
SEA TO SKY HIGHWAY IMPROVEMENT PROJECT
SCOPE OF WORK
JANUARY 23, 2003

The Ministry of Transportation is planning safety and reliability upgrades to the Sea to Sky (STS) Highway (Highway 99) between Horseshoe Bay and Whistler. The project extends from Nelson Creek canyon in the south to the northern terminus at Function Junction in Whistler, a distance of approximately 95 km. Project construction is scheduled for the years 2004 through 2009.

The following provides a description of the project scope, including the core proposed highway improvements as well as the ancillary activities and temporary works that are integral to the highway construction. This scope is as of the above date and is subject to revision. The attached key plan shows the preliminary alignment sections referred to below.

Core Highway Improvements

Horseshoe Bay to Sunset Beach

Within the preliminary alignment section 1 (PA1), Horseshoe Bay to Sunset Beach, the highway will be upgraded from two to four lanes. There are two options under consideration:

- Option 1 includes construction of 2 new northbound lanes on the bench up-slope of the existing highway from Eagle Ridge to Pasco Road and upgrading of the existing 2-lane highway for use by southbound traffic from Pasco Road to Marine Drive. From Pasco Road north to Ansell Place the highway will be widened to 4-lanes along the existing alignment.
- Option 2 includes construction of 2 new northbound lanes from Nelson Creek canyon to Pasco Road on the bench up-slope of the existing highway, 1 km of which will be a tunnel at the south end, and upgrading of the existing highway to be used for two lanes of southbound traffic. From Pasco Road north to Ansell Place the highway will be widened to 4-lanes along the existing alignment.

Options include:

- an overpass to carry Hwy 99 through traffic at Eagle Ridge Interchange (Option 1 only)
- two underpasses to carry Marine Drive exiting traffic
- an underpass to carry Marine Drive to Hwy 99 on-ramp traffic
- increase of the queue area for ferry traffic

Bridge work would entail:

- a new bridge over Larsen Creek along the upper split grade (Option 1);
- a new bridge crossing of Nelson Creek south of the proposed tunnel (Option 2);
- and
- removal of the Horseshoe Bay Overhead and replacement of this structure with a retaining wall.

The establishment and/or closure of viewpoints and pullouts may also be within the scope of work.

Sunset Beach to Lions Bay

The existing alignment between Sunset Beach and Lions Bay (PA 2) will be upgraded and widened from two lanes to four lanes. Ansell Place Interchange will be expanded to accommodate 4 lanes of traffic.

Proposed bridge work includes:

- modification of the existing 4-lane bridge at Montizambert Creek (#1446, dwg 705) to accommodate a curved alignment;
- construction of a new 2-lane southbound bridge downstream of the existing 2-lane bridge at Charles Creek (#1457, dwg 0711). The upstream half of the existing bridge will be rebuilt after the new bridge is constructed; and
- placing concrete overlay on the deck of the existing 4-lane bridges at Strip Creek, Newman Creek, and Lone Tree Creek.

The establishment and/or closure of viewpoints and pullouts may also be within the scope of work.

Lions Bay to Furry Creek

The existing alignment between Lions Bay and Brunswick Beach will be widened to four lanes and the segment between Brunswick Beach and Furry Creek will be upgraded for safety and reliability in select locations to improve highway geometrics and to provide passing opportunities in the southbound and northbound directions. Currently 2-, 3- and 4-lane sections exist. This area is divided into three preliminary alignment sections: 1) Lions Bay to Loggers Creek (PA3); 2) Loggers Creek to Kallahne Creek (PA4); and 3) Kallahne Creek to Furry Creek (PA5).

Potential bridge work in the preliminary alignment section from Lions Bay to Loggers Creek includes:

- deck widening of the existing 2-lane bridge at M Creek (#1453, dwg 708)
- downslope widening of the existing concrete arch near Loggers Creek (#1561, dwg 717)
- placing concrete overlay on the deck of the existing 4-lane bridges at Harvey Creek, Alberta Creek and Magnesia Creek.

Potential bridge work in the preliminary alignment section from Loggers Creek to Kallahne Creek includes:

- upstream widening of the existing 2-lane bridge at Loggers Creek (#1454, dwg 709)
- replacement of existing 2-lane timber-deck bridge at Deeks Creek (#1451, dwg 706) with two or three traffic lanes and downstream sidewalk.

No bridge work is proposed within the preliminary alignment section from Kallahne Creek to Furry Creek.

The establishment and/or closure of viewpoints and pullouts may also be within the scope of work.

Furry Creek to South Stawamus

The existing highway between Furry Creek and South Stawamus will be upgraded to a 3-lane cross-section to provide for alternating passing lanes. The highway currently consists of 2-, 3- and 4-lane sections. This area is divided into three preliminary alignment sections: 1) Furry Creek to Minaty Bay (PA 6); 2) Minaty Bay to Murrin Park (PA 7); and 3) Murrin Park to South Stawamus (PA8). Within the Minaty Bay to Murrin Park preliminary alignment section two options are under consideration: 1) Option 1 is entirely along the existing highway; and 2) Option 2 includes a short bypass of the existing highway immediately south of Britannia Beach.

Proposed bridge work in the preliminary alignment section from Furry Creek to Minaty Bay includes:

- replacement of the existing Furry Creek 2-lane timber-deck north bridge and concrete box-beam deck south bridge with a new 3- or 4-lane raised profile structure on the existing alignment (#1465, dwg 715). Traffic will be detoured during construction to the upstream side using the existing relocated bridge decks (or temporary spans) on temporary abutments (lock blocks or similar).

Proposed bridge work in the preliminary alignment section from Minaty Bay to Murrin Park includes:

- replacement of the existing Britannia Creek 2-lane steel through-truss bridge with a new 3- lane and upstream sidewalk raised profile structure on the existing alignment (#1286, dwg 703). Traffic will be detoured during construction to the upstream side, using the existing relocated bridge superstructure (or temporary span) on temporary abutments (lock blocks or similar).

Proposed bridge work in the preliminary alignment section from Murrin Park to South Stawamus includes:

- the existing 2-lane bridge at Gonzales Creek will be widened for a third traffic lane on the upstream or downstream side (Gonzales Creek bridge #1626, dwg 719); and
- the existing 2-lane bridge at Shannon Creek will be widened for two additional traffic lanes on the upstream side (Shannon Creek bridge #1455, dwg 710) or will be twinned on the downstream side with a new southbound structure (Shannon Creek bridge #1455, dwg 710).

The establishment and/or closure of viewpoints and pullouts may also be within the scope of work.

South Stawamus to Depot Road

The highway through Squamish between South Stawamus and Depot Road will be upgraded to 4-lanes plus centre turning slots. The urban road design will include raised median and curb and gutter features. The existing highway is predominantly 2-lanes with a couple of 4-lane segments and acceleration and deceleration lanes. This area is divided into two preliminary alignment sections: 1) South Stawamus to Centennial Way (PA9);

and 2) Centennial Way to Depot Road (PA10). Within the South Stawamus to Centennial Way preliminary alignment section two options are under consideration: Option 1 upgrades the existing highway through IR 24; and Option 2 provides a new highway bypass of IR 24.

Proposed bridge work in the preliminary alignment section from South Stawamus to Centennial Way includes:

- given Option 1, the existing 2-lane Stawamus River bridge will be replaced with a new, raised roadway profile, 4-lane bridge at the existing location (Stawamus River bridge #1011, dwg 701); or
- given Option 2, a new Stawamus River bridge with 5 traffic lanes and sidewalk will be constructed on the IR24 Bypass; and
- the existing 2-lane bridge Mamquam Blind Channel bridge will either be twinned with a new downstream structure for two southbound lanes (Mamquam Blind Channel bridge #2002, dwg 723), or replaced on the existing alignment with a new 4-lane structure.

Proposed bridge work in the preliminary alignment section from Centennial Way to Depot Road includes:

- a new 2-lane bridge parallel to the existing 2-lane Mamquam River bridge and modifications to the existing bridge (Mamquam River bridge #1029, dwg 0702).

Depot Road to Culliton Creek

The highway between Depot Road and Culliton Creek is currently 3-lanes. This segment is divided into two preliminary alignment sections: 1) Depot Road to Brohm Lake (PA11); and 2) Brohm Lake to Culliton Creek (PA12). The only highway improvement work being considered in these sections is a 2 km long south bound passing lane north of the Cheekye River Bridge within the Depot Road to Brohm Lake preliminary alignment section.

Proposed bridge work in the preliminary alignment section from Depot Road to Brohm Lake includes:

- possible widening of the existing 3-lane Cheekye River bridge to accommodate future median placement (Cheekye River bridge #2588, dwg 701).

Proposed bridge work in the preliminary alignment section from Brohm Lake to Culliton Creek includes:

- possible widening of the existing 3-lane Swift Creek bridge to accommodate future median placement (Swift Creek bridge #7379, dwg 702).

Culliton Creek to Cheakamus Canyon (North)

Construction is underway to widen the existing 2-lane highway to 3-lanes and to improve the alignment in this section. This work is not within the scope of the STS highway improvement project and the STS highway improvement project does not provide any additional improvements within this section.

Cheakamus Canyon (North) to Function Junction

The existing highway between Cheakamus Canyon (North) and Function Junction will be upgraded to a 3-lane cross-section to provide for alternating passing lanes. Currently, it is a 2-lane highway with a couple of short 4-lane segments which will be preserved. This segment is divided into three preliminary alignment sections: 1) Cheakamus Canyon (North) to North Garibaldi Civil Defence Zone (PA 14); 2) North Garibaldi Civil Defence Zone to Brandywine Creek (PA 15); and 3) Brandywine Creek to Function Junction (PA16).

Proposed bridge work in the preliminary alignment section from Cheakamus Canyon (North) to North Garibaldi Civil Defence Zone includes:

- downstream widening of existing 2-lane Rubble Creek bridge to accommodate a 3rd traffic lane and future median placement (Rubble Creek bridge #7388, dwg 704);
- construction of a new 2-lane northbound parallel bridge on the upstream side of the existing 2-lane Cheakamus River bridge and modifications to the existing bridge for southbound lanes (Cheakamus River bridge #2214, dwg 0706); and
- construction of a new 2-lane northbound parallel bridge on the upstream side of the existing Daisy Lake bridge and modifications to the existing bridge for southbound lanes (Daisy Lake bridge #2214, dwg 706).

No bridge work is proposed within the preliminary alignment section from North Garibaldi Civil Defence Zone to Brandywine Creek, however a new BCR overpass south of Brandywine Falls Park is proposed.

Proposed bridge work in the preliminary alignment section from Brandywine Creek to Function Junction includes:

- construction of a new 2-lane southbound parallel bridge on the upstream side of the existing Brandywine Creek bridge and modifications to the existing bridge for northbound lanes (Brandywine Creek bridge #7375, dwg 0708)
- widening of the existing 2-lane Callaghan Creek bridge on the upstream and downstream sides to accommodate a 3rd traffic lane and future median placement (Callaghan Creek bridge #2519, dwg 709)

There is also a new BCR overpass proposed south of Function Junction.

The establishment and/or closure of viewpoints and pullouts may also be within the scope of work.

Ancillary Works

The following ancillary activities and temporary works are being considered:

- Construction, use, and dismantling of a detour along BC Rail. The detour begins in the south at Pasco Road and extends northward as far as Porteau Cove. Temporary roads are proposed to access the detour at various points along the highway alignment. The detour would be used to divert traffic during construction. The section north of Lions Bay may also be used as a southbound lane during the 2010 Olympic event;

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- Construction, use, and dismantling of a barge loading facility as well as the use of an existing facility;
 - Construction, use, and dismantling of temporary bridges;
 - Establishing, use, and restoration of construction staging and equipment storage areas;
 - Establishing and use of aggregate production and suitable material stockpiling sites;
 - Establishing and use of surplus material disposal sites;
 - Disposal of materials at designated ocean disposal locations; and
 - Relocation of hydro poles.