MONTGOMERY COUNTY HISTORIC PRESERVATION COMMISSION  
STAFF REPORT

<table>
<thead>
<tr>
<th>Address:</th>
<th>115 Elm Ave., Takoma Park</th>
<th>Meeting Date:</th>
<th>2/7/18</th>
</tr>
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<tr>
<td>Resource:</td>
<td>Non-Contributing Resource</td>
<td>Report Date:</td>
<td>1/31/18</td>
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<tr>
<td></td>
<td>Takoma Park Historic District</td>
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<tr>
<td>Applicant:</td>
<td>Gerard Lavery</td>
<td>Public Notice:</td>
<td>1/24/18</td>
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<tr>
<td>Review:</td>
<td>HAWP</td>
<td>Tax Credit:</td>
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<tr>
<td>Case Number:</td>
<td>31/06-18H</td>
<td>Staff:</td>
<td>Dan Bruechert</td>
</tr>
<tr>
<td>Proposal:</td>
<td>Solar Installation</td>
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**RECOMMENDATION**
Staff recommends that the Historic Preservation Commission **approve** the HAWP application.

**PROPERTY DESCRIPTION**
SIGNIFICANCE: Non-Contributing Resource to the Takoma Park Historic District  
STYLE: Cape Cod  
DATE: c.1920-30s

The subject house is a brick one-and-a-half story, side gable, Cape Cod house, with a large front porch with a front gable portico.

To the rear of the house is a brick, non-historic accessory structure with a front gable roof and three pairs of French Doors.

**PROPOSAL**
The applicant is proposing to install 45 (forty-five) flush mounted solar panels on the roof of the contemporary accessory structure.

**APPLICABLE GUIDELINES**
When reviewing alterations and additions for new construction to Non-Contributing Resources within the Takoma Park Historic District, decisions are guided by the Takoma Park Historic District Design Guidelines (Design Guidelines) and Montgomery County Code Chapter 24A (Chapter 24A).

*Takoma Park Historic District Design Guidelines*
There are two very general, broad planning and design concepts which apply to all categories. These are:
The design review emphasis will be restricted to changes that are at all visible from the public right-of-way, irrespective of landscaping or vegetation (it is expected that the majority of new additions will be reviewed for their impact on the overall district), and,

The importance of assuring that additions and other changes to existing structures act to reinforce and continue existing streetscape, landscape, and building patterns rather than to impair the character of the district.

Most Alterations and additions to Non-Contributing/Out-of-Period Resources should be approved as a matter of course. The only exceptions would be major additions and alterations to the scale and massing of Non-Contributing/Out-of-Period Resources which affect the surrounding streetscape and/or landscape and could impair the character of the historic district as a whole.

Montgomery County Code, Chapter 24A Historic Resources Preservation
(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
(3) The proposal would enhance or aid in the protection, preservation and public or private utilization of the historic site or historic resource located within an historic district in a manner compatible with the historical, archeological, architectural or cultural value of the historic site or historic district in which an historic resource is located; or

STAFF DISCUSSION
The applicant is proposing to install 45 (forty-five), roof-mounted, solar panels on the accessory structure to the rear of the lot. The solar panels will be installed flush to the roof surface. Historic preservation best practices call for the placement of solar panels on either accessory structures or free-standing installations over installation on the primary resource.

As this alteration does not change the scale and massing of the non-contributing resource and its setback from the streetscape, the Design Guidelines state that the proposed alteration should be approved. Staff supports this proposal.

STAFF RECOMMENDATIONS
Staff recommends that the Commission approve the HAWP application; and with the general condition applicable to all Historic Area Work Permits that the applicant will present 3 permit sets of drawings to HPC staff for review and stamping prior to submission for permits (if applicable). After issuance of the Montgomery County Department of Permitting Services (DPS) permit, the applicant will arrange for a field inspection by calling the DPS Field Services Office at 240-777-6370 prior to commencement of work and not more than two weeks following completion of work.
HISTORIC PRESERVATION COMMISSION
301/563-3400

APPLICATION FOR
HISTORIC AREA WORK PERMIT

Contact Email: jkrupski@tesla.com
Contact Person: Jim Krupski
Daytime Phone No.: (202) 809-8349
Tax Account No.: 01074084
Name of Property Owner: GERARD LAVEREY
Daytime Phone No.: (202) 251-6859
Address: 214 TAYLOR ST NW WASHINGTON, D.C. 20011
Street Number: City: Zip Code:
Contractor: SOLARITY
Phone No.: (888) 765-2489
Contractor Registration No.: 123498 (MHIC)
Agent for Owner: Jim Krupski
Daytime Phone No.: (202) 809-8349

LOCATION OF BUILDING

House Number: 115
Street: Elm Ave.
Town/City: Takoma Park Nearest Cross Street: Allegheny Ave.
Lot: 25
Block: 16
Division: 0025
Lot: 50685
Block: 00025
Parcel: 0000

PART ONE: TYPE OF PERMIT, PROJECT AND USE

1A. CHECK ALL APPLICABLE:
☐ Construct ☐ Extend ☐ Alter/Remove ☐ AC ☐ Slab ☐ Room Addition ☐ Porch ☐ Deck ☐ Shed
☐ Move ☐ Install ☐ Wreck/Remove ☐ Solar ☐ Fireplace ☐ Woodburning Stove ☐ Single Family
☐ Addition ☐ Repair ☐ Reviseable ☐ Fence/Wall (complete Section 4) ☐ Other:
1B. Construction cost estimate: $17,010.00
1C. If this is a resubmission of a previously approved active permit, see Permit #:

PART TWO: COMPLETE FOR NEW CONSTRUCTION AND EXTERIOR ADDITIONS

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 ONLY FOR FENCE OR 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 property line/property line ☐ Entirely on land of owner ☐ On public right of way/assessment

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.

[Signature]
Signature of owner or authorized agent

[17 January 2018]
Date

Approved:
For Chairperson, Historic Preservation Commission

Disapproved:
Signature: Date:

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

SEE REVERSE SIDE FOR INSTRUCTIONS

825323
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:
      12,343 square foot residential property
      roofed with composite shingle
      single family dwelling with detached garage/living space

   b. General description of project and its effect on the historic resource(s), the environmental setting, and, where applicable, the historic district:
      Installation of 45 solar panels mounted flush to roof of detached garage; 60 ft. trench from garage to main house.
      Note: no panels will be installed on the house itself, only on the detached garage.

2. SITE PLAN
   Site and environmental setting, drawn to scale. You may use your plat. 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 31" x 43". Plans on 8½" 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, where 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 label 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 5" 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 lot(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.
<table>
<thead>
<tr>
<th>Owner’s mailing address</th>
<th>Owner’s Agent’s mailing address</th>
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<tbody>
<tr>
<td>214 TAYLOR ST. NW</td>
<td>9000 VIRGINIA MANOR RD</td>
</tr>
<tr>
<td>WASHINGTON, DC 20011</td>
<td>STE 250</td>
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<td>BELTSVILLE, MD 20705</td>
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<table>
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<tr>
<th>Adjacent and confronting Property Owners mailing addresses</th>
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<tr>
<td>J. M. A. SCHOOL</td>
</tr>
<tr>
<td>117 ELM AVE.</td>
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<tr>
<td>TAKOMA PARK, MD 20912-0000</td>
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<tr>
<th></th>
<th>CHRISTOPHER HARTLEY</th>
<th>CHARLES LEE</th>
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<td>114 ELM AVE.</td>
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Existing Property Condition Photographs:

Detail: Front of house, Google street view, 115 Elm Ave., Takoma Park

Detail: Front of house, Google street view, 115 Elm Ave., Takoma Park
Detail: Front of house, Google street view, 115 Elm Ave., Takoma Park

Detail: Front of house, Google street view, 115 Elm Ave., Takoma Park
Detail: front of house and detached garage from street
Detail: East side of detached garage
Detail: Southeast corner of detached garage
Detail: Southwest corner of detached garage
Detail: path of trench
Detail: Google satellite view of 115 Elm Avenue; the detached garage is circled.
Hussein Kazan
Digitally signed by Hussein kazan
Date: 2017.11.28
12:29:50 -05'00'
ABBREVIATIONS

A  AMPERE
AC  ALTERNATING CURRENT
Bldg  BUILDING
CNC  CONCRETE
DC  DIRECT CURRENT
ECG  EQUIPMENT GROUNDING CONDUCTOR
E(l)  EXISTING
Elmnt  ELECTRICAL METALLIC TUBING
Fsb  FIRE SET-BACK
Galvan  GALVANIZED
Glc  GROUNDING ELECTRODE CONDUCTOR
Gnd  GROUND
Hdg  HOT DIPPED GALVANIZED
I  CURRENT
Ipe  CURRENT AT MAX POWER
Kv  KILOVOLT AMPERE
Kw  KILOWATT
Lnk  LOAD BEARING WALL
Min  MINIMUM
N  NEW
Neut  NEUTRAL
Ntd  NOT TO SCALE
Oc  ON CENTER
Plt  PROPERTY LINE
Poi  POINT OF INTERCONNECTION
Pv  PHOTOVOLTAIC
Sch  SCHEDULE
Sts  STAINLESS STEEL
Stc  STANDARD TESTING CONDITIONS
Typ  TYPICAL
Ups  UNINTERRUPTIBLE POWER SUPPLY
V  VOLT
Vmp  VOLTAGE AT MAX POWER
Voc  VOLTAGE AT OPEN CIRCUIT
W  WATT
X  NEMA 3R, RAINPROOF

GENERAL NOTES

#1805 MASTER ELECTRICIAN
Nicholas Meyers

MODULE GROUNDING METHOD: ZEP SOLAR

AHS: Montgomery County

UTILITY: PEPCO (MD)

ERICA 115 ELM AVE
TAKOMA PARK, MD 20912

1. ALL WORK SHALL COMPLY WITH THE 2015 IRC
AND 2015 NECC.
2. ALL ELECTRICAL WORK SHALL COMPLY WITH
THE 2014 NATIONAL ELECTRIC CODE.

INDEX

Sheet 1  COVER SHEET
Sheet 2  SITE PLAN
Sheet 3  STRUCTURAL VIEWS
Sheet 4  THREE LINE DIAGRAM
Outsides Attached

REV. BY DATE COMMENTS

Sj, Sanborn, U.S. Geological Survey, USDA Farm Service Agency

NORTH CAROLINA
SOUTH CAROLINA
VIRGINIA
GEORGIA
TENNESSEE
ALABAMA
MISSISSIPPI
LOUISIANA
TEXAS

ORANGE COUNTY
SAN DIEGO COUNTY
SAN FRANCISCO BAY AREA
MOUNTAIN VIEW

TAKOMA SPRING

TAKOMA PARK, MD 20912

COVER SHEET

VALIDATED

TAKOMA PARK, MD 20912

ALLEES SENECA AVE

TAKOMA SPRING

TAKOMA PARK, MD 20912

COVER SHEET
Rapid Shutdown Device for Delta 3.0~7.6 TL Inverters

Delta's Rapid Shutdown Devices provide an automatic disconnect of 000VDC residential or small commercial PV array system, fully compliant with the Rapid Shutdown requirements of NEC 2014 article 690.12. It is compatible with Delta single-phase residential inverters.

KEY FEATURES
- NEMA 4X Protection
- Compact and Lightweight
- Rack Mount Installation
- Fast Connect with PV Connectors
- Compliant with NEC 2014 article 690.12
- PLC Communication (Model RSS-600-1 only)

Technical Specifications

Input Ratings

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Delta Products Corporation, Inc.
49101 Fremont Blvd.
Fremont, CA 49101
Delta Email: Inverters.Sales@delta-corp.com
Support Email: Inverters@delta-corp.com
Sales Hotline: +1-877-440-5051 or +1-628-369-8021
Support Hotline: +1-877-440-4822
Support Hotline: +1-628-369-8021

www.delta-americas.com/Inverters

DELTA

DELTA
Solar Inverters
Transformerless (TL): 3.8 kW, 5.2 kW, 6.6 kW, 7.6 kW

- Wide Operating Voltage Range: 85 - 556 V
- Wide Operating Temperature Range: -13 - 158°F (-25 - 70°C)
- High CEI Efficiency: 97.5%
- Integrated AFCI (Arc Fault Circuit Interruption)
- NEMA-4X (pneumatic circuit protection)
- Natural Convection Cooling
- Dual MPPT (5.2kW / 6.6kW / 7.6kW)
- UL 1741 / IEC 1547 / IEC 61724 / CEC
- Listed/UL 1586B (Type 1) / NEC 080.11
ZS Comp
for composition shingle roofs

Description
- PV mounting solution for composition shingle roofs
- Works with Zep Compatible Modules
- Auto handling UL listed hardware to create structural and electrical bond
- ZS Comp has a UL 1703 Class "A" Fire Rating when installed using methods from any manufacturer certified as "Type 1" or "Type 2"

Specifications
- Designed for pitched roofs
- Installs per natural and landscape orientation
- ZS Comp supports moderate wind uplift and snow load pressures to 50 psf per UL 2703
- Wind tested to ASCE 7-05 and 7-10 standards
- ZS Comp grounding products are UL listed to UL 2703 and UL 607
- ZS Comp bonding products are UL listed to UL 2700
- Engineered for spacing up to 72" and cantilevers up to 42" above the building
- Zep valve management products listed to UL 1060 for valve positioning devices

Components

- Mounting Block
  Part #: 650-1023
  Listed in UL, 3903

- Array Skirt
  Part #: 650-1000 or 650-1173
  Listed in UL, 2703

- Interlock
  Part #: 650-1161 or 650-1163
  Listed in UL, 2701

- Flashing Insert
  Part #: 650-1028
  Listed in UL, 3903

- Grip
  Part #: 650-1066 or 650-1481
  Listed in UL, 2801

- Captured Washer Lag
  Part #: 650-1101-001
  Listed in UL, 2703 and UL 607

- End Cap
  Part #: (6) 650-1085 or 650-1080
  (8) 650-1088 or 650-1087

- DC Wire Clip
  Part #: 650-1068
  Listed in UL, 1985

- Leveling Foot
  Part #: 650-1027
  Listed in UL, 3903

SolarCity + ZepSolar
Next-Level PV Mounting Technology

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The new high-performance module Q.PEAK-G4.1/SC is the ideal solution for all applications thanks to its innovative cell technology. Q.ANTUM ULTRA and a black ZFR Compatible™ frame design for improved aesthetics, easy installation and increased safety. The world-record cell design was developed to achieve the best performance under real conditions – even with low radiation intensity and on clear, hot summer days.

LOW ELECTRICITY GENERATION COSTS
Higher yield per surface area and lower BOS costs thanks to higher power classes and an efficiency rate of up to 18.6%.

INNOVATIVE ALL-WEATHER TECHNOLOGY
Optimal yields, whatever the weather with excellent low-light and temperature behavior.

EXCEEDING HIGH PERFORMANCE

A RELIABLE INVESTMENT
Inclusive 12-year product warranty and 25-year linear performance guarantee.

2009 NREL 25.4%. (tested at AM 1.5).

2009 NREL 25.4%. (tested at AM 1.5).