



Express Permit Application Supplement

CITY OF ATLANTA - OFFICE OF BUILDINGS

55 Trinity Avenue, Suite 3900, Atlanta, Georgia 30303 - (404) 330-6150

SOLAR ROOF INSTALLATION - Permit Submittal Information

SCOPE:

The installation of solar photovoltaic on a roof of a structure can be simple to complex. There are several items needed when submitting for a solar photovoltaic roof permit to determine that the finished project complies with the minimum requirements of the 2012 International Residential Code (2012 IRC) and 2014 National Electrical Code (2014 NEC).

In order for a project to be considered for the Express Permit Process, which is an over the counter permit issuance process that relies on accurate information within the construction documents and the applications in order to ensure that the permit can be issued within the prescribed timeframe.

Photovoltaic applications for this process are only applicable to roof mounted residential systems.

PRE-SUBMITTAL CHECKLIST

1. Items for consideration when submitting for a photovoltaic panel array on a roof.

- ✓ No shadows will be cast on the array from trees, other buildings, etc. The trimming or removal of trees in order to provide an area that affords you direct sunlight must involve the Arborist Division of Office of Buildings.

The Arborist Division may be reached at (404) 330-6874 or via email:
arborist.dpcd@atlantaga.gov

- ✓ Roof decking is solid sheathing of ½" or greater thickness;

NOTE: Structures have more than one-layer of roofing materials will require a re-roof permit independent of this application

2. Eligibility for Express Permitting Process requires the following:

- ✓ The array is mounted on a code-compliant structure;
- ✓ The mounting structure is an engineered product designed to mount photovoltaic modules with no more than an 18-inch gap beneath the module frames;
- ✓ The array has a distributed weight of less than 5 lbs./ft. and less than 45 lbs. per attachment;
- ✓ The mounting hardware shall indicate that it is rated for 90-mph wind speeds and can resist a minimum of 40 lbs. of uplift;

EXPRESS LANE PERMIT PROCESS

Submit to:

- Express Lane – Monday through Friday, 8:15 AM to 3:00 PM.

Required approvals, as applicable to your scope of work:

- Zoning
- Building
- Electrical
- Submit an Arborist Photovoltaic Tree Affidavit (This is similar to an Arborist Tree Impact Form, with the contractor recognizing that no tree will be removed and/or that no more than 20% of the live canopy will be removed as part of the installation.)

Required Inspections:

- Rough Building – Structural modifications and attachments to roof system; PRIOR to panel placement
- Rough Electrical – All conduit in place, with all junction boxes open
- Final Building – Installation complete. The roof properly flashes and sealed to prevent water intrusion
- Final Electrical – Photovoltaic System complete, with all signage required by the 2012 International Fire Code and 2014 National Electrical Code in place.

Permits required:

- Electrical
- Building

PERMIT SUBMITTAL REQUIREMENTS:

The customer must provide a minimum of two (02) complete plan sets, with the following:

1. Submit an Arborist Photovoltaic Tree Affidavit:

- This form is notarized and affirms that the contractor recognizing that no tree will be removed and/or that no more than 20% of the live canopy will be removed as part of the installation. For a copy of this form, please see the last sheet within this packet.

2. Plan Cover Sheet, with:

- Project Address;

- Homeowner's name and contact information;
- Scope of project in the form of a brief narrative;
- Applicable codes, as adopted and amended by the State of Georgia;
- Contractors' name and contact information;

3. Roof Plan showing the layout of the photovoltaic panel array, with the following:

- Indicate the roof pitch (Ex.: 4:12, 6:12, etc.)
- Indicate the roof sheathing type and thickness
- Indicate if the roof is conventional framing or pre-engineered trusses
- Dimension the separation distance between panels
- Show location of any roof mounted disconnecting means.

NOTE: Pre-engineered trusses may require plan details from a Georgia licensed Professional Engineer for structural modifications to the roof system.

4. Electrical One-Line Diagram – This is a line drawing, which shows the components of the system, and their relationship to each other in the installation. This is not a scaled drawing, but is merely a conceptual representation of the system design used to verify compliance.

Include the following:

- The photovoltaic panels make and model,
- Conduit sizes and types,
- Conductor sizes and types,
- Over Current Protection Device (OCPD) type rating and size (circuit breaker, fuse, etc.),
- The inverter type and rating;
- The type and size of all system batteries, if provided

NOTE: Indicate if the photovoltaic panels will be wired in series (voltage multiplied – individual module multiplied by the voltage) or parallel (current multiplied – individual module multiplied by the ampere). If this information is not provided, staff will assume that the modules are wired in parallel.

5. Provide a Load Calculation of the total ampere and voltage generated by the photovoltaic array.

NOTE: A 125% short circuit increase is required on the photovoltaic array, and a further 125% increase is required on the conductor size. (2014 NEC 690.8)

6. Provide a minimum of two (02) complete bound or stapled sets of the Manufacturer's Specification for:

- AC Voltage electrical equipment and/or panels,
- Inverter,
- Photovoltaic
- DC Voltage equipment and/or panels,
- Over Current Protection Devices (OCPD),
- Panel mounting hardware.

NOTE: Photovoltaic Systems on buildings shall include a rapid shutdown function that controls specific conductors. Once the rapid shutdown is initiated, the conductors shall be limited to not more than 30 Volts and 240 Volt-Amperes within 10-seconds. (2014 NEC 690.12)

7. A minimum of two (02) sets of structural design details, sealed by a Georgia licensed Professional Engineer for any required structural modifications to the existing roof system - IF REQUIRED.

These may be on 8-1/2 x 11 paper, showing the necessary structural design changes to the pre-engineered trusses.



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ARBORIST DIVISION - Photovoltaic Tree Affidavit

Date: _____

Property Owner(s): _____

Project Address: _____

Please check or initial each of the following:

_____ I certify that no trees will be removed or pruned for the installation of PV system.

_____ I understand that the COA Tree Ordinance allows no more than 20% (twenty percent) of the live canopy may be pruned. Pruning/removing up to 20% (twenty percent) of the live canopy must not make the tree lopsided or unbalanced, proper pruning cuts must be made in accordance to ANSI standards.

NOTE: The City of Atlanta Ordinance Section 158-26, which regulates trees, requires a permit for the removal of hardwood trees 6" (six inches) DBH and/or pines 12" (twelve inches) and larger. The tree ordinance prohibits injury to a protected tree. To find out more about the City of Atlanta tree ordinance go to: <http://www.atlantaga.gov/index.aspx?page=339>, or call the Arborist Division at (404) 330-6874.

I understand that if I provide false or misleading information in this form, I will be in violation of the Atlanta Tree Protection Ordinance and will be subject to the payments and penalties set forth therein.

Signature: _____

Print your name: _____

Relationship to project (Circle): Property Owner Contractor Architect