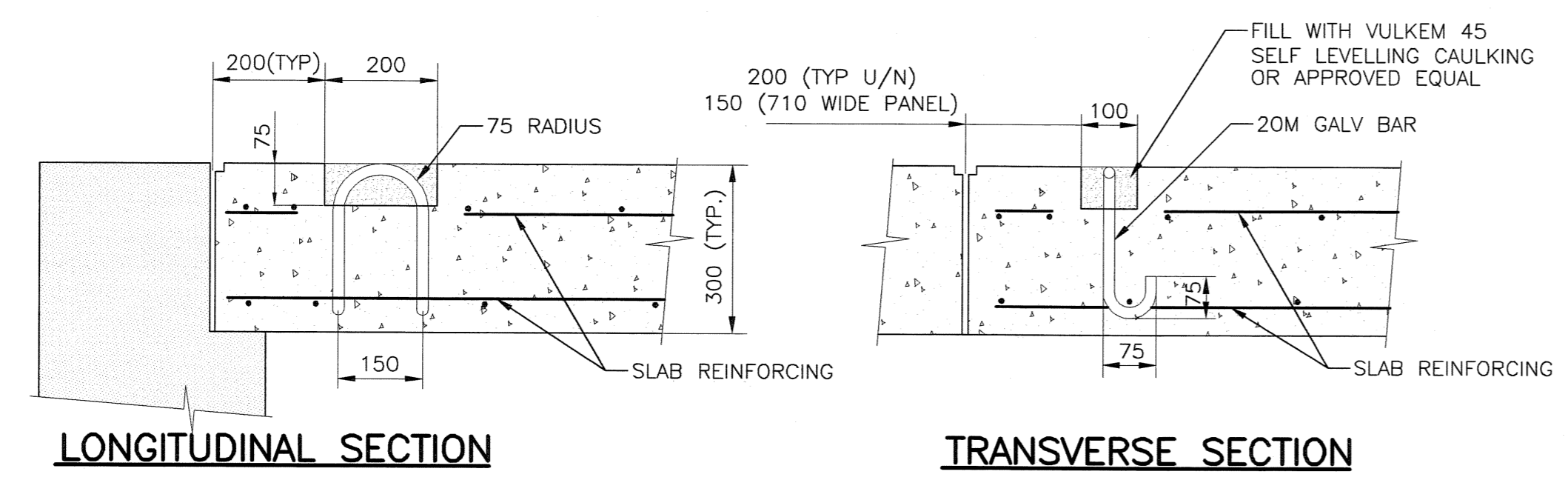


A1 SIZE 23.4" x 33.1" (594mm x 841mm)

PLOT: 05/06/22 3:32:29 PM

UMA FILE NAME: 4231-040-02_01-C-0009_RX.dwg Saved By: wdenoude



LONGITUDINAL SECTION **TRANSVERSE SECTION**

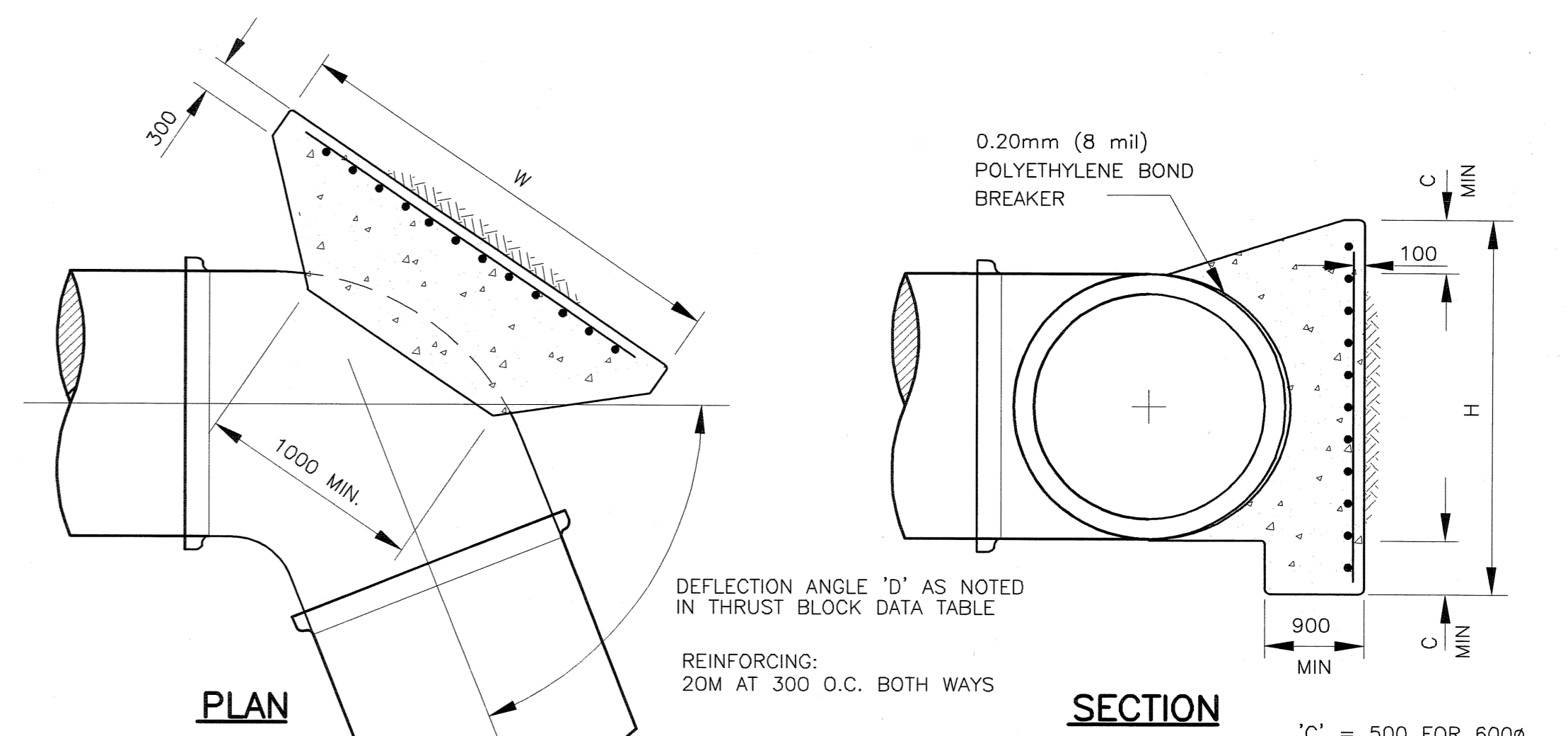
LIFTING LUG DETAILS FOR REMOVABLE PANELS
SCALE 1:10

THRUST BLOCK DATA TABLE

SIZE	BEARING AREA A (m ²)	H (m)	W (m)	DEFLECTION ANGLE D
900ø FM	5.25	2.1	2.5	22'30'00"
900ø FM	8.4	2.1	4.0	40°
900ø FM	9.45	2.1	4.5	45°
600ø FM	2.24	1.6	1.4	22'30'00"
600ø FM	3.9	1.6	2.3	40°
600ø FM	4.2	1.6	2.6	45°

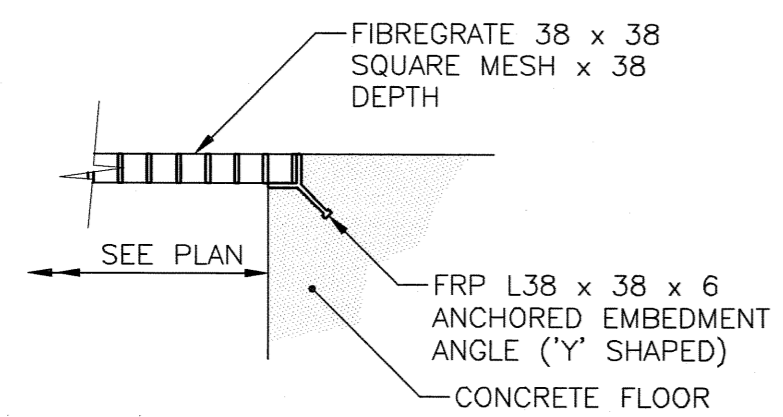
DESIGN CRITERIA

	PRESSURE	SOIL BEARING
PRESSURE TEST	1035 KPa	58 KPa
LONG TERM	700 KPa	48 KPa

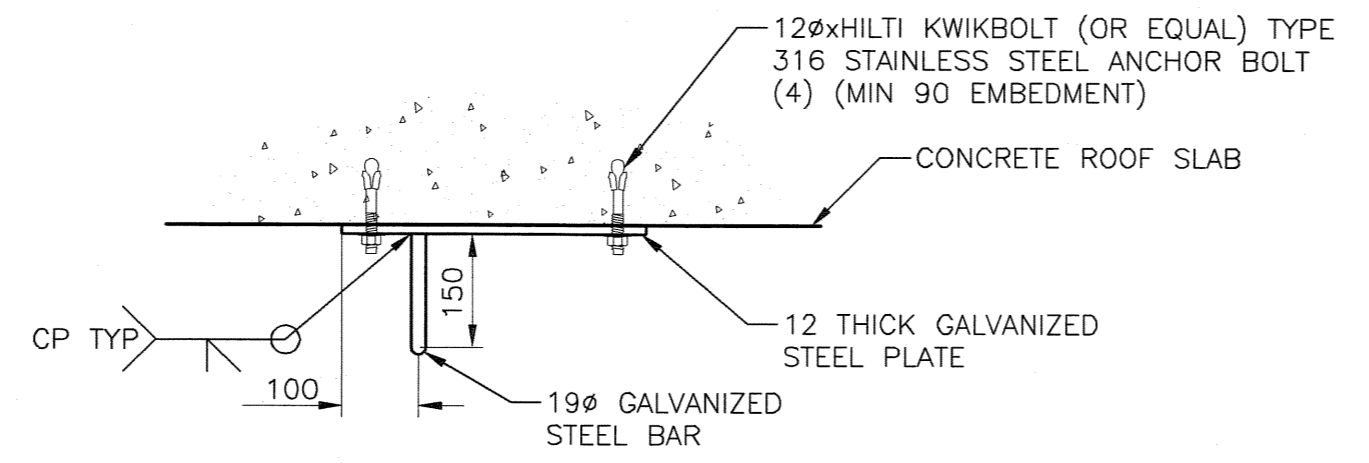


PLAN **SECTION**

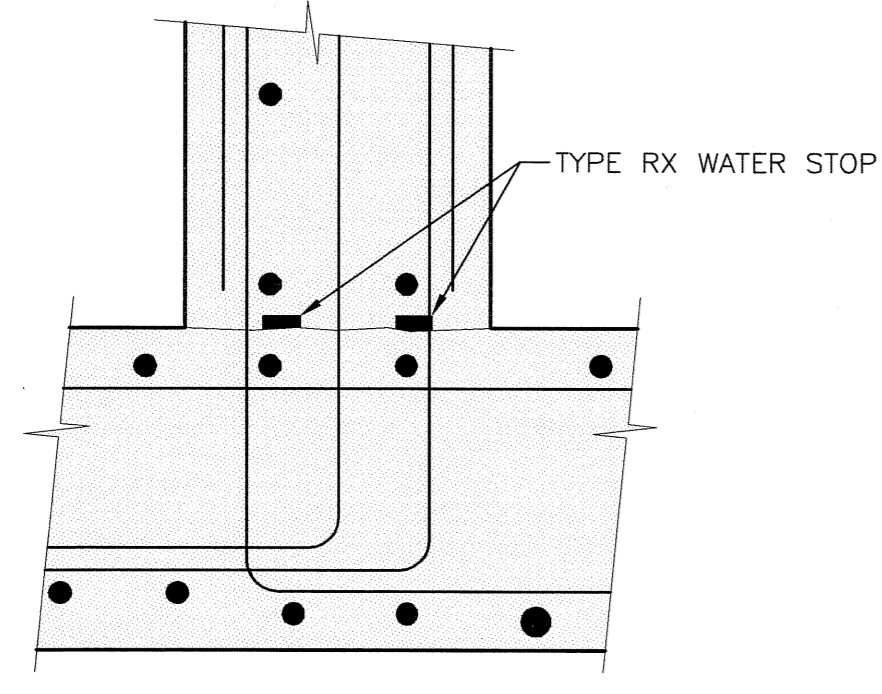
BENDS
N.T.S.



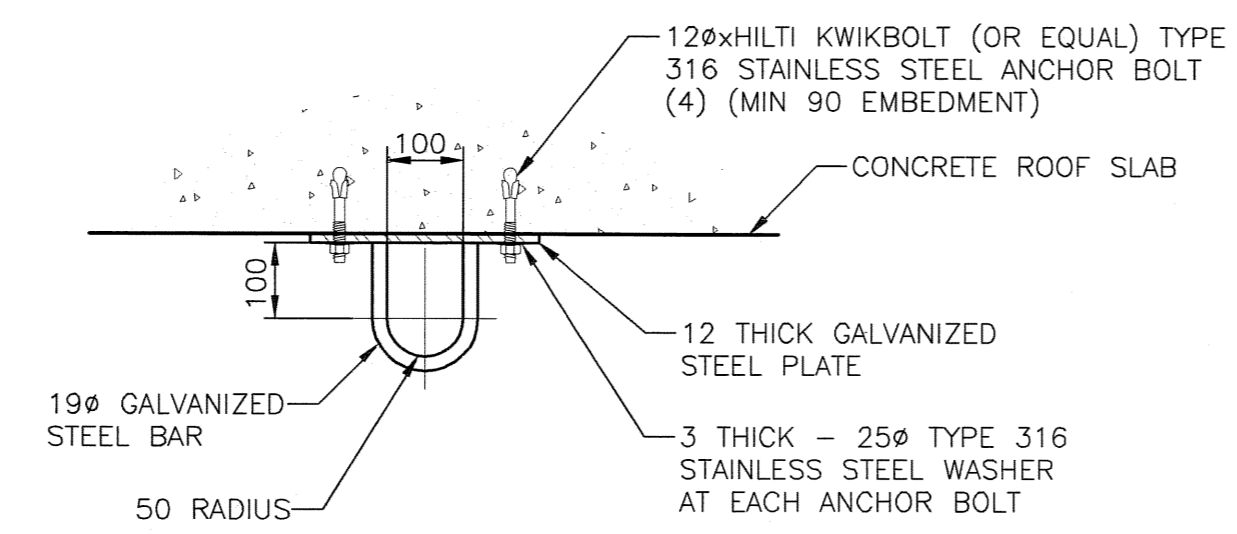
SUMP PIT GRATING DETAIL
SCALE 1:10



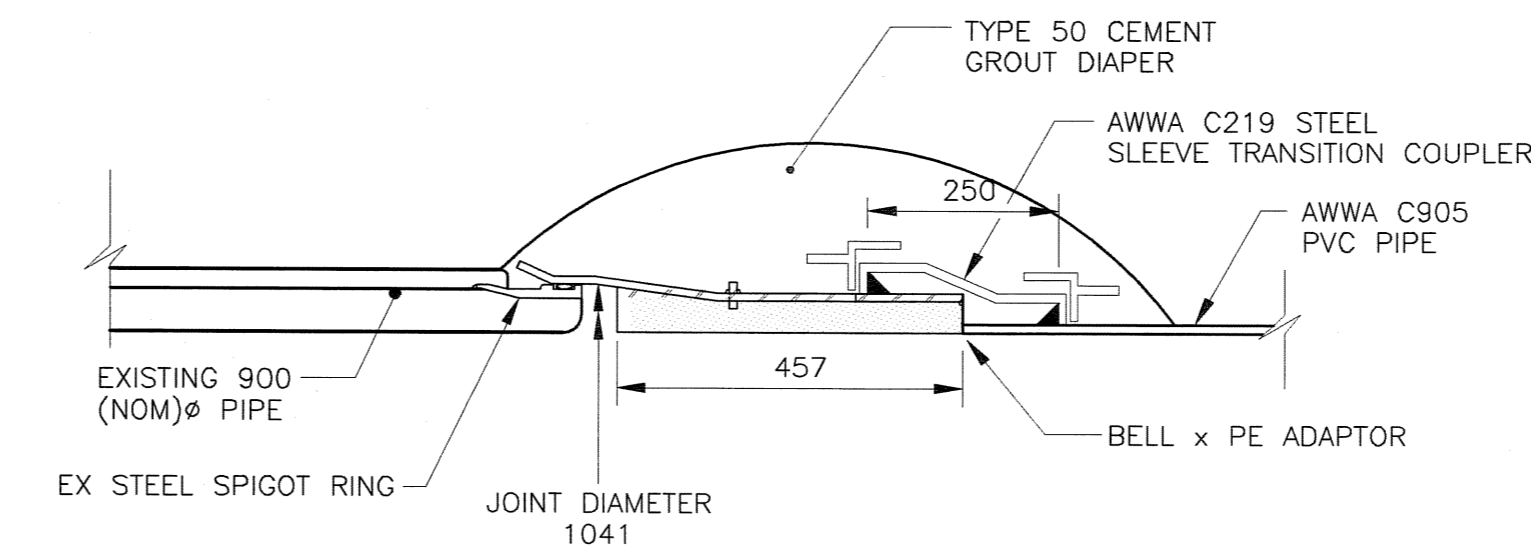
1 SECTION
D-8745 SCALE 1:10



WATERTIGHT CONSTRUCTION JOINT DETAIL
SCALE 1:10

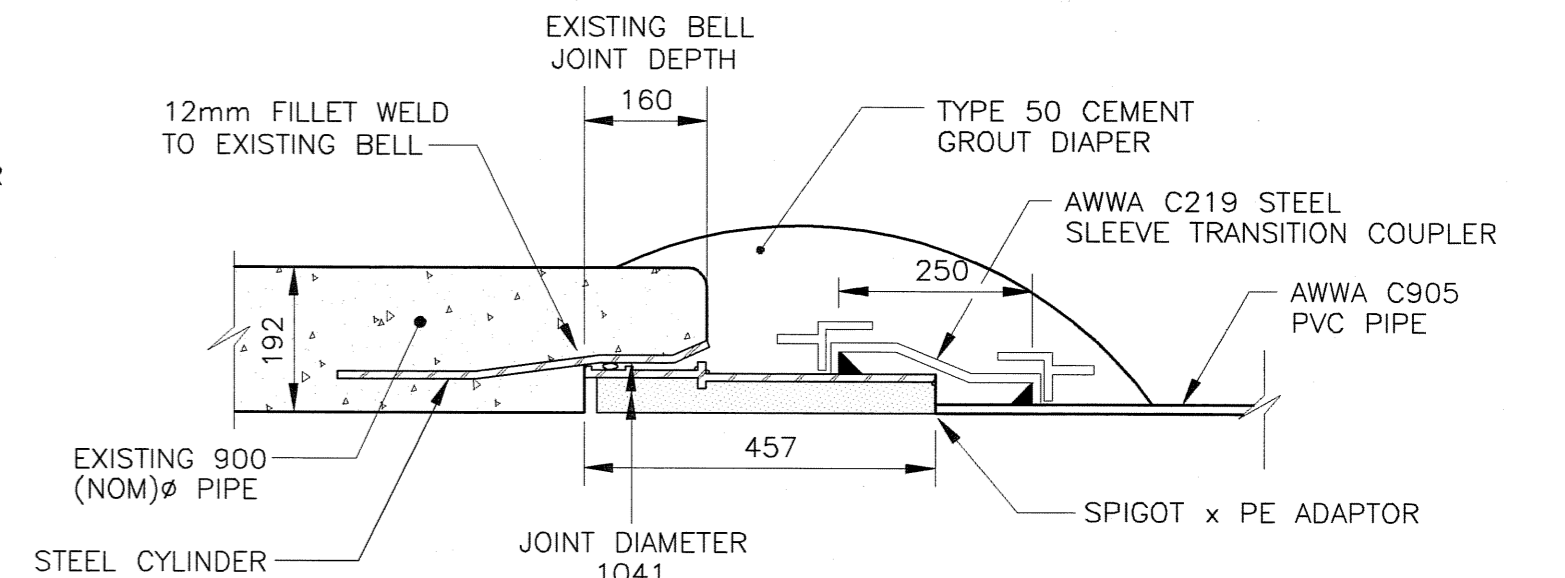


2 SECTION
D-8745 SCALE 1:10

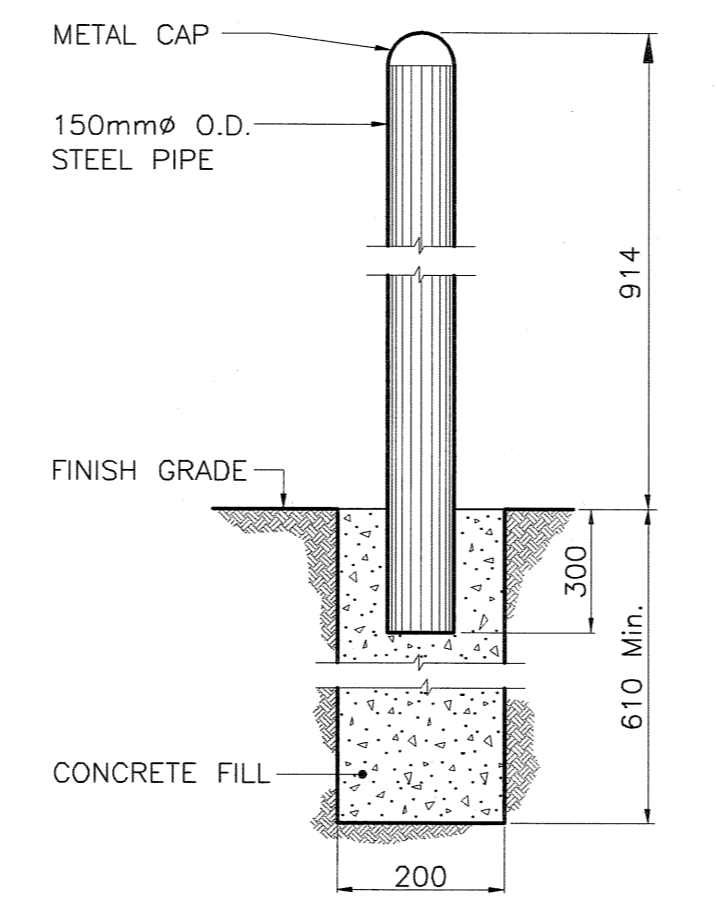


900ø BELL TO PVC CONNECTION
SCALE 1:10

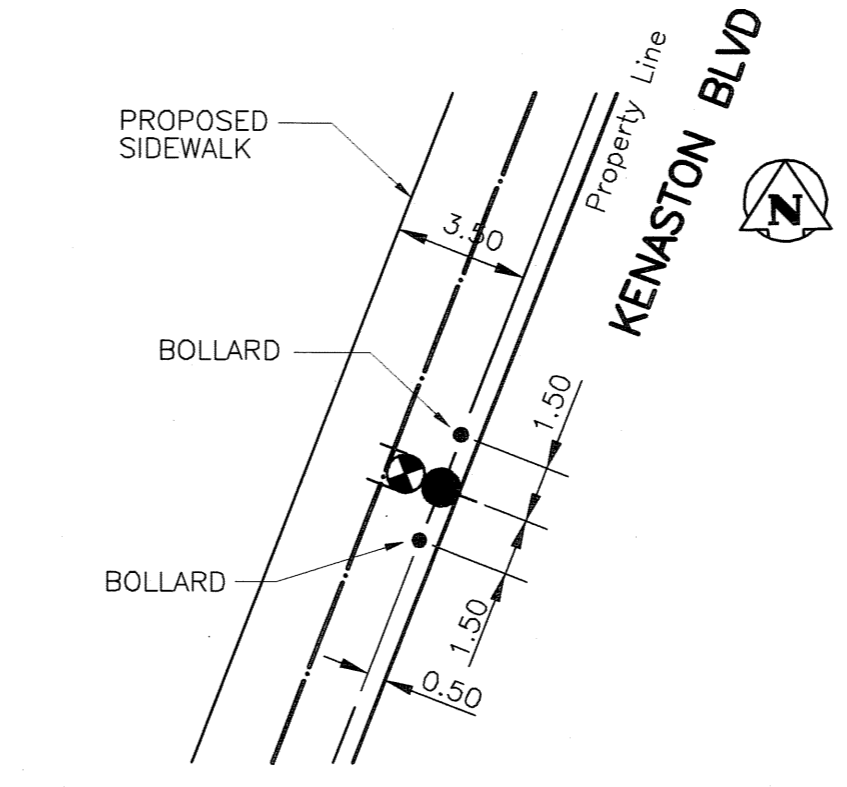
NOTE: ALL EXPOSED STEEL INCLUDING PIPE COUPLER TO BE COATED AS PER AWWA C210



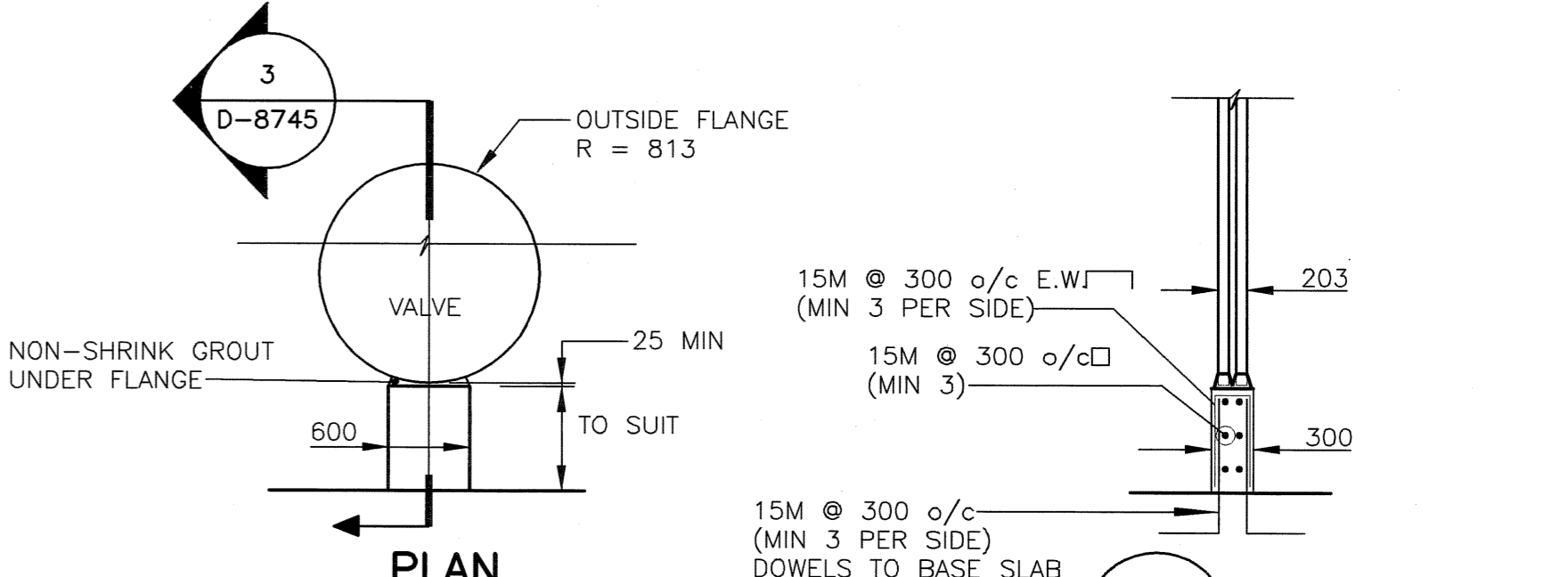
900ø SPIGOT TO PVC CONNECTION
SCALE 1:10



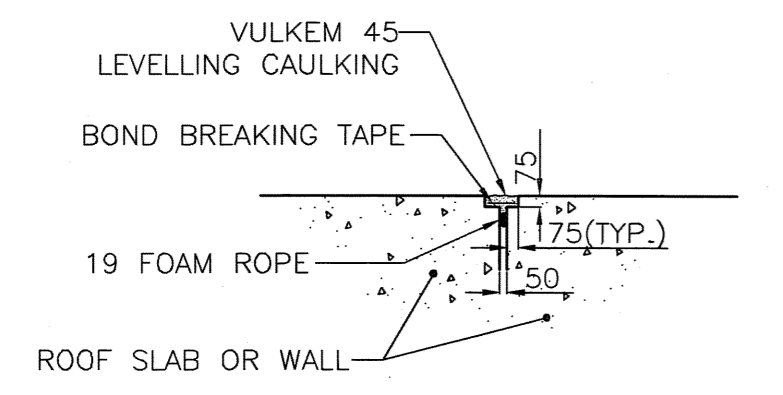
BOLLARD DETAIL
N.T.S.



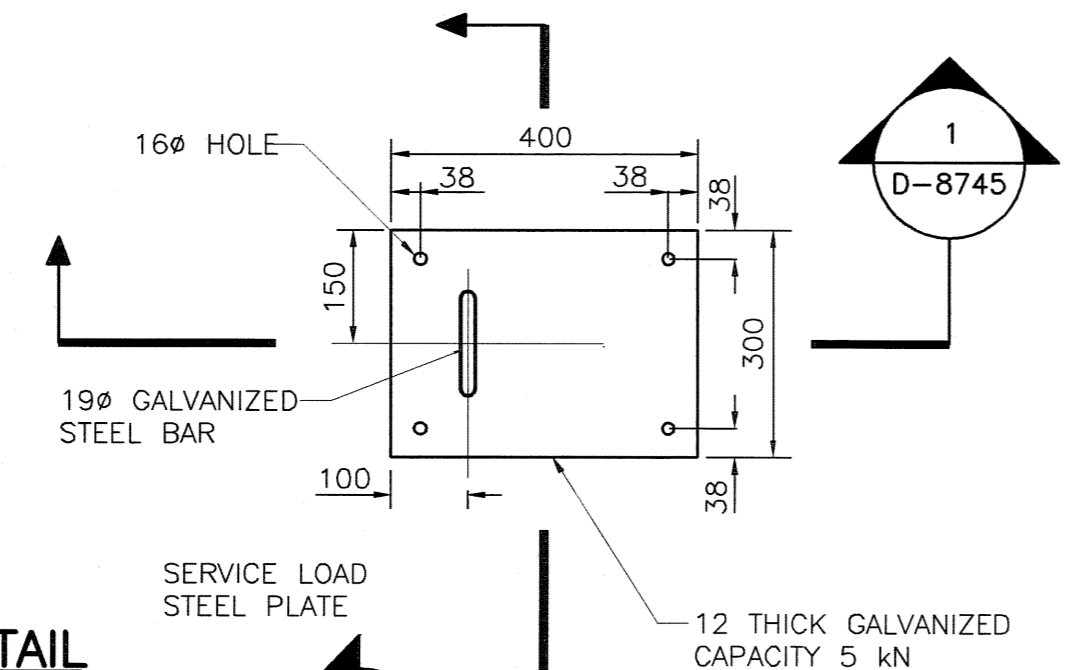
BOLLARD LOCATION PLAN
SCALE 1:25



VALVE BASE BLOCK DETAILS
SCALE 1:50



REMOVABLE SLAB CAULKING DETAIL
SCALE 1:10



LIFTING HOOK DETAIL
SCALE 1:10

LOCATION APPROVED UNDERGROUND STRUCTURES

SUPV. U/G STRUCTURES DATE COMMITTEE

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
B	ISSUED FOR TENDER	05/06/21	WJD
A	ISSUED FOR CLIENT REVIEW	05/02/28	DML

UMA AECOM	
DESIGNED BY	MGM
CHECKED BY	[Signature]
DRAWN BY	DML
APPROVED BY	[Signature]
HOR. SCALE:	AS NOTED
VERTICAL:	-
DATE	05/06/22

ENGINEER'S SEAL
PROVINCE OF MANITOBA
C.C. MACEY
REGISTERED ENGINEER
CONSULTANT DRAWING NO. 4231-040-02

THE CITY OF WINNIPEG
WATER AND WASTE DEPARTMENT
ENGINEERING DIVISION

Winnipeg

KENASTON UNDERPASS PROJECT
CHARLESWOOD AND WILKES FEEDERMAIN RELOCATION

MISCELLANEOUS DETAILS

BID OPPORTUNITY No. 84-2005
Certificate of Authorization UMA Engineering Ltd. No. 256 Expiry: April 30, 2006

SHEET 9 OF 9
CAD FILE DRAWING NUMBER 01-C-0009_RX
CITY DRAWING NUMBER D-8745