

## CONSTRUCTION PROTECTION PLAN

The intent of the demolition and construction protection plan is to ensure that physical damage to existing historic properties adjacent to demolition and construction activities is prevented. Demolition and new construction can cause harm and damage to the physical integrity of a historic structure.

### **Broad Protection Measures:**

1. **Communication** Pre-demolition and construction meetings on-site to identify potential risks and historic fabric, negotiate changes and agree upon protective measures.
2. **Documentation** of the existing condition of the historic building and significant historic fabric (including, but not limited to windows, stairs, masonry, cornice details) prior to adjacent work.
3. **Implementation** of protective measures at historic fabric adjacent to demolition and construction activities.
4. **On-Site Monitoring** during construction to identify damage, to evaluate the efficacy of protective measures already in place, and to explore and implement additional corrective steps.

### **Communication/Pre-demolition/Pre-construction Meeting:**

Pre-demolition and pre-construction meetings will occur to ensure that all trades are aware that the project involves significant historic material fabric that needs to be identified and protected.

### **Documentation**

Surveys to document the existing condition of historic fabric will be completed prior to demolition and construction work. Surveys will include photographic documentation with narratives, keyed to plans or elevations as necessary. Survey all historic fabric including:

- Existing Windows – including hardware, sash, glazing, frame and sill. Interior and Exterior Condition
- Infilled Window – including sills. Interior and Exterior Condition
- Covered Window Openings – including any hardware, sash, glazing frame or sill remaining intact. Interior and Exterior Condition
- Existing Doors – including hardware, glazing, frame and threshold. Interior and Exterior Condition
- Infilled Doors – including threshold. Interior and Exterior Condition
- Covered Door Openings – including any hardware, glazing frame or threshold remaining intact. Interior and Exterior Condition
- Existing masonry walls and mortar joints – including keystone and areas damaged by

tar and alterations due to later additions. Interior masonry walls that were originally exterior walls to be documented. Interior and Exterior Condition

- Cornice Details – cornices at all elevations and at areas where cornice is missing.
- Historic Fabric and later construction to be demolished – Photographic documentation of fabric to be demolished and adjacent historic fabric, specifically at connections to historic walls.
- Interior Historic Stairs and floors – Existing condition of stairs and floor to be documented.

## **Implementation of Protection Measures**

### **Demolition and Construction Protection:**

Only hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize vibration and disturbance of adjacent surfaces will be used.

Only hand tools will be used where material to be demolished is in direct contact with historic fabric and walls.

Cutting and drilling will occur from the exposed or finished side into concealed surfaces to avoid marring existing finished sides. Hand tools will be adjustable so as to penetrate or cut only the thickness of material being removed.

Masonry will be removed carefully, and temporary bracing installed as necessary to prevent unexpected collapse of materials being removed. The masonry will be removed in easily managed sections to avoid potential damage to historic fabric.

When using cutting torches at steel members a fire watch and portable fire-suppression devices will be maintained.

Materials demolished and removed from elevated locations will be handled so as not to damage historic fabric below. Debris will be removed along a route that avoids historic fabric, protective barriers will be installed where necessary. Materials, products, and equipment used for performing the demolition, and for transporting debris, materials, and products will be of sizes that clear surfaces within historic spaces, areas, rooms, and openings, including temporary protection, by 12 inches or more. Floors and other surfaces along haul routes will be protected from damage, wear and staining.

### Windows & Doors:

Non-historic windows and doors will be removed using hand tools only, taking care not to damage adjacent historic wood window frames and masonry. Hand tools will be adjustable so as to penetrate or cut only the thickness of material being removed. Pry bars over 18 inches long and hammers weighing over 2 lb are not permitted for dismantling work.

Only hand tools will be used immediately adjacent to historic walls. Hand tools will be adjustable so as to penetrate or cut only the thickness of material being removed. Pry bars over 18 inches long and hammers weighing over 2 lb are not permitted for dismantling work.

Windows to remain and be restored, and newly installed windows will be covered with plywood to avoid damage during the demolition and construction process.

Openings to be covered and secured prior to installation of new doors and windows.

#### Interior:

All interior demolition work adjacent to historic fabric will use hand tools or small power tools designed for sawing or grinding, not hammering and chopping, to minimize vibration and disturbance of adjacent surfaces. Demolition directly adjacent to historic masonry walls and historic fabric will use only hand tools. Cutting and drilling will occur from the exposed or finished side into concealed surfaces to avoid marring existing finished sides. Hand tools will be adjustable so as to penetrate or cut only the thickness of material being removed. Pry bars over 18 inches long and hammers weighing over 2 lb are not permitted for dismantling work.

Materials, products, and equipment used for performing the demolition and construction work and for transporting debris, materials, and products will be of sizes that clear surfaces within historic spaces, areas, rooms, and openings, including temporary protection, by 12 inches or more. Floors and other surfaces along haul routes will be protected from damage, wear and staining.

Debris chutes will be directed away from historic structures.

Historic floors will be covered and protected with plywood during the demolition and construction process.

Plywood covering will be placed on opening exposed to demolition or construction process.

#### Protection From Fire

The job site will be kept clean and clear of combustible materials including rubbish, paper, waste and chemicals, except to the degree necessary for the immediate work.

A firewatch will be placed at locations where the work involves heat generating equipment or highly combustible materials. Fire extinguishers, fire blankets and rag buckets will be maintained suitable for the type of work being performed.

The job will be a non-smoking site.

#### Protection During Application of Chemicals

Adjacent historic fabric will be protected from harm or damage resulting from the application of chemical cleaners or paint removers. Protection will be materials proven to resist chemical being used and will be removed promptly when no longer needed.

Only chemicals proven safe for the historic fabric to which they will applied will be used.

Dust Control:

Adjacent historic fabric will be protected from damage caused by dust during demolition. Plastic or fabric dust partition will be installed as a containment from other areas during demolition.

**General Protection**

Temporary protection will not be attached to historic surfaces unless approved by Architect.

This job site is a NON-Smoking site. All persons within the Project work and staging areas and anywhere on the property are prohibited from smoking.

Each contractor performing work that may cause a fire will be required to provide a fire watch:

Only historically accurate repair and replacement materials and techniques will be used unless otherwise indicated.

Existing work will be documented before each procedure (preconstruction) and progress during the work with digital preconstruction documentation photographs.

All cutting will be done by hand or with small power tools.

Masonry will be removed carefully and temporary bracing and supports will be erected as needed

Monitoring and inspection will occur to ensure damage to historic fabric has not occurred during the demolition and construction process.

References Include:

National Park Service *Preservation Tech Note* "Temporary Protection Number 3, Protecting a Historic Structure During Adjacent Construction"

National Park Service *Preservation Tech Note* "Temporary Protection, Number 2. Specifying Temporary Protection of Historic Interiors During Construction and Repair."