



Checklist and Submittal Requirements for Prescriptive Installations of Solar Photovoltaic and Solar Water Heating Systems in accordance with Oregon Solar Installation Specialty Code (OSISC)

Instructions

Complete the following with all the information requested. This form must be submitted along with the application for installation.

Property Owner Information

Property Owner Name: Nicole Cousino and Richard Haskell Installation Address: 36 NE 76th Avenue

Day Phone: 510.684.9892 Evening Phone: _____ Email: nicolecous@gmail.com

Contractor: Imagine Energy, LLC CCB#: 167963

Day Phone: 503.477.9585 Evening Phone: _____ Email: info@imagineenergy.net

PV OR Solar Water Heating Modules

Manufacturer: SolarWorld Model Number: SW270 Listing Agency: UL

Site Plan and Structural Plan

- Attach a simple site plan showing the location of the PV or solar water heating system in relation to buildings, structures, property lines, and, as applicable, flood hazard areas.
- Attach a simple structural plan showing the roof framing (rafter size, type and spacing) and PV module system racking attachment. Plans must be shown in sufficient detail to assess whether the requirements of section 304.9 of OSISC or one of the exceptions have been met.
- Attach simple building elevation.
- The plans must be on 8.5 x 11 or larger paper.

Structural Information

Roof Design and Attachment

- Roof rafter size: 2x4 _____ inches OR Manufactured Trusses
- Rafter or manufactured roof truss spacing 24 _____ inches o.c.
- For roof rafters, maximum rafter span allowed per table 305.4.1 (Appendix "B") of the Oregon Solar Installation Specialty Code (OSISC) (www.oregonbcd.org/programs/solar/solar_code/100110_OSISC.pdf) for the size and spacing of roof rafters is 7 x 11 inches.

Checklist to determine if your installation qualifies for prescriptive path

Yes No Is this conventional light framed wood construction?

Yes No Does the structure have pre-engineered trusses?

OR

Does structure have roof framing members spaced at 24" o.c. maximum AND comply with the applicable allowable span in table 305.4.1 (Appendix "B") of the Oregon Solar Installation Specialty Code (OSISC)?

- Yes No Is the roofing material metal, single layer wood shingle, or not more than two layers of composition shingle?
- Yes No Is the weight of the modules and racking less than 4.5 pounds per square foot?
- Yes No Is the module height less than 18 inches above the roof in accordance with section 305.4?

For Standing Seam Metal Roofs Only (If not applicable please skip this section)

- Yes No Is the metal gauge 26 or heavier?
- Yes No Clamp design: Are clamps designed to withstand uplift of at least 115 pounds for clamps spaced at 60 inches on center or less or at least 75 pounds for clamps spaced at 48 inches on center or less?
- Yes No Is the spacing of the clamps as measured along the seam greater than or equal to 24" o.c. and less than 60" o.c. AND the spacing perpendicular to the seam not greater than 24" o.c.?
- Yes No Is the roofing panel width 18-inches or greater?
- Yes No Is the roofing panel attached with at least #10 screws at 24" o.c.?
- Yes No Is the roofing panels installed over minimum 1/2-inch nominal wood structural panels attached to framing with 8d nails at 6" o.c. at panel edges and 12" o.c. field nailing?

If you have indicated "No" on any of these requirements above, the project may not be submitted using the prescriptive path.

Fire Fighter Access and Escape

Access and escape pathways are not required when the array is located on a non-occupied accessory structures that is separated from occupied structures by a 6 foot minimum separation distance or by a minimum two-hour fire rated assembly.

General Requirements: For all other roof mounted systems, a minimum 36" wide pathway is required along three sides of the solar roof, located over a structurally supported area. Any roof with a slope greater than 2:12 can not use the bottom roof edge as a pathway. Pathways and solar panels shall be located outside 12" of the low point of a valley.

If the array is greater than 150 feet in length or width, additional 36" wide intermediate pathways and cutouts are required. See code for details.

If the roof has smoke and/or heat vents, a 36" pathway shall be provided to and around each vent.

Exceptions to General Requirements:

- Yes No Is the roof slope greater than 2:12?
- Yes No Is the array area 1,000 sq ft or less?
- Yes No Is the array 150 feet or less in length or width?

If you have indicated "No" to any of the items above, exceptions do not apply, provide a simple plan conforming with the general requirements.

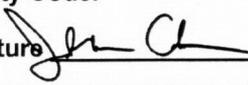
If you have indicated "Yes" to all of the items above, see below for reduced access and escape pathway requirements.

Is the array 25% or less of the roof area? Yes No

- If Yes, a 12" pathway along each side of any horizontal ridge is required.
- If No, a 12" pathway along each side of any horizontal ridge is required and a minimum of one 36" pathway is required from ridge to eave over a structurally supported area.

Provide a simple plan showing conformance to the reduced access pathway requirements.

As the property owner or authorized representative of the above listed property, I certify that I have verified the information provided above and that the roof rafters (if applicable to the project), meet the span requirements of Table 305.4.1 (Appendix B) of the Oregon Solar Installation Specialty Code.

Applicant name (please print) Jonathan Cohen **Signature**  **Date** 10/24/13



Building Permit Application
City of Portland, Oregon - Bureau of Development Services

1900 SW 4th Avenue, Portland, Oregon 97201 • 503-823-7310 • TTY 503-823-6868 • www.portlandoregon.gov/bds

Type of work

- New construction Addition/alteration/replacement
 Demolition Other:

Category of construction

- 1 & 2 family dwelling Commercial/industrial Accessory building
 Multifamily Master builder Other:

Job site information and location

Job no.: _____ Job address: 36 NE 76th Avenue
 City/State/ZIP: Portland OR 97213
 Suite/bldg./apt. no.: _____ Project name: Nicole Cousino and Richard Haskell
 Cross street/directions to job site: _____
 Subdivision: _____ Lot no. _____ Tax map/parcel no. _____

Description of work

~~0.000 kW~~ Photovoltaic System
 4.86 kW

- Reference RS / Combination Permit no. _____

Property owner **Tenant**

Name: Cousino & Haskell
 Address: _____
 City/State/ZIP: _____
 Phone: _____ FAX: _____

Owner installation: This installation is being made on property that I own, which is not intended for sale, lease, rent, or exchange.

Owner signature: _____ Date: _____

Contractor

Business name: Imagine Energy, LLC
 Address: 2409 N Kerby Avenue
 City/State/ZIP: Portland / OR / 97227
 Phone: 503.477.9585 FAX: 503.477.8340
 CCB lic. no. 167963

Authorized signature:
 Print name: Jonathan Cohen Date: _____

Applicant **Contact Person**

Business name: _____
 Contact name: _____
 Address: _____
 City/State/ZIP: _____
 Phone: _____ FAX: _____
 E-mail: _____
 Authorized signature: _____
 Print name: _____ Date: _____

This permit application expires if a permit is not obtained within 180 days after it has been accepted as complete.

Office Use Only

Permit no.: _____
 Date received: _____
 By: _____

Required Data: One and Two Family Dwelling

Permit fees* are based on the value of the work performed. Indicate the value (rounded to the nearest dollar) of all equipment, materials, labor, overhead, and the profit for the work indicated on this application.

Valuation: \$0.00 *10750*
 Number of bedrooms: _____
 Number of bathrooms: _____
 Total number of floors: _____
 New dwelling area: _____ square feet
 Garage/carport area: _____ square feet
 Covered porch area: _____ square feet
 Deck area: _____ square feet
 Other structure area: _____ square feet

Required Data: Commercial Use

Permit fees* are based on the value of the work performed. Indicate the value (rounded to the nearest dollar) of all equipment, materials, labor, overhead, and the profit for the work indicated on this application.

Valuation: _____
 Existing building area: _____ square feet
 New building area: _____ square feet
 Number of stories: _____
 Type of construction: _____
 Occupancy groups
 Existing: _____
 New: _____

Notice

All contractors and subcontractors are required to be licensed with the Oregon Construction Contractors Board under ORS 701 and may be required to be licensed in the jurisdiction in which work is being performed. If the applicant is exempt from licensing, the following reasons apply.

Statement of Fact: I certify that the facts and information set forth in this application are true and complete to the best of my knowledge. I understand that any falsification, misrepresentation or omission of fact (whether intentional or not) in this application or any other required document, as well as any misleading statement or omission, may be cause for revocation of permit and/or certificate of occupancy, regardless of how or when discovered.

Building Permit Fees*

Please refer to fee schedule

Fees due upon application	
Amount received	
Date received	

Sub-contractor information can be faxed to 503-823-7693.



Renewable Electrical Energy Permit Application
City of Portland, Oregon - Bureau of Development Services

1900 SW 4th Avenue, Portland, Oregon 97201 • 503-823-7363 • FAX 503-823-4172 • TTY 503-823-6868 • www.portlandoregon.gov/bds

Type of work

- New construction Addition/alteration/replacement
 Demolition Other:

Category of construction

- 1 & 2 family dwelling Commercial/industrial Accessory building
 Multifamily Master builder Other:

Job site information and location

Job no.: Job address: 36 NE 76th Avenue
 City/State/ZIP: Portland OR 97213
 Suite/bldg./apt. no.: Project name: Nicole Cousino and Richard Haskell
 Cross street/directions to job site:
 Subdivision: Lot no. Tax map/parcel no.

Description of work

~~0.000~~ kW Photovoltaic System

4.800 kw

- Reference RS / Combination Permit no.

- Property owner** **Tenant**

Name: Cousino & Haskell

Address:

City/State/ZIP:

Phone: FAX:

Owner installation: This installation is being made on property that I own, which is not intended for sale, lease, rent, or exchange.

Owner signature: Date:

- Contractor** **Subcontractor**

Business name: Imagine Energy, LLC

Address: 2409 N. Kerby Avenue

City/State/ZIP: Portland / OR / 97227

Phone: 503.477.9585 FAX: 503.477.8340

Elec. lic. no. C872 CCB lic. no. 167963

Metro or City lic no. 5709S Date:

Supervising electrician
 Signature, required: [Signature]

Print name: Todd Rhodes License no. 5709S

Authorized signature: [Signature]

Print name: Todd Rhodes Date:

- Applicant** **Contact Person**

Business name:

Contact name:

Address:

City/State/ZIP:

Phone: FAX:

E-mail:

This permit application expires if a permit is not obtained within 180 days after it has been accepted as complete.

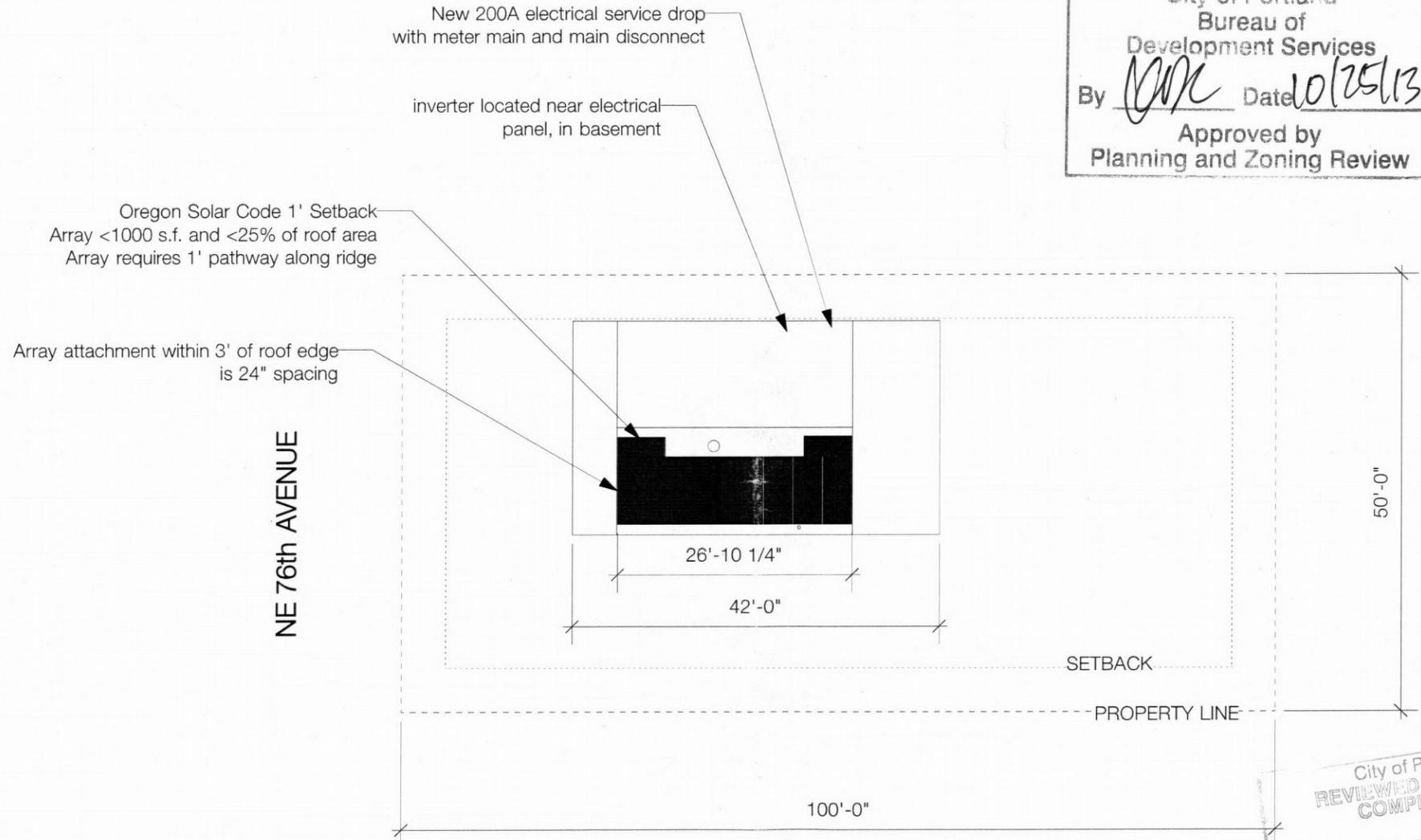
Fee Schedule

Description	Qty.	Fee	Total	**
Renewable energy installation per system total				
5 kva or less	1	\$120		2
5.01 to 15 kva		\$172		2
15.01 to 25 kva		\$225		2
Miscellaneous				
Describe:				
Hourly rate:		\$125		
Each additional inspection over allowable in any of the above				
Per inspection		\$ 85		
Investigation fee				
Other				
Electrical permit fees*				
		Subtotal		
		Plan review (25% of permit fee)		
		State surcharge (12% of permit fee)		
		TOTAL PERMIT FEE		

** Number of inspections allowed per permit.

RS Permit/No Fees Due

Sub-contractor information can be faxed to 503-823-7693.



City of Portland
Bureau of
Development Services
By *[Signature]* Date *10/25/13*
Approved by
Planning and Zoning Review

City of Portland
REVIEWED FOR CODE
COMPLIANCE
OCT 29 2013
Permit Number



SITE PLAN

DRAWN BY
JONATHAN COHEN
SHEET NUMBER | TOTAL SHEETS
1 | 4

REVISION | REASON

DRAWN ON
10/21/13

SCALE
1/16" = 1'

DATE

INITIALS

COUSINO-HASKELL

PROJECT DESCRIPTION
SOLAR PV FIT PROJECT

PROJECT ADDRESS
**NICOLE COUSINO AND RICHARD HASKELL
36 NE 76TH AVENUE
PORTLAND, OR 97213**

CONTACT INFORMATION
510.684.9892
NICOLECOUSO@GMAIL.COM

IMAGINEENERGY

2409 N KERBY AVENUE
PORTLAND, OR 97227

P 503.477.9585 F 503.477.8340
INFO@IMAGINEENERGY.NET

CCB#: 167963
WA LIC #: IMAGIEI934PT

13-221098-R5

2

STRUCTURE SPECIFICATIONS

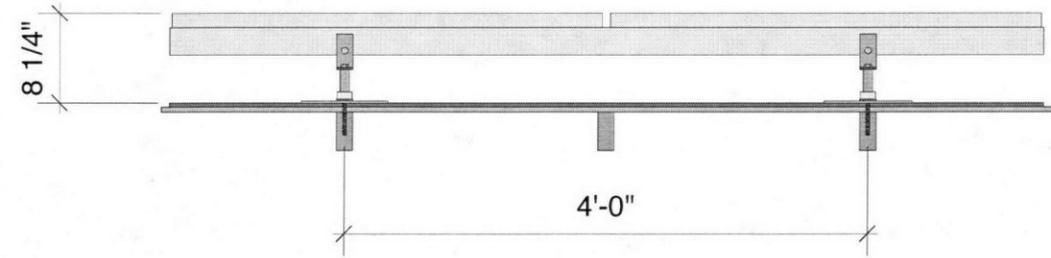
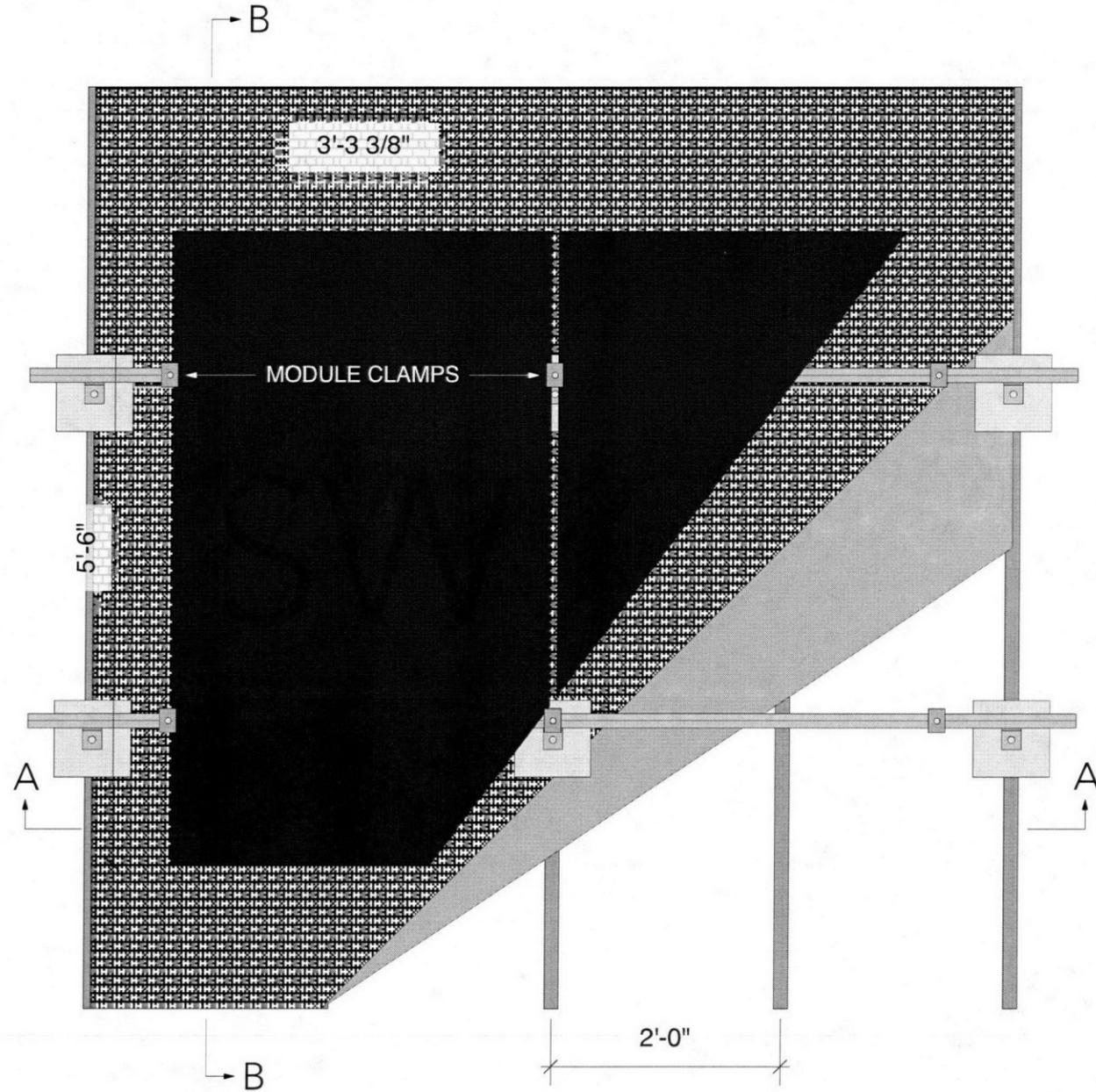
2" x 4" RAFTERS, 24" O.C.
1/2" SHEATHING

ROOF SPECIFICATIONS

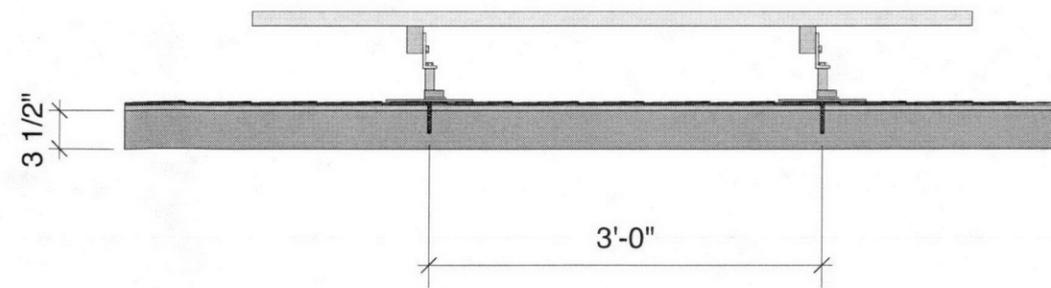
1 LAYER ARCH COMP SHINGLES
7 YEARS OLD

MOUNTING SPECIFICATIONS

SNAP=N-RACK RACKING
SLOTTED, EXTRUDED FRAME RAIL
FASTJACK MOUNT W/ FLASHING
5/16" x 3" STAINLESS STEEL LAG SCREWS



SECTION A-A



SECTION B-B



PARTIAL ROOF PLAN
SCALE: 3/4" = 1'

IMAGINEENERGY

2409 N KERBY AVENUE
PORTLAND, OR 97227
P 503.477.9585 F 503.477.8340
INFO@IMAGINEENERGY.NET
CCB #167963
WA LIC #: IMAGIEL934PT

COUSINO-HASKELL

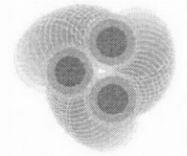
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SOLAR PV FIT PROJECT
PROJECT ADDRESS
NICOLE COUSINO AND RICHARD HASKELL
36 NE 76TH AVENUE
PORTLAND, OR 97213
CONTACT INFORMATION
510.684.9892
NICOLECOUS@GMAIL.COM

MOUNTING DETAIL

DRAWN ON
10/22/13
SCALE
3/4" = 1'
DATE
INITIALS
SHEET NUMBER | TOTAL SHEETS
2 | 4
REVISION | REASON

STRUCTURE SPECIFICATIONS

2" x 4" RAFTERS, 24" O.C.
 SS GRADE FIR, 6'10" SPAN
 1/2" SHEATHING



IMAGINEENERGY

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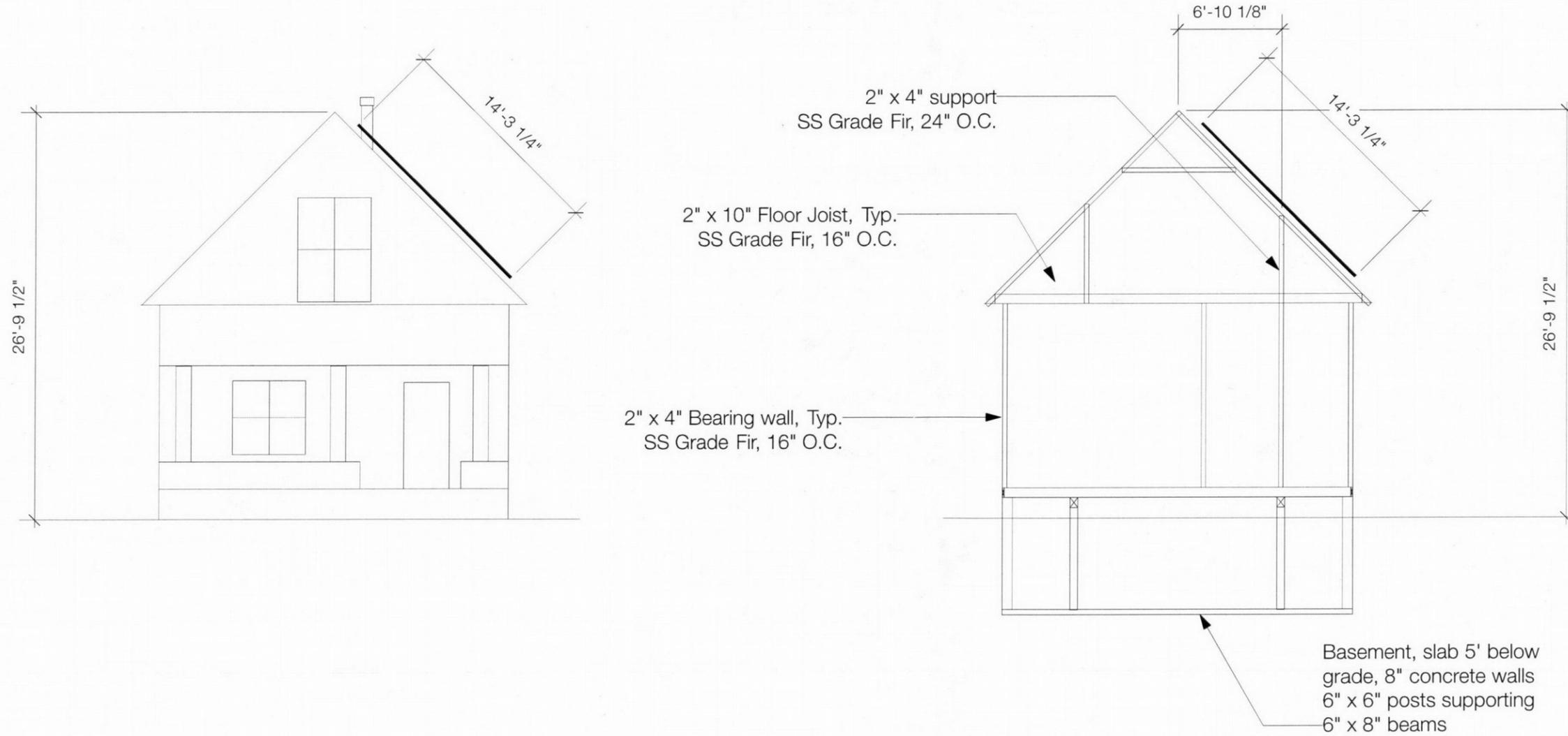


COUSINO-HASKELL

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 CONTACT INFORMATION
 510.684.9892
 NICOLECOUS@GMAIL.COM

STRUCTURAL DETAILS

DRAWN BY	10/22/13	SCALE	DATE
JONATHAN COHEN	10/22/13	1/8" = 1'	
SHEET NUMBER	TOTAL SHEETS	INITIALS	
3	4		
REVISION	REASON		



WEST ELEVATION
 SCALE: 1/4" = 1'

FRAMING DETAILS
 SCALE: 1/4" = 1'

WIRE SIZING SPECIFICATIONS

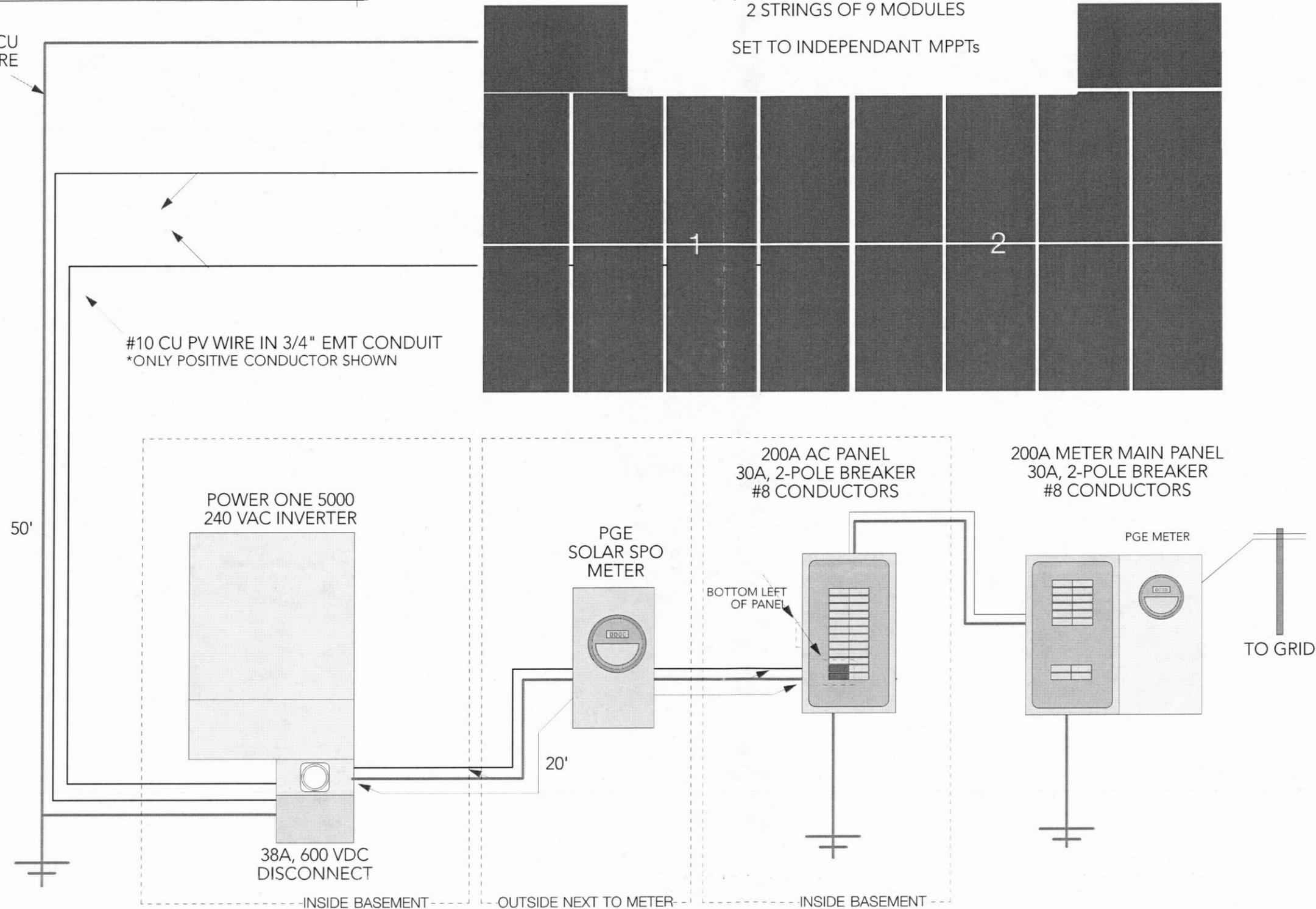
DC INPUT: 8.81A, 100', 1.56x SAFETY FACTOR, 1.5% LOSS ALLOWABLE: 375' ON #10 CU

AC INPUT: 23A, 40', 1.25x SAFETY FACTOR, 1.5% LOSS ALLOWABLE: 201' ON #8 CU

#6 BARE SOLID CU GROUND WIRE

#10 CU PV WIRE IN 3/4" EMT CONDUIT
*ONLY POSITIVE CONDUCTOR SHOWN

4.86kW PV ARRAY
(18) SOLARWORLD 270W MODULES
2 STRINGS OF 9 MODULES
SET TO INDEPENDANT MPPTs



IMAGINEENERGY

2409 N KERBY AVENUE
PORTLAND, OR 97227
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INFO@IMAGINEENERGY.NET
CCB #: 167963
WA LIC #: IMAGIEL934PT

COUSINO-HASKELL

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PROJECT ADDRESS
NICOLE COUSINO AND RICHARD HASKELL
36 NE 76TH AVENUE
PORTLAND, OR 97213
CONTACT INFORMATION
510.684.9892
NICOLECOUSO@GMAIL.COM

WIRING SCHEMATIC

DRAWN ON
10/22/13
SCALE
N/A
DATE

DRAWN BY
JONATHAN COHEN

SHEET NUMBER | TOTAL SHEETS
4 | 4

REVISION | REASON
INITIALS