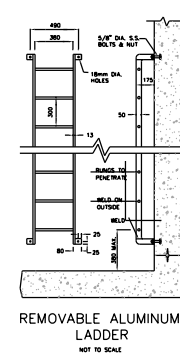
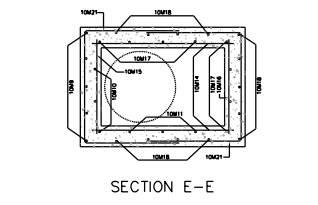
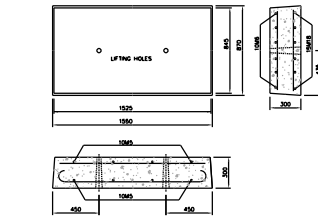
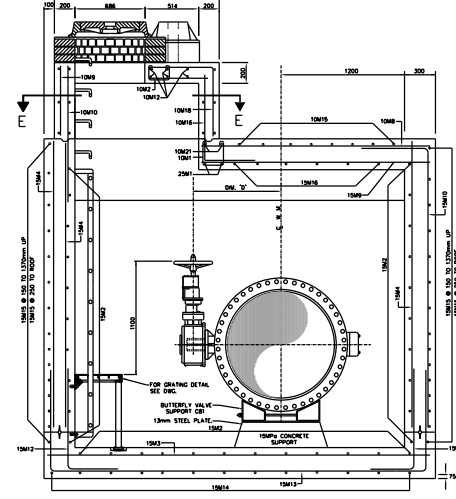
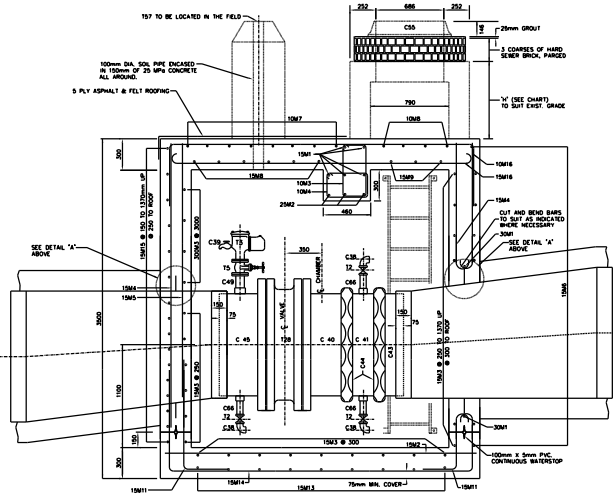
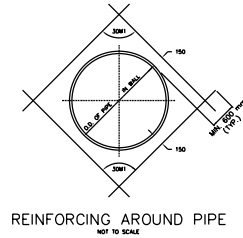
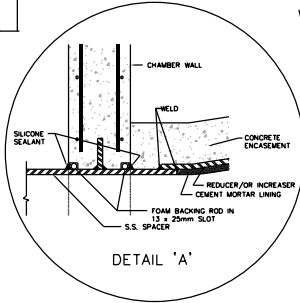


CHAMBER No.	Dim. 'A'	Dim. 'B'	Dim. 'C'	Dim. 'D'	Dim. 'E'



CHAMBER No.	CHAMBER (m)	WATERMAIN (m)	SURFACE ELEV. (m)	DIFFERENCE IN ELEV. (m)	COVER LOCATION	DRAIN TYPE/LOCATION	FOR LOCATION REFER TO PLAN No.	REMARKS

ALL DIMENSIONS SHOWN HERE ARE IN MILLIMETRES UNLESS OTHERWISE NOTED

NOTES:

- 25MPa CONCRETE TO BE USED EXCEPT AS NOTED.
- MAXIMUM SIZE OF COARSE AGGREGATE TO BE 20mm.
- COVER TO MAIN REINFORCEMENT TO BE 50mm OR AS INDICATED.
- ALL BAR DIMENSIONS ARE OUT TO OUT.
- BARS TO BE BENT COLD, MINIMUM INSIDE RADIUS TO A DIAMETERS.
- ALL CROSSING BARS TO BE WELL WIRED.
- ALL REINFORCING STEEL TO BE DEFORMED BULLET-STEEL BARS GRADE 300, CONFORMING TO C.S.A. STANDARD C30.12M.
- ALL LAPS IN REINFORCING STEEL TO BE AT LEAST 30 DIAMETERS IN LENGTH OR AS SHOWN, AND TO BE STAGGERED.
- ALL BRICKWORK TO BE OF HIGH QUALITY HARD SEWER BRICK, LAID IN FULL MORTAR BED AND JOINTS, PARGED INSIDE AND OUT.
- WATERSTOP (PVC) TO BE PROVIDED AT ALL CONSTRUCTION JOINTS.
- WATERS NECESSARY ADJUST REINFORCING STEEL TO SUIT.
- PROVIDE SUMP PIT WITH GRATING AND SLOPE FLOOR TO SUMP 10mm/METRE.
- DRAIN OUTLET TO BE LOCATED AT NEAREST POINT TO EXISTING SEWER. IF ELEVATION OF SEWER IS HIGHER THAN CHAMBER FLOOR THE DRAIN MAY BE CLAMPED TO THE WALL BY AN APPROVED METHOD. IF NO SEWER IS AVAILABLE DELETE DRAIN TYPE 'A' AND CONSTRUCT DRAIN TYPE 'B' AND INSTALL PIPE WITH STOPPER AS SHOWN ON DWG.
- DRAIN CONNECTION TO SEWER TO BE MADE BY CONTRACTOR UNLESS OTHERWISE STATED IN THE GENERAL SPECIFICATIONS.
- LADDERS, GRATINGS AND RAILINGS TO BE ALUMINUM AND OF REMOVABLE TYPE WITH STAINLESS STEEL BOLTS.
- TOP TWO STEPS AND ANY ADDITIONAL STEPS IN THE CHIMNEY TO BE OF THE REMOVABLE TYPE.
- CHAMBERS DEEPER THAN 1200mm FROM SURFACE ELEVATION TO TOP OF VALVE OPERATING SPINDLE SHALL HAVE EXTENSION SPINDLE AND GUIDE BRACKET.
- ALL ALUMINUM SURFACES CONTACTING CONCRETE TO RECEIVE ONE COAT OF STAINLESS STEEL.
- 'X' DEPENDS ON HEIGHT (H) & BARS SHALL BE COUNTED TO ENSURE THAT THE BOTTOM BAR IS LESS THAN 150mm ABOVE THE ROOF CHAMBER.

BENDING SCHEDULE

BAR No.	DA	LENGTH	a	b	c	d	SHAPE	O.C.	NO. REQD.
10M1	10	900	220	220	220	220		200	7
10M2	10	700	120	120	120	120		150	8
10M3	10	840	520	230	520	230		200	18
10M4	10	1380	280	220	280	230		200	19
10M5	10	770					HS SHOWN	200	16
10M6	10	1425					HS SHOWN	200	4
10M7	10	2200					HS SHOWN	200	8
10M8	10	2200					HS SHOWN	200	5
10M9	10	1020					HS SHOWN	200	3
10M10	10	1400					HS SHOWN	200	5
10M11	10	814					HS SHOWN	200	4
10M12	10	1080					HS SHOWN	200	6
10M13	10	1500					HS SHOWN	200	10
10M14	10	1080					HS SHOWN	200	10
10M15	10	1425					HS SHOWN	200	8
10M16	10	1425					HS SHOWN	200	8
10M17	10	1425					HS SHOWN	200	8
10M18	10	1425					HS SHOWN	200	8
10M19	10	1425					HS SHOWN	200	8
10M20	10	1425					HS SHOWN	200	8
10M21	10	1425					HS SHOWN	200	8
10M22	10	1425					HS SHOWN	200	8
10M23	10	1425					HS SHOWN	200	8
10M24	10	1425					HS SHOWN	200	8
10M25	10	1425					HS SHOWN	200	8
10M26	10	1425					HS SHOWN	200	8
10M27	10	1425					HS SHOWN	200	8
10M28	10	1425					HS SHOWN	200	8
10M29	10	1425					HS SHOWN	200	8
10M30	10	1425					HS SHOWN	200	8
10M31	10	1425					HS SHOWN	200	8
10M32	10	1425					HS SHOWN	200	8
10M33	10	1425					HS SHOWN	200	8
10M34	10	1425					HS SHOWN	200	8
10M35	10	1425					HS SHOWN	200	8
10M36	10	1425					HS SHOWN	200	8
10M37	10	1425					HS SHOWN	200	8
10M38	10	1425					HS SHOWN	200	8
10M39	10	1425					HS SHOWN	200	8
10M40	10	1425					HS SHOWN	200	8
10M41	10	1425					HS SHOWN	200	8
10M42	10	1425					HS SHOWN	200	8
10M43	10	1425					HS SHOWN	200	8
10M44	10	1425					HS SHOWN	200	8
10M45	10	1425					HS SHOWN	200	8
10M46	10	1425					HS SHOWN	200	8
10M47	10	1425					HS SHOWN	200	8
10M48	10	1425					HS SHOWN	200	8
10M49	10	1425					HS SHOWN	200	8
10M50	10	1425					HS SHOWN	200	8
10M51	10	1425					HS SHOWN	200	8
10M52	10	1425					HS SHOWN	200	8
10M53	10	1425					HS SHOWN	200	8
10M54	10	1425					HS SHOWN	200	8
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10M58	10	1425					HS SHOWN	200	8
10M59	10	1425					HS SHOWN	200	8
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10M61	10	1425					HS SHOWN	200	8
10M62	10	1425					HS SHOWN	200	8
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10M64	10	1425					HS SHOWN	200	8
10M65	10	1425					HS SHOWN	200	8
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10M70	10	1425					HS SHOWN	200	8
10M71	10	1425					HS SHOWN	200	8
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10M95	10	1425					HS SHOWN	200	8
10M96	10	1425					HS SHOWN	200	8
10M97	10	1425					HS SHOWN	200	8
10M98	10	1425					HS SHOWN	200	8
10M99	10	1425					HS SHOWN	200	8
10M100	10	1425					HS SHOWN	200	8

FOR REINFORCING AT DRAIN REFER TO SUMP AND DRAIN DETAIL DWG.

MATERIAL LIST

MARK	SUPPLIED BY CITY OF TORONTO	MARK	SUPPLIED BY CONTRACTOR
12	4-50mm GATE VALVE (SCREWS)	C40	1-100mm FABRICATED S.S. FL-VCT CONNECTION
13	1-100mm AIR VALVE (FLANGED)	C41	1-100mm FABRICATED S.S. VCT. TO VCT. SPACER
14	1-100mm GATE VALVE (FLANGED)	C42	1-100mm FABRICATED S.S. VCT. FLANGE CONNECTION
15	1-100mm BACKWATER CHECK VALVE	C43	2-100mm VCT. COUPLING, STEEL/FL. SHOULDER
16	1-100mm BACKWATER CHECK VALVE	C44	1-100mm FABRICATED S.S. FLANGE ASSEMBLY
17	CENTRE PLUG FOR CHAMBER COVER	C45	2-100mm TO 1000mm REDUCERS
18	1-100mm BUTTERFLY VALVE	C46	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
19	1-100mm BUTTERFLY VALVE	C47	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
20	1-100mm BUTTERFLY VALVE	C48	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
21	1-100mm BUTTERFLY VALVE	C49	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
22	1-100mm BUTTERFLY VALVE	C50	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
23	1-100mm BUTTERFLY VALVE	C51	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
24	1-100mm BUTTERFLY VALVE	C52	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
25	1-100mm BUTTERFLY VALVE	C53	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
26	1-100mm BUTTERFLY VALVE	C54	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
27	1-100mm BUTTERFLY VALVE	C55	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
28	1-100mm BUTTERFLY VALVE	C56	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
29	1-100mm BUTTERFLY VALVE	C57	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
30	1-100mm BUTTERFLY VALVE	C58	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
31	1-100mm BUTTERFLY VALVE	C59	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
32	1-100mm BUTTERFLY VALVE	C60	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
33	1-100mm BUTTERFLY VALVE	C61	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
34	1-100mm BUTTERFLY VALVE	C62	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
35	1-100mm BUTTERFLY VALVE	C63	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
36	1-100mm BUTTERFLY VALVE	C64	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
37	1-100mm BUTTERFLY VALVE	C65	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
38	1-100mm BUTTERFLY VALVE	C66	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
39	1-100mm BUTTERFLY VALVE	C67	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
40	1-100mm BUTTERFLY VALVE	C68	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
41	1-100mm BUTTERFLY VALVE	C69	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
42	1-100mm BUTTERFLY VALVE	C70	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
43	1-100mm BUTTERFLY VALVE	C71	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
44	1-100mm BUTTERFLY VALVE	C72	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
45	1-100mm BUTTERFLY VALVE	C73	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
46	1-100mm BUTTERFLY VALVE	C74	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
47	1-100mm BUTTERFLY VALVE	C75	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAWING No. 410 AND 411 (WITHOUT CENTRE PLUG)
48	1-100mm BUTTERFLY VALVE	C76	1-100mm COVER WITH FRAME AS PER METRO-POLITAN STANDARD AREA STANDARD DRAW