DATE: Tuesday, April 4, 2017
TIME: 9:00 a.m.
PLACE: CCRPC Office, 110 West Canal St. Winooski

DELIBERATIVE AGENDA:

1. Action on Consent agenda – 9:00 – 9:05
   See TIP amendment memo attached.

2. Minutes of March 8, 2017 – (Action Item) 9:05 - 9:10
   See attached.

3. Public Comment Period (Information item) 9:10 - 9:15
   Members of the public are invited to raise issues of interest or concern to the TAC on items not on the agenda.

4. Active Transportation Plan (Action Item) 9:15 – 9:35
   A draft final ATP is available here: http://www.ccrpcvt.org/our-work/our-plans/regional-bikeped-plan/
   Staff will present the major recommendations and seek a TAC recommendation to the Board to approve. See attached memo for more information.

5. Project Prioritization (Action Item) 9:35 – 9:50
   See attached memo documenting this annual process and a staff recommendation.

6. Metropolitan Transportation Plan (MTP) Scenarios (Information Item) 9:50 – 10:05
   Staff is considering several different future transportation scenarios to model as part of the MTP. See attached memo for more information.

7. UPWP Update (Information Item) 10:05 – 10:15
   Next year’s work program development is moving along and TAC action is anticipated in May. Staff will give a brief update.

8. Status of Projects and Subcommittee Reports (Information Item) 10:15 – 10:25
   See bulleted list on the reverse for current CCRPC projects. TAC members are encouraged to ask staff for more information on the status of any of these on-going or recently completed projects.

9. CCRPC March Board Meeting Report (Information Item) 10:25 – 10:30
   The Board met on March 22nd approving the functional class revisions, demographic forecasts and MRGP comments that the TAC had recommended. They also warned a public hearing on the FY18 UPWP.

10. Chairman’s/Members’ Items (Information Item) 10:30 – 10:35

Next Meeting: Tuesday, May 2, 2017
Project list:

- Title VI program participation and Public Participation Plan implementation
- Participation in the Vermont Highway Safety Alliance's working groups
- Participation in the State’s Rail Council
- Coordination with United Way on the Neighbor Rides Program
- Exit 14 Signal Scoping and Systems Engineering Analysis (Burlington/South Burlington)
- Advanced Traffic Monitoring System through FHWA AID grant – Pilot Corridor design
- Allen Martin/VT 15 Intersection Scoping Study (Essex) – Final Report
- Countywide Functional Class Review and Update
- LPM services for Underhill sidewalk construction on VT 15
- LPM services for Shelburne sidewalk construction on US 7
- LPM services for South Burlington sidewalk construction on VT 116
- LPM services for Hinesburg – Village South Area Sidewalk on VT 116
- Regional Active Transportation Plan
- Burlington Winooski Avenue Circulation Study
- Bay Road Shelburne Bike Ped Corridor improvements study
- Coordination with GMT on ADA and Elders & Disabled advisory committees
- Metropolitan Transportation Plan (MTP) Update
- Winooski/Burlington Bridge Scoping
- Colchester Ave/Riverside Ave/Barrett St Intersection Scoping (Burlington)
- US 7 Southern Gateway Scoping (Shelburne)
- North Ave Pilot Study (Burlington)
- North Williston Road Scoping Study (Williston)
- Regional Transportation Model Update
- Railyard Enterprise Supplemental Scoping of Alternative 1B (Burlington)
- Transportation Hazard Mitigation Planning
- Winooski River Bicycle/Pedestrian Bridge
- Essex Path/Sidewalk Impact Policies
- So. Burlington Williston Road Area Transportation and Land Use Network Analysis
- So. Burlington VT116-Kimball-Tilley Land Use and Transportation Plan
- Williston Exit 12 Transportation Improvement District (TID) Pilot Project
- Mountain View Road Scoping Study, Williston
- Alternative Transportation Crossing Study for o of I-89 Exit 14, South Burlington
- Regional Transportation Energy Planning
- Shelburne Phase 2 of Form Based Zoning to Improve Walkability
- Overhaul of South Burlington’s Traffic Overlay District
- Jericho Riverside Future Street Network Study
- Winooski Downtown Parking Management Study
- Update to South Burlington’s Transportation Impact Fee Ordinance
- ADA Evaluation of Pedestrian Facilities in Essex/Essex Junction
- Malletts Bay Stormwater Management Plan (Colchester)
CCRPC Transportation Advisory Committee
April 4, 2017
Agenda Item 1: Consent Item

FY2017 Transportation Improvement Program Amendments

Issues

Make the following changes to the FY17-2020 TIP:

Pearl Street Improvements, Essex Junction (Project HP111, Amendment FY17-09):

- Description of TIP Change: Increase construction cost from $1,820,000 to $2,750,000. Add $744,000 in federal funds in FY18. This is a CIRC Alternatives Phase II project and is not subject to CCRPC’s fiscal constraint limit.

- Reason for Change: The following factors resulted in this cost increase:
  - The cost estimate for this project was developed in 2012. Costs increase by approximately 5 percent per year due to inflation
  - The initial cost estimate did not include construction engineering which includes a resident engineer required to be on the construction site to deal with day-to-day issues
  - The initial cost estimate included signal improvements at Post Office Square, and acknowledged that improvements may be needed at South Summit Street to allow the signals to be coordinated, but detailed costs were not included for the South Summit Street signal.
  - This estimate includes some nonparticipating items such as decorative lighting. These costs are not eligible for reimbursement according to VTrans amenities policy and won’t ultimately be applied to the federal or state project cost

2017 Transportation Alternatives Program Awards

- Description of TIP Change: Add the projects below to the FY17 TIP. These projects were awarded Transportation Alternatives Program Awards.
  - Picard Circle Stormwater Improvements, South Burlington (Project OT029, Amendment FY17-10): Design and construction of stormwater infiltration and drainage infrastructure along Picard Circle -- $52,000 PE in FY17
  - Lamplite Acres Drainage Improvements, Williston (Project OT030, Amendment FY17-11): Design and construct critical drainage areas at Lamplite Acres - $300,000
  - Crosswalk Improvements, Winooski (Project BP099, Amendment FY17-12): Construct enhanced crosswalk treatments at five locations in Winooski - $289,000
  - Lee River Road Sidewalk, Jericho (Project BP100, Amendment FY17-13): Design and construction of 1,000 feet of sidewalk and other pedestrian improvements on Lee River Road - $60,000 PE in FY17.
I-89 U-Turn Widening, Milton (Project HP130, Amendment FY17-14):

- **Description of TIP Change:** Add $54,000 in Federal funds for design and $540,000 for construction in FY17 to:
  - Widen an existing U-turn at I-89 mile marker 100.9 to 50 feet and add 400-foot deceleration/acceleration lanes with 150 foot tapers.
  - Construct a new 50-foot-wide U-turn at I-89 mile marker 102.7 with 400-foot deceleration/acceleration lanes with 150 foot tapers.

- **Reason for Change:** These changes are being made to improve access in the vicinity of the newly reconstructed bridge over the Lamoille River.

**Staff Recommendation:** Recommend that the TAC approve the proposed TIP amendment.

**For more information, contact:** Christine Forde
cforde@ccrpcvt.org or 846-4490 ext. *13
Peter Keating called the meeting to order at 9:05AM.

1. Consent Agenda
N/A this month.

2. Approval of Minutes
Peter clarified the January meeting minutes that were questioned last month. They were accurate as first presented. On separate motions the meeting minutes from both January and February were approved.

3. Public Comments
There were none.

4. Active Transportation Plan
Peter reported that this item will not be considered for action at this meeting as we’d received some significant new comments in the past week. Peter will email the link to the Plan to the TAC members after this meeting and request that any further comments be submitted by the end of next week.

5. Roadway Functional Class
Marshal Distel and Jason Charest presented their reassessment of the Region’s road classification that has been on-going over the past year. They began with an overview on the topic and Federal Highway’s quantitative guidelines that help determine classes. They then addressed why classification is important and the process behind the assessment, which included:

- CCRPC staff initiating a comprehensive review of the County’s roadways
- Starting with Class 2 roads
- Identifying new traffic generators, land use characteristics, AADT volumes
- Avoiding assigning parallel routes
- Preventing roadways from changing functional class at a boundary
- Considering Highway Functional Classification Concepts, Criteria and Procedures
- Working with VTrans
- Coordinating functional class changes with bordering RPCs
- Soliciting feedback from municipalities
Jason then went to the interactive on-line map and summarized the changes: 62 Route changes incorporating 105 segment changes. He also focused on some specific change recommendations. Next steps include: TAC Approval, Board Approval, CCRPC submits official request to VTrans, and VTrans submits official request to FHWA for final approval. Following short discussion DENNIS LUTZ MADE A MOTION, SECONDED BY PETER WERNSDORFER: THE TAC ACCEPTS THE PROPOSED FUNCTIONAL CLASS CHANGES INCORPORATING BURLINGTON’S RECOMMENDATIONS AND ADVISES THE CCRPC BOARD TO REQUEST THAT VTRANS CONSIDER THESE CHANGES AS PRESENTED FOR SUBMITTAL TO FHWA. THE MOTION PASSED UNANIMOUSLY.

6. Municipal Road General Permit Comments
Charlie referred members to the draft comment memo in the meeting packet and asked for members’ approval and or revisions or additions to what was offered. Charlie went through each comment topic one by one asking for agreement or changes. The discussion on Class 4 roads generated interest with a number of difficulties cited by what the State’s proposing. The annual fee also seemed high and should reflect some lowering over time as towns made progress. Dennis Lutz noted that some terms in the draft permit seemed to be used interchangeably and more precise definitions need to be offered. He specifically noted the terms gulley, swale and ditch needed definition. Following further discussion BRUCE HOAR MADE A MOTION, SECONDED BY DENNIS LUTZ, TO APPROVE THE COMMENT MEMO AND TO SEND TO THE BOARD FOR THEIR APPROVAL. THE MOTION PASSED UNANIMOUSLY.

7. Town Highway Bridge Pre-Candidate List Priorities
Christine began by describing how VTrans Capital program categorizes projects – Front of the Book, Development & Evaluation, Candidate. The bridges we’re looking to prioritize come before any of these and are used to move projects into the Capital Program at a future date. VTrans is looking for our region’s top 10 priorities for this list. Christine pulled up a map on the screen revealing the locations of the 10 we are planning to send to VTrans. She noted that many of these are from last year’s priority list although one or two have moved up to the Candidate category. She also went over the table that scored prioritization and explained how the criteria work. Matt Langham noted that on average VTrans completes 10 bridge projects per year. Following discussion, DEAN PIERCE MADE A MOTION, SECONDED BY DEAN BLOCH, TO APPROVE THE LIST OF BRIDGE PRIORITIES. THE MOTION PASSED UNANIMOUSLY.

8. VTrans Funding Priorities
Matt went through a PowerPoint to explain where VTrans proposes to spend funds in the coming year. He began by comparing this year’s Governor recommended budget to the one that passed last year, overall showing a 0.4% increase. He next displayed a chart of the past 6 years total budget amounts for comparison and then provided details for the two largest funding sources: federal and state. The emphasis areas for the new budget are:

- Safety
- Preservation and Maintenance
- Grow Vermont’s Economy
- Energy Efficient Transportation Choices
- Protecting Vulnerable Populations
- Making Vermont Affordable
- Asset Management and Performance
- Clean Water Initiative

For each category, Matt offered budget program examples. The Clean Water Initiative is a new program and Matt provided further detail including:

- Two-year program FY2018 – FY2019
• $13.5M over two years  
  • $1.1M additional Transportation Alternatives (TA) funding redirected to Municipal stormwater grants annually  
    – Entire $2.2M TA Program now dedicated to clean water  
  • Additional funds redirected to Municipal Mitigation Assistance  
    – $5.2M in FHWA formula funds over FY2018 and FY2019  
    – $400,000 redirected from Town Highway Class 2 Roadway Program  

There was further discussion about how to get the Clean Water program funds out to communities and a desire to consider a separate meeting to discuss this.

9. MTP Fiscal Constraint  
Peter noted last month’s MTP related item concerning the MTP project list and next efforts to relate an estimated level of funding for those projects. He described the methodology from the last MTP and our intent to use it again. This is a two-step process:  
  1. Determine the historical level of federal funds coming to the state and estimate/project a future trend.  
  2. Calculate the historic share Chittenden County has received of the overall state pot. Last time we used 17.1%. Project future funding on a determined share.  

Step one has been done and there is basically a flat line of level funding anticipated into the future. For the second item, we’re still working on it. Depending on what historic period we look at, we’ve received anywhere from a low of 13% of the state share to a high of nearly 20%. We will be discussing options with VTrans and will return in April with a decision on how this applies to the project list.

10. Population Forecast Update  
Melanie continued her presentation started last month on this topic. This time it included revisions and extensions out to 2050 performed by RSG. Beginning with the 10-year extension out to 2050 she showed slides charting total County population, municipal totals and municipal share of the County total. She next described the details on both the household and employment forecast methods and trends and the details by municipality going out to 2050. The next steps in this process are:  
  • Receiving a revised consultant forecast this afternoon that will take into consideration:  
    • Winooski-account for recent growth  
    • Burlington- pipeline development  
    • Rural towns-flat or declining population  
    • Essex-modification to employment  
  • Board considering forecast for approval March 15th  
  • Staff will assign job numbers to the Transportation Model’s Transportation Analysis zones following Board approval.

11. Status of Projects and Subcommittee Reports  
Peter referred members to the project list on the back of the agenda.

12. CCRPC February Board Meeting Report  
Peter mentioned the Board approved major TIP amendments that the TAC has considered last month.

13. Chairman’s/Members’ Items  
No items came up.

The meeting adjourned at 10:55 a.m.

Respectfully submitted, Peter Keating
Active Transportation Plan: Action Item

Background: CCRPC began an update to the Bike Ped plan in the summer of 2015 and held extensive public outreach through workshops and the project’s on-line map comment tool through that fall and winter. Preliminary network and infrastructure recommendations were presented to the TAC and Board last spring and fall, based largely on GIS analysis that considered:

- Public comment, safety, level of stress,
- Trip origins and destinations, and
- Previous plans/studies.

A project feasibility layer was added later and combined with priorities to produce a recommended network map identifying both.

Staff provided extensive comments on priority recommendations and feasibility determinations last September which led to some revisions and another round of comment/review solicitation. We conducted this through Front Porch Forum and local Bike/Ped committees from October to December. More recently TAC comments were received and further revisions made.

At the April TAC meeting, staff will present the plan with a focus on its recommendations.

Staff Recommendation: Staff recommends that the TAC recommend approval of the Active Transportation Plan to the CCRPC Board.

Staff contact: Peter Keating, pkeating@ccrpcvt.org 861-0124

Attachments: The ATP and priority map can be found at http://www.ccrpcvt.org/our-work/our-plans/regional-bikeped-plan/
CCRPC Transportation Advisory Committee  
April 4, 2017  
Agenda Item 5: Action Item

2019 Transportation Project Prioritization

**Issues:** Each year the Vermont Legislature requires that projects in the Transportation Capital Program be prioritized. Specifically, they directed VTrans to develop a numerical grading system to assign a priority ranking to all paving, roadway, safety and traffic operations, state bridge, interstate bridge, and town highway bridge projects. The rating system was to consist of two separate, additive components as follows:

1. One component shall be an asset management-based factor which is objective and quantifiable and shall consider, without limitation, the following:
   - the existing safety conditions in the project area and the impact of the project on improving safety conditions;
   - the average, seasonal, peak, and nonpeak volume of traffic in the project area, including the proportion of traffic volume relative to total volume in the region, and the impact of the project on congestion and mobility conditions in the region;
   - the availability, accessibility, and usability of alternative routes;
   - the impact of the project on future maintenance and reconstruction costs.

2. The second component of the priority rating system was to consider the following factors:
   - the functional importance of the highway or bridge as a link in the local, regional, or state economy; and
   - the functional importance of the highway or bridge in the social and cultural life of the surrounding communities.

A prioritization methodology was developed as a collaborative effort between VTrans and the regional planning commissions (RPCs). VTrans provides technical input on projects to determine the first part of the project score and the RPCs provide input on the second part of the score.

**VTrans Methodology Overview**

Prioritization methodologies were developed for each program category listed in the Transportation Capital Program. The methodologies are summarized below.

**Paving**

- Pavement Condition Index – 20 points (more points are given for higher levels of pavement deterioration)
- Benefit/Cost – 60 points (output comes from a Pavement Management System software which considers the type of pavement treatment, traffic volumes and percentage of trucks)
- Regional Priority – 20 points
Bridge
- Bridge Condition – 30 points (considers the condition of components of the bridge such as the deck, superstructure and substructure)
- Remaining Life – 10 points (considers the rate at which the bridge is deteriorating)
- Functionality – 5 points (adequacy of the alignment and the width)
- Load Capacity and Use – 15 points (considers if there is a weight restriction and the traffic volumes)
- Waterway Adequacy and Scour Susceptibility – 10 points (characteristics of the waterway the bridge crosses, if applicable)
- Project Momentum – 5 points (considers right-of-way and permit issues)
- Benefit Cost Factor – 10 points (considers the benefit to the traveling public of keeping the bridge open)
- Regional Priority – 15 points

Roadway
- Highway System – 40 points (looks at highway sufficiency rating and network designation)
- Cost per vehicle mile – 20 points
- Project Momentum – 20 points (considers right-of-way and permitting issues)
- Designated Downtown project – 10 bonus points
- Regional Priority – 20 points

Traffic Operations
- Intersection Capacity – 40 points (based on level of service)
- Accident Rate – 20 points
- Cost per Intersection Volume – 20 points
- Project Momentum – 10 points (considers right-of-way and permitting issues)
- Regional Input – 20 points

CCRPC Priority Methodology

CCRPC developed a methodology for regional priority scores in 2005. The methodology uses planning factors MPOs are required to consider in their planning process, as stated in ISTEA and reiterated in subsequent legislation. The planning factors are: Economic Vitality; Safety and Security; Accessibility, Mobility and Connectivity; Environment, Energy and Quality of Life; Preservation of Existing System; and, Efficient System Management.

The methodology uses a project scoring sheet that identifies project characteristics that result in a score of High, Medium-High, Medium, Low or No Impact for each of the six scoring criteria. Each project receives one score for each planning factor. The score is determined by finding the highest scoring project characteristic that applies to each project. Necessary information for scoring projects is derived from existing studies and data collected/processed by CCRPC, VTrans, consultants or towns. Only one score is applied to the project for each planning factor even though multiple characteristics may apply to the project.

In addition to the six scoring categories, projects receive points if the project is in the current TIP according to the following schedule:
- 10 points for construction funds in the TIP
- 8 points for right-of-way in the TIP
- 6 points for engineering in the TIP
Projects receive only one score for the TIP Status item corresponding to the highest scoring project phase even if there are multiple phases listed in the TIP for the project.

The list of projects to be scored comes from the annual Transportation Capital Program and is supplied by VTrans. The list includes all projects in the Capital Program except rail projects, aviation projects, interstate projects, bridge maintenance projects, projects funded with federal safety funds, bike/ped and Transportation Alternatives awards and projects expected to be under construction in the near future.

Preliminary project scoring sheets were sent to TAC members having projects in their towns for review and comment.

Attached are the preliminary project scores for the Regional Priority factor. The attached table lists projects in rank order by program category, from high score to low score. Ties between projects are broken in the following way: higher functional classes are placed before lower functional classes. Functional class order is: Interstate, Principal Arterial, Minor Arterial, Major Collector. If ties still remain higher traffic volumes are placed before lower traffic volumes.

Staff Recommendation: Approve the 2019 Regional Project Scores, with changes if any, and forward to CCRPC Commission

For more information contact: Christine Forde cforde@ccrpcvt.org or 846-4490 ext. *13

Attachments:  - CCRPC Prioritized Project Lists – 2019  - CCRPC Project Scoring Sheet
<table>
<thead>
<tr>
<th>Rank</th>
<th>CCRPC Score</th>
<th>Economic Vitality</th>
<th>Accessibility, Mobility and Connectivity</th>
<th>Safety and Security</th>
<th>Environmental, Energy and Quality of Life</th>
<th>Functional Class</th>
<th>State Village</th>
<th>Principal Arterial</th>
<th>Suburban/Rural</th>
<th>Major Collector</th>
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*US7 Harbor Road Falls Road, Shelburne has recently completed scoping and CCRPC seeks to have this project added to the Capital Program. The project has been scored, but not ranked because it is not currently part of the transportation program.*
2019 CCRPC Prioritized Project List

Paving, State Bridge and Town Highway Bridge

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<tr>
<th>Rank</th>
<th>CCRPC Score</th>
<th>Economic Vitality</th>
<th>Safety and Security</th>
<th>Accessibility, Mobility and Connectivity</th>
<th>Environment, Energy and Quality of Life</th>
<th>Preservation of Existing System</th>
<th>Efficient System Management</th>
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<th>Planning Designation</th>
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<th>High Crash</th>
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<td>Minor Arterial</td>
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<td>-</td>
<td>Rural</td>
<td>Major Collector</td>
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</table>

State Bridge

| US2 Bridge over 1-89, Colchester | 1 | 52 | High | High | Medium-High | Medium-High | Medium | Medium-High | PE-1,2 | Metro | Interstate/Principal Arterial | Yes |

Town Highway Bridge

| Huntington Bridge 32 on Camels Hump Road (TH22) | 1 | 39 | Medium | Medium-High | High | Medium-High | Medium-High | Low | - | Rural | Town Road | No |
| Huntington Bridge 10 on Main Road | 2 | 36 | Medium | Medium-High | Medium-High | Medium | Medium-High | Medium | - | CCRPC Village | Major Collector | No |
| Underhill Bridge 7 on Pleasant Valley Road | 3 | 30 | Medium | Medium | Medium-High | Low | Medium | Medium | - | Rural | Major Collector | No |
| Jericho Bridge 15 on Brown's Trace | 4 | 28 | Medium-High | Medium | Medium-High | Low | Low | Low | - | Rural | Minor Arterial | No |
| Charlotte Bridge 31 on Dorset Street | 5 | 26 | Medium | Medium | Medium | Low | Medium | Low | - | Rural | Town Road | No |
## CCRPC Project Prioritization

### Scoring Criteria

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<th>Planning Factors</th>
<th>Economic Vitality</th>
<th>Safety and Security</th>
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<tr>
<td><strong>Economic Vitality</strong></td>
<td>Support the economic vitality especially by enabling global competitiveness, productivity, and efficiency</td>
<td>Increase the safety and security of the transportation system for motorized and nonmotorized users</td>
</tr>
<tr>
<td><strong>Project Characteristics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High Impact (10 points)</strong></td>
<td>□ Project provides new or improved access, including transit and pedestrian/bike access, to or within a Vermont designated Growth Center, Downtown, New Town Center or Village Center or a CCRPC designated Enterprise Planning Area</td>
<td>□ Safety improvement in a VTrans identified High Crash Location – intersection or section of roadway</td>
</tr>
<tr>
<td></td>
<td>□ Project on an interstate or principal arterial that improves access for freight</td>
<td>□ Bridge improvement for a bridge with critical safety deficiencies (sufficiency rating up to 25)</td>
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<tr>
<td></td>
<td>□ Project improves airport access</td>
<td>□ Dedicated pedestrian/bike facility making intermodal linkages or regional connections in a location with a documented existing safety problem</td>
</tr>
<tr>
<td></td>
<td>□ Project improves access, including transit and pedestrian/bike access, to tourism facility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Project that improves access to the rail network</td>
<td></td>
</tr>
<tr>
<td><strong>Medium-High Impact (7 points)</strong></td>
<td>□ Project provides new or improved access, including transit and pedestrian/bike access, to or within a CCRPC designated Center, Metro or Village Planning area, or a municipal designated growth area</td>
<td>□ Bridge improvement for a bridge with serious safety issues (sufficiency rating of 25.1 to 50)</td>
</tr>
<tr>
<td></td>
<td>□ Project on a minor arterial or major collector that improves access for freight</td>
<td>□ New median barriers, guardrails or shoulders</td>
</tr>
<tr>
<td></td>
<td>□ Project addresses environmental issues that could impact economic development (stormwater, flood resiliency)</td>
<td>□ Intersection/roadway safety improvement in a location with a documented safety problem</td>
</tr>
<tr>
<td></td>
<td>□ New/expanded Park and Ride Lot</td>
<td>□ Rail grade crossing improvement or warning signs</td>
</tr>
<tr>
<td><strong>Medium Impact (5 points)</strong></td>
<td>□ Project that provides new or improved access, including transit and pedestrian/bike access, to or within a future activity area identified in a municipal plan or study</td>
<td>□ Dedicated pedestrian/bike facility with a documented safety problem on a Principal or Minor Arterial roadway</td>
</tr>
<tr>
<td></td>
<td>□ Bus station/stop amenities and shelters</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Project maintains or improves an access facility important to rural community including town highway bridges</td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Repave interstate or principal arterial</td>
<td>□ Safety related transportation project identified in a study/report</td>
</tr>
<tr>
<td><strong>Low Impact (3 points)</strong></td>
<td>□ Other transportation improvement that supports economic development</td>
<td>□ Bridge safety improvement for a bridge with a sufficiency rating from 50.1–70</td>
</tr>
<tr>
<td></td>
<td>□ Repave a minor arterial or major collector</td>
<td>□ Repave interstate or principal arterial</td>
</tr>
<tr>
<td><strong>No Impact (0 Points)</strong></td>
<td>□ No discernible benefit</td>
<td>□ Dedicated pedestrian/bike facility in a location with a documented safety problem on a Major Collector roadway</td>
</tr>
<tr>
<td></td>
<td>□ No discernible benefits</td>
<td>□ Safety related transportation project identified in a study/report</td>
</tr>
</tbody>
</table>

*Improved access is defined as increase in capacity or reduced delay*
<table>
<thead>
<tr>
<th><strong>Project Characteristics</strong></th>
<th><strong>Planning Factors</strong></th>
<th><strong>Environment, Energy and Quality of Life</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Accessibility, Mobility and Connectivity</strong></td>
<td>Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight</td>
<td>Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns</td>
</tr>
</tbody>
</table>
| High Impact (10 points) | - Bicycle/pedestrian facility making intermodal linkages or regional connections to or within a Vermont designated Growth Center, Downtown, New Town Center or Village Center  
- Project that facilitates movement of goods or improves intermodal connectivity to or within a Vermont designated Growth Center, Downtown, New Town Center or Village Center  
- Project that benefits areas where 10% or more of the households are below the poverty level  
- Bridge or other project that maintains connectivity or reduces flood vulnerability in a location with no alternative route for residents or businesses or a detour of 25 miles or more | - Pedestrian/bike facility making intermodal linkages or regional connections resulting in the potential for reducing VMT  
- Clean fuel buses/vehicles and alternative fuel infrastructure  
- VMT reduction program including transportation demand management and park and ride lots  
- Transportation project that encourages compact land use or transit oriented development  
- Transportation project that reduces stormwater runoff or improves water quality or other stream ecological conditions for impaired waterways |
| Medium-High Impact (7 points) | - Bicycle/pedestrian facility making intermodal linkages or regional connections to or within a CCRPC designated Center, Metro, Enterprise or Village Planning area or municipal designated growth area  
- Project that facilitates movement of goods or intermodal connectivity to or within a CCRPC designated Center, Metro, Enterprise or Village Planning area or municipal designated growth area  
- Project maintains or improve connectivity on interstate or principal arterial  
- Bridge or other project that maintains connectivity or reduces flood vulnerability in a location with limited alternative routes for residents or businesses (detour 10 – 24.9 miles) | - Transportation project that reduces delay at an existing high volume intersection or group of intersections within a Vermont designated Growth Center, Downtown, New Town Center, Village Center, CCRPC designated Center, Metro, Enterprise or Village Planning area or municipal designated growth area  
- Traffic calming/streetscape project within a Vermont designated Growth Center, Downtown, New Town Center, Village Center, CCRPC designated Center, Metro, Enterprise or Village Planning area or municipal designated growth area  
- Projects that remove traffic from a neighborhood within a Vermont designated Growth Center, Downtown, New Town Center, Village Center, CCRPC designated Center, Metro, Enterprise or Village Planning area or municipal designated growth area  
- Pedestrian/bike facility making local connections resulting in the potential for reduced VMT  
- Transportation project that reduces stormwater runoff or improves water quality or other stream ecological conditions for non-impaired waterways |
| Medium Impact (5 points) | - Bicycle/pedestrian facility making intermodal linkages or regional connections to or within a locally important activity center  
- Project that facilitates freight movement or intermodal connectivity to or within a locally important activity center  
- Project maintains or improves connectivity on minor arterial or major collector  
- Project that maintains connectivity and mobility for a rural community including town highway bridges with a detour of 5 – 9.9 miles | - Transportation project that reduces delay at an existing high volume intersection or group of intersections  
- Necessary bridge or roadway improvements within a Vermont designated Growth Center, Downtown, New Town Center, Village Center, CCRPC designated Center, Metro, Enterprise or Village Planning area or municipal designated growth area  
- Necessary bridge or roadway improvements on interstate or principal arterial |
| Low Impact (3 points) | - Project that maintain or improve connectivity on minor arterials or major collectors  
- Bridge project with a detour less than 5 miles | - Necessary bridge or roadway improvements on minor arterial or major collector  
- Other project that has a positive effect on the environment, energy use or quality of life in the region  
- Other bridge improvements |
| No Impact (0 Points) | - No discernible benefits | - No discernible benefits |
### Planning Factors

<table>
<thead>
<tr>
<th>Project Characteristics</th>
<th>Preservation of Existing System</th>
<th>Efficient System Management</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Emphasize the preservation of the existing transportation system</strong></td>
<td><strong>To encourage and promote the safe and efficient management and operation of integrated, intermodal transportation systems to serve the mobility needs of people and freight and foster economic growth and development.</strong></td>
</tr>
<tr>
<td></td>
<td><strong>High Impact (10 points)</strong></td>
<td><strong>Efficient System Management</strong></td>
</tr>
<tr>
<td></td>
<td>□ Reconstruction, resurfacing or intersection improvement for a project with a documented critical need</td>
<td>□ TDM strategies, programs and incentives including new or expanded park and ride lot that would reduce VMT</td>
</tr>
<tr>
<td></td>
<td>□ Bridge structural improvement for a bridge documented to be in danger of being closed or weight restricted (sufficiency rating of less than 25)</td>
<td>□ Traffic signal interconnect or other ITS improvement to reduce congestion</td>
</tr>
<tr>
<td></td>
<td>□ Reconstruction or resurfacing of an existing pedestrian/bike facility making intermodal linkages or regional connections with a documented signification need</td>
<td>□ Improvement that reduces congestion to roadway, corridors or intersection with significant congestion (V/C over 1.5)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Pedestrian/bike facility making intermodal linkages or regional connections resulting in the potential to reduce congestions</td>
</tr>
<tr>
<td></td>
<td><strong>Medium-High Impact (7 points)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Reconstruction, resurfacing or intersection improvement for a project with a documented significant need</td>
<td>□ Improvements that reduces congestion to roadway, corridor or intersection (V/C over 1)</td>
</tr>
<tr>
<td></td>
<td>□ Bridge structural improvement for a bridge with documented significant structural deficiencies (sufficiency rating of 25 – 50)</td>
<td>□ New interchange on limited access highway, in a location with significant congestion, to relieve congestion</td>
</tr>
<tr>
<td></td>
<td>□ Reconstruction or resurfacing of an existing pedestrian/bike facility with a documented significant need</td>
<td>□ New signals or roundabout where warranted</td>
</tr>
<tr>
<td></td>
<td>□ Necessary improvement to an existing park and ride lot</td>
<td>□ New connections between existing streets to facilitate the use of alternative routes and reduce congestion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Necessary improvements to operate existing bridges and roadways on interstate or principal arterial</td>
</tr>
<tr>
<td></td>
<td><strong>Medium Impact (5 points)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Reconstruction, resurfacing or intersection improvement for a project with a documented moderate need</td>
<td>□ Improvement that reduces congestion to roadway, corridor or intersection (V/C less than 1)</td>
</tr>
<tr>
<td></td>
<td>□ Bridge structural improvement for a bridge with documented moderate structural deficiencies (sufficiency rating of 50.1-70)</td>
<td>□ Median treatment or access management</td>
</tr>
<tr>
<td></td>
<td>□ Reconstruction or resurfacing of an existing pedestrian/bike facility</td>
<td>□ Bicycle/pedestrian facility making locally important connections resulting in the potential for reducing congestion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Improvements that reduce travel time</td>
</tr>
<tr>
<td></td>
<td></td>
<td>□ Necessary improvements to operate existing bridges and roadways on minor arterial or major collector</td>
</tr>
<tr>
<td></td>
<td><strong>Low Impact (3 points)</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>□ Other improvement to the existing transportation system</td>
<td>□ Necessary improvements to operate town highway bridges on minor collectors and local roads</td>
</tr>
<tr>
<td></td>
<td>□ Transportation improvement that has an indirect benefit to the existing transportation system</td>
<td>□ Other improvements that benefit the transportation system.</td>
</tr>
<tr>
<td></td>
<td><strong>No Impact (0 Points)</strong></td>
<td>□ No discernible benefits</td>
</tr>
<tr>
<td></td>
<td>□ No discernible benefits</td>
<td></td>
</tr>
</tbody>
</table>

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**Project Name:**
CCRPC Transportation Advisory Committee
04/04/2017
Agenda Item 6: Information Item

Metropolitan Transportation Plan (MTP) Scenarios

Issues:
As part of the MTP development, and especially as we look long term, we will be relying on our transportation model to evaluate different transportation futures and measure their impacts. Our first scenario, or base case, will be run first and will look at what happens as the region grows in future years with only our current transportation system and the additional projects identified in our 4-year TIP. The other three scenarios will include the base case, but will be built on very different and distinct strategies so that any differences can be better evaluated in helping to determine the MTP scenario. It is likely that the MTP scenario will incorporate elements from all the scenarios. The scenarios and their elements are identified in the table below.

<table>
<thead>
<tr>
<th>Scenarios Evaluated for Years 2015, 2030, &amp; 2050</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base Build</strong></td>
</tr>
<tr>
<td>Existing transportation system plus all TIP projects</td>
</tr>
</tbody>
</table>
All scenarios will be evaluated to ensure that they are consistent with our projected long term fiscal constraints. Each scenario is also proposed to use the same level of growth in population, housing, and employment out to 2050. In the MTP Scenario, we will look closely at the model results from the three scenarios and build a long range MTP project and strategy list that will likely pick aspects from each. This “hybrid” scenario will also be tested, and modified to become the proposed MTP long term recommendations in the fall. The MTP scenario will also loop back with the energy planning work to determine the impact this scenario has on advancing the State’s goal of 90% renewable energy by 2050.

**Issues for TAC Consideration and Feedback**
We are somewhat limited in the number of scenarios we can test and are looking for TAC guidance. Have we selected the right ones? What might be another and what elements would it include? Are there other components we should include in any of the scenarios we’ve proposed? Each transportation scenario is using the same land use (numbers of jobs and homes in the same places, given the recently approved 2050 Demographic Forecast, except the TDM/Energy scenario which includes a denser land use pattern.

**Evaluation Criteria**
In the last MTP we used the following measures to evaluate the scenarios:
1. Future congestion – volume to capacity ratios
2. Daily total vehicle miles of travel (internal/external)
3. Daily transit trips
4. PM peak hour vehicle hours of delay
5. Cost

Others to be considered:
6. Energy usage/greenhouse gas emissions
7. Other?

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