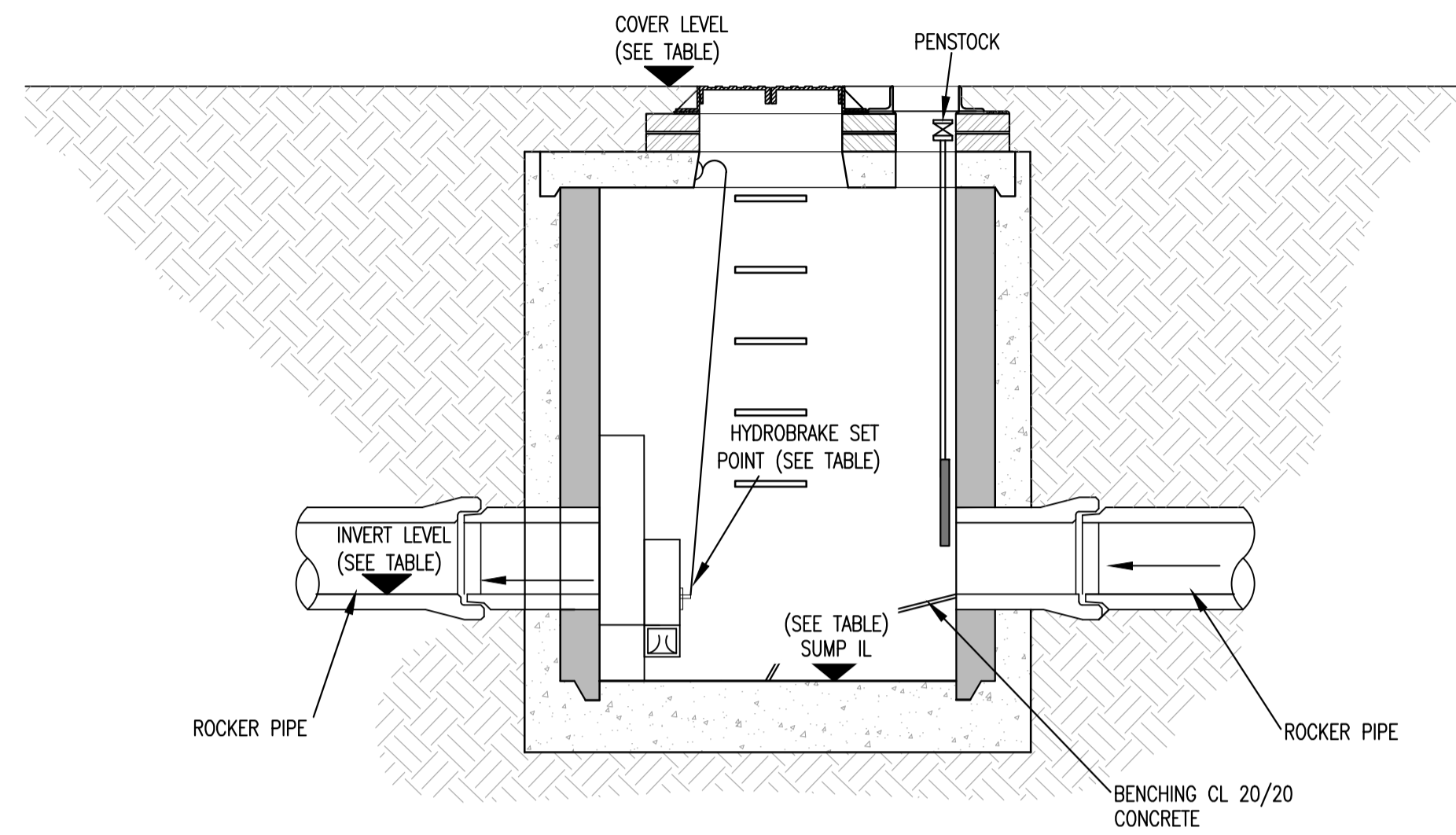
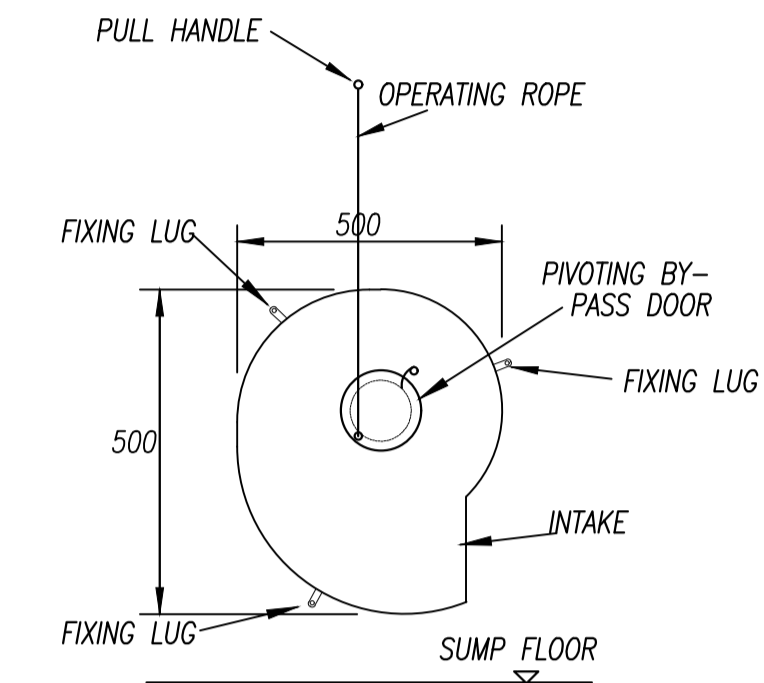


HB MANHOLE	COVER LEVEL	INVERT LEVEL	SUMP INVERT LEVEL	HB SET POINT (l/s)
SW2	7.00	4.33	4.03	19.6
SW57	8.60	6.56	6.26	30.0

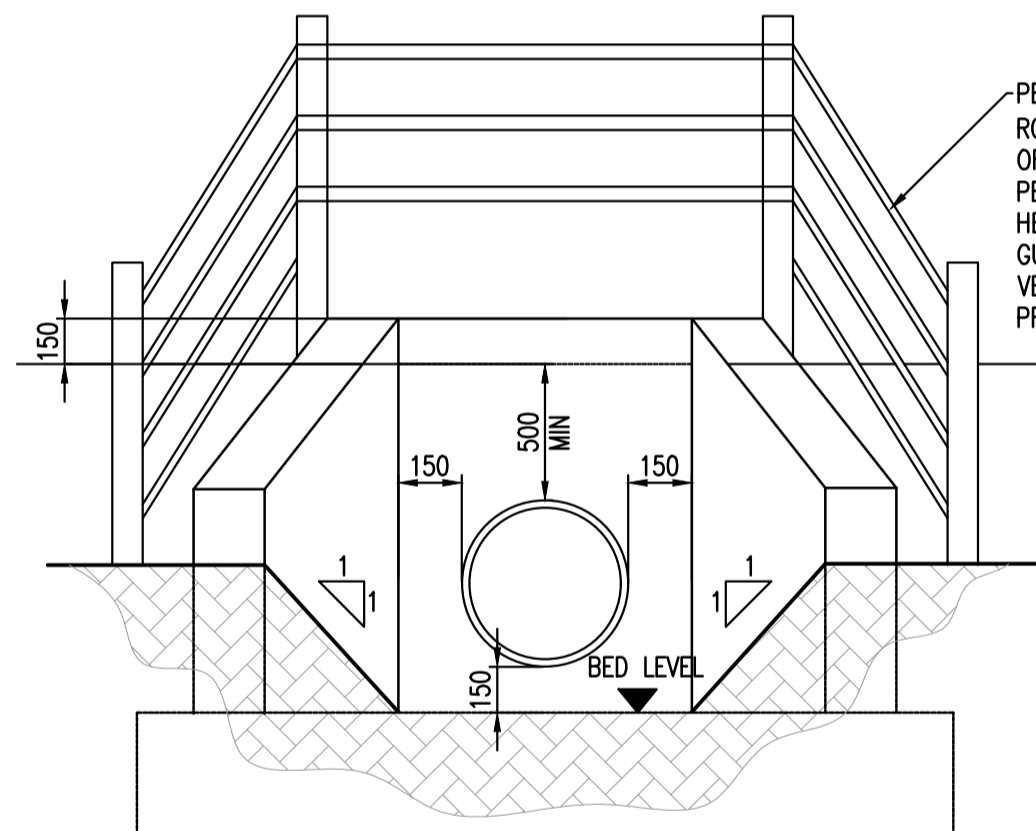


NOTE: FOR FURTHER DETAILS ON MANHOLE CONSTRUCTION PLEASE REFER TO DRAWING P230 FOR DETAILS

**HYDROBRAKE MANHOLE**  
N.T.S



**HYDRO BRAKE DETAIL**  
N.T.S

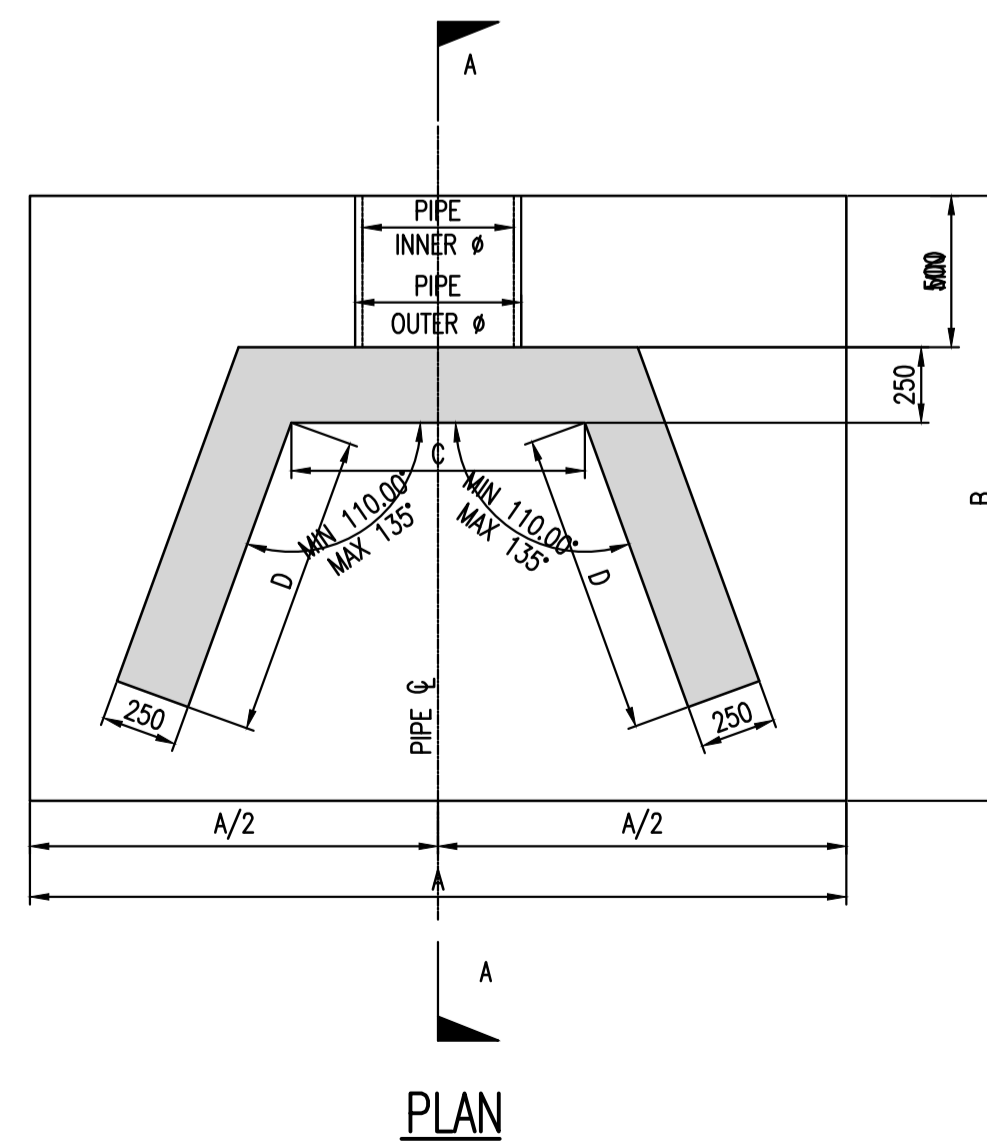


**ELEVATION**

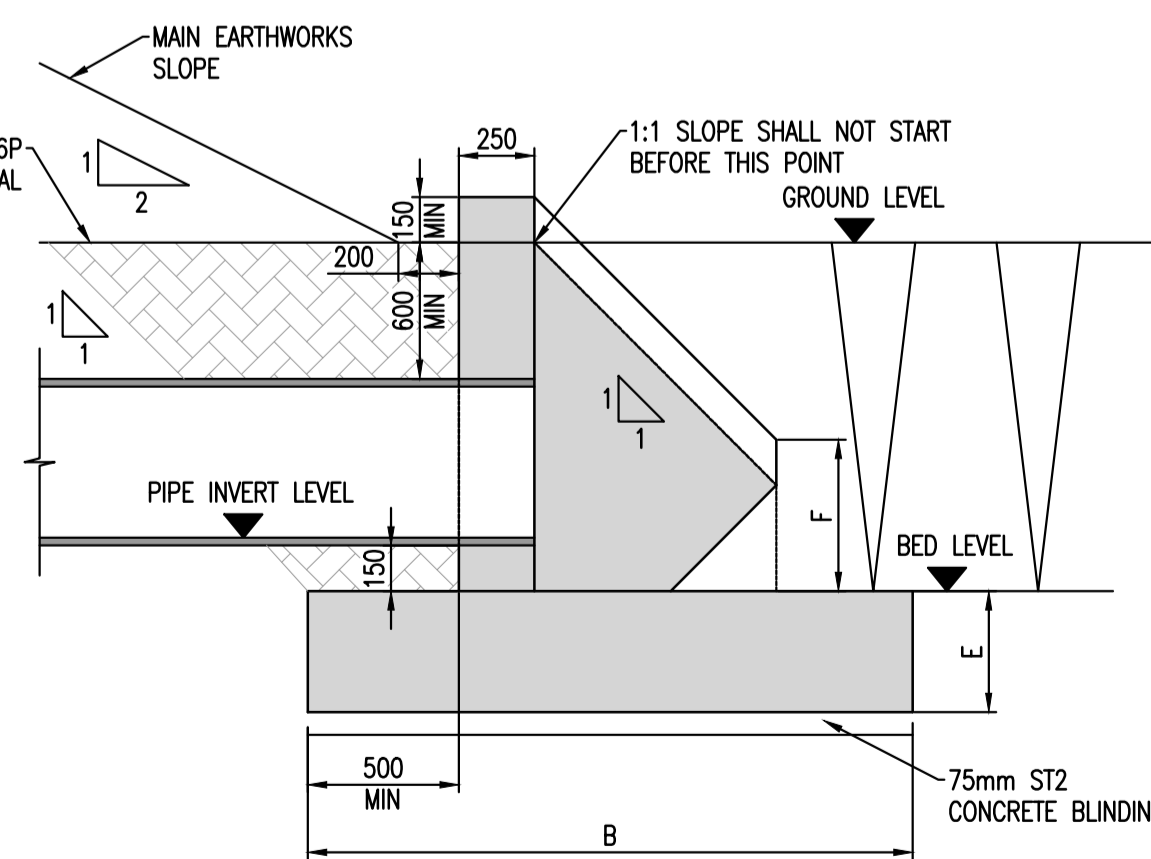
SCHEDULE OF MINIMUM DIMENSIONS						
PIPE INNER Ø	A	B	C	D	E	F
<=300	2000	2000	PIPE OUTER Ø +300	1000	400	500
301-600	2500	2500	PIPE OUTER Ø +300	1250	400	600
601-900	3200	3200	PIPE OUTER Ø +300	1550	500	700
901-1200	3900	3900	PIPE OUTER Ø +300	1850	500	800
1201-1500	4700	4700	PIPE OUTER Ø +300	2150	500	900
1501-1800	5200	5200	PIPE OUTER Ø +300	2350	500	1000

THE DIMENSIONS CONTAINED IN THE TABLE ABOVE ARE MINIMUMS ONLY AND THE DESIGNER SHALL CONFIRM DETAILS FOR SPECIFIC SITE CONDITIONS. THE DIMENSIONS IN THE TABLE ABOVE ARE BASED ON THE FOLLOWING CONSTRAINTS:

- ANGLE BETWEEN HEADWALL AND WINGWALL IS 110°;
- BACKFILL MATERIAL IS FREE DRAINING;
- THERE ARE NO LIVE LOAD EFFECTS ON THE HEADWALL;
- CHARACTERISTIC VALUE OF INTERNAL FRICTION ( $\phi$ ) OF THE BACKFILL MATERIAL = 37.5°;
- 600mm COVER TO THE PIPE AT THE REAR OF THE HEADWALL, WITH A 200mm WIDE FLAT AREA BEFORE THE COMMENCEMENT OF THE MAIN EARTHWORKS SLOPE;
- SLOPE OF FILL MEASURED FROM THE REAR FACE OF THE WINGWALLS DOWNWARDS AND FROM BED LEVEL UPWARDS ARE BOTH TO BE 1:1



**PLAN**



**SECTION A-A**

**TYPICAL HEADWALL DETAIL**  
N.T.S

REV.	DATE	AMENDMENT	DRN	APPD
10/03/22		AN BORD PLEANALA SUBMISSION	PW	EC

STATUS **FOR PLANNING ONLY**  
**NOT FOR CONSTRUCTION**

**Waterman Moylan**  
Engineering Consultants

BLOCK 5, EASTPOINT BUSINESS PARK, ALFIE BYRNE ROAD,  
DUBLIN D03 H3F4 IRELAND.  
Tel: (01) 664 8900 Fax: (01) 661 3618  
Email: info@waterman-moylan.ie www.waterman-moylan.ie

CLIENT	CAIRN HOMES PROPERTIES LTD.		
ARCHITECT	MCORM ARCHITECTS		
PROJECT	SHD AT HOLYBANKS, SWORDS		
TITLE	HYDROBRAKE MANHOLE & HEADWALL DETAILS		
DRAWN	DESIGNED	APPROVED	DATE
PW	LRG	EC	MARCH 2022
SCALE	JOB NO.	DRG. NO.	REVISION
AS SHOWN@1	17-088	P241	-