



**U.S. Department
of Veterans Affairs**

The VA Construction Review Council Activity Report

November 2012

Table of Contents

1.0 Executive Summary	1
2.0 Introduction	5
2.1 Background.....	5
2.2 Construction Review Council	6
2.3 Findings	7
2.4 Actions	9
3.0 Overview of VA's Capital Infrastructure Program	10
3.1 Historical Facilities	10
3.2 Today's Real Property Capital Asset Program.....	12
3.2.1 Major Construction Program.....	12
3.2.2 Minor Construction Program.....	13
3.2.3 Non-recurring Maintenance Projects	13
3.2.4 Leasing Program	13
3.3 Real Property Capital Asset Program Funding	13
4.0 Findings, Recommendations, Actions Taken and Actions Planned.....	15
4.1 Finding 1: Requirements.....	15
4.1.1 Recommendation of the CRC	15
4.1.2 Discussion	15
4.1.3 Actions Taken	19
4.1.4 Actions Planned.....	20
4.1.5 Anticipated Results	21
4.2 Finding 2: Design Quality.....	22
4.2.1 Recommendations of the CRC	22
4.2.2 Discussion	22
4.2.3 Action Taken.....	25
4.2.4 Actions Planned.....	25
4.2.5 Anticipated Results	26
4.3 Finding 3: Funding	26
4.3.1 Recommendations of the CRC	26
4.3.2 Discussion	26
4.3.3 Actions Taken	29

4.3.4	Actions Planned.....	29
4.3.5	Anticipated Results	30
4.4	Finding 4: Project Management and Automation	30
4.4.1	Recommendations of the CRC	30
4.4.2	Discussion	30
4.4.3	Actions Taken	35
4.4.4	Actions Planned.....	36
4.4.5	Anticipated Results	36
5.0	Conclusion.....	39
Appendix	41
Appendix A: Construction Review Council Charter		
Appendix B: VA Capital Program Reviews		
Appendix C: VA Facilities Management Transformation Initiative		
Appendix D: Construction Review Council Meeting Summaries		
Appendix E: Office of Asset and Enterprise Management White Paper Capital Requirements via Strategic Capital Investment Planning		
Appendix F: Initial Action List		

1.0 Executive Summary

In April 2012, the Secretary of Veterans Affairs established the Construction Review Council (CRC) to serve as the single point of oversight and performance accountability for the planning, budgeting, execution, and delivery of the Department of Veterans Affairs (VA) real property capital asset program. This report looks at the VA real property capital asset program, the program reviews that have been accomplished and the resulting changes to the program, and also the findings and recommendations that resulted from the CRC meetings that took place between April and July 2012.

During the last decade, VA made significant investments in its real property capital asset program to provide facilities that meet or exceed the needs of both Veterans and staff, allowing for the highest standard of service. With the average age of a VA facility approaching 60 years, VA has taken on the challenge of updating its infrastructure to allow for cost-effective management of an aging inventory under increased workload demands, changing Veteran patient demographics, advances in medical technology, complex treatment protocols, new advanced procedures, and evolving Federal requirements.

Executing the real property capital asset program has not been without challenges. Multiple internal and external VA reviews have found systemic and/or individual deficiencies in a range of areas, including requirements definition, cost estimating, project design and scope, contract management, program oversight, and activation of the completed project.

VA has done much to address these deficiencies and improve agency performance of its real property portfolio through the creation of a comprehensive capital planning process known as Strategic Capital Investment Planning (SCIP). SCIP is a re-engineered capital planning process that implements automated planning and business information systems, rigorously reviews the capital investment budget, leverages private sector expertise, focuses on effective acquisition strategies, and invests in training the workforce to execute the real property program. However, there remains significant opportunity to improve VA's management of its real property portfolio.

In a continuing effort to improve the Department's performance, the CRC undertook a complete review of the Department's real property capital asset program life cycle to ensure the phases of the life cycle were properly identified and the inputs and outputs of the respective phases were achieved to ensure the successful completion of the capital program. The CRC's detailed review of the program life cycle looked not only at the process from the macro level, but drilled down into projects under construction to focus on their management with respect to the life cycle process. From

this in-depth review, the CRC identified findings at both the program and project execution levels and made recommendations to the Department to improve the performance of the real property capital asset program.

Figure 1 illustrates the current infrastructure project development process from an identified need to an occupied facility. The primary phases of the project are shown in groups of activities. All VA infrastructure programs (major, minor, non-recurring maintenance (NRM), and leasing) recognize the same seven phases.

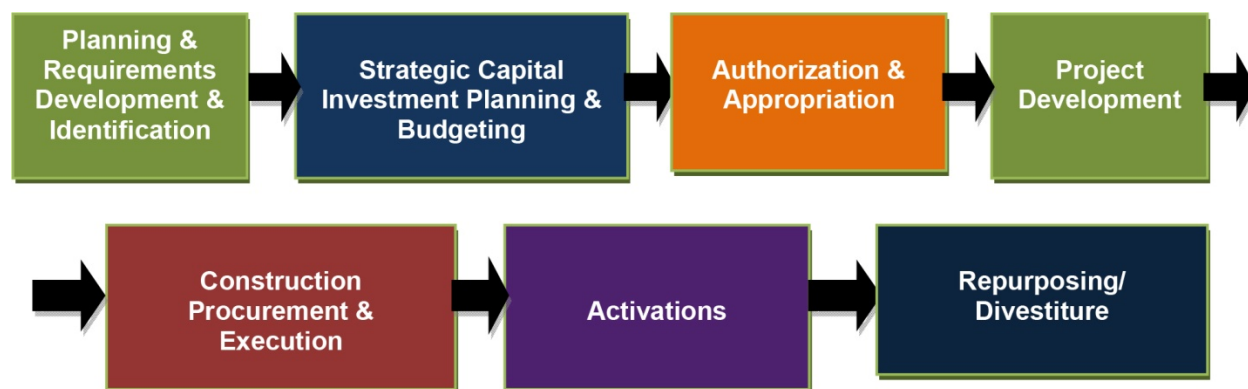


Figure 1. Capital Investment Program Process “As Is” State Flow Diagram

Figure 2 reflects a significant change to improve program performance, based on analysis by the CRC, by reordering the activities – move Project Development before Authorization & Appropriation. This will reduce late identification of scope elements, reduce project unknowns, and provide a more reliable cost estimate and time to construct by allowing engineering activities and user group input to be completed before authorization and appropriation and prior to establishment of the first public estimate for construction.

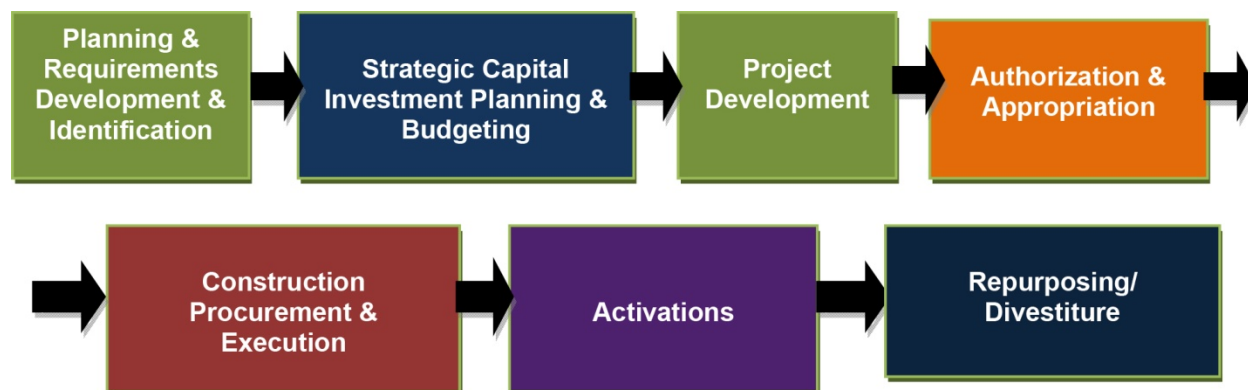


Figure 2. Capital Investment Program Process “To Be” State Flow Diagram

The CRC's analysis led to findings, which frame actions to improve the real property capital program in four major areas: 1) requirements, 2) design quality, 3) funding, and 4) program management and automation. Actions noted in Figure 3 highlight the "As Is" state compared to the "To Be" state.

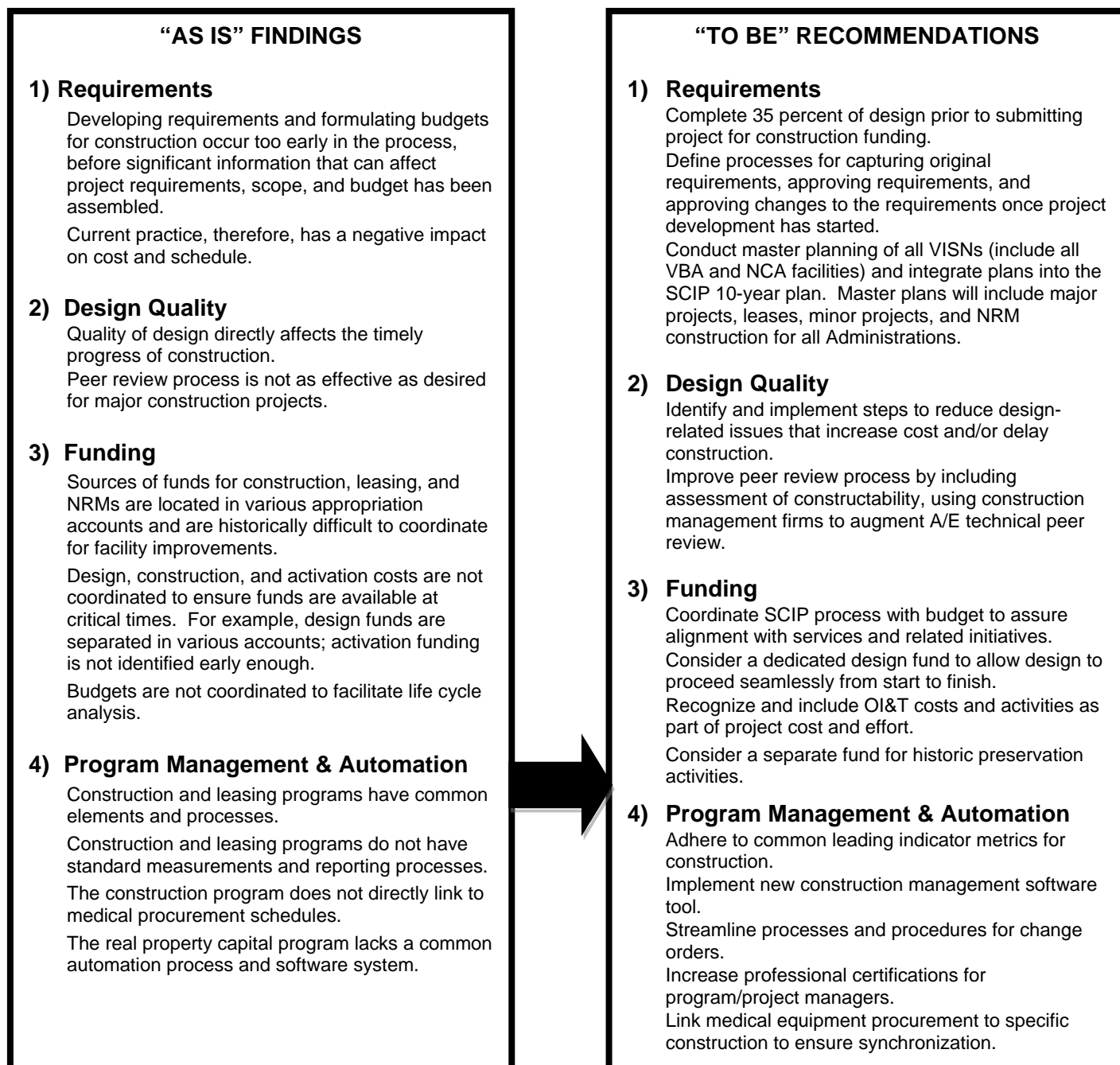


Figure 3. CRC Findings and Recommendations

Once transition to the “To Be” state is complete, the real property capital asset program will reflect a comprehensive, effective approach to manage VA’s infrastructure and ensure that the programs undertaken deliver projects completed on time and within budget to serve our nation’s Veterans with the infrastructure to provide the care, benefits, and memorialization they have earned through their service to our country.

2.0 Introduction

In April 2012, the Secretary of Veterans Affairs determined that VA's real property capital asset program needed a thorough internal review to address the challenges VA continued to face in bringing capital asset projects to completion. Unlike previous methods to improve VA's performance, the Secretary sought to do a comprehensive identification of potential improvements to the elements of the project life cycle, beginning with the preliminary identification of need through divestiture.

2.1 Background

Over the years, the VA real property capital asset program, similar to the entire Federal real property capital asset program, has experienced significant challenges to providing the level of investment needed to maintain, repair, and recapitalize the aging infrastructure. Additionally, VA's facility program has struggled to keep pace with advancements in health care that often dramatically change the physical requirements of hospitals and clinics. Furthermore, changes in Veteran demographics ranging from the illnesses and care required for Veterans of different generations and conflicts to the population shifts to different areas of the country place a continued demand on the capital asset portfolio. Maintaining aging infrastructure, as well as providing state-of-the-art facilities that meet the ever-changing needs of the Veteran population and support Veteran programs in our cities, suburban, and rural locations place significant burdens on the VA real property capital asset program.

In 1999, in response to a Government Accountability Office (GAO) recommendation, VA commissioned the Capital Asset Realignment for Enhanced Services (CARES) study, which used market-based research to identify changing Veteran patient demographics and the realignment of facilities and services to meet the changing need. The study was completed in 2004 and was accepted by VA the same year. VA formed the Capital Advisory Board (CAB) in 2005, composed of experts within the private sector, to assist VA in identifying industry best practices and methods to improve the management of capital improvements. Many of these recommendations were reaffirmed by the CRC and continue to be a part of the Department's processes and operating procedures. In December 2009, GAO issued a report recommending three actions to assist VA in managing cost and schedule within the major construction program; all have been adopted and are now a part of the life cycle management of a project.

In response to the reviews above, VA has taken the following actions:

In 2010, VA created a comprehensive capital planning, review, and prioritization process called the Strategic Capital Investment Program (SCIP),

which was fully implemented within the 2012 budget cycle. (See Appendix E for the OAEM SCIP White Paper.)

In 2010, VA established a VA Facility Management Transformation (VAFM) team that has led VA to re-engineer the existing master planning process and post-occupancy evaluation (POE) process, establish automated planning and business systems, and undergo a rigorous budget review with the Office of Management and Budget.

VA has invested heavily in its workforce, through extensive training and certification of more than 50 construction project managers, and received authority to use major construction-appropriated funds to pay resident engineers, needed to increase VA's oversight and decrease risk in the management of complex projects.

2.2 Construction Review Council

In April 2012, the Secretary of Veterans Affairs established the Construction Review Council (CRC) to serve as the single point of oversight and performance accountability for the planning, budgeting, execution, and delivery of the Department of Veterans Affairs (VA) real property capital asset program. The initial undertaking of the CRC was to perform an internal review of the Department's capital infrastructure programs, beginning with the requirements development process through activation. The review covered the major and minor construction programs, non-recurring maintenance (NRM) program, and leasing programs. This report outlines the history, approach, activities, tasks completed, and improvements that are required to execute VA's real property capital programs. This report also includes a detailed description of the findings, recommendations, and subsequent tasks identified by the CRC between April and July 2012.

The Secretary put in place a governance body, composed of VA leadership, to implement changes and monitor progress. The Secretary established the CRC to identify and analyze the immediate challenges facing the current projects within VA's real property capital asset program and to begin a periodic review and analysis of the Department's development and execution of its real property capital asset programs (see the CRC Charter in Appendix A). Between April and July 2012, the CRC convened nine times to conduct a thorough analysis—drilling down into VA's most visible major and minor construction, non-recurring maintenance, and leasing projects to identify the root causes of the challenges—of the Department's real property capital asset program processes. Appendix D contains summaries of these CRC meetings.

The CRC's analyses revealed that the challenges identified on a project-by-project basis were not isolated incidents but are indicative of systemic problems facing

VA's construction program. The CRC reviewed the real property capital asset program life cycle and analyzed the individual phases of the program, taking an in-depth look at several complex projects.

2.3 Findings

The CRC identified four major areas and findings for root causes that have resulted in delays and cost growth in the real property asset program. These findings are as follows:

1. Requirements. Requirements are not adequately developed in the planning process. The majority of the cost increases and delays in the design and construction schedules VA experiences are due to substantial changes in project requirements. To avoid these gaps, the appropriate stakeholders must be involved in defining requirements, following the project through to activation. In addition, the data to support identifying the requirements must be current and accurate.

In the past, VA has not conducted significant requirements development prior to formulating the budget for construction projects. Instead, VA has relied on rough order of magnitude¹ (ROM) estimates. The ROM formed the basis for the budget submission before VA conducted user group meetings, studied potential infrastructure improvements, and considered various site issues that would require mitigation prior to starting construction. After these issues were specifically identified during the project development phase, VA would request the necessary funding to allow for the additional requirements or required mitigation during the next budget cycle. This process leaves VA open to criticism on cost control, because all project requirements are not identified until after the project cost baseline has been established. When these items are identified later in the process, they often materially affect the cost and schedule of the project.

2. Design Quality. Design errors or omissions are often not identified until construction has begun, which detrimentally affects both cost and schedule. VA recognized that the process currently used to address errors and omissions during the design process, known as peer review, was not operating successfully. A detailed study of the peer review process will be completed by late 2013. The preliminary indication is that peer reviewers are not granted adequate time to revalidate all calculations and design assumptions. Lack of an effective quality control and constructability process

¹ Rough order of magnitude (ROM) is an estimate based on a large amount of assumptions and minimal engineering study; such as, an estimate based on an average cost per square foot of similar efforts.

- has a detrimental impact on the ability of a contractor to progress construction in a timely manner and exposes VA to additional liability in the form of increased A/E design fees, overall construction costs resulting in change orders, and delay claims.
3. Funding. Design, construction, and activation costs (including information technology) are not coordinated effectively to ensure funds are available at critical times during the process. Design funds are separated across two accounts and appropriations, which often hinders project development from the planning stages through construction documents. Activation funding requirements are not identified early enough in the process to coordinate construction and activation activities successfully. These challenges result in delays throughout the process. Accurate cost estimates and actual funds must be available at critical phases of the construction project.
 4. Program Management and Automation. The lack of integration and standardization of information within the elements of the major construction program contribute to delays throughout planning, design, construction, and activation. VA does not use a common software system with standardized metrics that would allow for consistency within and trouble-shooting across projects.

VA has an existing workforce that has supported construction projects for many years. This staff has operated in a stovepipe alignment with a focus on adding duties to existing positions rather than aligning staff into an integrated project team to meet the project requirements. The stovepipe alignment often results in missed opportunities to control the project. Information critical to performance has been lost and projects have experienced cost growth and delays and suffered from low quality. VA has committed to a certified project manager-led team for all projects to include construction projects.

The VA Acquisition Academy (VAAA) established a Project Management School to train and certify project managers. VA and requires its staff to complete advance contracting and project management training and mandated major construction project managers be certified to level III before managing large-dollar projects. The certification process will assist in re-educating and focusing project managers on managing budget, schedule, quality, and risk.

Authority obtained in 2012 enables the Department to cost major project resident engineers against the major construction appropriation fund. This allows for the hiring of new staff to manage design and planning, freeing the

project manager to perform critical project management functions, such as budget, schedule, quality, and coordination at the macro level.

2.4 Actions

After analyzing the effects of the above findings, VA identified and under the direction of the CRC implemented the following changes to standard operating procedures to correct these deficiencies and provide high-quality facilities on time and within budget and scope.

First, VA is improving initial estimates for major construction projects and has engaged planners and estimators to support project requirements development. VA has also engaged in cost risk studies for all new major construction projects to allow appropriate contingencies or mitigation processes to be identified and enabled when conditions warrant.

Second, VA is committed to improving the peer review processes, to include constructability reviews conducted by construction management firms to augment A/E technical peer review.

Third, VHA has established a new office that is solely dedicated to the oversight of activations.

Fourth, VA has made additional positions available within the Office of General Counsel (OGC) to allow additional staffing to review change orders and has increased the authority of senior contracting officers on very large projects to process modifications locally, allowing for timely execution.

Finally, VA has established an office within CFM to assist with improvements to the real property capital asset program. This office is developing defined metrics for all real property capital asset projects and deploying a commercial project management software system to increase effective management and provide the ability to increase oversight and required risk management studies for major construction projects.

3.0 Overview of VA's Real Property Capital Asset Program

VA is the Federal Government's third largest real property owner behind the Department of Defense (DoD) and the General Services Administration (GSA). VA maintains over 150 million square feet² of buildings. The VA physical plant has a replacement value of over \$105 billion. These assets, shown in Table 1, allow medical, memorial, and benefit services to our nations Veterans. Providing quality services to our Veterans requires facilities that provide respect for service to our country, a healing environment, and a peaceful final resting place.

	Owned Assets			Leased Assets		Land	Facility
	Buildings	Historic Buildings*	Square Footage	Leases	Square Footage	Acres	Replacement Value**
VHA	5,439	1,878	145,588,523	1,636	14,776,785	15,733	\$103,495,166,889
VBA	22	0	767,032	212	4,512,700	0	\$461,796,934
NCA	404	121	1,008,266	4	19,716	19,454	\$894,580,302
Staff Offices	8	1	1,696,608	90	2,166,182	165	\$808,386,508
Grand Total	5,873	2,000	149,060,429	1,942	21,475,383	35,352	\$105,659,930,633

* Includes National Register Eligible buildings

** Includes replacement of owned/leased buildings and structures

Table 1. VA Real Property Assets by Administration

Due to VA's long history, many buildings within the inventory are historic (see Figure 4) which creates significant challenges in accommodating modern health care and services for Veterans. VA has an obligation to preserve the historic elements of its buildings, even as Veterans and staff continue to utilize the facility. Preservation adds to the cost and time required to plan, design, and execute improvements and modifications to the historic buildings.

² The Federal Real Property Council's FY 2010 Federal Real Property Report An Overview of the U.S. Federal Government's Real Property Assets at http://www.gsa.gov/graphics/ogp/FY_2010_FRPP_Report_Final.pdf

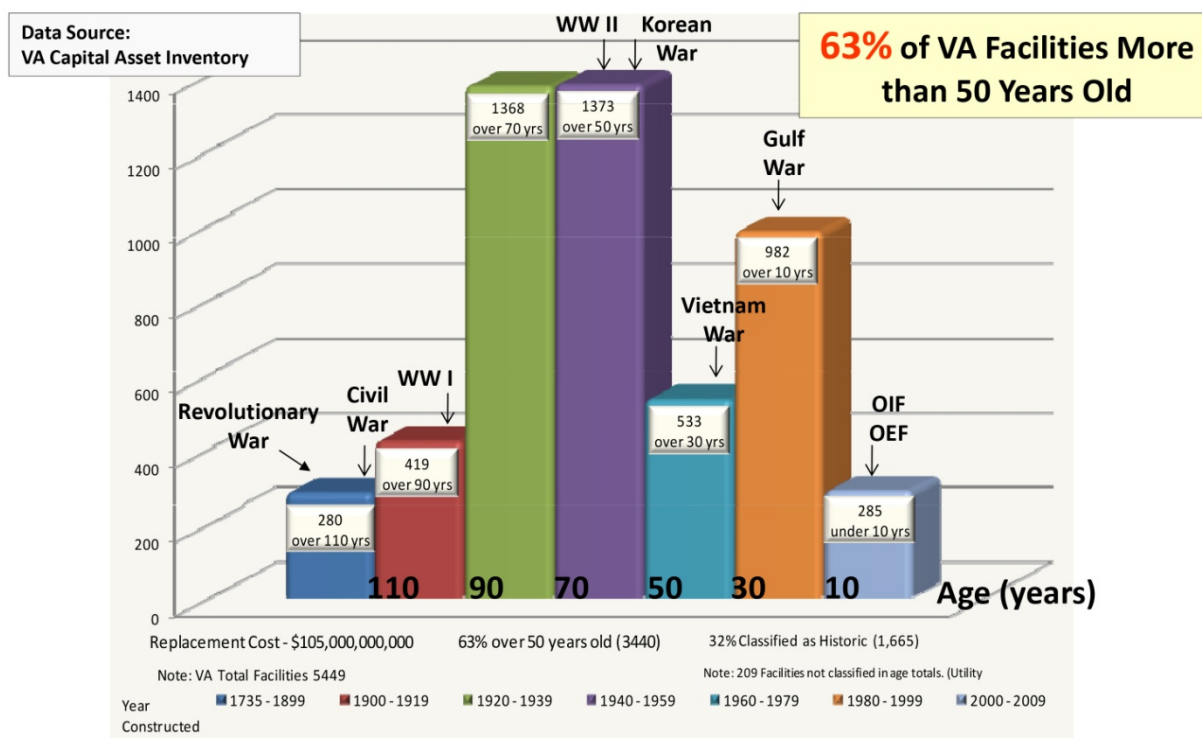


Figure 4. Age and Number of VA Facilities

Data Source: VA Capital Asset Inventory

In addition to VA's long history of facility management, strategic planning efforts continue to study the future of health care and facility technology to plan for future needs.

3.1 Historical Facilities

VA and its predecessors have been involved in the construction of facilities for Veterans since 1862, with the establishment of ten national cemeteries. Eight of these cemeteries are still maintained by the National Cemetery Administration (NCA). Construction for Veterans' medical care services that are provided by today's Veterans Health Administration (VHA) dates back to 1867, with campuses³ at Togus, Me., Milwaukee, Wis., and Dayton, Ohio. The oldest VHA facility currently in use for delivering health care services is shown in Figure 5. Today, Building 7 at Hot Springs, S.D., constructed in 1907 as part of the National Home Branch sanitarium/hospital, is used as a domiciliary.

³ While these campuses are still used for health care delivery, none of the services is provided in any of the original constructed buildings.



Figure 5: Building 7, Hot Springs, SD circa 1907

In the last 20 years, VA has opened 18 new national cemeteries. Currently, VA is planning and designing cemeteries in Colorado, Nebraska, New York, and two in Florida, for a total of five new national cemeteries.

Since 1992, VA's major construction program completed six replacement medical centers in Baltimore, Md., Detroit, Mich., Houston, Tex., Pittsburgh, Pa., Portland, Ore., and Seattle, Wash. VA has also completed a new medical center in West Palm Beach, Fla., and, as of this report, VA is activating one new medical center in Las Vegas, Nev. VA is currently constructing one new medical center in Orlando, Fla., constructing replacement medical centers in Denver, Colo., and New Orleans, La., and planning/designing replacement medical centers in Louisville, Ky., and Omaha, Neb. The major construction program includes multiple campus consolidations and renovations of patient wards and bed towers as well as new construction in spinal cord injury (SCI) programs nationwide.

3.2 Real Property Capital Asset Program

Today, VA's real property capital asset program has come under increased scrutiny as VA has undertaken substantial initiatives to reinvest in the Department's facilities. The program currently includes facility acquisition and leasing dollars for projects in health care, cemeteries, and benefits. VA's real property capital asset program has four primary lines of business: major construction, minor construction, non-recurring maintenance, and leasing.

3.2.1 Major Construction Program

The major construction program consists of projects over \$10 million in value. These projects are planned and developed by the VHA, NCA, Veterans Benefits Administration (VBA), or Staff Offices. These projects are submitted through the SCIP process for analysis and prioritization. Projects that are selected are submitted in the

budget cycle for appropriation and authorization. The Office of Construction & Facilities Management (CFM) executes these projects under the oversight of the Office of Acquisition, Logistics, and Construction (OALC). As part of the annual appropriation, Congress individually appropriates projects in the major construction program. Major medical facility projects and leases also require authorization by Congress. The funding for the major construction program is currently “no year” funds, meaning the funds do not expire, although this is expected to change with the FY 2013 appropriation.

3.2.2 Minor Construction Program

The minor construction program consists of projects submitted through the SCIP process valued at \$10 million or less. These projects are planned and developed by VHA, NCA, VBA, or Staff Offices based on their own program policy, approval, and appropriation processes. The minor construction program is not line-item appropriated and authorized; however, Congress is notified of approved projects through the budget request. The funding for the minor construction program is currently “no year” funds that do not expire.

3.2.3 Non-recurring Maintenance Projects

The non-recurring maintenance (NRM) projects submitted through the SCIP process primarily address correcting facility deficiencies and renovating existing space, including the repair or replacement of existing building systems. These projects are planned and developed by the respective Administrations and are primarily found in VHA, with NCA maintaining a small NRM program. VHA NRM projects are funded through the Administration's medical facilities account. NCA NRM projects are funded through the NCA operations and maintenance account. The funding is part of an annual appropriation, with the funds expiring after one year.

3.2.4 Leasing Program

VA maintains statutory authority, through 38 USC 8103, to administer a leasing program, to execute medical care leases for space, and to provide services to Veterans. The GSA administers VA's leasing requests for all needs other than medical care related space. Leases for medically related space are funded from the medical facilities appropriation. This funding is an annual appropriation and expires after one year. Leases for VBA may be funded from their minor construction account. Most other space needs are funded from the associated general operating funds.

3.3 Real Property Capital Asset Program Funding

Over the last 20 years, VA has completed 192 major projects, with a construction cost of \$6.8 billion. Construction appropriations for major construction and minor construction projects have ranged from a low of \$200 million in 2003 to a high of \$1.5

billion in 2006.⁴ Figure 6 shows the FY 2007 through 2013 appropriation requests. Funding and strategic direction together have led VA construction to where it is today.

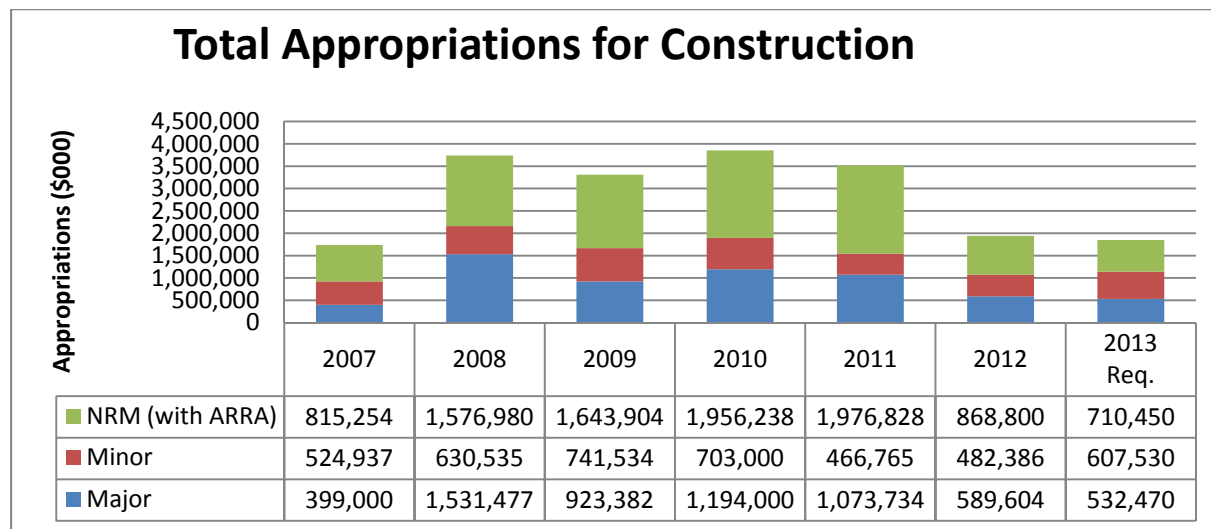


Figure 6. Construction Budget Appropriations for Fiscal Years 2007-2013 Requests

⁴ The total is influenced by Hurricane Supplemental funding received in 2006 to cover the unexpected need to replace the medical center in New Orleans.

4.0 Findings, Recommendations, Actions Taken and Actions Planned

The CRC's analysis led to findings that will frame actions to improve the construction program in four major areas: requirements, design quality, funding, and program management and automation. These findings are fully reported in this section. Each finding is defined, each recommendation based on that finding is identified, and options for actions taken and planned are presented, as too are the anticipated results of the actions. The actions noted below will be developed into plans to be monitored and reported back to the CRC by OALC. The reporting cycle will begin by late November 2012 and continue monthly.

4.1 Finding 1: Requirements

Delays in schedule and increases in cost of VA construction projects are tied to substantial increases or changes in requirements after initial scope and budget formation during the project development phase. In the past, VA has not conducted significant requirements development prior to formulating the initial budget for construction projects, relying instead on ROM estimates. The ROM formed the basis for the budget submission before VA conducted user group meetings, studied potential infrastructure improvements, and considered various site issues that would require mitigation prior to starting construction. Once these issues were specifically identified during the project development phase, VA would then request the necessary funding increase to allow for the additional requirements or required mitigation during the next budget cycle. This process exposed VA to criticism on cost control, as all project requirements were not identified until after the project cost baseline had been established. When these items were identified later in the process, they often materially affected the construction cost and schedule.

4.1.1 Recommendation of the CRC

The CRC recommended all new major construction projects reach 35 percent design completion prior to budget submission. The CRC recognized a need for a major construction project to have an established true baseline cost estimate, which reflects all requirements, with the benefit of engineering studies and user group input to present a coordinated facility approach.

4.1.2 Discussion

VA needs to develop a new process to identify requirements and establish an accurate project cost model. (Finding supported by GAO Report and VAFM Summary, see Appendix C.) OALC identified a process to design all new major construction projects up to a 35 percent complete design before the public release of a construction

project cost and schedule estimate. This process was implemented with the FY 2014 budget submission process.

VA has relied on ROM estimates to prepare a prospectus for each of the major construction projects that go to Congress as part of the budget process. These ROMs become the baseline for measurement of project cost. The ROMs are quickly developed without the benefit of engineering studies or fully identified user group requirements. Understanding these requirements can assist in more accurately defining the project scope and cost. Moreover, the ROM does not have the benefit of infrastructure studies related to historic requirements, road improvements, utility upgrades, additions or renovations to central energy plants, or physical site concerns. ROMs do not reflect user input regarding the function of the project relative to input from Veterans or from Veterans Service Organizations (VSOs). Inputs such as these have traditionally added to the project cost.

The development of the project concept is often prepared by staff who may be part of a major construction project only once in their career. Staff, including clinicians, are untrained in requirements identification or the need to have all requirements identified up front. The process has also not included a trained and certified project manager to lead the requirements identification process. VA's practice has been to refresh the prospectus with the additional requirements and report the new estimate for construction in the next budget cycle. This process leaves VA open to criticism on cost control, as all project requirements are not identified until after the project cost baseline has been established.

VA has increased planning staff for the major construction program and has re-established master planning; the master plan scope has been revised to include a requirement for market level planning and review of service requirements. VA has also established the Facility Programs and Plans office in CFM. This office is charged with developing and implementing program management processes to include identification of training requirements and effecting process improvement in the real property capital asset program.

VA considered six options to improve the reporting and to minimize delays and cost increases during the design and construction of major construction programs. These options were:

Option 1. Continue as currently done with additional planning involvement and CFM estimators completing estimate with appropriate contingencies to cover the undefined scope risks.

Option 2. Take design through 65 percent completion, leaving only construction documents to be completed prior to budget submission.

Option 3. All new major construction projects must be 35 percent design complete prior to construction budget submission.

Option 4. Establish a policy for VA master plan creation and maintenance.

Option 5. Establish a control process that assures senior leadership approval of the base requirements for real property capital asset program projects as they complete 35 percent design.

Option 6. Establish a change control process that involves the Administrations and VA senior leadership in the approval of additional requirements or changes in requirements after 35 percent design.

Option 1 does not mitigate the risk of significant scope uncertainty. The inclusion of contingencies will reduce risk but not significantly as estimators will only be able to estimate the contingency for risks they have experienced on other projects or risks identified by other members of the project team. This option does not produce a first public budget with a high degree of confidence. On the positive side, implementing this option will minimize staff changes and continues the ability to have new starts with long design periods and secured construction funding.

Option 2 would create a delay of one year between construction drawing completion (the follow on to design development) and the solicitation of a construction contract. A one-year delay between construction drawing completion and construction solicitation can increase risk of new requirements and changes in design criteria occurring that will further delay the construction and drive pricing higher. On the positive side, implementing this option significantly reduces the risk of design changes, as design is complete and decisions affecting design have been addressed and incorporated into the design. The estimate and schedule are based on design documents and can be reasonably estimated, eliminating most contingencies normally carried in earlier estimates.

Option 3 creates a change in process and realignment of staff to support the process change of obtaining 35 percent design before the project is included in a budget submission. Implementing this option will result in limited new starts, as the new starts will need to accomplish 35 percent design and be in line for construction funding in the budget cycle. On the positive side, this option provides for a reduction of risk from unidentified requirements and early identification of all existing conditions considerations. Implementing this option reduces risk because engineer studies and design meetings are conducted, allowing the full scope to be identified, prior to budget submission.

Option 4 will codify the requirement to develop master plans that address capital and non-capital solutions to close gaps and address facility deficiencies. This option will

require substantial investment of resources to accomplish and maintain. The master plans are not a onetime solution to the effort and must be updated annually and refreshed periodically. On the positive side, implementing this option will provide a comprehensive market-level and facility-level review of the services required to meet our commitment to Veterans. This option would identify a path to closing all service gaps and facility deficiencies over ten years. The early identification of solutions will allow trained and certified project managers to engage in the planning and requirements development and identification phase. Early involvement of trained and certified staff will assure a systematic approach to requirements identification and project development.

Option 5 provides for the oversight of requirements generation by the Administrations. NCA and VBA have an administration-level approval process. However, VHA has a decentralized process for requirements generation. Implementing this option may slow the planning and requirements development and identification phase for VHA. Currently, VHA project development occurs at the medical center. The VISN then presents the proposed project to the SCIP panel. The additional step of obtaining senior level Administration approval will add time to the process. Adding time in the planning and requirements development and identification phase will introduce risk of a change in requirements during this phase of the cycle; however, adding time in this phase will reduce the risk of a change in requirements later in the cycle. On the positive side, Administration approval will add rigor to the planning and development of projects. The approval will also assure the project fits with the Administration's goals and objectives for the entire Administration. The approval process can be managed to increase the timeline by only a few weeks.

Option 6 establishes a control process that will assure senior leadership agreement that the increase in cost and/or schedule delay from incorporating the change in requirements or additional requirements provide value to the Veteran. Implementing this option has the potential to increase delays and possible cost increase while the decision to implement is awaiting approval. A process that requires changes be approved will have two positive effects. The first is greater attention to identification of all requirements during the planning and requirements development and identification phase. The second positive effect will be a full impact assessment of the effect of adding the requirement or changing a requirement. Implementing this option will require the use of trained and certified project managers to assure assessment of the impact to the integrated master schedule and budget. The potential for delays to the project to accommodate approval can be mitigated by communicating the cost of delay in terms of dollars and days of delay in providing the service to the Veteran.

In balancing the positives and negatives of the considered options, Options 3 through 6 present an opportunity to reduce risk associated with design requirement identification without delaying construction start while keeping the project on track for a quality project on time and within the budget. Engineering studies and design meeting can be conducted, and their effects on the budget and schedule reduce the need for large undefined contingencies. Option 3 allows risks to be identified and qualified, allowing proper contingencies to be carried with a high degree of confidence in the budget and schedule. Option 4 allows for the identification of how VA will provide services to Veterans. Option 4 also allows planning to start with the engagement of trained certified project managers to bring structure to the process. Option 5 provides a review by the Administration to assure the project fits in the Administration's vision for services to Veterans. Option 6 provides that all additional or changed requirements have senior leadership approval prior to implementation. Options 3 through 6 will be implemented.

Therefore, beginning in the FY 2014 budget request cycle, complex major construction will be 35 percent design complete prior to preparation of a budget submission. The highest priority complex major projects will be selected to use advance planning in 2014 (the first year) and submit for design in 2015 (the following year). These projects will follow a process to assure that all requirements were identified and that leadership commitment to the scope was achieved; this is accomplished by completing the 35 percent design and conducting reviews with the administrations to assure their approval of the project requirements. The requirement for senior level approval of additional project requirements or changes to the existing requirements will be developed and presented to the CRC for approval. Additionally, a trained and certified Federal Acquisition Council Program/Project Manager (FAC-P/PM) will lead projects from the beginning of the planning and requirements development and identification phase through the activation phase.

4.1.3 Actions Taken

The CRC recognized a need to establish a true baseline cost estimate for a project that reflects all requirements, with the benefit of engineering studies and user group input, to present a coordinated approach to a facility project.

CFM has improved initial estimates for major construction projects by engaging planners and estimators to support project requirements development. This effort standardizes all estimates for the major construction program and assures that VA procedures and contingency plans are followed. This method was recommended by GAO to improve the quality of baseline estimates.

CFM has also engaged in cost risk studies for all new major construction projects. Risk analysis will allow appropriate contingency plans, or mitigation

processes, to be identified and enabled when conditions warrant. This action will improve baseline estimates for future projects.

In addition, CFM continues to engage VISN and medical center staff to improve space programs and identify potential scope changes. This feedback ensures accuracy and reduces uncertainty in the estimate. This is a preliminary step to completing design to 35 percent prior to establishing a cost estimate for the major construction project baseline.

Finally, CFM and VHA have completed two VISN master planning pilots. The pilots were conducted to review processes and identify automation requirements. VA staff piloted a market-based integrated planning process for two VISNs (1 and 17) in FY 2011 and 2012. The planners addressed VHA, NCA, and VBA space and facilities within the VISN's footprint. The resulting VISN master plans reflect a well-coordinated plan for providing Veteran services. The plans include major, minor, and NRM efforts to close service gaps and meet facility condition standards, and include non-capital solutions to satisfy service gaps and facility conditions. VHA also conducts non-capital and capital planning processes to refine the results from the VISN master plans. Capital requirements are incorporated into SCIP. CFM is the execution agent for these plans on behalf of the Administration. Funding for the integrated planning effort is in place to execute seven VISN master plans per year.

Beginning with the 2014 budget cycle, complex major construction projects will have 35 percent design completed prior to being included in the budget submission. This will essentially make complex major construction projects follow a two-year developmental cycle to provide more complete and accurate cost estimates. The decision to align 35 percent design with the FY 2014 budget also reflected the status of projects under design.

4.1.4 Actions Planned

The CRC heard discussion of past master planning efforts and the criteria currently being piloted. Past efforts were conducted by an individual facility and did not address market-wide issues. Master plans were a resource-heavy requirement for a facility. The current pilot of master plans is a VISN-wide, market-based approach to master planning and is centrally funded and executed by OALC on behalf of the three Administrations.

Continue VISN Master Planning (VMP) (including all VHA, NCA, and VBA facilities) and VHA facility master plans and feed these into the SCIP process as part of the FY 2015 submissions. CFM plans to conduct seven VISN master plans per year resulting in a three-year cycle of every plan; the first cycle will be complete in FY 2018. Owner: CFM, Mr. R. Neary.

VMPs will address major, minor, NRM, and lease projects, completing a comprehensive view of the capital portfolio. Two more VMPs will be completed in FY 2013. The long-range plan is for seven VMPs per year, assuring a three-year refresh for each VISN. This refresh rate will allow the VMP to stay in step with changes in health care delivery, benefits processing, and cemetery land needs.

The CRC examined the requirement that all initial requirements and changes be approved at the Department level. The discussion noted that the Administrations appropriately had different criteria, and a central requirements approval process would struggle with full comprehension of the differences in Administration requirements. It was also noted the Administrations were responsible for development and execution of staffing and budgeting for the sustainment of their projects. Having control/approval of requirements maintains responsibility and accountability over the life of the facility.

Establish a requirements approval process to assure VA leadership that the Administration has approved the base requirement. The Office of Asset and Enterprise Management (OAEM) expects to begin implementation of this process in December 2012. Owner: OAEM, Mr. J. Sullivan.

Establish a requirements change control process that ensures requirement changes are approved by each administration (VHA, NCA, and VBA) at the Department level and are consistent with the Administration's long-range objectives. OALC expects completion by the end of FY 2012. Owner: OALC, Mr. G. Haggstrom.

4.1.5 Anticipated Results

The short-range impact of the actions taken to date is an increase in the accuracy and reliability of the initial estimates for major construction projects that go into the budget request. This can be seen through the number of items that have been added to the initial project cost estimates.

Long range, VA anticipates fewer cost changes based on the initial budget submission and reprogramming requests. This is important because Congress has recently tightened the reporting requirements for VA on scope increases.⁵

VA has a backlog of projects underway with gaps and deficiencies that need to be corrected. An increase in the accuracy of estimates will allow VA leadership to make better decisions based on more accurate data. This can reduce contingencies, allowing more construction to proceed earlier.

All of these improvements will allow VA to demonstrate control of the construction program, and be recognized as a good steward of taxpayers' money. The increased

⁵ Public Law 112-74, Consolidated Appropriations Act, 2012

emphasis on planning, both master planning and project requirements development, is an important change in the major construction program. This will require a cultural shift to put a placeholder in the process to develop the requirements, refine with design, and then place the project into the construction funding program. This shift will begin to reduce reprogramming requests and budget increases with the FY 2016 cycle. The FY 2016 cycle will have one third of the master plans underway or completed and be in the second year of 35 percent design completed before construction funding. OALC must continue to fund the master plans and execute integrated planning for the Administrations.

4.2 Finding 2: Design Quality

Design errors or omissions are often not identified until construction has commenced, which detrimentally affects both cost and schedule while the design errors are corrected. VA recognized that the current process in place to address errors and omissions during the design process, known as peer review, was not operating successfully. This lack of oversight has a detrimental impact on the ability of construction to progress in a timely manner and exposes VA to additional liability and delays.

4.2.1 Recommendations of the CRC

Identify process changes and steps that can improve the design of VA's major construction projects and implement these changes.

Conduct a review of the peer review process and improve the results of the process.

4.2.2 Discussion

Design quality has always been difficult to evaluate. The development of the design and production of construction documents have been difficult to assess, because there are many alternatives to facility layout and design. Every A/E approaches design differently, anticipating rewards for creativity. This results in most A/E firms not only meeting the requirements but also wanting to be innovative, as reflected in appearance, structure, and form. The Federal model seeks best value-price solutions to meet all minimum requirements.

Many A/Es develop signature elements that appear in all their designs. This can be costly for Federal facilities. Review of an A/E's design for technical correctness requires the reviewer to perform all the same calculations to validate the design assumptions and revisit every design decision. This can be cost prohibitive on large construction projects. VA has introduced control of the design by requiring the A/E to comply with VA design guides and standard VA specifications. This information is available in CFM's Technical Information Library (TIL). The use of these standards

reduces the effort required to check quality, by employing the use of prototypical designs and providing very specific design guidance.

VA's TIL (<http://www.cfm.va.gov/TIL/>) contains VA planning, design, and construction standards. These standards apply to all majors, minors, NRMs, leases, and other VA planning, design, and construction projects, unless there are overriding published standards tailored to the specific mission or processes of an individual Administration. VA's standards promote effectiveness and efficiency, resulting in the best value for the taxpayers' investment.

CFM staff in the Office of Facilities Planning manages the development of standards in cooperation with functional program offices, subject matter experts, and consultants in updating specific program design criteria. Consultants bring private sector experience and are required to perform comparisons, analyses, and benchmarking to ensure that VA standards incorporate best practices and the highest industry standards. The CFM staff assembles teams that include health care staff and administrators from VHA VAMCs, VISNs, VACO, NCA, VBA, and CFM with experience in the functional/clinical area of concern. Related VA policies, directives, and studies are researched and incorporated into the criteria. Numerous activities are incorporated into the process of updating standards: surveys are conducted; VA and industry personnel are interviewed; input is sought from Veterans; and site visits to VA and other private/public sector facilities are conducted. There are multiple progress meetings and other opportunities for interface and dialogue among team members. VA planning, design, and construction standards are based on Federal laws, regulations, and directives; current editions of appropriate national codes, standards, and guidelines; evidence-based research; industry technology improvements; and developments in health care delivery and other services to Veterans.

VA standards located in the TIL are to be updated in a recurring three-year cycle, with the exception of the design guides. This updating process generally corresponds to the revision of national and international codes and standards. Design guides, considered basic resource documents that are graphical and technical composites of basic standards for typical functional departments, are to be updated every five years.

VA uses an A/E peer review process, which involves contracting with a separate A/E firm to review the work of the contracted design firm. This process does not allow for comprehensive validation of calculations and design assumptions. The peer review A/E firms typically have experience with VA design guides and standards. While this allows for a rather quick review process, it does not guarantee that all design errors and omissions will be identified. Many errors and omissions are not identified until the construction execution phase. This adds cost and time that directly affects project delivery.

The Orlando case study noted that electrical design errors and omissions delayed proposals from being submitted, while additional drawings were issued to correct the errors and omissions. Electrical errors and omissions again affected the project after construction start, resulting in delay claims from the constructor.

Building Information Management (BIM) is an electronic design tool that has the potential to decrease errors and omissions. VA has developed and fielded a BIM guide for use of BIM during design. BIM has a clash detection feature that reduces the potential for two items being designed to occupy the same space. BIM is a 3-D product and can note where two or more objects are trying to occupy the same space while the project is still on paper. The reduction of clashes reduces the errors and omissions on a project and raises the quality of the design. The challenge, however, is that this tool is evolving, and some A/Es end up learning the system while designing VA's projects, which can lead to errors as well.

VA considered three options for improving design quality of construction projects. The Options were:

Option 1. Engage a consultant to review and assure PG-18-15 reflects submission requirements that facilitate rapid review of the design quality and support Lean process for design.

Option 2. Employ construction management firms to perform constructability review on projects in design.

Option 3. Engage senior CFM staff to identify methods for improving design quality.

Option 1 involves a detailed study to address changes to the design submission requirements for the Schematic Design, Design Development, and Construction Documents. Changing PG-18-15 requires the coordination of many VA entities to assure requirements that are essential to an organization are not eliminated. Any change in requirements will also include a culture change, as review staff is trained on new documentation and the revised requirements. Implementation of this option will require several years to see the results as the new requirements will apply to new efforts. On the positive side, this Lean process will allow design documents that focus on quality and speed to delivery. The new process will focus the design documents on the current requirements and reflect the BIM ability to deliver.

Option 2 brings an additional entity to the standard design review. Constructability reviews are a new element that project managers will need to manage, and conflicts between the designer and the construction manager are likely as construction managers challenge design elements. VA has limited experience in managing constructability reviews. On the positive side, constructability reviews are

shown to drive value into projects. The Construction Industry Institute (CII) has a benchmarking study (see Appendix B) that demonstrates a high rate of return on the dollars invested to perform the constructability review. CFM currently has contracts in place that can be leveraged to perform the constructability reviews.

Option 3 tasks the staff currently managing design to identify methods for improving the quality of design. A significant number of staff managing design have spent their entire career with VA and have limited experience outside the current methods of managing quality in design. On the positive side, staff currently managing design may be able to identify roadblocks to achieving quality design. The existing staff may also have heard comments or had conversations with designers about how to improve quality in VA designs.

After consideration of all the challenges and advantages associated with the three options, all three will be implemented. The study to examine the design document submittal process (PG-18-15) has been awarded and work is underway to examine what the submittal requirements are to facilitate quality reviews that drive value and quality into the design. The study should be complete with an implementation plan September 30, 2013. Implementation will be for projects driving to 35 percent design for the FY 2015 budget cycle.

4.2.3 Action Taken

OALC has established a working group of senior project staff assigned to major construction projects to identify methods for improving design quality. The working group is expected to make recommendations in the spring of 2013.

4.2.4 Actions Planned

Engage staff to identify and implement steps to reduce design-related issues that increase the cost of or delay construction. This includes assessment and monitoring of design standards, error and omission rates, and guide specifications to assure standards are current and effective. CFM expects completion by March 1, 2013. Owner: CFM, Mr. R. Neary.

Review the design process to identify actionable steps to improve the process. Reducing the errors and omissions and improving the peer review process will be the starting points. These two processes are measurable and reportable. OALC has identified firms that specialize in constructability reviews and measuring the effectiveness of the review. OALC will be investigating the techniques used by these firms to identify processes and the measurements used to demonstrate a return on investment of the peer review. CFM anticipates completion by March 1, 2013. Owner: CFM, Mr. R. Neary.

4.2.5 Anticipated Results

The anticipated results of improving design quality are reduced errors and omissions and a peer review process that adds measurable value to the design process. OALC anticipates having measurable results by the end on FY 2013 on the return on investment of peer review. OALC will not have measurable results to show a reduction in errors and omissions until the end of FY 2015. The projects in design must move to construction to evaluate the efforts to reduce errors and omissions, as they often do not show up until the construction phase.

4.3 Finding 3: Funding

Design, construction, and activation costs are not coordinated effectively to ensure funds are available at critical times during the process. In particular, design funds are separated across two accounts, which can hinder the design development from the planning stages through construction documents, and activation funding requirements are not identified early enough in the process to successfully coordinate construction and activation activities. Funding challenges result in delays throughout the process, when funds are not available at critical phases of the construction project.

4.3.1 Recommendations of the CRC

Investigate the use of a Design Fund that covers schematic design, design development, and construction drawings, eliminating a request for construction funding for completion of the construction documents.

Investigate the use of a dedicated line item in the appropriation for historic preservation.

4.3.2 Discussion

The CRC heard discussion on the method for establishing activation budgets and the differences in appropriations for major projects. During the case studies, a common theme developed around the lack of coordination of budgets, schedules, and medical equipment purchases. However, it should be noted that VHA stood up an Activations Office to support activation schedules and planning to assist the large major construction projects coming to completion.

The information technology (IT) activation budget requirement was discussed at length during several case studies. The Denver project and the Orlando project had a dedicated OI&T staff member on the activation team. This improved the coordination of IT and development of a realistic IT activation budget. New Orleans did not have a dedicated staff member and requested that expertise. OI&T agreed to identify an individual to serve as the dedicated OI&T activation team member.

Timely procurement of medical equipment is important to prevent delays in the construction project. In the past, medical equipment was ordered at the last possible moment to ensure the latest technology was acquired. This means the medical equipment budget and construction schedule must be coordinated. The complicating factor is the need for working drawings of the selected equipment early in construction so utilities and room layouts can be planned and constructed in a timely fashion. It should be noted that VHA's National Activations Office is creating a milestone chart that will indicate the critical dates for equipment selections, which should resolve the problems found in previous activations.

The CRC was also briefed on the House Appropriations Committee's plan to change construction appropriations from no-year money to five-year money, with a request in the FY 2012 Appropriation to outline the issues of this change in funding. This will affect how VA manages construction projects. With the anticipated decrease in the length of funding availability, VA must improve the speed of project delivery once construction funding is received. This is supported by the plan to complete 35 percent design prior to requesting construction funds. The CRC also heard discussion on moving from the Advance Planning Fund (APF) that covers schematic design and design development to a design fund that would fund schematic design, design development, and construction documents.

OAEM had the lead for preparing the response to Congress on the legislation regarding five-year funds. The report has been submitted, and VA awaits feedback from the Appropriation Committee. Further discussions highlighted the fact that VA's completion items practice will no longer be able to continue. Completion items are small projects the facility identifies as necessary for the operation of the new project. These are often requirements that did not surface during design or early construction.

The CRC also heard discussion of the need for assistance in the area of historic preservation and budget. VA has an obligation to protect historic structures; however, there is no dedicated line-item or tracking mechanism to identify funds expended on historic preservation. The creation of a historic preservation budget line item will be a discussion for future CRC meetings.

VA considered four options to improve the budget coordination of planning, design, construction and activation. These options are:

Option 1. Evaluate the creation of a comprehensive design fund to fund all planning and design efforts on the major program.

Option 2. Create a comprehensive activation model that accounts for all activation funding for the major and minor programs.

Option 3. Create a comprehensive activation appropriation line item to fund all activation requirements including Administrations and Staff Offices, such as OI&T.

Option 4. Create a historic preservation appropriation line item to support funding for preservation and maintenance of VA's historic properties.

Option 1 is a supporting element of the effort to develop major projects to 35 percent design prior to including the project in a budget request. Currently, the APF covers planning and design effort through design development or approximately 65 percent design. Construction document funding is from an initial construction fund request and is usually 10 percent of the total estimated cost (TEC). The comprehensive fund would force early identification of projects that expect funding for construction in the next two years. This will remove some flexibility from identifying critical need projects. On the positive side, the comprehensive fund allows the entire design process to flow without pauses for additional funding. The use of a combined fund also provides for one notification of project cost to Congress. The comprehensive fund allows for the completion of adequate study and design prior to VA publishing a construction cost or schedule for the major program.

Option 2 will create a cost model for activation that includes major medical equipment, supplies for initial fit-out, staffing until workload data is steady allowing the medical center to budget for the staff, and all associated funding required, such as information technology. The creation of a standard cost model will make predictable the identification and funding of activation cost. On the positive side, a model that includes all activation costs provides a checklist to assure timely funding. The model will identify activation activities allowing coordination of those activities with the integrated master project schedule to assure activation is keyed to construction. The early identification of activation activities and their funding support a trained project manager in the integration of activation and construction.

Option 3 will create a line-item appropriation for activation cost. The line item would cover all activation cost to include the Administration's staffing, outfitting, and equipping the facility. The line item would also include OI&T cost. The line item for activation could limit flexibility in funding activation cost and could potentially limit implementation of new technology. On the positive side, early identification and forecasting of activation cost allows for coordination with the construction effort. The coordinated effort will reduce construction delays and decrease risks from an uncertain funding stream.

Option 4 will create a line-item appropriation for maintenance and repair activities on historic real property. With an average building age of over 60 years, a significant number of VA facilities are historic. The creation of a single appropriation for historic

property maintenance could limit other methods to fund maintenance and repair of historic facilities collocated with non-historic structures. On the positive side, renovations and maintenance projects will have a fund to draw from for these expensive to maintain historic properties.

In balancing the positives and the negatives of the considered options, all four options warrant deeper examination. The creation of a design fund supports the move to 35 percent design before publishing major construction cost and schedules. The creation of an activation model began with the standup of the VHA National Activations Office. The creation of line items for activation and preservation of historic properties versus the current funding process requires additional study and report back to the CRC.

4.3.3 Actions Taken

VHA has established a National Activations Office. The office has responsibility for the development of activation policy and processes. The team is currently looking at how activations are budgeted, how activation is tracked and reported, and the timing of activation teams standup and their role through the construction cycle.

OI&T is creating an activation line item.

4.3.4 Actions Planned

Evaluate the creation of an account that provides funds for Schematic Design, Design Development, and Construction Documents to be completed on a project. This will alter the current APF. CFM expects completion by May 1, 2013. Owner: CFM, Mr. R. Neary.

Continue to study activation, specifically looking at where activation belongs in the budget (in the Administrations, separate line item in appropriation, or in the construction project cost). Develop a model that will allow for accurate full accounting for all required funding for the project from inception through activation. VHA anticipates completion by September 30, 2013. Owner: VHA, Mr. P. Matkovsky.

Review the historic preservation process to assure preservation activities align with Departmental priorities and actions. Review the establishment of a set-aside fund or line item for historic preservation activities. CFM and OAEM expect completion by May 1, 2013. Owners: CFM, Mr. L. Siegel, and OAEM, Mr. J. Sullivan.

Review the OIG report on minor construction, when issued, and include recommendations on additional funding controls and oversight in policy. Completion by VHA is contingent upon receipt of report. Owner: VHA, Mr. P. Matkovsky.

Establish a mechanism such as activations funding to coordinate the various funding streams required for major construction projects, including major equipment, IT,

and medical equipment. VHA anticipates completion by December 1, 2012. Owner: VHA, Mr. P. Matkovsky.

4.3.5 Anticipated Results

Creation of a design fund that provides for construction documents as well as schematic design and design development will eliminate the need for a separate request for construction document funding. This action will ensure that the requirement to achieve 35 percent design completion prior to inclusion in the construction budget achieves a reduction in time to execute a project. The elimination of the request for funding for construction documents also reduces the need to publicly announce the construction budget prior to completion of the 35 percent design. This will reduce the likelihood of having to go back to Congress to request cost limit increases and will increase confidence in VA's ability to manage the construction program.

The results of increased emphasis on and improvements to activation will assure the expeditious completion of construction of facilities ready to serve Veterans.

4.4 Finding 4: Project Management and Automation

There is a lack of integration and standardization within the elements of the major construction program, which has resulted in delays due to the lack of integration of information throughout planning, design, construction, and activation. VA does not use a common software system with standardized metrics that would allow for consistency and trouble-shooting across projects.

4.4.1 Recommendations of the CRC

Develop and implement a standard set of metrics to show the health and vitality of individual construction projects and programs. The metrics should focus on leading indicators and not lagging indicators.

Undertake review of the construction modification process for major construction projects with a goal of reducing administrative processing time.

Enhance training through increased use of certification programs.

4.4.2 Discussion

This finding is consistent with Veterans Affairs Facilities Management (VAFM) findings (detailed in Appendix C). The need for common data systems to drive a data-driven, decision-making process is paramount. The facility management industry strives to establish a collaborative environment where designer, owner, constructor, and operator can move ideas and information quickly and efficiently. VAFM identified the requirements for several IT products that would increase efficiency in the facility management function. These include a new construction management system, the

deployment of MAXIMO for facility maintenance and non-real property asset tracking, survey software to support POE, and integration of BIM into the core processes. The lack of an enterprise management software system makes roll-up of program measures difficult.

A common software system would allow for the creation of a dashboard that would provide common metrics for all projects and would highlight the outliers, assisting in establishing norms and measuring process improvement. This new software system will need to exchange data and information with the SCIP Automated Tool (SAT) to be effective in project management. The new construction management software procured and currently being configured for six projects this year, is being developed as the common platform. This software will also interface with MAXIMO, the asset management software being fielded by VHA. Funding remains an issue, as the money to expand beyond the initial six projects is not in place for FY 2013 or FY 2014.

The CRC consistently heard that VA modification review and approval process was time-consuming for major construction projects. Delays are typically for larger modifications in the major program. VA's major program has administrative contracting officers (ACO) on each site. The ACO is also the senior resident engineer and is FAC-C certified to at least level I and holds a warrant. The ACO is authorized to execute contract modifications up to \$100,000. Modifications above that amount go to fully warranted contracting officers in the regional offices. These larger modifications also require Office of General Counsel (OGC) review prior to execution.

Another issue identified in the analysis to support VAFM was the lack of sufficient staff members that have received adequate training and certification. One of the main thrusts behind VAFM was to fund resident engineering staff from the programs that they support: either the major construction account for major construction projects, the minor appropriation for minor construction, or medical facilities account for medically related leases. This shift in funding resident engineers allows for addition staff to support planning and project management.

Workload for the construction programs grew exponentially from FY 2003 through FY 2011, without a sufficient increase in staffing. The lack of sufficient, trained staff during this time period likely contributed to some of the challenges encountered with VA's more complex, large-scale construction projects. However, projects also suffered from poor initial requirements development. A trained and credentialed staff at the requirements-generation level would have developed comprehensive requirements. A better trained and certified project manager would have led the team to developing and identifying all the necessary requirements for a quality project.

CFM encouraged all project managers for major construction projects to obtain training and certification through the Construction Managers Association of America

(CMAA). CMAA developed a training and certification program for construction managers that required experience and knowledge demonstration in all aspects of project management to include planning, design, and construction. CFM had about ten certified construction managers on staff when the VAAA announced the FAC-P/PM program. OALC supported CFM's transition to FAC-P/PM at the senior level for project managers in the major program in 2010.

VAAA embarked on establishing a *Project Management Improvement Program* (PMIP) to address the challenges that both Secretary Shinseki and Deputy Secretary Gould were attempting to mitigate. The focus of PMIP was to not only enhance the existing skill sets of the acquisition workforce but also establish business acumen, create alignment of technical and process-oriented acquisition management procedures, and reinforce the value of enterprise-wide collaboration during project execution.

The VAAA vision to improve the capabilities of the VA acquisition workforce was not narrowly focused simply on a small segment of the population. If PMIP were to accomplish its goals of creating alignment of technical and process-oriented acquisition management procedures and reinforce the value of enterprise-wide collaboration during project execution, the scope of the training initiative had to include both new recruits, as well as seasoned acquisition professionals.

The FAC-P/PM memorandum outlined a three-tiered model: entry, journeyman, and senior/expert. The PMIP program instituted by the VAAA based its FAC-P/PM training model directly from the OFPP guidance as outlined a three-tier competency structure, with each focused on developing the prescribed competencies in program management, acquisition, cost estimation, and earned value management as well as the required leadership and interpersonal skills to advance a project successfully.

In addition to the FAC-P/PM policy, the VAAA in its curriculum design looked internally at several active policies relative to project/acquisition management *Project Management Accountability System (PMAS)*, *ProPath*, and the *EP/PM Training Manual*.

Furthermore, the VAAA design team evaluated all previous training investments at VA that were associated with developing project management disciplines what techniques and topics implemented were successful, and which techniques and topics did not add value. Beyond this, extensive market research was conducted on a variety of industry related acquisition/project management strategies, disciplines, and processes.

The VAAA FAC-P/PM training that delivers on the PMIP vision was designed and developed in 2010 – 2011. This proprietary curriculum has four primary project

management learning phases *Concept Definition, Concept Planning, Development & Implementation, and Operations Maintenance & Close-Out.*

The learning objectives, within each of the four phases, complement the targeted level of learning (entry, mid, or senior). Learning objectives, associated activities, and classroom discussion are all learner-centered and applicable to civilian agency professionals.

The goal of PMIP is to capture and perpetuate lessons learned to improve business processes over time and create sustainable change agency-wide. Therefore, all learning activities within the VAAA FAC-P/PM program are focused on producing working artifacts and improved perceptions on the value of the acquisition profession; not simply 'check the box' training for test requirements.

VA considered five options to improve project management of the real property capital asset program. The improvements include data management through enterprise systems and increase reporting on project performance. These options are:

Option 1. Employ an automated enterprise project management system to increase efficiency and effectiveness of the project team.

Option 2. Increase the onsite authority for executing modifications on the major program.

Option 3. Hire additional staff to support the major program.

Option 4. Increase project reporting through the development of an enterprise project metrics program.

Option 5. Increase the knowledge and proficiency of all staff associated with the real property capital asset program.

Option 1 will create a system where all the separate systems used in the real property capital asset program will communicate and share data. The system will not be one software package but will have communication protocols that allow for sharing data. Currently, VA has many locally developed and maintained systems. These systems are used daily to communicate project status and financial information. The systems do not have a common nomenclature or standard practices. Developing the common nomenclature, modifying the systems and retraining the staff will take time. On the positive side, the ability to share data will cut down data entry time and errors. A common nomenclature will improve person-to-person communications as well as data communication. The electronic Contract Management System (eCMS) is an enterprise system and communicates with several other systems in the real property capital asset program.

Option 2 will increase the onsite authority of the ACO from \$100,000 limit without OGC pre-award review to \$250,000. The risk associated with raising the limit for the ACO is minimal. The ACO located at the site is influenced by the need to get things completed. This desire to get modifications executed promptly may cause the ACO to miss a right of the Government. OGC has the training and arm's length vision to see the full scope. On the positive side, the ACO is a warranted contracting official, trained and certified to at least level I FAC-C. The ability to execute modifications timely will reduce delays and reduce cost. The \$100,000 limit has not been raised in over ten years and does not buy as much construction today.

Option 3 will increase staff on the major construction program. Staff increases include planners, contracting staff, project management staff, and attorneys all in support of the major program. The majority of this increase staffing is paid from overhead accounts (General Administration). The pressure has been on reducing not increasing overhead. The staff increases also assume the construction program is stable or growing. A reduction in construction spending will force a reduction in staffing. On the positive side, the construction budget has grown exponentially since 2003, while the staff has increased modestly. VA was granted authority to cost resident engineers for the major construction program; this reduced the staff in the overhead accounts. This new authority will allow staff increases without increases to the overhead accounts.

Option 4 increases project reporting to assure senior managers can exercise influence on the real property capital asset program. Centralized reporting often leads to gaming the measure to avoid senior level visibility. This gaming leads to ineffective project management and bad decision making. On the positive side, a standard set of metrics, based on organizational goals, allows everyone to see and focus on what is important to the organization. A common reporting set of metrics also allows senior managers to see where problems are occurring and work to bring solutions, resources, or leadership to assist in solving the problems. Common metrics will also allow managers to see common issues and solve them at the enterprise level by sharing the best practice.

Option 5 will raise the number of certified staff on the real property capital asset program. Raising the certification level will require staff training time. The current VAAA project management training program is three weeks long. Limited dollars and time hinder additional training. On the positive side, a trained workforce will be more efficient. Training programs that are effective and lead to improved job performance increase staff retention. Lowering staff turnover will have a positive effect on projects.

In balancing the positives and negatives of each option and examining how they work together all five options support reducing risk on projects through better project

management and the deployment of automated systems. Implementation of all five options is underway.

4.4.3 Actions Taken

CFM and the OGC have signed a memorandum of understanding increasing the full-time equivalent level of legal staff dedicated to supporting the major construction and leasing programs. CFM is providing funding for up to three additional attorneys. This will help expedite the modification process for major construction projects. CFM requested a Veterans Affairs Acquisition Regulation (VAAR) deviation, and OAL has approved (OGC concurred) the deviation that allows CFM's experienced senior contracting officers (COs) on the Orlando, Denver, and New Orleans construction projects to award modifications to the construction contract for up to \$250,000 without a pre-award legal review.

The CRC consistently heard from the project staff that timeliness to award modifications was adversely affecting progress on projects. Contractors were being forced to finance activities or delay performance. Two solutions were advanced, the first being an across-the-board raise in the authority of the contracting office to act without OGC review. The second was hiring more attorneys to support timely reviews. The CRC heard from OGC on the risk of decreasing OGC review of modification prior to issuance by the contracting officers. The CRC identified an acceptable solution that included hiring additional attorneys to support reviews and selective increases in the contracting officer's authority to award modifications without pre-award OGC review.

VA has awarded a contract to configure TRIREGA as a new construction management software tool. This program will replace PARAGON and will be configured to support all construction and lease projects. The initial procurement supports six major projects. Additional funding is needed to continue the roll-out to the enterprise.

In FY 2012, VA received authority to fund the resident engineering staff that provides oversight to projects under construction from the major construction program. By transferring the cost of the resident engineering staff from the General Administration Appropriation to the major construction program, CFM is now able to hire additional staff necessary to support the increased workload. Efforts have been on-going to hire sufficient project managers, realty specialists, contract specialists, planners, and support staff to address the increased workload. This will continue well into FY 2013.

In conjunction with bringing on significantly more staff members, CFM has been putting into place new training requirements, particularly for FAC-C and FAC-P/PM. Currently, all contracting staff and senior resident engineers (SREs) are required to have FAC-C credentials. Nearly all contracting staff has received level III warrants, and SREs are required to be at least level I warranted, with many pursuing level II warrants.

Project managers and realty specialists are required to be FAC-P/PM level III certified. Currently, over half of CFM project managers are FAC-P/PM level III certified. Another 20 percent are completing the final stages by completing Capstone or awaiting supervisory certification. Other significant training is required for proper usage of the IT systems that CFM uses to manage and track its projects, including the project management system, FMS (VA's Financial Management System) and eCMS.

OALC has awarded a contract for training and coaching for project managers in the major construction program. The training will focus on strategic thought and decision-making and will be coupled to a coaching program focused on development of the project managers from doers to managers. The effort will last for one year and includes individual and group coaching sessions.

4.4.4 Actions Planned

Review of the procurement of medical equipment and design to affect a more efficient process that allows state-of-the-art medical equipment to be procured with minimal impact (cost and delay) to the construction project. VHA expects completion by December 1, 2012. Owner: VHA, Mr. N. Doyle.

Develop common metrics for reporting all construction project data into a dashboard for CRC review and to establish agendas for future meetings. This will communicate and exchange data with the new SAT meetings. CFM expects completion by October 1, 2013. Owner: CFM, Mr. D. Milsten.

Automate construction processes to ensure consistency and compliance with best business processes. CFM will undertake a study to ensure that there is a systems approach to software and that the software will work from a common platform, allowing maximum data sharing. CFM anticipates completion by July 1, 2013; the contract to conduct study was awarded in September 2012. Owner: CFM, Mr. D. Milsten.

4.4.5 Anticipated Results

The results of increased attorney support to the major program, along with the VAAR deviation for the CO to execute modifications up to \$250,000 without pre-award counsel review, will reduce the time to execute modifications. The ability to issue modifications in a timely manner will reduce the delays caused by cost claims by the contractor and allow efficient and orderly execution of the construction.

The fielding of an enterprise construction management software system will allow consistent reporting for all construction programs. Allowing data exchanges to the new SAT will ensure consistency with planning and execution. Consistent reporting will allow for system-wide review of trends, better definition of contract issues, timely management of contract actions, and increased leadership oversight of the programs. The software will also increase collaboration between VA, customers, the designer, and

the constructor. The ability to use electronic communications and collaboration tools will reduce shop drawing processing time and requests for information (RFI) turnaround times. The reduction of turnaround times will reduce delays in construction.

The creation of an integrated data management approach for construction data will allow for efficient information transfer in real time. The integrated approach will also minimize data entry and allow for data capture at the source, increasing data accuracy. The increase in data accuracy and reduction of double or triple data entry will improve staff efficiency.

The efficient and coordinated procurement of medical equipment for construction projects may result in fewer delay claims during the construction execution phase. This coordination will allow state-of-the-art medical equipment to be purchased as late as possible in the construction without affecting cost and time.

The establishment of common leading indicator metrics for construction will allow greater leadership oversight. This will be achieved through dashboards at the administration and staff office levels that will allow quick identification of problems on programs and projects.

While direct project cost savings are at times difficult to attribute to training, VAAA is compiling reported cost savings from our stakeholders that they have documented as a result of the FAC-P/PM training initiative. Return on investment, for this PMIP initiative, has been documented in several formats: cost savings, cost avoidance, and improved efficiencies and productivity. One notable example comes from a recent participant working on a complex capital asset management project that has been affected by several major challenges over the years. The project involved the transfer of real property and involved Federal and State agencies as well as Veteran stakeholder groups. As an outcome of the FAC-P/PM training action plan, the participant developed an integrated management plan and a cost/budget plan using earned value management. *“We’ve made a significant turnaround with these improvements,”* he stated. *“As a result, the IMP was developed and implemented and delayed tasks have been put back on track with active engagement by all key stakeholders ... we are pleased to report that this \$200 million Base Realignment and Closure property acquisition and \$200 million major construction project has been put back on track, and we have received external stakeholder buy-in. The take-away from the FAC-P/PM training certainly contributed to our success.”*

VHA recently established a Health Care Program Executive Office (PEO) charged with establishing programs to standardize acquisition of health care requirements. VHA implemented the VAAA’s Enterprise Program/Project Management Training Model within their PEO. The VHA PEO achieved \$320 million in program savings. To date, VAAA is supporting over eight major health care initiatives across the

country, as well as four other major VA program initiatives. The pace in which these project teams are developing their management artifacts is now far exceeding their past performance. One program team, the Integrated Operating Model (IOM), had a direct cost savings of over \$2 million as a result of the competencies acquired, and workshop deliverables from the project acceleration workshop. Prior to the workshop, these skills and artifacts were contracted out to a firm that provided this expertise.

While the traditional training model will continue to be a critical component in developing the sustainable competencies required to become a successful project professional, complex programs under the watchful eye of Congress require an immediate focus on performance improvement, not simply competency development. The combination of building individual competencies through training and continued support of teams through project acceleration workshops as teams build experience delivers success today while building a long-term PM culture and capability.

5.0 Conclusion

The CRC has concluded the initial briefings and has developed an understanding of the construction process, challenges and required improvements. The CRC appointed the Principal Executive Director OALC as the CRC single point of responsibility for construction for VA. The CRC directed a number of actions and issued requests for additional information during the CRC meetings between April 2012 and August 2012.

The Principal Executive Director OALC shall maintain an Action List (Initial Action List is included in Appendix F) and submit updates on the progress to the CRC on a monthly basis beginning in January 2013. These reports shall be monthly and provided to the CRC electronically.

The Principal Executive Director OALC shall also schedule quarterly meetings with the CRC. These quarterly meetings shall commence in January 2013. The quarterly CRC meetings shall review progress on Action List items, construction progress, and provide updates on the health of VA's construction program.

The Principal Executive Director shall task organizations to prepare and present information to the CRC related to construction programs.

Appendix A: Construction Review Council Charter

DEPARTMENT OF VETERANS AFFAIRS (VA)

CONSTRUCTION REVIEW COUNCIL CHARTER

1. Values: The Department of Veterans Affairs (VA) establishes the Construction Review Council, hereafter referred to as the Council, to improve the timely delivery of first-rate facilities to better serve our Nation's Veterans. VA bears the responsibility to manage all projects efficiently, meet deadlines, and be good stewards of the resources entrusted to it by Congress and the American people. Major construction projects, clinics, and other facilities that VA builds and leases are part of our ongoing commitment to care for our Nation's Veterans.

2. Background: In the last decade, VA has experienced dramatic growth in its real property capital programs. In fiscal year (FY) 2012, the program included \$12.7 billion in major construction, \$3.8 billion in minor construction, and \$4.2 billion in facility leases. Over 960 construction and lease projects were in various stages of design, construction or acquisition. VA has also undertaken the simultaneous design and construction of six new hospitals. Throughout this decade, shortcomings have also been evident. Government Accountability Office, VA Office of Inspector General, and internal VA reviews have found systemic and/or individual deficiencies in a range of areas, to include cost estimating, project design and scope, contract management, and program oversight.

VA has done much to improve agency performance including: (a) the creation of a comprehensive capital planning, review and prioritization process called the Strategic Capital Investment Program (SCIP); (b) a re-engineered master planning process and post occupancy evaluation; (c) automated planning and business systems; (d) rigorous budget review inside VA and with the Office of Management and Budget; (e) engagement of third-party architecture and engineering and construction management firms to provide expert review of construction plans and execution; (f) the use of full and open competition and best value acquisition strategies; (g) a reorganized facilities management capability; (h) extensive training and certification of more than 50 construction project managers; and (i) authority to use program funds to pay for resident engineers needed to increase VA's oversight and management of complex projects.

To further improve the Department's performance in executing its real property capital programs, VA must have the ability to adequately and consistently describe the root causes of deficiencies and ensure VA leadership and the Congress that the root causes are being addressed. More preferable is for VA to anticipate and avoid such deficiencies through greater oversight of the construction and leasing program to ensure that projects meet the cost, schedule, and functional requirements to fulfill Veteran needs. Therefore, the Secretary of Veterans Affairs established the Construction Review Council, to periodically review the Department's development and execution of its real property capital asset programs.

Page 2.

Charter: Construction Review Council

3. Purpose and Scope: The primary purpose of the Council will be to serve as a single point of oversight and performance accountability for the planning, budgeting, execution, and delivery of VA's major construction and lease projects, to include:

- a. Requirements development;
- b. Budget analysis and capital investment planning (SCIP);
- c. Authorization and appropriation;
- d. Acquisition strategy;
- e. Project design and architectural peer review;
- f. Construction, execution, and delivery;
- g. Activation;
- h. Repurposing/divestiture;
- i. Synchronization of VA capital program activity throughout the Department; and
- j. Stakeholder engagement and communication.

The Council will serve to align strategic objectives and decision-making on VA's Major Construction and leasing programs. The Council will also assist the Secretary in the periodic review and life-cycle evaluation of VA's major construction and leasing programs, from requirement identification to facility activation. The Council will identify, develop, and take actions to improve the efficiency and effectiveness of the programs.

The Council will also review the Department's construction management program responsibilities, to include those of the Office of Construction and Facilities Management (CFM) and make specific recommendations to ensure:

- a. focus is on risk management activities and the interface between VHA, VBA, and NCA, and OALC;
- b. internal decision-makers align around Veteran access and taxpayer accountability; and
- c. accountability improves throughout VA, and better utilizes the contracting tools and mechanisms to ensure on-time and within-budget delivery.

4. Membership: The Council will be chaired by the Secretary of Veterans Affairs, and be comprised of:

- a. Deputy Secretary;
- b. Chief of Staff;
- c. Under Secretaries;
- d. Principal Executive Director, OALC;
- e. Executive Director, CFM;
- f. Assistant Secretary for Management;
- g. Director, Office of Asset Enterprise Management;

Page 3.

Charter: Construction Review Council

- h. Assistant Secretary for Human Resources and Administration;
- i. Assistant Secretary for Information Technology;
- j. Assistant Secretary for Policy and Planning;
- k. Assistant Secretary for Congressional and Legislative Affairs;
- l. General Counsel; and
- m. Assistant Deputy Under Secretary for Health for Policy and Planning, VHA.

The relevant Veterans Integrated Service Network and VA Medical Center Directors as well as relevant construction program executives and senior resident engineers will participate as required.

5. Meetings and Operations: The Council will meet at least quarterly, or more frequently as directed by the Secretary, and an agenda will be prepared for each meeting. Each meeting will include a detailed functional area review of all project components to coordinate actions required by all program participants.

Meetings will focus on the acute needs of the Department to provide a transparent assessment and remediation plans for projects, as necessary, as well as the strategic requirements to improve planning, implementation oversight, and in-house training that would mitigate risk in the future.

6. Council Support: OALC will provide staff support to the Council. This includes coordinating meeting venues, developing and publishing an agenda, arranging briefings, preparing meeting minutes, and coordination of action item completion.

Approved:



JUL 5 2012

Eric K. Shinseki
Secretary of Veterans Affairs

Appendix B: VA Capital Program Reviews

Capital Asset Realignment for Enhanced Services

In 1999, VA commissioned a study of health care facilities, initiated by a 1999 General Accounting Office (GAO, now known as the Government Accountability Office) recommendation that VA develop market-based plans for realigning its capital assets. The Capital Asset Realignment for Enhanced Services (CARES) study, conducted by an independent commission, primarily focused on the realignment of mission and services. VA received the study in 2004, and, once accepted, the reinvestment in health care facilities began. The results of this study formed the strategic planning framework or capital planning for VHA from 2004 through 2010. At the time of release, the study stated that implementing CARES recommendations would cost \$1 billion per year (for major construction alone) for the foreseeable future. This funding level was never realized.

Even with Congress's investment of \$8.6 billion¹ in VA's major construction program over the last nine years, VA has seen facility conditions in the \$105 billion asset² inventory continue to deteriorate as the facilities age. The average age of facilities is approaching 60 years.³ Medical technology, treatment protocols, and new advanced procedures have also strained the infrastructure. The footprint and structure of older facilities do not provide for efficient use of space for these advances, which include programs for female Veterans, traumatic brain injury programs, spinal cord injury programs, and telemedicine. These factors, along with an increase in workload since the CARES projections, continue to stress the capital and absorb facility dollars.

In the years leading up to 2004, VA saw a construction lull as Congress appropriated minimal dollars in anticipation of the CARES study. VA was engaged in a caretaker status, with only \$1.9 billion invested in major construction for all facilities in the 10 years prior to CARES. This lull in major replacements and renovations resulted in a drawdown of the engineering and construction staff through retirements and reduction-in-force activities, with the result that, as VA embarked on implementing CARES, a significant number of experienced staff had left VA. The in-place processes and procedures that focused on control and oversight were successful on smaller major construction projects; however, they have not always proven to be as successful on the replacement medical center projects in which VA is currently engaged.

¹ Includes the Hurricane Supplement.

² See CRC Report Table 1 for VA's asset inventory.

³ See CRC Report Figure 4 for asset aging.

Construction Advisory Board Review

In April 2005, former Secretary Nicholson assembled a committee of professionals from private industry, recognized for their expertise in construction and facilities management, to recommend potential improvements for VA's construction program. Shortly after former Secretary Nicholson took the helm of the Department, several proposals for multimillion-dollar projects were submitted for his approval. Because the preliminary work on these proposals took place under former Secretary Principi, Secretary Nicholson wanted to learn more about these projects. In April 2005, Secretary Nicholson established a committee, the Construction Advisory Board, to advise him on VA construction matters and to help him learn what worked and what could be improved in VA's construction program. The Board was divided into three teams. The first team looked at organization and structure; the second team evaluated programming of projects, design approval, and planning; and the third team investigated project execution, contract management, and quality.

Per the charter of this Federal Advisory Committee, the Secretary asked the Board to provide a report on the following: 1) how building requirements are generated; 2) how the process for approving designs works; 3) how procurement of construction is done; 4) how contracts are administered after award; 5) quality assurance; 6) construction management; 7) utilization of redundant and excess facilities, and 8) organizational structure and personnel of the Office of Facilities Management. The current CRC reviewed similar areas for their report. Two items remain open from the Board and the CRC reviews and are dependent on funding available to reduce the backlog of NRM projects and update the space and equipment planning system, which requires IT resources to accomplish.

Government Accountability Office Findings

GAO performed a review of VA's construction program from 2008 through 2009,⁴ looking specifically at cost increases in project schedule slippage. GAO reviewed 32 projects and identified 18 projects that had cost increases.⁵ GAO did not report on contract cost growth, instead focusing on the project cost growth. The estimated cost of a project includes contingencies that are typical in project budget estimates for capital projects and includes a market condition allowance and design contingencies to cover uncertainty in the project. There were three recommendations made by GAO. First, GAO recommended the use of an integrated master schedule for all major construction

⁴ VA Construction: VA is Working to Improve Estimates, but Should Analyze Cost and Schedule Risks, GAO-10-189, December 2009, at <http://www.gao.gov/products/GAO-10-189>

⁵ VA projects typically involve at least two vendors. At a minimum, VA contracts with the designer, or A/E, who develops the plans and specifications for the project and with the builder who constructs the project.

projects. Second, GAO recommended that VA conduct a schedule risk analysis based on project cost, scope, or complexity. Third, GAO recommended that VA conduct a schedule risk analysis for major construction projects when appropriate based on cost, complexity, schedule, and other factors.

VA has adopted all three recommendations and has conducted cost risk analysis and schedule risk analysis on all complex major construction projects. Cost and schedule risk analysis are now project management deliverables on major construction projects. VA has engaged third party support to assure VA has the staff knowledge to properly conduct the reviews and manage the mitigation plans.

GAO was critical of the lack of thoroughness of VA estimates for the initial submission of the CARES program budget for major construction projects. Noting that estimates prepared to support the CARES program should have taken months to develop, some estimates were done in six weeks to meet budget submission requirements. GAO acknowledged that VA has taken steps to improve cost estimates by improving the initial assumptions or design for a project before it moves into the budget. A new process will start with the FY 2014 budget cycle; all new major construction projects will be designed up to 35 percent design documents to ensure a full scope and more accurate cost before being submitted into the budget request. For example, FY 2014 new SCIP major construction projects will be reflected in the FY 2015 budget request for projects being sought for full design funding.

GAO noted that VA should also include cost and schedule risk analysis to gain an even greater degree of accuracy. VA has amended the A/E contract for major construction projects to include the requirement that the contractor conduct a schedule and cost analysis to identify risks. VA project managers also prepare integrated master schedules that are evaluated to identify risk. Risk mitigation plans are prepared to facilitate mitigating the identified risks.

Construction Industry Institute Study

The Construction Industry Institute (CII), based at the University of Texas at Austin, is a consortium of owner, engineering-contractor, and supplier firms from both the public and private sectors. The CII works to enhance the business effectiveness and sustainability of the capital facility life cycle through research, related initiatives, and industry alliances. A learning organization with a wealth of knowledge and information, the CII is unique in the engineering and construction industry.

VA has entered into a study through CII to benchmark the cost for health care facility construction. The study will examine health care construction cost for DoD, Kaiser Permanente, and VA. Additional private health care organizations will be invited to participate to maximize the data sampling. Phase 1, Framework Development and Questionnaire Launch, is nearing completion. Phase 2, Reporting System and Data

Mining Launch, will run through late 2013. Once the study is complete, the CII will maintain the data collection and data mining systems for ongoing use.

Appendix C: VA Facilities Management Transformation Initiative

In early 2009, VA identified the need for transformative change to drive the Department into the 21st century. Change initiatives were identified throughout the Department and the VA Facilities Management (VAFM) Transformation Initiative was included as one of the Secretary's major initiatives. The inaugural kick-off for VAFM began in October 2010. VAFM is led by CFM on behalf of the Secretary, championed by the Deputy Secretary, and consists of members from each VA Administration and Staff Office with a direct or indirect effect on facility management.

The primary efforts of the initiative are focused on creating transformational change in life cycle facility management by identifying and executing change that increases speed of delivery; aligns VA facility management with industry and government best practices; deploys enterprise solutions; and creates a culture that supports innovation in facilities. The National Institute of Building Sciences (NIBS) was enlisted as the primary consultant. NIBS supports the efforts of the action team (VA employees) with subject matter experts (SMEs) working hand-in-hand with the action team to benchmark best practices, study processes, and formulate plans for transformation. NIBS also assembled an advisory committee composed of health care and construction executives to provide guidance to VA.

The action team tasks included benchmarking with private industry and government agencies involved in health care facility planning, design, construction, and operations to inform VA processes relative to best practices in the industry.

Goals

Provide enterprise-wide processes to plan, design, construct, and manage facilities supported by appropriate resources. Migrate to a measurable building performance-related environment.

Objectives

Enterprise Solutions

- Establish critical capacity and capability to support VA's mission.
- Improve performance using standardized structures and processes.
- Integrate facility management functions.
- Leverage resources across the enterprise.
- Use enterprise-automated information systems.
- Lead the industry in facility life cycle management.
- Establish an innovation incubation process.
- Create a learning environment.

Planning, Design, and Construction

Balance facility investment with high quality services for Veterans.

Plan for and incorporate total cost of ownership (TCO) in planning and design decisions.

Establish project manager-led integrated teams that address TCO for the delivery of facilities.

Optimize life cycle performance through project planning, programming, and execution.

Operations and Maintenance

Provide facility-engineering input in development of standards.

Maintain a safe and secure patient-centered environment.

Provide training.

Ensure facility data integrity.

Implement building performance measures.

Implement best practices for operations and maintenance (O&M) processes.

Findings and Initiatives

The VA Action Team identified/verified four critical areas for program improvement:

1. The need to move to schematic design level or 35 percent design before estimates of cost or construction durations are made public, as a path to increased speed to delivery.
2. The need for comprehensive master plans, as a necessary product for increasing speed.
3. The need for a training component to support the transformational changes that would be required. Training should encompass practical application and education leading to job specific improvements.
4. The need for enterprise information management systems to be developed and deployed for all construction programs. VAFM identified construction project management software, advance survey software, and the implementation of BIM as cornerstones of the enterprise data solutions required to manage construction programs efficiently.

Integrated Planning Process

The first VAFM initiative to be piloted was the Integrated Planning Process. These integrated service and facilities plans were developed on the VHA VISN footprint

and include all VA assets, not just health care facilities, in the VISN. The initiative was piloted in VISN 1 and VISN 17. These VISNs were selected for the varying conditions of each VISN 1 with a declining Veteran population and VISN 17 with increasing enrollment. The master plans are based on market service demand projections provided by each Administration (VHA, NCA, and VBA). The planning effort assesses the existing delivery model and facility locations and functionality with Veteran population data and projected service needs for the VISN.

The effort considers all VA space in the VISN footprint, including NCA and VBA space needs and requirements. The market area service-delivery planning effort results in market-driven goals and workload allocations. The data are used to develop strategies for aligning needs with the delivery of services. These strategies guide the creation of Capital Facility Master Plans by each Administration for each owned facility, with both capital and non-capital solutions, to meet Veteran needs. Capital-based solutions are further developed in the facility plan for each property in the footprint. Facility plans identify capital projects that will then feed into the SCIP for prioritization. If ranked sufficiently high, major construction project development work will begin advancing through schematic design.

The business owners are the Administrations, and the process is led by an enterprise-wide VAFM team. CFM has piloted the process and is in the stand-up phase for enterprise deployment. The plan calls for performing planning studies for one-third of the VISNs every year. This will allow plans to reflect changes in population, facility conditions, projections, and technology changes, ensuring project lists are current and accurate.

Project Management Plan

The second initiative is the establishment of a common format and methodology for the development of a Project Management Plan (PMP). Prior to this effort, PMPs were not standardized, and there was no established enterprise directive to implement PMPs. This effort established a common format and is piloting the format on a combination of five major and minor construction projects:

- New multi-specialty outpatient clinic and renovation of Building 86 at Walla Walla, Washington.

- New clinical care tower, seismic corrections, and renovation of B500 for West Los Angeles, California.

- Replacement Medical Center at Omaha, Nebraska.

- An upgrade of Building 1 for seismic, life safety, utility corrections, and clinical expansion at Reno, Nevada.

- New outpatient clinic building, new community living center, and renovation of Buildings 1, 2, 3, 4, and 9 at Canandaigua, New York.

Lessons learned from testing the PMP will help to inform and improve this document. Use of a standardized PMP has been adopted for the major program. Testing continues on smaller projects to assure the PMP is scalable, i.e., does not require more effort than the project requires. The pilot also included preparation of requirements for automating the process. The automation effort is on hold because IT budgets are not likely to support the effort.

Post Occupancy Evaluation

The third initiative is the establishment of a post-occupancy evaluation (POE) process. VAFM executed a pilot POE program for five facilities involving six projects across all Administrations. In addition, VAFM investigated a software tool for collecting, data basing, referencing, and analyzing POE findings. NIBS is adapting a tool for POE of health care facilities similar to one originally developed for GSA. The selection of projects was under the direction of a VA workgroup, consisting of over 18 representatives from all VA Administrations, and a NIBS team of A/E professionals and SMEs. Between September 1, 2011, and January 31, 2012, an additional NIBS A/E team conducted six pilot studies at the five facilities and prepared full reports for VHA, NCA, and VBA facilities. The following six pilot projects at five sites comprised the POE pilot program:

1. National Cemetery of the Alleghenies, Bridgeville, Pennsylvania (major)
2. Expansion and consolidation of the ambulatory surgery and GI suite, VAMC, Wilmington, Delaware (minor)
3. New eye and GI clinics and expansion of mental health clinic, VAMC Durham, North Carolina (minor)
4. Consolidation and modernization of inpatient space (new bed tower pavilion), Jesse Brown VAMC, Chicago, Illinois (major)
5. New outpatient clinic, Alaska VA Healthcare System, Anchorage, Alaska (major)
6. VBA Regional Office Building, Alaska VA Healthcare System, Anchorage, Alaska (major)

The POE site visits received a very positive reception and full cooperation from the Administrations' facility staff. This effort resulted in valuable information and data of substantive benefit for POE program development and for standards, design, and operations of the project sites.

There are many benefits to conducting POE and capturing lessons learned. The new VAFM POE program can provide a systematic method for assessing the impact of past decisions and using these assessments in future decision-making. Establishing this program will require inter-Administration collaboration, leadership from both senior executives and program managers, and a willingness to learn from successes, failures, and the preponderance of cases that fall in between.

The POEs will continue to be conducted annually on all major projects that have been activated for at least 6 months but no longer than 18 months. Minor construction projects are being discussed to be part of the POE program. Due to the major construction threshold and funding requirements, all costs associated with minor projects must be within the total project cost, which includes costs associated with POE. Therefore, Administrations need to balance the advantages of the POE costs with the requirements under construction and design to determine if a POE can be afforded and remain in compliance with legislation. The FY 2013 POE project list is currently under development.

VAFM School

VAFM also established a VAFM School. On May 28, 2011, the memorandum of understanding (MOU) between the Office of Human Resources and Administration (HRA) and the OALC was signed, thereby establishing the VAFM School. VA Learning University (VALU) provided initial funding support of \$5 million to establish the school and deliver capability. Sustainment of the school's vice chancellor and training program managers will be funded by CFM and the Administrations.

The VAFM School is one of four schools administered by OALC's VAAA. Plans are underway to hire a vice chancellor and program manager; both will be located at the VAAA's campus in Frederick, Maryland. Included with the MOU was the VAFM School Governing Board Charter. The VAFM School Board has been delegated responsibility and accountability for governance of the VAFM School by agreement between the following VA sponsoring organizations: HRA, OALC, VBA, NCA, and VHA.

Through this leadership support, the VAFM School has begun to develop a multi-modal delivery of comprehensive curricula of educational programs and courses relevant to VA's capital and the total health care environment. This fiscal year, the VAFM School has provided the following training resources to all facilities management and construction employees:

VAFM established a relationship with the International Facility Management Association (IFMA) that allows VA employees to register and take online courses from IFMA, including training critical to certification as a Facility Management Professional. IFMA was a significant driver in the Federal Buildings Personnel Training Act (2010), which requires certification of government facility management staff.

VAFM established a relationship with the Construction Management Association of America (CMAA) that allows VA employees to register and take online courses to develop their construction management skills. CMAA is the construction management industry certification granting association.

Their training will equip VA staff with best industry practices and support VAFM's move toward establishing best practices in process and procedures.

VAFM contracted with Enterprise Training to provide online courses and webinars that are approved for professional license continuing education requirements and endorsed by many accrediting professional organizations.

VAFM obtained an OSHA-certified vendor to provide online training for the OSHA cards. This is required training for VA construction management staff. The VAFM School leveraged its buying power to buy OSHA training in bulk, reducing administrative costs and ensuring enterprise-wide standardization.

Training, as it is developed, will be aligned with the VALU-funded competency study from 2010-2011 with Booz Allen Hamilton. Ten VAFM occupational areas were identified in the study and competencies and training maps were developed. VAFM School curriculum will also be aligned with the recommended curriculum of Public Law 111-308, The Federal Buildings Personnel Training Act.

Information Systems

VAFM recommended a move to enterprise-wide information systems to facilitate data-driven decision-making and the ability to measure and monitor performance. VA assisted by NIBS, prepared requirements documents to support an enterprise-wide construction program management system, systems to support master planning, and systems to manage processes and procedures at the enterprise level.

The construction management system was procured in 2012 and configuration is underway. The program will first be deployed on six major projects. Following the deployment and the purchase of additional licenses, the system will be deployed to the remaining major projects. The minor and NRM projects will follow, with lease projects the last to be deployed. The system provides a collaborative environment for the owner, A/E, constructor, and construction management team. The system will provide dashboard capability to facilitate oversight of construction programs.

A system to manage and house construction process and procedure documents is being developed as a service, because IT dollars are not available to fund the development of an in-house system. The VAFM team identified a Department of the Navy Business Management System (BMS) that provided the required capability. The BMS is a government-owned product that the Navy transferred to VA. The system runs on a platform that is sun-setting, and successful configuration of the system could not be accomplished.

IT funding remains a challenge for the automation of construction processes. VAFM will be engaging NIBS to reconsider the IT issues and ensure that an integrated

approach to automation is maintained, recognizing that as the new system is brought online new technologies continue to develop.

IT development in the construction arena continues to expand with BIM. The construction industry has agreed to standard data transfer protocols that allow products to work with BIM. The construction industry continues to advance IT to support construction. Many products are being developed for tablets and handheld devices. For example, innovation at the construction site of the Giants/Jets new sports complex in New Jersey had drawings replaced with BIM stations situated on each level of the project. Workers simply printed the information needed for that day's work. This ensured that accurate information reflecting any design revisions or modifications was in the hands of the craftsmen.

Automation of construction process for VA will be a multi-year process. The emphasis will be on commercial off-the-shelf products. VHA and CFM are deploying commercial software with no customization and examining and modifying business practices to work with the software. Generally, commercial products are built around industry best practice, as evidenced by private construction projects demanding software that reflects industry best practice and requires minimal customization.

Appendix D: Construction Review Council Meeting Summaries

A review of VA's construction program was initiated in April 2012, when the Construction Review Council (CRC) was established with SECVA, DEPSECVA, COSVA, Under Secretaries, and Assistant Secretaries, as well as key leaders across the Department. The CRC's objectives are to increase accountability and speed in delivery; establish an enterprise process; and deliver quality facilities to provide services for our Veterans.

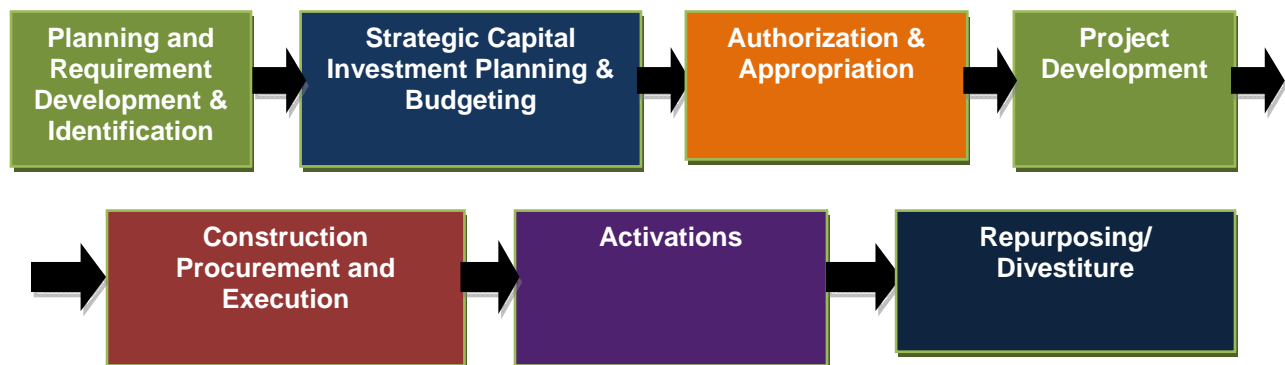
The CRC initial meetings consisted of briefings on the current processes for major construction, minor construction, leasing, and non-recurring maintenance (NRM) programs. Actual projects were used as case studies to review the effectiveness and efficiency of the current processes and procedures. The case studies selected were some of VA's most visible projects. The CRC will continue to review the construction program and receive briefings on action items and additional aspects of the construction program.

Secretary Shinseki chaired nine CRC meetings between April 18 and June 15, 2012, to review the VA construction program and identify challenges that led to changes in scope, cost over-runs, and scheduling delays of major projects.

Major Construction: VA Policies & Procedures (April 18, 2012)

The initial Council meeting held April 18, 2012, examined the construction process. The meeting focused on providing a framework for understanding how a construction project goes from an identified need to an actual facility with space for providing services to Veterans.

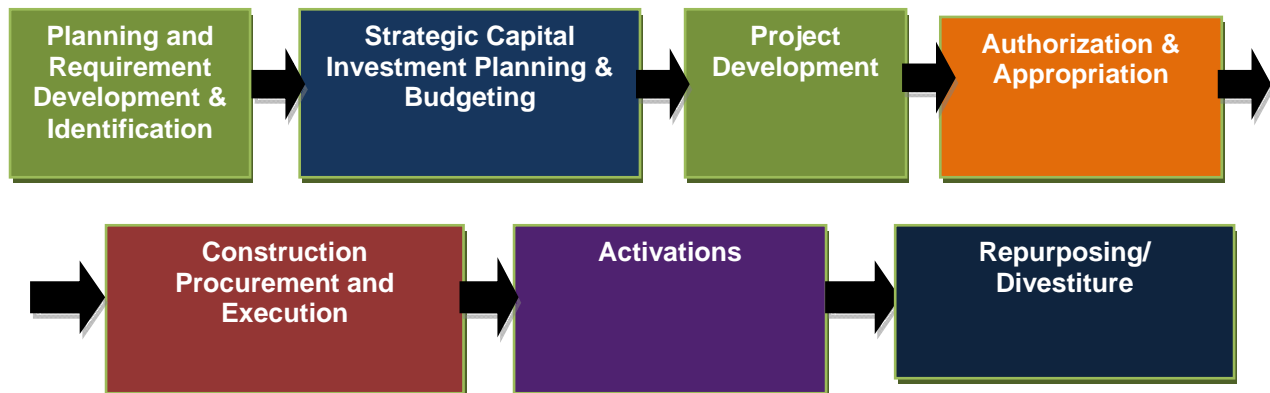
Figure 1: Construction Management Process "As Is State" Flow Diagram



All the phases have inputs and outputs, and the outputs of one phase typically form the inputs for the next phase.⁶ All VA construction programs—major, minor, NRM, and leasing—recognize the same seven phases. Descriptions of the individual phases are detailed below. The “As Is State” (shown in Figure 1) was discussed and served as the context for all case studies.

A clear take-away action from the first meeting was to accept and move to an altered order referred to as the “To Be State” shown in Figure 2. All future discussions of the phases were based on the “To Be State.” The “To Be State” reflects recommendations from VAFM and embraces recommendations from GAO to improve estimates that form project baseline cost estimates. The new order has Project Development before Authorization and Appropriation to allow engineering activities and user group activities to be completed prior to the establishment of the first public estimate for construction. This will reduce the late identification of scope elements, reduce project unknowns, and provide a more reliable cost estimate.

Figure 2: Construction Management Process “To Be State” Flow Diagram



Planning and Requirements Development and Identification Phase

During this phase, the facility (Administration) reviews the gaps and facility deficiencies and begins to scope a project. The facility uses the Health Care Planning Model (HCPM), Facility Condition Assessments (FCA), Capital Asset Inventory (CAI), and other VA facility systems to identify project requirements.

⁶ While the figure shows a linear process, the phases are not truly linear; certain activities must overlap other phases. For example, while Activations is listed following the Construction and Procurement Execution phase, there are several Activation activities that begin in the Planning and Requirement Development and Identification phase.

Figure 3: Planning and Requirements Development and Identification Phase



The facility then examines the workload projections and prepares a forecast of needs. VA is using a market area service-delivery approach to assure access and utilization. This approach minimizes the duplication of services in nearby facilities.

VA engages in thorough and continuous analyses of many factors when planning for Veteran health care delivery in communities. These factors include projected total Veteran population, Veteran enrollee population, and utilization trends over a 10-year planning horizon with a 20-year consideration. One of VHA's primary tools for development of requirements is the HCPM. HCPM projects the number of Veteran enrollees in a geographic area; the total continuum of more than 50 enrollee outpatient and inpatient health care services, including specialty care; the portion of care enrollees are expected to receive in VA versus from other health care providers over a 20-year planning horizon; and population and demand projections, which account for current Service members and Veterans from ongoing conflicts (Operation Enduring Freedom/Operation Iraqi Freedom/Operation New Dawn) and include gender-specific health care needs.

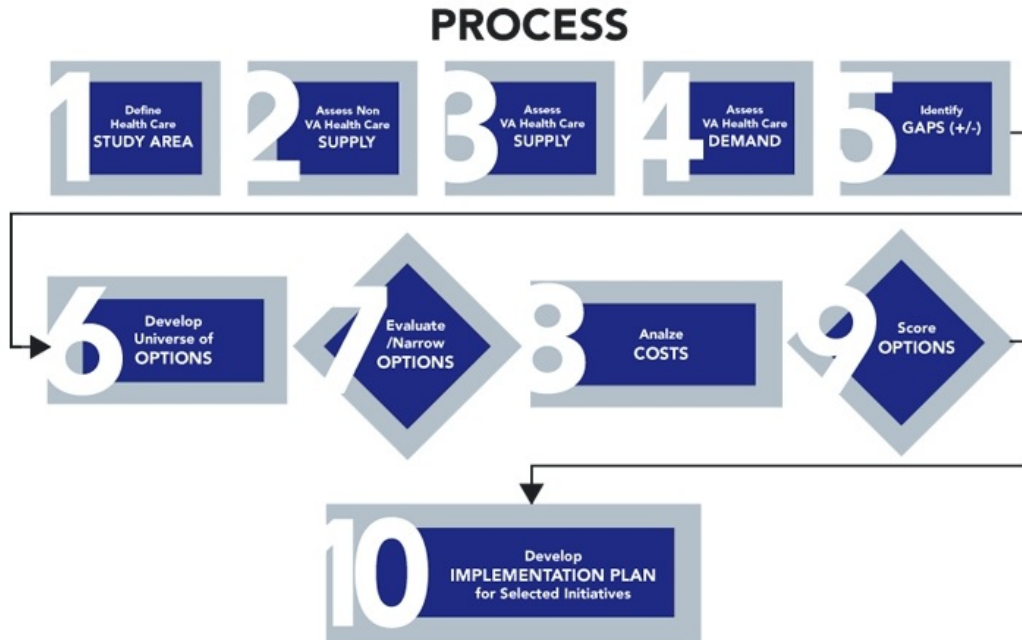
Using VHA's HCPM, a proactive assessment of Veteran health care delivery needs is performed based on these projections and on criteria such as existing and planned points of service (both VA and non-VA), geographic access standards, market penetration, cost effectiveness, waiting times, and other unique factors (such as whether rural or minority Veterans will benefit). The HCPM uses a live portal for systematic data analysis and data entry. The appropriate data sources are built into the portal to maximize the time VISNs spend in analysis rather than data gathering.

The HCPM identifies the Veteran population and the comprehensive health care needs of Veterans in VISN markets over 5-, 10-, and 20-year planning horizons and, through its methodology, provides an approach to developing strategies to meet those needs.

The HCPM utilizes a standard 10-step methodology, as seen in Figure 4. Market-level analyses and gap identification/selection are primarily performed in Steps 1

- 5. In Steps 6 - 10, VISNs identify health service gaps for each market and begin to develop and evaluate options to address individual and/or combinations of strategic gaps, ultimately choosing initiatives to address these gaps.

Figure 4: HCPM 10-Step Standard Study Methodology



Identifying appropriate locations to site VA health care facilities requires extensive analysis of a multitude of factors. Through the Access Expansion Plan, which has been integrated throughout the HCPM, VHA uses an approach that targets areas where data has shown there to be both limited geographic access to care and a projected increase in demand for primary care and mental health services. One of the tools used by the Access Expansion Plan is a geographic information systems (GIS) portal. This web-based mapping application enables evaluation of geographic access to VA health care services using summarized geo-coded enrollment data, along with travel-time bands around VHA service sites. The GIS portal also identifies urban and highly rural areas, Federal collaboration opportunities (e.g., military treatment facilities, Indian Health Service providers, and Federally Qualified Health Centers), relevant cities and places, and geopolitical boundaries. Based on this annual proactive evaluation of geographic access to care and projected health care demands, VHA then develops plans for meeting the projected demand for services.

Health care delivery plans resulting from the assessment identify the mix of services to be provided, the sites and modalities for delivering services, and inform space requirements for capital planning. Planning results (sites, modalities, space) feed the SCIP process.

Facility condition assessments (FCAs) are also an important contributor to the identification of requirements for projects. FCAs are performed by a multi-disciplinary team of architects and engineers, working closely with and receiving valuable input and assistance from facility engineering staff.

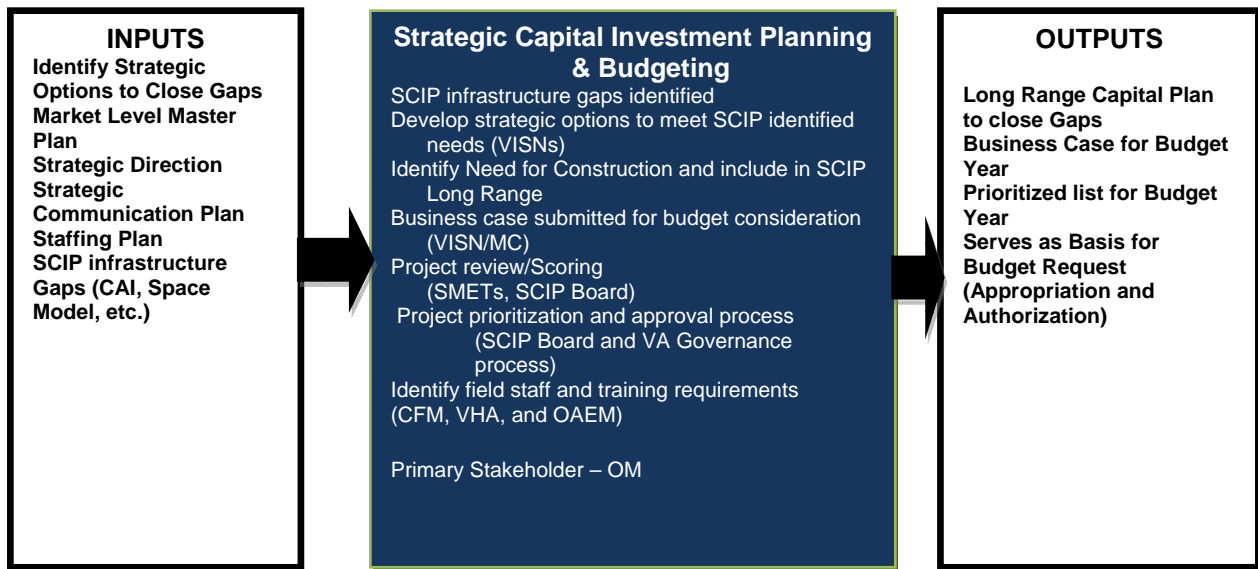
Prior to 1997, there was no centralized or uniform approach to condition assessments. In 1997, one Veterans Integrated Service Network (VISN) requested technical assistance from CFM's Consulting Support Service (CSS). The result was a standardized approach to FCAs, conducted under the leadership of CSS in conjunction with each VISN.

FCAs are done on a rotating basis, with each VISN's facilities being evaluated every three years. The facilities attributes are graded from A through F, similar to a report card, with the deficiencies rated D and F receiving correction costs. The information gathered during each FCA update is put into an FCA database for each facility, identified by building, system, condition, correction costs, and replacement costs. The costs of identified technical deficiencies, repairs, and replacements provide a guide for planning and expenditure of resources within the VISN. This information enables the VISN to plan, manage, and direct capital resources against identified needs in a consistently managed approach across the VA system. The FCA has enhanced capabilities for management to compare capital facility needs across the VAMCs and VISNs and has proven an invaluable planning tool. It also ensures a uniform basis for system-wide planning decisions and the identification of emergent needs. The FCA process includes owned VBA and Staff Offices. CSS is in the process of implementing a similar system for NCA.

Strategic Capital Investment Planning and Budgeting

Administrations submit capital requirements through VA's Strategic Capital Investment Planning (SCIP) process, which was established for the 2012 budget submission. SCIP is an innovative Department-wide planning process that resulted in the creation of a single, integrated prioritized list of projects from all capital investment accounts (major construction, minor construction, non-recurring maintenance, and leases). SCIP is designed to improve the delivery of services and benefits to Veterans, their families, and survivors by addressing VA's most critical needs and/or performance gaps first, investing wisely in VA's future, and significantly improving the efficiency of VA's far-reaching and wide range of activities. The SCIP process ensures that all resource requests are scrutinized and centrally considered at the corporate level with equitable and consistent distribution across markets and competing capital needs. Each resource request is reviewed against the gap categories described above and evaluated based on its contribution towards addressing identified gaps. This process ensures resources are efficiently allocated to address the most critical gaps.

Figure 5: Strategic Capital Investment Planning & Budgeting



As illustrated in Figure 5, SCIP uses various inputs from across the Department to provide a 10-year strategic plan that allows the Department to adapt to changes in demographics, medical and information technology, and health care and benefits delivery, while at the same time incorporating green building technologies, sustainability, and other capital enhancements. The major components of SCIP (gap analysis, strategic capital assessment, and specific capital project requirements), action plan validation (through VA SCIP Board and VA governance process), and the development of a central priority list provides the basis for each year's construction budget submission, which includes our annual appropriation and authorization requests.

Project Development

Project Development, as illustrated in Figure 6, is led primarily by CFM for major construction projects and represents the beginning of the design process. The inputs for this phase include properly developed requirements and prioritization indicating that funding is likely in the next two years. The project development phase is focused primarily on getting the project through schematic design and on to the authorization and appropriation phase. It should be noted that design does not stop while waiting for authorization and appropriation to be completed. The design is advanced in the construction procurement and execution phase.

Project development begins with the approved SCIP major construction scope. The team then thoroughly reviews the project requirements, conducts an assessment of additional information required to reduce risk from unknowns, and increases project knowledge, leading to the establishment of a cost baseline and estimated completion date.

Figure 6: Project Development



The next step is to identify where the project will be sited. This may include land acquisition or demolition of existing facilities. As information is needed, additional studies may be conducted, including transportation, electrical distribution, environmental, historic, and archeological impact.

As preliminary scope of the project is developed, the selection process for the A/E team begins. Design contracts are qualifications-based selections and involve negotiations and field-pricing support (audit) of the designer's projected rates and overhead. Audits have resulted in significant delays to construction projects. Defense Contract Audit Agency (DCAA), the primary agency identified to provide auditing services, has been unable to perform audits in a timely manner. VA has engaged VA's OIG to assist and perform audits of contractor proposals. In addition, CFM has secured a class deviation to allow private industry accounting firms on the GSA schedule to perform the audits. This deviation is valid through 2015.

The project development phase sets the stage for later success. Getting the schematic design right allows for timely completion of the design development effort and the construction documents. Having the right requirements incorporated into the documents minimizes the risk of unknown requirements surfacing during construction execution.

Authorization and Appropriations

SCIP identifies the projects that are included in the OMB Budget Request (and later after OMB Passback), the Department's Annual Budget Submission for Construction Programs. This budget submission includes the program-level requests as well as the specific major construction projects that require appropriation and authorization approval. Each major project and lease must provide a project prospectus (in the budget submission) that provides the location, total estimated cost, description, scope, alternatives considered (lease, build new renovate, or other), and cost and schedule details. Current major construction appropriation language requires that all

major construction projects be reviewed and approved through the Congressional budget process. Authorization requirements include that all major medical facilities and leases greater than \$1 million in annual, unserviced rent be authorized prior to obligation of funds. Based on the VA request, Congress will provide the appropriation level for VA construction programs and the major projects and leases that will be funded and authorized. The Authorization and Appropriation process is shown in Figure 7.

Figure 7: Authorization and Appropriation



Construction Procurement and Execution

This section, Construction Procurement and Execution as shown in Figure 8, refers to major construction projects. This phase continues the design effort through preparation of the major construction documents and includes the procurement of a construction contractor and the execution of the major construction project. Project design is sequential from schematic design, design development, and construction documents. Design reviews are conducted prior to moving from schematic to design development and prior to moving from design development to construction documents. The design reviews include three primary elements. The first is a peer review process. A separate A/E firm is contracted to perform a technical review of the design. The peer reviewer will examine the documents for compliance to VA standards and design guides as well as good engineering practice.

Issues with the peer review are the quality of the review and the time allotted for the review. The peer review is typically a two-week process, which has the potential to limit the depth of the review. The peer reviewers, possibly unfamiliar with VA standards, often look only at code compliance issues. The two-week pause for review is balanced against the need to keep the project moving toward completion.

Figure 8: Construction Procurement and Execution



The second element of the review process is a technical review, conducted in parallel with the peer review. The technical review is conducted by CFM's Office of Consulting Support, which is staffed with experienced senior-level engineers and architects familiar with repetitive design errors and omissions and the specificity of VA's guide specifications and design guides. Reviewing designs is not Consulting Support's primary function, so although staff availability for reviews could be a limitation, they are effective at reviewing designs and are available to discuss.

The third element is the presentation to the user or facility. This is a formal process to show the users what the facility will look like and its basic functions. This is also a chance for CFM senior staff to look at the project. Often at these reviews, design choices are presented and options selected.

These reviews represent one of VA's methods to achieve quality design packages and are an important step in advancing a project. There are limits to the reviews. At this time, CFM has not developed metrics to measure the effectiveness of these reviews.

At the completion of the design effort, the construction documents are sent to contractors to prepare proposals. VA uses a best-value selection process, which combines the contractor's price and qualification. Contractors are typically evaluated on their plan to construct the facility, past experience, experience with this type of project, responsibility, and responsiveness to the solicitation. The technical review scores are then matched with proposal prices. A trade-off method is used to select the proposal representing the best value to VA. Once the contractor is selected, they develop a schedule in accordance with the maximum duration stated in the contract and begin construction.

VA provides a Senior Resident Engineer (SRE) on site to oversee construction. The SRE may have a staff of Resident Engineers (REs) and/or private-sector construction managers. The SRE and staff ensure construction complies with the contract drawings and specifications. They also monitor problems encountered during design to determine if the scope of the project requires modification. If modification is needed, the A/E will be engaged to assist with the design solution and the estimate of the impact to the project. The SRE and CO will engage the construction contractor and negotiate terms for the modification.

The SRE will ensure the facility is briefed on the construction schedule, thus avoiding a conflict with facility events or obstruction of the efficient and effective delivery of services to Veterans. At medical facilities, an additional effort with the Activation Team ensures the coordination of medical equipment procurement and delivery schedules. This is a continued engagement of the SRE and the Activation Team.

CRC discussions concerning medical equipment procurement centered on the medical centers' desire to delay procurement to the last possible minute to ensure that the latest technology is provided. However, the construction contractor and A/E need the procurement information to complete the design and construction for the utility rough-ins. The majority of VA construction work effectively manages to balance the latest technologies with the design completion and construction without major delay or cost impact to the project. The issue with medical equipment procurement is when it is not effectively managed, making it a large risk to project timeliness and cost. The CRC directed OALC and VHA to continue to study this issue and develop a process that ensures the technology is provided in a manner that minimally affects the project.

The CRC heard discussion on the need for information management systems that provide for collaborative environments to increase information sharing and speed in data-based decision-making. VAFM also noted that VA information systems for construction did not allow implementation of best practices and hindered effective data sharing.

The CRC and VAFM Action Team discussed the need for a common set of metrics that report on the health of projects and programs. The Monthly Performance Review (MPR) reports contract awards in major and minor construction programs but does not assess time growth or cost growth of contractors or projects.

CFM has implemented integrated master schedules for major construction projects that received funding in FY 2011. CFM is expanding this to all active construction projects. These additional schedules will be truncated. These schedules will serve as the base for evaluating schedule and performance on the project and, eventually, the program level. VA's construction program requires cost-loaded schedules for construction, which are evaluated to determine progress and payment

due. This process is a form of Earned Value Management (EVM) and ensures payment only when acceptable work is completed.

Activation

Activation is the process of identifying, planning, and executing the logistical and operational requirements to bring a physical plant into full planned operations, shown in Figure 9.

Figure 9: Activations



The purpose of the development and implementation of a comprehensive activation plan is to meet four critical objectives: 1) to facilitate achieving the vision and operating priorities established for the project; 2) to manage risks; 3) to ensure delivery processes are effectively planned, coordinated, and executed; and 4) to establish clear communication to internal and external stakeholders.

Although no two projects, activation plans, or schedules are exactly alike, some common elements characterize successful activation processes, including:

- Use Integrated Process Teams (IPT) to ensure cross-functional processes are clearly integrated into activation plans.

- Provide teams with the necessary knowledge and tools to complete their work, including time, space, equipment, and training.

- Consistently and continuously provide real-time communication of project plans and schedules to all relevant internal and external stakeholders.

- Develop and maintain a database of activation issues, questions, and answers, which is accessible to team members and key stakeholders.

- Maintain a history of project starting from proof of concept (dates, funding, approving officials, approval documents, and other).

Assign an Activation Team Leader to coordinate and implement all aspects of the activation plan.

Make timely decisions and communicate them across the enterprise.

Do not underestimate time and resource investments that activation will require.

Adhere to major milestones.

Logistical issues include planning and implementing facility-related aspects of activation. Operational issues include planning for new practices and processes that describe the way the organization will conduct business and Veteran services and patient care in the new physical plant. These processes involve multiple program offices and staff from Central Office, VISNs, and the local facility to ensure successful activation for services and health care. This can be achieved by developing and executing an activation project management plan, including the following:

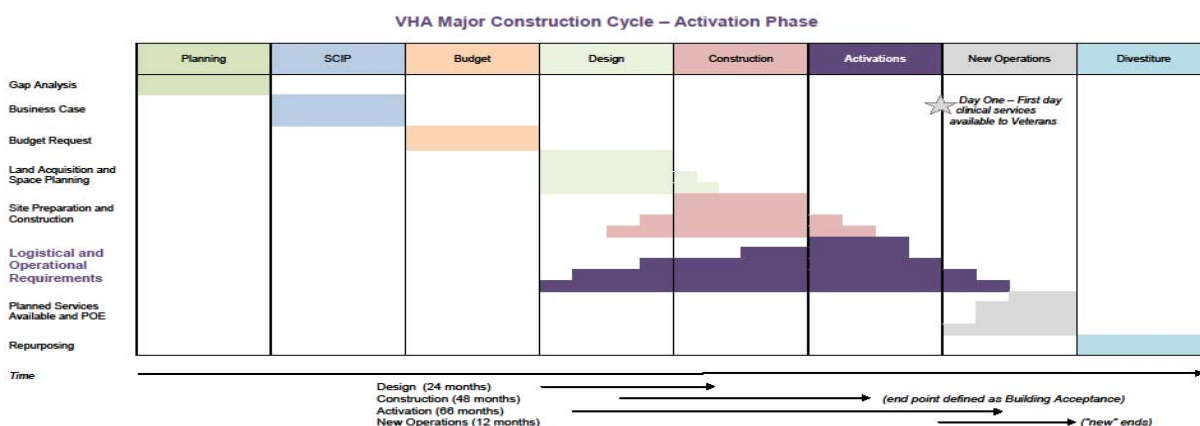
Logistical	Operational
Equipment: selection, procurement, installation	Personnel: recruitment, hiring, credentialing, training
Furniture: selection, procurement, installation	Finance: budget planning and execution
Building: acceptance/readiness for occupancy	Design new clinical operational policies and standard operating procedures for planned services within new physical plant
Supplies: selection, procurement, installation	Design new administrative operational policies and standard operating procedures for planned services within new physical plant
Building testing and readiness	Communications
Signage	Information Technology: equipment, staffing, software
Move-in sequencing plan	Day in the Life and Table-top Exercises
Other	Other

Facility activation consists of a series of processes, conducted over approximately five years, which execute logistical and operational requirements to bring a physical plant to full operation. Construction Completion is defined as the day of building acceptance; Day One of the new facility operations is defined as the first day clinical services are available to Veterans; and New Operations is defined as completed 12 months post-Day One.

Activation activities, such as appointments with Activation Team members and selection of high-cost/high-technology equipment, will occur four to five years prior to the facility being opened to treat Veterans (Day One). The majority of the most noticeable activities in activation projects occur 18 to 24 months prior to and six to ten

months after building acceptance. These activities include furniture and equipment selection and installation, staff hiring, staff training, policy and process development, building testing, and stakeholder communications. The activation phase, within the overall major construction cycle, is highlighted below:

Figure 10: VHA Major Construction Cycle Activation Phase



In November 2011, the Under Secretary for Health, Robert Petzel, M.D., approved a National Activations Office to serve as the focal point for activation advocacy, senior-level advisor to VHA officials, and subject matter expert for field facilities, networks, and VACO program offices. A program director (GS-15), a health system specialist (GS-11), and a program assistant (GS-9) will staff this office. The program director position has been filled; recruitment is pending for the other positions.

In addition to the National Activations Office, an Activations Workgroup, chaired by the ADUSHOM for Administrative Operations, has been chartered to ensure the effective and timely completion of all phases of activations, monitoring project progress and timelines, while addressing systematic barriers and communicating best practices. An Activations Steering Committee, chaired by the Principal Deputy Under Secretary for Health, has been chartered to provide timely guidance and decisions regarding the establishment of significant activation policies, plans, and programs, as well as the development of requirements from program offices.

Monthly conference calls are held with the leadership and Activation Team members from Las Vegas, Orlando, Denver, and New Orleans, as well as respective VISN leadership, to review activation status, address issues or barriers, and share best practices. Work has been initiated with the leadership team at Louisville, Ky., and VISN

9 to identify initial activation requirements, such as, activation team members and initial funding.

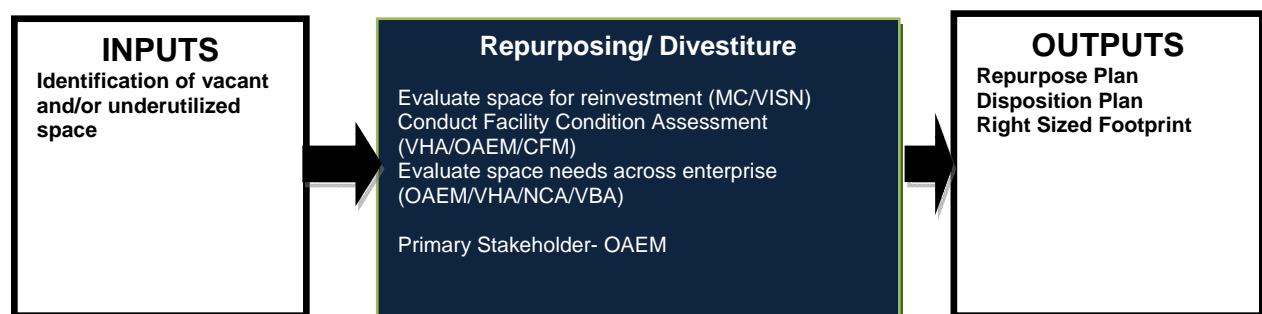
On an enterprise level, an activations guidebook is currently under development. The most significant level of detail to be developed is the identification of all major operational components within the programs and services available in VA facilities and the sequencing of bringing those components into full, planned operation.

Repurposing/Divestiture

Repurposing/Divestiture process is shown in Figure 11. VA has few opportunities to divest of capital inventory: demolition, GSA sell, or enhanced use (EU). A significant challenge to the repurposing or demolition of VA's buildings is the historic component associated with many of the older facilities.

Demolition faces funding challenges in balancing Administration needs versus removal of vacant buildings. In FY 2012, VHA initiated a separate line item funding targeted to demolition to help offset the medical center's challenges with finding direct and indirect patient care needs. A focused effort to ensure that each Administration's capital inventory is supported is essential. Removal of older buildings that do not accommodate the needs of the respective Administrations from the inventory should be facilitated.

Figure 11: Repurposing/Divestiture



Buildings and land can be sold to GSA; however, many vacant buildings are in the middle of campuses. Disposition to GSA still requires maintenance, security, and oversight of the vacant buildings and land until GSA is able to sell the property.

The most beneficial disposition program has been the Enhanced Use Lease (EUL) program. Over the past three years, VA has made aggressive use of its EUL authority to repurpose and divest underutilized and vacant buildings and land through innovative, long-term public/private partnerships. This effort has doubled as a contribution to the Department's initiative to eliminate Veteran homelessness by 2015, as the particular focus of the effort. Under the auspices of the Building Utilization Review and Repurposing (BURR) initiative, VA has identified capital assets suitable for

repurposing as affordable supportive housing with priority placement for Veterans and their families.

Between September and December 2011, VA executed 40 EULs many as a direct result of the BURR initiative. Together, these 40 EULs resulted in the repurposing of more than 600 acres and more than 200 buildings of underutilized VA capital assets. Additionally, more than 4,100 units of affordable housing with priority preference for Veterans will be developed. These EULs generate cost avoidance as a result of eliminating the operations and maintenance costs previously incurred on these unneeded assets.

Previous EULs resulted in the repurposing of underutilized VA properties to meet a wide range of VA needs and to offer expanded services to Veterans; for example, creating senior housing facilities for Veterans and their families, facilitating campus realignment projects, and building onsite renewable energy facilities.

Not all vacant, underutilized assets are suitable for repurposing under VA's EUL authority. Disposal of assets through means such as demolition, sale, or transfer, are also used in the repurposing/divestiture life cycle stage. The condition and age of many vacant assets as well as their location on large medical campuses often make sale or other reuse opportunities unavailable, leaving demolition as the primary means to divest the asset.

One major challenge VA faces in divesting infrastructure is historic designation. There may be no defined need for the asset; however, due to its historic eligibility or designation, the process for disposition is long, burdensome, and, in many cases, unsuccessful. Maintaining historic assets is a serious obligation; however, mounting fiscal pressure to maintain VA infrastructure with less capital and a reduced footprint often results in conflict between right-sizing the inventory and maintaining suitable assets.

Major Construction: VA Policies & Procedures, Orlando Case Study (April 30, 2012)

The purpose of the CRC Meetings (April 30, 2012, and May 9, 2012), on the Orlando VA Medical Center, was to provide VA Senior Leadership an overview of significant milestones, issues, constraints, and actions related to design, construction, and activation of the new medical center at Lake Nona in Orlando. Information was divided into the seven phases, outlined in Figure, 1 by CFM: planning and requirements development identification, SCIP, appropriation and authorization, project development, construction procurement and execution, activations, and repurposing/divestiture. The intent was to present a case study of a major VA project with construction well underway.

Several areas generated a great level of discussion. One such area involved development/approval of requirements for the project, including changes to requirements during design and construction. Another involved process and approval for funding, including changes. A third involved causative factors for delays; such as, lengthy process for land purchase, which caused a subsequent delay in start of design development; design discrepancies that required modifications after construction award; changes to basis of design for certain pieces of medical equipment; and contractor-related issues involving labor effort and change orders. A fourth involved repurposing/divestiture of the Lake Baldwin campus. Through these discussions, the group was able to determine areas of opportunity for improving future projects, as well as to make certain decisions for moving forward with the current project.

Major Construction: SCIP and Historic Preservation (May 9, 2012)

The purpose of the CRC Meeting (May 9, 2012) was to provide VA Senior Leadership an overview of the SCIP process. VA prioritizes construction projects utilizing the SCIP process, which was established for the 2012 budget submission. SCIP is an innovative Department-wide process that resulted in the creation of a single, integrated, prioritized list of projects from all capital investment accounts (major construction, minor construction, and non-recurring maintenance).

This briefing included explanation of the SCIP process inputs (service gaps and the established targets for the service gap) and outputs; the SCIP integrated prioritized project list; the VA long-term capital plan; and the annual construction budget submission. The decision criteria used and preliminary results of the 2014 SCIP process were provided. Specific SCIP requirements (Pre-SCIP and Post-SCIP gaps, such as, access, space, condition, and others) were presented.

The presentation also included the emerging crosscutting issues that were identified by the SCIP Board. Those found to have a significant impact on the successful management of VA's capital portfolio include: 1) the restrictions that historic preservation compliance requirements place on VA, and 2) the need to reassess VA capital through focused strategic means.

OALC/CFM then briefed the CRC on their responsibility for VA enterprise policy related to historic preservation and updated VA Directive 7545 (December 2011). The three Administrations have responsibility for implementing this policy and providing funding to do so. The National Historic Preservation Act of 1966 (NHPA) requires VA (and all other Federal agencies) to: 1) manage historic properties in a spirit of stewardship; 2) give priority consideration to using historic properties for mission needs; 3) consider effects of actions on historic properties; 4) consult external stakeholders regarding historic properties; and 5) offer excess historic properties to others. NHPA Section 110 directs VA to use its historic properties with sensitivity (1 and 2 above).

NHPA Section 106 directs VA to consider impacts to historic properties when planning projects (3 and 4 above). NHPA recognizes that reuse of historic properties is not always a feasible or appropriate option in meeting mission needs (5 above); however, not adequately considering reuse is contradictory to Federal law. Failure to consider reuse early in project planning can result in delays, increased cost, bad publicity, and litigation.

Major Construction: Denver Medical Center (May 16, 2012)

The purpose of the CRC Meeting (May 16, 2012), on the Denver Replacement Medical Center Project, was to review and improve process and procedures from project planning and design through construction, activation, and divesture. The goals of this meeting were to explain the current process and to identify macro-level changes that would lead to a more efficient and effective process that increases speed to delivery, reduces risk for time and cost growth, and increases collaboration among all stakeholders.

Lynette Roff, VHA Medical Center Director, provided a brief history of the VA in Denver from the current main campus to the various outpatient clinics that make up the Eastern Colorado Health Care System. Ms. Roff went on to discuss the announcement of the new medical center in 2004, and the background for the new facility, from the on-again, off-again collaboration with the University of Colorado Hospital to the pre-planning activities for a standalone facility, the selection of the A/E, site selection, and selection of the integrated design and construct (IDc) contractor.

CFM's Project Executive, Tim Pogany briefed the construction procurement and execution phase. The new medical center is currently nearing the completion of the construction document phase for the majority of the project. The excavation, foundation, and structural construction documents have been completed, and the IDc contractor is currently working on the construction activities associated with those design packages. CFM detailed the procurement process for the IDc construction contract; this is a new construction procurement method for VA.

CFM stated the major causes of delays to the project were: 1) the DCAA audit of the A/E that delayed starting the design development drawings that affect the design completion and start of construction; 2) the lengthy negotiation with the IDc contractor to establish a firm target price at the end of the design development phase; and 3) the negotiations with the IDc contractor on the schedule to allow an additional 4-1/2 months of construction time. This project procurement method allowed VA to exercise all the construction options in the IDc contract to start the construction, while the last design packages (core and shell and the interior fit-out) were being completed. The rooms with extensive government-furnished equipment are design-deferred, with the final design to

be completed once the VAMC has selected the specific pieces of equipment for those rooms.

The final item for discussion was activation of the new medical center. The Director discussed the process of activating the facility once it is turned over by CFM. Activation planning activities are on schedule to see Veteran patients in October 2015.

Major Construction: Las Vegas New Medical Center Complex (May 30, 2012)

The purpose of the CRC Meeting (May 30, 2012), on the Las Vegas New Medical Center Complex, was to review the processes and procedures VA employs to plan, design, construct, and activate a new medical center. The discussion on construction processes was divided into three major components: planning, construction, and activation. During the overview, the Committee identified a potential opportunity to shorten the project delivery time by addressing the delays in CFM's design and construction processes. The meeting concluded with the Secretary reiterating the importance of delivering projects on time, by working with the facility to successfully execute projects, and provide care to Veterans.

Leasing: VA Policies & Procedures (June 1, 2012)

The purpose of the CRC Meeting (June 1, 2012) was to review the processes and procedures VA employs to acquire leasehold interests in real property, from requirements definition through activation and divestiture. The meeting was divided into two major components a general overview of the leasing process and an in-depth discussion of three case studies. During the overview, the CRC identified a delay between authorization and project initiation by VHA; this timeframe could be shortened. The detailed discussion of three build-to-suit⁷ leased clinics, in Austin, Tex., Winston-Salem, N.C., and Lewiston, Me., as case studies identified areas where delays were encountered and offered potential mitigation measures where possible. The meeting concluded with the Secretary reiterating the importance of delivering projects on time, by working with facilities nationwide to successfully execute projects, and provide care to Veterans.

Minor Construction: VA Policies & Procedures (June 4, 2012)

The purpose of the CRC Meeting (June 4, 2012) on minor construction was to review the processes and practices of the minor construction program. The minor construction processes were adapted to the construction process flow diagram shown in

⁷ A contractual agreement between a party that has a legal interest in a parcel of land and a potential lessee, for whom the party will construct a facility, designed by the potential lessee, and then lease that facility back to the lessee upon successful completion.

Figure 1 of this appendix. Minor construction occurs in VHA, NCA, VBA, and Staff Offices. Staff Offices include OI&T, OGC, OSP, OIG, and HRA. The minor construction program is different across Administrations because of needed flexibility to complete items that would be under General Administration funds for VBA and Staff Offices (neither uses NRMs) that only use minor construction funding. All minor construction programs submit annual operating plans for review and approval by the Office of Management (OM). The execution of minor construction programs is the responsibility of the specific Administration or HRA for the Staff Offices.

Major Construction: New Orleans Replacement Medical Center (June 8, 2012)

The purpose of the CRC Meeting (June 8, 2012), on the replacement medical center in New Orleans, was to review the lessons learned in the disaster recovery process and the design and construction process. The meeting began with a discussion of the initial return of patient care to the Southeast Louisiana Veterans Health Care System. The meeting then transitioned to a discussion of the design of the replacement facility, current construction activities, and planning for future activation of the facility.

Non-Recurring Maintenance: VA Policies & Procedures (June 15, 2012)

The purpose of the CRC Meeting (June 15, 2012) was to review the processes and practices of the non-recurring maintenance (NRM) construction program. Only VHA and NCA have NRM programs. The NRM processes were also adapted to the construction process flow diagram shown in Figure 1 in this appendix. VHA NRM projects over \$1 million are prioritized in the annual SCIP process. The NCA program remains very limited and is below the SCIP thresholds. The CRC was briefed that historical preservation affects the NRM budgets. This impact is the result of a requirement to preserve historic facilities. An action item was recorded to investigate establishing a budget line item for historical preservation.

Appendix E: Office of Asset and Enterprise Management White Paper

Capital Requirements via Strategic Capital Investment Planning

The purpose of this document is to explain how capital need requirements are incorporated into the Strategic Capital Investment Planning (SCIP) process, the source of those requirements, and the key offices that own or provide those requirements. Two distinct types of requirements factor into the SCIP process. The 10-year SCIP Plans, submitted by all Administrations and Staff Offices, are based on identified service and infrastructure gaps that are data driven and serve as the planning requirements. These are the “big” requirements that the full long-range SCIP plan must address; such as, where VA needs to be, what VA needs to fix, and how much capacity VA needs to meet service demands. As the various offices develop their plans and submit projects through the SCIP process, each project closes one, or more, defined service gap(s). The exact scope of what each project will do in terms of closing the identified gap becomes the “small” requirement. In essence, SCIP is made up of many “small” capital requirements that build up to meet the overall “big” capital requirements that drive SCIP.

To set the overall planning requirement, SCIP uses services or infrastructure gaps that must be addressed in the long-range plan. A gap is the difference between current state and capacity, compared to defined targets or goals. Each service or infrastructure gap is based on a defined set of data, originating from various owners across VA. The current 2014 SCIP service and infrastructure gap areas and their owners are as follows:

Gap Area	Owner Organization(s)
Utilization/Workload	VHA Policy and Planning; NCA
Space	VHA (Policy and Planning, Capital Asset Management); Office of Construction and Facilities Management
Condition	Office of Construction and Facilities Management
Access	VHA Policy and Planning; NCA
Wait Time	VHA Policy and Planning
Greening/Energy	Office of Asset Enterprise Management
Parking	Office of Construction and Facilities Management; VHA Capital Asset Management
Safety/Security	Office of Operations, Security and Preparedness; Office of Construction and Facilities Management
Functional (SPD, OR, Privacy)	Office of Construction and Facilities Management; VHA Capital Asset Management
Other Gaps	Administrations/Staff Offices

The SCIP process begins when the necessary data is supplied by the owner organization to OAEM, generally, early in the fiscal year. OAEM compares the current-state data to the goal, or target data, to determine the SCIP gaps, while working with the owner organization to ensure data accuracy. The final gap data becomes the overall planning requirement to be met through the SCIP long-range plan (the “big” requirement).

Each facility or staff office designs a plan to address its individual needs, using sources such as master plans, and submits these plans into the SCIP on a project-by-project level. The VISN leadership then approves each project individually (the “small” requirements) to create the overall action plan. Action plans, after review for appropriateness and completeness by OAEM, are sent to the SCIP Panel and Board for approval. The SCIP Board recommends approval of plans through the standard VA governance process.

Projects submitted for funding consideration in the current budget cycle must complete a more detailed business case application, outlining the specific requirements, scope, and cost of the project. The business case applications are then scored and prioritized by the SCIP Panel and submitted for approval to the SCIP Board. The final list is approved through the governance process, and top scoring projects are then included in the budget. Those projects above certain thresholds must also complete OMB 300 and prospectus documentation. Once a project is included in the final prioritized list, approved through the governance process, and published in the budget, the requirement for that project would be set and owned by the submitting Administration or Staff Office.

In summary, the SCIP accounts for two types of capital requirements the overall capital planning requirements in the form of gaps and the more detailed project-level capital requirements captured in the SCIP long-range plan. The overall planning requirements are developed by OAEM, with support from the owner organizations providing the detailed data. The detailed project-level requirements are provided and owned by the submitting Administration or Staff Office.

Process Change Recommendation

In the current process, the more detailed project-level requirements are approved through the full SCIP and VA governance process and are included in the budget on an annual basis; however, the overall planning requirements and supporting data were only approved during the initial implementation of SCIP in 2012, not on a recurring basis. This process will be changed so that DEPSECVA is the approval source of the overall planning requirements on an annual basis. DEPSECVA will be provided information for each gap area listed above. The Secretary will have the opportunity to review the gap areas to be used in SCIP, data source used for each gap area, the target or goal used

for each gap area, and the actual gap data for each area. Once DEPSECVA approves the overall planning requirements (with or without change), there will be no deviation from those established requirements without DEPSECVA approval.

Any required changes per the DEPSECVA review will be coordinated by OAEM, with support from the owner organization. The owner organization may be required to change current data or provide additional data to be used in the overall planning requirements, which would then be integrated into the SCIP process.

In addition, once the detailed requirements have been approved through the governance process (via the prioritized list), there will be no deviation from those requirements unless approved by the DEPSECVA. This is done to ensure the detailed requirements still support and align with the overall planning requirements.

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Planning and Requirements Development & Identification	Policy assumptions (e.g., collocation, health care planning model) are developed based on Administration requirements (i.e., bottom-up). These policy assumptions must be approved by DEPSEC and Administrations.	Administrations	OM OALC	April 2013	Ongoing	21 Appendix D
Planning and Requirements Development & Identification	<p><u>SCIP REQUESTS/DATA APPROVAL PROCESS</u></p> <p>[5 Components; 1 Deliverable]</p> <p>1) Utilize an unconstrained requirement process that is thoroughly reviewed and approved by the Administrations. (This is part of SCIP; Administrations and Staff Offices develop and approve data.)</p> <p>2) Develop process for DEPSEC to be the decision authority on statement of requirement and conceptual design.</p>	J. Sullivan	Administrations OALC		Complete, for execution in FY15	21 Appendix E

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Cont'd Planning and Requirements Development & Identification	<p>3) Develop a definition of what is meant by “requirements.” It has at least two levels:</p> <p>a) “Big R” – serving Veterans at the point of access, providing convenience, a high level of amenities</p> <p>b) Positive health outcomes as established by VA policy.</p> <p>4) Determine how to ensure that requirements reflect current policies and are highly visible to leadership. How can VA ensure that these requirements are fully loaded?</p> <p>5) Who owns the process of identifying deficiencies that can only be solved at the next level up in the chain of command? What issues (i.e., scope) need to be resolved through SCIP Governance Process?</p>					

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Strategic Capital Investment Planning (SCIP)	Brief the Construction Review Council on SCIP criteria.	J. Sullivan			Complete	Appendix D
Planning and Requirements Development & Identification	Second is “little r” – specific details that define the projects building construction and design features. Both “big R” and “little r” can be met through a variety of strategies, options, and costs. Determine who owns both types of requirements?	R. Neary	Administrations	January 2013	This item will be combined with the previous item: <u>SCIP Requests/Data Approval Process</u> , to become a sixth deliverable therein.	20
Planning and Requirements Development & Identification	Who owns the process of identifying requirements for new capabilities, i.e., ones that are not gaps in the current practice, but might become areas of significant needed investment in the future? In this process, who identifies the risks and who owns them?	Administrations	OM OALC	January 2013	Ongoing	20

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Authorization & Appropriation	Provide SECVA with a white paper on moving major construction program from a no-year expiration of funds to a five-year program for availability of funds.	J. Sullivan	OALC		Complete	27
Authorization & Appropriation	Address how to introduce a budget line item for IT Activations.	D. Tucker	Administrations OI&T	April 2013	Ongoing	28, 29
Construction Procurement and Execution	Review the frequency of the update for design standards.	R. Neary		March 2013	Ongoing	25
Construction Procurement and Execution	VHA to provide a proposal to obligate money to address new obligations nearing year-end.	P. Matkovsky		January 2013	Ongoing	29
Activations and Repurposing/Divestiture	Add OIT as a dedicated resource on site at major construction projects as part of the Activation team.	S. Warren	Administrations OI&T	December 2012	Ongoing	26, 28, 29

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Construction Procurement and Execution	<p>Review opportunity to shorten the decision cycle for approval of construction contract modifications:</p> <ul style="list-style-type: none"> Review authority levels of CO in the fields to execute change orders without additional review. Consider OALC support for three additional attorneys. <p>(Thresholds for Denver VAMC and New Orleans VAMC to be increased to \$250 thousand.)</p>	R. Neary			Complete	34, 35, 36
Activations and Repurposing/Dive sture	Determine how to mitigate risk associated with the shortfall of approximately 300k net usable square feet at Denver VAMC?	P. Matkovsky	OM OALC	February 2013	Ongoing	Appendix D

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Strategic Capital Investment Planning (SCIP)	Review Major, Minor, and NRM Programs: <ul style="list-style-type: none"> • Define what the program is intended to accomplish. • Review dollar thresholds associated with each program. • Make recommendations to redefine programs. 	J. Sullivan	Administrations OALC	FY 15 Budget Cycle	Ongoing	Appendix E
Project Development	Provide a white paper to SECVA on the value of considering the facilities program from an installation holistic perspective: Requirements packages would identify full maintenance, construction and leasing requirements, and requirements from all Administrations and Staff Offices.	D. Milsten	Administrations OM	September 2013	Ongoing	Appendix D

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Repurposing/Divestiture	Should VA include a dedicated source of funding for demolitions?	J. Sullivan	Administrations OALC		Complete VHA has identified a dedicated source for funding for FY 2013 and beyond.	Appendix D
Strategic Capital Investment Planning (SCIP)	<p>Standardize how OM/OAEM informs the field on SCIP process, SCIP decisions, and Capital Budget; key points to consider:</p> <ul style="list-style-type: none"> • When a project is approved or not, do field people know who made the call, when, why? • The field continues to carry the risk of all items not funded in the system. • Need a process to keep risks visible (e.g., publishing approved list of SCIP actions). 	J. Sullivan			Complete	Appendix E

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Project Development	Provide SECVA with a white paper recommending key decision points to review project design features, before moving on to the next stage of project development.	D. Milsten	Administrations OM	January 2013	Ongoing	Appendix D
Project Development	Codify requirement to 35% design prior to submitting to OMB and Congress for authorization/ appropriation. Define timeline leading up to 35% design.	D. Milsten	Administrations OM	December 2013	Ongoing	20
Project Development	Ensure current design standards reflect hurricane requirements. (Effective date published?) Complete and send paper to Construction Review Council members.	R. Neary			Complete	Appendix D
Project Development	Identify the document that defines the requirement for 1.12 MSF scope for Orlando VAMC.	P. Matkovsky	O. Tucker	December 2012	Ongoing	Appendix D
Project Development	Produce a glossary of terms used in the construction business.	R. Neary			Complete	Appendix D

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Project Development	Determine the rationale requiring the A/E to use BIM on the Orlando project. Determine if peer review looked at BIM as part of the review process. Complete and send paper to Construction Review Council members.	R. Neary			Complete	Appendix D
Project Development	In considering overall project development, identify steps that occur concurrently, and determine where there is opportunity for improvement.	R. Neary		March 2013	Ongoing	Appendix D
Project Development	Provide a paper for the DEPSEC on roofing systems used in the Orlando project. Complete and send to Construction Review Council members.	R. Neary			Complete	Appendix D
Project Development	Initiate an A-123 review on Orlando contracting files.	J. Frye			Complete	Appendix D
Activations	Need clear definition of Activations. Specifically define “Day Zero”, as it relates to two years before and two years after.	P. Matkovsky		January 2013	Ongoing	29 Appendix D

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Activations	Lessons learned from prior Activations need to be incorporated into a process manual to avoid repetition of issues.	P. Matkovsky		April 2013	Ongoing	29 Appendix D
Activations	Re-educate the Veterans Service Organizations on the Activation process to assure expectations are shared and understood.	P. Matkovsky		June 2013	Ongoing	16 Appendix D
Project Delivery	Produce a Project Delivery Guide with process maps and graphics detailing the construction process.	R. Neary	Administrations OAEM	February 2013	Ongoing	Appendix D
Activation	Examine ability to include Activation as a line item in the budget to eliminate stovepipe spending.	P. Matkovsky		April 2013	Ongoing	28, 29
Activation	Create agility in medical equipment procurement. Consider other models, e.g. DoD and private sector. Develop a policy to better manage equipment purchase decisions to provide timely information, on target with the construction CPM, and ensure maximum flexibility.	P. Matkovsky	CFM R. Neary NCA	May 2013	Ongoing	26 – 30 Appendix D

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Activation	Layout timeline for Activation activities. Require the standup of Activation teams three years prior to opening the facility and providing patient care.	P. Matkovsky		January 2013	Ongoing	29 Appendix D
Administrative	Prepare a written report that summarizes all lessons learned and process improvements adopted by the Construction Review Council.	R. Neary	Council Members	December 2013	Ongoing	CRC Report
Administrative	Update policy and procedures with findings and recommendations from the Construction Review Council to graphically describe the process and synchronize the activities of all participants in the construction process.	R. Neary	J. Sullivan P. Matkovsky	December 2013	Ongoing	39
Administrative	Establish NRM Accounts for NCA (VBA maybe) to consider the effect on operating accounts.	S. Muro	T. Grams		Complete, to be implemented in 2009 – 2016	13

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Planning and Requirements Development & Identification	Define policy for tactical space needs such as mental health.	P. Matkovsky		April 2013	Ongoing	Appendix D
Strategic Capital Investment Planning (SCIP)	Link the historic building process to SCIP to provide an assessment regarding maintenance of historic properties.	J. Sullivan	R. Neary	April 2013	Ongoing	26 – 29
Administrative	Establish a process to maintain an accurate record of Major Initiatives. Staff Offices should use a “diary of events” to document issues, discussions, recommendations, and outcomes, include in the Project Management Plan (PMP) as an ongoing history.	D. Milsten		December 2012	Ongoing	Appendix C
Planning and Requirements Development & Identification	Prepare a White Paper for the Construction Review Council outlining space criteria used to establish requirements such as single patient rooms, clinic room size, mental health center, etc. Include a detailed discussion on how space is calculated,	L. Siegel D. Myers	Prepare a White Paper on the issues of	December 2012	Ongoing	20

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
	i.e. Healthcare Planning Model, Space Calculator, SEPS, and the impact of Net Zero on increasing enrollment numbers and patient use.					
Planning and Requirements Development & Identification	Use Case Studies to validate health care models.	P. Matkovsky	OAEM	June 2013	Ongoing	26
Administrative	Review plans for the in-patient rehabilitation facility at Denver VAMC.	P. Matkovsky L. Roff		March 2013	Ongoing	Appendix D
Project Development	Identify risks for each delivery method.	D. Milsten		December 2013	Ongoing	Appendix D
Administrative	Engage with OMB on Activation models to assure understanding and support for the cost developed by the model.	P. Matkovsky J. Sullivan			Complete	26 – 30 Appendix D

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Administrative	Provide explanation for Authorization at \$406 million when request was for \$286 million on the Las Vegas project.	OAEM J. Sullivan		December 2013	Ongoing	Appendix D
Planning and Requirements Development & Identification	Provide the documentation that memorialized the decision to move forward by Secretary Principi and the Air Force and not provide space at Nellis Hospital.	P. Matkovsky	Medical Center	November 2012	Ongoing	Appendix B
Planning and Requirements Development & Identification	Provide an explanation for the Design Development phase for Las Vegas taking two years.	L. Flor		November 2012	Ongoing	Appendix D
Construction Procurement and Execution	Provide specific information on the evaluation tools used by GAO to make more accurate determinations than VA on the probability of completing VA projects on time.	R. Neary		December 2012	Ongoing	5
Activation	Provide the methodology required to ensure Activation funding is expended from the correct appropriation.	P. Matkovsky		December 2012	Ongoing	26 – 30

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Administrative	For historic facilities, provide a breakdown by space utilization for occupied/non- occupied space.	J. Sullivan		December 2012	Included with Net Zero report	Appendix D
Administrative	Provide SECVA a copy of the 1983 GSA delegation letter for medical facilities. Offer assurance of VA compliance.	J. Kaplan		November 2012	Ongoing	
Planning and Requirements Development & Identification	Provide a paper on process outlining how the locations of VET Centers are determined and how SCIP influences these decisions.	P. Matkovsky		February 2013	Ongoing	
Activations	Define how major equipment items are purchased for the Philippines, and note whether construction dollars are used.	P. Matkovsky		March 2013	Ongoing	
Administrative	Determine how ADA compliance issues are tracked, and how ADA compliance can be tracked in SCIP.	L. Siegel		December 2012	Ongoing	

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Planning and Requirement Development & Identification	Provide Office of Management and Budget (OMB) guidance on Net Zero, once published, regarding underutilized space as it relates to the Enhanced Use Lease (EUL) Program. Note: OMB has been provided with comments on numerous occasions regarding EUL's impact as it relates to No Net New.	J. Sullivan			Waiting on OMB	Appendix D
Administrative	Hold discussions with Mr. Steve Koziak, OMB, regarding the tools necessary to manage Net Zero and accomplish the President's requirements.	J. Sullivan			Waiting for update	DEPSECVA has engaged with Mr. Koziak.
Project Development	Develop processes to ensure project execution is the major focus. (This is not necessarily determined by the adequacy of the process, and must focus on outcomes.)	D. Milsten		March 2013	Ongoing	Appendix D
Administrative	Provide more information on the Butler, PA CLC/HCC/Pod issue.	P. Matkovsky		March 2013	Ongoing	Appendix D

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Project Development	Develop a process to ensure that all shareholders, such as PVA, union leadership, and patients, are involved in the Integrated Project Teams developing Minor projects at the Medical Centers.	P. Matkovsky		April 2013	Ongoing	Appendix D
Project Development	Develop guidance for early development of acquisition packages (on-the-shelf) to allow execution in a much more timely fashion.	G. Szwarcman		February 2013	Ongoing	36 Appendix D
Planning and Requirements Development & Identification	Develop a more refined process for the NRM Program at the VISN/Medical Centers to ensure compliance with regulations (and avoid another Miami).	P. Matkovsky B. Fate		April 2013	Ongoing	Appendix D
Repurposing/ Divestiture	Provide the Secretary with more information on the plan for building disposal. Plan should allow for a reduction in square footage to comply with the Net Zero directive.	J. Sullivan	NCA VBA VHA		Ongoing with Net Zero discussions	Appendix D

Appendix F: Initial Action List

Process	Action Items	Owner	Support	Action Due	Status	Page in CRC Report
Administrative	Ensure the Mayor of New Orleans is kept informed regarding the issue of Underground Storage Tanks (UST), and the potential implications of demolition, if necessary, to mitigate contamination. (Note that this is a City liability.)	J. Catellier			Complete	Remediation of the contamination has been completed and no further action is required
Strategic Capital Investment Planning (SCIP)	Provide the Secretary with more information on how risk is taken into account during the SCIP process. SCIP addresses deficiencies but does not address the risk of deferring the project and the cost of that.	J. Sullivan			Complete	Appendix D Appendix E
Repurposing/ Divestiture	Develop a process to examine VA buildings for historic significance relevant to the VA mission. Consider how addressing these issues early can ensure that VA does not end up with buildings older than 50 years that are then designated as historic.	L. Siegel	P. Matkovsky B. Fate J. Sullivan	January 2013	Ongoing	Appendix D