

Military Construction: Authorities, Process, and Frequently Asked Questions

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SUMMARY

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Military Construction: Authorities, Process, and Frequently Asked Questions

Congress appropriates several billion dollars annually to support the Department of Defense's (DOD's) worldwide military installations portfolio. Authorization for specific military construction (MILCON) projects —provided through the annual National Defense Authorization Act—enables the Secretary of Defense and the Secretaries of the Army, Air Force, and Navy to plan, program, design, and build the runways, piers, warehouses, barracks, schools, hospitals, child development centers, and other facilities

needed to support U.S. military forces at home and abroad. The end-to-end MILCON process by which DOD and Congress act together to build military facilities, beginning with the requirement for a facility, and ending with a completed structure, is lengthy and complex. Summarized, the MILCON process encompasses several steps, to include:

- determination of a facility need by the local installation commander and public works organization;
- vetting and prioritization of construction projects within the military chain of command and the associated Military Department (MILDEP) or other DOD component;
- consolidation and budgeting within the Office of the Secretary of Defense to create the infrastructure construction portion of the Future Years Defense Program (FYDP);
- inclusion of the final budget year list of projects in the annual President's Budget Request to Congress;
- review and adjustment of the budget year list by the congressional defense committees;
- consideration and passage of the necessary authorization and appropriation acts and their enactment by the President of the United States; and
- design and execution of the approved construction projects by the MILDEP's designated
 Construction Agent or Design Manager/Construction Manager—Naval Facilities Engineering
 Command (NAVFAC) for the Navy and Marine Corps, Army Corps of Engineers (USACE) for
 the Army, and either NAVFAC, USACE, or the Air Force Civil Engineer Center (AFCEC) for the
 Air Force—and their support contractors.

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Introduction

The military missions of Department of Defense (DOD) and Military Department (MILDEP) units, offices, and other organizations drive requirements for facilities and supporting infrastructure at any given military installation. As missions change, or as organizations move to or away from an installation, new facilities and supporting infrastructure may need to be built or disposed of to match mission requirements. Similarly, as buildings age or become obsolete, facilities and supporting infrastructure may need to be replaced, reconfigured, or otherwise modernized to meet mission needs.

While each of the MILDEPs has its own unique process for vetting and setting military construction (MILCON) priorities, in general, the MILCON process is formally structured to comply with the DOD's Planning, Programming, Budgeting, and Execution (PPBE) process for resource allocation. Nevertheless, for most MILCON projects, moving from the realization of a construction need (i.e., a requirements determination) through the planning, programming, and budgeting process could take three or more years. When adding the time required for congressional authorization and appropriations to fund a project, implementation of the federal contracting process (e.g., solicitation, awarding the contract, obligating funds, dispersing funds), and physical construction, the end-to-end MILCON process could span five to seven years or more.

This report describes and explains the end-to-end MILCON process by which DOD and the Congress act together to build military facilities, beginning with the requirement for a facility, and ending with a completed structure. Additionally, this report provides answers to Frequently Asked Questions (FAQs) about the MILCON process and other associated programs and processes. Examples of relevant MILCON documentation are contained within.

The Legal and Budgetary Framework

Chapter 169 of Title 10, "Military Construction and Military Family Housing," contains most of the provisions governing MILCON. Section 2801 of Chapter 169 provides definitions of certain terms used throughout the chapter and elsewhere in law. The section defines the term *military construction* as "any construction, development, conversion, or extension of any kind carried out with respect to a military installation, whether to satisfy temporary or permanent requirements, or any acquisition of land or construction of a defense access road." It also specifies that a MILCON project includes "all military construction work ... necessary to produce a complete and usable facility or a complete and usable improvement to an existing facility (or to produce such portion of a complete and usable facility or improvement as is specifically authorized by law)."

The term *military installation* is defined in Title 10, section 2801(c)(4) to mean "a base, camp, post, station, yard, center, or other activity under the jurisdiction of the Secretary of a military department or, in the case of an activity in a foreign country, under the operational control of the Secretary of a military department or the Secretary of Defense, without regard to the duration of

¹ Exceptions include DOD authorities under sections 2803, 2804, 2808, and 2854 of Title 10 of the United States Code (U.S.C.) which are not part of the normal PPBE process. See Department of Defense, Directive 4270.5, *Military Construction*, p.3, at https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodd/427005p.pdf?ver=2018-11-08-080607-280. For more information on the PPBE process, see CRS In Focus IF10429, *Defense Primer: Planning, Programming, Budgeting and Execution (PPBE) Process*, by Brendan W. McGarry and Heidi M. Peters.

² 10 U.S.C. §2801.

³ Ibid.

operational control." In addition to the definition in Chapter 169 of Title 10, the term military installation under 16 U.S.C. §670(1)(A) means "any land, or interest in land owned by the United States and administered by the Secretary of Defense or the Secretary of a [MILDEP], except land under the jurisdiction of the Assistant Secretary of the Army having responsibility for civil works." In general, these definitions include all buildings, structures, training ranges, and other improvements to real property that reside on a military installation.

Authority for MILCON Projects

Section 2802 of Title 10 specifies that the Secretary of Defense and the Secretaries of the MILDEPs may carry out such MILCON projects, land acquisitions, and defense access road projects "as are authorized by law." The section goes on to authorize the following activities:

- surveys and site preparation;
- acquisition, conversion, rehabilitation, and installation of facilities;
- acquisition and installation of equipment and appurtenances integral to the project;
- acquisition and installation of supporting facilities (including utilities) and appurtenances incident to the project; and
- planning, supervision, administration, and overhead incident to the project.

The MILCON-unique authorization requirements specified in section 2802 are in addition to those established by 10 U.S.C §114, which states that, for specified DOD programs including MILCON, "no funds may be appropriated for any fiscal year...unless funds therefor have been specifically authorized in law." In the practical application of these statutes, Congress has required project-by-project authorization and appropriation for military construction projects.⁶

Activities Funded Through MILCON Appropriations

The annual Military Construction, Veterans Affairs, and Related Agencies Appropriation Bill provides federal funding for DOD's construction activities. Often referred to as the *MILCON-VA Appropriations Bill*, this piece of legislation appropriates project-specific amounts for major MILCON projects and a variety of other construction and construction-related activities, such as:

- Unspecified Minor Construction. Construction projects estimated to cost no more than \$6 million under authority provided in 10 U.S.C §2805. Unlike major MILCON projects, unspecified minor construction projects are not subject to specific congressional authorization; therefore, the amounts are appropriated as unspecified minor construction.
- Planning and Design. Congress requires planning and design work on anticipated expenditures for construction projects. This work must be far enough along to provide confidence in the accuracy of the projected budget request. Accordingly, most of the construction projects included in the President's annual

⁴ 10 U.S.C. §2821 holds a similar requirement for the construction and acquisition of military family housing.

⁵ 10 U.S.C. §114(a).

⁶ For more information on authorizations and appropriations see U.S. Government Accountability Office (GAO), *Principals of Federal Appropriations Law, Fourth Edition, Chapter 2, 2016 Rev.*, GAO-16-464SP, March 10, 2016, pp. 2-54, at https://www.gao.gov/legal/red-book/overview.

- budget request are based on planning and design work that was funded by this non-specific appropriation.⁷
- Family Housing (New Construction). Replacement, acquisition, expansion, addition, extension, and alteration of government-owned military family housing.⁸
- Family Housing (Operations and Maintenance). Debt payment, leasing, minor construction, principal and interest charges, insurance premiums, as well as the provision of routine maintenance, utilities, and the general management of government-owned family housing.
- **Military Privatized Housing.** Funding for the Military Housing Privatization Initiative (MHPI) through the *Family Housing Improvement Fund (FHIF)* and the *Military Unaccompanied Housing Improvement Fund (MUHIF)*, separately. MHPI appropriations allow the military to enter into agreements with private developers selected in a competitive process to own, maintain, and operate family housing through a long-term lease. ¹⁰
- Base Realignment and Closure (BRAC). Functions associated with the implementation of past BRAC rounds (i.e., continuing environmental restoration and caretaker costs) and/or new BRAC rounds when authorized by Congress.¹¹
- North Atlantic Treaty Organization (NATO) Security Investment Program. U.S. contributions to the acquisition and construction of common-use military facilities and installations (including international military headquarters), and for related expenses for the collective defense of the North Atlantic Treaty Area. 12
- Chemical Demilitarization Construction. Military construction necessary to support the destruction of the U.S. stockpile of lethal chemical agents and munitions.¹³

Selected MILCON Authorities

Chapter 169 of Title 10 establishes several distinct authorities that allow DOD to perform MILCON and expend funds for other facilities-related activities. ¹⁴ Each authority typically has a monetary threshold or other stipulated limitation associated with it and these restrictions set the

⁷ 10 U.S.C. §2807.

⁸ Government-owned military housing for single service members (often referred to as *Unaccompanied Housing*) is funded as major MILCON (e.g., a new barracks). However, military family housing is funded separately under the general category of "Family Housing."

⁹ See subchapter IV of 10 U.S.C. Ch. 169. Treasury funds for MHPI established under 10 U.S.C. §2883.

¹⁰ Office of the Assistant Secretary of Defense for Sustainment, *Military Housing Privatization*, accessed October 21, 2019, at https://www.acq.osd.mil/eie/FIM/Housing/Housing_index.htmly.

¹¹ Congress is still providing funding for the implementation of fiscal year (FY) 2005 BRAC decisions. FY2019 appropriations for BRAC totaled \$342 million. For more information on BRAC implementation see the U.S. Government Accountability Office (GAO) website: *Key Issues > Military Base Realignment and Closures*, at https://www.gao.gov/key_issues/realigning_closing_military_bases/issue_summary#t=0.

¹² 10 U.S.C. §2806. The 29 member states of NATO share the expense of common-use facilities by a formula under which the United States is responsible for about 21% of the annual construction budget of the alliance.

¹³ See Section 1412 of the Department of Defense Authorization Act, 1986 (50 U.S.C. §1521).

¹⁴ Chapter 169 of Title 10 also includes authorities that support military housing.

framework for the MILCON budget process. They are directly tied to congressional oversight of DOD's MILCON-related activities.

In prescribing the various MILCON authorities and responsibilities, Chapter 169 regularly uses the term *Secretary concerned*, referring to the Secretaries of the MILDEPs, or the Secretary of Defense in the case of a defense agency. When examining monetary thresholds and other limitations, it is important to note whether the specific authority applies to the Secretary of Defense, or to each *Secretary concerned* individually. **Appendix B** provides a reference table of selected statutes governing MILCON and repair authorities and lists their limitations, where applicable.

Unspecified Minor Construction (10 U.S.C. §2805)

Section 2805 of Title 10 authorizes the Secretary concerned to use an expedited process for the authorization of *unspecified minor military construction* projects—currently defined as MILCON projects costing \$6 million or less (adjusted annually to reflect the area *construction cost index*). Under this authority, any project costing more than \$750,000 requires advance approval by the Secretary concerned.

In general, the Secretary concerned funds unspecified minor military construction projects as a single amount using MILCON appropriations. However, where the estimated total cost is \$2 million or less, the funds may be drawn from Operations and Maintenance (O&M) appropriations, which are generally used to fund civilian salaries and awards, travel, fuel, headquarters operations, expenses of operational military forces, training and education, recruiting, depot maintenance, purchases from Defense Working Capital Funds (e.g., spare parts), base operations support, and other items whose benefits are derived for a limited period of time.¹⁷ In practice, these O&M-funded projects are referred to as *minor construction* projects.

For unspecified minor military construction projects exceeding \$2 million (and therefore subject to MILCON appropriations authority), 10 U.S.C §2805 requires the Secretary concerned to submit a notification to the *appropriate committees of Congress*. ¹⁸ This notification is to include a justification for the project as well as the estimated cost. Following a 14-day waiting period, appropriations may then be drawn from an account set up by Congress in the MILCON appropriation for that purpose.

In addition, 10 U.S.C. §2805 provides temporary authority (expiring September 30, 2025) for the use of O&M, as well as certain Research, Development, Test and Evaluation (RDT&E)

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^{15 10} U.S.C. §2801.

¹⁶ Construction of military family housing units may not be carried out under the authority of 10 U.S.C. §2805(e). Through FY2022, the Secretary concerned is required to adjust the dollar limitations specified in 10 U.S.C. §2805 for unspecified minor military construction projects inside the United States to reflect the area construction cost index for military construction projects (not to exceed \$10 million). A construction cost index is an indicator of the average cost over time of representative goods and services related to construction cost variations. It serves as a reflection of the inflationary or deflationary changes of a specific sector of construction industry.

¹⁷ See 10 U.S.C. §2805(c). O&M appropriations are provided through the annual defense appropriations bill, rather than the MILCON-VA Appropriations Bill.

¹⁸ 10 U.S.C. §2801 defines the term *appropriate committees of Congress* as the "congressional defense committees and, with respect to any project to be carried out by, or for the use of, an intelligence component of the Department of Defense, the Permanent Select Committee on Intelligence of the House of Representatives and the Select Committee on Intelligence of the Senate." 10 U.S.C. §101 defines the term *congressional defense committees* as "the Committee on Armed Services and the Committee on Appropriations of the House of Representatives."

appropriations, to fund certain unspecified minor construction projects intended to enhance DOD laboratories.¹⁹

This authority also requires the Secretary concerned to adjust the dollar limitations specified under 10 U.S.C. §2805 for unspecified minor military construction projects inside the United States, to reflect the area *construction cost index* for MILCON projects published by DOD during the prior fiscal year for the location of the project (not to exceed \$10 million). This requirement is in effect through fiscal year 2022.²⁰

Architectural, Engineering, and Design Services (10 U.S.C. §2807)

Section 2807 of Title 10 allows the Secretary concerned to obtain architectural and engineering services, and to initiate construction design, in connection with MILCON projects, family housing, and projects undertaken in connection with 10 U.S.C. §2854, *Restoration or replacement of damaged or destroyed facilities* that are not otherwise authorized by law. If the required services are estimated to exceed \$1 million, congressional notification is required and the Secretary concerned must wait 14 days before obligating funding for such purposes. These services may be paid for using MILCON or Family Housing appropriations for *planning and design*.²¹

Repair of Facilities (10 U.S.C. §2811)

Section 2811 of Title 10 allows the Secretary concerned to carry out certain "repair projects" on facilities using O&M appropriations. The statutes defines a repair project as a project "(1) to restore a real property facility, system, or component to such a condition that it may effectively be used for its designated functional purpose; or (2) to convert a real property facility, system, or component to a new functional purpose without increasing its external dimensions." There are no budgetary limitations or caps on this authority, but projects costing more than \$7.5 million must be approved in advance by the Secretary concerned, and Congress must be notified of the decision to carry out the project. The notification must include a cost estimate and a justification for the project. If the cost estimate exceeds 75 percent of the estimated cost of a MILCON project to replace the facility, 10 U.S.C. §2811 also requires the congressional notification include an explanation as to why replacement of the facility is not in the best interest of the government. This authority also prohibits the construction of new facilities or additions to existing facilities.

Emergency Authorities²²

The following DOD authorities are intended to be exercised in the event of a national emergency, declaration of war, or other acute circumstance where the Secretary concerned determines a MILCON project is immediately required to meet national security needs, or where waiting for

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 $^{^{19}}$ 10 U.S.C. §2805 defines the term *laboratory* to include "a research, engineering, and development center" and "a test and evaluation activity."

²⁰ For more information on unspecified minor military construction, see Department of Defense, *Financial Management Regulation 7000.14-R, Volume 3, Chapter 17*, p. 17-15, June 2019, at https://comptroller.defense.gov/Portals/45/documents/fmr/current/03/03_17.pdf.

²¹ For more information on MILCON Planning and Design, see Department of Defense, *Financial Management Regulation 7000.14-R, Volume 3, Chapter 17*, p. 17-11, June 2019, at https://comptroller.defense.gov/Portals/45/documents/fmr/current/03/03_17.pdf.

²² These authorities are not included in the normal planning, programming, and budgeting process.

the next MILCON authorization would be "inconsistent with national security or national interest." ²³

Emergency Construction (10 U.S.C. §2803)

Under 10 U.S.C. §2803, the Secretary concerned may carry out a MILCON project not otherwise authorized in law, if he or she determines that (1) it is vital to national security or to the protection of health, safety, or the quality of the environment, and (2) the project is of such urgency that it cannot wait for the next Military Construction Authorization Act (i.e., the National Defense Authorization Act, or NDAA).²⁴ When the Secretary concerned initiates a project under this section, the Secretary is required to report it in writing to the appropriate congressional committees (armed services and appropriations). This includes the justification for, and estimated cost of, the project, the reason why Section 2803 is being invoked, and the source of the funds being used. Accordingly, when a decision is made to request approval for an emergency construction project, DOD submits a notification and request for the reprogramming of MILCON funds in accordance with the aforementioned statutory provisions.²⁵ There is a limit of \$50 million that can be obligated under this authority during any given fiscal year. Additionally, a project carried out under this authority must be funded within the total amount of MILCON appropriations that have not been obligated.²⁶ There is also a mandatory waiting period of five days, beginning on the date the appropriate committees of Congress are notified, before the emergency construction project may begin.

Contingency Construction (10 U.S.C. §2804)²⁷

Section 2804 of Title 10 permits the Secretary of Defense (or the Secretary of a MILDEP if authorized by the Secretary of Defense) to use appropriated MILCON funds to carry out a MILCON project without prior congressional authorization, if the Secretary determines that waiting to include it in the next MILCON Authorization Act would be "inconsistent with national security or national interest." Section 2804 requires the Secretary to submit a report in writing to

^{23 10} U.S.C. §2804.

²⁴ There is no provision in Title 10 that explicitly grants this authority to the reserve components of the armed forces (as they are defined in Chapter 1003 of Title 10), and the DOD does not consider emergency construction authority as applicable to the reserve components. The reserve component's real property acquisition authorities are provided in Chapter 1803 of Title 10. See Department of Defense, *Financial Management Regulation 7000.14-R, Volume 3, Chapter 17*, p. 17-19, June 2019, at https://comptroller.defense.gov/Portals/45/documents/fmr/current/03/03_17.pdf.

²⁵ For more information on DOD regulations pertaining to emergency construction authority, see Department of Defense, *Financial Management Regulation 7000.14-R, Volume 3, Chapter 17*, p. 17-18, June 2019, at https://comptroller.defense.gov/Portals/45/documents/fmr/current/03/03_17.pdf.

²⁶ Written into MILCON-VA appropriations acts is language allowing for the obligation (spending) of funds over a number of years. Any funding left over in the various MILCON accounts at the end of a fiscal year is carried over and can be obligated in subsequent years.

²⁷ Section 2808 of the FY2004 National Defense Authorization Act (P.L. 113-66) temporarily authorized the Secretary of Defense as much as \$200 million in O&M funding "carry out a construction project outside the United States necessary to meet "urgent military requirements of a temporary nature in support of a declaration of war, a declaration by the President of a national emergency ... or a contingency operation." This provision, often referred to as "Section 2808 authority" (not to be confused with the permanent 10 U.S.C. §2808 - Construction Authority in the Event of a Declaration of War or National Emergency) has been renewed for each subsequent year, though the cap on available funds and the areas to which it may be applied have frequently been amended. Section 2807 of the FY2019 National Defense Authorization Act (P.L. 115-232) extended the authority through December 31, 2020, and set a limit of \$50 million.

the appropriate congressional committees justifying the project and the invocation of this authority and including an estimate of the cost of the project. Funds for contingency construction are held in the DOD's *Contingency Construction Account*. When a decision is made to request approval for a construction project under this authority, DOD regulation requires submission of a congressional notification and request for the reprogramming of MILCON funds in accordance with the provisions of the statute.²⁸ Yet, according to DOD Directive 4270.5, reprogramming is not necessary for projects under Section 2804.²⁹ Further, although DOD may initiate a MILCON project under this authority without specific congressional authorization, according to DOD's Financial Management Regulation (7000.14-R), "Actual construction may not commence prior to the receipt of appropriate DOD and congressional approval."³⁰

Construction Authority in the Event of a Declaration of War or National Emergency (10 U.S.C. §2808)

In the event of a declaration of war or declaration of a national emergency by the President of the United States *that requires the use of the armed forces*, 10 U.S.C. §2808 permits the Secretary of Defense to initiate, or to authorize the Secretaries of the MILDEPs to carry out, MILCON projects not yet authorized by statute.³¹ Any unobligated MILCON or family housing appropriations may be used for construction projects that are "necessary to support such use of the armed forces." According to the statute, this authority may be exercised "without regard to any other provision of law." The Secretary of Defense must report to Congress the decision to use this authority, along with the estimated costs of the projects, including any associated real estate transactions. The authority terminates at the end of the war or national emergency.

For more information on the recent use of 10 U.S.C. §2808 authority, see CRS Insight IN11017, *Military Construction Funding in the Event of a National Emergency*, by Michael J. Vassalotti and Brendan W. McGarry. For more information on the DOD's historical and current process for exercising this authority, see CRS Report R45937, *Military Funding for Southwest Border Barriers*, by Christopher T. Mann.

Planning, Programming, and Budgeting³²

The need for a particular construction project may be part of a top-down initiative – such as the creation of new missions for a given military installation or the movement of units or offices

²⁸ Department of Defense, *Financial Management Regulation 7000.14-R, Volume 3, Chapter 17*, p. 17-20, June 2019, at https://comptroller.defense.gov/Portals/45/documents/fmr/current/03/03_17.pdf.

²⁹ DOD Directive 4270.5, *Military Construction*, at https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodd/427005p.pdf?ver=2018-11-08-080607-280.

³⁰ For more information on Contingency Construction, see Department of Defense, *Financial Management Regulation* 7000.14-R, *Volume 3*, *Chapter 17*, p. 17-19 and 17-20, June 2019, at https://comptroller.defense.gov/Portals/45/documents/fmr/current/03/03_17.pdf.

³¹ 10 U.S.C. §2808 states that a declaration of a national emergency must be in accordance with the National Emergencies Act of 1976 (50 U.S.C. §1601 et seq.). The National Emergencies Act does not define the term "national emergency." See CRS Legal Sidebar LSB10267, *Definition of National Emergency under the National Emergencies Act*, by Jennifer K. Elsea.

³² This section intentionally condenses the DOD's lengthy and complex process for MILCON design and planning, programming, and budgeting. An expanded and more detailed description of the MILCON process can be found within the RAND report, *Obtaining Life-Cycle Cost-Effective Facilities in the Department of Defense*, at https://www.rand.org/pubs/research_reports/RR169.html. See also CRS In Focus IF10429, *Defense Primer: Planning, Programming, Budgeting and Execution (PPBE) Process*, by Brendan W. McGarry and Heidi M. Peters.

between installations – or it may be the result of needed modernization or replacement of existing facilities determined at the local level (i.e., by installation stakeholders). In either case, the process begins with a preliminary project justification and facility requirements analysis by the installation's *public works department*, which consists of engineers, community planners, environmental specialists, and other public works professionals, subject to the direction of the uniformed installation commander.³³

Installation engineers and other public works staff evaluate the proposed *need* for new or improved facilities such as training classrooms, firing ranges, barracks, and family housing, and compare them to the facilities that already exist.³⁴ The engineers will weigh the costs and time required to rehabilitate, or alter structures, on site against the cost and time required to replace them. Engineers and other members of the installation's planning team then make a preliminary determination of whether or not renovation of an existing facility, new construction, or leasing is more appropriate to satisfy the proposed need.³⁵ An initial project evaluation is followed by a more comprehensive evaluation once a determined need generates a formal request for MILCON.³⁶

The prioritization of prospective MILCON at an installation generally begins with meetings between the installation's engineers and representatives of all major resident organizations and other installation tenants. This group is commonly referred to as a *Facilities Utilization Board*. The result of these meetings—a prioritized list of construction needs—is presented to the senior installation commander, who then accepts or adjusts the priorities to create a final list of proposed projects for service-level review.

Within these prioritized submissions, installation engineers include information about individual MILCON projects in a Department of Defense Form 1391 (DD Form 1391), *Military Construction Project Data* (see **Appendix C** for an example DD Form 1391). The DD Form 1391 for a particular project includes a cost estimate, a description of the proposed construction, the specific requirement for the project (e.g., a change in mission or deterioration of facilities already in use), the current facility situation at the installation, the impact on installation mission if the project is not approved, and any other needed justification information.³⁷ The DD Form 1391 will accompany the construction request through the rest of the executive and legislative process.

³³ The term "public works department" is used as a general descriptor to include each of the military services' public works organizations that are responsible for military installation real property development. A formal title for this type of organization within the Army is an installation's Directorate of Public Works, or DPW. See https://home.army.mil/irwin/index.php/about/Garrison/directorate-public-works.

³⁴ Installation engineers are the principal officers responsible for providing authoritative analysis and strategic program recommendations for MILCON needs and priorities. Installation engineers may be referred to in various titles according to each Military Service: the Post Engineer in the Army, Base Civil Engineer (BCE) in the Air Force and Air National Guard, the Resident/Regional Officer in Charge of Construction (ROICC) in the Navy and Marine Corps, and the Construction and Facilities Management Officer (CFMO) in the Army National Guard.

³⁵ Constantine Samaras, et al., *Development, Construction, and Operating Process and Barriers to Life-Cycle Cost-Effectiveness*, RAND Corporation, 2013, Ch. 2 p. 7.

³⁶ Ibid. As noted previously, funding for additions or alterations to existing buildings and the construction of new buildings, where costs exceed \$2 million, is generally provided through annual MILCON appropriations. Facility repair at a military base is generally supported through the O&M accounts in the annual defense appropriation bill. The O&M sub-accounts associated with this type of maintenance work are generally referred to as Facilities Sustainment, Restoration, and Modernization, or FSRM.

³⁷ DD Form 1391s are associated with several other required DOD forms and their corresponding processes that help to populate, or are informed by, the DD Form 1391. For example, the ENG FORM 3086 is a tool that cost engineers use to estimate project costs for the DD Form 1391.

Vetting and Prioritization within DOD

Once the prioritized lists of MILCON projects leave the installation commanders' offices, they follow different paths depending on the DOD organization responsible for managing a given military installation. **Figure 1** depicts these paths.

Department of the Army

The Secretary of the Army reorganized Army installations management in 2002 by creating the Installation Management Agency (IMA) and assigning to it the responsibility for maintaining the physical infrastructure of all Army posts and depots. Further consolidation and reorganization followed in 2006, when the IMA was folded into the new Installation Management Command (IMCOM), whose commanding general reported directly to the Army Chief of Staff. In March 2019, IMCOM became a major subordinate command to the Army Materiel Command (AMC).³⁸ Today, IMCOM is the Army's single agency responsible for worldwide installation management.

Prior to November 2016, IMCOM was divided into four regional directorates – Central, Atlantic, Pacific, and Europe. Construction projects from Army posts were forwarded to the appropriate IMCOM region, where the submissions from all the garrison commanders at installations within its jurisdiction were reviewed and prioritized into a single consolidated list for the region. On November 1, 2016, the Department of the Army realigned IMCOM's two domestic regions—Atlantic Region and Central Region – from a regional to a mission-oriented organization. These regions were replaced by three functionally-aligned directorates which were co-located with three major Army commands: *IMCOM Readiness*, which is co-located with Army Forces Command (FORSCOM); *IMCOM Training*, which is co-located with Army Training and Doctrine Command (TRADOC); and *IMCOM Sustainment*, which is co-located with AMC.³⁹ The two overseas directorates—*IMCOM Europe* and *IMCOM Pacific*—remained regional and are located in Sembach Kaserne, Germany and Fort Shafter, Hawaii, respectively.

The prioritized lists developed by the five IMCOM directorates are submitted to Headquarters, IMCOM, located at Fort Sam Houston in San Antonio, Texas. The headquarters consolidates, considers, and prioritizes the project lists. It then submits an IMCOM-approved list for further review by the Deputy Chief of Staff (DCS), G9 (formerly the Army's Assistant Chief of Staff for Installation Management, or ACSIM), the service's senior officer responsible for setting installations-related policy and administering installation resource programming. ⁴⁰ The Deputy Chief of Staff, G-8, then assesses and integrates the installations-related resourcing requirements into the overall budget of the Army.

At this point, responsibility for managing the Army's construction requests shift to the civilian Army Secretariat (the staff supporting the Secretary of the Army and his assistants). In the case of MILCON, responsibility for further review and consideration falls to the Assistant Secretary of the Army for Installations, Energy, and Environment (ASA(IE&E)). Once approved by the Assistant Secretary, the Army's proposed construction projects are ready to be sent to the Office

³⁸ Susan A. Merkner, "IMCOM transitions to Army Materiel Command," The Real McCoy, March 22, 2019, https://static.dvidshub.net/media/pubs/pdf_46766.pdf.

³⁹ U.S. Army, "IMCOM transforms regions into new directorates," *Public Works Digest*, January 24, 2017, at https://www.army.mil/article/181181/imcom_transforms_regions_into_new_directorates.

⁴⁰ See "About Us" at the Deputy Chief of Staff, G-9 (Installations) website at https://www.acsim.army.mil/about.html.

of the Secretary of Defense (OSD) for consolidation with those of the other services and defense agencies into a prioritized DOD master list.

Department of the Air Force⁴¹

The Air Force Installation and Mission Support Center (AFIMSC), a subordinate unit to the Air Force Materiel Command (AFMC), was activated in April 2015 to standardize construction and civil engineering support across all Air Force installations. 42 The center, through its headquarters staff, detachments, and Primary Subordinate Units (PSUs), manages and oversees the Air Force's PPBE processes and deliverables for *Installation and Mission Support* capabilities previously accomplished by the Air Force's Major Commands (MAJCOMs) and direct reporting units. 43 This includes MILCON at Air Force installations. In practice, the Air Force MAJCOMs conduct day-to-day management of Air Force installations through their base commanders (generally the Wing Commander at an air base). However, these commanders rely upon AFIMSC to execute their MILCON projects. AFIMSC houses the Air Force Civil Engineer Center (AFCEC), one of its PSUs that provides installation engineering services to Air Force installations, and is responsible for executing the Air Force MILCON program. 44 Though not technically a DODdesignated construction agent (an approved DOD activity assigned the design or construction execution responsibilities associated with a service's MILCON program⁴⁵), AFCEC executes Design Manager/Construction Manager (DM/CM) roles and responsibilities similar to those of a construction agent.⁴⁶

After AFIMSC receives the prioritized project lists from installation commanders, AFIMSC validates and consolidates projects and works to support the development of an Integrated Priority List (IPL), including working through the Air Force Corporate Structure (AFCS), and with the Facility Management Division of the Air Staff (AF/A4CF). The AFCS is a deliberative body that makes recommendations on resourcing and investment to the Secretary of the Air Force. ⁴⁷ AF/A4CF reviews MILCON programs and integrates Total Force (Active Air Force, Air National Guard, Air Force Reserve) MILCON projects into a single IPL based on a pre-approved

⁴¹For more detailed information on how the Air Force manages its MILCON program, see U.S. Air Force, *Program Management Plan for Air Force MILCON* Execution, AFIMSC/AFCEC, 25 September 2017, at https://www.wbdg.org/FFC/AF/POLICY/PgMP_MILCON_HAF_AFCEC_AFIMSC_Final.pdf.

⁴² See AFIMSC's website for additional information https://www.afimsc.af.mil/About-Us/Fact-Sheets/Display/Article/559864/af-installation-mission-support-center/.

⁴³ U.S. Air Force, *Program Management Plan for Air Force MILCON* Execution, AFIMSC/AFCEC, 25 September 2017, pp.4-5, https://www.wbdg.org/FFC/AF/POLICY/PgMP_MILCON_HAF_AFCEC_AFIMSC_Final.pdf. ⁴⁴ Ibid. p. 5.

⁴⁵ See Department of Defense, *Directive 4270.5, Military Construction*, at https://www.esd.whs.mil/Portals/54/Documents/DD/issuances/dodd/427005p.pdf?ver=2018-11-08-080607-280.

⁴⁶ The MILDEP's *Construction Agents* according to DOD Directive 4270.5 are the Naval Facilities Engineering Command (NAVFAC) for the Navy and Marine Corps, and the Army Corps of Engineers (USACE) for the Army. Historically, either NAVFAC or USACE have executed design and construction for the Air Force MILCON program, but more recently AFCEC has taken on these roles and responsibilities and is designated by the Air Force as its *Design Manager/Construction Manager* (DM/CM). See U.S. Air Force, *Instruction (AFI) 32-1023, Designing and Constructing Military Construction Projects*, at https://static.e-publishing.af.mil/production/1/af_a4/publication/afi32-1023/afi32-1023.pdf.

⁴⁷ The Air Force Corporate Structure is a formal body consisting of civilian and military personnel from the Air Staff or Secretariat, Core Function Lead representatives and the MAJCOMs. It is established under the Air Force Council, which is chaired by the Vice Chief of Staff of the Air Force and the Under Secretary of the Air Force. See Headquarters, U.S. Air Force, *Planning, Programming, Budgeting, and Execution System Training Program Reference Manual*, pp. 43-46, at http://afacpo.com/AQDocs/PPBE.pdf.

MILCON Model and presents the MILCON program to the AFCS for approval.⁴⁸ Once approved by the Assistant Secretary of the Air Force for Installations, Energy, and Environment (SAF/IE) through the Deputy Assistant Secretary of the Air Force for Environment, Safety and Infrastructure (SAF/IEE), the Deputy Assistant Secretary of the Air Force for Budget (SAF/FMB) finalizes the Air Force MILCON budget and submits the approved list of MILCON projects to OSD.

Department of the Navy

The Naval Facilities Engineering Command (NAVFAC) plans, builds, and maintains facilities, and delivers environmental, utilities and other base services. NAVFAC comprises two regional commands—*NAVFAC Atlantic* in Norfolk, Virginia, and *NAVFAC Pacific* in Pearl Harbor, Hawaii—to which a total of nine subordinate Facilities Engineering Commands (FECs) report. ⁴⁹ Each Navy shore installation (i.e., Navy base) is assigned to one of the FECs. At each base, a Resident Officer in Charge of Construction (ROICC) overseas MILCON projects for the base and is responsible for developing the necessary DD Form 1391s.

The NAVFAC headquarters staff reviews and prioritizes the submitted construction projects, forwarding the resulting list to Navy Installations Command (formally "Commander, Navy Installations Command," or CNIC), located at the Washington Navy Yard in the District of Columbia. CNIC consolidates, reviews, and reprioritizes the projects before submitting them to the Chief of Naval Operations (CNO) through the Deputy Chief of Naval Operations (Fleet Readiness & Logistics, OPNAV N4) and more specifically the Director, Shore Readiness Division (OPNAV N46). Upon evaluation and approval, the CNO's staff passes the list to the Assistant Secretary of the Navy for Energy, Installations, and Environment (ASN(EI&E)) for submission to OSD.

Marine Corps

The Marine Corps, as a component of the Navy, has no installation engineering staff; it relies on NAVFAC and the Navy's ROICCs to plan and administer construction on its installations.

Nevertheless, the Marines do channel their construction requests through their own chain of command for requirements screening and project prioritization. After installation construction requirements are determined and the requisite DD Form 1391s are created and prioritized, they are forwarded to the appropriate regional subordinate command of Marine Corps Installations Command (MCICOM) for screening and consolidation.⁵¹ There, the proposed military construction projects are reviewed, reprioritized, and forwarded to their respective Fleet Marine

⁴⁸ Additional information on Air Force MILCON program and project roles and responsibilities can be found in U.S. Air Force, *Instruction (AFI) 32-1021, Planning and Programming Military Construction (MILCON) Projects*, at https://static.e-publishing.af.mil/production/1/af_a4/publication/afi32-1021/afi32-1021.pdf.

⁴⁹ For a list of engineering commands by region see https://www.navfac.navy.mil/about_us.html.

⁵⁰ CNIC provides oversight on all shore installation management, exercises authority as the Budget Submitting Office for installation support, and acts as the Navy point of contact for program execution oversight and installation policy.

⁵¹ MCICOM is the single authority for all Marine Corps installations matters. It exercises command and control of regional installation commands, establishes policy, exercises oversight and prioritizes resources in order to optimize installation support to the operating forces, tenant commands, and Marine families. There are four regional subordinate commands under Marine Corps Installations Command (MCICOM): the National Capital Region/Marine Corps Base Quantico (MCINCR), Pacific (MCIPAC), East (MCIEAST) and West (MCIWEST); each is responsible for the major Marine bases and air stations with the horizontal subordinate commands and control of the major Marine bases and air stations with the horizontal subordinate commands.

https://www.mcicom.marines.mil/Portals/57/G1%20Docs/2015%20MCICOM%20Welcome%20Package%20V2.pdf.

Force (FMF) headquarters.⁵² After the FMF headquarters review, MILCON projects are submitted to MCICOM headquarters and other oversight offices co-located within *Headquarters, Marine Corps Installations and Logistics* (HQMC/I&L), in Washington, DC. There, a final prioritized list is compiled and submitted to the ASN(EI&E) for presentation to OSD.

National Guard

The National Guard (Army and Air) is a state-based reserve component of the armed forces.⁵³ Unless the National Guard is federalized (i.e., called to active duty according to statutory provision), each state's National Guard is its own distinct military organization, with the governor as its commander in chief and *The Adjutant General*, or TAG, as its senior military officer.⁵⁴ Each National Guard is a joint organization under the TAG, however, Army National Guard (ARNG) and Air National Guard (ANG) MILCON requirements are handled somewhat differently.

Army National Guard⁵⁵

Within a state's joint National Guard headquarters organization (sometimes called a Military Department or Department of Military Affairs), the Army section of the headquarters staff includes a Construction and Facilities Management Officer (CFMO) who administers the state's *Military Construction Army National Guard* (MCNG) program. CFMOs are the installation engineers of the ARNG and are the principal advisors to the TAG regarding all real property, facilities, O&M, construction, and environmental management programs. ⁵⁶ CFMOs conduct Master Planning and develop a Long Range Construction Plan (LRCP); a prioritized list of the state's requirements for MILCON CFMOs operate under the TAG's general guidance to assess state facility requirements and program MILCON projects, submitting them to the TAG for prioritization and approval. CFMOs also prepare DD Form 1391s for each MILCON project.

Following the CFMO's review of the projects and submission to the TAG for approval, the TAG sends a final project list (which includes the DD Form 1391s) to the National Guard Bureau (NGB), an agency that acts as the liaison between the states' National Guard headquarters organizations and the Departments of the Army and Air Force.

ARNG staff within NGB (such as those in the Installations Division, or ARNG-ILI), in turn, review the submitted MILCON projects from all jurisdictions and incorporate those with the highest priority into an Infrastructure Requirements Plan (IRP). The IRP serves as the prioritized

⁵² There are two FMFs—Atlantic (FMFLANT) and Pacific (FMFPAC)—commanding the deploying Marine Expeditionary Forces. FMFLANT is headquartered at Naval Station Norfolk, Virginia, while FMFPAC is headquartered at Camp H.M. Smith, Hawaii.

⁵³ For background information on the Reserve Forces, see CRS In Focus IF10540, *Defense Primer: Reserve Forces*, by Lawrence Kapp, at https://crsreports.congress.gov/product/pdf/IF/IF10540.

⁵⁴ With the exception of the District of Colombia, territories (including Guam, U.S. Virgin Islands, and Puerto Rico) also have elected governors. For more information on federalization of the National Guard and other Reserve Forces, see CRS In Focus IF10540, *Defense Primer: Reserve Forces*, by Lawrence Kapp.

⁵⁵ For more detailed information on Army National Guard MILCON program development and execution, see National Guard Regulation 415-5, *Construction, Army National Guard Military Construction Program Development and Execution*, March 6, 2015, at https://www.ngbpdc.ngb.army.mil/Portals/27/Publications/ngr/ngr%20415-5.pdf?ver=2018-09-07-082540-720.

⁵⁶ Sometimes the CFMO is represented by an office within a state military department. In these cases the term CFMO may be understood as "Construction and Facilities Management Office" rather than officer. However, per National Guard Regulation 415-5, responsibility for ARNG MILCON lies with the state-designated officers. See Texas Military Department CFMO example at https://tmd.texas.gov/construction-and-facilities-management-office.

list of Army Guard MILCON projects for federal funding. The Director of the ARNG then provides the prioritized ARNG project list to the Army Staff in the Pentagon, for review by the DCS, G-9. From this point, the ARNG project list follows the same review and approval process as the rest of the Army.

Air National Guard⁵⁷

The Base Civil Engineers (BCEs) for each state's ANG installations initiate MILCON projects through a process similar to that of the ARNG. BCEs produce DD Form 1391s for each MILCON project. The Air Staff within the state's joint National Guard headquarters organization, compiles and prioritizes the projects according to the TAG's general guidance. After TAG approval, the state's highest priority ANG projects are sent to ANG Headquarters Air Staff within NGB for consolidation and reprioritization. The ANG Air Staff combines and refines the list, and the Director of the ANG provides highest priority projects to *Headquarters*, *Air Force* (HAF) staff in the Pentagon. From that point, the project list follows the same review and approval process as the Air Force list.

The Chief of the National Guard Bureau works with OSD throughout the programming phase to ensure NGB priorities are given full consideration.

⁵⁷ For more detailed information on Air National Guard MILCON program policies, responsibilities, and execution, see Air National Guard Instruction 32-1023, *Criteria and Standards for Air National Guard Design and Construction*, January 21, 2015, at https://www.wbdg.org/FFC/ANG/ANGI/ANGI_32-1023.pdf.

Office of the Secretary of Defense/Military Service Issue construction project guidance **National Guard** Marine **Public Works/Installation Engineers** Army or Air Force or Navy or or Corps (ANG & ARNG) • Identify Facility Requirement • Choose appropriate solution (repair, replace, reallocate) nstallation Air Force Marine Corps Naval Facilities The Adjutant 0&M, Installation Installations if construction: Management Engineering General Privatization, Command (MCICOM) MILCON Command and Mission Command (NAVFAC) etc. (IMCOM) Support Center Regional Command National Guard NAVFAC HQ (AFIMSC) Fleet Bureau IMCOM HO START TIMELINE () Installation Marine Air Force Generate DD Form 1391s Navy Installation Force Corporate Structure Deputy Chief • Create prioritized project list Command (CNIC) Directors ANG & the Air Staff of Staff, G-9 1 YEAR - 1 YEAR, 6 MONTHS HQ Marine and ARNG (AF/A4CF) (Installations) Corps, 2 YEARS, 3 MONTHS Office of the Secretary of Defense Deputy Chief of Installations Naval Operations for • Review, prioritize, and consolidate Assist. Secretary and Logistics Fleet Readiness Headquarters, Dept. of the Air Force projects from all services Assist. Secretary (HQMC/I&L) & Logistics Army or Air Force Incorporate consolidated projects into for Installations, of the Army for defense portion of President's Budget (OPNAV N46) Installations. Environment, and Energy (via SAF/IEE) Energy and 2 YEAR, 8 MONTHS Office of Management Environment and Budget & President Assist. Secretary Assist. Secretary (ASA(IE&E)) • Make final revisions to President's of the Air Force for of the Navy for **Budget request** Financial Management Energy, Installations, • Submit President's Budget to Congress and Comptroller and Environment (via SAF/FMB) (ASN(EI&E)) 3 YEARS, 3 MONTHS Congress • Review President's Budget request • Authorize and appropriate funds 3 YEARS, 6 MONTHS Office of the Secretary of Defense · Allocate funds to military services Execution by Construction Agent or DM/CM 5+ YEARS Facility Complete

Figure I. Military Construction Process

Source: DOD information, CRS graphics.

Office of Management and Budget Review

The joint review of the DOD budget by OMB and OSD generally occurs between September and December, and focuses on the administration's priorities, as well as such general areas as "program phasing and pricing, compliance with DOD funding policies, and efficient execution of funds, based on performance metrics." This review includes MILCON programs and the review of DD Form 1391 submissions for projects proposed by OSD.

The highest priority projects that fit within the budgetary guidance provided by the Office of Management and Budget (OMB) will be included in the President's request. The approved projects assigned a lower priority are slated for funding in future years and are typically included in the Future Years Defense Program (FYDP), which is a catalogue that summarizes the forces, resources, and programs associated with DOD operations over a five-year period. ⁵⁹ Therefore, some MILCON projects may survive the screening process only to be placed in the budgeting queue for a future year's submission. Conversely, because budget levels fluctuate and the entire construction list is reviewed annually, it is also possible a MILCON project's priority may diminish in a later year.

Authorizations, Appropriations, and Enactment⁶⁰

The annual NDAA, which originates as bills in the House and Senate armed services committees, authorizes MILCON and provides any policy guidance, as in all other DOD policy issues. Legislation to appropriate funding (i.e., provide the budget authority to DOD) for MILCON originates as a bill in the *Military Construction, Veterans Affairs, and Related Agencies* subcommittees within the Committees on Appropriations for both the House and the Senate.⁶¹ Committee reports accompanying the appropriations bills may provide useful information in addition to what is included in the bills themselves. See **Figure 2**.

While the committees and subcommittees exercise jurisdiction over the legislation required, they also typically provide opportunities for individual Members of Congress not assigned to the committees of jurisdiction to provide input regarding specific MILCON projects. During the period when legislation is being drafted, the committees may also issue guidance for Members wishing to submit input to the committee when considering MILCON matters. The guidance might suggest additional documentation that could prove useful to the committee in its deliberations, or may also set a deadline for submission of such information. Often that deadline

⁵⁸ RAND Corporation, *Obtaining Life-Cycle Cost-Effective Facilities in the Department of Defense*, 2013, p. 14, at https://www.rand.org/pubs/research_reports/RR169.html.

⁵⁹ 10 U.S.C. §221 requires that the Secretary of Defense submit, at about the same time as the President's annual budget request, a "future-years defense program ... reflecting the estimated expenditures and proposed appropriations included in that budget. Any such future-years defense program shall cover the fiscal year with respect to which the budget is submitted and at least the four succeeding fiscal years." DOD develops its FYDP according to policies and procedures outlined in Office of the Under Secretary of Defense (Comptroller), Department of Defense, *Directive* 7045.14, The Planning, Programming, Budgeting, and Execution Process (PPBE) Process, January 25, 2013 (Incorporating Change 1, August 29, 2017). See: CRS In Focus IF10429, Defense Primer: Planning, Programming, Budgeting and Execution (PPBE) Process, by Brendan W. McGarry and Heidi M. Peters.

⁶⁰ For more information on the MILCON appropriation and obligation process, see GAO, *Defense Infrastructure: Action Needed to Increase the Reliability of Construction Cost Estimates*, GAO-18-101, March 2018, at https://www.gao.gov/assets/700/690892.pdf.

⁶¹ For general information on the federal budgeting, appropriations, and authorization processes, see CRS Report 98-721, *Introduction to the Federal Budget Process*, coordinated by James V. Saturno, and CRS Report RS20371, *Overview of the Authorization-Appropriations Process*, by Bill Heniff Jr.

is set for late March, when the subcommittee staffs begin to prepare for markup of the necessary legislation.

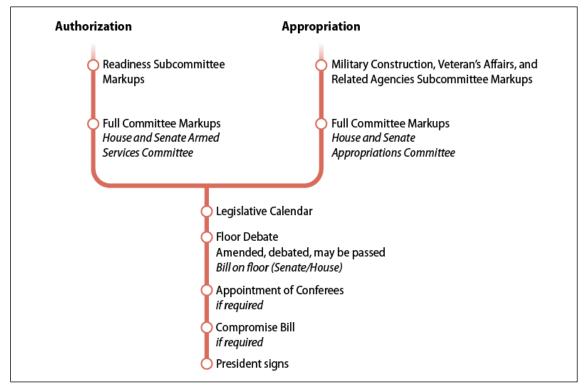


Figure 2. Legislative Process / Congressional Operations

Source: House and Senate committee websites, CRS Report RS21363, Legislative Procedure and Process Resources for Congressional Staff, by Jennifer E. Manning and Maura Mullins, CRS graphics.

MILCON Execution

After having received congressional authorization and appropriations, the responsibility for executing and managing MILCON projects typically falls to one of the two MILDEP construction agents or to the service's designated DM/CM.⁶² However, ARNG and ANG headquarters bureaus manage their respective MILCON projects separately.

These service-designated construction agents/managers typically hire one or more general contractors to execute construction, where the concerned military service is not able to perform the design or construction work themselves. Construction agent or DM/CM field engineering offices and associated contracting offices are responsible for preparing, advertising, evaluating, and awarding design and construction contracts. These contracts are awarded through a specific Request for Proposal (RFP) process. ⁶³

⁶² While this division of responsibility usually holds for construction within the United States, overseas construction responsibility is typically governed by the project's location. DOD Directive 4270.5 designates specific Construction Agents by geographical area. Unspecified minor military construction may be executed by the secretary concerned or, in the case of a Defense Agency or a DoD Field Activity, by the secretary concerned of the MILDEP having jurisdiction over the real property facility.

⁶³ For more information on the RFP process, see Step 6: Request for Proposal Preparation and Evaluation in the

Construction encompasses several phases, including the planning and design of the project, the solicitation of bids from prospective general contractors, and actual construction of the structure. Normally, one of two general contracting approaches is taken, *design-bid-build* or *design-build*, to execute a MILCON project, and the difference between these two methods will affect the type of RFP process used.

Design-Bid-Build

Portions of Title 40 of the *United States Code* (§1101 et seq.) require that federal building projects go through a three-step process, referred to as *design-bid-build*, with an initial design phase, a bid for construction competition, and the actual construction. In the design-bid-build process, each phase is executed under a specific contract. Under design-bid-build, an architectural or engineering firm is awarded a contract for planning and designing the project. Once completed, a new contract for construction is advertised for bidding by general contractors. These general contractors, in turn, often solicit second and third tier subcontractor quotes for specialty items, such as concrete work, plumbing, and electrical work before bidding for the overall construction contract.

Design-Build

Section 2305a of Title 10 permits a DOD contracting officer to use a shorter two-step process, called *design-build*, for design and construction. All planning, design, and construction is conducted under a single contract. This requires the firms bidding on the project to have access to all of the skills necessary to plan, design, and construct the project. This *master builder* concept offers two advantages over design-bid-build: it places full responsibility for the project on a single firm, and it offers the possibility of a reduced schedule by overlapping the project's design and construction phases. On the other hand, the comprehensive nature of design-build contracts may limit the number of firms able to compete in the bidding.

Section 2305a authorizes a contracting officer to use the design-build process if he or she determines that:

- 1. three or more offers are anticipated for such contract;
- 2. design work must be performed before an offeror can develop a proposal; and
- 3. the offeror will incur a substantial amount of expense in preparing the offer.

In opting to use the design-build process—rather than the design-bid-build process— section 2305a requires the contracting officer to consider relevant information, including the extent to which the project requirements have been adequately defined, the time constraints for delivery of the project, the capability and experience of potential contractors, and other criteria established by the contracting agency.

From Contract Award to Construction Completion

USACE, NAVFAC, AFCEC, and ARNG/ANG state headquarters solicit the bids, award the contracts, and provide government oversight and assistance through the project's design, contract award, construction, completion, and financial close-out. Early on, facility engineers work with a

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RAND report: RAND Corporation, *Obtaining Life-Cycle Cost-Effective Facilities in the Department of Defense*, 2013, p. 17, at https://www.rand.org/pubs/research_reports/RR169.html.

design firm to create a plan that fits within the scope of the project's DD Form 1391.⁶⁴ These facility engineers are not permitted to enter into a contract or obligate any funds for the actual construction of the project until associated funding is authorized and appropriated. Once project authorization and appropriations are enacted, they may then solicit bids through the RFP process, award the contract, and begin construction of the facility. These military engineers will continue to manage the project and monitor construction throughout the process.

Navy Funding Example

Funds to pay for any given MILCON project typically flow along a lengthy path of allocation and reallocation (excluding some projects performed under an emergency MILCON authority). An example is provided below using a notional Navy MILCON project.

- Using the appropriate budget authority provided for a specified MILCON project by Congress, OMB draws the necessary funds from the *Military Construction*, *Navy* account at the U.S. Treasury;
- OMB then allocates the appropriated amount to OSD;
- OSD then reallocates the funds to the Assistant Secretary of the Navy (Financial Management and Comptroller);
- The ASN(FMC) passes funding to a NAVFAC regional command (Atlantic or Pacific);
- NAVFAC continues the process by reallocating the funds from the regional command to a subordinate FEC;
- The FEC, a regional division of the command that maintains resident engineers and contracting officers, administers the MILCON contracts and pays the contractors.

While a number of factors affect the amount of time required to complete a MILCON project, projects generally span five to seven years from the time a DD Form 1391 is approved, to the date the project is completed. MILCON appropriations are usually only available for obligation for five fiscal years, at which time the appropriation expires (though availability of some appropriations is extended for limited purposes). ⁶⁵ After five years, any unexpended MILCON funds are canceled and returned to the U.S. Treasury. MILCON projects that do not have continued funding through regular appropriations, but still require funding to finish construction, may receive reprogrammed funds from other MILCON projects where the DOD component determines there is a funding need and where funds are available, but unobligated. ⁶⁶

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⁶⁴ This initial planning and design can begin before the project itself is authorized by making use of O&M or MILCON funds already appropriated to undifferentiated planning and design accounts (i.e., O&M "advanced planning" and MILCON P&D).

⁶⁵ GAO-18-101, Defense Infrastructure: Action Needed to Increase the Reliability of Construction Cost Estimates (March 2018), p. 6, https://www.gao.gov/assets/700/690892.pdf.

⁶⁶ For more information on DOD MILCON reprogramming authorities, see DOD Financial Management Regulation 7000.14-R, Volume 3, Chapter 7, https://comptroller.defense.gov/Portals/45/documents/fmr/Volume_03.pdf.

Appendix A. Frequently Asked Questions (FAQs)

1. Where are the specific military construction projects listed for a given legislative authorization and appropriation cycle?

Projects requested by the President are listed in the detailed budget justification documentation posted on the Under Secretary of Defense (Comptroller) website under the "Budget Materials" section.⁶⁷

Projects recommended for approval by the House and Senate are listed in tables included in the reports submitted by the armed services and appropriations committees accompanying their annual bills (National Defense Authorization Act (NDAA), and Military Construction, Veterans Affairs, and Related Agencies Appropriations Act, respectively). The final, consolidated list of projects for which authorizations and appropriations are enacted can be found in the conference reports submitted by the relevant conference committees.

2. What is a Department of Defense Form 1391 (DD Form 1391)?

Department of Defense Form 1391 (also known as DD Form 1391) is a form that originates at the installation-level and is used by DOD as a programming document to request construction funding from Congress. The form is used to explain each proposed construction project individually and includes a cost estimate, description of proposed construction, requirement, current situation, impact on operations if the project is not approved, and any useful supplemental data. **Appendix C** presents an example of a completed DD Form 1391.

3. What is "planning and design" funding?

The execution of any authorized construction project proceeds through several steps. These are intended to identify any issues and provide conceptual design including cost estimates for construction (e.g., site preparation, facility and supporting structure design, and sequencing of construction) and designing the anticipated facility and each of the roads, ramps, utilities, and the like needed for its operation. These activities may be categorized by function, with planning handled primarily by civil engineers and design handled primarily by architects. By funding planning and design through a separate, nonspecific appropriation, the scope and costs of projects may be accurately estimated before funds for individual construction projects are requested.

4. How long are funds available for projects?

Prior to FY2018, Congress provided the authorization of appropriations of military construction and allowed for the obligation of such funding for up to three years. ⁶⁸ The FY2018 NDAA (P.L. 115-91) moved to align the period of authorization with the period of funding availability, providing authorization of appropriations of FY2018 military construction projects for up to five fiscal years—through October 1, 2022—and also extending authorizations provided in FY2016 and FY2017 for five years, accordingly. The FY2019 NDAA (P.L. 115-232) also authorized military

⁶⁷ See Under Secretary of Defense (Comptroller), "DoD Budget Request," at http://comptroller.defense.gov/Budget-Materials/. Summary budget documents, including the C-1 "Construction Programs" reports, are available going forward from FY1998. Budget documentation for the Army, Navy, Air Force, Special Operations Command, and individual agencies is also linked through each fiscal year's listing of defense budget materials.

⁶⁸ Expiration of authorization and amounts required to be specified by law for MILCON are typically provided in section 2002 of the annual NDAA.

construction projects and funds for up to five years. Both the House and Senate versions of the FY2020 NDAA include language that authorizes military construction projects for five years.

5. Why does a military construction project need an authorization and a separate appropriation for each construction project?

Section 114, of Title 10, United States Code, specifies, in part, that "No funds may be appropriated for any fiscal year to or for the use of any armed force or obligated or expended for ... military construction ... unless funds therefore have been specifically authorized by law." The section goes on to define *military construction* as "... any construction, development, conversion, or extension of any kind which is carried out with respect to any military facility or installation" Additionally, 10 U.S.C. §2802 specifies that the Secretary of Defense and the Secretaries of the military departments may carry out such military construction projects, land acquisitions, and defense access road projects "as are authorized by law."

In practical application of these statutes, Congress has required project-by-project authorization and appropriation for military construction projects.⁶⁹

6. When an appropriation supports a requested military construction project, why is the amount of the project that is disclosed in the new budget authority sometimes greater than the actual project cost?

New budget authority requested before construction begins is an estimate of project cost using parametric cost estimating tools, and may include cost buffers to account for unknown variables (e.g., revised land surveys, inflation over the period of construction, etc.). The cost calculated at completion represents the actual expenditure (i.e., the outlay). In March 2018, the Government Accountability Office (GAO) raised concerns that DOD guidance describing the process of developing construction cost estimates does not fully incorporate all the steps needed to develop high-quality, reliable cost estimates. DOD partially concurred with the GAO recommendation, agreeing that DOD cost estimating guidance "lacks specificity" in several areas. As a result, DOD stated its intent to revise its cost estimating guidance beginning in FY2019.

After Congress authorizes and appropriates funds for a project, the budget authority may only be used for specific facilities listed on the associated DD Form 1391. In cases where the budget authority exceeds the actual cost of the project, the congressional appropriators may rescind the remaining budget authority, or approve the reprogramming of remaining unobligated budget authority to be applied to other military construction projects, if requested. If actual costs exceed the project's allocated budget authority, additional costs may be covered through reprogramming or additional appropriations.

7. What are the "McCain Rules"?

First articulated in 1994 by Senator John McCain, the *McCain Rules* are criteria that were included in the NDAA for FY1995 (P.L. 103-337, Section 2856) as a sense of the Senate:

⁶⁹ For more information on authorizations and appropriations see U.S. General Accounting Office, *Principals of Federal Appropriations Law, Fourth Edition, 2016 Rev.*, GAO-16-464SP, March 10, 2016, p. 2-54, https://www.gao.gov/legal/red-book/overview.

⁷⁰ U.S. Government Accountability Office, *Action Needed to Increase the Reliability of Construction Cost Estimates*, GAO-18-101. March 2018.

Appropriations for any military construction project not included in the DOD annual budget request should be considered for authorization only if the project is—

- 1. essential to the DOD's national security mission;
- 2. consistent with past actions under the Base Realignment and Closure Act (BRAC);
- 3. in the services' Future Years Defense Program;
- 4. executable in the year they are authorized and appropriated; and
- 5. offset by reductions in other defense accounts, through advice from the Secretary of Defense.

The McCain Rules were used as guidance for congressional consideration of Member requests (i.e., earmarks) for military construction projects. Since Congress suspended the practice of funding such Member requests in 2011, Congress has referred to them infrequently. DOD applies the McCain Rules in the formulation of the annual report to Congress on unfunded priorities required by 10 U.S.C. §222a.

8. What is the Future Years Defense Program (FYDP)?

The Future Years Defense Program (FYDP) is an annually-compiled catalogue that summarizes the forces, resources, and programs associated with DOD operations. Formally approved by the Secretary of Defense, the FYDP projects DOD funding, manpower, and force structure needs over a 5-year period. The FYDP is typically completed during the programming phase of Planning, Programing, Budgeting, and Execution (PPBE) process and is generally updated during the budgeting phase to reflect DOD's final funding request as presented in the annual President's budget request.

During the programming and budgeting phases, the highest priority construction projects that fit within the budgetary guidance provided by the Office of Management and Budget (OMB) will be included in the President's request. The approved projects assigned a lower priority are slated for funding in future years and are generally included in the FYDP. DOD submits the FYDP to the congressional committees with jurisdiction over defense matters. Note that while the overall data structure of the FYDP is unclassified, detailed programmatic data is classified.⁷¹

9. Why are certain military construction projects listed in the FYDP ultimately not included in the President's budget request?

Individual projects are prioritized by factors such as relevance to military operations and training, environmental rules, and service member's quality of life. A newly identified requirement may be assessed as having a higher priority than projects already in the PPBE process. Therefore, some construction, while justifiable, may be deferred to later years.

⁷¹ For additional information on the FYDP, see CRS In Focus IF10831, *Defense Primer: Future Years Defense Program (FYDP)*, by Brendan W. McGarry and Heidi M. Peters. For more information on the PPBE, see CRS In Focus IF10429, *Defense Primer: Planning, Programming, Budgeting and Execution (PPBE) Process*, by Brendan W. McGarry and Heidi M. Peters.

Appendix B. Selected Statutes Governing Military Construction and Repair Authorities

Table B-I. Summary of Selected Military Construction and Repair Authorities

Authorities	Criteria	Limitations	Congressional Reporting Requirement	Waiting Period	Source Of Funding
Unspecified Minor Construction ⁰ (10 U.S.C. §2805)	MILCON project <= \$6M (not to be used for new construction of family housing units)	Total may not exceed 125% of amounts authorized for unspecified minor military construction ^b If project costs > \$750K, advance approval by Secretary concerned is required	If project costs > \$2M, congressional notification is required	14 days from notification	Unspecified minor military construction appropriations If project costs <= \$2M, O&M appropriations may be used
Laboratory Revitalization ^c (10 U.S.C. §2805(d))	MILCON project for the purpose of revitalization and recapitalization of DOD "test and evaluation activities" and "research, engineering and development centers" <= \$6M	As per10 U.S.C. §2805(b), if project costs > \$750K, advance approval by Secretary concerned is required ^d As per 10 U.S.C. §2805(a), may not exceed 125% of amounts authorized for unspecified minor military construction.	Upon determination of use	14 days from notification	Unspecified minor MILCON appropriations, O&M appropriations, or amounts appropriated under 10 U.S.C. §2363e

Authorities	Criteria	Limitations	Congressional Reporting Requirement	Waiting Period	Source Of Funding
Repair of Facilities (10 U.S.C. §2811)	Restoration of a real property facility, system, or component so it may effectively be used for its designated functional purpose; or Conversion of a real property facility, system, or component to a new functional purpose without increasing its external dimensions	Construction of new facilities or additions to existing facilities prohibited If project costs > \$7.5M, advance approval by Secretary concerned is required	If project costs >\$7.5M, congressional notification required: 1) Justification and total cost of all phases; 2) Explanation if cost is >75% of MILCON cost to replace the facility; and 3) Description of any MILCON elements to be incorporated into project	None	O&M appropriations
Architectural and Engineering Services and Construction Design (10 U.S.C. §2807)	Architectural and engineering services, as well as construction design performed in connection with MILCON and family housing projects ^b	None (subject to appropriations)	If services cost >\$1M, congressional notification required	14 days from notification	MILCON and Family Housing appropriations
Contingency Construction (10 U.S.C. §2804)	Deferral of the project for inclusion in the next MILCON authorization act would be "inconsistent with national security or national interest"	None (subjection to appropriations)	Upon determination of use	7 days from notification	Contingency construction appropriations
Emergency Construction (10 U.S.C. §2803)	Vital to the national security or to the protection of health, safety, or the quality of the environment; and So urgent that deferral of the project for inclusion in the next MILCON authorization act would be inconsistent with national security or the protection of health, safety, or environmental quality	Total may not exceed \$50M per fiscal year (for each Secretary concerned)	Upon determination of use	5 days from notification	Unobligated MILCON appropriations available to the Secretary concerned

Authorities	Criteria	Limitations	Congressional Reporting Requirement	Waiting P eriod	Source Of Funding
Construction if War is Declared (10 U.S.C. §2808)	Declaration of war, or declaration of a national emergency by the President in accordance with the National Emergencies Act (50 U.S.C. 1601 et. seq.) requiring use of the armed forces	None	Upon determination of use	None	Available (unobligated) MILCON funding
	Project "necessary to support the use of such armed forces"				
	Authority terminates "at the end of the war or national emergency"				

Source: Title 10 of the United States Code, Congressional Research Service.

- a. Through FY2022, the Secretary concerned is required to adjust the dollar limitations specified in 10 U.S.C. §2805 (Unspecified minor construction) for unspecified minor military construction projects inside the United States to reflect the area construction cost index for military construction projects (not to exceed \$10M).
- b. Includes projects undertaken in connection with the authority provided under 10 U.S.C. § 2854 (Restoration or replacement of damaged or destroyed facilities).
- c. Authority under this subsection expires Sept 30, 2025.
- d. Includes amounts obligated for laboratory revitalization under 10 U.S.C. §2805(d).
- e. 10 U.S.C. §2363 provides authority for the director of a defense laboratory to use not less than two percent, and not more than four percent, of all funds available to the laboratory for specified purposes, including repair or minor military construction of the laboratory infrastructure and equipment.

Appendix C. Example DD Form 1391: Presidential Aircraft Recapitalization Complex

Included in the figures below is the DD Form 1391 for the Presidential Aircraft Recapitalization (PAR) Complex program, submitted to Congress by the U.S. Air Force (USAF) in their MILCON Program Fiscal Year 2020 Budget Estimates document.⁷²

According to USAF, the "purpose of the PAR Program at Joint Base Andrews is to base the [Boeing] 747-8 [aircraft] with suitable facilities at Joint Base Andrews and to operate the aircraft as the replacement to the existing VC-25A fleet of aircraft, which entails constructing a multi-bay hangar and associated facilities to house and maintain the aircraft."⁷³ The VC-25A aircraft are a fleet of two specially configured Boeing 747-200B's that provide air transport for the President of the United States.⁷⁴ These aircraft are more commonly known as "Air Force One" when the President is aboard either one. USAF claims existing facilities at Joint Base Andrews do not currently meet the basing and operational requirements of the larger replacement 747-8.⁷⁵

The complete DD Form 1391 for this MILCON project consists of five pages, and includes cost estimates, a description of the proposed construction, USAF's requirements/justifications for the project, a joint use certification statement, and other supplemental data.

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⁷² See Department of the Air Force, *Military Construction Program Fiscal Year (FY) 2020 Budget Estimates*, March 2019

https://www.saffm.hq.af.mil/Portals/84/documents/FY20/MILCON/COMBINED%20FY2020%20MILCON%20and%20MFH%20J-Book%2019%20March%202019.pdf?ver=2019-03-20-120911-810.

⁷³ U.S. Air Force, "Presidential Aircraft Recapitalization Environmental Impact Statement," PAR Program EIS website, cached October 24, 2019,

https://webcache.googleusercontent.com/search?q=cache:wk3BUHB3tPcJ:https://parprogrameis.com/+&cd=2&hl=en&ct=clnk&gl=us.

⁷⁴ U.S. Air Force, "VC-25 - Air Force One," accessed October 25, 2019, https://www.af.mil/About-Us/Fact-Sheets/Display/Article/104588/vc-25-air-force-one/.

⁷⁵ U.S. Air Force, "Project Information," PAR Program EIS website, cached October 12, 2019, https://webcache.googleusercontent.com/search?q=cache:bewwBv2dTBIJ:https://parprogrameis.com/node/1+&cd=3&hl=en&ct=clnk&gl=us.

Figure C-I. Presidential Aircraft Recapitalization Complex DD Form 1391

(First page; page 53)

1. COMPONENT AIR FORCE		FY 2020 MIL:	ITARY CONSTR			ATA	2. DATE March 2019
3. INSTALLATION JOINT BASE ANDR ANDREWS SITE # MARYLAND	EWS-N	E AND LOCATION AVAL AIR FACILITY WA	ASHINGTON				(PAR) COMPLEX,
5. PROGRAM ELEM	ENT	6. CATEGORY CODE	7. RPSUID/P	ROJECI	NUMBER	8. PROJECT	COST (\$000)
41319F		211-111	1377/	AJXF17	3021	Auth: 0	Appr: 86,000
		9.	COST ESTIM	ATES			
		ITEM		U/M	QUANTITY	UNIT	COST (\$000)
PRIMARY FACILIT	res						161,444
LARGE AIRCRAFT		D (211-111)		SM	21,328	4,797	(102,316)
		CE SPACE (610-243)		SM	5,946	3,442	(20,465)
WAREHOUSE (COM				SM	7,276	2,206	(16,048)
ENTRY CONTROL				SM	387	6,577	(2,545)
TAXIWAYS (112-		.11 (/30-63/)		SM	20,485	249	(5,103)
AIRCRAFT APRON		. 321 \		SM	51,282	230	(11,801)
SUSTAINABILITY				LS	31,202	250	(3,165)
SUPPORTING FACIL							67,430
HAZMAT STORAGE		DC.		LS			(774) (160)
COVERED AGE STO		ibe		LS		+	(955)
UNCOVERED AGE				LS			(32)
UTILITIES				LS			(18,474)
PAVEMENTS				LS			(3,077)
SITE IMPROVEMEN	NTS			LS			(19,250)
AT/FP SECURITY	INFR	STRUCTURE		LS			(7,266)
WETLAND/STREAM	MITIC	GATION		LS			(1,254)
TYPE III AIRCR	AFT RE	FUELING SYSTEM		LS			(10,051)
FUEL RECEIPT T	RANSFE	R LINE		LS			(1,067)
GOLF COURSE MI	TIGATI	ON		LS			(500)
PRIVATIZED UTI	LITY (CONNECTION FEE		LS			(1,195)
EMERGENCY GENE	RATORS	3 AND BACK UP POWER		LS			(3,375)
SUBTOTAL							228,874
CONTINGENCY	(5	.0%)					11,444
TOTAL CONTRACT (COST						240,318
SUPERVISION, INS	SPECTI	ON AND OVERHEAD	(5.7%)				13,698
TOTAL REQUEST							254,016
TOTAL REQUEST (F	ROUNDE	D)					254,000
EQUIPMENT FROM (THER	APPROPRIATIONS (NON	-ADD)				(66,100.0
10. Descripti	on of	Proposed Constru	ction: Co	nstru	ct Preside	ntial Airc	raft
Recapitalizati	on (F	AR) complex utili	zing econo	mical	design an	d construct	tion methods
		Presidential Airl				The comple	
consist of an	appro	priately sized ha	ingar to ho	use t	wo Boeing	747-8 airc	raft,

10. Description of Proposed Construction: Construct Presidential Aircraft Recapitalization (PAR) complex utilizing economical design and construction methods to accommodate the Presidential Airlift Group (PAG) mission. The complex will consist of an appropriately sized hangar to house two Boeing 747-8 aircraft, aircraft access taxiway/parking apron and associated airfield lighting systems including connections and necessary modifications to existing infrastructure, engine run-up pads with blast deflectors, and type III hydrant refueling system

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March 2019

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Figure C-2. Presidential Aircraft Recapitalization Complex DD Form 1391

1. COMPONENT		•	cond page;	DIGITAL DRATEGE P	A.T.A	2 2200
						2. DATE March 2019
AIR FORCE			4. PROJECT TITLE			
3. INSTALLATION JOINT BASE ANDR ANDREWS SITE # MARYLAND	EWS-NA	: AND LOCATION	ASHINGTON	PRESIDENTIAL AI COMPLEX, INC 3		AR)
5. PROGRAM ELEM	ENT	6. CATEGORY CODE	7. RPSUID/I	PROJECT NUMBER	8. PROJECT CO	ST (\$000)
41319F		211-111	1377/	AJXF173021	Auth: 0 Ap	pr: 86,000
	e PAR	als will consist complex will als preparation, we	so include		security feat	nd asphalt tures with
entry control, landscaping, sutilities and transfer switch mitigation of complete and uconstruction in (UFC) 1-200-01 Sustainable Budefense Antite Air Conditioni 11. Requirement PROJECT: Pres	site torm conne hes, proje sable n acc, Gen ildin rrori ng:	complex will also preparation, we water management, ction fees, emergintrusion detects to impact to base facilities. Facoordance with the eral Building Recg Requirements. sm/force protect: 392 Tons 937 SM Adequatial Aircraft Recguirement Recguirements.	so include tland/streat, electrica gency generion, fire de golf courcilities wi Department quirements This projecton require te: 0 SM apitalizat:	mission driven mission driven mitigation, al, communication with fueletection & suppose and other it. It be designed for the conference of Defense United will comply ments per UFC. Substandard: item (PAR) Compl	n pavements an security feat vehicle parking ons, water and a tanks and autoression systetems as required facilities as permanent iffed Facilities with Department 4-010-01.	ad asphalt cures with ag lot, al sewer atomatic ems, red to make les Criteri ormance and ent of
entry control, landscaping, sutilities and transfer switch it is a second to the secon	ce PAR site torm conne hes, proje sable n acc , Gen ildin rrori t: 34 ident he cur 2020	complex will also preparation, we water management, ction fees, emergintrusion detects to impact to base facilities. Facordance with the eral Building Rec g Requirements. sm/force protect: 392 Tons 937 SM Adequate	so include tland/streat, electricate gency generion, fire of egolf courcillties with Department This projector require te: 0 SM apitalizate Aircraft lacement. The streat of the streat	mission driven m mitigation, al, communication is ators with fueletection & suppose and other is all be designed of Defense United Will comply be and UFC 1-200-bet will comply be and UFC is a complete to (PAR) Complete (PAR) Comple	n pavements an security feat vehicle parking ons, water and tanks and autoression systems as required facilities as permanent iffed Facilities with Department 4-010-01. 17238 SM ex. (New Miss: reach the end was chosen to security feat for the security facility for the security facility fa	ad asphalt cures with ag lot, al sewer atomatic ems, red to make des Criteri ormance and ent of ion) of its to replace

PROJECT: Presidential Aircraft Recapitalization (PAR) Complex. (New Mission)
REQUIREMENT: The current Presidential Aircraft, VC-25A, will reach the end of its
life cycle by 2020 and requires replacement. The Boeing 747-8 was chosen to replace
the VC-25A. An adequately sized and configured PAR complex is required to support
the beddown of the new Boeing 747-8 aircraft. The two-bay hangar must support
efficient, safe and effective maintenance operations and provide adequate on-site
aircraft maintenance and equipment storage areas to include provisions for dual
bridge crane telescopic maintenance platforms in one hangar bay. The PAG requires
appropriate mission planning, control, operations and administrative space, space
for a Contractor Operated and Maintained Base Supply (COMBS) operations and
warehouse, HAZMAT storage, flammable storage, and both covered and uncovered
Aerospace Ground Equipment (AGE) storage. Due to the critical mission, security
requirements and complex nature of the facilities; consideration for Intelligence
Community Directive 705 compliance, enhanced commissioning, post construction award
services and security escorts are required for this project.

CURRENT SITUATION: The 747-8 size and weight exceed the capabilities of the existing VC-25A hangar. Additionally, the PAG has grown significantly since its current facilities were constructed. This growth has led to office space, equipment, spare parts storage, flight kitchen storage, and fitness area/locker room space expansion into the current hangar floor space limiting vehicle movement around the aircraft for maintenance. There are no other hangars or facilities on JB Andrews capable of meeting the new Presidential Aircraft requirements.

Aircraft cannot be maintained or parked in a mission enabling securable environment at JB Andrews. The effort and cost to provide constant security for these PL-1 assets will be beyond existing capabilities and manpower of the 11th Wing.

Further, lack of proper facilities would negatively impact attaining Initial

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Figure C-3. Presidential Aircraft Recapitalization Complex DD Form 1391

(Third page; page 55)

1. COMPONENT AIR FORCE		ITARY CONSTR (computer ger	UCTION PROJECT DA	ATA	2. DATE March 19
	, SITE AND LOCATION EWS-NAVAL AIR FACILITY W 1	ASHINGTON	4. PROJECT TITL PRESIDENTIAL AIR COMPLEX, INC 3	_	AR)
5. PROGRAM ELEM	ENT 6. CATEGORY CODE	7. RPSUID/P	ROJECT NUMBER	8. PROJECT CO	OST (\$000)
41319F	211-111	1377/	AJXF173021	Auth: 0 App	pr: 86 ,000

Operating Capability and /or Full Operating Capability for the new mission system. VC-25A service life extension will result in unacceptable risk to the PAG mission due to the advanced age of the existing aircraft and rising operational & maintenance costs for the aircraft, current hangar and PAG mission support facilities.

ADDITIONAL: This project meets the scope/criteria specified in Air Force Handbook 32-1084 "Facility Requirements" and Department of Defense Instruction 5305.5 Space Management Procedures, National Capital Region. An economic analysis of reasonable alternatives for accomplishing the project evaluating status quo, renovation, upgrade/removal and new construction was conducted. This analysis indicated that new construction is the only option that can adequately meet mission requirements. Flood mitigation measures will be incorporated in the project when mission needs require constructing within the 100 year floodplain. 11th Wing Base Civil Engineer: Comm: 301-981-7281. Large Aircraft Hangar: 21,328 SM = 229,573 SF; Administrative Office Space: 5946 SM = 64,002 SF; Warehouse: 7276 SM = 78,318 SF; Entry Control Facility: 387 SM = 4166 SF; Taxiways: 20,485 SM = 220,499 SF; Aircraft Apron: 51,282 SM = 551,995 SF.

JOINT USE CERTIFICATION: This facility can be used by other components on an "as available" basis; however, the scope of the project is based on Air Force requirements.

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Figure C-4. Presidential Aircraft Recapitalization Complex DD Form 1391

(Fourth page; page 56)

	, SITE AND LOCATION LEWS-NAVAL AIR FACILITY W. 1	DBESTDE	ECT TITLE NTIAL AIRCRAFT RECAP , INC 3	(PAR)
. PROGRAM ELEM	ENT 6. CATEGORY CODE	7. RPSUID/PROJECT N	UMBER 8. PROJECT	COST (\$000)
41319F	211-111	1377/AJXF1730	21 Auth: 0	Appr: 86,000
12. SUPPLEMEN	TAL DATA:			
a. Estimate	d Design Data:			
(1) Statu	s:			
(a) Da	te Design Started		1	01-JUL-16
	rametric Cost Estimate	=	costs	YES
	rcent Complete as of ()1 JAN 2018		100%
	te 35% Designed			01-MAR-17
	te Design Complete ergy Study/Life-Cycle	analvsis was/will		01-SEP-17 YES
			F	
(2) Basis		- 1		
	andard or Definitive I	-		NO
(D) WI	ere Design Was Most Re	scencry used -		
	Cost (c) = (a) + (b)			(\$000)
	oduction of Plans and	Specifications		15,240
(c) Al	.l Other Design Costs			7,620 22,860
	ontract			19,050
	-house			3,810
(4) Const	ruction Contract Award	ı		20 FEB
(5) Const	ruction Start			20 MAR
(6) Const	ruction Completion			22 MAR
which i	es completion of Projes comparable to tradit dexecutability.	tional 35% design	to ensure valid sco	ope,
b. Equipmen		PROCURING	FISCAL YEAR APPROPRIATED	COST
	r nomenclature	APPROPRIATION	OR REQUESTED	(\$000)
EQUIPMENT	T NOMENCLATURE EQUIPMENT/SYSTEMS		OR REQUESTED 2020	(\$000) 14,800
EQUIPMENT SECURITY		APPROPRIATION		
EQUIPMENT SECURITY WAREHOUS	EQUIPMENT/SYSTEMS	APPROPRIATION 3080	2020	14,800
EQUIPMENT SECURITY WAREHOUSI PERSONNE	EQUIPMENT/SYSTEMS E EQUIPMENT	APPROPRIATION 3080 3080	2020 2019	14,800 20,000
EQUIPMENT SECURITY WAREHOUSI PERSONNE	EQUIPMENT/SYSTEMS E EQUIPMENT L LIFT SYSTEM	APPROPRIATION 3080 3080 3080	2020 2019 2019	14,800 20,000 21,000

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Figure C-5. Presidential Aircraft Recapitalization Complex DD Form 1391

(Fifth page; page 57)

			CTION PROJECT 1	DATA	2. DATE March 19
AIR FORCE		(computer gene			
3. INSTALLATION, SIT JOINT BASE ANDREWS-1 ANDREWS SITE # 1 MARYLAND	TE AND LOCATION	VASHINGTON 1	4. PROJECT TITE PRESIDENTIAL AS COMPLEX, INC 3	LE IRCRAFT RECAP (1	PAR)
. PROGRAM ELEMENT	6. CATEGORY CODE	7. RPSUID/PR	OJECT NUMBER	8. PROJECT C	OST (\$000)
41319F	211-111	1377/A	JXF173021	Auth: 0 Ap	pr: 86,000
This project is i	ncrementally fund	ed.			
			Ai	ıthorization	
FY (\$M) Authoriza	ation Requested Ap	propriation R	equested of	Appropriations	Appropriation
	254	254		100	124.884
	89*	154		240 * *	129.116
2020	0	86		-	-

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