

1. Component MARINE CORPS	<b>FY 2005 MILITARY CONSTRUCTION PROGRAM</b>	2. Date 13 JAN 2004
------------------------------	--	------------------------

3. Installation and Location/UIC: M00262 MARINE CORPS AIR FACILITY QUANTICO, VIRGINIA	4. Project Title MAINTENANCE HANGAR TYPE I
---	---

5. Program Element 0206496M	6. Category Code 21105	7. Project Number P449	8. Project Cost (\$000) 21,180
--------------------------------	---------------------------	---------------------------	-----------------------------------

**9. COST ESTIMATES**

Item	UM	Quantity	Unit Cost	Cost(\$000)
MAINTENANCE HANGAR TYPE I (56,855 SF)	m2	5,282		13380
AIRCRAFT MAINTENANCE HANGAR (39,934 SF)	m2	3,710	2,050.00	(7610)
GENERAL PURPOSE MAINTENANCE HANGAR (16,921 SF)	m2	1,572	1,760.00	(2770)
BUILT-IN EQUIPMENT	LS			(1750)
TECHNICAL OPERATING MANUALS	LS			(270)
INFORMATION SYSTEMS	LS			(280)
ANTI-TERRORISM/FORCE PROTECTION	LS			(260)
SPECIAL COSTS	LS			(440)
SUPPORTING FACILITIES				4990
SPECIAL FOUNDATION FEATURES	LS			(790)
ELECTRICAL UTILITIES	LS			(390)
MECHANICAL UTILITIES	LS			(520)
ENVIRONMENTAL MITIGATION	LS			(470)
ANTI-TERRORISM/FORCE PROTECTION	LS			(240)
PAVING AND SITE IMPROVEMENT	LS			(2580)
SUBTOTAL				18370
CONTINGENCY (5%)				920
TOTAL CONTRACT COST				19290
SIOH (6%)				1160
SUBTOTAL				20450
DESIGN/BUILD - DESIGN COST				730
TOTAL REQUEST ROUNDED				21180
TOTAL REQUEST				21180

**10. Description of Proposed Construction**

Construct a multi-story Type I aircraft hangar (two modules) on reinforced concrete slab and pile foundation with structural steel frame, concrete masonry unit (CMU) and brick infill walls, standing seam metal siding and standing seam metal roof. Construction includes maintenance shop, storage and support areas. Special costs include Georgian style architecture (partial height brick veneer with pilasters, recesses, and cast stone accents). Special foundation features include pile foundation. Built-in equipment includes 400Hz power converters, one emergency generator, one bridge crane, compressed air system, and one elevator. Sustainable principles will be included in the design, development, and construction of the project in accordance with Executive Order 13123 and other laws and executive orders. Electrical systems include electrical distribution, fire alarms, telephone, and energy saving Electronic Monitoring and Control System (EMCS). Mechanical systems include underground propane tank and piping, fire suppression systems, heating ventilation and air conditioning (HVAC), and plumbing. Supporting facilities work includes site and building utility connections (water, storm and sanitary

1. Component MARINE CORPS	FY 2005 MILITARY CONSTRUCTION PROGRAM			2. Date 13 JAN 2004
3. Installation and Location/UIC: M00262 MARINE CORPS AIR FACILITY QUANTICO, VIRGINIA			4. Project Title MAINTENANCE HANGAR TYPE I	
5. Program Element 0206496M	6. Category Code 21105	7. Project Number P449	8. Project Cost (\$000) 21,180	
<p>sewer, electrical, Local Area Network (LAN) and cable television). Paving and site improvements include paved vehicle parking and aircraft parking apron, concrete sidewalks, pavement and storm drain demolition, flightline fencing, perimeter fencing, earthwork, grading and landscaping, underground containment tanks for Aqueous Film Forming Foam (AFFF) (fire suppression) waste, exterior building and site lighting, and storm drainage. Project also includes Technical Operating Manuals, Anti-Terrorism/Force Protection features, and environmental mitigation.</p>				
<p><b>11. Requirement:</b>            <u>5282m2</u>                    <b>Adequate:</b>            <u>0m2</u>                    <b>Substandard:</b>            <u>0m2</u></p> <p><b>PROJECT:</b> Construct two modules of Type I Maintenance Hangar and adjacent support spaces for HMX-1 to perform aircraft maintenance, operations, storage, training, and other required mission elements. <b>(Current Mission)</b></p> <p><b>REQUIREMENT:</b> Adequate maintenance hangar facility efficiently configured to support the maintenance requirements of the current and future aircraft assigned to HMX-1. In accordance with Standing Operating Procedures for White House Mission Helicopter Flights, all HMX-1 aircraft will be hangared when not involved in flight operations.</p> <p><b>CURRENT SITUATION:</b> The existing hangars at Marine Corps Air Facility Quantico violate operating aircraft airspace. This violation creates a safety hazard aboard the installation.</p> <p>The existing hangers (circa. 1935) do not provide adequate height or floor space to accommodate the current maintenance of the CH-46 aircraft and they will not support the maintenance requirements of future replacement aircraft. Currently, only two of six CH-46s can be parked with adequate fire lanes and safety clearances. When moving aircraft inside the hangar, maintenance personnel must manually lift and pull down rotor blades while rotating the rotor heads to permit clearance and avoid costly damage. Overhead clearance is not sufficient to conduct most "in-hangar" hoist operations. Electrical systems are not sufficient to meet current user demand. Fire suppression systems are inadequate to protect critical national assets and violate current Navy guidelines. The building's proximity to the runway violates the 7:1 transitional surface of the P-80 Airfield Safety Criteria. The aircraft parking apron in front of the building is limited to only 1 or 2 aircraft.</p> <p>In addition to the Presidential Support mission, HMX provides critical support to the Marines Corps warfighting effort by providing Operational Test and Evaluation (OT&amp;E)</p>				

1. Component MARINE CORPS	<b>FY 2005 MILITARY CONSTRUCTION PROGRAM</b>	2. Date 13 JAN 2004
------------------------------	--	------------------------

3. Installation and Location/UIC: M00262 MARINE CORPS AIR FACILITY QUANTICO, VIRGINIA	4. Project Title MAINTENANCE HANGAR TYPE I
---	---

5. Program Element 0206496M	6. Category Code 21105	7. Project Number P449	8. Project Cost (\$000) 21,180
--------------------------------	---------------------------	---------------------------	-----------------------------------

support for Marine Corps vertical lift aircraft. HMX also provides training support to the Marine Corps Combat Development Command (MCCDC) critical to the development of credible warfighting capabilities within the Marine Corps.

**IMPACT IF NOT PROVIDED:**

Airfield safety will remain compromised. The existing facilities will continue to deteriorate resulting in increased maintenance and repair costs and unsafe working conditions. Future aircraft will not be adequately accommodated in the current facility.

**12. Supplemental Data:**

A. Estimated Design Data:

1. Status:

(A) Date Design Start	082002
(B) Date Design 35% Complete	092004
(C) Date Design Completed	042005
(D) Percent Completed as of SEPTEMBER 2003	3%
(E) Percent Completed as of JANUARY 2004	3%
(F) Type of Design Contract	Design Build
(G) Parametric Estimate used to develop cost	Yes
(H) Energy study/Life cycle analysis performed	Yes

2. Basis:

(A) Standard or Definitive Design:	No
(B) Where Design Was Most Recently Used:	N/A

3. Total Cost (C) = (A) + (B) = (D) + (E) : \$580

(A) Production of Plans and Specifications	\$500
(B) All other Design Costs	\$80
(C) Total	\$580
(D) Contract	\$80
(E) In-House	\$500

4. Contract Award 012005

5. Construction Start 042005

6. Construction Complete 042007

B. Equipment associated with this project which will be provided from other appropriations:  
NONE

**JOINT USE CERTIFICATION:**

The Director Land Use and Military Construction Branch, Installations and Logistics Department, Headquarters Marine Corps certifies that this project has been considered

1. Component MARINE CORPS	<b>FY 2005 MILITARY CONSTRUCTION PROGRAM</b>		2. Date 13 JAN 2004
3. Installation and Location/UIC: M00262 MARINE CORPS AIR FACILITY QUANTICO, VIRGINIA		4. Project Title MAINTENANCE HANGAR TYPE I	
5. Program Element 0206496M	6. Category Code 21105	7. Project Number P449	8. Project Cost (\$000) 21,180
<p>for joint use potential. Unilateral Construction is recommended. Mission requirements, operational considerations, and location are incompatible with use by other components.</p> <p>Activity POC: Mr. Jim Woods, MCABE Facilities      Phone No: 252-466-4769</p>			