

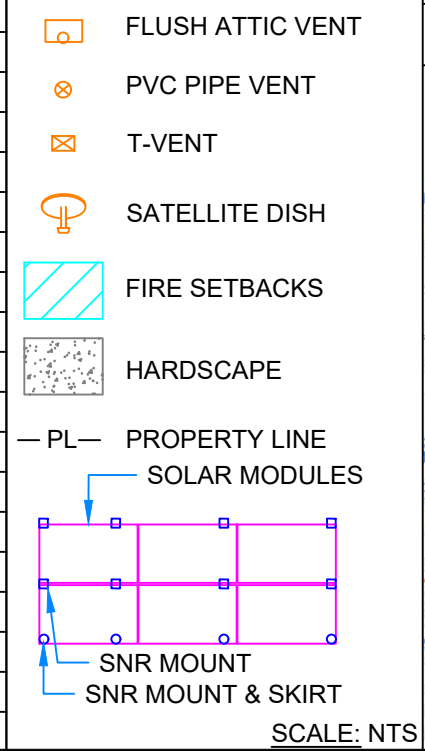
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ABBREVIATIONS	
A	AMPERE
AC	ALTERNATING CURRENT
AFC	ARC FAULT CIRCUIT INTERRUPTER
AZIM	AZIMUTH
COMP	COMPOSITION
DC	DIRECT CURRENT
(E)	EXISTING
ESS	ENERGY STORAGE SYSTEM
EXT	EXTERIOR
INT	INTERIOR
MSP	MAIN SERVICE PANEL
(N)	NEW
NTS	NOT TO SCALE
OC	ON CENTER
PRE-FAB	PRE-FABRICATED
PSF	POUNDS PER SQUARE FOOT
PV	PHOTOVOLTAIC
RSD	RAPID SHUTDOWN DEVICE
TL	TRANSFORMERLESS
TYP	TYPICAL
V	VOLTS
W	WATTS
LAN	LANDSCAPE
POR	PORTRAIT

ABBREVIATIONS	
SE	SERVICE ENTRANCE
MP	MAIN PANEL
SP	SUB-PANEL
LC	PV LOAD CENTER
SM	SUNRUN METER
PM	DEDICATED PV METER
INV	INVERTER(S)
AC	AC DISCONNECT(S)
DC	DC DISCONNECT(S)
CB	IQ COMBINER BOX
[Dashed Box]	INTERIOR EQUIPMENT SHOWN AS DASHED
[Chimney Icon]	CHIMNEY
[Attic Vent Icon]	ATTIC VENT
[Flush Attic Vent Icon]	FLUSH ATTIC VENT
[PVC Pipe Vent Icon]	PVC PIPE VENT
[T-Vent Icon]	T-VENT
[Satellite Dish Icon]	SATELLITE DISH
[Fire Setbacks Icon]	FIRE SETBACKS
[Hardscape Icon]	HARDSCAPE
PL	PROPERTY LINE
[Solar Module Array]	SOLAR MODULES
[SNR Mount]	SNR MOUNT
[SNR Mount & Skirt]	SNR MOUNT & SKIRT

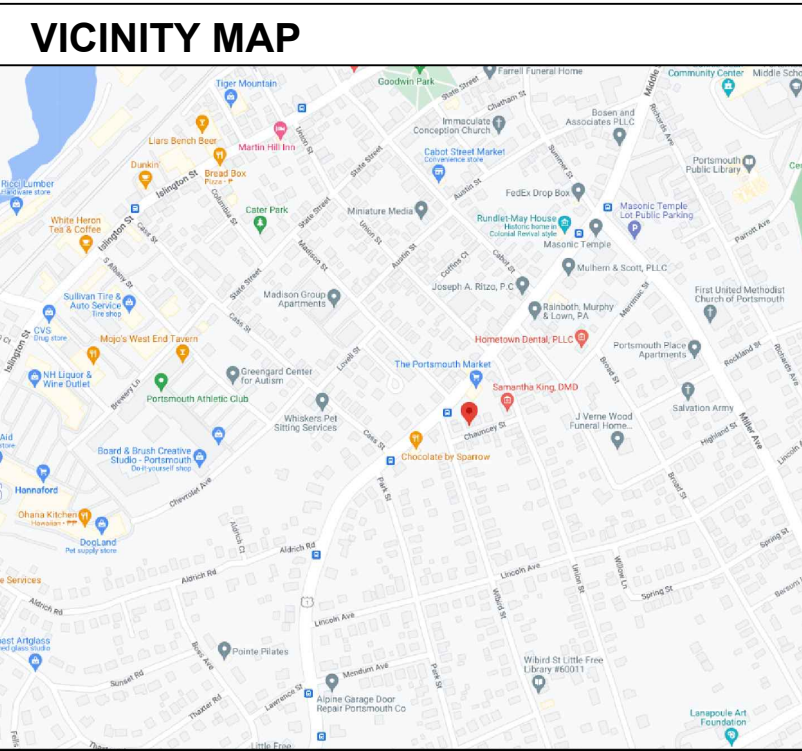
SCALE: NTS

LEGEND	
[SE Icon]	SERVICE ENTRANCE
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[SNR Mount]	SNR MOUNT
[SNR Mount & Skirt]	SNR MOUNT & SKIRT



SCOPE OF WORK

- SYSTEM SIZE: 8250W DC, 6000W AC
- MODULES: (22) VIKRAM SOLAR: VSMDHT.60.375.05
- INVERTERS: (1) SOLAREEDGE TECHNOLOGIES: SE6000H-USSN
- RACKING: RL UNIVERSAL, SPEEDSEAL TRACK ON COMP, SEE DETAIL SNR-DC-00436



GENERAL NOTES

- ALL WORK SHALL COMPLY WITH 2018 IRC/IBC/IEBC, MUNICIPAL CODE, AND ALL MANUFACTURERS' LISTINGS AND INSTALLATION INSTRUCTIONS.
- PHOTOVOLTAIC SYSTEM WILL COMPLY WITH NEC 2020.
- ELECTRICAL SYSTEM GROUNDING WILL COMPLY WITH NEC 2020.
- PHOTOVOLTAIC SYSTEM IS UNGROUNDED. NO CONDUCTORS ARE SOLIDLY GROUNDED IN THE INVERTER. SYSTEM COMPLIES WITH 690.35.
- MODULES CONFORM TO AND ARE LISTED UNDER UL 61730.
- INVERTER CONFORMS TO AND IS LISTED UNDER UL 1741.
- RACKING CONFORMS TO AND IS LISTED UNDER UL 2703.
- SNAPRACK RACKING SYSTEMS, IN COMBINATION WITH TYPE I, OR TYPE II MODULES, ARE CLASS A FIRE RATED.
- RAPID SHUTDOWN REQUIREMENTS MET WHEN INVERTERS AND ALL CONDUCTORS ARE WITHIN ARRAY BOUNDARIES PER NEC 690.12(1).
- CONSTRUCTION FOREMAN TO PLACE CONDUIT RUN PER 690.31(D).
- ARRAY DC CONDUCTORS ARE SIZED FOR DERATED CURRENT.
- 12.82 AMPS MODULE SHORT CIRCUIT CURRENT.
- 20.03 AMPS DERATED SHORT CIRCUIT CURRENT [690.8 (A) & 690.8 (B)].
- PV INSTALLATION COMPLIES WITH THE NEC 2020 ARTICLE 690.12(B)(2)(2). CONTROLLED CONDUCTORS LOCATED INSIDE THE ARRAY BOUNDARY ARE LIMITED TO 80 VOLTS WITHIN 30 SECOND OF A RAPID SHUTDOWN INITIATION

REV	NAME	DATE	COMMENTS

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SUNRUN

#180120

200 RESEARCH DR, WILMINGTON, MA 01887
PHONE 888.657.6527
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CUSTOMER RESIDENCE:
LAWRENCE BARR
39 CHAUNCEY ST,
PORTSMOUTH, NH, 03801

TEL. (603) 431-3767
APN: PRSM-000134-000031

PROJECT NUMBER:
222R-039BAR1

DESIGNER: (415) 580-6920 ex3
JOSHUA DAMIAS

SHEET
COVER SHEET

REV: A 8/18/2023

PAGE PV-1.0

SITE PLAN - SCALE = 3/32" = 1'-0"



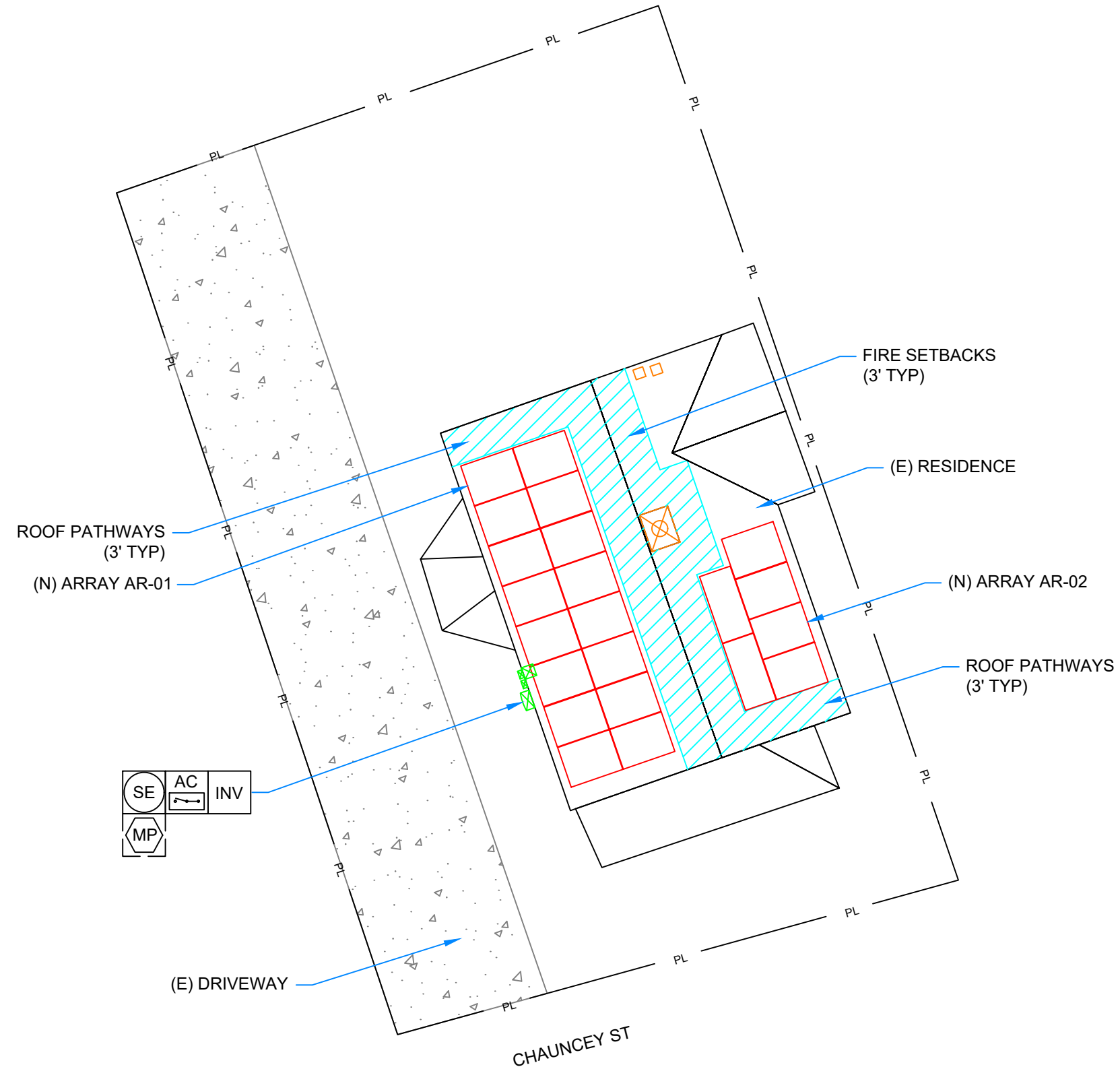
	ARRAY PITCH	TRUE AZIM	MAG AZIM	PV AREA (SQFT)
AR-01	39°	251°	265°	319.4
AR-02	39°	71°	85°	119.8

NOTES:

- RESIDENCE DOES NOT CONTAIN ACTIVE FIRE SPRINKLERS.

ARRAY DETAILS:

- TOTAL ROOF SURFACE AREA: 1273 SQFT.
- TOTAL PV ARRAY AREA: 439.2 SQ FT.
- PERCENTAGE PV COVERAGE:
(TOTAL PV ARRAY AREA/TOTAL ROOF SURFACE AREA) * 100 = 34.5%



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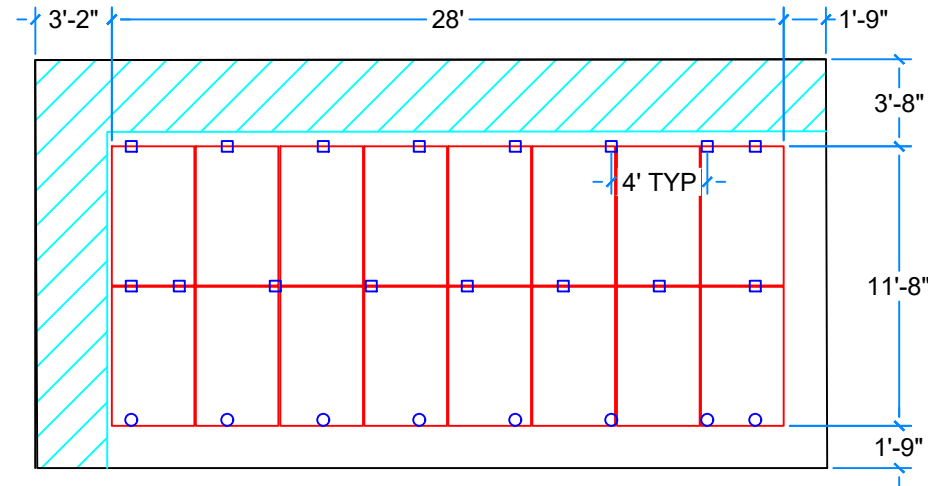
SHEET
SITE PLAN

REV: A 8/18/2023

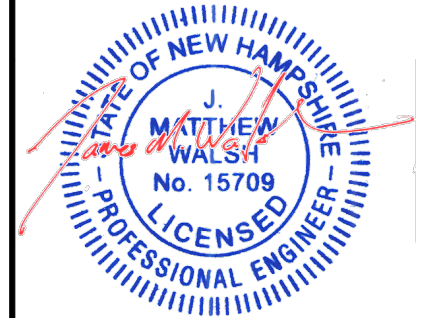
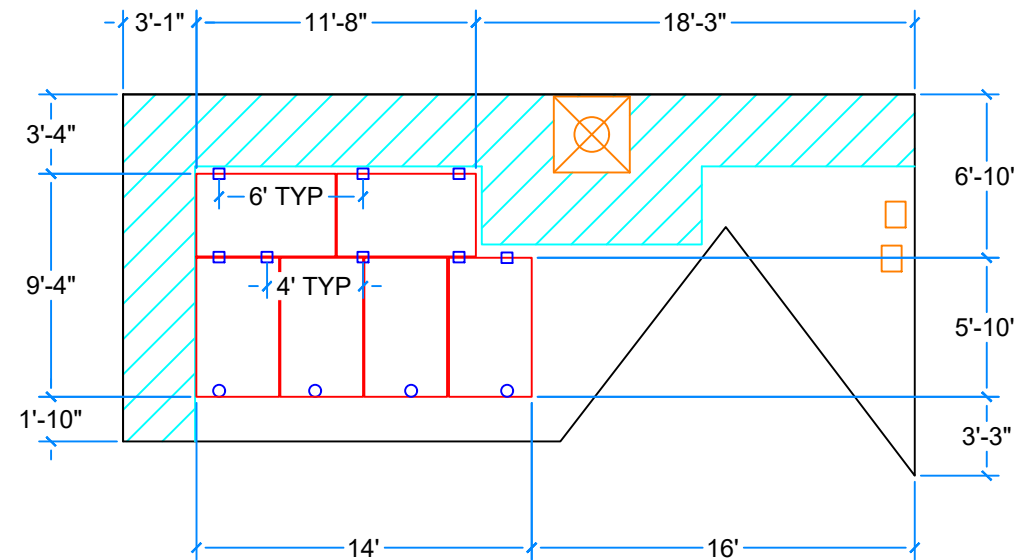
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PV-2.0

ROOF INFO			FRAMING INFO			ATTACHMENT INFORMATION					
Name	Type	Height	Type	Max Span	OC Spacing	Detail	Max Landscape OC Spacing	Max Landscape Overhang	Max Portrait OC Spacing	Max Portrait Overhang	Configuration
AR-01	COMP SHINGLE - RLU	2-Story	2X6 RAFTERS	6' - 4"	24"	RL UNIVERSAL, SPEEDSEAL TRACK ON COMP, SEE DETAIL SNR-DC-00436	6' - 0"	2' - 4"	4' - 0"	2' - 0"	STAGGERED
AR-02	COMP SHINGLE - RLU	2-Story	2X6 RAFTERS	6' - 0"	24"	RL UNIVERSAL, SPEEDSEAL TRACK ON COMP, SEE DETAIL SNR-DC-00436	6' - 0"	2' - 4"	4' - 0"	2' - 0"	STAGGERED

D1 - AR-01 - SCALE: 1/8" = 1'-0"
AZIM: 251°
PITCH: 39°



D2 - AR-02 - SCALE: 1/8" = 1'-0"
AZIM: 71°
PITCH: 39°



Exp. 05/31/2025
Signed on: 8/18/2023

SUNRUN

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SHEET
LAYOUT

REV: A 8/18/2023

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PV-3.0

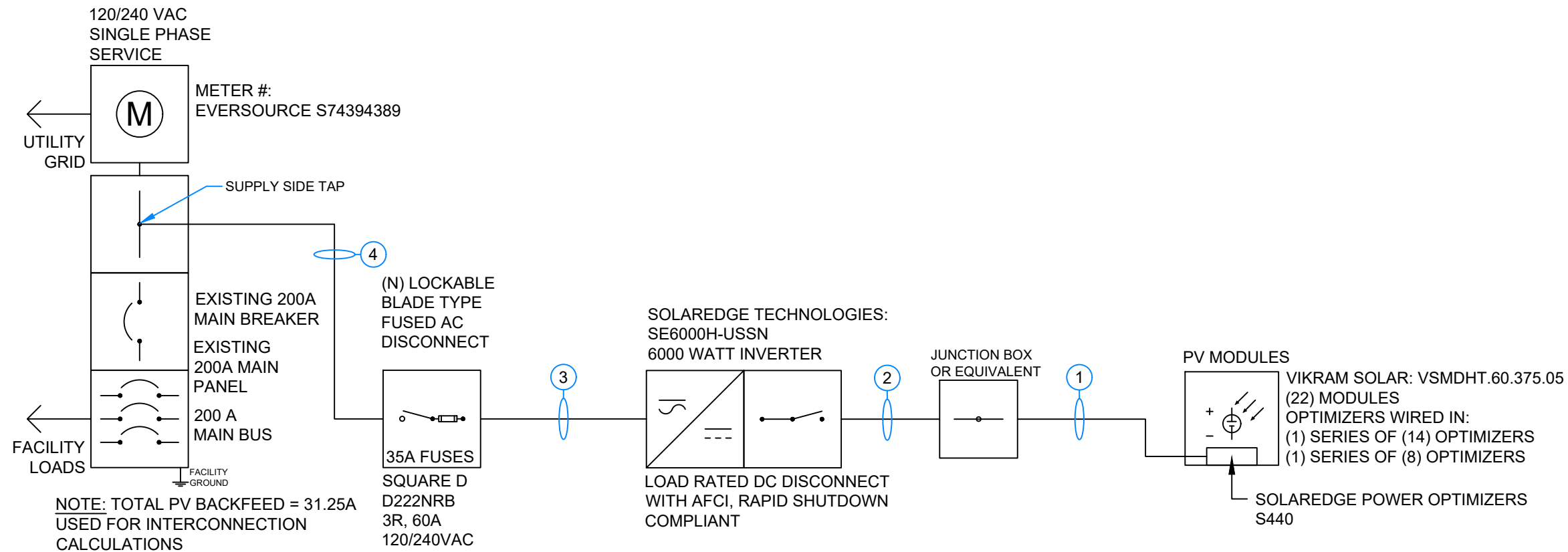
DESIGN CRITERIA

MAX DISTRIBUTED LOAD: 3 PSF
SNOW LOAD: 50 PSF
WIND SPEED:
115 MPH 3-SEC GUST.
S.S. LAG SCREW
5/16"x4.5"x2.5" MIN. EMBEDMENT

STRUCTURAL NOTES:

INSTALLERS SHALL NOTIFY ENGINEER OF ANY POTENTIAL STRUCTURAL ISSUES OBSERVED PRIOR TO PROCEEDING W/ INSTALLATION.

- IF ARRAY (EXCLUDING SKIRT) IS WITHIN 12" BOUNDARY REGION OF ANY ROOF PLANE EDGES (EXCEPT VALLEYS), THEN ATTACHMENTS NEED TO BE ADDED AND OVERHANG REDUCED WITHIN THE 12" BOUNDARY REGION ONLY AS FOLLOWS:
- ALLOWABLE ATTACHMENT SPACING INDICATED ON PLANS TO BE REDUCED BY 50%.
- ALLOWABLE OVERHANG INDICATED ON PLANS TO BE 1/5TH OF ALLOWABLE ATTACHMENT SPACING INDICATED ON PLANS.



TAP DEVICE MUST BE MARKED "SUITABLE FOR USE ON THE LINE SIDE OF THE SERVICE EQUIPMENT" OR EQUIVALENT

CONDUIT SCHEDULE

#	CONDUIT	CONDUCTOR	NEUTRAL	GROUND
1	NONE	(4) 10 AWG PV WIRE	NONE	(1) 6 AWG BARE COPPER
2	3/4" EMT OR EQUIV.	(4) 10 AWG THHN/THWN-2	NONE	(1) 8 AWG THHN/THWN-2
3	3/4" EMT OR EQUIV.	(2) 8 AWG THHN/THWN-2	(1) 10 AWG THHN/THWN-2	(1) 8 AWG THHN/THWN-2
4	3/4" EMT OR EQUIV.	(2) 6 AWG THHN/THWN-2	(1) 8 AWG THHN/THWN-2	(1) 8 AWG THHN/THWN-2

MODULE CHARACTERISTICS

VIKRAM SOLAR: VSMDHT.60.375.05: 375 W
OPEN CIRCUIT VOLTAGE: 41.1 V
MAX POWER VOLTAGE: 34.9 V
SHORT CIRCUIT CURRENT: 12.82 A

S440 OPTIMIZER CHARACTERISTICS:

MIN INPUT VOLTAGE: 8 VDC
MAX INPUT VOLTAGE: 60 VDC
MAX INPUT ISC: 14.5 ADC
MAX OUTPUT CURRENT: 15 ADC

SYSTEM CHARACTERISTICS - INVERTER 1

SYSTEM SIZE: 8250 W
SYSTEM OPEN CIRCUIT VOLTAGE: 14 V
SYSTEM OPERATING VOLTAGE: 380 V
MAX ALLOWABLE DC VOLTAGE: 480 V
SYSTEM OPERATING CURRENT: 21.72 A
SYSTEM SHORT CIRCUIT CURRENT: 30 A

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SHEET
ELECTRICAL

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PV-4.0

! WARNING
ELECTRICAL SHOCK HAZARD
TERMINALS ON LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

LABEL LOCATION:
INVERTER(S), AC/DC DISCONNECT(S), AC COMBINER PANEL (IF APPLICABLE).
PER CODE(S): NEC 2020: 690.13(B), CEC 2022: 690.13(B)

! WARNING
DUAL POWER SUPPLY
SOURCES: UTILITY GRID AND PV SOLAR ELECTRIC SYSTEM

LABEL LOCATION:
UTILITY SERVICE METER AND MAIN SERVICE PANEL.
PER CODE(S): NEC 2020: 705.12(C), CEC 2022: 705.12(C)

! WARNING
POWER SOURCE OUTPUT CONNECTION
DO NOT RELOCATE THIS OVERCURRENT DEVICE

LABEL LOCATION:
ADJACENT TO PV BREAKER AND ESS OCPD (IF APPLICABLE).
PER CODE(S): NEC 2020: 705.12(B)(3)(2), CEC 2022: 705.12(B)(3)(2)

! WARNING
THIS EQUIPMENT FED BY MULTIPLE SOURCES. TOTAL RATING OF ALL OVERCURRENT DEVICES EXCLUDING MAIN SUPPLY OVERCURRENT DEVICE SHALL NOT EXCEED AMPACITY OF BUSBAR

LABEL LOCATION:
PV LOAD CENTER (IF APPLICABLE) AND ANY PANEL THAT UTILIZES "THE SUM OF BREAKERS RULE".
PER CODE(S): NEC 2020: 705.12 (B)(3)(3), CEC 2022: 705.12 (B)(3)(3)

PV SYSTEM DISCONNECT
MAXIMUM AC OPERATING CURRENT: 25.00 AMPS
NOMINAL OPERATING AC VOLTAGE: 240 VAC

LABEL LOCATION:
AC DISCONNECT(S), PHOTOVOLTAIC SYSTEM POINT OF INTERCONNECTION.
PER CODE(S): NEC 2020: 690.54, CEC 2022: 690.54

INVERTER 1

PHOTOVOLTAIC DC DISCONNECT
MAXIMUM SYSTEM VOLTAGE: 480 VDC

LABEL LOCATION:
INVERTER(S), DC DISCONNECT(S).
PER CODE(S): NEC 2020: 690.53, CEC 2022: 690.53

WARNING: PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION:
INTERIOR AND EXTERIOR DC CONDUIT EVERY 10 FT, AT EACH TURN, ABOVE AND BELOW PENETRATIONS, ON EVERY JB/PULL BOX CONTAINING DC CIRCUITS.
PER CODE(S): NEC 2020: 690.31(D)(2), CEC 2022: 690.31(D)(2)

RAPID SHUTDOWN SWITCH FOR SOLAR PV SYSTEM

LABEL LOCATION:
INSTALLED WITHIN 3' OF RAPID SHUT DOWN SWITCH PER CODE(S): NEC 2020: 690.56(C)(2), CEC 2022: 690.56(C)(2), IFC 2018: 1204.5.3

SOLAR PV SYSTEM EQUIPPED WITH RAPID SHUTDOWN

TURN RAPID SHUTDOWN SWITCH TO THE "OFF" POSITION TO SHUT DOWN PV SYSTEM AND REDUCE SHOCK HAZARD IN THE ARRAY.

Labels: SOLAR ELECTRIC PV PANELS

LABEL LOCATION:
ON OR NO MORE THAT 1 M (3 FT) FROM THE SERVICE DISCONNECTING MEANS TO WHICH THE PV SYSTEMS ARE CONNECTED.
PER CODE(S): NEC 2020: 690.56(C), CEC 2022: 690.56(C)

NOTES AND SPECIFICATIONS:

- SIGNS AND LABELS SHALL MEET THE REQUIREMENTS OF THE NEC 2020 ARTICLE 110.21(B), UNLESS SPECIFIC INSTRUCTIONS ARE REQUIRED BY SECTION 690, OR IF REQUESTED BY THE LOCAL AHJ.
- SIGNS AND LABELS SHALL ADEQUATELY WARN OF HAZARDS USING EFFECTIVE WORDS, COLORS AND SYMBOLS.
- LABELS SHALL BE PERMANENTLY AFFIXED TO THE EQUIPMENT OR WIRING METHOD AND SHALL NOT BE HAND WRITTEN.
- LABEL SHALL BE OF SUFFICIENT DURABILITY TO WITHSTAND THE ENVIRONMENT INVOLVED.
- SIGNS AND LABELS SHALL COMPLY WITH ANSI Z535.4-2011, PRODUCT SAFETY SIGNS AND LABELS, UNLESS OTHERWISE SPECIFIED.
- DO NOT COVER EXISTING MANUFACTURER LABELS.

CAUTION: MULTIPLE SOURCES OF POWER

SOLAR PANELS ON ROOF

INVERTER (EXT)
AC DISCONNECT
SERVICE ENTRANCE MAIN PANEL (INT)

39 CHAUNCEY ST, PORTSMOUTH, NH, 03801

PER CODE(S): NEC 2020 : 705.10, 710.10, CEC 2022: 705.10, 710.10

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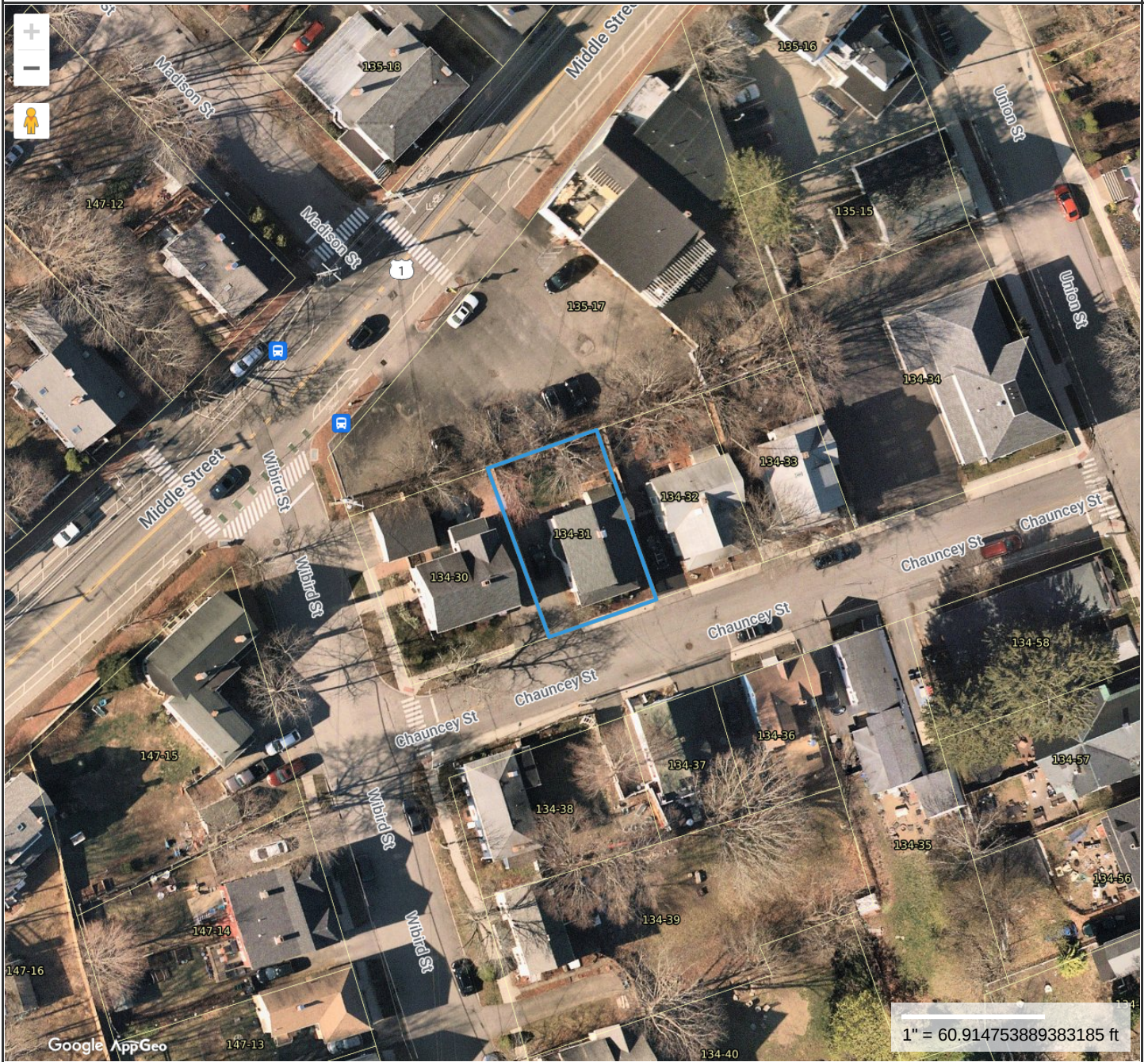
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SHEET **SIGNAGE**

REV: A 8/18/2023

PAGE **PV-5.0**


39 Chauncey Street



1" = 60.914753889383185 ft

Property Information

Property ID	0134-0031-0000
Location	39 CHAUNCEY ST
Owner	BARR LAWRENCE C



**MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT**

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Geometry updated 08/24/2023
Data updated 3/9/2022

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.



