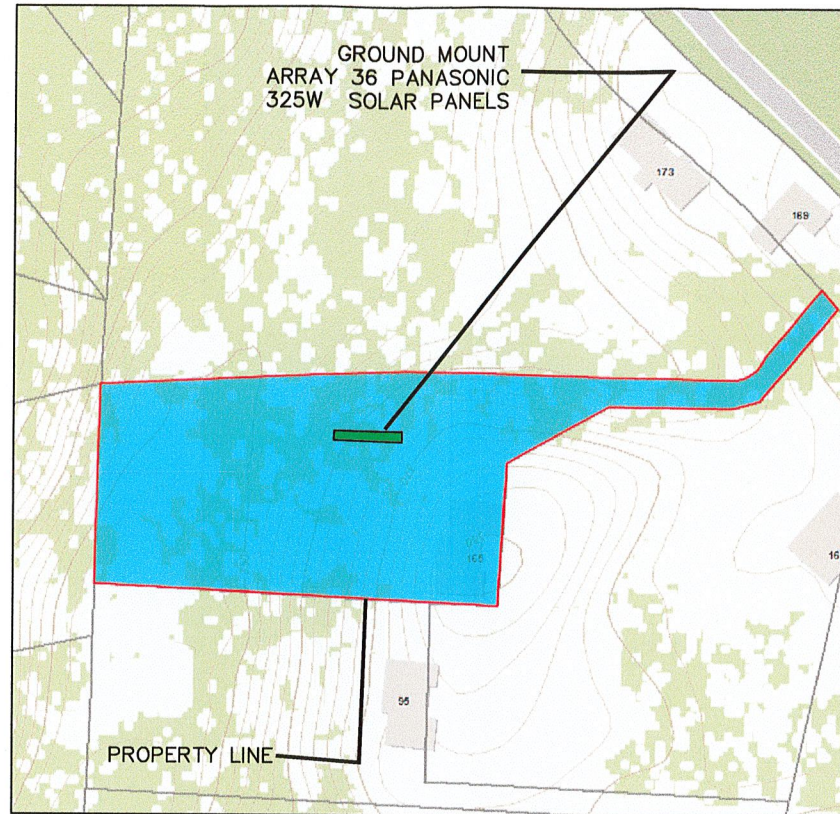


LOCATION MAP:
NTS



COUNTY G.I.S MAP:
NTS



ARRAY LOCATION MAP:
NTS

PROJECT DESIGN DATA:

WORK SHALL BE COMPLETED AS PER THE 2015 INTERNATIONAL RESIDENTIAL CODE, 2016 UNIFORM CODE SUPPLEMENT, 2014 NATIONAL ELECTRICAL CODE AND 2001 WOOD FRAME CONSTRUCTION MANUAL
LOAD CRITERIA AS FOLLOWS
EXPOSURE CATEGORY: "B"
GROUND SNOW LOAD: 40.0 PSF
WIND SPEED: 120 MPH

GENERAL NOTES:

1. ALL SOLAR MODULES TO BE PANASONIC 325W AND SHALL BE INSTALLED AS PER PANASONIC INSTALLATION MANUAL.
2. ALL INVERTERS TO BE SOLAR EDGE INVERTERS ALL RACKING AS PER DETAILS FOR GROUND MOUNT INSTALLATION

ARRAY NOTES:

THERE IS (1) GROUND MOUNT ARRAY, FOR A TOTAL OF 685 SQ.FT.

SURVEY NOTES:

SURVEY IS BASED ON AN ORANGE COUNTY G.I.S. DATA
ARRAY SHALL BE STAKED BY A LICENSED LAND SURVEYOR PRIOR TO INSTALLATION TO INSURE ALL REQUIRED SETBACKS ARE MET.

RESIDENTIAL GROUND MOUNT SOLAR PANEL INSTALLATION

LOCATED AT - 165 GARDENERTOWN ROAD, NEWBURGH, NY 12550
TOWN OF NEWBURGH, ORANGE COUNTY, NEW YORK

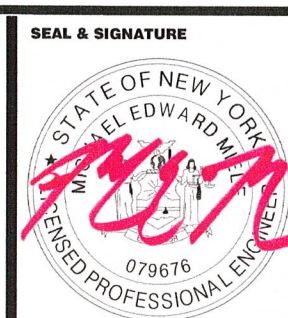


SOLAR PANEL INSTALLATION MEMON RESIDENCE
165 GARDENERTOWN ROAD
NEWBURGH
NEW YORK 12550

REVISIONS NOTES	
DWG. BY: MEM	SCALE: AS-NOTED
CHECKED BY: MEM	PROJECT #: ES-0843-20
DATE: FEBRUARY 21, 2020	SBL #: 69-4-4.3
MUNICIPALITY: TOWN OF NEWBURGH	COUNTY: ORANGE

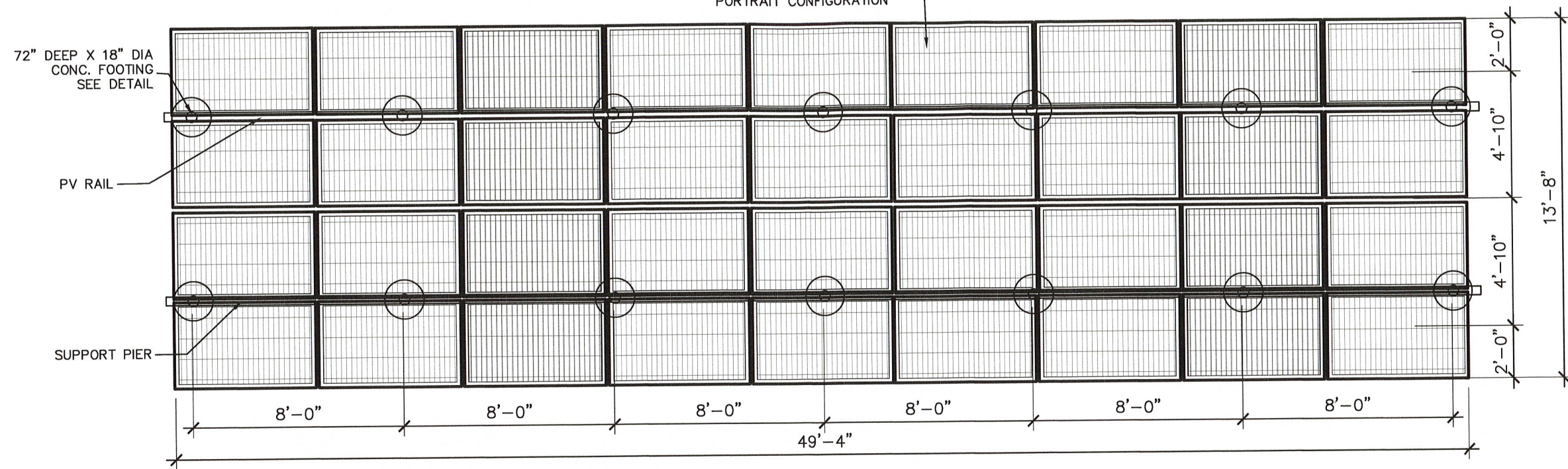
SYSTEM NOTES:	
TOTAL SYSTEM SIZE:	11.7KW DC SYSTEM
PANEL TYPE:	PANASONIC 325
# OF PANELS:	36
INVERTER TYPE:	SOLAR EDGE 10,000H-US
OF INVERTERS:	1
ARRAY	#1
AZIMUTH:	180
TILT:	35
# OF PANELS	36

PROFESSIONAL NOTES:
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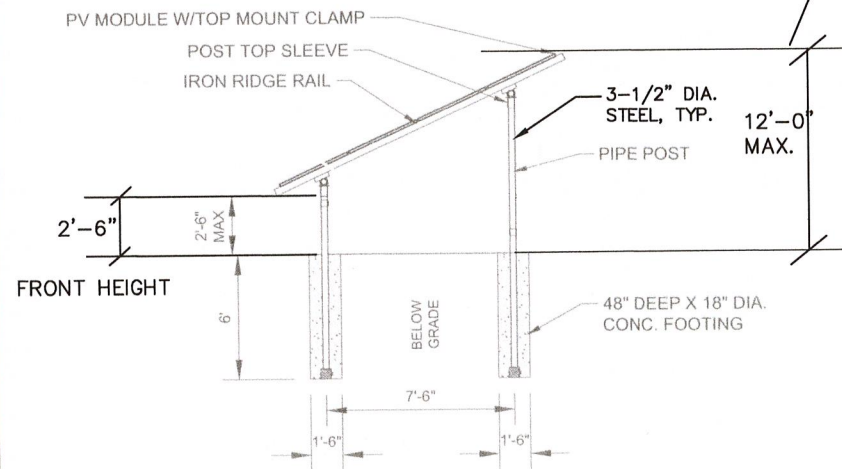
DWG# **S-1**
PROJECT SITE PLAN AND NOTES
DWG. 1 OF 5

PROPOSED GROUND MOUNT ARRAY
 (36) PANASONIC 325W SOLAR PANEL
 MODULES GROUND MOUNTED
 PORTRAIT CONFIGURATION



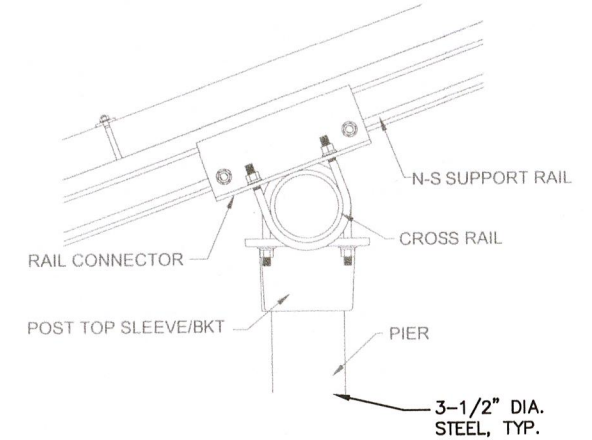
FULL UPRIGHT POSITION

GROUND MOUNT LAYOUT:

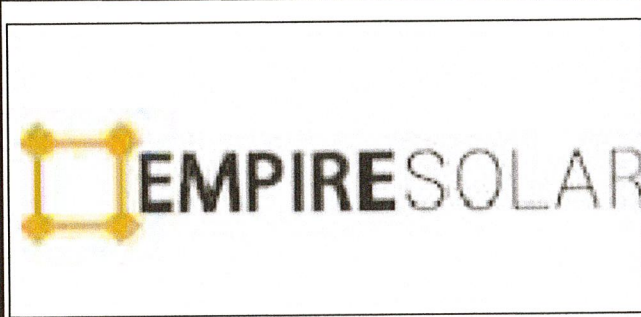


SOLAR PANEL ASSEMBLY:

NTS



PIER AND RAIL ASSEMBLY:

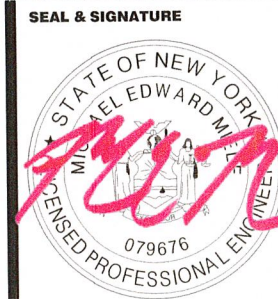


**SOLAR PANEL
 INSTALLATION
 MEMON
 RESIDENCE**
 165 GARDENERTOWN ROAD
 NEWBURGH
 NEW YORK 12550

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 # OF PANELS: 36
 INVERTER TYPE: SOLAR EDGE 10,000H-US
 OF INVERTERS: 1
 ARRAY #1
 AZIMUTH: 180
 TILT: 35
 # OF PANELS 36

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DWG# **S-2**
SOLAR PANEL LAYOUT PLAN
 DWG. 2 OF 5



Panasonic

N330/N325

ELECTRICAL SPECIFICATIONS

Model	VBHN330SA16	VBHN325SA16
Rated Power (Pmax) ¹	330W	325W
Maximum Power Voltage (Vpm)	58.0V	57.6V
Maximum Power Current (Ipm)	5.70A	5.65A
Open Circuit Voltage (Voc)	69.7V	69.6V
Short Circuit Current (Isc)	6.07A	6.03A
Temperature Coefficient (Pmax)	-0.258%/°C	-0.258%/°C
Temperature Coefficient (Voc)	-0.16V/°C	-0.16V/°C
Temperature Coefficient (Isc)	3.34mA/°C	3.32mA/°C
NOCT	44.0°C	44.0°C
CEC PTC Rating	311.3W	306.5W
Cell Efficiency	22.09%	21.76%
Module Efficiency	19.7%	19.4%
Watts per Ft. ²	18.3W	18.0W
Maximum System Voltage	600V	600V
Series Fuse Rating	15A	15A
Warranted Tolerance I-/+1	+10%/-0%*	+10%/-0%*

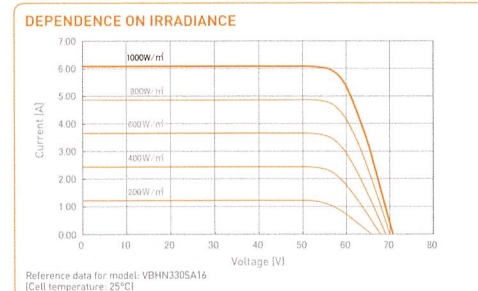
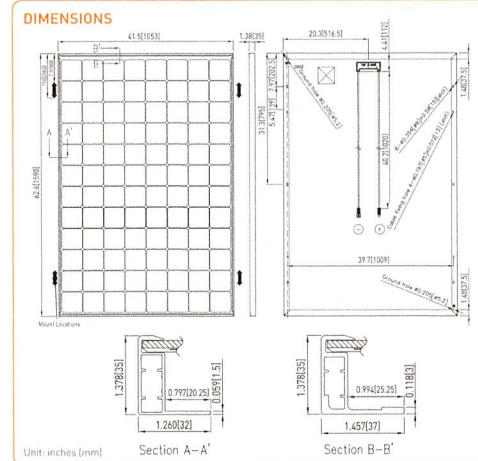
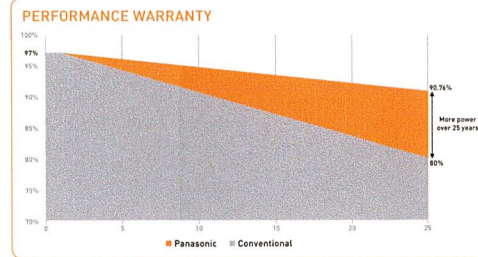
MECHANICAL SPECIFICATIONS

Model	VBHN330SA16, VBHN325SA16
Internal Bypass Diodes	4 Bypass Diodes
Module Area	18.02 Ft. ² (1.67m ²)
Weight	40.81 Lbs. (18.5kg)
Dimensions LxWxH	62.6x41.5x1.4 in. (1590x1053x35 mm)
Cable Length +Male-/Female	40.2/40.2 in. (1020/1020 mm)
Cable Size / Type	No. 12 AWG / PV Cable
Connector Type ²	Multi-Contact ³ Type IV (MC4 TM)
Static Wind / Snow Load	50 PSF (2400 Pa)
Pallet Dimensions LxWxH	63.7x42.2x65.4 in.
Quantity per Pallet / Pallet Weight	40 pcs. /1719 Lbs. (780 kg)
Quantity per 40' Container	560 pcs.
Quantity per 20' Container	240 pcs.

OPERATING CONDITIONS & SAFETY RATINGS

Model	VBHN330SA16, VBHN325SA16
Operating Temperature	-40°F to 185°F [-40°C to 85°C]
Hail Safety Impact Velocity	1" hailstone (25mm) at 52 mph (23m/s)
Safety & Rating Certifications	UL 1703, cUL, CEC
UL 1703 Fire Classification	Type 2
Limited Warranty	25** Yrs Workmanship and Power Output (Linear)***

NOTE: Standard Test Conditions: Air mass 1.5; irradiance = 1000W/m²; cell temp. 25°C
 * Maximum power at delivery. For guarantee conditions, please check our guarantee document.
 ** Installation need to be registered through our website www.panasonicusahitwarranty.com within 60 days in order to receive twenty-five (25) year Product workmanship. Otherwise, Product Workmanship will be only fifteen (15) years.
 *** 1st year 97%, after 2nd year 0.26% annual degradation to year 25.
¹STC: Cell temp. 25°C, AM1.5, 1000W/m²
²Safety locking clip (PV-55H4) is not supplied with the module.
 NOTE: Specifications and information above may change without notice.



CAUTION! Please read the installation manual carefully before using the products.
 Used electrical and electronic products must not be mixed with general household waste. For proper treatment, recovery and recycling of old products, please take them to applicable collection points in accordance with your national legislation.

Single Phase Inverter with HD-Wave Technology for North America

SE3000H-US / SE3800H-US / SE5000H-US / SE6000H-US / SE7600H-US / SE10000H-US / SE11400H-US

MODEL NUMBER	SE3000H-US	SE3800H-US	SE5000H-US	SE6000H-US	SE7600H-US	SE10000H-US	SE11400H-US
APPLICABLE TO INVERTERS WITH PART NUMBER	SEXXXXH-XXXXBXX4						
OUTPUT							
Rated AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V
Maximum AC Power Output	3000	3800 @ 240V 3300 @ 208V	5000	6000 @ 240V 5000 @ 208V	7600	10000	11400 @ 240V 10000 @ 208V
AC Output Voltage Min.-Nom.-Max. (211 - 240 - 264)	✓	✓	✓	✓	✓	✓	✓
AC Output Voltage Min.-Nom.-Max. (183 - 208 - 229)	-	✓	-	✓	-	-	✓
AC Frequency (Nominal)	59.3 - 60 - 60.5 ¹⁾						
Maximum Continuous Output Current @240V	12.5	16	21	25	32	42	47.5
Maximum Continuous Output Current @208V	-	16	-	24	-	-	48.5
Power Factor	1, Adjustable - 0.85 to 0.85						
GFDI Threshold	1						
Utility Monitoring, Islanding Protection, Country Configurable Thresholds	Yes						
INPUT							
Maximum DC Power @240V	4650	5900	7750	9300	11800	15500	17650
Maximum DC Power @208V	-	5100	-	7750	-	-	15500
Transformer-less, Ungrounded	Yes						
Maximum Input Voltage	480						
Nominal DC Input Voltage	380						
Maximum Input Current @240V ²⁾	8.5	10.5	13.5	16.5	20	27	30.5
Maximum Input Current @208V ²⁾	-	9	-	13.5	-	-	27
Max. Input Short Circuit Current	45						
Reverse-Polarity Protection	Yes						
Ground-Fault Isolation Detection	600k Ω Sensitivity						
Maximum Inverter Efficiency	99			99.2			
CEC Weighted Efficiency							99 @ 240V 98.5 @ 208V
Nighttime Power Consumption	< 2.5						

¹⁾ For other regional settings please contact SolarEdge support.
²⁾ A higher current source may be used, the inverter will limit its input current to the values stated.

Panasonic Eco Solutions of North America
 Two Riverfront Plaza, 5th Floor, Newark, NJ 07102
panasonicHIT@us.panasonic.com
business.panasonic.com/solarpanels

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 Specifications are subject to change without notice
 04/2017

RS17170_DS



SOLAR PANEL INSTALLATION MEMORANDUM RESIDENCE
 165 GARDENERTOWN ROAD
 NEWBURGH
 NEW YORK 12550

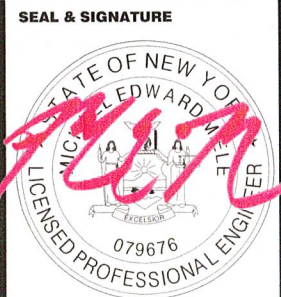
REVISIONS NOTES

NO.	DESCRIPTION

DWG. BY: MEM	SCALE: AS-NOTED
CHECKED BY: MEM	PROJECT #: ES-0843-20
DATE: FEBRUARY 21, 2020	SBL #: 69-4-4.3
MUNICIPALITY: TOWN OF NEWBURGH	COUNTY: ORANGE

SYSTEM NOTES:
 TOTAL SYSTEM SIZE: 11.7KW DC SYSTEM
 PANEL TYPE: PANASONIC 325
 # OF PANELS: 36
 INVERTER TYPE: SOLAR EDGE 10,000H-US
 OF INVERTERS: 1
 ARRAY #1
 AZIMUTH: 180
 TILT: 35
 # OF PANELS: 36

PROFESSIONAL NOTES:
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DWG# S-3
 SOLAR PANEL & INVERTER SPECIFICATIONS
 DWG. 3 OF 5

WARNING
ELECTRIC SHOCK HAZARD !
 THE DIRECT CURRENT CIRCUIT CONDUCTORS OF THIS PHOTOVOLTAIC POWER SYSTEM ARE UNGROUNDED BUT MAY BE ENERGIZED WITH RESPECT TO GROUND DUE TO LEAKAGE PATHS AND/OR GROUND FAULTS

DC WARNING LABEL

WARNING
 INVERTER OUTPUT CONNECTION
 DO NOT RELOCATE THIS OVERCURRENT DEVICE

UTILITY DISCONNECT LABEL

CAUTION
 SOLAR ELECTRIC SYSTEM CONNECTED

AC PANELS

GROUND MOUNT NOTES:

ARRAY RACK ASSEMBLY
 SOLAR GROUND MOUNT RACKING SHOWN FOR ARRANGEMENT ONLY
 RACKING MANUFACTURER TO PROVIDE SEALED SHOP DRAWINGS OF FINAL RACKING ASSEMBLY.
 INSTALL AS PER MANUFACTURER STANDARD INSTALLATION DETAILS.
 POST SUPPORTED RACKING FOUNDATION AS SHOWN
 18"Ø X 48" DEEP CONCRETE FOUNDATION WITH EMBEDDED POST.

INSTALLATION NOTES:
 BRACKET TO POST INSTALLATION HEIGHT MAY VARY WITH SITE GRADING. IT IS NOT NECESSARY FOR ALL POST TOP BRACKETS TO ALIGN AT A COMMON ELEVATION FOR EACH ROW (+/-2")
 INSTALLATION CONTRACTOR SHALL ENSURE THAT ALL GRADING AND COMPACTION OF SITE IS COMPLETED PRIOR TO INSTALLATION OF THE RACKING SYSTEM TO AVOID POTENTIAL DISTURBANCE OF FOUNDATION AND ALIGNMENT.

SEALED SHOP DRAWINGS SHALL BE PROVIDED BY RACKING MANUFACTURER PRIOR TO THE INSTALLATION OF THE PV ARRAY.

THIS DRAWING IS DIAGRAMMATIC FOR THE MODULE/RACK ARRANGEMENT. FINAL RACKING DETAILS AND ASSEMBLY MAY VARY WITH FINAL INSTALLATION.

PHOTOVOLTAIC INVERTER INPUT DC DISCONNECT

WARNING
ELECTRIC SHOCK HAZARD !

DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

INTERACTIVE SOLAR PV SYSTEM RATING

RATED DC CURRENT	AMP
RATED DC VOLTAGE	VDC
MAXIMUM SYSTEM VOLTAGE	VDC
SHORT CIRCUIT CURRENT	AMP

SYSTEM INSTALLER: _____
 FOR SERVICE CALL: _____

DC INPUT WARNING LABEL #1 INVERTER 1

PHOTOVOLTAIC SYSTEM DISCONNECT FOR UTILITY OPERATION

WARNING
ELECTRIC SHOCK HAZARD !

DO NOT TOUCH TERMINALS. TERMINALS ON BOTH THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

INTERACTIVE SOLAR PV SYSTEM RATING

RATED OPERATING CURRENT	AMP
NORMAL OPERATING VOLTAGE	VAC

SYSTEM INSTALLER: _____
 FOR SERVICE CALL: _____

UTILITY DISCONNECT WARNING LABEL

6"

1 1/2"

WARNING
DC SOLAR CIRCUIT

DC CIRCUIT LABEL

WARNING
 THIS METER IS ALSO SERVED BY A PHOTOVOLTAIC SYSTEM

PV CIRCUITS ONLY
 NO OTHER LOADS SHALL BE APPLIED TO THIS PANEL OTHER THAN PV COMPONENTS AS PER NEC ARTICLE 690



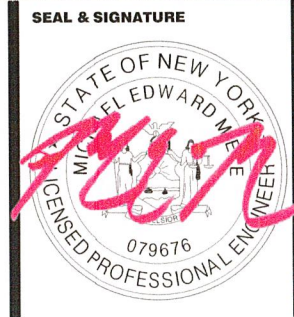
SOLAR PANEL INSTALLATION
MEMON RESIDENCE
 165 GARDENERTOWN ROAD
 NEWBURGH
 NEW YORK 12550

REVISIONS NOTES

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 PANEL TYPE: PANASONIC 325
 # OF PANELS: 36
 INVERTER TYPE: SOLAR EDGE 10,000H-US
 # OF INVERTERS: 1
 ARRAY AZIMUTH: #1 180
 TILT: 35
 # OF PANELS 36

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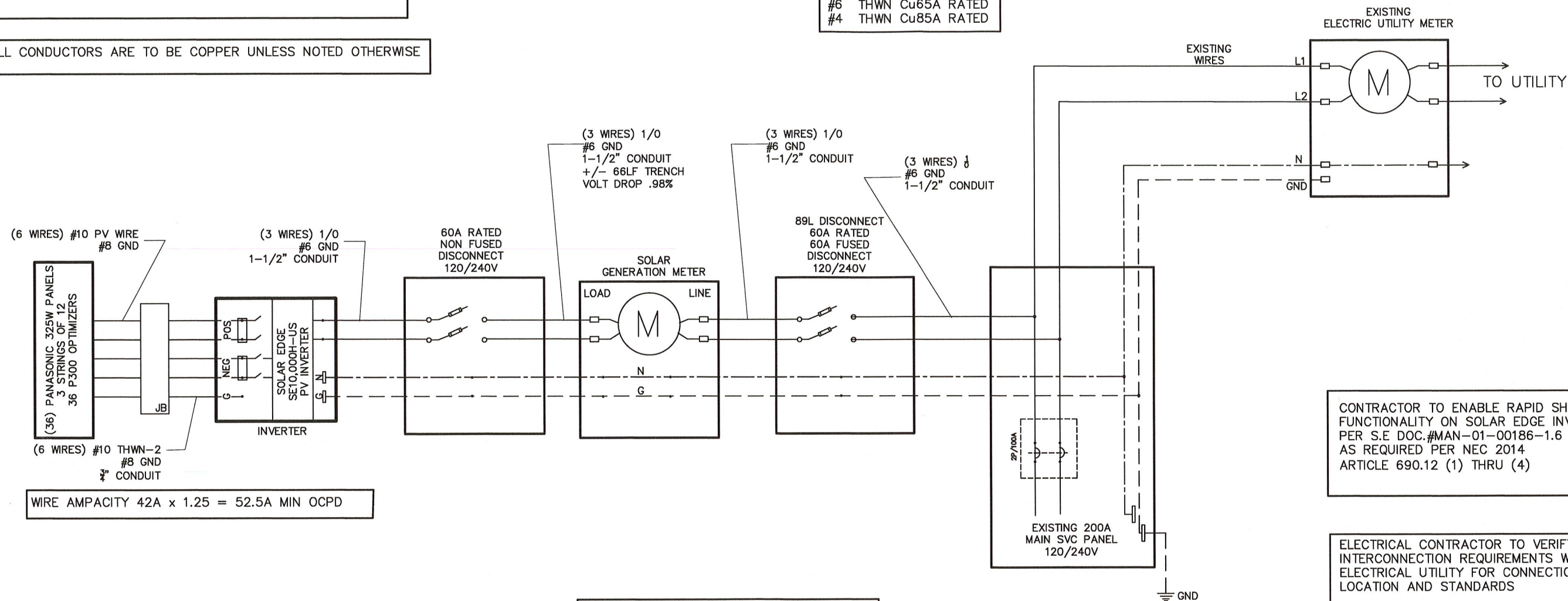
DWG#
S-4
SOLAR PANEL SIGNAGE
 DWG. 4 OF 5

POWER OUTPUT = PTC RATING X # OF MODULES X INV EFF'
 INVERTER #1=296.1W x 36 x 0.98 =10,446.41W
 TOTAL= 10,446.41W

ALL EXTERIOR MOUNTED COMBINERS, JUNCTION BOXES, TROUGHS, DISCONNECTS, ETC. SHALL BE NEMA 3R RATED.

WIRE AMPACITY
 NEC TABLE 310.15(B)(16)
 #10 THWN Cu35A RATED
 #8 THWN Cu50A RATED
 #6 THWN Cu65A RATED
 #4 THWN Cu85A RATED

ALL CONDUCTORS ARE TO BE COPPER UNLESS NOTED OTHERWISE



WIRE AMPACITY 42A x 1.25 = 52.5A MIN OCPD

DC CONDUITS MAY BE RUN ABOVE OR BELOW ROOF. PROVIDE SOLAEDECK JUNCTION/FLASHING WHEN PENETRATING THE ROOF WITH DC CONDUCTORS

ALL DC CONDUCTORS WITHIN THE BUILDING ENVELOPE MUST BE IN METALLIC CONDUIT.

DC CONDUCTORS MUST BE 90° RATED.

CONFIRM LINE SIDE VOLTAGE AT ELECTRIC UTILITY SERVICE ENTRANCE BEFORE CONNECTING INVERTER AND ENSURE PROPER OPERATIONAL RANGE REQUIRED BY SYSTEM INVERTER.

AC & DC GROUNDING CONDUCTORS PER NEC ARTICLE 690.47(c)(2) CONNECTED AS PER 250.64(c)(2)

INTERCONNECTION TO UTILITY AND SYSTEM GROUNDING PER NEC-2014 ARTICLE 690

PROVIDE SIGNAGE AS REQUIRED BY NEC-2014 ARTICLE 690.

ALL OUTDOOR EQUIPMENT SHALL BE A MINIMUM OF NEMA-3R RATED.

CONTRACTOR TO ENABLE RAPID SHUTDOWN FUNCTIONALITY ON SOLAR EDGE INVERTER PER S.E. DOC.#MAN-01-00186-1.6 AS REQUIRED PER NEC 2014 ARTICLE 690.12 (1) THRU (4)

ELECTRICAL CONTRACTOR TO VERIFY INTERCONNECTION REQUIREMENTS WITH ELECTRICAL UTILITY FOR CONNECTION LOCATION AND STANDARDS

ELECTRICAL CONTRACTOR TO PROVIDE EXPANSION JOINTS AND ANCHORING OF ALL CONDUIT RUNS AS PER NEC REQUIREMENTS

PROVIDE LABEL/PLACARD AT EXISTING UTILITY CONNECTION WITH "WARNING - CUSTOMER OWNED ELECTRIC GENERATION EQUIPMENT CONNECTED" WITH APPROPRIATE HAZARD AND OUTPUT RATING OF PV SYSTEM



SOLAR PANEL INSTALLATION
 MEMON RESIDENCE

165 GARDENERTOWN ROAD
 NEWBURGH
 NEW YORK 12550

REVISIONS NOTES

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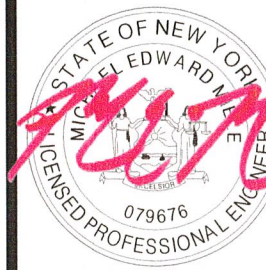
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SEAL & SIGNATURE

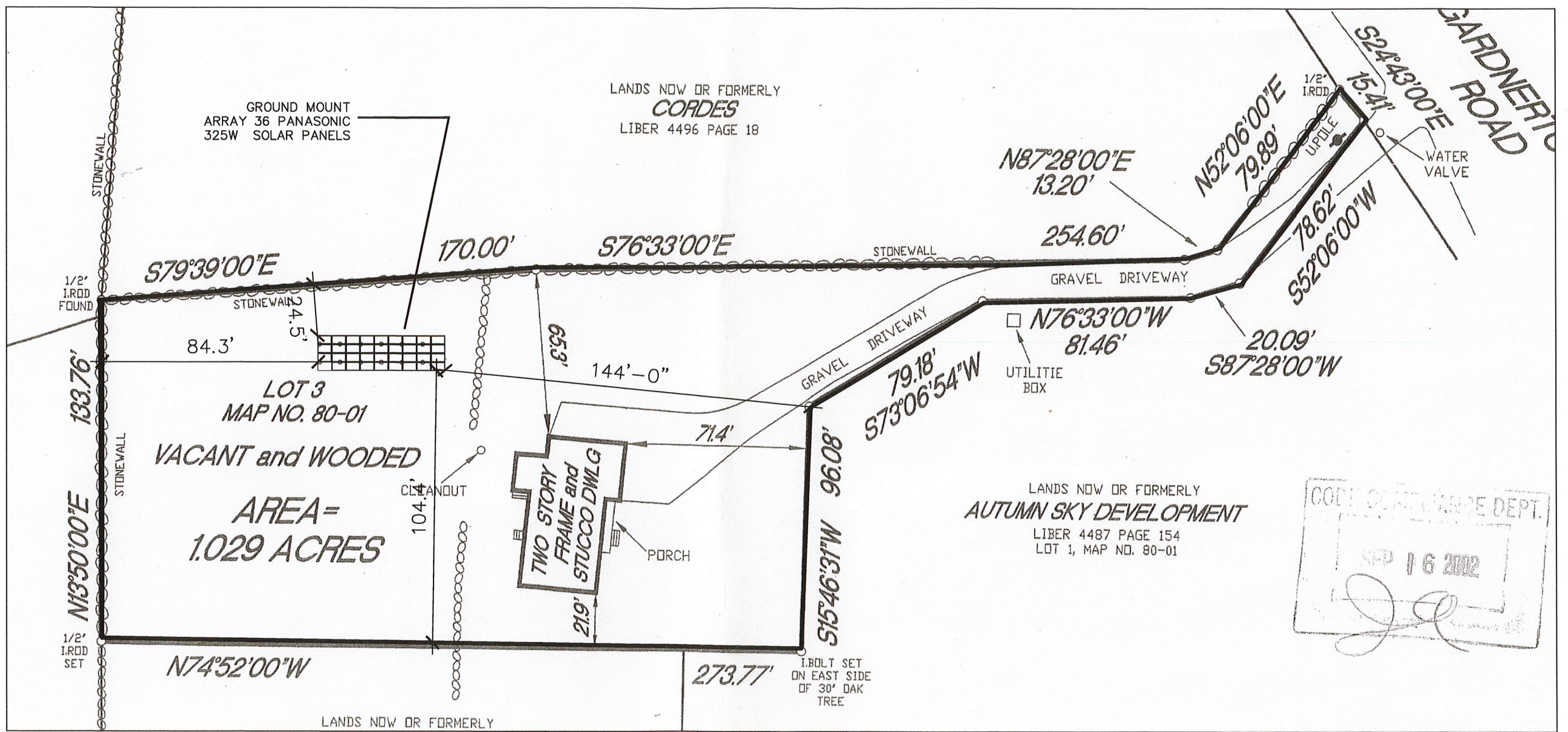
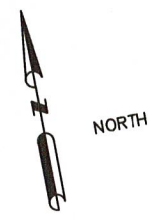


DWG#

S-5

SOLAR 3-LINE DIAGRAM

DWG. 5 OF 5



CODE BOOK DEPT.
 SEP 16 2002
[Signature]

SURVEY MAP:
 1"=40'

SURVEY NOTES:
 SURVEY IS BASED ON AN SURVEY PREPARED BY ANTHONY SORACE, DATED RECEIVED BY TOWN ON 9.2.2002

ARRAY SHALL BE STAKED BY A LICENSED LAND SURVEYOR PRIOR TO INSTALLATION TO INSURE ALL REQUIRED SETBACKS ARE MET.



SOLAR PANEL INSTALLATION MEMON RESIDENCE
 165 GARDENERTOWN ROAD
 NEWBURGH
 NEW YORK 12550

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DWG#
SURVEY
 PROJECT
 SITE PLAN
 AND NOTES
 DWG.
 1 OF 1