

To: Williston-Essex Network Transportation Study (WENTS) Steering Committee
From: Sandra Levine, Conservation Law Foundation; Kate McCarthy, Vermont Natural Resources Council; Paul Bruhn, Preservation Trust of Vermont
Date: January 4, 2013
Re: Comments on WENTS Strategy Packages and Maximizing Value of Transportation Investments

As additional work and outreach will be occurring before the WENTS Steering Committee meets again, we are providing some initial comments on the evaluation of the network strategies and some suggestions regarding future work and evaluations.

1) Phase 1 Projects and Core Improvements provide meaningful network benefits.

- The WENTS analysis so far is helpful to begin conversations among diverse interests to increase understanding about what options exist to address safety, mobility, congestion, and multi-modal access within this area.
- The effectiveness of the various “strategy packages,” recently evaluated by RSG using a microsimulation model, builds on the effectiveness of the Phase 1 improvements already underway. These include the Crescent Connector, which will provide more improvements at Five Corners than the Circ Highway would have.
- The modeling also builds on a set of core improvements that are included for all the strategies and which would significantly improve the network’s function.
- The Phase 1 Projects and the Core Improvements combined – effectively, the baseline of improvements that will be put in place – will provide about half of the overall improvements that the Circ Highway¹ would have achieved at a fraction of the cost.

2) The strategy packages provide marginal additional traffic improvements.

- The analysis from the modeling so far shows somewhat limited additional benefits will be provided from the various new “hybrid strategies.”
- Each of the new hybrid strategies come at a fairly high dollar cost (a range of between \$24M - \$73M) and overall low performance. At best they provide an additional 10% improvement.
- Many of these may be good taxpayer investments. However, the limited benefits revealed by the analysis so far suggest there are very real opportunities for more focused, cost-effective solutions.

¹ While we acknowledge that direct comparison between the earlier Circ EIS analysis and the current WENTS analysis is not fully compatible due to differences in underlying assumptions, modeling methodology, etc, we do believe that it is possible to draw broadly conceptual comparisons between the two analyses. For example, by comparing the two analyses it is possible to compare the levels of improvement deemed adequate to justify the Circ implementation with those found to be obtainable under the WENTS regime.

3) Solutions to optimize the transportation network’s function should focus on the main problem: peak travel times.²

- The analysis so far (not to mention the experience of numerous drivers, cyclists, and pedestrians) shows the peak periods are the most troublesome for safe travel, mobility, and access. Solutions that would help the system work most efficiently when we need it most – at the peak commute times – would provide the greatest benefit.
- In transportation planning, it is generally the case that most congestion results from roughly the last 15% of traffic.
- Because of this, solutions focused on that 15% of traffic, during the times when the system performs the worst (e.g., peak commute times), provide the most significant additional benefit.

4) The amount of demand on the system, combined with the limited additional benefit of the strategy packages suggest that additional Transportation Demand Management (TDM) would provide significant additional benefits.

- The analysis so far has held TDM and underlying trip generation essentially constant (i.e., not varied intentionally as a component of any alternative).
- Congestion at peak commute travel times is the most responsive to TDM, at least in part because this time tends to have a higher proportion of the home to/from work trips that are most susceptible to many TDM approaches.
- Examples and the success of TDM from CATMA and from the Upper Valley suggest there are good opportunities for additional TDM in this area to provide more cost-effective benefits than additional roadway improvements.
- The MPO 2025 Metropolitan Transportation Plan proposes such an approach: "The methodology assumes that a regional TDM program is successful at reducing home to/from work single-occupant vehicle (SOV) trips by 10 percent to the major employment centers identified on Figure 5-4. It is important to emphasize that the 10 percent reduction is assumed only for home to/from work trips associated with the target TDM areas." (MTP pp 40-41)³
- The MPO TDM study plus some national data suggest even higher captures (~50% higher) might be possible.

5) Conclusions and Recommendations

- Because the strategy packages bring us limited benefits for the amount of money invested, it will be helpful to combine these with approaches that make the system work better, particularly at peak travel times.
- Strategy packages that optimize system performance and include strategies, consistent with the MTP, to reduce travel demand should be part of the WENTS analysis. The WENTS analysis should include the effect of successfully achieving a TDM trip reduction consistent with the MPO target or some other reasonable level.
- Provide an analysis of performance of Phase 1 and the Core Improvements, apart from the Hybrid Strategies.

² “peak travel times” are generally considered to be the morning and evening “peak hour”. This is typically taken to be roughly 7 – 9 AM, and 4 – 6 PM.

³ http://www.cerpc.us/MTP/2025/MTP_final_apr2005.pdf