

Project Prioritization

Approach

This project provides a prioritized list of 37 proposed active transportation projects within 24 unique studies in the Town of Shelburne.

Public input and project analysis were combined to create weighted project scores for each planned active transportation project in Shelburne. This combination of publicly driven values with project analysis was used to create a prioritized list of projects. This initial list was then reviewed and refined by the public before being finalized as a result of this study.

This page provides a broad overview of the methods used to create a prioritized list of active transportation projects. The following page describes this methodology in greater detail.

Public Input and Values

Every community and town have unique priorities and preferences for the ways in which to invest their public funds. Though public values are rarely uniform, this project used a public survey process to gauge public values and priorities as related to five key project categories. Those categories included:

- Transportation
- Recreation
- Connectivity
- Maintenance
- Complexity

A sixth category of Safety is part of this process, but was not included in the public review, as this category and value was seen as a paramount value in any public investment related to transportation.

The public survey polled respondents on the value of each project category. Averaging public response in each of these categories allowed the project team to assign a weight to each project category representing assumed public priorities.

Project Analysis

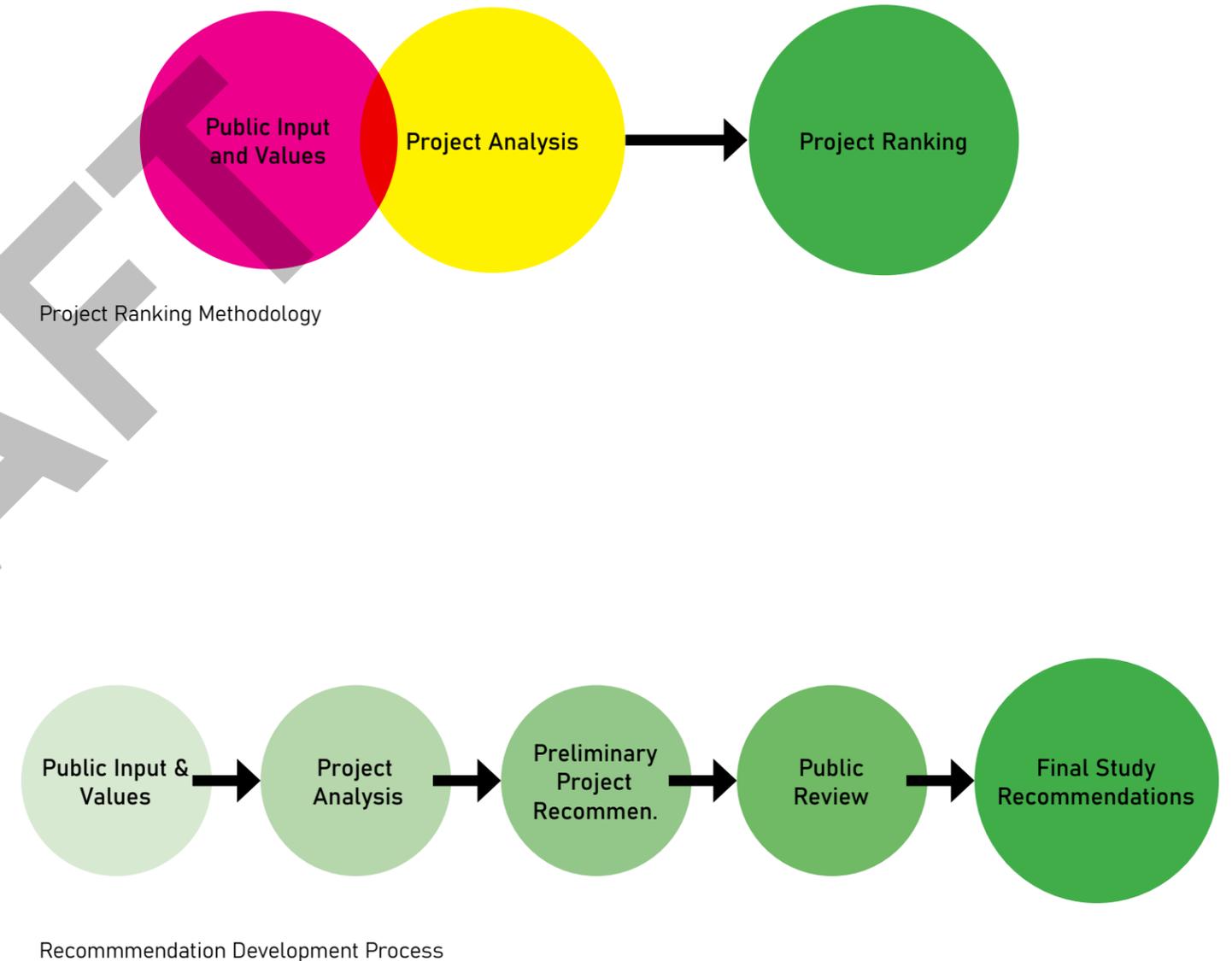
Each proposed project was reviewed and analyzed for its relative impact on Shelburne's active transportation systems. This analysis reviewed every project through each of the six project categories. The methodologies used to score each project are described on the following pages. The result of this analysis was a final project score.

Project Ranking

Public input was combined with project analysis to create an overall project score, which reflects a planned project's technical value combined with community priorities. These final scores resulted in project ranking and a preliminary list of recommendations that was then reviewed and refined through the public review process.

Final Recommendations

Study recommendations were finalized only after a full review of preliminary recommendations by the project advisory committee, town staff, and general public. This allowed for a clear review of technical recommendations and further adjustment to reflect community priorities and values.



Prioritization Methodology

Weights

As part of this study, 106 members of the community ranked the relative importance of Transportation, Recreation, Connectivity, Maintenance, and Complexity for each project. These publicly generated rankings created weights for each category. Safety, as a crucial component of any public expenditure in transportation, was retained as a highly weighted value without requiring public input.

These weights provided a way for Shelburne community values to directly shape the recommendations of this analytical process. Weights were created based on the average ranking of Transportation, Recreation, Connectivity, Maintenance, and Complexity values on a 1-5 Likert scale. This average was then normalized to simplify values. The result was that 1 = average community response, >1 = higher than average, and <1 = lower than average. Individual weights are highlighted on the following pages. Project scores were multiplied by these weights. to generate a weighted value.

Project Scores

Project analysis developed scores for each project. Scores were based on GIS data measuring project proximity to residential points and community destinations, areas of high crash records, recreational facilities, and more. A detailed description of how scores were developed for each category is described on the following pages. The general approach to each scoring in each category was:

Transportation Score: Projects that connect to more residential origin and more commercial / recreational / institutional destinations score higher than those that connect to fewer.

Recreation Score: Projects that connect directly to existing or planned recreation facilities score higher. Projects that are fully separated from roadways score higher.

Connectivity Score: Projects that close gaps in the existing active transportation network and connect to the designated growth center score higher.

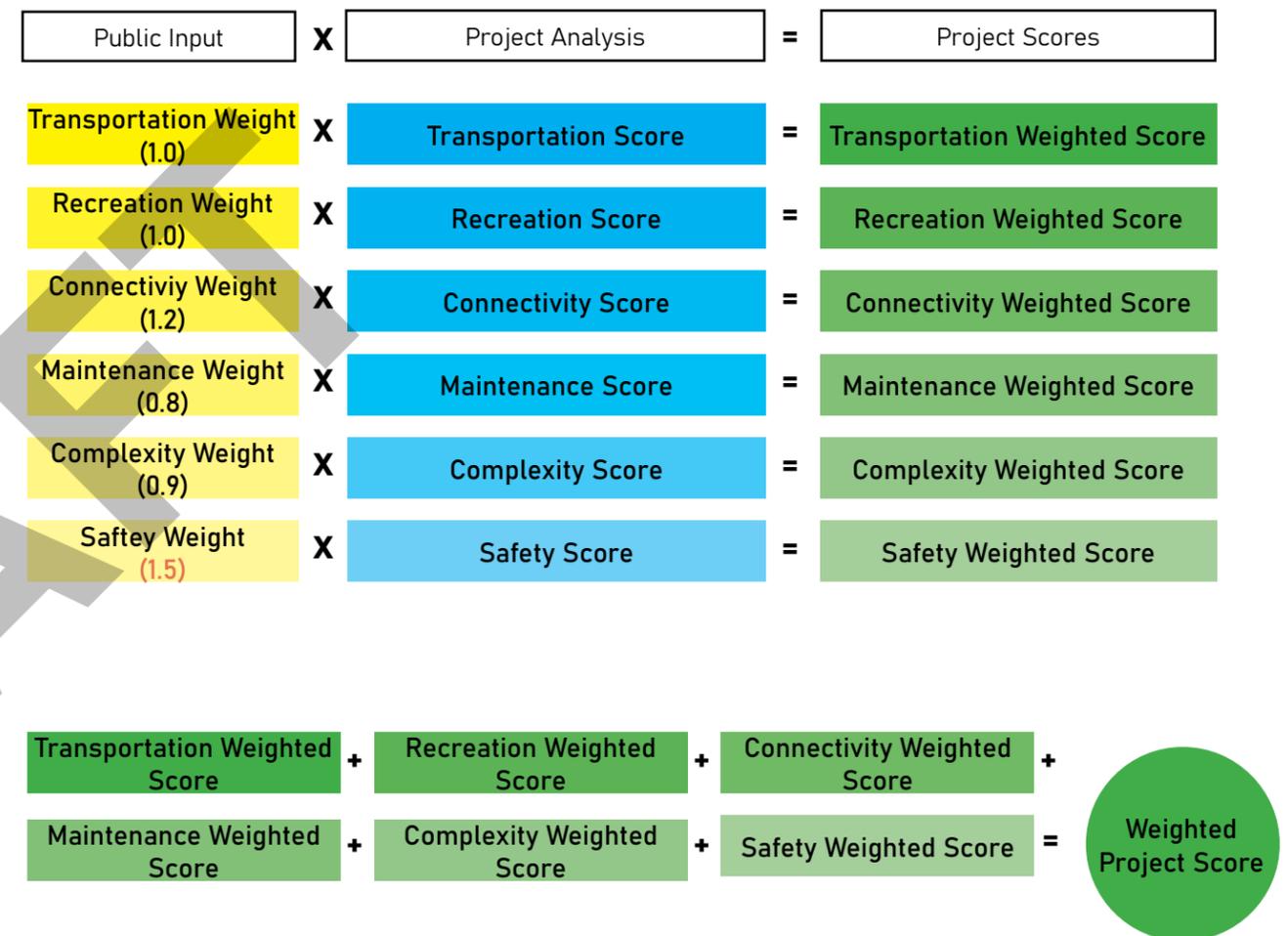
Maintenance Score: Projects that repair or replace existing infrastructure score higher.

Complexity Score: Projects that have lower anticipated construction and/or permitting costs score higher.

Safety Score: Projects which provide safe and separated bicycle and pedestrian facilities in areas of known crash record and/or high speed zones score higher.

Weighted Score

Weighted scores were developed by multiplying individual project scores by weight. Weighted scores from each category are then summed to create a single project score. These project scores were then used to generate the preliminary prioritized list of projects to be presented to the public as part of this process.



Prioritization Framework Illustration

Transportation Score and Weight

Technical Score Creation

Transportation score was measured based on a proposed project's adjacency to community origins and destinations.

Origins can be broadly defined as addresses, including Camps, Condominiums, Lodging and B&B, Hotels, Motels / Inns, Mobile Homes, Multi-Family Dwellings, Nursing Homes / Long Term Care, and Single-Family Dwellings. Destinations can be defined as commercial, institutional, and recreation facilities in the project area. These locations were gathered from 2022 Vermont Center for Geographic Information E911 address points.

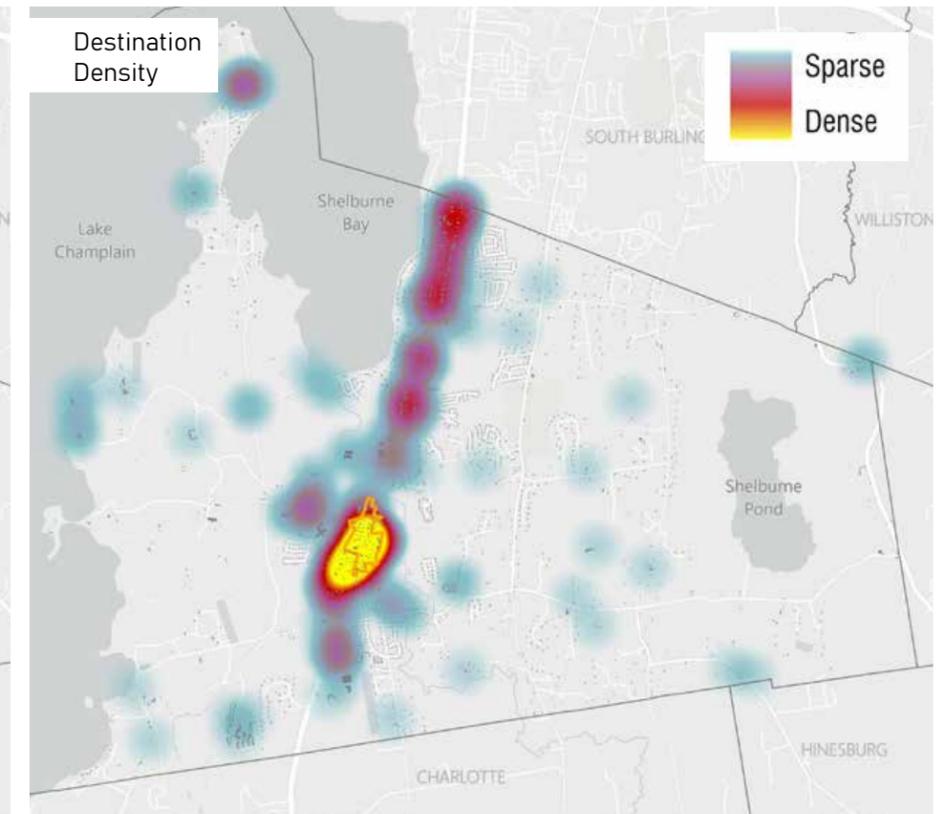
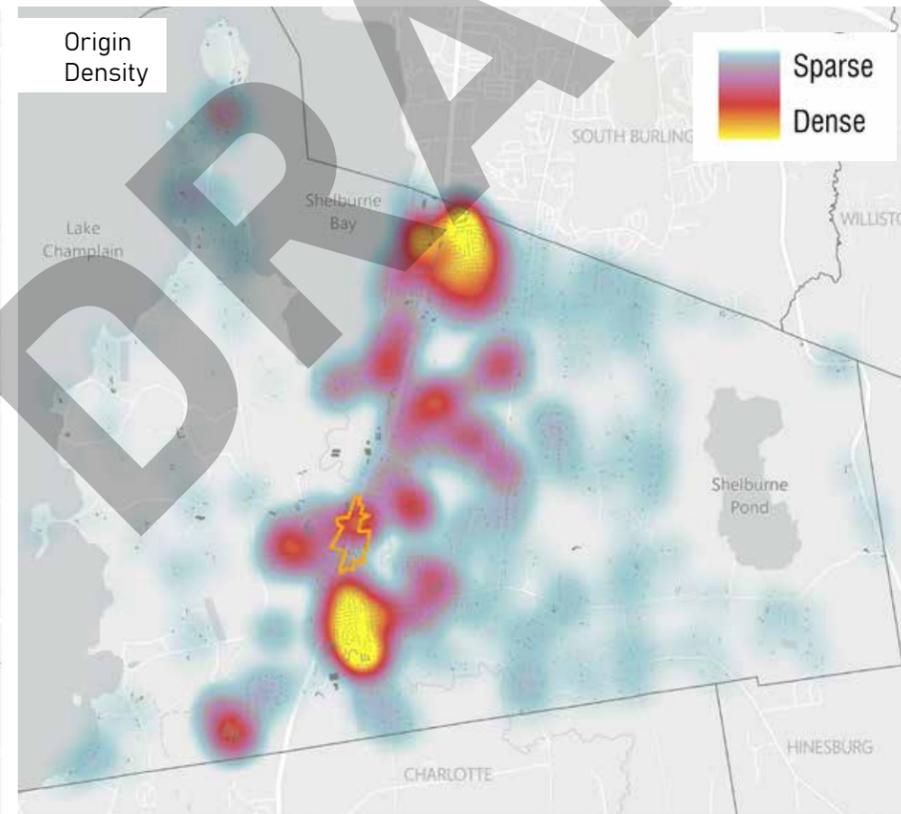
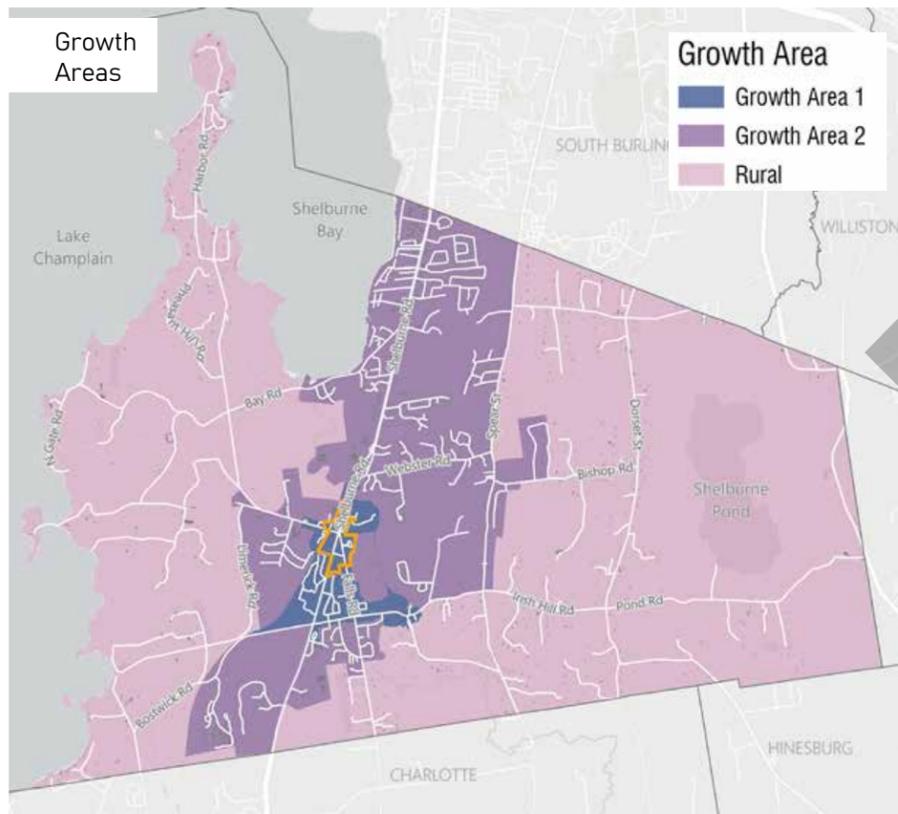
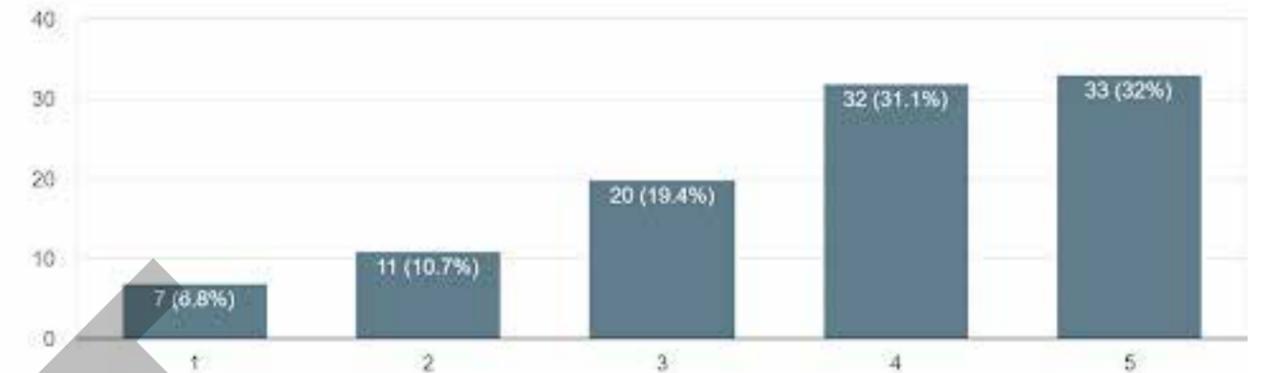
The transportation score was raised further if a project was within or adjacent to the designated Growth area of Shelburne, as this area is anticipated to see more short trips and dense land use patterns in years to come.

Transportation Weight

63 percent of the 103 respondents valued the Transportation attribute of a project as 4 or 5 on the priority importance scale. The weight for transportation scores is 1.0

Transportation - This priority elevates projects that connect goods and services, residential areas to daily destinations.

103 responses



Recreation Score and Weight

Technical Score Criteria

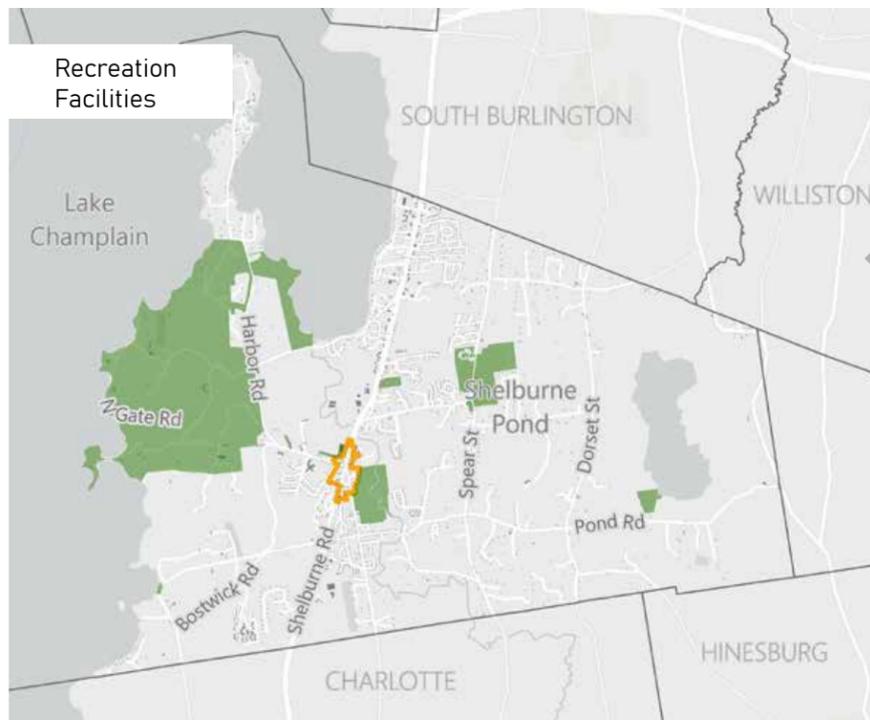
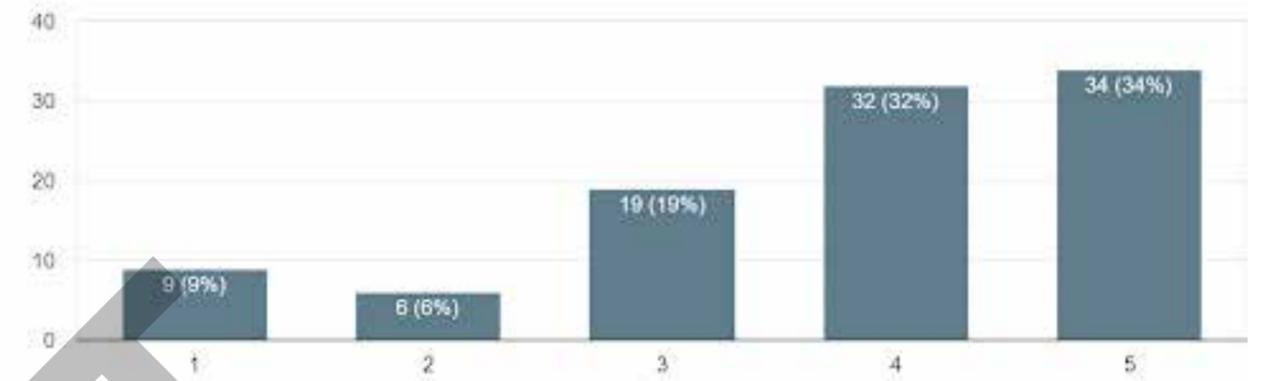
Projects were ranked higher in the recreation score component if they were adjacent to or within existing recreational facilities. They were also ranked more highly if their construction / location was completely separated from the public roadway, increasing the likelihood of their use being purely recreational.

Recreation Weight

The public was broadly supportive of the recreation value, with 66% of respondents expressing strong or very strong support for this goal. The weight for recreation scores is 1.0

Recreation - This priority elevates projects that connect to and expand upon existing recreational facilities.

100 responses



Recreation Areas



Trails

— Proposed

Shared Use Paths

— Proposed

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Connectivity Score and Weight

Technical Score Criteria

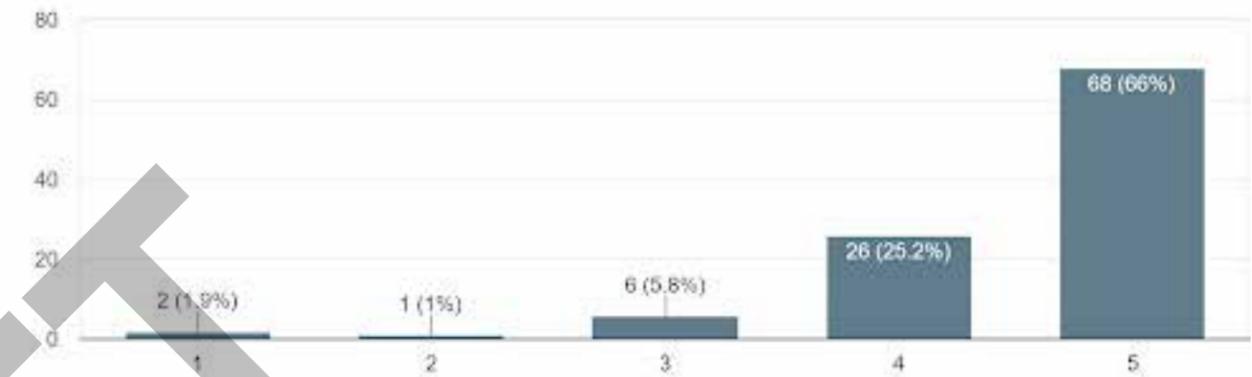
The connectivity score was raised if a project's construction would close a gap between two currently existing facilities, and/or if the project's construction would link directly to to Shelburne's designated growth area.

Connectivity Weight

The public survey respondents were overwhelmingly supportive of the connectivity value, with 91% of respondents identifying this value as important or very important. Only 3% of the respondents expressed a low level of priority importance (1 or 2) for the connectivity value. The weight for connectivity scores is 1.2

Connectivity - This priority elevates projects that close a gap in the existing bike/ped/trail network, and/or connect to major destinations, such as neighborhood centers, schools, or shopping areas.

103 responses



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Maintenance Score and Weight

Technical Score Criteria

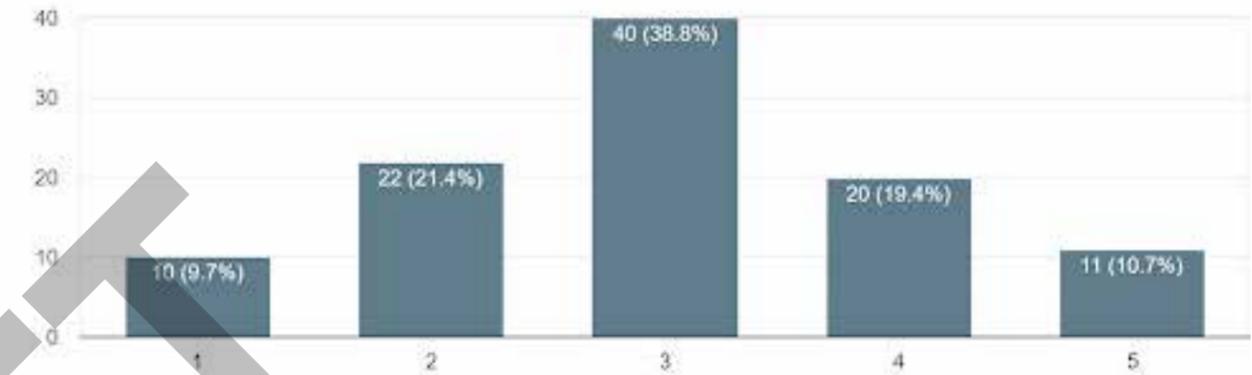
Projects which consist of repairs to existing facilities received a higher maintenance score than projects which require new infrastructure.

Maintenance Weight

The public survey respondents were somewhat mixed in support of the maintenance value, with 30% of respondents identifying this value as important or very important. 31% of the respondents also expressed a low level of priority importance (1 or 2) for the Maintenance attribute. The weight for maintenance scores is .8

Maintenance - This priority elevates needed repairs to the bike/ped/trail network over building new infrastructure.

103 responses



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Complexity Score and Weight

Technical Score Criteria

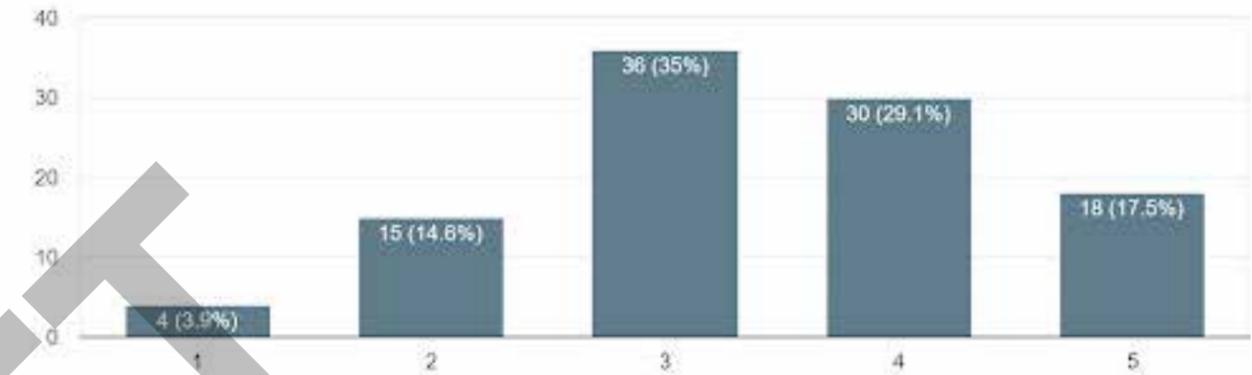
Engineering judgment, right of way information, and existing study documentation is used to apply a cost and complexity score to each project. The higher the cost and complexity of a project, the lower this score became.

Public Value Ranking

The public survey respondents were more somewhat in support of the complexity value, with 46% of respondents identifying this value as important or very important. 18% of the respondents also expressed a low level of priority importance (1 or 2) for the Complexity value, the weighted value is .9

Complexity - This priority would elevate less complex projects that have lower costs, fewer permitting impacts, and involve public rights of way only.

103 responses



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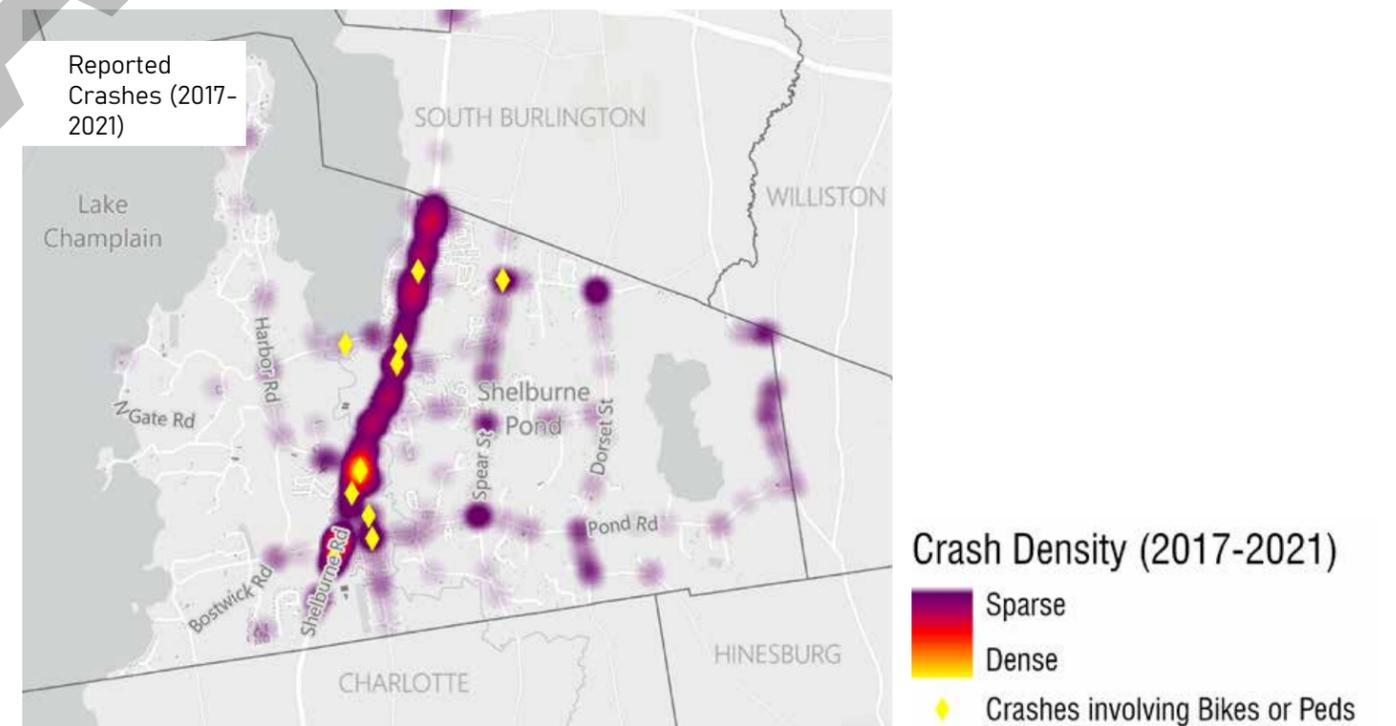
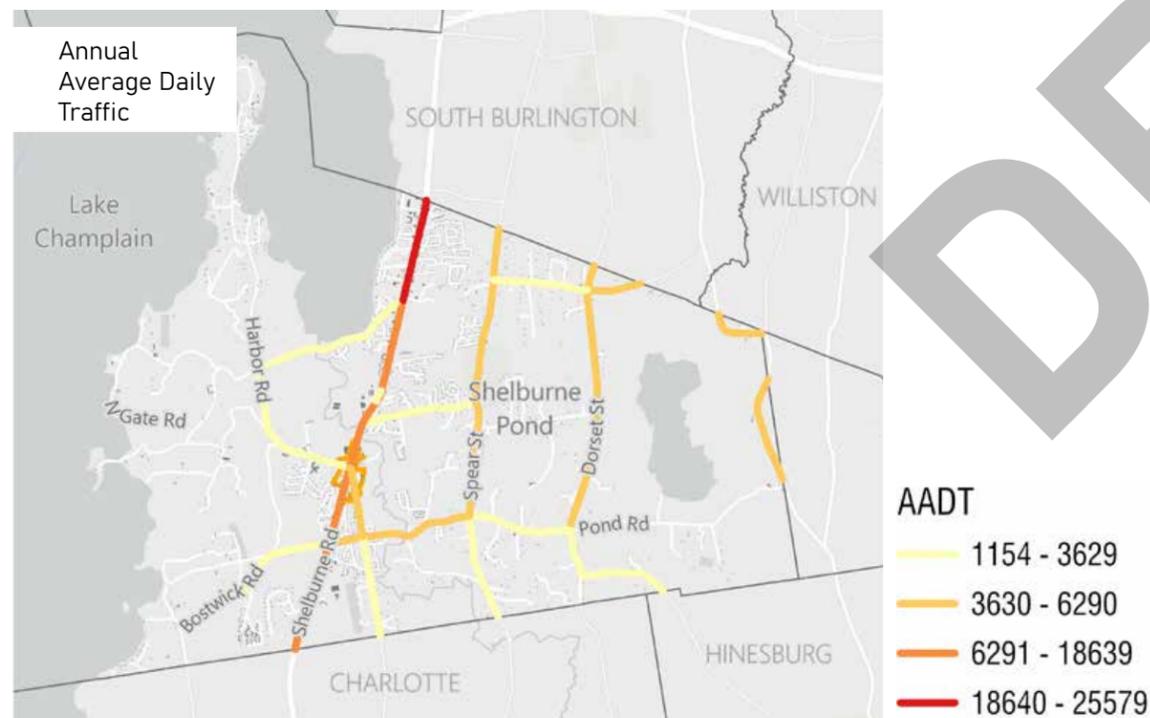
Safety Score and Weight

Technical Score Criteria

Safety was ranked based on a project's proximity to high-volume roadways, as the higher volumes point to a need for increased safety for vulnerable road users. Safety scores were also increased if a project's location was within 100' of a documented high crash area.

Safety Weight

The primary purpose of government is to provide for the health, safety and welfare of its citizens. The project team saw safety as a paramount value, and not one that should be part of a public polling process. As a paramount value, the weighted value for project's safety scores is 1.5



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