



City of Colwood Fire Department – Fire Prevention Division

# Fire Safety Plan Guidelines for Construction and Demolition Sites

December, 2012

“A Construction Fire Safety Plan is required for all buildings or portions of buildings and associated areas under construction, alteration, renovation or demolition.”

## Reference:

B.C. Building Code  
2012 Edition  
(Div. B, Sec 8.1)

B.C. Fire Code  
2012 Edition  
(Div. B, Sec 5.6)

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The information in this publication is provided by the Colwood Fire Department in order to assist owners, contractors, and workers with the requirements of a Construction Fire Safety Plan (CFSP). The CFSP document is intended to provide a brief overview of existing information that has previously been developed. Each site and construction project will have site specific issues that will need to be addressed in the CFSP.

A building is at its most vulnerable state during the construction phase. A CFSP is part of a system that is intended to protect the building while under construction. Once a building is completed, there are a number of life safety systems in place to protect the building and its occupants including fire alarm systems, sprinklers, and fire compartmentalization. During construction these fire safety measures may or may not be installed or fully operational. Therefore, the CFSP must address hazards that could be present during this phase of the project.

The leading causes of fire in buildings under construction or demolition are:

- ◆ Incendiary / Suspicious     ◆ Smoking on site
- ◆ Open flames / embers       ◆ Heating Equipment

While minimizing the fire hazards at a construction or demolition site, the CFSP must also take into account the impact a fire would have on the neighboring buildings. A Construction Fire Safety Plan is required for all buildings or portions of buildings and associated areas under construction, alteration, renovation or demolition.



## B.C. Building and Fire Code Requirements

The Construction Fire Safety Plan is required in accordance with the B.C. Building Code 2012 ed. (Div B, Section 8.1) and the B.C. Fire Code 2012 ed. (Div. B, Section 5.6). The degree of application of the Fire Safety Plan requirements for each construction, alteration, or demolition project shall be determined as part of the fire safety plan prior to the commencement of operations.

## Before Starting a Project...

Prior to construction, alteration or demolition, a minimum of two (2) copies of the Construction Fire Safety Plan (CFSP) shall be prepared by the owner, registered co-ordinating professional, or designate and be submitted to the Colwood Fire Department for review and approval. It is strongly recommended that the CFSP be designed, developed and submitted by a qualified and experienced fire safety planner. A fire safety planning professional can save a considerable amount of time needed to generate a Construction Fire Safety Plan.



“It is strongly recommended that the Construction Fire Safety Plan be designed, developed and submitted by a qualified and experienced fire safety planner.”



Once approved, one copy of the CFSP will be kept by the Fire Department and one copy will be posted in the site construction office. The plan shall be site specific and may be reviewed at any time by the authority having jurisdiction. As construction progresses the plan must be periodically reviewed and updated. This shall be done by the General Contractor as representative of the owner and in consultation with the fire department.

## Protecting the Public and Property...

The Construction Fire Safety Plan shall provide details for the protection of the public and adjacent properties as indicated in the prescriptive requirements in the B.C. Building Code, Division B, Part 8. These requirements include but are not limited to;



- ◆ 8.2.1 Fencing and Barricades
- ◆ 8.2.2 Excavation
- ◆ 8.2.3 Use of Streets and Public Property
- ◆ 8.2.4 Direction of Vehicular Traffic
- ◆ 8.2.5 Waste Materials

## IN THE EVENT OF AN EMERGENCY:

The Construction Fire Safety Plan shall also include written procedures and descriptions for the following items as indicated in BC Fire Code 2012 ed. (Division B, Section 2.8 /5.6).



### Checklist:

- ☐ The designation and organization of site personnel who will carry out the fire safety duties.
- ☐ Names and telephone/pager/cell numbers of the 24-hour emergency contact persons shall be listed.
- ☐ The emergency procedures to be used in the case of fire including;
  - ◆ The sounding of on an alarm that is audible throughout the work site.
  - ◆ Notification of the fire department.
  - ◆ Instruction of on-site personnel of procedures to be followed when the alarm sounds.
  - ◆ Instruction on basic firefighting procedures for site personnel.
- ☐ The maintenance or modification of exit facilities on an ongoing basis to ensure the rapid egress of building occupants.
- ☐ The posting of site address numbers which are clearly visible from the street.
- ☐ Appropriate signage to be provided and clearly posted on the worksite for designated fire lanes or access routes for emergency vehicles.
- ☐ Procedures put in place to ensure clear access routes onto the building site for fire department or other emergency vehicles.



## FIRE PROTECTION:

- ☐ The installation, inspection, testing and maintenance of firefighting and life safety equipment, such as, but not limited to;
  - ◆ Fire alarm or acceptable equivalent;
  - ◆ Sprinkler or standpipe systems;
  - ◆ Suitable portable fire extinguishers;
  - ◆ Acceptable levels of emergency lighting;
  - ◆ Acceptable fire-rated separations and routes of emergency access, etc.
- ☐ The control of fire hazards in and around the building including but not limited to;
  - ◆ Cutting and welding operations, grinding, brazing, and soldering;
  - ◆ Smoking;
  - ◆ Safe storage of combustible refuse;
  - ◆ Safe storage of flammable and combustible liquids or other hazardous materials;
  - ◆ Safe use and storage of propane or other fuelled heating systems.
- ☐ Portable fire extinguishers shall be supplied and distributed throughout the worksite. Additional extinguishers shall be provided adjacent to;
  - ◆ Cutting or welding operations
  - ◆ In areas where combustibles are stored
  - ◆ Near or on any internal combustion engines
  - ◆ Areas where flammable liquids or gases are stored or handled
  - ◆ Temporary oil or gas fired equipment
  - ◆ Bitumen heating equipment
- ☐ Portable fire extinguishers shall have a minimum rating of;
  - ◆ 2A, 10B:C on all movable equipment ; and
  - ◆ 4A, 40B:C in all other locations
- ☐ The progressive installation of an acceptable working standpipe system in buildings requiring a standpipe system. The standpipe system may be provided temporarily as dry, with the sole source of water being provided by an intact and accessible temporary or permanent Fire Department Connection located in consultation with the Fire Department.
- ☐ Records of all inspections, tests and maintenance shall be kept on site for review by the Fire Department.
- ☐ Amendments to the Construction Fire Safety Plan so as to be in phase with the progress of construction.
- ☐ Acceptable levels of protection for portions of the building under construction, which are proposed to be occupied or used for display purposes. The Fire Safety Plan shall also indicate the temporary and/or permanent equipment provided to maintain the acceptable equivalent level of life and property safety intended for occupancy.
- ☐ Procedures to ensure unobstructed access to fire protection equipment, such as fire hydrants, fire department connections, fire hose stations (NFPA-14) and portable fire extinguishers (NFPA10).

## TRAINING:

- ☐ Supervisory Staff and other personnel must be trained in their responsibilities for fire safety.



“All workers must be given adequate instruction in the fire and emergency evacuation procedures applicable to their workplace.”



- ☐ All workers must be given adequate instruction in the fire and emergency evacuation procedures applicable to their workplace.
- ☐ Workers assigned to firefighting duties in their work place must be given adequate training by a qualified instructor in fire suppression methods, prevention of fire, emergency procedures, organization and chain of command, firefighting crew safety, and communications applicable to their work place.
- ☐ Retraining of firefighting duties must be provided periodically, but not less than once per year.



### **SITE AND FLOOR PLANS SHALL BE PROVIDED, INDICATING:**

- ☐ Emergency access points to the construction site and building (s).
- ☐ The location of special keys or devices required to access the site or building.
- ☐ The location of functioning fire department connections, fire alarm panels or annunciators and the approved areas used for the storage of hazardous materials and portable fire extinguishers.
- ☐ The location, area or phase of the construction or alterations in relation to the existing building.
- ☐ General floor plans, showing layout, stairs, elevators, shafts, roof access points, etc.
- ☐ Locations of all building services shutoff control valves.

### **ADDITIONAL REQUIRED INFORMATION:**



During any phase of construction where the effectiveness of an exit or access to exit facility, fire alarm, sprinkler or standpipe system, fire fighting water supply or emergency access route is affected, the Construction Fire Safety Plan shall identify written procedures, practices or changes to the level of protection taken to offset the limitations. This shall include narrative details and schematic floor plans of the proposed egress routes, existing and temporary illuminated exit signs, existing and temporary emergency lighting, existing and additional supplementary fire detection devices, limits of occupant loads or activities to suit available exit facilities, etc.

Any limitations imposed on existing life or property safety systems shall receive prior approval from the Fire Department before implementation. The Construction Fire Safety Plan will require periodic and specific revision to offset various phases in the construction process. Where an existing building is undergoing addition, alteration or renovation and the existing fire department emergency access, sprinkler, standpipe, fire pump or fire fighting water supply, fire alarm system, emergency power supply, exiting system or firewalls are reduced in any way, consult the Fire Department.



#### Note:

*Implementation of the provisions of the Construction Fire Safety Plan is the responsibility of the owner or designate and the supervising Contractor. For further information or discussion of acceptable equivalent levels of safety please contact:*

#### **COLWOOD FIRE DEPARTMENT – FIRE PREVENTION DIVISION**

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