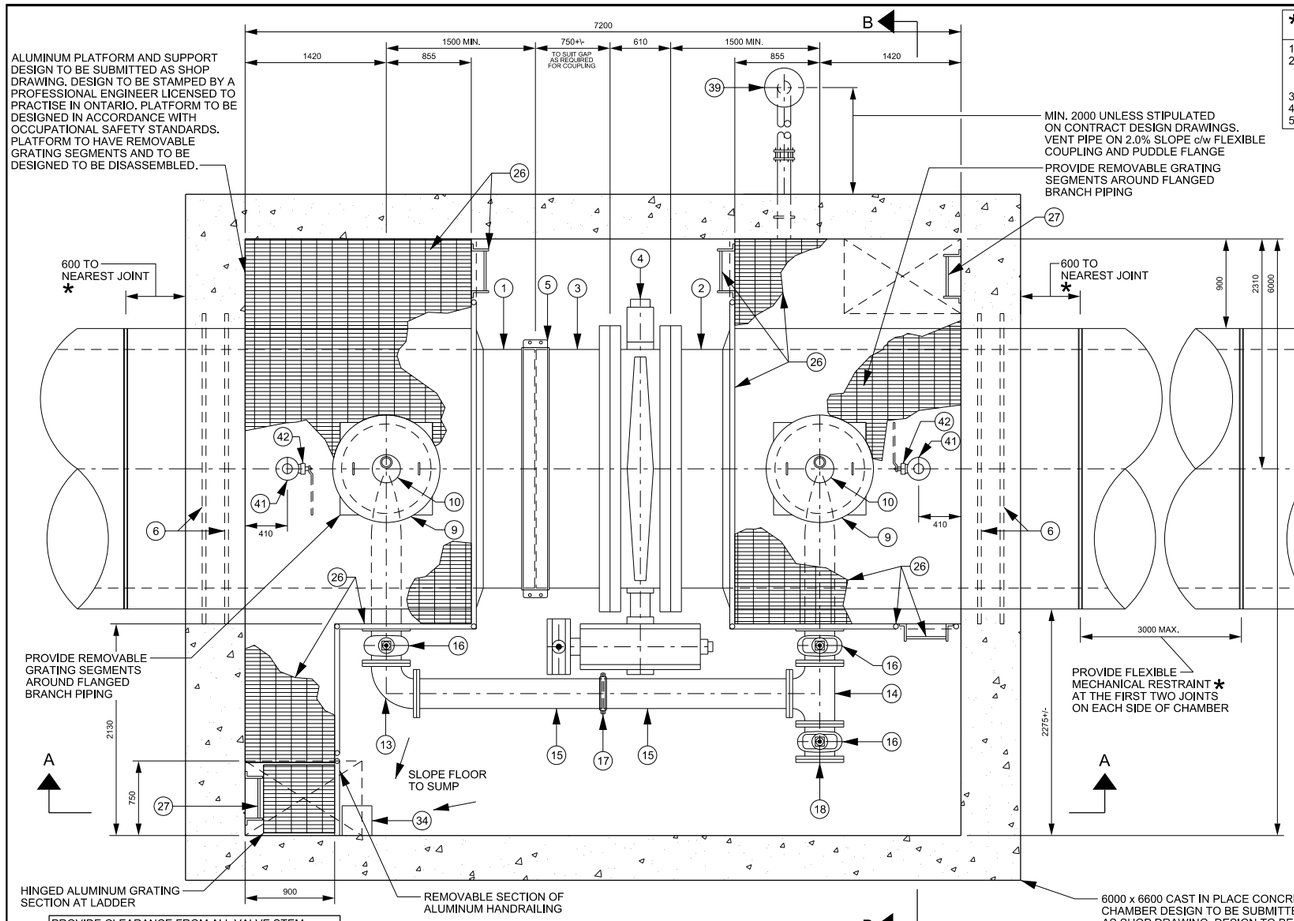
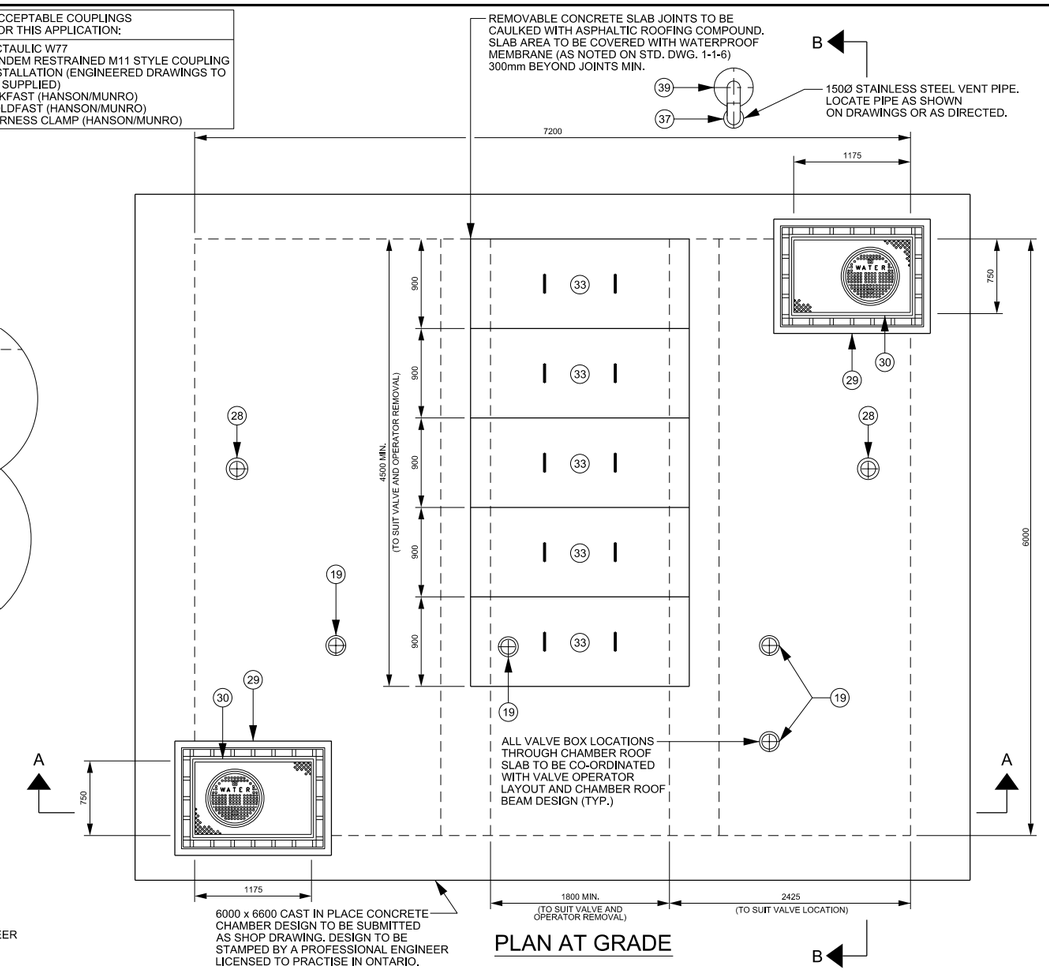


PROVIDE CLEARANCE FROM ALL VALVE STEM EXTENSION BRACKETS TO ENSURE UNRESTRICTED ACCESS TO PLATFORMS AND LADDERS

PLAN BELOW GRADE

* ACCEPTABLE COUPLINGS FOR THIS APPLICATION:

1. VICTAULIC W77
2. TANDEM RESTRAINED M11 STYLE COUPLING INSTALLATION (ENGINEERED DRAWINGS TO BE SUPPLIED)
3. LOKFAST (HANSON/MUNRO)
4. HOLDFAST (HANSON/MUNRO)
5. HARNESS CLAMP (HANSON/MUNRO)



PLAN AT GRADE

ITEM	ITEM DESCRIPTION	
1	2400Ø CPP FEEDERMAIN AWWA C-301 AS PER DESIGN, BELL OR SPIGOT END TO PLAIN STEEL-SHOULDER END (SPECIAL 900Ø FLANGED ACCESS BRANCH)	Large Diameter CPP and Fittings
2	2400Ø CPP FEEDERMAIN AWWA C-301 AS PER DESIGN, BELL OR SPIGOT END TO FLANGE (SPECIAL 900Ø FLANGED ACCESS BRANCH)	
3	2400Ø PLAIN STEEL-SHOULDER END TO WELDED FLANGE (FBE) c/w PIPE GAP ALLOWANCE FOR COUPLING	
4	2400Ø FLANGED BUTTERFLY VALVE AWWA C-504 FUSION BOND EPOXY SHOP COAT FINISH ON EXTERIOR OF VALVE, FBE INTERIOR COATING TO BE ANSI/NSF 61 APPROVED. VALVE SEAT ADJUST ON ADAPTER SIDE, c/w OPERATOR /HAND WHEEL, VALVE TO BE SUITABLE FOR CONTINUOUS SUBMERGED INSTALLATION	
5	2400Ø VICTAULIC AGS STYLE W77 (WITH VIC-RING) COUPLING, FUSION BOND EPOXY SHOP COAT FINISH ON EXTERIOR, FBE INTERIOR COATING TO BE ANSI/NSF 61 APPROVED. PIPE GAP AS PER MANUFACTURER'S RECOMMENDATIONS.	
6	DOUBLE PUDDLE FLANGE (BY PIPE SUPPLIER)	
7	*Line Left Intentionally Blank*	
8	900Ø FLANGED BRANCH	
9	900x75Ø REDUCING FLANGE TAPPED WITH 75 IPT c/w LIFTING HANDLES (SEE DETAIL)	
10	75Ø COMBINATION AIR RELEASE VALVE ASSEMBLY, VALMATIC MODEL VM-203C INTERIOR & EXTERIOR OF VALVE SHALL BE FUSION BONDED EPOXY COATED ANSI/NSF 61 APPROVED (STD. DWG. 1-3-14).	
11	*Line Left Intentionally Blank*	
12	300Ø FLANGED TANGENT BRANCH (FBE)	Small Diameter Pipe and Fittings
13	300Ø SHORT RADIUS ELBOW FLANGED (D.I.)	
14	300Ø TEE FLANGED (D.I.)	
15	300Ø SPOOL PIECE FLANGE TO PLAIN END CLASS 53 D.I., CEMENT LINED	
16	300Ø FLANGED, RESILIENT SEAT GATE VALVE AWWA C-509 FUSION BONDED EPOXY SHOP COAT FINISH ON EXTERIOR OF VALVE, FBE INTERIOR COATING TO BE ANSI/NSF 61 APPROVED c/w 50mm SQ. OPERATING NUT AND EXTENSION STEM	
17	300Ø VICTAULIC STYLE 31 COUPLING, FUSION BOND EPOXY SHOP COAT FINISH ON EXTERIOR, FBE INTERIOR COATING TO BE ANSI/NSF 61 APPROVED. PIPE GAP AS PER MAUNFACTURER'S RECOMMENDATIONS.	
18	300Ø BLIND FLANGE (D.I.)	

ITEM	ITEM DESCRIPTION	
19	VALVE BOX c/w SLEEVE AND EXTENSION STEM, OPSD 1101.020 (TYP. ALL VALVES)	Equipment Supports
20	VALVE STEM EXTENSION SUPPORT (STD. DWG. 1-2-4) (TYP. ALL VALVES)	
21	STEEL VALVE SUPPORT (STD. DWG. 1-2-6)	
22	CONCRETE VALVE SUPPORT (STD. DWG. 1-2-6)	
23	CONCRETE PIPE SUPPORT (STD. DWG. 1-2-6)	
24	EQUIPMENT LIFTING SYSTEM CENTRED OVER ALL VALVES (EXCLUDING MAIN LINE VALVE) AND OTHER APPURTENANCES (SEE NOTE 7)	
25	12 GAUGE TWIN STRANDED TRACER WIRE. EXTEND UP CHAMBER WALL AND TERMINATE JUST BELOW FRAME AND COVER (ATTACH WITH S.S. WALL ANCHORS)	Platforms & Misc.
26	PRE-ENGINEERED ALUMINUM PLATFORM STRUCTURE c/w LADDER(S), HINGED PLATFORM, HANDRAILS AND KICK PLATE, SAFETY CHAINS AND EYEHOOKS	
27	ALUMINUM ACCESS LADDER, OPSD 406.010	
28	150Ø VALVE BOX c/w SLEEVE (SLEEVE COMPLETELY THROUGH ROOF SLAB)	
29	CAST IN PLACE RISER (OR SUITABLE PRECAST BOX ADJUSTMENT UNIT c/w WATERPROOF MEMBRANE AS PER STD. DWG. 1-1-6)	Chamber Accessories and Bedding
30	TWO PIECE VALVE CHAMBER COVER AS PER OPSD 402.030; WORD "WATER" TO BE EMBOSSED IN COVER	
31	ACCESS RISER RIGID INSULATION (STD. DWG. 1-1-6)	
32	INTERIOR CHAMBER INSULATION (OR EXTERIOR) (STD. DWG. 1-1-6)	
33	REMOVABLE CONCRETE ROOF SLAB SECTIONS	
34	SUMP c/w FRAME AND GRATE (STD. DWG. 1-1-8)	
35	CONCRETE MUD SLAB 100mm THICK MIN.	
36	UNDISTURBED GROUND OR COMPACTED SELECT BACKFILL TO 100% SPMDD	
37	150Ø 304 SS VENTILATION HOOK-UP c/w 304 SS #10 MESH INSECT SCREEN	
38	BREAK AWAY CONNECTION WITH WELDED FLANGE OR PLATE WITH 3-LIGHT DUTY CONC. ANCHORS WHICH WILL ENSURE THAT THE PIPE WILL SHEER AT THE CONC. INTERFACE	
39	CONCRETE SUPPORT PIER 25MPa CONCRETE.	
40	100Ø FLANGED BRANCH	AFO Outlet
41	100Ø BLIND FLANGE	
42	100Ø FLANGED, RESILIENT SEAT, FULL PORT BALL VALVE, 316 STAINLESS STEEL, LEVER OPERATED (LOCKABLE HANDLE), TRUELINE SERIES 515IIT OR APPROVED EQUAL	

NOTE

1. REFER TO TYPICAL LINE VALVE CHAMBER DETAIL 2 OF 2 (STD. DWG. 1-3-43) FOR SECTIONS.
2. ALL VALVES TO BE RESILIENT SEAT TO AWWA C504 OR AWWA C509. AS APPLICABLE. FUSION BONDED EPOXY (FBE) SHOP COAT FINISH ON INTERIOR AND EXTERIOR OF VALVE TO AWWA C550. INTERIOR COATING TO BE FBE ANSI/NSF 61 APPROVED.
3. INTERIOR OF ALL STEEL (NOT STAINLESS STEEL) PIPE SHALL BE LIQUID EPOXY COATED TO AWWA C210 AND BE ANSI/NSF 61 APPROVED. ALL EXTERIOR SURFACES SHALL BE LIQUID EPOXY COATED TO AWWA C210.
4. INTERIOR OF ALL DUCTILE IRON PIPE AND FITTINGS IN CONTACT WITH POTABLE WATER SHALL BE CEMENT MORTAR LINED TO AWWA C104.
5. VALVE STEM EXTENSION SUPPORT BRACKETS SHALL SUPPORT TOTAL WEIGHT OF THE EXTENSION STEM, NO FORCES SHALL BE TRANSMITTED TO THE VALVE OR GEARBOX.
6. THE BUTTERFLY VALVE TO BE INSTALLED WITH SEAT ADJUSTMENT SCREWS FACING THE REMOVABLE SPOOL PIECE ASSEMBLY.
7. DAYTON SUPERIOR P-38 NUT TYPE SLOTTED INSERT c/w DAYTON SUPERIOR F-49-A EYE BOLT EQUIPMENT LIFTING SYSTEM TO BE INSTALLED IN THE UNDERSIDE OF CONCRETE ROOF SLAB IN ACCORDANCE WITH OPSD 1101.019. MINIMUM SYSTEM CAPACITY TO BE 1,500kg.
8. ALL PIPE AND VALVE SUPPORTS AS PER STD. DWG. 1-2-6 c/w 6mm NEOPRENE BOND BREAKER AT ALL CONTACT POINTS. SUPPORT 300Ø BY-PASS ON ADDITIONAL CONCRETE SUPPORTS. PROVIDE CONCRETE PIPE SUPPORTS WITHIN A MAXIMUM DISTANCE OF ONE PIPE DIAMETER FROM ALL VICTAULIC COUPLINGS.
9. CHAMBERS TO BE WATERPROOFED AS PER STD. DWG. 1-1-6.
10. CO-ORDINATE ALL CHAMBER DESIGN ELEVATIONS INCLUDING PIPE INVERTS, 900Ø FLANGED BRANCH, FINISHED GRADE, TOP OF CHAMBER, FLOOR OF CHAMBER AND ACCESS PLATFORMS TO MAINTAIN MINIMUM CLEARANCES AS SHOWN.
11. IF PIPE SUPPLIER REQUIRES CROTCH PLATES ON 900Ø FLANGED BRANCH CONNECTION, CO-ORDINATE PLATFORM ELEVATION AND PLATFORM SUPPORT BEAMS TO ENSURE ADEQUATE CLEARANCE TO PIPE.
12. ALL PIPING AND FITTING DIMENSIONS ARE BASED ON CLASS 'D' (1035kPa) FLANGE REQUIREMENTS. ENSURE ADEQUATE CLEARANCE TO ALL PIPING AND FITTINGS IF REQUIRED CLASS OF FLANGES IS DIFFERENT.
13. ALL FLANGE BOLTS TO BE STAINLESS STEEL.
14. ALL STAINLESS STEEL PIPE WILL BE 304L SCHEDULE 40 TO ASTM A776.
15. ALL ALUMINUM IN CONTACT WITH CONCRETE SHALL RECEIVE TWO COATS OF BITUMINOUS PAINT.
16. TRACER WIRE MUST BE INSTALLED ACCORDING TO PEEL STANDARDS.
17. ALL COVERS LOCATED OFF PAVEMENT, SHALL BE RAISED A MIN. OF 150mm ABOVE SURROUNDING GRADE LEVEL TYP.
18. ALL PIPING, FITTINGS, VALVES, APPURTENANCES AND MECHANICAL RESTRAINTS TO BE c/w DENSO PASTE, DENSO MASTIC AND DENSO TAPE OR APPROVED EQUAL, APPLIED TO MANUFACTURER'S RECOMMENDATIONS.

Region of Peel
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PUBLIC WORKS
STANDARD DRAWING

REV. DATE: APRIL 2014

TYPICAL LINE VALVE CHAMBER FOR
2400 DIAMETER CONCRETE PRESSURE PIPE
DETAIL 1 OF 2

APPROVED BY	DRAWN BY
A.P.	AINLEY GROUP
STD. DWG. NUMBER	SCALE
1-3-42	N.T.S.