



MARITIME ADMINISTRATION

**UNITED STATES
MERCHANT MARINE ACADEMY**



**CAPITAL IMPROVEMENT PROGRAM
FY 2016 ANNUAL REPORT AND FY 2017-2021 PLAN**



MARCH 31, 2016

Table of Contents

Executive Summary	2
Section I: Capital Improvement Program (CIP)	5
CIP Project No. 1: Samuels Hall Renovation (Design/Construction).....	6
CIP Project No. 2: Electric Grid/Power Supply Improvement (Inventory/Design/Construction)	8
CIP Project No. 3: Zero Deck (Design/Construction).....	10
CIP Project No. 4: Crowninshield Pier (Design/Construction).....	12
CIP Project No. 5: Water Main Replacement (Design/Construction).....	14
CIP Project No. 6: Seawall Replacement.....	16
CIP Project No. 7: Grenwolde Loop Project.....	18
CIP Project No. 8: Bowditch Hall Renovation.....	19
CIP Project No. 9: Gibbs Hall Renovation	21
CIP Project No. 10: Sewer Pumping Station.....	22
CIP Project No. 11: Museum Restrooms	23
CIP Project No. 12: Safety Issues Barracks/Facilities	24
CIP Project No. 13: Road and Sidewalk Replacement	25
Section II: Active Capital Improvement Program (CIP) Projects	26
Section III: Completed Capital Improvement Program (CIP) Projects	27
Section IV: Capital Improvement Program Appropriation History	28
Section V: Five-Year Capital Improvement Program Projects Plan	29

Executive Summary

This annual Capital Improvement Program report has five sections which provide information about: (1) Capital Improvement Program Active Projects Description and Status; (2) Active Capital Improvement Program Projects; (3) Completed Capital Improvement Projects; (4) Capital Improvement Program Appropriation History; and (5) the Five-Year Capital Improvement Program Projects Plan. All requests for funding for the projects listed in the Five-Year Projects Plan must be included in the President's Budget proposal and are subject to enacted appropriations.

Background

The U.S. Merchant Marine Academy (USMMA) is one of five Federal service academies. Authorized by Congress in 1936, the Kings Point, New York campus opened in 1943. The USMMA graduates approximately 200 students annually who have earned a Bachelor of Science degree, a U.S. Coast Guard Merchant Mariner Credential with officer endorsement and a commission in the U.S. Armed Forces. Graduates are obligated to serve a minimum of six years in the U.S. Merchant Marine while concurrently serving for five years in a reserve component of the U.S. Armed Forces. Alternatively, approximately 25 percent of graduates serve five years in an active duty status with the U.S. Armed Forces, the National Oceanic and Atmospheric Administration (NOAA) or the U.S. Public Health Service (PHS), or in maritime-related Federal civil service which serves the national security interests of the United States. The Merchant Mariner Credential earned at graduation must be maintained in active status for at least six years.

In 2013, the Maritime Administration (MARAD) completed a comprehensive Building Evaluation Report (BER) detailing the condition of each campus building. The Capital Improvement Program (CIP) incorporates the BER findings and not only enables prioritization of CIP projects, but also facilitates identification of building problem areas that can be targeted for long-term repair.

The USMMA recently conducted a Space Utilization Study (SUS), which was completed in June 2015. The study examines the current and proposed space requirements of USMMA buildings to determine if there alternatives to optimize the utilization of the buildings and their space. The study informs USMMA management on the best utilization of its available space and may help to more clearly define the use of academic buildings with possible adjustments to CIP project priority. The USMMA is currently reviewing and analyzing the results of the SUS and will submit an amended annual CIP report prior to the end of fiscal year (FY) 2016.

The CIP, BER and SUS provide MARAD and the USMMA with three powerful planning tools to help modernize campus infrastructure and to set a course for the future of USMMA facilities. Our goal is to ensure that USMMA facilities provide a safe and productive environment for Midshipmen, faculty and staff while enhancing the quality of education, both now and in the future.

Establishment of USMMA CIP Senior Advisory Council and Working Group

In February 2012, then-Department of Transportation (DOT) Secretary Ray LaHood established a USMMA CIP Senior Advisory Council to monitor progress on current USMMA CIP projects. The Council is comprised of the USMMA Superintendent, the Department Assistant Secretary for Administration and Assistant Secretary for Budget and Programs - Chief Financial Officer, and the Maritime Administrator. The work of the Senior Advisory Council continues and is supported by the CIP Working Group, which brings together MARAD and USMMA staff, along with staff from the budget, legal and management offices in the Office of the Secretary, to regularly discuss and monitor the progress of USMMA CIP projects. An internal tracking system was developed for ongoing projects and the CIP Working Group meets monthly to review the status and current issues affecting all CIP projects.

The work of the USMMA CIP Senior Advisory Council and the CIP Working Group has helped to ensure that USMMA CIP projects remain on schedule and that any delays are minimal and reasonable.

CIP Five Year Plan Goals

The CIP five-year plan was established to make the educational experience for Midshipmen more productive by providing improvements and enhancements to the facilities where they learn, live, eat and study. The positive impact of newly renovated buildings cannot be underestimated in evaluating USMMA performance measures for Midshipman academic performance, retention and recruitment.

Consistent with the recommendations of the 2009 Blue Ribbon Panel Report, commissioned by then-Department of Transportation (DOT) Secretary Ray LaHood, the USMMA is taking a comprehensive approach to capital planning. As such, the sequential order for funding CIP projects was established to improve the quality of life for Midshipmen first, then to enhance academic services, and finally to bolster the support structure of campus administrative services.

The initial CIP focus in FY 2012 was renovation of the dining facility and all of the dormitories on campus. Delano Hall was completed in November 2014 and provides the Academy with updated food service facilities. New appliances, upgraded electrical wiring and modern plumbing support a facility where safe food preparation and increased energy efficiencies have helped to promote the overall well-being of Midshipmen and staff. This project was executed in a phased approach to allow for continued operation of the facility during renovation, and this method also resulted in significant cost savings.

To date, the USMMA has successfully completed the renovation of all six dormitories, also referred to as barracks. Contractors began renovation of the sixth and last dormitory, Cleveland Hall, in August 2013, and it was completed in October 2014. Safe and modern living accommodations are necessary and advantageous for Midshipmen studies. Modern barracks arrangements further serve to encourage potential applicants for admission to consider an appointment to the USMMA for higher education. The renovation of USMMA's barracks should enable the Academy to meet all current and future Midshipmen housing needs in a safe, secure and modern environment.

As an adjunct to the barracks renovation project, the USMMA will renovate the Zero Deck. This is a 90,000 square foot area that is a below-grade, or at basement level, area that interconnects all six barracks and Delano Hall. The architecture and engineering (A&E) design phase was completed April 2015 and the construction phase is scheduled to be awarded in April 2016. Another major milestone was the completion of Mallory Pier in April 2014. The Mallory Pier project resulted in replacement of an unsafe and deteriorating pier, and the new pier more safely accommodates berthing of training ships and other vessels used for waterfront activities and the curriculum at the USMMA. The Mallory Pier replacement enhances waterfront safety and provides a modern platform for instructional, competitive and recreational waterfront activities.

The next CIP priorities are the academic areas including classrooms, laboratories, lecture halls and faculty spaces on campus. In order to meet its goal of educating the future leaders of the maritime industry, the USMMA requires updated and technologically advanced classrooms, laboratory and computer simulator spaces. Samuels Hall will be the first of four academic buildings to be renovated. The design will include the Academy leadership directed repurposing of Samuels Hall for use as computer simulator labs, classrooms and office spaces for the Marine Transportation and Marine Engineering Departments. The facility design will include full renovation and upgrades, and will incorporate facility needs required by the academic departments. The A&E design phase is scheduled for contract award in October 2016. The Gibbs Hall academic building design and renovation project is a new project for this year's report. Gibbs Hall is the third of four academic buildings to be renovated.

The third area of focus is the supporting non-academic structures on campus, including Midshipmen services, warehouses and staff spaces. Attention to these areas will improve student/staff safety and morale. In addition, there are various infrastructure projects needed to upgrade the most basic of campus services, such as the water main, the sewer system, electrical grid and power supply. Modernization of these systems helps provide a safe environment and eliminates service disruptions to living accommodations and academic facilities, enabling students Midshipmen to focus on Regimental duties and studies. A modern suite of basic infrastructure services provides the foundation for any successful renovation plan and saves resources in the long run by reducing the need for emergency labor and material costs when a service disruption occurs.

To date, progress is being achieved on these infrastructure improvements. Phases 1 and 2 of the water main replacement project are complete. The final phase, Phase 3B, will be completed in April 2016. The installation of the new 8-inch water main was completed in August 2012 and upgrade of the existing water vault was completed in January 2013. Phase 3 upgrades the water distribution system throughout the campus and is scheduled for completion in April 2016. Upgrades to the Elmridge Road Sewage Lift Station included one new lift pump and renovation of a second lift pump, addition of an emergency generator, and installation of modern electrical equipment. Additionally, the survey phase of the electric grid upgrade project was completed in February 2013. Four projects were completed in the past year including the Zero Deck design, sewer pump replacement, renovation of the museum restrooms and completion of the barracks and facilities safety issues.

Section I

Capital Improvement Program (CIP)

Active Projects During February 1, 2015 – December 31, 2015

Description and Fund Status as of December 31, 2015

ACTIVE CIP PROJECT No. 1: SAMUELS HALL RENOVATION (DESIGN/CONSTRUCTION)

Status: Samuels Hall is the academic building that previously housed the Humanities Department. This is the first of four academic buildings to be renovated. The Architectural and Engineering (A&E) design will include repurposing of Samuels Hall for use as computer simulator labs, classrooms and office spaces for the Departments of Marine Transportation and Marine Engineering. The design will include renovation of the Computer Aided Operations Research Facility (CAORF) to accommodate an increased requirement for computer lab spaces. The estimated contract award for the Samuels Hall A&E design has changed to October 2016 pending results of the Space Utilization Study.

Additionally, the A&E design procurement process is iterative. In accordance with the Brooks Act of 1972, MARAD solicits technical proposals from interested A&E firms in accordance with established requirements. The technical capability of each proposal is evaluated by the MARAD A&E Evaluation Board and ranked in order of qualifications from highest to lowest. The highest qualified Offeror is then requested to submit a priced proposal. The priced proposal is evaluated and negotiations proceed as required to establish an agreed to contract. If agreement cannot be reached through negotiations, the Government moves to the next highest qualified Offeror and repeats the process. Priced proposals are requested on a sequential basis from the highest to lowest qualified Offerors. The process of requesting a priced proposal, evaluation, and negotiating can take three months per proposal. This process has extended the original estimated contract award date.

Additionally, during the acquisition planning process, a strategy was developed to segment the A&E design process and construction efforts based on type of engineering project.

Samuels Hall and Crowninshield Pier projects will serve as the initial requirements for academic buildings and marine projects respectively. An Indefinite Delivery Indefinite Quantity (IDIQ) contract will be established for both the academic building and marine projects to streamline the process of future A&E design requirements. By establishing an IDIQ with single Offerors, MARAD will be able to proceed directly to requesting priced proposals without the need to qualify technical qualifications of multiple firms for each project. Upon completion of the IDIQ contract for a building A&E design, it will also be used for the Bowditch Hall design contract award. Additionally, upon completion of the IDIQ contract for marine projects A&E design, it will also be used for the Seawall Replacement design contract award.

General Description: Samuels Hall is the first of four academic buildings to be renovated in an effort to improve the academic environment on the USMMA campus. The A&E design phase will be comprised of a complete bid package for the facility. The package will include a complete set of drawings as well as a cost estimate, statement of work and specifications. The



Samuels Before



Samuels Before

ACTIVE CIP PROJECT No. 1: SAMUELS HALL RENOVATION (CONTINUED):

facility design will include full renovation and upgrades and will incorporate facility needs as required by the academic department. The USMMA will repurpose Samuels Hall as a facility to house computer simulators and simulation equipment. The renovation will include the replacement of the roof and parapet and upgrade of the mechanical room. The heating and cooling systems, along with the electrical and plumbing services will be modernized. All classrooms will receive improvements to technology capabilities and updated interior finish work. Throughout Samuels Hall, the lighting, flooring, ceiling and fixtures will be modernized and improved.

Project Goals: The project goal is to repurpose Samuels Hall into state-of-the-art computer simulator labs, classrooms and office spaces. Computer simulation and simulator equipment are critical in the training curriculum to allow aspiring mariners to practice ship handling and make mistakes without actually hazarding a vessel or other vessels at sea. The operation of a simulator is also more cost effective than operating a ship at sea. Simulators are so essential to performing the Academy's mission that completion of some International Maritime Organization (IMO) Standards of Training, Certification and Watchkeeping (STCW) competencies are tied to a Midshipman's successful simulator work.

Benefits to be Achieved: The USMMA will provide the students with an up to date academic facility that meets all fire and safety codes and houses state-of-the-art computer simulators. This will allow Midshipmen to receive the best education available in a safe environment with a modernized facility comparable to civilian college campuses.

Design Estimated Contract Date:	October 2016
Design Estimated Completion Date:	TBD ¹

Construction Estimated Contract Date:	TBD ¹
Construction Estimated Completion Date:	TBD ¹

Design Funding Status:	
Project Budget:	\$ 1,000,000
Project Obligations:	\$ 0

Construction Funding Status:	
Project Budget:	\$ 6,000,000
Project Obligations:	\$ 0

¹ Design estimated completion date will be established upon contract award and the contract period of performance. The construction estimated contract award date and construction completion date is dependent upon the results of the design and the design completion date.

ACTIVE CIP PROJECT No. 2: ELECTRIC GRID/POWER SUPPLY IMPROVEMENT (INVENTORY/DESIGN/CONSTRUCTION)

Status: This is a multi-phased project covering survey and inventory, design, replacement and construction of the USMMA electric grid and power supply improvements for all buildings on campus. The project is divided into three phases: survey, design and replacement/construction. Phase 1 Survey was completed in February 2013. The project is currently in the Phase 2 Design and the estimated design contract award date has changed to June 2016.

The A&E design procurement process is iterative. In accordance with the Brooks Act of 1972, MARAD solicits technical proposals from interested A&E firms in accordance with established requirements. The technical capability of each proposal is evaluated by the MARAD A&E Evaluation Board and ranked in order of qualifications from highest to lowest. The highest qualified Offeror is then requested to submit a priced proposal. The priced proposal is evaluated and negotiations proceed as required to establish an agreed to contract. If agreement cannot be reached through negotiations, the Government moves to the next highest qualified Offeror and repeats the process. Priced proposals are requested on a sequential basis from the highest to lowest qualified Offerors. The process of requesting a priced proposal, evaluation, and negotiating can take three months per proposal. This process has extended the original estimated award date.

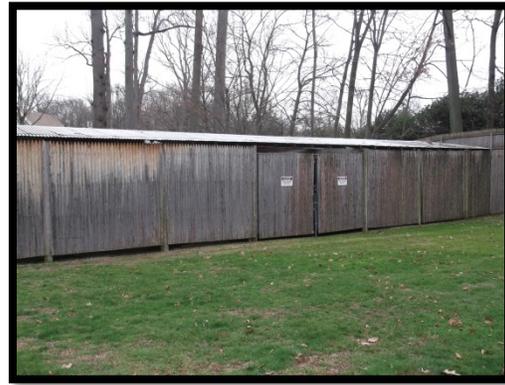
General Description: USMMA's current electric grid is a compilation of multiple electric components from various properties acquired by the U.S. government since the founding of USMMA. The electrical equipment and wiring in some buildings dates back to the original 1943 construction. The student event center, some staff housing and the museum building all pre-date the rest of the USMMA's campus buildings, and still utilize their original electrical equipment. As a result of the antiquated condition of the equipment and the high demand placed upon the current grid, frequent electrical outages occur. The existing electrical system and grid require an evaluation to determine the extent of deterioration and the need for replacement of worn components. The consolidated properties that make up the campus are presently serviced from multiple feeders and these main electric feeders have never been properly evaluated for balancing the load and providing redundancy. The transformers and switch gear, which are the main components of the electric distribution system, are in desperate need of replacement because they have far exceeded their original design life. The major underground electric distribution cables all need to be replaced, which may require extensive excavation and relocation of other underground utilities. The electric grid and power supply improvement project is a multi-phased project covering inventory, design, replacement and construction.

Phase 1 of this project was the survey, inventory and mapping of the existing electric grid equipment and its locations. This phase solicited a design for upgrading the grid and ancillary equipment, and to develop a valid estimate for construction so as to establish a baseline cost. The expectation was for more reasonable and accurate bids from contractors when measured against a baseline cost. Phase 1 was completed in February 2013. Phase 2 of this project, which is scheduled for award in June 2016, is a design and specification phase to provide a plan for replacing outdated components and upgrading the grid as a whole. Phase 3 is the replacement and construction phase.

ACTIVE CIP PROJECT No. 2: ELECTRIC GRID/POWER SUPPLY IMPROVEMENTS (CONTINUED):

Project Goals: The project will provide a modern electrical grid and power supply across the Academy campus. This will replace antiquated electrical devices, eliminate potential for electrical failures and provide greater reliability of the electrical supply throughout the campus.

Benefits to be Achieved: The USMMA will have a modern electrical grid and electrical supply distribution system throughout the campus. This improvement will result in increased reliability of the electric service across the campus, improved energy efficiency and reduced utility costs. Midshipmen, faculty and staff also benefit by having a reliable, continuous supply of electric power for support systems. The project will increase the lifespan of the electric distribution systems and sensitive electronic equipment.



Electrical Before

Phase 1 Survey:

Contract Award Date: November 2012

Completion Date: February 2013

Phase 2 Design:

Estimated Contract Date: June 2016

Estimated Completion Date: TBD¹

Phase 3 Replacement/Construction:

Estimated Contract Date: TBD¹

Estimated Completion Date: TBD¹

Funding Status:

Project Budget: \$ 6,800,000²

Project Obligations: \$ 62,110 (Phase 1)

¹ Design estimated completion date will be established upon contract award and the contract period of performance. The construction estimated contract award date and construction completion date is dependent upon the results of the design and the design completion date.

² The project budget amount of \$6.8 million is the total CIP funds. Facilities, Maintenance, Repair and Equipment funds of \$2 million are also allocated to the project. The total project amount is \$8.8 million.

ACTIVE CIP PROJECT No. 3: ZERO DECK (DESIGN/CONSTRUCTION)

Status: The Zero Deck A&E design was completed on schedule in April 2015 and within budget. The design provided the requirements for developing the acquisition package for the construction contract award. The construction contract is expected to be awarded in April 2016. The construction contract award date was changed due to development of the acquisition package, review of bids and funding availability. The invitation for bids (IFB) was issued and the bid opening has occurred. The “apparent” low bidder was determined to be responsive, responsible and reasonable and the contract award is planned for April 2016.



Zero Deck Before

General Description: Zero Deck is an approximately 90,000 square foot below-grade basement level that interconnects all six USMMA barracks and Delano Hall. These are highly trafficked areas, particularly in poor weather conditions, as the hallways allow for Midshipmen, faculty and staff to traversing across a large portion of campus and remain indoors. Zero Deck also contains a number of support offices, including the Academy mail room, Navy Exchange store, credit union, and Midshipman club activity spaces. The A&E design includes a plan



Zero Deck Before

for the reconfiguration and renovation of the basement area of each of the barracks. The renovation will provide upgrades to the major mechanical rooms and installation of modern heating and cooling systems where necessary. Additionally, sanitary piping will be replaced throughout and electrical service, fire alarm suppression and sprinklers will be upgraded. This upgrade will include all corridor lighting, flooring, ceiling, signage and interior finish work (lighting fixtures, painting, and all office/club/storage spaces where necessary).

Project Goals: Zero Deck will continue to provide Midshipmen faculty and staff with an avenue for traversing the entire below-grade level (basement) of all six barracks and Delano Hall in a safe and secure environment, especially in the event of inclement weather. Zero Deck is intended as a facility which will meet all Midshipmen personal services needs along with providing recreation and music activity rooms. Renovation of Zero Deck will enhance the collegiate experience for Midshipmen, create a viable safe shelter and attract the attention of possible applicants for admission; similar to the renovated barracks.

ACTIVE CIP PROJECT NO. 3: ZERO DECK (CONTINUED):

Benefits to be Achieved: The Zero Deck renovation will provide updated facilities and infrastructure to enhance the safety and overall well-being of the students. The renovation will also provide energy efficiency through the use of new technology and modern fixtures.

Design Contract Award Date: June 2014
Design Completion Date: April 2015

Construction Estimated Contract Date: April 2016
Construction Estimated Completion Date: TBD¹

Design Funding Status:
Project Budget: \$ 600,000
Project Obligation: \$ 495,000

Construction Funding Status:
Project Budget: \$ 8,000,000 ²
Project Obligation: \$ 0

¹ Construction estimated completion date will be established upon contract award and the contract period of performance.

² The construction project budget of \$8 million includes \$5 million of FY2014 CIP Funds. The remaining \$3 million was allocated from other projects and prior year funds.

ACTIVE CIP PROJECT No. 4: CROWNINSHIELD PIER (DESIGN/CONSTRUCTION)

Status: The USMMA considered three different styles of breakwaters (pile and wave screen, steel sheet pile bulkhead and a stone jetty) to replace Crowninshield Pier. Surveys, design narratives and cost estimates for each breakwater option were completed, with costs for construction ranging from \$1.3 million to \$4.8 million. The \$1.3 million option, a pile and wave screen, was chosen to continue with the preliminary permitting process. This cost estimate does not include demolition of the existing pier, detailed design for the pile and wave screen, or any directed actions as a result of the permitting process. The estimated total cost of the project is \$3 million. The design estimated contract award date has changed to June 2016.



Crowninshield Before

The A&E design procurement process is iterative. In accordance with the Brooks Act of 1972, MARAD solicits technical proposals from interested A&E firms in accordance with established requirements. The technical capability of each proposal is evaluated by the MARAD A&E Evaluation Board and ranked in order of qualifications from highest to lowest. The highest qualified Offeror is then requested to submit a priced proposal. The priced proposal is evaluated and negotiations proceed as required to establish an agreed to contract. If agreement cannot be reached through negotiations, the Government moves to the next highest qualified Offeror and repeats the process. Priced proposals are requested on a sequential basis from the highest to lowest qualified Offerors. The process of requesting a priced proposal, evaluation, and negotiating can take three months per proposal. This process has extended the original estimated award date.



Crowninshield Before

Additionally, during the acquisition planning process, a strategy was developed to segment the A&E design process and construction efforts based on type of engineering project.

Samuels Hall and Crowninshield Pier projects will serve as the initial requirements for academic buildings and marine projects respectively. An IDIQ contract will be established for both the academic building and marine projects to streamline the process of future A&E design requirements. By establishing an IDIQ with single Offerors, MARAD will be able to proceed directly to requesting priced proposals without the need to qualify technical qualifications of multiple firms for each project. Upon completion of the IDIQ contract for a building A&E design, it will be used for the Bowditch Hall design contract award. Additionally, upon completion of the IDIQ contract for marine projects A&E design with the Crowninshield Pier award, it will also be used for the Seawall Replacement design contract award.

ACTIVE CIP PROJECT No. 4: CROWNINSHIELD PIER (CONTINUED):

General Description: The southern boundary of Hague Basin is enclosed by Crowninshield Pier, which is a 355-foot long, two-level timber structure with a roof covering for storage of life boats and work area for the waterfront. The entire understructure is compromised and requires replacement due to severe deterioration with many of the piles splintering. The pier itself is not utilized for waterfront activities and the most efficient means of protecting the boat basin is a breakwater.

Project Goals: The pier will be replaced with a breakwater with floating docks for small vessels which will better meet the needs of the Midshipmen and waterfront programs.

Benefits to be Achieved: The project will enable the USMMA to demolish a severely deteriorated and potentially hazardous structure and replace it with a structurally sound and safe breakwater with floating piers. This cost-effective approach will also better meet the needs for instructing Midshipmen and support for training curriculum and waterfront activities.

Design Estimated Contract Award Date: June 2016
Design Estimated Completion Date: TBD¹

Construction Contract Award Date: TBD¹
Construction Estimated Completion Date: TBD¹

Funding Status:
Project Budget: \$ 3,000,000
Project Obligations: \$ 48,001²

¹ Design estimated completion date will be established upon contract award and the contract period of performance. The construction estimated contract award date and construction completion date is dependent upon the results of the design and design completion date.

² Obligation amount includes permitting that has begun and the costs associated with the process of conceptual design to address the permit requirements.

ACTIVE CIP PROJECT No. 5: WATER MAIN REPLACEMENT (DESIGN/CONSTRUCTION)

Status: Phases 1, 2 and 3A are completed. Phase 3B Water System Upgrade completion date has changed to April 2016 as a result of Great Neck Water Authority delays. Phase 3B includes modernization of the USMMA's individual water distribution lines as well as installation of water meters throughout the USMMA to accurately track water usage. The project also included replacement of seven water main isolation valves. The restoration of paths and roadways will be completed when asphalt plants reopen after the winter.

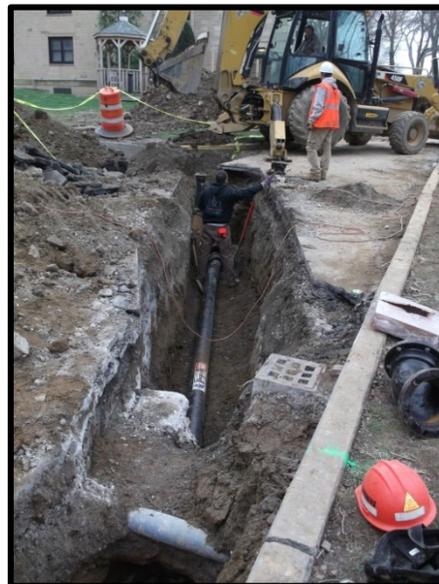
In Phases 1 and 2, the USMMA, with the assistance of the Great Neck Water Authority, increased the size of the water main feeding the campus. This new installation met all compliance requirements mandated by the Water Authority. The water vault, meter and valves were also upgraded to provide the USMMA with increased pressure and flow throughout the distribution system. The estimated completion date for Phase 3B is April 2016.

General Description: The USMMA water main, vault and meters were outdated and undersized for water demands on the system, including the fire suppression systems. This project corrected these issues through replacement of the undersized 4-inch water main with a larger 8-inch main and upgrade of the water vault. The result of these improvements was to increase overall water pressure across the campus and correct water distribution and capacity problems caused by the limitations of the old water supply system.

Phase 1 of this project included the upgrade of the water main running underneath Steamboat Road. The Great Neck Water Authority completed installation of the new 8-inch water main in August 2012.

Phase 2 of this project was completed by the USMMA and included the upgrade of the existing water vault. Previously, the larger water main entering the smaller vault caused the water to be restricted before it continued toward the distribution system. This severely limited the flow and pressure of the water and prevented adequate water distribution for the entire campus. This phase was completed in January 2013.

Phase 3 of this project was designed to maximize water flow to buildings and fire hydrants throughout the campus and consisted of two distinct parts. Phase 3A measured water pressure and volume throughout the campus to determine what changes the work completed during



New Water Main



New Water Main

ACTIVE CIP PROJECT No. 5: WATER MAIN REPLACEMENT (CONTINUED):

Phases 1 and 2 actually achieved. Phase 3A was completed in March 2013. Phase 3B is the installation of new water distribution piping throughout the campus to the buildings, structures and hydrants requiring additional water pressure or volume as determined from Phase 3A. The work is estimated to be completed by April 2016.

Project Goals: To ensure that the USMMA has adequate water flow and pressure for all facilities and fire suppression systems throughout the campus.

Benefits to be Achieved: The water main upgrade will enhance safety and promote the overall well-being of Midshipmen, faculty and staff by ensuring all facilities have adequate water pressure and flow to all fire suppression systems throughout the campus.

Phase 1 Water Main:

Design Contract Award: December 2011
Construction Contract Award: June 2012
Completion Date: August 2012 (\$143,554)

Phase 2 Water Vault Construction:

Contract Award Date: September 2012
Completion Date: January 2013 (\$421,378)

Phase 3A Distribution System Testing:

Contract Award Date: January 2013
Completion Date: March 2013 (\$ 42,900)

Phase 3B Water System Upgrade

Contract Award Date: September 2014
Construction Start Date: December 2014
Estimated Completion Date: April 2016 (\$706,090)

Funding Status:

Project Budget: \$ 1,500,000
Project Obligations: \$ 1,313,922

ACTIVE CIP PROJECT No. 6: SEAWALL REPLACEMENT

Status: This is the first of four sections of the seawall replacement. The first section to be replaced will be the concrete or specialized mortar section because this is currently in the worst condition. The estimated design contract award date has changed to October 2016 due to the Executive Order issued by President Obama, Guidelines for Implementing Executive Order 11988, Floodplain Management and Executive Order 13690 requiring review of rising floodplain levels due to climate change.

Additionally, the design contract award date changed because the scope has been revised and the current plan is to award this project to the Crowninshield design contract award recipient. During the acquisition planning process, a strategy was developed to segment the A&E design process and construction efforts based on type of engineering project.

Samuels Hall and Crowninshield Pier projects will serve as the initial requirements for academic buildings and marine projects respectively. An IDIQ contract will be established for both the academic building and marine projects to streamline the process of future A&E design requirements. By establishing an IDIQ with single Offerors, MARAD will be able to proceed directly to requesting priced proposals without the need to qualify technical qualifications of multiple firms for each project. Upon completion of the IDIQ contract for a building A&E design, it will also be used for Bowditch Hall design contract award. Additionally, upon completion of the IDIQ contract for marine projects A&E design, it will also be used for the Seawall Replacement design contract award.

General Description: The seawall provides protection for the USMMA waterfront and campus from the tides and waves from the Long Island Sound. The seawall is comprised of four different types of material sections. These sections are a (1) gunite-coated (specialized mortar) section, (2) a stone section, (3) a steel sheet Z-pile shaped section, and (4) a wood fencing section totaling approximately 3,000 feet. All four sections are in various states of deterioration with some minor repairs having occurred in the past. This project will replace the most severely damaged sections of seawall. The first section to be replaced will be the concrete or specialized mortar section because this is currently in the worst condition. The portions of the wall selected for the second, third and fourth sections will depend on the condition of each type of wall and the type in the worst condition will be chosen. An assessment will be made to determine the most severely damaged section as well as the most cost-effective section to replace. The project is planned as a phased approach, until the entirety of the wall is stable and replaced.

Project Goals: The goal of the project is to restore the seawall to full structural integrity. This will be done in a phased approach, with the most critically deteriorated areas replaced first and less critically deteriorated areas patched as necessary until those areas can be scheduled for full replacement.



Seawall Before

ACTIVE CIP PROJECT No. 6: SEAWALL REPLACEMENT (CONTINUED):

Benefits to be Achieved: The project will prevent waterside erosion of campus property. Seawall replacement will provide the campus with required protection from the tidal and wave forces. The first section to be replaced will be the concrete or specialized mortar section because this is currently in the worst condition.

Design Estimated Contract Award Date: October 2016
Estimated Completion Date: TBD¹

Construction Estimated Contract Award Date: TBD¹
Construction Estimated Completion Date: TBD¹

Funding Status:
Project Budget: \$ 500,000
Project Obligations: \$ 0

¹ Design estimated completion date will be established upon contract award and the contract period of performance. The construction estimated contract award date and construction completion date is dependent upon the results of the design and the design completion date.

ACTIVE CIP PROJECT No. 7: GRENWOLDE LOOP PROJECT

Status: The Great Neck Water Pollution Control District (GNWPCD) requested that the USMMA initiate a project to stop USMMA sanitary sewage from flowing from the campus to its sewage treatment plant and to block non-academy sanitary sewage from flowing through the USMMA sewage pumping station. The estimated start and completion dates were changed following several meetings with the GNWPCD, which had to take time to develop a plan for disposal of additional customer waste. A GNWPCD plan and funding are now in place, enabling the USMMA to proceed with this joint project. The completion date for this project will depend on the project completion date for the work done by GNWPCD.

General Description: An estimated 11 private residences discharge their sanitary sewage through the USMMA sewage plant en route to disposal at the GNWPCD treatment plant. The pipes from these houses discharge their sanitary sewage directly into the U.S. Government owned sewage pumping station. An estimated five USMMA structures bypass the campus sewage system and discharge sanitary sewage into a commercial waste facility via pipes that direct the sewage off campus. This situation is a vestige of the USMMA being built in the 1940s from a consolidation of various separate properties located in a residential neighborhood.

Project Goals: The goal is to have all campus structures and buildings divert sewage to the USMMA pumping facility and to have all off campus structures divert sewage to the GNWPCD.

Benefits to be Achieved: The cost of treating sanitary effluent from off campus houses will no longer be billed to the U.S. Government. All sanitary discharge from the USMMA pumping station will originate from U.S. Government activities and associated costs will be properly attributable to the taxpayer. The local utility will be able to bill off-campus homeowners directly for the use of their services.

Contract Estimated Award Date: June 2016

Estimated Completion Date: TBD¹

Funding Status:

Project Budget: \$ 350,000

Project Obligations: \$ 2,950²



Grenwolde Loop Private Home

¹ The estimated completion date will depend on the project completion date for the work done by GNWPCD.

² The project obligations were incurred from a contractor that was awarded the contract but only delivered a small portion of the needed survey. The contractor was unable to complete the project as required.

ACTIVE CIP PROJECT No. 8: BOWDITCH HALL RENOVATION

Status: Bowditch Hall is the academic building currently housing the Marine Transportation Department. Bowditch Hall will be the second of four academic buildings to be renovated. The A&E design will include repurposing of Bowditch Hall for use as new offices, classrooms and laboratories. The Bowditch design will be funded from the savings realized from other CIP projects. The design estimated contract award date has changed to January 2017.

The design contract award date changed because the current plan is to award this contract under an IDIQ contract. During the acquisition planning process, a strategy was developed to segment the A&E design process and construction efforts based on type of engineering project.

Samuels Hall and Crowninshield Pier projects will serve as the initial requirements for academic buildings and marine projects respectively. An IDIQ contract will be established for both the academic building and marine projects to streamline the process of future A&E requirements. By establishing an IDIQ with single Offerors, MARAD will be able to proceed directly to requesting priced proposals without the need to qualify technical qualifications of multiple firms for each project. Upon completion of the IDIQ contract for building A&E design, it will also be used for the Bowditch Hall design contract award. Additionally, upon completion of the IDIQ contract for marine projects A&E design, it will also be used for the Seawall Replacement design contract award.



Bowditch Before

General Description: Bowditch Hall will be renovated to improve the academic environment on the USMMA campus. The A&E design phase will be comprised of a complete bid package for the facility. The package will include a complete set of drawings as well as a cost estimate, statement of work and specifications. The facility design will include full renovations and upgrades and will incorporate facility needs required by the academic department. Additionally, the USMMA will repurpose Bowditch Hall as a facility to house an academic department to be chosen by academy leadership. The renovation will include the replacement of roof and parapet and upgrade of the mechanical room. The heating and cooling systems, along with the electrical and plumbing services will also be modernized. All classrooms will receive improvements to technological capabilities and updated interior finishes, and throughout Bowditch Hall the lighting, flooring, ceiling and finishes will be modernized and improved.

Project Goals: Bowditch Hall will be repurposed into new office, classroom and laboratory space. Repurposing of the facility will include upgrades of all infrastructure and finish work as well as ensuring new technology is incorporated. Electrical and plumbing upgrades will be included to support the modern facility.

ACTIVE CIP PROJECT No. 8: BOWDITCH HALL RENOVATION (CONTINUED):

Benefit to be Achieved: Bowditch Hall will be a modern academic facility meeting all fire and safety codes. This will allow students to receive the best education available in a safe modern facility comparable with civilian college campuses.

Design Estimated Contract Award Date: January 2017
Design Estimated Completion Date: TBD¹

Construction Estimated Contract Date: TBD¹
Construction Estimated Completion Date: TBD¹

Design Funding Status:
Project Budget: \$ 1,000,000²
Project Obligations: \$ 0

Construction Funding Status:
Project Budget: \$ 13,000,000²
Project Obligations: \$ 0



Bowditch Before

¹ Design estimated completion date will be established upon contract award and the contract period of performance. The construction estimated contract award date and construction completion date is dependent upon the design results and the design completion date.

² The construction project budget of \$13 million includes \$12 million of FY 2015 CIP Funds. The remaining \$1 million for construction and \$1 million for design will be offset with cost savings from other projects and prior year funds.

ACTIVE CIP PROJECT No. 9: GIBBS HALL RENOVATION

Status: Gibbs Hall is an academic building currently housing the Department of Mathematics and Science. Gibbs will be the third of four academic buildings to be renovated and is a new project in this year's CIP report. The A&E design will include the renovation of Gibbs Hall for use as new offices, classrooms and laboratories. The design contract will be awarded under the new IDIQ contract currently being established.



Gibbs Hall Before

General Description: Gibbs Hall will be renovated to improve the academic environment on the USMMA campus. The facility design will include full renovations and upgrades and will incorporate facility needs required by the academic department. The renovation will include the replacement of roof and parapet and upgrade of the mechanical room. The heating and cooling systems, along with the electrical and plumbing services will also be modernized. All classrooms will receive improvements to technological capabilities and updated interior finishes, and throughout Gibbs Hall the lighting, flooring, ceiling and finishes will be modernized and improved.

Project Goals: Gibbs Hall will be repurposed into new office, classroom and laboratory space for an academic department to be chosen by academy leadership. Renovation of the facility will include upgrades of all infrastructure and finish work as well as ensuring new technology is incorporated. Electrical and plumbing upgrades will be included to support the modern facility.

Benefit to be Achieved: Gibbs Hall will be a modern academic facility meeting all fire and safety codes. This will allow Midshipmen to receive the best education available in a safe modern facility comparable with civilian college campuses.

Design Estimated Contract Award Date: TBD
Design Estimated Completion Date: TBD

Construction Estimated Contract Date: TBD
Construction Estimated Completion Date: TBD

Project Budget: \$ 15,000,000
Project Obligations: \$ 0



Gibbs Hall Before

COMPLETED CIP PROJECT No. 10: SEWER PUMPING STATION

Status: The Sewer Pumping Station project was completed in December 2015 and was completed within budget. The rehabilitation and repair of the sewer pumping station including plumbing fixtures, electrical components and interior renovation was completed.

General Description: The sewer pumping station is the main point of connection for all wastewater removal for the USMMA. This is connected to the Great Neck Water Pollution Control Districts (GNWPD) wastewater line as a force main. Prior to the renovation, the station was housed in a small, one story building situated over a pit for waste removal. The last rehabilitation of the station was completed in 1987. Since then, the pump had seen a steady decline in upkeep and was not working to design specifications.



Project Goals: Rehabilitation and repair of the sewer pumping station is completed, to include plumbing fixtures, electrical components and interior renovation. The pumping station will operate as originally intended, with pumps activating in a staged process. Prior to renovation, only one pump activates regardless of sewage and wastewater flow.

Benefits to be Achieved: Prior to renovation, three pumps were in place to eject sewage and only one operated. The renovation resulted in all three pumps functioning. They activate sequentially each time there is a call to eject sewage which would result in an improved maintenance situation. A single pump can be taken offline for repair and pumps should require less frequent servicing. Benefits include efficient and unabated removal of USMMA sewage and wastewater from campus and sewage equipment that works to design specifications.



Sewer Pumping Station Before

Contract Award Date: September 2014

Construction Start Date: December 2014

Completion Date: December 2015

Funding Status:

Project Budget: \$ 500,000

Project Obligations: \$ 491,870

COMPLETED CIP PROJECT No. 11: MUSEUM RESTROOMS

Status: The Museum Restrooms renovation project was completed in December 2015 on schedule and within budget. The project updated the current museums restrooms and provided appropriate Americans with Disabilities Act (ADA) compliant access.

General Description: The American Merchant Marine Museum serves as a repository for the USMMA's extensive and valuable collection of marine art, ship models and nautical artifacts. It is intended to educate and inform visitors (both the Midshipmen and the public) about the U.S. Merchant Marine and promote public interest in, and understanding of, the Nation's maritime service. The museum is housed in an original 1910 Arts & Crafts building built by electrical engineer and inventor William S. Barstow. While previous repairs and renovations have been completed in some parts of the museum, this project was part of a larger ongoing renovation of this historic building. The museum restrooms finishes and fixtures were completely upgraded from their original footprint with modern piping, fixtures, lighting, flooring and partitions that (in most cases) remain true to the period of the house. The first floor main restroom is ADA compliant and provides adequate services for all visitors.



Museum Restroom Before

Project Goals: The first floor restroom has been renovated to meet ADA standards since the museum is frequently visited by the public. There are approximately 12,000 visits per year to the museum, comprised of approximately 6,500 general public visitors and 5,500 from the USMMA classroom curriculum, local public school class field trips and events. The renovations provide new plumbing to replace equipment and infrastructure that were currently beyond useful life. Upgraded piping and fixtures ensure the safety of the items housed within the museum.

Benefits to be Achieved: The museum restroom renovation updated the current restrooms and allow appropriate ADA compliant access. It also helps ensure the safety of the items housed within the museum from water damage.

Contract Award Date: June 2014

Construction Estimated Start Date: April 2015

Completion Date: December 2015

Funding Status:

Project Budget: \$ 300,000

Project Obligations: \$ 207,475



Museum Restroom After

COMPLETED CIP PROJECT No. 12: SAFETY ISSUES BARRACKS/FACILITIES

Status: The USMMA safety issue projects were completed in August 2015 on schedule and within budget. Completed projects include installation of hard-wired carbon monoxide/smoke detectors in each dormitory room of the four older barracks. Existing main fire alarm panels in the dorms were replaced and integrated with individual updated detectors in each room. The entire system was interconnected to the updated 24 hour monitoring system at the Security Office station and the local police and fire department.

Work was completed on the Security Office's system to upgrade the Excel Building Supervisor Integrated (XBSi) to Enterprise Building Integrator (EBI) Fire Alarm system platform and Frame Alignment Signal (FAS) Network Synchronization. Other completed projects include the installation of hard-wired carbon monoxide/smoke detectors in each dormitory room of the four older barracks. A Honeywell Building Integrator was installed to support the new combination carbon monoxide/smoke detection system. Existing main fire alarm panels in the dormitories were replaced and integrated with individual updated detectors in each room. Additionally, the entire system was interconnected to the updated 24 hour monitoring system at the Security Office station and the local police and fire department.

General Description: These funds were intended to address safety issues when identified in the barracks and other USMMA facilities. The Safety and Environmental Protection Office is continually assessing the condition of facilities and evaluating the Building Evaluation Report with the goal of rectifying any safety concerns.

Project Goals: This project has enhanced the safety of the Midshipmen, faculty and staff in the barracks, academic buildings and administrative facilities. Funds for this project were used to address emergent safety concerns. Other less urgent safety issues will be incorporated into future CIP projects.

Benefits to be Achieved: This project has enhanced the safety of Midshipmen, faculty and staff who use USMMA facilities, either through the immediate correction of existing safety deficiencies or through investment in improved safety technologies and equipment.

Contract Award Date: September 2013

Construction Start Date: December 2013

Completion Date: August 2015

Funding Status: Project Budget: \$ 968,821
Project Obligations: \$ 481,870

POSTPONED CIP PROJECT No. 13: ROAD AND SIDEWALK REPLACEMENT (CONSTRUCTION)

Status: The road and sidewalk replacement project is postponed.

General Description: Existing asphalt roadways and concrete sidewalks throughout the campus have deteriorated. Many of the roads and sidewalks throughout the USMMA have reached the end of their useful life and are in need of replacement. Existing issues include catch basins deterioration, cracked sidewalks and broken curbs and pitted asphalt roads that require replacement. These problems are caused by age and harsh winter conditions, and USMMA roads and sidewalks are good candidates for a phased replacement program.

Project Goals: This project will replace deteriorating roadways, curbs and sidewalks.

Benefits to be Achieved: Replacement of roads, pathways, curbs and sidewalks are required to address the deterioration.

Contract Award Date: Postponed

Construction Start Date: Postponed

Estimated Completion Date: Postponed

Funding Status:

Project Budget: \$ 0

Project Obligations: \$ 0



Roads and Sidewalks Before



Roads and Sidewalks Before

Section II: Active Capital Improvement Program (CIP) Projects

Fund Status as of December 31, 2015 (\$000)

Project	Original Project Budget	Project Budget Reported 2015	Project Budget Reported 2016	Change from FY 2016 Project Budget	Project Obligation	FY 2015 CIP Report Estimated Completion Date	FY 2016 CIP Report Estimated/Actual Completion Date
1A. Samuels Hall Design	1,000	1,000	1,000	0	0	December 2015	TBD
1B. Samuels Hall Renovation	6,000	6,000	6,000	0	0	March 2017	TBD
2. Electric Grid/Power Supply Improvement	4,000	6,800	6,800 ¹	0	62	Phase 2 April 2016 Phase 3 TBD	Phase 2 TBD Phase 3 TBD
3A. Zero Deck Design	300	600	600	0	495	April 2015	Completed April 2015 on schedule and within budget
3B. Zero Deck Construction	8,000	8,000	8,000 ²	0	0	July 2016	TBD
4. Crowninshield Pier	1,500	3,000	3,000	0	48	Design December 2015 Construction TBD	Design TBD Construction TBD
5. Water Main Replacement	700	1,500	1,500	0	1,314	Phase 3B May 2015	Phase 3B April 2016
6. Seawall Replacement	500	500	500	0	0	Phase 1 July 2016	Phase 1 TBD
7. Grenwolde Loop Project	350	350	350	0	3	October 2015	TBD
8A. Bowditch Hall Design	1,000	1,000	1,000 ³	0	0	March 2016	TBD
8B. Bowditch Hall Construction	13,000	13,000	13,000 ³	0	0	June 2017	TBD
9. Gibbs Hall Renovation	15,000	0	15,000	15,000	0	N/A	TBD
10. Sewer Pump Replacement	500	500	500	0	492	June 2015	Completed December 2015 on schedule and within budget
11. Museum Restrooms	150	300	300	0	207	December 2015	Completed December 2015 on schedule and within budget
12. Safety Issues Barracks/Facilities	2,000	969	969	0	482	August 2015	Completed August 2015 on schedule and within budget
13. Road and Sidewalk Replacement	129	129	0	-129 ⁴	0	TBD	Project Postponed
Totals	\$54,129	\$43,648	\$58,519	\$14,871	\$3,103		

¹ The project budget amount of \$6.8 million is the total CIP funds. Facilities, Maintenance, Repair and Equipment funds of \$2 million are also allocated to the project. The total project amount is \$8.8 million.

² The construction project budget of \$8 million includes \$5 million of FY2014 CIP Funds. The remaining \$3 million was allocated from other projects and prior year funds.

³ The construction project budget of \$13 million includes \$12 million of FY2015 CIP Funds. The remaining \$1 million for construction and \$1 million for design will be offset with cost savings from other projects and prior year funds.

⁴ Project postponed

**Section III: Completed Capital Improvement Program (CIP) Projects
February 1, 2015 - December 31, 2015**

Project	Description	Completed Project Amount (\$000)
Space Utilization Study	The Space Utilization Study examined the current and proposed space requirements of USMMA buildings to determine if alternatives exist to optimize the utilization of buildings and their space. The study informs USMMA management on the best utilization of its available space and helps to more clearly define the use of academic buildings with possible adjustments to their CIP project order.	375
Museum Restrooms	Renovation of the museum restrooms was completed in December 2015 on schedule and within budget. The museum restroom renovation project updated the current restrooms and provided appropriate ADA-compliant access. The renovations also helped to ensure the safety of the items housed within the museum from water damage.	207
Zero Deck Design	The Zero Deck design was completed in April 2015 on schedule and within budget. The A&E design includes a plan for the reconfiguration and renovation of the basement area of each of the barracks. The renovation will provide upgrades to the major mechanical rooms and installation of modern heating and cooling systems where necessary.	495
Sewer Pump Replacement	The Sewer Pump Replacement project was completed in December 2015 within budget. The sewer pumping station is the main point of connection for all wastewater removal for the USMMA. This station is connected to the Great Neck Water Pollution Control Districts (GNWPD) wastewater line as a force main. The completed renovation included rehabilitation and repair of the sewer pumping station, including plumbing fixtures, electrical components and interior renovation.	492
Safety Issues Barracks/ Facilities	The USMMA safety issues barracks projects were completed in August 2015 on schedule and within budget. Completed projects include installation of hard-wired carbon monoxide/smoke detectors in each dormitory room of the four older barracks. Existing main fire alarm panels in the dorms were replaced and integrated with individual updated detectors in each room. The entire system was interconnected to the updated 24 hour monitoring system at the Security Office station and the local police and fire department.	482
TOTAL		2,051

Section IV: Capital Improvement Program Appropriation History

(\$000)

Fiscal Year	Funded
2001	\$ 13,000
2002	13,000
2003	12,855
2004	13,419
2005	13,033
2006	14,850
2007	14,850
2008	14,139
2009	8,150
2010	15,000
2011	14,970
2012	17,000
2013	16,111
2014	12,000
2015	12,000
2016	15,000
GRAND TOTAL	\$219,377

¹ Funded amount reflects the total after rescission

Section V: Five-Year Capital Improvement Program Projects Plan

FY 2017 – FY 2021

The following lists all major and outyear projects identified for FYs 2017 through 2021. All requests for funding for the projects listed in FY 2016 and beyond must be included in the President's Budget proposal and are subject to enacted appropriations. Additionally, projects in FY 2016 and later may be reevaluated based upon available information as well as the recommendations in the Space Utilization Study.

FY 2017 Major CIP Projects Planned

Patten Hall Renovation Architectural and Engineering Design (\$1.5 million): Patten Hall is the student health clinic. The A&E design will comprise a complete bid package for the facility. The package will include a complete set of drawings for the building as well as cost estimates, statements of work and specifications. The facility design will include full renovations and upgrades and will incorporate facility needs as indicated by the specific requirements for student health services, the Joint Commission and the facility director.

Fulton Hall Architectural and Engineering Design (\$2 million): Fulton Hall is the main hall for the Department of Marine Engineering and the final of four academic buildings to be restored as part of the academic renovation plan. This design will incorporate feedback from the Engineering Department to help determine the needs and requirements of the classrooms, laboratories, offices and simulator spaces. The final design will include a full set of drawings, cost estimates, statements of work and other required specifications.

Gibbs Hall A&E Design (\$2 million): Gibbs Hall is the third of four academic buildings scheduled for modernization and renovation. Gibbs Hall houses the Departments of Math and Science and requires specialized spaces for physics labs and other scientific areas. This design will incorporate input from the Math and Science Department faculty in order to ensure that their needs are fully addressed and the key requirements are considered before final design is complete. The design will include a complete set of drawings, cost estimates, statements of work and specifications. This facility's design will include full renovation and upgrades.

Fitch Hall Architectural and Engineering Design (\$1 million): Fitch Hall houses several administrative offices, mechanical and storage spaces, and serves as a central receiving facility for the entire campus. From here all deliveries are received, sorted, and sent out to the designated building or office of the 42 buildings on campus. This design will upgrade the delivery receiving area and renovate the office and administrative spaces. It will include a complete bid package, and will comprise a complete set of drawings, cost estimates, statements of work and other specifications.

Fulton Hall Renovation- Construction (\$13 million): Fulton Hall upgrades will improve the fire protection system including installation of a new sprinkler and standpipe system, replacement of the HVAC system, complete interior and exterior painting, and upgrading the classroom

technology systems. Additionally, the complete renovation of the classroom sections of the building will provide new flooring, ceiling replacement and exterior paint. The electrical system will be upgraded to include enough power for the loads of an academic building with more technology in use. All interior finish work, lighting and fixtures will be modernized and replaced.

Seawall Repairs (\$679,000): These funds continue the phased approach to restoring the seawall as part of the ongoing effort to improve the USMMA physical plant. With these funds the next section will be replaced according to Executive Order 13690 while deteriorating areas needing preventive maintenance attention will continue to be restored in order to avoid further deterioration.

Outyear Projects FY 2018 - 2021

<u>Fiscal Year</u>	<u>Project Name</u>	<u>Project Description</u>	<u>Estimated Project Costs</u>
Outyear	Fitch Hall Renovation	Building Renovation	10,000,000
Outyear	Patten Hall Renovation	Building Renovation	11,000,000
Outyear	Wastewater Infrastructure Study	System Upgrades	500,000
Outyear	Furuseth Hall A&E	Design Specifications and Requirements	1,500,000
Outyear	Wastewater Infrastructure Upgrade	System Upgrades	2,000,000
Outyear	Furuseth Hall Renovation	Building Renovation	12,000,000
Outyear	O'Hara Hall A&E	Design Specifications and Requirements	1,500,000
Outyear	O'Hara Hall Renovation	Building Renovation	14,000,000
Total			\$52,500,000

Fitch Hall Renovation-Construction (\$10 million): Fitch Hall upgrades will improve the fire protection system including installation of a new sprinkler and standpipe system, replacement of the HVAC systems, complete interior and exterior painting, reconfiguration of administrative spaces, and modernization of the campus central warehousing facility. Additionally, the complete renovation of the administrative sections of the building will provide new flooring, ceiling replacement and paint. The electrical system will be upgraded to include enough power for the loads of the new space assignments. All interior finish work, lighting and fixtures will be modernized and replaced.

Patten Hall Renovation-Construction (\$11 million): Patten Hall upgrades will improve the fire protection system including installation of a new sprinkler and standpipe system, replacement of the HVAC systems, complete interior and exterior painting, reconfiguration of administrative spaces and modernization of the health services areas in accordance with current health standards and requirements. Additionally, the complete renovation of the administrative sections of the building will provide new flooring, ceiling replacement and paint. The electrical system will be upgraded to include enough power for the loads of the new space assignments. All interior finish work, lighting and fixtures will be modernized and replaced.

Wastewater Infrastructure Study (\$500,000): The wastewater system that services the USMMA campus is a compilation of multiple systems. Although the current condition of the wastewater system is adequate, it is old and the equipment and piping may not be compatible with updates made to other environmental systems on campus. This design will allow the USMMA to proceed with an upgrade to the system that will allow all current guidelines to be followed. This will also provide the USMMA with a clear path for the use of newer technology that will help improve the wastewater infrastructure system. Additionally, this will enable the USMMA to determine and construct, under current standards, the correct sizes for all of the infrastructure and equipment throughout the wastewater system.

Furuseth Hall Renovation Architectural and Engineering Design (\$1.5 million): Furuseth Hall is the main USMMA administration building. The A&E design will comprise a complete bid package for the facility. The package will include a complete set of drawings for the building as well as cost estimates, statements of work and specifications. The facility design will include full renovations and upgrades and will incorporate facility needs as indicated by the specific requirements for each individual area located within the facility.

Wastewater Infrastructure Upgrade (\$2 million): The wastewater system that services the USMMA campus is a compilation of multiple systems. Although the current condition of the wastewater system is adequate, it is old and the equipment and piping may not be compatible with updates made to other environmental systems on campus. This upgrade will allow the USMMA to improve upon the current system and replace some of the components have reached the end of their life cycle.

Furuseth Hall Renovation- Construction (\$12 million): Furuseth Hall upgrades will improve the fire protection system including installation of a new sprinkler and standpipe system, replacement of the HVAC systems, complete interior and exterior painting, reconfiguration of administrative spaces, and modernization of the building systems current standards and requirements. Additionally, the complete renovation of the administrative sections of the building will provide new flooring, ceiling replacement and paint. The electrical system will be upgraded to include enough power for the loads of the new space assignments. All interior finish work, lighting and fixtures will be modernized and replaced.

O'Hara Hall Architectural and Engineering Design (\$1.5 million): O'Hara Hall is the main USMMA athletics building. The A&E design will comprise a complete bid package for the facility. The package will include a complete set of drawings for the building as well as cost estimates, statements of work and specifications. The facility design will include full renovations and upgrades and will incorporate facility needs as indicated by the specific requirements for each individual area located within the facility.

O'Hara Hall Renovation- Construction (\$14 million): O'Hara Hall upgrades will improve the fire protection system including installation of a new sprinkler and standpipe system, replacement of the HVAC systems, complete interior and exterior painting, reconfiguration of administrative spaces, and modernization of the building systems current standards and requirements. Additionally, the complete renovation of the administrative sections of the building will provide new flooring, ceiling replacement and paint. The electrical system will be upgraded to include enough power for the loads of the new space assignments. All interior finish work, lighting and fixtures will be modernized and replaced. This renovation will also include

the reconfiguration and repurposing of existing athletic spaces and locker rooms in order to better fit with the results of the Space Utilization Plan.