

# **Part 8**

## **Safety Measures at Construction and Demolition Sites**

<b>8.1.</b>	<b>General</b>	
8.1.1.	Scope .....	8-1
8.1.2.	Application .....	8-1
<b>8.2.</b>	<b>Protection of the Public</b>	
8.2.1.	Fencing and Barricades .....	8-1
8.2.2.	Excavation .....	8-2
8.2.3.	Use of Streets or Public Property ...	8-2
8.2.4.	Direction of Vehicular Traffic .....	8-3
8.2.5.	Waste Material .....	8-4
<b>8.3.</b>	<b>Objectives and Functional Statements</b>	
8.3.1.	Objectives and Functional Statements .....	8-4

# **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 NFC.

##### **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 Section 5.6. of Division B of the NFC.

#### **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 less 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" or "ARRÊT" 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" or "LENTEMENT" 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.

## Section 8.3. Objectives and Functional Statements

### 8.3.1. Objectives and Functional Statements

#### 8.3.1.1. Attributions to Acceptable Solutions

- 1) For the purpose of compliance with this Code as required in Clause 1.2.1.1.(1)(b) of Division A, the objectives and functional statements attributed to the acceptable solutions in this Part shall be the objectives and functional statements listed in Table 8.3.1.1. (See A-1.1.2.1.(1) in Appendix A.)

**Table 8.3.1.1.**

Table 8.3.1.1. is located in Volume 1, Attribution Tables.