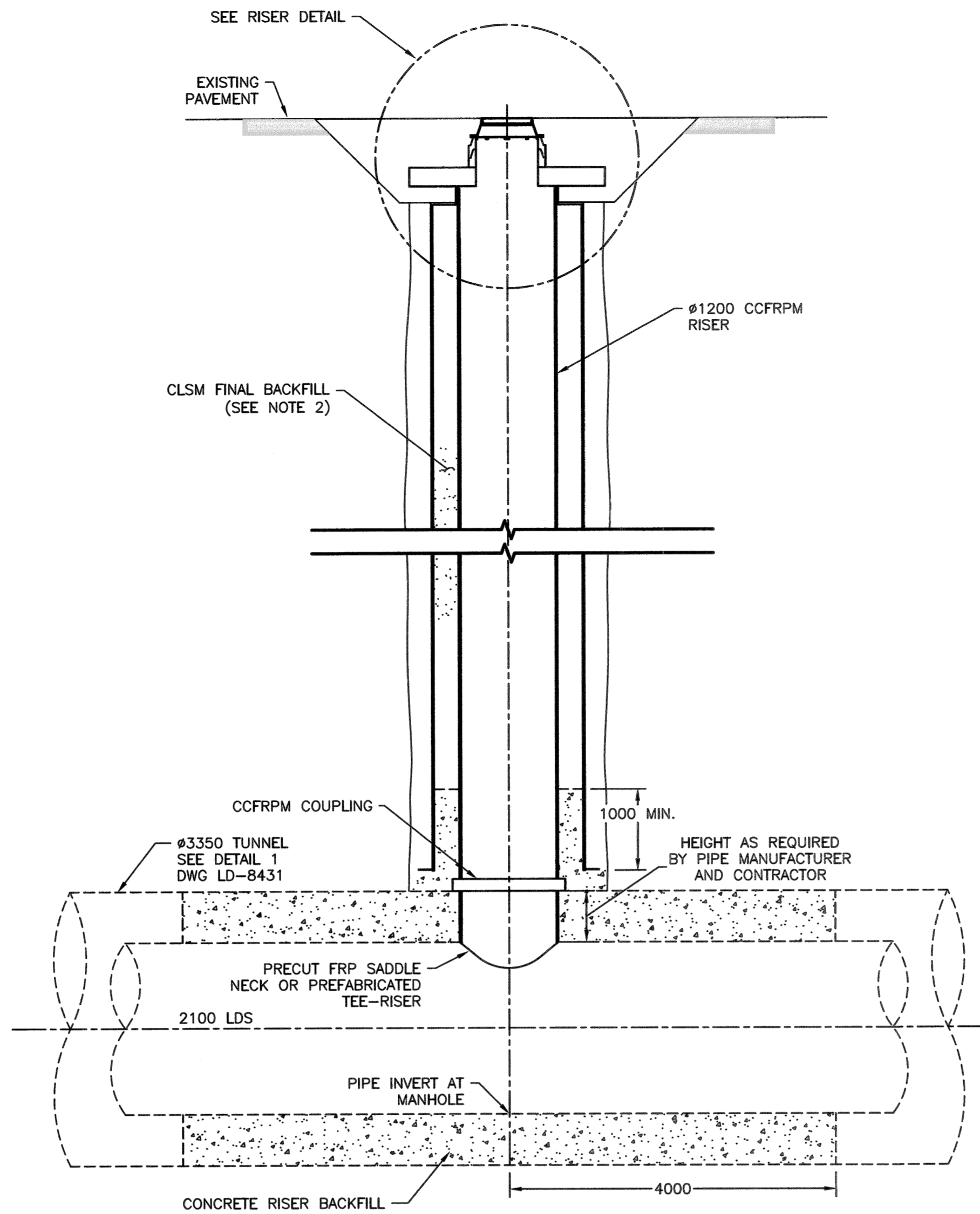
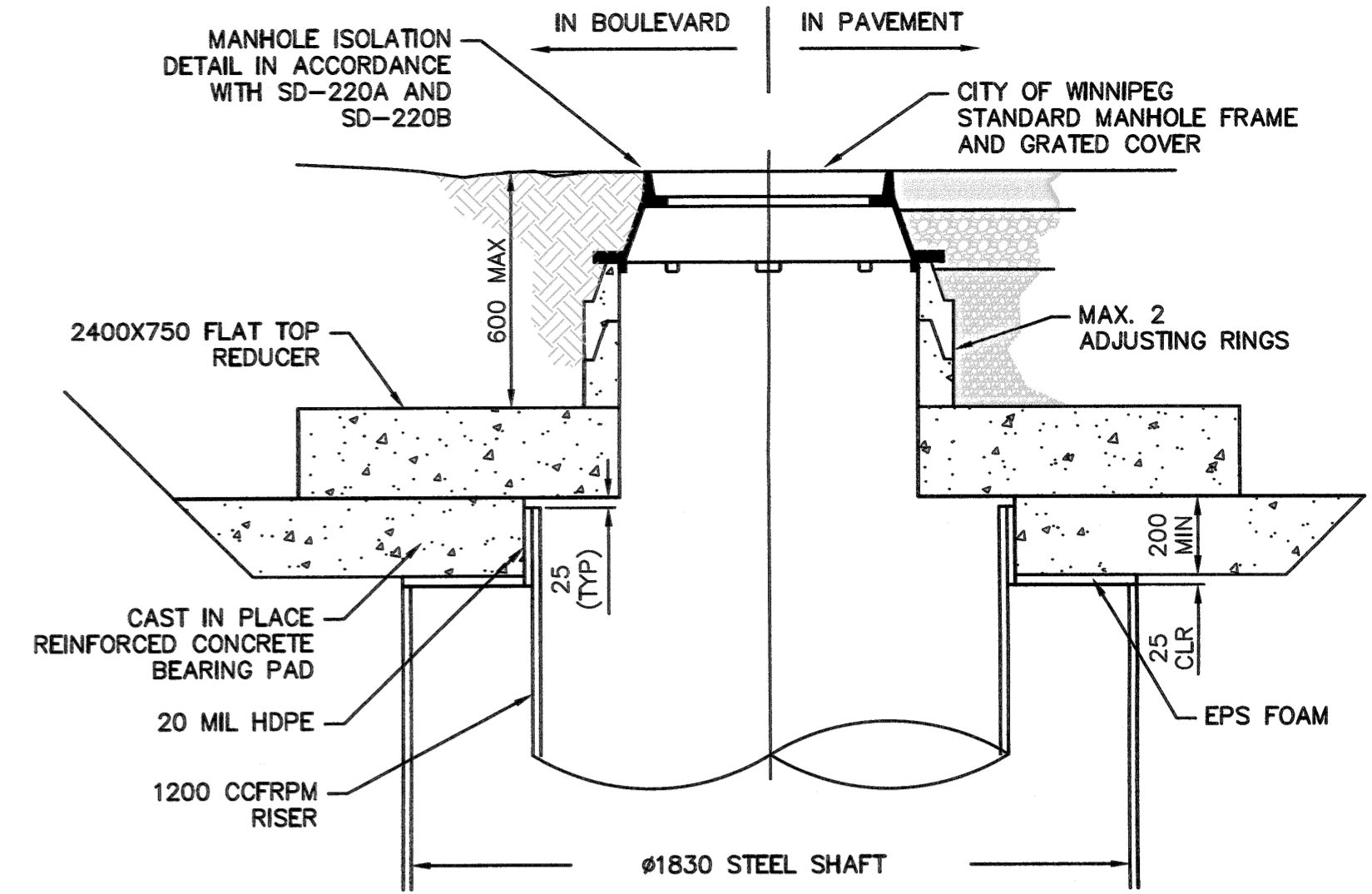


1
-
NTS
MANHOLE SHAFT DETAIL (DURING TUNNELLING)
MANHOLES MH-41, MH-42 AND MH-44



2
-
NTS
MANHOLE SHAFT DETAIL
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.

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B.M. ELEV.		KGS GROUP CONSULTING ENGINEERS	ch2m	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 COMPUTER FILE NAME C-505.dwg CITY DRAWING NUMBER LD-8432
DESIGNED BY	AF						
DRAWN BY	JBC	APPROVED BY					
HOR. SCALE:	AS NOTED	RELEASED FOR CONSTRUCTION					
VERTICAL:	-	DATE	June 19/19				
NO. REVISIONS	DATE	BY	DATE				
				CONSULTANT DRAWING NO.	C-505		