

MOBILITY, ACCESSIBILITY, & TRANSPORTATION COMMISSION AGENDA

Date: Monday, April 22, 2019

Time: 6:00 PM

Location: Common Council Chambers,

Third Floor, City Hall

	JOHNHOOIGH AGENDA	
Time	Item	Presenter(s)
6:00 pm	Call to Order Agenda Review Approval of Minutes – March 2019 Statements from the Public Commissioner's Comments	
6:05 pm	CC Liaison Report	Alderpersons McGonigal and Nguyen
6:10 pm	Chair's Report Vice Chair for May meeting Future Topics: May – Snow public input June – Parking? Snow and/or e-scooter follow-up July and August? Roberts Rules	Chair Lerner
6:15 pm	E-Scooters	Commissioners Barden and Powers
6:55 pm	Break	
7:00 pm	E-Scooters Continued	
7:15 pm	ADA Issues ADA Training ADA Coordinator CPF	Commissioners Brylinsky and Roberts
7:40 pm	Pedestrian Snow Removal and Public Input	Commissioners Chang and Brouwer
7:50 pm	DPW Parking Analysis	Commissioners Lyczko and Parkes
7:55 pm	Meeting Wrap-Up Announcements Next Meeting Date: THURSDAY, May 30, 2019 Feedback on Today's meeting	
8:00 pm	Adjournment	

The Mobility, Accessibility & Transportation Commission is charged with providing the Common Council, appropriate committees thereof, the City's quasi-judicial boards, and staff with advisory research, public input, and analysis for matters related to mobility, accessibility and transportation.

If you have a disability that will require special arrangements to be made in order for you to fully participate in the meeting, please contact the City Clerk at 274-6570 at least 48 hours before the meeting.

Out of consideration for the health of other individuals, please try to refrain from using perfume/cologne and other scented personal care products at City of Ithaca meetings. Thank you for your cooperation and understanding.

Dated: April 19, 2019

Draft E-Scooter Pilot Program Recommendation

Third Revision; Updated 4.16.19

MATCom recommends that the City of Ithaca authorize Lime to conduct a pilot program, pending review by the City Attorney, to assess the functionality of e-scooters as it pertains to our city. The e-scooter pilot program should have the following qualities:

I. General:

- A. E-scooter sharing should not occur without an MOU from the City. The City should establish a punitive policy which would apply to any company which operates an escooter sharing program without an MOU.
- B. The e-scooter MOU should follow the same format as the bikeshare MOU.
 - 1. The MOU should reflect the best practices for shared active transportation as detailed by NACTO.
- C. Proposed duration is May 2019 through mid-November 2019.
- D. Require Lime to attend a monthly "check-in" with the City and relevant stakeholders. Plan for an early assessment of the pilot to be conducted in September.
 - Include a provision allowing for the extension of the pilot or formalization of the MOU should the City determine the pilot to be beneficial. The pilot should not be extended until the Data Collection detailed in Section V is completed and reviewed.
 - The arrangement should be exclusive with Lime for the duration of the initial pilot program. If the City determines they would like to continue to allow e-scooters to operate beyond the conclusion of the pilot program, the City should also reserve the right to sign conditional MOUs with other companies as well.
- E. The City of Ithaca reserves the right to terminate the pilot program with or without cause.
- F. Initial launch must consist of 50 or fewer e-scooters. Additional e-scooters may be introduced at a rate of 10 per day as long as the number of rides per scooter per day exceeds 3.
- G. Require Lime to maintain a minimum bike fleet. Recommendation: a minimum bike fleet of 102 bikes (68 pedal, 34 e-bikes, following a 2:1 ratio), regardless of the number of escooters; beyond this, a minimum of 2 pedal bikes and 1 e-bike for every 10 e-scooters.

II. Operations Oversight:

- A. E-scooters should be subject to a curfew period outlined in the MOU, such that they will all be removed from the public right of way at a given time each evening and will be returned at a given time each morning. Suggested ranges include:
 - 1. 6:00 am 9:00 pm
 - 2. 7:00am 9:00pm
- B. E-scooters should be banned from use in pedestrian-only areas such as The Commons and sidewalks.
 - Geofencing will be used to establish "no ride" (motor reduces to 0mph) and "reduced speed" (motor reduces to 12mph) zones. The Commons should be designated as a "no ride" zone.
 - 2. The City should be empowered to designate new zones.
- C. The City should make a determination between the following options about the staging of e-scooters at the tops of or on the sides of hills during the pilot program. This determination should be subject to change should the MOU be extended beyond the pilot.

- 1. Lime may stage e-scooters at the tops of and on hills to offer a new transportation option for traversing Ithaca's challenging geography. *or*
- 2. Lime may not stage e-scooters at the tops of and on hills to mitigate perceived risk associated with downhill riding.
- D. Lime is responsible for removing e-scooters which are damaged, abandoned, and improperly parked within 30 minutes of discovery.
- E. The MOU should outline acceptable parking guidelines, this being on sidewalks not blocking fire hydrants, ADA access, entrances, or pedestrian right-of-way.

III. Fees:

- A. City Administration should establish fees for certain aspects of the e-scooter share. Fees should be used as a moderating feature. Fees should be based on industry standards and should not be based on ad-hoc judgement of the company's worth.
 - 1. A per ride fee should be assessed. Industry standard: \$0.10 \$0.15 per ride.
 - 2. An initial permit fee should be set. Industry standard: \$500.00. \$1000.00.
 - 3. A fine per e-scooter should be assessed to damaged, abandoned, and/or improperly parked e-scooters that remain in their location for 35 minutes to 2 hours after the e-scooter has been reported. This fee should then increase per e-scooter if the violation continues to exist beyond 2 hours. Industry standard: \$25.00 for 35 minutes to 2 hours; \$100 after 2 hours.
- B. These fees should be sent to a designated fund, the balance of which should be applied towards infrastructure improvements such as stenciled parking, bike corrals, bike lanes, etc.

IV. Insurance and Indemnification:

A. The MOU must include insurance and indemnification sections as deemed appropriate by the City attorney.

V. Data Collection:

- A. Both the City of Ithaca and Bike Walk Tompkins already have access to Lime's Data Dashboard, which provides GPS-driven data on frequency and location of bicycle rides. This access will extend to e-scooter data as well.
- B. Lime and the City of Ithaca should collaborate with the Tompkins County Health Department as well as ER and Urgent Care centers within the county to collect injury data as it pertains to accidents involving both bicycles and e-scooters, including pedestrian injury caused by these devices. Bicycle data must distinguish between bikeshare and privately owned devices.
- C. Lime, the City of Ithaca, and an appropriate Non-Government Organization should collaborate to conduct a survey of e-scooter users and to the general population to determine whether e-scooters will contribute to the City's mobility, equity, and climate action goals.
- D. IPD and Fire should collect data on the number of tickets they write and calls they respond to which involve bicycles and/or e-scooters.

VI. Privacy and Non-Discrimination:

A. Lime will adhere to the City's data privacy policies. App permissions for location sharing and camera use shall be clearly explained.

- B. Customers shall not be required to share personal information with 3rd parties. Customers may be asked to opt in to sharing some personal information to aid in pilot program evaluation.
- C. Lime will adhere to the City's non-discrimination policies.

VII. Safety:

- A. Amend Ithaca City Code 157-13A (Commons Bicycles and other wheeled devices) to explicitly include both scooters and e-scooters.
- B. Update Ithaca City Code 137 (Bicycles) to one of the following:
 - 1. No person shall ride, drive or operate a bicycle, e-scooter, or skates along any public sidewalk or footpath intended for the use of pedestrians. Allow bicycles, e-scooters, and skates on multi-use paths, unless otherwise stated. This provision shall not apply to: children 10 years of age or under riding a bicycle or skating; nor to anyone who, because of a disability, warrants the use of a bicycle, e-scooter, or other similar small, quiet wheeled devices as a means of transportation or mobility.

or

No person shall ride, drive or operate a bicycle or scooter along any public sidewalk or footpath intended for the use of pedestrians. This provision shall not apply to children 10 years of age or under nor to anyone who, because of a disability, requires the use of a bicycle as a means of transportation or mobility. This provision shall not apply to multi-use paths and trails. Any violation of the provisions of this section constitutes a civil offense punishable in accordance with § 1-1 of the City of Ithaca Municipal Code.

- 2. Add a subsection stating that wherever bicycles and similar devices are ridden where pedestrians are present, the user must yield to pedestrians, maintain a speed at or below 12 mph, provide at least 1' side clearance, and make an audible signal before passing. The passing speed should not exceed the speed of the person being passed by more than 3mph so that, relatively, it is like passing at walking speed.
- C. Require robust education initiatives for e-scooter users as well as pedestrians and motorists.

VIII. Equity:

- A. The LimeAcess program provides access for people without smartphones, bank cards, or people in low-income households. This program is administered by Bike Walk Tompkins and includes features such as text-to-unlock, pay-in-cash, and a 95% discount on pedal bikes and a 50% discount on Lime-E. This program will apply to both bicycles and escooters.
- B. Lime will ensure distribution not only along central hot spots but also throughout the entirety of the City. The City may designate particular neighborhoods for distribution, or they may simply use Lime's existing quadrant breakdown. The approach the City selects should be clearly stipulated in the MOU.

IX. Education:

A. Lime must collaborate with the City and any NGO they select to create and maintain a city-specific website which provides user instructions, safety education, and explains terms of service, privacy policies, fees, costs, penalties, and other charges. This service

- must be provided in English and in any other languages required by the City, as specified by the MOU. This website should have information pathways directed at e-scooter users, pedestrians, and motorists.
- B. Prior to the pilot launch Lime must set up staffed booths at various public spaces throughout Downtown and provide one-on-one rider education. This education initiative should be repeated daily for a minimum of one week. After the pilot begins, Lime should arrange for similar in-person education to occur at community events, including Ithaca Festival and StreetsAlive.
- C. In-app messaging must reflect that helmets are required for use per Lime's Terms of Service; that it is illegal to ride on sidewalks; that e-scooters must be parked upright, in approved parking zones, and without impacting ADA or emergency access; that a city-specific website can be accessed for more information.
- D. Lime, the City of Ithaca, and any NGO they select should promote the in-person education booths and city-specific website through as many channels as possible, including radio, print, TV, social media, and mailing lists.

Compilation of e-Scooter Research

Prepared for the Ithaca PEDC and Common Council

Sarah Barden and Megan Powers

Members, Mobility Accessibility, and Transportation Commission

Created 5 February 2019 Revised 8 April 2019

Sarah Barden and Megan Powers (SB/MP. "we") have done this research on behalf of the Mobility, Accessibility, and Transportation Commission (MATCom) at the request of the Planning and Economic Development Committee (PEDC). We presented our draft report and findings to MATCom, which has reviewed and commented on the evolving report and has approved its moving forward to PEDC for review on its merits.

Revision Summary

February 26, 2019

Initial Release (MATCom February Meeting)

March 6, 2019

- Added page numbers and table of contents
- Added Methodology section
- Added Pros and Cons section
- Added Safety section
- Added Insurance and Liability section
- Added Equitable Ridership section
- Added Geography section
- Clarified and expanded feedback from Lime

March 20, 2019

- Clarified statistics from Portland about choosing scooters over cars
- Clarified that injury data from Austin, TX was using statistics collected for all bicycle injuries.

April 6, 2019

- Added Revision Summary
- Extended and organized Safety section
- Added additional information about Harrisonburg
- Added information about Nashville
- Re-formatted citations and added a bibliography

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Executive Summary

The City of Ithaca Planning and Economic Development Committee (PEDC) asked the Mobility, Accessibility, and Transportation Commission (MATCom) to research several facets of escooter implementation to help the City of Ithaca determine whether and how to launch an escooter sharing pilot program. This research was undertaken by Sarah Barden and Megan Powers.

Given our research, we believe e-scooters represent an exciting opportunity for the City of Ithaca and that it is in Ithaca's best interest to establish a Memorandum of Understanding (MOU) for an e-scooter pilot program beginning in Spring 2019. Creating a pilot program for e-scooter sharing allows Ithaca to observe how e-scooter sharing impacts Ithaca and to collect ridership data without tying the city to a permanent decision. Until e-scooter riding in Ithaca is well understood, we believe establishing an exclusive agreement with one e-scooter provider is reasonable.

The basics of a dockless e-scooter sharing program typically include:

- Access to e-scooters via a smartphone app, unless using the LimeAcess program (see Equitable Ridership for more details).
- In-app User Agreement, education, and safety instructions.
- A daily curfew (as determined by the municipality) after which all e-scooters are turned off and removed from city streets; during this time they are re-charged.
- A minimum age requirement of 18.

Any MOU regarding e-scooters should follow the guidelines outlined by the NACTO (2018) and should establish clear regulations regarding e-scooter usage, including points listed below.

- Inclusion of insurance and indemnification clauses
- Establishment of a maximum e-scooter speed of 15 mph
- Establishment of fees or payments made to Ithaca by the e-scooter provider

Ithaca should consider requiring Lime to maintain a minimum fleet of bicycles along with the escooter program to serve the youth and underprivileged population.

Even with a detailed MOU, Ithaca should expect challenges with an e-scooter program. Citizens and tourists will ride e-scooters illegally on the sidewalks, and residents will express concern about both improper ridership and lack of enforcement. Further, some e-scooters will be parked inappropriately, possibly impacting ADA or rescue access. Ithaca can address these concerns proactively by creating education initiatives, leveraging local interested NGOs, and formally documenting expectations with Lime.

All the cities we interviewed faced some challenges in implementing their e-scooter programs, but all have chosen to renew the programs for the next year.

Methodology

Sarah Barden and Megan Powers have spoken with representatives from several cities to learn how these municipalities have approached e-scooter sharing and what challenges they have faced. We have also researched best practices for e-scooter implementation. We have shared our initial findings with several city departments (City Clerk, Engineering, Planning and Economic Development, and Fire) and collected their feedback. Finally, we have spoken with Jeff Goodmark, local Operations Manager for Lime, to understand Lime's hopes and expectations for an e-scooter program in Ithaca. Our findings are summarized in the following sections.

Pros and Cons of E-Scooter Sharing

E-scooters provide a new transportation option for residents and tourists, but they also have drawbacks. See also data from

- "The State of E-Scooter Sharing in United States Cities" (Kaufman and Buttenwieser, 2018
- "E-Scooter Scenarios: Evaluating the Potential Mobility Benefits of Shared Dockless E-Scooters in Chicago" (Smith and Schweiterman, 2018)
- "2018 E-Scooter Findings Report" (Portland Bureau of Transportation [PBOT], 2018)

Pros of E-Scooter Sharing

- E-scooters help solve the "last-mile" problem, giving people an easy option to make a
 trip that is too long for a comfortable walk but too short for a car ride. In specific, Smith
 and Schweiterman (2018) study found e-scooters were a strong, cost-efficient, timecompetitive alternative to cars for trips between 0.5 and 2 miles.
- E-scooters have a smaller parking footprint than bicycles or automobiles.
- E-scooters require little effort or skill to ride, especially compared to bicycles.
- E-scooters can provide a reliable means of transportation for those who cannot use or afford a car. This, in turn, can have a positive impact on job accessibility and business commuting.
- E-scooters have the potential to make jobs more accessible compared to public transit or walking alone. For example, Smith and Schweiterman (2018) found this to be true for 16% of jobs in their study area.
- E-scooters can replace cars, especially among tourists. In the Portland survey, 34% of residents and 48% of tourists reported that if e-scooters had not been available for their most recent scooter ride, they would have chosen to take a personal vehicle or taxi, Uber, or Lyft ride (PBOT, 2018).

Cons of E-Scooter Sharing

- E-scooters are a new technology. Cities and residents must learn how to integrate them into daily living while their risks are not yet understood.
- E-scooters are often used on sidewalks, increasing pedestrian discomfort and frustrating those who would like to see sidewalk riding regulations enforced.
- E-scooters that are parked improperly can cause accessibility concerns.
- E-scooters bring some people a perception of danger and risk. The studies needed to
 assess the risk have not yet been completed. A careful evaluation of bike-sharing and escooter-sharing statistics would reveal the relative risks, but this has not been done.
- E-scooters may be more sensitive to irregular pavement than bicycles. Because of their bigger wheels, bicycles tend to be more stable across bad pavement than e-scooters.
 Note: the diameter of the Lime-S Gen 3.0 e-scooter is 10 inches, while the diameter of a toddler's balance bike is 12 inches.
- E-scooters are less visible than Lime bicycles. They can be less visible than general bicycles because of their smaller profile, but they also have front and rear lights.

Safety

Like bicycles and other small transportation devices, e-scooters are associated with safety risks. To date, few extensive studies have been completed regarding e-scooter safety, and results are mixed. Most evidence suggests that the injury risk associated with e-scooter usage is comparable to that of bicycle usage.

Fatalities

There have been two fatalities associated with e-scooter sharing programs in the United States. At the time these fatalities occurred, there had been approximately 21 million rides on e-scooters. Schmitt (Sept. 2018) used this statistic to suggest that e-scooter sharing was approximately six times more deadly than bike share programs, using two US bike share fatalities over the course of 123 million rides. With such a small number of incidents in each case, however, the statistical uncertainty in the actual fatality rate is larger than the difference between the two modes of transportation (2 ± 1.4 in each case). It is thus impossible to draw useful conclusions from this data. A later report by the same author, Schmitt (Dec. 2018) took a more nuanced approach.

Injuries

E-Scooter Injury Statistics

Comprehensive injury statistics for e-scooter use are not yet available, but the CDC launched its first study of e-scooter safety by evaluating data collected in Austin, TX, last fall (Solomon, 2018). Until those results are released, there are a few other sources of injury data collection available for review. Austin's Mobility Committee of Council (2018) reported that between Sept. 29, 2018 and Oct. 31, 2018, there were nine scooter injuries, compared to 32 bicycle injuries (all bicycles), 44 pedestrian injuries, and 592 motor vehicle injuries in the same period.

A study done by the Journal of the American Medical Association (JAMA) studied injuries related to standing e-scooters by reviewing data from emergency department visits to the Ronald Reagan UCLA Medical Center and UCLA Medical Center—Santa Monica from September 1, 2017 through August 31, 2018 (Trivedi, Liu, and Antonio, 2019). The study identified 249 patients with injuries from e-scooters. Of these injuries, fifteen required admission to the hospital, with two patients requiring service from the intensive care unit.

The city of Portland, OR, found there were 176 e-scooter-related injuries reported to the emergency room between July 25 and Nov. 20, 2018. During the same period, there were 429 bicycle-related ER visits (PBOT, 2018).

Relative Safety of E-Scooters Compared to Bicycles

As explained in the Portland report (PBOT, 2018), it is difficult to compare e-scooter and bicycle injury rates because there is relatively little information about the number and length of bicycle trips. Evidence suggests that where e-scooters are available, they are a far more popular mode of transportation than bicycles. The City of Santa Monica, featured in Trivedi et al. (2019), licenses 2,000 e-scooters but only 1,000 e-bikes in dockless sharing programs (Walker, 2018). From July 1 to September 20, 2018, e-scooters outnumbered dockless bicycles in Houston 3,212 to 632 (5:1). Houston users traveled 595,437 miles on e-scooters compared to 41,973 miles on dockless bikes (14:1), with an average trip being 1.05 miles on an e-scooter compared to 0.65 miles on a dockless bicycle (Chiquillo, 2018).

Helmet Use

In the JAMA study, ten of the patients said they had been wearing a helmet when the injury occurred (Triveldi et al., 2019). The study included an observational study of the riding habits of 193 e-scooter users compiled from three different sessions. They observed only eleven riders using helmets. The observational study also found 51 riders using the sidewalk. When the study was conducted, both riding on the sidewalk and riding without a helmet were illegal in the study area. A post-hoc review found 195 visits for bicycle injuries and 181 visits for pedestrian injuries in the same time period.

Injuries among Case-Study Cities

Among the cities we contacted to discuss e-scooter programs, Memphis and Harrisonburg reported evidence of e-scooter injuries. According to McGowen (personal communication, 2019), there were a couple of serious head injuries in Memphis during the pilot period that were related to e-scooter use. The city responded by mandating the e-scooter apps include rider education, and they pushed for safety demonstrations and free helmet giveaways. Memphis also trained its downtown tourism representatives about e-scooter usage for tourists. These measures appeared to make a positive impact on rider safety.

Wesley Russ of Harrisonburg (personal communication, 2019) reported a James Madison University student fell while riding down a steep hill, breaking his arm.

Providence and St. Paul both commented that safety was a priority for them and that they wanted to provide education initiatives, but that they did not have injury statistics and had only limited injury anecdotes (Ellis, personal communication 2019, and Collins, personal communication, 2019).

Additional Comments about Safety

There is a learning curve associated with riding e-scooters that results in an initial elevated risk of crashes when riding an e-scooter. Further, because e-scooter tires are smaller in diameter than most bicycle tires, they can be comparatively more difficult to ride safely over cracks and uneven pavement.

Lime is replacing all their e-scooters with the new Lime-S Gen 3.0 (MATCom, Apr. 2019), which Wired reviewed in October of 2018 (Marshall, 2018). This model has notable safety improvements over previous models, including larger (10-inch) tires, dual suspension, an improved braking system (electrical and mechanical in front; step-based at the back), a maximum speed of 14.8 mph, and an active rear light and reflectors for increased visibility.

Educational outreach and demonstration programs, along with customized safety tips, could be used to help address e-scooter ridership risks. Eric Hathaway from Engineering has begun the process of working with Cayuga Medical Center to help collect injury statistics.

Lime requires all e-scooter riders to be at least 18 years old.

Insurance and Liability

It is common for cities to include insurance and indemnification clauses in their agreements with e-scooter providers, and NACTO guidelines recommend that cities require providers to hold insurance and to indemnify the city in the event of injury (NACTO, 2018).

The current MOU between Ithaca and Lime for bicycle sharing includes provisions for both indemnification and insurance:

- 6. Indemnification. LimeBike shall defend, pay, indemnify and hold harmless City, its officers, officials, employees, agents, invitees, and volunteers (collectively "City Parties") from all claims, suits, actions, damages, demands, costs or expenses of any kind or nature by or in favor of anyone whomsoever and from and against any and all costs and expenses, including without limitation court costs and reasonable attorneys' fees, resulting from or in connection with loss of life, bodily or personal injury or property damage arising directly or indirectly out of or from or on account of:
- a. Any occurrence upon, at or from City Property or occasioned wholly or in part by the entry, use or presence upon City Property by LimeBike or by anyone making use of City Property at the invitation or sufferance of LimeBike, except such loss or damage which was caused by the sole negligence or willful misconduct of City. b. Use of LimeBike's bikes by any individual, regardless of whether such use was with or without the permission of LimeBike, including claims by users of the bikes or third parties.
- 7. Insurance. LimeBike shall procure and maintain for the duration of this agreement insurance against claims for which LimeBike has indemnified the City pursuant to Section 5 of this Agreement. LimeBike shall maintain General Liability limits no less than One Million and no/100 Dollars (\$1,000,000.00) per occurrence for bodily injury, personal injury and property damage, and in the sum of One Million and no/100 Dollars (\$1,000,000.00) for injury to or death of more than one person for each occurrence, and Umbrella coverage no less than Five Million and no/100 Dollars (\$5,000,000.00). Each insurance policy shall name the City as an additional insured and it shall be endorsed to state that: (i) coverage shall not be suspended, voided, or cancelled by either party, or reduced in coverage or in limits except after thirty (30) calendar days prior written notice by certified mail, return receipt requested, has been given to City; and (ii) for any covered claims, the LimeBike's insurance coverage shall be primary insurance as respects the City and any insurance or self-insurance maintained by the City shall be in excess of the LimeBike's insurance and shall not contribute with it. The insurance required to be provided herein, shall be procured by an insurance company approved by City, which approval shall not be unreasonably withheld.

Currently, insurance coverage for riders is handled through the e-scooter companies' usage agreements. There is no explicit coverage to protect riders in the event of an injury or malfunction.

Lime's User Agreement can be found here: https://www.li.me/user-agreement

Equitable Ridership

Access to e-scooters can potentially provide a new, affordable mode of transportation to those who need it most. To help encourage equitable distribution and usage of e-scooters, several

cities, including Providence, Portland, and St. Louis, have stipulations requiring e-scooter providers to ensure e-scooters are distributed among a variety of neighborhoods (Ellis, 2019; PBOT, 2018; St. Louis, 2014).

St. Louis (2014) did so by specifying Social Equity and Inclusion Target Neighborhoods "which mapped out areas with high concentrations of low income households, people of color, households with no access to a vehicle, and non-English speakers. The neighborhoods with high concentrations of those factors that were also within reasonable biking distance of MetroLink and the urban core of the city were chosen as places that could benefit the most from additional affordable transportation option."

Lime has a program called Lime Access which provides access to their bicycles for people without smartphones, bank cards, or people who live in a low-income household. Lime Access users can text-to-unlock bikes, pay in cash, and receive a 95% discount on pedal bikes and 50% discount on Lime-E. Jeff Goodmark from Lime has confirmed that Lime Access will be active for e-scooters as well (MATCom, 2019).

Geography

Because of their relatively small motors, e-scooters struggle to climb steep hills such as those that surround the Ithaca Commons. Scooters can be staged along hills and at the tops of hills to provide users with downhill access.

Of the cities we questioned, both Providence and Harrisonburg have some significant hills.

Harrisonburg has a similar geography to Ithaca, with a flat downtown area surrounded by steep hills. Harrisonburg reported that Bird stages quite a few e-scooters to serve students living at the top of the hill. Ridership declines sharply in areas where the hills are steepest, but they did report one student broke his arm as a result of a fall while riding an e-scooter down a steep section of hill (Russ, personal communication, 2019).

Providence reported that e-scooters are not used as much on hills (Ellis, personal communication, 2019).

Lime does not recommend geofencing the hills, since geofencing reduces the speed of the escooter via motor throttling but does not initiate the braking system. Therefore, e-scooters may be 'free-ridden' down the hill even if it was geofenced, removing the value of geofencing that area (Goodmark, personal communication, 2019).

E-Scooter Sharing in Other Cities

Sarah Barden and Megan Powers have communicated firsthand with city employees about their e-scooter programs in four cities: Harrisonburg, VA, Memphis, TN, Providence, RI, and St. Paul,

MN. Portland, OR, provides extensive information about its e-scooter program online. Reviewing conversations with these cities revealed several common themes.

- Cities use the NACTO Guidelines to model their MOUs and ordinances.
- Cities rely on their existing bike infrastructure for e-scooters (as opposed to building new infrastructure).
- Cities limit e-scooter speed to 15 mph, at least in some areas.
- Cities employ selective geofencing to prohibit e-scooters from particular areas.
 Geofencing uses GPS to establish a virtual perimeter around an area. The device's software can respond to the geofence in a variety of ways. For example, a geofence can be set up so that an e-scooter cannot be ridden within a particular boundary (for example, on the Ithaca Commons).
- Cities are concerned about poorly parked e-scooters. Lime scooters have generally been parked well, and Lime staffing has been responsive.
- Cities are concerned about safety and want to launch education initiatives. Most have not done so because of the logistics and cost involved.
- Cities struggle with citizens riding e-scooters on sidewalks but do not have a good solution.

Harrisonburg, VA

Of all the cities MATCom investigated, Harrisonburg is closest in size to Ithaca. Like Ithaca, it is a college town with a centralized downtown area. Harrisonburg was the least prepared of the cities for the influx of e-scooters. Both Bird and Lime brought e-scooters to Harrisonburg before the city had prepared e-scooter guidelines or established an MOU. Harrisonburg found itself at the center of an escalating e-scooter competition between Bird and Lime and became overwhelmed with the number of e-scooters.

The city was able to rein in the e-scooter companies and now has a good relationship with Lime. It has worked with Lime to implement temporary geofencing for events. Harrisonburg is now looking to expand the Lime fleet to include bicycles.

More so than other cities we researched, Harrisonburg reported conflict between drivers and escooters.

After the first 32 days with Bird scooters, Bird told Harrisonburg that there had been 26,779 total rides, with an average ride length of 0.77 miles and duration of 8.9 minutes. During this period, Harrisonburg estimates the scooters received an average of close to 5 trips per day.

During January and February, the Lime scooters averaged only 1.6 rides per scooter per day, but this included two days of inclement weather where there were no rides recorded. Removing these days, the scooters average between 2 and 2.2 rides per day.

In early 2019, the city of Harrisonburg created an e-scooter regulation process and pilot program (Peterson, 2019). Since then, Bird has applied for a permit to continue operations in the city, which was approved. Bird is currently authorized to host up to 150 e-scooters in the city (Russ, personal communication, 2019). Lime is not pursuing further e-scooters in Harrisonburg at this time (Goodmark, personal communication, 2019).

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Memphis, TN

Memphis studied how other cities responded to e-scooters and created an ordinance in advance of their arrival in the city. When Nashville ejected Bird e-scooters from the city, Memphis invited Bird there instead and quickly worked with Bird to create an interim operating agreement.

Lime introduced 250 e-scooters after being asked by the city to wait for the interim agreement with Bird, but Memphis responded by impounding the Lime e-scooters. Memphis negotiated a deal with Lime two months later.

Improper parking that blocked ADA access was initially a problem in Memphis, but Bird helped address the issue by firing some of the chargers who were not complying with regulations and by including staffers who ride around the city and reposition poorly parked devices.

Memphis added e-scooter specific parking. Its bike infrastructure was lightly used, so the introduction of e-scooters has not caused a strain.

Memphis manages volume by requiring e-scooters to average 3 rides per day.

A few citizens needed care at a trauma center following head injuries related to e-scooter use. Memphis has since required that the e-scooter apps include rider education. Memphis has also educated its downtown representatives about e-scooter usage for tourists.

Contact:

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Providence, RI

Providence is interesting because it allows both cycling and e-scooter riding on its sidewalks. The sidewalks in Providence are not particularly wide, and the increased ridership has caused increasing tension. So far, there isn't enough data to determine whether crashes between e-scooter riders and pedestrians are more likely to occur in Providence than in other cities. Providence is investigating several options to limit e-scooter riding on sidewalks, including introducing a ban to riding e-scooters on downtown streets and explicitly linking allowed sidewalk use with the lack of a designated bike lane.

Providence explicitly modeled its e-scooter policies on the NACTO guidelines and has the MOU posted publicly via the city's website: (http://www.providenceri.gov/wp-content/uploads/2018/08/Scooter-policy-update-final-12-27-18.pdf).

Citizens' reception to the e-scooter program has been less enthusiastic than the reaction to the bike-sharing program. The on-the-ground team for the bike share component has generally been more responsive than a similar team for the e-scooter program.

Providence currently hosts two e-scooter companies. One of them pulled out for the winter, and the other has significantly reduced ridership, even though Providence has had relatively little snowfall to date.

Providence charges its scooter providers \$1 per scooter per day, and its scooters have averaged 2.5 trips per day per scooter.

Contact:

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St. Paul, MN

St. Paul currently has agreements with both Bird and Lime for e-scooter sharing. The city preemptively addressed concerns about poorly parked e-scooters by including a provision that the e-scooter providers would pay the city whenever a city employee was called to reposition an e-scooter. The agreement gives the e-scooter company a window before the city employee is called. St. Paul has still struggled with illegally or poorly parked e-scooters, but the city has found that the e-scooters are repositioned or re-rented before its staff can arrive on the scene.

St. Paul struggles with citizens riding e-scooters on the sidewalks (which is illegal) and in various parks where bicycles and similar devices are banned. They hope to launch an education initiative in the future.

Overall response to the e-scooter program has been positive. There have been complaints about negative pedestrian-scooter interactions, but there has not been a noticeable uptick in crashes.

St. Paul does not have an e-scooter program active for the winter but plans to renew agreements for the spring.

The St. Paul MOU can be viewed here:

https://drive.google.com/file/d/0B3kAZ5t5YyDKem5LR3F3TDBoX1h5TUhxNHZpOU83YXVMeTQ4/view?usp=sharing

Contact:

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Portland, OR

We have not spoken with anyone in Portland firsthand, but Portland has made a wealth of information available online.

Portland commissioned an independent, scientific study of e-scooter ridership and perceptions as part of its pilot program.

On the whole, the people of Portland approve of the e-scooter program. Citizens with positive views of the program stressed the flexibility, convenience, and fun of the program. Those with negative views were concerned about improper or illegal use of e-scooters. Top priorities among all survey respondents were education about and enforcement of the current rules

During its first pilot program, Portland had 2,043 e-scooters that covered 801,887 miles in 700,369 trips. The pilot lasted 120 days, so, on average, there were 2.86 trips per scooter per day, and the average scooter ride was 1.14 miles long.

See PBOT (2019) for more information and to read Portland's reports.

Nashville, TN

We contacted Nashville, TN, in early April 2019 to learn more about why they had barred escooters from the city.

Nashville initially transmitted a cease-and-desist letter to Bird (Costonis, 2018), the first company to launch e-scooter sharing within Nashville, because the e-scooters were blocking the public right-of-way, and there was no legislature in place to govern e-scooter sharing.

Since the initial cease-and-desist letter, Nashville has adopted city ordinances, and e-scooter companies now operate within the city (following an application process) (Nashville, 2018).

Feedback from City Departments

Representatives from city departments we have interviewed have generally been positive about implementing an e-scooter program. Most are concerned about helping to ensure safety and/or to curtail improper parking.

City Clerk

Julie Holcomb is especially concerned about safety and is willing to collaborate with Lime and NGO's like BikeWalk Tompkins to deploy education initiatives. In particular, she would like to see a proactive education campaign prior to the launch of any pilot program. She recommends a FAQ and timeline to be provided to City staff and downtown representatives. She prefers a curfew that aligns with sunset to prevent scooter use after dark.

Engineering

Tim Logue suggests Ithaca ask the Health Department to help collect e-scooter incident data. He also recommends we ask Lime to sponsor an independent study about e-scooter usage. He recommends we wait to see where the e-scooters are used before introducing new infrastructure requests. He is in favor of using a pilot program to learn more about how this alternate form of transportation would be utilized by residents and visitors.

Fire Department

Chief Tom Parsons has concerns about insurance and liability, but his top priority is safety. He would be in favor of e-scooters if Ithaca can implement requirements and education to make their use as safe as possible.

Planning and Economic Development

The Planning and Economic Development Division was particularly interested in ensuring the scooters and bikes are spread equitably throughout Ithaca. Scooter use is limited to people who are 16 or older, but Ithaca Youth can benefit strongly from enhanced mobility options. An agreement with Lime could also require Lime Bikes to be distributed so that they're easy for middle- and high-school students to use for accessing after-school activities.

They saw an opportunity to make The Commons more accessible by allowing scooters on The Commons but limiting their speed to 5 mph. Unfortunately, the technology for scooters to

achieve this is not quite ready, and Lime recommends enforcing having no scooters on the Commons.

JoAnn Cornish strongly endorses education initiatives and encourages training downtown tourism staff to promote safe scooter ridership.

To address concerns about parking, Planning recommended considering drop-off zones for bike and scooter share vehicles as seen in Seattle (Mah, 2018) to be designated with onstreet/sidewalk paint or installation of physical corrals or barriers. Locations would be chosen not to detract from vehicle parking or interfere with accessibility.

The Planning Division appeared open to an interim scooter agreement with Lime and would appreciate a draft MOU that meets the NACTO Guidelines to serve as a basis moving forward. They believe Lime should pay an operating fee of some amount to the City of Ithaca.

City Attorney

Aaron Levine recommended that he be involved in drafting the MOU if the city indicated interest in pursuing a pilot program for e-scooters, but that he did not need to weigh in at this time.

Police Department

To date, we have not been able to schedule a meeting with the Ithaca Police Department.

Feedback from Lime

Jeff Goodmark from Lime says his company places emphasis on safety foremost and also concentrates on accessibility, affordability, and availability of shared transport devices (Goodmark, personal communication, 2019). Since its bicycle-sharing launch in April 2018, there have been approximately 90,000 rides, with 12,000 of these on e-bikes. Lime currently employs several people in Ithaca depending on the season. Currently, in the winter, Lime has two full-time employees and six part-time employees. This will be increasing soon as temperatures increase.

Lime attests it will not launch e-scooters without a formal agreement to do so with the city of Ithaca (MATCom, 2019). The company is willing to conduct education and publicity events leading up to a program launch. The maximum scooter speed will be set to 15 mph. The company will target an average ridership of three rides per scooter per day. The Lime Access program is still available with e-scooters.

While e-scooters are profitable to Lime, the bicycles are not. Consequently, Lime feels it is important to introduce e-scooters to Ithaca (Goodmark, personal communication, 2019). Lime

would like to see e-scooters introduced in May and requests that Ithaca sign an exclusive agreement with Lime for e-scooters.

New York State Law

Currently, e-scooters are illegal in New York State, but enforcement appears to be largely left to individual municipalities. E-scooters are not clearly defined in New York State's Vehicle Traffic Law (Beltramo, 2018).

A proposal in Gov. Andrew Cuomo's state budget would establish state traffic laws governing electric bikes and scooters and authorize local governments to authorize them as they prefer (FY2020 Executive State Budget, p102+).

NACTO Guidelines

NACTO, the National Association of City Transportation Officials, developed a set of policy guidelines it believes all cities should follow when navigating "shared active transportation." See NACTO (2018 pp. 6-9)

Conclusion

Sarah Barden and Megan Powers have found that on the whole, e-scooters represent an exciting opportunity for the City of Ithaca. We believe Ithaca should develop an exclusive e-scooter agreement with Lime, separate from the bike-share MOU, to launch a pilot e-scooter program for a predefined, renewable period of time.

Ithaca should expect citizens to ride e-scooters illegally on the sidewalks. Residents will express concern about both improper ridership and lack of enforcement. The city can help alleviate these concerns by working with Lime to ensure proper ridership is supported and to leverage local interested NGOs and groups to better educate residents. We strongly support a proactive education campaign prior to the launch of the pilot program.

The parking of e-scooters will be a second area of concern. Ithaca should act proactively with Lime to ensure its employees are actively monitoring scooters for improper parking.

Any MOU regarding e-scooters should follow the guidelines outlined by NACTO. Ithaca should ensure the insurance and indemnification clauses are in place and that the maximum scooter speed is limited to 15 mph. Ithaca should establish fees associated with e-scooter operation in the city. Because e-scooters are more expensive to ride than bicycles, and because e-scooter ridership is limited to those 18 and older, Ithaca should consider requiring Lime to maintain a minimum fleet of bicycles along with the e-scooter program. Lime asked for an exclusivity

agreement for e-scooters. Ithaca is small enough that it is reasonable to work exclusively with one provider until e-scooter riding is well understood.

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COMMISSION PROJECT PLAN

ASSIGNED COMMISSION	Public Safety and Information	Parks, Recreation and Natural Resources
REPORT UP TO	Community LifeX City Administration Committee	X_ Mobility, Accessibility and TransportationPlanning and Economic Development Committee
	MayorCommon Counc	cil City Staff (specify):
1. Project Title, Des	scription and Background	
i Give this project a title	e, describe how it came about, the purpose, an	nd who is involved.
Disability Accessibility Cou Clerk met 3/13/19 to discus basic need for this position and departments. MATC r to assess their needs and	ported ADA Coordinator position for the City ncil (DAC) and current priority for the MATC ss the creation of formal proposal to the City and common interest in creating a well-tho members Larry Roberts and Sarah Brylinsky	of Ithaca has been a priority issue for the former C. MATC membership, ComLife, PRNR, and the City of funding an ADA Coordinator, and agreed on the ught out proposal for consideration across City officials or request access and support to meet with city officials aft proposal. The goal of this project is to submit a non Council.
2. Project Deliverab	les	
Please check off and needed.	describe below the exact deliverable(s) you ar	e expecting from the Commission, and add details as
·	c and provide a summary report on your adations. (Requires a vote of the commis	findings. Include any recommendations along with ssion)
	nission supports the program, does not	vide feedback on the pros and cons. Report back should support the program, or is neutral, along with the
Arrange for a public presereport. (Vote of commission		olicit questions, and synthesize feedback in a findings
	a draft ADA Coordinator position description sts support for time to review and provide fee	

3. City Staff Participation

Describe below the expectations of City Staff to support this work. List names of City Staff assigned to assist.

Requesting support from:

- City Clerk, Julie Holcomb assistance scheduling meetings and coordination with other municipalities as needed
- Sarah Meyers support for ADA discussion group email (completed), logistics

Requesting time for a meeting and review of documents with comments on proposal design and content:

- Planning, Building, Zoning and Economic Development Department Comptroller Chief of Staff
- Department of Public Works Human Resources Department City Attorney

We anticipate additional meetings or input may be solicited based on recommendations from these key representatives

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List below any existing materials or resources that should be reviewed by the Commission as part of their work.

MATC has met with former DAC members, the City Clerk, and others to review previous work done on the needs for an ADA Coordinator and will build on this work. Additional specific recommendations are welcome.

5. Other Stakeholders or Community Partners

List below any other parties that should be included in the discussion or planning of this topic.

Potential collaborators:

Town of Ithaca and/or Tompkins County representatives for cost-sharing, position responsibilities discussion Additional potential collaborators:

Downtown Ithaca Alliance, etc.

6. Timeline and Milestones

Please complete the preferred dates for the following milestones. Please use the MONTH/YEAR format.

Progress Report 1:	Public Input 1:	Final Deliverables Due:
MONTH/YEAR	MONTH/YEAR	MONTH/YEAR
Progress Report 2: MONTH/YEAR	Public Input 2: MONTH/YEAR	