Introduction and Overview of Campus Capital Plan

This document provides an update to the most recent Capital Plan for UMass Lowell for approval by the Board of Trustees for FY2015-2019. It reflects the priorities outlined in the UMass Lowell 2020 Strategic Plan. UMass Lowell’s success in executing its Capital Plan will determine how successful it will be in meeting the ambitious goal of achieving national and international recognition as a world-class institution over the next decade.

Many of our anticipated capital expenditures impact on a number and variety of our academic, research, student life, athletic, recreational and outreach programs and partnerships. If we are to achieve our goals and aspirations, we must concurrently reduce our backlog of critical maintenance and our energy consumption while we create additional modern academic and research spaces, increase residential capacity, renew our existing buildings, develop new recreational opportunities, and add to our capacity to host a broad range of meetings and events – academic, entertainment and civic.

The Lowell campus consists of 3 major locations: North, South and East. The North and South campuses are primarily academic buildings with some residence halls and tightly constrained playing fields; the East campus is the location of the majority of our residence hall, the primary dining facility and a very popular Recreation Center. East also houses the Wannalancit facility, Lelacheur Baseball Park and is a short walk to the Tsongas Center. Each of the campuses is densely developed and bounded by fully developed residential and business properties. The recently opened University Crossing includes the majority of student focused services is centrally located among all three campuses.

The campus continues to partner with the University of Massachusetts Building Authority and DCAMM to plan, finance and implement our ambitious capital program. The partnership with DCAMM has resulted in a series of “rolling” capital plans for North and South campuses. These plans recognize our significant enrollment and research growth trends as well as projected future growth in academic programs, sponsored activity and enrollments.

Enrollments grew more than 49% between 2007 and 2014 and are projected to grow nearly 4% per year through Fall 2018. UMass Lowell is expanding out-of-state and international enrollments, Master’s and on-line enrollments and most significantly, it is expanding its overall “market share” of Massachusetts’ undergraduate students. This growth has not come at the expense of selectivity, quality or diversity. Sponsored research funding has increased 75%. The campus facilities master plans will address the pressures of current and future growth including demand for new academic programs and residential and recreational facilities and the continued need to renew facilities with systems that show signs of obsolescence and address the backlog of deferred maintenance.

In February 2013, UMass Lowell joined NCAA Division I Athletics, which aligned the University with academic peer institutions. While UMass Lowell already has a state-of-the-art sports arena (Tsongas Center), the move to Division I will require the University to add basketball capability to the sports arena, to make improvements to the North Campus Costello facility, and to institute the use of artificial turf for field hockey and Lacrosse.
Master Planning:

In cooperation with DCAMM, the master plan for North Campus Science & Engineering facilities was completed in 2010-2011. The recommendations focus on four initiatives, which are included in our capital plan. The projects include major renewal of Engineering, Olsen, Olney buildings, and similar renewals in the North Campus Quad. The positive space and programmatic impact of the pending new Pulichino Tong School of Business building is being coordinated as part of the North campus planning process. Additional renewals for Pinanski and Ball, and replacement of the Ames building are needed and are anticipated for funding toward the end of the planning period.

The South Master plan includes a space renewal and reassignment plan, with accompanying individual capital projects for implementation as the buildings empty out. These include McGauvran, Mahoney, South Dining, Dugan, and parts of O’Leary and Weed. The plan academically organizes the campus and addresses both additional programmatic space needs and critical maintenance priorities. Expanding and renovating Coburn Hall and a new academic building are part of this plan as well. This planning effort is a follow-on to the previous DCAM-funded overall plan, and the Science & Engineering plan for North Campus. Implementation of this plan will allow the campus to maximize and extend the value of investments in previous projects, and address the needs of these growing schools. Both schools actively support the university’s growing research and economic development agenda, through both direct research and their vital role in the overall curriculum.

Project Status from FY2014 Plan:

The following projects on the FY2014-2018 Capital Plan are complete and have been removed from the FY2015-2019 plan:

- University Suites residential hall opened in Fall of 2013.
- University Crossing opened in Fall of 2014.
- South Campus parking garage opened in Summer of 2013.
- The Saab-ETIC building opened in Fall 2012 and is in use. The 3rd and 4th floor fit-outs for the MLSC-funded Pharmacy program and the Raytheon-supported partnership were completed in October 2014.
- The Leitch & Bourgeois Residence Hall renovations were completed for Fall 2014.
- The Civic and Athletics facilities improvement program included renovations to the Tsongas Center as well as upgrades to athletic fields for field hockey and soccer. Future improvements to the Tsongas Center and other campus athletic and recreational facilities are included in new project proposals.
- The multi-year plan to renovate the Wannalancit Business Center facility is complete as a stand-alone project. There remain a number of deferred maintenance projects that will be addressed as part of the larger campus effort to address the backlog.

FY15 – FY19 Planning Needs and Priorities

The following New Projects are being proposed for addition to the FY2015-2019 plan:
• **Priority #10: School of Pharmacy Capital Program:** $8.5M. The new School of Pharmacy at UML has been in planning for some time, and is now actively seeking faculty and students to begin classes in Fall 2017. The school includes two major programs – Doctor of Pharmacy (Pharm.D) and Doctor in Pharmaceutical Sciences. These programs require a variety of specialized lab spaces, faculty, program and doctoral student office space, and classrooms. Some of the specialized laboratory spaces are already in process. On South campus, the Human Assessment lab is underway, located near the Health Sciences living community; the third floor of the ETIC building on North Campus provides a core location for the Pharmacy Science program laboratories. The requested renovation funds allow conversion of existing laboratory spaces in Weed Hall to the additional needs of the Pharmacy program, including compounding lab instruction; a model pharmacy lab/ dispensing lab at Dugan Hall; additional pharmacy lab renovations in Weed and on North Campus to support both Pharmacy and Pharmaceutical Sciences; offices for the Pharmacy program at Dugan Hall, and for the Pharmacy Sciences faculty and doctoral students on North campus. The classroom activities are expected to be provided through the Registrar’s pool of classrooms, which awaits improvement via the renovation of Coburn Hall.

• **Priority #13: North Quad Renewal – Future Phases:** $29 million. This project will address mechanical, electrical and plumbing (MEP) infrastructure and distribution systems as well as upgrades to building envelopes. Future phases are building off of the Phase 1 work underway in Priority #5.

• **Priority #14: North Campus Sector Plan Academic Renewal:** $45 million. DCAMM and the campus will be finished with the North Campus Sector Plan in 2015. Initially funds will support enabling projects of various kinds on the North Campus including: infrastructure, code, and utility items between buildings and site and greenspace improvements not included in the scope of individual academic renewal projects. The individual academic renewal projects will address space and backfill needs created by the opening of the PTB and other projects. In total more than 233,000 square feet of space are included in the North Campus Sector Plan and can be addressed one floor at a time depending on funding.

• **Priority #16: Athletic (D1) and Recreational Facilities:** $70 million. The Lowell campus’s growth in undergraduate enrollments, and expansion to Division 1 athletics, create pressing need for additional facilities to serve both the recreational and intramural needs of the primarily residential student population, and the requirements associated with Division 1 athletics. Existing indoor recreational facilities are sized for a population of about 5800 undergraduates – a number exceeded by UML several years ago, and not including D1 space. Further planning is needed to refine the demand, and the best means to support it, however work to date makes clear the need for both programs. The $70,000,000 requested here is intended to address significant initial improvement phases for both Athletic and Recreational use.

Recreational Facilities: National guidelines indicate that UML should be providing about 132,000 gross sq. ft. of indoor space for the undergraduate student population existing and expected during this capital planning period. The existing Campus Recreational Center meets 69,000 gross square feet (gsf) of this need, resulting in a shortfall of about
63,000 gsf, not including additional need for outdoor playing fields and improved aquatic facilities. Early actions to begin addressing the need include a possible addition to the existing Campus Recreation Center – which could be fully addressed within this requested amount.

Division 1 support: Division 1 athletics require facility reinvestment in addition to the Tsongas and new practice facility. The existing Costello Gymnasium was studied as a possible location for this supplemental space. This 95,000 gsf building, built in 1967, can be renewed to serve D1 needs. Feasibility studies would certainly also review whether a new facility would provide a suitable alternative.

**NOTE: Priority #11: Tsongas Center Expansion: $35 million.** This project received first approval by the Trustees in September 2014. The 50,000 square foot structure will fulfill the original vision of the Tsongas Center, housing ice hockey and basketball practice facilities that will enable the University to maximize the utility of the Tsongas Center. The expansion will help meet the NCAA’s facility standards for Division 1 programs as well as facility provisions of the University’s agreement for membership in the America East Conference. The additional space will enable more ticketed games, conferences, expos and events to be held at the Tsongas Center, driving revenue for the University and bolstering the development potential of the adjacent UMBA-owned Lots B, C, and D. Developing this facility on the Tsongas Center grounds, as originally envisioned when the then-Tsongas Arena was constructed, will remove practices and similar low-spectator uses from the main venue and expand the number of events and ticketed activities in the arena. The expansion will create efficiencies and adjacencies between the competition and practice venues for the 3 athletic teams: men’s basketball, women’s basketball, and hockey. The facility is necessary for the full implementation of Division 1 athletic program requirements for Basketball and Hockey.

The following previously approved projects have been combined at no additional cost:

- **Priority #1:** Combine Pulichino/Tong School of Business Building ($35M) & Lydon Library Renovations ($10M), total $45M
- **Priority #2:** Combine McGauvran Dining Conversion ($30M) with a portion of the South Campus Master Plan ($5M), total $35M

The following previously approved projects have changes in TPC greater than +/-10%:

- **Priority #5:** North Quad Renewal (Phase 1 PODS). Prior approval, $31.5M. Current estimate based on scope is $18.0M.
- **Priority #7:** Property Acquisitions, $25M. Prior approval, $15M. Request is for $25M based on current campus acquisition plan reviewed with President’s Office and UMBA.
- **Priority #8:** Technology Infrastructure, $18.5M. Prior approval, $15M. Request is for $18.5M based on current technology infrastructure plan to replace, enhance and
expand the campus network and wireless infrastructure, the telephone system, classroom technology and major campus software systems.

- **Priority #9: Energy & Powerplant Improvements including DCAMM AEP, $26M.** Prior capital plan approval, $40M. Significant progress has been made to date, including completion of improvements to the North Campus Powerplant. Remaining $26M project represents the DCAMM managed Accelerated Energy Program (AEP).

- **Priority #15: South Campus Master Plan, Landscaping and Infrastructure Improvements, $14M.** Prior approval, $20M. $5M reallocated to McGauvran project, Priority #2.

- **Priority #17: Coburn Hall Renewal & Addition, $65M.** Prior approval, $57M. Increase based on current estimate of cost escalation.

**Deferred Maintenance**

The Lowell campus is in worse physical condition than peer campuses, perhaps due to a history of lower than usual long-term reinvestment and the relative age of our facilities.

During 2010 and 2011, the campus completed a comprehensive facility condition assessment. The assessment reviewed each of our buildings and provided overall project costs for systems and prioritized needs for all facilities. The report indicated at that time that the campus deferred maintenance (DM) requirement was for approximately $565 million. Recent reviews and updates by Sightlines, LLC. has estimated the total backlog at approximately $701 million when taking into consideration both the hard and soft costs of renovation and construction projects.

This $701M “Asset Reinvestment Backlog” of includes projects that represent the most critical deferred maintenance needs; life cycle projects for systems that will be coming due in the next decade across 6 major systems (Exteriors, Roof, Interior, HVAC, Plumbing, Electrical); and additional building needs including modernization and safety/code as well as needs outside of the buildings such as grounds and utility distribution infrastructure. Other than the critical projects that should be addressed soon, Sightlines assumes a ten year program to bring down the backlog.

The campus has incorporated these needs into the capital plan, and is addressing them through a variety of means and funding sources. Progress on the capital plan as currently proposed and planned can result in DM reductions in excess of the 10% target set by the President’s Office. This is due in part to capital projects already planned, demolition, energy conservation projects and planned comprehensive renewals which incorporate the DM items.

The campus, through an “annual call” process, identifies and prioritizes smaller maintenance and repair, renewal and renovation projects into the following program categories:

- **On-going Academic Modernization including Relocations:** targets immediate needs of academic areas including renewal associated with space reallocation due to new facilities coming on-line and those planned for North and South campuses.
University of Massachusetts  
Fiscal Year 2015 – 2019 Capital Plan  
December 2014

- Capital renewal/Deferred maintenance/Compliance: targets various projects designed to cut into the backlog identified in the facility conditions assessment.
- Residential Hall Comprehensive Renewal Program: projects that will reduce the deferred maintenance backlog in the residential housing area.
- Other program areas include: Athletics & Recreational spaces, Information Technology, and Parking and Transportation.

These deferred maintenance projects are to be funded through a combination of state deferred maintenance funds, campus budgeted general operating and auxiliary services funds, accumulated fund balances and limited borrowed funds.

Information Technology

UMass Lowell IT is in the third year of a multi-year series of projects to fit the campus technology platform to meet expanding needs. Gaps in wireless access, network throughput, and core infrastructure necessitated this capital investment. Our remediation effort started in FY2013 with the design and installation of a new campus fiber network backbone. In FY2014, improvements to campus wireless began as did the development of an RFP to secure the next generation network for UMass Lowell.

At this time, the UMass Lowell IT team has identified its network direction and will begin installing the higher-capacity campus network in late 2014. This three-year effort will result in an infrastructure capable of meeting the high-bandwidth demands from any corner of the campus, and from any mode; connected or wireless.

Rounding out the IT Capital Plan is a new telephony platform (FY206-17), periodic refreshes of classroom technology, and investments in campus software, examples being; virtual terminals, CRM software, and faculty collaboration. Lastly, the UMass Lowell IT Capital Plan recognizes that spend on core network and wireless technologies are perpetual, requiring a regular investment to meet changing requirements.

Housing Strategy

UMass Lowell has set enrollment goals of 20,000 total students, including 12,000 undergraduate students by 2018. The table below illustrates progress toward this vision as well as the growth required in the coming years to achieve it. Note that the projected growth rates are below the annual rates of growth in recent years.

A related UMass Lowell goal is to continue to increase the residential character of the campus. Presently, UMass Lowell has achieved Carnegie Foundation classification as a “Large Primarily Residential Campus” with approximately 44% of full-time undergraduates living in campus housing, a significant increase from 29% less than a decade ago. Sustaining and continuing to increase the on-campus population is an important component of the transition of UMass Lowell from its prior identity as a commuter campus into a top tier research university with a residential undergraduate program. Student housing has been a consistent predictor of academic success, with students residing in campus housing significantly out-performing their peers who live in private off-campus housing or attend as commuters. On-campus housing also plays a key role in protecting student safety.
Achieving this goal alongside the projected enrollment growth will require the expansion and growth of additional collaborations between academic programs and residence life, potential policy changes related to housing requirements for freshmen, continued renovations to improve aging housing stock to meet current student expectations, and careful study of pricing to align with market conditions.

The campus’s housing objectives will also require the continued expansion of residence hall beds on campus. For Fall 2014, UMass Lowell is housing approximately 4,000 students in residence halls, including several off-campus properties under short-term leases and a 186-bed obsolete dormitory that is slated for demolition in the campus’s master plan. An addition to Riverview Suites which will add 304 beds to the inventory under long-term lease is currently under construction and will be ready for occupancy in Fall 2015. UMass Lowell is also actively working to add 600-700 beds to its inventory over the next three years through planned projects. As the table below illustrates, coupled with continued occupancy management strategies and selective short-term leases to respond to year to year shifts in demand, the campus is well-positioned to meet its projected Fall 2018 housing demand at the current rate of housing demand. However, increasing the demand rate significantly will require the construction or acquisition of additional beds.

![UMass Lowell Fall 2018 Housing Supply and Demand](image)

In its housing planning, the University has studied several options for the creation of new housing. Consideration has been given to several sites for potential new construction as well as a number of potential acquisitions. Even assuming a fair amount of renovation and retrofitting cost to convert existing apartments to student residences, there is likely to be a 10-40% savings in the cost per bed if existing apartment buildings are acquired relative to new construction. This Capital Plan includes funding to complete the following projects in support of this housing strategy:

- Complete the expansion of Riverview Suites;
- Bond funding through UMBA to finance planned new housing initiatives that will yield 600-700 beds of new campus housing over the next three years;
• Decommission the now obsolete Concordia Hall;
• Bond funding through UMBA to fund the rehabilitation of several older dormitory buildings to bring them up to current standards and market expectations.
• Begin planning and study for potential additional new housing acquisition or construction.

**Financial Planning**

This capital plan depends on funding from the state, private donors, granting agencies and debt supported by user fees, student charges and campus operating funds. The overall five-year plan is aggressive due to the investment needs and program emerging from the DCAMM Science & Engineering and South Campus master plans and the deferred maintenance needs identified by the ISES and Sightline reports.

**State Funds**

The state is a critical partner in the success of our capital plan and by extension the realization of our strategic goal to achieve national and international recognition as a world-class institution over the next decade.

The University has secured state support for the following projects over the next five years: new Pulichino/Tong School of Business building ($25M); the Science & Engineering renewal and renovation program for Engineering (Perry Hall) ($20M), Olsen ($25M), Coburn Hall renewal and Addition ($19M) and $5M in support of the Accelerated Energy Program. In addition, a recent state capital bond bill included funds that would add $16M and $15M to the Perry Hall and Olsen Hall projects, respectively as well as provide $30M for the Tsongas Center Extension. The campus is working with the President’s Office, DCAMM and the Administration to program these funds into the state capital plan.

New projects that are emerging from the North and South Campus master plans include the need for new Academic Buildings on both campuses to support the growth in enrollments and to provide additional classroom space. The South campus building was added to the FY13 plan and is estimated at $114M. Last year we added a $100M building for North campus for the FY19 to FY23 time period as well as a number of new renewal projects that would begin later in this planning period or during the beginning of the next five-year plan (FY20-24). These projects include renovations and renewal of Ball, Pinanski and a second phase for Olney Hall renovations on North; Weed Hall, O’Leary Library and Durgin Hall on South as well as improvements to the Power Plant and an addition for central campus services on South. We include these projects at this time for consideration since a new Higher Education Bond Bill is required.

**Campus Debt**

The campus has identified over $235 million of projects that can be funded with debt. Currently the campus has approximately $20.9 million in funds already borrowed through UMBA and targeted toward projects on the capital plan. This leaves approximately $214 million of future borrowing over the next five years required to keep the capital plan moving forward. The campus currently has a relatively low debt to operations ratio of 5.9% projected for FY14 and the ratio with the new borrowing will not exceed the 8% policy threshold. However, the borrowing
program will increase our annual operating budget commitment to debt service that represents a significant reallocation of campus resources.

**Other:**
Through a public-private partnership, the university entered into an agreement with Soho Development in 2011 to build Riverview Suites, a 172,000 square foot apartment-style residential facility. The campus entered into a lease agreement with the developer. The project included a fitness center, classrooms and study and meeting space available to the entire campus community. An extension to the facility is currently underway and will add approximately 304 additional beds in suites as well as additional classrooms and program space for the Health Sciences.