

BRACING PARALLEL TO BEAM

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FREE STANDING DECKS GREATER THAN 600mm ABOVE GRADE SHALL RESIST LATERAL LOADING \$ MOVEMENT. ALL POSTS MUST BE BRACED WHERE THE SUPPORTED AREA EXCEEDS THOSE LISTED IN THE TABLE ON DOID



TITLE

MOOD DECK STAIR SECTION

LATERAL SUPPORT FOR FREE STANDING DECKS

DWG. NO.



2007

BEAM SIZING TABLE									
SUPPORTED JOIST LENGTH	LIVE LOAD 1.9 kPa			LIVE LOAD 2.5 kPa			LIVE LOAD 3.0 kPa		
	PIER SPACING (mm)			PIER SPACING (mm)			PIER SPACING (mm)		
(mm)	2000	3000	4000	2000	3000	4000	2000	3000	4000
1500	2/38×140	2/38×184	3/38×235	2/38×140	3/38×184	3/38×235	3/38×140	2/38×235	2/38×286
2000	2/38×140	3/38×184	3/38×235	2/38×184	2/38×235	3/38×286	2/38×184	2/38×235	3/38×286
2500	2/38×184	2/38×235	3/38×286	2/38×184	3/38×235	3/38×286	2/38×184	3/38×235	4/38×286
3000	2/38×184	2/38×235	3/38×286	2/38×184	3/38×235	4/38×286	2/38x184	3/38×235	4/38×286
3500	2/38×184	3/38×235	3/38×286	2/38×184	3/38×235	4/38×286	3/38×184	3/38×286	N/A
4000	2/38×184	3/38×235	4/38×286	2/38×184	3/38×286	N/A	3/38×184	3/38×286	N/A

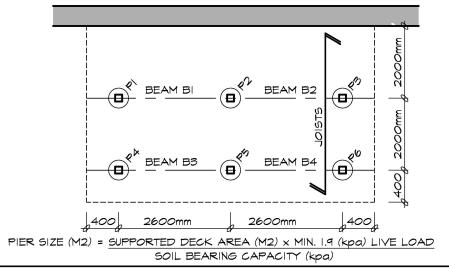
JOIST SIZING TABLE									
JOIST SPAN	LIVE LOAD 1.9 kPa			LIVE LOAD 2.5 kPa			LIVE LOAD 3.0 kPa		
	JOIST SPACING (mm)		JOIST SPACING (mm)			JOIST SPACING (mm)			
(mm)	300	400	600	300	400	600	300	400	600
2000	38x140	38x140	38×140	38x140	38x140	38x140	38x140	38x140	38×140
2500	38x140	38x140	38x184	38x140	38x140	38x184	38×140	38×184	38x184
3000	38x140	38x184	38x184	38x184	38x184	38×235	38x184	38×184	38×235
3500	38x184	38x184	38×235	38x 84	38×235	38×235	38×235	38×235	38×235
4000	38×235	38×235	38×286	38×235	38×235	38×286	38×235	38×235	38×286

FOOTING SIZES		
SOIL BEARING CAPACITIES (KPa)		
SOIL TYPE	BEARING PRESSURE (kPa)	
SOFT CLAY	40	
LOOSE SAND OR GRAVEL	50	
FIRM CLAY	75	
DENSE OR COMPACT SILT	100	
STIFF CLAY	150	
DENSE COMPACT SAND OR GRAVEL	150	
TILL	200	
CLAY SHALE	300	
SOUND ROCK	500	

PIER SIZES		
DIAMETER (mm)	м ²	
200	0.03	
250	0.05	
300	0.08	
350	0.10	
400	0.13	
500	0.20	
600	0.30	

POST SIZING TABLE						
POST	MAXIMUM	MAX. SUPPORTED DECK AREA (M2)				
SIZE	HEIGHT	LIVE LOAD (kPa)				
(mm)	(M)	1.9	2.5	3.0		
	1.0	10.86	8.71	7.48		
89×89	1.5	5.93	4.76	4.09		
	2.0	3.15	2.53	2.17		
	2.0	13.67	10.98	9.43		
140×140	2.5	9.32	7.48	6.43		
	3.0	6.35	5.10	4.38		
	3.5	4.41	3.54	3.04		

	PIERS	SUPPORTED DECK AREA				
	P	2 × 1.7 = 3.4m ²				
7	P2	2 × 2.6 = 5.2m ²				
PLAN	P3	2 × 1.7 = 3.4m ²				
<u>o</u> _,	P 4	$1.4 \times 1.7 = 2.4 \text{m}^2$				
Щ	P5	1.4 × 2.6 = 3.6m ²				
₫	P6	$1.4 \times 1.7 = 2.4 \text{m}^2$				
EXAMPL	BEAMS	SUPPORTED JOIST LENGTH				
X	ВІ	2000mm				
***	B2	2000mm				
	B3	1400mm				
	B4	1400mm				
	BEAM	SPAN = 2600mm				
	JOIST	SPAN = 2000mm				
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GENERAL NOTES

- I. A MINIMUM LIVE LOAD OF 1.9 (kPa) SHALL BE APPLIED IN ALL LOCATIONS.
- 2. THE PRESCRIBED SNOW LOAD FOR 225 SELECTED ONTARIO LOCATIONS IS INDICATED IN COLUMN 12 OF TABLE 1.2 IN SUPPLEMENTARY GUIDELINE SB-I OF THE ONTARIO BUILDING CODE. THE SNOW LOAD SHALL BE APPLIED AS THE MINIMUM LIVE LOAD WHERE IT IS GREATER THAN 1.9 (kPa)
- 3. A SITE PLAN OR SURVEY IS REQUIRED SHOWING ALL LOT LINES & DIMENSIONS, SIZE & LOCATION OF ALL EXISTING BUILDINGS & DECKS.
- 4. LUMBER NO. 2 SPF OR BETTER WOOD POSTS MIN. 89x89 (SOLID). USE CORROSION RESISTANT SPIRAL NAILS OR SCREWS.
- 5. A DECK IS NOT PERMITTED TO BE SUPPORTED ON BRICK VENEER.
- 6. CANTILEVERED JOISTS AND BEAMS ARE LIMITED TO 1/6 THE MEMBERS LENGTH.
- 9. I
- CONCRETE PIERS SHALL BEAR ON UNDISTURBED SOIL. THE BEARING CAPACITY OF THE SOIL SHALL BE DETERMINED PRIOR TO CONSTRUCTION.
- 8. MAXIMUM HEIGHT REFERS TO THE HEIGHT OF THE POST FROM THE TOP OF THE PIER TO THE DECK SURFACE.
- 9. BEAMS WITH MORE THAN 2 MEMBERS MUST BE SUPPORTED BY $140 \times 140 \times 140$
 - IO. THE ALLOWABLE SOIL BEARING PRESSURE SHALL BE REDUCED BY 50% WHILE THE WATER IS AT OR NEAR THE BOTTOM OF THE FOOTING EXCAVATION.
 - II. CONTACT YOUR LOCAL BUILDING DEPARTMENT FOR FURTHER INFORMATION ABOUT LOCAL SOIL BEARING CAPACITIES.
 - 12. JOISTS SPANNING MORE THAN 2100mm ARE TO HAVE BRIDGING AT LEAST EVERY 2100mm O.C.,



WOOD DECK

STRUCTURAL SIZING TABLES

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