NATIONAL INSTITUTES OF HEALTH
OFFICE OF RESEARCH FACILITIES
UTILITY VAULT & PATIENT PARKING GARAGE
NIH BETHESDA CAMPUS
NATIONAL CAPITAL PLANNING COMMISSION SUBMISSION

3. SOUTH ELEVATION

4. NORTH ELEVATION

2. WEST ELEVATION

1. EAST ELEVATION

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Table of Contents

1.0 Agency Contact

2.0 Project Description

3.0 NCPC Recommendation

4.0 Site Data

5.0 Employment Data

6.0 Relationship to Agency’s Master Plan

7.0 Coordination with Government Agencies

8.0 Community Participation

9.0 Schedule

10.0 Cost Data

11.0 Transportation Management Program

12.0 Environmental Documentation

13.0 Historic Preservation Documentation

14.0 Flood Plain Management and Wetlands Protection

15.0 Appendices

15.1 NIH Campus Map and Project Location

15.2 Schematic Site Plan

15.3 Conceptual Rendering

15.4 Proposed Materials

15.5 Architectural Renderings of the Proposed Utility Vault and Patient Parking Garage from various perspectives from the Convent Grounds
1.0 Agency Contact

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2.0 Project Description

NIH’s Bethesda Campus Building 10 staff, visitors and patients parking is partially accommodated by an underground parking garage, located below the hospital. The existing garage has experienced structural degradation over the years, and major repairs are needed. As such, an alternate parking solution is required. Concurrently, the existing Building 10 electrical infrastructure equipment is aging, and located in light-weight structures, (Buildings 59 and 59A). Buildings 59 and 59A are in a vulnerable location just off a main campus roadway. The current equipment/building cannot handle the additional loads planned for the campus (specifically the future, proposed Surgery, Radiology, Laboratory Medicine (SRLM) addition to Building 10). A new, enlarged, structurally hardened location is needed to house the critical electrical equipment.

As a result of the above requirements, a new Utility Vault and Patient Parking Garage (UVPPG) structure is planned for the NIH campus, to be located parallel to Convent Drive, on the west side of the road, at the location of an existing visitor and valet surface parking lot.

The project will also include several 'enabling' tasks for the SRLM program, including relocation of the Clinical Data Center generator, ICU generator, CO2 storage tank, and electrical duct banks that all currently fall within the footprint of the new SRLM building. The project also includes a new electrical duct bank for electrical feeders from Building 63 to the Utility Vault.

Patient Parking Garage

The parking garage portion of the structure is planned as a 6-level, 250,000 Square Foot (SF), self-park facility, with a footprint of 40,000 SF. The garage will accommodate 780 cars, with a car parking space size of approximately 9’ by 18’. The garage will include the code-required number of handicapped spaces.
The garage shall be a state-of-the-art facility, incorporating the latest technologies in parking deck layout and traffic flow, user friendly navigability, safety and security, life safety and fire protection systems, communication systems, speed controls, and MEP systems.

The entrances to the garage will be on Center Drive and South Drive. An attendant booth will be provided for valet parking staff. The lowest level floor-to-ceiling height shall be increased for vans. Passenger elevators will be provided, to serve all parking levels. An underground pedestrian tunnel will connect the garage to the B2 (basement) level of Building 10.

Design features will be included to reduce noise and light transmission to surrounding buildings, via architectural façade elements and lighting selection. The exterior façade, including generator exhaust stacks, shall be complementary to surrounding buildings, and shall consider the structure’s proximity to the nearby historic Convent (Building 60).

NOTE: Building 60 (the Convent) and its grounds are eligible for listing in the National Register of Historic Places. In 2013, architectural historians catalogued the character-defining features of the Convent. Much of the features are concentrated on the original portion of the building itself. There are a number of qualities of integrity, but the ones most at risk here are the integrity of the setting, and the material and workmanship of the Convent wall. For this particular property, the intention of the wall was to extend the cloister to seclude the grounds to the southeast. It is a natural, quiet, and private setting.

NIH is not increasing the number of parking spaces on campus with this project. Spaces will be provided for those that are displaced from lot 10A, the ambulance bay driveway, and the ACRF parking garage. A comparable number of existing parking spaces will be deactivated when this garage is activated.

Utility Vault

The Utility Vault will be an approximately 31,000 SF hardened concrete structure, located immediately to the south of (and adjacent to) the patient parking garage. The new electrical vault will be sized to accommodate the future replacement of the entire electrical distribution equipment (normal and emergency power) and associated feeders currently located in Buildings 59 and 59A. The vault size will also allow expansion of the electrical systems to account for the future SRLM addition to Building 10. The vault will also house the utility infrastructure to service the patient parking garage.

A new 7,700 SF partially underground fuel storage vault for future diesel fuel storage tanks to support the future emergency diesel generators, will be located to the West of the utility vault.

The utility and fuel vault structures shall be built to all applicable current codes and standards. The utility vault shall be required to resist the potential for progressive collapse, incorporate blast mitigation and shall meet all seismic code requirements for this geographic region.
3.0 NCPC Recommendation

**Recommends** reconsidering the patterning of the blank brick walls on the west and south side of the vault or considering art at that location.

**NIH:** These walls are precast concrete panels and will be defined by a series of reveals. Refer to Pg. 59 of the 65% drawing set. The west side of the UVPPG is the Convent grounds. This area, while attractive, is only lightly trafficked so is not a highly visible area where art might be appreciated.

**Recommends** that NIH reduce or eliminate the fuel tank plaza.

**NIH:** NIH considered this recommendation but believes the plaza to be appropriately sized for the location.

**Recommends** that NIH restore the area’s wooded character to the extent possible by implementing a more effective and robust landscape design based on the following NCPC draft guidelines:
- Replace trees with a mix of native evergreen and deciduous shade trees similar to the existing mix on the Convent grounds and project site;
- Plant replacement trees with a minimum caliper size of 2.5 inches for shade trees, 1.5 inches for ornamental trees, and six-foot height for multi-stem and evergreen trees;
- Replace existing trees that measure less than 10-inches in diameter at a one-to-one (1:1) ratio; and
- Replace existing trees that measure 10-inches in diameter or more at a higher ratio based on the condition of each tree removed. Existing trees with a condition rating of “Fair,” “Good,” or “Excellent” should be replaced at a minimum two-to-one (2:1) ratio.

**NIH:** This project is following the NIH tree replacement policy and minimum size of nursery grown plant material specified within the NIH Design Requirements Manual. A mix of evergreen trees and deciduous trees are being replanted on the site as appropriate for the new site use.

**Recommends** that NIH plant a new continuous row of street trees along the westside of Convent Drive, between Center Drive and South Drive, using the same tree species as the existing street trees or another compatible species.

**NIH:** Trees will be added along the west side of Convent Drive (between Center Dr. and South Dr.).

**Recommends** a more robust intensive green roof over the new fuel tank vault with ornamental trees and shrubs to help restore the wooded character of the site and to create a more sheltered, pleasant setting for the proposed pedestrian plaza.

**NIH:** The roof over the new fuel tank vault will require periodic access for maintenance, replacement of fuel tanks, etc. Deep soils, trees, and shrubs are not compatible with this functional access need.

**Requests** that NIH provide additional information about the proposed green screens.
in the final submission with confirmation that the proposed plants are appropriate for
the amount of sun exposure; that the proposed plants are capable of growing
vertically up the entire height of the screens; the time anticipated for the plants to
reach the top level of the Garage; and an alternative treatment should the proposed
green screens prove unsuccessful.

**NIH:** The plants selected for the green screens, Jekyll Crossvine, Virginia Creeper,
American Wisteria, Woodbine, and Trumpet Vine, are appropriate for the anticipated
sunlight (partial sun). Diversity of vines are proposed, to maximize the likelihood of
coverage.
The green screens will work along with a robust tree planting strategy within the
Convent grounds to accomplish the goal of minimizing the visual impact of the
parking structure. Although the successful growth of the vines is expected, a less
than full reach of the vines to the top of the garage should not be viewed as
unsuccessful in accomplishing the intended purpose of the green screens.

**MISCELLANEOUS**

**Recommends** that NIH evaluate the following additional design features for inclusion
in the final plans for the new MLP-15 Garage and Utility Vault:

- Rooftop solar panels on the Utility Vault and affixed to canopies on the top level of
  the new Garage;

**NIH:** Rooftop solar panels were considered, but the effectiveness would be limited
due to the shade of adjacent trees and the staggered configuration of the upper
parking deck. NIH continues to evaluate potential locations for solar panel and
related sustainability project throughout the campus to meet sustainability goals and
may reconsider this location once structures are built.

- Permeable pavers and other permeable paving for construction of all on-site
  sidewalks and garage driveways.

**NIH:** Permeable (pervious) pavers will be considered as part of the stormwater
management design, for Maryland Department of the Environment (MDE) permitting
requirements.

- Garage and other on-site lighting that complies with International Dark-Sky
  Association (IDSA) standards;

**NIH:** Garage and site lighting will comply with NIH’s Design Requirements Manual
(DRM) which calls for cut-offs and side shields, to prevent light pollution.

- Bioswale areas with appropriate native compatible grasses and shrubs.

**NIH:** Bio-retention areas (bioswales) are planned, to comply with the MDE permitting
requirements for stormwater management.
4.0 Site Data

The new Utility Vault and Patient Parking Garage structure will be located parallel to Convent Drive, on the west side of the road, at the location of an existing visitor and valet surface parking lot. The new structure will be partially visible from Old Georgetown Road.

The selected site is the only available site on the NIH campus near the clinical (hospital) section of Building 10.

5.0 Employment Data

This project will not increase the number of NIH employees on the Bethesda Campus.

6.0 Relationship to Agency’s Master Plan

The project is consistent with the Agency’s Master Plan by reference. The project is consistent with the Campus Organization and Structure as described in Chapter 5 of the Agency’s Master Plan. This project was developed after the Master Plan was completed due to unforeseen parking structural deterioration, new security requirements and aging electrical infrastructure.

7.0 Coordination with Government Agencies

The proposed Utility Vault and Patient Parking Garage is being presented to the NCPC for concurrent Preliminary and Final Review. This report will also be shared with relevant agencies within the National Institutes of Health (NIH) and with the Maryland Department of the Environment (MDE).

8.0 Community Participation

The project was presented to the NIH Community Liaison Council on September 19, 2019. It was presented to the BRAC Implementation Committee (BIC) on January 21, 2020.

9.0 Schedule

The project is funded, and the project schedule is as follows:

Design:
Start – October 2019
Complete - October 2020

Construction:
Start - November 2020
Complete –April 2022.
10.0 Cost Data

The cost of the project will be approximately $50,000,000. This cost includes utility vault, parking garage, and all associated site/civil work; plus SRLM enabling projects (relocate CO₂ tank, data center generator, and ICU generator; electrical underground ductbank relocation; alternate electrical feeders).

11.0 Transportation Management Program

No additional traffic will be generated. Project will adhere to the NIH Bethesda Campus 2020 Master Plan Amendment.

12.0 Environmental Documentation

The Final Environmental Impact Statement (FEIS) was issued on July 7, 2020. The Record of Decision (ROD) will be published following the 30-day comment period.

The project implementation is dependent on the completion and outcome of the above NEPA process.

13.0 Historic Preservation Documentation

A Preservation Officer from the Maryland Historical Trust (MHT) visited the site in March 2019 and was briefed on the project. The NIH made a preliminary Section 106 submission to the MHT in May 2019 and a second submission in June 2020 in response to questions from the MHT. The NIH has also consulted with the public, the NIH Community Liaison Council, and the National Capital Planning Commission. The NIH has determined that the project to construct a Utility Vault and Patient Parking Garage (UVPPG) will have No Adverse effect upon historic properties. The MHT has concurred with this determination.

14.0 Flood Plain Management and Wetlands Protection

The Extreme Flood Volume Calculation is not required as the project site is outside the 100-year flood plain, as per FEMA flood map 24031C0365D.

Based on review of available data (1993 Campus wetland delineations, MERLIN data, and USFWS online mapper), no known wetlands are located within the site of the proposed UVPPG. A wetland delineation was not conducted as part of this analysis.
15.0 Appendices
15.1 NIH Campus Map and Project Location

Existing Valet Parking Lot (10E)

Project Site

Potential Construction Vehicle Access Routes (Center and South)
15.3 Conceptual Renderings
LIST OF MATERIALS:
1. **GREENSCREEN** - Matte green
2. **PRECAST ARCH, CONCRETE #1** - Match control sample color from HOK
3. **PRECAST ARCH, CONCRETE #2** - Match control sample from HOK
4. **STONE** - Cardrock gray tumbled stone
5a. **COPINGS** - Metal coping to match existing adjacent materials in color.
6. **PAVERS** - Hanover Glacier White w/ Tudor finish
7. **RAILINGS** - Color Bronze
7a. **RAILINGS** - Hollow metal, Color: Bronze
8. **ALUM LOUVERS** - Duranar Medium Grey U051555XL
8a. **LOUVERED FENCE** - Pre-finished lower metal screen, Color: Duranar Medium Grey U051555XL
9. **TEXTURED ACRYLIC FINISH** - Applied on concrete or cast, Color: Light Gray
10. **FORMLINER** - Concrete retaining wall w/ Fitzgerald Form liner #16954 oriented vertically
11. **GRC WALL** - Concrete retaining wall w/ smooth finish
15.5 - Architectural Renderings

of the

Proposed Utility Vault and Patient Parking Garage

from various perspectives from the Convent Grounds.
Key Plan (View Locations 1, 2, 3 & 4)
Location 1 –
Location 1 – New View (Day-
Location 2 –