



Governance and Priorities Committee Report

For the Meeting of December 3, 2015

To: Governance and Priorities Committee **Date:** November 26, 2015
From: Fraser Work, Director, Engineering and Public Works
Subject: Downtown Bus Terminal Proposal – 700 block Douglas Street

RECOMMENDATION

That Council:

1. Endorse the BC Transit proposal to create a bus terminal/transportation precinct on the east side of the 700 block Douglas Street,
2. Request BC Transit and the commercial bus operators consult with stakeholders and citizens, including adjacent property owners and businesses, to solicit feedback on the details of the proposal,
3. Direct staff to work with BC Transit to implement identified on-street improvements prior to April 30, 2016,
4. Direct staff to negotiate a lease with the commercial bus operators for curb space on the 700 block of Douglas Street, consistent with the 2011 Guiding Principles for the Use of Public Space.

EXECUTIVE SUMMARY

The tenants of the existing downtown bus terminal at the corner of Douglas Street and Belleville Street are required to find an alternate location for their operations by May 2016. In cooperation with the commercial bus operators, led by Wilsons Transportation Ltd., BC Transit put forward two options for a new downtown bus terminal/transportation precinct on the 700 block Douglas Street. City and BC Transit staff are recommending implementing Option 2.

Proposed improvements include:

1. creating a shared on-street bus terminal in the south half of the 700 block Douglas Street,
2. consolidating existing BC Transit bus zones to a new bus zone on the north half of the 700 block Douglas Street,
3. creating a new BC Transit bus zone on the east side of Government Street between Superior Street and Belleville Street,
4. reconstructing the northwest corner at the Douglas Street/Superior Street intersection, and making minor road marking changes at several other area intersections, to facilitate transit re-routing,
5. leasing space in the Crystal Garden, for the commercial bus operators to provide space for ticket sales, passenger waiting, washrooms, and luggage storage.

BC Transit would be responsible for all costs associated with the proposed on-street improvements, while the commercial bus operators would be responsible for leasing and tenant improvements at Crystal Garden, and annual costs for the commercial use of public space (exclusive curb space for the commercial bus zone).

PURPOSE

The purpose of this report is to provide Council recommendations on the BC Transit proposal to create a Downtown Bus Terminal on Douglas Street between Belleville Street and Humboldt Street.

BACKGROUND

The tenants of the existing downtown bus terminal at the corner of Douglas Street and Belleville Street have been advised they are required to find an alternate location for their operations by May 2016. BC Transit had initially approached the City in February 2015, indicating the affected commercial bus operators were developing options for a new on-street bus terminal or transportation precinct zone in the downtown area. Over the following several months, City staff met with BC Transit representatives, the commercial bus operators, and BC Transit's transportation consultant to review initial proposals and discuss possible alternatives.

In September 2015, BC Transit put forward a report (see attached) recommending the creation of a downtown bus terminal/transportation precinct on the east side of the 700 block Douglas Street, which would support the commercial bus operators, as well as address Victoria Regional Transit system needs.

The two options in the report proposed identical changes in the 700 block Douglas Street, with the commercial bus operators in the south half of the block, and BC Transit located in the north half of the block. Option 1 proposed a new BC Transit zone on the south side of the 700 block Humboldt Street, while Option 2 proposed a new BC Transit zone on the east side of the 600 block Government Street, to address transit re-routing. After considering transit impacts to the adjacent properties, staff and BC Transit are recommending implementing Option 2.

Proposed improvements include:

1. creating a shared on-street bus terminal in the south half of the 700 block Douglas Street,
2. relocating/consolidating existing BC Transit bus zones to a new bus zone on the north half of the 700 block Douglas Street,
3. creating a new BC Transit bus zone on the east side of Government Street between Superior Street and Belleville Street,
4. reconstructing the northwest corner at the Douglas Street/Superior Street intersection, and making minor road marking changes at several other area intersections, to facilitate transit re-routing,
5. leasing space in the northerly end of the Crystal Garden, for the commercial bus operators to provide space for ticket sales, passenger waiting, washrooms, and luggage storage.

ISSUES & ANALYSIS

Currently, the south half of the block (in front of the Crystal Garden) is used by BC Transit, and the north half of the block is street parking for the general public. The proposal is for the south half of the block to be used by the commercial bus operators, while the north half of the block would be used by BC Transit.

1. Proposed terminal for commercial bus operators – south half 700 block Douglas Street (Crystal Garden frontage)

Operations:

- Taxis, and pick-up/drop-off activities would have to be accommodated on-street, as there is minimal on-site parking available. Relocating the existing mid-block loading space to the south end of the block



(closest to Belleville Street) would serve the bus terminal needs, and better serve existing delivery/passenger pick-up needs for existing Crystal Garden tenants. People could also use the existing loading zone on the west side of the block, in front of the Victoria Conference Centre, for passenger pick-up and drop-off.

- Space for bus movements – the commercial bus operators have indicated they require space for three 45' buses, and that the design accommodate independent arrival and departure. There is sufficient on-street space to achieve this. In addition to larger buses, the proposed zone would also accommodate 27' airport shuttle buses, as well as hotel precinct shuttle buses and vans. The shuttle service to hotels would reduce the number of larger buses travelling through downtown and the northern portion of the James Bay neighbourhood.
- Fleet – no specific information has been provided by the commercial bus operators, but staff recommend setting City expectations for emissions/age of fleet, consistent with the 2011 Guiding Principles for the Use of Public Space (Principle 12 – Use of public space must not damage public property or the environment), and with any City requirements imposed on similar operators provided on-street space.
- Exclusive use of street space - The Guiding Principles for the Use of Public Space also support charging the commercial bus operators for the exclusive use of on-street space (Principles 2 – pursue opportunities to raise revenue through the use of public space, and Principle 3 – charge fair market value and full cost recovery for the commercial use of public space). The annual rate charged should be consistent with the rate used to determine what sightseeing companies are charged for exclusive use of curb space on Government Street and on Belleville Street.

On-site improvements:

- Passenger shelters – the commercial bus operators are proposing to provide on-site shelters for passengers (with one large shelter, or two smaller shelters). Installing structures on this property will trigger a Heritage Alteration Permit.
- Benches – there are several existing benches adjacent the Crystal Garden building – the commercial bus operators may consider installing additional benches, to accommodate waiting passengers.



The commercial bus operators would also like to remove one boulevard tree at the north end of the Crystal Garden property, to create more space for passengers, and a passenger shelter. Staff recommend proposed passenger shelters be located to retain the boulevard trees on this frontage.

2. Proposed BC Transit zone – north half 700 block Douglas Street

BC Transit is proposing to decommission the existing east side transit zones in the 700 block and 800 blocks of Douglas Street, and consolidate them into one zone in the north half of the 700 block Douglas Street. On-street curb space in the 800 block Douglas Street (between Humboldt Street and Courtney Street) would be made available to the general public.

Proposed work in the north half of the 700 block Douglas Street includes:

- Widening the existing sidewalk to the property line, to provide queuing space for transit customers, and a bus shelter.
- Replacing three boulevard trees – to provide sufficient space for BC Transit passenger needs, BC Transit is requesting three boulevard trees be removed from this portion of the block. Parks staff recommends that an equivalent number of replacement trees, with enhanced growing environments, be provided in the immediate area. Preferred replacement locations would be determined at the design stage, to the satisfaction of the Director of Parks.
- Relocating the existing Pattison Outdoor bus shelter - relocating the existing Pattison Outdoor shelter from the Crystal Garden frontage to the northerly half of the 700 block Douglas Street would be recommended.



BC Transit has expressed interest in 'branding' the Douglas Street corridor with a consistent type of shelter, from Belleville Street to Saanich Road; however, BC Transit staff have not formally proposed a preferred shelter design. Currently, Pattison Outdoor installs and maintains the majority of shelters on the Douglas Street corridor (bus shelters with advertising panels). Given the anticipated length of time required for consultation and engagement, selecting a suitable design for the Douglas Street corridor should be addressed separately.

3. East side 600 block Government Street:

BC Transit is requesting a new bus zone be created mid-block on the east side of the 600 block of Government Street (between Superior Street and Belleville Street) - currently, the area is used as parking for the general public.

4. Douglas Street/Superior Street intersection, other minor road marking changes:

As part of the improvement to transit service, BC Transit is proposing to reroute several bus routes through the Douglas/Superior intersection. To accommodate southbound transit right turns associated with the rerouting, the northwest corner of the intersection will have to be reconstructed. Staff have reviewed the preliminary design, and have no objection to the proposed realignment at the intersection.



In addition to the proposed work at the Douglas/Superior intersection, minor road marking changes are required at several other area intersections, to facilitate transit rerouting. These include moving stop bar locations at the Douglas/Superior, Government/Superior, and Belleville/Government intersections to facilitate right-turn bus movements.

Overall, the proposed transit rerouting may address ongoing resident concerns about transit activity in the Douglas/Toronto/Avalon/Huntingdon area.

5. Crystal Garden - Tenant Improvements/ Possible Exterior Building Changes:

The commercial bus operators are proposing to lease space in the northerly end of the Crystal Garden building, and provide space for ticket sales, passenger waiting, washrooms, and luggage storage.

Zoning:

- Existing zoning of the Crystal Garden site permits the proposed use within the building - no rezoning is required.
- Public consultation/feedback on the impact of creating an on-street bus terminal in front of a heritage building would be appropriate. Staff recommend BC Transit and the commercial bus operators consult with stakeholders and citizens, including adjacent property owners and businesses, to solicit feedback on the proposal.

Other proposed improvements:

- Digital message sign – the commercial bus operators wish to have a digital message sign located outside, so passengers could receive real-time information regarding bus arrivals/departures. Locating this sign on the existing building would trigger a Heritage Alteration Permit. Alternately, a sign could be accommodated in the existing on-site sign structure, regulated via the Sign Bylaw.
- Awnings – providing awnings on the northerly end of the building, above the entrance and windows of the proposed terminal space, may trigger a Heritage Alteration Permit. The commercial bus operators have advised they may defer this, and consider the awnings after the terminal is operational.



Costs

BC Transit will be responsible for the construction costs for all on-street changes, including civil design costs. A Class D estimate for all on-street work in the 700 block of Douglas Street (new bus terminal zone, consolidated transit zone for BC Transit in the north half of the block, including sidewalk work, and tree removal and replacement) is \$60,000. A \$50,000 Class D estimate is noted in the proposal for work at the Douglas/Superior intersection. Minor works at the remaining intersections, bus zone curb painting/sign installation, and relocation of parking posts/pay stations as required, are estimated at \$10,000. Class A estimates will be developed following detailed design, to provide certainty for BC Transit prior to proceeding with construction.

All costs associated with the Crystal Garden site (tenant and on-site improvements), will be the responsibility of the commercial bus operators. Staff recommend the commercial bus operators be responsible for any annual leasing costs for on-street curb space.

Timing:

The commercial bus operators require new terminal space prior to May 2016. If approved, staff would work with BC Transit and their design team to finalize construction drawings for the on-street improvements, and schedule on-street construction work to be complete by the end of April 2016. Priority on-street work includes all on-street work in the 700 block of Douglas Street (new bus terminal zone, consolidated transit zone for BC Transit in the north half of the block). If needed, proposed changes at the Douglas/Superior intersection, along with the other minor changes at area intersections to facilitate transit re-routing, could be completed after the new terminal opens.

IMPACTS

2015 – 2018 Strategic Plan

Objective 9: Complete a Multi-Modal and Active Transportation Network – 2016 action items include supporting replacement of the bus terminal.

Impacts to 2015 – 2018 Financial Plan

The proposal is an opportunity to provide an ongoing positive impact to the City's Financial Plan. All costs associated with the proposal will be the responsibility of BC Transit, while creating on-street bus terminal space for a commercial operator provides an opportunity to raise revenue by charging fair market value and full cost recovery for the commercial use of public space.

Official Community Plan Consistency Statement

Section 7: Transportation and Mobility - 7(f) "That new and upgraded intercity bus and inter-regional rail terminals are located in close proximity to rapid and frequent transit stations in the Downtown Core Area."

CONCLUSIONS


The proposal to construct a new downtown bus terminal/transportation precinct on the 700 block Douglas Street is consistent with the City's Official Community Plan and the 2015-2018 Strategic Plan, and provides an opportunity to positively impact the City's Financial Plan.

Staff recommend Council endorse Option 2 described in the September 2015 BC Transit proposal, request BC Transit and the commercial bus operators consult with stakeholders and citizens, including adjacent property owners and businesses, to solicit feedback on the details of the proposal, direct staff to work with BC Transit to implement identified on-street improvements prior to April 30, 2016, and negotiate a lease with the commercial bus operators for curb space on the 700 block of Douglas Street, consistent with the 2011 Guiding Principles for the Use of Public Space.


Respectfully submitted,



Brad Dellebuur, Manager
Transportation


for: Fraser Work, Director
Engineering and Public Works

Report accepted and recommended by the City Manager:


Date: November 27, 2015

Attachment:
BC Transit September 2015 report

VICTORIA REGIONAL TRANSIT SYSTEM

Downtown Bus Terminal

1 INTRODUCTION

The Victoria Regional Transit System Transit Future Plan identified the need for an expanded downtown terminal to serve the existing network and to support further transit network changes in James Bay to better match transit service levels to demand. A new downtown bus terminal would also complement the work already completed on the Douglas Street shared bus and bike priority lanes, supporting the development of Douglas Street as future rapid transit corridor.

The land owner of the Downtown Victoria Commercial Bus Terminal is planning to redevelop the property to accommodate a new residential development. This has created the need for the commercial bus operators to explore alternate coach bus layby areas in the vicinity of the Crystal Gardens site. A downtown storefront is required for ticket sales and parcel drop off and pick up. A small waiting area and curbside pickup and drop-off area for passengers are required for private carrier operations.

These needs present a joint opportunity to establish a transportation hub or precinct in the lower Douglas Street area to support commercial bus operators and Victoria Regional Transit System needs. A replacement operation in the immediate area is preferred, as it is close to intermodal transfers and major tourist attractions.

BC Transit is preparing to invest in the development of a Downtown Bus Terminal along Douglas Street, between Bellville Street and Humboldt Street. The project is part of a larger strategy to improve transit on the corridor between Downtown Victoria and Highway 1.

This memo-report will provide context for the improvements and recommend an improvement option.

2 BACKGROUND / CONTEXT

Douglas Street is Victoria's primary transit corridor. Over time, steps have been taken to develop Douglas Street as a rapid transit corridor with key linkages to the Westshore and the Peninsula. The corridor serves most bus routes travelling in and out of Downtown. Eventually, Douglas Street will support the region's Light Rail Transit (LRT) line connecting Downtown Victoria to Saanich, Colwood and Langford, as displayed in Figure 1.

Planning for future rapid transit was completed as part of the Victoria Regional Rapid Transit Project. Through the planning process, a number of terminal options were considered in the Belleville and lower Douglas area. No preferred location was determined, although BC Transit preferred a terminal in the Crystal Gardens area for network efficiency reasons.

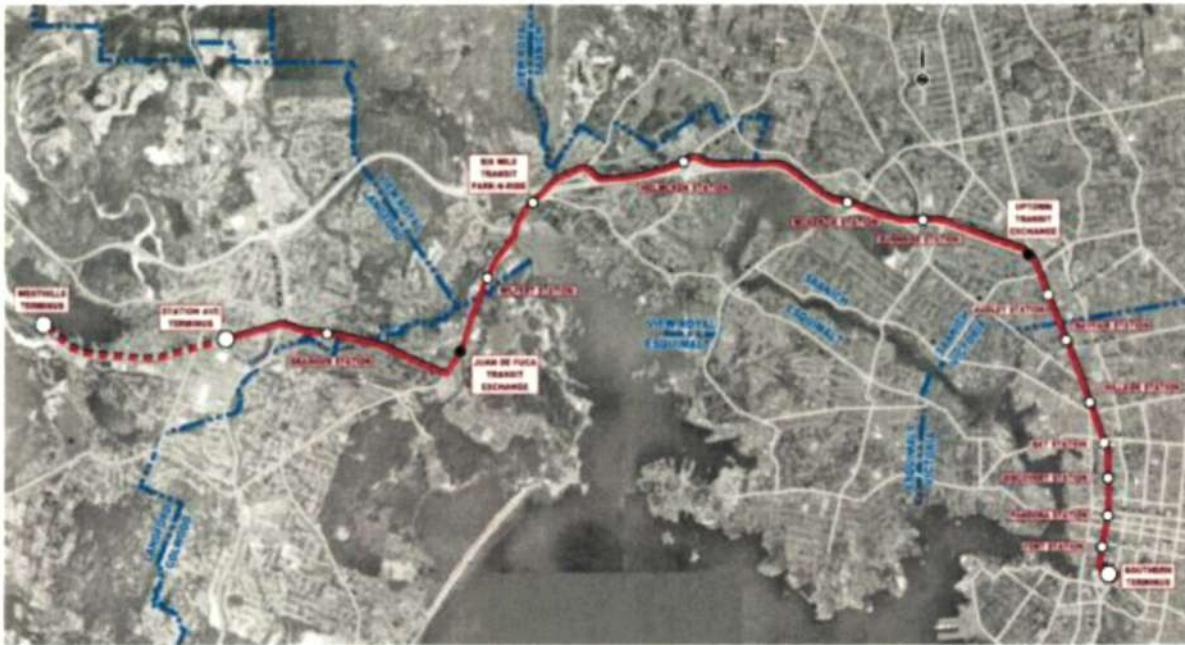


Figure 1 – Victoria Rapid Transit Approved Alignment

The Douglas Street corridor is classified as an arterial road within the city limits south of Tolmie Avenue. To the north, Douglas Street transitions into Highway 1, the western gateway to Victoria from other parts of the region and Vancouver Island. The following discussion summarizes the physical and travel characteristics of the Douglas Street corridor and provides context for the suite of transit improvements being implemented.

- **South of Hillside Avenue, BC Transit operates anywhere from 35 to 80 buses per hour in the peak direction during peak hours.** With planned growth and the transit priority lanes along Douglas Street, bus services are expected to increase to as many as 100 buses per hour during the peak within the next 10 years. To deliver reliable and attractive transit for customers, transit priority treatments are generally required along corridors serving 25 to 30 buses per hour. Along more frequent corridors such as Douglas Street, transit-only facilities – bus only lanes – are typically required to maintain and increase services as well as ridership.
- **Commercial operators offer services out of the downtown terminal.** The depot serves passengers travelling to and from Vancouver and Whistler via Pacific Coach, as well as those taking sightseeing tours and heading to the airport. Greyhound buses travel from the depot as far north as Port Hardy. Three companies use the depot — Pacific Coach, Greyhound and Wilson's Transportation. The bus depot opened in 1961, relocating from 814 Wharf St. The property is leased on a monthly basis to Greyhound Canada, which acts as Pacific Coach's on-site agent. Wilson's Transportation Ltd. leases space at the current depot and operates Grey Line Sightseeing double-decker buses and an airport service. Wilson's carries about 200,000 passengers between Victoria and Vancouver each year.

Figure 2 shows the proximity of the Downtown Hub to the conference center and all other major modes of transportation.

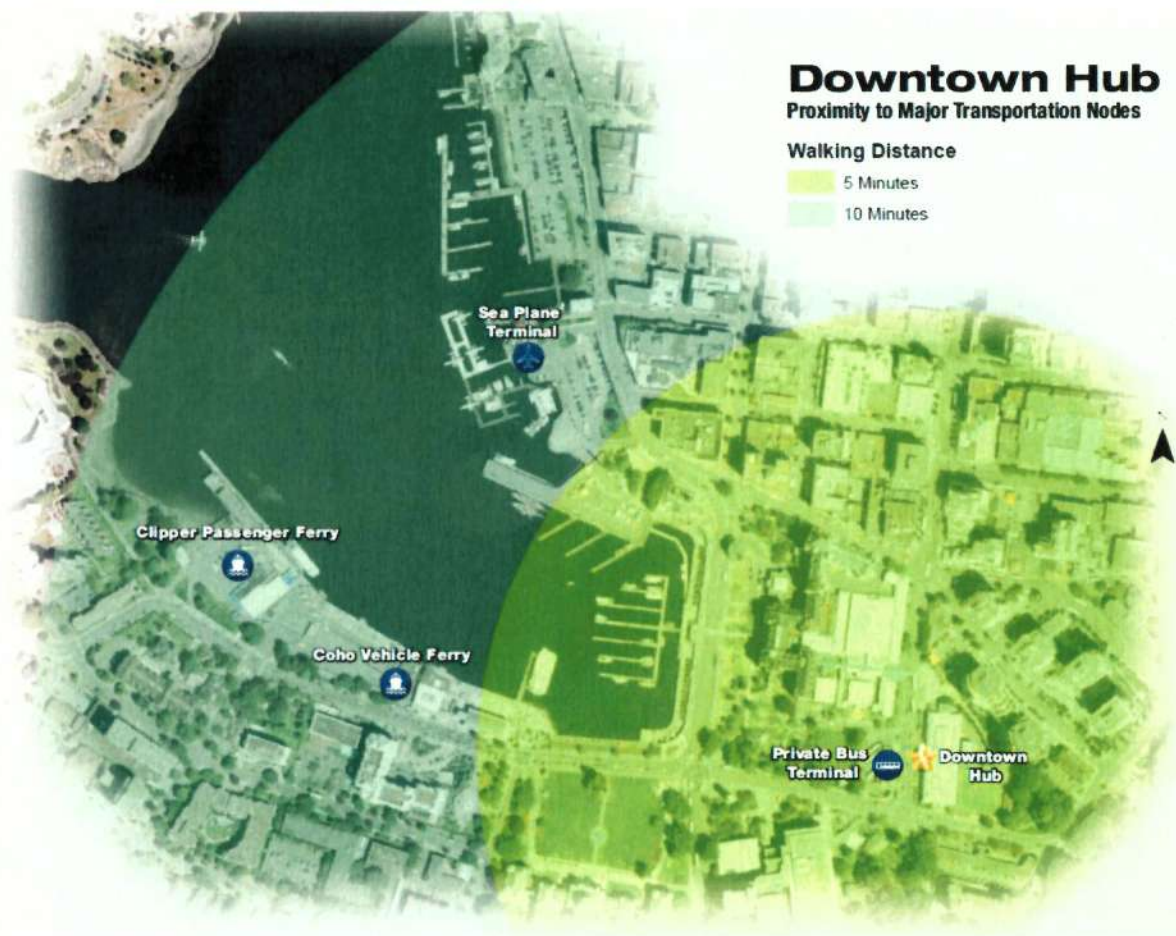


Figure 2 – Victoria's Downtown HUB

In recognition of the above, BC Transit, City of Victoria, and Adept Transportation Solutions have prepared preliminary plans for a shared on-street bus terminal on Douglas Street fronting.

3 EXISTING CONFIGURATION

Existing Bus Zone

The bus zone at Crystal Gardens (Figure 3) is a curbside bus zone on the northbound side of Douglas Street, north of Belleville Street. The zone includes red painted curb 60m in length and has one bus shelter, two benches, one garbage receptacle and a bus ID post with route signs and an on-street schedule.

The bus zone functions as a standard bus stop. Buses stop to board and alight passengers and, as this zone is not a terminal or timing point, leave as soon as passenger movements are completed. There are 619 boardings and 308 alightings at the existing stop on an average weekday, for a total of 926 users. Bus service is frequent, with anywhere from 35 to 80 buses serving the bus stop per hour.



Figure 3 – Existing Frontage and Crosswalk

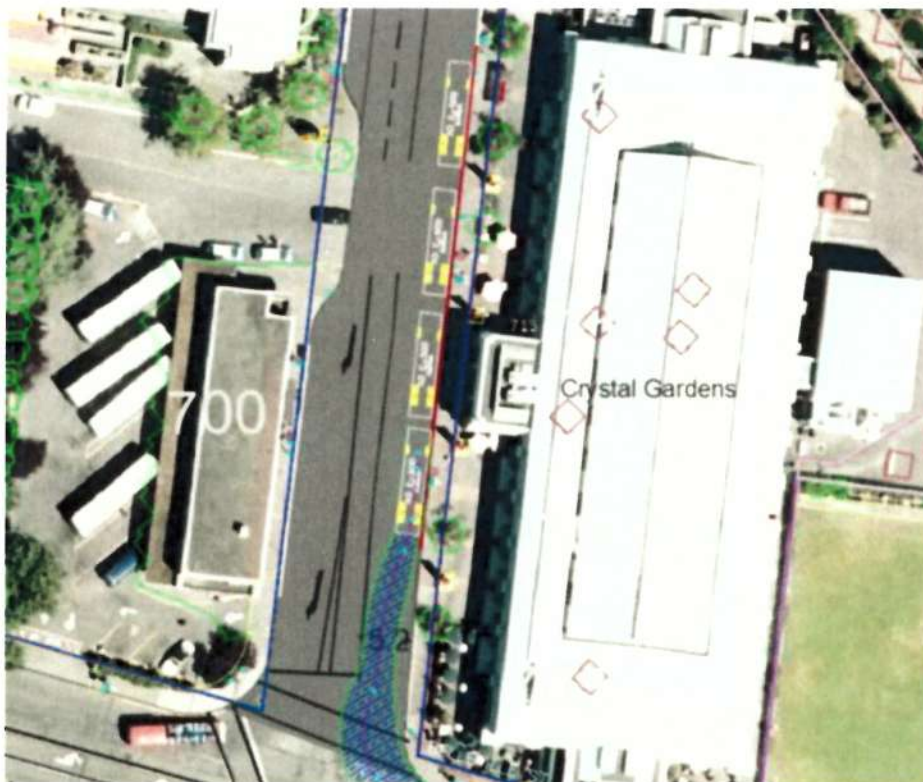


Figure 4 – Existing BC Transit Area

Figure 4 shows an existing transit bus stop fronting the Crystal Gardens building. This stop is approximately 60m in length and can accommodate up to four stacked transit buses. There is a single bus shelter near the north end of the bus stop zone.

Existing Transit Terminals – Legislature and Fairfield Terminals

The Legislature Terminal is comprised of two sections, as illustrated in Figure 5. There are four sawtooth platforms on southbound Government Street (north of Superior Street) and a curbside layover area on southbound Government Street (south of Belleville Street). The layover area (Figure 6) includes a section of red painted curb 85m in length and a section of yellow painted curb 30m in length (this latter section was recently changed to yellow curb from red).



Figure 5 – Legislature Terminal on Government Street



Figure 6 – Legislature Terminal Layover Area Fully Occupied

Nine bus routes are scheduled to operate through the Legislature terminal. The terminal is at capacity and there is no option for expansion. Buses arrive at the terminal via southbound Douglas Street to westbound Belleville Street, and depart via eastbound Superior Street to northbound Douglas Street. In the afternoon, the terminal is also used by suburban express

buses that lay over at the facility before entering service. Although suburban express buses may arrive from any direction, they all enter service via eastbound Superior Street to northbound Douglas Street.

The Fairfield Terminal (Figure 7) is located on-street at Fairfield Road between Douglas Street and Blanshard Street and has the following amenities:

- Curb space for five buses facing eastbound
- Curb space for three buses facing westbound
- Washroom facility for operators.



Figure 7 – Fairfield Terminal

4 TERMINAL IMPROVEMENT REQUIREMENTS

BC Transit and the commercial operators are proposing the creation of a "Transportation Precinct" in the lower Douglas and Humboldt area.

Transit terminals are typically located within community activity centres, such as downtown, village centres, and shopping malls, to reinforce the relationship with land use patterns. If properly planned and designed, transit terminals can become effective multi-modal exchanges and pedestrian-oriented sites. An effective transit terminal should provide weather protection for customers, seating, transit route and schedule information, lighting, bicycle parking and other amenities. With the use of proper streetscaping, the terminal can also enhance and support the local community and economy.

BC Transit Terminal and Functional Requirements

BC Transit has worked with the private commercial operators to determine the following functional requirements for a new terminal:

- It should be located in or close to the Legislative precinct, to maintain service to this important destination. Increased route length should be avoided to maximize service effectiveness.
- The terminal (layover and pick up areas) should provide capacity for 10 to 12 public transit buses and 3 private coach buses to accommodate existing service levels. Longer-term room is likely required for an additional 4 to 6 buses.
- Impacts to adjacent uses should be minimized.
- The passenger waiting (i.e., pick up) area should be located on Douglas Street and should be designed to a Rapidbus Station standard.
- Accessibility to all areas of the terminal for persons with disabilities.
- Passenger amenities should include the following:
 - Premium transit shelters
 - Distinct boarding area/platform
 - Bike storage
 - Customer wayfinding information
 - Universally accessible
 - Space for future off-board fare payment and future real-time schedule information.
- All platforms should accommodate standard 12m buses and 12m double decker buses, and should be able to accommodate 18m articulated buses (for future planning).
- Washrooms for operators.
- Storefront ticket sales are not necessary, but should be considered if co-located with commercial bus operators' storefront services.

The proposed terminal would require the expansion of the existing transit stop fronting the Crystal Gardens, as well as a satellite terminal for transit buses that have ended their trip and are completing recovery.

Preferred Transit Terminal - Option 1

Under this proposal, commercial buses would utilize the first three to four curb spaces along lower Douglas Street in front of the Crystal Gardens as a customer pick-up area. This would be supported with a storefront operation in the Crystal Gardens.

Transit buses would utilize the curb spaces along lower Douglas Street north of the Crystal Gardens. The existing transit buses that serve and end their routes at the Legislative Terminal could potentially be relocated to a bus layover area along Humboldt Street, which would serve the lower Douglas Terminal/Transportation Hub. Transit buses that serve the Fairfield Terminal would remain at the existing location and serve the lower Douglas Terminal/Transportation Hub. To assess the viability of this option, BC Transit has developed its functional requirements.

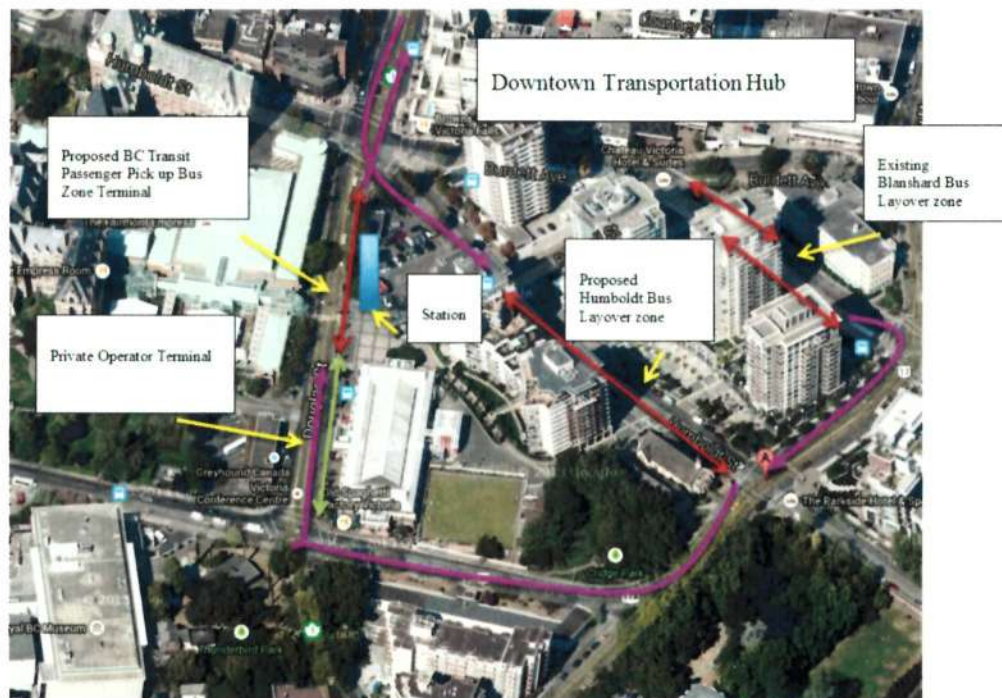


Figure 8 – Downtown Transportation Hub

Terminal Area

BC Transit requires three northbound transit bus stops along Douglas Street, between Humboldt Street and Belleville Street (Figure 9). It is assumed that these stops will be located along the north end of the block. The BC Transit design vehicle has been identified as an Alexander Dennis E-500 (double decker). A custom turning template was developed using the specifications found within the BC Transit Design Guide.

The existing curb-to-curb width along this section of Douglas Street measures 12.1m and consists of two travel lanes in each direction. In the northbound direction, on-street metered parking spaces exist for seven cars plus one handicap parking space.

To accommodate the transit buses along this section of Douglas Street, the existing on-street parking would be displaced. The existing transit stop along the block to the north would no longer be necessary and could be turned over to the city to accommodate additional on-street parking at that location. Restriping the existing traffic lanes should be undertaken, which could result in 3.0m wide travel lanes in both directions adjacent to the proposed transit stop location.



Figure 9 – Proposed BC Transit Area

An option for the proposed Commercial Operators area is to provide a curbside stop at the same location. Under this scenario, the existing on-street loading and parking spaces would be displaced. The existing travel lanes would not be impacted; however, restriping the lane lines to provide 3.0m northbound lanes is recommended. As the coach buses need to arrive and depart the stops independently, the existing bus stop zone would need to be extended in length as shown in Figure 10.

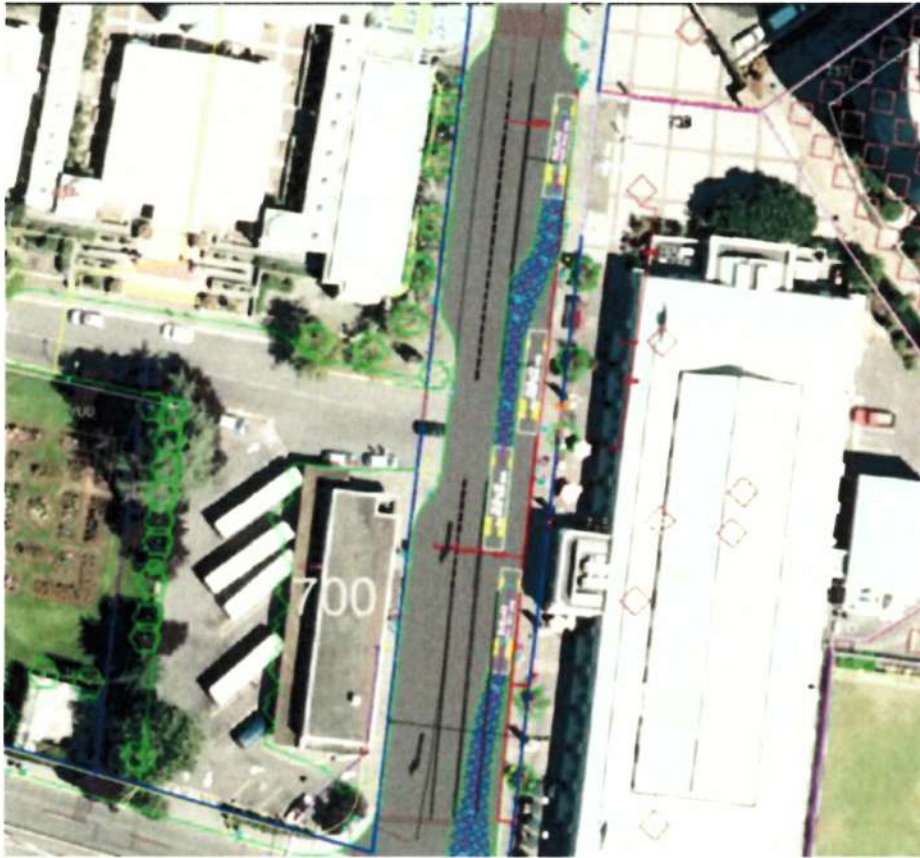


Figure 10 – Proposed Commercial Operators Area

Transit Terminal - Option 2

BC Transit and City of Victoria staff reviewed the transit terminal Option 1 concept together. City staff expressed concerns over establishing a new bus layover area on Humboldt, as bus operations may be disruptive to residents in the area. From a transit operations perspective, a layover terminal in the Humboldt area would be preferred for transit network efficiency reasons and synergies with the existing terminal on Fairfield.

An alternative concept was identified that would establish a new bus layover zone on the east side of Government Street between Superior Street and Bellville Street (adjacent to the existing terminal and the Royal BC Museum). To utilize the east side of Government Street, buses would need to travel southbound on Douglas Street to Superior Street, where they would turn right and continue to Government Street, and then turn right again on Belleville Street to northbound Douglas Street to serve the the lower Douglas Terminal/Transportation Hub.

To efficiently operate a bus terminal in the area, improvements are required to the block, four intersections in the immediate area, and a layover area. This would require establishment of an expanded bus terminal on Government Street, with significant geometric changes to the Superior Street/Douglas Street intersection to allow buses to turn right from Douglas Street onto Superior Street. Minor adjustments to stop bar placements would be required at other intersections to facilitate bus turning movements.

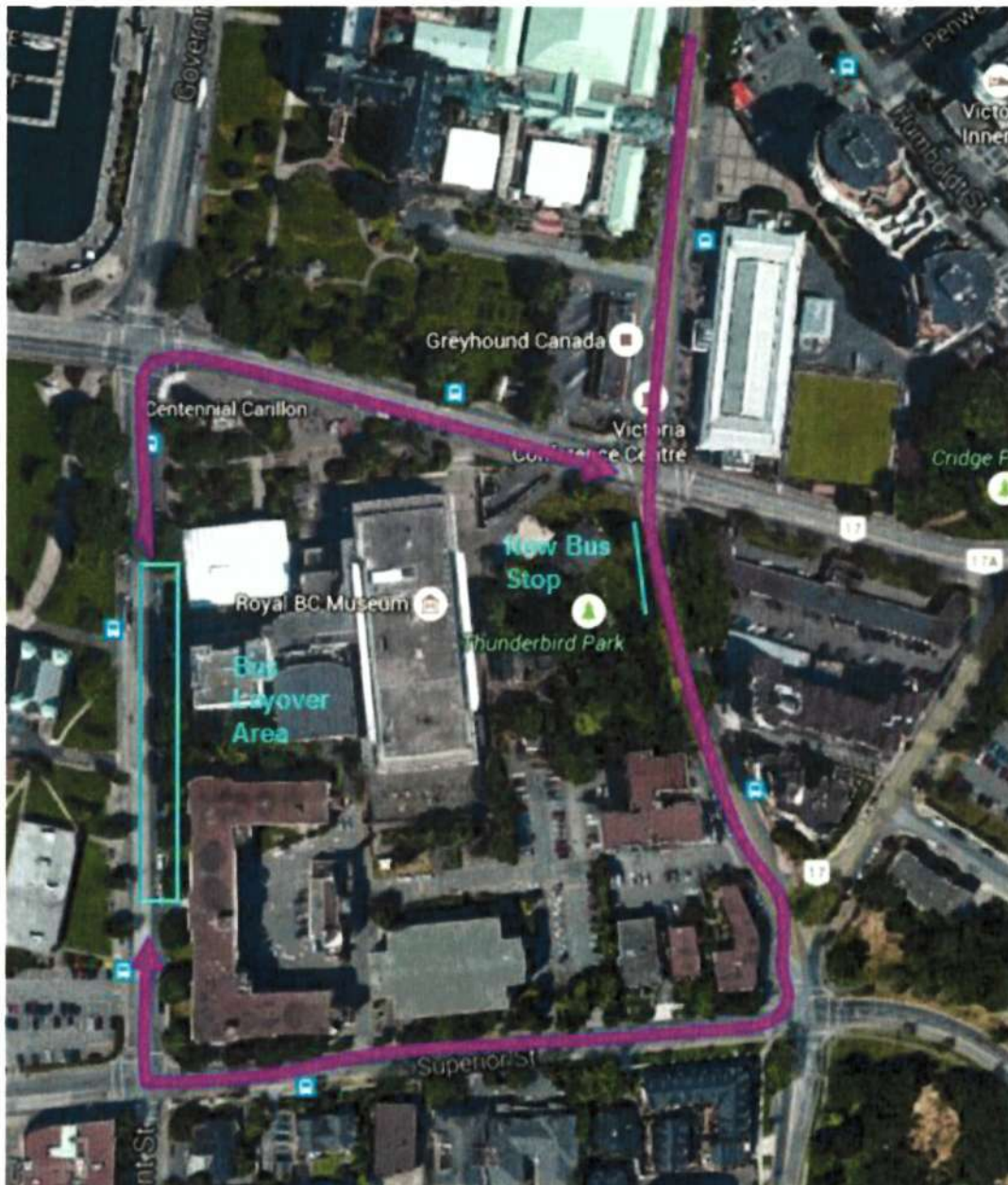


Figure 11 – Proposed Layover Zone, East Side of Government Street

Further on-street improvements would be required on Government Street northbound, south of Belleville Street:

- Curb space is required for 7 to 9 buses (includes the existing bus stop).
- Modified routing requires a new bus stop on southbound Douglas Street south of Belleville Street.
- Implementation requires the removal of parking spaces on Government Street.
- Additional operations washrooms would be needed at the existing Legislature terminal.

There is some discussion regarding rerouting of transit buses to the area. This would result in the buses travelling southbound on Douglas Street to Superior Street, where they would turn right and continue to Government Street, and then turn right again on Belleville Street to northbound Douglas Street. A review of transit bus turning radii at the intersections was undertaken to ensure that these intersections are designed to accommodate buses. For this analysis, the design vehicle was again selected as the double decker bus.

The review revealed that the intersection of Douglas Street/Superior Street cannot presently accommodate the transit bus design vehicle. Significant modifications would be required, as shown in Figure 12. It appears as though the corner radius was reduced by extending the curb into the intersection. This treatment is typical where pedestrian safety enhancements are undertaken. The existing on-street loading area to the north of the curb return may be the reason for the curb extension – to increase visibility of pedestrians. Any modifications to the intersection would require City of Victoria approval.



Figure 12 – Right Turn Analysis from Douglas to Superior

Within the swept path area for the design vehicle, there are utilities that would require relocation; namely an existing hydro pole and traffic signal pole (Figure 13). Additionally, it is likely that at least one street tree would need to be removed. The Class D cost estimate to reconstruct the corner is approximately \$50,000.00.



Figure 13 – Right Turn from Douglas to Superior

5 SUMMARY AND RECOMMENDATIONS

The Victoria Regional Transit System Transit Future Plan identified the need for an expanded downtown terminal to serve the existing network and to support further transit network changes in James Bay to better match transit service levels to demand. A new downtown bus terminal would also complement the work already completed on the Douglas Street shared bus and bike priority lanes, supporting the development of Douglas Street as future rapid transit corridor.

A high-level evaluation of the surrounding area was completed by BC Transit, City of Victoria, the commercial operators, and Adept Transportation Solutions. The result of this evaluation was a list of functional requirements and two proposed options for the design of the terminal and surrounding routes.

Next steps include reviewing and finalizing design concepts with City of Victoria staff and the private operators to determine the associated costs of the project, and formulate a cost-sharing agreement. There will also need to be some level of consultation with local stakeholders once a draft concept is finalized.

If the City of Victoria and BC Transit do move forward with the concept of a shared-use transit terminal, a project proposal will be brought to the Commission in December 2015 for discussion and approval. If supported by all parties, construction could occur in early 2016.