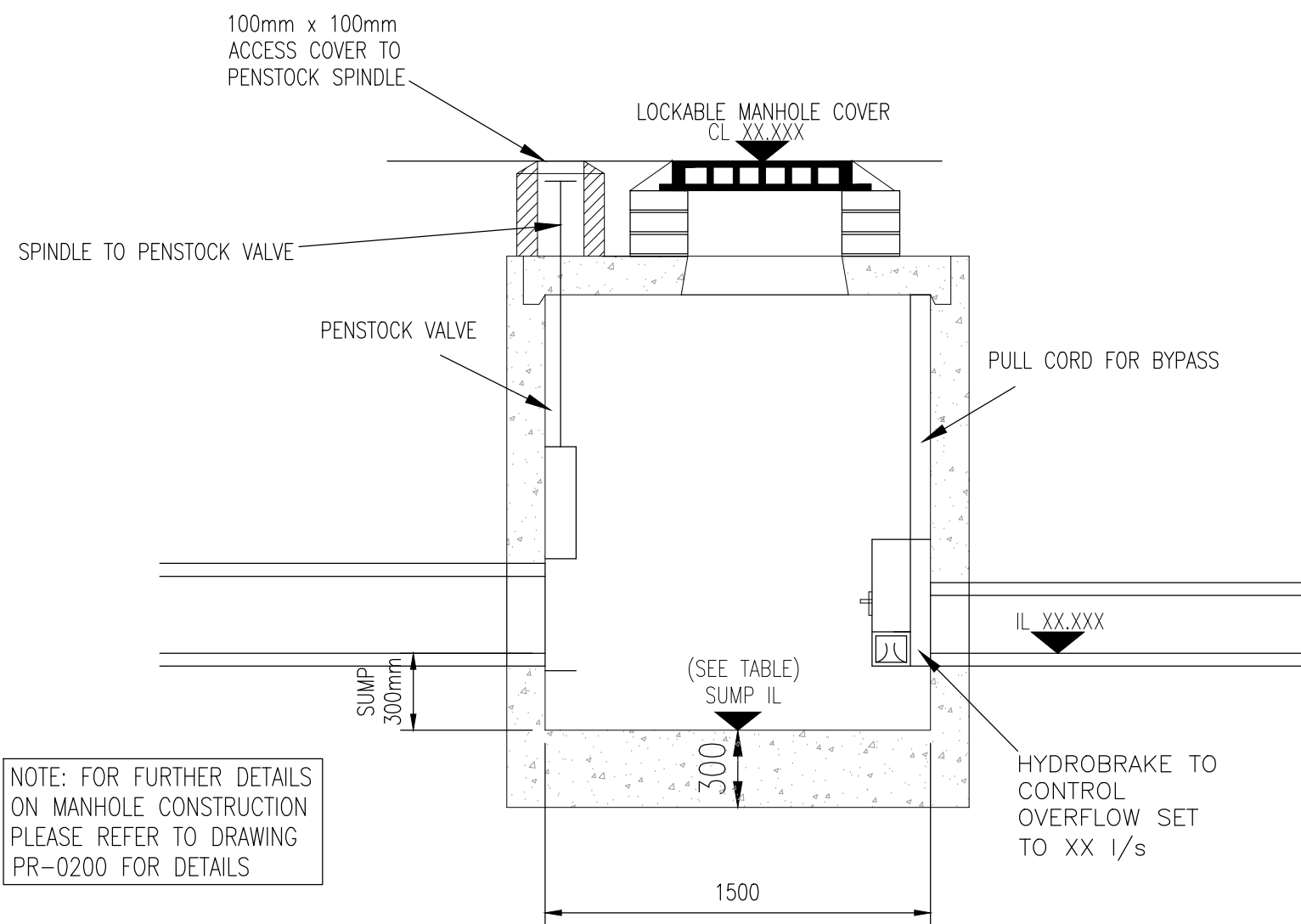


| HB No.       | COVER LEVEL | INVERT LEVEL | SUMP INVERT LEVEL | HB SET POINT (l/s) |
|--------------|-------------|--------------|-------------------|--------------------|
| SW MHHD DB01 | 28.000      | 24.346       | 24.046            | 61.80              |
| SW MHHD DB02 | 28.600      | 26.325       | 26.025            | 7.63               |
| SW MHHD DB03 | 28.800      | 25.680       | 25.380            | 16.10              |
| SW MHHD DB05 | 29.850      | 27.703       | 27.403            | 6.32               |
| SW MHHD DB06 | 25.523      | 21.550       | 21.250            | 37.275             |
| SW MHHD DB07 | 13.500      | 12.190       | 11.890            | 28.39              |

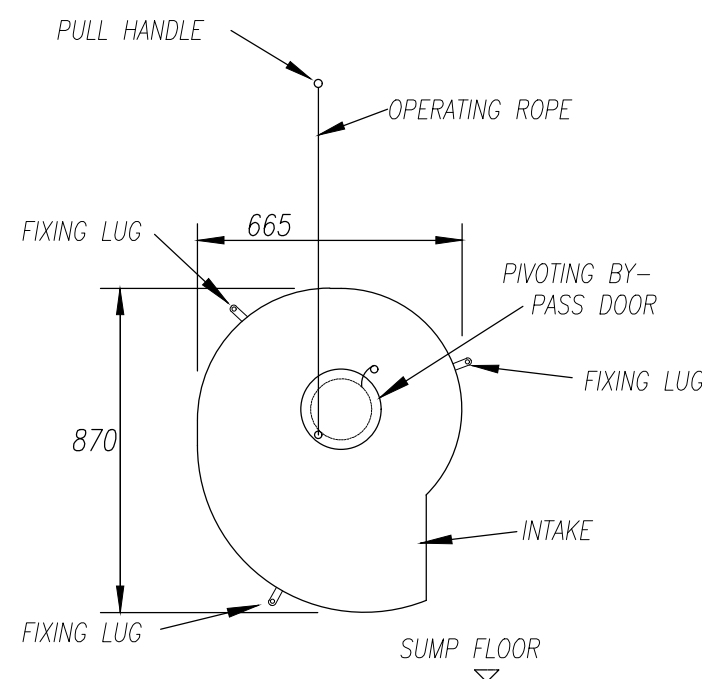
| Outlet Size<br>'B' | Inlet Size<br>'A' | Foil across unit | Storage Capacity<br>Oil (Litrs) | Dim L<br>(mm) | Nominal Flow | Unit Ref No |
|--------------------|-------------------|------------------|---------------------------------|---------------|--------------|-------------|
| Ø525 mm            | Ø525 mm           | 150              | 600                             | 3230          | 40.0L/s      | NSBE040     |
| Ø300 mm            | Ø300 mm           | 150              | 750                             | 3960          | 50.0L/s      | NSBE050     |
| Ø300 mm            | Ø600 mm           | 200              | 1500                            | 7661          | 100.0L/s     | NSBE100     |



PROPOSED HYDROBRAKE MANHOLE

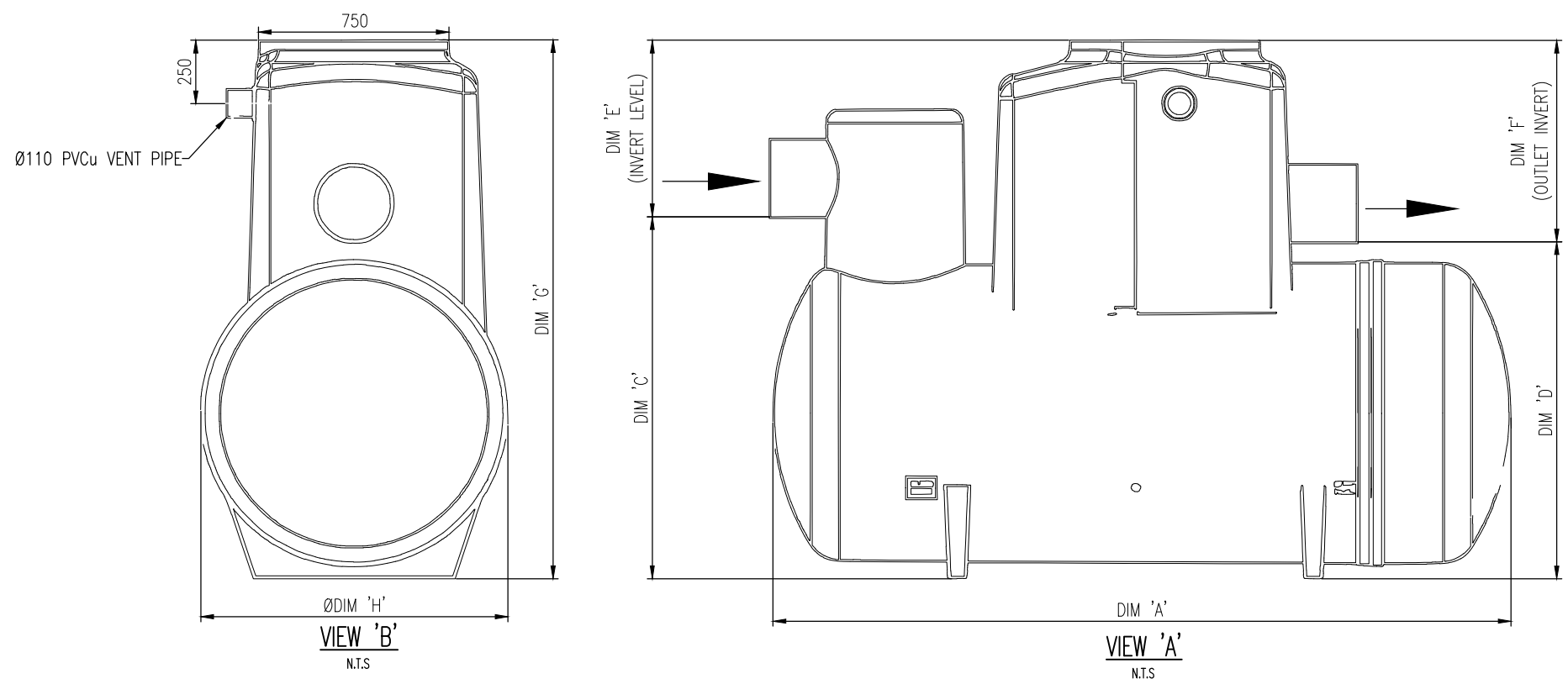
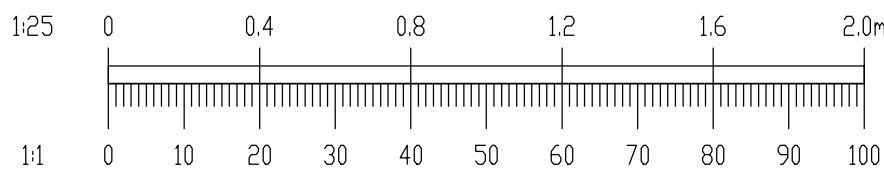
SCALE 1:25

- NOTE:
- 3mm GRADE 304L STAINLESS STEEL.
  - INTEGRAL STAINLESS STEEL PIVOTING BY-PASS DOOR ALLOWING CLEAR LINE OF SIGHT THROUGH TO OUTLET, C/W STAINLESS STEEL OPERATING ROPE.
  - BEED BLASTED FINISH TO MAXIMIZE CORROSION RESISTANCE.
  - STAINLESS STEEL FIXINGS.
  - RUBBER GASKET TO SEAL OUTLET.



## HYDRO BRAKE DETAIL

N.T.S



## DETAILS OF PROPOSED KLARGESTER BYPASS PETROL INTERCEPTOR

| SCHEDULE OF MINIMUM DIMENSIONS |      |      |                         |      |     |      |
|--------------------------------|------|------|-------------------------|------|-----|------|
| PIPE<br>INNER $\phi$           | A    | B    | C                       | D    | E   | F    |
| $\leq 300$                     | 2000 | 2000 | PIPE OUTER $\phi + 300$ | 1000 | 400 | 500  |
| 301-600                        | 2500 | 2500 | PIPE OUTER $\phi + 300$ | 1250 | 400 | 600  |
| 601-900                        | 3200 | 3200 | PIPE OUTER $\phi + 300$ | 1550 | 500 | 700  |
| 901-1200                       | 3900 | 3900 | PIPE OUTER $\phi + 300$ | 1850 | 500 | 800  |
| 1201-1500                      | 4700 | 4700 | PIPE OUTER $\phi + 300$ | 2150 | 500 | 900  |
| 1501-1800                      | 5200 | 5200 | PIPE OUTER $\phi + 300$ | 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 CONTAINED 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

NOTES :

1. ALL DIMENSIONS ARE MILLIMETRES.
2. THIS RCD IS ONLY TO BE USED IN ASSOCIATION WITH A UNIQUE STRUCTURAL DESIGN. THIS DESIGN IS TO CARRIED OUT IN ACCORDANCE WITH THE NRA REQUIREMENTS FOR THE USE OF EUROCODES FOR THE DESIGN OF ROAD STRUCTURES.
3. REINFORCED CONCRETE SHALL BE A MINIMUM GRADE OF C32/40. ALL STRUCTURAL CONCRETE SHALL BE SPECIFIED IN ACCORDANCE WITH SERIES 1700 OF THE NRA MCDRW.
4. ALL BLINDING CONCRETE SHALL BE ST2 IN ACCORDANCE WITH IS EN 206.
5. THE MINIMUM COVER TO REINFORCEMENT FOR DURABILITY SHALL BE IN ACCORDANCE WITH NRA BD 57. MINIMUM EXPOSURE CLASS TO BE XC4.
6. ANY RESULTING VOID BETWEEN THE OUTSIDE OF THE PIPE AND THE OPE IN THE HEADWALL SHALL BE FILLED WITH NON-COMPRESSIBLE HIGH STRENGTH GROUT.
7. ALL EXPOSED CONCRETE SURFACES FROM 100mm BELOW GROUND LEVEL TO BE CLASS U4/F4 FINISH. ALL OTHER CONCRETE SURFACES TO BE CLASS U1/F1 FINISH UNLESS OTHERWISE SPECIFIED.
8. HEADWALL WINGWALLS TO BE SLOPED AND SHALL MAINTAIN A MINIMUM HEIGHT OF 150mm ABOVE ADJACENT BACKFILL LEVEL.
9. RENDERED CONCRETE BLOCKWORK MAY BE USED AS AN ALTERNATIVE TO IN-SITU OR PRECAST CONCRETE FOR PIPES UP TO 300mm INNER DIAMETER.
10. ALL HEADWALLS SHALL BE BACKFILLED WITH CLASS G1, G2 OR 6P BACKFILL MATERIAL. HEADWALLS SHALL BE FOUND ON A MINIMUM 75mm LAYER OF ST2 BLINDING CONCRETE. DETAILS OF THE SUB-BASE LAYER TO BE CONFIRMED BASED ON SITE CONDITIONS.
11. ROCK ARMOUR AND/OR GRABION HEADWALLS AND WINGWALLS ARE PROHIBITED.

|            |            |                     |    |     |
|------------|------------|---------------------|----|-----|
|            |            |                     |    |     |
|            |            |                     |    |     |
|            |            |                     |    |     |
| -          | 23/10/2026 | ISSUED FOR PLANNING | MS | IW  |
| Rev        | Date       | Description         | By | CHK |
| Amendments |            |                     |    |     |

Project

MIXED USE DEVELOPMENT AT  
TINAHASK UPPER, MONEY BIG &  
MONEY LITTLE, ARKLOW, Co. WICKLOW

## PROPOSED PETROL INTERCEPTOR, HYDRO-BRAKE, AND HEADWALL DETAILS

Client

CASTLETHORN

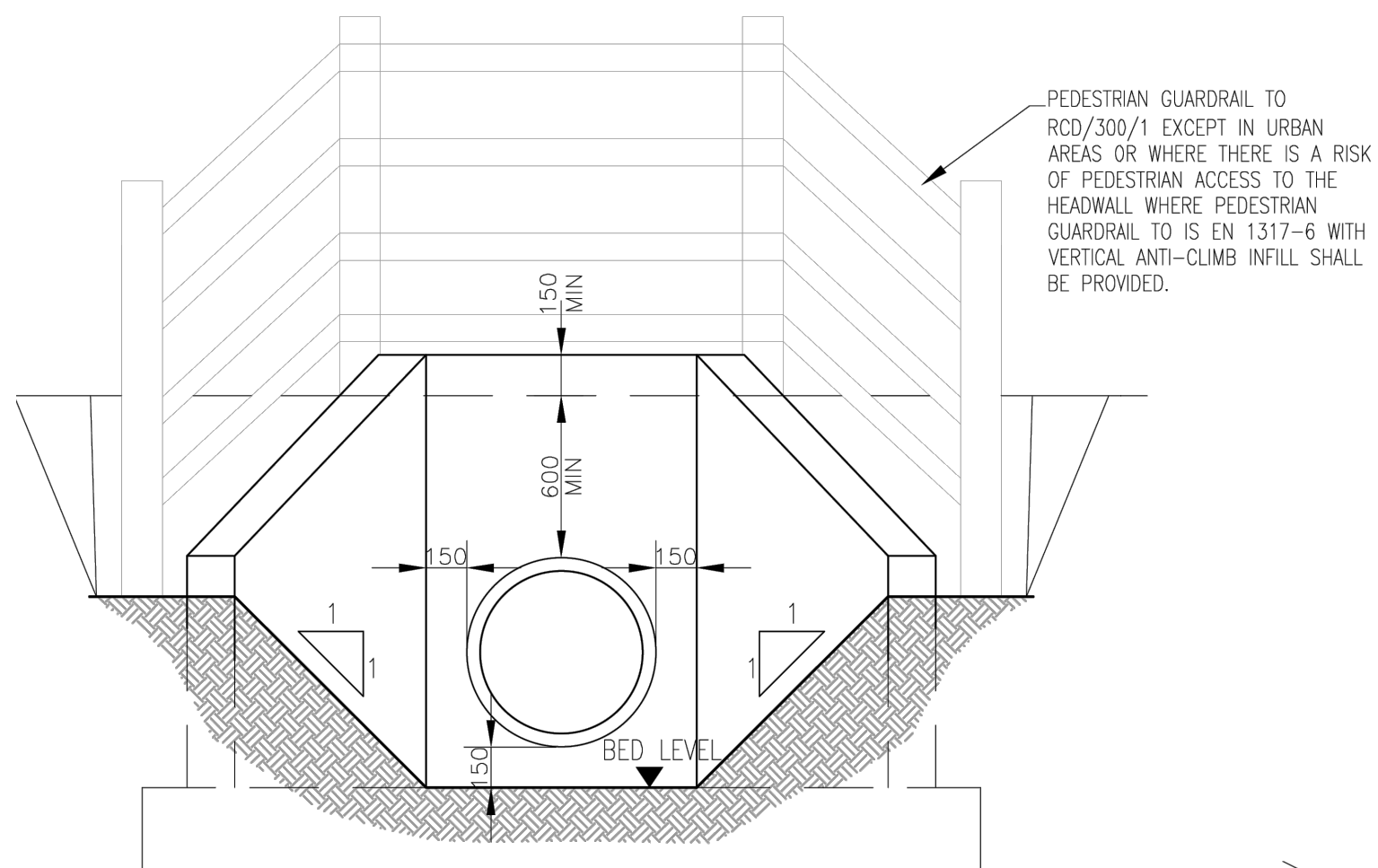


BLOCK S, EASTPOINT BUSINESS PARK, ALFIE BYRNE ROAD  
DUBLIN D03 H3F4 IRELAND. Tel: (01) 664 8900  
Email: [info@waterman-moylan.ie](mailto:info@waterman-moylan.ie) [www.waterman-moylan.ie](http://www.waterman-moylan.ie)

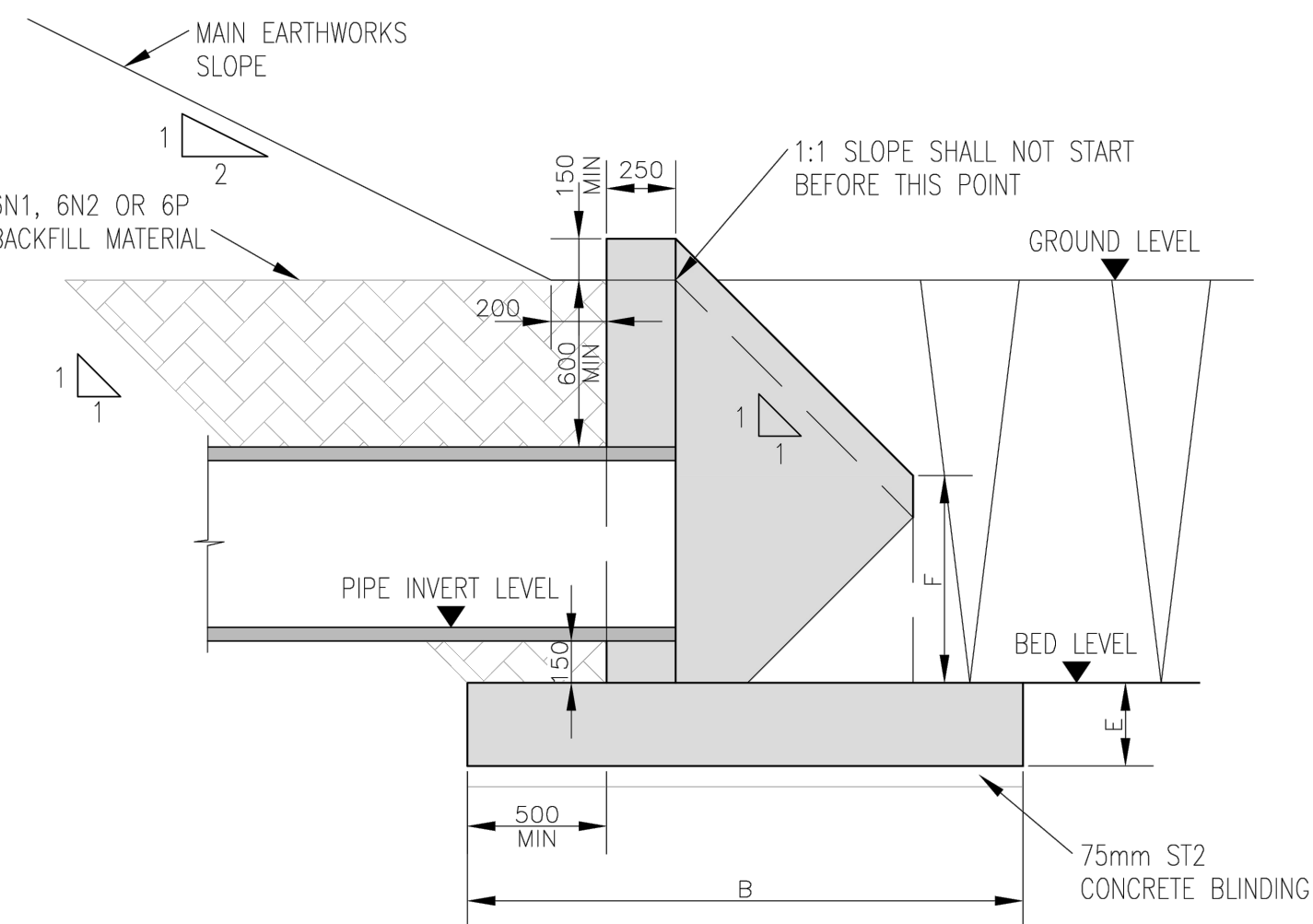
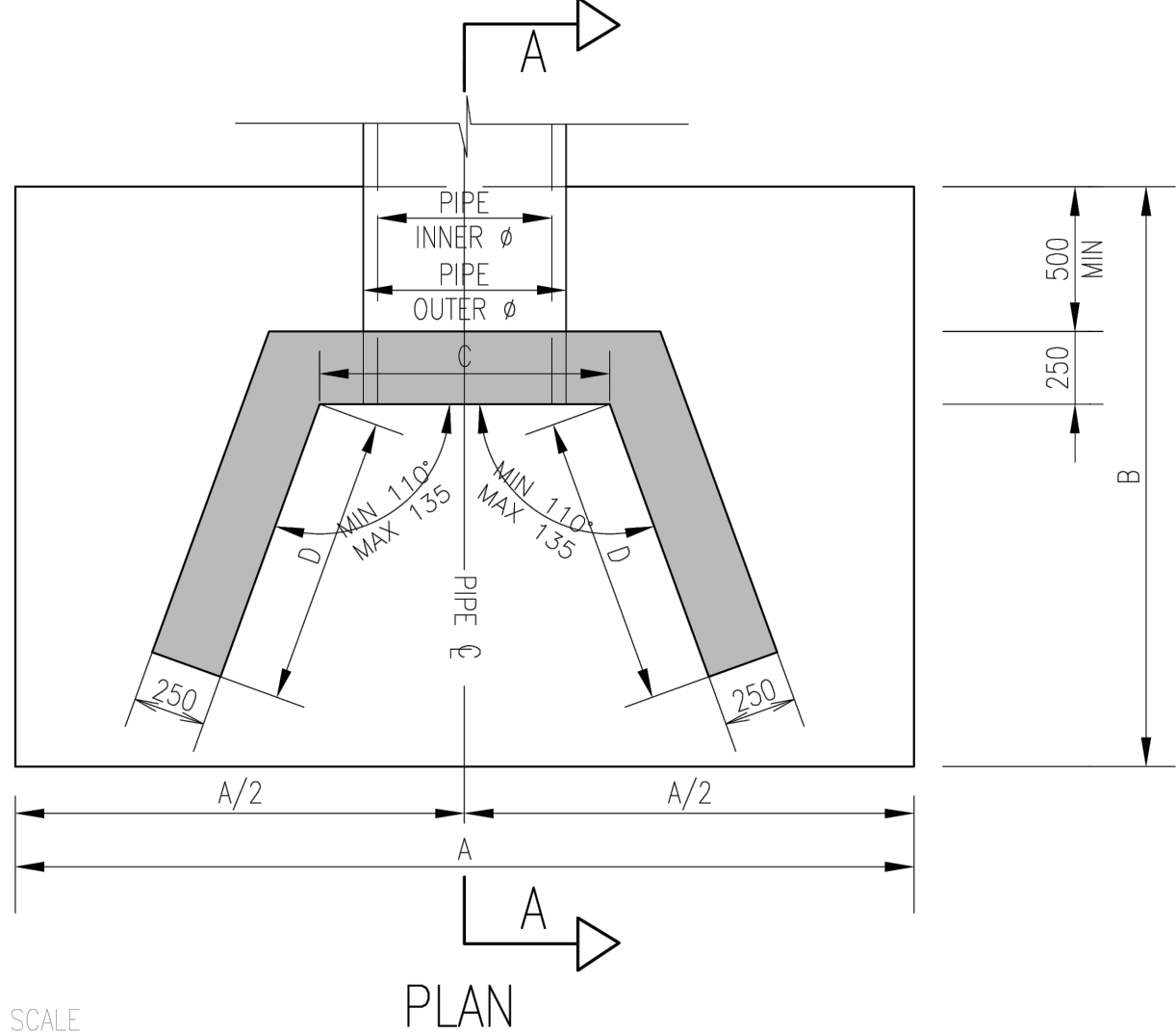
## PLANNING

|                          |                          |                                |
|--------------------------|--------------------------|--------------------------------|
| Designed By<br><b>NM</b> | Approved<br><b>IW</b>    | Waterman Ref<br><b>26-035</b>  |
| Drawn By<br><b>MS</b>    | Date<br><b>OCT. 2026</b> | Scales @ A1<br><b>AS SHOWN</b> |

ARK - WAT - ZZ - XX- DR - P - 0237 -



## ELEVATION



## SECTION A-A

### DETAILS OF PROPOSED HEADWALL