Greenvale Township Board of Supervisors
Agenda June 2, 2025
Special Meeting
Time: Immediately following Planning Commission Meeting (Approx 7:15)
DRAFT

Call meeting to order
Pledge of Allegiance
Approve Agenda
Planning Commission Recommendations:

Variance for Dan Chesky II build beyond set-backs
Variance for Cameron and Rose Gillomen: Install solar equipment beyond set-backs

Adjourn

Greenvale Township Board of Supervisors
Agenda June 2, 2025
Special Meeting
Time: Immediately following Special Meeting of the Board to Consider Variances (approx. 7:30)
DRAFT

Call meeting to order
Pledge of Allegiance
Approve Agenda
Clerk Remark re: Out of Cycle Request
Out of Cycle Payment request regarding Beaver Creek Companies, Inc.

Adjourn

AGENDA
PLANNING COMMISSION HEARING
GREENVALE TOWNSHIP
Monday, June 2, 2025 6:30PM
DRAFT

- Call to order, Pledge of Allegiance
- Opening statement
- Approve agenda
- Public Hearing
    - Dan Chesky II, build beyond set - backs
    - Cameron and Rose Gillomen property – Installation of Solar Equipment beyond set-backs
- Adjourn

AGENDA
PLANNING COMMISSION HEARING
GREENVALE TOWNSHIP
Monday, June 2, 2025 6:30PM
DRAFT

- Call to order, Pledge of Allegiance
- Opening statement
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Greenvale Township

APPLICATION FOR INTERIM USE PERMIT, CONDITIONAL USE PERMIT, VARIANCE, ZONING AMENDMENT & SUBDIVISION/PLATTING

Greenvale Township 31800 Guam Avenue, Northfield MN 55057
Phone: 507-321-9311 Email: clerk@greenvaletwp.org

Please return the completed application form and required documentation to the Township Clerk.

Permit Checklist: (see Zoning Ordinance References on next page)

- Completed Application
- Application Fee and Escrow
- 4 copies of detailed site plans, aerial photographs, building plans, and other supporting documentation necessary to complete the application.

All permits/approvals require a public hearing and actions by the Planning Commission and Board of Supervisors.

Please Print or Type All Information

Applicant Dan Chesky II			
Home Phone 612-221-4922		Work Phone 952-881-0077	
Address 2552 Hickory Ave			
Site Address (If different)			
Property owner (If different from applicant)			
Platted Property Description:	Lot	Block	Addition
or			
Metes and Bounds Property Description	Section	Township	Range
PID Number			
Present Use of Site Homestead			
Present Zoning Classification of Site			
Parcel Size 19.96			

Please check the type of application requested:

____ IUP ____ CUP __X__ Variance ____ Zoning Amendment ____ Subdivision/Plat

Please describe the nature of your request:

Variance to Allow Garage/Horse Shed to be erected on Most Level part of Property. Homestead sits on 20 Acres which is Sloped & wet. Position of Shed will be Less than Required Set back.

Greenvale Township Zoning Ordinance References: a copy of the Zoning and Subdivision Ordinance is available on the Township's website: www.greenvaletwp.org.

- Variance Procedures: Section 8.01
- Zoning Amendments: Section 8.02
- Interim and Conditional Use Permits: Section 8.03
- Performance Standards: Sections 7.01-7.16
- Subdivision/Platting: Sections 6.01-6.06

PLEASE READ

I hereby apply for the above consideration and declare that the information and materials submitted with this application comply with the Township's ordinances and are complete and accurate to the best of my knowledge.

*I agree to pay all **NON-REFUNDABLE** application fees in advance and, if required by the Township Clerk, I agree to post an escrow with the Township to fund expenses incurred by the Township in processing this request. I understand and agree that all Township-incurred professional fees and expenses associated with the processing of this request are the responsibility of the property owner and shall be promptly paid by the property owner upon billing by the Township in the event the escrow fund is depleted. If payment of the Township incurred expenses is not received from the property owner within 10 days of billing, the property owner acknowledges and agrees to be responsible for the unpaid fee balance either by direct payment or an assessment against the Owner's property via MN. Stat. 366.012.*

PLEASE NOTE THAT THIS APPLICATION MUST BE SIGNED BY THE APPLICANT AND 100% OF THE PROPERTY OWNERS OF THE PROPERTY SUBJECT TO THE APPLICATION.

Applicant Signature: _____

Owner(s) Signature (If different from applicant) _____

_____

_____

_____

TOWNSHIP USE ONLY

Case Number	
Date Received	
Application Fee Paid	Check number: Date:
Application Complete	
Public Hearing Date	
Notes:	

Property Card

Parcel ID Number 16-00400-51-022

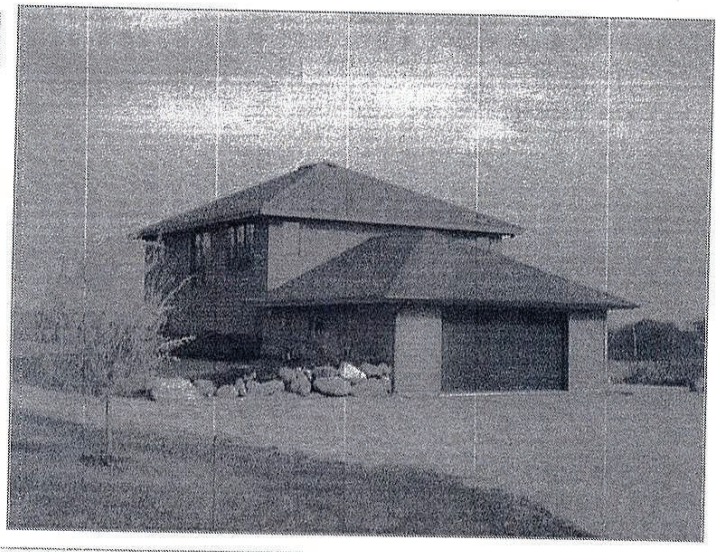
Owner Information

Fee Owner
KATHY K CARLSON
DANIEL J II CHESKY
Mailing Address
28528 HOLYOKE AVE

NORTHFIELD MN 55057

Property Address

Address
28528 HOLYOKE AVE
Municipality
GREENVALE TWP



Parcel Information

Sale Date		Total Acres	19.96
Sale Value	$0.00	R/W Acres	1.47
Uses	RESIDENTIAL	Water Acres	
	RESIDENTIAL	Plat	SECTION 4 TWN 112 RANGE 20
		Lot and Block	4 112 20
		Tax Description	N 1/2 OF NW 1/4 OF SW 1/4

2025 Building Characteristics (payable 2026)*

Building Type	S.FAM.RES	Year Built	2000	Bedrooms	3
Building Style	TWO STORY	Foundation Sq Ft	1,152	Bathrooms	2.50
Frame	WOOD	Above Grade Sq Ft	2,304	Garage Sq Ft	1,264
Multiple Buildings		Finished Sq Ft	2,304	Other Garage	

Miscellaneous Information

School District	Watershed District	Homestead	Green Acres	Ag Preserve	Open Space
659	NORTH CANNON RIVER	FULL HOMESTEAD			

Assessor Valuation

	Taxable	Estimated
2025 Land Values (payable 2026)	$187,800.00	$187,800.00
2025 Building Values (payable 2026)*	$367,500.00	$367,500.00
2025 Total Values (payable 2026)*	$555,300.00	$555,300.00
2024 Total Values (payable 2025)*	$550,900.00	$550,900.00

Property Tax Information

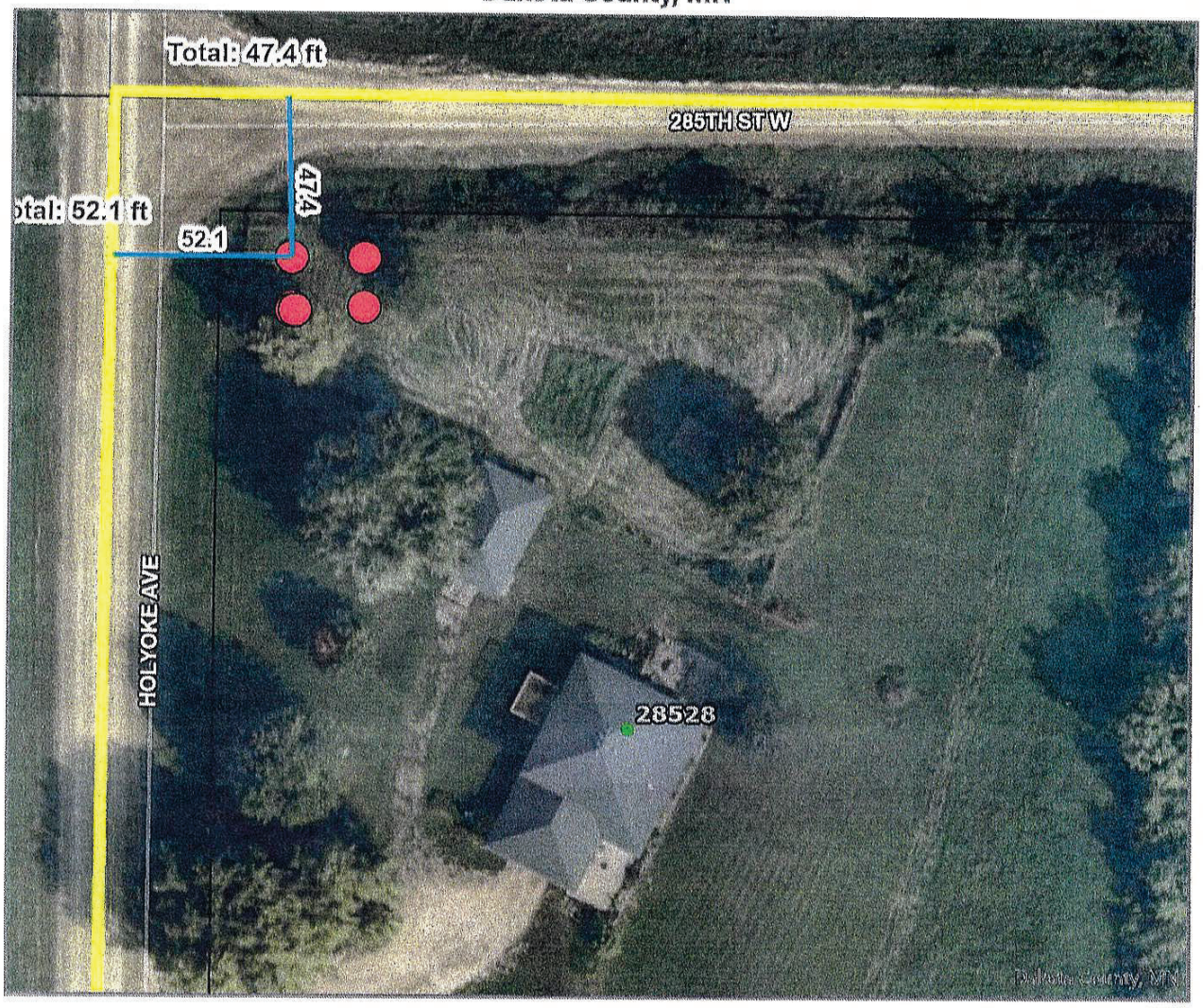
Net Tax (payable 2025)	Special Assessments (2025)	Total Tax & Assessments (2025)
$5,832.00	$0.00	$5,832.00

* Manufactured Homes Payable the Same Year as Assessment.

Disclaimer: Map and parcel data are believed to be accurate. but accuracy is not guaranteed. This is not a legal document and should not be substituted for a title search, appraisal, survey, or for zoning verification.

285th St W
Holyoke Ave
Holyoke Ave
52'
48'
30'
40'
Google

Dakota County, MN



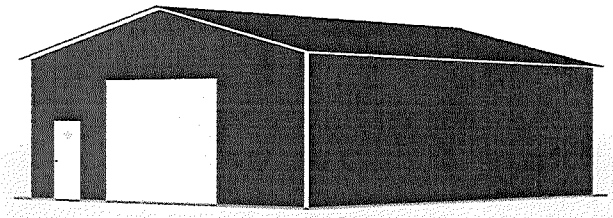
Parcel Data Is Current As Of:	5/14/2025
Parcel ID	160040051022
Status	ACTIVE
Owner	KATHY K CARLSON
Joint Owner	DANIEL J II CHESKY
Owner Address	28528 HOLYOKE AVE
Owner Address2	
City/State/Zip	NORTHFIELD MN 55057

Dakota County, MN

Disclaimer: Map and parcel data are believed to be accurate, but accuracy is not guaranteed. This is not a legal document and should not be substituted for a title search,appraisal, survey, or for zoning verification.

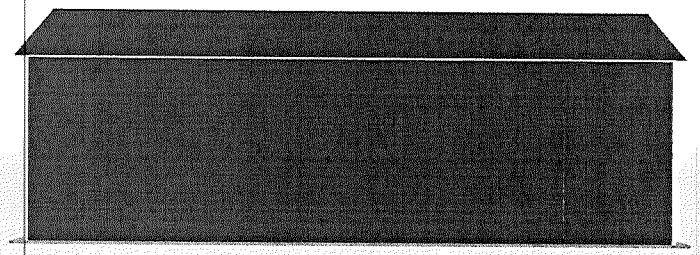
Map Scale
1 inch = 150 feet
5/5/2025

BUILDING VIEW



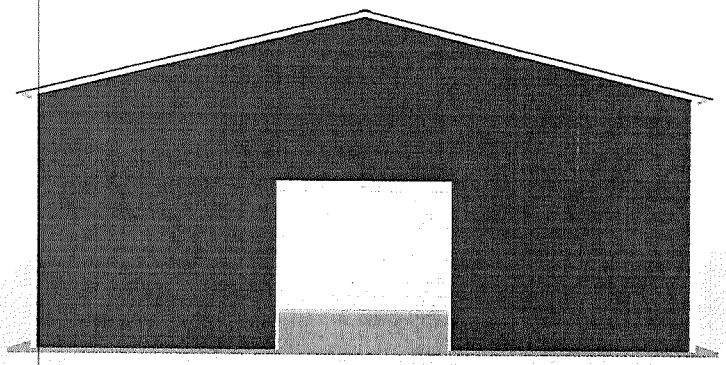
FRONT

BUILDING VIEW



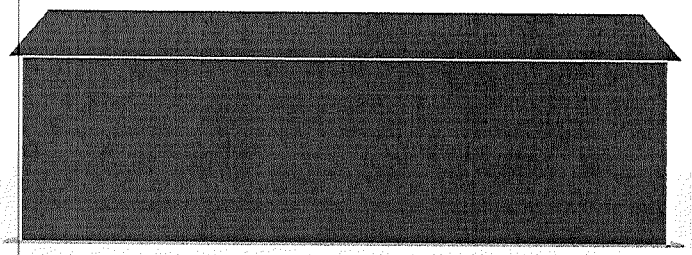
RIGHT

BUILDING VIEW



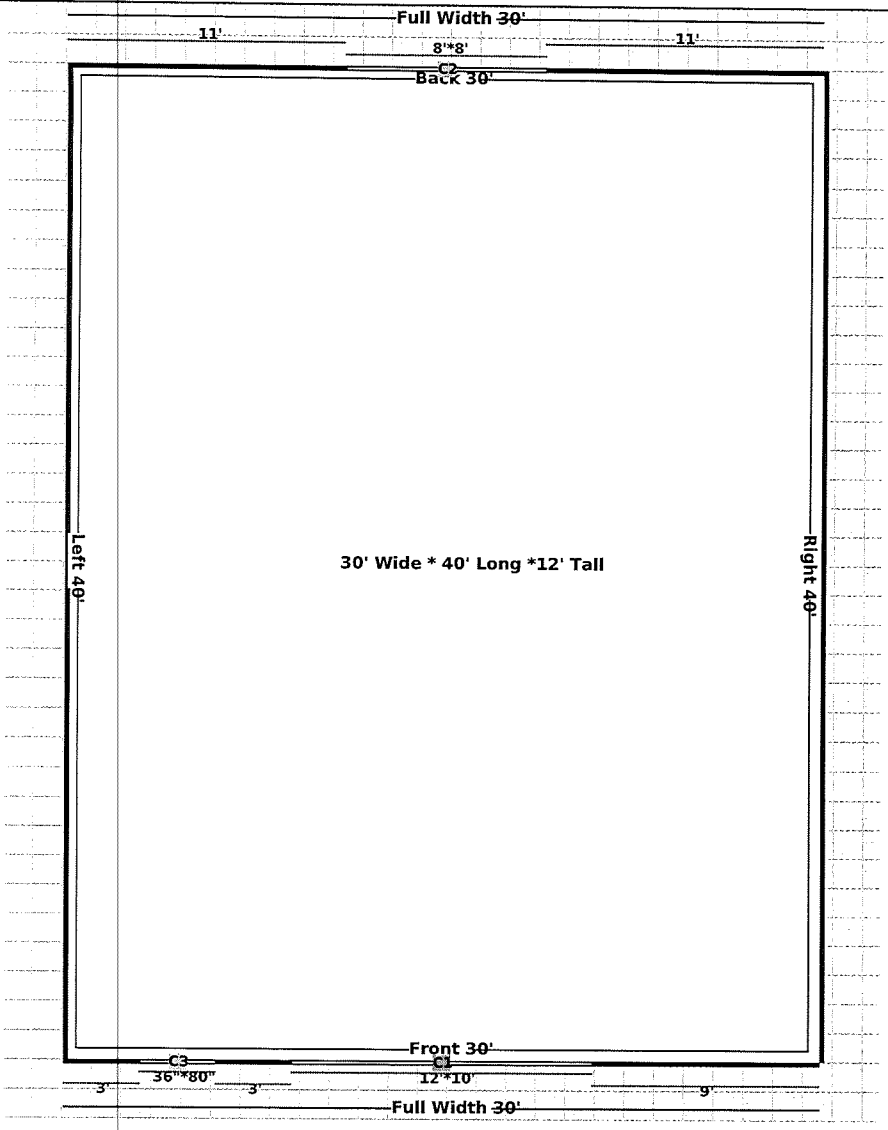
BACK

BUILDING VIEW



LEFT

2D DRAWING-1



LEGENDS

C1 Garage Door | C2 Garage Door Frameout | C3 Walk in Door | C4 Walk in Door Frameout | C5 Windows | C6 Windows Frameout | C7 Open Wall

C8 Close Wall | C9 Distance | C10 Storage Length (Utility) | C Cupola

NOTE :

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4. THE UTILITY AC DISCONNECT SHOULD BE LOCATED TOGETHER VISIBLE-OPEN, LOCKABLE & READILY ACCESSIBLE LOCATION MORE THAN 10' OF THE MAIN SERVICE METER.
5. THE SELF-CONTAINED METERING WILL BE IN COMPLIANCE WITH THE CURRENT REVISION OF THE XCEL ENERGY STANDARD; SPECIFICALLY SECTION 4.11, OR AS MAY BE AMENDED.
6. THE METER SOCKET FOR THE PV PRODUCTION METER SHALL BE MARKED WITH A STAMPED BRASS, ALUMINUM, OR STAINLESS STEEL TAG, INDICATING THE ADDRESS INCLUDING THE UNIT, TYPICALLY "PV PROD" IN ACCORDANCE WITH THE REQUIREMENTS FOR "METER IDENTIFICATION" IN SECTION 4.14.4 OF THE XCEL ENERGY STANDARD, OR AS MAY BE AMENDED.
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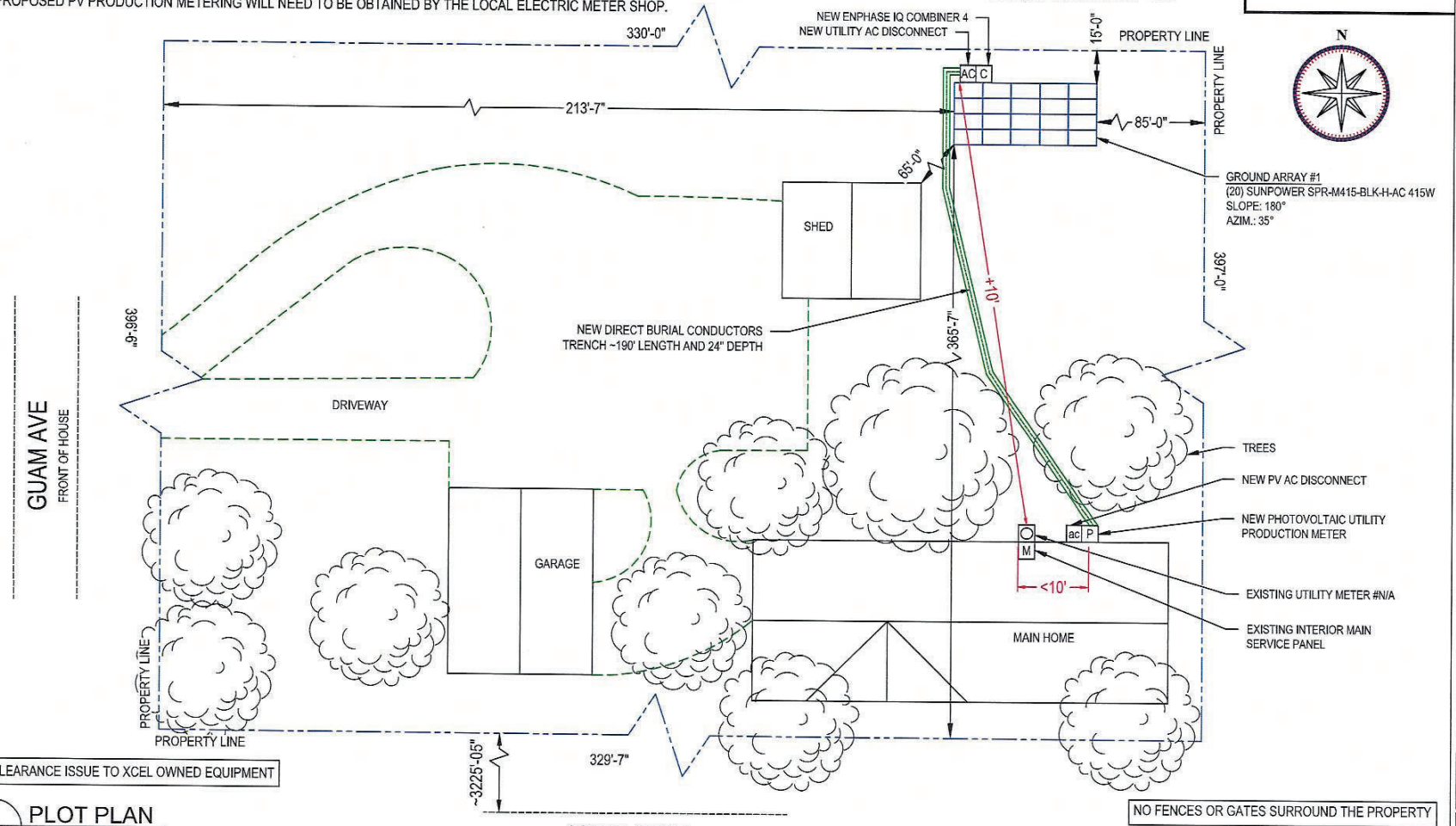


NO CLEARANCE ISSUE TO XCEL OWNED EQUIPMENT

1 PV 0.1 **PLOT PLAN**

SCALE: 3/64" = 1'-0"

NO FENCES OR GATES SURROUND THE PROPERTY

LOCATION NOTE: PLACARD TO BE INSTALLED AT MAIN UTILITY METER

SYSTEM LEGEND

LOT: 3.0 ACRES

PARCEL: 160210005021

PROPERTY LINE

DRIVEWAY

WOLF RIVER ELECTRIC
WOLF RIVER ELECTRIC
101 ISANTI PARKWAY NE, SUITE G
ISANTI, MN 55040
ELECTRICAL LICENSE# EA777669
BUILDING LICENSE# BC772271
CONTACT: (763) 229-6662
contact@wolfriverelectric.com

REVISIONS

Description	Date	Rev
CAD 1	MAR. 11, 2025	00
CAD 2	MAR. 18, 2025	01
CAD 3	MAY. 22, 2025	02

Signature with Seal

Project Name & Address

ROSE GILOMEN RESIDENCE
31068 GUAM AVE, NORTHFIELD, MN 55057
AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06002814

DESIGNED BY:

TRIVENTCAD

TRIVENT CAD SOLUTION

Sheet Name: PLOT PLAN

Sheet Size: ANSI B 11" X 17"

Sheet Number: PV 0.1

Greenvale Township

NEW BUILDING PERMIT APPLICATION

Payments to Greenvale Township must be received before any permits are issued

Project Address: Street: 31068 Guam Ave	City: Northfield		State/Zip: MN 55057	Property Identification #: 160210005021	
Applicant Name: Amber Zander	Street Address: 101 Isanti Parkway NE suite G		Applicant Telephone Number: 612-615-8905		
City: Isanti	State: MN	Zip: 55040	Applicant/Contractor Email: amberz@wolfriverelectic.com		
Owner Name: Rose Gilomen Telephone: 507-581-1010	Street: 31068 Guam Ave	City: Northfield	State/Zip: MN 55057		
Contractor's Name: Wolf River Electric	Street: 101 Isanti Parkway NE suite G	City: Isanti	State: MN	Zip: 55040	
BC773271 Contractor's State License Number (required)	03/26 Expiration Date		612-615-8905 Telephone Number		
Brief Project Description: Groiund Mounted solar			40,612.79 Completed Value (includes labor and materials)		

PROJECT INFORMATION (Circle all that apply)

PERMIT TYPE	PROJECT PROPOSED USE	TYPE OF CONSTRUCTION		ZONING DISTRICT
Building X	Residential X	Accessory Building X	Relocation	Agricultural
Accessory Building	Solar Energy X	Addition	Fireplace	Shoreland Overlay
Other		Interior Remodel	Fence/Wall	Flood Plain Overlay
		Deck/Porch	In Ground Pool	
		New Construction	Plumbing	
		Foundation Only	Mechanical	
			Above Ground Pool	

Notice: Separate permits are required for plumbing, heating, fireplace installation, electrical work and installation of the septic system. The permit shall become null and void unless work or construction authorized by the permit is not commenced within 180 days after its issuance, or if the work authorized by the permit is suspended or abandoned for a period of 180 days after the time the work is commenced.

I hereby certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing this type of work will be complied with whether specified herein or not. The granting of a permit does not presume to give authority to violate or cancel the provision of any other State or Local law regulating construction or the performance of construction. The on-site Building Inspector reserves the right to review requirements for soil erosion and sediment control that may be required during construction. The building permit may be suspended or revoked if the permit has been issued in error or based on incorrect information supplied or in violation of any ordinance or regulation of Township.

The property owner agrees to pay all plan review fees even if he/she chooses not to proceed with the work. Permit expires when work is not commenced within 180 days from date of permit, or if work is suspended, abandoned, or not inspected for 180 days. Work beyond the scope of this permit, or work without a permit or inspection will be subject to penalty.

Signature of Applicant (Owner or Contractor). **Date**

Completed application and permit checklist must be sent directly to the Building Official at:

Permit # _____

Building Official - Mark Ceminsky
Beaver Creek Companies, Inc.
7226 235th St W
Farmington, MN 55024
Main Office: 612-819-1334
Email: markceminsky@beavercreekco.com

Greenvale Township

Permit Instructions and New Construction Checklist

(This form must be included when applying for building permit)

Address: 31068 Guam Ave, Northfield, MN 55057 PID# 160210005021

SUBMISSION CHECKLIST

_____ Completed and Signed Building Permit Application (Include all Contractor License numbers and contact information).

_____ 3 sets of Structural Building Plans (floor plans and elevations, along with construction details).

_____ 3 sets of Site Plans, illustrating building dimensions, lot line, setbacks, septic system and well.

_____ New Construction Energy Code Compliance Certificate.

_____ New Construction, Residential Combustible Air Calculation Method.

_____ New Construction, Energy Code Lighting Schedule (can be deferred submittal).

Check all items below that will be included in the construction of the project, if items are not included in original permit application, but are added to plan after permit has been issued, an additional permit will be required.

_____ Finish Basement
_____ Deck
_____ Gas Fireplace: Quantity _____
_____ Masonry/Wood Fireplace: Quantity _____
_____ In-Floor Heat - Hydronic
_____ Geothermal System
__X__ Solar System Gound Mounted solar
_____ Other
_____ Complete Septic System Design, including soils.

Note: All materials and the installation of all materials must comply with the Minnesota State Building Code and the Manufacturers installation specifications for each product.

Applicant is responsible for calling Building Official for inspections.

Applicant's Printed Name: Amber Zander

Applicant's Signature: Amber Zander Date: 4/16/25

PHOTOVOLTAIC GROUND MOUNT SYSTEM

20 MODULES-GROUND MOUNTED - 8.300 kW DC, 7.680 kW AC

31068 GUAM AVE, NORTHFIELD, MN 55057

PHOTOVOLTAIC SYSTEM SPECIFICATIONS:

SYSTEM SIZE:	8.300 kW DC 7.680 kW AC
MODULE TYPE & AMOUNT:	(20) SUNPOWER SPR-M415-BLK-H-AC 415W
MODULE DIMENSIONS:	(L/W/H) 73.7"/40.6"/1.57"
INVERTER:	(20) ENPHASE IQ7HS-66-M-US [240V, 1 PHASE]
INTERCONNECTION METHOD:	SUPPLY SIDE TAP

GENERAL STRUCTURAL NOTES:

a. THE SOLAR PANELS ARE TO BE MOUNTED TO THE GROUND USING SUNMODO GROUND MOUNT RACKING.

b. DESIGN CRITERIA:

1. GROUND SNOW LOAD = 50 PSF
2. WIND SPEED = 105 MPH
3. EXPOSURE CATEGORY = C
4. RISK CATEGORY = I

AUTHORITIES HAVING JURISDICTION:

BUILDING: GREENVALE TOWNSHIP
ZONING: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
UTILITY METER NO: N/A

SHEET INDEX:

GOVERNING CODES

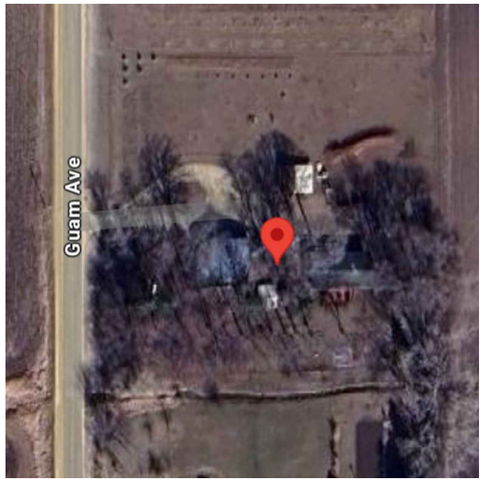
ALL WORK SHALL CONFORM TO THE FOLLOWING CODES

a. 2023 NATIONAL ELECTRICAL CODE
b. 2020 MINNESOTA RESIDENTIAL CODE
c. 2020 MINNESOTA BUILDING CODE
d. 2024 MINNESOTA ENERGY CODE
e. 2020 MINNESOTA ACCESSIBILITY CODE
f. 2020 MINNESOTA MECHANICAL AND FUEL GAS CODE
g. 2020 MINNESOTA PLUMBING CODE
h. 2020 MINNESOTA STATE FIRE CODE
i. ANY OTHER LOCAL AMENDMENTS

GENERAL ELECTRIC NOTES:

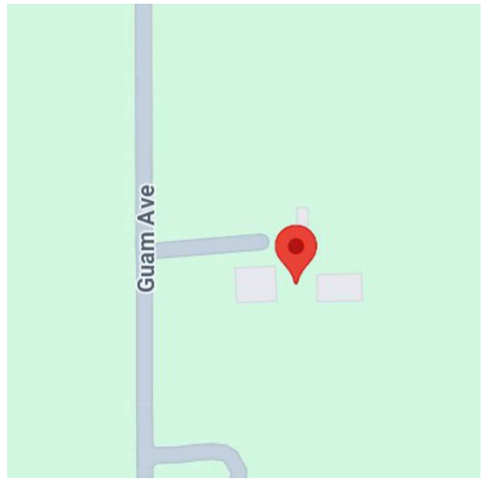
1. ALL COMPONENTS ARE UL LISTED AND CEC CERTIFIED, WHERE WARRANTED.
2. THE SOLAR PV SYSTEM WILL BE INSTALLED IN ACCORDANCE WITH ARTICLE 690 OF THE NEC 2023.
3. THE UTILITY INTERCONNECTION APPLICATION MUST BE APPROVED AND PV SYSTEM INSPECTED PRIOR TO PARALLEL OPERATION.
4. ALL CONDUCTORS OF A CIRCUIT, INCLUDING THE EGC, MUST BE INSTALLED IN THE SAME RACEWAY, OR CABLE, OR OTHERWISE RUN WITH THE PV ARRAY CIRCUIT CONDUCTORS WHEN THEY LEAVE THE VICINITY OF THE PV ARRAY.
5. WHERE METALLIC CONDUIT CONTAINING DC CONDUCTORS IS USED INSIDE THE BUILDING, IT SHALL BE IDENTIFIED AS "CAUTION: SOLAR CIRCUIT" EVERY 10FT.
6. HEIGHT OF THE AC DISCONNECT SHALL NOT EXCEED 6'-7" PER NEC CODE 240.24.
7. A GROUNDING ELECTRODE SYSTEM IN ACCORDANCE WITH CEC 690.47 AND 250.50 THROUGH 60 AND 250-166 SHALL BE PROVIDED. PER NEC GROUNDING ELECTRODE SYSTEM OF EXISTING BUILDING MAY BE USED AND BONDED TO THE SERVICE ENTRANCE. IF EXISTING SYSTEM IS INACCESSIBLE OR INADEQUATE A SUPPLEMENTAL GROUNDING ELECTRODE WILL BE USED AT THE INVERTER LOCATION CONSISTING OF A UL LISTED 8 FT. GROUND ROD WITH ACORN CLAMP. GROUNDING ELECTRODE CONDUCTORS SHALL BE NO LESS THAN #8 AWG AND NO LARGER THAN #6 AWG COPPER AND BONDED TO THE EXISTING GROUNDING ELECTRODE TO PROVIDE FOR A COMPLETE SYSTEM.
8. PHOTOVOLTAIC MODULES ARE TO BE CONSIDERED NON-COMBUSTIBLE.
9. ALL WIRING MUST BE PROPERLY SUPPORTED BY DEVICES OR MECHANICAL MEANS DESIGNED AND LISTED FOR SUCH USE. WIRING MUST BE PERMANENTLY AND COMPLETELY HELD OFF THE ROOF SURFACE.
10. ALL SINAGE TO BE PLACED IN ACCORDANCE WITH THE LOCAL BUILDING CODE. IF EXPOSED TO SUNLIGHT, IT SHALL BE UV RESISTANT. ALL PLAQUES AND SINAGE WILL BE INSTALLED AS REQUIRED BY THE NEC AND AHJ.
11. AS SPECIFIED BY THE AHJ, EQUIPMENT USED IN UNGROUNDED SYSTEMS LABELED ACCORDING TO NEC 690.35(F).
12. INVERTER(S) USED IN UNGROUNDED SYSTEM SHALL BE LISTED FOR THIS USE [NEC 690.35(G)].
13. THE INSTALLATION OF EQUIPMENT AND ALL ASSOCIATED WIRING AND INTERCONNECTION SHALL BE PERFORMED ONLY BY QUALIFIED PERSONS [NEC 690.4(C)]
14. ALL OUTDOOR EQUIPMENT SHALL BE NEMA 3R RATED (OR BETTER), INCLUDING ALL ROOF MOUNTED TRANSITION BOXES AND SWITCHES.
15. ALL EQUIPMENT SHALL BE PROPERLY GROUNDED AND BONDED IN ACCORDANCE WITH NEC ARTICLE 250.
16. SYSTEM GROUNDING SHALL BE IN ACCORDANCE WITH NEC 690.41.
17. PV SYSTEM CIRCUITS INSTALLED ON OR IN BUILDINGS SHALL INCLUDE A RAPID SHUTDOWN FUNCTION IN ACCORDANCE WITH NEC 690.12
18. DISCONNECTING MEANS SHALL BE LOCATED IN A VISIBLE, READILY ACCESSIBLE LOCATION WITHIN THE PV SYSTEM EQUIPMENT OR A MAXIMUM OF 10 FEET AWAY FROM THE SYSTEM [NEC 690.13(A)]
19. ALL WIRING METHODS SHALL BE IN ACCORDANCE WITH NEC 690.31
20. WORK CLEARANCES AROUND ELECTRICAL EQUIPMENT WILL BE MAINTAINED PER NEC 110.26(A)(1), 110.26(A)(2) AND 110.26(A)(3).
21. ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT EXPANSION JOINTS AND ANCHOR CONDUIT RUNS AS REQUIRED PER NEC.

44.494968, -93.225826



1 SATELLITE VIEW
PV 0.0
SCALE: NTS

44.494968, -93.225826



2 VICINITY MAP
PV 0.0
SCALE: NTS

WOLF RIVER ELECTRIC
WOLF RIVER ELECTRIC
101 ISANTI PARKWAY NE, SUITE G
ISANTI, MN 55040
ELECTRICAL LICENSE# EA777669
BUILDING LICENSE# BC773271
CONTACT: (763) 229-6662
contact@wolfriverelectric.com

REVISIONS

Description	Date	Rev
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CAD 2	MAR. 18, 2025	01

Signature with Seal

Project Name & Address

ROSE GILOMEN RESIDENCE
31068 GUAM AVE, NORTHFIELD, MN 55057
AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06092814

DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

Sheet Name
COVER SHEET

Sheet Size
ANSI B
11" X 17"

Sheet Number
PV 0.0

NOTE :

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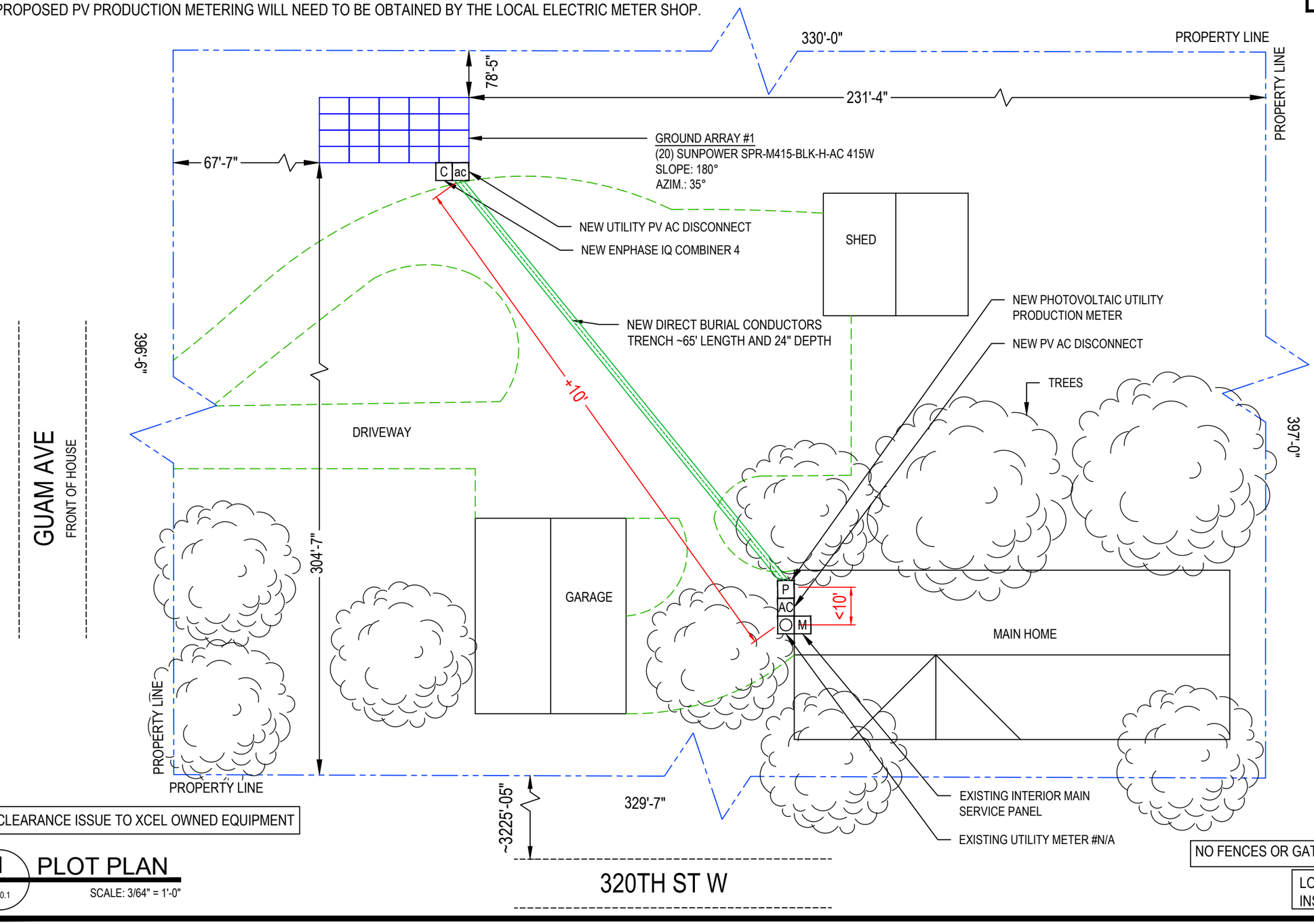

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NO FENCES OR GATES SURROUND THE PROPERTY

LOCATION NOTE: PLACARD TO BE INSTALLED AT MAIN UTILITY METER

1 PV 0.1 **PLOT PLAN**

SCALE: 3/64" = 1'-0"

SYSTEM LEGEND

LOT: 3.0 ACRES

PARCEL: 160210005021

PROPERTY LINE

DRIVEWAY

N

WOLF RIVER ELECTRIC
101 ISANTI PARKWAY NE, SUITE G
ISANTI, MN 55040
ELECTRICAL LICENSE# EA777669
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Project Name & Address

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AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06092814

DESIGNED BY:

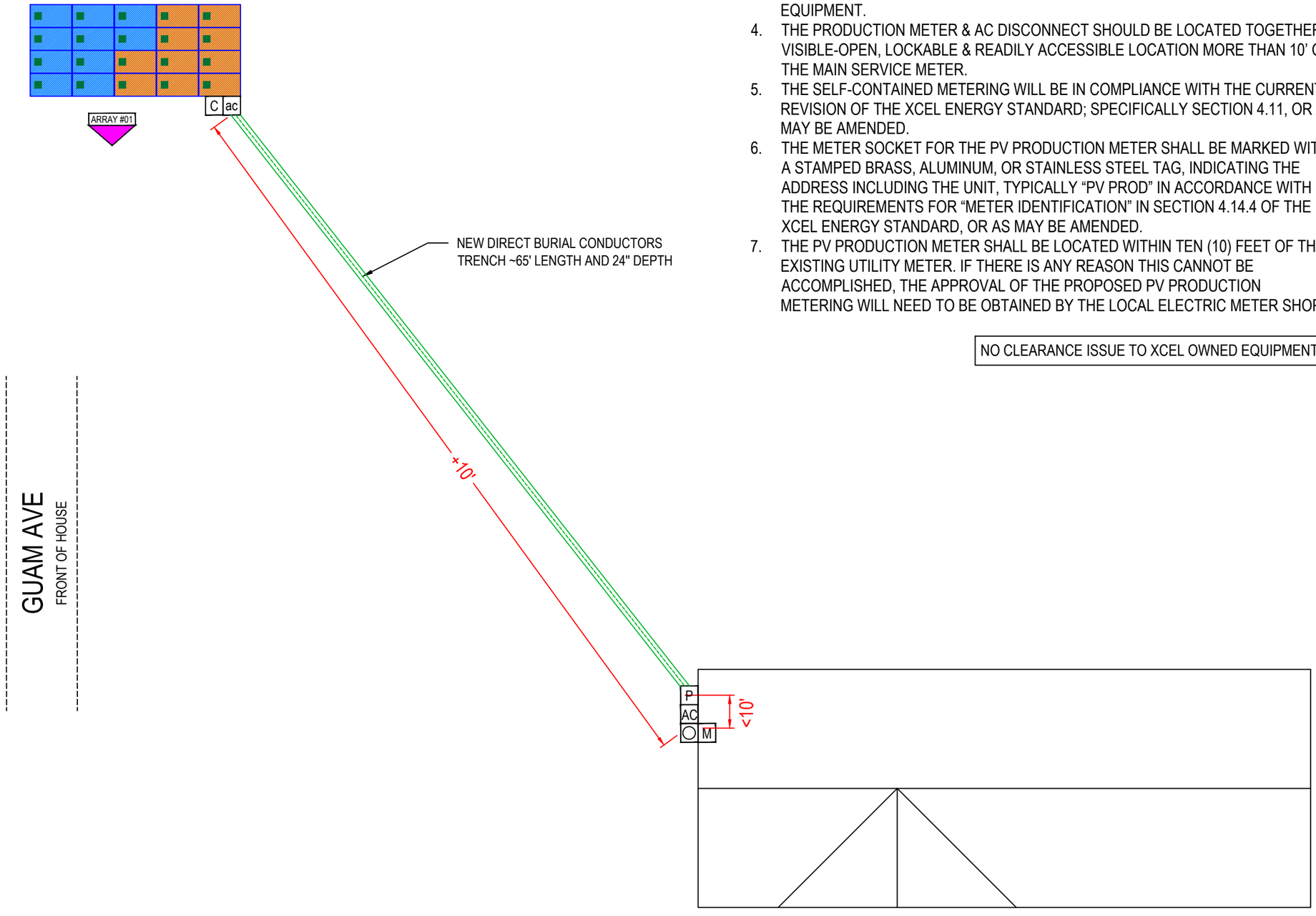
TRIVENTCAD

TRIVENT CAD SOLUTION

Sheet Name: PLOT PLAN

Sheet Size: ANSI B 11" X 17"

Sheet Number: PV 0.1



NOTE :

1. THIS DRAWING IS FOR ILLUSTRATIVE PURPOSES ONLY!
2. ALL TESTING SHALL BE PERFORMED BY QUALIFIED PERSONNEL, WITH PROPER PERSONAL PROTECTIVE EQUIPMENT.
3. 24/ 7 UNESCORTED KEYLESS ACCESS IS TO BE PROVIDED FOR ALL UTILITY EQUIPMENT.
4. THE PRODUCTION METER & AC DISCONNECT SHOULD BE LOCATED TOGETHER VISIBLE-OPEN, LOCKABLE & READILY ACCESSIBLE LOCATION MORE THAN 10' OF THE MAIN SERVICE METER.
5. THE SELF-CONTAINED METERING WILL BE IN COMPLIANCE WITH THE CURRENT REVISION OF THE XCEL ENERGY STANDARD; SPECIFICALLY SECTION 4.11, OR AS MAY BE AMENDED.
6. THE METER SOCKET FOR THE PV PRODUCTION METER SHALL BE MARKED WITH A STAMPED BRASS, ALUMINUM, OR STAINLESS STEEL TAG, INDICATING THE ADDRESS INCLUDING THE UNIT, TYPICALLY "PV PROD" IN ACCORDANCE WITH THE REQUIREMENTS FOR "METER IDENTIFICATION" IN SECTION 4.14.4 OF THE XCEL ENERGY STANDARD, OR AS MAY BE AMENDED.
7. THE PV PRODUCTION METER SHALL BE LOCATED WITHIN TEN (10) FEET OF THE EXISTING UTILITY METER. IF THERE IS ANY REASON THIS CANNOT BE ACCOMPLISHED, THE APPROVAL OF THE PROPOSED PV PRODUCTION METERING WILL NEED TO BE OBTAINED BY THE LOCAL ELECTRIC METER SHOP.

NO CLEARANCE ISSUE TO XCEL OWNED EQUIPMENT

SYSTEM LEGEND

- ◯ EXISTING EXTERIOR UTILITY METER #N/A.
- M — EXISTING INTERIOR MAIN SERVICE PANEL
- AC — NEW PV AC DISCONNECT
- ac — NEW UTILITY PV AC DISCONNECT
- P — NEW UTILITY PV PRODUCTION METER
- C — NEW ENPHASE IQ COMBINER 4
- ■ — 20 NEW SUNPOWER SPR-M415-BLK-H-AC 415W MODULES NEW 20 - ENPHASE IQ7HS-66-M-US [240V, 1 PHASE] INVERTERS, MOUNTED ON THE BACK OF EACH MODULE.
- = TRENCHED CONDUCTORS

ARRAY SECTIONS

ARRAY #01 — MODULE - 20
SLOPE - 180°
AZIMUTH - 35°

TOTAL MODULE AREA: 416ft^2

1 SITE PLAN
PV 1.0
SCALE: 1/16" = 1'-0"

WOLF RIVER ELECTRIC
101 ISANTI PARKWAY NE, SUITE G
ISANTI, MN 55040
ELECTRICAL LICENSE# EA777669
BUILDING LICENSE# BC773271
CONTACT: (763) 229-6662
contact@wolfriverelectric.com

REVISIONS

Description	Date	Rev
CAD 1	MAR. 11, 2025	00
CAD 2	MAR. 18, 2025	01

Signature with Seal

Project Name & Address

ROSE GILOMEN RESIDENCE
31068 GUAM AVE, NORTHFIELD, MN 55057
AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06092814

DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

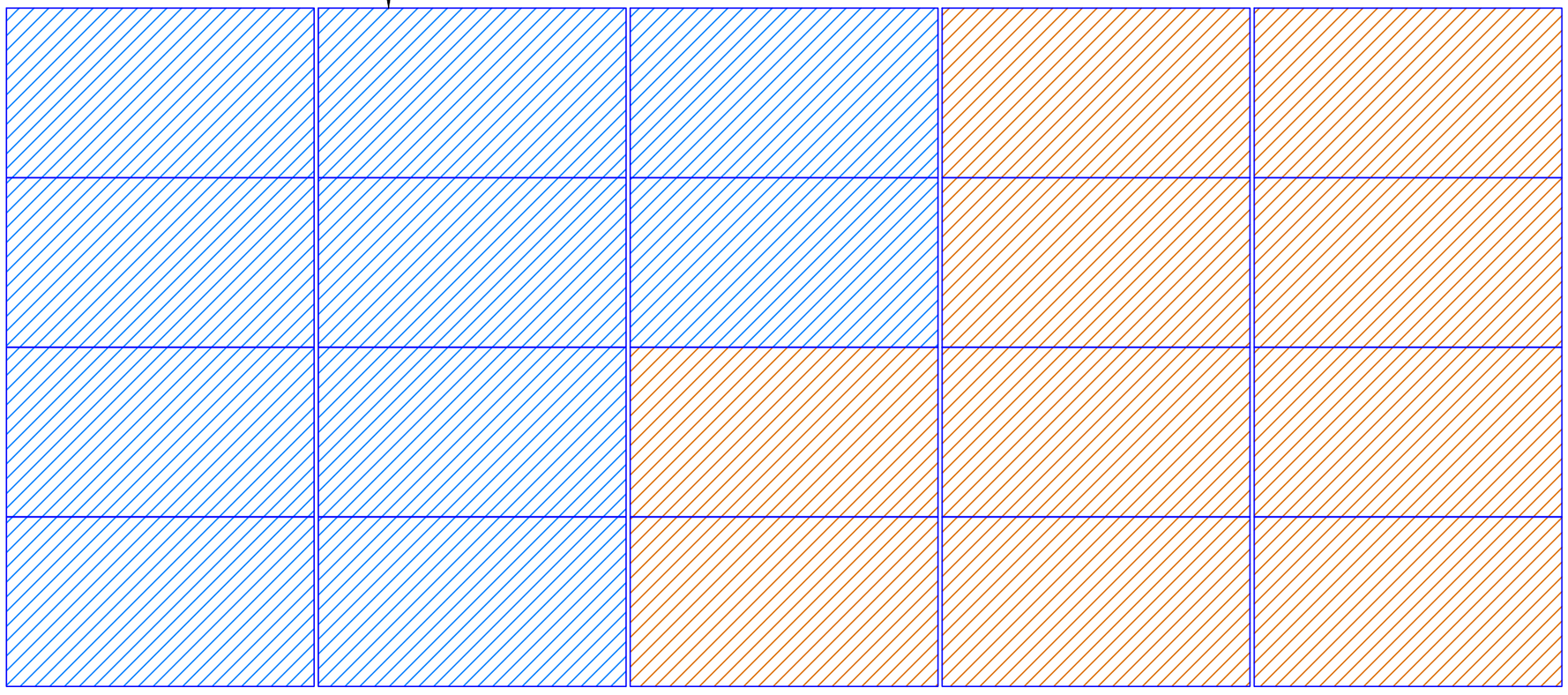
Sheet Name
SITE PLAN

Sheet Size
ANSI B
11" X 17"

Sheet Number
PV 1.0

N

GROUND ARRAY #1
(20) SUNPOWER SPR-M415-BLK-H-AC 415W
SLOPE: 180°
AZIM.: 35°



1 ATTACHMENT AND STRING LAYOUT
PV 1.1
SCALE: 3/8" = 1'-0"

CIRCUIT(S)

CIRCUIT #01
MODULE - 10

CIRCUIT #02
MODULE - 10

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Sheet Name
ATTACHMENT & STRING LAYOUT

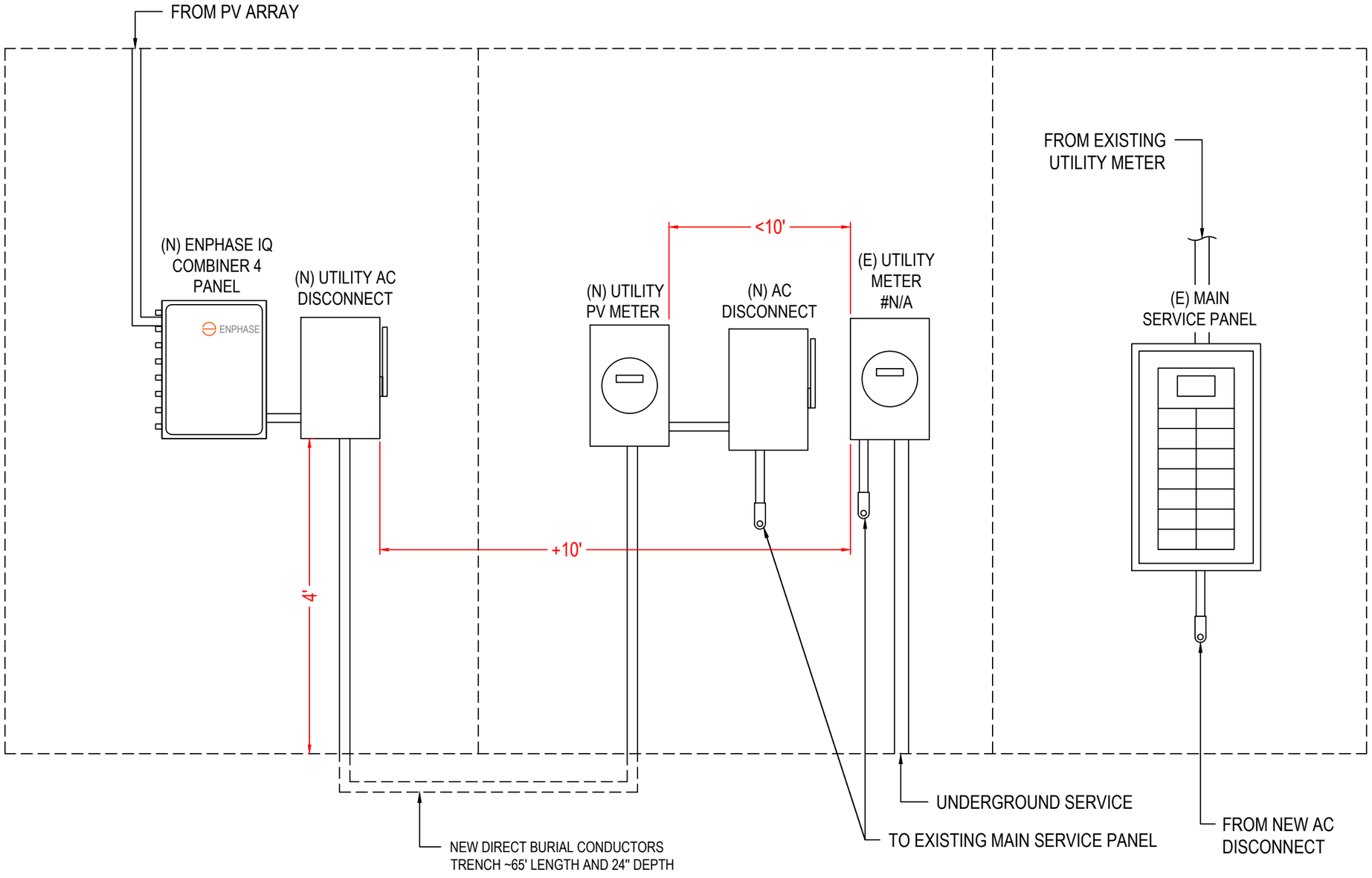
Sheet Size
ANSI B
11" X 17"

Sheet Number
PV 1.1

AT PV ARRAY

EXTERIOR WALL

INTERIOR WALL



1 EQUIPMENT ELEVATION

PV 1.2

SCALE: NTS

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AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06092814

DESIGNED BY:

TRIVENTCAD

TRIVENT CAD SOLUTION

Sheet Name
EQUIPMENT ELEVATION

Sheet Size
ANSI B
11" X 17"

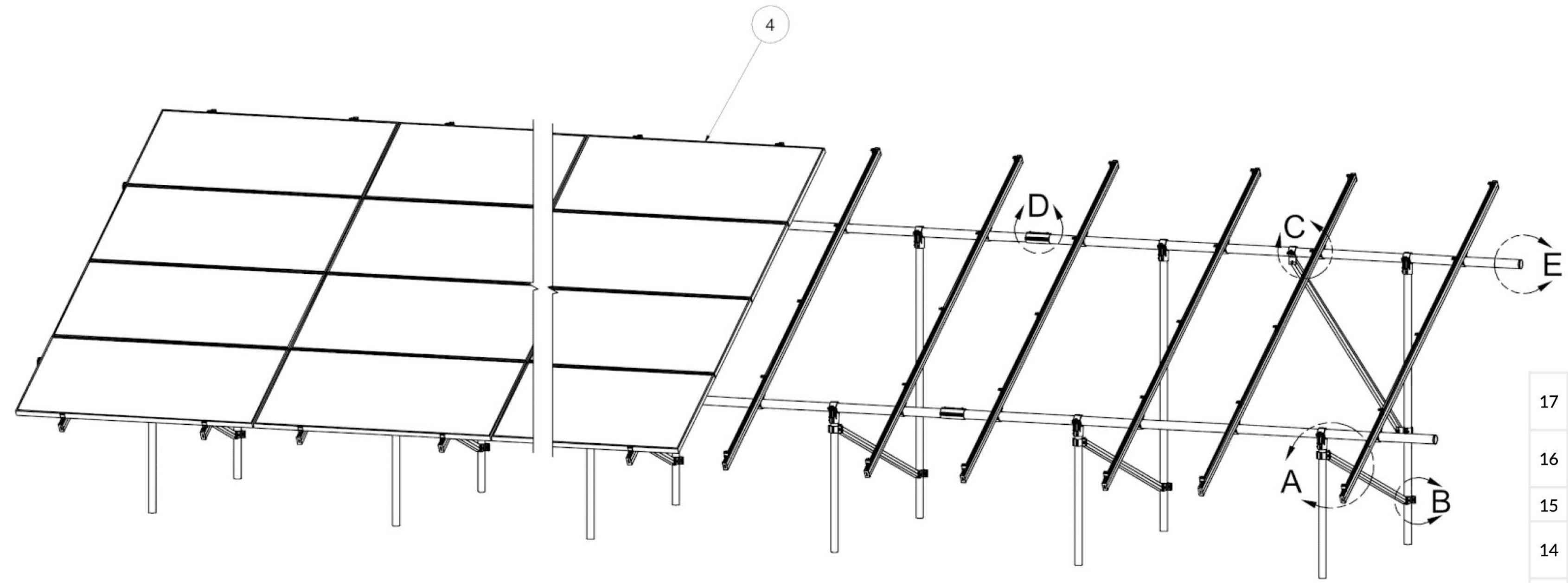
Sheet Number
PV 1.2

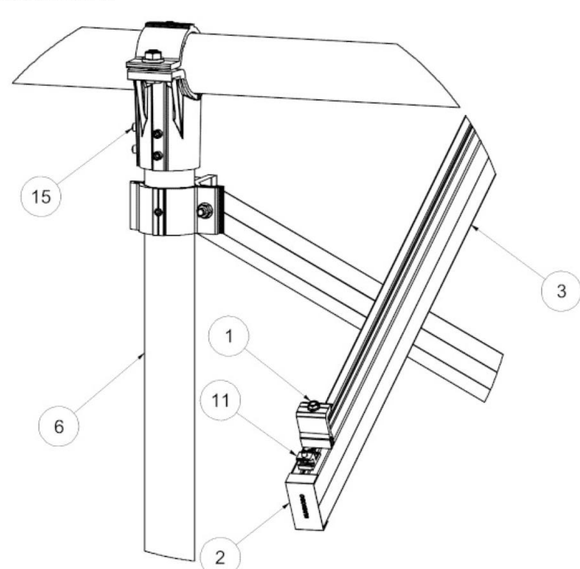
NOTES: UNLESS OTHERWISE SPECIFIED

1. THIS DRAWING IS NOT FOR CONSTRUCTION UNTIL ENGINEERING HAS REVIEWED AND STAMPED THIS DOCUMENT.
2. DIMENSIONS SHOWN ARE INCHES.
3. THE SELF-BONDING SYSTEM AND SINGLE GROUND LUG IS FOR USE WITH PV MODULES THAT HAVE A MAXIMUM SERIES FUSE RATING OF 30A.
4. MATERIALS ARE AS SPECIFIED OR EQUIVALENT:
   HARDWARE: 304 STAINLESS STEEL
   FABRICATED EXTRUDED PARTS: 6005-T5 ALUMINUM ALLOY
   FABRICATED DIE CAST PARTS: ANSI/AA A380 ALUMINUM ALLOY
   STEEL PIPE: SCHEDULE 40 GALVANIZED
   ALUMINUM PIPE: SCHEDULE 10 ANODIZED
5. THE MAXIMUM PERMISSIBLE LENGTH OF ANY STRUCTURE SHALL BE 200 FT. FOR SYSTEMS USING A SHARED RAIL CONFIGURATION, A THERMAL BREAK IS REQUIRED IN THE RAIL EVERY 40 FT. PER THE DRAWING DETAILS.
6. 4LX5-35DEG-STR-GSM-AGM-BGM-PGM
7. APPROVED RAIL PROFILES
   VARY BASED ON ENGINEERING REQUIREMENTS. CONFIRM SELECTION WITH STRUCTURAL ENGINEER. SEE BOM IN BOTTOM RIGHT CORNER.
8. K10224-XXX END CLAMP KIT OR K10299-XXX ADJ. END CLAMP KIT.
9. FOUNDATION TYPES:
   GSM = GROUND SCREW GROUND MOUNT
   AGM = HELICAL AUGER GROUND MOUNT
   PGM = POST-IN-CONCRETE GROUND MOUNT
   BSM = BALLAST GROUND MOUNT
10. 1 OF 1 ARRAY TYPES
11. 1 ARRAYS TOTAL

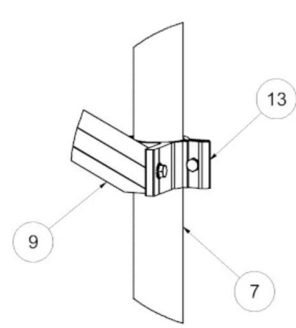
Large Format Module, Consult Engineering.	
Model Code	ASCE 7-16
Exposure Category	C
Wind Speed	105
Ground Snow Load	50
Tilt	35

4LX5 ARRAY

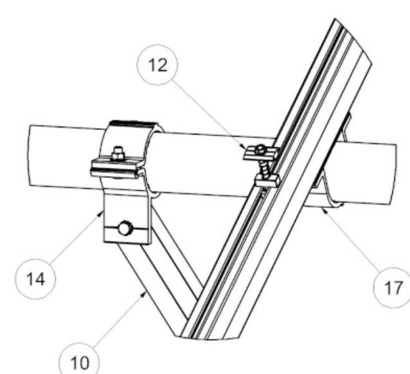




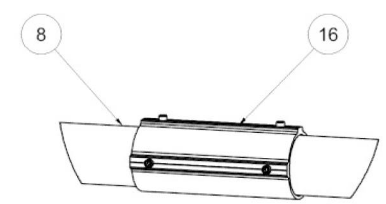
DETAIL A



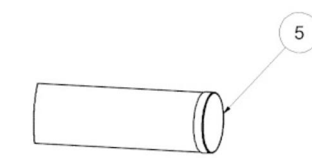
DETAIL B



DETAIL C



DETAIL D



DETAIL E

ITEM	PART NUMBER	DESCRIPTION	QTY
17	CLMP-U-25-SMR300	Pipe U-Clamp, 2.5", SMR300	20
16	SPLC-PIPE-25	Pipe Splice, 2.5"	2
15	PIPECAP-25	Pipe Cap, 2.5"	6
14	CLMP-PIPE-25	Pipe Clamp, 2.5"	2
13	CLMP-PIPE-20	Pipe Clamp, 2"	8
12	CLMP-MID-SMR-S	Mid Clamp, SMR Pop-On, Silver	30
11	GRND-SMR	Grounding Lug, SMR	1
10	BRACE-TUBE-92	Brace, HSS Tube, 92"	2
9	BRACE-TUBE-120	Brace, HSS Tube, 120"	3
8	PIPE-25-112	Pipe, HSS, 2.5", 112"	4
7	PIPE-20-120	Front Pipe, HSS, 2", 120"	3
6		ASTM A53 Grade B Sch. 40 Galvanized Pipe (or better)151"	3
5	A20380-001	2.5" PIPE END CAP (OPTIONAL)	4
4		Panel 1,031 x1,872 x35.0mm	20
3	SMR300-212-M	SMR300 Rail, 212", Mill Finish	10
2	CAP-SMR300-G	Rail End Cap, SMR300, Gray	20
1	CLMP-END-SMR-S	End Clamp, SMR Pop-On, Silver	20

MATERIAL: SEE BOM
Third Angle Projection
DRAWN BY: KYY DATE: 09/16/2019

SunModo Corp.
14800 NE 65TH STREET, VANCOUVER WA 98682

TITLE: ROSE GILOMEN
SIZE: D DRAWING NUMBER: 41016FB
SCALE: N.T.S. SHEET 1 of 4

1 MOUNT DETAIL (ARRAY: 4X5)
S 1.0
SCALE: NTS

TOTAL MODULE AREA: 416ft^2

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REVISIONS

Description	Date	Rev
CAD 1	MAR. 11, 2025	00
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Signature with Seal

Project Name & Address

ROSE GILOMEN RESIDENCE
31068 GUAM AVE, NORTHFIELD, MN 55057
AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06092814

DESIGNED BY:
TRIVENT CAD SOLUTION

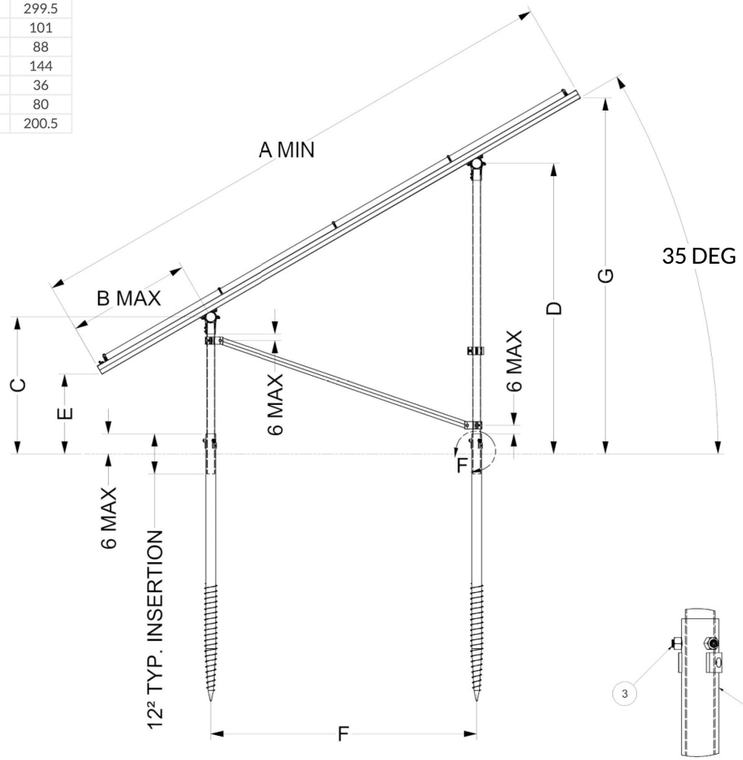
Sheet Name
MOUNT DETAILS

Sheet Size
ANSI B
11" X 17"

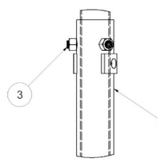
Sheet Number
S 1.0

NOTES:
1. MAX DENOTES MAXIMUM PERMISSIBLE DIMENSIONS.
2. PIPE IS DESIGNED TO TELESCOPE IN AND OUT OF SCREW/AUGER FOR FIELD ADJUSTABILITY. 12" IS RECOMMENDED.

DIMENSIONS	
A	299.5
B	101
C	88
D	144
E	36
F	80
G	200.5



GROUND SCREW GOUND MOUNT (GSM)

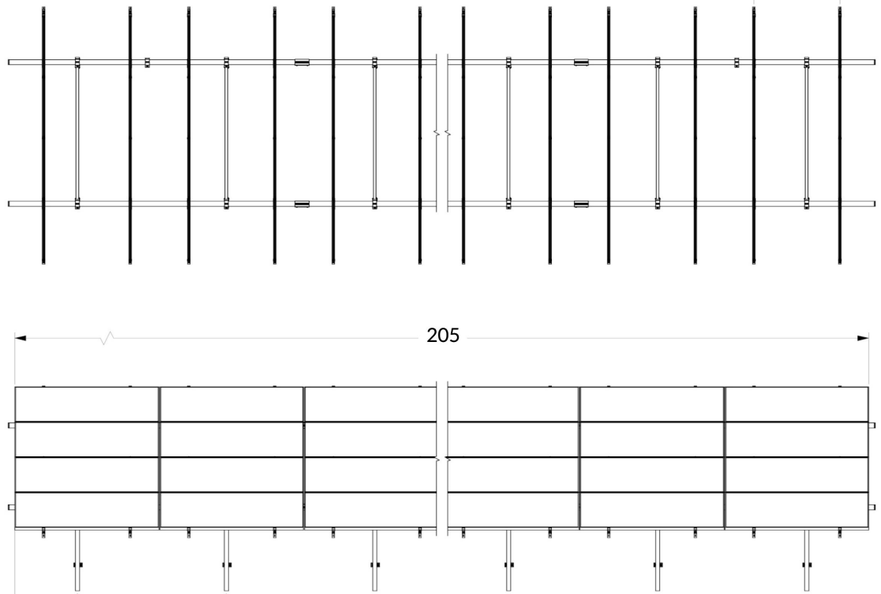


DETAIL F

SIDE VIEW

NOTES:
1. DIMENSIONS LABELED AS MAX ARE MAXIMUM ALLOWABLE AND MAY RESULT IN END POSTS BEING OUTSIDE ARRAY EDGES. MAXIMUM DIMENSIONS MAY BE REDUCED IF DESIRED.

RAIL SPACING
LANDSCAPE: PER MODULE MANUFACTURER



84 IN. MAX. ALLOW. SPAN
MIN # OF FRONT POSTS = 3
MIN # OF BACK POSTS = 3

SunModo Corp.
TITLE: ROSE GILOMEN
D | DRAWING NUMBER: 41016FB
SCALE: N.T.S. | SHEET: 2 of 4 | REV:

TOP & ELEVATION VIEW

1 MOUNT DETAIL (ARRAY: 4X5)
S 1.1
SCALE: NTS

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CASE NO: 06092814

DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

Sheet Name
MOUNT DETAILS

Sheet Size
ANSI B
11" X 17"

Sheet Number
S 1.1

NOTE :

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7. THE PV PRODUCTION METER SHALL BE LOCATED WITHIN TEN (10) FEET OF THE EXISTING UTILITY METER. IF THERE IS ANY REASON THIS CANNOT BE ACCOMPLISHED, THE APPROVAL OF THE PROPOSED PV PRODUCTION METERING WILL NEED TO BE OBTAINED BY THE LOCAL ELECTRIC METER SHOP.

NO CLEARANCE ISSUE TO XCEL OWNED EQUIPMENT

Photovoltaic System	
DC System Size (Watts)	8300
AC System Size (Watts)	7680
Total Module Count	20

NOTE: AC DISCONNECT TO BE INSTALLED MORE THAN 10FT FROM UTILITY METER.

AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY

SECONDARY INTERCONNECTION:
IN LOCATIONS WHERE THERE IS NO LOCAL PUBLIC AUTHORITY, THE CUSTOMER EXEMPT FROM INSPECTION, AND/OR THE SERVICE HAS BEEN SHUTOFF OR DISCONNECTED FOR MORE THAN 365DAYS (1 YEAR), THE LICENSED ELECTRICIAN OR WIREMAN SHALL SUBMIT A SIGNED AND DATED XCEL ENERGY ELECTRICAL INSPECTION CERTIFICATE TO THE COMPANY'S BULIDERS CALL LINE ATTESTING THAT THE ELECTRICAL INSTALLATION HAS BEEN COMPLETED AND INSTALLED ACCORDING TO THE CURRENT NATIONAL ELECTRICAL CODE, THE XCEL ENERGY STANDARD FOR ELECTRICAL INSTALLATION AND USE, AND ANY OTHER APPLICABLE CODES THAT APPLY BEFORE ELECTRIC SERVICE IS ENERGIZED.

Conduit Conductor Schedule (Unless Otherwise Specified Conductors Shall be Copper)

Tag #	Description	Wire Gauge	# of Conductors/Color	Conduit Type	Conduit Size
1	Inverter Output(Enphase Q Cable)	12 AWG	4(2L1, 2L2)	Free Air	N/A
1	EGC (Bare Copper Ground)	6 AWG	1 BARE	Free Air	N/A
2	Inverter Output (THWN-2)	12 AWG	4(2L1, 2L2)	PVC	1"
2	EGC (THWN-2)	12 AWG	1 (GRN)	PVC	1"
3	Inverter Output (THWN)	6 AWG	3(L1, L2, N) B/R/W	SCH 80 PVC	1"
3	EGC (THWN)	10 AWG	1 (GRN)	SCH 80 PVC	1"
3T	Inverter Output (URD)	6 AWG	3(L1, L2, N) B/R/W	N/A	N/A
3T	EGC (URD)	10 AWG	1 (GRN)	N/A	N/A
4	Inverter Output (THWN)	6 AWG	3(L1, L2, N) B/R/W	SCH 80 PVC	1"

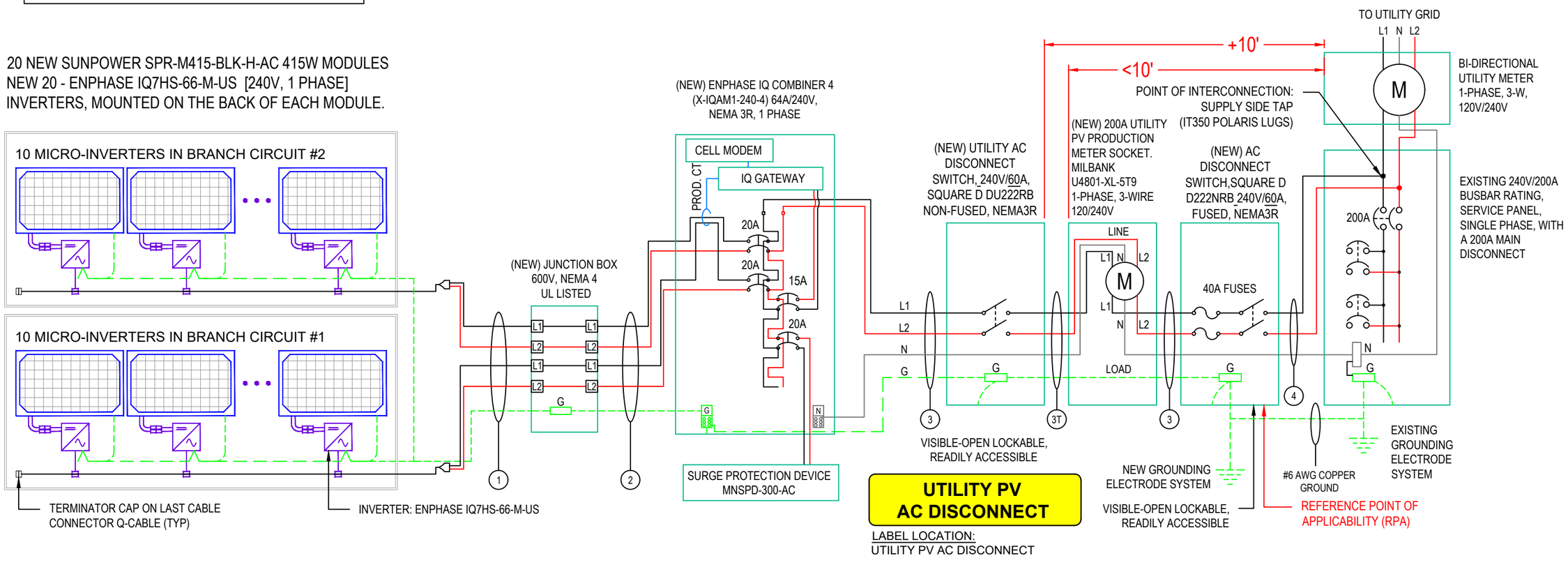
[240V, 1 PHASE] INVERTER SPECIFICATIONS	
MANUFACTURER	ENPHASE IQ7HS-66-M-US
MAX. DC VOLT RATING	59 VOLTS
MAX. POWER AT 40 C	384 WATTS
NOMINAL AC VOLTAGE	240 VOLTS
MAX. AC CURRENT	1.60 AMPS
MAX. OCPD RATING	20 AMPS
MAX. PANELS/CIRCUIT	10
SHORT CIRCUIT CURRENT	15 AMPS

PV MODULE RATING @ STC	
MANUFACTURER	SUNPOWER SPR-M415-BLK-H-AC 415W
OUTPUT POWER	415W
POWER TOLERANCE	+5/−0%
MODULE EFFICIENCY	21.50%
TEMP. COEF. (POWER)	−0.29% / °C

PHOTOVOLTAIC SYSTEM CONNECTED

LABEL LOCATION:
MAIN BILLING METER

20 NEW SUNPOWER SPR-M415-BLK-H-AC 415W MODULES
NEW 20 - ENPHASE IQ7HS-66-M-US [240V, 1 PHASE] INVERTERS, MOUNTED ON THE BACK OF EACH MODULE.



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TRIVENT CAD SOLUTION

Sheet Name
3-LINE DIAGRAM

Sheet Size
ANSI B
11" X 17"

Sheet Number
E 1.1

PV MODULE RATING @ STC	
MANUFACTURER	SUNPOWER SPR-M415-BLK-H-AC 415W
OUTPUT POWER	415W
POWER TOLERANCE	+5/−0%
MODULE EFFICIENCY	21.50%
TEMP. COEF. (POWER)	−0.29% / °C

[240V, 1 PHASE] INVERTER SPECIFICATIONS	
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MAX. DC VOLT RATING	59 VOLTS
MAX. POWER AT 40 C	384 WATTS
NOMINAL AC VOLTAGE	240 VOLTS
MAX. AC CURRENT	1.60 AMPS
MAX. OCPD RATING	20 AMPS
MAX. PANELS/CIRCUIT	10
SHORT CIRCUIT CURRENT	15 AMPS

Rooftop conductor ampacities designed in compliance with art. 690.8, Tables 310.15(B)(2)(a), 310.15(B)(3)(a), 310.15(B)(3)(c), 310.15(B)(16), Chapter 9 Table 4, 5, & 9. Location specific temperature obtained from ASHRAE 2017 data tables

RECORD LOW TEMP	-29°
AMBIENT TEMP (HIGH TEMP 2%)	31°
CONDUIT HEIGHT	7/8"
CONDUCTOR TEMPERATURE RATE ON ROOF	90°
CONDUCTOR TEMPERATURE RATE OFF ROOF	75°

THIS PANEL IS FED BY MULTIPLE SOURCES (UTILITY AND SOLAR)	
AC OUTPUT CURRENT ACCORDING TO ART. 690.8(B)(1)	32.00A
NOMINAL AC VOLTAGE	240V

PERCENT OF VALUES	NUMBER OF CURRENT CARRYING CONDUCTORS IN CONDUIT
.80	4-6
.70	7-9
.50	10-20

OCPD Calculations

Breakers sized according to continuous duty output current. PV circuit nominal current based off # of modules per Circuit X (1.25[art. 690.8(A)]) X (1.6 Max AC current per micro-inverter)
Circuit #1 = 10 modules, Output Current w/ continuous duty = 20.00 <= 20A Breaker
Circuit #2 = 10 modules, Output Current w/ continuous duty = 20.00 <= 20A Breaker

system output current w/ continuous duty = 40.00 <= 40A (System OCPD)

Conductor Calculations

Wire gauge calculated from code art. 310.15(B)(16) with ambient temperature calculations from art. 310.15(B)(2)(a).
For "Off Roof" conductors we use the 90°C column ampacity, the relevant ambient temperature adjustment, and raceway fill adjustments from 310.15(B)(16). Conduit shall be installed at least 7/8" above the roof surface.
For "Off Roof" conductors we use the 75°C column ampacity, or the 75°C column ampacity with the relevant ambient temperature and raceway fill adjustments, whichever is less.The rating of the conductor after adjustments MUST be greater than, or equal to, the continuous duty output current.
Calculation Example - Wire Rating x Ambient Temperature Adjustment x Conduit Fill Adjustment >= Continuous Duty Output Current
(Tag 2 Off Roof):
12 gauge wire rated for 30 A, 30 A x 0.96 x 0.8 (4 Conductors) = 23.04A > 20.00A
(Tag 3,4 Off Roof):
6 gauge wire rated for 65A , 65A x 0.94 =61.10A > 40.00A (System Output Current)
(Tag 3T Trenched):
6 gauge wire rated for 65A , 65A x 0.94 =61.10A > 40.00A (System Output Current)

ELECTRICAL NOTES

- Designed according to and all code citations are relevant to the 2023 National Electrical Code.
- Tag 2-Use 96% temperature derate for conditions of use (Off Roof)
- Tag 3 - Use 94% temperature derate for conditions of use (adjusted ambient)
- Bottom of conduit to be installed min. 7/8" above roof surface.
- System grounding & bonding designed in compliance with 690.47(C)3 and 250.64(E)
- Equipment shall be listed, tested, and marked to withstand the available short circuit current

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DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

Sheet Name
WIRE CALCS

Sheet Size
ANSI B
11" X 17"

Sheet Number
E 1.2

⚠WARNING

ELECTRICAL SHOCK HAZARD

TERMINALS ON THE LINE AND LOAD SIDES MAY BE ENERGIZED IN THE OPEN POSITION

LABEL LOCATION: COMBINER PANEL, AC DISCONNECT, POINT OF INTERCONNECTION
PER CODE: NEC 706.15(C)(4), NEC 690.13(B)

⚠WARNING

TURN OFF PHOTOVOLTAIC AC DISCONNECT PRIOR TO WORKING INSIDE PANEL

LABEL LOCATION: COMBINER PANEL(S), MAIN SERVICE DISCONNECT
PER CODE: NEC 110.27(C), OSHA 1910.145(f)(7)

PHOTOVOLTAIC POWER SOURCE

LABEL LOCATION: DC CONDUIT/RACEWAYS
PER CODE: NEC 690.31(D)(2)

PHOTOVOLTAIC SYSTEM AC DISCONNECT
RATED AC OUPUT CURRENT: 32.00 A
NOMINAL OPERATING AC VOLTAGE: 240 V

LABEL LOCATION: AC DISCONNECT/POINT OF INTERCONNECTION
PER CODE: NEC 690.54

PHOTOVOLTAIC
UTILITY
AC DISCONNECT

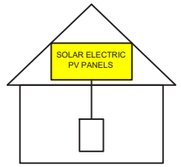
LABEL LOCATION: AC DISCONNECT
PER CODE: NEC 690.13(B)

⚠WARNING DUAL POWER SOURCE
SECOND SOURCE IS PHOTOVOLTAIC SYSTEM

LABEL LOCATION: MAIN SERVICE DISCONNECT, PRODUCTION/NET METER
PER CODE: NEC 690.59, 705.12(C)

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



LABEL LOCATION: MAIN SERVICE DISCONNECT
PER CODE: NEC 690.56(C)

MAIN PHOTOVOLTAIC SYSTEM DISCONNECT

LABEL LOCATION: MAIN SERVICE DISCONNECT, UTILITY METER
PER CODE: NEC 690.13(B)

RAPID SHUTDOWN FOR SOLAR PV SYSTEM

LABEL LOCATION: RSD INITIATION DEVICE, AC DISCONNECT
PER CODE: NEC 690.56(C)(2)

DO NOT DISCONNECT UNDER LOAD

LABEL LOCATION: MAIN SERVICE DISCONNECT
PER CODE: NEC 690.15(B) & NEC 690.33(D)(2)

PHOTOVOLTAIC SYSTEM CONNECTED

LABEL LOCATION:
MAIN BILLING METER

UTILITY PV AC DISCONNECT

LABEL LOCATION:
UTILITY PV AC DISCONNECT

LOCATION NOTE: PLACARD TO BE INSTALLED AT MAIN UTILITY METER

WOLF RIVER ELECTRIC
101 ISANTI PARKWAY NE, SUITE G
ISANTI, MN 55040
ELECTRICAL LICENSE# EA777669
BUILDING LICENSE# BC773271
CONTACT: (763) 229-6662
contact@wolfriverelectric.com

REVISIONS

Description	Date	Rev
CAD 1	MAR. 11, 2025	00
CAD 2	MAR. 18, 2025	01

Signature with Seal

Project Name & Address

ROSE GILOMEN RESIDENCE
31068 GUAM AVE, NORTHFIELD, MN 55057
AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06092814

DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

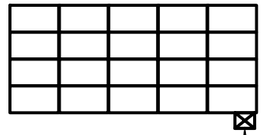
Sheet Name
WARNING LABELS

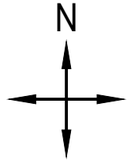
Sheet Size
ANSI B
11" X 17"

Sheet Number
E 1.3

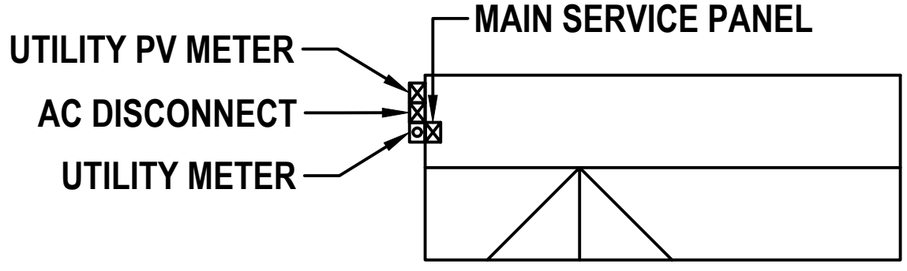
CAUTION ! MULTIPLE SOURCES OF POWER

POWER TO THIS BUILDING IS ALSO SUPPLIED FROM THE FOLLOWING SOURCES WITH DISCONNECTS LOCATED AS SHOWN





UTILITY AC DISCONNECT



Serviced by Wolf River Electric
Contact: (763) 229-6662

LOCATION NOTE:
PLACARD TO BE INSTALLED AT MAIN UTILITY METER

WOLF RIVER ELECTRIC
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TRIVENT CAD SOLUTION

Sheet Name
PLACARD

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M SERIES

SUNPOWER®

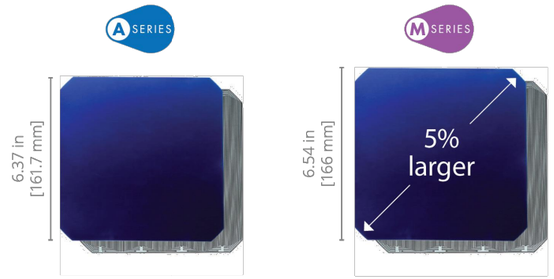
425-410 W Residential Black AC Module

SunPower® Maxeon® Technology

Built specifically for use with the SunPower Equinox® system, the only fully integrated solution designed, engineered, and warranted by one company.

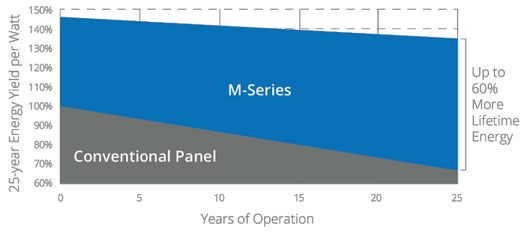
Highest Power Density Available

The patented, solid-copper foundation Maxeon Gen 6 cell is over 5% larger than prior generations, delivering the highest-efficiency all-black AC solar module available.[1]



Highest Lifetime Energy and Savings

Designed to deliver 60% more energy over 25 years in real-world conditions like partial shade and high temperatures.[2]



Best Reliability, Best Warranty

With more than 42.6 million and 15 GW of modules deployed around the world, SunPower technology is proven to last. That's why we stand behind our module and microinverter with the industry's best 25-year Combined Power and Product Warranty, including the highest Power Warranty in solar.

Part of the SunPower Equinox® Solar System

- Seamless aesthetics
- Compatible with mySunPower monitoring

Factory-integrated Microinverter

- Highest-power integrated AC module in solar
- Engineered and calibrated by SunPower for SunPower AC modules

M425-BLK | M415-BLK | M410-BLK SunPower Residential Black AC Module

AC Electrical Data		
Inverter Model: Type H (Enphase IQ7HS)	@240 VAC	@208 VAC
Max. Continuous Output Power (VA)	384	369
Nom. (L–L) Voltage/Range[3] (V)	240 / 211–264	208 / 183–229
Max. Continuous Output Current (A)	1.60	1.77
Max. Units per 20 A (L–L) Branch Circuit[4]	10	9
CEC Weighted Efficiency	97.0%	96.5%
Nom. Frequency	60 Hz	60 Hz
Extended Frequency Range	47–68 Hz	47–68 Hz
AC Short Circuit Fault Current Over 3 Cycles	4.82 A	4.82 A
Overvoltage Class AC Port	III	III
AC Port Backfeed Current	18 mA	18 mA
Power Factor Setting	1.0	1.0
Power Factor (adjustable)	0.85 (inductive) / 0.85 (capacitive)	0.85 (inductive) / 0.85 (capacitive)

DC Power Data	SPR-M425-BLK-H-AC	SPR-M415-BLK-H-AC	SPR-M410-BLK-H-AC
Nom. Power[6] (Pnom) W	425	415	410
Power Tolerance	+5/–0%	+5/–0%	+5/–0%
Module Efficiency	22.0%	21.5%	21.2%
Temp. Coef. (Power)	–0.29% / °C	–0.29% / °C	–0.29% / °C
Shade Tolerance	Integrated module-level max. power point tracking		

Tested Operating Conditions	
Operating Temp.	–40° F to +185° F (–40° C to +85° C)
Max. Ambient Temp.	122° F (50° C)
Max. Test Load[8]	Wind: 125 psf, 6000 Pa, 611 kg/m² back Snow: 187 psf, 9000 Pa, 917 kg/m² front
Max. Design Load	Wind: 75 psf, 3600 Pa, 367 kg/m² back Snow: 125 psf, 5400 Pa, 550 kg/m² front
Impact Resistance	1 inch (25 mm) diameter hail at 52 mph (23 m/s)

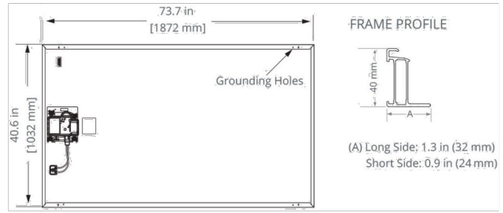
Mechanical Data	
Solar Cells	66 Maxeon Gen 6
Front Glass	High-transmission tempered glass with anti-reflective coating
Environmental Rating	Outdoor rated
Frame	Class 1 black anodized (highest AAMA rating)
Weight	48 lbs (21.8 kg)
Recommended Max. Module Spacing	1.3 in. (33 mm)

Warranties, Certifications, and Compliance	
Warranties	• 25-year limited power warranty • 25-year limited product warranty
Certifications and Compliance	• UL 1741 / IEEE-1547 • UL 1741 AC Module • UL 61730 (Type 2 fire rated) • UL 62109-1 / IEC 62109-2 • FCC Part 15 Class B • ICES-0003 Class B • CAN/CSA-C22.2 NO. 107.1-01 • CA Rule 21 (UL 1741 SA)[5] (includes Volt/Var and Reactive Power Priority) • UL Listed PV Rapid Shutdown Equipment[7] Enables installation in accordance with: • NEC 690.6 (AC module) • NEC 690.12 Rapid Shutdown (inside and outside the array) • NEC 690.15 AC Connectors, 690.33(A)–(E)(1) When used with AC module Q Cables and accessories (UL 6703 and UL 2238)[7] • Rated for load break disconnect
PID Test	1000 V: IEC 62804

Packaging Configuration	
Modules per pallet	25
Packaging box dimensions	75.4 × 42.2 × 48.0 in. (1915 × 1072 × 1220 mm)
Pallet gross weight	1300 lb (590 kg)
Pallets per container	32
Net weight per container	18,880 kg

1 Based on datasheet review of websites of top 20 manufacturers per IHS, as of July 2021.
2 Maxeon 435 W, 22.5% efficient, compared to a Conventional Panel on same-sized arrays (300 W, 19% efficient, approx. 1.6 m²), 7.9% more energy per watt (based on PVSyst pan files for avg. US climate), 0.5%/yr slower degradation rate (Jordan, et. al. "Robust PV Degradation Methodology and Application."PVSC 2018).
3 Based on search of datasheet values from websites of top 10 manufacturers per IHS, as of June 2021.
4 Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.
5 Factory set to IEEE 1547a-2014 default settings. CA Rule 21 default settings profile set during commissioning.
6 Standard Test Conditions (1000 W/m² irradiance, AM 1.5, 25°C). All DC voltage is fully contained within the module.
7 UL Listed as PVRSE and conforms with NEC 2014 and NEC 2017 690.12; and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors; when installed according to manufacturer's instructions.
8 Please read the safety and installation instructions for more information regarding load ratings and mounting configurations.

See www.sunpower.com/company for more reference information.
For more details, see extended datasheet: www.sunpower.com/solar-resources.
Specifications included in this datasheet are subject to change without notice.



Please read the safety and installation instructions for details.

AC MODULE
GRID SUPPORT UTILITY INTERACTIVE
PV RAPID SHUTDOWN EQUIPMENT
LISTED 6478330
Module Fire Performance: Type 2

544400 RevA
January 2022

WOLF RIVER ELECTRIC
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ISANTI, MN 55040
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AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06092814

DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

Sheet Name
MODULE SPEC SHEET

Sheet Size
ANSI B
11" X 17"

Sheet Number
D 1.1

Data Sheet
Enphase Microinverters
Region: AMERICAS

Enphase SPWR-A5 (IQ7HS) Microinverter

The high-powered smart grid-ready Enphase SPWR-A5 Microinverter™ with integrated MC4 connectors dramatically simplify the installation process while achieving the highest system efficiency.

The IQ Series Microinverters extend the reliability standards set forth by previous generations and undergo over a million hours of power-on testing, enabling Enphase to provide an industry-leading warranty of up to 25 years.

Easy to Install

- Lightweight and simple
- Faster installation with improved, lighter two-wire cabling
- Built-in rapid shutdown compliant (NEC 2014 & 2017)

Efficient and Reliable

- Optimized for high powered 66-cell* modules
- Highest CEC efficiency of 97.0%
- More than a million hours of testing
- Class II double-insulated enclosure
- UL listed

Smart Grid Ready

- Complies with advanced grid support, voltage and frequency ride-through requirements
- Remotely updates to respond to changing grid requirements
- Configurable for varying grid profiles
- Meets CA Rule 21 (UL 1741-SA)

* The IQ7HS is required to support 66-cell modules.

CERTIFIED

To learn more about Enphase offerings, visit **enphase.com**

ENPHASE.

Enphase IQ7HS Microinverter

INPUT DATA (DC)	IQ7HS-66-M-US	
Commonly used module pairings[1]	320 W - 460 W +	
Module compatibility	66-cell PV modules	
Maximum input DC voltage	59 V	
Peak power tracking voltage	38 V - 43 V	
Operating range	20 V - 59 V	
Min/Max start voltage	30 V / 59 V	
Max DC short circuit current (module Isc)	15 A	
Overvoltage class DC port	II	
DC port backfeed current	0 A	
PV array configuration	1 x 1 ungrounded array; No additional DC side protection required; AC side protection requires max 20A per branch circuit	
OUTPUT DATA (AC)	**@240 VAC**	**@208 VAC**
Peak output power	384 VA	369 VA
Maximum continuous output power	384 VA	369 VA
Nominal (L-L) voltage/range[2]	240 V / 211-264 V	208 V / 183-229 V
Maximum continuous output current	1.60 A (240V)	1.77 A (208V)
Nominal frequency	60 Hz	60 Hz
Extended frequency range	47 to 68 Hz	47 to 68 Hz
AC short circuit fault current over 3 cycles	4.82 A	4.82 A
Maximum units per 20 A (L-L) branch circuit[3]	10	9
Overvoltage class AC port	III	III
AC port backfeed current	18 mA	18 mA
Power factor setting	1.0	1.0
Power factor (adjustable)	0.85 leading ...0.85 lagging	0.85 leading ...0.85 lagging
EFFICIENCY	**@240 V**	**@208 V**
CEC weighted efficiency	97.0 %	96.5 %
MECHANICAL DATA		
Ambient temperature range	-40°C to +60°C	
Relative humidity range	4% to 100% (condensing)	
Connector type	Staubli made MC4	
Dimensions (WxHxD)	212 mm x 175 mm x 30.2 mm (without bracket)	
Weight	1.08 kg (2.38 lbs)	
Cooling	Natural convection - No fans	
Approved for wet locations	Yes	
Pollution degree	PD3	
Enclosure	Class II, corrosion resistant polymeric enclosure	
Environmental category / UV exposure rating	NEMA type 6 / outdoor	
Altitude	2000m	
FEATURES		
Communication	Power Line Communication (PLC)	
Disconnecting means	The AC and DC connectors have been evaluated and approved by UL for use as the load-break disconnect means required by NEC 690 and C22.1-2018 Rule 64-220.	
Compliance	CA Rule 21 (UL 1741-SA), HECO v1.1 UL 62109-1, UL1741/IEEE1547, FCC Part 15 Class B, ICES-0003 Class B, CAN/CSA-C22.2 NO. 107.1-01 This product is UL Listed as PV Rapid Shut Down Equipment and conforms with NEC-2014 and NEC-2017 section 690.12 and C22.1-2015 Rule 64-218 Rapid Shutdown of PV Systems, for AC and DC conductors, when installed according to manufacturer's instructions.	

1. No enforced DC/AC ratio. See the compatibility calculator at https://enphase.com/en-us/support/module-compatibility.
2. Nominal voltage range can be extended beyond nominal if required by the utility.
3. Limits may vary. Refer to local requirements to define the number of microinverters per branch in your area.

To learn more about Enphase offerings, visit **enphase.com**

05-11-2022

ENPHASE.

WOLF RIVER ELECTRIC
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ISANTI, MN 55040
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TRIVENTCAD
TRIVENT CAD SOLUTION

Sheet Name
INVERTER SPEC SHEET

Sheet Size
ANSI B
11" X 17"

Sheet Number
D 1.2

CERTIFICATE OF COMPLIANCE

Certificate Number 20220608-E341165 SB
Report Reference E341165-20171030
Date 2022-08-19

Issued to: Enphase Energy Inc.
1420 N. McDowell Blvd. Petaluma, CA 94954-6515

This is to certify that representative samples of Photovoltaic Grid Support Utility Interactive Inverter with Rapid Shutdown Functionality

Models IQ7-60, IQ7PLUS-72, IQ7X-96, IQ7XS-96, may be f/b -2, -5, -E or -M, may be f/b -ACM, f/b -US, may be f/b -NM, may be f/b -RMA, may be f/b -&, where "&" designates additional characters.
Models IQ7A, may be f/b S, f/b -66 or -72, may be f/b -2, -5, -E or -M, may be f/b -ACM, f/b -US, may be f/b -NM, may be f/b -RMA, may be f/b -&, where "&" designates additional characters.
Model IQ7PD-72-2-US, may be f/b -&, where "&" designates additional characters.
Model IQ7PD-84-2-US may be f/b -&, where "&" designates additional characters.
Models IQ7HS, may be f/b -66 or -72, may be f/b -2, -5, -M or -E, may be f/b -ACM, f/b -US, may be f/b -NM, may be f/b -RMA, may be f/b -&, where "&" designates additional characters

Have been investigated by UL in accordance with the Standard(s) indicated on this Certificate.

Standard(s) for Safety: See Page 2

Additional Information: See the UL Online Certifications Directory at www.ul.com/database for additional information

This Certificate of Compliance does not provide authorization to apply the UL Mark. Only the UL Follow-Up Services Procedure provides authorization to apply the UL Mark.

Only those products bearing the UL Mark should be considered as being UL Certified and covered under UL's Follow-Up Services.

Look for the UL Certification Mark on the product.

Bruce Mahrenholz, Director North American Certification Program
UL LLC

CERTIFICATE OF COMPLIANCE

Certificate Number 20220608-E341165 SB
Report Reference E341165-20171030
Date 2022-08-19

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL.

This is to certify that representative samples of the product as specified on this certificate were tested according to the current UL requirements.
Standards for Safety:

UL 1741, Inverters, Converters, Controllers and Interconnection System Equipment for Use With Distributed Energy Resources, Edition 3, Issue Date 09/28/2021. Including the requirements in UL 1741 Supplement SA and SB.

IEEE 1547, Interconnection and Interoperability of Distributed Energy Resources (DERs) with Associated Electric Power Systems (EPSs) Interfaces, Issue Date 02/15/2018

IEEE 1547.1, IEEE Standard Conformance Test Procedures for Interconnecting Distributed Energy Resources (DERs) with Electric Power Systems (EPSs) Associated Interfaces, Issue Date 03/05/2020.

UL 62109-1, Safety of Converters for Use in Photovoltaic Power Systems - Part 1: General Requirements; IEC 62109-2, Safety of Power Converters for use in Photovoltaic Power Systems - Part 2: Particular Requirements for Inverters.

CSA C22.2 No. 107.1-01, General Use Power Supplies.

[X] R21 (SA): The evaluation was based Table SA1.1 option in UL1741SA to use the IEEE 1547.1-2020 and UL1741SB test methods in conjunction with using IEEE 1547-2018 as the SRD under which SA11.2 Normal Ramp Rate is not address. Additional testing was conducted to confirmed compliance to Normal Ramp Rate SA11.2.

[ ] 14H (SA): The evaluation to the Standards above provides evidence of compliance to HECO Rule 14H, SRD V1.0, Interconnection Application.

[X] 14H (SB): The evaluation to the Standards above provides evidence of compliance to HECO Rule 14H, SRD V2.0, Interconnection Application.

Inverter Firmware Version:		
UL 1998 (grid support)	Date	Version/Revision
Yes	2022-06-01	V04.40.01

Bruce Mahrenholz, Director North American Certification Program
UL LLC

Any information and documentation involving UL Mark services are provided on behalf of UL LLC (UL) or any authorized licensee of UL. For questions, please contact a local UL Customer Service Representative at http://ul.com/aboutul/locations/

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TRIVENT CAD SOLUTION

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ENPHASE.

DATA SHEET

X-IQ-AM1-240-4
X2-IQ-AM1-240-4
(IEEE 1547:2018)
X-IQ-AM1-240-4C
X2-IQ-AM1-240-4C
(IEEE 1547:2018)

IQ Combiner 4/4C

The Enphase IQ Combiner 4/4C with IQ Gateway and integrated LTE-M1 cell modem (included only with IQ Combiner 4C) consolidates interconnection equipment into a single enclosure and streamlines IQ Microinverters and storage installations by providing a consistent, pre-wired solution for residential applications. It offers up to four 2-pole input circuits and an Eaton BR series busbar assembly.

IQ Series Microinverters
The high-powered smart grid-ready IQ Series Microinverters (IQ6, IQ7, and IQ8 Series) dramatically simplify the installation process.

IQ System Controller 2
Provides microgrid interconnection device (MID) functionality by automatically detecting grid failures and seamlessly transitioning the home energy system from grid power to backup power.

IQ Battery
All-in-one AC coupled storage system that is reliable, smart, simple, and safe. It provides backup capability, and installers can quickly design the right system size to meet the needs of both new and retrofit solar customers.

IQ Load Controller
Helps prioritize essential appliances during a grid outage to optimize energy consumption and prolong battery life.

Enphase 5 year limited warranty

5-year limited warranty

*Refer to the https://enphase.com/installers/resources/warranty page for country-specific warranty information.

Smart
- Includes IQ Gateway for communication and control
- Includes Enphase Mobile Connect cellular modem (CELLMODEM-M1-06-SP-05), included only with IQ Combiner 4C
- Includes solar shield to match IQ Battery aesthetics and deflect heat
- Flexible networking supports Wi-Fi, Ethernet, or cellular
- Optional AC receptacle available for PLC bridge
- Provides production metering and consumption monitoring

Simple
- Centered mounting brackets support single stud mounting
- Supports bottom, back and side conduit entry
- Up to four 2-pole branch circuits for 240 VAC plug-in breakers (not included)
- 80 A total PV or storage branch circuits

Reliable
- Durable NRTL-certified NEMA type 3R enclosure
- Five-year limited warranty
- Two-years labor reimbursement program coverage included for both the IQ Combiner SKU's*
- UL Listed
- X2-IQ-AM1-240-4 and X2-IQ-AM1-240-4C comply with IEEE 1547:2018 (UL 1741-SB, 3rd Ed.)

IQ Combiner 4/4C

MODEL NUMBER	UNITS	DESCRIPTION
IQ Combiner 4 (X-IQ-AM1-240-4, X2-IQ-AM1-240-4)	–	IQ Combiner 4 with an IQ Gateway printed circuit board for integrated revenue-grade PV production metering (ANSI C12.20 ±0.5%) and consumption monitoring (±2.5%). Includes a silver solar shield to match the IQ Battery and IQ System Controller 2 and to deflect heat.
IQ Combiner 4C (X-IQ-AM1-240-4C, X2-IQ-AM1-240-4C)	–	IQ Combiner 4C with an IQ Gateway printed circuit board for integrated revenue-grade PV production metering (ANSI C12.20 ±0.5%) and consumption monitoring (±2.5%). Includes Enphase Mobile Connect cellular modem (CELLMODEM-M1-06-SP-05), a plug-and-play industrial-grade cell modem for systems up to 60 microinverters. (Available in the US, Canada, Mexico, Puerto Rico, and the US Virgin Islands, where there is adequate cellular service in the installation area). Includes a silver solar shield to match the IQ Battery and IQ System Controller 2 and to deflect heat.
WHAT'S IN THE BOX	**UNITS**	
IQ Gateway printed circuit board	–	IQ Gateway is the platform for total energy management for comprehensive, remote maintenance, and management of the Enphase Energy System.
Busbar	–	80 A busbar with support for one IQ Gateway breaker and four 20 A breaker for installing IQ Series Microinverters and IQ Battery
IQ Gateway breaker	A	Circuit breaker, 2-pole, 10/15
Production CT	–	Pre-wired revenue-grade solid-core CT, accurate up to ±0.5%
Consumption CT	–	Two consumption metering split core or clamp-type CTs, shipped with the box, accurate up to ±2.5%
Emphase Mobile Connect (only with IQ Combiner 4C)	–	4G-based LTE-M1 cellular modem (CELLMODEM-M1-06-SP-05) with a five-year T-Mobile data plan
MICROINVERTERS, ACCESSORIES AND REPLACEMENT PARTS (not included; order separately)	**UNITS**	
Supported microinverters	–	IQ6, IQ7, and IQ8. Do not mix IQ6/IQ7 Microinverters with IQ8
Enphase Communications Kit COMMS-CELLMODEM-M1-06 CELLMODEM-M1-06-SP-05 CELLMODEM-M1-06-AT-05	–	- Includes COMMS-KIT-01 and CELLMODEM-M1-06-SP-05 with a 5-year Sprint data plan for Enphase sites - 4G-based LTE-M1 cellular modem with a five-year Sprint data plan - 4G-based LTE-M1 cellular modem with a five-year AT&T data plan
Circuit breakers (off-the-shelf)	–	Supports Eaton BR2xx, Siemens Q2xx and GE/ABB THQL21xx Series breakers (xx may be 10, 15, 20, 30, 40, 50, or 60). Supports Eaton BR220B, BR230B and BR240B circuit breakers compatible with hold-down kit.
Circuit breakers (provided by Enphase)	–	BRK-10A-2-240V, BRK-15A-2-240V, BRK-20A-2P-240V, BRK-15A-2P-240V-B, and BRK-20A-2P- 240V-B
XA-SOLARSHIELD-ES	–	Replacement solar shield for IQ Combiner 4/4C
XA-ENV2-PCBA-4	–	IQ Gateway replacement printed circuit board (PCB) for IQ Combiner 4/4C
XA-PLUG-120-3	–	Accessory receptacle for power line carrier in IQ Combiner 4/4C (required for EPLC-01)
X-IQ-NA-HD-125A	–	Hold-down kit for Eaton circuit breaker with screws
ELECTRICAL SPECIFICATIONS	**UNITS**	
Rating	A	80
System voltage and frequency	–	120/240 VAC, 60 Hz
Busbar rating	A	125
Fault current rating	kAIC	10
Maximum continuous current rating (input from PV/storage)	A	64
Maximum fuse/Circuit rating (output)	A	90
Branch circuits (solar and storage)	–	Up to four 2-pole Eaton BR, Siemens Q, or GE/ABB THQL Series distributed generation (DG) breakers only (not included)
Maximum total branch circuit breaker rating (input)	A	80 A of distributed generation/95 A with IQ Gateway breaker included
IQ Gateway breaker	A	10 A or 15 A rating GE/Siemens/Eaton included
Production metering CT	A	200 A solid core pre-installed and wired to IQ Gateway
Consumption monitoring CT (CT-200-SPLIT/CT-200-CLAMP)	A	A pair of 200 A split core or clamp-type current transformers

To learn more about Enphase offerings, visit enphase.com.

MECHANICAL DATA	UNITS	DESCRIPTION
Dimensions (W × H × D)	cm (in)	37.5 × 49.5 × 16.8 (14.75 × 19.5 × 6.63). Height is 53.5 (21.06) with mounting brackets
Weight	kg (lb)	7.5 (16.5)
Ambient temperature range	°C (°F)	-40 to 46 (-40 to 115)
Cooling	–	Natural convection plus a heat shield
Enclosure environmental rating	–	Outdoor, NRTL-certified, NEMA type 3R, polycarbonate construction
Wire sizes	–	• 20 A to 50 A breaker inputs: 14 to 4 AWG copper conductors • 60 A breaker branch input: 4 to 1/0 AWG copper conductors • Main lug combined output: 10 to 2/0 AWG copper conductors • Neutral and ground: 14 to 1/0 copper conductors Always follow local code requirements for conductor sizing
Altitude	m (ft)	Up to 2,600 (8,530)
COMMUNICATION INTERFACES	**UNITS**	
Integrated Wi-Fi	–	802.11b/g/n (dual band 2.4 GHz/5 GHz) for connecting the Enphase Cloud through the internet
Wi-Fi range (recommended)	m (ft)	10 (32.8)
Ethernet	–	Optional 802.3, Cat5E (or Cat 6) UTP Ethernet cable (not included) for connecting to the Enphase Cloud through the internet
Digital I/O	–	Digital input/output for grid operator control
USB 2.0	–	For Mobile Connect, Communications Kit 01 for IQ Battery 3/3T/10/10T, Communication Kit 02 for IQ Battery 5P
Access point (AP) mode	–	For connection between the IQ Gateway and a mobile device running the Enphase Installer App
Metering ports	–	Up to two Consumption CTs, one IQ Battery CT, and one Production CT
Power line communication	kHz	90–110
Web API	–	See https://developer-v4.enphase.com
Local API	–	See Guide for local API
Cellular/Mobile Connect	–	CELLMODEM-M1-06-SP-05, CELLMODEM-M1-06-AT-05 (4G-based LTE-M1 cellular modem). Note that an Enphase Mobile Connect cellular modem is required for all installations with Enphase IQ Batteries and/or IQ System Controllers
COMPLIANCE		
IQ Combiner with IQ Gateway		CA Rule 21 (UL 1741-SA) IEEE 1547:2018 - UL 1741-SB, 3rd Ed. (X2-IQ-AM1-240-4 and X2-IQ-AM1-240-4C) CAN/CSA C22.2 No. 107.1, 47 CFR, Part 15, Class B, ICES 003, NOM-208-SCFI-2016 Production metering: ANSI C12.20 accuracy class 0.5 (PV production) , UL 60601-1/CANCSA 22.2 No. 61010-1, IEEE 2030.5/CSIP Compliant

COMPATIBILITY		
PV	Microinverters	IQ6, IQ7, and IQ8 Series Microinverters
COMMS-KIT-01	IQ System Controller	EP200G101-M240US00
	IQ System Controller 2	EP200G101-M240US01
	IQ Battery	ENCHARGE-3-1P-NA, ENCHARGE-10-1P-NA, ENCHARGE-3T-1P-NA, ENCHARGE-10T-1P-NA
COMMS-KIT-02[1]	IQ System Controller 3	SC200D111C240US01, SC200G111C240US01
	IQ Battery	IQBATTERY-5P-1P-NA

[1] For information about IQ Combiner 4/4C compatibility with the 3rd-generation batteries, refer to the compatibility matrix.

WOLF RIVER ELECTRIC
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ELECTRICAL LICENSE# EA777669
BUILDING LICENSE# BC773271
CONTACT: (763) 229-6662
contact@wolfriverelectric.com

REVISIONS

Description	Date	Rev
CAD 1	MAR. 11, 2025	00
CAD 2	MAR. 18, 2025	01

Signature with Seal

Project Name & Address

ROSE GILOMEN RESIDENCE
31068 GUAM AVE, NORTHFIELD, MN 55057
AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06092814

DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

Sheet Name
IQ COMBINER SPEC SHEET

Sheet Size
ANSI B
11" X 17"

Sheet Number
D 1.4

SUNMODO
LEADING by DESIGN

SINGLE DAY INSTALL

SunTurf ® Ground Mount System

SunModo offers the next generation Ground Mount System with SunTurf. The streamlined design combines the strength of Helio Rails with steel pipes to create the perfect ground mount solution.

SurTurf is ideal for solar installers looking for a durable and cost-effective system that can accommodate a wide variety of soil conditions.

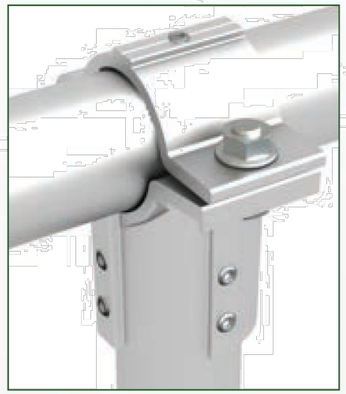
The SunTurf Ground Mount Advantage

- ✓ Easily scalable from kilowatts to multimegawatts PV Arrays.
- ✓ Foundation design solution for every soil condition.
- ✓ Online configuration tool available to streamline design process.
- ✓ Components optimized for strength, durability and fast installation.
- ✓ UL 2703 Listed by Intertek.

Key Features of SunTurf® Ground Mount System

SUNMODO
LEADING by DESIGN

SunTurf Ground Mount System easily integrate Helio Rails with Schedule 40 steel pipes. No drilling is required to attach the aluminum rails to the horizontal pipe. Optional bracing can provide additional structural rigidity for sites with high snow or wind load conditions. Anchor any ground mount installation using one of our fountain types including helical piles, precast ballasts and concrete piers.



Augers and Ground Screws

Our augers are suitable for use in weak to moderate strength soils and areas with a high-water table. Our ground screws are ideal for use in hard packed earth or soils with large amounts of cobble and gravel.

Ground Screw

Earth Auger

Technical Data

Application	Ground Mount
Material	High grade aluminum, galvanized steel and 304 stainless steel hardware
Module Orientation	Portrait and Landscape
Tilt Angle	Range between 10 to 50 degrees
Foundation Types	Post in concrete, helical earth auger, ground screw anchor and ballast
Structural Integrity	Stamped engineering letters available
Certificate	UL2703 listed by ETL
Warranty	25 years

SunModo, Corp. Vancouver, WA., USA • www.sunmodo.com • 360.844.0048 • info@sunmodo.com

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TRIVENT CAD SOLUTION

Sheet Name
RAIL SPEC SHEET

Sheet Size
ANSI B
11" X 17"

Sheet Number
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MIDNITE SOLAR INC.

Surge Protection

Surge Protection You Can Count On!

MidNite Solar Surge Protection Devices are type 1 devices, designed for indoor and outdoor applications. Engineered for both AC and PV DC electrical systems, they provide protection to service panels, load centers or electronic devices that are directly connected to a MidNite Surge Protection Device (SPD).

MidNite's SPD's are offered in four models to protect a variety of different voltage ranges. They achieve this protection by clamping surge voltage to a level that your system can sustain without damaging the components of the system.

Compare our SPD's against other surge protection devices. You will see there is no comparison in both our price and features. All our SPD's have a 5 year warranty.

With lightning you only get one chance, so get the best!

www.midnitesolar.com/spd
19115 - 62nd Ave. NE., Arlington, WA. 360-403-7207 FAX: 360-691-6862

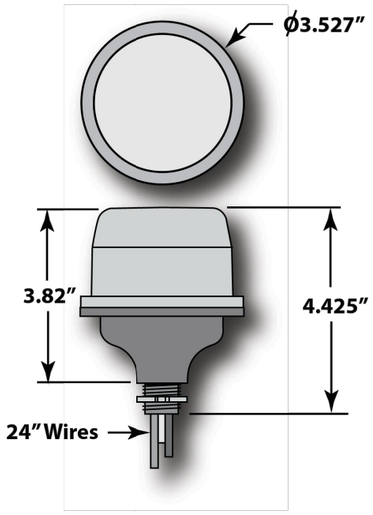
MNSPD300ACFM (Cut-in box)
(MNSPD-300-AC included)

Four Models:

MNSPD-115
MNSPD-300-AC
MNSPD-300-DC
MNSPD-600

MidNite Surge Protection Devices

PART NUMBER	MNSPD-115	MNSPD-300-AC	MNSPD-300-DC	MNSPD-600
Nominal Voltage	0 to 90 VAC 0 to 115 VDC	0 to 250 VAC	0 to 300 VDC	0 to 480 VAC 0 to 600 VDC
MCOV	180V	470V	470V	780V
VPR Line to Ground	600V	1200V	1200V	1800V
Suggested Placement	Up to 90VAC circuits, 12V, 24V, 48VDC battery circuits	120/240 VAC circuits	Off-grid PV combiners Charge controller inputs up to 300VDC	316V/480 VAC circuits Grid-tie PV combiners Grid-tie inverter input Non-Isolated Inverters
Type	UL1449 4th Ed. Type 1	UL1449 4th Ed. Type 1	UL1449 4th Ed. Type 1	UL1449 4th Ed. Type 1
Diagnostic Blue LED	MNSPD-300-AC LED indicates when voltage is present between L1 + ground and L2 + ground MNSPD-115, MNSPD-300-DC and MNSPD-600: LED indicates when voltage is present between L1 + L2 (PV+ PV-)			
Thermal Disconnector	Internal Fuse			
Response Time	<1 micro sec.			



Performance	
Surge Current Rating per Phase	80kA
Short Circuit Current Rating	10kA
Fusing	Individually fused MOVs
Thermal Fusing	Yes
Over current Fusing	Yes
Operating Frequency	0 to 500 Hz
Mechanical Description	
Enclosure	Polycarbonate UL94V-0
Environmental Rating	Type 4X
Connection Method	#12 AWG
Weight	1 lb.
Mounting Method	1/2" Conduit Knockout
Operating Altitude	Sea Level – 12,000' (3,658 Meters)
Storage Temp	-40° F to +185° F (-40° C to +85° C)
Operating Temp	-40° F to +185° F (-40° C to +85° C)
Diagnostics	
Blue status LED, one per leg	
Listings and Performance	
UL Standard for Safety, UL 1449 Surge Protective Devices-Fourth Edition	
CSA C22.2 No. 8-M1986 Electromangetic Interference (EMI) Filters, Fourth Edition	

Model No.	Max Operating Voltage	Surge Current per Phase	Configuration	MCOV	SCCR	VPR 600V/3kA L_G
MNSPD-115	100 VAC/150VDC	80kA	1Ø, 3-wire (2 Legs)	180V L-N	10kA	600V
MNSPD-300-AC	300VAC	80kA	1Ø, 3-wire (2 Legs)	470V L-N	10kA	1200V
MNSPD-300-DC	385VDC	80kA	1Ø, 3-wire (2 Legs)	470V L-N	10kA	1200V
MNSPD-600	480VAC/600VDC	80kA	1Ø, 3-wire (2 Legs)	780V L-N	10kA	1800V

www.midnitesolar.com/spd
19115 - 62nd Ave NE, Arlington, WA 98223 PH. 360-403-7207 FAX 360-691-6862

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REVISIONS

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CAD 2	MAR. 18, 2025	01

Signature with Seal

Project Name & Address

ROSE GILOMEN RESIDENCE
31068 GUAM AVE, NORTHFIELD, MN 55057
AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06092814

DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

Sheet Name
SPD
SPEC SHEET

Sheet Size
ANSI B
11" X 17"

Sheet Number
D 1.6

Product data sheet

Specifications

Safety switch, general duty, non fusible, 2 pole, 2 wire, 240VAC, 60A, Type 3R with bolt on hub prov

DU222RB

Product availability: Stock - Normally stocked in distribution facility

Main

Product	Single Throw Safety Switch
Duty Rating	General duty
Device Application	Residential
Disconnect Type	Non-fusible disconnect switch
Factory Installed Neutral	None
Number of Poles	2
Current Rating	60 A
Voltage Rating	240 V AC
Enclosure Rating NEMA	NEMA 3R
Motor power hp	10 hp at 240 V AC 60 Hz for 1 phase motors

Complementary

Mounting Type	Surface
Electrical Connection	Lugs
Wiring configuration	2 wires
Wire Size	AWG 12...AWG 3 aluminium AWG 14...AWG 3 copper
Tightening torque	35 lbf.in (4.0 N.m) 0.003…0.008 in² (2.08…5.26 mm²) (AWG 14...AWG 10) 35 lbf.in (4.0 N.m) (AWG 14...AWG 10) 45 lbf.in (5.08 N.m) 0.01 in² (8.37 mm²) (AWG 8) 45 lbf.in (5.08 N.m) 0.02…0.03 in² (12.3…21.12 mm²) (AWG 6...AWG 4) 50 lbf.in (5.6 N.m) 0.04 in² (26.67 mm²) (AWG 3)
Depth	3.75 in (95.25 mm)
Width	7.75 in (196.85 mm)
Height	9.63 in (244.60 mm)
Net Weight	17.0 lb(US) (7.7 kg)

Environment

Certifications	UL listed file E2875

Ordering and shipping details

Category	US1DE1A00106
Discount Schedule	DE1A

Price is “List Price” and may be subject to a trade discount – check with your local distributor or retailer for actual price.

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AHJ: GREENVALE TOWNSHIP
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CASE NO: 06092814

DESIGNED BY:

TRIVENT CAD SOLUTION

Sheet Name

ACD SPEC SHEET

Sheet Size

ANSI B
11" X 17"

Sheet Number

D 1.7

Product data sheet

Specifications

Safety switch, general duty, fusible, 2 pole, 3 wire, 240VAC, 60A, Type 3R, bolt on hub prov, with neutral

D222NRB

Product availability: Stock - Normally stocked in distribution facility

Main

Product	Single Throw Safety Switch
Duty Rating	General duty
Device Application	Residential
Disconnect Type	Fusible disconnect switch
Factory Installed Neutral	Neutral (factory installed)
Number of Poles	2
Current Rating	60 A
Voltage Rating	240 V AC
Enclosure Rating NEMA	NEMA 3R
Motor power hp	1.5 hp at 120 V AC 60 Hz for 1 phase motors 3 hp at 120 V AC 60 Hz for 3 phase motors 3 hp at 240 V AC 60 Hz for 1 phase motors 7.5 hp at 240 V AC 60 Hz for 3 phase motors 10 hp at 240 V AC 60 Hz for 1 phase motors 15 hp at 240 V AC 60 Hz for 3 phase motors

Complementary

Short Circuit Current Rating	100 kA maximum depending on fuse H, K or R
Fuse type	H, K or R
Mounting Type	Surface
Electrical Connection	Lugs
Wiring configuration	3-wire
Wire Size	AWG 12...AWG 3 aluminium AWG 14...AWG 3 copper
Tightening torque	35 lbf.in (4.0 N.m) 0.003…0.008 in² (2.08…5.26 mm²) (AWG 14...AWG 10) 35 lbf.in (4.0 N.m) (AWG 14...AWG 10) 45 lbf.in (5.08 N.m) 0.01 in² (8.37 mm²) (AWG 8) 45 lbf.in (5.08 N.m) 0.02…0.03 in² (12.3…21.12 mm²) (AWG 6...AWG 4) 50 lbf.in (5.6 N.m) 0.04 in² (26.67 mm²) (AWG 3)
Depth	4.87 in (123.70 mm)
Width	7.45 in (189.23 mm)
Height	14.88 in (377.95 mm)
Net Weight	8.8 lb(US) (4 kg)

Environment

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TRIVENT CAD SOLUTION

Sheet Name

ACD SPEC SHEET

Sheet Size

ANSI B
11" X 17"

Sheet Number

D 1.8

MILBANK
ENERGY AT WORK

U4801-XL-5T9

Catalog Number	U4801-XL-5T9
Marketing Product Description	5 Terminal Ringless Small Closing Plate Lever Bypass 5th Terminal 9 Oclock Position
UPC	784572288218
Length (IN)	4.844
Width (IN)	13
Height (IN)	19
Brand Name	Milbank
Type	Ringless Meter Socket
Application	Meter Socket
Standard	UL Listed;Type 3R
Voltage Rating	600 Volts Alternating Current
Amperage Rating	200 Continuous Ampere
Phase	1 Phase
Frequency Rating	60 Hertz
Size	4.844L x 13W x 19H
Number Of Cutouts	0
Cutout Size	No Main Breaker
Cable Entry	Overhead or Underground
Terminal	Lay in
Insulation	Glass Polyester
Mounting	Surface Mount

Enclosure	G90 Galvanized Steel with Powder Coat Finish
Jaw Quantity	5 Terminal
Bypass Type	Lever Bypass
Number of Meter Positions	1 Position
Equipment Ground	Bonded Ground Strap
Hub Opening	Small Closing Plate
Line Side Wire Range	6 AWG - 350 kcmil
Load Side Wire Range	6 AWG - 350 kcmil
Number Of Receptacles	0

Please consult serving utility for their requirements prior to ordering or installing, as specifications and approvals vary by utility and may require local electrical inspector approval. All installations must be installed by a licensed electrician and must comply with all national and local codes, laws and regulations. Milbank reserves the right to make changes in specifications and features shown without notice or obligation.

WOLF RIVER ELECTRIC
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CASE NO: 06092814

DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

Sheet Name
PV METER SPEC SHEET

Sheet Size
ANSI B
11" X 17"

Sheet Number
D 1.9

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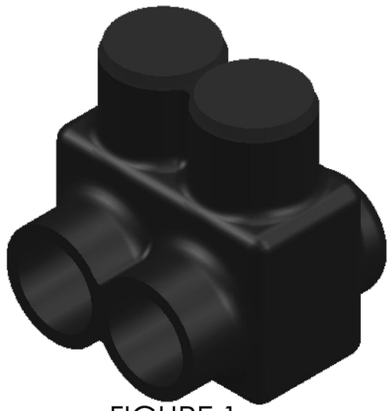

FIGURE 1
IT

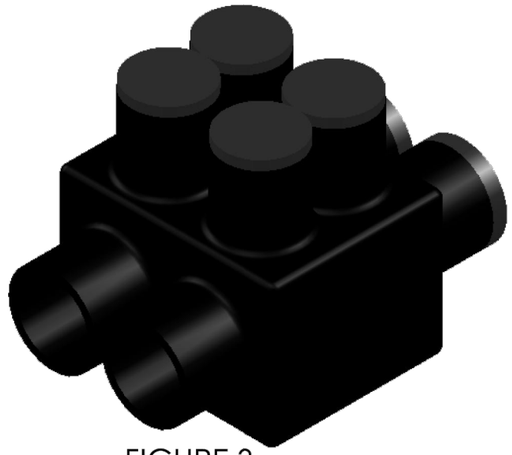

FIGURE 3
ITH

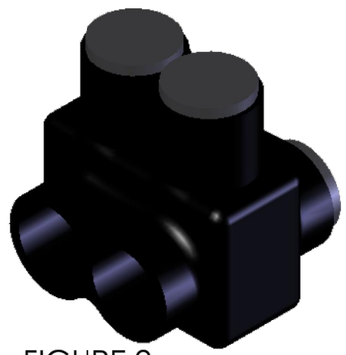

FIGURE 2
DUAL ENTRY

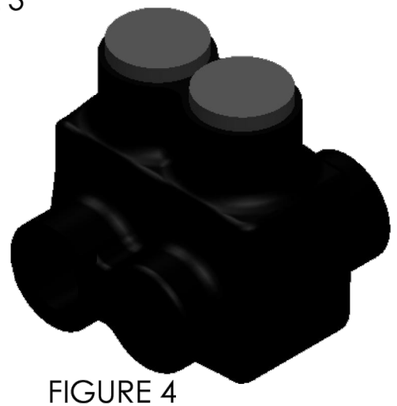

FIGURE 4
ITO

PART #	FIG. #	WIRE RANGE	HEX SIZE	L	W	H
IT4	1	4 - 14	SLOTTED	1.12	1.18	1.38
ITO4	4	4 - 14	SLOTTED	1.12	1.25	1.38
IT1/0	1	1/0 - 14	3/16	1.62	1.62	1.75
ITO1/0	4	1/0 - 14	3/16	1.62	1.75	1.75
IT3/0	1	3/0 - 6	1/4	1.84	1.75	1.87
ITO3/0	4	3/0 - 6	1/4	1.84	1.87	1.87
IT250	2	250 - 6	5/16	2.12	2.25	2.25
IT350	2	350 - 6	5/16	2.47	2.50	2.44
IT500	2	500 - 4	5/16	2.81	2.87	2.94
IT750*	2	750 - 250	3/8	3.48	3.50	3.50
IT600††	2	600 - 6	5/16	2.34	2.94	3.05
ITH750	3	750 - 250	5/16	3.48	4.50	3.50

†† 600 SERIES ARE AL7CU AND 75°C

*NOT UL LISTED

NOTES:
1. CONNECTOR MANUFACTURED FROM 6061-T6 ALUMINUM ALLOY.
2. UL LISTED PER UL486A/B SPECIFICATIONS FOR 600V.
3. DUAL RATED FOR 90°C COPPER AND/OR ALUMINUM CONDUCTOR.
4. COLD TEMPERATURE RATED TO -45°C.
5. HIGH DIELECTRIC STRENGTH INSULATION IS ABRASION, CHEMICAL AND UV RESISTANT.

CONTACT NSi FOR SALES @ 800.321.5847

POLARIS SALES . CO . INC

11625 PROSPEROUS DRIVE ODESSA, FL 33556

TITLE: IT SERIES INSULATED CONNECTORS

	NAME	DATE
DRAWN BY	S.PARRY	6/13/2012

DWG. NO. IT SERIES

MATERIAL: N/A | NOT TO SCALE | SHEET: 1 OF 1

WOLF RIVER ELECTRIC
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Sheet Name
TAP KIT SPEC SHEET

Sheet Size
ANSI B
11" X 17"

Sheet Number
D 1.10

DEPARTMENT OF LABOR AND INDUSTRY

Solar PV Inspection Checklist for REI #ELE- _____Installer_____
Job Address_____City/Township_____

Required Documentation
- Manufacturer's specifications for the inverter(s)
- Manufacturer's specifications for the module(s)
- Manufacturer's specifications for the optimizer(s) (if used)
- Verification that the racking system grounding and bonding is listed

PV Inverter

- ☐ Is the PV system utility-interactive, stand alone or multimode?
- ☐ Is all the equipment listed for PV application or be evaluated for the application and have a field label applied? 690.4
- ☐ Is the system solidly grounded, ungrounded, or functionally grounded? 690.2 and 690.41
- ☐ Has DC Ground-Fault Protection been provided and properly labeled? 690.41(B)?
- ☐ What is the maximum PV system voltage and is the maximum 600 volts or less for a dwelling or 1000 volts or less for non-dwelling or 1500 volts or less when not located on a building? 690.7
- ☐ Is all listed equipment and conductors rated for the maximum voltage? 690.7
- ☐ Determine the maximum circuit current for the PV Source and Output Circuit; Inverter Output Circuit; Inverter Input Circuit; and DC to DC Converter Output (refer to inverter documentation). 690.8

System Grounding

- ☐ Is all exposed non-current carrying metal parts of the PV system grounded? 690.43 and 690.47
- ☐ Are the mounting structures or systems used for equipment grounding? 690.43
- ☐ Are the interconnecting devices used for equipment grounding listed and identified and are all connections properly torqued? 690.43 and 110.14
- ☐ Are the EGC properly sized and protected, if exposed not smaller than #6? 690.45, 250.122, and 250.120(C)
- ☐ Has the grounding electrode system been installed? 690.47
- ☐ If both are present, has the DC grounding electrode system been bonded to the AC GES? 690.47

Wiring Methods and Disconnecting Means

- ☐ Are the conductor and cable ampacities determined at 125% before adjustment factors? 690.8(B)
- ☐ How are the PV Source and Output Circuit protected from overcurrent? 690.9
- ☐ Do AC or DC OCPD's have the appropriate voltage, current and interrupt ratings? 690.9
- ☐ Has arc-fault circuit protection been provided for DC source and/or output circuits? 690.11
- ☐ Is a rapid shutdown required and if so, how is it accomplished and identified? 690.12 & 690.56(C)
- ☐ Are the PV disconnect permanently marked and installed in a readily accessible location? 690.13
- ☐ Are the Isolating devices or equipment disconnecting means installed in circuits connected to equipment at a location within the equipment, or within sight and 10 feet of the equipment? (Where the maximum circuit current is greater than 30 amperes an equipment disconnecting means shall be provided for isolation.) 690.15
- ☐ Has the fuse disconnecting means, if required, been installed? 690.15 and 240.40
- ☐ Are PV source or output circuits > 30 volts in a raceway or guarded if readily accessible? 690.31
- ☐ Is single conductor cable used outdoors sunlight resistant Type USE-2, Type RHW-2, or listed & labeled PV wire, and properly support and secured? 690.31(C)
- ☐ Are PV source or output circuits inside a building in a metal raceway and marked? 690.31(D)

Interconnection

- ☐ Has a plaque or directory been installed at each disconnecting means (capable of interconnection) denoting all electric power sources & power production sources? 705.10
- ☐ Has the point of connection to other sources been installed per 705.11 or 705.12?
- ☐ Are the utility interactive inverters connected to the system through a dedicated circuit breaker or fusible disconnecting means? 705.12
- ☐ Does the bus or conductor ampacity comply with 705.12?
- ☐ Have all the required labels been applied? (See label list.)

443 Lafayette Road N., St. Paul, MN 55155 • (651) 284-5005 • www.dli.mn.gov

WOLF RIVER ELECTRIC
WOLF RIVER ELECTRIC
101 ISANTI PARKWAY NE, SUITE G
ISANTI, MN 55040
ELECTRICAL LICENSE# EA777669
BUILDING LICENSE# BC773271
CONTACT: (763) 229-6662
contact@wolfriverelectric.com

REVISIONS

Description	Date	Rev
CAD 1	MAR. 11, 2025	00
CAD 2	MAR. 18, 2025	01

Signature with Seal

Project Name & Address

ROSE GILOMEN RESIDENCE
31068 GUAM AVE, NORTHFIELD, MN 55057
AHJ: GREENVALE TOWNSHIP
UTILITY: XCEL ENERGY
CASE NO: 06092814

DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

Sheet Name
MN CHECKLIST

Sheet Size
ANSI B
11" X 17"

Sheet Number
D 1.11

WITNESS TEST PROCEDURE

A TEST PROCEDURE THAT WILL BE USED TO VERIFY THE PROTECTION AND OPERATION OF THE SYSTEM SHALL BE SUBMITTED TO XCEL ENERGY FOR APPROVAL. THE PROCEDURE INCLUDES AN ANTI-ISLANDING TEST(FOR ALL SYSTEMS) TO VERIFY THE SYSTEM CEASES GENERATING IN PARALLEL WITH THE XCEL ENERGY DISTRIBUTION SYSTEM WHEN THE UTILITY SOURCE IS LOST. EACH SYSTEM IS UNIQUE AND WILL REQUIRE A CUSTOM TEST PROCEDURE BASED ON THE INVERTER MANUFACTURER'S RECOMENDATIONS FOR COMISSIONIND AND ANTI-ISLANDING. IN ADDITION TO THE MANUFACTURER'S RECOMENDATIONS.

ALL TESTING SHALL BE PERFORMED BY QUALIFIED PERSONELL ONLY

ALL TESTING SHALL BE PERFORMED BY QUALIFIED PERSONELL ONLY

1. SITE SECURITY

- SITE SHOULD HAVE 24/7 KEYLESS ENTRY AND DRIVABLE ACCESS IF XCEL EQUIPMENT IS PRESENT WITHIN THE SITE FENCE

- IF APPLICABLE, SITE SHOULD HAVE 24/7 DRIVABLE ACCESS TO ANY XCEL EQUIPMENT INSTALLED OUTSIDE OF THE SITE FENCE THAT IS USED FOR THE SOLE
PURPOSE OF FEEDING THE PV SYSTEM

2. PROPER LABELLING

'VERIFY LABELING FOR THE MAIN SERVICE PANEL, PV SYSTEM CIRCUIT BREAKER, DC DISCONNECT (WHEN APPLICABLE), UTILITY AC DISCONNECT, PRODUCTION METER AND OTHER RELEVANT LABELLING AND SIGNAGE.

3. ENERGIZE THE PV SYSTEM BY CLOSING THE UTILITY DISCONNECT. PLEASE ALLOW 5-MINUTE FOR THE INVERTER TO BOOT-UP.

4. WHILE IN NORMAL OPERATION, REFER TO THE REFERENCE POINT OF APPLICABILITY TO VERIFY THE VOLTAGES AT THE INVERTER AC OUTPUT ARE WITHIN 5% OF THE COMBINED INVERTED AC VOLTAGE RATINGS AND ALL INVERTER LED'S, ALARMS, AND/OR LCD CODES ARE "NORMAL."

5. WHILE IN NORMAL OPERATION, VERIFY THAT ALL INVERTERS ARE OPERATIONAL AND PRODUCING POWER. VERIFY THAT SYSTEM IS GENERATING AT FULLEST REASONABLE CAPACITY. WHILE IN NORMAL OPERATION VERIFY THE VOLTAGES AT THE DER AC TERMINALS ARE WITHIN 5% OF THE COMBINED DER AC VOLTAGE RATINGS AND ALL LEDs, ALARMS AND/OR LCD CODES ARE "NORMAL"

6. SIMULATE THE LOSS OF UTILITY SOURCE FOR THE ANTI-ISLANDING TEST BY OPENING THE "UTILILITY AC DISCONNECT".

7. USING A VOLTMETER, VERIFY THE VOLTAGE AT THE INVERTER SIDE OF THE AC DISCONNECT HAS DROPPED TO ZERO

NOTE: ONLY CUSTOMER-OWNED EQUIPMENT SHALL BE USED FOR THIS VERIFICATION.

8. USING AN AMMETER OR THE INVERTER'S DISPLAY, VERIFY THE DER OUTPUT OF THE INVERTER HAS CEASED WITHIN TWO SECONDS.

9. VERIFY INVERTER LED'S, ALARMS, AND/OR LCD CODES ARE APPROPRIATE FOR LOSS OF UTILITY SOURCE

10. RESTORE THE LOST UTILITY SOURCE BY CLOSING THE "UTILITY AC DISCONNECT"

11. VERIFY THAT THE INVERTER SYSTEM DELAYS 5 MINUTES BEFORE RESUMING POWER OUTPUT AFTER THE UTILITY SOURCE IS RESTORED

12. VERIFY FIXED POWER FACTOR SETTINGS FOR EACH INVERTER MEET THE PROJECT REQUIREMENTS

13. METER TECH HAS VERIFIED METERING EQUIPMENT

14. SYSTEM RESUMED DELIVERY OF POWER NO LESS THAN 5 MINUTES AFTER UTILITY SOURCE IS RESTORED

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DESIGNED BY:
TRIVENTCAD
TRIVENT CAD SOLUTION

Sheet Name
XCEL TEST PROCEDURE

Sheet Size
ANSI B
11" X 17"

Sheet Number
D 1.12

Greenvale Township	**APPLICATION FOR INTERIM USE PERMIT, CONDITIONAL USE PERMIT, VARIANCE, ZONING AMENDMENT & SUBDIVISION/PLATTING** Greenvale Township 31800 Guam Avenue, Northfield MN 55057 Phone: 507-321-9311 Email: clerk@greenvaletwp.org

Please return the completed application form and required documentation to the Township Clerk.

Permit Checklist: (see Zoning Ordinance References on next page)

- Completed Application
- Application Fee and Escrow
- 4 copies of detailed site plans, aerial photographs, building plans, and other supporting documentation necessary to complete the application.

All permits/approvals require a public hearing and actions by the Planning Commission and Board of Supervisors.

Please Print or Type All Information

Applicant Amber Zander			
Home Phone		Work Phone •(612) 615-8905	
Address 101 Isanti Parkway NE Suite G		Isanti MN 55040	
Site Address (If different) 31068 Guam Ave,		Northfield, MN 55057	
Property owner (If different from applicant) Rose		Gilomen	
Platted Property Description: SECTION 21 TWN 112 RANGE 20	Lot 21	Block 112 20	Addition
or			
Metes and Bounds Property Description	Section	Township	Range
PID Number Parcel number: 160210005021			
Present Use of Site RESIDENTIAL			
Present Zoning Classification of Site			
Parcel Size 3 Acres Lot			

Please check the type of application requested:

____ IUP ____ CUP [X] Variance ____ Zoning Amendment ____ Subdivision/Plat

Please describe the nature of your request:

On behalf of our client, Rose Gilomen, Wolf River Electric is submitting a variance application for the installation of a ground-mounted solar energy system on her property.

The city's current zoning ordinance requires a minimum setback of 100 feet from both the road and the property line.

However, the proposed location for the solar array is 67 feet 7 inches from the road and 78 feet 5 inches from the property line.

We are requesting this variance because meeting the 100-foot setback requirement would necessitate moving the solar array closer to an existing shed.

This placement would cause significant shading, which would reduce the array's energy production and limit the overall efficiency of the system.

Granting this variance will allow the solar installation to operate at optimal efficiency, providing greater benefit to the homeowner and supporting the broader adoption of renewable energy.

Thank you for your consideration of this request. Please feel free to contact us with any questions or if further documentation is needed.

Greenvale Township Zoning Ordinance References: a copy of the Zoning and Subdivision Ordinance is available on the Township's website: www.greenvaletwp.org.

- Variance Procedures: Section 8.01
- Zoning Amendments: Section 8.02
- Interim and Conditional Use Permits: Section 8.03
- Performance Standards: Sections 7.01-7.16
- Subdivision/Platting: Sections 6.01-6.06

PLEASE READ

I hereby apply for the above consideration and declare that the information and materials submitted with this application comply with the Township's ordinances and are complete and accurate to the best of my knowledge.

*I agree to pay all **NON-REFUNDABLE** application fees in advance and, if required by the Township Clerk, I agree to post an escrow with the Township to fund expenses incurred by the Township in processing this request. I understand and agree that all Township-incurred professional fees and expenses associated with the processing of this request are the responsibility of the property owner and shall be promptly paid by the property owner upon billing by the Township in the event the escrow fund is depleted. If payment of the Township incurred expenses is not received from the property owner within 10 days of billing, the property owner acknowledges and agrees to be responsible for the unpaid fee balance either by direct payment or an assessment against the Owner's property via MN. Stat. 366.012.*

PLEASE NOTE THAT THIS APPLICATION MUST BE SIGNED BY THE APPLICANT AND 100% OF THE PROPERTY OWNERS OF THE PROPERTY SUBJECT TO THE APPLICATION.

Applicant Signature: Amber Zander

Owner(s) Signature (If different from applicant) Rosie Gilomen

TOWNSHIP USE ONLY

Case Number	
Date Received	
Application Fee Paid	Check number: Date:
Application Complete	
Public Hearing Date	
Notes:	

CTAS Claim

Claim Number : 4540*

Claim Date : 05/27/2025

To : Beaver Creek Companies, Claimant
7226 235th Street West,

Farmington, MN 55024

Approved

Note : payment for services

For :

100-42401-303	Building Inspections Administration - Professional Services: Engineering Fees	$13,179.87
Total		**$13,179.87**

Declaration

I declare under penalties of law that this account, claim or demand is just and correct and that no part of it has been paid

---------- ----------

Date

Signature of Claimant

Paid by Order - Check Number ----------

Filled in my office this ---------- day of ----------,----------

wep

Clerk

4540

LIC. # LB757330

BEAVER CREEK COMPANIES INC.

INVOICE

May 1, 2025

7226 235th Street West, Farmington, Minnesota 55024

GT-25-105

Greenvale Township
Mark Legvold
31800 Guam Ave
Northfield, MN 55057

Permit #	Name	Invoice Number	Inspection Address	Cost
GT-006-2025	Collins	GT-006-2025.	4688 290th St. W.	$124.69
GT-007-2025	Budd	GT-007-2025	8353 285th St. W	$1,362.27
GT-008-2025	Lofgren	GT-008-2025	7750 320th St. W.	$1,487.30
GT-009-2025	Nubi	GT-009-2025	5909 290th St. W.	$287.94
GT-010-2025	Franke	GT-010-2025	7980 280th St. W.	$140.00
GT-011-2025	Grossman	GT-011-2025	9605 320th St. W.	$1,510.66
GT-012-2025.	Grossman	GT-012-2024	Void	Void
GT-013-2025.	Gilomen	GT-013-2024	31068 Guam Ave	Waiting on Variance/Payment
GT-014-2025	Johnson/Reiland	GT-014-2024	5274 280th St. W.	$340.70
GT-015-2025	Swenson	GT-015-2024	7750 290th St. W.	$7,926.31

Balance total $13,179.97

Total Invoice Due $13,179.87

Due Upon Receipt

Thank You for your Business

Greenvale Township

Claims List for Approval

6/2/2025

Date Range : **1/29/2025 To 6/2/2025**

Date	Vendor	Description	Claim #	Total	Account #	Account Name	Detail
04/17/2025	Mark Legvold	Stamps 29.20 AED Cabinet 133.25	4532*	$162.45			
					100-41110-208-	Council/Town Board	$29.20
					100-41941-560-	Town Hall	$133.25
03/18/2025	Joy Royle	Spring Short Course	4533	$75.00			
					100-41110-311-	Council/Town Board	$75.00
05/27/2025	Beaver Creek Companies	GT-(006, 007, 008, 009, 010, 011, 012, 013, 014, 015)-(2024, 2025).	4540*	$13,179.87			
					100-42401-303-	Building Inspections Administration	$13,179.87
Total For Selected Claims				**$13,417.32**			**$13,417.32**

Charles A Anderson	**Chair, Town Supervisor**	**Date**
Joylee M Royle	**Town Supervisor**	**Date**
Scott A Norkunas	**Town Supervisor**	**Date**