Building 511 Renovation & Addition
Walter Reed Army Institute of Research
USAG Fort Detrick Forest Glen Annex
Silver Spring, MD

Preliminary & Final Design Submission
NCPC 7 July 2016

USAG Fort Detrick Directorate of Public Works
Medical Research Material Command
USACE Little Rock District
Turner + Jacobs
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1. PROJECT REPORT

A. AGENCY

United States Army Garrison Fort Detrick
Directorate of Public Works
201 Beasley Drive
Frederick, MD

B. AGENCY POC

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TENANT POC

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C. TOTAL AREA OF SITE & LAND ALLOCATION

The existing Building 511 site is approximately 2 acres. The limit of disturbance is approximately 5,000 gross square feet. Forest Glen Annex has 124 total acres.

D. AREA OF BUILDING

The existing building footprint is approximately 35,155 gross square feet and has a total 67,518 gross square footage. The new addition is approximately 5,300 gross square feet total building area and 2,650 gross square feet of addition footprint.

E. EXISTING & PROJECTED EMPLOYMENT

Existing staff in Building 511 is 56 full time and 9 part time employees. No new personnel are added due to the addition. Therefore employment is not changing with the construction of the project.

F. RELATION TO FOREST GLEN MASTER PLAN

Building 511 is on the NCPC approved 2003 Masterplan, and on the NCPC reviewed but not approved 2009 BRAC Master Plan. The building addition is not on the NCPC Master Plan but note that the addition is conforming to the existing approved use and the renovations are restoring, repairing and modernizing the existing conditions. In
keeping with the installation design guide standards, the exterior envelope of the existing building and new addition are designed to complement Building 503’s theme.

G. COORDINATION WITH LOCAL GOVERNMENT AND COUNCIL OF GOVERNMENTS

A draft Forest Glen Annex Master Plan was informally presented and reviewed for comment with representatives of the Maryland National Capitol Planning Commission in 2012. The Building 511 project is a major interior renovation and a minor addition to an existing facility. Exterior envelope changes are being made to improve energy conservation requirements for the existing building. No new employees are added to the installation population, and it presents no adverse environmental or historic impacts. This project was not coordinated with the local government or Council of Government.

H. CONSTRUCTION SCHEDULE & OCCUPANCY

Notice to proceed for construction is expected October of 2016 with completion December of 2018.

I. PROJECT COST & FUNDING SOURCE

The authorized budget for this project for design and construction of the addition is $3.4M and for the existing building renovation is $48.36M. The funding source for the project is Defense Health Program (DHP) - O & M.
2. NARRATIVE DESCRIPTION

A. BACKGROUND

The Walter Reed Army Institute of Research (WRAIR), located on the Fort Detrick, Forest Glen Annex in Silver Spring, Maryland, has provided biomedical research to protect and sustain the warfighter and global medical solutions for many decades. Critical to supporting this function has been the Raymond Randall Building (Building 511), which is a 67,518 square foot, two-story concrete structure constructed in 1971. Operating continuously since construction, the building serves as a vivarium and research lab on site, housing non-human primates, large animal species and small animal species including specialty species such as snakes. In addition, the building houses several unique research functions used by both the Navy and Army involving specialized equipment.

After over 40 years of continual operation, the Building 511 infrastructure is not in accordance with current building codes and standards, and inadequate to support vivarium best practices. In addition, the building does not have sufficient space for proper operation of the specialized equipment, which was added after the original structure was constructed; therefore, an addition to the structure has been designed.

Since 2010, several conceptual designs to renew and reconfigure Building 511 to modern standards and better support of the current mission have occurred. The addition will house specialty equipment associated with research functions currently located within Building 511 and renovation of existing building. Space gained from this relocation will facilitate a better layout for the remaining vivarium functions, including right sizing animal rooms.

B. PROJECT SITE

The site is bounded by two existing roads, Robert Grant Avenue to the south and Stephen Sitter Avenue to the west and north. Vehicular access into the site is provided off of both existing roads. All access drives are constructed of asphalt pavement with the appropriate base course thickness.

A large parking lot is located across Stephen Sitter Ave from Building 511. A smaller parking lot is located across Grant Ave. No new parking will be provided in phase 1 or 3 of construction. A service vehicle entrance, consisting of asphalt pavement exists on the northwest corner of the building and is consistent with the surrounding roads.

A contractor laydown area is located northwest of the site off of Stephen Sitter Ave. The staging site has an existing hardstand and a controlled perimeter marking an area of approximately 12,000 square feet. Emergency vehicle access will remain consistent with the layout of the current building. Emergency vehicles can access the building from either Stephen Sitter Ave, Robert Grant Ave, or in the drive aisle located between Building 511 and the Forest Glen Annex.

Walkways will be constructed of concrete and will be designed to provide access from the northwest vehicle loading area to the western side entrance of the building. The
grading of the non-paved area around the addition and the concrete landing will have a minimum 2 percent slope. The grading of the ramp is in accordance with Americans with Disabilities Act regulations, with a maximum slope of 1:12. The slope of the concrete pavement between the ramp and existing asphalt is about 5%.

No permanent irrigation is required for low maintenance, native vegetation. The ornamental fence on the site will remain throughout construction. No other fences will be constructed around the perimeter of the site.

C. STORMWATER MANAGEMENT

Although the total land disturbance does not exceed 5,000 square feet, the total volume of earthwork excavation will exceed 100 cubic yards. Therefore, stormwater management designed in accordance with the Maryland Department of the Environment (MDE) rules and regulations will be required. Low impact development practices have been utilized to the maximum extent practicable by providing two rain gardens, which are an MDE approved Environmental Site Design (ESD) measure. The two rain gardens are designed to capture and infiltrate runoff into the ground prior to discharging from the site into off-site tributaries.

During construction, erosion and sediment control devices will be utilized to ensure sediment laden runoff does not discharge from the site, polluting nearby tributaries. The erosion and sediment control approach will employ a combination of silt fence, tree protection, inlet protection, and stabilized construction entrances.

D. LANDSCAPE

A landscape plan will strive to meet all current jurisdictional agency requirements with regards to proposed planting, while also adhering to AT/FP measures that must be applied to this facility. Therefore, proposed planting adjacent to the building is limited to reseeding and establishing lawn areas disturbed by construction with a species of grass matching the existing lawn.

Further from the proposed building, existing trees will be preserved. Tree protection will be installed where necessary and any excavation within drip lines will be limited and will require root pruning. No equipment will be stored within tree driplines, no access into tree protection areas will be allowed.

E. BUILDING DESIGN

The design and construction of the project is divided into four construction and transition phases.

Phase I, is the construction of an approximately 5,300 square feet addition. The first floor of the addition houses large testing equipment (shock tubes) and the second level is mechanical space only which will be integrated with the existing mechanical space. Existing egress stairwell will be demolished to construct a new egress stairwell which will access the roof. The shock-tube suite via a corridor will be directly connected to the vivarium. It will also have direct access to the exterior of the building with a ramp and stair leading to grade. The new addition will be separated from the existing building with
a building expansion joint. The exterior will be brick to match existing building with metal panel accents. See attached rendering and elevations.

Phase II, Transition is the relocation of the equipment, laboratories and staff from the existing building into the new addition. Phase II will also relocate administration functions within the existing building and prepare the site to permit the implementation of Phase III.

Phase III is the construction of the renovation of the existing facility to provide a vivarium, that will function efficiently, with built in flexibility and upgraded building envelope and finishes which address future needs, and environmental sustainability. Windows will be replaced to meet ATFP requirements and mullions will be blue to match the base theme. Exterior envelope and roof of the building will be replaced in kind in order to upgrade the insulation for the design parameters of the humidification of the Vivarium and weather-proofing. The exterior envelope will match the existing conditions as well as update to meet the Installation Guidelines with Guideline colors and thematic metal panel accents. In order to upgrade the mechanical system to meet the criteria, the penthouse on the roof will be enlarged in footprint to accommodate additional ductwork. The penthouse will not increase in height. See attached renderings and elevations.

Phase IV is the initial outfitting and occupancy procedure of the occupancy of the building after construction has been completed.

F. INTERIOR DESIGN

The interior upgrades to the entire building will be made to enhance the working experience, meet projected animal holding requirements and improve animal care. Renovation of office and conferencing areas will be designed to meet MEDCOM Interior Design Master Plan Guides. Recommendations from the most recent guide care and use of Laboratory Animals (the “Guide”) will be used as basis of design for the Vivarium portions of the building. The floors in the Vivarium will be epoxy flooring with CMU walls and where applicable gypsum wall board or Fiberglass ceilings.

The interior finishes will be selected based on suitability of use, LEED properties, durability, and aesthetic character. The primary colors in the building will be neutral with accents of color to provide interest. The floor finishes offer durability and safety while providing complementary accents that pull the remainder of the room finishes together. The floor in the reception area, offices, conference/meeting rooms and study/library will be carpet tile, with ceramic/porcelain tile in restroom/locker rooms and rubber tile in break/kitchen, storage and mail/copy rooms.

Wall colors will be painted a soothing neutral in the majority of the building. Special spaces such as break/kitchen area will have accent walls painted in complementary colors that will blend with the overall color palette yet add an extra point of interest to the space. Acrylic latex painted gypsum board will be the standard wall finish in the majority of spaces. Color options will be presented to the owner/users and selections will be made based on an approved design process.

The restrooms will be finished with a ceramic porcelain through-color tile that will provide the areas with a pleasing look and ease of cleaning.
Acoustical ceiling tile will be used in offices, break/kitchen and administrative support spaces such as storage and mail/copy rooms.

New furniture and furnishings will be selected and furnished throughout the administrative spaces.

The building will reflect both users’ needs and functionality and will provide a comfortable yet durable facility in which to complete their operations.

G. PARKING

No new employee or visitors will be added due to the increased area and there will be no changes to existing parking counts or configurations.

H. UTILITIES

A water service line traverses through the Phase I project site and will be relocated to accommodate the planned Addition. A new water line will connect to the existing water main located within Stephen Sitter Avenue, and will be routed north of the addition and into the existing mechanical room. Prior to entering the building, the water line will split, providing separate dedicated lines for domestic and fire suppression service. All other utilities are existing to remain.

I. FIRE SPRINKLER SYSTEM

The existing building is currently sprinklered and fully complicate with NFPA 13 and 72 for sprinkler and alarm systems. Addition will tie into existing building system. Sprinkler heads will be modified for new floor plan layout during the renovation of the existing building.

J. ENERGY CONSERVATION AND LEED

The renovation and Addition to the Building 511 will comply with USGBC LEED v2009 NC requirements and be certifiable to a LEED Silver rating.
A. NEPA- ADDITION

RECORD OF ENVIRONMENTAL CONSIDERATION
FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

Proponent of Activity: Lloyd A. Webster, Sr - Facility Manager
Walter Reed Army Institute of Research (WRAIR)

Project Title: WRAIR, Building 511 Revitalization Addition

Brief Description: Project is to construct an addition to Building 511 as part of the revitalization and recapitalization of the WRAIR. The addition will be approximately 5,300 square feet on the south east portion of Building 511.

Anticipated date and/or duration of proposed action: Anticipated start is FY15.

[New Construction] The above activity is categorically excluded under the provisions of 32 CFR 651, Appendix B, Categorical Exclusion (c)(1), (and no extraordinary circumstances exist as defined in Section 651.20), because the proposed action is new construction conducted in accordance with the approved installation master plan and the Installation Design Guidelines and, does not significantly alter land use, and when completed does not of itself have a significant environment impact.

Lloyd A. Webster, Sr 12/23/14
Facility Manager
301-319-9669

Mark Lewis 24 December 2014
NEPA Program Manager
Directorate of Public Works
Environmental Management Office
301-619-3136
A. NEPA- REPAIR & RENOVATE

RECORD OF ENVIRONMENTAL CONSIDERATION
FOREST GLEN ANNEX
SILVER SPRING, MARYLAND

Proponent of Activity:  Lloyd A. Webster, Sr.
Facility Manager, Walter Reed Army Institute of Research

Project Title: Walter Reed Army Institute of Research (WRAIR), Building 511 Revitalization Renovation

Brief Description: The project will be conducted to repair failing infrastructure of the aging research facility. Most of the failing infrastructure has reached the end of their life expectancy. Project is to repair the failing interior and exterior finishes, electrical, fire alarm, mechanical, plumbing, emergency generators, elevator, built-in refrigerator, roof and windows.

Anticipated date and/or duration of proposed action: Anticipated start is FY15.

[Combination] The above activity is categorically excluded under the provisions of 32 CFR 651, Appendix B, Categorical Exclusions (c)(1) and (g)(1), (and no extraordinary circumstances exist as defined in Section 651.29), because the proposed action is the routine repair and maintenance of buildings, roads, grounds and/or other facilities, and new construction conducted in accordance with the approved installation master plan and the Installation Design Guidelines and, does not significantly alter land use, and when completed does not in itself have a significant environment impact.

Lloyd A. Webster, Sr.  Date
Facility Manager
Walter Reed Army Institute of Research
301-319-9669

Mark Lewis  Date
NEPA Program Manager
Directorate of Public Works
Environmental Management Office
301-619-3136
B. SHPO (NOT APPLICABLE)

Review procedures have been implemented for this project in accordance with 36 CFR 800. The review has established that there will be no effect.

There are no eligible or listed properties within the view shed and general area of the proposed addition. This project doesn't need to be reviewed by SHPO.
C. VICINITY MAP

D. INSTALLATION MAP
E. SITE PLAN
F. RENDERINGS

ROBERT GRANT AVENUE

STEPHEN SITTER AVENUE
I. ROOF PLAN
J. ELEVATIONS

STEPHEN SITTER AVE. (SOUTH)

WEST SERVICE DRIVE

NORTH SERVICE DRIVE

ROBERT GRANT AVENUE (EAST)
L. LANDSCAPE, GRADING AND DRAINAGE PLAN

KEY NOTES

1. LIMITS OF DISTURBANCE.
2. SILT FENCE. SEE DETAIL C1 ON SHEET C502
3. RAIN GARDEN #1. AREA= 278.1 SQ FT (0.0064 ACRES)
4. RAIN GARDEN #2. AREA= 223.0 SQ FT (0.0051 ACRES)
1 LIMITS OF DISTURBANCE.
2 SILT FENCE. SEE DETAIL C1 ON SHEET C502
3 AT GRADE INLET PROTECTION. SEE DETAIL C3 ON SHEET C502.

**M. EROSION AND SEDIMENT CONTROL PLAN**

**KEY NOTES**

1 LIMITS OF DISTURBANCE.
2 SILT FENCE. SEE DETAIL C1 ON SHEET C502
3 AT GRADE INLET PROTECTION. SEE DETAIL C3 ON SHEET C502.

**PHASE I**

**BLDG 511 ADDITION**

**FFE = 321.0**

**Concrete Walk**

**Asphalt Pavement**

**Steel Fence**

**SILT FENCE. SEE DETAIL C1 ON SHEET C502**

**AT GRADE INLET PROTECTION. SEE DETAIL C3 ON SHEET C502.**
Existing parking to remain, no additional parking added