Public Transit Policy Plan

October 1, 2019

Study Advisory Committee Meeting #3
Overview

- Project Status
- Needs and Resources
- Policy Proposal
- Recommendations
- Survey Results
- Timeline
Project Tasks

1. Summer-Fall 2018
   - PROJECT INITIATION

2. Winter 2019
   - EXISTING CONDITIONS ANALYSIS

3. Winter-Spring 2019
   - NEEDS ASSESSMENT

4. Summer 2019
   - RECOMMENDATIONS & IMPLEMENTATION

5. Fall 2019
   - FINAL REPORT

PUBLIC/STAKEHOLDER OUTREACH
Products Thus Far

- Interim Report
  - Existing Conditions
  - Prior Studies
  - Best Practices
  - Critical Themes and Challenges
    - Aging
    - Economic opportunity
    - Land Use Patterns
    - Technology
    - Awareness

- Survey Summary

- Presentations and Outreach
Outreach Activities

- 11 Regional Forums (Fall 2018)
- MetroQuest survey Fall 2018 (needs) + Summer 2019 (solutions)
- 9 Stakeholder interviews (Winter 2019)
- 9 E&D Committee assessments (Spring 2019)
- 2 Study Advisory Committee meetings (Feb + May)
- Appearance on VPR’s Vermont Edition (July 2019)
- TPI, PTAC, DAIL, VPTA presentations
- Project website (throughout)
Needs Assessment Methodology

- Identify service gaps and unmet needs
  - Location of transit services, key destinations, population and target groups
  - Commuting patterns
  - Input from regional forums
  - Comments from interviewed stakeholders
  - MetroQuest survey responses
  - Comments from regional E&D committees

- Estimate transit market segments by age, disability, income, and likely auto access

- Estimate number of trips to address need and associated resources

- Estimate impacts of possible scenarios
Primary Needs Identified

- Lack of transit access in rural areas
- Lack of resources to meet the needs of vulnerable populations both today and in the future
- Lack of transportation for access to jobs
- In areas that have bus routes, improved service levels and connections are needed
Travel Market Analysis

- Divided population into seven demographic slices
  - Non-disabled under 18
  - Non-disabled 18-24
  - Non-disabled 25-64, above poverty line *
  - Non-disabled 25-64, below poverty line
  - Non-disabled 65-79 *
  - Disabled, under 80
  - All 80 or over

- All but two (*) have documented need for public transit
Trip Rates

- Used 2017 National Household Travel Survey data to determine trip rates for each demographic category
  - Split the rates between urban (Chittenden County) and rural (rest of Vermont) residents

- Built in assumptions about likelihood of using an automobile for the trip and whether the trip would be made independently (to discount young children)

- Subtracted trips likely to be made by non-motorized modes (mostly walking and biking)
Potential Markets

- For public transit to provide a full level of mobility to people likely to need or want to use it instead of driving, total number of transit trips would need to rise by a factor of 5: from about 4.3 million to about 22 million.

- For public transit to provide a basic level of mobility—defined as 12 round-trips per month—to all people who may need or want to use it, total number of transit trips would need to rise by a factor of 2.5: from about 4.2 million to about 11 million.

- Total estimated annual person trips in VT: 741 million.
Current Riders and Costs

- Current ridership (FY18)
  - Urban: 2.3 million [Urban and Express Commuter]
  - Rural: 1.5 million [Small Town, Rural, DR, Rural Commuter]

- Current cost per passenger (net of fare revenue)
  - Urban: $4.64
  - Rural: $10.11

- Exclusions
  - Intercity and Tourism routes
  - Demand response does not include Medicaid or volunteer driver trips
## New Riders and Costs

<table>
<thead>
<tr>
<th>Area</th>
<th>“Full” Riders</th>
<th>“Full” Cost</th>
<th>“Basic” Riders</th>
<th>“Basic” Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urban</td>
<td>4.2 million</td>
<td>$19.6 m</td>
<td>743,000</td>
<td>$3.4 m</td>
</tr>
<tr>
<td>Rural</td>
<td>13.5 million</td>
<td>$136 m</td>
<td>5.7 million</td>
<td>$60.0 m</td>
</tr>
<tr>
<td>TOTAL</td>
<td>17.7 million</td>
<td>$156 m</td>
<td>6.5 million</td>
<td>$63.4 m</td>
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</tbody>
</table>

- Assumes cost per rider the same as current
- Current total transit spending in VT: about $40 million
Scenario Exercise

- Increased fuel prices (assume a doubling)
  - Easier to attract riders to existing services
  - Reduces cost per rider

- Low fuel prices (assume $2 per gallon)
  - Harder to attract riders
  - Increases cost per rider

- Changed transportation landscape due to technology
  - Autonomous vehicles
  - Software to aggregate trips more efficiently
  - Better information available to everyone
  - Reduces cost per rider
Increased Fuel Prices – Urban

- Expected increase of 220,000 to 1.1 million new riders
  - Lower bound based on cross-price elasticity
  - Upper bound based on change in market share in Chittenden County last time there was a price spike (2006-8)

- Fuel cost relatively small part of operating cost: ~8%
  - Assuming doubling of fuel prices, share of cost would rise to about 15%

- Cost per trip would drop from $4.64 to $4.59 at lower bound or to $3.47 at upper bound
Increased Fuel Prices – Rural

- Expected increase of 154,000 to 300,000 new riders
  - Lower bound based on cross-price elasticity
  - Upper bound more limited than urban because availability of bus routes much lower in rural areas

- Fuel cost relatively small part of operating cost: ~8%
  - Assuming doubling of fuel prices, share of cost would rise to about 15%

- Cost per trip would drop from $8.84 to $8.74 at lower bound or to $7.95 at upper bound
Low Fuel Prices

- Most riders on Vermont transit systems do not have other options
  - Surveys show only 15-30% of riders could have driven
  - Losses likely limited to 4% on local routes and 9% on commuters

- Urban impacts
  - 96,000 fewer riders overall
  - Cost per rider rises by 11 cents to $4.75

- Rural impacts
  - 67,000 fewer riders overall
  - Cost per rider rises by 18 cents to $9.02
Autonomous vehicles would reduce operator labor costs, currently accounting for about 50% of total operations
- Assume labor cost could be cut by 10%
- Human drivers still needed for a majority of operations

Better software & information would increase productivity
- Assume 5% increase in bus route ridership with real-time info
- Assume 50% increase in demand response productivity (other than NEK where most service is volunteer driver)

Reduced net costs per passenger
- Urban from $4.64 to $4.37 ($4.10 including avs)
- Rural from $8.84 to $8.42
- Demand response would drop from $21 per trip to $14
# Summary of Scenarios

<table>
<thead>
<tr>
<th>Scenario</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline net cost per rider</td>
<td>$4.64</td>
<td>$8.84</td>
</tr>
<tr>
<td>Baseline gross operating cost</td>
<td>$12.8 million</td>
<td>$12.7 million</td>
</tr>
<tr>
<td>1 – High fuel prices net cost per rider</td>
<td>$3.47 to $4.59</td>
<td>$7.95 to $8.74</td>
</tr>
<tr>
<td>1 – High prices gross operating cost</td>
<td>$13.8 to $15.2 m</td>
<td>$14 million</td>
</tr>
<tr>
<td>2 – Low fuel prices net cost per rider</td>
<td>$4.75</td>
<td>$9.02</td>
</tr>
<tr>
<td>2 – Low prices gross operating cost</td>
<td>$12.5 million</td>
<td>$12.3 million</td>
</tr>
<tr>
<td>3 – Technology net cost per rider</td>
<td>$4.10</td>
<td>$8.42</td>
</tr>
<tr>
<td>3 – Technology gross operating cost</td>
<td>$12.2 million</td>
<td>$12.7 million</td>
</tr>
</tbody>
</table>
(1) Provision for basic mobility for transit-dependent persons, as defined in the current public transit policy plan, including meeting the performance standards for urban, suburban, and rural areas...

(2) Expanding public transit service in rural areas and increasing ridership statewide. (NEW IN 2019)

(3) Access to employment, including creation of demand-response service.

(4) Congestion mitigation to preserve air quality, decrease greenhouse gas emissions*, and sustain the highway network. (*NEW IN 2019)

(5) Advancement of economic development objectives, including services for workers and visitors that support the travel and tourism industry...
Policy Ranking from MetroQuest
Chittenden Cty. vs. Rest of State
Proposed Goals

- (1) Providing basic mobility for people who are not able to drive or do not have access to private vehicles.

- (2) Providing access to employment both for people who are not able to drive themselves and for people who choose to use transit vehicles and other shared-ride services to avoid congestion and the cost of automobile commuting.

- (3) Expanding public transit service in rural areas for all trip purposes, making use of the most cost-effective means of serving low-density areas.

- (4) Providing convenient mobility choices to reduce the dependence on private automobiles, thereby reducing traffic congestion, preserving air quality, decreasing greenhouse gas emissions and sustaining the viability of the highway network.

- (5) Supporting economic development in urban and rural areas, including services for workers and visitors that support the travel and tourism industry.
Recommendation Themes

- Addressing aging Vermont
- Expansion of transit access
- Effective outreach and raising awareness
- Using technology to move to next generation of ride scheduling
- Land use planning and long-term investments
Addressing Aging Vermont

- Create working committee with AHS to address mobility issues for vulnerable Vermonters

- More comprehensive planning for E&D program
  - Work with E&D Committees to establish annual work plans
  - Implement statewide E&D riders satisfaction survey
  - Pilot additional performance monitoring methods such as determining and tracking unmet needs
  - Set up annual statewide meeting
  - Share best practices: coordination, low-cost trips, volunteer management

- Establish Personal Mobility Accounts
  - Expand Ticket To Ride statewide
  - Allow for deposits, gifts and possibly ride credits
Expansion of Transit Access

- Spur growth of volunteer driver programs
  - Check box on VT vehicle registration form to register
  - Streamline background check process
  - Non-monetary incentives
  - Increase marketing budget
  - Support additional recruitment/retention efforts

- Expand access to healthcare
  - Expand Rides to Wellness statewide
  - Encourage financial participation from healthcare providers

- Expand access to employment
  - Increase awareness of carpool/vanpool (Go Vermont)
  - Enlist support of employers in new JobRides program
  - Create “late bus” for shift workers
  - Support additional partnerships with TNCs, volunteer groups, etc. where available
Expansion of Transit Access cont.

- Expand local connections (first mile/last mile access)
  - Bike share and e-scooters where and when appropriate
  - Microtransit where appropriate

- Expand funding pool overall – more service needed
  - Federal, state, local and private sector
  - To support improvements in
    - Geographic coverage
    - Span of service
    - More types (purposes) of trips
Outreach and Raising Awareness

- Continue investment in Go Vermont
  - Expand capabilities
  - Increase marketing and awareness
  - Create interactive map of bus routes

- VTrans-sponsored project to document stories of the value of public transit
  - Video and audio interviews with beneficiaries
  - Develop promotional/educational packages to be utilized at Town Meetings and elsewhere

- Continue/expand partnerships and activities to raise awareness
  - Partners include AARP, State agencies, elected officials, Community Transportation Association of America (CTAA), Vermont Public Radio/Television
Next Generation Ride Scheduling

- Work with microtransit companies to enhance software
  - Multi-program integration (Medicaid, E&D, client-pay, etc.)
  - Multi-resource integration (vans, taxis, volunteer drivers, bus routes, TNCs)

- Use expanded volunteer driver pool as a resource statewide

- Link to Personal Mobility Accounts
Long-term Land Use Planning

- Continue to work with state, regional and local agencies to integrate transit into land use planning
  - Density
  - Location
  - Accommodations

- Continue to promote objectives from LRTP
  - Maintain and strengthen the vitality of Vermont’s villages and downtowns.
  - Make transportation investments that promote active transportation and reduce social isolation.

- Continue education and outreach efforts that support MPO/RPCs roles in facilitating transit and pedestrian considerations in Act 250 reviews
MetroQuest Round 2 Results

- Over 2,200 responses (July through September 2019)
- 28% Chittenden County (more representative than rd. 1)
- Broad cross-section overall (age, income, car ownership)
Issue Importance: Service Type

![Chart showing the importance of different service types with average rankings and number of responses. The chart includes categories such as Job Access, Rural Access, First and Last Mile, and Door-to-Door Service, with corresponding bars indicating the number of responses and average rankings.](chart.png)
Importance: Housing and Land Use

The chart shows the average rankings and number of responses for different aspects of housing and land use, including:

- Housing Affordability
- Development/Transit
- Housing Location
- Walking/Biking

The y-axis represents the number of responses, and the x-axis shows the average ranking. The chart indicates the importance of each aspect based on the number of responses and the average ranking.
Service Improvement Options

<table>
<thead>
<tr>
<th>Option</th>
<th>Number of Responses</th>
</tr>
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<tbody>
<tr>
<td>Job Access</td>
<td>95%</td>
</tr>
<tr>
<td>Door-to-Door Service</td>
<td>91%</td>
</tr>
<tr>
<td>Longer Hours</td>
<td>91%</td>
</tr>
<tr>
<td>Rural Service</td>
<td>90%</td>
</tr>
<tr>
<td>More Frequent Service</td>
<td>87%</td>
</tr>
</tbody>
</table>

Number of Responses

- Agree
- Disagree
Transit Funding Options

Increased Flexing
- Agree: 94%
- Disagree: 6%

Increased State Funding
- Agree: 90%
- Disagree: 10%

Private Sector
- Agree: 87%
- Disagree: 13%

Increased Local Funding
- Agree: 77%
- Disagree: 23%

Number of Responses

0 200 400 600 800 1000 1200 1400 1600 1800

Agree  Disagree
Budgeting Activity

![Bar Chart]

Number of Respondents Investing

- Hours of Service
- Frequency of Service
- Job Access
- Rural Service
- Information
- Mobility
- Village Focus
- Capital

Average Number of Coins Invested

- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7

Number of Investors

Average Investment

Legend:
- Blue bar: Number of Investors
- Orange dot: Average Investment
Timeline

- SAC comments on drafts - due October 15th
- Implementation planning – October 2019
- Draft Final report – October 2019
- Statewide presentations- late October-December 2019
- Public Comment period- November- December 2019
Thank you

Relevant reports, this presentation, and more, posted at:

vtrans.vermont.gov/planning/PTPP

Please forward comments and questions to Jackie Cassino by October 15th:

jackie.cassino@Vermont.gov