

# IMTC Cross-Border Transit Study

## White Paper #1: Preliminary Market Analysis & Review

### Introduction

The Cross-Border Transit Study was undertaken by the Whatcom Council of Governments (WCOG) to assess current and future demand for regional, cross-border transit.

The IMTC coalition has identified numerous benefits that a cross-border transit system would provide for the Cascade Gateway binational region:

1. Reduction in cross-border personal vehicle trips and related congestion
2. Environmental and efficiency improvements for cross-border work commuting
3. Enhanced travel links for regional shopping, recreation, and tourism
4. Enhanced regional intermodal connections
5. Creation of a transportation system reflective of the degree to which the people of this binational region cross the border as part of daily life.

This project consists of four tasks:

1. Examine current and projected levels of demand for cross-border transit.
2. Identify appropriate transit system links.
3. Define needed at-border processing and procedures.
4. Develop a phased plan for integrating cross-border transit services across the Cascade Gateway.

This study is coordinated by a subgroup of IMTC participants. IMTC is a U.S. – Canadian coalition of government and business entities that was formed in 1997 to jointly identify and pursue improvements to cross-border mobility in the Cascade Gateway.

This white paper is the first of a series produced for the final report of this project. The focus of this paper is the initial data analysis efforts undertaken by WCOG to establish estimated levels of demand for cross-border transit services.

### Interest in Transportation Options

Data from the fall survey of the 2000 IMTC Cross-Border Trade & Travel Study were used to estimate what market currently exists for a cross-border transit program. Cross-border travelers were interviewed both directions at four ports-of-entry in the Cascade Gateway region (Peace Arch, Pacific Highway, Lynden/Aldergrove, and Sumas/Huntingdon). Travelers were asked whether or not they would consider using a mode of transportation other than personal car to cross the border, and if so, which mode of transportation they would prefer.

6.5 percent of travelers interviewed stated that they would consider using other transportation options. Of that 6.5 percent, 62 percent of travelers specified bus as their preferred alternative mode of transportation.

When these percentages were applied to 2001 traffic volumes, estimates approach a thousand potential weekday passengers and over a thousand potential weekend-day travelers.<sup>1</sup>

### **Origin-Destination Analysis**

Subsequent analysis of the day, time, and origin-destination patterns of the travelers who expressed possible interest in a cross-border bus service was performed. Northbound, the main weekday origin cities are Lynden, Sumas, and Bellingham during the week, and Bellingham, Blaine, and further south on the weekends (Everett, Seattle, etc.). Southbound, the primary origins are Surrey, White Rock, Vancouver, and Richmond.

Destinations vary depending on time of day and whether or not the person was traveling on a weekday or weekend. During the week, northbound travelers went to Abbotsford, Burnaby, and Aldergrove, while weekend northbound travelers headed to Vancouver and Whistler as well. The same is true southbound; most destinations are in Bellingham and Blaine during the week, but weekend travelers also visit Seattle and Mt. Baker (depending on season).

It seems prudent to consider offering different transit services on weekdays and on weekends. Another factor to consider is time of day. The largest percentage of weekday northbound travelers crossed the border between 2.00pm and 5.00pm. Southbound, more traveled in the afternoon, between 10.00am and 2.00pm. A similar pattern is seen on weekends as well, with the majority of potential transit users crossing the border northbound in the early evening (2.00pm – 5.00pm) and crossing southbound in the morning (7.00am – 10.00am).

At this level of detail, potential demand between specific city pairs cannot be confidently estimated with the current data. However, the data do reveal predominate patterns for a weekday morning/afternoon route from Lynden and Sumas to Abbotsford, as well as a route from Surrey to Bellingham in the morning/afternoon. On weekends, a possible Bellingham to Vancouver route is suggested, leaving in the morning and returning in the evening.

### **Cross-Border Commuters**

Data from the 2000 IMTC Cross-Border Trade & Travel Study suggest that between 600-800 commuters cross the border in each direction every day for work. For those commuters going to the same workplace, a vanpool or carpool transit service may be of benefit.

### **Data Needs**

The data from the 2000 IMTC Cross-Border Trade & Travel Study, while an appropriate starting point for a dialogue on cross-border transit services, is not substantial enough to accurately forecast a potential market, nor to determine specific cross-border routes and schedules. Additional market analysis is needed to more accurately identify potential users and to limit the number of possible routes transportation agencies may consider as they start a cross-border service. Additional data collection cannot be accomplished under the existing scope of work of this project but should be considered for future transit projects.

It is important to note that cross-border passenger vehicle volumes have shown a marked decrease since September 11, 2001. Cross-border passenger travel has been slowly declining since the early 1990's, most likely due to the relative currency values. However, in 2002 traffic volumes were, on average, 21 percent lower at all four Cascade Gateway ports-of-entry than in 2001. This decrease in passenger travel may affect the number of potential users of any future cross-border transit system.

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<sup>1</sup> Data from the 2000 IMTC Cross-Border Trade and Travel Study are expanded to reflect the proportion of the auto traveler population fitting the selected criteria during the survey timeframe (11 hours per day).

### Summary

Preliminary research using the existing data sources available reveals an interest in cross-border transit services and illuminates the trip-purposes most likely to consider alternatives to automobiles. Routes connecting Bellingham, Sumas, and Lynden to Vancouver, Surrey, Abbotsford, and Aldergrove appear to be of the most interest to potential transit users. On weekends, additional interest in routes to recreational locations such as Whistler and Mt. Baker is also apparent in the data.

Additional data would be needed to establish favored routes, times of travel, cost, and method of travel as well.

Although this analysis has illustrated interest in cross-border transit services, the significant decrease in passenger traffic must be considered in further research. Some of this decrease may be due to perceptions of congestion at the border, or worries over new procedures and hassles due to heightened security. If so, there may actually be an increased interest in reliable, timely transit services.

### Appendix

Data collected from the 2000 IMTC Cross-Border Trade & Travel Study – estimated travel volumes and origin-destination patterns for potential bus riders in the Cascade Gateway.

#### Fall Passenger - Average Daily (11 hr.) Traffic Volumes

Direction			Day of Week	
			Weekend	Weekday
Northbound	Port of Entry	Peace Arch	3,672	2,735
		Pacific Highway	2,172	1,394
		Lynden/Aldergrove	1,271	817
		Sumas/Huntingdon	1,459	1,018
	Total		8,574	5,964
Southbound		Peace Arch	4,486	3,502
		Pacific Highway	2,572	2,351
		Lynden/Aldergrove	1,578	876
		Sumas/Huntingdon	1,726	1,029
	Total		10,362	7,758
<b>Grand Total</b>			18,936	13,722

The following data are cumulative results from all four ports-of-entry. The estimated tallies, based on sample survey results, have been expanded to reflect the proportion of the auto traveler population fitting the selected criteria during the survey timeframe (11 hours/day).

#### Would you consider using other transportation options?

Respondents were asked "Would you consider using transportation options other than personal vehicle?" 7 percent of weekday drivers and 6 percent of weekend drivers interviewed responded that they would consider using mode of transportation other than personal vehicle to cross the border.

Day	No (Refused/Not Recorded)		Yes		Total
Weekday	12,734	93%	988	7%	13,722
Weekend	17,790	94%	1,146	6%	18,937

**Preferred Alternative Mode**

Of that 6 and 7 percent, respondents specified which transportation option, including bus, they would consider using to cross the border.

Day	Airplane	Bus	Train	Others	Unrecorded	Total
Weekday	86 8.7%	612 62.0%	233 23.6%	11 1.1%	46 4.6%	988
Weekend	143 12.5%	503 43.9%	337 29.4%	30 2.6%	133 11.6%	1,146

The following origin-destination information has been broken down by day of week, direction, and time of day:

**Weekday: 616**

**Northbound: 267**

Morning (7am-10am): 60

Origin City	Destination City									Total
	Abbotsford	Aldergrove	Chilliwack	Clearbrook	Cloverdale	Langley	Surrey	Vancouver		
Bellingham		6								6
Birch Bay									4	4
Bothell							2			2
Deming									2	2
Everson		2								2
Ferndale						2				2
Lynden	4	9	3	6	2					25
Maple Falls						4				4
Nooksack		4								4
Seattle							2			2
Sumas		4		4						8
<b>Total</b>	<b>4</b>	<b>25</b>	<b>3</b>	<b>10</b>	<b>2</b>	<b>4</b>	<b>4</b>	<b>2</b>	<b>6</b>	<b>60</b>

Afternoon (10am-2pm): 68

Origin City	Destination City										Total
	Abbotsford	Aldergrove	Bradner	Burnaby	Kamloops	Langley	Pitt Meadows	Richmond	Surrey	White Rock	
Bellingham	1					1					3
Blaine									3		3
Everett				6							6
Everson	2										2
Ferndale								6			6
Lynden	1	1	1	6		8		6		1	25
Lynnwood	1										1
Mt Vernon									3		3
Portland				1							1
Seattle						2					2
Sumas	16										16
<b>Total</b>	<b>22</b>	<b>1</b>	<b>1</b>	<b>14</b>	<b>2</b>	<b>9</b>	<b>6</b>	<b>6</b>	<b>5</b>	<b>1</b>	<b>68</b>

Evening (2pm-5pm):

139

	Destination City								
Origin City	Abbotsford	Aldergrove	Chilliwack	Delta	Hope	Langley	Mission	Seabird Is.	Total
Bellingham	14					9			23
Birch Bay	8								8
Deming								9	9
Lummi Is.			9						9
Lynden	9	17		6					32
Maple Falls	8								8
Mt Baker							8		8
Port Townsend	9								9
Sherwood					8				8
Sumas	17								17
Tacoma	9								9
<b>Total</b>	<b>73</b>	<b>17</b>	<b>9</b>	<b>6</b>	<b>8</b>	<b>9</b>	<b>8</b>	<b>9</b>	<b>139</b>

Southbound:

348

Morning (7am-10am):

110

	Destination City								
Origin City	Bellevue	Bellingham	Birch Bay	Everett	Greenbank	Lynden	Sacramento	Seattle	Total
Burnaby		7				5			12
Coquitlam				7					7
Ladner		10	7						17
Pt Roberts		7							7
Richmond		10						7	17
Surrey	7	14							21
Vancouver					10				10
Victoria							10		10
White Rock		7							7
<b>Total</b>	<b>7</b>	<b>56</b>	<b>7</b>	<b>7</b>	<b>10</b>	<b>5</b>	<b>10</b>	<b>7</b>	<b>110</b>

Afternoon (10am-2pm):

140

	Destination City								
Origin City	Bellingham	Blaine	Bothell	Cover D'Alene	Issaquah	Lynden	Sea Tac	Seattle	Total
Burnaby								12	12
Coquitlam				19					19
Surrey	26		19				19		64
Vancouver	12							3	15
White Rock		19			3	6			29
<b>Total</b>	<b>38</b>	<b>19</b>	<b>19</b>	<b>19</b>	<b>3</b>	<b>6</b>	<b>19</b>	<b>15</b>	<b>140</b>

Evening (2pm-5pm): 98

Origin City	Destination City				Total
	Bellingham	Blaine	Mt Vernon	Seattle	
Abbotsford				11	11
Burnaby	11				11
N. Vancouver				11	11
Richmond			11	11	21
Surrey				12	12
Vancouver		12		11	23
White Rock		11			11
<b>Total</b>	<b>11</b>	<b>23</b>	<b>11</b>	<b>54</b>	<b>98</b>

**Weekend: 503**

**Northbound: 484**

Morning (7am-10am): 119

Origin City	Destination City							Total
	Courtenay	Delta	Langley	Richmond	Surrey	Vancouver	Whistler	
Bellingham				16		24		40
Blaine		4		5	5			14
Bothell	4							4
Everett					8	8		16
Ferndale					5			5
Hamilton					5			5
Kingston						4		4
Oak Harbor					5			5
Seattle			3	4			8	15
Sedro-Woolley					10			10
<b>Total</b>	<b>4</b>	<b>4</b>	<b>3</b>	<b>25</b>	<b>38</b>	<b>36</b>	<b>8</b>	<b>119</b>

Afternoon (10am-2pm): 100

Origin City	Destination City									Total
	Abbotsford	Chilliwack	Langley	Maple Ridge	N Vancouver	Port Coquitlam	Vancouver	Whistler	White Rock	
Bellingham	17		2		2			3		24
Birch Bay						3				3
Deming			2							2
Everett									4	4
Ferndale			2					4		6
Lynden	2					9				11
Lynnwood									16	16
Puyallup									17	17
Seattle							3	2		5
Snohomish		12								12
<b>Total</b>	<b>19</b>	<b>12</b>	<b>6</b>	<b>2</b>	<b>12</b>	<b>3</b>	<b>9</b>	<b>33</b>	<b>4</b>	<b>100</b>

Evening (2pm-5pm): 265

Origin City	Destination City											
	Aldergrove	Burnaby	Langley	Maple Ridge	New Westminster	Richmond	Surrey	Vancouver	Victoria	Whistler	White Rock	Total
Bellevue										13		13
Bellingham			17		17		17					52
Birch Bay				17								17
Blaine		17						17			17	52
Lynden	13		27				27				13	80
Maple Falls									17			17
Seattle		17										17
Stratford						17						17
<b>Total</b>	<b>13</b>	<b>34</b>	<b>44</b>	<b>17</b>	<b>17</b>	<b>17</b>	<b>44</b>	<b>17</b>	<b>17</b>	<b>13</b>	<b>31</b>	<b>265</b>

Southbound: 19

Morning (7am-10am): 15

Origin City	Destination City		
	Mt Baker	Sumas	Total
Abbotsford		4	4
Chilliwack	8		8
Vancouver		4	4
<b>Total</b>	<b>8</b>	<b>4</b>	<b>15</b>

Afternoon (10am-2pm): 4

Origin City	Destination City	
	Bellingham	Total
W Vancouver	4	4
<b>Total</b>	<b>4</b>	<b>4</b>

Evening (2pm-5pm): 0