

MEMORANDUM

April 11, 2022

To: Bryan Davis, CCRPC and Todd Odit, Town of Hinesburg

From: Lucy Gibson, PE

Project: Richmond Road Bicycle-Pedestrian Feasibility Study Update

Re: Project Segments

Toole Design has conducted the following initial investigations supporting the updated study.

- Site visit to confirm field conditions
- Update prior cost estimate for the project with current VTrans unit costs
- Evaluate options and issues for breaking project up into more easily fundable segments

Current Field Conditions

The only significant changes noted in a site visit is the construction of stormwater infrastructure to support new development on the north side of Richmond Road. This may require additional drainage infrastructure, but additional needs are likely to fit within the project contingency allowance.

Cost Update

The cost estimate for the entire project length was updated with the following changes:

- The most recent VTrans unit costs (2020) for each item were included, where applicable
- The RRFB was removed from the estimate, as it will no longer be necessary assuming the closure of the slip lane at Texas Hill/Richmond Road.

The 2016 and 2020 costs are summarized in the following table.

Item	2016 Cost	2020 Cost
CONSTRUCTION COST	\$1,603,000	\$1,841,000
25% CONTINGENCY	\$401,000	\$460,000
DESIGN & CONSTRUCTION ENGINEERING	\$481,000	\$552,000
TOTAL =	\$2,485,000	\$2,853,000

The current cost estimate is approximately 15% higher than the previous estimate. Final unit costs may change based on additional investigations of unit costs from recent projects.

Project Segment Analysis

The most likely funding source at this time for project implementation would be the VTrans Bicycle-Pedestrian program. In reviewing the VTrans recent grant awards from the past three years, the largest construction grant award was \$1,452,500 for the Intervale Road Path in Burlington, and the average was about \$600,000. However, it is quite common for larger projects to receive additional funds beyond their initial award, as more accurate cost estimates are developed in the design process. Therefore, it is possible that higher cost projects have been funded through this program.

A review of the STIP shows that state wide funding, not including MPO projects, ranges from \$4 million to \$6 million per year. The CCRPC TIP shows that an average of \$2.4 million per year has been put toward bicycle and pedestrian projects. Larger projects are often designed and constructed over several years. With the possibility of increased funding for bicycle and pedestrian projects, it is possible that future years will see higher funding for bicycle and pedestrian projects, making it possibly more realistic for this entire project to be funded with one grant.

Project segment considerations

Safety. A significant concern for constructing the project in segments is that it may encourage more walking and bicycling on the remaining segments. Our field observations confirmed what you already know, that this corridor is very unsafe for people on foot, or for people riding a bike who are not highly experienced/confident riders. For that reason, the Town should consider constructing the first segment to be as long as feasible, to reduce the potential exposure to these unsafe conditions for people who use the path for part of their trip, but have a trip origin or destination beyond the path limit.

Impact. The impact of different segment options can be evaluated by its impact in connecting residences and businesses to the Hinesburg bicycle and pedestrian network.

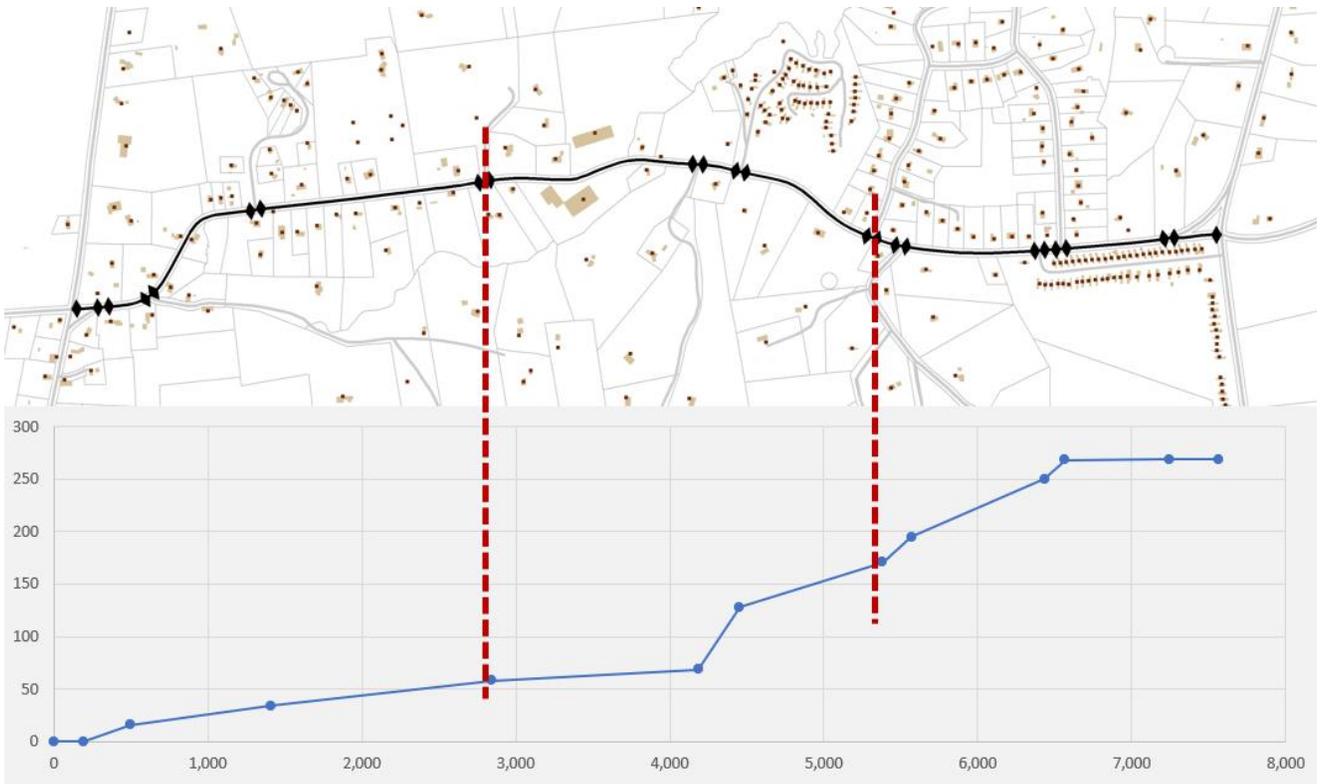
The figures below illustrate two options for breaking the project into three segments. The maps show the segment limits, and the chart shows the cumulative number of addresses that will have access to the path for each segment (includes residents on Richmond Road as well as on side streets within a mile of the corridor). In both scenarios, segments are terminated at an intersection of a side street.

Option 1 divides the project area into three segments of roughly equal length. A concern about this option is that the first segment provides relatively little benefit in terms of connecting people and businesses to the town's bike-ped network. This means that segment 1, as a standalone grant application, is unlikely to score well in this competitive program. If only the first segment were constructed, it could potentially result in safety issues due to increased walking and biking along the unimproved portion of Richmond Road.

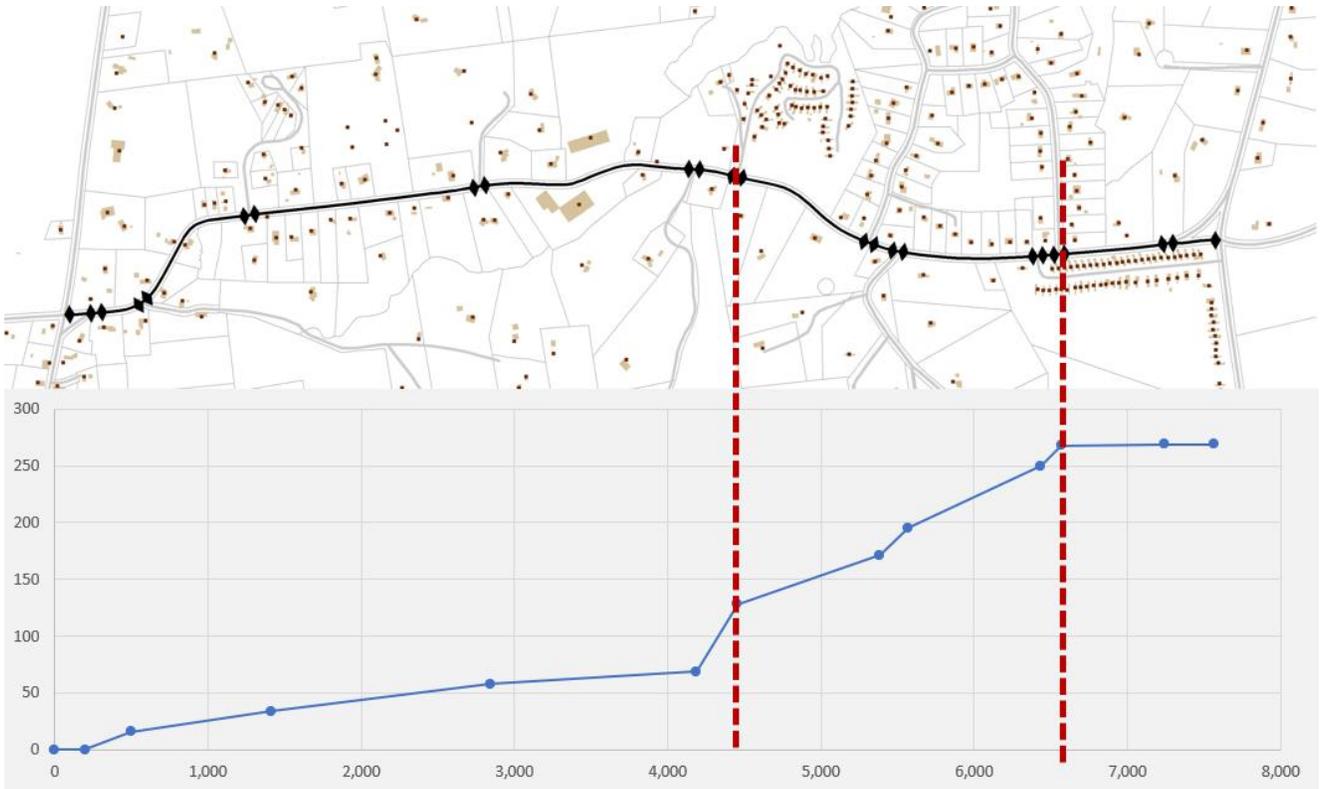
Option 2 makes the first segment longer in order to increase the impact by connecting to a larger number of residents on Jourdan Street, as well as the Iroquois Manufacturing site. The second segment would reach the residents at Hillview Terrace. The third segment is relatively short, and could possibly be done in the future as part of the permanent removal of the slip lane. In this scenario, the first segment would be much more competitive in terms of connecting people and in providing equitable transportation investments.

DRAFT Recommendations

Based on the above discussion, we recommend option 2 for project segmenting. In terms of applying for construction funding, we recommend applying for the entire project corridor, or at least segments 1 and 2, and indicate that you would be willing to accept a grant for just segment 1. While it will be a high cost project, there are efficiencies gained by going through the sometimes arduous federal procurement process just one time, and a larger project could attract better prices. The likely construction date would be several years after an award is made, providing time for setting aside funds for the local match.



Option 1 – Equal Length Segments



Option 2 – High Impact Segments