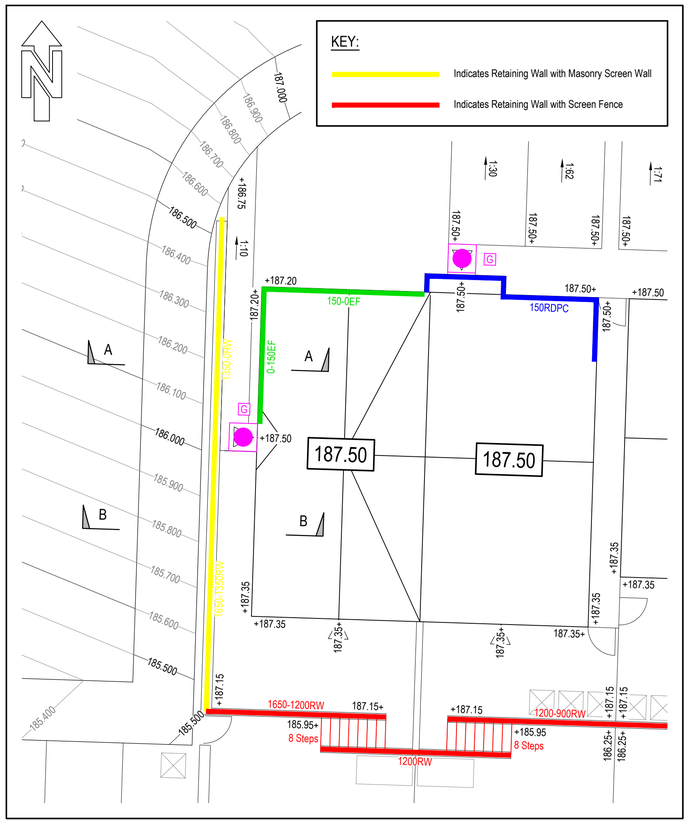
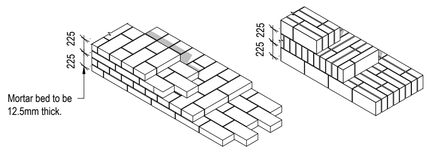


PLAN ON PLOT 18 RETAINING WALL

SCALE 1:100

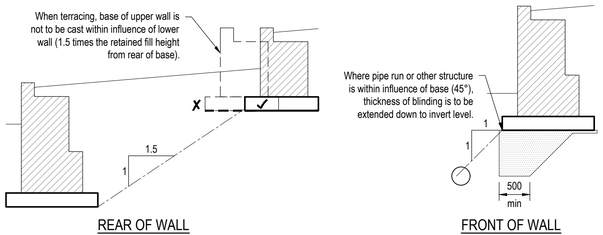
FOR EXTERNAL WORKS DRAWING REFER TO EASTWOOD CONSULTING ENGINEERS DRAWING NUMBERED 4878-ECE-XX-XX-DR-C-0025-P05



LAID FLAT OPTION UPRIGHT OPTION

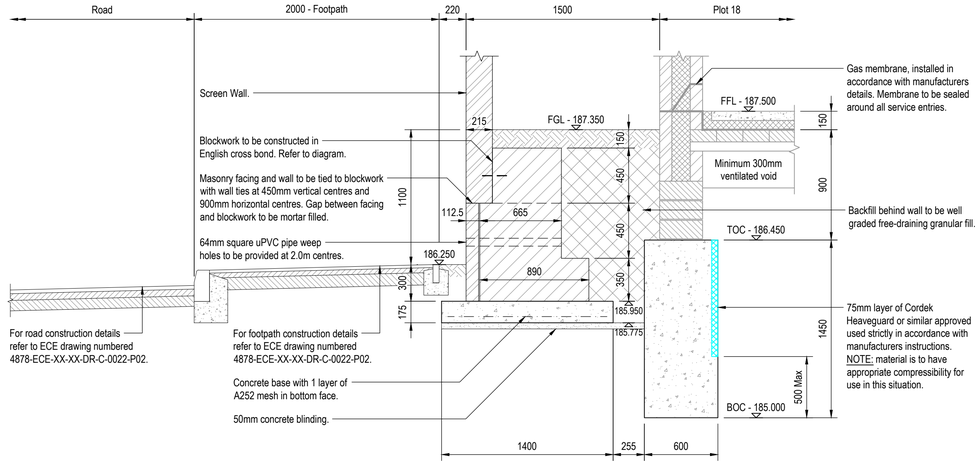
BLOCKWORK CONSTRUCTION

ENGLISH CROSS BOND



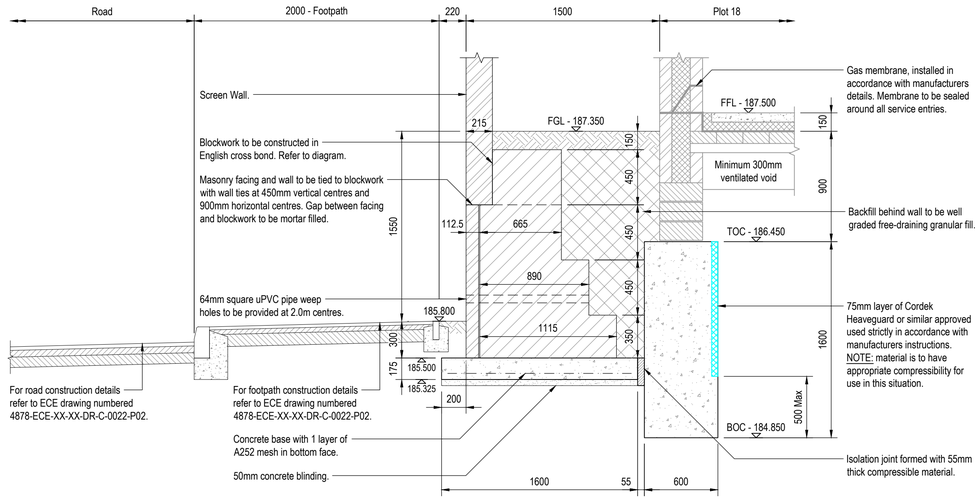
REAR OF WALL FRONT OF WALL

STRUCTURAL INFLUENCE



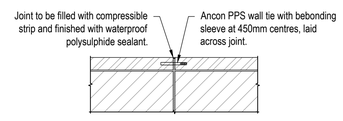
SECTION A-A

SCALE 1:25



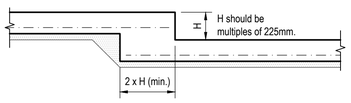
SECTION B-B

SCALE 1:25



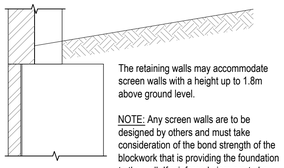
MOVEMENT JOINT DETAIL

AT 6.0m MAXIMUM CENTRES



STEP IN BASE DETAIL

SCALE 1:25



The retaining walls may accommodate screen walls with a height up to 1.8m above ground level.

NOTE: Any screen walls are to be designed by others and must take consideration of the bond strength of the blockwork that is providing the foundation to the wall. If reinforced piers are to be used, consideration must be given to the anchorage of steel reinforcement.

SCREEN WALL OPTION

SCALE 1:25

DESIGN NOTES:

A. The wall has been designed to resist a maximum surcharge of **3.0** kN/m² (i.e. garden or domestic driveway loading). For more onerous loading, e.g. heavy vehicle or highway surcharge, Eastwood Consulting Engineers should be consulted.

B. In combination with the surcharge, the wall is designed to support a 1.80m high wall with a wind load of **1.0** kN/m² (including net pressure coefficients).

C. The wall has been design to resist a maximum construction surcharge of 10.0 kN/m² (5.0 kN/m² for walls less than 1.0m high), when no fence or wind susceptible structure is in influence of the wall.

D. The formation is to have a minimum allowable bearing pressure of 75kN/m². Where walls are to be constructed on softer ground than assumed - Eastwood Consulting Engineers should be consulted.

E. This design will not be applicable in the vicinity of trees, on steeply sloping sites, on sites affected by mining subsidence or where ground strength reduces with depth.

NOTE:
Shallow groundwater is expected; excavations should not be left open for a significant length of time in case side collapse occurs. The time of year for pulling foundations should been considered carefully.

1. This drawing is to be read in conjunction with all relevant external works and foundation layouts.
2. Do not scale from drawings. All levels are in metres above ordnance datum and all dimension are in mm, unless stated otherwise.
3. This drawing is only valid if used within **2 years from first issue**. Eastwood Consulting Engineers should be consulted if this drawing is used after 2 years to ensure that it is to current codes of practice and best practice guidance.

CONCRETE NOTES:

4. Concrete to comply with the National Structural Concrete Specification for Building Construction 4th Edition (NSCS) generally. Project specific elements are highlighted below.
5. Concrete to be designated mix FND2z to BS 8500-2.
6. Nominal cover to reinforcement to be **50**mm unless stated otherwise for exposure class XC2.
7. Fabric mesh reinforcement to be Grade B500A, B500B or B500C to BS 4483.

MASONRY FACING NOTES:

8. Facing below ground level (and including 150mm above ground level) to be Class B Engineering bricks conforming to BS EN 771-1 or aggregate concrete blocks confirming to BS EN 771-3 (suitable for exposure class MX3.2).
9. Facing above ground level to be clay units confirming to BS EN 771-1 with F2 freeze/thaw resistance and S2 sulphate resistance with a water absorption not exceeding 12% or manufactured stone units conforming to BS EN 771-5 (suitable for exposure class MX3.1).
10. Mortar to be Type (ii) / M6 designation in accordance with EN 998-2 & BS EN 1996-2.
11. Coping to be either Class B Engineering bricks conforming to BS EN 771-1, manufactured stone units conforming to BS EN 771-5 or dedicated coping stones (suitable for exposure class MX3.2).
12. Facing to be constructed in stretcher bond.
13. Wall ties to be Ancon SPS 150mm ties (or similar approved) to BS EN 845-1.

MASONRY WALL NOTES:

14. Wall to be constructed from either aggregate concrete blocks conforming to BS EN 771-3 or autoclaved aerated concrete blocks conforming to BS EN 771-4.
15. Blocks are to have a minimum mean density of 1800 kg/m³ and a mean compressive strength of at least 3.6 N/mm².
16. Mortar to be Type (ii) / M6 designation in accordance with EN 998-2 & BS EN 1996-2.
17. Bed joint reinforcement to conform to BS EN 845-3.

FORMATION NOTES:

18. The blinding for the structure should be cast on competent ground, described as having an allowable bearing pressure of at least 75 kN/m².
19. Where competent ground is not encountered at the proposed formation level, the ground should be replaced with well compacted selected granular fill or mass concrete down to competent ground.
20. The Aggressive Chemical Environment for Concrete assumed is DS-1 AC-2z. For more onerous soil conditions, Eastwood Consulting Engineers should be consulted.

BACKFILL NOTES:

21. All backfill behind the wall should be free draining, selected granular material with a course grading, i.e. Class 6F2, 6F5, 6N or 6P material in accordance with The Specification for Highway Works - Series 600 (Table 6/1 and Table 6/2).
The backfill is not to contain clay, organic material or any particles greater than 75mm.
22. The backfill should be suitable compacted. Refer to The Specification for Highway Works - Series 600 (Clause 612 & Table 6/4).
22.1. For walls less than 1.2m in height, the maximum mass per metre width of roll of rollers to be 450 kg (e.g. 270kg max. for 600mm wide roller)
22.2. For walls over 1.2m in height, the maximum mass per metre width of roll of vibratory rollers to be 700 kg (e.g. 420kg max. for 600mm wide roller).

TEMPORARY WORK NOTES:

23. The Contractor is to make themselves aware of the implication of which either they or their sub-contractors make with regard to the structural integrity of the works, existing structures and services.

REV	DESCRIPTION	SIG	CHK	DATE
P03	Blinding thickness revised. Screen wall noted.	JB	AJC	04.03.2026
P02	External Works in area of Plot 18 revised.	JB	CH	04.02.2026
P01	First Issue.	JB	AJC	17.12.2025

RIVA HOMES

CROFT STREET, BIRKENSHAW, BRADFORD, BD11 2HT

PLOT 18
RETAINING WALL DETAILS

Eastwood
CONSULTING ENGINEERS
St Andrew's House
23 Kingfield Road
Sheffield, S11 9AS
T: 0114 255 4554
E: mail@eastwoodce.com
eastwoodce.com

ECE PROJECT No	SCALE AT A1	STATUS	SUITABLE FOR
48785	As Shown	S4	Approval

DRAWING NUMBER REV

48785 - ECE - XX - XX - DR - C - **0105** P03

Project Originator Zone Level Type Role Number