

Plainsboro Township

Minor Site Plan

Application: P20-02

Memo Date: 5/27/20

Meeting Date: 6/15/20

Planning Board Review Memo

Name of Applicant: Astrum Solar Inc. for
Children's Hospital of Philadelphia (CHOP)

Type of Application: Minor Site Plan

Name of Project: CHOP Solar Project

Property Location: Block 1701, Lot 4.02

Zone: Redevelopment Area

Present Use of Property: Lawn area on existing CHOP site

Adjacent Land Uses: North: Undeveloped (Office/Residential Complex)
South: Plainsboro Road and Merwick Care Facility
East: Undeveloped NJDOT wetlands mitigation area
West: Punia Boulevard and Princeton Medical Center

PROJECT OVERVIEW

Project Description

The applicant, Astrum Solar Inc. (d/b/a Centrica Business Solutions), is proposing to install a 409.60 kW photovoltaic (PV) system at the rear of the Children's Hospital of Philadelphia (CHOP) property located at 101 Plainsboro Road. The proposed project consists of a ground-mounted installation behind the existing CHOP facility within an area that is currently developed as lawn area and planted trees; mostly along the property line shared with the undeveloped Office/Residential Complex (ORC) property to the north. This area where the proposed improvements would be installed was approved for parking in connection with the potential future phased expansion of the CHOP facility. It is CHOP's desire to retain its approval rights to install parking within this area should it decide to expand its facility in the future. If that option is pursued in the future, the proposed

solar installation would be removed from the site or, subject to Planning Board approval, possibly relocated elsewhere on the property.

Project Rationale

The applicant's project narrative states that greenhouse gases have a cumulative impact on climate and the environment. The proposed solar project will assist CHOP in offsetting carbon-based electricity generation by producing renewable clean electricity. There will also be a positive benefit to the power grid due to the lower demand during daytime hours. Specifically, the project will be "behind the meter," meaning that generated solar electricity will feed directly to CHOP's facilities, offsetting its total electricity consumption and reducing its demand on the local grid. All of the power produced by the system will be utilized by the CHOP facility. The applicant anticipates that the project will produce approximately 98 to 99 percent of the electrical needs for the current facility at the site.

Project Details

The ground-mounted solar energy panels will occupy approximately one (1) acre of the property behind CHOP's facility. The project area is surrounded by landscape tree plantings that were installed in association with the approved site plan for the CHOP facility. All existing trees along the northern property line will remain and will provide adequate screening from the property to the north. Approximately six (6) trees will be removed along the CHOP building/drive isle side of the proposed solar facility. The applicant indicates these trees will be relocated to the Green Corridor north of the array.

The installation will consist of approximately 1,024 PV panels mounted on a fixed steel racking system with a tilt angle of approximately twenty-five degrees (25°). This tilt is required to maximize their solar exposure/efficiency. The bottom of the panels will be roughly two feet from grade at their lowest point and roughly seven feet from grade at their highest point. The foundations for the racking system structures will consist of post-driven piers, which can easily be removed if CHOP were to pursue its right to construct parking at this location in the future.

The entire solar array installation will be enclosed by a seven-foot high decorative perimeter fence which will function as a safety barrier. The safety fence is required by electric code and will act as a safety measure to restrict access to the area to authorized personnel only.

The applicant intends to maintain the existing grass under and around the solar arrays and will reseed all areas of disturbance from the project. The use of grass as ground cover will maintain stormwater runoff quality and provide a habitat for small animals and birds. The project will only add a de minimis amount of impervious coverage (piers and transformer pad), resulting in little to no impact, and will fully conform to State and local stormwater requirements.

The inverter equipment (converting DC electricity to AC electricity) will be located at grade inside the proposed fence enclosure around the project area. The generated solar electricity will feed directly to CHOP's onsite facilities, reducing its consumption from the regional electrical grid.

Project Operations and Maintenance

The applicant notes that the proposed project does not add any additional floor area or expand any existing buildings, and there is no additional parking needed or proposed. The existing on-site parking is more than adequate to support the parking needed for periodic maintenance, testing and inspections personnel. Such vehicular access will be infrequent and generally occur about once per calendar quarter.

The operational components of the solar array are monitored via an integrated monitoring system that notifies off-site technical staff of operational issues. Operational issues will generally be corrected within 24 hours by a technician that is dispatched to the site. Solar facilities located in the northeast region of the United States do not require cleaning due to the regional climate conditions and frequency of precipitation events. All of the solar array components are weather-resistant and designed for exterior use in the northeast region of the US.

See applicant's Project Narrative for further details.

WAIVERS FROM SUBDIVISION AND SITE PLAN CHECK LISTS

The applicant has identified 26 items on the site plan check list for which submission waivers are requested. The applicant has submitted a list of the requested waivers with an explanation and justification for each. DRC/staff has reviewed the information and finds it reasonable and recommends that the waivers be granted.

WAIVER OF REDEVELOPMENT PLAN TRIP GENERATION ANALYSIS

Pursuant to Section 9.2 of the Redevelopment Plan or Plan, all applications for site plan approval shall be accompanied by a vehicular trip generation analysis. The applicant has requested a waiver from this requirement on the grounds that the proposed improvements will not increase or affect traffic generated in the Redevelopment Area. The DRC/staff concur with this position and recommend that this waiver be granted.

WAIVER OF REDEVELOPMENT PLAN SUPPLEMENTAL PLANS & INFORMATION

Pursuant to Section 9.2.1 of the Redevelopment Plan, in addition to submitting plans and information required under the site plan regulations, all applications for subdivision or site plan approval shall also provide specific supplemental plans and information as set forth in the Redevelopment Plan. The applicant has submitted comments indicating how this application complies with the eleven supplemental plans and information previously provided for the hospital. Listed below are the eleven supplemental plans and information items required, along with the applicant's response to each in *italics*.

1. General Land Use Plan

The proposed solar array field is in conformance relative to the permitted uses in the PMO district where the subject property is located. The proposed project conforms to the land-use plan bulk and design standards set forth in the Plan.

2. Circulation Plan and Traffic Analysis

The proposed improvements do not impact the circulation and/or traffic impact analysis of the Redevelopment Plan. The general types and location of transportation facilities will not change as a result of the proposed site improvements. Traffic patterns within and outside of the site will remain unchanged.

3. Open Space Plan

This site plan will not impact the open space plan, as the location of open space, recreation, and conservation land areas previously approved is not changing. The proposed solar array is an interim use of land area that was previously set aside and approved for parking in support of the full-buildout of the PMO district (CHOP facility).

4. Utility Plan

Minor underground utility improvements are proposed under this project in order to convey electricity from the solar array field directly to the existing building within the PMO district. The proposed site improvements do not require any water service, sanitary sewer service, and/or gas service.

5. Stormwater Management Plan

As a result of the negligible increase in impervious coverage on the site in association with this project, there will be no impact to stormwater management on the site relative to what was approved for the full build-out of the CHOP facility. Furthermore, this site plan will not impact the stormwater management plan for the Redevelopment Area, as the quantity and method of controlling and managing stormwater for the Redevelopment Area is not changing.

6. Environmental Inventory

This site plan will not impact environmental inventory as the proposed site improvements have been designed to minimize the impact on vegetation, soils, topography, surface water, wetlands, or existing man-made features. The proposed development is consistent with the Amended Redevelopment Plan.

7. Community Facility Plan

There is no impact to the Community Facility Plan. This application proposes no changes to the public park, pedestrian and bike paths, healing and educational gardens, and to community education areas in the Redevelopment Area.

8. Housing Plan

This site plan will not impact the approved housing plan or number of housing units provided within the Redevelopment Area.

9. Local Service Plan

Minor underground utility improvements are proposed under this project in order to convey electricity from the solar array field to the existing building. The proposed site improvements do not require any water service, sanitary sewer service, and/or gas service. The proposed improvements will also not affect local services such as trash/refuse/recycling collection of this site.

10. Fiscal Impact Report

This site plan for a solar array will not change the fiscal impact of the Redevelopment Area.

11. Phasing Plan

This site plan for the proposed solar array is consistent with the Redevelopment Phasing Plan.

The DRC/staff are of the opinion that this application does not measurably affect any of the supplemental plans and information previously submitted in association with site plans in the Redevelopment Area, and in particular as supplemented by the CHOP site plan submission (P13-02). The DRC/staff recommend that the applicant's response to the submission requirements pertaining to Section 9.2.1 of the Redevelopment Plan be accepted and that this waiver be granted.

DRC/STAFF COMMENTS AND RECOMMENDATIONS

The following review of the subject application is being done pursuant to the terms of the Redevelopment Plan for the health care campus.

A. CONSISTENCY WITH REDEVELOPMENT PLAN

As described below, this application is consistent with the Redevelopment Plan entitled "Redevelopment Plan for the Princeton HealthCare System at Plainsboro Site," prepared by Phillips Preiss Grygiel LLC and adopted by Plainsboro Township on March 13, 2013.

Redevelopment Goals and Objectives (Section 2.3)

The Application promotes the following goals and objectives of the Redevelopment Plan:

1. To provide for and encourage future redevelopment of the site in a manner that is truly coordinated, comprehensive, synergistic and sustainable.

The proposed improvements will not impact future development of the site and encourages sustainability through the use of solar powered energy.

5. To create an aesthetically-pleasing gateway into the Township.

The project will be screened by a decorative fence and will further maintain existing landscape buffering to the northeast. Furthermore, the project will enhance the “green corridor” of the northwest with planted trees for additional buffering and screening of the project.

Redevelopment Area Land Use Plan (Section 3.0/3.1/3.5)

The project will not impact any of the land uses described in Sections 3.0, 3.1 and 3.5 of the Redevelopment Plan. There is no change proposed to the floor area of the existing building, a negligible increase in impervious coverage, and no impact to the area, yard and building requirements. The Minor Site Plan application is consistent with this section of the Redevelopment Plan.

Redevelopment Area Circulation and Open Space Plan (Section 4.0)

The project does not impact any of the vehicular, bicycle or pedestrian circulation to the Pediatric Medical Office (PMO). In the event the applicant would like to proceed with the construction of the full build-out phase of the site, the solar panels can be removed or, subject to Planning Board approval, possibly relocated elsewhere on the property.

Redevelopment Area Design Guidelines and Standards (Section 5.0)

- Building Standards (Section 5.1) As there are no buildings proposed under this project, there will be no impact to the Redevelopment Plan Building Standards.
- Parking Standards (Section 5.2) The project proposes no changes to the existing parking or parking needs on the site. As the proposed solar array is located within the footprint of future parking under the full build-out phase, in the event the applicant proceeds with the full build-out in the future, the solar panels could be removed or, subject to Planning Board approval, possibly relocated elsewhere on the property. This Minor Site Plan application will not impact this section of the Redevelopment Plan.
- Storage and Mechanical Areas (Section 5.3) The proposed solar array conforms with applicable property setbacks, is properly fenced and is adequately screened by landscape features and the existing building. The proposed improvements will comply with the Redevelopment Plan.
- Green Design (Section 5.4) The project promotes sustainability on the site through the use of solar powered energy and will be installed in conformance with the Redevelopment Plan.
- Signage (Section 5.5) This application does not impact any of the approved signage on the project site and therefore does not impact the Redevelopment Plan.
- Street Design (Section 5.6) No changes to the street design, street signs, curbing, monuments, or street lighting are proposed under the project. This Minor Site Plan application will not impact this section of the Redevelopment Plan.
- Landscape Design (Section 5.7) The maintenance of existing landscape buffering and enhancement of the existing “green corridor” by installing a decorative fence

and additional plantings is proposed under the project. The proposed improvements are consistent with the Redevelopment Plan.

- o Utilities and Infrastructure (Section 5.8) There is minor underground utility installation proposed under the project. As there is a negligible increase in impervious coverage and the full build-out stormwater management system has been constructed on-site, the improvements will not require additional stormwater management features. The proposed improvements are consistent with the Redevelopment Plan.

B. SITE PLAN ISSUES

1. Landscape Planting and Screening

- a. As noted in the project narrative, the area of disturbance for this project is surrounded by landscape tree plantings that were installed in association with the approved site plan for the CHOP facility. All existing trees along the northern property line will remain to provide screening from the property to the north. Approximately six deciduous trees (one Crab Apple and six Red Maple) will be removed along the CHOP building/drive-aisle side of the proposed solar facility. In the project narrative, the applicant indicates these trees will be relocated to the Green Corridor west of the array. Plan sheet CE-4 indicates that six transplanted trees or replacement trees will be planted in this area. Since the six trees proposed to be transplanted are all deciduous trees, which will offer little to no screening of the solar installation as viewed from Punia Boulevard, the DRC/staff recommends and the applicant has agreed that a minimum of six (6), eight to ten foot tall Norway Spruce or Green Giant Western Arborvitae trees shall be planted in lieu of the relocation of the existing deciduous trees to help screen views of the project from Punia Boulevard. A note should be provided on the plans requiring that the trees be field located in an effort to fill in open gaps in the buffer. Upon completion of the project, Planning Board staff shall assess the effect of such screening and, if deemed necessary to achieve the desired effect, direct representatives for CHOP to arrange the planting of additional trees as specified by Planning Board staff.
- b. Revise the plans to provide general landscape notes and planting and staking details, for further review.
- c. According to the applicant, the inverter equipment (converting DC electricity to AC electricity) will be located at grade inside the proposed fence enclosure around the project area. The location of the inverter equipment is not shown on the site plan (CE-4). Details shall be added to the plan to clarify the location of the inverter equipment. Also, depending on the color of the inverter equipment, if feasible, such equipment shall be painted a color to blend with the color of the racking system that supports the solar array panels.

2. Lighting

- a. The applicant has indicated that no additional lighting, security or otherwise, will be installed in association with the project.

3. Miscellaneous Issues

- a. At the DRC meeting a comment was made as to whether or not CHOP had discussed with the hospital the option of building the previously approved parking now and installing solar canopies over such parking as was done for the solar installation at the hospital, instead of the proposed ground mounted solar installation, which would have to be removed to build such parking in the future. The surplus parking could then be utilized by the hospital if and when needed. The applicant was asked to explore this option with the hospital and report back at the Planning Board meeting.
- b. General notes 7 and 8 shall be revised to read:
 - i. Prior to the commencement of construction, a detailed sequence of construction and contractor's staging plan shall be provided to separate and manage construction traffic from other traffic. This will further establish the contractor's work and staging areas for each phase of construction, and shall include but not be limited to items related to the placement of construction office and/or storage trailers; outdoor equipment and materials storage; safety and security fencing; vehicular and pedestrian circulation; installation of underground utilities; parking area construction and construction related signage.
 - ii. Prior to the commencement of any site work, including initial site clearance and grading, a hauling plan shall be submitted to the Township for review and approval for the movement of any construction materials or demolition debris on roadways leading from the Township borders and vice versa.
- c. The construction detail for the proposed fence gate shall be amended to provide for the width indicated on the site plan.

C. AGENCY APPROVALS AND OTHER REQUIREMENTS

1. The applicant shall discuss approvals by other agencies having jurisdiction over the proposed development, which may include the following:
 - a. Delaware and Raritan Canal Commission
 - b. Freehold Soil Conservation District
 - c. Middlesex County Planning Board
 - d. All other agencies having jurisdiction

2. Copies of applications and approvals certifications permits or letters of no interest, waivers or exemptions, as may be required, shall be provided as a condition of final approval and prior to release of the approved site plan and site disturbance.
3. Township offices and staff that may have review jurisdiction involving this application or improvements related thereto, include:
 - Planning and Zoning Department: Contact Ron Yake, Planner and Zoning Officer at 799-0909, ext. 1503.
 - Planning Board Engineer's Office: Contact Louis Ploskonka, CME Associates at 732-727-8000.
 - Code Enforcement Department: Contact Brian Miller, Construction Official at 799-0909, ext. 1203; Keith Thedinga, Fire Prevention Official at 799-0909, ext. 1208.

Any approval shall be conditioned upon: A) the submission of revised plans in accordance with the above comments; B) proof of approval, waiver or exemption from all agencies having jurisdiction; C) the construction of off-site improvements if deemed necessary by the Township Committee; D) the payment of any outstanding escrow fees and property taxes; and E) the applicant's engineer providing the Township with an estimate for the cost of improvements in order that the performance guarantee and inspection fee can be calculated.

MLUL Clock:

Application Completeness:	April 30, 2020
Planning Board Action:	June 15, 2020*

* MLUL time-extension from June 14, 2020 granted by applicant.