

### Asia-Pacific Gateway Corridor Transportation Infrastructure Fund

Highway 91 and 72nd Avenue Interchange Project

ANNUAL REPORT 2016/17

Fiscal Year Ended March 31, 2017

**July 2017** 



Ministry of Transportation and Infrastructure



Transport Canada

Transports Canada



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### What is the Highway 91 and 72nd Avenue Project and why do we need it?

The project is located in northeast Delta, BC. It will be built at the existing signalized intersection of Highway 91 and 72nd Avenue, between Highway 99 and the Alex Fraser Bridge. The Project will provide an efficient, high capacity grade-separated interchange, and will be built to accommodate future commuter traffic growth and the very significant economic and trade growth of the corridor.

Based on the evaluation of the existing intersection, the following performance deficiencies were identified and thus were the rationale for the project:

- Mobility performance were expected to continue deteriorating due to increasing traffic volumes;
- Historic collision data indicate safety problems primarily due to rear end collisions, typical of signalized intersections; and
- Design inconsistency with the remainingHighway 91 corridor.

Without the interchange, the frequency and severity of collisions and consequently road closures would have increased to due reduced headways and increased

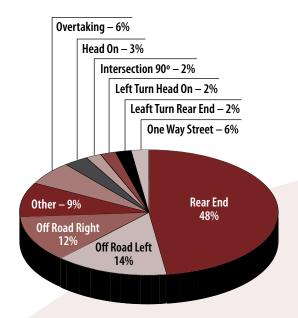


Figure 2.4: Primary Causal Factors (2006 – 2011)

driver frustration. The Figure 2.4: Primary Causal Factors pie graph illustrates the high propensity for "off road right" and "rear-end" collisions that would have continued to plague the deficient intersection.



The following shows the relative location of the project and its relationship to the Greater Vancouver road and trucking network:

The project also enhances and is enhanced by the substantial Federal and Provincial investment in the past, present and future of the

Figure 1.1: Highway 91 and 72nd Avenue Intersection

corridor. This includes, but is not limited to the:

■ Completed South Fraser Perimeter Road. The SFPR extends from Deltaport Way in Southwest Delta to 176th Street (Hwy 15) in Surrey, with connections to Highway 1, 91, 99 and to TransLink's Golden Ears Bridge connector.



- Alex-Fraser Bridge Capacity Improvements, entailing the (1) implementation of the "Delay-Time Information System and (2) Seven Lane Bridge and Zipper Counterflow System.
- Highway 91 to Highway 17 and Deltaport Way
   Corridor Improvements Program
  - The Program is comprised of two projects.

    Project 1 will focus on the four required improvements along the Highway 91 and Highway 17 corridors. These corridors are the primary trucking routes that enable the growth of the Asia Pacific Gateway Corridor and connect Roberts Bank, Burrard Inlet (Centerm, Vanterm) and Fraser Surrey Docks container port terminals to local, provincial, national and international markets.

    The required improvements will be considered as one project, the Highway 91 to Highway 17 Improvements Project, which includes:
    - 1. Highway 91/Nordel Way Interchange;
    - 2. Highway 91 Connector/Nordel Way Overpass;
    - Highway 91 Connector/Highway 17/River Road Trumpet Interchange; and
    - 4. Highway 17 / 80 Street (Tilbury) Intersection Improvements.

**Project 2** focuses on the Deltaport Way/27B Avenue Improvements Project. This is located

on the Deltaport Way corridor, which is the only trucking route providing access to Roberts Bank terminals. It is the key corridor that enables the growth of the Asia Pacific Gateway Corridor by connecting Roberts Bank to the provincial highway network. 27B Avenue is a two-lane undivided rural road under the jurisdiction of the province of BC and the Tsawwassen First Nations. Heavy trucks are currently prohibited from using this route. However, as it features an eastbound off-ramp and westbound on-ramp from/to Deltaport Way at Roberts Bank terminals connection with the mainland, the route has potential to improve trade connections. The route needs to be upgraded in order for it to become a key trucking route for vehicles travelling between Roberts Bank terminals and the industrial developments south of Deltaport Way on Tsawwassen First Nation land.

**General Overview of Results:** A general overview of the results accomplished under the Agreement during the fiscal year, including but not limited to a description of the work completed, financial results, environmental issues, any concerns affecting progress of the Program, and any other issues that may affect completing the Program as per this Agreement. A more complete synopsis is provided later in the report.

 As of the end of 2016/17 Fiscal Year, the project has expended a total of \$3,503,183.10. There was \$1,534,605.13 of claims in the 2016/17 fiscal year.

### Work up to this point entailed:

- Design completion;
- Construction Award;.
- Mobilization in January 2016.
- Installed silt fences.
- Installed construction laydown area
- Completed clearing on the west side of Highway 91 and the median area.
- Completed excavation on the west side of Highway 91.
- Began installing bridge pipe piles.
- Began placement of gravels.
- Install traffic diversion to east side of Highway 91.

### Date, Location and Minutes of Official Management Committee Meetings

The following minutes of the Management Committee are still to be approved at the next meeting. The referenced February 2017 never occurred and thus the following minutes still need to be approved.

### **MINUTES**

Highway 91 and 72nd Avenue Interchange Agreement Management Committee Meeting No. 2 Tuesday, November 1, 2016 1:00 - 2:00 p.m. (Eastern Time)

**TELECONFERENCE:** 

### **Transport Canada:**

Martin McKay (Federal Co-chair) Bill Mertikas

### **BC Ministry of Transportation and Infrastructure:**

David Marr (Recipient Co-chair) Kari McKeel Avi Ickovich

### 1.0 Opening Remarks

### 2.0 Administrative Details

- 2.1 Note Taker Avi Ickovich
- 2.2 Approval of Meeting Minutes No. 1 Unanimous approval of Minutes for September 2, 2015.
- 2.3 Frequency and location of meetings. In consideration that there were implementation issues (that have since been resolved), the previous meeting was held 14 months ago. Now that the project is advancing expeditiously to full construction and completion by 2018, the frequency of meeting will increase accordingly.

### 3.0 Program Requirements

- 3.1 Financial Management/Cash Flow Forecasts (Key dates for TC). Transport Canada put in a P4 ask and BC will provide the requisite forecasts prior to P9. The Province and TC have updated Revision #8 for pending approvals.
- 3.2 Program Reporting Requirements. The Province will prepare the requisite Annual Reports and accompanying Annual Audit, within the allotted

time of 120 days after the end of the 2016/17 fiscal year. This consistent with the other cost-sharing programs between Transport Canada and BC.

3.3 Completion of Project – Scheduled for December 2018.

### 4.0 PROJECT INFORMATION

4.1 Project update

**Current Status:** 

- The tender closed October 18.
- It was just awarded October 21 to Flatiron Constructors.
- Site event scheduled (tentative) for November 10.
- Pre-construction meeting for the last week of November.
- Flatiron plans at this point to mobilize on site the month of December and not start any construction work until January 2017.

Expected work start or completed by April 2017:

- Preparation of site.
- Timber Pile installations.
- Steel pile installation.
- Preload of approaches roadway (six months duration).
- Girder shop drawing submissions.
- Some pier concrete work.
- 4.2 Project schedule Initially, it was the intent of the Province to be further ahead in construction. However, the delay in the amendment to the contribution agreement and the associated delay in tendering will mean that construction will not commence until January 2017. However, completion is still schedule for December 2018. The Province has not formally met with the

Contractor yet, as they are currently getting their submittals and paperwork in order. The Preconstruction meeting is scheduled for the last week of November. This is when the Province expects to see the contractor's schedule and cash flow.

- 4.2.1 There are approvals from our end that need to happen before they can mobilize i.e.Traffic Mgmt. Plan, etc.
- 4.2.2 If they start setting up the site in December, they will most likely defer gearing up in earnest until post-Xmas/New Years.
- 4.3 Project risks (financial, schedule, Environmental Assessment/Aboriginal Consultation). There are no financial risks as the tender came in good relative to the estimate. Moreover, the project has a healthy contingency of \$3 million. With regard to schedule, there are no expected delays, except weather. There are no environmental, archeological or First Nations risks that will affect the completion of this project on schedule.

### 5.0 Communications (Schedule C)

5.1 Upcoming announcements or other communication events: The November 10 ground breaking is the only event planned at this time. There exists the possibility of a summer 2017 event for the completion of the girder placements. Moreover, there also exists the potential for a joint event with an Infrastructure Canada project, the Alex Fraser Bridge Counterflow (Capacity Improvement) project.

### 6.0 SITE VISITS

Summer/Fall 2017

### 7.0 OTHER BUSINESS

Coordination of this project with the Alex Fraser Bridge/Barrier Separation project (mentioned above in 5.1), as both projects improve the efficacy of the corridor. This may entail a joint announcement.

### 8.0 NEXT MANAGEMENT COMMITTEE MEETING

8.1 Scheduled/planned for February 2017.

### Schedule "B" Revisions

Please refer to Table 1 outlining the evolution of Schedule B during the first fiscal year. Table 2 (Statement of Changes) calculates the cash flow and budget changes across revisions.

### **Revision 6**

**July 27, 2016** – This revision is the first revision of the fiscal year.

### **Revision 7**

**July 28, 2016** – This revision entailed no changes and was just an on-line system administration event, subsequent to the revision the day before.

### **Revision 8**

**November 1, 2016** – This revision entailed shifting \$3,148,626 from the 2016/17 fiscal year to the next fiscal year 2017/18.

### **Revision 9**

**February 20, 2017** – This revision entailed shifting \$3,274,921 from the 2016/17 fiscal year and the 2017/18 fiscal year to the 2018/19 fiscal year.

### **Revision 10**

**March 20, 2017** – This revision entailed shifting \$160,395 from the 2016/17 fiscal year to the next fiscal year 2017/18.

### Table 1

## Schedule B During the Fiscal Year 2016/17 (as of March 31, 2017)

				Agreement (	Agreement Contribution			Break	kdown of E	Breakdown of Expenditures		
		Estimated Project Cost	Sharable Project Cost	Federal	Provincial	Previous Claims	2016/17	201	2017/18	2018/19	2019/20	Future
Revision #6	1.1	000'000'08 \$	\$ 30,000,000	\$ 10,000,000	\$ 30,000,000 \$ 30,000,000 \$ 10,000,000 \$ 20,000,000 \$ 1,968,578 \$ 7,732,915 \$ 15,837,006 \$ 4,461,501	\$ 1,968,578	\$ 7,732,9	15 \$ 15,	\$ 900'288'	3 4,461,501	- \$	- \$
	Total	\$30,000,000	\$ 30,000,000	\$ 10,000,000	Total \$30,000,000 \$ 30,000,000 \$ 10,000,000 \$ 20,000,000 \$ 1,968,578 \$ 7,732,915 \$ 15,837,006 \$ 4,461,501 \$	\$ 1,968,578	\$ 7,732,9	15 \$ 15,8	\$ 900'288	4,461,501	- \$	- \$
Revision #7	1.1	\$ 30,000,000	000'000'08 \$	\$ 10,000,000	\$ 30,000,000 \$ 30,000,000 \$ 10,000,000 \$ 20,000,000 \$	\$ 1,968,578		15 \$ 15,	\$ 900'288'	7,732,915 \$ 15,837,006 \$ 4,461,501	\$	- \$
	Total	\$30,000,000	\$ 30,000,000	\$ 10,000,000	\$30,000,000 \$ 30,000,000 \$ 10,000,000 \$ 20,000,000 \$ 1,968,578 \$ 7,732,915 \$ 15,837,006 \$ 4,461,501	\$ 1,968,578	\$ 7,732,9	15 \$ 15,8	\$37,006	4,461,501	\$	· S
Revision #8	1.1	\$ 30,000,000	000'000'08 \$ 000'000'08 \$	\$ 10,000,000	\$ 10,000,000 \$ 20,000,000 \$	\$ 1,968,578		89 \$ 18,	4,584,289 \$ 18,985,632 \$	\$ 4,461,501	- \$	- \$
	Total		\$30,000,000 \$ 30,000,000		\$ 10,000,000 \$ 20,000,000 \$ 1,968,578 \$ 4,584,289 \$ 18,985,632 \$ 4,461,501	\$ 1,968,578	\$ 4,584,2	39 \$ 18,	985,632	4,461,501	\$	· · · · · · · · · · · · · · · · · · ·
Revision #9	1.1	000'000'08 \$	000'000'08 \$	\$ 10,000,000	\$ 30,000,000 \$ 30,000,000 \$ 10,000,000 \$ 20,000,000 \$ 1,968,578 \$ 1,695,000 \$ 18,600,000 \$ 7,736,422	\$ 1,968,578	0′569′1 \$	00 \$ 18,	5 000'009'	7,736,422	- \$	- \$
	Total	\$30,000,000	\$ 30,000,000	\$ 10,000,000	\$30,000,000 \$ 30,000,000 \$ 10,000,000 \$ 20,000,000 \$ 1,968,578 \$ 1,695,000 \$ 18,600,000 \$ 7,736,422	\$ 1,968,578	\$ 1,695,0	00 \$ 18,0	\$ 000,000	7,736,422	- \$	\$
Revision #10	1.1	\$ 30,000,000	000'000'08 \$	\$ 10,000,000	\$ 30,000,000 \$ 30,000,000 \$ 10,000,000 \$ 20,000,000 \$ 1,968,578 \$ 1,534,605 \$ 18,760,395 \$ 7,736,422	\$ 1,968,578	\$ 1,534,6	5 18,	\$   566,097.	7,736,422	- \$	- \$
3	Total	\$30,000,000	\$ 30,000,000	\$ 10,000,000	Total \$30,000,000 \$ 30,000,000 \$ 10,000,000 \$ 20,000,000 \$ 1,968,578 \$ 1,534,605 \$ 18,760,395 \$ 7,736,422 \$	\$ 1,968,578	\$ 1,534,6	)5 \$ 18,	\$   366,097	7,736,422	\$	ا \$

### Table 2

# Statement of Changes for Schedule B During the Fiscal Year 2016/17 (as of March 31, 2017)

			Agreement	Agreement Contribution			Breakdo	vn of Exp	Breakdown of Expenditures		
	Estimated Project Cost	Sharable Project Cost	Federal	Provincial	Previous Claims	2016/17	2017/18		2018/19	2019/20	Future
Revision #6 to Revision #7	- \$	- \$	- \$	\$	- \$	\$	\$	\$ -	-	\$	- \$
Revision #7 to Revision #8	- \$	- \$	- \$	\$	\$	- \$ (3,148,626) \$ 3,148,626 \$	\$ 3,148	\$ 9799	-	\$	- \$
Revision #8 to Revision #9	- \$	- \$	\$	- \$	\$	-     \$ (2,889,289)     \$ (385,632)     \$ 3,274,921	\$ (385,	532) \$	3,274,921	\$	- \$
Revision #9 to Revision #10	- \$	- \$	- \$	\$	\$	- \$ (160,395) \$ 160,395	\$ 160	\$   \$68	I	- \$	- \$

### **PROJECT UPDATE**

Information on contracts started/completed and estimated completion of contracts is addressed more extensively in a subsequent section of the report "A YEAR END SUMMARY TABLE OF EXPENDITURES UNDER THE AGREEMENT" (Table 3).

### The most significant milestones for the 2016/17 fiscal year were:

- Construction tendered in August 2016.
- Construction Contract Awarded to Flatiron Constructors Canada Limited October 21, 2016 for a value of \$19,944,405,26.
- Mobilization in January 2016.

### Accomplishments/Milestones/Status over Fiscal Year ending March 31, 2017

- Design completed in December 2015.
- Construction tendered in August 2016.
- Construction Contract Awarded to Flatiron Constructors Canada Limited October 21, 2016 for a value of \$19,944,405.26.
- Mobilization in January 2016.
- Installed silt fences.
- Installed construction laydown area
- Completed clearing on the west side of Highway 91 and the median area.
- Completed excavation on the west side of Highway 91.
- Began installing bridge pipe piles.
- Began placement of gravels.
- Install traffic diversion to east side of Highway 91.

### Status from April to June 2017:

- The capacity of the bridge steel pipe piles was significantly lower than the pile design requirements thus requiring a significant amount of additional pile materials.
- Additional piling was required on Highway 91 and 72 Avenue alignments. The Ministry moved quickly with the changes to the pile design to minimize construction schedule loss and cost impacts.

- Completed additional bridge piles in May 2017.
- Pre-loading Highway 91 bridge approaches.
- Began girder fabrication.
- Excavate backfill and pre-load the westbound on-ramp to Highway 91 Northbound.
- Excavate and pre-load the northbound off-ramp to 72nd Avenue.
- Install timber piles at the south approach to the structure.
- Culvert removals.

### **Expected/Anticipated Future Activities:**

From July to October 2017:

- Complete construction of all piers.
- Install bridge girders.
- Pre-loading.
- Grade work.
- Remove existing culverts and install new culverts.
- Complete timber pile installation on north and south approaches to the bridge.
- Construction of north, south and east approach ramp to the bridge.
- Bridge deck formwork.
- Removal of pre-load.
- Preload northbound to eastbound off-ramp.
- Construct parapets.

### **Emerging issues**

Construction contractor has submitted a reimbursable delay claim related to the changes in the pile design, maintaining schedule impacts and loss of production. This claim is currently under review by the Ministry however any settlement costs can be absorbed within the current funding envelope.

### Photographs (before and during project implementation):

Before construction:



### During construction:



### **Communication Activities Completed During Fiscal Year**

### Honourable Mention for this project in terms of Engineering Excellence:

### **NEWS RELEASE COMMUNIQUÉ**

For Immediate Release 2017TRAN0017-000236 Feb. 3, 2017

Ministry of Transportation and Infrastructure

### PBX Engineering and IBI Group win engineering award

VANCOUVER – PBX Engineering and IBI Group, both of Vancouver, took the top award for Specialized Engineering Services at the 13th annual Deputy Minister's Consulting Engineers Awards, for their exceptional work on the variable speed limit systems.

"The variable speed limit systems are another step in keeping B.C. drivers safe, and we thank PBX Engineering and IBI Group for their vital roles in this important project," said Minister of Transportation and Infrastructure Todd Stone. "Many of the components of the project were new to both the ministry and our consultants, and their innovative work has allowed us to make three corridors in the province safer for all travellers."

The variable speed limit systems improve safety throughout the corridors where they are located and maintain a smooth flow of traffic during unfavourable weather conditions by notifying drivers of a change in speed during adverse weather. While the posted static speed is based on optimum conditions, these signs adjust speed limits to fit weather conditions, letting drivers know the safe speed to travel.

The system was developed as a pilot project by the ministry, and uses real-time data collected on road surface conditions, weather and vehicle speed to post an updated speed limit. IBI developed the system software, while PBX came up with some creative ways to install the equipment in the field.

"This project had a very ambitious time line, and the corridors were located in challenging rural terrain with limited access to power and communications," said Vancouver-False Creek MLA Sam Sullivan. "Congratulations goes to PBX Engineering and IBI Group, who were as resilient as they were innovative, and have worked to benefit many communities as we enter the winter season."

The finalists in this category were Hemmera Envirochem Inc. for work on the Highway 91 at 72 Avenue Interchange, and 360 Surveillance Inc. for work on the Wildlife Detection System.

The Deputy Minister's Consulting Engineers Awards recognize technical excellence in consulting engineer services that improve transportation infrastructure in B.C. Finalists were chosen for their work in 2016 in the categories of:

- Design and Contract Preparation Roads
- Design and Contract Preparation Structures
- Construction Management and Supervision Services
- Specialized Engineering Services
- Alternative Transportation

### **Learn More:**

Further information, including videos and photographs of the award winners and finalists can be viewed at: www.gov. bc.ca/celebratingexcellencetransportation

### **Media Contact:**

Government Communications and Public Engagement Ministry of Transportation and Infrastructure 250.356.8241

### A Year-end Summary Table of Expenditures Under the Agreement

Please refer to Table 3 for complete details on year-end expenditures against existing contracts, as of March 31, 2017, for this project:

- 18 contracts have been established for a total cost of \$30,000,000 and were carried out using conventional procurement methods. A total of \$3,503,183.10 has been expended against these 18 contracts (11.68% of the existing contracts) as of the end of the 2016/17 fiscal year. There was \$1,534,605.13 of claims in the 2016/17 fiscal year.
- Overall, as of the end of the fiscal year 2016/17, 18 contracts had been established on the on-line Transport Canada - Surface Infrastructure System (SIS) for a total cost of \$30 million out of SIS-active sharable cost of \$30 million (100% of shareable costs). A total of \$3,503,183.10 has been expended against these 18 contracts (11.68% of the existing value of the 18 contracts).

### **Table 3**

### CANADA-BRITISH COLUMBIA ASIA-PACIFIC GATEWAY AND CORRIDOR TRANSPORTATION INFRASTRUCTURE FUND

### Agreement for Highway 91 and 72nd Avenue Interchange Project

Schedule of Detailed Expenditure Claims for the Year Ended March 31, 2017

Project Number	Project/Claim Description	Contract Number	Eligible Costs Claimed in 2016/17 (\$)
1.1	Highway 91 and 72nd Avenue		
	The project is located in northeast Delta, B.C. It will be built at the existing signalized intersection of Highway 91 and 72nd Avenue, between Highway 99 and the Alex Fraser Bridge. The project will provide an efficient, high-capacity grade, separated interchange, and will be built to accommmodate future growth.		
	Bog advisory service	12498 BOG	962.50
	Electrical, utilities and signage costs	12498 Elec_Util_Signage	5,562.07
	Annual audit costs	12498_14-15_AUDIT	10,000.00
	Acoustical services	12498_ACOUSTICAL	1,900.00
	Construction of interchange	12498MJ0000	1,340,008.73
	Design costs	153CS0794	42,624.05
	Project management services	154CS0790	6,266.44
	Environmental project coordination costs	156CS0765	27,085.30
	Environmental project coordination costs	156CS0837	70,759.95
	Construction project supervision	257CS1305	5,655.02
	Construction project supervision	257CS1321	23,781.07
	Subtotal		1,534,605.13
	TOTAL		1,534,605.13

### **Annual Audit of Program**

The audit evaluated the claims submitted for payment under the agreement to ensure that they are free of material misstatement and that they are consistent with the eligible costs requirements of the agreement. The audit was undertaken in accordance with accepted auditing standards such as the rules of the Canadian Institute of Chartered Accountants by an independent certified chartered accountant (CA). The audit was conducted by the **Office of Auditor General of BC**.

As per Page 2 of the Office of the Auditor General's report<sup>1</sup>:

### **Opinion**

In my opinion, the Schedule of Detailed Expenditure Claims of the British Columbia Ministry of Transportation and Infrastructure for the year ended March 31, 2017 is presented, in all material respects, in accordance with the financial reporting provisions of Section 8 of the agreement.



### INDEPENDENT AUDITOR'S REPORT

To the Management Committee of the Canada-Province of British Columbia Asia-Pacific Gateway and Corridor Transportation Infrastructure Fund Amending Agreement No. 1 for Highway 91 and 72nd Avenue Interchange Project 2013-2014/2018-2019 and

To the Minister of Transportation and Infrastructure, Province of British Columbia

I have audited the accompanying Schedule of Detailed Expenditure Claims of the British Columbia Ministry of Transportation and Infrastructure ("the entity") for the year ended March 31, 2017 and a summary of significant accounting policies and other explanatory information (together "the Schedule"). The Schedule has been prepared by management of the British Columbia Ministry of Transportation and Infrastructure based on the financial reporting provisions of Section 8 of the Canada-Province of British Columbia Asia-Pacific Gateway and Corridor Transportation Infrastructure Fund Amending Agreement No. 1 for Highway 91 and 72nd Avenue Interchange Project 2013-2014/2018-2019 ("the agreement") dated June 29, 2016.

Management's Responsibility for the Schedule of Detailed Expenditure Claims

Management is responsible for the preparation of the Schedule in accordance with the requirements of Section 8 of the agreement, and for such internal control as management determines is necessary to enable the preparation of the Schedule that is free from material misstatement, whether due to fraud or error.

### Auditor's Responsibility

My responsibility is to express an opinion on the Schedule based on my audit. I conducted my audit in accordance with Canadian generally accepted auditing standards. Those standards require that I comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the Schedule is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the Schedule. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the Schedule, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation of the Schedule in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of any accounting estimates, if any, made by management, as well as evaluating the presentation of the Schedule.

I believe that the audit evidence I have obtained is sufficient and appropriate to provide a basis for my audit opinion.

CANADA-PROVINCE OF BRITISH COLUMBIA ASIA-PACIFIC GATEWAY AND CORRIDOR
TRANSPORTATION INFRASTRUCTURE FUND AMENDING
AGREEMENT NO. 1 FOR HIGHWAY 91 AND 72ND AVENUE INTERCHANGE
PROJECT 2013-2014/2018-2019
Independent Auditor's Report

### **Opinion**

In my opinion, the Schedule of Detailed Expenditure Claims of the British Columbia Ministry of Transportation and Infrastructure for the year ended March 31, 2017 is presented, in all material respects, in accordance with the financial reporting provisions of Section 8 of the agreement.

### Basis of Accounting and Restriction on Distribution and Use

Without modifying my opinion, I draw attention to Note 3 to the Schedule, which describes the basis of accounting. The Schedule is prepared to assist the British Columbia Ministry of Transportation and Infrastructure to comply with the reporting provisions of the agreement. As a result, the Schedule may not be suitable for another purpose. My report is intended solely for the Government of British Columbia and the Government of Canada and should not be distributed to or used by parties other than the Government of British Columbia or the Government of Canada.

Victoria, British Columbia June 19, 2017 Russ Jones, FCPA, FCA Deputy Auditor General



### CANADA - BRITISH COLUMBIA ASIA-PACIFIC GATEWAY AND CORRIDOR TRANSPORTATION INFRASTRUCTURE FUND AGREEMENT FOR HIGHWAY 91 AND 72ND AVENUE INTERCHANGE PROJECT 2013-2014 / 2018-2019

### Schedule of Detailed Expenditure Claims For the Year Ended March 31, 2017

Project Number	Project/Claim Description	Contract Number	Eligible Costs Claimed in 2016/17 (\$)
1.1	Highway 91 and 72nd Avenue		
	The Project is located in northeast Delta, BC. It will be built at the existing signalized intersection of Highway 91 and 72nd Avenue, between Highway 99 and the Alex Fraser Bridge. The Project will provide an efficient, high-capacity grade separated interchange, and will be built to accommodate future growth.		
	Bog advisory services	12498 BOG	962.50
	Electrical, utilities and signage costs	12498 Elec_Util_Signage	5,562.07
	Annual audit costs	12498_14-15_AUDIT	10,000.00
	Acoustical services	12498_ACOUSTICAL	1,900.00
	Construction of interchange	12498MJ0000	1,340,008.73
	Design costs	153CS0794	42,624.05
	Project management services	154CS0790	6,266.44
	Environmental project coordination costs	156CS0765	27,085.30
	Environmental project coordination costs	156CS0837	70,759.95
	Construction project supervision	257CS1305	5,655.02
	Construction project supervision	257CS1321	23,781.07
	Sub-total		1,534,605.13

TOTAL

1,534,605.13

Approved by:

David Marr Executive Director

Program Development and Monitoring

Patricia Marsh

Chief Financial Officer

Finance and Management Services

### CANADA-BRITISH COLUMBIA ASIA-PACIFIC GATEWAY AND CORRIDOR TRANSPORTATION INFRASTRUCTURE FUND AGREEMENT FOR HIGHWAY 91 AND 72<sup>ND</sup> AVENUE INTERCHANGE

PROJECT 2013-2014/2018-2019

Notes to the Schedule of Detailed Expenditure Claims For the Year Ended March 31, 2017

### 1. Nature of the Agreement

The Government of Canada and the Province of British Columbia entered into the Asia-Pacific Gateway and Corridor Transportation Infrastructure Fund, Agreement for Highway 91 and 72<sup>nd</sup> Avenue Interchange project, 2013-2014/2015-2016 ("the Agreement") on November 27, 2013. Amending Agreement #1 dated June 29, 2016 extended the agreement to June 30, 2019.

The purpose of this Agreement is to recognize that investments in transportation infrastructure are fundamental to the quality of life of Canadians and necessary to ensure continued economic growth through a 50/50 cost sharing agreement for eligible costs to a maximum of \$10 million.

### 2. Purpose of the Schedule

The Schedule of Detailed Expenditure Claims is a listing of claim amounts submitted for the year ended March 31, 2017 that are considered eligible for federal reimbursement under Schedule A – Eligible and Ineligible Costs of the Agreement.

### 3. Basis of Accounting and Accounting Policies

The Schedule of Detailed Expenditure Claims has been prepared in accordance with the requirements of Schedule A of the Agreement which defines eligible and ineligible costs. See Note 4 for the details of Schedule A. All transactions and financial data relating to the expenditures under this agreement have been accounted for in the Provincial financial statements in accordance with Canadian public sector accounting standards.

The Eligible Costs claimed in 2016/2017 represent the actual value of claims submitted to the Federal Government during the 2016/2017 fiscal year. Eligible costs claimed in 2016/2017 may include expenditures incurred in fiscal 2014/2015 through 2016/17 that were submitted for reimbursement during fiscal 2016/2017.

### 4. Costs

### Eligible Costs:

The Agreement specifies "Eligible Costs" in Schedule A – Eligible and Ineligible Expenditures, at paragraph A.1. Within certain restrictions, also specified in the Agreement, these include:

- a) Capital costs, as defined and determined according to generally accepted accounting principles, and relating to the construction, rehabilitation or improvement of highways, roads, bridges, multi-modal facilities, grade crossings/separations, Intelligent Transportation System (ITS) and any other infrastructure related to the Project;
- b) Costs related to signage, lighting, highway markings and utility adjustments;
- c) The costs of communication activities (press releases, press conferences, translation, etc.) and road signage recognition set out in Schedule C (Communications Protocol);
- d) All planning (including plans and specifications) and evaluation costs specified in this Agreement such as the costs of environmental planning, surveying, engineering, architectural, supervision, testing and management consulting services, to a maximum of 15% of total Eligible Expenditures for construction projects;
- e) The costs of engineering and environmental reviews, including environmental assessments and follow-up programs as defined in the Canadian Environmental Assessment Act 2012 and the costs of remedial activities, mitigation measures and follow-up identified in any environmental assessment;
- f) The costs of developing and implementing innovative techniques for carrying out the Project;
- Recipient audit and evaluation costs as specified in this Agreement;
- h) Compensation, at the discretion of Canada, to unsuccessful bidders on Public, Private Partnerships and other alternatively financed projects, with significant bid related costs, where the bid material has become the intellectual property of the Recipient;
- i) The costs of Aboriginal consultations; and
- j) Other costs that, in the opinion of Canada, are considered to be direct and necessary for the successful implementation of the Project.

Note: In the case of construction projects, Eligible Expenditures referred to above under sub-paragraphs d), e), f) and i), can total no more than 15% of the total Eligible Expenditures of the project.

Non-capital expenditures referred to above under sub-paragraphs d), e), f) and i), can begin to accrue effective as of the Project Approval Date.

### Ineligible Costs:

The Agreement specifies "Ineligible Costs" in Schedule A – Eligible and Ineligible Expenditures, at paragraph A.2 as:

- a) Costs incurred prior to the Effective Date and after the Final Claim Date. Except for Eligible Expenditures referred to in Schedule A.1 d), e), f) and i) (Eligible Expenditures), these costs can begin to accrue effective as of the Project Approval Date;
- b) The cost of developing a proposal, with the exception of those costs specified as Eligible Expenditures in Schedule A.1 h) (Eligible Expenditures);
- The cost of purchasing land, associated real estate and other fees, financing charges and interest payments on loans;
- d) The cost of leasing land, buildings, and other facilities;
- e) Provincial sales tax and the Goods and Services Tax or the Harmonized Service Tax for which the Recipient or a Third Party is eligible for a tax rebate and all other costs eligible for rebates;
- f) Costs that have been shared under other federal statutes or programs;
- g) Legal fees;
- h) General repairs and maintenance of a Project work and related structures;
- Services or works normally provided by the Recipient incurred in the course of implementation of the Project except those specified as Eligible Expenditures; and
- j) Employee wages and benefits, overhead costs as well as other direct or indirect operating, maintenance and administrative costs incurred by the Recipient, and more specifically costs as relating to services delivered directly by permanent employees of the Recipient, or of a Crown Corporation or corporation owned and controlled by the Recipient except as per Schedule A. I i) (Eligible Expenditures) or in cases where the Recipient can demonstrate value for money and that the costs are incremental.

### Asia-Pacific Gateway Corridor Transportation Infrastructure Fund

Highway 91 and 72nd Avenue Interchange Project

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Transports Canada