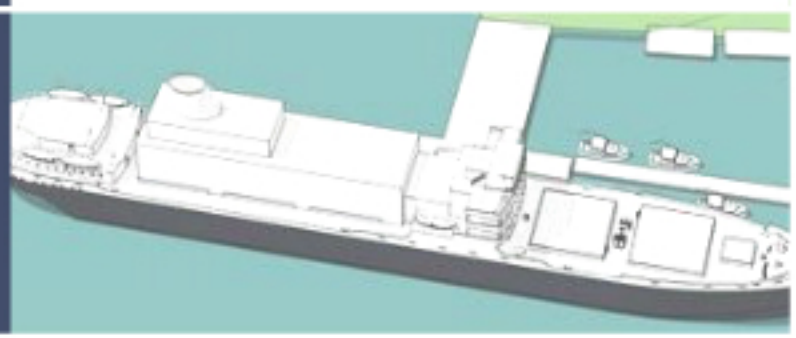


Prepared by:
Harriman
The Cecil Group

Maine Maritime Academy

Campus & Facilites Inventory

Contents

Introduction

Introduction

Foreword

Attaining our vision for Maine Maritime Academy—to be a globally recognized leader in engineering, management, science and transportation education—depends on informed institutional growth and resource management. In order to be a leading institution, and to empower our students to be leaders, we must approach long-term planning and growth with sound information.

This Master Plan provides us with analysis of building conditions, energy usage, utilization, and capacity; comparison data; and recommendations for specific improvements, all of which will be useful as we plan for the future. The data will be especially helpful as we conduct strategic planning for the campus during the coming months.

I would like to thank the Steering Committee and all who participated in the process of gathering information and input for the Master Plan: students, faculty, staff, alumni and trustees. It would not have been possible to put this Plan together without your help.

Dr. William J. Brennan
President
Maine Maritime Academy

The Planning Context

Purpose of the Master Plan

Maine Maritime Academy's administration undertook a self-assessment during the 2010-2011 academic year. The goal of this effort was to gain an understanding of the school's operations and infrastructure and to begin to build a framework for strategic planning. President William Brennan delivered the State of the Academy Report in April 2011 outlining a number of initiatives aimed at strengthening the long-term sustainability of the academy. In concert with these efforts, Maine Maritime Academy retained the services of Harriman and The Cecil Group to develop a master plan. The purpose of which was to establish a benchmarking of current assets. Specifically, the initial phases of the master plan were aimed at understanding what was possible given the school's existing campus and facilities. How were the Academy's resources being utilized? What were the immediate and long-term facility needs of the campus?

The traditional college master plan often results in a pictorial diagram representing a possible physical layout of campus features – buildings, parking lots, open spaces, landscaping, roads and paths. This model portrays growth as an increase in the number of amenities or size of facilities. While the master plan presented here incorporates some of these items, a major effort of this report is aimed at an analysis of the campus in terms of its facilities, campus features and institutional capacities.

Planning Process

The Master Plan Steering Committee met regularly with the planning team to develop the Master Plan. The planning process was inclusive, strategic, and comprehensive. The planners worked with a number

DATE	MEETING / MILESTONE
April 6, 10, 23, 24, 30, 2012	Building Survey and User Group Meetings
May 16, 2012	Steering Committee Meeting • Building Inventory & Space Utilization • Campus Analysis
June 12, 2012	Steering Committee Meeting • Capacities • Drivers, Goals, and Needs
July 10, 2012	Steering Committee Meeting • Benchmarking Study • Project Definition • Campus & Facilities Planning
July 30, 2012	Steering Committee Meeting • Refined Campus & Facilities Planning • Order of Magnitude Costs
August 9, 2012	Trustee Meeting

Planning Process Timeline

of User Groups on campus and held forums and open houses throughout the process in order to understand the perspectives and needs of students, faculty, staff, and administration. Presentations were also made to the Board of Trustees during the process.

The master planning process for Maine Maritime Academy involved a multi-phased approach. The first phase centered on data gathering, user input and an analysis of findings. Phase two built on this work by developing a short-term framework for possible campus improvements. An implementation strategy involving project descriptions and estimated project costs are included as part of this document. As mentioned, the purpose of this master plan is, in part, to serve as a tool in assisting the administration and Board of Trustees in developing a road map to guide development of the academy's future growth.

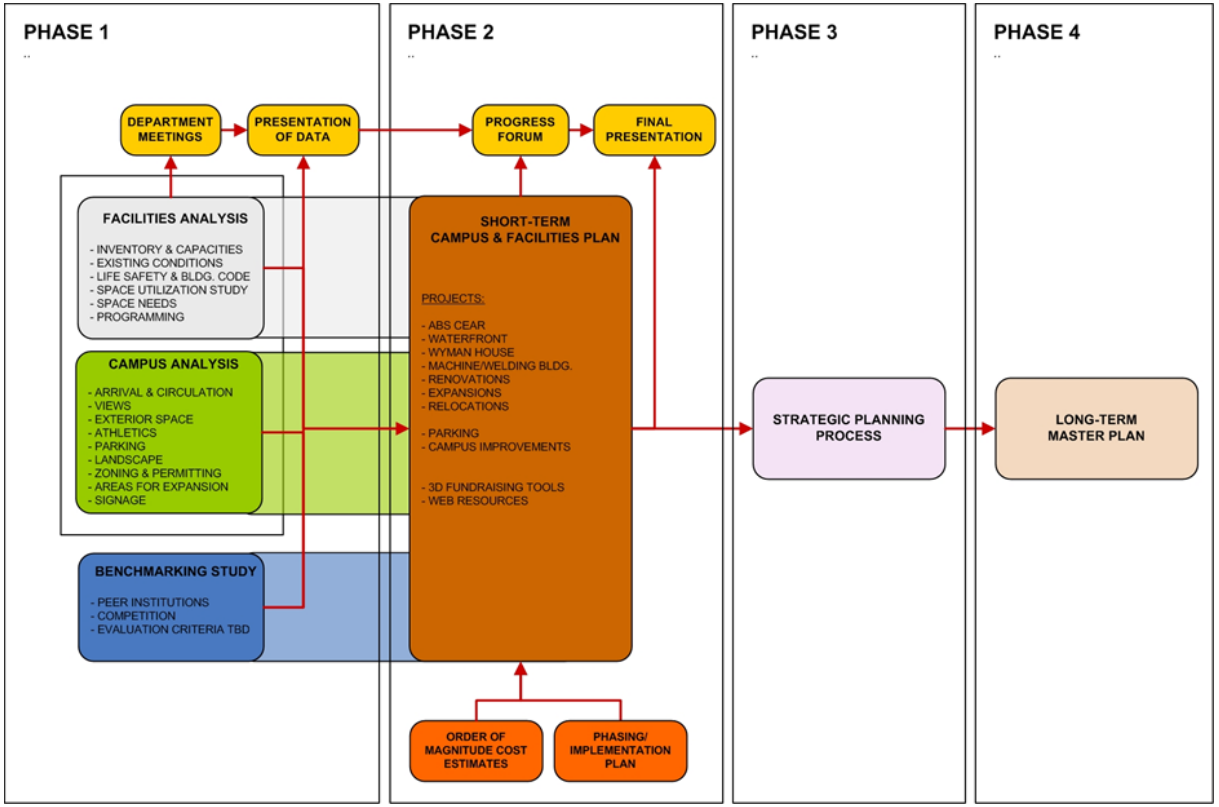
Phase three of the planning process, not yet undertaken, requires the establishment of a broader strategic plan. During this important step, the leadership of the school will set forth a vision of the future state of the institution, define growth and lay the groundwork for the next phase of campus development.

The final phase of the planning process will confirm earlier planning assumptions, consider completed projects and changes and incorporate newly established goals into the master plan.

Foundations of the Planning

State of the Academy Report

In April of 2011, President Brennan reflected on the direction of the academy and proposed a series of initiatives in a document entitled the "State of the Academy Report." The recommendations encompassed diverse areas broadly categorized into people, places and things that constitute Maine Maritime Academy. Among the items to be addressed was the development of a facilities master plan and utilization strategy to guide institutional growth, resource management and utilization.



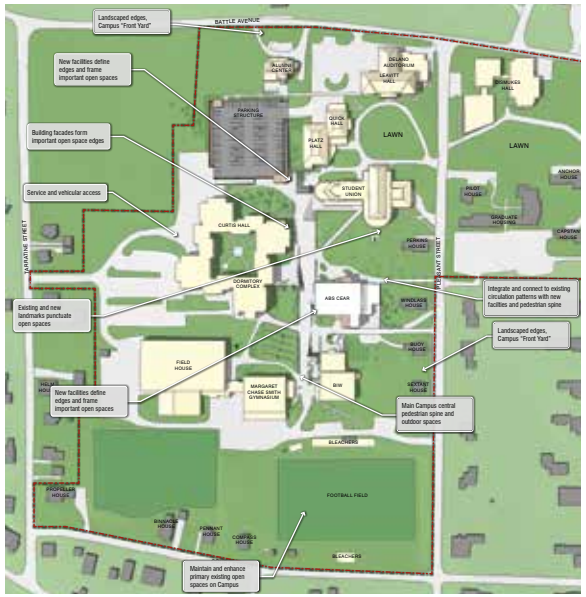
Planning Process Phasing

The Planning Context

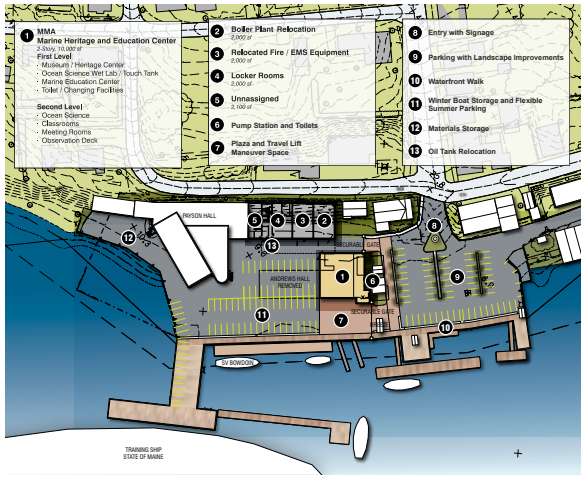
Past Planning Efforts

There have been two notable planning efforts in the recent past that have addressed facility planning. In 2005, WBRC developed the first comprehensive survey of the school's buildings. The report focused on broad building code issues, building use and possible energy upgrades. The resulting document was a valuable inventory of campus assets.

Subsequent to the 2005 study, the academy identified four major campus projects as strategic priorities. In 2008, Maine Maritime Academy retained Harriman to develop conceptual plans for a Campus Development Plan to include a new engineering building, a parking structure, improvements to the waterfront campus and the conversion of the Wyman House from the President's residence to institutional use. This work was presented to the Board of Trustees in the spring of 2010.



2005 Campus Development Plan-Upper Campus Diagram

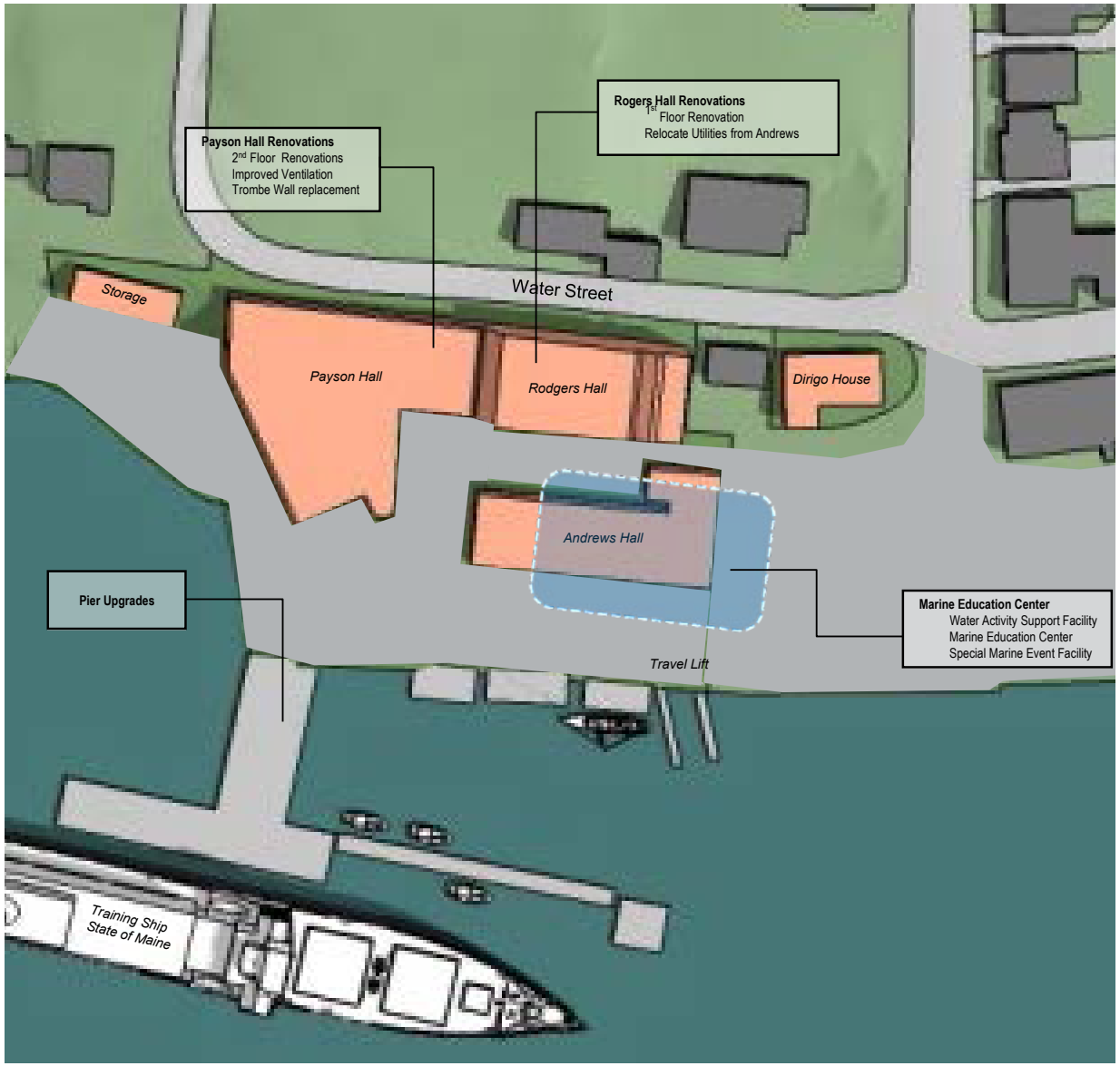


2005 Campus Development Plan-Lower Campus Diagram

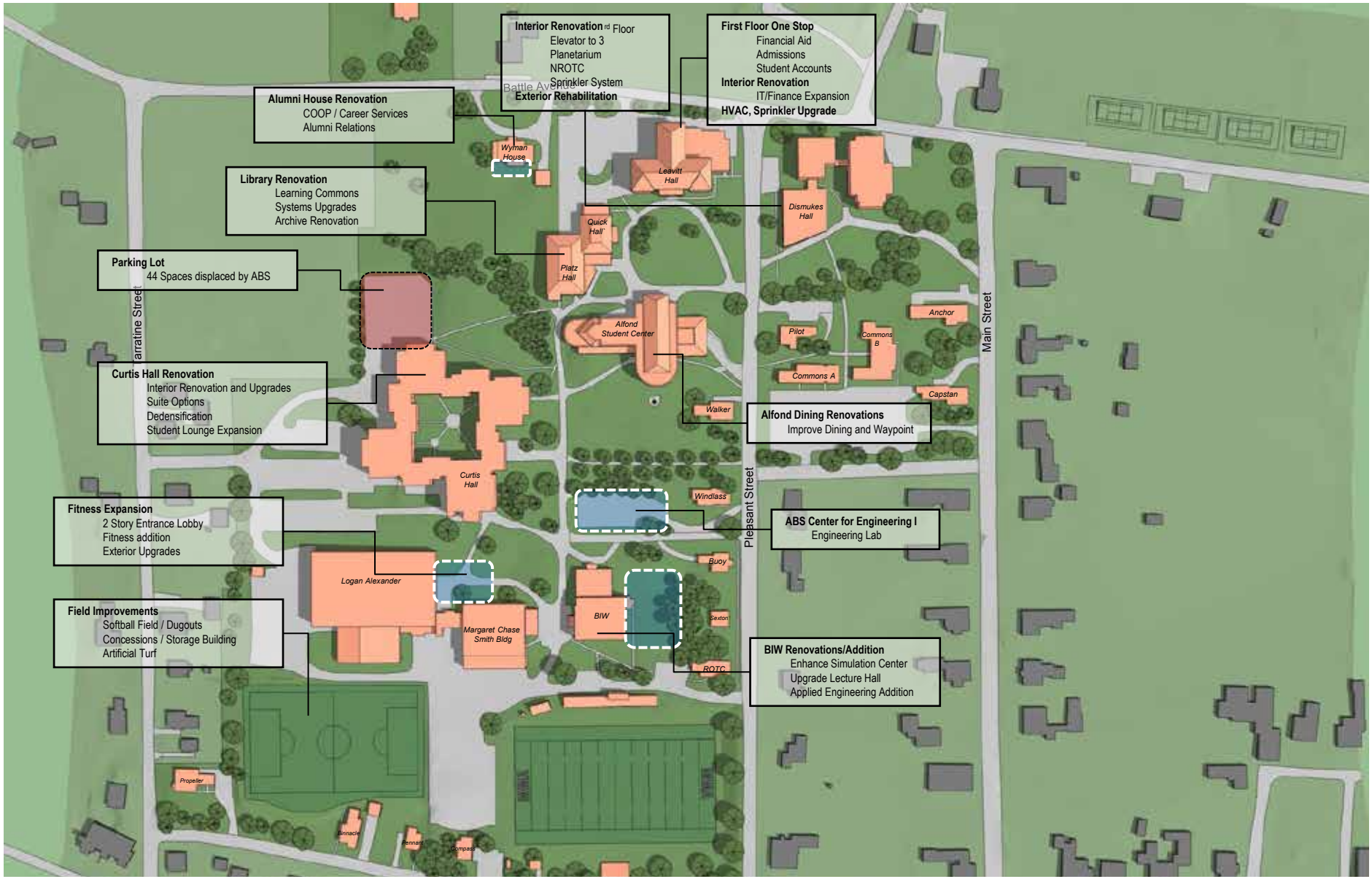
Looking Ahead

This planning document is intended to inform further strategic planning processes as Maine Maritime Academy charts a future course of direction. The information presented here is primarily an analysis and assessment of the school as well as proposed capital projects. These projects were derived during interviews with faculty, staff, students, and members of the planning committee. The circumstances and objectives upon which these were based may become amended or outdated during the strategic planning process. Funding sources and priorities will also play a significant role in determining the pace of implementation. A process of periodic updates to the planning documents may become necessary as the college reflects on progress and reassesses strategic goals and facility's needs.

Components of the Plan



Lower Campus Plan



Upper Campus Plan

Campus Analysis

Topography

One of the defining features of Castine is the topography that cascades down across the town to the Castine Harbor. The sweeping harbor views that are created by this steeply sloping characteristic of the town are dramatic. The slope roughly follows Main Street and Pleasant Street from a high elevation at Battle Avenue and falls off steeply down to Water Street. The steep grade of the town is also very evident on the upper campus. Several locations have been identified as having a steep slope on the upper campus. This includes areas around Curtis Hall, the entry of the Margaret Chase Smith Building. The elevation at the Battle Avenue/Pleasant Street intersection is 151.0'. The lowest point on the upper campus is elevation 46.1' at the Tarratine Street/Court Street intersection. The average slope of the land in its natural condition is about 10%. Because the land has been regraded to create more level terraces between Leavitt Hall and the Student Union, between the Alexander Field House and BIW and at the athletic fields, the slopes between these terraces can be as steep as 14-15%. These slopes make handicap accessible routes difficult to establish between primary campus facilities.

Views

A great asset of the campus and the Town of Castine are the views of Castine Harbor. As the campus slopes down to the harbor the far reaching views are less prominent. The most prominent views are from the upper half of the upper campus down toward the harbor. Specifically, views from Battle Avenue near the Alumni House, views from the rear of the Alumni House and views from the upper portion of Pleasant Street and from the rear of the Alfond Student Center are the most prominent and important to the campus. These view corridors should be preserved and considered when planning for future campus facilities. Particularly, the views from the Alumni House and Student Center would be the most susceptible to being diminished by new campus facilities. While the campus slopes add a layer of complexity to the development of campus spaces, they provide spectacular views of Castine Harbor and Penobscot Bay for, at least, the second floor of many buildings on the upper half of the campus. Water views framed by street trees are also available to pedestrians walking south on Main Street and Pleasant Street toward the waterfront.

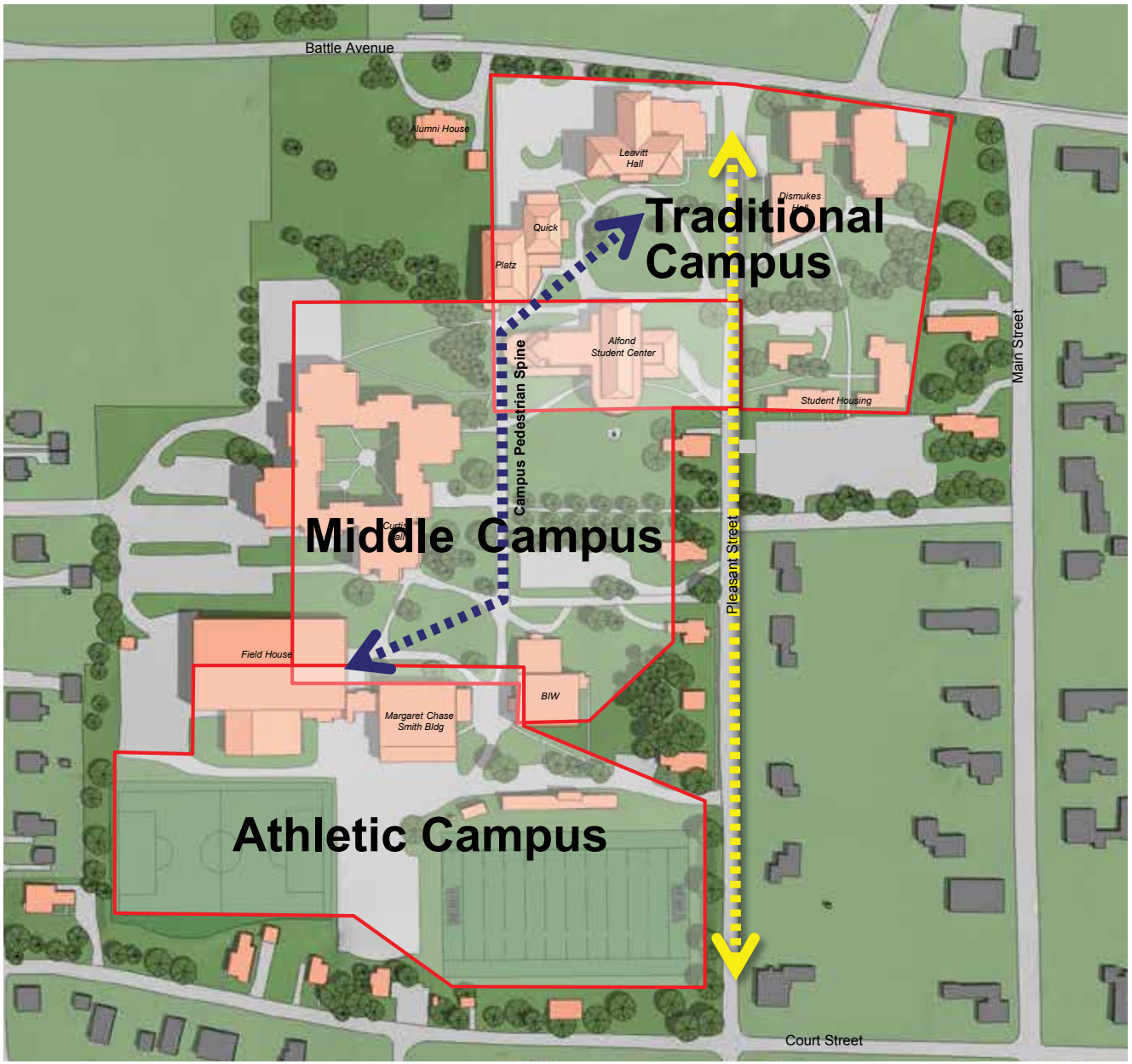
Campus Composition

The campus composition is broken into two portions at the center of the Town of Castine, the Main Campus and the Waterfront Campus. The Main Campus bounded by Main Street, Pleasant Street, Court Street, Tarratine Street and Battle Avenue is a traditional academic campus setting. Academic and administrative buildings are arranged in a composition around campus open spaces and greens interspersed with paths. Parking is located at the outside edges of this composition of buildings and open spaces. Due to the dramatic topography, the main campus is perceived as a set of terraces. The upper terrace includes the original buildings and a traditional campus feel with Dismukes Hall, Leavitt Hall, Quick and Platz Halls and the Alfond Student Center. The Student Center forms an edge of the upper terrace and transitions to the middle terrace of the campus with its most prominent feature of Curtis Hall and a campus edge of traditional Castine homes that are used by the Academy. The lower campus terrace includes BIW Hall, athletic facilities and fields, and another campus edge of traditional Castine homes along Court Street.

Campus Composition

Among the three terraces of the upper campus there are distinctions in the character of the campus facilities and open spaces. The upper terrace has the look and feel of a traditional campus with historic traditional campus architecture that frame generous campus greens and open spaces with paved pedestrian paths. This portion of the campus is unlikely to change in the future. This portion of the campus is built to its capacity for campus buildings and is the foundation of the character and sense of place of the Academy. The middle campus includes comparatively modern structures that sit within campus spaces.

Separated from the upper campus by about two blocks along Pleasant Street or about four blocks on Main Street, the lower campus has a different character than the upper campus. The lower campus' most prominent feature is the bulkhead and the marine vessels, namely the T/S State of Maine training vessel. The lower campus includes parking areas between campus buildings for maneuvering equipment and loading ships. The MMA portion of the waterfront abuts a Town of Castine owned portion of the waterfront that is publicly accessible. MMA and the Town of Castine have recently partnered in creating a joint waterfront plan that better coordinates the area as an active waterfront and a shared amenity.

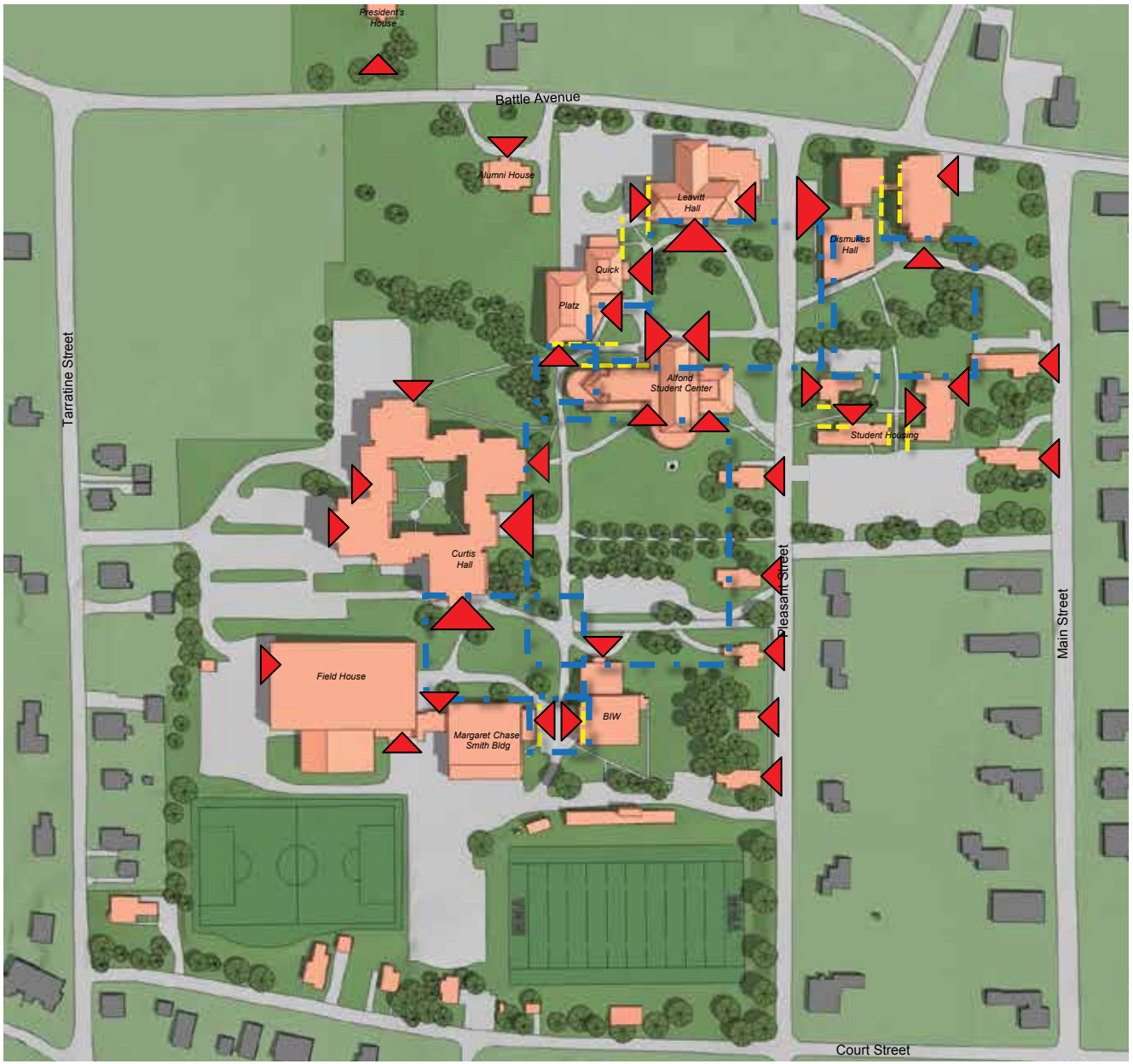


Campus Edges

The edges of the upper campus vary depending on the location. Along Battle Avenue the traditional campus buildings of Dismukes Hall and Leavitt Hall are setback from the street a minimal distance and create a presence for the campus at the approach along this road. The campus open space at the corner of Battle Avenue and Main Street is brought out to the street edge and provides orientation to visitors with the corner occupied by campus signage. The campus edge of Main Street is not discernible from the town buildings as MMA owns several homes that relate to the surrounding context. The same type of campus edge exists along the lower portion of Pleasant Street. As Pleasant Street connects to Battle Avenue it travels through the center of the upper terrace of the traditional campus green. The lower portion of Pleasant Street has a different character due to the campus edge of the athletic field. Court Street is another campus edge that blends well with the context of Castine with frontage occupied by smaller homes owned by MMA. Tarratine Street is a campus edge that is not owned by MMA. The parking areas behind Curtis Hall and the Field House abut these adjacent properties.

Building Relationships

An examination of the relationship of building adjacencies and the locations of building entries produces an interesting analysis. The red triangles in the diagram indicate where building entries are located, larger triangles are primary entries, smaller triangles are secondary or service entries. Immediately apparent is that several buildings on campus have many points of entry on multiple sides of the building and that most of the campus buildings have a front and back. Nearly all of these buildings are viewed from all sides and interact with the campus with varying conditions at each side. For instance, the Student Center frames a traditional campus green to the north, is provided with a small service area to the east from Pleasant Street, frames the sloping campus lawn to the south and creates a confined pedestrian circulation space to the west with Platz Hall. For the most part, the upper campus buildings are internally oriented to the campus with main entries facing campus open spaces. The small residential structures that MMA owns have doors that face the street frontage. The relationships of the existing buildings on campus suggest that space for new facilities is limited and that many of the existing buildings are disposed in compact clusters.



Landscape Analysis

The campus has an enviable urban forest that appears to be made up largely of an oak-maple association with many mature examples. These trees with the presence of some towering elm trees create an attractive, traditional visual character on principal campus streets. The landscape features on the campus help to frame views and open spaces, soften edges and conceal undesirable views. The existing campus landscape appears to have emerged naturally over the years as the campus has developed. The landscape analysis highlights several types of improvements in the campus landscape that could strengthen the campus environment. The first type of improvement would be to reinforce landscape edges. This is one area that could be greatly improved in the landscape of the campus. The edges of the campus that are less desirable, parking and loading areas, could be visually screened by the planting of additional trees at their edges. Other campus edges like at Pleasant Street and Main Street could be reinforced by enhancing the character of the streetscape with additional street trees and landscape features. Another approach to landscape improvements would be to prune some of the existing tree clusters to correspond to some of the key views that have been identified on campus. This would allow more visibility of the Castine Harbor from specific locations on campus. The final landscape approach highlighted in this analysis is to define the areas of the campus landscape that are important to maintain, these include specific trees, cluster or alleys of trees that provide a strong sense of place to these specific locations of the campus.

Most of the campus open space areas are currently well-utilized by students as meeting places and social venues. The following primary open spaces comprise the landscape character of the upper campus:

- The lawn space and walks at Dismukes Hall are busy with walkers at change of classes and provides a pleasant outdoor sitting location in mild weather

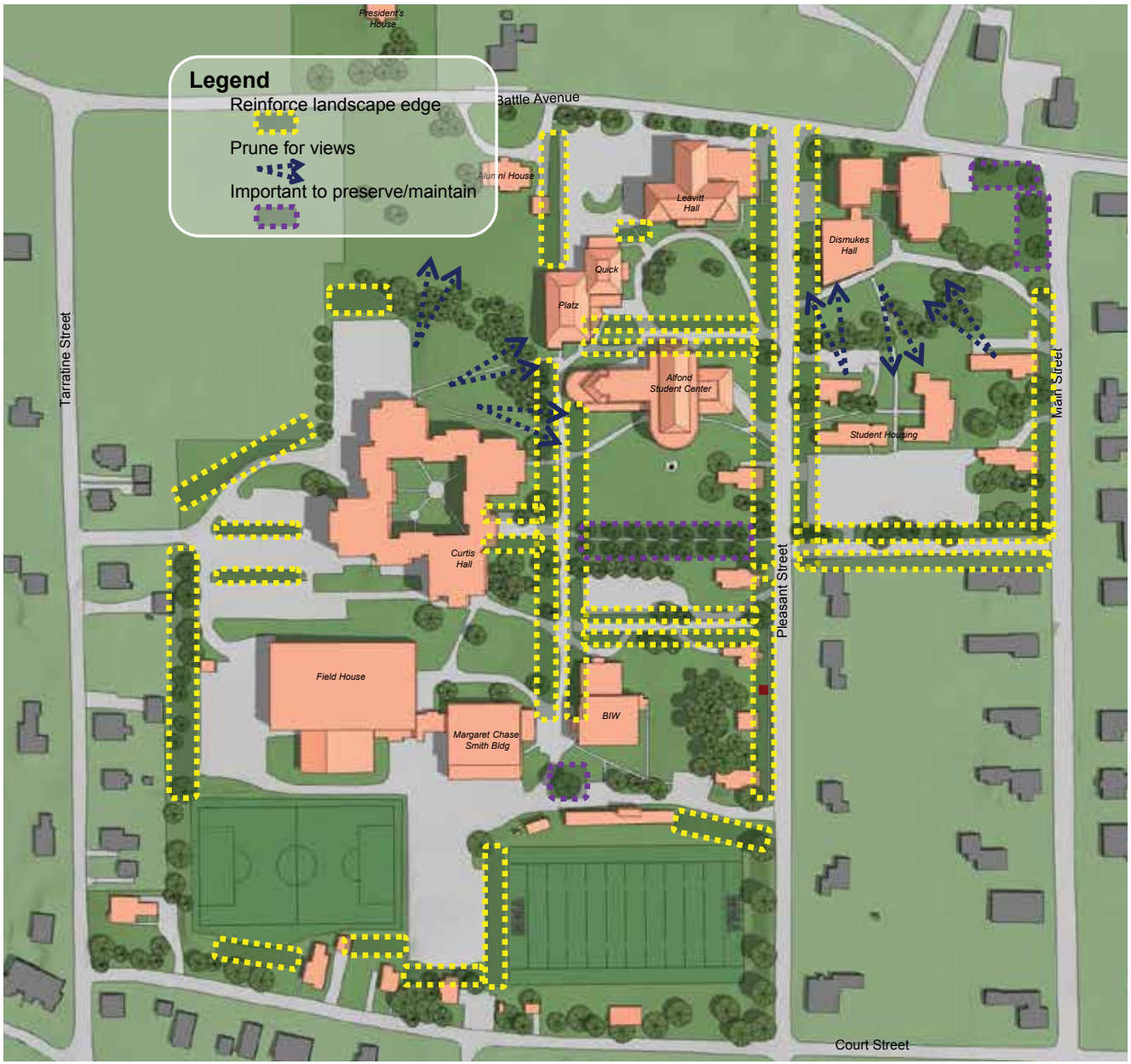
- The lawn and memorial space between Leavitt Hall and the Student Union is well-defined by the surrounding buildings, is at an important student crossroad and provides some outdoor seating

Landscape Analysis

- East of Curtis Hall, the sloping lawn and walkways leading to the Student Union and the east side of the campus are enlivened by students moving between the dormitory and academic destinations. The gazebo at the bottom of the lawn is patronized by student smokers and is almost always occupied.

- Though the paved plaza between BIW and the Smith Gymnasium is in need of repair, it is an important node at the lower end of the principal north-south campus pedestrian corridor because almost everyone passes through it on their way to the athletic facilities or the waterfront.

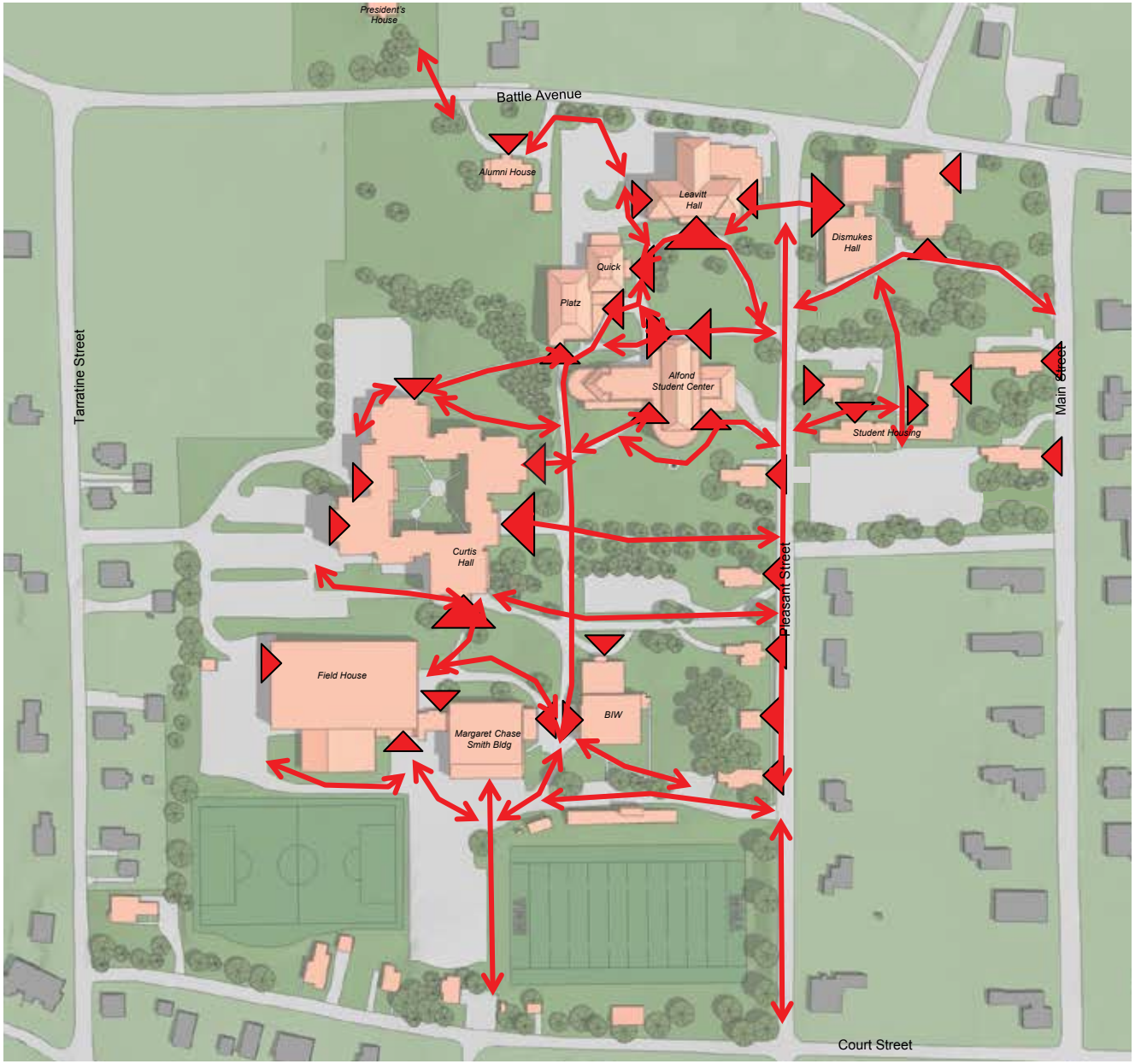
- The field north of Curtis Hall is substantial in size and has great water views but is currently under utilized because of its slope and it is not on the normal route to any campus destination.



Campus Circulation: Pedestrian

The campus pedestrian circulation is primarily confined to the interior of the upper campus area. Asphalt, bituminous concrete and brick paver pedestrian paths connect building entries, parking areas and public sidewalks. The pedestrian network on the campus is primarily straight and comprised of direct connections between destinations. The pedestrian network crosses Pleasant Street at the upper terrace. The pedestrian connection between the upper campus and the lower campus is accomplished on public sidewalks.

Pedestrians generally move onto and off campus on Pleasant Street, Main Street and to a lesser extent, over Court Street and Battle Avenue. On-campus pedestrian circulation patterns are largely determined by the routes students take from their residences to their classes, the library, student union and recreation facilities. One of the most prominent pedestrian circulation routes is the east-west axis from the Curtis Hall dormitory complex to the Alfond Student Union and the classrooms in Dismukes Hall. The north-south route between Platz Hall and the Smith Gymnasium links the library and student union with the recreation facilities at the lower end of the campus. A component of that foot traffic continues onto Pleasant Street and down to the waterfront. Another well-travelled pedestrian axis is along Pleasant Street between Dismukes Hall and the various campus houses on that street and the waterfront.



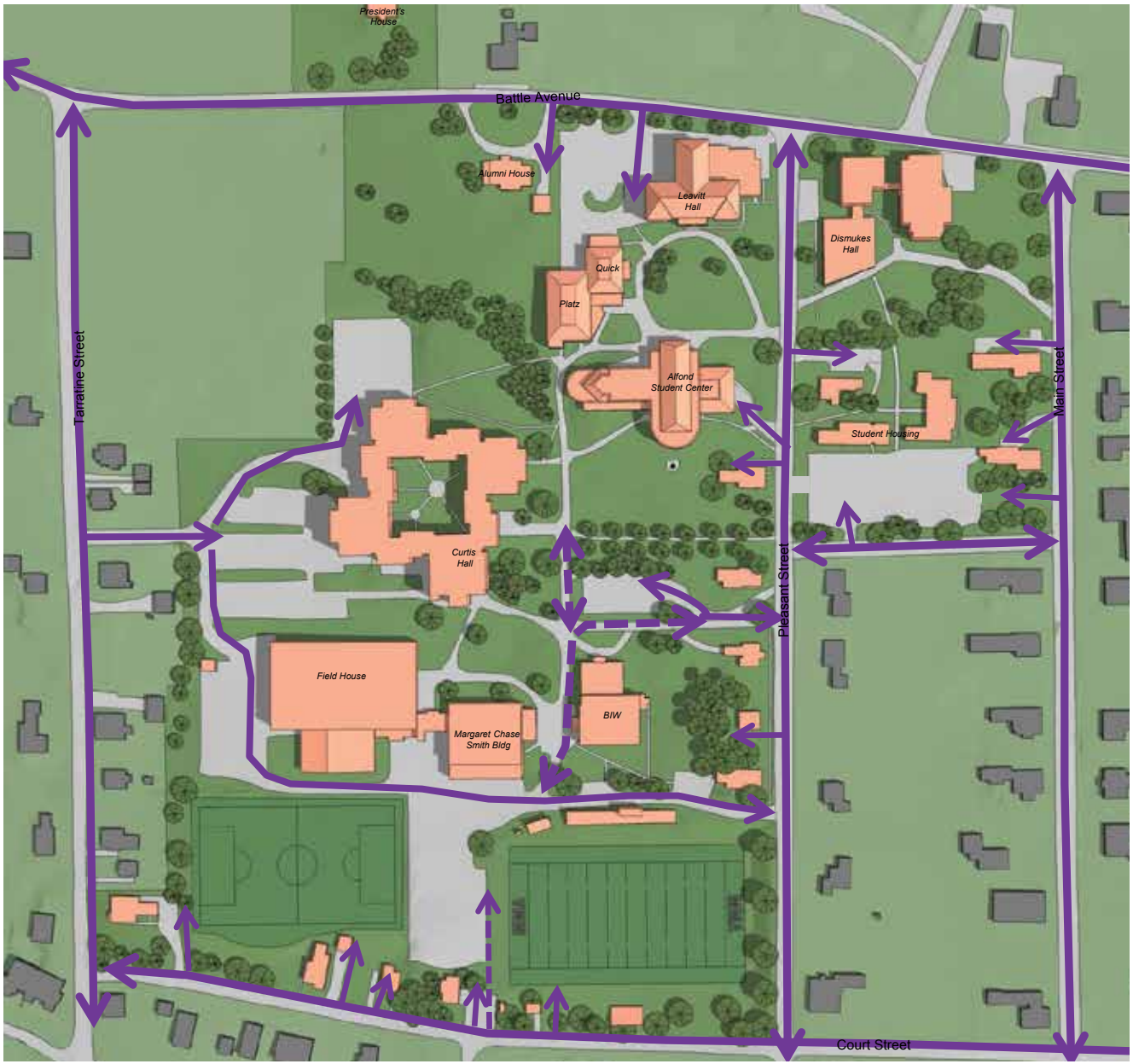
Campus Wayfinding

The first-time visitor will approach the campus on Battle Avenue. At the Main Street intersection, the traditional academic form of Dismukes Hall provides a dramatic contrast to the Castine Golf Course farther east on Battle Avenue and the wood frame and clapboard construction of most Castine homes. The open, gently sloping campus lawn and towering elm trees at this intersection provide a park-like quality, create a change in spatial character and reinforce the sense of arrival at an important location. The arrival event is supplemented by a view corridor down Main Street to the waterfront. When classes are in session, the heavy foot traffic of students traversing the lawn adds a sense of energy and life to this most imageable campus gateway.

The vehicular approach to the campus must be clear and direct campus visitors to appropriate destinations. The campus wayfinding system today does not adequately define where visitors should proceed to once they have arrived. The arrival to the campus at the corner of Battle Avenue and Main Street could be enhanced by building up the landscape around the campus entry sign and defining that as a more prominent and noticeable feature at the intersection. However, a visitor at this point is not sure whether to turn left down Main Street or proceed on Battle Avenue. Directional signage in this location would benefit the visitor who is targeting the visitor parking area as a destination. If the visitor proceeds down Battle Avenue they are faced with a similar decision at Pleasant Street. This intersection may be even more confusing because Pleasant Street is at the center of the campus and may attract more visitors to turn. Signage at this key location should direct visitors to continue past Leavitt Hall to the visitor's parking lot.

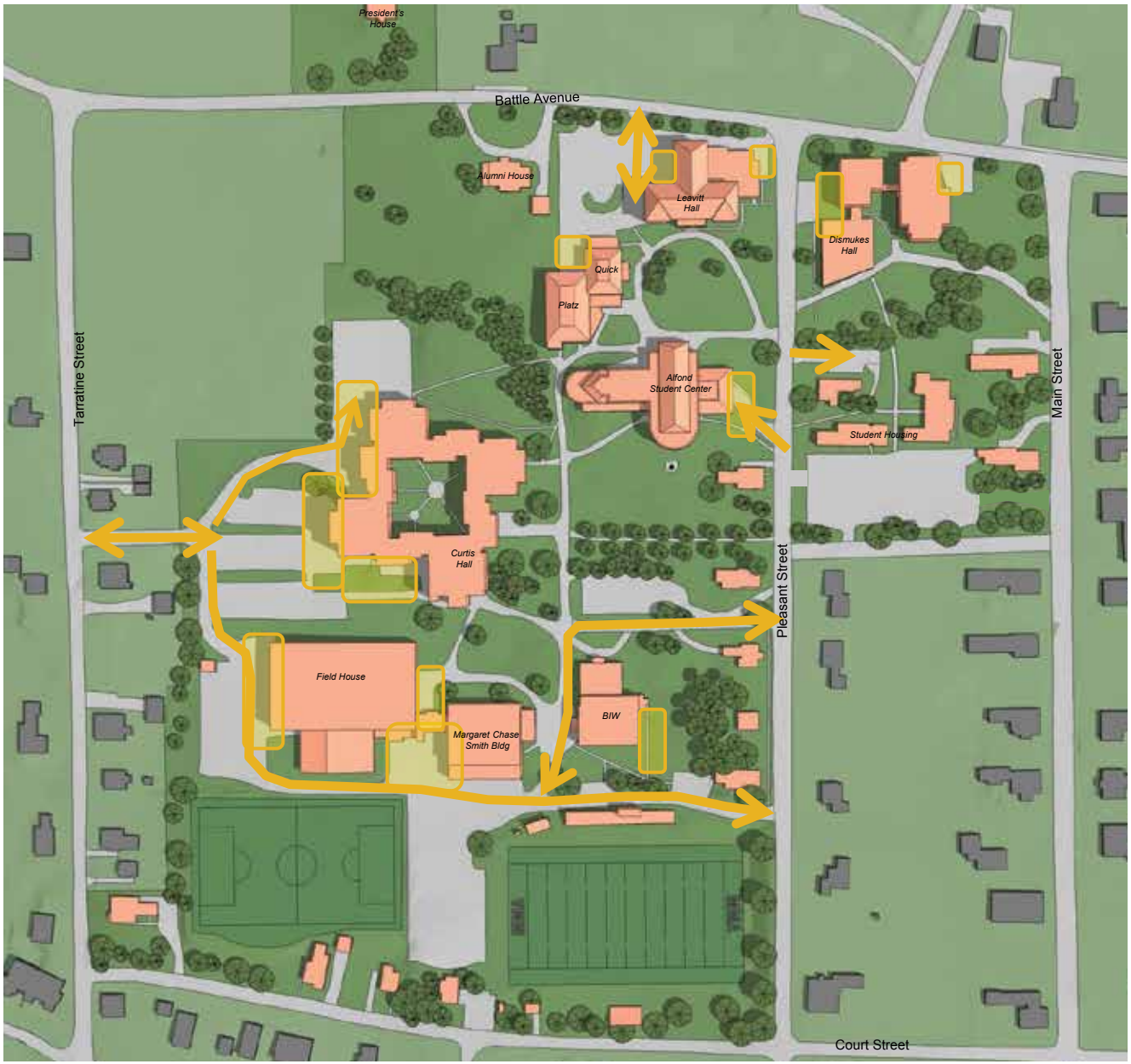
Campus Circulation: Vehicular

Campus vehicular circulation is provided throughout the upper campus primarily as part of parking areas. The campus is accessed by vehicle at a few key locations. The first is the visitor parking lot on Battle Avenue near Leavitt Hall. The second is the access drive to the parking area near the center of the campus off of Pleasant Street. Lastly, the parking area accessed off of Tarratine Street that connects across the campus with an access drive to Pleasant Street is the primary source of parking for the campus. An interesting feature of the vehicular circulation on campus is a number of small driveways that are associated with the homes that Maine Maritime Academy owns. In some locations the vehicular network overlaps with the pedestrian network creating potential for some conflicts between cars and pedestrians. This situation occurs primarily in the location between BIW and the Margaret Chase Smith Building. Access to both the upper campus and the waterfront is over town streets. Vehicles approach the upper campus principally on Battle Avenue. Staff members and visitors reach their destination parking lots from Battle Avenue, Pleasant Street and Court Street. Most undergraduate students and some staff members continue west on Battle Avenue, turn down Tarratine Street to a left turn on Stevens Street Extension and then park in the large lots on the west side of the Curtis Hall and the Field House. Students living in the Commons housing turn south from Battle Avenue onto Main Street and then right onto Stevens Street. Campus work vehicles also utilize many pedestrian sidewalks to provide services for academic buildings and residences.



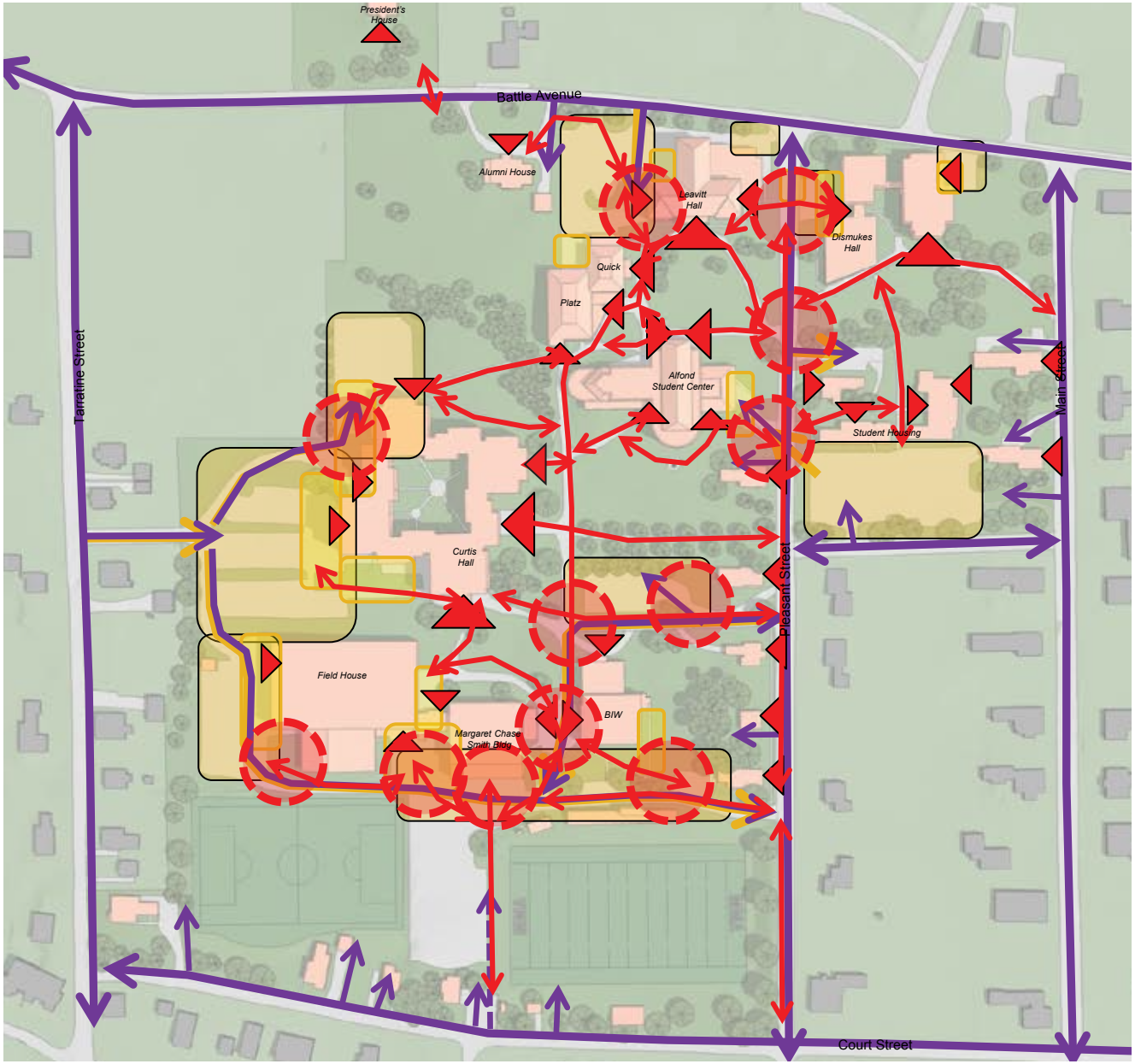
Campus Circulation: Service

Campus service areas overlap with vehicular circulation. The service areas of the campus and the building loading and service entries should be given special consideration because of the impact on circulation and the potential negative visual impact on the campus as well. Each upper campus building has a service area with two major types of access: access through an adjoining parking lot or access from an adjacent street. Curtis Hall, the Field House and Margaret Chase Smith Building each have service areas that are accessed via the parking area near Tarratine Street. Leavitt Hall has a service area accessed through its adjacent parking area. The other upper campus buildings are accessed via service drives that connect to an adjacent street. Special considerations for the types of service vehicles that need to access specific loading area should be given to circulation areas. Larger service and delivery vehicles may require generous turning radii or maneuvering areas.



Campus Circulation: Conflicts

Overlaying each of the components of the campus circulation network, several conflict areas are highlighted. While on a small campus environment these conflicts might not be as unsafe as in a context with higher speed traffic, these are locations that should remain an area of focus when considering landscape and circulation improvements. The conflict areas occur in three types of locations – within or at the edge of parking lots, on pedestrian paths, and on public streets. The conflict areas within parking areas should be enhanced with landscaping or clearly delineated pedestrian paths where possible. Vehicle movements in these locations will be slow and pedestrians are not exposed to a high level of harm. The conflict areas that exist on pedestrian paths, particularly near building entries, should be clearly defined through signage or regulation of the hours of access to minimize potential pedestrian conflicts. However, vehicles should also be moving slowly in these locations so it would be unlikely that a pedestrian should be harmed. The third type of conflict area does have a higher potential for harm to pedestrians. These are the locations of pedestrian paths that cross public streets. At these locations, MMA should work with the Town to develop appropriate crossing signage and traffic calming measures to protect students crossing the street. These areas occur primarily on Pleasant Street.



Campus Circulation: Traffic Study-Tarrantine Street

Context of the Study

In concert with the planning efforts of the MMA Campus Facilities Master Plan and the proposed ABS Center for Engineering Science and Research, Harriman has studied the traffic impact to Tarratine Street resulting from these planned improvements.

Several of the early initiatives proposed in the Master Plan are aimed at improving traffic and parking concerns identified as existing in Castine around the Campus and neighboring areas. Construction of the new facility on the Upper Campus will relocated classrooms and reduce the number and frequency of vehicle trips to the Lower (waterfront) Campus. This shift will also remove demand for parking in the area of the town landing and Lower Campus. Creation of more parking internal to the Upper Campus will decrease demand for on-street parking that contributes to congestion and competes with non-Academy parking needs.

A parking study conducted by Walker Parking Consultants in 2009 identified a deficit of approximately 150 spaces based on institutional population and parking policies in place at that time. Long range planning considered the possibility of erecting a parking structure on the Upper Campus. In the shorter term, the Master Plan proposes to address the parking shortfall through a surface lot. This work is to be done in coordination with the new engineering building.

Purpose of the Study

Harriman, is providing this more detailed study of traffic specific to the subject area to evaluate issues related to the traffic entering and exiting the campus using the Tarratine Street driveway.

The focus of consideration is the impact of the planned parking improvements on the generation of noise, congestion nuisance and safety for the residents of Tarratine Street. Overall conditions of the campus have not significantly changed to cause an increase in traffic to and from the campus. With anticipated construction of the new engineering building, Maine Maritime Academy is developing a new parking facility with access from the existing Curtis Hall parking lot. Access to this parking lot is from Tarratine Street and from Pleasant Street via the driveway near the football stadium and the Field House.

Existing and Proposed Site Conditions

The main Traffic generation of the site from the Tarratine Street driveway to the Academy is produced primarily from the parking lots serving students in the Curtis Hall residence hall parking and the lot adjacent to the MMA Facilities Department. The Curtis Hall parking lot currently contains 163 parking spaces and the Facilities lot contains 57 parking spaces. Other traffic generated on Tarratine Street is from the adjacent residential properties. Tarratine Street between Court Street and Battle Avenue is approximately 0.25 miles and contains 11 residential driveways.

The replacement parking lot is proposed to be constructed adjacent to the Curtis Hall dormitory parking lot with an additional 45 parking spaces. There are no additional student rooms that would result in an increase of traffic to the campus. The displacement of approximately 34 parking spaces with access from Pleasant Street and the addition of 45 spaces adjacent to the Curtis Hall dormitory may result in a small increase in traffic on Tarratine Street as explained below.

Academy Drive at Tarratine Street

Background Traffic

Residential properties will generate approximately of 10 trips per day with less than two peak hour trips. The student residence hall also generates minimal peak hour traffic since these dorms are Maine Maritime Academy students. The Facilities Department does generate traffic from employees of the Academy. Parking for the dormitory is restricted to upper classmen.

The Academy has approximately 660 upper classmen, 290 freshmen, 140 staff and it is estimated 12 visitors. On any given day it is estimated that 5% of the staff will not be on campus due to illness, vacation or other related reasons. This brings the total population to 1095 with only 805 people generating trips. Other trips will be from deliveries and service vehicles. All of these trips are generated by both the Upper Campus and the Lower Campus locations. The use of the parking lot by residents of the Curtis Hall students results in a very small daily trip generation as students do not require vehicles to travel on campus.

Study Area

The area of the consideration is the traffic entering and exiting the Tarratine Street driveway. This driveway primarily serves Curtis Hall and the Facilities Department. Currently there are a total of 200 parking spaces in these lots. The addition of the new parking lot with 45 parking spaces brings the total of available parking to 245 spaces. Because the parking lots can be accessed from both Pleasant Street and Tarratine Street, the driveway on Tarratine Street will only carry a fraction (50-70%) of the total possible trips. The parking in the study area serves primarily long term stays by students resulting in a very small turnover rate. Facilities personnel may enter and exit the parking lot by both the Tarratine Street and the Pleasant Street driveways. It is estimated that the new parking will generate between 23 and 30 new trips on Tarratine Street.

Impact to Traffic on Tarratine Street

Tarritine Street is a suburban residential street with below-normal traffic volumes. The existing parking and drive contribute approximately 160 trips during peak hour traffic to Tarratine Street. The capacity of the road is well in excess of the combined traffic of the Academy and residential uses. Further, as Tarratine is not a collector street, there are no other significant traffic generation facilities to create congestion or nuisance to the area. The potential addition of 23-30 new trips will have no adverse effects as related to noise, traffic congestion or safety. Tarratine Street has sufficient sight distance at the Academy driveway to ensure safe ingress and egress from the property. To minimize any impacts to traffic flow Tarratine Street and ensure emergency vehicle access, on-street parking should be discouraged or prohibited in the subject area.

Facilities Analysis

Facility Analysis - Envelope

During the assessment phase of the master plan, Harriman gathered data in order to evaluate the condition and performance of Maine Maritime's facilities. Specifically, an effort was made to determine current energy performance and overall condition of the exterior building construction of its 19 major structures. Harriman began by recording the age of the buildings, the composition and condition of exterior walls, the associated R-value of the wall assembly, and the fuel consumption of the buildings on a per square foot basis.

The condition assessment of the exterior wall is ranked on four criteria.

Finish

The condition of the coating of the outermost exterior surface, this is most often a painted finish or clay brick.

Insulation

The thermal performance of the exterior wall construction. Buildings with a resistive value of 20 or more are considered excellent; values between 15 and 20 are considered good; values of 10-15 are rated as fair, and R-values less than 10 are considered poor.

Durability

Rating of the ability of the exterior wall assembly to withstand normal wear and tear and consequently the systems expected longevity.

Integrity

Measure of the current structural condition of the exterior wall assembly.

The energy performance of buildings is primarily a function of two contributing factors. The efficiency of the mechanical systems to condition the interior of the building to the satisfaction of its occupants requires the conversion of energy in heating, cooling and ventilating. The second variable involves the performance of the thermal envelope to control energy transfer across the envelope of the structure. One measure of the thermal performance of the envelope is the thermal resistive value or R-value. R-values for all of the campus buildings were tabulated and reported for all campus buildings.

Facilities Analysis

The combination of the thermal performance of the exterior envelope in concert with the consumption of the heating and cooling systems in a building can be used to establish a qualitative measure of a facilities energy efficiency. At the time of this study, the fuel (oil or gas) of most of the campus buildings was determined based on consumption data provided by the college and previous reports. The average exterior wall thermal performance was determined by examining wall construction.

Additionally, the physical integrity of the buildings exterior can be used to gauge the facility's condition. This was also determined through on site observations.

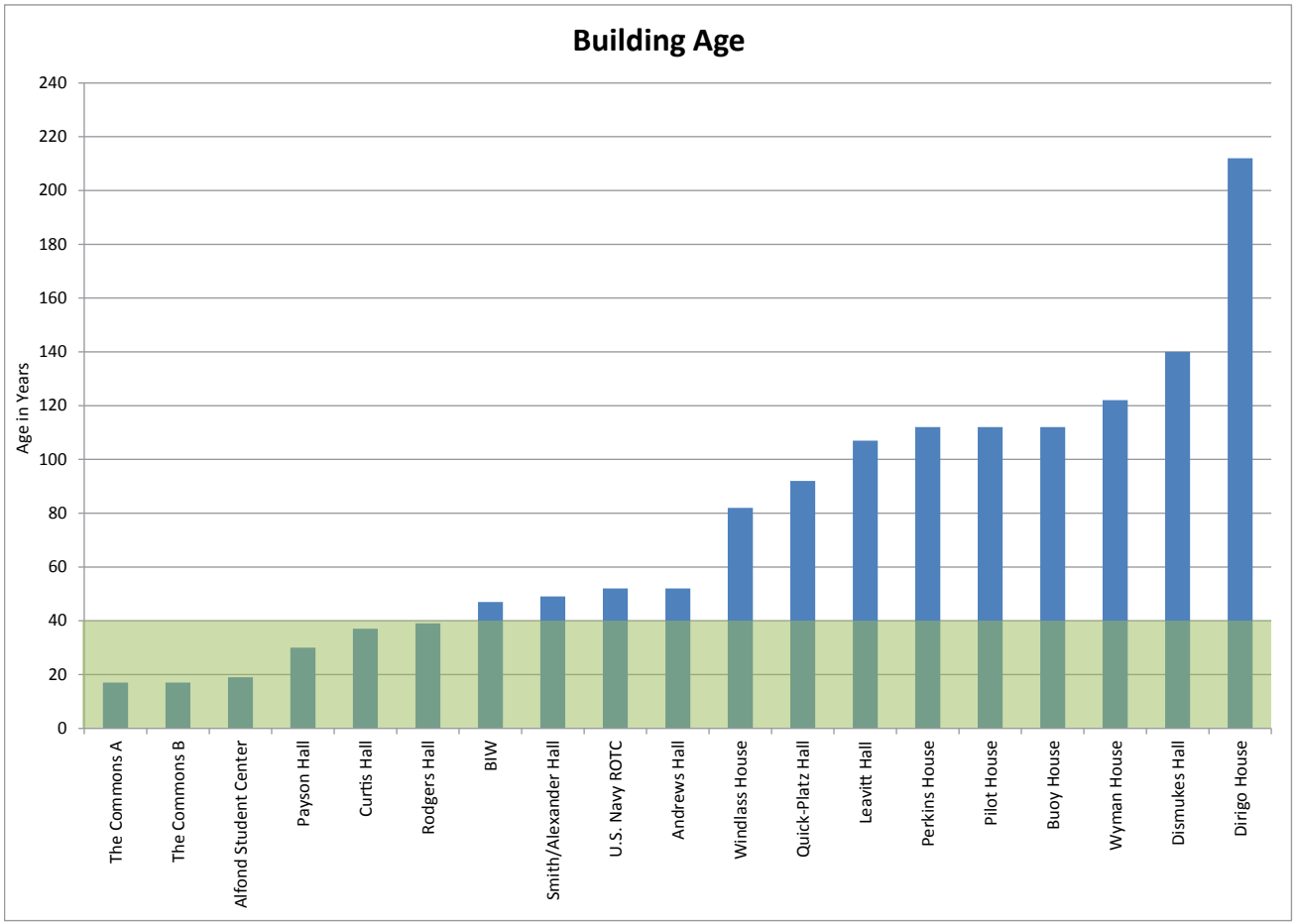
The ratings below report the top and bottom campus building performers in the following energy performance and building condition categories:

1. Exterior Wall Assembly R-value
2. Exterior Wall Condition
3. Fuel Consumption

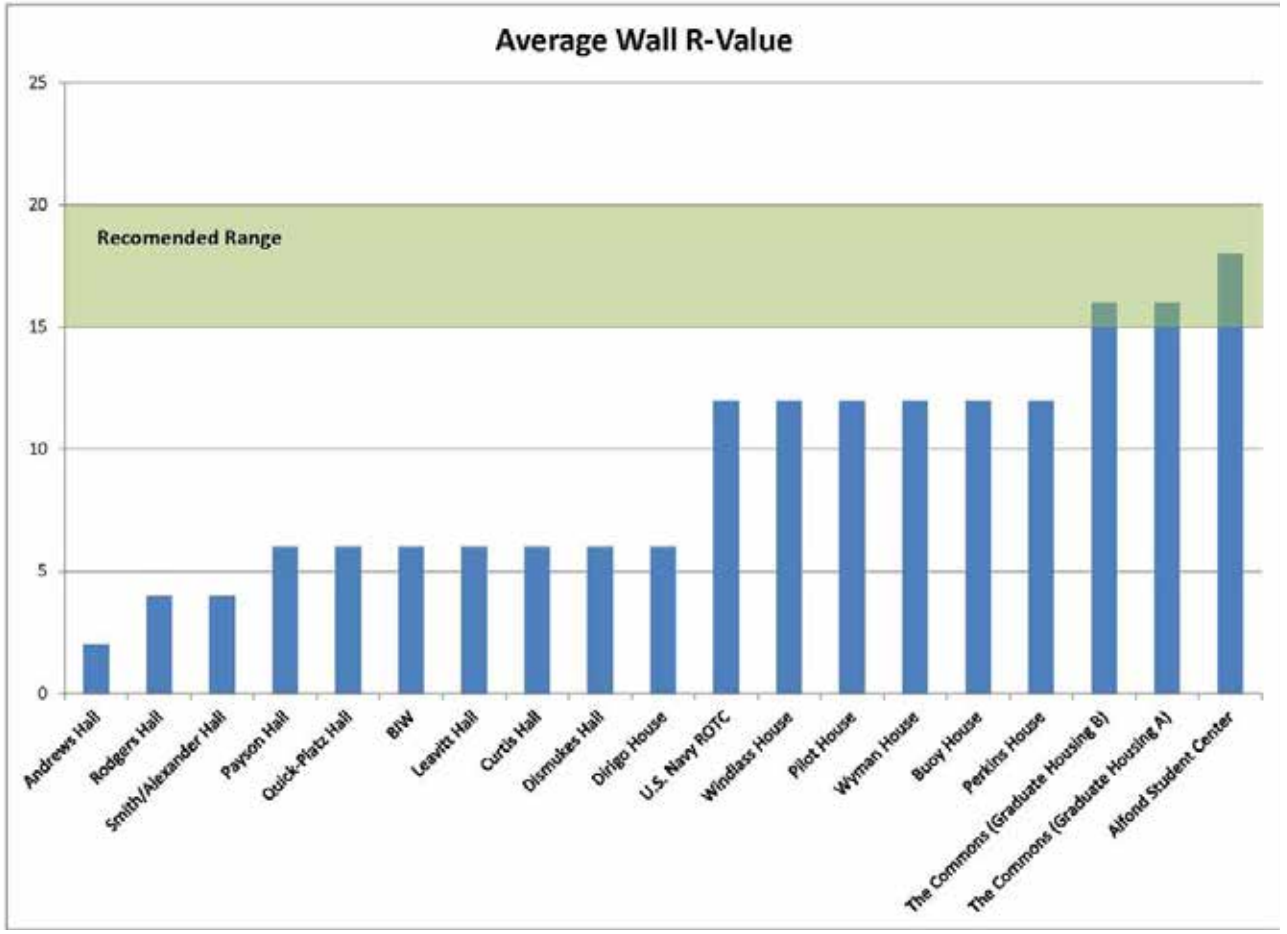
The inventory of MMA buildings can be divided by age into three categories: pre 1940 (70 years and older), 1940-1970 (70 to 40 years old), 1980-present (under 40 years old). The earlier range structures include the original normal school buildings of Dismukes, Leavitt and Quick Hall - all solidly constructed of masonry. The oldest category of buildings also includes a number of historic wood framed houses, namely Dirigo House and the Wyman House. A significant number of campus buildings were constructed during the post-war expansion that occurred between 1940 and 1970 including BIW, Smith and Andrews Halls. Construction during this period is most often characterized by a lighter, often non-insulated wall construction as fuel costs were relatively inexpensive and buildings could be built quickly and at lower costs - though not the case with BIW or the Smith Gymnasium. Construction technology embraced more energy efficient building systems as energy costs rose in the decades following the 1970's. The campus buildings constructed in the last 30 years are typically the better performing structures as seen in the data presented here.

Building Age

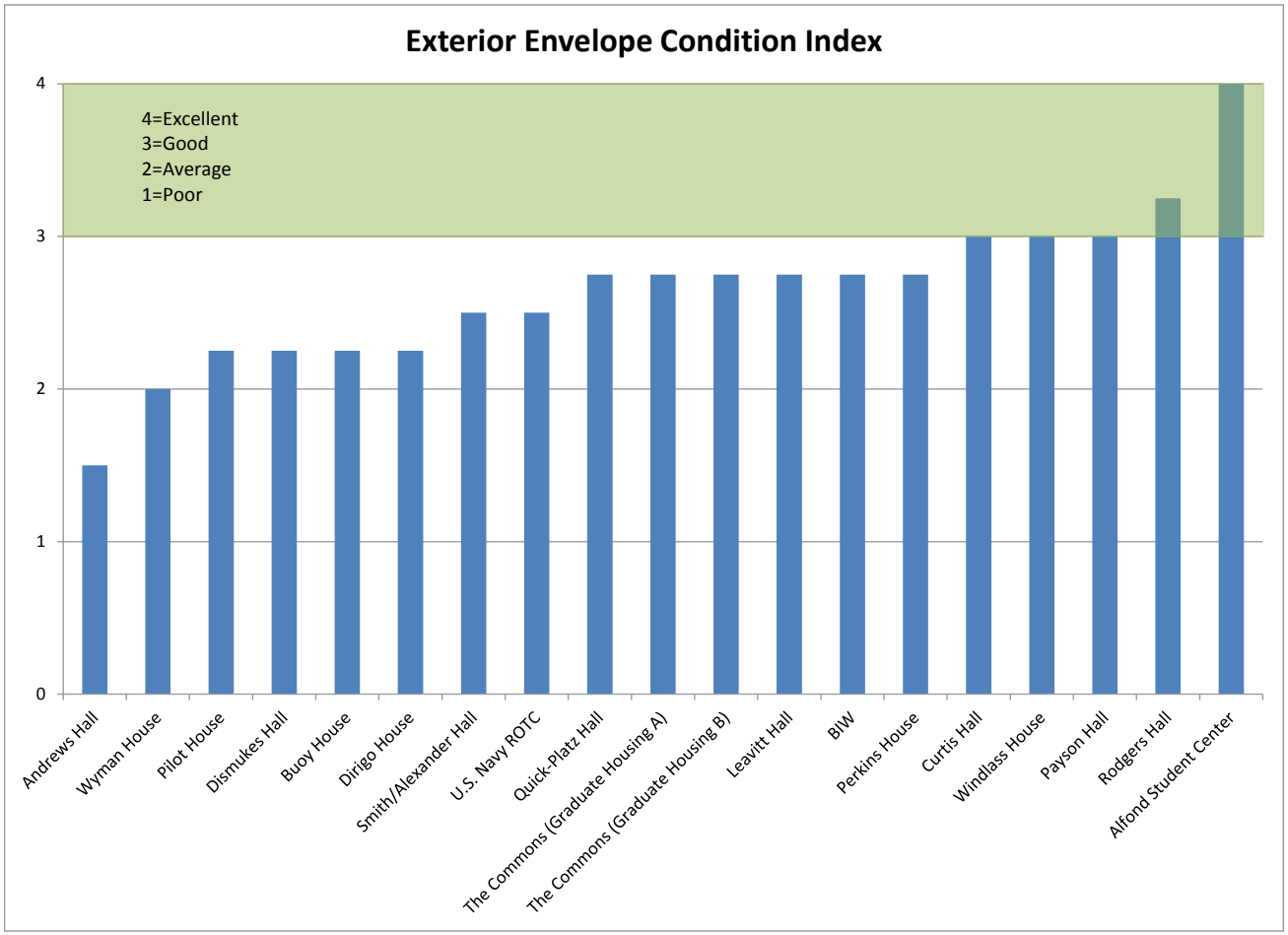
Building age often correlates to building performance and capital maintenance costs. Most building systems have serviceable lives of 40 years before obsolescence or failure. While many improvements have been implemented to the physical infrastructure on campus, the aging stock of buildings will require increasing deferred maintenance investment.



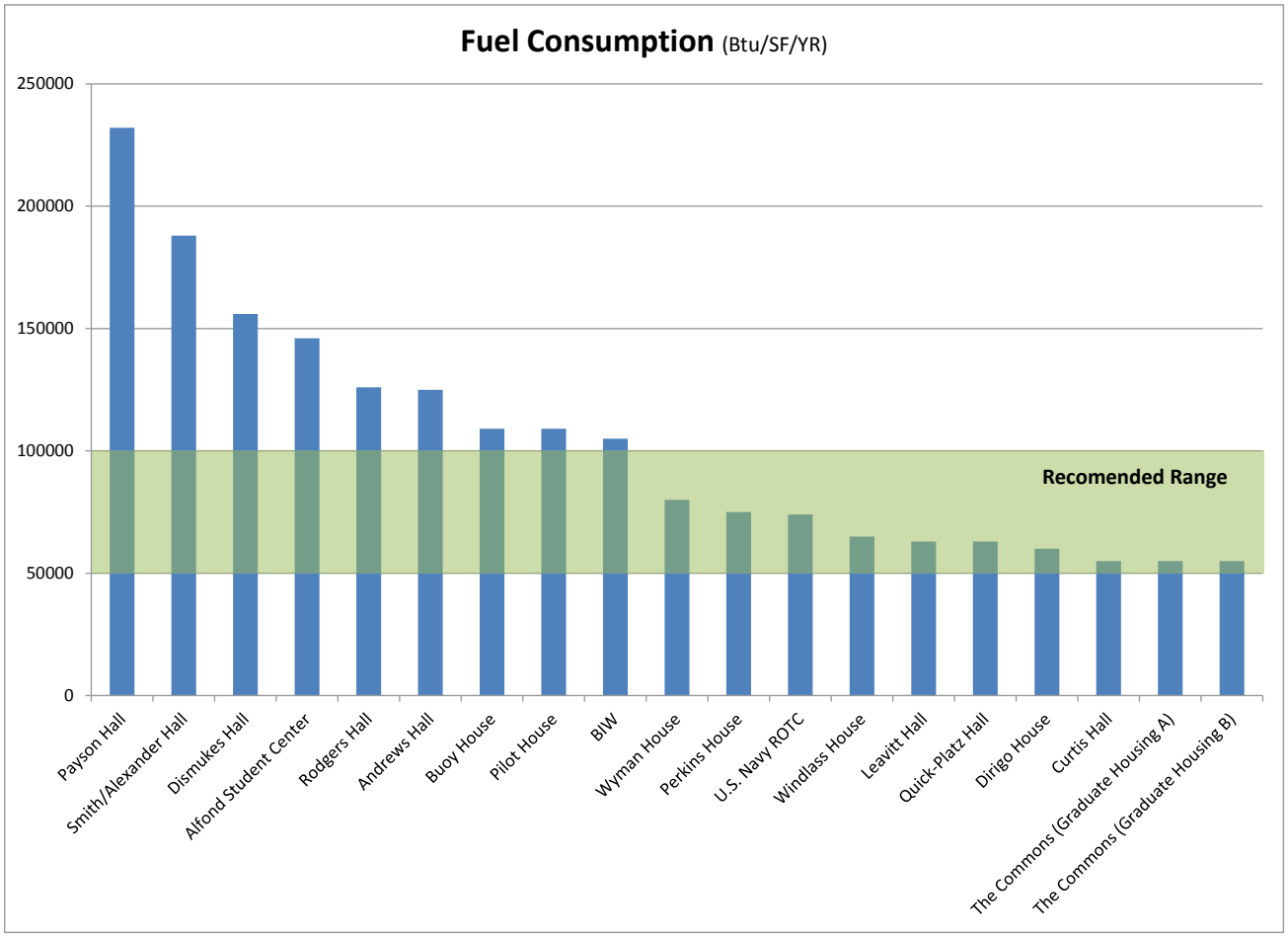
Exterior Wall Insulation



Wall Condition

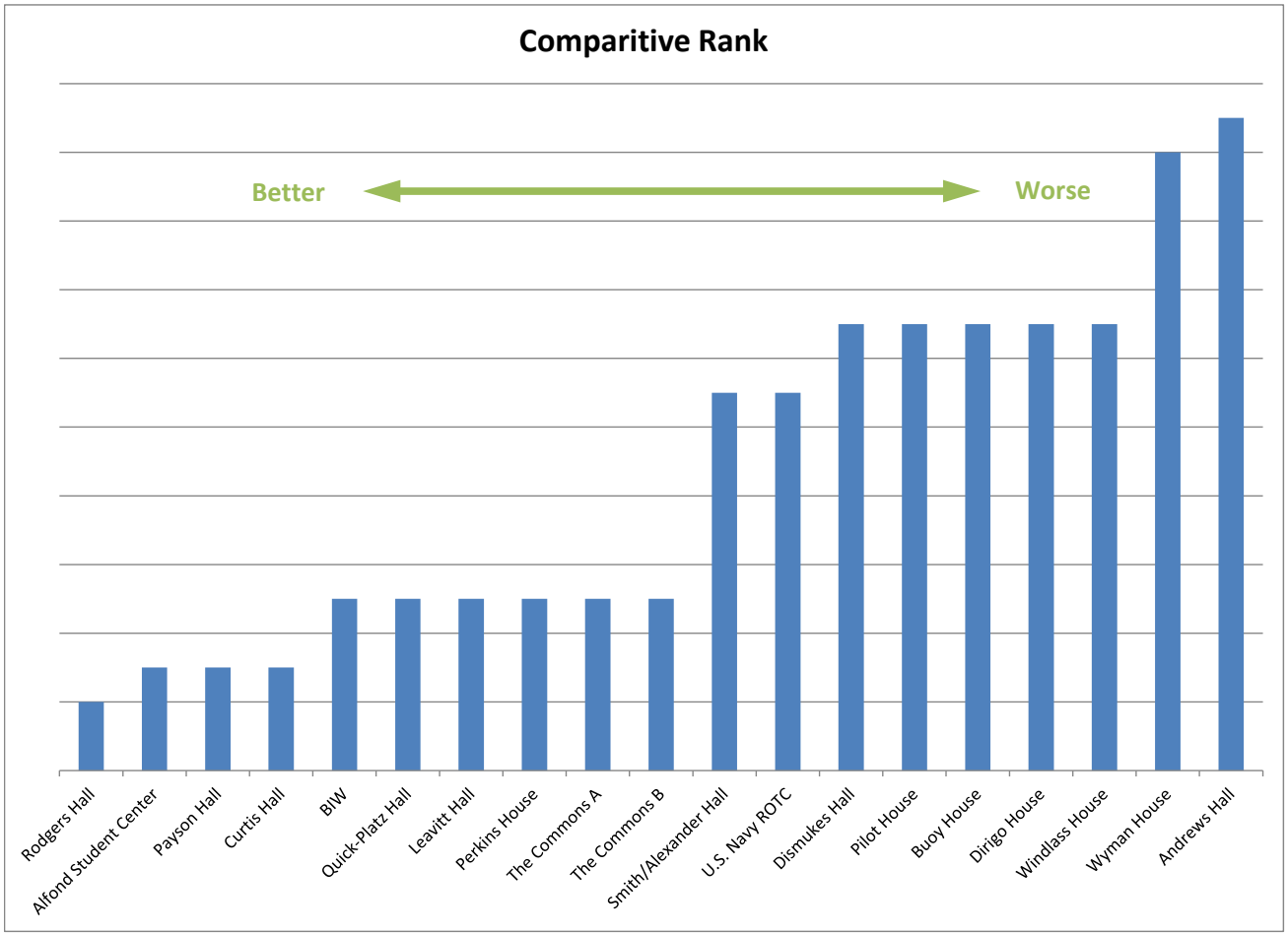


Fuel Consumption



Comparative Rank

Indexing of buildings based on exterior envelope R value, wall condition and building fuel consumption provides a comparative ranking tool for further study. While a strong correlation may be made to the age of the structure, some buildings have had upgrades to mechanical systems or building envelope improvements that have improved their performance and rank. It perhaps comes as little surprise that Alfond Hall is one of the best ranked facilities while Andrews Hall is the worst.



Utilization Analysis

An inventory of scheduled space and analysis of utilization ascertains how well space is used and determines a realistic capacity of academic spaces. This work informs the campus master planning process through a better understanding of existing campus assets and the identification of opportunities to be explored during the planning process.

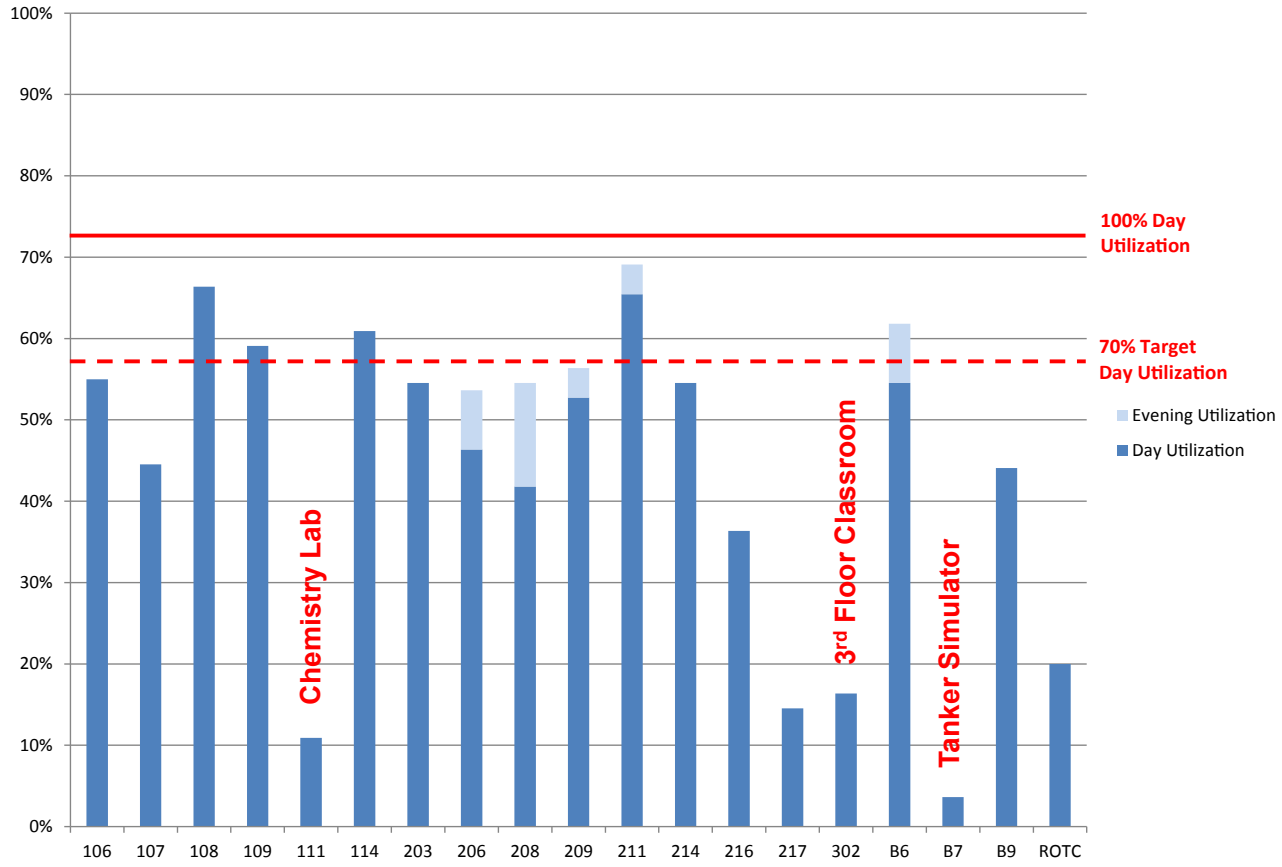
The scheduled use of buildings and spaces during the Fall 2012 semester was used as the basis of this analysis. The process was initiated through a meeting on campus with the Registrar. Spaces scheduled by the Registrar were included in the analysis with an understanding that a number of spaces for conferences and other campus events are scheduled by others. The spaces scheduled by the Registrar are located in nine buildings on campus. Most scheduled courses occur between 8:00 am and 4:00 p.m. Monday through Friday. The scheduled spaces are also scheduled between 7:00 p.m. and 10:00 p.m. however utilization during this period of time is low.

The purpose of this analysis was to determine how well space is used on campus and compare the capacity of existing academic spaces to student enrollment. In general, day time utilization of classrooms is close to the target utilization rate and exceeds the target on Mondays and Wednesdays. A high percentage of academic space is dedicated to specialized labs which are more difficult to analyze given their nature. All of these labs strongly support the academic programs at Maine Maritime Academy and in reality are used students, faculty, and staff outside of scheduled hours.

The capacity analysis of academic spaces, which took into account the inventory of existing scheduled spaces, target utilization rates, and standard planning ratios, determined a "planning capacity" of 724 students. This number falls below recent and current student enrollment figures and provides support for the addition of new academic space on campus.

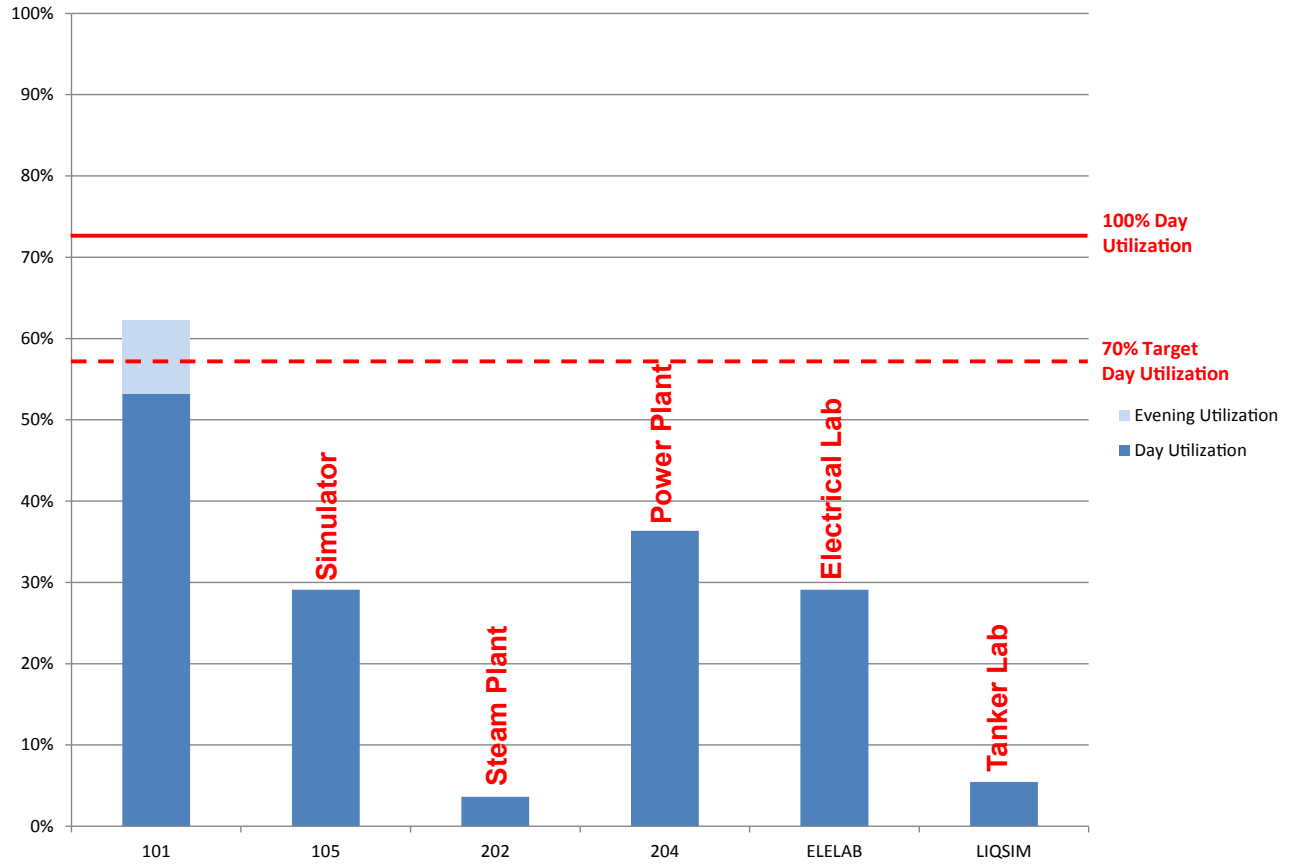
Utilization Analysis
Dismukes Hall

Dismukes Hall has nineteen scheduled spaces, the most of any building on campus. It is truly an academic building housing classrooms, labs, planetarium, faculty offices, and the Registrar. In general, the building is very well utilized. The only under utilized spaces are Chemistry Lab 111, Tanker Simulation Lab B7, and Classroom 302. Lower utilization for specialized labs is typical. More difficult access to Classroom 302 was identified as a reason for lower scheduling of this space. A portion of Dismukes was recently renovated in 2011. Opportunities for transformation and improvements to the building exist in the NROTC portion of the basement and the third floor.



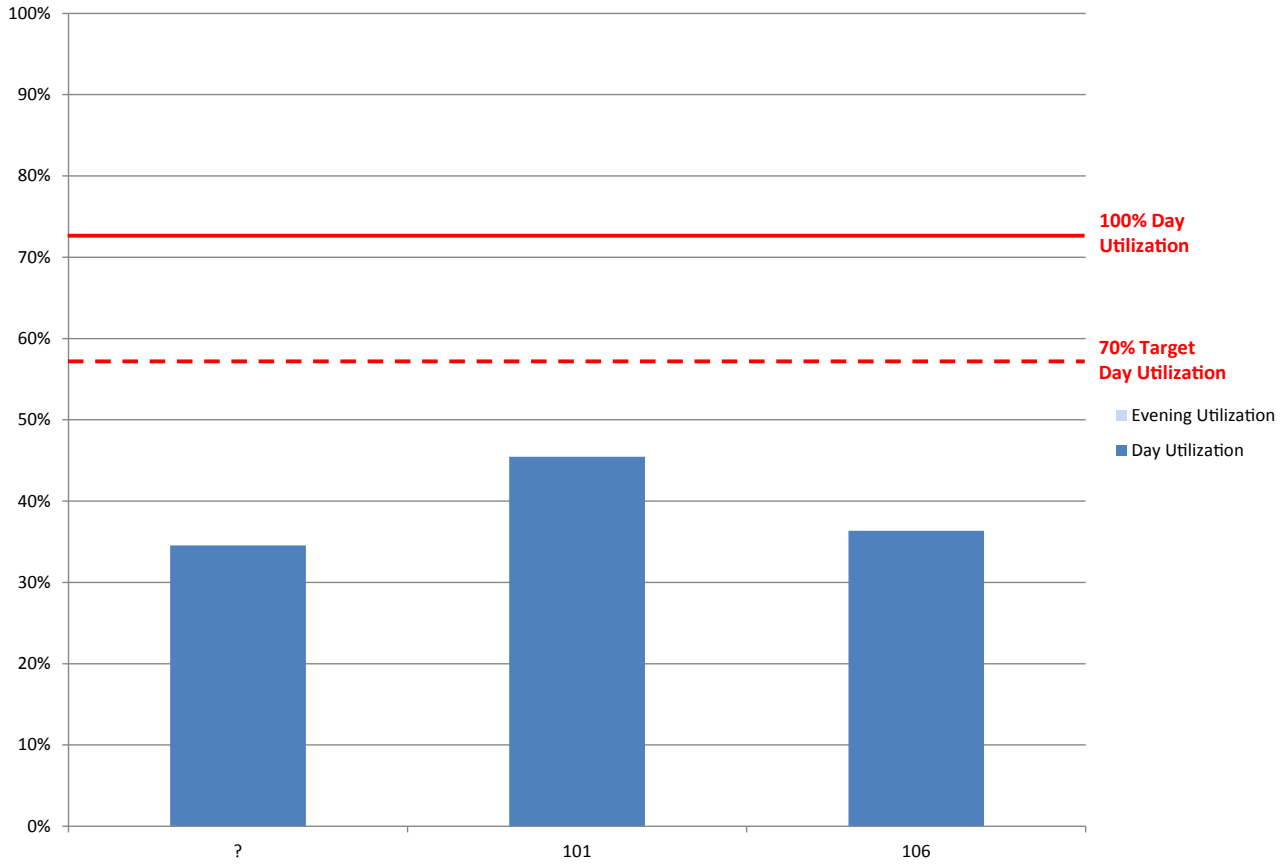
Utilization Analysis BIW

BIW houses six scheduled spaces, most of which are labs. The Humanities Lecture Hall 101 is very well used. Labs include Simulator 105, Tanker Lab LIQSIM, Steam Plant 202, Power Plant 204, Electrical Lab ELELAB, and the Renewable Energy/Robotics Lab. These very specialized labs have lower utilization given their focused use. The Electrical Lab and adjacent spaces represent a significant amount of space and may be an opportunity for a more efficient and/or effective use of space.



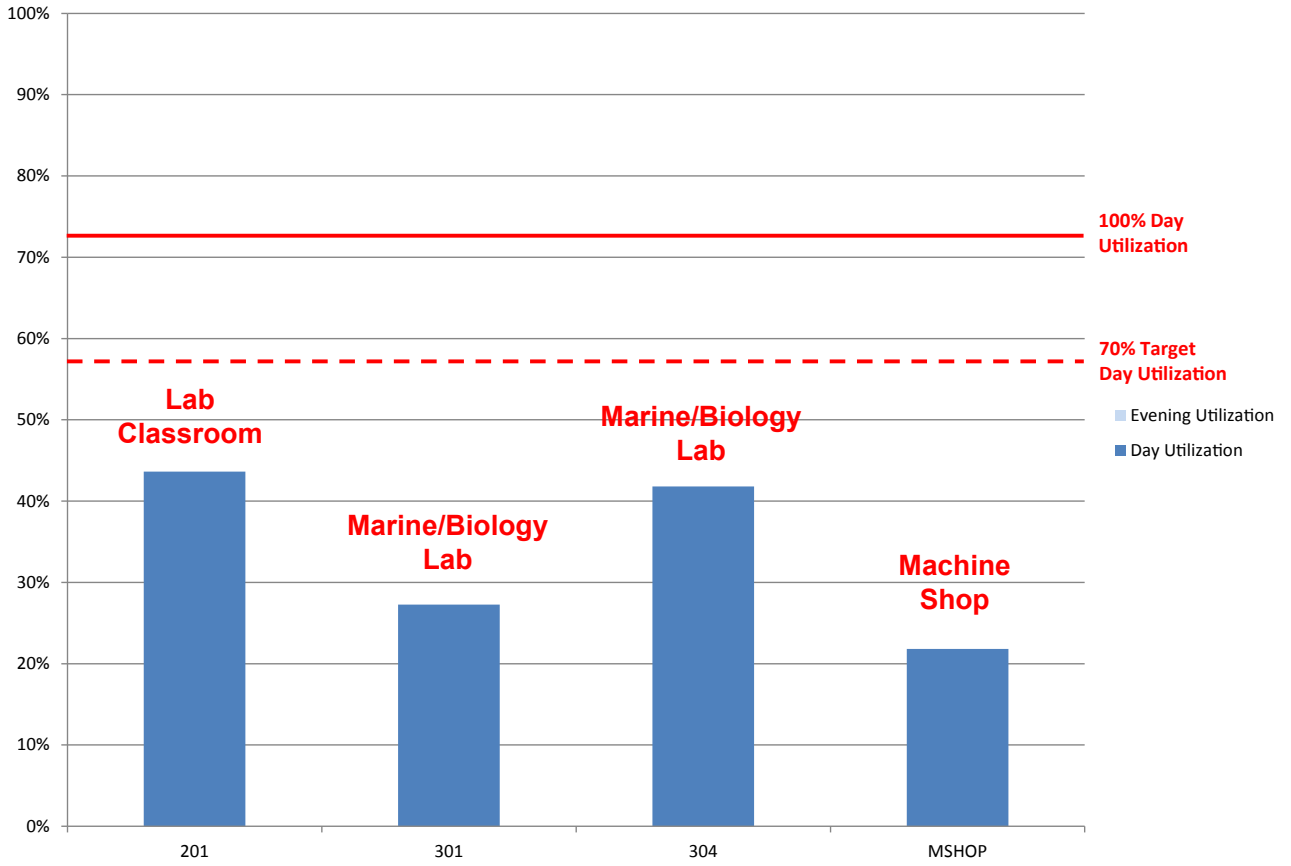
Utilization Analysis
Andrews Hall

Andrews Hall, located on the Lower Campus, is one of the smaller academic buildings on campus and only houses three scheduled spaces. In addition, it houses the Boiler Room for the entire Waterfront thus limiting its usable space. Scheduled spaces are primarily used for Sailing, Marine Science, Stability, and Fluid Power courses. Classroom 101 is a regular classroom and Lab 106 is dedicated to Fluid Power. The Wet Lab in the building is not a scheduled space. Initial planning for the Lower Campus considers removing the single story building to better utilize the limited area on the waterfront. This lost capacity will be replaced in the new lab building planned on the Upper Campus.



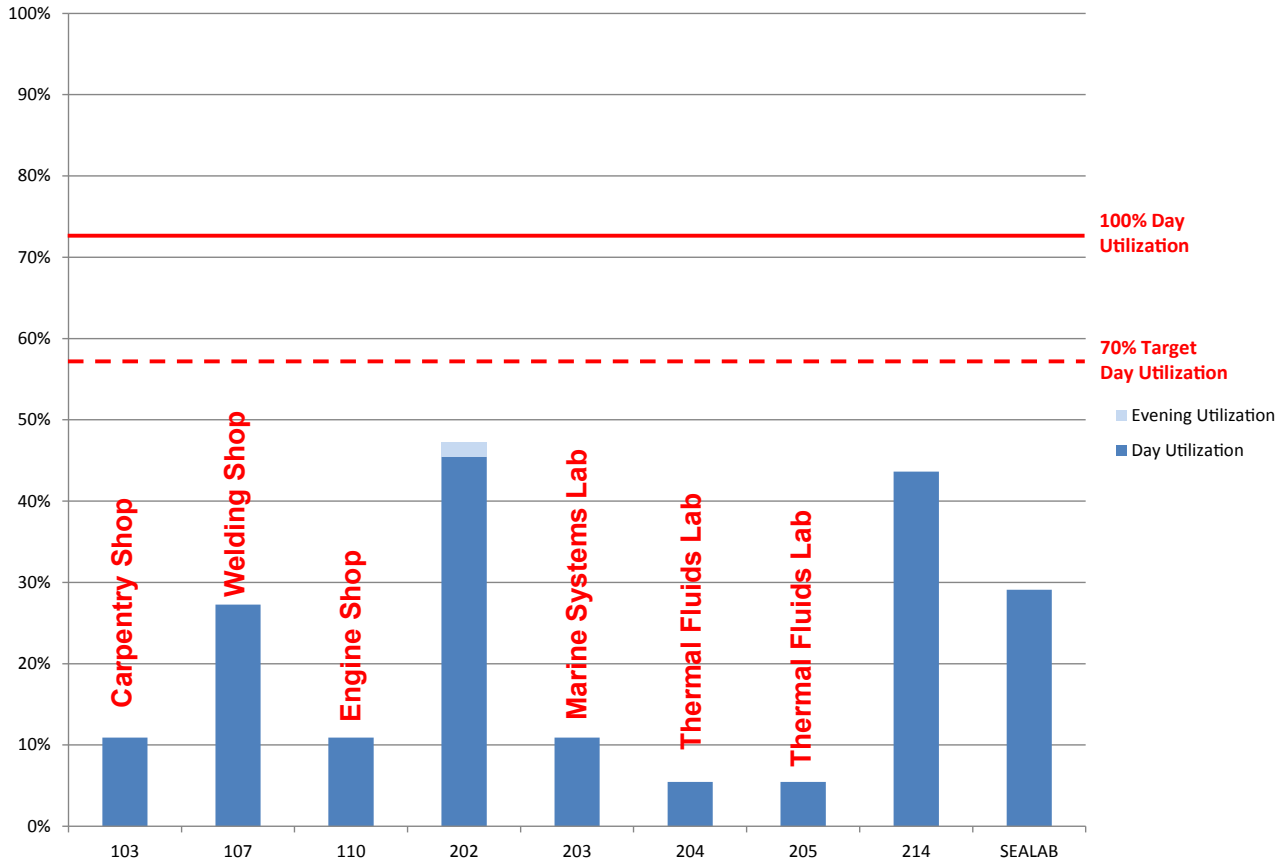
Utilization Analysis
Rogers Hall

Rogers Hall, another Waterfront facility, has a relatively small footprint of only 5,700 SF. It is three stories and given the amount of space allotted to vertical circulation is somewhat inefficient. It only houses one or two labs per floor and there are only four scheduled spaces in the building. The Machine Shop takes up the entire first floor and is the largest lab space on campus. Classroom 201 is the only regular classroom in the building and provides a lecture space for the adjacent Steam Lab, Diesel Test Lab, A/C-Ref. Pumps Lab, and Turbine Lab. Third floor labs 301 and 304 are primarily utilized for Marine Biology and Science. The scheduled utilization of the labs in Rogers Hall is low which is typical and expected given the specialized nature of the spaces.



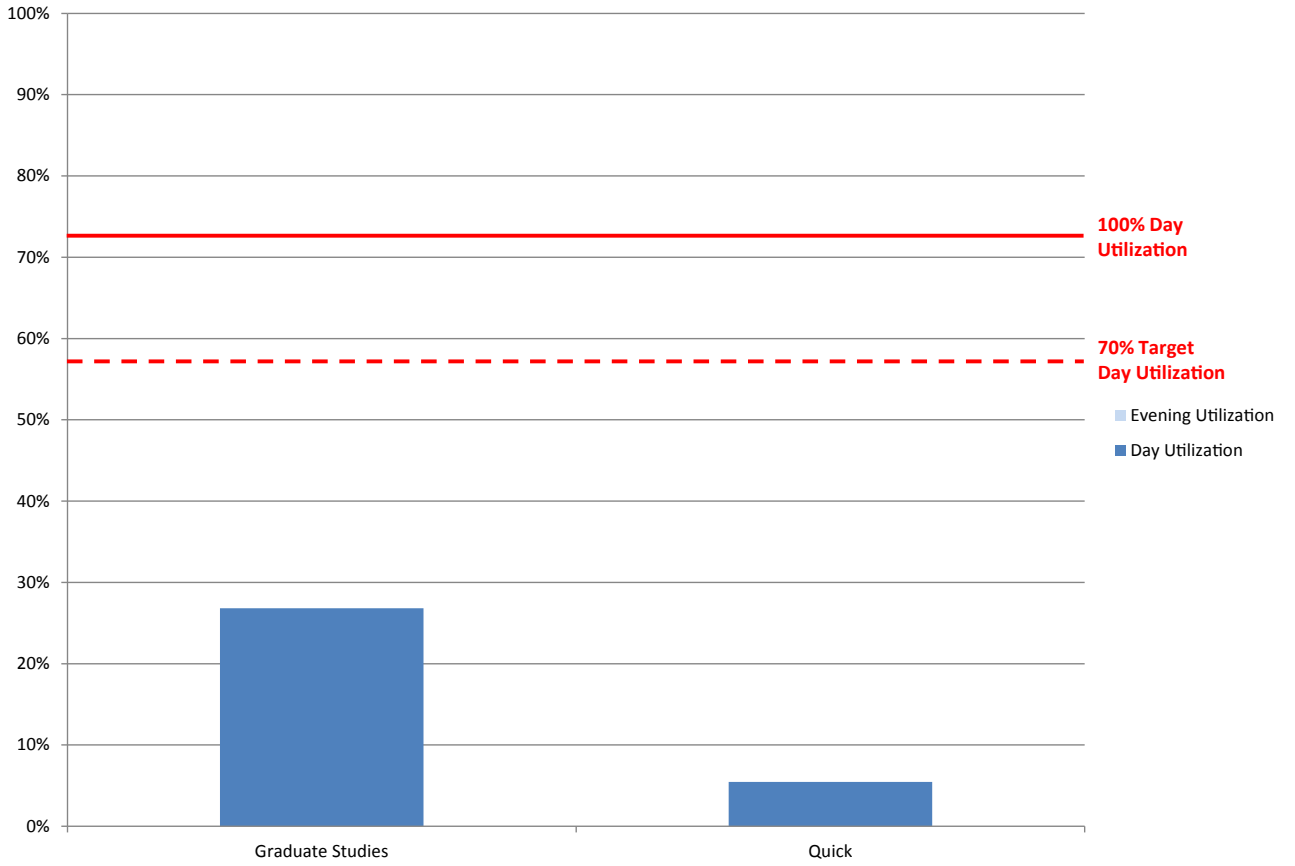
Utilization Analysis
Payson Hall

Payson Hall is another Waterfront facility connected to Rogers Hall. The first floor consists mostly of working shops including the Large Boat Shop, Carpentry Shop 103, Engine Shop 110, Welding 107, and the "Caves." The second floor houses classrooms, labs, locker rooms, and offices. Nine spaces in Payson are scheduled by the Registrar. Classroom 202 and Lecture 214 are well used. Labs in this building also have typical utilization rates. Lack of natural light and inadequate ventilation in spaces have been noted as issues that may impact utilization of the spaces.



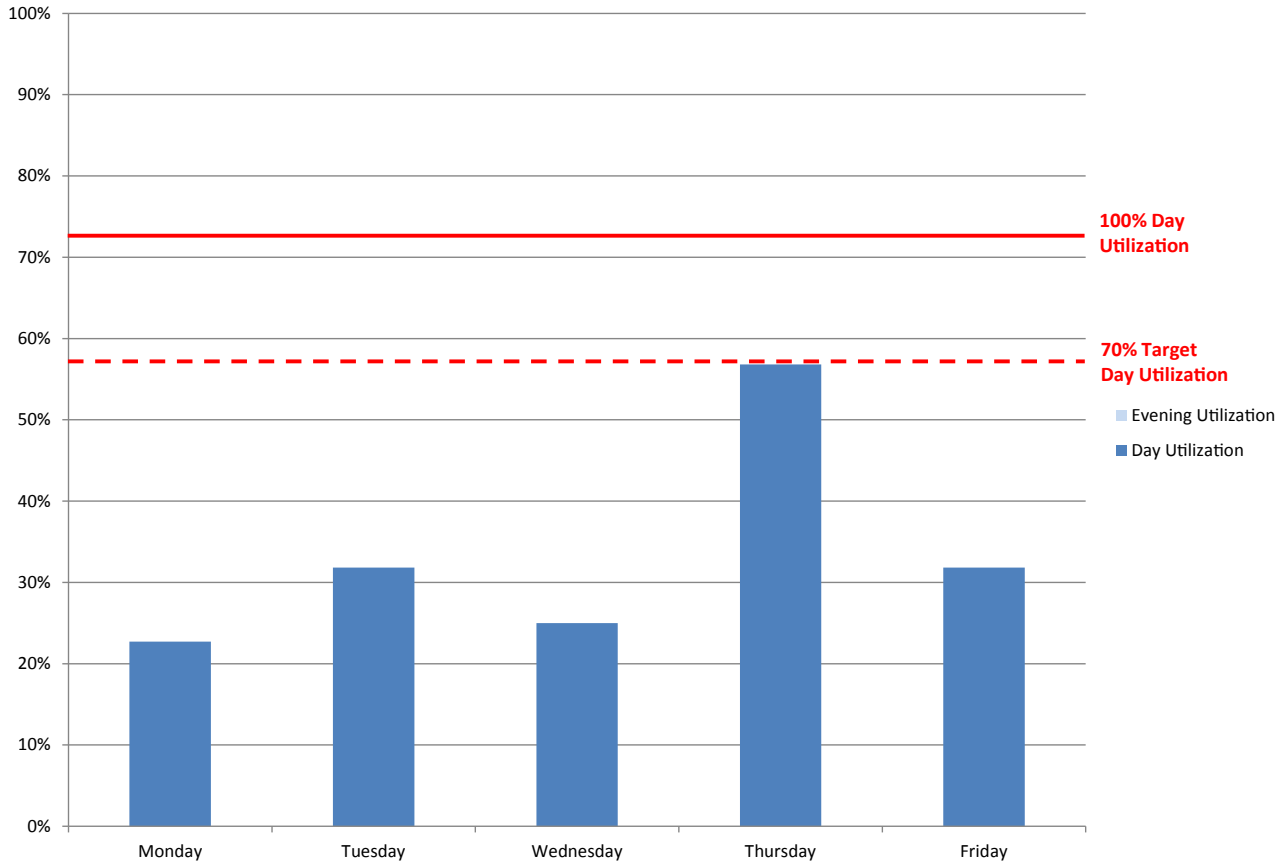
Utilization Analysis
Quick Platz Hall

Quick-Platz is home of the Library, 24 Hour Study Room, Alumni Affairs, Career Services, TEDEC, and the Graduate Seminar Room. Only two spaces in Quick-Platz are scheduled, Quick Classroom and the Graduate Studies Seminar Room, and both are very under utilized. Quick Classroom is located within the Library and the Graduate Seminar Room is dedicated to graduate classes only. The layout at the front of Alumni Affairs and Career Services is inefficient and has been identified as an opportunity for reconfiguration. The Special Collection Reading Room in the Library is a wonderful space with a great view of the heart of campus but isolated access has limited its use.



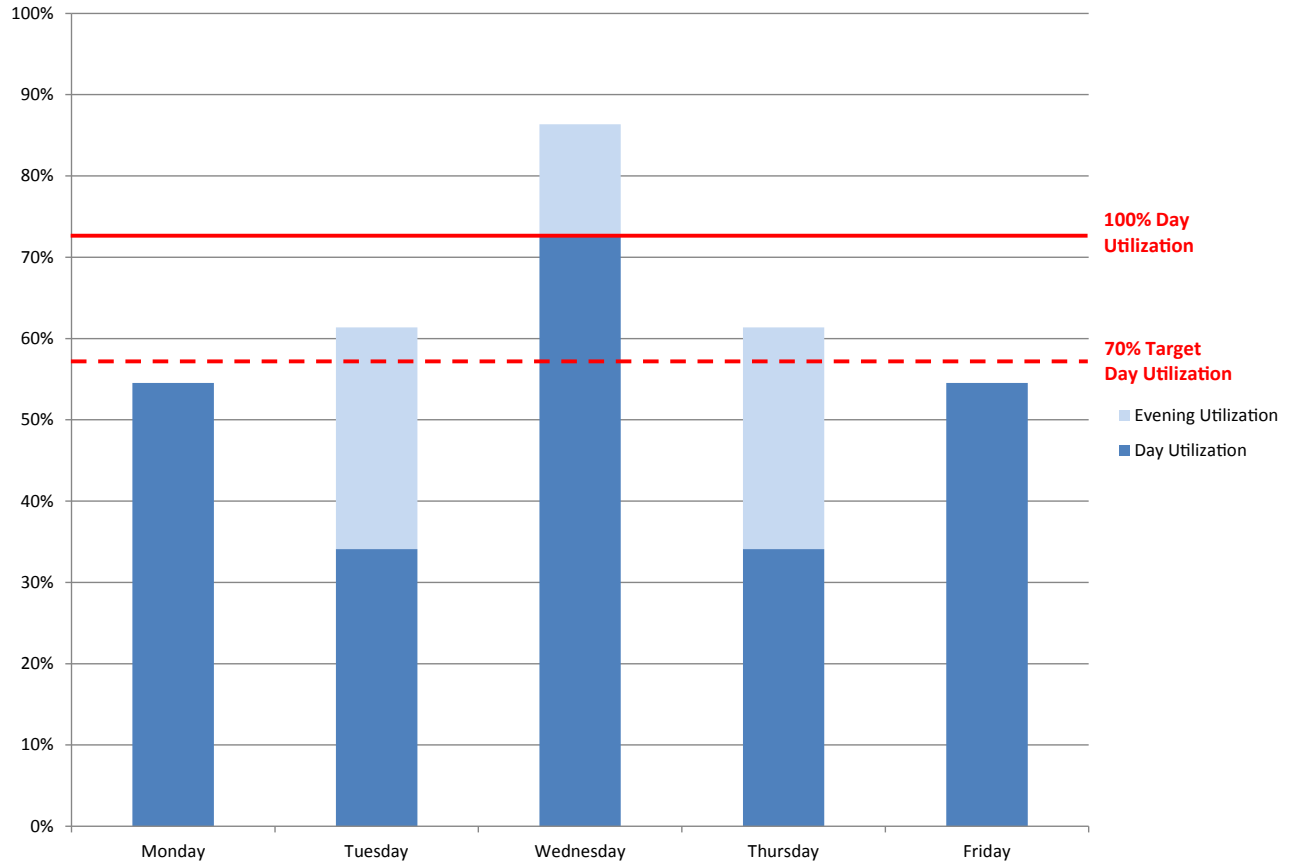
Utilization Analysis
Smith Alexander Hall

At 109,909 SF Smith-Alexander, the athletic facility, is the second largest building on campus. Biggie Classroom is the only scheduled space in the building and is under utilized. It serves as a support space for the Pool, Ocean Survival, and Water Skills. It has been noted that public toilets are significantly undersized for a facility of this size.



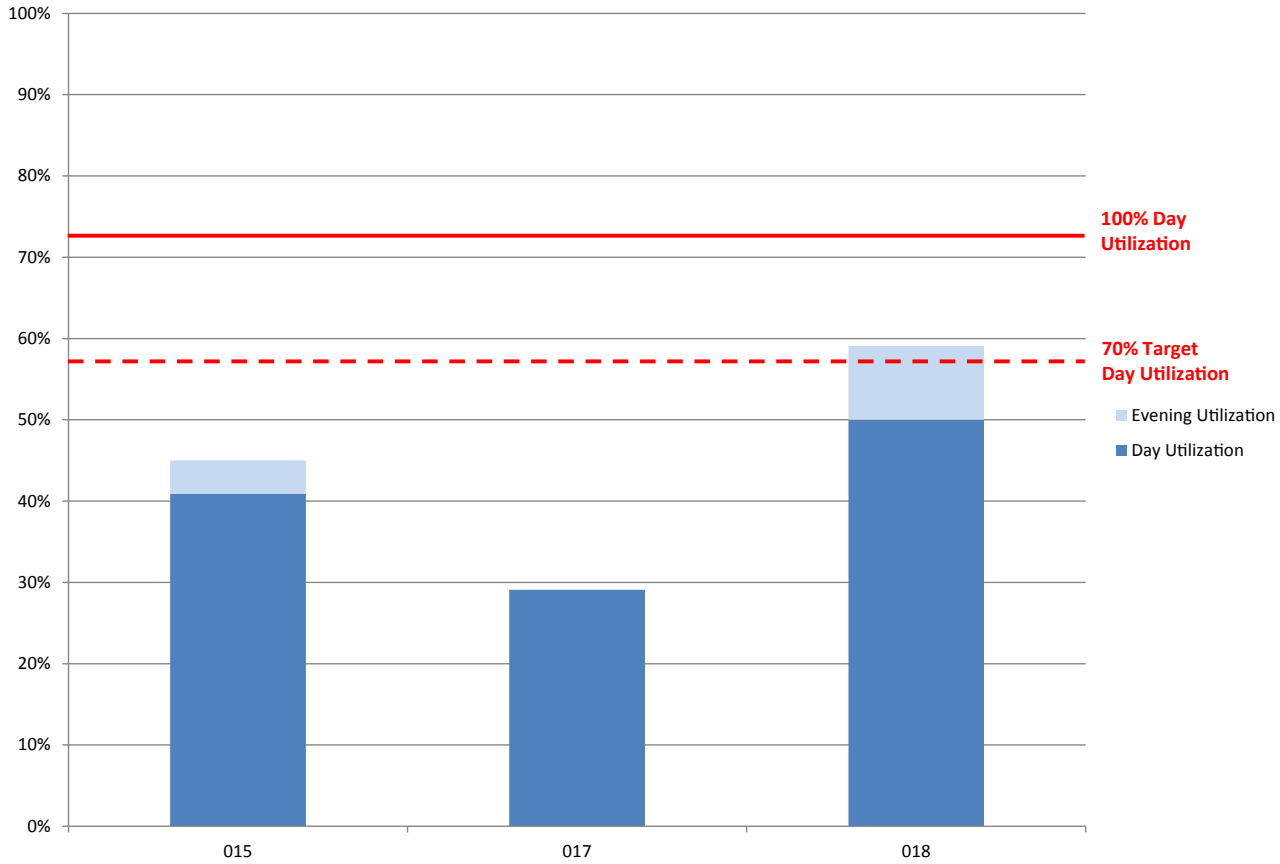
Utilization Analysis
Leavitt Hall

One of the oldest buildings on campus, Leavitt Hall houses a mix of uses. The basement of Leavitt Hall houses IT and mechanical spaces. The first floor houses formal meeting rooms (The Scheel Room and Raymond Spruce Lounge), Development Offices, Campus Relations., Cianchette Room, Alumni Lecture Hall, and Delano Auditorium. The second floor houses Administrative Offices for the President, Dean, Finance, and Human Resources. The third floor contains twenty-five Guest Rooms. The fourth floor has been renovated to house seven Faculty Offices. The Alumni Classroom is the only scheduled space and is well utilized.



Utilization Analysis
Alfond Student Center

The primary function of the Alfond Student Center is dining which occurs in the Main Dining Room, Waypoint, and the Commuter Lounge. The Holmes Heritage Alumni Board Room is used primarily for administrative and board meetings. Three classroom spaces are scheduled by the Registrar. The 1954 Room 018 has a high demand and is well utilized. Two smaller spaces 015 and 017 are under utilized.



Capacity Analysis

Land Holdings

The land holdings of Maine Maritime Academy consist of three contiguous land areas. Two are very near one another, the Upper Main Campus and the Lower Main Campus (Waterfront). The 40 acre Main Campus is situated in the heart of historic Castine. The upper and lower campuses are within about three blocks of one another, connected by Main Street and Pleasant Street. The third land holding is approximately 3 miles to the northeast of the main campus in Penobscot. This land holding is approximately 200 acres of mostly wooded area that has frontage along Route 199 (Dunbar Road). A portion of this land is currently used for Academy boat storage and satellite student parking.

The 38 acre Upper Main Campus includes academic, dormitory, athletic and administrative buildings, athletic fields, open spaces and parking. The Lower Main Campus is a 2.08 acre parcel bound by Water Street to the northwest and the Castine Harbor to the southeast. In addition to the ships and waterfront facilities, this area of the campus contains classrooms, laboratories, faculty offices and some limited parking.

Parcel	Size	Zoning Designation	Building Count	Parking Count
Main Campus Tax Map 20 Parcel 30	26.58 acres	Institutional Development District VI Village District	16	479
Main Campus (across Pleasant St.) Tax Map 20 Parcel 23	4.90 acres	Institutional Development District VI Village District	6	152
Abbott House Tax Map 20 Parcel 31	6.50 acres	VIII Village District & Source Water Protection Overlay Zone	1	
Waterfront Tax Map 21 Parcel 110	2.08 acres	Commercial District	4	35
Penobscot Tax Map 5 Parcel 2	200.00 acres	No zoning designation on the lot	0	N/A
Total	240.06 acres		27	666

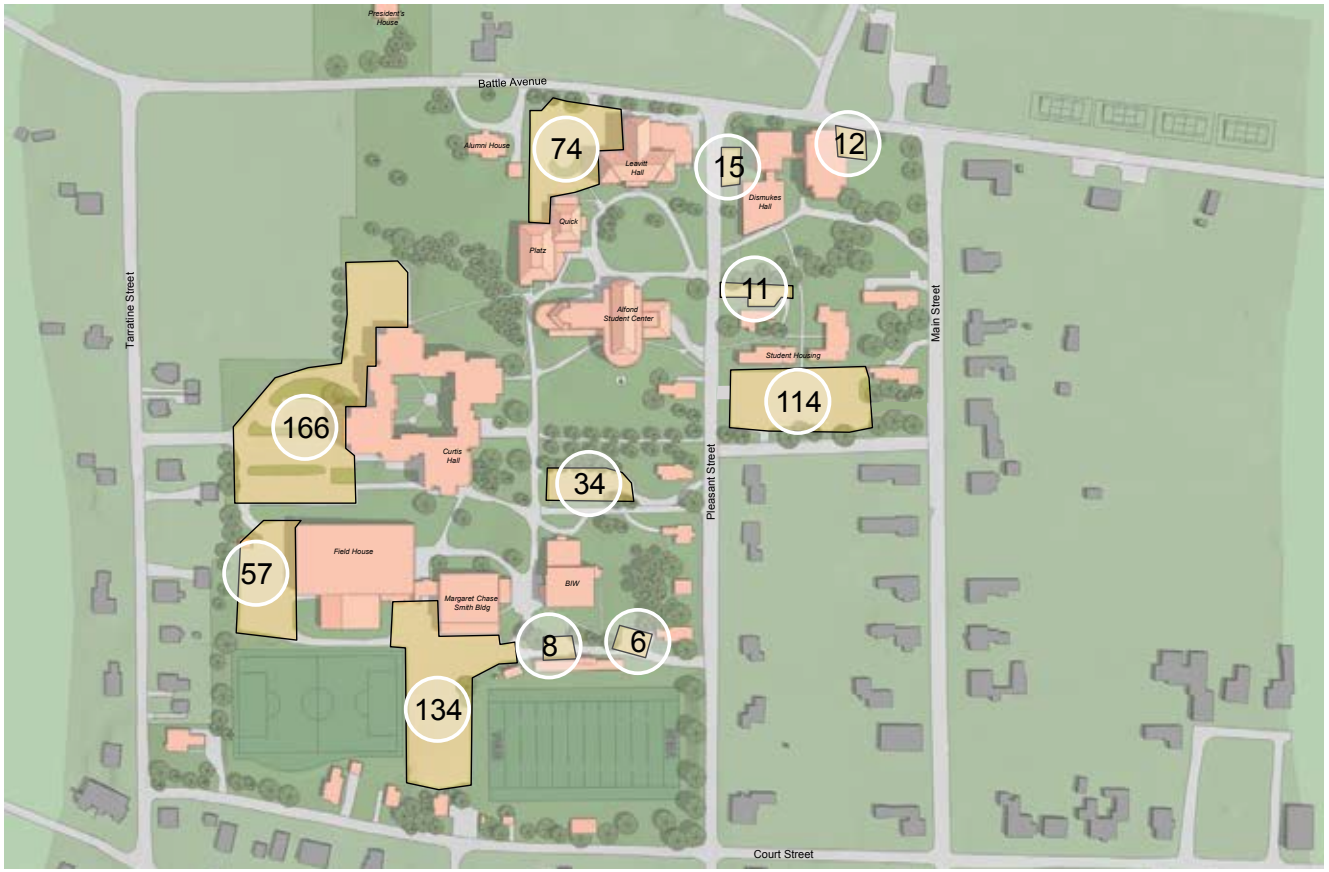
Land Holdings

Land Holdings

Capacity Analysis

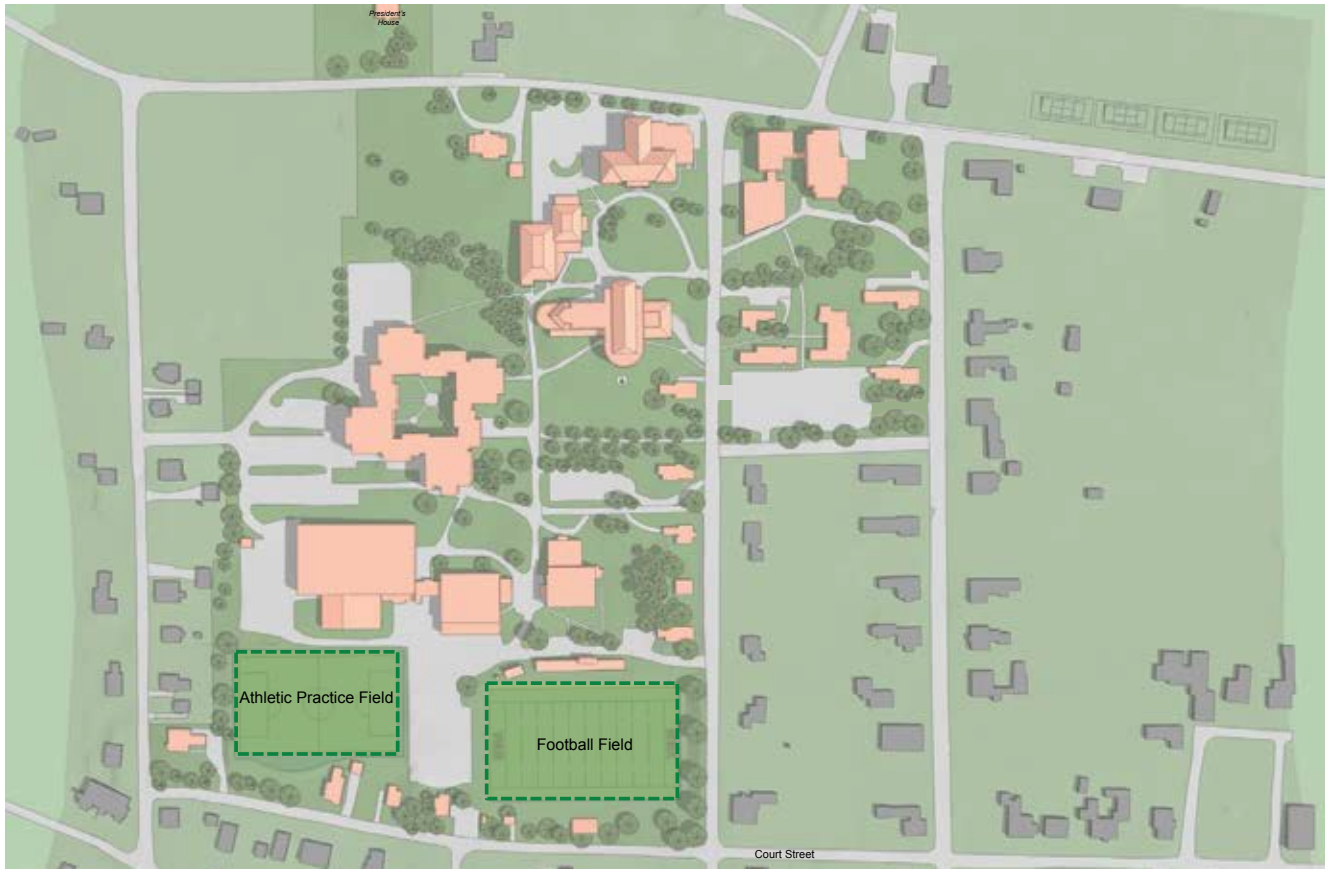
Parking Capacity

On-campus parking is an important capacity issue and a land-intensive use. Driving to and from campus and the provision of convenient and accessible campus parking is an important issue for most higher education campuses in locations in Maine and is particularly important at the Academy. It is difficult to get to many other locations in the area without the use of a vehicle. The diagram below shows the location and quantity of all parking on campus. The existing parking resources on the Upper Campus total about 631 parking spaces. An additional 35 spaces are available at the Lower Campus for a total parking supply of 666 spaces. These spaces are distributed relatively evenly throughout the campus in eleven major parking lots. The parking areas are accessed by private drives owned by the Academy. Parking is a demanding land use due to its need for large paved areas. The parking that is located at the Lower Campus is also used to support waterfront activity at times. In a 2009 memorandum, Walker Parking Consultants estimated an average parking need of approximately 147 spaces that are not currently provided.



Existing Athletic Fields

Aside from informal open spaces on the Main Campus, the Academy is served by two existing athletic fields – the synthetic turf football field and the athletic practice field-both to the west of Court Street. The scale of athletic fields makes it impossible to add additional fields to the main campus area. The needs for a campus softball field and basketball court have been expressed. Similar to the discussion regarding parking, as MMA may continue to expand facilities on the main campus in the future, the athletic fields may be a promising option alternate uses. This would require creating a remote location for athletic fields.



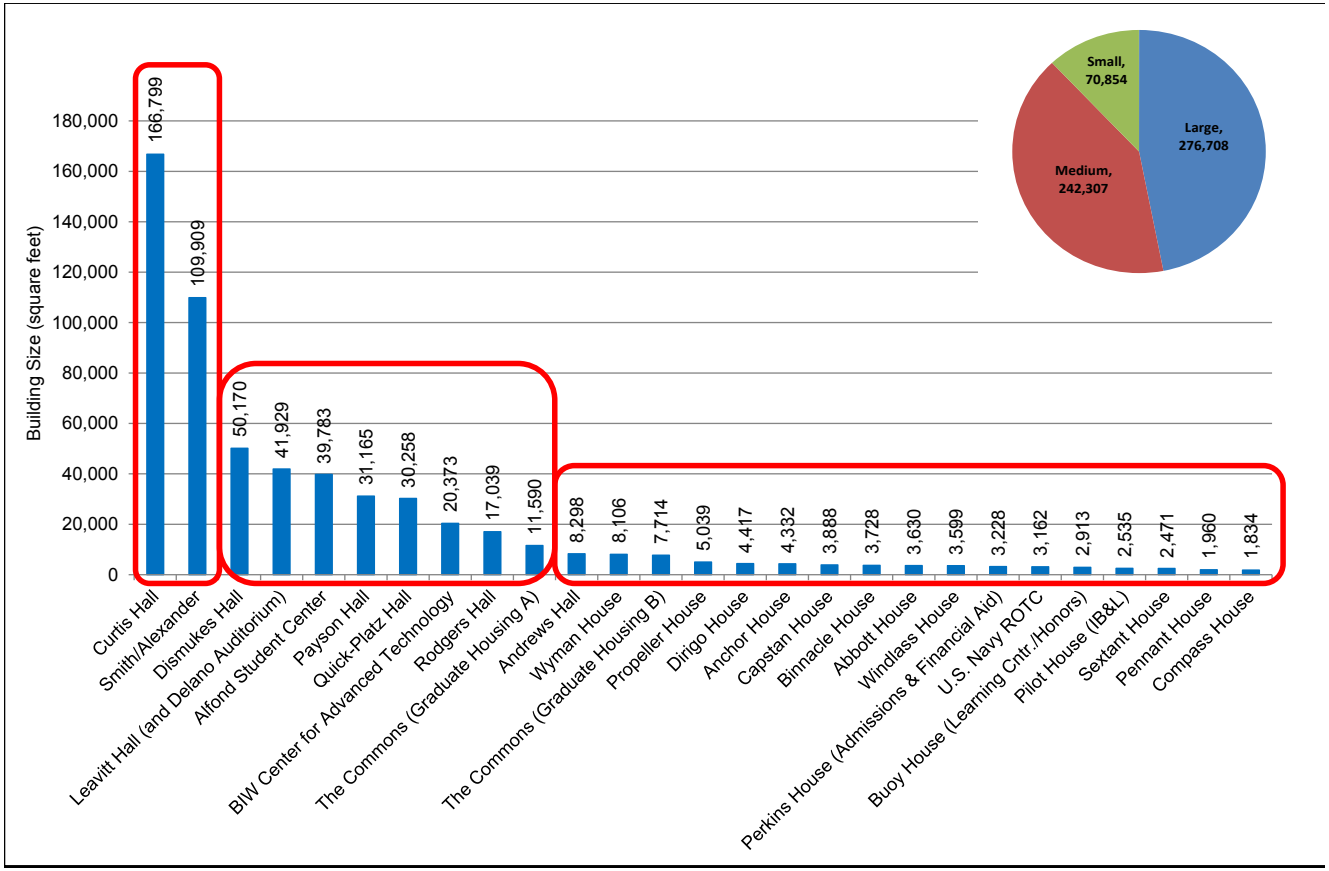
Capacity Analysis

Inventory of Buildings

Building	Campus	Use	Year Built	Year Renovated	GSF	NSF	Scheduled Spaces	Classrooms	Labs	Offices	Beds
Dismukes Hall	Main	Academic	1872	1975, 2011	50,170	32,902	19	16	3	34	0
BIW Center for Advanced Technology	Main	Academic	1965	2001	20,373	18.372	6	3	6	7	0
Andrews Hall	Waterfront	Academic	1960	2005	8,298	6,822	3	1	2	2	0
Rogers Hall	Waterfront	Academic	1973		17,039	15,343	4	4	6	6	0
Payson Hall	Waterfront	Academic	1982		31,165	28,348	9	3	5	3	0
Quick-Platz hall	Main	Academic	1920	1979	30,258	26,268	2	1	0	11	0
Pilot House (IB&L)	Main	Academic	c. 1900	1988	2,535	2,229	0	0	0	5	0
Bouy House (Learning Center / Honors)	Main	Academic			2,913	2,476	0	0	0	0	0
Margaret Chase Smith / Logan Alexander	Main	Athletic	1963	1972	109,909	93,423	1	1	0	15	0
Leavitt Hall (Delano Auditorium)	Main	Mixed	1905	1979	41,929	35,723	1	2	0	44	25
Alond Student Center	Main	Mixed	1993	2005	39,783	36,005	3	3	0	5	0
Perkins House (Admissions & Financial Aid)	Main	Administration	c. 1900	1988	3,228	2,744	0	0	0	6	0
Dirigo House	Waterfront	Administration	c. 1800		4,417	3,755	0	0	0	7	0
U.S. Navy ROTC	Main	Administration	1960	1992	3,162	2,771	0	0	0	8	0
Wyman House (Prior Presidents Residence)	Main	Administration			8,106	6,890	0	0	0		0
Curtis Hall	Main	Residential			166,799	140,912	0	0	0	16	299
The Commons (Graduate Housing A)	Main	Residential	1995		11,590	9,852	0	0	0	0	12
The Commons (Graduate Housing B)	Main	Residential	1995		7,714	6,557	0	0	0	0	8
Windlass House	Main	Administrative	1930	2004	3,599	3,129	0	0	0	5	0
Sextant House	Main	Residential			2,471	2,100	0	0	0	0	2
Pennant House	Main	Residential			1,960	1,666	0	0	0	0	4
Capstan House	Main	Residential			3,888	3,305	0	0	0	0	7
Binnancle House	Main	Residential			3,728	3,169	0	0	0	0	
Compass House	Main	Residential			1,834	1,559	0	0	0	0	
Propreller House	Main	Residential			5,039	4,283	0	0	0	0	7
Anchor House	Main	Private Residence			4,332	3,682	0	0	0	0	4
Abbott House	Main	Private Residence			3,630		0	0	0	0	
Total					589,869	494.685	48	34	22	174	373

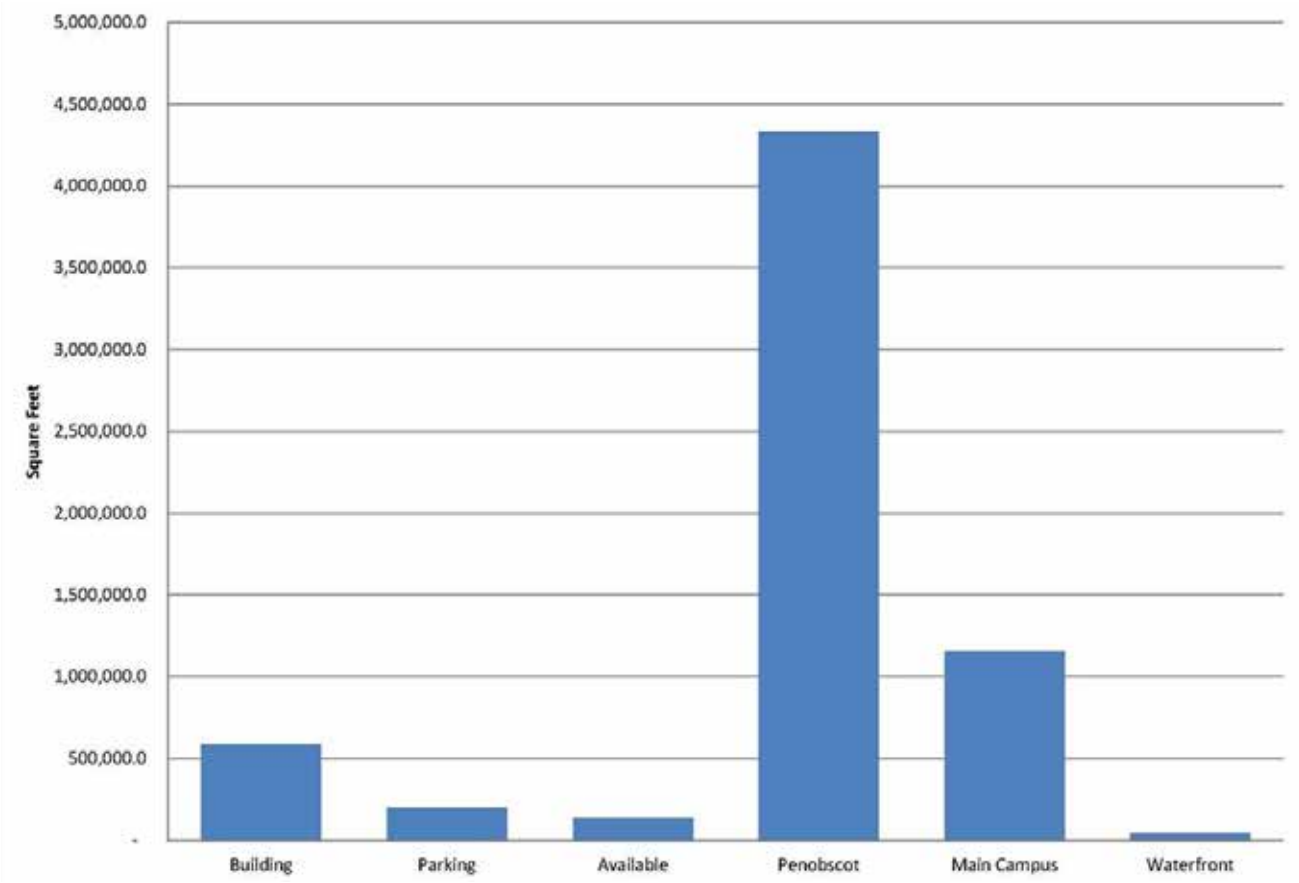
Building Size

A review of the building sizes, in terms of area, reveals a unique characteristics of Maine Maritime Academy. The areas of the larger facilities (those greater than 10,000 square feet) are in line with those of similar institutions. What is unusual is the larger number of smaller buildings. 63% of the total number of buildings on campus comprise only 12% of the total building area. The majority of these are residential structures that still function as residences or have been converted for programs with smaller area needs. The large quantity of small buildings equates to less operating efficiency due to higher operating and maintenance costs per square foot.



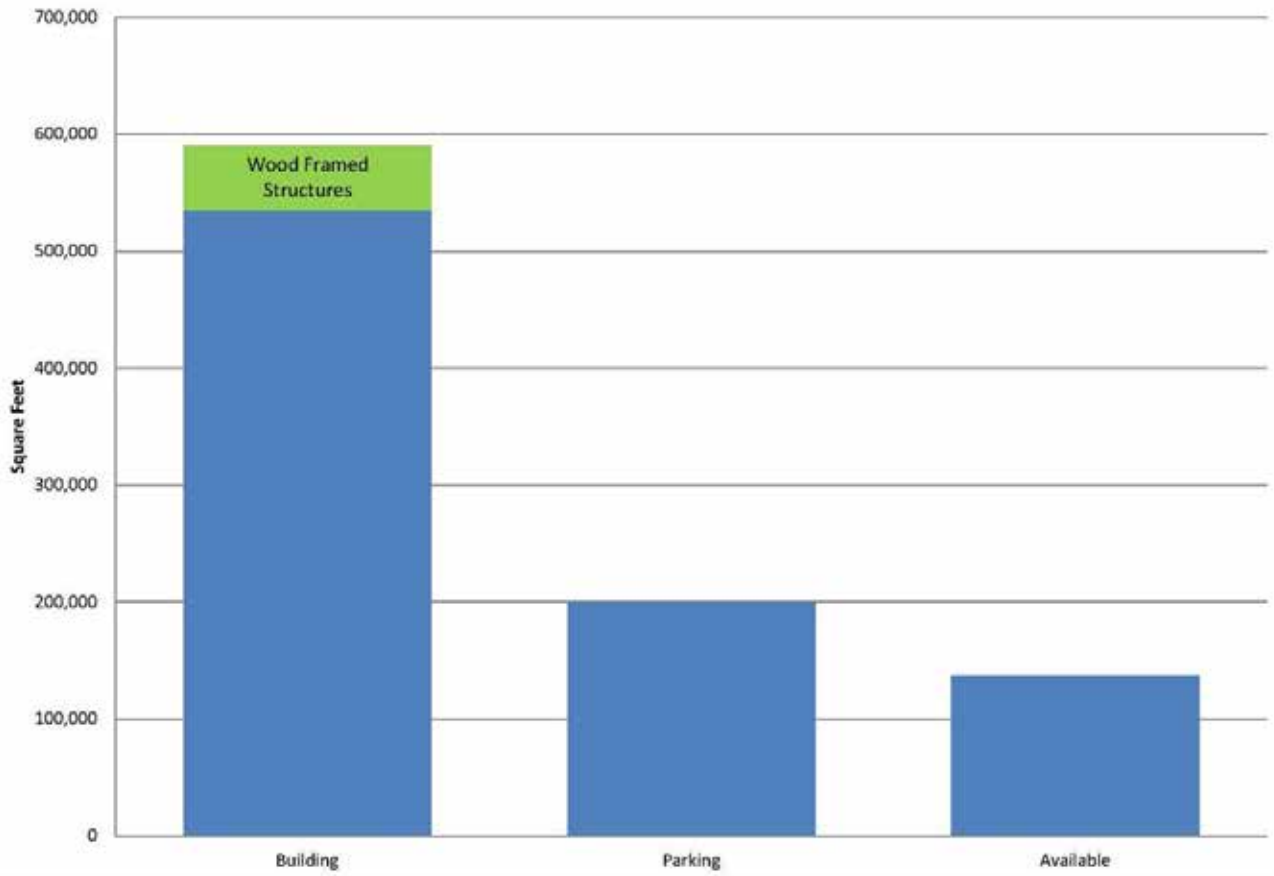
Capacity Analysis

Area Analysis - All Campuses



Capacity Analysis

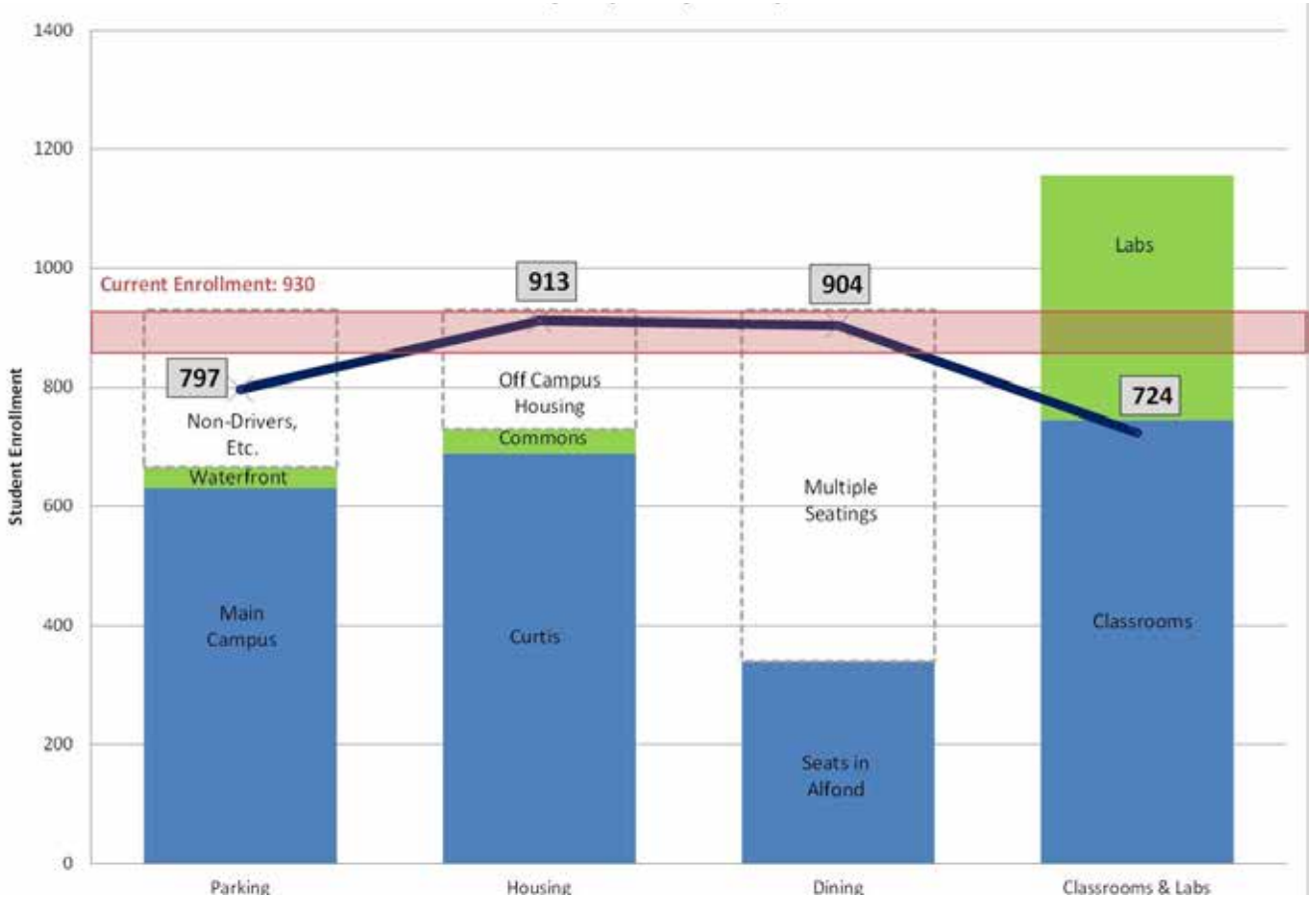
Area Analysis - Main Campus



Capacity Analysis

Composite Capacity Analysis

Determining the practical capacity of the Academy based on critical facilities infrastructure is one of several aspects in considering the optimum enrollment level for Maine Maritime Academy. The primary resources in establishing this measure are housing, instruction space, parking and dining capacity. While there may be other factors, they are often secondary to those primarily used by students. The figure below establishes current capacities. Overall parking spaces on the Main Campus have been calculated to support 797 students. Housing provided in Curtis, The Commons, aboard the State of Maine as well as the number of students living off campus is capable of supporting 913 full time students. Existing classrooms and laboratories, with reasonable utilization rates support an enrollment of 724. The size and layout of the Harold Alfond Student Center dining facilities can support up to 904 students, contingent on dining policies and alternative eating opportunities.



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Benchmark Analysis

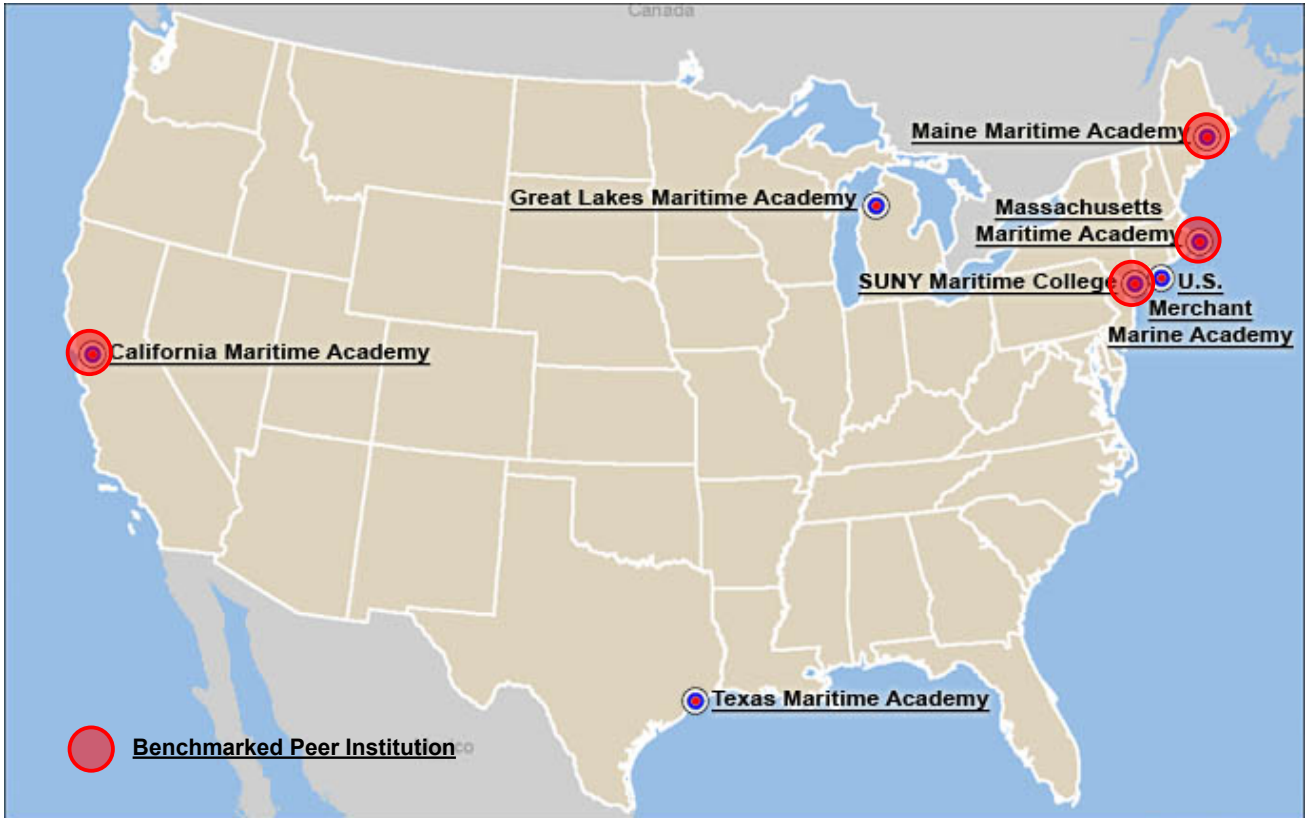
Benchmark Analysis

Introduction

The campus master planning process included a benchmarking study to better understand what the market is demanding and how Maine Maritime Academy compares to peer institutions. The goal of this exercise was to learn from the unique attributes and strengths of each institution. The planning committee identified four institutions for this study and developed evaluation specific criteria for the review. Massachusetts Maritime Academy, SUNY Maritime Academy and California Maritime Academy were recognized as the most important peer institutions to include in the study.

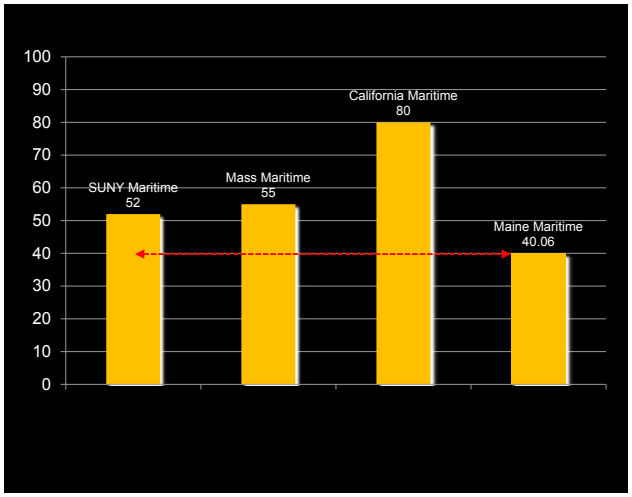
The initial evaluation of each campus focused on the arrival experience, parking facilities and athletic fields. The evaluation of buildings at each institution focused on labs, ship/waterfront infrastructure, library, student housing, dining, athletics and student services. As the process progressed the analysis was refined to a quantitative comparison of the institutions; site organization and entry sequence; significant new facilities; and a comparison of sustainability initiatives.

Maritime Academies

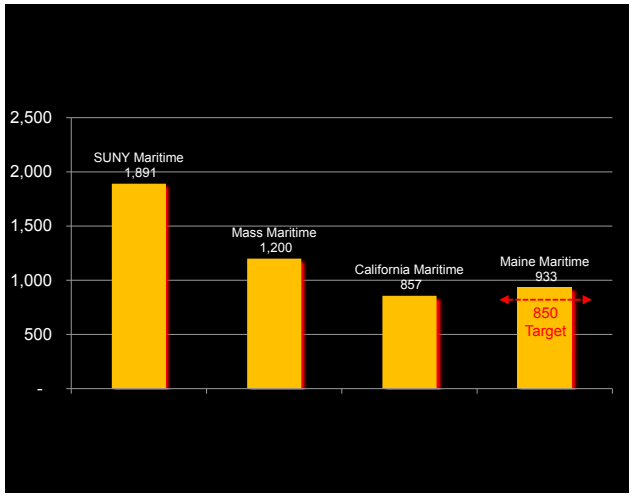


Benchmark Analysis

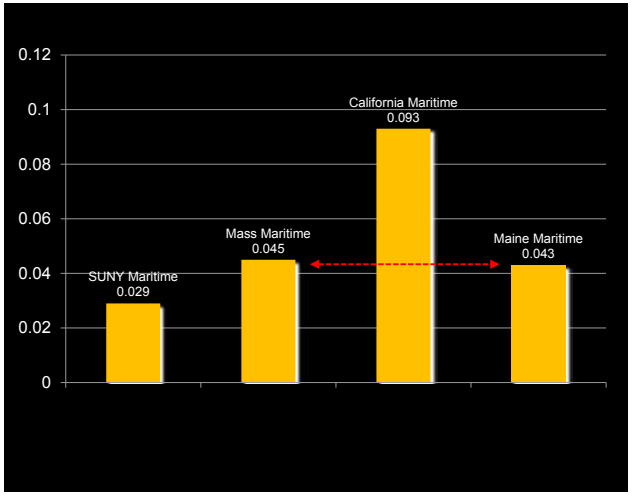
Although Maine Maritime Academy (MMA) was founded in 1941 it is housed on the oldest campus of the peer institution group. MMA benefits from the historical buildings that were originally part the Eastern State Normal School founded in 1862. At 40 acres (not including the Penobscot property), MMA has the smallest campus of the group. MMA currently has the second smallest student enrollment. If enrollment were to be reduced to 850, MMA would have the smallest enrollment. SUNY Maritime Academy has had significant growth in enrollment over the last decade, clearly a strategic move, and as a result has a much lower acre/student than the rest of the peer group. MMA has the highest percentage of student with vehicles on campus. This was attributed to the rural nature of its location in Castine and lack of public transportation.



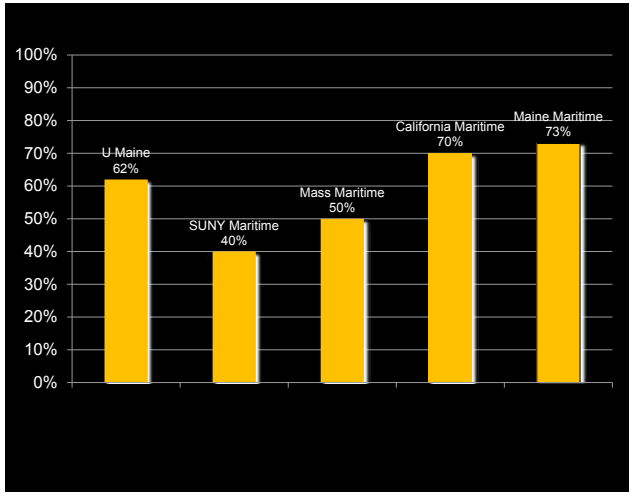
Campus Size (Acres)



Student Enrollment

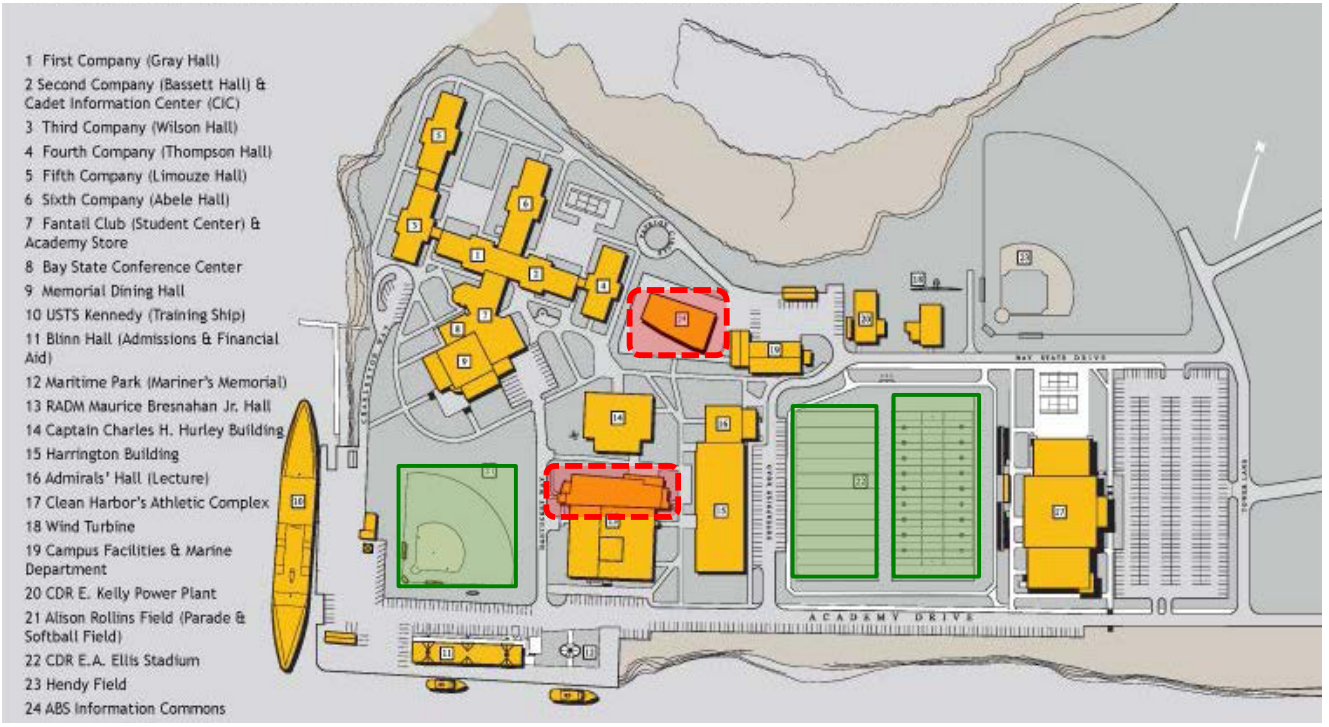


Acres per Student



Students with Vehicles on Campus

Massachusetts Maritime Academy



Massachusetts Maritime Academy

Massachusetts Maritime Academy located in Buzzards Bay, Massachusetts has a very flat, compact and well developed campus. Arrival on campus is clearly marked and access to parking and public facilities is extremely convenient. Campus facilities are well maintained and significant campus facility investments have been made in recent years. In 2004 a 26,000 SF addition was added to Storer Engineering Building and in 2011 the 42,000 SF ABS Information Commons with a full mission bridge simulator opened. Student housing has expanded and existing rooms are being upgraded.

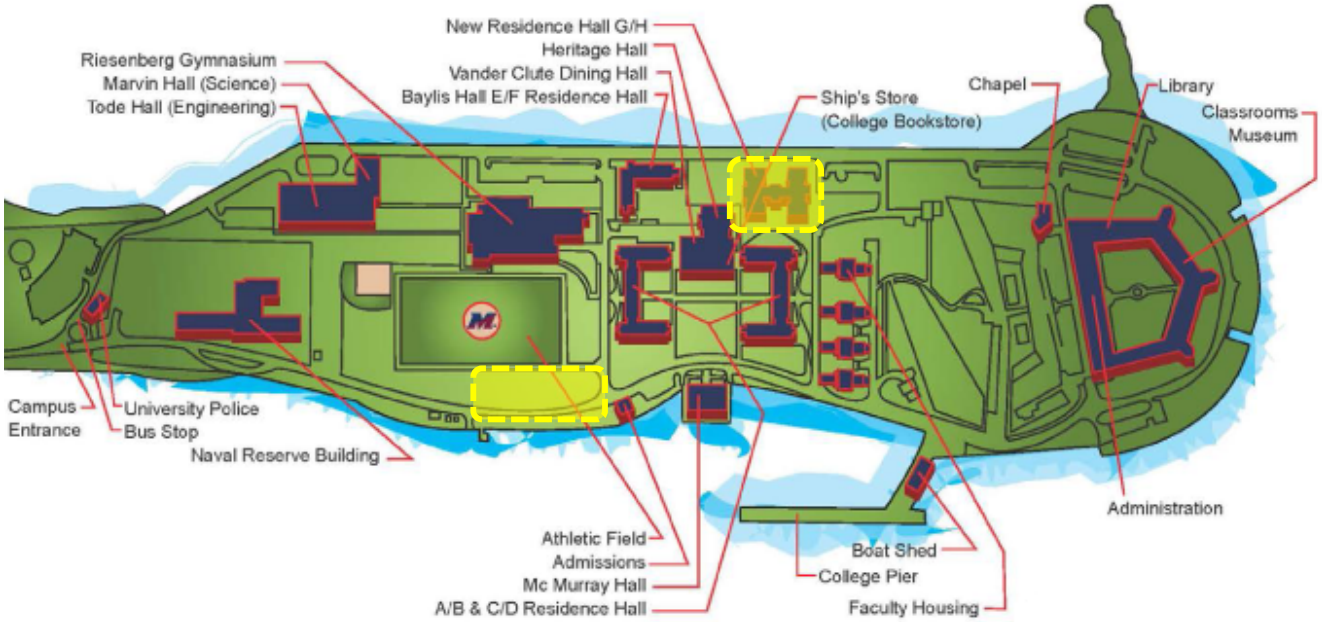
Storer Engineering Building

Storer Engineering Building

ABS Information Commons

ABS Information Commons

SUNY Maritime Academy



SUNY Maritime Academy

SUNY Maritime Academy located on Throgs Neck peninsula has a flat and compact campus which is bisected by the Throgs Neck Bridge and interstate 295. Arrival is clear and terminates at the historic Fort Schuyler. Enrollment growth over the last decade has been supported by a number of new buildings on campus. In 2004 a new 300 bed LEED certified residence hall was constructed. In 2010 an eight station Radar/Automatic Radar Plotting Aid (ARPA) Simulator was built. A new 42,000 SF Academic Building and conference center is slated to be complete in 2013.

ABS Academic Building

ABS Academic Building

New Residence Hall

Residence Hall Entrance

Benchmark Analysis

California Maritime Academy

California Maritime Academy

Since 1929 California Maritime Academy, located in Vallejo, CA, has uniquely evolved along a steeply sloping site. It is the youngest of the peer group and has the largest campus of the peer group. This campus has seen the most significant investment and development in recent years. In 2007 a 21,000 SF Simulation Training Experiential Learning & Research Center was constructed with 11 full -mission simulators and two 360 degree deck simulators. In 2009 a new 135 bed residence hall was built. A new 26,200 SF Waterfront Dining Center is currently being developed and plans are being generated for a new Physical Education and Aquatic Survival Center.

New Waterfront Dining Center

New Residence Hall (McAllister Hall)

New Physical Education and Aquatic Survival Center

Simulation Training Experiential Learning and Research Center (STELAR)

Implementation Plan

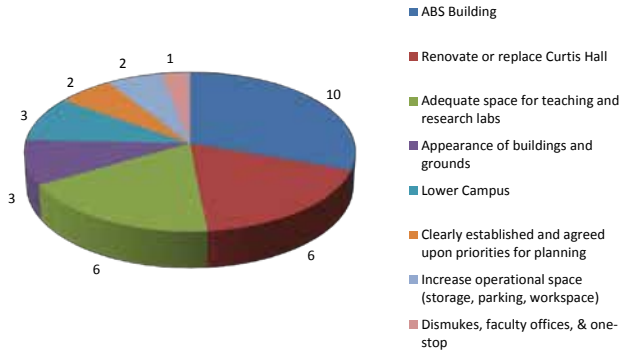
Basis of Planning Initiatives

In the initial phase of the planning process, the Planning team met with members of the Master Plan Steering Committee to assess perceived priorities of the Campus. Feedback from this exercise revealed four areas that were deemed necessary to strengthen Maine Maritime facilities: construction of a proposed lab/classroom building on the Upper Campus, renovation of Curtis Hall, ensuring adequate space for teaching and research labs and the improvement in the appearance of the buildings and grounds.

Stakeholder user groups were identified to further understand how facilities currently support programs and functions. Harriman met with representatives of the following:

- Registrar
- Graduate Programs
- Athletic Department
- Office of the President
- Security
- Training Ship State of Maine
- Administration
- Waterfront Operations
- Library
- Dining Operations
- Residential Life
- Academy Students

During these interviews, participants were asked through a series of questions to consider what areas of the campus work well and what planning work is needed to address changes in the short term and long term development of the institution. A compilation of the responses formed the basis of the master plan and is included at the end of this section. The plan diagrams of the campus join major initiatives into projects summarized by building. As with much of the information presented with this report, the elements of the master plan are intended to provide a resource for planning more than a specific implementation strategy.



Tally of Desired Campus Improvements

Master Plan Facility Initiatives
Upper Campus

Maine Maritime Academy benefits greatly from its unique setting in the historic context of Castine Maine. The picturesque setting along the Maine coast offers a competitive advantage over many of the school's peer institutions. The upper campus dates back to the former Eastern State Normal School established at present day Dismukes Hall in 1867. Three distinct zones comprise the upper campus. The older historic zone centers on the Leavitt Hall lawn; a center transitional zone runs along a pedestrian spine from the Alfond Student Center to BIW; a lower athletic campus is comprised of Smith-Alexander and the play fields. Physical improvements to the Academy should enhance the sense of character and strengthen the organization of the campus. The Campus Analysis chapter of this master plan document provides a framework for future initiatives.

The Academy's buildings, along with its pathways and open spaces, determine the quality of place that is a defining characteristic of the school. Strategic investments should be made continuously to the upkeep of these facilities for both functional and visual reasons. Careful planning and execution of infrastructure projects will ensure that the physical appearance of the academy is in step with its mission to be known as a world class institution. It is intended that the Academy consider the overall needs of a particular facility at the time it undertakes a significant job.

Academic Facility Projects
Engineering Laboratory Building
BIW Center Addition and Renovation
Library Renovation
Dismukes Hall Renovation

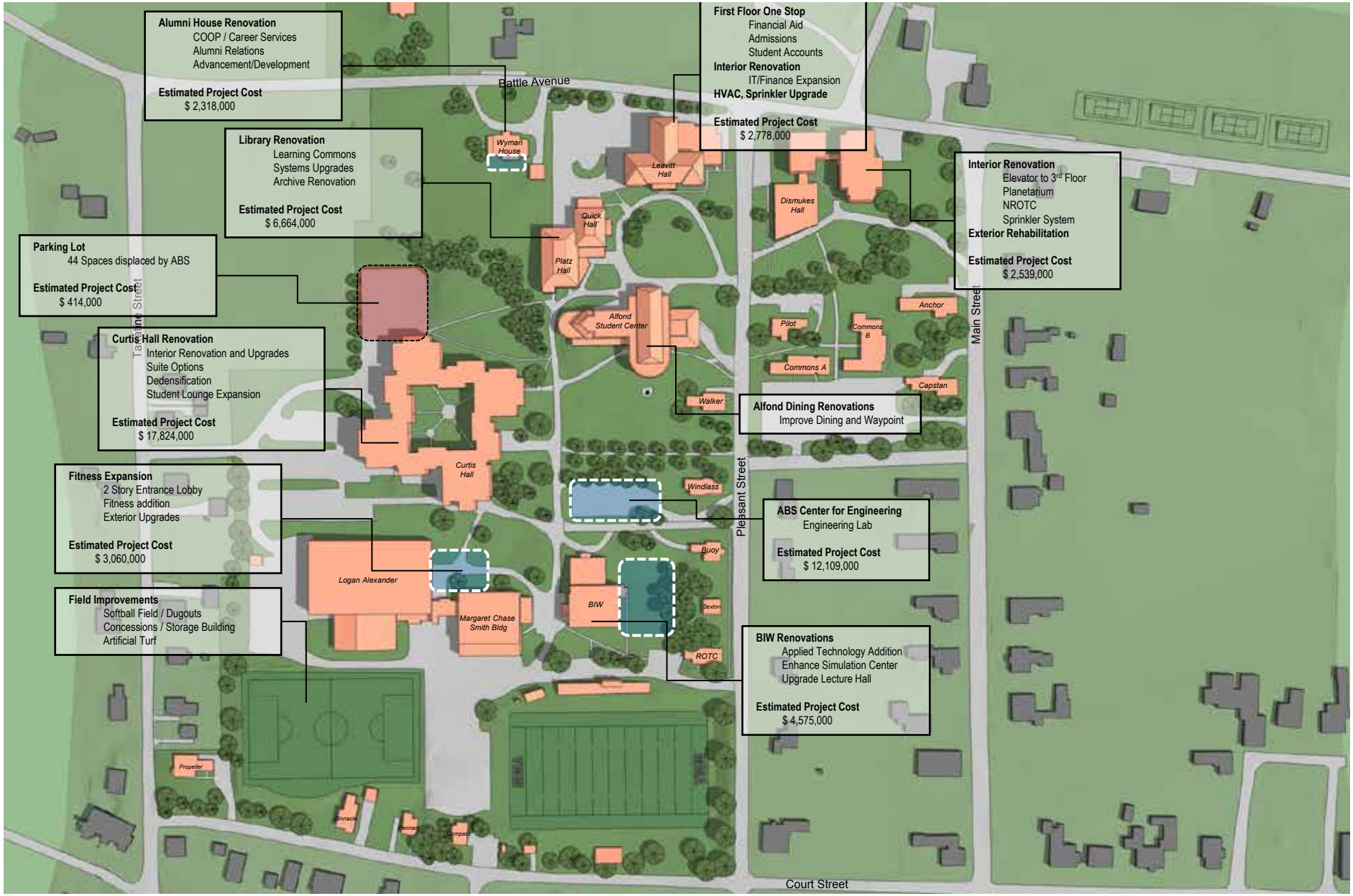
Administrative
Wyman House
Leavitt Hall

Residential Life/Student Affairs
Harold Alfond Student Center Dining Services
Curtis Hall Renovation

Athletics
Fitness Center Addition/Locker Room Renovation
Athletic Practice Field Upgrades

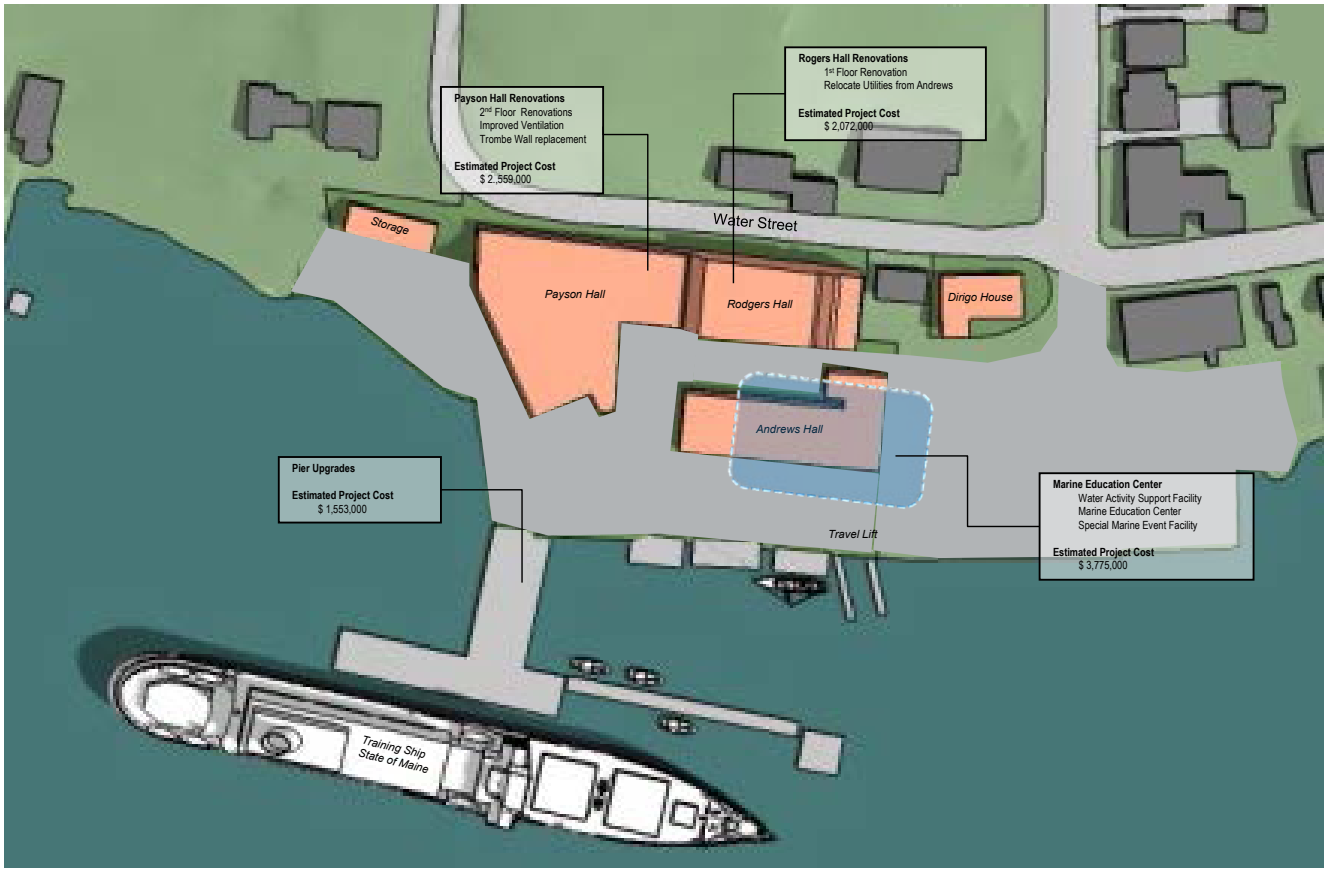
Campus
Parking Expansion
Signage/Wayfinding Project
Landscape Enhancement

Implementation Plan



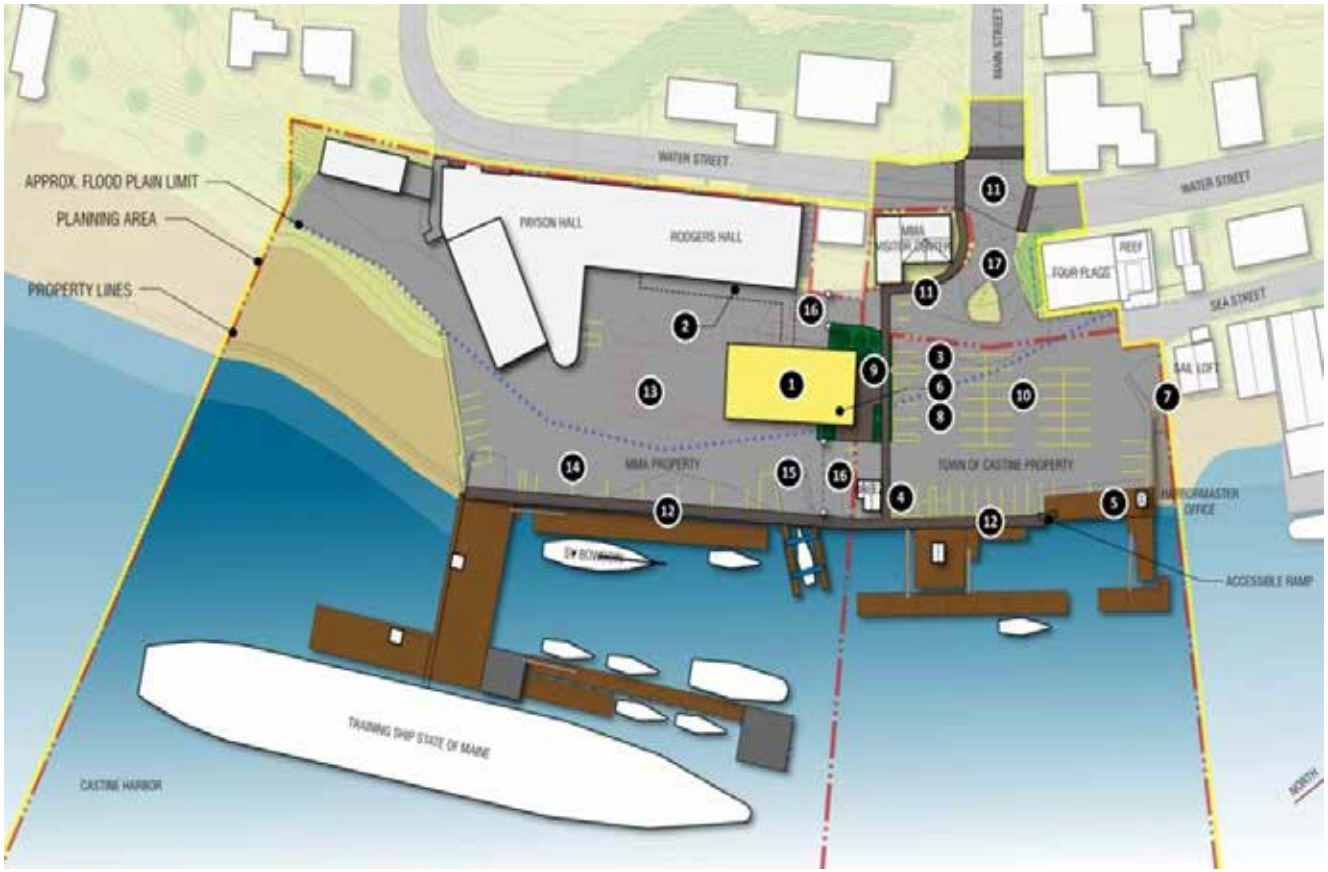
Master Plan Facility Initiatives
Lower Campus

The working waterfront of the Lower Campus is a cornerstone of the Academy and a vital component of the MMA educational experience. Competing program needs and limited space require careful management of waterfront resources. All opportunities to increase useable area and access to the water should be considered in future planning. The Joint Town Planning of the Lower Campus includes several initiatives toward this end. Prior planning efforts have studied the possibility of replacing Andrews Hall with a more permanent structure. As with the Upper Campus, improvement projects are shown in the diagram as composite building undertakings. Many of these are intended as successors to the construction of facilities on the Upper Campus and the replacement of Andrews Hall.



Joint Town Planning
Lower Campus

In the fall of 2010, Maine Maritime Academy conducted a collaborative planning exercise with the Town of Castine to explore mutually beneficial opportunities for future physical and operational improvements in the area along the Town Landing and the waterfront edge of MMA. The process included a series of meetings, public presentations and discussions resulting in a comprehensive framework of initiatives summarized in the site plan shown here. Elements of the plan are aimed at enhancing access and improving pedestrian and vehicular traffic, increases opportunities for marine related activities and creating an attractive and welcoming historic waterfront that benefits Academy and town.



Master Plan Facility Initiatives

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Implementation Plan

		What Works	Short Term Drivers, Goals and Needs	Long-Term Drivers, Goals and Needs
CAMPUS	Arrival and Circulation		• Improve arrival experience to campus. Provide directional signage, new Welcoming Center and dedicated visitor parking • Widen pathways to plow width • Improve accessibility on campus	• Improve arrival experience to back side of Curtis Hall
	Place and Exterior Spaces	• The view • Historic Buildings • Small campus	• Relocate smoking huts	
	Parking		• Provide dedicated parking for Admissions • Provide second entrance into Commons Housing off Stevens Street	• Provide additional parking to accommodate students (freshmen), commuters, staff, faculty and conference attendees • Build parking structure
	Athletics	• Turf Field		• Add basketball courts • Add tennis courts
	Landscaping	• Landscaping in front of Leavitt Hall	• Top of Payson plaza	
	Signage		• Improve signage at corner of campus • Add permanent banners to light poles • Activity marquee	
FACILITIES	Academic	• Renovated area in Dismukes Hall • 1954 Room in Alfond • Simulation facilities • Graduate school classroom in Quick Hall • Registrar located in Dismukes Hall	• Build new ABS lab building • Provide space for research director • Renovate Bouy House for Learning Center • Provide more storage space for book bags and coats • Provide new computer lab • Renovate planetarium • Air Condition Leavitt Hall • Deferred maintenance	• Enlarge tanker simulation lab in BIW • Improve bridge simulator in BIW • Replace chairs in BIW lecture hall • Renovate Library • Provide more research space • Provide appropriate facilities for alternative energy research • Provide appropriate facilities for new media courses • Improve NROTC space in basement of Dismukes • Provide additional storage for NROTC • Provide more places with computers • Reconfigure Pilot House • Build applied Lab for Graduate Studies/IBL program

Implementation Plan

		What Works	Short Term Drivers, Goals and Needs	Long-Term Drivers, Goals and Needs
	Waterfront	• Hands on education • Ocean Studies location and waterfront access • Waterfront staff • Shops at waterfront • Evolution from maintenance to teaching facility	• Install proper ventilation for fiberglass and dust collection • Improve adjacent bulkhead and old section of pier • Dredge to regain lost float space • Rebuild floats • Scrape and re-cap pilings • Install pump station • Install lifeboat davits	• Improve labs and shops at waterfront • Improve access to upper level of caves • Install standby generator • Provide more efficient storage for boat gear • Provide more meeting space • Improve entrance, place for students to store gear, and add toilets • Develop “gateway” to Castine • Provide on-site fuel storage
	TS State of Maine	• TS State of Maine • 2 month cruise • Enrollment on cruise		• Install mooring at back of ship • Address storm tide concerns with electrical service infrastructure located in shed
	Library	• Location on campus • 24-hour study lounge • Maritime book collection • Library staff	• Improve dated appearance of Library • Improve lighting • Make office spaces more transparent and accessible • Enhance study room in 2nd floor of Quick Hall • Place for archive and exhibit displays	• Transform Library to be a campus hub • Add or enlarge computer lab • Reconfigure circulation desk and staff lounge • Improve Academy archives and climate control • Provide more small group, team, presentation and commuter student space • Add faculty research room • Upgrade 24-hour study lounge • Add power outlets • Improve exterior envelope, new windows
	Residential Life		• Make entrance to Curtis Hall more welcoming • Improve common areas in Curtis Hall • Transform appearance from that of “barracks” • Improve acoustics • Improve laundry rooms • Provide electronic access controls at Commons Housing	• Provide more spaces like The Bilge • Improve ventilation and heating in Curtis • Renovate the old rifle range

		What Works	Short Term Drivers, Goals and Needs	Long-Term Drivers, Goals and Needs
	Dining	• The Alfond Student Center	• Renovate the dining hall, improve flow in serving area, improve acoustics, address drainage issues • Improve Waypoint and enlarge prep area • Provide grab-n-go setup for deli and snacks in Atrium at waterfront	• Renovate Wyman House kitchen for catering needs
	Student Services	• Book Store • Location of Health Services	• Create One-Stop student services (Registrar, Admissions, Financial Aid) possibly in Leavitt Hall • Provide more commuter lounges • Provide handicap access to Book Store • Relocate Career Services, Co-op and Alumni Affairs to Wyman House	
	Athletics and Recreation	• The size of Smith/Alexander • Well used by the community	• Expand and improve Fitness Center. Replace equipment • Add coaches offices • Review capacity of field house (graduation) • Improve tired appearance of entire facility • Replace field house floor • Build dedicated softball field and dugouts • Review locker room equity for all teams	• Allocate space in building better • Improve ventilation and heating • Expand public toilets for events • Add storage space • Add concessions and storage building for outside events • Improve pool infrastructure • Transform entry lobbies and connection to campus
	Administrative	• Administration, Business, HR and IT located together • IT Help Desk • Advancements proximity to the President's Office and Alumni Affairs	• Relocate Security to more accessible location (Windlass House) • Create new Welcome Center in very public location • Provide additional space for Advancement and fundraising activities • Provide better space for Public Affairs Office	• Provide additional IT space • Provide additional Finance space • Protect data center from water leaks
	Other			• Transform third floor of Leavitt, consider creating smaller number of hotel rooms • Provide equitable facilities for increasing female student population • Provide air conditioning for summer programs
INFRASTRUCTURE/ UTILITIES			• Install card access system in all facilities	

Acknowledgements

Acknowledgements

Master Planning Steering Committee
John Barlow
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Richard Kimball
Timothy Leach
Susan Loomis
Donald Maier
Paul Mercer
Carl Olsen
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Library Services User Group
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Brent Hall
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Kristen Wentworth

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Mike Roy

Students User Group
Dillon Gates
Kurt Gillespie
Jonathon Steirer

Training Ship State of Maine User Group
Les Eadie
Roger Lowell
Brendan McAvoy

Waterfront Operations User Group
Hannah Gray
Christopher Grindle
Tina Pitchford
Harry Stevens
Dana Willis

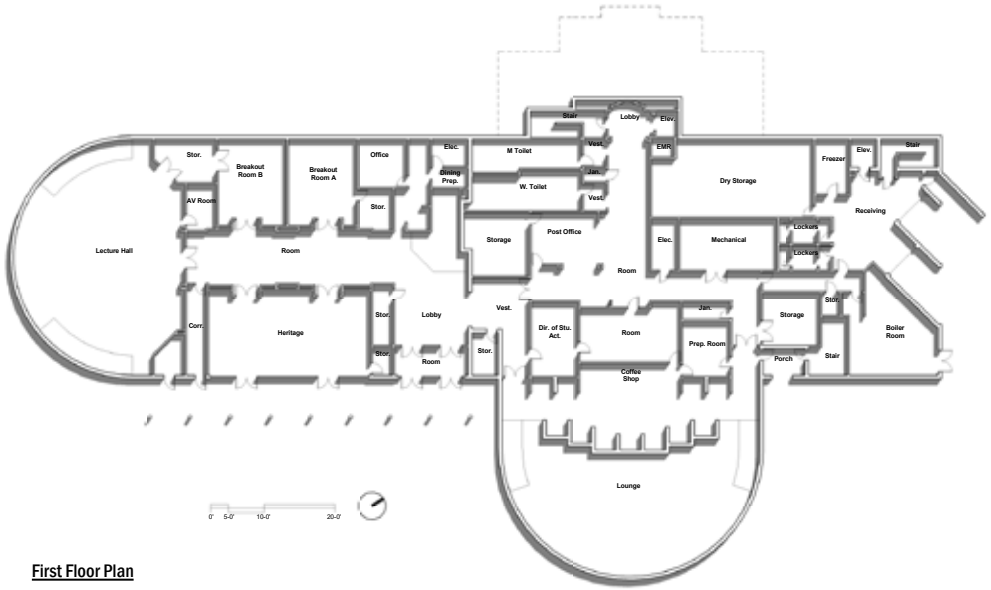
Appendix

Appendix

Contents:

Building Floor Plans

Alfond Student Center



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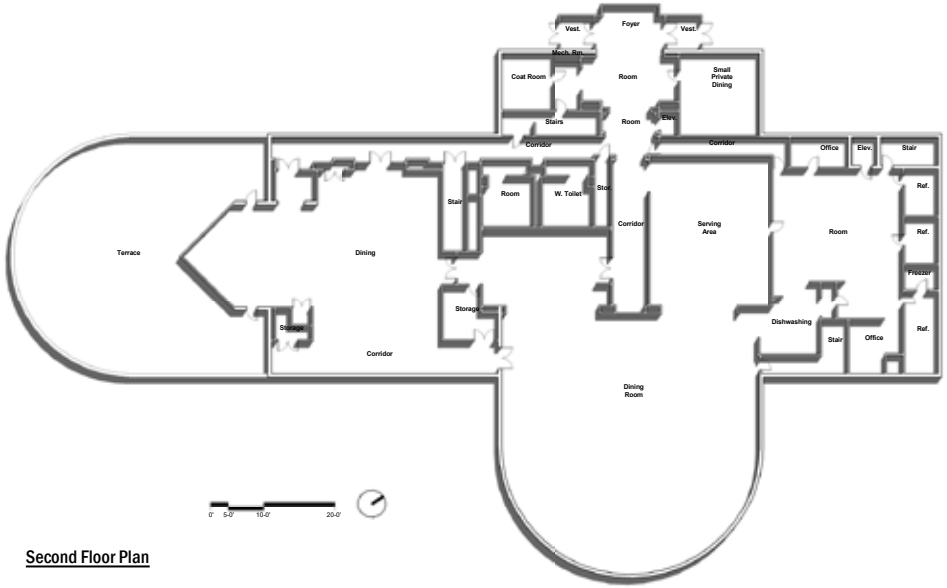
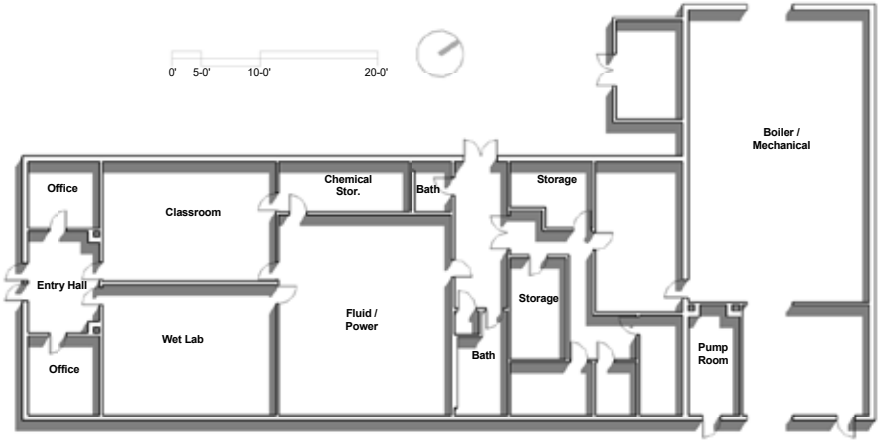


Second Floor Plan

Andrews Hall



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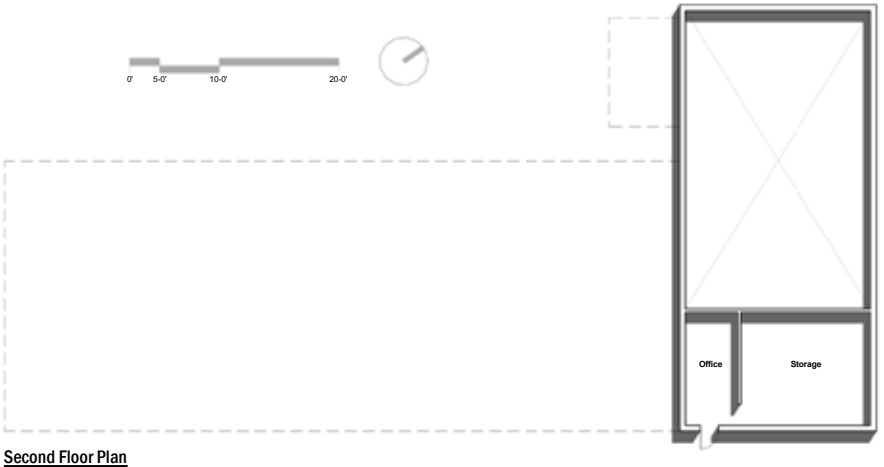
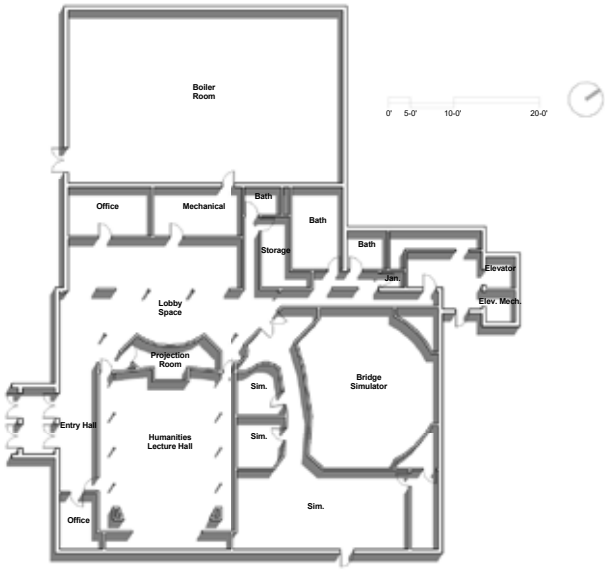


Second Floor Plan

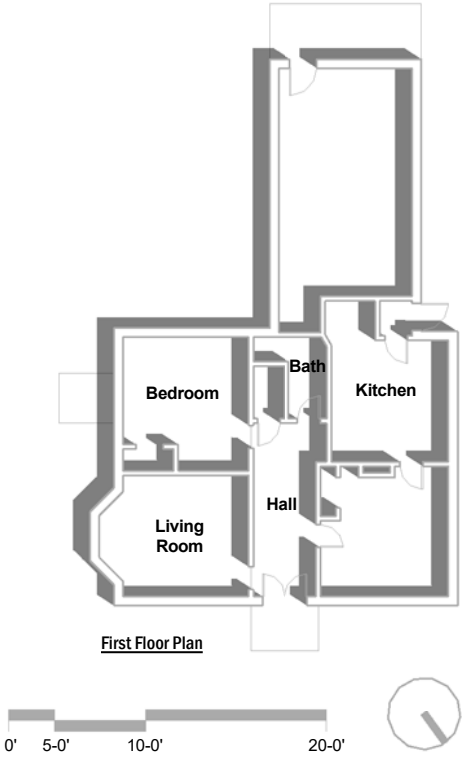
BIW Center For Advanced Technology



First Floor Plan

Second Floor Plan

Buoy House



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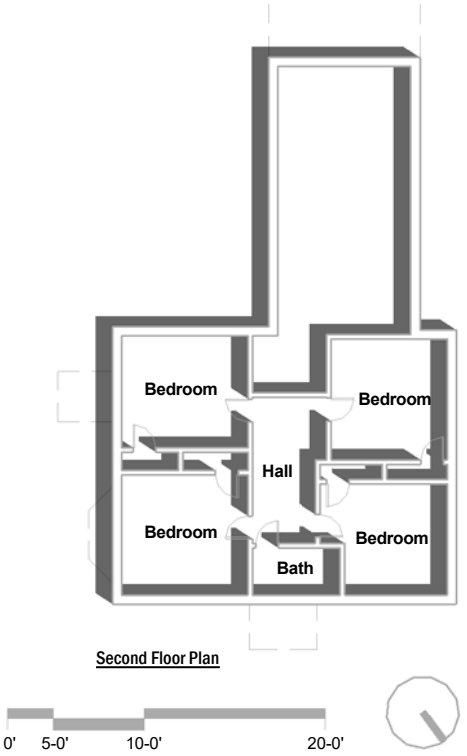
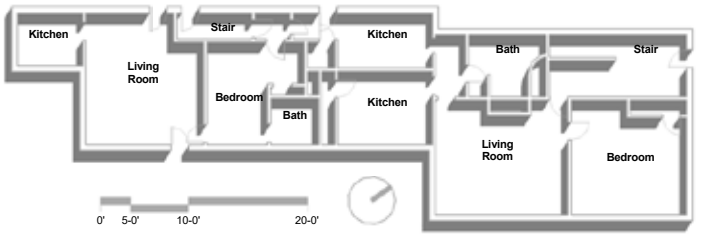


Second Floor Plan

Capstan House



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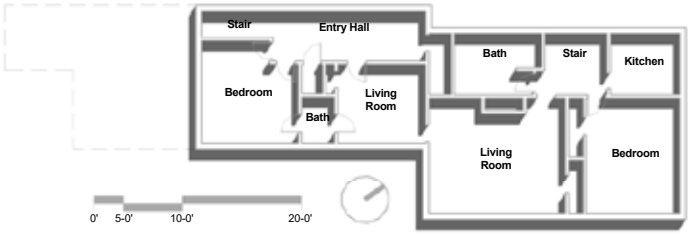
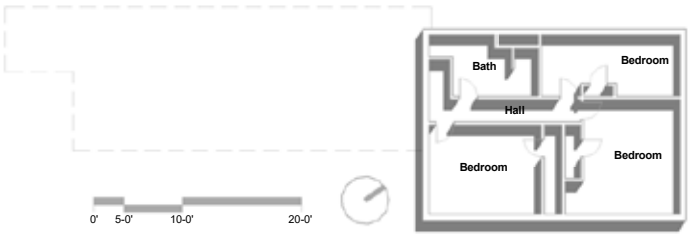
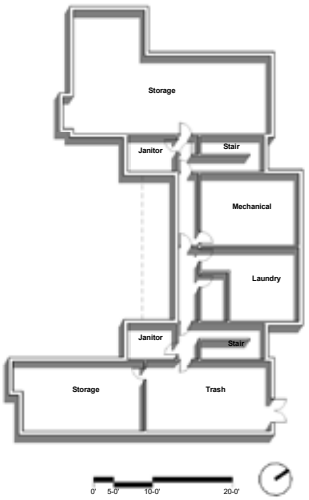


Second Floor Plan

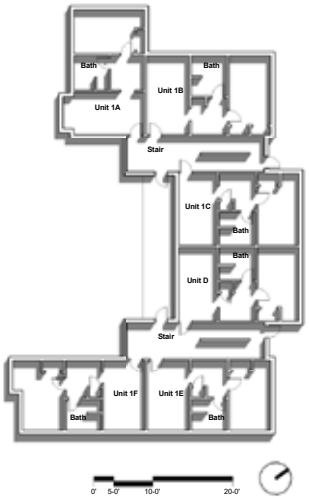


Third Floor Plan

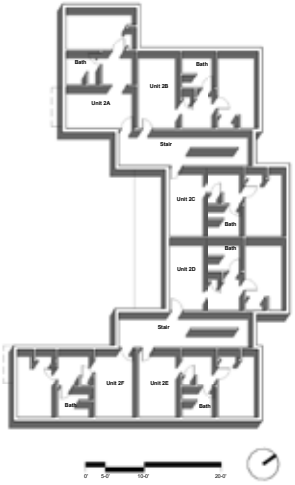
Commons Housing



Basement Floor Plan



First Floor Plan



Second Floor Plan

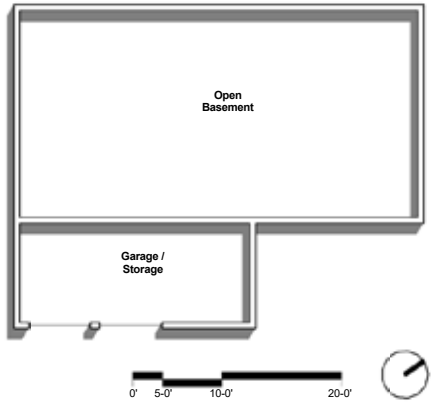
Curtis Hall

Basement Floor Plan

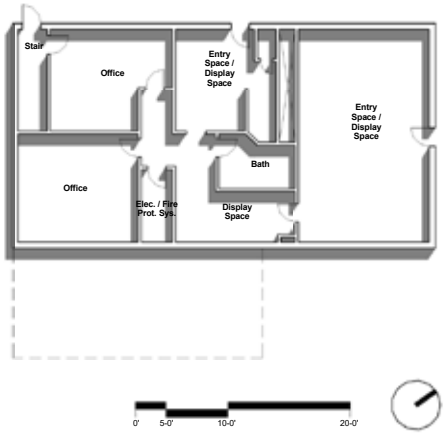
First Floor Plan

Second Floor Plan (Third and Fourth Floors similar)

Dirigo House



Basement Floor Plan



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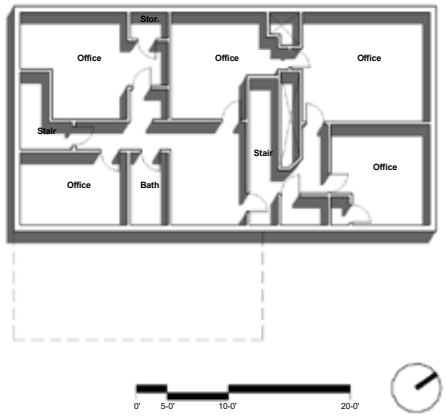
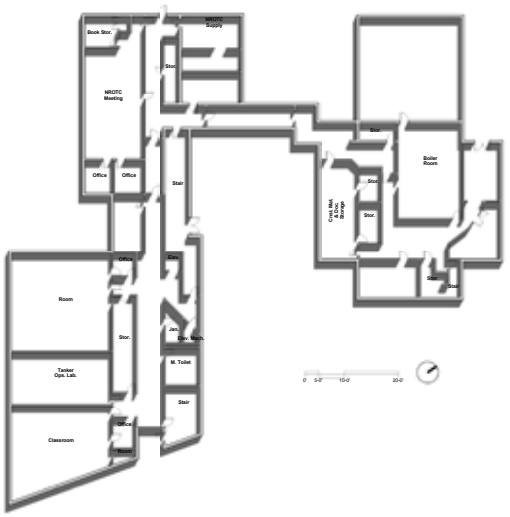


Second Floor Plan

Appendix

Dismukes Hall



Basement Floor Plan

Second Floor Plan

First Floor Plan

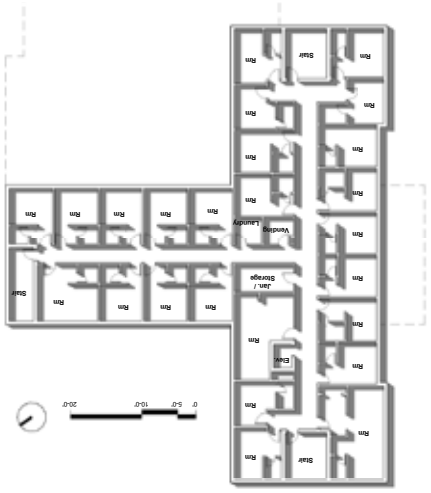
Third Floor Plan

Leavitt Hall

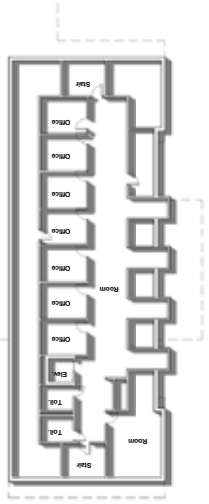
Basement Floor Plan

First Floor Plan

Second Floor Plan

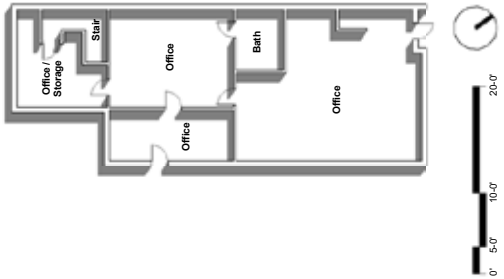


Third Floor Plan

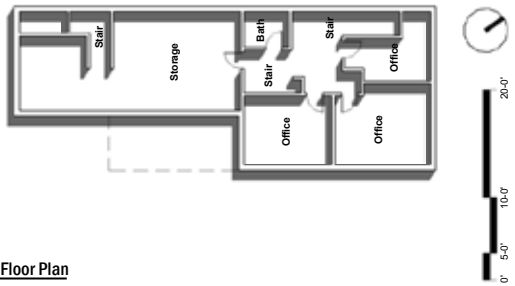


Fourth Floor Plan

Navy ROTC



Basement Floor Plan



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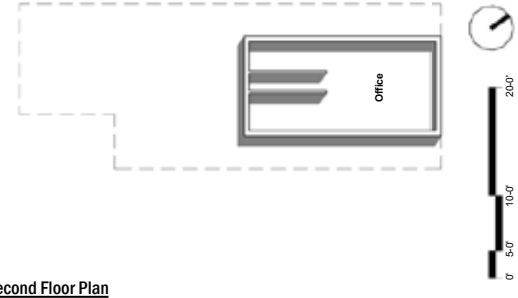
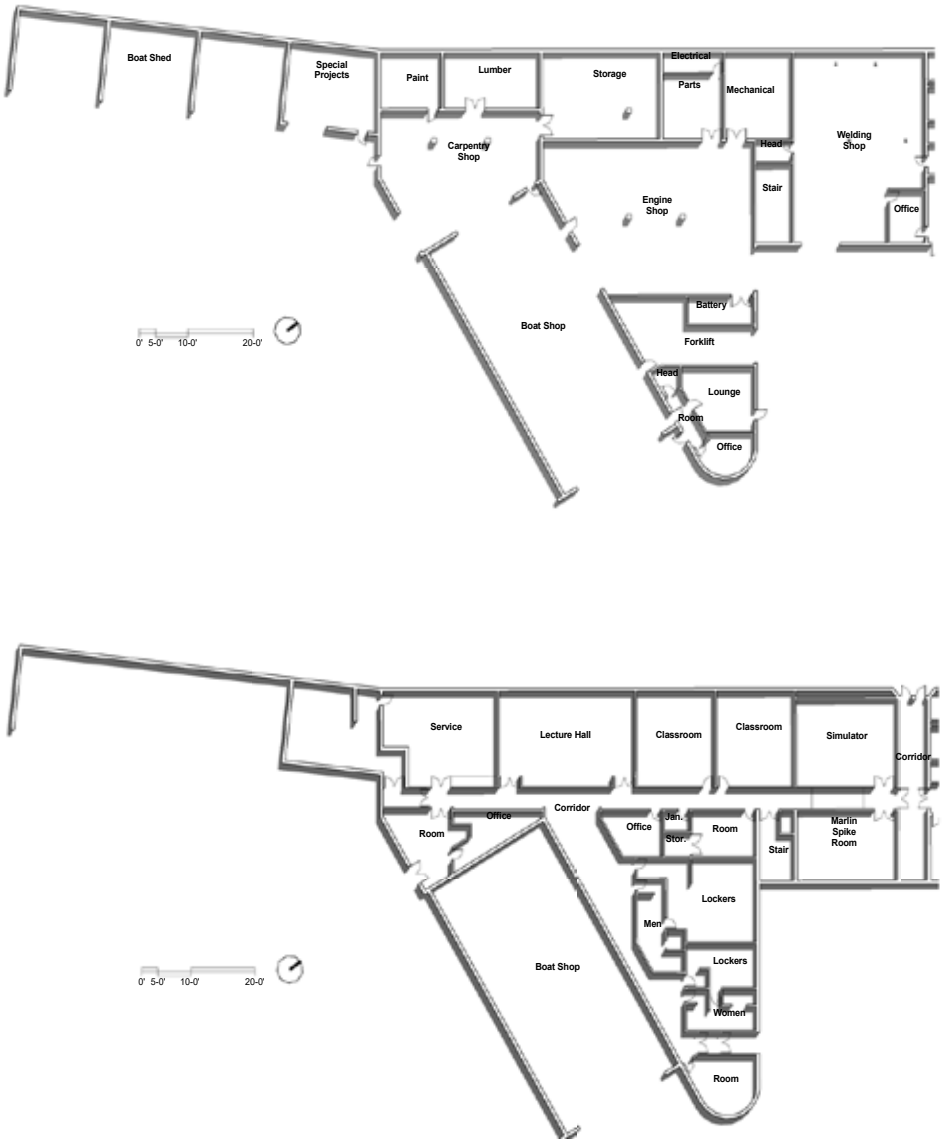
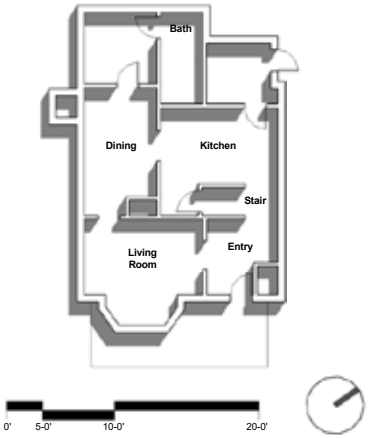


Second Floor Plan

Payson Hall


Boat Shed
Special Projects
Paint
Lumber
Storage
Electrical
Parts
Mechanical
Carpentry Shop
Head
Welding Shop
Stair
Engine Shop
Office
Boat Shop
Battery
Forklift
Head
Lounge
Room
Office
0' 5-0' 10-0' 20-0'
Service
Lecture Hall
Classroom
Classroom
Simulator
Corridor
Office
Corridor
Room
Office
Jan.
Stor.
Room
Stair
Marlin Spike Room
Lockers
Men
Lockers
Boat Shop
Women
Room
0' 5-0' 10-0' 20-0'

Pennant House



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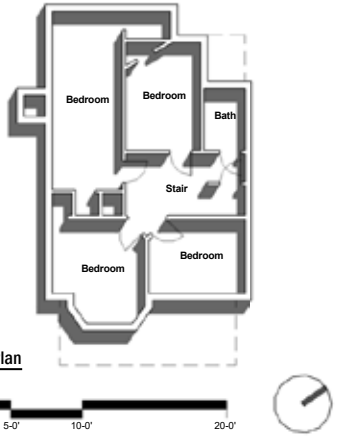
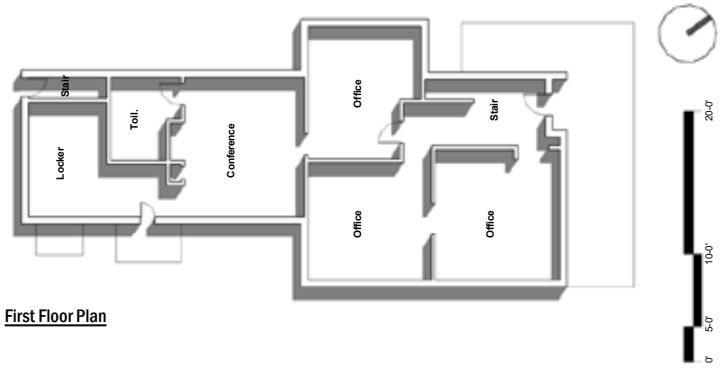


Second Floor Plan

Perkins House



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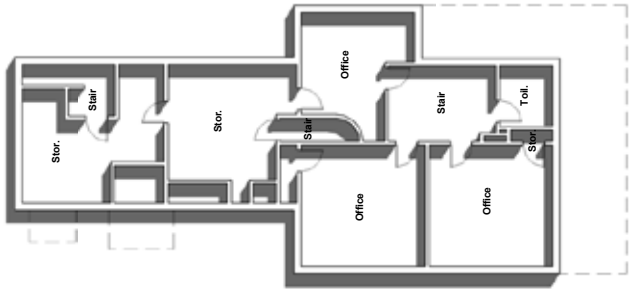

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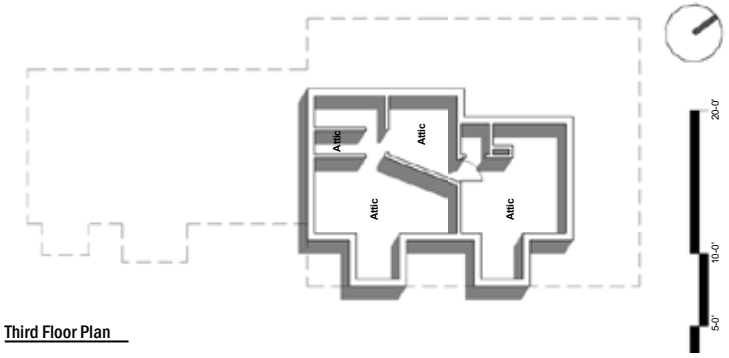
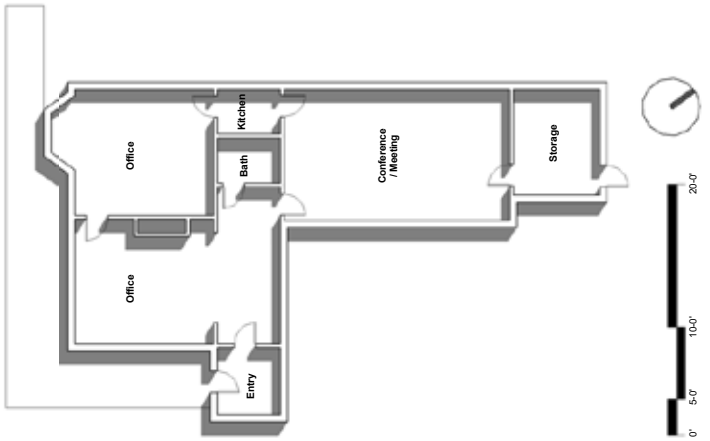
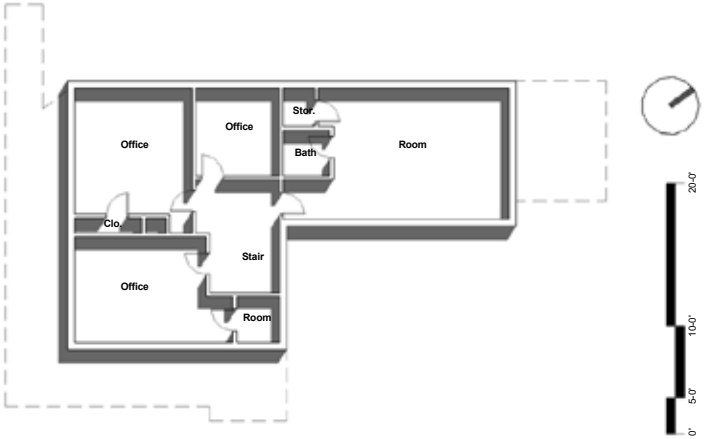


Third Floor Plan

Pilot House

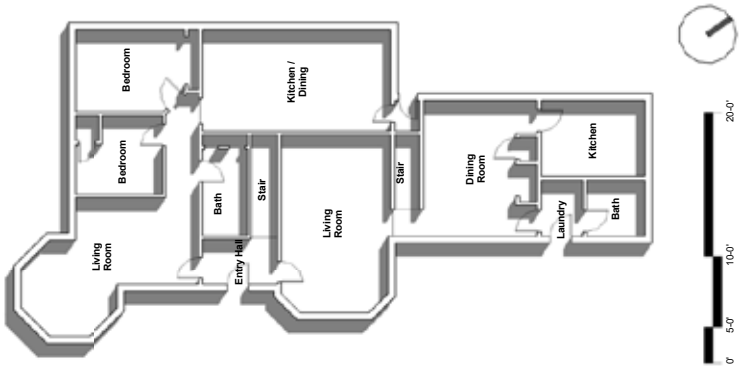


First Floor Plan



Second Floor Plan

Propeller House



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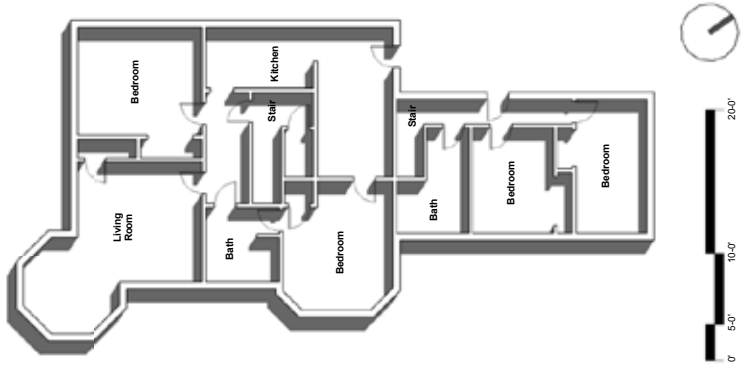
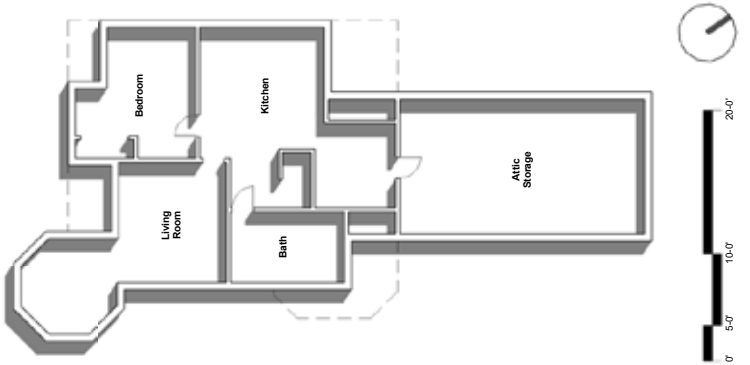
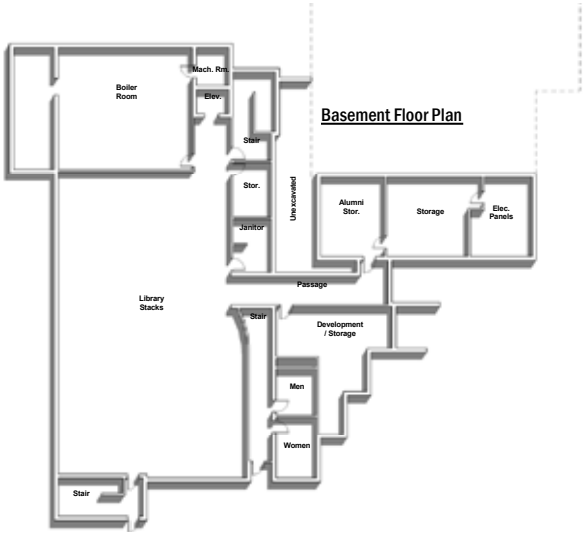


Second Floor Plan



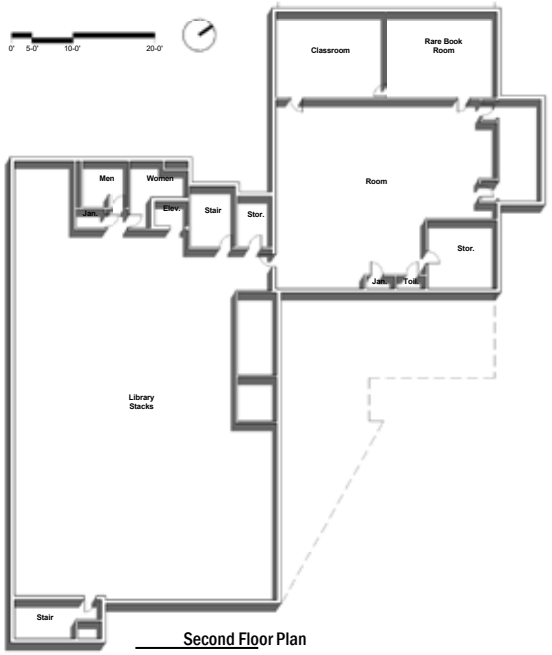
Third Floor Plan

Quick-Platz Hall



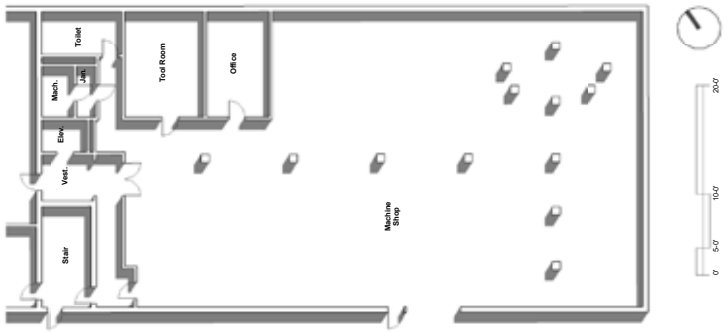
Basement Floor Plan

First Floor Plan

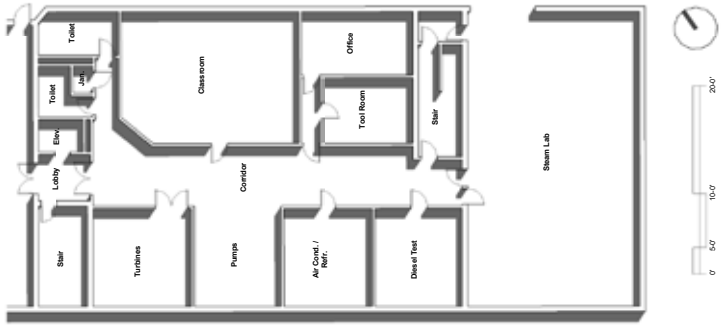


Second Floor Plan

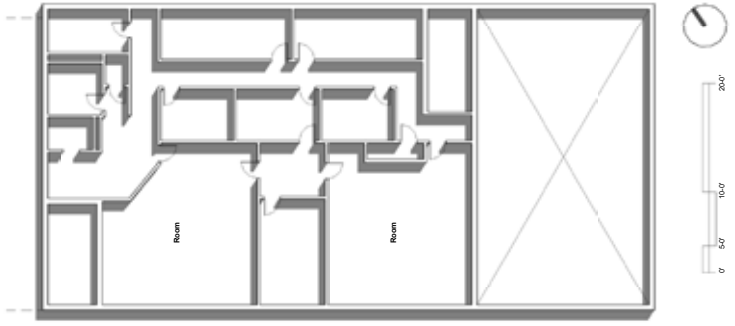
Rodgers Hall



First Floor Plan



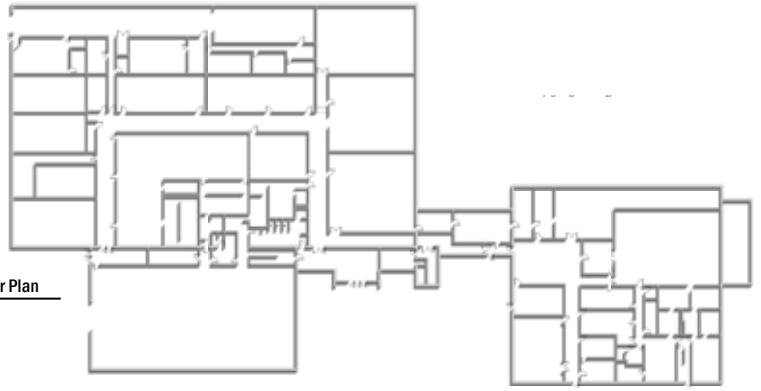
Second Floor Plan



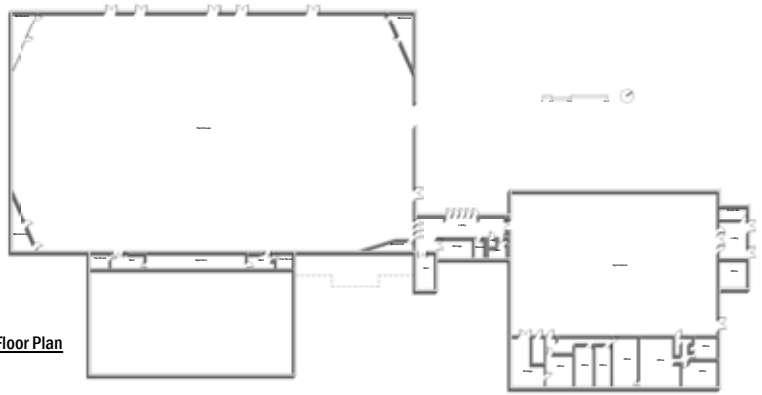
Third Floor Plan

Smith Alexander Hall

Basement Plan

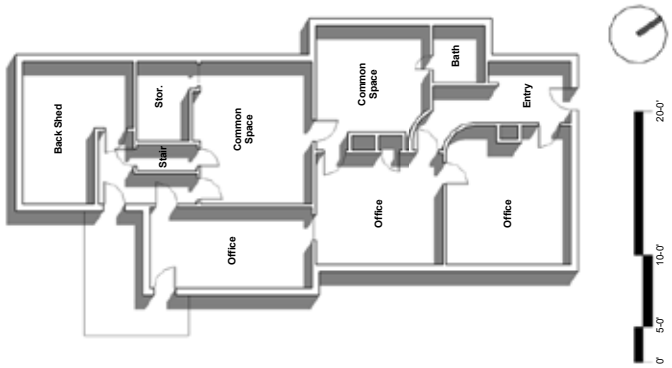


First Floor Plan

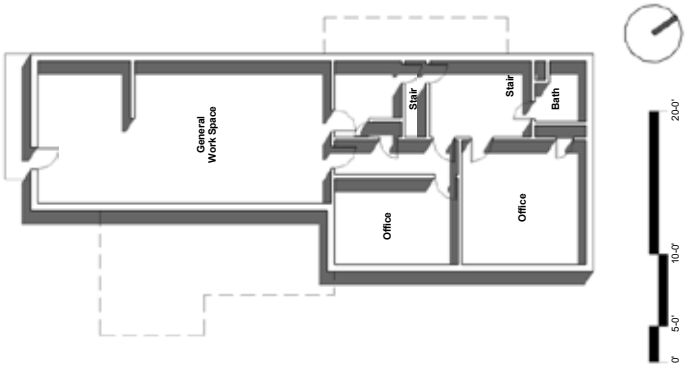


Second Floor Plan

Windlass House

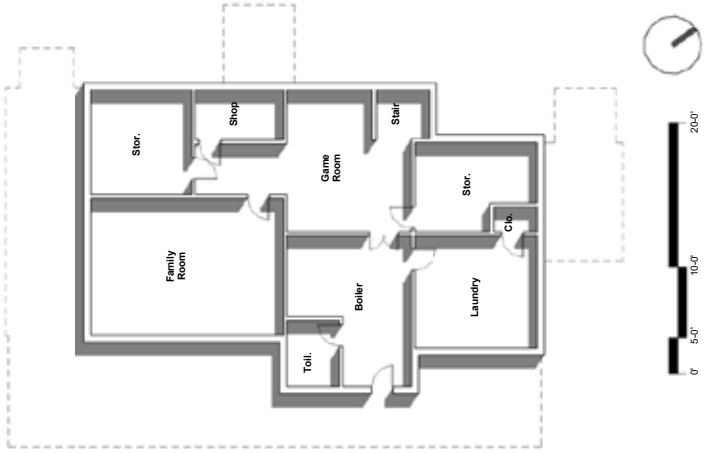


First Floor Plan

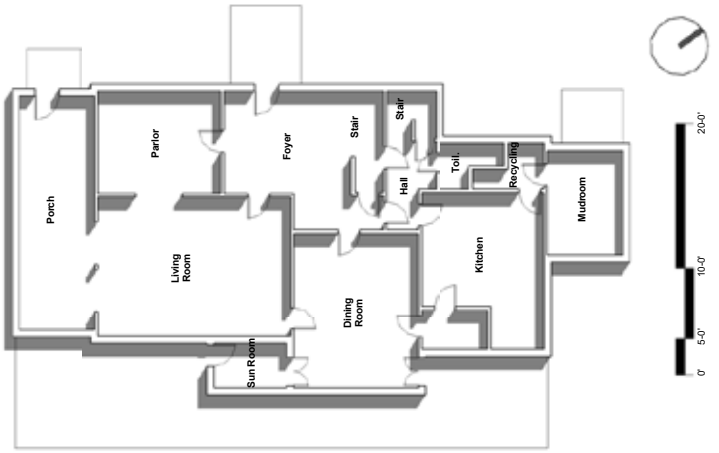


Second Floor Plan

Wyman House



Basement Plan



First Floor Plan

Appendix