



ORIGINAL



The Commonwealth of Massachusetts
Executive Office of Energy and Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Charles D. Baker
GOVERNOR

Karyn E. Polito
LIEUTENANT GOVERNOR

Matthew A. Beaton
SECRETARY

Tel: (617) 626-1000
Fax: (617) 626-1181
<http://www.mass.gov/envir>

February 10, 2017

**CERTIFICATE OF THE SECRETARY OF ENERGY AND ENVIRONMENTAL AFFAIRS
ON THE
NOTICE OF PROJECT CHANGE**

PROJECT NAME	: Strategic Development Plan 2016-2021
PROJECT MUNICIPALITY	: Lowell
PROJECT WATERSHED	: Merrimack River
EEA NUMBER	: 14881
PROJECT PROPONENT	: University of Massachusetts Lowell
DATE NOTICED IN MONITOR	: January 11, 2017

Pursuant to the Massachusetts Environmental Policy Act (M.G. L. c. 30, ss. 61-62I), Section 11.06 of the MEPA regulations (301 CMR 11.00) and the Special Review Procedure (SRP) established for the project, I hereby determine that the Strategic Development Plan 2016 to 2021 Projects **do not require** the preparation of an Environmental Impact Report (EIR).

Project Description

The Plan identifies improvements over a five-year planning horizon (2016-2021) at the University of Massachusetts Lowell Campus (UMass Lowell). Projects include building additions and renovations; site and landscaping improvements; and construction and improvements to campus facilities.

The Strategic Development Plan 2016-2021, included as part of the NPC, provides a description of the current conditions at UMass Lowell, the projects planned for the next five years, projected future conditions in 2021, the environmental effects of the planned projects, and the mitigation measures that UMass Lowell will employ to reduce traffic volumes, conserve water, manage stormwater, reduce the production of solid and hazardous wastes, reduce

greenhouse gas emission, and limit construction period impacts. The supplemental attachments accompanying the NPC include additional detail on traffic generation and distribution and greenhouse gas (GHG) emissions.

The NPC also describes all projects undertaken at UMass Lowell from 2011-2016. Projects include the following: Emerging Technologies and Innovation Center (ETIC), North Campus; North Parking Garage, North Campus; Manning School of Business, North Campus, University Suites Residence Hall, East Campus; University Crossing, East Campus; Health and Social Science Building (HSSB), South Campus; and the South Parking Garage, South Campus.

Project Background

In August 2011, UMass Lowell filed an Environmental Notification Form (ENF) for the North Campus Garage (EEA# 14777) that did not require the preparation of an EIR. That project, as described in the ENF, entailed the construction of a 650-space parking garage on UMass Lowell's North Campus. In accordance with the ENF Certificate issued on September 9, 2011, the University was directed to develop a Special Review Procedure (SRP) for any new projects at UMass Lowell. On March 23, 2012, the Secretary of EEA entered into a SRP with the Proponent to guide the environmental review of the UMass Lowell Master Plan/Strategic Development Plan under MEPA. In April 2012, UMass Lowell filed an ENF (EEA# 14881) for the South Campus Garage that did not require the preparation of an EIR.

Under the SRP in accordance with 301 CMR 11.05(7), UMass Lowell was required to present potential cumulative environmental impacts, analysis of alternatives, and appropriate mitigation measures for projects covered under its Master Plan for the five year period of 2011-2016 in an NPC. This analysis would include cumulative impacts of implementation of the Master Plan/Strategic Development Plan, including an evaluation of: new construction, including the South Campus Parking Structure (EEA# 14881); student housing; transportation; long-term parking needs; infrastructure impacts including stormwater, water, wastewater, energy, utilities, telecommunication, and technology; sustainability; stormwater management; water quality and groundwater; greenhouse gas emissions; construction-period impacts; and potential impacts to wetlands and historical and archeological resources, as applicable.

The 2011-2016 Strategic Development Plan was prepared to document the projects proposed at UMass Lowell between 2011 and 2016, to determine the cumulative environmental effects of those projects, and to adopt appropriate measures to avoid, minimize, and mitigate those effects. An NPC containing the 2011-2016 Strategic Development Plan was filed in August, 2012 and a Certificate required no further MEPA review on October 12, 2012. Every capital projects discussed in the 2011-2016 Strategic Development Plan was completed except the new Manning School of Business building, subsequently named the Pulichino Tong Business Center, which is currently under construction and on schedule to open in spring 2017

The review of capital plan projects at UMass Lowell is governed by a SRP that provides for a capital planning update (in the form of a NPC) every five years and for the filing of an ENF for any individual project that separately meets a MEPA review threshold. The current NPC's 2016-2021 Strategic Development Plan Update is the first required five-year update to the 2011-

2016 SDP. Since 2012, construction has proceeded on a number of projects, none of which individually met or exceeded MEPA review thresholds.

Environmental Impacts and Mitigation

UMass Lowell's North, South, and East Campuses currently occupy almost 135 acres of land, contain fifty-four buildings, and house 3.9 million gross square feet of built space. The project area will increase from approximately 135 to 140 acres. Due to the 2016-2021 Strategic Development Plan focus on infill development, only 1.15 new acres of impervious area will be created for a total of 80.4 acres. Overall campus square footage will increase by 0.5 million sf, for a campus total of 4.42 million sf and net parking spaces will increase by 453, for a campus total of 6,627 parking spaces. New traffic trips generated by the increased enrollment and staffing within the five-year planning horizon is estimated to be less than 2,200 new average daily trips (adt) for a total of 18,965 adt. Water use and wastewater generation are anticipated to increase by 6,000 gallons per day (GPD) and 5,000 GPD respectively, for total campus wastewater discharges and water demand of 220,000 GPD and 189,000 GPD respectively.

UMass Lowell will design projects to be consistent with UMass Lowell's Green Building Guidelines, the Campus Sustainability Initiative, the Climate Action Plan, meet or exceed Leadership in Energy and Environmental Design (LEED) Silver for all new construction, and comply with Executive Order No. 484 –Leading By Example.

Jurisdiction and Permitting

The implementation of the five-year development program is subject to MEPA review pursuant to Environmental Notification Form (ENF) threshold Section 11.03 (6)(b)(13) of the MEPA regulations because it is being undertaken by a State Agency and will generate 2,000 or more unadjusted new daily trips on roadways providing access to a single location. This project is also subject to MEPA review as modified by the SRP. The cumulative projects presented in the NPC do not collectively exceed any MEPA EIR thresholds. The Proponent states that the project will not require any Permits. The project will require review in accordance with Section 106 and Chapter 254 by the Massachusetts Historical Commission.

The project may require a National Pollutant Discharge Elimination System Construction General Permit (NPDES CGP) from the United States Environmental Protection Agency (U.S. EPA).

The project will be funded by the University of Massachusetts Building Authority (UMBA) bond proceeds and State bond funds authorized under Chapter 258 of the Acts of 2008 (the Higher Education Bond Bill). Because the project is being undertaken with State Financial Assistance, MEPA jurisdiction for this project is broad and extends to all aspects of the project that are likely, directly or indirectly, to cause Damage to the Environment as defined in the MEPA regulations.

Review of the NPC

The NPC consists of a Strategic Development Plan 2016-2021, supplemental information on the project and a NPC Form. Attachments contain details of the data sources and calculations used to fill out the NPC Form and a comparison of project metrics to MEPA thresholds.

Attachment D provides analysis of expected trip generation, future UMass Lowell traffic and the UMass Lowell Campus Transportation Plan, which identifies the level-of-service for the major intersections providing access to UMass Lowell and proposes a Transportation Demand Management program to offset the effects of growth in student population.

The NPC describes the need for growth of instructional and research space campus-wide which includes:

- UMass Lowell continues to see annual increases in applicants and has committed to a Strategic Plan to accommodate additional enrollment up to a total of 20,000 students by fall 2020;
- Research Growth requires larger and more complex facilities, particularly in the Sciences and Engineering, which must be consistently renewed to support rapid advances in these fields;
- UMass Lowell has transitioned from a predominantly commuter school to a residential campus in recent years; and,
- Changes in public expectations for higher education have stimulated demand for new academic programs.

The NPC provides information on potential projects which are designed to address growth at each of the three campuses:

North Campus

- Pulichino Tong Business Center – Complete construction and relocate the Manning School of Business into the new building, allowing back-fill of offices and classrooms by other academic departments.
- North Quad Pod –construction of the infrastructure, accessibility, and code compliance at the North Quad to enable efficient and cost effective use of the four-building complex.
- Perry Hall Renovation – Comprehensive renovation of the building for interdisciplinary Engineering laboratory uses, including restoration and completion of the fire-damaged fourth floor.
- Olsen Hall Renovation – Build infrastructure for new core research facilities and renovate academic space within Olsen Hall in the existing footprint to support Life Sciences.
- Centralized Services and Operations – Relocate remaining non-academic functions which do not need to be in close proximity to teaching and research facilities, from the North Campus to the new Central Services and Facilities Operations Buildings on Middlesex Street, allowing academic expansion within existing buildings.

- Sustainable Buildings – Address deferred maintenance and improve energy efficiency across building systems in conjunction with renovation projects to improve the comfort of occupants, reduce life-cycle costs, and enhance environmental sustainability.

South Campus

- Coburn Hall Renovation and Addition of approximately 20-30,000 sf – to accommodate academic objectives by addressing accessibility and code deficiencies and increasing program space through a renovation and addition project.
- South Campus Mall – Build on the newly-created South Campus Mall as an anchor for a traditional campus setting to support Humanities and Fine Arts programs in landscape enhancements to improve accessibility, stormwater management, and the overall character of the campus.
- Improve the connectivity between South Campus and the other UMass Lowell campuses.
- Centralized Services and Operations – Relocate remaining non-academic functions which do not need to be in close proximity to teaching and research facilities, from the South Campus to the new Central Services and Facilities Operations Buildings on Middlesex Street, allowing academic expansion within existing buildings.

East Campus

- UMass Lowell intends to continue to invest in East Campus as the primary location to support its emergence as a residential university.
- Recreation – Construction of new outdoor recreation resources at the 225 Aiken Street site.
- Fox Hall Elevator Addition – Add new elevators to Fox Hall to improve vertical circulation and meet code requirement in an 800-bed high-rise dormitory.
- Student Housing – Expand available on-campus student housing with minimal environmental impacts through strategic East Campus real estate acquisition.

I note that the NPC, based on the programming and conceptual location of the future Strategic Development Plan elements, provided a summary of “build-out” environmental impacts associated with fulfillment of the Strategic Development Plan. I acknowledge that for the benefit of the MEPA process and to inform State Agencies of potential future impacts, these estimates were conservative and are based on a “maximum potential impact” development scenario with regard to environmental impacts. UMass Lowell has stated, and the MEPA process will continue to require with subsequent filings, a goal to avoid, minimize and mitigate Damage to the Environment to the extent practicable as design advances with regard to Strategic Development Plan implementation.

UMass Lowell has indicated it will work collaboratively with the City of Lowell to ensure that each project is appropriately permitted, performance standards are met, and specific mitigation measures are identified. I strongly encourage UMass Lowell to meet with City of Lowell early and often in the design and construction process for each Strategic Development

Plan element to ensure that projects are reviewed and constructed in accordance with applicable laws and regulations.

The Strategic Development Plan process included an extensive review of alternatives for proposed projects. As such, and in accordance with the SRP, additional analyses of alternatives were not required in the NPC. The NPC included a summary of the planning process undertaken in the development of the Strategic Development Plan. According to the NPC, the Strategic Development Plan process involved extensive community engagement that included involvement with multiple stakeholders within the University leadership and community, the City of Lowell and numerous other interested parties. Principles outlined in the Strategic Development Plan include:

- Understanding long-term growth potential;
- Build a series of systems as the framework for growth;
- Create a clear vehicular and pedestrian circulation system;
- Create growth opportunities and flexibility for the future;
- Respect the planning and building heritage;
- Sustainability; and
- Embrace community connectivity.

Land

Construction of all the Strategic Development Plan elements will result in the addition of approximately 4.43 acres for a total of 139.39 acres of land and creation of 1.15 acres of net new impervious area. Impacts to land will be avoided, minimized and mitigated through a focus on in-fill development on the main campus and renovation of existing buildings. In many instances, new development will be sited in areas presently occupied by paved parking or a building proposed for demolition. The Strategic Development Plan is not expected to require extensive amounts of land grading or excavation activities, and in some instances, projects will be integrated into the existing topography.

The NPC indicates that in November 2015, the University began developing the *South Campus Landscape Master Plan* to study and enhance open spaces on South Campus. The goal of the Plan is to meet or exceed the University's sustainability goals by promoting sustainable transportation, accommodating green infrastructure, and implementing standards for maintenance goals for campus open space. As a result of this plan the University will develop similar plans and establish new standards for sustainable landscape design that will be applied across all campuses. The demolition of the South Campus Dining building and construction of the South Campus Mall in spring 2016 was the first-phase implementation of the landscape master plan. The mall replaces a building and its surrounding paved areas with a sizable green space.

Traffic and Transportation

The NPC included an analysis of existing and projected traffic conditions and proposed mitigation measures to address future operational deficiencies within the University and local

roadway network. Existing conditions data included an inventory of roadway and intersection geometry (including existing traffic control), a collection of daily and peak period traffic volumes, a University decal survey, and an examination of crash data. To project future traffic volumes on the roadway network associated with the Strategic Development Plan (i.e., associated increases in enrollment, faculty, and staff), the University conducted a survey using parking decals to determine what share of traffic is related to UMass Lowell. The NPC also projected increases in traffic associated with the growth of UMass Lowell in the 2016-2021 period using trip generation rates from the Institute of Transportation Engineers (ITE) Trip Generation Manual. Trip distribution within and through campus were adjusted to reflect changes in surface parking.

Using ITE data, the implementation of the five-year development program is projected to generate 2,200 new vehicle trips per day. The NPC included ITE trip generation estimates using both employees and students as variables. For this particular Land Use Code, the ITE Trip Generation Manual recommends the use of students as a more reliable variable for trip generation calculations. The University will implement a Transportation Demand Management (TDM) program as part of its Campus Transportation Plan, which will include a range of measures to reduce vehicle trips.

Transit

UMass Lowell operates a day, evening, and weekend shuttle system (UMass Lowell Riverhawk Roadster) to serve campus and community destinations. This is a significant investment which benefits the entire University community. UMass Lowell works with the Lowell Regional Transit Authority (LRTA) to extend public transit access to regional bus service and the MBTA commuter rail network at the Charles A. Gallagher Transit Terminal. The NPC indicates that UMass Lowell will continue to consult with LRTA regarding opportunities for collaboration.

Ridership for the shuttle system has more than doubled since 2011, averaging 7,500 on typical school days and reaching as high as 8,400 on peak class days. The University has been conducting usage tracking and customer surveys and adjusting bus frequency and routes to improve the system efficiency. Ridership will continue to be monitored over the next five years.

Bus routes in both systems remain limited by weight restrictions on deteriorating canal bridges around Lowell. Full-size buses must use detours, adding travel time, emissions, and cost. One closed bridge, the Broadway Street Bridge over Pawtucket Canal, is currently being replaced. Transit access will be greatly improved to and from South Campus when the new bridge reopens in 2017.

Bicycle and Pedestrians

The Strategic Development Plan emphasizes pedestrian needs and accommodations and the importance of eliminating conflicts with other modes of transportation to improve pedestrian safety. Proposed site and landscape improvements in the Strategic Development Plan include new pedestrian connections through campus, complete street roadway upgrades, improved

compliance with the Americans with Disabilities Act (ADA) for sidewalk ramps and grades and crosswalk signage and pavement markings consistent with the Manual on Uniform Traffic Control Devices (MUTCD).

The NPC identified the existing off-campus bicycle networks that connect the campus to the City of Lowell and beyond. UMass Lowell continues to work with the City of Lowell to improve bicycling and pedestrian connections between the three campuses to promote sustainable and healthy modes of transportation. A system of on-street bike lanes, shared bike routes, and off-street multi-use trails link the three campuses, as well as Downtown Lowell, the ICC, and the Kennedy Bus Transfer Center and MBTA Lowell Commuter Rail Station at the Gallagher Transit Terminal. During the past five years, the City of Lowell has improved bicycling facilities, installing new dedicated and shared bike lanes on the streets across the city and around the campuses.

The bike and pedestrian link from East Campus is connected to Downtown Lowell and offers multiple routes between destinations (i.e. Father Morissette Boulevard and a section of Merrimack Street are equipped with dedicated bike lanes). The only bicycle and pedestrian connection between South Campus and the other campuses is through the Pawtucket Street Corridor. The closure of the Broadway Street Bridge eliminated the only other route across the Pawtucket Canal.

In addition to working with the City of Lowell and other partners to improve bicycling and walking routes on surrounding City streets, the NPC notes that the University also invests in sustainable transportation facilities on the University campus, including a well-distributed system of bike racks, electric vehicle (EV) charging stations, and dedicated parking spaces for carpool vehicles. The University also operates a campus bike share program called FreeWheelers, which is available to all UMass Lowell students, faculty, and staff members, as well as sponsoring Cambridge-based Zipcar to provide discounted car sharing program to University's affiliates. Zipcar locations are available at the parking garages on each campus.

Parking

The UMass Lowell campus has approximately 6,174 parking spaces. Over the past five years, the University added two parking garages, expanded two parking lots adjacent to the University Crossing, and expanded another parking lot along Wilder Street on South Campus. These projects greatly increased the University's owned parking supply. As a result, the University ended a major remote parking program (a leased parking lot two miles away from campus with free shuttle service) in 2012 and no longer uses the softball field and lawn area on South Campus as an overflow lot, restoring these areas to their original purposes. In addition, the University also leases 727 parking spaces from private parties and the City of Lowell. The NPC proposes to create 453 new parking spaces by 2021.

As noted above, UMass Lowell implements a series of programs and improvements that reduce single occupancy vehicle (SOV) trips and the campus benefits from strong integration into the regional public transportation system and a robust on-campus shuttle system. The proposed improvements to bicycle accommodations are also anticipated to encourage bicycle use

to and within campus. UMass Lowell has a parking rate structure that incentivizes use of alternative modes of transit and discourages vehicular use in the campus core. I encourage the University to continue to explore ways to encourage and incentivize alternative modes of transit use by faculty, students, and staff as the 2016-2021 Strategic Development Plan is implemented.

Water and Wastewater

The NPC includes a discussion of existing and proposed conditions associated with wastewater flows and infrastructure. The NPC states that the development program will generate an additional 5,000 gallons per day (GPD) on average of wastewater and a daily peak of 6,000 GPD. These estimates are based upon water meter readings for 2016 with consideration for the future anticipated uses.

The University's sanitary wastewater flows to Lowell City Wastewater Utility's (LRWWU) Duck Islands Waste Water Treatment Plant downriver from the University. LRWWU does not track the University's wastewater flow. The NPC estimates 193,000 GPD of sanitary wastewater in 2016 based on standard wastewater flow assumptions (90% of water use).

Water use is anticipated to increase by 6,000 GPD for a total campus water demand of 220,000 GPD. UMass Lowell relies on the municipal Lowell Regional Water Utility (LRWU) for water supply. Based on LRWU water meter readings, the University used 214,000 GPD of water in 2016. The LRWU sources and treats water from the Merrimack River.

Stormwater

The NPC provides information on the existing and proposed conditions of stormwater drainage infrastructure on the three campuses. Since adopting its 2009 Stormwater Management Program (attached in Appendix C of the NPC), UMass Lowell has made investments to implement the plan across the three campuses, including stormwater drainage and catch basin upgrades, storm-sewer separation projects, underground tank removals, impervious surface reduction, public awareness and education programs on stormwater runoff and water pollution, and an ongoing outfall screenings and catchment investigations.

The NPC does not address how future projects for 2016-2021 will comply with the Stormwater Management Regulations, including the ten standards for stormwater quality and quantity control. Compliance must be achieved via the implementation of Best Management Practices (BMPs) identified in the MassDEP Stormwater Handbook.

I note that stormwater from the project site ultimately discharges to the Merrimack River, which is among the waterbodies subject to total maximum daily loads (TMDLs). Therefore, to the extent practicable, stormwater BMPs for this project should be designed to control pathogens, which are sources of impairment in the river.

The Proponent should consult with MassDEP to provide stormwater management plans and detailed information on the BMP designs so that MassDEP may assess whether the stormwater management system would be consistent with the total maximum daily loads

established for the Merrimack River. Consideration also should be given to utilizing BMPs that control other impairments identified in the Integrated List of Waters for which TMDLs have not been prepared, including mercury and phosphorus.

I anticipate that, consistent with sustainability goals set by the University, each project will be designed in a manner that further reduces stormwater flows and improves runoff water quality. I encourage UMass Lowell to continue to look at stormwater management infrastructure from a comprehensive perspective when determining the layout of future buildings, impervious pathways and roadways, and parking. UMass Lowell should continue to explore Low Impact Development (LID) options, green roofs, use of existing natural drainage patterns, recharge of clean roof runoff to groundwater, and pervious pavement during the design of building sites and roadway improvements.

Greenhouse Gas Emissions

The NPC provides an overview of the UMass Lowell Climate Action Plan. UMass Lowell follows the GHG Protocol of the World Business Council for Sustainable Development and the World Resources Institute to calculate GHG emissions and establish its *CAP* milestones and interim goals toward carbon neutrality.

The long-term goal under the Climate Action Plan (CAP) is to become carbon neutral. The criteria for achieving each phase milestone, including the Goal Net GHG Emissions, are set out in the CAP in 2012, which uses a Business-As-Usual GHG emission projection as the baseline. The GHG emissions as measured under the scope performance measurement basis are known as normalized GHG emissions.

UMass Lowell achieved the Phase 1 milestone in 2015, five years ahead of schedule. The downward trend in normalized GHG emissions was primarily driven by boiler conversion to burn natural gas instead of oil, implementation of comprehensive TDM strategy, and energy efficiency upgrades on buildings across the campus.

The NPC also described renewable energy projects. As of 2016, UMass Lowell has installed four arrays of photovoltaic (PV) solar panels on building rooftops, with a generation capacity of 246 kW: Bourgeois Hall – 46 kW; Costello Athletic Center – 71 kW; Dugan Hall – 83 kW; and, Leitch Hall – 46 kW. Ball Hall also has an array of photovoltaic solar panels (13.1 Kw) and wind turbines (4.7 kW) used for research and academic purposes. Additional solar panels are being installed as part of the Accelerated Energy Project (AEP) and other construction projects. The most significant of these will be a 200 kW DC array on the roof of the South Campus Garage.

The NPC includes information about the Accelerated Energy Program (AEP), launched in 2012, with the goal of retrofitting over 700 Commonwealth facilities to improve energy efficiency. As one of the largest participants in this program, UMass Lowell, with financing assistance from the Commonwealth, is investing a total of \$27 million in a design-build contract to upgrade lighting, mechanical control systems, plumbing fixtures, HVAC equipment, building envelopes, and laboratory exhaust hoods, as well as the installation of a solar thermal domestic

water heating system at the ICC and parking canopy solar photovoltaic panels at the South Campus Garage. The AEP, involving 32 campus buildings, 106 energy conservation measures, and over 6,700 pieces of equipment, is anticipated to be completed in late 2017. It will generate \$1.2 million of annual energy savings and address over \$10 million in deferred maintenance. It is estimated that the project will reduce annual campus utilities usage by 6 million kWh of electricity, 500,000 therms of gas, and 2.5 million gallons of water, while reducing the University's carbon footprint by approximately 5,070 MT CO₂e/yr.

I encourage UMass Lowell to continue to explore and incorporate to the extent feasible additional energy efficiency measures to establish and showcase a new standard in State facility high performance building design.

Historical and Archaeological Resources

The Strategic Development Plan summarizes the proposed creation of the Pawtucket Street Riverfront Park. The creation of this park would necessitate the demolition of 193 Pawtucket Street (LOW.1977) and 199 Pawtucket Street (LOW.1978). Both are listed in the National and State Registers of Historic Places as contributing elements of the Lowell National Historical Park. Both 193 Pawtucket Street and 199 Pawtucket Street are also located within the Downtown Lowell Historic District, which is listed in the State Register of Historic Places.

According to the Massachusetts Historical Commission (MHC) demolition of 193 Pawtucket Street and 199 Pawtucket Street would constitute an "adverse effect" (950 CMR 71.05(a)) through the destruction or alteration of all or part of a State Register property. The MHC recommends that UMass Lowell explore alternatives that would eliminate, minimize or mitigate the adverse effect of the proposed demolition. UMass Lowell will address historic impacts and mitigation with MHC through its historic review process.

Construction Period Impacts

The NPC described construction period mitigation measures to limit the potential air quality, noise, earthwork, wetlands, stormwater, construction traffic and solid waste impacts. The project must comply with the Solid Waste and Air Pollution Control regulations, pursuant to M.G.L. c.40, s.54. UMass Lowell should prepare a Construction Management Plan (CMP) for each individual project to communicate construction-related information to the campus and surrounding neighborhoods and community-at-large. It should address installation of signage, perimeter protection and public safety measures, plans to control construction-related air quality and noise, construction staging and traffic impacts, stormwater management and handling of construction waste, and measures to limit vibration, and facilitate snow removal. I encourage UMass Lowell to mitigate the construction period impacts of diesel emissions to the maximum extent feasible. This mitigation may be achieved through the installation of after-engine emission controls such as diesel oxidation catalysts (DOCs) or diesel particulate filters (DPFs) and use of contractors familiar with the MassDEP's Clean Construction Equipment Initiative.

UMass Lowell should prepare and implement a Construction Waste Management (CWM) Plan for each component of construction. Materials to be salvaged, recycled, and

disposed should be identified, along with methods to facilitate and promote salvage and recycling over disposal. It should identify potential reuse applications for asphalt, brick or concrete (ABC) to limit disposal at approved facilities. I encourage the Proponent to set salvage and recycling goals to gauge overall success of waste diversion.

The project will require the preparation of a Stormwater Pollution Prevention Plan (SWPPP) in accordance with the NPDES CGP. Erosion and sedimentation controls should be implemented throughout the project site to reduce potential impact to wetland resource areas. UMass Lowell should support compliance with anti-idling regulations during the construction period through the installation of on-site signage and contractor education. All construction activities should be undertaken in compliance with the conditions of all State and local permits (as applicable).

Conclusion

The NPC has sufficiently defined the nature and general elements of the project for the purposes of MEPA review and demonstrated that the project's environmental impacts will be avoided, minimized and/or mitigated to the extent practicable. Based on review of the NPC and comments received, and in consultation with State Agencies, I have determined that no further MEPA review is required.



February 10, 2017

Date

Matthew A. Beaton

Comments received:

- 01/31/2017 Massachusetts Department of Environmental Protection – NERO
- 01/31/2017 Massachusetts Historical Commission
- 02/03/2017 Northern Middlesex Council of Governments

MAB/ACC/acc



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

Charles D. Baker
Governor

Matthew A. Beaton
Secretary

Karyn E. Polito
Lieutenant Governor

Martin Suuberg
Commissioner

January 31, 2017

Matthew A. Beaton, Secretary
Executive Office of
Energy & Environmental Affairs
100 Cambridge Street
Boston MA, 02114

RE: Lowell
UMass Lowell Strategic
Development Plan 2016-2021
One University Avenue
EEA # 14881

Attn: MEPA Unit

Dear Secretary Beaton:

The Department of Environmental Protection Northeast Regional Office (MassDEP, NERO) has reviewed the Notice of Project Change (NPC) submitted by UMass Lowell for the capital projects proposed, which will expand the size of the university campus from 3.4 million to 4.1 million square feet on 134.98 acres in Lowell (EEA# 14881). The following is the MassDEP NERO comment on the NPC.

Wastewater

The NPC is estimating that the proposed project will result in an increase of 198,000 gallons per day of new wastewater flows, which is based on an extrapolation of flows from existing water use records. While a MassDEP sewer connection permit is no longer required for the proposed project, MassDEP continues to recommend that design flows for new sewer connections be based on flows as set forth in the Title 5 regulations (310 CMR 15.203), which are identical to those formerly in MassDEP Sewer Connection Permit regulations, and reflective of variation in flows from the proposed facilities. The final design flows for the proposed facilities are not subject to approval by MassDEP, but must be approved by the sewer authority, in this case the Lowell Regional Wastewater Utility (LRWWU). In accordance with the requirements of 314 CMR 12.04(2)(d), the LRWWU, as a permittee with combined sewer overflows (CSO), is responsible to ensure that four gallons of infiltration and inflow (I/I) will be removed for each gallon of new design flow. The project proponent will need to work with LRWWU to ensure that this requirement is met.

In addition to this required mitigation work, MassDEP notes that the LRWWU is also under an Administrative Order issued by the Environmental Protection Agency (EPA) to address CSO discharges, and is currently developing a plan for doing so, to build upon the extensive infrastructure work completed to date. The proponent will need to meet with LRWWU staff to confirm that the sewer and drain infrastructure in the locations of the proposed facilities is sufficient to convey the associated flows, and that any system modifications are consistent with the CSO abatement plans.

Recycling/Waste Reduction

Facilitating future waste reduction and recycling and integrating recycled materials into the project are necessary to minimize or mitigate the long-term solid waste impacts of this type of development. The Commonwealth's waste diversion strategy is part of an integrated solid waste management plan, contained in The Solid Waste Master Plan that places a priority on source reduction and recycling. Efforts to reduce waste generation and promote recycling have yielded significant environmental and economic benefits to Massachusetts' residents, businesses and municipal governments over the last ten years. Waste diversion will become even more important in the future as the key means to conserve the state's declining supply of disposal capacity and stabilize waste disposal costs.

As the lead state agencies responsible for helping the Commonwealth achieve its waste diversion goals, MassDEP and EEA have strongly supported voluntary initiatives by the private sector to institutionalize source reduction and recycling into their operations. Adapting the design, infrastructure, and contractual requirements necessary to incorporate reduction, recycling and recycled products into existing large-scale developments has presented significant challenges to recycling proponents. Integrating those components into developments such as the UMass Lowell Strategic Development Plant at the planning and design has enable the project's management and occupants to establish and maintain effective waste diversion programs. For example, facilities with minimal obstructions to trash receptacles and easy access to main recycling areas and trash chutes allow for implementation of recycling programs and have been proven to reduce cleaning costs by 20 percent to 50 percent. Other designs that provide sufficient space and electrical services will support consolidating and compacting recyclable material and truck access for recycling material collection.

By incorporating recycling and source reduction into the design, the proponent has the opportunity to join a national movement toward sustainable design. Sustainable design was endorsed in 1993 by the American Institute of Architects with the signing of its *Declaration of Interdependence for a Sustainable Future*. The project proponent should be aware there are several organizations that provide additional information and technical assistance, including WasteCap, the Chelsea Center for Recycling and Economic Development, and MassRecycle.

Massachusetts Contingency Plan/M.G.L. c.21E

Contaminated Soil and Groundwater: The project proponent is reminded that excavating, removing and/or disposing of contaminated soil, pumping of contaminated groundwater, or working in contaminated media must be done under the provisions of MGL c.21E (and, potentially, c.21C) and OSHA. If permits and approvals under these provisions are not obtained beforehand, considerable delays in the project can occur. The project proponent cannot manage contaminated media without prior submittal of appropriate plans to MassDEP, which describe the proposed contaminated soil and groundwater handling and disposal approach, and health and safety precautions. If contamination at the site is known or suspected, the appropriate tests should be conducted well in advance of the start of construction and professional environmental consulting services should be readily available to provide technical guidance to facilitate any necessary permits. If dewatering activities are to occur at a site with contaminated groundwater, or in proximity to contaminated groundwater where dewatering can draw in the contamination, a plan must be in place to properly manage the groundwater and ensure site conditions are not exacerbated by these activities. Dust and/or vapor monitoring and controls are often necessary for large-scale projects in contaminated areas. The need to conduct real-time air monitoring for contaminated dust and to implement dust suppression must be determined prior to excavation of soils, especially those contaminated with compounds such as metals and PCBs. An evaluation of contaminant concentrations in soil should be completed to determine the concentration of contaminated dust that could pose a risk to health of on-site workers and nearby human receptors. If this dust concentration, or action level, is reached during excavation, dust suppression should be implemented as needed, or earthwork should be halted.

The MassDEP Northeast Regional Office appreciates the opportunity to comment on this proposed project. Please contact Kevin.Brander@state.ma.us at (978)694-3236 on wastewater issues. If you have any general questions regarding these comments, please contact John.D.Viola@state.ma.us, or at (978) 694-3304.

Sincerely,

This final document copy is being provided to you electronically by the Department of Environmental Protection. A signed copy of this document is on file at the DEP office listed on the letterhead.

**John D. Viola
Deputy Regional Director**

cc: Brona Simon, Massachusetts Historical Commission
Jerome Gafe, MassDEP-Boston
Eric Worrall, Kevin Brander, MassDEP-NERO



January 31, 2017

The Commonwealth of Massachusetts

William Francis Galvin, Secretary of the Commonwealth

Secretary Matthew A. Beaton
Massachusetts Historical Commission
Executive Office of Energy & Environmental Affairs
100 Cambridge Street, Suite 900
Boston, MA 02114

Attn: Anne Canaday, MEPA Analyst – MEPA UNIT

RE: UMASS Lowell Strategic Development Plan 2016-2021, Lowell, MA; MHC# RC.8109; EEA# 14881

Dear Secretary Beaton:

Staff of the Massachusetts Historical Commission (MHC) have reviewed the Notice of Project Change (NPC) that was received at this office on January 9, 2017, for the University of Massachusetts Lowell Campus Strategic Development Plan 2016-2021. The staff of the MHC have reviewed the information submitted and have the following comments.

The Strategic Development Plan 2016-2021 identifies planned development activities at the University for the period between 2016 and 2021 by providing a comparison of actual conditions in 2016 to projections made for 2012, a schedule of planned projects between 2016 and 2021, estimates of the individual and cumulative environmental effects of those projects, and updated measures to avoid, minimize, and mitigate those effects.

The Strategic Development Plan summarizes the proposed creation of the Pawtucket Street Riverfront Park (page 66). The creation of this park would necessitate the demolition of 193 Pawtucket Street (LOW.1977) and 199 Pawtucket Street (LOW.1978). Both 193 Pawtucket Street and 199 Pawtucket Street are listed in the National and State Registers of Historic Places as contributing elements of the Lowell National Historical Park. Both 193 Pawtucket Street and 199 Pawtucket Street are also located within the Downtown Lowell Historic District, which is listed in the State Register of Historic Places.

Demolition of 193 Pawtucket Street and 199 Pawtucket Street would constitute an "adverse effect" (950 CMR 71.05(a)) through the destruction or alteration of all or part of a State Register property. The MHC recommends that UMASS Lowell explore alternatives that would eliminate, minimize or mitigate the adverse effect of the proposed demolition. MHC looks forward to receiving a Project Notification Form with a full description of the proposed project at this location as the information becomes available.

The Strategic Development Plan states that a number of buildings owned by UMASS Lowell will be renovated between 2016 and 2021. The MHC looks forward to receiving, reviewing, and commenting on the projects individually as project details become available.

These comments are offered to assist in compliance with M.G.L. Chapter 9, sections 26-27C (950 CMR 71.00) and MEPA (301 CMR 11). Please do not hesitate to contact Elizabeth Sherva of my staff if you have any questions.

Sincerely,

A handwritten signature in black ink that reads "Brona Simon".

Brona Simon
State Historic Preservation Officer
Executive Director
Massachusetts Historical Commission

xc: Jacqueline Moloney, University of Massachusetts Lowell
Celeste Bernardo, NPS Lowell NHP
Peter Aucella, NPS Lowell NHP
Steve Stowell, Lowell Historic Board

220 Morrissey Boulevard, Boston, Massachusetts 02125

(617) 727-8470 • Fax: (617) 727-5128

www.sec.state.ma.us/mhc



Northern Middlesex Council of Governments

February 3, 2017

A Multi-Disciplinary
Regional Planning
Agency Serving:

Billerica
Chelmsford
Dracut
Dunstable
Lowell
Pepperell
Tewksbury
Tyngsborough
Westford

Pat Wojtas
Chair

Beverly A. Woods
Executive Director

40 Church Street
Suite 200
Lowell, MA
01852-2686
TEL: (978) 454-8021
FAX: (978) 454-8023
www.nmcog.org

Matthew A. Beaton, Secretary
Executive Office of Energy and Environmental Affairs
Attention: MEPA Office
Anne Canaday: EOEEA # 14881
100 Cambridge Street, Suite 900
Boston, MA 02114-2509

RE: EOEEA #14881/NMCOG #635 – UMass Lowell Strategic Development Plan 2016-2021 in Lowell

Dear Secretary Beaton:

The Northern Middlesex Council of Governments (NMCOG) has received additional comments on the Notice of Project Change (NPC) for the UMass Lowell Strategic Development Plan, 2016-2021. The Plan provides an update to the 2011 Strategic Plan and outlines development activities and projects anticipated over the next five years, as required under the special process established by MEPA.

The City of Lowell Department of Planning and Development has raised concerns regarding the lack of specific information relative to the wetland impacts of those projects proposed within jurisdictional areas. They are particularly concerned about the impacts of demolishing two existing multifamily residential buildings on Pawtucket Street in order to create a riverfront park, and the construction of recreation fields on Aiken Street adjacent to the Northern Canal. The City has also raised concerns about potential pollutant releases due to contamination issues, particularly on the Aiken Street Recreation Field site, which has an industrial history.

The Lowell Conservation Commission is concerned with the recreation field project given that the on-site stormwater management infrastructure ties into the municipal system, and no information has been provided as to how the stormwater will be treated. The Conservation Commission also commented that a portion of the North Campus includes bordering vegetated wetlands, and that other projects are subject to the state Wetlands Protection Act and Lowell Wetlands Ordinance, as they are located on bordering land

subject to flooding and isolated land subject to flooding (i.e. 1499 Middlesex Street and 1485 Middlesex Street). The Conservation Commission requested that the University indicate which properties are within a FEMA Special Flood Hazard area, and identify any of properties are within an Estimated or Priority Habitats for Rare and Endangered Species. Additionally, the Commission has requested that the University outline the impacts of all proposed construction activities on natural vegetation within the riverfront areas (including canals).

The City questions the methodology used to calculate new vehicle trip generation, and finds that the ADTs vary significantly from those outlined in the ITE Trip Generation Manual. They have also raised concerns about the calculation of auto ownership based on student parking decals. The City is concerned about the streets that were included within the trip generation and level of service analysis, in that many of the roadways and intersections impacted by traffic traveling to the University were not included in the analysis. It is the City's opinion that the continued growth of the University will generate more than 3,000 trips, requiring an ENF under the MEPA process.

Comments were also received from the Lowell National Historical Park (LNHP) regarding the proposed demolition of 193 and 199 Pawtucket Street, which are located within a National Register District. The boundaries of the National Park and Preservation District extend on the south side of the Merrimack River and Northern Canal to include these structures. The Park Service has noted that the previous owner of these structures invested over \$800,000 to rehab the properties, and the National Park Service feels strongly that the buildings are nationally significant historic properties and should not be demolished.

The detailed comments from the City and the Lowell National Historical Park are attached. Should you have any questions, please feel free to contact me directly at (978) 454-8021, ext. 120.

Sincerely,



Beverly Woods
Executive Director



Northern Middlesex Council of Governments

A Multi-Disciplinary

Regional Planning

Agency Serving:

Billerica

Chelmsford

Dracut

Dunstable

Lowell

Pepperell

Tewksbury

Tyngsborough

Westford

cc: Lowell

City Manager

Public Works Director

City Engineer

Director of Planning & Development

Planning Board

Department of Development Services

Conservation Commission

Historic Board

Board of Health

NMCOG Councilors

Lowell National Historical Park Superintendent

Attachments

Pat Wojtas
Chair

Beverly A. Woods
Executive Director

40 Church Street
Suite 200
Lowell, MA
01852-2686

TEL: (978) 454-8021

FAX: (978) 454-8023

www.nm cog.org

REQUEST FOR MEPA REVIEW COMMENTS

Distributed to: Lowell City Council, City Manager, Director of Planning and Development, Planning Board, Department of Development Services, Public Works Director, City Engineer, Conservation Commission, Historic Board, Board of Health and NMCOG Councilors, and Lowell National Historical Park Superintendent

In accordance with the Massachusetts Environmental Policy Act (MEPA) and its corresponding regulations, the Northern Middlesex Council of Governments (NMCOG) has received a Notice of Project change plus supplemental information for the following project:

UMass Lowell Strategic Development Plan 2016-2021 – The purpose of this notice of project change is to provide an update on the planned growth and continued development of the university for the next five years.

Comments pertaining to the potential extent and significance of environmental impacts directly attributable to this project are most welcome. If you wish to comment, please do so in the comment section below. For additional information, please contact NMCOG staff at (978) 454-8021.

COMMENTS DUE AT MEPA NO LATER THAN: January 31, 2017

EOEEA/NMCOG REVIEW NUMBER: EOEEA #14881/NMCOG #635

APPLICANT: UMass Lowell

COMMENTS:

No significant environmental concerns
 Need more information about the following environmental issues in order to comment:
 I have significant environmental concerns. (Please provide any specific comments you may have below; attached additional sheets if needed)

Missing from Section 5.4 HISTORIC AND ARCHEOLOGICAL RESOURCES on pages 91-92 is reference to the historic properties at 193 and 199 Pawtucket Street, which are part of a National Register District and should be listed as such. They are listed on page 17 as "Vacant and to be demolished." A proposal for a park at this location appears on page 66. The boundaries of the National Park and Preservation District extend on the south side of the Merrimack River and Northern Canal to specifically encompass these buildings, which UML purchased in 2015 to remove for a park and wider sidewalks. In 2010-2011, the prior owner invested \$723,681 in 193 Pawtucket Street (1905) and in 2013, \$92,000 was invested in 199 Pawtucket Street (1890) making them suitable for rehabilitation. Lowell Park management met with UML management in January 2016 to express objections, but the buildings have remained vacant and continue to be part of UML's demolition plans. The City Traffic Engineer has cited the extra lane width in the roadway available to widen sidewalks, which would avoid demolition. The Plan (p.66) says there is no "feasible option that preserves the buildings for any purpose while also achieving the project goals (a park)." The National Park has argued that nationally significant historic properties should not be demolished for parks or sidewalks.



Superintendent, Lowell National Historical Park January 31, 2017

Signature

Title/Dept.

Date

The purpose of an ENF is to present information relative to the proposed project. This information is used by the Secretary of Energy and Environmental Affairs to make a determination regarding the extent of the environmental impacts associated with the project. The Massachusetts Environmental Policy Act (MEPA) requires the Secretary to solicit local and regional comments prior to issuing a decision as to whether additional environmental studies are needed. The Secretary may, for example, require the preparation of an Environmental Impact Report and may tailor the scope of such a document to specifically address certain identified concerns. Some projects automatically require the preparation of an EIR and if you wish to comment on specific items that you feel should be included within the scope of an EIR please indicate so on this form.

REQUEST FOR MEPA REVIEW COMMENTS

Distributed to: Lowell City Council, City Manager, Director of Planning and Development, Planning Board, Department of Development Services, Public Works Director, City Engineer, Conservation Commission, Historic Board, Board of Health and NMCOG Councilors, and Lowell National Historical Park Superintendent

In accordance with the Massachusetts Environmental Policy Act (MEPA) and its corresponding regulations, the Northern Middlesex Council of Governments (NMCOG) has received a Notice of Project change plus supplemental information for the following project:

UMass Lowell Strategic Development Plan 2016-2021 – The purpose of this notice of project change is to provide an update on the planned growth and continued development of the university for the next five years.

Comments pertaining to the potential extent and significance of environmental impacts directly attributable to this project are most welcome. If you wish to comment, please do so in the comment section below. For additional information, please contact NMCOG staff at (978) 454-8021.

COMMENTS DUE AT MEPA NO LATER THAN: January 31, 2017

EOEEA/NMCOG REVIEW NUMBER: EOEEA #14881/NMCOG #635

APPLICANT: Lowell Community Health Center UMass Lowell

COMMENTS:

No significant environmental concerns
 Need more information about the following environmental issues in order to comment:
 I have significant environmental concerns. (Please provide any specific comments you may have below; attached additional sheets if needed)

Page 86, Section 5.1.3 Wetlands – None of the projects proposed have been evaluated under this section. There is a blanket statement that refers to UMass Lowell's commitment to reviewing projects located in jurisdictional areas with the Lowell Conservation Commission, but there is no analysis of proposed projects and their impacts in this section. Impacts related to the demolition of the existing residential buildings on Pawtucket Street for the construction of a new riverfront park overlooking the Merrimack River and the construction of the Aiken Street Recreation Fields adjacent to the Northern Canal should be evaluated.

Page 86, Section 5.2 Solid and Hazardous Waste - There is no mention in this section of how UMass Lowell plans to address potential release conditions at properties proposed for additions or redevelopment. Work on contaminated sites falls under the jurisdiction of M.G.L. Chapter 21E. At least one project site, the Aiken Street Recreational Fields (a former industrial site), will require the proper handling of soils during construction. Environmental impacts related to contamination for all proposed construction projects should be evaluated.

See Attached Pages

Dian Trusk Dir DPD / Ass't City Mgr 1/31/17
Signature Title/Dept. Date

The purpose of an ENF is to present information relative to the proposed project. This information is used by the Secretary of Energy and Environmental Affairs to make a determination regarding the extent of the environmental impacts associated with the project. The Massachusetts Environmental Policy Act (MEPA) requires the Secretary to solicit local and regional comments prior to issuing a decision as to whether additional environmental studies are needed. The Secretary may, for example, require the preparation of an Environmental Impact Report and may tailor the scope of such a document to specifically address certain identified concerns. Some projects automatically require the preparation of an EIR and if you wish to comment on specific items that you feel should be included within the scope of an EIR please indicate so on this form.

ATTACHMENT

Section 4.2.3 East Campus:

Aiken Street Recreation Fields: The demolition of the one-story warehouse was granted a Negative Determination by the Lowell Conservation Commission (LCC). The construction of the athletic fields also received a Negative Determination from the LCC. The on-site stormwater management infrastructure ties into the municipal system. The University has provided evidence that post-development peak discharges will not exceed pre-development discharge rates. However, the University should state how the stormwater will be treated prior to connecting to the municipal system. This project is discussed in further detail in **Section 5.1.3 Reducing Impervious Service**. All stormwater that is collected in a University drainage system should be treated prior to discharge to a municipal system.

Pawtucket Street Riverfront Park: Demolition of the dwelling structures and construction of the Pawtucket Street Riverfront Park requires permits from the Lowell Conservation Commission. The projects are jurisdictional under The Act and the Lowell Wetlands Ordinance (Chap. 280, S1.-13). The University does not indicate what the impacts, if any, will be to both the River and the Canal adjacent to the site.

Section 5.1.3 Wetlands:

This Section states that there are no wetland resource areas located on the UMass Lowell campuses. The portion of North Campus discussed in this Section does include bordering vegetated wetlands. Numerous University projects are jurisdictional under the Wetlands Protection Act and Lowell Wetlands Ordinance due to bordering land subject to flooding and isolated land subject to flooding (i.e. 1499 Middlesex, 1485 Middlesex Street). Figure 34 indicates that those two (2) properties are located on South Campus. This Section is not clear and a little confusing.

The following are wetland resources and the University should provide more detail on their development impacts on these resources. The University should indicate properties that are within a FEMA Special Flood Hazard Areas. The University should indicate if any of their properties are within Estimated Habitats of Rare Wildlife or Priority Habitat of Rare Species. Riverfront projects may affect important wildlife habitats including species that use the river corridor to migrate. The University should outline the impacts of all proposed construction that could have on natural vegetation within riverfront areas (including Canals). This Section does not explain if there are any vernal pools on University property (found within depressions in riverfront areas). The University should explain the extent of (or their limit) of activity in riverfront areas.

All projects within 100' of Canals and Rivers require a permit from the Lowell Conservation Commission.

I. Vehicle Trip Generation (5.5.2, pg. 95 and Table 4 of Appendix D)

The methodology for calculating new vehicle trip generation, as presented in Table 4 of Appendix D is less than convincing and reaches a conclusion ADT which varies significantly from those obtained from the ITE trip generation manual.

- a) Auto ownership is derived from parking decal sales, however, the plan makes an assumption that all commuting students have a decal. Figure 17 on page 26 shows a correlation between increasing decal prices and decreasing purchases. This seems to be a basic price elasticity graph, and does not necessarily mean a drop in commuting traffic. Based on anecdotal evidence from resident complaints, there appears to be a problem with UML commuter's parking further into the neighborhoods to avoid purchasing a \$450 decal. It is suggested that the % car ownership (i.e. access to a car) for commuting students be increased to 95% since it is likely that commuters will have access to a vehicle even if its not their own. Likewise part time faculty/staff % car ownership (i.e. access to vehicle) should likewise be upwards of 95%.
- b) Mode share in the study is applied on top of decal ownership, which is redundant. For example, the study presents the car ownership rate for part time staff/faculty at 65% based on decal purchase – but then subtracts another 10% for mode share to the 65% figure. This means that 6% of staff/faculty buy a \$150 parking decal but don't use it. If the study uses decal purchasing as the metric to determine auto usage, it is already discounting mode share. It is suggested that mode share either be eliminated from the decal-ownership based analysis or alternatively that mode share of 10% be applied to the more realistic car ownership rates as discussed in (a) above.

ATTACHMENT (Continued)

- c) The weekly weekday trips multiplier is not explained within the document or the appendix. The trip multiplier assumes that commuters to the school (full time staff/faculty and off-campus students) will only have 2 trips per day (one trip into and one trip out of the City). It is far more likely that commuter students/staff would spend their time between classes running errands, returning home for lunch, visiting friends, participating in activities, etc. Page 32 of the document shows that 95% of parking decal holders live beyond a 1 mile radius from campus, and that the median distance is 13 miles.
- d) The study also does not take into account all the trips by campus service vehicles from the facilities division. UML vehicles are a constant sight on Pawtucket Street as they drive back and forth between campuses.

The ITE Trip Generation rate for LU 550 (University/College) is 1.71 per student (9th Edition). If this rate was to be applied to the 2,459 prospective new students (not counting continuing education or online students) the trip generation would be 4,205 trips per day. The study cites using faculty members as the independent variable to calculate ITE trip generation on section 2.3.4 of the document, but as previously commented on by MassDOT (page 119) using students as the independent variable is more accurate. The 4,205 trips generated per ITE deviates significantly from the UML traffic study's conclusion that only 2,200 new trips would be generated.

II. Trip Distribution and LOS Analysis (5.5.2, pg. 97 and Appendix D pp. 9-10)

This section discusses traffic growth near and within the campus due to UML growth. However, the methodology leaves out the most important corridors and intersections affected by campus traffic.

- e) Table 7 (pg. 12 Appendix D) lists eight streets which are supposedly 'Near or Within Campus', however it does not list any of the major roadways or intersections affected by UML traffic, namely:
 - a. Pawtucket Street from Merrimack Street to Broadway;
 - b. Merrimack Street/University Avenue from Aiken Street to Riverside Street;
 - c. Riverside Street from Dracut T/L to Varnum Avenue;
 - d. Broadway from Pawtucket Street to School Street;
 - e. Intersection of School Street and Pawtucket Street;
 - f. Intersection of Merrimack Street and Pawtucket Street;
 - g. Intersection of University Avenue and Riverside Street;
 - h. Intersection of VFW at School Street and University Avenue;
 - i. Intersection of Broadway and Wilder Street.
- f) Table 7 calculates the average campus traffic growth rate as 0.50% - but this calculation is an average of the average growth rates of each street. Since street ADT vary from 6,026 to 26,231 the average of the averages is not accurate representation in the growth of traffic. These rates should be recalculated based on traffic growth on the roadways and intersections listed in (e) above.
- g) Level of Service analysis should be conducted at the subject intersections.

III. Parking Analysis (2.3.2, pg. 22)

Parking continues to be an issue with UML students frequently parking in residential neighborhoods. It is apparent that the continued UML growth will continue to impact the City's tight parking availability at the detriment of residents.

IV. Conclusion

Overall a level of service analysis is absent from the report and both the trip generation and distribution analysis lacks sufficient credible data to make any type of determination as to the effects of UML's continued growth on the City's congested transportation infrastructure. The City disagrees with the conclusion as stated on page 31 that the proposed development plan "falls well below the MEPA threshold of 3,000 ADT." The ITE trip generation analysis clearly shows that at the trip generation would likely be above the threshold and require an ENF.

The City believes that UML's growth has contributed to the significant increase in congestion in the areas of the School Street and University Avenue Bridges and would like to see proposed traffic mitigation projects as part of an ENF filing.

REQUEST FOR MEPA REVIEW COMMENTS

Distributed to: Lowell City Council, City Manager, Director of Planning and Development, Planning Board, Department of Development Services, Public Works Director, City Engineer, Conservation Commission, Historic Board, Board of Health and NMCOG Councilors, and Lowell National Historical Park Superintendent

In accordance with the Massachusetts Environmental Policy Act (MEPA) and its corresponding regulations, the Northern Middlesex Council of Governments (NMCOG) has received a Notice of Project change plus supplemental information for the following project:

UMass Lowell Strategic Development Plan 2016-2021 – The purpose of this notice of project change is to provide an update on the planned growth and continued development of the university for the next five years.

Comments pertaining to the potential extent and significance of environmental impacts directly attributable to this project are most welcome. If you wish to comment, please do so in the comment section below. For additional information, please contact NMCOG staff at (978) 454-8021.

COMMENTS DUE AT MEPA NO LATER THAN: January 31, 2017

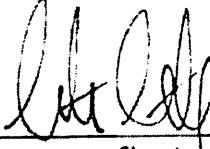
EOEEA/NMCOG REVIEW NUMBER: EOEEA #14881/NMCOG #635

APPLICANT: UMass Lowell

COMMENTS:

No significant environmental concerns
 Need more information about the following environmental issues in order to comment: _____
 I have significant environmental concerns. (Please provide any specific comments you may have below; attached additional sheets if needed)

Note that Figure 39 on page 92 associated with Section 5.4 (Historical and Archeological Resources) does not identify two properties that are "UML Buildings Listed on the National Register of Historic Places." The two properties located at 193 and 199 Pawtucket Street are accurately shown as being within the Lowell National Historical Park & Preservation District as well as the Downtown Lowell Historic District. However, the map needs to be revised so that these two properties are color-coded red since they are also "UML Buildings Listed on the National Register of Historic Places" due to their inclusion in the Lowell National Historical Park & Preservation District. This would be consistent with other similar properties, the Allen House, Wannalancit Mill, and the Perkins Properties noted on page 91 and shown in red on Figure 39 on page 92.



Signature

Lowell Historic Board
Title/Dept.
Date

1/31/17

The purpose of an ENF is to present information relative to the proposed project. This information is used by the Secretary of Energy and Environmental Affairs to make a determination regarding the extent of the environmental impacts associated with the project. The Massachusetts Environmental Policy Act (MEPA) requires the Secretary to solicit local and regional comments prior to issuing a decision as to whether additional environmental studies are needed. The Secretary may, for example, require the preparation of an Environmental Impact Report and may tailor the scope of such a document to specifically address certain identified concerns. Some projects automatically require the preparation of an EIR and if you wish to comment on specific items that you feel should be included within the scope of an EIR please indicate so on this form.