OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 24 2009

The Honorable Tim Johnson
Chairman, Subcommittee on Military Construction,
Veterans Administration, & Related Agencies
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

This letter forwards the final response to House Report 110-775 of H.R. 6599, the Military Construction, Veterans Affairs, and Related Agencies Appropriations Act for Fiscal Year 2009, requesting the Department develop a comprehensive master plan for medical treatment facilities construction, to include both recapitalization and new requirements. The attached plan includes an assessment of our worldwide requirements, a comprehensive priority list, and cost estimates for each project. We also provide information on the current state of facilities and describe efforts to ensure appropriate medical facilities are available to support the projected change in demand for services at installations with expanding populations.

The Department of Defense welcomes the opportunity to share the progress made to date and the path forward to ensure the optimal condition of our medical facilities. As you will see in the enclosed report, the Department considers military medical infrastructure as a strategic national asset that must be continually revitalized to meet its diverse and expanding mission.

Thank you for your continued support of the Military Health System.

Sincerely,

Ellen P. Embrey

Ellen P. Embrey
Performing the Duties of the
Assistant Secretary of Defense
(Health Affairs)

Enclosure:
As Stated

cc:
The Honorable Kay Bailey Hutchison
Ranking Member

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 24 2009

The Honorable Chet Edwards
Chairman, Subcommittee on Military Construction,
Veterans Administration, & Related Agencies
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

This letter forwards the final response to House Report 110-775 of H.R. 6599, the Military Construction, Veterans Affairs, and Related Agencies Appropriations Act for Fiscal Year 2009, requesting the Department develop a comprehensive master plan for medical treatment facilities construction, to include both recapitalization and new requirements. The attached plan includes an assessment of our worldwide requirements, a comprehensive priority list, and cost estimates for each project. We also provide information on the current state of facilities and describe efforts to ensure appropriate medical facilities are available to support the projected change in demand for services at installations with expanding populations.

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Assistant Secretary of Defense
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Enclosure:
As Stated

cc:
The Honorable Zach Wamp
Ranking Member

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 24 2009

The Honorable Solomon P. Ortiz
Chairman, Subcommittee on Readiness
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

This letter forwards the final response to House Report 110-775 of H.R. 6599, the Military Construction, Veterans Affairs, and Related Agencies Appropriations Act for Fiscal Year 2009, requesting the Department develop a comprehensive master plan for medical treatment facilities construction, to include both recapitalization and new requirements. The attached plan includes an assessment of our worldwide requirements, a comprehensive priority list, and cost estimates for each project. We also provide information on the current state of facilities and describe efforts to ensure appropriate medical facilities are available to support the projected change in demand for services at installations with expanding populations.

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Performing the Duties of the
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(Health Affairs)

Enclosure:
As Stated
cc:

The Honorable Randy Forbes
Ranking Member

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 2 4 2009

The Honorable Daniel Akaka
Chairman, Subcommittee on Readiness and Management Support
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

This letter forwards the final response to House Report 110-775 of H.R. 6599, the Military Construction, Veterans Affairs, and Related Agencies Appropriations Act for Fiscal Year 2009, requesting the Department develop a comprehensive master plan for medical treatment facilities construction, to include both recapitalization and new requirements. The attached plan includes an assessment of our worldwide requirements, a comprehensive priority list, and cost estimates for each project. We also provide information on the current state of facilities and describe efforts to ensure appropriate medical facilities are available to support the projected change in demand for services at installations with expanding populations.

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Performing the Duties of the
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(Health Affairs)

Enclosure:
As Stated

cc:
The Honorable John Ensign
Ranking Member

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 24 2009

The Honorable John P. Murtha
Chairman, Subcommittee on Defense
Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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Enclosure:
As Stated

cc:
The Honorable C. W. Bill Young
Ranking Member

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 24 2009

The Honorable David R. Obey
Chairman, Committee on Appropriations
U.S. House of Representatives
Washington, DC 20515

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(Health Affairs)

Enclosure:
As Stated

cc:
The Honorable Jerry Lewis
Ranking Member

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 24 2009

The Honorable Daniel K. Inouye
Chairman, Subcommittee on Defense
Committee on Appropriations
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

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(Health Affairs)

Enclosure:
As Stated

cc:
The Honorable Thad Cochran
Vice Chairman

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 24 2009

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United States Senate
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As Stated

cc:
The Honorable Thad Cochran
Vice Chairman

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 24 2009

The Honorable Susan Davis
Chairwoman, Subcommittee on Military Personnel
Committee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Madam Chairwoman:

This letter forwards the final response to House Report 110-775 of H.R. 6599, the Military Construction, Veterans Affairs, and Related Agencies Appropriations Act for Fiscal Year 2009, requesting the Department develop a comprehensive master plan for medical treatment facilities construction, to include both recapitalization and new requirements. The attached plan includes an assessment of our worldwide requirements, a comprehensive priority list, and cost estimates for each project. We also provide information on the current state of facilities and describe efforts to ensure appropriate medical facilities are available to support the projected change in demand for services at installations with expanding populations.

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Performing the Duties of the
Assistant Secretary of Defense
(Health Affairs)

Enclosure:
As Stated

cc:
The Honorable Joe Wilson
Ranking Member

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 2 4 2009

The Honorable Ike Skelton
Chairman, Subcommittee on Armed Services
U.S. House of Representatives
Washington, DC 20515

Dear Mr. Chairman:

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Performing the Duties of the
Assistant Secretary of Defense
(Health Affairs)

Enclosure:
As Stated

cc:
The Honorable Howard McKeon
Ranking Member

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 24 2009

The Honorable Ben Nelson
Chairman, Subcommittee on Personnel
Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

This letter forwards the final response to House Report 110-775 of H.R. 6599, the Military Construction, Veterans Affairs, and Related Agencies Appropriations Act for Fiscal Year 2009, requesting the Department develop a comprehensive master plan for medical treatment facilities construction, to include both recapitalization and new requirements. The attached plan includes an assessment of our worldwide requirements, a comprehensive priority list, and cost estimates for each project. We also provide information on the current state of facilities and describe efforts to ensure appropriate medical facilities are available to support the projected change in demand for services at installations with expanding populations.

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Enclosure:
As Stated

cc:
The Honorable Lindsey O. Graham
Ranking Member

OFFICE OF THE ASSISTANT SECRETARY OF DEFENSE
WASHINGTON, DC 20301-1200

HEALTH AFFAIRS

AUG 2 4 2009

The Honorable Carl Levin
Chairman, Committee on Armed Services
United States Senate
Washington, DC 20510

Dear Mr. Chairman:

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Performing the Duties of the
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(Health Affairs)

Enclosure:
As Stated

cc:
The Honorable John McCain
Ranking Member

Medical Treatment Facilities Master Plan

A Report to Congress in Response to House Report 110-775
Military Construction, Veterans Affairs, and Related Agencies Appropriations Bill, 2009

Purpose

In House Report 110-775, the Committee on Appropriations expressed concern that the Department of Defense (DoD) inventory of medical treatment facilities "is riddled with aging hospitals, clinics, and other facilities that do not meet current standards..." The report went on to state that deficiencies with the existing facility infrastructure are exacerbated by ongoing initiatives to expand and re-station significant active duty forces. The Committee requested DoD to "develop a comprehensive master plan for medical treatment facilities to include both recapitalization and new requirements. This plan should include a comprehensive priority list of projects for all services, provide a cost estimate for each project, supply data on the current state of facilities and the projected change in demand for services due to growth for each location on the list, indicate the extent to which identified construction requirements are programmed in the FYDP, and indicate resources required for associated planning and design work." The following information is provided in response to the request from the House Committee on Appropriations.

Background

The DoD considers military medical infrastructure as a strategic national asset. Medical facilities enhance our Nation's security by supporting the full range of military operations at home and abroad and by providing the platforms for healing the ill and injured, training medical professionals, conducting essential research, and enhancing our homeland security capacity. Medical treatment facilities also serve another important purpose in that they represent our Nation's tangible commitment to care for warriors and their families who sacrifice so much on behalf of others.

As is the case with health systems in the private sector, DoD faces increasing challenges in planning, acquiring, and operating medical facilities. The pace of change in

medical research, clinical processes, pharmaceuticals, medical equipment, and information technology continues to accelerate. Some aspects of standard clinical care today rely on knowledge, technology, or medications that simply did not exist ten years ago. It is difficult to anticipate the full impact on medical facility design arising from new technologies and clinical practices. But in principle, incorporating the appropriate flexibility has become absolutely essential to providing the capacity of medical facilities to readily adapt to change. Examples of such flexibility may include:

- incorporating large structural bays to facilitate re-configuration of space without regard to weight-bearing walls
- installing universal utility systems that can be readily accessed when necessary and quickly capped when no longer needed
- providing clinical spaces to accommodate more than a single function, such as sterile suites for both surgery and interventional radiology
- installing substantial redundancy in technology backbones to support increasing use of wireless and greater proliferation of digital clinical, communications, and information systems

Providing flexibility often entails paying a premium at the time of construction with the expectation that the cost of adapting to future change will be less. Striking the appropriate balance between up-front and life-cycle costs poses a constant challenge.

Both public and private health systems have faced significant and unforeseen increases in construction costs. In recent years, the cost volatility of labor and materials has bedeviled attempts to predict the ultimate price of new facilities. As bids have come in higher than imagined just months before, difficult decisions have been made that strike a balance between undesirable alternatives – reduce the cost of acquisition or seek additional funding. Typical cost containment strategies frequently entail reductions in scope and/or quality and as mentioned above, force trade-offs between first-costs and life-cycle costs.

Lower construction costs can also be achieved through use of acquisition methods intended to reduce "time to market", or the duration required to plan, design, and construct medical facilities. Very few private sector health systems today rely on the "design/bid/build" process and instead seek to expedite project delivery through use of "design/build", "construction manager at risk", or other approaches that support

simultaneous engagement of architects and constructors. As the pressures mount to deliver buildings faster than before, new acquisition strategies have been employed in both public and private sectors.

A positive consequence of the current global economic slowdown has been a relaxation of the dramatic rate at which construction costs have increased in recent years. Many of the materials and the labor necessary to construct health care facilities today cost less or only slightly more than at any time in the recent past. However, as the economy rebounds it appears likely that a return to cost growth and volatility will likely return to the health care construction market.

Concurrent with the surge in construction costs of the past few years, the expectations of patients, families, and medical professionals have also significantly increased. A physical environment and approach to caring for patients that may have been acceptable in the past may not be today. The perceived quality of the facilities can often influence the perception of the quality of care delivered. And in those instances where these perceptions have not been favorable, patients and families have demonstrated a willingness to articulate their displeasure and seek other alternatives. The United States faces a well-publicized shortage of medical care professionals, most notably nurses. Recruitment and retention of nurses has proven to be much more difficult for health systems whose facilities do not reflect a commitment to caring and the safety and well-being of patients, their families, and their own staffs.

Hospitals must also address the related imperatives of energy efficiency and environmental responsibility. The increasing emphasis on reducing energy consumption and creating sustainable or "green" designs has prompted revision of long-standing practices employed in the acquisition and operation of medical facilities.

Apart from the technical aspects of building design and construction, a growing body of research reveals that the characteristics of the built environment can contribute to health outcomes, the safety of patients and staff, and overall operational efficiency of medical facilities. It has become increasingly apparent that design and construction of hospitals and clinics can enable, or impede, delivery of the high-quality, safe, and cost-effective care that health professionals strive to provide. Evaluating the ever-growing

research results and deciding on which findings to incorporate into design of new buildings presents a constant challenge in both the public and private sector.

The dynamic environment described above is shared by all health systems operating today in the United States. But there also exist challenges unique to DoD. The relatively young beneficiaries served by the Military Health System (MHS) have traditionally required a larger proportion of mental health, obstetrics, and orthopedic care than the private sector. Evolving technology and clinical practices allows an ever-increasing volume of these key product lines to be provided in the ambulatory setting, even though many of today's military medical facilities were constructed largely to support an inpatient care model.

The MHS beneficiary population continues to grow, both through provision of expanded benefits to members of the National Guard and Reserve and increasing end-strengths of the Army and Marine Corps. In addition to overall beneficiary growth, the Army also is pursuing simultaneous initiatives to re-structure forces and re-station troops, which in turn increases the need to provide the right medical facilities in the right locations.

But perhaps most importantly, our warriors confront the stress of separation from loved ones and exposure to threats capable of producing profound injury to mind and body. While our medical professionals in the field have provided astounding casualty care, our adversaries continue to adapt tactics and weapons and have demonstrated the capacity to create devastating injuries. Sometimes the wounds suffered in combat are readily apparent, as is the case with those who have lost limbs. In other cases, the wounds are not so obvious. The growing awareness of the scope and complexity of psychological injuries suffered by those returning from overseas has prompted an increased emphasis both on how we treat these heroes as well as the facilities best-suited for their recovery. The revelation of facility deficiencies at Walter Reed Army Medical Center in February of 2007 served to undermine the Nation's confidence in our ability to provide the care and support our wounded warriors and their families deserve. In May of 2007, Secretary Gates acknowledged the vital importance of improving our medical infrastructure:

Our nation is truly blessed that so many talented and patriotic young people have stepped forward to serve. They deserve the very best facilities and care to recuperate from their injuries and ample assistance to navigate the next step in their lives, and that is what we intend to give them. Apart from the war itself, this department and I have no higher priority.

The balance of this report will describe the status of the current inventory and the efforts underway to execute the direction provided by the Secretary of Defense.

The Current State of Military Medical Facilities

The Department of Defense acquires, maintains, and operates a unique collection of medical facilities around the globe. By any standard, this facility inventory could be described as large, complex, diverse, and aging. The current inventory includes, but is not limited to the following:

- 59 hospitals
- 663 medical and dental clinics
- 258 veterinary clinics
- 26 medical research & development facilities
- 19 training facilities

The timely re-capitalization of this large collection of diverse and complex buildings poses substantial challenges. Calculations suggest that approximately 41% of inpatient facilities are over forty years old and that 72% were constructed more than twenty years ago. Many of these hospitals were constructed prior to the introduction of clinical processes and technology that today are considered the standard of care. Older facilities often lack the capability to readily adapt to the dynamic environment of health care. Facilities that were constructed based on a largely inpatient model are ill-suited for the contemporary emphasis on ambulatory care. Most lack the amenities that patients and families expect today. While the majority of military medical facilities are well-maintained from a pure facilities standpoint, many older hospitals and clinics simply cannot provide the platforms necessary to deliver modern health care. Our ability to

make rapid improvements using funding other than through the annual medical military construction (MILCON) program has been constrained by low thresholds. For example, we are limited to a maximum of $750,000 in Operations and Maintenance funds for "new work". And while the Department of Veterans Affairs (VA) is authorized to expend up to ten million dollars for "minor" construction, the DoD Unspecified Minor Construction threshold is only two million dollars, or three million dollars if a project will correct urgent deficiencies that threaten life, health, or safety of the occupants.

The importance of providing the appropriate infrastructure to provide excellent patient care cannot be overstated. However, DoD must also address the national security imperative to replace unique, but costly, biological and chemical research facilities. The potential exists for adversaries to unleash chemical or biological weapons on distant battlefields as well as on our own soil. DoD is committed to conducting the advanced research necessary to counter such threats. The Department has recognized the need to construct the facilities necessary to better understand these dangerous agents and develop preventive and therapeutic interventions. Currently underway are replacements for the U.S. Army Medical Research Institute of Infectious Diseases at Fort Detrick, MD, and the U.S. Army Medical Institute of Chemical Defense, located at the Aberdeen Proving Grounds, MD. These two facilities alone represent an investment in excess of $1 billion. Neither facility may ever treat a patient, but the work performed in these buildings some day may save countless lives of combatants and civilians.

Moving Forward – A Master Plan for Military Medical Facilities

Multiple activities have converged to contribute to development of the comprehensive master plan requested by Congress. Some initiatives were underway prior to the attention engendered by the reports on facility condition at Walter Reed Army Medical Center. Others have followed since February of 2007. The net effect has been the demonstration of a major commitment by both DoD and Congress to renew military medical treatment facilities in a manner and at a rate that substantially exceeds past practices. The major activities are summarized below:

Base Realignment and Closure

The BRAC recommendations of 2005 provided the direction and resources to construct, consolidate, and modernize vital medical facilities in two of our most important markets, National Capital Region and San Antonio. BRAC also supports construction of new medical facilities at Keesler AFB. In the wake of the publication of articles pertaining to Walter Reed Army Medical Center, DOD acknowledged the need to enhance and accelerate delivery of key facilities. With the support of Congress, DoD has committed approximately $3.7 billion dollars for medical facilities in these three markets alone. DoD fully anticipates compliance with the requirement in statute that BRAC actions must be complete by September 15, 2011.

Force Growth and Re-Stationing

The Army embarked on an initiative to re-structure its forces as a way to enhance its capability to adapt with greater flexibility and speed to emerging threats. Accompanying the effort to re-structure the Army was the strategic decision to reduce its presence overseas by moving units to installations in the United States. Subsequently, Congress authorized increases in the end-strengths of both the Army and Marine Corps. The increased presence of active duty members and their families at various installations has produced a requirement to increase and improve support facilities, including medical. To date, close to $1 billion has been proposed to support medical facility enhancements at gaining installations. Appendix A summarizes the medical facility projects at installations experiencing the greatest growth in active duty forces.

New or expanded hospitals will be provided on twelve of the eighteen installations experiencing the greatest growth of forces. All eighteen will receive additional ambulatory capability, in the form of new or expanded medical and dental clinics. The facility requirements at these growing

installations were determined upon review of multiple factors, including: the age, condition, location, and capacity of existing facilities; the projected workload generated by increased active duty personnel and their family members; and the quality and availability of medical services provided through the civilian TRICARE network.

Host Nation Funding

Agreements with our allies have provided opportunities for funding support associated with realignment of forces in Asia. The Government of Japan has committed to funding the replacement of the U.S. Naval Hospital on Okinawa and has recently negotiated an agreement to construct additional medical capacity on Guam. The Government of South Korea is preparing to fund a replacement for the U.S. Army Hospital in Seoul as part of the initiative to re-position our forces south of the capital.

Collaboration with the Department of Veterans Affairs

DoD continues to pursue opportunities for mutually beneficial capital collaboration in shared markets. An excellent example of such collaboration may be found in North Chicago, IL. The need to replace the existing Naval Hospital at Great Lakes has been met instead by expanding the capabilities of the nearby VA Medical Center and combining staffs to meet the health care needs of local DoD and VA populations on one campus. Both DoD and VA have contributed to renovation of the existing North Chicago VA Medical Center. DoD has also funded construction of a joint-use parking structure and a new ambulatory facility. Once this new outpatient center is complete, the Navy and VA will consolidate their workload on the North Chicago campus and the existing Naval Health Clinic Great Lakes building, originally built in the 1950's, will then be demolished. Collaboration efforts have also been completed in recent years or are in development at other sites. Notable examples include: Pensacola, FL; Biloxi, MS; Charleston, SC; El Paso, TX;

Fort Wainwright, AK; and, Fort Belvoir, VA. Both Departments are committed to pursuing opportunities to combine resources and capabilities to provide the high quality, accessible, and cost-effective services to those entrusted to our care.

The Defense Health Program Facility Modernization Effort

The increasing age of the medical infrastructure had been growing as a concern to leadership of the Military Health System for the past several years. In 2003, the TRICARE Management Activity sponsored an outside analysis that suggested private sector health facilities are re-capitalized every 21 years. This assessment represented a stark contrast with the rate of recapitalization of DoD medical facilities, which has typically exceeded 50 years.

In 2005, the Assistant Secretary of Defense for Health Affairs (ASD(HA)) directed the development of a structured decision-making process to evaluate and prioritize potential capital investments. After extensive research, deliberation, and trial runs, DoD employed its new Capital Investment Decision Model (CIDM) for the first time in May of 2008. Investments were reviewed by a diverse panel of experts from the Army, Navy, Air Force, and the TRICARE Management Activity. Each proposed investment was scored against four weighted evaluation criteria:

- alignment with strategic direction of the MHS
- potential for improving operational performance
- urgency to improve the physical environment
- mitigation of risk

The results of the CIDM prioritization process displayed in Appendix B form the heart of the current plan to modernize the military medical infrastructure. The forty-three investments in Appendix B reflect the highest priorities of the Surgeon General at the time each Capital Investment Proposal (CIP) was prepared, submitted, and evaluated. However, in addition to the priorities

established through the CIDM process, the Army, Navy, and Air Force also submitted additional requirements necessary to approach the 21-year recapitalization rate of private sector health facilities identified in the TMA study conducted in 2003. These additional requirements had not yet been sufficiently developed to allow complete preparation of a CIP and thus were not included in the formal CIDM process. However, they reflected important priorities of each Surgeon General and demonstrated the true scope of requirements for medical facilities recapitalization. This comprehensive list of CIDM priorities and additional medical facility requirements was subsequently reviewed by senior leaders of the Military Health System and elsewhere within Department. It was this list that served as the foundation for the plan to move forward with a substantially more robust medical MILCON program for Fiscal Year 2010 and beyond.

It is worth noting that the CIDM process has focused solely on medical MILCON requirements and has not yet been employed to prioritize other investments in medical facilities. Each Surgeon General is provided separate funding to support the sustainment, restoration, and modernization (SRM) requirements of existing facilities. The Army, Navy, and Air Force each maintain their respective processes for prioritization and allocation of SRM resources. The structured decision-making approach represented by CIDM has influenced these respective processes but there exist no current plans to prioritize both MILCON and SRM investments in the same manner. However, the actions to address facility deficiencies, whether through MILCON or SRM funding, are linked. Development of each CIP for MILCON prioritization by necessity entails an analysis of the condition of the building and the potential alternatives available to improving it.

While prioritization of the medical MILCON program in the spring and summer of 2008 represented a significant milestone, the world has not

remained frozen in time since then. Additional demands for medical infrastructure have since emerged as plans to re-station forces and accommodate a larger Army and Marine Corps have solidified. For example, the urgency to respond to significant growth at Fort Bliss, TX, has since become apparent and DoD is currently working with the VA to develop a comprehensive and timely solution to the growing needs of our respective beneficiaries in the El Paso, market. Another example may be found at Fort Detrick, MD, where a series of projects necessary to support the cohesive operation of the National Interagency Biodefense Campus have been identified. Four such projects have been included in the President's Budget for Fiscal Year 2010 and others will follow in later years. While the requirements at Fort Bliss and Fort Detrick are compelling, none were sufficiently developed for inclusion in the CIDM prioritization in the spring of 2008. DoD is currently engaged in revising the CIDM process to allow for increased capacity to adjust priorities in the face of rapid change.

FY2008 Defense Supplemental Funding

Congress also recognized the need to commit additional resources to improving and modernizing military medical infrastructure and authorized an additional $884 million for specific medical facility projects. This action will greatly enhance the Department's ability to rapidly address important requirements for hospital replacements or improvements at: Fort Benning, GA; Fort Riley, KS; and, Camp Lejeune, NC. Dedicated funding for the Burn Rehabilitation Center at Fort Sam Houston will also expedite our capability to deliver better care to those recovering from burn injuries.

American Recovery & Reinvestment Act of 2009

Récent passage of this significant legislation will further accelerate the ongoing efforts to renew our medical facilities by providing $1.33 billion for construction of military hospitals. On March 20, 2009, DoD reported to Congress that it intends to use these additional funds to replace hospital facilities at Camp Pendleton and Fort

Hood and execute a long-overdue renovation of Naval Hospital Jacksonville. An additional $400 million in operations and maintenance funding will be applied to multiple projects across the Military Health System. The Department appreciates not only the positive impact this funding will have on local economies, but also welcomes the opportunity to address serious medical facility shortcomings sooner than otherwise possible.

Overseas Contingency Operations Act of 2009

Congress recently provided DoD with an additional $488 million to support hospital construction. The Secretary will soon forward to Congress the plan to utilize these funds consistent with the statute.

Together, Congress and the Department of Defense have initiated the actions necessary to provide the modern medical facility infrastructure to care for patients, train medical professionals, and conduct research vital to national security. The combined effects of BRAC, excellent support from Congress, and enhanced funding from within the Department of Defense will transform the existing inventory of military medical facilities. The magnitude of this effort is profound. Exclusive of the major work currently under way at BRAC sites in the National Capital Region, San Antonio, and Keesler AFB, the Department of Defense is prepared to launch the replacement, expansion, and/or modernization of approximately:

- 24 hospitals and medical centers
- 74 outpatient facilities, including ambulatory surgery centers and clinics for provision of medical, dental, mental health, and occupational health services
- 11 research facilities
- 25 mission support facilities
- 4 training facilities

The Department of Defense is proceeding with the modernization or replacement of medical facilities vital to our warriors, their families, and others who benefit from the work of military medical professionals. The direction of Secretary Gates is clear – DoD is prepared to commit to an organized revitalization of military medical facility

infrastructure. Priorities have been established through a rational process and necessary actions have commenced on those projects considered the most urgent. Adjustments have been made, and will continue to be made, as demands for military medical facility requirements evolve in the face of new missions, threats, medical technology, clinical processes, and the expectations of those we serve.

Striving for Continuous Improvement

The DoD Master Plan to improve medical facilities is not limited solely to increasing resources for construction and expediting contract start dates. DoD medical and engineering professionals also acknowledge the imperative to continuously pursue improvements in the quality of our medical facilities, the processes employed in their acquisition, and the manner in which they are operated.

A frequent observation is that it "takes too long" to acquire military medical facilities. By law, BRAC actions must be complete by September 15, 2011. Given the scope and complexity of activities in the National Capital Region and San Antonio, meeting that deadline would be impossible using traditional design/bid/build contracting processes. In both markets, DoD is using acquisition strategies that enable greater overlap and coordination between the design and construction teams. Ongoing dialog with colleagues from both within and outside the government also informs the process to incorporate best practices. DoD has also engaged knowledgeable, independent experts to help identify opportunities to streamline processes and reduce acquisition costs. Other experts are working to improve the post-occupancy evaluation process and the potential for a centralized facility innovation capability within DoD. Lessons learned from the ongoing BRAC projects, professional exchanges with private sector colleagues, and knowledge gained from targeted research will be applied to future efforts to acquire military medical facilities.

The quality of facilities is perhaps even more important than the speed with which they are acquired. As mentioned previously, a growing body of evidence suggests the built environment can enhance or impede health outcomes, the safety of patients and staff, and the operational efficiency of our health systems. The interaction of people,

technology, equipment, information, medications, and the building is extraordinarily complex in health care facilities. Though hospitals are envisioned as places of healing, they can also be very dangerous. The Institute of Medicine has estimated that as many as 90,000 Americans die each year as a result of preventable errors or accidents in hospitals. Patients fall, receive the wrong medication, or acquire infections that can cause death or serious injury. Nurses and other care providers routinely suffer injuries that can impair their ability to continue working. Many researchers, facility designers, and health care practitioners have embarked on a campaign to understand the reasons why these events occur and how facility design can be a tool to reduce their frequency and severity. Clearly, the buildings alone do not cause these significant problems events, nor can bricks and mortar alone preclude their future occurrence. But the ongoing analysis of the complex interplay between humans and the built environment strongly suggests design and construction of medical facilities can enable, or impede, the optimal delivery of health care – care that produces good outcomes, encourages safety for patients and staff, and contributes to the operational efficiency of the facility.

DoD has fully engaged in this community, sharing knowledge, conducting research, and seeking best practices to make our medical facilities more responsive to the needs of our patients, their families, and the our care-givers. In January of 2007, the ASD(HA) wrote to the commanders of the Naval Facilities Engineering Command and the U.S. Army Corps of Engineers to ask that the teams assembled to design and construct medical facilities "apply patient centered and evidenced based design principles." The ASD(HA) further wrote that doing so "will allow the MHS and the patients entrusted our care to reap substantial health and system wide benefits for many years to come."

In concert with the request from the ASD(HA), a diverse team of military medical professionals crafted a set of guiding principles to serve as a roadmap for the design and operation of DOD medical facilities. These guiding principles include:

- Create a Patient- and Family-Centered Environment
- Improve the Quality and Safety of Healthcare
- Enhance Care of the Whole Person by Providing Contact with Nature and Positive Distractions

- Create a Positive Work Environment
- Design for Maximum Standardization, Future Flexibility and Growth

These principles were disseminated in a 2007 document, *Evidence-Based Design: Application in the MHS*, which provides both information and the practical steps for creating better environments in our medical facilities. This document has been presented at various professional conferences and shared with medical facility planners, clinicians, and researchers from both the public and private sectors. It has been proven useful both as a source of information and a practical tool to help guide medical facility design. This document has also served as a public demonstration of the commitment by the Department of Defense to apply the best available knowledge to the creation of superlative military medical facilities.

Another demonstration of this commitment occurred in March of 2008, when the ASD(HA) directed a survey of wounded warriors and their families -- those who had experienced first-hand the quality of our existing hospitals. The ASD(HA) sought confirmation that our future medical facilities reflected the features desired by our most important patients and their families. Of the ten features queried in the survey, respondents identified three they considered most important:

- Comfortable space where visitors or loved ones could spend the night
- Greater privacy
- Capability to communicate with friends and family outside the facility

The survey results confirmed that our increasing emphasis on improving the patient and family experience is appropriate. Ongoing projects have addressed these expectations and will continue to be incorporated into future designs.

The days of "austere but adequate" military medical facilities are gone. In the November 2008 edition of *Healthcare Design*, the ASD(HA) described the new vision:

> ***I want you to imagine how our future military hospitals look, feel, and act. We will have healing settings that are: quiet, organized and filled with light, where patients get few if any infections, places that minimize the possibilities of falls, designed to reduce errors caused by hand-offs and transfers, where families feel welcome and are treated as partners and are provided generous and comfortable space and where the hospital staff can provide care without undue stress….***

Every day our warriors cope with deprivations and harsh environments – on the battlefield, at sea, or in the air. But when they or their family members are ill or injured, the environment we provide for their recovery should reflect a supportive and human touch. Providing healing, safe and efficient buildings is also a major component of the DoD Medical Treatment Facilities Master Plan.

Conclusion

The Department of Defense today possesses a robust Master Plan to address existing deficiencies in its medical facility infrastructure. With the help of Congress and the demonstrated commitment of DoD leadership, resources have been identified to plan, design, acquire, and maintain military medical facilities at level commensurate with their status as strategic national assets. The most urgent capital investment needs have been prioritized in a rational, structured process. At those installations experiencing significant population growth, increased clinical and mission support capacity is being provided. Where other compelling requirements have emerged, additional resources have become available. The comprehensive nature of the Master Plan is captured in Appendix C. Yet even this extensive listing of capital investments does not completely reflect all facilities currently planned for replacement or modernization. Requirements for medical facilities at installations such as Fort Knox, Fort Irwin, Fort Campbell, and Fort Stewart will soon be defined and adjustments to the current plan will subsequently follow.

But this Master Plan is not simply a story of increased funding for construction of military medical facilities in a given fiscal year. The approach of the Department of Defense can also be characterized by the following commitments to:

- Providing safe and therapeutic environments that support the needs of patients, families, and our medical professionals
- Engaging with leaders in both the public and private sectors in order to share successes and best practices.
- Setting high standards for the acquisition and operation of our facilities and measuring our performance in meeting those standards.
- Anticipating the future and providing the flexibility in our facilities to adapt to change in the most responsive and practicable manner possible.

- Understanding the unique needs of our active duty members and their families and providing the facilities best suited to meet those needs.
- Serving as stewards of the resources provided by our fellow citizens and earning their confidence that we are using these resources wisely.
- Maintaining our new and existing facilities with the resources necessary to ensure their safe and high quality operation for the duration of their useful lives.
- Continuously improving the process by which we identify, evaluate, and prioritize medical capital investments.
- Collaborating with the Department of Veterans Affairs wherever feasible to improve the quality, accessibility, and efficiency of care provided to those we serve.
- Learning from both our successes and failures and applying the knowledge we acquire to future endeavors.

The Department of Defense Master Plan for Medical Facilities is multi-faceted and reflects a commitment to excellence that Congress and the American people expect and that our patients, their families, and our medical professionals deserve. We recognize that the dynamic nature of health care and the emergence of new threats will necessitate continual update and modification to the current plan.

The Master Plan will also inevitably be subjected to competition for resources from other compelling requirements. Resources are not without limits and investments made in military medical facilities come at the expense of reduced funding for weapons systems, training, or other forms of support to war fighters. The current state of the economy may also create constraints unforeseen only months ago. As we proceed with implementation of the Master Plan described above, the Department will continue to seek confirmation that investments in medical facilities compare favorably to potential alternatives.

Despite the challenges ahead, the Master Plan provides a strategic roadmap consistent with the clear direction provided by Secretary Gates. The Department of Defense is committed to addressing the concerns expressed in House Report 110-775. The ASD(HA) captured the essence of this commitment when he recently wrote:

Hospitals that are world-class elicit a world-class standard of behavior. We are committed to learning and partnering with the best, to the advancement of knowledge and care.

While a universally accepted definition of "world class" medical facilities may not be attainable, the revitalization of the DoD medical facilities infrastructure has begun. Striving for world class facilities will continue to be the goal of the Department of Defense. It is in such facilities that the Military Health System can provide the world class care that our warriors past and present, their families, and all others entrusted to us, deserve.

APPENDIX A

Medical Facility Projects on Installations with Increasing Populations

Installation	State / Country	Hospital	Clinic(s)	Other
Ft. Bliss	TX	▲	▲	▲
Naval Hospital Guam	Guam	▲	▲	
Ft. Lewis	WA	▲	▲	▲
Ft. Benning	GA	▲	▲	▲
Ft. Carson	CO	▲	▲	▲
Ft. Bragg	NC	▲	▲	▲
Ft. Riley	KS	▲	▲	
MCB Camp Lejeune	NC	▲	▲	
Ft. Lee	VA		▲	
Ft. Drum	NY		▲	
Ft. Stewart	GA	▲	▲	
Ft. Campbell	KY	▲	▲	
White Sands Missile Range	NM		▲	
Ft. Richardson	AK		▲	
Ft. Hood	TX	▲	▲	
Ft. Leonard Wood	MO		▲	
Ft. Sill	OK		▲	
MCB Camp Pendleton	CA	▲		

Notes:
1. "Other" represents medical support facilities in which patient care is not provided but otherwise supports the missions of the MHS (eg. Blood Donor Center).
2. Funding sources include DHP MILCON, FY08 Supplemental, Force Growth & Re-stationing, and AR&RA of 2009.

APPENDIX B

Prioritization of Proposed Medical Facilities Investments

Results of the MHS Capital Investment Decision Model

May 2008

Priority	Installation	State/ Country	Proposed Investment Title	Estimated Cost ($M)
1	Naval Hospital	Guam	Hospital Replacement	471.0
2	Lackland AFB	TX	Ambulatory Care Center	441.0
3	Landstuhl Reg. Med. Cen.	Germany	Hospital Replacement, Ph 1	378.0
4	Ft. Benning	GA	Blood Donor Center	12.6
5	Ft. Benning	GA	Hospital Replacement, Ph 2	464.0
6	Andrews AFB	MD	Ambulatory Care Center	216.0
7	Lackland AFB	TX	Dental Clinic Replacement	30.0
8	Katterbach	Germany	Health/Dental Clinic	34.0
9	Camp Pendleton	CA	Hospital Replacement	556.0
10	Elmendorf AFB	AK	Aeromedical/Mental Health Clinic	25.6
11	RAF Alconbury	United Kingdom	Medical/Dental Clinic	15.5
12	Ramstein AB	Germany	Medical Clinic	80.0
13	Camp Carrol	Korea	Health/Dental Clinic	21.0
14	Ft. Belvoir	VA	Dental Clinic	6.1
15	Ft. Riley	KS	Hospital Replacement, Ph 1	277.0
16	Vilseck	Germany	Health Clinic Add/Alt	30.0
17	Ft. Hood	TX	Hospital Replacement, Ph 1	449.0
18	USNA Annapolis	MD	Health Clinic	37.9
19	Hanscom AFB	MA	Mental Health Clinic Addition	2.8
20	Andrews AFB	MD	Dental Clinic	22.0
21	NCBC Gulfport	MS	Health Clinic	22.9
22	Peterson AFB	CO	Dental Clinic	13.0
23	Camp Lejeune	NC	Hospital Renovation	70.5

Notes:

1. "Estimated Cost" does not include Planning & Design or Initial Outfitting/Transition costs.

2. Cost estimates reflect FY2010 pricing guidance and assumes authority to fund large projects incrementally with a single Congressional authorization.

APPENDIX B *(CONTINUED)*

Prioritization of Proposed Medical Facilities Investments

Results of the MHS Capital Investment Decision Model

May 2008

Priority	Installation	State/ Country	Proposed Investment Title	Estimated Cost ($M)
24	NAVHOSP Great Lakes	IL	Health Clinic Demolition	16.0
25	Kunsan AB	Korea	Clinic Replacement	48.0
26	Seymour-Johnson AFB	NC	Medical Clinic Replacement	53.0
27	Ft. Sam Houston	TX	SAMMC-N TBI Clinic	19.5
28	Shaw AFB	SC	Medical Clinic Replacement	54.0
29	Aberdeen PG	MD	CHPPM DHAC	51.0
30	MCAS Miramar	CA	Aviation Survival Training Center	22.1
31	Ft. Carson	CO	Robinson Health Clinic Add/Alt	11.0
32	Wright-Patterson AFB	OH	Satellite Pharmacy Replacement	5.2
33	NHRC San Diego	CA	Naval Health Research Center	30.4
34	NAS Lemoore	CA	Aviation Survival Training Center	11.3
35	Osan AB	Korea	Clinic Addition/Hospital Alteration	28.2
36	Ft. Sam Houston	TX	SAMMC-N 78 Single Bed Addition	140.0
37	USMA West Point	NY	Hospital Add/Alt	38.0
38	Camp Zama	Japan	Health Clinic Add/Alt	24.0
39	Ft. Carson	CO	DiRaimondo Health Clinic Add/Alt	12.8
40	Portsmouth NSY	NH	Health Clinic Replacement	38.1
41	Ft. Sam Houston	TX	SAMMC-N Dining Facility Add/Alt	33.0
42	MCB Quantico	VA	TBS Medical Clinic Replacement	20.0
43	Buckley AFB	CO	New Medical Clinic	19.0

Notes:

1. "Estimated Cost" does not include Planning & Design or Initial Outfitting/Transition costs.

2. Cost estimates reflect FY2010 pricing guidance and assumes authority to fund large projects incrementally with a single Congressional authorization.

APPENDIX C
Medical Military Construction Program
FY2010 Proposed

Location	State / Country	Project Title	Fiscal Year	Cost ($M)
Elmendorf AFB	AK	Aeromedical Services / Mental Health Clinic	2010	25,017
FT Richardson	AK	Health Clinic Addition/Alteration	2010	3,518
FT Carson	CO	Health and Dental Clinic Addition/Alteration & Clinics	2010	52,773
FT Benning	GA	Dental Clinic Addition/Alteration	2010	4,887
FT Benning	GA	Blood Donor Center Replacement	2010	12,313
FT Stewart	GA	Health and Dental Clinics	2010	26,386
FT Campbell	KY	Medical Clinic Addition/Alteration	2010	8,600
Aberdeen Proving Ground	MD	U.S. Army Medical Research Institute for Chemical Defense Replacement, Increment 2	2010	111,400
FT Detrick	MD	U.S. Army Medical Research Institute of Infectious Diseases Replacement, Stage 1, Increment 4	2010	108,000
FT Detrick	MD	Emergency Service Center	2010	16,125
FT Detrick	MD	Boundary Gate at Nallin Pond	2010	10,750
FT Detrick	MD	Truck Inspection Station & Road	2010	2,932
FT Leonard Wood	MO	Dental Clinic Addition/Alteration	2010	5,570
FT Bragg	NC	Consolidated Health Clinic	2010	26,386
FT Bragg	NC	Health Clinic	2010	31,272
FT Sill	OK	Dental Clinic	2010	10,554
FT Bliss	TX	Health and Dental Clinic	2010	30,295
FT Bliss	TX	Hospital Replacement, Phase 1	2010	86,975
Lackland AFB	TX	Ambulatory Care Center, Phase 1	2010	72,610
Lackland AFB	TX	Dental Clinic Replacement	2010	29,318
FT Lewis	WA	Health and Dental Clinic Additions	2010	15,636
Naval Hospital Guam	Guam	Hospital Replacement, Phase 1	2010	259,156
RAF Alconbury	United Kingdom	Medical/Dental Clinic Replacement	2010	14,227

APPENDIX C *(continued)*
Medical Military Construction Program
Notional Beyond FY2010

Location	State / Country	Project Title	Fiscal Year	Cost ($M)
Hanscom AFB	MA	Mental Health Clinic Addition	TBD	2,919
Aberdeen Proving Ground	MD	U.S. Army Medical Research Institute for Chemical Defense Replacement	TBD	140,000
Aberdeen Proving Ground	MD	U.S. Army Medical Research Institute for Chemical Defense Replacement	TBD	128,600
Andrews AFB	MD	Ambulatory Care Center, Phase 1	TBD	125,000
Andrews AFB	MD	Dental Clinic Replacement	TBD	22,865
FT Detrick	MD	U.S. Army Medical Research Institute of Infectious Diseases Replacement, Stage 1	TBD	126,400
FT Detrick	MD	Consolidated Logistics Facility	TBD	24,325
FT Detrick	MD	Information Services Facility Expansion	TBD	4,378
FT Detrick	MD	Security Fencing and Equipment	TBD	2,724
FT Detrick	MD	Supplemental Water Storage	TBD	3,795
FT Detrick	MD	Water Treatment Plant Repair	TBD	12,454
FT Leonard Wood	MO	Troop Dispensary/Health Clinic	TBD	6,227
White Sands Missile Range	NM	Soldier Family Care Clinic	TBD	39,893
FT Bliss	TX	Hospital Replacement, Phase 1	TBD	211,870
Lackland AFB	TX	Ambulatory Care Center, Phase 2	TBD	172,000
FT Belvoir	VA	Dental Clinic Replacement	TBD	6,324
Katterbach	Germany	Health/Dental Clinic Replacement	TBD	36,186
Landstuhl Regional Medical Center	Germany	Medical Center Replacement, Phase 1	TBD	76,000
Ramstein AB	Germany	Medical Clinic Replacement	TBD	91,137
Vilseck	Germany	Health Clinic Addition/Alteration	TBD	34,126
Camp Carrol	Korea	Health/Dental Clinic Replacement	TBD	18,026

APPENDIX C *(continued)*
Medical Military Construction Program
Notional Beyond FY2010

Location	State / Country	Project Title	Fiscal Year	Cost ($M)
Buckley AFB	CO	Medical Clinic	TBD	22,711
FT Carson	CO	DiRaimondo Health Clinic Addition/Alteration	TBD	15,303
FT Carson	CO	Robinson Health Clinic Addition/Alteration	TBD	13,159
Dover AFB	DE	Medical Clinic Modernization	TBD	11,989
Eglin AFB	FL	Hospital Alteration	TBD	11,989
Naval Hospital Great Lakes	IL	Health Clinic Demolition	TBD	17,821
Aberdeen Proving Ground	MD	Clark Army Health Clinic	TBD	28,657
Aberdeen Proving Ground	MD	CHPPM Deployment Health Analytical Center	TBD	60,921
FT Detrick	MD	U.S. Army Medical Research Institute of Infectious Diseases Replacement, Stage 1	TBD	60,600
FT Detrick	MD	NIBC Entry Control Point & Visitors Center	TBD	2,435
FT Detrick	MD	Hazardous Waste Plant	TBD	3,509
USNA Annapolis	MD	Health Clinic Replacement	TBD	45,228
FT Leonard Wood	MO	Dental Clinic	TBD	11,989
Seymour-Johnson AFB	NC	Medical Clinic Replacement	TBD	59,110
Ellsworth AFB	SD	Medical Clinic Modernization	TBD	23,296
Camp Bullis	TX	Nutrition Care Training	TBD	6,531
FT Bliss	TX	Blood Donor Center	TBD	5,946
Lackland AFB	TX	Ambulatory Care Center, Phase 3	TBD	143,000
Andersen AFB	Guam	War Reserve Materiel/Logistics Warehouse Replacement	TBD	7,213
Naval Hospital Guam	Guam	Hospital Replacement, Phase 2	TBD	277,000
Camp Zama	Japan	Health Clinic Addition/Alteration	TBD	30,051
Kunsan AB	Korea	Clinic Replacement	TBD	44,098

APPENDIX C *(continued)*
Medical Military Construction Program
Notional Beyond FY2010

Location	State / Country	Project Title	Fiscal Year	Cost ($M)
Marine Corps Air Ground Combat Center 29 Palms	CA	Adult Health Clinic Replacement	TBD	18,422
Marine Corps Air Station Miramar	CA	Aviation Survival Training Center	TBD	26,415
Naval Air Station Lemoore	CA	Aviation Survival Training Center Replacement	TBD	13,450
Naval Health Research Center, San Diego	CA	Naval Health Research Center Replacement	TBD	36,260
Peterson AFB	CO	Dental Clinic Replacement	TBD	15,498
Patrick AFB	FL	Comprehensive Clinic Renovation	TBD	23,881
Naval Construction Battalion Center, Gulfport	MS	Health Clinic Replacement	TBD	27,390
Grand Forks AFB	ND	Medical Clinic Modernization	TBD	23,296
Offutt AFB	NE	Flight Medicine Clinic Replacement	TBD	16,083
Offutt AFB	NE	Medical Clinic Modernization	TBD	23,881
FT Sam Houston	TX	SAMMC-N Traumatic Brain Injury Clinic	TBD	23,296
FT Sam Houston	TX	SAMMC-N 78 Single Bed Addition	TBD	167,112
FT Sam Houston	TX	SAMMC-N Dining Facility Addition/Alteration	TBD	39,379
FT Sam Houston	TX	DOD Food Analysis & Diagnostic Lab	TBD	14,028
Lackland AFB	TX	Ambulatory Care Center, Phase 4	TBD	80,903
Marine Corps Base Quantico	VA	The Basic School Branch Medical Clinic Replacement	TBD	23,881
FT Lewis	WA	Blood Donor Center	TBD	3,314
FT Lewis	WA	Preventive Medicine Service Facility	TBD	9,552
FT Lewis	WA	Medical Readiness & Training Facility	TBD	11,112
Landstuhl Regional Medical Center	Germany	Medical Center Replacement, Phase 2	TBD	341,000
Osan AB	Korea	Clinic Addition/ Hospital Alteration	TBD	27,687
Lajes Field	Portugal	Medical Clinic Replacement	TBD	23,912

APPENDIX C *(continued)*
Medical Military Construction Program
Notional Beyond FY2010

Location	State / Country	Project Title	Fiscal Year	Cost ($M)
Davis-Monthan AFB	AZ	Medical Clinic Replacement	TBD	66,438
Travis AFB	CA	Medical Center Alteration, Phase 1	TBD	35,870
Pike's Peak	CO	U.S. Army Institute of Environmental Medicine High Altitude Research Lab Addition/Alteration	TBD	4,971
Bolling AFB	DC	Medical/Dental Clinic Replacement	TBD	44,714
Tripler Army Medical Center	HI	Neonatal Intensive Care Unit	TBD	13,159
Tripler Army Medical Center	HI	Repair Pathology Lab	TBD	12,379
Scott AFB	IL	War Reserve Materiel Warehouse Replacement	TBD	5,946
Forest Glen	MD	Walter Reed Army Institute of Research Bio-Production Facility	TBD	51,046
Portsmouth Naval Shipyard	ME	Health Clinic Replacement	TBD	45,520
Columbus AFB	MS	Medical Clinic Modernization	TBD	10,229
USMA West Point	NY	Hospital Addition/Alteration	TBD	45,423
Wright-Patterson AFB	OH	Inpatient & Emergency Department Renovation	TBD	23,881
Wright-Patterson AFB	OH	Satellite Pharmacy Replacement	TBD	6,238
Shaw AFB	SC	Medical Clinic Replacement	TBD	64,527
FT Bliss	TX	Hospital Replacement, Phase 2	TBD	522,561
FT Hood	TX	Hospital Replacement, Phase 2	TBD	233,544
FT Lewis	WA	Mother/Baby and Women's Health Addition/Alteration	TBD	102,189
RAF Croughton	United Kingdom	Medical Clinic Replacement	TBD	11,976

APPENDIX C *(continued)*
Medical Military Construction Program
Notional Beyond FY2010

Location	State / Country	Project Title	Fiscal Year	Cost ($M)
Elmendorf AFB	AK	Bio-Environmental Facility Replacement	TBD	7,000
Maxwell AFB	AL	Medical Clinic Modernization	TBD	12,762
Pine Bluff	AR	Occupational Health Clinic	TBD	6,430
Marine Corp Recruit Depot San Diego	CA	Branch Health Clinic Replacement	TBD	74,329
Marine Corps Base Camp Pendleton	CA	Area 52 San Onofre Troop Clinic	TBD	10,716
Naval Environmental / Preventive Medicine Unit 5, San Diego	CA	EPMU Addition/alteration	TBD	22,990
Robins AFB	GA	Medical Clinic Modernization	TBD	25,523
Tripler Army Medical Center	HI	Computer/Communication Facility	TBD	17,632
Naval Station Great Lakes	IL	Drug Lab Testing Replacement	TBD	36,143
Natick	MA	U.S. Army Institute of Environmental Medicine Replacement	TBD	121,198
Keesler AFB	MS	Dental Clinic Replacement	TBD	38,285
McGuire AFB	NJ	Medical Clinic Modernization	TBD	16,611
Altus AFB	OK	Medical Clinic Modernization	TBD	26,542
Arnold Air Station	TN	Medical Clinic Replacement	TBD	6,806
Sheppard AFB	TX	Medical Clinic Replacement	TBD	67,315
Naval Amphibious Base Little Creek	VA	Health Clinic Addition/Alteration	TBD	73,257
Naval Base Norfolk	VA	Industrial Hygiene Lab Replacement	TBD	4,189
Bangkok	Thailand	Armed Forces Research Institute of Medical Sciences Replacement	TBD	90,000

APPENDIX C *(continued)*
Medical Military Construction Program
Notional Beyond FY2010

Location	State / Country	Project Title	Fiscal Year	Cost ($M)
Elmendorf AFB	AK	War Reserve Materiel Warehouse Replacement	TBD	14,681
Travis AFB	CA	Medical Center Alteration Phase 2	TBD	70,652
Naval Station Pearl Harbor, Makalapa	HI	Health Clinic Replacement	TBD	68,057
Tripler Army Medical Center	HI	Department of Clinical Investigation Replacement	TBD	47,737
Naval Training Center Great Lakes	IL	Health Clinic Replacement	TBD	61,932
Scott AFB	IL	Logistics Warehouse Replacement	TBD	7,097
FT Detrick	MD	U.S. Army Medical Research Institute of Inefficacious Diseases Replacement, Stage 2	TBD	551,812
Uniformed Services University of the Health Sciences, Bethesda	MD	Research Building	TBD	140,586
Naval Hospital Beaufort	SC	Hospital Replacement	TBD	68,057
Lackland AFB	TX	Reid Clinic Replacement	TBD	53,182
Laughlin AFB	TX	Medical Clinic Modernization	TBD	20,417
Laughlin AFB	TX	Occupational Health Clinic Replacement	TBD	3,986
Naval Air Station Corpus Christi	TX	Health Clinic Replacement	TBD	68,154
Navy IT, San Antonio	TX	Medical Information Management Facility	TBD	8,167
Geilenkirchen AB	Germany	Medical Clinic Replacement	TBD	27,913
Landstuhl Regional Medical Center	Germany	Medical Center Replacement, Phase 3	TBD	25,000
Naval Hospital Guam	Guam	Hospital Replacement Phase 3	TBD	45,000
Incirlik AB	Turkey	Medical Clinic Modernization	TBD	28,193
RAF Feltwell	United Kingdom	War Reserve Materiel Warehouse Replacement	TBD	13,116

APPENDIX D

Major Medical Facilities Projects Funded by BRAC 2005, the FY2008 Supplemental, and AR&RA of 2009

Location	State / Country	Project Title	Fund Source	Cost ($M)
FT Hood	TX	Hospital Replacement, Phase 1	ARRA	621,000
Marine Corps Base Camp Pendleton	CA	Hospital Replacement	ARRA	563,100
Naval Air Station Jacksonville	FL	Hospital Alteration	ARRA	27,210
FT Belvoir	VA	Hospital Replacement	BRAC 2005	1,000,000
Keesler AFB	MS	Hospital Addition/Alteration	BRAC 2005	67,700
San Antonio Military Medical Center	TX	Medical Center Addition/Alteration	BRAC 2005	868,000
Walter Reed National Military Medical Center	MD	Medical Center Addition/Alteration	BRAC 2005	1,300,000
FT Benning	GA	Hospital Replacement	FY08 Supplemental	507,000
FT Riley	KS	Hospital Replacement	FY08 Supplemental	404,000
Marine Corps Base Camp Lejeune	NC	Hospital Addition/Alteration	FY08 Supplemental	64,000
San Antonio Military Medical Center	TX	Institute for Surgical Research Burn Rehabilitation	FY08 Supplemental	21

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