

# California Institute of Technology

## CONSTRUCTION SAFETY GUIDE



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## PURPOSE

The California Institute of Technology (Caltech) is committed to complying with all applicable laws and regulations concerning construction activities on campus. The purpose of the [Caltech Construction Safety Guide](#) is to reduce incidents that may cause personal injury, property damage, and/or liability losses due to construction work of Caltech-owned buildings and facilities.

## RESPONSIBILITIES

### GENERAL CONTRACTORS AND SUB-CONTRACTORS

- Have on site and implement a site-specific Safety Plan/Code of Safe Practices and written IIPP for each site/job prior to commencing work, see [Cal OSHA Pocket Guide for the Construction Industry](#).
- Establish the necessary safety precautions needed to perform work without endangering Caltech personnel and/or property.
- Follow Caltech's Contractors Responsibility for Safe Performance [Appendix A](#) and the General Work Requirements as outlined in the [Cal OSHA Pocket Guide for the Construction Industry](#).

Note: This extends to Contractor employees and Sub-Contractor employees.

### PROJECT MANAGERS

- Prior to the commencement of work, ensure that Contractors have a site-specific Safety Plan/Code of Safe Practices, an IIPP, and employee training records.
- Set-up a pre-construction meeting between the General Contractor and EHS with him/her present.

### ENVIRONMENT, HEALTH, AND SAFETY (EH&S)

- Meet with the Contractor prior to each job start for a pre-construction meeting.
- Provide Caltech site-specific safety policies and jobsite requirements. See [Appendix B](#).
- Ensure Contractor's Injury and Illness Prevention Program (IIPP), Code of Safe Practices, and employee training records are present on-site and available for review.
- Provide the Caltech Project Manager technical assistance and subject matter expertise as needed.
- Perform periodic job site audits to observe compliance with Cal/OSHA, Cal/EPA, and local Fire Safety regulations.
- Serve as safety liaison between Contractor and the Campus Community.

### HAZARDOUS WASTE MANIFESTS

A Caltech EHS representative trained in DOT regulations and Hazardous Waste Manifests must review and sign any Hazardous Waste Manifests prior to the removal of any hazardous waste from the job site.

### EMERGENCIES AND INJURIES

Emergencies and/or injuries requiring medical attention that occur on a construction site must be promptly reported to Campus Security at Caltech extension 5000 or by calling (626) 395-5000.

## APPENDIX A: CONTRACTORS RESPONSIBILITY FOR SAFE PERFORMANCE

1. Violations of Caltech safety rules and/or applicable federal, state, or local (municipal) ordinances may result in a temporary job shut down.
2. Any procedures that produce sparks and/or heat require a Caltech Hot Work Permit to be issued by the Project Manager, Campus Fire Marshal, or an alternate individual designated by the Caltech Design and Construction Department Senior Director prior to work start. See the [Caltech Hot Work Permit Guidelines](#).
3. Shutting off fire sprinkler valves, smoke or heat detectors, and/or fire alarm systems is forbidden without prior notification and written authorization.
4. A Dust Control Plan shall be provided to the Project Manager prior to work start and adhered to by the Contractor. Additionally, Contractors must submit a Dust Control Plan to the South Coast Air Quality Management District (SCAQMD) for large-scale operations prior to work start. "Large scale" is defined as earth moving throughput volume of 5,000 cubic yards or more of material three (3) or more times during a 365-day time period.
5. A Storm Water Pollution Prevention Plan shall be provided to the Project Manager prior to work start and adhered to by the Contractor. If more than one acre of land is disturbed, the Contractor must submit a Storm Water Pollution Prevention Plan to the California State Water Resources Control Board (SWRCB).
6. The Environment, Health, and Safety Office can assist Project Managers in determining whether lead is present before its removal.
  - a. A lead inspector/assessor certified by the California Department of Public Health (CDPH) must be used to perform lead inspections, collect samples, and interpret laboratory analytical results.
  - b. Only CDPH-certified lead supervisors and workers may be used for removal of any lead-containing materials (LCMs).
7. The Environment, Health, and Safety Office can assist Project Managers in determining whether asbestos-containing materials (ACMs) are present before the removal of any building or insulation materials.
  - a. A Certified Asbestos Consultant (CAC) must be used when a General Contractor is hired for a project.
  - b. In the absence of a General Contractor, the EHS Office can supply a Certified Asbestos Building Inspector (BI) to work with the Project Manager to determine the presence of asbestos-containing materials.
8. Contractors are responsible for adhering to the following rules while engaged in activities on Caltech property:
  - a. Contractors shall consult with the Project Manager before working on or around high-voltage electrical lines or substations.
  - b. All vehicles must be kept under the control of the Contractor at all times when on Caltech property.
  - c. Contractor employees shall not operate any Caltech equipment or tools unless the employee has been authorized to do so by Caltech.
  - d. Contractors will be responsible for following proper Caltech procedures in the event of an injury, fire, or other emergency on the job.

## APPENDIX B: JOBSITE REQUIREMENTS CHECKLIST

- \_\_\_ 1. Cal/OSHA Poster
  - a) Cal/OSHA poster
  - b) Emergency Phone Numbers
  - c) Hazard Warning Signs
  - d) Operating Rules for Forklifts
  - e) Employee Right to Gain Access to Medical and Exposure Records
  
- \_\_\_ 2. Written Safety Programs
  - a) Injury and Illness Prevention Program (IIPP)
  - b) Code of Safe Practices
  - c) All Cal/OSHA Required Permits and Certifications
  - d) Respiratory Protection Program, for work sites where respirators are used
  - e) Fall Protection Plan, if needed
  - f) Tailgate Meeting Documentation
  - g) Safety Data Sheets (SDSs) and Chemical Inventory List
  - h) Heat Illness Prevention Program
  - i) Lock-Out Tag-Out (LOTO) Program
  - j) Hot Work Permit
  
- \_\_\_ 3. First Aid Kit and List of on-site Personnel Trained in CPR/First Aid
  
- \_\_\_ 4. Drinking Water, Disposable Cups, and Trash Receptacle(s)
  
- \_\_\_ 5. Hand Washing Facilities
  
- \_\_\_ 6. Personal Protective Equipment (PPE)
  - a) Hard hats
  - b) Safety glasses
  - c) Ear plugs and/or muffs
  - d) Fall protection (as needed)
  - e) Steel-toed shoes and metatarsal caps (as needed)
  - f) Respirators (as needed)
  
- \_\_\_ 7 Portable Fire Extinguishers
  - a) Office Trailer
  - b) Storage Trailer
  - c) Work Area
  - d) Cab of Crane (if crane is on site)
  - e) Near Flammables and Combustibles
  
- \_\_\_ 8. Operator Manuals for Different Types of Equipment
  
- \_\_\_ 9. Cal/OSHA Permits
  - a) Trenching and Excavation - Annual Permit
  - b) Trenching and Excavation - Notification Form
  - c) Cranes over 3-ton capacity
  - d) High Work (over 36 feet in height)
  
- \_\_\_ 10. Toilet Facilities
  - a) One per 20 workers
  - b) If females on site - separate facility
  
- \_\_\_ 11. Stairways
  - a) For buildings of 3 stories or less, at least one stairway
  - b) For buildings of more than 3 stories, 2 or more stairways

**Project Location:** \_\_\_\_\_

**Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_