

STAFF RECOMMENDATION

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NCPC File No. 6808



FORT BELVOIR, MISSILE DEFENSE AGENCY- HEADQUARTERS COMMAND AND CONTROL CENTER

Fairfax County, Virginia

Submitted by Department of the Army

April 24, 2008

Abstract

The Department of the Army has submitted concept design information for the new Missile Defense Agency (MDA) Headquarters Command and Control Center at Fort Belvoir, Virginia. This proposal is a Base Realignment and Closure Act (BRAC) project that must be completed by 2011. The project site is located on the north portion of the parade ground at the South Post area of Fort Belvoir.

Commission Action Requested by Applicant

Approval of comments on concept site and building plans pursuant to 40 U.S.C. § 8722 (b)(1)).

Executive Director's Recommendation

The Commission:

Comments favorably on the concept site and building plans for the Missile Defense Agency (MDA) Headquarters Command and Control Center at Fort Belvoir, Virginia, as shown on NCPC Map File No. Map File No. 3101.00(38.00)42522, and

Recommends the Department of the Army achieve the following:

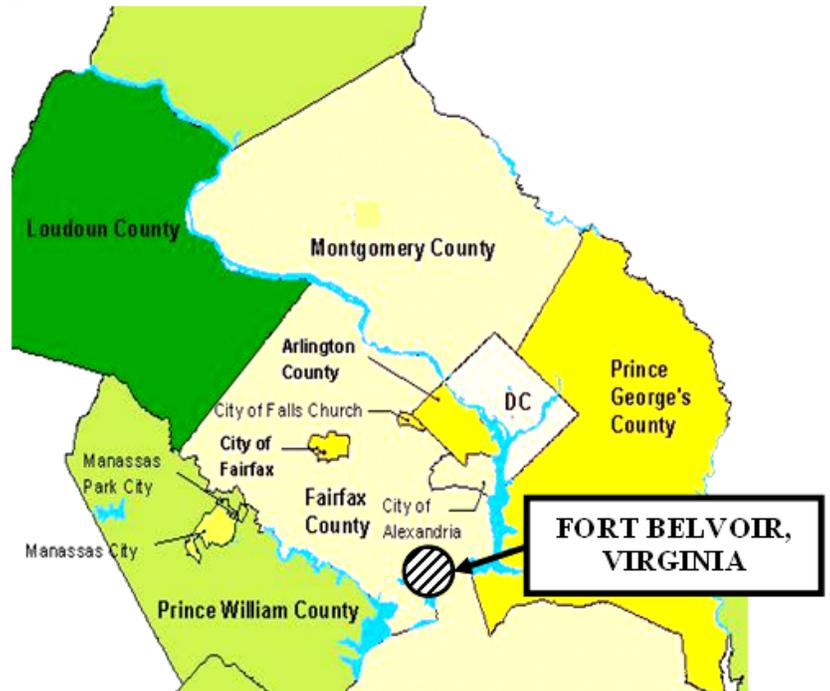
- Continue development of a final TMP for review by NCPC no later than the application for NCPC final building design review.
- Address the measures suggested by Fairfax County, noted by the attached comments on the proposal, dated March 28, 2008.

* * *

PROJECT DESCRIPTION

Site

The project site is located on the north portion of the South Post Parade Ground of Fort Belvoir, adjacent to the South Post Historic District. Nearby buildings include the Wallace Theater, Sosa Community Center, Defense Acquisition University (DAU), Post Communications Building, Post Headquarters, and the Park Village residential area. The MDA building occupies the last available site at the Fort Belvoir Parade Grounds. The concept design is established to be sympathetic to the neoclassic colonial buildings surrounding the parade grounds. The 11.5 acre site is currently used as a recreational area.



REGIONAL LOCATION OF FORT BELVOIR, VIRGINIA

Background

Other earlier Commission actions on projects and activities at Fort Belvoir include:

- On May 6, 1993, the Commission approved the updated Master Plan Land Use Element for Fort Belvoir.
- On July 11, 2002, the Commission approved the final site and building plans for an addition to the Andrew T. McNamara Headquarters Complex to allow for the Defense Threat Reduction Agency relocation, as well as the construction of a parking garage at Fort Belvoir, Virginia, as shown on NCPC Map File No 2204.00 (38.00)-41053.
- The Commission, on August 1, 2002, approved the Subarea Plan for the Regional Community Support Center, Fort Belvoir, and Fairfax County, Virginia as shown on NCPC Map File No. 2205.10 (05.12)-41072.
- On September 6, 2007, commented favorably on the concept site and building plans for the National Geospatial-Intelligence Agency at Fort Belvoir, Virginia, as shown on NCPC Map File No. 3101.00(38.00)-42293.

- The Commission, pursuant to 40 U.S.C. § 8722(b)(1), on January 3, 2008, approved the preliminary and final building plans for excavation and foundation construction for the Main Building on the campus of the National Geospatial-Intelligence Agency at Fort Belvoir, Virginia, as shown on NCPC Map File No.3101.00 (38.00)-42424.



VICINITY LOCATION OF MDA HEADQUARTERS PROJECT ON FORT BELVOIR SOUTH POST

- On February 7, 2008, The Commission approved the preliminary and final building plans for the National Geospatial-Intelligence Agency Main Building at the Fort Belvoir

Engineering Proving Ground, Fort Belvoir, Virginia, as shown on NCPC Map File No. 3101.00(38.00)-42457, and the NGA Transportation Management Plan report.

Proposal

The new MDA structure is a three story 99,001 square-foot brick and pre-cast concrete clad building that provides space for 292 personnel. A parking area for 225 vehicles is located to the north of the building away from prominent views and meeting security set-back requirements. Also included on the west side of the site is an enclosure for mechanical and electrical equipment for the building. The walls of the equipment enclosure are constructed of brick that matches the headquarters. The enclosure and site grading shield the basement loading dock area, which is depressed into the basement level of the building.

The building itself has 15'-4" floor to ceiling heights. The vertical dimension of above ground building construction is approximately 48 feet in height, including the sloped roofs. Two-thirds of the building's lowest floor is approximately 11 feet below grade. This results in elevations that relate directly to the facades of the parade ground buildings and scale of the grounds. The south, east, and west facades are constructed of brick with a limestone base. Window openings proportionally relate to the adjacent buildings and the MDA building's sloped roofs are faced with slate. There is a portion of the parade ground building façade that extends forward of the building wall, recalling the central colonnaded focus of the neoclassic buildings. Although this is not the main entrance, it is a dominating presence on this facade and serves as an entrance for visitors and dignitaries. The neoclassic building treatment partially continues on the north elevation, but it turns into a more contemporary glass façade at that point to exhibit a modern appearance for the agency. This side of the building is the primary controlled entrance to the facility.

The proposed structure continues the bilateral symmetry found in the design of the adjacent buildings. It is centered and aligned with the building entrance of the facility at the south end of the Parade Grounds. The shape of the parking area is curved to parallel the tree line and the land forms to the north. The site layout is pedestrian friendly to promote walking between adjacent structures through a project sidewalk system. The entire project is being designed to meet the LEED® Silver standard.

The landscape design includes additional trees, shrubs, ground cover, and turf. All of the materials used would be selected as native species from the Fort Belvoir design guidance plant palette. Existing mature trees on the site are preserved as much as possible. The landscape design has a character to support and relate to the existing Parade Grounds. Locations of the plant materials aids to define pedestrian routes, reduce the scale of the parking lots, and shield the service areas of the facility.

Stormwater detention is required for the site, and two options are being considered at the concept design stage by the Army. The first is an open detention pond enclosed with fencing located north of the realigned Harris Road. The second option is an underground system located on the north side of the site consisting of 650 lineal feet of eight foot diameter pipe. The existing drainage way north of the site, into which the detention system discharges to, is an inadequate drainage system. This inadequate system triggers additional stormwater retention requirements.

The open detention pond is sized to retain approximately 50,000 cubic feet of stormwater. However, if the underground system is used, Fort Belvoir will upgrade the downstream drainage system from an inadequate to an adequate drainage system concurrently, or in advance of the underground system. The underground system would be sized to retain approximately 35,000 cubic feet of stormwater. Separate infiltration areas are also a part of the total storm water detention system to be further implemented.



MDA HEADQUARTERS BUILDING LOCATION AND SITE LAYOUT IN CONTEXT WITH SOUTH POST PARADE GROUND



MDA BUILDING CONCEPT SITE PLAN

Development Program

Applicant: Department of the Army

Estimated Cost: Total estimated cost of project is \$26,563,000. The building is to be occupied by June/July 2010.

Architect: The initial design is established by Leo A. Daly of Washington, DC, with assistance from the United States Army Corps of Engineers - Baltimore District. The project is to be

further executed as a design/build effort with the consultant/contractor yet to be selected. The project is developed to be issued for a Request for Proposal in May 2008. The successful design build contractor will be responsible for the subsequent presentation of the project to NCPC and Virginia SHPO.

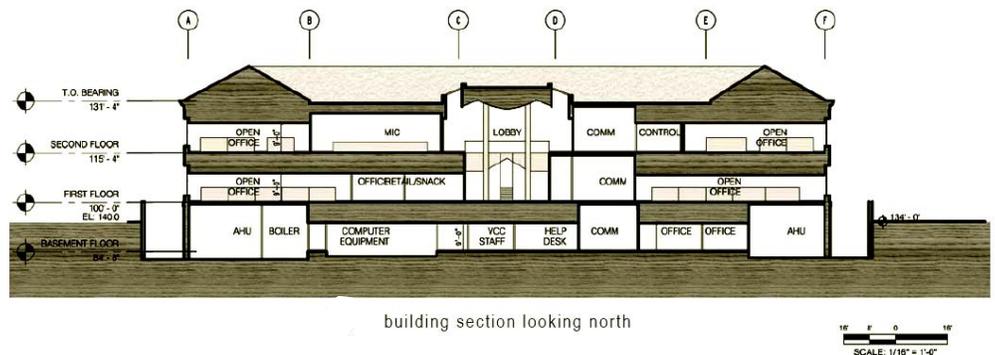
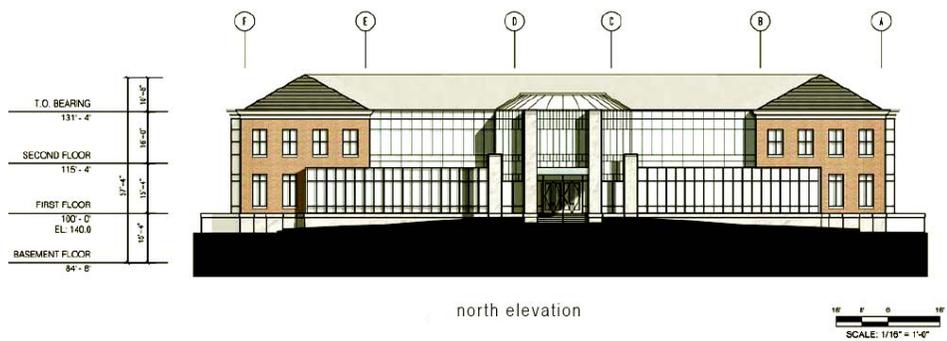
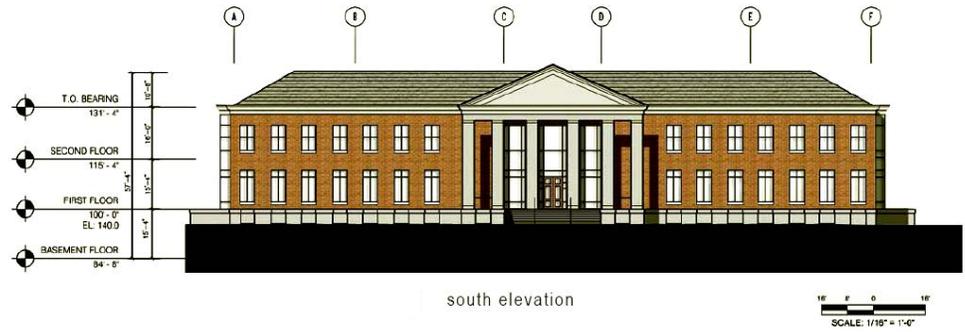
PROJECT ANALYSIS

Executive Summary

The staff finds the concept design fully acceptable and a reasonable building of both scale and massing to complete the historic parade ground area of the South Post. Only minor technical issues need to be addressed by the MDA in the further completion stages of the site and building design development. Additionally, the MDA must complete a final Transportation Management Plan for the project.

Staff believes that the architectural objectives and the concept provisions for the mission at the new MDA building maintain the visual theme at the South Post Parade Ground.

The proposed structure is consistent with design guidelines of the post composition. As a concept site and building plan design, the staff is satisfied with the efforts regarding the issues of location, the specific site design elements noted by this report, and the detailed architectural interpretation and implementation of the building features, material description and extent of fenestration reached by the applicant at this stage.



The concept design includes the draft development of a Transportation Management Plan (TMP). The TMP analyzed current and future traffic conditions and transportation issues at the South Post area. The study includes an analysis of parking, employee commuting patterns, and public transportation options. The TMP includes strategies for increasing use of public transit and reducing the number of single-occupant vehicle trips to the MDA offices. With the proposed staff increase and added parking, the parking ratio established by the project at the parade ground is 1 vehicle space per 1.4 employees. This ratio is just short of the Comprehensive plan goal of 1:1.5 – 1:2 for suburban areas if the facility is over 2000 feet from a Metrorail Station and there is limited bus transit service. The MDA Transportation Management Plan is still in its development, and revisions necessary to address TMP objectives include:

- Increasing the percentage of employees using public transit.
- Increasing the percentage of employees who commute regularly by carpool. Currently MDA has a ride-sharing program and parking spaces closest to the building entrances are being reserved for van/carpools. Approximately five percent of the parking spaces are set aside for this use.
- Reducing the percentage of commuters using primarily single occupant vehicle trips to 60 percent.

MDA strategy for achieving the above directions will be in coordination with the Main Post TMP establishing a centralized commuter information office for transportation and making public transit use more notable and accessible. Also measures are being developed specific to the MDA site.

The MDA has an existing Telework program. At present, there is about 5 percent participation in the program, with formal telework agreements executed. However, there are many other employees who participate through informal agreements with their supervisors. Improved participation in MDA's Telework Program is being pursued and participation accounted for in the final TMP. The focus will be on two basic options:

- Work at home, for unclassified work only
- Work at GSA Telecenters in the NCR, for unclassified work only.

For final project review, the staff further notes additional project transportation management augmentation will be important to complete. Information and commitment measures that would guide and inform the Commission's review action for the MDA preliminary and final design are necessary in the context of the draft Transportation Management Plan measures identified to date. The TMP presently notes the employee to parking space ratio is just short of the Comprehensive plan goal on employee parking for suburban areas. Consequently, **staff recommends the Commission request the applicant continue development of a final TMP for consideration by NCPC, and that it be submitted no later than the application for NCPC final building design review.**

Further, **staff recommends the Army incorporate the suggestions of the Fairfax County review of the project, as noted by the attached documentation on the proposal submitted to NCPC staff, dated March 28, 2008.** All subsequent Army requests for NCPC review of the

MDA project should document responses to the issues in detailed fashion, and account for acceptance or rejection of the recommended actions.



MDA BUILDING PERSPECTIVE AS VIEWED FROM SOUTHEAST

CONFORMANCE

Comprehensive Plan for the National Capital

The proposed NGA concept proposal is consistent with the *Comprehensive Plan for the National Capital: Federal Elements*. The *Comprehensive Plan for the National Capital: Federal Elements* notes that "...federal workplaces that require extensive land and/or have little contact with the public...are primarily located in suburban and rural areas. These include intelligence, research, development, and testing activities. ...Military installations, such as the Department of the Army's Fort Belvoir, have become administrative centers for a variety of government tenants with these types of land uses." (Federal Workplace Element, p. 26)

The transportation management planning objectives as cited in the *Comprehensive Plan for the National Capital: Federal Elements* include the following policies:

Federal agencies should:

1. Prepare Transportation Management Plans (TMPs) to encourage employee commuting by modes other than the single-occupant vehicle.
2. Develop TMPs that explore methods and strategies to meet prescribed parking ratios, and include a thorough rationale and technical analysis in support of all TMP findings.

3. Analyze scenarios that incorporate data on employee home zip codes, nearby bus routes, Metrorail, MARC, and VRE lines and their schedules, and that identify existing and planned HOV lanes.
 4. Include, within TMPs, implementation plans with timetables outlining each agency's commitment to reaching TMP goals.
 5. Reflect, within TMPs, planned regional transportation infrastructure or service improvements within five miles of the federal facilities.
 6. Submit their most recent TMP with all master plans and with all projects that increase employment on site by 100 or more.
- (Federal Transportation Element, Transportation Management Plans, p. 87)

Additional policies involve the transportation demand management objectives cited in the *Comprehensive Plan for the National Capital: Federal Elements* that include the following policies:

The federal government should:

1. Encourage ridesharing, biking, walking, and other non-single-occupant vehicle modes of transportation for federal commuters.
 2. Maximize telecommuting strategies for employees in accordance with federal law.
 3. Employ compressed and variable work schedules for employees, consistent with agency missions.
 4. Support pedestrian and transit commuting through Live-Near-Work programs.
 5. Steadily increase transit subsidy rates, and consider applying subsidies and incentives to other modes, such as biking, walking, carpooling, and vanpooling.
- (Federal Transportation Element, Transportation Demand Management, p. 88)

Staff finds that the MDA project consistency is being sought through development of the required TMP. Further MDA detailed TMP planning is necessary and requested by staff.

Federal Capital Improvements Plan

The 2008-2013 Federal Capital Improvements (FCIP) program identified the proposed MDA facilities at Fort Belvoir. The final FCIP was adopted by the Commission on September 6, 2007. The project was noted as requiring additional planning coordination, which is being accomplished in the building development process with additional information and Army discussions of the project with local and state agencies.

National Capital Urban Design and Security Plan

The Urban Design and Security Plan does not apply to this action since it is located outside the District of Columbia. The Army has enforced its Force Protection requirements in the design of the facility, which include specification of building setback, location to surrounding roadways, and the buildings proximity to parking areas.

Relevant Federal Facility Master Plan

The submission is a concept design that adheres to the existing Master Plan established in 1993 and is consistent with the land use designated in that plan. A new long range real property Master Plan update was submitted for early NCPC staff consultation during March 2008. The

concept design and land use are consent and in conformance with all information of that preliminary Master Plan update. Ultimately, the 2008 Master Plan update will be officially submitted for final review by the Commission later in the year.



MDA BUILDING PERSPECTIVE AS VIEWED FROM NORTHWEST

National Environmental Policy Act

In conformance with its NEPA compliance procedures, the U.S. Army completed an Environmental Impact Statement (EIS) for the project, with the final EIS issued July 2007. An Army Record of Decision was signed by the Army on August 7, 2007, completing the Army's NEPA obligations for this project.

NCPC staff has reviewed the EIS and Record of Decision. The project is a proposal in the environs outside the District of Columbia and because the Commission has an advisory role, it does not have an independent NEPA review for the project.

National Historic Preservation Act (NHPA)

The Fort Belvoir South Post BRAC actions are subject to NHPA, Section 106 Process review pursuant to the terms of a Programmatic Agreement (PA) developed in consultation with the Advisory Council on Historic Preservation and the Virginia Department of Historic Resources.

The project Section 106 consultation process began on the project in early 2008 and included a concept review meeting with the Virginia State Historic Preservation (SHPO) office staff in

February. The SHPO provided a letter response to the review, which is attached. The project, as a whole received favorable comment, but the SHPO noted a limited number of issues that will require further consultation as the project design progresses. NCPC does not have an independent responsibility for this project under the National Historic Preservation Act because the project is in the environs outside of the District of Columbia and the Commission has an advisory role.

CONSULTATION

Referral to relevant local planning agencies

Referral of the project in late February by NCPC staff has determined the Fairfax County planners have various but important issues that Army and MDA must examine in developing final project plans. These include:

- The site and landscape plan indicates that vegetation removal in the northern forested area could be reduced. Strong consideration should be given to minimizing tree clearing through the provision of a more concentrated development envelope south of the existing Harris Road.
- The MDA building would abut the northern boundary of the Fort Belvoir National Register-eligible Historic District. This area is outside of the Fairfax County Woodlawn Historic Overlay District (HOD). While federal undertakings in the HOD are not subject to review by the county's Architectural Review Board (ARB), Fort Belvoir has generally extended a courtesy invitation to the ARB for comment on undertakings within the HOD.
- The abutting National Register-eligible Historic District has been taken into consideration for the siting and design of the MDA building.
- According to the scaled materials supplied, the extent of the MDA building frontage on the parade grounds appears to be in-keeping with that of other buildings fronting onto the grounds.
- Recommend further study of landscaping; concept appears ordered and formal combined with unordered and informal. Recommend reconciliation of these two treatments.
- A problematic element is the HVAC enclosure wall on the west side. Given the prominent location of this element, the material treatment needs to be carefully considered.

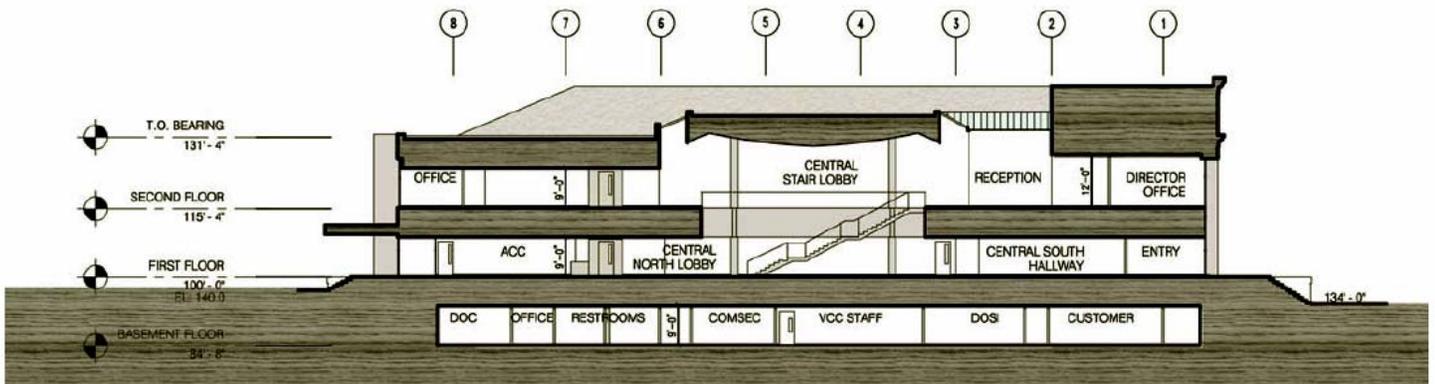
Fairfax County transportation review noted the following:

- The TMP statement of *“There are metrorail and train stations nearby, but no bus service links the mass transit stations with Fort Belvoir or nearby communities.”* This is not entirely true in the case of the Huntington Metrorail station and the community along Richmond Highway north of the Fort. The REX service provides a limited-stop service to Huntington. In addition, several FAIRFAX CONNECTOR routes provide local service to Franconia-Springfield.
- Implementation of non-motorized transportation features will help mitigate transportation impacts associated with increased vehicular traffic resulting from the BRAC action, and contribute to achieving other important goals such as improved air quality. Measures to implement would include:

- Development of a non-motorized transportation plan to mitigate the adverse impacts on the transportation.
- Provision of pedestrian and bicycle connections between on-post and/or near-post housing and on-site employment areas.
- Add, measures to the “Support bicycling to work” objective, to measure the number of bikes at bike racks; and promote using bikes on buses.



west elevation



building section

