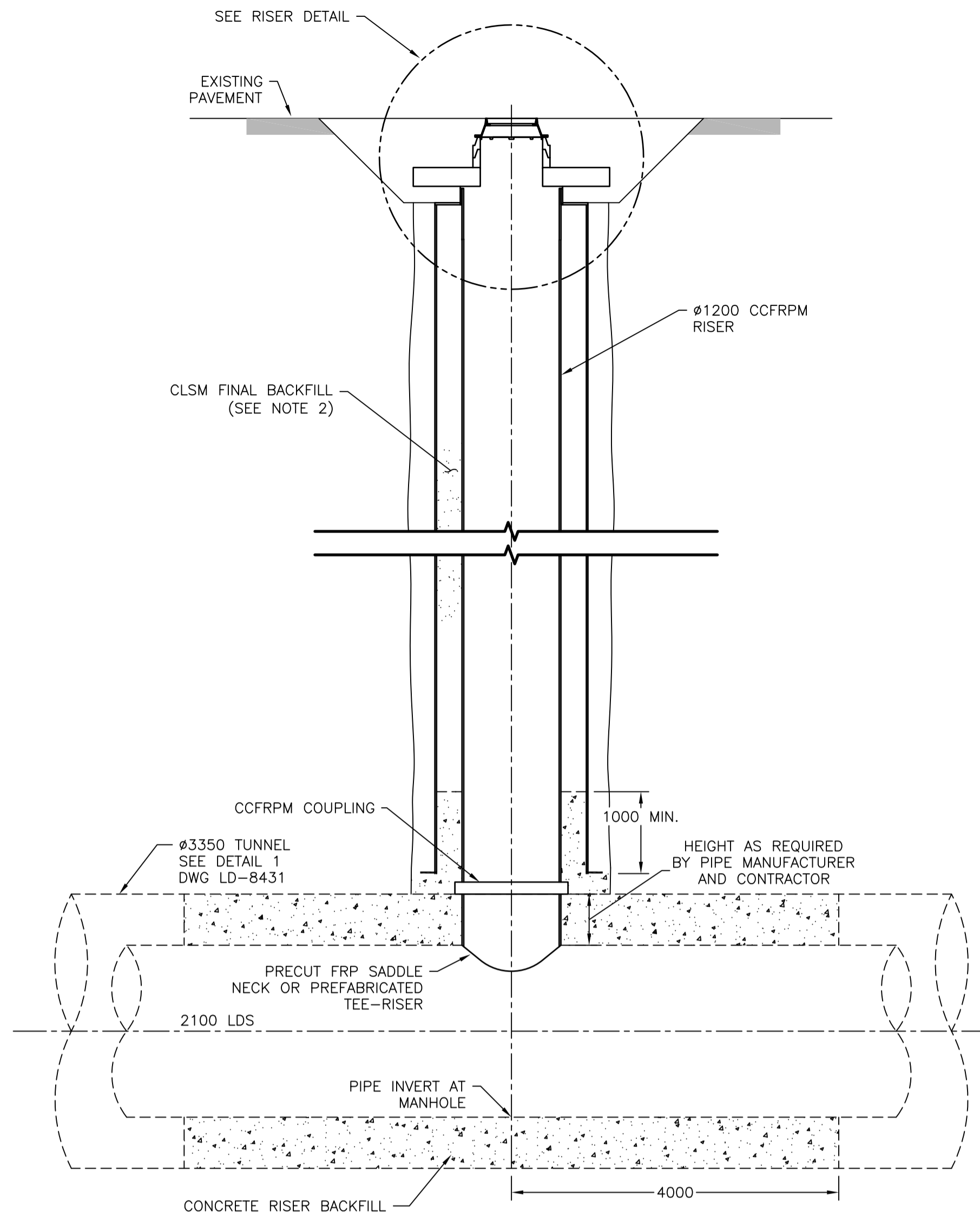


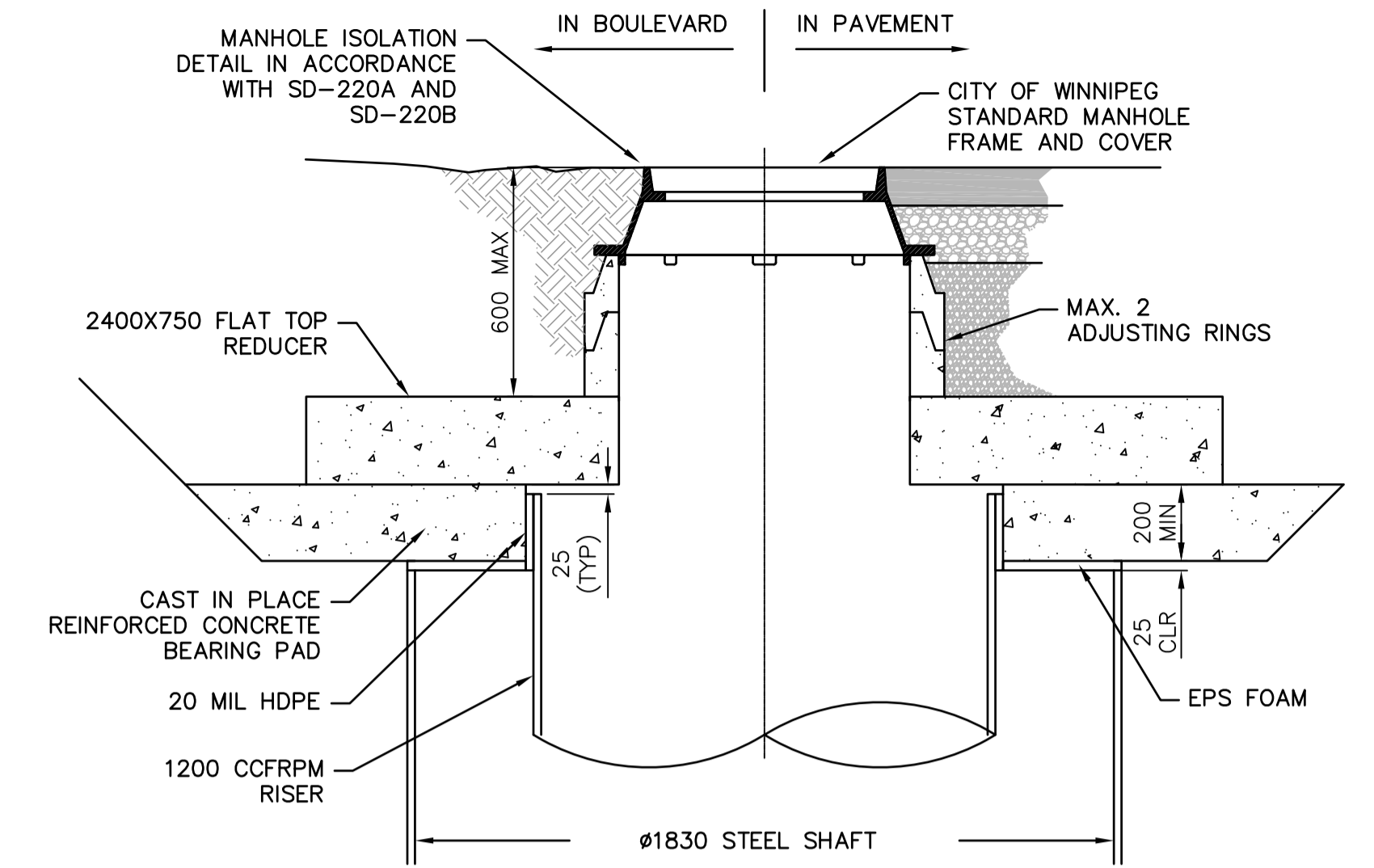
1 MANHOLE SHAFT DETAIL (DURING TUNNELLING)
NTS

MANHOLES MH-41, MH-42 AND MH-44



2 MANHOLE SHAFT DETAIL
NTS

MANHOLES MH-41, MH-42 AND MH-44



RISER DETAIL

NOTES:

1. SHAFT EXCAVATION, PLACEMENT OF CLSM INITIAL BACKFILL AND INSTALLATION AND GROUTING OF CASING TO BE COMPLETED PRIOR TO TUNNELLING.
2. POUR MANHOLE RISER BACKFILL IN LIFTS (AS REQUIRED) TO AVOID DISPLACING RISER.
3. SHAFT COVER DESIGN IS FOR SHORT TERM USE DURING CONSTRUCTION PERIOD ONLY.
4. STEEL DESIGN AS PER CSA-S16-09 DESIGN OF STEEL STRUCTURES.
5. CONTRACTOR MAY ELECT TO REPLACE BUOYANCY RING WITH EXTERNAL STUDS DESIGNED TO ENGAGE CONCRETE SHAFT BACKFILL TO RESIST UPLIFT.



B.M. ELEV.				ENGINEER'S SEAL	 THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT	PROJECT TITLE COCKBURN AND CALROSSIE COMBINED SEWER RELIEF WORKS - CONTRACT 5 TEE RISER MANHOLE DETAILS	SHEET OF 21 OF 25
				DESIGNED BY: SDG			CHECKED BY: MD
		DRAWN BY: JBC	APPROVED BY:			CITY DRAWING NUMBER LD-8432	
B	ISSUED FOR RFQ	11/2017	JBC	HOR. SCALE: AS NOTED	RELEASED FOR CONSTRUCTION:		
A	ISSUED FOR REVIEW	10/2017	JBC	VERTICAL: -	DATE:		
NO.	REVISIONS	DATE	BY	DATE	DATE	CONSULTANT DRAWING NO. C-505	