



Quality You Can Trust... From North America's Largest Roofing Manufacturer!™

Commercial Roofing

Project Profile

gaf.com

Atlantic City Convention Center



“Thomas Company did a great job installing the EverGuard® Freedom™ TPO Membrane. There wasn't even one blister or lump in almost 500,000 square feet of new roofing. We also found the TPO membrane and cover board were adequate to handle the additional roof traffic and maintenance required for the solar system.”

— Frank Moore, AIA and president, ARMM Associates Inc.

Job Details

Location:

Atlantic City, NJ

Job Size:

480,000 square feet

Building Owner:

Atlantic City Casino
Reinvestment &
Development Authority

Completion Date:

November 2008

Architect:

ARMM Associates Inc.
725 Kenilworth Ave.
Cherry Hill, NJ 08002
(800) 257-5261
armmassociates.com

Roofing Contractor:

Thomas Company Inc.
6587 Delilah Rd.
Egg Harbor Township, NJ 08234
(609) 383-1400
thomascoinc.com

Solar Contractor:

Ray Angelini Inc.
105 Blackwood Barnsboro Rd.
Sewell, NJ 08080
(856) 228-5566
raiservices.com





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Building Overview

- The Atlantic City Convention Center is the largest conference center in New Jersey. The meeting venue hosts conventions, trade shows, and conferences in and around the Atlantic City area.

Challenge

- The Atlantic City Convention Center decided to house a solar array system, which would make it the largest single roof-mounted, grid-connected solar system in the United States. Most solar installations require that the existing roof be torn off, but the dynamics of the roof and lightweight concrete deck would not allow that (plus, that would have put the project over budget). The existing roof was a 12-year-old, granular-surfaced modified bitumen from GAF, but putting a 20-year solar roof on top would cause the existing bitumen roof to be replaced during its lifetime.

Materials Used

- EverGuard® Freedom™ TPO
- 3/8" Gypsum Cover Board
- OlyBond500® Insulation Adhesive
- Drill-Tec™ Locking Impact Nails

Solution

- Thomas Company Inc., was selected to install the new roof, a GAF EverGuard® Freedom™ TPO self-adhered system. First, the existing roof surface was power washed, then a 3/8" gypsum cover board was installed with OlyBond500® Insulation Adhesive. OlyBond500® is a low-rise polyurethane foam and meets the state's VOC requirements. GAF supplied the Drill-Tec™ Locking Impact Nails to enhance wind resistance around the edge of the roof. Once the TPO membrane was laid over the cover board, 13,500 solar panels covering nearly 85% of the roof were installed. GAF provided the custom-made TPO flashings for the several thousand penetrations on the roof.
- Facility managers wanted to increase the energy savings of the roof, so they chose a durable and highly reflective TPO roofing membrane. According to the Atlantic City Convention Center and Visitors Center (ACCVA), reflective roofs like TPO can increase the energy efficiency of the solar roof by up to 20% by helping to reduce the temperatures on the rooftop.

Key Fact

- The 2.37-megawatt solar system will produce up to 26% of the center's annual electricity requirements, according to ACCVA.

