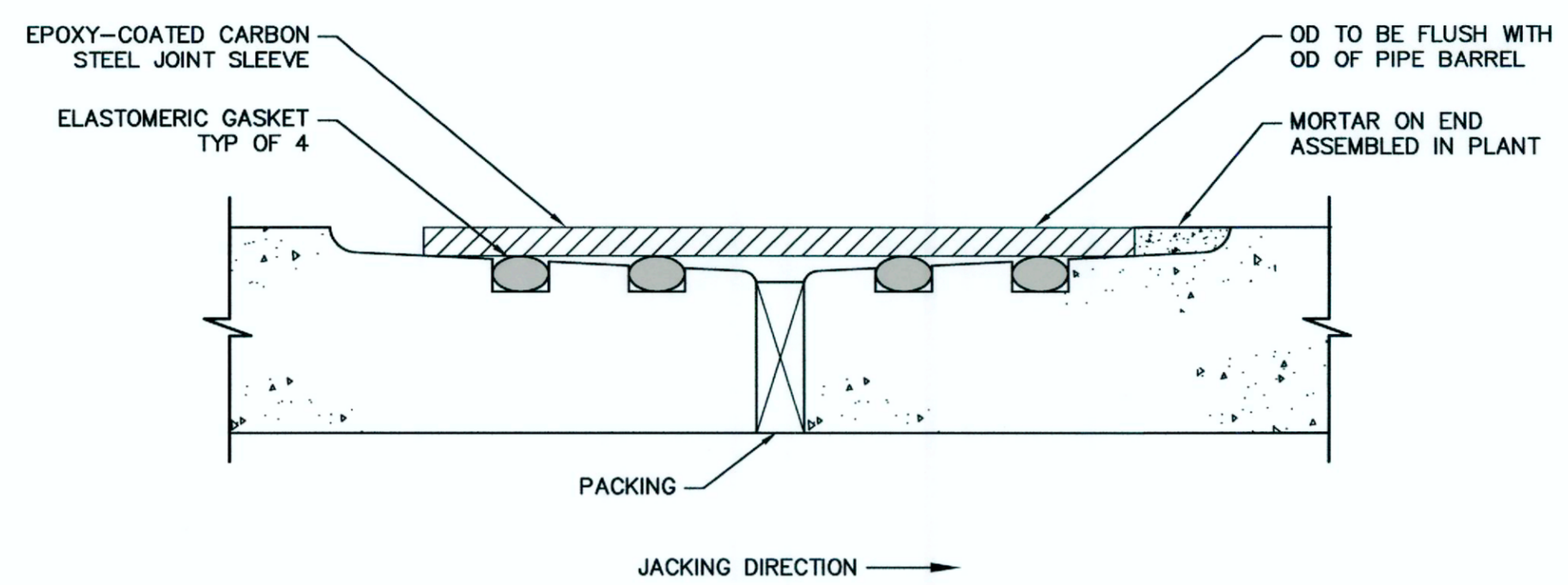


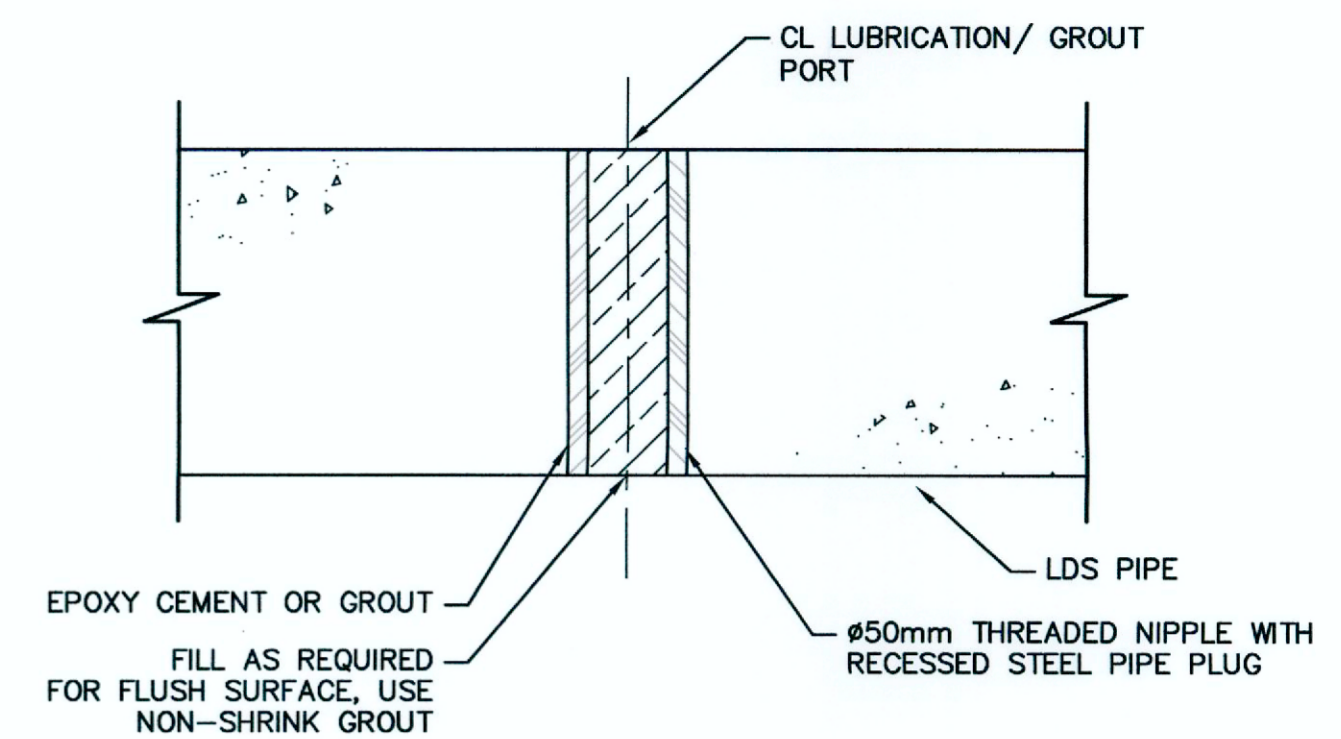
NOTES:
 1. PIPE TO BE DESIGNED AS IDENTIFIED IN SPECIFICATION CLAUSE E21.
 2. PIPE SUBMITTALS TO BE IN ACCORDANCE WITH SPECIFICATION CLAUSE E21.3

1 DIRECT-JACKED PIPE DETAIL
 - NTS



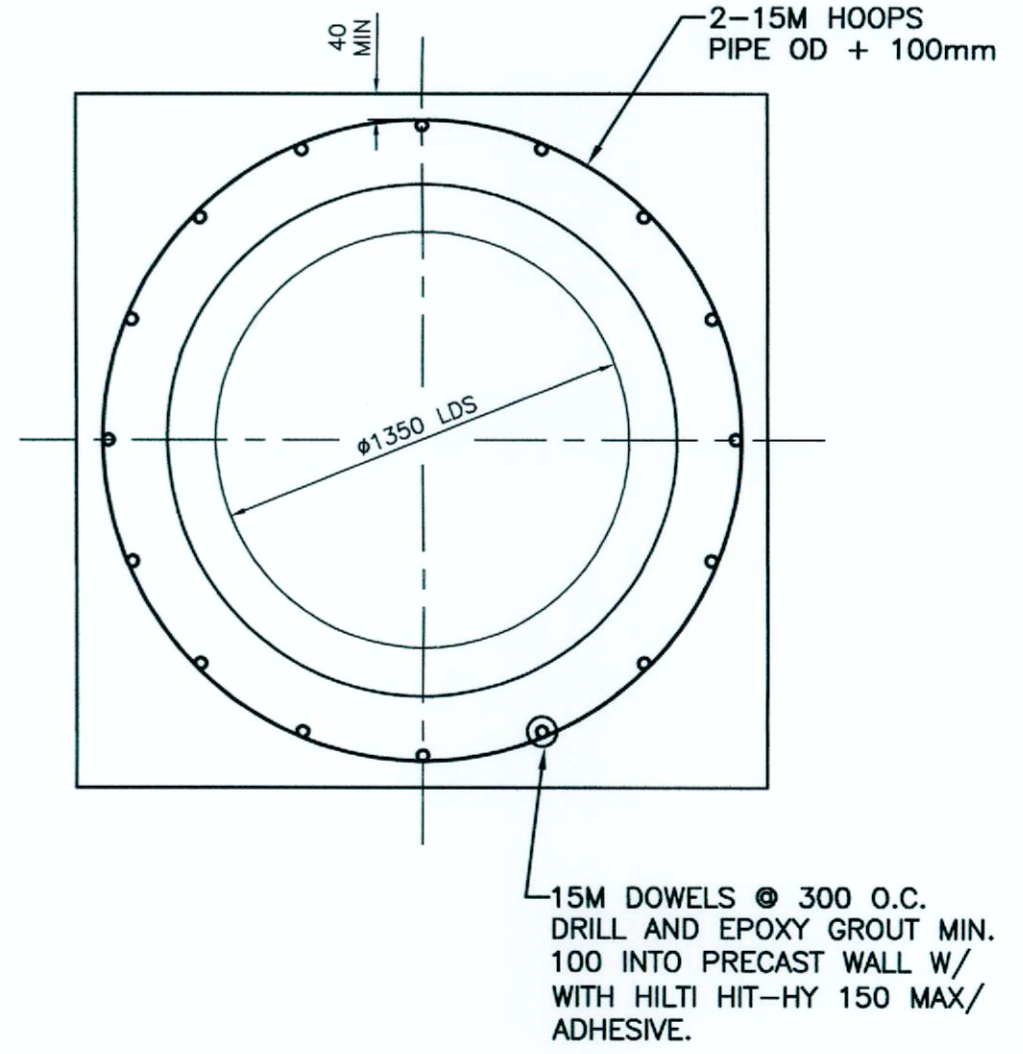
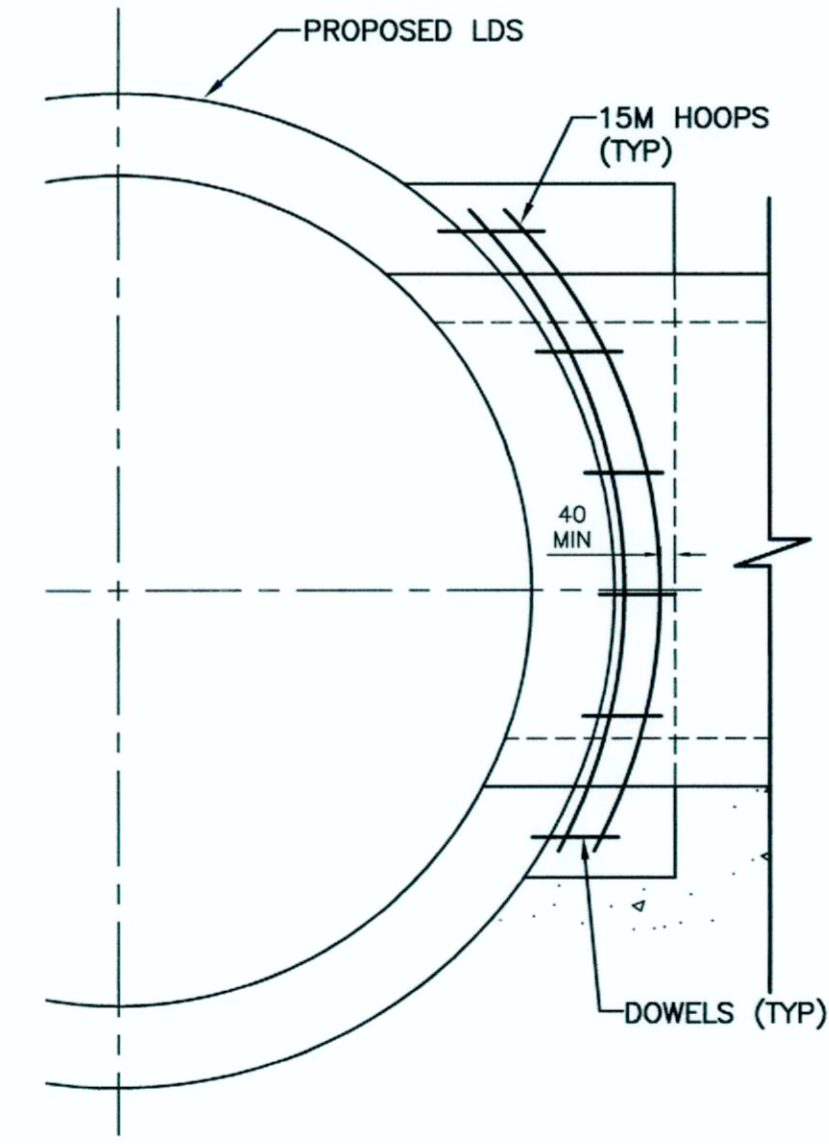
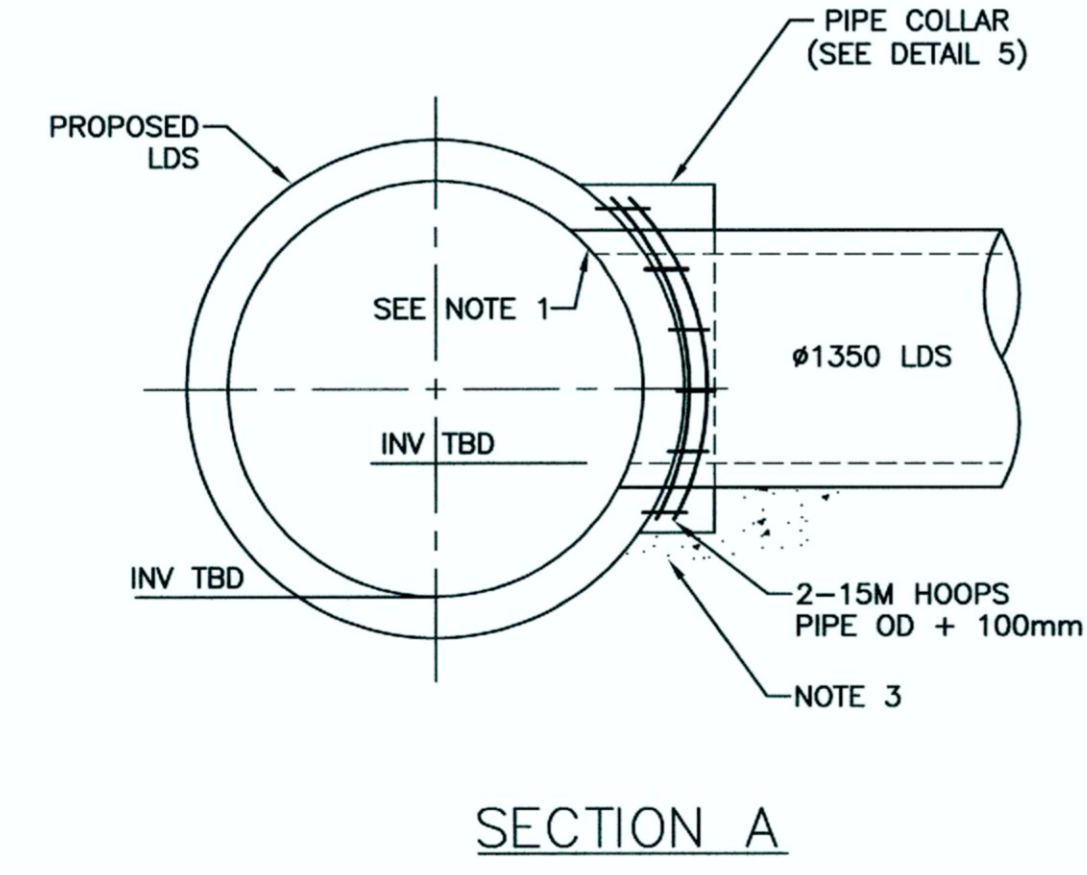
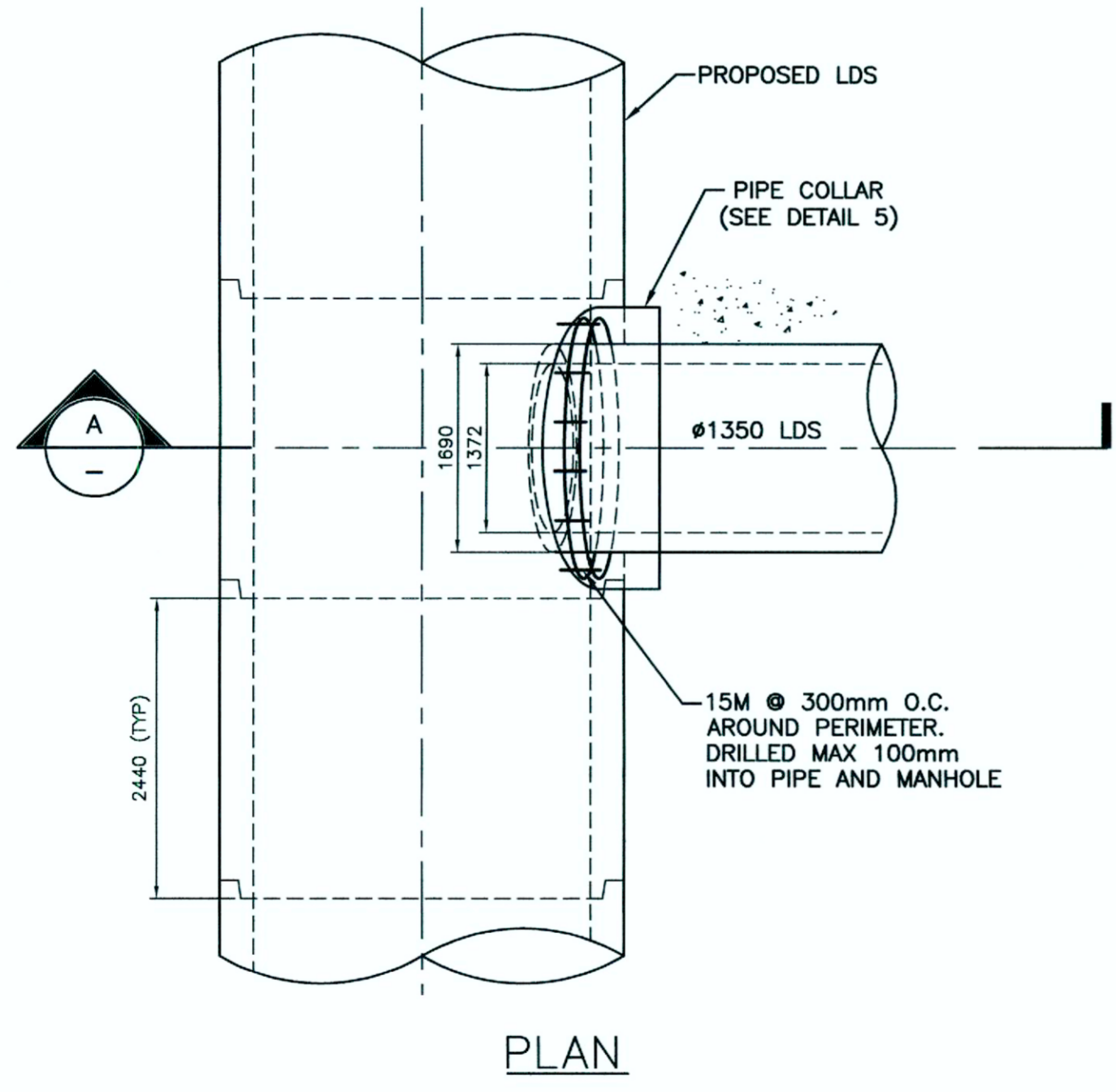
NOTE:
 CONTRACTOR SHALL SELECT APPROPRIATE PIPE JOINT TO BE COMPATIBLE WITH PLANNED TUNNELLING OPERATIONS.

2 SAMPLE JACKING PIPE JOINT DETAIL
 - NTS



NOTE:
 AFTER GROUTING, SEAL GROUT HOLE WITH RECESSED PLUG. INSTALL PLUG AND FILL REMAINING VOID FLUSH WITH THE INSIDE OF THE PIPE WITH A MIN. 25mm WITH NON-SHRINK GROUT, IN ACCORDANCE WITH SPECIFICATIONS.

3 LUBRICATION/ GROUT PORT DETAIL
 - NTS



5 TYPICAL COLLAR DETAILS
 - NTS

NOTES:
 1. 1350 LDS PIPE TO BE CUT FLUSH AND NOT PROTRUDE INTO PROPOSED LDS PIPE.
 2. 300mm THICK PIPE COLLAR IN 35MPa CONCRETE (MIN. 40mm COVER TO REBAR)
 3. PROVIDE GROUND SUPPORT AS REQUIRED TO COMPLETE CONNECTION TO LDS TRUNK. SUBMIT PROPOSED METHOD TO CONTRACT ADMINISTRATOR FOR APPROVAL.

4 STUB OUT CONNECTION PRECAST
 1:50

APEGM
 Certificate of Authorization
 CH2M HILL Canada Ltd.
 No. 1441

B.M. ELEV.		KGS GROUP CONSULTING ENGINEERS	JACOBS	ENGINEER'S SEAL 	THE CITY OF WINNIPEG WATER AND WASTE DEPARTMENT
DESIGNED BY	AF	CHECKED BY	MD	PROJECT TITLE	SHEET OF
DRAWN BY	JBC	APPROVED BY	RISO (KGS Group)	COCKBURN AND CALROSSIE COMBINED SEWER RELIEF WORKS - CONTRACT 5	15 OF 19
HOR. SCALE:	AS NOTED	RELEASED FOR CONSTRUCTION:		PIPE JACKING DETAILS	COMPUTER FILE NAME
VERTICAL:	-	DATE	01/29/19		C-513.dwg
NO. REVISIONS		DATE		CONSULTANT DRAWING NO.	CITY DRAWING NUMBER
0	ISSUED FOR TENDER	01/2019	JBC	C-513	LD-8904

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