

ADMINISTRATIVE COMMITTEE

Monday, August 24, 2015

5:00 p.m.

NOTICE IS HEREBY GIVEN that the Bountiful City Administrative Committee will hold its regular meeting in the Conference Room at City Hall, 790 South 100 East, Bountiful, Utah, at the time and on the date given above. The public is invited. Persons who are disabled as defined by the Americans with Disabilities Act may request an accommodation by contacting the Bountiful City Planning Office at 298-6190. Notification at least 24 hours prior to the meeting would be appreciated.

AGENDA

1. Welcome and Introductions.
2. Consider approval of minutes for August 17, 2015.
3. **PUBLIC HEARING:** Consider approval of a Conditional Use Permit to allow for Solar Panels at 503 Indian Springs Road, Greg Mace, applicant.
4. Consider approval of a Conditional Use Permit, in written form, to allow for Solar Panels at 702 Emerald Hills Drive, Larry Murdock, applicant.
5. Miscellaneous business and scheduling.



Chad Wilkinson, City Planner

Pending minutes have not yet been approved by the Administrative Committee and are subject to change until final approval has been made.

**Bountiful City
Administrative Committee Minutes
August 17, 2015**

Present: Chairman – Chad Wilkinson; Committee Members – Lloyd Cheney and Dave Badham; Recording Secretary – Darlene Baetz.

Excused: John Marc Knight

1. Welcome and Introductions.

Chairman Wilkinson opened the meeting at 5:00 p.m. and introduced all present.

2. Consider approval of minutes for July 13, 2015 and July 20, 2015.

Mr. Cheney made a motion to approve the minutes for July 13, 2015. Mr. Badham seconded the motion.

_____	Mr. Wilkinson (Abstained)
<u> A </u>	Mr. Cheney
<u> A </u>	Mr. Badham

Motion passed 2-0.

Mr. Cheney made a motion to approve the minutes for July 20, 2015. Mr. Wilkinson seconded the motion.

<u> A </u>	Mr. Wilkinson
<u> A </u>	Mr. Cheney
_____	Mr. Badham (Abstained)

Motion passed 2-0.

3. PUBLIC HEARING: Consider approval of a Conditional Use Permit to allow for Solar Panels at 702 Emerald Hills Drive, Larry Murdock, applicant.

Dustin Matthews (Solar Works, Inc.) was present, representing Larry Murdock.

Chairman Wilkinson presented a summary of the staff report (the full staff report follows).

The property where the solar panels are to be installed is located in the R-3 Single Family Zone. Solar power panels are classified in the city ordinance as “private power plants” and require a conditional use permit if they are over 10 watts. The applicant has indicated that the photovoltaic system to be installed will produce 7 kilowatts (7000 watts), requiring a conditional use permit.

Pending minutes have not yet been approved by the Administrative Committee and are subject to change until final approval has been made.

The application submitted indicates the proposed installation of 1 photovoltaic array for a total of 28 panels. The arrays will occupy approximately 493 square feet, which is smaller than the 50% maximum roof coverage. All panels will be installed on the south facing roof face with four rows of seven panels. The panels will be connected to the roof by a Unirac roof mount system with 5/16" Lag bolts. The roof is of truss construction with asphalt shingles, has a slope of 4/12, and is approximately 6 years old. A review of information provided in the application indicates that all engineering requirements for the construction of solar panels in Bountiful City will be met. A reflection analysis of the roof pitch indicates that photovoltaic panels should not produce a reflection nuisance to surrounding properties.

Based on the findings, staff has determined that the applicant would comply with all requirements for the conditional use permit. Staff recommends approval of the conditional use permit with the following conditions:

1. The applicant shall obtain a building permit.
2. The panels must be installed only as proposed in the application.
3. This Conditional Use Permit is solely for this site and is non-transferable.

PUBLIC HEARING: Chairman Wilkinson opened the Public Hearing at 5:04 p.m., and the hearing was closed at 5:04 p.m. with no comment from the public.

Mr. Badham inquired regarding the Unirack system. A discussion ensued regarding the efficiency of the racks and that they are placed 3-6 inches off the roof for the most efficient system.

Mr. Cheney made a motion for approval of a Conditional Use Permit to allow for Solar Panels at 702 Emerald Hills Drive, Larry Murdock, applicant. Mr. Badham seconded the motion.

A Mr. Wilkinson
A Mr. Cheney
A Mr. Badham

Motion passed 3-0.

4. **Consider approval of a Conditional Use Permit, in written form, to allow for Solar Panels at 3039 South 600 West, Roger Beattie, applicant.**

Mr. Cheney made a motion for approval of a Conditional Use Permit, in written form, to allow for Solar Panels at 3039 South 600 West, Roger Beattie, applicant. Mr. Badham seconded the motion.

A Mr. Wilkinson
A Mr. Cheney
A Mr. Badham

Pending minutes have not yet been approved by the Administrative Committee and are subject to change until final approval has been made.

Motion passed 3-0.

5. Miscellaneous business and scheduling.

Chairman Wilkinson ascertained there were no further items of business.

The meeting was adjourned at 5:11 p.m.

Chad Wilkinson, City Planner

Pending



BOUNTIFUL

City of Beautiful Homes and Gardens

MAYOR
RANDY LEWIS

CITY COUNCIL
RICHARD HIGGINSON
BETH HOLBROOK
JOHN M. (MARC) KNIGHT
KENDALYN HARRIS
JOHN PITT

CITY MANAGER
GARY R. HILL

Memo

Date: August 18, 2015
To: Administrative Committee
From: Andy Hulka, Planning Assistant
Re: Staff Report for the Administrative Committee Meeting on Monday, August 24, 2015

Overview

- 3. PUBLIC HEARING** - Consider approval of a Conditional Use Permit to allow for Solar Panels at 503 Indian Springs Road, Greg Mace, applicant.

Item #3

Background

The property where the solar panels are to be installed is located in the R-3 Single Family Zone. Solar power panels are classified in the city ordinance as "private power plants" and require a conditional use permit if they are over 10 watts. The applicant has indicated that the photovoltaic system to be installed will produce 9.75 kilowatts (9,750 watts), requiring a conditional use permit.

Findings

The application submitted indicates the proposed installation of 2 photovoltaic arrays for a total of 39 panels. The arrays will occupy approximately 687 square feet, which is smaller than the 50% maximum roof coverage. The east facing roof will have 10 panels with 5 panels on the bottom row and 5 panels on the top row. The west facing roof will have 29 panels with 9 panels on the bottom row, 10 panels on the second row, and 10 panels on the top row. The panels will be connected to the roof by a Solarmount bolted roof mount system. The roof is of truss construction, has a slope of 2:1, and is less than 10 years old. A review of information provided in the application indicates that all engineering requirements for the construction of solar panels in Bountiful City will be met. A reflection analysis of the roof pitch indicates that photovoltaic panels should not produce a reflection nuisance to surrounding properties.

Staff Recommendation

Based on the findings, staff has determined that the applicant would comply with all requirements for the conditional use permit. Staff recommends approval of the conditional use permit with the following conditions:

1. The applicant shall obtain a building permit.
2. The panels must be installed only as proposed in the application.
3. This conditional use permit is solely for this site and is non-transferable.

Bountiful Land Use Ordinance

14-14-126 PRIVATE POWER PLANTS

- A. A "Private Power Plant" is any device or combination of devices not owned and operated by a regulated utility company, which convert mechanical or chemical energy into electricity. A private power plant with a peak power generation capacity of 10 Watts/12v/500mAmp (or equivalent) is exempt from the provisions of this Section. A private power plant, including a windmill or wind turbine, shall not be permitted within Bountiful City limits, with the following exceptions:
1. A back-up power generator running on unleaded gasoline, diesel, natural gas, propane, or hydrogen fuel cell, rated for a single structure or building lot, located in accordance with the requirements of the zone in which it is located.
 2. A photovoltaic cell array or other passive solar energy system located in accordance with the requirements for occupied structures for the zone in which it is located.
- B. With the exception of a back-up power generator, no private power plant may be installed or used on any property unless a conditional use permit has been issued for the specific power generation device.
- C. A private power plant is not exempt from the height requirements of the Zone in which it is located, and shall be considered an occupied structure for the purposes of calculating height.
- D. Solar energy design standards and requirements
1. Solar energy panels or collectors that are mounted to the roof shall:
 - a. Not extend beyond the roofline.
 - b. Not reflect sunlight onto neighboring windows or rights-of-way.
 - c. Not exceed fifty (50) percent of the total roof area.
 - d. Shall be maintained in good condition.
 2. Prior to installation, use, and connection to the grid, the following shall be done:
 - a. A Conditional Use Permit shall be issued
 - b. A Building Permit shall be issued
 - c. The Power Department shall approve the application for net metering
 - d. The Power Department shall approve the physical installation

503 Indian Springs Road



CONDITIONAL USE PERMIT APPLICATION

Aug 24
5:00 pm

Date of Submittal: _____

Property Address: 503 Indian Springs Rd, Bountiful UT 84010 Homeowner Greg Mace

Applicant Name: TELT Ventures dba One Solar

Applicant Address: 1116 W 500 S, Ste #1, West Bountiful UT 84087

Applicant Phone #: 801-683-8168 Jim 801-884-6945

Applicant Email: Jim@onesolarutah.com or gail.steenblik@onesolarutah.com

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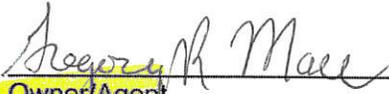
1. Items that shall be included with any Conditional Use Permit application:

- a. A completed Bountiful City Application for Conditional Use Permit cover sheet (this document).
- b. Payment of Filing Fee (\$200 P.C. / \$50 A.C.)
- c. If the conditional use permit is to be approved by the Planning Commission, a mailing list of all property owners within three hundred feet (300') of the subject property boundaries based on the most recent Davis County Tax Assessment records, submitted on self-adhesive mailing labels. Items heard by the Administrative Committee do not require mailing labels.
- d. If the conditional use permit requires site plan review, two (2) full sized, and one (1) 11x17 copy or one (1) .PDF file, of the proposed site plan drawn at 1:10 scale or as required by the City Engineer and City Planner. A site plan shall include:
 - i. A north arrow, the scale of the drawing, and the date of the drawing.
 - ii. Street names and addresses.
 - iii. Property lines with dimensions.
 - iv. All sidewalks, driveways, curbs and gutter, and parking areas.
 - v. All existing easements, rights-of-way, and any other restrictions on the use of the property.
 - vi. Existing buildings, proposed buildings, and other significant features on the site.
 - vii. Existing buildings and significant features located on adjacent properties within 50 feet (50') of the subject property boundaries
 - viii. When required by the City Planner or City Engineer, and for all new construction, a survey including both existing and proposed contours of the land at intervals of two feet (2') or better.

- e. Typed responses to the following questions:
 - i. How does your proposed project fit in with surrounding properties and uses?
 - ii. What will you do to mitigate the potential conflicts with surrounding properties and uses?

2. Property Owner Authorization and Affidavit

The undersigned, being duly sworn, depose that I am (we are) the owner(s) or authorized agent(s) of the owner(s) of the property involved in this application and that the statements contained herein or by attachment, are to the best of my (our) knowledge true and correct.


Owner/Agent

Owner/Agent



BOUNTIFUL

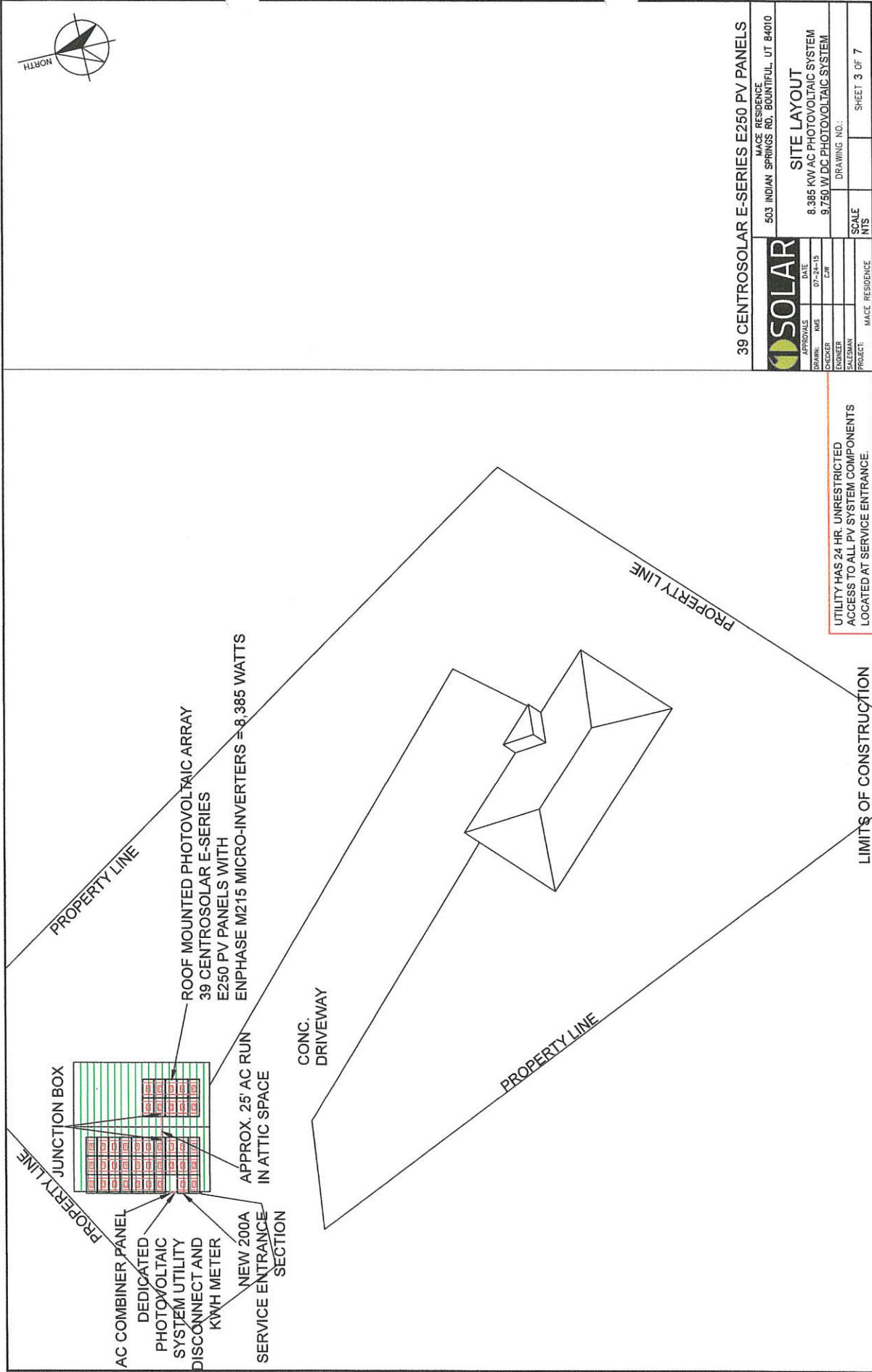
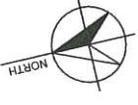
City of Beautiful Homes and Gardens

MAYOR
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CITY COUNCIL
Richard Higginson
Beth Holbrook
John M. Knight
R. Fred Moss
Thomas B. Tolman
CITY MANAGER
Gary Hill

SOLAR PANEL QUESTIONS

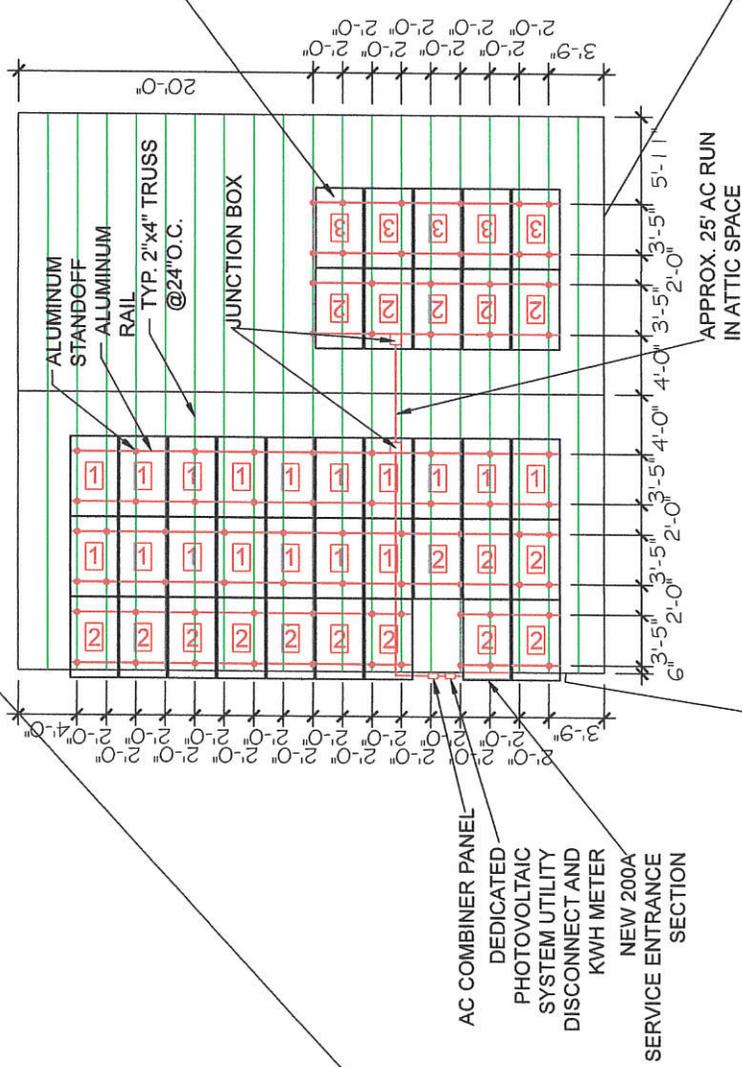
Please answer all questions completely (do not simply refer to an attachment)

Total Number of Panels	
Array Dimensions	39 Centro solar 250 watt panels and 39 micro inverters
Total rating of photovoltaic system:	<u>9.75</u> KW
Mounting Location	
Roof/Wall/Other	Roof Mount on detached garage
Roof Pitch (Rise/Run e.g. "5/12")	2:1
Roofing Material Asphalt Shingle/Tile/Steel/Other Age & Condition of Shingles	Asphalt shingle, good condition
Roof Construction Rafter/Truss/Joist	Truss
Engineering Analysis	
Connection to Roof	Bolted
Analysis of Existing Roof Structure with added Solar Equipment	Based on TEC's analysis of the existing trusses the additional loading from the solar panels did not cause any of the truss members to become overstressed
Adequate Uplift Resistance (120 mph Exp B)	Yes, 155 mph



UTILITY HAS 24 HR. UNRESTRICTED ACCESS TO ALL PV SYSTEM COMPONENTS LOCATED AT SERVICE ENTRANCE.

39 CENTROSOLAR E-SERIES E250 PV PANELS		MACE RESIDENCE	
503 INDIAN SPRINGS RD, BOONTIFUL, UT 84010		MACE RESIDENCE	
SOLAR		SITE LAYOUT	
APPROVALS	DATE	8,385 KW/AC PHOTOVOLTAIC SYSTEM	DRAWING NO.:
DRAWN: IMS	07-24-15	9,750 W/DC PHOTOVOLTAIC SYSTEM	
CHECKER	CM		SCALE
ENGINEER			NTS
SALESMAN			
PROJECT: MACE RESIDENCE			SHEET 3 OF 7



ROOF MOUNTED PHOTOVOLTAIC ARRAY
 39 CENTROSOLAR E-SERIES
 E250 PV PANELS WITH
 ENPHASE M215 MICRO-INVERTERS = 8,385 WATTS

DEDICATED
 PHOTOVOLTAIC SYSTEM
 UTILITY DISCONNECT
 AND KWH METER

EXTERIOR WALL

AC COMBINER PANEL

NEW 200A
 SERVICE ENTRANCE SECTION

UTILITY HAS 24 HR. UNRESTRICTED
 ACCESS TO ALL PV SYSTEM COMPONENTS
 LOCATED AT SERVICE ENTRANCE.

39 CENTROSOLAR E-SERIES E250 PV PANELS
 MACE RESIDENCE
 503 INDIAN SPRINGS RD, BOUNTIFUL, UT 84010

SOLAR		INSTALL SITE	
APPROVALS	DATE	8,385 KW AC PHOTOVOLTAIC SYSTEM	
DRAWN: KMS	07-24-15	9,750 W DC PHOTOVOLTAIC SYSTEM	
CHECKER: JMR	CJM		
ENGINEER:			
SALESMAN:			
PROJECT: MACE, RESIDENCE			
		SCALE	SHEET 2 OF 7
		NTS	

NOTE:
 ALL CONSTRUCTION / INSTALLATION IS
 TO COMPLY WITH THE FOLLOWING:
 2015 IBC
 2011 NEC
 ALL DIMENSIONS ARE APPROXIMATE

CONCRETE
 DRIVEWAY

Source Circuit:
5 Panels:
 Power = 1,075 Watts dc
 Nominal Voltage = 240 V ac
 Continuous Output Current = 4.5 A ac

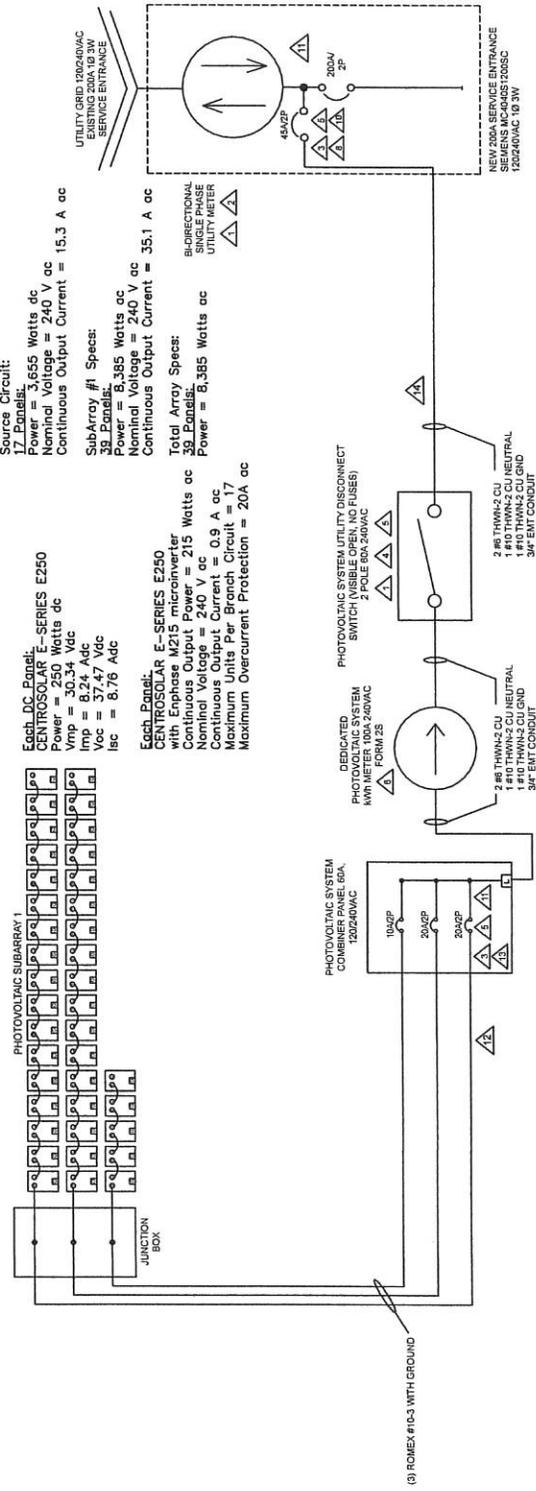
Source Circuit:
33 Panels:
 Power = 6,555 Watts dc
 Nominal Voltage = 240 V ac
 Continuous Output Current = 15.3 A ac

Sub-Array #1 Specs:
 Power = 8,385 Watts ac
 Nominal Voltage = 240 V ac
 Continuous Output Current = 35.1 A ac

Total Array Specs:
33 Panels:
 Power = 8,385 Watts ac
 Nominal Voltage = 240 V ac
 Continuous Output Current = 17 A ac
 Maximum Overcurrent Protection = 20A ac

Each DC Panel:
CENTROSOLAR E-SERIES E250
 Power = 250 Watts dc
 Vmp = 30.34 Vdc
 Imp = 8.27 Adc
 Voc = 47 Vdc
 Isc = 6.76 Adc

Each Panel:
CENTROSOLAR E-SERIES E250
 with Epohase M215 microinverter
 Continuous Output Power = 215 Watts ac
 Nominal Voltage = 240 V ac
 Continuous Output Current = 0.9 A ac
 Maximum Units Per Branch Circuit = 17
 Maximum Overcurrent Protection = 20A ac



NOTES:

- ⚠ EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE 2011 NEC AND ALL APPLICABLE REQUIREMENTS OF THE SERVING ELECTRIC UTILITY COMPANY AND OF THE LOCAL AUTHORITY HAVING JURISDICTION.
- ⚠ BI-DIRECTIONAL UTILITY METER TO BE INSTALLED BY UTILITY COMPANY WHEN REQUIRED.
- ⚠ LABEL BREAKER "PHOTOVOLTAIC ELECTRIC POWER SOURCE" PER NEC 705-10 AND "BREAKERS ARE BACK-FEED" PER NEC 705.12(D)(6). LABEL WITH THE MAXIMUM AC OUTPUT OPERATING CURRENT AND THE OPERATING VOLTAGE PER NEC 690-54.
- ⚠ LABEL "PHOTOVOLTAIC SYSTEM UTILITY DISCONNECT SWITCH". SWITCH TO BE LOCKED AT ALL TIMES.
- ⚠ SWITCH TO BE VISIBLE BLADE AND ACCESSIBLE PER UTILITY REQUIREMENTS AND CONFORM TO NEC 705.22.
- ⚠ PROVIDE WARNING SIGN PER NEC 990-17 READING "WARNING - ELECTRIC SHOCK HAZARD - DO NOT TOUCH TERMINALS". TERMINALS ON BOTH THE LINE AND THE LOAD SIDE MAY BE ENERGIZED IN THE OPEN POSITION.
- ⚠ LABEL "PHOTOVOLTAIC SYSTEM DEDICATED KWH METER"
- ⚠ ALL ROOF PENETRATIONS SHALL BE FLASHED IN ACCORDANCE WITH IRC M209.2.9. MODULES SHALL NOT BE INSTALLED OVER PLUMBING VENTS, FLUES OR WATER VENTS, ETC.
- ⚠ ADDITIONALLY ALL WIRING MUST BE COMPLETELY SUPPORTED ONLY BY DEVICES THAT ARE UL LISTED AND SUNLIGHT RESISTANT.
- ⚠ PER 2011 NEC 705.12 D.2: THE SUM OF THE AMPERE RATINGS OF OVERCURRENT DEVICES IN CIRCUITS SUPPLYING POWER TO THE BUS BAR SHALL NOT EXCEED 120% THE RATING OF THE BUS BAR OR OR CONDUCTOR.
- ⚠ NOT USED
- ⚠ PER ARTICLE 705.12(D)(7) INVERTER OUTPUT CONNECTION TO BE LOCATED AT OPPOSITE LOAD END FROM THE MAIN CIRCUIT LOCATION. LABEL TO READ "WARNING: INVERTER OUTPUT CONNECTION. DO NOT RELOCATE THIS OVERCURRENT DEVICE."
- ⚠ LABELS ARE TO BE PERMANENTLY ETCHED, SECURELY MOUNTED IN PLACE, AND ABLE TO ENCLOSE THE ENVIRONMENT IN WHICH THEY ARE LOCATED.
- ⚠ FOR THE PORTION OF THE AC RUN FROM THE ARRAY THAT RUNS FROM THE ATTIC SPACE TO THE AC COMBINER PANEL, THE ROMEX SHALL BE PROTECTED BY A 1" EMT CONDUIT.
- ⚠ THERE SHALL BE A SIGN PROVIDED AT THE AC COMBINER PANEL STATING THAT IT IS DEDICATED ONLY TO THE PV SYSTEM, AND NO ADDITIONAL LOAD CONNECTIONS ARE ALLOWED TO BE CONNECTED IN ACCORDANCE WITH NEC ARTICLE 705.12(D).
- ⚠ THERE SHALL BE A SIGN PROVIDED AT THE SERVICE PANEL STATING THE TOTAL RATED AC OUTPUT CURRENT IN AMPS (55.7 AMPS), AND THE VOLTAGE OF THE SYSTEM (240 VAC) PER NEC-ARTICLE 990.34.

		MACE RESIDENCE 503 INDIAN SPRINGS RD, BOUNTIFUL, UT 84010	
		ONE LINE WIRING DIAGRAM 8,385 KW AC PHOTOVOLTAIC SYSTEM 9,750 W DC PHOTOVOLTAIC SYSTEM	
APPROVALS	DATE	DRAWING NO.:	
DRAWN: IMS	07-24-13	SCALE	
CHECKER: CFW		NTS	
ENGINEER:		PROJECT: MACE RESIDENCE	
SALESMAN:		SHEET 5 OF 7	

THOMAS



ENGINEERING
COMPANY
CIVIL-STRUCTURAL-MECHANICAL

380 NORTH
200 WEST
SUITE 207
BOUNTIFUL, UTAH
84010

PHONE
801-295-4897

FAX
801-299-0974

www.thomasengr.com

03 Aug 15

15137

ONE SOLAR UTAH
1116 West 500 South
West Bountiful, UT 84087

ATTENTION: Mr. Jake Kilgore

RE: Analysis of Roof Truss
SUBJECT: Load Summary Report for Roof Truss located at 503 Indian Springs Bountiful, UT (Mace Residence)

Pursuant to the request of One Solar Utah, Thomas Engineering Company (TEC) was asked to verify the capacity of truss on a home located at 503 Indian Springs Bountiful, UT. TEC was to confirm that the addition of the proposed solar panels by One Solar Utah would not cause any of the existing truss members to support the proposed solar panels to become overstressed.

SUMMARY

TEC performed a site visit to obtain truss spacing, member size, member grade, dimensions, and overall site observation of the condition of the existing trusses. The proposed solar panels are to be installed per the layout provided to TEC by One Solar Utah. TEC created a mathematical model of each truss and determined that none of the existing truss members became overstressed due to the additional load from the solar panels.

BASIS OF ANALYSIS

TEC based their analysis on the following:

1. A site visit by TEC's Mr. Dereck Hodson, P.E., on 3 Aug 15. The site visit included collecting truss information and dimensions.
2. Documents from One Solar Utah. Said documents included 3 pdfs titled: E3 SITE LAYOUT.pdf, E5 ONE LINE WIRING DIAGRAM.pdf, and E7 MOUNTING DETAILS AND WEIGHT LOAD CALCS.pdf.

ANALYSIS

TEC created a STAAD Pro (mathematical modeling software) of an existing truss in which the solar panels were to be added in order to obtain anticipated stresses in the model. TEC used allowable stresses for the truss members based on stamps observed on the truss members during the site visit. TEC assumed that the lateral seismic and wind loads acting perpendicular to the truss were distributed to the roof sheathing and into the walls and were not included in the model. TEC did include seismic and wind loads that were acting parallel to the trusses. TEC's analysis was

limited to each single roof truss and did not include any analysis of the wall, footing, etc. TEC used the ASD method as outlined in the latest edition of the NDS (National Design Specification for Wood Construction for their analysis. TEC's analysis consisted of the following loads:

1. Dead Load	
a. Truss Members	Self-weight
b. Roof Load	10 psf
c. Solar Panel	3.09 psf
d. Ceiling Loads	5 psf
2. Live Load	
a. Roof	20 psf
b. Storage	40 psf
3. Ground Snow Load	43 psf
4. Wind	
a. 3 Second Wind Gust Velocity	155 mph
b. Importance Factor	1.0
c. Exposure	B
5. Seismic	
a. Site Classification	D
b. Design Spectral Responses	
i. S_{DS}	0.941
ii. S_{D1}	0.545
c. Importance Factor	1.0

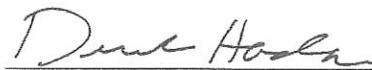
Based on TEC's analysis of the existing trusses, the additional loading from the solar panels did not cause any of the truss members to become overstressed.

If you should need any additional assistance, please contact TEC at your convenience

Sincerely,

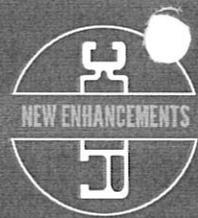
THOMAS ENGINEERING COMPANY

Prepared By:



Dereck Hodson, P.E.
Profession Engineer
State of Utah
License No. 9090765-2202
Expires 31 Mar 2017





OPTIMIZED COMPONENTS

INTEGRATED BONDING & PRE-ASSEMBLED PARTS

Components are pre-assembled and optimized to reduce installation steps and save labor time. Our new grounding & bonding process eliminates copper wire and grounding straps or bonding jumpers to reduce costs. Utilize the microinverter mount with a wire management clip for an easier installation.

VERSATILITY

ONE PRODUCT - MANY APPLICATIONS

Quickly set modules flush to the roof or at a desired tilt angle. Change module orientation to portrait or landscape while securing a large variety of framed modules on flat, low sloped or steep pitched roofs. Available in mill, clear and dark anodized finishes to outperform your projects financial and aesthetic aspirations.

AVAILABILITY

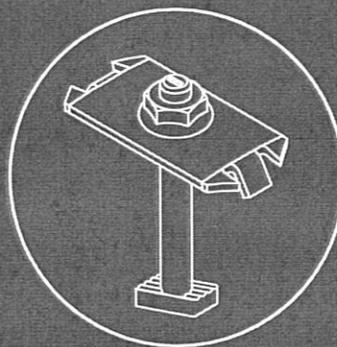
NATIONWIDE NETWORK

Unirac maintains the largest network of stocking distributors for our racking solutions. Our partners have distinguished their level of customer support, availability, and overall value, thereby providing the highest level of service to users of Unirac products. Count on our partners for fast and accurate delivery to meet your project objectives. Visit Unirac.com for a list of distributors.

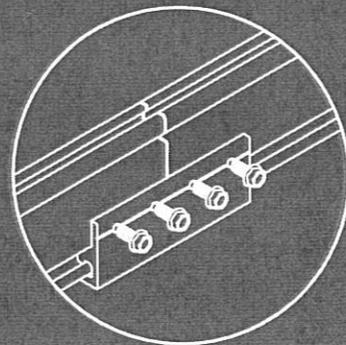
AUTOMATED DESIGN TOOL

DESIGN PLATFORM AT YOUR SERVICE

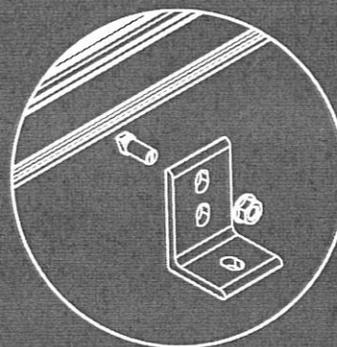
Creating a bill of materials is just a few clicks away with U-Builder, a powerful online tool that streamlines the process of designing a code compliant solar mounting system. Save time by creating a user profile, and recall preferences and projects automatically when you log in. You will enjoy the ability to share projects with customers; there's no need to print results and send to a distributor, just click and share.



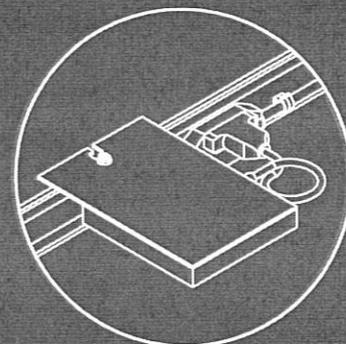
INTEGRATED BONDING MIDCLAMP



INTEGRATED BONDING SPLICE BAR



INTEGRATED BONDING L-FOOT w/ T-BOLT



INTEGRATED BONDING MICROINVERTER MOUNT w/ WIRE MANAGEMENT

UNIRAC CUSTOMER SERVICE MEANS THE HIGHEST LEVEL OF PRODUCT SUPPORT



UNMATCHED EXPERIENCE



CERTIFIED QUALITY



ENGINEERING EXCELLENCE



BANKABLE WARRANTY



DESIGN TOOLS



PERMIT DOCUMENTATION

TECHNICAL SUPPORT

Unirac's technical support team is dedicated to answering questions & addressing issues in real time. An online library of documents including engineering reports, stamped letters and technical data sheets greatly simplifies your permitting and project planning process.

CERTIFIED QUALITY PROVIDER

Unirac is the only PV mounting vendor with ISO certifications for 9001:2008, 14001:2004 and OHSAS 18001:2007, which means we deliver the highest standards for fit, form, and function. These certifications demonstrate our excellence and commitment to first class business practices.

BANKABLE WARRANTY

As a Hilti Group Company, Unirac has the financial strength to back our products and reduce your risk. Have peace of mind knowing you are receiving products of exceptional quality. SOLARMOUNT is covered by a 10-year limited product warranty and a 5-year limited finish warranty.

PROTECT YOUR REPUTATION WITH QUALITY RACKING SOLUTIONS BACKED BY ENGINEERING EXCELLENCE AND A SUPERIOR SUPPLY CHAIN

October 30, 2014

UniRac
1411 Broadway Boulevard NE
Albuquerque, New Mexico 87102-1545
TEL: (505) 242-6411
FAX: (505) 242-6412



Attn.: Engineering Department,

Re: Engineering Certification for UniRac's SolarMount Design & Engineering Guide

PZSE, Inc.-Structural Engineers has reviewed UniRac's "SolarMount Design & Engineering Guide" and specifically the enhancements of the SolarMount Flush-to-Roof System, Pressure Lookup Tables, and Downward & Upward Span Length Tables.

This certification excludes connections to building structures and the effects on building structure components. All information, data and analysis contained within the Installation Manual are based on, and comply with the following:

1. 2009 International Building Code and 2012 International Building Code, by International Code Council, Inc. 2009 and 2012
2. ASCE/SEI 7-05 and ASCE/SEI 7-10 Minimum Design Loads for Buildings and other Structures
3. 2010 Aluminum Design Manual, by The Aluminum Association, 2010
4. AC428, Acceptance Criteria for Modular Framing Systems Used to Support Photovoltaic (PV) Panels, effective June 2012 by ICC-ES

This letter certifies that the structural calculations contained within UniRac's "SolarMount Design & Engineering Guide" are in compliance with the above Codes.

If you have any questions on the above, do not hesitate to call.

Sincerely,

A handwritten signature in black ink, appearing to be "Paul Zacher", written over a horizontal line.

Paul Zacher, SE - President



MAYOR
RANDY LEWIS

CITY COUNCIL
RICHARD HIGGINSON
BETH HOLBROOK
JOHN M. (MARC) KNIGHT
KENDALYN HARRIS
JOHN PITT

CITY MANAGER
GARY R. HILL

Bountiful City, Utah Conditional Use Permit

A public hearing was held on August 17, 2015, at Bountiful City Hall to consider the request of Larry Murdock for a Conditional Use Permit allowing for a Private Power Plant (Solar Panels) at the following location:

702 East Emerald Hills Drive, Bountiful City, Davis County, Utah

ALL OF LOT 3, EMERALD HILLS SUB PLAT A. CONTAINS 0.30 ACRE

Parcel: 04-100-0003

The Bountiful City Administrative Committee heard the matter and considered the statements of the applicant, the City staff, and the public. As a result, the Administrative Committee makes the following findings:

1. This matter is properly heard before the Administrative Committee.
2. Appropriate public notice has been provided and a public hearing held.
3. The proposed request to operate a Private Power Plant (Solar Panels) meets the letter and the intent of the specific requirements in §14-2 and 14-14 et seq (Conditional Use Permit provisions) of the Bountiful City Land Use Ordinance.

The Bountiful City Administrative Committee hereby grants this Conditional Use Permit for a Private Power Plant (Solar Panels) to be located at 702 East Emerald Hills Drive, in Bountiful, Davis County, Utah, with the following conditions:

1. The applicant shall obtain a building permit.
2. The panels must be installed only as proposed in the application.
3. This Conditional Use Permit is solely for this site and is non-transferable.

The Conditional Use Permit was approved on August 17, 2015, and this written form was approved this 24th day of August, 2015.

Chad Wilkinson
Planning Director

ATTEST: Julie Holmgren
Recording Secretary