

Ref: 20190190-c-130619

Thursday, 13 June 2019

Manor Group  
PO Box 1416  
GOSFORD NSW 2250

**Re: Manor Footing Engineer Template**

Following receipt of your instructions, the "Typical beam and footing layout and footing details" document by Manor Homes, DWG #S1.01 – Dated 08.06.18, was reviewed to provide advice on the footings and their compliance with relevant Australian Standards.

The calculations were based on a:

- Floor live load of 1.5 kPa
- Deck live load of 2.0 kPa
- Roof live load of 0.25 kPa
- Wind load in accordance with wind region "N3" as specified with AS4055.
- The weights for the materials of construction shown on the plan as specified by AS1170.1

Please note, that the above design is limited to the following applications, and if the intended use is outside of these constraints, contact structural engineer for advice:

- Residential use only.
- Wind regions "N1", "N2" and "N3", as specified in AS4055.
- Areas not subject to snow loading in accordance with AS1170.3.

I confirm that the design of footings shown in the above document complies with the requirements of the following:

AS1170.0 – Structural design actions – General Principles  
AS1170.1 - Structural design actions – Permanent, imposed and other actions  
AS1170.2 - Structural design actions – Wind actions  
AS2870 - Residential slabs and footings - Construction  
AS3600 - Concrete structures  
AS4055 – Wind loads for Housing.

Please contact me if clarification of this report is required.

Yours faithfully,

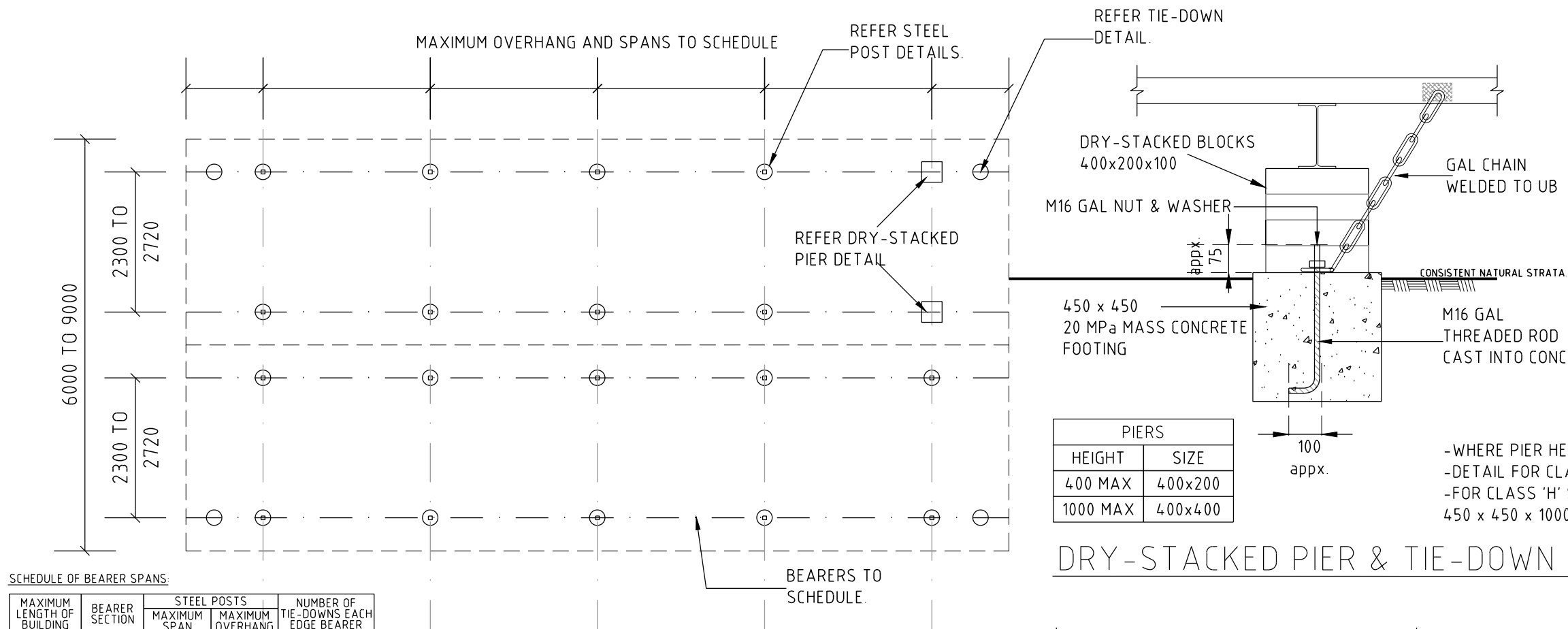


**G.W. THITCHENER B.E., M.I.E. Aust.**

**PO Box 3586, WAMBERAL NSW 2260**

Telephone: (02) 4367 2733 – Email: [reception@thitchener.com.au](mailto:reception@thitchener.com.au)

ABN: 36 072 398 030



- ENGINEERS NOTES:**
- 1 This set of drawings is to be read in conjunction with the architectural drawings.
  - 2 All set out dimensions are to be obtained from the architectural drawings unless specific dimensions are given on the engineering drawings.
  - 3 These drawings should not be scaled.
  - 4 All materials and workmanship are to be of the highest standard and in accordance with any relevant SAI global codes relating to thier application. Certificates to this effect from a NATA approved testing laboratory shall be furnished on request.
  - 5 Details suitable for 'N3' Wind Classification to AS1170.2 (Terrain Category 2)
  - 6 Use adjustable posts for 'H' and/or 'P' Class sites
  - 7 Ant Caps are not required for this detail.
  - 8 Where sound rock is encountered at or near ground level, Tie-down is to be achieved by epoxy-grouting 1M12 threaded rod 300mm into sound rock and attaching through the flange of the chassis beam.
  - 9 Where the footing of an isolated post cannot reach the specified depth due to rock strata, the size of that footing may be increased to provide the equivalent volume of concrete.
  10. These footing details comply with the requirements of AS2870 'Residential Slabs and Footings'.

- WHERE PIER HEIGHT EXCEEDS 1000 USE STEEL POSTS OR AS APPROVED.
- DETAIL FOR CLASS 'S' & 'M' SITES
- FOR CLASS 'H' SITE, PROVIDE FOOTING USING 20 MPa MASS CONCRETE 450 x 450 x 1000 DEEP

BEAM AND FOOTING LAYOUT


SCHEDULE OF BEARER SPANS	MAXIMUM LENGTH OF BUILDING	BEARER SECTION	STEEL POSTS		NUMBER OF TIE-DOWNS EACH EDGE BEARER
			MAXIMUM SPAN	MAXIMUM OVERHANG	
	12.6m	200 UB 22	3.40m	1.2m	3
	12.6m - 15.0m	250 UB 25	3.75m	1.5m	4
	15.0m - 18.0m	250 UB 31	3.75m	1.5m	5

SCHEDULE OF 300Ø PIER REINFORCEMENT	SITE CLASSIFICATION	PIER DEPTH		
		0 - 2000	2000 - 3000	3000 - 4000
	S - M	N/A	N/A	2N12
	H1	N/A	2N12	3N12
	H2	N/A	3N12	4N12
	P - E	N/A	4N12	6N12

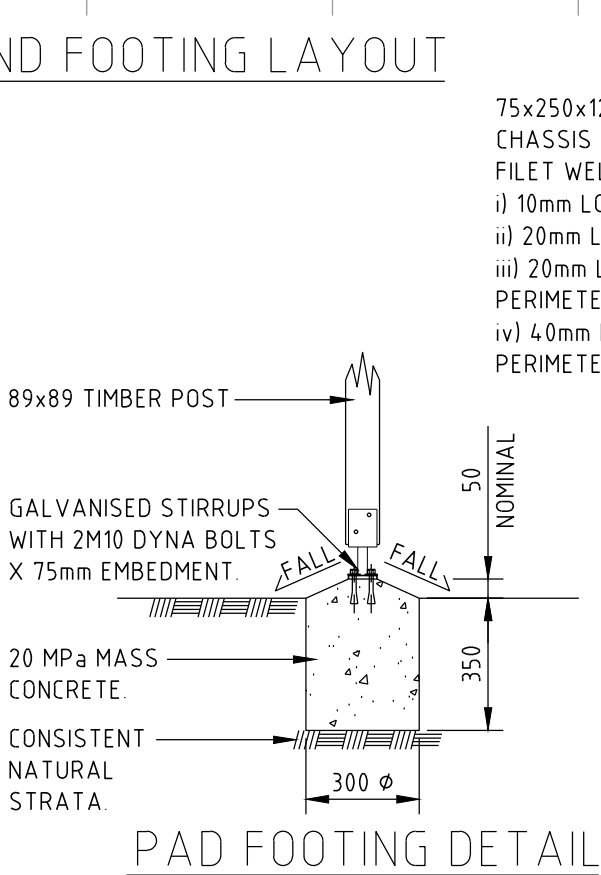
If pier depth exceeds 4000 the engineer or building supervisor is to be contacted immediately.

NOTE: TO BE READ IN CONJUNCTION WITH CERTIFICATE #20190190-C-130619

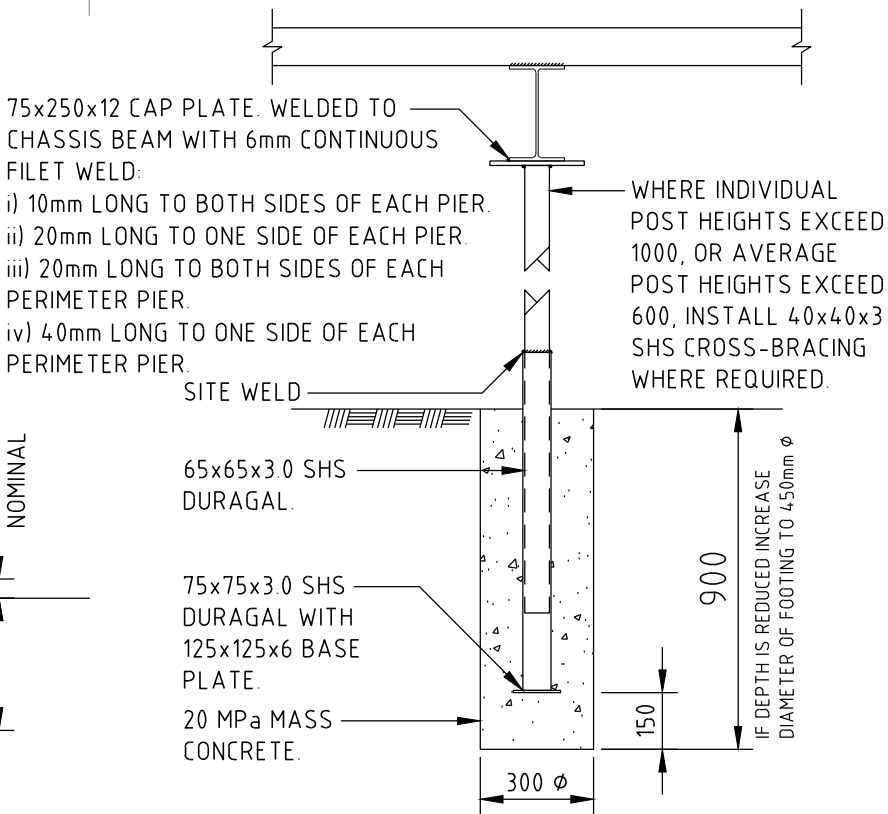
CLIENT: **MANOR HOMES** DATE: 13/06/2019

  
G.W. THITCHENER B.E., M.I.E. Aust. REF: 20190190

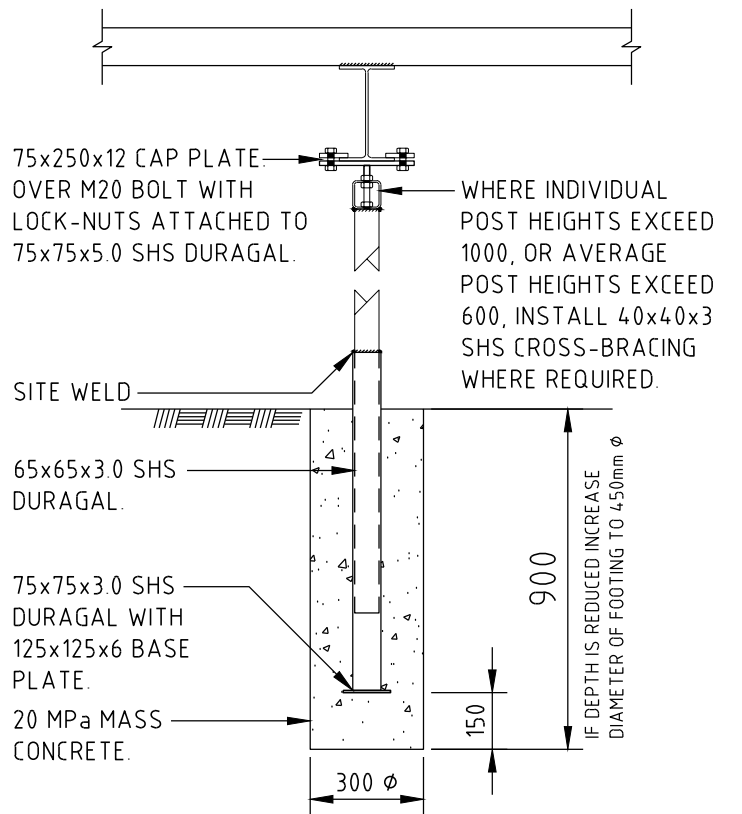
**THITCHENER CONSULTING**  
STRUCTURAL ENGINEERING CONSULTANTS  
Suite 3:10 THE PLATINUM BUILDING  
4 ILYA AVENUE, ERINA.  
PHONE: 43672733 FACSIMILE: 43672833




PAD FOOTING DETAIL



STEEL POST DETAIL



ADJUSTABLE STEEL POST DETAIL

				BUILDER TO CHECK AND VERIFY ALL DIMENSIONS AND LEVELS PRIOR TO COMMENCEMENT OF WORK.	job: PROPOSED RESIDENCE	client:	  PO BOX 1416 GOSFORD NSW 2250 AUSTRALIA t 02 4340 8300 f 02 4340 2080 e info@manor.net.au w www.manor.net.au	drawing: TYPICAL BEAM AND FOOTING LAYOUT AND FOOTING DETAILS			drawing no.:  S1.01	
				COPYRIGHT OF THE DESIGN AND INFORMATION SHOWN HERE IS OWNED BY THE MANOR GROUP. REPRODUCTION OR USE OF THE DESIGN BY ANY PARTY FOR ANY PURPOSE IS EXPRESSLY FORBIDDEN WITHOUT THE WRITTEN PERMISSION OF THE COMPANY.				address:	no. of sheets: 1 of 1	scale: 1:100, 1:20	drawn: MM	date: 08.06.18
A	ISSUED FOR DA, CC + S68 APPROVALS	08.06.18	MM						job no.:	revision: A		
issue	revision	date	by									