



## SCOPE OF WORK: COLCHESTER-ESSEX NETWORK TRANSPORTATION STUDY

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To: Christine Forde, CCRPC  
From: David Saladino, P.E.  
Date: 28 February 2013  
**Subject: Colchester-Essex Network Transportation Study – Scope of Services**

RSG is pleased present this Scope of Work and budget estimate to the CCRPC to provide technical and project management services for the Colchester-Essex Network Transportation Study (CENTS). This document presents our understanding of the project, a scope of work, a preliminary schedule, and budget. This scope of work is based on communications between CCRPC staff and staff from the Town of Colchester (Bryan Osborne) and Town of Essex (Dennis Lutz) and on a conference call with CCRPC and RSG staff on 10 January 2013.

### BACKGROUND

Construction of segments C through F of VT 289 in Essex has resulted in impacts to roads in Colchester and Essex that were intended to be addressed by constructing the remaining segments of the Circumferential highway. With the announcement that the Circ highway, as originally conceived, would not be constructed, the CCRPC, in association with the towns of Colchester and Essex, is initiating the Colchester-Essex Network Transportation Study to evaluate the impacts of the partial Circ construction in a section of Colchester and Essex as described below.

The goals of the study are to develop a better understanding of current and future travel demands along the VT 2A and Severance/Kellogg Road corridors and to develop strategies for addressing issues in the project area. Ultimately, CCRPC would like specific projects to be identified in this study that can be advanced through scoping to develop potential implementation projects.

The Study will use a Network Management Planning approach for “...identifying and implementing a mutually supportive set of strategies to maintain and enhance access, mobility, safety, economic development, and environmental quality<sup>1</sup>” within the network and study area.

A Network Management approach uses the Corridor Management Planning framework to develop a comprehensive assessment of issues and needs, and identifies potential projects and land use policies that will help achieve an agreed upon vision statement and goals. It considers all modes, including automobile and commercial vehicle traffic, walking, cycling and transit. Lower-impact/cost projects and transit services are identified for early implementation. Projects that involve new or reconstructed roadways or significant expansion of transit service are suggested for the long-term.

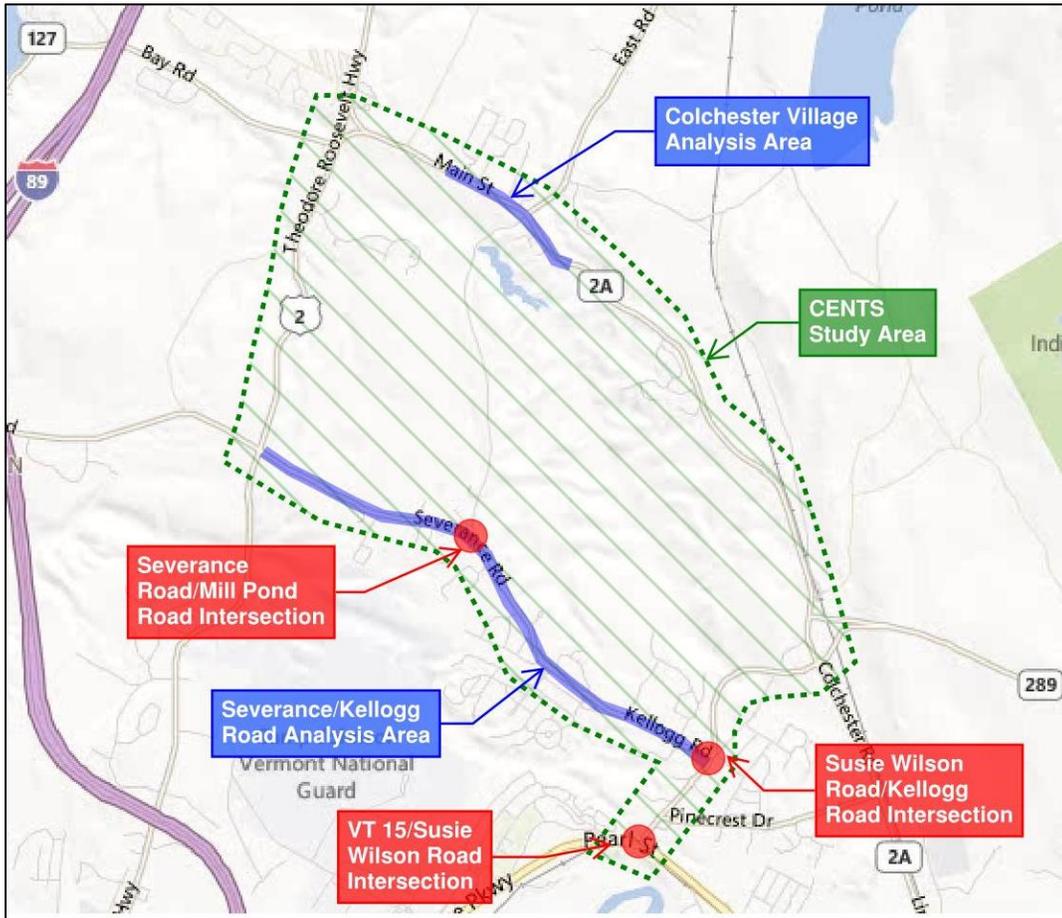
The Study explicitly considers the interaction between land use and transportation. The effect of development patterns and growth is evaluated and land use planning strategies are included as an integral part of the recommendations.

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<sup>1</sup> Vermont Corridor Management Handbook, Vermont Agency of Transportation, July 2005, p.3

The project study area and defined analysis areas are shown below in Figure 1.

Figure 1: CENTS Study Area and Defined Analysis Areas



Key elements of the CENTS study include the following:

- Analyze existing and future conditions without the Circ highway in the study area.
- Consider future land use in the immediate and surrounding areas including development/redevelopment of industrial areas. Specific areas to consider include the Susie Wilson Road/Kellogg Road area, along VT2A, along Severance Road and in the Severance Corners Growth Center.
- Consider the needs of all transportation users in accordance with the Vermont Complete Streets legislation.
- Evaluate bike/pedestrian connections including extension of existing facilities on Severance Road.
- Evaluate truck volumes and routes in and through the study area.
- Evaluate crash trends in the study area. Consider how future volumes and proposed changes to Kellogg Road may affect safety on Susie Wilson Road (potential reduction in occurrence of gaps).
- Perform intersection/signal analysis at VT2A/East Road for current and future conditions.



- Perform intersection/signal analysis of planned improvements at VT 2A/US 7 to compare overall performance between either the VT 2A or Severance Road corridors serving the majority of regional traffic.
- Colchester is interested in potentially attempting to shift traffic from VT 2A to Severance Road to reduce volumes in Colchester Village. However, Essex is better able to accommodate traffic on VT 2A as opposed to the more congested Kellogg/Susie Wilson Road area. Evaluate this issue and develop recommendations and potential solutions.

Public outreach for the initial steps of this study is proposed to occur area wide. However, as the project advances smaller outreach areas may be appropriate to capture the diversity of interests throughout the area. Proposed outreach areas are: Colchester Village area, Severance Road area, and Susie Wilson/Kellogg Road area.

## SCOPE OF WORK

This scope of work follows steps suggested in the *VTrans Corridor Management Handbook* and generally follows the approach taken on the Williston-Essex Transportation Network Study. Additionally, this scope includes a more detailed investigation (i.e. scoping level assessment) at the following locations: 1) Susie Wilson Road/Kellogg Road intersection, 2) Severance Road/Mill Pond Road intersection and Severance/Kellogg Road corridor, 3) Colchester Village area, and the VT 15/Susie Wilson Road intersection.

### 1.0 PROJECT KICK-OFF MEETING

- Meet with CCRPC staff, staff from Colchester and Essex and any other identified stakeholders to review the proposed scope of work, goals for the study, anticipated study outcomes, and project schedule.
- Prepare a project base map and relevant background materials for use in the project kick-off meeting.

<b>Meetings:</b>	Steering Committee Meeting #1 (Project Kick-off Meeting)
<b>Deliverables:</b>	Kick-off Meeting materials, preliminary base map

### 2.0 ANALYZE EXISTING AND FUTURE CONDITIONS

- Collect and organize existing plans, transportation data, land use information, and natural/cultural resource information. Summarize relative findings and recommendations from previous transportation plans and scoping studies completed in the study area. Collect and organize existing traffic and safety data, and roadway and intersection geometry and operational information.
- A field inventory will be conducted to obtain or verify existing conditions. For scoping purposes, we have assumed that any additional AADT or turning movement counts needed for the study would be undertaken by the CCRPC.
- Future year (2030) “No Build” traffic volumes will be estimated using the CCRPC regional travel demand model, incorporating future traffic projections based on region-wide land use changes used for the Metropolitan Transportation Plan (MTP). Location- and intersection-specific adjustments will be made to the future volume projections as needed based on an understanding of local travel characteristics.
- Prepare a historic comparison of AADT on study area roads pre-Circ partial construction vs. today. This assessment will depict the difference between the actual change in AADTs on



study area roads between 1990 and 2013 and what one would have projected the AADT growth would have been during that time if the Circ hadn't been constructed (using background growth rates from permanent count stations around the County).

- Analyze existing network conditions as well as current and future year traffic volumes to develop specific performance measures for the “No Build” conditions. Anticipated performance measures to be evaluated include corridor travel time and average speed, average delays, queuing, and Level of Service at intersections, bicycle and pedestrian network connectivity, and ratio of VT 2A to Severance/Kellogg Road traffic volumes.
- Prepare a summary of the existing and future conditions assessment in a Technical Memorandum.
- Prepare for and facilitate a meeting with the Steering Committee to review *Technical Memorandum #1 – Summary of Existing and Future Conditions*.

<b>Meetings:</b>	Steering Committee Meeting #2
<b>Deliverable:</b>	Technical Memorandum #1 – Summary of Existing and Future Conditions

### 3.0 PUBLIC MEETING #1 – LOCAL CONCERNS MEETING

- Prepare for and facilitate a Local Concerns public meeting to present the findings of the Existing and Future Conditions assessment and solicit input on perceived issues in the study area, suggested goals and performance measures, and potential improvement projects to evaluate. We anticipate this meeting to include a brief Open House session, a more formal presentation session, break-out groups to discuss the study in finer detail, and finally a reassembling of the group to report on each break-out group’s discussions.

<b>Meetings:</b>	Public Meeting #1 – Local Concerns Meeting
<b>Deliverable:</b>	Public meeting materials

### 4.0 ARTICULATE STUDY AREA VISION AND GOALS

- Develop a draft Vision statement and specific goals for the study area based on the assessment of existing and future conditions, input from the project Steering Committee, and feedback from the public.
- Circulate *Technical Memorandum #2 - Draft Study Area Vision and Goals Statement to the Steering Committee members electronically for review and input*.

<b>Deliverable:</b>	Technical Memorandum #2 – Draft Study Area Vision and Goals Statement
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### 5.0 IDENTIFY STUDY AREA IMPROVEMENT STRATEGIES

- Develop a preliminary listing of study area improvement strategies based on the following sources:
  - Existing improvements identified in the CCRPC MTP and TIP
  - Improvements identified through the evaluation of existing and future conditions
  - Improvements identified by Steering Committee, public, or other stakeholders
- Articulate a set of metrics for use in evaluating and prioritizing the improvement strategies based on the study area vision and goals. For scoping purposes, we have assumed that up to five performance metrics will be developed for evaluating the strategies. These metrics may include construction cost, natural and cultural resource impacts, effects on network/corridor travel times, consistency with study vision and goals, etc. These



performance metrics will be circulated to Steering Committee members for review and comment prior to proceeding with the evaluation.

- Conduct technical analysis to “score” the identified improvement strategies using the identified performance metrics. Depending on the nature of the improvements, we anticipate utilizing a spreadsheet “model” to evaluate specific, localized improvement strategies (e.g. intersection improvements, etc.) and the CCRPC regional travel demand model to evaluate the impacts of larger, more substantial strategies (additional travel lanes, new network links, etc). The individual performance metrics and preliminary scoring will be summarized in a table for review and comment by the Steering Committee.

<b>Meetings:</b>	Steering Committee Meeting #3
<b>Deliverable:</b>	Study Area Improvement Strategy Screening Matrix

## 6.0 SCOPING LEVEL ASSESSMENT

The goal of this task is to further refine the broad recommendations developed in Task 5.0 to include a more detailed evaluation of alternatives, potential environmental impacts, and identification of preferred options.

Based on the outcome of the Improvement Strategy Screening Matrix, a more detailed, scoping-level evaluation of specific recommendations will be conducted at the following locations: 1) Susie Wilson Road/Kellogg Road intersection, 2) Severance Road/Mill Pond Road intersection and Severance/Kellogg Road corridor, 3) Colchester Village area, and 4) VT 15/Susie Wilson Road intersection.

RSG will conduct the following tasks for each of the four focus areas:

- **Identify Alternatives:** More detailed alternatives will be identified for each focus area based on the assessment of existing conditions, public and stakeholder input, and the results of the Improvement Strategy Screening Matrix.
- **Develop Sketch Plans of Alternatives:** Develop sketch-level conceptual plans showing the various alternatives. For scoping purposes, we have assumed that these plans will be developed over existing orthophotography and will utilize existing GIS layers and information collected during the field reconnaissance.
- **Develop Alternatives Evaluation Matrix:** Develop an Alternatives Evaluation Matrix identifying various metrics for use in evaluating the alternatives against the No Build alternative. Metrics will include cost, environmental impacts, ability to meet study vision and goals, and permitting requirements.
- **Public Meeting:** RSG will prepare for and facilitate a public meeting (one for each focus area) to present the alternatives and solicit input on a preferred alternative.

Once the public meetings have been held in each of the focus areas, we will conduct the following tasks:

- RSG will assemble *Technical Memorandum #3 – Summary of Alternatives Assessment* and circulate to the Steering Committee for review and comment.
- RSG will prepare for and assist in facilitating a meeting with VTrans staff to review and discuss *Technical Memorandum #3 – Summary of Alternatives Assessment*.
- RSG will prepare for and facilitate a meeting with the Steering Committee to review and discuss *Technical Memorandum #3 – Summary of Alternatives Assessment*. The goal for this meeting will be to identify a preferred alternative for each of the three focus areas.

<b>Meetings:</b>	VTrans Meeting, Steering Committee Meeting #4
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**Deliverable:** Technical Memorandum #3 – Summary of Alternatives Assessment

## 7.0 DRAFT CENTS REPORT

- The draft CENTS report will be developed by compiling Technical Memorandum #1 (Existing and Future Conditions Assessment), Technical Memorandum #2 (Study Area Vision and Goals Statement), the improvement strategy screening matrix, and Technical Memorandum #3 (Summary of Alternatives Assessment).
- The draft CENTS report will be circulated to Steering Committee members for review and comment prior to the second public meeting.

**Meetings:** Steering Committee Meeting #4

**Deliverable:** Draft Colchester-Essex Network Transportation Study

## 8.0 PUBLIC MEETING #2

- Prepare for and facilitate a public meeting to review the draft CENTS report. The presentation will include an overview of the project milestones and will focus on the development of recommendations for the project area and for the individual focus areas.

**Meetings:** Public Meeting #2 – Review Draft CENTS Study

**Deliverable:** Public meeting materials

## 9.0 FINAL CENTS REPORT

- The final draft CENTS report will be developed based on input from the Steering Committee and the public and will include the addition of an implementation plan chapter. The final draft CENTS report will be circulated to Steering Committee members for review and comment.
- The final CENTS report will be developed based on input from the Steering Committee. Two hard copies and electronic PDF files will be sent to the CCRPC, the Towns of Colchester and Essex, and VTrans.

**Deliverables:** Final Draft Colchester-Essex Network Transportation Study Report  
Final Colchester-Essex Network Transportation Study Report



