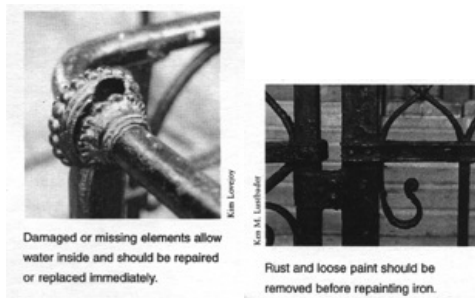


Caring for Iron Fences

Ornamental iron fences and gates surround many houses of worship, churchyards, and cemeteries. Designed to complement the architectural style of the building, they may be constructed of: wrought iron hammered over an anvil and bent into thin shapes; cast iron molded in foundries; or modern mild steel, which is easily worked. The best way to maintain ironwork is to keep an intact paint coating over all surfaces. In addition, joints should be protected with a flexible sealant -- usually polyurethane. It is essential to keep iron protected from the damaging effects of water -- iron's worst enemy -- which causes bare metal to rust immediately upon contact. Water that enters unprotected cracks and joints of cast iron elements causes it to rust from the inside or fracture from expansion during freeze/thaw cycles.

Inspect metal work twice each year to identify items such as: rust spots, peeling paint, and failed sealants; loose and rusty fasteners, straps, and joints; cracks; missing components; deterioration at connections to masonry walls, steps, and coping stones; and unstable footings. Keep records of inspections and maintenance actions, including complete information on the paints, sealants, and other materials used for repair.

Routine maintenance, such as repainting, sealing joints, and replacing fasteners, can often be undertaken by an owner and contractor; however, more extensive repairs, paint removal, and restoration should also involve a qualified architect or building conservator to develop project specifications. Before undertaking any work, check with local municipal agencies (including landmark commissions) to ensure that the work is not in violation of any laws.



Maintain ironwork in good condition by repainting every three to four years, typically with brush-applied high-gloss alkyd paint. Hand scrape, chip, and wire-brush loose paint and light rust, and clean the surface thoroughly before painting, and wear protective gear at all times. Small defects can be patched with filler compounds and minor cracks sealed. Major cracks often require replacement of components. Complete removal of paint to bare metal may be specified in certain areas like newel posts, rosettes, and finials to restore crisp details or expose structural defects. All areas of exposed bare metal must be coated with a quality metal primer before painting. Old paint that is tightly adhered may be left in place if it is compatible with proposed coatings.

Paint stripping methods commonly used on iron fences include caustic chemical gels or pastes that contain the residue in a plastic covering, and mechanical grinding with devices that vacuum hazardous particles into filters. For both minor surface preparation and paint stripping, the ground and adjacent surfaces should be covered with sheeting to collect debris and workers should be protected. On some projects, the job-site should be enclosed or entire fences removed to a shop. For additional information about maintaining iron fences, contact the New York Landmarks Conservancy. Be aware that historic ironwork is often coated with layers of lead paint, unless it was stripped to bare metal and repainted with lead-free modern paints in recent decades. Adjacent soil may be contaminated from fallen paint chips and debris from previous paint removal. Testing for the samples and soil cores to a State-accredited environmental testing laboratory. (Do-it-yourself lead test kits are less reliable.) Never allow maintenance personnel, volunteers, or contractors to remove lead paint without following current environmental and labor regulations.

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