

BLOCKWORK RETAINING WALL NOTES

SETTING OUT TO BE IN ACCORDANCE WITH PERSIMMON HOMES DRAWINGS. REFER TO PERSIMMON HOMES DRAWINGS FOR PROPOSED GROUND LEVELS.

1. ALTERNATIVE CAPPINGS AND COPINGS –TO PERSIMMON HOMES DETAILS

Provide frost-resistant cappings or copings sized to BS 4728 or other copings to be 5645. The cappings or copings should incorporate an overhang and drip. If the wall is not in a very sheltered location. Before choosing a wall type, make sure that a suitable combination of coping and DPC is available for the site conditions (see BRE Good Building Guide 17).

2. DAMP PROOF COURSES (SEE BS 8215)

See Good Building Guides 14 and 17, and digest 380 for general advice on DPC selection.

HIGH-LEVEL DPC

Use a DPC beneath the coping and capping courses, which has the ability to adhere to the mortar (high bond polymer).

3. BRICKWORK AND BLOCKWORK

Brickwork should have a minimum density of 1800 kg/m³ and minimum compressive strength of 20 N/mm².

All brickwork to face skin and coping to be Frost Resistant (F2) clay.

All brickwork to face skin and coping to be Low Salt Content (S2) clay.

Blockwork should have a minimum density of 1800kg/m³ and a minimum strength of 7.3 N/mm²

Do not use bricks or blocks which do not provide moderate adhesion. Check after 7 days that using strong hand force only cannot dislodge the units from the wall. Always check with the building supply merchant or the brick or block supplier that the bricks or blocks to be used provide moderate adhesion.

The design relies on full bonding of the blockwork.

4. MORTAR

MORTAR TO BE DESIGNATION (i) STRENGTH CLASS M6 THROUGHOUT THE WALL.

Sulphate Resisting Cement to be used throughout

5. REINFORCING STEEL

All reinforcing steel shall comply with BS 4449 or BS 4483 and cut and bent to BS 8666.

6. WALL TIES

Wall ties should be stainless steel and be at 900mm horizontal centres and 450mm vertical centres staggered by 450mm. Ties are to be Ø 225mm vertical centres at any discontinuity (e.g. movement joint) or change in direction.

7. DRAINAGE

Weepholes should be formed at maximum 1200mm c/c formed with minimum 60mm dia inside diameter class b polythene pipes to BS 1932. Alternatively, Land drainage should be provided behind the wall, for example, to prevent discharge of water onto highway.

8. WATERPROOFING

Waterproofing to be placed between the front face of the blockwork and the brick facing. Use 2 coats of bitumen emulsion.

9. CONCRETE INFILL

Concrete for infill shall be designated mix RC 28/35 in accordance with BS8500 & EN 206-1 using 10mm aggregate, Consistency Class S4.

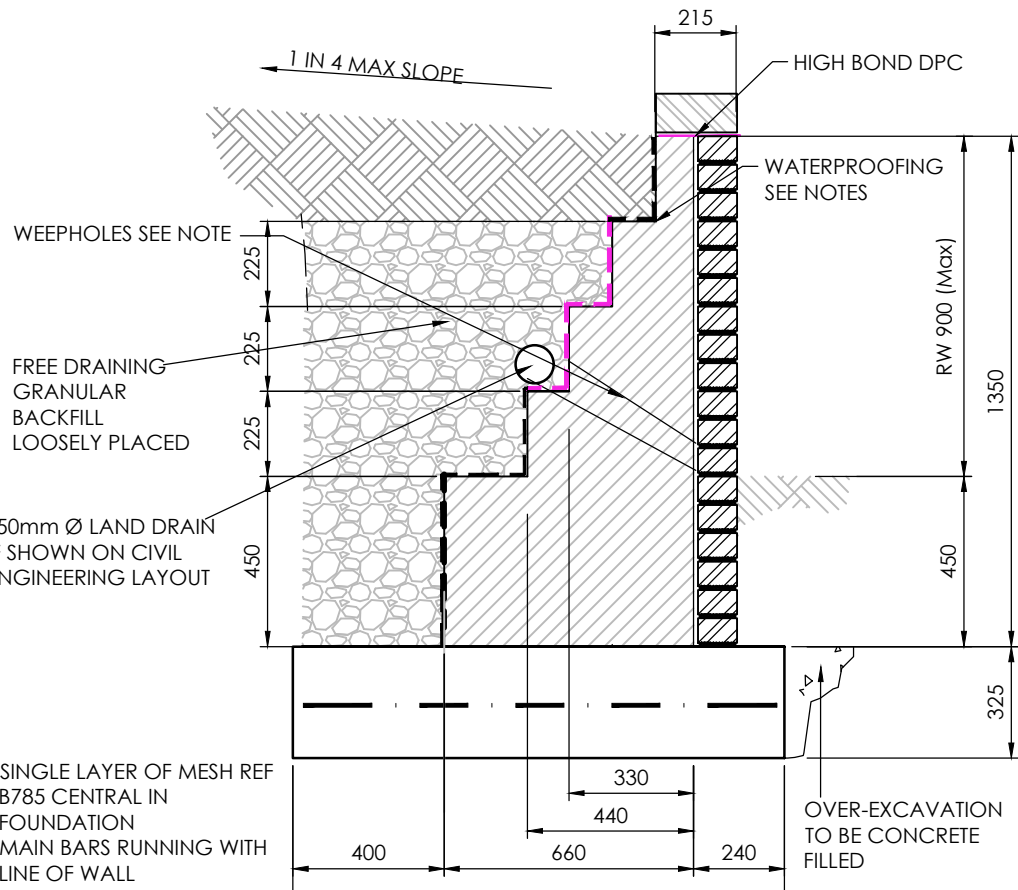
Vibrate in accordance with National Building Specification Clause E10 E90

10. BACKFILLING

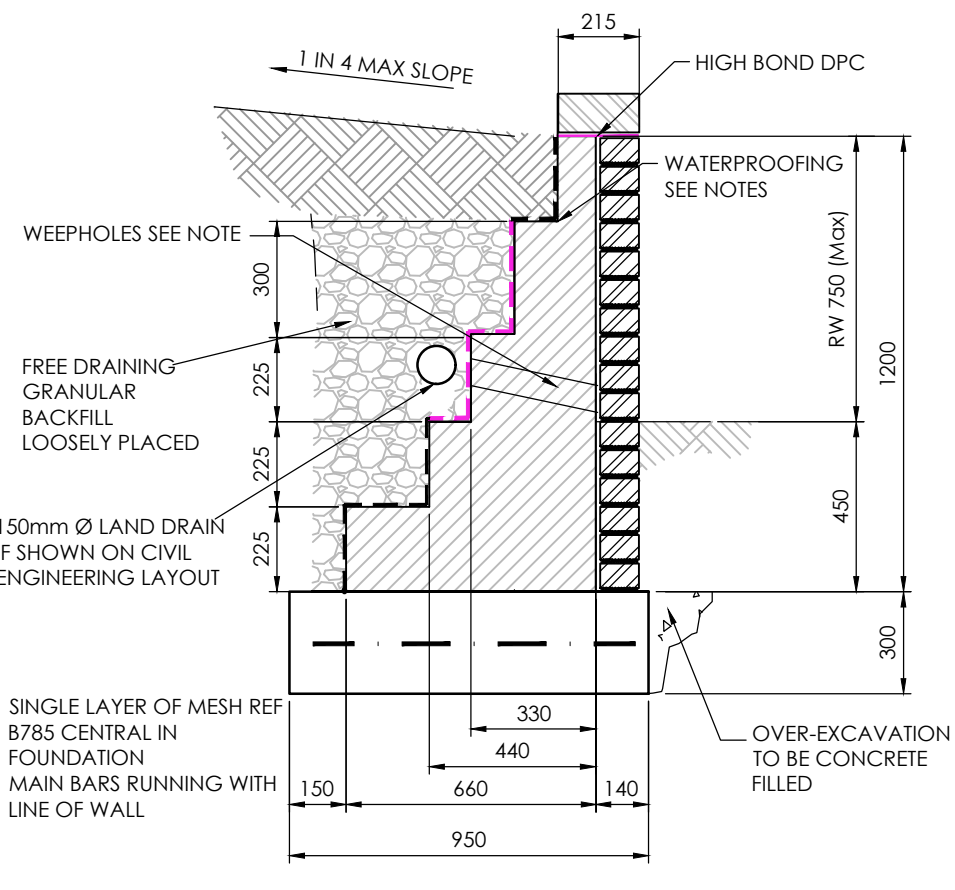
The retaining side of the wall should be back-filled with a minimum width of 450mm drainage layer comprising free-drainage granular material (course aggregate, clean gravel or crushed stone) lightly compacted. General filling should consist of lightly compacted non-cohesive material.

Granular backfill adjacent to the wall should only be loosely compacted. If a high degree of compaction is required for drives the wall should be propped during compaction or an alternative design used.

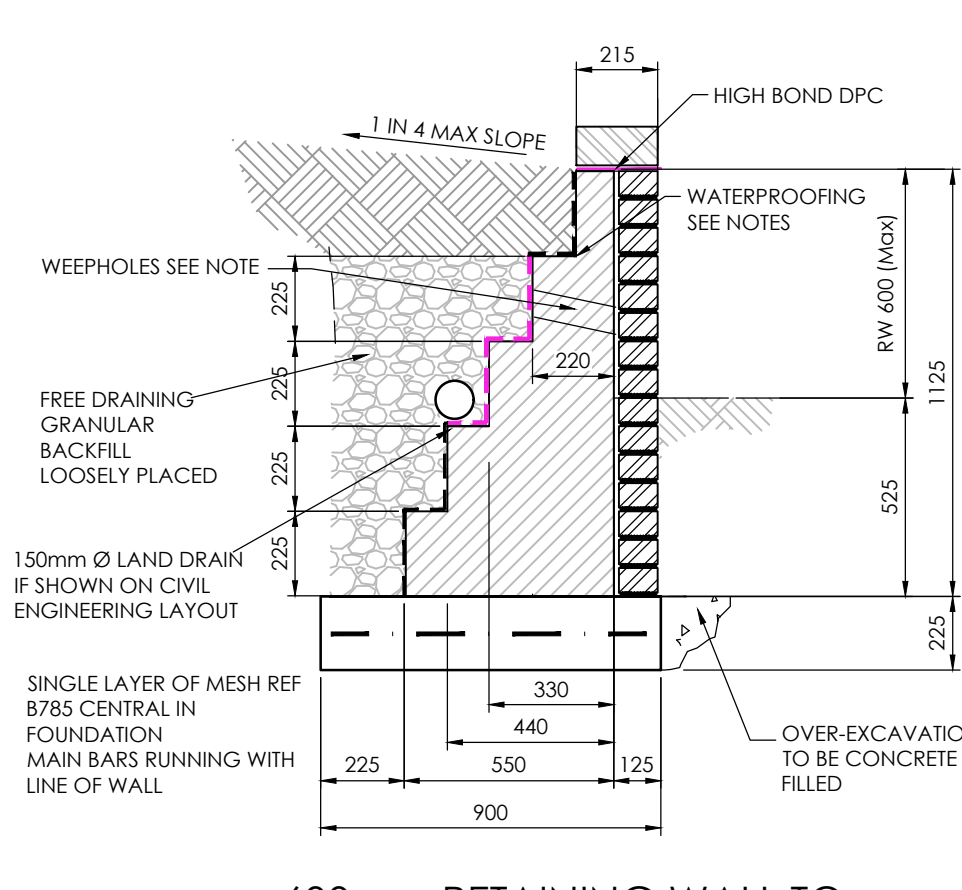
NO BACK-FILLING SHALL BE CARRIED OUT UNTIL AT LEAST 14 DAYS AFTER LAYING THE BOTTOM COURSE OR 7 DAYS AFTER LAYING THE TOP COURSE OF THE BRICKWORK, (WHICHEVER IS LATER) UNLESS IT IS PROPPED.



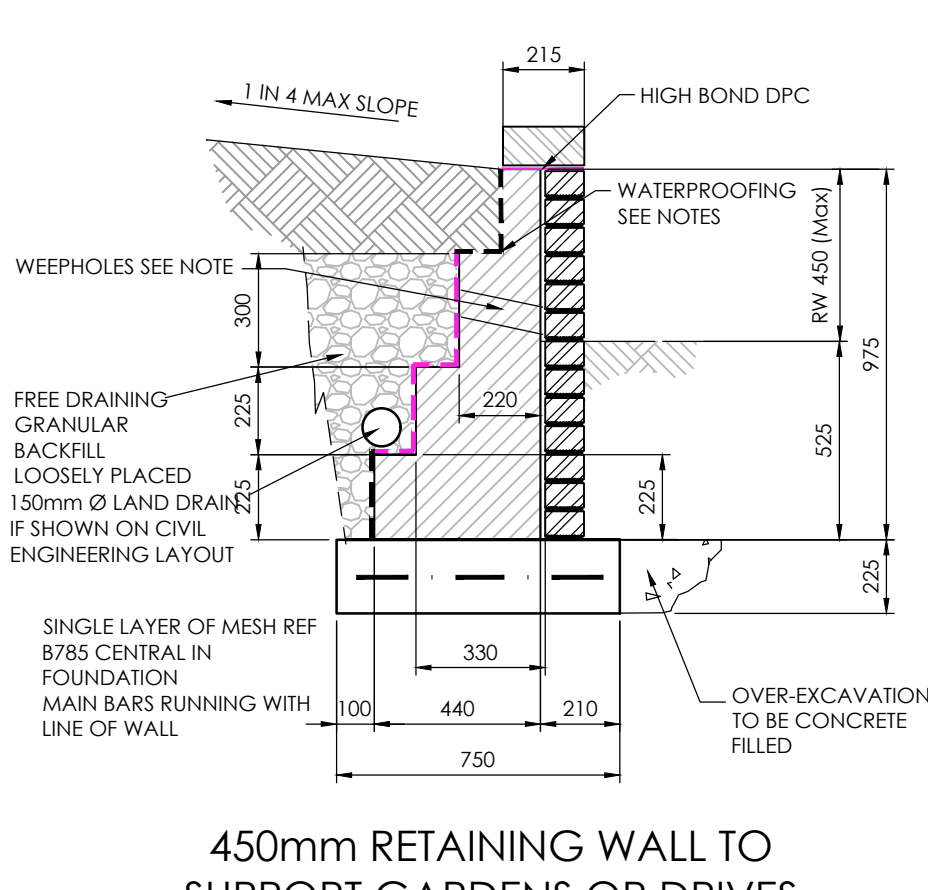
900mm RETAINING WALL TO SUPPORT GARDENS OR DRIVES



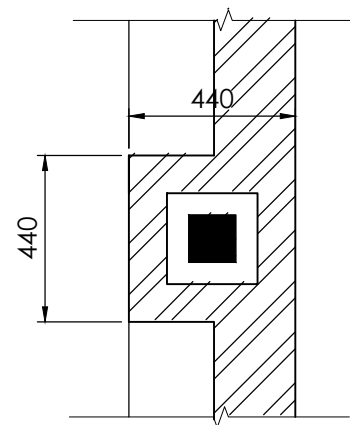
750mm RETAINING WALL TO SUPPORT GARDENS OR DRIVES



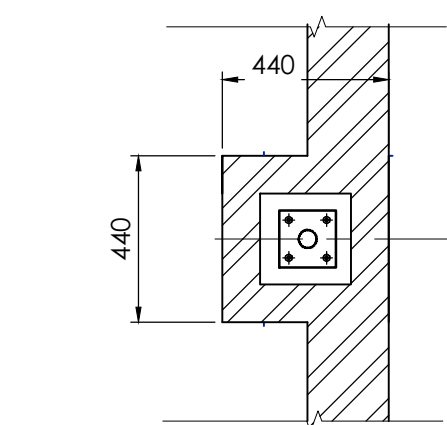
600mm RETAINING WALL TO SUPPORT GARDENS OR DRIVES



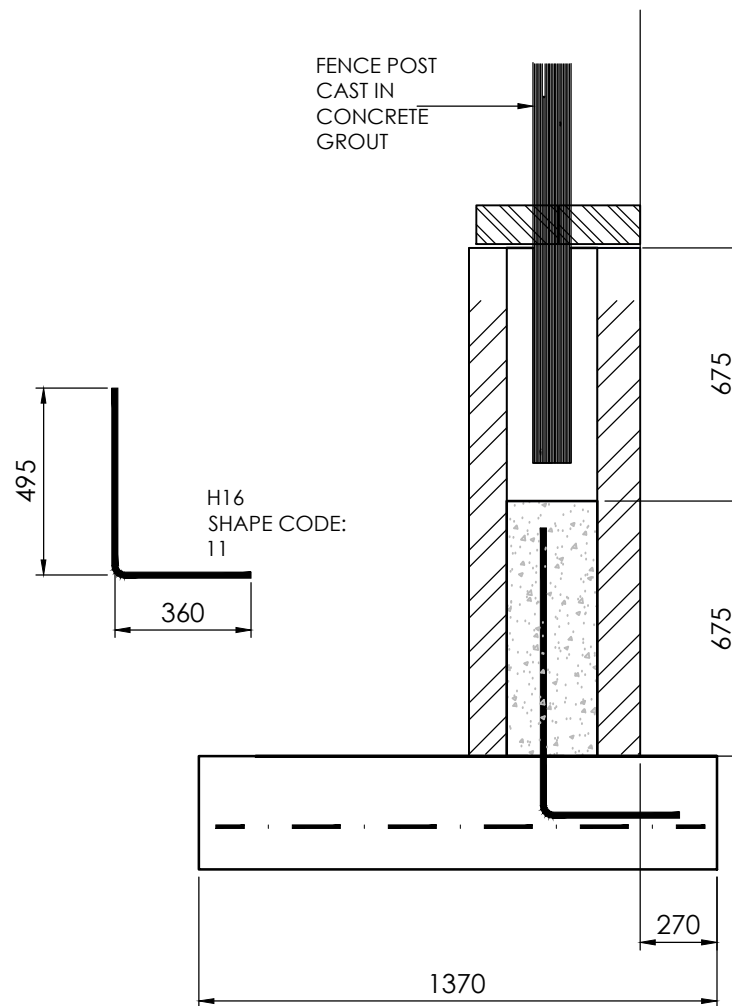
450mm RETAINING WALL TO SUPPORT GARDENS OR DRIVES



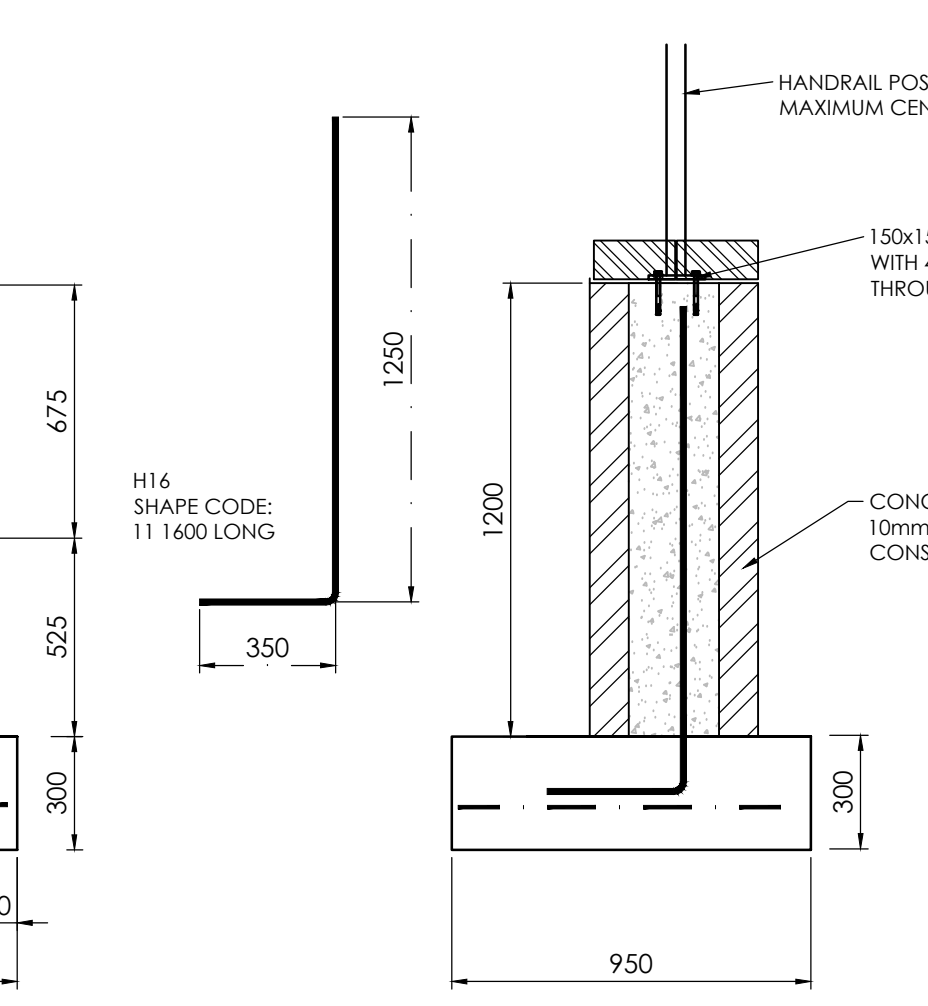
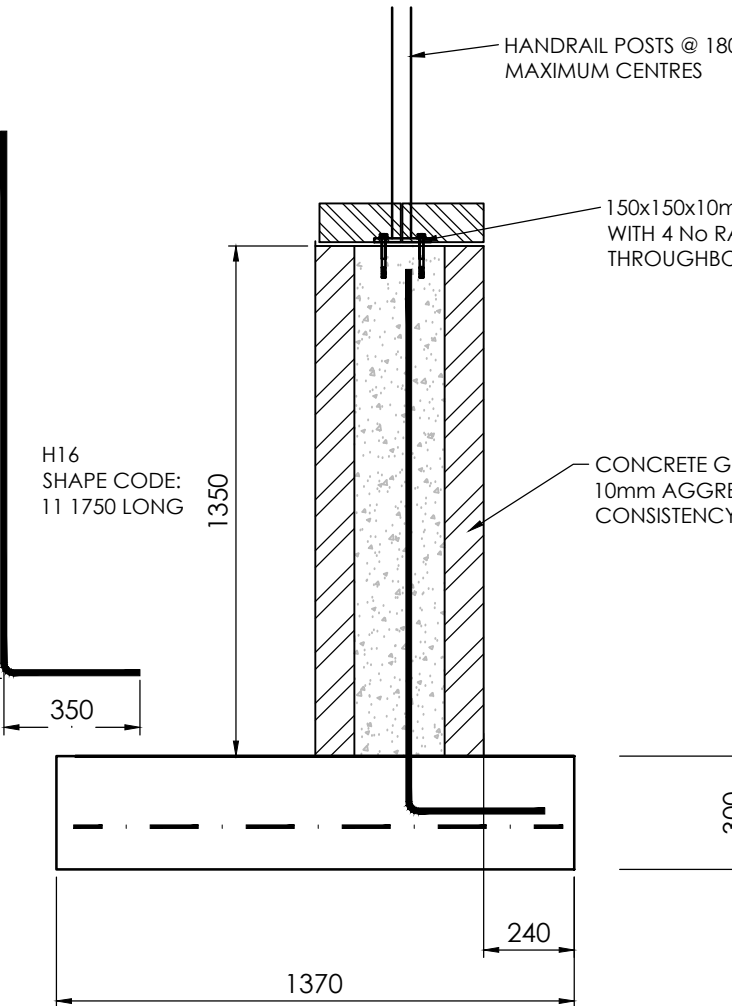
PLAN ON INFILLED BRICK PIER AT 1800 (MAXIMUM) c/c



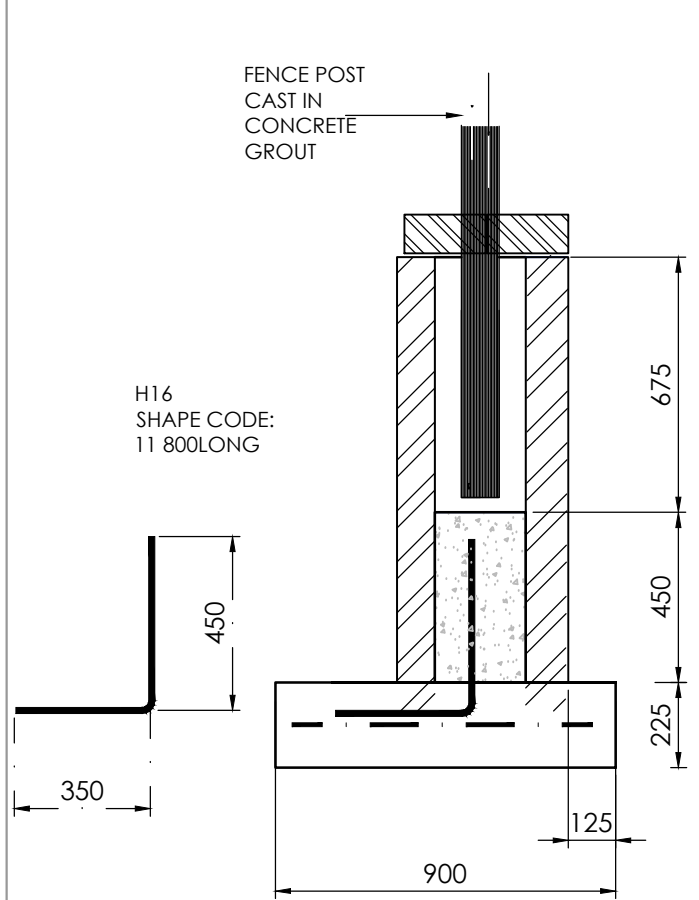
PLAN ON INFILLED BRICK PIER AT 1800 (MAXIMUM) c/c



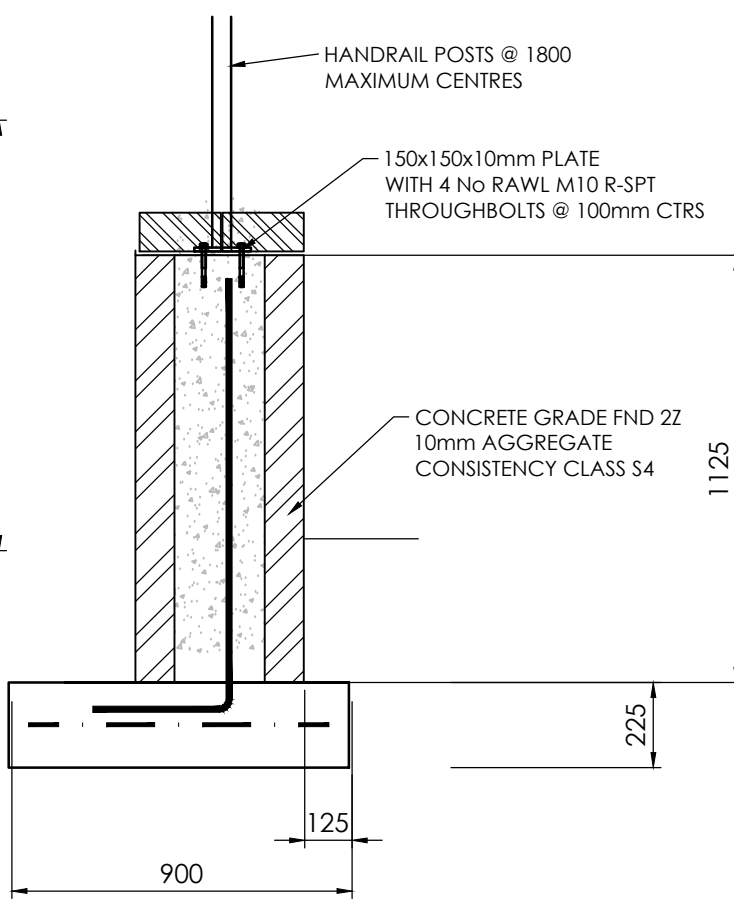
900mm RETAINING WALL FENCE AND POST PIER DETAIL MAX 1800 CENTRES



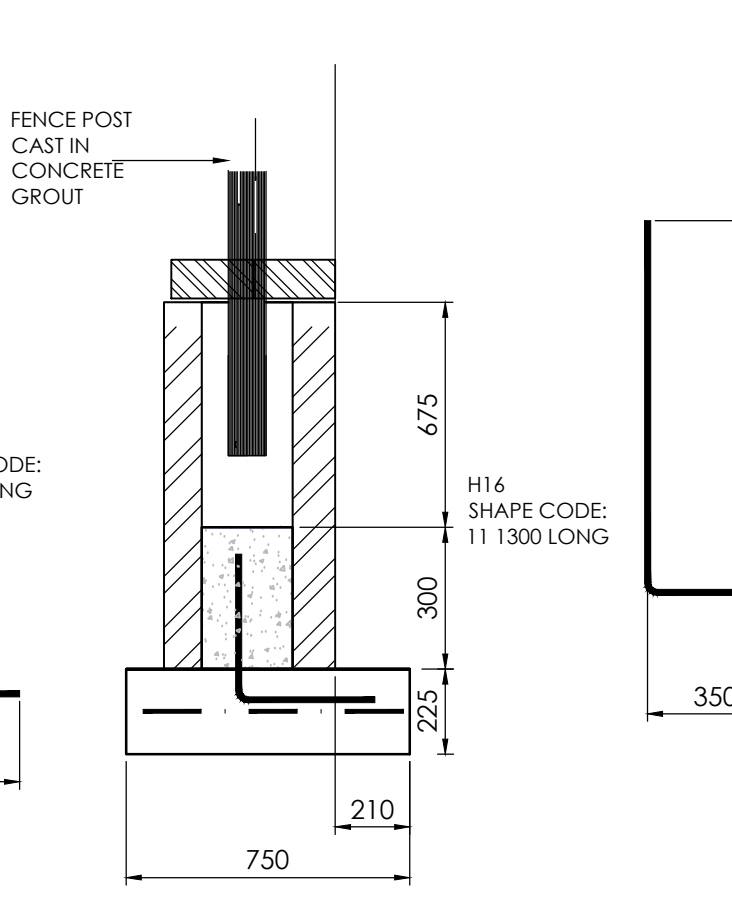
750 mm RETAINING WALL FENCE AND POST PIER DETAIL MAX 1800 CENTRES



600mm RETAINING WALL FENCE AND POST PIER DETAIL MAX 1800 CENTRES



450mm RETAINING WALL FENCE AND POST PIER DETAIL MAX 1800 CENTRES



11. STABILITY

Precautions shall be taken to ensure the stability of the wall during construction, infilling and backfilling.

12. WEATHER

All newly constructed masonry shall be protected to prevent rain falling on its top surface or water being channelled onto it. For faced work shall be protected against striking or other damage resulting from the construction operation. The contractor shall be responsible for avoiding harmful effect of adverse weather on masonry and concrete during and immediately after construction. Frozen materials shall not be used.

13. MOVEMENT JOINTS

Movement joints shall be formed at a maximum of 6000 mm centres and shall occupy the whole height of the wall (except the concrete base). Care shall be taken to ensure that joints are free from debris and on no account shall any joint be filled with mortar.

14. EXCAVATIONS

Excavations to be inspected by the BOD prior to concreting. Formation assumed to be natural ground, medium firm to stiff clay or medium dense to dense sand with an allowable ground bearing pressure of at least 75 kN/m². IF GROUND CONDITIONS DICTATE ABNORMAL FOUNDATION SOLUTIONS FOR DWELLINGS REFER TO BETTS ASSOCIATES FOR FURTHER INSTRUCTIONS.

Over excavation/softened ground in front of wall to be back-filled with concrete.

15. FOUNDATION

Foundations shall be to the sizes shown on drawing.

Concrete to bases to be designated mix FND 22 in accordance with BS 8500 & EN 206-1. Where bases are reinforced use RC 28/35 mix.

Minimum Cover to reinforcement in base to be 50 mm all faces.

P1 06.12.22 Preliminary Issue RT

Mark 1 Date Details By

Revision history

Drawing originator:



Client:

Persimmon Homes East Wales

Persimmon House Llantrisant Business Park, Llantrisant Rhondda Cynon Taff, CF72 8YP. Tel: 01443 223 853

Project title:

Twynyrodyn Merthyr Tydfil

Drawing title:

Brick Retaining Wall Details
Pile & Ground Beam GA
To 900 Retained Height

Scale: As Indicated for the original size of A1

Drawn by: RT Checked by: JEC Passed by: JEC Date: Dec '22

Drawing status:

Preliminary

Job No: Drawing No: Project Origin Volume Level Type Discp. Number Revision:

PER99 BET 1 S RW01 P1

Do not scale this drawing

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