

CITY OF SACRAMENTO
1231 I Street, Sacramento, CA 95814

Permit No: 0106351
Insp Area: 4

Site Address: 1558 DANBROOK DR SAC
Parcel No: 225-1520-003 NORTHPOINTE PARK VIL 15 LOT 3
N

Sub-Type: NSFR
Housing (Y/N):

CONTRACTOR

US HOME
2366 GOLD MEADOW DR STE 100
GOLD RIVER, CA 95670 77041

OWNER

ARCHITECT

Nature of Work: MP 4265 2 STORY 11 ROOM SFR

CONSTRUCTION LENDING AGENCY: I hereby affirm under penalty of perjury that there is a construction lending agency for the performance of the work for which this permit is issued (Sec. 3097, Civ. C.).

Lender's Name _____ Lender's Address _____

LICENSED CONTRACTORS DECLARATION: I hereby affirm under penalty of perjury that I am licensed under provisions of Chapter 9 (commencing with section 7000) of Division 3 of the Business and Professions Code and my license is in full force and effect.

License Class B License Number 451839 Date 5/23/01 Contractor Signature Don McCloskey

OWNER-BUILDER DECLARATION: I hereby affirm under penalty of perjury that I am exempt from the contractors License Law for the following reason (Sec. 7031.5, Business and Professions Code; any city or county which requires a permit to construct, alter, improve, demolish, or repair any structure, prior to its issuance, also requires the applicant for such permit to file a signed statement that he or she is licensed pursuant to the provisions of the Contractors License Law (Chapter 9 (commencing with Section 7000) of Division 8 of the Business and Professions Code) or that he or she is exempt therefrom and the basis for the alleged exemption. Any violation of Section 7031.5 by any applicant for a permit subjects the applicant to a civil penalty of not more than five hundred dollars (\$500.00).

I, as a owner of the property, or my employees with wages as their sole compensation, will do the work, and the structure is not intended or offered for sale (Sec. 7044, Business and Professional Code). The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who does such work himself or herself or through his/her own employees, provided that such improvements are not intended or offered for sale. If, however, the building or improvement is sold within one year of completion, the owner-builder will have the burden of proving that he/she did not build or improve for the purpose of sale.)

I, as owner of the property, am exclusively contracting with licensed contractors to construct the project (Sec. 7044, Business and Professions Code). The Contractors License Law does not apply to an owner of property who builds or improves thereon, and who contracts for such projects with a contractor(s) licensed pursuant to the Contractors License Law)

I am exempt under Sec. _____ B & PC for this reason _____

Date _____ Owner Signature _____

IN ISSUING THIS BUILDING PERMIT, the applicant represents, and the city relies on the representation of the applicant, that the applicant verified all measurements and locations shown on the application or accompanying drawings and that the improvement to be constructed does not violate any law or private agreement relating to permissible or prohibited locations for such improvements. This building permit does not authorize any illegal location of any improvement or the violation of any private agreement relating to location of improvements.

I certify that I have read this application and state that all information is correct. I agree to comply with all city and county ordinances and state laws relating to building construction and hereby authorize representative(s) of this city to enter upon the abovementioned property for inspection purposes.

Date 5/23/01 Applicant/Agent Signature Don McCloskey

WORKER'S COMPENSATION DECLARATION: I hereby affirm under penalty of perjury one of the following declarations:

I have and will maintain a certificate of consent to self-insure for workers' compensation as provided for by Section 3700 of the Labor Code, for the performance of work for which the permit is issued

Don I have and will maintain workers' compensation insurance, as required by Section 3700 of the Labor Code, for the performance of the work for which this permit is issued. My workers' compensation insurance carrier and policy number are:

Carrier OLD REPUBLIC INS. CO. Policy Number MWC107468 00 Exp Date 11/01/2001

(This section need not be completed if the permit is for \$100,000 or less) I certify that in the performance of the work for which this permit is issued, I shall not employ any person in any manner so as to become subject to the workers' compensation laws of California and agree that if I should become subject to the workers' compensation provisions of Section 3700 of the Labor Code, I shall forthwith comply with those provisions.

Date 5/00/01 Applicant Signature Don McCloskey

WARNING: FAILURE TO SECURE WORKER'S COMPENSATION COVERAGE IS UNLAWFUL AND SHALL SUBJECT AN EMPLOYER TO CRIMINAL PENALTIES AND CIVIL FINES UP TO ONE HUNDRED THOUSAND DOLLARS (\$100,000) IN ADDITION TO THE COST OF COMPENSATION. DAMAGES AS PROVIDED FOR IN SECTION 3706 OF THE LABOR CODE, INTEREST AND ATTORNEY'S FEE.

THIS PERMIT SHALL EXPIRE BY LIMITATION IF WORK IS NOT COMMENCED WITHIN 180 DAYS.

RESIDENTIAL SUBDIVISION BUILDING PERMIT APPLICATION

Project Address: 1558 Oakbrook Drive Assessor Parcel # 225-1520-003
Lot Number: 3 Subdivision ~~NORTHBOROUGH VILLAGE~~

NORTHPOINT VILLAGE IS

0106351

OWNER INFORMATION:

Legal Property Owner: US HOME Phone# 858-3900
Owner Address: 366 GOLD MEADOW WAY City GOLD RIVER State CA. Zip 95670

4193524

CONTRACTOR INFORMATION:

Contractor: US HOME Lic. # 451839 Phone # 858-3900 Fax 858-3925

DON MCCLOSKEY 719-9059

PROJECT INFORMATION:

Land Use Zone RIA Occupancy Group R3 Construction Type VN Fed Code 1A
No. of Stories: _____ No. of Rooms: _____ Street Width: _____
1st Floor Area _____ 2nd Floor Area _____ Basement _____ Roof Material _____

AREA IN SQUARE FOOT OF:

Dwelling/Living 4265
Garage/Storage 721
Decks/Balconies _____
Carports _____

Bert 826 6575

SCOPE OF WORK: _____

FOR OFFICE USE ONLY

- Information Above Complete
- Violation Files Checked
- Standard Setbacks
- County Sewer
- AR Flood Waiver Required
- Flood Elevation Certificate Required
- Water Development Infill Area
- Planning Approval
- Design Review Approval
- Special Fee Districts Apply:

THE FOLLOWING MUST BE PROVIDED IN ORDER TO SUBMIT FOR PERMIT

- 2 COMPLETE PLOT PLANS, LEGIBLE & DRAWN TO SCALE
- 11 X 17 COPY OF FLOOR PLAN WITH FOLLOWING INFORMATION
 - a) Assessor's Parcel Number
 - b) New Floor Area
 - c) Owners Name
 - d) Project Address

Date: _____ Received by: (staff) _____ Permit # _____



WesPac

insulation
a MASCO Company



809 North Market Blvd., Ste. 11 • Sacramento, CA 95834
(916) 927-7149 • Fax (916) 927-4257
Lic. #487478

Installed Insulation Certificate

We certify that the building insulation listed herein is installed in conformance with current energy conservation regulations, California Administrative Code, Title 24, State of California

R FACTOR	AREA	TYPE	INCHES/BAGS (BLOWN)
R38	CEILING	FIBERGLASS BLOWN	14.75" / 47 BAG
R38	CEILING	FIBERGLASS BATT	13"
R13	EXTERIOR WALLS	FIBERGLASS BATT	3.5"

US HOME CORP

Certified by *Tommy Kinney*
Title Secretary

NORRHT POINTE
15110 NORRHT POINTE / 3
Address or Lot Number
09/05/01
Date Installed

DATE: October 10, 2001

TO: City of Sacramento, Building Department
FROM: Sally S Sanderson, Vice President of Construction

RE: Model home conversion - 1558 Danbrook
Northpointe Village 15 Unit 1 lot 3

The above address will be used temporary as a model home till the completion of the Northpointe Village.

At the completion, US Home will convert model home to a single family residence by doing the following:

1. Remove connecting walkway between lots 2 and 3
2. Remove trap fence
3. Install side property line fence and side fence with gate
4. Remove connecting low volt wiring between lots 2 and 3 that is being used for a sound/security system

cc: Mitch Young
sales staff

US HOME AT NORTHPOINT - LOT#3
1558 Dan Brook Dr

APPROVED PER 1996
NATIONAL ELECTRICAL CODE
AND CITY OF SACRAMENTO
AMENDMENTS

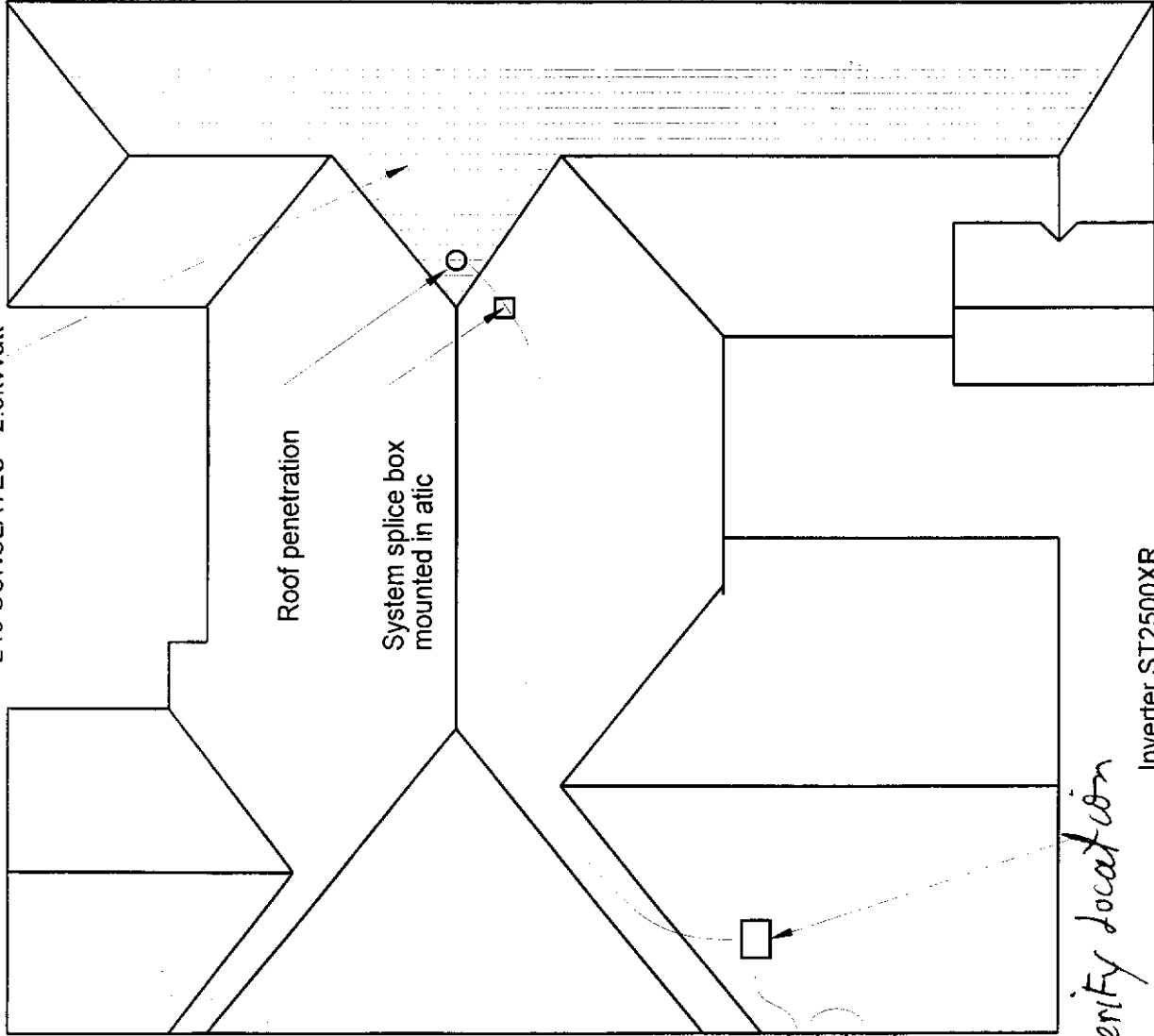
J.L.M. 10-29-2001
ELECTRICAL DIVISION

ISSUED

OCT 29 2001

Sacramento Building Division

SUNSLATE roof
240 SUNSLATES - 2.3kWatt



verify location

Inverter ST2500XR
Mounted on interior
garage wall or on exterior
garage wall 48VDC, 240VAC

THE APPROVAL OF ALL ELECTRICAL WORK
IS SUBJECT TO FIELD INSPECTIONS.

0106351

city copy



This set of plans and specifications shall be held on file for a period of 30 days to permit a contractor to submit a bid. The contractor shall be responsible for obtaining all necessary permits and for the violation of any City Ordinance.

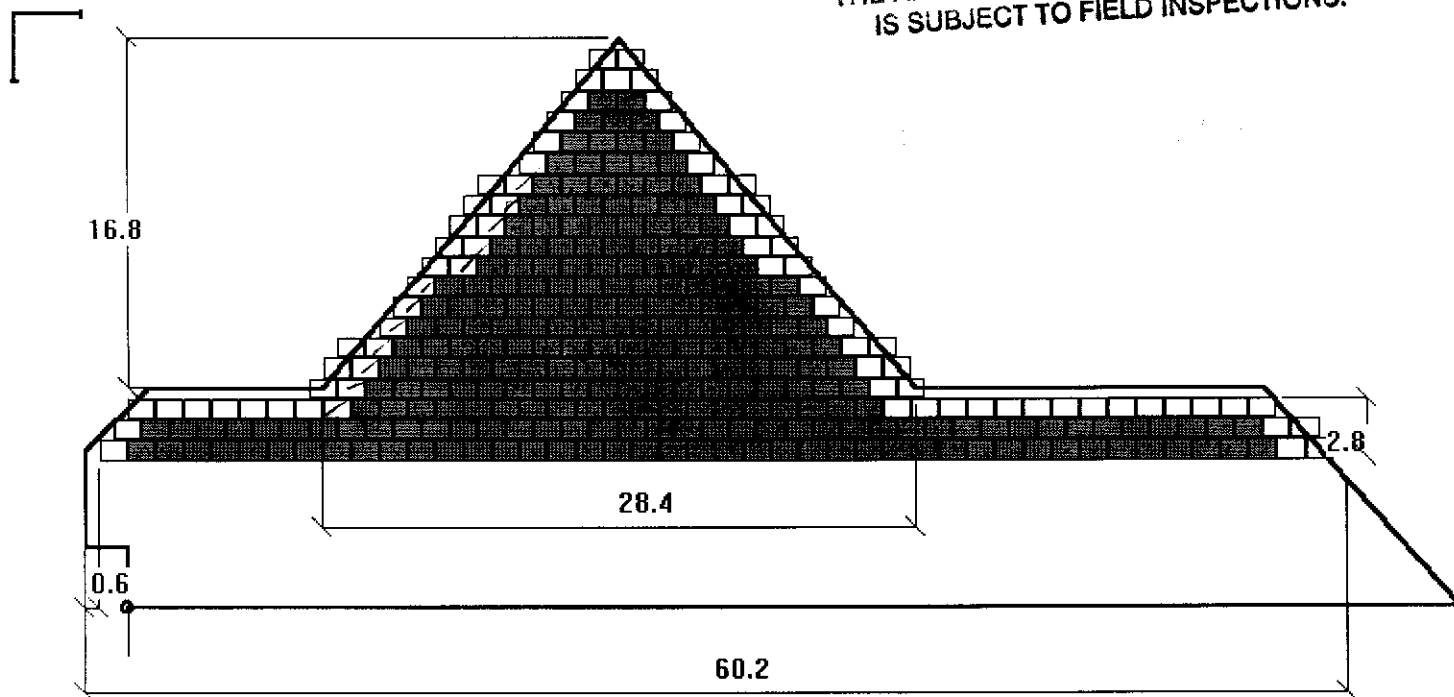


Project Name: US Homes - Northpoint Lot3

System Design

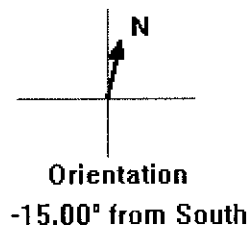
Offer S-01.10.s1

THE APPROVAL OF ALL ELECTRICAL WORK
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10 - Field Cables

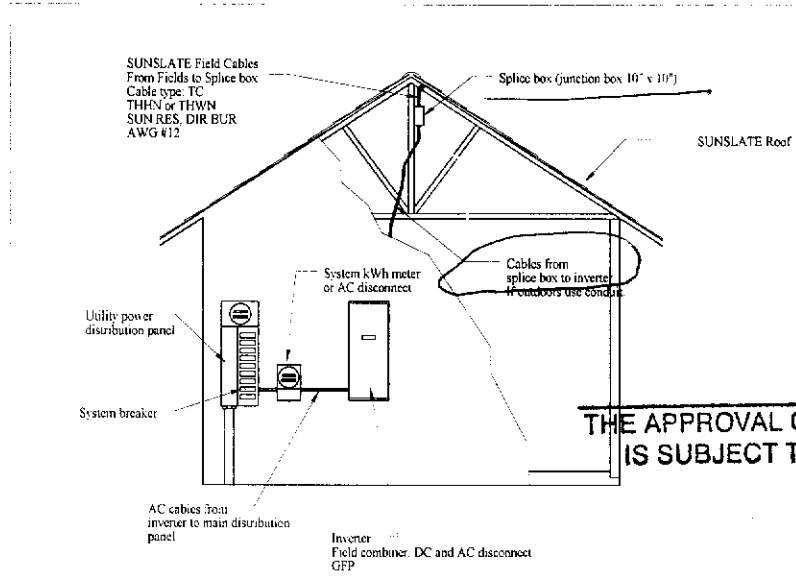
Total installed power DC @ STC:	2,961	[W]
Total installed power AC @ PTC:	2,238	[W]
Sunslates surface:	319.0	Sq.Ft.



240 - SUNSLATES® SYSTEM

240 - SUNSLATES® SYSTEM PACKAGE SPECIFICATIONS

Maximum Surface	415	Sq.Ft.
Minimum Surface	355	Sq.Ft.
SUNSLATES® Surface	311	Sq.Ft.
SUNSLATES® Power @ STC	2.93	kWatts



THE APPROVAL OF ALL ELECTRICAL WORK IS SUBJECT TO FIELD INSPECTIONS.

MATERIALS

ROOF	SUNSLATES® /w cables	SM-II	240
	Field cables	Max 50' each	10
	Bridge cables	Field loop	12
	Twister cables	Row to row cable	16
	Shields	Strain relief	250
	Silicone sealant	Shin-Etsu, 1 component RTV- tube	3
	'Eternit' slates	40 x 72	80
	'Eternit' starters	40 x 42	42
	Hooks	200 per box	2
	Installation tool	'T' type	2
	Battens - vertical	2 x 2 in feet	--
Battens - horizontal	1 x 4 in feet	--	
NOTE: Other materials required for roof installation (as flashing, ridge covers... etc.) will be ordered and billed as needed. Does not include roof under-laymen's (as plywood, roofing felt... etc.). Wood price may vary depending on market prices.			
ELECTRICAL	DC to AC Inverter	ST 2500 XR/ 240, 3 wire	1
	Pull box / splice box	10" x 10" with terminal strips	1
	Field combiner box /w fuses	TCB - 10 /10 inputs	1
	Meter base or disconnect	4 Jaw meter base	1
	System breaker	15 Amp / 240 Volt	1
	DC meter / DC amps and DC volts	500 VDC, 10 ADC	1
NOTE: Cables from splice box to inverter (12 total) and from inverter to beaker panel are to be provided by contractor. For cable sizing review the table below. Other materials required for electrical installation (as conduits, pull boxes, cables, fittings... etc.) are not included.			

SUNSLATES® SPECIFICATIONS:

One SUNSLATE®

SUNSLATES® Model	Pmax Watts	Vmax Volts	Voc Volts	Imax Amps	Isc Amps
SM-II	12.20	2.86	3.67	4.30	4.72

Field of 24 SUNSLATES® in series (String)

SUNSLATES® Model	Pmax Watts	Vmax Volts	Voc Volts	Imax Amps	Isc Amps
24 - SM-II	292.8	68.64	88.08	4.30	4.72

System of 10 SUNSLATES® fields in parallel

SUNSLATES® Model	Pmax Watts	Vmax Volts	Voc Volts	Imax Amps	Isc Amps
24 - SM-II	2,928.0	68.64	88.08	43.0	47.2

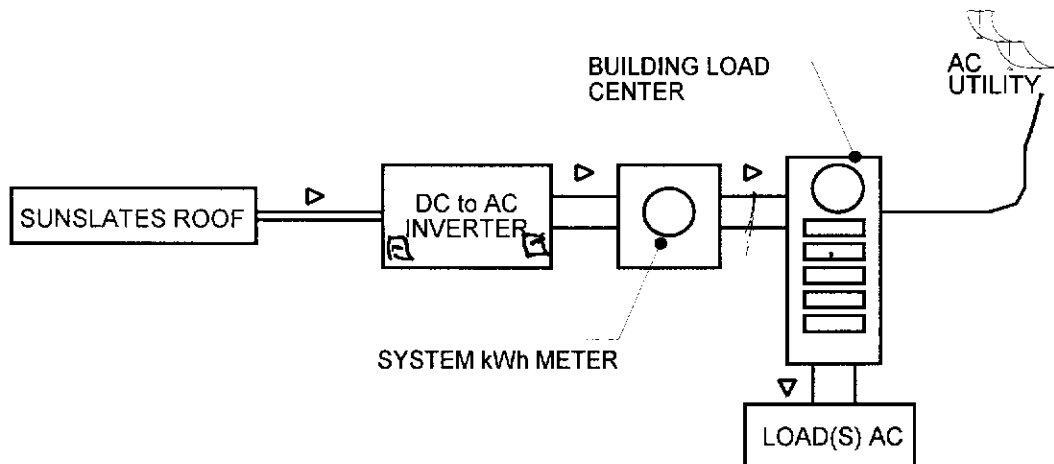
The system is designed for a 48VDC nominal voltage. The electrical characteristics are within ± 10 percent of the indicated values of I_{sc} , V_{oc} and P_{max} under standard test conditions (1000 W/m² irradiance, 25 degC (77 degF) cell temperature and AM 1:5 spectrum). Under normal conditions, the SUNSLATE™ is likely to experience conditions that produce more current and/or voltage then reported at standard test conditions (output may vary depending on time of day, time of year, ambient conditions, ambient temperature and shading). Accordingly, the value of I_{sc} and V_{oc} marked on the SUNSLATE should be multiplied by a factor 1.25 when determining component voltage ratings, conductor ampacities, fuse size and the size of controls connected to the PV output.

SYSTEM DESCRIPTION

The grid connected power systems consist from:

- Installed SUNSLATES®
- Cables
- DC to AC inverter
- Load (building AC loads from distribution panel).

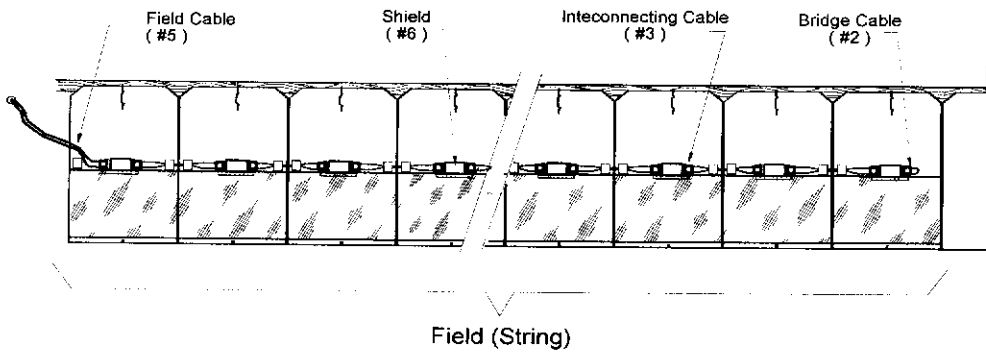
THE APPROVAL OF ALL ELECTRICAL WORK IS SUBJECT TO FIELD INSPECTIONS.



240 - SUNSLATES® SYSTEM

This is one of the most common SUNSLATES® system designs. Saving the energy is done by back feeding the utility grid with the generated power. The system will generate electricity in the day, run the kWh meter backwards, building up a credit (if access power is generated) and the building will use this credit at night.

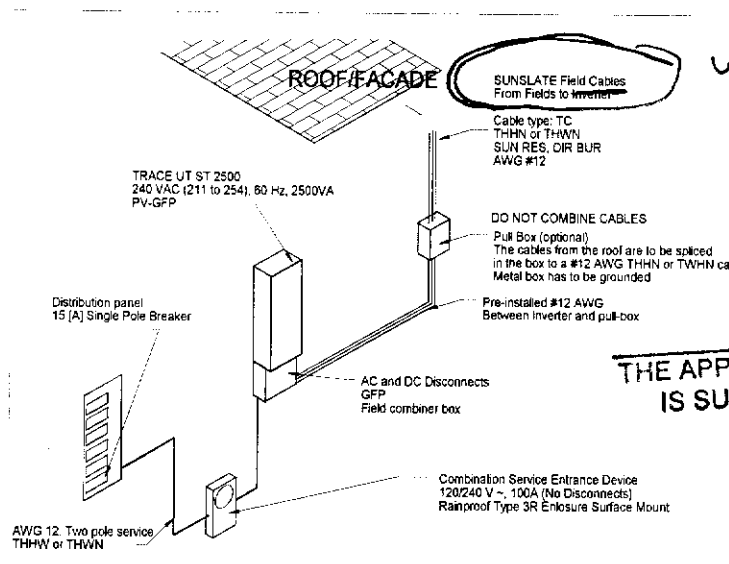
The building (roof) on which the SUNSLATES® are installed is setup from SUNSLATES® fields (strings). All the fields are installed with an equal number of SUNSLATES® in them (24 SUNSLATES®). The field has a beginning (bridge cable) and an end (field connecting cable). When installing the field, always start (first SUNSLATES® from the string) with bridge cable and end with field connecting cable, which goes through the roof into the building. The "System Design" document (see appendix 2), will show how many fields are needed and the position of every field.



For SUNSLATES® installation details refer to 'SUNSLATES® INSTALLATION MANUAL'
Part # MN100

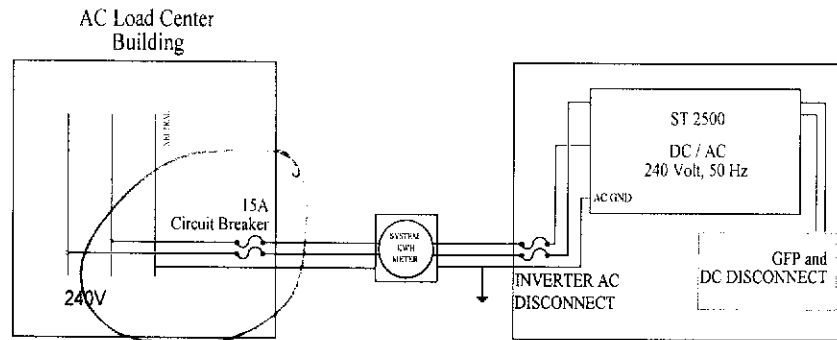
The fields are then extended using pre-installed cables at the splice box, which is located in a convenient location. The pre-installed cables are mounted run to the inverter where they are combined in parallel. The inverter will transform the DC power into AC matching the utility grid. The produced power will be back-fed into the main electrical distribution panel of the building and if not used by any load from the building will be led back to the utility grid by rotating back the utility's kWh-meter. The additional kWh meter is for monitoring the SUNSLATES® system performance only.

SYSTEM WIRING



**THE APPROVAL OF ALL ELECTRICAL WORK
IS SUBJECT TO FIELD INSPECTIONS.**

AC LINE DIAGRAM



THE APPROVAL OF ALL ELECTRICAL WORK IS SUBJECT TO FIELD INSPECTIONS.

The inverter system consists from:

- DC to AC converter
- Field combiner board
- GFP on the DC side
- DC and AC inverter disconnects

All components are UL listed and pre-installed to comply with NEC section 690. The inverter comes pre-wired and in a wall mount NEMA3R enclosure.

See inverter specifications and installation manual for details

DC WIRE SIZING TABLE

All DC conductors are to be sized using the table below. The voltage drop will be no greater than 1.5% from maximum conditions. Refer to 310-15 and 310-16 of NEC (1996) for correction factors.

Gauge A.W.G.	R @ 77 Ohms Per 1000'	R @ 149 Ohms per 1000'	Diameter in mils 1000th in.	@ 77 degF		@ 149 degF		Metallic Conduit		Gauge A.W.G.
				Maximum Length for Field	Maximum Length for System	Maximum Length for Field	Maximum Length for System	Number of Conductors 2	Number of Conductors 4	
000	0.063	0.073	410	1571	131	1356	113	1.5"	2"	000
00	0.079	0.092	365	1253	104	1076	90	1.25"	2"	00
0	0.1	0.116	325	990	82	853	71	1.25"	1.5"	0
1	0.126	0.146	289	785	65	678	56	1.25"	1.5"	1
2	0.159	0.184	258	622	52	538	45	1"	1.25"	2
4	0.253	0.292	204	391	33	339	28	0.75"	1"	4
6	0.403	0.465	162	246	20	213	18	0.5"	0.75"	6
8	0.641	0.739	128	154	13	134	11	0.5"	0.75"	8
10	1.02	1.18	102	97	8	84	7	0.5"/6	0.5"/6	10
12	1.62	1.87	97	61	5	53	4	0.5"/9	0.5"/9	12

NOTE: All dimensions for length are in feet (1' = 0.3048 m). Length is for a cable of two conductors (positive and negative). Refer to NEC and local building codes for conduit type, installation and grounding. Wire conductor type: THHN, THWN or THWN-2. Based on 1.5% DC voltage drop.



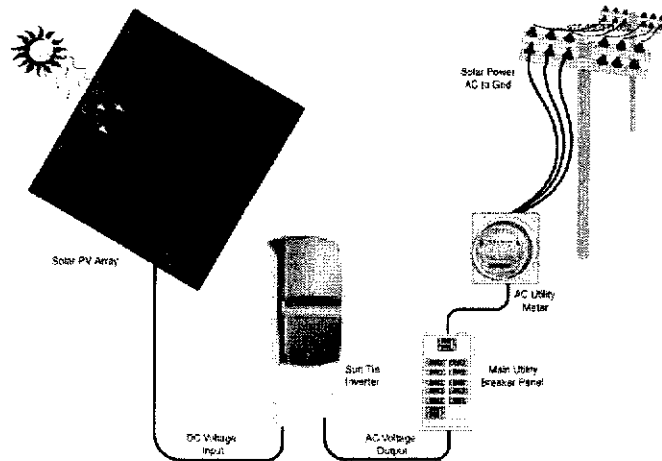
Sun Tie

UTILITY INTERACTIVE SOLAR ELECTRIC INVERTER

MODEL	ST1000	ST1500	ST2000	ST2500
AC voltage-nominal	240 VAC			
Maximum power point tracking voltage range	42-85 VDC			
Minimum input DC voltage (for full rated AC output)	52 VDC (typically, four nominal 12 VDC PV modules, in series)			
Minimum wake-up DC input voltage	50 VDC			
Absolute Maximum PV open circuit voltage	125 VDC			
AC voltage-min/max	211-254 VAC			
AC output characteristics	Current source			
Nominal frequency	60 Hz			
Frequency window-min/max	59.5/60.5 Hz Default			
Continuous AC output @ 25 °C	1.0 kVA	1.5 kVA	2.0 kVA	2.5 kVA
Efficiency-peak	92%		94%	
AC output waveform	Sine wave, high frequency PWM controlled			
Total harmonic distortion	Less than 5% at rated power per IEEE 929 and UL 1741			
AC disconnect	Double-pole 15 amp, 240 VAC branch circuited rated breaker			
DC disconnect	Single-pole 100 amp DC rated circuit breaker			
Islanding protection	Over/under AC voltage and frequency detection plus active islanding detection-meets IEEE 929 and UL 1741 requirements			
User display	Backlight alphanumeric LCD display-AC amps, AC volts _{rms} , DC volts, AC frequency, output power (W) and (Wh) produced			
Specified temperature range	-38-113 °F (-39-45 °C)			
Enclosure Type	Outdoor, rainproof, powder coated aluminum enclosure, fully screened			
Dimensions (inverter only)	13.25" W x 33.25" H x 5.3" D (33.8 cm W x 83.1 cm H x 13.25 cm D)			
Dimensions (shipping)	15.75" W x 37.75" H x 9.5" D (39.4 cm W x 94.4 cm H x 23.8 cm D)			
Weight (inverter only)	35 lb. (15.9 kg)			
Weight (shipping)	40 lb. (18 kg)			
Mounting	Vertical wall mount only			
Listings	UL listed to UL1741, 1st edition and cUL listed to CSA C22.2 No. 107.1-95			
STANDARD FEATURES AND OPTIONS				
PV ground and fault protection system	-	Standard	-	Standard
PV combiner board with 6 fused inputs, 20 amps maximum per input	-	Standard	-	Standard
Surge arrester-Combined AC/DC protection	Standard	Standard	Standard	Standard
Rain Shield (STRS) Protective rain shield (required for outdoor installation)	Optional	Optional	Optional	Optional

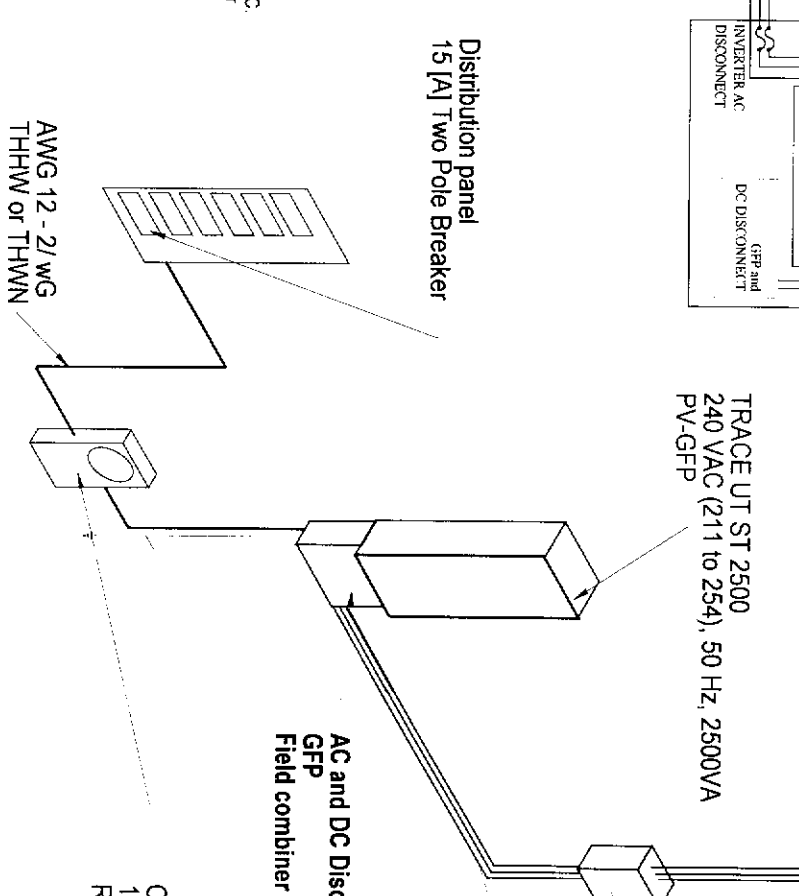
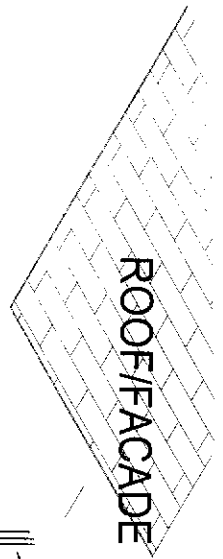
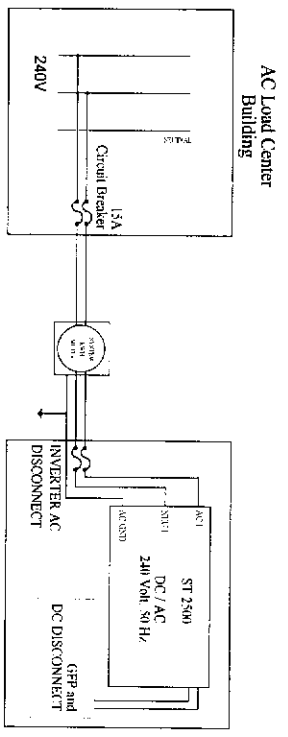
Specifications subject to change without notice.
Specifications @ 25 °C.

875-0003-D-002



Available From:

The Sun Tie connects all the elements of a utility interactive solar electric system together.



All cabling shall be installed referring to the NEC. For installation instructions refer to part producer recommendations.
 All cables from Roof penetration to inverter and from inverter to sub panel are located indoor
 For Installation Refer to:
 Inverter Owners Manual (Part#2031-6)
 SUNSLATES Installation Manual (Part# MN100)

Distribution panel
 15 [A] Two Pole Breaker

TRACE UT ST 2500
 240 VAC (211 to 254), 50 Hz, 2500VA
 PV-GFP

AC and DC Disconnects
 GFP
 Field combiner box

Combination Service Entrance Device
 120/240 V ~, 100A (No Disconnects)
 Rainproof Type 3R Enclosure Surface Mount

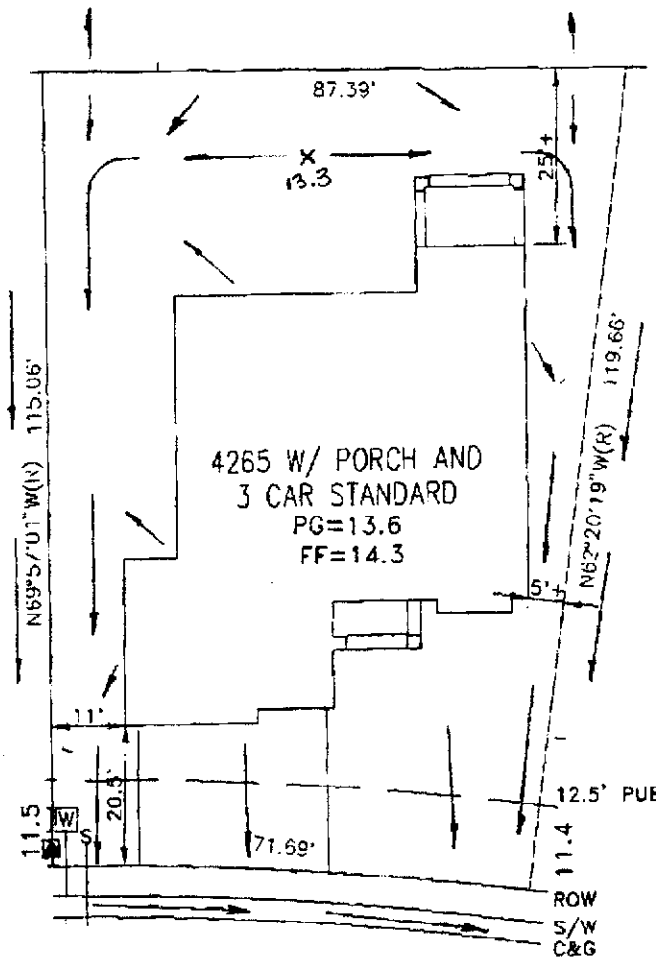
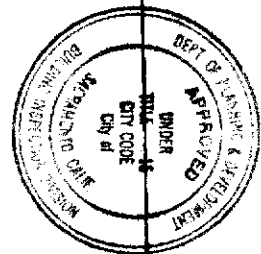
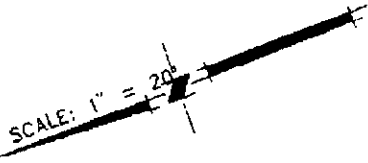
SUNSLATE Field Cables
 From Fields to Inverter
 Cable type: TC
 THHN or THWN
 SUN RES, DIR BUR
 AWG #12
 DO NOT COMBINE CABLES

Pull Box (optional)
 The cables from the roof are to be spliced in the box to a #10 AWG THHN or THWN cable. Metal box has to be grounded
 Pre-installed #10 AWG
 Between Inverter and pull-box

SPECIFICATIONS

CONTRACT NO.	DATE	COMMENTS
DESIGNED BY Todor Galilev		Atlantis Energy, Inc.
DESIGNED BY Todor Galilev		4410 Hollingdale Blvd, 180, Sacramento CA 95824, FAX 916 927 1637
DESIGN ACTIVITY		Electrical System for ST2500 - 240 VAC
CUSTOMER	SCALE	SHEET
	1)	07TMC00 - 016 - 101
		1 of 1

THIS PLOT PLAN IS NOT FOR SALES PURPOSES. THIS PLOT PLAN IS FOR THE PURPOSES OF INDICATING COMPLIANCE WITH ZONING SET BACKS, GENERAL DRAINAGE DIRECTION, AND APPROXIMATE UTILITY CONNECTION. ALL OTHER DATA SHOWN HEREON IS CONCEPTUAL. THIS PLOT PLAN DOES NOT REFLECT AS-BUILT CONDITION, RETAINING WALL ARE OPTIONAL AND MAY OR MAY NOT BE CONSTRUCTED.



This set of plans and specifications must be kept on the job at all times and it is unlawful to make any changes or alterations from the same without written permission from the Building Inspection Division.
The approval of this plan and specification SHALL NOT be held to permit or approve the violation of any City Ordinance or State Law.

1558 DANBROOK DRIVE

TRANSFORMER

PLOT PLAN
LOT 3
NORTHPOINTE VILLAGE 15
FOR
U.S. HOMES
CITY OF SACRAMENTO CALIFORNIA

WOOD RODGERS INC.
3301 C STREET BLDG. 1005 SACRAMENTO, CA 95816
TEL: 916/241-7169 FAX: 916/241-7767

DATE:	DRAWN:	CHECKED:	PROJECT NO:
JAN 2001	HMB	[Signature]	1045.031

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1558-01-002 01-26-01