MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION
STAFF REPORT

Address: 25 Oxford St., Chevy Chase  
Meeting Date: 12/18/2019

Resource: Non-Contributing Resource  
Chevy Chase Village Historic District  
Report Date: 12/11/2019

Applicant: Maryam Salass  
(Kelli Delacruz, Agent)  
Public Notice: 12/4/2019

Review: HAWP  
Tax Credit: n/a

Case Number: 35/13-19XX  
Staff: Dan Bruechert

PROPOSAL: Solar Panel Installation

STAFF RECOMMENDATION

Staff recommends the HPC approve the HAWP application:

ARCHITECTURAL DESCRIPTION

SIGNIFICANCE: Non-Contributing Resource within the Chevy Chase Historic District
STYLE: Modern
DATE: 1941 with later modifications

Figure 1: 25 Oxford St. is located mid-block with a southern orientation.
PROPOSAL

The applicant proposes to install forty-six solar panels on the north, south, east, and west slopes of the hipped roof.

APPLICABLE GUIDELINES

When reviewing alterations and new construction within the Chevy Chase Village Historic District, several documents are to be utilized as guidelines to assist the Commission in developing their decision. These documents include Montgomery County Code Chapter 24A (Chapter 24A), the Chevy Chase Historic District Design Guidelines (Guidelines), and the Secretary of the Interior’s Standards for Rehabilitation (Standards). The pertinent information in these documents is outlined below.

Chevy Chase Village Historic District Guidelines
Non-Contributing/Out-of-Period Resources
Non-Contributing/out-of-period resources are either buildings that are of little or no architectural and historical significance to the historic district or are newer buildings constructed outside the district’s primary period of historical importance. HAWP applications for exterior alterations, changes, and/or additions to these types of resources should receive the most lenient level of design review.

Most alterations and additions to non-contributing/out-of-period resources should be approved as a matter of course. The only exception would be major additions and alterations to the scale and massing of the structure which affect the surrounding streetscape and/or landscape and could impair the character of the historic district as a whole.

Demolition of non-contributing/out-of-period resources should be permitted. However, any new building should be reviewed under the guidance for new construction that follow…”

Montgomery County Code; Chapter 24A-8

(b) The commission shall instruct the director to issue a permit, or issue a permit subject to such conditions as are found to be necessary to insure conformity with the purposes and requirements of this chapter, if it finds that:

(1) The proposal will not substantially alter the exterior features of an historic site or historic resource within an historic district; or

(2) The proposal is compatible in character and nature with the historical, archeological, architectural or cultural features of the historic site or the historic district in which an historic resource is located and would not be detrimental thereto or to the achievement of the purposes of this chapter; or

(d) In the case of an application for work on an historic resource located within an historic district, the commission shall be lenient in its judgment of plans for structures of little historical or design significance or for plans involving new construction, unless such plans would seriously impair the historic or architectural value of surrounding historic resources or would impair the character of the historic district.

Secretary of Interior’s Standards for Rehabilitation

2. The historic character of a property shall be retained and preserved. The removal of historic materials or alteration of features and spaces that characterize a property shall be avoided.

9. New additions, exterior alterations, or related new construction shall not destroy historic materials that characterize the property. The new work shall be differentiated from the old and shall be compatible with the massing, size, scale, and architectural features to protect the historic integrity of the property and its environment.
10. New additions and adjacent or related new construction shall be undertaken in such a manner that if removed in the future, the essential form and integrity of the historic property and its environment would be unimpaired.

**STAFF DISCUSSION**

The subject property is an eclectic house drawing from elements of the shingle and prairie style, constructed in 1941 with later modifications. The low sloped hipped roof has a central eyebrow dormer facing the street. The house is on the north side of Oxford St.

The applicant proposes to install 46 (forty-six) solar panels on all four roof slopes. The panels will be installed on a rail system that will install the panels a maximum of 6” (six inches) above the roof surface. Due to the southern orientation of the house, a solar array that does not include panels on the south face, would produce very little in the way of electricity. It is only because of the very low roof slope that panels on the north slope will be able to produce any electricity.

Staff finds that this proposal will not significantly alter the massing or scale of the structure and, per the Design Guidelines, Staff finds this should be approved “as a matter of course.” As this building is listed as a non-contributing resource to the District, the Standards with their focus on maintaining the historic character of a resource, aren’t as applicable as they are to designated historic resources. However, Staff finds this construction will not significantly alter the character of the building, is readily recognized as new, and will be easily reversible in the future with a change in technology (comporting with Standards 2, 9, and 10). Staff recommends approval of the HAWP.

**STAFF RECOMMENDATION**

Staff recommends that the Commission approve the HAWP application; under the Criteria for Issuance in Chapter 24A-8(b)(2) and (d), and the Chevy Chase Village Historic District Design Guidelines; having found that the proposal will not substantially alter the exterior features of the historic resource and is compatible in character with the district and the purposes of Chapter 24A; the Design Guidelines; and with the Secretary of the Interior’s Standards for Rehabilitation #2, 9 and #10,

and with the general condition that the applicant shall present the 3 permit sets of drawings, if applicable, to Historic Preservation Commission (HPC) staff for review and stamping prior to submission for the Montgomery County Department of Permitting Services (DPS) building permits;

and with the general condition that final project design details, not specifically delineated by the Commission, shall be approved by HPC staff or brought back to the Commission as a revised HAWP application at staff’s discretion;

and with the general condition that the applicant shall notify the Historic Preservation Staff if they propose to make any alterations to the approved plans. Once the work is completed the applicant will contact the staff person assigned to this application at 301-563-3400 or dan.bruechert@montgomeryplanning.org to schedule a follow-up site visit.
APPLICATION FOR
HISTORIC AREA WORK PERMIT

Contact Email: kelli.delacruz@vivint.com
Contact Person: Kelli Delacruz
Daytime Phone No.: 301 674 5219

Tax Account No.: 0700456768

Name of Property Owner: Manuela Salinas
Daytime Phone No.: 410 415 0760

Address: 25 Oxford St, Chevy Chase, MD 20815

Contractor: Vivint Solar
Phone No.: 877 404 4129

Contractor Registration No.: 136285

Agent for Owner: 
Daytime Phone No.: 

LOCATION OF BUILDING PREMISES

House Number: 
Street: 
Town/City: 
Nearest Cross Street: 
Lot: 
Block: 
Subdivision: 
Lot: 
Folio: 
Parcel: 

PART ONE - GENERAL INFORMATION

1A. Check all Applicable:
☐ New
☐ Add
☐ Alter/Remodel
☐ A/C
☐ Slat
☐ Room Addition
☐ Porch
☐ Deck
☐ Shed
☐ Move
☐ Install
☐ Walls/Plaster
☐ Solar
☐ Fireplace
☐ Woodburning Stove
☐ Single Family
☐ Revision
☐ Repair
☐ Recreational
☐ Fence/Wall (complete Section 4)
☐ Other

1B. Construction cost estimate: $31,878

1C. If this is a revision of a previously approved active permit, see Permit # 

PART TWO - COMPLETENESS AND COMPLIANCE

2A. Type of sewage disposal:
☐ 01 WSSC
☐ 02 Septic
☐ 03 Other: 

2B. Type of water supply:
☐ 01 WSSC
☐ 02 Well
☐ 03 Other: 

PART THREE - COMPLETE VIEW OF FENCE/RETAINING WALL

3A. Height: _______ feet _______ inches

3B. Indicate whether the fence or retaining wall is to be constructed on one of the following locations:
☐ On party line/property line
☐ Entirely on land of owner
☐ On public right of way/ easement

I hereby certify that I have the authority to make the foregoing application, that the application is correct, and that the construction will comply with plans approved by all agencies listed and I hereby acknowledge and accept this to be a condition for the issuance of this permit.

(Date)

Signature of owner or authorized agent

Approved: 
Date: 

For Chairperson, Historic Preservation Commission

Disapproved: 
Signature: 
Date: 

Application/Permit No.: 
Date Filed: 
Date Issued: 

SEE REVERSE SIDE FOR INSTRUCTIONS
THE FOLLOWING ITEMS MUST BE COMPLETED AND THE
REQUIRED DOCUMENTS MUST ACCOMPANY THIS APPLICATION.

1. WRITTEN DESCRIPTION OF PROJECT
   a. Description of existing structure(s) and environmental setting, including their historical features and significance:

   Installation of 416 roof mounted solar panels.

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

   b. General description of project and its effect on the historic resource(s), the environmental setting, and, where applicable, the historic district:

   __________________________________________________________
   __________________________________________________________
   __________________________________________________________

2. SITE PLAN
   Site and environmental setting drawn to scale. You may use your plot. Your site plan must include:
   a. the scale, north arrow, and date;
   b. dimensions of all existing and proposed structures; and
   c. site features such as walkways, driveways, fences, ponds, streams, trash dumpsters, mechanical equipment, and landscaping.

3. PLANS AND ELEVATIONS
   You must submit 2 copies of plans and elevations in a format no larger than 11" x 17". Plans on 8 1/2" x 11" paper are preferred.
   a. Schematic construction plans, with marked dimensions, indicating location, size and general type of walls, window and door openings, and other fixed features of both the existing resource(s) and the proposed work.
   b. Elevations (facades), with marked dimensions, clearly indicating proposed work in relation to existing construction and, when appropriate, context. All materials and fixtures proposed for the exterior must be noted on the elevations drawings. An existing and a proposed elevation drawing of each facade affected by the proposed work is required.

4. MATERIALS SPECIFICATIONS
   General description of materials and manufactured items proposed for incorporation in the work of the project. This information may be included on your design drawings.

5. PHOTOGRAPHS
   a. Clearly labeled photographic prints of each facade of existing resource, including details of the affected portions. All labels should be placed on the front of photographs.
   b. Clearly labeled photographic prints of the resource as viewed from the public right-of-way and of the adjoining properties. All labels should be placed on the front of photographs.

6. TREE SURVEY
   If you are proposing construction adjacent to or within the dripline of any tree 6" or larger in diameter (at approximately 4 feet above the ground), you must file an accurate tree survey identifying the size, location, and species of each tree of at least that dimension.

7. ADDRESSES OF ADJACENT AND CONFRONTING PROPERTY OWNERS
   For ALL projects, provide an accurate list of adjacent and confronting property owners (not tenants), including names, addresses, and zip codes. This list should include the owners of all lots or parcels which adjoin the parcel in question, as well as the owner(s) of lots(s) or parcel(s) which lie directly across the street/ highway from the parcel in question.

PLEASE PRINT (IN BLUE OR BLACK INK) OR TYPE THIS INFORMATION ON THE FOLLOWING PAGE.
PLEASE STAY WITHIN THE GUIDES OF THE TEMPLATE, AS THIS WILL BE PHOTOCOPIED DIRECTLY ONTO MAILING LABELS.
GENERAL STRUCTURAL NOTES:
The solar panels are to be mounted to the roof framing using
#10-8 washer hardware. The panels must be securely fastened
in place to prevent movement. The roof framing must be
designed to withstand the weight of the solar panels and
any additional loads that may be imposed.

PHOTOVOLTAIC SYSTEM SPECIFICATIONS:

SYSTEM TYPE: 14.4kW (DC) 12.5kW (AC)
MODULE TYPE & AMOUNT: (16) LG 315N1K16
INVERTER: (1) Enphase Energy IQ 60-2-US
INTERCONECTION METHOD: SUPPLY TAP

GOVERNING CODES:
- Performance Standard for Solar Electric Systems
- International Building Code
- National Electrical Code
MOUNT DIAGRAM

SCALE: 3/16" = 1'-0"
Conductor Calculations

Wire gauge calculated from code art. 310.15(B)(16) with ambient temperature calculations from art. 310.15(B)(3)(a)

For "On Roof" conductor we use the 90°C column ampacity, 0.5"-3.5" off-the-roof temperature adjustment from 310.15(B)(3)(c), and raceway fill adjustments from 310.15(B)(16)

Conduit shall be installed at least 6" above the roof deck

For "Off Roof" conductor we use the 75°C column ampacity, or the 90°C column ampacity with the relevant ambient temperature and raceway fill adjustments, whichever is less.

The rating of the conductor after adjustments MUST be greater than, or equal to, the continuous duty saturated output current.

Calculation Example - Wire Rating (90°C) x Ambient Temperature Adjustment x Conduit Fill Adjustment = Continuous Duty Output Current

(Tab 2 Ahrs):
- Inverter Output: 0 AWG rated 40 A, 40 A x 0.71 x 0.8 = 24.72 A > 19.2 A

(Tab 5 On Roof):
- Inverter Output: 0 AWG rated 40 A, 40 A x 0.71 x 0.8 = 24.72 A > 19.2 A

(Tab 5 Off Roof):
- Inverter Output: 6 AWG rated 55 A, 55 A x 0.71 > 60 A

OCPD Calculations

Breakers sized according to continuous duty output current. PV circuit nominal current based on the number of modules per Circuit X (6.5% x 60% X 0.90 VA AC current per module and micro-inverter)

Circuit #1 = 16 modules, Output Current = continuous duty = 19.2 A = 20A Breaker

Circuit #2 = 15 modules, Output Current = continuous duty = 18 A = 20A Breaker

Circuit #3 = 15 modules. Output Current = continuous duty = 18 A = 20A Breaker

System output current (continuous duty) = 55.2 A = 60A (System OCPD)
WARNING: PHOTOVOLTAIC POWER SOURCE

Interactive System Point of Interconnection Per 690.54

Photovoltaic Power Source Rated AC Output Current: 44.16 A
Nom. Operating AC Voltage: 240 V

PV System Disconnects Per 690.13(b)
PV SYSTEM DISCONNECT

All Disconnecting Means Per 690.13(b) & 690.15(d)

WARNING
Electrical Shock Hazard
Terminals on the line and load sides may be energized in the open position.

Power Source Output Connection, Adjacent to Backfed Breaker Per 705.12

WARNING
Power Source Output Connection do not relocate this overcurrent device.

Rapid Shutdown Switch Per 690.56(c)(3)
Rapid Shutdown Switch for Solar PV system

Plaques and Directories at the Service Equipment (MSF) and the Location of All System Disconnects Per 690.56(b) & 705.10

Caution: Power to this building is also supplied from the following sources with disconnects located as shown. At GFC, meter and main service AC disconnect DC disconnect inverter

PV With Rapid Shutdown, Installed Within 3 ft of the Service Disconnecting Means Per 690.56(c)(3)(a)

Solar PV System Equipped with Rapid Shutdown

Turn Rapid Shutdown Switch to the "Off" Position to Shutdown PV System and Reduce Shock Hazard in Array

ALL STICKERS DESCRIBED HEREIN SHALL BE MADE OF WEATHERPROOF ADHESIVE. THEY SHALL BE REFLECTIVE. THEY SHALL CONTAIN NO SMALLER THAN 3/8" WHITE ARIAL FONT TEXT, AND HAVE A RED BACKGROUND, UNLESS OTHERWISE DEPICTED OR DESCRIBED. ALL PLACARDS SHALL BE WEATHER-RESISTANT, PERMANENTLY ETCHED PLACARDS, HANDWRITTEN SIGNS WILL NOT BE ACCEPTABLE.
**LG NeON®2 Black**

**315W**

The LG NeON®2 is LG's best-selling solar module and is one of the most powerful and versatile modules on the market today. Featuring LG's Cello Technology, the LG NeON®2 increases power output. New updates include an extended performance warranty from 85% to 90.08% to give customers higher performance and reliability.

*Features*

**Enhanced Performance Warranty**

LG NeON®2 Black has an enhanced performance warranty. After 25 years, LG NeON®2 Black is guaranteed at least 90.08% of initial performance.

**Better Performance on a Sunny Day**

LG NeON®2 Black now performs better on sunny days, thanks to its improved temperature coefficient.

**Enhanced Product Warranty**

LG has extended the warranty of the NeON®2 Black to 25 years including labor, which is top level in the industry.

**Roof Aesthetics**

LG NeON®2 Black has been designed with aesthetics in mind, using thinner wires that appear all black at a distance. LG NeON®2 Black can increase the value of a property with its modern design.

When you go solar, ask for the brand you can trust: LG Solar

About LG Electronics

LG Electronics is a global leader in technology products and services. With 2019 sales of $32.9 billion, LG serves customers in over 130 countries. A leading innovator in the Smart & AI, Consumer Electronics, Mobile, and Home Appliance & Air Solution business areas, LG was among the top 10 global brands in 2019 and has won numerous awards in the past decade.
Enphase IQ Combiner 3
(X-IQ-AM1-240-3)

The Enphase IQ Combiner 3® with Enphase IQ Envoy® consolidates interconnection equipment into a single enclosure and streamlines PV and storage installations by providing a consistent, pre-wired solution for residential applications. It offers up to four 2-pole input circuits and Eaton BR series busbar assembly.

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Smart
• Includes IQ Envoy for communication and control
• Flexible networking supports Wi-Fi, Ethernet, or cellular
• Optional AC receptacle available for PLC bridge
• Provides production metering and optional consumption monitoring

Simple
• Reduced size from previous combiner
• Centered mounting brackets support single stud mounting
• Supports back and side conduit entry
• Up to four 2-pole branch circuits for 240 VAC plug-in breakers (not included)
• 80 A total PV or storage branch circuits

Reliable
• Durable NRTL-certified NEMA type 3R enclosure
• Five-year warranty
• UL listed

To learn more about Enphase offerings, visit enphase.com
Enphase IQ 6 and IQ 6+ Microinverters

The high-powered smart grid-ready Enphase IQ 6 Micro™ and Enphase IQ 6+ Micro™ dramatically simplify the installation process while achieving the highest efficiency for module-level power electronics.

Part of the Enphase IQ System, the IQ 6 and IQ 6+ Micro integrate seamlessly with the Enphase IQ Envoy™, Enphase Q Aggregator™, Enphase IQ Battery™, and the Enphase Enlighten™ monitoring and analysis software.

The IQ 6 and IQ 6+ Micro extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty of up to 25 years.

Easy to Install
- Lightweight and simple
- Faster installation with improved two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

Productive and Reliable
- Optimized for high powered 60-cell and 72-cell* modules
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

Smart Grid Ready
- Complies with fixed power factor, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

* The IQ 6+ Micro is required to support 72-cell modules

To learn more about Enphase offerings, visit enphase.com