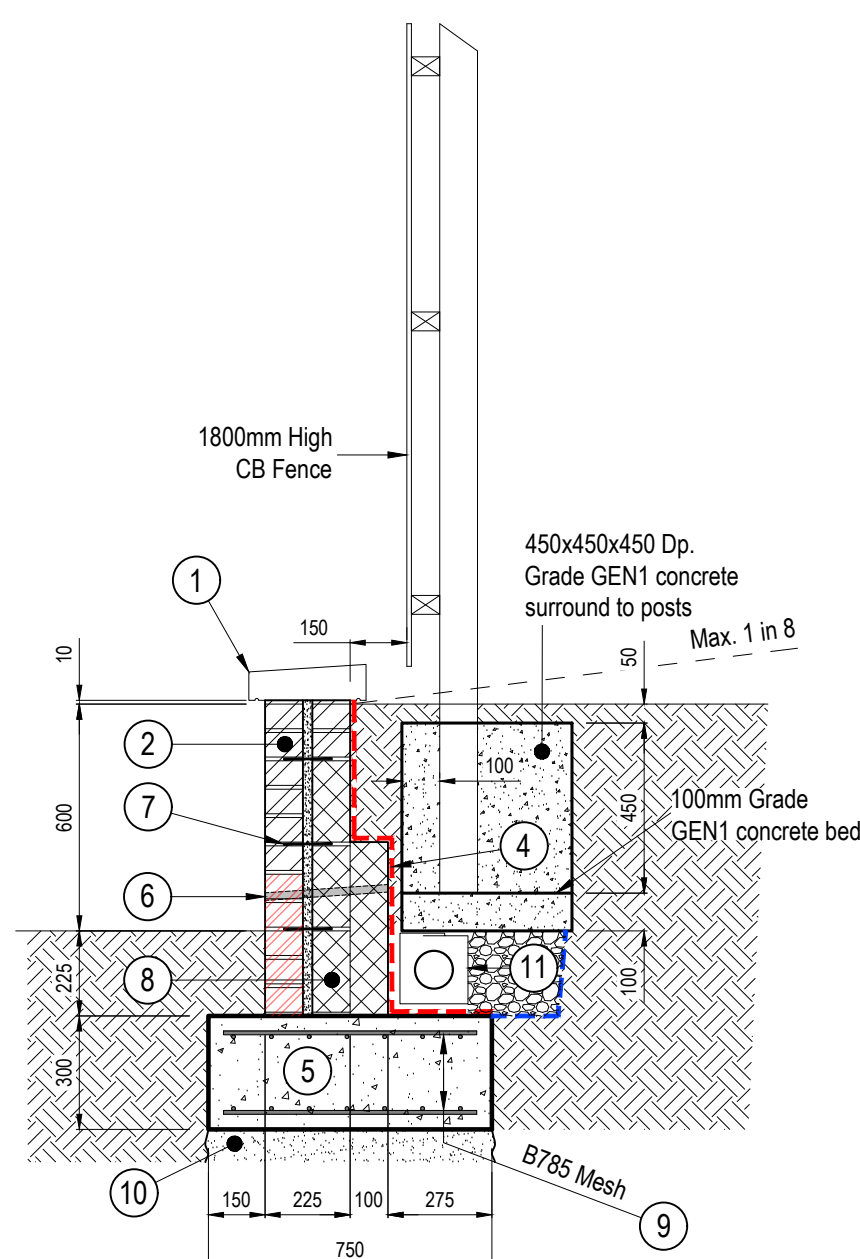
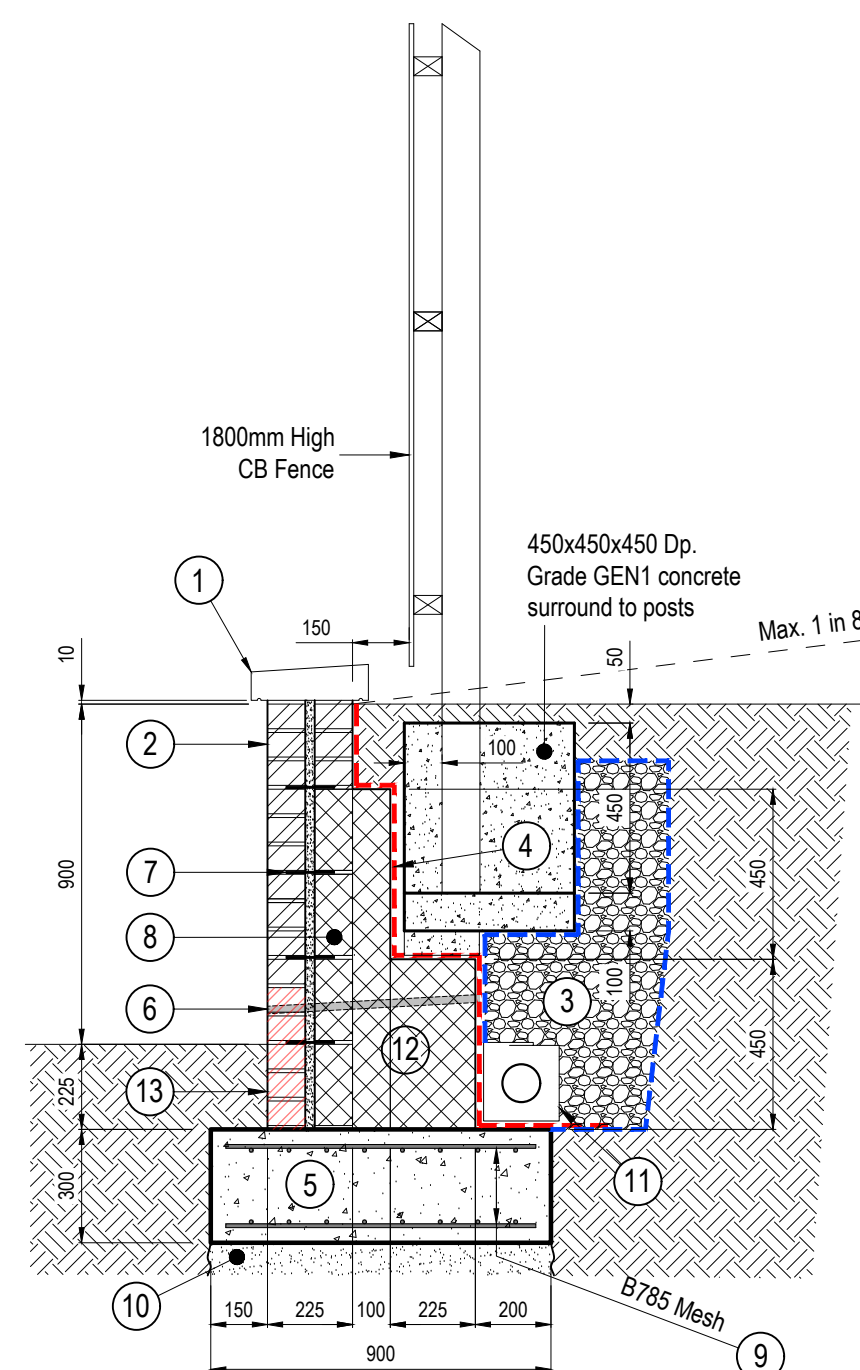




Type 'B' Retaining Wall
Max. Retained height 0.60m
 Scale 1:20

[illegible]

Technical drawing of a concrete wall and foundation cross-section. The drawing includes the following details:

- 1800mm High CB Fence**: Located at the top of the wall.
- 450x450x450 Dp. Grade GEN1 concrete surround to posts**: A concrete area surrounding the fence posts.
- Max. 1 in**: A dashed line indicating a maximum slope or depth.
- Dimensions**:
 - Vertical dimensions: 10, 1650, 225, 1300, 150, 100, 225, 300.
 - Horizontal dimensions: 175, 225, 100, 225, 325, 300, 1350.
 - Internal dimensions for the mesh area: 100, 150, 225, 675.
- Callouts**: Numbered circles 1 through 13 pointing to various components of the wall and foundation.
- 6/75 Mesh**: A diagonal hatched pattern representing the reinforcement mesh.
- Foundation**: A base for the wall with a width of 1350 units.

Retaining Walls Legend

1	Coping to Architect's details
2	Facing masonry with solid collar joint: Min. brick strength 20N/mm ² .
3	Single sized clean stone (Nominal 40mm) Min 450mm width, wrapped in geotextile membrane Terram 1000' or alternative. Remaining backfill behind wall - to Highway for specification works Series 600, Clause 610 (fill to structures): Class 6N, 6P - Selected Granular fill
4	1200 gauge visqueen with 300mm laps, cut visqueen around weep holes
5	Grade C28/35 concrete foundation.
6	75mm UPVC weep holes at 1.5m centres.
7	Stainless steel wall ties at 450mm horizontal centres and 225mm vertical centres.
8	Dense concrete blockwork 10.4N/mm ² strength, min. density 18kN/m ³ , bonded into brickwork.
9	B785 mesh in top & bottom of foundation 400mm cover, 400mm laps to mesh sheets.
10	Mass concrete Grade C12/15 (GEN 2) fill to suitable bearing strata where applicable. Concrete classification: DS-1 and ACEC Class AC-1.
11	100 Dia Land drain wrapped in geotextile membrane
12	Each course of the retaining wall should be constructed with full-size concrete blocks, with an overlapping bond pattern between courses in both horizontal directions, including tying into back of wall skin (note 8). Min 10.4N/mm ² strength, min. density 18kN/m ³ .
13	Engineering bricks to be used from foundation to 2 courses above finished ground level. Class F2 bricks to be used Above.

Retaining Wall Notes

1. Batter slopes to back of retaining walls to vary from horizontal to a Max. of 1 in 8 unless otherwise stated.
2. Materials to back of retaining walls to be carefully placed and lightly compacted. No site traffic to traverse behind completed retaining wall.
3. Top surface of foundation to be cleaned to remove all traces of cement laitance and extraneous material prior to constructing wall. Ensure clean surface and good bond between masonry and concrete foundation.
4. Backfill materials behind completed walls are to be placed not sooner than 3 days after building of the wall.
5. Retaining walls have not been designed for barrier/fence loading & any fence barrier should be founded independently away from the retaining wall. If this is required, engineer is to be informed & alternate design is to be provided.
6. Retaining walls have been designed for a maximum surcharge of 2.5 kN/m^2 applied to the upper retained surface behind the wall.
7. The retaining wall foundations have been designed for a maximum allowable bearing pressure of 125 kN/m^2 . All soft spots to be removed & replaced with compacted sub-base or lean mix concrete.

Vehicle restraint barrier and fall protection by others. To be founded independently from the retaining wall.

Max. 1 in 8

B75 Mesh

10'

4'50"

2'25"

3'00"

125 625 275

1

2

7

6

8

3

4

5

10

9

Technical drawing of a retaining wall cross-section showing reinforcement details and dimensions. The drawing includes a concrete wall (1) with a base slab (2) and a footing (3). Reinforcement bars are shown with callouts 4, 5, 6, 7, 8, 9, 10, 11, 12, and 13. Dimensions are given in feet and inches: 10' total height, 6'0" wall height, 1'0" base slab thickness, 1'0" footing thickness, 1'0" top reinforcement bar spacing, 1'0" bottom reinforcement bar spacing, 1'0" side reinforcement bar spacing, 1'0" top reinforcement bar spacing, 1'0" bottom reinforcement bar spacing, 1'0" side reinforcement bar spacing, 1'0" top reinforcement bar spacing, 1'0" bottom reinforcement bar spacing, 1'0" side reinforcement bar spacing. A note states: "Vehicle restraint barrier and fall protection by others. To be founded independently from the retaining wall." A dashed line indicates a maximum of 1 in 6 slope. A 5/8" Mesh is shown at the bottom right.

Vehicle restraint barrier and fall protection by others.
To be founded independently from the retaining wall.

Max. 1 in 6

10'

9'0"

2'25"

4'0"

4'6"

150 225 100 225 200

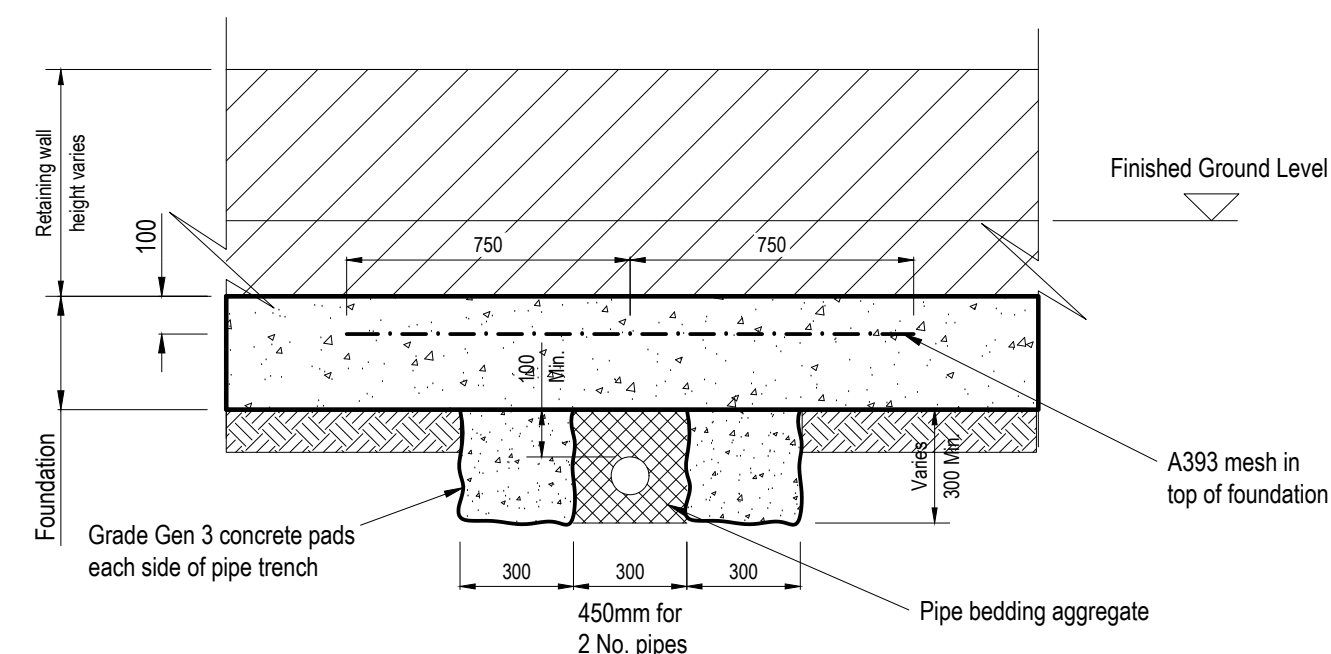
9'0"

B785 Mesh

11

[illegible]

Retaining Walls - Max. 1 in 8 batter behind



Technical drawing of a retaining wall cross-section showing construction details and dimensions.

Dimensions:

- Top horizontal dimension: 50
- Vertical dimension from top to base: 200
- Bottom horizontal dimension: 50

Labels and Callouts:

- Finishes by 'others'
- Single sized clean stone, as used for free draining material behind wall or Selected backfill, refer to note 3
- Single sized clean stone (Nominal 40mm) Min 450mm width, wrapped in geotextile membrane 'Terram 1000' or alternative
- Cover
- Mass concrete fill (refer to note 14) to be taken down minimum 200mm into the firm bearing strata where applicable
- Refer to Wall Types
- B785 Mesh top & bottom 40mm concrete cover

Diagram illustrating the reinforcement details for a wall cross-section. The wall height is 2.4m. The reinforcement includes H8 bars at 200 c/c, H10 bars at 100 c/c, and B785 Mesh top & bottom. The mesh is cut to suit the foundation profile. The diagram also shows lap mesh sheets with 40mm concrete cover and 400mm minimum lap length.

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						CONSULTING ENGINEERS PHG CONSULTING LTD 107 CORNWALL ROAD EAST CARDIFF CF11 3AG. T : +44(0)3 2030 2521 E : enquiries@phg-consulting.com W : www.phg-consulting.com @PHG_consulting www.livethedreamcompany! phg-consulting-engineers															
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