Decks

To submit for a deck building permit, please make sure you have the following:

- ☐ Completed application form – Application for permit to Construct or Demolish, click on "Building Permits" in the A to Z Services at www.newmarket.ca
- ☐ Survey or Site plan of your property showing property lines, house, deck and dimensions from edge of deck (or stairs) to each property line. This can be hand drawn but must be clear and concise and drawn to scale. (see sample)
- ☐ Construction drawings consisting of a fully dimensioned plan and section showing all structural components – piers, posts, beams, joists and decking.
  (see sample plan and section)
- ☐ Guard / handrail – required if the deck is more than 2 feet above grade
  - Details must meet Ontario Building Code Supplementary Standard SB-7 Guidelines which are for wood construction only
  - If guard used is other than wood or if is it not in SB-7 then details must be stamped and signed by an engineer. Ask for details where you purchase the system
- ☐ Provide two (2) copies of all drawings

The Building Permit 2011 rate for decks is $182.11, payable upon issuance of permit.

Legal & Development Services Commission
Office of the Building Inspector

TOWN OF NEWMARKET
395 Mulock Drive
PO Box 328 STN Main
Newmarket, ON L3Y 4X7

www.newmarket.ca
building@newmarket.ca
905.953.5300, ext 2400

May 2011

Deck Permit Specifications

Joist Span	Pier Size				Beam Size				Joist Size
	Pier Spacing				Pier Spacing				
	6’	8’	10’	12’	6’	8’	10’	12’	
6’	8” dia.	8” dia.	8” dia.	10” dia.	2/2”x 6”	2/2”x 6”	2/2”x 8”	2/2”x 8”	**2 x 6
8’	8” dia.	10” dia.	10” dia.	12” dia.	2/2”x 6”	2/2”x 6”	2/2”x 8”	2/2”x 10”	**2 x 6
10’	10” dia.	10” dia.	12” dia.	12” dia.	2/2”x 6”	2/2”x 8”	2/2”x 8”	2/2”x 10”	2 x 8
12’	10” dia.	12” dia.	12” dia.	12” dia.	2/2”x 6”	2/2”x 8”	2/2”x 10”	2/2”x 10”	2 x 10

Wood Deck (2500 PSF)

Joist Span	Pier Size				Beam Size				Joist Size
	Pier Spacing				Pier Spacing				
	6’	8’	10’	12’	6’	8’	10’	12’	
6’	8” dia.	10” dia.	10” dia.	12” dia.	2/2”x 6”	2/2”x 6”	2/2”x 8”	2/2”x 10”	**2 x 6
8’	10” dia.	10” dia.	12” dia.	12” dia.	2/2”x 6”	2/2”x 6”	2/2”x 8”	2/2”x 10”	**2 x 6
10’	10” dia.	12” dia.	12” dia.	14” dia.	2/2”x 6”	2/2”x 8”	2/2”x 10”	2/2”x 12”	2 x 8
12’	10” dia.	12” dia.	14” dia.	14” dia.	2/2”x 6”	2/2”x 8”	2/2”x 10”	2/2”x 12”	2 x 10

Wood Deck (Cantilevered) (2500 PSF)

****NOTE: All joist sizes shall be a minimum 2”x 8” with joists spaced not more than 16” on centre where the deck is more than 2’- 0” above adjacent grade.**

BEAM SIZING TABLE

SUPPORTED JOIST LENGTH (mm)	LIVE LOAD 1.9 kPa			LIVE LOAD 2.5 kPa			LIVE LOAD 3.0 kPa		
	PIER SPACING (mm)			PIER SPACING (mm)			PIER SPACING (mm)		
	2000	3000	4000	2000	3000	4000	2000	3000	4000
1500	2/38x140	2/38x184	3/38x235	2/38x140	3/38x184	3/38x235	3/38x140	2/38x235	2/38x286
2000	2/38x140	3/38x184	3/38x235	2/38x184	2/38x235	3/38x286	2/38x184	2/38x235	3/38x286
2500	2/38x184	2/38x235	3/38x286	2/38x184	3/38x235	3/38x286	2/38x184	3/38x235	4/38x286
3000	2/38x184	2/38x235	3/38x286	2/38x184	3/38x235	4/38x286	2/38x184	3/38x235	4/38x286
3500	2/38x184	3/38x235	3/38x286	2/38x184	3/38x235	4/38x286	3/38x184	3/38x286	N/A
4000	2/38x184	3/38x235	4/38x286	2/38x184	3/38x286	N/A	3/38x184	3/38x286	N/A

JOIST SIZING TABLE

JOIST SPAN (mm)	LIVE LOAD 1.9 kPa			LIVE LOAD 2.5 kPa			LIVE LOAD 3.0 kPa		
	JOIST SPACING (mm)			JOIST SPACING (mm)			JOIST SPACING (mm)		
	300	400	600	300	400	600	300	400	600
2000	38x140	38x140	38x140	38x140	38x140	38x140	38x140	38x140	38x140
2500	38x140	38x140	38x184	38x140	38x140	38x184	38x140	38x184	38x184
3000	38x140	38x184	38x184	38x184	38x184	38x235	38x184	38x184	38x235
3500	38x184	38x184	38x235	38x184	38x235	38x235	38x235	38x235	38x235
4000	38x235	38x235	38x286	38x235	38x235	38x286	38x235	38x235	38x286

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

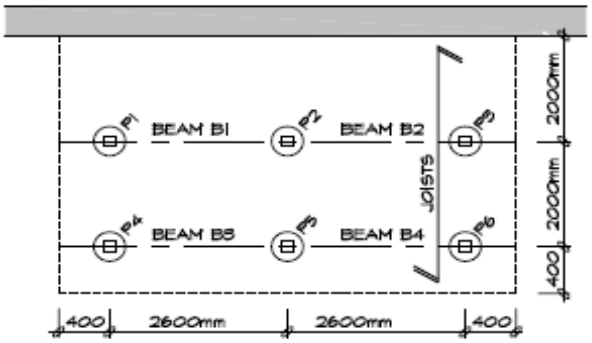
DIAMETER (mm)	M^2
200	0.03
250	0.05
300	0.08
350	0.10
400	0.13
500	0.20
600	0.30

POST SIZING TABLE

POST SIZE (mm)	MAXIMUM HEIGHT (M)	MAX. SUPPORTED DECK AREA (M2) LIVE LOAD (kPa)		
		1.9	2.5	3.0
89x89	1.0	10.86	8.71	7.48
	1.5	5.93	4.76	4.09
	2.0	3.15	2.55	2.17
140x140	2.0	15.67	10.98	9.45
	2.5	9.52	7.48	6.43
	3.0	6.35	5.10	4.38
	3.5	4.41	3.54	3.04

EXAMPLE PLAN

PIERS	SUPPORTED DECK AREA
P1	2 x 1.7 = 3.4m^2
P2	2 x 2.6 = 5.2m^2
P3	2 x 1.7 = 3.4m^2
P4	1.4 x 1.7 = 2.4m^2
P5	1.4 x 2.6 = 3.6m^2
P6	1.4 x 1.7 = 2.4m^2
BEAMS	**SUPPORTED JOIST LENGTH**
B1	2000mm
B2	2000mm
B3	1400mm
B4	1400mm
BEAM SPAN =	2600mm
JOIST SPAN =	2000mm



PIER SIZE (M2) = SUPPORTED DECK AREA (M2) x MIN. 1.9 (kpa) LIVE LOAD / SOIL BEARING CAPACITY (kpa)

GENERAL NOTES

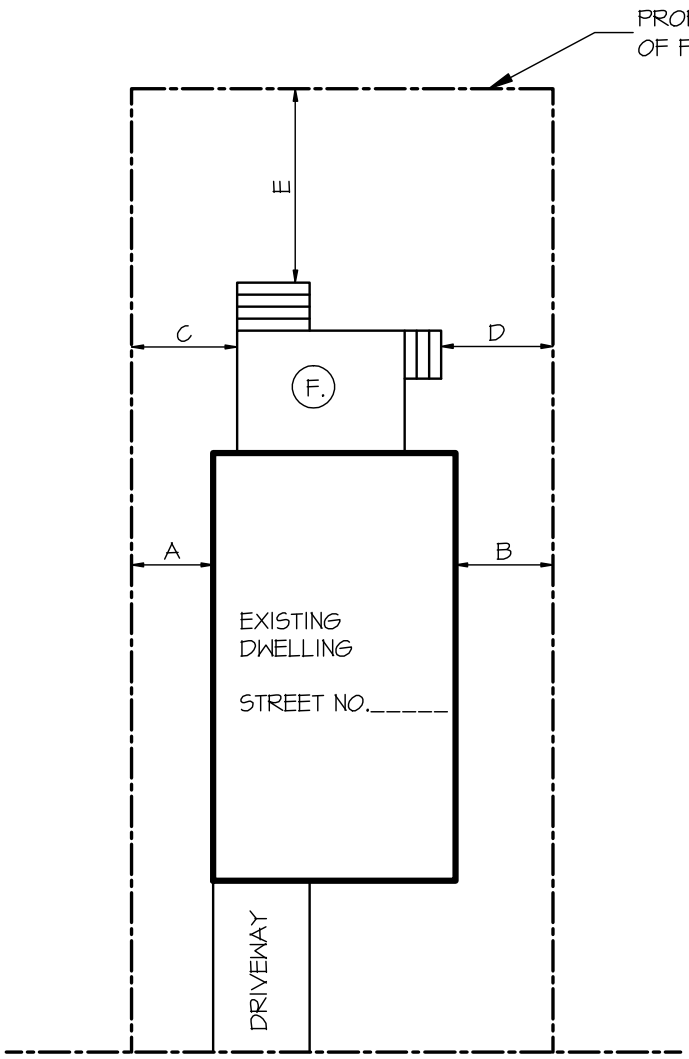
1. A MINIMUM LIVE LOAD OF 1.9 (kPa) SHALL BE APPLIED IN ALL LOCATIONS.
2. THE PRESCRIBED SNOW LOAD FOR 225 SELECTED ONTARIO LOCATIONS IS INDICATED IN COLUMN 12 OF TABLE 1.2 IN SUPPLEMENTARY GUIDELINE SB-1 OF THE ONTARIO BUILDING CODE. THE SNOW LOAD SHALL BE APPLIED AS THE MINIMUM LIVE LOAD WHERE IT IS 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.
7. 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 140x140 POSTS.
10. THE ALLOWABLE SOIL BEARING PRESSURE SHALL BE REDUCED BY 50% WHILE THE WATER IS AT OR NEAR THE BOTTOM OF THE FOOTING EXCAVATION.
11. 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.

TACBOC
STANDARD DETAIL

TITLE
WOOD DECK
STRUCTURAL SIZING TABLES

DWG. NO.
D01d
2007

SAMPLE SITE PLAN



PROVIDE THE FOLLOWING DIMENSIONS

HOUSE SETBACKS TO PROPERTY LINES

A._____

B._____

EDGE OF DECK OR STAIRS TO SIDE PROPERTY LINES

C._____

D._____

EDGE OF DECK OR STAIRS TO REAR PROPERTY LINE

E._____

HEIGHT OF DECK ABOVE FINISHED GRADE

F._____

* USE SURVEY TO SHOW SETBACKS (PROVIDED WITH HOUSE PURCHASE) OR SKETCH DRAWN TO SCALE

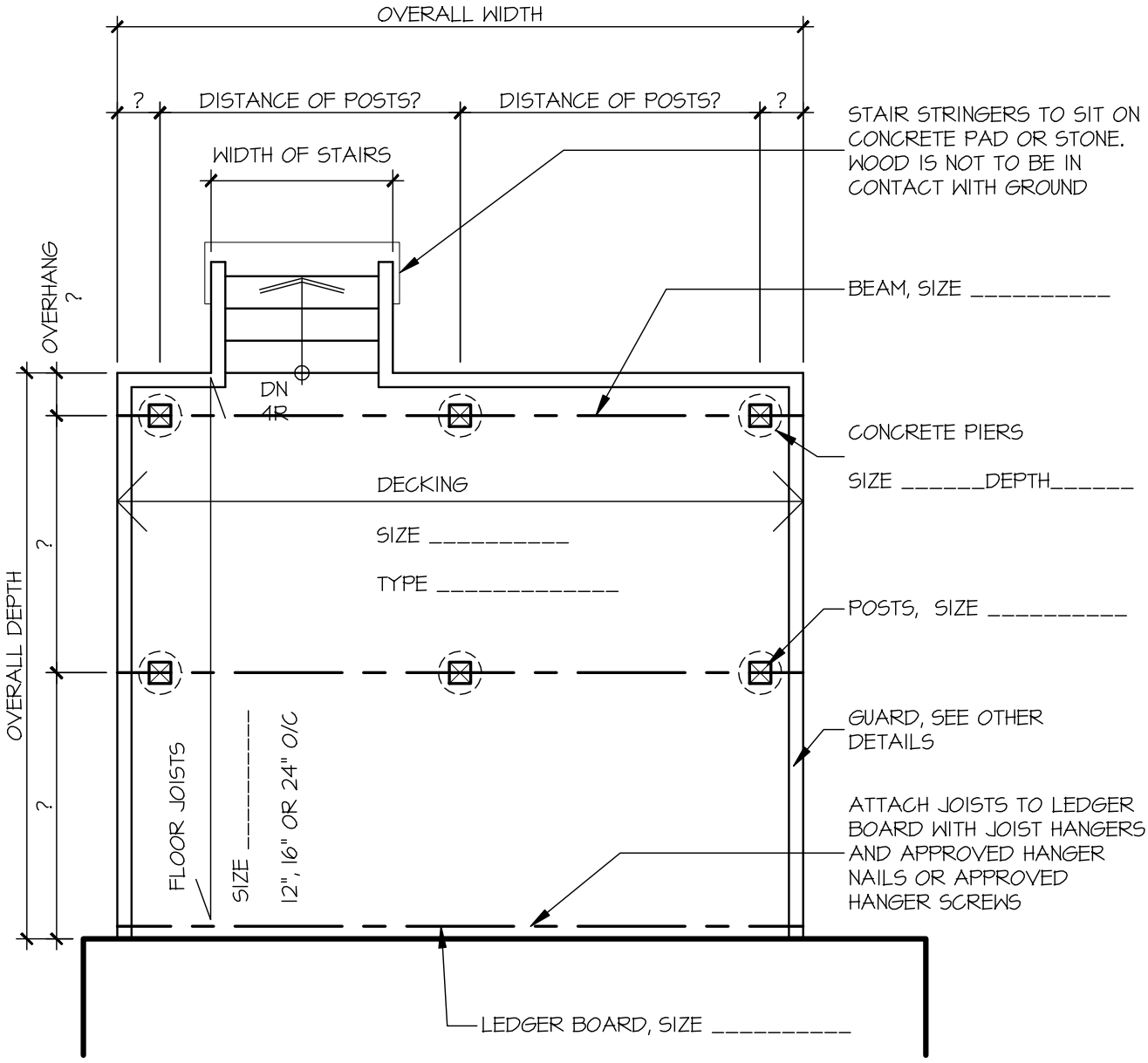
* THE SETBACKS FROM THE EDGE OF THE DECK OR EDGE OF STAIRS (WHERE APPLICABLE) ARE SET OUT BY THE THE TOWN OF NEWMARKET COMPREHENSIVE ZONING BY-LAW 2010-40

* LAKE SIMCOE REGION CONSERVATION AUTHORITY APPROVAL MAY BE REQUIRED DEPENDING ON YOUR ADDRESS

* CONSIDER CONTACTING SOMEONE IN THE PLANNING OFFICE FOR YOUR ZONING AND SETBACK REQUIREMENTS BEFORE APPLYING FOR A BUILDING PERMIT

SAMPLE FLOOR PLAN

(EXAMPLE ONLY, REFER ALSO TO THE ONTARIO BUILDING CODE AND TACBOC STANDARD DETAILS)



* LEDGER BOARD TO BE ATTACHED TO HOUSE WITH MIN. 1/2" CONNECTORS AT MAX. 32" CENTRES
* PROVIDE TYPE OF MATERIAL USED FOR STRUCTURE
* PROVIDE TYPE OF MATERIAL USED FOR DECKING
* PROVIDE TYPE OF MATERIAL USED FOR GUARD
* GUARD REQUIRED AT ANY PORTION OF DECK THAT IS 24" ABOVE GRADE OR MORE

SAMPLE SECTION

(EXAMPLE ONLY, REFER ALSO TO THE ONTARIO BUILDING CODE AND TACBOC STANDARD DETAILS)