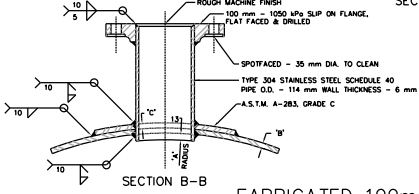


**NOTES**

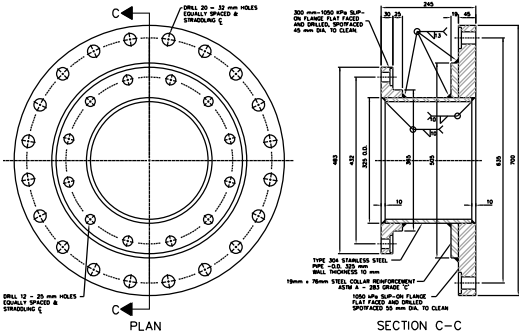
1. USE E-309 ELECTRODES WHEN WELDING TYPE 304 STAINLESS STEEL TO MILD STEEL.
2. USE E-308-16 ELECTRODES WHEN WELDING TYPE 304 STAINLESS STEEL TO TYPE 304 STAINLESS STEEL.
3. FLANGE TO BE FORGED STEEL CONFORMING TO A.S.T.M. SPECIFICATION A181 GRADE 1, FLAT FACED, SLIP ON FLANGE, DIA. OF BORE TO SUIT O.D. OF PIPE.

**SUPPLIED BY CONTRACTOR**

MARK	NOMINAL PIPE DIA.	No. REED	"A" RADIUS	"B" DIM.	"C" DIM.
C49	750		384	10	10
C49	900		460	10	10
C49	1050		537	10	10
C49	1200		613	10	10
C49	1350		686	10	10
C49	1500		762	10	10
C49	1800		914	11	11



FABRICATED 100mm NOZZLE

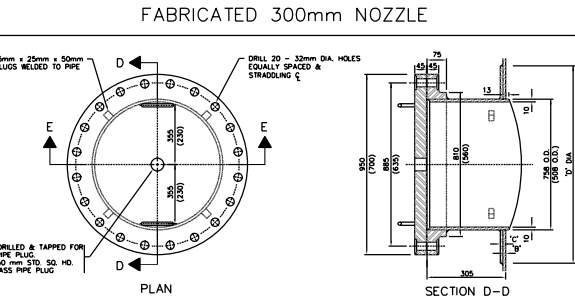


**NOTES**

1. USE E-309 ELECTRODES WHEN WELDING TYPE 304 STAINLESS STEEL TO MILD STEEL.
2. USE E-308-16 ELECTRODES WHEN WELDING TYPE 304 STAINLESS STEEL TO TYPE 304 STAINLESS STEEL.
3. FLANGES TO BE FORGED STEEL CONFORMING TO A.S.T.M. SPECIFICATION A181 GRADE 1, FLAT FACED, SLIP ON FLANGE, DIA. OF BORE TO SUIT O.D. OF PIPE.
4. HYDROSTATIC TEST TO 1200 kPa.
5. FLANGES TO RECEIVE A ROUGH MACHINE FINISH.

**SUPPLIED BY CONTRACTOR**

MARK	NOMINAL PIPE DIA.	No. REED
C49	300	

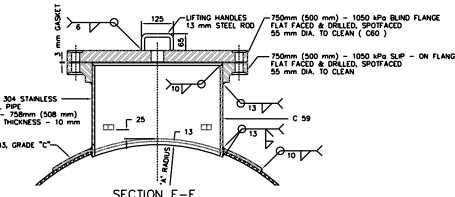


**NOTES**

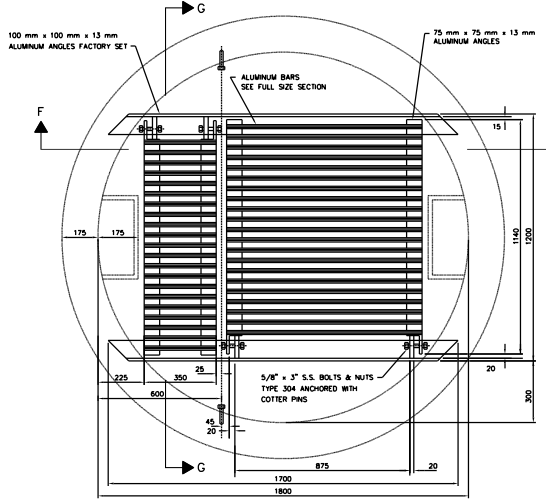
1. USE E-309 ELECTRODES WHEN WELDING TYPE 304 STAINLESS STEEL TO MILD STEEL.
2. USE E-308-16 ELECTRODES WHEN WELDING TYPE 304 STAINLESS STEEL TO TYPE 304 STAINLESS STEEL.
3. FLANGE TO BE FORGED STEEL CONFORMING TO A.S.T.M. SPECIFICATION A181 GRADE 1, FLAT FACED, SLIP ON FLANGE, DIA. OF BORE TO SUIT O.D. OF PIPE.
4. FLANGES TO RECEIVE A ROUGH MACHINE FINISH.

**SUPPLIED BY CONTRACTOR**

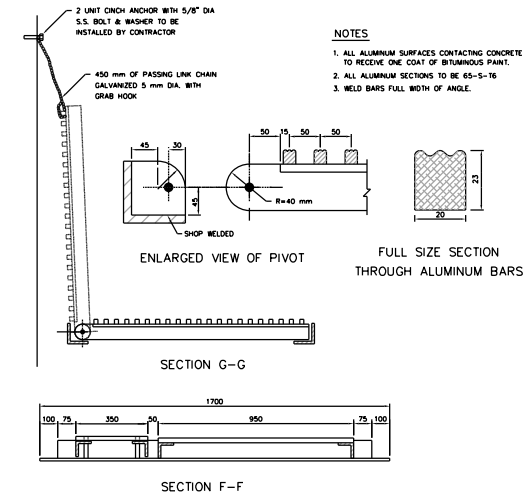
MARK	NOMINAL PIPE DIA.	"A" RADIUS	"B" DIM.	"C" DIM.	"D" DIM.
C 59	750	384	10	10	815
I	900	460	10	10	815
C 60	1050	537	10	10	815
NUMBER REQUIRED	1200	613	10	10	815
FRAME	1350	686	10	10	865
COVER	1500	762	10	10	1215
	1800	914	11	11	1015



FABRICATED MANHOLE FRAME & COVER



SAFETY GRATING

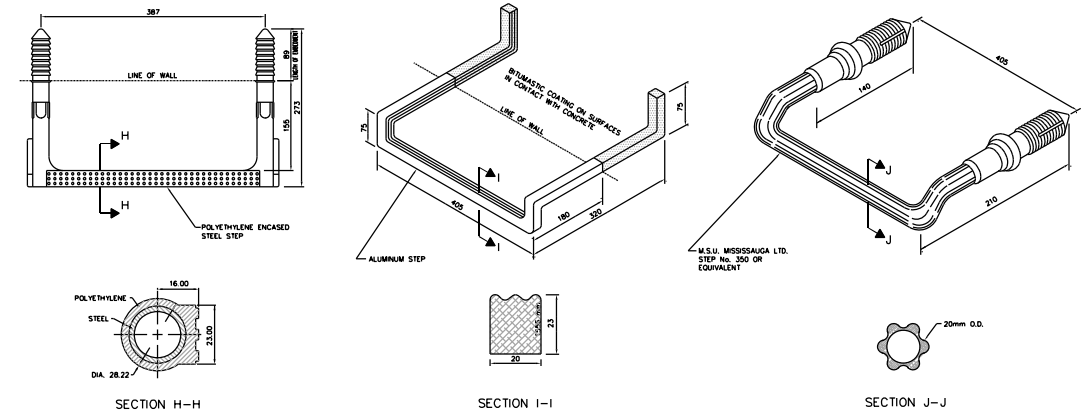


**NOTES**

1. ALL ALUMINUM SURFACES CONTACTING CONCRETE TO RECEIVE ONE COAT OF BITUMINOUS PAINT.
2. ALL ALUMINUM SECTIONS TO BE 6061-T6.
3. WELD BARS FULL WIDTH OF ANGLE.

SECTION G-G

SECTION F-F



STANDARD STEP DETAILS



**Toronto** Engineering & Construction Services

**Title**

SubTitle1  
SubTitle2

GENERAL MANAGER,  
TORONTO WATER

DIRECTOR,  
Design and Construction  
Linear Underground Infrastructure

MISCELLANEOUS APPURTENANCES-CAST CHAMBERS

DESIGN	Design	DRAWN	Drawn	CHECKED	Checked	CONTRACT No.-X-X
SCALE	SCALE	DATE	DATE	DRAWING NUMBER	T-1110.07-1	

EXECUTIVE DIRECTOR,  
Engineering & Construction Services

MANAGER,  
Design and Construction  
Linear Underground Infrastructure

No.	DATE	REVISIONS	INITIAL	SIGNED

SHEET X OF X