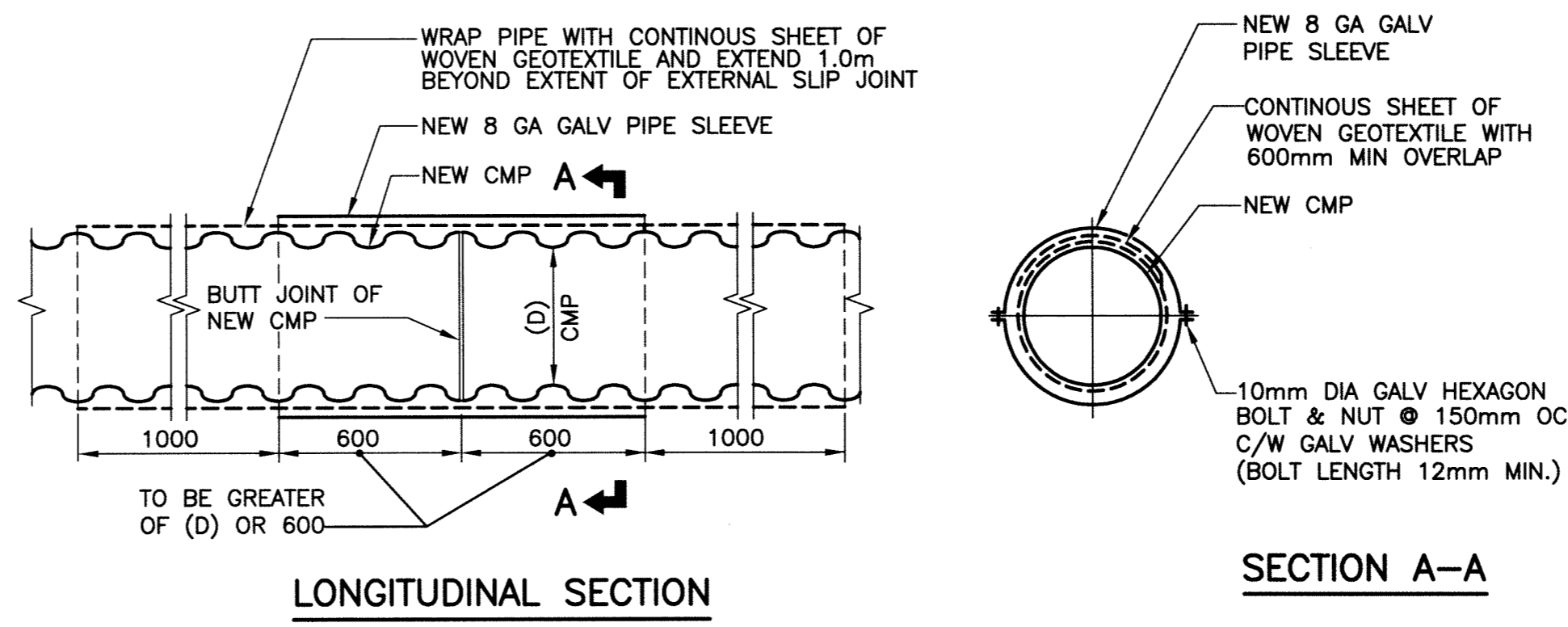
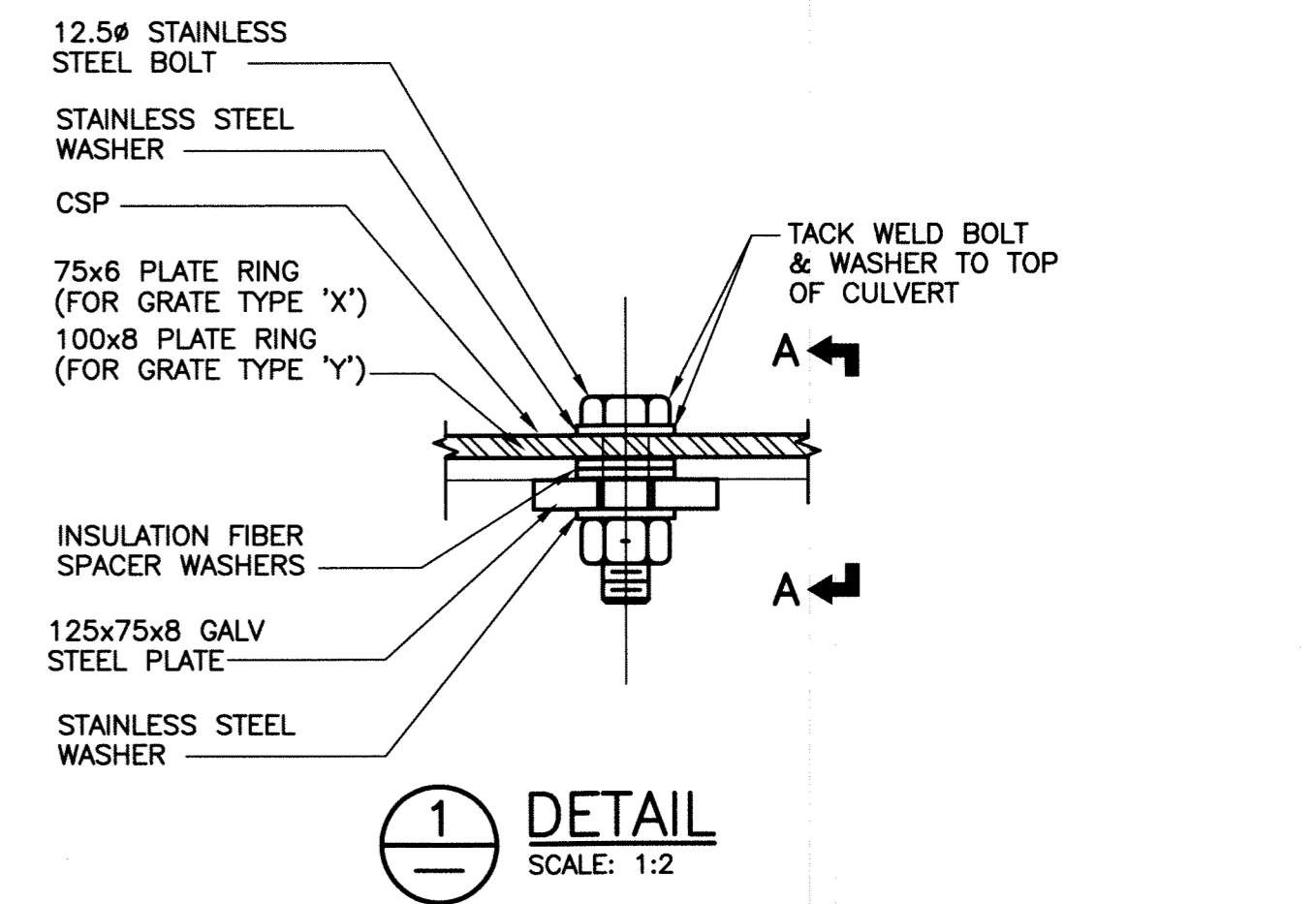


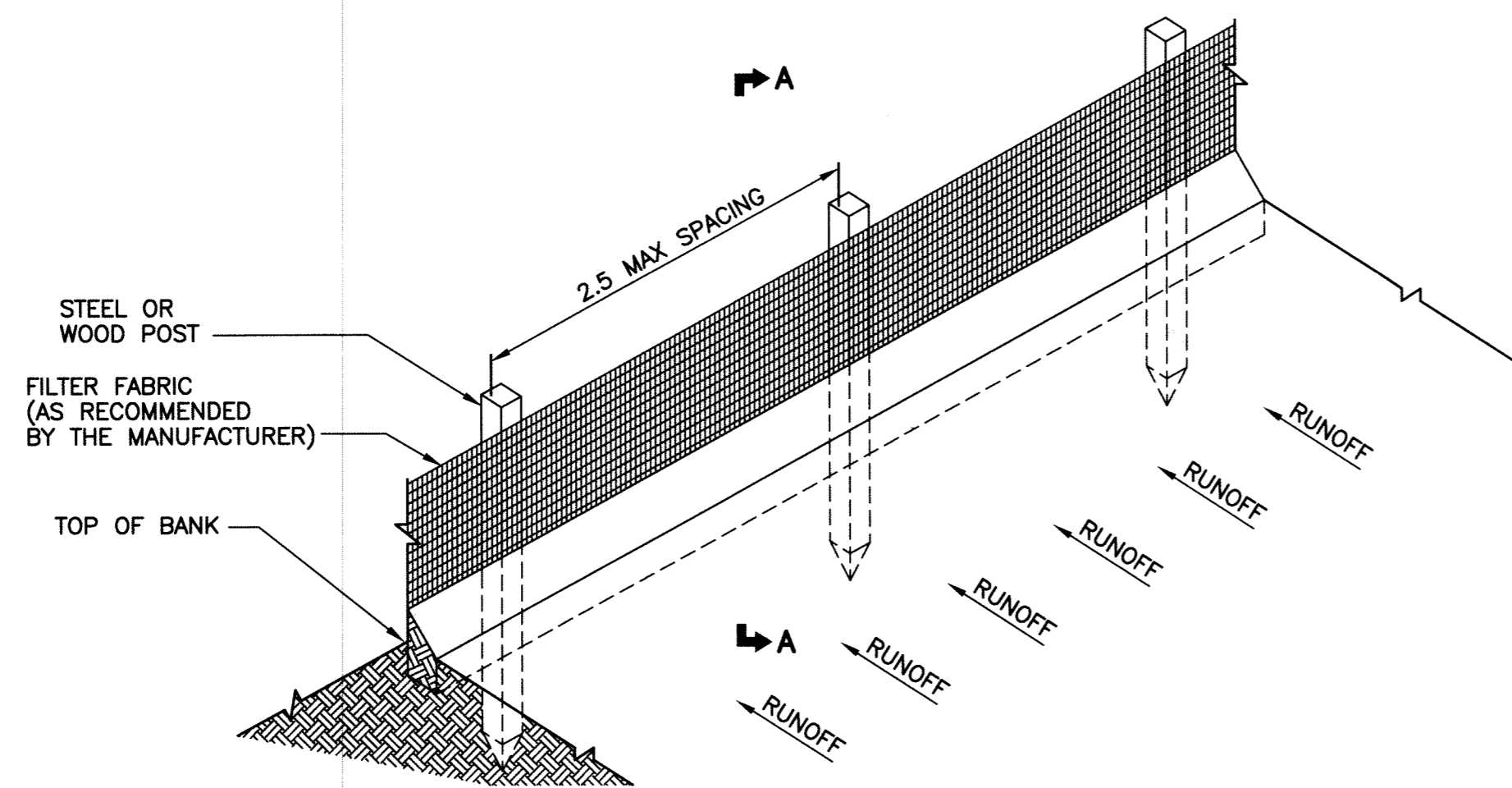
END CONDITION '1'
SCALE: N.T.S.
STANDARD PIPE END DETAIL



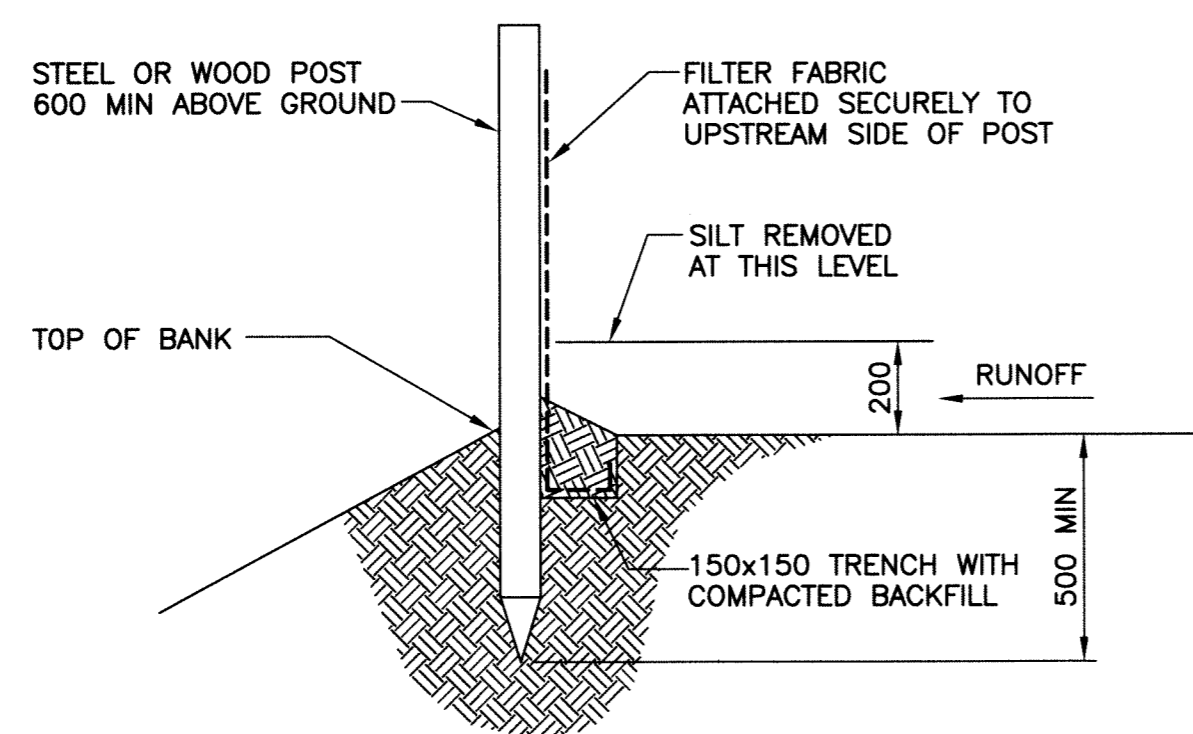
LONGITUDINAL SECTION
SCALE: 1:20
EXTERNAL SLIP JOINT DETAIL



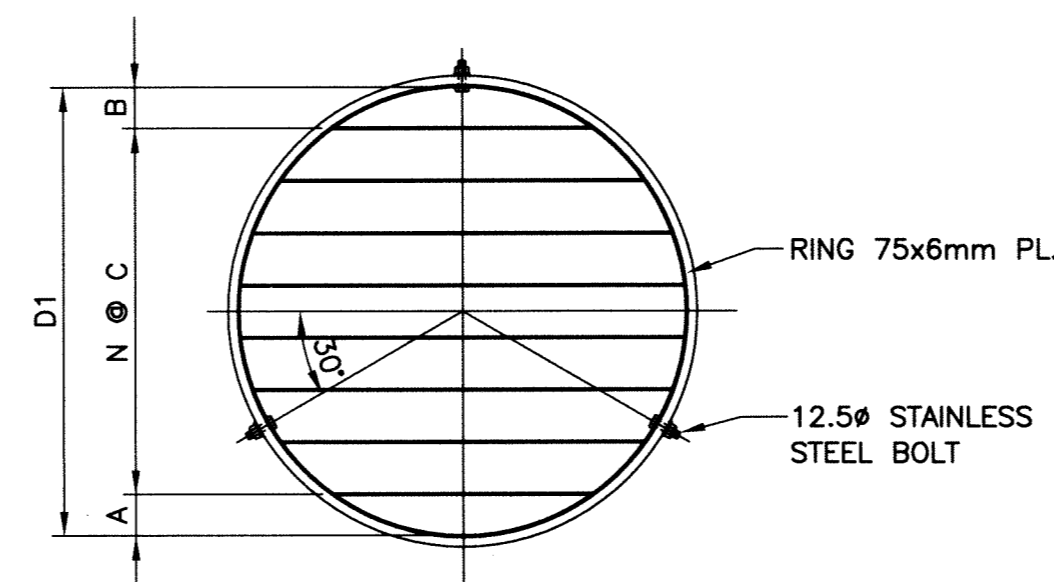
1 **DETAIL**
SCALE: 1:2



ISOMETRIC DETAIL
SCALE: N.T.S.



SECTION A-A
SCALE: N.T.S.
SILT FENCE DETAILS

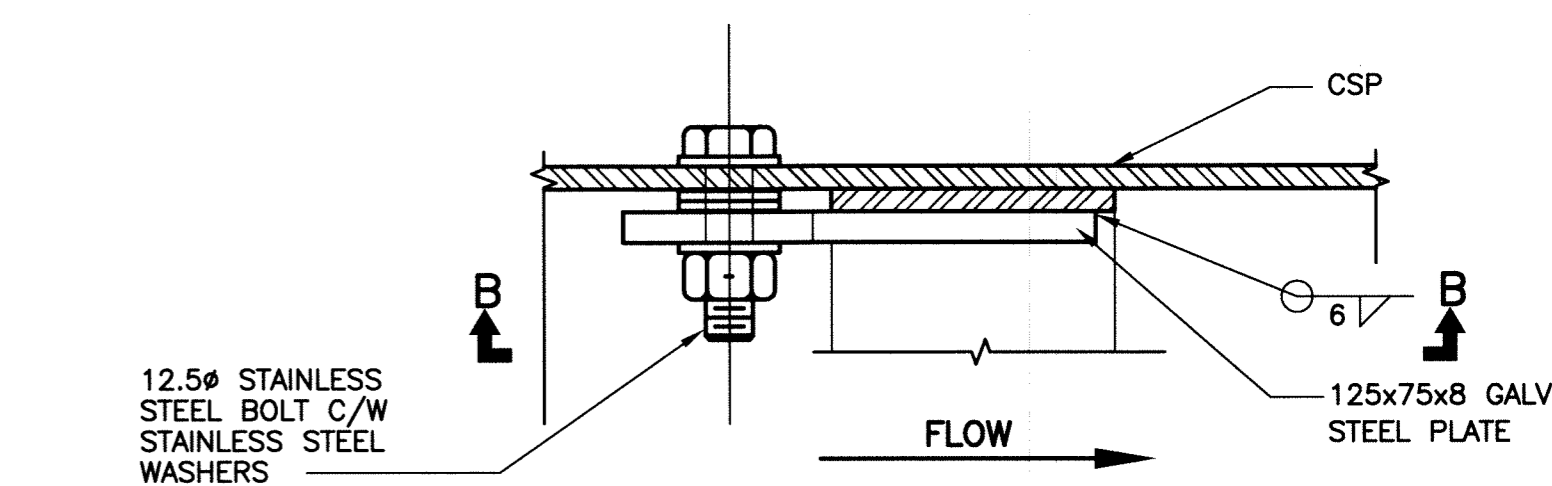


GRATING TYPE 'X'
SCALE: N.T.S.

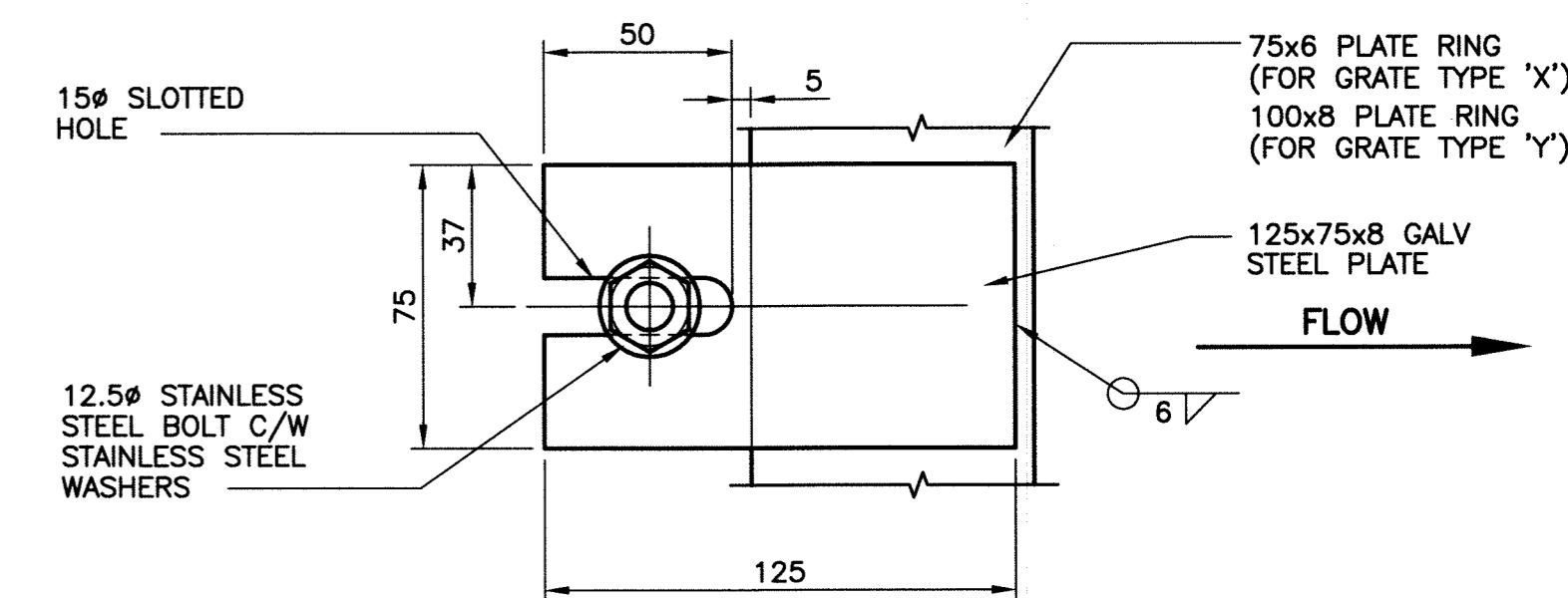
LOCATION	PIPE		END CONDITION	GRATING							WEIGHT (lbs)
	DIAMETER D	MATERIAL		DIAMETER D1	TYPE	BAR DIA.	A	B	C	N	
CRANE AVENUE (RR-27)	900	CSP	1	885±	X	20	150	75	165	4	42

- NOTE:**
1. ALL PLATES AND BARS ARE CSA G40.21-300W.
 2. ALL COMPONENTS ARE GALVANIZED.
 3. ALL BOLTS TO BE TYPE 316 STAINLESS STEEL CONFORMING TO ASTM A320 GRADE B8M

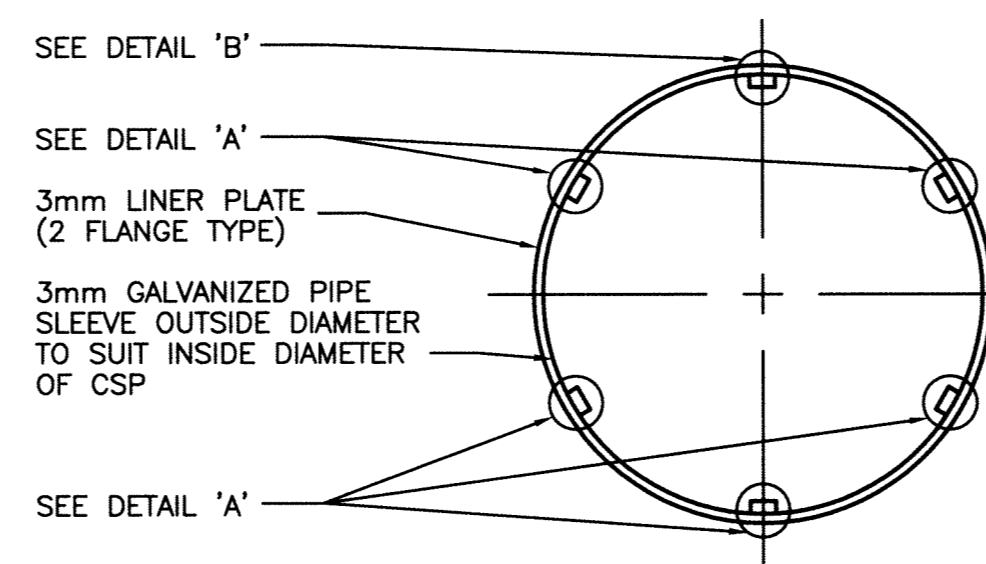
STANDARD DEBRIS GRATE DETAILS



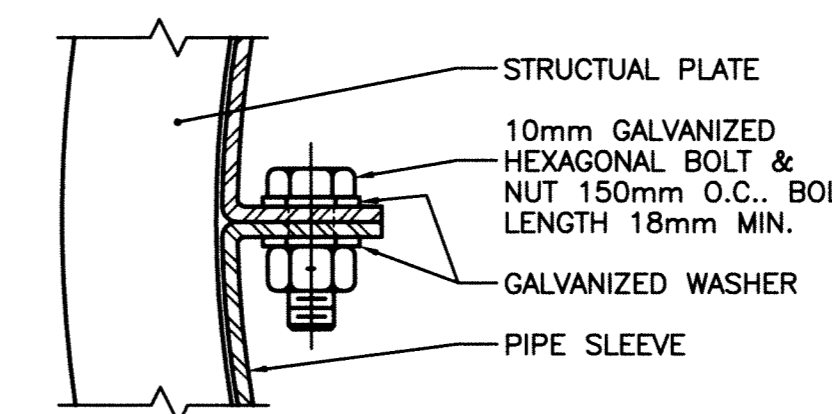
SECTION A-A
SCALE: 1:2



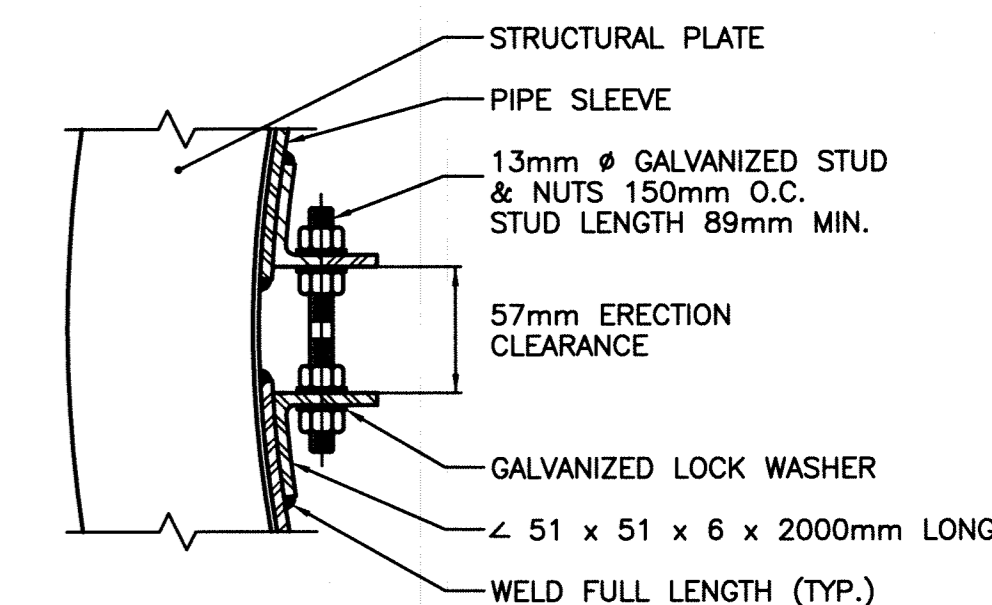
SECTION B-B
SCALE: 1:2



ELEVATION

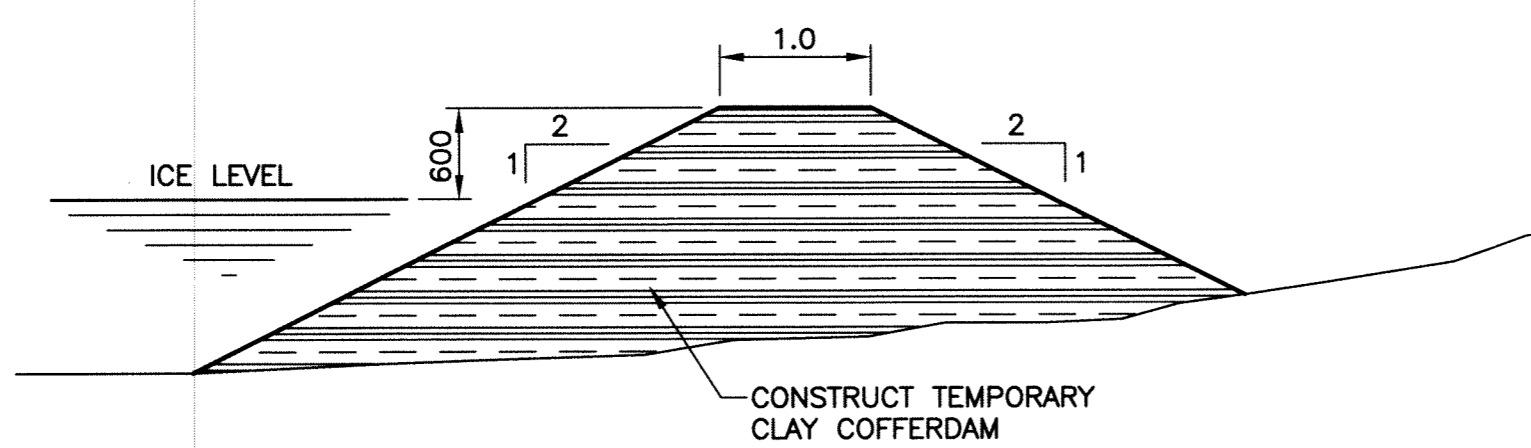


DETAIL 'A'



DETAIL 'B'

INTERNAL SLIP JOINT DETAILS
SCALE: N.T.S.



COFFER DAM DETAIL

LOCATION APPROVED UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES COMMITTEE DATE

NOTE:
LOCATION OF UNDERGROUND STRUCTURES AS SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE. BUT NO GUARANTEE IS GIVEN THAT ALL EXISTING UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL SERVICES MUST BE OBTAINED FROM THE INDIVIDUAL UTILITIES BEFORE PROCEEDING WITH CONSTRUCTION.

NO.	REVISIONS	DATE	BY	DATE
1	RE-ISSUED FOR TENDER	12/01/5	RBO	
0	ISSUED FOR TENDER	11/12/19	RBO	

B.M. KGS BASE ELEV. -

DWGS BASED ON C.S.R.S. NAD 83 SYSTEM, UTM GRID

KGS GROUP
CONSULTING ENGINEERS

DESIGNED BY: RBO
CHECKED BY: RJH
DRAWN BY: DMW
APPROVED BY: [Signature]
SCALE: AS NOTED
RELEASED FOR CONSTRUCTION: [Signature]
DATE: 11/11/03

ENGINEER'S SEAL

R.B. OFFMAN
Member 24701
REGISTERED PROFESSIONAL ENGINEER

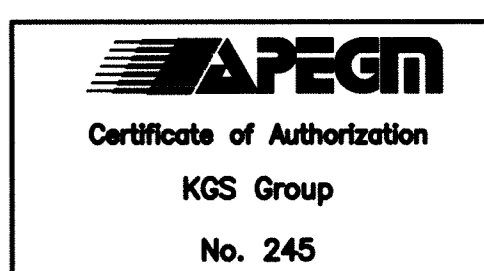
CONSULTANT DRAWING NO. 11-0107-33_07

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT

PROJECT TITLE: 2012 OUTFALL RENEWAL/REHABILITATION PROGRAM

MISCELLANEOUS DETAILS

SHEET 07 OF 07
COMPUTER FILE NAME: 11-0107-33_07
CITY DRAWING NUMBER: LD-5732



P:\Projects\2011\11-0107-33\DocControl\Released\DWG\11-0107-33_LD_5732-Rev 1.dwg - Tab: LD-5732 Plotted By: DDeroche 01/05/2012 [Thu 8:17am] COWLEGGEND