

Madison, Wisconsin

CITY OF MADISON

CITY ENGINEERING DIVISION

DEPARTMENT OF PUBLIC WORKS

PLAN OF PROPOSED IMPROVEMENT

PUBLIC IMPROVEMENT PROJECT APPROVED

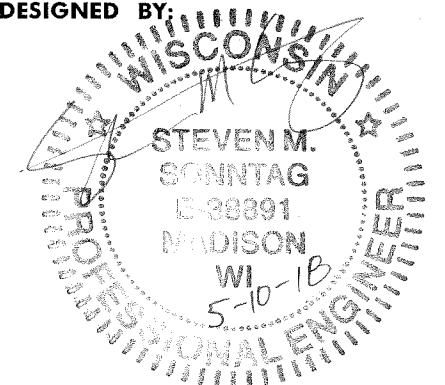
MAY 1, 2018

BY THE COMMON COUNCIL OF MADISON, WISCONSIN

PUBLIC IMPROVEMENT DESIGN APPROVED BY:

[Signature] 5/10/18
City Engineer Date

STREET DESIGNED BY:



INDEX OF SHEETS

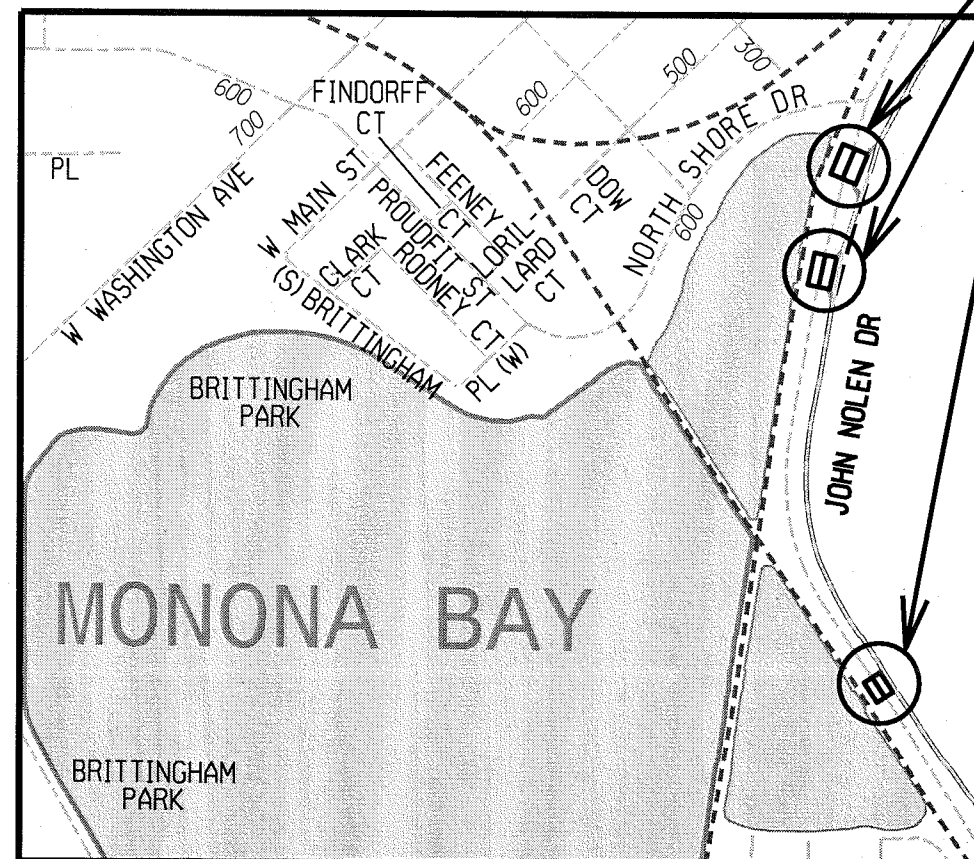
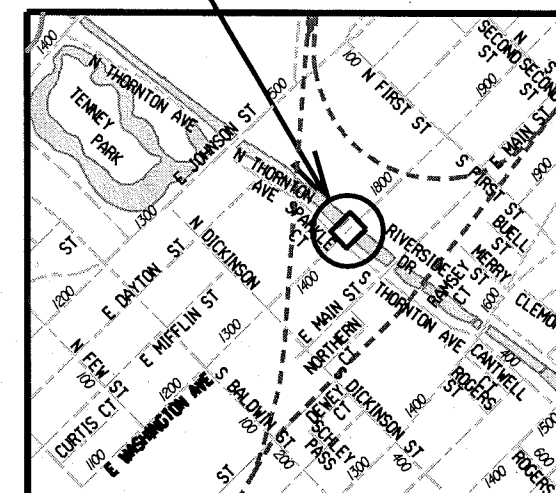
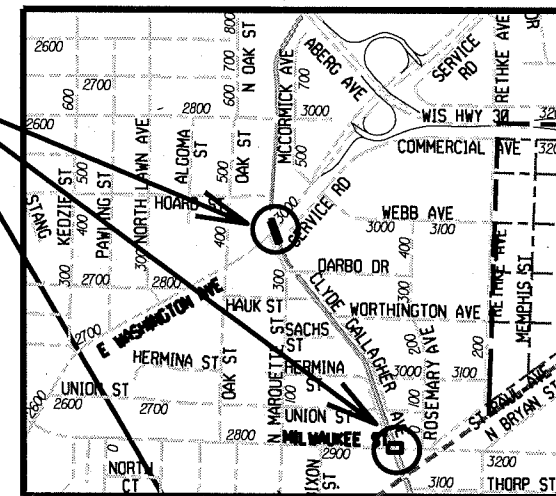
SHEET NO.	TITLE
1	
P1-P7	PLAN - JOHN NOLEN BRIDGE REPAIRS
P8	PLAN - EAST WASHINGTON AVE. BRIDGE OVER YAHARA RIVER
P9	PLAN - EAST WASHINGTON AVE. BRIDGE OVER THE WEST BRANCH OF STARKWEATHER CREEK
P10	PLAN - MILWAUKEE STREET BRIDGE OVER THE WEST BRANCH OF STARKWEATHER CREEK

BRIDGE REPAIRS - 2018

CITY PROJECT NO. 11783

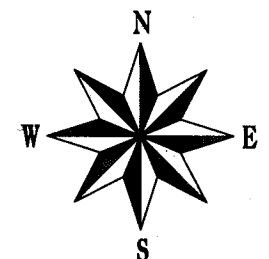
8120

CONSTRUCTION PROJECT LOCATION



CONVENTIONAL SIGNS	
FIELD VERIFY ALL UTILITY LOCATIONS	
GAS	— G —
STORM SEWER	— ST —
SANITARY SEWER	— SAN —
WATER	— W —
OVERHEAD ELECTRIC	— OH —
POWER POLE	⊥
ADA COMPLIANT RAMP W/ DETECTABLE WARNING FIELD	□

NOTES:
 ALL GUTTERS SHALL DRAIN WITH A MINIMUM GRADE OF 0.50% TOWARD STORM SEWER INLETS. SIDEWALK RAMPS AND CURB THRU SIDEWALK RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1" PER 12". SIDEWALK AND CURB RAMPS SHALL BE CONSTRUCTED WITH A SIDE SLOPE OF 2.00%. SIDEWALK SHALL HAVE A MINIMUM LONGITUDINAL SLOPE OF 0.50% AND A MAXIMUM LONGITUDINAL SLOPE OF 5.00% EXCEPT WHERE STREET GRADES EXCEED 5.00%.



PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION

LIST OF DRAWINGS

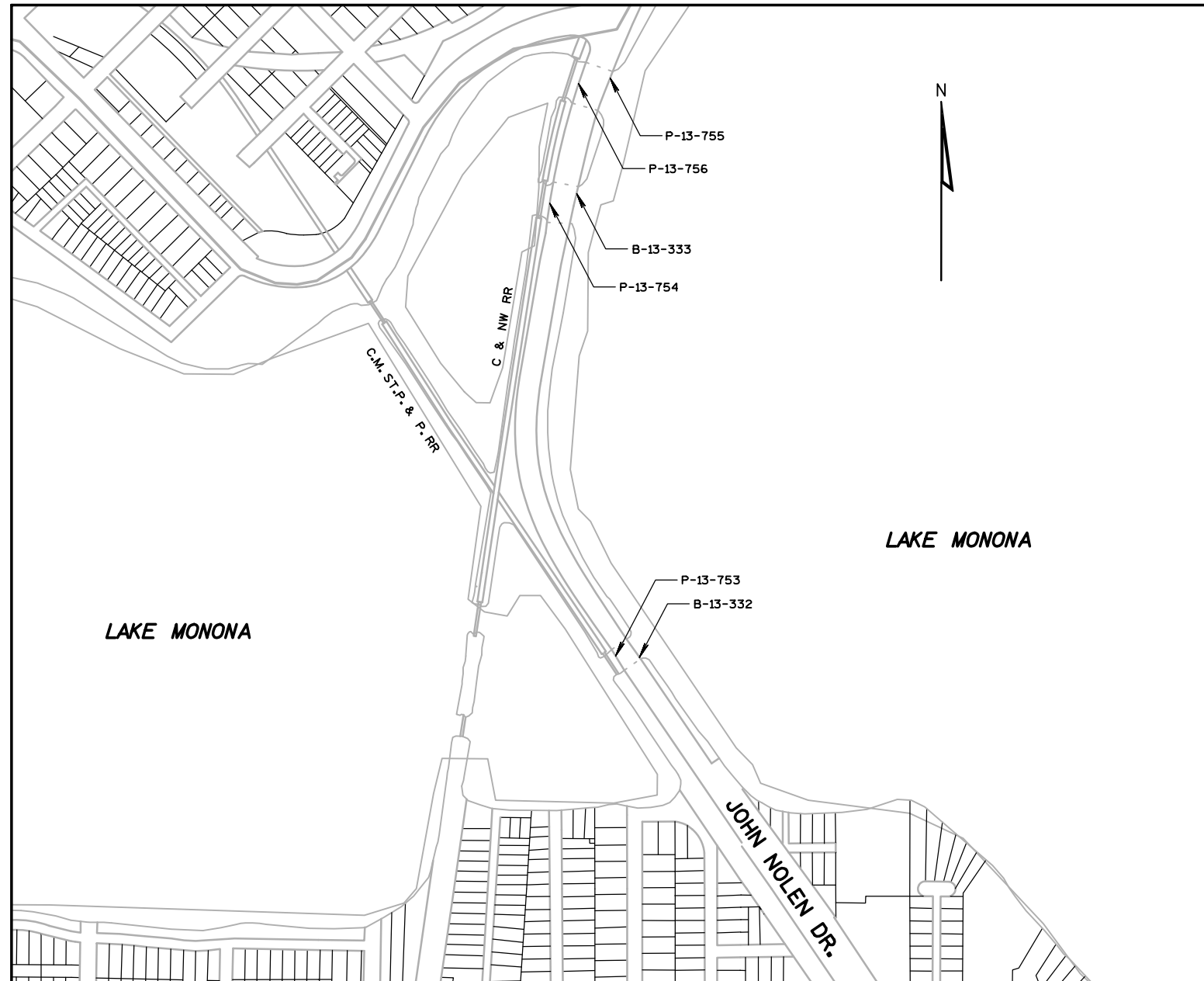
SHEET NO.	DRAWING TITLE
P1	SITE LOCATION PLAN
P2	OVERALL PLANS - 1
P3	OVERALL PLANS - 2
P4	OVERALL PLANS - 3
P5	FRAMING PLANS
P6	DETAILS - 1
P7	DETAILS - 2

DRAFTING SYMBOLS

	KEY/SPECIFIC NOTE CALL-OUT
	EXISTING OBJECTS ARE SCREENED
	EXISTING OBJECTS TO BE DEMOLISHED
	HIDDEN OBJECT
	SECTION CUT

GENERAL NOTES

- DIMENSIONS SHOWN ON DRAWINGS ARE BASED ON THE ORIGINAL STRUCTURE PLANS.
- ALL CONCRETE REMOVAL SHALL BE DEFINED BY A 1-INCH DEEP SAW CUT UNLESS SHOWN OTHERWISE.
- DRAWINGS ARE NOT TO SCALE.



SITE LOCATION PLAN

DATE:	NO.	REVISIONS

SITE LOCATION PLAN
 JOHN NOLEN DRIVE CAUSEWAY BRIDGE REPAIRS
 CITY OF MADISON ENGINEERING DIVISION
 MADISON, WI

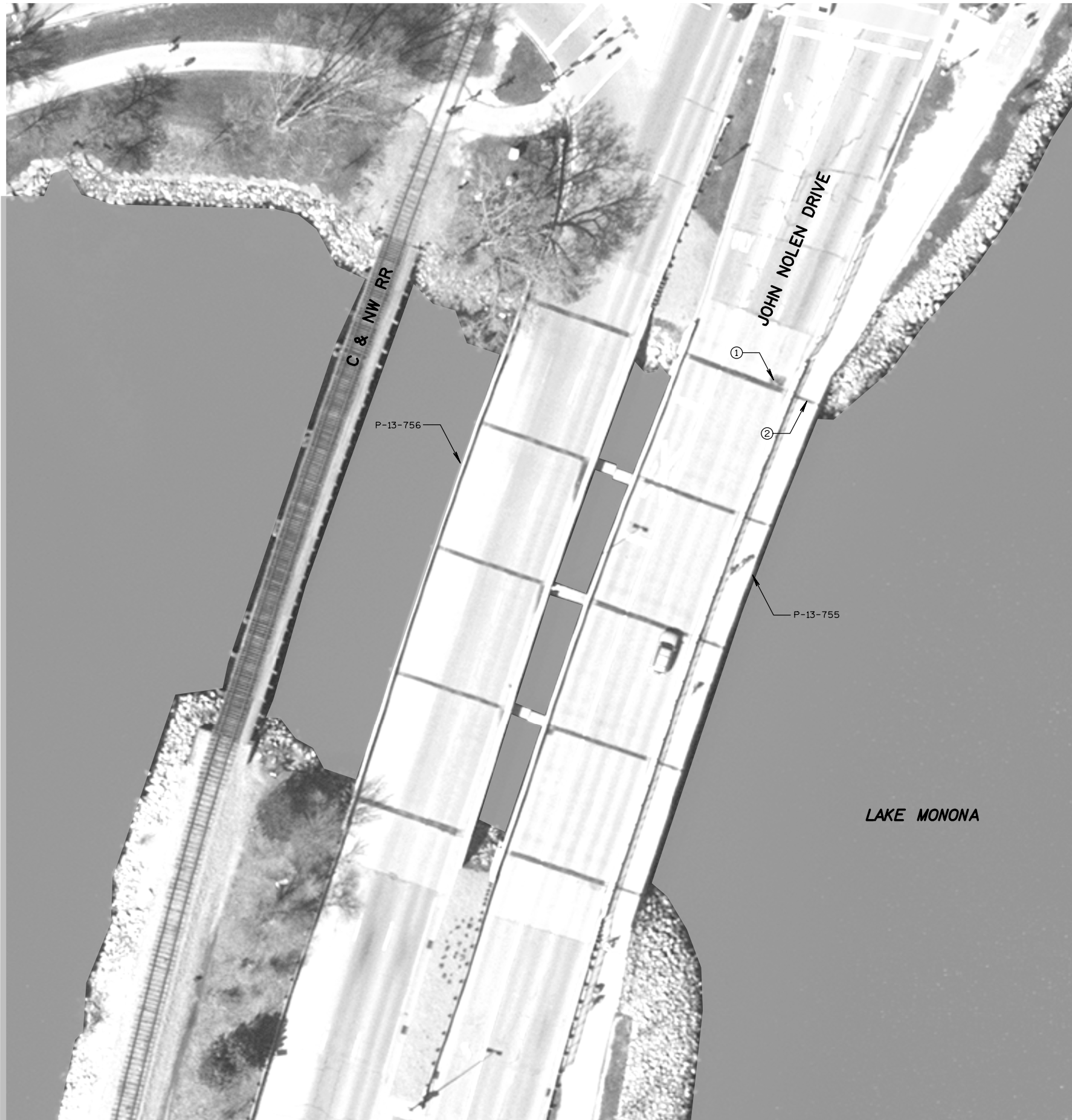
JOB NO.
1020.111
 PROJECT MGR.
KRB



SHEET
P1

STRUCTURAL DESIGN BY:
(SHEETS P1 THROUGH P7)

Keith R. Behrend
5/10/2018



GENERAL NOTES

1. SEE GENERAL NOTES ON "SITE LOCATION PLAN" SHEET.

KEYNOTES

- ① REPAIR CONCRETE APPROACH PAVEMENT. SEE "DETAILS - 2" SHEET.
- ② REPAIR STEEL EXPANSION JOINT COVER PLATE. SEE "DETAILS - 2" SHEET.

NO.	REVISIONS	DATE

OVERALL PLANS - 1

JOHN NOLEN DRIVE CAUSEWAY BRIDGE REPAIRS
 CITY OF MADISON ENGINEERING DIVISION
 MADISON, WI

JOB NO.
1020.111
 PROJECT MGR.
KRB



SHEET
P2



GENERAL NOTES

1. SEE GENERAL NOTES ON "SITE LOCATION PLAN" SHEET.

KEYNOTES

- ① REPAIR OR REPLACE IN-KIND STEEL TOE BOARD ALONG BIKE/PED STEEL RAILING. SEE PHOTO THIS SHEET.
- ② REPAIR OR REPLACE IN-KIND STEEL RAILING PICKETS THAT ARE BENT/DAMAGED. STRAIGHTEN RAILING HORIZONTAL MEMBERS ADJACENT TO BENT PICKETS. SEE PHOTO THIS SHEET.



TYPICAL BENT PICKETS



TYPICAL BENT TOE BOARD

NO.	REVISIONS	DATE

OVERALL PLANS - 2

JOHN NOLEN DRIVE CAUSEWAY BRIDGE REPAIRS
CITY OF MADISON ENGINEERING DIVISION
MADISON, WI

JOB NO.
1020.111
PROJECT MGR.
KRB



SHEET
P3

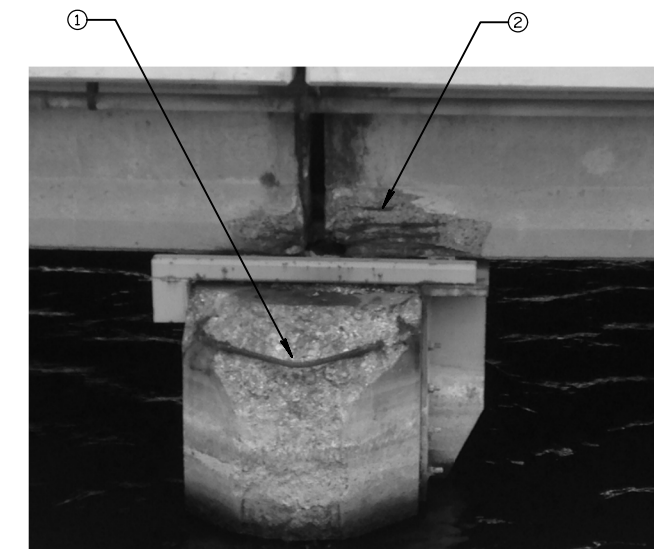


GENERAL NOTES

1. SEE GENERAL NOTES ON "SITE LOCATION PLAN" SHEET.

KEYNOTES

- ① PROVIDE CONCRETE SURFACE REPAIRS AT END OF PIER. SEE PHOTO THIS SHEET.
- ② PROVIDE CONCRETE SURFACE REPAIRS AND FIBER WRAP GIRDER REINFORCING AT END OF EXTERIOR GIRDER IMMEDIATELY SOUTH OF PIER. SEE PHOTO THIS SHEET.



EXISTING END OF PIER & GIRDER

NO.	REVISIONS	DATE

OVERALL PLANS - 3
JOHN NOLEN DRIVE CAUSEWAY BRIDGE REPAIRS
CITY OF MADISON ENGINEERING DIVISION
MADISON, WI

JOB NO.
1020.111
PROJECT MGR.
KRB



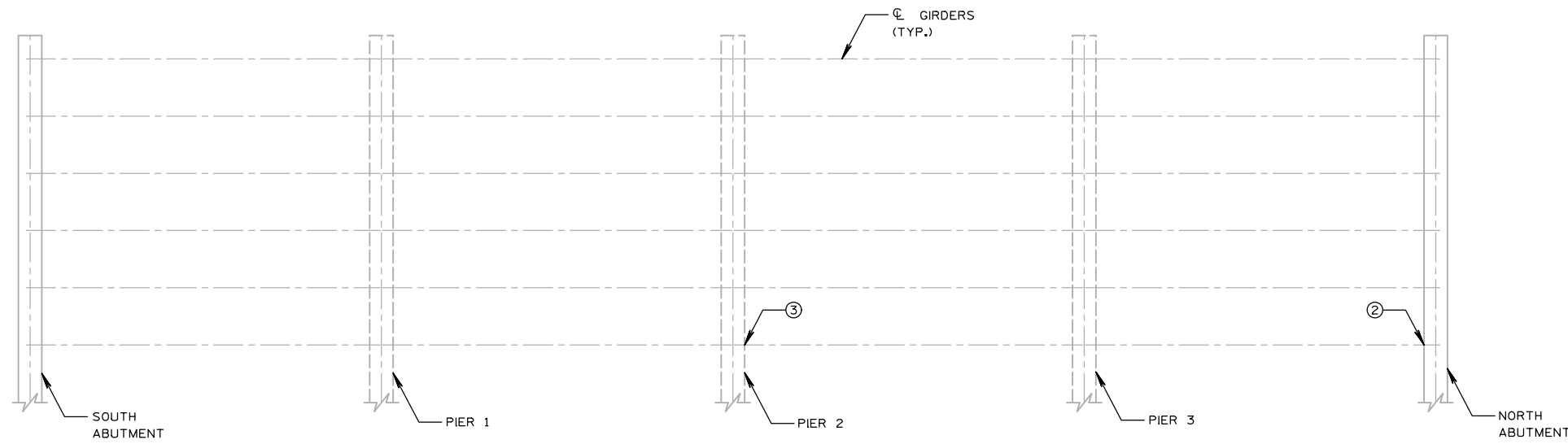
SHEET
P4

GENERAL NOTES

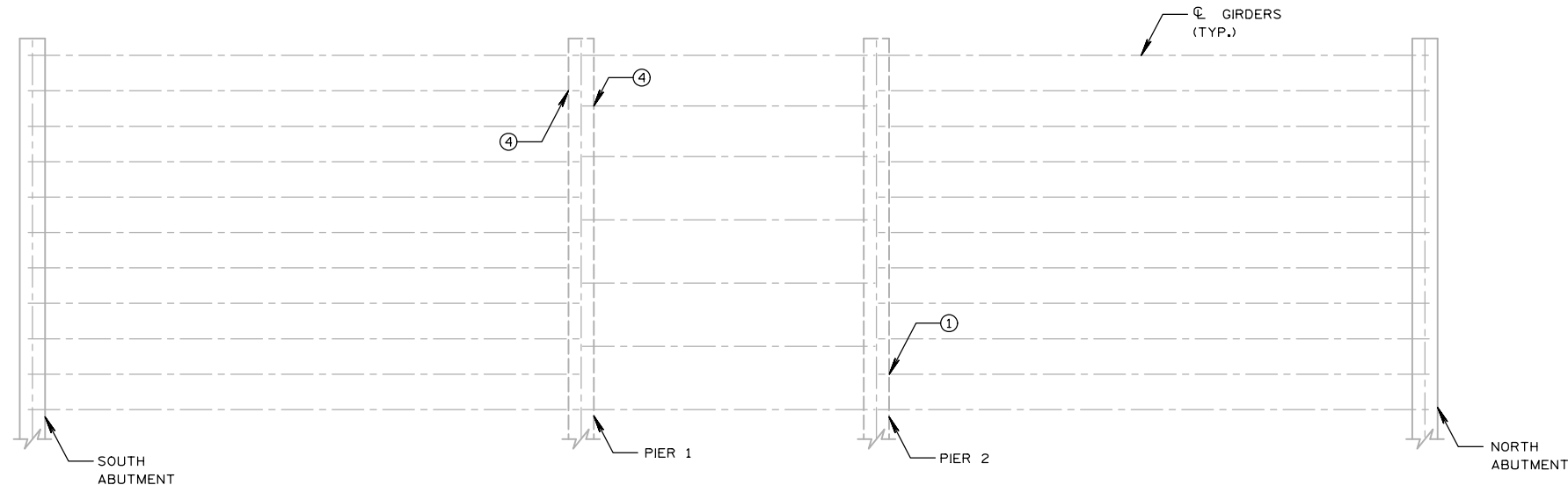
1. SEE GENERAL NOTES ON "SITE LOCATION PLAN" SHEET.

KEYNOTES

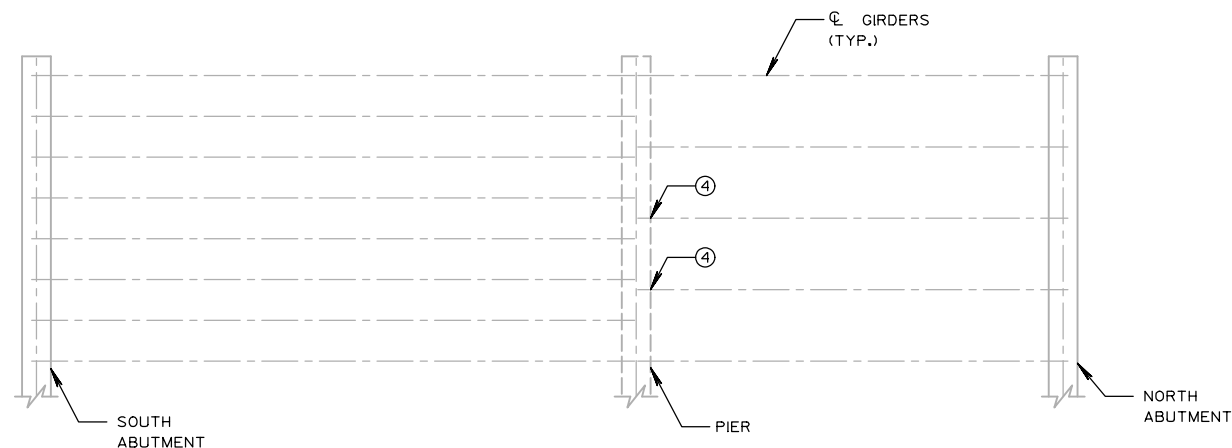
- ① PROVIDE NEW EXPANSION BEARING ASSEMBLY IN FRONT OF THE EXISTING BEARING. NEW BEARING ASSEMBLY TO BEAR ON EXISTING CONCRETE PIER. SEE "DETAILS - 1" SHEET.
- ② PROVIDE NEW EXPANSION BEARING ASSEMBLY IN FRONT OF THE EXISTING BEARING. NEW BEARING ASSEMBLY TO BEAR ON EXISTING CONCRETE ABUTMENT. SEE "DETAILS - 1" SHEET.
- ③ PROVIDE BOTH A NEW STEEL BRACKET ASSEMBLY AND EXPANSION BEARING ASSEMBLY IN FRONT OF THE EXISTING BEARING. NEW BEARING ASSEMBLY TO BEAR ON NEW BRACKET ASSEMBLY. SEE "DETAILS - 1" AND "DETAILS - 2" SHEETS.
- ④ PROVIDE STEEL WEDGING BELOW EXISTING BEARING ASSEMBLY TO RAISE EXISTING BEARING TO BE SNUG AGAINST BOTTOM OF EXISTING GIRDER. SEE "DETAILS - 2" SHEET.



P-13-756 EXISTING GIRDER PLAN



P-13-754 EXISTING GIRDER PLAN



P-13-753 EXISTING GIRDER PLAN

NO.	REVISIONS	DATE:

FRAMING PLANS
 JOHN NOLEN DRIVE CAUSEWAY BRIDGE REPAIRS
 CITY OF MADISON ENGINEERING DIVISION
 MADISON, WI

JOB NO.
1020.111
 PROJECT MGR.
KRB



SHEET
P5

BEARING ASSEMBLY GENERAL NOTES

ALL BEARING MATERIALS SHALL CONFORM TO ASTM A709 GRADE 50W, EXCEPT ITEMS #2 & #4.

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

ALL PLATE CUTS SHALL BE MACHINE OR MACHINE FLAME CUT.

PINTLES SHALL CONFORM TO ASTM SPECIFICATION TYPE A449, OR MATERIAL OF EQUIVALENT YIELD STRENGTH AND ELONGATION.

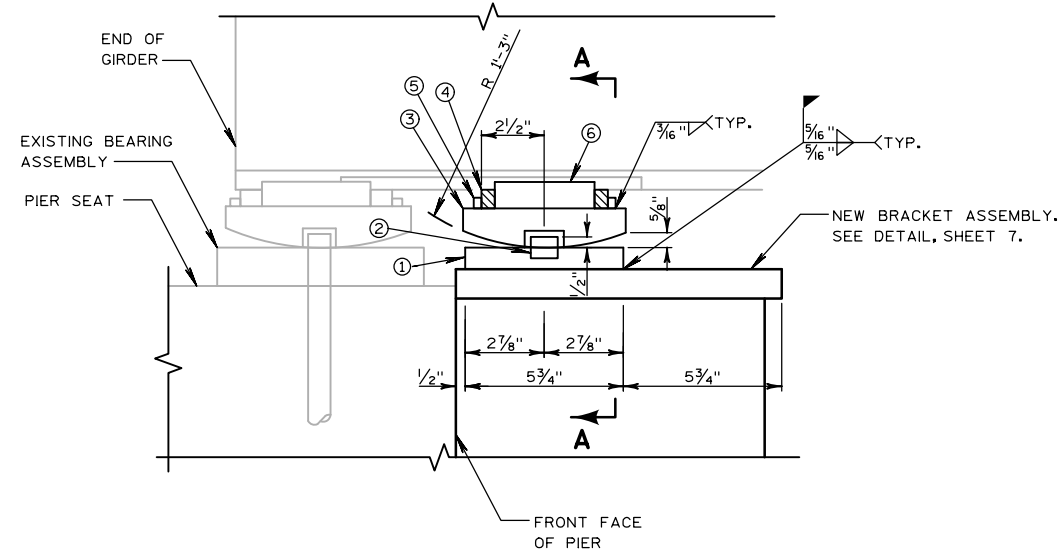
BEARING ASSEMBLIES SHALL BE PAINTED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

NON-LAMINATED ELASTOMERIC BEARING PADS SHALL CONFORM TO WISCONSIN DOT STANDARD SPEC SECTION 506.2.6.

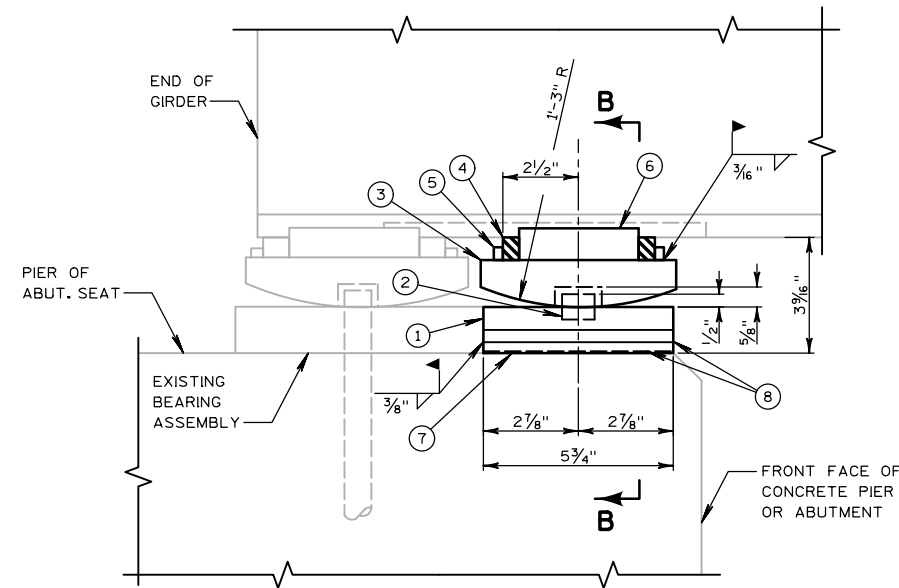
STAINLESS STEEL PLATES SHALL CONFORM TO ASTM A240, TYPE 304.

BEARING ASSEMBLY KEY NOTES

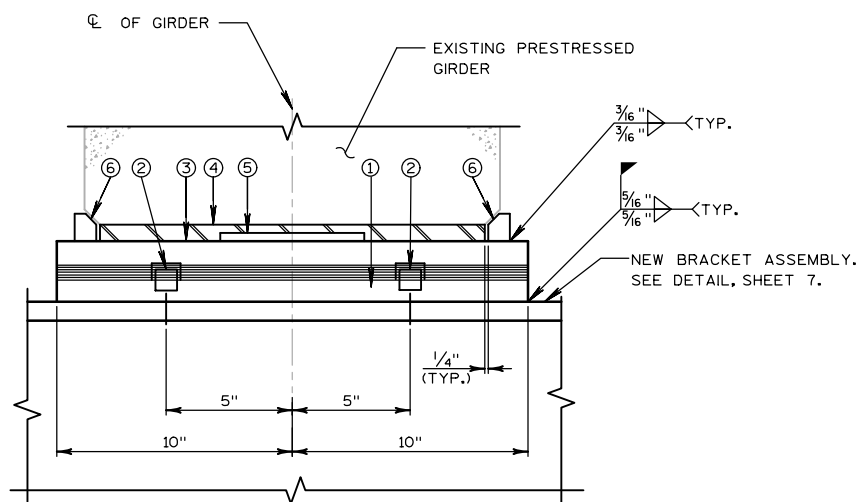
- ① MASONRY PLATE, 5 3/4" x 3/4" x 1'-8".
- ② PINTLE 1" x 1". DRILL INTO TOP OF MASONRY PLATE FOR DRIVING FIT. CHAMFER TOP OF PINTLE 1/8"
- ③ ROCKER PLATE, 6" x 1 1/6" x 1'-8" BOTTOM SURFACE TO BE MACHINE FINISHED TO ANSI 250. PROVIDE 1/8" DIA. x 5/8" DEEP HOLES IN BOTTOM, CENTERED ON PINTLES. MACHINE FINISH IN DIRECTION PARALLEL TO CL OF GIRDER.
- ④ STAINLESS STEEL PLATE, 5" x 1/2" x 1'-4 1/2", WITH TEFLON SURFACE ON TOP SIDE ONLY. TEFLON SURFACE SHALL BE MINIMUM 1/16" THICK. PLACE WITH SCRIBE MARKS IN DIRECTION OF MOVEMENT. BOND STEEL PLATE AND TEFLON WITH ADHESIVE MATERIAL MEETING THE REQUIREMENTS FOUND IN THE WISDOT STANDARD SPECIFICATIONS.
- ⑤ KEEPER BAR EACH SIDE, 1/4" x 1/4" x 6".
- ⑥ BAR, 1" x 1" x 4", CHAMFER 1/2".
- ⑦ BEARING PAD, 5 3/4" x 1/8" x 1'-8" (NON-LAMINATED ELASTOMERIC).
- ⑧ WEDGE PLATES, 5 3/4" x 3/4" x 1'-8", TAPERED TO 1/8".



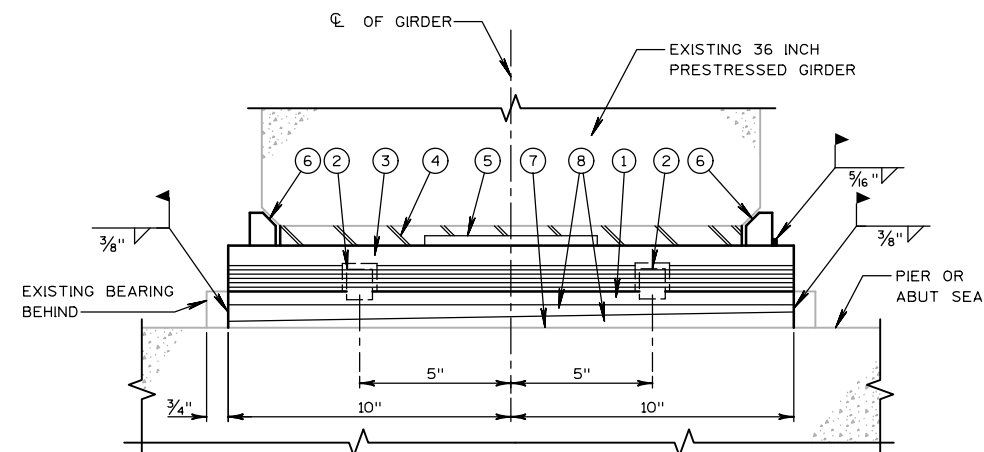
ELEVATION
(NEW BEARING SUPPORTED BY NEW BRACKET)



ELEVATION
(NEW BEARING SUPPORTED BY EXISTING CONCRETE SUBSTRUCTURE)



SECTION A-A



SECTION B-B

BEARING ASSEMBLY DETAILS

NO.	REVISIONS	DATE

DETAILS - 1
 JOHN NOLEN DRIVE CAUSEWAY BRIDGE REPAIRS
 CITY OF MADISON ENGINEERING DIVISION
 MADISON, WI

JOB NO.
 1020.111
 PROJECT MGR.
 KRB



SHEET
 P6

BRACKET ASSEMBLY NOTES

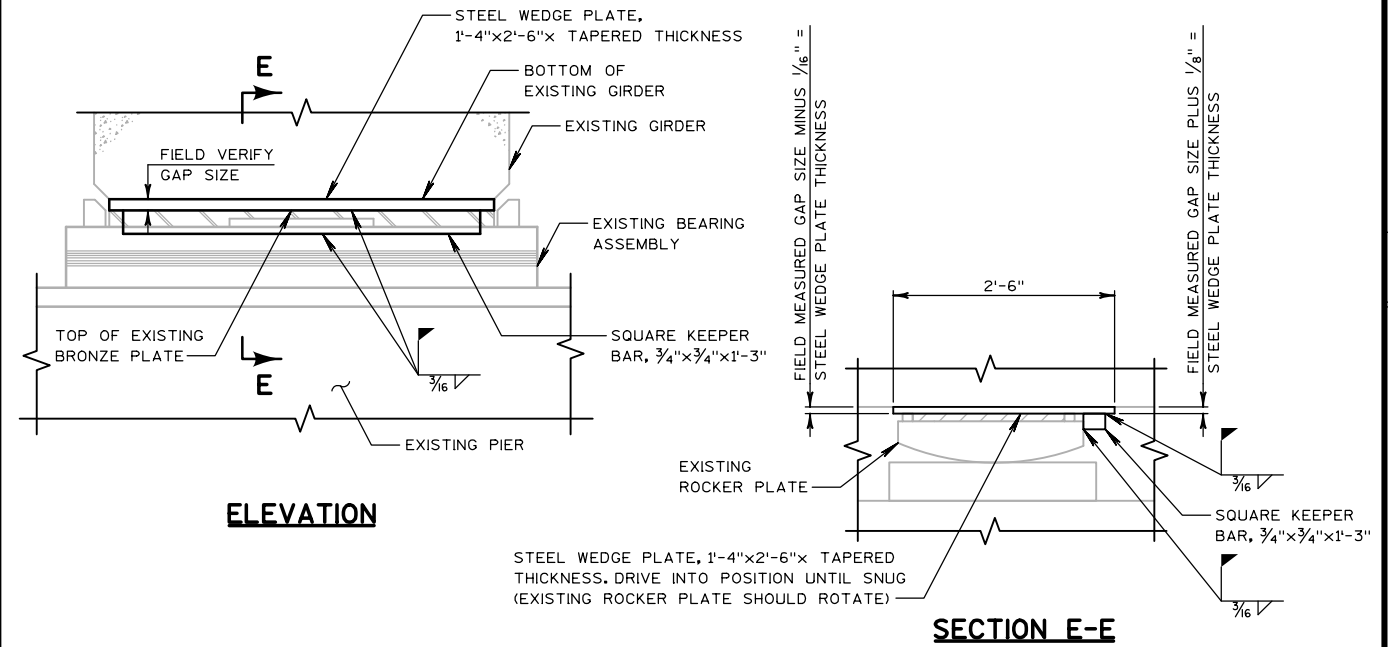
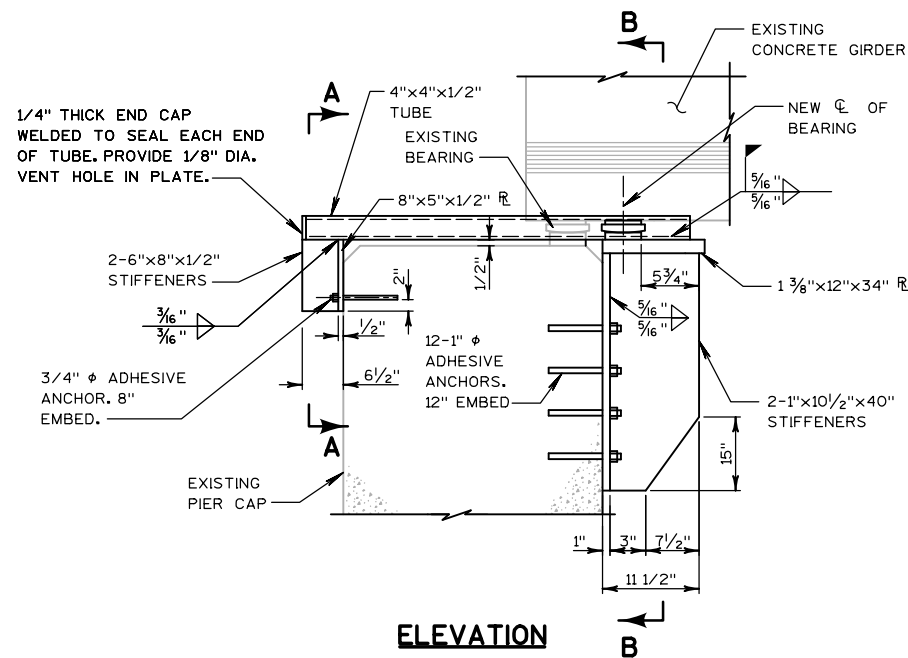
STRUCTURAL STEEL PLATES AND TUBES SHALL CONFORM TO ASTM A36 AND ASTM A500 GR. B, RESPECTIVELY.

BRACKET MATERIAL SHALL BE SHOP-PAINTED IN ACCORDANCE WITH THE SPECIAL PROVISIONS.

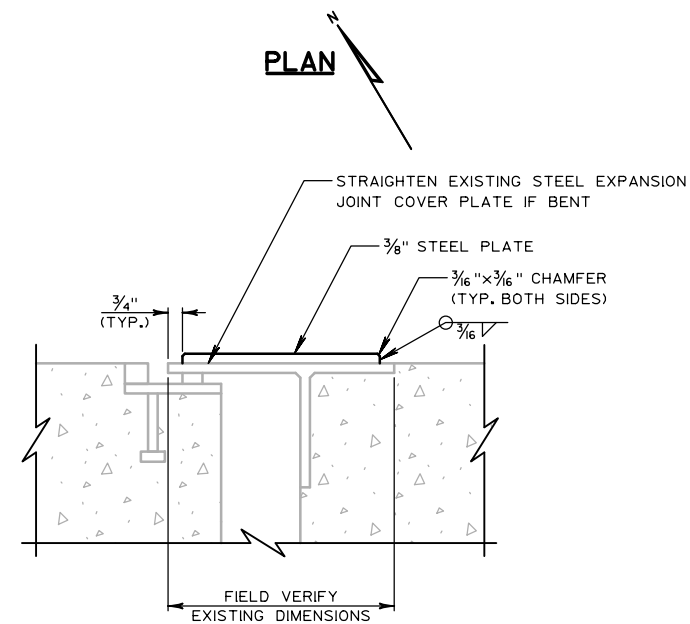
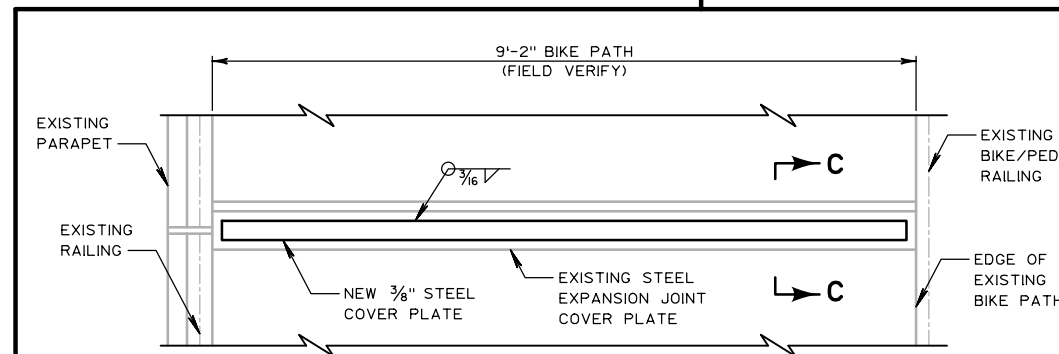
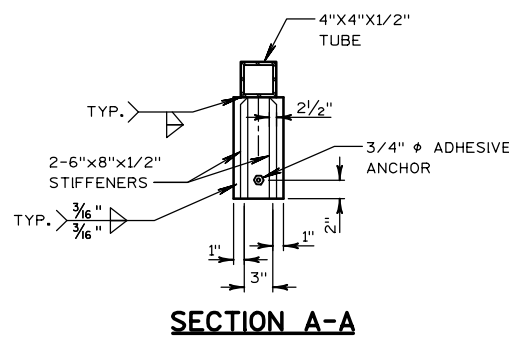
BRACKETS SHALL BE INSTALLED IN THREE STEPS. STEP ONE SHALL BE TO INSTALL FRONT BRACKET & BEARING ASSEMBLY TIGHT UNDER BEAM. STEP TWO SHALL BE TO INSTALL BACK BRACKET & 4" SQUARE TUBES TIGHT TO BACK SIDE OF PIER. STEP THREE SHALL BE TO FIELD WELD THE 4" SQUARE TUBES TO THE FRONT BRACKET AS SHOWN.

ADHESIVE ANCHORING SYSTEM SHALL BE HILTI HIT-HY200-A AND HILTI HAS-R 316SS THREADED RODS.

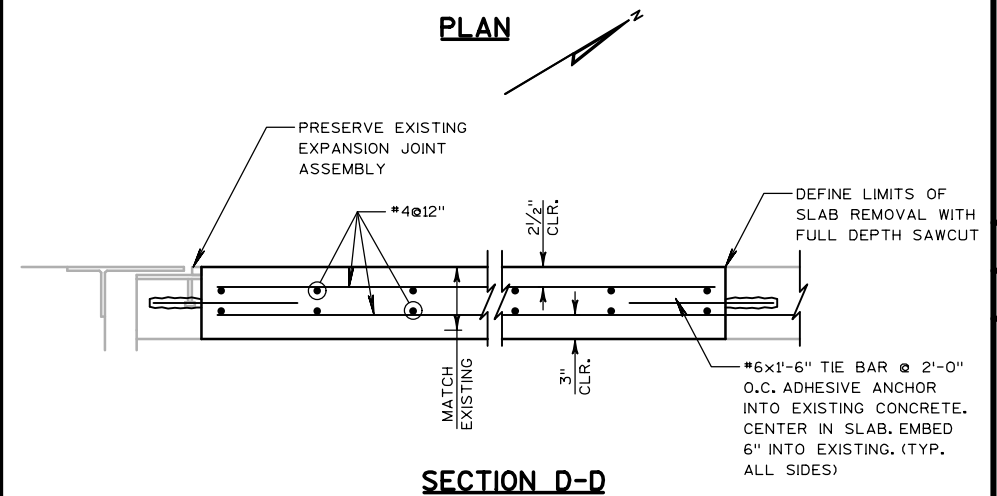
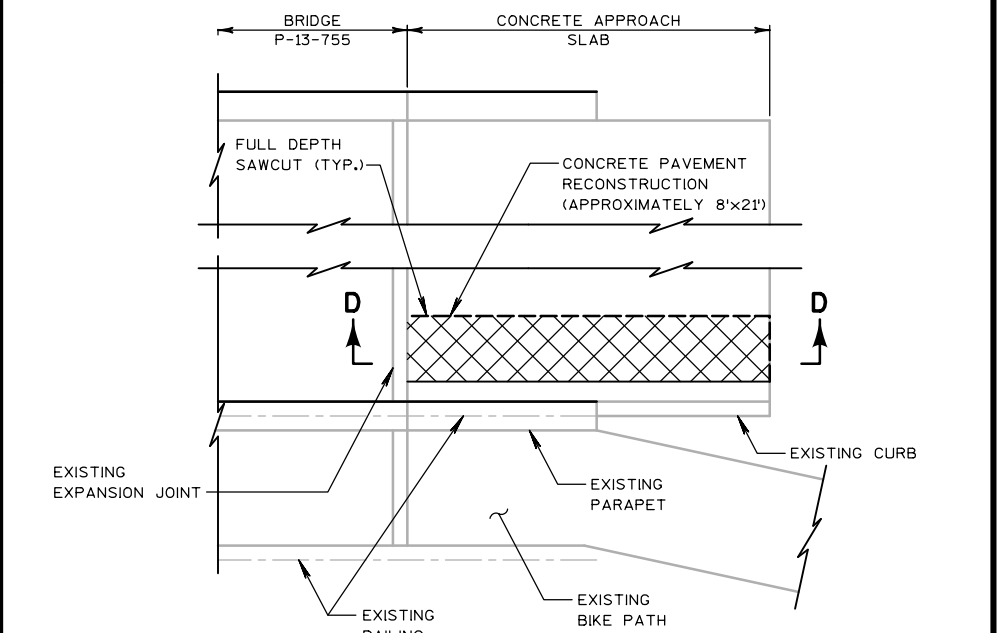
CONTRACTOR SHALL VERIFY EXISTING CONDITIONS.



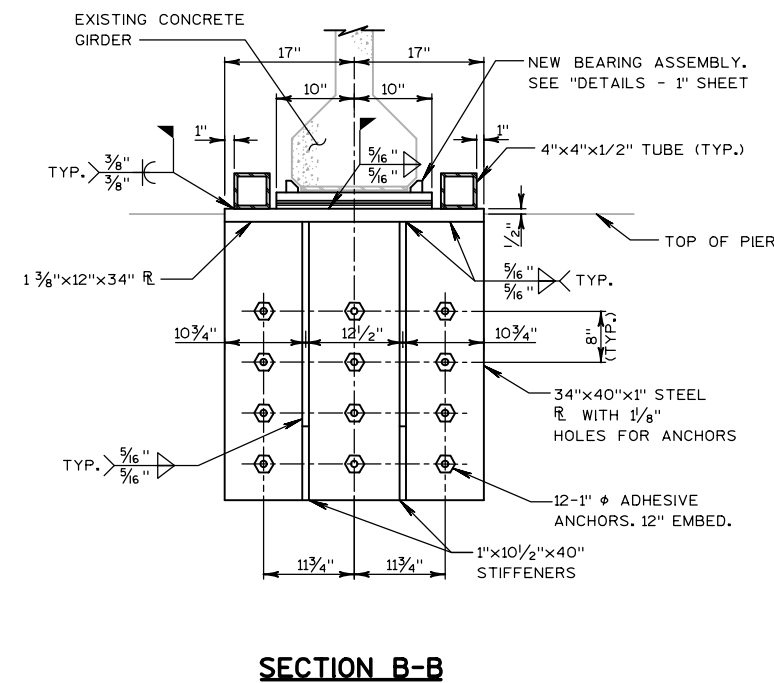
STEEL WEDGING AT EXISTING BEARING DETAIL



STEEL EXPANSION JOINT COVER PLATE REPAIR DETAIL



CONCRETE PAVEMENT RECONSTRUCTION DETAIL



BRACKET ASSEMBLY DETAIL

NO.	REVISIONS	DATE:

DETAILS - 2

JOHN NOLEN DRIVE CAUSEWAY BRIDGE REPAIRS
CITY OF MADISON ENGINEERING DIVISION
MADISON, WI

JOB NO.
1020.111
PROJECT MGR.
KRB



SHEET
P7



POLYMER OVERLAY

ESIMATED DECK DIMINTIONS:
90' X 109' = 1090 S.Y.

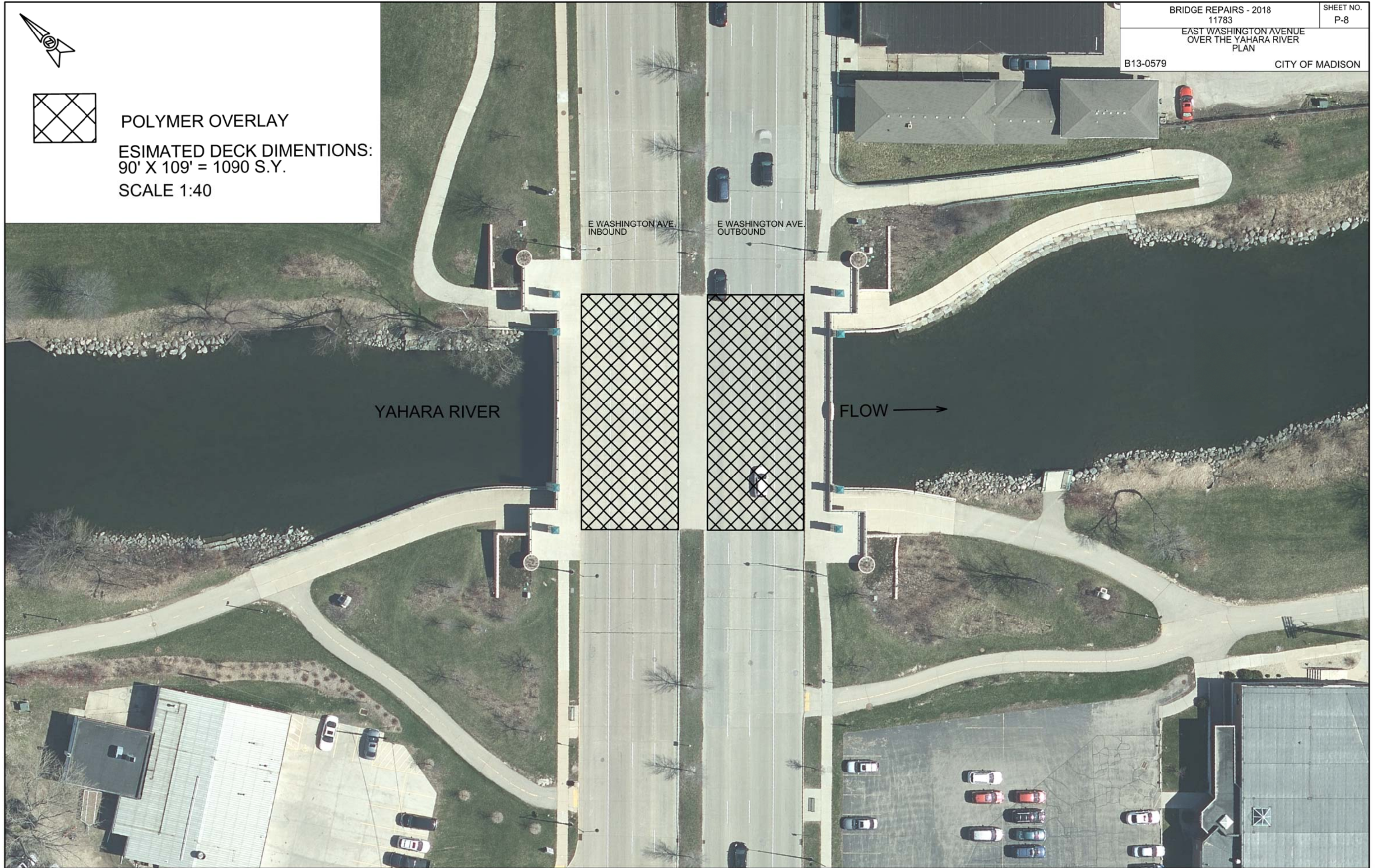
SCALE 1:40

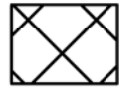
PLOT SCALE:

PLOT NAME:

REV. DATE:

ORIGINATOR: CITY OF MADISON, STREETS DIVISION





POLYMER OVERLAY

ESIMATED DECK DIMINTIONS:
122' X 24' = 325 S.Y.

SCALE 1:40

E WASHINGTON AVE.
INBOUND

E WASHINGTON AVE.
OUTBOUND

STARKWEATHER CREEK

FLOW →

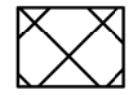
N MARQUETTE STREET

PLOT SCALE: _____

PLOT NAME: _____

REV. DATE: _____

ORIGINATOR: CITY OF MADISON, STREETS DIVISION



POLYMER OVERLAY
 ESTIMATED DECK DIMENTIONS:
 40' X 52' = 231 S.Y.
 SCALE 1:40



PLOT SCALE: _____
 PLOT NAME: _____
 REV. DATE: _____
 ORIGINATOR: CITY OF MADISON, STREETS DIVISION