



Department of Community Development

820 Mercer Street, Cherry Hill, NJ 080002

856-488-7870 (Phone) 856-661-4746 (Fax)

www.Cherryhill-NJ.com

LAND USE DEVELOPMENT APPLICATION

Submission Date: 3/31/2025

Application No.: 25-Z-0004

☐ PLANNING BOARD

☒ ZONING BOARD OF ADJUSTMENT

FOR OFFICE USE ONLY

TAXES PAID YES/NO _____ (INITIAL)

FEES \$ 1,600.00 PROJ. # _____

ESCROW \$ 4,000.00 ESCR. # 10250

1. APPLICANT

Name: Solar Landscape LLC

Address: 522 Cookman Avenue Unit 3

City: Asbury Park State: NJ Zip: 07712

Phone: (732) 855-6039* Fax: (732) 726-6560

Email: djennings@wilentz.com* *Applicant's Attorney

Interest in Property: Lessee

2. OWNER

Name: Cherry Umbrella LLC (Contact: Bernadette Skelly)

Address: 4 Radnor Corp Ctr Ste 105

City: Radnor State: PA Zip: 19087

Phone: (484) 320-7810 Fax: ()

Email: bskelly@endurance-re.com

3. TYPE OF APPLICATION (check all that apply)

☐ Minor Subdivision

☐ Preliminary Major Subdivision ¹

☐ Final Major Subdivision

☐ Minor Site Plan

☐ Preliminary Major Site Plan ¹

☐ Final Major Site Plan

☐ Amended Plan

☒ Site Plan Waiver

☐ Concept Plan

☐ Interpretation ¹

☐ Appeal of Administrative Officer's Decision

☐ Certificate of Non-Conformity

☒ Use (d) Variance ¹

☒ Bulk (c) Variance ¹

☐ Conditional Use ¹

☐ Street Vacation Request

☐ Rezoning Request ¹

☐ Other: _____

¹ Legal advertisement and notice is required to all property owners within 200 feet.

4. ZONE (check all that apply)

RESIDENTIAL		COMMERCIAL	OFFICE	OTHER	OVERLAY
RA	RA/PC	B1	O1	<u>IR</u>	FP
R1	R7	B2	O2	IN	SBC
R2	R10	B3	O3		<u>IR/B</u>
R3	R20	B4			A-H/C

5. ATTORNEY (A corporation, partnership, limited liability company or partnership must be represented by a New Jersey Attorney)

Name: Donna M. Jennings, Esq.

City: Woodbridge State: NJ Zip: 07095

Address: 90 Woodbridge Center Drive Suite 900

Phone: (732) 855-6039 Fax: (732) 726-6560

Email: djennings@wilentz.com

6. APPLICANT'S PROFESSIONALS (Engineer, Surveyor, Planner, etc.)

Name: Kevin Shelly, PE
Profession: Engineer
Address: 1985 Highway 34, Suite A7

City: Wall State: NJ Zip: 07719
Phone: (732) 924-8100 Fax: (732) 924-8110
Email: kshelly@shorepointengineering.com

Name: Planner TBD
Profession: _____
Address: _____

City: _____ State: _____ Zip: _____
Phone: (____) _____ Fax: (____) _____
Email: _____

7. LOCATION OF PROPERTY

Street Address: 1 Keystone Ave Block(s): 484.01
Tract Area: 3.87 acres Lot(s): 1

8. LAND USE

Existing Land Use: Commercial/Office
Proposed Land Use (be specific): Rooftop community solar panels with associated ground-mounted equipment.

9. PROPERTY

Number of Existing Lots: <u>1</u>	<u>Proposed Form of Ownership:</u>	
Number of Proposed Lots: <u>1</u>	<input type="checkbox"/> Fee Simple	<input type="checkbox"/> Condominium *Lessee
Are there Existing Deed Restrictions or Easements?	<input checked="" type="checkbox"/> Rental	<input type="checkbox"/> Cooperative
Are there Proposed Deed Restrictions or Easements?	<input checked="" type="checkbox"/> No	<input type="checkbox"/> Yes (please attach copies)
		<input type="checkbox"/> Yes (please attach copies)

10. UTILITIES (check all that apply)

N/A ☐ Public water ☐ Public sewer ☐ Private well ☐ Private septic system

11. APPLICATION SUBMISSION MATERIALS

List all plans, reports, photos, etc. (use additional sheets if necessary): See attached cover letter.

12. PREVIOUS OR PENDING APPLICATIONS

List all previous or pending applications for this parcel (use additional sheets if necessary): OPRA response revealed no prior resolutions.

13. ZONING SCHEDULE (complete all that apply)

	REQUIRED	EXISTING	PROPOSED
Minimum Lot Requirements			
Lot Area	20,000 sf	168,600 sf	No change
Frontage	120 ft	245 ft	No change
Lot Depth	120 ft	600 ft	No change
Minimum Yard Requirements			
Front Yard	30 ft	78.6 ft	No change
Secondary Front Yard	30 ft	None	No change
Rear Yard	20 ft	109.7 ft	No change
Side Yard	10 ft	30.5 ft	No change
Aggregate Side Yard	25 ft	90.7 ft	NA
Building Height	35 ft	18 ft	<19 ft*
Lot Requirements			
Residential Buffer Strip	NA	NA	NA
Open Space	25%	10.9%	10.8%
Parking Setbacks			
Parking Setback to non-residential	5'	NA	NA
Parking Setback to residential	15'	NA	NA
Parking Setback to Right-of-Way	20'	NA	NA

*Solar panels add approximately 8.5 inches

	REQUIRED	EXISTING	PROPOSED
Accessory Uses			
Garage Area	NA	NA	NA
Garage Height	NA	NA	NA
Fence Height	NA	NA	NA
Pool Depth	NA	NA	NA
Shed Area	NA	NA	NA
Shed Height	NA	NA	NA
Signage Requirements			
Façade Sign area 1	NA	NA	NA
Façade Sign area 2	NA	NA	NA
Freestanding Sign area	NA	NA	NA
Freestanding Sign height	NA	NA	NA
Functional Sign(s) area	NA	NA	NA
Building Façade area	NA	NA	NA
Distance from Driveway	NA	NA	NA
Distance from R.O.W.	NA	NA	NA

Is the proposed site on a inside or corner lot?

Inside

Corner

14. PARKING & LOADING REQUIREMENTS

Number of Parking Spaces REQUIRED: NA Number of Loading Spaces REQUIRED: NA
 Number of Parking Spaces PROVIDED: NA Number of Loading Spaces PROVIDED: NA

15. RELIEF REQUESTED (check all that apply)

- ☒ Zoning Variances are requested.
- ☐ Exceptions from Municipal Requirements are requested (N.J.S.A. 40:55D-51).
- ☐ Exceptions from New Jersey Residential Site Improvement Standards (R.S.I.S.) are requested (N.J.A.C. 5:21-3.1).
- ☐ Waivers from New Jersey Residential Site Improvement Standards (R.S.I.S.) are requested (N.J.A.C. 5:21-3.2).
 Requires application to and approval of the New Jersey Site Improvement Advisory Board.

For any type of the above relief requested, a separate exhibit should be attached stating the factual basis, legal theory, and/or previously granted relief.

16. SIGNATURE OF APPLICANT

I certify that the foregoing statements and the materials submitted are true. I further certify that I am the individual applicant, or that I am an Officer of the Corporate applicant and authorized to sign the application for the Corporation, or a General Partner of the partnership application.

SWORN & SUBSCRIBED to before me this
7th day of March, 2025 (year)
Lisa Haak (notary)
 Lisa Haak
 Notary Public, State of New Jersey
 I.D. No. 50163068

My Commission Expires June 26, 2026

Donna M. Jennings 3/7/2025
 SIGNATURE (applicant) DATE
 Donna M. Jennings, Esq.*
 PRINT NAME
 *WGS on behalf of Applicant

17. CONSENT OF OWNER

I certify that I am the Owner of the property which is the subject of this application, hereby consent to the making of this application and the approval of the plans submitted herewith. I further consent to the inspection of this property in connection with this application as deemed necessary by the municipal agency (if owned by a Corporation, a resolution must be attached authorizing the application and officer signature).

SWORN & SUBSCRIBED to before me this

23rd day of December, 2024 (year)

Kristie T. Radcliffe (notary)

Bernadette Skeilly 12/23/24

SIGNATURE (owner)

DATE

BERNADETTE SKEILLY

PRINT NAME

18. DISCLOSURE STATEMENT (circle all that apply)

Pursuant to N.J.S.A. 40:55D-48.1 & 48.2, please answer the following questions:

Is this application to subdivide a parcel of land into six (6) or more lots?

Yes

☒ No

Is this application for a variance to construct a multiple dwelling of twenty-five (25) or more units?

Yes

☒ No

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 corporation?

☒ Yes

No

Is the applicant a partnership?

Yes

☒ No

If you responded YES to any of the above, please answer the following (use additional sheets if necessary):

List the names and addresses of all stockholders or individual partners owning at least 10% in stock of any class or at least 10% of the interest in partnership (whichever is applicable).

Does a corporation or partnership own 10% or more of the stock in this corporation or partnership? If yes, list the names and addresses of stockholders of that corporation holding 10% or more of the stock or 10% or greater interest in that partnership (whichever is applicable). This requirement is to be followed by every corporate stockholder or partnership, until the names and addresses of the non-corporate stockholders and individual partners with 10% or more ownership have been listed.

SIGNATURE (applicant)

DATE

19. SURVEY WAIVER CERTIFICATION

As of the date of this application, I hereby certify that the survey submitted with this application, under the date of April 13, 2018 last revised May 17, 2018 shows and discloses the premises in its entirety, described as Block(s) 484.01 Lot(s) 1; and I further certify that no buildings, fences, or other facilities have been constructed, installed, or otherwise located on the premises after the date of the survey with the exception of the structures shown.

State of New Jersey; County of Camden:

SWORN & SUBSCRIBED to before me this

23rd day of December, 2024 (year)

Kristie T. Radcliffe (notary)

Bernadette Skeilly

PRINT NAME

Bernadette Skeilly

SIGNATURE (applicant/owner)

of full age, being duly

12/23/24

DATE

FOR OFFICE USE ONLY

The application was reviewed in accordance with the rules of the applicable Board and Ordinances of the Township of Cherry Hill and determined that all the checklist items are in order and this application has been deemed complete. The time within which the applicable Board must act on this application pursuant to N.J.S.A. 40:55d-1 et seq., has commenced from this date.

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
Cherry Hill, NJ 08002

**RE: Solar Landscape LLC
1 Keystone Avenue
Block 484.01, 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 April 1, 2024.

Additionally, in response to your e-mail correspondence dated January 24, 2025, the Applicant proposes to install 1,308 modules, and the energy production is 627.84 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 truly yours,


DONNA M. JENNINGS

w/encl.

cc: Solar Landscape LLC
Kevin Shelly, PE

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
Cherry Hill, NJ 08002

**RE: Solar Landscape LLC
1 Keystone Avenue
Block 484.01, Lot 1
Site Plan Waiver with Variances**

Dear Mr. Richman:

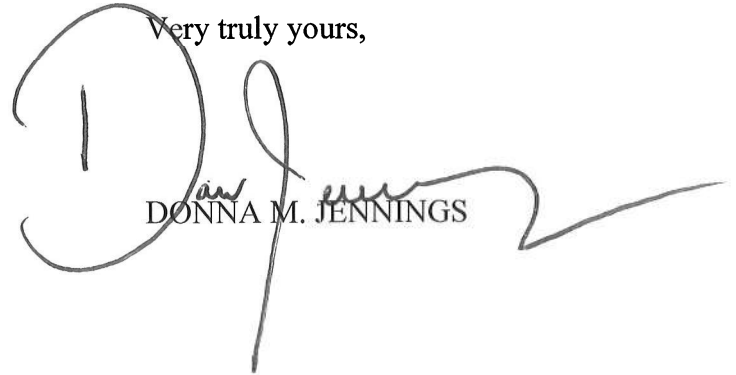
This office represents Solar Landscape LLC (the “Applicant”) in this matter. Enclosed, for filing, please find the following:

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 – 1 Keystone 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-moderate-income customers.

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,

A handwritten signature in black ink, appearing to read 'Donna M. Jennings', with a long, sweeping horizontal stroke extending to the right.

DONNA M. JENNINGS

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

RIDER
Solar Landscape LLC
Site Plan Waiver, Use Variance, and Bulk Variances
1 Keystone Ave
Block 484.01, 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 1 Keystone Avenue and identified as Block 484.01, Lot 1 on the Township's tax maps. The property is located in the Industrial Restricted (IR) Zone and is approximately 168,600 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, the Applicant requires the following bulk variances from Ordinance Section 419-F:

- Maximum Lot Coverage: 70% permitted / 89.2% proposed
- Minimum Open Space: 25% required / 10.8% 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.



Solar Rooftop System – 1 Keystone Avenue
Block 484.01, 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, right-of-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-of-way, bridges, dams, soil types, wooded areas, etc.*

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

- *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

TO: Cherry Hill Township Zoning Board Members
FROM: Kathy Cullen, Director
Jacob Richman, PP, AICP, Deputy Director
Samuel Opal, Assistant Planner
RE: **COMPLETENESS REVIEW**
Solar Landscape, LLC
1 Keystone Avenue
Cherry Hill, New Jersey 08003
Block 484.01 Lot(s) 1
Application No. 25-Z-0004
DATE: 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) and Bulk (C) Variances to install a 627.84 kW-DC rooftop solar photovoltaic (PV) system containing 1,308 panels on top of an existing commercial building along with associated ground-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).
- D. **Site Area.** The subject site is a 3.87-acre sized lot containing a multi-tenant industrial building located along the south side of Keystone Avenue, which is a private road. The site also has frontage on the east side of Olney Avenue. The Keystone Avenue access consists of two (2) separate driveways, while one driveway access 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. The zoning board has issued multiple use variance approvals for this property: In March of 1984 the zoning board issued use D(1) variance approval (#2674-84-V) to permit a business to have retail sales of products that were not manufactured on site. In November of 2002, the zoning board issued approval for a site plan waiver and a use D(1) variance approval to permit an adult daycare in the building name “Unity Place”. In July of 2009 the zoning board issued Use D(2) variance approval for the expansion of the aforementioned adult daycare (Unity Place) to allow them to expand their operation within the building. 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 “Underwood Engineering” (ZP-20-001169) and “All Brand Appliance Parts” (ZP-20-01287) being issued in 2020. In November of 2023 a zoning permit (ZP-23-01304) was issued for roof mounted solar panels. In October of 2024, the aforementioned zoning permit (ZP-23-01304) 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 *April 1, 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 does not object 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 does not object 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 does not object to the granting of this waiver as no signage is proposed.*

- C. **Determination.** This application has been deemed technically complete. 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 per §432.C.1.a via §419.D.12 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 Industrial Restricted (IR) zone (§419.F.1) are noted below:

CODE SECTION	MINIMUM REQUIREMENTS	REQUIRED	EXISTING	PROPOSED	CONFORM
§419.F.1	Building Coverage	30%	36.8%	No Change	ENC
§419.F.1	Lot Coverage	70%	89.1%	89.2%	V (Bulk)
§419.F.1	Open Space	25%	10.9%	10.8%	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	8.5"	C
§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 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:
- The positive criteria are met if at least one of the following is proven by the applicant:
 - The proposed use inherently serves the public good; or
 - The project advances one or more of the purposes of the municipal land use law (N.J.S.A. 40:55D-2); or
 - 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
 - The proposed site is particularly suitable for the proposed use.
 - To meet the negative criteria the applicant must show that the proposed use can be granted without:
 - Substantial detriment to the public good.
 - 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:
- From §419.F.1, to permit a building coverage of 36.8%, where a maximum building coverage of 30% is permitted. ***This represents a pre-existing nonconforming condition that is unaffected by the proposed application.***
 - From §419.F.1, to permit a lot coverage of 89.2%, where a maximum lot coverage of 70% is permitted and 89.1% exists. **The concrete pads associated with the proposed ground-based**

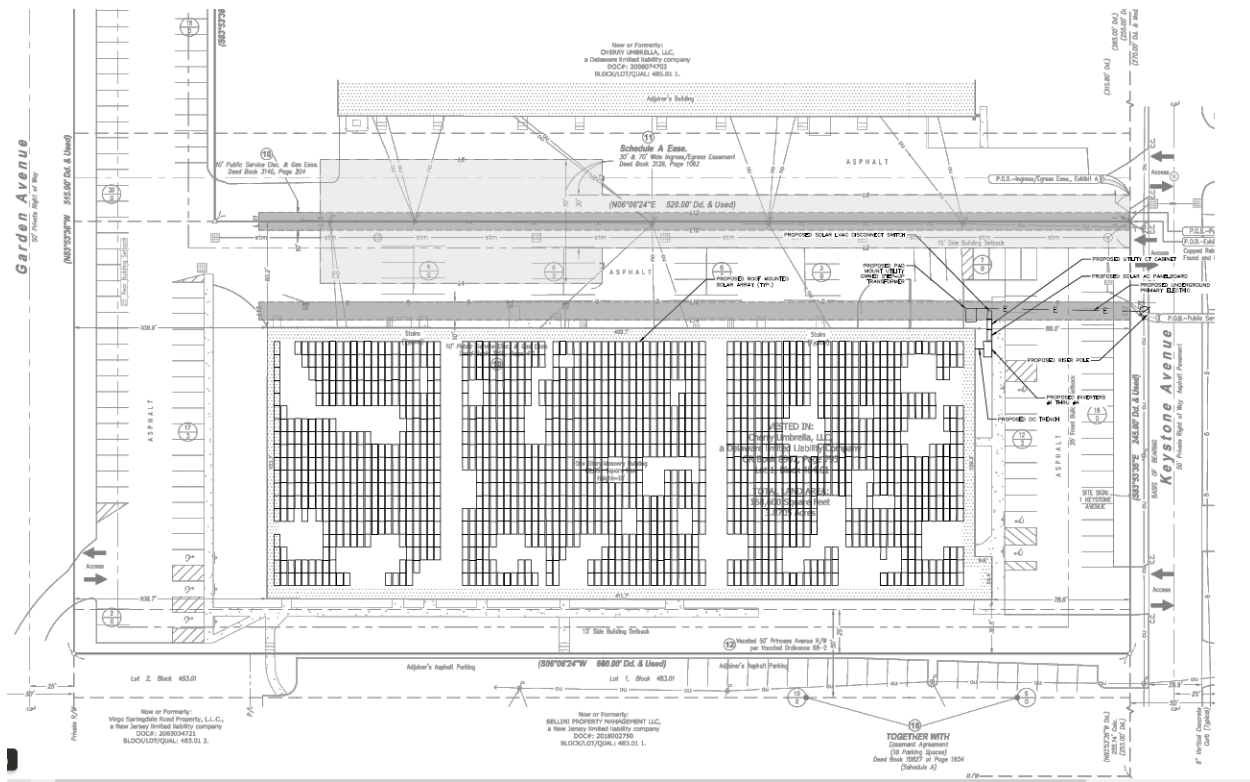
equipment triggers a slight exacerbation of the existing nonconforming condition. Thus a new variance is required.

3. From §419.F.1, to permit an open space coverage of 10.8%, where a minimum open space coverage of 25% is required and 10.9% exists. **The concrete pads 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 within existing landscaped areas).**
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:

1. 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: <http://www.chnj.gov/203/Zoning> or contact our Zoning Officer at zoning@chnj.gov 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)





GROUND MOUNTED EQUIPMENT



F.D.C.
FIRE DEPARTMENT







STRUCTURAL FEASIBILITY REPORT

Prepared By

J. Trampe
April 1, 2024

Reviewed By

David C. Hernandez, PE
April 1, 2024

Site

1 Keystone Ave, Cherry Hill, NJ 08003

Prepared For

Solar Landscape
601 Bangs Ave, Unit 3, Asbury Park, NJ 07712
Attention: Lucas Titolo

Exactus Energy Inc.

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

Table of Contents

1. Background.....	4
1.1. Report Scope.....	4
1.2. Roof System Compositions and Structures	5
2. Assumptions.....	6
3. Analysis and Methodology.....	7
3.1. Design Loads and Criteria	7
3.2. Existing Structure Condition.....	7
4. Results.....	8
4.1. Loading Capacity	8
4.2. Conclusions.....	9
Appendix A	10
A1 – ASCE 7-16 Table 7.3-1 and Table 7.3-2	10
A2 – AISC 360-16 Equation H1.2, H1-1b.....	11
A3 – ASCE Chapter 8.3 Design Rain Loads	11
A4 – NSPC NJ ED Section 13.1.10.1 and IBC Section 1611	12
A5 – Structural Calculations in compliance with NJAC 5:23-6.6(c).....	13
Appendix B	14
Calculations.....	14

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

1 Keystone Ave, Cherry Hill, NJ 08003

Exactus Energy Inc. has been retained to review the structural condition for the site: 1 Keystone Ave, Cherry Hill, NJ 08003. 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 1 has additional structural capacity for up to 5.5 psf

1. Background

1.1. Report Scope

A site inspection of the roof structure to obtain structural specifications was conducted on January 17, 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.

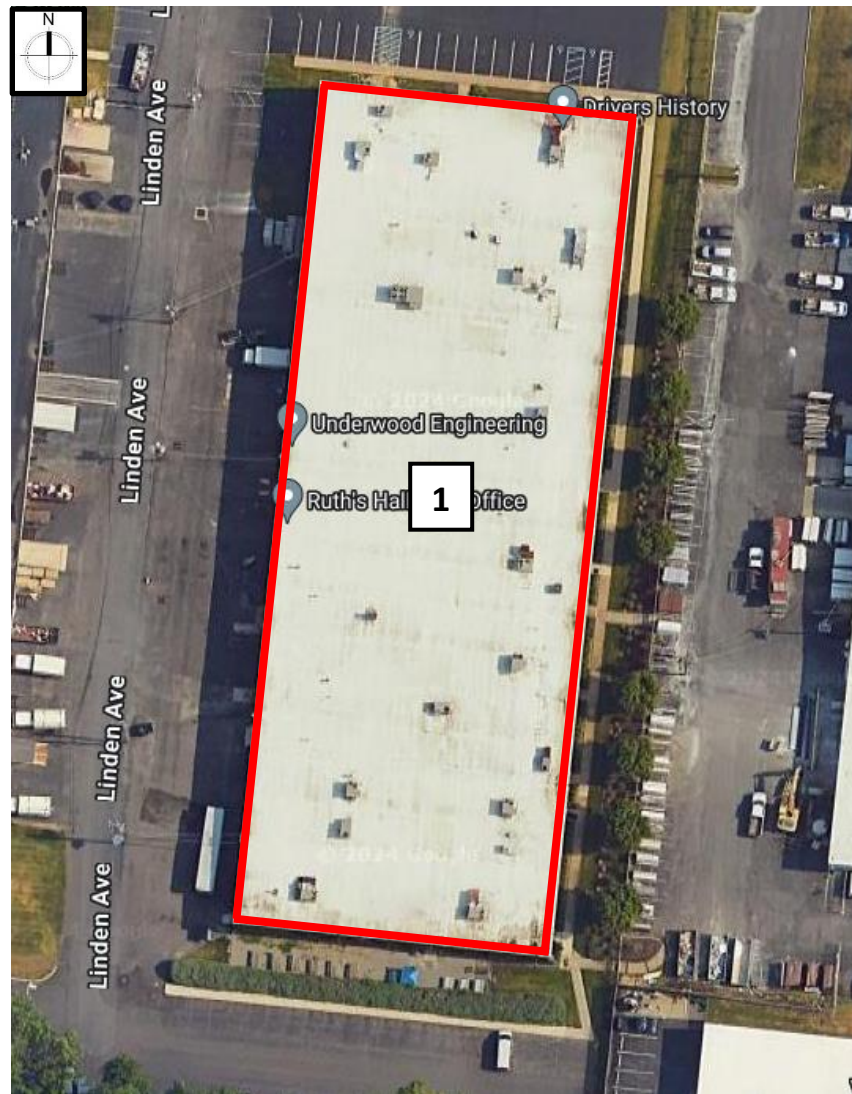


Figure 1: Roof structure included in this assessment.

1.2. Roof System Compositions and Structures

Upon review, Roof A was determined to consist of built-up TPO 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.

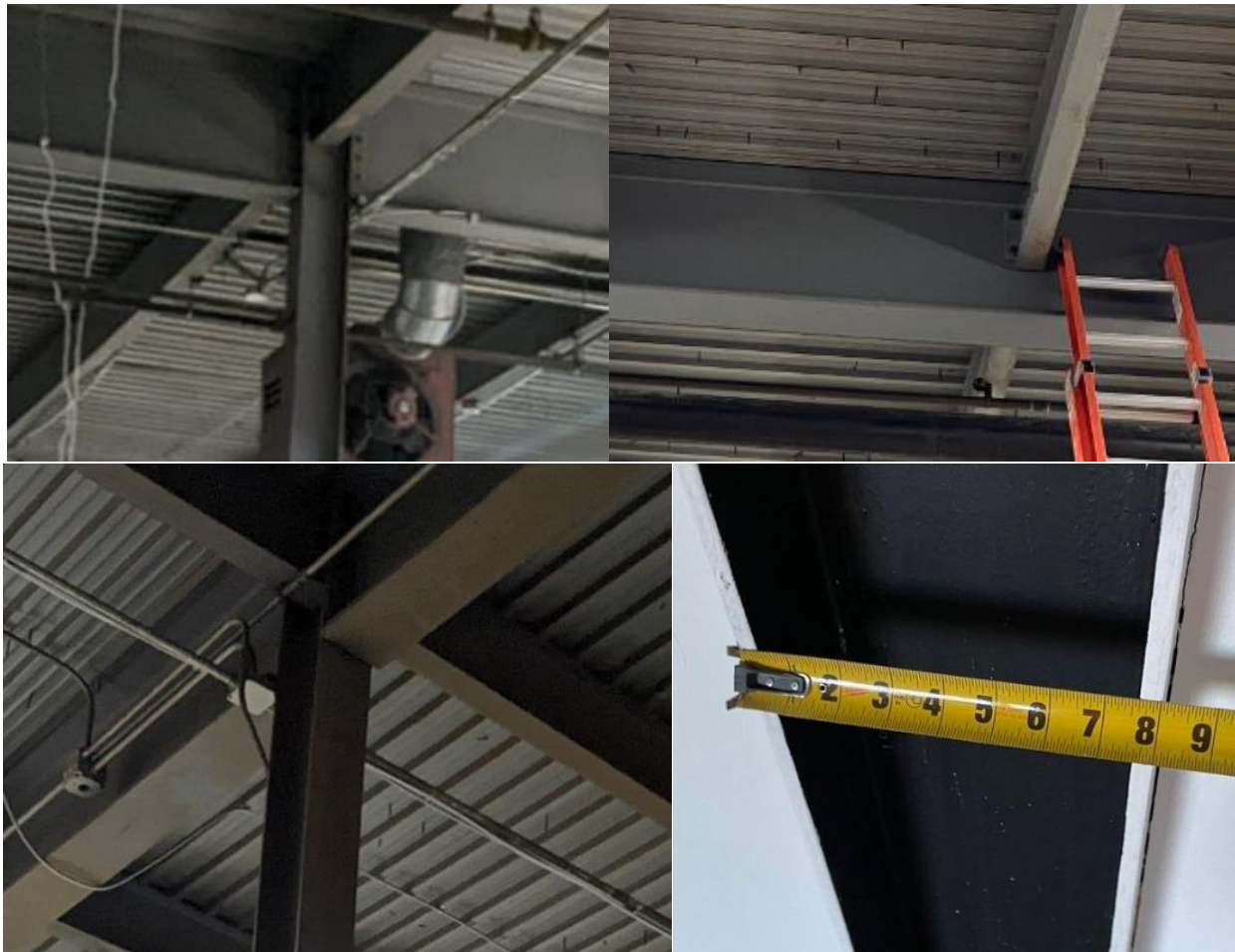


Figure 2: Roof A steel beams, and steel columns.

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.
- The solar PV system installation will not cause an increase in the snow load.
- Steel deck assumed to have reserve capacity.
- 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
- International Building Code (2021) – 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. The structure has also been checked for ponding in accordance with IBC Sec. 1607.14.4.5 IBC Sec. 1604.4, IBC Sec. 1604.3.6, NSPC NJ ED Section 13.1.10.1 and IBC Section 1611. The structures have been checked for possible occurrence of snowdrift and it is found that the snow drift will not occur at the structures. The roof live load is to be applied to areas such as the Fire Access paths and areas not covered with PV.

Table 1: Design loads

		Current Analysis (2024)	Load Description
Roof 1	Risk Category	II	2021 IBC – NJ Ed Sec. 1604.5
	Exposure Category	C	2021 IBC – NJ Ed Sec. 1609.4.3
	Dead Load	10 psf	Roof System
	Live Load	20 psf	Roof Live Load
	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

3.2. Existing Structure Condition

The assessed condition of each roofs' structural components and roof system is given in Table 2.

Table 2: Condition Assessment

Roof	Condition Assessment
1	<ul style="list-style-type: none"> • Thermoplastic membrane system appears well-sealed. • No indication of significant leakage or damage to structural members. • Overall, the roof system and structure are in acceptable condition.

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 1:**
5.5 psf (Green)

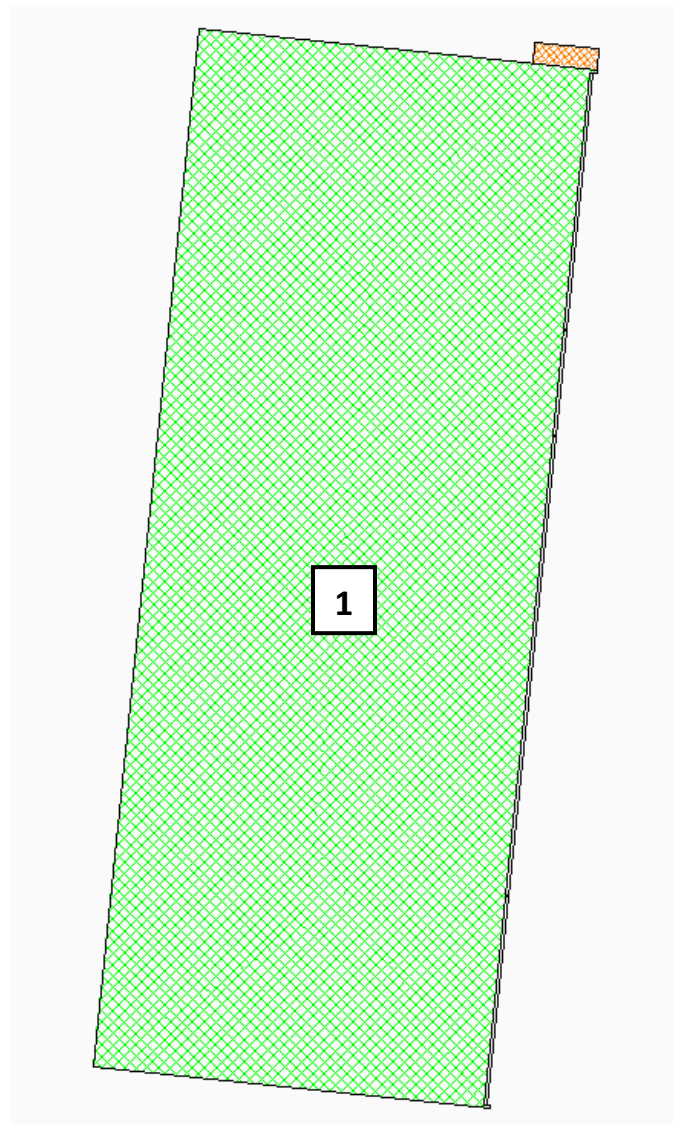


Figure 3: Allowable Capacity Map

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, C_e

Surface Roughness Category	Exposure of Roof ^a		
	Fully Exposed	Partially Exposed	Sheltered
B (see Section 26.7)	0.9	1.0	1.2
C (see Section 26.7)	0.9	1.0	1.1
D (see Section 26.7)	0.8	0.9	1.0
Above the tree line in windswept mountainous areas	0.7	0.8	NA
In Alaska, in areas where trees do not exist within a 2-mi (3-km) radius of the site	0.7	0.8	NA

Table 7.3-2 Thermal Factor, C_t

Thermal Condition ^a	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 $25^{\circ}\text{F} \times h \times \text{ft}^2/\text{Btu}$ ($4.4 \text{ K} \times \text{m}^2/\text{W}$)	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 $2.0^{\circ}\text{F} \times h \times \text{ft}^2/\text{Btu}$ ($0.4 \text{ K} \times \text{m}^2/\text{W}$)	0.85

A2 – AISC 360-16 Equation H1.2, H1-1b

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 $\frac{P_r}{P_c} \geq 0.2$

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

(b) When $\frac{P_r}{P_c} < 0.2$

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

A3 – ASCE Chapter 8.3 Design Rain Loads

8.3 DESIGN RAIN LOADS

Each portion of a roof shall be designed to sustain the load of all rainwater that will accumulate on it if the primary drainage system for that portion is blocked plus the uniform load caused by water that rises above the inlet of the secondary drainage system at its design flow.

$$R = 5.2(d_s + d_h) \quad (8.3-1)$$

$$R = 0.0098(d_s + d_h) \quad (8.3-1.\text{si})$$

If the secondary drainage systems contain drain lines, such lines and their point of discharge shall be separate from the primary drain lines. Rain loads shall be based on the total head (static head [d_s] plus hydraulic head [d_h]) associated with the design flow rate for the specified secondary drains and drainage system. The total head corresponding to the design flow rate for the specified drains shall be based on hydraulic test data.

A4 – NSPC NJ ED Section 13.1.10.1 and IBC Section 1611

13.1.10.1 Primary Roof Drainage

Roof areas of buildings shall be drained by roof drains or scuppers unless gutters and downspouts or other non-plumbing drainage is provided. The location and sizing of roof drains and scuppers shall be coordinated with the structural design and slope of the roof. Rainfall rates shall be applied so that the applicable rainfall rate for Burlington and Ocean counties and all counties south shall be six inches per hour and for Mercer and Monmouth counties and all counties north, the applicable rainfall rate shall be five inches per hour.

Section 1611 Rain Loads

1611.1 Design Rain Loads

Each portion of a roof shall be designed to sustain the *load* of rainwater as per the requirements of Chapter 8 of ASCE 7. The design rainfall rates shall be based on the plumbing subcode, *N.J.A.C. 5:23-3.15*.

$$R = 5.2(d_s + d_h) \quad \text{(Equation 16-19)}$$

For SI: $R = 0.0098(d_s + d_h)$

where:

- d_h = Additional depth of water on the undeflected roof above the inlet of secondary drainage system at its design flow (in other words, the hydraulic head), in inches (mm).
- d_s = Depth of water on the undeflected roof up to the inlet of secondary drainage system when the primary drainage system is blocked (in other words, the static head), in inches (mm).
- R = Rain load on the undeflected roof, in psf (kN/m²). Where the phrase "undeflected roof" is used, deflections from *loads* (including *dead loads*) shall not be considered when determining the amount of rain on the roof.

1611.2 Ponding Instability

Susceptible bays of roofs shall be evaluated for ponding instability in accordance with Chapters 7 and 8 of ASCE 7.

1611.3 Controlled Drainage

Roofs equipped with hardware to control the rate of drainage shall be equipped with a secondary drainage system at a higher elevation that limits accumulation of water on the roof above that elevation. Such roofs shall be designed to sustain the *load* of rainwater that will accumulate on them to the elevation of the secondary drainage system plus the uniform *load* caused by water that rises above the inlet of the secondary drainage system at its design flow determined from Section 1611.1. Such roofs shall be checked for ponding instability in accordance with Section 1611.2.

A5 – Structural Calculations in compliance with NJAC 5:23-6.6(c)

The following calculations below are determined to be in compliance with NJAC 5:23-6.6(c).

(c) The work shall not cause any diminution of existing structural strength, system capacity or mechanical ventilation below that which exists at the time of application for a permit or that which is required by the applicable subcodes of the Uniform Construction Code, whichever is lower. The replacement or addition of fixtures, equipment or appliances shall not increase loads on these systems unless the system is upgraded in accordance with the applicable subcode of the UCC to accommodate the increased load.

1. Newly introduced fixed loads shall not exceed the uniformly distributed live loads or concentrated live load criteria of Table 1607.1 of the building subcode or Table R301.5 of the one- and two-family dwelling subcode, as applicable, and shall not create deflection that exceeds the standards set forth below. As used in this section, fixed loads shall mean uniform or concentrated loads and shall include, but not be limited to, equipment, files, library stacks, or similar loading conditions. (Building)

i. For wood frame construction, deflection shall not exceed $L/180$ for roofs with a slope of 3 in 12 or less or $L/120$ for roofs with a slope of greater than 3 in 12 and for floors.

ii. For steel frame construction, deflection shall not exceed $L/240$ for roofs with a slope of 3 in 12 or less or $L/180$ for roofs with a slope of greater than 3 in 12 and for floors.

iii. For concrete construction, deflection shall not exceed $L/180$ for roofs or $L/240$ for floors.

Appendix B

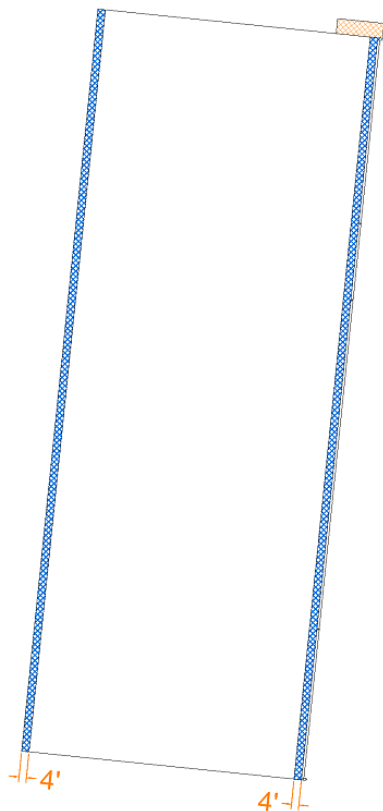
Calculations

Roof A1 Design Rain Load

I (water depth)	3.02 in/hr	NOAA National Weather Service, Precipitation Frequency Data Server, Atlas 14
A(tributary area)	1360 sq.ft	
ds	1 inches	
dh	1 inches	ASCE Table C8-1
$Q = 0.0104 \times A \times i$	Rain water flow	ASCE 7-16 Equation C8.3-1
$R = 5.2(ds+dh)$	Design Rain Load	ASCE 7-16 Equation 8.3-1
Q	42.71 gal/min	Rain water flow

R1 10.4 psf Design Rain Load

Ponding Areas



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	B21	21	138.4615	DStIS3	Ordinary Moment Frame	Main Beams	Slender

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
LRFD	Direct Analysis	General 2nd Order	Tau-b Fixed

Stiffness Reduction Factors

$\alpha P_r / P_y$	$\alpha P_r / P_e$	τ_b	EA factor	EI factor
-3.435E-04	-2.702E-04	1	0.8	0.8

Design Code Parameters

ϕ_b	ϕ_c	ϕ_{TY}	ϕ_{TF}	ϕ_v	ϕ_{V-RI}	ϕ_{VT}
0.9	0.9	0.9	0.75	0.9	1	1

Section Properties

A (in ²)	J (in ⁴)	I ₃₃ (in ⁴)	I ₂₂ (in ⁴)	A _{v3} (in ²)	A _{v2} (in ²)
5.59	0.15	111.66	3.06	2.14	3.6

Design Properties

S ₃₃ (in ³)	S ₂₂ (in ³)	Z ₃₃ (in ³)	Z ₂₂ (in ³)	r ₃₃ (in)	r ₂₂ (in)	C _w (in ⁶)
18.61	1.48	22.46	2.46	4.4707	0.7397	104.42

Material Properties

E (lb/in ²)	f _y (lb/in ²)	R _y	C _{pr}	α
29000000	50000	1.1	1.4	NA

Stress Check forces and Moments

Location (in)	P _u (kip)	M _{u33} (kip-ft)	M _{u22} (kip-ft)	V _{u2} (kip)	V _{u3} (kip)	T _u (kip-ft)
138.4615	0.096	14.9166	0	-0.185	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_{ltb}	K_{ltb}	C_b
0.5	1	1.034

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

D/C Ratio =	$(P_r / 2P_c) + (M_{r33} / M_{c33}) + (M_{r22} / M_{c22})$
0.559 =	1.909E-04 + 0.559 + 0

Axial Force and Capacities

P_u Force (kip)	ϕP_{nc} Capacity (kip)	ϕP_{nt} Capacity (kip)
0.096	7.672	251.388

Moments and Capacities

	M_u Moment (kip-ft)	ϕM_n (kip-ft)	ϕM_n No LTB (kip-ft)	$\phi M_n C_b=1$ (kip-ft)
Major Bending	14.9166	26.6706	84.2256	25.7816
Minor Bending	0	8.9019		

Shear Design

	V_u Force (kip)	ϕV_n Capacity (kip)	Stress Ratio
Major Shear	0.185	97.2	0.002
Minor Shear	0	57.845	0

End Reaction Major Shear Forces

Left End Reaction (kip)	Load Combo	Right End Reaction (kip)	Load Combo
2.401	DStlS3	2.401	DStlS3

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	B49	73	476	DSItS3	Ordinary Moment Frame	W21X62	Slender

LLRF and Demand/Capacity Ratio

L (in)	LLRF	Stress Ratio Limit
480.0000	0.617	0.95

Analysis and Design Parameters

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

Stiffness Reduction Factors

$\alpha P_r / P_y$	$\alpha P_r / P_e$	τ_b	EA factor	EI factor
0.003	0.002	1	0.8	0.8

Design Code Parameters

ϕ_b	ϕ_c	ϕ_{TY}	ϕ_{TF}	ϕ_v	ϕ_{V-RI}	ϕ_{VT}
0.9	0.9	0.9	0.75	0.9	1	1

Section Properties

A (in ²)	J (in ⁴)	I ₃₃ (in ⁴)	I ₂₂ (in ⁴)	A _{v3} (in ²)	A _{v2} (in ²)
18.3	1.83	1330	57.5	10.14	8.4

Design Properties

S ₃₃ (in ³)	S ₂₂ (in ³)	Z ₃₃ (in ³)	Z ₂₂ (in ³)	r ₃₃ (in)	r ₂₂ (in)	C _w (in ⁶)
126.67	13.96	144	21.7	8.5251	1.7726	5957.54

Material Properties

E (lb/in ²)	f _y (lb/in ²)	R _y	C _{pr}	α
29000000	50000	1.1	1.4	NA

Stress Check forces and Moments

Location (in)	P _u (kip)	M _{u33} (kip-ft)	M _{u22} (kip-ft)	V _{u2} (kip)	V _{u3} (kip)	T _u (kip-ft)
476	-2.969	-210.4104	0.0024	28.389	-0.001	8.242E-06

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	0.167	1	1	1	1	1

Parameters for Lateral Torsion Buckling

L_{ltb}	K_{ltb}	C_b
0.167	1	1.024

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

D/C Ratio =	$(P_r / 2P_c) + (M_{r33} / M_{c33}) + (M_{r22} / M_{c22})$
0.392 =	0.002 + 0.39 + 2.986E-05

Axial Force and Capacities

P_u Force (kip)	ϕP_{nc} Capacity (kip)	ϕP_{nt} Capacity (kip)
2.969	629.498	823.5

Moments and Capacities

	M_u Moment (kip-ft)	ϕM_n (kip-ft)	ϕM_n No LTB (kip-ft)	$\phi M_n C_b=1$ (kip-ft)
Major Bending	210.4104	540	540	532.8545
Minor Bending	0.0024	81.375		

Shear Design

	V_u Force (kip)	ϕV_n Capacity (kip)	Stress Ratio
Major Shear	28.389	252	0.113
Minor Shear	0.001	273.65	0

End Reaction Major Shear Forces

Left End Reaction (kip)	Load Combo	Right End Reaction (kip)	Load Combo
19.576	DStIS3	28.389	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	C12	54	123	DSItS3	Ordinary Moment Frame	Columns	Non-Compact

LLRF and Demand/Capacity Ratio

L (in)	LLRF	Stress Ratio Limit
144.0000	0.573	0.95

Analysis and Design Parameters

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

Stiffness Reduction Factors

$\alpha P_r / P_y$	$\alpha P_r / P_e$	τ_b	EA factor	EI factor
0.071	0.046	1	0.8	0.8

Design Code Parameters

ϕ_b	ϕ_c	ϕ_{TY}	ϕ_{TF}	ϕ_v	ϕ_{V-RI}	ϕ_{VT}
0.9	0.9	0.9	0.75	0.9	1	1

Section Properties

A (in ²)	J (in ⁴)	I ₃₃ (in ⁴)	I ₂₂ (in ⁴)	A _{v3} (in ²)	A _{v2} (in ²)
9.13	0.54	110	37.1	6.96	2.28

Design Properties

S ₃₃ (in ³)	S ₂₂ (in ³)	Z ₃₃ (in ³)	Z ₂₂ (in ³)	r ₃₃ (in)	r ₂₂ (in)	C _w (in ⁶)
27.5	9.28	30.4	14.1	3.4711	2.0158	531.09

Material Properties

E (lb/in ²)	f _y (lb/in ²)	R _y	C _{pr}	α
29000000	50000	1.1	1.4	NA

Stress Check forces and Moments

Location (in)	P _u (kip)	M _{u33} (kip-ft)	M _{u22} (kip-ft)	V _{u2} (kip)	V _{u3} (kip)	T _u (kip-ft)
123	-32.334	-5.0095	0.0006	0.79	-4.889E-04	0

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

	L Factor	K ₁	K ₂	B ₁	B ₂	C _m
Major Bending	0.854	1	1	1	1	0.354
Minor Bending	0.854	1	1	1	1	0.549

Parameters for Lateral Torsion Buckling

L_{ltb}	K_{ltb}	C_b
0.854	1	2.196

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

D/C Ratio =	$(P_r / 2P_c) + (M_{r33} / M_{c33}) + (M_{r22} / M_{c22})$
0.096 =	0.052 + 0.044 + 1.074E-05

Axial Force and Capacities

P_u Force (kip)	ϕP_{nc} Capacity (kip)	ϕP_{nt} Capacity (kip)
32.334	312.938	410.85

Moments and Capacities

	M_u Moment (kip-ft)	ϕM_n (kip-ft)	ϕM_n No LTB (kip-ft)	$\phi M_n C_b=1$ (kip-ft)
Major Bending	5.0095	113.8774	113.8774	106.5904
Minor Bending	0.0006	52.7913		

Shear Design

	V_u Force (kip)	ϕV_n Capacity (kip)	Stress Ratio
Major Shear	0.79	68.4	0.012
Minor Shear	4.889E-04	187.92	0

Joint Design

Continuity Plate Area (in ²)	Load Combo	Doubler (in)	Load Combo
1.81	DStIS3	0.3038	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	B29	29	161.5385	DStID1	Ordinary Moment Frame	Main Beams

LLRF and Demand/Capacity Ratio

L (in)	LLRF	Stress Ratio Limit
300.0000	1	0.95

DEFLECTION DESIGN (Combo DStID1)

Type	Consider	Deflection in	Limit in	Ratio	Status
Dead Load	Yes	0.3283	2.5	0.131	OK
Super DL + Live Load	Yes	0	2.5	0	OK
Live Load	Yes	0	0.8333	0	OK
Total Load	Yes	0.3283	1.25	0.263	OK
Total - Camber	Yes	0.3283	1.25	0.263	OK

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	B47	71	240.36	DStID1	Ordinary Moment Frame	W21X62

LLRF and Demand/Capacity Ratio

L (in)	LLRF	Stress Ratio Limit
480.0000	0.6	0.95

DEFLECTION DESIGN (Combo DStID1)

Type	Consider	Deflection in	Limit in	Ratio	Status
Dead Load	Yes	0.0831	4	0.021	OK
Super DL + Live Load	Yes	0	4	0	OK
Live Load	Yes	0	1.3333	0	OK
Total Load	Yes	0.0831	2	0.042	OK
Total - Camber	Yes	0.0831	2	0.042	OK

SITE PLAN WAIVER
COMMUNITY SOLAR
SOLAR ROOFTOP SYSTEM - 1 KEYSTONE AVE
BLOCK 484.01, LOT 1
TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY

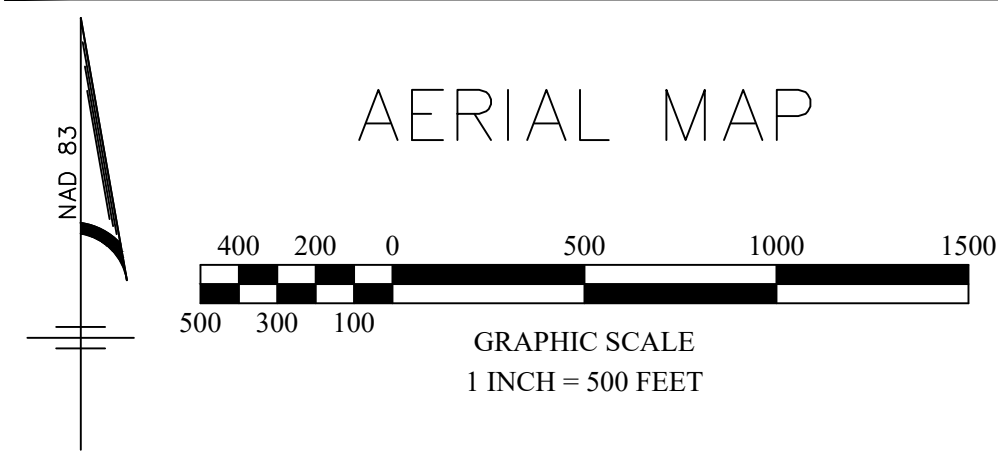
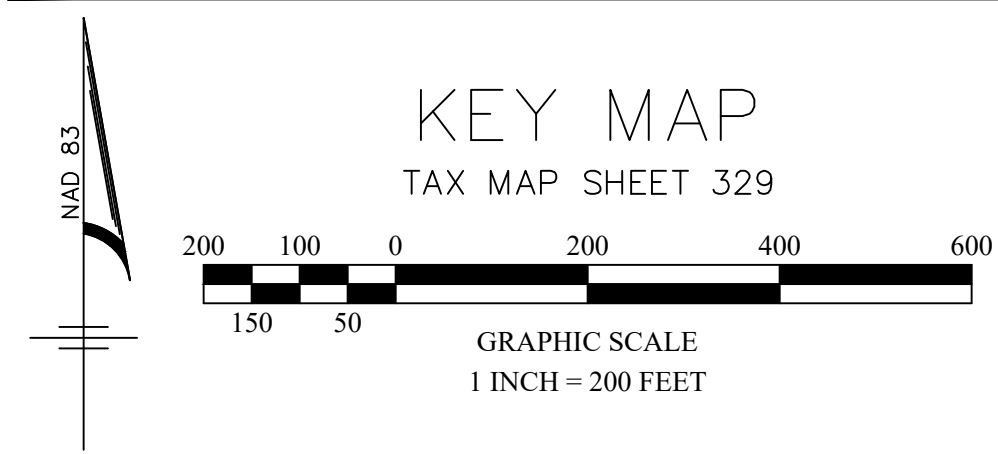
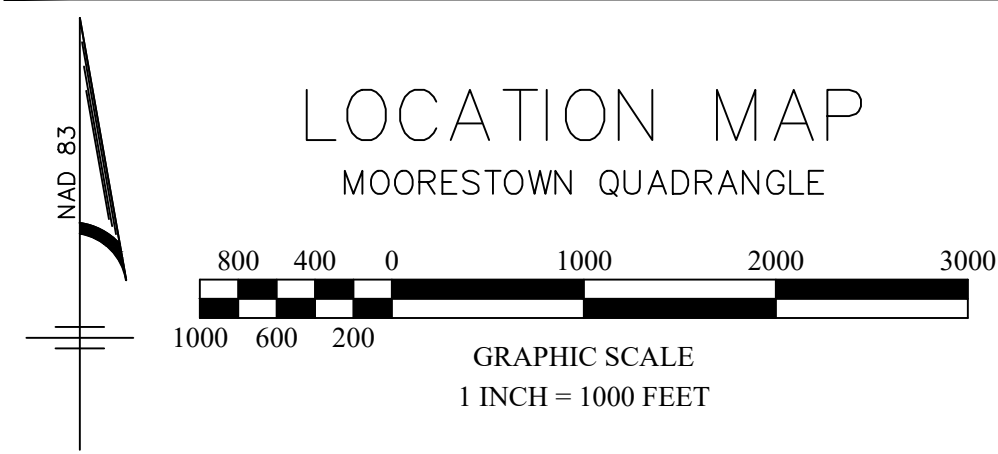
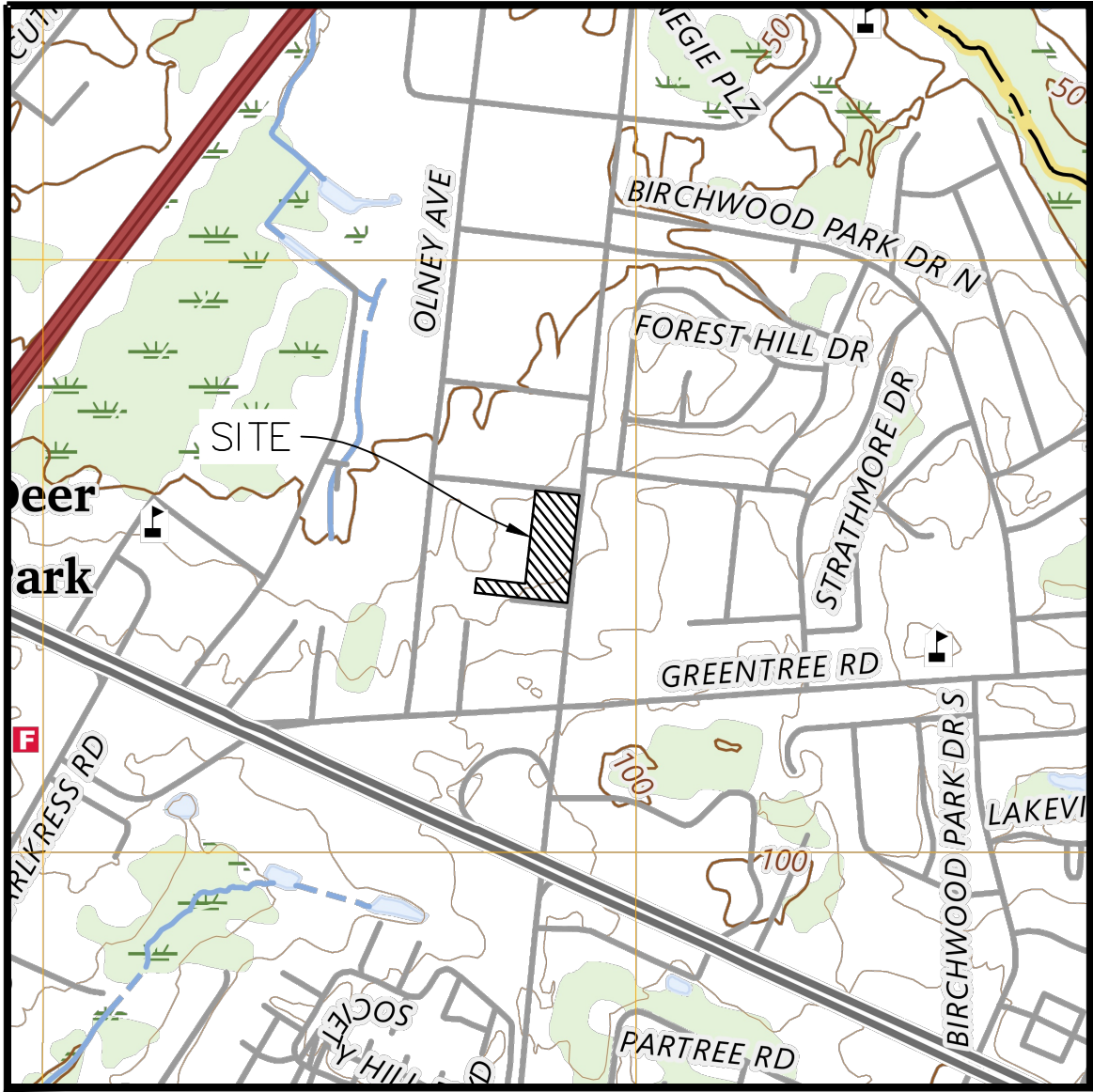
GENERAL NOTES:

1.

APPLICANT

SOLAR LANDSCAPE, LLC
522 COOKMAN AVE – UNIT 3
ASBURY PARK, NJ 07712
- OWNER

CHERRY UMBRELLA, LLC
4 RADNOR CORP CTR STE 105
RADNOR, PA 19087
2.
- SITE IS KNOWN AND DESIGNATED AS BLOCK 484.01, LOT 1 AS SHOWN ON THE CURRENT TAX ASSESSMENT MAP OF THE TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY (SHEET 329).
3.
- EXISTING BOUNDARY AND STRUCTURES INFORMATION SHOWN ON PLAN ENTITLED "1 KEYSTONE AVENUE; CITY OF CHERRY HILL; COUNTY OF CAMDEN; STATE OF NEW JERSEY" PREPARED BY MILLMAN NATIONAL LAND SERVICES, DATED 04/13/18.
4.
- SITE COORDINATES: 561,277' N, 504,167' E
5.
- HORIZONTAL DATUM: NAD 83 VERTICAL DATUM: NAVD 88
6.
- IN ACCORDANCE WITH STATE LAW, THE CONTRACTOR IS REQUIRED TO CALL THE BOARD OF PUBLIC UTILITIES ONE CALL DAMAGE PROTECTION SYSTEM OR UTILITY MARK OUT IN ADVANCE OF ANY EXCAVATION.
7.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. ADDITIONALLY, ALL 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 THE 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 OBLIGATION OF THE CONTRACTOR.
8.
- THE CONTRACTOR SHALL NOTIFY ALL AGENCIES HAVING JURISDICTION AT LEAST 72 HOURS IN ADVANCE OF ANY WORK.
9.
- UNLESS OTHERWISE INDICATED, ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
11.
- THE CONTRACTOR IS DIRECTED TO THE FACT THAT THE APPROXIMATE LOCATIONS OF KNOWN UTILITY STRUCTURES AND FACILITIES THAT MAY BE ENCOUNTERED WITHIN AND ADJACENT TO THE LIMITS OF THE WORK ARE SHOWN ON THE PLANS. THE ACCURACY AND COMPLETENESS OF THIS INFORMATION IS NOT GUARANTEED BY THE ENGINEER, AND THE CONTRACTOR IS ADVISED TO VERIFY IN THE FIELD ALL THE FACTS CONCERNING THE LOCATION OF THESE UTILITIES OR OTHER POTENTIAL CONFLICT PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE 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 PRIOR 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.
19.
- THE PROPOSED SITE IMPROVEMENTS WILL HAVE NO IMPACT ON SITE SECURITY, CIRCULATION, PARKING OR 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 SF.



Variances Requested	
<ul style="list-style-type: none">D Use Variance. Although Solar energy infrastructure is a permitted accessory use in the IR zone (§Section 419.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 89.2%. (Section § 419.F.1)Bulk Variance. The minimum required open space for the lot is 25%. The proposed open space is 10.8%. (Section § 419.F.1)	
Pre-Existing Non-Conforming Conditions	
<ul style="list-style-type: none">The maximum permitted building coverage for the lot is 30%. The current total building coverage is 36.8%. (Section § 419.F.1)	

INDUSTRIAL RESTRICTED (IR) OVERLAY ZONING SCHEDULE				
1 KEYSTONE AVE - BLOCK 484.01, LOT 1				
PROPOSED USE: COMMUNITY SOLAR ENERGY PROJECT ¹				
	REQUIRED	EXISTING	PROPOSED	COMPLIES
MIN. LOT AREA	20,000 SF	168,600 SF	NO CHANGE	YES
MIN. LOT FRONTAGE	100 FT	245.0 FT	NO CHANGE	YES
MIN. LOT DEPTH	120 FT	600.0 FT	NO CHANGE	YES
MIN. FRONT YARD SETBACK	30 FT	78.6 FT	NO CHANGE	YES
MIN. REAR YARD SETBACK	20 FT	109.7 FT	NO CHANGE	YES
MIN. SIDE YARD SETBACK				
	10 FT	30.5 FT	NO CHANGE	YES
ONE SIDE AGGREGATE	24 FT	90.7 FT	NO CHANGE	YES
MAX. BUILDING HEIGHT**	35 FT	18.0 FT	NO CHANGE***	YES
MAX. LOT COVERAGE	70 %	89.1 %	89.2 %	NO ²
MIN. OPEN SPACE	25 %	10.9 %	10.8 %	NO ²
MAX. BUILDING COVERAGE	30 %	36.8 %	NO CHANGE	NO*

¹Use Variance Requested

²Bulk Variance Requested

³Existing 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 8.5 inches to building height thus not significantly affecting overall height.

DRAWING INDEX

No.	Description	Revision Date
1.	TITLE SHEET	ORIGINAL SUBMISSION
2.	SITE PLAN	ORIGINAL SUBMISSION
3.	CONSTRUCTION DETAILS	ORIGINAL SUBMISSION

200' PROPERTY OWNERS LIST

BLOCK	LOT	QUALIFIER	OWNER	OWNER ADDRESS	CITY	STATE	ZIP
479.01	1		LYNK COMPUTER LLC	1868 GREENTREE ROAD	CHERRY HILL	NJ	08003
479.01	9		MCLELLAND, KEATH E	1914 OLNEY AVE	CHERRY HILL	NJ	08003
479.01	10		ELMORE GLINNIE	1916 OLNEY AVE	CHERRY HILL	NJ	08003
480.01	6		COPPOLA CHRISTIAN & MARIA	64 E CEDAR AVENUE	MARLTON	NJ	08053
480.01	8		GALLEMIT, JOSE & ET ALS	1923 OLNEY AVE	CHERRY HILL	NJ	08003
480.01	9		DEL GUERCIO, MARIE	PO BOX 234	MT LAUREL	NJ	08054
480.01	10		CHERRY HILL GOVT PROPERTIES, LLC	14000 HORIZON WAY STE 100	MT LAUREL	NJ	08054
481.01	3 & 4		1998 SPRINGDALE LLC	1998 SPRINGDALE RD S-101	CHERRY HILL	NJ	08003
481.01	5		THE SALT & LIGHT COMPANY INC	1841 BURLINGTON MT HOLLY	WESTAMPTON	NJ	08060
481.01	6		CARLIN, ANNA	1921 LINDEN AVE	CHERRY HILL	NJ	08003
482.01	8		1998 SPRINGDALE LLC	1998 SPRINGDALE RD S-101	CHERRY HILL	NJ	08003
483.01	1		BELLINI PROPERTY MANAGEMENT LLC	2010 SPRINGDALE ROAD	CHERRY HILL	NJ	08003
483.01	2		VIRGO SPRINGDALE ROAD PROPERTY LLC	2000 SPRINGDALE RD	CHERRY HILL	NJ	08003
485.01	1		CHERRY UMBRELLA LLC	4 RADNOR CORP CTR STE 105	RADNOR	PA	19087
486.01	1		VANDALAY AND COMPANY LLC	1930 OLNEY AVE	CHERRY HILL	NJ	08003
492.01	1		CHERRY UMBRELLA LLC	4 RADNOR CORP CTR STE 105	RADNOR	PA	19087
493.01	1		CHERRY UMBRELLA LLC	4 RADNOR CORP CTR STE 105	RADNOR	PA	19087
494.01	1		CHERRY UMBRELLA LLC	4 RADNOR CORP CTR STE 105	RADNOR	PA	19087

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

CHAIRMAN DATE

SECRETARY DATE

ENGINEER DATE

DATE	REVISIONS	BY
------	-----------	----



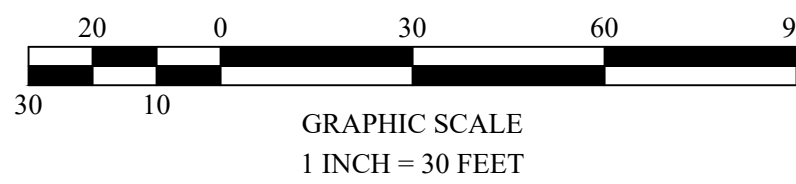
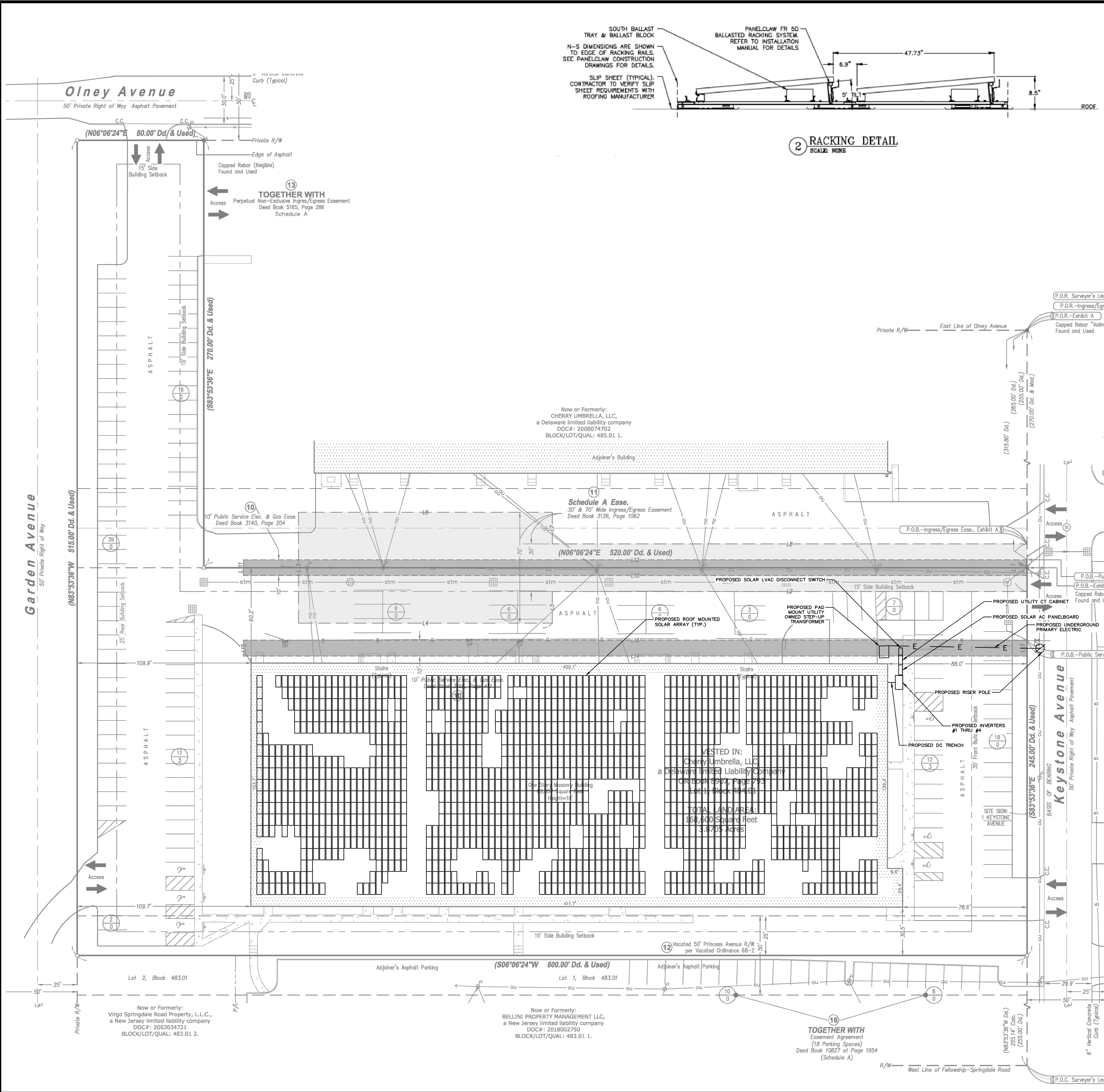
Certificate of Authorization No. 24GA28317800
Kevin E. Shelly, P.E. PE No. GE05031300
PO Box 257, Manasquan, NJ 08736
T: 732-924-8100 | F: 732-924-8110
www.shorepointengineering.com

Kevin E. Shelly, P.E.
PROFESSIONAL ENGINEER
N.J. Lic. No. GE05031300

SITE PLAN WAIVER
COMMUNITY SOLAR
SOLAR ROOFTOP SYSTEM - 1 KEYSTONE AVE
BLOCK 484.01, LOT 1
SITUATED IN
TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY

TITLE SHEET

SCALE: AS SHOWN	PROJECT No.: SLA-2423
RELEASED BY: KES	DATE: 02/21/25
CHECKED BY: RZH	Sheet Number 1 OF 3
DRAWN BY: MJW	



LAYOUT NOTES

1. APPLICANT: SOLAR LANDSCAPE, LLC
2. SITE IS KNOWN AND DESIGNATED AS BLOCK 484.01, LOT 1 AS SHOWN ON THE CURRENT TAX ASSESSMENT MAP OF THE TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY (SHEET 329).
3. EXISTING BOUNDARY AND STRUCTURES INFORMATION SHOWN ON PLAN ENTITLED "1 KEYSTONE AVENUE; CITY OF CHERRY HILL; COUNTY OF CAMDEN; STATE OF NEW JERSEY" PREPARED BY MILLMAN NATIONAL LAND SERVICES, DATED 04/13/18.
4. SITE COORDINATES: 561,277' N, 504,167' E
5. HORIZONTAL DATUM: NAD 83 VERTICAL DATUM: NAVD 88
6. UNLESS OTHERWISE INDICATED, ALL MATERIALS AND METHODS OF CONSTRUCTION SHALL CONFORM TO THE NEW JERSEY DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATION FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
7. 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.


INDUSTRIAL RESTRICTED (IR) OVERLAY ZONING SCHEDULE				
1 KEYSTONE AVE - BLOCK 484.01, LOT 1				
PROPOSED USE: COMMUNITY SOLAR ENERGY PROJECT ¹				
	REQUIRED	EXISTING	PROPOSED	COMPLIES
MIN. LOT AREA	20,000 SF	168,600 SF	NO CHANGE	YES
MIN. LOT FRONTAGE	100 FT	245.0 FT	NO CHANGE	YES
MIN. LOT DEPTH	120 FT	600.0 FT	NO CHANGE	YES
MIN. FRONT YARD SETBACK	30 FT	78.6 FT	NO CHANGE	YES
MIN. REAR YARD SETBACK	20 FT	109.7 FT	NO CHANGE	YES
MIN. SIDE YARD SETBACK				
ONE SIDE AGGREGATE	10 FT	30.5 FT	NO CHANGE	YES
	24 FT	90.7 FT	NO CHANGE	YES
MAX. BUILDING HEIGHT**	35 FT	18.0 FT	NO CHANGE***	YES
MAX. LOT COVERAGE	70 %	89.1 %	89.2 %	NO ²
MIN. OPEN SPACE	25 %	10.9 %	10.8 %	NO ²
MAX. BUILDING COVERAGE	30 %	36.8 %	NO CHANGE	NO*

¹Use Variance Requested
²Bulk Variance Requested
³Existing 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 8.5 inches to building height thus not significantly affecting overall height.

DATE

REVISIONS

BY



Certificate of Authorization No. 24GA28317800
Kevin E. Shelly P.E., PE No. GE05031300
PO Box 257, Manasquan, NJ 08736
T: 732-924-8100 | F: 732-924-8110
www.shorepointengineering.com

Date

Kevin E. Shelly, P.E.
PROFESSIONAL ENGINEER
N.J. Lic. No. GE05031300

SITE PLAN WAIVER
COMMUNITY SOLAR

SOLAR ROOFTOP SYSTEM - 1 KEYSTONE AVE
BLOCK 484.01, LOT 1

SITUATED IN
TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY

SITE PLAN

SCALE:
1"=30'

RELEASED BY:
KES

CHECKED BY:
RZH

DRAWN BY:
MJW

PROJECT No.:
SLA-2423

DATE:
02/21/25

Sheet Number
2 OF 3

SOLARMOUNT

SOLARMOUNT is the professionals' choice for residential PV mounting applications. Every aspect of the system is designed for an easier, faster installation experience. SOLARMOUNT is a complete solution with revolutionary universal clamps, FLASHKIT PRO, full system UL 2703 certification and 25-year warranty. Not only is SOLARMOUNT easy to install, but best-in-class aesthetics make it the most attractive on any block!

CONCEALED UNIVERSAL CLAMPS

OPTIONAL FRONT TRIM

25 YEAR DESIGN WARRANTY

New & Improved:
THE PROFESSIONALS' CHOICE
With Superior Aesthetics

NOW FEATURING FLASHKIT PRO
The Complete Roof Attachment Solution requires NO Flashing Solar™ accessories

NOW WITH UNIVERSAL MIDCLAMPS
Accommodates 30mm-50mm module frames One tool, one person installs are here!

REVOLUTIONARY NEW ENDCLAMPS
Connected design and isolated End Caps

THE PROFESSIONALS' CHOICE FOR RESIDENTIAL RACKING

BEST INSTALLATION EXPERIENCE • CURB APPEAL • COMPLETE SOLUTION • UNIRAC SUPPORT

SOLARMOUNT

BETTER DESIGNS
TRUST THE INDUSTRY'S BEST DESIGN TOOL
Start the design process for every project in our U-Builder, an in-line design tool. It's a great way to save time and money.

BETTER SYSTEMS
ONE SYSTEM - MANY APPLICATIONS
Quickly set modules flush to the roof on steep pitched roofs, Orient a large variety of modules in Portrait or Landscape. Fit the system up on flat or low-slow roofs. Components available in steel, clear, and dark finishes to optimize your design aesthetics and aesthetics.

BETTER RESULTS
MAXIMIZE PROFITABILITY ON EVERY JOB
Trust Unirac to help you minimize both system and labor costs from the time the job is quoted to the time your beams get off the roof. Faster installs. Less Waste. More Profits.

BETTER SUPPORT
WORK WITH THE INDUSTRY'S MOST EXPERIENCED TEAM
Professional support for professional installers and designers. You have access to our technical support and training group. Whatever your support needs, we've got you covered. Visit Unirac.com/solarmount for more information.

UNIRAC

CONCEALED UNIVERSAL ENDCLAMPS

END CAPS INCLUDED WITH EVERY ENDCLAMP

UNIVERSAL SELF-STANDING MIDCLAMPS

U-BUILDER ONLINE DESIGN TOOL SAVES TIME & MONEY
Visit design.unirac.com

UL2703

REINFORCED GROUNDING MECHANICAL LOADING SYSTEM PRE CLASSIFICATION

UNIRAC CUSTOMER SERVICE MEANS THE HIGHEST LEVEL OF PRODUCT SUPPORT

UNMATCHED EXPERIENCE

CERTIFIED QUALITY

ENGINEERING EXCELLENCE

BANKABLE WARRANTY

DESIGN TOOLS

PERMIT DOCUMENTATION

TECHNICAL SUPPORT
Unirac's technical support team is dedicated to answering questions & addressing issues in real time. An online library of documents including engineering reports, stamped letters and technical data sheets greatly simplifies your permitting and project planning process.

CERTIFIED QUALITY PROVIDER
Unirac is the only PV mounting vendor with ISO certifications for 9001:2008, 9001:2014 and OHSAS 18001:2007, which means we deliver the highest standards for fit, form, and function. These certifications demonstrate our excellence and commitment to first class business practices.

BANKABLE WARRANTY
Don't leave your project to chance. Unirac has the financial strength to back our products and reduce your risk. Have peace of mind knowing you are providing products of exceptional quality. SOLARMOUNT is covered by a 25 year limited product warranty and a 5 year limited finish warranty.

ENHANCE YOUR REPUTATION WITH QUALITY RACKING SOLUTIONS BACKED BY ENGINEERING EXCELLENCE AND A SUPERIOR SUPPLY CHAIN

AlsoEnergy

The operating system for the grid of the future

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 O&M and asset managers.

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 Modem (requires the addition of a cellular plan to utilize the cell modem)

Solution Features

- Up to 20 external inverters
- Modbus via RS-485 or TCP connections to inverters
- Cellular or Ethernet connectivity
- Remote firmware updates
- Up to 1 minute data granularity
- Uploads at 5 minute intervals
- Suitable for demand meter, relay, other non-PV use cases
- For systems with a single metering point, direct metering or PT secondary voltage up to 600VAC
- 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

PLCS-600-CM-PLUS	+ cell modem, + reference cell, BOM panel temperature, ambient temperature, wind speed
PLCS-600-CM-BASE	+ cell modem, + reference cell, BOM panel temperature
PLCS-600-CM-00	+ cell modem, no environmental sensors
PLCS-600-00-PLUS	no cell modem, + reference cell, BOM panel temperature, ambient temperature, wind speed
PLCS-600-00-BASE	no cell modem, + reference cell, BOM panel temperature
PLCS-600-00-00	no cell modem, no environmental sensors

201.1 © AlsoEnergy, Inc / 5400 Airport Blvd. Ste. 100 Boulder, CO 80501 USA / 866.303.5668

To find out more or schedule a demo, contact us at alsoenergy.com

Exclusive 3-in-1 design

Significant savings in cost and space... plus quicker installation. Three individual components combined into a single unit.

Contemporary electrical distribution systems are required to do more in less space, while at the same time being cost-effective.

Eaton provides a solution to these requirements with the proven mini-power center. It occupies considerably less space and can save up to 31 percent of the installation costs normally required when individual components are used.

The solution is possible because a mini-power center combines three individual components into one NEMA® enclosure, rated either 3R or 4X for harsh environments (corrosion, dust, hose-directed water): a main breaker, an encapsulated single-phase or three-phase dry-type transformer, and a secondary distribution loadcenter with main breaker. Interconnecting wiring is completed at the factory.

A mini-power center is delivered ready for installation. It's also suitable for use as service entrance equipment.

NEMA enclosure

2

EATON Mini-power centers

Compare the space savings... 30 inches instead of 72 inches! Specify the mini-power center

Compare the installation cost savings—31 percent less

Because we knew that putting three components in one enclosure dramatically cuts installation time, we asked an electrical contractor to estimate the job two ways:

- Using a separate breaker, transformer and loadcenter, including the connecting cable and hardware
- Using a mini-power center

Here are the estimates:

Installation	15 kVA	25 kVA
Three-component system	72" Wide	72" Wide
Mini-power center	30" Wide	30" Wide

Time savings: 31% savings, 28% savings

Optional primary main circuit breakers for plug-in chassis

Primary main breaker	480 V kAIC	600 V kAIC
3BD/3B	10/18	~14
FD	25	18
FD	40	25
FD	100	35

Normal layout: 72" Wide

Mini-power center: 30" Wide

Note: Comparison made on a typical 15 kVA three-phase MPC Type 3R.

Eaton's SPD Series

For integration into electrical distribution equipment

Introduction

Eaton's SPD Series surge protective devices

Eaton's SPD Series surge protective devices are the latest and most advanced UL® 1449 4th Edition certified surge protectors. Units are available integrated within Eaton electrical assemblies, including panelboards, switchboards, motor control centers, switchgear and bus plugs. Application of SPD Series units throughout a facility will ensure that equipment is protected with the safest and most reliable surge protective devices available.

SPD Series units are available in all common voltages and configurations, and also in a variety of surge current capacity ratings from 50 kA through 400 kA. Three feature package options are also available to choose from.

Applications

The increasing necessity for facility-wide surge protection

The ever-increasing use of microprocessors and other sensitive electronic equipment has increased the necessity for facility-wide surge protection. These sensitive electronic components are used within many pieces of equipment, including computers, programmable logic controllers, and other commonly used electrical and electronic equipment. Surges can wreak havoc on equipment, causing catastrophic failures, process interruptions and premature aging leading to failure. The application of surge protective devices (SPDs) can mitigate problems with sensitive electronic equipment, keeping the equipment and the related processes up and running reliably without disruption or damage due to surge-related events.

Features

- Uses thermally protected metal oxide varistor (MOV) technology
- 20 kA nominal discharge current (In) rating (maximum rating assigned by UL)
- 50 through 400 kA surge current capacity ratings
- Three feature package options
- 200 kA short-circuit current rating (SCCR)
- Available integrated within the following Eaton electrical assemblies: panelboards, switchboards, motor control centers, switchgear, automatic transfer switches and bus plugs
- Can be used for UL 96A compliance
- Can be used for NFPA 780 compliance
- Can be used for RoHS compliance
- 10-year warranty

The breadth of the SPD Series features, options and configurations ensures that the correct unit is available for all electrical applications, including service entrances, distribution switchboards, panelboards and point-of-use applications.

Surge protective devices

Standards and certifications

- UL 1449 4th Edition recognized component for the United States and Canada, covered by Underwriters Laboratories certification and follow-up service

EATON

Powering Business Worldwide

Specifications

Description	Rating
Surge current capacity per phase	50, 80, 100, 120, 160, 200, 250, 300 and 400 kA ratings available
Nominal discharge current (In)	20 kA
Short-circuit current rating (SCCR)	200 kA
SPD type	Basic feature package = Type 1 can also be used in Type 2 applications Standard and standard with surge counter feature packages = Type 2
System voltages available (Vdc)	
Single split-phase (three-wire plus ground)	120/240
Three-phase wye (four-wire plus ground)	120/208, 127/220, 230/400, 277/480, 347/600
Three-phase delta (three-wire plus ground)	240, 480, 600
Three-phase high leg delta (three-wire plus ground)	120/240
Input power frequency	50/60 Hz
Protection modes	
Single-split-phase	L-N, L-G, L-L, N-G
Three-phase wye	L-N, L-G, L-L, N-G
Three-phase delta	L-G, L-L
Three-phase high leg delta	L-N, L-G, L-L, N-G
Operating temperature	-40 °F to 122 °F (-40 °C to +50 °C)
Operating humidity	5% through 95%, noncondensing
Agency certifications and approvals	UL 1449 4th Edition recognized component for the United States and Canada UL 1203 7th Edition (Type 2 SPDs only)
Warranty	10 years

SPD Series catalog number configuration for units integrated into electrical distribution equipment

SPD 250 480D 2 J

Series	1A feature	Voltage code	Feature package	Integrated with	Application
SPD - Surge protective device	50 - 50 kA per phase 80 - 80 kA per phase 100 - 100 kA per phase 120 - 120 kA per phase 160 - 160 kA per phase 200 - 200 kA per phase 250 - 250 kA per phase 300 - 300 kA per phase 400 - 400 kA per phase	2005 = 120/240 single split-phase 220V = 120/208 vye (W-G) 220V = 127/220 vye (W-G) 400V = 230/400 vye (W-G) 400V = 277/480 vye (W-G) 600V = 240/480 vye (W-G) 240V = 240 delta (W-G) 480V = 480 delta (W-G) 240N = 240 delta high leg (W-G) on "N" phase	1 = Basic 2 = Standard 3 = Standard + surge counter	A = Panelboards (PRL3a, 2a, 3a, 3B), direct bus mounted B = Switchgear (includes remote display) C = Panelboards (PRL3a, 2a, 3a, 3B, 4, 4B), switchboards, busway J = Motor control centers	

Example: SPD250480D2J = SPD Series, 250 kA per phase, 480D voltage, standard feature package, motor control center application

- Please consult the factory for 240 delta high leg (W-G) applications with high leg on "C" phase.
- Delta used in PRL3a, 2a, 3a and 3B panelboard applications are available in 50-250 kA ratings only. Use the "C" option for PRL3a, 2a, 3a and 3B panelboard applications where not to connected through a circuit breaker.

Eaton

1000 Riverchase Boulevard
Channahon, IL 61602
United States
Eaton.com

© 2014 Eaton
All Rights Reserved
Publication No. PA02SE000006 / 2210666
November 2010

Eaton is a registered trademark.
All other trademarks are property of their respective owners.

SHORE POINT ENGINEERING

Certificate of Authorization No. 24GA28317800
Kevin E. Shelly, P.E., PE No. GE05031300
PO Box 257, Manasquan, NJ 08736
T: 732-924-8100 | F: 732-924-8110
www.shorepointengineering.com

DATE

REVISIONS

BY

SHORE POINT ENGINEERING

Certificate of Authorization No. 24GA28317800
Kevin E. Shelly, P.E., PE No. GE05031300
PO Box 257, Manasquan, NJ 08736
T: 732-924-8100 | F: 732-924-8110
www.shorepointengineering.com

Date

Kevin E. Shelly, P.E.
PROFESSIONAL ENGINEER
N.J. Lic. No. GE05031300

SITE PLAN WAIVER

COMMUNITY SOLAR

SOLAR ROOFTOP SYSTEM - 1 KEYSTONE AVE
BLOCK 484.01, LOT 1

SITUATED IN
TOWNSHIP OF CHERRY HILL, CAMDEN COUNTY, NEW JERSEY

CONSTRUCTION DETAILS

SCALE: AS SHOWN	PROJECT No.: SLA-2423
RELEASED BY: KES	DATE: 02/21/25
CHECKED BY: RZH	Sheet Number
DRAWN BY: MJW	3 OF 3