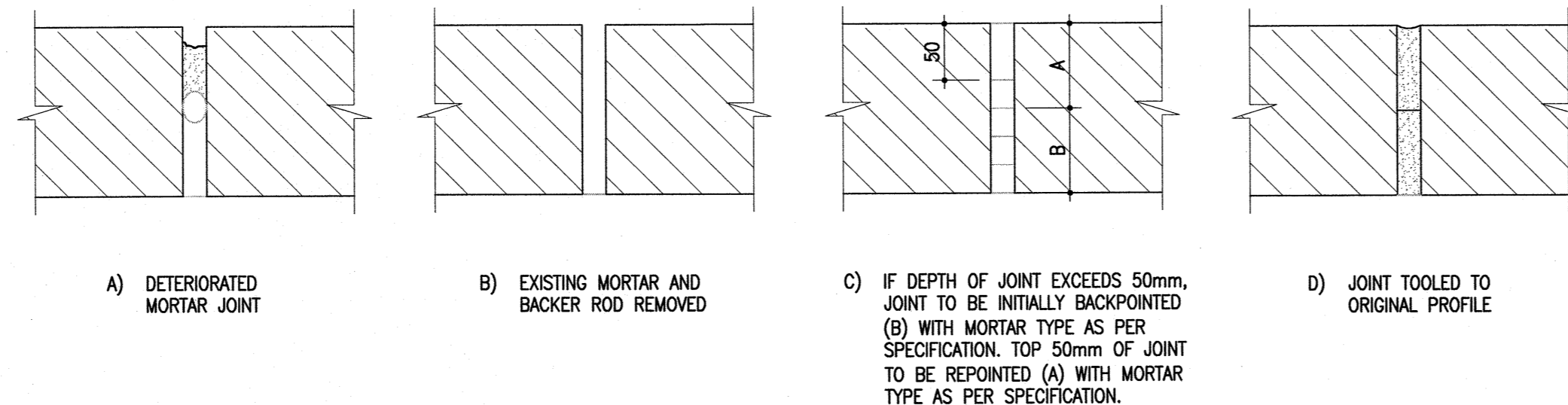
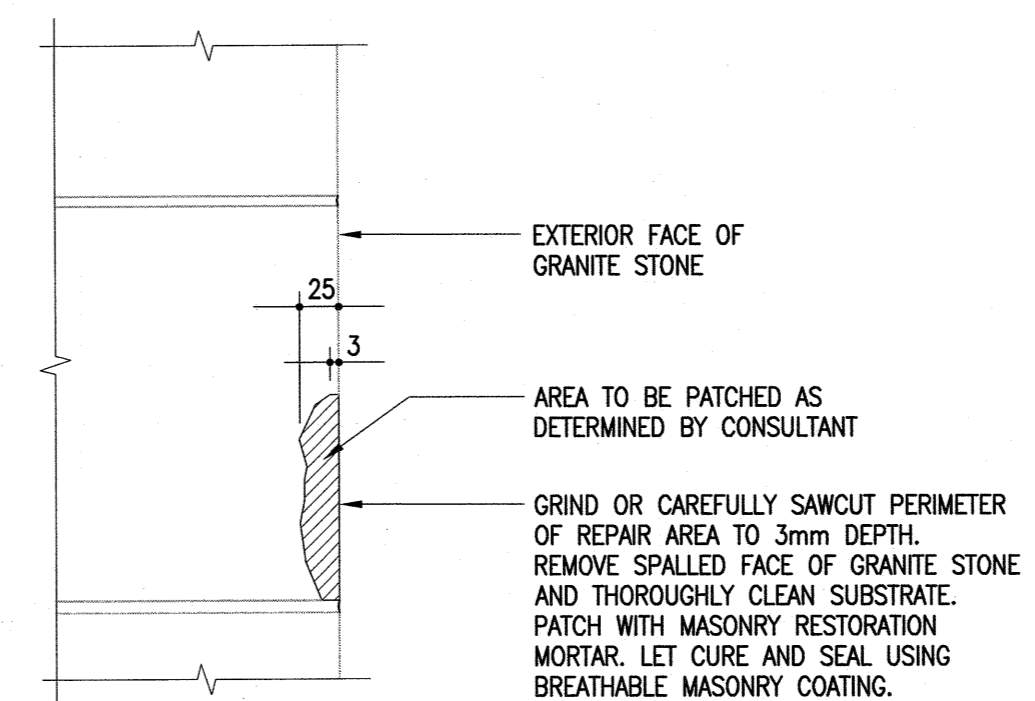


A CENOTAPH REPOINTING DETAILS
S4.1 SCALE: NTS



B PODIUM BASE REPOINTING DETAILS
S4.1 SCALE: NTS

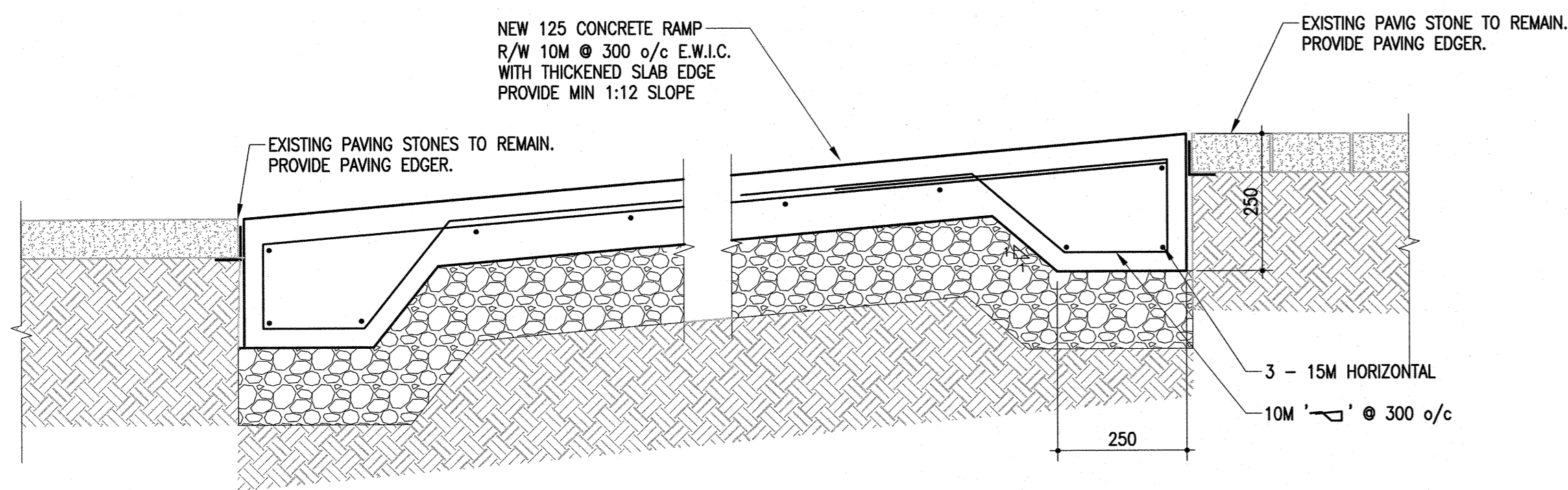


C STONE PATCHING REPAIR
S4.1 SCALE: NTS

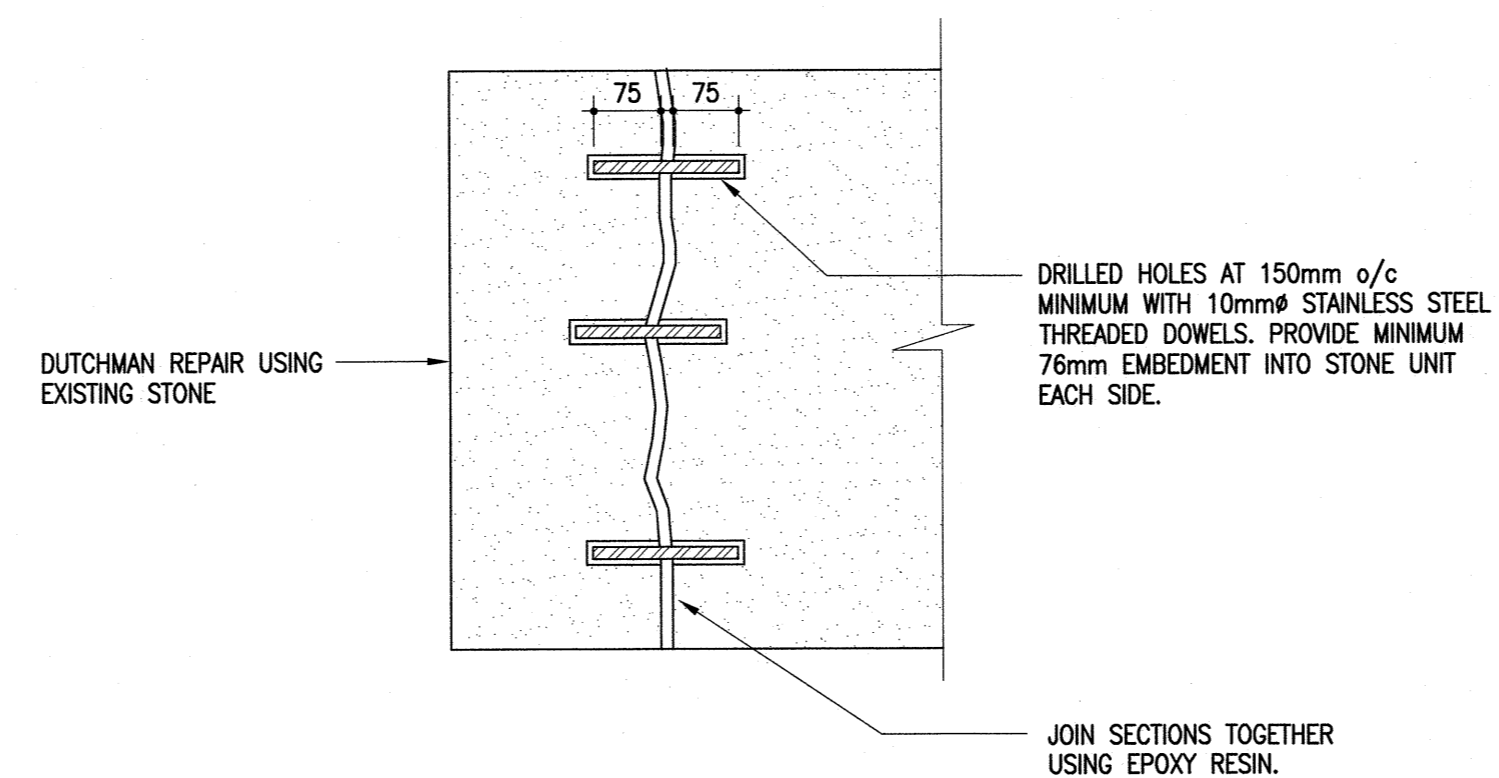
MORTAR JOINT REPOINTING PROCEDURE:
(BASE BID - FIXED PRICE ITEM)

NOTE:

1. REPOINT DETERIORATED MORTAR JOINTS IN CENOTAPH MONUMENT AND BASE AT LOCATIONS IDENTIFIED ON SITE BY CONTRACT ADMINISTRATOR UNDER FIXED PRICE.
2. CONSULTANT TO IDENTIFY MORTAR JOINTS FOR REPOINTING BEYOND SCOPE OF FIXED PRICE WORK. TYPES OF DETERIORATION INCLUDE:
 - i) OPEN JOINTS: THE MORTAR IS DEEPLY ERODED (MORE THAN 12mm FROM FACE OF MASONRY) OR HAS FALLEN OUT.
 - ii) CRACKED JOINTS: CRACKS OF HAIRLINE WIDTH OR LARGER HAVE FORMED IN MORTAR.
 - iii) SEPARATED JOINTS: MORTAR AND MASONRY DO NOT ADHERE, RESULTING IN GAP BETWEEN TWO, OR MORTAR SITTING LOOSE ON JOINT.
 - iv) TEST FOR VOIDS AND WEAKNESS BY USING HAMMERS OR OTHER APPROVED MEANS.
 - v) REMOVE ALL DETERIORATED MORTAR JOINTS.



1 SECTION
S2.1 S4.1 SCALE: 1:10



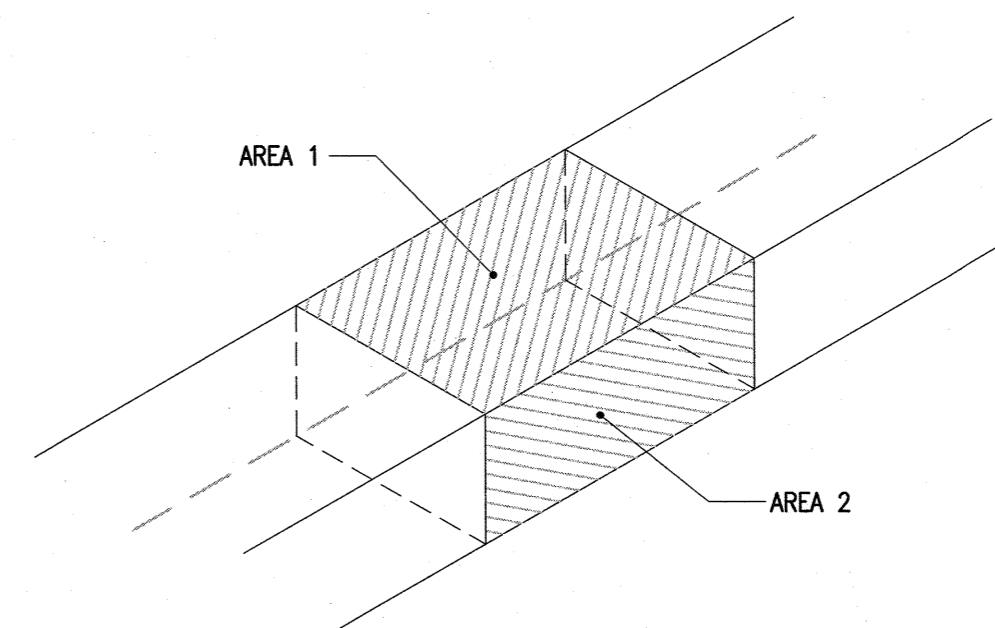
D DUTCHMAN REPAIR OF GRANITE STONE
S4.1 SCALE: NTS (UNIT PRICE)

REPAIR METHOD: DUTCHMAN USING EXIST STONE SEGMENT

- DRILL 10mm Ø HOLES, MINIMUM 76mm LONG INTO EACH UNIT, BOTH EXISTING AND DUTCHMAN. DRILL HOLES AT MIN. 150mm o/c HORIZONTAL AND VERTICAL. NOTE ADDITIONAL HOLES & DWEL SIZES MAY BE REQUIRED AND SHALL BE INCORPORATED AT A UNIT PRICE FOR EACH ADDITIONAL DWEL.
- BLOW OUT HOLES WITH OIL-FREE COMPRESSED AIR, THEN SUPPLY AND INSTALL SIKADUR 31 EPOXY RESIN INTO HOLES OF EXISTING STONE UNIT AND INSERT STAINLESS STEEL THREADED DOWELS. LET CURE.
- INSTALL SIKADUR 31 INTO DUTCHMAN ANCHOR HOLES AND BUTTER RESIN OVER ENTIRE SURFACE OF DUTCHMAN. ENSURE SUFFICIENT EDGE DISTANCE IS PROVIDED TO PREVENT RESIN FROM PENETRATING SURFACE UPON CLAMPING.
- PLACE DUTCHMAN INTO POSITION AND CLAMP TIGHT FOR A MINIMUM 24 HOURS OR GREATER AS REQUIRED TO ENSURE CURE OF RESIN. PROMPTLY REMOVE ANY RESIN FROM SURFACE WHICH MAY LEAK OUT OF JOINT.
- REPOINT MORTAR JOINTS & PATCH REMAINING VOIDS WITH APPROVED PATCH MORTAR AS REQUIRED TO MATCH EXISTING SURFACE PROFILE.
- FOLLOW EPOXY RESIN AND STONE PATCHING MORTAR MANUFACTURER'S SPECIFICATIONS FOR SURFACE PREPARATION, MIXING, INSTALLATION PROCEDURES AND CURING.
- PROVIDE UNIT PRICE PER 0.1 SQ. METER GRANITE STONE SEGMENT DUTCHMAN (USING EXISTING SEGMENT) INCLUDE FOR MINIMUM 4 PINS PER 0.1 SQ. METER GRANITE STONE SEGMENT.

REPAIR METHOD D.2: DUTCHMAN USING NEW STONE SEGMENT

- PROVIDE NEW STONE SEGMENT AS PER DETAIL E OF S4.1



E SUPPLY OF REPLACEMENT STONE
S4.1 SCALE: NTS (UNIT PRICE)

- PROVIDE REPLACEMENT STONE DRESSED TO SUIT TO UP TO MEDIUM LEVEL OF DETAIL PER 0.1 SQUARE METER (APPROXIMATELY 1.0 sq. ft.) OF FINISHED EXPOSED SURFACE AREA, EG. A = AREA 1 + AREA 2, UNDER UNIT PRICE.

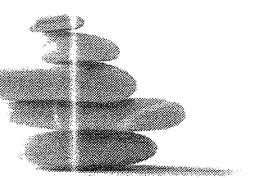
The General Contractor shall check & verify all dimensions and report any errors or omissions to the designers.

No.	Date	Issue/Revision	By
0	2017-08-22	ISSUED FOR CONSTRUCTION	BS



Consultant

300-275 Carlton Street
Winnipeg, Manitoba R3C 5R6
T 204. 943. 7501
F 204. 943. 7507



**Crosier Kilgour
& Partners Ltd.**
CONSULTING STRUCTURAL ENGINEERS

Project **CENOTAPH - MEMORAIL BLVD.**

CENOTAPH REPAIRS - PHASE 1
BID OPPORTUNITY # 704-2017
MEMORIAL BOULEVARD
WINNIPEG, MANITOBA

Sheet Title
SECTIONS AND DETAILS

File	2017-0496	Date	2017-08-22
Design	BS/JW	Drawn	RC

Revision	Sheet No.	S4.1
A		