

# BUILDING INSPECTIONS

## Additional requirements for High Buildings (1997 OBC)

Classification Data (circle one)						
Smoke Control Measure Used is A B C (B&C) D E (D&E) F G (F&G) H I J (I&J) K L M N (refer to permit plans)	Residential Building with exterior balconies (Measure M)			Yes or No		
Areas of Refuge provided (Measure L)	Yes or No	Group C major occupancy apartment building		Yes or No		
Fully Sprinklered Building (Measure A)	Yes or No	Connected with any other type of building		Yes or No		
Voice Communication System	Yes or No	Protection of electrical conductors	Fire Separation / ULC S101 or Both			
Lower Building Exception	Yes or No					
No	INSPECTION CHECKLIST			V	L	R
1.	LIMITS TO SMOKE MOVEMENT	a	Exit stairs are pressurized or have other means to limit smoke movement above lowest exit level			
		b	Exit stairs are pressurized or have other means to limit smoke movement below the lowest exit level			
		c	Fire fighters elevator(s) has pressurization fans installed or other means to limit smoke movement			
		d	Smoke control system installed in conformance with the plans to limit smoke movement into floor areas above lowest exit storey from the fire floor. (Refer to smoke control measures in Classification Data)			
2.	AREAS OF REFUGE		Item 1 (d) above is waived where areas of refuge are provided for in the design and shown on the plans;			
		a	Areas of refuge are installed above the first storey and are identified as required by the permit drawings			
		b	Areas of refuge are located on every fifth storey or every storey in buildings more than 75 m high			
		c	The size floor space, access corridors and access stairs conform to the building permit drawings			
3.	SPRINKLERED BUILDINGS (Fully Sprinklered)		Items 1 (a), (c) and (d) above are waived when a building is sprinklered & complies with the following;			
		a	The building is equipped with a sprinkler system with water flow and supervisory signals to the fire department and actuate a signal at the central alarm and control facility (CACF)			
		b	Each stairway serving the storeys above the lowest exit level are vented at the bottom of the stair shaft			
		c	Smoke/fire dampers installed at vertical service spaces (other than elevators) or other means to limit smoke movement from the floor(s) below the lowest exit storey into upper storeys, unless space is vented at top			
		d	Air moving fans serving more than 2 storeys can be stopped manually at the CACF			
4.	RESIDENTIAL BUILDINGS		Items 1 (a), (c) and (d) above are waived for Group C major occupancies that comply with Items 4 (a), (b), (c) and (d) below;			
			Items 1 (a), (b) and (d) above are waived for Group C major occupancy <u>apartment</u> buildings, Item 1 (c) for pressurization of the fire fighters elevator(s) must be complied with. Items 4 (a) to (d) are not req'd.			
		a	Each suite above the first storey has direct access to an exterior balcony conforming to the plans			
		b	Each stairway serving the storeys above the lowest exit level are vented at the bottom of the stair shaft			
		c	Pressurization fans installed or other means to limit smoke movement from floors below the lowest exit storey into upper storeys			
5.	CONNECTED BUILDING	a	Measures taken to limit movement of contaminated air from one building into another during a fire			
		b	Other:			
6.	EMERGENCY OPERATION OF ELEVATORS	a	Manual emergency recall provided for all elevators serving storeys above the first storey			
		b	Key-operated recall switches provided in the elevator lobby of the recall level & at the CACF			
		c	In-car emergency switches provided in all elevator cars			
		d	Keys to operate the elevator recall and in-car switches are located in the elevator lobby and the CACF			
		e	Automatic emergency recall for all elevators serving storeys above first storey in unsprinklered bldg.			
		f	Auto emerg recall for Item (e) actuated by smoke detectors in each elevator lobby & the fire alarm system			
7.	ELEVATOR FOR USE BY FIRE FIGHTERS	a	At least one elevator not less than 2.2 m <sup>2</sup> capable of reaching the top storey within one min. from access			
		b	Except when Measure K is used, each fire fighters elevator shaft opening provided with a closure conforming to CAN4-S104, protected with a vestibule <u>or</u> protected by a fire-rated corridor			
		c	No more than one elevator change to every floor above grade that is normally served by the elevators			
		d	Electrical conductors for the operation of the fire fighters elevator are installed in a service space and do not contain other combustible material or comply with Item (e)			
		e	Electrical conductors for the operation of the fire fighters elevator are protected against exposure to fire from the emergency power supply or normal power supply to the equipment served by a fire-rated assembly or a material that conforms with CAN4-S101-M Standard, ie MI cable or comply with Item (d)			
8.	VENTING TO AID FIRE FIGHTING	a	Means of venting each floor area provided by windows, wall panels or smoke shafts.			
		b	Building exhaust system used for venting where building is sprinklered			
		c	Openable windows used for venting are permanently marked so that they are easily identifiable			
9.	CENTRAL ALARM CONTROL FACILITY	a	Central alarm and control facility is located in conformance with the building permit drawings			
		b	Means to control the voice communication system so that messages can be sent to all loudspeakers simultaneously, individual floor areas, and exit stairwells			
		c	Means to audibly and visually indicate the alert signals and alarm signals and a switch to silence the audible portion of these signals and indicate visually that the audible portion has been silenced			
		d	Means to indicate visually that elevators are on emergency recall			
		e	An annunciator has been installed in conformance with the building permit drawings			

No	INSPECTION CHECKLIST							V	L	R
9.	CENTRAL ALARM CONTROL FACILITY Cont'd.	f	Means to transmits alert signals and alarm signals to the fire department							
		g	Means to release hold-open devices on doors to vestibules							
		h	Means to manually actuate alarm signals in the building selectively to any zone or zones							
		i	Means to silence the alarm signals							
		j	Means to actuate auxiliary equipment appropriate to the measure of fire safety, ie, pressurization fans							
		k	Means to communicate with telephones in elevator cars, separate from connections to fire fighters' telephones, if elevator cares are required by the Elevating Devices Act to be equipped with a telephone							
		l	Means to indicate visually, individual sprinkler system waterflow signals							
		m	Means to indicate audibly and visually, sprinkler system supervisory signals							
		n	A switch to silence the audible portion of a supervisory signal							
10.	VOICE COMMUN.	a	Voice communication system installed if required and conforms with Items 10. (b) to (g)							
		b	Installed in each floor area and connected to the CACF and to the mechanical control centre							
		c	Loadspeakers operated from the CACF and audible/intelligible in all parts of the building							
		d	Provision for silencing the alarm signal in a single stage system when voice messages are being transmitted but after the alarm has sounded for 30 s in Group B, 2 and 3 and 60 s in all other occupancies							
		e	Provision for silencing the alert and alarm signal in a 2 stage system when voice messages are being transmitted but after the alert signal has sounded initially for 30 s Group B, 2 and 3 and 60 s other occ.							
		f	Voice instructions can be transmitted selectively & maintain alert and alarm signals in other zones							
		g	Emergency telephones are located in each floor area near exit stair shafts							
11.	PROTECTION OF ELECTRICAL CONDUCTORS		Electrical conductors that supply power to the following emergency equipment [Items 11 (a) to (n)] are protected against exposure to fire. The protection extends from the main emergency power, i.e. generator, to the equipment served or to the distribution equip. supplying power to the equip. served in same room							
			To ensure continued operation for a period of not less than 2 hours, the electrical conductors to the following emergency equipment [Items 11 (a) to (n)] are protected by a fire separation having a fire-resistance rating or the electrical conductors meet ULC-S101 standard							
		a	All pressurization fans to limit smoke movement above and below the lowest exit level							
		b	Fire fighters elevator(s) pressurization fans							
		c	Smoke control system equipment installed to limit smoke movement into floor areas above lowest exit storey from the fire floor							
		d	Equipment to limit smoke movement within an Area of Refuge							
		e	Central Alarm and Control Facility (emergency power maybe supplied by battery backup)							
		f	Equipment to vent the bottom of the stair shaft							
		g	Equipment used to limit movement of contaminated air from one building into another building							
		h	Equipment used to vent each floor area for fire fighting purposes							
		i	Emergency voice communication equipment							
		j	Equipment used to maintain the air supply in special care and treatment facilities							
		k	Wiring between fire alarm transponder and the central processing unit when located in a different room							
		l	Supply conductors to a panelboard that supply power to emergency lighting							
		m	Sprinkler system monitoring, ie. water flow and supervisory signals							
n	Fire pumps used to supply water for fire fighting									
12.	EMERGENCY POWER	a	Emergency lighting power source is battery or generator and will assume electrical load automatically							
		b	Emergency power source for the fire alarm system is battery, generator or combination and will assume electrical load automatically							
		c	Emergency power supply for voice communication is battery or generator and will assume electrical load immediately upon failure of the normal source of power							
		d	Emergency power supply for every elevator is a generator serving storeys above the first storey in a building more than 36 m measured from grade to the floor level of the top storey							
		e	Emergency power supply for every fire fighters' elevator is a generator							
		f	Emergency power is capable of operating all fire fighters' elevators plus one additional simultaneously when the time to recall <u>all</u> elevators from the top storey under emergency power is less than 5 min.							
13.	FIRE ALARM CONTROL UNIT	a	The fire alarm control unit and transponder is installed in an electrical service room containing no other combustible material and is separated by a fire separation having a 1 hour fire-resistance rating							
14.	TESTING	a	Test report submitted for systems controlling smoke movement and mechanical venting							
		b	Other:							
V	Date	Inspector	V	Date	Inspector	V	Date	Inspector		
A			C			E				
B			D			F				
<b>COMPLIANCE</b>										
BUILDING INSPECTOR			DATE			CO-SIGNER			DATE	