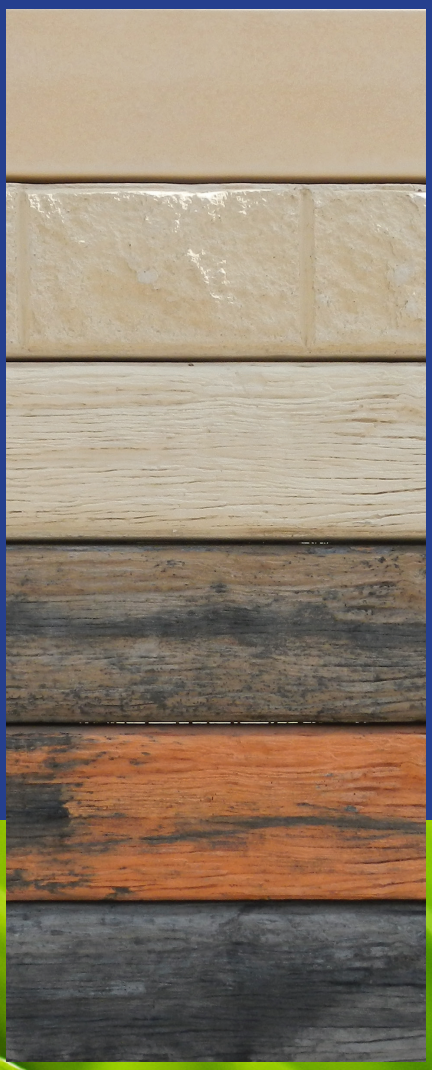
BAINES MASONRY
Quality First

Concrete Sleeper

Retaining Wall Installation Guide



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BAINES MASONRY
900 Wilton Road (P.O. Box 89) Appin NSW 2560
Tel: (02) 4631 1383 Fax: (02) 4631 1402
info@bainesmasonry.com.au
www.bainesmasonry.com.au

STEP 1: BASE PREPRATION
Clear and level your site where you plan to build the retaining wall. Please ensure you leave a minimum of 200mm behind the retaining wall area for backfill.

STEP 2: POST HOLES
Starting from one end of the wall, mark a cross on the ground at 1.8mt Intervals.

STEP 3: AUGER HOLES
Auger holes to a minimum diameter of 450mm and a depth as required determined by the height of the retaining wall, see schedule 1.

Step 4: Placement of Steel Posts
Ensure post are level and spaced at 1800mm centres.

Step 5: Concrete Placement
Concrete should be a minimum of 20mpa, check alignment of post before concrete sets. Allow a least 3 days before installing concrete sleepers. Set a concrete levelling pad between posts for the bottom sleeper to sit on. This pad can be below ground level if you do not wish to view the pad when finished.

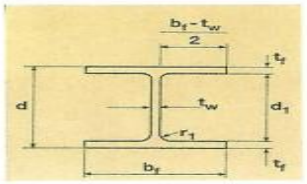
Step 6: Concrete Sleeper Placement
Slide the first sleeper into steel posts, check if sleeper is level, if not pack the bottom of the sleeper with concrete mortar to level. Place 90mm ag pipe, with sock, behind the bottom sleeper and connect to a legal point of discharge, slide the remaining sleepers into place.

Step 7: Backfill Drainage Material

Place 20mm gravel, crushed stone or recycled concrete behind the concrete sleeper wall, plug the last 100mm from the top of the last sleeper with concrete or clay to stop any ground water from entering the rear of the concrete sleeper wall.

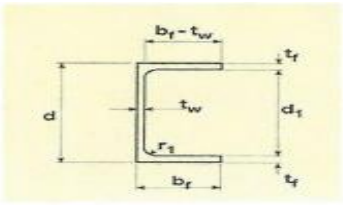
Height "H"	Depth "D"	Embed "E"	Diameter "d"	Column Size C1
1000	1400	1200	450	100 UC15
1200	1600	1400	450	100 UC15
1400	1800	1600	450	100 UC15
1600	2000	1800	450	150 UC23
1800	2300	2000	450	150 UC23
2000	2500	2200	450	150 UC31

Schedule 1



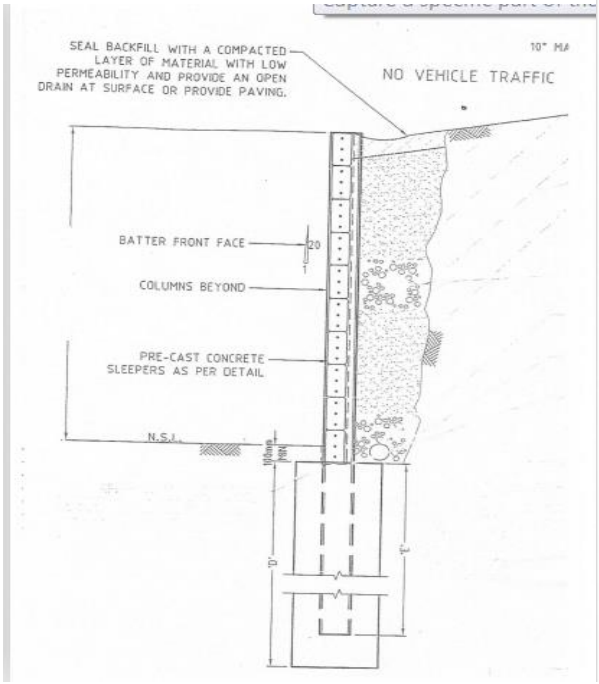
Dimensions of Universal Columns

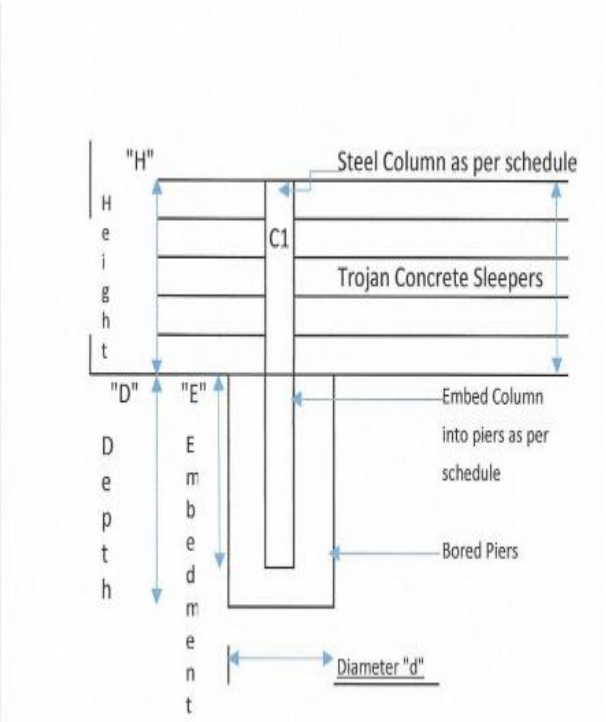
Designation	Depth of Section (d)	Flange Width (b_f)	Flange Thickness (t_f)	Depth Between Flanges (d_1)
kg/m	mm	mm	mm	mm
100UC 14.8	97	99	7.0	83.0



Dimensions of Parallel Flange Channels

Designation	Depth of Section (d)	Flange Width (b_f)	Flange Thickness (t_f)	Depth Between Flanges (d_1)
kg/m	mm	mm	mm	mm
100PFC8.33	100	50	6.7	86.6





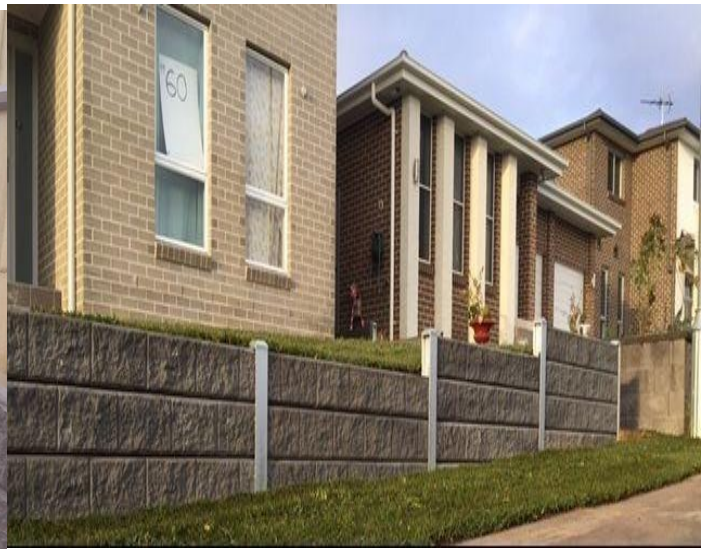
These retaining wall details are generic only and are suitable for wall up to 1-metre-high and are applicable to the soil conditions in note W6 of the detailed drawings 18000-R01 Revision A (available on request). Walls over 1-metre-high should be certified by a qualified engineer, ensure local council requirements are adhered to for all retaining walls regardless of height.

All steel shall be in accordance with AS3679.1 Grade 300 and be

(I) hot dip galvanised, or

(II) have one coat of an inorganic Zinc Silicate, followed by one coat of all-weather gloss acrylic with UV protector. or

(III) Epoxy high corrosion-resistant system or equivalent. Galvanised steel should nave a primer coat followed by a finish coat both of Zinc Dust or Zinc Oxide Type. Both coats may either be brushed or sprayed.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