

**ADDENDUM NO. 1**  
**TO**  
**REQUEST FOR PROPOSALS FOR A SOLAR ENERGY POWER PURCHASE AGREEMENT TO**  
**PROVIDE SOLAR GENERATED ELECTRICITY FOR SWEDESBORO-WOOLWICH SCHOOL**  
**DISTRICT FACILITIES**

**Swedesboro Woolwich School district issued a Request for Proposals for A Solar Energy Power Purchase Agreement To Provide Solar Generated Electricity For Swedesboro Woolwich School District Facilities on July 13, 2012**

**The followings information has been added for reference to the school's website:**

- **Roof Warranties – 3 Schools**
- **Atlantic Electric Pre-Application Responses- 4 schools**

**Prepared by: HONEYWELL BUILDING SOLUTIONS**

**For the: SWEDESBORO WOOLWICH SCHOOL DISTRICT**

CMS

# Merchant & Evans, Inc.

LW2008-60

## LIMITED ROOFING WARRANTY

**PROJECT: Swedesboro-Woolwich New Elementary School OWNER: Swedesboro Woolwich Board of Education**

This Limited Warranty is issued by Merchant & Evans, Inc., 308 Connecticut Drive, Burlington, New Jersey 08016, herein after referred to as "The Company" and "The Installing Contractor" designated herein and runs to The Building Owner, herein after referred to as "The Customer". The Terms and Conditions of this Limited Warranty shall constitute the entire agreement and understanding between The Company, The Installing Contractor and The Customer with respect to the Warranted Roofing System on the Project specified above, only.

### I. PERFORMANCE STANDARDS:

The Company solely warrants that the Warranted Roofing System as herein defined will, under normal atmospheric conditions and ordinary wear and tear by the elements as herein defined, perform as follows:

The Warranted Finish will not blister, peel, chip, check or crack, lose adhesion, chalk in excess of eight or fade in excess of five for a period of Twenty (20) years. Cracks or checks are defined as breaks in the coating as distinguished from microchecking at the radii, which shall be considered normal and acceptable. Failure due to mechanical damage of the coating after manufacturing is outside this Warranty. Additionally, the panel system will not fail to remain weather-tight for a period of Twenty (20) years or structurally fail for a period of Twenty (20) years from defective materials, manufacturing workmanship, perforation of the base metal, or system design.

The Installing Contractor solely Warrants for the designated periods stated above, that the Warranted Roofing System as herein defined will be installed in a workmanlike manner and in accord with The Company's published installation guidelines and/or specific instructions for the project.

### II. FAILURE TO COMPLY:

If the Warranted Finish and/or Warranted Roofing System fails to perform in accordance with the PERFORMANCE STANDARDS noted above, The Company's and the Installing Contractor's liability under this Warranty will be limited to refinishing or replacing or repairing that portion of panels having a defective Warranted Finish and/or defective Warranted Roofing System. Refinishing and/or repairing shall be performed using standard field practices and materials (not necessarily the Warranted Finish) selected by The Company and/or The Installing Contractor. Refinishing and/or replacing and/or repairing shall be done only on areas deemed non-performing and not necessarily on performing areas.

The Company and/or The Installing Contractor will, in all instances, at its own discretion, determine whether refinishing and/or replacing and/or repairing is required in order to fulfill the original performance guarantee without extension of the duration thereof. Claims or defects must be made by the Customer in writing to The Company and The Installing Contractor within thirty (30) days after initial discovery of the defect. Notwithstanding anything to the contrary stated in this Warranty, Liability, corporate or otherwise, in examining, replacing, repairing, and refinishing the non-performing warranted finish or warranted roofing system shall be limited to costs not to exceed the purchase price from The Company of the original product.

### III. EXCLUSION AND MODIFICATION OF WARRANTIES:

There are no Warranties which extend beyond the description on the face hereof and except as provided herein.

THIS LIMITED WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OR MERCHANTABILITY OR THAT THE GOODS ARE FIT FOR, OR CAN BE FOR A PARTICULAR PURPOSE BY THE CUSTOMER. THE COMPANY AND THE INSTALLING CONTRACTOR DISCLAIMS AND THE CUSTOMER WAIVES ALL REMEDIES NOT PROVIDED HEREIN INCLUDING ANY LIABILITY OF THE COMPANY AND THE INSTALLING CONTRACTOR IN TORT, STRICT OR OTHERWISE, FOR DAMAGES OR INJURIES TO PERSONS OR PROPERTY OR FOR LOSS OF USE, OR REVENUE OR PROFIT, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL INCLUDING MOLD CLAIMS, RESULTING FROM ANY DEFECT IN DESIGN, MATERIAL WORKMANSHIP OR MANUFACTURE, WHETHER OR NOT CAUSED BY NEGLIGENCE ON THE PART OF THE COMPANY AND THE INSTALLING CONTRACTOR, ORAL STATEMENTS MADE BY THE COMPANY'S AND THE INSTALLING CONTRACTOR'S REPRESENTATIVES ABOUT THE PRODUCT AND WRITTEN DESCRIPTIONS OF THE PRODUCT APPEARING ELSEWHERE THAN ON THE FACE HEREOF ARE NOT WARRANTIES AND SHALL NOT BE RELIED UPON BY THE CUSTOMER.

Purchase Orders and Contracts of the Customer, acknowledgements by The Company and The Installing Contractor, product literature, promotional material or advertising shall in no way affect, alter, or modify any of the Terms or Conditions of this Warranty. The Terms and Conditions of the Warranty shall constitute the entire agreement, understanding and responsibilities by and between The Company, The Installing Contractor and The Customer with respect to the Warranted Finish and/or Warranted Roofing System on the PROJECT specified above. None of the Terms and Conditions of the Warranty may be modified by any party unless done so in writing. If any of the Terms, Conditions, Limitations of this Warranty are violated by the Customer then the Terms, Conditions and Provisions are absolutely void and of no legal effect. If any party ceases to exist, other surviving parties are not bound to obligations of the non-surviving party.

This Warranty is subject to the Conditions and exclusions printed in Schedule A, and incorporated as a part of this Warranty.

#### SCHEDULE A

### I. DEFINITIONS:

As used in this Warranty, the following words shall be ascribed the respective meanings as herein set forth:

- A. "CUSTOMER"- The Person, Firm or Corporation to whom this Warranty runs, or, building "Owner".
- B. "NORMAL ATMOSPHERIC CONDITIONS" AND "ORDINARY WEAR AND TEAR BY THE ELEMENTS"- This term shall exclude corrosive or aggressive atmospheres, including but not limited to those atmospheric conditions set forth in Paragraph II hereof.
- C. "WARRANTED FINISH"- When applicable, these are approved colors of the exterior finish noted herein when applied to coil coated panels manufactured by The Company and installed by The Installing Contractor that are exposed to normal atmospheric conditions.
- D. "REPLACEMENT"- Replacement includes repairing or replacing non-performing products supplied by The Company and/or non-performing installation provided by The Installing Contractor but does not include the cost of other materials and labor required for removal and/or re-installation of other materials not supplied by The Company or The Installing Contractor.



- E. "WARRANTED ROOFING SYSTEM"- The standing seam metal roof system (SSMRS) manufactured by The Company and installed by The Installing Contractor.
- F. "MECHANICAL DAMAGE"- Refers to any physical damage such as scratches and abrasions to the Warranted Finish after the Warranted Roofing System is manufactured by The Company.

## II. WARRANTY LIMITATION

This Warranty shall apply only to the Warranted Finish and/or the Warranted Roofing System as herein defined which has been exposed to normal atmospheric conditions, and shall not apply where any failure of the Warranted Finish and/or the Warranted Roofing System is the result of fire, vandalism, radiation, harmful fumes, dissimilar metals, foreign substances in the atmosphere inside or outside, including corrosive aggressive atmospheres such as those contaminated with chemical fumes or salt spray, mishandling or non-compliance with The Company's published product information, falling objects, acts of God including: hurricanes, tornadoes, floods, damage from wind-storm, etc., or deliberate damage from riots, civil commotions, acts of war, or mechanical or any other physical damage to the Warranted Finish and/or the Warranted Roofing System. In addition, this warranty shall not apply to any failure of, or damage to, the Warranted Finish and/or Warranted Roofing System as the result of moisture entrapment or other contamination, or to a defect in design such as ice-damming, improper drainage, failure of guttering, etc. which is detrimental to the Warranted Finish and/or Warranted Roofing System prior to or after its use by the Customer; nor to damage to the Warranted Finish and/or Warranted Roofing System as the result of edge corrosion or failure of the metal substrate from aggressive atmospheres, storage, fabrication, shipping, or processing by the installing contractor; nor to any damage to the Warranted Finish and/or Warranted Roofing System resulting from circumstances where it is subjected to continuously generated abrasive forces or continual or periodic submersion in water; nor does this warranty apply to any air dry touch up paint systems and/or non coil coated finishes.

## III. TERRITORIAL RESTRICTIONS

Subject to WARRANTY LIMITATIONS as herein above set forth, this Warranty shall extend to the Warranted Finish and Warranted Roofing System which is installed as an exterior building component anywhere in the Continental United States, but excluding the States of Hawaii and Alaska.

## IV. DISCONTINUANCE OF WARRANTIES

The Company reserves the right to discontinue issuance of Warranties. Discontinuance of future warranties will not affect the Terms and Conditions of this written Warranty since it shall remain in effect for the full WARRANTY PERIOD, unless the WARRANTY PERIOD is reduced or discontinued by mutual agreement of all parties. If the Company shall determine to liquidate, dissolve or sell its building products business, The Company may give notice to you and if no written notice of complaint is received by The Company within four (4) months after the date of such notice, this Warranty shall terminate and expire and The Company shall not have any further liability hereunder.

## V. USE OF TRADE MARKS AND ADVERTISING

The Company trade names, product names, names of the Warranted Finish and Warranted Roofing System described herein or the Terms and Conditions of the Warranty shall not be used by the Customer in any of its advertising, promotional material, technical reports, or any other published communications without the prior written permission of The Company.


## VI. ASSIGNMENT

This Warranty is extended to the Customer as the original purchaser. It is non-transferable and non-assignable. No rights against The Company or The Installing Contractor shall be created by any transfer or assignment nor shall any rights against The Company or The Installing Contractor survive any transfer or assignment.

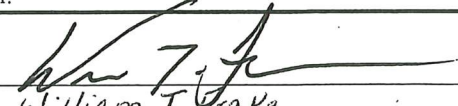
## VII. CLAIMS

In the event of alleged failure of the Warranted Finish and/or Warranted Roofing System, written notice containing particulars sufficient to identify the Customer and PROJECT and also reasonably obtainable information with respect to the time, place and circumstances thereof shall be given by or on behalf of the Customer to The Company and The Installing Contractor WITHIN THIRTY (30) DAYS of the detection of such failure. The Company and The Installing Contractor reserves the right to examine and investigate each complaint and to jointly determine with the Customer (or any party authorized by the Customer) the exact cause of any failure. If the failure of the Warranted Finish and/or Warranted Roofing System is not the result of any act or omission on the part of The Company and/or The Installing Contractor then The Company and The Installing Contractor shall have no further obligation on the CLAIM and all examination and investigative costs such as traveling expenses, laboratory analyses, and professional services will be paid for entirely by the Customer. The Customer shall further provide any information and personnel having knowledge of, or information pertaining to, the CLAIM of an alleged failure of the Warranted Finish and/or Warranted Roofing System in question.

The Company and The Installing Contractor will not participate in any CLAIMS or pay any CLAIMS until the full contract price for all work performed and materials furnished is received by The Company and The Installing Contractor.

By:   
Daniel T. McAuliffe, Engineering Manager  
Merchant & Evans, Inc.

Date: November 3, 2008

  
Print Name: William T. Drake  
Installing Contractor's Firm: Patriot Roofing, Inc.  
3 Compass Lane Eastampton, NJ 08060  
Date: November 10, 2008

Print Name: \_\_\_\_\_  
Owner's Representative: Swedesboro Woolwich Board of Education  
15 Fredrick Boulevard, Woolwich Twp., NJ 08085  
Date: \_\_\_\_\_

NOTE: Must be signed by all parties with one copy returned to The Company for its records.



November 3, 2008

PATRIOT ROOFING INC  
2083 JACKSONVILLE JOBSTOWN RD  
JOBSTOWN, NJ 08041

Re: PO # 2724  
BILCO Sales Order # 448586  
BILCO Invoice # 747772  
Item(s): (1) SS-20  
(1) LU-4  
(2) MDSH6096\*  
(1) DSH20  
Invoice Date: 11/09/07  
Project: SWEDESBORO ELEM SCHOOL

Dear Sir or Madam:

BILCO Products are guaranteed to be free from defects in material and workmanship for a period of five years from date of purchase. Should any part fail to function or break in normal use during this period, a new part will be furnished at no charge. Electrical operating mechanisms, smoke detectors, and other special equipment are separately warranted.

Very truly yours,

THE BILCO COMPANY

A handwritten signature in black ink, appearing to read "Molly Seely", is positioned above the typed name.

Molly Seely  
Customer Service  
Architectural Products

CB: p11



# P PATRIOT ROOFING, INC.

R

3 Compass Lane, Eastampton, NJ 08060  
(609) 261-3700 Fax (609) 261-3788

## CONTRACTORS ROOF GUARANTEE

Whereas William T. Frake of Patriot Roofing, Inc. herein called "Roofing Contractor" has completed application of the following roof:

Owner: Swedesboro-Woolwich Board of Education  
Address of Owner: 15 Fredrick Blvd., Woolwich Twsp, NJ 08085  
Name of Project: Swedesboro Woolwich New Elementary School  
Location: 1771 Oldmans Creek Road, Swedesboro, NJ 08085  
Area of Roof: 85,000 square feet  
Date of Completion: September 11, 2008  
Date Guarantee Expires: September 11, 2010

Whereas, at the inception of such work, the Roofing Contractor agreed to guarantee the aforesaid roof for a limited period and subject to the conditions herein set forth, that during a period of **two (2) years** from the date of completion of said roof, it will, at its own cost and expense, make or cause to be made such repairs to said roof resulting solely from faults or defects in materials or workmanship applied by or through roofing contractor as may be necessary to maintain said roof in watertight condition.

Now therefore, this guarantee is made subject to the following conditions:

1. Specifically excluded from this guarantee is any and all damage to said roof, the building or contents caused by the acts or omissions of other trades or contractors; lightning, windstorm, hailstorm, flood, earthquake or other unusual phenomena of the elements; foundation settlement; failure or cracking of the roof deck; defects or failure of material used as a roof base over which the roof is applied; faulty construction of copings, chimneys, skylights, vents, supports, or other parts of the building; vapor condensation beneath the roof; penetrations for the pitch boxes; water leakage due to erosion and porosity of mortar and brick; dry rot; stoppage of roof drains and gutters; inadequate drainage, slope or other conditions beyond the control of the Roofing Contractor which caused ponding or standing of water; termites or other insects; rodents or other animals; or fire. The roof thereupon will become null and void for the balance of the guarantee period unless such damages are repaired by this contractor at the expense of the party requesting such repairs.
2. The Roofing Contractor is not liable for consequential damages to the building or contents resulting from any defects in said roof, including but without limitation, any interruptions of business experienced by Owner or occupants of the building.
3. This guarantee shall become null and void unless the Roofing Contractor is promptly notified of any alleged defect in materials or workmanship and provided an opportunity to inspect and, if required by the terms of this Guarantee, to repair the roof.

P PATRIOT ROOFING, INC.

R 3 Compass Lane, Eastampton, NJ 08060  
(609) 261-3700 Fax (609) 261-3788

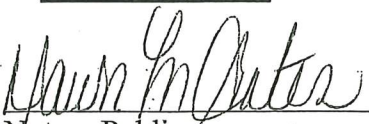
4. No work shall be done on said roof, including, but without limitation, work in connection with flues, vents, drains, sign braces, railings, platforms or other equipment fastened to or set on the roof, and no repairs or alterations shall be made to said roof, unless Roofing Contractor shall first be notified through Owners Representatives, and shall be given the opportunity to make the necessary roofing application recommendations with respect thereto, and such recommendations are complied with. The Roofing Contractor shall be paid for time and materials expended in making recommendations or repairs occasioned by the work of others on said roof.
5. This guarantee shall become null and void if the roof is used as a promenade, staging or work deck, or is sprayed, flooded, unless such use was originally specified and the specifications is noted in Paragraph 9 below.
6. This guarantee shall not be or become effective unless and until Roofing Contractor has been paid in full for said roof in accordance with the agreement pursuant to which roof was applied.
7. This guarantee is transferable within the **two-year** guarantee period, with the prior written consent of Patriot Roofing Contractor.
8. This guarantee is in lieu of all other guarantees or warranties, express or implied. ALL IMPLIED GUARANTEES AND WARRANTIES, AND SPECIFICALLY THE IMPLIED WARRANTIES OF THE MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED AND DISCLAIMED.
9. Additional conditions or exclusions: None

IN WITNESS WHEREOF, this instrument has been duly executed this **13th** day of **November, 2008.**

By: 

William T. Frake

Sworn to and subscribed  
before me this **13th** day  
of **November, 2008.**

  
Notary Public

DAWN M. GATES  
NOTARY PUBLIC OF NEW JERSEY  
My Commission Expires  
May 12, 2012



CARLISLE

# GOLDEN SEAL TOTAL ROOFING SYSTEM WARRANTY

SERIAL NO. 10034179

004

DATE OF ISSUE: September 11, 2008

BUILDING OWNER: SWEDESBORO WOOLWICH BOARD OF EDUCATION  
NAME OF BUILDING: SWEDESBORO WOOLWICH NEW ELEMENTARY SCHOOL  
BUILDING ADDRESS: 1771 OLDMANS CREEK ROAD, SWEDESBORO, NJ  
DATE OF COMPLETION OF THE CARLISLE TOTAL ROOFING SYSTEM: 09/10/2008  
DATE OF ACCEPTANCE BY CARLISLE: 09/11/2008

(EB Warranty)

CMD1039291

Carlisle Roofing Systems, Inc., warrants to the Building Owner (Owner) of the above described building, that; subject to the terms, conditions, and limitations stated in this warranty, Carlisle will repair any leak in the Carlisle Golden Seal™ Total Roofing System (Carlisle Total Roofing System) installed by a Carlisle Authorized Roofing applicator for a period of 20 years commencing with the date of Carlisle's acceptance of the Carlisle Total Roofing System installation. However, in no event shall Carlisle's obligations extend beyond 20.5 years subsequent to the date of substantial completion of the Carlisle Total Roofing System. See below for exact date of warranty expiration.

The Carlisle Total Roofing System is defined as the following Carlisle brand materials: Membrane, Flashings, Counterflashings, Adhesives and Sealants, Insulation, Recovery Board, Fasteners, Fastener Plates, Fastening Bars, Metal Edging, Metal Termination Bars, and any other Carlisle brand products utilized in this installation.

## TERMS, CONDITIONS, LIMITATIONS

- Owner shall provide Carlisle with written notice within thirty (30) days of the discovery of any leak in the Carlisle Total Roofing System. Owner should send written notice of a leak to Carlisle's Warranty Services Department at the address set forth at the bottom of this warranty. By so notifying Carlisle, the Owner authorizes Carlisle or its designee to investigate the cause of the leak. Should the investigation reveal the cause of the leak to be outside the scope of this Warranty, investigation and repair costs for this service shall be paid by the Owner.
- If, upon inspection, Carlisle determines that the leak is caused by a defect in the Carlisle Total Roofing System's materials, or workmanship of the Carlisle Authorized Roofing Applicator in installing the same, Owner's remedies and Carlisle's liability shall be limited to Carlisle's repair of the leak.
- This warranty shall not be applicable if, upon Carlisle's inspection, Carlisle determines that any of the following has occurred:
  - The Carlisle Total Roofing System is damaged by natural disasters, including, but not limited to, lightning, fire, insect infestations, earthquake, tornado, hail, hurricanes, and winds of peak gust speeds of 55 mph or higher measured at 10 meters above ground; or
  - The Carlisle Total Roofing System is damaged by any intentional or negligent acts, accidents, misuse, abuse, vandalism, civil disobedience, or the like.
  - Deterioration or failure of building components, including, but not limited to; the roof substrate, walls, mortar, HVAC units, non-Carlisle brand metal work, etc., occurs and causes a leak, or otherwise damages the Carlisle Total Roofing System; or
  - Acids, oils, harmful chemicals and the like come in contact with the Carlisle Total Roofing System and cause a leak, or otherwise damage the Carlisle Total Roofing System.
- This Warranty shall be null and void if any of the following shall occur:
  - If, after installation of the Carlisle Total Roofing System by a Carlisle Authorized Roofing Applicator there are any alterations or repairs made on or through the roof or objects such as, but not limited to, structures, fixtures, or utilities are placed upon or attached to the roof without first obtaining written authorization from Carlisle; or
  - Failure by the Owner to use reasonable care in maintaining the roof, said maintenance to include, but not be limited to, those items listed on Carlisle's Care & Maintenance Information sheet which accompanies this Warranty.
- Only Carlisle brand insulation products are covered by this warranty. Carlisle specifically disclaims liability, under any theory of law, for damages sustained by or caused by non-Carlisle brand insulation products.
- During the term of this Warranty, Carlisle shall have free access to the roof during regular business hours.
- Carlisle shall have no obligation under this Warranty while any bills for installation, supplies, service, and warranty charges have not been paid in full to the Carlisle Authorized Roofing Applicator, Carlisle, or material suppliers.
- Carlisle's failure at any time to enforce any of the terms or conditions stated herein shall not be construed to be a waiver of such provision.
- Carlisle shall not be responsible for the cleanliness or discoloration of the Carlisle Total Roofing System caused by environmental conditions including, but not limited to, dirt, pollutants, or biological agents.
- Carlisle shall have no liability under any theory of law for any claims, repairs, restoration, or other damages including, but not limited to, consequential or incidental damages relating, directly or indirectly, to the presence of any irritants, contaminants, vapors, fumes, molds, fungi, bacteria, spores, mycotoxins, or the like in the building or in the air, land, or water serving the building.
- This warranty is not assignable by operation of law or otherwise. Application may be made by a new building owner for reissuance of the warranty during the original warranty period. Certain procedures including, but not limited to, an inspection of the Roofing System by a Carlisle representative and fees will apply to any reissuance. Carlisle reserves the right, in its sole discretion, to refuse to reissue this warranty.

CARLISLE DOES NOT WARRANT PRODUCTS UTILIZED IN THIS INSTALLATION WHICH IT HAS NOT FURNISHED; AND SPECIFICALLY DISCLAIMS LIABILITY, UNDER ANY THEORY OF LAW, ARISING OUT OF THE INSTALLATION AND PERFORMANCE OF, OR DAMAGES SUSTAINED BY OR CAUSED BY, PRODUCTS NOT FURNISHED BY CARLISLE.

THE REMEDIES STATED HEREIN ARE THE SOLE AND EXCLUSIVE REMEDIES FOR FAILURE OF THE CARLISLE TOTAL ROOFING SYSTEM OR ITS COMPONENTS. THERE ARE NO WARRANTIES EITHER EXPRESSED OR IMPLIED, INCLUDING THE IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE AND MERCHANTABILITY, WHICH EXTEND BEYOND THE FACE HEREOF. CARLISLE SHALL NOT BE LIABLE FOR ANY INCIDENTAL, CONSEQUENTIAL OR OTHER DAMAGES INCLUDING, BUT NOT LIMITED TO, LOSS OF PROFITS OR DAMAGE TO THE BUILDING OR ITS CONTENTS UNDER ANY THEORY OF LAW.

BY: Robert H. McNeill  
AUTHORIZED SIGNATURE  
TITLE: Director, Technical and Warranty Services



This Warranty Expires: September 10, 2028

*Investing in Roofing Solutions for Over 45 Years*

800-4-SYNTEC • P.O. Box 7000 • Carlisle, PA 17013 • Fax: 717-245-7053 • www.carlisle-syntec.com

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**CARLISLE**

Carlisle SynTec

## CARLISLE SYNTEC

Thank you for selecting Carlisle SynTec as the provider of your new roofing system. We are confident you've purchased a roof that will protect your building and its assets for years to come.

Enclosed is the owner's manual for your new roof. The manual includes your roofing system warranty, along with care and maintenance information that will ensure long-term system performance.

Carlisle SynTec is unsurpassed in its commitment to providing quality commercial roofing systems, products and services. These services include:

- **Carlisle authorized applicators** - This network of professionally trained roofing contractors ensures quality installation of our products and systems. In addition, they are a valuable resource if rooftop conditions change and modifications or revisions to your roofing system are required.
- **No-dollar-limit warranty** - The warranty issued for your roofing project includes both labor and material coverage as outlined in the enclosed warranty document.
- **Service departments** - There are several departments within Carlisle SynTec available to answer questions and provide information regarding:
  - Roof maintenance programs
  - Revisions, alterations and/or modifications to your roof
  - Roof restoration
  - Warranty service

To properly safeguard your roof – and your warranty – please consult the enclosed care and maintenance information prior to making any changes to your roofing system. For questions regarding your warranty, or to report a roof leak, please call us at 1-800-233-0551.

If you wish to see the latest innovations in commercial roofing, please visit [www.carlisle-syntec.com](http://www.carlisle-syntec.com). Once again, thank you for choosing Carlisle SynTec.

Sincerely,



Robert H. McNeill  
Director, Technical & Warranty Services





# "The Strongest And Safest Roof Warranty In America!"

Sweedsboro Woolwich BOE BOE  
15 Fredrick Blvd.  
Woolwich Township, NJ 08085

11/13/08

Subject: Your GAF Materials Corporation Golden Pledge® Ltd. Warranty

## **Congratulations...**

And thank you for choosing the GAF Weather Stopper® Integrated Roofing System™! If you didn't know, your Weather Stopper® roofing system has earned the prestigious Good Housekeeping Seal, which means that Good Housekeeping stands behind the products in this exceptional roofing system. You can be certain that you've made the best and safest choice to protect your valuable property for years to come.

## **The Best Warranty Protection...**

Patriot Roofing, your GAF Master Elite™ Contractor, has registered your GAF Golden Pledge® Ltd. Warranty with GAF's World Headquarters. We believe that this is the very best warranty in the roofing industry, and should give you tremendous peace of mind. Please keep this document as you will need it in the unlikely event that you need to make a claim, or if you should sell your property.

## **Problem Prevention Inspection...**

To ensure that your roof was installed properly (and to help prevent any future problems before they happen), GAF will arrange to have a certified Quality Assurance Representative perform a problem prevention inspection on your completed roof. Here are some important details you'll need to know:

- \$ When?** Typically, the inspection takes place within four to five months of warranty registration (this allows the roof to "weather in" before the inspection is conducted).
- \$ How?** You will be notified by phone prior to the Quality Assurance Representative's arrival. It is not necessary that you be present during the inspection, since all activities are conducted outside your property. The representative will leave a list of the various parts of your roofing system that were inspected.
- \$ What if?** In the unlikely event that corrective action is required...don't worry! Your GAF Golden Pledge® Ltd. Warranty was in full effect on the day it was provided to you by Patriot Roofing. Any necessary modifications will be taken care of at no expense to you!

## **Questions?**

Please feel free to call us if you have any questions. And again, thanks for choosing GAF, your best and safest choice in roofing!

Cordially,  
Warranty Service Department  
(800) 458-1860



## **Golden Pledge Ltd. Warranty Registration Information**

Products Covered:

Installation Date: 09/29/08

Shingle-Mate

Weather Watch

GAF Timberline Ultra

WeatherBlocker

Cobra Exhaust Vent

Timbertex

Installed: Steep Slope 9 Squares  
Property: Sweedsboro Woolrich Elementary School  
Address: 1771 Oldmans Creek Road  
Woolwich Township, NJ 08085  
Contractor: Patriot Roofing  
Address: 3 Compass Lane  
Eastampton, NJ 08060  
Phone: 609-723-6688

*Robert B. Tafaro*

Robert B. Tafaro - President & CEO

372101

Warranty Registration #



(Seal Must Appear Above)

\*if this line states "Master Flow" Turbines " these items are covered under a separate Master Flow" Ltd. Warranty.  
Call us for a copy.



**Your Best And Safest Choice...Quality You Can Trust Since 1886!**

©2008 GAF-Elk Corporation 6/08, 1361 Alps Road, Wayne, New Jersey 07470

[www.gaf.com](http://www.gaf.com)



## Weather Stopper® Golden Pledge® Ltd. Warranty

**What is Covered/Excluded.** This warranty covers your complete GAF-Elk Corporation ("GAF-Elk") Weather Stopper® Roof System, which includes your GAF-Elk roofing shingles, GAF-Elk starter strips, GAF-Elk ridge cap shingles, GAF-Elk attic ventilation products, GAF-Elk leak barrier, GAF-Elk roof deck protection, and GAF-Elk accessory paint (the "Weather Stopper® System"). This warranty does not warrant against manufacturing defects in any non-GAF-Elk roofing products (such as roofing nails). Eligible Low Slope Roofing Products are covered by a separate Golden Pledge® Ltd. Warranty Addendum For Low Slope Roofs. Misapplication of the Weather Stopper® System and flashings at valleys, dormers, chimneys, and plumbing vents (the "Covered Flashings") is also covered.

**Warranty Term.** Warranty coverage begins when your roof has been installed. Warranty coverage against *manufacturing* defects in your Weather Stopper® System extends to the end of the warranty term stated below based on the shingle you install. Warranty coverage against *application* defects in your Weather Stopper® System or Covered Flashings lasts for the first 20 years after application. Protection against wind damage and failure to seal lasts for the first 15 years after application. Algae discoloration (if applicable) is covered for the first 10 years after application.

Shingle Installed	Warranty Term for Mfg. Defects (yrs.)†	Standard Wind Speed (mph/kmh)	Max. Wind Speed (mph/kmh)*
Royal Sovereign®	25	60/96	n/a
Marquis® WeatherMax®	30	80/130	n/a
Timberline® Natural Shadow™	30	70/110	100/160
Timberline® Prestique® 30	30	80/130	110/175
Timberline® Prestique® 40	40	80/130	110/175
Timberline® Canadian 40™**	40	80/130	110/175
Timberline® Prestique® Grand® 40	40	80/130	110/175
Timberline® Armor Shield™ II	Lifetime	110/175	130/209
Timberline® Prestique® Lifetime	Lifetime	90/145	130/209
Slateline®	Lifetime	110/175	130/209
Capstone®	Lifetime	80/130	130/209
Grand Sequoia®	Lifetime	80/130	130/209
Grand Canyon™	Lifetime	100/160	130/209
Country Mansion®	Lifetime	110/175	130/209
Grand Slate™	Lifetime	110/175	130/209
Camelot®	Lifetime	110/175	130/209

†For Master Flow® ventilation products, the warranty term for manufacturing defects is 20 years (except motors and electronic components, which have 5-year coverage). (Note: Some Master Flow® products may have extended coverage under the standard Master Flow® Ltd. warranty.) For GAF-Elk accessory paint, the warranty term for manufacturing defects is one year.

\*Maximum Wind Speed applies only when shingles are installed using six nails per shingle and certain GAF-Elk starter strip products (only those with factory-applied adhesive) are installed at the eaves and rakes. Shingles must be installed in strict accordance with application instructions, particularly in regard to nail placement. Otherwise, wind coverage reverts to Standard Wind Speed.

\*\*Available only in Canada.

**Limited Warranty.** GAF-Elk warrants to you, the registered owner of a Weather Stopper® Roof System, that GAF-Elk will compensate you in accordance with this warranty if:

(1) Your GAF-Elk Weather Stopper® System does not remain free from manufacturing defects for the warranty term stated above or there are application errors in your Weather Stopper® System or Covered Flashings that adversely affect their performance during the warranty term for application defects, or

(2) Your GAF-Elk Weather Stopper® System is damaged by winds up to the applicable wind speed (including gusts) listed above or your shingles fail to seal during the first 15 years, or

(3) In the event that you purchased shingles with StainGuard® Protection, blue-green algae (also known as cyanobacteria) causes a pronounced discoloration of your StainGuard® labeled shingles during the first 10 years. Note: Preventing the pronounced algae-related discoloration of your shingles is achieved through formulations or through unique blends of granules.

**Exclusive Remedies.** Your exclusive remedy for any part of your GAF-Elk Weather Stopper® System that does not perform as stated above is:

### (1) For Manufacturing Defects.

(a) **Non-Prorated Period.** The Non-Prorated Period for your Weather Stopper® System depends on the shingle installed. When "Lifetime" shingles are installed, the Non-Prorated Period (except for Master Flow® ventilation products and GAF-Elk accessory paint) is the first 50 years after application for single

**Note: Shingle blow-offs/wind damage/failure to seal and algae discoloration are covered separately below.**

(b) **Subsequent Claims.** After the Non-Prorated Period, if there is a covered manufacturing defect, the repair or recover cost which GAF-Elk will pay, and the roofing products to be provided, will be reduced to reflect the amount of use you have received from your roof. The amount of use will be calculated by dividing the number of months which have elapsed since installation by the number of months in the warranty term. For installations where a "Lifetime" shingle has been installed on a single family detached residence, the prorated value of your Weather Stopper® System after 50 years will be 10%. For installations where a "Lifetime" shingle has been installed on a structure other than a single family detached residence, the following proration factors will apply to your Weather Stopper® System:

### Proration Schedule For The Weather Stopper® System Where "Lifetime" Shingles Are Installed On Structures Other Than Single Family Residences:

Years Of Service	Proration Adjustment	Years Of Service	Proration Adjustment
21-22	60%	31-32	35%
23-24	55%	33-34	30%
25-26	50%	35-40	25%
27-28	45%	41-50	20%
29-30	40%	51-Lifetime	10%

After the Non-Prorated Period, GAF-Elk's **maximum liability** for any roof shall NOT exceed three times the reasonable cost of replacement shingles before any reduction for use. GAF-Elk's maximum liability for labor to repair GAF-Elk accessory paint shall not exceed \$25.

### (2) For Misapplication.

If during the warranty term for misapplication any part of your GAF-Elk Weather Stopper® System or Covered Flashings is found to have application errors that adversely affect their performance, GAF-Elk will arrange to have your roof repaired or recovered or, at its sole option, will provide you with replacement roofing products and reimburse you for the full reasonable cost of labor (\$25 maximum for GAF-Elk accessory paint) and other materials to repair or recover your roof, including Covered Flashings. **The costs of labor to tear off some or all of your GAF-Elk Weather Stopper® System and disposal are included, if necessary to repair your roof.**

### (3) For Wind Damage/Blow-Offs/Failure To Seal (15 year coverage).

If your Weather Stopper® products do blow off, experience wind damage, or your shingles fail to seal, GAF-Elk's contribution to you is the reasonable costs of replacing the blown-off products (exclusive of metal work or flashings) and hand-sealing any unsealed shingles. GAF-Elk's maximum liability under this paragraph is to reimburse you for the cost of hand-sealing all of the shingles on your roof.

### (4) For Algae Discoloration (10 year coverage if you purchased shingles labeled with the StainGuard® logo).

(a) If your shingles have been applied for less than one year, GAF-Elk's contribution will be either the cost of cleaning your shingles or the cost to repair or recover your discolored shingles, up to a **maximum** of the original installed cost of the affected shingles.

(b) For the next 9 years, GAF-Elk's contribution to you will be based on the reasonable cost of replacement shingles, adjusted to reflect the amount of use you have received from your shingles.

Decisions as to the extent of repair, recover or cleaning required, and the reasonable cost of such work will be made solely by GAF-Elk. The remedy under this warranty is available only for those parts of your GAF-Elk Weather Stopper® System actually exhibiting manufacturing defects, misapplication (including misapplication of Covered Flashings) or blue-green algae growth at the time of settlement. Any replacement GAF-Elk Weather Stopper® products will be warranted only for the remainder of the original warranty period. GAF-Elk reserves the right to discontinue or modify its shingles, including the colors available, so any replacement shingles may not be an exact match for the shingles on your roof. Even if GAF-

**Limitations on Coverage.** GAF-Elk will NOT be liable for and this warranty does NOT apply to:

(1) Damage to your GAF-Elk Weather Stopper® System resulting from anything other than an inherent manufacturing defect in the GAF-Elk Weather Stopper® System products on your roof, their misapplication or their failure to seal, or the misapplication of Covered Flashings, such as:

(a) inadequate attic ventilation.

(b) settlement, movement, or defects in the building, walls, foundation or the roof base over which your roof system was applied.

(2) Damage to your GAF-Elk Weather Stopper® System resulting from causes beyond normal wear and tear such as:

(a) acts of nature, such as hail, winds (or gusts) over the applicable wind speed listed above, or ice damming above the area covered by leak barriers or above flashings.

(b) impact of foreign objects or traffic on the roof.

(c) improper storage or handling of any roofing products.

(3) Shading or variations in the color of your shingles, or discoloration caused by fungus, mold, lichen, algae (except for blue-green algae if your shingles were labeled with the StainGuard® logo) or other contaminants, including that caused by organic materials on the roof.

(4) Chipping, fading, or peeling paint on Master Flow® ventilation products.

(5) Damages caused by, or the cost to repair or replace, products not supplied by GAF-Elk, including, but not limited to, counter flashing, or GAF-Elk products not specifically included above.

(6) Improperly designed or installed gutter or downspout systems.

(7) Damage to the interior or exterior of any building, including, but not limited to, mold growth.

(8) Damage to or caused by rooftop air conditioning units (and their flashing), pipe works, brace works, rooftop satellite dishes or other radio/tv devices, counter flashing, or flashings other than those specifically included above.

**Claims: What You Must Do.** To file a claim, including during the first two years, you must send a notice in writing, together with proof that this warranty was registered to you (and proof of transfer if the second owner has properly transferred coverage), to: GAF-Elk, Warranty Service Department, 1361 Alps Road, Wayne, New Jersey 07470, within 30 days after your discovery of the alleged claim. **NOTE: Notice to your contractor or dealer is NOT notice to GAF-Elk.** Within a reasonable time after proper notification, GAF-Elk will evaluate your claim and resolve it in accordance with the terms of this warranty. GAF-Elk may require you to submit, at your expense, sample roofing products for testing and photographs. You should retain this certificate for your records in the event you need to file a claim.

**Sole and Exclusive Warranty.** THIS WARRANTY IS EXCLUSIVE AND REPLACES ALL OTHER WARRANTIES, CONDITIONS, REPRESENTATIONS, AND GUARANTEES, WHETHER EXPRESS OR IMPLIED, WHETHER BY STATUTE, AT LAW OR IN EQUITY, INCLUDING THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. This written warranty is your exclusive warranty from GAF-Elk Corporation and represents the SOLE REMEDY available to any owner of GAF-Elk's Weather Stopper® products. GAF-Elk makes NO OTHER REPRESENTATIONS, CONDITION, GUARANTEE, OR WARRANTY of any kind other than that stated herein. GAF-ELK WILL NOT BE LIABLE IN ANY EVENT FOR CONSEQUENTIAL, PUNITIVE, SPECIAL, INCIDENTAL, OR OTHER SIMILAR DAMAGES OF ANY KIND, including DAMAGE TO THE INTERIOR OR EXTERIOR OF ANY BUILDING, whether for breach of this warranty, negligence, strict liability in tort, or for any other cause. Some jurisdictions do not allow the exclusion or limitation of incidental or consequential damages so the above exclusions or limitations may not apply to you.

**Modification of Warranty.** This limited warranty may not be changed or modified except in writing, signed by an officer of GAF-Elk. No one (other than an officer of GAF-Elk) has authority to assume any additional liability or responsibility for GAF-Elk in connection with your Weather Stopper® products except as described in this



structures); for all other shingles, the Non-Prorated Period is the first 20 years.

For Master Flow® ventilation products, the Non-Prorated Period is 20 years (except for motors and electronic components, which have 5-year coverage).

For GAF-Elk accessory paint, the Non-Prorated Period is one year.

During the Non-Prorated Period, if any part of your GAF-Elk Weather Stopper® System is found to have a manufacturing defect, GAF-Elk will arrange to have your roof repaired or recovered or, at its sole option, will provide you with replacement roofing products and reimburse you for the full reasonable cost of labor (\$25 maximum for accessory paint) and other materials to repair or recover your roof, including Covered Flashings. **The costs of labor to tear off some or all of your GAF-Elk Weather Stopper® System and disposal are included, if necessary to repair your roof.**

Elk does not mean a color; replacement shingles may not match your original shingles due to normal weathering, manufacturing variations, or other factors.

**Transferability; Remedy for New Owner.** This limited warranty may be **transferred only once**. The second owner must notify GAF-Elk in writing within 60 days after the property transfer has occurred for any coverage to be transferred. (Other than this one transfer, this warranty may **not** be transferred or assigned, directly or indirectly.)

If the transfer takes place within the first 15 years after application, the second owner shall be entitled to all benefits contained in this warranty. If the transfer takes place after the first 15 years after application, the length of this warranty shall be reduced to the two-year period after ownership changes. During this two-year period, GAF-Elk's reimbursement to the second owner will be based on the reasonable cost of replacement Weather Stopper® products, reduced by the amount of use that has been received from your Weather Stopper® products from date of installation.

and you may have other rights which vary from jurisdiction to jurisdiction.

**Special Note: First Two Years.** If your claim arises out of an application error in your Weather Stopper System or Covered Flashings, which is discovered or discoverable within the first two years after installation, it is the obligation of your Master Elite™ roofing contractor to make all necessary repairs. In the event that your Master Elite roofing contractor is unable or unwilling to perform these repairs, GAF-Elk will arrange to have your roof repaired.

**Special Note: Ventilation/Flashings.** Due to the design of certain buildings, installation of minimum adequate ventilation or the replacement of existing flashings may be difficult, costly, or impractical. **Please be sure to review these items with your roofing contractor.**

**Effectiveness:** This limited warranty will not take effect unless all eligibility requirements have been satisfied and your roofing contractor has been paid in full.



WAS



## The Garland Company, Inc.

Warranty Number 0400633

Effective Date 08/12/2004

### Twenty (20) Years High Performance Built-Up Roofing System Warranty No Dollar Limit

**Owner's Name & Address**

Swedesbor - Woolwich Public Schools  
1815 Kings Highway  
Swedesboro, NJ 08085

**Contractor's Name & Address**

J. Strober & Sons, LLC  
P.O. Box 177  
Ringoes, NJ 08551

Building Name Walter H. Hill School  
Roof Identification 2003 Additions  
Completion Date 02/28/2004

Roofing System StressPly E New  
Flashing System StressPly E Mineral  
Square Footage 16,000

#### MANUFACTURER RESPONSIBILITIES

The Garland Company, Inc. (hereinafter referred to as "Garland"), a Corporation of the State of Ohio, warrants to the above named owner that, when the above specified roofing system is installed in accordance with current Garland approved specifications, Garland will pay all authorized costs of repairs to the roofing system necessary to stop any leaks which occur during a period of twenty (20) years, from the completion date, subject to the terms of this warranty. Leaks which occur only as a result of any of the following will be repaired:

- A. Deterioration of the roofing system or flashing system resulting from ordinary wear and tear by the elements.
- B. Workmanship on the part of the approved roofing contractor in the application of the roofing system.
- C. Splits or breaks in the roofing system not caused by structural movement or failure or movement of any material underlying the roofing system or base flashing.
- D. Blisters, wrinkles, ridges, fishmouths or open laps in the roofing system.
- E. Slippage of the roofing system or flashing system.

The original cost does not include the cost of removing any preexisting roofing. The costs of removal or replacement of all roofing system components except the above mentioned roofing system shall be borne by owner.

#### APPLICABILITY OF WARRANTY

This warranty is valid only when applied by a Garland approved roofing contractor for approved roofing system specifications. All repairs, changes, alterations, modifications and additions to the roofing system must be authorized in advance in writing by Garland. This warranty is not assignable, directly or indirectly as a result of the sale of the premises or otherwise. This warranty shall not be applicable if, in the sole judgment of Garland, any of the following shall occur:

- A. The roofing system is damaged by natural disasters including, but not limited to, fire, floods, lightning, hail, earthquakes, wind damage, etc..
- B. The roofing system is damaged by structural movement or failure or movement of any material underlying the roofing system or base flashing.
- C. The roofing system is damaged by acts of negligence, misuse or accidents including, but not limited to, use of roof for other than waterproofing the building, vandalism, civil disobedience or acts of war.
- D. Discoloration, cosmetic deterioration or change in the visual appearance of the roofing system or Garland's top coating.
- E. Damage to the roofing system resulting from:
  - 1. Infiltration or condensation of moisture in, through, or around walls, copings, building structure or underlying or surrounding areas.
  - 2. Lack of positive drainage.
  - 3. Movement or deterioration of metal adjacent or built into the roofing system or base flashing.
  - 4. Chemical contaminate attacks on the roofing system which have not been approved or accepted by Garland.
  - 5. Building design or construction.
  - 6. Traffic or storage of materials on roof.
  - 7. Defects in, failure or improper application of the underlying material used as a base which the roof is applied.
  - 8. Acts of parties other than manufacturer or authorized roofing contractor.
- F. Failure of owner to properly notify Garland in writing and receive written approval of:
  - 1. Changes in the usage of the building.
  - 2. Modifications or additions to the roofing system.
- G. Failure of owner to properly maintain the roof.
- H. Failure of owner to comply with each and every term or condition stated herein.



## The Garland Company, Inc.

Garland assumes no responsibility for damage that occurs to the structure or interior of the structure, including the contents therein, from any type of leaks or any other consequential damages. Garland's sole responsibility is the costs of repairs of the above mentioned roofing system.

### OWNER RESPONSIBILITIES

In the event of a leak, owner will notify Garland immediately in writing after discovery of the leak. Garland will inspect the roofing system. If it is determined that the roof leaks were the direct result of warrantable items as delineated within the terms of this warranty, Garland will perform the repairs required to correct the roof leaks at no cost to owner.

Owner will notify Garland in writing within thirty (30) days of any proposed modification, repair or addition, on or through the roofing system or base flashing for each situation occurring after the completion date of this warranty prior to the commencement of same. Owner will also notify Garland in writing within thirty (30) days of changes in the original usage of the building. Drawings or plans showing the location of the proposed changes in the original usage of the building must be provided and approved by Garland.

ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED FROM THE SALE OF PRODUCTS COVERED BY THIS WARRANTY .

Garland recommends owner participation in the Garland Roof Maintenance and Inspection Program.

This warranty becomes effective only upon full payment of all bills for supplies and installation of the Garland roofing system.

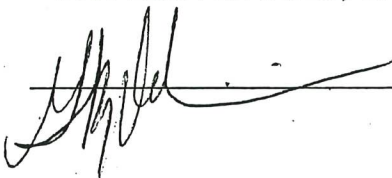
This warranty shall be construed under and in accordance with the laws of the State of Ohio. This warranty constitutes the sole and only warranty of the parties hereto and supersedes any prior understandings or written or oral warranties between the parties respecting the subject matter within.

In the event that any one or more of the provisions contained in this warranty shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision thereof, and this warranty shall be construed as if the invalid, illegal or unenforceable provision had never been contained therein.

## The Garland Company, Inc.

3800 East 91st Street, Cleveland, Ohio 44105

By G. R. Olivier  
Title Secretary  
Date 08/12/2004



### Warranty Acceptance:

Owner hereby accepts and agrees to the terms and conditions set forth in this warranty.

Owner \_\_\_\_\_

Signed By \_\_\_\_\_

Date \_\_\_\_\_



J. Strober & Sons, LLC  
PO Box 177  
Ringoos, NJ 08551  
609-397-0348 / 609-397-0573 (fax)

Roland Aristone, Inc.  
PO Box 213  
Marlton, NJ 08053

August 13, 2004

**Memo**

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RE: Walter Hill School

Enclosed please find Garland Company warranty (there are two copies, please sign both, keep one for your records and return the other in the enclosed envelope to Garland) and Smoke Vent Warranty for the above job.

Please call if you have any questions.

Julie Strober

**Received**

AUG 16 2004

Roland Aristone, Inc.

# The Garland Company, Inc.

Warranty Number 0400633

Effective Date 08/12/2004

## Twenty (20) Years High Performance Built-Up Roofing System Warranty No Dollar Limit

**Owner's Name & Address**

 Swedesbor - Woolwich Public Schools  
 1815 Kings Highway  
 Swedesboro, NJ 08085

**Contractor's Name & Address**

 J. Strober & Sons, LLC  
 P.O. Box 177  
 Ringoes, NJ 08551

 Building Name Walter H. Hill School  
 Roof Identification 2003 Additions  
 Completion Date 02/28/2004

 Roofing System StressPly E New  
 Flashing System StressPly E Mineral  
 Square Footage 16,000

### MANUFACTURER RESPONSIBILITIES

The Garland Company, Inc. (hereinafter referred to as "Garland"), a Corporation of the State of Ohio, warrants to the above named owner that, when the above specified roofing system is installed in accordance with current Garland approved specifications, Garland will pay all authorized costs of repairs to the roofing system necessary to stop any leaks which occur during a period of twenty (20) years, from the completion date, subject to the terms of this warranty. Leaks which occur only as a result of any of the following will be repaired:

- A. Deterioration of the roofing system or flashing system resulting from ordinary wear and tear by the elements.
- B. Workmanship on the part of the approved roofing contractor in the application of the roofing system.
- C. Splits or breaks in the roofing system not caused by structural movement or failure or movement of any material underlying the roofing system or base flashing.
- D. Blisters, wrinkles, ridges, fishmouths or open laps in the roofing system.
- E. Slippage of the roofing system or flashing system.

The original cost does not include the cost of removing any preexisting roofing. The costs of removal or replacement of all roofing system components except the above mentioned roofing system shall be borne by owner.

### APPLICABILITY OF WARRANTY

This warranty is valid only when applied by a Garland approved roofing contractor for approved roofing system specifications. All repairs, changes, alterations, modifications and additions to the roofing system must be authorized in advance in writing by Garland. This warranty is not assignable, directly or indirectly as a result of the sale of the premises or otherwise. This warranty shall not be applicable if, in the sole judgment of Garland, any of the following shall occur:

- A. The roofing system is damaged by natural disasters including, but not limited to, fire, floods, lightning, hail, earthquakes, wind damage, etc..
- B. The roofing system is damaged by structural movement or failure or movement of any material underlying the roofing system or base flashing.
- C. The roofing system is damaged by acts of negligence, misuse or accidents including, but not limited to, use of roof for other than waterproofing the building, vandalism, civil disobedience or acts of war.
- D. Discoloration, cosmetic deterioration or change in the visual appearance of the roofing system or Garland's top coating.
- E. Damage to the roofing system resulting from:
  1. Infiltration or condensation of moisture in, through, or around walls, copings, building structure or underlying or surrounding areas.
  2. Lack of positive drainage.
  3. Movement or deterioration of metal adjacent or built into the roofing system or base flashing.
  4. Chemical contaminate attacks on the roofing system which have not been approved or accepted by Garland.
  5. Building design or construction.
  6. Traffic or storage of materials on roof.
  7. Defects in, failure or improper application of the underlying material used as a base which the roof is applied.
  8. Acts of parties other than manufacturer or authorized roofing contractor.
- F. Failure of owner to properly notify Garland in writing and receive written approval of:
  1. Changes in the usage of the building.
  2. Modifications or additions to the roofing system.
- G. Failure of owner to properly maintain the roof.
- H. Failure of owner to comply with each and every term or condition stated herein.





since 1895

## The Garland Company, Inc.

Garland assumes no responsibility for damage that occurs to the structure or interior of the structure, including the contents therein, from any type of leaks or any other consequential damages. Garland's sole responsibility is the costs of repairs of the above mentioned roofing system.

### OWNER RESPONSIBILITIES

In the event of a leak, owner will notify Garland immediately in writing after discovery of the leak. Garland will inspect the roofing system. If it is determined that the roof leaks were the direct result of warrantable items as delineated within the terms of this warranty, Garland will perform the repairs required to correct the roof leaks at no cost to owner.

Owner will notify Garland in writing within thirty (30) days of any proposed modification, repair or addition, on or through the roofing system or base flashing for each situation occurring after the completion date of this warranty prior to the commencement of same. Owner will also notify Garland in writing within thirty (30) days of changes in the original usage of the building. Drawings or plans showing the location of the proposed changes in the original usage of the building must be provided and approved by Garland.

ALL IMPLIED WARRANTIES INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE EXCLUDED FROM THE SALE OF PRODUCTS COVERED BY THIS WARRANTY.

Garland recommends owner participation in the Garland Roof Maintenance and Inspection Program.

This warranty becomes effective only upon full payment of all bills for supplies and installation of the Garland roofing system.

This warranty shall be construed under and in accordance with the laws of the State of Ohio. This warranty constitutes the sole and only warranty of the parties hereto and supersedes any prior understandings or written or oral warranties between the parties respecting the subject matter within.

In the event that any one or more of the provisions contained in this warranty shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision thereof, and this warranty shall be construed as if the invalid, illegal or unenforceable provision had never been contained therein.

## The Garland Company, Inc.

3800 East 91st Street, Cleveland, Ohio 44105

By G. R. Olivier  
Title Secretary  
Date 08/12/2004

### Warranty Acceptance:

Owner hereby accepts and agrees to the terms and conditions set forth in this warranty.

Owner \_\_\_\_\_

Signed By \_\_\_\_\_

Date \_\_\_\_\_



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# Merchant & Evans, Inc.

LW2003-06

## LIMITED WARRANTY

**PROJECT:** Swedesboro Elementary School **OWNER:** Swedesboro-Woolwich Public Schools

This Limited Warranty is issued by Merchant & Evans, Inc., 308 Connecticut Drive, Burlington, New Jersey 08016, herein after referred to as "The Company" and "The Installing Contractor". The Terms and Conditions of this Limited Warranty shall constitute the entire agreement and understanding between The Company, The Installing Contractor and The Customer with respect to the Warranted Finish and/or Warranted Roofing System on the Project specified above, only.

### I. PERFORMANCE STANDARDS:

The Company Warrants that the Warranted Finish and/or Warranted Roofing System as herein defined will, under normal atmospheric conditions as herein defined, perform as follows:

The Warranted Finish will not blister, peel, chip, check or crack, lose adhesion, chalk in excess of eight, or fade in excess of five for a period of **TWENTY (20) YEARS**. Cracks or checks are defined as breaks in the coating as distinguished from microchecking at the radii which shall be considered normal and acceptable.

The Warranted Roofing System will not:

- a.) fail to remain weathertight for a period of **THIRTY (30) YEARS**, or,
  - b.) structurally fail for a period of **TWENTY (20) YEARS**
- from defective materials, workmanship, and/or product design caused by The Company.

The Installing Contractor Warrants that the Warranted Roofing System as herein defined will be installed in a workmanlike manner and in accord with recommendations set forth by The Company for the project.

### II. FAILURE TO COMPLY:

If the Warranted Finish and/or Warranted Roofing System fails to perform in accordance with the PERFORMANCE STANDARDS noted above, The Company's liability under this Warranty will be limited to refinishing or replacing that portion of panels having a defective Warranted Finish and/or defective Warranted Roofing System. Refinishing and/or repairing shall be performed by using standard field finishing practices and materials (not necessarily the Warranted Finish) as may be selected by The Company. Refinishing and/or replacing and/or repairing shall be done only on materials deemed defective and not necessarily on non-defective materials.

The Company will, in all instances, at its own discretion, determine whether refinishing and/or replacing and/or repairing is required in order to fulfill the original performance guarantee without extension of the duration thereof. Claims or defects must be made by the Customer in writing to The Company within thirty (30) days after initial discovery of the defect. Notwithstanding anything to the contrary stated in this Warranty, Liability, corporate or otherwise, in examining, replacing, repairing, and refinishing the defective warranted finish or warranted roofing system shall be limited to costs not to exceed the purchase price from The Company of the original product.

### III. EXCLUSION AND MODIFICATION OF WARRANTIES:

There are no Warranties which extend beyond the description on the face hereof and except as provided herein.

THIS LIMITED WARRANTY IS IN LIEU OF AND EXCLUDES ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING ANY WARRANTY OR MERCHANTABILITY OR THAT THE GOODS ARE FIT FOR, OR CAN BE FOR A PARTICULAR PURPOSE BY THE CUSTOMER. THE COMPANY DISCLAIMS AND THE CUSTOMER WAIVES ALL REMEDIES NOT PROVIDED HEREIN INCLUDING ANY LIABILITY OF THE COMPANY IN TORT, STRICT OR OTHERWISE, FOR DAMAGES OR INJURIES TO PERSONS OR PROPERTY OR FOR LOSS OF USE, OR REVENUE OR PROFIT, WHETHER DIRECT, INCIDENTAL OR CONSEQUENTIAL, RESULTING FROM ANY DEFECT IN DESIGN, MATERIAL WORKMANSHIP OR MANUFACTURE, WHETHER OR NOT CAUSED BY NEGLIGENCE ON THE PART OF THE COMPANY, ORAL STATEMENTS MADE BY THE COMPANY'S REPRESENTATIVES ABOUT THE PRODUCT AND WRITTEN DESCRIPTIONS OF THE PRODUCT APPEARING ELSEWHERE THAN ON THE FACE HEREOF ARE NOT WARRANTIES AND SHALL NOT BE RELIED UPON BY THE CUSTOMER.

The Purchase Order of the Customer, The Acknowledgement by The Company, Product Literature, promotional material or advertising shall in no way affect, alter, or modify any of the Terms or Conditions of this Warranty. The Terms and Conditions of the Warranty shall constitute the entire agreement and understanding between The Company and The Customer in respect to the Warranted Finish and/or Warranted Roofing System on the PROJECT specified above. None of the Terms and Conditions of the Warranty may be modified by either party unless done so in writing. If any of the Terms, Conditions, Limitations of this Warranty are violated by the Customer or Owner then the Terms, Conditions and Provisions are absolutely void and of no legal effect.

This Warranty is subject to the Conditions and exclusions which are printed in Schedule A, and incorporated as a part of this Warranty.

### SCHEDULE A

### I. DEFINITIONS:

As used in this Warranty, the following words shall be ascribed the respective meanings as herein set forth:

- A. "CUSTOMER"- The Person, Firm or Corporation noted as "OWNER" to whom this Warranty runs.
- B. "NORMAL ATMOSPHERIC CONDITIONS"- This term shall exclude corrosive or aggressive atmospheres, including but not limited to those atmospheric conditions set forth in Paragraph II hereof.
- C. "WARRANTED FINISH"- Pre-painted materials supplied by the Company for the project.
- D. "REPLACEMENT"- Replacement includes supplying replacement products and/or repairs to defective materials supplied by The Company on the project but does not include the cost of other materials and labor required for removal and/or re-installation of other materials not supplied by The Company.
- E. "WARRANTED ROOFING SYSTEM"- The ZIP-RIB roof panels, clips, closures and associated flashings manufactured and/or designed by The Company for the named project.





## PATRIOT ROOFING, INC.

2083 Jacksonville-Jobstown Road, Jobstown, NJ 08041

(609) 723-6688 Fax (609) 723-6867

### CONTRACTORS ROOF GUARANTEE

Whereas John E. Reilley, Vice President of Patriot Roofing, Inc. herein called "Roofing Contractor" has completed application of the following roof:

**Owner:** Sweedsboro Board of Education

**Address of Owner:** 1815 Kings Highway, Swedesboro, NJ 08085

**Name of Project:** Charles C. Stratton Elementary School

**Location:** 1815 Kings Highway, Swedesboro, NJ 08085

**Area of Roof:** 20,000 sq. ft.

**Date of Completion:** December 16, 2003

**Date Guarantee Expires:** December 15, 2005

Whereas, at the inception of such work, the Roofing Contractor agreed to guarantee the aforesaid roof for a limited period and subject to the conditions herein set forth, that during a period of **two (2)** year from the date of completion of said roof, it will, at its own cost and expense, make or cause to be made such repairs to said roof resulting solely from faults or defects in materials or workmanship applied by or through roofing contractor as may be necessary to maintain said roof in watertight condition.

Now therefore, this guarantee is made subject to the following conditions:

1. Specifically excluded from this guarantee is any and all damage to said roof, the building or contents caused by the acts or omissions of other trades or contractors; lightning, windstorm, hailstorm, flood, earthquake or other unusual phenomena of the elements; foundation settlement; failure or cracking of the roof deck; defects or failure of material used as a roof base over which the roof is applied; faulty construction of copings, chimneys, skylights, vents, supports, or other parts of the building; vapor condensation beneath the roof; penetrations for the pitch boxes; water leakage due to erosion and porosity of mortar and brick; dry rot; stoppage of roof drains and gutters; inadequate drainage, slope or other conditions beyond the control of the Roofing Contractor which caused ponding or standing of water; termites or other insects; rodents or other animals; or fire. The roof thereupon will become null and void for the balance of the guarantee period unless such damages are repaired by this contractor at the expense of the party requesting such repairs.
2. The Roofing Contractor is not liable for consequential damages to the building or contents resulting from any defects in said roof, including but without limitation, any interruptions of business experienced by Owner or occupants of the building.

3. This guarantee shall become null and void unless the Roofing Contractor is promptly notified of any alleged defect in materials or workmanship and provided an opportunity to inspect and, if required by the terms of this Guarantee, to repair the roof.
4. No work shall be done on said roof, including, but without limitation, work in connection with flues, vents, drains, sign braces, railings, platforms or other equipment fastened to or set on the roof, and no repairs or alterations shall be made to said roof, unless Roofing Contractor shall first be notified through Owners Representatives, and shall be given the opportunity to make the necessary roofing application recommendations with respect thereto, and such recommendations are complied with. The Roofing Contractor shall be paid for time and materials expended in making recommendations or repairs occasioned by the work of others on said roof.
5. This guarantee shall become null and void if the roof is used as a promenade, staging or work deck, or is sprayed, flooded, unless such use was originally specified and the specifications is noted in Paragraph 9 below.
6. This guarantee shall not be or become effective unless and until Roofing Contractor has been paid in full for said roof in accordance with the agreement pursuant to which roof was applied.
7. This guarantee is transferable within the **two-year** guarantee period, with the prior written consent of Patriot Roofing Contractor.
8. This guarantee is in lieu of all other guarantees or warranties, express or implied. ALL IMPLIED GUARANTEES AND WARRANTIES, AND SPECIFICALLY THE IMPLIED WARRANTIES OF THE MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, ARE EXPRESSLY EXCLUDED AND DISCLAIMED.
9. Additional conditions or exclusions: None

IN WITNESS WHEREOF, this instrument has been duly executed this 2nd day of February, 2004.

Sworn to and subscribed  
before me this 2nd day  
of February, 2004.

  
Notary Public

By: 

John E. Reifley, Vice President

Patriot Roofing, Inc.  
2083 Jobstown Jacksonville Rd  
Jobstown, NJ 08041  
Phone: (609)-723-6688  
Fax: (609)-723-6867

*Dawn M. Gates*  
Notary Public of New Jersey  
My Commission Expires: May 12th, 2007



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**TREMCO**

**20 YEAR QA PLUS WARRANTY  
FOR NEW ROOFS**

WARRANTY NUMBER: 99144  
OWNER: Swedesboro Board of Education  
ADDRESS: 1815 Kings Highway, Swedesboro, NJ 08085  
BUILDING DESCRIPTION: Governor Charles C. Stratton Elementary School  
ADDRESS: 1815 Kings Highway, Swedesboro, NJ 08085  
ROOF AREA: 20,000 sq. ft.  
DATE OF JOB COMPLETION: December 16, 2003  
INSTALLATION PRICE: \$180,000.00  
ROOFING SYSTEM: NEW CONSTRUCTION: POWERply Extreme  
INSTALLATION CONTRACTOR: Patriot Roofing Inc.  
ADDRESS: P.O. Box 98, Jobstown, NJ 08041

Leak Hotline  
1/800-587-3626

Tremco Incorporated (hereinafter "Tremco") hereby warrants to the above-named Owner that, subject to the terms, conditions, and limitations stated herein, it will repair leaks and provide the following services to the Owner on the roofing system on the building (hereinafter "TRS") for a period of twenty (20) years from the date of job completion. TRS shall be defined as the weatherproofing assembly and its components, which includes the following: membrane, insulation, flashings, all sheet metal-related details, and termination details as specified by Tremco. The services being offered by Tremco include the following:

**A. INSPECTIONS, HOUSEKEEPING AND PREVENTIVE MAINTENANCE**

In year two (2), year five (5), year ten (10), and year fifteen (15) of this warranty, Tremco shall provide roof inspections, preventive maintenance, and limited housekeeping services, except as excluded in Section C and Section D, on the TRS. (If a TremCare Service Agreement has been purchased for the TRS in addition to this warranty, these inspections and the related reporting will be carried out as part of the TremCare Service Agreement. The warranty and the TremCare Service Agreement will remain in effect for the warranty period simultaneously.)

Roof inspection services shall include the following:

1. Visual inspection of the roof membrane and roof surface conditions.
2. Inspection of the flashing systems including, but not limited to, the metal edge system, base flashings on equipment and adjoining walls, counterflashings and termination details, soil stacks and vents, and inspection of rooftop projections, and equipment including, but not limited to, pitch pans, HVAC equipment, sky lights, and access hatches.

Roof inspection services do not include:

1. Inspection for water damage or mold growth.
2. Detection or identification of mold.

Preventive maintenance services shall include the following:

1. Metal edge flashing components - tears, splits, and breaks in the membrane flashings will be repaired with appropriate repair mastics and membranes.
2. Tears and splits in the flashing membrane will be repaired with appropriate repair mastics and membranes. Open split flashing strip-ins will be repaired with appropriate repair mastics and membranes. Exposed fasteners will be sealed. Termination bar and counterflashings will be sealed.
3. Roof membrane maintenance repairs - tears, breaks, and splits in the roof membrane will be repaired with appropriate repair mastics and membranes. Splits and blisters which threaten the roof integrity will be cleaned, primed, and repaired with appropriate repair mastics and membranes. Metal projections (hoods and clamps) will be sealed. This warranty does not include recoating of roof membranes.



Quality Assurance Program



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Preventive maintenance services do not include:

1. Repairs or maintenance of any building component other than the TRS.
2. Remediation or abatement of mold.

General rooftop housekeeping services shall include the following: Removal of incidental debris. All debris will be disposed of at the Owner's approved on-site location.

## B. ROOF INSPECTION REPORTS

Tremco will provide roof inspection reports to the Owner based upon the inspections as defined in paragraph A. The reports shall become part of the roof database maintained on the Tremco TRS. Tremco will be excused from performing under this warranty if prevented or delayed by events not within its control, including events such as floods, fires, accidents, riots, explosions, governmental order, acts or omissions of contractors or other third parties, inability to access the TRS, etc. Roof inspection reports will not address the presence of water damage to any building components other than the TRS or the presence of mold.

## C. OWNER'S RESPONSIBILITIES

It is agreed by the parties that Tremco, by this warranty, does not assume possession or control of any part of the TRS. Control and ownership of the TRS and all parts of the building remains solely with the Owner. The Owner is solely responsible for all requirements imposed by any federal, state or local law, ordinance or regulation, and all repair, maintenance, and other work with respect to the TRS and the building, except as expressly stated by this warranty.

Housekeeping and general roof top preventive maintenance does not eliminate or replace the building Owner's responsibility for keeping effluent and debris from the roof surface. Customer production-related materials are excluded as part of the housekeeping services. If scheduled cleaning is insufficient to maintain the roof integrity, Owner must pay for additional cleaning/inspections or assume responsibility for such cleanings. Owner agrees that all debris on or removed from the roof is the sole property of Owner, and it is the sole responsibility of Owner to properly dispose of said debris.

The Owner shall, at all times, exercise reasonable care in the use and maintenance of the TRS.

In order to protect the investment this TRS represents, the building Owner must fulfill his responsibilities as outlined in the attached Owner's Manual. Lack of care and maintenance can have significantly damaging effects on the system's overall performance and is cause for cancellation of this warranty.

Care and maintenance guidelines include, but are not limited to:

- ◆ Regular ongoing inspection by the Owner - This will allow for implementation of good housekeeping practices and early detection of problems such as any physical damage.
- ◆ Verification that no alterations or unauthorized repairs have been made to the roofing system.

If alterations are being considered, the Owner must notify Tremco in order for the proper authorized follow-up to be completed.

The Owner shall report all leaks which occur in the TRS within the warranty period by contacting Tremco at 1-800-422-1155 and in writing to Tremco Incorporated at 3735 Green Road, Beachwood, Ohio 44122, as soon as possible (however, in no event more than thirty (30) days) after leakage is or should have been discovered. Immediate repair of leaks is critical to prevent water damage and mold growth. In no event is Tremco responsible for any repairs to any part of the building other than the TRS. The liability or expense for such repair is to be assumed and paid by the Owner. If the leak is not within the coverage of this warranty, Tremco shall advise the Owner, and the Owner shall have repairs performed within thirty (30) days according to Tremco specifications by a Tremco certified or approved applicator. The Owner agrees to provide Tremco with unrestricted ready access to the TRS and all areas of the building on which the TRS is located.

## D. WARRANTY EXCLUSIONS

This warranty does not cover any leaks or damage or failure of the TRS or any part thereof as a result of:

1. Natural or accidental disasters including, but not limited to, damage caused by lightning, hailstorms, floods, hurricane force winds (74 mph or greater), tornadoes, earthquakes, fire, vandalism, animals, penetration of the membrane, or chemical attack by outside agents.



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2. Use of materials not specified by Tremco, or unauthorized repairs to the TRS.
3. Any intentional or negligent act on the part of the Owner or any third party including, but not limited to, misuse, traffic, storage of or discharge of materials or effluent on the roof. Any repair of these items will be at Owner's expense.
4. Distortion, expansion or contraction of the TRS caused by faulty original construction or design of building components including parapet walls, copings, chimneys, skylights, vents or roof deck, or lack of positive, proper, or adequate drainage resulting in ponding water on the roof.

#### E. WARRANTY LIMITATIONS

Tremco shall have no responsibility and no liability under this warranty until all bills for installation, supplies, and services sold in connection with the TRS have been paid in full.

The Owner's rights under this warranty are specific to the Owner and are not transferrable.

Tremco's obligations under this warranty may be voided by Tremco based on any of the events described in Section D, change in usage of the building without the prior written approval of Tremco, repairs, alterations, penetrations of or attachments to the TRS without the prior written approval of Tremco, building settlement, deterioration, cracking or failure of the roof deck, coping and parapet walls, infiltration or condensation of moisture in, through or around walls, copings, underlying structure, hardware or equipment, or failure of the Owner to comply with its obligations described in this warranty.

#### F. OTHER TERMS

THIS WARRANTY IS IN LIEU OF ANY AND ALL OTHER WARRANTIES, OBLIGATIONS OR AGREEMENTS, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE, AND ANY RIGHTS OR REMEDIES AGAINST ANY PERSON OR ENTITY UNDER THE UNIFORM COMMERCIAL CODE OR OTHERWISE WITH RESPECT TO THE SALE OF GOODS AND/OR SERVICES. THE REMEDIES AND OBLIGATIONS STATED IN THIS WARRANTY ARE THE SOLE AND EXCLUSIVE REMEDIES OF AND OBLIGATIONS TO THE OWNER FOR ANY AND ALL MATTERS ARISING WITH RESPECT TO OR IN ANY WAY CONNECTED WITH THE TRS, OR ITS COMPONENT PRODUCTS, OR ANY GOODS OR SERVICES RELATED THERETO, REGARDLESS OF THE SOURCE OR PROVIDER OF SUCH GOODS OR SERVICES. THE OWNER SHALL PROVIDE WAIVERS OF SUBROGATION UPON REQUEST. NO REPRESENTATIVE OF TREMCO INCORPORATED, OR ANY EMPLOYEE, AGENT OR AFFILIATED COMPANY ("AFFILIATE") HAS AUTHORITY TO VARY OR ALTER THESE TERMS. IN NO EVENT SHALL TREMCO INCORPORATED OR ANY AFFILIATE BE LIABLE FOR ANY DAMAGE TO THE BUILDING ITSELF (OTHER THAN THE TRS), THE CONTENTS OF THE BUILDING, OR ANY OTHER SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES. THE TOTAL LIABILITY OF TREMCO INCORPORATED, AND ANY AFFILIATE OVER THE LIFE OF THE WARRANTY, SHALL NOT IN ANY EVENT EXCEED IN DOLLAR VALUE THE INSTALLED CONTRACT PRICE OF THE TRS AS IT APPEARS ABOVE, AND THIS TOTAL LIABILITY SHALL BE PRO-RATED ON A STRAIGHT LINE BASIS OVER THE LIFE OF THE WARRANTY, AND TREMCO'S LIABILITY SHALL NOT EXCEED SUCH PRO-RATED AMOUNT. NEITHER TREMCO INCORPORATED OR ANY AFFILIATE SHALL BE LIABLE FOR ANY DAMAGES WHICH ARE BASED UPON NEGLIGENCE, BREACH OF WARRANTY, STRICT LIABILITY OR ANY OTHER THEORY OF LIABILITY OTHER THAN THE EXCLUSIVE LIABILITY SET FORTH IN THIS WARRANTY.

The Owner agrees that this warranty, and the services and remedies set forth herein, are exclusive, and there are no other warranties between the Owner and Tremco or any affiliate. Any unresolved issues under this warranty shall be submitted to the exclusive jurisdiction of the courts of Cuyahoga County, Ohio, and governed by Ohio law.

TREMCO INCORPORATED  
ROOFING & BUILDING MAINTENANCE DIVISION

By: Richard Grabowski

Title: Warranty Administrator

Date: January 9, 2004

Date: 6-28-22  
To: Swedesboro Woolwich School District  
From: Atlantic City Electric, Distributed Energy Resource Planning & Analytics  
Subject: Pre-Application Request

Thank you for submitting a pre-application request. Please note that the results of this report are non-binding. Information provided below is subject to change. This report does not guarantee interconnection of a generator of any size. It is informative in nature only and does not hold a position in the interconnection queue.

Customer System Information

Address or POI Information: 1771 Oldmans Creek Road Woolwich Township, NJ 08085  
Account Number: 55003440991  
System Information: 373kW PV

Distribution System Information

Voltage Level at POI: 12.47kV  
Current Number of Phases to POI: 3 Phase  
Circuit Number: NJ1787  
Any Known Circuit Restrictions: N/A  
Distance from Substation to POI: 4 Miles

Remaining Circuit Capacity for Large DERs	3000	kW
Remaining Substation Transformer Capacity for Large DERs	19704	kW
Installed Generation on Circuit	1444	kW
Pending Generation on Circuit	102	kW

Known constraints preventing a larger DER installation:

All interconnections for 250 kW and greater require remote trip and telemetry.

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Some criteria violations can be corrected with system modifications which were not evaluated as part of the pre-application process. If an application is submitted, further analysis will take place which may result in a larger or smaller approved generator size. Examples of more detailed analysis include voltage fluctuation, steady state high voltage, reverse power flow limits, protection reviews, transformer configurations, Distribution Automation impact and other location specific analysis.



# Criteria Limits for Distributed Energy Resource Connections to the ACE, DPL and Pepco Distribution Systems (less than 69kV) 10/30/2020

## 1. Single Phase Limit

The largest capacity single phase generator or DER (battery) operating in parallel with the grid is 100kW. Above that size, a balanced 3 phase system is required. If 3 phase is available, balanced 3 phase shall be used.

## 2. Voltage Limits

DERs are permitted to cause up to 3% (primary) or 5% (secondary) voltage fluctuation at the Point of Interconnection and  $\frac{1}{2}$  the band width of any voltage regulator or  $\frac{1}{2}$  the net dead band of a capacitor bank. DERs in maximum output are permitted to raise feeder voltage to the ANSI or state limit, whichever is more conservative. An absorbing PF may be required to mitigate voltage rise or fluctuation impact.

## 3. Existing Distribution Circuit Capacity Limits

The aggregate limit of “large” generators running in parallel with a single, existing distribution circuit is:

Circuit Voltage	Aggregate Limit	Large DER Size
4 kV	1 MW	250 kW
12 – 13.8 kV	3 MW	250 kW
23 – 25 kV	6 MW	500 kW
33.26 – 34.5 kV	10 MW	1 MW

## 4. Express Circuit Capacity Limits

Distributed generation installations which exceed the limit for an existing circuit require an express circuit.

The maximum generator size for express circuits shall be:

Circuit Voltage	DER Limit
4 kV	1 MW
12 – 13.8 kV	10 MW
23 – 25 kV	10 MW
33.26 – 34.5 kV	20 MW

Note: Maximum Demand Loss and Annual Energy Loss both must be less than 3% for the express feeder

## 5. Telemetry requirements

Telemetry is required on all DER systems of 2 MW. On radial circuits that have or incorporate Distribution Automation (DA), telemetry is required on all systems 250 kW and greater. Telemetry requirements for the secondary network are delineated in “10. Secondary and Spot Networks”.

## 6. Recloser Requirement

Reclosers are required on all direct connect DERs 1 MW or greater.

### **7. Distribution Power Transformer Limit**

The aggregate of “large” DER will be limited to 50% of the substation transformer normal rating. In the case of transformers paralleled on the low side, the limit is 50% of the sum of the transformer normal ratings. This usually ensures that the LTC does not operate excessively. Note that small systems (less than the large system size for the circuits’ voltage class), may continue to be interconnected when these distribution transformer limits are reached.

The absolute net reverse power limit is 40% of the transformer normal rating. This ensures that locations with transfer capability can operate safely where one transformer load automatically transfers to the remaining transformer upon outage of one transformer

### **8. Express Circuit Length Limit**

The maximum circuit length is limited to 5 miles for 12/13 kV, 7 miles for 25 kV, and 10 miles for 34 kV.

Note: For ACE and Pepco, no 34 kV Express Circuits will be built as that voltage level is being retired. 4 kV Express Circuits will not be built in any PHI jurisdiction.

If there is no more injection capacity or space for an additional transformer at the closest substation, the next closest substation will be considered.

### **9. When a New Substation is Required**

If a distribution express circuit can’t be built from an existing substation for a project, it will be necessary to construct a new distribution substation with a standard ring bus design. It will be supplied by extending existing transmission lines. In NJ, it is the developer's responsibility to verify eligibility of this configuration for solar renewable energy certificates with New Jersey's Clean Energy Program if desired.

All limits, given above in MWs, are subject to more detailed study to ensure feasibility.

### **10. Secondary and Spot Networks**

DER systems less than or equal to 50 kW can be approved if the DER maximum generation is  $\leq 5\%$  of the area network peak load. Monitoring and control will not be required. PHI has the right to revise the maximum export level in case of changed conditions or future negative impacts.

DER systems larger than 50 kW will be required to provide local monitoring of net power (import or export) and control of generation through control relays, or a combination of inverter and dedicated controller. Net power limits will be set to prevent reverse power on any area network protector.<sup>1</sup> In some cases a minimum net import (into the facility) may be required.

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<sup>1</sup> The setting is determined based on a 20% safety buffer below the import that would cause network protector operation or cycling. This margin is 20% of the maximum excess generation, or 15 kW, whichever is larger.



Telemetry will be required for systems larger than 150 kW to collect and provide PHI the monitored data. For systems larger than 50 kW and up to and including 150 kW, telemetry and related interoperability may be required where the system, during daytime hours, operates within 30% of the point where a network protector would inadvertently operate.

In Atlantic City Electric service territory aggregate PV generation connected to an area network shall not exceed 10% of minimum annual load or 500 kW, whichever is less. The minimum load is calculated based on minimum load occurring during an off-peak daylight period for PV or any off-peak minimum for other generation types. Depending on size, all PHI monitoring and telemetry requirements apply in Atlantic City.

**NOTE: To allow for more PV to be put on a secondary network, Pepco has come up with the following criteria that would accommodate larger systems that are greater than the minimum daytime load of a facility at certain times of the year:**

- For an LVAC Spot Network there must be a minimum import limit:
  - Minimum import Limit (M.I.L) is the minimum amount of power delivered to the customer from the utility.
  - The limit is (a) 20% of day-time min load, or (b) to be determined by planner in special cases.
- For an LVAC Grid Network there must be a maximum export limit:
  - The maximum export limit allows a customer on an LVAC grid network to export excess generation to the grid without causing reverse power to the network protectors at any time.

The limit is equal to 80% of the export (i.e. excess) generation of the customer's system (at the grid minimum load condition), before causing reverse power to any of the network transformers/protectors in the grid network. The PV system/facility being evaluated is evaluated with all other active and pending generation represented in the network.

## **11. Direct Transfer Trip**

DTT is required for all DERs 750 kW and greater. There are other scenarios where DERs smaller than 750kW will require DTT. Considerations for synchronous generators are different than inverter based. In the Pepco Region, Relay and Protection Engineering may waive this requirement.

## **Explanation of Criteria**

Remaining Circuit Capacity – The aggregate limit of large (250 kW and over) generators running in parallel with a single existing distribution circuit is 0.5 MWs on the 4 kV, 3 MWs on the 12 kV, 6 MWs on the 25 kV, and 10 MWs on the 34 kV. Applications for generators smaller than 250 kW are possible on a circuit restricted to 250 kW. Express circuits can be requested for larger systems.

Remaining Substation Transformer Capacity - The aggregate limit of large (250 kW and over) generators to a single distribution transformer is 10 MWs. Applications for generators smaller than 250 kW are possible on a transformer restricted to 250 kW.

Voltage Fluctuation Limit – DERs are permitted to cause up to 3% voltage fluctuation at the Point of Interconnection and ½ the bandwidth of any voltage regulator or ½ the net dead bandwidth of a capacitor bank. This metric quantifies the difference in feeder voltage when the system is running at full output versus when the generation has been suddenly lost. Larger systems and systems connected further from a substation tend to have a higher voltage fluctuation value. If this criterion can't be met with power factor mitigation, an impact study will be required to ensure that voltage can be maintained within applicable standards.

Steady State High Voltage Limit – DERs in maximum output are permitted to raise feeder voltage to the ANSI or state limit, whichever is more conservative. A simulation is performed which predicts how high the voltage will rise at a point in time when energy consumption is lowest on the feeder and the DER is injecting power. The system is simulated in a normal, steady state and without abnormalities. In some cases, steady state high voltage can be mitigated by changing settings on voltage regulation equipment.

Reverse Power Flow Limit – Some devices may require setting changes, a re-evaluation of their control scheme, or replacement if they experience reverse power flow. The sum of the full output capacity of all downstream DERs shall be kept to a maximum of 80% of the minimum daytime (9am – 3pm) load of the lowest loaded phase of the distribution system element.

Closed Circuits – Given current technology, each distribution circuit will have a limit to the amount of distributed generation that can be accommodated before operating violations occur. When the installed plus pending generation on a circuit has reached its maximum, and no further applications can be accepted, without cost prohibitive upgrades in relation to the project, the circuit is declared closed or restricted to all sizes.

Restricted Circuits – Circuits which have active and/or pending generation that exceeds the allowable amount of large DERs, are restricted to generators with AC ratings of 250 kW or less.



Date: 6/27/2022  
To: Swedesboro Woolwich School District  
From: Atlantic City Electric, Distributed Energy Resource Planning & Analytics  
Subject: Pre-Application Request

Thank you for submitting a pre-application request. Please note that the results of this report are non-binding. Information provided below is subject to change. This report does not guarantee interconnection of a generator of any size. It is informative in nature only and does not hold a position in the interconnection queue.

Customer System Information

Address or POI Information: 601 Auburn Avenue, Swedesboro, NJ, 08085  
Account Number: 55008380952  
System Information: 204 kW

Distribution System Information

Voltage Level at POI: 12.47 kV  
Current Number of Phases to POI: 3  
Circuit Number: NJ1786  
Any Known Circuit Restrictions: N/A  
Distance from Substation to POI: 2.5 miles

Remaining Circuit Capacity for Large DERs	2733	kW
Remaining Substation Transformer Capacity for Large DERs	19703	kW
Installed Generation on Circuit	2413	kW
Pending Generation on Circuit	419	kW

Known constraints preventing a larger DER installation:

N/A

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Some criteria violations can be corrected with system modifications which were not evaluated as part of the pre-application process. If an application is submitted, further analysis will take place which may result in a larger or smaller approved generator size. Examples of more detailed analysis include voltage fluctuation, steady state high voltage, reverse power flow limits, protection reviews, transformer configurations, Distribution Automation impact and other location specific analysis.

# Criteria Limits for Distributed Energy Resource Connections to the ACE, DPL and Pepco Distribution Systems (less than 69kV) 10/30/2020

## 1. Single Phase Limit

The largest capacity single phase generator or DER (battery) operating in parallel with the grid is 100kW. Above that size, a balanced 3 phase system is required. If 3 phase is available, balanced 3 phase shall be used.

## 2. Voltage Limits

DERs are permitted to cause up to 3% (primary) or 5% (secondary) voltage fluctuation at the Point of Interconnection and  $\frac{1}{2}$  the band width of any voltage regulator or  $\frac{1}{2}$  the net dead band of a capacitor bank. DERs in maximum output are permitted to raise feeder voltage to the ANSI or state limit, whichever is more conservative. An absorbing PF may be required to mitigate voltage rise or fluctuation impact.

## 3. Existing Distribution Circuit Capacity Limits

The aggregate limit of “large” generators running in parallel with a single, existing distribution circuit is:

Circuit Voltage	Aggregate Limit	Large DER Size
4 kV	1 MW	250 kW
12 – 13.8 kV	3 MW	250 kW
23 – 25 kV	6 MW	500 kW
33.26 – 34.5 kV	10 MW	1 MW

## 4. Express Circuit Capacity Limits

Distributed generation installations which exceed the limit for an existing circuit require an express circuit.

The maximum generator size for express circuits shall be:

Circuit Voltage	DER Limit
4 kV	1 MW
12 – 13.8 kV	10 MW
23 – 25 kV	10 MW
33.26 – 34.5 kV	20 MW

Note: Maximum Demand Loss and Annual Energy Loss both must be less than 3% for the express feeder

## 5. Telemetry requirements

Telemetry is required on all DER systems of 2 MW. On radial circuits that have or incorporate Distribution Automation (DA), telemetry is required on all systems 250 kW and greater. Telemetry requirements for the secondary network are delineated in “10. Secondary and Spot Networks”.

## 6. Recloser Requirement



Reclosers are required on all direct connect DERs 1 MW or greater.

### **7. Distribution Power Transformer Limit**

The aggregate of “large” DER will be limited to 50% of the substation transformer normal rating. In the case of transformers paralleled on the low side, the limit is 50% of the sum of the transformer normal ratings. This usually ensures that the LTC does not operate excessively. Note that small systems (less than the large system size for the circuits’ voltage class), may continue to be interconnected when these distribution transformer limits are reached.

The absolute net reverse power limit is 40% of the transformer normal rating. This ensures that locations with transfer capability can operate safely where one transformer load automatically transfers to the remaining transformer upon outage of one transformer

### **8. Express Circuit Length Limit**

The maximum circuit length is limited to 5 miles for 12/13 kV, 7 miles for 25 kV, and 10 miles for 34 kV.

Note: For ACE and Pepco, no 34 kV Express Circuits will be built as that voltage level is being retired. 4 kV Express Circuits will not be built in any PHI jurisdiction.

If there is no more injection capacity or space for an additional transformer at the closest substation, the next closest substation will be considered.

### **9. When a New Substation is Required**

If a distribution express circuit can’t be built from an existing substation for a project, it will be necessary to construct a new distribution substation with a standard ring bus design. It will be supplied by extending existing transmission lines. In NJ, it is the developer's responsibility to verify eligibility of this configuration for solar renewable energy certificates with New Jersey's Clean Energy Program if desired.

All limits, given above in MWs, are subject to more detailed study to ensure feasibility.

### **10. Secondary and Spot Networks**

DER systems less than or equal to 50 kW can be approved if the DER maximum generation is  $\leq 5\%$  of the area network peak load. Monitoring and control will not be required. PHI has the right to revise the maximum export level in case of changed conditions or future negative impacts.

DER systems larger than 50 kW will be required to provide local monitoring of net power (import or export) and control of generation through control relays, or a combination of inverter and dedicated controller. Net power limits will be set to prevent reverse power on any area network protector.<sup>1</sup> In some cases a minimum net import (into the facility) may be required.

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<sup>1</sup> The setting is determined based on a 20% safety buffer below the import that would cause network protector operation or cycling. This margin is 20% of the maximum excess generation, or 15 kW, whichever is larger.

Telemetry will be required for systems larger than 150 kW to collect and provide PHI the monitored data. For systems larger than 50 kW and up to and including 150 kW, telemetry and related interoperability may be required where the system, during daytime hours, operates within 30% of the point where a network protector would inadvertently operate.

In Atlantic City Electric service territory aggregate PV generation connected to an area network shall not exceed 10% of minimum annual load or 500 kW, whichever is less. The minimum load is calculated based on minimum load occurring during an off-peak daylight period for PV or any off-peak minimum for other generation types. Depending on size, all PHI monitoring and telemetry requirements apply in Atlantic City.

**NOTE: To allow for more PV to be put on a secondary network, Pepco has come up with the following criteria that would accommodate larger systems that are greater than the minimum daytime load of a facility at certain times of the year:**

- For an LVAC Spot Network there must be a minimum import limit:
  - Minimum import Limit (M.I.L) is the minimum amount of power delivered to the customer from the utility.
  - The limit is (a) 20% of day-time min load, or (b) to be determined by planner in special cases.
- For an LVAC Grid Network there must be a maximum export limit:
  - The maximum export limit allows a customer on an LVAC grid network to export excess generation to the grid without causing reverse power to the network protectors at any time.

The limit is equal to 80% of the export (i.e. excess) generation of the customer's system (at the grid minimum load condition), before causing reverse power to any of the network transformers/protectors in the grid network. The PV system/facility being evaluated is evaluated with all other active and pending generation represented in the network.

## **11. Direct Transfer Trip**

DTT is required for all DERs 750 kW and greater. There are other scenarios where DERs smaller than 750kW will require DTT. Considerations for synchronous generators are different than inverter based. In the Pepco Region, Relay and Protection Engineering may waive this requirement.

## **Explanation of Criteria**

Remaining Circuit Capacity – The aggregate limit of large (250 kW and over) generators running in parallel with a single existing distribution circuit is 0.5 MWs on the 4 kV, 3 MWs on the 12 kV, 6 MWs on the 25 kV, and 10 MWs on the 34 kV. Applications for generators smaller than 250 kW are possible on a circuit restricted to 250 kW. Express circuits can be requested for larger systems.



Remaining Substation Transformer Capacity - The aggregate limit of large (250 kW and over) generators to a single distribution transformer is 10 MWs. Applications for generators smaller than 250 kW are possible on a transformer restricted to 250 kW.

Voltage Fluctuation Limit – DERs are permitted to cause up to 3% voltage fluctuation at the Point of Interconnection and  $\frac{1}{2}$  the bandwidth of any voltage regulator or  $\frac{1}{2}$  the net dead bandwidth of a capacitor bank. This metric quantifies the difference in feeder voltage when the system is running at full output versus when the generation has been suddenly lost. Larger systems and systems connected further from a substation tend to have a higher voltage fluctuation value. If this criterion can't be met with power factor mitigation, an impact study will be required to ensure that voltage can be maintained within applicable standards.

Steady State High Voltage Limit – DERs in maximum output are permitted to raise feeder voltage to the ANSI or state limit, whichever is more conservative. A simulation is performed which predicts how high the voltage will rise at a point in time when energy consumption is lowest on the feeder and the DER is injecting power. The system is simulated in a normal, steady state and without abnormalities. In some cases, steady state high voltage can be mitigated by changing settings on voltage regulation equipment.

Reverse Power Flow Limit – Some devices may require setting changes, a re-evaluation of their control scheme, or replacement if they experience reverse power flow. The sum of the full output capacity of all downstream DERs shall be kept to a maximum of 80% of the minimum daytime (9am – 3pm) load of the lowest loaded phase of the distribution system element.

Closed Circuits – Given current technology, each distribution circuit will have a limit to the amount of distributed generation that can be accommodated before operating violations occur. When the installed plus pending generation on a circuit has reached its maximum, and no further applications can be accepted, without cost prohibitive upgrades in relation to the project, the circuit is declared closed or restricted to all sizes.

Restricted Circuits – Circuits which have active and/or pending generation that exceeds the allowable amount of large DERs, are restricted to generators with AC ratings of 250 kW or less.

Date: 6/27/2022  
To: Swedesboro Woolwich School District  
From: Atlantic City Electric, Distributed Energy Resource Planning & Analytics  
Subject: Pre-Application Request

Thank you for submitting a pre-application request. Please note that the results of this report are non-binding. Information provided below is subject to change. This report does not guarantee interconnection of a generator of any size. It is informative in nature only and does not hold a position in the interconnection queue.

Customer System Information

Address or POI Information: 15 Fredrick Blvd, Woolwich Township, NJ, 08085  
Account Number: 55003441635  
System Information: 293 kW

Distribution System Information

Voltage Level at POI: 12.47 kV  
Current Number of Phases to POI: 3  
Circuit Number: NJ1786  
Any Known Circuit Restrictions: N/A  
Distance from Substation to POI: 1 mile

Remaining Circuit Capacity for Large DERs	2733	kW
Remaining Substation Transformer Capacity for Large DERs	19703	kW
Installed Generation on Circuit	2413	kW
Pending Generation on Circuit	419	kW

Known constraints preventing a larger DER installation:

All applications 250 kW and greater will require remote trip and telemetry.

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Some criteria violations can be corrected with system modifications which were not evaluated as part of the pre-application process. If an application is submitted, further analysis will take place which may result in a larger or smaller approved generator size. Examples of more detailed analysis include voltage fluctuation, steady state high voltage, reverse power flow limits, protection reviews, transformer configurations, Distribution Automation impact and other location specific analysis.

# Criteria Limits for Distributed Energy Resource Connections to the ACE, DPL and Pepco Distribution Systems (less than 69kV) 10/30/2020

## 1. Single Phase Limit

The largest capacity single phase generator or DER (battery) operating in parallel with the grid is 100kW. Above that size, a balanced 3 phase system is required. If 3 phase is available, balanced 3 phase shall be used.

## 2. Voltage Limits

DERs are permitted to cause up to 3% (primary) or 5% (secondary) voltage fluctuation at the Point of Interconnection and ½ the band width of any voltage regulator or ½ the net dead band of a capacitor bank. DERs in maximum output are permitted to raise feeder voltage to the ANSI or state limit, whichever is more conservative. An absorbing PF may be required to mitigate voltage rise or fluctuation impact.

## 3. Existing Distribution Circuit Capacity Limits

The aggregate limit of “large” generators running in parallel with a single, existing distribution circuit is:

Circuit Voltage	Aggregate Limit	Large DER Size
4 kV	1 MW	250 kW
12 – 13.8 kV	3 MW	250 kW
23 – 25 kV	6 MW	500 kW
33.26 – 34.5 kV	10 MW	1 MW

## 4. Express Circuit Capacity Limits

Distributed generation installations which exceed the limit for an existing circuit require an express circuit.

The maximum generator size for express circuits shall be:

Circuit Voltage	DER Limit
4 kV	1 MW
12 – 13.8 kV	10 MW
23 – 25 kV	10 MW
33.26 – 34.5 kV	20 MW

Note: Maximum Demand Loss and Annual Energy Loss both must be less than 3% for the express feeder

## 5. Telemetry requirements

Telemetry is required on all DER systems of 2 MW. On radial circuits that have or incorporate Distribution Automation (DA), telemetry is required on all systems 250 kW and greater. Telemetry requirements for the secondary network are delineated in “10. Secondary and Spot Networks”.

## 6. Recloser Requirement



Reclosers are required on all direct connect DERs 1 MW or greater.

### **7. Distribution Power Transformer Limit**

The aggregate of “large” DER will be limited to 50% of the substation transformer normal rating. In the case of transformers paralleled on the low side, the limit is 50% of the sum of the transformer normal ratings. This usually ensures that the LTC does not operate excessively. Note that small systems (less than the large system size for the circuits’ voltage class), may continue to be interconnected when these distribution transformer limits are reached.

The absolute net reverse power limit is 40% of the transformer normal rating. This ensures that locations with transfer capability can operate safely where one transformer load automatically transfers to the remaining transformer upon outage of one transformer

### **8. Express Circuit Length Limit**

The maximum circuit length is limited to 5 miles for 12/13 kV, 7 miles for 25 kV, and 10 miles for 34 kV.

Note: For ACE and Pepco, no 34 kV Express Circuits will be built as that voltage level is being retired. 4 kV Express Circuits will not be built in any PHI jurisdiction.

If there is no more injection capacity or space for an additional transformer at the closest substation, the next closest substation will be considered.

### **9. When a New Substation is Required**

If a distribution express circuit can’t be built from an existing substation for a project, it will be necessary to construct a new distribution substation with a standard ring bus design. It will be supplied by extending existing transmission lines. In NJ, it is the developer's responsibility to verify eligibility of this configuration for solar renewable energy certificates with New Jersey's Clean Energy Program if desired.

All limits, given above in MWs, are subject to more detailed study to ensure feasibility.

### **10. Secondary and Spot Networks**

DER systems less than or equal to 50 kW can be approved if the DER maximum generation is  $\leq 5\%$  of the area network peak load. Monitoring and control will not be required. PHI has the right to revise the maximum export level in case of changed conditions or future negative impacts.

DER systems larger than 50 kW will be required to provide local monitoring of net power (import or export) and control of generation through control relays, or a combination of inverter and dedicated controller. Net power limits will be set to prevent reverse power on any area network protector.<sup>1</sup> In some cases a minimum net import (into the facility) may be required.

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<sup>1</sup> The setting is determined based on a 20% safety buffer below the import that would cause network protector operation or cycling. This margin is 20% of the maximum excess generation, or 15 kW, whichever is larger.

Telemetry will be required for systems larger than 150 kW to collect and provide PHI the monitored data. For systems larger than 50 kW and up to and including 150 kW, telemetry and related interoperability may be required where the system, during daytime hours, operates within 30% of the point where a network protector would inadvertently operate.

In Atlantic City Electric service territory aggregate PV generation connected to an area network shall not exceed 10% of minimum annual load or 500 kW, whichever is less. The minimum load is calculated based on minimum load occurring during an off-peak daylight period for PV or any off-peak minimum for other generation types. Depending on size, all PHI monitoring and telemetry requirements apply in Atlantic City.

**NOTE: To allow for more PV to be put on a secondary network, Pepco has come up with the following criteria that would accommodate larger systems that are greater than the minimum daytime load of a facility at certain times of the year:**

- For an LVAC Spot Network there must be a minimum import limit:
  - Minimum import Limit (M.I.L) is the minimum amount of power delivered to the customer from the utility.
  - The limit is (a) 20% of day-time min load, or (b) to be determined by planner in special cases.
- For an LVAC Grid Network there must be a maximum export limit:
  - The maximum export limit allows a customer on an LVAC grid network to export excess generation to the grid without causing reverse power to the network protectors at any time.

The limit is equal to 80% of the export (i.e. excess) generation of the customer's system (at the grid minimum load condition), before causing reverse power to any of the network transformers/protectors in the grid network. The PV system/facility being evaluated is evaluated with all other active and pending generation represented in the network.

## **11. Direct Transfer Trip**

DTT is required for all DERs 750 kW and greater. There are other scenarios where DERs smaller than 750kW will require DTT. Considerations for synchronous generators are different than inverter based. In the Pepco Region, Relay and Protection Engineering may waive this requirement.

## **Explanation of Criteria**

Remaining Circuit Capacity – The aggregate limit of large (250 kW and over) generators running in parallel with a single existing distribution circuit is 0.5 MWs on the 4 kV, 3 MWs on the 12 kV, 6 MWs on the 25 kV, and 10 MWs on the 34 kV. Applications for generators smaller than 250 kW are possible on a circuit restricted to 250 kW. Express circuits can be requested for larger systems.

Remaining Substation Transformer Capacity - The aggregate limit of large (250 kW and over) generators to a single distribution transformer is 10 MWs. Applications for generators smaller than 250 kW are possible on a transformer restricted to 250 kW.

Voltage Fluctuation Limit – DERs are permitted to cause up to 3% voltage fluctuation at the Point of Interconnection and  $\frac{1}{2}$  the bandwidth of any voltage regulator or  $\frac{1}{2}$  the net dead bandwidth of a capacitor bank. This metric quantifies the difference in feeder voltage when the system is running at full output versus when the generation has been suddenly lost. Larger systems and systems connected further from a substation tend to have a higher voltage fluctuation value. If this criterion can't be met with power factor mitigation, an impact study will be required to ensure that voltage can be maintained within applicable standards.

Steady State High Voltage Limit – DERs in maximum output are permitted to raise feeder voltage to the ANSI or state limit, whichever is more conservative. A simulation is performed which predicts how high the voltage will rise at a point in time when energy consumption is lowest on the feeder and the DER is injecting power. The system is simulated in a normal, steady state and without abnormalities. In some cases, steady state high voltage can be mitigated by changing settings on voltage regulation equipment.

Reverse Power Flow Limit – Some devices may require setting changes, a re-evaluation of their control scheme, or replacement if they experience reverse power flow. The sum of the full output capacity of all downstream DERs shall be kept to a maximum of 80% of the minimum daytime (9am – 3pm) load of the lowest loaded phase of the distribution system element.

Closed Circuits – Given current technology, each distribution circuit will have a limit to the amount of distributed generation that can be accommodated before operating violations occur. When the installed plus pending generation on a circuit has reached its maximum, and no further applications can be accepted, without cost prohibitive upgrades in relation to the project, the circuit is declared closed or restricted to all sizes.

Restricted Circuits – Circuits which have active and/or pending generation that exceeds the allowable amount of large DERs, are restricted to generators with AC ratings of 250 kW or less.



Date: 6/28/2022

To: Swedesboro Woolwich School District

From: Atlantic City Electric, Distributed Energy Resource Planning & Analytics

Subject: Pre-Application Request

Thank you for submitting a pre-application request. Please note that the results of this report are non-binding. Information provided below is subject to change. This report does not guarantee interconnection of a generator of any size. It is informative in nature only and does not hold a position in the interconnection queue.

Customer System Information

Address or POI Information: Walter Hill School, 1815 Kings Highway, Swedesboro, NJ, 08085

Account Number: 55008380069

System Information: 207 kW PV

Distribution System Information

Voltage Level at POI: 12.47 kV Ph-Ph

Current Number of Phases to POI: 3

Circuit Number: NJ1786

Any Known Circuit Restrictions: N/A

Distance from Substation to POI: 2.5 miles

Remaining Circuit Capacity for Large DERs	2733	kW
Remaining Substation Transformer Capacity for Large DERs	19704	kW
Installed Generation on Circuit	2413	kW
Pending Generation on Circuit	413	kW

Known constraints preventing a larger DER installation:

N/A

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Some criteria violations can be corrected with system modifications which were not evaluated as part of the pre-application process. If an application is submitted, further analysis will take place which may result in a larger or smaller approved generator size. Examples of more detailed analysis include voltage fluctuation, steady state high voltage, reverse power flow limits, protection reviews, transformer configurations, Distribution Automation impact and other location specific analysis.

# Criteria Limits for Distributed Energy Resource Connections to the ACE, DPL and Pepco Distribution Systems (less than 69kV) 10/30/2020

## 1. Single Phase Limit

The largest capacity single phase generator or DER (battery) operating in parallel with the grid is 100kW. Above that size, a balanced 3 phase system is required. If 3 phase is available, balanced 3 phase shall be used.

## 2. Voltage Limits

DERs are permitted to cause up to 3% (primary) or 5% (secondary) voltage fluctuation at the Point of Interconnection and ½ the band width of any voltage regulator or ½ the net dead band of a capacitor bank. DERs in maximum output are permitted to raise feeder voltage to the ANSI or state limit, whichever is more conservative. An absorbing PF may be required to mitigate voltage rise or fluctuation impact.

## 3. Existing Distribution Circuit Capacity Limits

The aggregate limit of “large” generators running in parallel with a single, existing distribution circuit is:

Circuit Voltage	Aggregate Limit	Large DER Size
4 kV	1 MW	250 kW
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23 – 25 kV	6 MW	500 kW
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## 4. Express Circuit Capacity Limits

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