	~		Donauturou	t of Communit			
CHE	RRY		•	20 Mercer Street, Che	y Development erry Hill, NI 080002		
				-488-7870 (Phone)	856-661-4746 (Fax)		
· hom	ship			ww	w.Cherryhill-NJ.com		
	LA	ND USE DEVEL	OPMENT APPLI	CATION			
Submission	Date: <u>3/31/2025</u>	Application No.	25-7-0006		FICE USE ONLY		
_				F #1 600	ES/NO (INITIAL)		
	INING BOARD	X ZONING BO	ARD OF ADJUSTMEN		00.00 Escr. # 10252		
1. APPLICANT		ALC: NO.	2. OWNER		الحفاظة الاستبعاد		
Name:Solar La	ndscape LLC		Name:Cherry U	mbrella LLC			
Address: 522 Co	ookman Avenue Unit	3	Address: 4 Rac	Inor Corp Ctr Ste 105			
	Address						
City:Asbury Parl	k State	e: NJ Zip: 07712	City:_Radnor	State:	PAZip:19087		
Phone:(732)	855-6039* Fax:	(<u>732</u>) 726-6560	Phone:(<u>484</u>	Phone:(<u>484</u>) <u>320-7810</u> Fax:()			
Email:djenning	gs@wilentz.com*	*Applicant's Attorn	ey Email: ^{bskelly}				
Interest in Prope							
	ICATION (check	all that apply)					
_	Minor Subdivision		Interpretation ¹				
	Preliminary Major		 Appeal of Administrative Officer's Decision Certificate of Non-Conformity 				
	Final Major Subdiv Minor Site Plan	vision	Certificate of Non	•			
	Preliminary Major	Site Plan ¹	⊠ Bulk (c) Variance				
	Final Major Site Pl		Conditional Use ¹				
	Amended Plan		Street Vacation R	•			
	Site Plan Waiver		Rezoning Reques				
	Concept Plan		Other: to all property owners within 200 feet.				
	-	nt and notice is required	to all property owners	within 200 feet.			
4. ZONE (check							
	ENTIAL	COMMERCIAL	OFFICE	OTHER	OVERLAY		
RA R1	RA/PC R7	B1 B2	01		FP		
			· · · · · · · · · · · · · · · · · · ·	IN	SBC		
R2 R3	R10 R20	B3 B4	03		IR/B A-H/C		
	Contraction in the second						
Name: Donna M		hip, limited liability com					
	odbridge Center Driv	e Suite 900		State: 855-6039 Fax:(7			
Address:			atta a st)		
			_ Email: <u>djenning</u>	s@wilentz.com	·····		

6. APPLICANT'S PROFESSIONALS (Engineer, Surveyor, Pl	anner, etc.)	
Name: Kevin Shelly, PE	Name: Planner Ti	BD
Profession:		
Address:1985 Highway 34, Suite A7		
City: <u>Wall</u> State: <u>NJ</u> Zip:_07719	City:	State: Zip:
Phone:(<u>732</u>) <u>924-8100</u> Fax:(<u>732</u>) <u>924-8110</u>		Fax:()
Email: kshelly@shorepointengineering.com		
7. LOCATION OF PROPERTY		
Street Address:1931 Olney Ave	Black(a), 485.01	
3.525 acres		
	Lot(s):	
8. LAND USE Existing Land Use: Commercial/Office		
Proposed Land Use (be specific): Rooftop community solar p	anels with associated o	around-mounted equipment
Proposed Land Use (be specific). <u>- Reonep community solar p</u>		
		······································
9. PROPERTY		
9. PROPERTY	Proposed Form	n of Ownership:
Number of Existing Lots:1		n of Ownership: □ Condominium ^{*Lessee}
Number of Existing Lots:1	□ Fee Simple	Condominium *Lessee
Number of Existing Lots:1 Number of Proposed Lots:1	□ Fee Simple ⊠ Rental	□ Condominium ^{*Lessee} □ Cooperative
Number of Existing Lots:1 Number of Proposed Lots:1 Are there Existing Deed Restrictions or Easements?	□ Fee Simple ⊠ Rental ⊠ No	 Condominium *Lessee Cooperative Yes (please attach copies)
Number of Existing Lots: <u>1</u> Number of Proposed Lots: <u>1</u> Are there Existing Deed Restrictions or Easements? Are there Proposed Deed Restrictions or Easements? 10. UTILITIES (check all that apply)	□ Fee Simple ⊠ Rental ⊠ No	 Condominium *Lessee Cooperative Yes (please attach copies)
Number of Existing Lots: <u>1</u> Number of Proposed Lots: <u>1</u> Are there Existing Deed Restrictions or Easements? Are there Proposed Deed Restrictions or Easements? 10. UTILITIES (check all that apply)	□ Fee Simple	 Condominium *Lessee Cooperative Yes (please attach copies) Yes (please attach copies)
Number of Existing Lots: Number of Proposed Lots: Are there Existing Deed Restrictions or Easements? Are there Proposed Deed Restrictions or Easements? 10. UTILITIES (check all that apply) N/A Public water Public sewer	□ Fee Simple ☑ Rental ☑ No ☑ No Private well	 Condominium *Lessee Cooperative Yes (please attach copies) Yes (please attach copies)
Number of Existing Lots: Number of Proposed Lots: Are there Existing Deed Restrictions or Easements? Are there Proposed Deed Restrictions or Easements? 10. UTILITIES (check all that apply) N/A Public water Public sewer 11. APPLICATION SUBMISSION MATERIALS	□ Fee Simple ☑ Rental ☑ No ☑ No Private well	 Condominium *Lessee Cooperative Yes (please attach copies) Yes (please attach copies)
Number of Existing Lots: Number of Proposed Lots: Are there Existing Deed Restrictions or Easements? Are there Proposed Deed Restrictions or Easements? 10. UTILITIES (check all that apply) N/A Public water Public sewer 11. APPLICATION SUBMISSION MATERIALS	□ Fee Simple ☑ Rental ☑ No ☑ No Private well	 Condominium *Lessee Cooperative Yes (please attach copies) Yes (please attach copies)
Number of Existing Lots: Number of Proposed Lots: Are there Existing Deed Restrictions or Easements? Are there Proposed Deed Restrictions or Easements? 10. UTILITIES (check all that apply) N/A Public water Public sewer 11. APPLICATION SUBMISSION MATERIALS	□ Fee Simple ☑ Rental ☑ No ☑ No Private well	 Condominium *Lessee Cooperative Yes (please attach copies) Yes (please attach copies)
Number of Existing Lots:1 Number of Proposed Lots: Are there Existing Deed Restrictions or Easements? Are there Proposed Deed Restrictions or Easements? 10. UTILITIES (check all that apply) N/A _ Public water _ Public sewer _ 11. APPLICATION SUBMISSION MATERIALS List all plans, reports, photos, etc. (use additional sheets i	□ Fee Simple ⊠ Rental ⊠ No ⊠ No Private well if necessary):See a	Condominium *Lessee Cooperative Yes (please attach copies) Yes (please attach copies) Private septic system ttached cover letter.

13. ZONING SCHEDULE (complete all that apply)

	REQUIRED	EXISTING	PROPOSED		REQUIRED	EXISTING	PROPOSED
Minimum Lot Requirements	10.000	(g_{1},g_{2},g_{3})	it and the	Accessory Uses			e getter
Lot Area	20,000 sf	142,453 s	f No change	Garage Area	NA	NA	NA
Frontage	120 ft	548.3 ft	No change	Garage Height	NA	NA	NA
Lot Depth	120 ft	260.1 ft	No change	Fence Height	NA	NA	NA
Minimum Yard Requirements			and an entropy	Pool Depth	NA	NA	NA
Front Yard	30 ft	82.6 ft	No change	Shed Area	NA	NA	NA
Secondary Front Yard	30 ft	N/A	No change	Shed Height	NA	NA	NA
Rear Yard	20 ft	53.2 ft	No change	Signage Requirements			- Martin Martin
Side Yard	10 ft	50.4 ft	No change	Façade Sign area 1	NA	NA	NA
Aggregate Side Yard	24 ft	105.1 ft	No change	Façade Sign area 2	NA	NA	NA
Building Height	35 ft	18 ft	<19 ft*	Freestanding Sign area	NA	NA	NA
Lot Requirements				Freestanding Sign height	NA	NA	NA
Residential Buffer Strip	NA	NA	NA	Functional Sign(s) area	NA	NA	NA
Open Space	25%	10.5%	10.4 %	Building Façade area	NA	NA	NA
Parking Setbacks	1 20 /0	Service Se	Consection.	Distance from Driveway	NA	NA	NA
Parking Setback to non-residential	5'	NA	NA	Distance from R.O.W.	NA	NA	NA
Parking Setback to residential	15'	NA	NA				
Parking Setback to Right-of-Way	20'	NA	NA	Is the proposed site on	a inside	e or corr	ier lot?
nber of Parking Spaces REQUIRED	ENTS			Inside mber of Loading Spaces RE	QUIRED:		
PARKING & LOADING REQUIREM mber of Parking Spaces REQUIRED mber of Parking Spaces PROVIDED	ENTS 0:NA 0:NA				QUIRED:	NA	
PARKING & LOADING REQUIREM mber of Parking Spaces REQUIRED mber of Parking Spaces PROVIDED RELIEF REQUESTED (check all that Zoning Variances are requested. Exceptions from Municipal Require Exceptions from New Jersey Residen Requires application to and appro- tor any type of the above relief request ind/or previously granted relief.	ENTS . NA . NA t apply) ements a dential Site val of th	are requ ite Impr Improve e New J	Nu ested (N ovement ement St ersey Site	mber of Loading Spaces RE mber of Loading Spaces PR <i>J.S.A. 40:55D-51).</i> Standards (R.S.I.S.) are requ andards (R.S.I.S.) are requ e Improvement Advisory Bo	QUIRED: OVIDED: equested ested (N. pard.	NA NA (N.J.A.C. .J.A.C. 5::	5:21-3.1 21-3.2).
PARKING & LOADING REQUIREM mber of Parking Spaces REQUIRED mber of Parking Spaces PROVIDED RELIEF REQUESTED (check all tha Zoning Variances are requested. Exceptions from Municipal Require Exceptions from New Jersey Residen	ENTS NA NA t apply) ements a dential Si tial Site val of the ed, a sepa ements that I ar on, or a	are requ ite Impr Improve e New J arate ext arate of and the n an O	Nu ested (N ovement ement Sta ersey Site bibit should ficer of al Partne	mber of Loading Spaces RE mber of Loading Spaces PR <i>J.S.A. 40:55D-51).</i> Standards (R.S.I.S.) are reque andards (R.S.I.S.) are reque to be attached stating the factual d be attached stating the factual als submitted are true.	QUIRED: OVIDED: equested ested (N bard. al basis, le I furthe and aut lication.	(<i>N.J.A.C.</i> <i>J.A.C.</i> 5:2 egal theor er certify	5:21 21-3 y,

	7. CONSENT OF OWNER			
Idcliffe, Notary Public aware County expires February 26, 262	certify that I am the Owner of to the making of this application to the inspection of this proper municipal agency (if owned by application and officer signature)	and the approval o y in connection w a Corporation, a	f the plans submitted herewith. In this application as deemed n	I further consent ecessary by the
iffe, Notary ire County ires Febru	SWORN & SUBSCRIBED to before me this		SIGNATURE (owner)	12/23/24 DATE
Ra	23rd day of December	_, <u>2024</u> (year)	BERNADE Ha Stally	
Kristie T. D ommissio			PRINT NAME	
JY CO	8. DISCLOSURE STATEMENT (circle al	that apply)		
Σ	Pursuant to N.J.S.A. 40:55D-48.1 & 4 Is this application to subdivide a pa			Yes No
	Is this application for a variance to	construct a multiple d	welling of twenty-five (25) or more u	õ
	Is this application for approval of a	site (or sites) for non	-residential purposes?	Yes No
	Is the applicant a corporation?			Yes No
	Is the applicant a limited liability co	rporation?		Yes No
	Is the applicant a partnership?			Yes 🚺
Î	If you responded YES to any of the a	bove, please answer	the following (use additional sheets i	f necessary):
	List the names and addresses of class or at least 10% of the intere		ndividual partners owing at least 10 chever is applicable).	0% in stock of any
	greater interest in that partnersh	ip (whichever is app hip, until the names	poration holding 10% or more of the licable). This requirement is to be and addresses of the non-corporat been listed.	followed by every
	9. SURVEY WAIVER CERTIFICATION			
	As of the date of this application under the date of <u>April 3</u> described as Block(s) <u>485.01</u> or other facilities have been cons of the survey with the exception of <u>SWORN & SUBSCRIBED to before me this</u> <u>A3'</u> day of <u>Diamber</u> , 2024 (year	tructed, installed, of the structures sh State of Ne Bernad	or otherwise located on the premi own. ew Jersey; County of Camden:	f this application, in its entirety, buildings, fences, ses after the date f full age, being duly 12/24/24
1	Kuster 9. Radcliff (note	ry)	SIGNATURE (applicant/owner)	DATE
	the Township of Cherry Hill a	nd determined that molete. The time the	he rules of the applicable Board a at all the checklist items are in within which the applicable Board	n order and this
	Commonwealth of Pennsylvania - Notary Seal Kristie T. Radcliffe, Notary Public		SIGNATURE (administrative officer)	DATE
L	Delaware County My commission expires February 26, 2028	10	Cê	

Commission number 1240065 Member, Pennsylvania Association of Notaries



DONNA M. JENNINGS, ESQ.

T: 732.855.6039 F: 732.726.6560 djennings@wilentz.com

90 Woodbridge Center Drive Suite 900 Box 10 Woodbridge, NJ 07095-0958 732.636.8000

January 30, 2025

VIA EMAIL Jacob Richman, Zoning Board Secretary Cherry Hill Township 820 Mercer Street Chery Hill, NJ 08002

RE: Solar Landscape LLC 1931 Olney Ave Block 485.01, Lot 1 Minor Site Plan and Use Variance

Dear Mr. Richman:

This office represents Solar Landscape LLC (the "Applicant") in this matter. Enclosed, for filing, please find the following:

- 1. Photographs of Existing Building; and
- 2. Structural Feasibility Report, prepared by Exactus Energy Inc., dated June 14, 2024.

Additionally, in response to your e-mail correspondence dated January 24, 2025, the Applicant proposes to install 844 modules, and the energy production is 493.74 kW DC.

Should you require any additional information, please do not hesitate to contact this office. Thank you for your attention to this matter.

Very thuly your

DONNA M. JENNINGS

w/encl.

cc: Solar Landscape LLC Kevin Shelly, PE

#95101268.1



DONNA M. JENNINGS, ESQ.

T: 732.855.6039 F: 732.726.6560 djennings@wilentz.com

90 Woodbridge Center Drive Suite 900 Box 10 Woodbridge, NJ 07095-0958 732.636.8000

March 7, 2025

VIA EMAIL Jacob Richman, Zoning Board Secretary Cherry Hill Township 820 Mercer Street Chery Hill, NJ 08002

RE: Solar Landscape LLC 1931 Olney Ave Block 485.01, Lot 1 Site Plan Waiver with Variances

Dear Mr. Richman:

This office represents Solar Landscape LLC (the "Applicant") in this matter. Enclosed, for filing, please find the following:

- 1. Amended Application Form Pages with Amended Rider.
- 2. Amended Fee Schedule.
- 3. Site Plan Waiver Layout, entitled "Site Plan Waiver Community Solar Rooftop System 1931

Olney Avenue," prepared by Shore Point Engineering, dated February 21, 2025, consisting of

three (3) sheets.

In furtherance of your request for additional information regarding the Applicant's compliance with the requirements of the New Jersey Community Solar Energy Program ("CSEP"), please accept this correspondence as the Applicant's statement that they will adhere to all applicable requirements. The Applicant's participation in the CSEP is contingent on adhering to these standards. Importantly, Community Solar Projects in the program are required to serve a majority of low-and-moderateincome customers.

#95158970.1

Should you require any additional information, please do not hesitate to contact this office. Thank you for your attention to this matter.

Very truly yours, DONNA M. JENNINGS

cc: Applicant Kevin Shelly, PE Luke H. Policastro, Esq.

<u>RIDER</u> Solar Landscape LLC Site Plan Waiver, Use Variance, and Bulk Variances 1939 Olney Ave Block 497.01, Lot 1

Applicant's Proposal

Solar Landscape LLC ("Applicant") submits this application for site plan waiver, a use variance, and bulk variances to install rooftop community solar panels on the existing commercial structure with associated ground-mounted equipment located at 1939 Olney Avenue and identified as Block 497.01, Lot 1 on the Township's tax maps. The property is located in the Industrial Restricted (IR) Zone and is approximately 142,453 square feet.

The Applicant proposes to sell the power generated as part of the New Jersey Community Solar Energy Program. Solar energy systems are permitted in every zone so long as the system provides power for the principal use of the property and the power is not generated for commercial purposes pursuant to Ordinance Section 432-C(1)(a). Therefore, the proposed use is not permitted, and the Applicant requires a d(1) use variance. In addition, if deemed necessary, the Applicant requires the following bulk variances:

- Maximum Lot Coverage: 70% permitted / 89.6% proposed
- Minimum Open Space: 25% required / 10.4% proposed

Checklist Item 15. Required Approvals.

- New Jersey Community Solar Energy Program Acceptance
- JCP&L Utility Interconnection
- Department of Community Affairs Building, Electrical, and Fire

Checklist Item 16. Summary of Proposed Operations.

Once installed, employees will be on site regularly other than for routine maintenance. No truck traffic, noise, glare, odors or other hazards are anticipated, as the effect of the solar panels on the Property is de minimis.

SHORE POINT ENGINEERING

Solar Rooftop System – 1931 Olney Avenue Block 485.01, Lot 1 Cherry Hill Township, Camden County, New Jersey

Completeness Checklist Waiver Request

The Applicant is requesting the following submission waivers.

- Number 35 Building Plans. Proposed structures and uses on the tract, i.e., size, height, location, arrangement, an architect's scaled elevation of the front, side and rear of any structure to be modified, with building lighting details and attached signs.
 The application is for roof mounted solar panels and no additional structures are proposed.
- Number 36 Floor Plans where multiple dwelling units or more than one use is proposed that have different parking standards.
 The application is for roof mounted solar panels that will have no impact on the floor plans.
- Number 37 Signs. Existing and proposed signs, including the location, size, height and necessary measurements and a Sign Location Plan.
 The application is for roof mounted solar panels and has no impact on existing signage.
- Number 38 Streets. Existing and proposed street and lot layout, with dimensions correct to scale, showing that portion proposed for development in relation to the entire tract.
 The application is for roof mounted solar panels and has no impact on existing roadways and is not proposing any roadways.
- Number 39 Easements & ROW. Name, width, and location of existing and proposed easements, rightof-ways, deed restrictions or covenants with reference source. The plans should note if none exist. The application is for roof mounted solar panels and has no impact on existing easements or ROW.
- Number 50 Existing elevations and contour lines over the entire area of the proposed development and two (2) permanent bench marks based upon U.S.G.S. datum.
 The application is for roof mounted solar panels and has no impact on existing topography.
- Number 51 Contours shall be shown at not more than two (2) foot intervals for areas with less than twenty (20%) percent slope, five (5) foot intervals for areas in excess of twenty (20%) percent slope. The application is for roof mounted solar panels that will have no impact on existing topography.
- Number 52 Proposed grades in sufficient numbers to illustrate the proposed grading scheme. The application is for roof mounted solar panels and has no impact on existing topography.
- Number 53 Locations and dimensions of artificial and/or natural features such as railroad rights-ofway, bridges, dams, soil types, wooded areas, etc.
 The application is for roof mounted solar panels and has no impact on existing landscape.

1985 Highway 34, Suite A7, Wall, NJ 07719 T: 732-924-8100 F: 732-924-8110 Shorepointengineering.com

- Number 55 Locations of all existing and proposed water courses (i.e. lakes, streams, ponds, swamps or marsh areas, or underdrain) within 500 feet of the development, show the location and water level elevations.
 - The application is for roof mounted solar panels and has no impact on existing waterways.
- Number 56 Flood Plain limits as determined by most recent FEMA FIRM maps and onsite evaluations by a licensed professional engineer.
 The application is for roof mounted solar panels and has no impact on existing floodplain.
- Number 57 Freshwater Wetlands & transition area boundaries, and stream buffer with NJDEP or accepted reference.
 The application is for roof mounted solar panels and has no impact on existing freshwater wetlands.
- Number 58 Landscaping Plan showing number, size, species, and location. The application is for roof mounted solar panels and has no impact on existing landscaping.
- Number 61 Utilities. Plans and profiles for all storm lines, underdrains and ditches whether onsite or off-tract, affected by the development including:
 - a. Location of each inlet, manhole or other appurtenance.
 - b. Slope of line.
 - c. Pipe material type.
 - d. Strength, class or thickness.
 - e. Erosion control and soil stabilization methods.

The application is for roof mounted solar panels and has no impact on existing stormwater utilities.

• Number 62 - Septic System infrastructure.

The application is for roof mounted solar panels and has no impact on existing septic system infrastructure.

• Number 63 - Names, locations and dimensions of all existing streets and existing driveways, and any connections by the development to existing streets, sidewalks, bike routes, water, sewer, or gas mains within 200'

The application is for roof mounted solar panels and has no impact on surrounding properties or utilities.

- Number 64 Streets. Plans for all proposed streets or road improvements, whether onsite or off-tract, showing:
 - c. Fire lanes.
 - d. Driveway aisle and dimensions.
 - e. Parking spaces with size, number, location, and ADA spaces.
 - f. Loading areas.
 - g. Curbs.
 - h. Radii of curb line.
 - i. ADA ramps, signage, striping, etc.
 - j. Sidewalks and bicycle routes.
 - k. Any related facility for the movement and storage of goods, vehicles, persons, etc.

- *l.* Directional and traffic signs with scaled drawings.
- q. Fencing, railroad ties, bollards, and parking bumpers.
- t. Center line profiles at a horizontal scale not less than 1"=50' for all existing adjoining streets and proposed streets. Standard details for curbing, sidewalks, bike paths, paving, stoned, or graveled surfaces, bollards, railroad ties and fences.

The application is for roof mounted solar panels and no additional streets, road improvements, or parking are proposed.

- Number 65 Lighting Plan showing photometric patterns, isolux, footcandles, etc. The application is for roof mounted solar panels and no additional lighting is proposed.
- Number 66 Sewer & Water. Plans and profiles of water, and sewer layouts whether onsite, offsite or off-tract showing:

a. Size and types of pipes and mains. The application is for roof mounted solar panels and has no impact on existing sewer and water profiles.

• Number 67 - If service is to be provided by an existing water or sewer utility company, a letter from that company shall be submitted, indicating that service shall be available before occupancy of any proposed structures.

The application is for roof mounted solar panels and has no impact on existing utilities.



Department of

Community Development

Cherry Hill Township Zoning Board Members Kathy Cullen, Director Jacob Richman, PP, AICP, Deputy Director Samuel Opal, Assistant Planner **COMPLETENESS REVIEW** Solar Landscape, LLC 1931 Olney Avenue Cherry Hill, New Jersey 08003 Block 485.01 Lot(s) 1 Application No. 25-Z-0006 April 24, 2025

I. GENERAL INFORMATION

- A. **Applicant & Owner.** Solar Landscape, LLC, 522 Cookman Avenue, Unit 3, Asbury Park, NJ 07712; Cherry Umbrella, LLC, 4 Radnor Corp, Center Suite 105, Radnor, PA 19087.
- B. Proposal. Site Plan Waiver with a Use d(1) Variance and Bulk (C) Variances to install a 493.74 kW-DC rooftop solar photovoltaic (PV) system containing 844 panels on top of an existing commercial building along with associated ground and wall-mounted equipment. The system would fall under the NJ Community Solar Energy Program (CSEP) and would supply renewable energy back into the grid for prospective customers to purchase. The Zoning Ordinance only permits solar energy systems to provide power for the principal use of the property as opposed to off-site users.
- C. Zone. Industrial Restricted (IR) with a Restricted Business (IR-RB) Overlay.

TO:

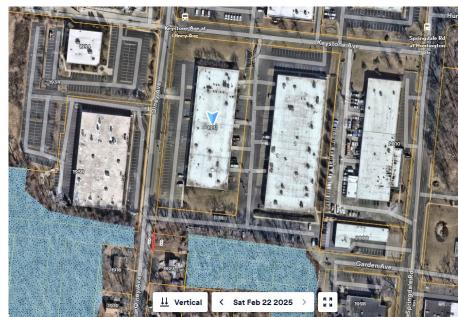
RE:

DATE:

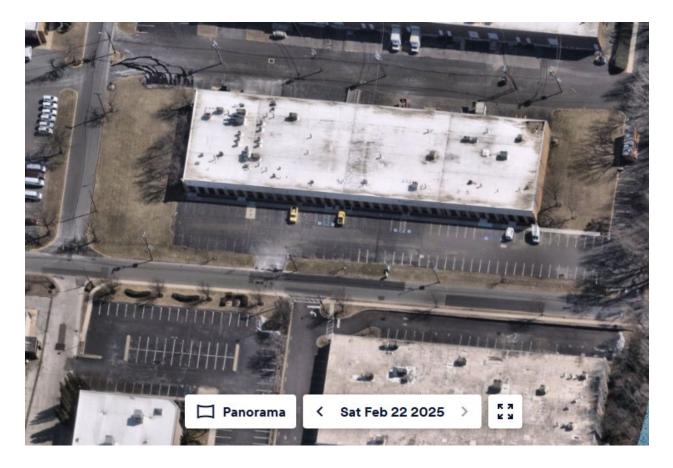
FROM:

D. Site Area. The subject site is a 3.22-acre sized lot containing a multi-tenant industrial building located on the corner of Olney Avenue, to the west, and Keystone Avenue, to the north, which is a private road. Access to the site can be found with one driveway that is located along Olney Avenue. The site is surrounded by other IR & IR-RB zoned properties containing various industrial uses (warehousing, manufacturing and storage) to the north, east and west. To the south is the Limited Office (O1) zoned section of the Deer Park industrial area, which houses mixture of uses

from offices to various forms of residences. Nearby major roadways include Springdale Road (CR-673) to the east, Greentree Road (CR-674) and Marlton Pike East (SR-70).



- E. History. According to Township Tax Assessor records, the industrial building was constructed around 1980, with the current owner of the property taking ownership in 2008. Multiple zoning board and planning board approvals have been received for this property. In July of 1981, the zoning board issued site plan waiver and a Use D(1) variance approval to permit a retail store in the building. In May of 1985 the planning board issued preliminary (#3733) and final (#3733-F) major site plan approval for the construction of a parking area along with other site improvements. In March of 1997 the zoning board denied an interpretation request that sought to permit adult day care centers in the industrial (IR) zone. In July of 1997, the zoning board granted Use D(1) variance approval (#6685-97) to permit a performing arts center within the building, and granted a bulk (C) variance to have lettering on an entrance canopy. In February of 2010, the zoning board issued site plan waiver and Use D(2) variance approval (#10-Z-0004) for the expansion of a non-conforming use (dance school approved via resolution #6685-97) from suite 100 to suites 100 & 200. Numerous zoning permits for certificates of occupancy approvals have been issued for various industrial uses over the years with the most recent permit issuances involving "ServiceMaster" (ZP-21-01655) and "I Service Imports" (ZP-23-00297) being issued in 2021 and 2023 respectively. In January of 2022, a zoning permit was issued (ZP-22-00064) for the installation of a prefabricated loading ramp in the rear of the building. In November of 2023 a zoning permit (ZP-23-01296) was issued for roof mounted solar panels. In October of 2024, the aforementioned zoning permit (ZP-23-01296) was rescinded, due to the fact that the department of community development was made aware that the previously approved solar panels were intended for the use of "Community Solar" which is not permitted per §432.C.1.a of the Zoning Ordinance.
- F. Jurisdiction Determination. Per §432.C.1.a of the Zoning Ordinance, the general requirements for solar energy systems are as follows: "The solar energy system shall provide power for the principal use of the property whereon said system is to be located and shall not be for the generation of power for commercial purposes, although this provision shall not be interpreted to prohibit the sale of excess power generated from time to time from a wind or solar energy system designed to meet the energy needs of the principal use." In receiving an application for a Community Solar project, the Department reviewed and determined that a Use (D) Variance would be required as the applicant's project description did not conform to the general requirements governing solar energy systems. Specifically, the Department determined that the project did not comply with the following key phrase: "shall not be for the generation of power for commercial purposes..." As the intention of this project is to sell all energy generated from the solar energy system to community solar members in the local area, the applicant is utilizing the solar energy system primarily to sell and provide power to off-site users (i.e. for commercial purposes) as opposed to providing: "power for the principal use of the property..." While the Ordinance does allow for: "the sale of excess power generated from time to time" the solar energy system shall be primarily designed to: "meet the energy needs of the principal use." Again, in this instance, the primary purpose of this project is to sell all energy generated from the system to people in the local area as opposed to primarily powering the underlying building (At Home and Big Lots). Therefore, the Department affirms that the Zoning Board of Adjustment has jurisdiction to consider the requested Use (D) Variance and associated Site Plan Waiver request.



II. COMPLETENESS REVIEW

- A. **Submitted Items.** The following information has been submitted in support for this application and reviewed by the Cherry Hill Township Department of Community Development for conformance to the Zoning Ordinance:
 - 1. Community Solar Site Plan Waiver Plan prepared by *Kevin E. Shelly, PE* of *Shore Point Engineering* dated *February* 21, 2025:
 - a. Title Sheet, Sheet 1 of 3;
 - b. Site Plan, Sheet 2 of 3; and
 - c. Construction Details, Sheet 3 of 3.
 - 2. Structural Feasibility Report prepared by *J. Trampe* of *Exactus Energy, Inc.* dated *June 14, 2024.*
 - 3. Site and Aerial Photographs.
 - 4. Submission Waivers Request Letter.
 - 5. Application Overview Rider with List of Variances.
 - 6. Cover Letter with Solar Installation Overview dated January 30, 2025.
 - 7. Cover Letter with CSEP Compliance Statement dated March 7, 2025.
 - 8. Land Use Development Application.
- B. **Checklist.** Waivers requested and recommended for residual checklist items (items reviewed are the only checklist items applicable to the application):
 - 14. Photographs of the site showing area in question. Utilizing the provided aerial and site photographs, the applicant shall provide testimony regarding the existing site conditions

and signify which areas will be impacted by the development footprint (i.e. roof areas and areas where electrical infrastructure will be installed).

- 15. *Required Approvals*. List and provide applications and permits of regulatory agencies (NJDOT, NJDEP, CCSC, etc.). Waiver requested and the Department <u>does not object</u> as no additional outside agency approvals are required for the proposed change of use.
- 16. Summary. A written description of the proposed use(s) and operation(s) of the building(s), i.e., the number of employee or users of non-residential buildings, the proposed number of shifts to be worked, the maximum number of employees on each shift, expected truck traffic, noise, glare, radiation, heat, odor, safety hazards, air and water pollution. The applicant shall provide detailed testimony to the Board regarding the proposed solar installation and related improvements including but not limited to the following: 1) The CSEP details; 2) The total number of panels; and 3) The proposed roof and ground-mounted electrical infrastructure (i.e. inverters, meters, utility cabinets, utility pole connections and electrical wiring [above and below ground]). Please also provide testimony regarding the differences, if any, between a solar installation whose primary purpose is to generate electricity for the underlying use and one whose primary purpose is to send energy back out to the grid. Lastly, the applicant shall address whether any tree removal is necessary to accommodate the proposed solar installation.
- 32. Zoning Schedule showing required, existing, and proposed lot & yard requirements for relevant zone(s) including, area, frontage, depth, setbacks, height, etc. Please review the zoning schedule provided in Section III.A below and confirm to the Board the accuracy of the indicated requirements.
- 35. Building Plans. Proposed structures and uses on the tract, i.e., size, height, location, arrangement, an architect's scaled elevation of the front, side and rear of any structure to be modified, with building lighting details and attached signs. The applicant shall verify that the only changes to the exterior of the building are the installation of the rooftop panels and the associated electrical infrastructure that is to be ground-mounted.
- 36. Floor Plans where multiple dwelling units or more than one use is proposed that have different parking standards. Waiver requested and the Department <u>does not object</u> to the granting of this waiver as no building additions are proposed.
- 37. Signs. Existing and proposed signs, including the location, size, height and necessary measurements and a Sign Location Plan. Waiver requested and the Department <u>does not</u> <u>object</u> to the granting of this waiver as no signage is proposed.
- C. **Determination.** This application has been <u>deemed technically complete</u>. The above-referenced items shall be addressed on revised plans and items submitted for conformance review.

III. DEPARTMENT OF COMMUNITY DEVELOPMENT COMMENTS

A. Zoning Requirements. Community Solar Energy projects are not a permitted principal use in the Industrial Restricted (IR) zone nor the Restricted-Business (IR-RB) overlay zone per §432.C.1.a via §419.D.12 (and §421.D) of the Zoning Ordinance. The zoning requirements for solar energy systems (for roof-mounted systems only) are found in §432.C as well as the coverage requirements for the Restricted-Business (IR-RB) overlay zone (§421.E) are noted below:

CODE SECTION	MINIMUM REQUIREMENTS	REQUIRED	EXISTING	PROPOSED	CONFORM
§421.E	Building Coverage	30%	32.8%	No Change	ENC
§421.E	Lot Coverage	70%	78.6%	78.8%	V (Bulk)
§421.E	Open Space	25%	21.4%	21.2%	V (Bulk)
§432.C.1.a	Power Generation for Principal Use	Shall not to be used for Commercial Purposes	N/A	For Sale to Local Area (Commercial Purposes)	V (Use)
§432.C.1.c	Glare	Shall not create glare that poses a nuisance or danger to surroundings	N.A	Testimony to be provided	TBD
§432.C.2.a	Roof-Mounting Height	<3' from finished roof	N/A	9.5″	С
§432.C.2.b	Placement on Roof	Shall not extend beyond the edge or pitch of the roof	N/A	Contained within edge of roof	C

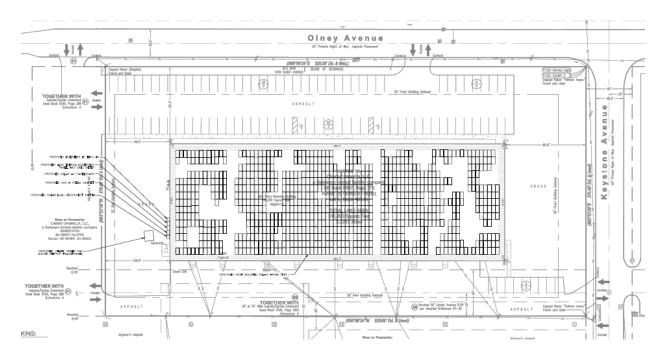
^v Variance

ENC Existing Non-conformance

^c Conforms

- B. Use (D) Variance. A use d(1) variance is necessary from §432.C.1.a via §419.D.12 (and §421.D) of the Zoning Ordinance to permit the installation of a solar energy system that is principally designed to send all energy generated back to the grid and then, for commercial purposes, sold to the community, where such use is not specifically permitted (NJSA 40:55D-70(d)(1)). Justification should be provided for the requested variance in accordance with N.J.S.A. §40:55D-70(d)(1), where the Township recommends that the burden of proof be provided by a licensed New Jersey Professional Planner (P.P.). In considering a request for a use (d) variance(s), the Zoning Board of Adjustment must be assured that the Applicant has demonstrated either that:
 - 1. The positive criteria are met if at least one of the following is proven by the applicant:
 - a. The proposed use inherently serves the public good; or
 - b. The project advances one or more of the purposes of the municipal land use law (N.J.S.A. 40:55D-2); or
 - c. The property owner would suffer "undue hardship" if compelled to use the property in conformity with the permitted uses in the zone (zoned into inutility); or
 - d. The proposed site is particularly suitable for the proposed use.

- 2. To meet the negative criteria the applicant must show that the proposed use can be granted without:
 - a. Substantial detriment to the public good.
 - b. Substantially impairing the intent and purpose of the zone plan and zoning ordinance.
- C. **Bulk (C) Variances.** It is recommended, although not required, that justification be provided by a licensed New Jersey Professional Planner (P.P.), for the requested variances in accordance with N.J.S.A. §40:55D-70:of Adjustment must be assured that the Applicant has demonstrated either that:
 - 1. From §421.E, to permit a building coverage of 32.8%, where a maximum building coverage of 30% is permitted. *This represents a pre-existing nonconforming condition that is unaffected by the proposed application.*
 - 2. From §421.E, to permit a lot coverage of 78.8%, where a maximum lot coverage of 70% is permitted and 78.6% exists. The concrete pad associated with the proposed ground-based equipment triggers a slight exacerbation of the existing nonconforming condition. Thus a new variance is required.
 - 3. From §421.E, to permit an open space coverage of 21.2%, where a minimum open space coverage of 25% is required and 21.4% exists. The concrete pad associated with the proposed ground-based equipment triggers a slight exacerbation of the existing nonconforming condition. Thus a new variance is required.
 - 4. Any other variances deemed necessary by the Zoning Board of Adjustment.
- D. Design Waivers. No design waivers are requested or required as part of this application.
- E. **Standards of Review.** The following standards for review apply for Site Plan Waivers, per §804, "Where site plans are required, the Administrative Officer may determine that the purposes of this Ordinance and the public interest can be served by approval of a site plan waiver. A site plan waiver may be requested provided that such change in use or modification of an existing conforming use would not involve any of one or more of the following:
 - 1. A significant structural improvement that would alter the exterior of the building (Not Applicable The improvements will be located on top of the roof with the exception of ground-based equipment).
 - 2. Drainage modifications, including but not limited to:
 - a. Major storm drainage installations (Not Applicable).
 - b. An increase of stormwater runoff of more than one cubic foot per second during a twenty-five year rainfall event (**Not Applicable**).
 - c. Redirecting of stormwater runoff (**Not Applicable**).
 - 3. Any change in vehicular traffic circulation patterns or intensity of use (Not applicable as the improvements are primarily contained to the roof with electrical infrastructure contained on the side of the building).
 - 4. No approval for the proposal is required by outside agencies, such as the County or State (Not Applicable).
 - 5. The requirement for a major or minor site plan would not forward the purposes of this Ordinance or otherwise serve the public interest (Not Applicable as excepting for the rooftop solar infrastructure, no major physical changes are being proposed for the property).



- F. Comments. The applicant shall address the following comments:
 - The applicant shall provide testimony regarding the proposed solar installation including but not limited to the total number of panels, the power generation of the installation, the associated electrical infrastructure/ground-based equipment, and compliance with the Community Solar Energy Program (CSEP) requirements.
 - 2. Per the requirements of §432.C.2 of the Zoning Ordinance, the solar panel system shall not extend beyond the edge or pitch of the roof, nor shall the system be mounted more than three (3') feet higher than the finished roof to which it is mounted upon. Per §432.C.1.c, the installation of solar panels shall not create glare that is a nuisance or pose a danger to surrounding properties and the general public. The applicant shall affirm that the proposed solar energy system will comply with said requirements.
 - a. Furthermore, utilizing the performance standards established in §502.A, testimony shall be provided regarding any applicable impacts as it relates to: air quality, emissions, drainage, glare, heat, noise, odor, waste, ventilation, vibration and sight triangle visibility.
 - 3. While 2018 Master Plan does not specifically indicate a position on Community Solar Energy systems, the Land Use Element does state the following: *"It is recommend to comprehensively review the standards for ground-mounted and roof-mounted solar systems to ensure that they meet the needs of industry providers. Additional alternative energy systems (e.g., small wind energy, electric vehicle charging stations) should also be considered for inclusion in the Zoning Ordinance, where appropriate."*
 - a. Furthermore, the NJ MLUL Section 40:55D-4 indicates that solar energy systems are classified as an inherently beneficial use which establishes the positive criteria. However, in order to determine whether the negative criteria is satisfied, the Zoning Board shall consider the whether there is any perceived or apparent negative impact with respect to sending renewable energy back into the grid -- as opposed to just allowing power generation for the underlying principal use -- for purchase.
 - 4. Please see Checklist item #16 above. Testimony shall be provided by the applicant in regard to the purpose of the proposed solar facility and the scope of work necessary in order to accommodate said facility.

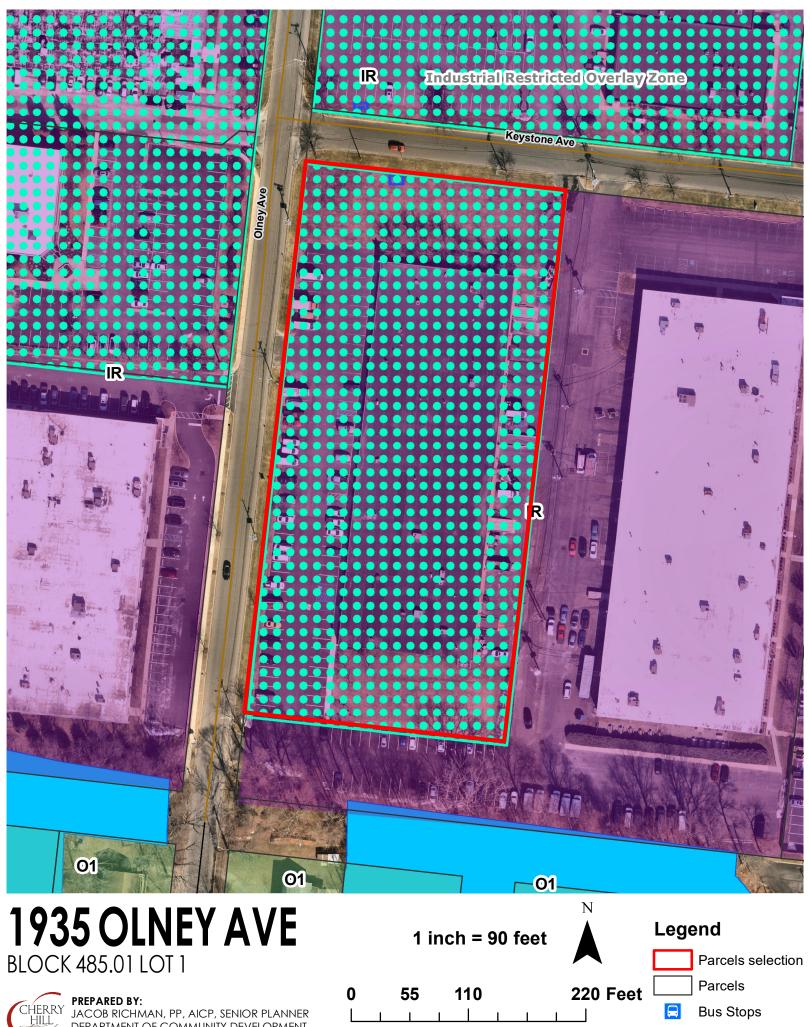
- 5. The applicant shall be advised that the project shall comply with the Cherry Hill Tree Ordinance. If any trees require removal, such trees shall be replaced in-kind or be subject to a fee submission into the Cherry Hill Tree Fund in the amount of \$300.00 per tree. **This shall be a condition of approval.**
- 6. The applicant shall provide testimony regarding the findings/analyses contained with the submitted Structural Analysis. The applicant and the Board shall be advised that the submitted Structural Analysis will be reviewed for UCC compliance by the Township's Construction Office during building permit review (following the issuance of a zoning permit once plans are deemed compliant). The applicant shall comply with all UCC requirements with respect to the solar energy system installation. **This shall be a condition of approval.**
- 7. While not explicitly required for solar installations, in general all rooftop mechanical and electrical equipment shall be screened to the greatest extent possible from view at ground level by a parapet wall, within the roof structure itself, or properly screened. Ground-mounted mechanical and electrical equipment shall also be screened with landscaping and/or fencing (if not already screened from the ROW by the building), where feasible. The applicant shall address whether any screening measures are proposed. This shall be a condition of approval.
- 8. The application may be subject to additional comments by members Zoning Board, the Cherry Hill Department of Community Development, the Township's zoning board consultants, and/or the public.
- 9. The statements, opinions, and conclusions contained within this Completeness Review are based upon the information, plans, and other documents provided to the Department as of the date of its issuance. The Department reserves the right to supplement or amend any of the statements, opinions, and/or conclusions contained herein at any time up to, and including, at the time of the hearing of this application.
- E. **Conditions.** Should the Zoning Board consider and grant the requested relief to permit the proposed improvements, they may impose reasonable conditions, as they deem necessary, in addition to the following recommended conditions of approval:
 - 1. All taxes and assessments shall be paid on the property for which this application is made. The Applicant shall submit proof that no taxes or assessments for local improvements are due or delinquent on the property for which the application is made.
 - 2. Any and all conditions made a part of any approval, including those noted by reference in this or any other reports of any consultants to the Zoning Board, or as set forth on the record at the Zoning Board hearing, must be satisfied.
 - 3. The Applicant shall pay all required escrows, costs and professional fees associated with the application to the Department of Community Development within fourteen (14) days of receipt of a written request for payment of escrow funds. The failure to pay the required escrow funds within the fourteen (14) day period after receipt of written notice may result in the voiding of this approval. Negative escrow account balances shall incur interest at the rate of 1.5% per month.
 - 4. Any and all outside agency reviews and/or approvals shall be obtained, if applicable.
 - 5. The failure of the Applicant to comply with any of the conditions contained in this Resolution will permit the Zoning Officer to withhold or rescind any zoning permits issued to the Applicant, pursue any other enforcement actions permitted by the Cherry Hill Township Zoning Ordinance, and/or refer the matter back to the Zoning Board where it may, at its sole option, revoke the approval being granted by any Resolution of Approval.

IV. APPROVAL PROCESS

If approved, the following items are required to complete the approval process (notwithstanding any other needed items due to the unique nature of the application):

- 1. After the resolution is memorialized, a **Notice of Decision** will be published in the Courier Post by the Department of Community Development.
- 2. If applicable, **two (2) copies of revised site plans along with an electronic copy**, which provide completeness items and all conditions of approval, shall be submitted to the Department of Community Development for review.
- 3. Submit any **draft legal documents** (agreements, deeds, easements, etc.) for review by the Zoning Board Engineer and Solicitor. Revise as necessary.
- 4. If applicable, after comments from the Department of Community Development and the Board Engineer have been provided, revise (if needed), and submit six (6) copies of finalized plans for signature along with an electronic copy.
- 5. Payment of any outstanding **Review Escrow**.
- 6. Complete and submit a **Zoning Permit** for the proposed solar energy system. *To learn about how to submit a zoning, please visit the following webpage:* <u>http://www.chnj.gov/203/Zoning</u> *or contact our Zoning Officer at* <u>zoning@chnj.gov</u> with any questions.
- cc: Solar Landscape, LLC (via email) Cherry Umbrella, LLC (via email) Kevin Shelly, PE (via email) Fred Kuhn (via email) Kathleen Gaeta (via email) Mike Raio (via email)

Donna M Jennings, Esq. (via email) Luke Policastro, Esq. (via email) Allen Zeller, Esq. (via email) Sharon Walker (via email) Kathy Cullen (via email) Danielle Hammond (via email)

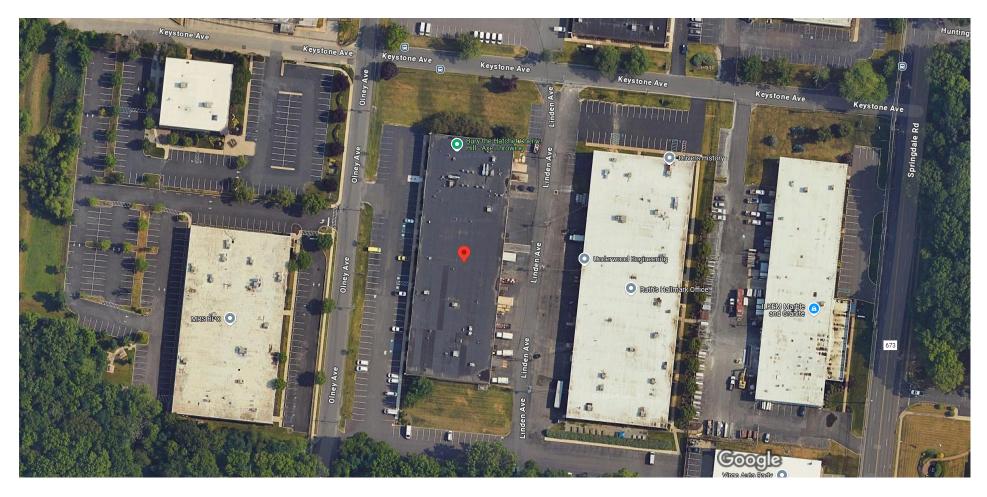


DEPARTMENT OF COMMUNITY DEVELOPMENT Jene LICENSE NO. 33L100629000

+ Rail Lines

Google Maps

1931 Olney Ave



Imagery ©2025 Airbus, Maxar Technologies, Map data ©2025 Google 50 ft







STRUCTURAL FEASIBILITY REPORT

Prepared By V. Benedicto

June 14, 2024

Reviewed By

David C. Hernandez, PE June 14, 2024

Site 1931 Olney Ave, Cherry Hill, NJ 08003-2015

Prepared For

Solar Landscape 601 Bangs Ave, Unit 3, Asbury Park NJ 07712 Attention: Shishira Bhargav

Exactus Energy Inc.

New Age Engineering 14 Neilor Crescent, Toronto, ON, M9C 1K4 1-833-392-2887 | www.exactusenergy.com



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Re: Structural feasibility report for installation of a solar PV system at

1931 Olney Ave, Cherry Hill, NJ 08003-2015

Exactus Energy Inc. has been retained to review the structural condition for the site: 1931 Olney Ave, Cherry Hill, NJ 08003-2015. The roof of this building was assessed to determine its capacity to support additional loads imposed by the installation of a solar PV system. The conclusions and findings of this investigation are summarized in this technical document.

The feasibility assessment for the site concludes:

• Roof A has additional structural capacity for up to 4.5 psf



1. Background

1.1. Report Scope

A site inspection of the roof structure to obtain structural specifications was conducted on June 11, 2024. Structural specifications are detailed in site inspection documentation. Architectural/structural drawings or existing documentation was not provided.

The plan view of the site is provided in Figure 1. The roofs included in this assessment are highlighted.



Figure 1: Roof structures included in this assessment



1.2. Roof System Compositions and Structures

Upon review, the building was determined to consist of built-up roofing membrane atop steel decking and are supported by systems of steel beams and steel columns. Photographs of the structural members of each roof are provided in Figure 2 and Figure 3.



Figure 2: Steel beams and steel columns



Figure 3: Steel beams and steel columns



2. Assumptions

The following assumptions have been made for this assessment:

- The roof surfaces are not expected to support any other additional loading for the life of the solar PV system.
- All connections of structural members impacted by additional PV system weight have sufficient reserve capacity to withstand the system weight.

The structural analysis and assessment are based upon visual inspection and measurements collected on site. The loading capacity was established in accordance with the requirements of

- ASCE 7-16
- 2021 International Building Code New Jersey Edition



3. Analysis and Methodology

3.1. Design Loads and Criteria

The governing design loads used in this assessment are detailed in Table 1. Mechanical loads and accumulated snow have also been considered.

		Current Analysis (2024)	Load Description
	Risk Category	Π	2021 IBC NJ Ed. – Sec 1604.5
	Exposure Category	В	2021 IBC NJ Ed. – Sec 1604.5
	Dead Load	15 psf	Roof System
	Live Load	20 psf	Roof Live Load
Roof A	Exposure Factor (C _e)	1.0	ASCE Table 7.3-1
	Thermal Factor (C _t)	1.0	ASCE Table 7.3-2
	Snow Load	25 psf	Ground Snow Load
	Wind Load	115 mph	Wind Speed

 Table 1: Design loads



4. Results

4.1. Loading Capacity

It is determined that the capacity of each roof area to support additional loads imposed by the installation of a solar PV system is as follows:

• Roof A: 4.5 psf (Green)

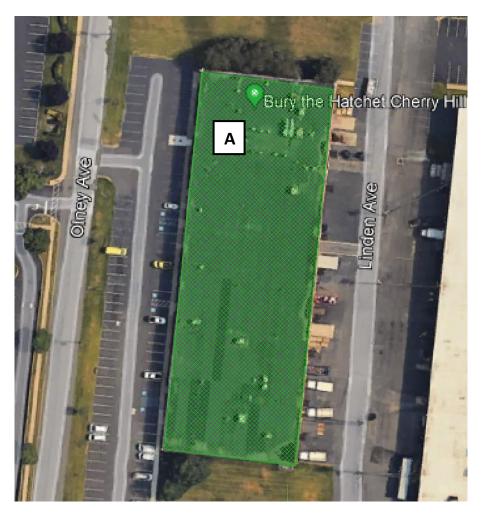


Figure 4: Allowable Capacity Map



4.2. Conclusions

This assessment has been conducted to evaluate the additional loading capacity of each roof structure as labelled in Figure 1 to support additional loads imposed by the installation of a solar PV system. The additional loading capacities and other information given in this report should not be used for any other purposes. The engineer must be contacted for any other type of equipment installation.

Acknowledged by:



David C. Hernandez, PE



Appendix A

A1 – ASCE 7-16 Table 7.3-1 and Table 7.3-2 Table 7.3-1 Exposure Factor, Ce Exposure of Roof^a Fully Partially Surface Roughness Category Exposed Exposed Sheltered 0.9 B (see Section 26.7) 1.0 1.2 C (see Section 26.7) 0.9 1.01.1 D (see Section 26.7) 0.9 0.8 1.0 Above the tree line in windswept 0.7 0.8 NA mountainous areas In Alaska, in areas where trees do not 0.7 0.8 NA exist within a 2-mi (3-km) radius of the site Table 7.3-2 Thermal Factor, C_t

Thermal Condition ^a	\boldsymbol{C}_t
All structures except as indicated below	1.0
Structures kept just above freezing and others with cold, ventilated roofs in which the thermal resistance (R-value) between the ventilated space and the heated space exceeds $25^{\circ}F \times h \times ft^2/Btu (4.4 \text{ K} \times m^2/W)$	1.1
Unheated and open air structures	1.2
Freezer building	1.3
Continuously heated greenhouses ^b with a roof having a thermal resistance (R-value) less than $2.0^{\circ}F \times h \times ft^2/Btu$ (0.4 K × m ² /W)	0.85



A2 – AISC 360-16 Equation H1.2, H1-1b

(b)

H1. DOUBLY AND SINGLY SYMMETRIC MEMBERS SUBJECT TO FLEXURE AND AXIAL FORCE

1. Doubly and Singly Symmetric Members Subject to Flexure and Compression

The interaction of flexure and compression in doubly symmetric members and singly symmetric members constrained to bend about a geometric axis (x and/or y) shall be limited by Equations H1-1a and H1-1b.

User Note: Section H2 is permitted to be used in lieu of the provisions of this section.

(a) When
$$\frac{P_r}{P_c} \ge 0.2$$

$$\frac{P_r}{P_c} + \frac{8}{9} \left(\frac{M_{rx}}{M_{cx}} + \frac{M_{ry}}{M_{cy}} \right) \le 1.0$$
(H1-1a)

When
$$\frac{P_r}{P_c} < 0.2$$

$$\frac{P_r}{2P_c} + \left(\frac{M_{rx}}{M_{cx}} + \frac{M_{ry}}{M_{cy}}\right) \le 1.0$$
(H1-1b)

ETABS Steel Frame Design

AISC 360-16 Steel Section Check (Strength Summary)

Element Details

Level	Element	Unique Name	Location (in)	Combo	Element Type	Section	Classification
Story1	B42	67	161.5385	DStIS3	Ordinary Moment Frame	BEAM 1	Compact

LLRF and Demand/Capacity Ratio

L (in)	LLRF	Stress Ratio Limit
300.0000	1	0.95

Analysis and Design Parameters

Provision	Analysis	2nd Order	Reduction	
ASD	Direct Analysis	General 2nd Order	Tau-b Fixed	

Stiffness Reduction Factors

αΡ , /Ρ _y	$\alpha P_r / P_e$	Τ _b	EA factor	El factor
-3.548E-05	-3.744E-05	1	0.8	0.8

Design Code Parameters

Ω _b	Ω₀	Ω _{TY}	Ω_{TF}	Ωv	Ω _{V-RI}	Ωντ
1.67	1.67	1.67	2	1.67	1.5	1.5

Section Properties

A (in²)	J (in⁴)	l ₃₃ (in⁴)	I 22 (in⁴)	A _{v3} (in²)	A _{v2} (in ²)
13.8	3.97	205.61	4.15	2.4	12

Design Properties

S ₃₃ (in³)	S 22 (in³)	Z ₃₃ (in³)	Z ₂₂ (in ³)	r ₃₃ (in)	r ₂₂ (in)	C _w (in⁵)
34.27	2.08	46.53	5.25	3.86	0.5484	109.51

Material Properties

E (lb/in²)	f _y (lb/in²)	Ry	C pr	α
29000000	50000	1.1	1.4	NA

Stress Check Message - I/r > 300

Stress Check forces and Moments

Location (in)	P , (kip)	M _{r33} (kip-ft)	M _{r22} (kip-ft)	V _{r2} (kip)	V _{r3} (kip)	T , (kip-ft)
161.5385	0.015	34.2266	0	0.424	0	0

Axial Force & Biaxial Moment Design Factors (H1.2,H1-1b)

	L Factor	K ₁	K ₂	B ₁	B ₂	C m
Major Bending	1	1	1	1	1	1
Minor Bending	1	1	1	1	1	1

Parameters for Lateral Torsion Buckling

L Itb	K Itb	C _b
1	1	1.137

Demand/Capacity (D/C) Ratio Eqn.(H1.2,H1-1b)

D/C Ratio =	$(P_r/2P_c) + (M_{r33}/M_{c33}) + (M_{r22}/M_{c22})$
0.838 =	1.852E-05 + 0.838 + 0

Axial Force and Capacities

P, Force (kip)	P _{nc} /Ω (kip)	P _{nt} /Ω (kip)
0.015	6.931	413.174

Moments and Capacities

	M, Moment (kip-ft)	M _n /Ω (kip-ft)	M _n /Ω No LTB (kip-ft)	M ո /Ω Cb=1 (kip-ft)
Major Bending	34.2266	40.8643	116.0928	35.9293
Minor Bending	0	8.2834		

Shear Design

	V, Force (kip)	V _n /Ω (kip)	Stress Ratio
Major Shear	0.424	215.569	0.002
Minor Shear	0	43.114	0

End Reaction Major Shear Forces

Left End Reaction (kip)	Load Combo	Right End Reaction (kip)	Load Combo
5.509	DStIS3	5.509	DStIS3

ETABS Steel Frame Design

AISC 360-16 Steel Section Check (Strength Summary)

Element Details

Level	Element	Unique Name	Location (in)	Combo	Element Type	Section	Classification
Story1	B134	159	4	DStIS3	Ordinary Moment Frame	I BEAM 2	Compact

LLRF and Demand/Capacity Ratio

L (in)	LLRF	Stress Ratio Limit
480.0000	0.609	0.95

Analysis and Design Parameters

Provision	Analysis	2nd Order	Reduction
ASD	Direct Analysis	General 2nd Order	Tau-b Fixed

Stiffness Reduction Factors

αΡ , /Ρ _y	$\alpha P_r / P_e$	Тb	EA factor	El factor
3.547E-04	2.18E-04	1	0.8	0.8

Design Code Parameters

Ω _b	Ω₀	Ω _{TY}	Ω_{TF}	Ωv	Ω _{V-RI}	Ω _{VT}
1.67	1.67	1.67	2	1.67	1.5	1.5

Section Properties

A (in²)	J (in⁴)	I ₃₃ (in⁴)	I 22 (in⁴)	A _{v3} (in²)	A _{v2} (in ²)
28.32	6.18	1793.17	69.09	12.8	16.8

Design Properties

-	S ₃₃ (in³)	S 22 (in³)	Z ₃₃ (in³)	Z ₂₂ (in ³)	r ₃₃ (in)	r ₂₂ (in)	C _w (in⁰)
_	170.78	17.27	204.55	28.7	7.9573	1.562	6963.88

Material Properties

E (lb/in²)	f _y (lb/in²)	Ry	C pr	α
29000000	50000	1.1	1.4	NA

Stress Check forces and Moments

Location (in)	P , (kip)	M _{r33} (kip-ft)	M _{r22} (kip-ft)	V _{r2} (kip)	V _{r3} (kip)	T , (kip-ft)
4	-0.314	-362.1025	0	-43.228	0	0

Axial Force & Biaxial Moment Design Factors (H1-1b)

	L Factor	K ₁	K ₂	B ₁	B ₂	C m
Major Bending	0.983	1	1	1	1	1
Minor Bending	0.125	1	1	1	1	1

Parameters for Lateral Torsion Buckling

L Itb	K Itb	C b
0.125	1	1.025

Demand/Capacity (D/C) Ratio Eqn.(H1-1b)

D/C Ratio =	$(P_r/2P_c) + (M_{r33}/M_{c33}) + (M_{r22}/M_{c22})$
0.71 =	2.394E-04 + 0.71 + 0

Axial Force and Capacities

P, Force (kip)	P _{nc} /Ω (kip)	P _{nt} /Ω (kip)
0.314	655.57	847.904

Moments and Capacities

	M, Moment (kip-ft)	M _n /Ω (kip-ft)	M _n /Ω No LTB (kip-ft)	M ո /Ω Cb=1 (kip-ft)
Major Bending	362.1025	510.3593	510.3593	510.3593
Minor Bending	0	68.9565		

Shear Design

	V, Force (kip)	V _n /Ω (kip)	Stress Ratio
Major Shear	43.228	301.796	0.143
Minor Shear	0	229.94	0

End Reaction Major Shear Forces

Left End Reaction (kip)	Load Combo	Right End Reaction (kip)	Load Combo
43.228	DStIS3	37.687	DStIS3

ETABS Steel Frame Design

AISC 360-16 Steel Section Check (Deflection Details)

Element Details

Level	Element	Unique Name	Location (in)	Combo	Element Type	Section
Story1	B42	67	161.5385	DStID1	Ordinary Moment Frame	BEAM 1

LLRF and Demand/Capacity Ratio

L (in)	LLRF	Stress Ratio Limit
300.0000	1	0.95

DEFLECTION DESIGN (Combo DStID1)

Туре	Consider	Deflection in	Limit in	Ratio	Status
Dead Load	Yes	0.4963	2.5	0.199	OK
Super DL + Live Load	Yes	0	2.5	0	ОК
Live Load	Yes	0	0.8333	0	OK
Total Load	Yes	0.4963	1.25	0.397	ОК
Total - Camber	Yes	0.4963	1.25	0.397	ОК

ETABS Steel Frame Design

AISC 360-16 Steel Section Check (Deflection Details)

Element Details

Level	Element	Unique Name	Location (in)	Combo	Element Type	Section
Story1	B134	159	260	DStID1	Ordinary Moment Frame	I BEAM 2

LLRF and Demand/Capacity Ratio

L (in)	LLRF	Stress Ratio Limit
480.0000	0.609	0.95

DEFLECTION DESIGN (Combo DStID1)

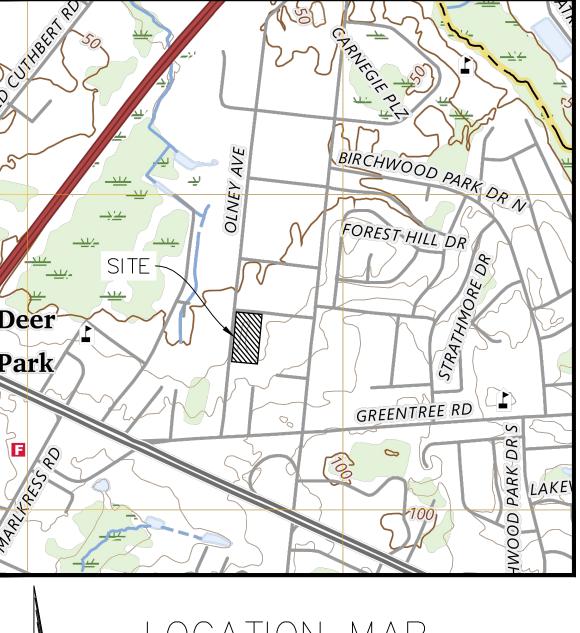
Туре	Consider	Deflection in	Limit in	Ratio	Status
Dead Load	Yes	0.3051	4	0.076	OK
Super DL + Live Load	Yes	0	4	0	OK
Live Load	Yes	0	1.3333	0	OK
Total Load	Yes	0.3051	2	0.153	OK
Total - Camber	Yes	0.3051	2	0.153	ОК

GENERAL NOTES

APPLICANT	OWNER
SOLAR LANDSCAPE, LLC	CHERRY UMBRELLA LLC
522 COOKMAN AVE	4 RADNOR CORP CTR STE 105
ASBURY PARK, NJ 07712	RADNOR, PA 19087

- SITE IS KNOWN AND DESIGNATED AS BLOCK 485.01, LOT 1 AS SHOWN ON THE CURRENT TAX ASSESSMENT MAP OF THE TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY (SHEET 3
- EXISTING BOUNDARY AND STRUCTURES INFORMATION SHOWN ON PLAN ENTITLED "ALTA/NSPS LAND TITLE SURVEY PREPARED FOR: CHERRY UMBRELLA, LLC; 1931 OLNEY AVENUE; TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY; BLOCK 485.01, LOT 1", PREPARED BY MILLMAN NATIONAL LAND SERVICES, DATED 04/12/2018
- SITE COORDINATES: 562.399' N. 504.022' 4.
- HORIZONTAL DATUM: NAD 83 VERTICAL DATUM: NAVD 88
- IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR IS REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONI CALL DAMAGE PROTECTION SYSTEM OR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. ADDITIONALLY, AL WORK SHALL ALSO COMPLY WITH APPLICABLE STATE, FEDERAL, AND LOCAL CODES AND ALL NECESSARY LICENSES AND PERMITS SHALL BE OBTAINED BY THE CONTRACTOR AT HIS EXPENSE UNLESS PREVIOUSLY OBTAINED BY THI OWNER/DEVELOPER. CONTRACTOR HAS SOLE RESPONSIBILITY FOR SITE SAFETY AND TO CONFORM TO AND ABIDE BY ALL CURRENT OSHA STANDARDS OR REGULATIONS SAFE CONSTRUCTION PRACTICES REMAIN THE OBLIGATIO OF THE CONTRACTOR
- THE CONTRACTOR SHALL NOTIFY ALL AGENCIES HAVING JURISDICTION AT LEAST WORK.
- UNLESS OTHERWISE INDICATED, ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE NEV JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION. LATEST EDITION.
- 10. ALL TRAFFIC CONTROL DEVICES WITHIN THE RIGHT OF WAY TO BE CONSTRUCTED AND WITH "THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES", LATE
- FOR IS DIRECTED TO THE FACT THAT THE APPROXIMATE LOCATIONS OF KNOWN UTILITY STRUCTURI AND FACILITIES THAT MAY BE ENCOUNTERED WITHIN AND ADJACENT TO THE LIMITS OF THE WORK ARE SHOWN O THE PLANS. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS NOT GUARANTEED BY THE ENGINEE AND THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTS CONCERNING THE LOCATION OF THES UTILITIES OR OTHER POTENTIAL CONFLICT PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY TH ENGINEER, IN WRITING, PRIOR TO CONSTRUCTION, OF ANY DISCREPANCIES WHICH MAY AFFECT THE PROJECT DESIGN. THE CONTRACTOR SHALL VERIFY LOCATIONS OF EXISTING UTILITIES AND ALL OTHER SITE CONDITIONS PRIO TO BEGINNING CONSTRUCTION
- 12. THE PROPOSED SOLAR PANEL APPLICATION IS PART OF NEW JERSEY'S COMMUNITY SOLAR PROGRAM
- 13. ONCE THE SYSTEM IS INSTALLED AND OPERATIONAL, THERE IS NO IMPACT ON THE CURRENT SITE OPERATIONS THERE IS NO ON-SITE STAFF FOR MAINTENANCE OR OPERATIONS. SOLAR LANDSCAPE HAS A MAINTENANCE AND INSPECTION SCHEDULE FOR THEIR PROJECTS, WHICH TYPICALLY INCLUDES A 2-MAN INSPECTION TEAM THAT WOULD VISIT THE SITE TWICE PER YEAR TO PERFORM INSPECTIONS AND ROUTINE MAINTENANCE OF THE SYSTEM
- 14. ALL CONSTRUCTION IS TO BE DONE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL AND FIRE CODES
- 15. ALL SIGNAGE RELATED TO THE PROPOSED SOLAR PANELS WILL BE PROVIDED IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS
- 16. THE APPLICANT WILL OBTAIN APPROVAL FROM THE CHERRY HILL FIRE OFFICIAL FOR THE PROPOSED DEVELOPMENT 17. SIGNED AND SEALED FINAL DESIGN PLANS, ENGINEERING UPLIFT CALCULATIONS AND ROOFING ANALYSIS WILL BE PROVIDED
- 18. NO ADDITIONAL SITE IMPROVEMENTS BEYOND THE ROOF MOUNTED SOLAR PANELS AND THE GROUND MOUNTED ELECTRICAL EQUIPMENT ARE PROPOSED AS PART OF THIS APPLICATION.
- THE PROPOSED SITE IMPROVEMENTS WILL HAVE NO IMPACT ON SITE SECURITY, CIRCULATION, PARKING O OPERATIONS.
- 20. AS ASBUILT DRAWING FOR THE GROUND-MOUNTED EQUIPMENT AND UNDERGROUND UTILITIES WILL BE PROVIDED ONCE CONSTRUCTION IS COMPLETED.
- 21. ACCORDING TO THE NEW JERSEY SOIL EROSION AND SEDIMENT CONTROL ACT, A PROJECT IS DEFINED AS "ANY DISTURBANCE OF MORE THAN 5,000 SQUARE FEET OF THE SURFACE AREA OF LAND". THEREFORE, NO SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED ON THIS PROJECT SINCE WE ARE DISTURBING LESS THAN 5,000

SITE PLAN WAIVER COMMUNITY SOLAR SOLAR ROOFTOP SYSTEM - 1931 OLNEY AVENUE BLOCK 485.01, LOT 1



800 400 1000 600 200

DRAWING INDEX

No. Description TITLE SHEET SITE PLAN CONSTRUCTION DETAILS

Revision Date ORIGINAL SUBMISSION ORIGINAL SUBMISSION ORIGINAL SUBMISSION

BLOCK	LOT
479.01	
480.01	
480.01	
481.01	
481.01	
481.01	
484.01	
486.01	
487.01	
491.01	
492.01	
493.01	

QUALIFIER OWNER ELMORE GLINNIE GALLEMIT, JOSE & ET ALS DEL GUERCIO, MARIE **1998 SPRINGDALE LLC** THE SALT & LIGHT COMPANY INC

CARLIN, ANNA CHERRY UMBRELLA LLC VANDALAY AND COMPANY LLC BREGAN LLC RUIKE REALTY LLC CHERRY UMBRELLA LLC CHERRY UMBRELLA LLC

TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY

LOCATION MAP MOORESTOWN QUADRANGLE

1000 GRAPHIC SCALE

1 INCH = 1000 FEET

Variances Requested

- D Use Variance. Although Solar energy infrastructure is a permitted accessory use in the IR-RB zone (§Section 421.D) they are not permitted when not powering the principal building. (Section §432.C.1.a)
- Bulk Variance. The maximum permitted impervious lot coverage is 70%. The proposed lot coverage is 78.8%. (Section §421.E.)
- Bulk Variance. The minimum required open space for the lot is 25%. The proposed open space is 21.2%. (Section §421.E.)
 - Pre-Existing Non-Conforming Conditions
- The maximum permitted building coverage for the lot is 30%. The current total building coverage of the lot area is 32.8%. (Section §421.E.)

200' PROPERTY OWNERS LIST

OWNER ADDRESS	CITY	STATE		Z
1916 OLNEY AVE	CHERRY HILL	NЈ	08003	
1923 OLNEY AVE	CHERRY HILL	NJ	08003	
PO BOX 234	MT LAUREL	NJ	08054	
1998 SPRINGDALE RD S-101	CHERRY HILL	NJ	08003	
1841 BURLINGTON-MT HOLLY	WESTAMPTON	NJ	08060	
1921 LINDEN AVE	CHERRY HILL	NJ	08003	
4 RADNOR CORP CTR STE 105	RADNOR	PA	19087	
1930 OLNEY AVE	CHERRY HILL	NJ	08003	
1934 OLNEY AVE STE-200	CHERRY HILL	NJ	08003	
1936 OLNEY AVENUE	CHERRY HILL	NJ	08003	
4 RADNOR CORP CTR STE 105	RADNOR, PA	PA	19087	
4 RADNOR CORP CTR STE 105	RADNOR, PA	PA	19087	

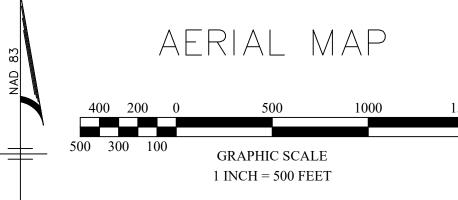
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BLOCK LIMIT 0 535.	SSOL E (PRIVATE ROAD) AVENUE SI AVEN
NA VA VA VA VA VA VA VA VA VA V	2 2.9 Act
E8 CPM 200 100	KEY MAP TAX MAP SHEET 329 0 200 400 600
	GRAPHIC SCALE

1 INCH = 200 FEET

INDUSTRIAL RESTRICTED - RESTRICTED BUSINESS (IR-RB) ZONING SCHEDULE				
BLOCK 485.01, LOT 1				
PROPOSED USE:	COMMUNITY	SOLAR ENER	GY PROJECT ¹	
	REQUIRED	EXISTING	PROPOSED	COMPLIES
MIN. LOT AREA	20,000 SF	140,400 SF	NO CHANGE	YES
MIN. LOT FRONTAGE	120 FT	270.0 FT	NO CHANGE	YES
MIN. LOT DEPTH	120 FT	270.0 FT	NO CHANGE	YES
MIN. FRONT YARD SETBACK				
Olney Avenue	30 FT	81.2 FT	NO CHANGE	YES
Keystone Avenue	30 FT	85.8 FT	NO CHANGE	YES
MIN. REAR YARD SETBACK	20 FT	59.8 FT	NO CHANGE	YES
MIN. SIDE YARD SETBACK				
One Side	10 FT	69.8 FT	NO CHANGE	YES
Combined	24 FT	N/A	NO CHANGE	YES
MAX. BUILDING HEIGHT**	35 FT	18.0 FT	NO CHANGE***	YES
MAX. LOT COVERAGE	70 %	78.6 %	78.8 %	NO ²
MIN. OPEN SPACE	25 %	21.4 %	21.2 %	NO ²
MAX. BUILDING COVERAGE	30 %	32.8 %	NO CHANGE	NO*
¹ D Use Variance Requested				
² Bulk Variance Requested				
*Existing Non-Conformity				
**BUILDING HEIGHT - The vertical distance from finished grade to the top of the highest roof beams on a flat or shed roof,				

BUILDING HEIGHT - The vertical distance from finished grade to the top of the highest roof beams on a flat or shed roof, the deck level on a mansard roof, and the average distance between the eaves and the ridge level for gable, hip, and gambrel roofs. ***Solar Panels will add about 9.5 inches to building height thus not significantly affecting overall height.





APPROVED BY THE TOWNSHIP OF CHERRY HILL ZONING BOARD OF ADJUSTMENT AS A SITE PLAN WAIVER:

DATE

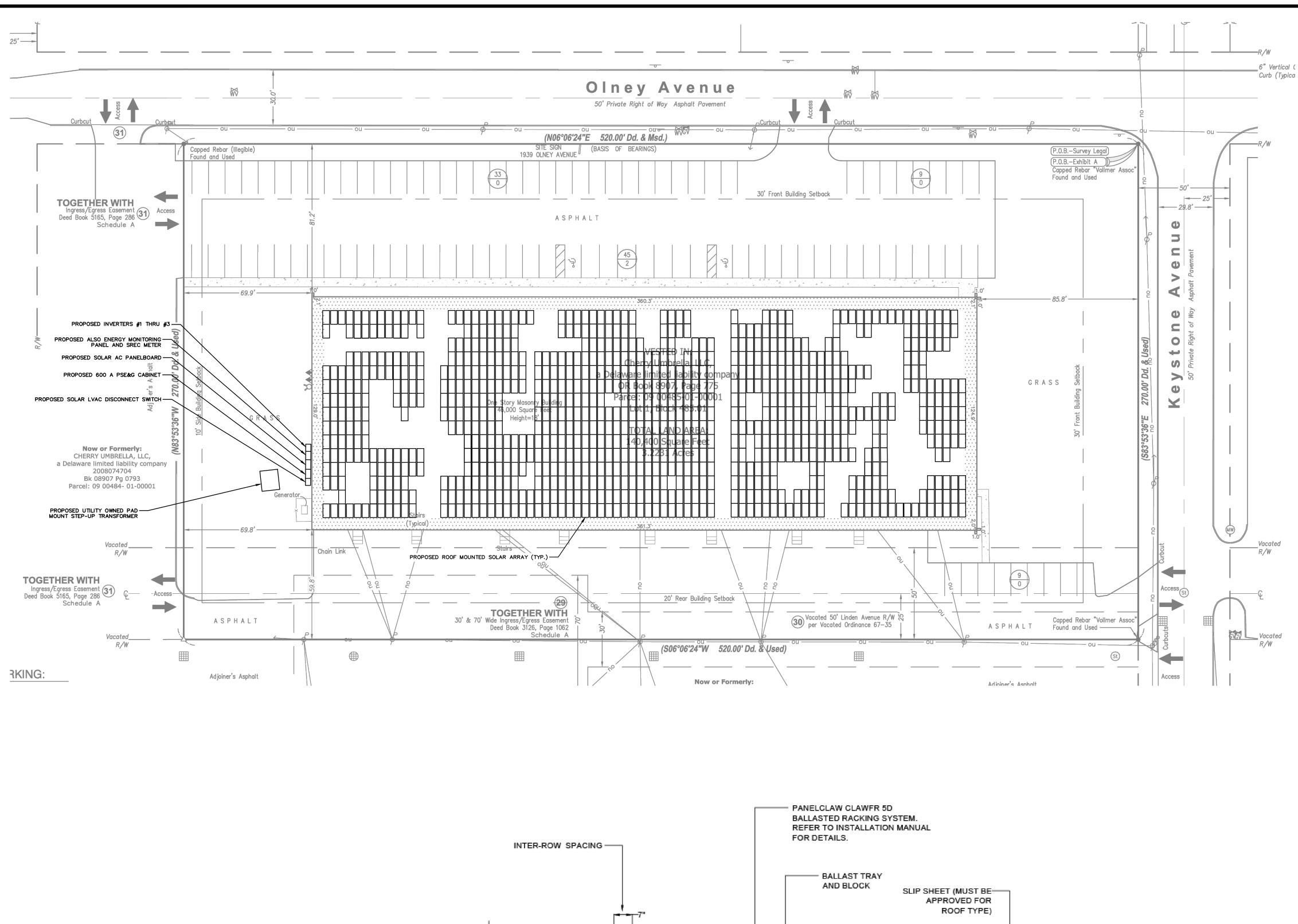
DATE

CHAIRMAN

SECRETARY

TOWNSHIP ENGINEER DATE

DATE	REVIS			BY
Y	SHOI ENGI	NEE	RI	NG
	Certificate of Authorizat Kevin E. Shelly P.E. PO Box 257, Mana T: 732-924-8100 www.shorepoint	PE No. GE0503 asquan, NJ 0873 F: 732-924-81	31300 36 10)
			Date	
	Kevin E. S PROFESSION N.J. Lic. No.	AL ENGINEER	P.E.	
SITE PLAN WAIVER COMMUNITY SOLAR SOLAR ROOFTOP SYSTEM - 1931 OLNEY AVENUE BLOCK 485.01, LOT 1 SITUATED IN TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY				
	TITLE	SHEET		
SCALE: AS	SHOWN	PROJECT N SLA	lo.: -2421	
RELEASE	D BY: KES	DATE: 02/2 ⁻	1/25	
CHECKE) by: RZH	She 1	eet Numbe OF	er 3
DRAWN	BY: MJW	Ŧ		5



92"

PANEL CLAW RM5 RACKING DETAIL E-41 SCALE: NTS

RACKING DETAIL



INDUSTRIAL RESTRICTED - I	RESTRICTED E	BUSINESS (IR-F	B) ZONING SCHEDU	JLE
	BLOCK 485.0			
PROPOSED USE:	COMMUNITY	SOLAR ENER	GY PROJECT ¹	
	REQUIRED	EXISTING	PROPOSED	COMPLIE
MIN. LOT AREA	20,000 SF	140,400 SF	NO CHANGE	YES
MIN. LOT FRONTAGE	120 FT	270.0 FT	NO CHANGE	YES
MIN. LOT DEPTH	120 FT	270.0 FT	NO CHANGE	YES
MIN. FRONT YARD SETBACK				
Olney Avenue	30 FT	81.2 FT	NO CHANGE	YES
Keystone Avenue	30 FT	85.8 FT	NO CHANGE	YES
MIN. REAR YARD SETBACK	20 FT	59.8 FT	NO CHANGE	YES
MIN. SIDE YARD SETBACK				
One Side	10 FT	69.8 FT	NO CHANGE	YES
Combined	24 FT	N/A	NO CHANGE	YES
MAX. BUILDING HEIGHT**	35 FT	18.0 FT	NO CHANGE***	YES
MAX. LOT COVERAGE	70 %	78.6 %	78.8 %	NO ²
MIN. OPEN SPACE	25 %	21.4 %	21.2 %	NO ²
MAX. BUILDING COVERAGE	30 %	32.8 %	NO CHANGE	NO*

¹D Use Variance Requested ²Bulk Variance Requested

*Existing Non-Conformity

**BUILDING HEIGHT - The vertical distance from finished grade to the top of the highest roof beams on a flat or shed roof, the deck level on a mansard roof, and the average distance between the eaves and the ridge level for gable, hip, and gambrel roofs.

***Solar Panels will add about 9.5 inches to building height thus not significantly affecting overall height. LAYOUT NOTES

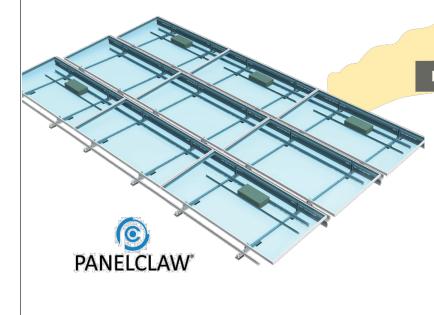
- APPLICANT: SOLAR LANDSCAPE, LLC 1.
- SITES ARE KNOWN AND DESIGNATED AS BLOCK 485.01, LOT 1 AS SHOWN ON THE CURRENT TAX ASSESSMENT MAP 2. OF THE TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY (SHEET 329).
- EXISTING BOUNDARY AND STRUCTURES INFORMATION SHOWN ON PLAN ENTITLED "ALTA/NSPS SURVEY; 1931 OLNEY 3. AVENUE TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY; BLOCK 485.01, LOT 1", PREPARED BY MILLMAN NATIONAL LAND SERVICES, DATED 04/12/2018.
- 4. SITE COORDINATES: 562,399' N, 504,022E
- HORIZONTAL DATUM: NAD 83 VERTICAL DATUM: NAVD 88
- UNLESS OTHERWISE INDICATED, ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE 6 NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- ACCORDING TO THE NEW JERSEY SOIL EROSION AND SEDIMENT CONTROL ACT, A PROJECT IS DEFINED AS "ANY DISTURBANCE OF MORE THAN 5,000 SQUARE FEET OF THE SURFACE AREA OF LAND". THEREFORE, NO SOIL EROSION AND SEDIMENT CONTROL MEASURES ARE REQUIRED ON THIS PROJECT SINCE WE ARE DISTURBING LESS THAN 5,000 SF.

20	0	30	60	90
	10	GRAPHIC SCAI 1 INCH = 30 FEF		
	DATE	REVIS		BY
		SHOI		
	(Certificate of Authorizat Kevin E. Shelly P.E. PO Box 257, Mana T: 732-924-8100 www.shorepointe	PE No. GE05031300 asquan, NJ 08736 F: 732-924-8110	0
			Date	
		Kevin E. S PROFESSIONA N.J. Lic. No.	AL ENGINEER	
		COMMUNI AR ROOFTOP SYSTE	5.01, LOT 1 red in	
		SITE	PLAN	
	SCALE: 1"	=30'	PROJECT No.: SLA-2421	
	RELEASE	D BY: KES	DATE: 02/21/25	
	CHECKED) вү: RZH	Sheet Numb	er D
	DRAWN	RY.	2 OF	5



Flat Roof Racking Specialists

PanelClaw[®] is the only major racking provider in North America focused exclusively on flat roof racking. Our 11+ years of focus on flat roof result in a competitive advantage for our partners. No one knows more about flat roof racking than PanelClaw; no one delivers a more thoroughly tested and reliable platform; and no one matches our level of service. Our mission is to accelerate the deployment of flat roof PV and the best way to do this is to continue to lower its life-cycle cost while maintaining the highest levels of reliability. The clawFR platform is the result of this experience and commitment to flat roof.



Universal Ra

Module Connector

Bracket w/

Cam Claw

Construction designed specifically for O&M, and to assist provider

• If mechanical roof attachments are needed, they are always placed in

• Recessed Deflector allows for visual inspection of module

• ZAM coating with 5x better corrosion resistance than G90

the North/South module gaps for simplified O&M inspection

Intelligent Componet Design

• A single Ballast Rail part number covers

all compatible 60 and 72 cell modules

• The Base does not change with module

• The wind deflector has 2 part numbers

that cover all 72 cell module lengths

• The Module Connector and Deflector

all compatible 72 cell modules

each have 2 part numbers have cover

connections and optimizer equipment

SYSTEM COMPONENTS

M6 Bolt

Deflector

changes

O&M Features

Engineered for Speed

- Single M6 bold hardware kit
- No tool module attachment method 90 degree single-module tilt-up feature lexible order of operations installation process allows for optimized coordination of building trades on the
- roof Integrated roof protection pads
- 6.9"+ access ways between modules • Only 1 ground lug required per array

Wind Exposure Category < 5° slope flat roofs (up to B and C (D required engineering 7° possible w/engineering review) USGS Seismic Categories

A, B, C, D (others require Membrane, tar and gravel, engineering review)

asphalt (not compatible with Building Height No building height limitations **Corrosion Resistance**

> ZAM coating provides 5x better resistance than G90

Warranty and Certifications 25 year warranty ANSI/UL 2703-2015 Listed System Fire Rating

Class A with Type 1 and Airy point flange mounted Type 2 modules

Up to 190 mph (>190 mph by approval)

review

metal roofs)

2.0:1 | 2.5:1

Platform Load

Landscape

~ 2.3 - ~ 8.0 psf

Module Orientation

Module Attachment

Basic Wind Speed

Roof Type Compatibilit

ballasted, BUR, concrete,

2 Shade Ratio Options

Safety and Reliability

clawFR has been tested well beyond code requirements in the US. In addition to wind tunnel testing and ANSI/UL 2703-2015 listing, we have completed a battery of reliability and performance tests which can all be found at panelclaw.com.

> **(©)** PANELCLAW

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panelclaw.com Made in USA

clawFR[®]

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AlsoEnergy

PowerLogger Commercial Solution 600 (PLCS 600)

AlsoEnergy now offers a convenient standardized monitoring solution for small to mid-sized commercial PV systems. This solution combines our standard commercial datalogger with a revenue grade meter, a weatherproof NEMA 4 enclosure, and other supporting hardware. Customers may choose to add weather sensors and/or a cellular modem. The PLCS 600 is recommended for 3-phase systems with up to 20 external inverters. Performance data is uploaded to the web-based PowerTrack Platform which provides a suite of analytic and diagnostic tools for 0&M and asset managers.

Uploads at 5 minute intervals

or PT secondary voltage up to

600VAC

Suitable for demand meter.



Solution Features

- Up to 20 external inverters
- Modbus via RS-485 or TCP connections to inverters
- relay, other non-PV use cases Cellular or Ethernet connectivity For systems with a single metering point; direct meterina
- Remote firmware updates Up to 1 minute data granularity

PLCS-600-CM-PLUS	+ cell modem, + reference cell, BOM p
PLCS-600-CM-BASE	+ cell madem, + reference cell, BOM p
PLCS-600-CM-00	+ cell modern, no environmental sens
PLCS-600-00-PLUS	no cell modem, + reference cell, BOM
PLCS-600-00-BASE	no cell modern, + reference cell, BON
PLCS-600-00-00	no cell modem, no environmental ser

v21.1 @ AlsoEnergy, Inc / 5400 Airport Bvd. Ste. 100 Boulder, CO 80301 USA / 866.303.5568

AlsoEnergy

Specifications

Assembly	
Enclosure dimensions	15.7" x 15.7" x 7.9" (400mm x 400m 200mm)
Enclosure rating	NEMA4
Operating temperature	-13° to 158°F (-25° to 70°C), <95% re humidity non-condensing
Power supply	120-277VAC
Communication Ports	Three available 10/100 Ethernet por half-duplex rs485 ports
Regulatory	UL listed 508A
Datalogger	

Up to 40 connected Modbus RTU enabled devices (20 per rs485 port) / Devices supported Recommended limit 32

Storage	Removable 2GB industrial rated mic card
Serial	RS-485 with integrated 120 ohm termination resistor
Primary protocols	Modbus TCP, Modbus RTU, most proprietary inverter protocols
Touch screen	Color, resistive touch screen 2° by 2
Warranty	Standard 5 year warranty

meter	
Voltage inputs	90-600VAC
Accuracy	Meter 0.2% (see CT datasheet for CT accuracy information)
CTs	Any CT with 5A secondary current ra (sold separately)
CT accuracy	Refer to CT datasheet
Warranty	Standard 5 year warranty

Irradiance Sensor (included with Base and Plus weather station option) Monocrystalline Silicon reference cell with

radiance sensor type	mounting bracket and 3m twisted pi shielded cable
bsolute accuracy	±5W/m ² ± 2.5% of reading
imensions	Width x Height x Depth: 3.34 inches inches x 1.54 inches (85mm x 155m 39mm)
/arranty	1 year against defects in materials a workmanship

v21.1 @ AlsoEnergy, Inc / 5400 Airport Bvd. Ste. 100 Boulder, CO 80301 USA / 856.303.5558

The operating system for the grid of the future

Standardized PLCS 600 includes:

- Datalogger with LCD touchscreen display Revenue grade energy meter compatible with all 5A CTs (sold separately)
- Optional weather station choices (2) may add data for irradiance, back-of-module panel temperature, ambient temperature, and wind speed 5 port Ethernet Switch
- NEMA4 weatherproof enclosure
- · Optional 4G Cell Modern (requires the addition of a cellular plan to utilize the cell modem
- Satisfies reporting requirements for most US electricity sector agencies
- All parts except weather sensors and cell modem covered with standard AlsoEnergy 5-year warranty
- Supported on PowerTrack only

demo, contact us at alsoenergy.com

panel temperature, ambient temperature, wind speed panel temperature A panel temperature, ambient temperature, wind speed M panel temperature nsors To find out more or schedule a

> The operating system for the grid of the future

PLCS-600 **Back of Module Panel Temperature Sensor** (included with Base and Plus weather station option) 3m cable with 3-pin connector c Form with paired reference cell - sensor cable cannot be extended PT1000 Class A relative Sensor type Self-adhesive for attaching to a solar Mounting module 1 year against defects in materials and orts, two Warranty workmanship Wind Speed Sensor (included with Plus weather station option) Cup star anemometer with 5m 2-pin connector compatible with paired reference Reed relay Sensor type Mounting bracket for pole or surface iicro SD Mounting mounting included 0.5 m/s or 5% of reading Accuracy 0.9 - 40m/s (2 - 90 mph) Sensor range 1 year against defects in materials and Warranty workmanship Ambient Temperature Sensor (included with Plus weather station option) _____ Pt1000 1/3 Class B with integrated modbus RTU digitizer Width x Height x Depth: 3.34" x 6.10" x 1.54" (85mm x 155mm x 39mm) Includes 3 meters of twisted-pair, shielded cable 1 year against defects in materials and Warranty workmanship Cell Moden Cellular data 4G LTE Warranty 1 year pair RoHS €₽ O Windows* s x 6.10 mm s and

To find out more or schedule a

demo, contact us at alsoenergy.com

Three Phase Inverter with Synergy Technology

For the 277/480V Grid for North America

SE80KUS / SE100KUS / SE110KUS / SE120KUS

Powered by unique pre-commissioning process for rapid system installation

- Pre-commissioning feature for automated validation Built-in arc fault protection and rapid shutdown of system components and wiring during the site Built-in PID mitigation for maximized system installation process and prior to grid connection
- Easy 2-person installation with lightweight, modular design (each inverter consists of 2 or 3 Synergy units and one Synergy Manager)
- or other events Independent operation of each Synergy unit enables Built-in module-level monitoring with Ethernet or higher uptime and easy serviceability cellular communication for full system visibility

performance

Built-in thermal sensors detect faulty wiring ensuring enhanced protection and safety

*Applicable only for DC and AC SPD

solaredge.com



Monitored* and field-replaceable surge protection

devices, to better withstand surges caused by lightning

INVERT

ГП

RS

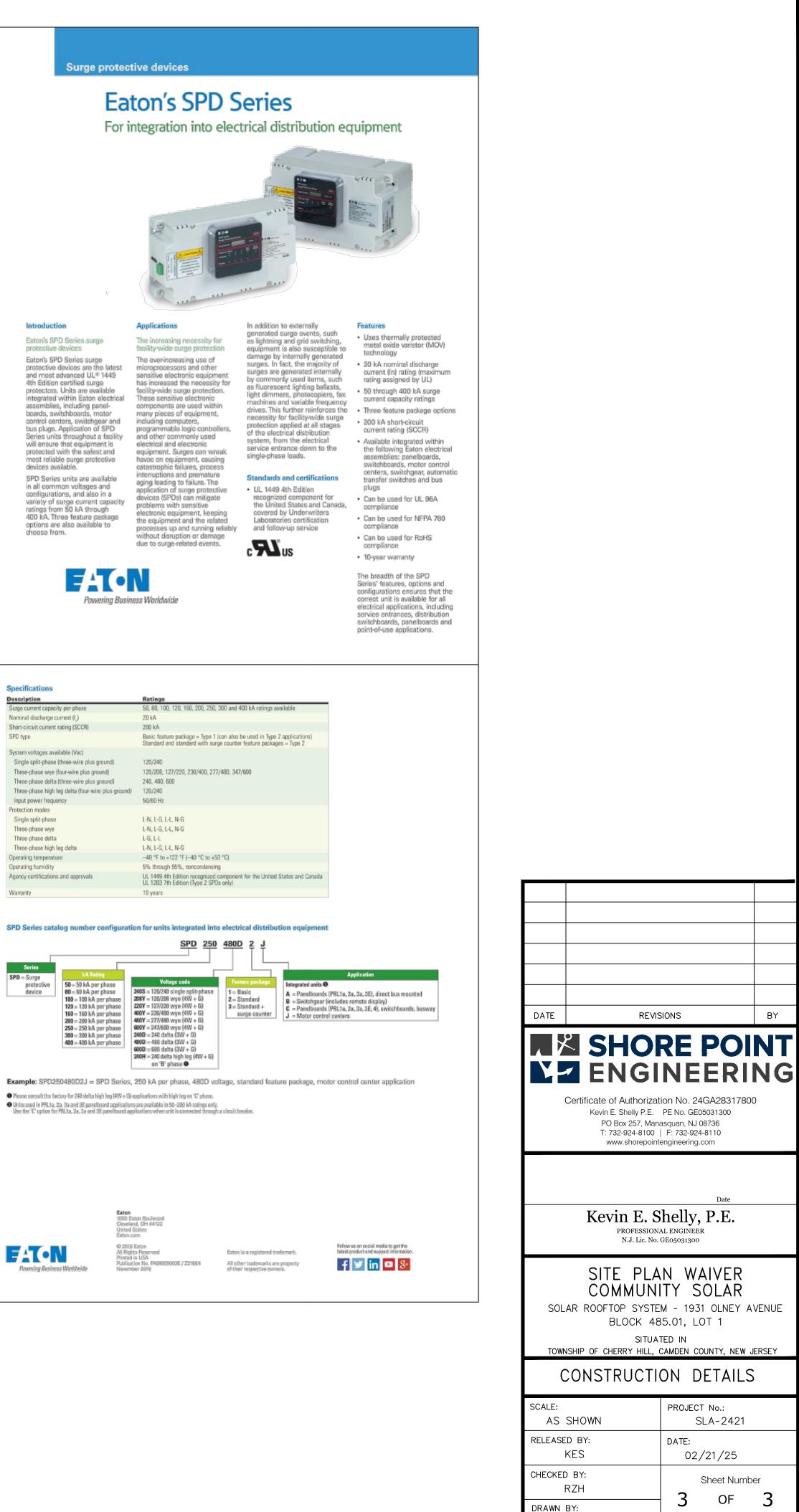
/ Three Phase Inverter with Synergy Technology

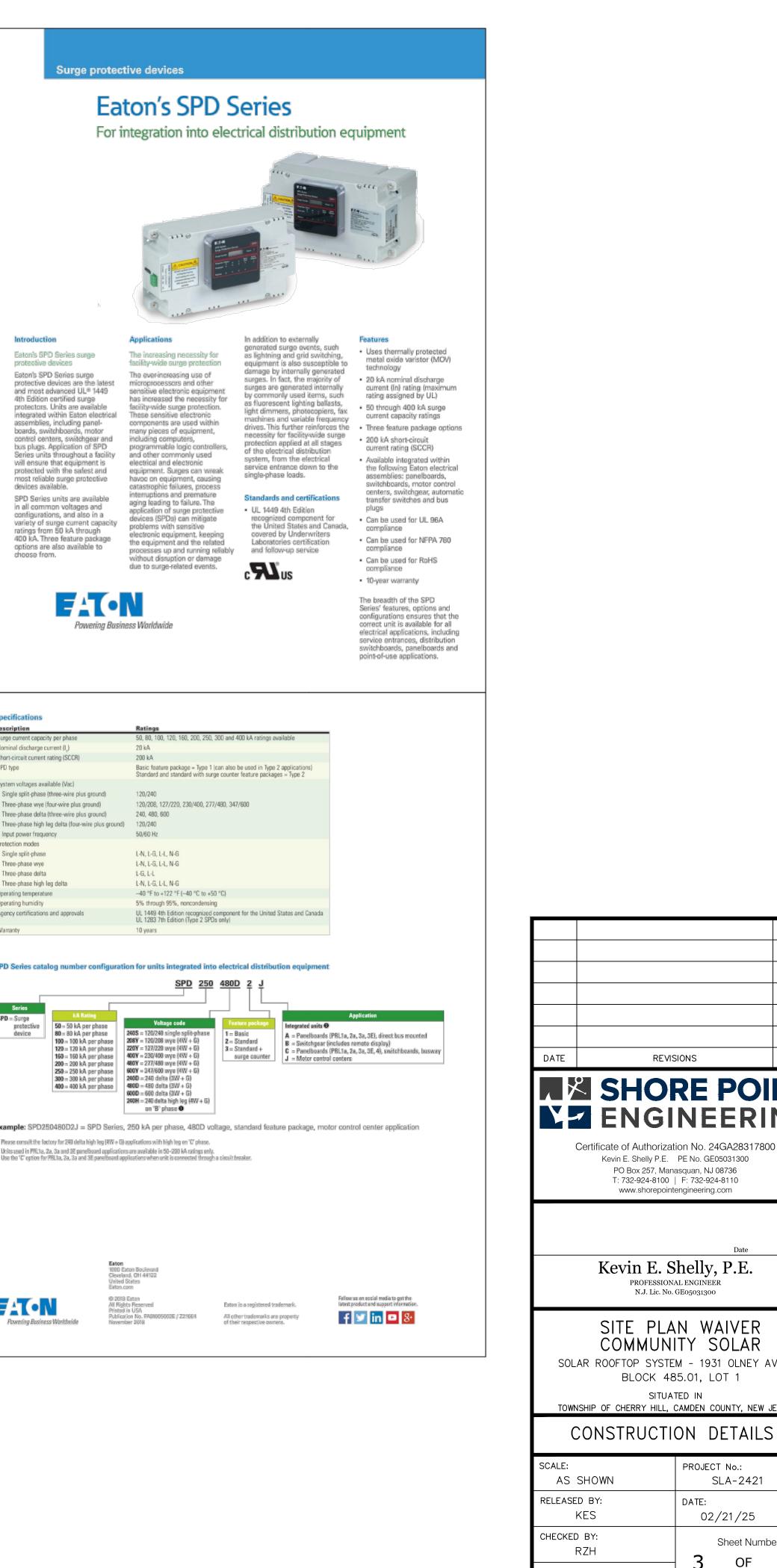
For the 277/480V Grid for North America SE80KUS / SE100KUS / SE110KUS/ SE120KUS

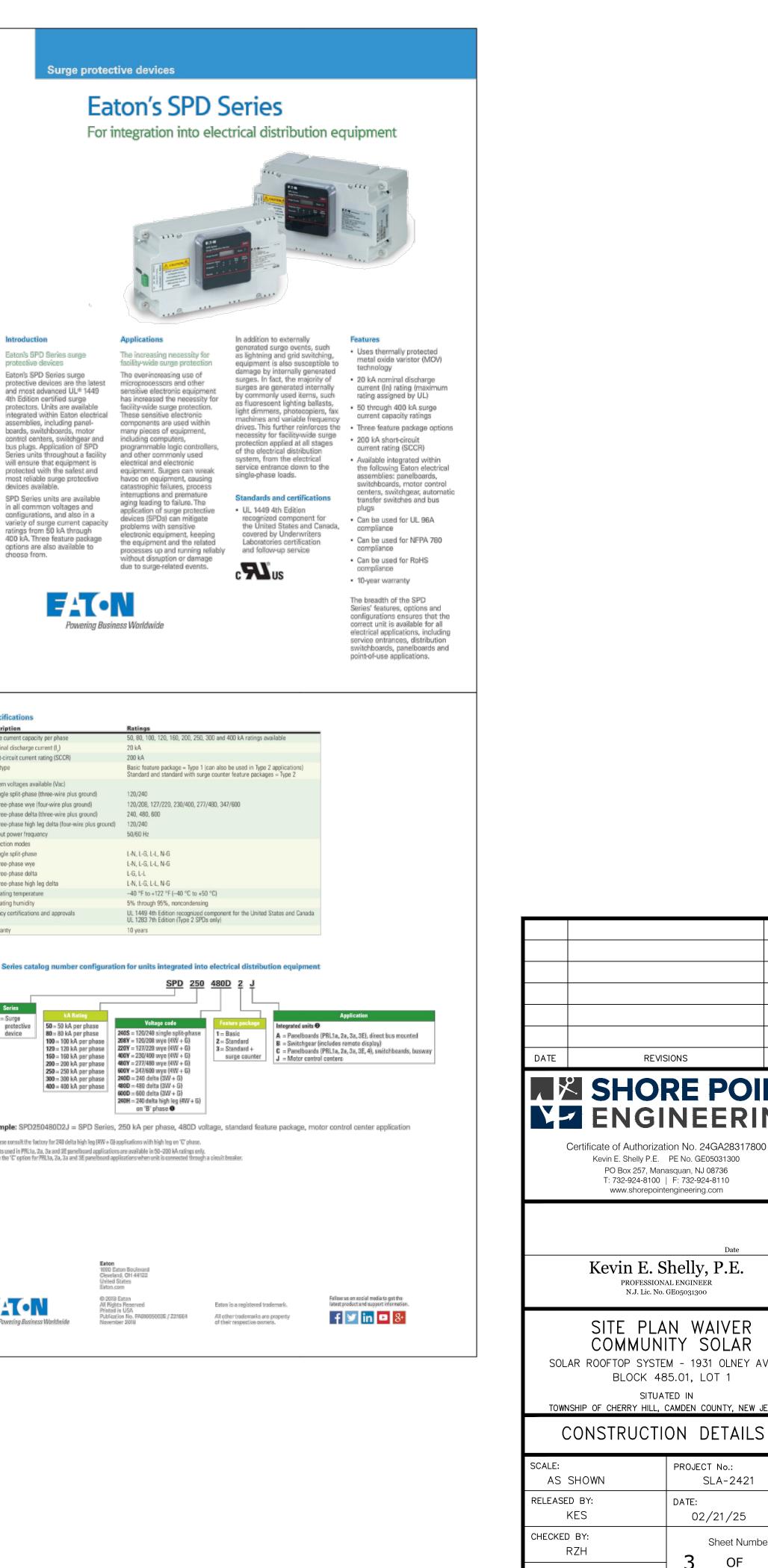
Applicable to inverter with		SExxK-USx8Ixxxx					
Applicable to inverter with Part Numbers	SE80KUS	SE100KUS	SE110KUS	SE120KUS			
OUTPUT							
	80000	100000	110000	120000	W		
Rated AC Active Output Power Maximum AC Apparent Output Power	80000	100000	110000 120000	120000			
	80000			120000	VA		
AC Output Line Connections		3W + PE, 4	WV + PE				
Supported Grids		WYE: TN-C, TN-S, T	N-C-S, TT, IT; Delta: IT				
AC Output Voltage Minimum- Nominal-Maximum ⁽¹⁾ (L-N)		244 - 277 - 305					
ACOutput Voltage Minimum-Nominal- Maximum ⁽¹⁾ (L-L)		422.5 - 480	- 529		Vac		
AC Frequency Min-Nom-Max ⁽¹⁾		59.5 - 60	- 60.5		Hz		
Maximum Continuous Output Current (per Phase, PF=1)	96.5	120	144.	3	Aac		
GFDI Threshold		1			A		
Jtility Monitoring, Islanding Protection, Configurable Power Factor, Country Configurable Thresholds		Yes					
Total Harmonic Distortion		≤ 3	}		%		
Power Factor Range		+/-0.2	2 to 1				
INPUT							
Maximum DC Power (Module STC) nverter / Synergy Unit	120000/60000	120000 / 60000 150000 / 50000 180000 / 60000					
Fransformer-less, Ungrounded		Yes					
Maximum Input Voltage DC+ to DC-		100	00		Vd		
Operating Voltage Range		850 - 1000					
Maximum Input Current	2 x 48.25	3 x 40	Зх	48.25	Ad		
Reverse-PolarityProtection		Y	es				
Ground-Fault Isolation Detection		167kΩ sensitivity p	per Synergy Unit ^{®)}				
CEC Weighted Efficiency		98	3.5		%		
Nighttime Power Consumption	< 8	< 1.	2		W		
ADDITIONAL FEATURES							
upported Communication Interfaces ⁽³⁾		2xRS485, Ethernet, Wi-Fi (o	ptional), Cellular (optional)				
mart Energy Management		Export Lii	nitation				
nverter Commissioning	With	the SetApp mobile application using bu	ilt-in Wi-Fi access point for local conne	ction			
ArcFaultProtection		Built-in, User Configurable	(According to UL1699B)				
Photovoltaic Rapid Shutdown System		NEC 2014, 2017 ar	nd 2020, Built-in				
PID Rectifier		Nighttime	, built-in				
RS485 Surge Protection (ports 1+2)		Type II, field replac	eable, integrated				
AC, DC Surge Protection		Typell, field replac	eable, integrated				
DC Fuses (Single Pole)		25A, inte	egrated				
DC SAFETY SWITCH							
DC Disconnect		Built	-in				
STANDARD COMPLIANCE					1		
Safety	UL1699	B, UL1741, UL1741 SA, UL1998, CSA C22.23	#107.1, Canadian AFCI according to T.I.L	. M-07			
Grid Connection Standards		IEEE 1547, Rule	21, Rule 14 (HI)				
Emissions		FCC part 15 class A					

(3) For specifications of the optional communication options, visit https://www.solaredge.com/products/communication or the Resource Library webpage: https://www.solaredge.com/downloads#, to download the relevant product datasheet

Three-phase wye Three-phase delta Operating temperature Operating humidity







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