Summary

The Ministry of Transportation and Infrastructure (MoTI) has developed options for replacement of the Brunette Avenue Interchange on Highway 1. The plans include three options on which the Ministry will seek public comment in November and December 2016.

The City of New Westminster believes that the consideration of options must be based upon a thorough and objective analysis that reflects existing policies and plans and must be based upon genuine involvement by the public and other community interests in shaping the options and selecting the optimal course of action.

This position paper sets out the City's perspective on the planning that has been conducted to date and the options being offered for public comment. The City's objective is to contribute constructively to a process of discussion, involving New Westminster residents and other key interests, that will produce an outcome that will be satisfactory to all concerned.

The Brunette Avenue Interchange Project

The Ministry of Transportation and Infrastructure (MoTI) is planning to replace the Brunette Avenue interchange on Highway 1; it is one of the few interchanges not significantly upgraded as part of the Port Mann Highway 1 Improvement Project completed in 2015. MoTI has developed a set of “Conceptual Options” on which it wishes to consult the public in November and December 2016.

MoTI has drawn on earlier studies and input from Coquitlam and New Westminster staff as well as staff from other interested parties such as TransLink and the Royal Columbian Hospital. A discussion guide prepared for the consultation describes the need for the project, the benefits that could accrue and the project goals. It then presents three options and evaluates them using evaluation criteria roughly derived from the project goals. Following the consultation on the conceptual options, MoTI plans to refine the options to a preferred option through further technical work and consultation with First Nations, stakeholders and the municipalities for another public consultation in early 2017.

The City of New Westminster has given extensive consideration to the matters related to the Brunette Avenue Interchange through the development of its Master Transportation Plan (2014) and its proposal for an east-west tunnel to handle goods movement through the City. The City was involved in the United Boulevard Extension Project (2011), which failed to achieve agreement by the affected parties (see United Boulevard Extension Project: Lessons Learned – Appendix A). In addition, the City has committed to initiatives to support the redevelopment of the Royal Columbian Hospital as the tertiary care facility for the Fraser Health Region. Other emerging factors include the redevelopment plan for the former Brewers Distribution warehouse site for a mixed residential and commercial project known as Sapperton Green and the plan for a new JK-12 private school at 100 Braid Street.

The Brunette Avenue Interchange is not a City of New Westminster facility, and the City is not responsible for the planning of the replacement project or the approach to public consultation taken by the project sponsor (MoTI). It must be recognized, however, that the structure and functioning of the interchange has an impact on the daily lives of the City's residents and businesses and that the replacement project has implications for the City's planning and transportation objectives. The City therefore wishes to participate constructively in the interchange project and to encourage its residents to become informed and make their views known in order to lead to a successful project outcome.

Option A: Brunette and Rousseau
Applicable polices and plans  
(see Appendix B for detailed list of policies and plans)

The Brunette Interchange project is being advanced by MoTI as part of its 10-year transportation plan (B.C. On the Move, 2014). As part of that plan, the government committed to provide up to 20 new interchange improvements on highways in the Lower Mainland.

Of key importance are the provisions of the recently adopted New Westminster Master Transportation Plan, which includes the following policies:

• No net increase in regional through-traffic; and
• Long-term Goods Movement Strategy

The City has also entered into a Memorandum of Understanding with the Ministry of Transportation and Infrastructure and the Ministry of Health in which the provincial agencies commit to the redevelopment of the Royal Columbian Hospital and to planning the works for the Brunette interchange including the surrounding streets. In its turn, the City commits to collaborating with the Province and others on works at the Brunette interchange to ensure traffic management and safety are improved, particularly for emergency vehicles, and that congestion is reduced, and to plan for an east-west connection between Highway 1 and Highway 91. Consequently, “Royal Columbian Hospital Access” (general access) is one of the criteria suggested for evaluation of Brunette Interchange options as discussed below.

The need for a sound basis for decision making

It is clear from the review of the applicable policies and plans in Appendix B that the Brunette interchange project is being developed in a very complex environment. From the information available, it appears that appropriate consideration has not been given to this complexity. For example:

• The overall context for the project and its definition need to be set out more clearly;
• A clearer connection is needed between need for improvements, project goals, project benefits and evaluation criteria;
• The significance and complexity of the urban context within which the interchange is being planned is not meaningfully acknowledged;
• Some critical factors are not sufficiently explored or assessed in a broader regional context, including goods movement and alignment with the Regional Transportation Strategy;
• There has been no health impact assessment (see Appendix C of the various options, similar to that recently published for the Massey Tunnel replacement project (http://engage.gov.bc.ca/masseytunnel/files/2016/08/Health-Impact-Assessment.pdf), which is particularly important because each the options has different implications for the exposure of the residents of Sapperton and the vulnerable populations at the Royal Columbian Hospital to the harmful effects of emissions from heavy traffic; and
• Other critical factors are not even mentioned, including climate change and the potential impact on traffic forecasts of trends such as changes in vehicle technology and changing patterns in car ownership and use.

Equally important, there has been a very limited process of engagement. To be successful, the project must include a process in which interested parties, including the public, can participate in the critical review of goals and criteria and their application to the project options. As currently planned, the project runs the risk of being a repeat of the failed United Boulevard Extension process. For example, a clear explanation of traffic volumes and operations has not been provided. Several potential environmental implications for the various options are mentioned, including the impact on the Brunette River and the utilization of a part of the former Terra Nova Landfill, yet no information has been provided to permit public understanding of these implications.

At the highest level, there appears to be limited acknowledgement that this highway project is being proposed in the heart of an established and urbanized community. Sapperton and Maillardville are two of the most significant historic municipal centres in British Columbia, with residents and businesses that have existed for generations. Unlike a freeway interchange that might be built at the periphery of or distant from a community centre, the Brunette Interchange serves as a link between two tightly knit residential neighbourhoods.

There are established and strongly supported urban plans for these communities. These plans have been developed in conjunction with the Regional Growth Strategy and Regional Transportation Strategy, in that locations adjacent to SkyTrain nodes should be developed as dense, mixed-use (live, work, and play) and transit-oriented communities such that reliance
on automobiles as a primary transportation mode is reduced. Indeed, New Westminster, thanks to the foresight of the regional plan and the development of SkyTrain, has a transit mode share that leads the region, and some of the lowest automobile ownership rates in British Columbia. This has enabled the development of new transit-oriented mixed use developments and the re-claiming of walkable streets to connect them. The community of Maillardville will benefit from a stronger more multimodal local connection to the Braid Street Station and Sapperton, but this benefit cannot come at the cost of turning established livable neighbourhoods into high capacity thoroughfares for heavy trucks, or the single occupant vehicle commuters that arrive with all new “goods movement” routes. Such a scenario would be contrary to the model supported by the regional plans or by the official community plans of either Coquitlam or New Westminster.

Access to the Royal Columbian Hospital is improved with all three interchange options according to the Ministry’s assessment. It is the City’s understanding that the Ministry’s assessment is based on general access, although reference to access by emergency vehicles is explicitly cited in some parts of the consultation material which creates a confusing message. Access by emergency vehicles is a critical requirement of any road infrastructure project and it involves a number of factors including operational and traffic management measures as well as technological changes (such as signal pre-emption activated by emergency vehicles) to ensure emergency vehicles can reach the hospital in the shortest time possible. It is unusual for a project of this magnitude to emphasize the issue of emergency vehicles, or even travel time to the hospital, at this stage of planning, especially given that other significant factors such as planned major developments and recent OCP amendments have not been considered. Through the Memorandum of Understanding, the City and the provincial agencies are committed to collaboration in the planning, design and implementation of measures to ensure reliable access to the hospital, including for emergency vehicles.

**New Westminster’s comments on options presented**

New Westminster believes that the information provided falls short of what is required for an informed process of engagement by the public, local governments affected by the project and key stakeholders interests, including local businesses and the goods movement sector, which in turn is key to project success. The following presents the City’s comments on the information that has been made available.

Three options have been presented:

A. Brunette interchange with separate municipal connections;
B. Blue Mountain interchange with United Boulevard connection; and
C. Blue Mountain interchange with Braid Industrial Area connector.

All options appear to provide benefits (compared to today) to a greater or lesser degree. These include:

- Reduced travel times;
- Improved traffic safety;
- Improved access to the Braid Street SkyTrain station;
- Improved Royal Columbian Hospital general access;
- Improved walking and cycling connections between Maillardville and Sapperton; and
- Grade separation of rail crossings at Braid Street, Spruce Street and Cumberland Street.

Capital costs, as calculated at this preliminary stage of analysis, are within a range from $530 million to $620 million.

The following section provides more detailed comments on each option from the City of New Westminster’s perspective.

**Key Considerations**

(Note: Some recent Official Community Plan amendments authorizing new developments in Sapperton are not included.)
Option A

The main crossing of Highway 1 at the Brunette Avenue Interchange is separated into two corridors: a two lane corridor for local traffic crossing Highway 1, and a four lane corridor for traffic entering or exiting Highway 1.

Pros:
- Provides access to and from Highway 1 without stoplight traffic signals
- Little disruption in existing bus transit services
- Lowest estimated capital cost
- Potentially the greatest travel time savings

Cons:
- Increased traffic volume, including heavy truck traffic and air and noise pollution, on Brunette Avenue adjacent to Royal Columbian Hospital and historic Sapperton neighbourhood
- Impact of United Boulevard extension on established residential and commercial community in Sapperton, including significantly increased traffic volume on Rousseau Street, a residential street, and adjacent to the Urban Academy
- General access to Sapperton Green difficult, and in particular from Braid Street
- Significant property impacts in Coquitlam
- Precludes future east-west goods movement tunnel
- Severs direct access from Braid Street to Highway 1, thereby forcing traffic to reroute via Rousseau Street, which is a local road
Option B

This option is based on extending Blue Mountain Street over Highway 1 to United Boulevard. Intersection on the overpass would become the main access points to Highway 1, however some access to and from Brunette Avenue would be maintained.

Pros:

- Begins to separate regional traffic from intermunicipal traffic
- Separates heavy regional traffic from preferred pedestrian and cyclist routes between Mallairdville and Braid Station/Sapperton
- Does not preclude future east-west goods movement tunnel

Cons:

- Increased traffic volume, including heavy truck traffic and air and noise pollution, on Brunette Avenue adjacent to Royal Columbian Hospital and historic Sapperton neighbourhood
- Impact of United Boulevard extension on established residential and commercial community in Sapperton
- Bus route diversions from Lougheed Highway to Woolridge Street in Coquitlam
Option C

This option is similar to “B” and is centred on the “Blue Mountain Interchange” overpass. The direct connection between United Boulevard and Brunette Avenue is replaced by a two lane connection from Blue Mountain Street to Columbia Street via the Braid Industrial Area Connector (BIAC), and a tunnel under the rail lines and Brunette River.

Pros:

- Separates regional and intermunicipal traffic
- Enables potential future east-west goods movement tunnel
- Supports New Westminster Master Transportation Plan concept of providing a separate and more efficient route for regional travel through New Westminster so that City streets and the existing Brunette interchange better support local travel
- Significant reduction in motor vehicle volume on Brunette Avenue, moving diesel vehicle emissions away from Royal Columbian Hospital and Sapperton neighbourhood
- Improves road access to industrial land

Cons:

- May conflict with Braid area industries’ plans
- Highest estimated capital cost
- In future years, potential congestion at short tunnel portals, unless a regional solution such as an east-west goods movement tunnel is in place.
New Westminster’s preferred option is Option C: Blue Mountain Interchange with Braid Industrial Area Connector for the following reasons:

- Consistency with Master Transportation Plan policies and infrastructure concepts;
- Separation of regional traffic from important intermunicipal and local access needs.
- Consistency with the Memorandum of Understanding regarding the redevelopment of Royal Columbian Hospital, in which the City has committed to managing congestion and improving access (general and emergency access) to the hospital on local streets
- Reduced exposure of RCH, neighbourhood populations, and active transportation users (pedestrians and cyclists) to heavy traffic emissions and noise
- Improved access to industrial and waterfront areas in both New Westminster and Coquitlam
- Environmental challenges (impacts on Brunette River and use of the former Terra Nova Landfill) have not been thoroughly investigated and may be able to be mitigated

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Conclusion

The Brunette Avenue Interchange project has the potential to deliver significant benefits to the adjacent communities and to the region as a whole. Experience has shown, however, that planning for such a project must involve careful analysis conducted within the context of a whole range of community interests and policies, including the need not to preclude future regional initiatives. Even more important is the need for extensive involvement by the public and interested parties in framing the problem, understanding alternatives and informing the optimal course of action. It is the City of New Westminster’s view that such an approach is the only avenue that has the potential to produce results that will be seen as successful by all those involved.

At the end of the day, the planning and consultation for changes to the Brunette Avenue interchange should be seen as an ongoing process of dialogue in the search for an optimal solution that answers today’s needs within the broader context of the region and its communities. It is possible, for example, that a hybrid of options or a phased approach may prove to be the best way forward. The City of New Westminster is committed to working with its residents and the other parties in the search for an appropriate response to the issues raised by this challenging project.
Appendix A  
The United Boulevard Extension: Lessons Learned

For many years, transportation planning authorities at both the provincial and regional levels have postulated the need for additional east-west capacity to serve the Metro Vancouver region’s growing “Gateway” functions as a conduit for international trade moving through the facilities of the Port of Vancouver, the Vancouver International Airport and others. The “South Fraser Perimeter Road” (now Highway 17) provided such a connection on the south side of the Fraser River. The idea of a “North Fraser Perimeter Road” connecting Highway 1 to Highway 91, while similar in function, would face considerable complexity in implementation due to the existence of urban communities, extensive transportation and other infrastructure and multiple jurisdictions in this corridor compared to south of the river.

It was recognized that a particularly challenging component in such a potential system would be a connection between Coquitlam and New Westminster along the Braid Street/United Boulevard corridor. In 2007, a federal funding commitment of $65 million (then estimated to be 50 percent of the project cost excluding property acquisition) was made, conditional on the project being completed by March 2014. At that time, the City of New Westminster approved the project subject to a number of conditions related to required commitments by TransLink to construct, maintain and/or fund necessary ancillary works. Furthermore, approval of the project was subject to the provision of an end-to-end solution for the connection between highways that minimized community impacts and demonstrated a net benefit to the City. The project was included in TransLink’s 2011 supplementary capital plan. The benefits were considered to be high and included:

- Improvements to the regional trucking network;
- Improved access to “underdeveloped” industrial areas;
- Relief of residential streets from heavy traffic; and
- A new bikeway segment connecting two existing facilities.

These benefits, along with significant but time-limited federal funding, made the project seem a sure win. But the devil, as is often the case, was in the details. TransLink developed a concept for the project without engagement with the affected municipal councils and presented it to the public. It would have resulted in a significant increase in traffic into an already-congested area in New Westminster without any attempt at mitigation, and it would have involved massive structures that would have brought significant visual and noise intrusion to the area. The proposal was silent on the conditions attached by City Council to its initial approval.
What happened next was described, with significant understatement, in a staff report to New Westminster City Council on November 29, 2010:

Recently, TransLink hosted a stakeholder consultation meeting and public open house in New Westminster to obtain preliminary feedback on the United Boulevard segment of the North Fraser Perimeter Road. At the open house considerable public concern was expressed regarding the various interchange options presented by TransLink, the quality and content of information materials, and the overall format of the open house meeting.

City Council directed that the presentation of options be significantly limited, that certain highly objectionable parts of the proposal be eliminated and that materials for any future consultation events be approved by City staff.

Although further workshops were held in attempt to find a way forward, the project never recovered from the initial community reaction. In the spring of 2011, TransLink abandoned not only the United Boulevard Extension project but all work on the proposed North Fraser Perimeter Road.

Lessons learned?

- Don’t assume that the regional logic of a project (including external funding) will be persuasive to those at the local level;
- The context of highway infrastructure in historic residential neighbourhoods is of paramount concern;
- Spot improvements that do not address broader corridor issues are insufficient;
- Provide opportunities for early and candid engagement with the community in the formulation of proposals; and
- Engage local government as partners.
Appendix B
Polices and plans applicable to the Brunette Avenue Interchange Project

Ministry of Transportation and Infrastructure
BC On The Move
• Improving highway capacity and reliability
  • Work with communities to plan and deliver highway interchange and overpass projects throughout the Lower Mainland

TransLink
Regional Transportation Strategy
• By 2040, a transportation system that:
  • Makes it possible to make half of all trips by walking, cycling and transit; and
  • Makes it possible to reduce the distances people drive by one-third
• Key actions:
  • Provide additional capacity where needed to improve travel-time reliability on key goods movement corridors in a way that does not increase general purpose traffic;
  • Find and implement a long-term solution for the Pattullo Bridge; and
  • Find and implement a long-term solution to address goods movement along the north shore of the Fraser River.

Draft regional goods movement strategy
Goal 1: More efficient and reliable goods movement
• Reduce the share of kilometers that commercial vehicles drive in congested conditions; and
• Reduce variability in daytime travel times on the Regional Truck Route Network.

Goal 2: Cleaner, safer and quieter goods movement
• Reduce collisions that cause injury or fatality involving commercial vehicles;
• Reduce goods movement related noise and vibrations experienced by residents; and
• Reduce Criteria Air Contaminant (CAC) and Greenhouse Gas (GHG) emissions from goods movement vehicles.

Metro Vancouver
Metro Vancouver 2040: Shaping our Future
• Encourage land use and transportation infrastructure that reduce energy consumption and greenhouse gas emissions, and improve air quality.
• Coordinate land use and transportation to encourage transit, multiple occupancy vehicles, cycling and walking.
• Coordinate land use and transportation to support the safe and efficient movement of vehicles for passengers, goods and services.
• Support the development of compact mixed-use transit-oriented development at SkyTrain hubs as a strategy to reduce the impacts of and need for expanded auto-oriented road infrastructure.

Greater Vancouver Gateway Council
Vision for the Future of the Greater Vancouver Gateway
• A Major Commercial Transportation System that provides a continuous network for efficient commercial vehicle operations in the region

City of Coquitlam
Official Community Plan
• Continue to cooperate with the Province, TransLink and other municipalities to enhance connectivity and consistency of the Major Road Network, while balancing community needs
• Continue to work with the Ministry of Transportation and Infrastructure and TransLink to explore suitable transportation infrastructure options for upgrading the Brunette Interchange and the Brunette-Lougheed corridor.
Strategic Transportation Plan

- Goal 5: Strategic Transportation Choices. Prioritize walking, cycling, transit, and other sustainable modes of transportation.
- Goal 6: Meeting Changing Community Service and Infrastructure Needs. Manage the transportation system efficiently as the community evolves.

City of New Westminster
Official Community Plan

- Support the goals of the Regional Growth Strategy in building compact mixed-use transit oriented communities adjacent to transit hubs.
- Provide appropriate levels of service for interregional truck and vehicular traffic through the City on selected roadways.
- Strive to minimize the adverse effects of transportation facilities and services on residents, businesses, employees, students, visitors and others within the City.

Master Transportation Plan

- No net increase in regional through-traffic
- Pursue an east-west goods movement tunnel connecting Highway 1 with Highway 91A

Memorandum of Understanding (New Westminster- Regional Transportation) (Ministry of Transportation and Infrastructure, Ministry of Health and City of New Westminster)

- The Province commits to:
  - Phased re-developing of the Royal Columbian Hospital to help meet the future needs of the region and province, including identification of improvement required on local road networks to facilitate access to the hospital;
  - Planning for future works at the Brunette interchange to support the regional and provincial needs. The Brunette interchange will include consideration of the adjacent local road network (including Braid Street) in the City of New Westminster to ensure that traffic mobility and safety performance is improved and congestion is reduced at this key portal to the city...

- The City commits to:
  - Collaborating with the Province, TransLink, City of Coquitlam and other partners for future works at the Brunette interchange and vicinity with the goal of ensuring traffic management and safety is improved, particularly for emergency vehicles and that congestion is reduced;
  - Working with the Province, TransLink and other regional partners on planning for the future and implementing an improved east-west connection between Highway 1 and Highway 91A to facilitate increased safety, accessibility, and to reduce impacts of congestion on Royal Columbian Hospital.
There is a growing body of evidence about the harmful effects of pollution from road transportation facilities on the health of adjacent populations.

The US Environmental Protection Agency has documented these concerns ([https://www3.epa.gov/otaq/nearroadway.htm](https://www3.epa.gov/otaq/nearroadway.htm)), noting that:

- People who live, work or attend school near major roads appear to have an increased incidence and severity of health problems associated with air pollution exposures related to roadway traffic including higher rates of asthma onset and aggravation, cardiovascular disease, impaired lung development in children, pre-term and low-birthweight infants, childhood leukemia, and premature death.

- Research findings indicate that roadways generally influence air quality within a few hundred meters – about 500-600 feet downwind from the vicinity of heavily traveled roadways or along corridors with significant trucking traffic or rail activities.

- Children, older adults, people with preexisting cardiopulmonary disease, and people of low socioeconomic status are among those at higher risk for health impacts from air pollution near roadways.

Health, transportation and regulatory authorities in British Columbia have responded to this information by developing guidance for public policy makers on the location and desirable characteristics of infrastructure and land development in relation to human populations. In 2013, a group of sponsors including the Ministry of Transportation and Infrastructure, the regional health authorities and Metro Vancouver sponsored a project to produce Health Impact Assessment of Transportation and Land Use Facilities: Guidebook ([http://www.metrovancouver.org/services/regional-planning/PlanningPublications/HIA-Guidebook.pdf](http://www.metrovancouver.org/services/regional-planning/PlanningPublications/HIA-Guidebook.pdf)) and Health Impact Assessment of Transportation and Land Use Facilities: Toolkit ([http://www.metrovancouver.org/services/regional-planning/PlanningPublications/HIA-Toolkit.pdf](http://www.metrovancouver.org/services/regional-planning/PlanningPublications/HIA-Toolkit.pdf)). These materials provide practical guidance on how to take a structured approach to evaluating the potential impacts of a transportation or land development project at the planning stage. They offer the opportunity to undertake assessments at varying levels of complexity, from short-term “desk-top” assessments lasting a few hours to full-fledge impact assessments such as those recently completed for the Massey Tunnel Replacement Project ([http://engage.gov.bc.ca/masseytunnel/files/2016/08/Health-Impact-Assessment.pdf](http://engage.gov.bc.ca/masseytunnel/files/2016/08/Health-Impact-Assessment.pdf)) and the Georgia and Dunsmuir Viaduct Replacement Project (Health Impact Assessment – City of Vancouver Georgia and Dunsmuir Viaduct Replacement).

The provincial Ministry of Environment has also produced environmental guidelines for urban and rural land development ([Develop with Care 2014: Environmental Guidelines for Urban and Rural Land Development in British Columbia](https://www3.epa.gov/otaq/nearroadway.htm)). A companion piece on air quality ([Supporting Information - Air Quality](https://www3.epa.gov/otaq/nearroadway.htm)) stresses the importance of physical separations of even several hundred meters between high-volume traffic facilities and adjacent populations.