

Plainsboro Township

Prelim./Final Site Plan

Application: P23-03

Memo Date: 7/7/2023

Meeting Date: 7/18/2023

DRC Project Review Memo

Applicant: Princeton Healthcare System
(d/b/a Penn Medicine Princeton Health)

Property Owner: Same

Type of Application: Preliminary/Final Site Plan with requested deviations and parking regulations design waiver

Name of Project: Hospital Parking Garage and Temporary Parking Lot

Property Location: Block 1701, Proposed Lots 3.01 and 4.04

Zone: Princeton Healthcare System Redevelopment Area

Present Use of Property: Existing Parking Lot (location of Proposed Parking Garage)
Undeveloped Lot (location of Proposed Temporary Parking Lot)

Adjacent Land Uses:

A. Parking Garage	North:	A. Hospital Drive and Crescent Parking Lot
B. Temp. P-Lot		B. Maplewood at Princeton
	South:	A. Hospital Parking and Hospital (Building 2)
		B. CHOP Specialty Care Facility
	East:	A. Hospital Parking Lot
		B. Stormwater Basin
	West:	A. Hospital Parking Lot
		B. Punia Blvd. and Hospital Parking Lot

BACKGROUND

Since the adoption of the Amended Redevelopment Plan (Redevelopment Plan) in March of 2013, all eight districts of the Princeton HealthCare System Redevelopment Area have been partially or fully developed. Only the southern portion of the ORC-Office Residential Complex district, which is located on Punia Boulevard between the CHOP Specialty Care

Facility and the Maplewood at Princeton facility, remains undeveloped. The Redevelopment Area was approved to include three phases of development. With the exception of the undeveloped portion of the ORC District, along with the two additional phases associated with the CHOP facility, the only remaining phase of the Redevelopment Plan to be completed involves the 50± acre HMOC-Hospital Medical Office district where the hospital is located. The final phase of the Plan, which is also recognized as phase two of the HMOC, includes expansion of the hospital (maximum 322,000 sq. ft.), a possible second medical office building (maximum 93,000 sq. ft.), and a parking garage.

The applicant has developed a plan for a new Cancer Center addition to the existing hospital, as well as for a parking garage to serve the HMOC site. The phase two medical office building is not proposed at this time. The applicant has decided to separate the Cancer Center addition and the parking garage into two site plan applications. The purpose of separating the two projects into two site plan applications is to allow the construction sequencing of the proposed garage first, to be followed by the Cancer Center, in order to minimize the impact on the existing operation of the HMOC. This application seeks site plan approval for the parking garage which is a permitted accessory use in the HMOC District, and for a temporary parking lot needed to address displaced parking resulting from the parking garage and the Cancer Center addition and its related improvements.

PROJECT DESCRIPTION

PARKING GARAGE

The proposed 1,161 space, six-level parking garage structure will be located on the north side of the existing hospital building within the area currently identified as parking area P6, in addition to a portion of parking area P5. This location for the garage is substantially consistent with the current Redevelopment Plan and was chosen because this area of the HMOC campus experiences the highest demand for parking due to the close proximity to the existing medical office building (Medical Arts Pavilion or MAP) and to the secondary entrance to the hospital next to the MAP. The parking garage will be engineered and designed to accommodate an expansion to the east should it be necessary to address future parking needs on the campus (e.g., possible future phase two medical office building).

Under the proposed plan, the existing site circulation on the north side of the hospital site will remain unchanged. To prevent the queuing of vehicles entering the garage from Hospital Drive, the primary access to the garage will be located at the southwestern corner of the garage. A second vehicular entrance to the garage will directly align with the exit of the expanded patient drop-off area. In addition, there will be an exit-only egress from the garage directly onto Hospital Drive, which will be aligned with parking area P10 (Crescent Parking Lot) access driveway.

Parking Garage Exterior Design

The exterior design of the proposed parking garage includes various design features referenced in Section 5.2.2 of the Redevelopment Plan. According to the applicant, the level of articulation of each of the building's elevations is carefully balanced based on public visibility to ensure the garage complements and enhances both the overall operation as well as the appearance of the healthcare campus as called for in the Redevelopment Plan.

Garage Related Site and Landscape Improvements

The current drop-off area on the north side of the hospital, located at the entrance to the MAP, will be improved to accommodate additional patient drop-off and valet operations. The improvement to the drop-off area will include additional space for delivery trucks such as UPS, Federal Express or other single unit or van delivery vehicles. The proposed expansion of the drop-off area will greatly improve the site circulation on the north side of the hospital.

The outdoor seating area within the center island of the existing drop-off area will be reconstructed to allow improved turning movements into the expanded patient drop-off area. The stormwater runoff from this area will be directed to a new rain garden located in the center island.

The landscaping for the parking garage has been designed to be complimentary with the overall campus landscaping and in accordance with the requirements of the Amended Redevelopment Plan; it includes shade trees throughout the parking areas and along the access driveways, foundation plantings around the parking garage structure, and a variety of landscape plantings along the pedestrian walkways. The expanded patient drop-off area will be enhanced with ornamental trees and benches. In an effort to screen and enhance views of the parking garage as seen from Scudders Mill Road, the applicant has proposed to replace the trees removed from the construction of the garage by planting new deciduous and evergreen trees in the vicinity of parking area P10 between Scudders Mill Road and Hospital Drive.

In addition to the improvements noted above, the existing parking area P5 located on the east side of the proposed garage will be reconstructed with a pervious pavement to provide compliance with the Redevelopment Plan's green infrastructure standards. Handicap accessible and electrical vehicle (EV) and make-ready (future EV) parking spaces will be provided within and just south of the parking garage and in the reconstructed parking area P5. Pedestrian walkways and crossings will be installed on both sides of the parking garage with direct access to the MAP and hospital entrances.

Lighting Improvements

Accent lighting will illuminate the shade and ornamental trees located along the patient drop-off area, center island area, and along the south side of the parking garage to provide a sense of arrival at the main entrance on the north side of the hospital. The site lighting design includes a combination of pole mounted light fixtures, bollard lighting and recessed

under canopy lighting. The site lighting shall be LED cut-off style fixtures that are Dark Sky compliant in accordance with the requirements of the Redevelopment Plan. The proposed light fixtures shall be the same style and color as the existing light fixtures on the campus.

In addition to the site lighting noted above, the interior lighting in the garage will be selected and located to minimize its visibility from outside the garage. Additionally, the interior garage lighting is designed to operate at nighttime on motion sensors, such that, when no motion is detected from vehicles or pedestrians, the lighting drops down to a lower (security) level of lighting.

TEMPORARY PARKING LOT

The construction of the parking garage related improvements within the existing P6 and P5 parking areas will result in a temporary loss of up to 246 parking spaces. The construction of the Cancer Center and associated site improvements and utility work is anticipated to displace up to 272 additional parking spaces (518 spaces total). The applicant proposes to construct a temporary parking lot containing 628 spaces on the undeveloped portion (9± acres) of ORC district property to manage the parking during the construction of the Cancer Center and the parking garage. A portion of this same area was used in the past for unimproved temporary parking prior to the development of the Crescent staff parking area (parking area P10).

The applicant has prepared a parking study that analyzes the parking needs and inventory throughout the construction of the proposed parking garage and future Cancer Center. This study confirms that the proposed temporary parking lot, together with the construction of the expanded P10 Crescent parking lot, will adequately serve the parking needs of the HMOC during the construction of the proposed parking garage and future Cancer Center.

The temporary parking lot will utilize an existing access driveway on Punia Boulevard for both ingress and egress to the parking area. This existing driveway is aligned with the existing driveway for the hospital site on the west side of Punia Boulevard. The existing pedestrian crossing, located near the existing bus stop on Punia Boulevard will be used for pedestrian access to the hospital site. The temporary parking lot design includes site improvements such as sidewalks, landscaping, lighting, and stormwater management facilities.

Within the proposed temporary parking lot, the applicant proposes to construct two parking areas to minimize the impact on the existing trees on the property. The front or westside parking area is intended to be used by Penn Medicine staff and the rear or eastside parking area is intended to be used by the contractors working on the parking garage and the future Cancer Center. The westside portion, which will contain 304 spaces, will be designed with a pervious pavement system to comply with the Township's stormwater management requirements, and will include stormwater quantity reductions and water quality treatment

using Green Infrastructure (GI) elements. The eastside portion will utilize crushed stone and will contain 324 parking spaces. This portion of the temporary lot will only be in used for approximately six months while the previously approved expansion of parking area P10 is underway. Once P10 expansion is completed, the eastside temporary lot will be closed off for use and later removed when the westside temporary lot is no longer needed.

While the proposed parking lot as a principle use is not specifically permitted in the ORC district of the Redevelopment Area, such use is being recognized as a temporary use, whereby upon completion of the proposed Cancer Center and parking garage, this temporary parking lot and related improvements will be removed and the affected area will be restored to its pre-existing condition. It is anticipated that this will occur sometime in early 2027.

According to the applicant, they have discussed the proposed temporary parking lot improvements with their neighbors, which include CHOP to the south and Maplewood at Princeton to the north.

Detailed information is included with the submission addressing the consistency of the parking garage and the temporary parking lot with the Redevelopment Plan and the site plan regulations. See sections below entitled Requested Deviations from the Redevelopment Plan and Requested Design Waiver from the Site Plan Regulations.

WAIVER OF SITE PLAN CHECK LIST SUBMISSION ITEMS

The applicant has submitted the required site plan review checklist (Form 14). A total of four submission checklist waivers have been requested, with a brief description and justification provided for each. Staff has reviewed such information and is of the opinion that such waivers are reasonable and support their being granted.

REQUESTED DEVIATIONS FROM THE REDEVELOPMENT PLAN

PERIMETER SETBACK OF PARKING GARAGE

Upon review of the Redevelopment Plan the applicant identified the need for a minor deviation pertaining to the perimeter setback of the proposed Parking Garage relative to the north property line and the boundary of the HMOC District, which is coterminous with the south property line and boundary of the HAD-Hospital Auxiliary District (location of the Crescent or P10 parking area).

The Redevelopment Plan anticipated a future need for a parking structure. The location of the proposed parking garage is consistent with the location of a proposed parking structure depicted in the Redevelopment Plan. The proposed garage is situated directly north of an existing 25-foot-wide New Jersey American Water Easement. The location of this easement restricts the proposed garage from being located any further south of this perimeter lot line.

The parking garage has been designed based on U.S. industry standards for structured parking, utilizing the extensive expertise of applicant's garage design consultant (THA Consulting, Inc.). According to the applicant, the proposed garage has been efficiently designed to minimize the footprint of the structure to the extent practical.

Section 3.2.2 of the Redevelopment Plan provides the area, yard, and building requirements for the HMOC District, including a minimum building setback from perimeter lot lines of 75 feet. This setback requirement was principally intended to apply to the minimum setback of buildings in the HMOC district from adjoining streets and properties outside the HMOC district. The setback in this case relates to an interior lot line condition, which lot line separates the HMOC district from the adjoining district (HAD) that includes the existing Crescent parking lot. As a result, the proposed setback for the northeast portion of the proposed parking garage is 69.0 feet from the perimeter lot line, which requires a deviation of six (6) feet. It should be noted that the northwest portion of the proposed garage is 83.9 feet; nearly nine feet more than the minimum setback required.

Staff supports the granting of this deviation for the reasons set forth by the applicant.

Further details related to this deviation, including the applicant's justification and the statutory basis for granting the deviation, can be found in Addendum 1 of the application.

EXTERIOR DESIGN OF PARKING GARAGE

Upon review of the Redevelopment Plan the applicant identified the need for a second deviation pertaining to the exterior treatment of the parking garage. The Redevelopment Plan anticipated a future need for a parking garage and set forth design standards related to same in Section 5.5.2 of the Redevelopment Plan, including the following:

- *Freestanding parking garages shall be architecturally compatible with the primary buildings in each subarea.*
- Where a freestanding structured parking garage is proposed (HMOC District only), the garage shall be fully hidden or architecturally screened from view utilizing one or more of the following features:
 - The garage façade shall be articulated like a non-curtain wall office building, with regularly-spaced openings covered with grilles and/or translucent glazing, mechanically ventilated as necessary. The articulation should disguise the low ceilings and sloping ramps of the garage.
 - The garage façade shall be hidden behind a separate screen, mounted at a distance from the façade (so as to allow natural ventilation) that mimics a curtain wall building or a more traditional building with separate windows. The screen should extend above the roof level of the garage, so as to disguise any roof parking and mechanical equipment.

- The garage façade shall be covered with metal architectural mesh or other creative covering that disguises the levels of parking and ramps, preferably creatively lit at night.

The design goal underlying the standards above is to ensure such structures are designed as an integral component of the buildings they serve, and that the architectural and functional elements of such structures, including the use of materials, fenestration (window/door openings), screening, and vehicular and pedestrian circulation/access, are handled in a manner that complements and enhances the overall operation and appearance of the healthcare campus.

The exterior design of the proposed parking garage utilizes various design features as specified in the Redevelopment Plan above, with the level of articulation and design elements of each building elevation carefully balanced based on public visibility, to ensure that the proposed garage complements and enhances both the overall operation as well as the appearance of the healthcare campus.

Notwithstanding the above, the applicant understands that the overall design of the parking structure may be viewed as not fully complying with the specific requirements of the Redevelopment Plan. As a result, the applicant is requesting a deviation to allow the exterior design of the garage as proposed.

Staff supports the granting of this deviation for the reasons set forth by the applicant.

Further details related to this deviation, including the applicant's justification and the statutory basis for granting the deviation, can be found in Addendum 4 of the application.

LANDSCAPING OF TEMPORARY PARKING LOT

Upon review of the Redevelopment Plan the applicant identified the need for a minor deviation pertaining to parking lot landscaping requirements for the proposed temporary parking lot located in the ORC-Office Residential Complex district. Section 5.1.5 E of the Redevelopment Plan pertaining to parking lot landscaping in the ORC district indicates that in order to avoid expansive pavement areas in parking lots, specific requirements regarding the provision of landscape islands, landscape plantings, including trees, shall be provided.

The proposed temporary parking lot is intended to offset the parking displaced during construction of the parking garage and the future Cancer Center improvements. The applicant notes that, given the temporary nature of this parking lot, an effort was made to minimize the footprint of the parking lot by not providing otherwise required landscaping within the lot and by preserving all existing landscaping, including that which has been planted in the Green Corridor along Punia Boulevard. The applicant further notes that, if they were required to install the landscaping called for in the Redevelopment Plan, the

landscaping would just be getting established when the temporary lot is scheduled to be removed (early 2027).

Upon completion of the future Cancer Center facility, the temporary parking lot improvements will be removed, and the area restored to its pre-existing condition, which will eliminate the deviation. Therefore, the deviation itself is technical in nature and will be extinguished with the removal of the parking lot.

Staff supports the granting of this deviation for the reasons set forth by the applicant.

Further details related to this deviation, including the applicant's justification and the statutory basis for granting the deviation, can be found in Addendum 2 of the application.

REQUESTED DESIGN WAIVER FROM THE SITE PLAN REGULATIONS

PARKING SPACE AND DRIVE AISLE DESIGN STANDARDS

Upon review of the Township Site Plan Regulations related to the design and dimensional requirements for parking facilities as set forth in §85-44B(1) of the Township Code, the applicant determined that they need to request and be granted a minor design waiver to permit the proposed angled parking spaces and corresponding drive aisles inside the proposed parking garage.

The site plan regulations require that "parking spaces and access aisle dimensions be adequate to accommodate anticipated volumes, types of vehicles and vehicle turnover. Generally, off-street parking spaces and access aisles shall be dimensioned in accordance with the following schedule, with permitted waivers, as conditions warrant."

Angle of Parking Space	Access Aisle Width With 9-foot Parking Space
90°	24 ft.
60°	20 ft.
45°	15 ft.
30°	12 ft.
Parallel	18 ft.

The functional layout of the proposed Parking Garage is designed utilizing 90-degree parking spaces in certain bays and 75-degree spaces in the remaining bays. The access aisle width at the 90-degree parking spaces is 24 foot as shown on the proposed garage architectural floor plans. These spaces comply with the design standard in the regulations. The minimum access aisle width at the 75-degree parking spaces is proposed to be 20 feet

6 inches. Since the proposed 75-degree angled parking and the 20 feet 6-inch drive aisles do not correspond with the standards noted above, a design waiver from such standards is required to approve the proposed plan for the garage.

Staff supports the granting of this parking design waiver for the reasons set forth by the applicant.

Further details related to this deviation, including the applicant's justification and the statutory basis for granting the deviation, can be found in Addendum 3 of the application.

REDEVELOPMENT PLAN SUPPLEMENTAL PLANS AND INFORMATION

Pursuant to Section 9.2.1 of the Redevelopment Plan, in addition to submitting plans and information required under the site plan regulations, applications for new development in the Redevelopment Area are also required to provide specific supplemental plans and information; including plans and information that fall under the following categories:

- A. General Land Use Plan
- B. Circulation Plan and Traffic Impact Analysis
- C. Open Space Plan
- D. Utility Plan
- E. Stormwater Management Plan
- F. Environmental Inventory
- G. Community Facility Plan
- H. Housing Plan
- I. Local Service Plan
- J. Phasing Plan

It is staff's opinion that the applicant's response fulfills the submission requirement for such information pursuant to the requirement for same in the Redevelopment Plan.

The applicant's detailed response to this requirement can be found in a six-page letter prepared by Andrew French, PE, French & Parrello Associates, dated April 14, 2023.

STAFF COMMENTS AND RECOMMENDATIONS

A. CONSISTENCY WITH THE REDEVELOPMENT PLAN

1. The applicant has documented how the proposed development complies with all relevant provisions in the Redevelopment Plan.

The applicant's consistency review of the Redevelopment Plan includes compliance with the following areas of the Plan:

- Goals and objectives
- Land use plan, including permitted uses and bulk standards
- Circulation and open space
- Design guidelines and standards, including general design standards related to the HMOC and ORC districts; building design; parking, including required parking ratios and surface and structured parking design; outdoor storage and mechanical equipment; green design, including buildings and lighting; signage; landscaping; and utilities, stormwater, and infrastructure standards.

The applicant has also explained how and why the proposed project deviates from certain provisions in the Redevelopment Plan (see preceding Requested Deviations section of this memo). For further details on the applicant's response to compliance with the Plan, see the ten-page letter submitted with this application prepared by LRK Architects, Designers, Planners, dated April 14, 2023, entitled -- "Princeton HealthCare System, a New Jersey nonprofit corporation, d/b/a Penn Medicine Princeton Health, Planning Review for Consistency with Redevelopment Plan."

It is staff's opinion that the applicant's response demonstrates that the proposed application is substantially consistent with the aforementioned provisions in the Redevelopment Plan with the exception of the requested Plan deviations and the site plan regulations parking design waiver.

B. SITE PLAN ISSUES

1. Signage:

- a) In October 2017, the applicant obtained minor site plan approval to install new monument signs, building mounted signs, and to reface the then existing wayfinding signs (directional and informational signs) in response to the partnership of Penn Medicine and Princeton HealthCare System (P17-10). With the changes now proposed to the hospital campus as a result of the proposed parking garage and the temporary parking lot, the applicant is now proposing to update the existing wayfinding signs to improve the "readability" of these signs and to add new destination information related to the parking garage and the temporary parking lot. Additional details are also provided to show the changes that will occur after the temporary parking lot is decommissioned. The applicant will subsequently be submitting details

related to changes to the wayfinding signs once the planned Cancer Center becomes operational.

- b) The applicant's plans indicate that all traffic signage shall comply with the MUTCD standards. All such signage for other than the temporary parking lot shall also comply with the Princeton Forrestal Center (PFC) sign details for such signage; including the use of the Type A PFC sign detail for all two-sided MUTCD signs and the Type B PFC sign detail for all other such signs.

2. **Parking Garage:**

- a) Consistent with the Redevelopment Plan, the applicant notes that the proposed parking garage will be designed to accommodate a possible future solar energy canopy system over the top level of the garage. For such a proposal to be considered at this time would require plan details, including images of how the garage would look if such solar energy installation were installed. Alternatively, a separate site plan application will be required in the future to address such a proposal.
- b) Section 5.2.2 of the Plan require that bicycle racks and/or storage lockers be provided in a dedicated area within the garage near the pedestrian entrance/exit to the garage. The bicycle storage shall be designed to be expandable in response to demand for additional facilities.

The applicant has proposed to provide bicycle racks/storage at the southeast corner of the garage next to a space labeled Fire Service Room on the plan. This location for the bicycle storage does not appear to be readily accessible to existing bike route connections within the redevelopment area or the pedestrian/bike crossing on Hospital Drive at the northeast corner of the garage. Also, the proposed location, given its proximity to the Fire Service Room, does not appear to provide accommodation for expansion in response to demand for additional bike storage.

Staff recommends consideration be given to relocating the bike racks/storage area to the northeast corner of the garage, where four compact parking spaces are shown next to Stair Tower B. This area would seem to be better located relative to existing bike route connections in the redevelopment area and would allow the space needed to accommodate additional future bike storage.

- c) The architectural plan drawings do not include a section view of the garage showing how cars parked on the top or sixth level of the garage will not be visible from ground level. While the elevation views of the garage identify where the sixth floor of the garage is located and shows a parapet that encloses the top level of the garage, the plan drawings do not provide a dimension for the parapet that would demonstrate its effectiveness to screen views of the parked cars located behind it. The applicant shall provide a section or other plan views of the proposed garage that demonstrate that parked cars on the top level will not be visible from ground level.

3. **Traffic and Parking Issues**

- a) Sight distance calculations shall be provided for all proposed intersections as well as all proposed driveway and crosswalk locations. Sight triangle easements shall be provided as required as well as signage and/or signalization if deemed necessary along Hospital Drive.
- b) The applicant has submitted a parking study prepared by DTS Provident dated April 14, 2023, as well an addendum to the parking study dated June 16, 2023.

Staff notes the following regarding the submitted documents:

- i. The total required parking supply for the HMOC District is calculated as follows:

(1) Existing HMOC	1,540 spaces
(2) Repurposed Fitness Center	177 spaces
(3) Proposed Cancer Center Expansion	<u>606 spaces</u>
(4) Total	2,323 spaces

- ii. The applicant's Engineer has provided the aforementioned Technical Memorandum Addendum detailing a total of eight (8) phases of development and demonstrating the adequacy of the proposed parking supply during each phase.

Staff has the following comments regarding the parking study and addendum:

- i. The applicant shall discuss the proposed phasing plan and how parking will be accommodated during each phase of construction.
- ii. The applicant shall provide testimony as to the adequacy of the ultimate parking supply at the completion of the phased project, without the consideration of Lot P-10 (Crescent Parking).
- iii. The applicant shall discuss provisions for meeting the needs for parking demand resulting from any future expansion or construction at the site.
- iv. The applicant shall discuss the investigations that were performed to verify the adequacy of a parking ratio of 4 spaces/1000 square feet of gross floor area for the Proposed Cancer Center.
- v. The applicant's Engineer depicts numbers within the various tables of the Technical Memorandum Parking Study that could not be verified with the plans in the addendum or the other submitted plans. The Displaced Parking Supply (all cited numbers), the Lot P10 Existing Parking Supply, the Lot P10 Expansion Additional Supply, and the Proposed Parking Garage. Additional details shall be provided on the plans demonstrating the accuracy of the parking figures.
- vi. The applicant's Engineer shall address the following garage parking space issues on the Penn Medicine Princeton Health Cancer Center Garage Plans:
 - (1) On the 1st Tier Architectural Plan, sheet A1.1, the applicant notes 139 parking spaces, but only 138 parking spaces are depicted. There is an apparent discrepancy where 57 standard parking spaces are noted, but only 56 standard parking spaces are depicted.
 - (2) On the 3rd Tier Architectural Plan, sheet A1.3, the applicant notes 206 parking spaces, but only 205 parking spaces are depicted. There is an apparent discrepancy where 175 standard parking spaces are

noted but only 174 standard parking spaces are depicted.

- (3) On the 6th Tier Architectural Plan, sheet A1.6, the applicant notes 198 parking spaces, and 199 parking spaces are depicted.

4. **Stormwater Management Issues**

- a) The applicant's Engineer shall confirm there are no easement restrictions preventing the construction of the improvements.
- b) The applicant shall provide a Drainage, Conservation, Maintenance and Access Easement in favor of Plainsboro Township and the County of Middlesex for the stormwater management systems. The deed of easement and metes and bounds description shall be subject to the review and approval of the Township Attorney and Township Engineer. A computer printout closure report shall be submitted for the easement.
- c) In accordance with the NJDEP Stormwater Management BMP Manual – Chapter 8, an Operations & Maintenance Manual shall be provided for all stormwater management measures proposed on-site.
- d) The Maintenance Plan and any future revisions shall be recorded upon the deed of record for the property on which the maintenance described in the maintenance plan must be undertaken. The form of which shall be approved by the Township Attorney prior to recording the same with the Middlesex County Clerk's Office per Section 85-28 J.

5. **Sanitary Sewer and Solid Waste Disposal Issues**

- a) All sanitary sewerage system mains, services, and appurtenances shall be provided in accordance with the requirements of South Brunswick Township and the Plumbing Subcode Official.
- b) The applicant indicates that no new solid waste facilities are proposed, noting that solid waste and recycling will be managed through the existing facilities and arrangements at the hospital.
- c) A report prepared by a licensed NJ Professional Engineer shall be provided, including a calculation of the anticipated sanitary flows to be generated by the proposed development. The applicant's Engineer shall submit information to confirm the adequacy of the downstream conveyance system to accept the proposed flows and the availability of facilities to accept and treat the flow.

- d) The applicant's Engineer shall be responsible for obtaining Treatment Works Approval from NJDEP, if applicable.

6. **Potable Water and Fire Protection Issues**

- a) The applicant shall confirm that exterior Reduced Pressure Zone (RPZ) devices are not required for this project. If such devices are required, they shall be located within the structure.
- b) The applicant shall submit a report prepared by a licensed NJ Professional Engineer including calculations of the anticipated water demands in accordance with N.J.A.C. 5:21-5.1 and N.J.A.C. 7:10-12.6. The fire flow demands shall be submitted to the Township Fire Official for review and approval. The calculations shall address the anticipated volume of water and pressure needed to adequately service the development with sufficient flow at outside hydrants and interior sprinkler systems to provide adequate fire protection in accordance with all appropriate fire codes and/or requirements. The design of the on-site water distribution system shall be adequate to provide fire protection as per ISO standard, Fire Suppression Rating Schedule, or per AWWA M31, Manual of Water Supply Practices.
- c) Provide test data and calculations demonstrating that the required water flows and pressures can be provided from the existing system.
- d) The design and adequacy of fire suppression systems and the location of all fire lanes, Siamese connections, and hydrants are subject to review by the Township Fire Official.
- e) All water distribution system improvements shall be installed in accordance with the requirements of the water utility and the Plumbing Subcode Official.
- f) The applicant's Engineer shall be responsible for obtaining a permit from the NJDEP BWSE, if applicable.

7. **Other Utility Issues**

- a) The applicant shall discuss the availability of essential gas and electrical service to the site. Intent to service letters from the respective utility companies shall be provided.

8. **Construction Issues**

- a) All structures including retaining walls are subject to review by the Township Construction Official.

- b) The following construction notes have been added to the plan:
- i. "A detailed sequence of construction and contractor's staging plan shall be provided to separate and manage construction traffic and public traffic. This will further establish 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 construction 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. "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 border and vice versa".

9. **Barrier Free Access, Landscaping, and Lighting Issues**

- a) The barrier free accessibility requirements, including the required number of handicapped parking spaces, shall be as determined by the Township Construction Official. All sign details for handicapped parking spaces shall be consistent with the current sign design details applicable to the Princeton Forrestal Center (see Comment B.1.b above).
- b) A rain garden has been proposed, however, the proposed plant materials are mostly non-natives. It is recommended native plant materials be utilized in this type of garden. Species to consider include Arrowwood viburnum, Sweetspire, Sweet pepperbush, Bayberry, Inkberry, Swamp milkweed, Little bluestem, Blazing star, Beebalm, Asters, Speedwell, Mountain mint, etc.
- c) The plans indicate seventy (70) replacement trees are required for the trees to be removed. Per Woodland Management Plan Note 2 on the plan, the trees will be replaced with deciduous trees at a 2.5" minimum caliper and/or evergreen trees with a minimum installed height of seven (7) feet. The locations of these trees shall be determined at the time of planting in consultation with Planning Board staff with emphasis on providing supplemental screening of views from Route 1 and Scudders Mill Road. The applicant's engineer shall propose a list of replacement trees which shall be native species for staff review and approval. Woodland Management Plan Note 4 shall be removed from the plan as it conflicts with Note 2.

- d) The plans shall be revised to indicate proposed timers and hours of operation, as well as revised to indicate the proposed color and finish of all fixtures.

10. **Miscellaneous Comments**

- a) Pursuant to Section 4.1.5(h) of the Redevelopment Plan, the applicant shall complete the planned perimeter pedestrian pathway along the east side of the Temporary Parking Lot parcel. Currently, the CHOP and Maplewood at Princeton portions of this pathway have been constructed, but lack the needed connection across the eastern boundary of the Temporary Parking Lot parcel in order to complete the pathway loop as planned in the Redevelopment Plan. The recommended connection shall be a six feet wide bituminous path consistent with paths constructed on the adjoining parcels. This recommended pathway improvement shall remain in place after the removal of the Temporary Parking Lot in early 2027.
- b) According to Note 1 on sheet A1.1 of the parking garage architectural plans, the plans include over four percent (4%) Make-Ready (i.e., pre-wired for future charger installation) Electrical Vehicle (EV) parking spaces as needed to meet the State and Township EV ordinance for nonresidential garage parking spaces. Electrical provisions will be provided for Level 2 EV chargers. The pavement markings and signage are designed for EV chargers to be supplied at spaces labeled as "ADA EV" and "EV" prior to the initial occupancy of the garage. While the applicant's plans indicate that the actual number of EV charger spaces will be based on demand, it shall be understood that, at all times, the applicant shall be responsible for being in full compliance with the State and Township ordinance requirements for the provision of ADA and non-ADA EV charger parking spaces.
- c) All roof mounted HVAC units and other equipment, as well as all ground level service and equipment areas shall be adequately screened pursuant to the provisions in the Redevelopment Plan, subject to the review and approval of Planning Board staff.
- d) The applicant shall discuss the project phasing, construction duration, and the anticipated timeline for the submission of the proposed Cancer Center Application.
- e) The applicant has submitted an Environmental Impact Assessment prepared by French & Parrello Associates, dated April 14, 2023, for this application as required in §20-10 of the Township Code. As noted in the concluding section of the report, the parking garage site does not have any environmental constraints. It is currently developed with an existing parking lot. The proposed garage is consistent with the Amended Redevelopment Plan and is required for the expansion of the hospital for the planned Cancer Center. Based on the review and

consideration of site constraints and requirements of the Plan, it was concluded that the proposed garage is required and situated at the best location to support the hospital site.

- f) The Environmental Impact Statement and plans shall be modified as follows:
 - i. While it is acknowledged that the Environmental Impact Statement includes a description of the vegetation, the EIS shall be revised to include a more comprehensive description of the existing vegetation on Lot 4.04, to better document the existing conditions.
 - ii. A note shall be added to the plans to indicate that any imported fill shall meet the NJDEP's Technical Requirements for Site Remediation's definition of clean fill (as found at N.J.A.C. 7:26E-1.8).
- g) All easements and rights in favor of the Township shall be expressed in deeds and grants suitable for recording at the County Clerk's Office, the form of which shall be approved by the Planning Board Attorney and the description in which shall be approved by the Township Engineer.

11. Agency Approvals and Other Requirements

- a) The applicant shall discuss the need for approvals or amended approvals by all outside agencies, including the following:
 - i. New Jersey Department of Environmental Protection
 - ii. Delaware and Raritan Canal Commission
 - iii. Freehold Soil Conservation District
 - iv. South Brunswick Township Sewer Department
 - v. Middlesex County Planning Board
 - vi. All other agencies having jurisdiction
- b) Copies of applications and approvals, certifications, waivers or letters of no concern as may be required by all agencies having jurisdiction, shall be provided as a condition of final approval and prior to the site disturbance and/or construction.
- c) Township offices and staff that have review jurisdiction involving this application or improvements related thereto, include:
 - Planning and Zoning Department: Contact Ron Yake, Planner and Zoning Officer at 609-799-0909, ext. 1503.

- Planning Board Engineer's Office: Contact Louis Ploskonka, CME Associates at 732-727-8000.
- Code Enforcement/Building Division: Contact Brian Miller, Construction Official at 799-0909, ext. 2545; Keith Thedinga, Fire Official at 609-799-0909, ext. 1208.

Any approval shall be conditioned upon the submission of revised plans in accordance with the above comments; proof of approval or waivers from all other agencies having jurisdiction; the construction of offsite improvements, if deemed necessary by the Township Committee; the payment of any outstanding escrow fees; compliance with all applicable state and local affordable housing requirements; and the applicant's engineer providing an estimate for the cost of improvements to the Township in order that performance guarantees and inspection fees can be calculated.

MLUL Clock:

Application Completeness:
Planning Board Action:

August , 2023
December 2, 2023

APPENDIX TO

APPLICATION P23-03

DRC REVIEW MEMO

FOR

PRELIMINARY/FINAL MAJOR SITE PLAN

**Princeton Healthcare System (d/b/a Penn Medicine Princeton Health)
Hospital Parking Garage & Temporary Parking Lot
Block 1701 Lots 3.01 & 4.04
Princeton Healthcare System Redevelopment Area**

July 7, 2023

A. Site Plan Comments

1. The Construction Detail Sheets shall be modified as follows:
 - a) ADA details conforming to regulations shall be provided depicting slopes and grades of each ADA ramp.
 - b) There are two (2) Porous Pavement Inspection Port details shown in the construction details, Sheet C.1A.10. One shall be removed to prevent confusion.
 - c) Inspection/access port labels and details provide inconsistent names between the plans and details for the proposed parking garage plan set. The plans and details shall be revised accordingly.
 - d) A detail for the proposed oil/sand interceptor shall be provided.

B. Traffic, Parking, Signage, Pedestrian and Circulation Issues

1. On Sheet C.1C.03, the Applicant's Engineer shall add an EV sign to the eastern EV Make Ready ADA Parking Stall. The Applicant's Engineer shall also add EV signs to the EV Make Ready Spaces to the east.
2. On Sheet C.1C.17, the Applicant's Engineer shall provide a detail of the EV parking sign.

C. Grading, Drainage and Stormwater Management Issues

1. The Grading & Drainage Plan, sheet C.1A.04, shall be modified as follows:
 - a) Many of the contours along the Temporary Stone Parking Lot appear to follow presumed curbing in most locations. However, there does not appear to be any curbing proposed along this portion of the Punia Boulevard Parking Lot. The Grading Plan shall be revised accordingly.
 - b) There appears to be a low point at the northeasterly portion of the Temporary Parking Lot of el. 82.38, as well as a low point south of the proposed berm to the west of the West OCS at el. 80.84, which would indicate the need for either a stormwater conveyance structure to be added or regrading at each location. The Grading Plan shall be revised accordingly.
 - c) Rim elevations shall be added to all access ports shown on the plan.
 - d) Spot elevations shall be added along each top of berm depicting a minimum slope of 2.0% downgrade.
 - e) The Applicant's Engineer shall revise the plan to show that proposed grades along the northerly curb line of the paved parking lot tie into existing grades.
 - f) The proposed berms along the westerly curb line appear to channelize runoff along the existing sidewalk. The proposed grading along same shall be revised to ensure stormwater runoff is not channelized through the existing sidewalk.
 - g) It is recommended the plan be revised to show the Cultec Chambers pipe layout, and stone of the storage layer for the proposed pervious pavement system with

- top of stone elevation, invert elevation, bottom of stone elevation, length of pipe, 100-year water surface elevation, etc. Refer to the NJ Stormwater BMP Manual – Chapter 9.6 for guidance.
- h) The West Outlet Control Structure depicted on the Grading Plan shows a rim elevation on the detail and grate elevation on the plan view. Also, the entrance pipe to the West OCS shows a 24" HDPE on the plan view and a 36" RCP on the detail, and the exit pipe from the West OCS shows a 15" HDPE on the plan view and a 24" outlet pipe on the detail. The plan view and details shall be revised accordingly.
2. The Grading & Drainage Plan, sheet C.1C.05, shall be modified as follows:
- a) Spot elevations depicting the top and bottom of curb appear to be provided in some locations but are missing in other locations. The Grading Plan shall be revised accordingly.
 - b) Spot elevations shall be added to the proposed curbing where same meets existing curbing.
 - c) The finished floor elevation of the proposed parking garage shall be provided on the plan.
 - d) It is recommended the plan be revised to show the piping layout, and stone of the storage layer for the proposed pervious pavement system with top of stone elevation, invert elevation, bottom of stone elevation, length of pipe, 100-year water surface elevation, etc. Refer to the NJ Stormwater BMP Manual – Chapter 9.6 for guidance.
 - e) Inspection/access ports shall be added to the plan with rim and invert elevations.
 - f) The proposed rain garden shall be depicted on the plan and labeled accordingly with an outlet structure provided for same.
3. Proposed storm sewer profiles shall be added to the Punia Boulevard Parking Plan set for Lot 4.04 Block 1701. The proposed storm sewer profiles shall include all utility crossings with dimensions to ensure adequate clearance is provided in the proposed condition.
4. On sheet C.1C.06, Stormwater Profiles, the proposed profiles shall be revised to include all structure information, pipe information, labels, and all existing and proposed utility crossings with dimensions to ensure adequate clearance is provided in the proposed condition.
5. On sheet C.1C.06, Stormwater Profiles, Inlet #A4 appears to have inconsistent invert out elevations between sheet C.1C.05 and the proposed drainage profile. Also, the proposed drainage pipe between Inlet #D-4 and Inlet #D-5 appears to have a slope less than 0.5%, and a stormwater profile appears to be missing for the proposed roof leader

from canopy connection to Manhole #C-1. The Stormwater Profiles plan sheet shall be revised accordingly.

6. The limit of disturbance area shall be revised to include all areas of proposed disturbance within the project site on the Soil Erosion and Sediment Control Plan, sheet C.1A.06. Also, the total limit of disturbance area shall be provided on same and on Soil Erosion and Sediment Control Plan, sheet C.1B.04, as well.
7. The proposed rain garden for the Penn Medicine Princeton Health Parking Garage plans shall be designed in accordance with the NJ Stormwater BMP Manual – Chapter 9.7. All applicable details and sections shall be provided for same.
8. The proposed pervious pavement system for the Penn Medicine Princeton Health Parking Garage plans shall be designed in accordance with the NJ Stormwater BMP Manual – Chapter 9.6. All applicable details and sections shall be provided for same.
9. Stormwater management BMP measures providing infiltration shall be fenced off and protected during construction.
10. All outlet control structures shall be designed with trash racks and a detail shall be provided for same.
11. Punia Boulevard Parking Lot Stormwater Management Report shall be modified as follows:
 - a) Table 3.1 appears to incorrectly calculate the Allowable Proposed Conditions Runoff in the fourth column. The existing runoff used to calculate the reductions is less than the existing peak runoff provided in the table and in the hydrologic computations. The report and proposed computations shall be revised accordingly to reflect same and provide the reductions as required.
 - b) PondPack catchment area labels and Time of Concentration Calculator labels appear to be inconsistent and shall be revised to match.
 - c) Reference to the limitation equation used for sheet flow calculations within the existing Time of Concentration Calculator shall be added to the spreadsheet.
 - d) The Applicant's Engineer shall amend their proposed condition time of concentration for conformance with the current methodologies described in Chapter 15 of Part 630 Hydrology National Engineering Handbook. There is no minimum Tc value that can be assumed. Refer to the NJ Stormwater BMP Manual – Chapter 5 for guidance.
 - e) The top of baffle wall within the outlet control structure shall be included in the runoff hydrograph calculations.
 - f) The pervious pavement system labels on the plans and report shall be revised to remove labeling inconsistencies.

- g) The water quality runoff hydrographs of the western porous pavement system, and outlet control structure, shall be revised to show the corresponding elevations and layout as shown on the Grading and Drainage Plan, sheet C.1A.04.
 - h) The pre- and post-development runoff hydrographs for the western pervious pavement system shall be revised to include the bottom 3-inches of the system in the hydrologic calculations for the 2-year, 10-year, 25-year, and 100-year storm events.
 - i) Groundwater recharge and groundwater mounding calculations and spreadsheets shall be provided in accordance with the NJ Stormwater BMP Manual.
 - j) The Applicant's Engineer shall provide pre- and post-condition inlet drainage area maps, as well as hydraulic routing calculations to the 25-year storm event for the proposed storm sewer to ensure that same is adequately sized. Also, the 100-year storm event surcharge and freeboard elevations of all drainage systems shall be established per §85-28.C of the Township Code.
12. Penn Medicine Princeton Health Cancer Center Parking Garage Stormwater Management Report shall be modified as follows:
- a) The Applicant's Engineer shall demonstrate why a portion of the existing peak runoff to POA-A is exempt from the required stormwater runoff quantity reductions. A contingency plan may be necessary should the Cancer Center Project not come to fruition.
 - b) The pervious pavement routing summary, Table 5.1, is inconsistent with the runoff hydrograph computation peak inflows, peak outflows, and maximum water surface elevations and shall be revised accordingly.
 - c) The top of baffle wall within the outlet control structures shall equal the 100-year water surface elevation and be included in the runoff hydrograph calculations.
 - d) The pervious pavement system labels on the plans and report shall be revised to remove labeling inconsistencies.
 - e) The water quality runoff hydrographs of the pervious pavement system and outlet control structure shall be revised to show the corresponding elevations and layout as depicted on the plans.
 - f) Test pit data and permeability test data shall be provided in accordance with the NJ Stormwater BMP Manual.
 - g) Groundwater recharge and groundwater mounding calculations and spreadsheets shall be provided in accordance with the NJ Stormwater BMP Manual.
 - h) The Applicant's Engineer shall provide pre- and post-condition inlet drainage area maps, as well as hydraulic routing calculations for the proposed storm sewer to ensure that same is adequately sized. Also, the 100-year storm event surcharge and freeboard elevations of all drainage systems shall be established

to ensure that the proposed parking garage finished floor elevation is not set within the freeboard elevation established per §85-28.C of the Township Code.

D. Lighting Issues

1. The plans shall be revised to provide the manufacturer's catalog cuts and ordering information for the proposed light fixtures 'B' and 'R', to prevent confusion during construction. Complete ordering information and quantities for purchase shall be included within the 'Luminaire Schedule', sheet 29 of 38.
2. The plans shall be revised to provide isolux pattern details with a scale and graph for the proposed light fixture 'B'.

E. As-Built Plans

As-built grading plans are required to be submitted by the developer to the Township Engineer's Office prior to occupying the site. As a minimum the following shall be provided:

1. Storm System:
 - a) Provide as-built pipe sizes, types and classes; manhole and inlet rims, grates, and inverts; and detention basin, subsurface piping, grading, flow channel, and outlet structures.
 - b) A certification shall be provided from the storm water subsurface recharge and storage facilities design engineer indicating that the subsurface recharge and storage facilities have been constructed in accordance with the final plans and specifications and that the facilities will function as originally designed prior to site occupancy.
2. Roadway Systems:
 - a) Provide as-built of access drive and aisles relative to the top of curb, gutter, and centerline elevations at 50' intervals and all returns, high points and low points prior to occupancy.
3. Buildings:
 - a) Submit as-built grading plans for each phase of the building(s) prior to the issuance of certificates of occupancy.
4. Parking Areas:
 - a) Where parking area slopes are less than 1% provide as-built top of curb and gutter elevations at breaks and angle points and sufficient pavement elevations to establish positive drainage to the nearest storm system.

5. Water Distribution System:

- a) Provide copies of the as-built plans as required by the operating utility company providing the water service, but no less than the location and size of water meter pits, water mains, valves, fire department connections and fire hydrants.

6. Sanitary Sewer System:

- a) Provide as-built location, size, slope, material and inverts of all pipes, manholes and pumping stations, or as may be required by the operating utility company providing such service.