



CITY OF SOMERVILLE, MASSACHUSETTS
OFFICE OF STRATEGIC PLANNING & COMMUNITY DEVELOPMENT
JOSEPH A. CURTATONE
MAYOR

HISTORIC PRESERVATION COMMISSION

ALTERATION TO A HISTORIC PROPERTY STAFF REPORT

Site: 342 Lowell Street c.1861 Hennesey House
Case: HPC 2016.035 Single Building Local Historic District

Applicant Name: Peter Jehlen & Sarah Shugars, Owners
Applicant Address: 342 Lowell Street, Somerville, MA
Agent's Name: Darnell Coleman, SunBug Solar

Date of Application: May 23, 2016
Legal Notice: *Install solar panels.*
Staff Recommendation: *Conditional Certificate of Hardship*
Date of Public Hearing: June 21, 2016

I. BUILDING DESCRIPTION

ARCHITECTURAL DESCRIPTION: From the Form B

The early suburban house at 342 Lowell Street, corner of Richardson Street, was built 1861-1862 by an unknown housewright for Michael Hennesey as first owner. The house follows a traditional center hall workers cottage plan of one and half stories with a center chimney set on a brick foundation. The design is simple Italianate Style, seen in the deep short return gable cornices. The exterior has been remodeled with a pedimented entry hood side porch, rear shed dormer and shingled siding ca.1960. Although modified, the Hennesey house remains an early workers' cottage of the Civil War period in the Hinckley Street district.



HISTORICAL CONTEXT/EVOLUTION OF STRUCTURE OR PARCEL: From the Form B

The early suburban house at 342 Lowell Street, corner of Richardson Street, is dated 1861-1862 by deed and tax records to Michael Hennesey as first owner. The original corner lot at Lowell Street and Appleton (Richardson) Street was part of the 1851 subdivision by Charles Wood and Isaac Melvin, Cambridge developers along the Boston and Lowell Railroad. The lot was purchased by Hennesey in December 1861, with Hennesey first assessed in the Somerville tax records in 1861 and 1862 at \$10.05 and \$14.30, indicating a small house, thus dating construction. The 1871 Directory lists Michael Hennesey as a quarryman, with the property sold to Mary Chute in

1873 as shown on the 1874 Atlas. The property was sold again to Rumble on the 1884 Atlas and shown to Dowrump on the 1895 Atlas, likely the same owner. In 1905 the house is listed to Murray Downey, and in 1925 to John Dennehy, a laborer, with John Buoncuore in 1940. The Hennesey house is of historic interest as an early workers' cottage in the Hinckley Street area.

II. PROJECT DESCRIPTION

1. Proposal of Alteration:

Install 15 solar electrical panels and related equipment on the roof of the main façade of 342 Lowell Street. Other than the panels, nothing else will be visible. Some of the equipment will be within the building envelope. The solar panels will be visible from a public way, since the building is on a corner lot. All sides of the building are visible. The roof on the less traveled road is not optimal for solar panels due to slope and lack of sun. The solar panel installation company, SunBug gave the information following information on the system size:

- Panels on the rear roof would have a system sized 3.92kW or only 51% of the energy needs of the property owner.
- Panels on the front roof would have a system sized 4.91kW or 84% of the energy needs of the property owner.

II. FINDINGS

1. Precedence:

- *Are there similar properties / proposals?*

In the past few years, the Commission has reviewed several requests for solar panels. These have generally received Certificates of Appropriateness or Non-Applicability depending upon placement and visibility of the panels under guideline for roofs - #5 (see below). 148 Morrison Avenue (2016) and 8 Westwood Road (2016) are not visible from the public rights of way. 46 Mount Vernon Street (2015), 23 Pleasant Avenue (2013) and 22 Summer Street (2013) have panels set well back from the road.

2. Considerations:

- *What is the visibility of the proposal?*

The panels will be fully visible on the main façade.

- *What are the Existing Conditions of the building / parcel?*

The building is currently in very good condition. It faces southwest along Lowell Street.

Does the proposal coincide with the General Approach set forth in the Design Guidelines?

GENERAL APPROACH

The primary purpose of Somerville's Preservation Ordinance is to encourage preservation and high design standards in Somerville's Historic Districts, in order to safeguard the City's architectural heritage. The following guidelines ensure that rehabilitation efforts, alterations, and new construction all respect the design fabric of the districts and do not adversely affect their present architectural integrity.

- A. *The design approach to each property should begin with the premise that the features of historic and architectural significance described in the Study Committee report must be preserved. In general, this tends to minimize the exterior alterations that will be allowed.*
- C. *Whenever possible, deteriorated material or architectural features should be repaired rather than replaced or removed.*
- D. *When replacement of architectural features is necessary, it should be based on physical or documentary evidence of the original or later important features.*

- E. *Whenever possible, new materials should match the material being replaced with respect to their physical properties, design, color, texture and other visual qualities. The use of imitation replacement materials is discouraged.*
- F. *The Commission will give design review priority to those portions of the property which are visible from public ways or those portions which it can be reasonably inferred may be visible in the future.*

There will be no alterations of features discussed in the Form B. No architectural features will be replaced under this application. The solar panels will be visible from a public way, since the building is on a corner lot. All sides of the building are visible. The roof on the less traveled road is not optimal for solar panels due to slope and lack of sun.

Roofs

1. *Preserve the integrity of the original or later important roof shape.*
2. *Retain the original roof covering whenever possible. If the property has a slate roof, conserve the roof slates. Slate is a near-permanent roofing material, and deterioration is generally caused by rusted roofing nails.*
4. *Preserve the architectural features that give the roof its distinctive character, such as cornices, gutters, iron filigree, cupolas, dormers and brackets. Downspouts should be inconspicuously located and should be painted to match the color of the siding.*
5. *Utility equipment, such as television antennae, air conditioners, solar collectors and other mechanical units should be restricted to the rear of the property or on portions of the roof that are not visible from a public way. If no other placement is possible, air conditioning and other cooling units on street facades should be of the slim-line type or set flush with the surface of the building and painted the same color as the window trim.*

The roof shape will not be altered. Should shingles need to be replaced during the solar panel installation process, the replacement shingles shall be of the same durability, tabbing, profile and color as those currently existing on the roof. No existing character-defining features will be removed. Solar panels shall be installed in the only location feasible, the main facade and will be mounted close and parallel to the roofline. The proposed panels on the main façade would be 50% more productive than if they were placed on the rear.

That said, Staff advises the Commission that under M.G.L. Chapter 184 §23C, property owners shall not be unduly prevented or restricted from the installation or use of solar energy systems.

III. RECOMMENDATIONS

The Staff recommendation is based on a complete application and supporting materials, as submitted by the Applicant, and an analysis of the historic and architectural value and significance of the site, building or structure, the general design, arrangement, texture, material and color of the features involved, and the relation of such features of buildings and structures in the area, in accordance with the required findings that are considered by the Somerville Historic District Ordinance for a Historic District Certificate. This report may be revised or updated with new a recommendation or findings based upon additional information provided to Staff or through more in depth research conducted during the public hearing process.

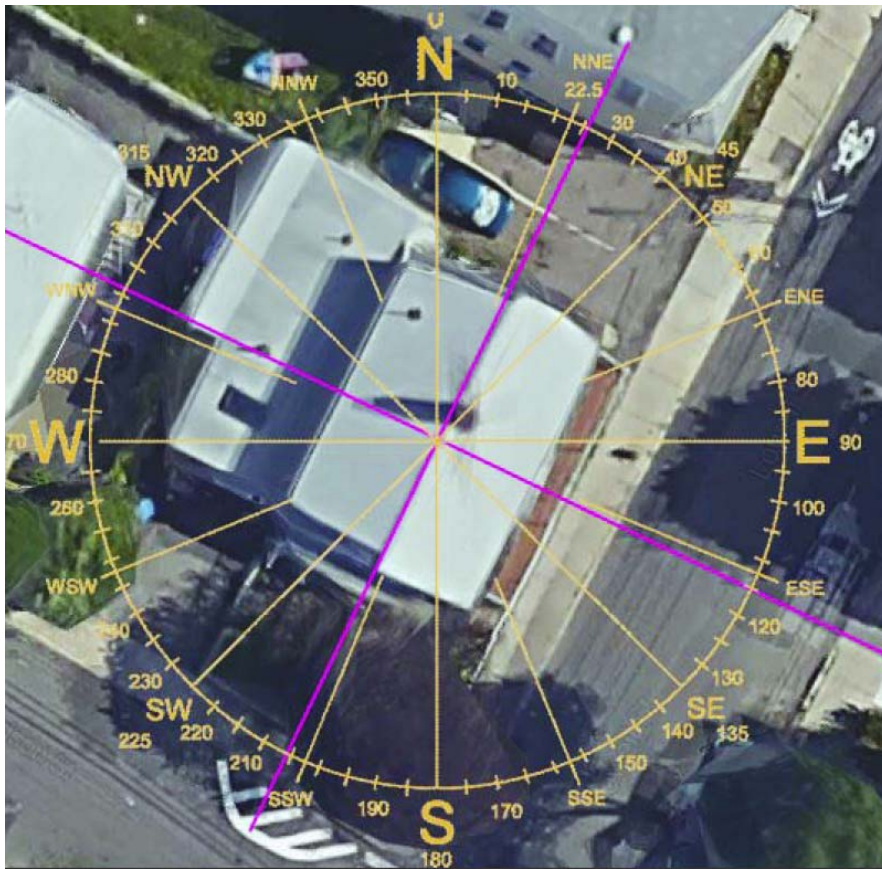
Under the Massachusetts General Law, the granting of a certificate of hardship will be based on "conditions especially affecting the building or structure involved, but not affecting the historic district generally." In other words, the hardship must be unique to the applicant's property and affect it in a particular manner. This is the only elevation that receives the necessary amount of sun required for the installation of solar panels. The building cannot be re-oriented, the panels cannot effectively work in an alternative location on the small house and lot and finally under M.G.L. Chapter 184 §23C, the HPC shall not unduly prevent or restrict owners from the installation or use of solar energy systems.

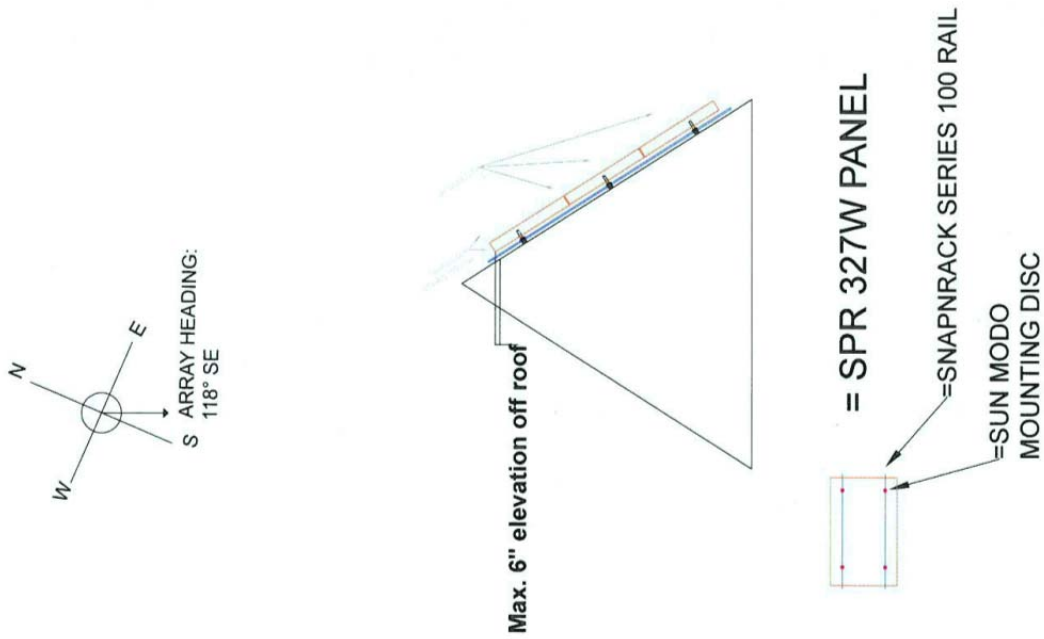
Staff recommends that a **conditional Certificate of Hardship** be granted to **Owners, Peter Jehlen and Sarah Shugars**, to install 15 solar panels at 342 Lowell Street in the only location feasible due the orientation of the house to the sun and due to the inherent conflict between HPC Guidelines derived from M.G.L. Chapter 40 §C and M.G.L. Chapter 184 §23C as noted above.

Staff recommends that the following conditions be placed on the Certificate of Hardship:

1. All appropriate building permits shall be obtained from the Inspectional Services Division (ISD) prior to commencing any removal or replacement of the solar panels.
2. The Applicant/Owner shall contact HPC Staff should any aspect of this project proposal change including, but not limited to: size or location of replacement solar panels.
3. Solar panels shall be of the smallest profile possible and shall not be of a color other than black.
4. Solar panels shall be removed as soon as they are no longer viable and an alternative less visible energy source becomes feasible.
5. The Applicant/Owner shall inform HPC Staff once the installation of the solar panels is complete so that HPC Staff can coordinate with ISD personnel for final inspection.







ARRAY SHOWN:
(15) SunPower SPR 327NE PANELS
(15) SOLAREEDGE P400 OPTIMIZERS
(1) SOLAREEDGE SE-3800A-240V

MOUNTS:
SNAPRACK, SUNMODO MOUNTING SYSTEM
(63) MOUNTING DISCS & FLASHING NEEDED

 <p>411A Highland Ave, Suite 312 Somerville, MA 02144</p>	<p>SUNBUG CONTACT: DARNELL COLEMAN RESIDENTIAL PROJECT MANAGER DARNELL.COLEMAN@SUNBUGSOLAR.COM Phone (617) 340-8782</p>	<p>CUSTOMER: PETER JEHLLEN, 342 LOWELL STREET SOMERVILLE, MA 02145</p>	<p>DRAWN BY: DGC</p>	<p>DATE: 5-16-16</p>	<p>DWG TYPE: ARRAY LAYOUT</p>	<p>DWG #: PJ [DC]</p>	<p>REV: 5.16</p>
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Darnell Coleman
Residential Project Manager



Equipment Schedule (See Attached Spec Sheets for Major Components):

- (15) Sunpower 327NE Black
- (15) SolarEdge P400 Optimizers
- (1) Solar Edge SE3800A-208/240v Inverter
- (1) SnapNRack Racking System
- (~63) SunModo Mounting Discs
- (~63) SunModo flashing, black
- (~63) SunModo L Brackets
- Necessary SnapNRack Hardware for Assembling Rail to Mounts
- Bare 6AWG Grounding Wire (For Between Rows of Rails)
- Grounding Lugs
- PV Wire for home runs to transition box (~20' total)
- SolaDeck Box for transition to THHN wire
- THHN Wire, 10AWG, Black, Red, (40')
- THHN Wire, 8AWG, Green (40')
- 3/4" EMT Conduit (40')
- Assorted hardware for mounting conduit (mineralacs, straps, screws)
- Plywood for equipment board (approximately 4'x4' sheet)
- 2x4" lumber for building equipment board
- (1) GE Electrical Production Meter
- (1) GE Electrical Production Meter Base
- (1) GE (or equivalent) Outdoor rated unfused 30A disconnect
- (1) Murray 20A double pole circuit breaker