



**CITY OF PLAINFIELD**  
HISTORIC PRESERVATION COMMISSION  
515 WATCHUNG AVENUE, ROOM 202  
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## **CLEANING HISTORIC BRICKWORK**

Improper cleaning can cause irreparable damage to historic brickwork. Therefore, a restoration specialist should always oversee the cleaning of structures with historic significance. It is imperative to use the least harmful cleaning method that will achieve the desired results. Cleaning methods and materials must be carefully matched to the substance to be cleaned, the type of soiling/staining to be removed, and the desired aesthetic appearance.

Testing of cleaning procedures and chemicals is strongly recommended before the work begins. Such testing should be performed in a controlled environment that closely approximates the temperature and humidity conditions under which the brick masonry will be treated. Cleaning solutions recommended by the brick or cleaning agent manufacturer should be trial tested before being committed to an entire project. If cleaning will permanently damage the building, cleaning should not be considered.

### **SUMMARY OF RECOMMENDATIONS:**

#### **Abrasive or Sand Blasting is NOT Allowed:**

- Do not use abrasive blasting on historic brick or brick with a decorative surface coating.

#### **For All Cleaning Methods:**

- Scaffold front of building as required, obtaining the proper permits;
- Carefully cover existing windows to protect from paint removal;
- Clean masonry when the temperature remains a constant 45 degrees F or above for a 72 hour period from the commencement of work;
- Select the gentlest effective cleaning method;
- Follow the brick manufacturer's recommended cleaning procedure;
- Do not use unbuffered muriatic acid;
- Do not use power saws or tools – only traditional hand tools are permitted when working with historic brick;
- Clean new masonry as soon as possible after mortar hardens, typically 7 days. More aggressive cleaning methods may require a longer mortar curing time prior to cleaning;
- Clean from the top of the wall section to the bottom;
- For consistent results, do not overlap areas being cleaned;
- Contractor to ensure neighboring properties are protected from debris or damage from any ongoing work.

#### Prior to Cleaning:

- Match the cleaning method and cleaning solution to the type of brick;
- Protect adjacent materials that may be damaged by cleaning;
- Remove large mortar tags using wooden paddles or non-metallic tools;
- Test the cleaning method and materials on a 20 ft<sup>2</sup> (2 m<sup>2</sup>) sample area and allow wall to dry before evaluation;
- Determine the environmental impact and appropriate removal method of cleaning effluent.

#### Bucket and Brush Cleaning:

- Saturate the area to be cleaned and brickwork below with water prior to applying cleaning solution and keep wet until final rinse;
- Mix and apply cleaning solution according to manufacturer's instructions;
- Do not allow cleaning solution to dry on brickwork;
- After cleaning, thoroughly rinse the area being cleaned and the area below with water.

#### Pressurized Water Cleaning:

- Determine appropriate water pressure, nozzle type and distance between wall and nozzle by trial cleaning, maintain consistently throughout cleaning;
- Saturate the area to be cleaned and brickwork below with water prior to applying cleaning solution, and keep wet until final rinse;
- Apply cleaning solution according to manufacturer's instructions with a low-pressure sprayer, 30 to 50 psi (200 to 350 kPa) using a 50-degree fan-shaped sprayer, or by brush;
- Do not use high pressure to apply cleaning solution;
- Do not allow cleaning solution to dry on brickwork;
- Thoroughly rinse using a maximum water pressure of 200 to 300 psi (1,400 to 2,100 kPa) with a 25-degree to 50-degree fan-shaped tip.

#### Efflorescence Control:

- Allow one year of weathering to naturally remove new building bloom;
- Remove light efflorescence by dry brushing or with a stiff fiber brush and water;
- Before attempting to clean recurring efflorescence, identify and correct the source of water penetration and allow the brickwork to dry;
- Remove stubborn accumulations with a proprietary cleaner according to the manufacturer's instructions.