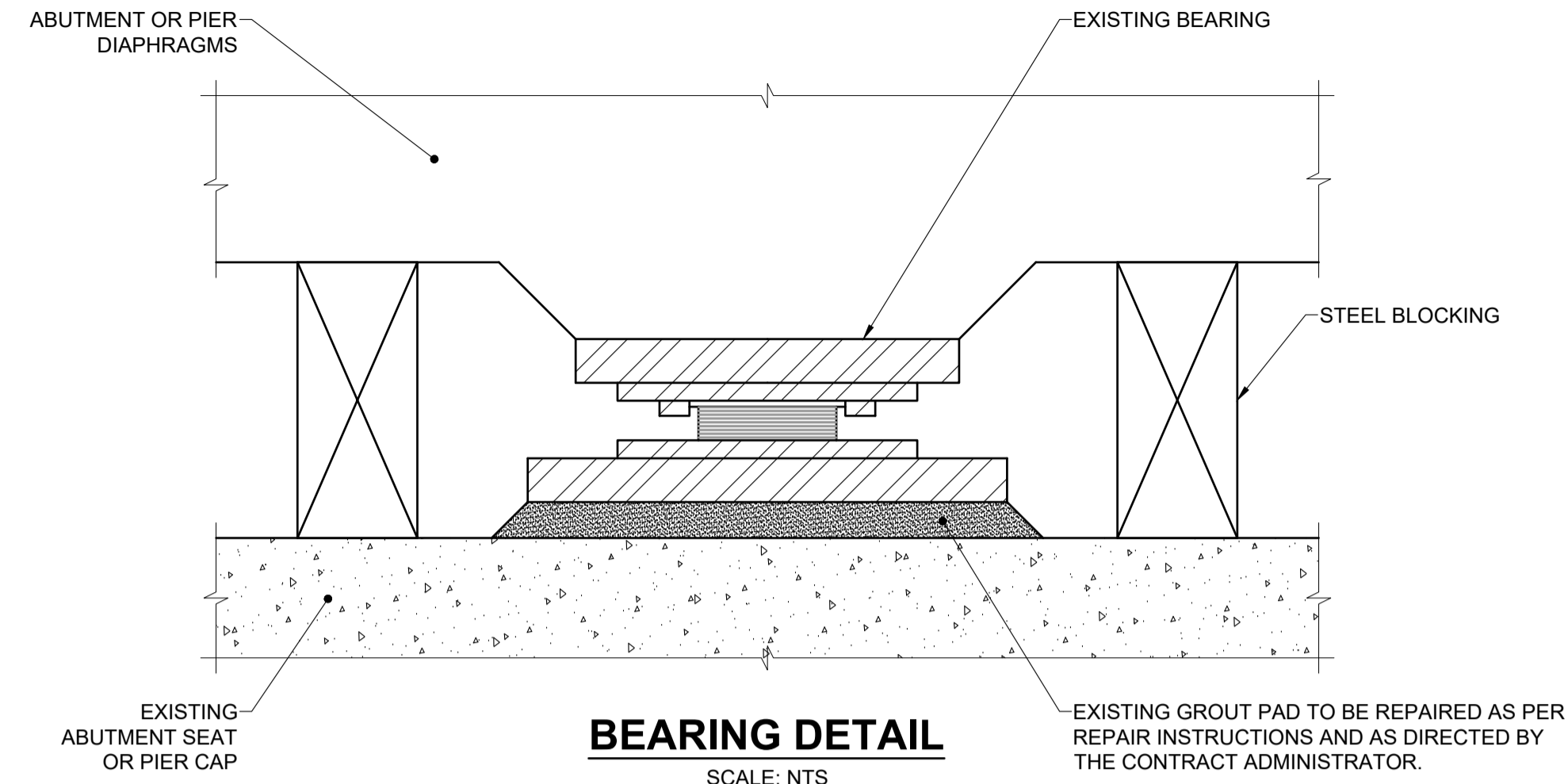


ELEVATION - TYPICAL CONCRETE REPAIR FOR ABUTMENTS & PIER CAPS

SCALE: NTS

NOTES:

- SAWCUT PERIPHERY OF REPAIR AREA TO 25 DEEP.
- REMOVE ALL DETERIORATED CONCRETE TO A MINIMUM OF 25 mm BEYOND THE REINFORCING MAT.
- SANDBLAST ALL EXPOSED REINFORCING STEEL.
- INSTALL TYPE 2 ANODE.
- PLACE NEW CONCRETE TO COMPLETE PATCH REPAIR.
- CONFIRMED PATCH REPAIR LOCATIONS:
 - BEARING SEAT OF SOUTH ABUTMENT
 - EAST CORNER AND BEARING SEAT OF NORTH ABUTMENT
 - SOUTH, CENTRE & NORTH PIER CAPS
- NARROW CRACKS TO BE REPAIRED WITH SILANE SEALER.



BEARING DETAIL

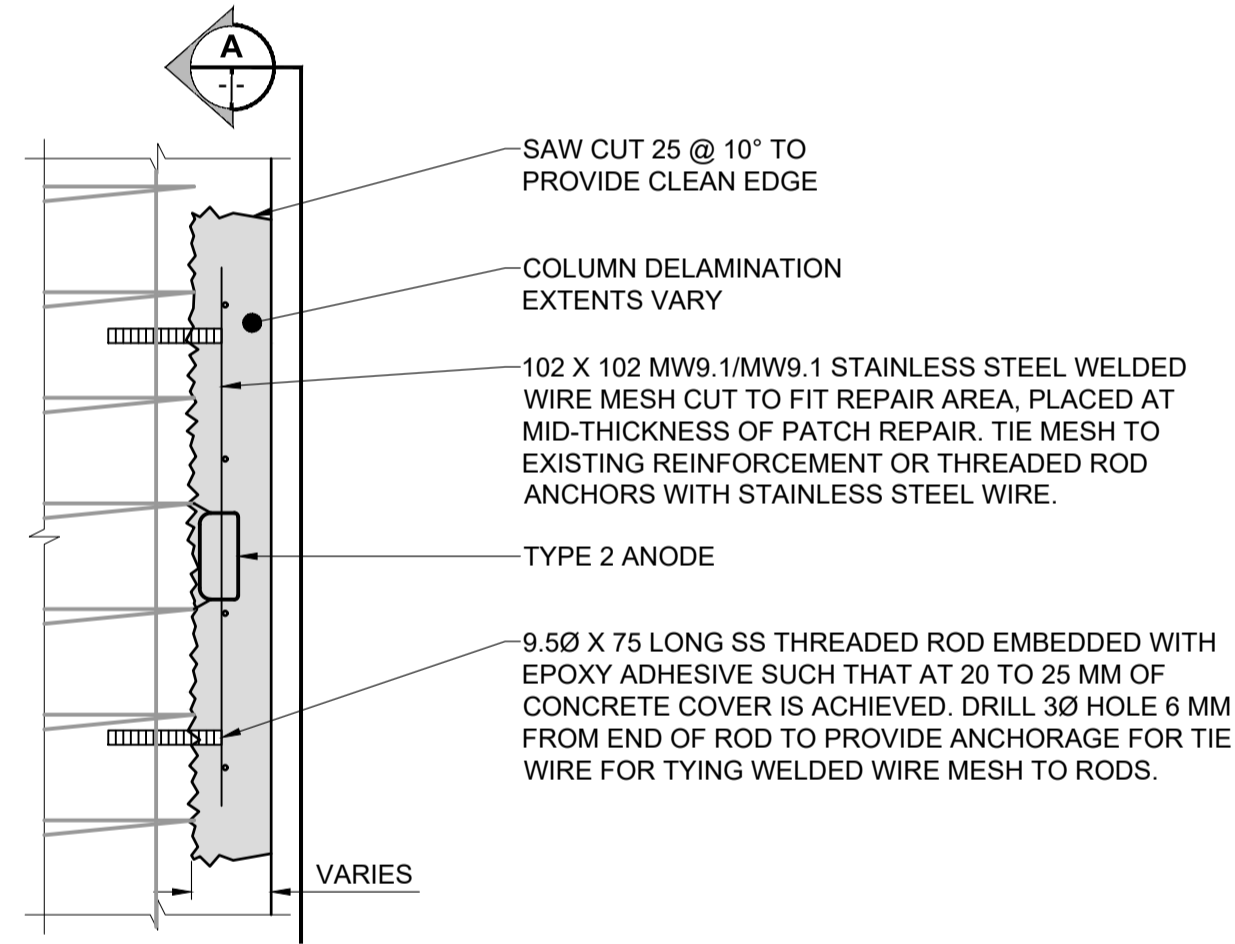
SCALE: NTS

NOTES:

- CONFIRMED REPAIR LOCATIONS:
 - TWO BEARINGS AT WEST END OF SOUTH ABUTMENT

REPAIR INSTRUCTIONS:

- INSTALL STEEL BLOCKING TO SUPPORT DIAPHRAGM.
- REMOVE DETERIORATED GROUT.
- PLACE NEW GROUT TO APPROXIMATE LIMITS OF EXISTING GROUT PAD.

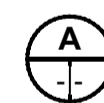
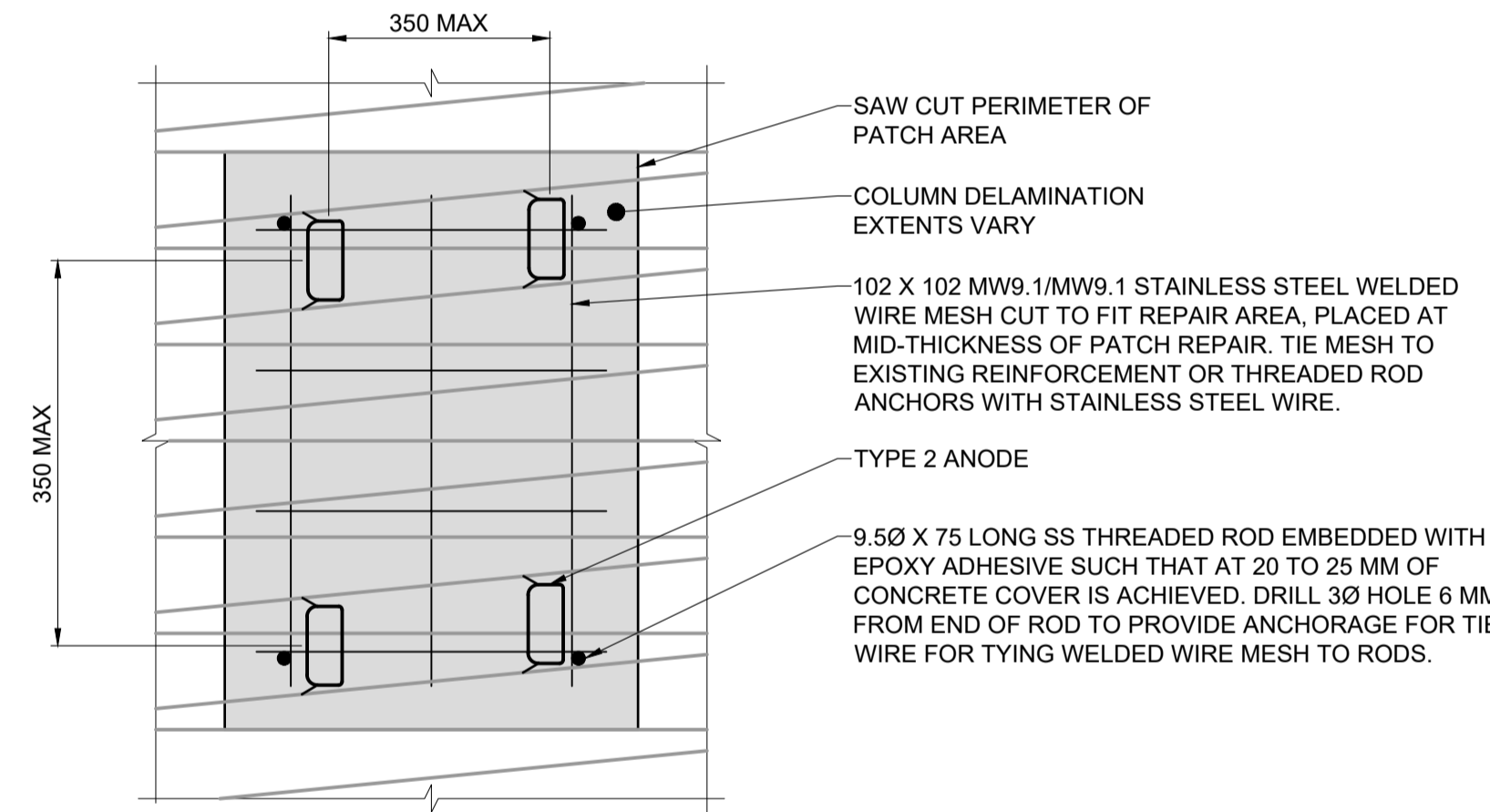


ELEVATION - TYPICAL NORTH PIER COLUMN DELAMINATION REPAIR

SCALE: NTS

NOTES:

- SAWCUT PERIPHERY OF REPAIR AREA TO 25 DEEP.
- DRILL HOLES AND INSTALL THREADED RODS.
- SANDBLAST ALL EXPOSED REINFORCING STEEL.
- TIE REINFORCING MESH TO THREADED RODS.
- INSTALL TYPE 2 ANODE.
- PLACE NEW CONCRETE TO COMPLETE PATCH REPAIR.
- CONFIRMED REPAIR LOCATIONS:
 - NORTH PIER COLUMNS 12 AND 14
- NARROW CRACKS TO BE REPAIRED WITH SILANE SEALER.



SECTION: TYPICAL NORTH PIER COLUMN DELAMINATION REPAIR

SCALE: 1:5

CORROSION CONTROL ANODE TYPES				
	ANODE TYPE	SUBSTRUCTURE		
		DENSITY (m ³)	LENGTH (m)	MAX SPACING (m)
TYPE 1	GALVANODE® DAS ANODE OR APPROVED EQUIVALENT IN ACCORDANCE WITH B7, "SUBSTITUTES"	1.8	4.3	-
TYPE 2	XPT ANODE OR APPROVED EQUIVALENT IN ACCORDANCE WITH B7, "SUBSTITUTES"	-	-	0.35

LEGEND:

NEW CONCRETE



METRIC
WHOLE NUMBERS INDICATE MILLIMETRES
DECIMALIZED NUMBERS INDICATE METRES

LOCATION APPROVED
UNDERGROUND STRUCTURES

SUPR. U/G STRUCTURES COMMITTEE DATE

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	REVISIONS	DATE	BY
D	ISSUED FOR TENDER	18/09/04	BAP
C	ISSUED FOR 95% DESIGN REVIEW	18/08/07	BAP
B	ISSUED FOR 50% DESIGN REVIEW REV 1	18/06/28	AG
A	ISSUED FOR 50% DESIGN REVIEW	18/04/03	AF

MORRISON HERSHFIELD

DESIGNED BY: AG
CHECKED BY: BAP
DRAWN BY: AH
APPROVED BY: BE

HOR SCALE: AS SHOWN
VERT SCALE: AS SHOWN

RELEASED FOR CONSTRUCTION

N/A

DATE

PROFESSIONAL'S SEAL

PROVINCE OF MANITOBA

A.D.G. GILARSKI
Member
32144

REGISTERED PROFESSIONAL ENGINEER

CONSULTANT FILE NAME
W160034 - DD SU.DWG

THE CITY OF WINNIPEG
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

EMPRESS STREET PROJECT
OVERPASS REHABILITATION WORKS
SUBSTRUCTURE
MISCELLANEOUS REPAIR DETAILS

CITY DRAWING NUMBER
P-3494-99

SHEET 99 OF 168

DRAWING No. REV
99 D

BID OPPORTUNITY No. 602-2018