Special Solar Array Ballasted Footings Used for the Largest Solar Energy System in Northampton

Oldcastle Precast delivered 176 custom designed precast footings to Renewable Sales, LLC., a Massachusetts – based leading wholesale distributor of photovoltaic and solar thermal energy products to complete the construction of the largest photovoltaic solar system to date, in the city of Northampton, at the Smith Vocational and Agricultural High School.

The 108-kilowatt solar array, built on the school's old tennis courts, is composed of eighty-eight solar arrays which incorporate approximately 500-solar panels that will reduce energy use by 20 percent annually after its completion in September. The system's panels can be tilted at different angles to capture the most sunlight, depending on the time of year. Renewable Sales, LLC contracted Oldcastle Precast, Inc.-Rehoboth to custom manufacture the at-grade precast ballasted footings for their solar arrays.

Renewable Sales, LLC needed special footings to ground mount their solar arrays due to the ground conditions at the site. Oldcastle Precast, Inc. provided their precast expertise and custom designed an at-grade precast ballasted footing for Renewable Sales’ GEMINI PV Ground Mount System. The ballasted footings are independent, precast concrete footings for ground mounted solar electrical systems. The GEMINI ballasted footings are engineered to work in virtually any location, environment or application conditions, including variations in wind speed, tilt angle, support and racking configuration, solar module size, weight, local design codes and project requirements.

This type of precast solar array foundation is designed for use in the most demanding solar panel applications where the panels need to be secured in unstable, environmentally sensitive, or impenetrable ground conditions or where a non- penetrating solution is required. These footings are also designed for relocation and reuse.

Due to the modular construction of the foundations and racking, the entire mounting system was constructed in two weeks, which is very impressive for an installation this size.

The roughly $500,000 project at Smith Vocational is being funded from two sources – 55 percent from a low-interest Clean Renewable Energy Bond and 45 percent from a state Green Communities grant. Earlier this year, the city qualified as a "Green Community," which enabled it to apply for grants to help with energy-efficiency and renewable-energy investment.

For more information please visit, www.oldcastleprecast.com [1].

Links:
[1] http://www.oldcastleprecast.com