



HIGHWAY 1 KAMLOOPS TO ALBERTA FOUR-LANING PROGRAM



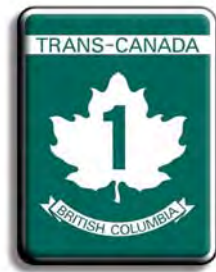
The Ministry of Transportation and Infrastructure
welcomes you to an open house for:

Highway 1 – Kamloops to Alberta Four-Laning Program

Hoffman's Bluff to Chase

Your comments are appreciated





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Open House Objectives

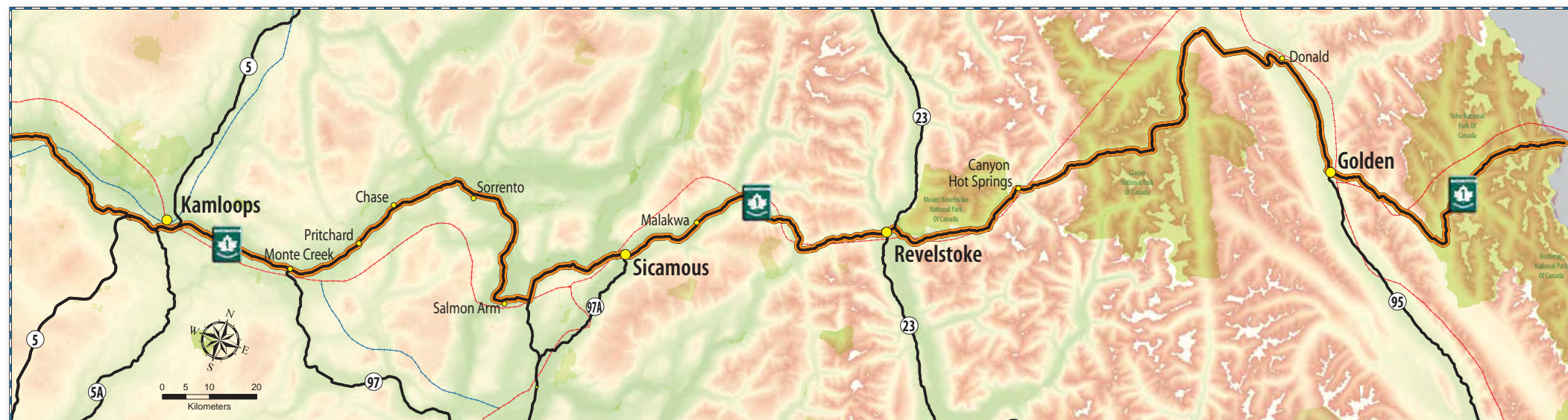
- ✦ Present plans
- ✦ Provide information and answer questions
- ✦ Get your feedback



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Importance of the Trans-Canada Highway

- ▼ The growth of our economy and communities rely upon a strong transportation network.
- ▼ Trans-Canada Highway 1 is the primary east-west connection through B.C. It links communities and is a vital route for travel, tourism and trade.
- ▼ \$2 billion of exports travel along the corridor to the Lower Mainland annually.
- ▼ Up to 12,000 vehicles per day use the corridor and 15% are heavy trucks.





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Public Input Helps Set Priorities

- ✦ In 2013, consultation sessions were held in communities along Highway 1 to gather input about improving the safety and reliability of the highway.
- ✦ In 2014, British Columbians were asked for their most pressing transportation needs as part of the development of B.C. on the Move, the Province's new 10-year transportation plan.
- ✦ Through B.C. on the Move's extensive public engagement—44,000 website visits, 13,000 survey responses, 110 stakeholder meetings, a Twitter Town Hall—73% agreed that expanding highway and bridge capacity was important.

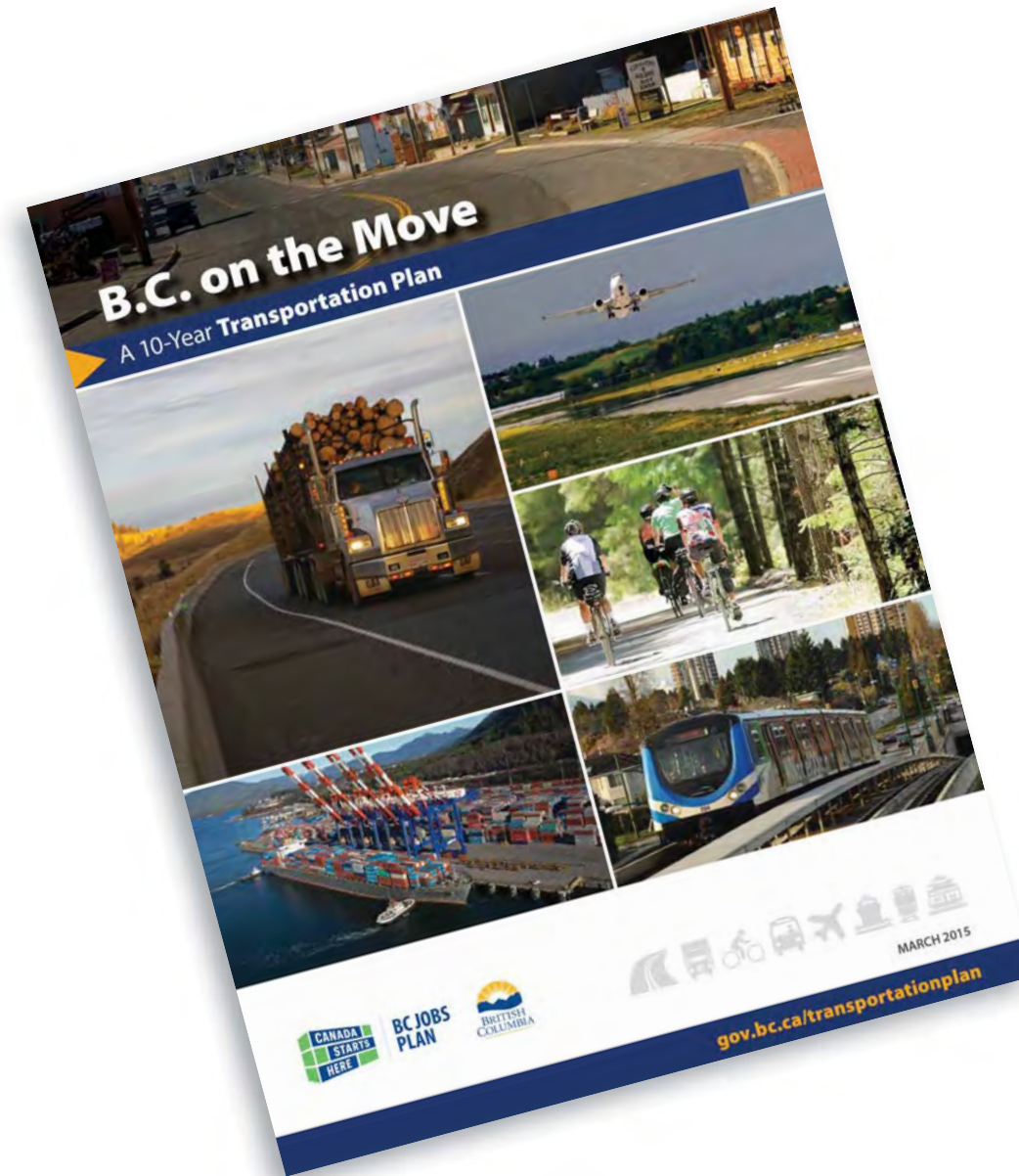


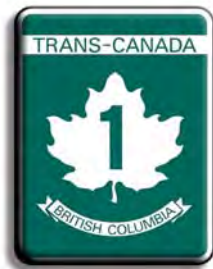
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B.C. on the Move Priorities

- ▼ Grow the economy.
- ▼ Move people and goods safely and reliably.
- ▼ Connect and strengthen communities.
- ▼ Maximize collaboration and investment with partners including the federal government, local governments, First Nations and the private sector.

Continuing to advance four laning projects on the Trans-Canada Highway between Kamloops and Alberta is a priority action in B.C. on the Move. The Province has committed \$650 million for improvements over 10 years, which is in addition to the \$700 million invested with the federal government to improve the highway since 2001. Our goal is to increase investment to over \$1 billion with partners over the next 10 years.

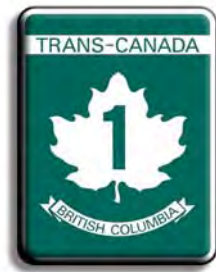




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Project Boundaries





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Project Schedule

The four laning of Highway 1 from Hoffman's Bluff to Chase is split into three projects. Each project will follow a coordinated schedule, with planned construction starting in 2017, after completion of the current Pritchard to Hoffman's Bluff Project. Here is the current delivery schedule:

Hoffman's Bluff to Chase Creek Road

- ▼ **2016**
 - Complete Preliminary Design
- ▼ **2016 to 2017**
 - Conduct Environmental and Archaeological Studies
- ▼ **2017 to 2018**
 - Functional and Detailed Design
- ▼ **2016 to 2019**
 - Property Acquisition
- ▼ **2019**
 - Tender Construction Contract
- ▼ **2021**
 - Project Completion

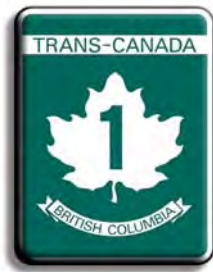
Chase Creek Road to Chase

- ▼ **2016**
 - Initiate Functional/Detail Design work and Property Acquisition
- ▼ **2016**
 - Conduct Environmental and Archaeological Studies
- ▼ **Spring 2017**
 - Complete Design and Property Acquisition
- ▼ **2017**
 - Tender Construction Contract
- ▼ **2019**
 - Project Completion

Chase to Jade Mountain

- ▼ **2016**
 - Preliminary Design
- ▼ **2017 to 2018**
 - Functional and Detailed Design
- ▼ **2017 to 2018**
 - Conduct Environmental and Archaeological Studies
- ▼ **2018 to 2020**
 - Property Acquisition
- ▼ **2020**
 - Tender Construction Contract
- ▼ **2022**
 - Project Completion





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Current Traffic Conditions

On average, there are three to seven highway closures per year, mostly due to collisions. The average daily traffic on the Trans-Canada Highway through the Chase area is upwards of 8,800 vehicles per day. Summer volumes typically are 50% higher.

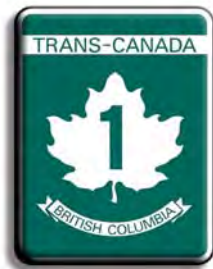
The existing highway intersections are operating at acceptable levels of service, however, traffic turning left onto the highway from the side roads sometimes experiences delays during peak travel hours. Without improvements, these delays will increase for side road traffic.

Side roads connecting to the highway:

- ❖ Shuswap Avenue West carries 2,500 vehicles per day
- ❖ Shuswap Avenue East carries 1,800 vehicles per day
- ❖ Colburn Street carries 900 vehicles per day
- ❖ Chief Neskonlith Drive carries 200 vehicles per day

AM (PM) turning movements



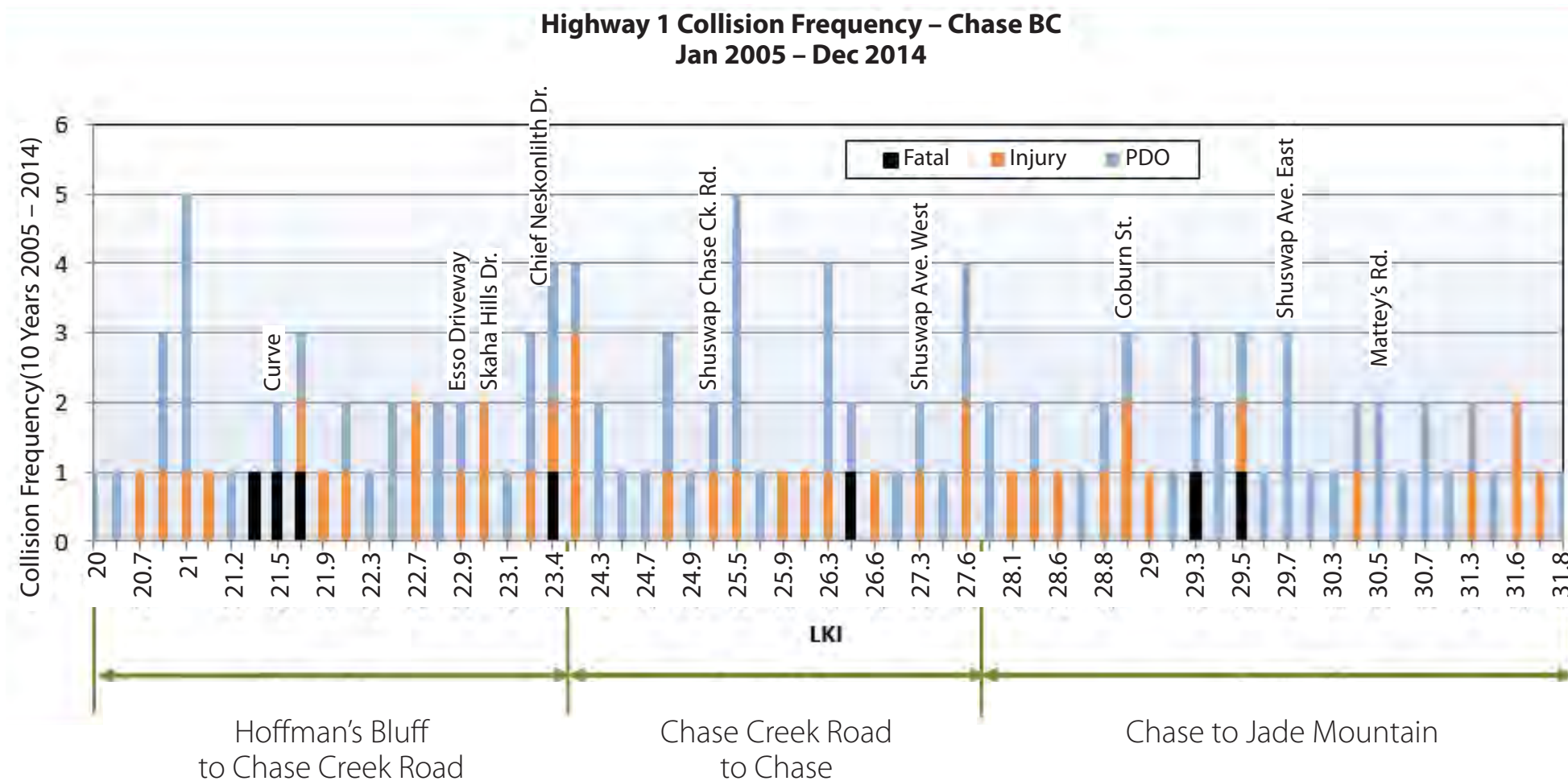


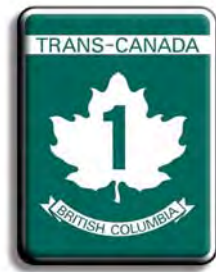
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Safety

The frequency of the collisions is below the provincial average but the severity is higher.

There were 121 collisions in a 10-year period. Of these, seven involved a fatality, 40 involved injuries and 74 involved property damage.





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Planning for Trans-Canada Highway Improvements

Planning for improvements to the Trans-Canada Highway from Hoffman's Bluff to Jade Mountain include the following principles to guide the decision-making process:

- ▼ Improve safety and traffic flow on the highway
- ▼ Improve access and connectivity with the local road network
- ▼ Support adjacent land uses and minimize impacts to residents and businesses
- ▼ Enhance pedestrian and cyclist safety

How does the ministry evaluate highway improvement concepts?

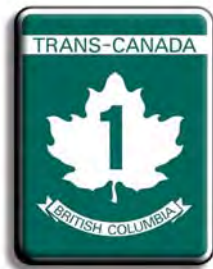
Multiple concepts were considered for each of the project segments from Hoffman's Bluff to Jade Mountain. The ministry looks at many factors when examining concepts for solving transportation-related issues. Our team considers technical information, along with environmental and land impacts, community interests, etc. For all projects, a high-level screening process was used to evaluate concepts, which included the following criteria:

- ▼ **Transportation System** – how does the design concept support the existing transportation network, in terms of municipal road connectivity and existing accesses?
- ▼ **Traffic Operation and Safety** – how will the new intersection or interchange perform in terms of traffic operation, access, reliability and safety?
- ▼ **Environmental** – what is the estimated level of environmental or archaeological impact?
- ▼ **Property Impacts** – what are the property impacts to residential, commercial and farm land?
- ▼ **Geotechnical** – are there significant geotechnical concerns?
- ▼ **Aesthetic** – are there any visual impacts?
- ▼ **Constructability** – how easy is it to construct and what are the implications on traffic during construction?
- ▼ **Estimated Cost** – How much is the project expected to cost, and does it provide a cost effective solution to the transportation need?

PLANNING AND CONCEPTUAL LAYOUT

Project planning identifies the transportation issues for the project to solve, defines the scope of the project and recommends a solution to move forward into the design stage. A conceptual layout illustrates the

recommended design during the planning phase of a project. The next step is preliminary design.



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Hoffman's Bluff to Chase Creek Four-Laning: Conceptual Layout

This segment of Highway 1 from near the western limits of the Neskonlith Indian Reserve No. 2 to Chase Creek Road would be four laned and the intersection of Chief Neskonlith Drive would be upgraded to accommodate a protected-T intersection. Development of this conceptual layout considered the following factors:

- ▼ Connectivity to existing local road (ie. Chief Neskonlith)
- ▼ Access to adjacent land uses and businesses
- ▼ Pedestrian and cyclist access in the form of improved highway shoulders and a pedestrian underpass

Benefits:

- ▼ Improves safety and traffic flow
- ▼ Improves access and connectivity with local roads
- ▼ Improves reliability
- ▼ Supports efficient movement of goods
- ▼ Accommodates future development





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Chase Creek Road to Chase Preliminary Design Options

The Chase Creek Road to Chase project is in the preliminary design stage. Preliminary design involves taking the concepts that were developed during the planning stage and further refining them to create a recommended option. During the development of the preliminary design, a Value Analysis was

completed by an independent team of engineering and technical specialists to identify opportunities to improve traffic operations and safety, reduce impacts to local stakeholders, including private and public properties, and reduce costs.

Option 1 • Shuswap Chase Creek Road Interchange – Preferred Option

The recommended option would provide a new four-lane highway to the south of the existing highway, and an interchange located near the existing Shuswap Chase Creek Road Intersection. The existing highway would become a frontage road from VLA Road to Shuswap Avenue.

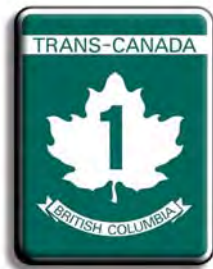
Benefits of this option include:

- ▼ Improved safety and mobility with a new grade-separated facility that will replace existing intersections on the highway
- ▼ A good road connection between the Village of Chase and the grade-separate facility utilizing the existing highway
- ▼ Good access to local properties from existing intersections at Planters Road and VLA Road
- ▼ A good pedestrian and bicycle local road connection between the Neskonlith I.R. and the Village of Chase

- ▼ A direct route between the Village of Chase and Highway 1 to the west
- ▼ Low impacts to agricultural lands
- ▼ Reduced impacts to private properties
- ▼ Doesn't affect the Village of Chase Wastewater Treatment Facility
- ▼ Doesn't have surplus material that would have to be disposed of during construction
- ▼ Has the least impact on traffic during construction

The cons of this option include:

- ▼ Has an estimated cost of \$48 million (a \$1 million increase over the at-grade option)
- ▼ The interchange is located further west from the existing access into Chase



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Option 1 • Shuswap Chase Creek Road Interchange – Preferred Option





Chase Creek Road to Chase Four Laning: Preliminary Design Options

Option 2 • Interchange Near Planter Road

West of Planter Road, the new highway four-lane alignment would generally follow just south of the existing highway, and to the east the new highway would follow the existing highway, between the Village of Chase Wastewater Treatment Facility and the CP Railway. A local road would also be constructed between the highway and the CP Railway. An interchange would be provided with a highway overpass, and eastbound ramps provided near Planter Road. The westbound right-in/right-out intersection would be provided approximately 800m further east of the highway overpass.

The benefits of this options include:

- ✦ Good safety and mobility with a grade-separated connection into Chase
- ✦ A good pedestrian and bicycle local road connection between the Neskonlith I.R. and the Village of Chase
- ✦ Good access to local properties from frontage road between VLA Road and Shuswap Avenue
- ✦ Doesn't have surplus material that would have to be disposed of during construction

The cons of this option include:

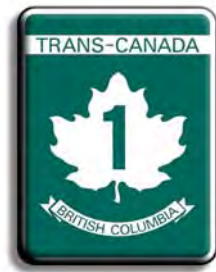
- ✦ Increased private property impacts
- ✦ Significant impacts to the Village of Chase Wastewater Treatment Facility
- ✦ Increased impacts to agricultural lands
- ✦ Constricted area between the Village of Chase Wastewater Treatment Facility and the CP Railway will require extensive retaining wall construction
- ✦ Constricted area will also limit room for winter maintenance
- ✦ Offset eastbound and westbound exits for interchange may be confusing to new users
- ✦ Has an estimated cost of \$50 million (\$2 million increase over the preferred option)
- ✦ Regulatory approvals for impacts to wastewater treatment facility may delay start of construction by 6 to 12 months
- ✦ Widening along existing highway will increase traffic delays during construction



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Option 2 • Interchange Near Planter Road





Chase Creek Road to Chase Four Laning: Preliminary Design Options

Option 3 • At-Grade Protected T Intersections at Shuswap Chase Creek Road and Shuswap Avenue West

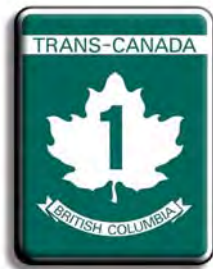
For this option, the new four-lane highway alignment would follow along the existing highway, with the existing Shuswap Avenue intersection closed in favour of a new protected T intersection approximately 200 m further east. The Harper Lake Road and Shuswap Chase Creek Road intersections would be combined into a new protected T intersection. VLA road would be connected to Planter Road, which would have a right in/right out restricted movement.

The benefits of this options include:

- ✦ Good access to businesses along Shuswap Avenue
- ✦ Protected T intersections provide improved safety and traffic mobility compared with conventional at-grade intersections
- ✦ Is the most cost effective option at \$47 M (\$1 M less than the preferred option)

The cons of this concept include:

- ✦ Will have less traffic and safety benefits than preferred option due to three at-grade intersections on the highway
- ✦ Local traffic between Neskonlith I.R. and the Village Chase would travel along the highway
- ✦ Poor pedestrian/cyclist connection between Neskonlith I.R. and the Village of Chase
- ✦ Increased private property impacts
- ✦ Impacts to the Village of Chase Wastewater Treatment Facility
- ✦ Increased impacts to agricultural lands
- ✦ Has large quantity of surplus material during construction that would require disposal
- ✦ Median merge distance between Protected T intersection and the highway transition from four lanes to two lanes is less than desired
- ✦ Side roads would still have long waits to enter highway during peak traffic times
- ✦ Widening along existing highway will result in traffic delays during construction



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Option 3 • At-Grade Protected T Intersections at Shuswap Chase Creek Road and Shuswap Avenue West





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Chase to Jade Mountain Conceptual Layout

This project is early in the planning stage.

This segment of Highway 1, from Shuswap Avenue West to east of Matthey's Road, would be four laned with options for at-grade or grade-separated access at Coburn Street and an at-grade intersection serving Matthey's Road. Shuswap Avenue East may be restricted to a right-turn only exit from the highway. The need for an eastbound climbing lane between Chase Creek and Matthey's Road is under investigation.

Benefits:

- ✦ Improves traffic flow and safety
- ✦ Improves access and connectivity with local roads
- ✦ Improves reliability
- ✦ Supports efficient movement of goods
- ✦ Improves reliability

Preliminary options are still being developed.



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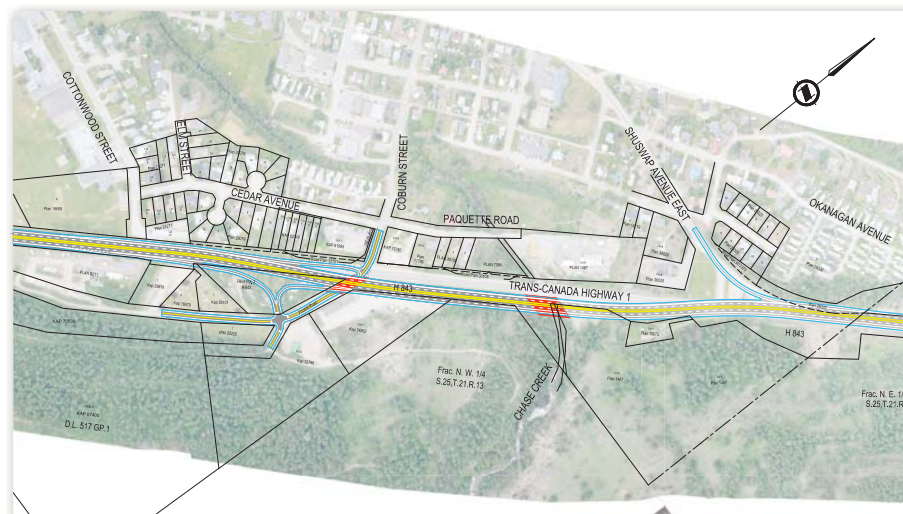
Chase to Jade Mountain Conceptual layout Coburn Street

Grade Separated Option

Coburn Street would pass under the highway with ramp connections to a new four-lane highway, except for the westbound right turn from the highway to Coburn Street, which would occur at Shuswap Avenue East.

Considerations for this Option:

- ▼ Traffic and safety performance
- ▼ Constrained right-of-way
- ▼ Difficult topography, including steep rock cuts and geotechnical instabilities
- ▼ Steep (6.7%) highway grade
- ▼ Chase Creek Bridge would need to be replaced
- ▼ Existing road network connectivity
- ▼ Property impacts

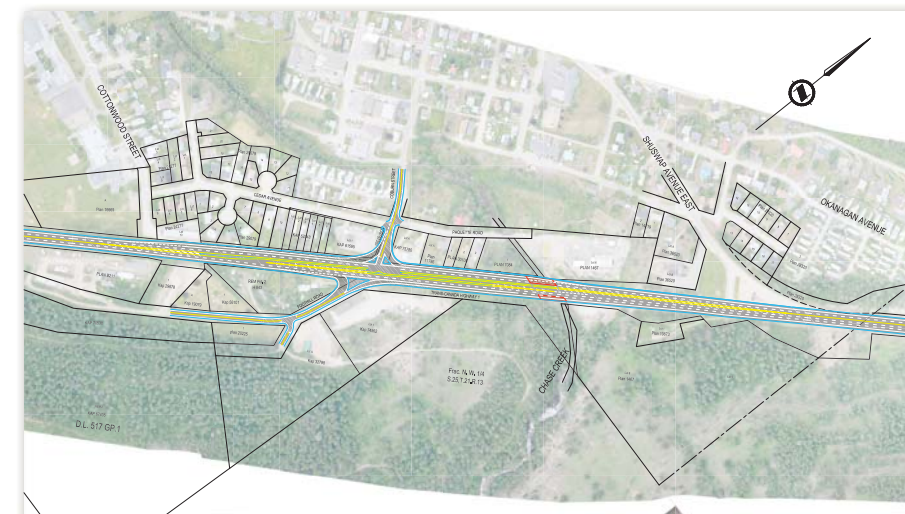


At-Grade Option

Protected-T intersection (at-grade) providing all movements to north side, and right-in, right-out on south side.

Considerations for this Option:

- ▼ Constrained right-of-way
- ▼ Difficult topography, including steep rock cuts and geotechnical instabilities
- ▼ Steep (6.7%) highway grade
- ▼ Chase Creek would need to be modified
- ▼ Existing road network connectivity
- ▼ Property impacts
- ▼ Traffic and safety performance





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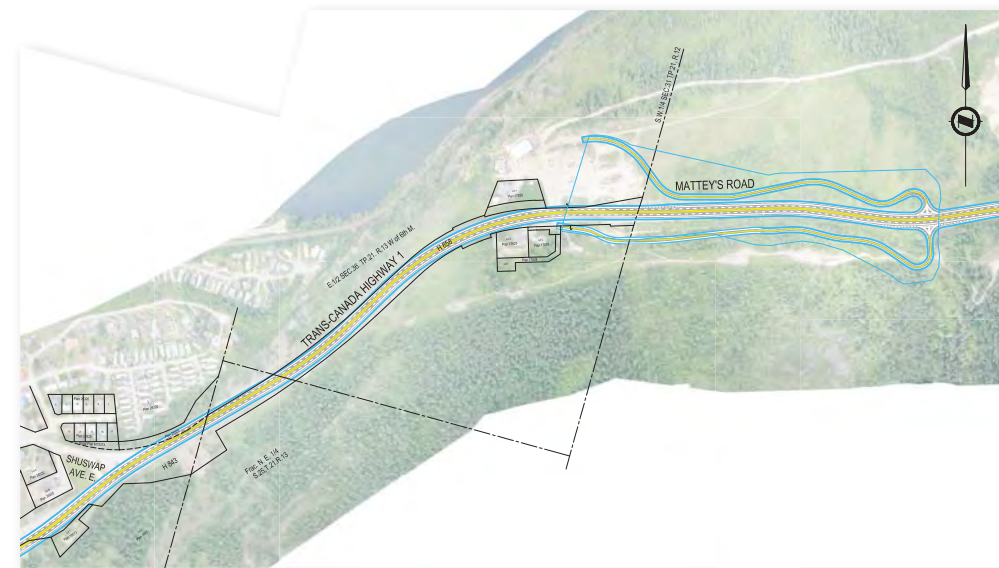
Chase to Jade Mountain Conceptual Layout Mattey's Road

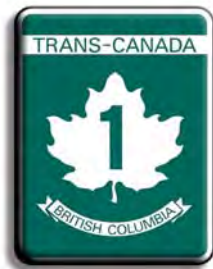
At-Grade Option

At-grade intersection approximately 700m east of the existing Mattey's Road intersection, with connecting frontage roads on both sides of the highway.

Considerations for this Option:

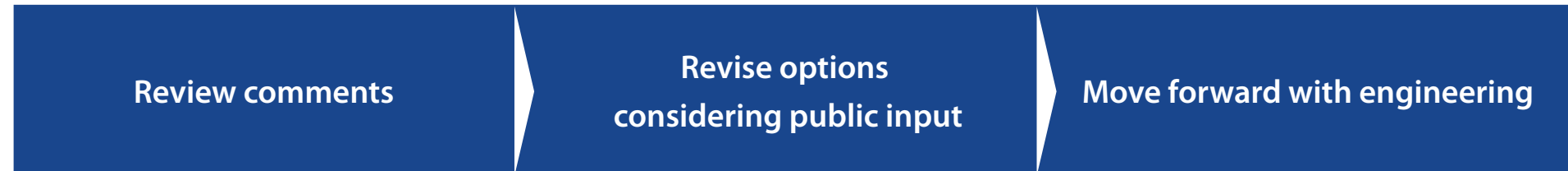
- ❖ Difficult topography, including rock cuts on south side and steep slope on north side
- ❖ Sight distance at current access location
- ❖ Need for climbing lane being evaluated
- ❖ Property impacts
- ❖ Traffic and safety performance





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Next Steps



We want to hear from you!

**Please submit
your comments
by June 12, 2016.**

Provide us your feedback by:

- Completing the feedback form and leaving it with our team

- Filling out the feedback form online:
<http://www2.gov.bc.ca/gov/content/transportation/transportation-infrastructure/projects/highway1-kamloops-alberta/current-projects/chase-creek-west>

Thank you for coming

