

CONSTRUCTION/DEMOLITION FIRE SAFETY PLANNING GUIDELINES

- Review the following information pertaining to Construction Fire Safety Planning:
 - Section 5.6, Construction and Demolition Sites of the B.C. Fire Code
 - Part 8, Safety Measures at Construction and Demolition Sites of the B.C. Building Code.

- Keep in mind this Construction Fire Safety Plan ***applies to smaller projects/tenant improvements with minimal hazards or risks associated with the construction area;*** however, where the construction is an addition, the plan must address facilities in the existing building, where facilities such as exiting, fire separations, or fire systems are altered, and impact on the safety of occupants in the existing building.

- Complete Pages 2 through 7 of the 21 pages attached to these guidelines, and ensure the information is accurate (Revise when necessary).

- Prepare diagrams to support the Construction Fire Safety Plan by showing the following information (8 1/2" x 11 " size is preferable - Added after Page 7)
 - Existing buildings and proposed construction.
 - Contractor's hoarding and fences.
 - Fire access routes and driveways.
 - Firefighting equipment such as fire hydrants, and fire dept connections to sprinklers or standpipes.
 - Temporary exiting from existing building where existing exits are obstructed (Will be approved by the City of Surrey, Building Division, Commercial Section.)
 - Storage of flammables/propane.

- Submit an electronic copy of the completed plan to the Fire Prevention Office for approval via the [online Fire Safety Plan portal](#) for review.
- The fire department will provide an approved copy of the plan to the Commercial Section.

- If renovation, addition or demolition is performed at an existing school, a copy of all accepted Construction fire safety plan must be given to School's principal.

Occupied Buildings Assessment

Is work being performed in an occupied building?

Yes ____, No ____,

Sentence 5.6.1.12.1) of the B C Fire Code states the following:

Where part of a building continues to be occupied, the occupied part shall be separated from the part being demolished or constructed by a fire separation having a fire resistance rating of not less than 1 h.

Scope of work:

The Scope of Work should contain any milestones, reports, deliverables, and end products that are expected to be provided by the performing party. The Scope of Work should also contain a time line for all deliverables.

Means of Egress:

Are means of egress (access to exit and exit) of occupied areas affected during construction, alteration or demolition? Yes ___ or No ___

If, yes, describe below and on site plan.

Phasing Construction:

Will work be phased: Yes ___ or No ___?

If yes, describe and provide a diagram of each phase and affected areas.

Time of Day:

Is the work being performed when the building is occupied or afterhours?

- If while occupied, state the precautions that will be implemented to safeguard occupants?

- ---

- If afterhours, confirm days of the week, dates, and times of the day.

- ---

Hazards:

Are there propane cylinders or gas fired heaters/appliances being used in the project?

Yes ___ or No ___

- If so, state precautions that will be implemented to safeguard occupants?

- ---

Are flammable or combustible liquids used in the project?

Yes ___ or No ___

- If so, state precautions that will be implemented to safeguard occupants?

- ---

Any welding or cutting or spark producing operations involved in the project?

Yes ___ or No ___

- If so, state precautions that will be implemented to safeguard occupants?

- ---

Other Hazards:

If applicable, list other hazards and the precautions that will be implemented to safeguard occupants

CONSTRUCTION
FIRE SAFETY PLAN

PHASE: _____

EFFECTIVE DATE RANGE: _____

AFTER-HOURS FIRE EMERGENCY PHONE: _____

BUILDING NAME

BUILDING ADDRESS

SURREY

PLAN PREPARER & DATE

E-MAIL ADDRESS

PROJECT PERSONNEL

	Company Name	Phone Number
Building Owner/rep.	_____	_____
Architect	_____	_____
Structural Engineer	_____	_____
Mechanical Engineer	_____	_____
Electrical Engineer	_____	_____

FIRE EMERGENCY PROCEDURES

NAME: _____

ADDRESS: _____

SURREY

IF YOU DISCOVER A FIRE

- **FIGHT** the fire **ONLY** if it is **SMALL** and you are **NOT** alone.
- **EVACUATE** via the nearest safe exit.
- **NOTIFY** other persons of the fire emergency on-route.
- **SOUND** fire signal (3 blasts with air horn) outside the construction areas.
- **PROCEED** to the existing building and activate a fire alarm pull station located in a safe location or **ENSURE** that occupants in existing areas are aware of incident.
- **PHONE 9-1-1** to report a fire at your address.
- **REPORT** to the fire department officer at scene.

IF YOU HEAR A FIRE ALARM

- **EVACUATE** via the nearest safe exit.
- **ASSIST** disabled persons to reach the nearest safe exit.
- **ASSEMBLE** clear of the building and arriving fire apparatus.
- **PHONE 9-1-1** to report a fire at your address.
- **ENSURE** that the **ALARM SYSTEM** in the existing building is operating by **ACTIVATING** a fire alarm pull station or **ENSURE** that occupants in existing areas are aware of fire.

CONSTRUCTION FIRE SAFETY PLANNING

Fire safety planning during construction has 3 objectives:

- **FIRE HAZARD CONTROL**
- **FIRE PROTECTION EQUIPMENT MAINTENANCE**
- **EMERGENCY EVACUATION**

Meeting these objectives may eliminate or control the occurrence of fire by emphasizing:

- Good housekeeping
- Site security
- Installation of new fire protection systems as construction progresses
- Preservation of existing systems during alteration or demolition
- Rapid communication
- Consideration of special hazards

FIRE EMERGENCY EVACUATION

During a fire emergency, a fire alarm shall be sounded throughout the building, and all occupants will evacuate via the nearest safe exit. The Fire department will be notified by telephone of the fire emergency, and upon arrival should be assisted by the Construction Fire Safety Director.

FIRE PROTECTION SYSTEMS

Existing fire protection systems such as fire alarms, sprinklers or standpipes will remain in operation during the construction period (YES/NO): _____

If No, explain when the systems will be down and what precautions will be taken to offset the hazard to the occupants:

APPOINTMENT OF THE
CONSTRUCTION FIRE SAFETY DIRECTOR
ANNOUNCEMENT

DATE: _____

NAME: _____

TITLE: _____

WORK ADDRESS: _____

HOME ADDRESS: _____

OFFICE PHONE: _____

HOME PHONE: _____

PAGER NUMBER: _____

CELLULAR PHONE: _____

WORK HOURS: _____

I hereby appoint _____ as Construction Fire Safety Director,
responsible for fire safety at the construction site as specified in the B.C. Fire and Building
Code Regulations and authorized to fulfil the duties outlined in the Construction Fire Safety
Plan for: _____

APPOINTING OFFICER (Building Owner)

NAME: _____

POSITION: _____

ADDRESS: _____

PHONE: _____

5.6.1. General

5.6.1.1. Application

Note: Appendix A references relate to the B.C Fire Code. The Surrey Fire Service recommends the Plan Preparer consult this Appendix for additional information on requirement.

(See [Appendix A.](#))

1) This Section applies to fire safety for buildings, parts of buildings, facilities, adjacent buildings or facilities, and associated areas undergoing construction, alteration or demolition operations.

5.6.1.2. Protection of Adjacent Buildings

1) Protection shall be provided for adjacent buildings and facilities that would be exposed to fire originating from buildings, parts of buildings, facilities and associated areas undergoing construction, alteration or demolition operations. (See [Appendix A.](#))

5.6.1.3 . Fire Safety Plan

1) Except as required in [Sentence \(2\)](#), prior to the commencement of construction, alteration or demolition operations, a fire safety plan shall be prepared for the site and shall include

a) the designation and organization of site personnel to carry out fire safety duties, including a fire watch service if applicable,

b) the emergency procedures to be followed in the event of a fire, including

i) initiating a fire warning,

ii) notifying the fire department,

iii) instructing site personnel on the procedures to be followed once the warning has been initiated, and

iv) confining, controlling and extinguishing the fire,

c) measures for controlling fire hazards in and around the building (see [Appendix A](#)), and

d) a maintenance procedure for firefighting measures required in [Section 5.6.](#)

2) Where construction, alteration or demolition operations occur in an existing building that is required to have a fire safety plan conforming to [Section 2.8.](#), the fire safety plan shall take into account the changes occurring to the building.

5.6.1.4. Access for Firefighting

1) Unobstructed access to fire hydrants, portable extinguishers and to fire department connections for standpipe and sprinkler systems shall be maintained.

2) A means shall be provided to allow firefighters to perform their duties on all levels of the building.

- 3) Provision shall be made for the use of existing elevators, hoists or lifts to assist firefighting personnel in reaching all levels of the building.
- 4) Access routes for fire department vehicles shall be provided and maintained to construction and demolition sites.
- 5) Where a construction or demolition site is fenced so as to prevent general entry, provision shall be made for access by fire department equipment and personnel.

5.6.1.5. Portable Extinguishers

- 1) In addition to the other requirements of this Code, portable extinguishers shall be provided at unobstructed and easily accessible locations in areas
 - a) where hot work operations are carried out,
 - b) where combustibles are stored,
 - c) near or on any internal combustion engines,
 - d) where flammable liquids and combustible liquids or gases are stored or handled, and
 - e) where temporary fuel-fired equipment is used.
- 2) The extinguishers required by [Sentence \(1\)](#) shall have a minimum rating of
 - a) 2-A:10-B:C on moveable equipment, and
 - b) 4-A:40-B:C in all other locations.

5.6.1.6. Standpipe Systems

(See [Appendix A](#).)

- 1) Where a standpipe system is to be installed in a building under construction or alteration, the system shall be installed progressively in conformance with Subsection 3.2.5. of Division B of the British Columbia Building Code in areas permitted to be occupied.
- 2) Where a standpipe system is to be installed in portions of a building under construction or alteration that are not occupied, the following shall apply:
 - a) a permanent or temporary standpipe system is permitted in accordance with [Clauses \(b\) and \(c\)](#),
 - b) the standpipe system shall be provided with conspicuously marked and readily accessible fire department connections on the outside of the building at street level and shall have at least one hose outlet at each floor,
 - c) the pipe size, hose valves and water supply shall conform to Subsection 3.2.5. of Division B of the British Columbia Building Code,
 - d) the standpipe system shall, as a minimum, be securely supported and restrained on alternate floors,
 - e) at least one hose valve for attaching fire department hose shall be provided at each intermediate landing or floor level in the exit stairway,
 - f) valves shall be kept closed at all times and guarded against mechanical damage,
 - g) the standpipe shall be not more than one floor below the highest forms, staging, and similar combustibles elements at all times, and
 - h) temporary standpipe systems shall remain in service until the permanent standpipe installation is complete.
- 3) Where a building being demolished floor by floor is equipped with a standpipe system, the system, together with fire department connections and valves, shall be maintained in operable condition on all storeys below the one being demolished, except for the storey immediately below it.

5.6.1.7. Hot Surface Applications

- 1) Roofing operations and other surface applications that involve heat sources and hot processes shall be considered hot works and shall conform to the requirements in [Sentences \(2\) and \(3\)](#) and [Section 5.2](#).
- 2) Bitumen kettles shall
 - a) not be located on roofs,
 - b) be provided with adequate metal covers that are close-fitting and constructed of steel having a thickness of not less than No. 14 sheet metal gauge thickness,
 - c) be under constant supervision when in operation, and
 - d) be maintained free of excessive residue.
- 3) Mops that have been used for spreading bitumen shall be kept outside the building in a safe location when not in use.

5.6.1.8. Ignition Sources

(See [Appendix A](#).)

- 1) Devices capable of producing ignition, internal combustion engines, temporary heating equipment and associated devices shall be kept at a safe distance from combustible material so as not to cause ignition.
- 2) The clearance between combustible materials and temporary heating equipment, including flues, shall be in conformance with Part 6 of Division B of the British Columbia Building Code or in conformance with the minimum clearances shown on certified heating equipment.

5.6.1.9. Building Services at Demolition Sites

- 1) Except as required in [Sentence \(3\)](#) and except for water supplies for firefighting, building services shall be terminated at a point located outside the building or part thereof being demolished. (See [Appendix A](#).)
- 2) The service company whose service connections will be affected shall be notified before any action mentioned in [Sentence \(1\)](#) is taken and, if it is necessary to maintain any service, it shall be
 - a) relocated as necessary, and
 - b) protected from damage.
- 3) Temporary electrical installations shall be installed in conformance with the British Columbia Electrical Safety Regulation.
- 3) Temporary electrical installations shall be installed in conformance with the British Columbia Electrical Safety Regulation.

5.6.1.10. Fuel Supply Installation

- 1) Fuel supplies for heating equipment and internal combustion engines shall conform to
 - a) [CAN/CSA B139-M, "Installation Code for Oil-Burning Equipment,"](#) or
 - b) the British Columbia Gas Safety Regulation.

5.6.1.11. Tank, Piping and Machinery Reservoir Safety at Demolition Sites

- 1) Tanks, piping and machinery reservoirs at a demolition site shall be taken out of service in conformance with [Subsection 4.3.16](#).
- 2) Tanks, piping and machinery reservoirs at a demolition site that contain combustible liquids or flammable liquids or that are likely to contain flammable vapours shall be drained and, except as permitted by [Sentence \(3\)](#), removed prior to the demolition of the building
- 3) Where it is impracticable to remove tanks, piping or machinery reservoirs from the building prior to demolition, such equipment shall be conspicuously identified and removed as soon as conditions permit.
- 4) Tanks, piping and machinery reservoirs referred to in [Sentences \(1\), \(2\) and \(3\)](#) that once contained combustible liquids, flammable liquids or flammable gases shall be purged with inert materials prior to demolition to prevent an explosion. (See [Appendix A](#).)

5.6.1.12. Fire Separations in Partly Occupied Buildings

- 1) Where part of a building continues to be occupied, the occupied part shall be separated from the part being demolished or constructed by a fire separation having a fire –resistance rating of not less than 1 h.

5.6.1.13. Protection during Shutdown

- 1) Except as permitted in [Sentence \(2\)](#), where a fire protection system is provided, it shall remain operational throughout the construction, alteration or demolition area where reasonably practical.
- 2) When any portion of a fire protection system is temporarily shut down during construction, alteration or demolition operations, protection during shutdown shall comply with [Article 6.1.1.4](#).

5.6.1.14. Watch

- 1) A watch, with tours at intervals of not more than 1 h, shall be provided throughout demolition sites when there are occupants in the portion of the building not being demolished.
- 2) Except where a building is provided with a fire alarm system or similar equipment, a watch, with tours at intervals of not more than 1 h, shall be provided when a portion of the building is occupied while construction operations are taking place.
- 3) Facilities shall be provided to enable the watcher referred to in [Sentences \(1\) and \(2\)](#) to
 - a) ensure a fire warning is sounded to notify occupants, and
 - b) communicate with the fire department.

5.6.1.15. Smoking Restrictions

- 1) Smoking shall be permitted only under the conditions stated in [Subsection 2.4.2](#).

5.6.1.16. Provision for Egress

- 1) In areas of a building where construction, alteration or demolition operations are taking place, at least one exit shall be accessible and usable at all times.
- 2) In buildings being demolished, at least one stairway shall be maintained in usable condition at all times.

5.6.1.17. Fire Warning

- 1) A means shall be provided to alert site personnel of a fire and such means shall be capable of being heard throughout the building or facility .

5.6.1.18. Storage and Use of Dangerous Goods

- 1) Combustible liquids and flammable liquids shall be stored and used in conformance with Part 4.
- 2) Dangerous goods shall be stored in conformance with Part 3.
- 3) Dangerous goods shall be used in conformance with Part 5.

5.6.1.19. Temporary Enclosures

- 1) Fabrics and films used to temporarily enclose buildings shall be securely fastened to prevent them from being blown against heaters or other ignition sources.

5.6.1.20. Disposal of Combustible Refuse

- 1) Combustible refuse in sufficient quantities to constitute a fire hazard shall be moved to a safe location. (See also Subsection 8.2.5. of Division B of the British Columbia Building Code.)

5.6.2. Excavation

5.6.2.1. Services Shut-off

- 1) Except as provided in [Article 5.6.2.2.](#), before excavation begins, building services shall be shut off, terminated and labelled so as to be easily identifiable outside the limits of the excavation. (See also [Sentence 5.6.1.9.\(1\).](#))
- 2) The service company whose service connections will be affected shall be notified before any action mentioned in [Sentence \(1\)](#) is taken and, if it is necessary to maintain any service, it shall be
 - a) relocated as necessary, and
 - b) protected from damage.

5.6.2.2. Maintaining Existing Services

- 1) Existing gas, electrical, water, steam and other services are permitted to be left within the area of the excavation provided that
 - a) before work begins, the service company concerned has approved the proposed method of operation,
 - b) the location of the services is determined before excavation commences,
 - c) a suitable method of excavation is adopted that will ensure that the services are not damaged, and
 - d) the services are provided with suitable temporary supports.

Section 2.8. Emergency Planning

2.8.1. General

2.8.1.1. Application

- 1) Fire emergency procedures conforming to this Section shall be provided for
 - a) every *building* containing an *assembly* or a *care, treatment or detention occupancy*,
 - b) every *building* required by the British Columbia Building Code to have a fire alarm system,
 - c) demolition and construction sites regulated under Section 5.6,
 - d) storage areas required to have a fire safety plan in conformance with Articles 3.2.2.5. and 3.3.2.9.,
 - e) areas where *flammable liquids* or *combustible liquids* are stored or handled, in conformance with Article 4.1.5.5., and
 - f) areas where hazardous processes or operations occur, in conformance with Article 5.1.5.1.

2.8.1.2. Training of Supervisory Staff

- 1) *Supervisory staff* shall be trained in the fire emergency procedures described in the fire safety plan before they are given any responsibility for fire safety. (See Appendix A.)

2.8.1.3. Keys and Special Devices

- 1) Any keys or special devices needed to operate the fire alarm system or provide access to any fire protection systems or equipment shall be readily available to on-duty *supervisory staff*.

2.8.2. Fire Safety Plan

2.8.2.1. Measures in a Fire Safety Plan

- 1) In *buildings* or areas described in Article 2.8.1.1., a fire safety plan conforming to this Section shall be prepared in cooperation with the fire department and other applicable regulatory authorities and shall include
 - a) the emergency procedures to be used in case of fire, including
 - i) sounding the fire alarm (see Appendix A),
 - ii) notifying the fire department,
 - iii) instructing occupants on procedures to be followed when the fire alarm sounds,
 - iv) evacuating occupants, including special provisions for persons requiring assistance (see Appendix A),
 - v) confining, controlling and extinguishing the fire,
 - b) the appointment and organization of designated *supervisory staff* to carry out fire safety duties,
 - c) the training of *supervisory staff* and other occupants in their responsibilities for fire safety,
 - d) documents, including diagrams, showing the type, location and operation of the *building* fire emergency systems,
 - e) the holding of fire drills,
 - f) the control of fire hazards in the *building*,
 - g) the inspection and maintenance of *building* facilities provided for the safety of occupants.(See Appendix A.)

- 2) The fire safety plan shall be reviewed at intervals not greater than 12 months to ensure that it takes account of changes in the use and other characteristics of the *building*.

2.8.2.2. Care, Treatment and Detention Occupancies

- 1) A sufficient number of *supervisory staff* shall be on duty in *care or detention occupancies* to perform the tasks outlined in the fire safety plan described in Clause 2.8.2.1.(1)(a).

2.8.2.3. Assembly Occupancies

- 1) In Group A, Division 1 *assembly occupancies* containing more than 60 occupants, there shall be at least one *supervisory staff* member on duty in the *building* to perform the tasks outlined in the fire safety plan in Clause 2.8.2.1.(1)(a) whenever the *building* is open to the public.

2.8.2.4. High Buildings

- 1) In *buildings* within the scope of Subsection first 3.2.6. of the British Columbia Building Code, the fire safety plan shall, in addition to the requirements of Sentence 2.8.2.1.(1), include
 - a) the training of *supervisory staff* in the use of the voice communication system,
 - b) the procedures for the use of elevators,
 - c) the action to be taken by *supervisory staff* in initiating any smoke control or other fire emergency systems installed in a *building* in the event of fire until the fire department arrives,
 - d) instructions to the *supervisory staff* and fire department for the operation of the systems referred to in Clause (c), and
 - e) the procedures established to facilitate fire department access to the *building* and fire location within the *building*.

2.8.2.5. Retention of Fire Safety Plans

- 1) The fire safety plan shall be kept in a location, designated by the *authority having jurisdiction* within the *building*, for reference by the fire department, *supervisory staff* and other personnel.
- 2) The fire safety plan for a *building* within the scope of Subsection first 3.2.6. of the British Columbia Building Code shall be kept at the central alarm and control facility.

2.8.2.6. Distribution

- 1) A copy of the fire emergency procedures and other duties for *supervisory staff*, as laid down in the fire safety plan, shall be given to all *supervisory staff*.

2.8.2.7. Posting of Fire Emergency Procedures

- 1) At least one copy of the fire emergency procedures shall be prominently posted on each *floor area*.
- 2) In every hotel and motel bedroom the fire safety rules for occupants shall be posted showing the locations of *exits* and the paths of travel to *exits*.
- 3) Where a fire alarm system has been installed with no provisions to transmit a signal to the fire department, a sign shall be posted at each manually actuated signalling box requesting that the fire department be notified, and including the telephone number of that department.
- 4) All buildings served by one or more elevators shall have, at each elevator entrance on each floor level, a permanently mounted fire safety sign or symbol indicating that the indicating is not to be used in case of fire.
- 5) The sign or symbol required by Sentence 2.8.2.7.(4) shall be at least 100mm in height and width and shall be designed in accordance with NFPA 170 “Standard for Fire Safety and Emergency Symbols”.

2.8.3. Fire Drills

2.8.3.1. Fire Drill Procedures

- 1) The procedure for conducting fire drills shall be determined by the person in responsible charge of the *building*, taking into consideration
 - a) the *building occupancy* and its fire hazards,

- b) the safety features provided in the *building*,
 - c) the desirable degree of participation of occupants other than *supervisory staff*,
 - d) the number and degree of experience of participating *supervisory staff*,
 - e) the features of fire emergency systems installed in *buildings* within the scope of Subsection first 3.2.6. of the British Columbia Building Code, and
 - f) the requirements of the fire department.
- (See Appendix A.)

2.8.3.2. Fire Drill Frequency

- 1) Fire drills as described in Sentence 2.8.3.1.(1) shall be held at intervals not greater than 12 months for the *supervisory staff*, except that
 - a) in day-care centres and in Group B *major occupancies*, such drills shall be held at intervals not greater than one month,
 - b) in schools attended by children, total evacuation fire drills shall be held at least 3 times in each of the fall and spring school terms, and
 - c) in *buildings* within the scope of Subsection first 3.2.6. of the British Columbia Building Code, such drills shall be held at intervals not greater than 2 months.

Part 8 – Safety Measures at Construction and Demolition Sites

Section 8.1. General

8.1.1. Scope

8.1.1.1. Scope

- 1) The scope of this Part shall be as described in [Subsection 1.3.3. of Division A](#).
- 2) This Part applies to fire safety and the protection of the public during the construction, alteration or demolition of every building, including any incompleted or abandoned building.
- 3) Fire safety at construction and demolition sites shall conform to Section 5.6. of Division B of the British Columbia Fire Code.

3) Fire safety at construction and demolition sites shall conform to Section 5.6. of Division B of the British Columbia Fire Code.

8.1.1.2. Definitions

- 1) Words that appear in italics are defined in [Article 1.4.1.2. of Division A](#).

8.1.1.3. Demolition Procedures

- 1) Measures shall be taken during demolition to protect the public in conformance with [CAN/CSA S350-M, “Code of Practice for Safety in Demolition of Structures,”](#) and Section 5.6. of Division B of the British Columbia Fire Code.

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8.1.2. Application

8.1.2.1. Application

1) Where a building is undergoing construction, alteration or demolition, measures shall be taken at the building site in conformance with this Code. (See [Appendix A.](#))

8.1.2.2. Protection from Risk

1) Precautions shall be taken to ensure that no person is exposed to undue risk.

Section 8.2. Protection of the Public

8.2.1. Fencing and Barricades

8.2.1.1. Covered Way Exceptions

1) Where the construction may constitute a hazard to the public, work shall not commence on the construction, alteration or repair of a building until a covered way has been provided as described in [Article 8.2.1.2.](#) to protect the public, except where

- a) the work is done within a solid enclosure,
- b) the building is at a distance of 2 m or more from a public way used by pedestrians, or
- c) site conditions warrant a distance greater than provided in [Clause \(b\).](#)

8.2.1.2. Covered Way Construction

1) A covered way shall

- a) have a clear height of not less than 2.5 m,
- b) have a clear width of not less than 1.5 m or the width of the public way, whichever is the lesser,
- c) be designed and constructed to support safely all loads that may be reasonably expected to be applied to it, but in no case less than 2.4 kPa on the roof,
- d) have a weathertight roof sloped towards the site or, if flat, be equipped with a splash board not less than 300 mm high on the street side,
- e) be totally enclosed on the site side with a structure having a reasonably smooth surface facing the public way
- f) have a railing 1 070 mm high on the street side where the covered way is supported by posts on the street side, and
- g) be adequately lighted when the public way is lighted.

8.2.1.3. Fencing, Boarding or Barricades

1) When a construction or demolition activity may constitute a hazard to the public and is located 2 m or more from a public way, a strongly constructed fence, boarding or barricade not less than 1.8 m high shall be erected between the site and the public way or open sides of a construction site.

- 1) When a construction or demolition activity may constitute a hazard to the public and is located 2 m or more from a *public way*, a strongly constructed fence, boarding or barricade not less than 1.8 m high shall be erected between the site and the *public way* or open sides of a construction site.
- 2) Barricades shall have a reasonably smooth surface facing the public way and shall be without openings, except those required for access.
- 3) Access openings through barricades shall be equipped with gates that shall be
 - a) kept closed and locked when the site is unattended, and
 - b) maintained in place until completion of the construction or demolition activity.

8.2.1.4. Special Hazards

- 1) Where any special hazard exists from which it is not possible to protect the public by other means, persons shall be employed to prevent the public from entering the danger zone at any time of the day or night.

8.2.1.5. Work Shutdown

- 1) When work on a construction site is suspended or ceases so that it will not be occupied during normal working hours, the hazardous part of the construction site shall be protected by
 - a) covering all windows, doors and other openings located within 3 m of the ground which may give access to the building with a securely fastened barricade, or
 - b) a fence or barricade constructed according to the requirements of [Article 8.2.1.3.](#)

8.2.2. Excavation

8.2.2.1. Water Removal

- 1) Excavations shall be kept reasonably clear of water.

8.2.2.2. Protection of Adjoining Property

- 1) If the stability of adjoining buildings may be endangered by the work of excavating, adequate underpinning, shoring and bracing shall be provided to prevent
 - a) damage to, or movement of, any part of the adjoining building, and
 - b) the creation of a hazard to the public.

8.2.3. Use of Streets or Public Property

8.2.3.1. Safe Passage Past Site

- 1) Except as provided in [Article 8.2.3.2.](#), provisions shall be made at all times for the safe passage of pedestrian and vehicular traffic past the site.
- 2) Material or equipment shall not be placed on any street or other public property except as authorized.
- 3) Except as provided in [Sentence \(4\)](#), where a sidewalk exists adjacent to the site it shall be kept clear of obstructions at all times.

4) Where construction operations necessitate the obstruction of a sidewalk, a temporary sidewalk shall be provided and it shall be kept clear of obstruction at all times.

8.2.3.2. Overhead Activities

1) Operations such as the hoisting of major components onto a tall building or other overhead activities that constitute a hazard to pedestrians below from which the public cannot be protected by barricades, covered ways or similar means shall not be carried out until the street or other public way is closed.

8.2.3.3. Barricades

1) Excavations in streets or public property shall

a) be adequately barricaded, and

b) have warning signs or lights installed on each section of the barricades referred to in [Clause \(a\)](#).

8.2.3.4. Restoration and Repair

1) All sidewalks, streets or other public property that have been damaged shall be restored to a safe condition.

2) All obstructions on sidewalks, streets or other public property shall be removed when the need for such obstructions is ended.

8.2.3.5. Warning Lights

1) Warning lights shall be placed and shall be in operation during the hours of darkness at all obstructions on streets or other public ways.

8.2.4. Direction of Vehicular Traffic

8.2.4.1. Hazards to Vehicular Traffic

1) Where a hazard to vehicular traffic on a public way is created by work on a construction site, the following shall be provided to direct the traffic:

a) one or more workers,

b) warning signs,

c) barriers,

d) lane control devices, or

e) flashing lights or flares located at a suitable distance from the hazard.

8.2.4.2. Flags Used for Directing Traffic

1) A flag used to direct traffic shall be

a) red,

b) not less than 450 mm by 500 mm,

c) mounted on a staff not less than 1 m long, with the long side of the flag attached securely to the staff along its entire length, and

d) maintained in a clean and unturned condition when being used.

8.2.4.3. Signs Used for Directing Traffic

1) A sign used to direct traffic shall be

- a) diamond-shaped and of material not less rigid than 6 mm thick plywood,
- b) not less than 450 mm by 450 mm in size and mounted at one corner on a substantial pole not less than 1.2 m long,
- c) red on one side with black corner areas so that the red area is a regular 8-sided figure, and with the word “STOP” in clearly distinguishable white letters not less than 150 mm high located centrally on the sign,
- d) yellow on the other side with the word “SLOW” in clearly distinguishable black letters not less than 150 mm high located centrally on the sign, or symbols recognized by the International Traffic Code, and
- e) maintained in a clean condition when being used.

1) A sign used to direct traffic shall be

- a) diamond-shaped and of material not less rigid than 6 mm thick plywood,
- b) not less than 450 mm by 450 mm in size and mounted at one corner on a substantial pole not less than 1.2 m long,
- c) red on one side with black corner areas so that the red area is a regular 8-sided figure, and with the word “STOP” in clearly distinguishable white letters not less than 150 mm high located centrally on the sign,
- d) yellow on the other side with the word “SLOW” in clearly distinguishable black letters not less than 150 mm high located centrally on the sign, or symbols recognized by the International Traffic Code, and
- e) maintained in a clean condition when being used.

8.2.4.4. Worker Directing Traffic

1) A worker who is directing traffic shall

- a) be equipped as required by [Article 8.2.4.5.](#),
- b) be instructed in the signals to be used in controlling traffic,
- c) be provided with a copy of written instructions on the correct methods for traffic direction, and
- d) direct traffic by using either a flag or sign.

8.2.4.5. Clothing While Directing Traffic

1) A worker while directing traffic shall wear the following clothing which shall be fluorescent and coloured either blaze orange or red:

- a) a vest, or
- b) sleeves that extend from above the elbow to the wrist.

8.2.5. Waste Material

8.2.5.1. Control of Waste Material

1) Waste material or other material shall not be permitted to fall freely from one storey to another.

8.2.5.2. Removal of Waste Material

1) Waste material shall be removed as quickly as possible by means of

- a) appropriate containers,
- b) an enclosed shaft or chute conforming to [Sentence 8.2.5.4.\(1\)](#), or
- c) a hoisting apparatus if large pieces or objects are involved.

8.2.5.3. Enclosures for Waste Material

- 1)** Waste material cleared as provided in [Sentence 8.2.5.2.\(1\)](#) shall be deposited in an enclosure
 - a) so arranged as to prevent waste material from being projected beyond the confines of the enclosure, and
 - b) not accessible to the public.

8.2.5.4. Chutes for Waste Material

- 1)** The chute described in [Clause 8.2.5.2.\(1\)\(b\)](#) shall be closed if it is inclined more than 45° to the horizontal.