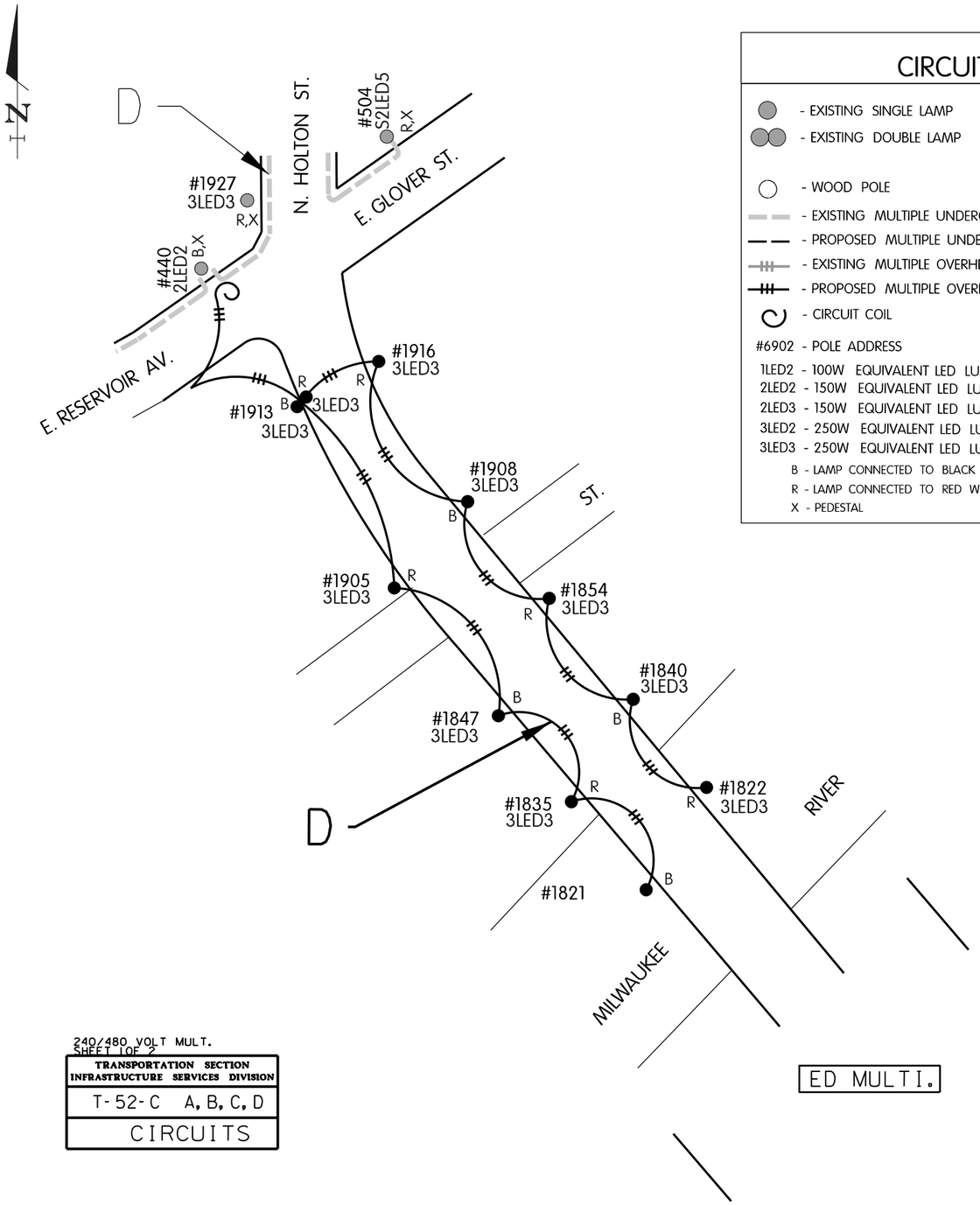
19+00

LEGEND

- EXISTING UTILITY POLE
- EXISTING POLE
- EXISTING POLE WITH LIGHT
- EX. POLE WITH DECORATIVE STYLE LUMINAIRE
- PROPOSED POLE
- PROPOSED POLE WITH LIGHT
- REMOVE POLE WITH LIGHT
- REMOVE POLE
- EXISTING PULL BOX / JUNCTION BOX
- EXISTING OVERHEAD PRIMARY CABLE
- EXISTING OVERHEAD SECONDARY CABLE
- PROPOSED OVERHEAD SECONDARY CABLE
- REMOVAL OF OVERHEAD SECONDARY CABLE
- EXISTING SECONDARY CABLE - (SEE NOTE)
- EX. UNDERGROUND CONDUIT - (SEE NOTE)
- (R) (B) - RED WIRE / BLACK WIRE - STREET LIGHT TERMINATION

SHEET 3 OF 3

PROJECT NO. 2984-12-73	HWY: N. HOLTON ST.	COUNTY: MILWAUKEE	STREET LIGHTING - PHASE I - TEMPORARY OVERHEAD	SHEET 12	E



CIRCUIT LEGEND

- EXISTING SINGLE LAMP
- EXISTING DOUBLE LAMP
- PROPOSED SINGLE LAMP
- PROPOSED DOUBLE LAMP
- WOOD POLE
- EXISTING MULTIPLE UNDERGROUND CIRCUIT
- PROPOSED MULTIPLE UNDERGROUND CIRCUIT
- EXISTING MULTIPLE OVERHEAD CIRCUIT
- PROPOSED MULTIPLE OVERHEAD CIRCUIT
- CIRCUIT COIL

#6902 - POLE ADDRESS

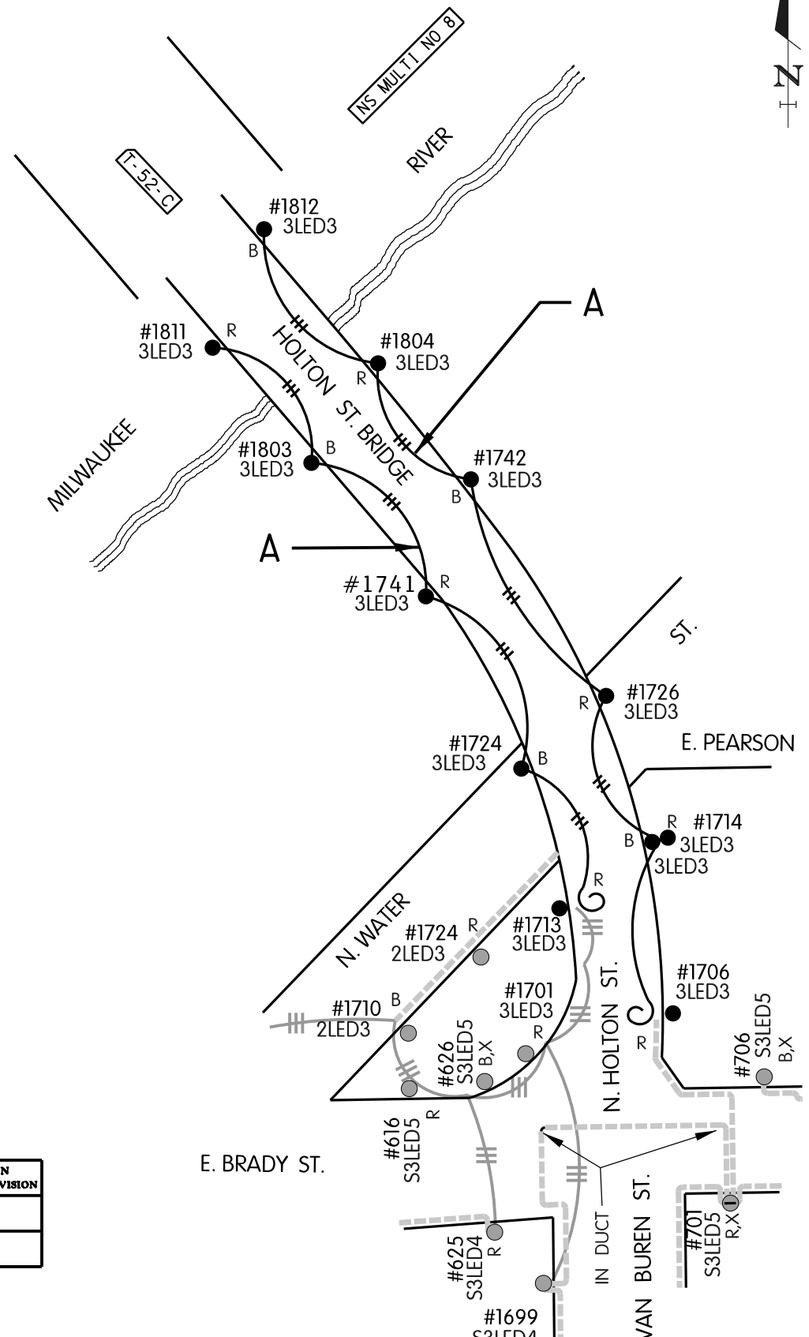
1LED2 - 100W EQUIVALENT LED LUMINAIRE WITH TYPE 2 LIGHT DISTRIBUTION
2LED2 - 150W EQUIVALENT LED LUMINAIRE WITH TYPE 2 LIGHT DISTRIBUTION
2LED3 - 150W EQUIVALENT LED LUMINAIRE WITH TYPE 3 LIGHT DISTRIBUTION
3LED2 - 250W EQUIVALENT LED LUMINAIRE WITH TYPE 2 LIGHT DISTRIBUTION
3LED3 - 250W EQUIVALENT LED LUMINAIRE WITH TYPE 3 LIGHT DISTRIBUTION

B - LAMP CONNECTED TO BLACK WIRE
R - LAMP CONNECTED TO RED WIRE
X - PEDESTAL

240/480 VOLT MULT.
SHEET 1OF 2

TRANSPORTATION SECTION INFRASTRUCTURE SERVICES DIVISION
T-52-C A, B, C, D
CIRCUITS

ED MULTI.



240/480 VOLT MULT.
SHEET 3 OF 4

TRANSPORTATION SECTION INFRASTRUCTURE SERVICES DIVISION
ED A, G
CIRCUITS

PROJECT NO. 2984-12-73	HWY: N. HOLTON ST.	COUNTY: MILWAUKEE	STREET LIGHTING - PHASE I - TEMP. OVERHEAD CIRCUIT LAYOUT	SHEET 13	E

FILE NAME : W:\bes_WisDot\2023\(2984-12-03) nHolton St Bridge – Commerce – Water\SL Overhead\SL OH Master.dgn
PLOT DATE : 29-AUG-2022 06:36
PLOT BY : dkozel
PLOT NAME :
PLOT SCALE : 1:40
WISDOT/CADDS SHEET 42

2

E. GLOVER AVE.

N. HOLTON ST.

N. COMMERCE ST.

N. HOLTON ST. VIADUCT

RIVER

MILWAUKEE

N. WATER ST.

E. BRADY ST.

N. VAN BUREN AVE.

EXISTING CROSSWALKS TO REMAIN

MATCH LINE

SEE DETAIL A

(A) PAVEMENT MARKING, 4-INCH WHITE
(B) PAVEMENT MARKING, 6-INCH WHITE
(C) PAVEMENT MARKING, 8-INCH WHITE
(D) PAVEMENT MARKING, 4-INCH YELLOW
(E) PAVEMENT MARKING 4-INCH DOUBLE YELLOW
(F) PAVEMENT MARKING WORDS
(G) PAVEMENT MARKING ARROWS TYPE 2 (LEFT TURN)
(H) PAVEMENT MARKING ARROWS TYPE 2 (RIGHT TURN)
(J) PAVEMENT MARKING STOPLINE, 24-INCH WHITE
(K) PAVEMENT MARKING, BIKE ARROW
(L) PAVEMENT MARKING, BIKE SYMBOL
(M) PAVEMENT MARKING, 8-INCH YELLOW

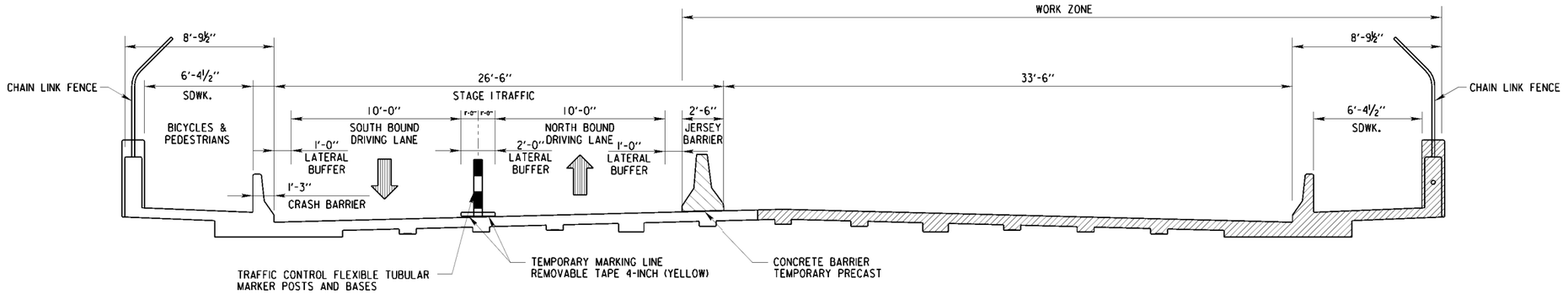
DETAIL A

MATCH EXISTING

STATE PROJECT NUMBER 2984-12-73	HWY: N HOLTON ST	COUNTY: MILWAUKEE	PAVEMENT MARKING	SCALE FEET 0' 80'	SHEET NO: 14	E

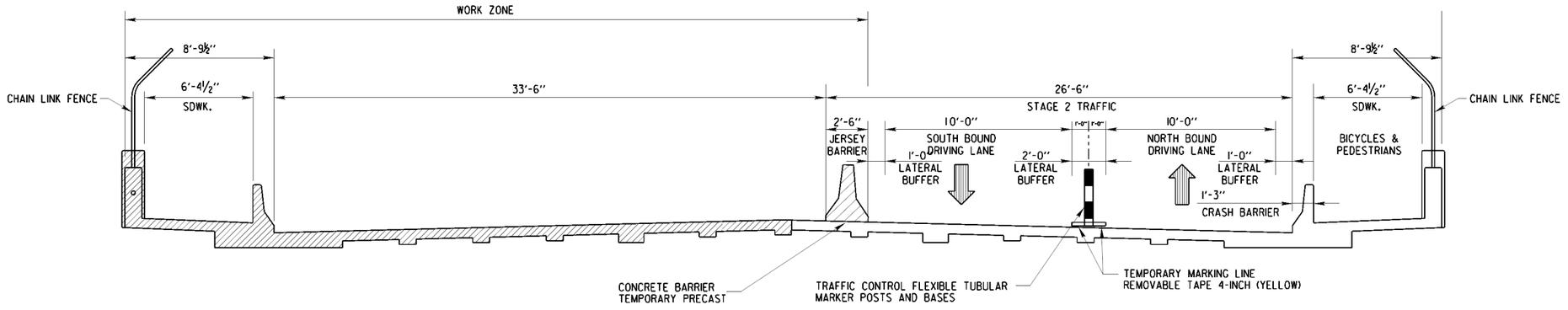
FILENAME: W:\STR\BO113\2023 PHASE 1\MAJOR PROJECTS\PAVEMENT MARKING.DGN

REVISED DATE: 10-18-2022 BY SDB



STAGE 1

LOOKING NORTH



STAGE 2

LOOKING NORTH

KEY

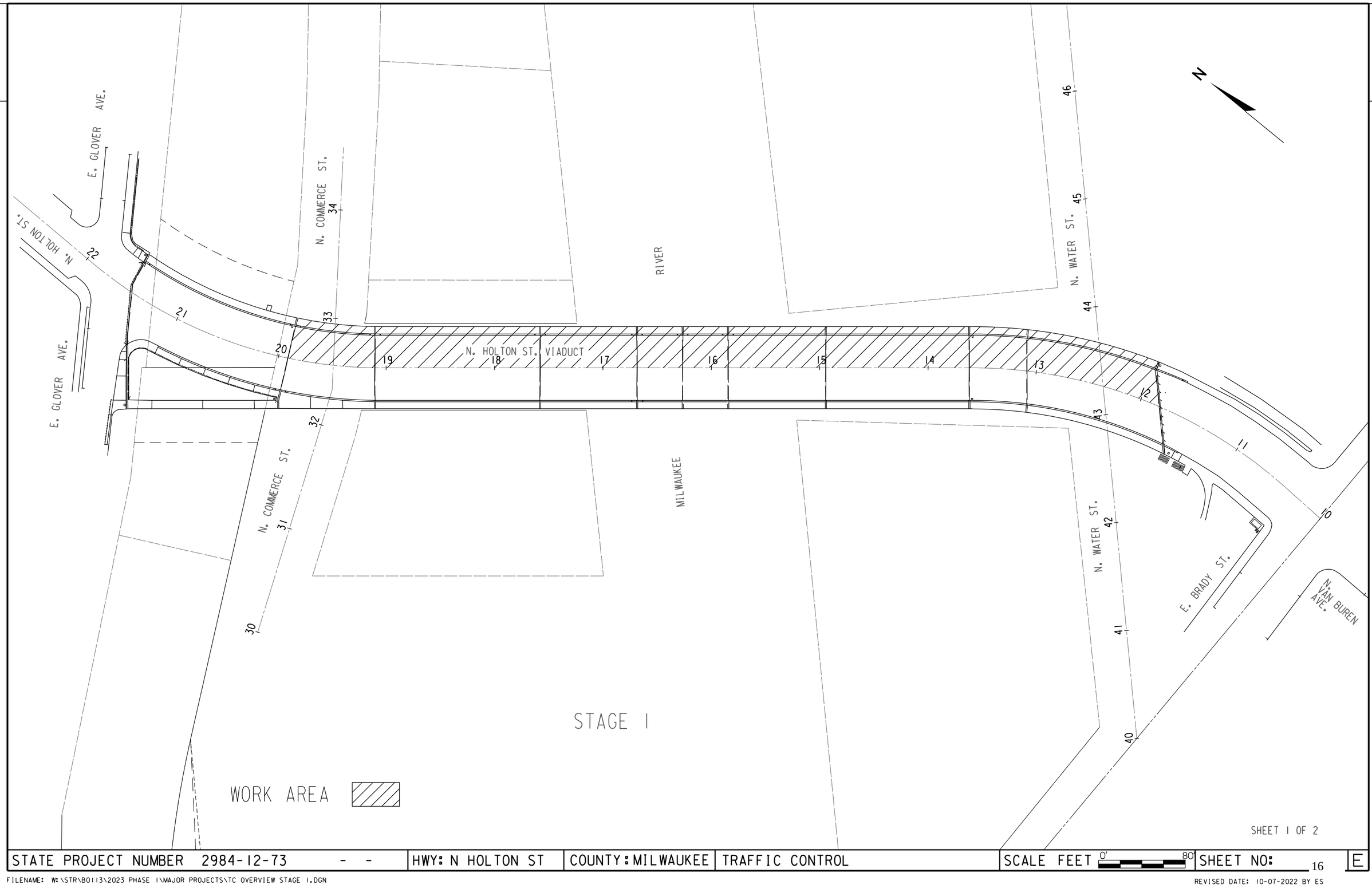
DECK/SDWK. REMOVAL AREA AT EXPANSION JOINTS

STATE PROJECT NUMBER 2984-12-73	HWY: N HOLTON ST	COUNTY: MILWAUKEE	TRAFFIC CONTROL TYPICAL	SCALE FEET 0' 40'	SHEET NO: E

FILENAME: W:\STR\B0113\2023 PHASE 1\PLANS\TRAFFIC CONTROL TYPICAL.DGN

REVISED DATE: 10-20-2022 BY CP

2



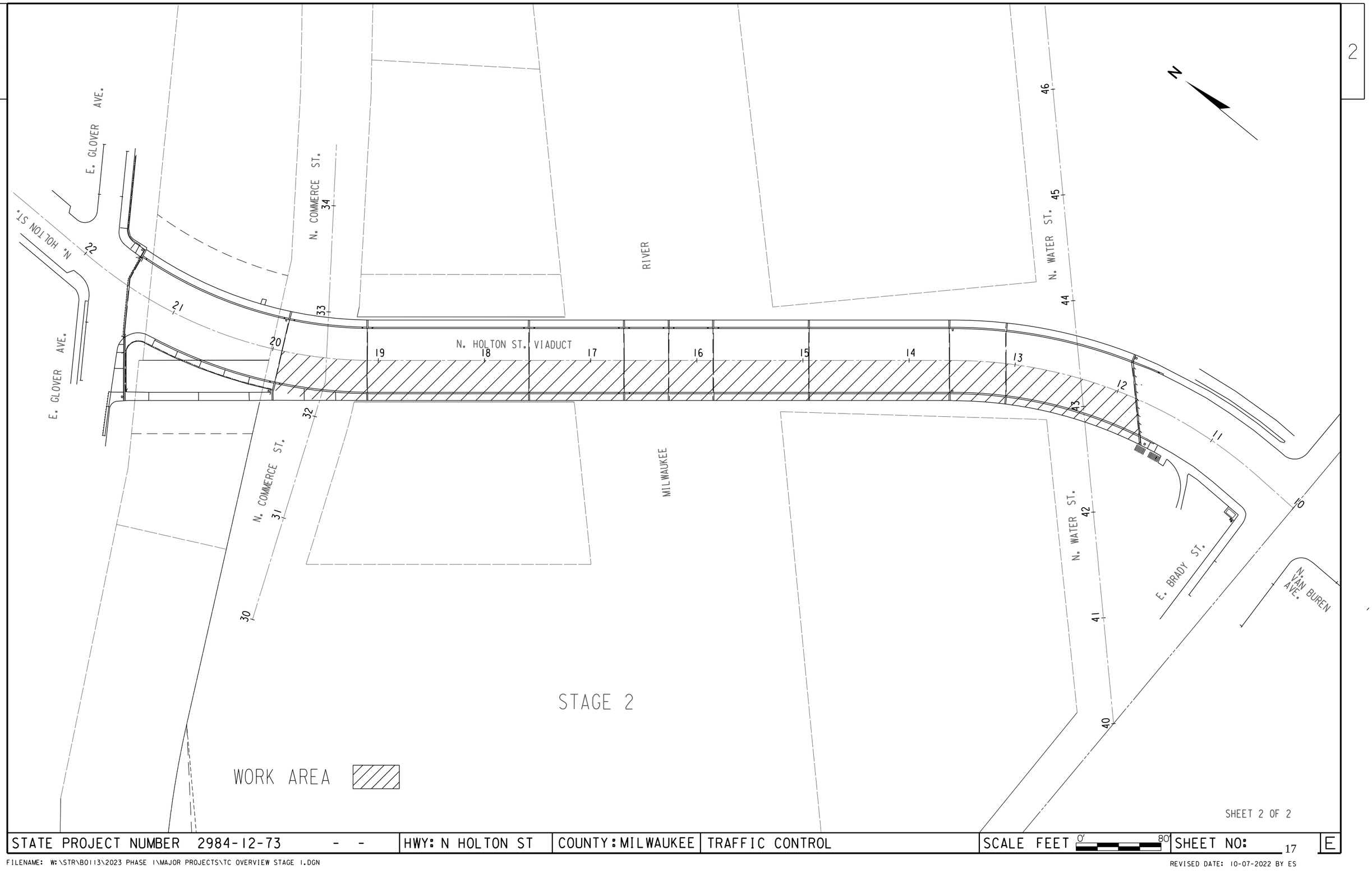
SHEET 1 OF 2

STATE PROJECT NUMBER 2984-12-73 - -	HWY: N HOLTON ST	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 16	E

FILENAME: W:\STR\B0113\2023 PHASE 1\MAJOR PROJECTS\TC OVERVIEW STAGE 1.DGN

REVISED DATE: 10-07-2022 BY ES

2



SHEET 2 OF 2

STATE PROJECT NUMBER 2984-12-73 - -	HWY: N HOLTON ST	COUNTY: MILWAUKEE	TRAFFIC CONTROL	SCALE FEET 0' 80'	SHEET NO: 17	E

FILENAME: W:\STR\B0113\2023 PHASE 1\MAJOR PROJECTS\TC OVERVIEW STAGE 1.DGN

REVISED DATE: 10-07-2022 BY ES

2

PLACE ON CONCRETE POLE APPROXIMATELY 440' SOUTH OF THE SOUTH LINE OF E. BRADY ST.

G20-2A
END ROAD WORK
36" X18"

W20-1A
ROAD WORK AHEAD
36" X36"

W01-4L
36" X36"

N. VAN BUREN ST.

E. BRADY

120'

200' 200'

W01-6L
24" X48"

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

R9-9A
SIDEWALK CLOSED AHEAD
30" X18"

M4-9B
DETOUR
30" X24"

R11-2B
BRIDGE OUT
48" X30"

M4-9BL
DETOUR
30" X24"

R9-9
SIDEWALK CLOSED
24" X12"

95'

12'

15'

MATCH LINE A-A

ST.

LEGEND

- TUBULAR MARKERS 25' SPACING
- DRUMS W/LIGHTS 30' SPACING
- TYPE II BARRICADES W/ SIGN & ONE TYPE A LIGHT
- TYPE III BARRICADES W/ TWO TYPE A LIGHTS
- TYPE III BARRICADES W/ SIGN & TWO TYPE A LIGHTS
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER SECTION
- CONCRETE BARRIER TAPER SECTION

(A) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
(B) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
(C) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
(D) TEMP MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
(E) SPACE DRUMS AT 15' THROUGH CROSSOVER TAPER

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

ALL SIGNS SHALL BE BANDED TO EXISTING UTILITY POLES UNLESS OTHERWISE NOTED.

CONTRACTOR RESPONSIBLE FOR COVERING OR REMOVING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

TRAFFIC CONTROL DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

INSTALL TEMPORARY NO PARKING SIGNAGE WITHIN THE WORK ZONE REQUIREMENTS IN 100' INCREMENTS

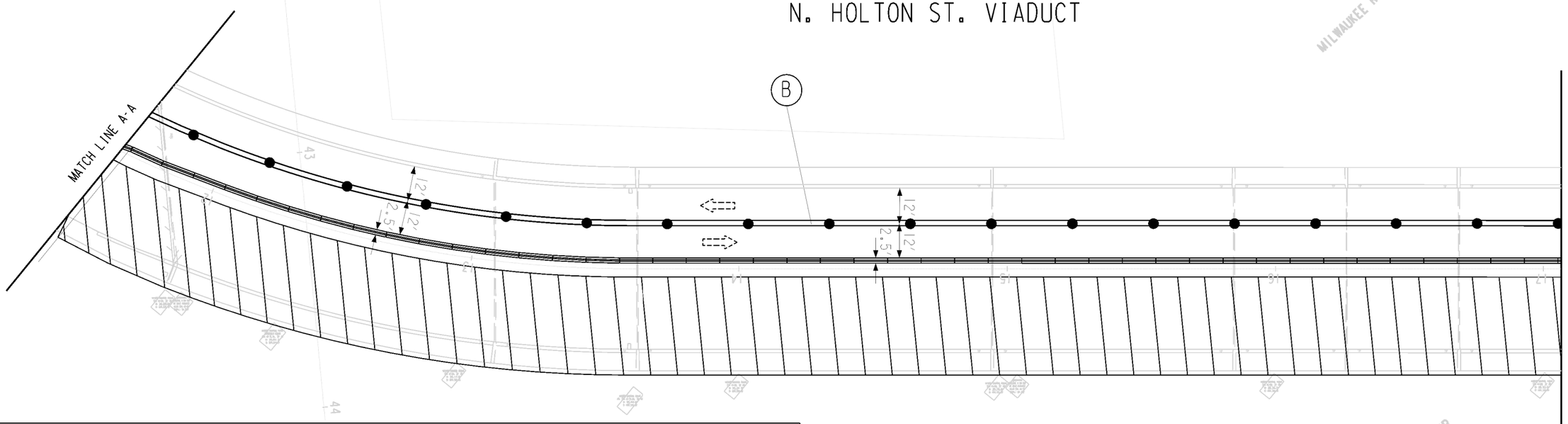
SHEET 1 OF 4

STATE PROJECT NUMBER 2984-12-73	HWY: HOLTON VIADUCT	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SCALE FEET 0 40	SHEET NO: 18	E

FILENAME: W:\STR\B0113\2023 PHASE 1\TRAFFIC & PAVEMARK\2984-12-73 - STAGE 1 - HOLTON VIADUCT - TRAFFIC CONTROL.DGN

REVISED DATE: 10-26-2022 BY CP

N. HOLTON ST. VIADUCT



LEGEND

TUBULAR MARKERS 25' SPACING

DRUMS W/LIGHTS 30' SPACING

TYPE II BARRICADES W/ SIGN & ONE TYPE A LIGHT

TYPE III BARRICADES W/ TWO TYPE A LIGHTS

TYPE III BARRICADES W/ SIGN & TWO TYPE A LIGHTS

SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE

WORK AREA

DIRECTION OF TRAFFIC

CONCRETE BARRIER SECTION

CONCRETE BARRIER TAPER SECTION

(A) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

(B) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)

(C) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

(D) TEMP MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

(E) SPACE DRUMS AT 15' THROUGH CROSSOVER TAPER

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

TRAFFIC CONTROL DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

INSTALL TEMPORARY NO PARKING SIGNAGE WITHIN THE WORK ZONE REQUIREMENTS IN 100' INCREMENTS

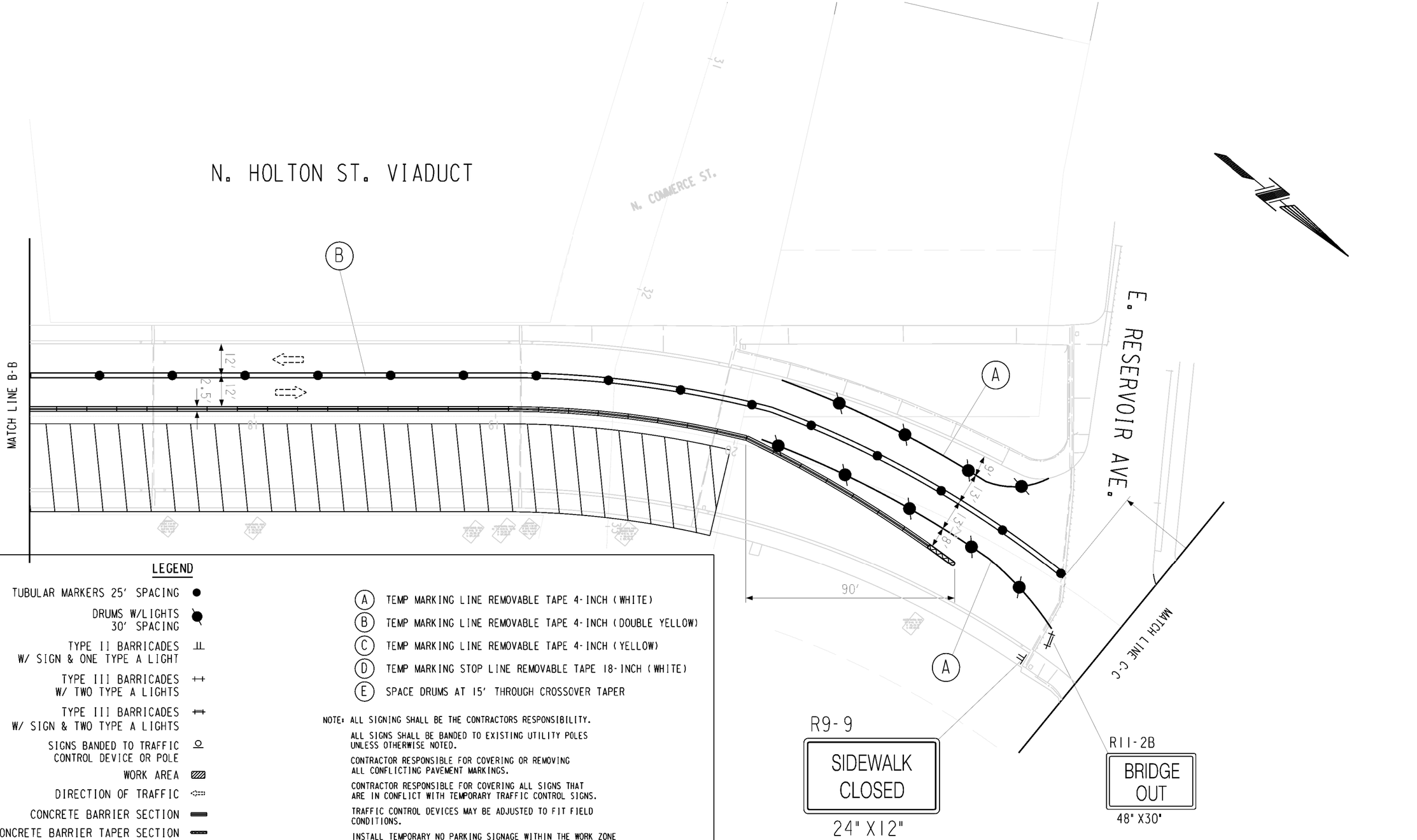
STATE PROJECT NUMBER 2984-12-73	HWY: HOLTON VIADUCT	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SCALE FEET 0' 40'	SHEET NO: 19	E

FILENAME: W:\STR\BOI13\2023 PHASE 1\TRAFFIC & PAVEMARK\2984-12-73 - STAGE 1 - HOLTON VIADUCT - TRAFFIC CONTROL.DGN

REVISED DATE: 10-26-2022 BY CP

2

N. HOLTON ST. VIADUCT



LEGEND

- TUBULAR MARKERS 25' SPACING
- DRUMS W/LIGHTS 30' SPACING
- TYPE II BARRICADES W/ SIGN & ONE TYPE A LIGHT
- TYPE III BARRICADES W/ TWO TYPE A LIGHTS
- TYPE III BARRICADES W/ SIGN & TWO TYPE A LIGHTS
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER SECTION
- CONCRETE BARRIER TAPER SECTION

- (A) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
- (C) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (D) TEMP MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
- (E) SPACE DRUMS AT 15' THROUGH CROSSOVER TAPER

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

TRAFFIC CONTROL DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

INSTALL TEMPORARY NO PARKING SIGNAGE WITHIN THE WORK ZONE REQUIREMENTS IN 100' INCREMENTS

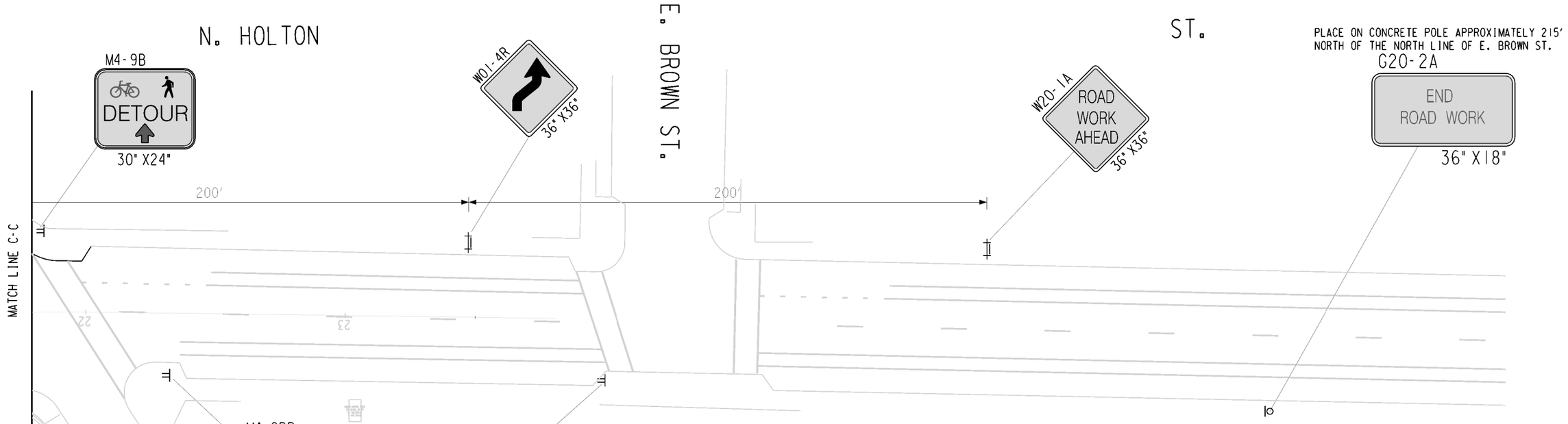
SHEET 3 OF 4

STATE PROJECT NUMBER 2984-12-73	HWY: HOLTON VIADUCT	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SCALE FEET 0' 40'	SHEET NO: 20	E

FILENAME: W:\STR\B0113\2023 PHASE 1\TRAFFIC & PAVEMARK\2984-12-73 - STAGE 1 - HOLTON VIADUCT - TRAFFIC CONTROL.DGN

REVISED DATE: 10-26-2022 BY CP

2



LEGEND

TUBULAR MARKERS 25' SPACING	●
DRUMS W/LIGHTS 30' SPACING	
TYPE II BARRICADES W/ SIGN & ONE TYPE A LIGHT	
TYPE III BARRICADES W/ TWO TYPE A LIGHTS	
TYPE III BARRICADES W/ SIGN & TWO TYPE A LIGHTS	
SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE	
WORK AREA	
DIRECTION OF TRAFFIC	
CONCRETE BARRIER SECTION	
CONCRETE BARRIER TAPER SECTION	

- (A) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
- (B) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
- (C) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
- (D) TEMP MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
- (E) SPACE DRUMS AT 15' THROUGH CROSSOVER TAPER

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CONTRACTOR RESPONSIBLE FOR COVERING OR REMOVING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

TRAFFIC CONTROL DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

INSTALL TEMPORARY NO PARKING SIGNAGE WITHIN THE WORK ZONE REQUIREMENTS IN 100' INCREMENTS

SHEET 4 OF 4

STATE PROJECT NUMBER 2984-12-73	HWY: HOLTON VIADUCT	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 1	SCALE FEET 0' 40'	SHEET NO: 21	E

REVISED DATE: 10-26-2022 BY CP

2

PLACE ON CONCRETE POLE APPROXIMATELY 440' SOUTH OF THE SOUTH LINE OF E. BRADY ST.

G20-2A
END ROAD WORK
36" X18"

W01-4R
36" X36"

N. VAN BUREN ST.

90'

E. BRADY ST.

R9-9A
SIDEWALK CLOSED AHEAD
30" X18"

R11-2L
LANE CLOSED
48" X30"

30"X24"
DETOUR
M4-9BR

R9-9
SIDEWALK CLOSED
24" X12"

R11-2B
BRIDGE OUT
48" X30"

MATCH LINE A-A

W20-1A
ROAD WORK AHEAD
36" X36"

200' 200'

15' 12' 12' 15'

M4-9B
DETOUR
30" X24"

LEGEND

- TUBULAR MARKERS 25' SPACING
- DRUMS W/LIGHTS 30' SPACING
- TYPE II BARRICADES W/ SIGN & ONE TYPE A LIGHT
- TYPE III BARRICADES W/ TWO TYPE A LIGHTS
- TYPE III BARRICADES W/ SIGN & TWO TYPE A LIGHTS
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER SECTION
- CONCRETE BARRIER TAPER SECTION

(A) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
(B) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
(C) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
(D) TEMP MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
(E) SPACE DRUMS AT 15' THROUGH CROSSOVER TAPER

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

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CONTRACTOR RESPONSIBLE FOR COVERING OR REMOVING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

TRAFFIC CONTROL DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

INSTALL TEMPORARY NO PARKING SIGNAGE WITHIN THE WORK ZONE REQUIREMENTS IN 100' INCREMENTS

SHEET 1 OF 4

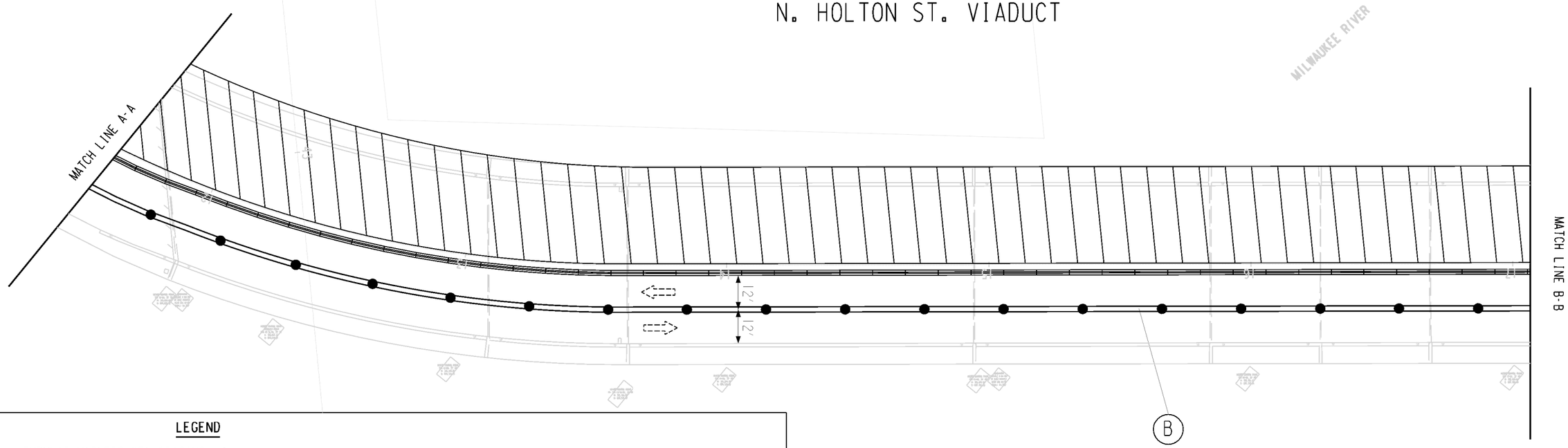
STATE PROJECT NUMBER 2984-12-73	HWY: HOLTON VIADUCT	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SCALE FEET 0' 40'	SHEET NO: 22	E

FILENAME: W:\STR\B0113\2023 PHASE 1\TRAFFIC & PAVEMARK\2984-12-73 - STAGE 2 - HOLTON VIADUCT - TRAFFIC CONTROL.DGN

REVISED DATE: 10-26-2022 BY CP

2

N. HOLTON ST. VIADUCT



LEGEND

- TUBULAR MARKERS 25' SPACING
- DRUMS W/LIGHTS 30' SPACING
- TYPE II BARRICADES W/ SIGN & ONE TYPE A LIGHT
- TYPE III BARRICADES W/ TWO TYPE A LIGHTS
- TYPE III BARRICADES W/ SIGN & TWO TYPE A LIGHTS
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER SECTION
- CONCRETE BARRIER TAPER SECTION

(A) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

(B) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)

(C) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

(D) TEMP MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

(E) SPACE DRUMS AT 15' THROUGH CROSSOVER TAPER

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CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

TRAFFIC CONTROL DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

INSTALL TEMPORARY NO PARKING SIGNAGE WITHIN THE WORK ZONE REQUIREMENTS IN 100' INCREMENTS

STATE PROJECT NUMBER 2984-12-73	HWY: HOLTON VIADUCT	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SCALE FEET 0' 40'	SHEET NO: 23	E

FILENAME: W:\STR\BOI13\2023 PHASE I\TRAFFIC & PAVEMARK\2984-12-73 - STAGE 2 - HOLTON VIADUCT - TRAFFIC CONTROL.DGN

REVISED DATE: 10-26-2022 BY CP

2

N. HOLTON ST. VIADUCT

N. COMMERCE ST.

E. RESERVOIR AVE.

MATCH LINE B-B

MATCH LINE C-C

R9-9
SIDEWALK CLOSED
24" X12"

R11-2B
BRIDGE OUT
48" X30"

W01-6L
24" X48"

12'
12'

140'

A
B
A

LEGEND

- TUBULAR MARKERS 25' SPACING
- DRUMS W/LIGHTS 30' SPACING
- TYPE II BARRICADES W/ SIGN & ONE TYPE A LIGHT
- TYPE III BARRICADES W/ TWO TYPE A LIGHTS
- TYPE III BARRICADES W/ SIGN & TWO TYPE A LIGHTS
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER SECTION
- CONCRETE BARRIER TAPER SECTION

(A) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)
(B) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)
(C) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)
(D) TEMP MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)
(E) SPACE DRUMS AT 15' THROUGH CROSSOVER TAPER

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

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CONTRACTOR RESPONSIBLE FOR COVERING OR REMOVING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

TRAFFIC CONTROL DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

INSTALL TEMPORARY NO PARKING SIGNAGE WITHIN THE WORK ZONE REQUIREMENTS IN 100' INCREMENTS

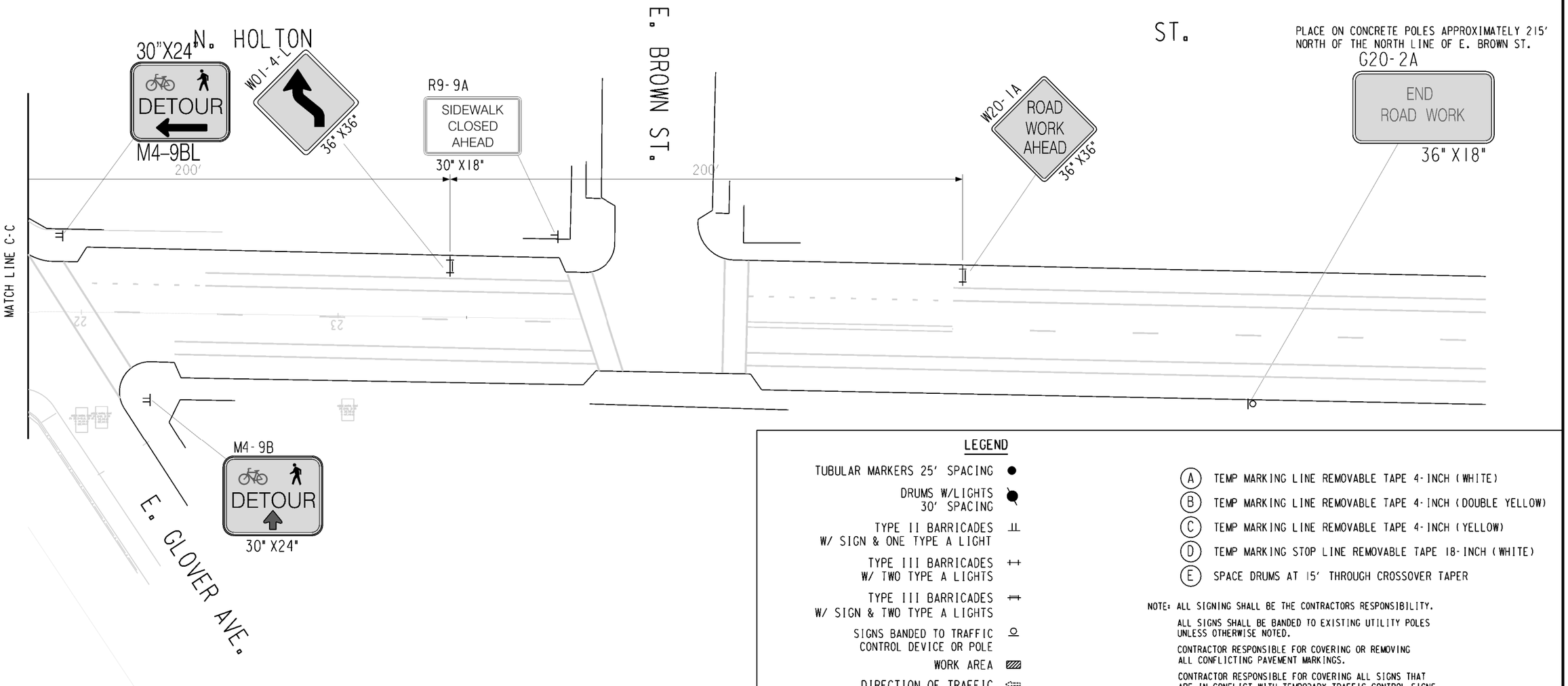
SHEET 3 OF 4

STATE PROJECT NUMBER 2984-12-73	HWY: HOLTON VIADUCT	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SCALE FEET 0' 40'	SHEET NO: 24	E

FILENAME: W:\STR\BOI13\2023 PHASE I\TRAFFIC & PAVEMARK\2984-12-73 - STAGE 2 - HOLTON VIADUCT - TRAFFIC CONTROL.DGN

REVISED DATE: 10-26-2022 BY CP

2



SHEET 4 OF 4

LEGEND

- TUBULAR MARKERS 25' SPACING
- DRUMS W/LIGHTS 30' SPACING
- TYPE II BARRICADES W/ SIGN & ONE TYPE A LIGHT
- TYPE III BARRICADES W/ TWO TYPE A LIGHTS
- TYPE III BARRICADES W/ SIGN & TWO TYPE A LIGHTS
- SIGNS BANDED TO TRAFFIC CONTROL DEVICE OR POLE
- WORK AREA
- DIRECTION OF TRAFFIC
- CONCRETE BARRIER SECTION
- CONCRETE BARRIER TAPER SECTION

(A) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (WHITE)

(B) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (DOUBLE YELLOW)

(C) TEMP MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW)

(D) TEMP MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE)

(E) SPACE DRUMS AT 15' THROUGH CROSSOVER TAPER

NOTE: ALL SIGNING SHALL BE THE CONTRACTORS RESPONSIBILITY.

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CONTRACTOR RESPONSIBLE FOR COVERING OR REMOVING ALL CONFLICTING PAVEMENT MARKINGS.

CONTRACTOR RESPONSIBLE FOR COVERING ALL SIGNS THAT ARE IN CONFLICT WITH TEMPORARY TRAFFIC CONTROL SIGNS.

TRAFFIC CONTROL DEVICES MAY BE ADJUSTED TO FIT FIELD CONDITIONS.

INSTALL TEMPORARY NO PARKING SIGNAGE WITHIN THE WORK ZONE REQUIREMENTS IN 100' INCREMENTS

STATE PROJECT NUMBER 2984-12-73	HWY: HOLTON VIADUCT	COUNTY: MILWAUKEE	TRAFFIC CONTROL - STAGE 2	SCALE FEET 0' 40'	SHEET NO: 25	E

FILENAME: W:\STR\B0113\2023 PHASE 1\TRAFFIC & PAVEMARK\2984-12-73 - STAGE 2 - HOLTON VIADUCT - TRAFFIC CONTROL.DGN

REVISED DATE: 10-26-2022 BY CP

2

S89°33'39"E 2648.53'

N

T. 7 N. R. 22 E. — 17 | 16 / 20 | 21

TOWNSHIP 7 NORTH, RANGE 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ SEWRPC BRASS CAP
SECTION CORNER COORDINATE REFERENCED TO WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MILWAUKEE COUNTY
(Y) NORTH: 307,454.70
(X) EAST: 606,430.13

T. 7 N. R. 22 E. — 16 / 21

TOWNSHIP 7 NORTH, RANGE 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ SEWRPC BRASS CAP
SECTION CORNER COORDINATE REFERENCED TO WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MILWAUKEE COUNTY
(Y) NORTH: 307,424.39
(X) EAST: 609,068.59

N00°53'31"E 2632.52'

N01°07'59"E 2636.14'

END PROJECT 2984-12-73
STA. 21+50.0 , T/L

EAST RESERVOIR AVE.

NORTH COMMERCE STREET

PT
STA. 21+95.01
N: 305838.34
E: 607079.47

ABUTMENT
STA. 21+50.00
OFFSET 0.00'

BRIDGE ABUTMENT

RADIUS=415.00'
DELTA=40°05'51"
ARC LENGTH=290.43'
LONG CHORD=N19°15'36"W 284.54'

EP
STA. 34+57.81
N: 305725.51
E: 607308.64

EQUATION
STA. 19+48.83 - N. HOLTON VIA. =
STA. 32+56.57 - N. COMMERCE ST.
N: 305605.40
E: 607147.18

34+00

20+00

PC
STA. 19+04.58
N: 305569.73
E: 607173.33

RIVER

31+00

BP
STA. 30+00.00
N: 305503.38
E: 606912.46

PI
STA. 32+34.21
N: 305592.05
E: 607129.24

NORTH HOLTON ST. VIADUCT

T/L

NORTH WATER STREET

BRIDGE ID P-40-0875

15+00

PT
STA. 13+59.04
N: 305147.63
E: 607518.93

EP
STA. 47+35.70
N: 305331.90
E: 607872.70

45+00

MILWAUKEE

TOWNSHIP 7 NORTH, RANGE 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ SEWRPC BRASS CAP
SECTION CORNER COORDINATE REFERENCED TO WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MILWAUKEE COUNTY
(Y) NORTH: 304,822.50
(X) EAST: 606,379.15

T. 7 N. R. 22 E. — 20 | 21

TOWNSHIP 7 NORTH, RANGE 22 EAST
MILWAUKEE COUNTY, WISCONSIN
CONCRETE MONUMENT W/ SEWRPC BRASS CAP
SECTION CORNER COORDINATE REFERENCED TO WISCONSIN COORDINATE REFERENCE SYSTEM (WISCRS), MILWAUKEE COUNTY
(Y) NORTH: 304,798.77
(X) EAST: 609,016.46

T. 7 N. R. 22 E. — 21

EQUATION
STA. 12+36.91 - N. HOLTON VIA. =
STA. 43+26.26 - N. WATER ST.
N: 305043.54
E: 607582.03

ABUTMENT
STA. 11+80.44
OFFSET 0.00'

BRIDGE ABUTMENT

RADIUS=432.86'
DELTA=41°42'45"
ARC LENGTH=315.13'
LONG CHORD=N18°27'09"W 308.22'

PC
STA. 10+43.91
N: 304855.26
E: 607616.48

1235.54'

40+00

10+00

QUARTER SEC. LINE

1401.87'

S89°29'04"E 2637.41'

EAST BRADY STREET

BP
STA. 40+00.00
N: 304813.76
E: 607350.42

BEGIN PROJECT 2984-12-73
STA. 11+80.44 , T/L
(Y) NORTH: 304,990.31
(X) EAST: 607,600.78

STATE PROJECT NUMBER 2984-12-73	HWY: N HOLTON ST	COUNTY: MILWAUKEE	ALIGNMENT PLAN	SCALE FEET 0' 200'	SHEET NO: 26	E

FILENAME: W:\STR\BO113\2023 PHASE 1\MAJOR PROJECTS\ALIGNMENT.DGN

REVISED DATE: 12-07-2021 BY SB

2984-12-73

Line	Item	Item Description	Unit	Total	Qty
0002	201.0110	Clearing	SY	25.000	25.000
0004	201.0210	Grubbing	SY	25.000	25.000
0006	203.0260	Removing Structure Over Waterway Minimal Debris (structure) 001. P-40-875	EACH	1.000	1.000
0008	204.0155	Removing Concrete Sidewalk	SY	9.000	9.000
0010	204.9060.S	Removing (item description) 310. Poles	EACH	23.000	23.000
0012	204.9090.S	Removing (item description) 314. Aerial Cable	LF	30.000	30.000
0014	210.1500	Backfill Structure Type A	TON	122.000	122.000
0016	213.0100	Finishing Roadway (project) 001. 2984-12-73	EACH	1.000	1.000
0018	455.0605	Tack Coat	GAL	3.000	3.000
0020	465.0110	Asphaltic Surface Patching	TON	15.000	15.000
0022	502.3101	Expansion Device	LF	780.000	780.000
0024	502.3200	Protective Surface Treatment	SY	450.000	450.000
0026	502.3215	Protective Surface Treatment Reseal	SY	9,000.000	9,000.000
0028	502.4205	Adhesive Anchors No. 5 Bar	EACH	88.000	88.000
0030	505.0600	Bar Steel Reinforcement HS Coated Structures	LB	32,530.000	32,530.000
0032	505.0904	Bar Couplers No. 4	EACH	75.000	75.000
0034	505.0905	Bar Couplers No. 5	EACH	75.000	75.000
0036	506.0105	Structural Steel Carbon	LB	44,400.000	44,400.000
0038	506.6000	Bearing Assemblies Expansion (structure) 001. P-40-875	EACH	12.000	12.000
0040	506.7050.S	Removing Bearings (structure) 001. P-40-875	EACH	12.000	12.000
0042	509.0301	Preparation Decks Type 1	SY	240.000	240.000
0044	509.0302	Preparation Decks Type 2	SY	80.000	80.000
0046	509.0310.S	Sawing Pavement Deck Preparation Areas	LF	2,600.000	2,600.000
0048	509.1000	Joint Repair	SY	430.000	430.000
0050	509.1200	Curb Repair	LF	20.000	20.000
0052	509.1500	Concrete Surface Repair	SF	183.000	183.000
0054	509.2000	Full-Depth Deck Repair	SY	2.000	2.000
0056	509.2100.S	Concrete Masonry Deck Repair	CY	170.000	170.000
0058	509.9020.S	Epoxy Crack Sealing	LF	120.000	120.000
0060	509.9025.S	Epoxy Injection Crack Repair	LF	1,135.000	1,135.000
0062	509.9026.S	Cored Holes 2-Inch Diameter	EACH	4.000	4.000
0064	516.0500	Rubberized Membrane Waterproofing	SY	15.000	15.000
0066	517.0601	Painting Epoxy System (structure) 001. P-40-875	EACH	1.000	1.000
0068	517.0901.S	Preparation and Coating of Top Flanges (structure) 001. P-40-875	EACH	1.000	1.000
0070	517.1801.S	Structure Repainting Recycled Abrasive (structure) 001. P-40-875	EACH	1.000	1.000
0072	517.4501.S	Negative Pressure Containment and Collection of Waste Materials (structure) 001. P-40-875	EACH	1.000	1.000
0074	517.6001.S	Portable Decontamination Facility	EACH	1.000	1.000
0076	602.0410	Concrete Sidewalk 5-Inch	SF	81.000	81.000
0078	603.8000	Concrete Barrier Temporary Precast Delivered	LF	1,050.000	1,050.000
0080	603.8125	Concrete Barrier Temporary Precast Installed	LF	2,100.000	2,100.000
0082	619.1000	Mobilization	EACH	1.000	1.000
0084	628.1905	Mobilizations Erosion Control	EACH	1.000	1.000
0086	628.1910	Mobilizations Emergency Erosion Control	EACH	5.000	5.000
0088	628.7015	Inlet Protection Type C	EACH	24.000	24.000
0090	642.5201	Field Office Type C	EACH	1.000	1.000
0092	643.0300	Traffic Control Drums	DAY	5,910.000	5,910.000
0094	643.0410	Traffic Control Barricades Type II	DAY	1,164.000	1,164.000
0096	643.0420	Traffic Control Barricades Type III	DAY	2,193.000	2,193.000

2984-12-73

Line	Item	Item Description	Unit	Total	Qty
0098	643.0500	Traffic Control Flexible Tubular Marker Posts	EACH	200.000	200.000
0100	643.0600	Traffic Control Flexible Tubular Marker Bases	EACH	100.000	100.000
0102	643.0705	Traffic Control Warning Lights Type A	DAY	5,550.000	5,550.000
0104	643.0715	Traffic Control Warning Lights Type C	DAY	5,910.000	5,910.000
0106	643.0900	Traffic Control Signs	DAY	2,598.000	2,598.000
0108	643.0920	Traffic Control Covering Signs Type II	EACH	10.000	10.000
0110	643.3150	Temporary Marking Line Removable Tape 4-Inch	LF	6,580.000	6,580.000
0112	643.3850	Temporary Marking Stop Line Removable Tape 18-Inch	LF	70.000	70.000
0114	643.5000	Traffic Control	EACH	1.000	1.000
0116	646.1020	Marking Line Epoxy 4-Inch	LF	10,620.000	10,620.000
0118	646.3020	Marking Line Epoxy 8-Inch	LF	471.000	471.000
0120	646.5020	Marking Arrow Epoxy	EACH	11.000	11.000
0122	646.5120	Marking Word Epoxy	EACH	3.000	3.000
0124	646.5220	Marking Symbol Epoxy	EACH	7.000	7.000
0126	646.9000	Marking Removal Line 4-Inch	LF	10,620.000	10,620.000
0128	646.9100	Marking Removal Line 8-Inch	LF	3,131.000	3,131.000
0130	646.9200	Marking Removal Line Wide	LF	80.000	80.000
0132	646.9300	Marking Removal Special Marking	EACH	21.000	21.000
0134	650.6501	Construction Staking Structure Layout (structure) 001. P-40-875	EACH	1.000	1.000
0136	650.9911	Construction Staking Supplemental Control (project) 001. 2984-12-73	EACH	1.000	1.000
0138	652.0135	Conduit Rigid Metallic 3-Inch	LF	110.000	110.000
0140	999.2000.S	Installing and Maintaining Bird Deterrent System (station) 001. P-40-875	EACH	1.000	1.000
0142	ASP.1T0A	On-the-Job Training Apprentice at $5.00/HR	HRS	3,000.000	3,000.000
0144	ASP.1T0G	On-the-Job Training Graduate at $5.00/HR	HRS	8,640.000	8,640.000
0146	SPV.0025	Special 501. Deep Concrete Surface Repair	CF	52.000	52.000
0148	SPV.0025	Special 502. Waterline Concrete Surface Repair	CF	152.000	152.000
0150	SPV.0060	Special 010. Temporary No Parking Signs	EACH	12.000	12.000
0152	SPV.0060	Special 320. Installing City Furnished Poles Type 26-AL-BD	EACH	19.000	19.000
0154	SPV.0060	Special 323. 35 Ft. Wood Pole	EACH	1.000	1.000
0156	SPV.0060	Special 329. Anchor Base Adapter	EACH	23.000	23.000
0158	SPV.0060	Special 345. Installing City Furnished Luminaire Arms Single Member 6-Ft. (Special)	EACH	20.000	20.000
0160	SPV.0060	Special 346. Installing City Furnished Luminaire Arms Single Member 6-Ft. (WP Mount)	EACH	3.000	3.000
0162	SPV.0060	Special 371. Installing City Furnished Luminaire Utility LED	EACH	23.000	23.000
0164	SPV.0060	Special 508. Temporary Shoring for Piers 6,7,8 and South Abutment Repair	EACH	1.000	1.000
0166	SPV.0060	Special 586. Removing Bascule Access Platforms	EACH	1.000	1.000
0168	SPV.0060	Special 593. Junction Box Cover Plate Repair	EACH	5.000	5.000
0170	SPV.0060	Special 594. Junction Box 14"X8"X6"	EACH	2.000	2.000
0172	SPV.0060	Special 597. Protecting Utilities	EACH	1.000	1.000
0174	SPV.0090	Special 001. Marking Line Epoxy 6-Inch (White)	LF	2,660.000	2,660.000
0176	SPV.0090	Special 002. Marking Stop Line Epoxy 24-Inch	LF	80.000	80.000
0178	SPV.0090	Special 302. Electrical Cable Type 3#6 AL	LF	2,280.000	2,280.000
0180	SPV.0090	Special 501.Remove and Reinstall Existing Steel Railing	LF	16.000	16.000
0182	SPV.0090	Special 530. Rehabilitation of Chain Link Fence	LF	95.000	95.000

CLEARING & GRUBBING

CATEGORY 0010

LOCATION	201.0110 CLEARING SY	201.0210 GRUBBING SY
N. HOLTON STREET	25	25
PROJECT TOTAL	25	25

FINISHING ROADWAY

CATEGORY 0010

LOCATION	213.0100 FINISHING ROADWAY PROJECT 2984-12-73 EACH
N. HOLTON STREET	1
TOTAL	1

PAVING ITEMS

CATEGORY 0010

LOCATION	455.0605 TACK COAT GAL	465.0110 ASPHALTIC SURFACE PATCHING TON	602.0410 CONCRETE SIDEWALK 5-INCH SF
N. HOLTON STREET	3	15	81
PROJECT TOTAL	3	15	81

3

MOBILIZATION

CATEGORY 0010

LOCATION	619.1000 MOBILIZATION EACH
PROJECT 2984-12-73	1
TOTAL	1

EROSION CONTROL ITEMS

CATEGORY 0010

LOCATION	628.7015 INLET PROTECTION TYPE C EACH
N. HOLTON STREET	24
PROJECT TOTAL	24

MOBILIZATIONS EROSION CONTROL

CATEGORY 0010

LOCATION	628.1905 MOBILIZATIONS EROSION CONTROL EACH	628.1910 MOBILIZATIONS EMERGENCY EROSION CONTROL EACH
PROJECT 2984-12-73	1	5
PROJECT TOTAL	1	5

3

TRAFFIC CONTROL ITEMS

CATEGORY 0010

LOCATION	DAYS	643.0300 TRAFFIC CONTROL DRUMS EACH	643.0300 TRAFFIC CONTROL DRUMS DAY	643.0410 TRAFFIC CONTROL BARRICADES TYPE II EACH	643.0410 TRAFFIC CONTROL BARRICADES TYPE II DAY	643.0420 CONTROL BARRICADES TYPE III EACH	643.0420 CONTROL BARRICADES TYPE III DAY	643.0500 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER POSTS EACH	643.0600 TRAFFIC CONTROL FLEXIBLE TUBULAR MARKER BASES EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A EACH	643.0705 TRAFFIC CONTROL WARNING LIGHTS TYPE A DAY	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C EACH	643.0715 TRAFFIC CONTROL WARNING LIGHTS TYPE C DAY	643.0900 TRAFFIC CONTROL SIGNS EACH	643.0900 TRAFFIC CONTROL SIGNS DAY	643.0920 TRAFFIC CONTROL COVERING SIGNS TYPE II (UNDISTRIBUTED) EACH	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (WHITE) LF	643.3150 TEMPORARY MARKING LINE REMOVABLE TAPE 4-INCH (YELLOW) LF	643.3850 TEMPORARY MARKING STOP LINE REMOVABLE TAPE 18-INCH (WHITE) LF
STAGE 1	51	50	2550	8	408	15	765	100	50	38	1938	50	2550	18	918	5	560	2830	36
STAGE 2	84	40	3360	9	756	17	1428	100	50	43	3612	40	3360	20	1680	5	550	2640	34
PROJECT TOTAL			5,910		1,164		2,193	200	100		5,550		5,910		2,598	10	6,580		70

3

FIELD OFFICE

CATEGORY 0010

LOCATION	642.5201 FIELD OFFICE TYPE C EACH
PROJECT 2984-12-73	1
TOTAL	1

TRAFFIC CONTROL

CATEGORY 0010

LOCATION	643.5000 TRAFFIC CONTROL EACH
N. HOLTON STREET	1
TOTAL	1

TEMPORARY NO PARKING SIGNS

CATEGORY 0010

LOCATION	SPV.0060.010 TEMPORARY NO PARKING SIGNS (UNDISTRIBUTED) EACH
N. HOLTON STREET	12
PROJECT TOTAL	12

CONCRETE BARRIER

CATEGORY 0010

LOCATION	603.8000 CONCRETE BARRIER TEMPORARY PRECAST DELIVERED LF	603.8125 CONCRETE BARRIER TEMPORARY PRECAST INSTALLED LF
STAGE 1	1050	1050
STAGE 2	0	1050
PROJECT TOTAL	1,050	2,100

PAVEMENT MARKING

LOCATION	646.1020 MARKING LINE EPOXY 4-INCH (WHITE) LF	646.1020 MARKING LINE EPOXY 4-INCH (YELLOW) LF	SPV.0090.001 MARKING LINE EPOXY 6-INCH (WHITE) LF	646.3020 MARKING LINE EPOXY 8-INCH (WHITE) LF	646.3020 MARKING LINE EPOXY 8-INCH (YELLOW) LF	SPV.0090.002 MARKING STOP LINE EPOXY 24-INCH (WHITE) LF	646.5020 MARKING ARROW EPOXY EACH	646.5120 MARKING WORD EPOXY EACH	646.5220 MARKING SYMBOL EPOXY EACH	646.9000 MARKING REMOVAL LINE 4-INCH LF	646.9100 MARKING REMOVAL LINE 8-INCH LF	646.9200 MARKING REMOVAL LINE WIDE LF	646.9300 MARKING REMOVAL SPECIAL MARKING EACH
CATEGORY 0010													
N. HOLTON STREET	5460	5160	2660	306	165	80	11	3	7	10,620	3,131	80	21
PROJECT TOTAL	10,620		2,660	471		80	11	3	7	10,620	3,131	80	21

CONSTRUCTION STAKING

LOCATION	CATEGORY 0020 650.6501 CONSTRUCTION STAKING STRUCTURE LAYOUT P-40-875 EACH	CATEGORY 0010 650.9911 CONSTRUCTION STAKING SUPPLEMENTAL CONTROL (2984-12-73) EACH
N. HOLTON STREET	1	1
TOTAL	1	1

BIRD DETERRENT

LOCATION	CATEGORY 0020 999.200.S INSTALLING AND MAINTAINING BIRD DETERRENT SYSTEM P-40-875 EACH
N. HOLTON STREET	1
TOTAL	1

3

3

ESTIMATE OF TOTAL QUANTITIES ; STREET LIGHTING
MILWAUKEE COUNTY

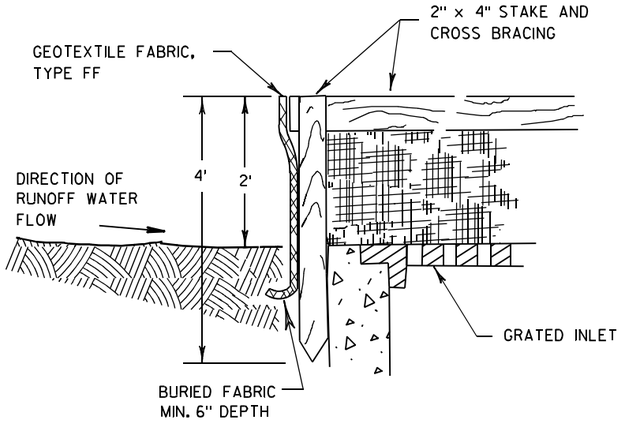
	Std.Bid Item No.	Description	Unit	Quantity
-	204.0155	REMOVING CONCRETE SIDEWALK	SY	9
-	204.9060.S.310.	REMOVING POLES	EACH	23
-	204.9090.S.314.	REMOVE AERIAL CABLE	LF	30
-	SPV.0060.320	INSTALLING CITY FURNISHED POLES TYPE 26-AL-BD	EACH	19
-	SPV.0060.323	35 FT. WOOD POLE	EACH	1
-	SPV.0060.329	ANCHOR BASE ADAPTER	EACH	23
-	SPV.0060.345	INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-Ft (SPECIAL)	EACH	20
-	SPV.0060.346	INSTALLING CITY FURNISHED LUMINAIRE ARMS SINGLE MEMBER 6-Ft (WP MOUNT)	EACH	3
-	SPV.0060.371	INSTALLING CITY FURNISHED LUMINAIRE UTILITY LED	EACH	23
-		Total Number of Luminaire Utility LED (3LED3) = 23		
-	SPV.0090.302	ELECTRICAL CABLE TYPE 3#6 AL	LF	2,280
-				

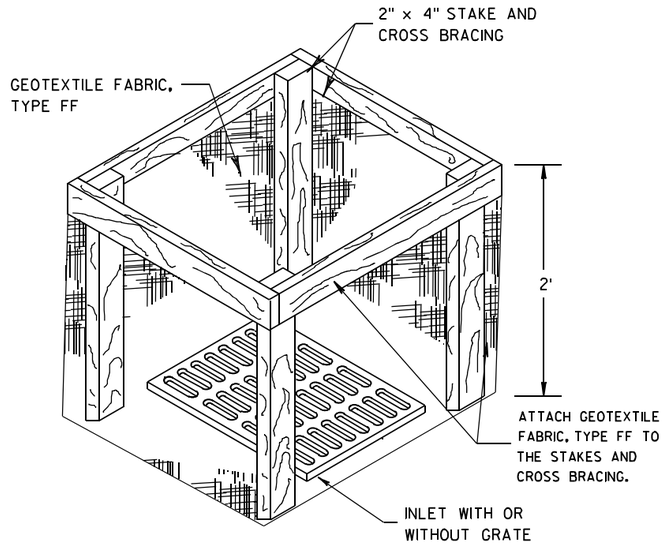
ALL ITEMS CATEGORY 0010

(THESE QUANTITIES DO NOT INCLUDE THE MATERIALS IN/ON THE BRIDGE) SUCH AS: CONDUIT, AND LIGHT POLE ANCHORAGE

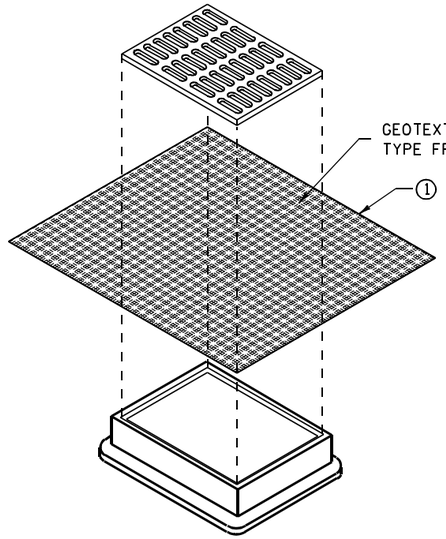
Standard Detail Drawing List

08E10-02	INLET PROTECTION TYPE A, B, C AND D
14B07-16A	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16B	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16C	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16D	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16E	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16F	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16G	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16H	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16I	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16J	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16K	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16L	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16M	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
14B07-16N	CONCRETE BARRIER TEMPORARY PRECAST, 12'-6"
15C02-08A	BARRICADES AND SIGNS FOR MAINLINE CLOSURES
15C02-08B	BARRICADES AND SIGNS FOR VARIOUS CLOSURES
15C05-05	TRAFFIC CONTROL, ADVANCE WARNING SIGNS 40 M.P.H. OR LESS
15C06-10	SIGNING & MARKING FOR TWO LANE BRIDGES
15C07-15A	PAVEMENT MARKING SYMBOLS
15C07-15B	PAVEMENT MARKING WORDS
15C07-15C	PAVEMENT MARKING ARROWS
15C07-15E	PAVEMENT MARKING FOR BIKE LANES
15C08-22A	LONGITUDINAL MARKING (MAINLINE)
15C08-22B	TEMPORARY LONGITUDINAL PAVEMENT MARKING
15C11-09A	CHANNELIZING DEVICES FLEXIBLE TUBULAR MARKER POST
15C11-09B	CHANNELIZING DEVICES DRUMS, CONES, BARRICADES AND VERTICAL PANELS
15C34-03	STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKER, TYPE 2
15D12-10A	TRAFFIC CONTROL, LANE CLOSURE
15D20-06B	TRAFFIC CONTROL, SINGLE RIGHT LANE CLOSURE, UNDIVIDED NON-FREEWAY/EXPRESSWAY



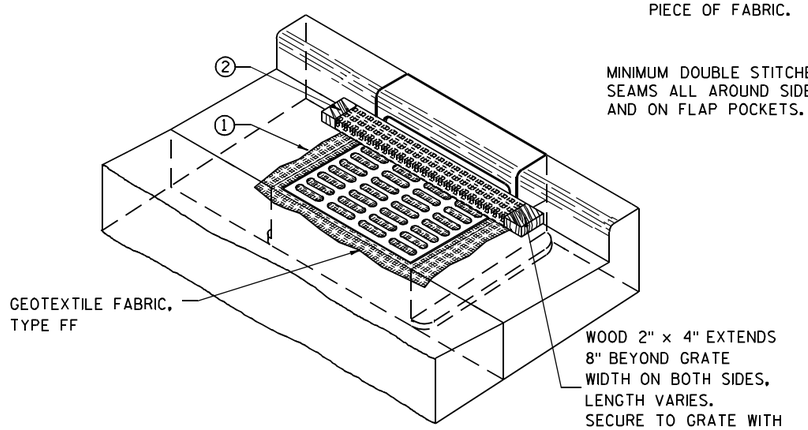


INLET PROTECTION, TYPE A

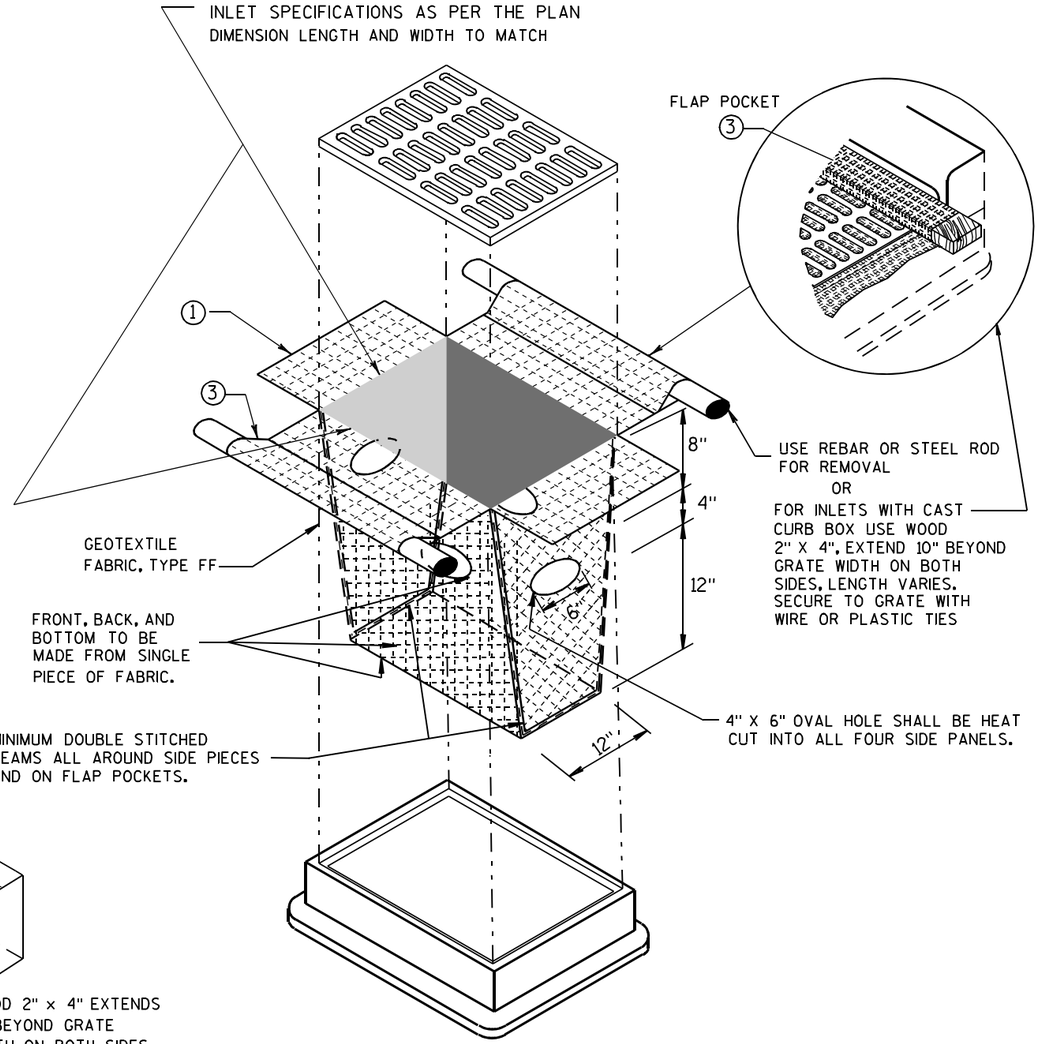


INLET PROTECTION, TYPE B
(WITHOUT CURB BOX)

(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.

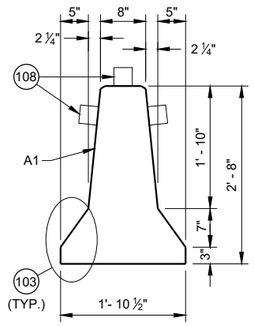
THE INSTALLED BAG SHALL HAVE A MINIMUM SIDE CLEARANCE, BETWEEN THE INLET WALLS AND THE BAG, MEASURED AT THE BOTTOM OF THE OVERFLOW HOLES, OF 3". WHERE NECESSARY THE CONTRACTOR SHALL CINCH THE BAG, USING PLASTIC ZIP TIES, TO ACHIEVE THE 3" CLEARANCE. THE TIES SHALL BE PLACED AT A MAXIMUM OF 4" FROM THE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

INLET PROTECTION
TYPE A, B, C, AND D

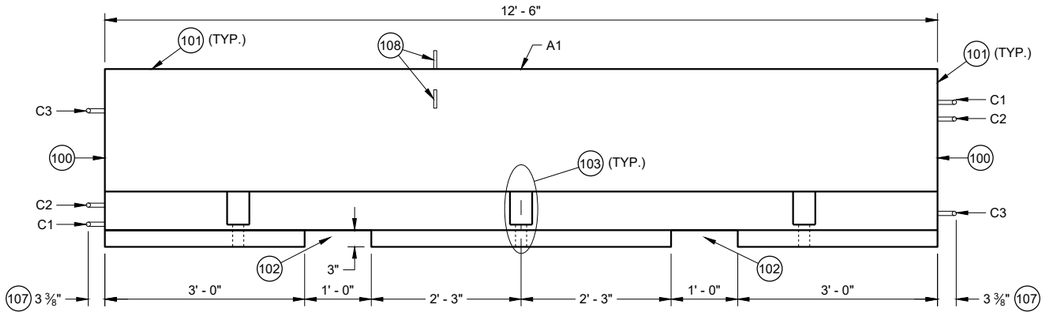
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

6
S.D.D. 8 E 10-2



CROSS SECTION



PROFILE VIEW

GENERAL NOTES

PLACE BARRIER ON PAVED SURFACE. BEFORE PLACEMENT OF TEMPORARY BARRIER, REMOVE ALL LOOSE MATERIAL FROM PAVED SURFACE.

LOOP BARS C1, C2 AND C3 ARE NOT FOR PLACEMENT OR MOVEMENT OF BARRIER.

(100) PERMANENTLY FORM INTO ONE END OF BARRIER THE FOLLOWING INFORMATION:
- A. TYPE OF BARRIER: WI-CBTP
- B. MANUFACTURER
- C. DATE OF MANUFACTURE (MONTH AND YEAR)

(101) 1" OPTIONAL CHAMFER

(102) SEE LIFTING SLOT DETAIL

(103) SEE ANCHOR BLOCK DETAIL

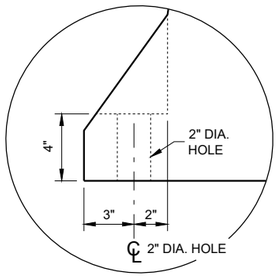
(104) 1 ¾" MIN. CLEAR COVER

(105) 2" MIN. CLEAR COVER

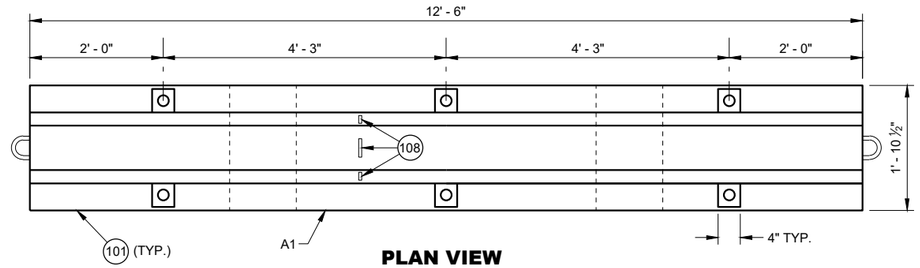
(106) 1" MIN. CLEAR COVER

(107) ± ⅛" MEASURED FROM FACE OF CONCRETE BARRIER TO OUTSIDE OF LOOP BAR (TYP.)

(108) USE DELINEATORS CONFORMING TO SECTION 633 OF THE STANDARD SPECIFICATIONS. CONTRACTOR MY USE ALTERNATE SHAPES AND HOUSING. INSTALL DELINEATORS ACCORDING TO MANUFACTURERS INSTRUCTION. INSTALL YELLOW REFLECTORS WHEN BARRIER IS LOCATED LEFT OF TRAFFIC AND WHITE WHEN BARRIER IS LOCATED RIGHT OF TRAFFIC. SPACE DELINEATORS A MAXIMUM OF 25 FEET APART, PROVIDE TO MOUNTED DELINEATORS IN ADDITION TO SIDE MOUNTED DELINEATORS ON BARRIER INSTALLATIONS LOCATED ON A CURVED ALIGNMENT LONGER THAT 200 FEET AND ON BARRIERS USED TO SEPARATE OPPOSING TRAFFIC.

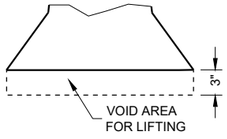


ANCHOR BLOCK DETAIL

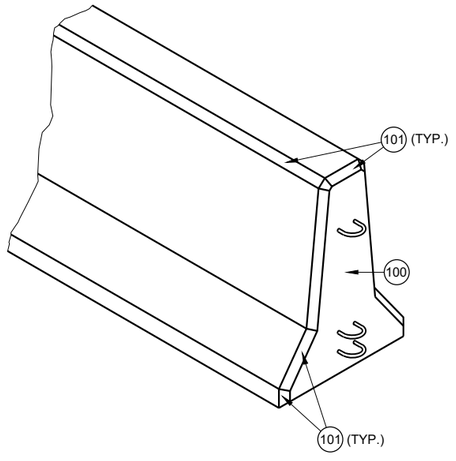


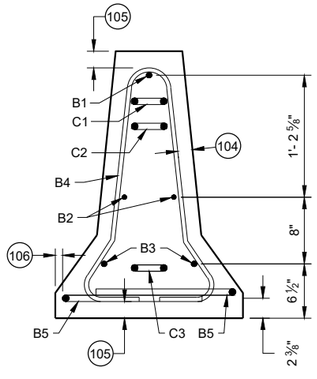
PLAN VIEW

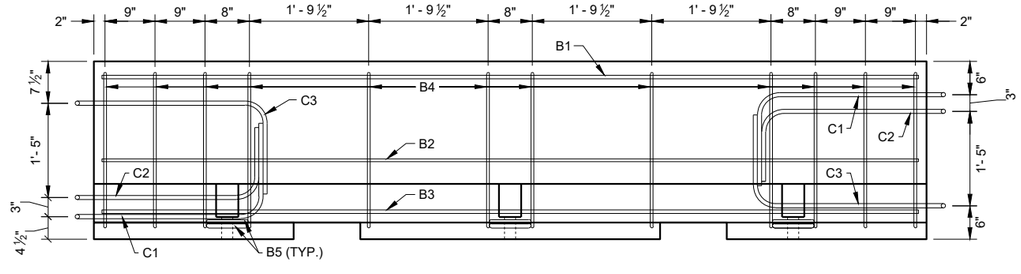
TEMPORARY BARRIER



LIFTING SLOT DETAIL (TYP.)







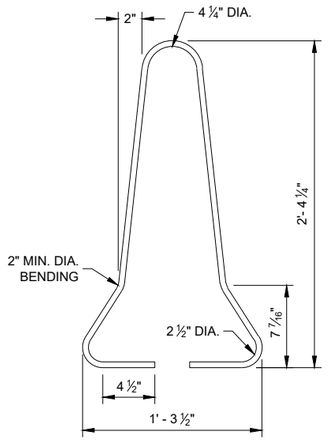
PROFILE VIEW

TEMPORARY BARRIER REINFORCEMENT

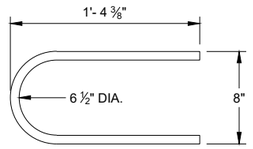
CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

6

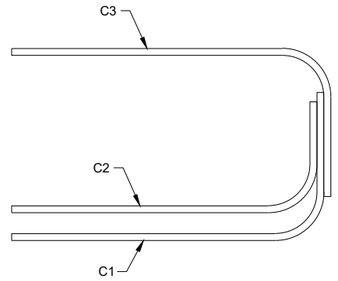
SDD14B07 - 16a



B4 BAR DETAIL

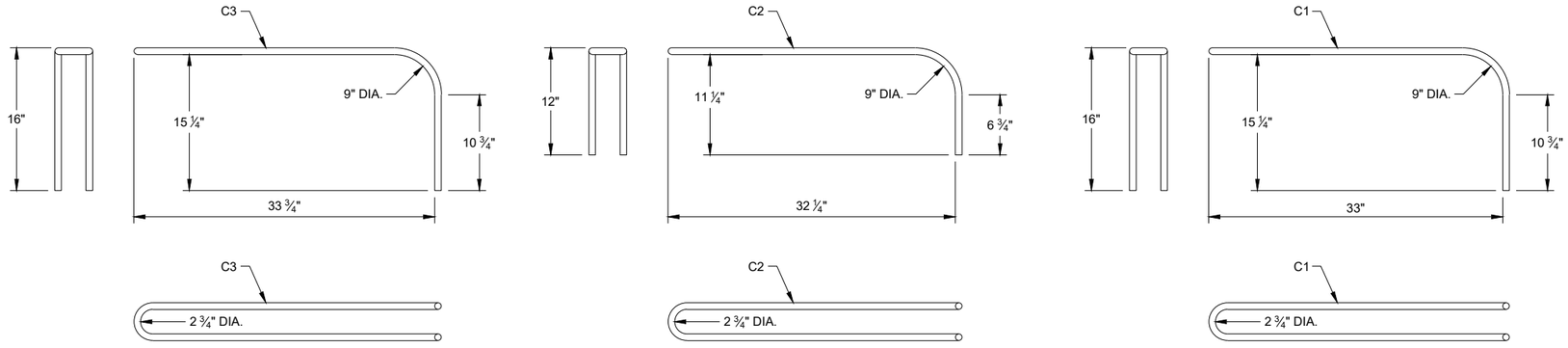


B5 BAR DETAIL



PROFILE VIEW

LOOP BAR ASSEMBLY



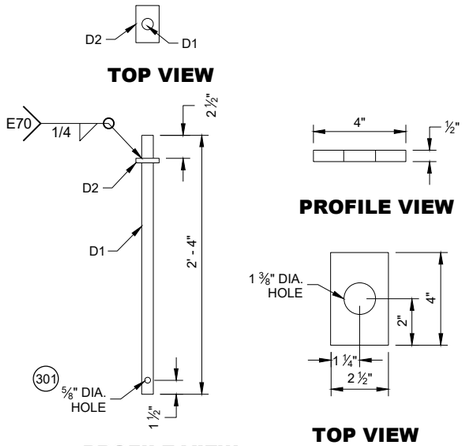
C BAR DETAILS

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

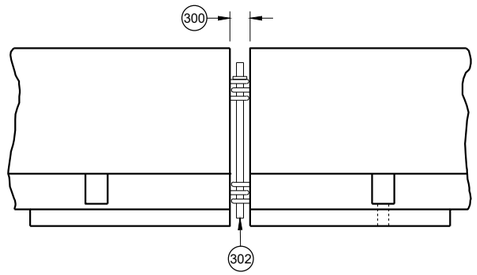
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16b



CONNECTOR PIN ASSEMBLY



CONNECTING TEMPORARY BARRIER SECTIONS

GENERAL NOTES

300 SET WITH 3 ⅝" WOOD BLOCK.

301 HOLE IS OPTIONAL.

302 CONNECTOR PIN ASSEMBLY.

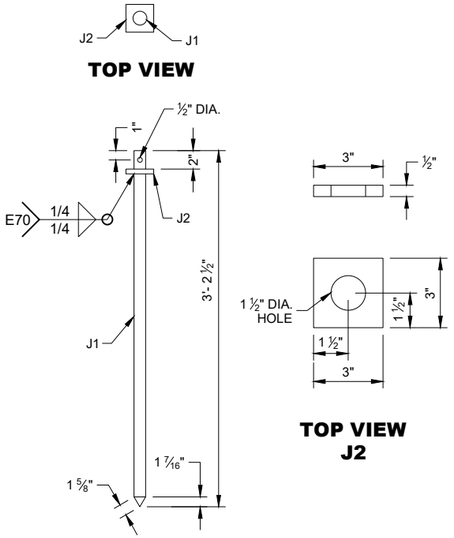
303 CONCRETE PAVEMENT, APPROACH SLAB, OR DECK.

304 CONCRETE DECK.

305 DO NOT USE ON CONCRETE BRIDGE DECK WITH ASPHALT OVERLAY OR CONCRETE PAVEMENT WITH ASPHALT OVERLAY.

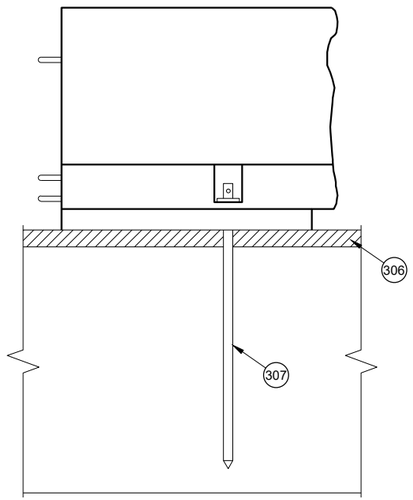
306 MINIMUM OF 2" OF ASPHALT.

307 ASPHALT ANCHOR PIN ASSEMBLY



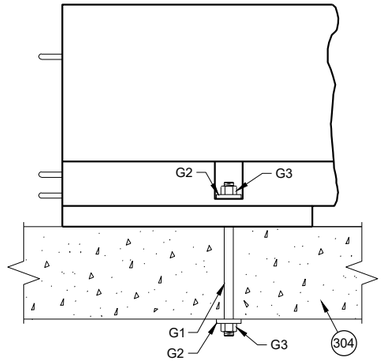
PROFILE VIEW

ASPHALT ANCHOR PIN ASSEMBLY



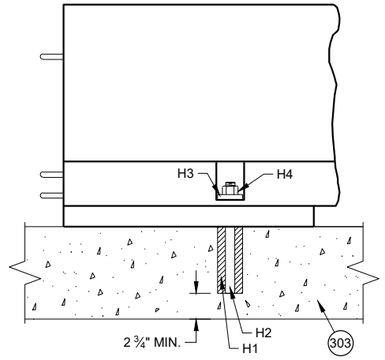
SIDE VIEW

ASPHALT ANCHOR INSTALLATION



SIDE VIEW

THROUGH BOLT ANCHOR INSTALLATION 305



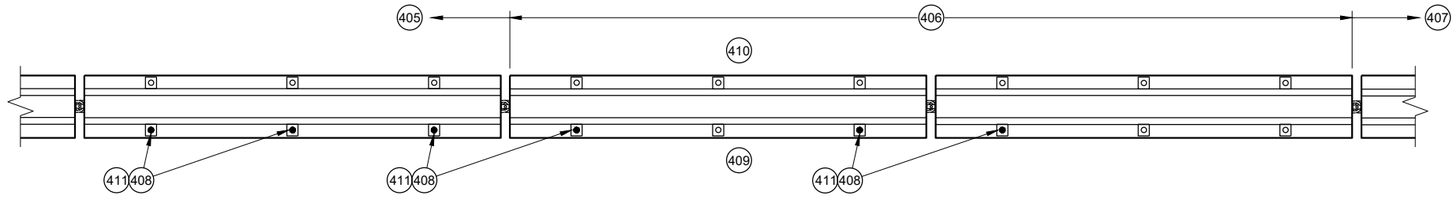
SIDE VIEW

ADHESIVE ANCHOR INSTALLATION 305

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

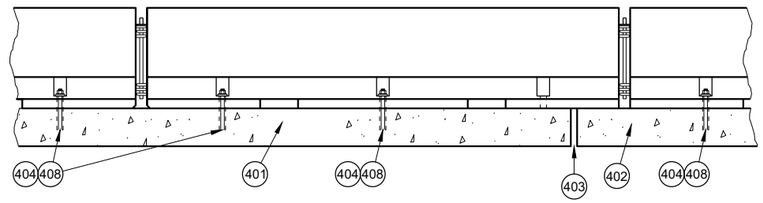
6

SDD 14B07 - 16c



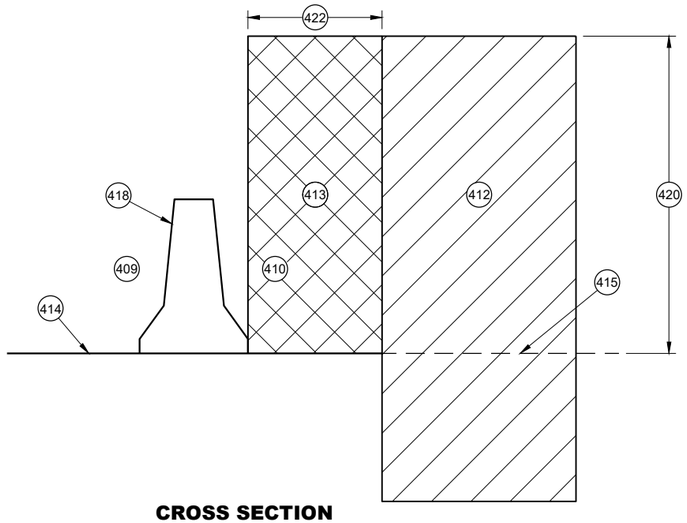
PLAN VIEW

TRANSITION FROM FREE STANDING TO ANCHORED BARRIER



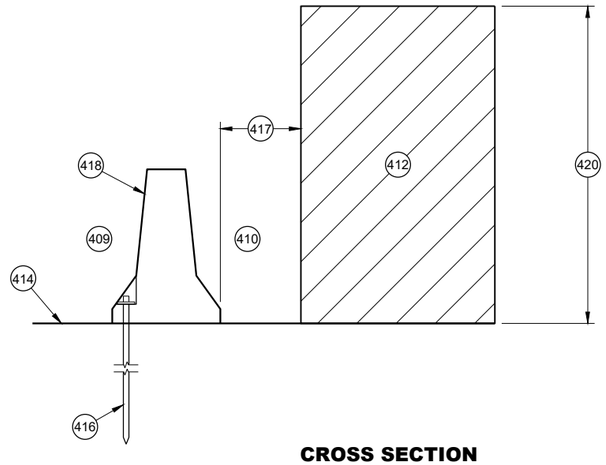
PROFILE VIEW

ANCHORED BARRIER NEAR EXPANSION JOINT (400)



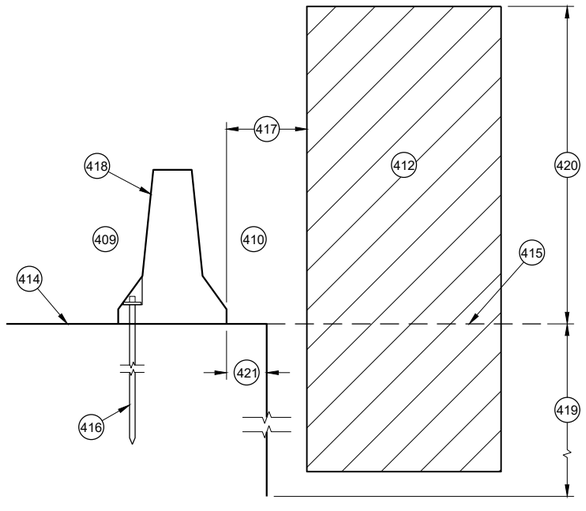
CROSS SECTION

FREE STANDING BARRIER



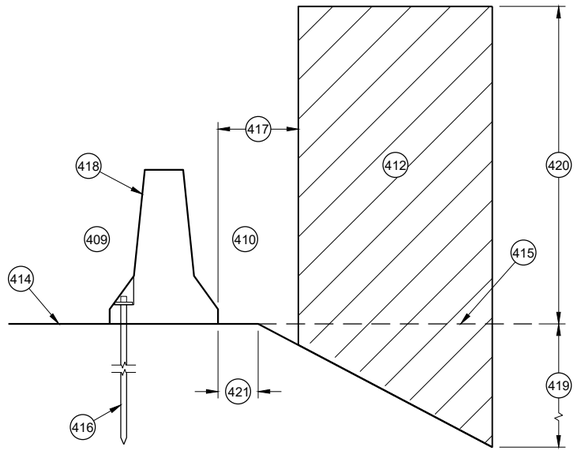
CROSS SECTION

ANCHORED BARRIER FOR OBJECTS ABOVE THE GRADE LINE AND NEAR THE BARRIER



CROSS SECTION

ANCHORED BARRIER NEAR VERTICAL DROP OFF



CROSS SECTION

ANCHORED BARRIER NEAR A SLOPE

GENERAL NOTES

(400) NO SINGLE CONCRETE BARRIER SECTION SHALL BE ANCHORED TO BOTH THE BRIDGE DECK AND THE APPROACH SLAB. ALL ANCHOR BOLT LOCATIONS SHALL BE ANCHORED TO THE DECK IN ACCORDANCE WITH THE DETAIL. NO MORE THAN ONE ANCHOR BOLT SHALL BE ELIMINATED FROM A BARRIER SECTION WHEN SPANNING AN EXPANSION JOINT.

(401) CONCRETE DECK

(402) CONCRETE DECK OR APPROACH SLAB.

(403) EXPANSION JOINT

(404) ADHESIVE ANCHOR SHOWN. SEE ANCHOR DETAILS.

(405) ANCHORED TEMPORARY BARRIER

(406) TRANSITION FROM ANCHORED TEMPORARY BARRIER TO FREE STANDING

(407) FREE STANDING BARRIER

(408) REMOVE ALL ANCHORS WHEN NO LONGER NEEDED. FILL CONCRETE PAVEMENTS, DECKS AND APPROACH SLABS WITH NON-SHRINK COMMERCIAL GROUT FROM THE APPROVED PRODUCT LIST. FILL ASPHALT PAVEMENTS WITH ASTM D6690 TYPE II RUBBERIZED CRACK FILLER.

(409) TRAFFIC SIDE

(410) NON-TRAFFIC SIDE

(411) ANCHOR LOCATION. SEE ANCHORING DETAILS.

(412) WORK AREA

(413) AREA FREE OF OBJECTS AND WORKERS

(414) GRADE LINE

(415) EXTENDED GRADE LINE

(416) ANCHORED TEMPORARY BARRIER. SEE BOLT THROUGH DECK, REMOVABLE ADHESIVE ANCHOR, OR AN ASPHALT ANCHOR ROD DETAILS FOR MORE INFORMATION. ASPHALT ANCHOR ROD SHOWN.

(417) WHEN OBJECTS EXTEND ABOVE THE GRADE. A MINIMUM OF 1 FOOT IS REQUIRED FROM BACK OF BARRIER TO OBJECT.

(418) OBJECTS ARE NOT TO BE PLACED ON, MOUNTED TO, OR ALLOWED TO LEAN AGAINST THE BARRIER WITHOUT WRITTEN PERMISSION OF THE PROJECT ENGINEER.

(419) DEPTHS OF 3 FEET OR MORE.

(420) Y = 6.5'

(421) OFFSET FROM BACK OF BARRIER EDGE:

CONCRETE PAVEMENT	0.5'
ASPHALT	0.5'

(422) POSTED SPEED (MPH):

45 OR GREATER	4.0'
40 OR LOWER	2.0'

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16d

GENERAL NOTES

(500) EXISTING RIGID BARRIERS (VARIES)

(501) TEMPORARY BARRIER

(502) SEE OTHER DETAIL ON HOW TO ANCHOR TEMPORARY BARRIER (BARRIER ASPHALT ANCHOR SHOWN).

(503) ANCHORS ARE REQUIRED ON BOTH SIDE OF THE TEMPORARY BARRIER.

(504) NESTED RAILS ARE REQUIRED ON BOTH SIDES OF THE TEMPORARY BARRIER FOR ALL INSTALLATIONS.

(505) TRAFFIC TRAVELS FROM PERMANENT BARRIER TO TEMPORARY BARRIER.

(506) TRAFFIC TRAVELS FROM TEMPORARY BARRIER TO PERMANENT BARRIER.

(507) VERTICAL BARRIER

(508) SAFETY SHAPE BARRIER

(509) SINGLE SLOPE BARRIER

(510) CAP END PLATE PLACED FLUSH WITH UPSTREAM END OF RIGID BARRIER.

(511) BENT THRIE BEAM TO FIT.

(512) THRIE BEAM PIECES ARE OFFSET 15 ¼" TO PREVENT INTERFERENCE FROM THE ANCHORS ON OPPOSING SIDES.

(513) TWO (2) P1, P2 AND P3 ARE REQUIRED

(514) FIVE (5) N1, N2 AND N3 ARE REQUIRED

(515) TWO (2) R1, R2 AND R3 ARE REQUIRED

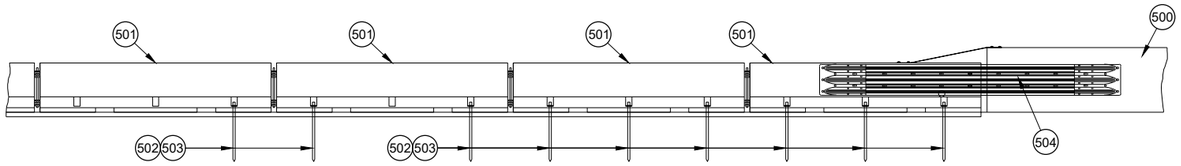
(516) CUT WOOD BLOCK TO FIT.

(517) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL ASSEMBLY.

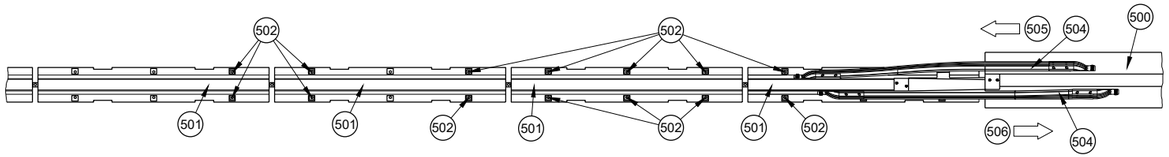
(518) CAP ASSEMBLY

(519) 4" MAX. GAP BETWEEN TEMPORARY BARRIER AND RIGID BARRIER.

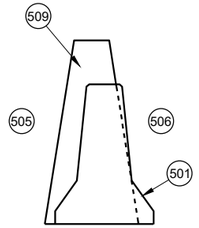
(520) ALL TWELVE SPLICE HOLES REQUIRE M1 AND M2



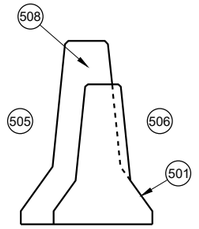
PROFILE VIEW



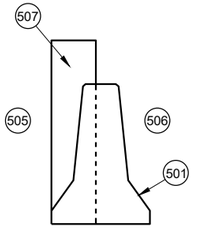
PLAN VIEW
TRANSITION TO RIGID BARRIER



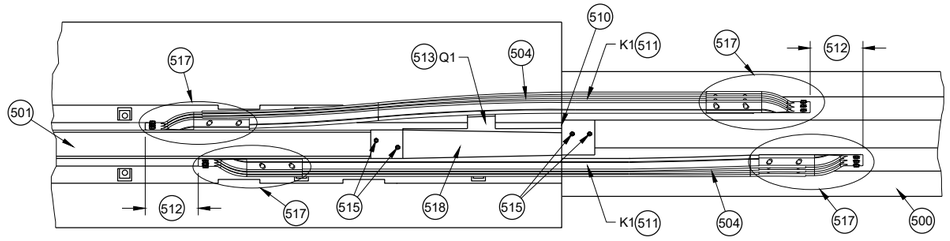
CROSS SECTION TEMPORARY BARRIER PLACEMENT SINGLE SLOPE



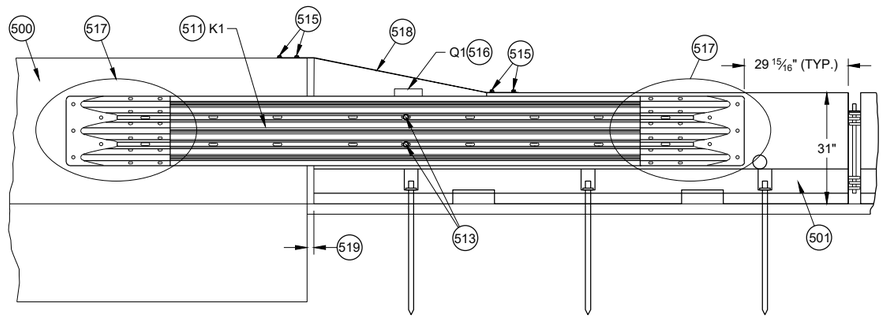
CROSS SECTION TEMPORARY BARRIER PLACEMENT SAFETY SHAPE



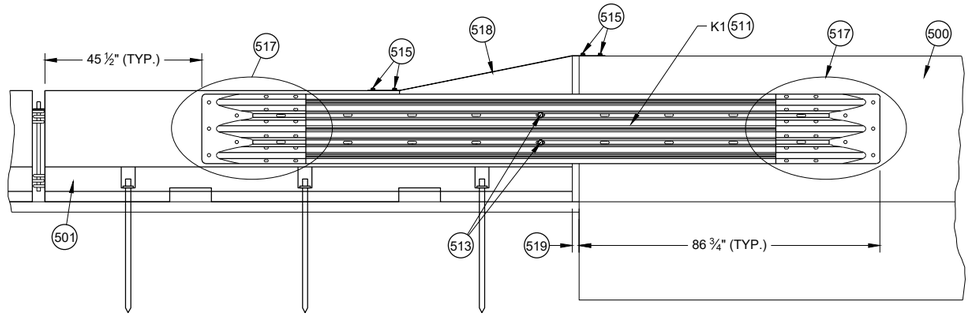
CROSS SECTION TEMPORARY BARRIER PLACEMENT VERTICAL



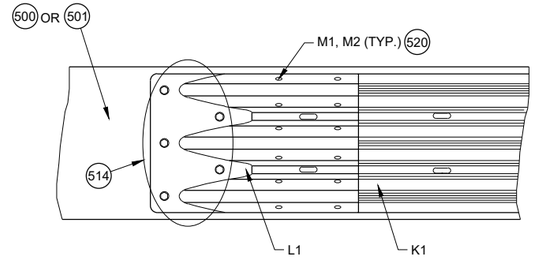
PLAN DETAIL VIEW
TRANSITION TO RIGID BARRIER



BACK DETAIL VIEW
TRANSITION TO RIGID BARRIER



FRONT DETAIL VIEW
TRANSITION TO RIGID BARRIER



(517) DETAIL PLAN VIEW
THRIE BEAM RAIL TERMINAL CONNECTOR ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

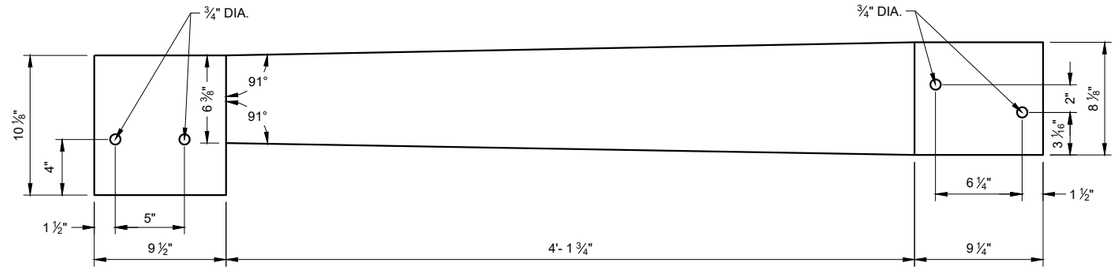
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16e

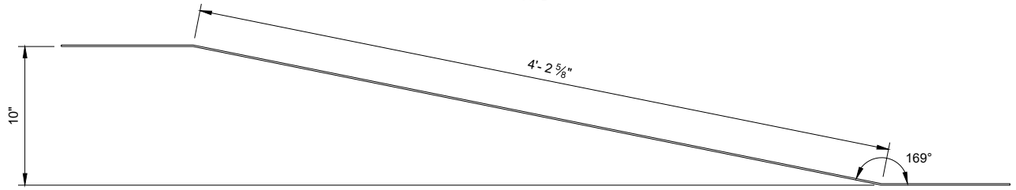
6

SDD 14B07 - 16e



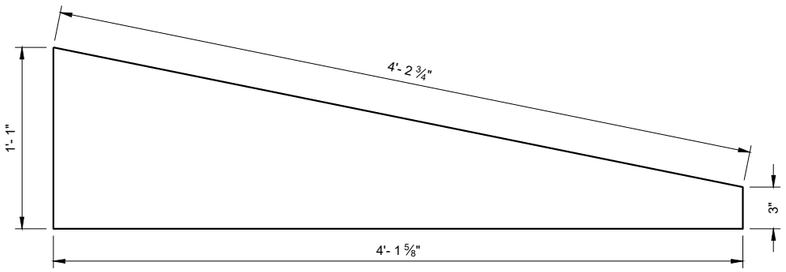
TOP VIEW

S1



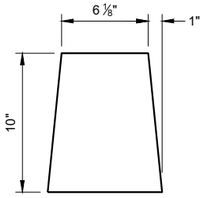
ELEVATION VIEW

S1



SIDE VIEW

S3



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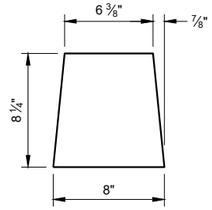

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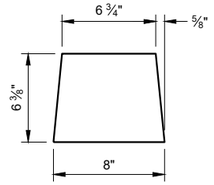
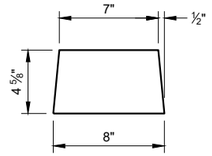


S5



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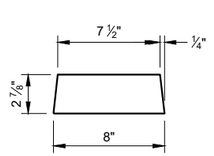
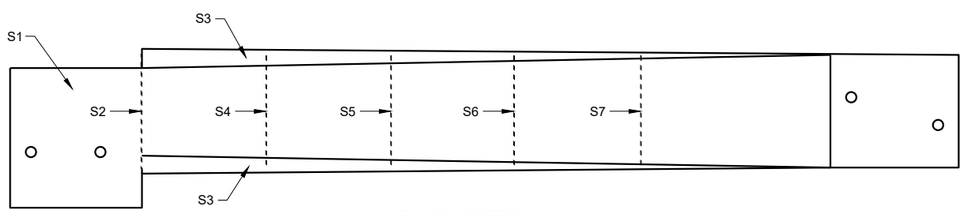
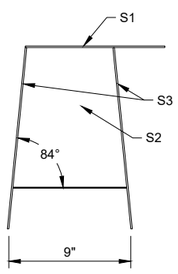


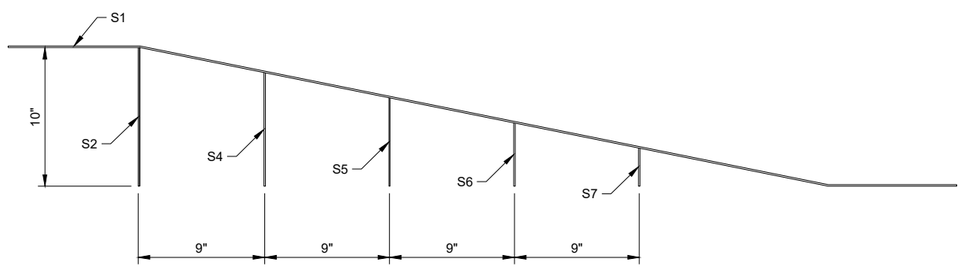
S7



PLAN VIEW



BACK VIEW



SIDE VIEW (600)

42" TOP CAP ASSEMBLY

GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THREE SIDES

STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

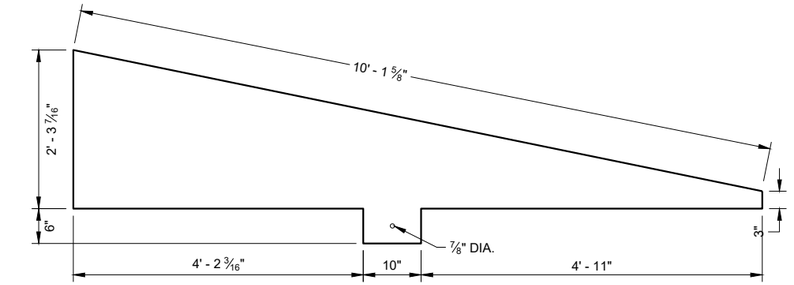
(600) SIDE PLATES (S3) NOT SHOWN FOR CLARITY.

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

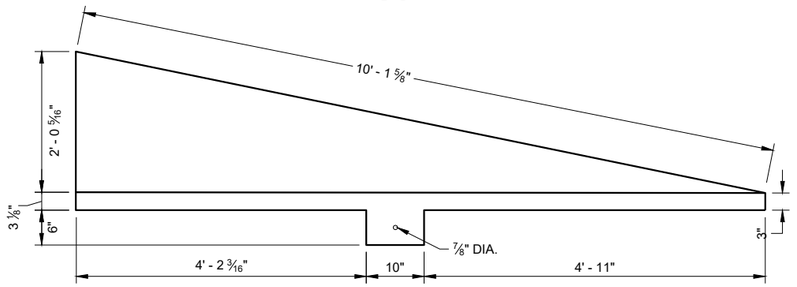
6

SDD 14B07 - 16f



SIDE VIEW
T4

END VIEW



SIDE VIEW
T3

END VIEW

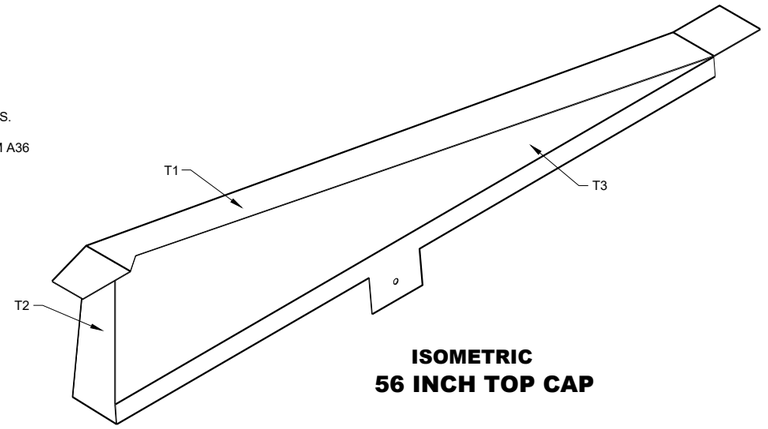
GENERAL NOTES

STITCH WELD GUSSET PLATES AND END PLATES ON THRIE SIDES

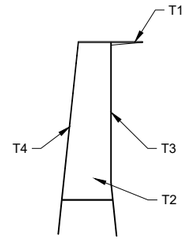
STITCH WELD TWO SIDE PLATES TO TOP PLATE, END PLATE AND GUSSETS.

SIDE PLATES, TOP PLATE, END PLATE AND GUSSETS ARE 12 GAUGE ASTM A36 GALVANIZED STEEL.

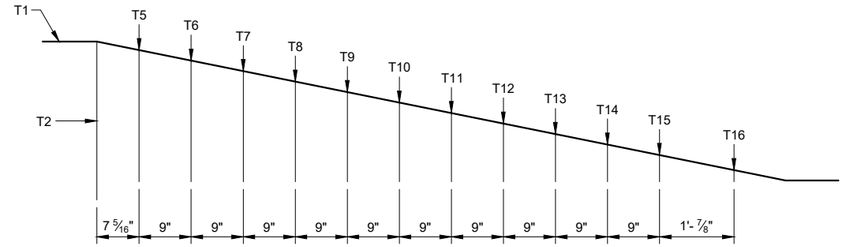
(700) SIDE PLATES (T3 AND T4) NOT SHOWN FOR CLARITY.



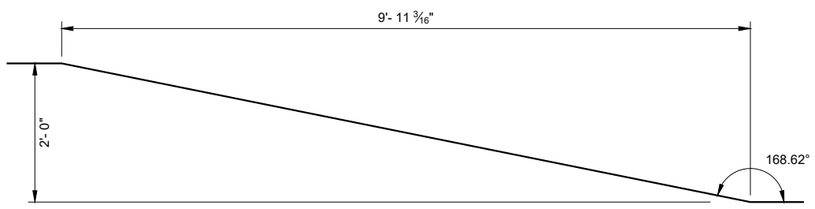
ISOMETRIC
56 INCH TOP CAP



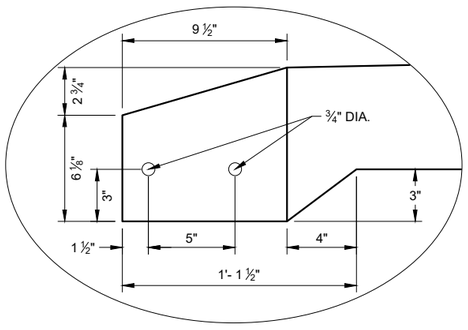
END VIEW
56 INCH TOP CAP



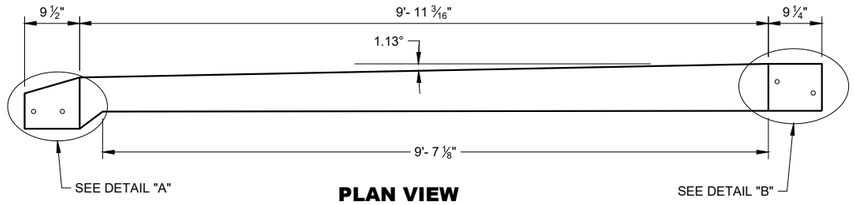
SIDE VIEW (700)
56 INCH TOP CAP



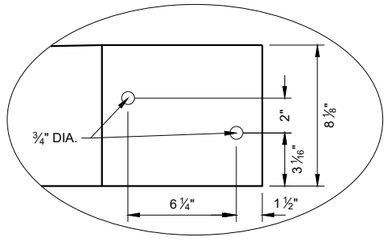
SIDE VIEW
TOP PLATE T1



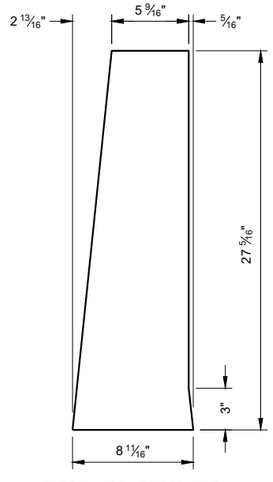
DETAIL "A"



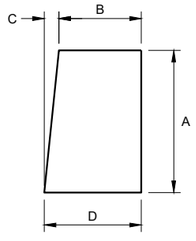
PLAN VIEW
TOP PLATE T1



DETAIL "B"



END PLATE T2



GUSSET PLATES
T5 - T16

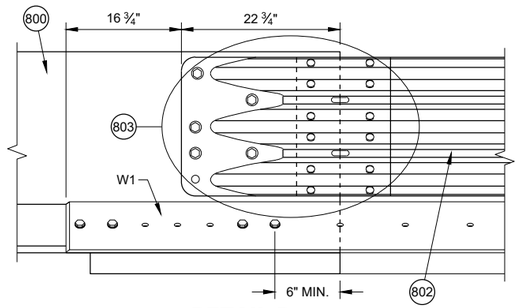
GUSSET DIMENSIONS				
GUSSET NO.	A	B	C	D
T5	22 13/16"	5 1/16"	2 5/16"	8 1/16"
T6	21"	5 7/8"	2 3/16"	8 1/16"
T7	19 3/16"	6 1/16"	1 15/16"	8 1/16"
T8	17 3/8"	6 1/4"	1 13/16"	8 1/16"
T9	15 5/16"	6 7/16"	1 9/16"	8 1/16"
T10	13 3/4"	6 5/8"	1 7/16"	8 1/16"
T11	11 15/16"	6 13/16"	1 1/4"	8 1/16"
T12	10 1/8"	7"	1 1/16"	8 1/16"
T13	8 5/16"	7 3/16"	7/8"	8 1/16"
T14	6 1/2"	7 3/8"	1 1/16"	8 1/16"
T15	4 11/16"	7 9/16"	1/2"	8"
T16	2 7/8"	7 3/4"	1/4"	8"

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

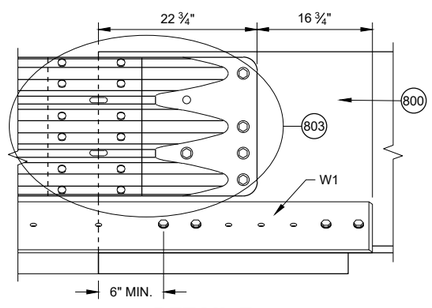
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

SDD 14B07 - 16g

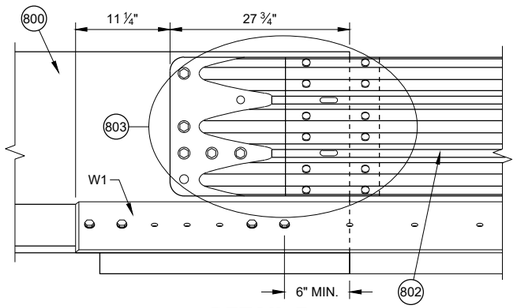
6



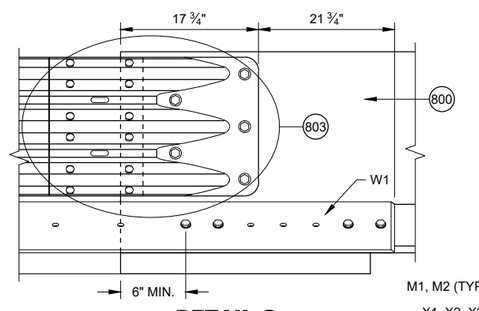
DETAIL D



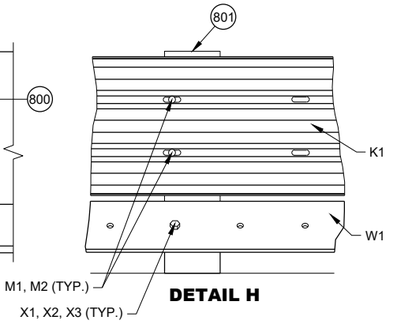
DETAIL E



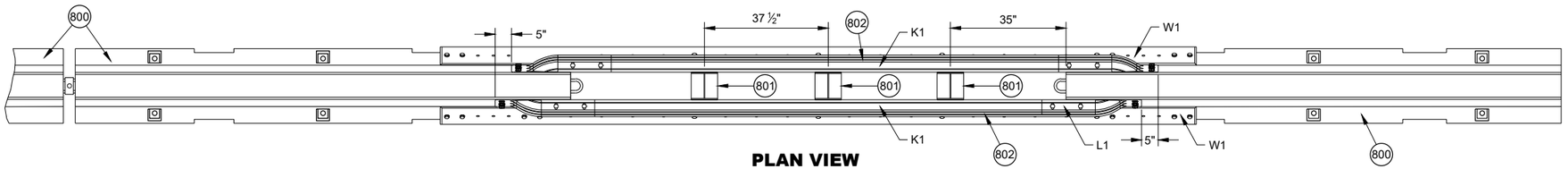
DETAIL F



DETAIL G



DETAIL H



PLAN VIEW

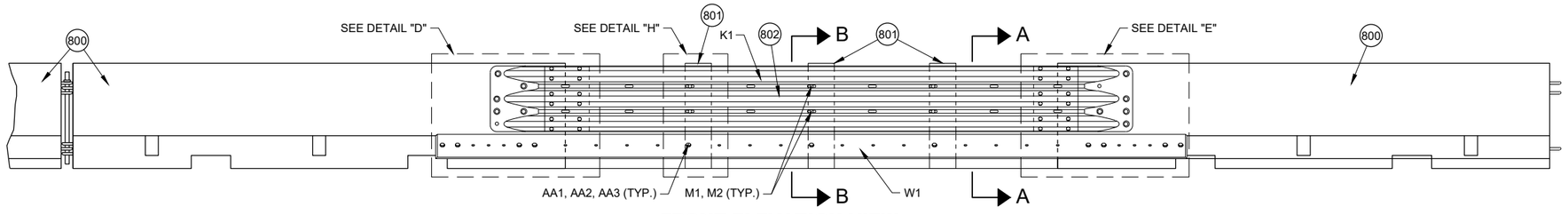
GENERAL NOTES

(800) FREE STANDING TEMPORARY BARRIER

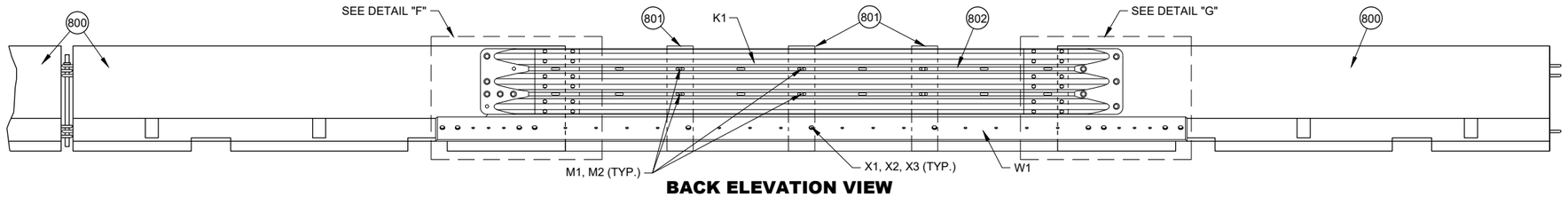
(801) GAP STIFFENER ASSEMBLY

(802) THRIE BEAMS ARE NESTED ON BOTH SIDES OF THE TEMPORARY BARRIER.

(803) SEE THRIE BEAM RAIL TERMINAL CONNECTOR DETAIL



FRONT ELEVATION VIEW



BACK ELEVATION VIEW

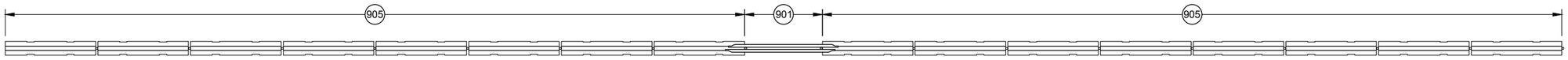
PORTABLE CONCRETE BARRIER GAP THRIE BEAM COVER

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

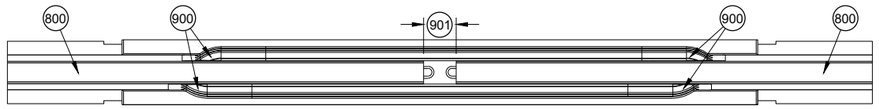
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16h



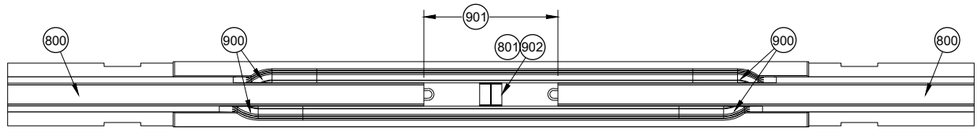
PLAN VIEW
GAP WITHIN SPACING



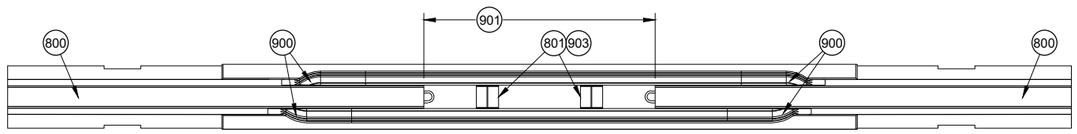
PLAN VIEW
TEMPORARY BARRIER GAP OVER 4" TO 1' MAX. (904)

GENERAL NOTES

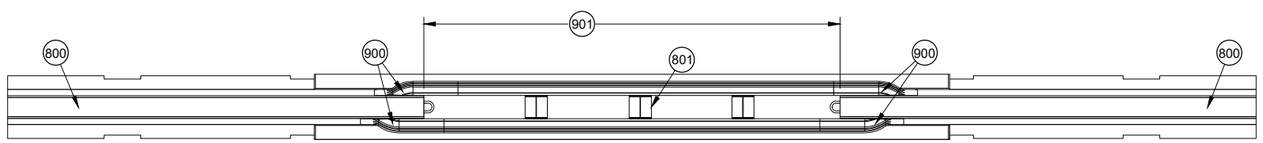
(900) SEE OTHER DETAILS FOR TEMPORARY GAP HARDWARE (TYP.)
(901) TEMPORARY BARRIER GAP
(902) GAP STIFFENER ASSEMBLY CENTERED IN THE GAP.
(903) GAP STIFFENER ASSEMBLY IS OFFSET 18 ¾" FROM CENTER
(904) MINIMUM NUMBER OF GAP STIFFENERS SHOWN FOR THE GAP RANGE SHOWN.
(905) MINIMUM OF 8 CONTINUOUS FREE STANDING TEMPORARY BARRIERS



PLAN VIEW
TEMPORARY BARRIER GAP OVER 1' TO 4' MAX. (904)



PLAN VIEW
TEMPORARY BARRIER GAP OVER 4' TO 7' MAX. (904)

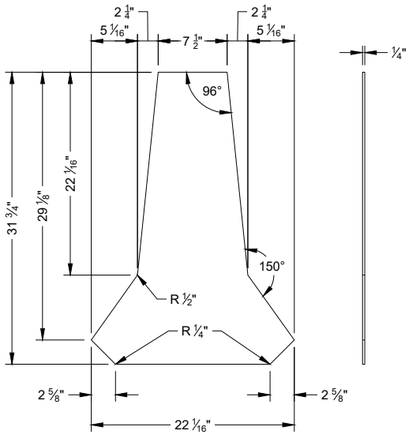


PLAN VIEW
TEMPORARY BARRIER GAP OVER 7' TO 12.5' MAX. (904)

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

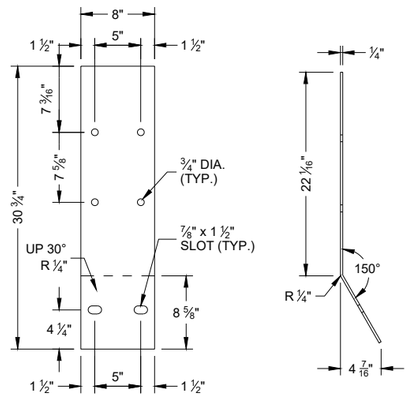
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6
SDD 14B07 - 16i



PROFILE VIEW SIDE VIEW

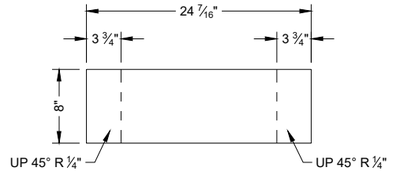
STIFFENER ASSEMBLY CENTER PANEL U1



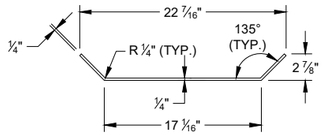
FLAT PATTERN

SIDE VIEW

STIFFENER ASSEMBLY SIDE PANEL U2

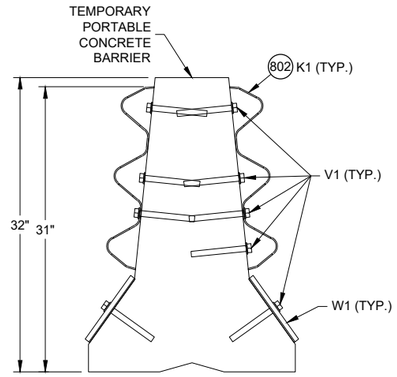


FLAT PATTERN

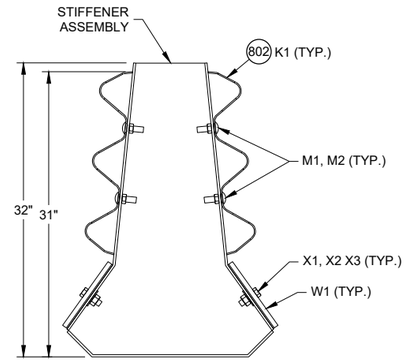


PROFILE VIEW

STIFFENER ASSEMBLY BOTTOM PANEL U3

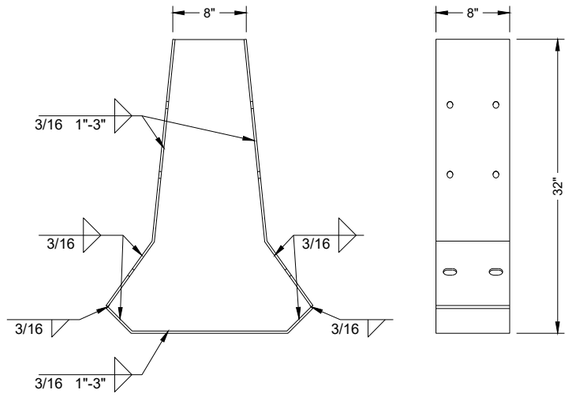


SECTION A - A



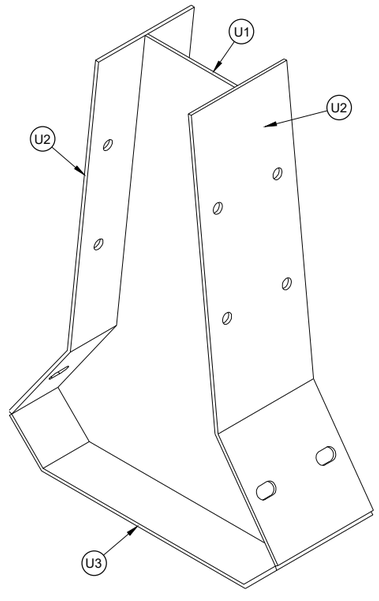
SECTION B - B

PLAN VIEW



PROFILE VIEW

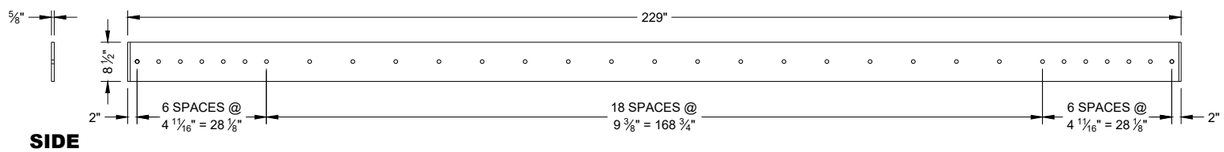
SIDE VIEW



ISOMETRIC

GAP STIFFENER ASSEMBLY

PLAN VIEW



SIDE VIEW

ELEVATION VIEW

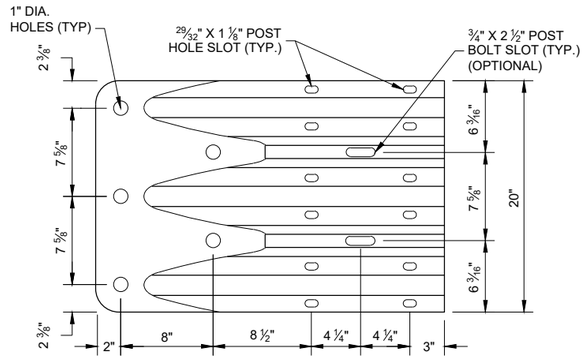
W1 TOE PLATE

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

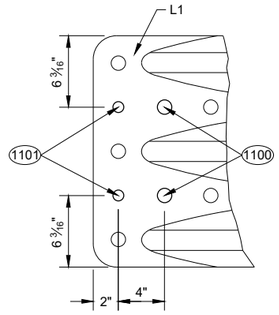
6

SDD 14B07 - 16j



ELEVATION VIEW

THRIE BEAM TERMINAL CONNECTOR



ELEVATION VIEW

ADDITIONAL THRIE BEAM (1102) TERMINAL CONNECTOR HOLE DETAIL

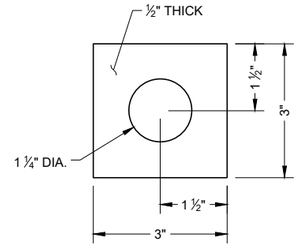


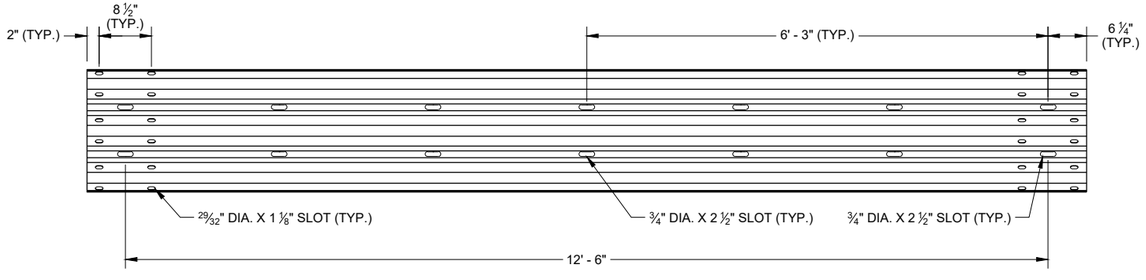
PLATE WASHER DETAIL G2, H3

GENERAL NOTES

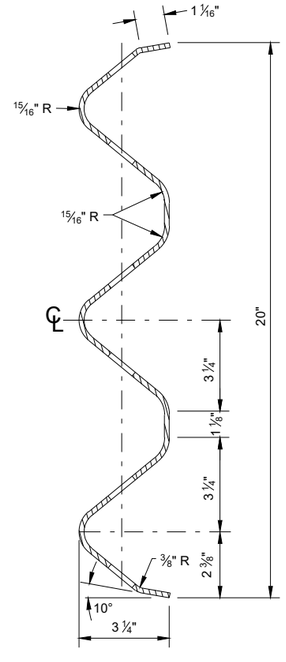
(1100) 1" DIA. HOLE

(1101) 3/4" DIA. HOLE

(1102) PROVIDE HOLES IN THRIE BEAM TERMINAL CONNECTOR TO LIMIT STEEL REINFORCEMENT OR LOOP BAR CONFLICT. CONTRACTOR MAY FIELD DRILL ADDITIONAL HOLE OR PROVIDE THRIE BEAM TERMINAL CONNECTOR WITH ADDITIONAL HOLES FROM SUPPLIER.



SLOTTED THRIE BEAM RAIL K1



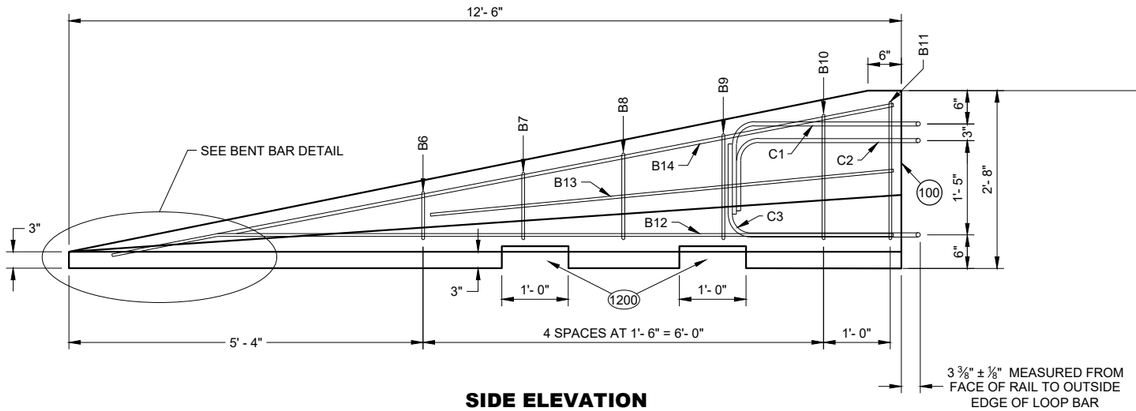
SECTION THROUGH BEAM K1

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

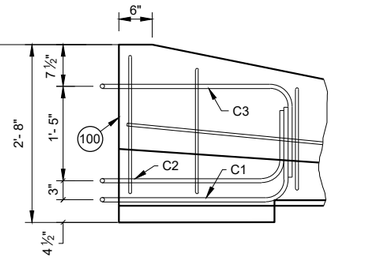
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16k



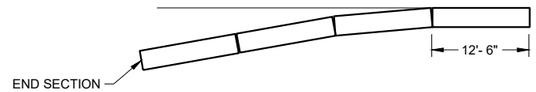
SIDE ELEVATION
(FOR CONNECTION TO LEFT END OF BARRIER)



SIDE ELEVATION
LOOP BAR ASSEMBLY INVERTED FOR OPPOSITE END
(FOR CONNECTION TO RIGHT END OF BARRIER)

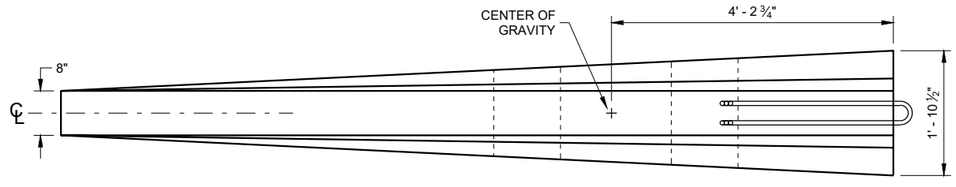
GENERAL NOTES

(1200) SEE LIFTING SLOT DETAIL. LOCATION OF LIFTING SLOTS DETERMINED BY CONTRACTOR.

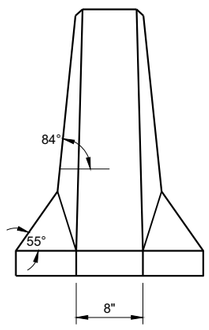


FLARE AT BARRIER END

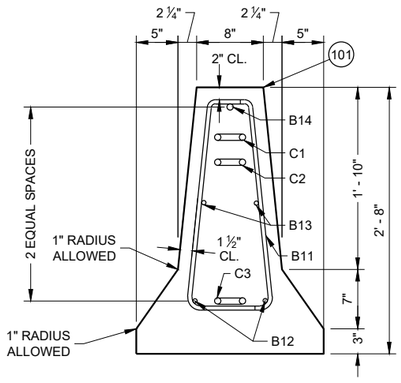
POSTED SPEED, (MPH)	FLARE RATE
40 OR LESS	6:1
45 OR GREATER	8:1



PLAN VIEW

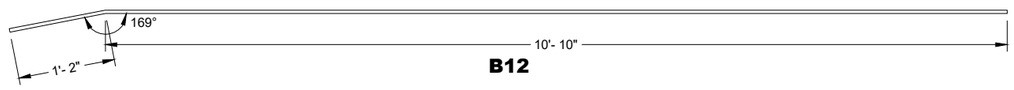


FRONT ELEVATION

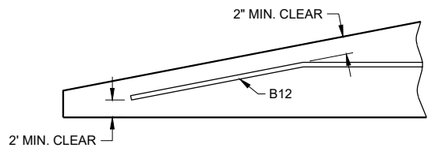


END SECTION

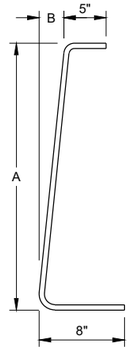
DETAILS OF BARRIER TAPER SECTION



B12



BENT BAR DETAIL



BAR	A	B
B6	10"	1"
B7	1'- 1"	1 ¼"
B8	1'- 5"	1 ⅝"
B9	1'- 8"	1 ⅞"
B10	2'- 0 ½"	2 ⅜"
B11	2'- 3"	2 ¾"

B BARS

2 OF EACH SIZE REQUIRED FOR STIRRUP ASSEMBLY

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD 14B07 - 16I

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
A1	PRECAST TEMPORARY BARRIER - CONCRETE	MIN. = f'c 5000 PSI	
B1	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B2	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-2"
B3	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 12'-2"
B4	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 6'-0"
B5	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#6 REBAR, LENGTH 2'-11"
B6	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 1'-11"
B7	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-2"
B8	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-6"
B9	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 2'-9"
B10	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-2"
B11	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 3'-4"
B12	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 12'-0"
B13	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#4 REBAR, LENGTH 7'-9"
B14	REBAR	STANDARD SPEC. 505.2 GRADE 60 UNCOATED REBAR	#5 REBAR, LENGTH 11'-9"
C1	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C2	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
C3	LOOP BAR	ASTM A709 GRADE 70 SMOOTH BAR OR ASTM A706 GRADE 60 REBAR UNCOATED	¾" DIA.
D1	CONNECTION PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ¼" DIA.
D2	CONNECTION PIN - TOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G1	BOLT THROUGH ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A OR SAE J429 GRADE 2 UNC	1 ⅛" DIA.
G2	BOLT THROUGH ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
G3	BOLT THROUGH ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
H1	ADHESIVE ANCHOR - ADHESIVE	ICC-ES-AC308 5 ¼" EMBEDMENT WITH A MIN. STRENGTH OF 1,800 PSI. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
H2	ADHESIVE ANCHOR - THREADED ROD	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 A307 GRADE A / SAE J429 GRADE 2 UNC	1 ⅛" DIA.
H3	ADHESIVE ANCHOR - WASHER, SQUARE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
H4	ADHESIVE ANCHOR - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
J1	ASPHALT ANCHOR PIN - ROD	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	1 ½" DIA.
J2	ASPHALT ANCHOR PIN - STOP PLATE	ASTM A36 MIN. STRENGTH 36 KSI / ASTM A529 MAX. STRENGTH 50 KSI / ASTM A572 MAX STRENGTH 50 KSI / ASTM A709 MAX STRENGTH 50 KSI / ASTM A992 MAX STRENGTH 50 KSI	
K1	THRIE BEAM RAIL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE
L1	THRIE BEAM RAIL - TERMINAL	AASHTO M180 CLASS A TYPE 2 APPROVED PRODUCER	12 GAUGE

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
M1	SPLICE BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC AASHTO M180 HEAD ASTM A307 GRADE B OR SAE J429 GRADE 2 OR ASTM F1554 GRADE 36	⅝" DIA.
M2	SPLICE BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
N1	THRIE BEAM RAIL TERMINAL - MECHANICAL ANCHOR	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA. LENGTH 6"
N2	THRIE BEAM RAIL TERMINAL - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
N3	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 17.9 KIPS AND ULTIMATE SHEAR LOAD 21.96 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
P1	THRIE BEAM RAIL CONNECTION 1-BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	¾" DIA.
P2	THRIE BEAM RAIL CONNECTION 1-WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
P3	THRIE BEAM RAIL CONNETION 1- MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS: ULTIMATE TENSILE LOAD 9.48 KIPS AND ULTIMATE SHEAR LOAD 10.48 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	
Q1	BLOCK WOOD	SEE STANDARD SPEC. 614	
R1	CAP - BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 AASHTO M180 RECESSED HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	⅝" DIA.
R2	CAP- BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GAL. TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1	
R3	CAP - BOLT - MECHANICAL ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 12.14 KIPS AND ULTIMATE SHEAR LOAD 17.5 KIPS.SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	12 GAUGE
S1	CAP 42-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S2	CAP 42-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S3	CAP 42-INCH SIDE PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S4	CAP 42-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S5	CAP 42-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S6	CAP 42-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
S7	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE

6

SDD14B07 - 16m

MIDWEST GUARDRAIL SYSTEM (MGS) TYPE 2 TERMINAL

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

6

SDD14B07 - 16m

BILL OF MATERIALS - CONCRETE BARRIER PRECAST

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
T1	CAP 56-INCH TOP PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T2	CAP 56-INCH END PLATE	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T3	CAP 56-INCH SIDE PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T4	CAP 56-INCH SIDE PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T5	CAP 56-INCH GUSSET 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T6	CAP 56-INCH GUSSET 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T7	CAP 56-INCH GUSSET 3	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T8	CAP 42-INCH GUSSET 4	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T9	CAP 42-INCH GUSSET 5	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T10	CAP 42-INCH GUSSET 6	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T11	CAP 42-INCH GUSSET 7	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T12	CAP 42-INCH GUSSET 8	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T13	CAP 42-INCH GUSSET 9	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T14	CAP 42-INCH GUSSET 10	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T15	CAP 42-INCH GUSSET 11	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
T16	CAP 42-INCH GUSSET 12	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	12 GAUGE
U1	GAP STIFFENER	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U2	GAP STIFFENER - CONNECTOR PLATE 1	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
U3	GAP STIFFENER - CONNECTOR PLATE 2	AASHTO M111 / ASTM A123 ASTM A36 MIN. STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	

PART	DESCRIPTION	MATERIALS SPECIFICATIONS	NOTES
V1	THRIE BEAM RAIL TERMINAL MECHANICAL OR ADHESIVE ANCHOR	MINIMUM MECHANICAL OR ADHESIVE ANCHOR STRENGTH REQUIREMENTS ULTIMATE TENSILE LOAD 24.0 KIPS AND ULTIMATE SHEAR LOAD 21.5 KIPS. SEE 603.2 AND 603.3.1.2 OF THE WISCONSIN STANDARD SPECIFICATIONS FOR MORE INFORMATION ON ADHESIVE ANCHORS.	¾" DIA.
V2	GAP STIFFENER - BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C O R MECHANICAL GALVANIZE TO AASHTO M298 CLASS 50 TYPE 1 / ASTM B695 CLASS 50 TYPE 1 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291/ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	
W1	TOE PLATE	AASHTO M111/ASTM A123 ASTM A36 MIN STRENGTH 36 KSI, OR ASTM A529 MAX. STRENGTH 50 KSI, OR ASTM A572 MAX. STRENGTH 50 KSI, OR ASTM A709 MAX. STRENGTH 50 KSI, OR ASTM A992 MAX. STRENGTH 50 KSI	
X1	TOE PLATE - CONNECTION BOLT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 UNC HEAVY HEX HEAD OR AASTHO M180 HEAD, ASTM F3125 GRADE A325 TYPE 1 HEAVY HEX HEAD OR SAE J429 GRADE 5 HEAVY HEX HEAD / ASTM A449 TYPE 1 HEAVY HEX HEAD. BOLTS MAY BE FULLY THREADED. PROVIDE ENOUGH THREADING FOR PROPER TIGHTENING OF BOLT.	¾" DIA.
X2	TOE PLATE - CONNECTION BOLT - WASHER	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 TYPE 2 F436 TYPE 1 (HARDEN WASHER ONLY)	
X3	TOE PLATE - CONNECTION BOLT - NUT	HOT DIP AASHTO M232 CLASS / ASTM A153 CLASS C / ASTM F2329 C OR MECHANICAL GALVANIZE TO AASHTO M298 CLASS 55 TYPE 2 / ASTM B695 CLASS 55 UNC OVER TAP NUTS AS SPECIFIED IN AASHTO 291 / ASTM A 563 HEAVY HEX HEAD ASTM A563DH OR SAE J995 GRADE 5	

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6

SDD 14B07 - 16n

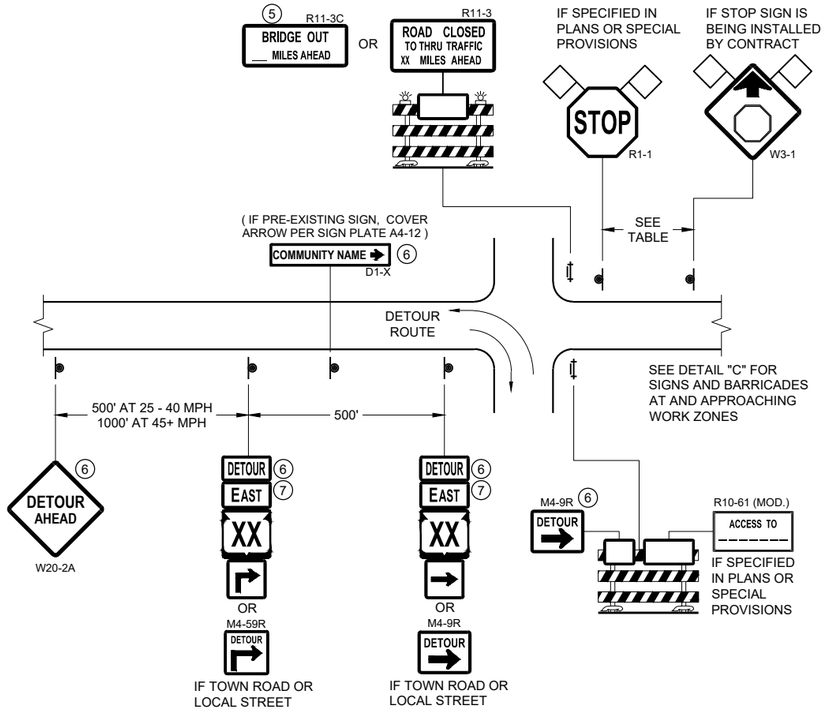
SDD 14B07 - 16n

CONCRETE BARRIER TEMPORARY PRECAST, 12' - 6"

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

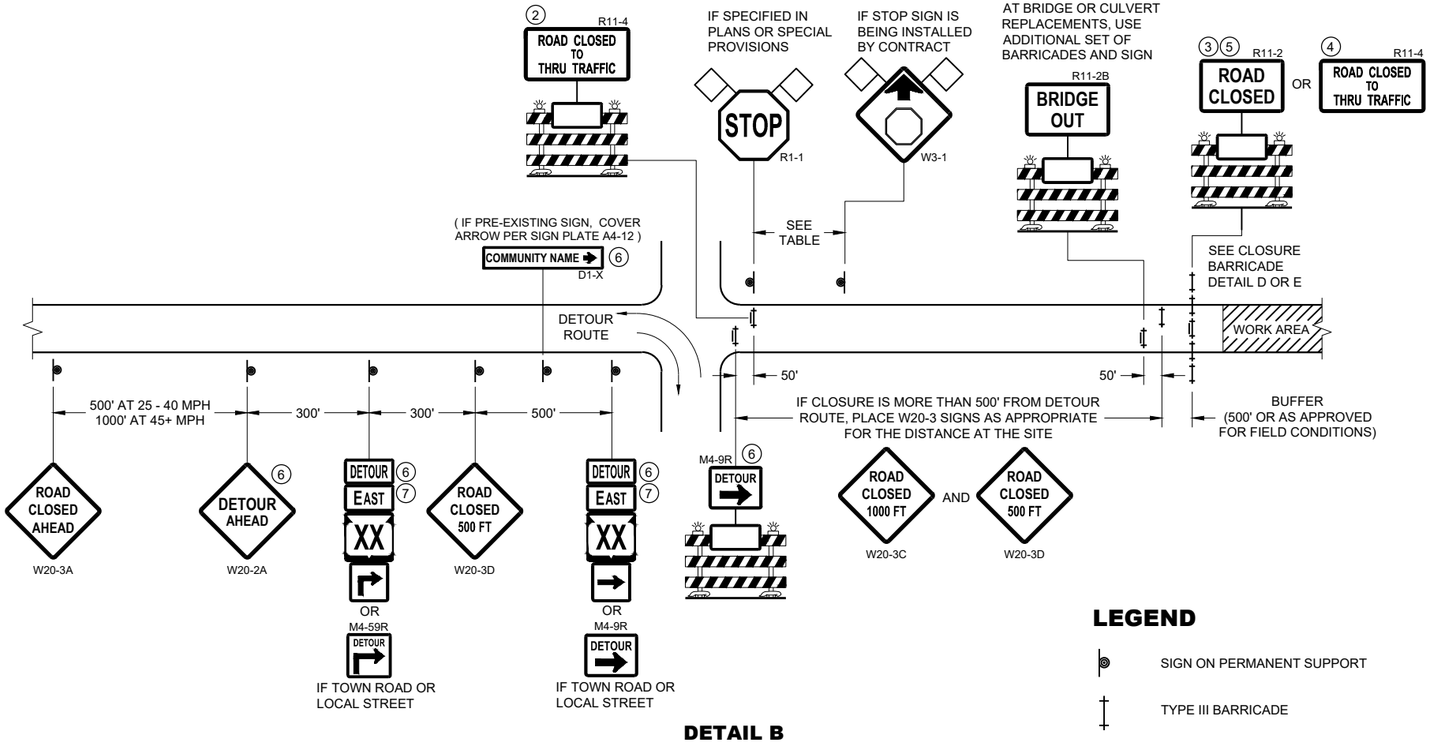
APPROVED
May 2022
DATE
/S/ Rodney Taylor
ROADWAY STANDARDS DEVE ENGINEER

FHWA



DETAIL A
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE GREATER THAN OR EQUAL TO ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)



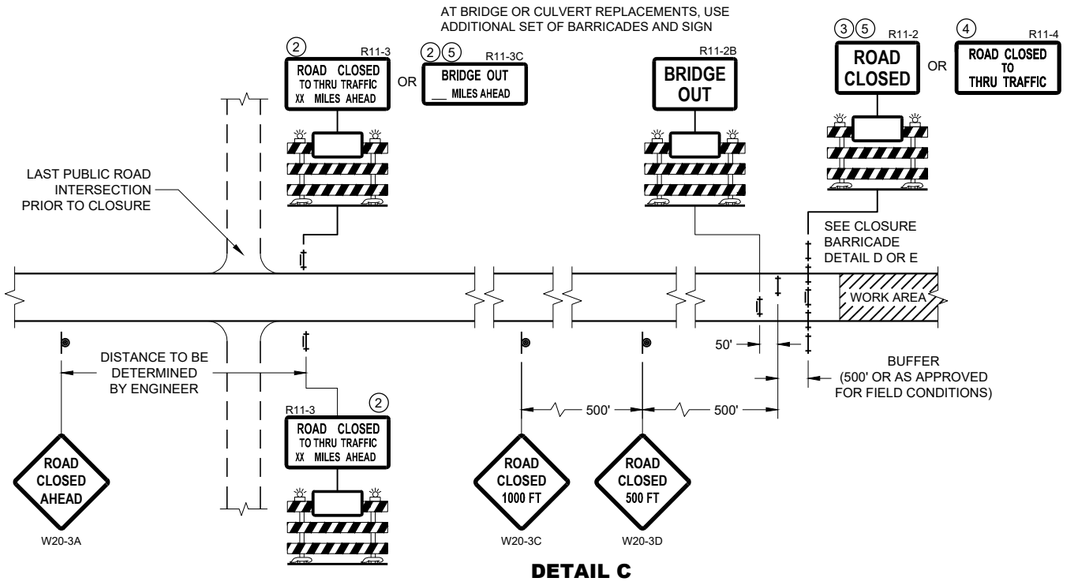
DETAIL B
MAINLINE CLOSURE WITH POSTED DETOUR

WORK ZONE LESS THAN ½ MILE FROM DETOUR ROUTE (1000 FEET IF URBAN)

LEGEND

- SIGN ON PERMANENT SUPPORT
- TYPE III BARRICADE
- TYPE III BARRICADE WITH ATTACHED SIGN
- TYPE "A" WARNING LIGHT (FLASHING)
- WORK AREA
- FLAGS, 16" X 16" MIN. (ORANGE)

DETOUR M4 - 8
EAST M3 - X
XX M1 - 4 OR XX M1 - 6 OR COUNTY X M1 - 5A
M05 - 1 OR M06 - 1



DETAIL C
MAINLINE CLOSURE, NO POSTED DETOUR

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

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

BARRICADES AND SIGNS FOR MAINLINE CLOSURES

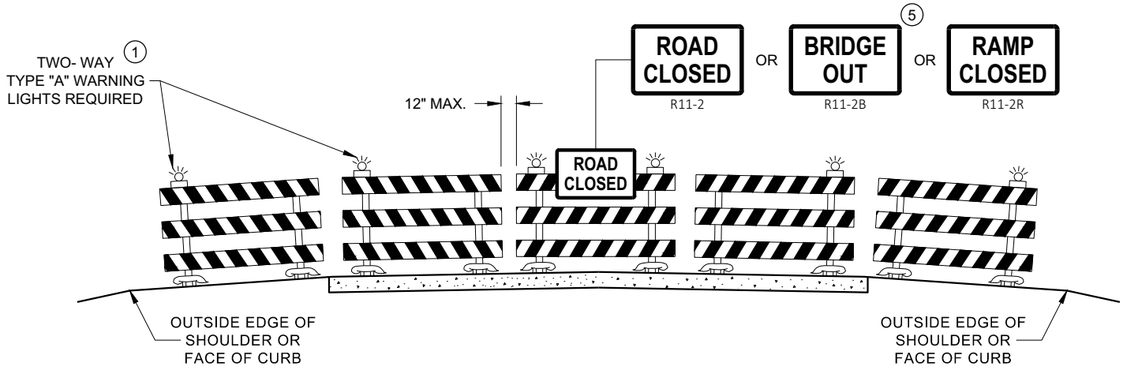
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

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

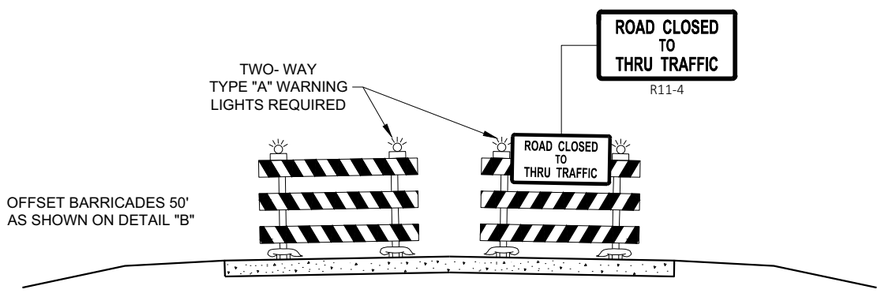
FHWA

SDD 15C02 - 08a

SDD 15C02 - 08a



DETAIL D
ROAD CLOSURE BARRICADE DETAIL
APPROACH VIEW



DETAIL E
LANE CLOSURE BARRICADE DETAIL
APPROACH VIEW

SEE SDD 15C2 - SHEET "a" FOR LEGEND

GENERAL NOTES

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

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

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

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

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

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

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

THE R11 - 2, R11 - 3, M4 - 9, R11 - 4, AND R10 - 61 SIGNS PLACED ON THE BARRICADES SHALL COVER NO MORE THAN THE TOP RAIL. THE SIGNS SHALL NOT COVER ANY PORTION OF THE MIDDLE RAIL OR BOTTOM RAILS.

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

ALL SIGNS SHALL BE 48" X 48" UNLESS OTHERWISE NOTED BELOW:
- R11 - 2 SHALL BE 48" X 30"
- R11 - 3 SHALL, R11 - 4 AND R10 - 61 SHALL BE 60 " X 30"
- M4 - 9 SHALL BE 30" X 24"
- M3 - X SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M4 - 8 SHALL BE 24" X 12" (36" X 18" IF NEEDED TO MATCH EXISTING SIGNS)
- M1 - 4, M1 - 5A AND M1 - 6 SHALL BE 24" X 24" (36" X 36" IF NEEDED TO MATCH EXISTING SIGNS)
- MO5 - 1 AND MO6 - 1 SHALL BE 21" X 21" (30" X 30" IF NEEDED TO MATCH EXISTING SIGNS)
- D1 - X SHALL BE AS SHOWN ON SPECIFIC PROJECT SIGNING DETAIL SHEETS.
- R1 - 1 SHALL BE 36" X 36"

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

(2) THESE SIGNS AND BARRICADES ARE NOT REQUIRED IF ROAD CLOSURE BEGINS AT AN INTERSECTION.

(3) FOR ROAD CLOSURE WITHOUT LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "D".

(4) FOR ROAD CLOSURE WITH LOCAL ACCESS TO PROJECT, SEE ROAD CLOSURE BARRICADE DETAIL "E".

(5) FOR BRIDGE OR CULVERT REPLACEMENTS, SUBSTITUTE "BRIDGE OUT" INSTEAD OF "ROAD CLOSED" ON R11 - 2 AND R11 - 3 SIGNS.

(6) INSTALL DETOUR AND COMMUNITY GUIDE SIGNS AND ARROWS ONLY IF SPECIFIED IN THE CONTRACT. IF THERE ARE EXISTING ROUTE MARKER ASSEMBLIES THAT WILL REMAIN IN PLACE, ADJUST THE LOCATION OF THE DETOUR ROUTE SIGNS TO CORRESPOND WITH THE EXISTING ASSEMBLIES. MODIFY EXISTING SIGNS WHERE POSSIBLE. SEE SPECIFIC PROJECT DETOUR SIGNING DETAIL SHEETS. IF DETOUR SIGNS ARE BEING INSTALLED BY OTHERS, PLACE THE CONTRACTED TRAFFIC CONTROL SIGNS TO ALLOW FOR PLACEMENT OF ALL WARNING, DETOUR AND GUIDE SIGNS AS SHOWN.

(7) "EAST" CARDINAL DIRECTION MARKERS AND RIGHT TURN ARROWS ARE SHOWN. USE OTHER CARDINAL DIRECTIONS AND ARROWS AS APPROPRIATE.

BARRICADES AND SIGNS FOR VARIOUS CLOSURES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
February 2020
DATE
/S/ Andrew Heidtke
WORK ZONE ENGINEE
FHWA

6

SDD 15C02 - 08b

GENERAL NOTES

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

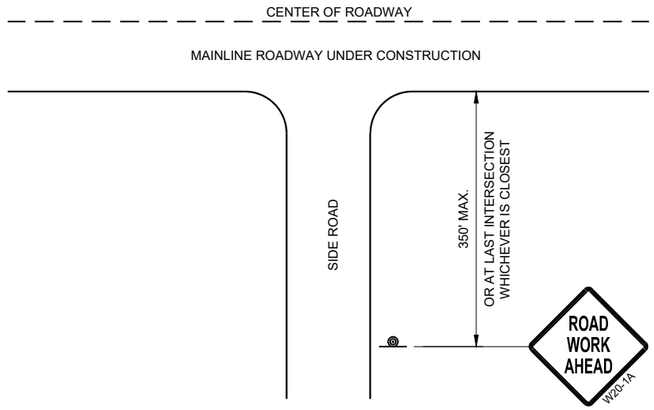
THE SPACING BETWEEN TRAFFIC CONTROL SIGNS SHOULD BE ADJUSTED TO NOT CONFLICT WITH AND SHOULD PROVIDE A MINIMUM OF 200 FEET (500 FEET DESIRABLE) CLEARANCE TO EXISTING SIGNS THAT WILL REMAIN IN PLACE.

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.

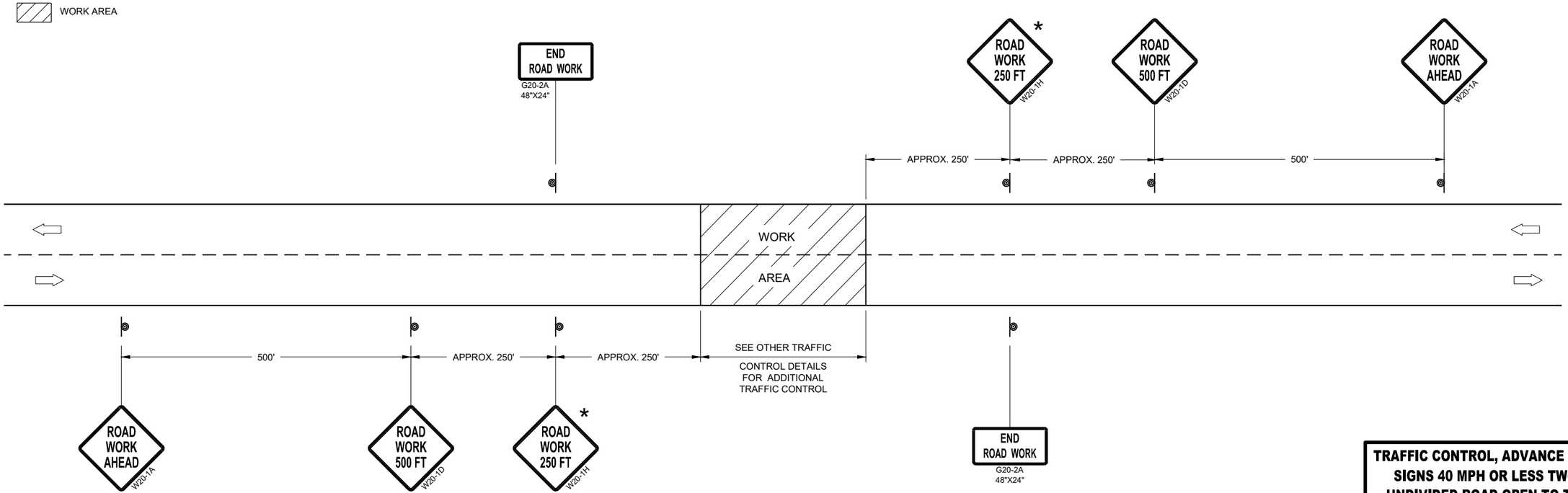
* THE THIRD W20-1 SIGN IS REQUIRED ONLY IF THERE IS AN INTERSECTION BETWEEN THE "ROAD WORK 500 FEET" SIGN AND THE WORK ZONE. ADJUST THE PLACEMENT OF THIS SIGN BASED ON INTERSECTION LOCATION AND OTHER FIELD CONDITIONS.



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

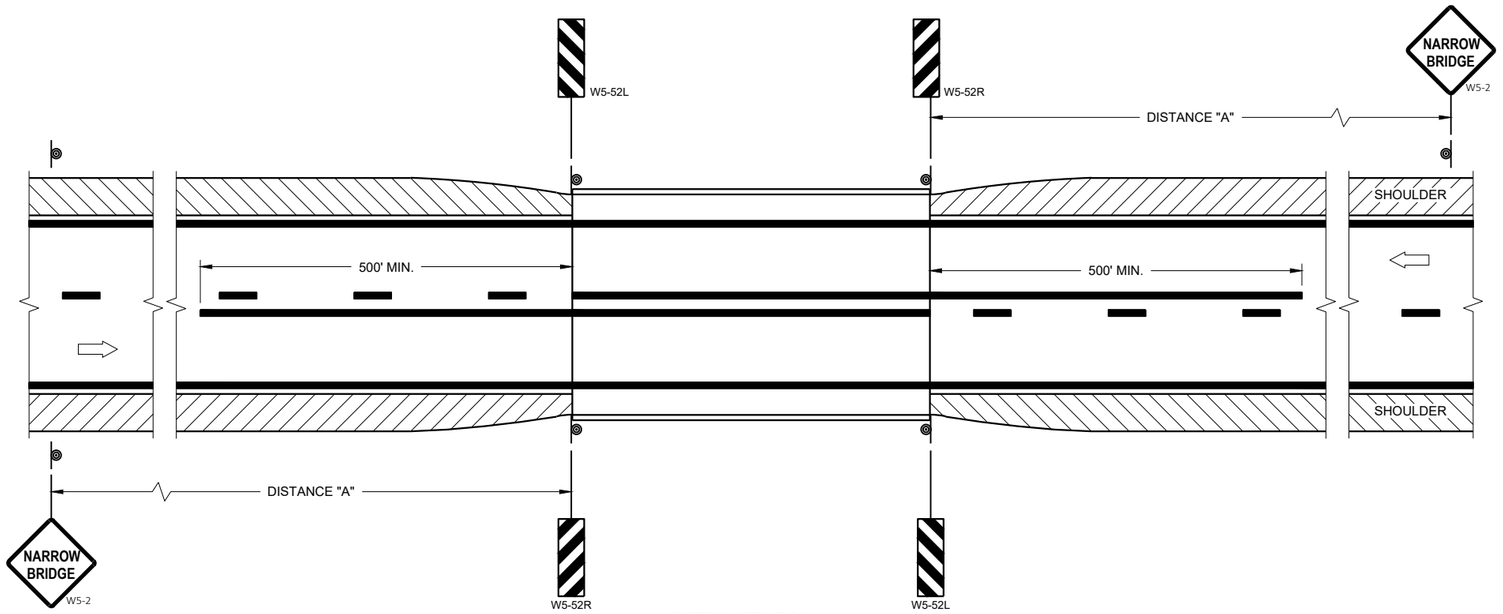
FHWA

6

SDD 15C05 - 05

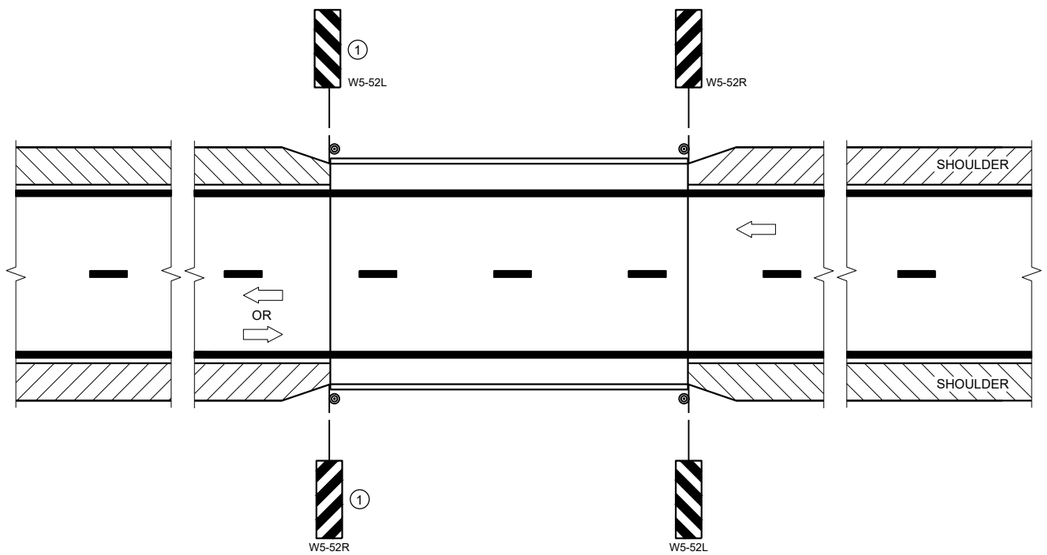
6

SDD 15C05 - 05



SITUATION 1

WARRANTING CRITERIA:
BRIDGE WIDTH IS AT LEAST 16 FEET BUT LESS THAN 24 FEET.



SITUATION 2

WARRANTING CRITERIA:
1. BRIDGE WIDTH IS AT LEAST 24 FEET AND
2. BRIDGE SHOULDER WIDTH IS LESS THAN 6 FEET

GENERAL NOTES

DETAILS OF TRAFFIC CONTROL DEVICES AND INSTALLATION NOT SHOWN ON THE DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS, THE SPECIAL PROVISIONS, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

LOCATE W5-52 SIGN POST(S) BEHIND GUARDRAIL WHEN PRESENT.

PLACE THE EDGE OF THE W5-52 SIGN IN LINE WITH FACE OF CURB OR PARAPET.

ON BRIDGE ONLY PROJECTS, PLACE 300 FEET OF EDGELINE.

OMIT EDGELINES ON ROADWAYS WITHOUT EXISTING EDGELINES.

(1) OMIT ON ONE-WAY TRAVELED WAYS.

LEGEND

SIGN ON PERMANENT SUPPORT

DIRECTION OF TRAFFIC

DISTANCE TABLE

POSTED OR 85TH PERCENTILE SPEED	DISTANCE "A"
25	150'
30	200'
35	250'
40	300'
45	400'
50	550'
55	700'

SIGNING AND MARKING FOR TWO LANE BRIDGES

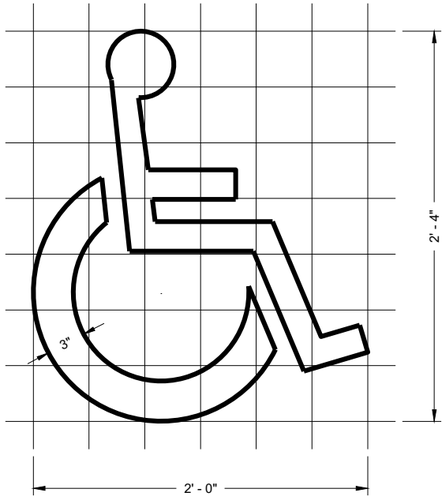
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022 — DATE
/S/ Jeannie Silver — STATE SIGNING AND MARKING ENGINEER
FHWA

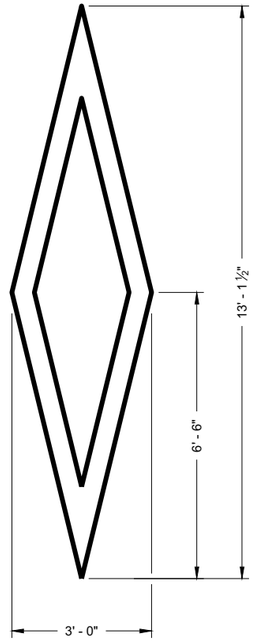
6
SDD 15C06 - 10

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.



HANDICAP SYMBOL



PREFERENTIAL LANE SYMBOL

6

6

SDD 15C07 - 15a

SDD 15C07 - 15a

PAVEMENT MARKING SYMBOLS

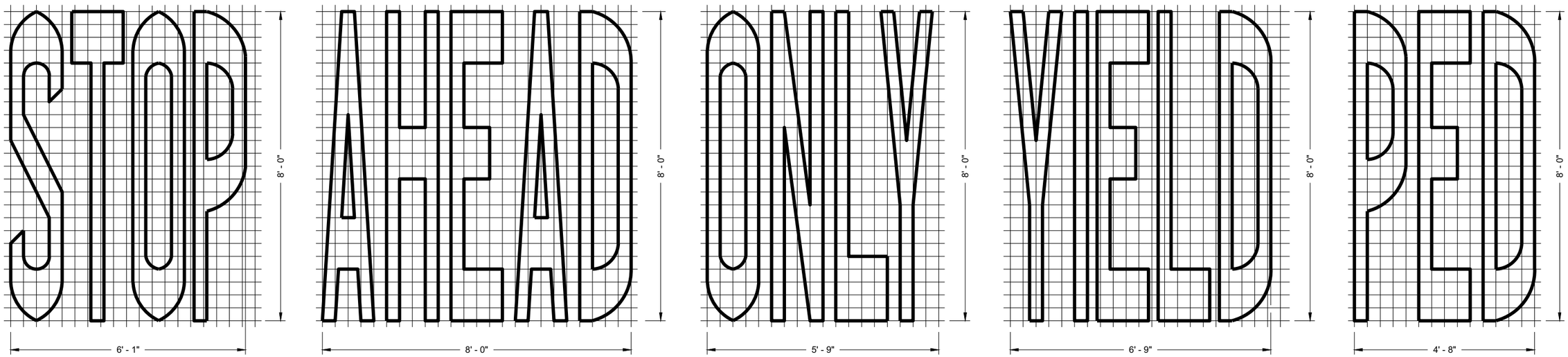
STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

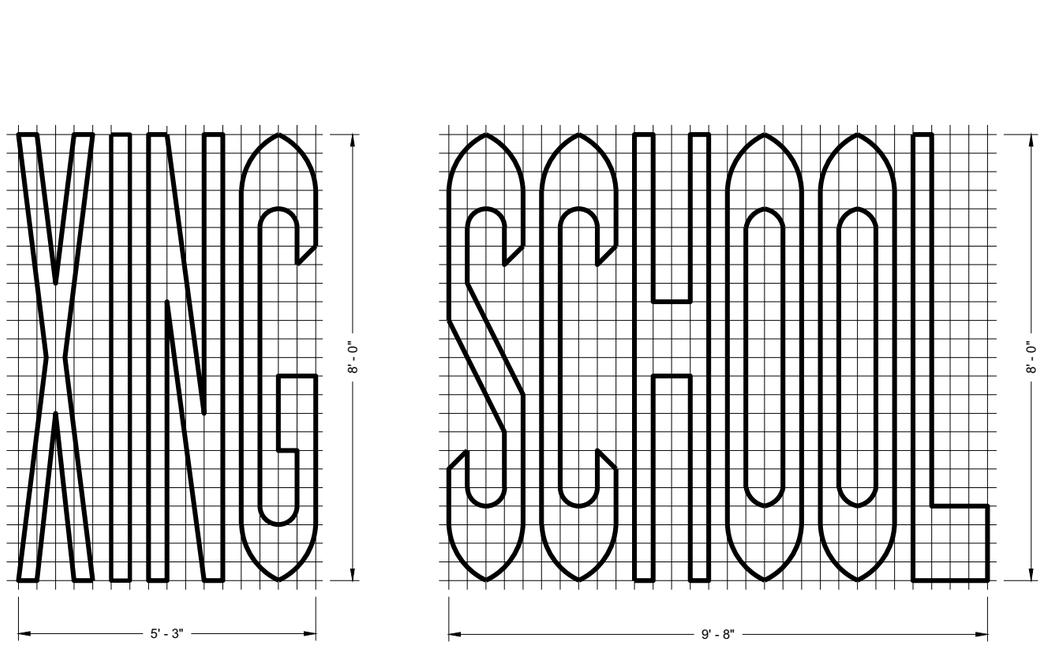
APPROVED

November 2019
DATE

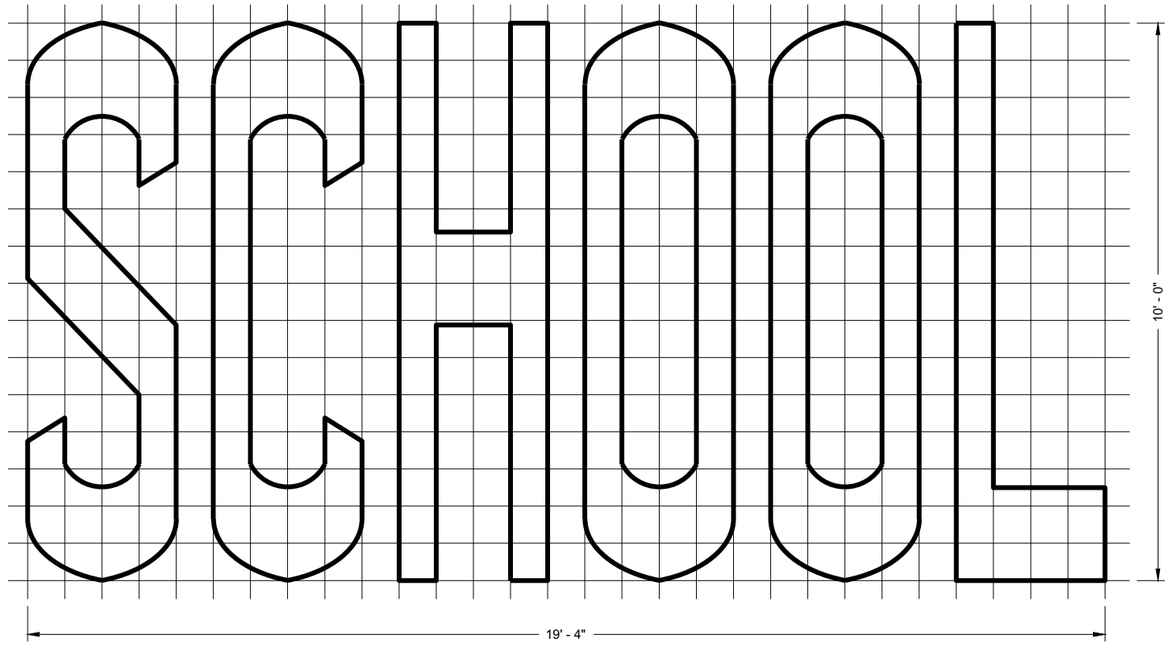
/S/ Matthew Rauch
STATE SIGNING AND MAR ENGINEER

FHWA





SINGLE LANE



TWO - LANE

GENERAL NOTES

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

PAVEMENT MARKING WORDS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019
DATE

/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6

SDD 15C07 - 15b

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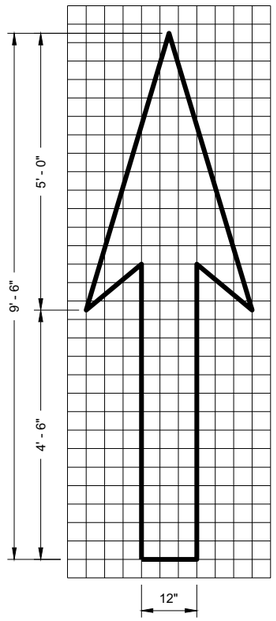
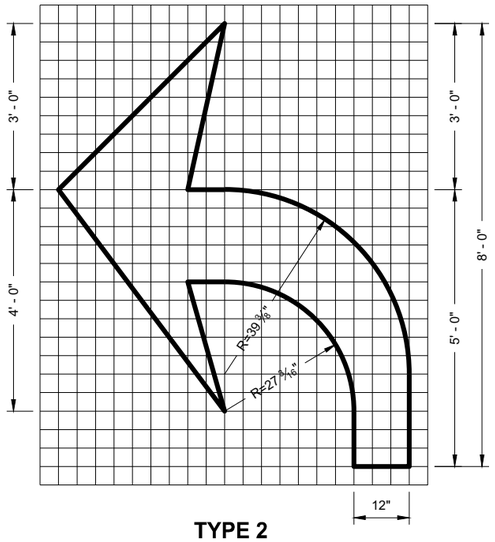
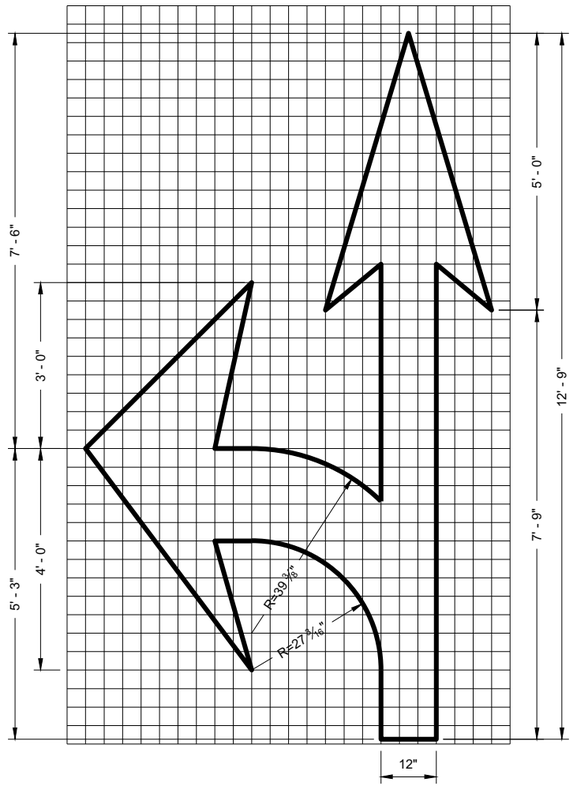
SDD 15C07 - 15b



TYPE 1



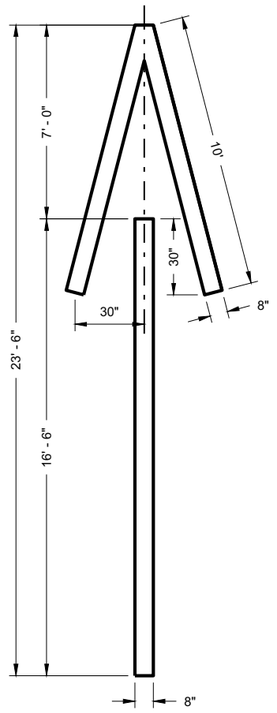
TYPE 2



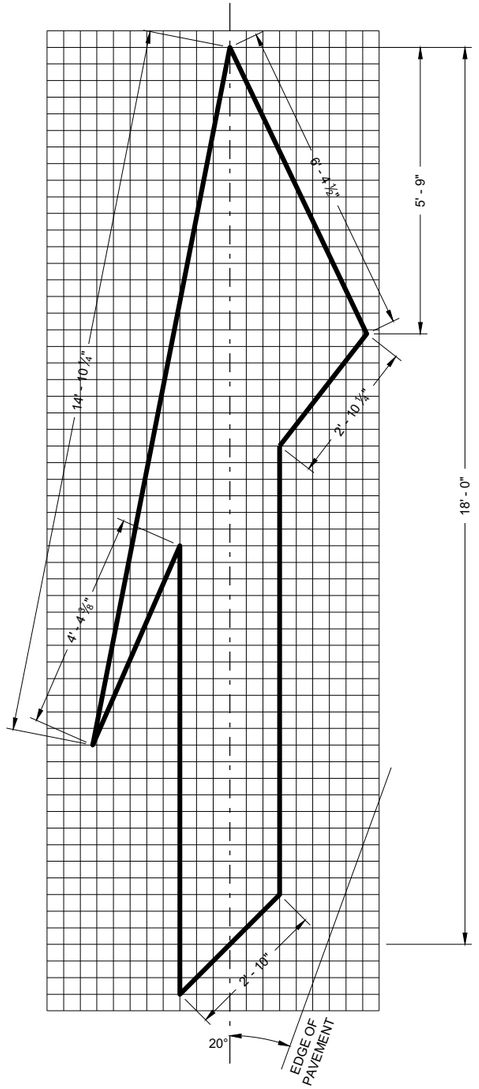
TYPE 3

GENERAL NOTES

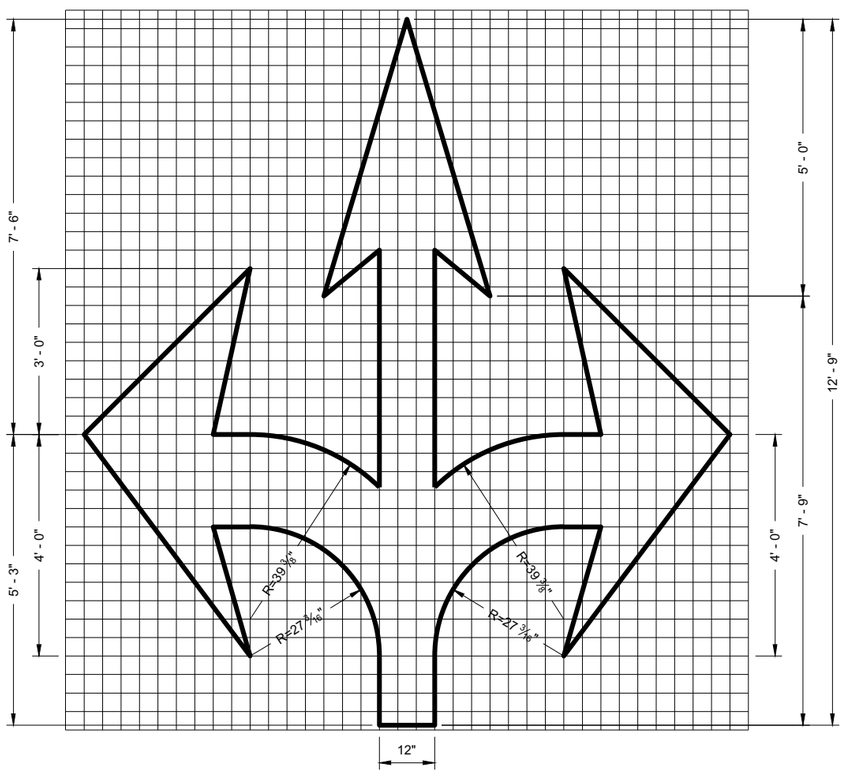
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



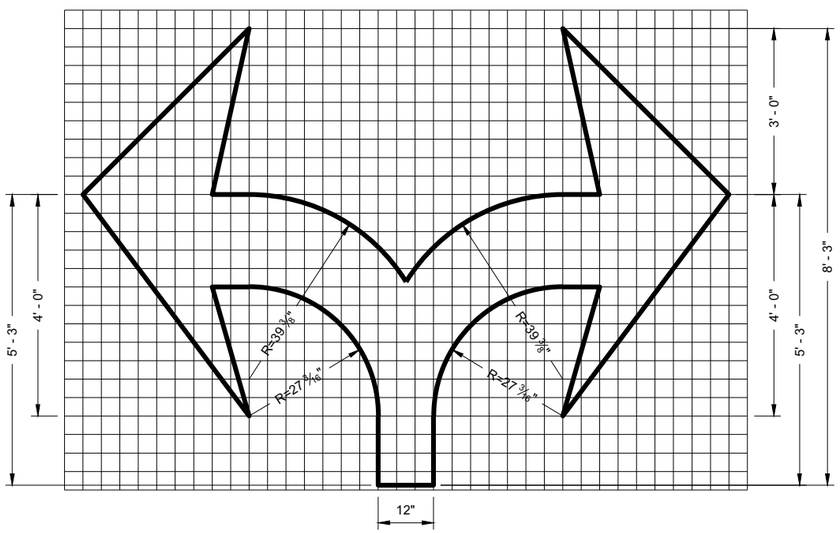
TYPE 4



TYPE 5 LANE DROP ARROW



TYPE 6



TYPE 7

PAVEMENT MARKING ARROWS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MARKING ENGINEER

FHWA

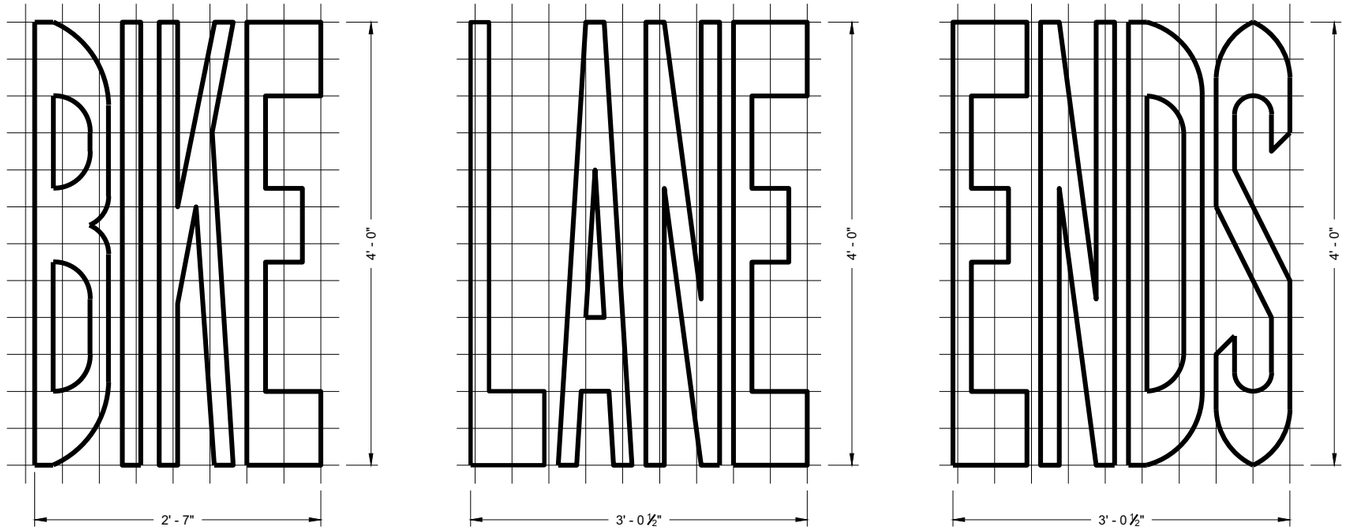
6

SDD 15C07 - 15c

6

SDD 15C07 - 15c

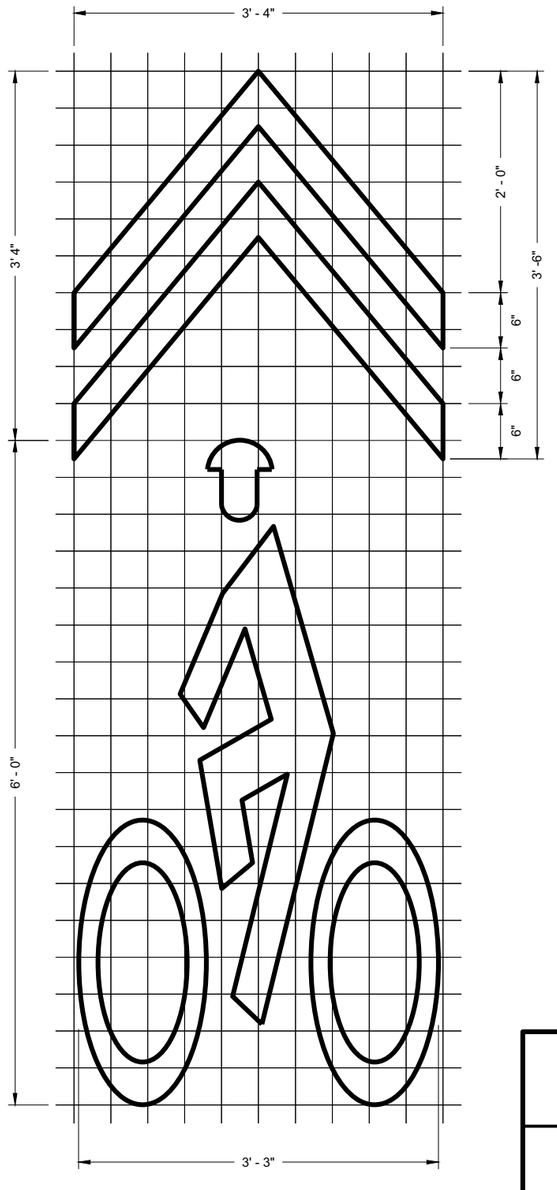
SDD 15C7-e Pavement Marking For Bike Lanes



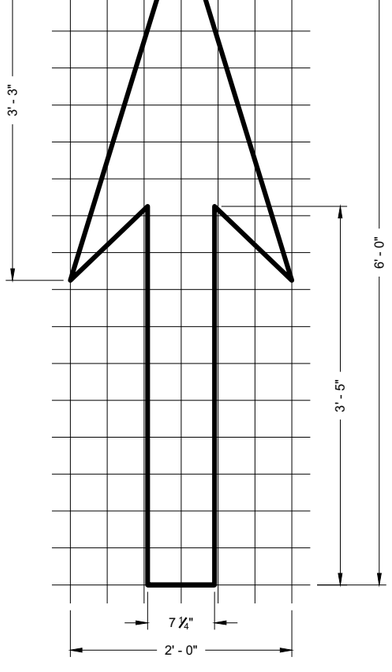
BIKE LANE WORDS

GENERAL NOTES

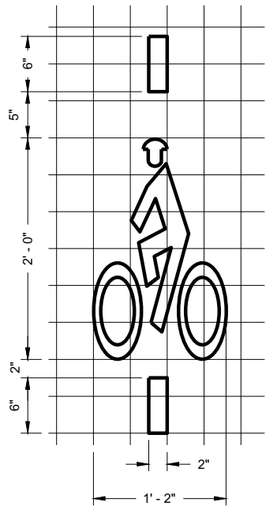
DETAILS OF INSTALLATION, MATERIALS AND WORKMANSHIP NOT SHOWN ON THIS DRAWING SHALL CONFORM TO THE PERTINENT REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND APPLICABLE SPECIAL PROVISIONS.



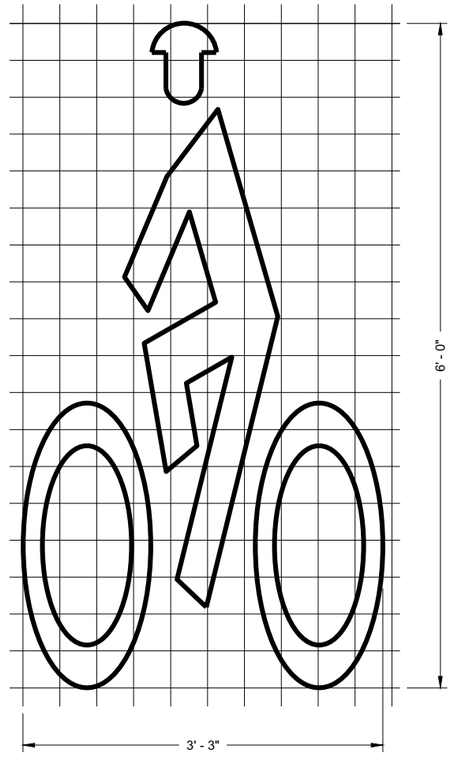
BIKE LANE SYMBOL FOR SHARED LANE



BIKE LANE ARROW



BICYCLE DETECTOR PAVEMENT MARKING



BIKE LANE SYMBOL

PAVEMENT MARKING FOR BIKE LANES

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
November 2019 — DATE
/S/ Matthew Rauch — STATE SIGNING AND MAF ENGINEER
FHWA

SDD 15C07 - 15e

SDD 15C07 - 15e

GENERAL NOTES

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

(1) LOCATE THE NO PASSING ZONE W14-3 SIGN WITHIN 50 FEET OF THE "T" MARKING

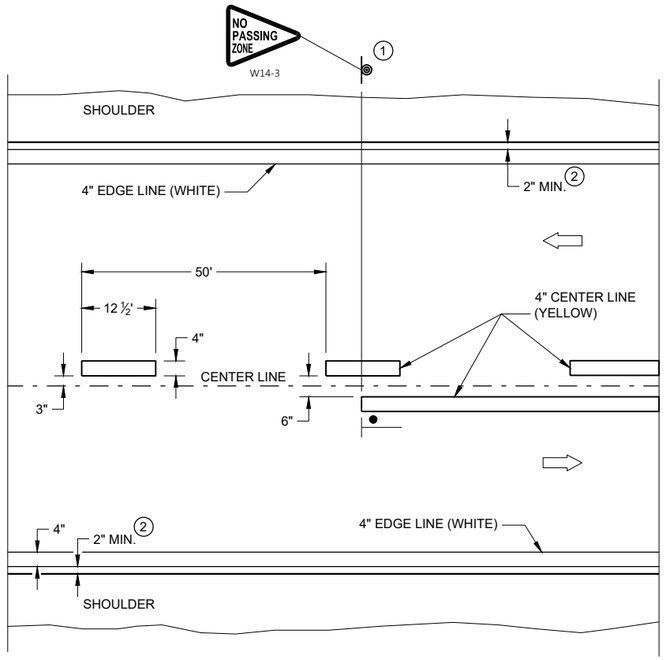
(2) MEASURE FROM EDGE OF MARKING TO JOINT LINE. THIS DOES NOT INCLUDE SPACE NEEDED FOR GROOVING OPERATIONS.

LEGEND

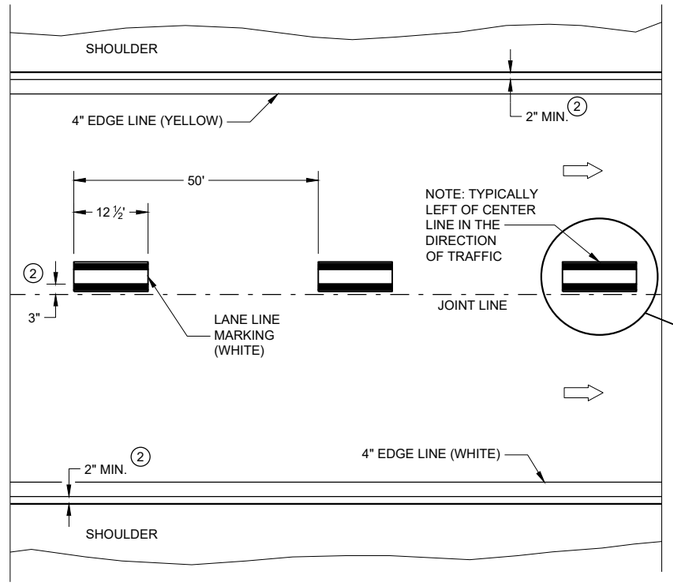
"T" MARKING

SIGN ON PERMANENT SUPPORT

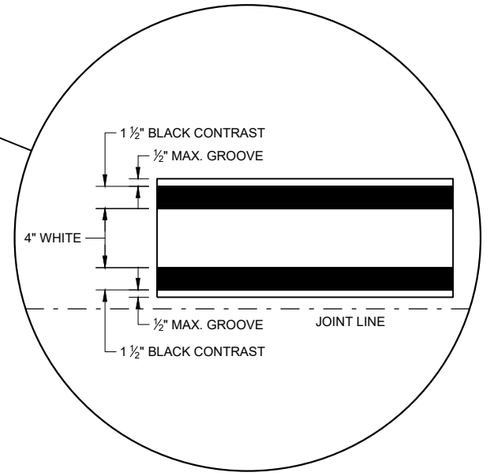
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



PERMANENT PAVEMENT MARKING

PERMANENT LONGITUDINAL PAVEMENT MARKINGS

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
May 2022
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M
ENGINEER

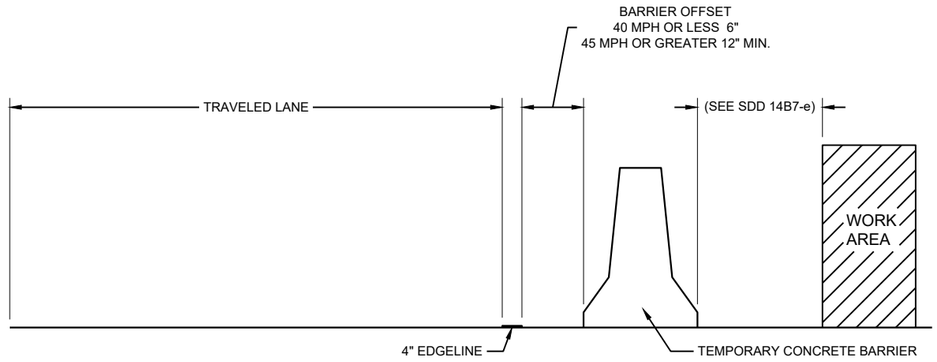
FHWA

6

SDD 15C08 - 22a

6

SDD 15C08 - 22a



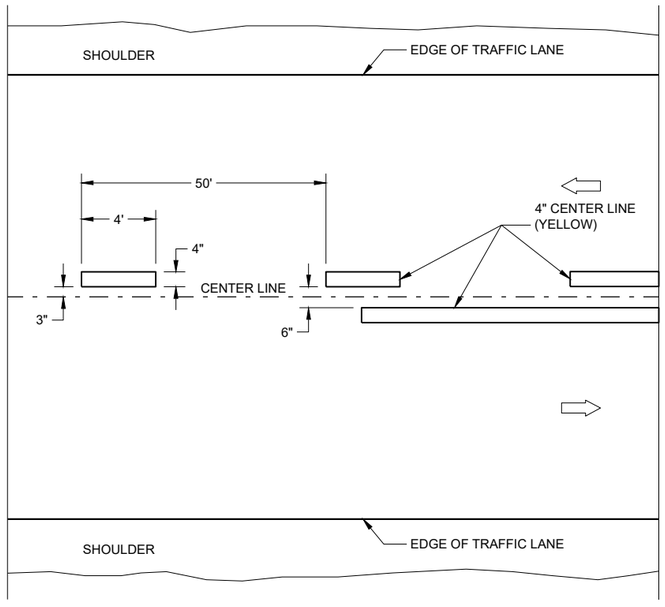
TEMPORARY BARRIER OFFSET FROM EDGELINE

GENERAL NOTES

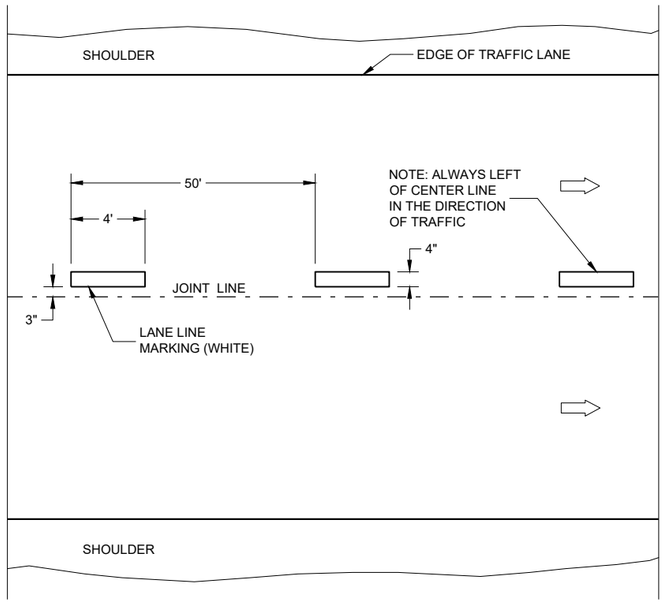
DETAILS OF CONSTRUCTION NOT SHOWN ON THIS DRAWING SHALL CONFORM TO STANDARD SPECIFICATIONS AND SPECIAL PROVISIONS.

LEGEND

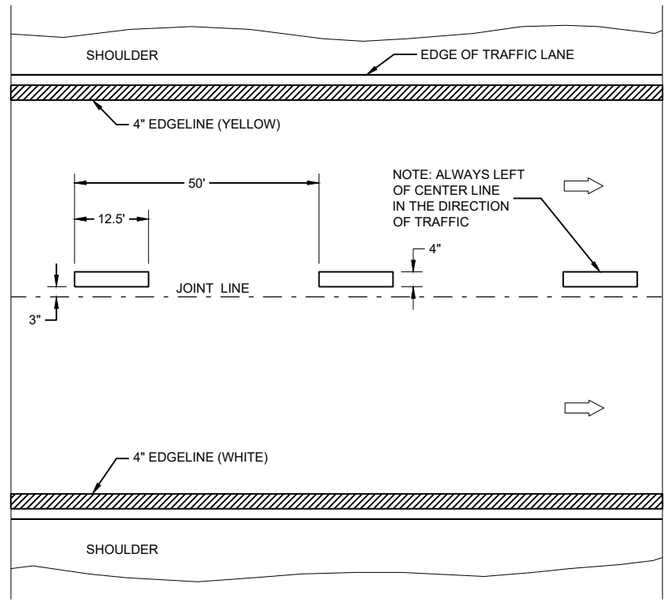
DIRECTION OF TRAFFIC



TWO WAY TRAFFIC



ONE WAY TRAFFIC



FREEWAYS AND EXPRESSWAYS

TEMPORARY PAVEMENT MARKING

TEMPORARY LONGITUDINAL PAVEMENT MARKING

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED

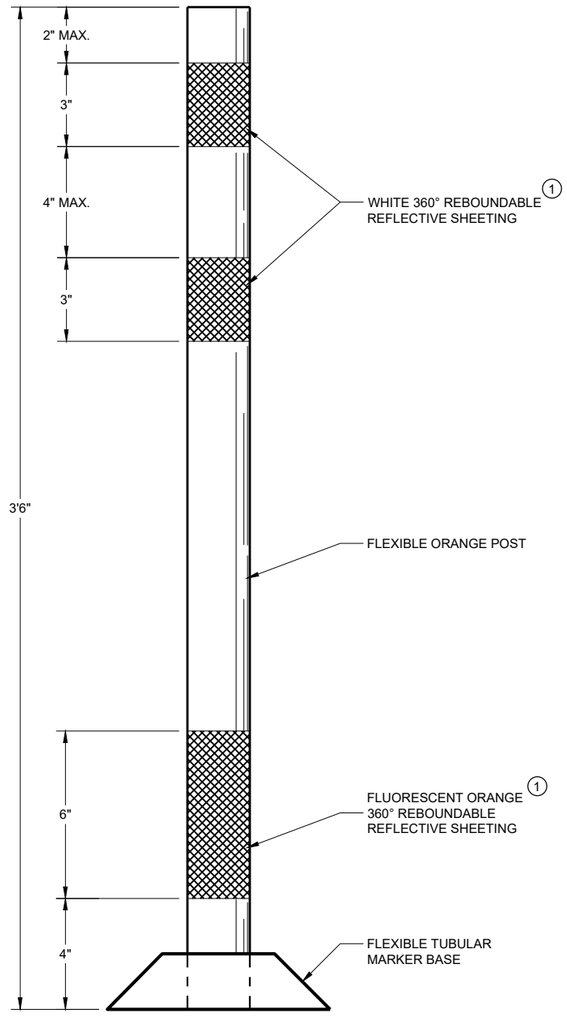
May 2022
DATE

/S/ Jeannie Silver
STATEWIDE SIGNING AND M
ENGINEER

FHWA

6

SDD 15C08 - 22b



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

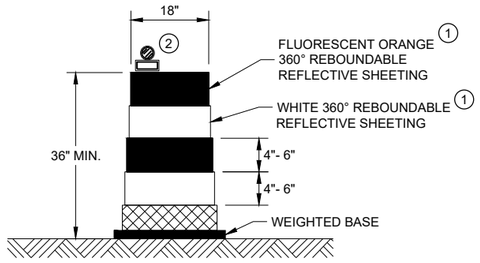
APPROVED
May 2021 — DATE
/S/ Andrew Heidtke — WORK ZONE ENGINEER
FHWA

SDD 15C11 - 09a

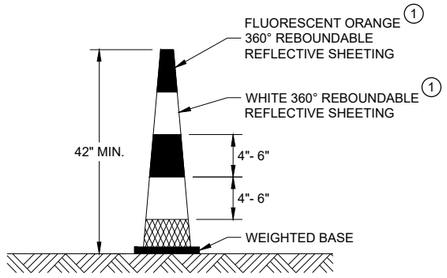
SDD 15C11 - 09a

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.

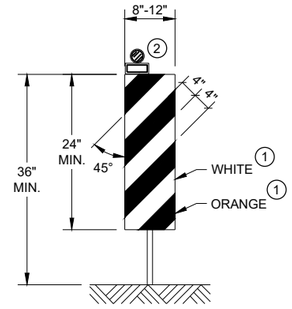


DRUM



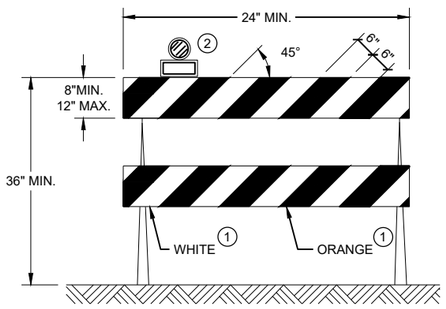
42" CONE

DO NOT USE IN TAPERS
½ SPACING OF DRUMS



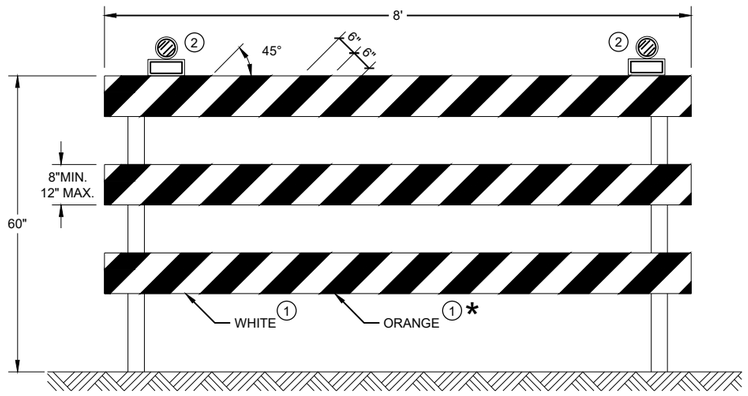
VERTICAL PANEL

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
May 2021
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

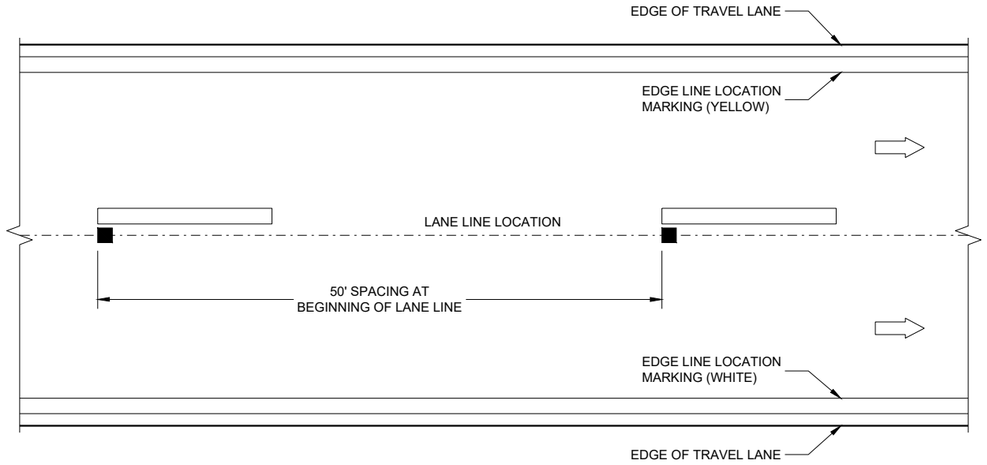
FHWA

6

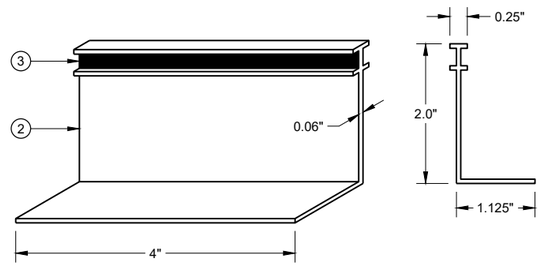
SDD15C11 - 09b

6

SDD15C11 - 09b



LONGITUDINAL PLACEMENT 4 - INCH LANE LINE



ISOMETRIC VIEW **SIDE VIEW**

TEMPORARY RAISED PAVEMENT MARKER, TYPE II

GENERAL NOTES

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

COLOR OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II, SHALL MATCH THE COLOR OF THE MARKING THEY SUPPLEMENT.

PLACEMENT OF TEMPORARY RAISED PAVEMENT MARKERS ON EDGE LINES IS OPTIONAL. IF PLACED ON EDGE LINES, MAXIMUM SPACING SHALL BE 50 FEET.

PROVIDE SINGLE OR MULTI-COVER TEMPORARY RAISED PAVEMENT MARKERS AS SHOWN ON PLAN.

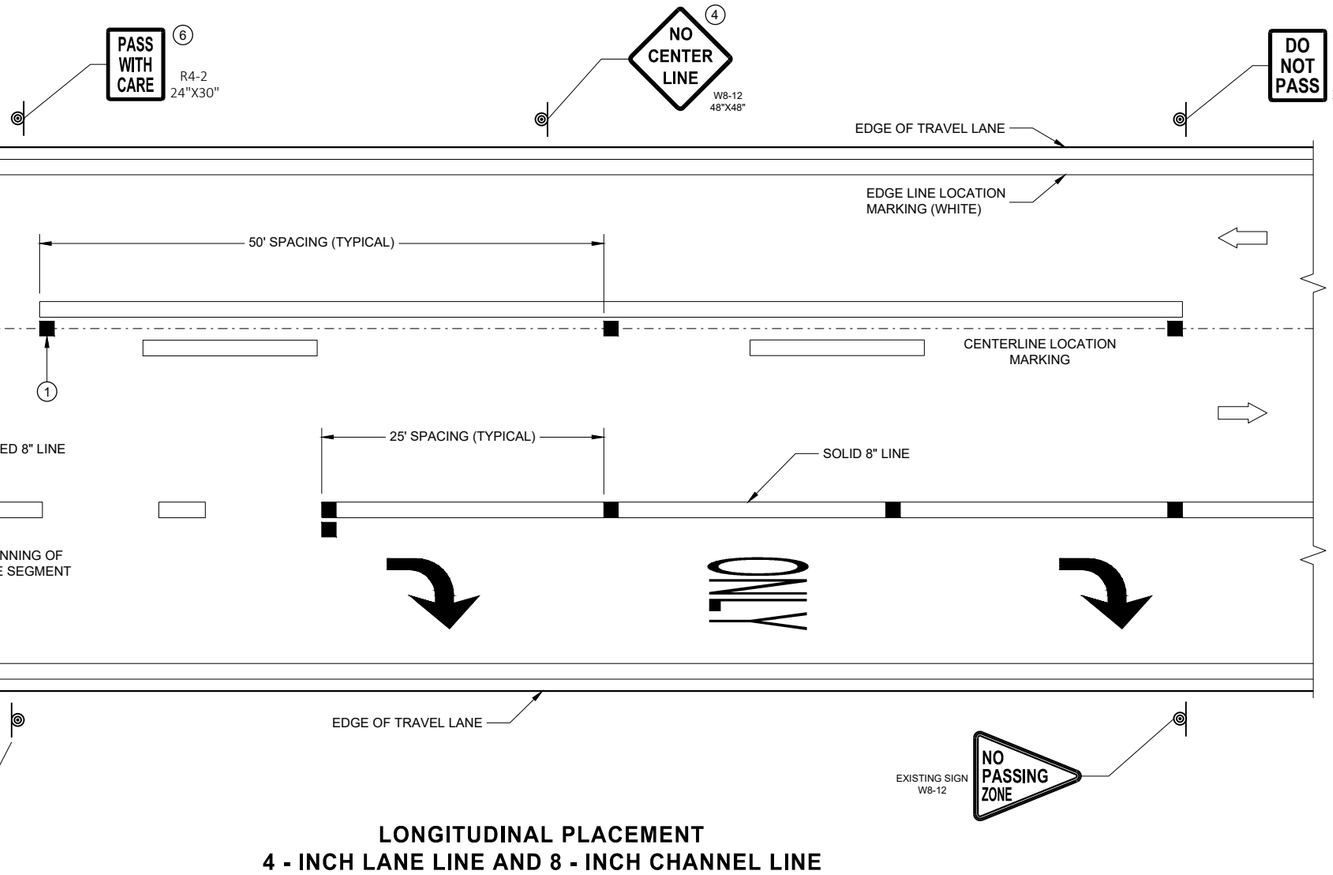
MARK "T"s ON PAVEMENT FOR REESTABLISHING NO PASSING ZONES.

SAME DAY TEMPORARY PAVEMENT MARKING MAY BE USED IN LIEU OF TEMPORARY RAISED PAVEMENT MARKERS, TYPE II.

SIGNS THAT WILL BE IN PLACE LESS THAN SEVEN CONTINUOUS DAYS AND NIGHTS OR THAT WILL BE PLACED IN A CLOSED LANE MAY BE MOUNTED ON PORTABLE SUPPORTS.

IF TEMPORARY SAME DAY PAVEMENT MARKING IS USED, ENSURE PROPOSED PAVEMENT MARKING ARE PLACED IN THE EXACT LOCATIONS AS THE EXISTING MARKINGS, USING A MINIMAL AMOUNT OF TEMPORARY RAISED MARKERS, TYPE II OR OTHER METHODS AS APPROVED BY THE ENGINEER.

IF ROADWAY IS DETOURED DURING CONSTRUCTION, THE "DO NOT PASS, "PASS WITH CARE" AND "NO CENTERLINE" SIGNS MAY BE OMITTED, PROVIDING A LIQUID MARKING IS INSTALLED BEFORE THE ROADWAY IS REOPENED TO TRAFFIC.



LONGITUDINAL PLACEMENT 4 - INCH LANE LINE AND 8 - INCH CHANNEL LINE

1. FOR DOUBLE SOLID YELLOW, PLACE THE MARKERS BETWEEN THE LINES.
2. MARKERS SHALL BE OF POLYURETHANE MATERIAL.
3. MARKERS SHALL HAVE A MINIMUM SIZE REFLECTIVE SURFACE OF 4 INCH WIDTH X 0.25 INCH HEIGHT.
4. "NO CENTER LINE" SIGNS SHALL BE PLACED AT THE BEGINNING OF PROJECT, AT TWO MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS.
5. "DO NOT PASS" SIGNS SHALL BE INSTALLED AT THE BEGINNING OF NO PASSING ZONES. ADDITIONAL "DO NOT PASS" SIGNS SHALL BE INSTALLED AT ONE MILE INTERVALS AND AFTER STATE AND COUNTY HIGHWAY INTERSECTIONS WITHIN THE NO PASSING ZONE.
6. "PASS WITH CARE" SIGNS SHALL BE PLACED AT THE DOWNSTREAM END OF NO PASSING ZONES.

LEGEND

- TEMPORARY RAISED PAVEMENT MARKER, TYPE II
- SIGN ON PORTABLE OR PERMANENT SUPPORT
- DIRECTION OF TRAFFIC.

STANDARD APPLICATION FOR TEMPORARY RAISED PAVEMENT MARKERS, TYPE II

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

APPROVED
6/2017 DATE
/S/ Matthew Rauch
STATE SIGNING AND MAF ENGINEER

FHWA

6

SDD 15C34 - 03

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.

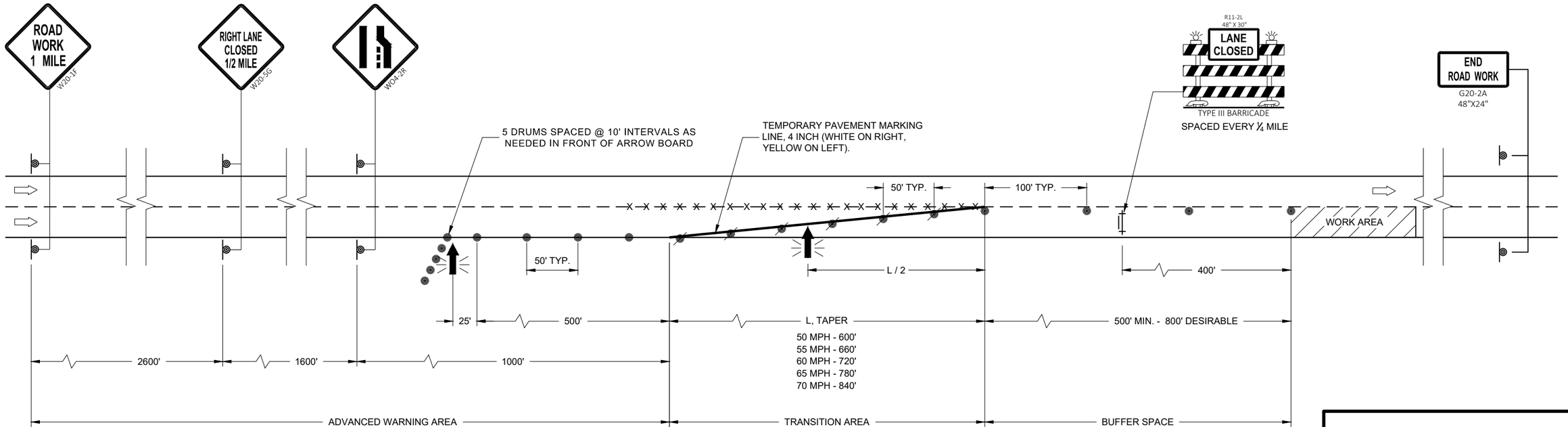
WARNING LIGHTS ARE NOT REQUIRED IF THE LANE CLOSURE IS A DAYTIME ONLY OPERATION.

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
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEE

FHWA

6

SDD 15D12 - 10a

6

SDD 15D12 - 10a

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)
- FLASHING ARROW BOARD
- DIRECTION OF TRAFFIC
- REMOVE PAVEMENT MARKING (SEE GENERAL NOTES)
- WORK AREA

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.

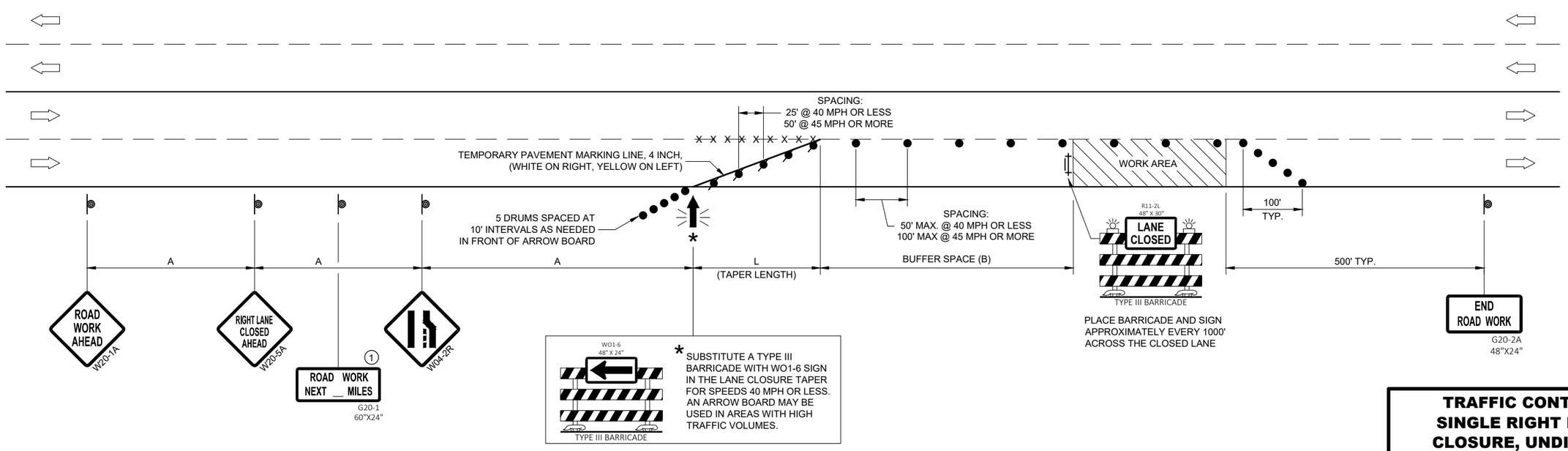
BARRICADES IN A CLOSED LANE THAT MUST BE MOVED FOR A WORK OPERATION SHALL BE IMMEDIATELY REESTABLISHED UPON COMPLETION OF THE OPERATION, OR FOR CONTINUING OPERATIONS, AT THE END OF EACH WORKING DAY.

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
February 2022
DATE

/S/ Andrew Heidtke
WORK ZONE ENGINEER

FHWA

SDD 15D20 - 06b

SDD 15D20 - 06b

STRUCTURE P-40-875
N. HOLTON ST. VIADUCT OVER MILWAUKEE RIVER

STATE PROJECT NUMBER

2984-12-73

NOTES:

LIST OF DRAWINGS CAN BE FOUND ON SHEET 4 "CROSS SECTIONS".

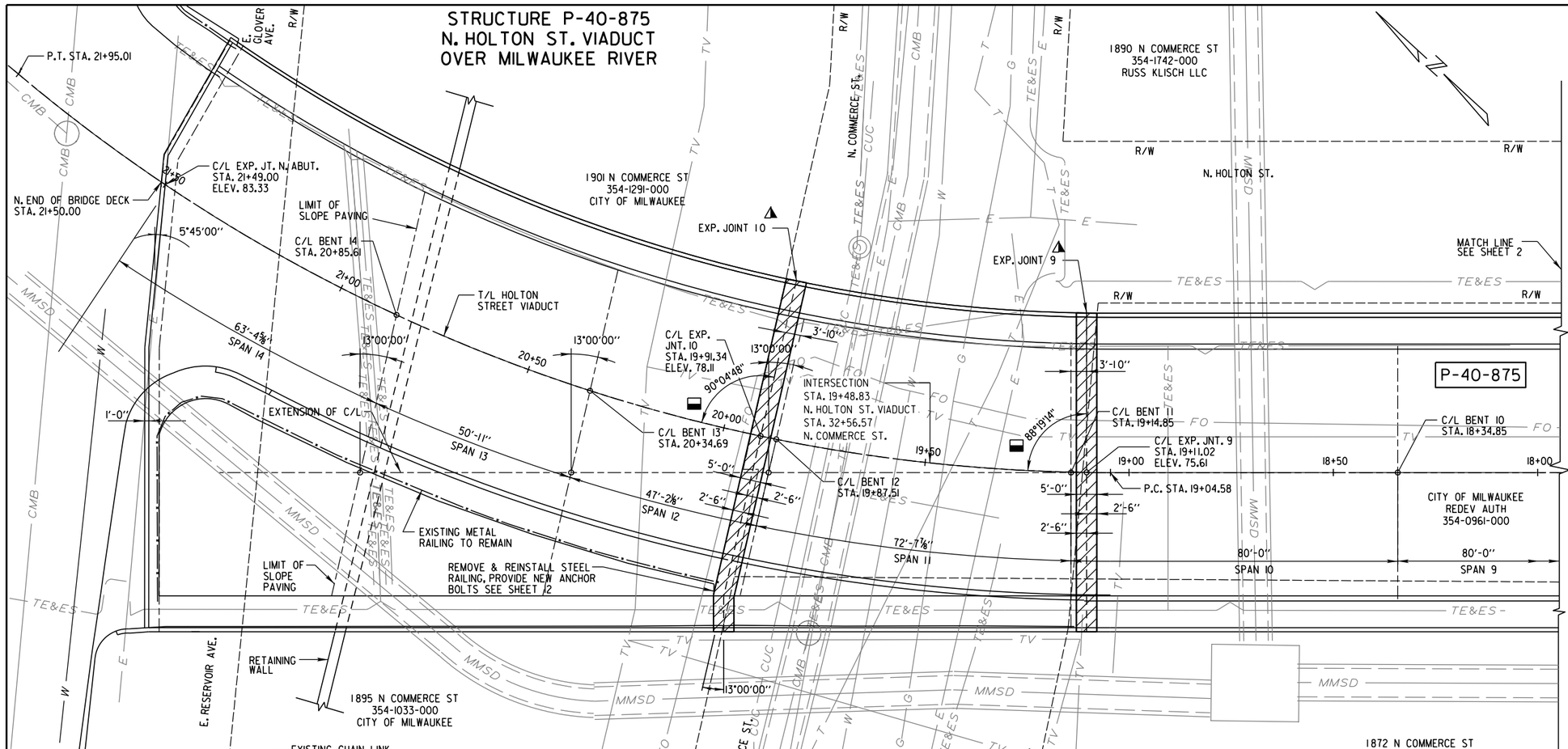
EXISTING UTILITIES TO REMAIN.

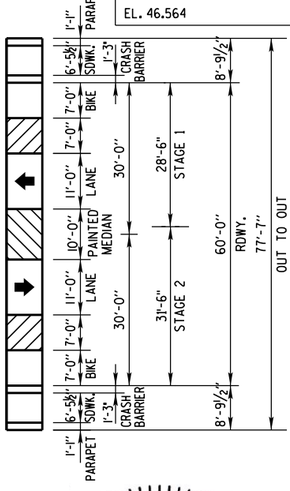
WISDOT BRIDGE OFFICE CONTACT:
AARON BONK 608-261-0261

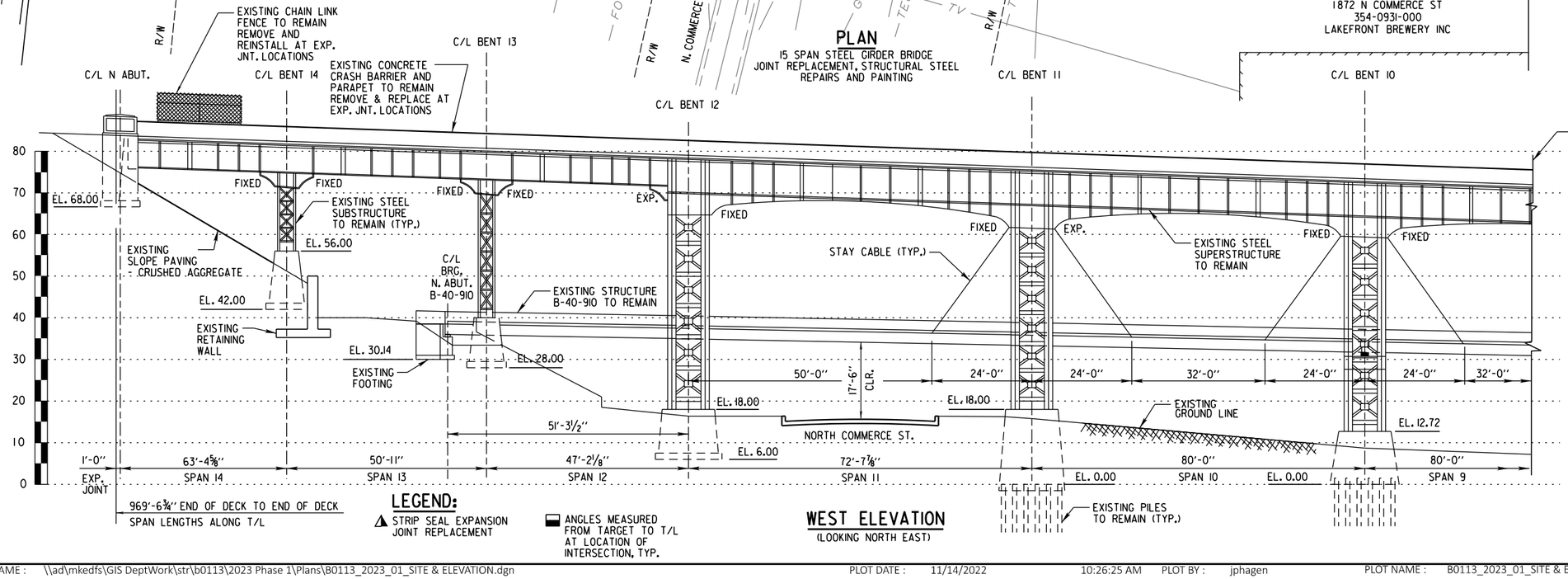
CITY OF MILWAUKEE CONTACT:
JONATHAN THOMAS 414-286-0463

BENCH MARK: N. VAN BUREN ST./N. HOLTON ST. VIADUCT & E. BRADY ST. (N.W. CORNER)

EL. 46.564







PLAN

15 SPAN STEEL GIRDER BRIDGE
JOINT REPLACEMENT, STRUCTURAL STEEL REPAIRS AND PAINTING

WEST ELEVATION

(LOOKING NORTH EAST)

LEGEND:

- ⧋ STRIP SEAL EXPANSION JOINT REPLACEMENT
- ⬓ ANGLES MEASURED FROM TARGET TO T/L AT LOCATION OF INTERSECTION, TYP.

WISCONSIN
JONATHAN D. THOMAS
E-42372
MILWAUKEE, WI
PROFESSIONAL ENGINEER
11/14/2022

NO.	DATE	REVISION	BY

ORIGINAL PLANS PREPARED BY
CITY OF MILWAUKEE
DEPARTMENT OF PUBLIC WORKS
INFRASTRUCTURE SERVICES DIVISION

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

ACCEPTED SDR 11/14/22
CHIEF STRUCTURES DESIGN ENGINEER — DATE

STRUCTURE P-40-875

N. HOLTON ST. OVER MILWAUKEE RIVER

COUNTY	TOWN/CITY/VILLAGE
MILWAUKEE	MILWAUKEE

DESIGN SPEC. REHABILITATION N/A

DESIGNED BY	DESIGN CK'D.	S.D.B. H.M.D.	DRAWN BY	CK'D.	PLANS J.P.H. H.M.D.
J.P.H.			G.J.R.		

SITE PLAN AND ELEVATION (1 OF 3)

SHEET 1 OF 47
64

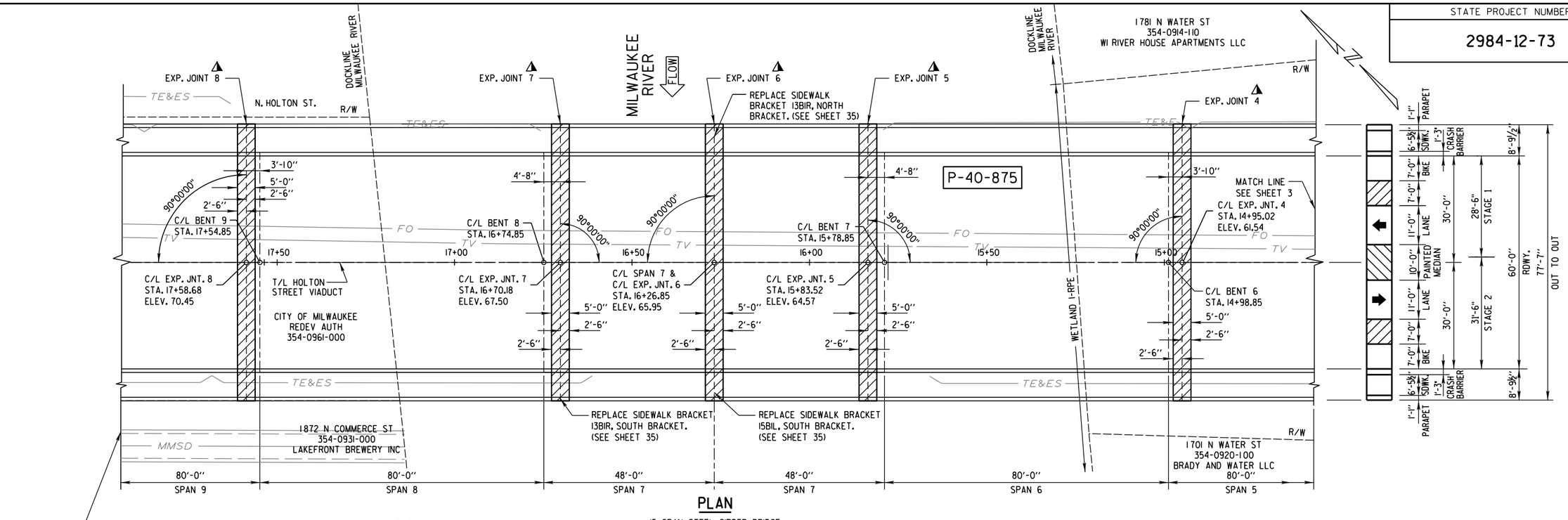
REVISED DATE: 10-27-2022 BY JC

8

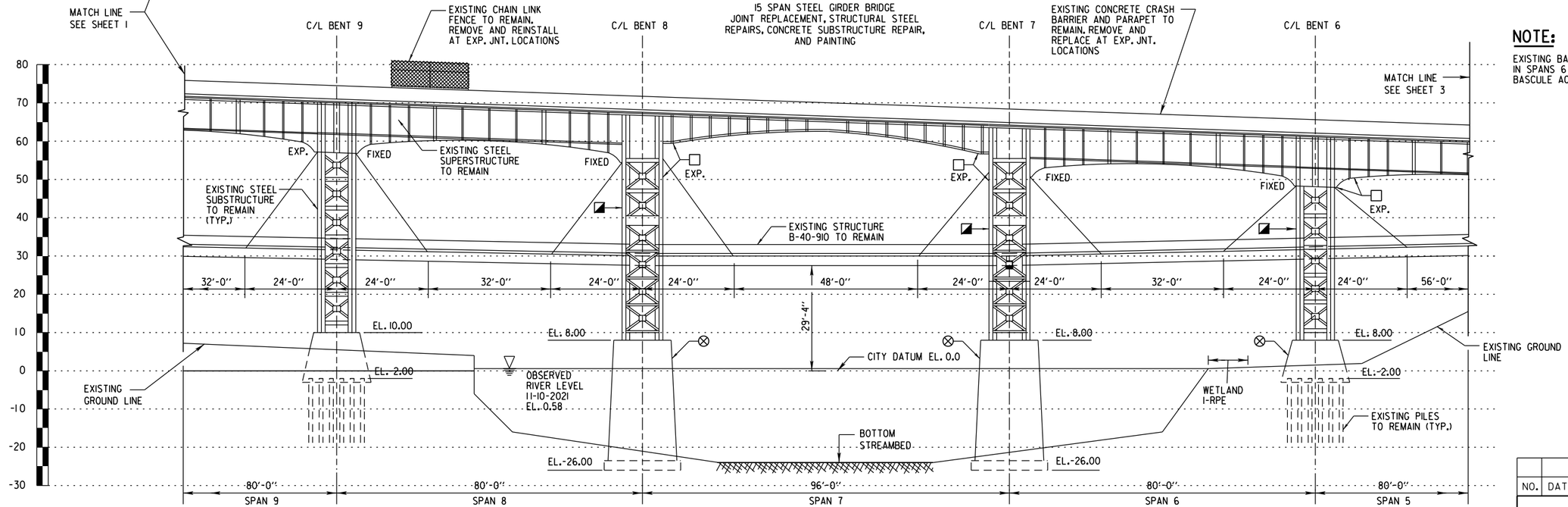
8

STATE PROJECT NUMBER

2984-12-73



PLAN



WEST ELEVATION

(LOOKING NORTH EAST)

NOTE:

EXISTING BASCULE ACCESS PLATFORMS ARE LOCATED IN SPANS 6 AND 8. SEE "SPV.0060.586 REMOVING BASCULE ACCESS PLATFORMS", EACH.

LEGEND:

- ⚠ STRIP SEAL EXPANSION JOINT REPLACEMENT
- ☐ STRUCTURAL STEEL REPAIRS TO BENT & SUPERSTRUCTURE
- ◪ PAINT BENT
- ⊗ CONCRETE SUBSTRUCTURE REPAIRS, INCLUDES WATERLINE REPAIRS
- ◒ ANGLES MEASURED FROM TARGET TO T/L AT LOCATION OF INTERSECTION, TYP.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY G.J.R. | PLANS CK'D. J.P.H.

SITE PLAN AND ELEVATION (2 OF 3)

SHEET 2 OF 47
65

REVISED DATE: 10-27-2022 BY JC

8

8

STATE PROJECT NUMBER

2984-12-73

1781 N WATER ST
354-0914-110
WI RIVER HOUSE APARTMENTS LLC

1701 N WATER ST
354-0920-100
BRADY AND WATER LLC

703 E PEARSON ST
354-0750-100
BRADYPUMPHOUSE LLC

1711 N VAN BUREN ST
354-0815-000
CITY OF MILWAUKEE

P-40-875

EXP. JOINT 3

EXP. JOINT 2

EXP. JOINT 1

REPLACE SIDEWALK BRACKET 91B22R (SEE SHEET 35)

REPLACE SIDEWALK BRACKET 91B22AL (SEE SHEET 35)

C/L BENT 5 STA. 14+85.85

C/L BENT 4 STA. 13+61.85

C/L EXP. JNT. 3 STA. 13+62.45 ELEV. 56.83

P.T. STA. 13+59.04

C/L EXP. JNT. 2 STA. 13+09.14 ELEV. 54.92

C/L BENT 3 STA. 13+09.74

C/L BENT 2 STA. 12+57.59

C/L BENT 1 STA. 12+11.23

INTERSECTION STA. 12+36.91
N. HOLTON ST. VIADUCT STA. 43+26.26
N. WATER ST.

T/L HOLTON STREET VIADUCT

MATCH LINE SEE SHEET 2

POINT OF CRITICAL VERTICAL CLEARANCE

C/L EXP. JT. S. ABUT. STA. 11+81.44 ELEV. 50.80

S. END OF BRIDGE DECK STA. 11+80.44

P.C. STA. 10+43.91

N. WATER ST.

OVERHEAD

90°00'00"

84°32'14"

84°33'00"

26°44'24"

83°36'26"

6°21'38"

7°10'48"

0'-7¼"

5'-0"

2'-6"

3'-6"

1'-0"

80'-0" SPAN 5

57'-0" SPAN 4

52'-1¼" SPAN 3

52'-1¾" SPAN 2

46'-4¼" SPAN 1

29'-9½" SPAN X

6°15'36"

77'-7" OUT TO OUT

60'-0" RDWY.

8'-9½"

1'-3" CRASH BARR.

6'-5½" SDWK.

1'-1" PARAPET

28'-6" STAGE 1

30'-0"

31'-6" STAGE 2

30'-0"

11'-0" LANE

10'-0" PAINTED MEDIAN

7'-0" BIKE

PLAN

15 SPAN STEEL GIRDER BRIDGE
JOINT REPLACEMENT, STRUCTURAL STEEL REPAIRS, CONCRETE SUBSTRUCTURE REPAIR, AND PAINTING

EXISTING CHAIN LINK FENCE TO REMAIN. REMOVE AND REINSTALL AT EXP. JNT. LOCATIONS

EXISTING CONCRETE CRASH BARRIER AND PARAPET TO REMAIN. REMOVE AND REPLACE AT EXP. JNT. LOCATIONS

EXISTING STEEL SUPERSTRUCTURE TO REMAIN

EXISTING STEEL SUBSTRUCTURE TO REMAIN

EXISTING STRUCTURE B-40-910 TO REMAIN

C/L BRG SOUTH ABUT. B-40-910

EXISTING FOOTING

EXISTING GROUND LINE

EXISTING PILES TO REMAIN (TYP.)

NORTH WATER ST.

32'-0" WING WALL

969'-6¾" END OF DECK TO END OF DECK ALONG T/L

EL. 39.00 EL. 32.00 EL. 24.50 EL. 25.00 EL. 28.00 EL. 2.0 EL. 29.00 EL. 37.50 EL. 33.50

12'-6" MIN.

20'-7¼" 56'-0"

WEST ELEVATION

(LOOKING NORTH EAST)

LEGEND:

- STRIP SEAL EXPANSION JOINT REPLACEMENT
- PAINT BENT
- CONCRETE SUBSTRUCTURE REPAIRS
- ANGLES MEASURED FROM TARGET TO T/L AT LOCATION OF INTERSECTION, TYP.
- STRUCTURAL STEEL REPAIRS TO SUPERSTRUCTURE GIRDERS 84G1/84G2 (SEE SHEET 37)

REVISED DATE: 10-27-2022 BY JC

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY G.J.R. | PLANS CK'D. J.P.H.

SITE PLAN AND ELEVATION (3 OF 3)

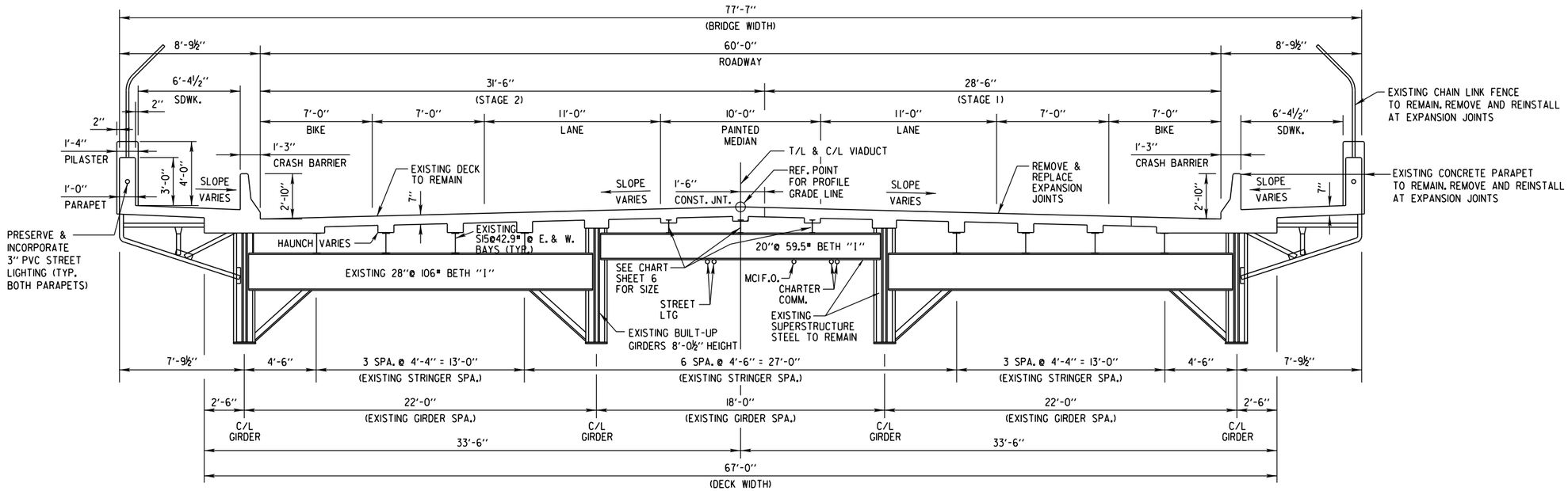
SHEET 3 OF 47
66

8

8

STATE PROJECT NUMBER

2984-12-73

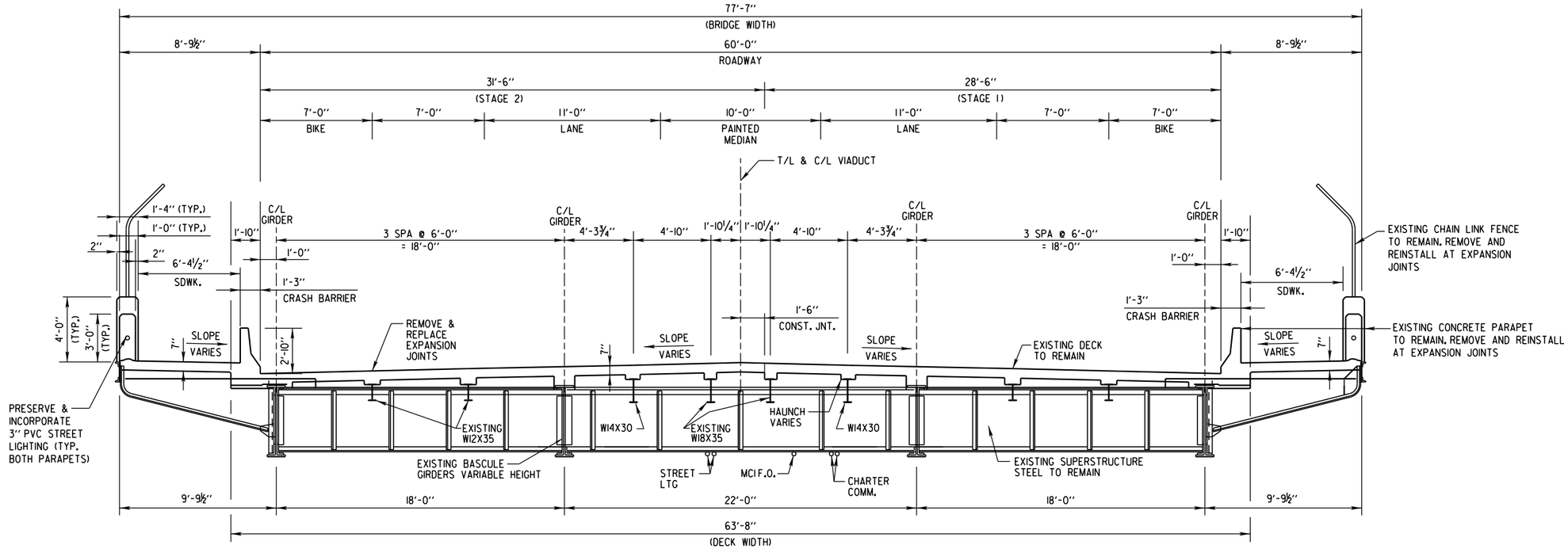


TYPICAL CROSS SECTION

(FIXED SPANS 2-6, 8-10)
(LOOKING NORTH)

NOTES

SEE CENTER BAY STRINGER TABLE ON SHTS 6 & 7.



TYPICAL CROSS SECTION

(BASCULE SPAN 7)
(LOOKING NORTH)

LIST OF DRAWINGS

REVISED DATE: 10-15-2022 BY JC

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY G.J.R. | PLANS CK'D. J.P.H.

CROSS SECTIONS

SHEET 4 OF 47
67

STATE PROJECT NUMBER

2984-12-73

GENERAL NOTES

ALL STATIONS AND ELEVATIONS ARE IN FEET.

DIMENSIONS SHOWN ARE BASED ON ORIGINAL STRUCTURE PLANS.

ELEVATIONS ARE REFERRED TO CITY OF MILWAUKEE DATUM: 580.6 NGVD.

DRAWINGS SHALL NOT BE SCALED.

ROADWAY ALIGNMENTS, STATIONING AND BASE MAPPING ARE BASED ON A FIELD SURVEY AND ARE TO BE USED FOR INFORMATIONAL PURPOSES ONLY. STATIONING SHOWN DOES NOT CORRELATE WITH PRIOR PLANS.

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

BEVEL EXPOSED CONCRETE EDGES ¾" UNLESS OTHERWISE NOTED.

THE FIRST OR FIRST TWO DIGITS OF THE BAR MARK SIGNIFIES THE BAR SIZE.

BENDING DIMENSIONS FOR REINFORCING BARS ARE OUT TO OUT.

SPACES EXCAVATED AND NOT OCCUPIED BY NEW CONSTRUCTION SHALL BE BACKFILLED WITH BID ITEM 210.1500 "BACKFILL STRUCTURE TYPE A".

JOINT FILLER SHALL CONFORM TO AASHTO DESIGNATION M 153 TYPE I, II, OR III, OR AASHTO DESIGNATION M213.

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

SEE ROADWAY PLANS FOR EXISTING AND PROPOSED UTILITY LOCATIONS.

PAINT FOR STEEL TO MATCH AMS STANDARD NO. 595A COLOR NO. 20318.

VARIATIONS TO NEW GRADE LINE OVER ¼" MUST BE SUBMITTED BY FIELD ENGINEER TO STRUCTURES DESIGN SECTION FOR REVIEW.

ALL EXISTING STEEL SHALL BE SANDBLASTED AND PAINTED UNDER BID ITEMS 517.0901.S "PREPARATION AND COATING OF TOP FLANGES P-40-875", 517.1801.S "STRUCTURE REPAINTING RECYCLED ABRASIVE P-40-875", AND 517.4501.S "NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS P-40-875."

EXISTING ABUTMENTS AND PIERS ARE TO REMAIN IN PLACE AS SHOWN AND INCORPORATED INTO NEW CONSTRUCTION.

UTILIZE EXISTING BAR STEEL REINFORCEMENT WHERE SHOWN AND EXTEND 24 BAR DIAMETERS INTO NEW WORK, UNLESS SPECIFIED OTHERWISE.

ALL CONCRETE REMOVALS SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT.

PROTECTIVE SURFACE TREATMENT SHALL BE APPLIED TO THE TOP OF NEW CONCRETE AT JOINT REPAIR LOCATIONS, INCLUDING THE TOP, INSIDE AND OUTSIDE FACES OF PARAPETS AND CRASH BARRIERS.

THE EXISTING STRUCTURE P-40-875 IS A 15 SPAN STEEL GIRDER BRIDGE WITH AN OVERALL LENGTH OF 969'-6¾" AND TYPICAL WIDTH OF 77'-7".

ANY EXCAVATION REQUIRED TO COMPLETE PAVING BLOCK CONSTRUCTION IS INCIDENTAL TO BID ITEM 509.2100.S, "CONCRETE MASONRY DECK REPAIR".

EXISTING CONDUIT IN PARAPET TO REMAIN IN PLACE EXCEPT AT EXPANSION JOINT LOCATIONS. CONTRACTOR SHALL PROVIDE ADEQUATE PROTECTION DURING CONSTRUCTION.

INSTALLATION OF EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS, HARDWARE, AND ANY GROUTING AND WELDING SHALL BE PAID FOR AT THE LF PRICE AS BID ITEM 502.3101 "EXPANSION DEVICE".

REMOVAL OF EXISTING EXPANSION JOINTS AND STEEL IS INCLUDED WITH THE BID ITEM 509.1000 "JOINT REPAIR". PROVIDE DEBRIS CONTAINMENT OVER WATERWAY FOR JOINT REMOVAL OPERATIONS AS SPECIFIED WITH THE BID ITEM "REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-40-875".

WELDING NOT SHOWN ON THE PLANS WILL NOT BE PERMITTED, EXCEPT BY WRITTEN PERMISSION FROM THE ENGINEER AND WITH AN APPROVED WELD PROCEDURE BY THE CONTRACTOR.

USE GALVANIZED ⅞" DIAMETER ASTM A-325 BOLTS FOR ALL CONNECTIONS, UNLESS NOTED OTHERWISE ON THE PLANS.

ESTIMATE OF QUANTITIES

ITEM NUMBER	BID ITEM	UNIT	SOUTH ABUT.	SUPER.	SUBST.	TOTAL
203.0260	REMOVING STRUCTURE OVER WATERWAY MINIMAL DEBRIS P-40-875	EACH		1		1
210.1500	BACKFILL STRUCTURE TYPE A	TON	122			122
502.3101	EXPANSION DEVICE	LF	84	696		780
502.3200	PROTECTIVE SURFACE TREATMENT	SY	42	408		450
502.3215	PROTECTIVE SURFACE TREATMENT RESEAL	SY		9,000		9,000
502.4205	ADHESIVE ANCHORS NO. 5 BAR	EACH	88			88
505.0600	BAR STEEL REINFORCEMENT HS COATED STRUCTURES	LB	2,380	30,150		32,530
505.0904	BAR COUPLERS NO. 4	EACH		75		75
505.0905	BAR COUPLERS NO. 5	EACH		75		75
506.0105	STRUCTURAL STEEL CARBON	LB		8,770	35,630	44,400
506.6000	BEARING ASSEMBLIES EXPANSION P-40-875	EACH	12			12
506.7050.S	REMOVING BEARINGS P-40-875	EACH	12			12
509.0301	PREPARATION DECKS TYPE 1	SY		240		240
509.0302	PREPARATION DECKS TYPE 2	SY		80		80
509.0310.S	SAWING PAVEMENT DECK PREPARATION AREAS	LF		2,600		2,600
509.1000	JOINT REPAIR	SY		430		430
509.1200	CURB REPAIR	LF		20		20
509.1500	CONCRETE SURFACE REPAIR	SF	8	120	55	183
509.2000	FULL-DEPTH DECK REPAIR	SY		2		2
509.2100.S	CONCRETE MASONRY DECK REPAIR	CY		170		170
509.9020.S	EPOXY CRACK SEALING	LF	120			120
509.9025.S	EPOXY INJECTION CRACK REPAIR	LF			1,135	1,135
509.9026.S	CORED HOLES 2-INCH DIAMETER	EACH			4	4
516.0500	RUBBERIZED MEMBRANE WATERPROOFING	SY	15			15
517.0601	PAINTING EPOXY SYSTEM P-40-875	EACH			1	1
517.0901.S	PREPARATION AND COATING OF TOP FLANGES P-40-875	EACH		1		1
517.1801.S	STRUCTURE REPAINTING RECYCLED ABRASIVE P-40-875	EACH			1	1
517.4501.S	NEGATIVE PRESSURE CONTAINMENT AND COLLECTION OF WASTE MATERIALS P-40-875	EACH			1	1
517.6001.S	PORTABLE DECONTAMINATION FACILITY	EACH			1	1
652.0135	CONDUIT RIGID METALLIC 3-INCH	LF		110		110
SPV.0025.501	DEEP CONCRETE SURFACE REPAIR	CF			52	52
SPV.0025.502	WATERLINE CONCRETE SURFACE REPAIR	CF			152	152
SPV.0060.508	TEMPORARY SHORING FOR PIERS 6, 7, 8 AND SOUTH ABUTMENT REPAIR	EACH			1	1
SPV.0060.586	REMOVING BASCULE ACCESS PLATFORMS	EACH		1		1
SPV.0060.593	JUNCTION BOX COVER PLATE REPAIR	EACH		5		5
SPV.0060.594	JUNCTION BOX 14"x8"x6"	EACH		2		2
SPV.0060.597	PROTECTING UTILITIES	EACH		1		1
SPV.0090.501	REMOVE AND REINSTALL EXISTING STEEL RAILING	LF		16		16
SPV.0090.530	REHABILITATION OF CHAIN LINK FENCE	LF		95		95
	NON-BID ITEMS					
	PREFORMED JOINT FILLER					
	NON-BITUMINOUS JOINT FILLER					
	PLASTIC OR ZINC SHEETS ⅛-INCH					
	POLYETHLENE SHEETS					
	TEFLON PADS					

EXERCISE CARE WHILE REMOVING EXISTING BOLTS OR RIVETS AND INSTALLING NEW BOLTS. DO NOT DAMAGE EXISTING STEEL OR BOLT HOLES. ANY DAMAGE WILL BE REPAIRED OR REPLACED AT NO ADDITIONAL COST.

PROVIDE A MINIMUM RADIUS OF 1" AT ALL INTERIOR AND RE-ENTERANT CUTS, UNLESS NOTED OTHERWISE ON THE PLANS.

ALL NEW OR EXISTING HOLES IN STEEL NOT BEING USED ARE TO BE FILLED WITH HIGH STRENGTH, GALVANIZED BOLTS PRIOR TO STRUCTURAL PAINTING.

DRAWINGS 29 THRU 47 INCLUDE ORIGINAL STRUCTURAL STEEL ERECTION DRAWINGS, FROM 1926 AND 1987. DETAILED FABRICATION DRAWINGS ARE ON FILE WITH THE CITY OF MILWAUKEE.

REMOVALS WILL BE MADE AS INDICATED ON THE DRAWINGS. ALL REMOVALS WILL BE COMPLETE AND INCLUDE ALL FOREIGN OBJECTS SUCH AS BRACKETS, HANGER, ABANDONED CONDUIT, ETC THAT IS NOT NEEDED STRUCTURALLY, WHETHER MENTIONED OR NOT AND REMOVED AS DIRECTED BY THE ENGINEER IN THE FIELD.

STRUCTURAL STEEL REPAIRS AND MODIFICATIONS WILL BE MADE AS INDICATED PER THE PLANS.

ALL STRUCTURAL STEEL AREAS IN CONTACT WITH NEW CONCRETE ARE TO BE CLEANED AND PRIME PAINT COATED IN ACCORDANCE WITH THE BID ITEM 517.0901.S " PREPARATION AND COATING OF TOP FLANGES P-40-875 ". ALL RUSTED AND CORRODED AREAS WITHIN 4" OF THE STRUCTURAL STEEL WITHIN CONCRETE ARE TO BE CLEANED, PRIME PAINT COATED, AND RECEIVE ONE FINISH PAINT COAT.

DESIGN DATA

DEAD LOAD

CONCRETE = 150 PCF
FWS = 20 PSF

LIVE LOAD

TAKEN FROM HSI, 8/29/2022
DESIGN LOADING: HS-20
INVENTORY RATING: HS-19
OPERATING RATING: HS-26
WISCONSIN STANDARD PERMIT VEHICLE (WIS-SPV) = N/A

MATERIAL PROPERTIES:

CONCRETE SUPERSTRUCTURE	f'c = 4,000 PSI
CONCRETE SUBSTRUCTURE	f'c = 3,500 PSI
BAR STEEL REINFORCEMENT	Fy = 60,000 PSI
NEW STEEL BEAMS/SHAPES (ASTM A709)	Fy = 36,000 PSI

TRAFFIC DATA

ADT (2018) = 9,300 VEHICLES/DAY
ADT (2035) = 12,579 VEHICLES/DAY
ROADWAY DESIGN SPEED = 30 MPH

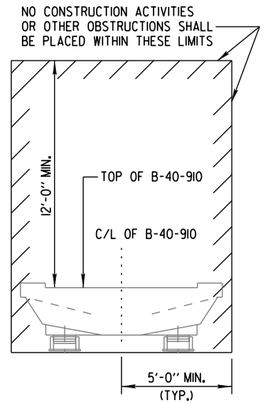
HYDRAULIC DATA

100 YEAR FREQUENCY

Q100	= 14,800 CFS (SEWRPC)
VEL	= 4.7 FPS (SEWRPC)
HW100	= 584.45 (NGVD 1929) (SEWRPC)
WATERWAY AREA	= 32,105 SF
DRAINAGE AREA	= 691 SQ.MI.
ROADWAY OVERTOPPING	= N/A
SCOUR CRITICAL CODE	= 4

10 YEAR FREQUENCY

Q10	= 8,790 CFS
VEL	= 3.31 FPS
HW10	= 581.40 (NGVD 1929)



MINIMUM CONSTRUCTION CLEARANCE ENVELOPE

NORMAL TO B-40-910

TEMPORARY MINIMUM CLEARANCE OF 12'-0" SHALL BE MAINTAINED ABOVE B-40-910 AT ALL TIMES. LIMITED SHORT TERM CLOSURES MAY BE ALLOWED WITH APPROVAL OF ENGINEER.

BRIDGE CONSTRUCTION NOTES

EXISTING BRIDGE PLANS ARE ON FILE IN CITY OF MILWAUKEE INFRASTRUCTURE SERVICES DIVISION'S STRUCTURAL DESIGN UNIT, ROOM 907, FRANK P. ZEIDLER MUNICIPAL BUILDING, 841 N. BROADWAY, MILWAUKEE, WI 53202 PHONE (414)-286-0463.

THE EXPANSION JOINTS WILL BE REPLACED IN STAGES TO KEEP THE NORTH HOLTON STREET VIADUCT OPEN TO 2-WAY TRAFFIC DURING CONSTRUCTION. EXISTING EXPANSION JOINTS AT THE EAST SIDE OF THE BRIDGE ARE TO BE REPLACED FIRST WHILE 2-WAY TRAFFIC IS CARRIED BY THE EXISTING WEST SIDE OF BRIDGE. AFTER THE REPLACEMENT OF THE JOINTS AT THE EAST SIDE IS COMPLETED, TRAFFIC WILL BE DIVERTED TO THE NEWLY FINISHED EAST SIDE OF THE BRIDGE AND THE PROPOSED EXPANSION JOINTS AT THE WEST SIDE OF THE BRIDGE WILL BE REPLACED.

PROPOSED IMPROVEMENTS

THE NORTH HOLTON STREET VIADUCT REHABILITATION PHASE I SPECIFIC REPAIRS ARE AS FOLLOWS: STRUCTURAL STEEL REPAIRS TO BENTS 6, 7 & 8 INCLUDING STEEL COLUMN, TRUNNION SUPPORT BEAMS, AND CROSS BRACING (LATERAL AND TRANSVERSE); STRUCTURAL STEEL AND GIRDER REPAIRS INCLUDE REPAIR AND/OR REPLACEMENT OF STRUCTURAL MEMBERS; CONCRETE SUBSTRUCTURE REPAIRS TO BENTS 1-8 AND SOUTH ABUTMENT INCLUDING UNDERWATER WORK AT BENTS 7 & 8; CONCRETE SUBSTRUCTURE REPAIRS INCLUDE CRACK, SPALL, AND DELAMINATION REPAIR; PAINTING OF BENTS 1-8; NEW EXPANSION JOINTS ON DECK.

UTILITIES

EXISTING CONDUITS MOUNTED TO THE UNDERSIDE OF THE SUPERSTRUCTURE IN SPANS 2-11 AT THE CENTER BAY SHALL REMAIN IN PLACE AND PROTECTED DURING CONSTRUCTION. SEE PROJECT SPECIFICATIONS.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY G.J.R. | PLANS CK'D. J.P.H.

ESTIMATE OF QUANTITIES

SHEET 5 OF 47
68

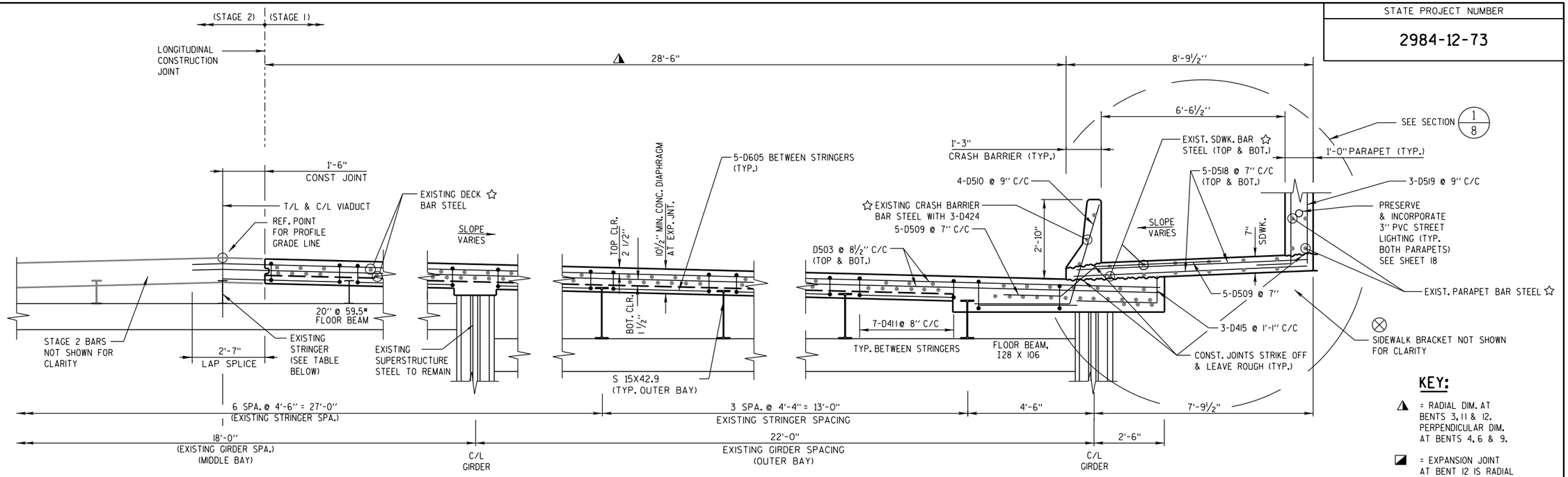
REVISED DATE: 10-27-2022 BY GJR

8

8

STATE PROJECT NUMBER

2984-12-73



CROSS SECTION THRU DECK AT JOINT - STAGE 1

(LOOKING NORTH)
BENTS 3, 4, 6, 9, 11 & 12, JOINTS 2-4 & 8-10

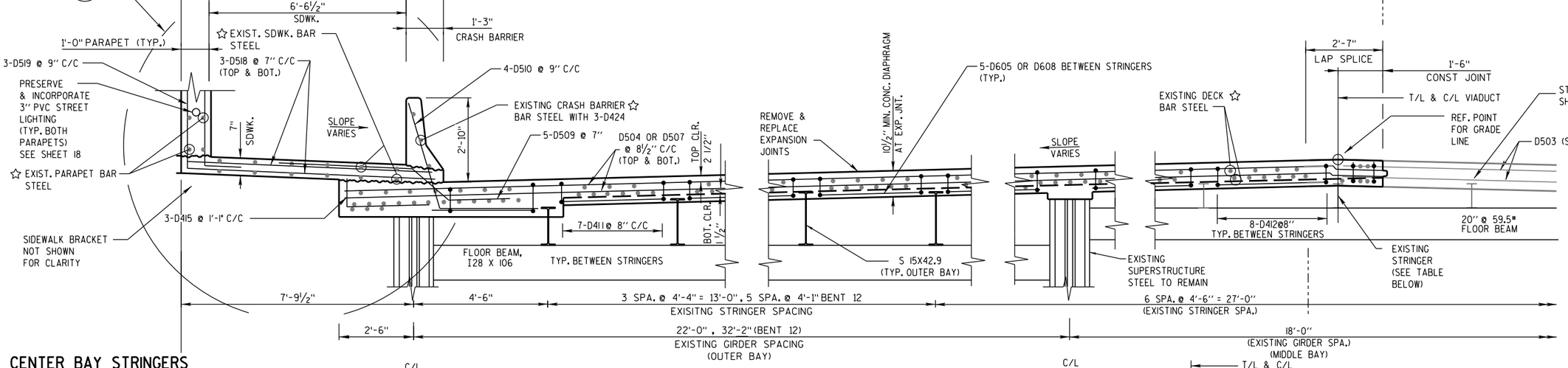
KEY:

△ = RADIAL DIM. AT BENTS 3, 11 & 12. PERPENDICULAR DIM. AT BENTS 4, 6 & 9.

◪ = EXPANSION JOINT AT BENT 12 IS RADIAL TO T/L. SEE LENGTH AS INDICATED FOR STAGE 2

☆ = EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.

⊗ = SIDEWALK BRACKETS AT BENTS 3 & 4 TO BE REPLACED (E. SIDE). SEE SHT. 3 FOR LOCATION.



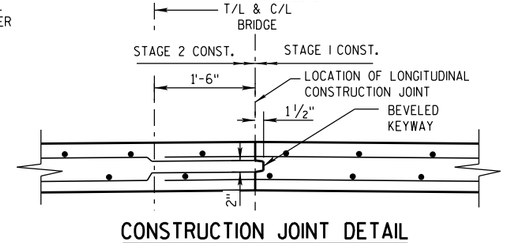
CENTER BAY STRINGERS

JOINT / LOCATION	SOUTH OF BENT C/L			NORTH OF BENT C/L		
	WEST STRINGER	MID STRINGER	EAST STRINGER	WEST STRINGER	MID STRINGER	EAST STRINGER
JOINT 2 AT PIER 3	W6X15	W6X15	W6X15	W6X15	W6X15	W6X15
JOINT 3 AT PIER 4	W6X15	W6X15	W6X15	W8X13	W10X12	W8X13
JOINT 4 AT PIER 6	W10X12	W12X14	W10X12	W10X12	W12X14	W10X12
JOINT 8 AT PIER 9	W10X12	W12X14	W10X12	W10X12	W12X14	W10X12
JOINT 9 AT PIER 11	W8X13	W10X12	W8X13	W8X13	W10X12	W8X13
JOINT 10 AT PIER 12	W8X13	W10X12	W8X13	W6X15	W6X15	W6X15

WEST AND EAST BAYS: I5X42.9 I (TYP.)

CROSS SECTION THRU DECK AT JOINT - STAGE 2

(LOOKING NORTH)
BENTS 3, 4, 6, 9, 11 & 12, JOINTS 2-4 & 8-10



CONSTRUCTION JOINT DETAIL

(VIEW LOOKING NORTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

CROSS SEC. STAGES 1 & 2 AT EXP. JOINTS 2-4, 8-10

SHEET 6 OF 47
69

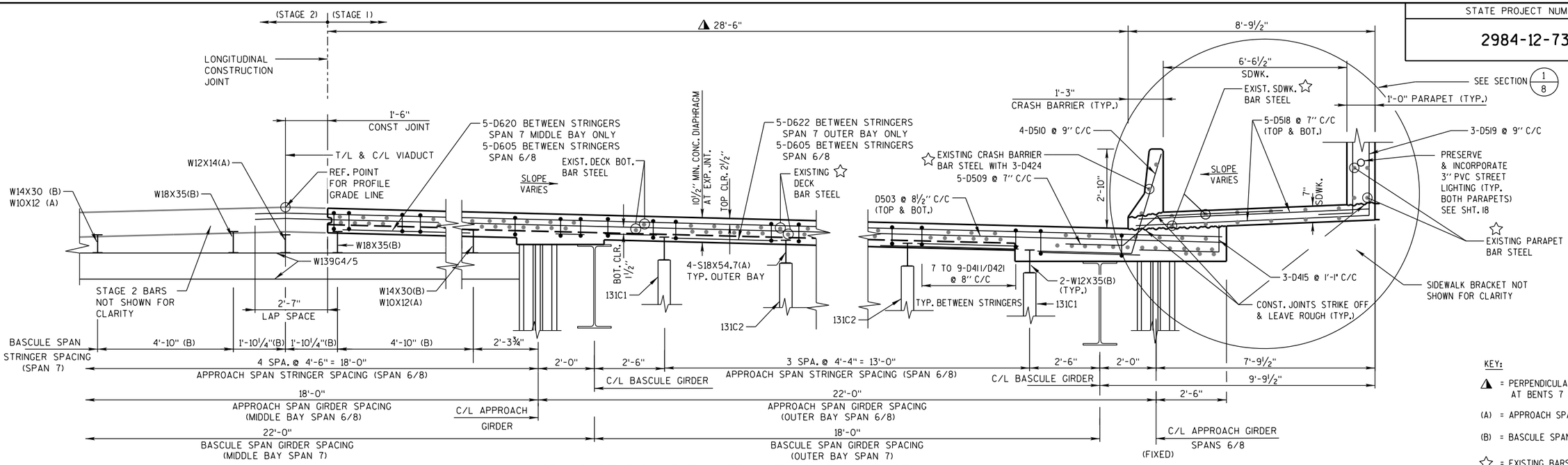
REVISED DATE: 08-29-2022 BY CJR

8

8

STATE PROJECT NUMBER

2984-12-73

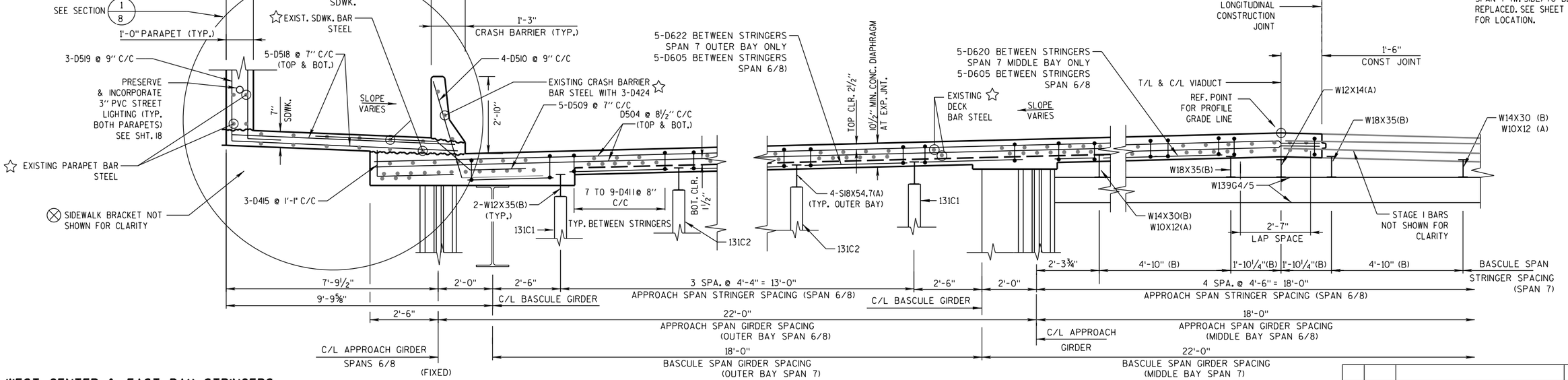


CROSS SECTION THRU DECK AT JOINT - STAGE 1

(LOOKING NORTH)
BENTS 7 & 8 (JOINTS 5,7)
NEAR C/L TRUNNION) C/L SPAN 7 (JOINT 6)

KEY:

- ▲ = PERPENDICULAR DIM. AT BENTS 7 & 8
- (A) = APPROACH SPANS 6 & 8
- (B) = BASCULE SPAN 7
- ☆ = EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.
- ⊗ = SIDEWALK BRACKETS AT SPAN 7 (W. SIDE) TO BE REPLACED. SEE SHEET 2 FOR LOCATION.

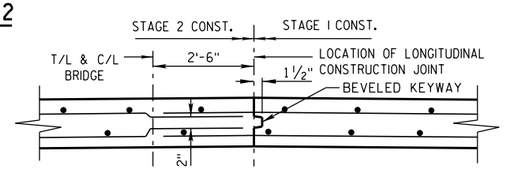


WEST, CENTER & EAST BAY STRINGERS

JOINT / LOCATION	SOUTH OF JOINT C/L			NORTH OF JOINT C/L		
	WEST BAY STRINGERS	MID BAY STRINGERS	EAST BAY STRINGERS	WEST BAY STRINGERS	MID BAY STRINGERS	EAST BAY STRINGERS
JOINT 5 AT PIER 7	WI8X54.7	WI0XI2 WI2XI4	WI8X54.7	WI2X35	WI4X30 WI8X35	WI2X35
JOINT 6 AT C/L SPAN 7	WI2X35	WI4X30 WI8X35	WI2X35	WI2X35	WI4X30 WI8X35	WI2X35
JOINT 7 AT PIER 8	WI2X35	WI4X30 WI8X35	WI2X35	WI8X54.7	WI0XI2 WI2XI4	WI8X54.7

CROSS SECTION THRU DECK AT JOINT - STAGE 2

(LOOKING NORTH)
BENTS 7 & 8 (JOINTS 5,7)
NEAR C/L TRUNNION) C/L SPAN 7 (JOINT 6)



CONSTRUCTION JOINT DETAIL

(VIEW LOOKING NORTH)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

CROSS SEC. STAGES 1& 2 AT EXP. JOINTS 5, 6 & 7

SHEET 7 OF 47
70

REVISED DATE: 08-29-2022 BY GJR

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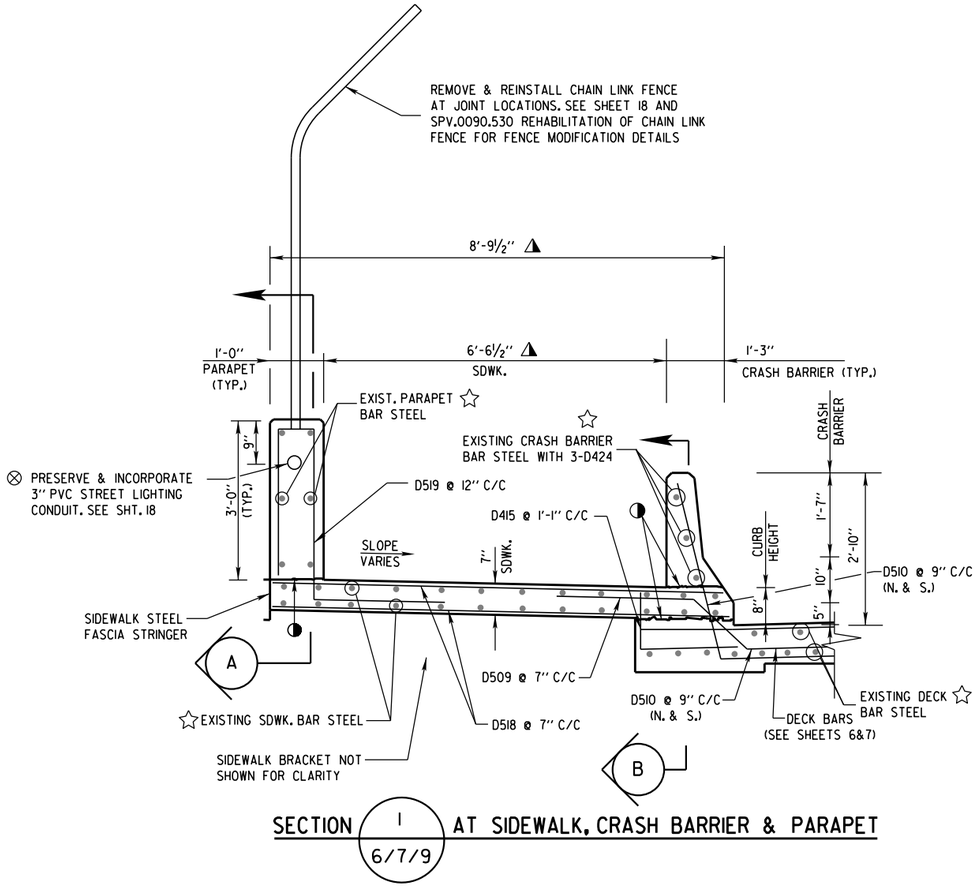
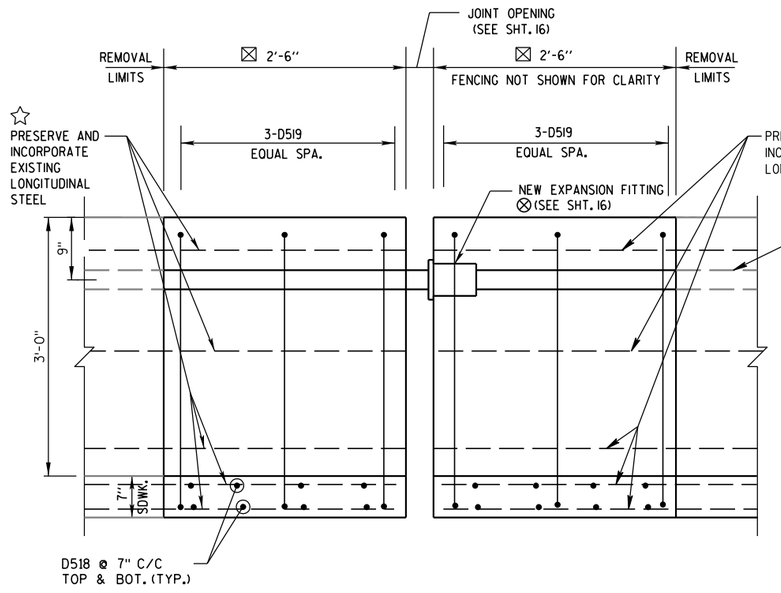


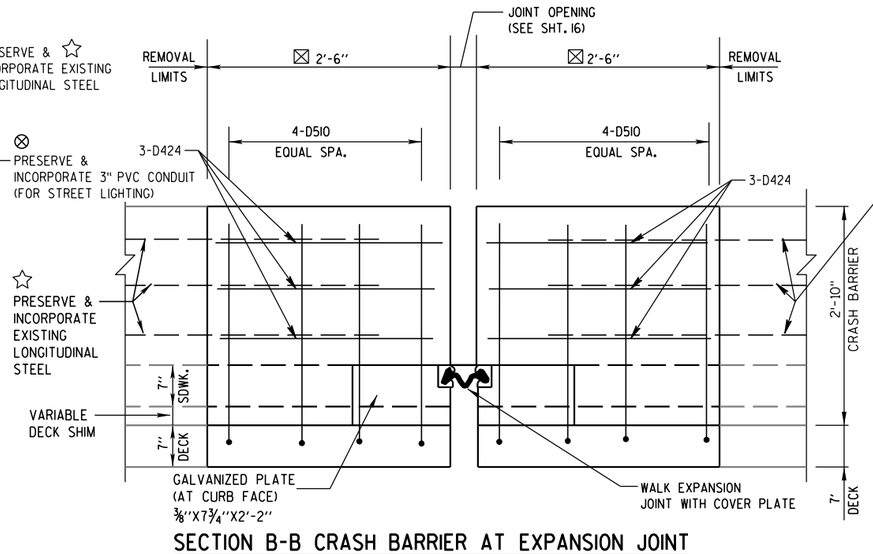
SECTION (1 / 6/7/9) AT SIDEWALK, CRASH BARRIER & PARAPET

BILL OF BARS - DECK

BAR MARK	COATED	STAGE 1	STAGE 2	JOINT 2 BENT 3	JOINT 3 BENT 4	JOINT 4 BENT 6	JOINT 5 BENT 7	JOINT 6 C/L SPAN 7	JOINT 7 BENT 8	JOINT 8 BENT 9	JOINT 9 BENT 11	JOINT 10 BENT 12	LENGTH	BENT	LOCATION COMMENTS
D503	x	144	-	16	16	16	16	16	16	16	16	16	34'-7"		STAGE 1 DECK JOINT HORIZONTAL (TOP & BOTTOM)
D504	x	-	128	16	16	16	16	16	16	16	16	-	34'-8"		STAGE 2 DECK JOINT HORIZONTAL (TOP & BOTTOM)
D605	x	490	-	70	70	70	35	-	35	70	70	70	4'-0"		STAGE 1 DECK JOINT HORIZONTAL BETWEEN STRINGERS
D605	x	-	420	70	70	70	35	-	35	70	70	-	4'-0"		STAGE 2 DECK JOINT HORIZONTAL BETWEEN STRINGERS
D507	x	-	16	-	-	-	-	-	-	-	-	16	45'-1"		STAGE 2 DECK JOINT HORIZONTAL (TOP & BOTTOM JOINT 10)
D608	x	-	90	-	-	-	-	-	-	-	-	90	4'-1"		STAGE 2 DECK JOINT HORIZONTAL BETWEEN STRINGERS JOINT 10 (W. SIDE)
D509	x	90	-	10	10	10	10	10	10	10	10	10	6'-3"	x	STAGE 1 TIE BAR - SIDEWALK & DECK
D509	x	-	90	10	10	10	10	10	10	10	10	10	6'-3"	x	STAGE 2 TIE BAR - SIDEWALK & DECK
D510	x	72	-	8	8	8	8	8	8	8	8	8	4'-10"	x	STAGE 1 VERTICAL DOWEL - CRASH BARRIER
D510	x	-	72	8	8	8	8	8	8	8	8	8	4'-10"	x	STAGE 2 VERTICAL DOWEL - CRASH BARRIER
D411	x	902	-	98	98	98	103	108	103	98	98	98	4'-4"	x	STAGE 1 STIRRUP BETWEEN STRINGERS - JOINTS 2-10
D411	x	-	930	98	98	98	94	90	94	98	98	162	4'-4"	x	STAGE 2 STIRRUP BETWEEN STRINGERS - JOINTS 2-11
D415	x	54	-	6	6	6	6	6	6	6	6	6	4'-5"	x	STAGE 1 BOTTOM HORIZONTAL -SIDEWALK - DECK OVERHANG
D415	x	-	54	6	6	6	6	6	6	6	6	6	4'-5"	x	STAGE 2 BOTTOM HORIZONTAL -SIDEWALK - DECK OVERHANG
D518	x	180	-	20	20	20	20	20	20	20	20	20	8'-5"		STAGE 1 TOP & BOTTOM - SIDEWALK
D518	x	-	180	20	20	20	20	20	20	20	20	20	8'-5"		STAGE 2 TOP & BOTTOM - SIDEWALK
D519	x	54	-	6	6	6	6	6	6	6	6	6	7'-3"	x	STAGES 1 VERTICAL - EXTERIOR PARAPET
D519	x	-	54	6	6	6	6	6	6	6	6	6	7'-3"	x	STAGES 2 VERTICAL - EXTERIOR PARAPET
D620	x	60	-	-	-	-	15	30	15	-	-	-	4'-6"		STAGE 1 DECK JNT. HORIZ. BETWN. STRINGERS JNTS. 5-7 MIDDLE BAYS, SPAN 7
D620	x	-	40	-	-	-	10	20	10	-	-	-	4'-6"		STAGE 2 DECK JNT. HORIZ. BETWN. STRINGERS JNTS. 5-7 MIDDLE BAYS, SPAN 8
D421	x	-	56	-	-	-	-	-	-	-	-	56	2'-1"	x	STAGE 2 STIRRUP BETWN. STRINGERS- W. SIDE JNT. 10
D622	x	60	-	-	-	-	15	30	15	-	-	-	5'-8"		STAGES 1 DECK JOINT HORIZ. BETWN. STRINGERS JOINTS 5-7, E & W BAYS, SPAN 7
D622	x	-	60	-	-	-	15	30	15	-	-	-	5'-8"		STAGES 2 DECK JOINT HORIZ. BETWN. STRINGERS JOINTS 5-7, E & W BAYS, SPAN 8
D423	x	-	16	-	-	-	-	-	-	-	-	16	11'-3"		STAGE 2 DECK JOINT HORIZ. ISLAND CURB WEST SIDE JNT. 10
D424	x	54		6	6	6	6	6	6	6	6	6	2'-3"		STAGE 1 HORIZONTAL DOWEL - CRASH BARRIER
D424	x	-	54	6	6	6	6	6	6	6	6	6	2'-3"		STAGE 2 HORIZONTAL DOWEL - CRASH BARRIER

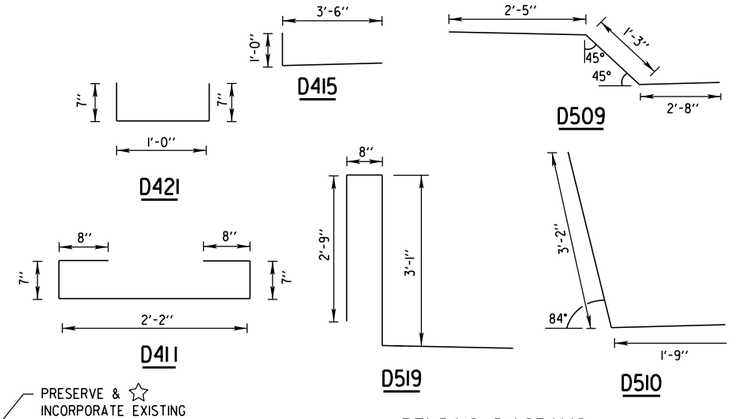


SECTION A-A PARAPET AT EXPANSION JOINT



SECTION B-B CRASH BARRIER AT EXPANSION JOINT

(DECK & SIDEWALK BARS NOT SHOWN FOR CLARITY, SEE SHTS. 6 & 7)



BENDING DIAGRAMS

PRESERVE & ☆ INCORPORATE EXISTING LONGITUDINAL STEEL

KEY:

- ◑ STRIKE OFF AND LEAVE ROUGH
- ◭ RADIAL DIM. AT BENTS 3, 11 & 12. PERPENDICULAR DIM. AT BENTS 4, 6 & 9.
- ☒ SEE EXPANSION JOINT & SPECIFIC CROSS SECTION DETAILS ON SHEETS 10, 11, 12, 15, AND 16 FOR EXPANSION & FIXED STEEL LOCATIONS. SEE LAYOUT TABLE ON SHT. 10
- ☆ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.
- ⊗ TWO CONDUITS AT JOINTS 5, 6, 9 & 10. ELEC. BOXES LOCATED AT SOUTH SIDE OF EXP. JOINTS 5 & 7 (W. SIDE) ARE TO BE REPLACED. SEE SHT. 18.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

SIDEWALK AND PARAPET DETAILS BILL OF BARS

SHEET 8 OF 47
71

STATE PROJECT NUMBER
2984-12-73

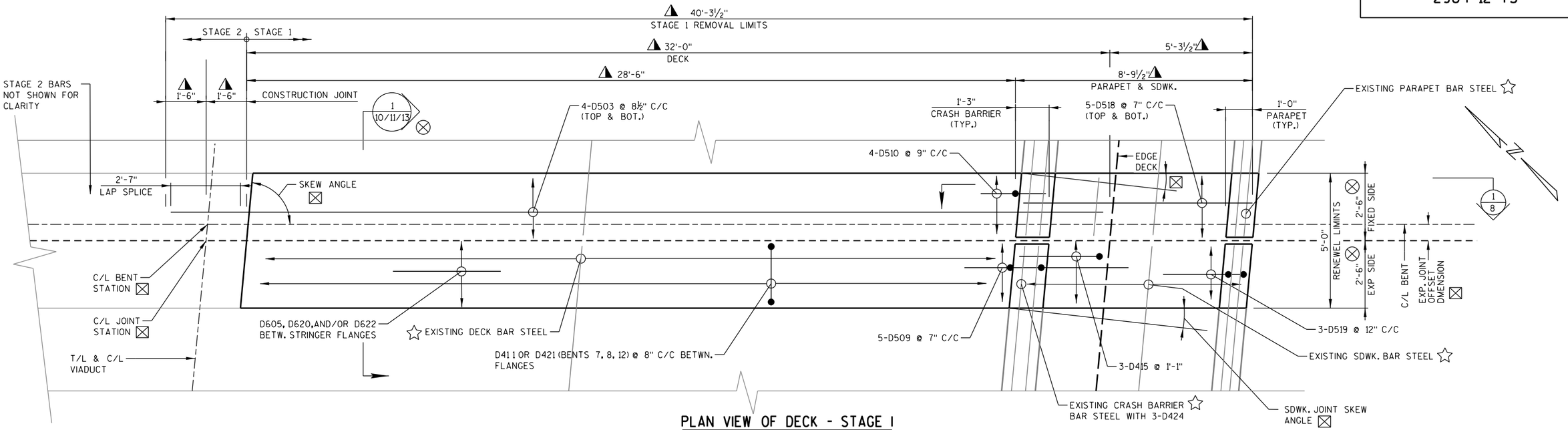
REVISED DATE: 11-09-2022 BY JC

8

8

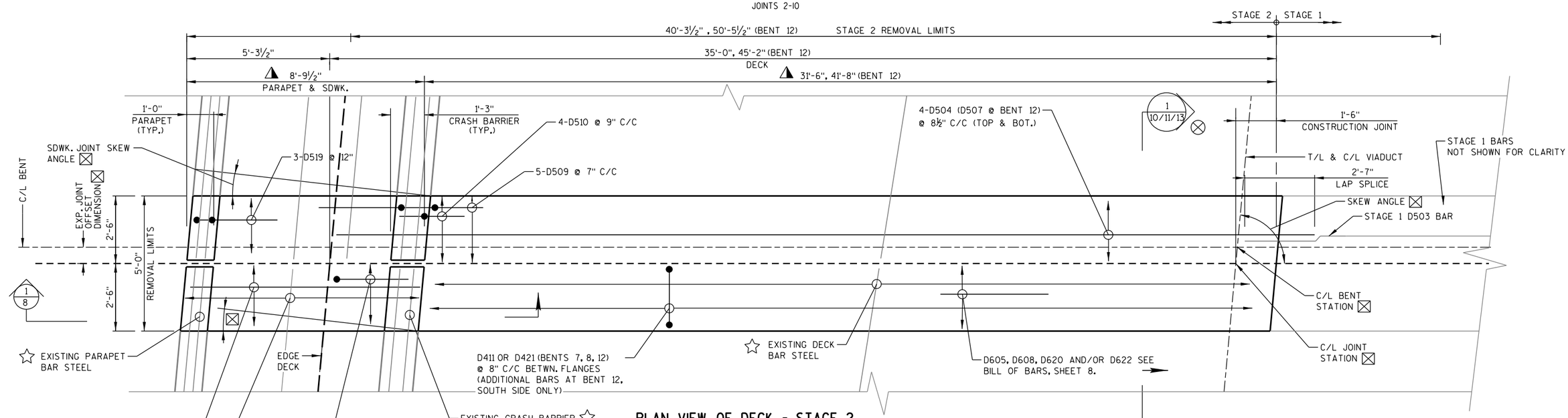
FILE NAME : \\ad\mkedfs\GIS DeptWork\str\b0113\2023 Phase 1\Plans\B0113_2023_08_SIDEWALK AND PARAPET DETAILS, BILL OF BARS.dgn PLOT DATE : 11/14/2022 10:26:49 AM PLOT BY : jphagen PLOT NAME : B0113_2023_08_SIDEWALK AND PARAPET DETAILS, BILL OF BARS.dgn PLOT SCALE : 7:6.0002 FT:in / in.

STATE PROJECT NUMBER
2984-12-73



PLAN VIEW OF DECK - STAGE 1

JOINTS 2-10



PLAN VIEW OF DECK - STAGE 2

JOINTS 2-10

NOTES

- AT DECK SCUPPERS LOCATED AT EAST & WEST SIDE OF JOINT NUMBER'S 3 (S. SIDE OF EXP. JNT.) AND 10 (N. SIDE OF EXP. JNT.). ADJUST EXP. JNT. REPLACEMENT LIMITS AS NECESSARY TO EDGE OF EXISTING DECK SCUPPER CASTING. SCUPPERS TO REMAIN.
- SEE SHT. 12 FOR TRAFFIC ISLAND SECTION (1/12) AT WEST SIDE JOINT 10/BENT 12
- REPLACE SIDEWALK BRACKETS 13BIR AND 15BIL AT EAST AND WEST SIDE OF SPAN 7. SEE SHTS. 2 AND 35.
- REPLACE SIDEWALK BRACKETS 91B22R AND 91B22AL AT EAST SIDE OF BENTS 3 AND 4. SEE SHTS. 3 AND 35.

KEY:

- ☆ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.
- ◭ RADIAL DIM. AT BENTS 3, 11 & 12. PERPENDICULAR DIM. AT BENTS 4, 6, 7, 8, 9 & C/L SPAN 7
- ☒ SEE LAYOUT TABLE (SHEET 10)
- ⊗ SEE BENT SPECIFIC SECTION SHEET 10 & 11

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY	H.M.D.	PLANS CK'D.	J.P.H.

DECK PLANS
STAGES 1&2 AT
EXP. JOINTS 2-10

SHEET 9 OF 47
72

REVISED DATE: 08-29-2022 BY GJR

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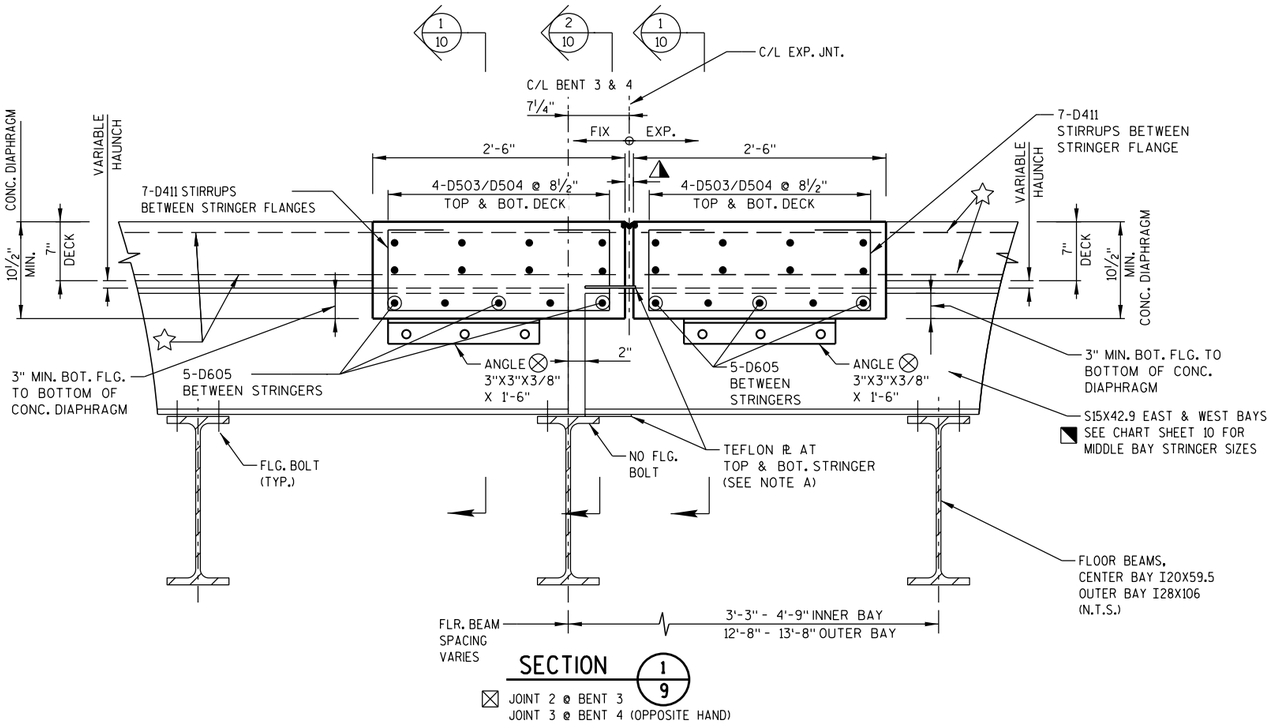
8

STATE PROJECT NUMBER

2984-12-73



SECTION 1/9

☒ JOINT 2 @ BENT 3
JOINT 3 @ BENT 4 (OPPOSITE HAND)

LAYOUT TABLE

JOINT #	BENT #	EXP	FIXED	OFFSET C/L BENT	CENTER BAY STRINGER / FLOOR BEAM W MIDDLE E	OUTER BAY STRINGER / FLOOR BEAM	STA. ALONG T/L @ C/L JOINT	MISC
1	S. ABUT.	N.	S.	N/A	W 6x15	GIRDER 77 G 5-8 E.BAY 76 G 5-8 W.BAY	11+81.44	28° 40' RHF
2	3	S.	N.	7 1/4" S. C/L BENT 3	NORTH W 6x15 SOUTH W 6x15 F.B. I 20x59.5 N. / S.	S 15x42.5 F.B. = I 28x106	13+09.14	6°30' RHF SKEW , REPLACE SIDEWALK BRACKET 91B22A EAST SIDE (SEE SHEET 33)
3	4	N.	S.	7 1/4" N. C/L BENT 4	NORTH W 8x13 W 6x15 W 8x13 SOUTH W 6x15 F.B. I 20x59.5 N. / S.	S 15x42.5 F.B. = I 28x106	13+62.45	REPLACE SIDEWALK BRACKET 91B22R EAST SIDE (SEE SHEET 33)
4	6	S.	N.	3'-10" S. C/L BENT 6	NORTH W 10x12 W 12x14 W 10x12 SOUTH W 10x12 W 12x1 W 10x12 F.B. I 20x59.5 N. / S.	S 15x42.9 TRUSS #17S10	14+95.02	
5	7	N.	S.	5'-7 1/2" N. C/L BENT 7	NORTH W 14x30 W 18x35 W 14x30 SOUTH W 14x30 W 18x35 W 14x30 F.B. 41FB6 N. JOINT 139G3 S. JOINT	W 12x35 or I 12x31.8 F.B. 41FB1 N. 139G1 S.	15+83.52	REPLACE SIDEWALK BRACKET 13B1R EAST SIDE NORTH BRACKET (SEE SHEET 33)
6	C/L SPAN 7	N/A	N/A	LOCATED AT CENTER OF BASCULE SPAN 48'-0" N. / S. BENT 7/8 C/L	N. / S. W 14x30 W 18x30 W 14x30 F.B. 41FB10 N. / S.	W 12x35 or I 12x31.8 F.B. 41FB5 N. / S.	16+26.85	
7	8	S.	N.	5'-7 1/2" S. C/L BENT 8	NORTH W 14x30 W 18x35 W 14x30 SOUTH W 14x30 W 18x35 W 14x30 F.B. 41FB6 S. JOINT 139 G2 N. JOINT	W 12x35 or I 12x31.8 F.B. 41FB1A S. 139G1 N.	16+70.18	REPLACE SIDEWALK BRACKET (13B1R) WEST SIDE SOUTH BRACKET (SEE SHEET 33)
8	9	N.	S.	3'-10" N. C/L BENT 9	N. / S. W 10x12 W 12x14 W 10x12 F.B. I 20x59.5	S 15x42.9 TRUSS 17 S10	17+58.68	
9	11	S.	N.	3'-10" S. C/L BENT 11	N. / S. W 8x13 W 10x12 W 8x13 F.B. I 20x59.5 N. / S.	S 15x42.9 TRUSS 17 S10	19+11.02	
10	12	N.	S.	3'-10" N. C/L BENT 12	NORTH W 6x15 SOUTH W 8x13 F.B. 112G1 WITH 26 B2	S 15x42.9 F.B. 72G2 N. 112 G1 / 72 G1	19+91.34	13° RHF SKEW AT WEST WALK

NOTES:

A. TEFLON PLATE TO BE BENT AROUND FLANGES (SIDE EDGES AND BOTTOM OF BOTTOM STRINGER).

B. DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36. BOLTS ARE ¾" DIA. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

C. ALL SUPPORT ANGLES SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED. IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563. LUBRICANT AND TEST FOR COATED NUTS.

D. ALL DIAPHRAGM SUPPORT HARDWARE SHALL BE PAID UNDER BID ITEM 506.0105 STRUCTURAL STEEL CARBON.

E. SEE SECTION 1/12 FOR WEST SIDE OF EXP. JNT. 10.

LEGEND

✳ USE SECTION 2 ONLY AT PORTION OF FIXED SLAB BEARING ON EXPANSION STRINGERS

■ USE SECTION 1 AT FIXED AND EXPANSION SLAB

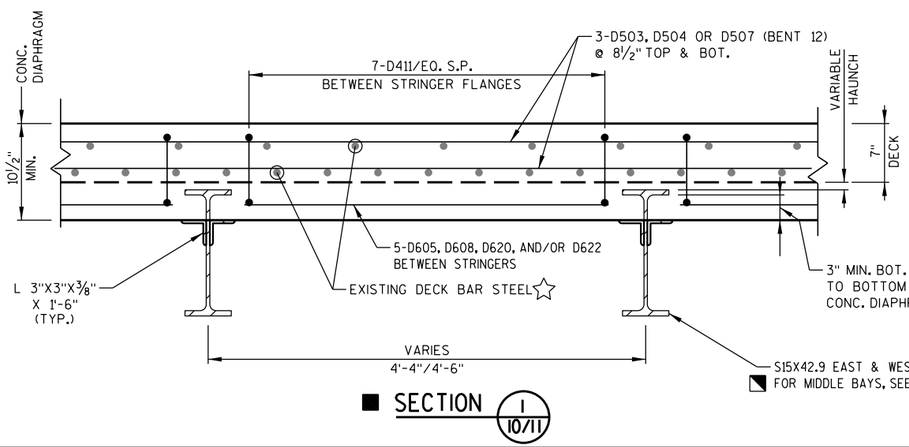
◥ FOLLOW LEGEND AND TABLE ON SHEETS 6 & 7 FOR CENTER BAY STRINGER SIZES

☆ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.

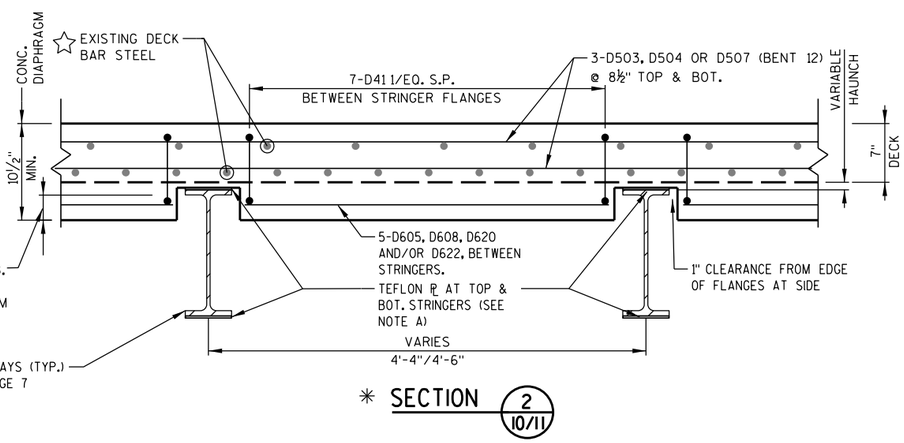
☒ SEE LAYOUT TABLE

⊗ LOCATIONS DETERMINED BY ENGINEER (SEE NOTE B)

◭ SET JOINT OPENING TO 1¾" NORMAL TO JOINT.



■ SECTION 1/10/11



✳ SECTION 2/10/11

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

CROSS SEC. AT EXP. JOINTS 2&3 STAGES 1 AND 2

SHEET 10 OF 47
73

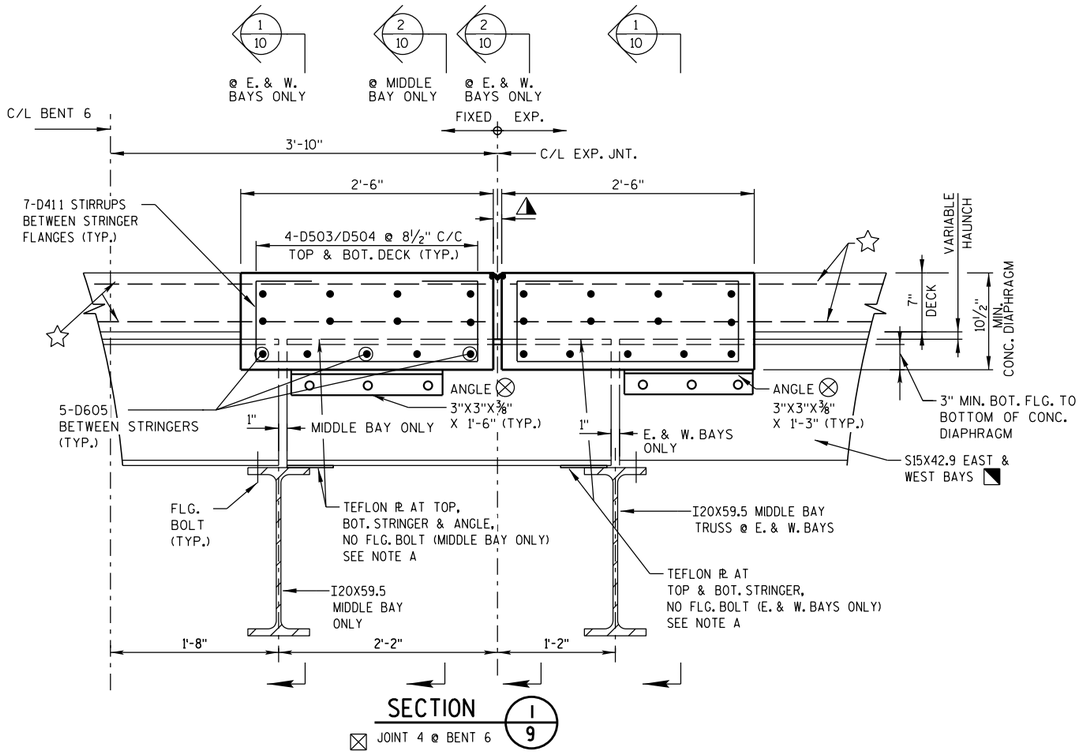
REVISED DATE: 11-03-2022 BY GJR

8

8

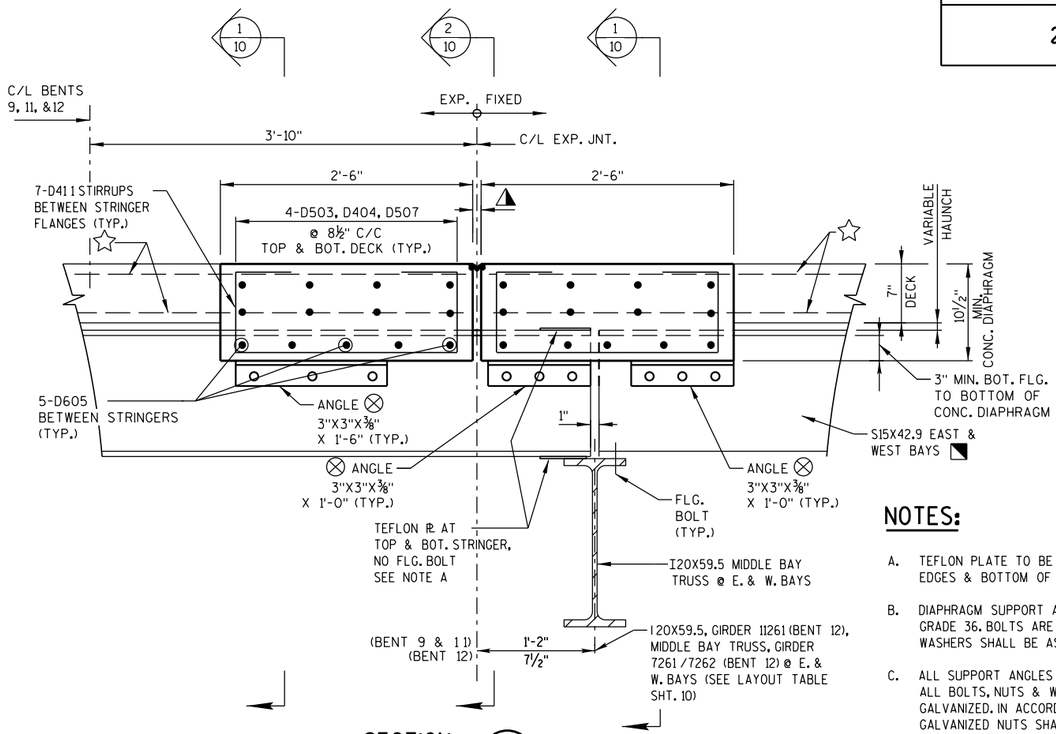
STATE PROJECT NUMBER

2984-12-73



SECTION 1/9

⊠ JOINT 4 @ BENT 6



SECTION 1/9

JOINT 8 @ BENT 9 AND
JOINT 10 @ BENT 12 (OPPOSITE HAND)
JOINT 9 @ BENT 11

NOTES:

A. TEFLON PLATE TO BE BENT AROUND FLANGES (SIDE EDGES & BOTTOM OF BOTTOM STRINGER.)

B. DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36. BOLTS ARE ¾" DIA. ALL BOLTS, NUTS & WASHERS SHALL BE ASTM A325 TYPE 1.

C. ALL SUPPORT ANGLES SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS & WASHERS SHALL BE HOT-DIPPED GALVANIZED. IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 & SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563 LUBRICANT & TEST FOR COATED NUTS.

D. ALL DIAPHRAGM SUPPORT HARDWARE SHALL BE PAID UNDER BID ITEM 506.0105 STRUCTURAL CARBON STEEL.

E. SEE SECTION 1/12 FOR WEST SIDE OF EXP. JNT. 10.

LEGEND

✳ USE SECTION 2 ONLY AT PORTION OF FIXED SLAB BEARING ON EXPANSION STRINGERS

◭ SET JOINT OPENING TO 1¾" NORMAL TO JOINT.

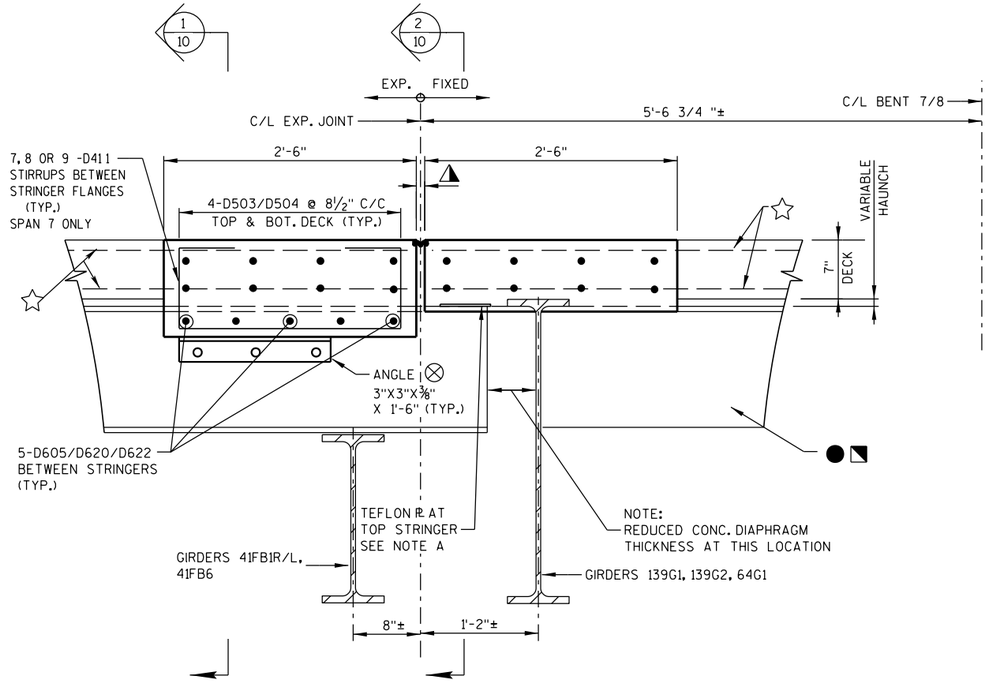
◥ FOLLOW TABLE ON SHEETS 6 & 7 FOR CENTER BAY STRINGER SIZES

☆ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.

⊠ SEE LAYOUT TABLE ON SHT. 10

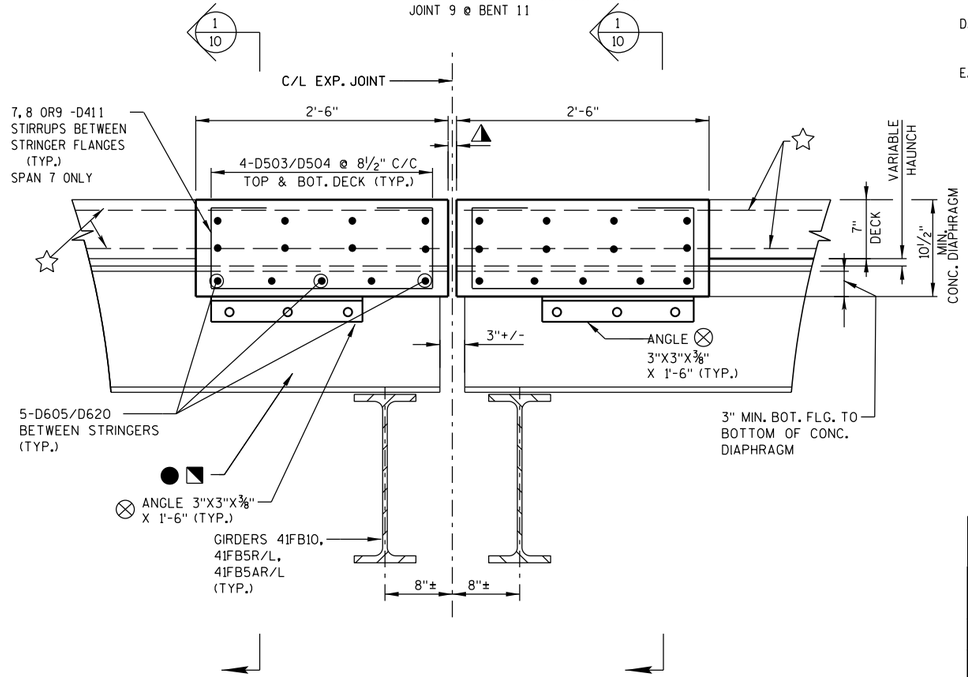
⊗ LOCATION DETERMINED BY ENGINEER

● FOLLOW TABLE ON SHEET 10 FOR STRINGER SIZES



SECTION 1/9

JOINT 5 @ BENT 7
JOINT 7 @ BENT 8 (OPPOSITE HAND)



SECTION 1/9

JOINT 6 @ C/L SPAN 7

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

CROSS SEC. AT EXP. JOINTS 4-10 STAGES 1 AND 2

SHEET 11 OF 47
74

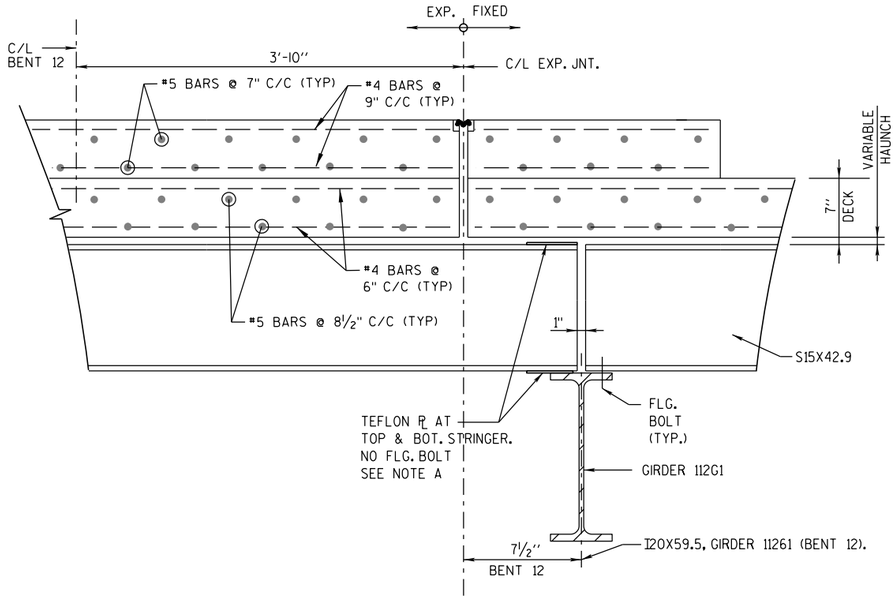
REVISED DATE: 11-03-2022 BY GJR

8

8

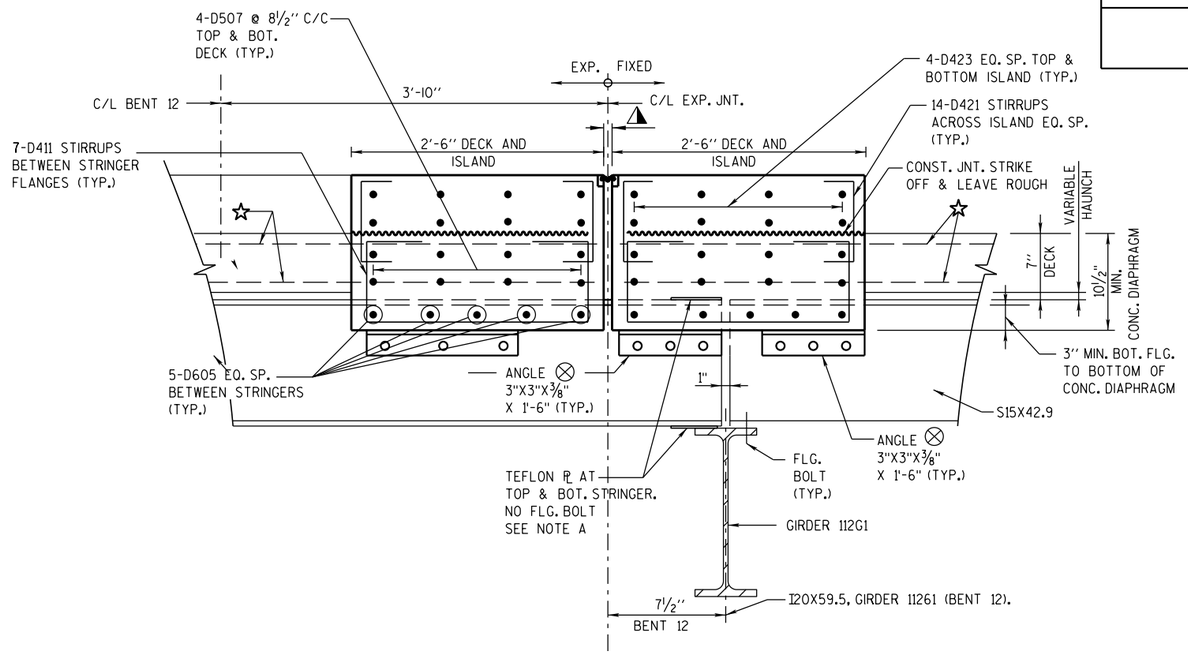
STATE PROJECT NUMBER

2984-12-73



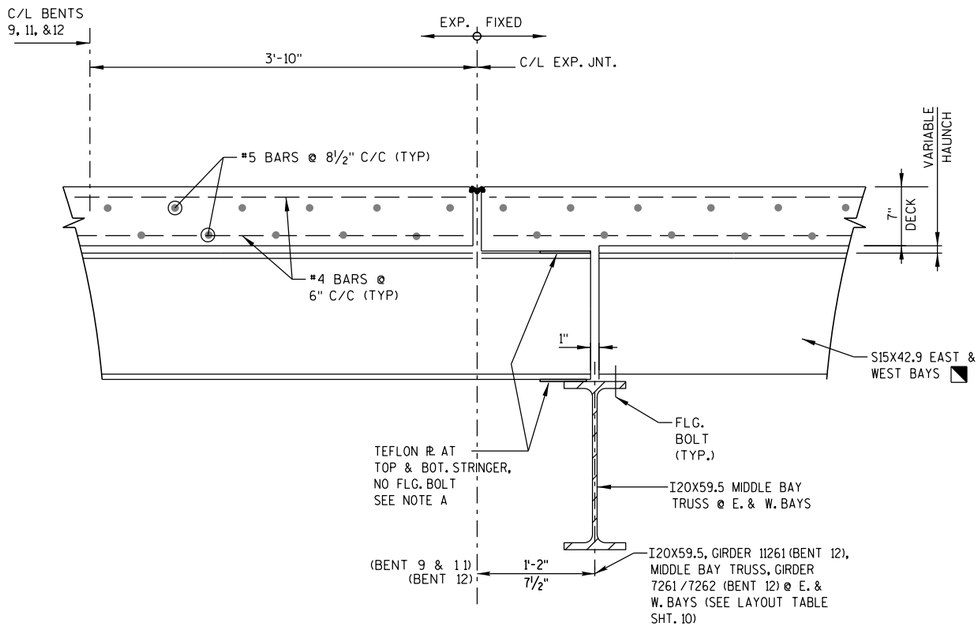
EXISTING SECTION 1/12

JOINT 10 @ BENT 12



SECTION 1/12

JOINT 10 @ BENT 12



EXISTING SECTION 1/9

JOINT 8 @ BENT 9 AND
JOINT 10 @ BENT 12 (OPPOSITE HAND)
JOINT 9 @ BENT 11

NOTES:

A. TEFLON PLATE TO BE BENT AROUND FLANGES (SIDE EDGES & BOTTOM OF BOTTOM STRINGER.)

B. DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36 BOLTS ARE ¾" DIA. ALL BOLTS, NUTS & WASHERS SHALL BE ASTM A325 TYPE 1.

C. ALL SUPPORT ANGLES SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS & WASHERS SHALL BE HOT-DIPPED GALVANIZED. IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 & SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENTS S1 OF ASTM A563 LUBRICANT & TEST FOR COATED NUTS.

D. ALL DIAPHRAGM SUPPORT HARDWARE SHALL BE PAID UNDER BID ITEM 506.0105 STRUCTURAL CARBON STEEL.

☆ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.

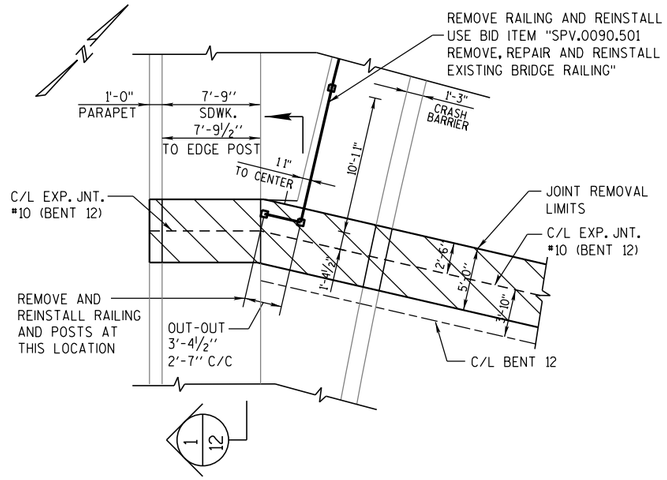
◥ FOLLOW TABLE ON SHEETS 6 & 7 FOR CENTER BAY STRINGER SIZES

☒ SEE LAYOUT TABLE ON SHEET 10

● FOLLOW TABLE ON SHEET 10 FOR STRINGER SIZES

⊗ LOCATIONS DETERMINED BY ENGINEER (SEE NOTE B).

◭ SET JOINT OPENING TO 1¾" NORMAL TO JOINT.



RAILING REMOVAL AND REINSTALLATION PLAN

WEST SIDE EXP. JNT. #10 (BENT 12)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY S.B. | PLANS CK'D. J.P.H.

EXP. JOINT 10 BENT 12 DETAILS

SHEET 12 OF 47

75

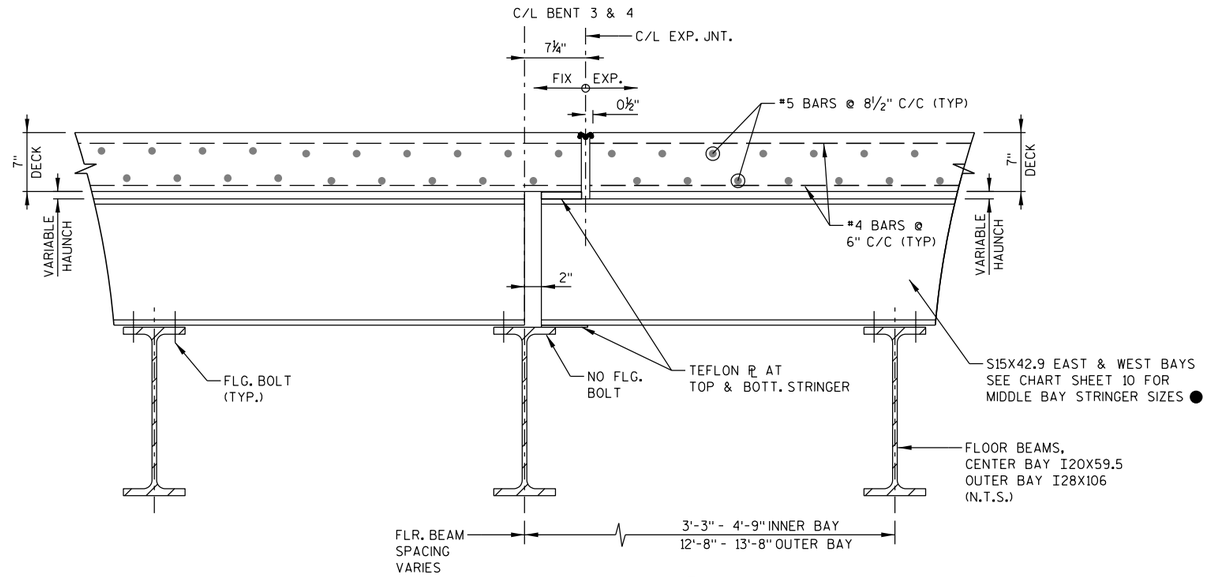
REVISED: 11-03-2022 BY: GJR

8

8

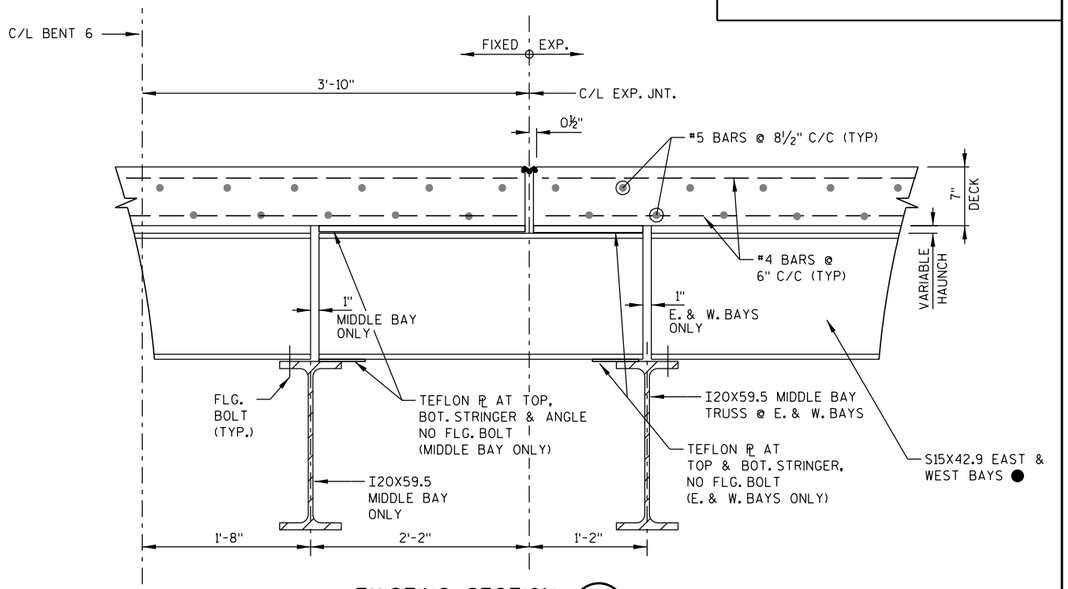
STATE PROJECT NUMBER

2984-12-73



EXISTING SECTION 1/9

☒ JOINT 2 @ BENT 3
JOINT 3 @ BENT 4 (OPPOSITE HAND)



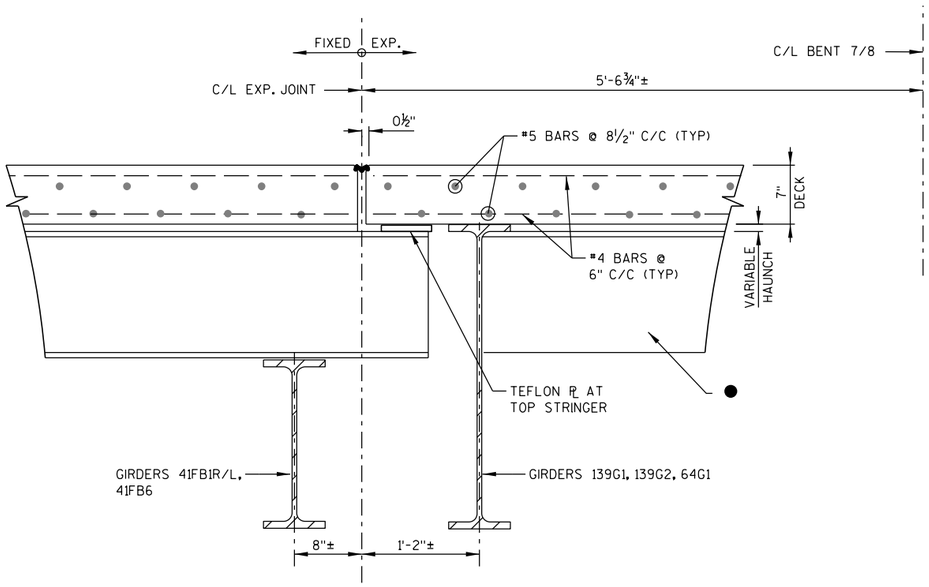
EXISTING SECTION 1/9

☒ JOINT 4 @ BENT 6

LEGEND

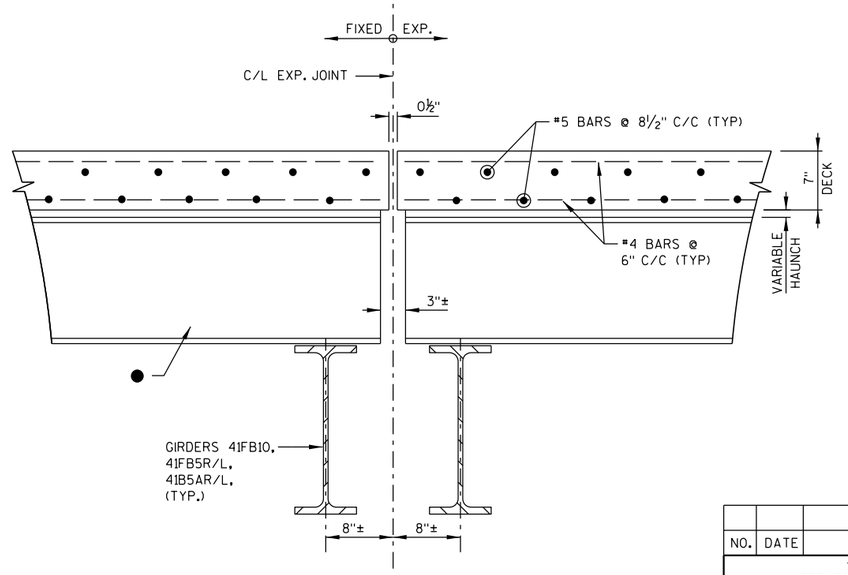
☒ SEE LAYOUT TABLE SHEET 10

● FOLLOW TABLE ON SHEET 10 FOR STRINGER SIZES



EXISTING SECTION 1/9

JOINT 5 @ BENT 7
JOINT 7 @ BENT 8 (OPPOSITE HAND)



EXISTING SECTION 1/9

JOINT 6 C/L SPAN 7

REVISED: 10-31-2022 BY: JC

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY J.C. | PLANS CK'D. J.P.H.

EXISTING EXP. JOINT SECTIONS

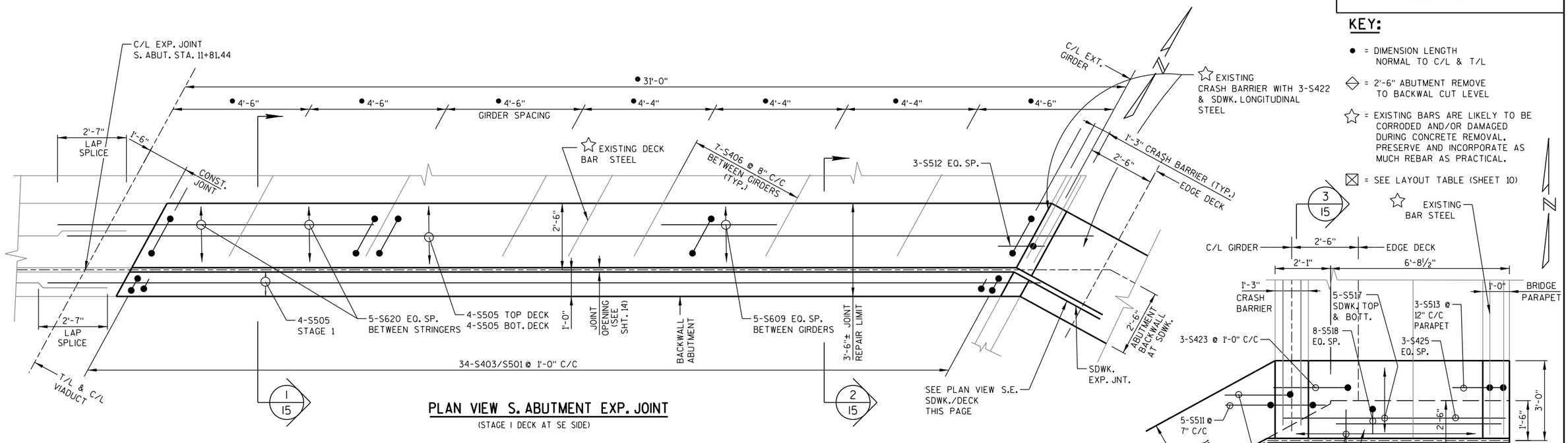
SHEET 13 OF 47
76

STATE PROJECT NUMBER

2984-12-73

KEY:

- ● = DIMENSION LENGTH NORMAL TO C/L & T/L
- ◇ = 2'-6" ABUTMENT REMOVE TO BACKWAL CUT LEVEL
- ☆ = EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL, PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.
- ☒ = SEE LAYOUT TABLE (SHEET 10)

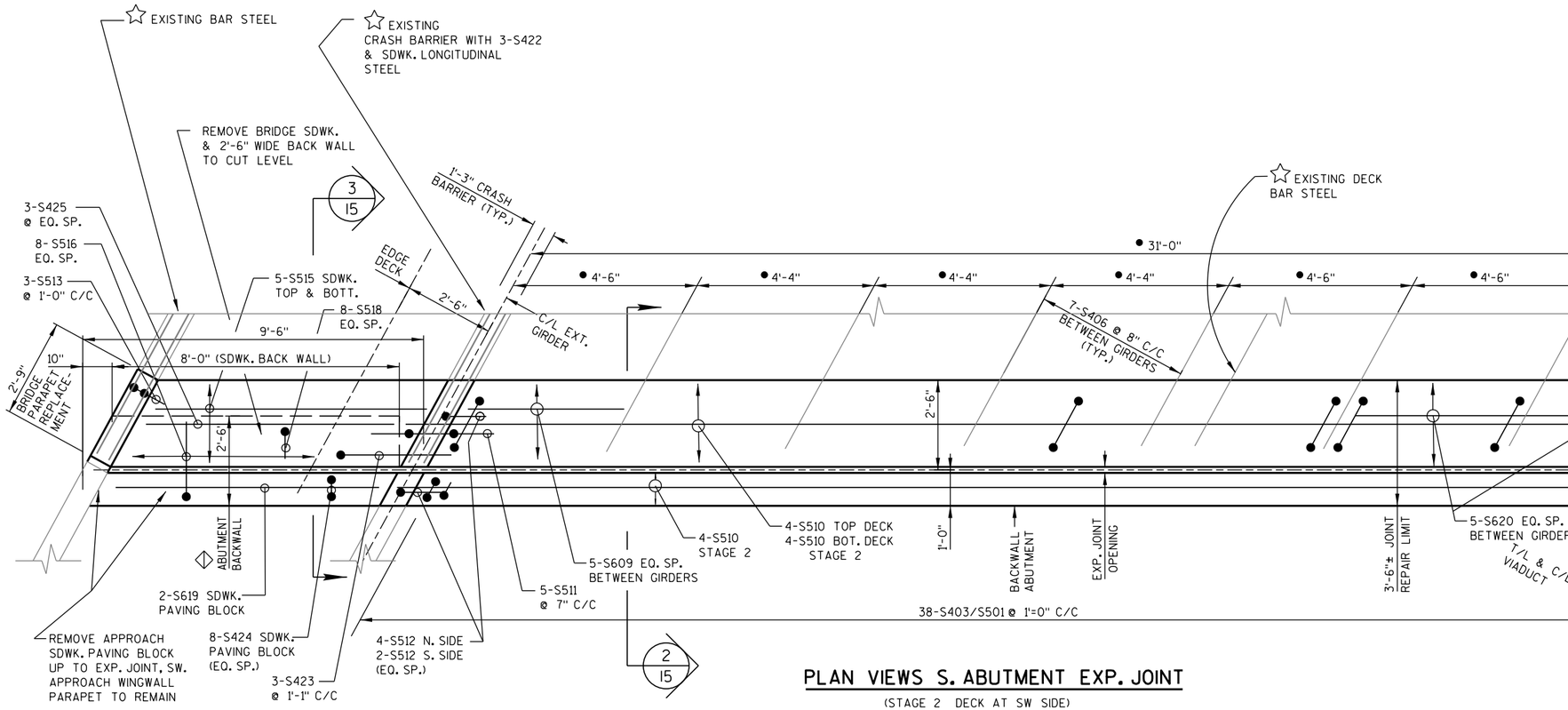


PLAN VIEW S. ABUTMENT EXP. JOINT

(STAGE 1 DECK AT SE SIDE)

PLAN VIEW S. ABUTMENT EXP. JOINT

(SIDEWALK/DECK S.E. SIDE-STAGE 1)



PLAN VIEWS S. ABUTMENT EXP. JOINT

(STAGE 2 DECK AT SW SIDE)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY S.B. | PLANS CK'D. J.P.H.

SOUTH ABUTMENT EXPANSION JOINT PLAN

SHEET 14 OF 47
77

REVISED DATE: 08-17-2022 BY CJR

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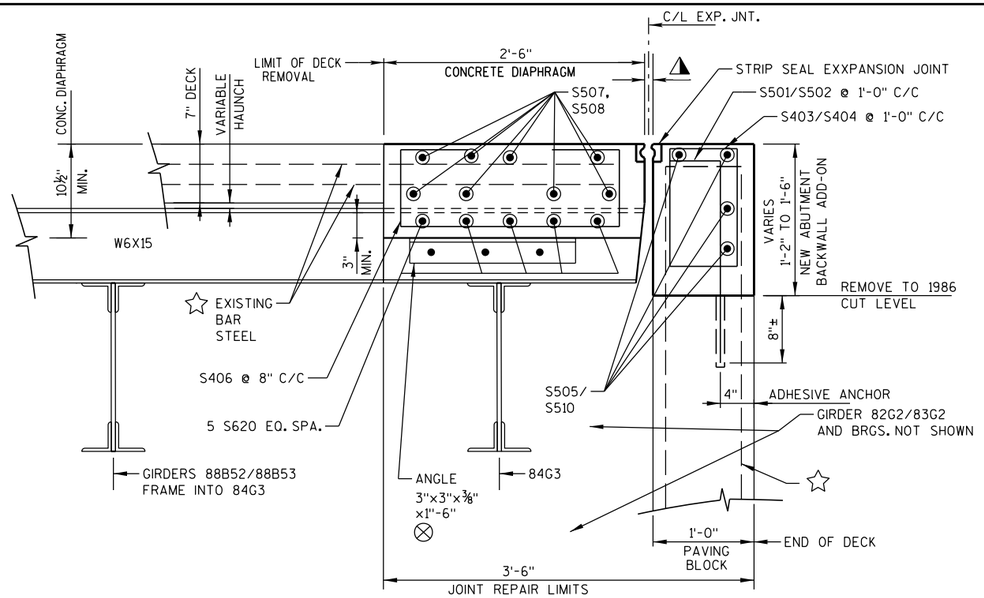
FILE NAME : \\ad\mkedfs\GIS DeptWork\str\b0113\2023 Phase 1\Plans\B0113_2023_14_SOUTH ABUTMENT EXPANSION JOINT PLAN.dgn PLOT DATE : 11/14/2022 10:26:52 AM PLOT BY : jphagen PLOT NAME : B0113_2023_14_SOUTH ABUTMENT EXPANSION JOINT PLAN.dgn PLOT SCALE : 3:9.0001 FT:in / in.

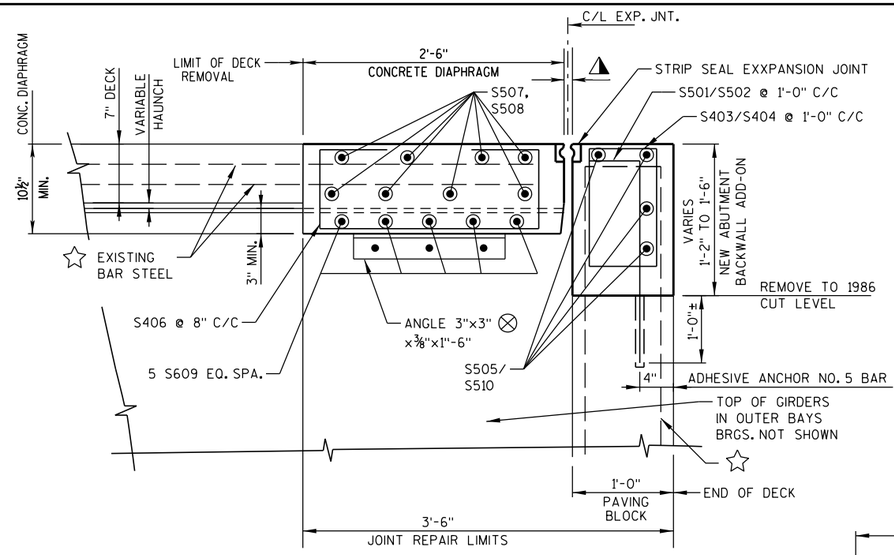
STATE PROJECT NUMBER

2984-12-73



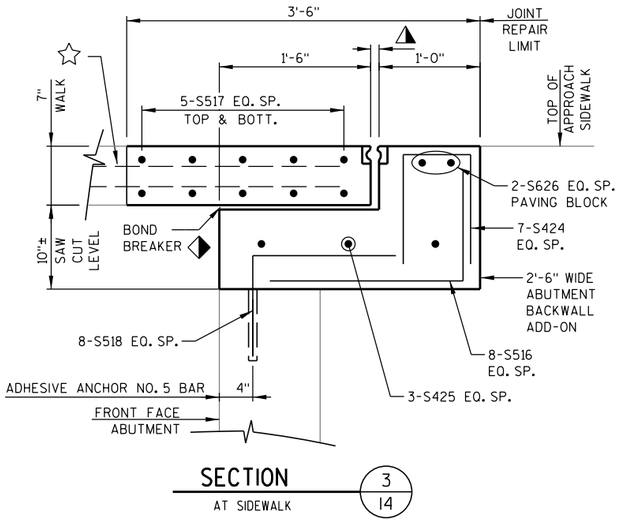
SECTION 1/14

S. ABUTMENT MIDDLE BAY BETWEEN GIRDERS 82G2 & 83G2



SECTION 2/14

S. ABUTMENT OUTER (E. & W.) BAYS



SECTION 3/14

AT SIDEWALK

NOTE:

A. DIAPHRAGM SUPPORT ANGLES SHALL BE ASTM A709 GRADE 36. BOLTS ARE ¾" DIA. ALL BOLTS, NUTS AND WASHERS SHALL BE ASTM A325 TYPE 1.

B. ALL SUPPORT ANGLES SHALL BE HOT-DIPPED GALVANIZED. ALL BOLTS, NUTS AND WASHERS SHALL BE HOT-DIPPED GALVANIZED. IN ACCORDANCE WITH ASTM A153 CLASS C. GALVANIZED NUTS SHALL BE TAPPED OVERSIZED IN ACCORDANCE WITH THE REQUIREMENTS OF ASTM A563 AND SHALL MEET THE REQUIREMENTS OF SUPPLEMENTARY REQUIREMENT S1 OF ASTM A563, LUBRICANT AND TEST FOR COATED NUTS.

C. ALL DIAPHRAGM SUPPORT HARDWARE SHALL BE PAID UNDER BID ITEM 506.0105, "STRUCTURAL STEEL CARBON"

LEGEND

☆ EXISTING BARS ARE LIKELY TO BE CORRODED AND/OR DAMAGED DURING CONCRETE REMOVAL. PRESERVE AND INCORPORATE AS MUCH REBAR AS PRACTICAL.

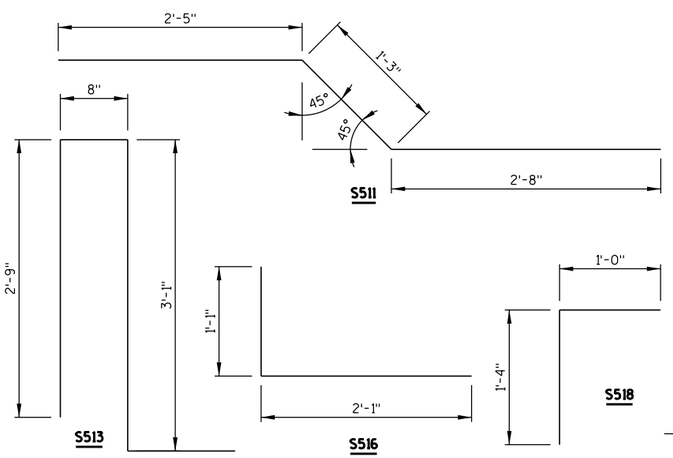
⊗ LOCATIONS DETERMINED BY ENGINEER (SEE NOTE B)

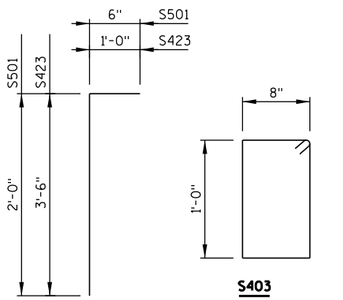
◆ PLACE MULTIPLE LAYERS OF POLYETHYLENE SHEETS OVER ENTIRE ABUTMENT ADD-ON. TOTAL THICKNESS OF SHEETS SHALL BE AT LEAST 0.03".

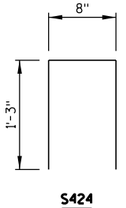
◭ SET JOINT OPENING TO 1¾" NORMAL TO JOINT.

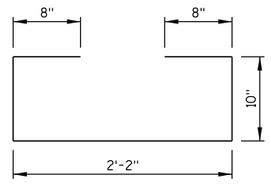
BILL OF BARS - S. ABUTMENT EXP. JOINT

BAR MARK	COAT	NO. REQ'D.	LENGTH	BENT	LOCATION
S501	X	72	2'-5"	X	PAVING BLOCK-VERT. ANCHORS STAGE 1 AND 2
S403	X	72	3'-10"	X	PAVING BLOCK VERT. STAGE 1 AND 2
S505	X	12	39'-3"		PAVING BLOCK-HORIZ. STAGE 1 AND 2
S406	X	99	4'-10"	X	DECK JOINT-VERT. STIRRUP OUTER BAYS
S609	X	50	4'-0"		DECK JOINT- HORIZ. BTWN. GIRD./STIRRUPS OUTER BAYS
S510	X	4	39'-4"		DECK AND PAVING BLOCK-HORIZ. STAGE 2
S511	X	10	6'-3"	X	TIE BAR - DECK AND SIDEWALK
S512	X	12	5'-0"	X	CRASH BARRIER-VERT. TIE BAR (DECK)
S513	X	6	7'-3"	X	PARAPET-VERT. TIE BAR (SDWK.)
S514	X	12	2'-6"		PARAPET-HORIZ. (SDWK.) F.F. & B.F.
S515	X	10	9'-2"		WALK-HORIZ. TOP & BOTTOM STAGE 2
S516	X	8	3'-2"	X	WALK-VERT. TIE BAR STAGES 1& 2
S517	X	10	8'-5"		WALK-HORIZ. TOP & BOTTOM STAGE 1
S518	X	16	2'-4"	X	WALK-VERT. TIE (W)
S619	X	2	8'-6"		WALK-PAVING BLOCK HORIZONTAL STAGE 2
S620	X	20	5'-1"		DECK JOINT-HORIZ. BTWN. GIRD./STIRRUPS MIDDLE BAY (STAGES 1& 2)
S422	X	6	2'-3"		CRASH BARRIER-HORIZONTAL(STAGES 1 AND 2)
S423	X	6	4'-5"	X	BOTTOM HORIZ.-SIDEWALK DECK OVERHANG (STAGES 1& 2)
S424	X	15	2'-11"	X	WALK-VERT. PAVING BLOCK TIE
S425	X	6	8'-0"		WALK HORIZ. BACKWALL ADD-ON
S626	X	2	7'-2"		WALK PAVING BLOCK HORIZ. STAGE 1









NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY S.B. | PLANS CK'D. J.P.H.

SOUTH ABUTMENT EXPANSION JOINT DETAILS

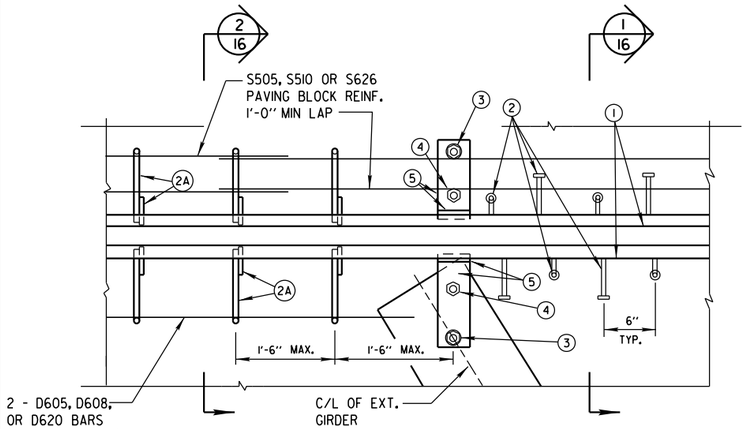
SHEET 15 OF 47

78

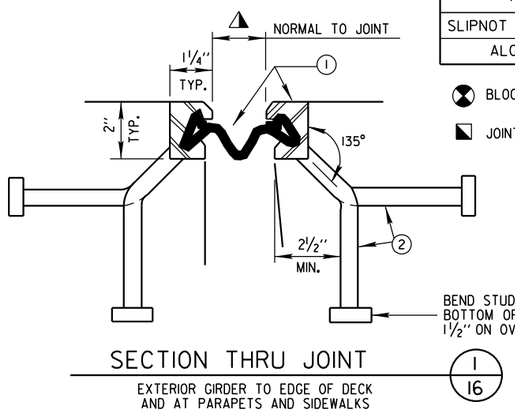
REVISED DATE: 11-03-2022 BY GJR

8

8



PARTIAL PLAN STRIP SEAL EXPANSION JOINT



SECTION THRU JOINT

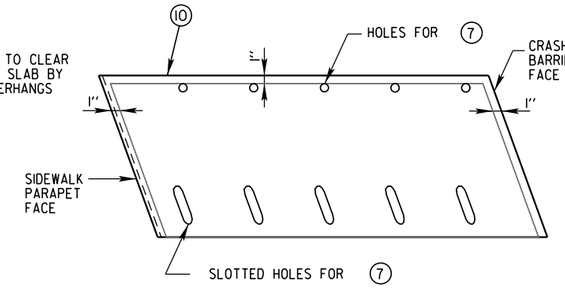
EXTERIOR GIRDER TO EDGE OF DECK
AND AT PARAPETS AND SIDEWALKS

1
16

APPROVED SLIP-RESISTANT APPLIED SURFACES FOR STEEL PLATES		
PRODUCT	MANUFACTURER	CONTACT AT
SLIPNOT GRADE 2, STEEL	W. S. MOLNAR COMPANY	1-800-SLIPNOT
ALGRIP, STEEL	ROSS TECHNOLOGY CORP.	1-800-345-8170

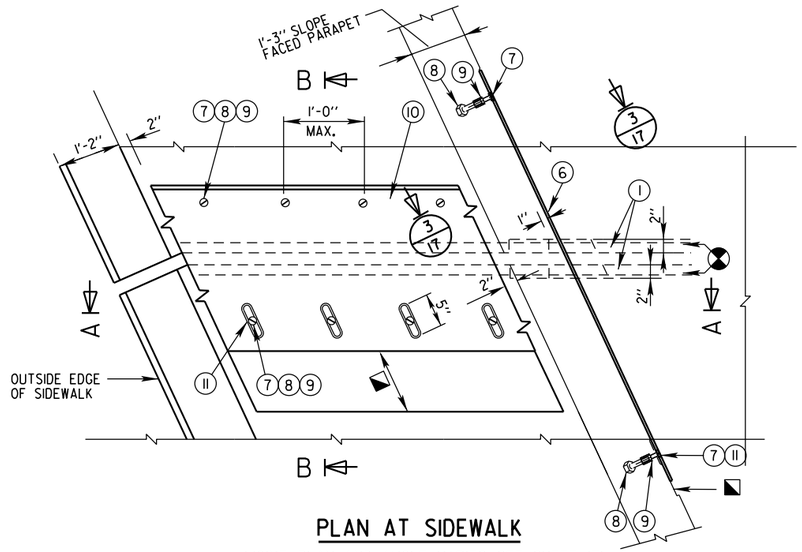
⊗ BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

◪ JOINT OPENING DIM. ALONG SKEW PLUS ½"



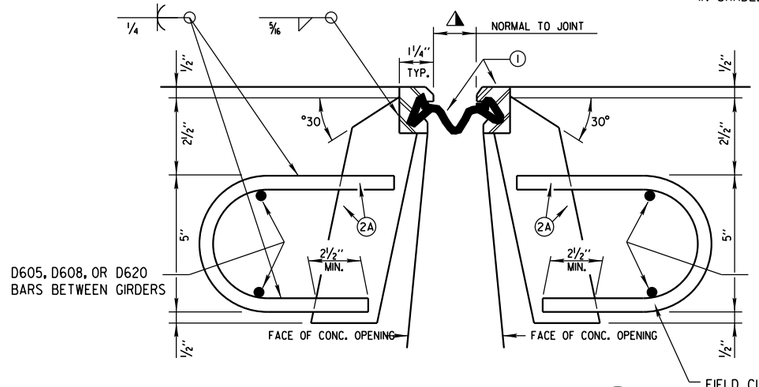
PLAN OF SIDEWALK COVER PLATE WITH SLIP-RESISTANT SURFACE

PLACE SLIP-RESISTANT SURFACE ON TOP WALKING SURFACE
IN SHADED AREA ONLY (NOT ON CURB FACE).



PLAN AT SIDEWALK

(JOINT PLAN AND ANGLE VARIES, SEE SHEET 17)

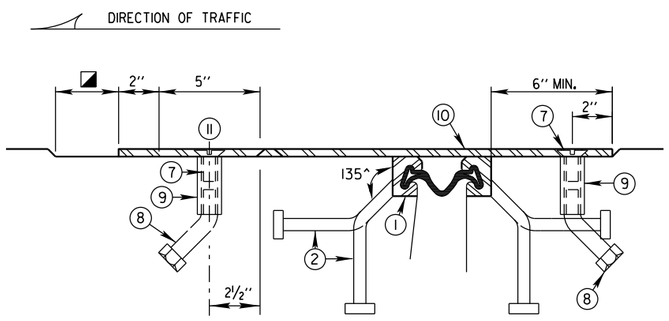


SECTION THRU JOINT AT DECK

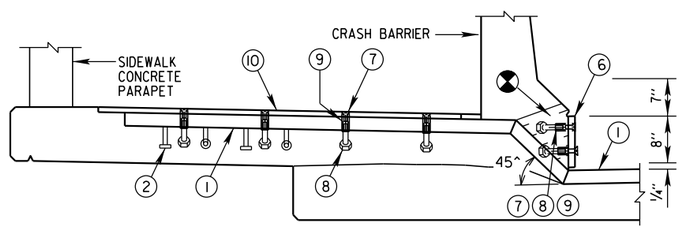
ROADWAY TRAFFIC AREA
BETWEEN GIRDERS

2
16

FIELD CUT 2A INCLUDING 1/2" THICK PLATE AND 5/8" DIA. ROD AS NECESSARY IN FIELD. TACK WELD 5/8" ROD TO REINFORCE REMAINING SECTION.



SECTION B-B



SECTION A-A

LEGEND

⚠ (1) NEOPRENE STRIP SEAL (4-INCH) AND STEEL EXTRUSIONS. SET JOINT OPENING TO 1¾".

(2) STUDS ⅝" DIA. x 6⅜" LONG AT 6" ALTERNATE CENTERS. WELD TO EXTRUSIONS AND BEND AS SHOWN AFTER WELDING.

(2A) ½" THICK ANCHOR PLATE WITH ⅝" DIA. ROD (OR ALTERNATE STRIP SEAL ANCHOR). WELD ROD TO ANCHOR PLATE, WELD ANCHOR PLATE TO NO. 1 AT 1'-6" CENTERS BETWEEN GIRDERS.

(3) ¾" DIA. THREADED ROD WITH 2 NUTS AND PLATE WASHERS. FOR STEEL GIRDERS WELD THREADED ROD TO TOP FLANGE OR ATTACH BY BOLTING THRU FLANGE. ON ABUTMENT SIDE GROUT THREADED ROD INTO FIELD DRILLED HOLES IN ABUTMENT BACKWALL AS SHOWN.

(4) ¾" DIA. THREADED ROD WITH NUT. TACK WELD NUT TO NO. 5.

(5) FABRICATE SUPPORT FROM 3" x ½" BAR AS SHOWN OR EQUIVALENT. ONE PER GIRDER PER SIDE. SHOP OR FIELD WELD TO NO. 1. IF FIELD WELDED, COVER WELDED AREAS WITH EPOXY COATING MATERIAL. PROVIDE 1½" DIA. HOLE FOR NO. 3 AND 1" DIA. HOLE FOR NO. 4.

(6) GALVANIZED PLATE ⅜" X 7¾" X 2'-2" (FOR SKEWS TO 45 DEGREES) WITH HOLES FOR NO. 7.

(7) ¾" DIA. X 1½" STAINLESS STEEL SOCKET FLAT HEAD SCREWS WITH ANTI-SIEZE LUBRICANT. PLACE IN COUNTERSUNK HALL. RECESS 1/16" BELOW PLATE SURFACE.

(8) ¾" DIA. X 4" GALVANIZED HEX HEAD BEND. BEND 45^

(9) ¾" DIA. X 2¼" GALVANIZED THREADED COUPLING.

(10) SIDEWALK COVER PLATE ⅜" X 2'-0" WIDE X LIMITS SHOWN. BEND DOWN FACE OF SIDEWALK WITH HOLES FOR NO. 7. GALVANIZED PLATE AFTER SLIP-RESISTANT SURFACE IS APPLIED.

(11) 1" X 5" SLOTTED COUNTERSUNK HOLE FOR NO. 7. PLACE SLOT PARALLEL TO DIRECTION OF MOVEMENT.

NOTES

ONE FIELD SPLICE PERMITTED IN STEEL EXTRUSIONS. UNLESS MORE ARE REQUIRED FOR STAGED CONSTRUCTION. HANDILING OR GALVANIZING REQUIREMENTS. IF USED, ANCHOR PLATES SHALL BE PROVIDED 3" FROM EACH SIDE OF THE FIELD SPLICE. DETAILS SHALL BE SUBMITTED FOR APPROVAL. NO SPLICING IS PERMITTED IN NEOPRENE STRIP SEAL.

AFTER FABRICATION, BUT BEFORE SHIPMENT, STRAIGHTEN STEEL EXTRUSIONS SUCH THAT THEY SHALL BE FREE FROM WRAP, TWIST AND SWEEP.

FABRICATION SHALL PROVIDE MEANS FOR KEEPING GALVANIZED EXTRUSIONS CLEAN AND SMOOTH DURING SHIPMENT AND PRIOR TO APPLYING LUBRICANT ADHESIVE FOR NEOPRENE GLAND INSTALLATION.

SANDBLAST PLATES, SUPPORTS AND EXTRUSIONS AFTER FABRICATION IN ACCORDANCE WITH SSPC SP. #6 "COMMERCIAL BLAST CLEANING". AFTER BLAST CLEANING, THE PLATES, SUPPORTS AND EXTRUSIONS SHALL BE HOT DIPPED GALVANIZED. SLIP-RESISTANT SURFACE IS APPLIED TO SIDEWALK COVER PLATES BY THE MANUFACTURER AND THEN HOT DIPPED GALVANIZED TO THEIR RECOMMENDATIONS TO MAINTAIN THE INTEGRITY OF THIS SURFACE.

ANCHOR SUSTEM NO.8 AND NO.9 SHALL CONFIRM TO ASTM A307 & SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153 CLASS C AND D.

ALL MATERIAL IN THE EXPANSION JOINT ASSEMBLY, INCLUDING ANCHOR STUDS AND HARDWARE SHALL BE PAID AT THE UNIT PRICE BID FOR "EXPANSION DEVICE", LF.

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

EXPANSION JOINT DETAILS

SHEET 16 OF 47
79

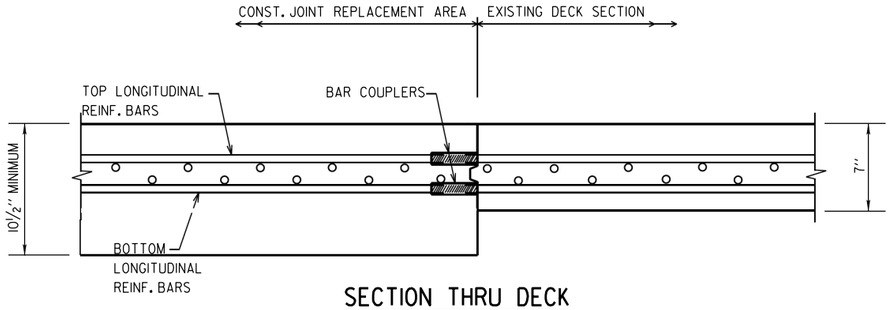
REVISED DATE: 11-09-2022 BY JC

8

8

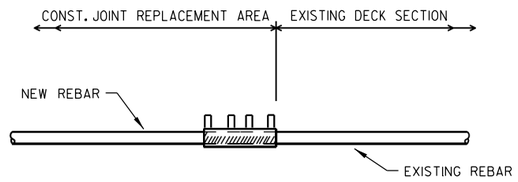
STATE PROJECT NUMBER

2984-12-73



SECTION THRU DECK

ONE-PIECE THREADED COUPLER SHOWN



BOLTED REBAR COUPLER

BAR COUPLER ALTERNATIVE

EXPANSION JOINT DIMENSION TABLE

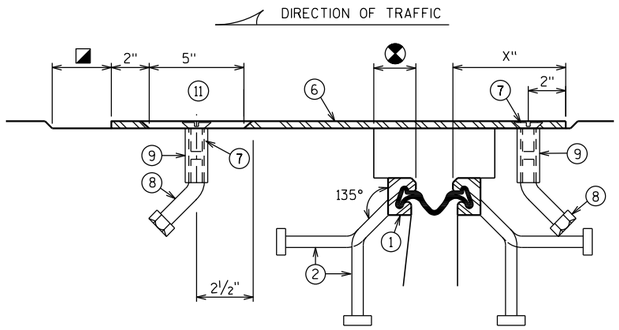
		SLOPE %				DIMENSION (FT)					ANGLE PNT	
LOCATION	EXP. JNT.	A	B	C	D	A	B	C	D	E	A	B
S. ABUT	1	3.24	2.08	-1.00	1.16	85.52	9.25	34.59	33.89	7.79	-26.74	0.00
BENT 3	2	1.28	1.09	0.83	-1.03	75.98	7.79	30.21	30.19	7.79	-7.18	6.26
BENT 4	3	0.39	1.10	0.90	-1.28	75.58	7.79	30.00	30.00	7.79	0.00	0.00
BENT 6	4	-0.39	1.30	1.72	0.00	75.58	7.79	30.00	30.00	7.79	0.00	0.00
BENT 7	5	2.18	1.63	1.63	1.03	75.58	7.79	30.00	30.00	7.79	0.00	0.00
C/L SPAN 7	6	1.93	1.63	1.83	1.67	75.58	7.79	30.00	30.00	7.79	0.00	0.00
BENT 8	7	2.31	1.80	1.73	1.41	75.58	7.79	30.00	30.00	7.79	0.00	0.00
BENT 9	8	1.03	1.70	1.67	1.41	75.58	7.79	30.00	30.00	7.79	0.00	0.00
BENT 11	9	0.77	1.27	1.45	0.90	75.58	7.79	30.00	30.00	7.79	0.00	0.00
BENT 12	10*	1.13	-0.50	0.63	1.93	85.50	17.71	30.00	30.00	7.79	0.00	-13.00
	* Angle point offset from crash barrier curb 9.95 ft on west side							DATA SOURCE: 1986 DESIGN PLANS				

+∠ = FORWARD STATION (PLUS)
-∠ = BACK STATION (MINUS)

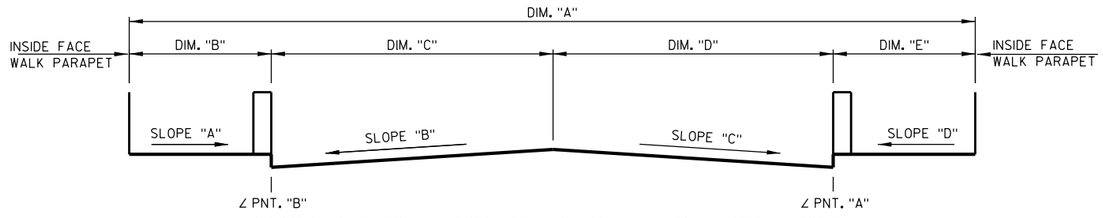
"X" - VALUE IN INCHES USE "X" = 6-1/2" FOR 0° SKEW						
SKEW	5°	10°	15°	20°	25°	30°
RHF	6½	6½	6½	6½	6½	6½
LHF	7	7½	8	8½	9	9½

HOLTON FACILITY TABLE

JNT. #	BENT #	# OF CONDUIT EAST	# OF CONDUIT WEST	SCUPPER, UTILITY AND ELECTRIC BOX LOCATIONS
1	S. ABUT.	1	1	TEMPORARILY MOVE OR SUPPORT OUTDOOR LIGHTING AT E. SIDE OF E. PARAPET DURING CONSTRUCTION (SEE SPV.0105.590 PROTECTING UTILITIES)
2	3	1	1	
3	4	1	1	SCUPPERS @ E. AND W. (S. EXP JOINT.)
4	6	1	1	
5	7	1	2	ELECTRIC BOX @ W.SIDE , S. PARAPET (SEE SPV.0060.592 JUNCTION BOX 14" X 8" X 6"). TEMPORARILY MOVE OR SUPPORT ELECTRIC METER AT W. SIDE S.EXP JOINT (SEE SPV.0105.590 PROTECTING UTILITIES).
6	C/L SPAN 7	1	2	
7	8	1	1	ELECTRIC BOX @ W.SIDE / S. PARAPET (SEE SPV.0060.592 JUNCTION BOX 14" X 8" X 6").
8	9	1	1	
9	11	1	2	
10	12	1	2	SCUPPERS @ E. AND W. (N. EXPANSION JOINT).

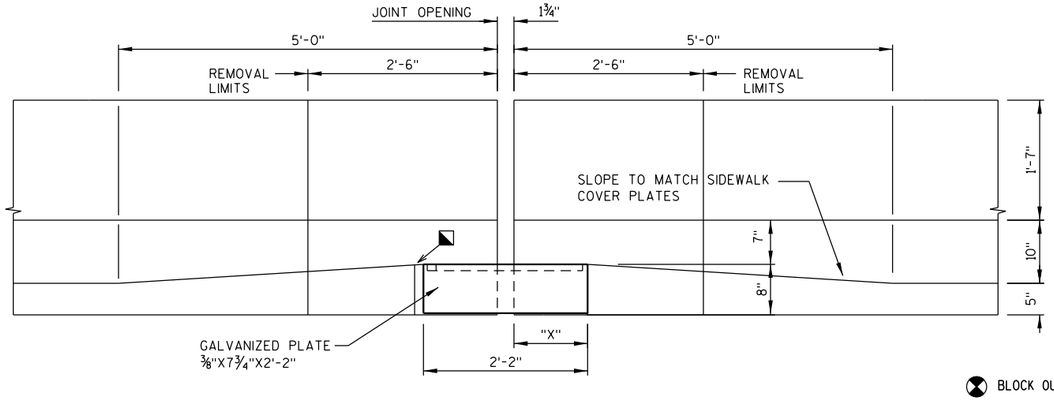


SECTION D-D

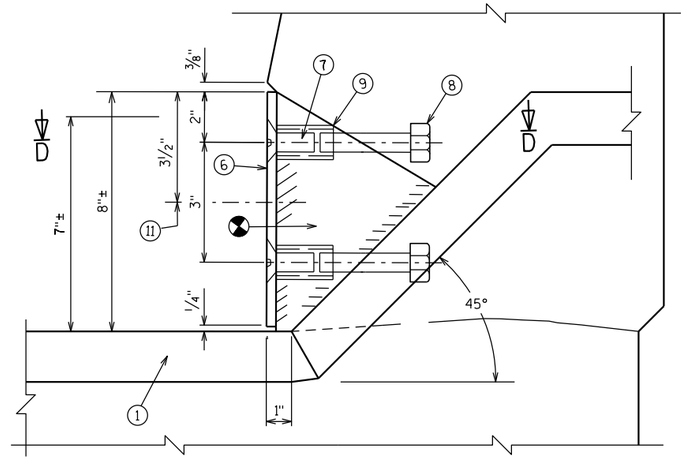


CROSS SECTION THRU ROADWAY AT EXPANSION JOINT

(LOOKING NORTH)

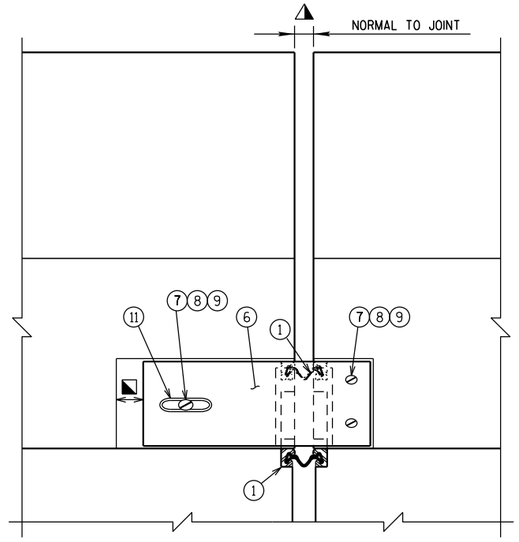


ROADWAY SIDE ELEVATION VIEW OF EXPANSION JOINT OPENING (TYP.)



SECTION 3/16

CRASH BARRIER



VIEW OF PARAPET PLATE FROM ROADWAY

NOTE- SEE LEGEND ON SHEET 16

BLOCK OUT CONCRETE 2" EACH SIDE OF JOINT OPENING.

JOINT OPENING DIM. ALONG SKEW PLUS ½"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY J.C. | PLANS CK'D. J.P.H.

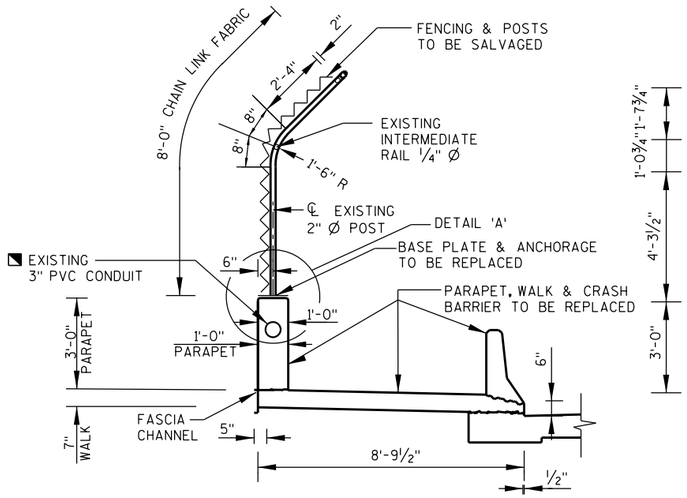
EXPANSION JOINT DATA TABLE

SHEET 17 OF 47

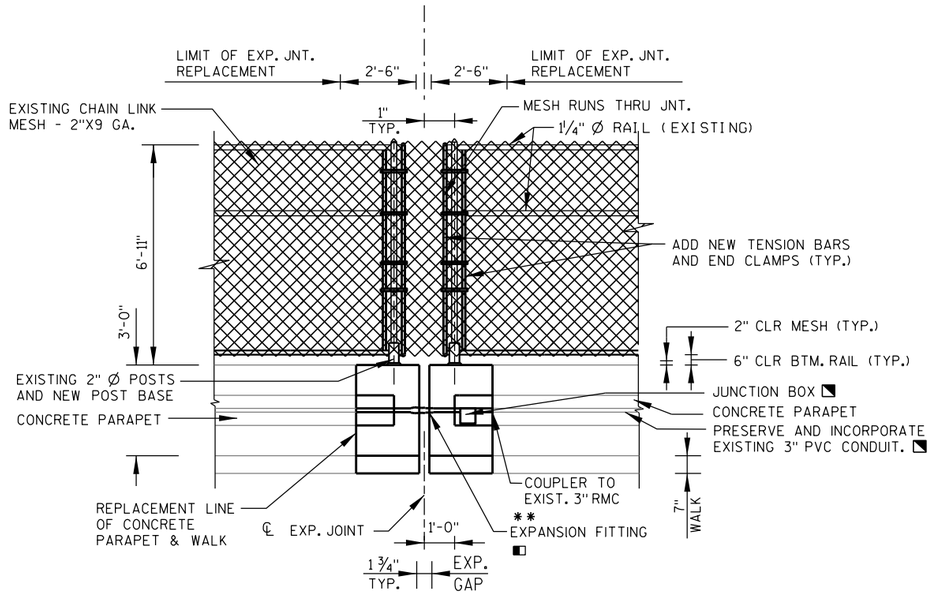
80

8

8

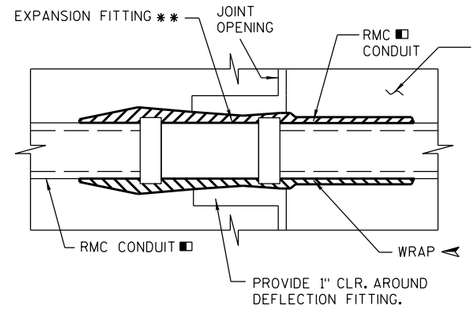


SECTION THRU FENCE ON PARAPET

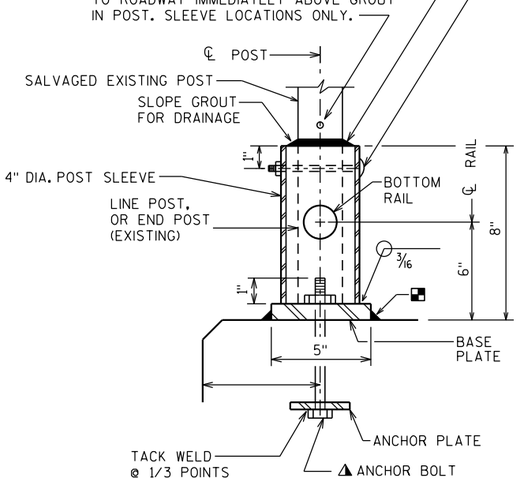


FENCE PART ELEVATION

INSIDE FACE



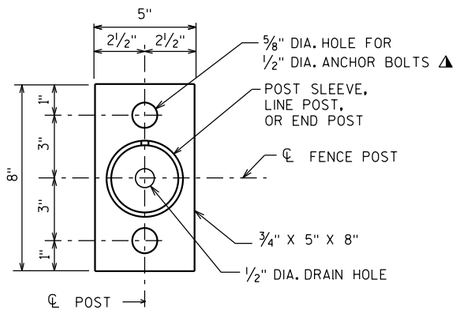
EXPANSION FITTING DETAIL



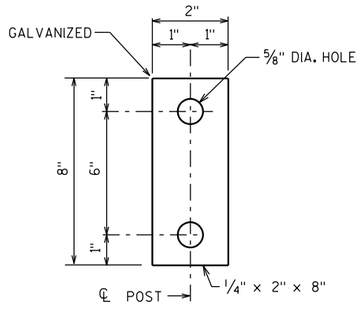
DETAIL 'A'

UNIT SHALL BE GALVANIZED AFTER FABRICATION

NOTE: IN LIEU OF USING THE POST SLEEVE, THE FENCE POST MAY BE WELDED TO THE BASE PLATE.

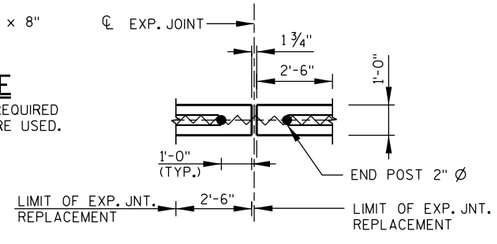


BASE PLATE



ANCHOR PLATE

☆ NOTE: ANCHOR PLATE NOT REQUIRED WHEN ADHESIVE ANCHORS ARE USED.



FENCE PLAN

NOTES

CONDUIT SHALL BE EMBEDDED 2" CLEAR.

CONDUIT FITTINGS, CONDUIT BENDS, ADAPTER FITTINGS AND EXP. FTG. INCIDENTAL TO CONDUIT WORK. CONDUIT PAID WITH BID ITEM 652.0135 CONDUIT RIGID METALLIC 3-INCH

CONDUIT BENDS SHALL CONFORM TO THE NATIONAL ELECTRIC CODE.

PROVIDE JUNCTION BOXES ACCORDING TO SPECIFICATIONS. JUNCTION BOXES PAID WITH BID ITEM SPV.0060.594 JUNCTION BOX 14"X8"X6"

SALVAGE POSTS AND FENCING PAID WITH BID ITEM SPV.0090.530 REHABILITATION OF CHAIN LINK FENCE

LEGEND

- ◪ CAULK AROUND PERIMETER OF BASE PLATE AND FILL PORTION OF SLOTTED HOLE AROUND ANCHOR BOLT IN SHIM WITH NON-STAINING GRAY NON-BITUMINOUS JOINT SEALER.
- △ ANCHOR BOLTS, NUTS AND WASHERS SHALL BE EITHER STAINLESS STEEL OR ASTM 307. IF 307 IS USED, ANCHOR BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED.
- ☆ ALTERNATIVE ANCHORAGE: CONCRETE ADHESIVE ANCHORS 1/2-INCH, EMBED 7" IN CONCRETE. ADHESIVE ANCHORS SHALL CONFORM TO SECTIONS 502.2.12 AND 502.3.14 OF THE STANDARD SPECIFICATIONS.
- ◧ USE 3" DIA. RIGID METALLIC (RMC) CONDUIT AT FITTINGS. PROVIDE RMC FOR ENTIRE LENGTH ON EACH SIDE OF JOINT OPENINGS UNLESS NOTED OTHERWISE.
- ** DEFLECTION/EXPANSION FITTING REQUIREMENTS:
  - UP TO 3/4" CONDUIT CONTRACTION OR EXPANSION AND UP TO 30 DEGREES OF ANGULAR MISALIGNMENT IN ANY DIRECTION WITH BONDING JUMPER
- ◪ SEE HOLTON FACILITIES TABLE ON SHT. 17 FOR LOCATIONS

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY S.B. | PLANS CK'D. J.P.H.

FENCING AND CONDUIT DETAILS

SHEET 18 OF 47
81

REVISED DATE: 11-03-2022 BY GJR

8

8

STATE PROJECT NUMBER

2984-12-73

NOTE:
TOP OF DECK REPAIR FOR SPANS 12, 13 AND 14 WILL BE COMPLETED IN PHASE 2

N. END OF BRIDGE DECK
STA. 21+50.00

C/L EXP JNT N ABUT.
STA. 21+49.00
ELEV 83.33

5°45'00"

C/L BENT 14
STA. 20+85.61

21+00

63'-4⅝"
SPAN 14

13°00'00"

20+50

13°00'00"

50'-11"
SPAN 13

EXTENSION OF C/L

C/L BENT 13
STA. 20+34.69

20+00

90°04'48"

13°00'00"

C/L EXP. JNT. 10
STA. 19+91.34
ELEV. 78.11

C/L BENT 12
STA. 19+87.51

19+50

47'-2⅛"
SPAN 12

72'-7⅛"
SPAN 11

6LF

12SF

4LF

2SF

6SF 9SF

5'-0"
EXP. JNT. REPAIR (TYP)

88°19'14"

C/L BENT 11
STA. 19+14.85

C/L EXP. JNT. 9
STA. 19+11.02
ELEV. 75.61

19+00

P.C. STA. 19+04.58

18+50

T/L & C/L
VIADUCT

80'-0"
SPAN 10

C/L BENT 10
STA. 18+34.85

18+00

80'-0"
SPAN 9

MATCH LINE
THIS PAGE

1'-1" PARAPET
6'-5⅝" SDWK.
1'-3" CRASH BARRIER
7'-0" BIKE
11'-0" LANE
10'-0" PAINTED MEDIAN
11'-0" LANE
7'-0" BIKE
1'-3" CRASH BARRIER
6'-5⅝" SDWK.
1'-1" PARAPET
30'-0"
28'-6" STAGE 2
30'-0"
31'-6" STAGE 2
60'-0" ROWY.
77'-7" OUT TO OUT

TOP OF DECK REPAIR PLAN

SPAN 9 - SPAN 14

24SF

15SF

1SF 1LF

1SF 6SF

1SF

C/L EXP. JNT. 8
STA. 17+58.68
ELEV. 70.45

C/L EXP. JNT. 7
STA. 16+70.18
ELEV. 67.50

C/L EXP. JNT. 5
STA. 15+83.52
ELEV. 64.57

C/L EXP. JNT. 4
STA. 14+95.02
ELEV. 65.54

90°00'00"

C/L BENT 9
STA. 17+54.85

C/L BENT 8
STA. 16+74.85

C/L BENT 7
STA. 15+78.85

C/L BENT 6
STA. 14+98.85

17+50

17+00

16+50

16+00

15+50

15+00

T/L & C/L
VIADUCT

C/L SPAN 7 &
C/L EXP. JNT. 6
STA. 16+26.85
ELEV 65.95

3LF 2SF

1SF 6LF 1LF 1LF 1LF

4SF

1SF 4SF

1SF

3SF

MATCH LINE
THIS PAGE

MATCH LINE
SHT. 20

80'-0" SPAN 9 — C/L BENT 9
80'-0" SPAN 8
48'-0" SPAN 7 — C/L BENT 8
48'-0" SPAN 7 — C/L SPAN 7
80'-0" SPAN 6 — C/L BENT 7
80'-0" SPAN 5 — C/L BENT 6

TOP OF DECK REPAIR PLAN

SPAN 5 - SPAN 9

NOTE

SPAN LENGTH DIMENTIONS ARE ALONG T/L,

SEE NOTES ON SHEET 20.

LEGEND

- PREPARATION DECK AREA (TYPE 1 AND/OR TYPE 2) (SF)
- CRASH BARRIER CONCRETE SURFACE REPAIR (SF)
- CURB REPAIR (LF)
- EXP. JOINT REPAIR

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

TOP OF DECK REPAIR PLAN SPANS 5-11

SHEET 19 OF 47
82

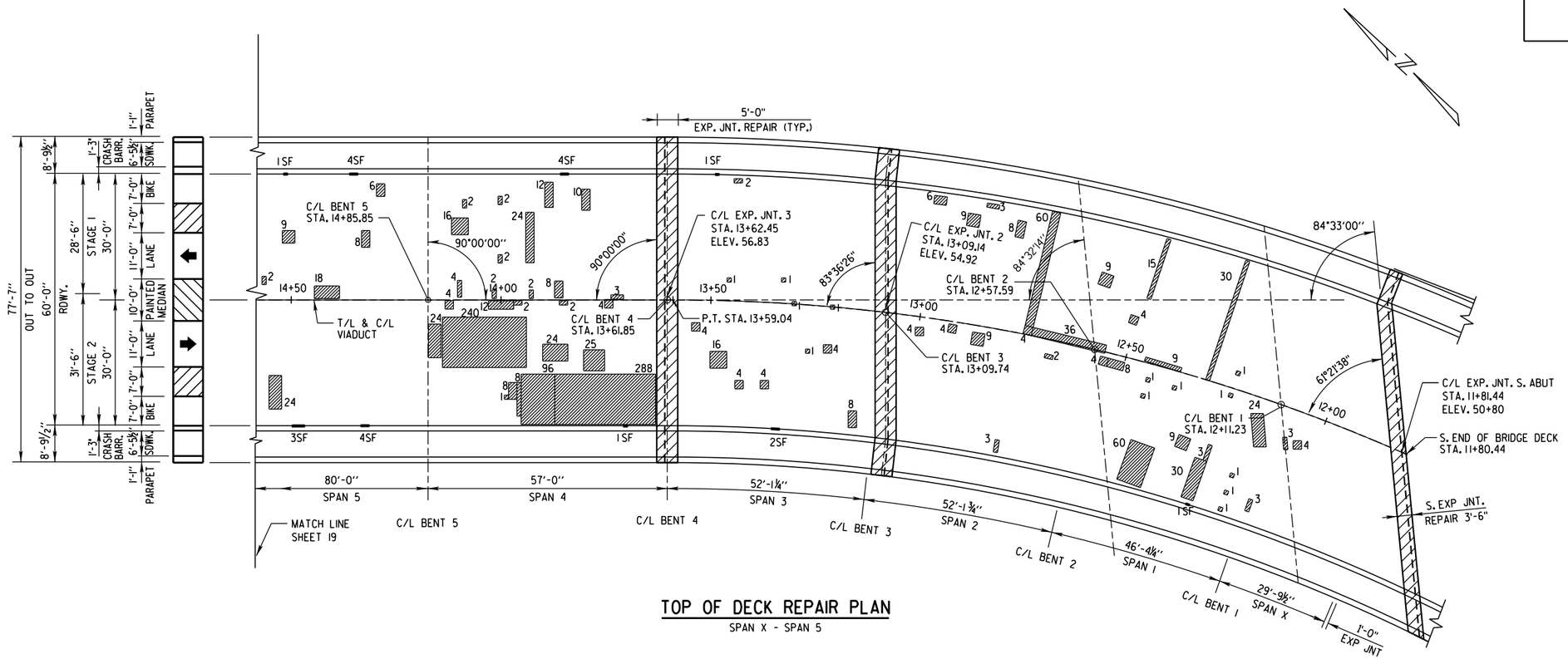
REVISED DATE: 10-25-2022 BY JC

8

8

STATE PROJECT NUMBER

2984-12-73



TOP OF DECK REPAIR PLAN

SPAN X - SPAN 5

REVISED DATE: 08-17-2022 BY ES

NOTE

USE CAUTION FOR CONCRETE REMOVALS TO PREVENT DAMAGE TO REINFORCING STEEL. SEE STANDARD SPECIFICATION SECTIONS 203, 502 & 509 FOR PROPER CONSTRUCTION METHODS.

FOR PREPARATION OF DECKS TYPE 1& 2:
S.F. OF AREAS ARE GIVEN ON TOP OF DECK REPAIR PLAN FOR PREPARATION OF DECKS TYPE 1.
AREA FOR PREPARATION OF DECKS TYPE 2 IS ESTIMATED TO BE ONE-THIRD (1/3) OF PREPARATION OF DECKS TYPE 1 AREA.

TYPE 2 LOCATIONS TO BE DETERMINED AS DIRECTED BY THE ENGINEER AFTER TYPE 1 REMOVALS ARE UNDERWAY.

AREAS OF FULL-DEPTH DECK REPAIR TO BE DETERMINED AS DIRECTED BY THE ENGINEER AFTER TYPE 2 REMOVALS ARE UNDERWAY.

PROTECTIVE SURFACE TREATMENT RESEAL SHALL BE APPLIED TO THE EXISTING DECK, SIDEWALK, CRASH BARRIER, AND PARAPET. SURFACE PREPARATION IS INCLUDED IN THE BID ITEM "PROTECTIVE SURFACE TREATMENT RESEAL".

LEGEND

- PREPARATION DECK AREA (TYPE 1 AND/OR TYPE 2) (SF)
- EXP. JOINT REPAIR
- CONCRETE CRASH BARRIER SURFACE REPAIR (SF)
- CURB REPAIR (LF)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

TOP OF DECK REPAIR PLAN SPANS X-5

SHEET 20 OF 47

83

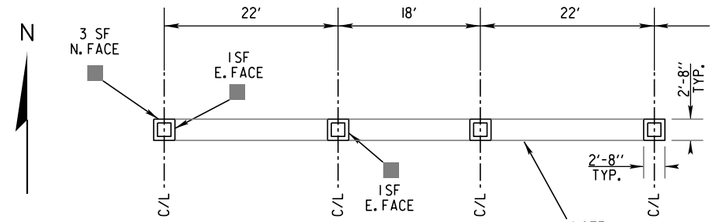
8

8

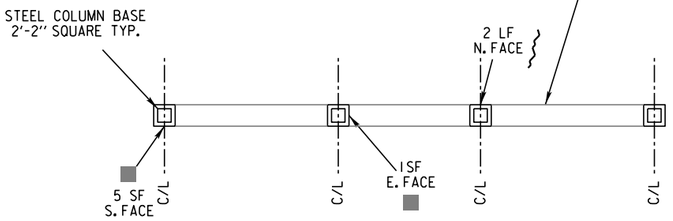
FILE NAME : \\ad\mkedfs\GIS DeptWork\str\b0113\2023 Phase 1\Plans\B0113_2023_20_TOP OF DECK REPAIR PLAN SPANS X-5.dgn PLOT DATE : 11/14/2022 10:27:19 AM PLOT BY : jphagen PLOT NAME : B0113_2023_20_TOP OF DECK REPAIR PLAN SPANS X-5.dgn PLOT SCALE : 30.0001 ft / in.

STATE PROJECT NUMBER

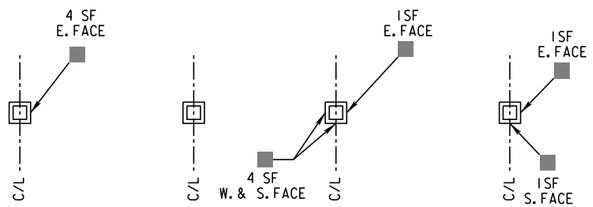
2984-12-73



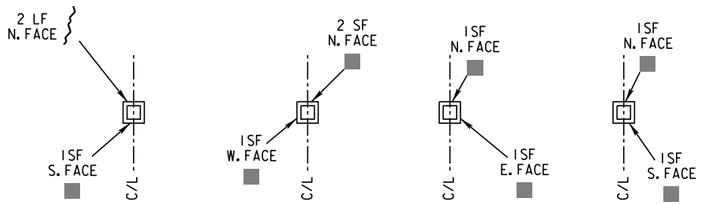
BENT 1
(PLAN VIEW)



BENT 2
(PLAN VIEW)



BENT 3
(PLAN VIEW)



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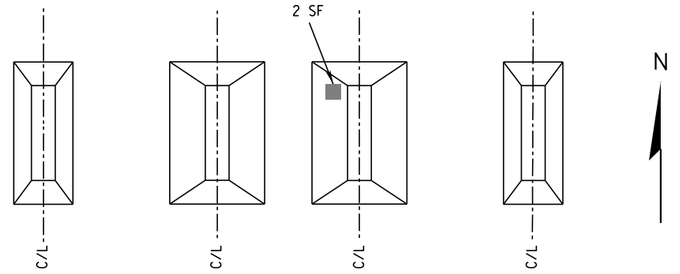
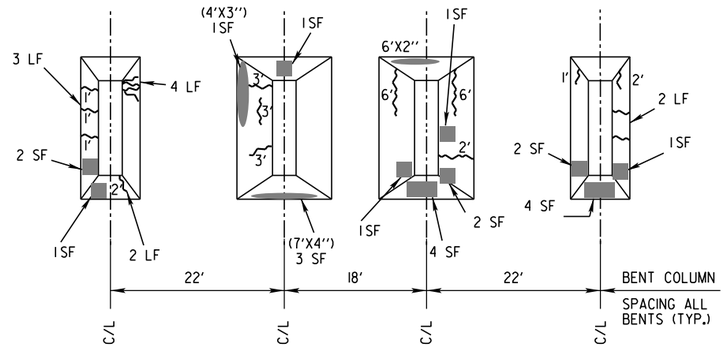
(PLAN VIEW)



BENT 5
(PLAN VIEW)



BENT 6
(PLAN VIEW)

KEY

X' — EPOXY INJECTION CRACK REPAIR (X LF) AT BENTS 1-6
EPOXY CRACK SEALING (X LF) AT SOUTH ABUTMENT

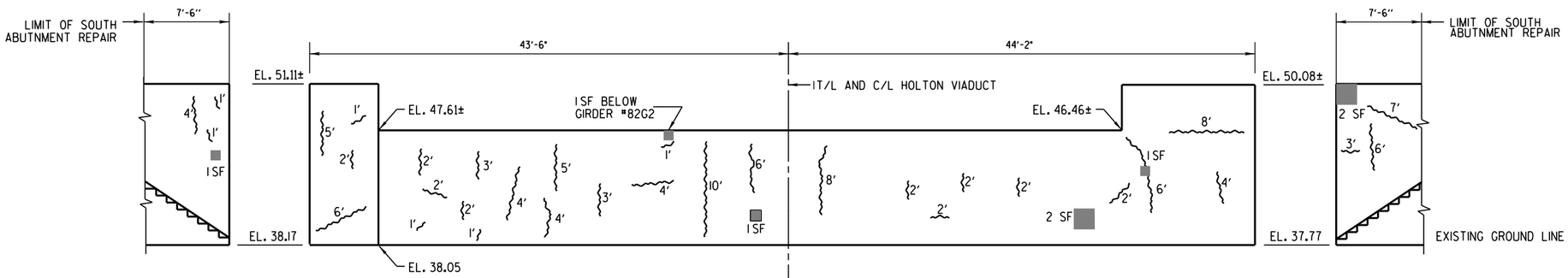
CONCRETE SURFACE REPAIR (X SF)

NOTE

AREAS OF REPAIR TO BE DETERMINED BY ENGINEER IN THE FIELD

BID ITEM 509.9025.S "EPOXY INJECTION CRACK REPAIR" TO BE USED ON CRACKS GREATER THAN 0.06 INCHES IN WIDTH.

NO WORK ANTICIPATED ON STAIRS ADJACENT TO SOUTH ABUTMENT



SOUTHEAST WINGWALL
(LOOKING WEST)

SOUTH ABUTMENT
(LOOKING SOUTH)

SOUTHWEST WINGWALL
(LOOKING EAST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY S.B. | PLANS CK'D. J.P.H.

PIERS 1-6 AND S. ABUTMENT CONCRETE REPAIRS

SHEET 21 OF 47
84

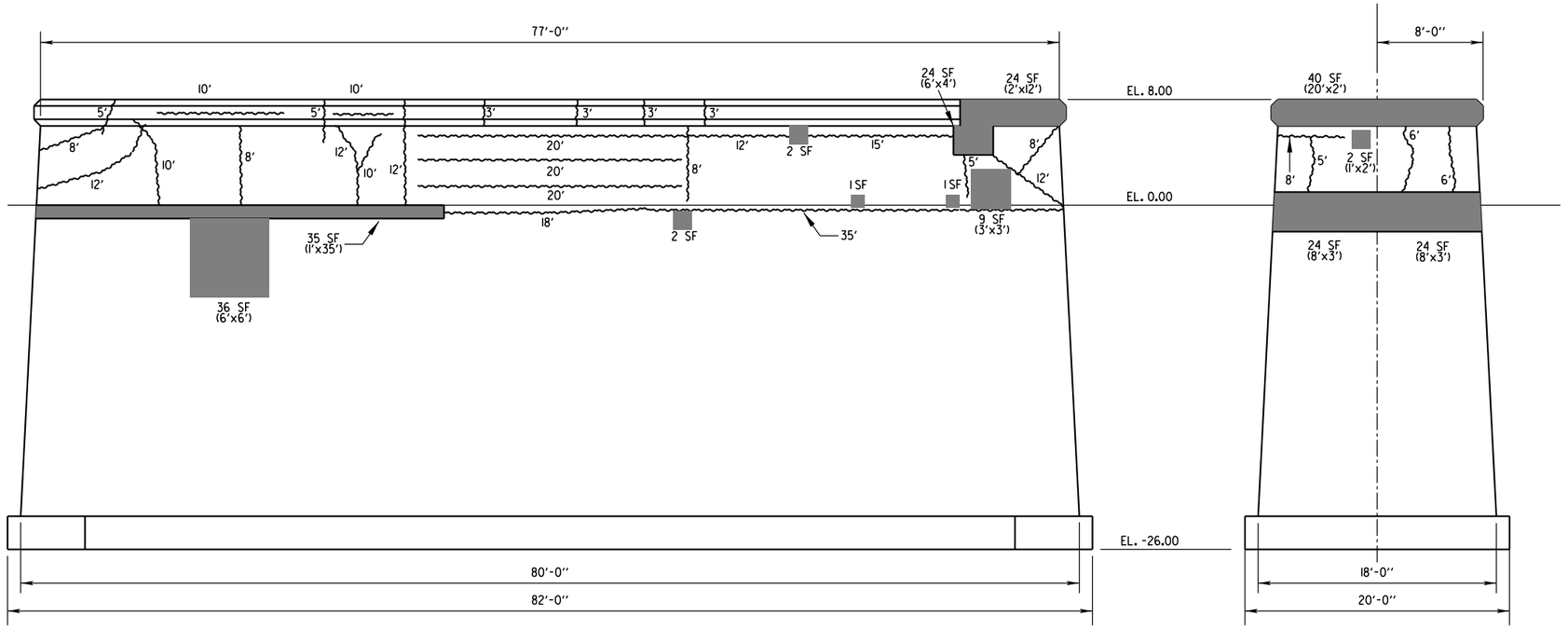
REVISED: 08-29-2022 BY: GJR

8

8

STATE PROJECT NUMBER

2984-12-73

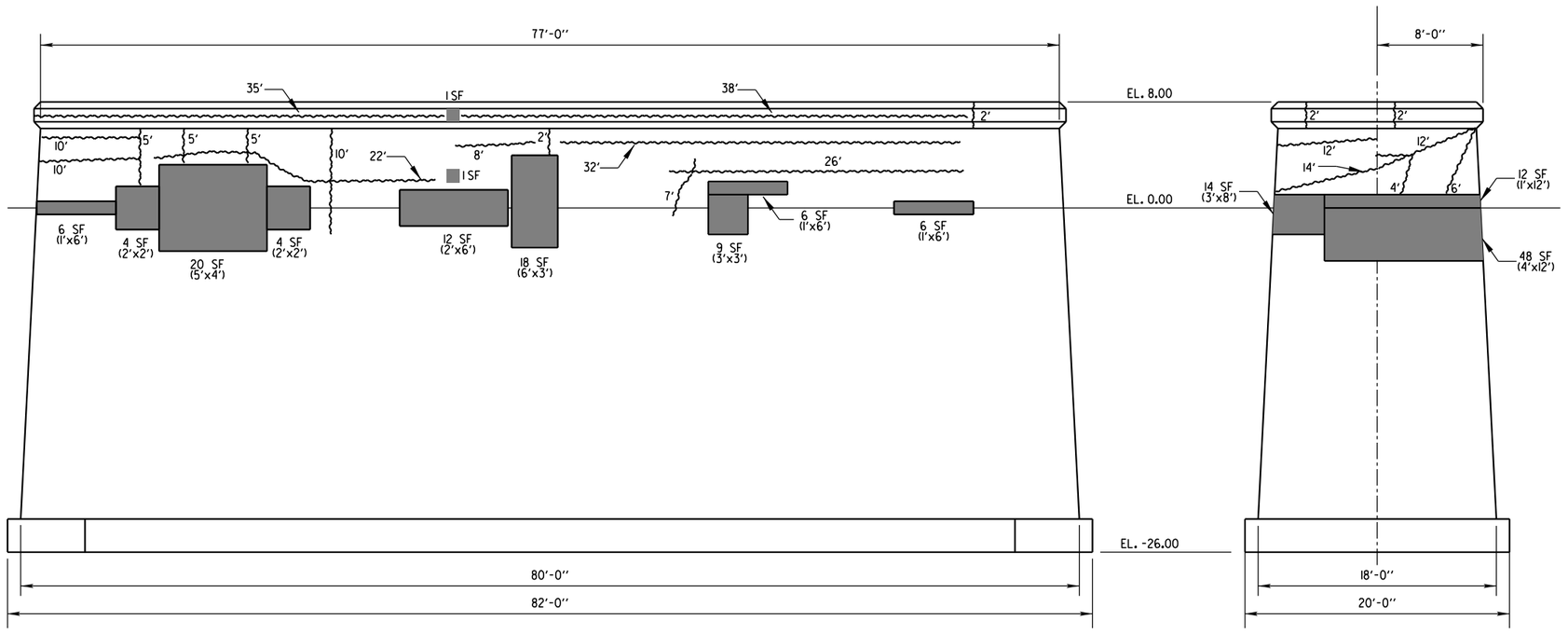


PIER 7 - NORTH ELEVATION

LOOKING SOUTH

PIER 7 - WEST ELEVATION

LOOKING EAST



PIER 7 - SOUTH ELEVATION

LOOKING NORTH

PIER 7 - EAST ELEVATION

LOOKING WEST

KEY

X' — EPOXY INJECTION CRACK REPAIR (X LF)

WATERLLINE CONCRETE SURFACE REPAIR (X SF)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY S.B. | PLANS CK'D. J.P.H.

PIER 7 WATERLINE CONCRETE SURFACE REPAIRS

SHEET 22 OF 47

85

REVISED 08-03-2022 BY: ES

8

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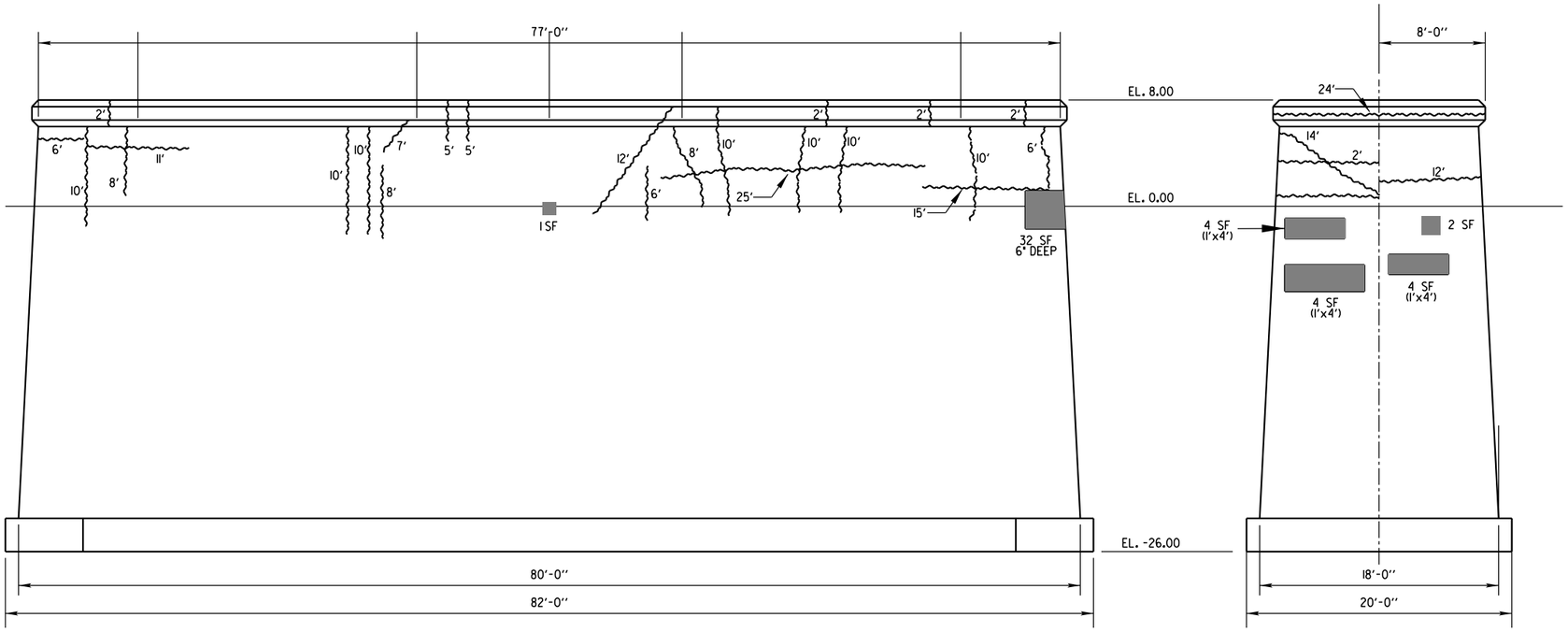
FILE NAME : \\ad\mkedfs\GIS DeptWork\str\b0113\2023 Phase 1\Plans\B0113_2023_22_PIER 7 CONCRETE WATERLINE SURFACE REPAIRS.dgn PLOT DATE : 11/14/2022 10:27:20 AM PLOT BY : jphagen PLOT NAME : B0113_2023_22_PIER 7 CONCRETE WATERLINE SURFACE REPAIRS.dgn PLOT SCALE : 10:8.0000 sf:si / in.

STATE PROJECT NUMBER

2984-12-73

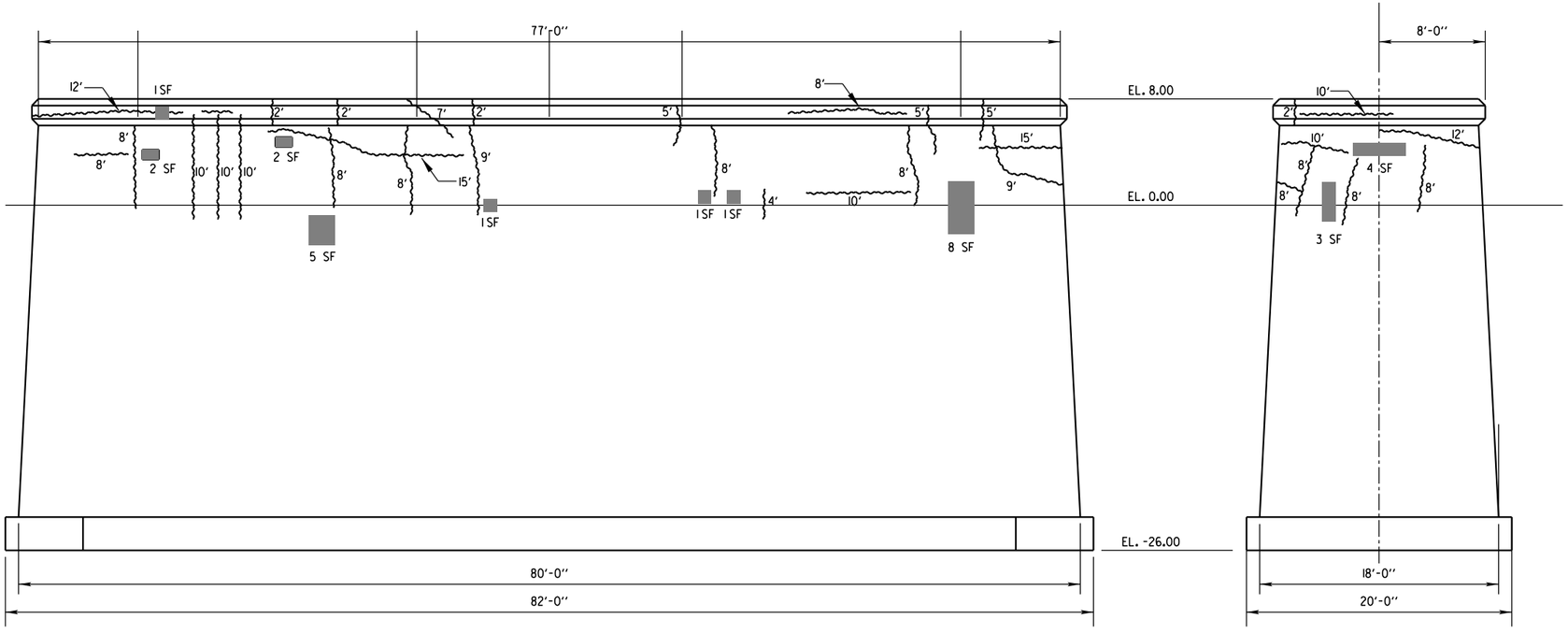


PIER 8 - NORTH ELEVATION

LOOKING SOUTH

PIER 8 - WEST ELEVATION

LOOKING EAST



PIER 8 - SOUTH ELEVATION

LOOKING NORTH

PIER 8 - EAST ELEVATION

LOOKING WEST

KEY

X' — EPOXY INJECTION CRACK REPAIR (X LF)

WATERLINE CONCRETE SURFACE REPAIR (X SF)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY S.B. | PLANS CK'D. J.P.H.

PIER 8 WATERLINE CONCRETE SURFACE REPAIRS

SHEET 23 OF 47

86

REVISED 08-03-2022 BY: ES

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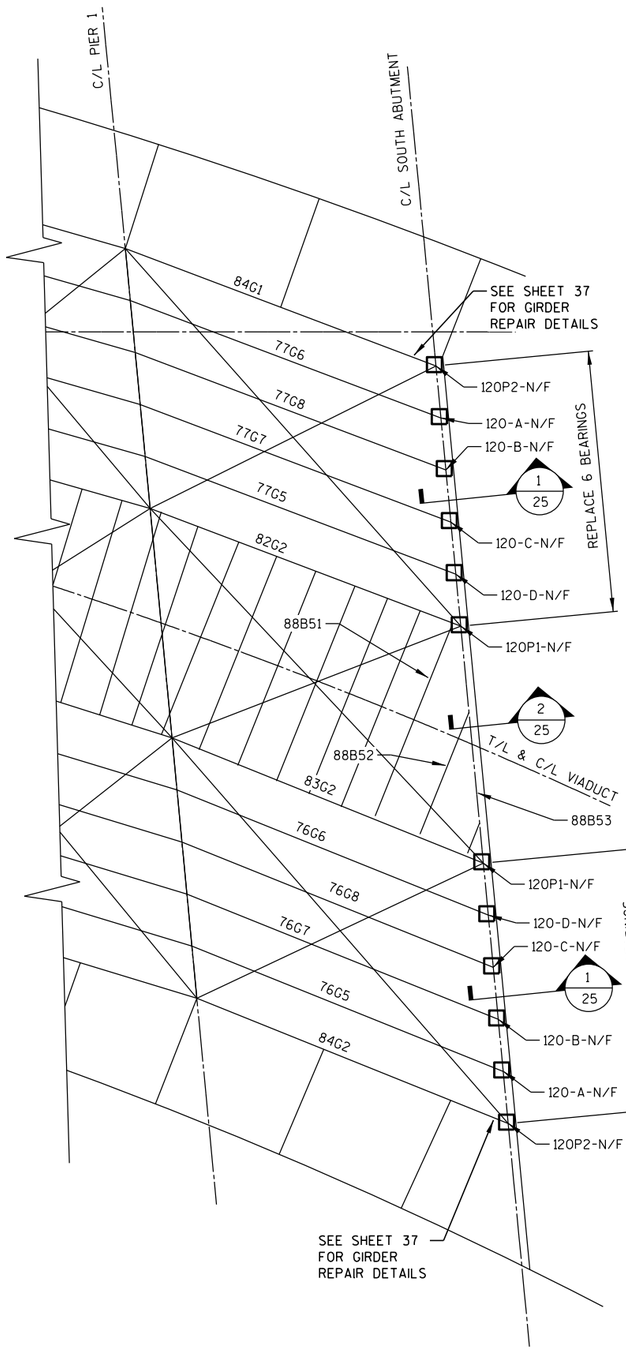
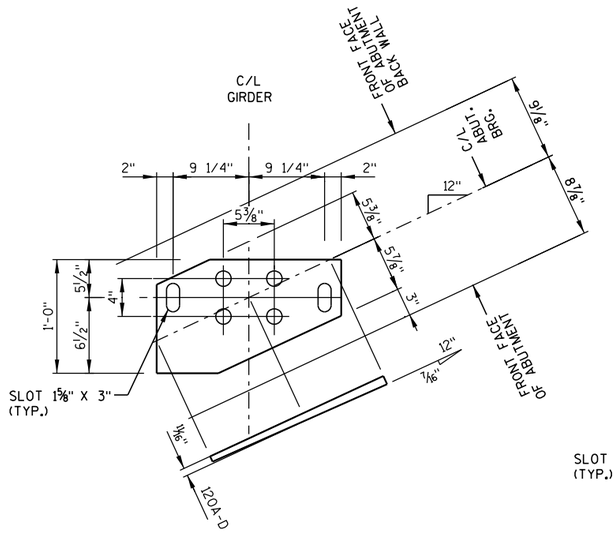
8

STATE PROJECT NUMBER

2984-12-73

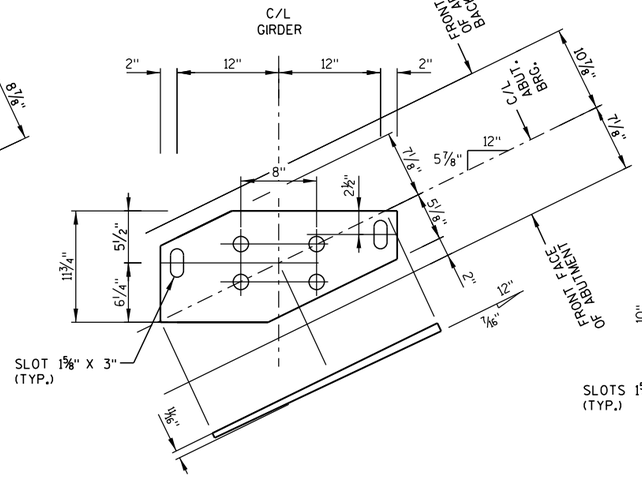


SOUTH ABUTMENT BEARING REPLACEMENT PLAN



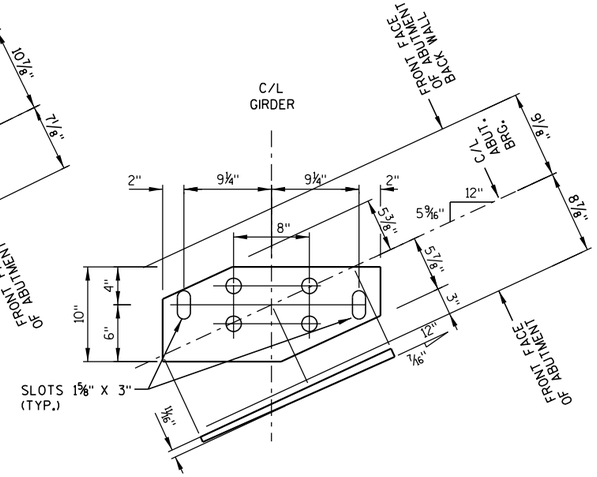
NEW FLANGE PLATE PATT. 2496-120-(A TO D)-F

△ 8 PL'S 1'-0" × VARIABLE THICKNESS × 1'-10½"
(2 LOCATIONS EACH)



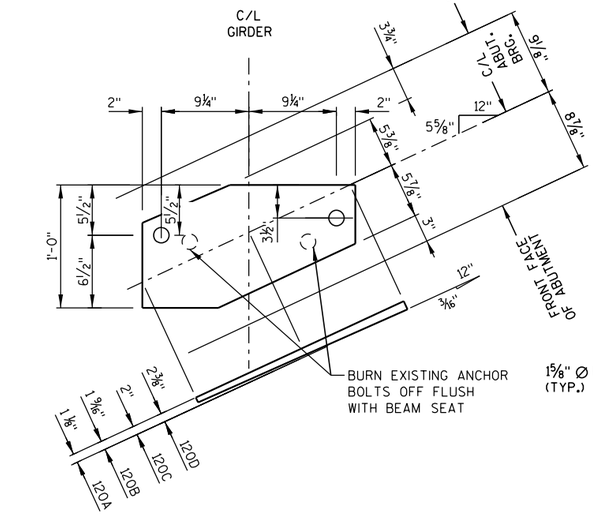
NEW FLANGE PLATE 120P1-F

△ 1 PL. 11¾" × VARIABLE THICKNESS × 2'-4" (2 LOCATIONS)
(REPLACES ORIGINAL FLANGE PLATE AT 82G2 AND 83G2)



NEW FLANGE PLATE 120P2-F

△ 1 PL. 10" × VARIABLE THICKNESS × 1'-10½" (2 LOCATIONS)
(REPLACES ORIGINAL FLANGE PLATE AT 84G1 AND 84G2)



NEW BOTTOM PLATE PATT. 2496-120-(A TO D)-N

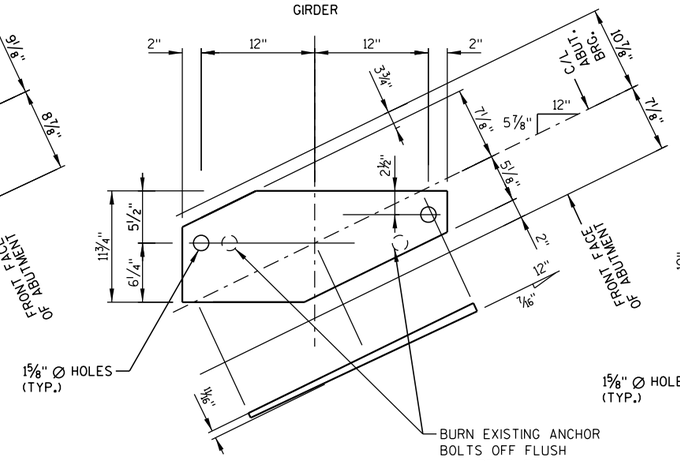
△ 8 PL'S 1'-0" × VARIABLE THICKNESS × 1'-10½"
(2 LOCATIONS EACH)

KEY:

□ = REPLACE BEARING

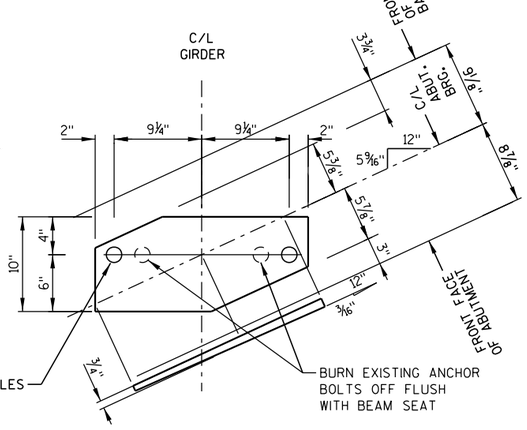
1'-1" × VARIABLE THICKNESS × 1'-10½"

△ SEE BRG. DATA TABLE
SEE SHEET 25



NEW BOTTOM PLATE 120P1-N

△ 1 PL. 11¾" × VARIABLE THICKNESS × 2'-4" (2 LOCATIONS)
(REPLACES ORIGINAL PLATE 120P1)



NEW BOTTOM PLATE 120P2-N

△ 1 PL. 10" × VARIABLE THICKNESS × 1'-10½" (2 LOCATIONS)
(REPLACES ORIGINAL PLATE 120P2)

REVISED DATE: 09-02-2022 BY GJR

8

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

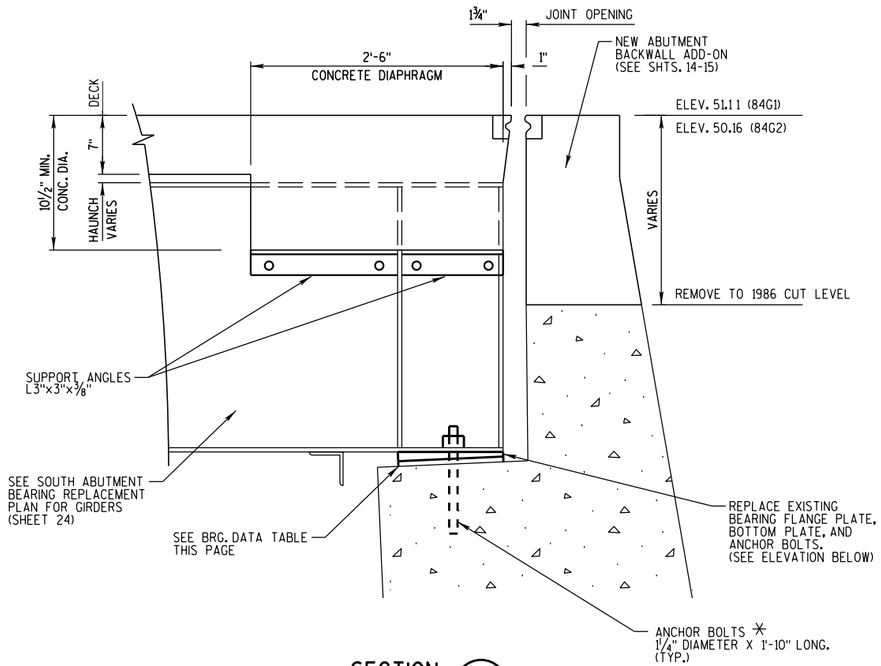
STRUCTURE P-40-875

DRAWN BY	S.B.	PLANS CK'D.	J.P.H.

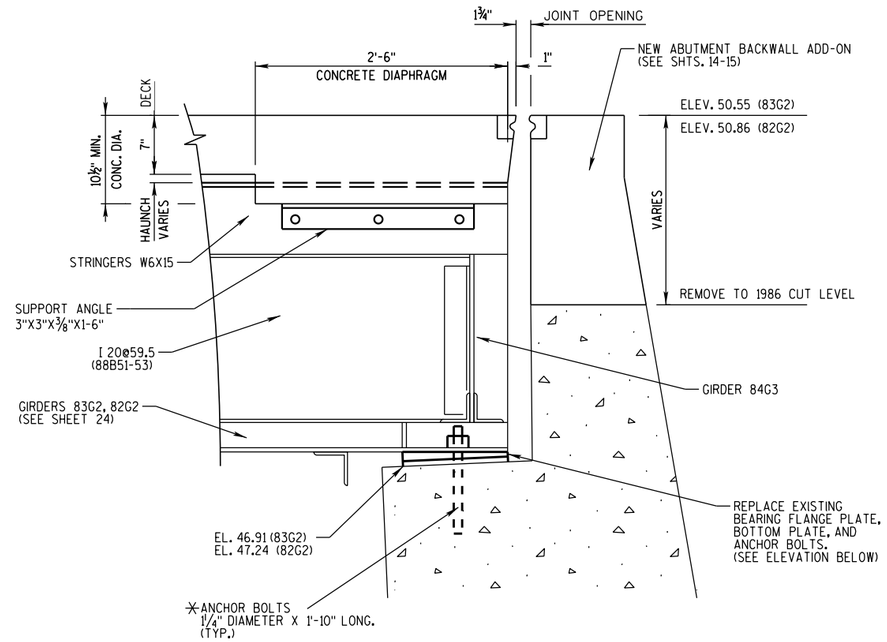
S. ABUTMENT BEARING REPLACEMENT PLAN

SHEET 24 OF 47
87

FILE NAME : \\ad\mkedfs\GIS DeptWork\str\b0113\2023 Phase 1\Plans\B0113_2023_24_BEARING REPLACEMENT PLAN SOUTH ABUTMENT.dgn PLOT DATE : 11/14/2022 10:27:20 AM PLOT BY : jphagen PLOT NAME : B0113_2023_24_BEARING REPLACEMENT PLAN SOUTH ABUTMENT.dgn PLOT SCALE : 16:0.0000 '=' / in.



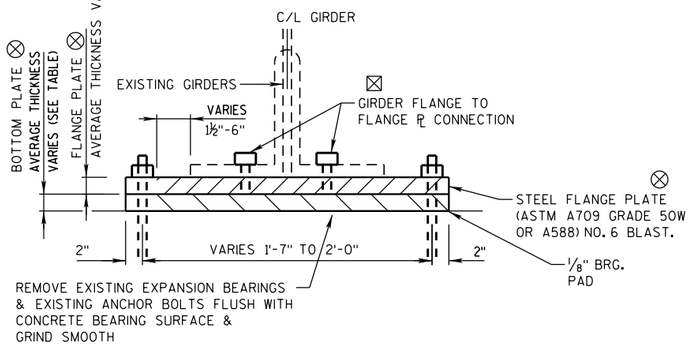
SECTION 1/24 (OUTER BAYS)



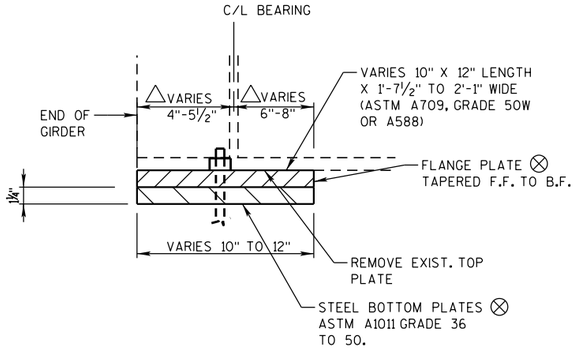
SECTION 2/24 (BETWEEN GIRDERS 83G2/82G2 (MIDDLE BAY))

NOTE:

- SEE SOUTH ABUTMENT BEARING REPLACEMENT PLAN ON PAGE 24
- SEE SHEETS 37 AND 45 FOR GIRDER REPAIR DETAILS



FRONT ELEVATION



SECTION THRU NEW BEARING

BEARING DATA TABLE			BOTTOM ℄ (N. PLATES)		FLANGE ℄ (F PLATES)	
BRG. LOCATION	GIRDER#	ELEV.	AVG. THK.	TAPER - FF TO BF	AVG. THK.	TAPER - FF TO BF
120-P2	84G1	47.61	¾"	15/16" - 9/16"	11/16"	15/16" - ½"
120-A	77G6	47.57	1⅛"	15/16" - 15/16"	11/16"	1" - 9/16"
120-B	77G8	47.53	1 3/16"	1¾" - 1⅜"	11/16"	1" - 9/16"
120-C	77G7	47.49	2"	2 3/16" - 1 13/16"	11/16"	1" - 9/16"
120-D	77G5	47.45	2⅜"	2 9/16" - 2 7/16"	11/16"	1" - 9/16"
120-P1	83G2	46.91	¾"	15/16" - 9/16"	11/16"	1" - 7/16"
120-P1	82G2	47.24	¾"	15/16" - 9/16"	11/16"	15/16" - 7/16"
120-D	76G6	46.97	2 3/8"	2 9/16" - 2 3/16"	11/16"	1" - 9/16"
120-C	76G8	46.86	2"	2 3/16" - 1 13/16"	11/16"	1" - 9/16"
120-B	76G7	46.72	1 3/16"	1¾" - 1⅜"	11/16"	1" - 9/16"
120-A	76G5	46.59	1⅛"	15/16" - 15/16"	11/16"	1" - 9/16"
120-P2	84G2	46.46	¾"	15/16" - 9/16"	11/16"	15/16" - 9/16"

LEGEND

- △ DIMENSION ALONG C/L GIRDER
- ⊗ SEE BEARING DATA TABLE
- ⊠ SEE SHOP DRAWINGS FOR LAYOUT
- ⚹ 2'-0" LENGTH AT GIRDERS 84G1, 84G2 AND 76G5

BEARING NOTES

BEARINGS SHALL NOT BE PLACED AT A TEMPERATURE GREATER THAN 85°F.

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, BUT EXCLUDING ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A709 GRADE 50W. (PAINTED)

ALL MATERIAL IN BEARINGS, INCLUDING SHIM PLATES, STEEL PLATES, AND ANCHOR BOLTS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR "BEARING ASSEMBLIES EXPANSION P-40-875", EACH.

ALL STRUCTURAL STEEL PLATES SHALL BE FLAT ROLLED WITH ALL SURFACES SMOOTH AND FREE FROM WARP AND ALL EDGES SMOOTH, STRAIGHT AND VERTICAL.

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUTS.

⚹ ANCHOR BOLTS FOR BEARINGS SHALL BE THREADED 3". PROVIDE ONE STANDARD WROUGHT WASHER AND ONE HEX NUT PER BOLT. BOLT LENGTH TO BE 1'-10" FOR 1¼" DIA. BOLTS. PROJECT ANCHOR BOLTS, PLATE THICKNESS + 2¼" ABOVE TOP OF CONCRETE.

CHAMFER ANCHOR BOLTS PRIOR TO THREADING.

DRILLED HOLES FOR ANCHOR BOLTS IN BOTTOM PLATE SHALL HAVE A DIAMTER ⅜" LARGER THAN ANCHOR BOLT.

ANCHOR BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM F1554 GRADE 50, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

ANCHOR BOLTS, NUTS, AND WASHERS SHALL BE GALVANIZED IN ACCORDANCE WITH ASTM A153, CLASS C.

NEW BEARINGS TO BE PLACED AT ALL GIRDERS AT THE SOUTH ABUTMENT.

BURN EXISTING ANCHOR BOLTS OFF FLUSH WITH BEAM SEAT.

PROVIDE ⅛" THICK BEARING PAD THE SAME SIZE AS THE BOTTOM PLATE FOR EACH BEARING

STATE PROJECT NUMBER

2984-12-73

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY S.B. | PLANS CK'D. J.P.H.

S. ABUTMENT BEARING REPLAC. DETAILS

SHEET 25 OF 47
88

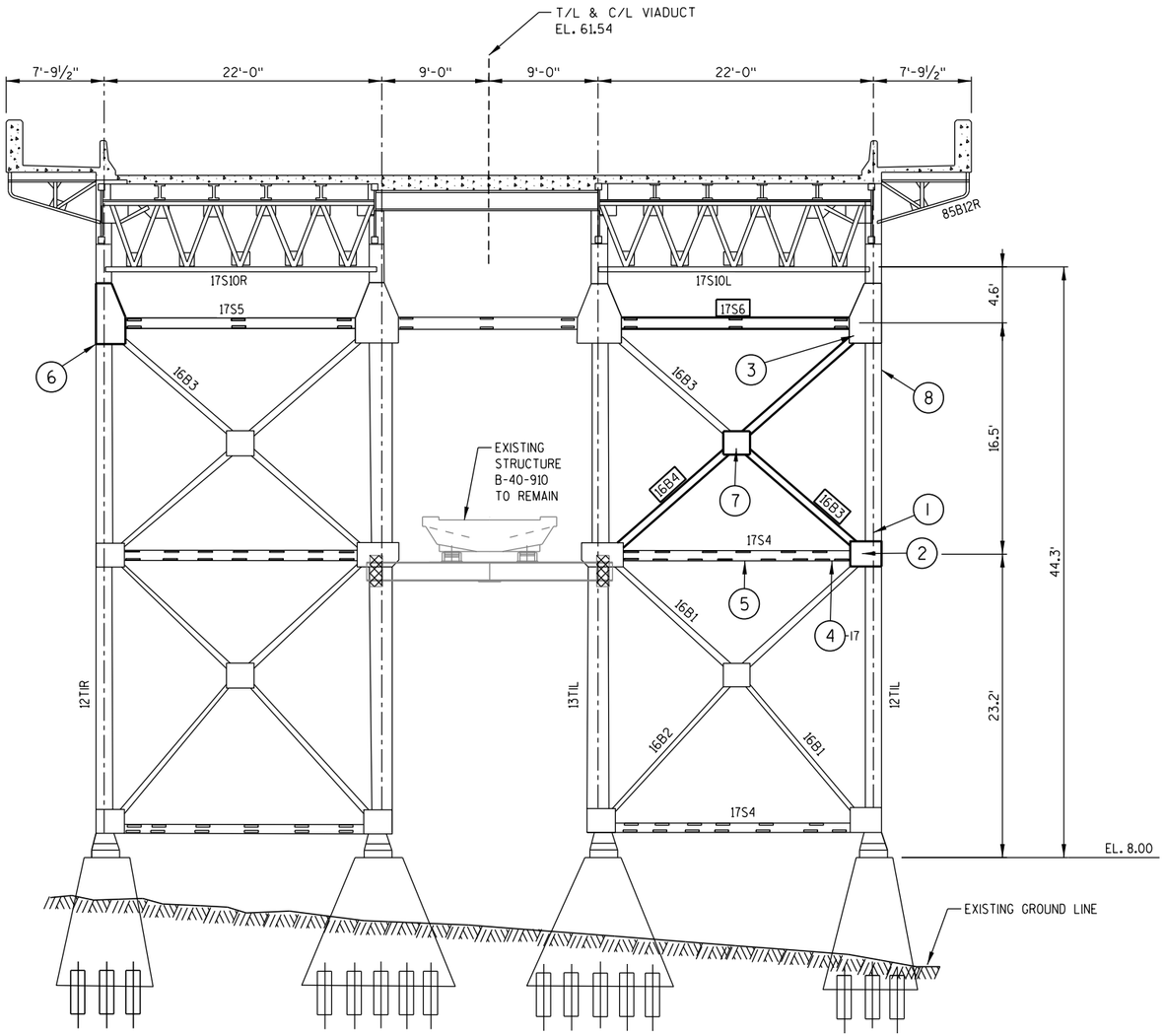
REVISED DATE: 11-03-2022 BY: GJR

8

8

STATE PROJECT NUMBER

2984-12-73



ELEVATION BENT 6 REAR VIEW (F.S.)

(LOOKING NORTH)

KEY:

BENT 6 STEEL REPAIR

XXXX 1926 SHOP DRAWING PART NUMBER

[XXXX] 1926 SHOP DRAWING PART NUMBER - REMOVE AND REPLACE PART

(1) ADD FLANGE PLATE (5½" x ½" x 4'-6") TO NORTHWEST INSIDE FLANGE (SOUTH FACE) TO MEMBER 12TIL.
ADD OUTSIDE FLANGE PLATE (5½" x ½" x 1'-8¼") TO NORTHWEST OUTSIDE FLANGE (NORTH FACE) TO MEMBER 12TIL.
SEE SHEET 38 FOR DETAILS.

(2) REPLACE NORTH GUSSET PLATE (12P2) TO MEMBER 12TIL
SEE SHEET 38 FOR DETAILS.

(3) REPLACE NORTH AND SOUTH GUSSET PLATES (12P3) TO MEMBER 12TIL
SEE SHEET 38 FOR DETAILS.

(4) REPLACE HORIZONTAL BATTEN PLATES (17PI) AT EAST SIDE TO MEMBER 17S4, TOP & BOTTOM,
REPLACE 4 LACING BARS (17LBI) (2 TOP, 2 BOTTOM AT EAST SIDE).
SEE SHEET 36 FOR DETAILS.

(5) REPLACE HORIZONTAL BATTEN PLATES (17PI) AT CENTER TO MEMBER 17S4, TOP & BOTTOM,
REPLACE 4 LACING BARS (17LBI) (2 TOP, 2 BOTTOM AT CENTER).
SEE SHEET 36 FOR DETAILS.

(6) REPLACE NORTH SIDE GUSSET PLATE (12P3) TO MEMBER 12TIR
SEE SHEET 38 FOR DETAILS.

(7) REPLACE NORTH AND SOUTH GUSSET PLATES (16PI)
SEE SHEET 36 FOR DETAILS.

(8) ADD FLANGE PLATES (1'-0½"x ½"x 3'-0" AND (2) 5½" x ½" x3'-0"),
AND BRACKET (123-BI) TO SOUTH FACE OF COLUMN 12TIL.
SEE SHEET 35 AND 38 FOR DETAILS.

NOTE:

- SEE STRUCTURE B-40-910 PLANS FOR MODIFICATIONS TO ORIGINAL MEMBERS AND CONNECTIONS
- USE EXISTING BOLT SPACING AT ALL GUSSET PLATE REPLACEMENT LOCATIONS
- F.S. = FAR SIDE
- N.S. = NEAR SIDE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY G.J.R. | PLANS CK'D. J.P.H.

ELEVATION BENT 6

SHEET 26 OF 47
89

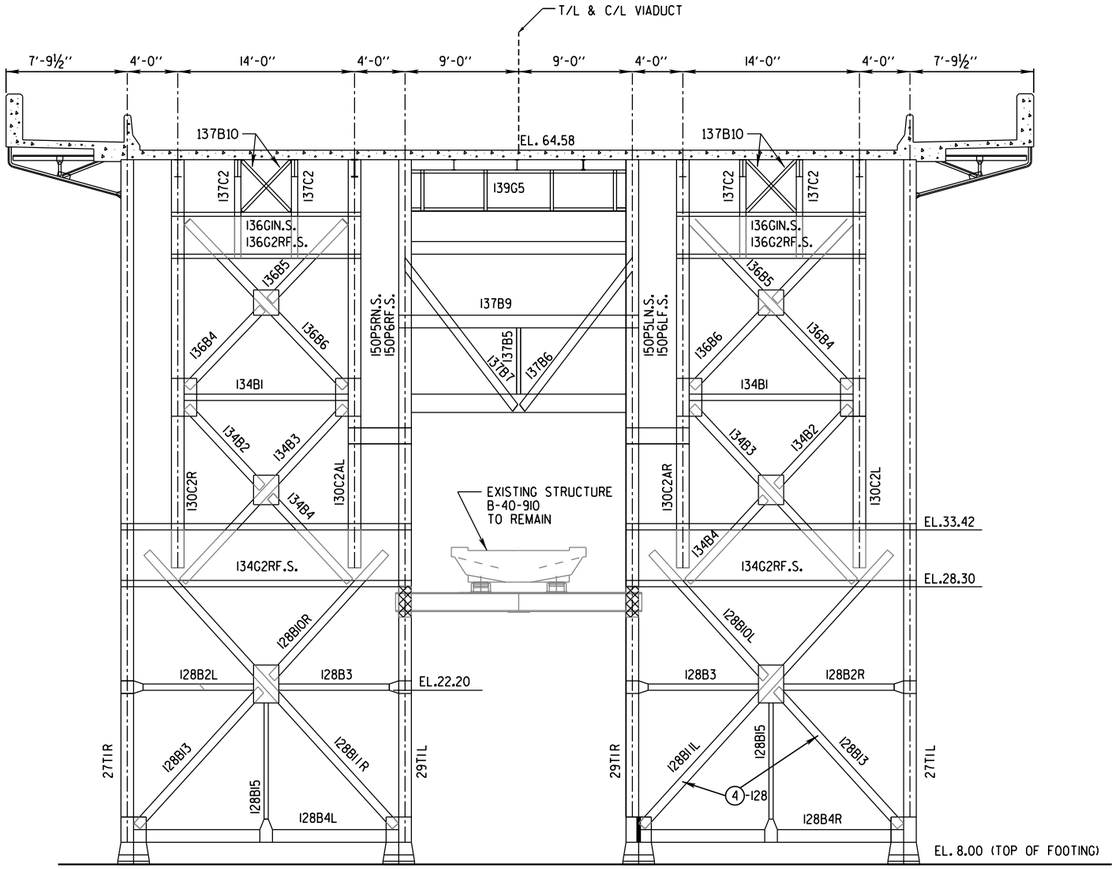
REVISED: 10-26-2022 BY JC

8

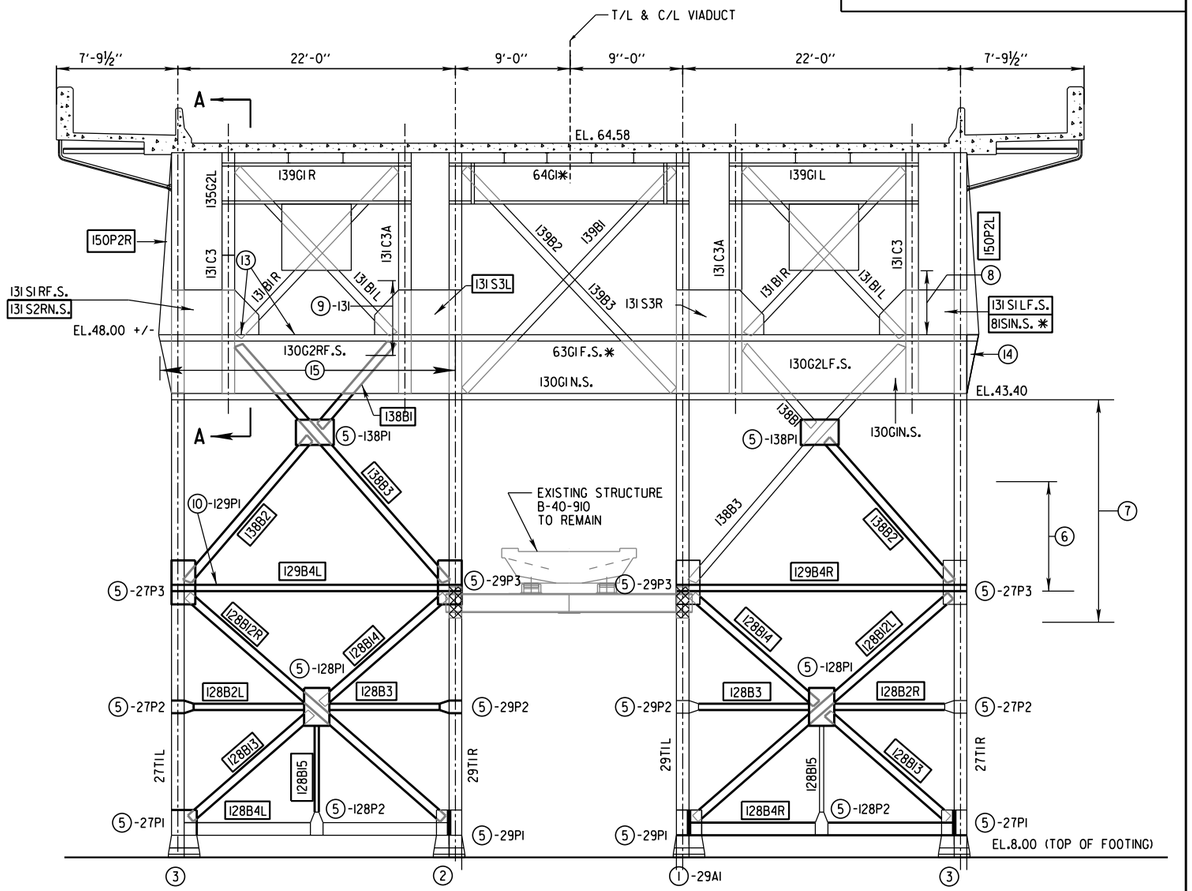
8

STATE PROJECT NUMBER

2984-12-73



ELEVATION BENT 7 REAR VIEW LOOKING NORTH (F.S.)



ELEVATION BENT 7 FRONT VIEW LOOKING SOUTH (N.S.)

BENT 7 KEY:

XXXXX* 1987 SHOP DRAWINGS PART NUMBER

XXXXX 1926 SHOP DRAWING PART NUMBER

[XXXXX] 1926 SHOP DRAWING PART NUMBER - REMOVE AND REPLACE PART

(1) REPLACE INNER AND OUTER WING BASE PLATE ANGLES (29AI) 4 TOTAL.
SEE SHEET 40 FOR DETAILS.

(2) REPLACE SIDE BASE PLATE (29P4) AND ANGLE (29A4), I-WING BASE PLATE (29P5) AND 2 ANGLES (29AI).
SEE SHEET 40 FOR DETAILS.

(3) REPLACE SIDE BASE PLATE (27P4) AND ANGLE (27AI).
SEE SHEET 29 FOR DETAILS.

(4) REPLACE 10 LACING BARS AT 128BIIL, AND 128BI3.
SEE SHEET 39 FOR DETAILS.

(5)-XX, REPLACE GUSSET PLATES (27PI, 27P2, 27P3, 29PI, 29P2, 29P3, 128PI, 128P2, AND 138PI) (INNER AND OUTER), TO MEMBERS 27TIL/R, 29TIL/R, AND ALL 128 AND 138 MEMBERS (N.S).
SEE SHEETS 29, 39, 40, AND 44 FOR DETAILS.

(6) ADD WEB PLATES TO MEMBER 27TIR, SIZE 9½'' x ½''x 8'-0''.
SEE SHEET 29 FOR DETAILS AND RIVET LOCATIONS.

(7) ADD OUTSIDE FLANGE PLATE TO MEMBER 27TIR (NORTH SIDE), SIZE 1'-0½'' x ½'' x 11'-3'', AND (2) INSIDE FLANGE PLATES (SOUTH SIDE), SIZE 5½'' x ½'' x 11'-3'' BETWEEN RIVETS.
SEE SHEET 29 FOR DETAILS.

(8) ADD WEB AND FLANGE PLATES TO MEMBER 131C3.
- FLANGE PLATES: 1- OUTSIDE PLATE 1'-0⅜''x ½''x 4'-6'', AND
2- INSIDE PLATES 5½'' x ½'' x 4'-6''
- WEB PLATES: 2-PLATES 7''x ½''x 2'-6''
SEE SHEET 33 FOR DETAILS AND RIVET LOCATIONS.

(9) ADD FLANGE PLATES TO MEMBER 131C3A.
- PLATE: 1- OUTSIDE PLATE 1'-0⅜''x ½''x 6'-0'' , AND
2- INSIDE PLATES 5½'' x ½'' x 6'-0''
SEE SHEET 33 FOR DETAILS.

(10) REPLACE HORIZONTAL GUSSET PLATE (129PI) AT MEMBERS 129B4L AND 129B2L.
SEE SHEET 33 FOR DETAILS.

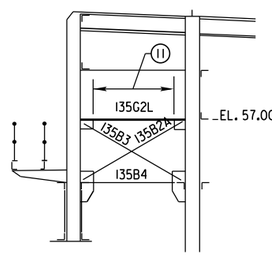
(11) ADD FLANGE PLATE TO EAST SIDE LOWER ANGLE OF 135G2L, BETWEEN RIVETS.
1 PLATE: 6''x ½'' x5'-2''.
SEE SHEET 41 FOR DETAILS.

(12) REPLACE HORIZONTAL GUSSET PLATE (150P3) BETWEEN 150BI AND 130G2RF.S.
SEE SHEET 44 FOR DETAILS.

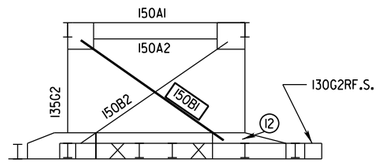
(13) REPLACE HORIZONTAL BATTEN PLATES (2) (130PI), (130P2) AND (4) LACING BARS (130LBI AND 130LB2) BETWEEN 130G2RF.S. AND 130GIN.S.
SEE SHEET 31 FOR DETAILS.

(14) ADD PLATES TO 130GIN.S., ⅜'' THICK. SEE SHEET 31 AND 32 FOR DETAILS.

(15) REPLACE EAST SIDE MEMBER 130GIN.S. TO C/L COLUMN 29TIR.
SEE SHEET 31 FOR DETAILS.



SECTION A-A
(LOOKING EAST)



PLAN VIEW
(AT EAST SIDE MACHINERY DECK)

NOTE:

- SEE STRUCTURE B-40-910 FOR MODIFICATIONS TO ORIGINAL MEMBERS AND CONNECTIONS.
- USE EXISTING BOLT SPACING AT ALL GUSSET PLATE REPLACEMENT LOCATIONS.
- F.S. = FAR SIDE
- N.S. = NEAR SIDE

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY G.J.R. | PLANS CK'D. J.P.H.

ELEVATIONS
BENT 7 (N/S)

SHEET 27 OF 47
90

REVISED DATE: 10-17-2022 BY GJR

8

8

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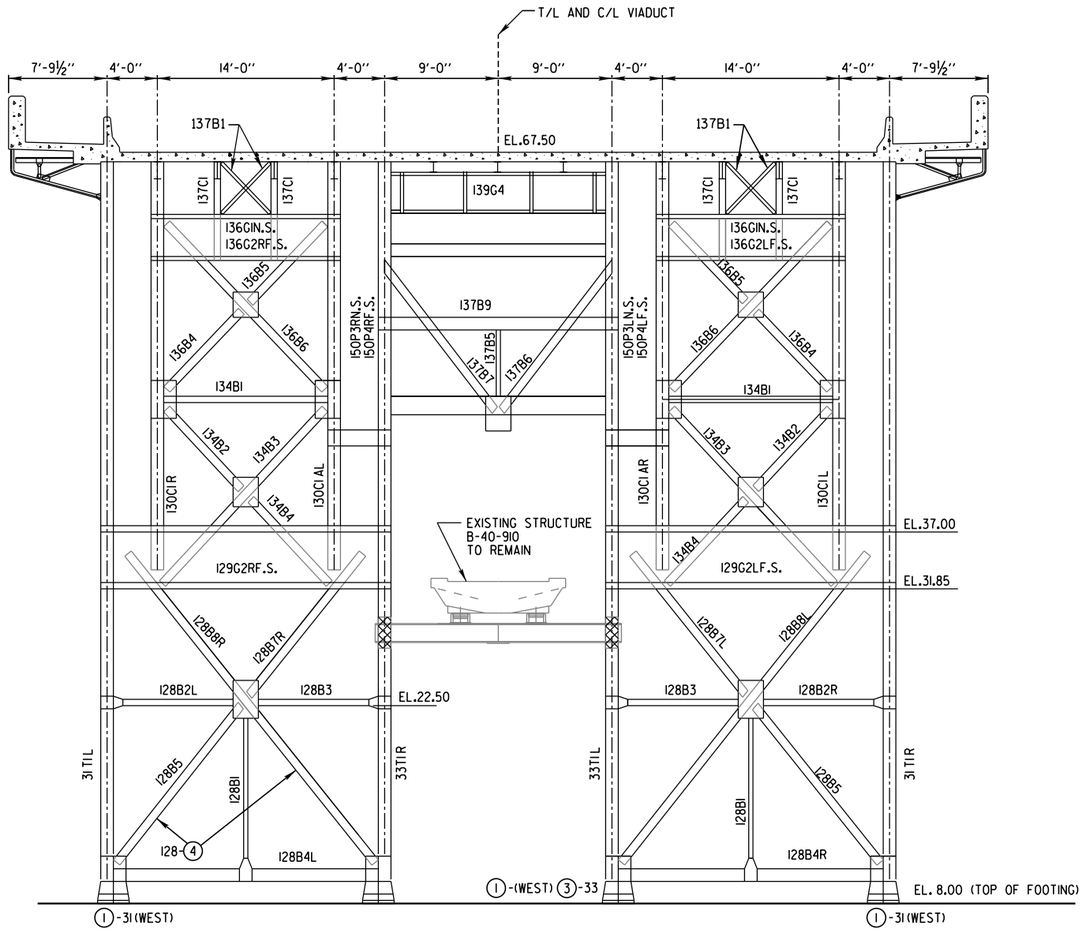
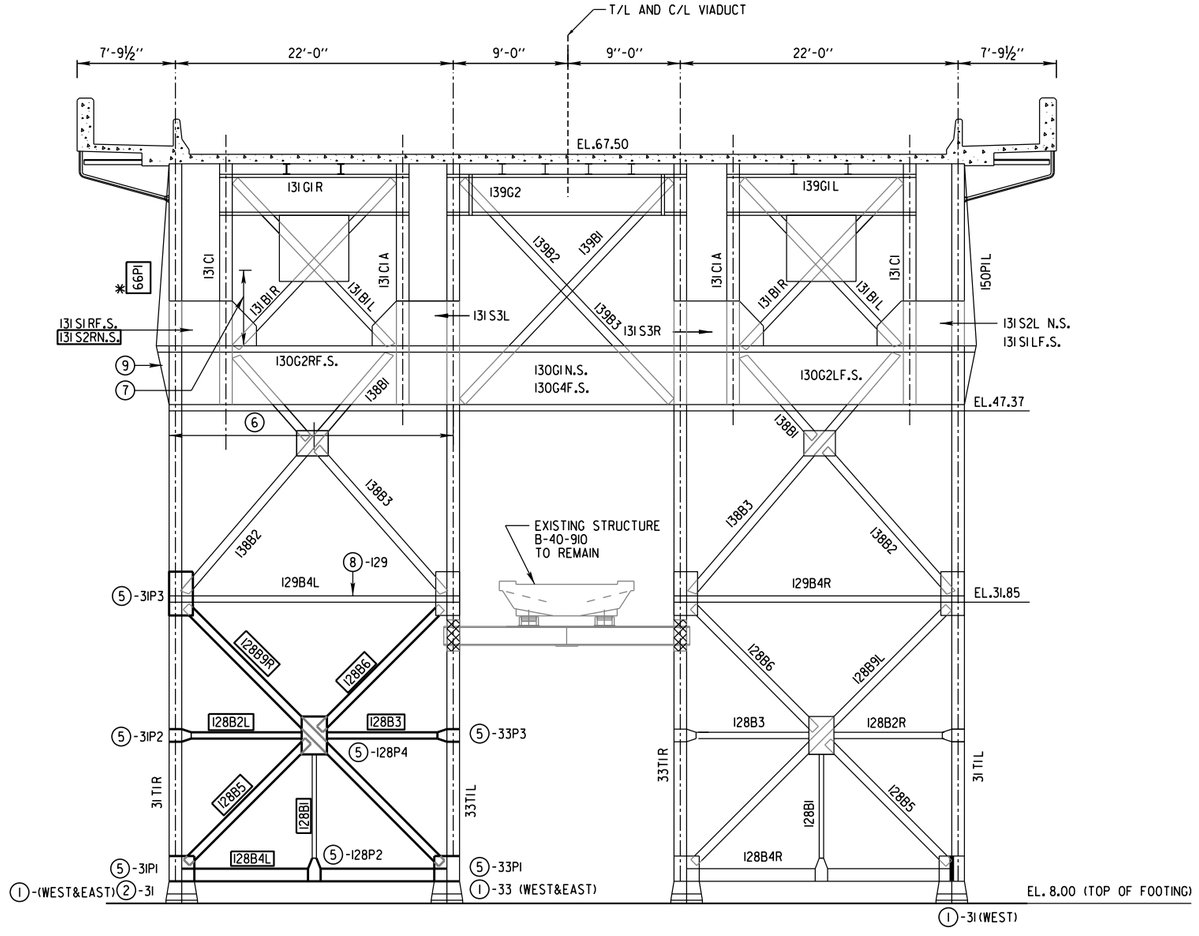
2984-12-73



ELEVATION BENT 8 REAR VIEW LOOKING SOUTH (F.S.)



ELEVATION BENT 8 FRONT VIEW LOOKING NORTH (N.S.)

BENT 8 KEY:

XXXX* 1987 SHOP DRAWINGS PART NUMBER

XXXX 1926 SHOP DRAWING PART NUMBER

XXXX 1926 SHOP DRAWING PART NUMBER - REMOVE AND REPLACE PART

①-XX, ANCHOR NUT SIZE 1⅞'' (AB5), (NUT LOCATION AS SHOWN IN ELEVATION VIEW)
SEE SHEETS 42 AND 43 FOR QUANTITY AND DETAILS.

②-3I, I-SIDE BASE PLATE (3IP4) AND ANGLE (3IA4),
SEE SHEET 42 FOR DETAILS.

③-33, I-WING BASE PLATE (33P2) AND ANGLES (33AI),
SEE SHEET 43 FOR DETAILS.

④-I28, REPLACE IO-LACING BARS TO MEMBERS I28B5 AND I28B8R
SEE SHEET 39 FOR DETAILS.

⑤-XX REPLACE GUSSET PLATES (INNER AND OUTER) 3IPI, 3IP2, 3IP3, 33PI, 33P3, I28P2 AND I28P4 TO MEMBER 3ITIR, 33TIL AND I28BI, I28B2L, I28B3, I28B4L, I28B5, I28B6, I28B9R (N.S.).
SEE SHEETS 42 , 43 AND 39 FOR DETAILS.

⑥-I30 REPLACE UPPER AND LOWER FLANGES TO WEST SIDE OF MEMBER I30GIN.S, TO C/L OF COLUMN 33TIL. REPLACE LACING BARS AND HORIZONTAL PLATES AT TOP FLANGE OF I30GI TO I30G2R.
SEE SHEETS 3I AND 32 FOR DETAILS.

⑦-I3I ADD OUTSIDE FLANGE COVER PLATES FOR MEMBER I3ICI, BETWEEN RIVETS SIZE I- PLATE I'-0⅜''x ½''x4'-0''.
SEE SHEET 33 FOR DETAILS.

⑧ REPLACE 50 LACING BARS AND ALL HORIZONTAL BATTEN PLATES (I29P2 AND I29P3) TO MEMBER I29B4L.
SEE SHEET 33 FOR DETAILS.

⑨-I30 ADD PLS. TO I30GIN.S., ⅜'' THICK.
SEE SHEETS 3I, AND 32 FOR DETAILS.

NOTE:

- SEE STRUCTURE B-40-9IO PLANS FOR MODIFICATIONS TO ORIGINAL MEMBERS AND CONNECTIONS
- USE EXISTING BOLT SPACING AT ALL GUSSET PLATE REPLACEMENT LOCATIONS

NO.	DATE	REVISION	BY

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STRUCTURE P-40-875

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ELEVATIONS
BENT 8 (N/S)

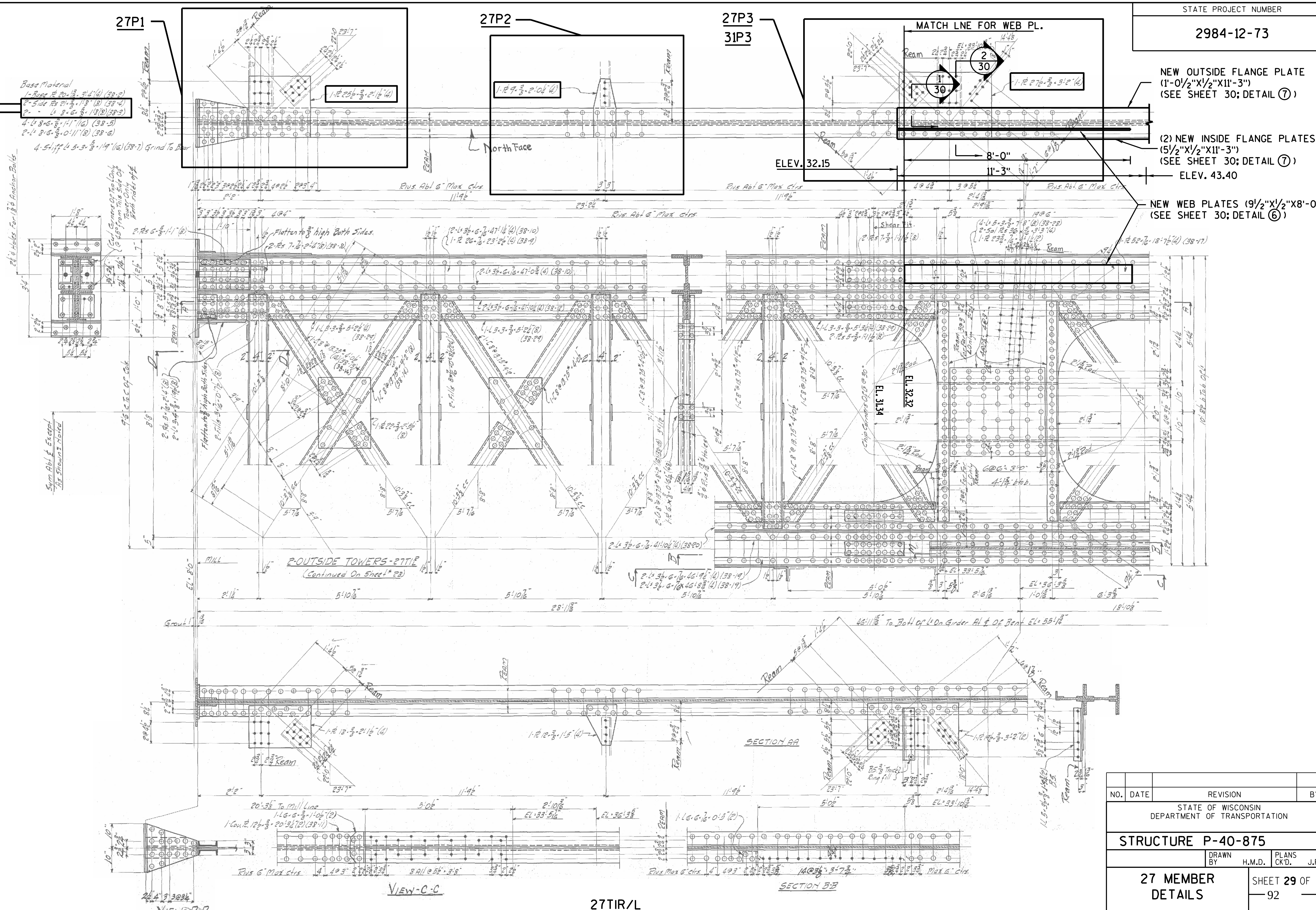
SHEET 28 OF 47
91

REVISED DATE: 10-17-2022 BY GJR

8

8

STATE PROJECT NUMBER
2984-12-73



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DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

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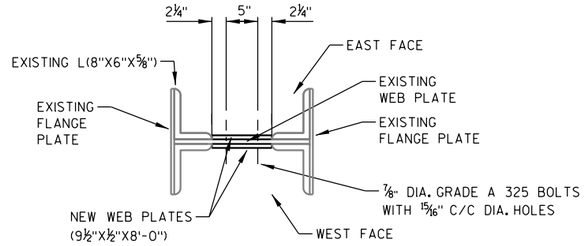
27 MEMBER DETAILS

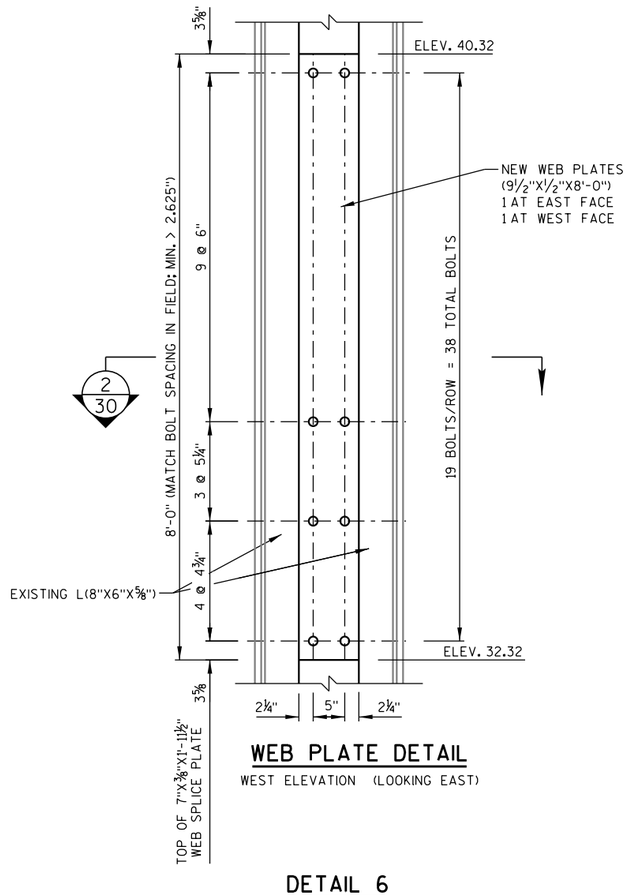
SHEET 29 OF 47

STATE PROJECT NUMBER

2984-12-73



SECTION 2 / 29/30

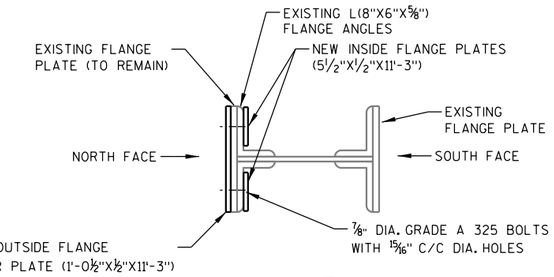


WEB PLATE DETAIL

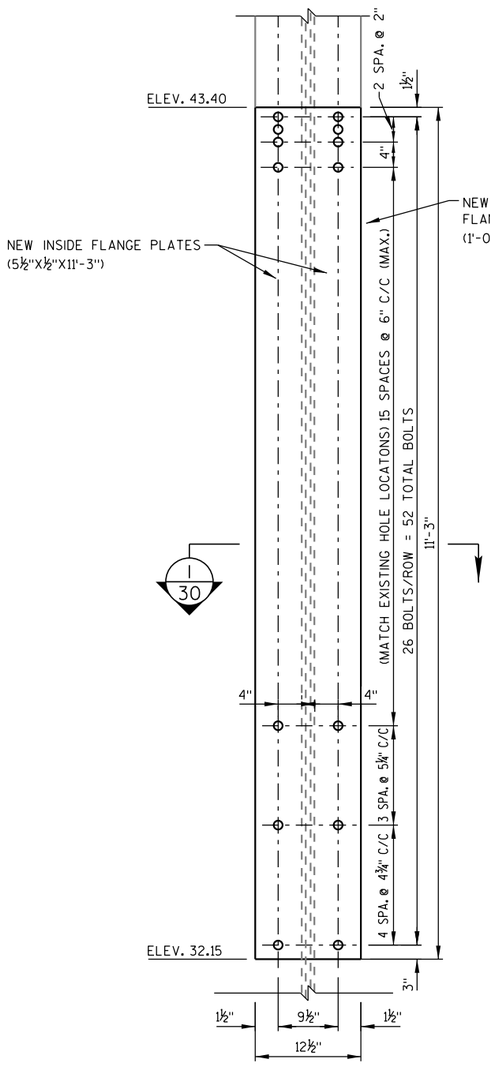
WEST ELEVATION (LOOKING EAST)

DETAIL 6

LOCATED AT MEMBER 27T1R
(BENT 7)

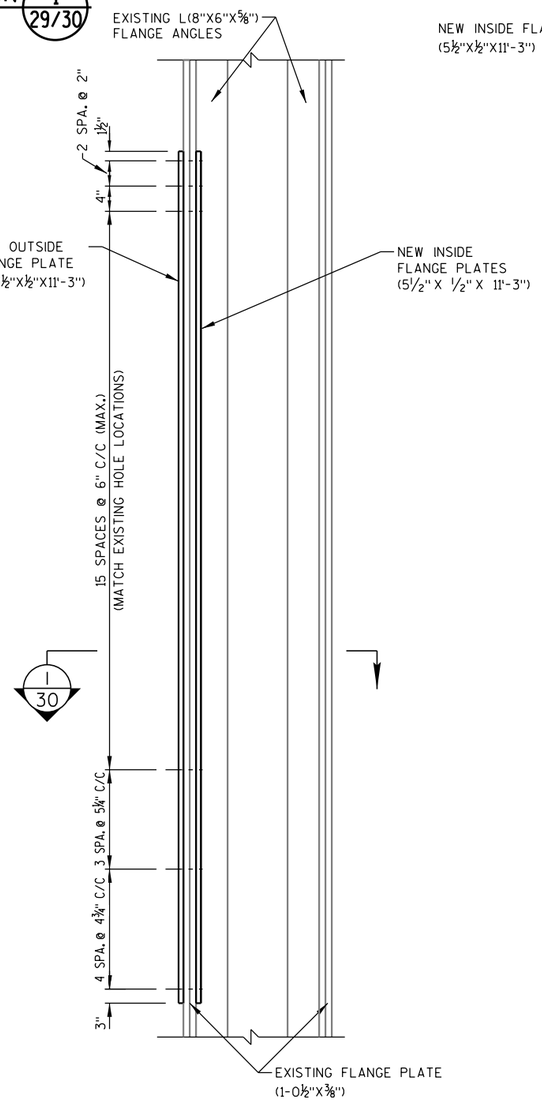


SECTION 1 / 29/30



OUTSIDE FLANGE PLATE DETAIL

NORTH ELEVATION (LOOKING SOUTH)

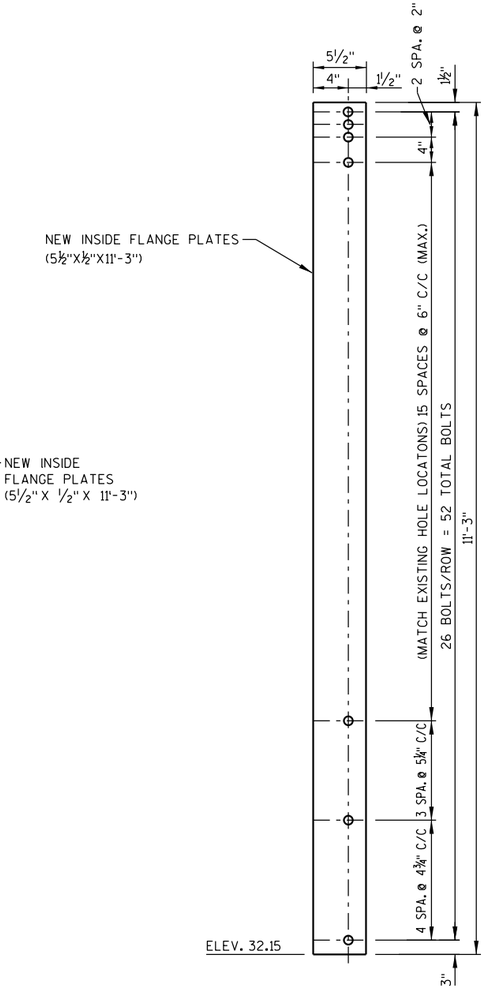


FLANGE PLATE DETAIL

WEST ELEVATION (LOOKING EAST)

DETAIL 7

LOCATED AT MEMBER 27T1R
(BENT 7)



INSIDE FLANGE PLATE DETAIL

2 TOTAL INSIDE FLANGE PLATES

NOTE:

SEE SHEET 29 FOR LOCATION

NO.	DATE	REVISION	BY

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DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

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27T1R DETAILS

SHEET 30 OF 47
93

REVISED DATE: 10-18-2022 BY JC

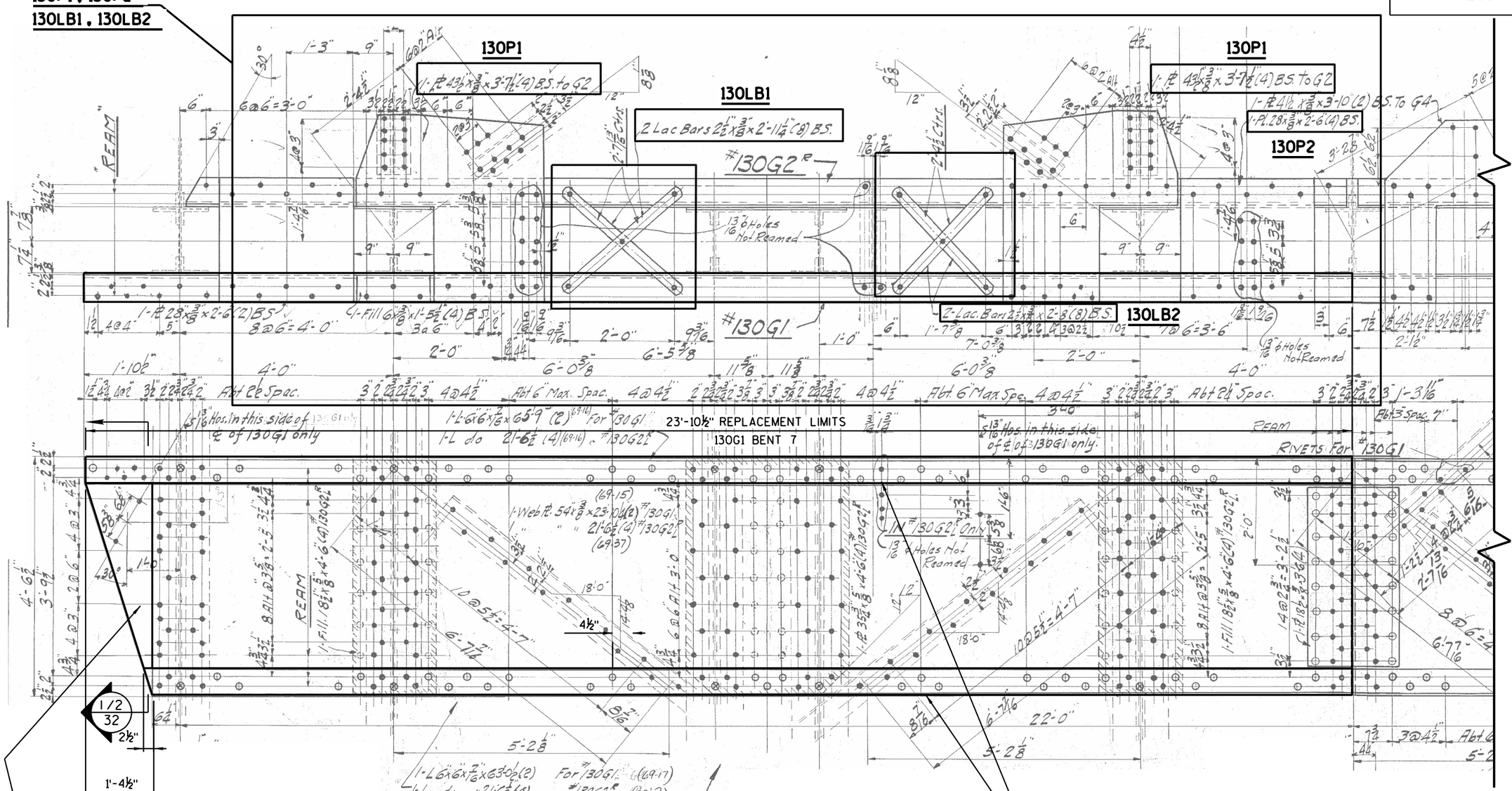
8

8

STATE PROJECT NUMBER

2984-12-73

130P1 , 130P2
130LB1 , 130LB2



BENT 7 - ADD WEB PLATES AT WEST SIDE
(SEE SHEET 32 DETAIL 14)
BENT 8 - ADD WEB PLATES AT WEST SIDE
(SEE SHEET 32 DETAIL 9)

REPLACE L6"X6"X 7/16" (BENT 8)
NEW BOTTOM FLANGE L6"X6"X 7/16 "X22'-6¼"
NEW TOP FLANGE L6"X6"X 7/16 "X23'-10½"
SEE SHEET 32 DETAIL 6

130G1,130G2,130G4

(BENT 7 & 8)

BENT 7 - REPLACE MEMBER 130G1 N.S. , (2) 130P1 , 130P2 , 130LB1 AND 130LB2.
BENT 7 - ADD WEB PLATES (2) (1'-4½" TO 2½" X ⅜"X3'-6") AT WEST SIDE.
BENT 8 - REPLACE UPPER AND LOWER FLANGES OF MEMBER 130G1 (AT EAST SIDE OF BENT 8).
BENT 8 - REPLACE LACING BARS AND HORIZONTAL PLATES AT TOP FLANGE OF 130G1 TO 130G2 (AT EAST SIDE OF BENT 8).
BENT 8 - ADD WEB PLATES (2) (1'-4½" TO 2½" X ⅜"X3'-6") AT WEST SIDE.

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

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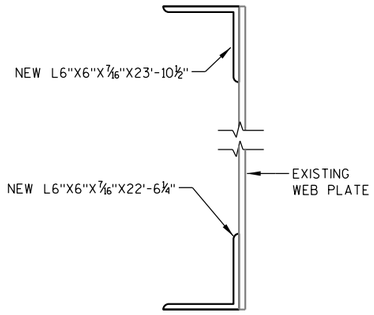
130 MEMBER DETAILS

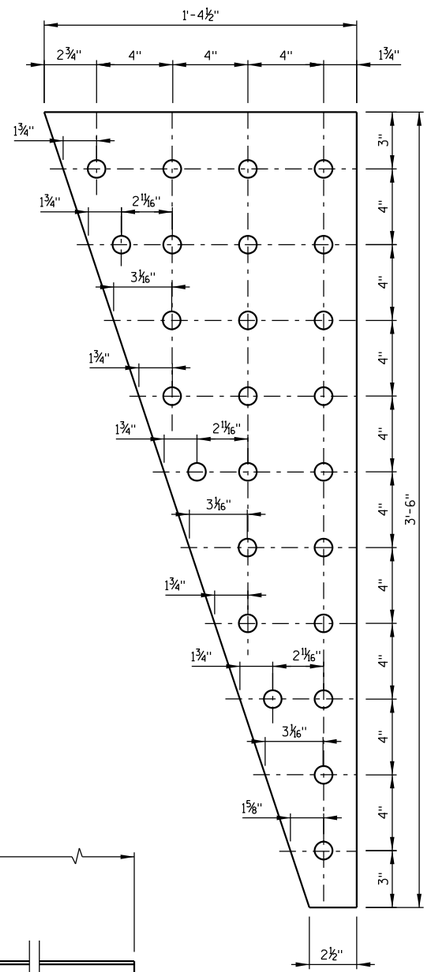
SHEET 31 OF 47
94

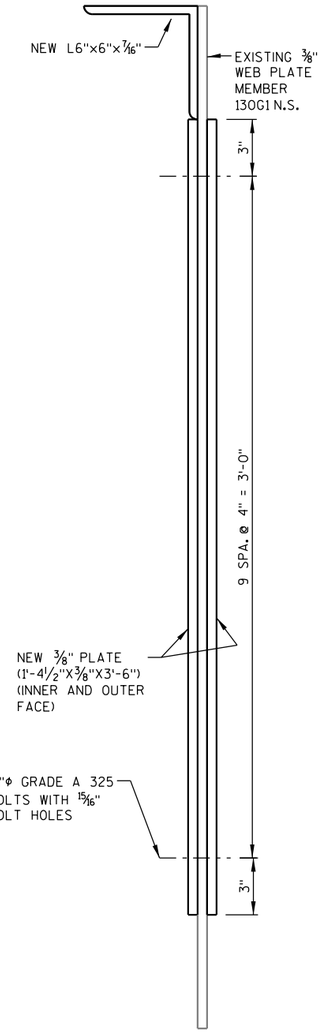
STATE PROJECT NUMBER

2984-12-73



SECTION A-A

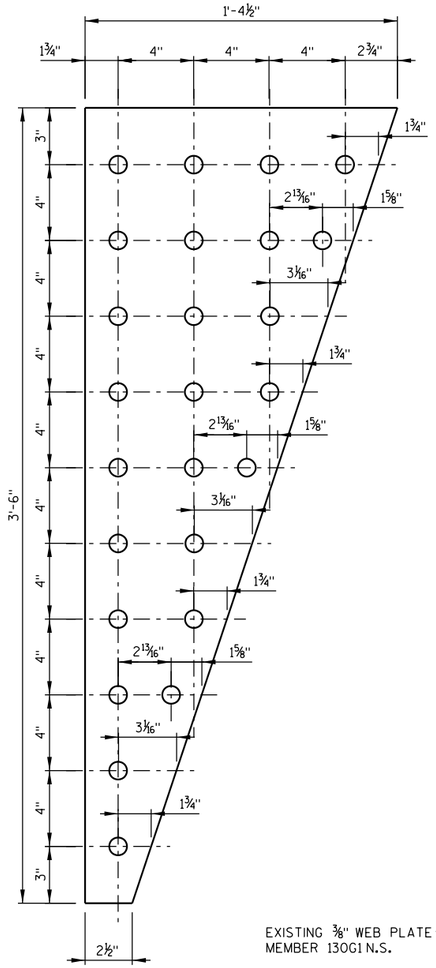


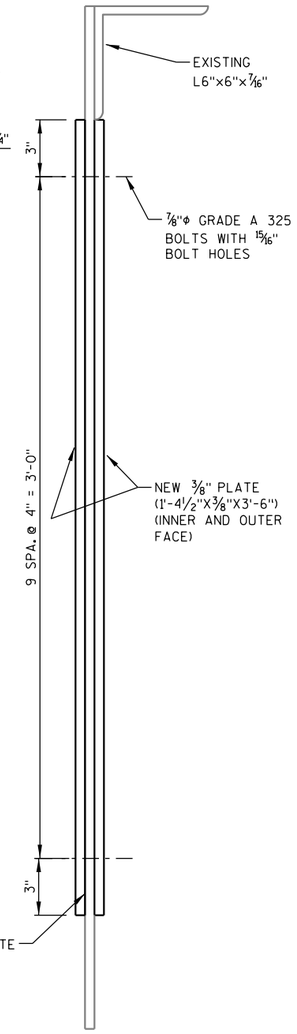


WEB PLATE DETAIL

(2 TOTAL)

SECTION 1/31

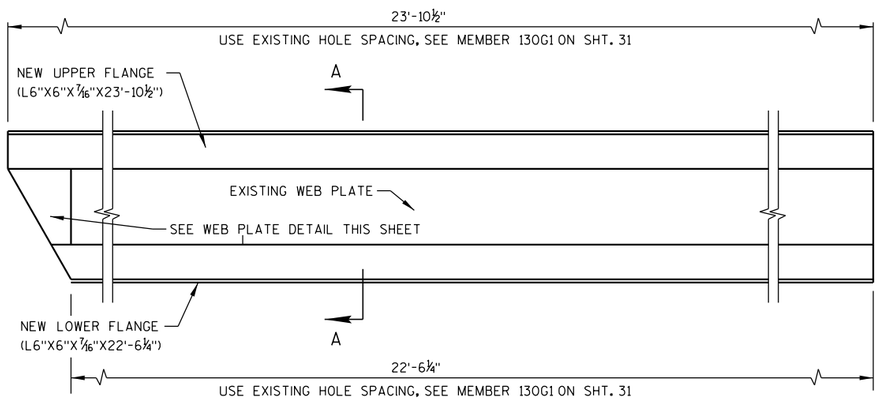




WEB PLATE DETAIL

(2 TOTAL)

SECTION 2/31



LOWER & UPPER FLANGE DETAILS

DETAIL 6

LOCATED AT MEMBER 130G1 N.S.
(BENT 8)

DETAIL 9

LOCATED AT MEMBER 130G1 N.S.
(BENT 8 - WEST SIDE)

DETAIL 14

LOCATED AT MEMBER 130G1 N.S.
(BENT 7 - WEST SIDE)

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DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

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130G1 N.S.
DETAILS

SHEET 32 OF 47
95

REVISED DATE: 10-26-2022 BY JC

8

8

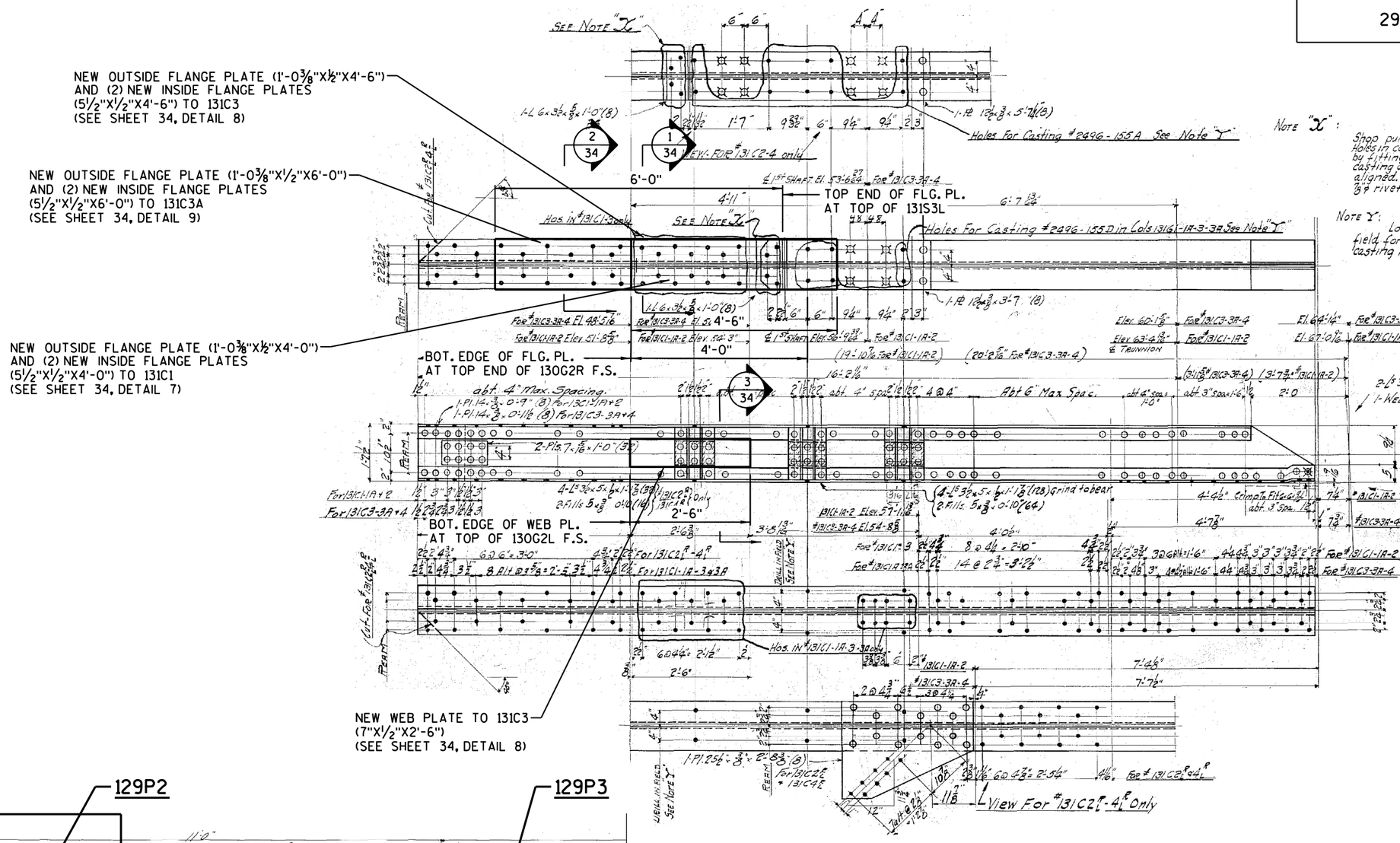
STATE PROJECT NUMBER

2984-12-73

NEW OUTSIDE FLANGE PLATE (1'-0 3/8"X1/2"X4'-6")
AND (2) NEW INSIDE FLANGE PLATES
(5 1/2"X1/2"X4'-6") TO 131C3
(SEE SHEET 34, DETAIL 8)

NEW OUTSIDE FLANGE PLATE (1'-0 3/8"X1/2"X6'-0")
AND (2) NEW INSIDE FLANGE PLATES
(5 1/2"X1/2"X6'-0") TO 131C3A
(SEE SHEET 34, DETAIL 9)

NEW OUTSIDE FLANGE PLATE (1'-0 3/8"X1/2"X4'-0")
AND (2) NEW INSIDE FLANGE PLATES
(5 1/2"X1/2"X4'-0") TO 131C1
(SEE SHEET 34, DETAIL 7)



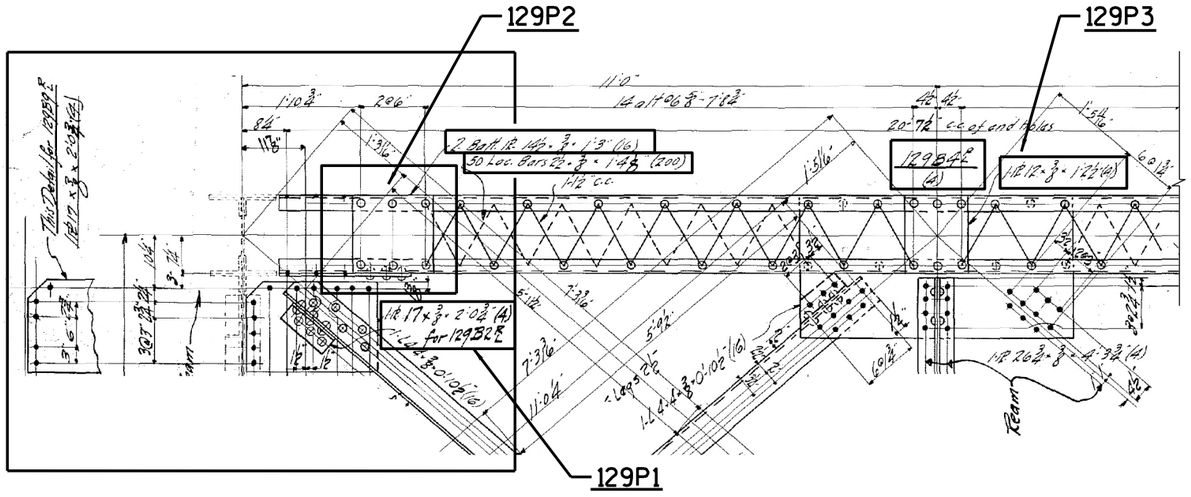
NEW WEB PLATE TO 131C3
(7"X1/2"X2'-6")
(SEE SHEET 34, DETAIL 8)

Note "X":
Shop punch 13/16" holes in angle only. Holes in column to be located in field by fitting angle to bear against casting after latter is perfectly aligned. Then drill and ream for 7/8" rivets.

Note "Y":
Locate, drill and ream in field for turned bolts after casting is perfectly aligned.

131C1, 131C3, 131C3A

131C3, 131C3A - BENT 7
131C1 - BENT 8



129B4 R/L

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8

8

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STRUCTURE P-40-875

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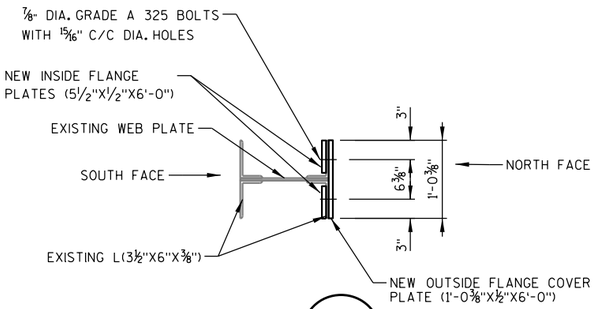
129 AND 131 MEMBERS DETAILS

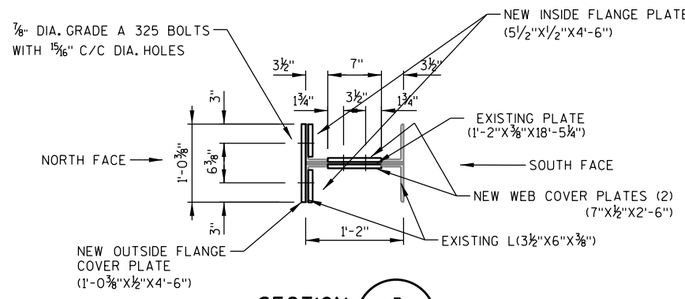
SHEET 33 OF 47
96

STATE PROJECT NUMBER

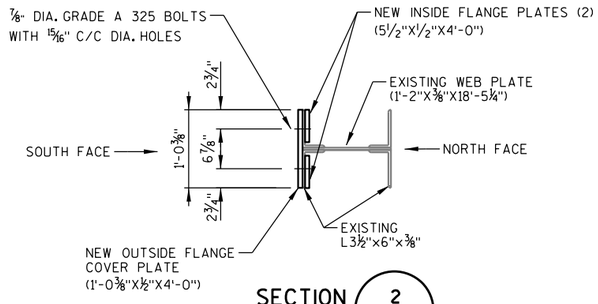
2984-12-73



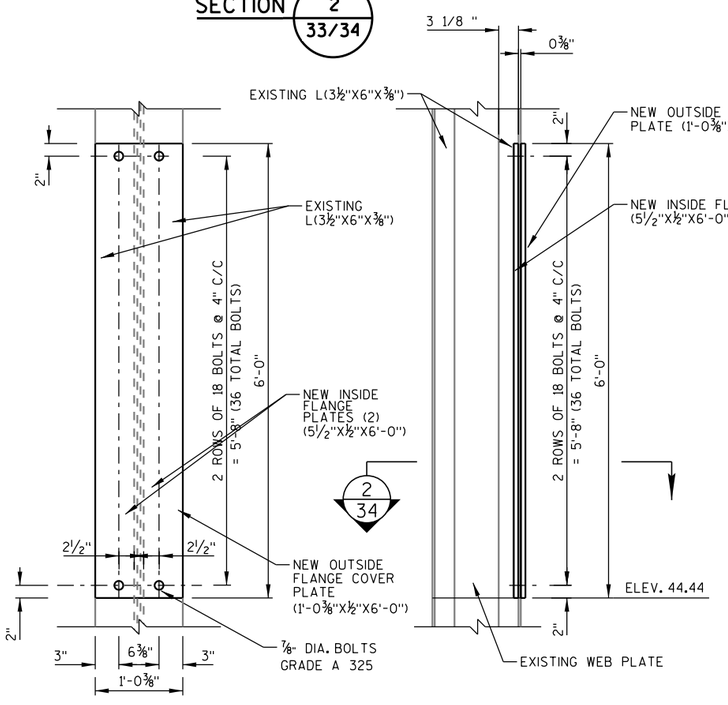
SECTION 2 / 33/34



SECTION 3 / 33/34



SECTION 2 / 33/34

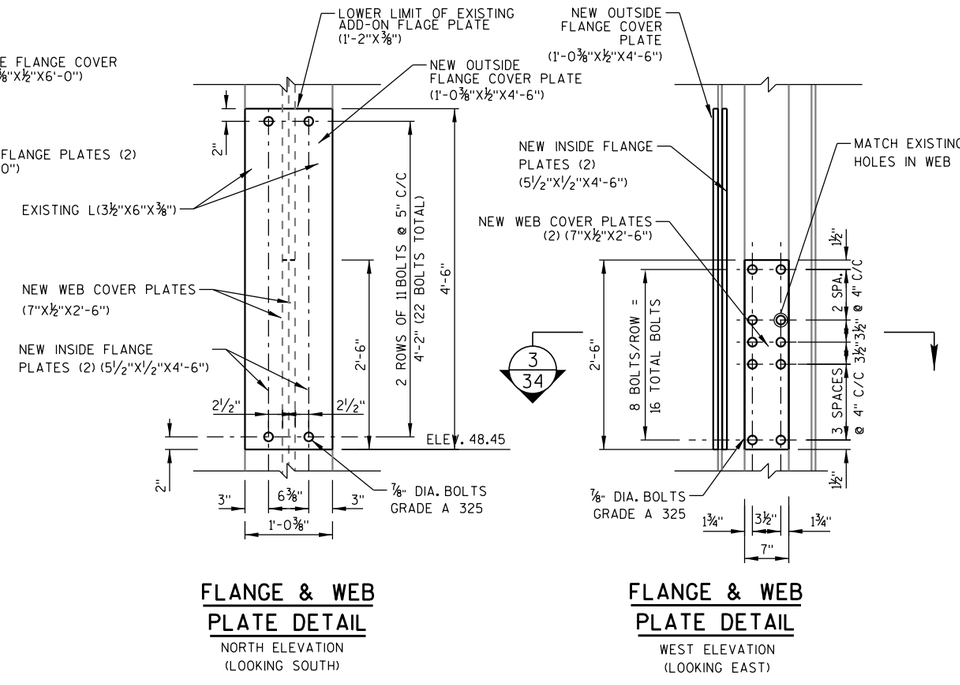


FLANGE PLATE DETAIL

NORTH ELEVATION
(LOOKING SOUTH)

FLANGE PLATE DETAIL

EAST ELEVATION
(LOOKING WEST)

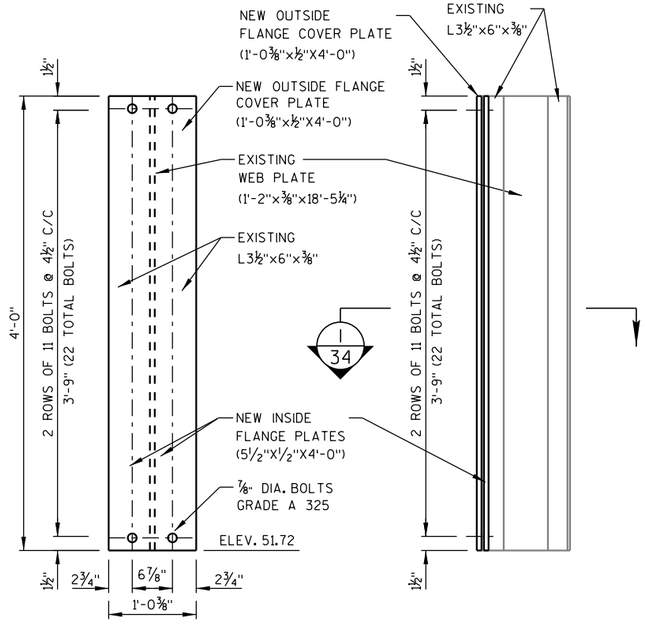


FLANGE & WEB PLATE DETAIL

NORTH ELEVATION
(LOOKING SOUTH)

FLANGE & WEB PLATE DETAIL

WEST ELEVATION
(LOOKING EAST)



FLANGE PLATE DETAIL

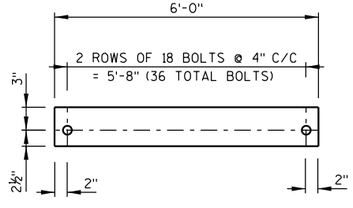
SOUTH ELEVATION
(LOOKING NORTH)

FLANGE PLATE DETAIL

EAST ELEVATION
(LOOKING WEST)

DETAIL 9

LOCATED AT MEMBER 131C3A
(BENT 7)



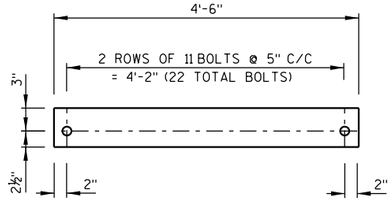
INSIDE FLANGE PLATE DETAIL

DETAIL 9

2 TOTAL INSIDE FLANGE PLATES FOR 131C3A

DETAIL 8

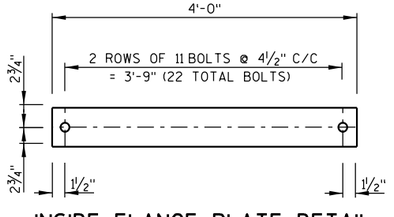
LOCATED AT MEMBER 131C3
(BENT 7)



INSIDE FLANGE PLATE DETAIL

DETAIL 8

2 TOTAL INSIDE FLANGE PLATES FOR 131C3



INSIDE FLANGE PLATE DETAIL

DETAIL 7

2 TOTAL INSIDE FLANGE PLATES 131C1

DETAIL 7

LOCATED AT MEMBER 131C1
(BENT 8)

NOTE:

SEE SHEETS 27 & 28 FOR LOCATION

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

131 DETAILS

SHEET 34 OF 47
97

REVISED DATE: 10-18-2022 BY JC

8

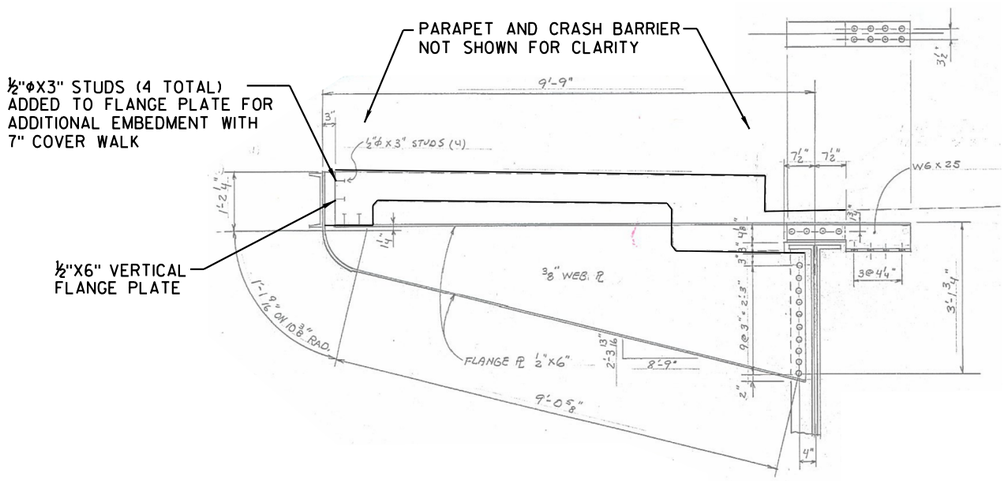
8

STATE PROJECT NUMBER
2984-12-73

NOTES:

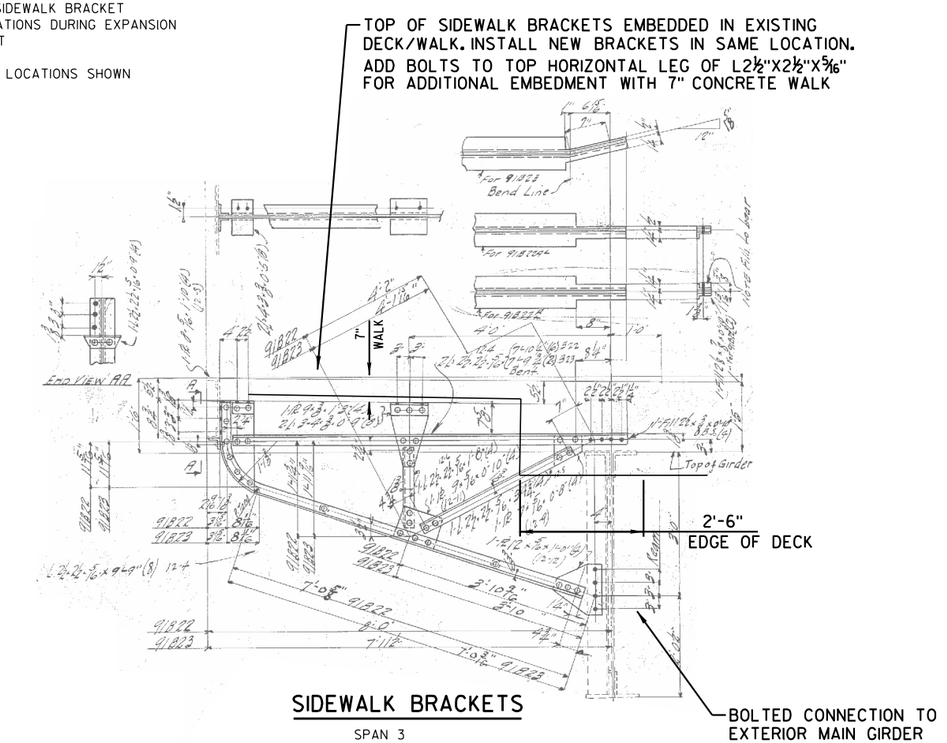
CONCRETE WALK, DECK AND PARAPET TO BE REPLACED AT SIDEWALK BRACKET REPLACEMENT LOCATIONS DURING EXPANSION JOINT REPLACEMENT

SIDEWALK BRACKET LOCATIONS SHOWN ON SHEETS 2 & 3.



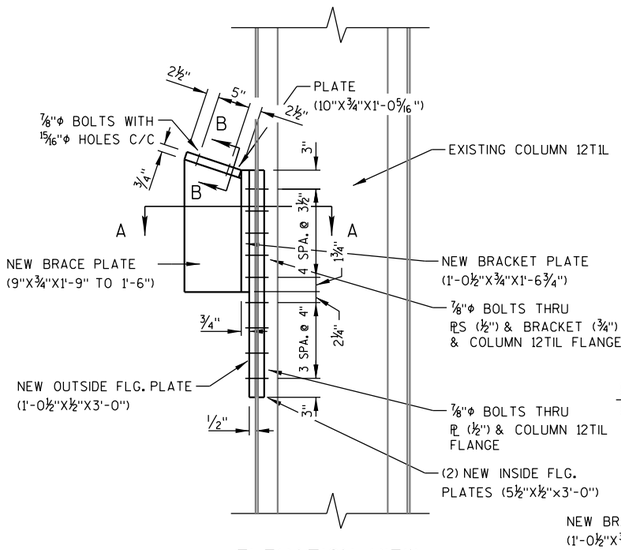
SIDEWALK BRACKETS

MEMBER ID'S 13B1R, 13B1L, 15B1L (SPAN 7)



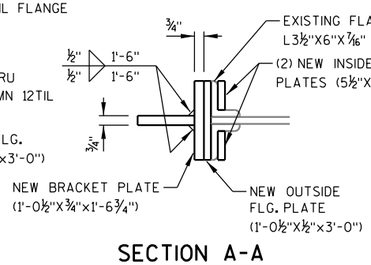
SIDEWALK BRACKETS

SPAN 3
1-SIDEWALK BRACKET 91B22R
1-SIDEWALK BRACKET 91B22AL
91B22AL SAME AS 91B22R/L EXCEPT AS SHOWN IN TOP VIEW

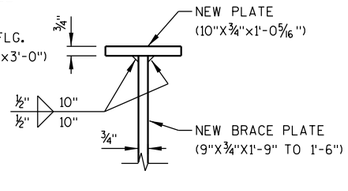


ELEVATION VIEW

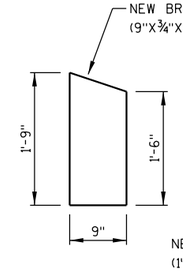
(LOOKING WEST)



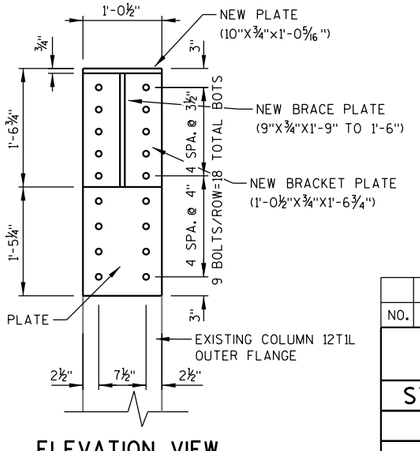
SECTION A-A



SECTION B-B

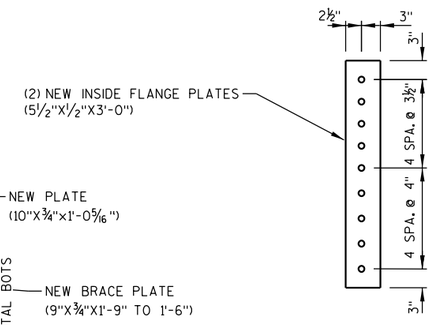


BRACE PLATE DETAIL



ELEVATION VIEW

(LOOKING NORTH)
BRACKET W/ OUTSIDE FLG. PL.



ELEVATION VIEW

(LOOKING NORTH)
INSIDE FLG. PL.
2 TOTAL

BRACKET - COLUMN PLATES DETAILS

DETAIL 8, BENT 6
(FOR 12T1L - SEE SHEET 38 FOR LOCATION)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

SIDEWALK BRACKET DETAILS

SHEET 35 OF 47
98

REVISED DATE: 10-18-2022 BY JC

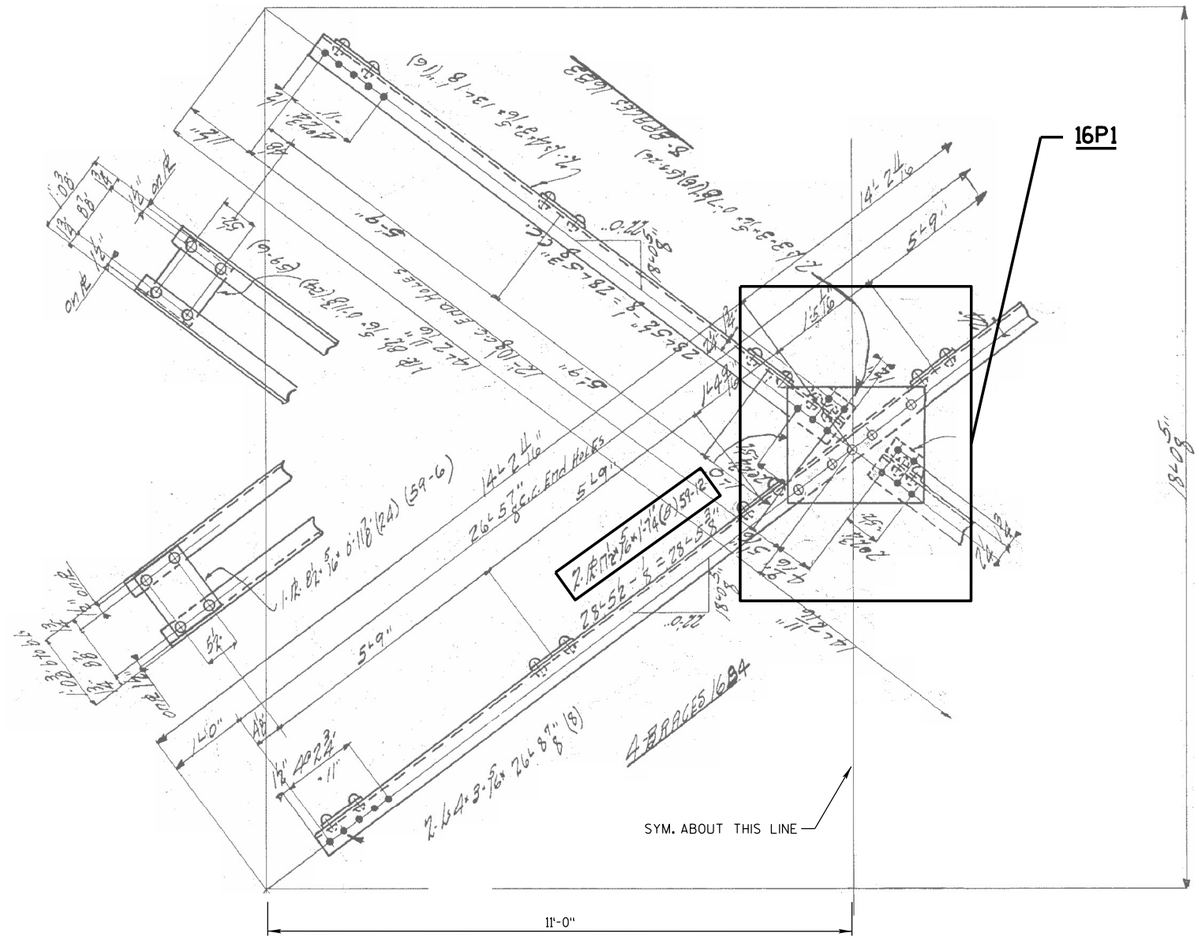
8

8

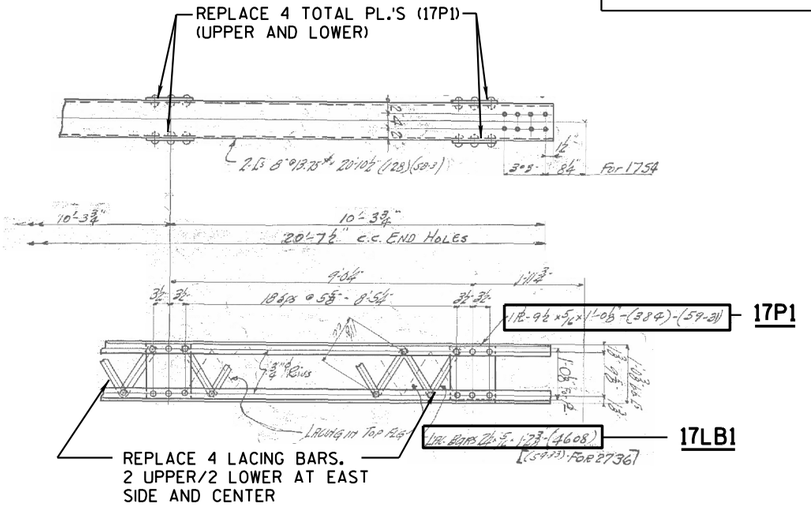
FILE NAME : \\ad\mkedfs\GIS DeptWork\str\b0113\2023 Phase 1\Plans\B0113_2023_35_ SIDEWALK BRACKET DETAIL.dgn PLOT DATE : 11/14/2022 10:27:31 AM PLOT BY : jphagen PLOT NAME : B0113_2023_35_ SIDEWALK BRACKET DETAIL.dgn PLOT SCALE : 3.0000 sf / in.

STATE PROJECT NUMBER

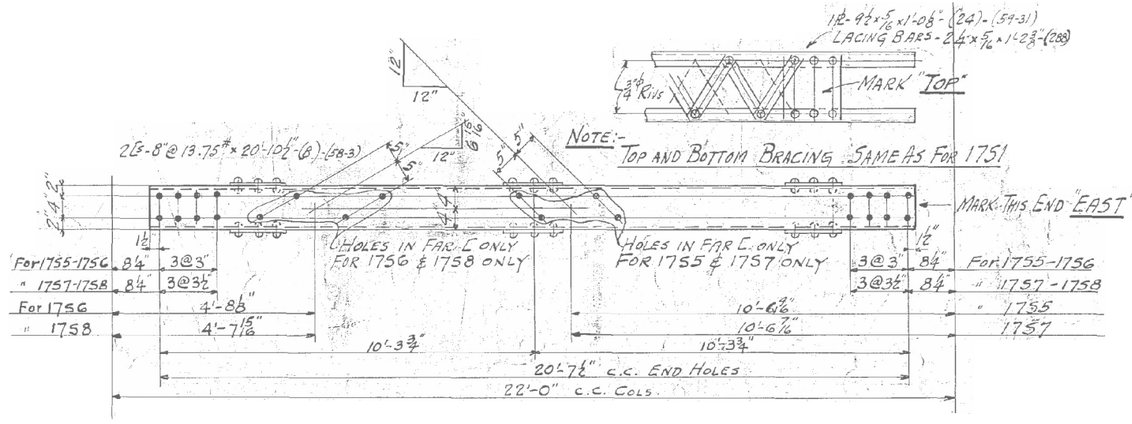
2984-12-73



16B3, 16B4



17S4



17S6

REVISED DATE: 08-24-2022 BY GJR

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

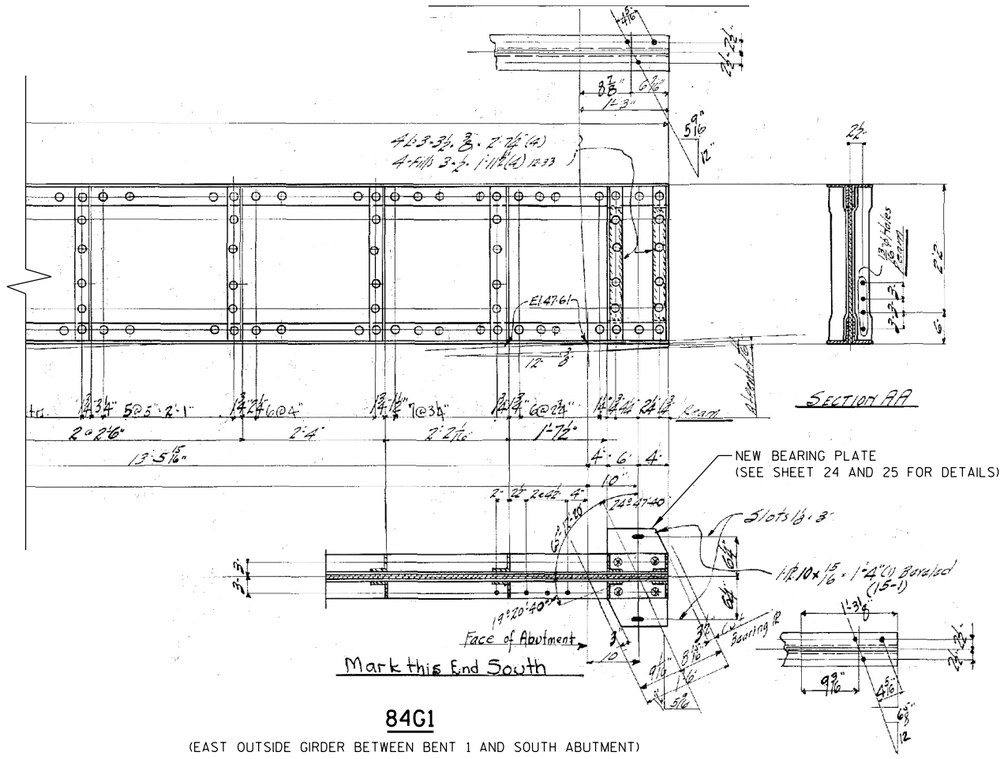
16B3, 16B4 AND 17 MEMBERS DETAILS

SHEET 36 OF 47

99

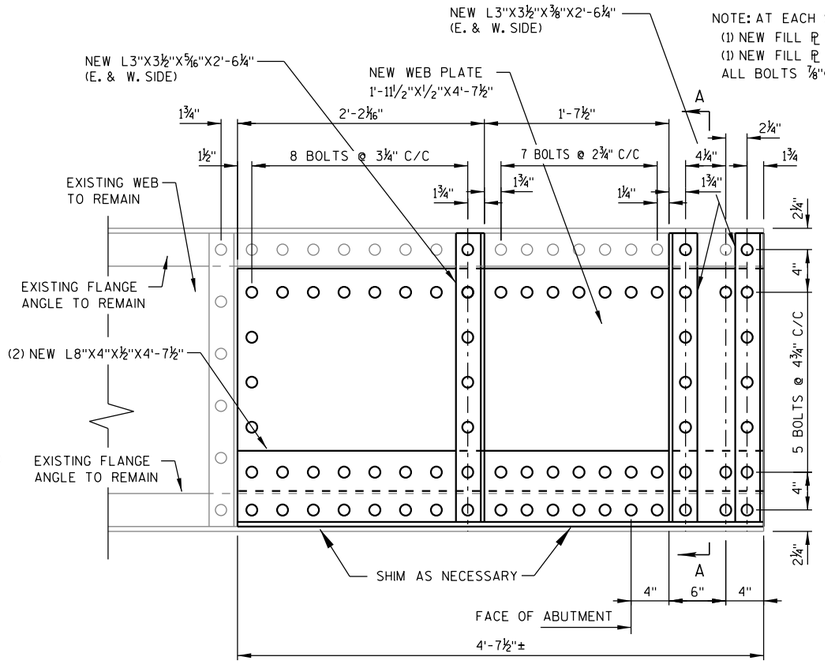
FILE NAME : \\ad\mkedfs\GIS DeptWork\str\b0113\2023 Phase 1\Plans\B0113_2023_36_16B3,16B4 & 17 MEMBERS DETAILS.dgn PLOT DATE : 11/14/2022 10:27:32 AM PLOT BY : jphagen PLOT NAME : B0113_2023_36_16B3,16B4 & 17 MEMBERS DETAILS.dgn PLOT SCALE : 4.1667 sf / in.

STATE PROJECT NUMBER
2984-12-73



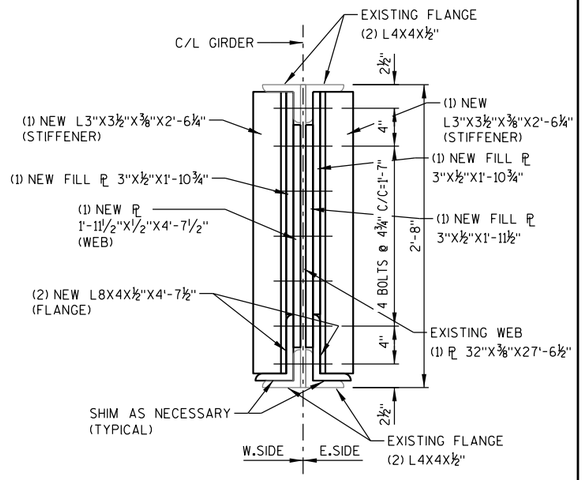
84G1

(EAST OUTSIDE GIRDER BETWEEN BENT 1 AND SOUTH ABUTMENT)



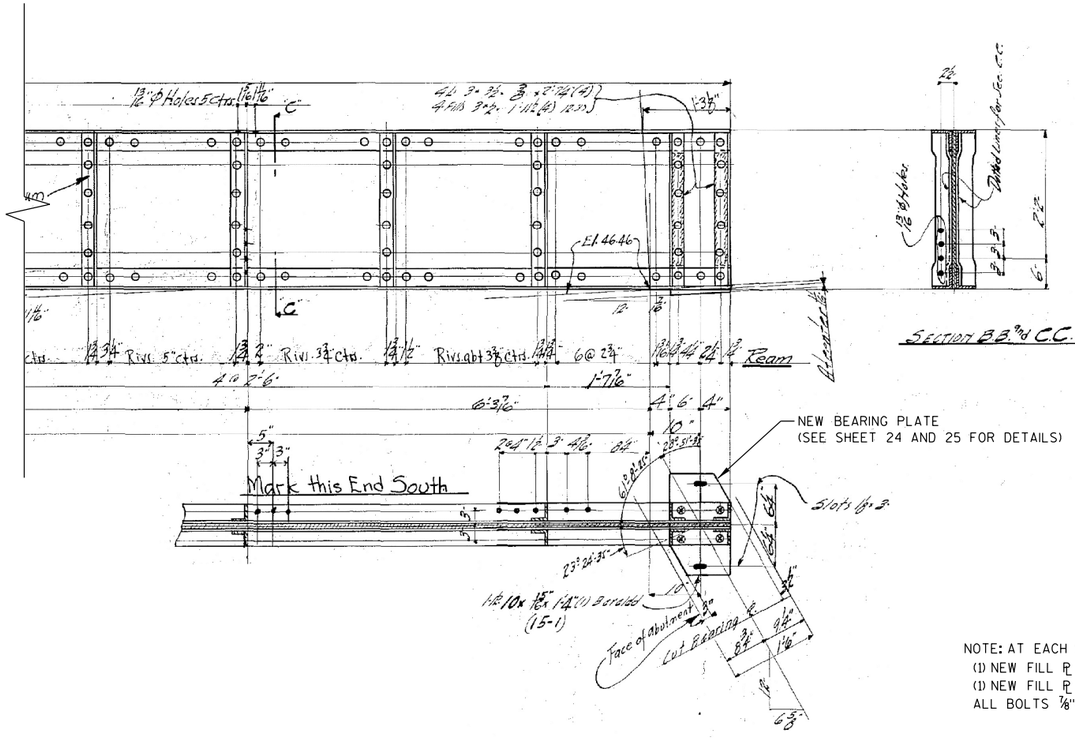
WEST ELEVATION

GIRDER 84G1



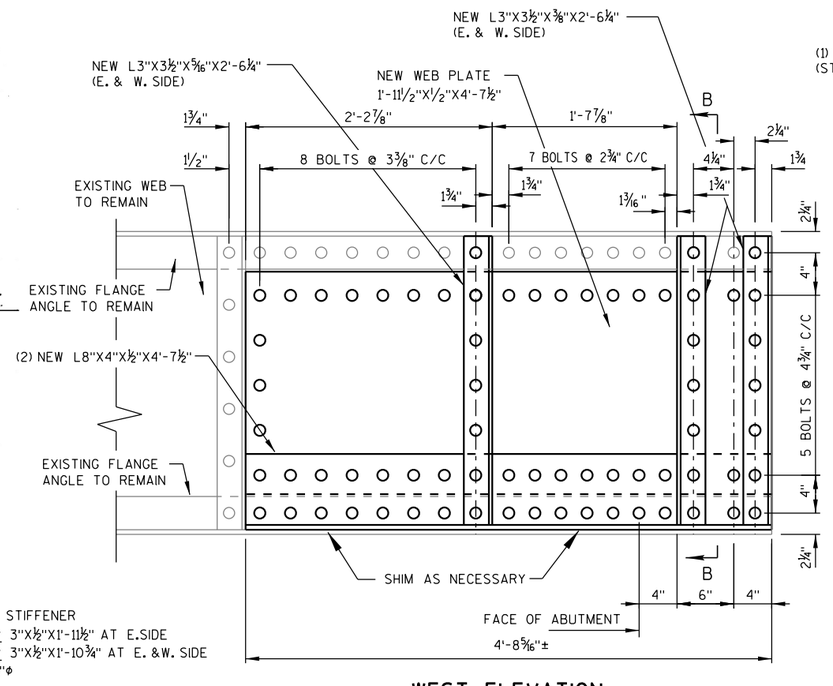
SECTION A-A

GIRDER 84G1



84G2

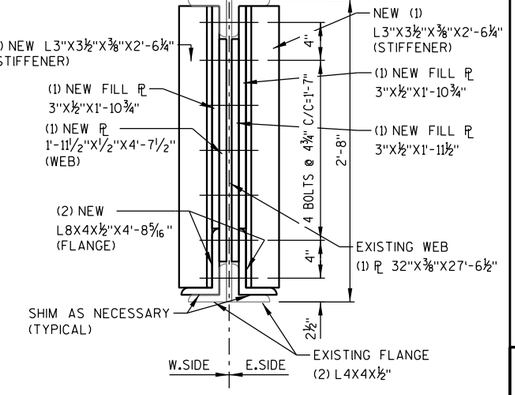
(WEST OUTSIDE GIRDER BETWEEN BENT 1 AND SOUTH ABUTMENT)



NOTE: AT EACH STIFFENER
(1) NEW FILL PL 3"X½"X1'-11½" AT E.SIDE
(1) NEW FILL PL 3"X½"X1'-10¾" AT E. &W. SIDE
ALL BOLTS ⅞"ϕ

WEST ELEVATION

GIRDER 84G2



SECTION B-B

GIRDER 84G2

REVISED DATE: 10-26-2022 BY JC

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

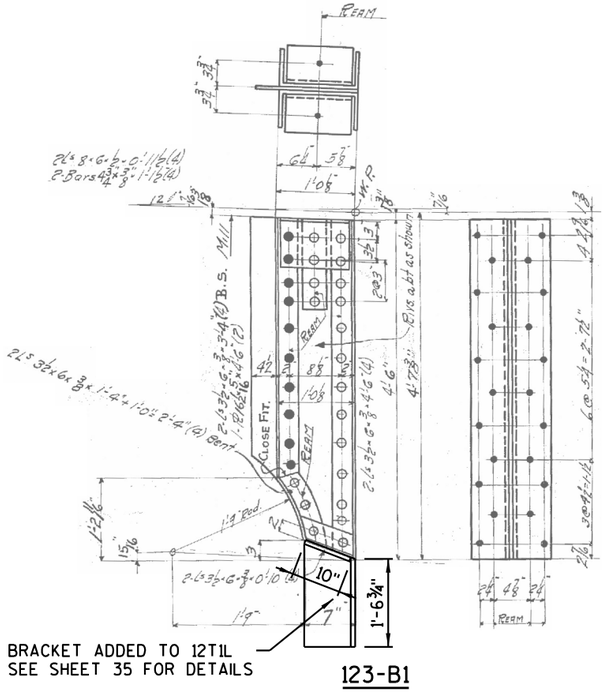
DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

84G1 AND 84G2 DETAILS

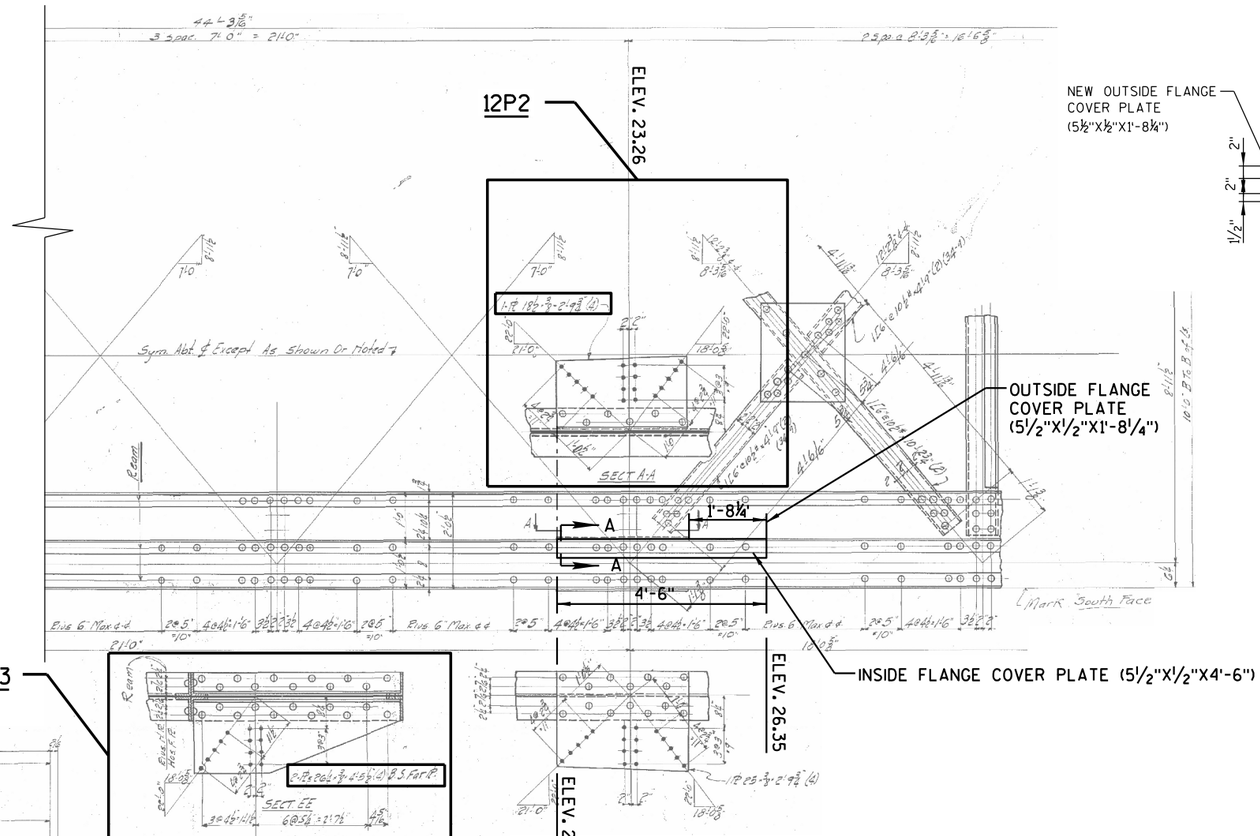
SHEET 37 OF 47
100

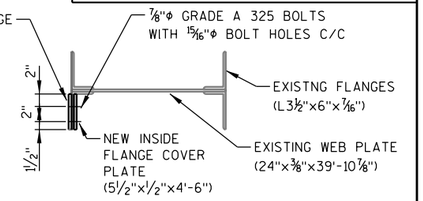
8

FILE NAME : \\ad\mkedfs\GIS DeptWork\str\b0113\2023 Phase 1\Plans\B0113_2023_37_84G1 AND 84G2 DETAILS.dgn PLOT DATE : 11/14/2022 10:27:35 AM PLOT BY : jphagen PLOT NAME : B0113_2023_37_84G1 AND 84G2 DETAILS.dgn PLOT SCALE : 2:0.0000 ':" / in.

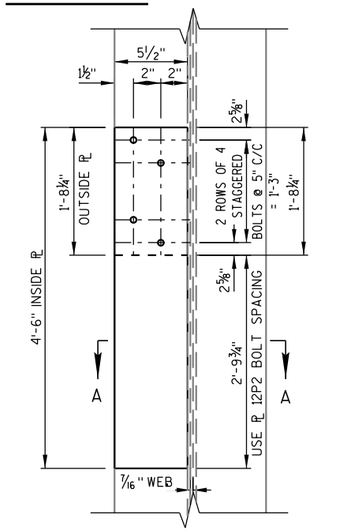


123-B1
(LOCATED AT COLUMN 12T1L)

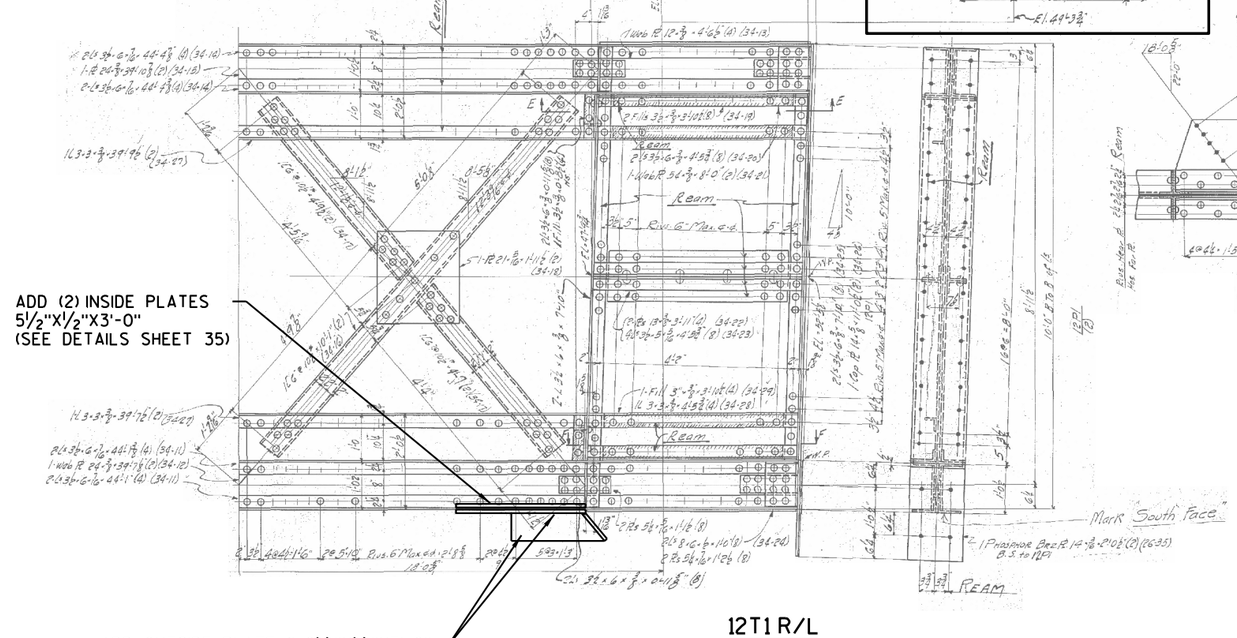




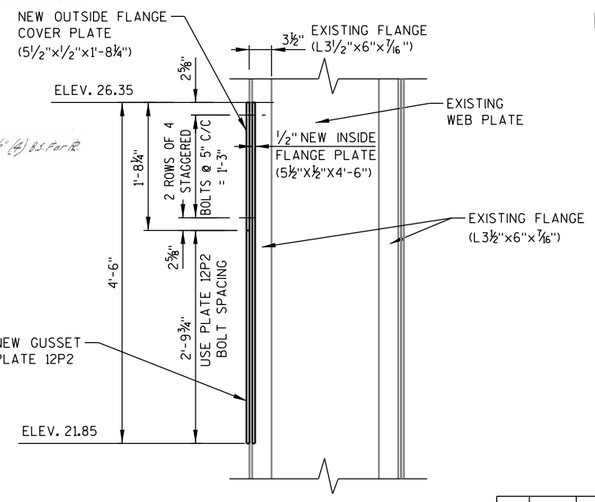
SECTION A-A



FLANGE PLATE DETAILS
SOUTH ELEVATION (LOOKING NORTH)



12T1 R/L



FLANGE PLATE DETAILS
DETAIL 1, BENT 6
WEST ELEVATION
(LOOKING EAST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

12T1 R/L MEMBER DETAILS

SHEET 38 OF 47
101

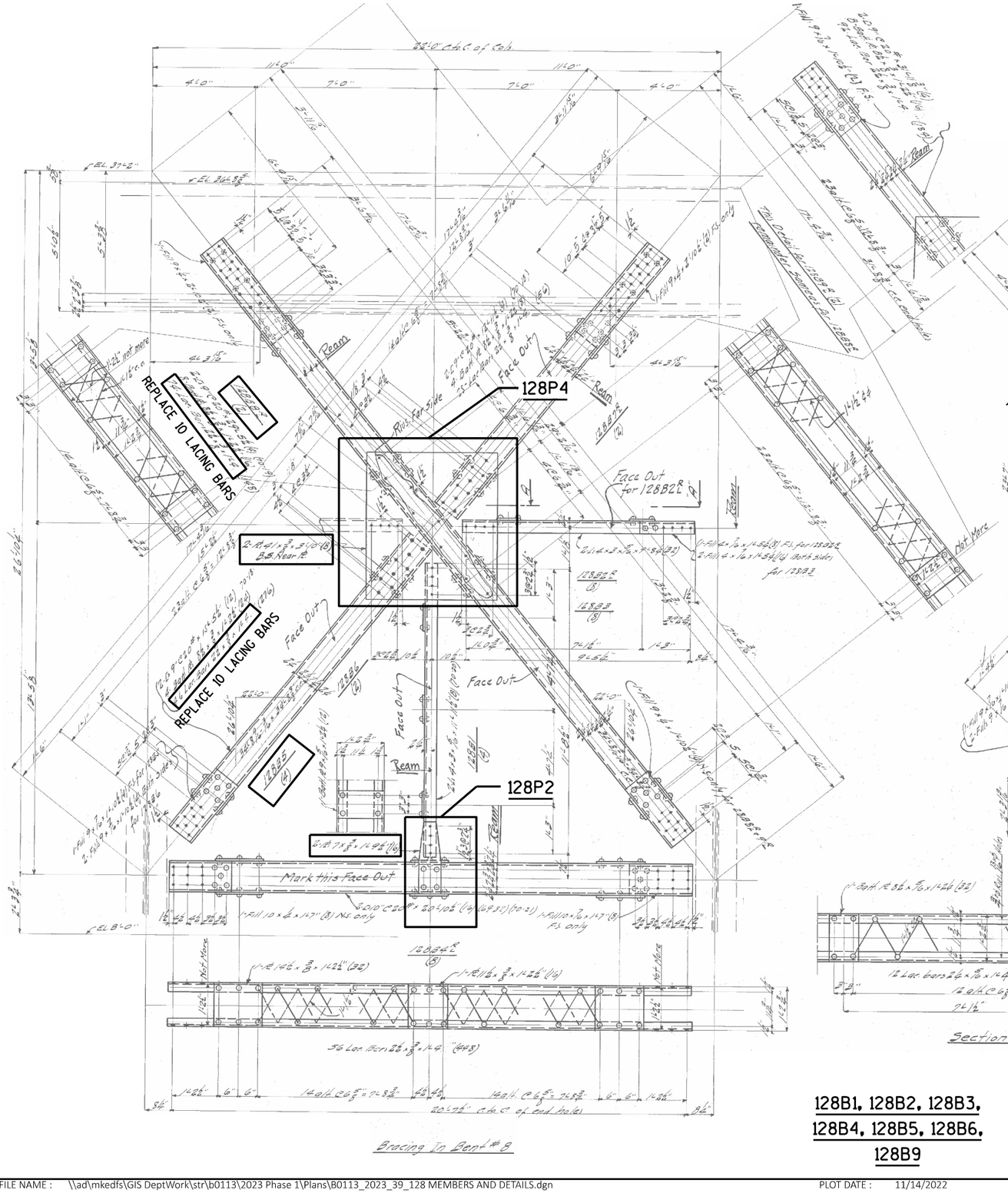
REVISED DATE: 10-26-2022 BY JC

8

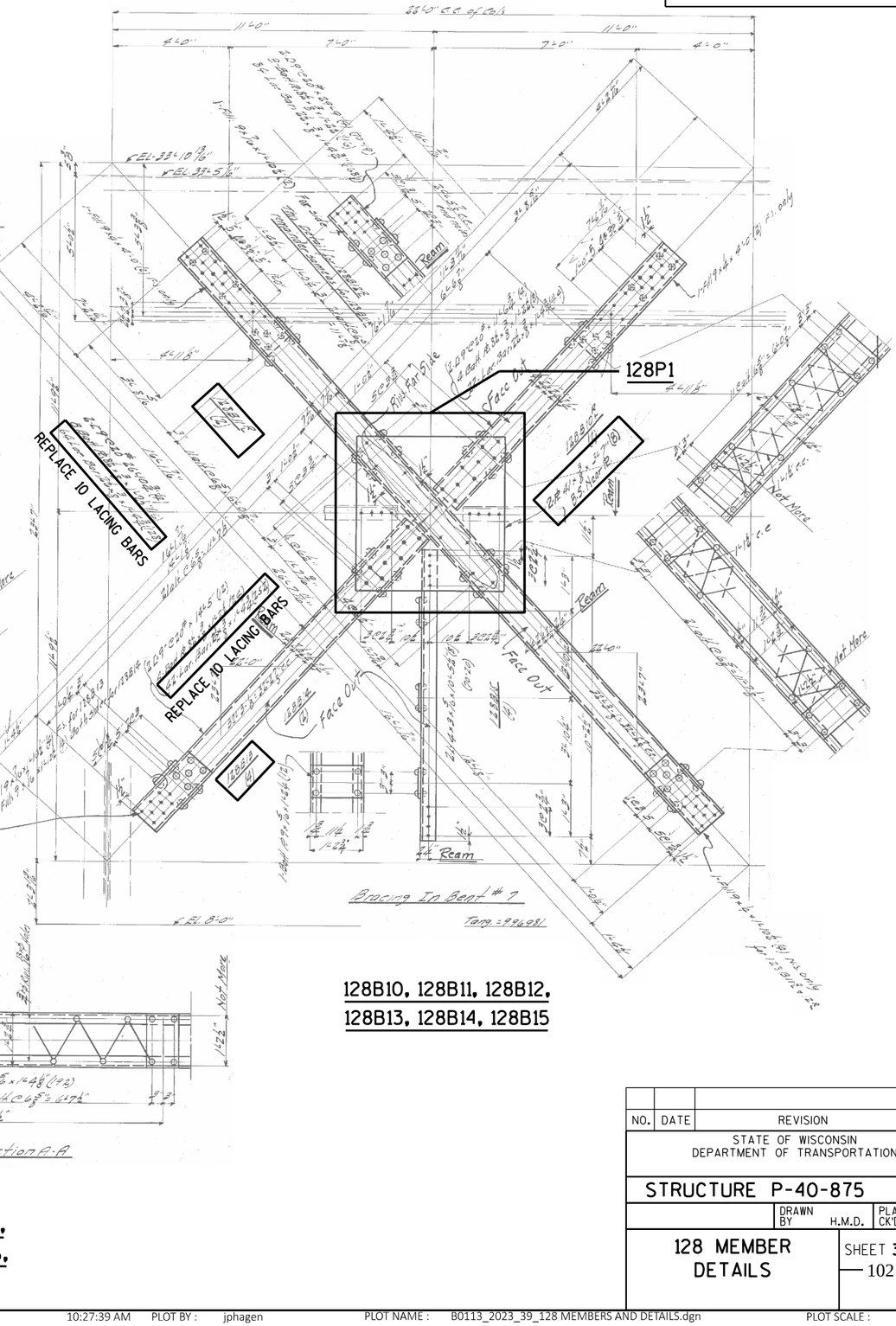
8

STATE PROJECT NUMBER

2984-12-73



128B1, 128B2, 128B3,
128B4, 128B5, 128B6,
128B9



128B10, 128B11, 128B12,
128B13, 128B14, 128B15

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

128 MEMBER DETAILS

SHEET 39 OF 47
102

STATE PROJECT NUMBER

2984-12-73

29P4

29P1

29P2

29P3

29A4

BASE MATERIAL

1-Base Pl 20"x2"x2'-6" (8) (39-2)

2-Side Pl 2 1/4"x2'-6" (8) (39-3)

2-" L8"x6"x1 1/8"x2'-6" (8) (39-4)

4-L3 8"x6"x7/16"x1'-1" (16) (39-5)

2-L5 8"x6"x7/8"x 0'-10 1/2" (8) (39-5)

4-Stiff L5 5/16"x3/8"x1'-9 1/16" (8) (39-7) Grind to Bear

1-Pl 25 1/2"x 3/8"x 2'-1 1/2" (4)

1-Pl 9"x 5/8"x 2'-0 1/2" (4)

1-Pl 38"x 5/8"x 3'-6 (2)

North Face

Ream

Rivs. Abt 6" Max. Ctrs.

Flatten To 5/8" High Both Sides

Shear Fit

Grout Holes

Grout Corners At Tool Only @ 45° For This Side Of Tower Both Sides Of ℄

Sym. About ℄ Except As Shown or Noted

C to C of Cols.

MILL

2-INSIDE TOWERS 29T1 ℛ

(Continued On Sheet #30)

29T1 R/L

SECTION A-A

SECTION B-B

VIEW C-C

VIEW D-D

Crimp Near ℒ for Wing Pl

Crimp Near ℒ for Wing & Gusset Pls

20-3 1/16" To Mill Line

1-Wing Pl 14"x 3/8"x 1'-9 (8)

2-L5 8"x6"x7/8"x 0'-7 1/2" (8) (39-6)

29P5

29A1

8

8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

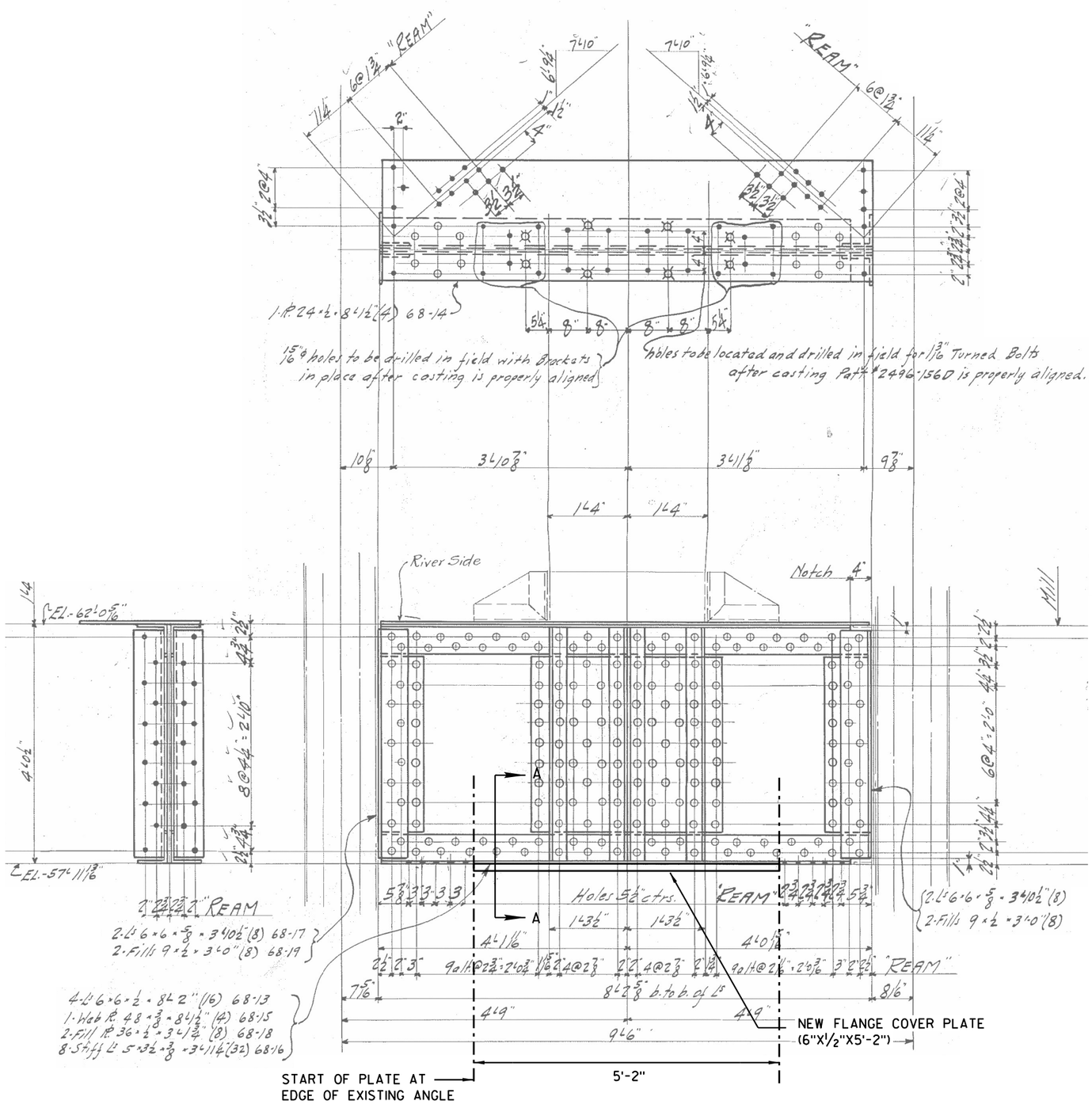
29 MEMBER DETAILS

SHEET 40 OF 47

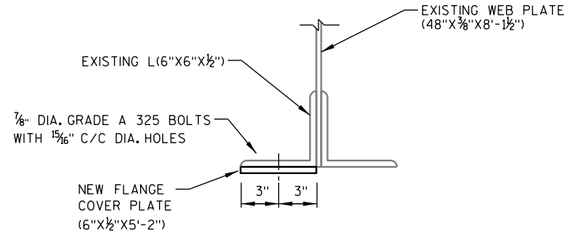
103

STATE PROJECT NUMBER

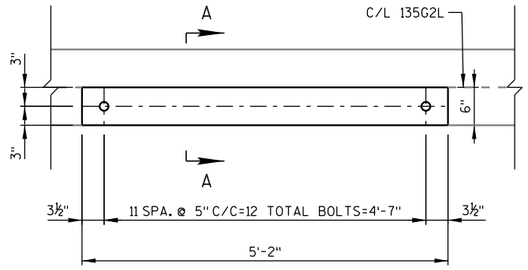
2984-12-73



135G2L

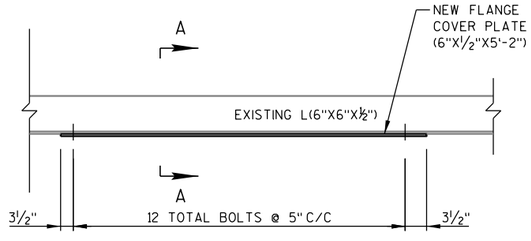


SECTION A-A



FLANGE PLATE DETAILS

BOTTOM VIEW OF L(6X6X½) OF 135G2L (LOOKING UP)



FLANGE PLATE DETAILS

DETAIL 11, BENT 7
EAST ELEVATION (LOOKING WEST)

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY	PLANS CK'D.
S.B.	J.P.H.

135G2L MEMBER DETAILS

SHEET 41 OF 47

104

REVISED DATE: 10-18-2022 BY JC

8

8

STATE PROJECT NUMBER
2984-12-73

31P3 (27½"X⅜"X3'-2")
SEE 27P3 FOR ADDITIONAL DETAILS

31P1 (SEE SHEET 28 FOR LOCATIONS)

31P2

31P4

31A4

NOTE ② SHT. 28
REPLACE 1-SIDE PLATE (31P4)
AND 1-SIDE ANGLE (31A4)

NOTE ① SHT. 28
REPLACE 5 HEX 1⅛" ANCHOR
NUTS (AB5) AT 5 LOCATIONS

2-OUTSIDE TOWERS 31T1L
(Continued on Sheet #32)

31T1R/L

SECTION A-A

SECTION B-B

VIEW C-C

VIEW D-D

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY S.B. | PLANS CK'D. J.P.H.

31 MEMBER DETAILS

SHEET 42 OF 47
105

8

FILE NAME : \\ad\mkedfs\GIS DeptWork\str\b0113\2023 Phase 1\Plans\B0113_2023_42_31 MEMBER DETAILS.dgn PLOT DATE : 11/14/2022 10:27:45 AM PLOT BY : jphagen PLOT NAME : B0113_2023_42_31 MEMBER DETAILS.dgn PLOT SCALE : 3.0000 sf / in.

STATE PROJECT NUMBER
2984-12-73

33A1/33P2

33P3

BASE MATERIAL
1-Base PL 30"x3/4"x3'-4" (4) (62-2)
2-Side PLS 21"x1/2"x2'-6" (8) (62-3)
2-" PL 8"x6"x1/2"-2'-6" (8) (62-4)
4-PLS 8"x6"x1/2"x1'-1" (8) (62-5)
2-PL 9"x6"x5/8"-0'-10 1/2" (8) (62-5)
4-STIFFS PL 5"x3"x3/8"x1'-9" (16) Grind Tobear (62-7)

24" ø Holes for 1 1/8" ø Anchor Bolts

Copper Coat on Top 45° on the Sides of Tower Both Sides

33P1 (SEE SHEET 28 FOR LOCATIONS)

NOTE (1) SHT. 28
REPLACE 3-HEX 1 7/8" ANCHOR NUTS (AB5) AT 3 LOCATIONS

Sym. About ℄ As Shown

33A1/33P2

Wing PL 14"x3/8"x1'-9" (8) (62-21)
2 L 8"x6"x5/8"x0'-7 1/2" (1) (6) (62-6)

SEE SHEET 28 FOR LOCATION

2-INSIDE TOWERS-33T1℄
(Continued On Sheet #34)

SECTION "A-A"

VIEW C-C

VIEW D-D

SECTION B-B"
Remainder Same as "A"

33T1R/L

50'-3 3/8" To bott. Of L's on Girder at ℄ of Bent

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY S.B. | PLANS CK'D. J.P.H.

33 MEMBER DETAILS

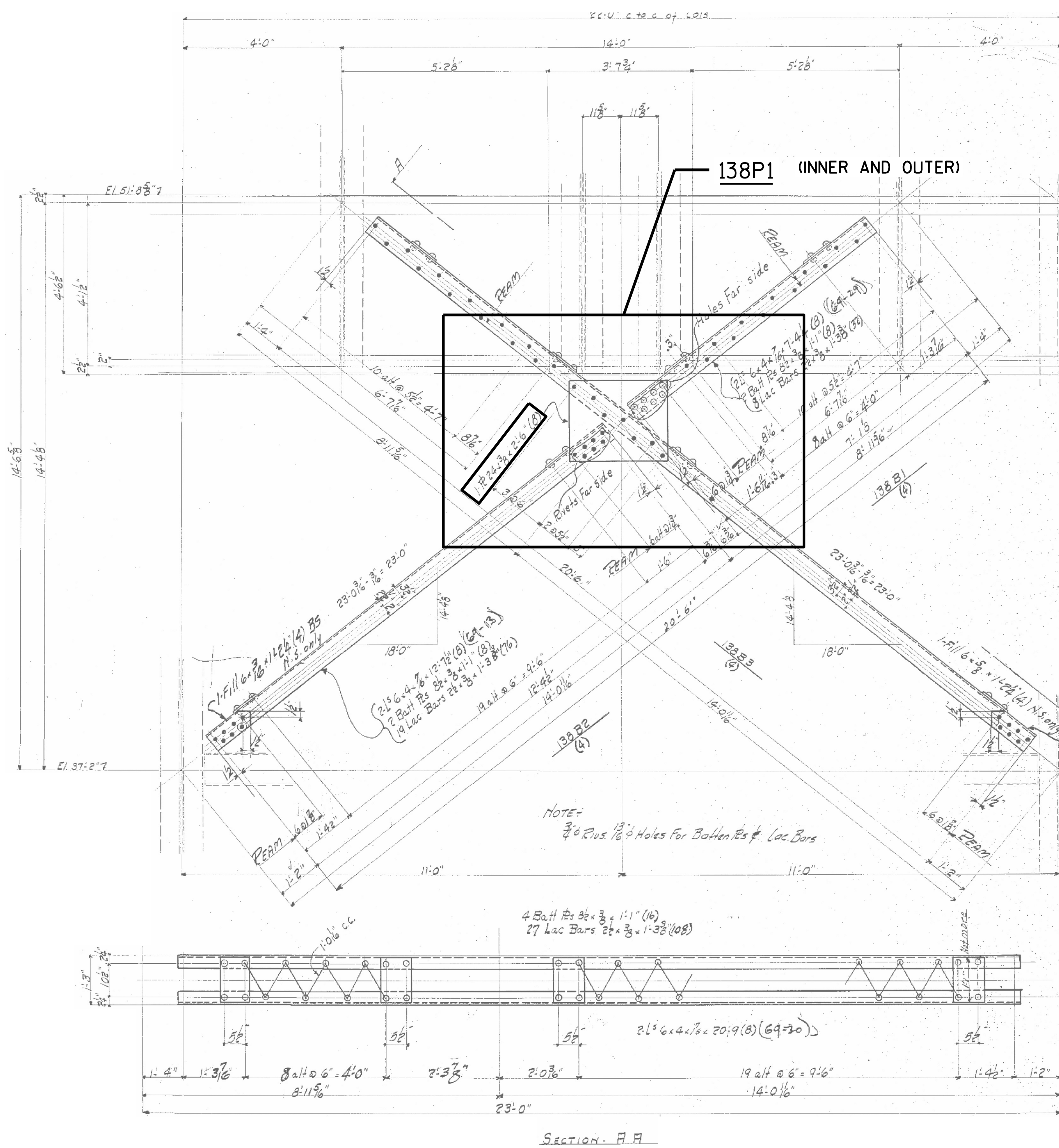
SHEET 43 OF 47
106

8

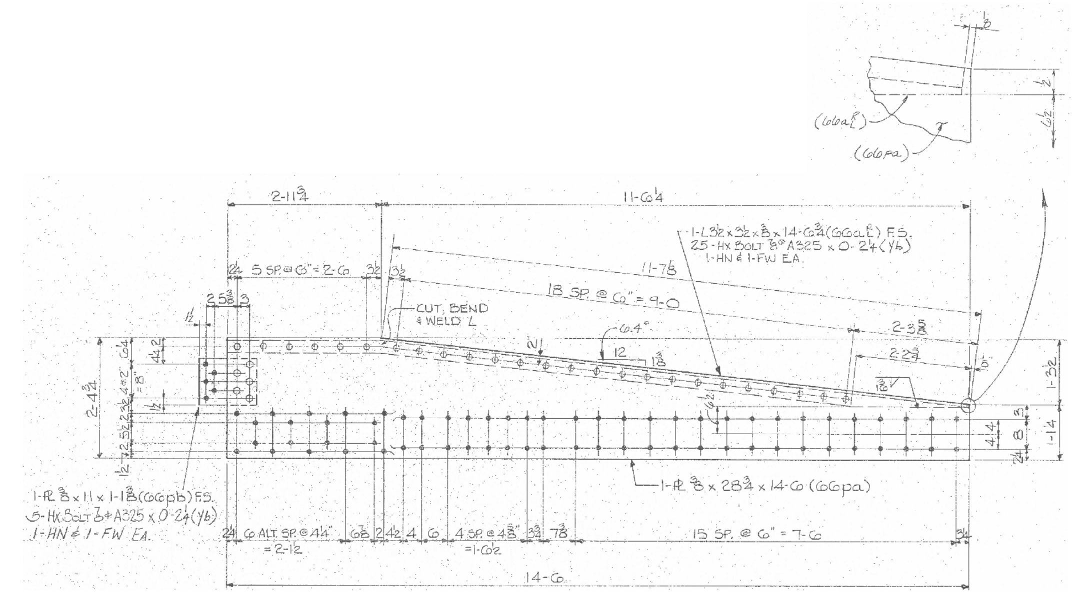
8

FILE NAME : \\ad\mkedfs\GIS DeptWork\str\b0113\2023 Phase 1\Plans\B0113_2023_43_33 MEMBER & DETAILS.dgn PLOT DATE : 11/14/2022 10:27:47 AM PLOT BY : jphagen PLOT NAME : B0113_2023_43_33 MEMBER & DETAILS.dgn PLOT SCALE : 3.0000 sf / in.

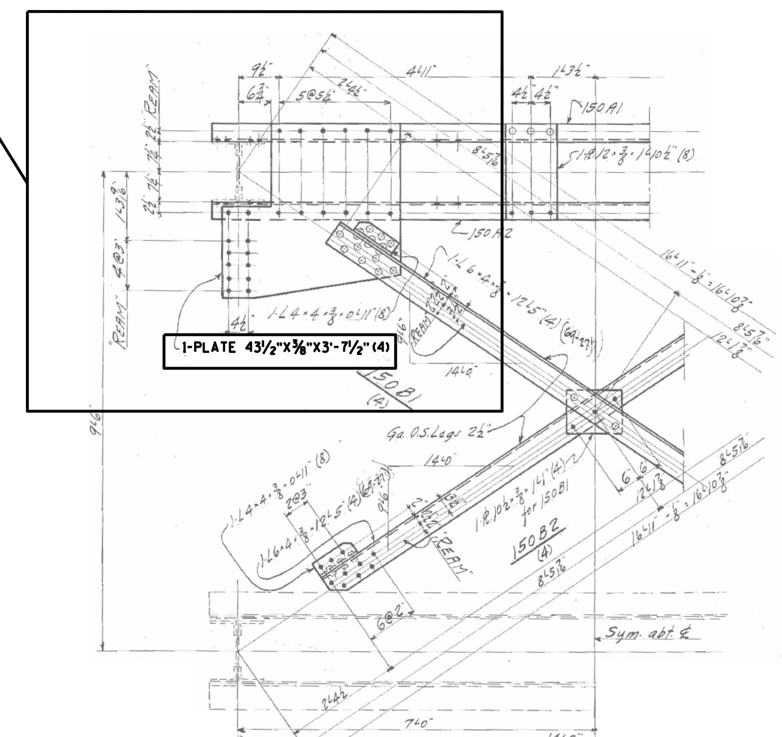
STATE PROJECT NUMBER
2984-12-73



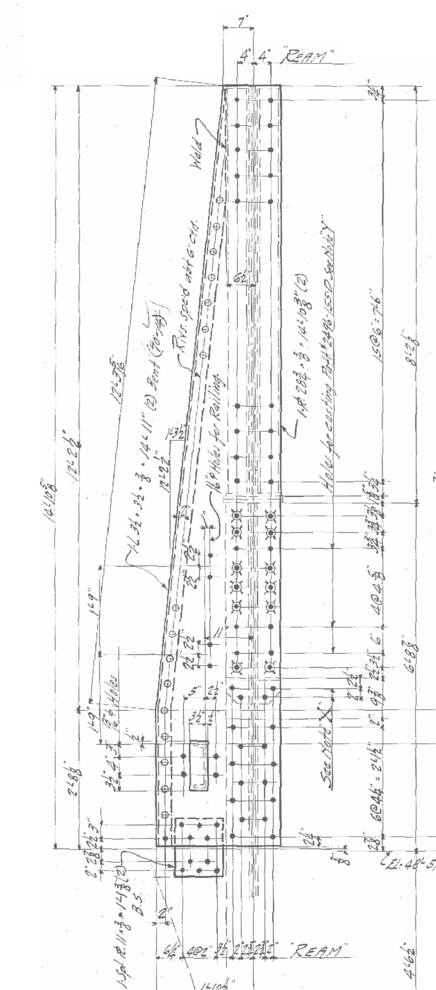
138B1, 138B2, 138B3



66P1 R/L



150B1, 150B2



150P2 R/L

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NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

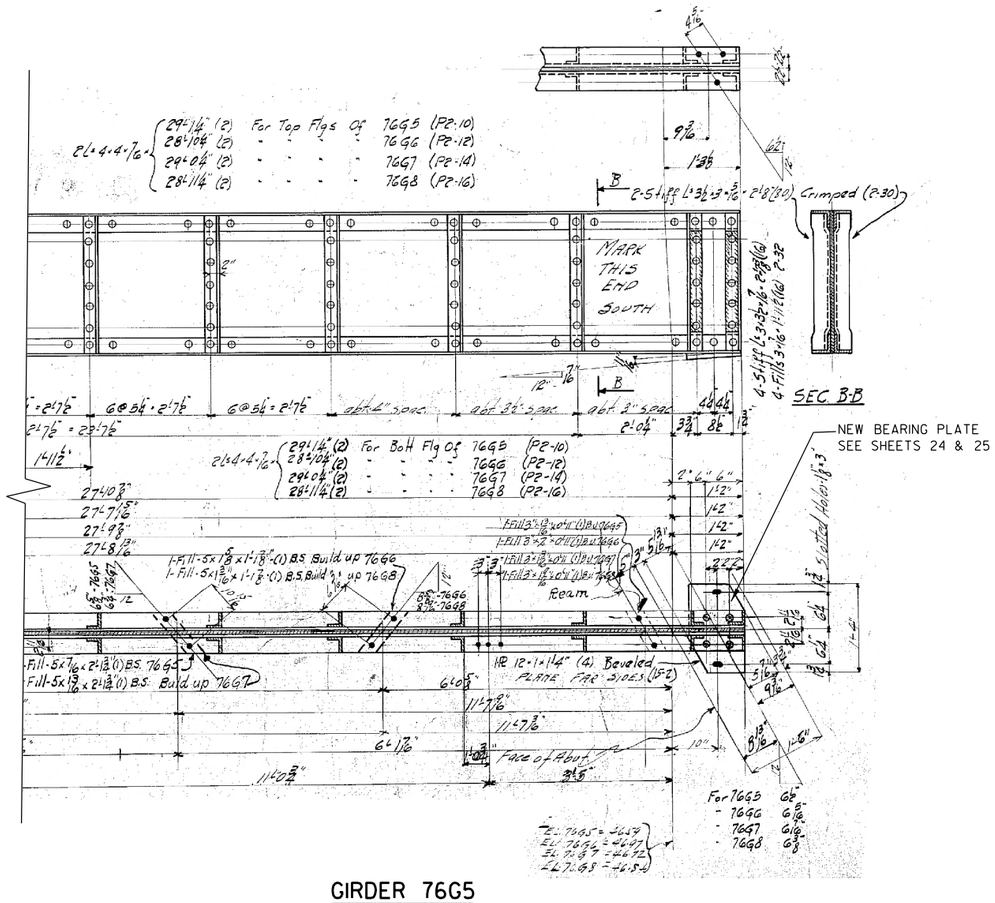
DRAWN BY S.B. PLANS CK'D. J.P.H.

66, 138 AND 150 MEMBERS DETAILS

SHEET 44 OF 47

STATE PROJECT NUMBER

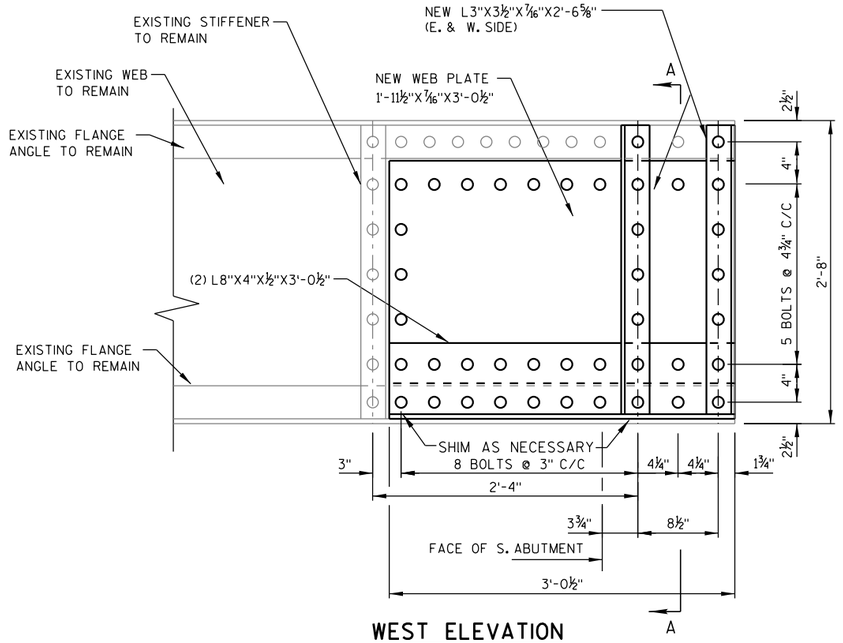
2984-12-73



GIRDER 76G5

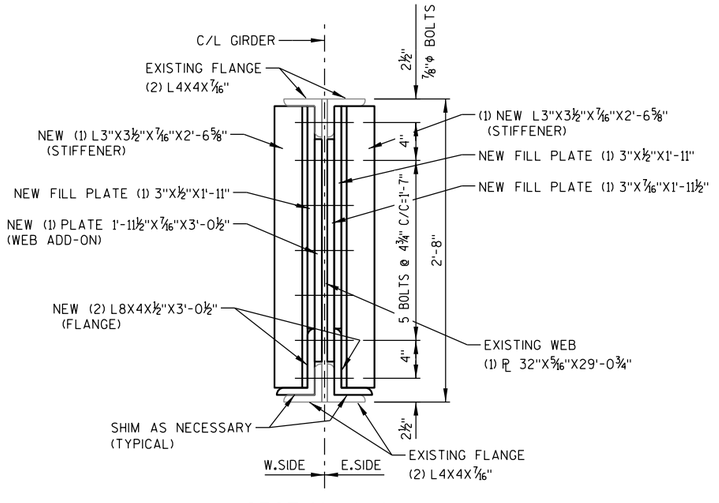
(2ND INSIDE GIRDER FROM WEST
BETWEEN BENT 1 AND SOUTH ABUTMENT)
(SPAN X)

NOTE: AT EACH STIFFENER
(1) FILL 3"X7/16"X1'-11½" AT E.SIDE
(1) FILL 3"X½"X1'-11" AT E. &W. SIDE



WEST ELEVATION

GIRDER 76G5



SECTION A-A

GIRDER 76G5

REVISED DATE: 10-26-2022 BY JC

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8

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

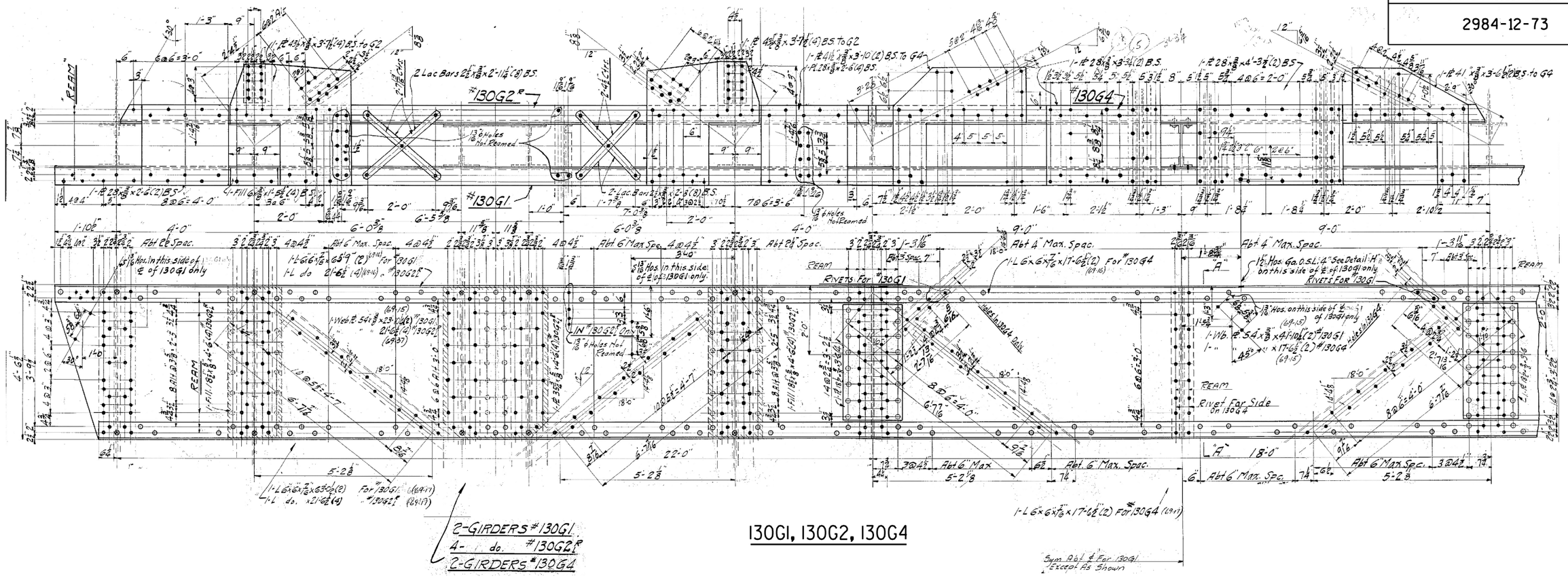
DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

76G5 MEMBER DETAILS

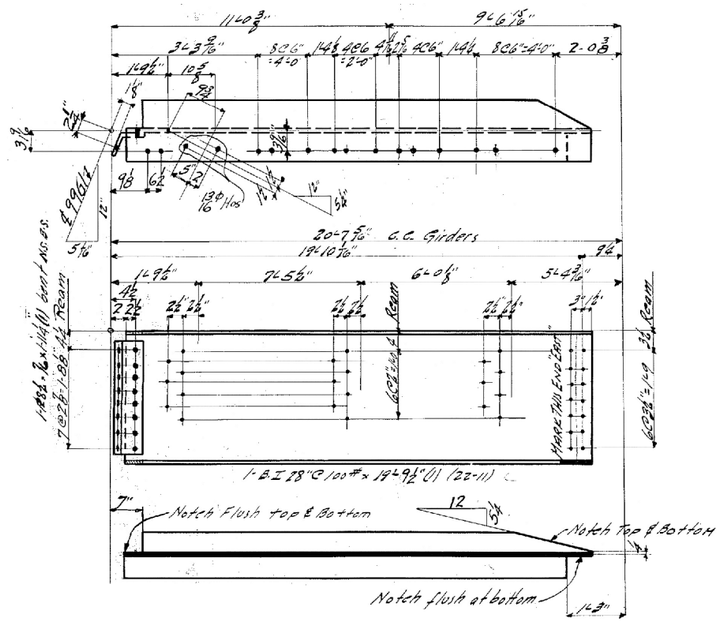
SHEET 45 OF 47
108

STATE PROJECT NUMBER

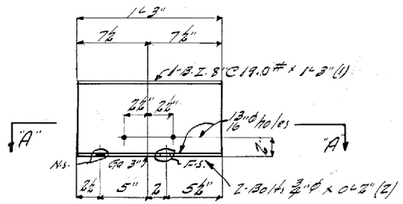
2984-12-73



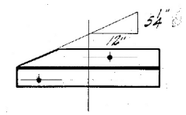
130G1, 130G2, 130G4



109B5



Bolt in Shop to 109B5



SECTION "A"-"A"

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY J.C. | PLANS CK'D. J.P.H.

109 AND 130 MEMBERS DETAILS

SHEET 46 OF 47

109

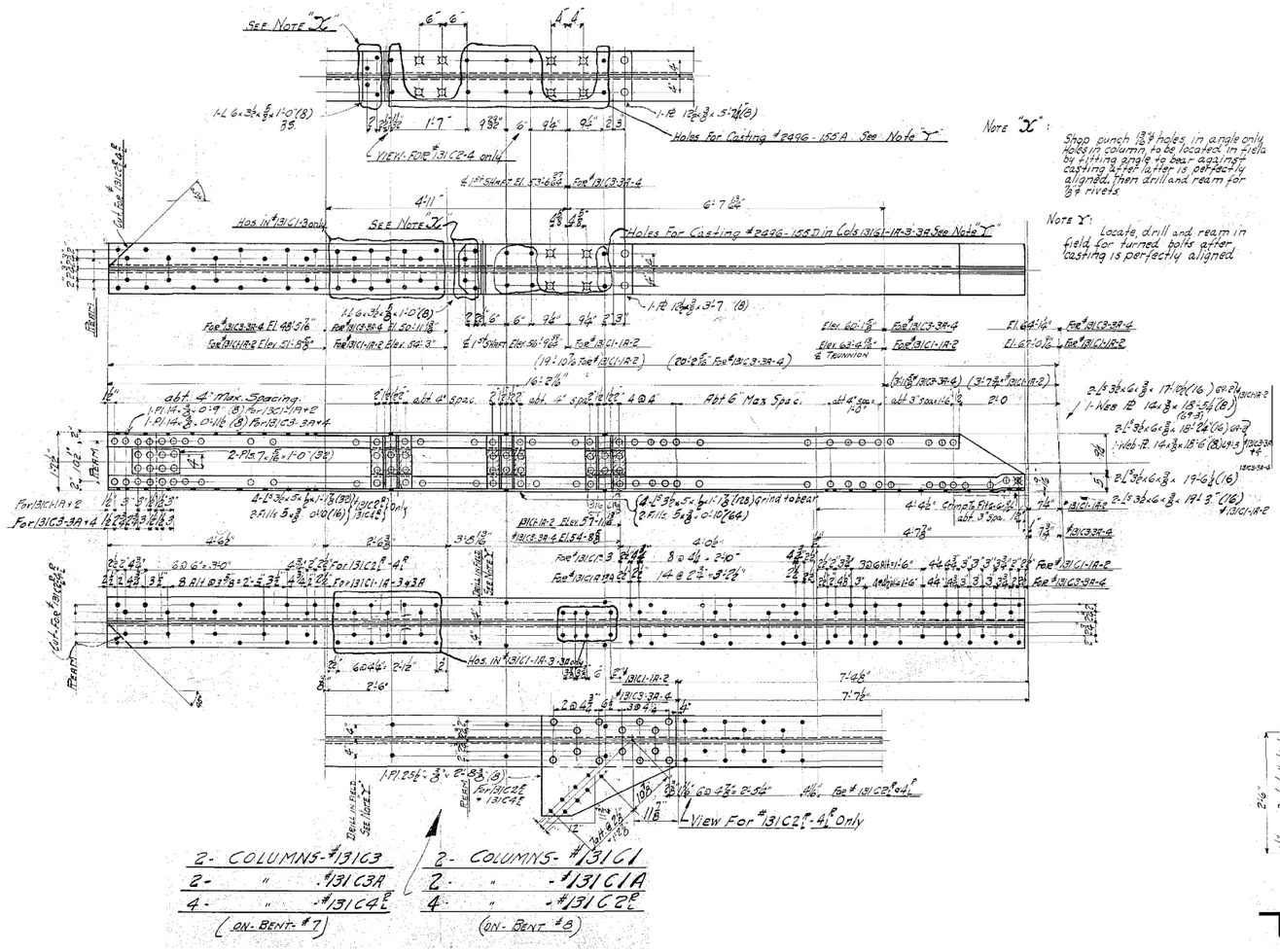
REVISED DATE: 08-17-2022 BY: HMD

8

8

STATE PROJECT NUMBER

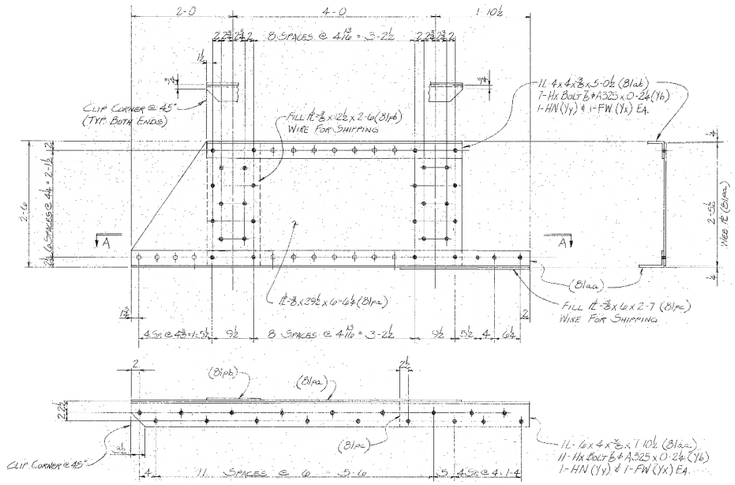
2984-12-73



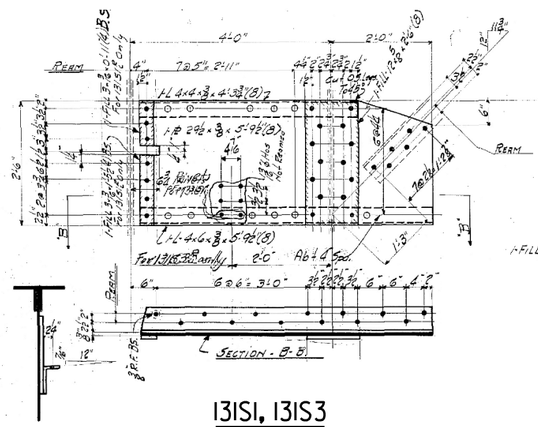
Note "X": Shop punch 1⅜" holes in angle only. Holes in column to be located in field by fitting angle to bear against casting & after latter is perfectly aligned, then drill and ream for ⅞" rivets.

Note "Y": Locate, drill and ream in field for turned bolts after casting is perfectly aligned.

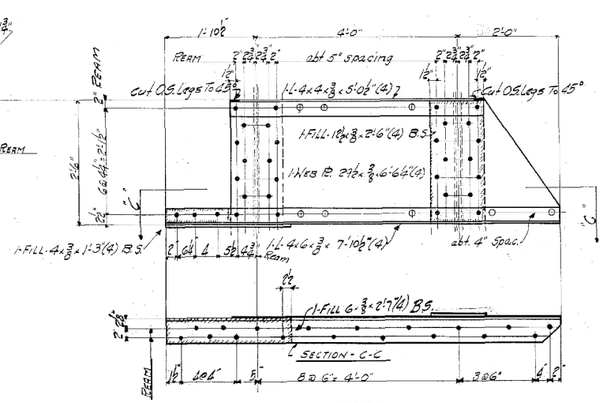
131C1, 131C3, 131C3A



8ISI



131S1, 131S3



131S2

NO.	DATE	REVISION	BY

STATE OF WISCONSIN
DEPARTMENT OF TRANSPORTATION

STRUCTURE P-40-875

DRAWN BY H.M.D. | PLANS CK'D. J.P.H.

81 AND 131 MEMBERS DETAILS

SHEET 47 OF 47
110

REVISED DATE: 08-17-2022 BY: HMD

8

8

Notes

Wisconsin Department of Transportation

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