

sea-TO-SKY

HIGHWAY IMPROVEMENT PROJECT

Project Goals, Community Concerns, and Results & Benefits

PROJECT GOALS

The primary goals for the Sea-to-Sky Highway Improvement Project are to:

- Improve safety;
 - Improve reliability;
 - Improve capacity;
 - Complete improvements by late 2009;
 - Manage traffic flows during construction to minimize disruption and maximize predictability; and
 - Remain within the estimated capital project budget of \$600 million
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Urban Squamish - Stawamus Bridge to Mamquam River

Feature	Community Concerns	Results/Benefits
<ul style="list-style-type: none"> • Improved highway design to divided four lanes 	<ul style="list-style-type: none"> • Mitigate the impact of increasing traffic volumes • Maintain or reduce base noise levels • Impact of construction on local economy 	<ul style="list-style-type: none"> • Four lanes from Stawamus bridge to Depot Road • Improves safety • Capacity improvement • Use of quiet pavement (open graded asphalt) • Implement construction and traffic management plan for the duration of construction.
<ul style="list-style-type: none"> • Construction of bridges and/or modifications to existing bridge structures 	<ul style="list-style-type: none"> • Bridges should be constructed to 200 year flood construction levels • Safe pedestrian passage must be provided at all bridges 	<ul style="list-style-type: none"> • Proposed new bridge construction (1,3,7) built to meet 200 year flood levels • Improves safety • Capacity improvement • Underpass at new Stawamus (1) Bridge, if technically feasible, to enhance east-west connectivity

Urban Squamish - Stawamus Bridge to Mamquam River

continued

Feature	Community Concerns	Results/Benefits
<ul style="list-style-type: none"> Signal upgrades 	<ul style="list-style-type: none"> Traffic calming Access to industrial and commercial properties must be maintained or suitable alternatives provided 	<ul style="list-style-type: none"> New full movement signal at Centennial Way (6) Access to Squamish Business Park and Civic Centre through existing full movement, signal controlled intersection at Industrial Ave. Provisions for pedestrian at all signalized intersections, where appropriate. Improves safety Efficient movement of traffic, bicycles and pedestrians
<ul style="list-style-type: none"> Curb and gutter 	<ul style="list-style-type: none"> Possibility that improvements may sever the community and isolate pockets of development 	<ul style="list-style-type: none"> Curbs and gutters (4) from Mamquam Blind Channel to 300 meters north of Cleveland Ave. to enhance community feel, if desired. Add sidewalks along areas where curbs and gutters are installed. Assists traffic calming for improved safety
<ul style="list-style-type: none"> Bus Stops 	<ul style="list-style-type: none"> Upgrade consideration needs to be given to local bus terminals, park and ride facilities etc. 	<ul style="list-style-type: none"> Address local bus and park & ride requirements in collaboration with the District of Squamish Assists traffic calming for increased safety Creates a sense of community
<ul style="list-style-type: none"> Gateways / Signage upgrades 	<ul style="list-style-type: none"> Traffic calming Access to industrial and commercial properties must be maintained or suitable alternatives should be provided 	<ul style="list-style-type: none"> Primary Gateway at south end, secondary gateways at IR24, Stawamus Chief, business area identification Provides a sense of arrival at important or specific destinations within urban Squamish Access to businesses during construction Assists traffic calming – reduces speed and improves safety

Urban Squamish - Stawamus Bridge to Mamquam River

continued

Feature	Community Concerns	Results/Benefits
<ul style="list-style-type: none"> Bikeway (1.5 m paved shoulder) 	<ul style="list-style-type: none"> Continuous paved pedestrian/bicycle path should be provided from Valleycliffe to Brackendale 	<ul style="list-style-type: none"> Provide 1.5 m paved bicycle path on shoulder of highway. In collaboration with District of Squamish, construct pathway parallel with highway. Improves safety Creates integrated transportation options (bicycle/auto)
<ul style="list-style-type: none"> Improved intersection treatment-raised islands 	<ul style="list-style-type: none"> Mitigate the impact of increasing traffic volumes 	<ul style="list-style-type: none"> Raised medians (2) at all intersections Raised median for transition from north of Cleveland Avenue (5) to become a centre median barrier to Garibaldi Way Improves safety Adds aesthetic value Assist in traffic calming
<ul style="list-style-type: none"> Crossings 	<ul style="list-style-type: none"> East-west connectivity 	<ul style="list-style-type: none"> Where technically feasible, connect trails through pathways under bridges Centennial Avenue to become an all movement intersection. Improves safety Provides residents with Interconnectivity (improved access to east and west side of highway)

Urban Squamish - Mamquam River to Depot Road		
Feature	Community Concerns	Results/Benefits
<ul style="list-style-type: none"> Improved highway design to divided four lanes 	<ul style="list-style-type: none"> Mitigate the impact of increasing traffic volumes Maintain or reduce base noise levels Impact of construction on local economy 	<ul style="list-style-type: none"> Four lanes from Stawamus Bridge to Depot Road Improves safety Capacity improvement Use of quiet pavement (open graded asphalt) Implement construction and traffic management plan for the duration of the project.
<ul style="list-style-type: none"> Construction of bridges and/or modifications to existing bridge structures 	<ul style="list-style-type: none"> Bridges should be constructed to 200 year flood construction levels 	<ul style="list-style-type: none"> Proposed new bridge at Mamquam River (7) built to 200 year flood levels Improves safety Capacity improvement
<ul style="list-style-type: none"> Signal upgrades 	<ul style="list-style-type: none"> Traffic calming Access to industrial and commercial properties must be maintained or suitable alternatives provided 	<ul style="list-style-type: none"> Existing two, full movement intersections will be upgraded with signals at Mamquam Road and Garibaldi Way (9) Improves safety Efficient movement of traffic, cyclists and pedestrians
<ul style="list-style-type: none"> Curb and gutter 	<ul style="list-style-type: none"> Possibility that improvements may sever the community and isolate pockets of development 	<ul style="list-style-type: none"> Curbs and gutters from Mamquam Road to Garibaldi Way (8) to enhance community feel, if desired. In cooperation with District of Squamish, add sidewalks along areas where curbs and gutters are installed. (14) Assists traffic calming for improved safety
<ul style="list-style-type: none"> Bus Stops 	<ul style="list-style-type: none"> Upgrade consideration needs to be given to local bus terminals, park and ride facilities etc. 	<ul style="list-style-type: none"> Address local bus and park & ride requirements in collaboration with the District of Squamish. Assists traffic calming for increased safety Creates a sense of community

Urban Squamish - Mamquam River to Depot Road
continued

Feature	Community Concerns	Results/Benefits
<ul style="list-style-type: none"> Gateways / Signage upgrades 	<ul style="list-style-type: none"> Traffic calming Access to industrial and commercial properties must be maintained or suitable alternatives should be provided 	<ul style="list-style-type: none"> Primary Gateway at north end (Depot Road area) (11). Provides a sense of arrival at important or specific destinations within urban Squamish Access to business maintained during construction Assists traffic calming – reduces speed and improves safety
<ul style="list-style-type: none"> Bikeway (1.5 m paved shoulder) 	<ul style="list-style-type: none"> Continuous paved pedestrian/bicycle path should be provided from Valleycliffe to Brackendale 	<ul style="list-style-type: none"> Provide 1.5 m paved bicycle path along highway. (15) In collaboration with District of Squamish, construct pathway parallel with highway. Improves safety Creates integrated transportation options (bicycle/auto)
<ul style="list-style-type: none"> Crossings 	<ul style="list-style-type: none"> East-west connectivity 	<ul style="list-style-type: none"> Where technically feasible, add walkway under Mamquam River Bridge. Pedestrian overpass lengthened to accommodate new four-lane highway (10) Improves safety Provides residents with Interconnectivity (improved access to east and west side of highway)

Rural Squamish - Murrin Provincial Park		
Feature	Community Concerns	Results/Benefits
<ul style="list-style-type: none"> Improved highway design to divided three/four lanes. For Murrin Park, this means an upgrade to three lanes during the Olympics and then a return to two lanes after the Olympics. Rock Slope Stabilization 	<ul style="list-style-type: none"> No impact to lakeside and vegetation No impact to fisheries habitat No impacts on recreation usage No impact to rock slopes through Murrin Park No impacts on First Nations cultural value Two-lane highway through Murrin Park 	<ul style="list-style-type: none"> Design improvements to the access to the existing parking area to improve safety. A retaining wall will be constructed to minimize encroachment on the trail along the lake. Potential to improve trail along the lake. The existing ditch along the rock bluff will be filled in and a roadside barrier will be placed up against the rock face. Temporary third-lane for Olympic period. Safety improvement Reliability improvement Capacity improvement
<ul style="list-style-type: none"> Signage upgrades 	<ul style="list-style-type: none"> Traffic speed 	<ul style="list-style-type: none"> Provides a sense of arrival Assists traffic calming – reduces speed Safety improvement
<ul style="list-style-type: none"> Improved intersection treatment 	<ul style="list-style-type: none"> Mitigate the impact of increasing traffic volumes 	<ul style="list-style-type: none"> Design improvements to the access to the existing parking area to improve safety

Rural Squamish - Shannon Falls Provincial Park		
Feature	Community Concerns	Results/Benefits
<ul style="list-style-type: none"> Improved highway design to divided three/four lanes 	<ul style="list-style-type: none"> Safety 	<ul style="list-style-type: none"> Upgrade to divided four-lane highway and retain traffic signal Safety improvement Capacity improvements
<ul style="list-style-type: none"> Improved intersection treatment 	<ul style="list-style-type: none"> Safety 	<ul style="list-style-type: none"> Signalized 4-way intersection for Shannon Falls/Darrell Bay will be retained
<ul style="list-style-type: none"> Bikeway (1.5 m paved shoulder) 	<ul style="list-style-type: none"> Continuous paved pedestrian/bicycle path should be provided 	<ul style="list-style-type: none"> A 1.5 m paved bicycle path on shoulder of highway will be provided Safety improvement Creates integrated transportation options (bicycle/auto)
<ul style="list-style-type: none"> Signage upgrades 	<ul style="list-style-type: none"> Traffic speed 	<ul style="list-style-type: none"> Provides a sense of arrival Assists traffic calming – reduces speed Safety improvement
Rural Squamish - The Stawamus Chief Provincial Park		
Feature	Community Concerns	Results/Benefits
<ul style="list-style-type: none"> Improved highway design to divided three/four lanes 	<ul style="list-style-type: none"> Safe access 	<ul style="list-style-type: none"> Capacity improvement Safety Improvement
<ul style="list-style-type: none"> Improved Intersections 	<ul style="list-style-type: none"> Safe access from all directions 	<ul style="list-style-type: none"> Create protected-T intersection to allow all movements – right turns into and out of new access road connecting to the Provincial Park access road Improved visibility at new T-intersection. Improved accessibility, since left turns allowed in addition to existing right turns Create right turn exit at north end of parking lot to improve access.
<ul style="list-style-type: none"> Bikeway (1.5 m paved shoulder) 	<ul style="list-style-type: none"> Continuous paved pedestrian/bicycle path should be provided 	<ul style="list-style-type: none"> A 1.5 m paved bicycle path on shoulder of highway will be provided Safety improvement Creates integrated transportation options (bicycle/auto)
<ul style="list-style-type: none"> Signage upgrades 	<ul style="list-style-type: none"> Traffic speed Staging areas should be integrated into gateway planning at the entrance to urban Squamish 	<ul style="list-style-type: none"> Assists traffic calming – reduces speed and improves safety Secondary Gateway possible at The Stawamus Chief Provides a sense of arrival