

CAST IRON METALS -- RESTORATION, CLEANING AND REPAIR

A. Description of the work:

The South End Historical Society, 532 Massachusetts Avenue, Boston, MA seeks to restore and reset the historic front steps balustrade and garden railings. Additionally they seek to remove, restore and reset a balcony balustrade. The balcony balustrade currently is set directly into a brownstone shelf which is badly damaged. The restored balustrade shall be supported from the wall of the building only and/or front the wall and new "feet" that will not penetrate the stone.

1. Balcony railing. Current installed at the first floor level of the building. There is approximately 22 feet of balcony railing; the railing is approximately 28" high; the railing is set in an "L" shaped arrangement with returns at both end of the "L". The balcony rail sits on a stone balcony; the stone balcony will be restored by others.
2. The stair rail and garden rail are removed and some parts stored in the building. We have most of the balusters and one curved rail sample. For the stair rail we need 16 balusters, we have 16, two of which are badly damaged. We have one section of curved handrail about 22" long. For the garden railing 17 balusters are required. 13 are in storage . A new handrail is required.

See the attached photographs at end of Specification. Also provided is a photo of a nearby building with a similar arrangement at the stairs and garden.

B. Materials and Procedures

1. Remove the balcony balustrade, repair, paint and reinstall it with a new attachment system directly to the brick wall/blocking to the stone balcony. No attachment of metal to the stone balcony shall be permitted.

C. Restore the historic stair and garden rails including, but not limited to:

1. Provide the missing parts for the stair rail.
2. Provide new stair handrails and garden handrail.
3. Repair existing and provide replacement balusters.
4. Paint and reinstall the railings at the steps and garden.

D. Quality Assurance

1. Metal Restoration Specialist: Work shall be performed by a firm having not less than 5 years successful experience in comparable work and employed personnel skilled in the processes and operations indicated and required.
2. Metal casting specialist: Molds and metal casts shall be made by firms specializing in architectural bronze casting and having not less than 5 years successful experience in this field.
3. Field-Constructed Mock-Ups: Prior to start of cleaning prepare mock-up for each of the categories of finish work indicated under the Description of the Work. Obtain the architect's acceptance of visual qualities before proceeding with the work. Retain suitably marked, acceptable mock-ups in undisturbed condition during construction to be used as a standard for judging completed work.
4. Sources of Materials: Obtain materials for metal cleaning and coating from a single source for each type of material required to insure uniformity of quality and color.
5. If alternative methods and materials to those indicated are proposed for any phase of the work, provide written description, including evidence of successful use on other comparable projects and program of testing to demonstrate effectiveness for use on this project.

E. Submittals:

1. Product data: Submit manufacturer's technical data for each product indicated including recommendations for their application and use. Include test reports and certifications substantiating that products comply with recommendations.
2. Work Program: Submit written program for each phase of work including protection of surrounding materials on building and site during operation. Describe in detail all materials, methods and equipment to be used in each phase.
3. Shop Drawings:
 - a. Replacement balusters
 - b. Handrail
 - c. Attachment system for balcony rail
4. Samples
 - a. 12" section of handrail showing detail and finish

F. Products and Procedures

1. Provide high carbon content iron alloy suitable for casting.
2. Provide iron filled epoxy filler past for holes, thin sections and defect repair.

3. Paint system: Zinc-rich Primer, Epoxy Base Coat, 2 Finish Coats Urethane Based Paint. Color to be chosen by owner to replicate historic appearance.

Paint Preparation: Grit blast to remove all paint and to provide white metal finish. Primer shall be applied immediately after blasting.

4. Hardware and fasteners: Stainless Steel bolts, washers, bar and rod stock.

G. Photographs



Partial view of existing railing.

Overview of balcony railing





Stored balusters



Section of Handrail

Cast Iron Specification for 532 Mass Ave

Page 5

Google Maps 565 Massachusetts Ave

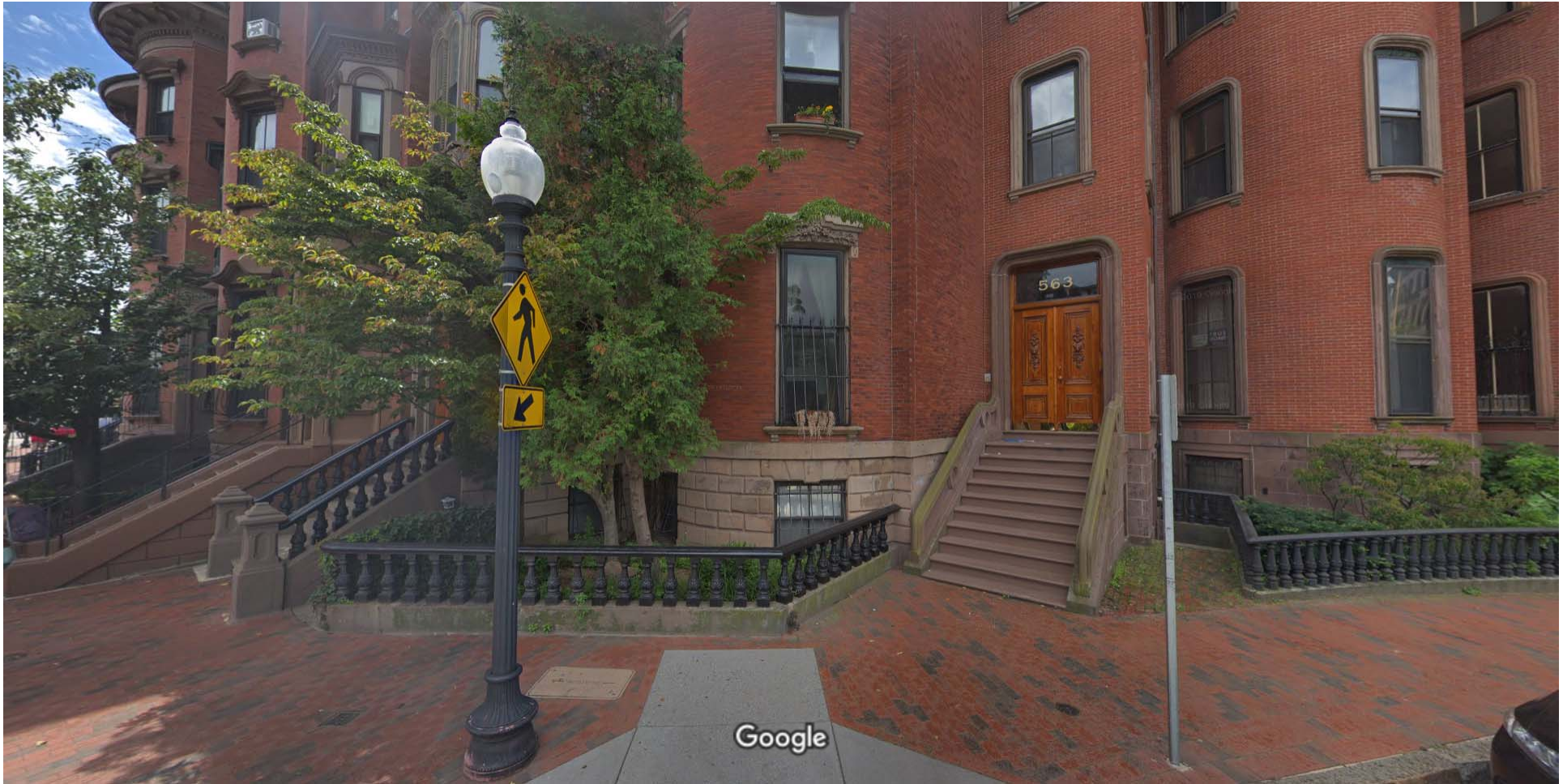


Image capture: Jul 2018 © 2019 Google

Boston, Massachusetts

Google

Street View - Jul 2018

SIMILAR CAST IRON RAILINGS