UNIVERSITY OF MASSACHUSETTS LOWELL
BICYCLE PLAN 2022-2027

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VISION, GOALS, & GUIDING PRINCIPLES

Section 1
UMass Lowell envisions a community where all members have access to healthy and sustainable lifestyles. Toward this end, we will make cycling safer, more attractive and more convenient as an option for recreation, transportation and commuting.
GOALS

1. Increase the number of cyclists on campus
2. Improve cyclist and pedestrian safety and perception of cycling
3. Reduce driving to and on campus
4. Reduce greenhouse gases emissions and promote sustainability

GUIDING PRINCIPLES AND DOCUMENTS

- League of American Bicyclists Bicycle-Friendly University Five E's
- UMass Lowell Transportation Master Plan
- MassDOT 2019 Bicycle Transportation Plan
- City of Lowell's Multimodal Complete Streets Plan – GoLowell

RELEVANT UNIVERSITY DEPARTMENTS

- Campus Recreation
- Facilities Management
- Office of Sustainability
- Office of Transportation Services
- University Police
- University Relations
GOAL 1: INCREASE THE NUMBER OF CYCLISTS ON CAMPUS

The university has made strategic investments in infrastructure and programming to make cycling more convenient and available to the university community. The number of cyclists has increased overall as conditions and amenities have improved.

- However, the share of cyclists among all forms of travel to, from, and on campus still remains small.

- Further increasing the number of cyclists aligns with the university's sustainability and transportation goals.
GOAL 2 IMPROVE CYCLIST AND PEDESTRIAN SAFETY

Safety for bicyclists and pedestrians is a top priority for the university. The university actively maintains, improves and advocates for safer streets and landscaping, including the avoidance and mitigation of conflicts between different modes of transportation. Programs seek to educate and increase awareness of community members on road safety and respecting all transportation modes.

- Through engineering, encouragement, education, evaluation and planning, it is the university's goal to minimize bike and pedestrian crashes and injuries.
- This goal works together with Goal 1 because safety, comfort and convenience are key to encourage more people to bike.
GOAL 3: REDUCE DRIVING TO AND ON CAMPUS

- UMass Lowell's urban setting offers great potential for everyday biking. Routes between the three main campus clusters and other auxiliary locations in Lowell rely on a small number of arterial roads and river crossings shared by local and regional traffic. Mode shift to bicycling directly reduces vehicle congestion and allows cyclists to bypass traffic.

- Around 22% of the campus area is dedicated to parking. Parking spaces come with a high cost of construction and maintenance. Reducing parking demand and making alternatives more feasible will free up resources for other university functions.
GOAL 4: REDUCE GREENHOUSE GAS EMISSIONS & PROMOTE SUSTAINABILITY

• Massachusetts recently committed to carbon neutrality by 2050. The state issued Executive Order (EO) 594 which establishes policies, programs, and strategies to substantially reduce greenhouse gas emissions from state government operations and enhance resiliency at state owned and managed buildings, facilities, campuses, and fleets.

• UMass Lowell is committed to climate neutrality as an institution and is a leader in sustainable education, research and innovation. Sustainability is a core commitment in the university’s comprehensive strategy to manage growth and respond to societal needs.

• The university is demonstrating its commitment to addressing climate change through its Climate Action Plan. With commuting travel contributing a significant part of the university’s carbon footprint, bicycling is the greenest commute alternative for community members residing within biking radius of campus.
The League of American Bicyclists is a recognized authority in promoting and assessing the bicycle friendliness across American cities, communities, universities, businesses and organizations. This bike plan uses the Five E's from the Leagues Bicycle Friendly University program as a guide and section headers.

**Equity, Diversity & Inclusion**: A Bicycle Friendly America for Everyone

**Engineering**: Creating safe, secure and convenient places to ride and park

**Education**: Giving people of all ages and abilities the skills and confidence to ride

**Encouragement**: Creating a strong bike culture that welcomes and celebrates bicycling

**Evaluation & Planning**: Planning for bicycling as a safe and viable transportation option
OTHER GUIDING PRINCIPLES AND DOCUMENTS

The Bicycle Master Plan is intended to augment other university, city and regional transportation plans.

– UMass Lowell Transportation Master Plan
  In June 2019, UMass Lowell adopted a comprehensive transportation master plan for all modes of transportation. The plan lays out recommendations ranging from planning for a shared/autonomous transportation future to partnering with the City of Lowell to construct bike infrastructure on key corridors around the campus.

– MassDOT 2019 Bicycle Transportation Plan
  As a Massachusetts state agency, UMass Lowell recognizes the Bicycle Transportation Plan that MassDOT published in May 2019.

– City of Lowell's Multimodal Complete Streets Plan – GoLowell
  The City of Lowell's plan for a safer, healthier and more enjoyable multimodal transportation system for all residents and visitors to Lowell, started in 2019 and currently ongoing 2022.
Specific equity, diversity and inclusion practices are included in each area of this Bicycle Plan as well as in programming and planning throughout the university. This section highlights organizational intentions as well as some of the more established practices.

- **UMass Lowell**, is committed to advancing a more inclusive campus culture and enhancing the experiences and cultural capacity of all our campus participants.

- **Campus Recreation** supports the Division of Student Affairs & University Events **Inclusion Statement**: ...Diversity makes us stronger and a community that values equity and inclusion enhances the educational experience. By creating a safe environment for expression, exploration and growth we are preparing students and staff to be productive members of a diverse society - our people are our greatest asset."
EQUITY, DIVERSITY & INCLUSION EFFORTS FOR BICYCLING

Encouragement
- Parking pass reimbursement program for bike commuters
- Bike Shop offers light and lock giveaways and subsidies
- Ongoing increased female representation on Bike Shop staff through hiring and outreach
- Free Wheelers bike share operates at no cost to users and has high utilization by international and lower income students

Evaluation
- Planners seek out a diverse sample of respondents for planning new programs and projects
- The Bicycle Advocacy Committee conducts public outreach and promotes an open-door policy

Engineering
- Lowell adopts a Complete Streets Policy
- New construction projects increase the prevalence and connectivity of bike lanes and shared paths
- City of Lowell pilots protected bike lanes on campus routes

Education
- All Bike Shop staff attend inclusive Campus Rec training
- Bike Program conducts annual and ongoing outreach to international students
- Bike Shop offers free DIY bike repair/maintenance station open to the university community and public
ENGINEERING:
CREATING SAFE, SECURE
AND CONVENIENT PLACES
TO RIDE AND PARK

Section 3
DEVELOP A CONNECTED BIKE NETWORK

A connected bike network that does not require cyclists to dismount or merge onto street traffic is a critical factor in promoting biking

- The current bike network across the city and multi-use paths along the rivers and canals lacks connectivity
- Dedicated bike access through downtown and other neighborhoods in the city center are also discontinuous

Specific recommendations have been made in the 2018 Transportation Master Plan Update

- E1: Partner with the City to Construct Bike Infrastructure on Key Corridors. P.34
Bicycling can provide a solution to the so-called last mile gap between the commuter rail station in Lowell (Gallagher Terminal) and the UML campus. Adequate bike facilities, if put in place, would make multi-modal commuting more accessible and more feasible for more people.

- Secure parking at terminals
- Trains able to accommodate bikes
- Connected bike network between housing, terminals, campus and downtown
PARTNERSHIP WITH THE CITY OF LOWELL

Except for access roads, driveways and parking lots, the university does not own the streets and public-right-of-way connecting the different areas of its campus.

- The university recognizes that the City of Lowell and MassDOT have major roles in developing on-street bike facilities that would benefit biking on and around university property.
- The university has ongoing partnerships with these agencies to improve roads and intersections. One example is the $13.4 million TIGER grant, a multi-agency partnership secured in 2015 to replace many canal bridges across the city.
- With participation of city staff, the university has developed a conceptual design for a shared-use path on Pawtucket Street.
In its Transportation Master Plan, the university identified the section of Pawtucket Street between East Campus and the South Campus as the top priority bike network to be developed

- The envisioned share-use path will provide a more direct route for cyclists and pedestrians to travel between the campuses away and protected from the street traffic
- This project would require a multi-agency partnership including but not limited to the university, city, and the National Park Service
- Other priority bike network paths include the connection to North Campus and Downtown
BICYCLE PARKING

Besides on-street bike facilities, bike parking at the destinations is a critical element in a good bike network.

• Making use of the university internal sustainability grant money, UMass Lowell is actively upgrading outdated bike parking across the campus. Over 450 bike parking spaces across campus have been added or upgraded to meet current standards between 2015 and 2021.

• The university has developed standards for bike parking facilities (e.g. bike racks)

• Future bike parking improvement will focus on a mix of long-term and short-term covered parking
Electric bikes, electric scooters and other micro-mobility vehicles have gained popularity in recent years. They should be considered for accommodation in addition to traditional bicycles if they meet the goals of this plan.

- **Benefits:** All micro-mobility vehicles, like bicycles, help reduce traditional motor vehicle trips and provides other benefits associated reduced congestion on the road.
- **Differences:** Electrical-powered vehicles may not offer the same level of benefits regarding health or environmental sustainability, as human-powered vehicles.
- **Safety & Legality:** The university is attentive to the legality of each type of electric and micro-mobility vehicle and will work to educate/enforce/plan/advocate for safe vehicle operation on and around the campus.
- **Parking, Storage and Charging Facilities:** While many of these vehicles will be able to use current facilities designed for traditional bicycles, additional facility features will be considered based on growing use, charging needs and adoption.
Besides outdoor bike racks at the destinations, the university also provides additional amenities for cyclists, including:

- Campus Bike Shop
- Outdoor bike repair stations
- Lockers for commuting cyclists
- Policies to allow for storage of bikes in dorms and workspaces
- Shower facilities on each campus

The university will continue to assess and add more support facilities to make bicycling on campus a convenient experience.
BIKE INFRASTRUCTURE MAINTENANCE

• Both on-street and off-street bike facilities require timely and proper maintenance to remain effective in providing a positive biking experience. This will have to be done collaboratively with the City of Lowell as many of the facilities are shared.

• UML Facilities
  – Removal of snow from racks, bike lanes, campus sidewalks and multi-use paths
  – Removal of abandoned bikes from racks
  – Maintenance of security and surveillance equipment

• City of Lowell Facilities
  – Maintaining paint and separation barriers of bike lanes on public streets
  – Street sweeping debris from bike lanes
  – Marking of bike routes with signage
EDUCATION:
GIVING PEOPLE OF ALL AGES AND ABILITIES THE SKILLS AND CONFIDENCE TO RIDE

Section 4
SAFETY EDUCATION FOR RIDERS

The university takes a multi-angle approach to provide education and messaging to riders:

– League Smart Cycling Quick Guide with road safety information and tips are available at all Free Wheelers Bike Share locations
– The Bike Shop offers Smart Cycling classes, both as a component to university-organized bike trips and a separate training class
– DIY Stand Time at the Bike Shop helps students learn to maintain their bikes for safe operation
– Road safety information is available under the Education and Safety section of the bike program website uml.edu/bike
– University currently employs two League Cycling Instructors, including Asst. Dir. Of Outdoor and Bicycle Programs
– Responsible Cycling Commitment Campaign with Bike Shop giveaway incentives
SAFETY EDUCATION FOR DRIVERS

• Education for both riders and drivers is critical to improve road safety for cyclists.
  – A "University Drivers and Cyclists" road safety brochure is included as part of the information package given out to all parking pass holders
  – A road safety training segment is included in the driver training for the university's professional drivers
Campus Police officers play a crucial part in ensuring safe and secure cycling experience in the following focus areas:

**Bike Theft**
- Locks: The Bike Shop offers incentives and education for proper bike locking including trade-ins of substandard bike locks, U-lock discounts and giveaways.
- Investigation: University Police work to investigate bike theft incidents and implements improvements for camera coverage and lighting on racks across campus.
- Bike Registration: The University Bike Shop, working alongside the University Police, administers a bike registration system that is extremely helpful in reporting and recovering lost and stolen bikes.

**Abandoned Bikes**
- UMLPD removes and stores bikes abandoned on campus bike racks. Many of these bikes end up turned over to the Bike Shop for refurbish and resale.

**Road Safety**
- The University Police department maintains patrol bikes for use at events and engaging with cyclists at peak times for both positive reinforcement as well as enforcement.
ENCOURAGEMENT: CREATING A STRONG CULTURE THAT WELCOMES AND CELEBRATES BICYCLING

Section 5
The UMass Lowell Free Wheelers Bike Share program provides free daily bike rentals for university affiliates since 2014. Bikes may be checked out and returned free of charge at any of the six check-out stations on campus.

- Checkout stations are operated in person by student staff
- The fleet is maintained by the University Bike Shop
- Free Wheelers has enabled thousands of bike trips across the campus each year
- Daily and full semester (paid) rentals are available

VeoRide, a paid dockless commercial bike share also operated in Lowell and on campus in summer and fall of 2019. Due to high vandalization rates and other issues it was discontinued for 2020.
UMASS LOWELL BIKE SHOP

The University Bike Shop is a full-service retail and repair shop open to the public!

- Sales of new and used bikes, accessories, parts and apparel
- Full menu of repair and maintenance services
- Refurbishes used donation or abandoned bikes for resale
- DIY stand time for students to learn to maintain their own bikes
- Mechanics are primarily UMass Lowell students
- Hosts the campus bike registration program
- The Bike Shop houses the office for the Bike Program and its meeting space is also used as a hub for the campus cyclist community.
- Also is the Outdoor Center for the Outdoor Adventure Program
BIKE INCENTIVES AND PROGRAMS

– **Light Brigade Light Giveaway:** To encourage safe biking after dark, the Bike Program collaborates each year with MassBike to give away up to 100 light sets annually when Daylight Savings Time ends in November.

– **U-lock subsidies:** U-locks have generally been sold at the bike shop for a discount. Future programs may include giveaways or trade ins.

– **It Pays to Ride Your Bike:** Parking pass reimbursement to help auto commuters bike part of the time. Participants who showed evidence of consistent bike commuting earned reimbursements ranging from $75 to $125 per semester depending on pass type.

– **Responsible Cycling Commitment** poster and media campaign presents consistent messaging across campus since 2017.

"I thoroughly enjoyed the riding and it became one of the more enjoyable times of my day. Commuting by bicycle became 'normal,' saved me some money on gas, and noticeably improved my fitness. I inadvertently learned of a couple of other staff that I know that participated in the program as well. It was fun to share stories. All in all, it was a great experience, and my plan is to get my bike into the Bike Shop early next spring for a tune up so I can get back on the road next semester."

-Diana Walker-Moyer, Director of UMass Lowell Health Services and participant in the "It Pays to Ride Your Bike" Reimbursement Program
The university's bike culture is centered on bicycle commuting and the Free Wheelers Bike Share on campus. There are also some smaller informal groups for recreational cycling:

- Informal group rides happen frequently from the Bike Shop and Outdoor Center
- Formal Outdoor Adventure Program group rides are also scheduled each semester
- The Strava app hosts the UMass Lowell Bicycle Club Group and provides GPS tracking of exercise with real-time mapping and social media functions. The club has 117 members as of April 2022
UMASS LOWELL OUTDOOR ADVENTURE PROGRAM

The UMass Lowell Outdoor Adventure Program operates with the mission to support the development of healthy, balanced lifestyles for the UMass Lowell community through outdoor recreation activities

- Shares space and some staff with Bike Shop and Bike Program
- Offers group rides such as bike touring, mountain biking & Midnight Marathon bike ride
- Curriculum includes road riding and field maintenance topics as well as others
- Mountain and touring bikes are available for rent at the Outdoor Center and Bike Shop
EVALUATION & PLANNING: PLANNING FOR BICYCLING AS A SAFE AND VIABLE TRANSPORTATION OPTION

Section 6
The UMass Lowell Bicycle Advocacy Committee was established in 2016. Committee members include staff from Campus Recreation, Facilities Planning, Police, Sustainability, Transportation, Student Government, as well as the City Traffic Engineer, and representatives from the local cyclist community.

- Committee members meet once per month to discuss, collaborate and share information on bike programs and issues relevant to the university both on and off campus.
- Some university members also serve as liaisons with the city and other state agencies on bike-related matters.
- Students, Faculty and Staff are welcome to participate.
The university has continuously conducted surveys and reached out to the university community for input and feedback on bicycle-related issues, concerns and programs, as well as participation in the various bicycle-related planning processes.

- Bicycle Friendly University Application (2017 & 2019)
  - Surveys
  - Feedback reports from the League of American Bicyclists
- Annual DEP transportation Survey
- UMass Lowell Transportation Master Plan Update (2018)
  - Transportation Survey with 3,840 responses
  - Steering Committee reflecting a broad array of local and regional stakeholders, including faculty and student representatives
  - A public workshop/open house held on campus with 150 attendees
- City of Lowell GoLowell Open House at UML (2019)
UMass Lowell Transportation Master Plan Update (2018) Transportation Survey with 3,840 responses:

- Cycling » Biggest barriers to additional cycling included:
  - Poor bike infrastructure near and between campuses
  - Insufficient bike parking/storage on campus

2019 BFU Survey Data 218 Responses:

- Similar infrastructure issues identified as well as:
  - Continuing with the Free Wheelers as free is essential
  - Bike Shop is convenient and a great resource for commuters and recreation
  - More and ongoing education for cyclists and motorists is needed

Word Cloud Generated from “Suggestions for Improvements”
- BFU Survey 2019
UMass Lowell was awarded a BFU Silver designation in 2019. Overall feedback included:

– Continue to increase the amount of high-quality bicycle parking at popular destinations across campus.
– Continue working with the City of Lowell to expand the bike network and increase network connectivity through the use of different types of bike lanes, cycle tracks and dedicated bicycle facilities on and around campus. (See: Engineering)
– Increase the amount of wayfinding signage at strategic locations around campus.
– Start a bicyclist and motorist ticket diversion program.
– Offer more frequent Smart Cycling and cycling skills classes, and bike commuter classes for students, staff and faculty.
– Increase the number of campus security officers who patrol on bikes and ensure that all campus security officers are initially and repeatedly educated on the “Share the Road” messaging and traffic law as it applies to bicyclists and motorists.
– Increase data collection efforts on campus, including automatic bike counters.
SAFETY AUDITS & INTERSECTION/ROADWAY IMPROVEMENTS

Safety is paramount for all users of the roads but especially for cyclists and pedestrians

- The university has previously funded intersection safety improvements along Broadway Street, as well as mid-block crosswalk improvements across all three campuses.
- The university's Transportation Master Plan emphasizes road safety and recommends funding and partnership with the City and MassDOT to advance Vision Zero programs.

• As an offshoot of the Transportation Master Plan, the university funded a safety audit of the intersections and mid-block crosswalks in the North Campus, which informed the city of potential roadway safety improvements

• Efforts will focus on high incidence streets and intersections as identified by MassDOT
Each year in October, bike racks and current bike occupancy are counted manually. The campus keeps an online interactive map of racks with photos and inspection data from each count.
Due to the COVID-19 pandemic and shifts in how we live and work, many patterns of life have changed:

• No bike count was conducted in October 2020 as the campus population was largely remote.
• As seen in many of the charts throughout the plan, bicycling numbers were down for fall 2021.
• Parking demand and transportation needs on campus have changed at least for the time being.
• We will continue to work toward the goals of this plan while making sure to base decisions on the evolving situation that the pandemic presents, being both present- and future-oriented.
This Bike Plan works hand-in-hand with the University's Transportation Master Plan. Many elements in the recommendations also promote bicycling and work toward the goals of this Bike Plan.

- Continue partnership with the City to improve bicycle infrastructure, including the proposed Pawtucket Street shared-use path and Vision Zero (Recommendation B.3, B.4, D.2., & E.1)
- Promote Bicycling culture on campus (Recommendation E.4)
- Hire Transportation Demand Management Coordinator (Recommendation G.1); possibility to merge TDM responsibilities with the Bike Program Manager
CONTINUATION AND EXPANSION OF CURRENT PROGRAMS

This bike plan documents the many programs and initiatives the University has taken to promote and improve biking on and around the campus.

- Continue programs that are shown to be effective in increasing the number of cyclists on campus, increasing safety and achieving other major goals of this bike plan
- Promote programs with additional capacity such as the Free Wheelers bike share
- Expand and adapt piloted programs and programs with limited capacity such as It Pays to Ride Your Bike parking pass reimbursement.
- Continue to upgrade bike facilities on campus, especially older bike racks to meet current standards and add more covered/secured bike parking
- Put additional energy into building back the base of cyclists through additional encouragement, programs, group rides, challenges and fun!
CONTINUED DATA COLLECTION, EVALUATION, AND DATA-DRIVEN DECISIONS

Bike count, mode share, road safety, crash, and other bike-related data are essential in tracking and evaluating the effectiveness of the university programs and initiatives to achieve the major goals of this bike plan:

- The Bike Program collects bike count, bike rack count and utilization, and bike shop metrics. While this data is helpful, automatic bike and traffic counters could improve our understanding of the overall utilization of bicycling on campus throughout the year.
- The Bicycle Advocacy Committee receives annual vehicle parking data from the Parking & Transportation Department.
- MassDOT and the City of Lowell collect regular traffic count and maintain reports on traffic accidents.
- Annual Department of Environmental Protection transportation survey includes question on mode of transportation taken
UMass Lowell has been recognized for its commitment to promote biking and improve biking experience on campus and will seek to attain higher achievement in the League of American Bicyclist’s Bicycle Friendly University program.

- The University also recognizes bicycling as a vital contribution toward the university’s goal of achieve net-zero greenhouse gas emissions by 2050.
- Toward the BFU Gold level:
  - On track: UMass Lowell has an Assistant Director of Bicycle Programs, a Bicycle Advocacy Committee that meets regularly, and this Bike Plan
  - Still needs improvement: A more connected and safer bike network, bike parking improvements, more training and advocacy for safe bicycling, encouragement of a growing bicycling culture
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   Jeffrey Connors, University Police Officer
   William Emmons, University Police Officer
   Karina Cruz, Assistant Director, Transport & Parking
   Craig Thomas, Assistant Director, Sustainability
   Kartik Shah, Campus Planner
THANK YOU
NOW GO RIDE!