

KEY NOTES:

UTILITY: NHEC

- Do Not Allow ConnectDER
- Meter location approval required
- Required Load Data and Meter Request Form

ROOF: Asphalt Shingles

ATTACHMENT: Halo Feet

PITCH: 40

RACKING: Iron Ridge

MODULE ORIENTATION:

STRUCTURAL: 2" x 8" rafters, 24" o/c

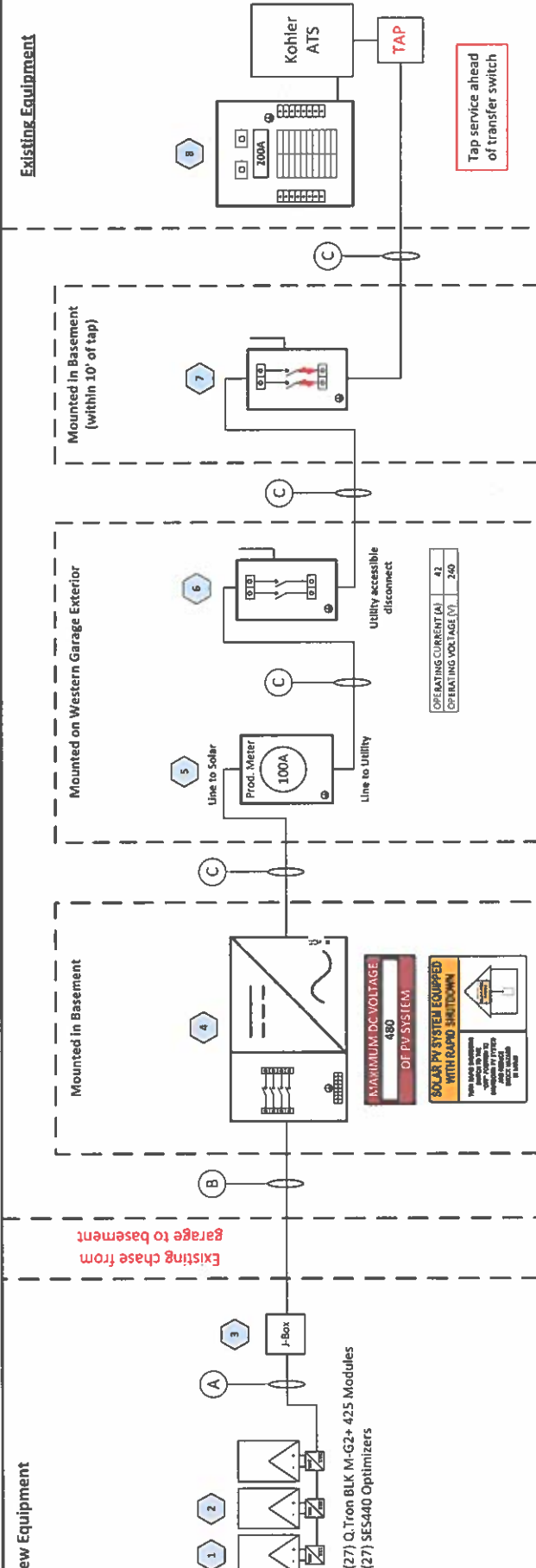
- Homeowner considering batteries in the future

MONITORING: Hardline or Extender

WIRELESS PASSWORD:

Equipment List		
1	27 Q.Tron BLK M-G2+ 425 Modules	Each connected to S440 optimizers, Mounted on Iron Ridge Racking
2	27 SE5440 Optimizers	(1) String of 13 and (1) String of 14
3	1 Junction Box	Penetrate into south side of garage and run through garage to equipment location
4	1 SolarEdge SE10000 Inverter	Mounted in Basement (Verify Rapid Shutdown/Set to No Neutral/Configure ISO NE Settings)
5	1 100A Solar Production Meter	Mounted on Garage Exterior
6	1 60A Non-Fused AC Disconnect	Mounted on Garage Exterior next to Production Meter
7	1 60A Fused AC Disconnect	Install 60A Fuses, Mounted in Basement within 10' of Tap
8	1 Existing 200A Service (Existing Kohler ATS)	Tap service conductor ahead of ATS in Basement

DC Conductor and Conduit Details						
Item	Location	Approx. Dist (ft)	Conductor Size (AWG)	# of Conductors	EGC (AWG)	Conductor Type
A	Array Homeruns to Junction Box	20	10	4	8	PV Wire
B	Junction Box to Inverter	100	10	4	8	THHN/THWN
AC Conductor and Conduit Details						
Item	Location	Approx. Dist (ft)	Conductor Size (AWG)	# of Conductors	EGC (AWG)	Conductor Type
C	Inverter to Tap	100	6	3	8	THHN/THWN
Notes						
					3/4	If over 120', upsized conductor





Catamount Solar
44 Hull St, Suite #3,
Randolph, VT 05060
802-728-3600
www.catamountsolar.com

PROJECT NAME
SERRANA STEEL, MUSA AND JOSEPH
ADDRESS
80 LAUREL ROAD, PLAINFIELD, NH

DATE
1/25/2024

REVISIONS
DATE

SHEET

DRAWN BY
CB

SCALE
NTS

ORIGINAL SHEET SIZE
11" x 17"

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FROM CATAMOUNT SOLAR.

Onsite Crew / Subs / Contractors

Name/Company
Name/Company
Name/Company
Name/Company
Name/Company

PLEASE VERIFY

☐☐

ARRAY PITCH
ARRAY AZIMUTH

Panels

Inverter
Serial Number

Project Start
Date:

Project End
Date:

Equipment/Job Changes List

- List major equipment, design or scope changes
- List customer special requests or issues/concerns
- Mark up drawings with as-built changes

1
2

NOTES:

- Structural review required
- See photos and attached house plans for details
- (27) Q.Tron BLK M-G2+ 425 Modules
- Iron ridge racking (Halo foot attachment)
- Asphalt shingles
- 2" x 8" truss, 24" o/c on garage
- 2" x 12" rafters, 24" o/c on house (vaulted ceilings)

Total system weight	1.633.4 lbs
Weight/attachment	22.1 lbs
Racking weight	359.5 lbs
Distributed weight	2.8 psf



Garage roof structure



Array locations



2" x 8" rafters, 24" o/c



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PROJECT NAME
SENECA SHIM, MOISA AND JOSEPH
ADDRESS
80 JAFFE ROAD, RANDOLPH, NH

DATE
1/25/2024

REVISIONS

DATE

SHEET
ARRAY PLAN

DRAWN BY
CB

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NTS

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JAMES A. CLANCY

PROFESSIONAL ENGINEER

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(856) 358-1125 FAX: (856) 358-1511

Construction Code Office

Date: January 30, 2024

Re: Structural Roof Certification

Subj: Speranza Residence, 80 Ladieu Road, Plainfield, NH 03781

We have provided a review of the garage and house roof construction at the above named property in regards to verifying the capacity of the existing roof for installation of a new Solar Panel Array.

We have found the structures (house and outbuilding) roofs to be of wood frame construction bearing walls. The garage roof is of 2x8 @ 24" o.c. trusses and is sheathed 1/2" ext-ply sheathing with a single layer of asphalt shingle roofing. The house roof is of vaulted ceilings that consist of 2x12 @ 24" o.c. rafters and is sheathed with 1/2" ext-ply sheathing and a single layer of shingles.

The wood framed roof structure bears directly upon the framed exterior wall system. The existing members as installed will meet IRC-2015 design span ratings with sufficient capacity to carry the 4#/sf additional load imposed by the proposed solar array per the details below.

Installation of solar rack systems shall be as follows:

The unified panel assembly shall be supported on Iron Ridge Halo adhered solar mounting feet providing an average of 2.5 mounting feet per module. The brackets, clamps, bolts, screws, nuts, etc that attach the PV modules to the top side of the Halo foot attachment. Foot attachment to roof shall be provided a minimum of 2 per module long side and shared between modules.

Mounting feet shall be adhered to the roof deck per the manufacturer's standard installation details to attach the Iron ridge to the sheathing.

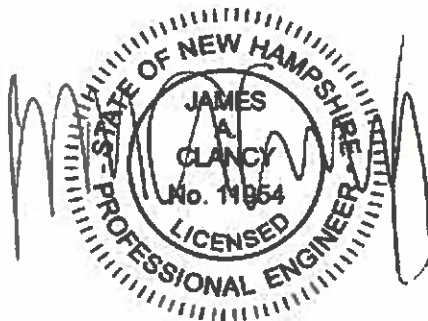
Solar panel mounting systems installed parallel to the plane of a roof shall be no more than 12" above the roof when measured perpendicular to the roof surface.

When installed per the above specifications the system shall meet the required 109 MPH wind load and 111 PSF ground snow load requirements.

This review is for structural review only and does not express or imply any review of the roofing materials for weather tightness, condition, or lifespan. Review of the roofing materials should be performed by the installing contractor or a certified roofing professional.

Should you have any further questions or comments, please feel free to contact our office.

Respectfully,



James A. Clancy
Professional Engineer
NH License #11954