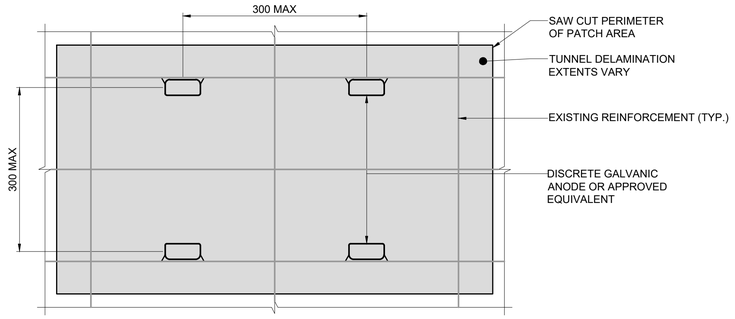
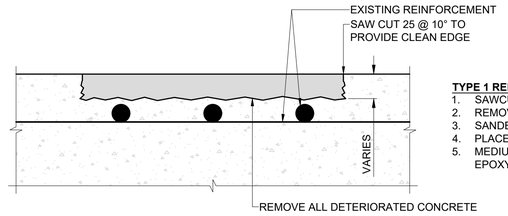
ISO A1 - 594mm x 841mm



TYPICAL TYPE 2 CONCRETE REPAIR FOR TUNNEL ROOF / FLOOR SLAB \ WALL

SCALE NTS



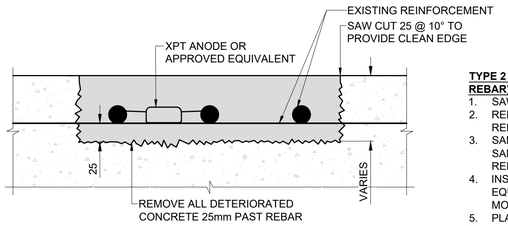
TYPICAL TYPE 1 CONCRETE REPAIR FOR TUNNEL FLOOR SLAB

ELEVATION

SCALE NTS

TYPE 1 REPAIR PROCEDURE (NO EXPOSED REBAR):

1. SAWCUT PERIPHERY OF REPAIR AREA TO 25 DEEP.
2. REMOVE ALL DETERIORATED CONCRETE.
3. SANDBLAST CONCRETE SURFACE.
4. PLACE NEW CONCRETE TO COMPLETE PATCH REPAIR.
5. MEDIUM CRACKS TO BE ROUTED AND INJECTED WITH EPOXY.



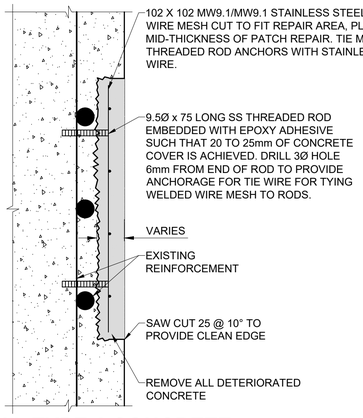
TYPICAL TYPE 2 CONCRETE REPAIR FOR TUNNEL ROOF / FLOOR SLAB

ELEVATION

SCALE NTS

TYPE 2 REPAIR PROCEDURE (DELAMINATION EXTENDS TO REBAR):

1. SAWCUT PERIPHERY OF REPAIR AREA TO 25 DEEP.
2. REMOVE ALL DETERIORATED CONCRETE 25mm PAST REBAR.
3. SANDBLAST CONCRETE AND REINFORCING STEEL. SANDBLAST ALL EXPOSED REINFORCING STEEL ICRI REPAIR METHODS.
4. INSTALL DISCRETE GALVANIC ANODE OR APPROVED EQUIVALENT (PLACE LOW RESISTIVITY EMBEDDING MORTAR, IF REQUIRED).
5. PLACE NEW CONCRETE TO COMPLETE PATCH REPAIR.
6. MEDIUM CRACKS TO BE ROUTED AND INJECTED WITH EPOXY.

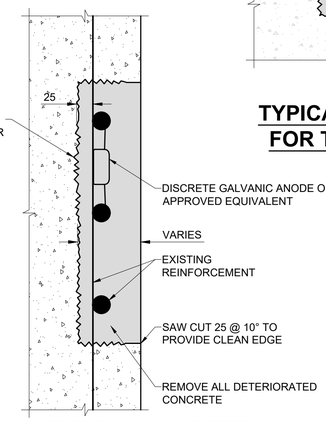


TYPICAL TYPE 1 CONCRETE REPAIR FOR WALL

SCALE NTS

TYPE 1 REPAIR PROCEDURE (NO EXPOSED REBAR):

1. SAWCUT PERIPHERY OF REPAIR AREA TO 25 DEEP.
2. REMOVE ALL DETERIORATED CONCRETE.
3. SANDBLAST CONCRETE SURFACE.
4. INSTALL THREADED RODS.
5. TIE REINFORCING MESH TO THREADED RODS.
6. PLACE NEW CONCRETE TO COMPLETE PATCH REPAIR.
7. MEDIUM CRACKS TO BE ROUTED AND INJECTED WITH EPOXY.

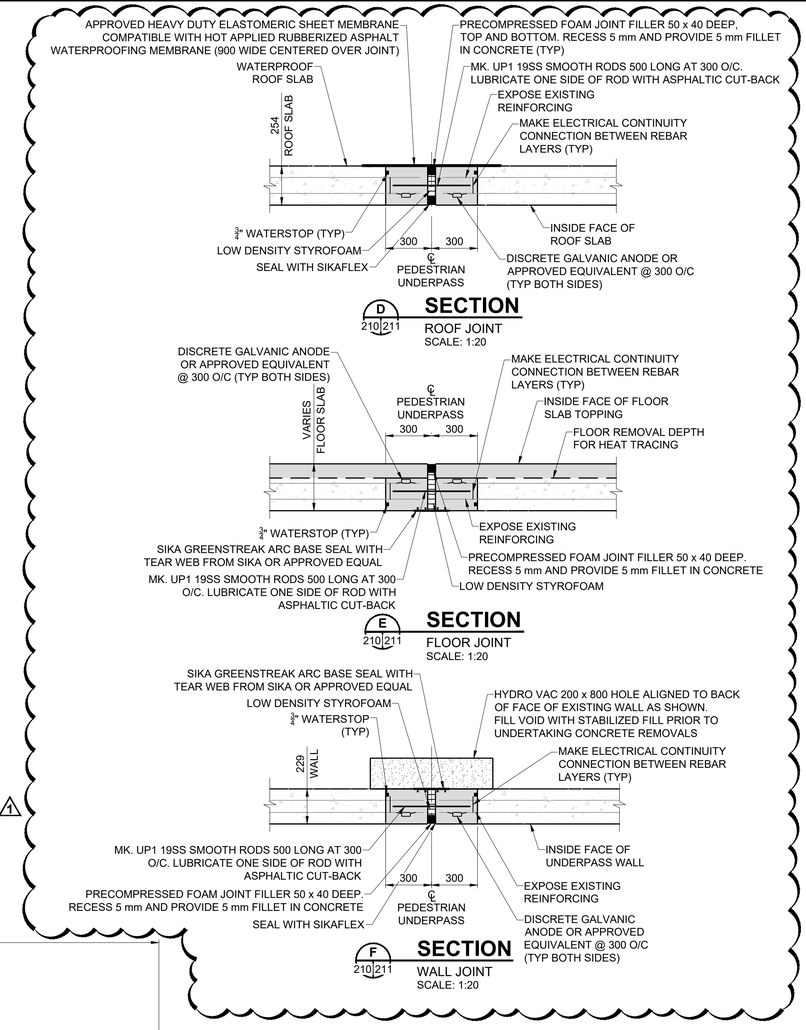


TYPICAL TYPE 2 CONCRETE REPAIR FOR WALL

SCALE NTS

TYPE 2 REPAIR PROCEDURE (DELAMINATION EXTENDS TO REBAR):

1. SAWCUT PERIPHERY OF REPAIR AREA TO 25 DEEP.
2. REMOVE ALL DETERIORATED CONCRETE.
3. SANDBLAST CONCRETE AND REINFORCING STEEL. SANDBLAST ALL EXPOSED REINFORCING STEEL ICRI REPAIR METHODS.
4. INSTALL DISCRETE GALVANIC ANODE OR APPROVED EQUIVALENT (PLACE LOW RESISTIVITY EMBEDDING MORTAR, IF REQUIRED).
5. PLACE NEW CONCRETE TO COMPLETE PATCH REPAIR.
6. MEDIUM CRACKS TO BE ROUTED AND INJECTED WITH EPOXY.



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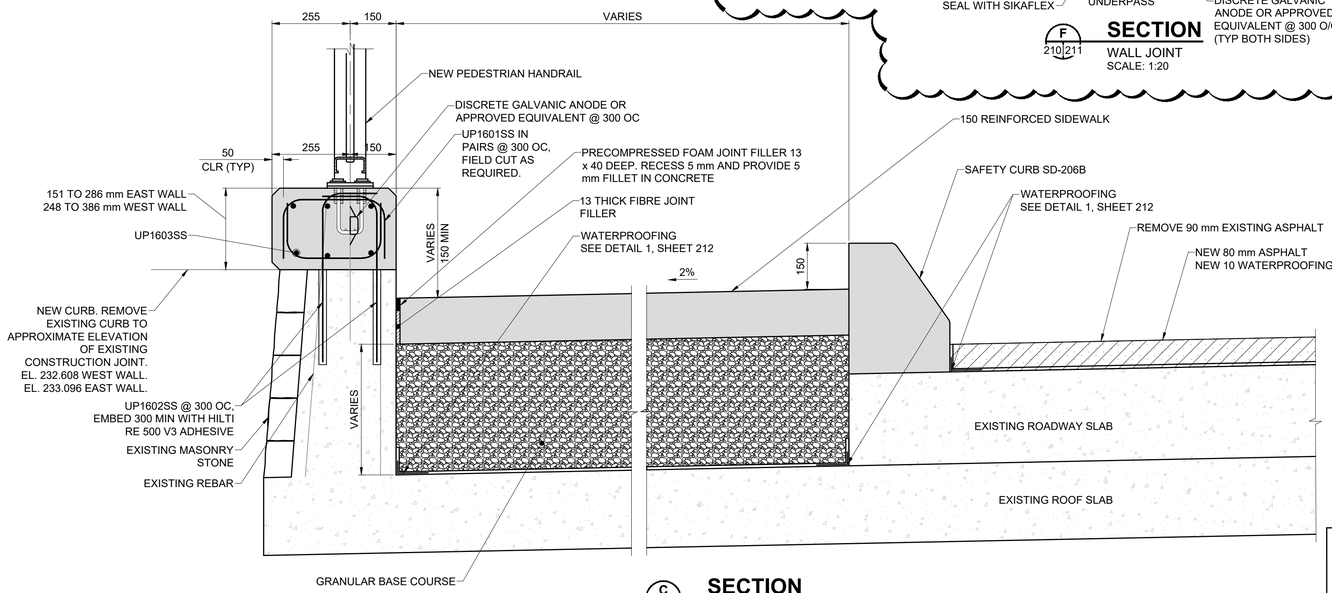

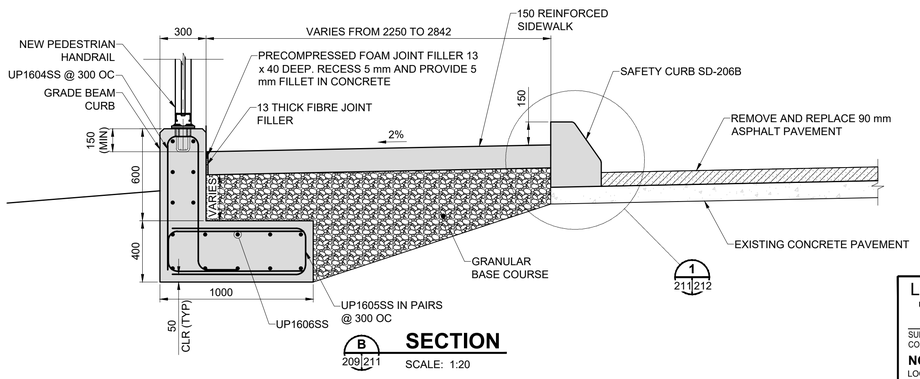

METRIC

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.

BM 54-006 ELEV 228.166 m — Tbit. in S. face of E. Conc. pier in 1st row of Conc. piers N. of S. end of St. Vital Bridge over Red River, N. of Kingston Row, 5 m W. of E. end of Pier.

No.	REVISIONS	YY/MM/DD	BY
1	REVISED FOR ADDENDUM 1	22/12/13	BAP
0	ISSUED FOR TENDER	22/11/24	BAP

MORRISON HERSHFIELD

DESIGNED BY	AG	CHECKED BY	BAP
DRAWN BY	KMB	APPROVED BY	BE
HOR SCALE / VERT SCALE	AS NOTED	RELEASED FOR CONSTRUCTION	
DATE	NOV 24, 2022	DATE	

PROFESSIONAL'S SEAL — PROVINCE OF MANITOBA — A.D.G. GILARSKI — Member — 32144 — 2022-12-13 — REGISTERED PROFESSIONAL ENGINEER

CONSULTANT FILE NAME: 2103510-SVB DD-NPU-CONC02.dwg

Winnipeg

THE CITY OF WINNIPEG

PUBLIC WORKS DEPARTMENT

ENGINEERING DIVISION

ST. VITAL TWIN BRIDGE OVER THE RED RIVER REHABILITATION AND RELATED WORKS

CHURCHILL DR PEDESTRIAN UNDERPASS (UNDER OSBORNE ST)

CONCRETE PATCH REPAIRS - DETAILS

CITY FILE NUMBER: U216-24-3

SHEET 211 OF 244

DRAWING NUMBER: 211

ENGINEERS GEOSCIENTISTS MANITOBA — Certificate of Authorization MORRISON HERSHFIELD No. 1736

TENDER No. 615-2022

X:\Proj\2021\21035\100-St Vital Bridge over Red River PD\09. CAD\07 Sheets\Structural\Detailed Design\2103510-SVB DD-NPU-CONC02.dwg Last Saved: 12/13/2022 10:01 AM by KBerard Plotted: 12/13/2022 10:40 AM by Kevin Berard