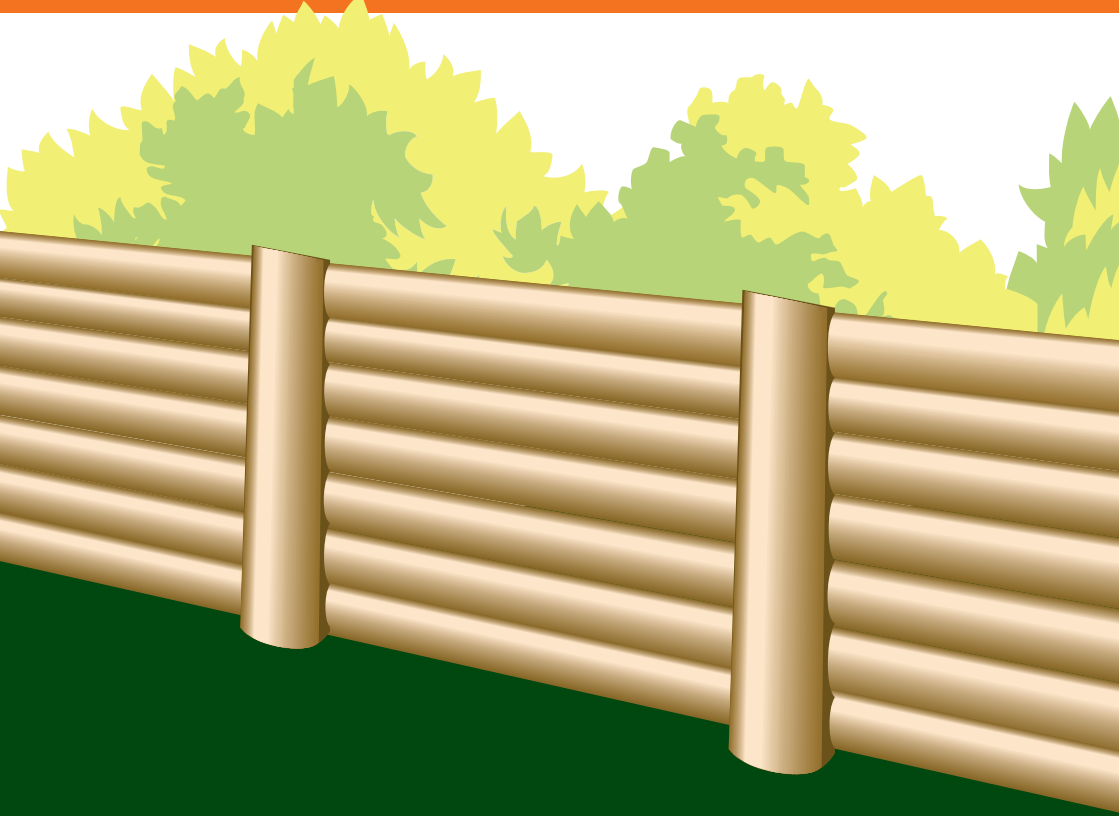


HOW to **BUILD** YOUR OWN DIY

treated pine **CANTILEVER WALL**



www.penrosepine.com.au

Closed Face Cantilever Wall Construction

1 Post spacing & foundation

Post spacing and anchoring are dependent on the height of the wall, the soil type, the total load to be retained, and the diameter of the log. Consult your stockist and local council for design assistance. Hole diameters should be 400mm diameter for posts up to 250mm and 500mm diameter for posts over 250mm.

Standing Posts

Place a layer of course rubble at the base of the posts for drainage.

(1) Stand posts in holes and brace temporarily, check the alignments and ensure there is sufficient backward slope to compensate for deflection of timber or foundations under load. In most cases, a 1:5 slope backwards towards the retained load is sufficient. Use a string line to ensure proper post alignment. Use a string level or water filled plastic hose to correctly align post heights.

Concreting

Ensure there is adequate space behind the posts to fit the horizontal logs or timbers. (3) This will prevent the pooling of rainwater around the post. Grout the post holes with concrete, filling the hole to a level above ground line.

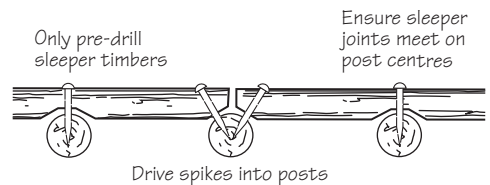
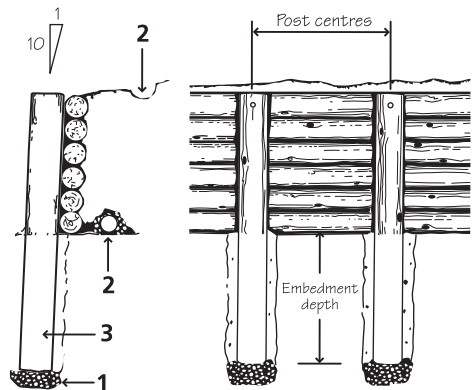
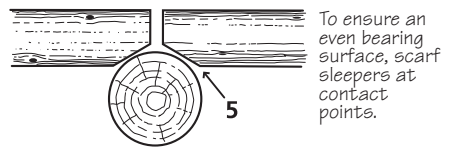
Horizontal Log Installation

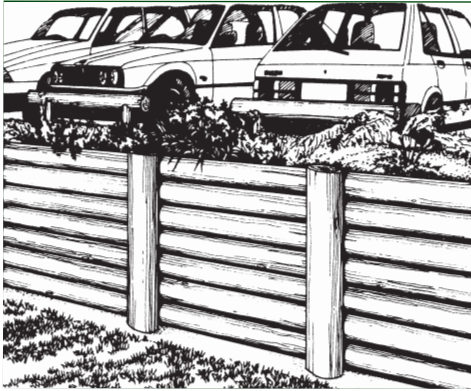
During installation, ensure logs or timbers are kept in alignment. With logs exhibiting significant taper, it may be necessary to alternate small and large ends to avoid misalignment.

Where possible, fix the top of the wall first and build down from, or up from it, to ensure exact horizontal alignment.

All joints should be located where the horizontal timbers meet at a vertical post. End of logs should be scarfed (5) to ensure an even bearer surface.

10mm galvanised bridge spikes should be used to attach the top row of the wall. Pre-drill a slightly undersized hole into the walling and drive the spike into the upright post. Spikes, nails or wire can be used to fix the lower rows of the wall.





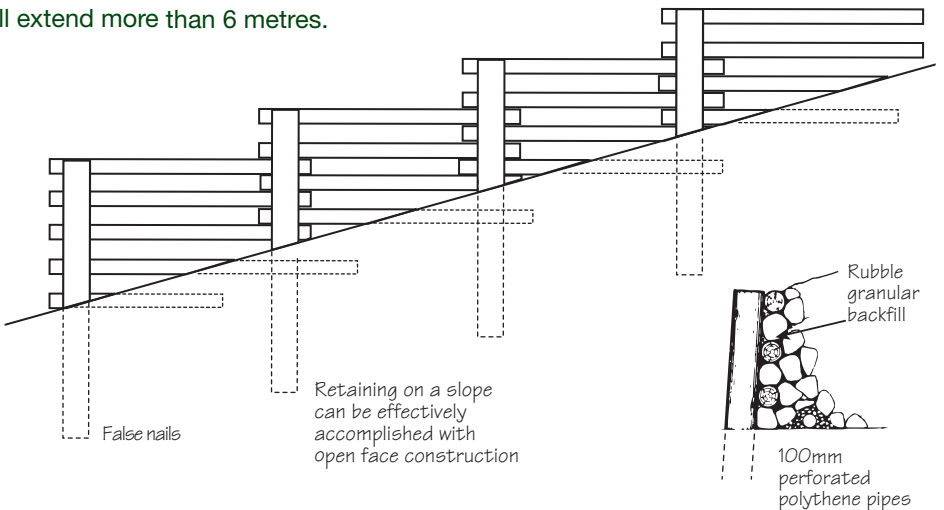
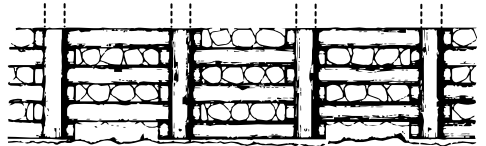
Open Face Cantilever Walls

Drainage

To ensure proper drainage at the base of the wall, install a perforated polythene pipe along the back of the wall. (2) The fall of the pipe along the wall should allow drainage at a suitable disposal point. Be sure to install a granular drainage layer behind the wall and around the pipe.

A surface drain (4) should be installed where the ground slopes towards the wall and the water catchment area behind the wall extend more than 6 metres.

Open log construction provides a simple solution to retaining on a slope.



Palisade Walls



Anchoring of palisade walls requires preparation of a continuous trench with concrete work generally the same as for cantilever walls. Walls taller than 1.2m should slope inward to compensate for any future deflection of the timber or foundations. Staple wire along the tops of logs to provide stability during grouting.

Timber care



Cutting, notching or boring may expose untreated heartwood. A liberal coating of PROTIM® RESEAL is recommended to restore the protective envelope. For more details refer to the PROTIM® Timber care product literature. Raincoat UV Plus should be used to reduce the effects of weathering & maintain the appearance of your timber project.

Osmose Australia. makes no warranties expressed or implied or as to the fitness for a particular purpose of this plan. Check with an architect, building expert or soil engineer to make sure that this plan is appropriate for your situation and meets local building codes. A permit may be required. Read carefully the important timber information on www.osmose.com.au <<http://www.osmose.com.au>> regarding pressure treated wood before starting construction.

Important Information

1. Do not burn preserved wood.
2. Wear dust mask & goggles when cutting or sanding wood.
3. Wear gloves when working with wood.
4. Some preservative may migrate from the treated wood into soil/water or may dislodge from the treated wood surface upon contact with skin. Wash exposed skin areas thoroughly.
5. All sawdust and construction debris should be cleaned up and disposed of after construction.
6. Wash work clothes separately from other household clothing before re-use.
7. Preserved wood should not be used where it may come into direct or indirect contact with drinking water, except for uses involving incidental contact such as fresh water docks and bridges.
8. Do not use preserved wood under circumstances where the preservative may become a component of food, animal feed or beehives.
9. Do not use preserved wood as mulch.
10. Only preserved wood that is visibly clean and free of surface residue should be used.
11. Do not use preserved wood in direct contact with aluminum.
12. If the wood is to be used in an interior application and becomes wet during construction, it should be allowed to dry before being covered or enclosed.
13. Disposal Recommendations: Preserved wood may be disposed of in landfills or burned in commercial or industrial incinerators or boilers in accordance with federal, state and local regulations.
14. If you desire to apply a paint, stain, clear water repellent or other finish to your preservative treated wood, we recommend following the manufacturer's instructions and label of the finishing product. Before you start, we recommend you apply the finishing product to a small exposed test area before finishing the entire project to insure it provides the intended result before proceeding.
15. Certain metal products (including fasteners, hardware and flashing) may corrode when in direct contact with wood treated with copper-based preservatives. To prevent premature corrosion and failure it is important to follow the recommendations of the manufacturers for all metal products.
16. Mould growth can and does occur on the surface of many products, including untreated and treated wood, during prolonged surface exposure to excessive moisture conditions. To remove mould from the treated wood surface, wood should be allowed to dry. Typically, mild soap and water can be used to remove remaining surface mould. For more information visit www.epa.gov.
17. For more information visit www.osmose.com.au / www.osmose.co.nz.

guide to the HAZARD CLASSES

HAZARD CLASS	CONDITIONS	HAZARD	EXAMPLES
H1	Completely protected from the weather and well-ventilated	Lyctid borers	Susceptible framing, flooring, furniture and interior joinery
H2	Protected from wetting	Borers including termites	Framing, flooring and similar, used in dry conditions
H2F - Conditions and biological hazard as for H2 although approved for use Souther of the Tropic of Capricorn only. Example: Envelope Treatment			
H2S - Conditions and biological hazard as for H2 although approved for use Souther of the Tropic of Capricorn only. Example: LVL/Plywood (glue-line treatment)			Weatherboard, fascia, pergolas (above ground), joinery, decking & laminated verandah posts
H3	Subject to periodic moderate wetting	Moderate decay fungi, borers and termites	
H3**	Products predominantly in vertical exposed situations and intended to have the supplementary paint coat system that is regularly maintained.	Moderate decay fungi, borers and termites	Fascia, barge boards, exterior cladding, window joinery, door joinery and non laminated verandah posts
H4	Subject to severe wetting	Severe decay fungi, borers and termites	Fence posts, garden walls less than 1m high
H5	Subject to extreme wetting and/or where the critical use requires a higher degree of protection	Very severe decay fungi, borers and termites	Retaining walls, piling, house stumps, building poles and cooling tower fill
H6	Subject to prolonged immersion in sea water	Marine wood borers and decay fungi	Boat hulls, marine piles, jetty cross bracing and landing steps etc

Note: Please refer to the complete standards for more detailed information.

** as per AS1604 and NSW TMA

*For further information see separate brochure, consumer information and handling guide and guarantee documents. PROTIM®, RESEAL® and MoistureGuard™ are trademarks of Osmose, Inc. or its subsidiaries. © 2007 Osmose Australia # PENPDIYPERGAu_1007.

These plans have been checked and approved (at the time of printing) by Roy B.Hoskins & Associates of Qld 4006 (Structural & Civil Engineers), to be technically accurate and designed in accordance with the appropriate Australian Building standards, as local & National laws are subject to change, please ensure you check with your local authorities prior to starting construction.

