

January 31, 2018

Greenride Shared Mobility Analysis and Expansion Plan

Scope of Work

The Greenride shared mobility system launched in April 2018 and has generated approximately 9,000 trips and 600 monthly and annual members. In partnership with CCRPC and working with Burlington, South Burlington, and Winooski, this project will analyze Greenride shared mobility Phase 1 implementation to identify areas of improvement, provide guidance on hub siting and shared mobility distribution, and consider other improvements, such as e-assist bicycles and e-scooters, that may support the growth and success of the region's first shared mobility system.

The project is anticipated to be completed in approximately four months, with the following proposed tasks:

- Project Coordination
- Stakeholder Engagement
- Community Analysis
- Financial Analysis and Business Plan
- Implementation Plan

Task 1 – Kickoff Meeting and Project Coordination

Consultant PM will have a kickoff meeting via conference call with the project team and will have monthly conference calls throughout the duration of the project. The consultant team will also prepare monthly progress reports.

At the kickoff meeting, the scope and schedule for the project will be reviewed and discussed. The project team will also confirm the stakeholder engagement process and members of the Steering Committee. Ongoing project coordination will include reviews of analysis results and recommendations, as well as confirmation of local technology and business model preferences. The project management team will also provide needed system and GIS data at or after the kickoff meeting.

Task 1 Deliverables

- Project kickoff meeting via conference call
- Finalized project scope and schedule
- Monthly conference calls with project management team
- Monthly progress reports
- Meeting notes and materials

Task 2 – Community Analysis

A shared mobility system should be designed to meet the community's needs. It connects key activity centers such as residential neighborhoods, major employers, colleges and universities, transit hubs, commercial districts, and visitor attractions so that it can effectively serve residents, employees, students, and visitors. The conditions analysis examines the community's demand and current usage of shared mobility. It combines a high-level GIS and system data demand analysis, information from the Steering Committee, a field visit conducted in the Burlington area, and best practices from peer cities.

Task 2.1 Demand Analysis

Toole Design will conduct a GIS-based analysis to identify the areas with the highest potential for shared mobility ridership. Toole Design will analyze existing hub locations, ridership and membership data from the Greenride system to identify areas that are currently underserved by the existing program as well as a GIS analysis that uses available data to determine areas with a density and mixture of uses that would be suited to shared mobility.

The GIS-based demand analysis uses available data such as population and employment density, equity variables including race/ethnicity and income, local and visitor attraction points of interest, key community destinations, transit routes, stops, and ridership, and bikeway infrastructure. The results of the analysis will be displayed on a heat map along with input from the CCPRC Project Manager and the Steering Committee to narrow the focus area for the bike share system.

Task 2.2 Business Model and Technology Review

This task will review the advantages and disadvantages of the different technology types – smart dock, smart bike, and dockless; and emerging technologies including accessible bikes and electric bikes and scooters – to determine if there are any clear preferences amongst decision-makers for the type of technology that should be deployed in the Burlington area. Toole Design has significant experience reviewing these different technologies and presenting this information in a way that is easy to understand and promotes active discussion. This task will provide an overview of similar models in other communities, describe best practices for shared bike and scooter systems, and discuss emerging industry trends with vehicle battery charging and swapping, and the capabilities of the different technologies.

Task 2.3 Steering Committee Meeting #1

Toole Design will travel to the Burlington area to lead the first of two Steering Committee Meetings. The Steering Committee will include the CCPRC Project Manager and other representatives, including the City of Burlington, the City of South Burlington, the City of Winooski, Champlain College, University of Vermont, and Chittenden Area Transportation Management Association (CATMA). The meeting will be designed to be interactive and engaging, encouraging discussion and guidance from the steering committee. The outcomes of the meeting include:

1. Determining the goals and objectives for shared mobility in the Burlington area
2. Identifying benefits and challenges with the existing system
3. Identifying market segments for who will use an expanded shared mobility system
4. Reviewing the community analysis results and determining where shared mobility expansion should focus
5. Confirm the preferred technology and business model for the expanded program.

Task 2.4 Field Analysis

While in the Burlington area, Toole Design will conduct a field review of areas with the most shared mobility expansion potential, identifying specific opportunities and constraints. During the field review, Toole Design will review the physical environment to identify opportunities or challenges that need to be addressed or considered in the planning of the system. These could include areas with significant topography or major physical, transportation, or other barriers; the extent of the bikeway network (both planned and existing) and how that could be used or prioritized to enhance the success of the program; and how winter and climatic conditions might impact the system and how they should be addressed in system operations and management.

Task 2.5 Current Regulating Policies

Toole Design will review and summarize current state statutes and local (municipal and campus) regulations to determine if and how shared mobility systems and vehicles, including electric and electric assist, are currently regulated, and whether there might be any potential system/vehicle operating conflicts with existing regulations. Based on this review, and on best practices in other shared mobility markets, Toole Design will recommend potential policy updates to manage, operate, and grow shared mobility systems in the state.

Task 2 Deliverables:

- Steering Committee Meeting #1 meeting materials and summary notes
- Draft goals and objectives
- Summary of relevant state statutes and local/campus regulations
- Recommended model language that could inform potential changes to state statutes and local/campus regulations
- Draft Conditions Analysis Memo
- Final Conditions Analysis Memo

Task 3 – Stakeholder and Community Engagement

Shared mobility systems require the support of a broad range of community stakeholders, including government agencies, local advocacy groups, community program leaders, and the private sector. The purpose of this task is to explore opportunities to expand the shared mobility program to reach more users and build on past sponsorships and community support. Results from this task will be incorporated into the conditions analysis memo.

Task 3.1: Stakeholder Outreach

When in the Burlington area, Toole Design will conduct up to two stakeholder meetings and up to three small-group interviews with key Burlington, South Burlington, and Winooski staff and other stakeholders. Toole Design will assist the project manager in identifying the appropriate partners, which could include various municipal departments, the Chittenden County Regional Planning Commission, CATMA, University of Vermont, Champlain College, and transportation, economic development, health, and advocacy partners and current sponsors.

Toole Design will also conduct a small-group meeting with local bike shop owners to hear their feedback about the current shared mobility program. In our experience, these meetings are most effective as small-group meetings with common themes – often agency staff meetings tend to be focused on technical or operational issues, whereas community partner meetings tend to be focused more on potential partnerships and a broader look at the opportunities and constraints. Toole Design will assess the impact of Greenride on local bike rentals, how that compares with shared mobility impacts to rentals across other US markets, and propose recommended best practices to balance the accessibility of shared mobility services with a community's local bike and outdoor retailers.

Task 3.2: Community Shared Mobility Survey

Toole Design will engage the community in the shared mobility system planning process via a project webpage hosted as a page on CCRPC's website. It is assumed that CCRPC will develop and host a project website, and that Toole Design will develop an online survey on a third-party platform that can be linked to the project webpage. The survey will be used to collect information on people's use and opinion of the existing shared mobility system, where they would like to see improvement, and seek opinions on e-scooters potentially being included as part of the system. It will also collect information on barriers for why people don't currently use the system. The survey will include questions to collect demographic data, so it can be compared to the broader population demographics.

Task 3 Deliverables:

- Online survey with questions regarding shared mobility (e-assist bikes) and e-scooters
- Online crowdsourcing map, materials for public meeting(s)/outreach, and summary of comments received
 - CCRPC may create the online map
- Stakeholder meetings and summaries
- Summary of shared mobility impacts to local bike and e-bike sales/rentals, comparing across other US shared mobility markets using available research, and recommended best practices to balance the accessibility of shared mobility services with a community's local bike and outdoor retailers.

Task 4 – Financial and Business Model Analysis

Building on the business model review and stakeholder feedback in Task 2, Toole Design will provide an analysis and recommendation of any changes. Additionally, the analysis will review all costs and possible revenues to be used in expanding for different shared mobility program options.

Task 4.1: Business Model and Technology Recommendation

Based on the recommended technology and feedback received from the previous tasks and the complete set of goals and objectives, Toole Design will develop draft recommendations for the business model and overall governance structure for the shared mobility program. The appropriate governance structure will depend on capacity and interest, potential implementation partners, jurisdictional framework, and funding opportunities.

These recommendations will draw on best practices from communities of similar size and similar project goals to learn from recent experience around the country. From this analysis, we can identify some of the factors that best contribute to success. However, beyond just comparing these statistics, we have worked with many of these communities and understand some of the major challenges that they have faced in implementing bike share and the lessons learned from these challenges.

Task 4.2: Financial Analysis

Toole Design will provide a general estimate of program costs and revenues for the different shared mobility models. This will be based on existing program data and information from other programs in the United States. Where there is a funding gap, Toole Design will identify potential funding sources used in other programs including public funding, sponsorship, and other opportunities. Toole Design will also recommend a revenue sharing model based on similar shared mobility programs with similar system goals.

Task 4 Deliverables

- Analysis and recommendation of business model updates and proposed system phasing
- Pro forma spreadsheet example

Task 5 – Shared Mobility Expansion Plan

Task 5.1: Recommended Expansion Plan

The shared mobility expansion plan will summarize the analysis of different technology options, how and where these should be deployed, and the cost and/or revenues associated with the recommended program option. Toole Design will consider the results of the conditions analysis and outreach tasks above to develop expansion recommendations including the number and type of stations, number of bikes and e-scooters based on peer system data, recommended system model and pricing/fee options, integration with transit service, and industry trends. The expansion plan will consider system metrics of success, and future implementation steps such as permitting and policy update needs. Toole Design will provide model municipal micromobility regulating language and potential shared mobility vendor/operator fee structures to regulate shared mobility and identify options for use of any collected fees (e.g., create a sustainable transportation fund for infrastructure improvements).

Task 5.2: Steering Committee Meeting #2 Conference Call

Via conference call, Toole Design will present final recommendations of the Draft Shared Mobility Expansion Plan to the Steering Committee. After the meeting, Toole Design will respond to one set of consolidated comments from the CCRPC Project Manager and Steering Committee and will then prepare a Final Shared Mobility Expansion Plan.

Task 5 Deliverables

- Draft and final expansion plan, including key information from previous tasks
- Model language for city ordinance and state statute to best regulate these shared mobility services
- Performance measures and goals
- Steering Committee Meeting #2 (conference call) meeting materials and summary notes