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WATERFRONT STATION (FOR ADVICE)

AM/BB/LH

439 GRANVILLE STREET  
DE410873 - ZONE N/A

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**DEVELOPMENT PERMIT STAFF COMMITTEE MEMBERS**

**Present:**

B. Boons (Chair), Development Services  
M. Thomson, Engineering Services  
L. Gayman, Real Estate Services  
V. Morris, Social Planning  
R. Whitlock, Housing Centre  
T. Driessen, Parks Board

**Also Present:**

A. Molaro, Rapid Transit Office - UDDPC  
C. Robertson, Rapid Transit Office  
R. Cheung, Processing Centre

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**APPLICANT:**

InTransitBC  
SNC-LAVALIN Inc.  
Suite 1800,  
1075 West Georgia Street  
Vancouver, BC V6E 3C9

**PROPERTY OWNER:**

Canada Line Rapid Transit Inc. (CLCO)  
Suite 1650,  
409 Granville Street  
Vancouver BC V6C 1T2

**ARCHITECT:**

VIA Architecture  
301 - 1050 Homer Street  
Vancouver BC, Canada V6B 2W9

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**EXECUTIVE SUMMARY**

- **Proposal:** To construct a rapid transit station with an at grade entry and below grade platforms and guideway.

See Appendix A Standard Recommendations

Appendix B Standard Notes and Comments

Appendix C Applicant's Design Response

Appendix D Plans and Elevations

Appendix E Summary of Public Consultation and Open Houses Comments

Appendix F Draft Precinct Plan

Appendix G Approved Granville Street Redesign Concept

● **Issues:**

1. Public realm quality including Station Design
2. Future interface with existing Waterfront (CP) Station

- **Urban Design Panel: Workshop**

**DEVELOPMENT PERMIT STAFF COMMITTEE RECOMMENDATION: SUPPORT**

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THAT the Board SUPPORT Development Submission No. DE410873 as submitted, the plans and information forming a part thereof, thereby allowing the construction of a rapid transit station including below grade platforms, subject to the following advice and comments:

**1.0 Prior to the construction of the rapid transit station, revised drawings and information shall be submitted to the satisfaction of the Director of Planning, clearly indicating:**

- 1.1 design development to the station entry pavilions to achieve a more distinctive, carefully considered expression while also providing a stronger architectural contribution to the public realm for this important terminus station;

**Note to applicant:** Consider introducing public art into the pavilions structures. Provision of large scaled elevations and sections demonstrating high quality materials and detailing is required.

- 1.2 design development to reduce the pedestrian visual and circulation conflicts associated with the proposed elevator;

**Note to applicant:** Design development should consider either increasing the separation between the two pavilions (elevator and escalator/stairs) or aligning the elevator with the escalator/stair along the outer curb of the Granville Street sidewalk. If the elevator location remains as proposed, circulation conflicts with the United Kingdom Building will also need to be addressed, see also A.1.1 for additional permit requirements for these changes. Demonstration that the offset configuration of the two pavilions will not impede pedestrian through sightlines and circulation flow along the sidewalk is also required.

- 1.3 design development to enhance the public realm and wayfinding for this station entry through enhanced public realm treatment linking the two pavilions;

**Note to applicant:** Opportunities to increase natural light access down through to the station concourse level should be explored. Consideration may be given for a system wide public realm treatment for the stations, noting that any special public realm treatment for this station will need to acknowledge the detailed design of the Granville Street Redesign Concept. Any special surface treatment in the public realm needs to meet city standards for safety and maintenance. Arrangements to be made to the satisfaction of the General Manager of Engineering Services and the Director of Planning for special sidewalk treatments will be required.

- 1.4 design development to minimize the visual impact of the vents located within the Granville Street sidewalk treatment;

**Note to applicant:** The size of the vents should be minimized and located flush with the sidewalk as close to the curb as possible to maximize sidewalk width within the Granville Street public realm treatment. The ventilation grates must be designed to support vehicle loadings equivalent to the design vehicle of the roadway.

- 1.5 provision of a separate development submission fully illustrating the north end below grade pedestrian connection through to the existing Waterfront (CP) Station (601 W. Cordova Street);

**Note to applicant:** Clarify and provide more details about the linkage between the proposed Waterfront Station and the Waterfront (CP) Station building, Seabus and

convention centre area connections. Clarification is required as to the timing of the opening up of the pedestrian tunnel through the Cordova Street abutment and what modifications to existing easements/rights of way will be required.

1.6 design development to enhance the accessibility of the station by making provision for knock out panels to accommodate future entries into this station to/from United Kingdom Building (409 Granville Street) and Sinclair Centre (757 W. Hastings Street);

1.7 provision of a public art component with the station site;

**Note to applicant:** Office of Cultural Affairs is available for assistance:

**2.0 That the advice and comments set out in Appendix A and B be met prior to June 4, 2007.**

**3.0 That the Notes to Applicant and Recommendations of the Development Permit set out in Appendix A and B be supported by the Board.**

• **Technical Analysis:**

	PERMITTED (MAXIMUM)	REQUIRED	PROPOSED
Floor Area			Station Entry House      56.0 sq. m. Accessible Elevator      16.0 sq. m. <hr/> Total      72.0 sq. m.
Height	N/A		Station Entry House      4.87 m Accessible Elevator      4.78 m
Parking		Public Authority      N/R	Public Authority      0 space
Bicycle Parking		Class A      Class B Public Authority      N/R      N/R	Public Authority      Class A      Class B 0      0
Loading		Class A      Class B Public Authority      N/R      N/R	Public Authority      Class A      Class B 0      0

**The station and below grade structures are constructed solely within city streets.**

**Future Retail Area:** Future Retail area has been indicated below grade on the concourse level. If located within the Street right-of- way, an application to the General Manager of Engineering Services will be required. See Separate Application Requirements, p. 10 and Recommendation A.2.2.

• **Legal Description**

Lot: Granville Street  
 Block: n/a  
 Plan: 210  
 District Lot: 541

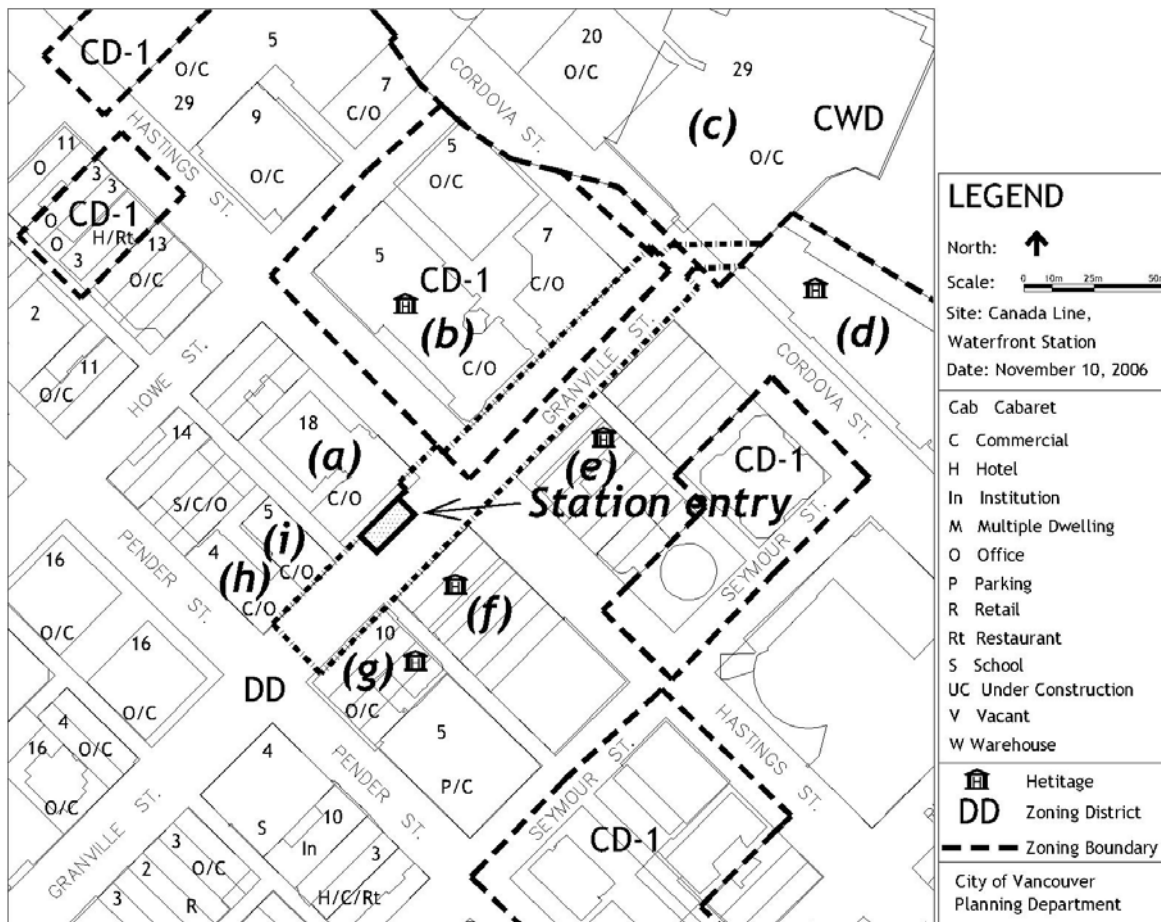
• **History of Application:**

06 03 15 Urban Design Panel Workshop  
 06 11 10 Drawings Submitted for Review  
 06 11 22 Development Permit Staff Committee

• **Site:** The below grade portions of the station are located within the street right of way of Granville Street extending from the south side of Hastings Street through to the north side of Cordova Street. The above grade portions of the station (south side entry) are located within the sidewalk, adjacent to the United Kingdom Building at the southwest corner of Hastings and Granville Street.

• **Context:** Significant adjacent development includes:

- (a) 409 Granville Street, "United Kingdom Building", 18 storey commercial office high-rise
- (b) 757 W. Hastings Street, "Sinclair Centre", 5-7 storey commercial office complex
- (c) 200 Granville Street, 29 storey commercial office with elevated plaza
- (d) 601 W. Cordova Street, "Waterfront (CP) Station"
- (e) 675 W. Hastings, "Royal Bank"
- (f) 688 W. Hastings, "Birks Building"
- (g) 470 Granville, "Rogers Building", 10 storey commercial office building
- (h) 475 Granville, 4 storey commercial office building
- (i) 455 Granville, 5 storey commercial office building



● **Background:** The Canada Line rapid transit system is a 19 km automated system linking the transit hub at Waterfront Centre in Vancouver with the heart of Richmond's civic precinct and the Vancouver International Airport. The system includes 16 stations, 9 within the City of Vancouver, two bridges, parking and bus facilities and transit capacity equivalent to 10 road lanes. The Canada Line is an important link in the regional transportation network.

In Vancouver, the system travels underground from Waterfront Station to south of West 64<sup>th</sup> Avenue where the transit line transitions from underground to an elevated guideway. Of the nine Vancouver stations, eight are underground (Waterfront, Vancouver City Centre, Yaletown-Roundhouse, Olympic Village, Broadway-City Hall, King Edward, Oakridge-41<sup>st</sup> Avenue, and Langara-49<sup>th</sup> Avenue). Marine Drive Station located south of SW Marine Drive, on the former ICBC Claim Centre site, is the only elevated station in the Vancouver segment of the system.

The Canada Line project is overseen by Canada Line Rapid Transit Inc. (CLCO), a subsidiary of TransLink and is being designed, built, operated, maintained and partially financed by InTransitBC, a joint venture company owned by SNC-Lavalin, the Investment Management Corporation of BC (IMBC) and the Caisse de Depot et Placements de Quebec.

The major funding partners are the Government of Canada, Government of British Columbia, the Greater Vancouver Transportation Authority (TransLink), and the Vancouver International Airport Authority with additional support coming from the Cities of Vancouver and Richmond.

City staff have been working with CLCO and InTransitBC over the past two years providing advice on the system alignment, station locations and station design. City staff have also been assisting InTransitBC with utility relocation and the development and approval of construction and traffic management plans. City staff are also participating in CLCO's Business and Community Liaison Program, meeting with business, residents and local groups to provide information and to understand interest and concerns related to the construction phase of the project.

As part of the Canada Line Project, the City has developed two planning processes to address the City managed components around the stations. These processes are referred to as Precinct Planning and Station Area Planning.

Beyond the extent of each station site, the City will be pursuing a number of improvements to the areas surrounding each station, referred to as station precincts. These precinct improvements will increase the accessibility of the station by improving connections by pedestrians, cyclists, and transit transfers and support the station's fit into the communities in which they are located through improvements to the public realm and management of traffic flows within the precinct.

Following the precinct planning process, the City will initiate a more detailed planning and land-use review around each station. This planning study will address land-use and development related issues for a broader area around the stations. These reviews will be informed by planning programs completed or underway. The first Station Area Planning program will likely begin in early 2007.

Translink has recently announced that the name of this station will be Waterfront Station.

● **Council Policy:** Through a policy report, "Richmond/Airport- Vancouver Rapid Transit Project" (April 2003), Council provided advice to Translink regarding the design, construction, partial financing, and operation of a Richmond/Airport-Vancouver rapid transit line. The recommendations sought to ensure that the City's interests are reflected in the design of the system and that the rapid transit project would be a significant asset to the transportation network while meeting the needs of the communities it would serve. The relevant Principles for new Rapid Transit Projects established and approved in this council report include:

- F. THAT the RAV Project meet the highest standards in station and system design, for example, crime prevention through environment design (CPTED), neighbourhood fit and public art.
- G. THAT the City and the RAV Project agree on a mutually acceptable review process of the design and construction program and such process shall involve the private sector partner. This may include review by the Urban Design Panel and Development Permit Board of stations and vents, and by City Council in regard to changes to the Cambie Heritage Boulevard, if necessary, through a Heritage Alteration Permit.
- J. THAT the stations on the line be designed for maximum integration into the city's transit, pedestrian and cycling networks, as well as to complement and enhance the communities they will serve. Where underground stations are provided, efforts should be made in order that pedestrians should not have to cross major streets at grade to make frequently used connections. Opportunities to integrate stations into adjacent development should be pursued.
- i. The downtown terminus station in the Cordova/waterfront area should form an integral part of an expanded multi-modal transportation hub integrating Waterfront Station and the Canada Place/Convention Centre area.
- K. THAT the system and all stations be fully accessible to persons using wheelchairs and other mobility devices, persons with sight and hearing disabilities and passengers with small children.
- M. THAT the RAV Project be designed to accommodate bicycles on board all transit and provide bicycle parking facilities at all stations. Provision of secure, enclosed, short-term bicycle parking is encouraged where feasible.

On July 20, 2004, Council authorized the granting to Translink access to City Streets and lands on which the Richmond Airport Vancouver Rapid Transit Line may operate and also authorized the General Manager of Engineering Services and the Director of Legal Services to negotiate and conclude an access agreement with Translink for the RAV Line utilizing the principles and terms and conditions set out in the City's existing access agreement for the Expo and Millennium Lines as the basis for the Access Agreement.

● **Review/Approval Context and Development Permit Board Role:**

The authority to enable the design and construction of the Richmond-Airport-Vancouver rapid transit project is established within the provincial Municipalities Enabling and Validating Act (No.3). This act, grants the Greater of Vancouver Transportation Authority (GVTA), its subsidiary or contractor, the ability to establish processes and conditions, within an agreement, instead of permits, approvals or authorizations and any related processes or conditions that would otherwise be required under the Vancouver Charter, in relation to the project within the municipality.

The agreement (the "Access Agreement" between City of Vancouver and CLCO [RAVCO]) sets out that CLCO agree that in respect of official development plan approvals, zoning approvals and development permit requirements under the City's official development plan, by-laws and Zoning and Development By-law, that all transit related RAV (Canada Line) infrastructure located on City Street and all transit related infrastructure located outside of City Street, including without limitation, entry halls, corridors, vents, shafts, that no approvals or permits are required from the City. And further, that the Stations are exempt from such related processes or conditions and instead, will be dealt with in accordance with the Design Advisory Process.

The Design Advisory Process (DAP) is the process by which the City of Vancouver will provide advice to the Canada Line project on the design of the transit stations. The DAP applies to the facilities directly

related to the access and operation of the transit station. Any proposed retail use within the stations, either on zoned lands or city streets, requires a separate city approval.

The Access Agreement also establishes, in respect to permit requirements under the City's Building By-Law, that all transit related infrastructure located on City Street or outside City Street will be constructed in accordance with the process contained in the Construction Approval Process (See Processing Centre - Building comments, page 15).

Many of the station entries are not designed as independent structures or built on vacant land and will require additional city permits to address changes to existing buildings and/or streets. Where possible, staff have noted and identified these requirements for the applicant team to ensure that they are addressed.

The DAP simulates the Development Permit process and requires each of the proposed stations to be considered by the Development Permit Board for advice and comment. While this advice does not constitute formal conditions, it is the City's understanding that CLCO and InTransitBC are participating in this process in good faith, intending to include, where reasonably possible, the comments of the Development Permit Board.

- **Zoning, Context, Current Policy and On-Going Precinct and Station Area Development:**

**Proposal:** The station entry pavilions are located within the public sidewalk on the south west corner of the Granville/Georgia intersection. Below grade centre platform and ticketing functions (concourse level) are located within the street right-of-way of Granville Street generally between Hastings and Cordova Streets.

- **Applicable Policies, By-laws and Guidelines:**

1. Central Area Plan (1991)
2. Vancouver Transportation Plan (1997)
3. Granville Street Redesign Concept (2006)

- **Response to applicable Policies, By-laws and Guidelines:**

The Central Area Plan and Vancouver Transportation Plan supports nodes where concentration of jobs, housing and services provide a focus for transit services. This station, located in Central Business District, will serve the downtown core which is the largest employment centre in the region. The downtown also attracts a wide range of trips that are not employment-base, these include shopping districts, cultural venues, and post-secondary educational institutions. This emphasizes the importance of this location for a rapid transit station as part of a significant transit interchange.

Waterfront Station, as the terminus of the Canada Line will be a key part of the intermodal transportation hub being developed between the existing Waterfront (CP) Station and Canada Place. The role of this station within the hub should be recognized in its connections to the SkyTrain, Seabus, West Coast Express, bus routes, cruise ship terminal, air services and future passenger ferries.

This new Waterfront Station component is a unique circumstance from the other stations along the Canada Line as this station entry house is provided within the street right-of-way. This station is also expected to provide a direct connection from the lower level platforms to the existing Waterfront Station (CP) transit facility. To address Council's objective to integrate stations into adjacent developments, through the design development process for this station, staff working with InTransitBC and CLCO, with representatives from both Public Works Canada (Sinclair Centre) and Cadillac Fairview (200 Granville), explored alternate entry locations that would have integrated the south entry into Sinclair Centre. Significant technical challenges, some of which included consideration of the removal of the existing pedestrian bridge over Cordova Street and insertion of the entry circulation components



into the heritage designated Sinclair Centre were not resolvable at this time. As a result, staff supported moving forward with the station entry located within the street right of way of Granville Street south of Hastings Street.

• **Public realm quality including station design:**

To accommodate the station entry components within the recently approved Granville Street Redesign Concept the circulation elements for the station entry have been separated. A stand alone elevator adjacent to the United Kingdom Building frontage is separated from the stair/escalator pavilion which is located closer to the curb edge of the sidewalk. The elevator and stair/escalator pavilions are fully glazed with frameless glazing providing a high degree of transparency within this constricted urban context. The extended roof form of both pavilions will provide some weather protection for the station entry and along the Granville Street frontages of the pavilions.

The applicant's design rationale describes the three downtown stations as a family of stations shaped in response to individual contexts, but with shared ideas, forms, materials and detail components. Though identity and continuity of the system are important attributes, staff are concerned, that this station entry, with its modest expression, may not distinguish itself enough, not only from the system wide collection of stations, but also from the unique contexts of the other two downtown stations, Yaletown and Vancouver City Centre. The Urban Design Panel workshop suggested that an in-street station entry be treated as lightly as possible with a simple elegant glazed roof, possibly a sculptural solution. While the long term vision is to have the station entry integrated within an adjacent development, this station entry is likely to remain within the public realm for an extended period of time. Staff believe a more distinctive, carefully considered expression for the pavilions should be provided for these important terminus station structures while also providing a stronger architectural contribution to the public realm (Recommendation 1.1).

The offset relationship between the two pavilions does present some visual and circulation concerns. As pedestrians travel along Granville Street, the location of the elevator adjacent to the frontage of the United Kingdom Building reduces pedestrian sight lines along the sidewalk. In addition, the location of the elevator adjacent to the entry steps of the United Kingdom Building appears to be unresolved. Modifications to these steps will be necessary to address the existing circulation choices these steps provide to the Granville Street sidewalk and to the south. To address the visual and circulation conflicts created by the offset of the two entry pavilions, staff are recommending that the separation between the pavilions be increased or to that the two entry pavilions be aligned along the outer edge of the sidewalk (Recommendation 1.2).

Given the separation of the entry component pavilions, staff believe there is an opportunity to further enhance both the public realm and wayfinding for this station entry. Opportunities for increasing light access down through to the station should also be explored. Further detailed design development is sought to develop a high quality public realm treatment linking the two pavilions (Recommendation 1.3).

This station, has numerous vents located within the sidewalk treatment of Granville Street. Staff support their locations because they are generally located out of the principle pedestrian walking area along curb edges. Staff want to ensure that the presence of the vents is minimized and are seeking further design development to minimize their size and to locate as close to the curb line to maximize the sidewalk width. Final location of the vents will also need to be coordinated with the Granville Street public realm treatment, landscaping, bus stops, and loading zones along these two blocks (Recommendation 1.3).

• **Interface with existing Waterfront (CP) Station and adjacent developments:**

Numerous design and technical analyses have been undertaken to achieve a connection from the north end of the Canada Line Waterfront Station platforms to the existing Waterfront Station (CP). The current concept is extend north from the station platform level, through the existing Cordova Street

concrete retaining wall and area way, under the parkade structure of 200 Granville and then up into the main entry hall of Waterfront (CP) Station. The applicant advises staff that this technical analysis work is ongoing to ensure its feasibility. One of Council's key objectives for this downtown terminus (see Council Policy discussion, page 7), is that it should form an integral part of an expanded multi-modal transportation hub of Waterfront (CP) Station. Staff are recommending that the applicant make a subsequent development submission of the proposed connection between the Canada Line Waterfront Station and the existing Waterfront (CP) Station (Recommendation 1.5).

With the current and anticipated volume of the multi-modal transportation hub envisioned for Waterfront Station opportunities for existing and future connections needs to be considered. Staff are recommending provision of knock out panels to accommodate future connections to both Sinclair Centre and United Kingdom building and the convention centre area to the northwest (Recommendation 1.6).

• **Separate Applications:**

Modifications to the United Kingdom Building: Development and building permit applications and approvals will be necessary to reflect the proposed changes to the entry stairs (Recommendation A.1.1).

Retail use within the station: As noted within the technical table future retail floor area is located below grade at the concourse level. The retail area identified appears to be located within the street right-of way. This retail use will require an application to the General Manager of Engineering Services to allow for this use. The applicant should be aware that loading space provisions may be required and will be assessed at the time of an application (Recommendation A.2.2).

• **Precinct Planning Engineering Considerations:**

Beyond the extent of the station site, the City will be pursuing a number of improvements to the areas surrounding each station, referred to as station precincts. These precinct improvements will increase the accessibility of the station by improving connections by pedestrians, cyclists, and transit transfers and support the stations' fit into the communities in which they are located through improvements to the public realm and management of traffic flows within the precinct.

While these improvements will occur off of the station site, the inclusion of the specific details of these improvements provides additional context with which the development can be evaluated as it is intended to help in describing how the station site will interface with the sidewalk, boulevard and street.

The applicant is generally required to reinstate the roadworks that have been impacted by the construction of the Canada Line alignment and stations. However, for the case of Waterfront Station and Vancouver City Centre Station that abut Granville Street downtown, the City is responsible for the final surface restoration and enhancement as part of the Granville Street Redesign project. The capital cost of rebuilding Granville Street from Granville Street Bridge to Cordova has been approved as part of the 2006-2008 Capital Plan.

Precinct improvements beyond Granville Street will require Council approval and the associated allocation of capital funds required for implementation.

Public consultation for precinct improvements has taken place through two open houses and resulted in the development of a draft precinct plan of conceptual improvements shown graphically in Appendix F and described below. It is expected that precinct improvements will continue to be refined as the detailed design of these improvements advances to completion.

### Pedestrian (Patterns/Connections)

The projected ridership at Waterfront Station is the greatest amongst the Vancouver Canada Line station. This is a direct result of its proximity to the Central Business District as well as its connection to Waterfront (CP) Station which serves as the connection point between numerous modes of transportation including the Expo Line and Millennium Line rapid transit, bus services, rail passenger services (West Coast Express, future streetcar), ferry services (local, regional, inter-regional), and air transportation (seaplanes and helicopter). This station will also serve the Vancouver Convention Centre and cruise ship terminal. It is also expected that this will be a popular station for passengers destined to the airport.

Development of a convenient underground connection between the new Waterfront Station (Canada Line) to existing Waterfront (CP) Station is essential for passengers transferring to or from one of the aforementioned modes onto the Canada Line. The development of convenient and efficient transfer between modes at this multi-modal transportation hub is a City priority. Council has recently approved a study to develop an Urban Design and Transportation plan for this area that will determine linkages between modes in conjunction with the development of a concept to expand the road and structure network in the vicinity to support potential land use changes in the area.

For passengers that choose to exit to grade at the southern entrance, at-grade pedestrian connections Waterfront (CP) Station will be enhanced as part of the Granville Street Redesign project. Treatments will include wider sidewalks and crosswalks along Granville Street and a review of traffic signal timing at intersections to provide adequate crossing time for pedestrians. Pedestrian improvements along Granville Street will be funded through allocations approved in the 2006-2008 Capital Plan.

Furthermore, crosswalk widths along Cordova and Hastings Streets and traffic signal timings will be reviewed to facilitate pedestrian access to the station. Approval and capital funding allocation will be sought from City Council. Opportunities for cost sharing from regional funding sources will also be explored.

### Bicycles

Precinct cycling improvements will focus on facilitating connections between existing bicycle routes identified as part of the Downtown Bicycle Network and the station entry at Hastings Street. Cycling will be accommodated on Granville Street within the carriageway, however, provision of dedicated bicycle lanes were not included in the conceptual design for Granville Street approved by Council. The approved concept for Granville Street is that it will remain a pedestrian-oriented street. Pace of transport on the street will be at a pedestrian's pace and the roadway widths will be designed to maximize the width of sidewalks and allow sharing of all other modes of transportation rather than favor one mode over another.

As such, bicycle accommodations will include exploring options to allow cyclists to access Granville Street from existing bicycle routes and to allow cyclist access to the station site from road level without dismounting. Staff also recommend that wheel ramps be included in all public stairs (Recommendation A.2.7) and that there is confirmation of the adequacy of station elevators to accommodate cyclists (Recommendation A.2.8). Design of bicycle facilities will be conducted by the City. Approval and capital funding allocation will be sought from City Council.

The applicant will not be supplying secure bicycle lockers at this station. Prior to opening of the line, the City will review the bicycle parking demands at this site to determine an appropriate number of bicycle lockers and/or bicycle racks for short term bicycle parking to be provided. Bicycle parking amenities may be provided through the City's Street Furniture Program. Cost sharing opportunities through provincial and regional funding sources will be investigated. If the placement of these bicycle parking amenities cannot be accommodated entirely in the available street right-of-way, options will be explored to locate bicycle parking amenities in nearby City-owned parking lots.

Bus Routes and Integration (TransLink Bus Service)

Upon road restoration, Granville Street will resume its role as the spinal cord of downtown bus service accommodating upwards of 60,000 passengers daily. Bus stop locations and passenger amenities such as shelters, way finding, litter containers, benches will be specified, in conjunction with TransLink and Coast Mountain Bus Company, as part of the detailed design of the Granville Street. Opportunities to provide these amenities through the City's Street Furniture Program and cost sharing with regional funding sources will be explored.

HandyDART loading and unloading will be permitted in loading zones along Granville Street at sidewalk level.

Public Realm Improvements - Granville Street Redesign Project

The design of the at-grade entry elements to Waterfront station will acknowledge a new streetscape plan for Granville Street downtown, to be developed in 2007. The amenity of the Canada Line station on Granville Street will endorse the street's role as a prime retail street and centre of downtown activity and their design should not detract from the character of the street.

On April 18, 2006 Vancouver City Council, following extensive public consultation, approved the "Modified Enhanced Existing" conceptual street layout for the redesign of Granville Street. Highlights of this concept include:

- Widened sidewalks south of Nelson Street that will allow parking between street trees at certain times of day,
- Straightening of the existing curvilinear roadway north of Smithe Street to allow the development of a consistent public realm,
- Two continuous lines of street trees along the length of the corridor,
- Increasing occasional vehicle access of Granville mall through expanding eligibility of Granville Mall access permits, and
- A two-block civic place centred at Georgia Street, anticipated to be the centre of commercial activity and street life in the downtown.

A sample graphic of the approved street concept is shown in Appendix G.

Detailed design and further public consultation will take place in 2007 to determine streetscape details that may include, but are not limited to, sidewalk and pavement treatments, soft and hard landscaping, street furniture style and layout, way-finding signage, provision of banner and hanging basket hardware, and pedestrian, roadway, and street lighting. Furthermore, particulars regarding availability of parking, administration of available sidewalk space for patios and kiosks, expanding the eligibility of Granville Mall access permits and overall management and maintenance of the street will be developed.

**● Response to Council's Principles for New Rapid Transit Projects:**

Council's principles for new rapid transit projects applicable to the design of the station component including the design review process, has generally been satisfied except that a public art component has not been included within the scope of the station design. Staff recommend that a public art component be provided for the station (Recommendation 1.7)

Staff will continue the ongoing precinct planning work to ensure the accessibility of the station for pedestrians, cyclists and transit transfers and to support the station's fit into the communities in which they are located through improvements to the public realm and management of traffic flows and parking protection within the precinct.

• **Conclusion:** The proposal generally reflects the ongoing discussion and arrangements with city staff for this station's integration into Granville Street right of way. Staff support the proposal with the advice and comments provided.

## URBAN DESIGN PANEL

The Urban Design Panel participated in a workshop on March 15, 2006 for three stations, Yaletown Station, Robson Station and Waterfront Station. For clarity purposed, only those comments pertaining to the Waterfront Station have been included.

- **Introduction:** Anita Molaro, Urban Design Planner, introduced this workshop discussion and briefly explained the City's role which is to provide advice on issues relating to the alignment, stations, station entries and connectivity. Each of the stations will be taken through a design advisory process which is based largely on the typical major development application process. The stations will be reviewed by the Panel in the form of a workshop and reported to the Development Permit Board for advice only since the stations do not require a development permit. In addition to the design advisory process around each of the stations, City staff will be undertaking a Precinct Planning Exercise to ensure appropriate bicycle and pedestrian access and dealing with traffic, parking and other issues in and around the stations. The early concepts were to help the public understand the scale and mass of the stations within their immediate context. Since the detailed design of the stations is in its early phase this workshop is an opportunity for the Urban Design Panel to provide creative urban design and architectural advice into the station designs as they are being developed.

The following are the City's urban design objectives for the station designs on which the advice/comments of the Panel is sought:

- achieve a strong sense of publicness, conveyed through the highest quality architecture, also highlighting access and openness;
- achieve good connectivity/accessibility for transit users and pedestrians;
- achieve a safe environment both within and around the station;
- achieve high quality public realm interface with high amenity sidewalk areas with active edges providing pedestrian interest and weather protection;
- allow for future commercial/retail opportunities within or near stations.

These stations provide an opportunity to be a statement of public architecture and an extension of the public realm for many years to come. The Panel is asked to consider and advice on the public nature of these stations given the highest quality architecture is the goal.

- **Applicant's Introductory Comments:** Allen Parker, SCN Lavalin, briefly described the overarching design considerations. He advised that the stations must be in operation by 2009 and the overall budget has been established and is fixed. The alignment is fixed and the locations of the stations and their functions and configurations have been established. Mr. Parker said that there is a commitment to creating a coherent architectural identity while responding to each station context. He reviewed the three basic principles which are: the human experience, the architectural philosophy should be rooted in what is unique about Vancouver's natural context, and the system should have a quality of timelessness. Mr. Parker advised that light, and the quality of light, is a very important element in all of the stations. The applicant team wants to ensure that light penetrates the depths of the stations as much as possible.

Graham McGarva, VIA Architecture, briefly reviewed each of the stations. He advised that the architecture will be subtle and timeless rather than historical or fashionable. There is heritage context in two of the sites.

**Waterfront Station (Hastings/Cordova)**

Ms. Molaro advised there are two proposals being considered for this station. There will be two station entrances, the first within the CP Station and the second either an in-street option or within Sinclair Centre. The latter is being pursued with Public Works Canada but negotiations are not yet concluded. Sensitive treatment of entries within both the heritage buildings will be an important consideration. Ms. Molaro briefly described the linkage to the Expo Line at this station. She noted that the existing pedestrian bridge that connects 200 Granville Street will need to be removed as part of the construction, and issues relating to fire access and convenient access to the building are being discussed with the owner (Cadillac Fairview). This forms part of the larger Hub Study that is currently underway.

Mr. McGarva briefly described the proposal and the entry options under consideration and responded to questions from the Panel.

**Panel Commentary:**

The following comments were made by the Panel:

- given the constraints of the Sinclair Centre entry option the in-street option might be simpler and a more elegant solution if you treat the entrance as lightly as possible with a simple glass roof, finely detailed. A simple glass sculptural piece could provide an attractive contrast to the heritage building.
  - Granville Street is supposed to be a transit street so it is important for the station to have a real presence on the street. If the on-street option is pursued it should be matched with the other on-street station entry at Georgia Street.
  - There is a need for washrooms in all the stations, notwithstanding issues around security.
  - On all the stations it would be helpful to have a matrix or some general ideas and sketches about the common language being discussed. It is difficult to evaluate the schemes as they are drawn now because they seem to be very different. It would be better if they are different, but there will be common elements and it would be helpful to have a series of diagrams or elevations that begin to show how, for example, the Robson Station could be similar to the Waterfront Station.
- **Applicant's Response:** Mr. Parker agreed it is an excellent suggestion (matrix) but they are not yet at the stage where it can be put together. Meetings are being held with the subway and aerial station design teams to try to identify those elements, attitudes or materiality that constitute the Canada Line.

**ENGINEERING SERVICES**Design and Protection of Proposed Ventilation Grates

The sidewalk level ventilation grates must be designed to support vehicle loadings equivalent to the design vehicle of the roadway. While it is not expected that vehicles will actively travel over or park on the ventilation grates, their location adjacent to the mountable curb necessitates this requirement. The aesthetics of in street structures (grates, bollards/hard landscaping) must acknowledge the Granville Street Redesign concept, must not detract from the character of the street, and their design will be subject to the approval of the Director of Planning and the General Manager of Engineering Services.

The recommendations of Engineering Services are contained in the prior-to conditions noted in Appendix A attached to this report.

**CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN (CPTED)**

Similar to the Expo and Millenium rapid transit lines, the opportunity for increased crime and nuisance activity exists given the nature of the use. Many of these issues can be resolved through increased

security presence and control of the transit systems. The dialogue for this is outside the scope of this work and therefore will not be the focus of this CPTED review. However, for public safety purposes staff would support any increase in security and surveillance on this system such as a dedicated video surveillance system for the Greater Vancouver Transit Authority Police Service or other increase in the policing/security resources.

The physical features of the proposed station building and site can also have positive impacts on undesirable activity such as vandalism, mischief, robbery and assault as well as fear of crime.

Several detailed design features still require improvement as noted in the conditions of this report.

### **PROCESSING CENTRE - BUILDING**

The Office of the Chief Building Official staff have been in discussions with the applicant team on the Construction Approval Process. This process has been defined in the subsequent agreements between CLCO and InTransitBC. In general, InTransitBC is responsible for ensuring that the project is carried out in accordance with the requirements of the applicable Building Code as amended by this Construction Approval Process. InTransitBC is responsible for retaining a Building Code review Agent to monitor construction for substantial compliance with the applicable building code.

The applicant is responsible for ensuring that the design of the building meets the Building By-law requirements or code criteria accepted by the City of Vancouver. To ensure that the project does not conflict in any substantial manner with the Building By-law, the designer should know and take into account, the Building By-law requirements which may affect the building design and internal layout. These would generally include: spatial separation, fire separation, exiting, access for physically disabled persons, type of construction materials used, fire fighting access and energy utilization requirements.

The drawings do not indicate to which building code or standard the stations are to be built. Based on a preliminary review of the drawings prepared by SNC-Lavalin/PBK/VIA Architecture dated Nov. 7, 2006 for the proposed development it was noted that the following issues may not comply with the literal requirements with the Vancouver Building By-Law.

#### Waterfront South Station

- Provision for exits after hours is required.
- \*At least two fire-protected exits with sufficient exit capacity are required from each storey of a building. Only one means of egress provided.
- \*Interconnected floor spaces of the station shall comply with Articles 3.2.8.3 to 3.2.8.9 of the VBBL.
- Access for persons with disabilities shall be provided to areas where the public is admitted and to all public facilities such as ticket dispensers.
- If washrooms are provided, at least one washroom complying with 3.7.4.8(9) to be provided for persons with disabilities
- \*Travel distance to the nearest exit shall comply with 3.3.1.6.(1).

\*Items marked with an asterisk have been identified as serious non-conforming Building By-law issues.

### **VANCOUVER COASTAL HEALTH AUTHORITY**

The VCHA advises the applicant to take note of the following:

- (i) The garbage storage area is to be designed to minimize nuisances;

- (ii) The underground stations shall be adequately ventilated to prevent the build-up of noxious gases;
- (iii) Any future applications for food service, food retail and amenity spaces, detailed drawings are to be submitted for review by the Environmental Health Division for compliance with Health By-law #6580 and the Food Premises Regulation prior to construction.
- (iv) All fresh-air intake portals are to be located away from driveways and parking loading areas in order to prevent vehicle exhaust from being drawn into the stations;

## NOTIFICATION

Through the Design Advisory Process, InTransitBC has undertaken public consultation on the Detailed Design phase of the project. Opportunity for public input occurred through two open houses, the first held at the beginning of the detailed design phase on March 7, 2006, held at the plaza lounge at UBC Robson Square and a second open house held on May 4, 2006, held at the Scotiabank Dance Centre. These public input sessions were scheduled prior to the final submission package that has been reviewed by staff. The public are notified of the Detailed Design Consultation Open Houses through the newspaper, mail drops, and email notifications. The City of Vancouver staff also participated in these Open Houses seeking input on precinct planning issues.

Previous to the Detailed Design consultation phase there were three other phases of community consultation that were undertaken by CLCO (RAVCO). These were the Project Definition Consultation February/May 2003, Pre-Design Consultation Phase October through April 2004, and the Preliminary Design Consultation in June 2005.

City staff, CLCO, and InTransitBC BC have also had individual meetings with adjacent property owners including Sinclair Centre and 200 Granville.

In summary, station design comments received through the public consultation process include:

- preference for an architectural identity of the downtown stations to be unique with their identity
- station reflective of their neighbourhood history and heritage and have a timeless architectural identity

In summary, precinct planning comments received through the Detailed Design public consultation process included:

- Enhance pedestrian safety and cyclist access to the station - create safe and comfortable routes and crossings for pedestrians and cyclists accessing the station from the existing Waterfront Station, the seawall, and adjacent stores and businesses
- facilitate safe, efficient and comfortable transferring from the station to the existing Expo Line SkyTrain, Seabus, West Coast Express, future streetcar and adjacent bus routes
- Balance transit and local business needs in locating passenger drop-off and pick-up areas and short term parking spaces
- Enhance safety and comfort by providing sidewalk trees, weather protection, banners, hanging baskets, and tree lighting along the streets adjacent to the station

Complete summary of public comments recorded at the above events are included in Appendix E.

### Staff response to Notification:

Station Design: Staff are recommending design development to strengthen the station entry architectural identity within this constricted urban context (Recommendation 1.1).

Precinct Planning: Ongoing planning and engineering work will be undertaken to achieve precinct improvements that will increase the accessibility of the station by improving connections for pedestrians, cyclists, and transit transfers and support the stations' fit into the communities in which



they are located through improvements to the public realm and management of traffic flows and parking protection within the precinct.

**DEVELOPMENT PERMIT STAFF COMMITTEE COMMENTS:**

The Staff Committee has considered the advice and comments sought by this proposal and concluded that with respect to the considerations of the Development Permit Board, the advice and commentary within this report provides a sufficient level of review for the relevant station design portions of this major public project.

The Staff Committee would note however, that the ultimate success of how well these stations are integrated into the local neighbourhoods will also rely significantly on the important City responsibilities for a number of improvements to the areas surrounding the stations including improved connections for pedestrians, cyclists, and transit travellers and re-designs to the public realms and management of traffic flows within the surrounding precincts.

Staff Committee also believe that the development of a convenient underground connection between the new Waterfront Station (Canada Line) to the existing Waterfront (CP) Station is essential, which is a fundamental Council Principle that should be achieved.

Staff Committee also noted that a response to the recommendations for the previous seven stations has yet to be received.

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B. Boons  
Chair, Development Permit Staff Committee

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A. Molaro, MAIBC  
Development Planner

## DEVELOPMENT PERMIT STAFF COMMITTEE RECOMMENDATIONS

The following is a list of recommendations that must also be met prior to issuance of the Development Permit.

### A.1 Standard Recommendations

- A.1.1 provision of development and building permits applications to reflect the changes proposed for the United Kingdom Building entry area;

**Note to applicant:** Clarification of the proposed changes is required.

- A.1.2 provision of complete and fully dimensioned drawings;

- A.1.3 clarify property lines and rights of way including offsets to nearest property lines;

- A.1.4 design development to locate, integrate and fully screen any emergency generator, exhaust or intake ventilation, electrical substation and gas meters in a manner that minimizes their visual and acoustic impact on the building's open space and the Public Realm;

### Standard Landscape Recommendations

- A.1.5 provision of the following notation on the Site Plan; " Final size, species and location of new street trees to the satisfaction of the General Manager of Engineering Services and Park Board.

**Note to applicant:** Contact Eileen Curran in the Engineering Streets Department (604 871-6131) for tree location and Bill Stephen in the Park Department (604-257-8587) for species;

- A.1.6 provision of large scale (1:50) section showing tree pits for Granville Street. Consideration should be given to providing a continuous planting trench along Granville with a minimum soil depth of 1.0 metre and a minimum trench width of 1.5 metres. Structural soil and or soil cells should be used to ensure the good health and long life of the street trees. ;

### Crime Prevention Through Environmental Design (CPTED)

- A.1.7 design development to reduce opportunities for graffiti;

**Note to Applicant:** Provision of measures / materials to minimize the potential for damage to glazing should be implemented. Acid Etching and graffiti are both problems that occur with glazing and measures to mitigate and minimize damage should be used.

- A.1.8 confirm the provision of security gates to secure the station when the system is not operating;

- A.1.9 provision of a security rationale for the exhaust/intake grilles related to reducing opportunities for depositing hazardous or noxious materials or other methods of possible harm to the transit system or patrons;

### A.2 Standard Engineering Recommendations

- A.2.1 clarification required as to the impacts (if any) to the existing elevated pedestrian walkway adjacent to the Sinclair Centre;
-

- A.2.2 arrangements to the satisfaction of the General Manager of Engineering Services for any retail use within the station (street right of way);
- A.2.3 clarification is required as to whether there is to be any emergency exit emerging onto the City street or are other emergency exiting arrangements in place;
- A.2.4 applicant to provide a plan showing turning swaths for buses turning westbound Hastings St. to southbound Granville St., eastbound Hastings to southbound Granville, and northbound Granville to eastbound Hastings;

**Note to applicant:** Confirmation that Translink supports the turning swaths provided.

- A.2.5 provision of City building grades and corresponding design grades at all entries will meet roads and sidewalk correctly;
- A.2.6 design development to provide a wheel ramp for bicycles on all public stairs for the station;

**Note to applicant:** Provision of a 6" wide wheel ramp mounted to the wall or cast into stairs, at the side of the stairs is required.

- A.2.7 confirmation that elevator size will accommodate cyclists;
- A.2.8 provision of details required for all City servicing, plans should provide all proposed service locations and details for sewer and water information such as fire and domestic flow rates, water service size, offsets of services from ultimate property lines and water meter locations;
- A.2.9 arrangements to the satisfaction of the General Manager of Engineering Services for relocation of all affected utilities:

**Note to applicant:** All utility information should be shown in plan form with affected utilities and relocation proposals clearly identified. All station servicing should be underground and all power transformers should be located within the station. Indicate all approvals currently given related to utility relocations and adjustments on plans and/or in writing.

- A.2.10 clarify garbage/recycling storage areas and pick up operations;
- A.2.11 all sidewalk treatments and geometric changes to the street require the approval of the General Manager of Engineering Services;

**Note to applicant:** Provision of the following notation on the Site Plan; "All public realm details to the approval of the General Manager of Engineering Services. The streetscape details should co-ordinate with the approved Granville Redesign Concept";

### A.3 Standard Vancouver Coastal Health Authority Recommendations

- A.3.1 notation required on plans that mechanical (ventilators, generators, compactors and exhaust systems) will be designed and located to minimize the noise impact on the neighbourhood and to comply with Noise By-law #6555. The mechanical equipment will be designed and located to reduce adverse air quality on the neighbourhood.
-

**B.1 Standard Notes to Applicant**

- B.1.1 The applicant is advised to note the comments of the Processing Centre-Building, Vancouver Coastal Health Authority and Fire and Rescue Services Departments contained in the Staff Committee Report dated November 22, 2006.
  - B.1.2 It should be noted that if advice and comments contained in 1.0 and 2.0 should be resolved by June 4, 2007.
  - B.1.3 Revised drawings will not be accepted unless they fulfill all advice and comments noted above. Further, written explanation describing point-by-point how recommendations have been met, must accompany revised drawings.
  - B.1.4 A new development submission will be required for any significant changes other than those required by the above-noted conditions.
-

## PUBLIC CONSULTATION SUMMARY

### OPEN HOUSE #1 - March 7, 2006 (held at Plaza Lounge at UBC Robson Square)

#### Station Design – Summary of Questionnaire/Comments prepared by InTransitBC

- The downtown stations can be part of an architectural identity along the Canada Line. 60% felt that the downtown stations should be unique with their identity.
- Neighbourhoods are continually changing and reshaping their identity. Given that stations represent public architecture that will last for decades. 54% felt that the stations' architecture should reflect the history and heritage of surrounding areas.
- In response to the importance of having a substantial entrance at Waterfront Station 36% felt it was very important with 28 % felt somewhat important.
- Summary of general comments received:
  - good lighting
  - provide multilingual signage
- accessibility
- security
- retail presence
- provide moving sidewalks for long distances
- a ramp to connect the station with the hub
- washrooms
- incorporate a theme, i.e. maritime, or use of water features
- consideration for commuters with luggage
- 

#### Precinct Planning - Summary of Comments from City of Vancouver feedback forms

*Italic text - them of the majority of comments*

*\* This comment was repeated this many times*

#### Pedestrian/Cyclists Concerns, Issues and Opportunities

- *Enhance pedestrian safety and cyclist access to the station by creating safe and comfortable routes and crossings for pedestrians and cyclists accessing the station from the existing Waterfront Station, the seawall, and adjacent stores and businesses*
- Provide east/west connections for cyclists
- Provide access to the seaside for pedestrian and cyclist from the station
- Provide bike parking at the station\*\*\*
- Improve Granville and Cordova intersection - the pedestrian overpass and signal is very pedestrian unfriendly
- Ensure pedestrian access to the station is not compromised by cyclists carrying or walking their bikes
- Create safer pedestrian crossings of Granville Street
- Concerned about jaywalking occurring across Granville and Cordova
- Provide bike lanes to the station
- Establish a good connection between the station and the seawall bike and pedestrian path - this - would make excellent access for tourists and locals to Stanley Park
- Concerned about pedestrian and cyclist safety in the area
- Provide wider sidewalks along Cordova Street
- Ensure there is convenient cyclist access into the station
- Rebuild the pedestrian bridge over Cordova

#### Transit Concerns, Issues and Opportunities

- *Facilitate safe, efficient and comfortable transferring from the station to the existing Expo Line SkyTrain, Seabus, West Coast Express, future streetcar and adjacent bus routes*
  - Should have two entries to this station
-

- Coordinate times of SkyTrain, Canada Line, Seabus, and the West Coast Express to allow for easy transferring
- Provide a more direct connection from the Canada Line to the existing transit lines located in Waterfront Station\*\*\*\*
- Ensure the bus connections to the station on Cordova and Granville are convenient
- Ensure there is good connectivity to the future streetcar
- There should be an additional entrance on the south side of Hastings
- Locate the Stanley Park bus route onto Cordova for easy transferring

#### Traffic and Parking Concerns, Issues and Opportunities

- *Balance transit and business needs in locating passenger drop-off and pick-up areas and short term parking spaces*
- Ban cars on Granville from Cordova to Hastings
- Install speed humps in the alley south of the 300 W Hastings block
- Provide free parking
- Don't install car parking at the station entrance
- Provide drop-off areas
- Eliminate on-street parking on Cordova
- Provide limited time parking
- Concerned about increased traffic in the area

#### Other Concerns, Issues and Opportunities

- *Enhance safety and comfort by providing sidewalk trees, weather protection, banners, hanging baskets, and tree lighting along the streets adjacent to the station*
- Finish the hub study and make Cordova Street a major Olympic open space
- Concerned about increased crime and drug use in the area and passenger safety\*\*\*
- Ensure that the concourse is well lit and well signed
- Minimize hidden spaces in the station
- Try to design the escalators to handle the peak hour pedestrian flows
- Design the station entrance so that it enhances Granville Street and does not negatively impact Sinclair Centre
- Supply covered pedestrian walkways around the station
- Provide clear, bright and easy to read directional signage
- Provide sidewalk trees, banners, hanging baskets, and tree lighting along the streets adjacent to the station on Granville (Cordova to Hastings) and along Hastings
- Encourage stores to locate at the ticket concourse for convenience and to provide more "eyes on the street"
- Scrap the Granville Street extension plan - the existing plaza has good views of the harbour

### **OPEN HOUSE #2 – May 1, 2006 (held at Scotia Dance Centre)**

#### **Station Design - Summary of Questionnaire/Comments prepared by InTransitBC**

- the entry to Waterfront station that is seen to be more convenient was 45% supported Sinclair Centre with 40% supportive of the south side of Hastings entrance in the street.
- If the entry was integrated into Sinclair Centre enhanced measures to increase visibility such as canopies should be provided

#### Summary of general comments received:

- preference for two entrances for safety
  - improve bus connections
  - improve functionality
  - request up and down escalators
  - ramp to street level for cyclists, wheelchairs
  - remove elevator
  - allow more light into station
-

- use below grade space (i.e. high ceiling or mezzanine)
- include pay toilets in close proximity

**Precinct Planning – Summary of Comments from City of Vancouver feedback forms:**

In response to a draft precinct plan presented the following comments were received:

Pedestrian Improvements

- Underground walkways should be constructed to connect Sinclair centre with Waterfront station. Do not enhance but rather eliminate the two crosswalks at Cordova and Granville. It could improve the flow of traffic (buses) at this intersection and would keep pedestrians out of the rain.
- Widen the sidewalk on Granville, ban southbound cars.
- Keep the Granville square overpass.

Bicycle Connectivity

- Bike lanes on both sides of Cordova St.

Bus Stop Locations

- Couldn't see new bus stop zones unless they remained the same
- Possible centre island passenger zone for 2 way bus service close to Waterfront station and a 2 lane separate road hugging the south side.

Traffic Changes

- Construct underground walkways
- Reduce road width to 4 lanes and bikes (2 bike lanes, 2 car lanes and 2 transit lanes)

Public Realm

- Needs lots of colour for rainy drab days
- Close Granville to Southbound cars

Other Comments

- Toilets
  - Down escalators
  - Waterfront station needs much better signage
  - Up and down escalators
  - This is a disaster! The platform is way too far from the SkyTrain, Seabus and Westcoast Express.
-