

CAMBRIDGE
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Autoroute 35 to Highgate Springs – Impact Analysis

EBTC 2018 Annual Border Workshop

presented to

*Regional Trade Corridors and Gateways
Session*

presented by

Cambridge Systematics, Inc.

Lisa Destro and Dan Tempesta

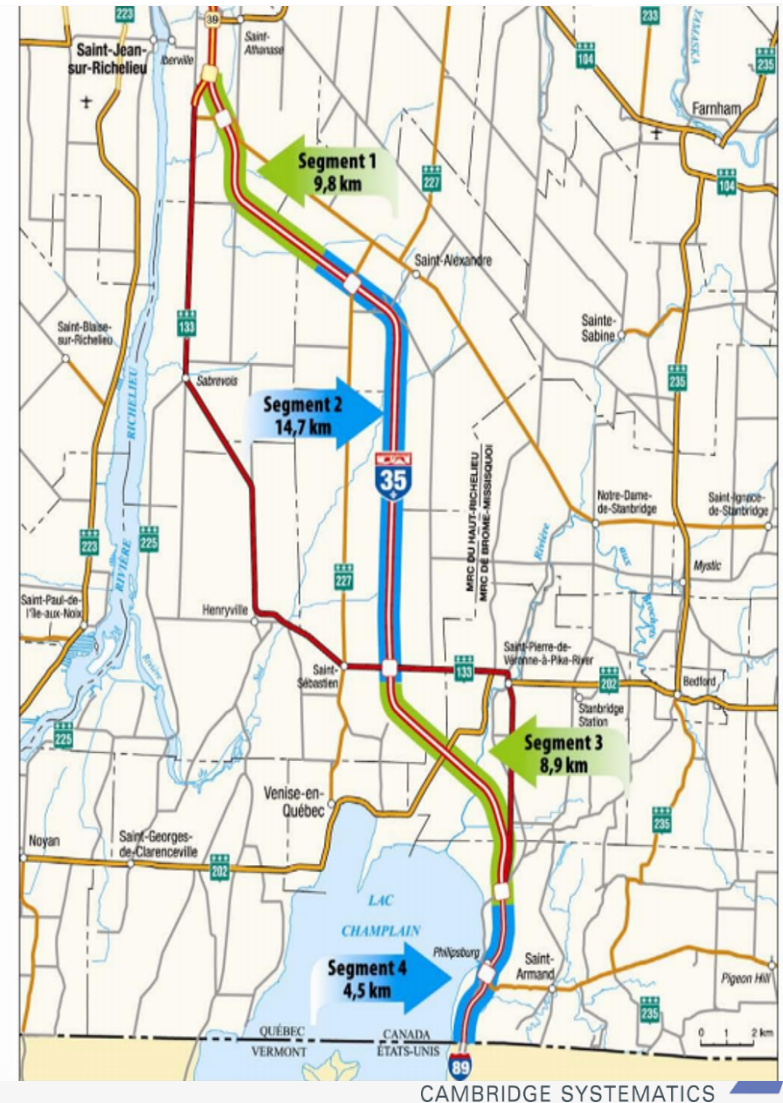
September 12, 2018

Overview

- Background
- Impact of A-35 Extension on Crossborder Traffic
- Intermediate Impacts of A-35 Construction
- Next Steps

Autoroute 35

- Autoroute 35 will be a limited access highway connecting the Montreal region with I-89 at Highgate Springs
- 14.7 km Segment 2 opened in 2014
- 13.4 km Segments 3 and 4 are expected to move into final construction by 2025



VTrans' Interests

Understand and plan for near-and long-term impacts on VTrans' facilities and property in the border region:

- Improved accessibility will result in increased cross-border passenger and commercial traffic
 - » What can we expect?
- Improvements to border facilities
 - » Identify & understand long-term and construction-related impacts
- Other potential demands and opportunities
 - » Ancillary traveler facilities
 - » Border region development
- Facilitate coordination among parties

Today's presentation reviews VTrans' assessment conducted thus far

Impacts of A-35 Extension on Crossborder Traffic: Traffic Forecast Overview

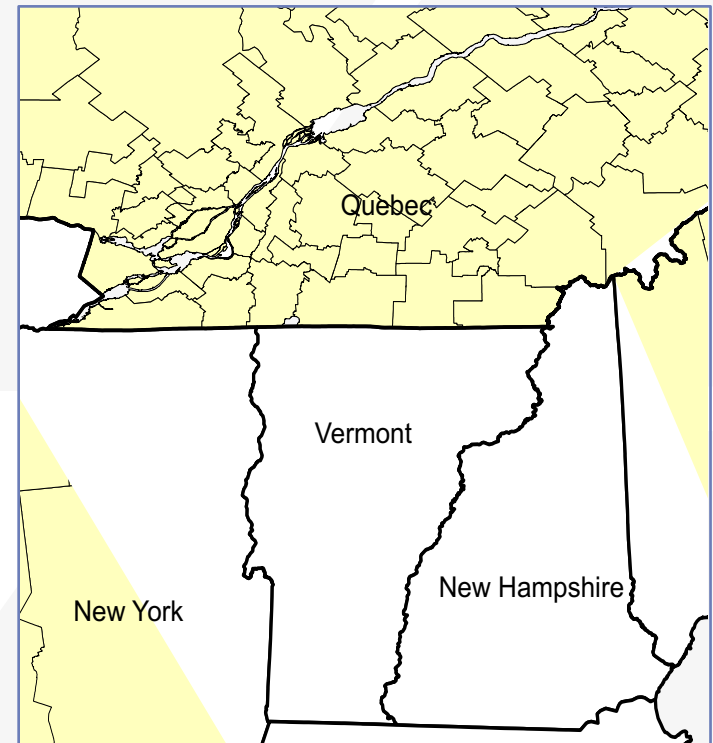


A-35 Extension Traffic Analysis

- Estimate impacts of completed A-35
 - » Traffic volumes
 - » Travel patterns
 - » Traffic shifts between Highgate Springs, Derby Line and Chaplain points of entry
- Identify time of day and seasonal patterns to aid VTrans and U.S. Customs and Border Protection in infrastructure planning and operational strategies

A-35 Extension Project Traffic

- Develop a model network of major roadways in Québec and through out Vermont
 - » US side based on FHWA's Freight Analysis Framework (FAF) network
 - » Canadian side based data from Transport Canada
- Develop zones for estimating travel
 - » County level zone in Vermont
 - » Provincial level for Canada, with Consolidated Metropolitan Areas separate
 - » Canadian Census District data used to disaggregate Québec to a smaller zone system



A-35 Extension Traffic Estimation

- Traffic count data added to the model network for passenger vehicles and trucks
- Applied an origin-destination matrix estimation (ODME) process
 - » A seed trip table is assigned to the network
 - » Assigned volumes are compared to counts
 - » The trip table is adjusted to better match the count and re-assigned
 - » Process repeated until assigned volume matches the counts
- Auto and truck trip tables are assigned to the network for the base and build conditions to determine A-35 impacts

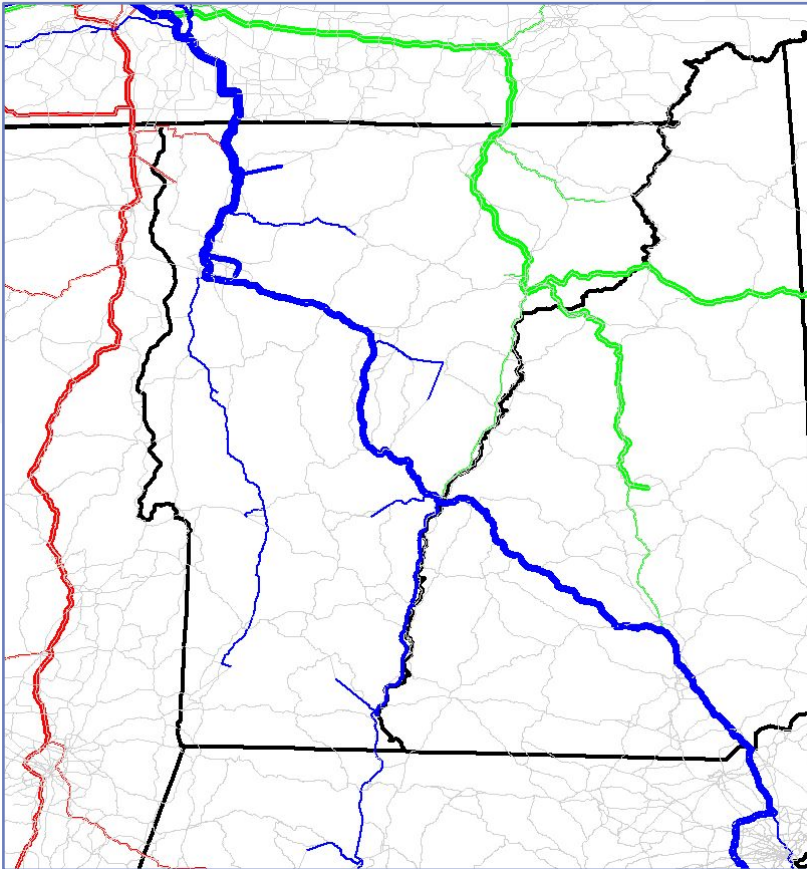
A-35 Extension Border Crossings

➤ Base and build southbound daily volumes for POEs

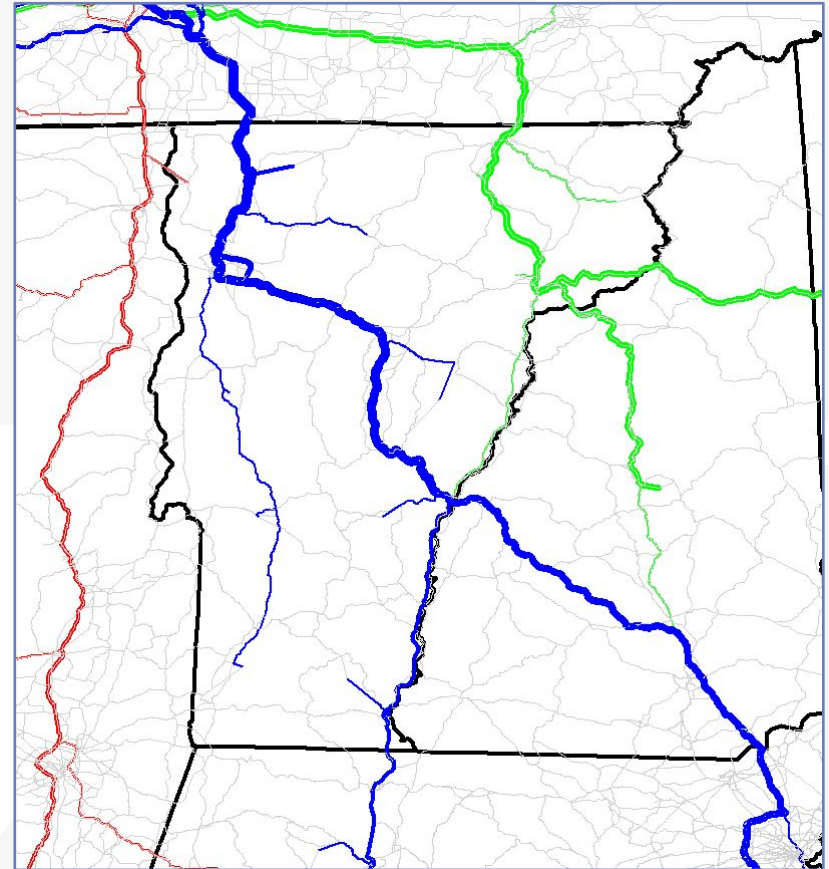
POEs	Champlain			Highgate			Derby			Total		
	Auto	Truck	Total	Auto	Truck	Total	Auto	Truck	Total	Auto	Truck	Total
Base	2,545	806	3,351	1,236	266	1,502	1,251	300	1,551	5,032	1,372	6,404
Build	2,389	747	3,136	1,581	372	1,953	1,251	298	1,549	5,221	1,417	6,638
Difference	-156	-59	-215	345	106	451	0	-2	-2	189	45	234
% Diff	-6.13%	-7.32%	-6.42%	27.91%	39.85%	30.03%	0.00%	-0.67%	-0.13%	3.76%	3.28%	3.65%

A-35 Extension Border Crossings

Base



Build



A-35 Extension Goods Movement

- IHS Markit Transearch data
- Five commodities represent almost 70% of all commodities flowing SOUTHBOUND

		Base Condition		Build Scenario	
Code	Name	Annual Trucks	Daily Trucks	Annual Trucks	Daily Trucks
29	Petroleum or Coal Products	20,011	68	20,815	71
24	Lumber or Wood Products	14,060	48	16,273	55
20	Food or Kindred Products	13,105	44	15,877	54
26	Pulp Paper or Allied Products	8,686	29	9,579	32
1	Farm Products	8,283	28	8,727	30

A-35 Extension Goods Movement

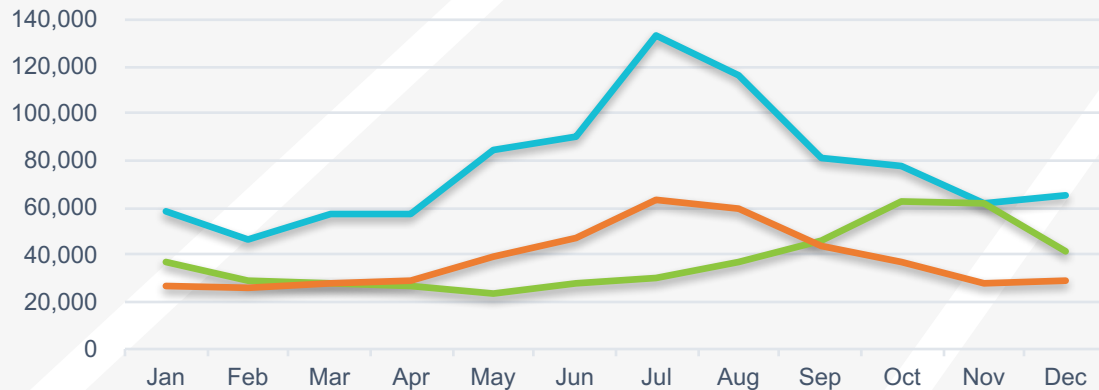
- IHS Markit Transearch data
- Five commodities represent only 15% of all commodities flowing NORTHBOUND

		Base Condition		Build Scenario	
Code	Name	Annual Trucks	Daily Trucks	Annual Trucks	Daily Trucks
40	Waste or Scrap Materials	3,817	13	3,890	13
36	Electrical Equipment	3,660	12	3,686	12
24	Lumber or Wood Products	2,113	7	3,300	11
26	Pulp, Paper, or Allied Products	2,043	7	2,176	7
30	Rubber or Misc Plastics	1,481	5	1,548	5

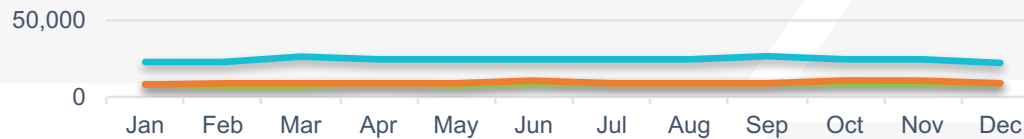
A-35 Extension Seasonal Movements

SB Highgate

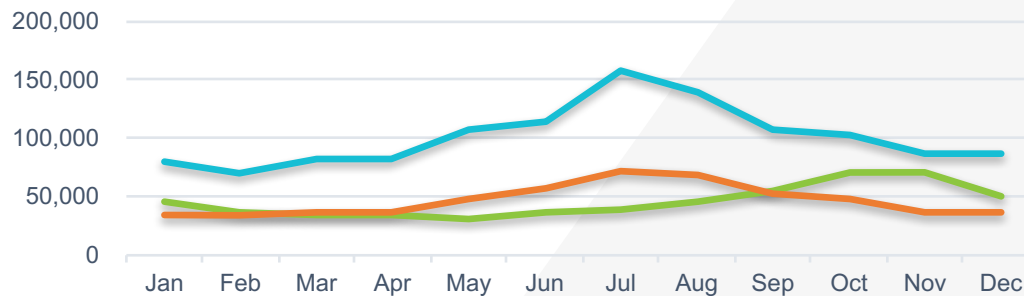
Automobiles



Trucks



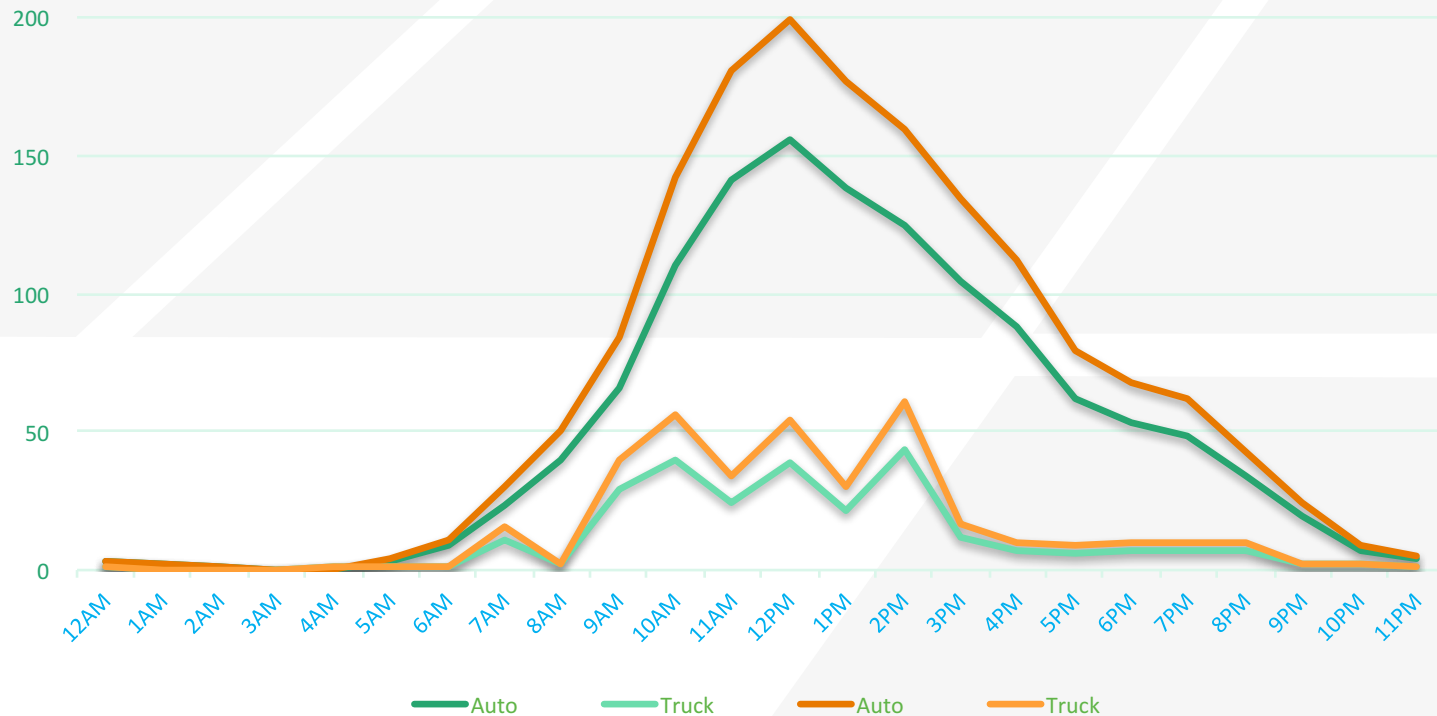
Total



— Champlain — Highgate Springs — Derby Line

A-35 Extension Time of Day Movements

➤ Highgate Springs Southbound Time of Day



A-35 Extension Findings Summary

➤ Traffic volumes

- » Highgate Springs traffic increases on the order of 30% from existing
- » Champlain POE experiences a 5-6% reduction in volume
- » Derby Line (I-91) may experience a slight decrease

➤ Highgate Springs Traffic patterns

- » Peak at noon for autos and 2:00 PM for trucks
- » October and November are the highest volume months

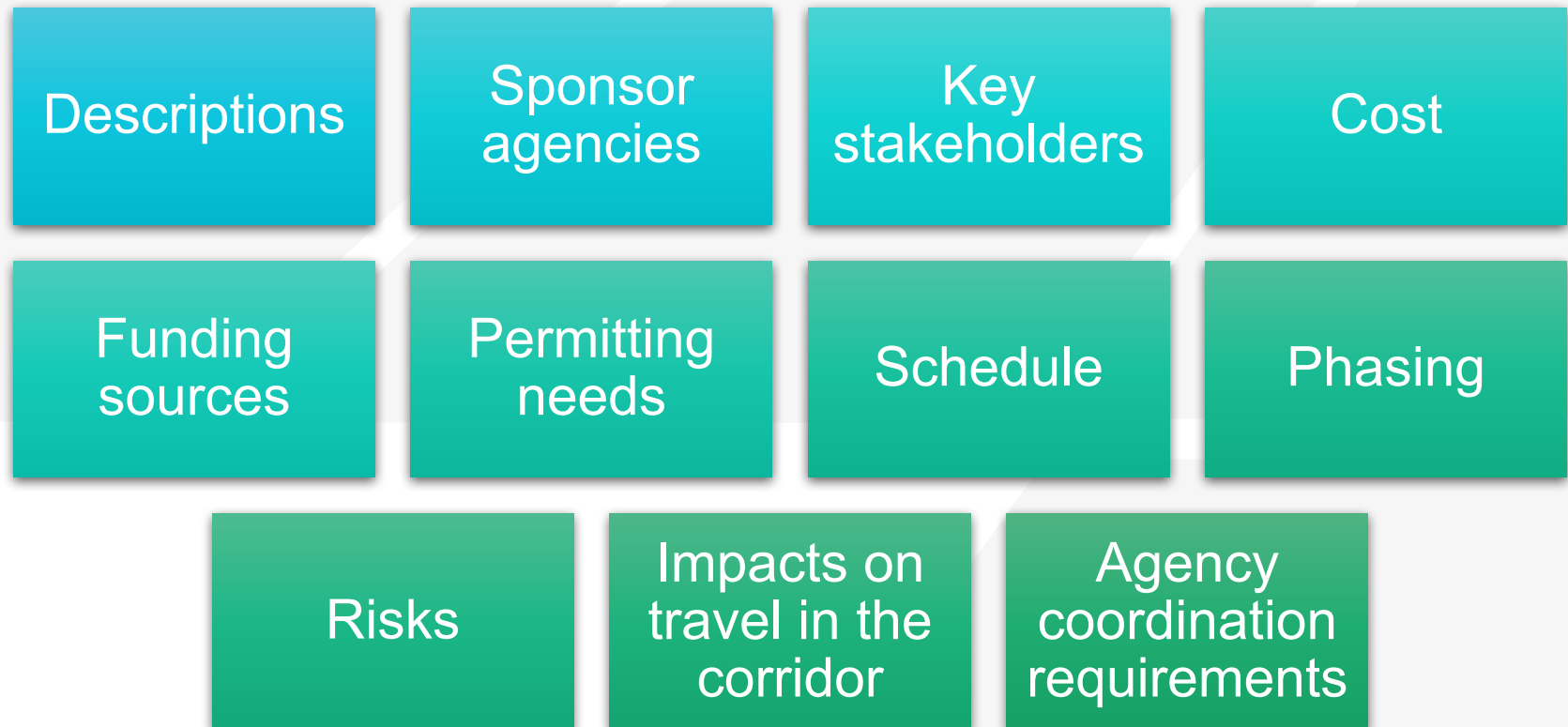
Intermediate Impacts of A-35 Construction: Phase III Project Overview



Collect and Review Project Information

- Publicly funded projects that are under construction, programmed or planned that will have an impact on I-89/A-35 corridor
- Reach out to sponsor agencies
- Identify projects and collect information on the projects

What Information Will We Be Collecting?



Develop Comprehensive Schedule of Project Components and Impacts

- Develop comprehensive schedule:
 - » Project construction phases over time (Gantt chart)
 - » Impacts to I-89 corridor associated with each project (suite of maps)
 - » Highlight periods of significant impacts along the corridor
 - » Discuss potential for construction to affect growth rate and travel demand estimates from phase II
- Develop a draft list of recommendations in order to anticipate the impacts of each project on the performance of I-89 and key state highways feeding to I-89 corridor.
 - » Manage “pain points” when overlapping or compounded impacts may occur
 - » Highlight points of U.S. and Canadian stakeholder coordination as construction is underway

Convene Stakeholders Meeting

➤ Convene a stakeholder meeting:

- » VTrans
- » Quebec's ministere des Transports, de la Mobilité durable et de l'Électrification des transports
- » U.S. and Canadian border agencies
- » NYSDOT
- » Local municipality representatives (as appropriate)

➤ Meeting agenda and goal:

- » Review project activities and impacts timeline, overlaps and critical pain points, and recommended actions
- » Highlight the importance of inter-agency coordination/communication
- » Collect feedback and suggestions on recommendations

Next Steps

- We will reach out to key stakeholders in the next few weeks
- Identify projects and collect available information
- Once the project information has been collected we expect to complete the study in three months when we will convene the stakeholders to review project timelines, impacts and recommended actions
- This is contingent on completing the interviews, and receiving project information from interviewees on a timely basis

Thank You!

➤ **Lisa Destro**
Senior Associate
Integrated Planning &
Policy
ldestro@camsys.com
c 929 319 0827

➤ **Daniel Tempesta**
Principal
Travel Demand and
Forecasting
dtempesta@camsys.com
t 781-539-6785