



## **CONSTRUCTION ENVIRONMENTAL HEALTH & SAFETY EXHIBIT**

### **PUBLIC PROTECTION**

#### **I. General Requirements**

- A. Protection of the public and students shall comply with this Exhibit, the Manual on Uniform Traffic Control Devices (MUTCD), and the Harvard University Construction Mitigation Specifications, at a minimum.
- B. All necessary precautions shall be taken to prevent injury to the general public and students, and damage to property of others. Work shall not be permitted in any area occupied by the general public unless specifically permitted by the contract or in writing by the HUPM.
- C. All construction projects shall implement project or work area security measures to reduce or eliminate the likelihood of unauthorized persons entering the project or work area. These measures include perimeter fencing, physical isolation of work areas in occupied buildings, gate and door locks, and security firms or guards. The level and extent of security measures will be dependent upon the project type and location.

#### **II. Traffic Control Plan**

- A. Where the public, either vehicular or pedestrian traffic, may be impacted, interrupted, or re-routed, the General Contractor shall compile and provide a Traffic Control Plan. The Traffic Control Plan shall be submitted to the HUPM and the Harvard University Mitigation Manager for review and comment.
- B. The Traffic Control Plan shall include the following:
  - 1. Project location and Contractor Name;
  - 2. The purpose for the obstruction;
  - 3. The duration of the obstruction;
  - 4. Location and number of police details;
  - 5. A dimensioned sketch, either hand or computer drawn, showing the street names, obstruction location, placement and types of signs, and the protective measures (barrels, plates, cones, arrow-boards, temporary crosswalks and sidewalk ramps, etc.) used to protect the Employees and the public;
  - 6. The excavation size, Dig Safe number, and associated utility permit numbers (where applicable);
  - 7. The location of equipment (i.e. crane or concrete pump), including the size, weight, and ground bearing pressures.
- C. Where the impact/interruption/traffic re-routing occurs in Cambridge, the approved Traffic Control Plan shall be submitted to the Cambridge Department of Public Works along with the permit application for the operation. These permits include: Sidewalk Obstruction (No Excavation), Street Excavation, Crane/Boom Truck/Pump Truck Placement, and Temporary Construction Access.
- D. Where the impact/interruption/traffic re-routing occurs in Boston (Allston, Longwood), the approved Traffic Control Plan shall be submitted to the Boston Transportation Department along with the Street Occupancy Permit application for the operation.
- E. Where the impact/interruption/traffic re-routing occurs in cities or towns other than Boston or Cambridge, the approved Traffic Control Plan shall be submitted to the responsible municipality or department overseeing roadway work.



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#### **III. Public Protection Requirements**

- A. When it is necessary to maintain public use of work areas involving sidewalks, entrances to buildings, lobbies, corridors, aisles, stairways and vehicular roadways, the General Contractor shall protect the public with appropriate guardrails, barricades, temporary fences, overhead protection, temporary partitions, shields, mirrors, and adequate visibility. Temporary lighting shall be provided as necessary where any protective measure impacts existing lighting conditions.
- B. Sidewalks, entrances to buildings, lobbies, corridors, aisles, doors or exits shall always be kept clear of obstructions to permit safe entrance and exit of the public .
- C. Appropriate warnings and instructional safety signs shall be conspicuously posted where necessary. In addition, a flag person shall control the movement of motorized equipment in areas where the public might be endangered.
- D. Sidewalk shed canopies, catch platforms and appropriate fences shall be provided when it is necessary to maintain public pedestrian traffic adjacent to the erection, demolition, or structural alteration of outside walls on any structure.
- E. Where work must be performed above building entrances and exits, whether on the construction site or part of a public area, canopies shall be installed and enclosed to fully protect pedestrians from falling objects. These canopies shall be capable of withstanding the maximum forces that could be applied from potential falling objects, considering the maximum fall distance from the elevated work area to the canopy. Temporary lighting shall be provided as necessary where canopies impact existing lighting conditions. This is the responsibility of the Contractor.
- F. In areas adjacent to public walkways or travel ways, canopies shall be installed and enclosed to fully protect pedestrians and vehicles from falling objects. These canopies shall be capable of withstanding the maximum forces that could be applied from potential falling objects, considering the maximum fall distance from the elevated work area to the canopy. This is the responsibility of the Contractor.  
In addition to the site fence required by the contract, drawings, and contract documents, the following shall apply:
  1. A temporary fence shall be provided around the perimeter of above-ground operations adjacent to public areas. Perimeter fences shall be at least six (6) feet high. They may be constructed of wood or metal frame and sheathing, wire mesh, or a combination of both. When the fence is adjacent to a sidewalk near a street intersection, at least the upper portion of fence shall be open wire mesh. NOTE: Site fences in Cambridge should be erected and maintained in accordance with the “City of Cambridge Department of Public Works Best Management Practices Fact Sheet 5400001-Version 04/10”.
  2. Guardrails shall be provided on both sides of vehicular and pedestrian bridges, ramps, runways, and platforms. Pedestrian walkways elevated above adjoining surfaces, or walkways within six (6) feet of the top of excavated slopes or vertical banks shall be protected with guardrails.
- G. Where steel road plates are used in areas with significant pedestrian and bicycle traffic, for excavations or any other purpose, the plates shall be provided with a non-skid surface.
- H. A crosswalk must contain: striping, curb cut for handicap access, and a traffic cone with a sign indicating a \$100 fine for not stopping for pedestrians in crosswalks.
- I. Barricades meeting local requirements shall be provided where sidewalk shed, or bridges, fences, or guardrails as referenced above are not required between work areas and pedestrian walkways, roadways or occupied buildings. Barricades shall be secured against



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accidental displacement and shall be maintained in place except where temporary removal is necessary to perform the work. During the period a barricade is temporarily removed for work, a watchman shall be placed at all openings.

- J. Temporary sidewalks shall be provided when a permanent sidewalk is obstructed by the Subcontractor's operation. They shall be installed in accordance with the requirements listed above.
- K. Warning lights shall be maintained from dusk to sunrise around excavations, barricades or obstruction in the public areas. Illumination shall be provided from dusk to sunrise for all temporary walkways in both public and construction areas.

#### **IV. References**

Manual on Uniform Traffic Control Devices (MUTCD)

City of Cambridge, Department of Public Works Best Management Practices Fact Sheets  
5400001 – Version 04/10