

# Highway 91/17 Upgrade Project

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MONTHLY STATUS REPORT

Month Ending December 31, 2020

# 1. PROJECT DASHBOARD

Project Delivery Objectives		Overall Project	DB Contractor	Owners/Other Works	Comments
<b>Safety</b>	Take every reasonable step to ensure that the work is performed safely and in compliance with all applicable safety regulations, and in accordance with government policy.	●	●	●	Safety meetings and orientations ongoing.
<b>Budget</b>	Delivered within the approved budget.	●	●	●	The Project has an approved capital budget of \$260 million and continues to track on budget.
<b>Schedule</b>	Delivered within the approved schedule.	●	●	●	Most key Project activities are proceeding on schedule. Working to mitigate schedule impacts
<b>Scope</b>	Deliver the approved scope.	●	●	●	Delivery of the specified components is on track.
<b>Indigenous Groups</b>	Continue to build and maintain a positive collaborative working relationship	●	●	●	Discussions and consultation with Indigenous groups ongoing.
<b>Environmental</b>	Ensure the work is performed in an environmentally responsible manner.	●	●	●	The Project will be delivered in accordance with the obligations identified in the Overview Environmental Effects Assessment.
<b>Community Benefits</b>	Incorporate the Community Benefits Objectives into the Project.	●	●	●	Community Benefits Objectives outlined in the Design-Build Agreement for implementation by the Design-Builder.
<b>Third Parties</b>	Continue to build and maintain positive relationships with Project Partners and other third parties.	●	●	●	Early and frequent engagement and advancing agreements with Project partners and other third parties.
<b>Stakeholder Engagement</b>	Continue to build and maintain positive relationships with the community, and other stakeholders.	●	●	●	Engagement with key Project partners is ongoing. Community and stakeholder engagement will continue.
<b>Quality</b>	Implement an effective Quality Management System.	●	●	●	Quality audits and reviews performed as required per the Quality Management Plan.

Status	Description
●	Not currently applicable, as the Project is in Procurement Phase
●	Managing some issues, negotiating resolution; required immediately
●	Managing some issues, negotiating resolution; required in the near term
●	Good progress

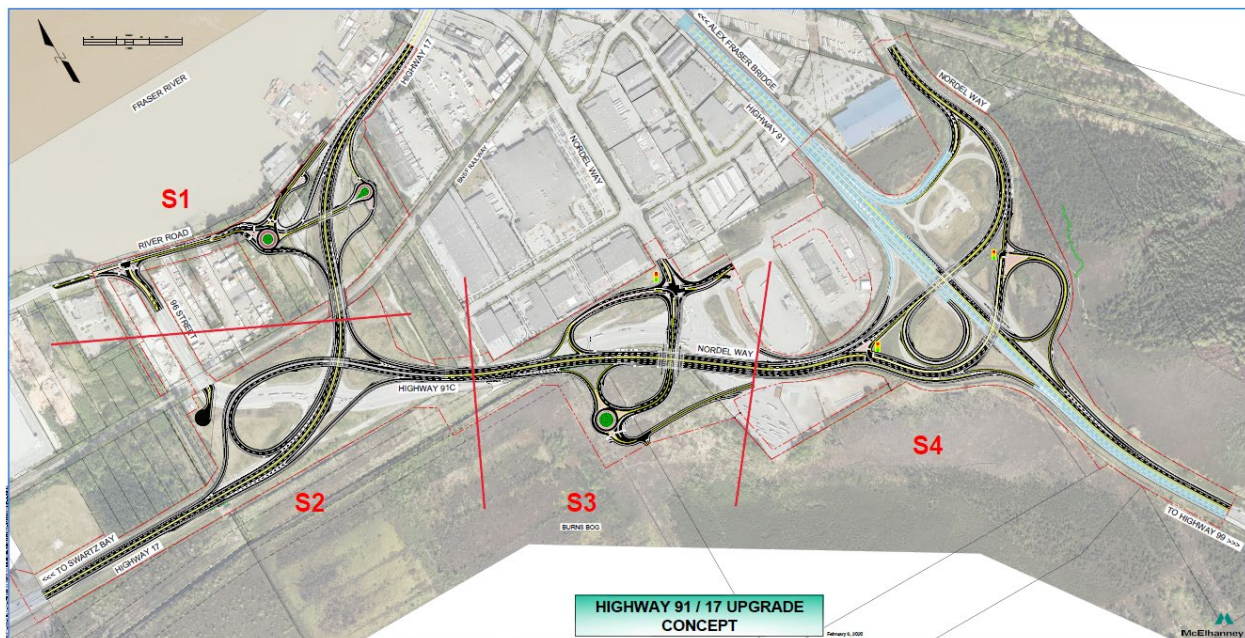
## 2. Introduction

### Project Overview

The Highway 91/17 & Deltaport Way Upgrade Project (the Program) is comprised of the Highway 91/17 Upgrade Project, as well as the 27B Avenue and Deltaport Way Improvements Project. The 27B Avenue and Deltaport Way improvements have been completed and will no longer be reported out on in subsequent monthly reports.

The Highway 91/17 Upgrade Project (the Project) is a subcomponent project of the broader Program and includes a combination of improvements to the existing Highway 91, Highway 17, and Highway 91 Connector corridors to improve travel safety and efficiency. These upgrades will improve local and commercial travel time and reliability in the area, reduce conflicts between commercial vehicles and other traffic, and support community and economic development. The Highway 91/17 components also complement the recently completed 72<sup>nd</sup> Avenue Interchange Project and the Alex Fraser Bridge Project.

A Design-Build Agreement between the BC Ministry of Transportation and Infrastructure (the Ministry), the BC Transportation Financing Authority (BCTFA), and Pacific Gateway Constructors General Partnership (the Design-Builder) was signed on December 13, 2019. As such, the Project has entered the implementation phase and a comprehensive Monthly Status Report will be prepared to report on progress, budget status, and risk.



### December 2020 Highlights

Project highlights this month include:

#### Stakeholder Engagement

- Convened third Traffic Advisory Committee meeting
- Ongoing public and stakeholder notification to advise of Project activities including the realigned section of the Delta Nature Reserve boardwalk and Nordel Way Truck Parking Area relocation

<b>Environment</b>	<ul style="list-style-type: none"> <li>• Environmental protection measures continue as part of increased active construction areas</li> <li>• Ongoing Design-Builder environmental submissions including Environmental Work Plans</li> <li>• Habitat Offsetting plans under review by Ministry of Forests, Lands, Natural Resource Operations &amp; Rural Development Contacts (FLNR) and Indigenous Groups</li> </ul>
<b>Safety</b>	<ul style="list-style-type: none"> <li>• Social distancing being followed for the staff required to work in the field as inspectors</li> </ul>
<b>Design</b>	<ul style="list-style-type: none"> <li>• Ongoing development and review of Design-Builder detailed design</li> </ul>
<b>Construction</b>	<p>Segment 1 – River Road / Highway 17 Interchange</p> <ul style="list-style-type: none"> <li>• Hwy 17 Intelligent Transportation System (ITS) relocated</li> <li>• River Road turnaround relocated</li> </ul> <p>Segment 2 – Highway 91C / Highway 17 Interchange</p> <ul style="list-style-type: none"> <li>• Retaining wall construction completed on north side of Hwy 91C</li> </ul> <p>Segment 3 – Highway 91C / Weigh Scale Interchange</p> <ul style="list-style-type: none"> <li>• Stone Columns and wick drains installed south of Hwy 91C</li> <li>• Cellular concrete placement on Fortis BC Right-of-Way</li> </ul> <p>Segment 4 – Highway 91 / Nordel Way interchange</p> <ul style="list-style-type: none"> <li>• DNR Boardwalk completed</li> </ul>
<b>Traffic Management</b>	<ul style="list-style-type: none"> <li>• Hwy 91 southbound (SB) to Nordel Way eastbound (EB) offramp closures</li> <li>• Hwy 17 westbound (WB) nighttime slow lane closures</li> <li>• Hwy 91C WB nighttime slow lane closures</li> </ul>
<b>Quality</b>	<ul style="list-style-type: none"> <li>• Ongoing implementation and review of quality system</li> <li>• Surveillance audits ongoing</li> </ul>

### 3. PROJECT DELIVERY

#### Project Controls

<b>Completed this Month</b>	<ul style="list-style-type: none"> <li>• Ongoing project control meetings</li> <li>• Ongoing review of Risk Register</li> <li>• Ongoing review of project schedule, scope and budget</li> </ul>
<b>Key activities for Next 3 months</b>	<ul style="list-style-type: none"> <li>• Ongoing project control meetings</li> <li>• Ongoing review of Risk Register</li> <li>• Ongoing review of project schedule, scope and budget</li> </ul>

### 4. PROJECT DEVELOPMENT

#### Communications and Stakeholder Engagement

<b>Completed this Month</b>	<ul style="list-style-type: none"> <li>• Provided updates to interested stakeholder groups as requested</li> <li>• Reviewed contractor communications submittals</li> </ul>
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	<ul style="list-style-type: none"> <li>• Ongoing enquiry response</li> <li>• Ongoing public and stakeholder notification to advise of Project activities including the realigned section of the Delta Nature Reserve boardwalk and Nordel Way Truck Parking Area relocation</li> <li>• Convened the third Traffic Advisory Committee Meeting</li> <li>• Ongoing Project website updates</li> <li>• Ongoing enquiry response</li> </ul>
<b>Key Activities for Next 3 months</b>	<ul style="list-style-type: none"> <li>• Ongoing support to the Design-Builder for traffic and construction notifications related to the Nordel Truck Parking Area relocation, Highway 99 preload removal work, and to the public</li> <li>• Planning for fourth Traffic Advisory Committee meeting</li> <li>• Ongoing enquiry response</li> <li>• Ongoing Project website updates</li> </ul>

## Environment

<b>Completed this Month</b>	<ul style="list-style-type: none"> <li>• Ongoing regular weekly meetings with the Design-Builder regarding environmental components of the Project</li> <li>• Environmental Work Plans received and in effect</li> <li>• Ongoing securing, extension, and amendment of environmental permits</li> <li>• Habitat Offsetting plans under review by FLNR and Indigenous Groups</li> <li>• Finalizing environmental protection measures for the Delta Nature Reserve and Burns Bog interface locations</li> </ul>
<b>Key Activities for Next 3 months</b>	<ul style="list-style-type: none"> <li>• Securing, extension, and amendment of environmental permits as required</li> <li>• On-going environmental review of Design-Builder's environmental mitigation measures and reports</li> </ul>

## Agriculture

<b>Completed this Month</b>	<ul style="list-style-type: none"> <li>• Design-Builder and Project Agrologist engaged in ongoing discussion as design evolves for former Delta Nature Reserve area and possible peat/sand excavation and potential surplus reduction</li> <li>• Agrologist discussions on local farmer's interest in surplus material ongoing</li> </ul>
<b>Key activities for Next 3 months</b>	<ul style="list-style-type: none"> <li>• Construction methodology to be finalized and potential surplus material to be identified</li> <li>• Determine any requirements to meet Agricultural Land Commission conditions and proceed with action items</li> </ul>

## Indigenous Groups

<b>Completed this Month</b>	<ul style="list-style-type: none"> <li>• Ongoing review and sharing of key project documents with Indigenous groups</li> <li>• Meetings ongoing with DB contractor and Project team</li> <li>• Continued communication with Indigenous groups regarding project construction activities</li> </ul>
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<b>Key Activities for Next 3 months</b>	<ul style="list-style-type: none"> <li>• Responses to Indigenous Group comments on key project documents</li> <li>• On-going consultation and engagement relating to geotechnical, environmental, and archaeological works</li> </ul>
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## 5. DESIGN BUILD PROGRESS

### Safety

<b>Completed this Month</b>	<ul style="list-style-type: none"> <li>• Onsite safety training sessions held for all staff</li> </ul>
<b>Key Activities for Next 3 months</b>	<ul style="list-style-type: none"> <li>• Construction activities and ongoing site safety training sessions as required</li> <li>• Daily &amp; weekly safety briefings for active site crews</li> <li>• Monthly mass safety meetings</li> </ul>
<b>Safety Incidents</b>	<ul style="list-style-type: none"> <li>• No recorded Design-Builder or Ministry recorded employee injuries.</li> <li>• Minor equipment incidents on site</li> </ul>

### Design

<b>Completed this Month</b>	<ul style="list-style-type: none"> <li>• Ongoing meetings with various regulatory agencies/stakeholders</li> <li>• Continued development and review of design including, detour implementation, oversized vehicle accommodation, drainage, roadway, electrical, and bridge design</li> <li>• Design and environmental mitigations around the Delta Nature Reserve ongoing</li> </ul>
<b>Key Activities for Next 3 months</b>	<ul style="list-style-type: none"> <li>• Ongoing review of design submissions</li> <li>• Ongoing meetings with various regulatory agencies/stakeholders</li> </ul>

### Construction

<b>Completed this Month</b>	<p><b>Segment 1 – River Road / Highway 17 Interchange</b></p> <ul style="list-style-type: none"> <li>• River Road West embankment fill ongoing</li> <li>• River Road turnaround relocated</li> <li>• River Road East excavation of existing Hwy 17 alignment ongoing for construction of future overpass</li> <li>• ITS relocated along the north side of Hwy 17</li> </ul> <p><b>Segment 2 – Highway 91C / Highway 17 Interchange</b></p> <ul style="list-style-type: none"> <li>• Embankment fill ongoing on north side of Hwy 91C</li> <li>• Retaining wall construction completed on North side of Hwy 91C</li> </ul> <p><b>Segment 3 – Highway 91C / Weigh Scale Interchange</b></p> <ul style="list-style-type: none"> <li>• Stone columns and wick drain installation in placed preload</li> <li>• Cellular concrete placement on Fortis BC Right-of-Way completed</li> </ul> <p><b>Segment 4 – Nordel Way / Highway 91 Interchange</b></p> <ul style="list-style-type: none"> <li>• DNR Boardwalk completed</li> </ul>
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	<ul style="list-style-type: none"> <li>• Detour implemented and embankment fill ongoing on Hwy 91C EB &gt; Hwy 99 SB ramp</li> <li>• Sand embankment ongoing in southeast quadrant</li> </ul> <p><b>Hwy 99 – Preload removal</b></p> <ul style="list-style-type: none"> <li>• Sand preload removal between Westminster Hwy and Blundell Road completed</li> </ul>
<b>Key Activities for Next 3 months</b>	<p><b>Segment 1 – River Road / Highway 17 Interchange</b></p> <ul style="list-style-type: none"> <li>• Preloading of Hwy 17/River Road on-/off-ramp roundabout areas</li> <li>• River Road utility relocation construction</li> <li>• Excavation for the future River Road structure and stone column construction</li> <li>• Commence River Road structure construction</li> </ul> <p><b>Segment 2 – Highway 91C / Highway 17 Interchange</b></p> <ul style="list-style-type: none"> <li>• Preloading of new alignments on north side of Hwy 91C</li> <li>• Preloading for Hwy 17 widening on north side</li> <li>• Drainage installation on the south side of Hwy 17 to south side of Hwy 91C</li> </ul> <p><b>Segment 3 – Highway 91C / Weigh Scale Interchange</b></p> <ul style="list-style-type: none"> <li>• Detour implementation at the intersection of Hwy 91C and truck parking relocation</li> <li>• Preloading south side of Hwy 91C at future roundabout.</li> <li>• Stone column construction at future Weigh Scale Road structure</li> </ul> <p><b>Segment 4 – Nordel Way / Highway 91 Interchange</b></p> <ul style="list-style-type: none"> <li>• Clearing and grubbing for Hwy 91C to Hwy 91 SB on-ramp</li> <li>• Wildlife salvaging in southwest quadrant of Nordel Interchange</li> <li>• Preload placement in southeast quadrant of Nordel interchange</li> </ul> <p><b>Hwy 99 – Preload removal</b></p> <ul style="list-style-type: none"> <li>• Removal of preload south of Hwy 17 interchange</li> </ul>

## Traffic Management

<b>Completed this Month</b>	<ul style="list-style-type: none"> <li>• Hwy 91 SB to Nordel Way EB offramp closures</li> <li>• Hwy 17 WB nighttime slow lane closures</li> <li>• Hwy 91C WB nighttime slow lane closures</li> </ul>
<b>Key Activities for Next 3 months</b>	<ul style="list-style-type: none"> <li>• Nighttime lane closures Hwy 17 EB, WB and Hwy 91C</li> <li>• Nighttime lane closures Hwy 91C to Hwy 91 SB on ramp for construction</li> <li>• Nighttime lane closures Hwy 99 between Hwy 17 and 112 St</li> <li>• Pending approvals of work plans, preload activities anticipated in all segments</li> </ul>

## Quality

<b>Completed this Month</b>	<ul style="list-style-type: none"> <li>• Ongoing monitoring of quality management system</li> <li>• Ongoing quality audits with the Design-Builder</li> </ul>
<b>Key Activities for Next 3 months</b>	<ul style="list-style-type: none"> <li>• Ongoing implementation and monitoring of quality management system</li> <li>• Ongoing quality audits</li> </ul>

## 6. Milestones Achieved Date

The milestone dates shown in DBA Schedule 3 Appendix A have been updated in the December 2020 Works Schedule submitted by the Design-Builder as follows:

<b>Activity Name</b>	<b>DBA Milestone Date:</b>	<b>Milestone Date (December 2020 Works Schedule)</b>
<b>Construction Start</b>		
Highway 91 / Nordel Way Interchange	July 8, 2020	June 16, 2020
Delta Nature Reserve Boardwalk	N/A	N/A
Highway 91C / Weigh Scale Interchange	July 8, 2020	August 14, 2020
Highway 91C/ Highway 17 Interchange	April 13, 2020	July 12, 2020
Highway 17 / River Road Interchange	April 3, 2020	May 8, 2020
<b>Construction Complete</b>		
Highway 91 / Nordel Way Interchange	September 13, 2022	November 14, 2022
Delta Nature Reserve Boardwalk	October 5, 2020	January 13, 2021
Highway 91C / Weigh Scale Interchange	November 30, 2022	November 30, 2022
Highway 91C/ Highway 17 Interchange	Mar 28, 2022	November 24, 2022
Highway 17 / River Road Interchange	October 1, 2021	October 21, 2021
Substantial Completion Date	<i>November 30, 2022</i>	<i>November 30, 2022</i>
Total Completion Date	<i>May 31, 2023</i>	<i>May 30, 2023</i>



## 7. Site Photographs



S3 Sunbury - East – Cellular concrete lightweight fill along top of the existing Fortis gas mains. Taken December 3, 2020



S3 Sunbury - East – Excavation for further cellular concrete lightweight fill. Taken December 7, 2020



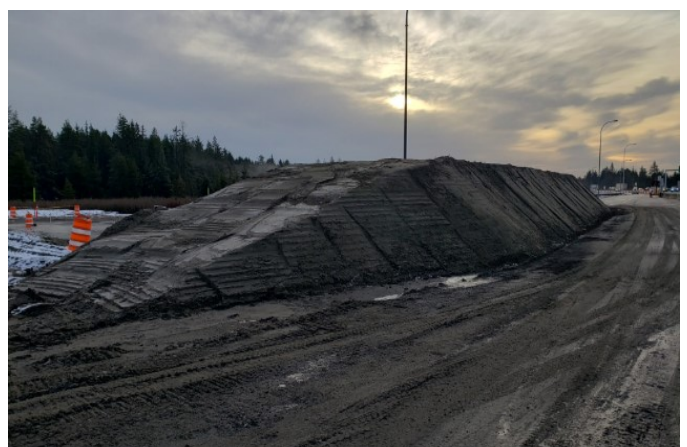
S2 Hwy 91C/17 I/C – Construction of the sloped wall. Taken December 9, 2020



S2 Hwy 91C/17 I/C – Preload/embankment fill placement ongoing. Taken December 15, 2020



S3 Weigh Scale Overpass – Stone Columns installation using the DBF method. Taken December 18, 2020



S4 Hwy 91 East Side – Imported Preload/Embankment fill temporary stockpile sloped and sealed. Taken December 23, 2020

## 8. Project Cost Report

- To date, \$98 million has been spent on the Project
- The approved capital Project budget is \$260 million; Project spend is projected to be on budget.