University of Maine
Blue Sky Plan Status

# PATHWAY 5
## Restoring the Dream: Renewing Pride and Stewardship of Place

Master Plan and Maintenance – Restore and create UMaine's physical plant and technology infrastructure to ensure a vibrant place of learning and discovery.

We will restore the dream of the land-grant mission by revitalizing the brick-and-mortar and technology infrastructure critical to our flagship campus. We will ensure funding toward ongoing campus improvement and beautification as we renew pride and renew a culture of stewardship at UMaine. Consistent with the goals of our strategic planning, we will review, revise and expand the campus master plan to align the optimum use of historic buildings with the need for new construction in support of the academic, research and outreach mission, including close monitoring of ongoing capital construction projects to ensure on-time and on-budget progress. We will incorporate long-term planning for our off-campus locations. We will build state-of-the-art technology infrastructure for both on- and off- campus use, and we will work to ensure sound site and utility infrastructure.

Following this Pathway will signal that we value our work and our institution with its 368 campus buildings and structures on 8,313 acres at close to $1 billion in infrastructure and real estate. This will affirm our responsibility to maintaining and preserving our physical environment as a place of learning and discovery.

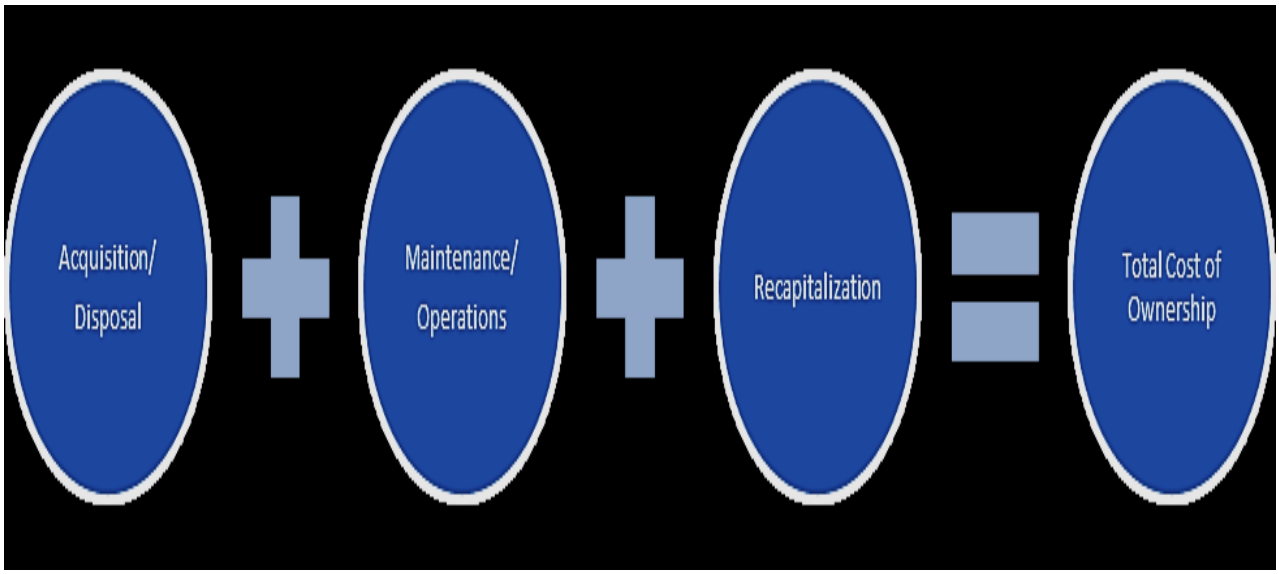
## Pathway Initiatives

**Revitalize the brick-and-mortar infrastructures critical to fulfilling UMaine's flagship mission and key to our fiscal stewardship of our facilities to result in increased net capital asset value. Incorporate the Total Cost of Ownership (TCO) approach to our management of UMaine's asset portfolio.**

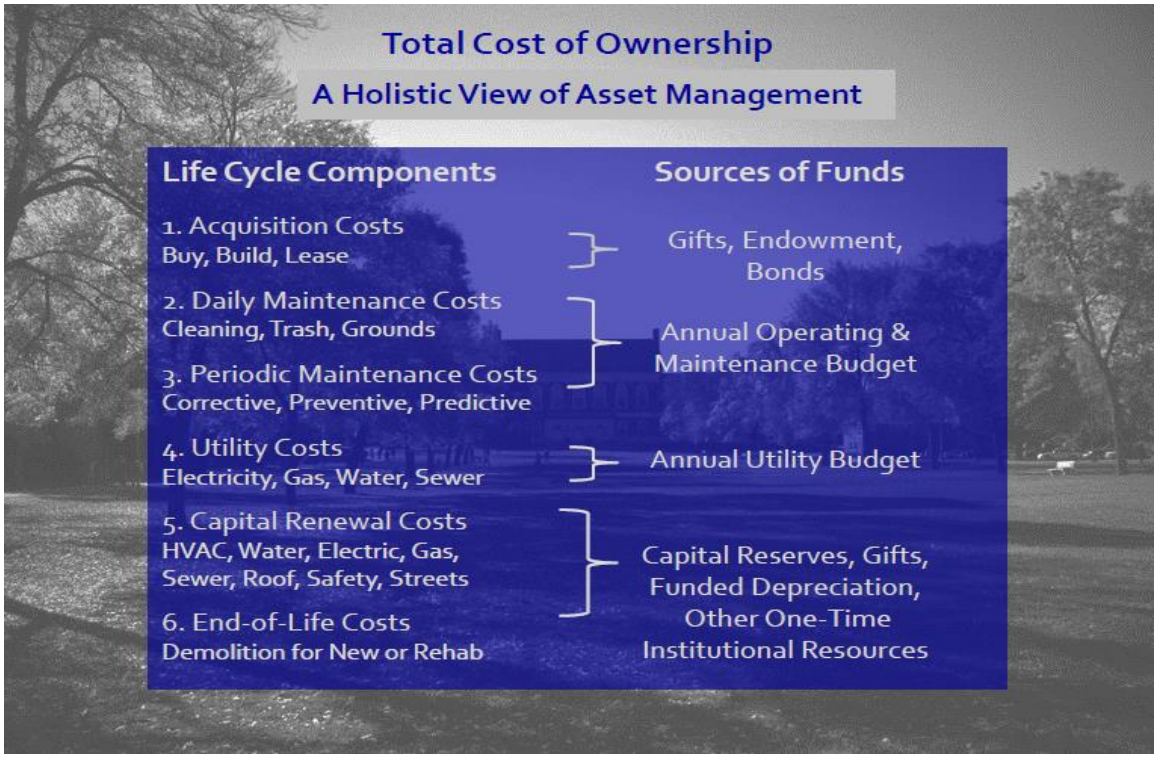
Total Cost of Ownership

Total Cost of Ownership is widely considered a best practice - if rarely achieved standard - for measuring the sustainability of the sum of all investments in a given asset while considering the capacity to afford that asset relative to its role in fulfilling the mission of the institution.

Total Cost of Ownership refers to the sum of the one-time costs of asset construction or acquisition and disposal, the annual costs of maintaining and operating, & the periodic recapitalization costs of the asset. It is expressed in terms of dollars per gross square foot (GSF).




Another way to envision the TCO model is as a cradle-to-grave analysis of asset management that employs a cost framework to inform the University of Maine's strategic investment strategy. For all existing assets, the construction/acquisition costs are fully realized, as are the future disposal costs. Consequently, the primary elements that will influence the TCO metric are maintenance, operations, and recapitalization, which may be thought about as sustainment of the existing asset. Any predetermined improvements or scheduled upgrades may be regarded as recapitalization.



Practically, adopting Total Cost of Ownership will have at least two benefits.

First, it will help the University ensure it can afford any new structures it proposes to construct or acquire. At a minimum, will make clear any gap between the University's aspirations and the reality of the resources available at the time decisions are made rather than only after those decisions are made.

Second, adopting Total Cost of Ownership will help the University better understand its funding for facilities management. It will allow the University to address those areas better where gaps exist between the need for funding and the availability of funding. Understanding the connection between funding sources and types of facilities cost could be key to steering a long-term sustainable path for net asset value and for identifying and targeting those areas of cost where the resource gap is greatest.

**Develop an Asset Investment strategy that addresses where, what and how we invest**.

In 2012 the University of Maine partnered with Sightlines LLC to perform an integrated facilities plan (IFP) for the Orono campus. The IFP created a comprehensive facilities condition assessment data base. The IFP serves as a capital asset planning tool for UMaine and entails the assessment and identification of campus building needs and the assignment of preliminary budgetary values for renewal costs. The completed IFP includes 80% of the total campus square footage of both Education and General (E&G) facilities and Auxiliary facilities on campus. A sample of the data is provided here:

| Project Number | Building Name | Structur | System | Sub-System | Sub-SubSystem | Project Description | Timeframe | Project Cost |
|---|---|---|---|---|---|---|---|---|
| 1 | ADV MANUFACTURING CTR | Building | Exterior Shell | Structural | Pointing | repoint brick façade (10% of total exterior walls) | B | $ 42,000 |
| 2 | ADV MANUFACTURING CTR | Building | Interior Shell | Walls | Painting | repaint classroom spaces | A | $ 18,000 |
| 3 | ADV MANUFACTURING CTR | Building | Interior Shell | Walls | Painting | replaint common areas and hallways | B | $ 27,000 |
| 4 | ADV MANUFACTURING CTR | Building | Interior Shell | Walls | Painting | repaint classroom spaces | C | $ 18,000 |
| 5 | ADV MANUFACTURING CTR | Building | Safety/Code | Fire Alarm / Detection | Smoke/Heat Detectors (Stand Alone) | replace smoke detectors | B | $ 4,000 |
| 6 | AEWC | Building | Electrical | Building Distribution | Secondary Transformer | replace internal vault with external pad mounted transformer | B | $ 614,000 |
| 7 | AEWC | Building | Electrical | Fixtures/Lighting | Indoor Lighting | upgrade indoor lighting (old section) | C | $ 307,000 |
| 8 | AEWC | Building | Electrical | Fixtures/Lighting | Occupancy Sensors for Lighting | install occupancy sensors (old section) | C | $ 15,000 |
| 9 | AEWC | Building | Electrical | Fixtures/Lighting | Outlets and Switches | upgrade outlets and switches (old section) - included in indoor lighti | C | $ 268,000 |
| 10 | AEWC | Building | Exterior Shell | Ext. Painting | Painting | repaint awning over the front entrance | C | $ 5,000 |
| 11 | AEWC | Building | HVAC | Ventilation | Exhaust Fans - <1 HP | replace 1 bathroom exhuast fan | B | $ 2,000 |
| 12 | AEWC | Building | HVAC | Ventilation | Fume hoods | upgrade 4 fume hoods (includes VAV boxes, exhaust fans, wiring) | B | $ 100,000 |
| 13 | AEWC | Building | Interior Shell | Walls | Painting | repaint classroom spaces | A | $ 123,000 |
| 14 | AEWC | Building | Interior Shell | Walls | Painting | repaint common areas and hallways | A | $ 92,000 |
| 15 | AEWC | Building | Interior Shell | Walls | Painting | repaint offices | B | $ 92,000 |
| 16 | AEWC | Building | Interior Shell | Walls | Painting | repaint classroom spaces | C | $ 123,000 |
| 17 | AEWC | Building | Safety/Code | Accessibility | Accessibility | study to assess solution accessibility for main windblades laboratory | A | $ 5,000 |
| 18 | ALFOND ARENA | Building | Electrical | Building Distribution | Secondary Transformer | replace transformer on NE corner | C | $ 177,000 |
| 19 | ALFOND ARENA | Building | Electrical | Fixtures/Lighting | Occupancy Sensors for Lighting | install occupancy sensors | B | $ 4,000 |
| 20 | ALFOND ARENA | Building | Electrical | Specialties | Intercom/Telephone/Data | upgrade data wiring to Cat6 | A | $ 83,000 |
| 21 | ALFOND ARENA | Building | Exterior Shell | Ext. Painting | Painting | repaint exterior doors | B | $ 11,000 |
| 22 | ALFOND ARENA | Building | Exterior Shell | Openings | Exterior Doors | replace 21 of 68 exterior doors, 3 garage doors | A | $ 53,000 |
| 23 | ALFOND ARENA | Building | Exterior Shell | Roof | Single-Ply/EPDM | repairs and patching to PVC roofing - PVC (installed 1992), EPDM (ins | B | $ 15,000 |
| 24 | ALFOND ARENA | Building | Exterior Shell | Structural | Pointing | repoint brick façade (10% of total exterior walls) | C | $ 11,000 |
| 25 | ALFOND ARENA | Building | HVAC | Controls | Controls | upgrade controls throughout the building | A | $ 150,000 |

In early 2013 UMaine partnered with Sightlines LLC to perform a classroom assessment study for 110 classrooms on the Orono campus. The study complemented the campus IFP study and provided an additional layer of detail with respect to the technology and indoor environmental quality needs of campus classrooms.

**Ensure a comprehensive, aligned and programmatic framework for facilities and asset management**.

Space Planning: In 2014 the university implemented a comprehensive Space Planning and Management Policy that included several working groups to govern the policy. In 2016 the space allocation and renovation subcommittees were joined to combine their missions. An excerpt of the initial policy is presented here:

**Space Planning and Management at the University of Maine**
**Policies and Protocol**

**Intent and Scope**

Consisting of over 4.5 million square feet of buildings and nearly 450 acres of land on the main campus alone, space at the University of Maine is a highly valued asset and must be managed efficiently and effectively. The following policies and protocol apply to all faculty, staff, students, and commercial tenants, and have been established to ensure best space management practices and support the University of Maine System's initiative to reduce square footage and increase space use rates and net asset value as reflected by the Facilities Management Review Process and Report.

**Governance**

To ensure best practices, several working groups have been established to plan and manage the assignment and renovation of space.

**Space Planning Council**

Mission: To develop long range and general space allocation plans, identify space priorities, periodically review space inventory and usage data, provide direction to the Space Management Committee, and make recommendations to the President.

Membership: Co-chaired by the Provost and the Vice President for Administration and Finance, membership includes the Vice President for Research and Dean of the Graduate School, Vice President for Innovation and Economic Development, Associate Provost for Academic Affairs, Assistant Vice President for Student Life, an Academic Dean, the Executive Director of Facilities & Capital Management Services, and the Associate Vice President for Development & Alumni Relations. See Exhibit A for current fiscal year membership.

Meetings: Twice a year, optimally in August and February.

**Space Management Committee**

Mission: To develop and evaluate space policies and processes, initiate or conduct studies to improve space efficiencies/use, and enact space priorities as set by the Space Planning Council through the Allocation Subcommittee and the Renovation Subcommittee, to review and take action on assignment/reassignment, modification/renovation, and lease requests brought forward to the Committee by the campus constituents through the subcommittees, Space Manager, or Lease Officer.

Membership: Co-chaired by the Associate Provost for Academic Affairs and the Executive Director of Facilities & Capital Management Services, membership includes the members of the Space Allocation and the Space Renovation subcommittees. See Exhibit B for current fiscal year membership.

Meetings: Every two months (alternating with meetings of the subcommittees).

**Space Allocation Subcommittee**

Mission: As a subcommittee of the Space Management Committee, the Space Allocation Subcommittee reviews requests received from deans and directors and recommends space allocations to the Space Management Committee to meet the needs of campus departments and constituents.

Membership: Associate Provost for Academic Affairs (Chair), a Faculty Senate University Environment Committee co-chair, Director of Student Records or designate, a representative from each of the colleges, the Director of the Faculty Development Center, two faculty members, and the Space Manager. See Exhibit C for current fiscal year membership.

Meetings: Every other month (alternating with months when the Space Management Committee meets).

**Space Renovation Subcommittee**

Mission: As a subcommittee of the Space Management Committee, the Space Renovation Subcommittee reviews requests received from deans and directors, identifies adequate funding, and recommends space renovations to the Space Management Committee to meet the needs of campus departments and constituents.

Membership: Executive Director of Facilities & Capital Management Services (Chair), Associate Director of Facilities Management for Planning, Design & Construction, Assistant Director of Facilities Management for Construction Administration & Regulatory Compliance, Executive Director of Information Technologies, a Faculty Senate University Environment Committee co-chair, two faculty members, and the Space Manager. See Exhibit D for current fiscal year membership.

Meetings: Every other month (alternating with months when the Space Management Committee meets).

Classroom Paint and Polish: In 2014 the university assembled a classroom paint and polish committee to manage the remaining STEM Bond project monies and to facilitate the planning of future annual classroom projects. The Classroom Paint and Polish committee has facilitated

approximately $400,000.00 of annual classroom projects in the summers of 2016 and 2017. The next round of projects, for the summer of 2018, is being planned.

Annually UMaine partners with Sightlines to provide benchmarking data in the areas of annual investment, operational efficiency and energy usage.

**Continue to build annual budgeted investments to fully fund appropriate levels of maintenance and renewal in campus upkeep and beautification.**

Funded Depreciation; Annually the university funds a depreciation budget for E&G and Auxiliaries.

Maintenance funding; Annually the university funds a maintenance budget for E&G and Auxiliaries.

Thomas P. Hosmer Fund; The Thomas P. Hosmer Fund was established in the University of Maine Foundation for the benefit of the University of Maine, Orono, Maine with a bequest from Thomas P. Hosmer, a member of the Class of 1958.

The University of Maine System has implemented a three tier planning strategy which includes a one and five year capital budgeting process. The following information explains the strategy.

Identify and fund the long-term capital needs of the System. Examples of recommendations include:

- Adopt a 3-tiered planning strategy across the enterprise that involves each campus having and maintaining a campus master plan to guide the general direction of the campus; a 5-year capital plan that is aligned with the master plan and a component of the multi-year financial analysis; and a 1-year capital work plan that is aligned with the other layers and is a component of the annual budget considered by Trustees. The one-year work plan should include not only improvements, but also the annual identification of any surplus real property which should be or could be considered for disposal or repurposing.
- Update the budget procedures to include capital budgets as a distinct component of the annual budget process.
- Continue to strive to reach the 100 percent funded depreciation goal and to avoid losing ground from gains achieved while still being open to adjustments in the timeline for achieving the goal in a way that is consistent with the annual budget proposed to and ultimately adopted by the Board of Trustees.

**Employ progressive capital construction delivery methods that result in reduced overhead, decreased time to delivery and increased asset value, completing capital projects on time and on budget.**

The Pathway 5 Implementation Team has reviewed several capital construction delivery methods that are available to facilitate a successful project outcome. These methods offer various respective benefits and limitations, depending upon the specific parameters or needs of the Owner. The Team has developed a Construction Delivery Methods summary document, which provides a narrative overview of the respective methods. In conjunction with the summary, the Team has developed an evaluation matrix of the various methods. These tools are intended to facilitate selection during development of the most appropriate method(s) for prospective capital construction projects.

## CONSTRUCTION DELIVERY METHODS

Capital construction at the University of Maine is accomplished through the collaboration of three parties – the University (Owner), the designer and the contractor. To ensure a successful collaboration the Owner should choose the construction delivery method prior to selecting the design firm for a project. There are several methods available to facilitate a successful project outcome and each method is best suited to projects with specific parameters or needs. The Owner should fully understand the trade-offs associated with each method before selecting one for a particular project.

The industry standards for public projects are Design-Bid-Build (DBB), Construction Manager at Risk (CM@Risk) and Design-Build (DB). These three delivery methods are presented below with a brief synopsis of the benefits and limitations of each.

### DESIGN-BID-BUILD (DBB)

The Owner develops a conceptual plan for a potential project based on user needs and program requirements. Standard procurement and contracting requirements ("front end") documents are provided to the designer (architect and/or engineer) for the creation of Specifications and Drawings for the work. Bids are publically solicited from general contractors based on these documents. A public bid opening is conducted and a construction contract agreement is awarded to the lowest responsive and responsible bidder. This method may include file sub-bids through the Maine Bid Depository for major sub-contracted trades.

*Benefits*

- This is the most commonly used delivery method for construction.
- Participants are familiar with this method and each knows and understands their role in the process.
- The Owner is more involved in design and construction at all stages.
- The Owner has greatest control over process and project.
- Bidding is competitively based generally resulting in the best price for construction.

*Limitations*

- This delivery method takes the longest amount of time to execute.

Award based on price only; quality of work is not considered unless contractor has been delinquent.
Can establish an oppositional relationship between the participants providing an opportunity for designer and contractor to fault the other party for deviations, omissions or mistakes in the work.
The Owner is placed in the position of referee between the designer and contractor.
There is a greater potential for Change Orders.

CONSTRUCTION MANAGER AT RISK (CM@Risk)

The Owner develops a conceptual plan for a potential project based on user needs and program requirements. After the initial design work is underway, the Owner solicits qualifications packages from construction managers through a publically advertised Request for Qualifications (RFQ). The Construction Manager at Risk is initially hired as an adviser during the design phase for pre-construction services based on a set fee. The services provided include estimating and constructability review. The Construction Manager should complete the process of establishing the Guaranteed Maximum Price for the work during final design.

*Benefits*

Increased opportunity to utilize expertise of CM@Risk firm to evaluate project cost and schedule from a constructability perspective.
CM@Risk firm's early participation keeps project within budget.
CM@Risk firm is responsible for schedule and construction cost.
Some of the construction risk is shared between the Owner and the CM@Risk firm.
Owner may have increased participation in the selection of sub-contractors.
May reduce time by starting construction prior to design completion – phased work.
Owner is not bound to continue with the selected CM@Risk firm should there be any issues or an inability to establish a full GMP at the end of design.

*Limitations*

Potential for additional fees if a redesign is required after GMP is approved.
A portion of professional fees may be buried in the GMP.
GMP may include unused contingency lines.
No guarantee of reduced time to complete project.
Owner relinquishes a majority of project management control to CM@Risk firm.

DESIGN-BUILD (DB)

The Owner develops a conceptual plan for a potential project based on user needs and program requirements. Specific performance parameters are established for the project, along with required quality, schedule and budget, which must be met by potential Design-Build firms. Design-Build firms may be composed of a single firm, a corporation, a limited liability company, a partnership, a joint venture, or a sole proprietorship.

The Owner solicits qualifications packages and proposals from Design-Build firms through a two-phase process – a publically advertised Request for Qualifications (RFQ) and a Request for Proposals (RFP) solicited directly from the finalist firms. The RFQ establishes the full requirements of the process, along with the criteria by which the firms and their project will be evaluated. The RFP submissions and

interviews are evaluated to determine to what degree they meet the intent of the Owner's requirements, the established deadline for project completion and the budget for the project. The project that best fits the Owner's intent and requirements is awarded the work. The Owner accepts the Design-Build firm's proposal as-is.

*Benefits*

One entity is responsible for both design and construction.
The Owner has greater control over project schedule and total cost.
Project time is substantially reduced.
Design and construction are closely coordinated.
There are no conflicts of interest between the designer and the contractor.

*Limitations*

The Owner is required to produce a detailed performance specification prior to soliciting for services.
Evaluation of the resulting submissions is difficult and time-consuming – comparison is individualized to submission.
Once the contract is awarded the Owner relinquishes control over design and construction.
The Owner has substantially less involvement in selection of materials and equipment – the project is a "package deal."
The Design-Build firm has increased liabilities because it is responsible for the project in full.

**UNIVERSITY OF MAINE**

**SELECTION CRITERIA – CONSTRUCTON DELLIVERY METHOD**

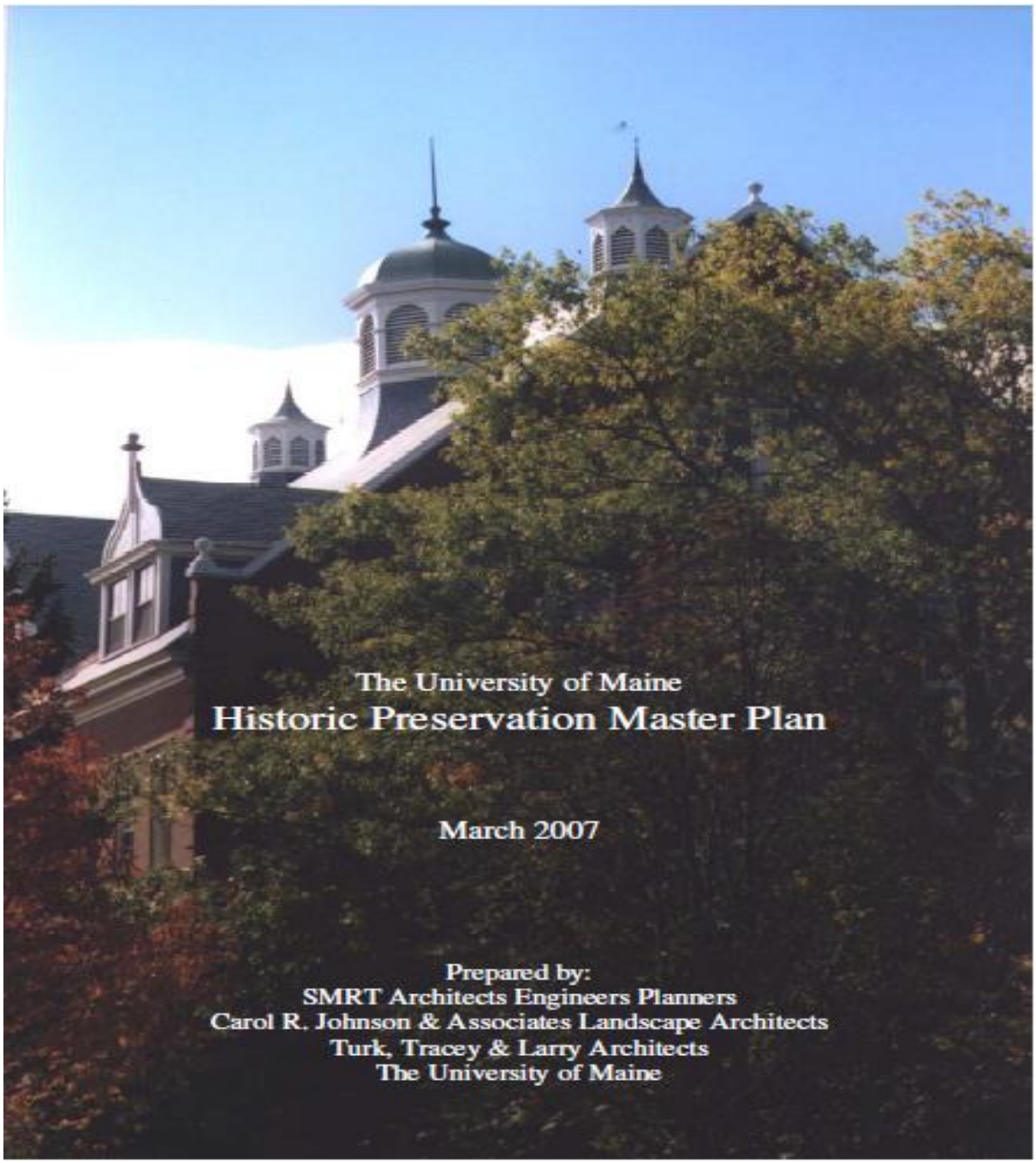
**Project:** _____

| CATEGORY | METHOD | DESIGN-BID-BUILD | CONSTRUCTION MANAGER | DESIGN-BUILD |
|---|---|---|---|---|
| BUDGET | | Budget is well defined; lowest cost is a priority. | Budget is constrained; assurance of total cost is a priority. | Budget is constrained; higher cost is acceptable to meet schedule. |
| SCOPE | | Initial Scope of Work is well defined, but may change. | Initial Scope of Work is less defined, and needs further evaluation to verify. | Scope of Work is well defined and based on specific performance criteria. |
| SCHEDULE | | Schedule is a secondary priority | Schedule is a priority, with a specific completion date. | Schedule is a high priority, with an immediate need for the project. |
| COMPLEXITY | | | | |
| *New/Renovation* | | New construction or full renovation with fewer unknowns. | Renovation of varying degrees. | New construction or full renovation with possible unknowns. |
| *Occupied/Unoccupied* | | Unoccupied or new spaces. | Occupied spaces during construction. | Unoccupied or new spaces. |
| *Historic Renovation* | | Non-historical renovation. | Historical renovation. | Non-historical renovation. |
| *Function (number of uses)* | | Limited number of uses or non-complex functions. | Multiple number of uses or complex functions. | Limited number of uses or non-complex functions. |
| *Multiple Trades associated with work* | | Limited number of trades or simplicity in design. | Multiple number of trades or challenge in design. | Limited number of trades or simplicity in design. |
| FM RESOURCES | | FM resources are available to manage. | FM resources are less available to manage. | FM resources are limited or not available to manage. FM is willing to give up project oversight in return for achievement of specific performance requirements. |

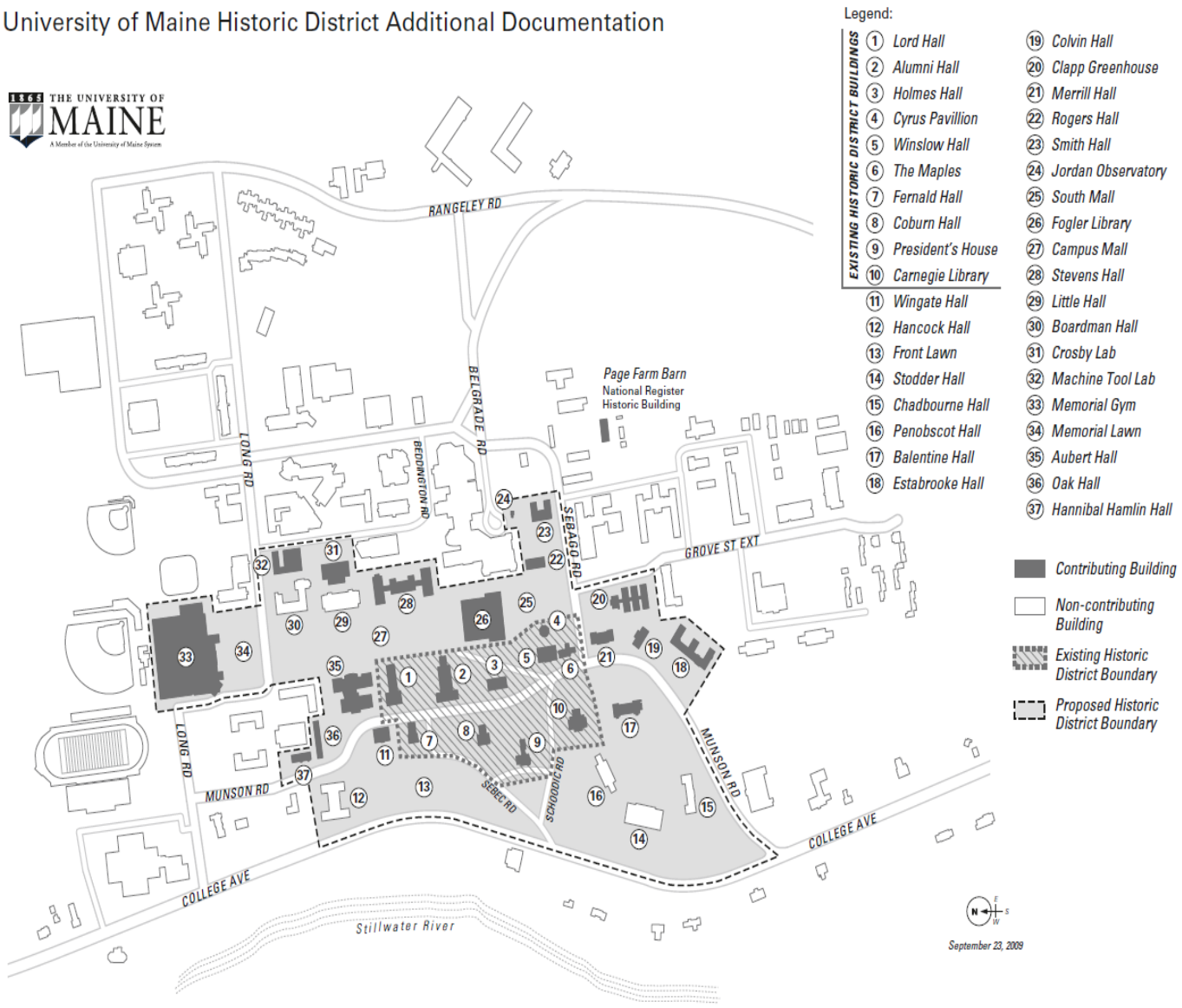
*y = place in the shaded box beside the method that is most applicable to the category for the project.*

**Develop a long-term plan to restore and use buildings effectively in the campus Historic District.**

In 2007 The University with the assistance of a Getty grant partnered with several Architects to create the University of Maine Historic Preservation Master Plan.




https://umaine.edu/campusplanning/historic-preservation-plan/




In early 2014, UMaine engaged Malcolm L. Collins, AIA, NCARB, LEED AP (Maine Licensed Architect and Historical Architect), to renew the campus Tier 1 Historic District Restoration Plan by creating design guidelines for each Tier 1 building. At the direction of the Pathway 5 Implementation Team, the guidelines incorporate prospective general uses for the spaces within the buildings, inventory the optimum space purpose and utilization of each respective building.

Each guideline sheet describes in detail a building's original and existing architecture and site and offers suggestions for preserving and using it so that the building may continue to represent the University's history and traditions in bricks and mortar while also supporting a dynamic, evolving campus. Applying the Guidelines to our collection of stately buildings, many of which were designed by prominent Maine and national architects, will help ensure the appropriate maintenance, development and use of these

resources for decades to come. The continued presence and use of these buildings is also very much in keeping with the University's Blue Sky Plan and its commitment to campus stewardship and sustainability. By making the best use of what we have, we can weave together old and new, creating vibrant places which adapt and respond to the changing educational, social and cultural values of our world-class University.

**Adopt and implement a five-year Information Technology Plan to ensure a robust and leading-edge technology infrastructure that supports the multifaceted mission of the university. Working in collaboration with the University of Maine System, review and implement, as appropriate, primary and strategic initiatives from the university-wide IT Strategic Plan.**

2012 UM: IT plan goals/initiatives.

The campus IT Strategic Plan was completed in the spring of 2012 and is in the implementation phase. Components of the plan which have been started include:

- Establishing an IT governance structure for UMaine (completed);
- Establishing a residence hall wireless service (completed);
- Upgrading the campus wireless network;
- Installing Voice over IP (VoIP) throughout campus and at the Hutchinson Center Done and Darling Marine Center (both are completed);
- Developing a computer replacement program; and,
- Upgrading campus buildings to Cat6 wiring.

Components of the plan included: networking classroom video projectors; installing sound systems in large classrooms; consolidating servers in the Neville Hall Data Center; expanding application virtualization to improve access to common software for remote and mobile users and improve license management; and consolidating email systems.

US: IT Strategic Plan Initiatives

Initiative #1 - IT Leadership and Governance

Establish a new CIO role to champion UMaine's IT vision and a University wide IT governance structure that fosters a transparent process for oversight, communication, and the strategic direction of IT at UMaine.

Initiative #2 - Fiscal Management

Develop a campus wide IT funding model that focuses limited dollars on strategic spending while reducing non-strategic IT spending over the next five years.

Initiative #3 - Organizational Alignment

Assess and align IT classified and professional resources at UMaine in order to improve collaboration and optimize the delivery of IT services.

Initiative #4 - Training and Professional Development

Establish a consistent educational development model that provides faculty, staff, and students with baseline IT knowledge as well as ongoing IT training and professional development opportunities that support innovation.

Initiative #5 - Help Desk:

Establish a single point of contact for the help desk in order to proactively measure, manage, and respond to user demands for IT support

Initiative #6: - Learning Space

Establish a learning space support model that improves the effective use of IT to support pedagogy.

IT Support Model Initiative #7 - IT Support for and Collaboration with Distance and Online Learning

US: IT partners with CITL to provide Tier 1 support for online learning issues reported by UMaine faculty and students. Complex technical issues are escalated to US: IT's Tier 2 support team. Increased collaboration between the UMaine-based US: IT team and CITL has resulted in improved technical support for online learning.

Initiative #8 - IT for Research

Develop a campus wide strategy to improve the IT infrastructure for research in Maine

Initiative #9 - IT Refresh and Reassessment

Develop the existing IT refresh program to include a comprehensive refresh model that is informed by an ongoing technology reassessment policy.

Initiative #10 - Application Virtualization

Expand application virtualization to improve access to common software for remote and mobile users, and to improve license management

Initiative #11 – IT Service and Resource Catalog

Extend UMaine's current IT Service and Resource Catalog to establish a comprehensive first stop resource that promotes awareness for and use of IT services and resources.

Initiative #12 – Learning Management System Initiative

Establish standards for a Learning Management System that aligns with the needs of UMaine.

Initiative #13 – Email

Investigate strategies for minimizing the number of e- mail systems that all faculty, staff, and students use

**Continue to implement sustainability initiatives to meet the established goals of the University of Maine's American College & University President's Climate Commitment.**

STRATEGIC ENERGY & UTILITY MANAGEMENT PLAN

In 2013 the University drafted an Energy and Utility Management Plan. An excerpt from that plan is included here:

1. Guiding Principles

The University of Maine, Office of Facilities Management ("OFM") is responsible for the prudent design, construction, operation, and maintenance of the University's physical assets, as well as the essential services provided by and through those assets to the University community. These services are vital to the delivery of the University's tripartite public land-grant mission of education, research, and public service to the students, businesses, and citizens of the State of Maine. The department's continuous focus is to carry out its responsibilities in support of that mission while ensuring sustained safe, reliable, efficient, and continuous essential services to the UMaine community, and striving to maintain and improve the beauty and quality of the campus' interior and exterior built environment.

OFM's broad responsibilities include energy and utility services, and its focus extends to the development, implementation, and maintenance of a comprehensive program of prudent energy and utility management, encompassing energy, utilities, infrastructure, and environmental sustainability, contained herein as the University's *STRATEGIC ENERGY & UTILITY MANAGEMENT PLAN*. This program is dedicated to maintaining the energy and utility infrastructure systems to provide safe and reliable services for the current and future growth of the University. In addition, this program will monitor energy utilization on campus, seek opportunities to reduce energy costs, and make recommendations as appropriate to University administration; consistent with the University mission, the goals and principles of the University's *Blue Sky Plan*, the UMaine *Campus Master Plan*, and integrated through the University's *Climate Action Plan* as a path toward environmental sustainability and carbon neutrality.

In 2016 the University implemented a request for proposal (RFP46 for Energy Solutions) process for a broadly scoped energy solution for the Orono campus. The purpose of the RFP is provided here:

Purpose

This RFP seeks proposals for projects which will build upon the improvements achieved to date in energy and utility management across the University of Maine System. System wide, the energy and utility management program objectives are to ensure safe, reliable, efficient, economical, and environmentally responsible services to each campus. These services are essential to the delivery of the tripartite UMS mission of education, research, and public service.

The ultimate objective of this RFP process is for the University to identify and make award to a Respondent (the Awardee) with whom the University can negotiate a long-term agreement that will result in the implementation of energy solutions that best meet the following four general goals:

1. Consistent with UMaine's 2007 Climate Leadership Commitment (formerly ACUPCC) to reduce its net Greenhouse Gas Emissions to 0 metric tons by 2040 through the use of renewable energy, purchased offsets, efficiency improvements and other emissions reduction strategies.
2. Minimize costs associated with energy, including the costs of maintenance and operation of UMaine's energy and utility infrastructure, which includes district steam heating and electrical distribution.
3. Provide an overall delivered energy cost structure that is predictable and stable into the future.
4. Proposed energy solutions that are robust, safe, and reliable while also providing improvements to the UMaine steam and electrical distribution infrastructure.

UM Office of Sustainability

UM Office of Sustainability web page; https://umaine.edu/sustainability/

Timeline of key UMaine Sustainability events

2012

President Ferguson elected to serve on ACUPCC Steering Committee
Terrell House Permaculture Living and Learning Center established
Princeton Review Green Honor Roll
Offshore Wind Laboratory awarded LEED Gold
New 60,000 lb/hr boiler completes 100% natural gas conversion at Central Steam Plant
UMaine Dining composts 202 metric tonnes of food waste
UMaine Greens grows "local" food on campus

2013

UMaine receives EPA Environmental Merit Award in partnership with Second Nature
UMaine Dining composts 156 metric tonnes of food waste
UMaine joins the EPA Food Recovery Challenge
UMaine Dining diverts approximately 97% of its food waste from landfills
Umaine Dining sources 17% of food locally
UMaine diverted approximately 1077 Tons of waste from landfills/incinerators

2014

President's Council on Sustainability holds inaugural meeting
UMaine initiates Zero-Waste protocol at large campus events
UMaine joins EPA Waste Wise
President Ferguson elected to Vice Chair of the ACUPCC Steering Committee
Featured in Princeton Review's Green Colleges Guide

2015

University of Maine System Board of Trustees votes to divest endowment from coal
UMaine achieves 2nd Community Engagement Classification from the Carnegie Foundation
Faculty Senate and Student Government vote to support full divestment from fossil fuels within 5 years
UMaine recognized by EPA for its success in keeping food waste out of landfills
First Level-2 electric vehicle charging station installed

2016

Spire: The Maine Journal of Conservation and Sustainability, co-founded
Installed two Level-2 electric vehicle charging stations for student use.
2016 President's Campus Leadership Award presented to the UMaine Green Team at the State House in Augusta, Maine
Maine Day 2016 was a successful Zero-Waste event
Zero-Sort Recycling and Composting introduced at UMaine Football games.

2017

UMaine Unplugged: Dorm Energy Saving Challenge.
Maine's public universities have achieved a ten-year, 34% reduction in carbon emissions.
Environmental, Social, & Governance (ESG) principles are now taken under consideration when completing asset allocation and investment manager reviews in the Managed Investment Pool.