

SOLAR TRANSPORTATION HUB

WESTPORT TRAIN STATION



GORDON JOSELOFF
FIRST SELECTMAN OF WESTPORT

JONATHAN STEINBERG
CONNECTICUT STATE REPRESENTATIVE -- DISTRICT 136

TONI BOUCHER
CONNECTICUT STATE SENATOR -- DISTRICT 26

STEVE SMITH
TEAM LEADER



LEO DIRINO

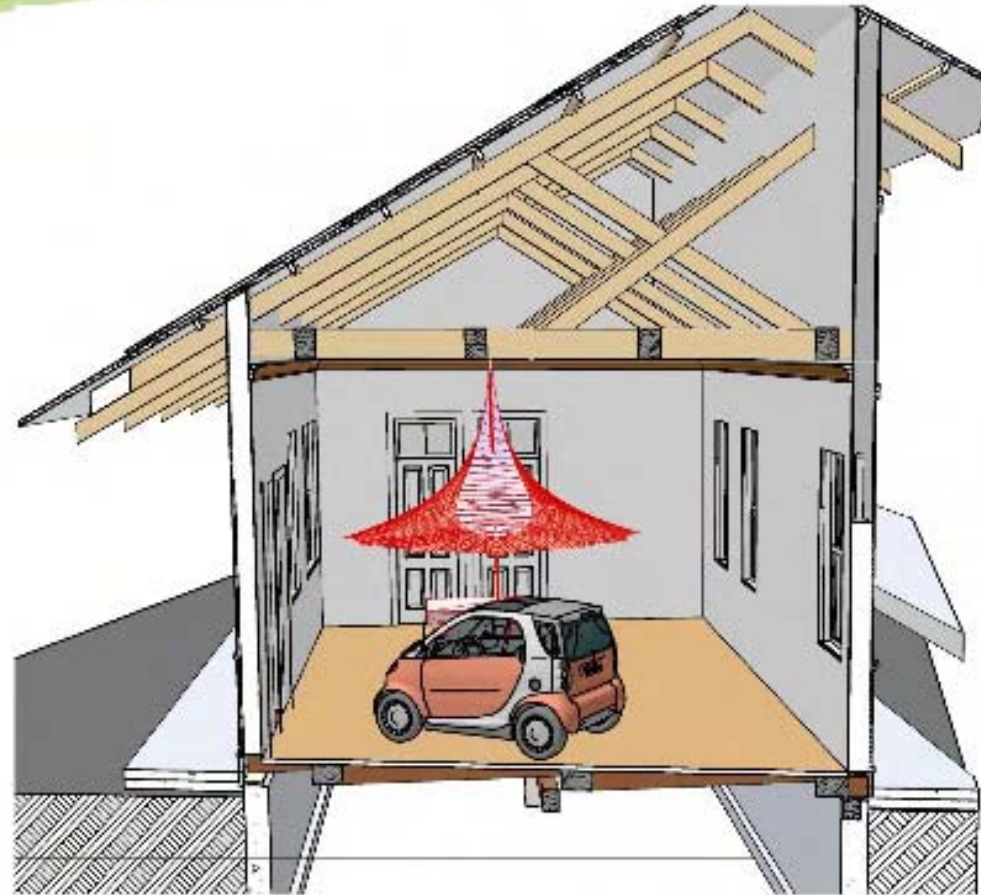


FREDERICK WILLIAM HOAG
ARCHITECT

Existing Conditions



Rendering of Station Interior



FREDERICKWILLIAMHOAG
ARCHITECT



ROUNTREE
ARCHITECTS

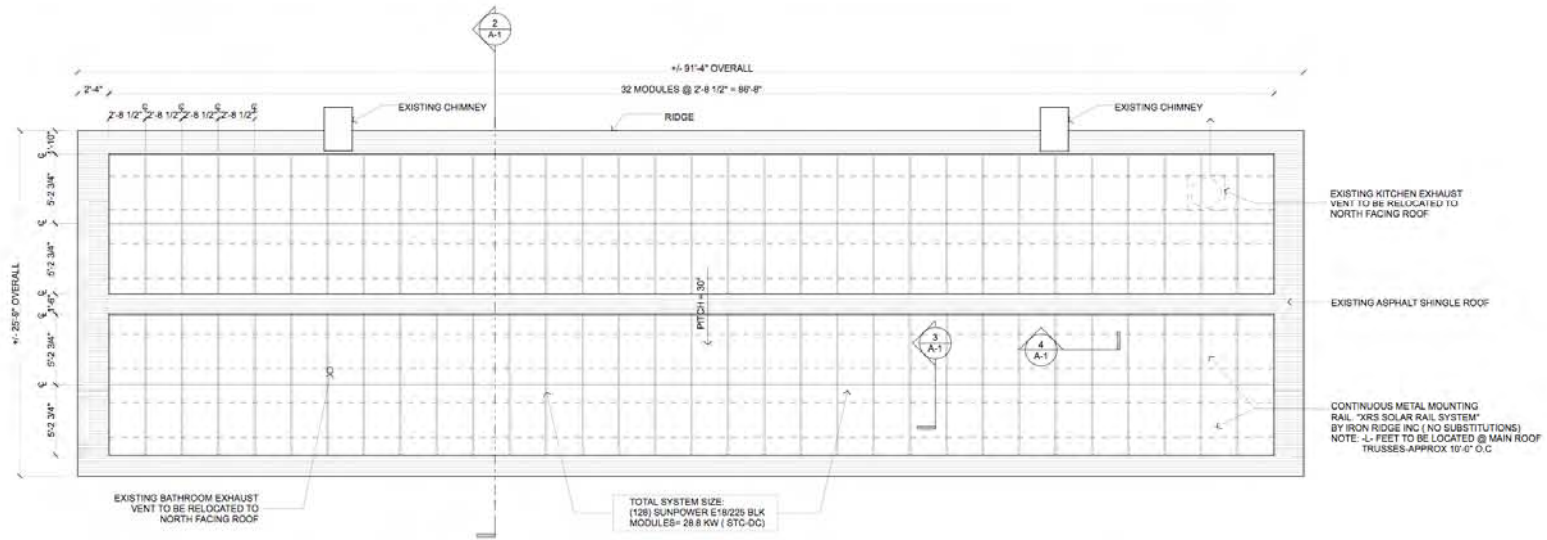
Proposed 28.8 kW PV System



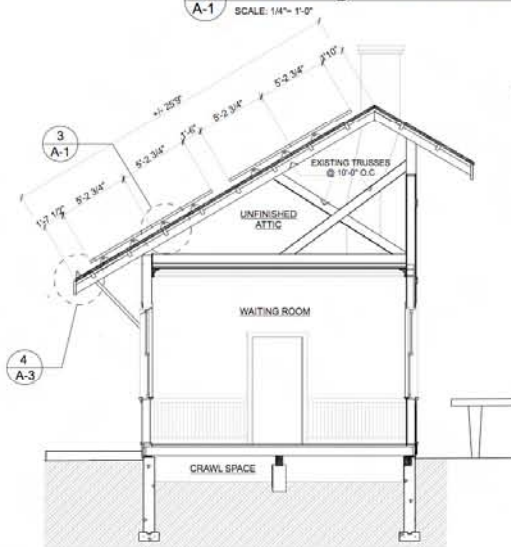


Proposed Roof Plan

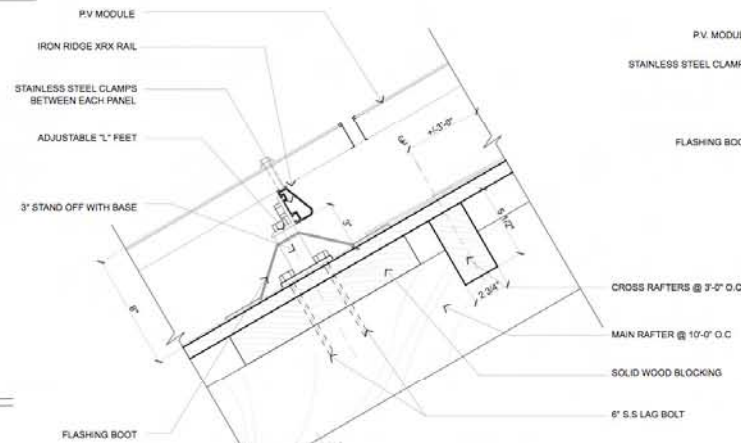
(funded thru grant from CEFIA)



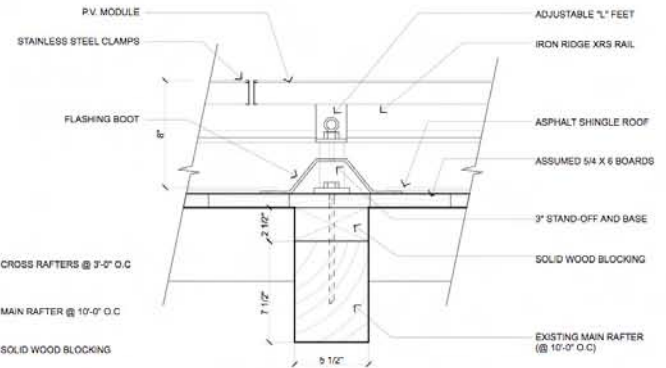
1 ROOF PLAN @ SOLAR PANEL ARRAY
SCALE: 1/4" = 1'-0"



2 SECTION @ WAITING ROOM
SCALE: 1/4" = 1'-0"



3 VERTICAL SECTION DETAIL @ P.V. PANELS / RAIL
SCALE: 3/8" = 1'-0"



4 HORIZONTAL SECTION DETAIL @ P.V. PANELS / RAIL
SCALE: 3/8" = 1'-0"

This drawing is the property of Westport Solar Consultants and has been prepared specifically for the owner for this project on this site. It is not to be used for any other projects, location or owner without written consent of Westport Solar Consultants.

ISSUE DATES/REVISIONS		
No.	Date	Description

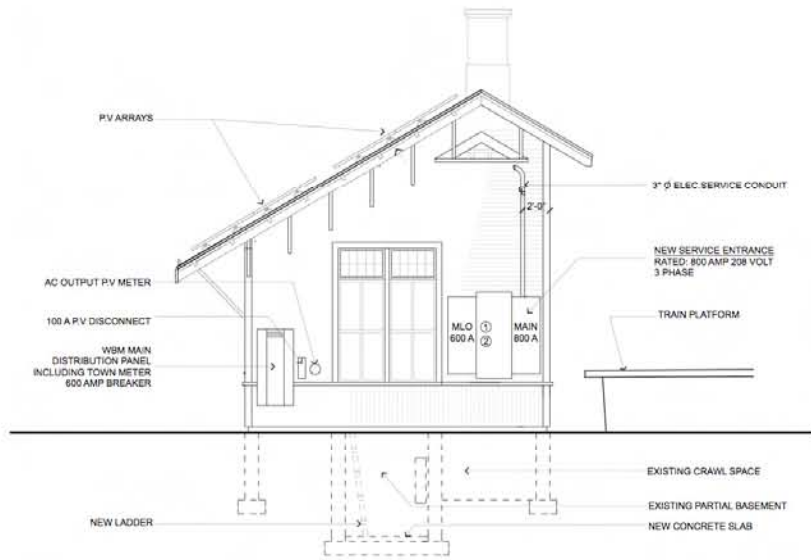
Proposed Photovoltaic and Electric Vehicle Charging System for the Westport Train Station
45 Railroad Place, Westport, CT

Westport SOLAR Consultants
110 COMPO ROAD SUITE 1
WESTPORT, CONNECTICUT 06894
203.227.1766 #0684
203.227.7932 FAX
www.westportsolar.com

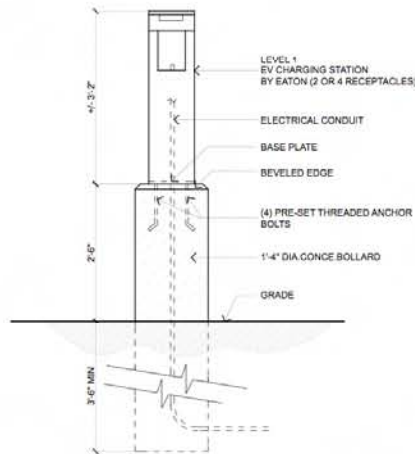
Roof Plan, Section and Details	
Project #:	Drawing No:
Scale:	A-1
Drawn by:	
Date:	

Proposed Roof Plan

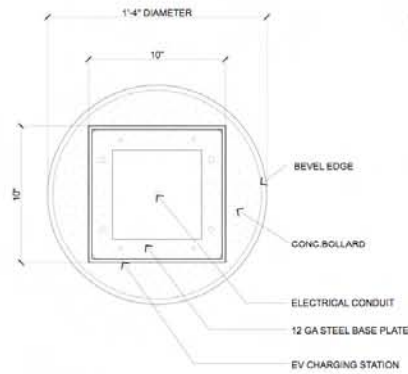
(funded thru grant from CEFIA)



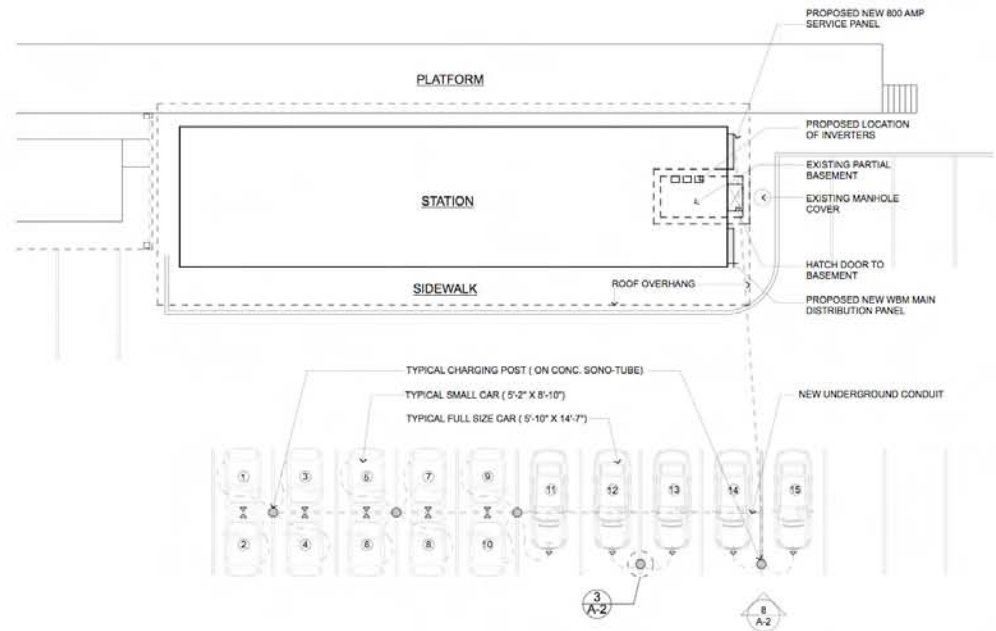
1 EAST ELEVATION
SCALE: 1/4" = 1'-0"



2 ELEVATION @ EV CHARGING STATION
SCALE: 1'-0" = 1'-0"



3 PLAN DETAIL @ EV CHARGING STATION
SCALE: 3" = 1'-0"



4 SITE PLAN
SCALE: 1/8" = 1'-0"

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45 Railroad Place, Westport, CT

Westport SOLAR Consultants

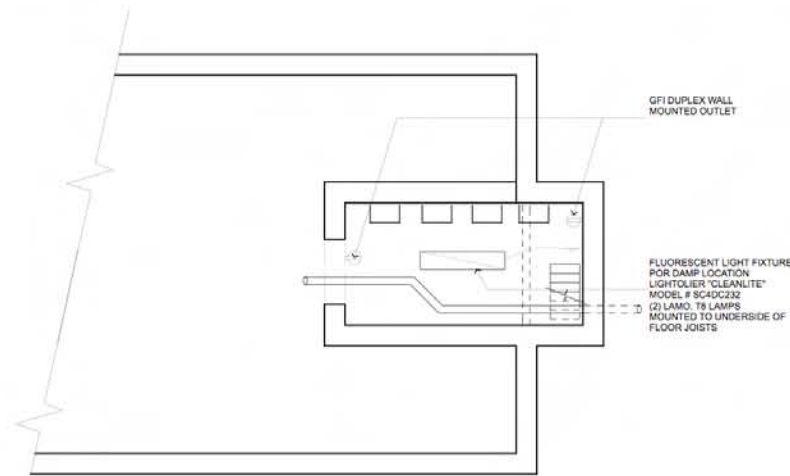
120 COMPO ROAD SOUTH
WESTPORT, CONNECTICUT 06880
203.227.1764 PHONE
203.227.7182 FAX
www.westportsolar.com

East Elevation, Site Plan and Details @ Charging Posts

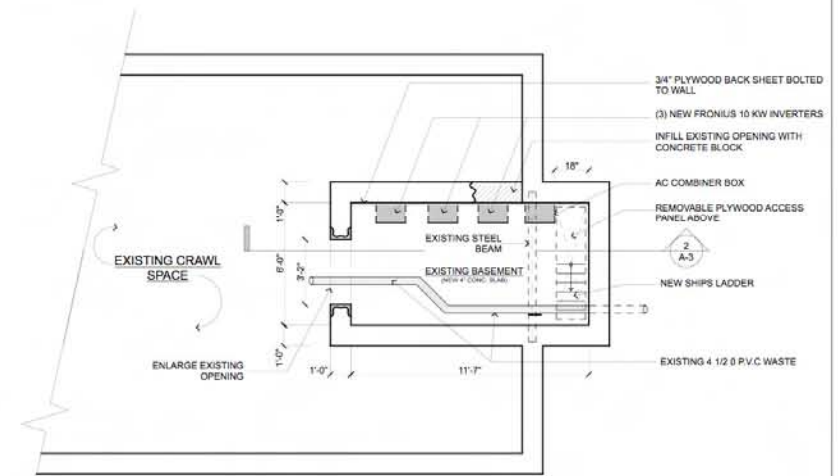
Project #: _____
Scale: _____
Drawing No: **A-2**
Drawn by: _____
Date: _____

Proposed Roof Plan

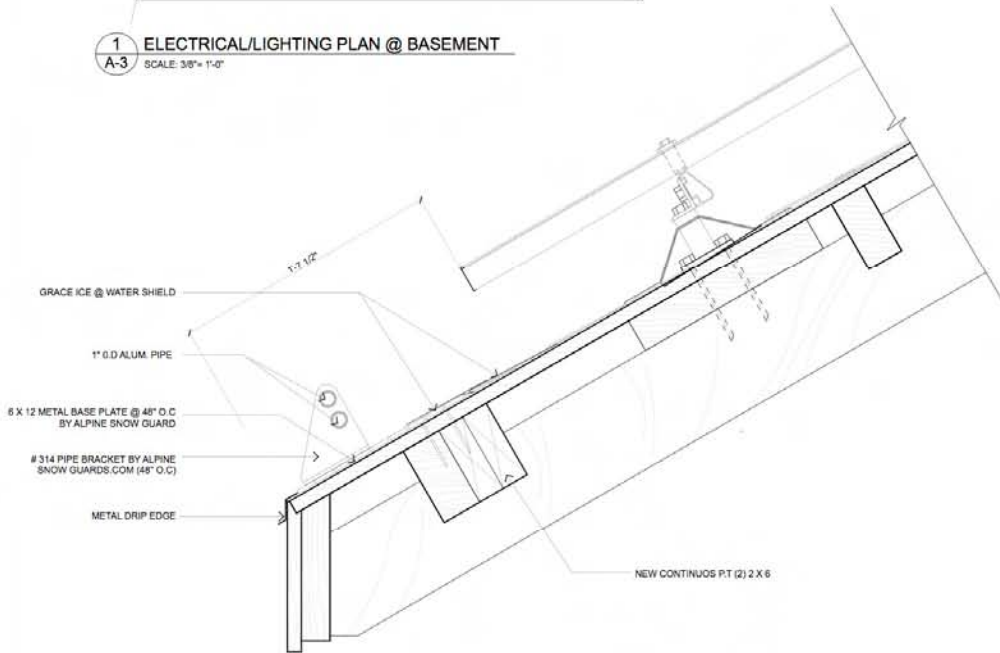
(funded thru grant from CEFIA)



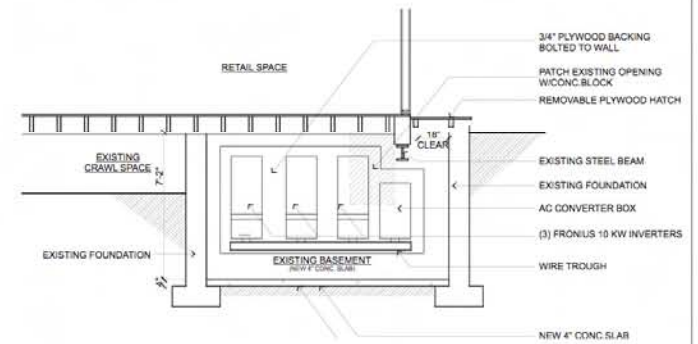
1 ELECTRICAL/LIGHTING PLAN @ BASEMENT
A-3 SCALE: 3/8" = 1'-0"



2 PLAN @ EXISTING PARTIAL BASEMENT
A-3 SCALE: 3/8" = 1'-0"



3 DETAIL @ SNOW GUARD
A-3 SCALE: 3/4" = 1'-0"



4 SECTION @ EXISTING PARTIAL BASEMENT
A-3 SCALE: 3/8" = 1'-0"

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Plan and Section @ Existing Partial Basement	
Project #:	Drawing No:
Scale:	A-3
Drawn by:	Date:

Project Financing

- 3rd party ownership - no cost to Town or ConnDOT
- Project Developer can use combination of ZREC, PPA and CEFIA funding
- Increase in parking revenue

New ZREC Program for 2012

Zero-emissions renewable energy credits

- New “performance based incentive”
- Included in new energy billed signed into law on July 1, 2011
- Utilities are required to purchase credits under 15 year contracts
- ZREC will sell for a max of \$350 / MWH
- Investment by utilities = \$8 million / year
- Project Owners will bid and compete for ZRECs
- 30% Federal Investment Tax Credit thru 2016

Project Benefits

- Encourage the sale of Electric Vehicles
- Reduce load on Grid by “peak-shaving”
- Reduce carbon footprint of new EVs
- Encourage the use of mass transportation
- Create new jobs in Connecticut
- Increase parking spaces by “doubling-up”
- No cost to towns thru 3rd party ownership
- Encourage the use of solar for EV charging



Metro-North Railroad

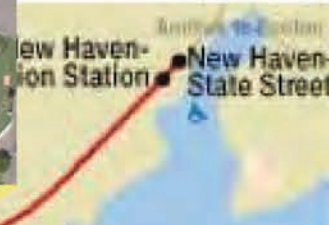


Key

- Rail Station ●
- Wheelchair or ADA Accessible station ♿
- Major transit hub ○
- Rail Station ○
- Connecting rail service —

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POTENTIAL SOLAR STATIONS ALONG NEW HAVEN LINE





EXAMPLE 1: MILFORD STATION

LARGE ROOF FOR SOUTH FACING
SOLAR ARRAY WITH ADJACENT
PARKING
AND SUFFICIENT VISIBILITY

PV SYSTEM SIZE =
18.75 kWh



EXAMPLE 2

DARIEN STATION

LARGE ROOF FOR SOUTH FACING
SOLAR ARRAY WITH ADJACENT
PARKING
AND SUFFICIENT VISIBILITY
ESPECIALLY FROM POST ROAD

PV SYSTEM SIZE=
51 kWh

PV Parking Lot Shade Structures



EV Charging



Next Steps

- Support from DEEP
- ConnDOT approval
- Grant funding to perform feasibility study for multiple sites

Project Partners

- **DEEP**
- **ConnDOT**
- **Town of Westport**
- **CEFIA**
- **CL&P**
- **Steve Smith, Building Inspector, Town of Westport**
- **Westport Solar Consultants, LLC**
- **Leo Cirino**
- **Rick Hoag Architect**

Our Team

