

# the solar center



Design



Implementation



Maintenance

## Company Overview

The Solar Center (TSC) is one of the East Coast's leading providers of solar energy systems. Specializing in turnkey energy solutions, the company designs and installs solar energy systems to help our customers lower electric purchases from conventional generation, ensuring a long term supply of fixed priced electricity, and take advantage of significant Federal and State incentive. TSC also analyzes energy consumption and costs for its commercial clients and recommends energy efficiency investments to enhance efficiency and improve the bottom line. The Solar Center's comprehensive approach to energy management seamlessly integrates technically advanced renewable energy production with efficiency solutions for optimal energy performance. The Solar Center's primary business focus is the design and installation of solar electric systems for commercial and residential customers in the New Jersey, New York, Connecticut Tri-State region.

Since the Solar Center's founding in 2005, The Solar Center has contracted over 600 residential and commercial systems amounting to over 4.5 MW of solar energy. Our solar energy solutions include solar electric and solar thermal energy systems. With over 300 solar energy customers installed, The Solar Center has steadily expanded its solar operations to include the development of solar electric projects up to the net Metering limit of 2 MW. These projects include solar for commercial and industrial facilities, educational institutions, apartment complexes, churches as well as residential buildings of all types.

**The Solar Center, Inc.**  
47 Woodland Avenue, Rockaway, NJ (973) 627-7730 – [www.thesolarcenter.com](http://www.thesolarcenter.com)  
And offices on Long Island, NY

## Solar PV Project Case Studies

### SHOP RITE - GLASS GARDENS – WHARTON, NJ

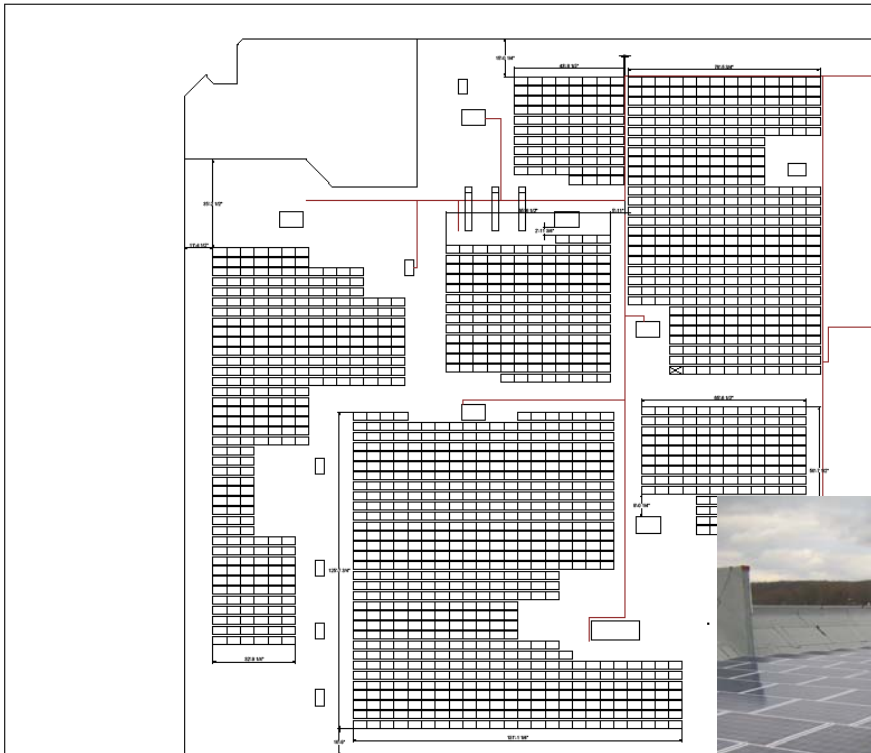


Account Name Shop Rite- Wharton Address  
Wharton, NJ 07885  
Company Name Glass Gardens  
System Size 358 KW  
Type Flat roof non penetrating ballast

**DESCRIPTION:** A 358 kilowatt solar system – making it the largest solar installation for a supermarket in the state of New Jersey.

The solar installation consists of the mounting of 1,666 solar panels - each fixed on the roof of the ShopRite of Wharton at a five degree angle. Taking up 70 percent of the roof space, the solar panels will produce a total power of approximately 358 kilowatts and are anticipated to reduce the energy consumption at the store by 10 percent, saving thousands of dollars a year in energy costs and saving over 280 tons of carbon dioxide emission.

“The ShopRite of Wharton’s solar installation marks a huge step forward in our county’s initiative to put into place energy-saving projects that will help cut energy bills and our dependency on oil,” stated Mayor Chegwidien. “It truly sets the example for schools and municipalities in the area to start installing green technology for a better future.”



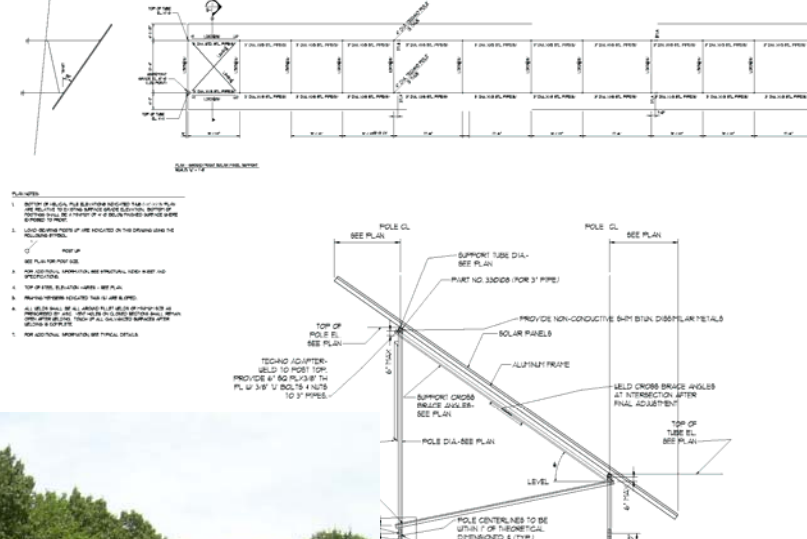
**solarcenter**  
47 Woodland Avenue  
Rockaway, NJ 07866  
973-627-7730

Customer:  
Glass Gardens / Shop Rite Center  
314 State Route 15 South  
Wharton, NJ 07885  
Block: 801 Lots: 7, 7.02, 7.03 & 7.06

Project:  
**Proposed PV System at Shop Rite  
Of Wharton**

Drawn by: Steven Lawrence Date: 9/12/08 Job # 0644 Scal

CONNECTIONS TO ALL UTILITIES SHALL BE MADE AT THE PROPERTY OWNER'S RISK AND EXPENSE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL GOVERNMENT AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL GOVERNMENT AND UTILITIES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND APPROVALS FROM THE LOCAL GOVERNMENT AND UTILITIES.



# CNC Project – TOLLAND, CONNECTICUT



Account Name CNC - Tolland, CT  
 Company Name Summers & Summers  
 System Size 73 KW  
 Type Groundmount



NOTES:  
 1. THIS MAP AND SURVEY HAVE BEEN PREPARED PURSUANT TO THE REGULATIONS OF CONNECTICUT STATE AGENCIES SECTIONS 20-300b-1 THROUGH 20-300b-20, "MINIMUM STANDARDS FOR SURVEYS AND MAPS IN THE STATE OF CONNECTICUT". THIS IS AN IMPROVEMENT LOCATION SURVEY AND IS A DEPENDANT RESURVEY BASED ON THE FOLLOWING PLAN: IMPROVEMENT LOCATION SURVEY, SITE & GRADING PLAN, CNC SOFTWARE, INC. PREPARED FOR SUMMERS & SUMMERS REALTY, 671 OLD POST ROAD, TOLLAND, CONNECTICUT, DATE 3-27-87, REVISED THROUGH 2-21-08, SCALE 1"=40', PREPARED BY GARDNER & PETERSON ASSOCIATES", AND CONFORMS TO HORIZONTAL ACCURACY CLASS A-2.  
 2. THE PURPOSE OF THIS PLAN IS TO REVISE THE PROPERTY LINES BETWEEN LAND OF SUMMERS & SUMMERS REALTY, LLC, AND LAND OF ROBERT S. REID.  
 3. THE LOCATION OF EXISTING UNDERGROUND UTILITIES DEPICTED HEREON ARE AS OBTAINED BY FIELD MEASUREMENTS, RECORD MAPS AND OTHER SOURCES OF INFORMATION AND SHOULD BE FIELD VERIFIED BY THE DEVELOPER OR CONTRACTOR. THE DEVELOPER OR CONTRACTOR IS ADVISED TO CONTACT "CALL BEFORE YOU DIG" AT 1-800-332-4459 PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION OR EXCAVATION.

TO THE BEST OF MY KNOWLEDGE AND BELIEF  
 THIS MAP IS SUBSTANTIALLY CORRECT AS NOTED HEREON  
 Kenneth R. Peterson L.S. 10839  
 KENNETH R. PETERSON REGISTRATION NO.



## IDA Project – DERBY, CONNECTICUT

IDA Properties - Derby, CT Address IDA-Properties  
Company Name IDA Properties  
System Size 97 kW  
Type Pitched Metal Seam



The Solar Center performed the design and installation of a 96 kilowatt solar system for IDA-International of Derby, one of the largest solar installations to date in that Connecticut.

Thomas Harbinson, IDA's President, stated "Generating electricity from sunlight is a decision that took time to implement. Fortunately, when our 1800's era factory building was built, the designer took solar orientation into account for bringing daylight into the workplace. That orientation now works to our advantage with maximum potential for solar electrical generation. A standing seam metal roof as part of our building envelope both eases the attachment of the solar panels to our building, and reduces the heat gain on the building structure due to its high emissivity." IDA hopes to illustrate that former under-utilized industrial buildings can be given new life with a green aspect such as solar electric generation. It's a business direction for other companies to take a serious look at.



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# MARRIOTT RESIDENCE INN– WEST ORANGE

“People of the United States are reaching a point when environmental decisions and issues need to be addressed. Incorporating “green” technology and profitable business are not mutually exclusive.”

**Kurt Knowles, Jr, Owner**  
**The Marriott Residence Inn**



**System Rating:** 108,500 Watts DC  
**Modules:** 300 Sanyo 200W,  
320 Sharp 140W, 90 Sharp 70W angled  
**Inverters:** 2 Fronius & 8 Solectria Inverters  
**Area Covered:** 9,042 Square Feet

The Marriott Residence Inn located in West Orange, NJ is owned and operated by the Knowles family. Kurt Knowles, Jr., has always been interested in solar energy and environmental technology. Solar energy was one way of incorporating “green” technology into his business.

Because this is a hotel, the aesthetic appeal of the solar installation was critical to the owners. The character of the hotel could not be compromised. However, in order to optimize the power from the to the roof angles so that it appeared as an integral part of the roof.

The design utilized a combination of rectangular and triangular solar modules with black frames and matching black cap strip type mounting system, creating a continuous visual array that blended seamlessly into the hotel's roof. The combination of Sharp and Sanyo modules provides 108.5 kW of DC electricity.

From start to finish the overall project installation period took 2 months. A monitoring system was installed in the hotel lobby so that guests and staff can see the amount of electricity the system generates each day.



**Benefits & Results:**

- Annual AC Power Production: 120,200 kWhrs
- First Year Electrical Savings: \$16,900
- Annual SREC Earnings: \$29,295
- 30 year energy savings: \$1,170,912





## Contact Information

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