

STANDARD NOTES:

GENERAL STRUCTURAL NOTES

GENERAL

- G1. These drawings shall be read in conjunction with all architectural drawings and specifications. Any discrepancies shall be referred to the the Architect before proceeding with work.
- G2. All dimensions relevant to setting out and offsite work shall be verified by the Contractor before construction and fabrication is commenced. The Engineer's drawings shall not be scaled.
- G3. No substitutions are to be made of sizes on structural drawings or members varied without obtaining the approval of the Engineer. The approval of the Engineer for a substitution is not an authorization for a variation or extra. Any request for a cost variation shall be resolved with the Architect or Client prior to proceeding with any work.
- G4. During construction the Builder shall provide all temporary bracing required to maintain the structure in a stable condition such that no part of the structure is over stressed. Temporary bracing shall remain in place until all permanent bracing and supports are placed and anchored.
- G5. The Builder shall provide 48 hours written notice to the DESIGN ENGINEER for inspection of the structural work detailed.
- G6. The structural work shown on these drawings has been designed for the following loads:-

AREA	LIVE LOAD
FLOORS	1.50 kPa
ROOF	0.25 kPa

FOUNDATIONS

- F1. All footings shall be founded on natural soil having a minimum bearing capacity of 100 kPa UNO.
- F2. SITE CLASSIFICATION:-
- F3. Foundation material is to be checked and approved by the ENGINEER prior to pouring concrete for slabs or footings.

CONCRETE

- C1. All concrete shall comply with AS 3600 and shall have a characteristic compressive strength as follows:
- | | |
|---------------------------|------------------------|
| Footings | $F'c = 20$ MPa |
| Slab-on-ground | $F'c = 20$ MPa |
| Columns | $F'c = \text{---}$ MPa |
| Suspended slabs and beams | $F'c = \text{---}$ MPa |
- C2. Slump to be 75mm + 15mm. Admixtures are not to be used unless approved by the Engineer. All concrete to be vibrated then moist cured for 7 days after pour.
- C3. Concrete sections shown are minimum sizes and do not include finishes. Sizes must not be reduced in anyway for ducts, pipes, conduits, chases etc. without the approval of the Engineer. Depth of beams given first and include slab thickness.
- C4. All formwork (including stripping of formwork) shall conform to AS 1509. Departure from AS 1509 procedures shall only be permitted if details are submitted within 7 days notice to the Engineer for approval.
- C5. Concrete must be separated from supporting brickwork by two layers of a suitable membrane (Malthoid or Alcor) and vertical faces separated from walls and columns by 12mm thick bituminous cane-ite or similar.
- C6. Construction joints shall be properly formed and used only where shown or specifically approved by the Engineer.
- SLAB-ON-GROUND AND FOOTINGS
- SF1. Slabs and footings shall be formed and constructed in accordance with AS 2870 (Parts 1 & 2).
- SF2. Remove all top soil containing organic material from slab edge. Edge beams and load bearing ribs shall be founded on soil having a minimum allowable bearing pressure of 100 KPa. The interior of the slab shall be founded on soil having a minimum allowable bearing pressure of 30 KPa. Clean uniform granular fill up to 600mm deep mechanically compacted in layers of 150mm may be used under the interior of the slab.
- SF3. Water-proof membrane to have a minimum thickness of 0.2mm. Lap membrane not less than 200mm at joins and tape with pressure sensitive tape. All pipes etc. penetrating membrane to be wrapped with plastic and taped to membrane.
- SF4. No materials to be stacked on slabs for 14 days after pour.

REINFORCEMENT

- R1. Reinforcement (including placement and cover) shall comply with AS 3600 and is to be adequately supported at max.1000 crs. Provide ant caps or similar for bar chairs to protect waterproof membrane.
- R2. Reinforcement Symbols:-
 N – denotes Tempcore nominal deformed bars.
 R – denotes Structural Grade plain round bars.
 The number immediately following the bar grade symbol represents the nominal diameter.
 L – denotes Hard Drawn wire fabric.
 The figure following the fabric symbol F is the reference number for bar diameter and spacing to AS 1304.
- R3. Reinforcement is to be evenly distributed over the width shown. Unless shown otherwise provide N12 at 450mm tying steel lapped 450mm where required.
- R4. Provide 2-N12 x 1200 or 3 bar L11TM x 2000 diagonally across the corners of all openings and re-entrant corners of slabs tied under top fabric.
- R5. Concrete cover to reinforcement as follows:-
- | ELEMENT | COVER | EXPOSURE CLASSIFICATION |
|-----------------------|-------|-------------------------|
| Footings | 50mm | A1 |
| Slabs on Ground – Top | 20mm | A1 |
| – Top | 30mm | Exposed A2 $F'c=25$ Mpa |
| Slabs on Ground – Btm | 30mm | A1 On polythene |
| Columns | 30mm | A1 |
| Suspended Slabs – Top | 20mm | A1 |
| – Top | 30mm | Exposed A2 $F'c=25$ MPa |
| Suspended Slabs – Btm | 20mm | Exposed A2 $F'c=25$ MPa |
| Beams | 30mm | A1 |
- R6. Splices in reinforcement shall be made only in positions shown or as otherwise approved by the Engineer.
 Splices to fabric to be 2 longitudinal wires plus 25mm.
 Splices to bars as shown. Splices to TM to be 500mm.

STRUCTURAL STEELWORK

- S1. All workmanship and materials shall conform to AS 4100 Steel Structures Code.
- S2. Welding shall be performed by an experienced operator in accordance with AS 1554 (Part 1) and AS 4100.
- S3. Except where otherwise shown welds to be 6mm continuous fillet.
- S4. High strength bolting (Grade 8.8 bolts) to be in accordance with AS 4100.
- S5. Bolt designation:
 4.6/S Grade 4.6 bolt, snug tight.
 8.8/S Grade 8.8 bolt, snug tight.
 8.8/T (For B) Grade 8.8 bolt, Fully Tensioned to AS 1511.
- S6. The Contractor shall provide and leave in place until permanent bracing elements are constructed, such temporary bracing as is necessary to stabilize the structure during erection.
- S7. Before fabrication is commenced the Contractor shall submit copies of the shop drawings to the Engineer for inspection. Inspection does not include checking of dimensions.
- S8. All steelwork not encased in concrete and excluding the contact surfaces of fully tensioned connections must be thoroughly wire brushed to remove all rust and loose mill scale. Apply one coat of R.O.Z.P. primer to those surfaces, including all bolt heads and nuts. Final paint coats to be as specified.

TIMBER FRAMING

- T1. All timber framing shall conform to the requirements of AS 1684 and AS 1720.1.
- T2. All stud walls are to be securely cross braced as specified in AS 1684 Timber Framing Code.
- T3. Unless noted otherwise, all framing is to be tied down, nailed and anchored in accordance with AS 1684 and AS 1720.1.

MASONRY

- M1. Structural and load bearing walls shall comply with AS 3700 Masonry Code and be constructed from masonry units with $fuc = \text{---}$ Mpa, in mortar not less than 1:1:6 (Cement:Lime:Sand). No raked joints.
 Reinforced and special masonry shall be subject to separate notes.

SK1 OF SK2.

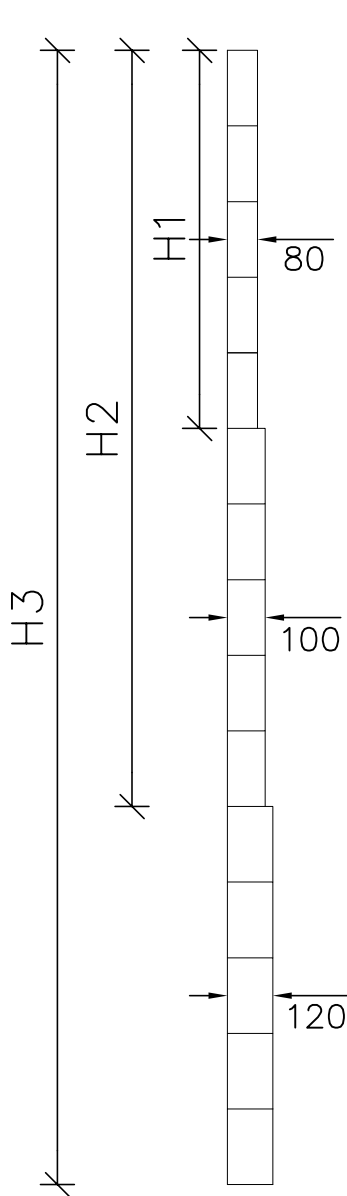
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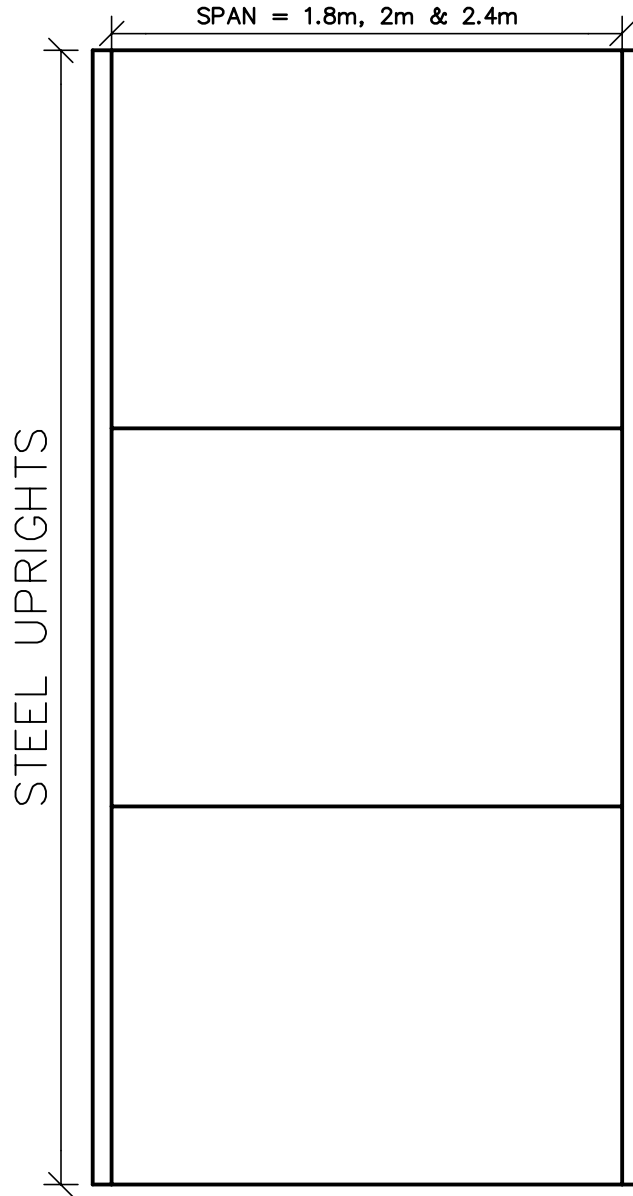
PROPOSED:

CONCRETE SLEEPER RETAINING WALL
DESIGN



SECTION DETAIL

NOT TO SCALE

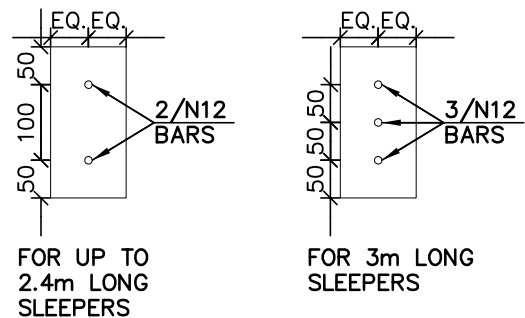


ELEVATION

NOT TO SCALE

SLEEPER SCHEDULE

	H1/m (80mm)	H2/m (100mm)	H3/m (120mm)
1800mm LONG	2.8m MAX HEIGHT	3.8m MAX HEIGHT	4.9m MAX HEIGHT
2000mm LONG	2.2m MAX HEIGHT	3.1m MAX HEIGHT	3.9m MAX HEIGHT
2400mm LONG	1.5m MAX HEIGHT	2.1m MAX HEIGHT	2.6m MAX HEIGHT
3000mm LONG	0.9m MAX HEIGHT		



REINFORCEMENT DETAIL

NOT TO SCALE

SK2 OF SK2.

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 DESIGN**