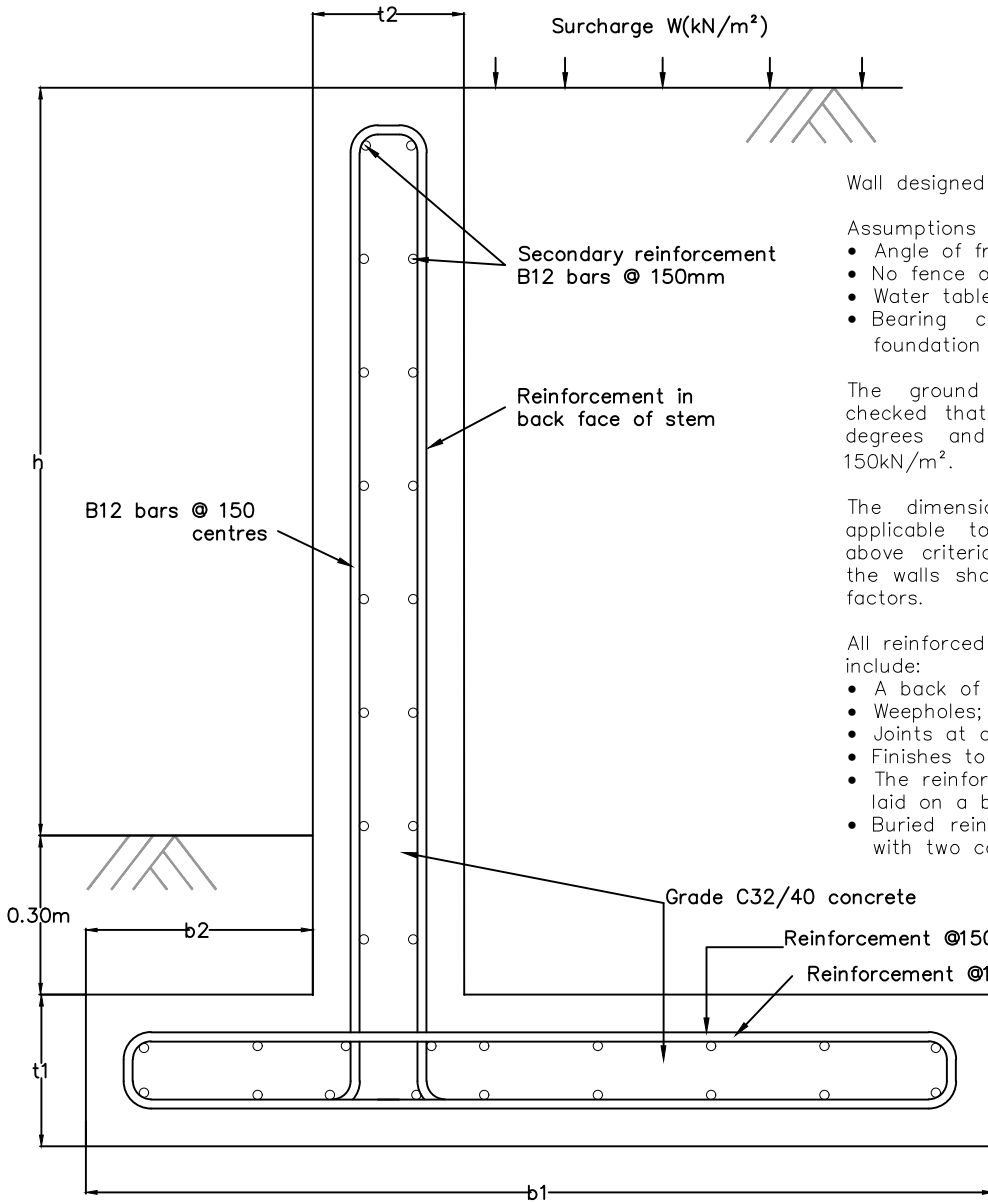


NOTE: Cover to reinforcement = 50mm

Rev.	Amendments	Date	Made By	Chk'd By



Wall designed to EC7.

Assumptions made for this design :

- Angle of friction on base = 35 degrees
- No fence or parapet is fixed to the wall
- Water table is below formation level
- Bearing capacity of the ground below the foundation is 150kN/m<sup>2</sup>.

The ground below the foundation should be checked that the angle of friction is at least 35 degrees and the bearing capacity is at least 150kN/m<sup>2</sup>.

The dimensions shown in the table are only applicable to walls at locations that meet the above criteria. If these criteria are not met then the walls should be designed to suit the prevailing factors.

All reinforced concrete retaining walls must also include:

- A back of wall drainage system;
- Weepholes;
- Joints at appropriate spacings;
- Finishes to highway standards.
- The reinforced concrete foundation slab must be laid on a blinding layer 75mm thick.
- Buried reinforced concrete must be waterproofed with two coats of bitumen.

Retained Height h (m)	Surcharge W(kN/m <sup>2</sup> )	Foundation Width b1 (m)	Toe Width b2 (m)	Base Thickness t1 (m)	Stem Thickness t2 (m)	Reinforcement @ 150 Centres				
						Bar Size: Back of Stem	Bar Size: Top of Base	Bar Size: Bottom of Base		
3.0	12	2.70	0.35	0.35	0.35	B20 bars	B16 bars	B12 bars		
	5	2.10	0.35	0.35	0.35	B16 bars	B12 bars			
2.7	12	2.40	0.35	0.35	0.35				B12 bars	B12 bars
	5	1.85	0.35	0.35	0.35					
2.4	12	2.00	0.30	0.30	0.30	B12 bars	B12 bars			
	5	1.70	0.30	0.30	0.30					
2.1	12	1.75	0.30	0.30	0.30	B12 bars	B12 bars			
	5	1.55	0.30	0.30	0.30					

Typical sizes for various retained heights.

## REINFORCED CONCRETE 'T' CANTILEVER WALL

COMMON STANDARDS FOR WALES  
HIGHWAY DESIGN GUIDE

Drawn	MT
Checked	SZ
Date	Feb '20
Scale	N.T.S.
Drg. No.	604
Rev.	