

**Carlsbad Fire Department**  
Fire & Life Safety Division

# **Guideline for Fire Safety During Construction And Demolition**



Approved and Authorized By:

Randall Metz, Fire Marshal

Issued: September 19, 2024

# **Guideline for Fire Safety During Construction And Demolition**

## **PURPOSE**

The purpose of this guideline is to ensure that a fire prevention program is established at construction sites. When required, a site safety plan shall be approved prior to construction or demolition. All fire safety requirements shall be maintained at all times during construction, alteration, and demolition. The requirements are in accordance with Chapter 33 of the California Fire Code.

## **SCOPE**

This document provides specific requirements for new construction and significant alteration projects, where deemed necessary by the Fire & Life Safety division.

## **GENERAL REQUIREMENTS**

### **A. Site Safety Director**

- a. The Owner shall designate a person to be the site safety director. The site safety director shall be responsible for ensuring compliance with the site safety plan and is responsible for the completion of a daily safety inspection at the project site.

### **B. Address Identification**

- a. Construction sites shall be provided with approved address identification.
- b. The address shall be posted at the main entrance to the site, in guard shacks, in the construction site office, and adjacent to an emergency telephone.
- c. The posted address sign shall be legible and placed in a position that is visible from the street or road fronting the property. Address identification characters shall contrast with their background, be a minimum letter height of 12" with a minimum 2" brush stroke. The sign shall be weather-resistant and maintained until replaced by permanent signs.

### **C. Emergency telephone communications**

- a. Emergency telephone facilities with ready access shall be provided in an approved location at the construction site, or an approved equivalent means of communication shall be provided.

**D. Access for Fire Fighting**

- a. Vehicle access shall be provided by either temporary or permanent roads, capable of supporting 72,000 pounds under all weather conditions. An engineer letter of approval shall be provided for all temporary fire access roads.
- b. Vehicle access shall be maintained until permanent fire apparatus access roads are available.
- c. Vehicle access shall be provided to within 100 feet of temporary or permanent fire department connections.

**E. Fire Flow Requirements**

- a. When combustible building materials of the building under construction are delivered to a site, a minimum fire flow of 500 gallons per minute shall be provided.
- b. The fire hydrant used to provide this fire-flow supply shall be within 500 feet of the combustible building materials, as measured along an approved fire apparatus access lane. Where the site configuration is such that one fire hydrant cannot be located within 500 feet of all combustible building materials, additional fire hydrants shall be required to provide coverage.

**F. Hydrants**

- a. Unobstructed access to fire hydrants and to outside connections for standpipes, sprinklers, or other fire protection equipment, whether permanent or temporary, shall be provided and maintained at all times.

**G. Standpipes**

- a. In buildings required to have standpipes, not less than one standpipe shall be provided for use during construction. Such standpipes shall be installed prior to construction exceeding 40 feet in height above the lowest level of fire department vehicle access. Such standpipes shall be provided with fire department hose connections at locations adjacent to stairways. As construction progresses, standpipes shall be extended to within one floor of the highest point of construction having secured decking or flooring.

**H. Portable Fire Extinguishers**

- a. Portable fire extinguishers shall be provided such that the travel distance to any extinguisher does not exceed 75 feet.
- b. Mounting height to the top of the extinguisher shall not exceed 5 feet.
- c. Fire extinguishers shall not have less than a 2A:10B:C rating.

- d. Structures under construction, alteration, or demolition shall be provided with an approved portable fire extinguisher in at least the following locations:
  - a) At each stairway on all floor levels where combustible materials have accumulated.
  - b) In every storage and construction shed.
  - c) Additional portable fire extinguishers shall be provided where special hazards exist including, but not limited to, the storage and use of flammable and combustible liquids.
- e. It is the Site Safety Director's responsibility to ensure that an adequate number of individuals are trained in the proper use of portable fire extinguishers.

**I. Exit Requirements**

- a. Required means of egress shall be maintained during construction and demolition, remodeling, or alterations and additions to any building. Exits shall be clear of obstructions, construction equipment, storage, and debris at all times.
- b. All exits shall be identified in the Site Safety Plan.

**J. Cooking**

- a. Cooking shall be prohibited, except in approved designated cooking areas separated from combustible materials by a minimum of 10 feet.
- b. Signs with a minimum letter height of 3 inches and a minimum brush stroke of 1/2 inch shall be posted in conspicuous locations in designated cooking areas and state:

DESIGNATED COOKING AREA  
COOKING OUTSIDE OF A DESIGNATED  
COOKING AREA IS PROHIBITED

**K. Smoking**

- a. Smoking shall be prohibited where conditions are such as to make smoking a hazard, and in spaces where flammable or combustible materials are stored or handled.
- b. No Smoking signs shall be posted and unobscured.

**L. Combustible Waste Material Accumulation and Removal**

- a. Excessive combustible debris, rubbish, and waste material shall not be accumulated within buildings.
- b. Combustible debris, rubbish, and waste material shall be removed from buildings at the end of each shift of work.
- c. Materials susceptible to spontaneous ignition, such as oily rags, shall be stored in a listed disposal container.

#### M. Fire Watch

- a. A fire watch shall be provided during nonworking hours for new construction that exceeds 40 feet in height above the lowest adjacent grade at any point along the building perimeter, for new multistory construction with an aggregate area exceeding 50,000 square feet per story or as required by the Fire and Life Safety Division.
- b. **Refer to Appendix C** for the Fire Watch Log.

#### SITE SAFETY PLAN

- A. A written Site Safety Plan shall be developed for construction projects at the discretion of the Fire & Life Safety Division and shall be approved prior to construction or demolition.
- B. Site Safety Plan and all other pertinent documentation shall be accessible and maintained on the job site at all times.
- C. The site safety director shall be responsible for ensuring compliance with the site safety plan.
- D. The Site Safety Director is responsible for carrying out the provisions of the safety plan and communicating it to all subcontractors. Any changes to the plan shall be submitted to the Fire & Life Safety Division and approved prior to resuming work.
- E. At a minimum, the site safety plan shall include the following information (**Refer to Appendix A**):
  1. Name and contact information of the site safety director
  2. Documentation of the training of the site safety director
  3. Procedures for reporting emergencies
  4. Fire department vehicle access routes
  5. Location of fire protection equipment, including portable fire extinguishers, standpipes, fire department connections and fire hydrants
  6. Smoking and cooking policies. Designated areas shall be provided with adequate signage and approved by the Fire & Life Safety Division
  7. Location and safety considerations for temporary heating equipment
  8. Plans for control of combustible waste material
  9. Locations and methods for storage and use of flammable and combustible liquids and other hazardous materials
  10. Provisions for site security, and where required, for a fire watch
  11. Other site-specific information required by the Fire & Life Safety Division
- F. Changes that affect this plan shall be approved by the Fire and Life Safety Division prior to resuming construction.

## Daily Fire Safety Inspection

The site safety director shall be responsible for the completion of a daily site safety inspection at the project site. Each day, all buildings and outdoor areas shall be inspected to ensure compliance with the approved Site Safety Plan. The results of each inspection shall be documented and maintained on-site until a certificate of occupancy has been issued. A weekly summary shall be completed (**Refer to Appendix B**). Documentation shall be immediately available on-site for presentation to the Building or Fire official upon request.

1. Procedures for reporting emergencies are posted and reviewed with personnel.
2. Address is posted and maintained.
3. Fire department vehicle access routes shall be maintained clear of obstructions that reduce the width of the available roadway to less than 24 feet.
4. Location of fire protection equipment, including portable fire extinguishers, standpipes, fire department connections and fire hydrants are clearly identified and not obstructed, and systems are functional.
5. Cooking policies are adhered to and signage is maintained at all times.
6. Smoking policies are adhered to and signage is maintained at all times.
7. Temporary heating equipment is maintained away from combustible materials and in accordance with the site safety plan.
8. Hot work is conducted per Chapter 35 of the 2022 California Fire Code.
  - a. The hot work site is clear of combustibles or combustibles are protected in an approved manner.
  - b. Hot work areas shall not contain combustibles or shall be provided with appropriate shielding to prevent sparks, slag, or heat from igniting exposed combustibles.
  - c. Exposed construction is of noncombustible materials or that combustible materials are protected.
  - d. Openings or cracks in walls, floors, ducts, or shafts within the hot work area shall be tightly covered to prevent the passage of sparks to adjacent combustible areas, or shielded by metal fire-resistant guards, or curtains shall be provided to prevent passage of sparks or slag.
  - e. Fire extinguishers are available, fully charged, and operable.
  - f. Where required, fire watch personnel are assigned, equipped, and trained.
9. Combustible waste material and rubbish is removed from the building.
10. Flammable and combustible liquids and other hazardous materials are stored in locations approved by the site safety director and Fire & Life Safety division.
11. Fire watch documentation is maintained and readily available.
12. Changes that affect this plan shall be approved by Fire & Life Safety personnel.
13. Other site-specific information required in the Site Safety Plan.

## **SUBMITTAL REQUIREMENT**

### **General Requirements**

1. A PDF site map illustrating available water supply, hydrants, and fire department access.
2. Architectural floor plan illustrating portable fire extinguishers, standpipes, fire department connections, and egress.
3. Site Safety Plan
4. All PDF plans and attachments shall be electronically submitted to the Fire & Life Safety Division.

### **APPENDICES:**

- A. Site Safety Plan
- B. Daily Site Inspection Log
- C. Fire Watch Log Documentation



CARLSBAD FIRE DEPARTMENT  
SITE SAFETY PLAN  
APPENDIX A

**NAME AND CONTACT OF SITE SAFETY DIRECTOR**

Contact Name: \_\_\_\_\_

Phone number: \_\_\_\_\_

Email: \_\_\_\_\_

Training Documentation:

Attached  Job Experience  Employer provided Safety Training

Described below:


**PROCEDURES FOR REPORTING EMERGENCIES**

Select all that apply:

Identified on Plans  Attached  
 Call 911  Inform Site Safety Director

Described below:


**FIRE DEPARTMENT VEHICLE ACCESS ROUTES**

Select all that apply:

Identified on Plans  Attached  
 Described below:


**LOCATION OF FIRE PROTECTION EQUIPMENT**

Select all that apply:

Identified on Plans  Attached  
 Fire Extinguisher  Smoke alarm  Sprinkler system  
 Fire Extinguisher on site or vehicle within 50 feet of active construction.

Described below:


*Fire extinguishers should be minimum 2A:10B:C and certified/tagged within the year.*





CARLSBAD FIRE DEPARTMENT  
SITE SAFETY PLAN  
APPENDIX A

**SMOKING AND COOKING POLICIES**

Select all that apply:

- Identified on Plans       Attached
- No Smoking Allowed       No Cooking Allowed
- Described below:


**LOCATION AND SAFETY CONSIDERATIONS FOR TEMP HEATING EQUIPMENT**

Select all that apply:

- Identified on Plans       Attached
- No Temp Heating Equipment Allowed
- Described below:


**PLANS FOR CONTROL OF COMBUSTIBLE WASTE**

Select all that apply:

- Identified on Plans       Attached
- Combustible wastes collected in non-combustible bin away from construction area
- Combustible wastes hauled off \_\_\_ daily \_\_\_ weekly \_\_\_ at end of project
- No smoking signs posted on/near combustible waste bin.
- Described below:




CARLSBAD FIRE DEPARTMENT  
SITE SAFETY PLAN  
APPENDIX A

**STORAGE/USE OF FLAMMABLE, COMBUSTIBLE LIQUIDS, HAZMAT**

Select all that apply:

- Identified on Plans       Attached
- No use or storage of flammable or combustible liquids or hazardous materials including flammable and compressed gases at job site.
- Use and storage of the following flammable or combustible liquids, or hazardous materials as described below:

Material	Quantity	Storage Location	# of Days on Site
e.g., LP-gas	100 lb	On forklift	5

Any permitted quantity of a hazardous material including flammable combustible liquids, compressed gases, liquefied petroleum gas (propane), paints, fuels, or other hazardous chemicals may require additional fire operational permits for an additional fee.

Any hazardous material stored on site >30 days may require submission of Hazmat Business Plan.

**SITE SECURITY**

Select all that apply:

- Identified on Plans       Attached
- Site is fenced with warning signs.       Site is locked when unoccupied.
- Site is monitored with cameras.       Site is monitored with paid Security staff.
- Described below:


**OTHER CONSIDERATIONS**

Provide any other site safety information requested by Fire Official.

SIGNED:

\_\_\_\_\_  
Site Safety Director

\_\_\_\_\_  
Date



# CARLSBAD FIRE DEPARTMENT DAILY SAFETY INSPECTION LOG APPENDIX B

## DAILY SITE SAFETY INSPECTION

WEEK OF \_\_\_\_\_

	Applicable?	Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		—	—	—	—	—	—	—
<b>Hot works.</b> Any contactors entering the site to perform hot work have been instructed on safety requirements, hot work only performed in approved areas	<input type="checkbox"/> Yes <input type="checkbox"/> N/A							
<b>Temporary Heating</b> is maintained away from combustible materials in accordance with equipment manufacturer's instruction	<input type="checkbox"/> Yes <input type="checkbox"/> N/A							
<b>Combustible debris, rubbish and waste material</b> is removed from the building in areas where work is not being performed.	<input type="checkbox"/> Yes <input type="checkbox"/> N/A							
<b>Temporary wiring</b> does not have exposed conductors.	<input type="checkbox"/> Yes <input type="checkbox"/> N/A							
<b>Flammable liquids</b> and other hazardous materials are stored in locations that have been approved by the site safety director when not involved in work that is being performed.	<input type="checkbox"/> Yes <input type="checkbox"/> N/A							
<b>Fire apparatus access roads</b> are maintained clear of obstructions.	<input type="checkbox"/> Yes <input type="checkbox"/> N/A							
<b>Fire hydrants</b> are clearly visible from access roads and are not obstructed.	<input type="checkbox"/> Yes <input type="checkbox"/> N/A							
<b>Fire department connections to standpipe and in-service sprinkler systems</b> are clearly identifiable from the access road and such connections are not obstructed.	<input type="checkbox"/> Yes <input type="checkbox"/> N/A							
<b>Fire Protection Systems</b> are in service or a fire watch has been implemented.	<input type="checkbox"/> Yes <input type="checkbox"/> N/A							
<b>Portable fire extinguishers</b> are available.	<input type="checkbox"/> Yes <input type="checkbox"/> N/A							

PERFORMED BY: \_\_\_\_\_, Site Safety Director

SIGNED: \_\_\_\_\_ Date

# FIRE WATCH LOG

## BUILDINGS UNDER CONSTRUCTION

### APPENDIX C



*Fire watch personnel shall perform constant patrols throughout the site and complete a log at least every 60 minutes. Forms shall be maintained on site and available for review by the Fire & Life Safety Division upon request.*

Site Address: \_\_\_\_\_ Date of Fire Watch: \_\_\_\_\_

#### FIRE WATCH PERSONNEL

Name: \_\_\_\_\_ Phone: \_\_\_\_\_

Employer: \_\_\_\_\_ Phone: \_\_\_\_\_

Date	Tour Time	Initial	Status/Problems Encountered	Correction Made

Signature: \_\_\_\_\_ Date: \_\_\_\_\_