June 25, 2024

Nicholas Armata AICP, Senior Preservation Planner Beacon Hill Architectural Commission Boston City Hall, Room 709 Boston MA 02201

Re: 55-57 Brimmer Street / Application for Rotating Hoist

Dear Mr. Armata,

Per our recent discussion, Park Street School is proposing to install a rotating hoist on the back roof deck of the Carriage House at 55-57 Brimmer Street. Restoration of the two-story brick building and reconstruction of the one-story wood framed portion were previously approved per application #19.118-BH for a Certificate of Appropriateness. At the time of original application, the idea of a rotating hoist for elementary school science experiments had not yet been considered.

As part of curriculum planning for the new science classroom in the rehabilitated Carriage House, the science teacher has proposed using a hoist to teach students about the mechanical advantages of a block-and-tackle pulley system for lifting heavy weights with significantly reduced effort than would be required without pulleys. This will provide hands-on experience with understanding an ancient system dating back centuries. In fact, carriage houses like this one used hoisting beams with block-and-tackle systems for raising hay into loft storage for the animals. As part of this adaptive reuse project, a deteriorated hay loft beam in the front gable will be replicated to preserve that historical element. (See page A.37 in the original application from July 26, 2018.)

The proposed hoist system has been designed using a vertical pipe and horizontal beam that will be mounted to the roof deck behind the guardrail. The beam will be stored in a resting position over the roof deck and rotated to overhang the guardrail when in use so that students can hoist objects from the back garden area for experimentation purposes. The metal assembly will be painted black like the guardrail and other metal structures in the immediate vicinity. The hoist beam will be partially visible from a portion of the public way but will not interrupt the skyline profile.

Attached please find drawings, photographs, site plans, and calculations to fully illustrate this proposal. If you have any questions or require any additional information, please contact me.

Sincerely,

Donald W. Mills, RA Mills Whitaker Architects LLC donmills@millswhitaker.com

Attachments (10 pages)

cc: Tracy Bradley, Head of Schools / Park Street School

CERTIFICATE OF APPROPRIATENESS APPLICATION

Re: Rotating Hoist for Carriage House 55-57 Brimmer Street / 25 June 2024

Park Street School requests a Certificate of Appropriateness for installation of a rotating hoist atop its back roof deck for use in the elementary school science program at the former carriage house. In the front gable of the building, a deteriorated wooden hoist beam used historically for lifting hay up to the second floor will be restored as part of the rehabilitation project as previously approved.

The rotating hoist consists of a horizontal steel beam and vertical pipe secured to the roof deck of the reconstructed one-story garage. The hoist is a modified version of a pre-engineered system that will be adapted to minimize its height and limit visibility from the public way. The standard unit will be shortened to the extent feasible to allow for the hoist beam to clear the roof deck guardrail when rotated into a position above the back garden area for hands-on experiments with students learning the effect of lifting objects with a block-and-tackle system of pulleys and ropes. The hoist will be painted black to match the guardrail and adjacent metal railings on buildings in the immediate area.

Illustrations Enclosed:

- A-1 Second Floor @ Roof Deck + Partial First Floor Plan (Science Classroom) ... showing location of proposed rotating hoist in floor plan views ...
- A-2 Partial East Elevation (Brimmer Street) + North Elevation (Back Garden Area) ... showing location of proposed rotating hoist in exterior elevations ...
- A-3 Section at Hoist (At Rest) + Section at Hoist (In Use) ... showing configuration of proposed rotating hoist at rest (typical) and when in use ...
- A-4 Site Plan / Viewing Information + Site Section / Viewing Diagram ... showing viewpoint where proposed rotating hoist will be most visible from the street ...
- A-5 Trig. Calculations from Public Way to Guardrail, Proposed Hoist, & Upper Roof Beyond ... showing worst case: 1.08' visible above guard rail but 0.47' lower than roof beyond ...
- A-6 Site Plan / Other Views + Trig. Calculations with No Visibility from Public Way ... showing proposed rotating hoist at rest in not visible from Brimmer Street where noted ...
- B-1 Photograph of Existing Two-Story Carriage House & Reconstructed One-Story Portion ... showing approved reconstruction of one-story structure per 19.118-BH application ...
- B-2 Photograph of Carriage House with Proposed Rotating Hoist in Normal Position at Rest ... showing hoist will be visible 1.08' above guardrail but 0.47' below the roof beyond ...
- B-3 Photograph of Carriage House with Proposed Rotating Hoist in Position of Use ... showing location of hoist when rotated to overhang roof deck edge for experiments ...

Your consideration for this rotating hoist for educational purposes is greatly appreciated.

















