

REQUIREMENTS OF TORONTO BY-LAW

REQUIREMENTS OF LONDON BY-LAW

Compressive Reinforcement

(110 Sub 16) Stress = N times stress in concrete if properly anchored.	(61 a, b)	Stress equals N times stress in concrete if bars are anchored by bars extending through a depth equal to arm of resisting moment and spaced not greater than arm of resisting moment and not greater than 16 times diameter of bar.
(110 Sub 16) Stress = N times stress in concrete as above.	(62 a, b, c)	16,000 lbs. in steel if resistance of concrete is neglected and anchored not greater than 6" and not greater than 8 times diameter of bar and hooked over both compressive and tensile reinforcement.

Shear

(110 Sub 3c) Area not mentioned.	(64)	Calculated on compressed area of web or on b j d.
Bars not required to be bent.	(65)	50% of bars to be bent up where concrete takes all shear.
(110 Sub 3d) All diagonal tension taken by steel where unit shear is greater than 40 lbs.	(66)	All diagonal tension taken by steel where unit shear is greater than 60 lbs.
(110 Sub 3d) Maximum shear 150 lbs. on effective b j d.	(66)	Maximum shear 180 lbs. for 1:2:4 concrete on effective section.

Spacing of Stirrups

Not greater than $\frac{3}{4}$ depth.	(67 Sub a)	Not greater than arm of resisting moment.
(110 Sub 3d) Must be passed around tensile steel and rigidly attached if inclined.	(67 Sub b)	Must extend to centre of compression.
Maximum bond stress not to be exceeded.	(67 Sub c)	Must be passed around tensile steel.
No provision made.	(67 Sub d)	Must be hooked at both ends.
	(68)	Bent rods may be taken as shear reinforcement.

Splays and Brackets

Not mentioned.	(70)	Splay at end of beam to increase resisting. M not greater than 30 deg. to horizontal.
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Minimum Depth of Floor Slabs

No limit but stresses and fireproofing.	(72)	Effective depth of floor slabs not less than 3".
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Minimum Diameter of Rods in Slabs and Beams

No limit.	(56 and 73)	Reinforcing bars not less than $\frac{1}{4}$ inch.
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Maximum Spacing of Tensile Steel in Slabs

No limit.	(77)	Not greater than 12" and not greater than 2 times effective depth of slab.
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Distributing Bars

Not required except for temperature.	(78)	Required at 18" centres and area 0.08% of effective section of slab.
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Resisting Moments

(108 Sub 1) Same as London.	(80)	Same as Toronto.
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Width of Flange of T-Beams

(109 Sub 8) Five times width of beam and projection not greater than 4 times thickness of slab on each side.	(82)	$\frac{1}{4}$ effective span of T-beam, or 12 times the thickness of slab.
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Width of Flange of L-Beams

No provision for L-beam.	(83)	Four times thickness of slab.
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