Pitt River Bridge and Mary Hill Interchange
Cycling Features

Detailed Design Consultation

Consultation Summary Report

July 2007
Executive Summary

Detailed Design Consultation

In May-June of 2005, the Gateway Program conducted a pre-design consultation program on the new Pitt River Bridge and Mary Hill Interchange project, which is a stand-alone component of the North Fraser Perimeter Road. Following the consultation the project team developed a detailed design for the new bridge and interchange. Many concerns raised in the pre-design consultation were addressed through the detailed design. However, several cycling features required additional input from the cycling community.

The design for the bridge and interchange incorporates over $8.5 million in pedestrian/cycling features for the Pitt River Bridge and Mary Hill Interchange, including:

- Multi-use pathway on the north side of the bridge (3.5m) -- $5,000,000
- Widening the shoulders on the south side of the bridge (2m) -- $3,500,000
- Interchange/Roadworks: bike paths and other associated facilities adjacent to and connecting with the new bridge, including nearby cycling paths -- $750,000

In June 2007, the Gateway Program conducted a detailed design consultation on the pedestrian/cycling features to gather input on:

- New pedestrian/cycling ramp design on the west end of the new Pitt River Bridge
- Additional connection to pedestrian/cycling pathway east of the new Pitt River Bridge

The consultation consisted of a small group stakeholder meeting with the cycling community and a web-based Discussion Guide and Feedback Form. Six cycling representatives attended the small group stakeholder meeting and the Gateway Program received seven e-mails, including a letter from the Vancouver Area Cycling Coalition.

Key Theme Summary of Input

The following are the key themes from the input received:

**New design of ramp at west end of the bridge**

Participants supported the proposed pedestrian/cycling, ramp design on the west end of the new Pitt River Bridge. However, participants said they would like the ramp extended so that cyclists moving westbound down from the bridge had a greater

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1 Maps showing the bridge, interchange design and local streets are available on pages 9 and 10 of this document.
distance to slow down. In addition, they would like to see a more direct connection from the ramp to the cycling path on the north side of Lougheed Highway so that cyclists do not have to cross local streets to access the path.

**Reduce the number of local street crossings**
Participants expressed concern about the number of streets they had to cross in order to access the west end of the bridge. A number of alternative designs were proposed that might eliminate the number of street crossings, such as pedestrian/cycling underpasses allowing cyclists to move under the street to connect to the bridge and thereby avoid at-grade street crossings.

**Enhancement of pedestrian/cycling features at the east end of the bridge**
Participants supported the proposed addition of a pedestrian/cycling connection from the pathway under the east end of the bridge to the shoulder of Lougheed Highway (eastbound) so that they could connect to the existing cycling pathway on the south side of Lougheed Highway.

**Cycling access to the shoulder on the south side of the new Pitt River Bridge**
Participants asked for better access to the 2 metre-wide shoulder on the south side of the bridge. They said they wanted to be able to access this route more directly from the Mary Hill Bypass and from Lougheed Highway (eastbound).

**Big advance in dialog about cycling**
Participants commended the efforts the Gateway Program had made to include cyclists in the consultation for the Pitt River Bridge and Mary Hill Interchange project.

**Vancouver Area Cycling Coalition Letter (VACC)**
The VACC raised a number of concerns about the detailed design including their primary concern, cycling access to the eastbound shoulder of the bridge. They said that the proposed design is not adequate for cyclists, especially from a safety perspective, should a cyclist attempt to access this shoulder from the road network.

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2 See complete letter on page 7
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1. INTRODUCTION

1.1 Overview of the Gateway Program

Proposed Gateway Program road and bridge improvements complement regional road and transit improvements already planned or underway. These improvements will help create a comprehensive, effective transportation network that supports improved movement of people and goods. This network will, in turn, facilitate economic growth, increased transportation choice and better connections to designated population growth areas.

The Gateway Program includes the Port Mann/Highway 1, South Fraser Perimeter Road and North Fraser Perimeter Road (NFPR) projects. The Pitt River Bridge and Mary Hill Interchange project is part of the NFPR. The Pitt River Bridge and Mary Hill Interchange project is comprised of a new bridge to replace the two existing swing bridges and an interchange to replace the existing intersection at Lougheed Highway and Mary Hill Bypass. The project is the first of the Gateway Program projects to proceed.

1.2 Gateway Program Goals

Improving roads and bridges for people, goods and transit, Gateway Program benefits include:

- Addressing congestion
- Improving the movement of people and goods in and through the region
- Improving access to key economic gateways
- Improving safety and reliability
- Improving the regional road network
- Improving quality of life
- Reducing congestion-related idling emissions
- Facilitating better connections
- Reducing travel times

1.3 The Need for a New Pitt River Bridge and Mary Hill Interchange

The existing Pitt River swing bridges on Highway 7 (connecting Pitt Meadows to Port Coquitlam) are heavily congested during peak travel periods. The volume of daily traffic over the bridges has nearly tripled from 27,000 to 78,000 between 1985 and 2003, and is expected to reach 88,000 in 2007. With construction of TransLink’s Golden Ears Bridge, peak hour traffic in the already strained single-lane direction of the Pitt River bridges’ counterflow system is expected to increase by 20% to 30%, significantly adding to congestion and delays if a new Pitt River Bridge is not in service.

Construction of a new high-level bridge (with up to 16m clearance above high tide) and a new interchange at the west end of the bridge, where the Lougheed Highway and Mary Hill Bypass meet, will improve travel times and safety and eliminate unexpected closures for all users, including goods movers, transit and cyclists. The high-level clearance will allow marine traffic to pass uninterrupted.

The new bridge and interchange will be completed by November, 2009.
1.4 Goals for the Pitt River Bridge and Mary Hill Interchange

The goals for the Pitt River Bridge and Mary Hill Interchange include:

- Improve reliability of the Pitt River crossing for vehicle and marine traffic
- Provide capacity to serve the needs of growing municipalities
- Improve safety along a key goods movement and commuting corridor
- Enhance the shoreline and the aquatic and riparian environments

1.5 Benefits of the Pitt River Bridge and Mary Hill Interchange

The new bridge and interchange will create lasting improvements that provide multiple benefits to the movements of people, goods and transit. These benefits include:

**Safety** - The new bridge and interchange will increase safety as a result of higher design standards, the elimination of a major intersection and the counter-flow system, and the provision of a dedicated pedestrian and cyclist pathway. The new bridge also enhances safety and reliability for marine navigation.

**Reliability** - Replacement of the two existing swing bridges will help ensure a continuous free flow of traffic over the Pitt River. Also, this will allow more reliable transit times, enhancing transit’s attractiveness as a transportation option.

**Improved Traffic Movement** - The new bridge reduces congestion by eliminating backups caused by the current counter-flow system and increasing the number of lanes.

**Environment** - The bridge will have one pier in the river and two on the foreshore. The removal of the existing swing bridges eliminates the 18 piers that support them, thus enhancing the aquatic and riparian environments and the aesthetic quality of the river and riverbank. Removal of the existing structures allows for the rehabilitation of land underneath and alongside the new bridge.

**Flexibility to Meet Changing Traffic Demand** - The bridge will be designed to accommodate different lane allocations. On opening day, the new bridge will have three westbound lanes and four eastbound lanes. The bridge will be built to accommodate eight lanes in the future, four in each direction, which can be dedicated for HOV as the rest of the HOV network expands. In addition, the bridge has been designed to accommodate future Light Rail Transit.
2. COMMUNITY CONSULTATION PROGRAM

2.1 Pre-design Consultation - May-June 2005

The Gateway Program conducted pre-design community consultation on the Pitt River Bridge and Mary Hill Interchange project from May 24 to June 30, 2005. The consultation’s features included:

- Nine small group meetings with stakeholder groups
- Four open houses in Port Coquitlam, Coquitlam, Pitt Meadows and Maple Ridge on various days and times during the week to maximize the opportunity for residents to participate
- All consultation materials, including an on-line feedback form, were available on the Gateway Program website (www.gatewayprogram.bc.ca)

Approximately 500 individuals participated in the consultation program.

2.2 Detailed Design Consultation - June 2007

The design for the bridge and interchange shows that the key input received from the public in the pre-design consultation has been addressed. In addition, a number of features have been added to enhance the cycling and recreational opportunities.

It should be noted that the Gateway Program has invested over $8.5 million on pedestrian/cycling features for the Pitt River Bridge and Mary Hill Interchange, including:

- Multi-use pathway on the north side of the bridge (3.5m north side) -- $5,000,000
- Widening the shoulders on the south side of the bridge (2 m) -- $3,500,000
- Interchange/Roadworks: bike paths and other associated facilities -- $750,000

The project conducted a detailed design consultation with the cycling community to gather input on:

- New pedestrian/cycling ramp design on the west end of the new Pitt River Bridge
- Additional connection to pedestrian/cycling pathway east of the new Pitt River Bridge

3. SUMMARY OF DETAILED DESIGN CONSULTATION PROGRAM

3.1 Consultation Methodology

Consultation Approach

More than 20 cycling stakeholders were identified from lists of participants gathered during the pre-design consultation. An invitation to attend a small group stakeholder meeting was e-mailed to cycling stakeholders and these invitations were followed up with a phone call.
Discussion Guide and Feedback Form

A Discussion Guide and Feedback Form were developed that described the consultation program, the Pitt River Bridge and Mary Hill Interchange project and the consultation topics.

Small Group Meeting with Cycling Representatives

A small group meeting was organized with cycling representatives using an informal round-table format. Three representatives from the project team were present. In addition, the meeting had a facilitator and a note-taker. After introductions, the facilitator provided an overview of the consultation program, the purpose of the meeting and the agenda for the meeting. Gateway staff presented information on the project, including changes to the proposed cycling network near the bridge since the pre-design consultation and the consultation topics. Participants were given an opportunity to ask questions and provide comments. Time was provided at the end of the meeting for participants to complete feedback forms.

A Discussion Guide and feedback form were provided to all participants.

Web-based Materials

The Discussion Guide and Feedback Form were available on the Gateway website: www.gatewayprogram.bc.ca.

3.2 Participation

Six cycling representatives attended the small group stakeholder meeting.

The Gateway Program received seven e-mails, including a letter from the Vancouver Area Cycling Coalition.
4. SUMMARY OF INPUT

4.1 Key Themes from Small Group Stakeholder Meeting

The following is a summary of the key themes from the small group stakeholder meeting held on June 6, 2007:

- Participants asked the project to extend the west end of the multi-use pathway off the bridge, westbound, to allow for more distance for cyclists to slow down as they leave the bridge.

- Disappointment was expressed that it was not possible to keep cyclists moving eastbound on Lougheed Highway from the west of the bridge to directly access the two-meter shoulder on the south side of the bridge, although participants said they understood the safety concerns which excluded this movement.

- Preference was expressed for a direct connection from the end of the multi-use pathway ramp, westbound, to the cycling path on Lougheed Highway, westbound, to avoid crossing local streets.

4.2 Results from Feedback Forms and E-mail

**Question 1: New Pedestrian/Cycling Ramp Design on West End of Bridge**

*Access to the west end of the new bridge will be provided by a much shorter, more conventional ramp. The Gateway Program would like to know if the public has any feedback about this change in the ramp design.*

The following feedback was provided to question 1:

- Not perfect, but probably the best compromise.

- West end access from Lougheed is much more awkward for confident cyclists with 2 left-hand turns & at-grade crossings (1 or 2) -- West end access from Mary Hill for both confident and non-confident cyclists good -- Eastbound cyclists off bridges to Mary Hill as long as the section is pre-built to Kingsway -- good.

- Consider an additional connection west under Fremont and crossing/merge with Lougheed on ramp. This would reduce the number of “pedestrian” crossings of the roadway -- disappointed that eastbound on shoulder was not maintained and route will need to be well signed to avoid a cyclist getting caught and having to ride to Kingsway to cross.

- A spiral ramp is a very bad design for a cyclist, so the straight ramp is very welcome. Note that the ramp should not have sharp curves as cyclists can easily reach speeds of 40-50 km/hr on a downhill stretch. For those cyclists proceeding west on Lougheed, a bike lane must be provided along the highway. The TAC guidelines specify that a bi-directional shared use path should be 4m in width - 3.5m is too narrow.\(^3\)

- A shorter ramp to the north sidewalk is welcomed; however, connections to the road network are not detailed.

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3 The design of the bridge meets all TAC guidelines.
I’d suggest some changes to the western approaches and have attached a sketch showing these. The eastbound and westbound lanes of Highway #7B staying together, passing over the eastbound lane of Highway #7, and aligned with the central part of the bridge. A part of the present intersection of Highways #7 and #7B would remain and form part of the Port Coquitlam road network.  

Question 2: Additional Connection to the Pedestrian/Cycling Pathway Under the East End of the New Pitt River Bridge

It is possible to connect the paved pedestrian/cycling pathway that is under the east end of the bridge to the shoulder of Lougheed Highway (eastbound). Using the following scale, please indicate your level of agreement with adding this pedestrian/cycling connection, where 1 indicates “strongly agree” and 5 indicates “strongly disagree”. Please mark an “X” in the box to indicate your preference.

All participants supported the additional connection to the pedestrian/cycling pathway under the east end of the new Pitt River Bridge.

The following comments were provided to question 2:

- It is essential to encourage bicycles to replace as many cars as possible
- The East side of the bridge connections seem good. Remains important to accommodate the cyclists interested in speed & those interested in a quieter more comfortable route
- The East side looks great. Existing connections and routes are maintained and the new “loop under the bridge” has been added.
- Cyclists must be able to connect with Lougheed to/from both sides of the road.
- Direct connections are essential.

Question 3. Additional comments?

The following “additional comments” were provided:

- Big advance in dialog about cycling.
- A cyclist should be able to access the 2 metre-wide shoulder on the south side of the bridge from Lougheed Eastbound and Mary Hill Northbound. Cyclists must be able to proceed in both directions on Lougheed and in both directions on Mary Hill. In general, when cyclists have to go through hoops (literally!) to get over a bridge, there is something seriously wrong with the design. The cycling facility needs to be safe, efficient and direct. Cycling infrastructure needs to be integrated into the design, not added on later as an afterthought.
- It was encouraging that Wednesday evening’s feedback meeting at PoCo Best Western was friendly and relatively positive. For me, answering the feedback question there and then did not allow me time to “sleep on it”. Despite giant steps forward in the recognition of cyclists’ place on the road there is still an element of cyclists being inconvenienced for the benefit of motor traffic. Cyclists don’t pay tax and insurance? But we don’t get refunds on our motor vehicles (if we have them) for the occasions we ride our bikes. The excellent artwork on the front of the brochure could possibly have added an eastbound underpass for Route 7 bicycle traffic onto the south side of the bridge & its 2 metre-wide wide shoulder. I was

4 Full text and graphic is contained in the appendix to this Consultation Summary Report.
brought up properly in a cycling family and as a child I learnt to ride on the left side of the road & transposed that to the right upon emigration to Canada. I still have an inbred objection to riding against the traffic, whether or not on a separate path.

- I strongly support the addition of the additional connection to the pedestrian/cycling pathway under the east end of the new Pitt River Bridge.

- The proposal lacks direct cycling access on the west side of the Pitt River to and from Lougheed Highway and Mary Hill Bypass. Gateway Program staff had consulted extensively with the cycling community and other stakeholders, and had modified their initial plans to incorporate these cycling connections. Unaccountably, these connections now seem to have disappeared from the plans. The following are of particular concern: * Direct access from EB Lougheed to the EB bridge shoulder * Direct access from WB bridge to WB Mary Hill Bypass. Although not detailed, I assume that direct access from EB Mary Hill to EB Pitt River Bridge will be available on the ramp shoulder. The WB bridge to WB Lougheed connection shows two at-grade crossings. This appears circuitous and unnecessary. A design that incorporates a single ramp crossing should be achievable. Please let me know how input on the proposed cycling facilities will be incorporated into the design.

- In addition to the comments provided, two participants provided graphic images showing where they would like to see the design of the bridge ramp on the west end of the bridge to enhance cycling access to the south side of the bridge, eastbound.

### 4.3 Other Feedback

In addition to the feedback provided through the feedback forms and e-mail, a letter was received from the VACC. The following is the copy from the letter:

Gateway Program  
Suite 2400, 4710 Kingsway  
Burnaby, BC  
V5H 4M2

Cc: Alan Callander, A/Manager, Municipal Policy, Ministry of Transportation  
Kevin Falcon, Transportation Minister  
City of Port Coquitlam  
Pitt Meadows/Maple Ridge Bicycle Advisory Committee

After reviewing the latest design for the planned Pitt River Bridge and its new approaches, we must strongly register our disappointment with the design as presented. This design is a step backwards from the previous design approaches worked out in last year’s consultation with the cycling community. It makes cycling over the Pitt River Bridge very slow for the off-road cyclist, and positively dangerous for the more confident cyclists who legitimately can and do cycle on the Lougheed Highway and the Mary Hill Bypass. This design might be appropriate if the bridge were to be used for a freeway configuration where bicycles and pedestrians are already forbidden, but that is not the case here - both the Lougheed Highway and the Mary Hill Bypass are designated bike routes on the TransLink and Port Coquitlam bicycle network plans.

One of the expressed goals of the Pitt River Bridge and Mary Hill Interchange project is to improve safety, but this design places the emphasis on moving cars quickly at the expense of the safety and convenience of cyclists, who are legitimate users of the...
facilities. Specific problems are easy to spot. Cyclists eastbound on the Lougheed would need to cross two lanes of traffic moving at least 60 km/hr - virtually impossible at busy times of the day. They would find themselves in the middle of four lanes of fast moving traffic. Westbound cyclists from the bridge destined for Lougheed similarly need to cross two lanes of traffic to get to the through lanes.

While we are pleased that the previously proposed spiral ramp to the multi-use path on the north side of the bridge has been eliminated now that the bridge has a lower profile, this improvement does not make up for the fact that the access to the shoulder of the highway eastbound has been made virtually impossible.

This design gives the impression that cycling facilities have been added as an afterthought rather than incorporated into the main design to create a safe, efficient and direct route for cyclists. We believe there are alternative designs that could incorporate cycling infrastructure much more effectively. One example has been forwarded to you by Dan McGuire\(^5\) in online feedback. This example eliminates the need for a vehicular route for local traffic under the west end of the bridge and makes cyclist access to the eastbound bicycle lanes on the bridge accessible from both the Lougheed and the Mary Hill Bypass. This can even help with your newly added project goal to ‘enhance the shoreline and the aquatic and riparian environments’ by keeping motorized vehicles further from the river. We look forward to your comments on this proposal and to improvements that can be made the proposed design.

Sincerely,

John Seinen
Director and Chair Tri-Cities Committee
Vancouver Area Cycling Coalition

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\(^5\) The map provided by Mr. McGuire is available in the appendices to this report.
West End of New Pitt River Bridge and Mary Hill Interchange
East End of New Pitt River Bridge and Mary Hill Interchange