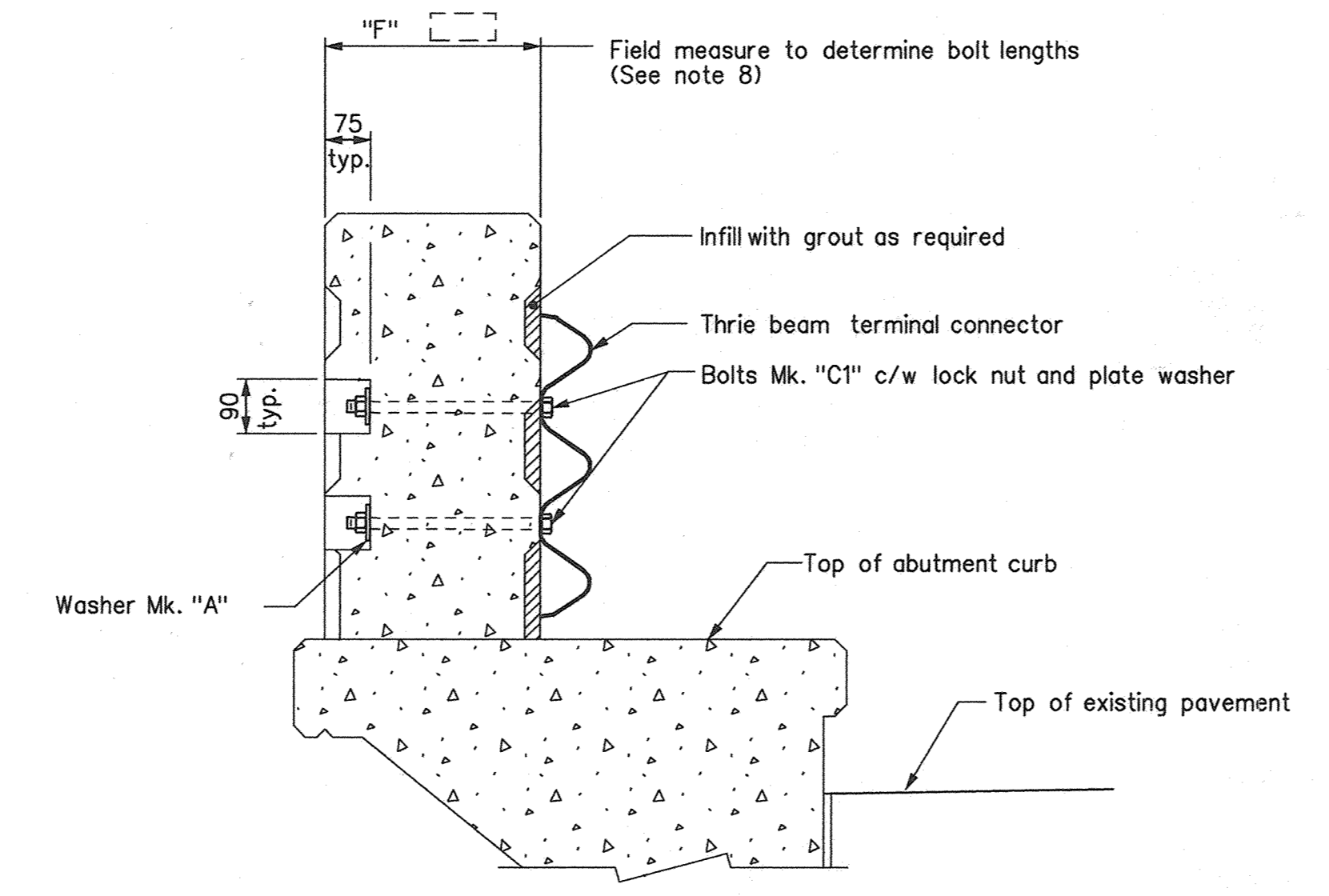
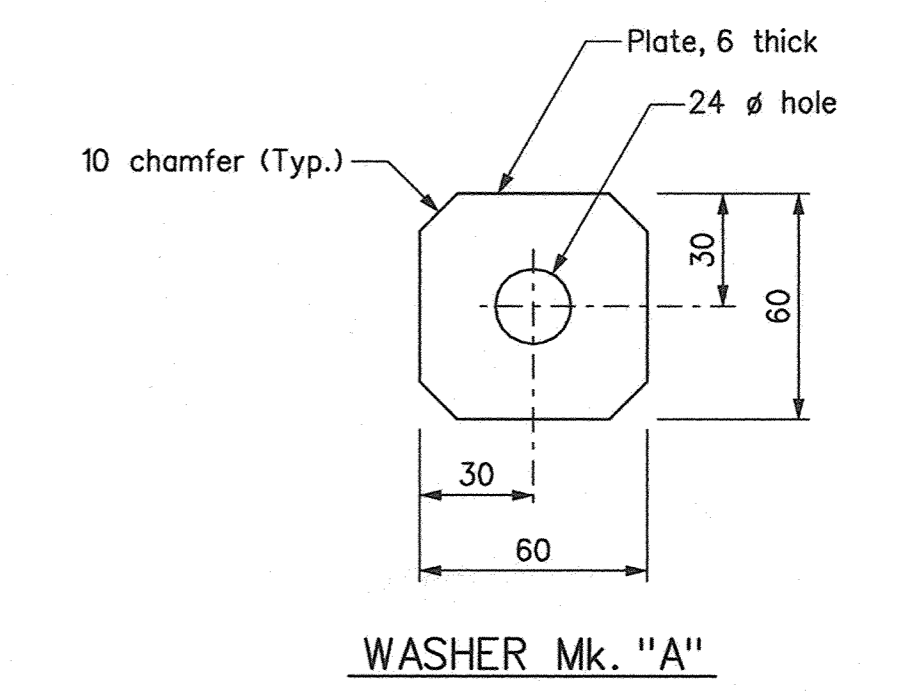


ELEVATION



SECTION A-A

BILL OF MISCELLANEOUS METAL					Site No.
MARK	No.	DESCRIPTION	SIZE	MASS PER UNIT	TOTAL MASS
C1		Hex. bolts	22 ϕ x --- hex. bolt c/w all metal lock nut		N/A
A		Washer	Plate 6 thick, one per bolt Mk. "C1" (see detail below)	0.154	
		Plate washers	For 22 ϕ bolt Mk. "C1", one per "C1"	0.052	
				Total mass	kg



NOTES:

- The Thrie-beam terminal connector shall be used as a template to core holes through the newel post. Care shall be taken to ensure holes are cored accurately with minimal damage to newel post. Use of rotary hammer drills will not be allowed.
- Holes for bolts Mk. "C1" shall be cored through the newel post at 2 mm larger than the bolt diameter.
- After erection is completed, counterbored holes in the rear face of newel post shall be filled with a non-shrink, non metallic grout matched to the colour of the newel post concrete.
- All bolts shall conform to the requirements of ASTM A325 except where noted otherwise.
- All material in the above Bill shall be galvanized after fabrication in accordance with CAN/CSA G164-M92
- Uneven surfaces behind thrie beam terminal connector shall be patched smooth to provide uniform bearing of the connector. Non-metallic, non shrink grout shall be used.
- Supply & installation of all required bolts & lock nuts considered incidental to terminal connector.
- Attachment bolt Mk. "C1", length = "F" -10

NOTE: Original drawing sealed by J. Lukashenko P.Eng., Feb.23, 2000. It is filed in the Bridges and Structures Branch.

REVISIONS		THRIE BEAM APPROACH GUARDRAIL TO NEWEL POST ATTACHMENT DETAILS	
DATE	BY	DESCRIPTION	
		TSTB07	

Manitoba Highways and Government Services Bridges and Structures Branch		RELEASED FOR CONSTRUCTION BY: _____ Original signed by Greg Hamilton Feb.23, 2000	
DESIGN	BY: J.L.	DIRECTOR OF BRIDGES AND STRUCTURES	DATE
CHECKED:		SCALE:	
DETAILS	BY: E.F.	1:10	SHEET No. _____
CHECKED:	J.L.		SITE No. _____