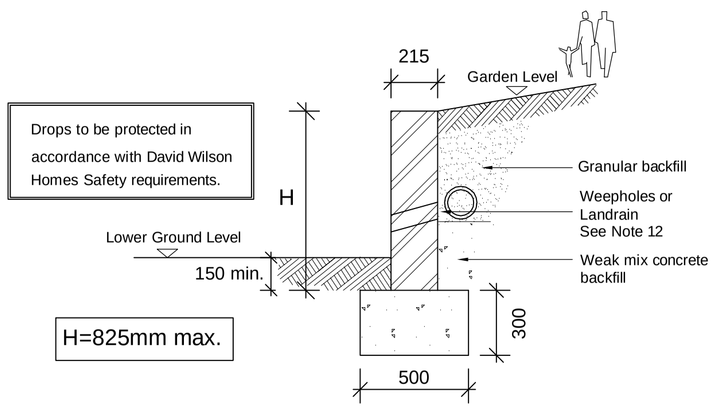
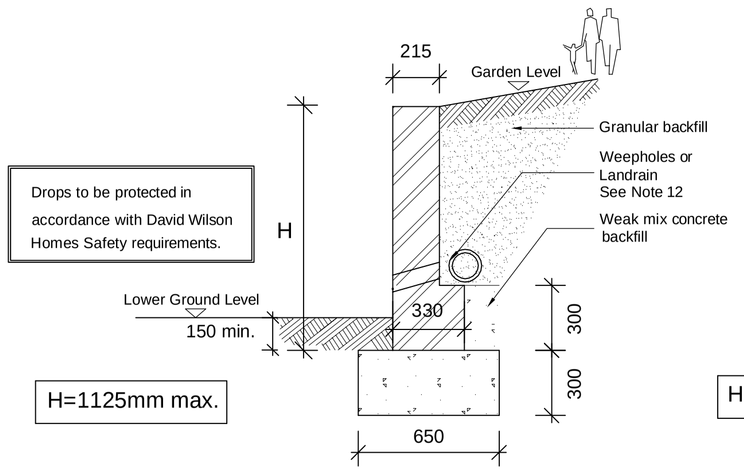
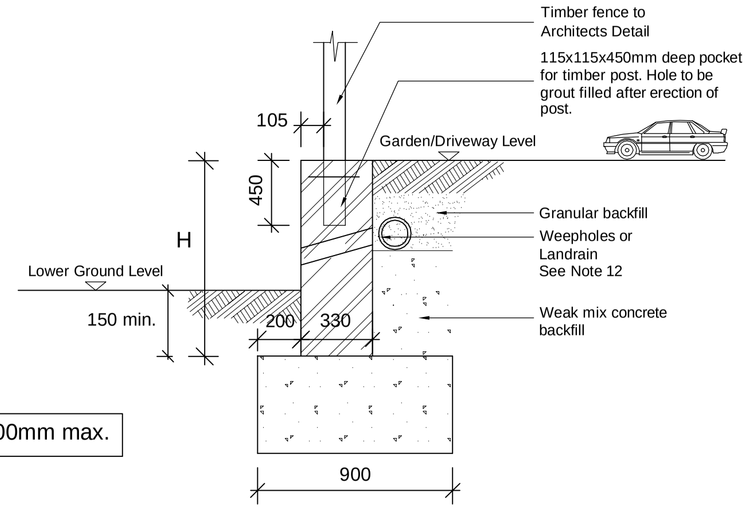


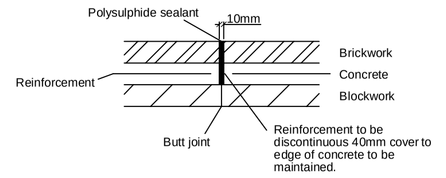
Garden Retaining Wall Type RW1



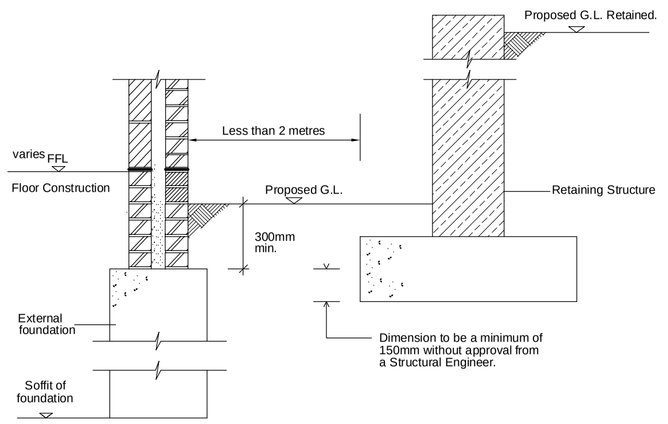
Garden Retaining Wall Type RW2



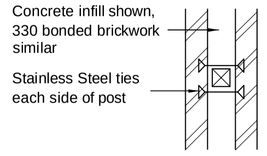
Section Type RW3



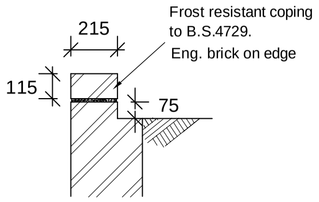
Retaining wall Contraction / Expansion joint



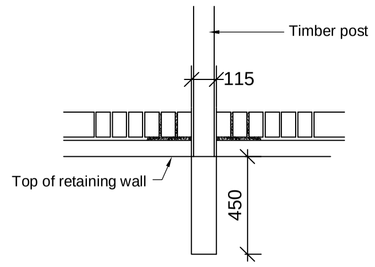
Minimum depth requirement For Foundations



Detail S.S. Ties



Section

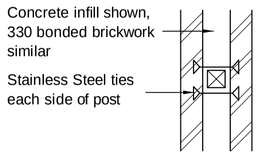


Elevation

Typical Coping Details

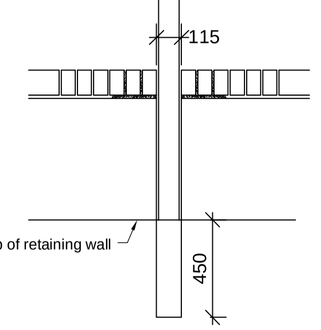
General Notes

1. Foundations have been designed for a ground bearing pressure of 75KN/m2 at provisional formation level as indicated.
2. Walls are divided between two surcharge load cases:-
   i) Domestic Path/Garden Surcharge=1.5KN/m2
   ii) Domestic Vehicular/Driveway Surcharge=5.0KN/m2
3. All walls to be able to retain a max. slope of 10°
4. Walls are to be designed to support a max. 2m high timber fence, unless shown otherwise.
5. The max. allowable wind speed used in these designs is to be 46m/sec. using CPS:chap V:Part 2 Sept. 1972, exposure category 2.e.
6. Walls to be constructed in 'English Garden Wall Bond', bricks to have a min. strength of 35N in min. 1:3 mortar (Type FL or FN clay bricks, min. density 1500kg/m3) with a water absorption rate of less than 7%
7. Where cavity infill concrete is used, stainless steel wall ties at 900mm horizontal and 450mm vertical crs. are to be used
8. Brick walls to have frost resistant copings to BS4729, detail to be agreed with the Architect.
9. Internal blockwork cavity walls to be min. 10.5N blocks (class A) 1500kg/m3, the external surface to be coated with bitumen paint.
10. Expansion joints are to be provided in the brick walls at max. 12m crs. and in inner blockwalls at 6m crs. Suitable approved sealants and fillers to be used in all brick movement joints.
11. All walls to have a min. of 450mm of granular backfill behind the wall.
12. Walls to have 75mm dia. weep holes at 1m crs or 150mm rear land drain connected into stormwater drainage system. Land drains should be used where localised ponding on the lower ground level side could occur.
13. Base concrete to be:-
    i) Unreinforced condition use C20 concrete, min. cmt. 220kg/m3 using opc max. aggregate size 40mm medium workability.
    ii) Reinforced condition use C35 concrete min. cmt 290kg/m3, using opc max. aggregate size 20mm medium workablity. All concrete compacted by vibration.
14. Stem cavity concrete to be C35 concrete, min. cmt 290kg/m3 using opc max. aggregate size 10mm medium workability. Concrete to be placed and compacted in layers not exceeding 450mm deep.
15. Reinforced to be high yield, starter bars cut and bent to BS4466. Cover to be min. 75mm base and 40mm stem. Mesh side laps to be 400mm
16. All materials to comply with current British Standards and Codes of Practice.
17. Further information should be sought if:-
    i) The retaining wall is to be constructed adjacent to the public highway.
    ii) Where drainage is to be placed close to the lower ground level.
    iii) The retained height 'H' is greater than 2100mm
    iv) The retained slope is greater than 10°
18. For locations refer to Architects layout drawings.
19. No allowance on the retaining walls has been made for the excavation installation or intrusion from any drainage or other utility services or structures.



Detail S.S. Ties

Section

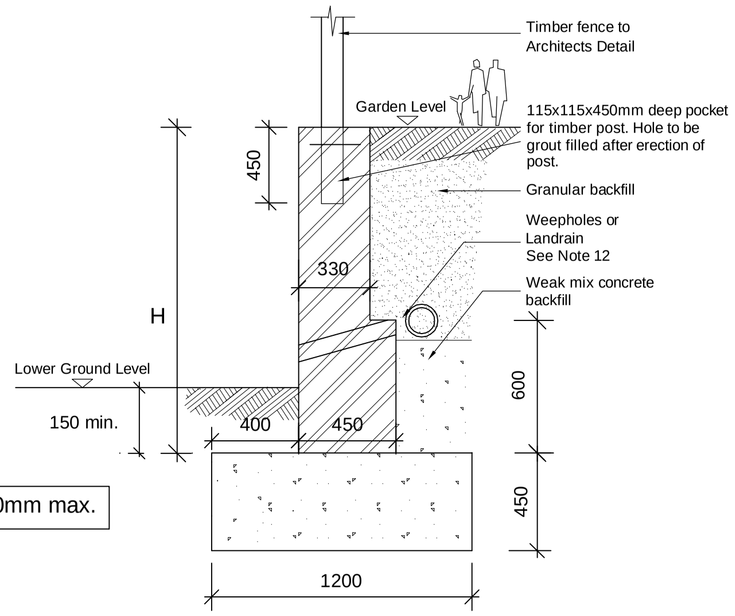


Elevation

Typical Coping Details to upper car parking areas.

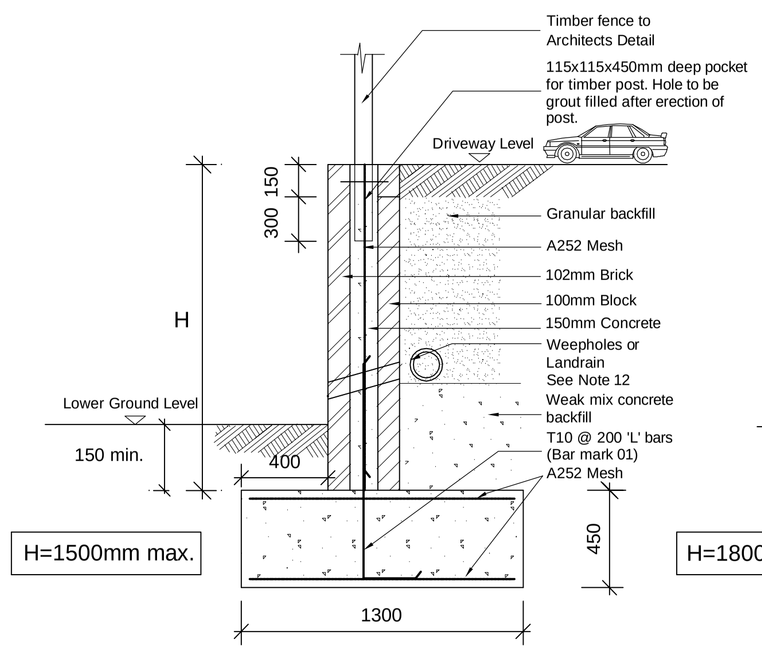
Section Type RW4

Section Type RW5

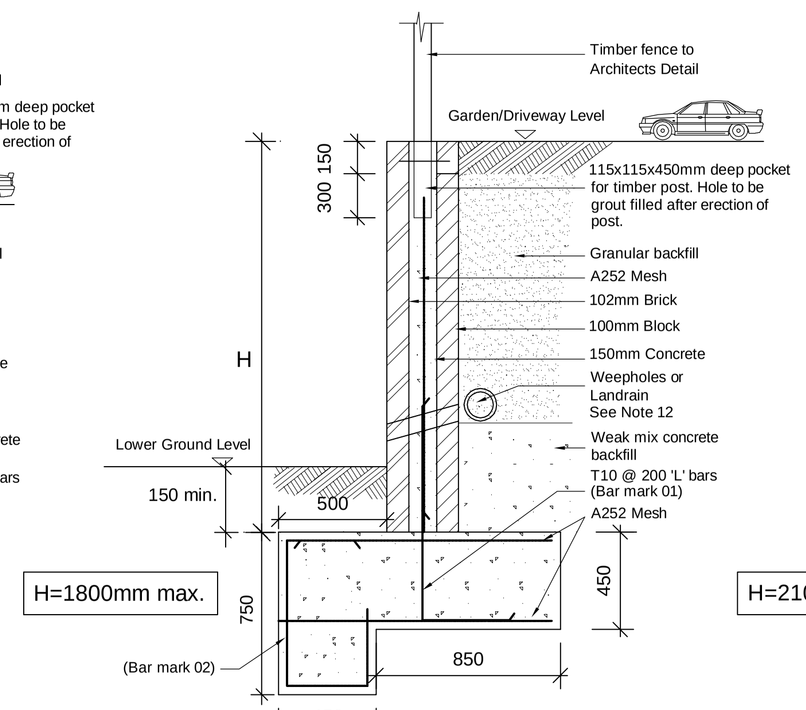


Section Type RW6

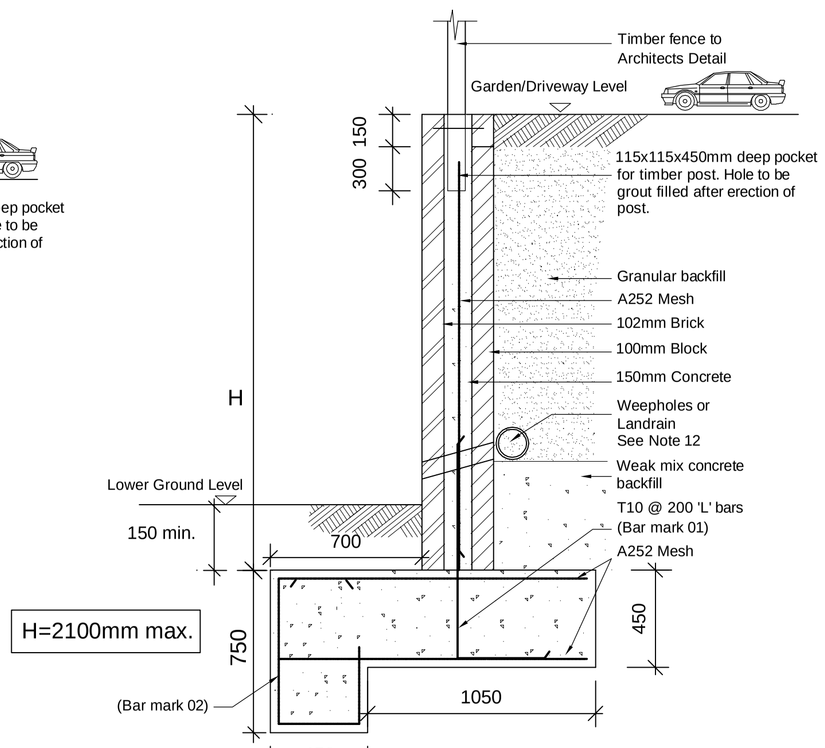
Member	Bar Mark	Type & size	No of mbrs	No in each	Total No.	Length of each bar mm +	Shape Code	a* mm	b* mm	c* mm	d* mm	e/r* mm
WET WALL	01	T10				1400	37	1000				
	02	T10				1650	52	320	670	370		



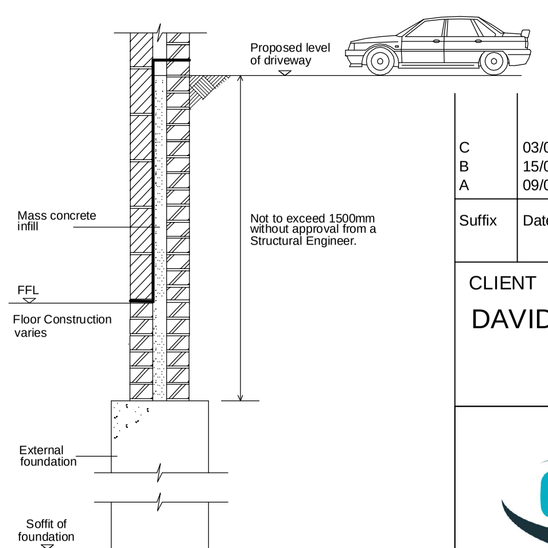
Section Type RW7



Section Type RW8



Section Type RW9



Maximum depth of Tanked block wall against Parking

Suffix	Date	Initials	Revision	SE	GEO
C	03/01/06	M.F.	Additional coping details and sections added.	R.H.	
B	15/03/99	-	Additional coping details and sections added.	R.H.	
A	09/03/99	-	Additional coping details and sections added.	R.H.	

Checked

CLIENT
DAVID WILSON HOMES

PROJECT

TITLE
STANDARD RETAINING WALL DESIGNS

GRM Development Solutions
geoenvironmental - civil - structural
Bretby Business Park, Ashby Road, Burton on Trent, Staffs, DE150YZ
Tel: (01283)551249 Fax: (01283) 211968

REF P647 | DRAWING NO. 01 | REVISION C

DATE Oct 1998 | SCALE 1:20

DRAWN BY S.H. | CHECKED SE R.H. | CHECKED GEO

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