

## 5 *Implementation Ideas*

The ideas in this section are an outcome of the consultation process that occurred during the development of the Plan. When developing the downtown transportation plan it was important to assess the feasibility of the various proposals to ensure that there is a practical way to implement each of the plan components. Developing conceptual designs was a way to test the practicality of the plan.

This section illustrates how many of the major plan components could be implemented. Section 5.1 addresses site-specific issues, called “spot improvements”. Spot improvements were identified by input from the public, the safety study, and staff. Sometimes spot improvements were identified in response to a policy recommendation outlined elsewhere in the plan. Section 5.2 describes the conceptual downtown bus routes in more detail.

The accompanying approaches and illustrations are intended to provide suggestions when undertaking further detailed analysis and design development. In all cases, the usual public and stakeholder consultation process would be followed prior to implementing the various plan components. In addition, a comprehensive approach that includes the integration of public realm issues could be undertaken.

The suggestions that follow illustrate the feasibility of some of the recommendations in the Plan. However, in the end, the actual designs and solutions that are built may be quite different from the ideas in this section.

### 5.1 Spot Improvements

Figure 5-A shows the locations of all the implementation ideas. Figure 5-B summarizes issues and the transportation modes impacted.

The spot improvements listed in Figure 5-B have additional descriptions that can be found chronologically after the table. All will require follow-up analysis and consultation before pursuing any particular design.

Figure 5-A  
Locations of Spot Improvements

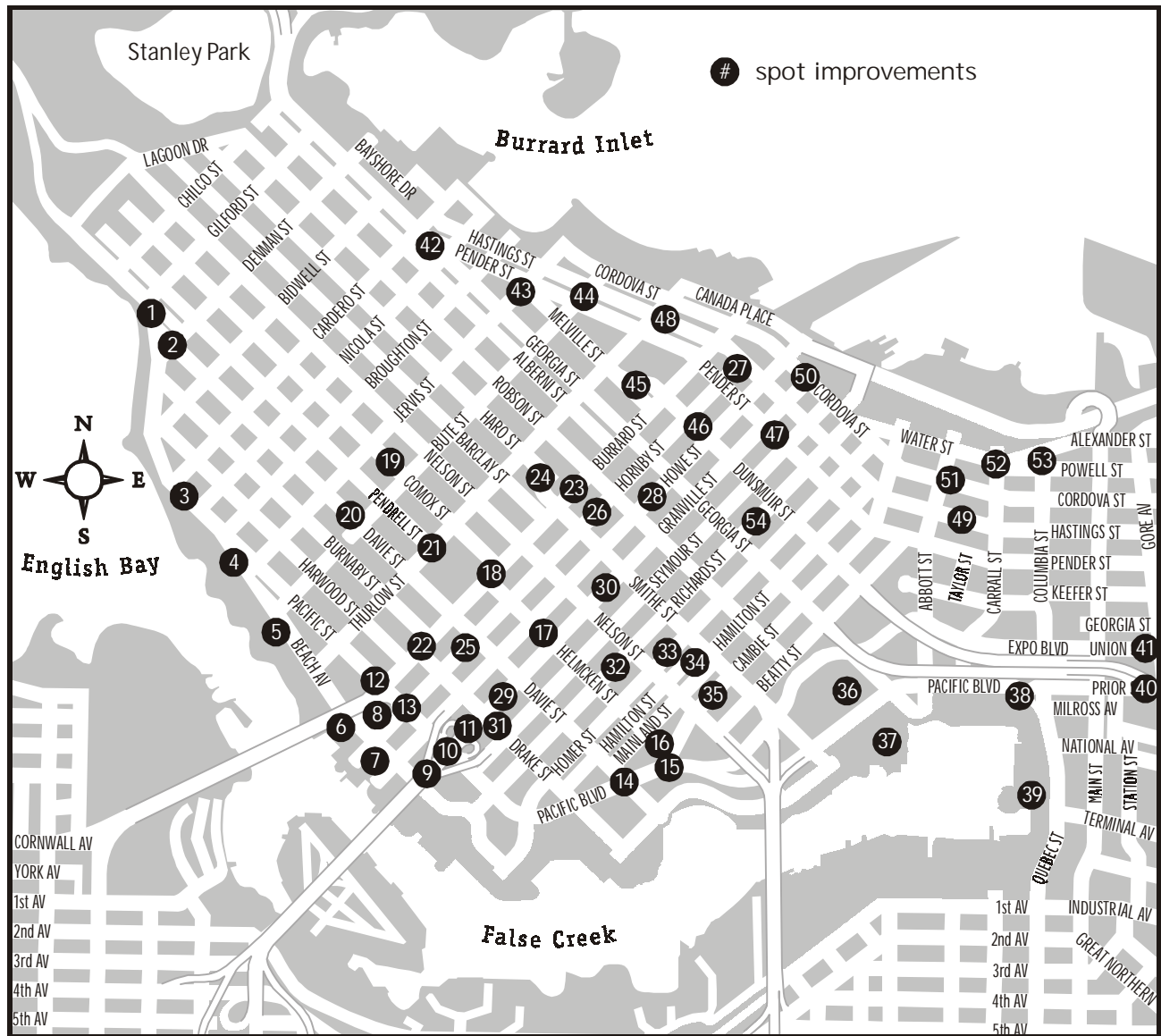


Figure 5-B

## List of Spot Improvements

Item	Location	Pedestrian	Cycling	Transit	Road Network
1	Normalize the intersection of Morton Avenue at Beach Avenue	X			
2	Explore options for Morton Avenue to enhance landscaping	X			X
3	Improve pedestrian and cyclist crossing of Beach Avenue at Bidwell Avenue	X		X	
4	Improve crosswalk on Pacific Street at Beach Avenue	X			X
5	Extend the Beach Avenue Off-Street Bike Route from Bidwell St to Hornby St	X	X		
6	Improve the Seaside Route for cyclists under the Burrard Bridge	X	X		
7	Improve the Seaside Route for cyclists at Hornby and Howe Streets		X		
8	Improve Seaside Route connection to Burrard Bridge for cyclists	X	X		
9	Improve the crosswalks on the Granville Bridge at the Seymour and Howe ramps	X	X		X
10	Improve the crosswalks on Pacific Street under the Granville Bridge	X	X		X
11	Redesign the Granville Bridge Loops	X	X		X
12	Redesign the intersection of Pacific St and Burrard St	X	X		X
13	Widen Pacific Street between Burrard and Hornby St		X		X
14	Redesign the intersection of Pacific Blvd at Davie St	X	X	X	X
15	Redesign the intersection of Pacific Blvd at Cambie St	X	X		X
16	Improve pedestrian and cyclist access through Helmcken Park between Mainland and Pacific	X	X		
17	Redesign Helmcken Street as a pedestrian and cyclist friendly greenway	X	X	X	X
18	Create a cyclist connection between Helmcken and Comox across Burrard St	X	X		
19	Enhance the crosswalk on Comox St across Thurlow St		X		
20	Widen sidewalks on Davie Street using building setbacks	X			
21	Improve the streetscape and pedestrian environment on Thurlow Street	X			
22	Create a southbound bike lane on Burrard Street		X		X
23	Remove parking on Burrard between Nelson and Robson in the PM peak hour		X	X	X
24	Enhance the crosswalk on Smithe Street at Haro Street	X	X		
25	Remove parking westbound on Davie Street between Burrard and Hornby		X	X	

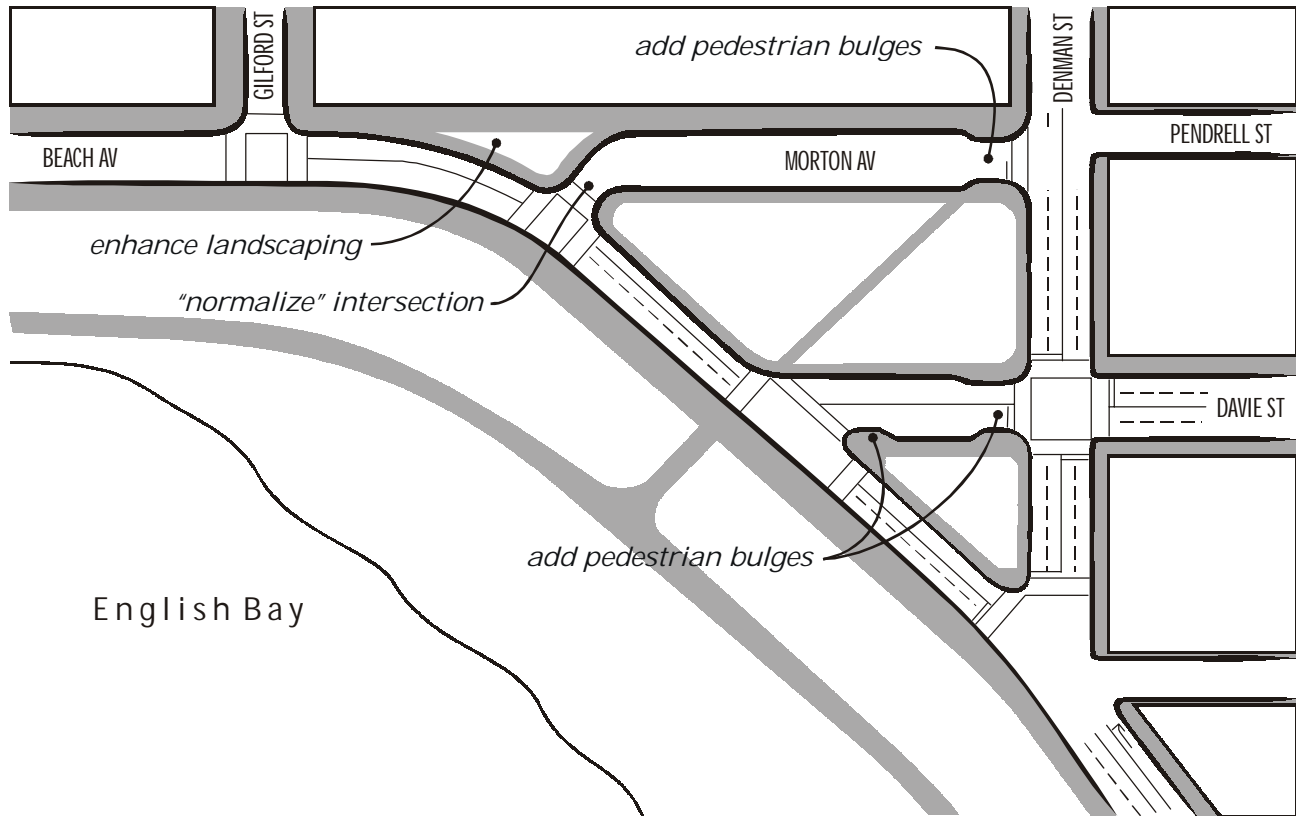
Item	Location	Pedestrian	Cycling	Transit	Road Network
26	Create a bike lane on Hornby Street from Pacific to Hastings Street				X
27	Adjust the intersection of Hornby Street at Hastings Street to accommodate a cyclist left turn		X		
28	Change the parking access ramps on Howe Street between Georgia Street and Smithe Street	X			X
29	Widen sidewalks on Granville Street between the Bridge and Nelson Street	X			X
30	Prohibit general traffic northbound on Granville Street between Nelson Street and Smithe Streets	X		X	X
31	Route the Pacific Boulevard Streetcar line along Drake Street to Granville Street			X	X
32	Create a southbound bike lane on Richards Street		X		X
33	Convert Homer Street to a two-way street	X			
34	Create a direct pedestrian connection between Hamilton Street end and the intersection of Hamilton between Nelson and Smithe	X			
35	Create a northbound bus lane on Cambie Street from Nelson Street to Smithe Street			X	X
36	Integrate the Northeast False Creek development into the downtown by extending the street grid into the site	X			
37	Improve pedestrian and cyclist continuity through the Plaza of Nations	X	X		
38	Modify the intersection of Pacific and Quebec to better accommodate the streetcar and cyclists		X	X	X
39	Facilitate cyclist connection through the Science World area		X	X	
40	Improve cyclist access through the intersection of Prior Street and Gore Avenue		X		
41	Improve crossing conditions for cyclists crossing Gore Avenue at Union Street	X	X		
42	Normalize the intersection of Georgia and Pender Streets	X	X		X
43	Prohibit southbound access onto Jervis Street from Pender Street	X	X		X
44	Enhance the streetscape on Bute Street between Robson Street and Cordova Street	X			
45	Enhance the crosswalk on Dunsmuir at Melville (mid-block crossing)	X	X		
46	Create a westbound bike lane and improve the traffic lanes on Dunsmuir Street		X		X
47	Create an eastbound bike lane on Pender Street and provide loading zones		X	X	X
48	Redesign Hastings Street between Burrard To Bute to eliminate the narrow traffic lanes				X

Item	Location	Pedestrian	Cycling	Transit	Road Network
49	Improve conditions for pedestrians on Hastings Street between Main Street and Cambie Streets	X			X
50	Redesign Cordova Street in front of Waterfront Station to enhance the transit hub	X	X	X	X
51	Create a streetcar route on Cordova Street between Bute Street and Columbia Street	X		X	
52	Redesign the intersection of Water/Carrall /Powell /Alexander	X	X	X	X
53	Increase the space for pedestrians and landscaping on Columbia Street between Powell Street and Alexander Street	X	X		X

### Descriptions of Conceptual Designs and Spot Improvements

#### 1. Normalize the intersection of Morton Avenue at Beach Avenue

The angled geometry of this intersection creates a long and awkward crosswalk for pedestrians. Pedestrian bulges can be used to “normalize” this intersection and improve conditions for all users.



#### 2. Explore options for Morton Avenue to enhance landscaping

Pedestrian bulges at this intersection would improve this crosswalk and could be used to further beautify the area. Morton Avenue could be made into a one way street. This would allow for some sidewalk widening that could be used for outdoor restaurant seating or for additional landscaping.

#### 3. Improve pedestrian and cyclist crossing of Beach Avenue at Bidwell Street

This intersection is angled such that it affects visibility. Pedestrian bulges and a cyclist push button would improve conditions for cyclists and pedestrians.

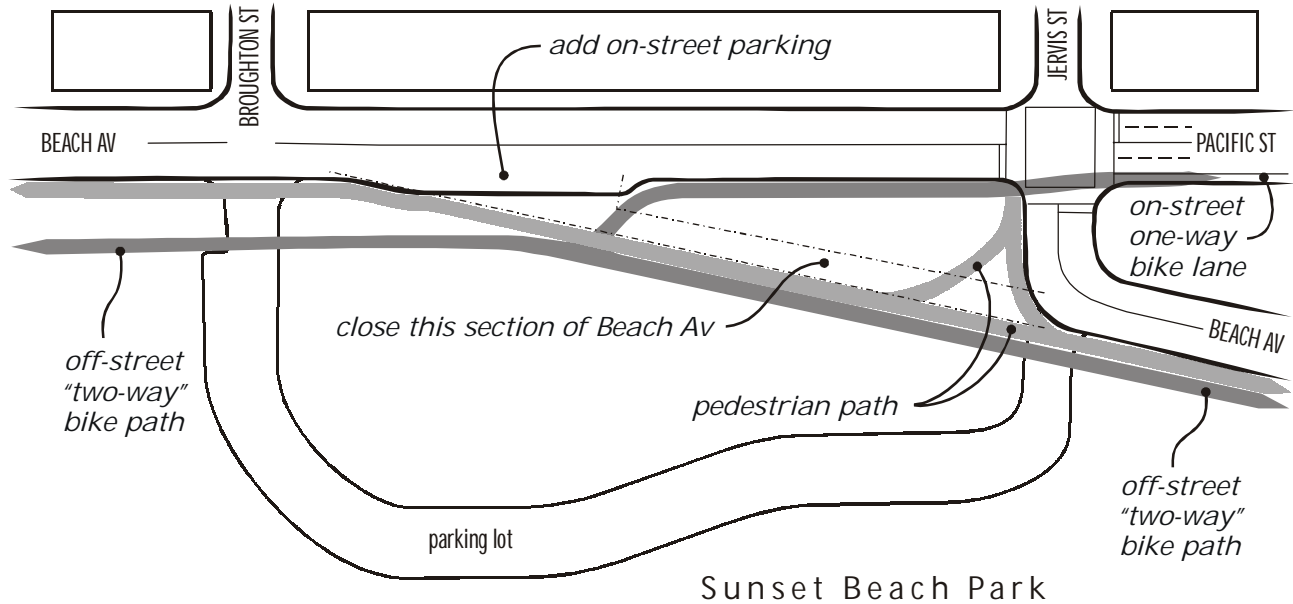
**4. Close the right-turn channel on Beach Avenue at Broughton Street**

**The Issue**

The pedestrian crossing at Beach and Pacific is uncomfortable due to cars continuing on Beach Avenue where it splits into Beach Avenue and Pacific Street. An eastbound bike route through this intersection would provide a needed connection to the Burrard Bridge.

**The Approach**

A closure of the one leg of Beach Avenue as shown below would both increase the open space as well as improve pedestrian crossing and bike routing options. Lost curbside parking could be replaced on Pacific as shown.



**5. Extend the Beach Avenue Off-Street Bike Route from Bidwell St to Hornby St**

**The Issue**

Beach Avenue is 36' wide between Granville and Jervis with parking on both sides. Bike route connections are needed coming off of Burrard Bridge and linking up with the West End. In addition, better bike access between the Vancouver Aquatic Centre and the English Bay Bikeway would be beneficial.

**The Approach**

An extension of the off-street Seaside Bikeway is proposed for the south of Beach Avenue in a 2-way bike configuration terminating at Hornby Street. This would provide the opportunity to link to both the Vancouver Aquatic Centre and the Burrard Bridge as shown below.

**6. Improve the Seaside Route for cyclists under the Burrard Bridge**

**The Issue**

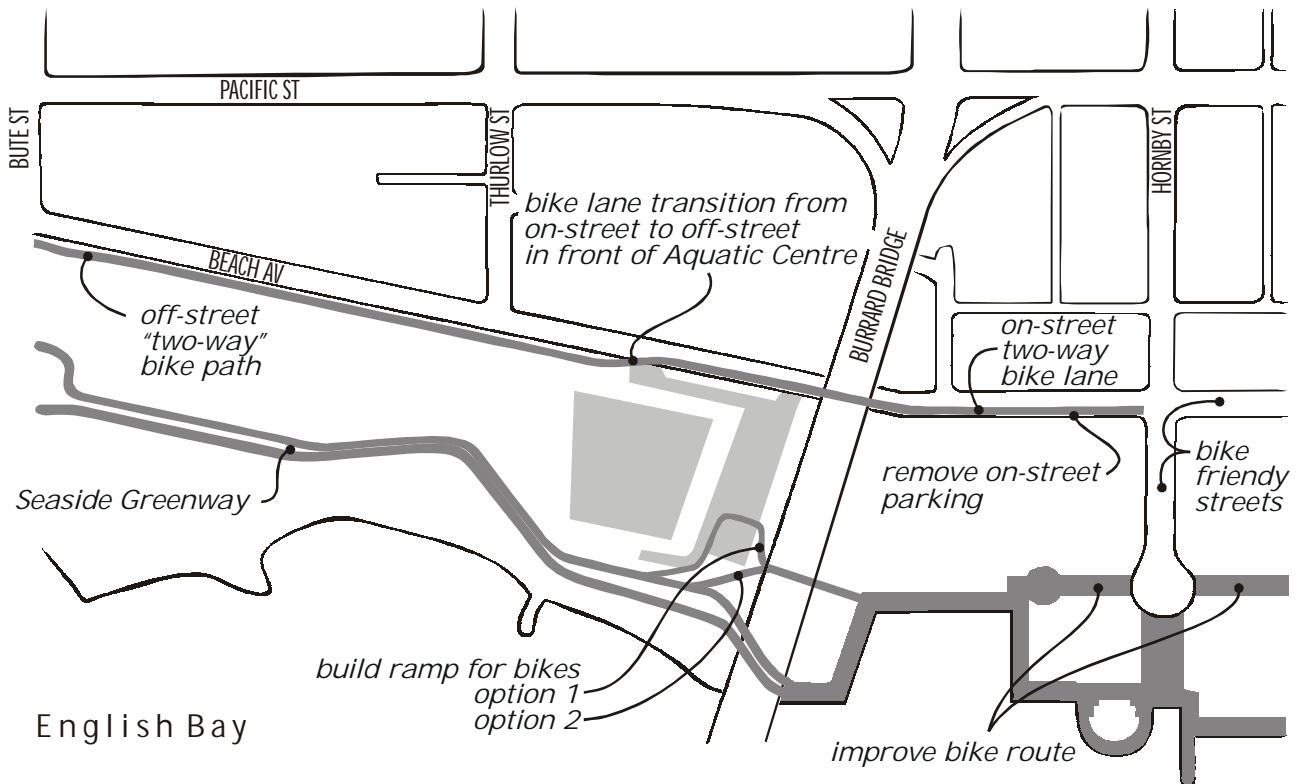
A tight and limited vision corner exists at the Southwest corner of the 1000 Beach property. This busy corner has a downhill slope coming from under the Burrard Bridge. Pedestrian and wheeled-user conflicts are common.

**The Approach**

An alternative bike and in-line skating route could be designed through the breeze way and up into the Burrard Bridge area, by-passing the tight corner on the waterfront walkway.

**7. Improve the Seaside Route for cyclists at Hornby and Howe Streets**

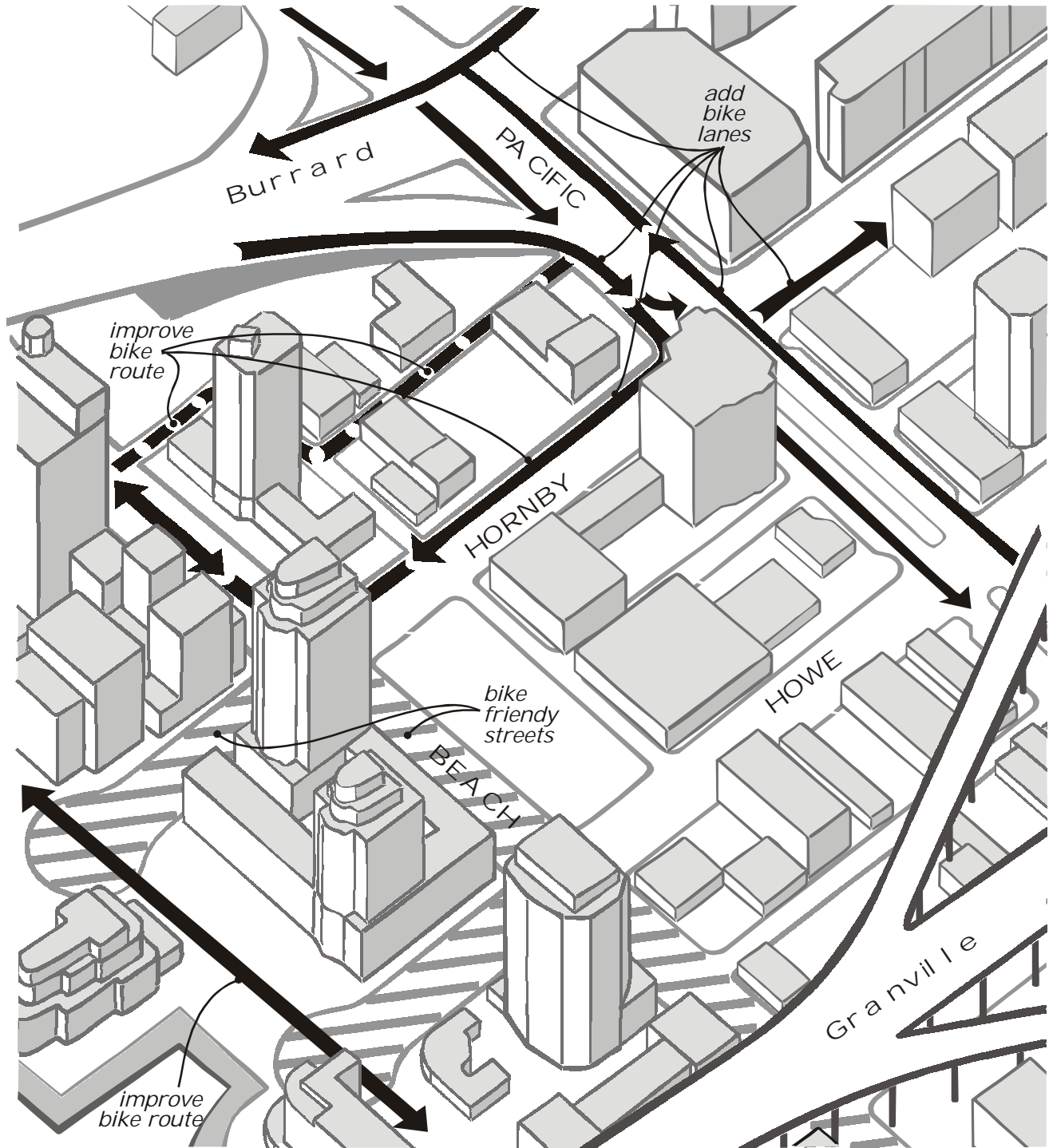
Cycling and in-line skating through these intersections can be awkward due to the curb and bollard design and location. Changes that would improve conditions for cyclists and in-line skaters are recommended and could include diversion or separation of the bike route from other users.





### 8. Improve Seaside Route connection to Burrard Bridge for cyclists

A direct and comfortable bike route is needed to connect the Burrard Bridge bike facility with the seaside Bikeway. This will be examined as part of the design development of an improved bike facility on the Burrard Bridge.

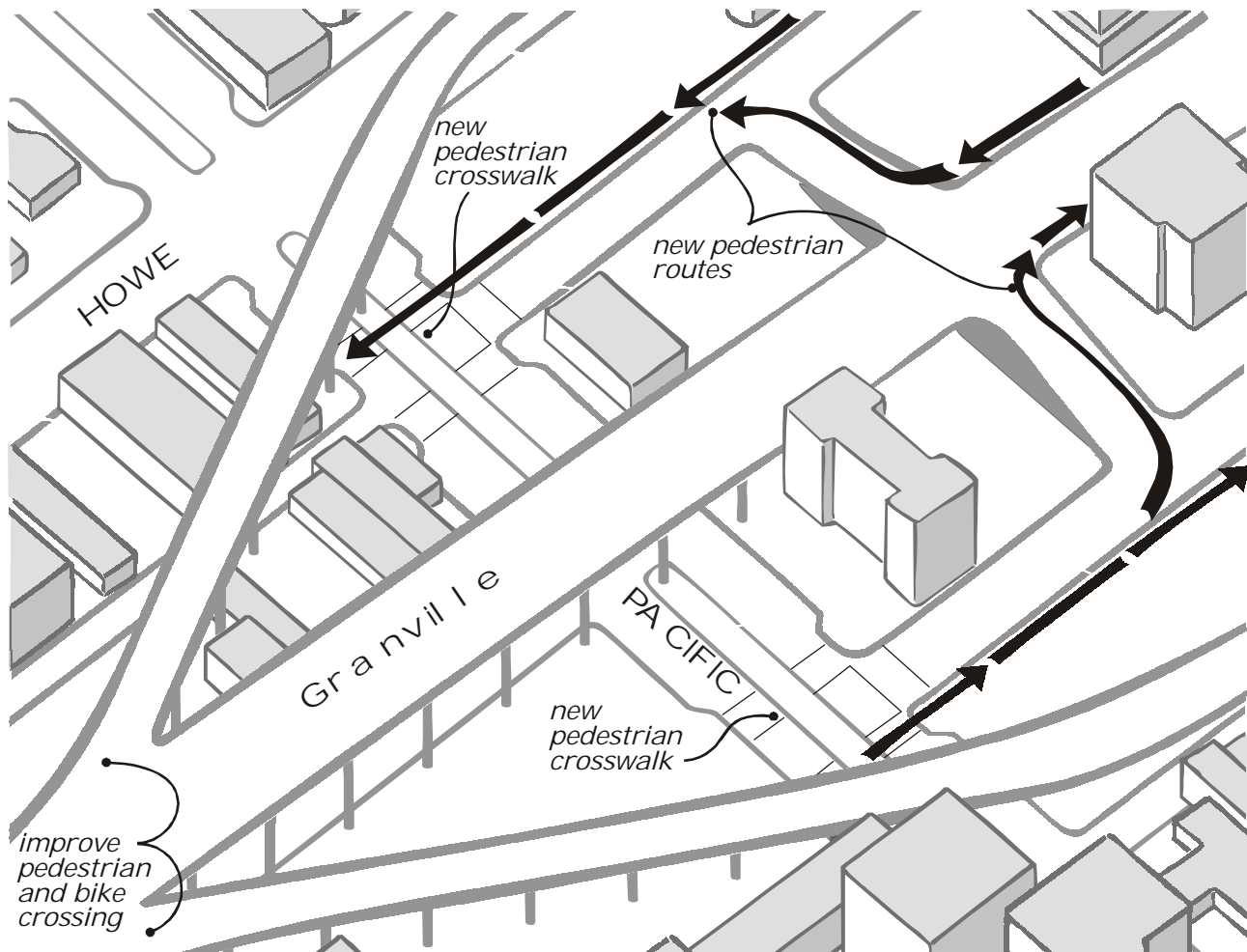


### 9. Improve the crosswalks on the Granville Bridge at the Seymour and Howe ramps

Pedestrians and cyclists that travel between the Granville Bridge and Granville Street downtown must cross the path of fast moving cars using the Seymour and Howe ramps. Changes that improve the pedestrian crosswalk will be considered as part of the False Creek Pedestrian/Cyclist Crossing Study. A bike facility on the Granville Bridge will also be evaluated as part of that work.

### 10. Improve the crosswalks on Pacific Street under the Granville Bridge

Crossing Pacific Street under the Granville Bridge is a challenge due to the grade changes and the vision obstruction caused by the bridge columns. This issue should be addressed as part of the re-design of the bridge "loops" (the cloverleaf interchange with Pacific Street). One possible solution is described in item 11 below.



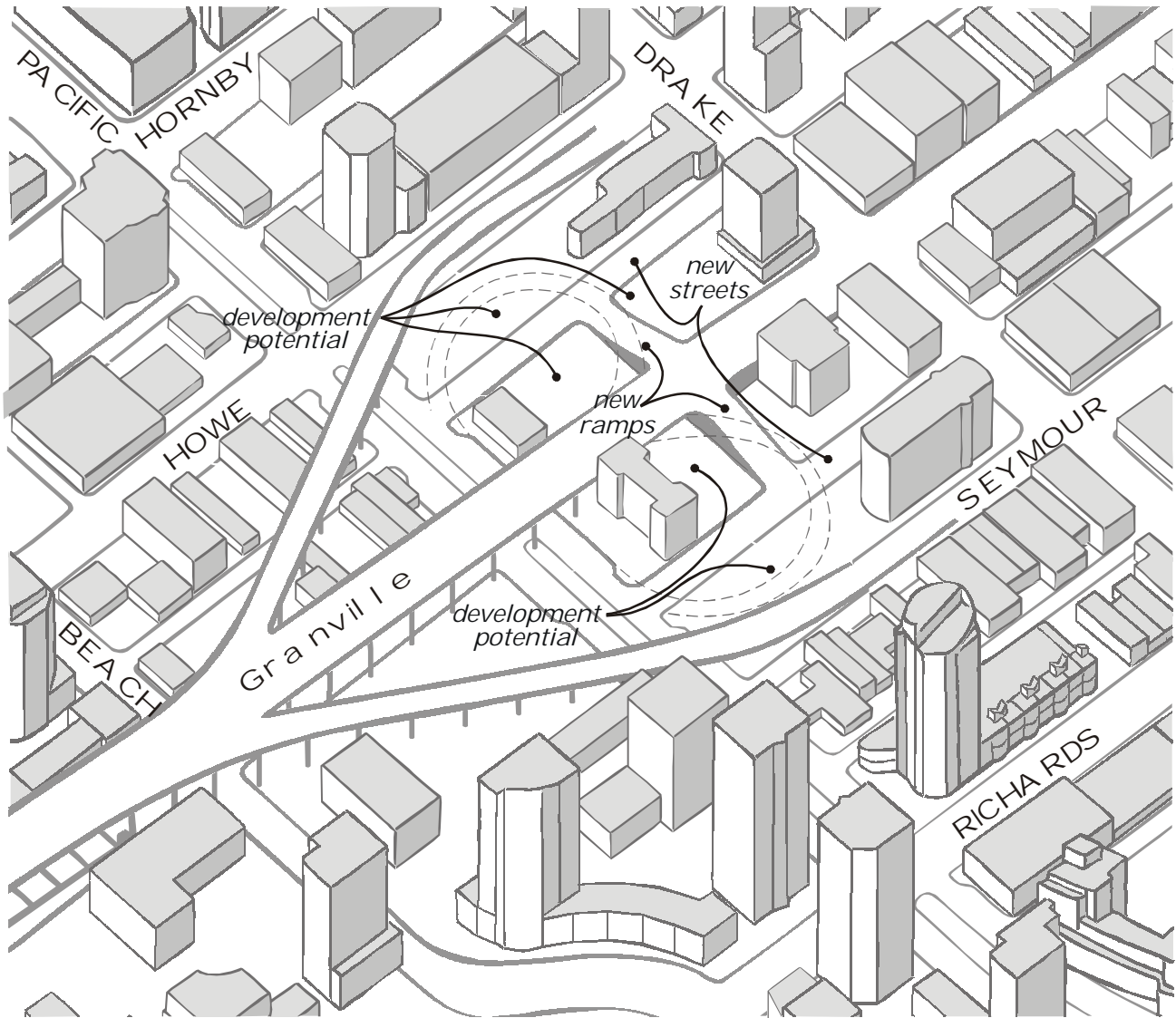
### 11. Redesign the Granville Bridge Loops

**The Issue**

False Creek Bridges are a critical link to the downtown peninsula. However, where the bridges connect to land, the ramps can often be problematic for development of the land and for making pedestrian and bike connections. Development adjacent to ramps can often be compromised as well. In regard to the Granville Bridge, access south on Granville Street down to False Creek is difficult for pedestrians, cyclists and even vehicles.

**The Approach**

A redesign of the Granville Bridge Loops is proposed. This road design could maintain or improve vehicular access to this area. In addition, the development potential of the land parcels would be enhance and could offset the costs of reconstructing the roads. The city’s street grid could be extended into the site, providing good access both to and through the parcels in the loops area, for vehicles, pedestrians and cyclists. In addition, the area could be developed into a southern gateway or anchor for Granville Street, acting as a catalyst for further development of the southern end of the street



**12. Redesign the intersection of Pacific Street and Burrard Street**

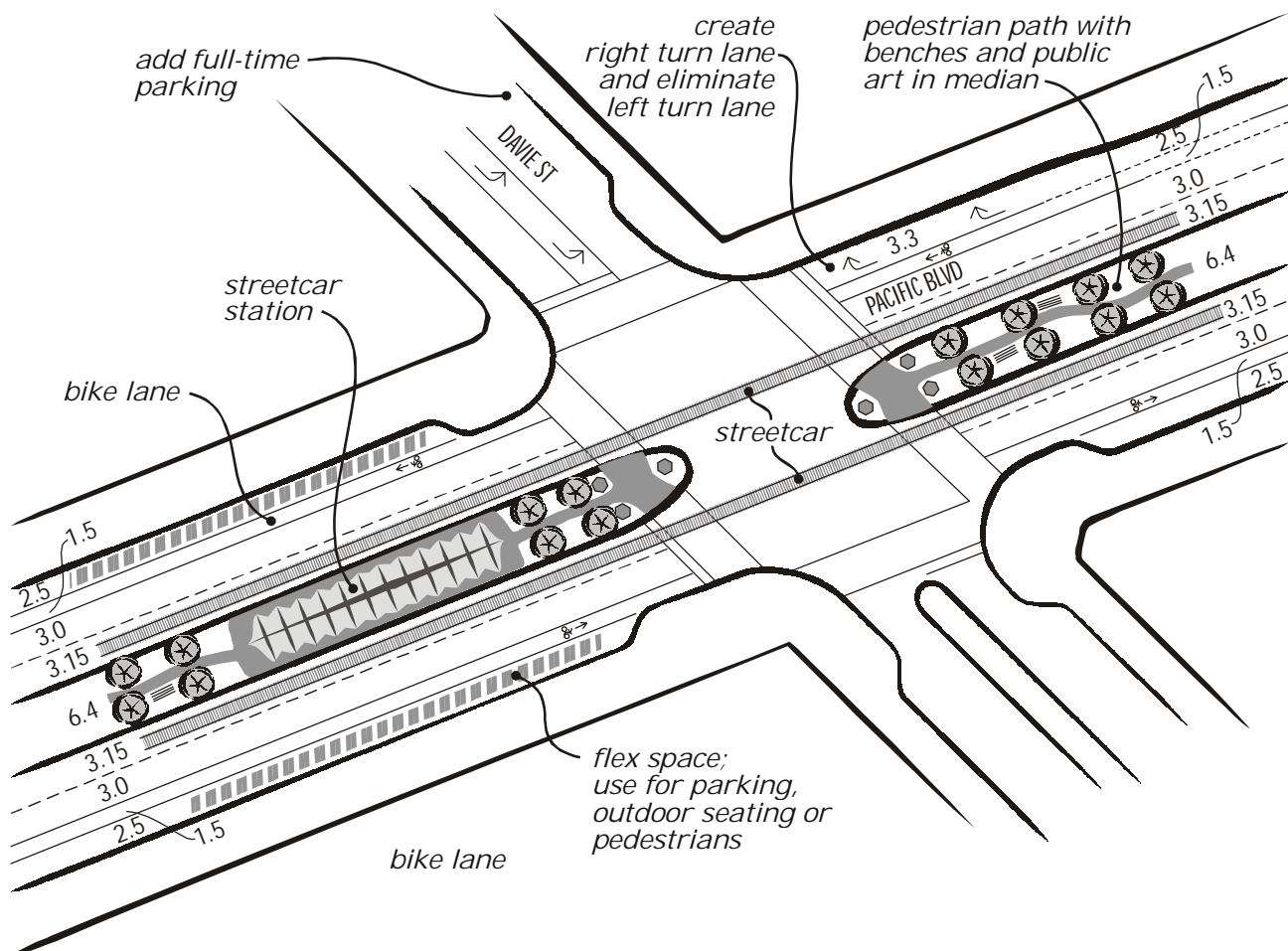
Pedestrian, bike and vehicular conflicts exist at the Burrard and Pacific intersection. These conflicts will be addressed as part of the Burrard Bridge Study and as part of the implementation of bike lanes on Burrard, Pacific, and Hornby Streets. Also required as part of the intersection redesign is the provision of a direct connection to the north end of the Burrard Bridge from the Seaside Bike Route.

**13. Widen Pacific Street between Burrard and Hornby Streets**

Bike lanes need to be routed off the Burrard Bridge and onto Pacific and Hornby Street. The current width of Pacific in this section is insufficient but a potential redesign of this section will be undertaken as part of the Burrard Bridge study.

**14. Redesign the intersection of Pacific Boulevard at Davie Street**

This intersection was part of the Pacific Boulevard redesign study and Council has approved a design concept.



**15. Redesign the intersection of Pacific Boulevard at Cambie Street**

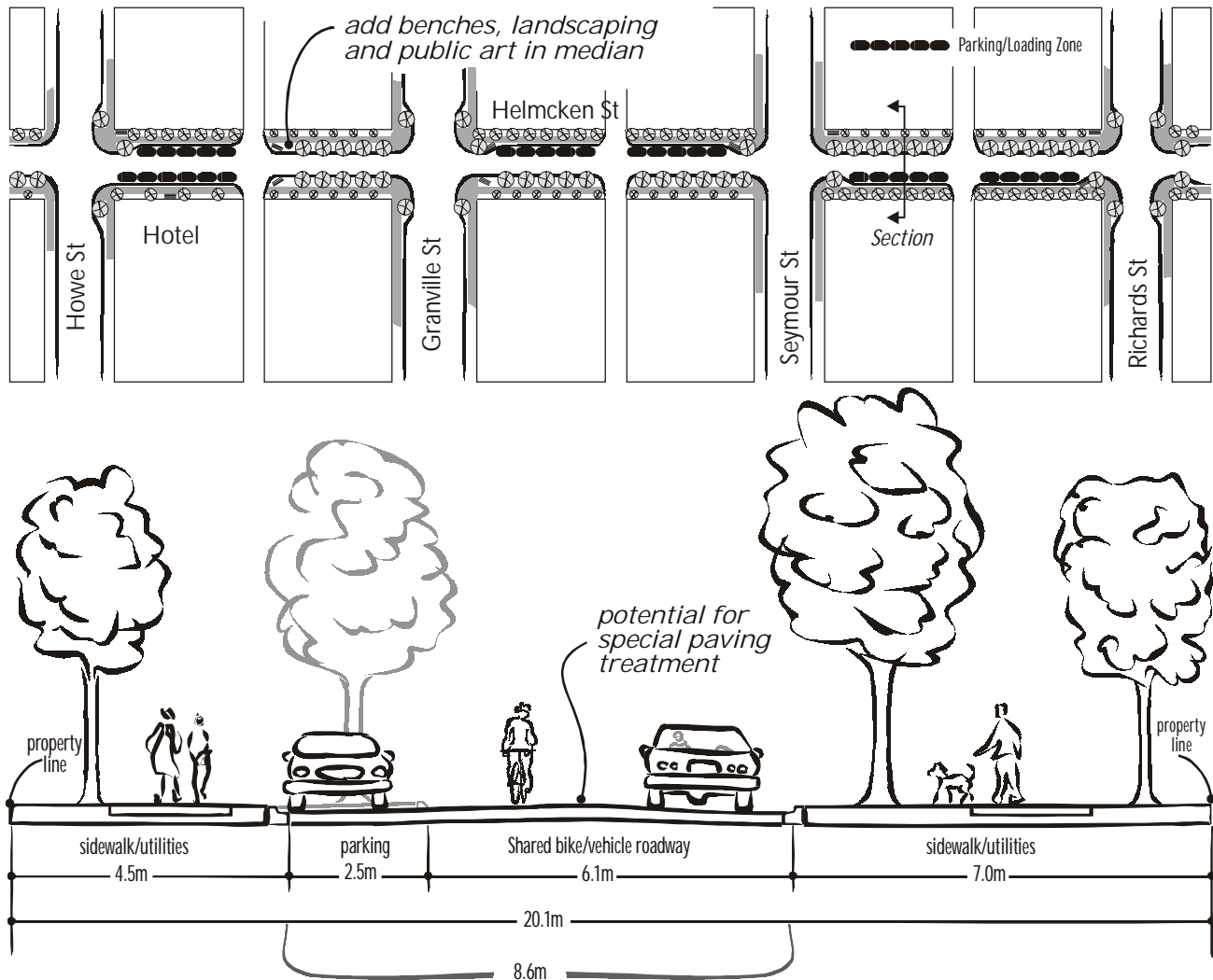
This intersection was part of the Pacific Boulevard redesign study and Council has approved a design concept.

**16. Improve pedestrian and cyclist access through Helmcken Park between Mainland and Pacific**

Between Mainland and Pacific the Helmcken Greenway passes through a surface parking lot, crosses a lane and passes through Helmcken Park. Along the property lines that separate the lane from the park and parking lot are a series of bollards and chains that define the lane but make it awkward for pedestrians and cyclists to negotiate. Repositioning the bollards and chains in cooperation with the owner of the parking lot could improve conditions for all users.

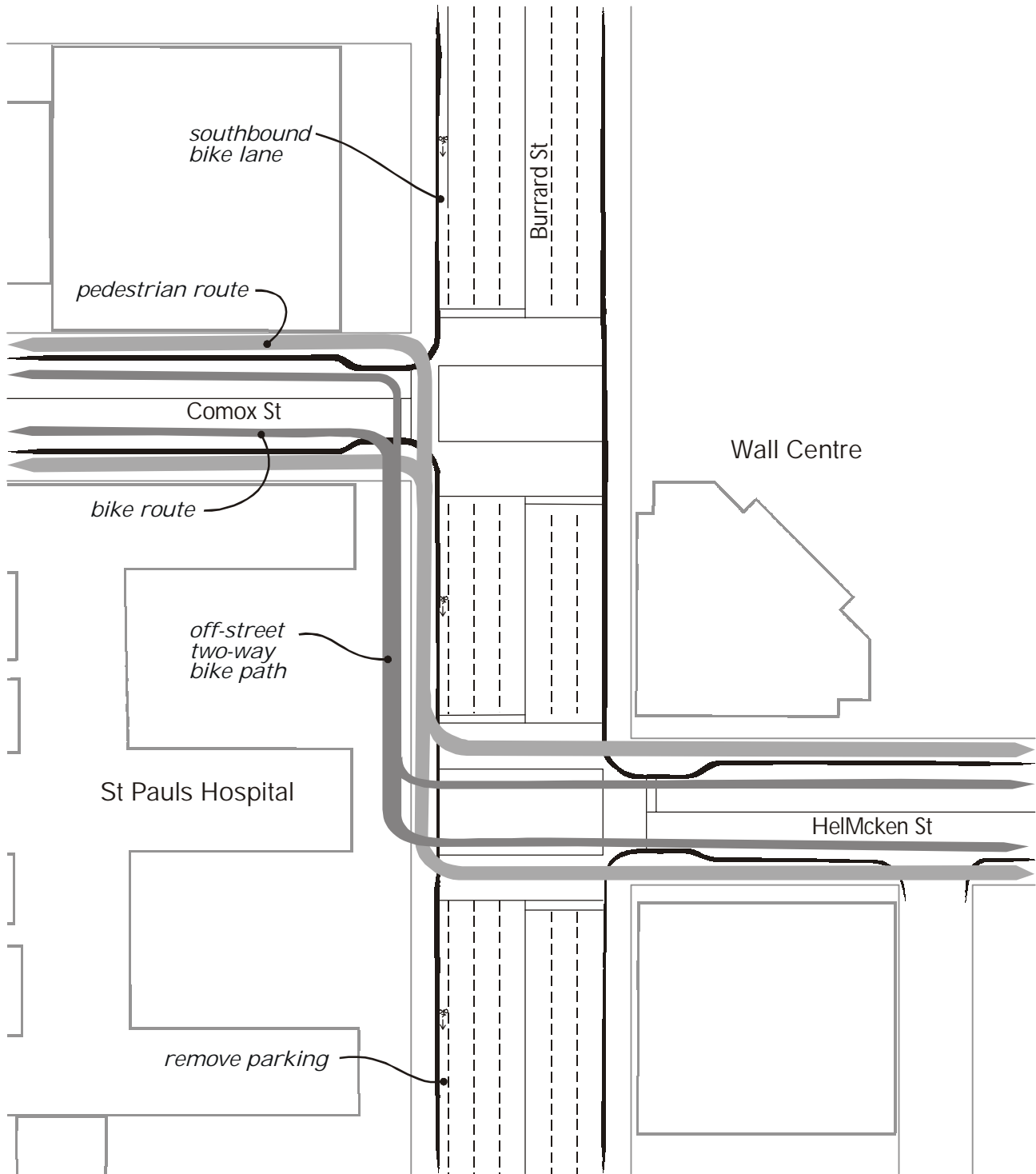
**17. Redesign Helmcken Street as a pedestrian and cyclist friendly greenway**

Redesign Helmcken as a highly pedestrianized “woonerf street” along the lines of streets seen on Granville Island. This would include multiple curb bulges, open spaces, traffic calming, landscaping and other pedestrian features. Additional landscaping could be provided if some of the street parking is removed.



**18. Create a cyclist connection between Helmcken and Comox across Burrard**

This offset intersection poses additional complexities for routing cyclists across Burrard along the proposed bikeway/greenway. A combination of bike lanes and off-street bike facility on Burrard Street in front of the St. Paul's hospital could provide a way to facilitate this movement.



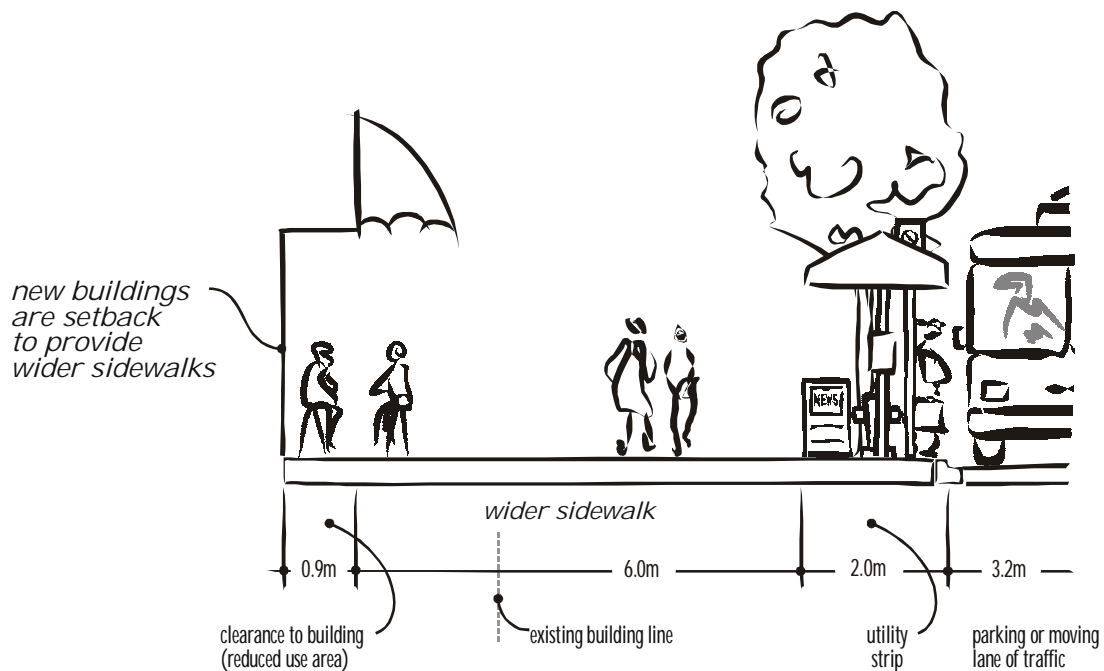
**19. Enhance the crosswalk on Comox Street across Thurlow Street**

Crossing Thurlow Street at Comox can be difficult for some at this un-signalized intersection. The pedestrian crossing could be enhanced with a traffic signal or a raised crosswalk.

**20. Widen sidewalks on Davie Street using building setbacks**

Davie Street is a neighbourhood centre for the West End and Downtown South, attracting significant vehicular, transit, and pedestrian volumes. The sidewalks must accommodate pedestrians and sidewalk activities that make the street interesting like flower displays and outdoor seating for restaurants. Pedestrian volumes are projected to increase significantly as the population in Downtown South increases.

To accommodate the demand for sidewalk space new buildings on Davie Street between Burrard and Jervis could be setback 7 feet similar to Robson Street or Davie Street in Downtown South.



**21. Improve the streetscape and pedestrian environment on Thurlow Street**

**The Issue**

Thurlow Street is primarily a residential street, but lacks street trees and boulevards that are typical elsewhere in the West End. Pedestrian access across Thurlow could also benefit from some streetscape improvements. Access to St. Paul’s Hospital needs to be considered with any redevelopment proposals.

**The Approach**

A process that involves both the hospital and the surrounding residents could be undertaken to redesign the streetscape in order to determine a preferred solution on Thurlow Street. At the very least, an opportunity exists with the current one-way configuration to create curb bulges that would improve pedestrian crossings of Thurlow Street. In addition approximately 2' of boulevard space can be added in each curb lane providing the opportunity for street tree planting along the majority of the street.

**22. Create a southbound bike lane on Burrard Street**

**The Issue**

With significant bus traffic on Burrard Street, TransLink has requested some additional bus priority measures to avoid general congestion. In addition, cyclists need a route from Downtown to the Burrard Bridge.

**The Approach**

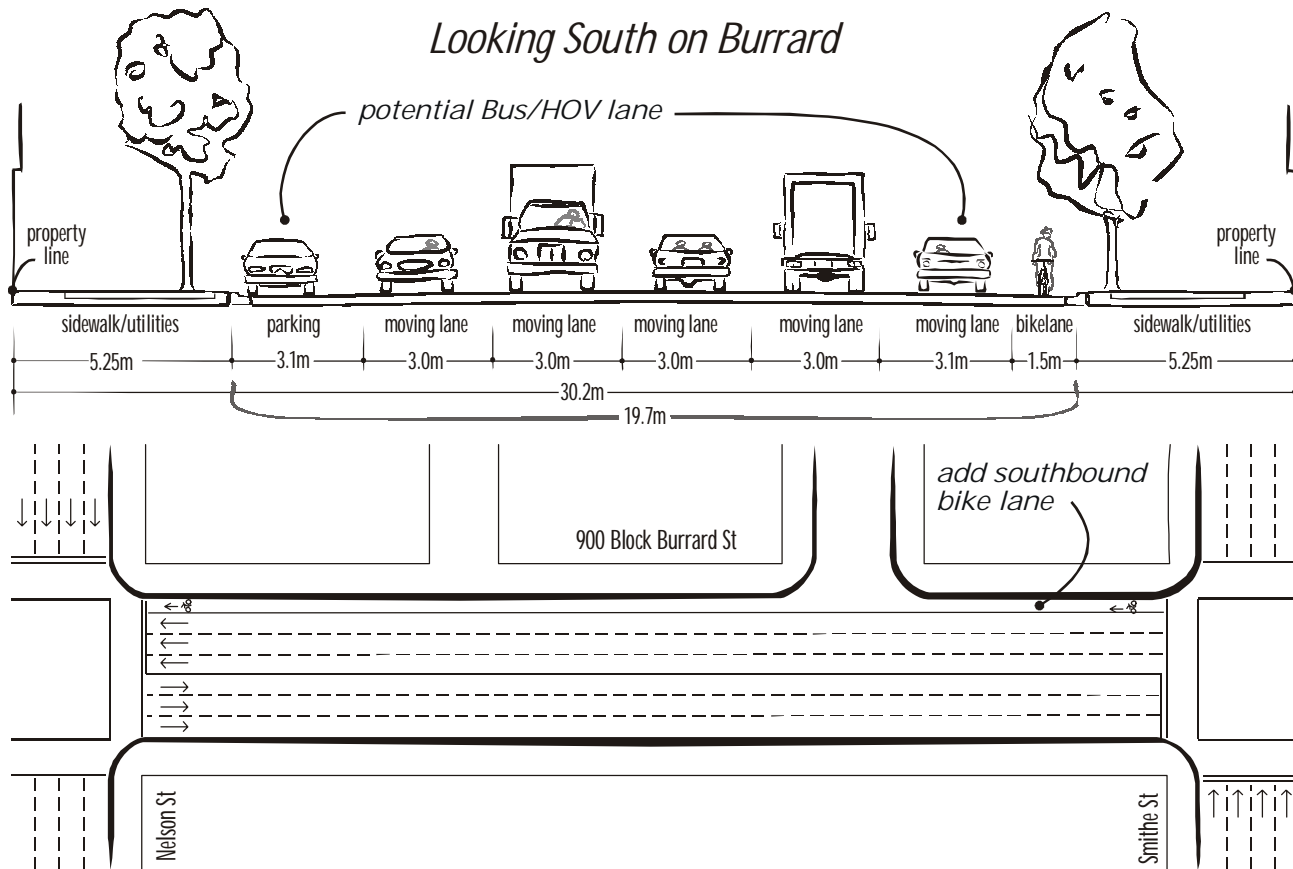
A southbound bike lane could be provided on Burrard Street by narrowing the six existing lanes to standard widths without losing any vehicular capacity. In the northern section, a bus lane and/or loading zone with some parking could be designed in the curb lane with a bike lane between it and the travel lane.

In the south, by removing part-time parking on the west side of the street, a bike lane could be designated adjacent to the curb. This would also provide three southbound general traffic lanes at all times of the day.

**23. Remove parking on Burrard between Nelson and Robson in the PM peak hour**

The northbound curb lane is currently a parking lane with restricted hours. No stopping is enforced in the morning and afternoon peak traffic periods. However the two blocks between Nelson and Robson permit parking during the 3 to 6 PM rush hours. This creates some congestion during this period.

TransLink has requested some additional bus priority measures to avoid general congestion on Burrard Street. The DTP would remove parking on these blocks during the afternoon rush hours to create a bus lane, HOV lane, or general traffic lane to reduce delays for transit passengers and motorists.





**24. Enhance the crosswalk on Smithe Street at Haro Street**

At the location where Smithe Street becomes Haro Street (mid block between Burrard St and Thurlow St), the north sidewalk can be confusing and awkward for people walking along the street.

This could be corrected by normalizing the intersection. This would improve conditions for all users.

**25. Remove parking westbound on Davie Street between Burrard and Hornby**

This would improve vehicular circulation and transit travel times.

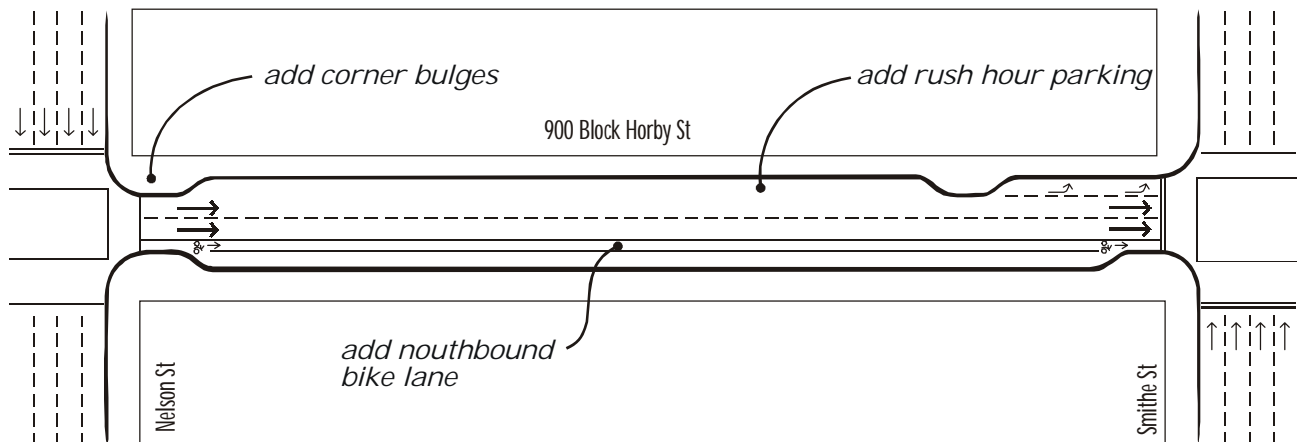
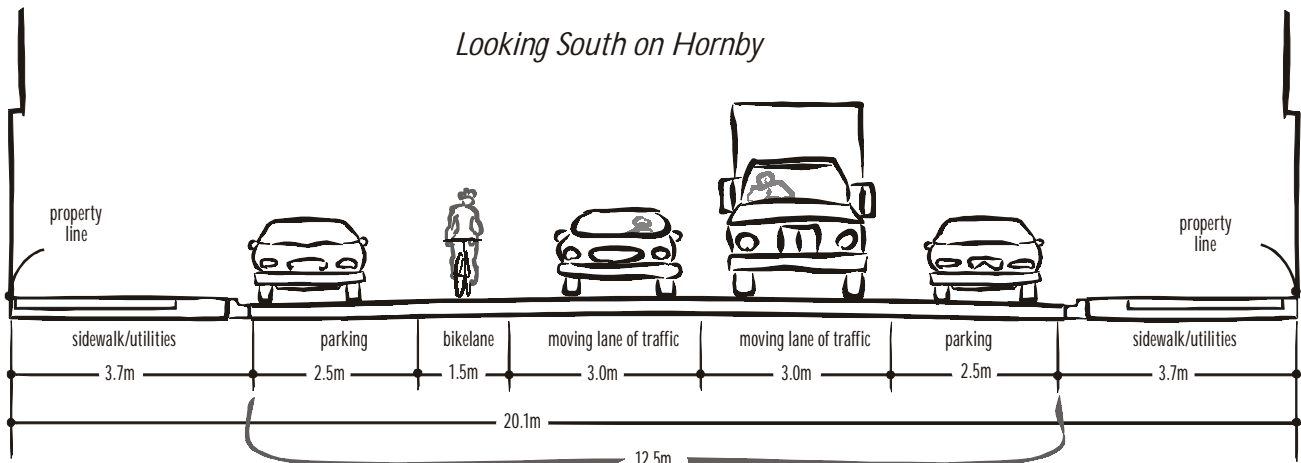
**26. Create a bike lane on Hornby Street from Pacific to Hastings Street**

**The Issue**

Hornby Street provides an opportunity for a one-way bike lane feeding off of Burrard Bridge into downtown. This would combine with a Burrard bike lane to provide both north and south access to and from Burrard Bridge.

**The Approach**

A northbound bike lane would be provided on Hornby adjacent to the eastern curb lane. This would be accomplished by narrowing the existing lanes to standard lane widths on Hornby resulting in no loss of vehicular capacity. Parking in the existing east curb lane would become full time.



**27. Adjust the intersection of Hornby Street at Hastings to accommodate a cyclist left turn**

Northbound cyclists on Hornby Street must make a left turn on Hastings Street to continue north on Burrard Street. Special provisions may be required at the Hornby/Hastings intersection as the demand for cyclist left turns increase.

**28. Change the parking access ramps on Howe Street between Georgia and Smithe**

A series of underground parking access ramps compromise the pedestrian situation along this stretch of Howe Street. A redesign of the pedestrian environment should be undertaken with particular emphasis on pedestrian /vehicular ramp conflicts. Preferred designs of underground ramps exist on Hornby Street between Nelson and Robson and could be used as prototypes for a Howe Street redesign.

**29. Widen sidewalks on Granville Street between the Bridge and Nelson Street****The Issue**

The south end of Granville Street has a six-lane cross-section with narrow lane widths. Consequently, vehicular movements are compromised, especially if a bus or truck is using the street. Sidewalks are also narrow for this area, which has seen increased night-time pedestrian activity and will see more pedestrians as the population of Downtown South increases. The streetscape in general is in need of refurbishing.

**The Approach**

Changing the six-lane cross-section to a five-lane cross-section would provide standard lane widths as well as left turn bays and a median down the centre of the street. This would provide opportunities for greening of the street with additional street trees. With five traffic lanes, there is some space available for wider sidewalks. This would help strengthen the link between the Granville Mall and the proposed Granville Loops redevelopment. Also a redesigned Granville Street should consider curb extension and textured crosswalks, especially at Davie Street, to improve pedestrian safety (Safety Study for the Downtown Transportation Plan, Hamilton and Associates, 2001).

**30. Prohibit general traffic northbound on Granville Street between Nelson and Smithe**

Currently all northbound traffic on Granville Street (except transit and authorized vehicles) are required to turn left across a busy crosswalk at Smithe Street where the Mall begins. This results in long queue of vehicles, delays, and unusually high collision rates for buses, cars and pedestrians.

The plan recommends restricting northbound traffic on this block to transit and authorized vehicles only. This would require all other northbound general traffic to turn right at Nelson. This would improve safety for all users and provide a northbound stopping lane on Granville for loading, taxis, and police vehicles (in front of the community police office).

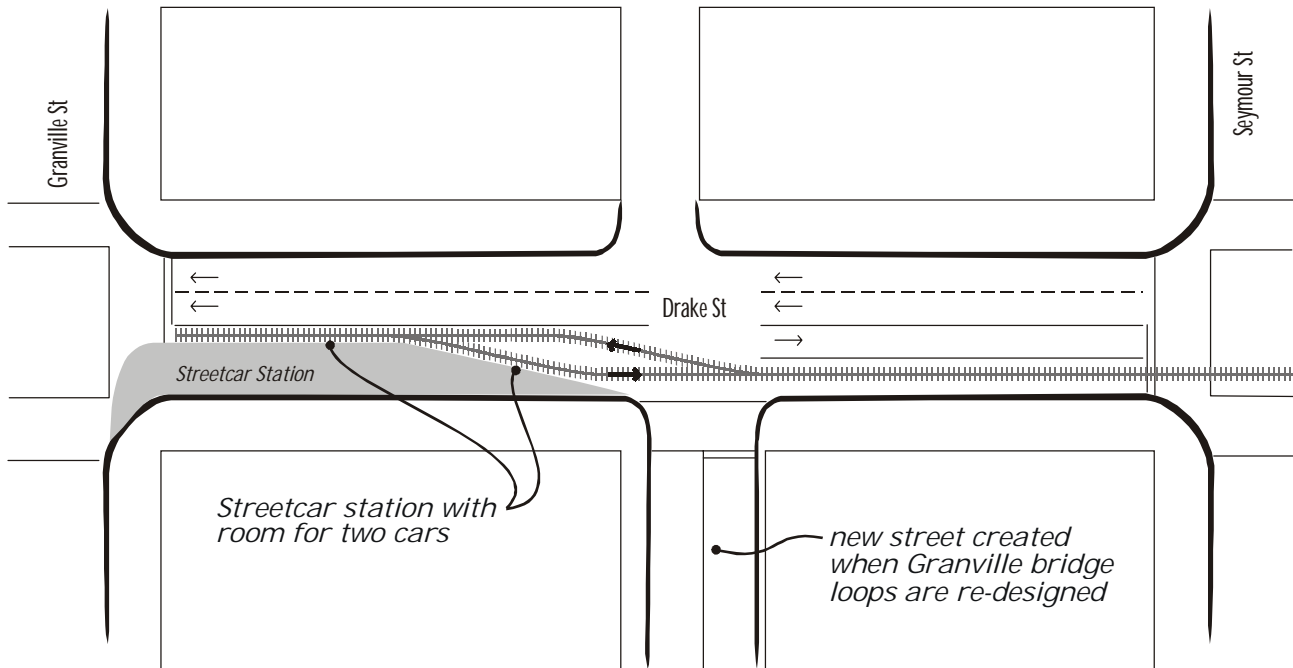
### 31. Route the Pacific Boulevard Streetcar line along Drake Street to Granville

#### The Issue

A streetcar extension is proposed from the Roundhouse along Pacific Boulevard and up Drake Street terminating at Granville Street. This would provide good connections to Granville transit and an opportunity to terminate the line on a low volume street.

#### The Approach

The streetcar could run in the regular traffic lanes, or alternatively, the streetcar could run along the south curb lane of Drake Street. A terminus for the streetcar could be located just east of Granville Street. This would require changing Drake Street to one-way westbound between Seymour and Granville Street. Good traffic circulation could be maintained by a redesign of Granville Loops (see item 11).



### 32. Create a southbound bike lane on Richards Street

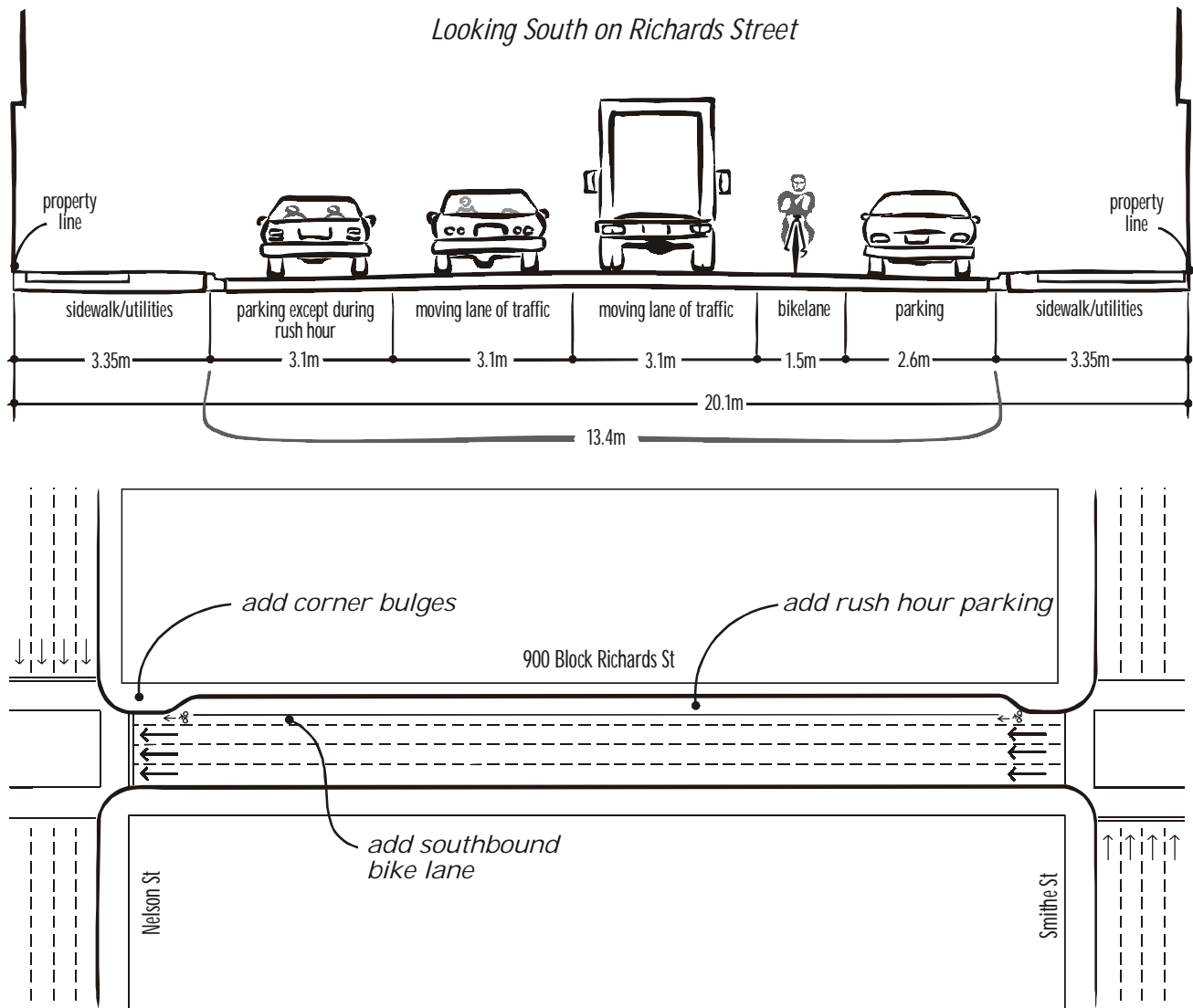
#### The Issue

Richards Street is proposed to remain one-way, however, it is a residential area for a significant length of the street and a southbound bike lane is proposed to help provide access to the Granville Bridge.

#### The Approach

Part-time parking can be converted to full-time parking on the west side of Richards, while still providing adequate flow in the remaining lanes. A bike lane could be provided next to the parking on the west side of the street. With full-time parking corner bulges could also be added at most corners. On some blocks the extra road width could be converted to pedestrian space while still maintaining the bike lane and standard width vehicle lanes.

In the north, Richards between Pender and Cordova Street could be designed to provide two-way access for buses and bikes



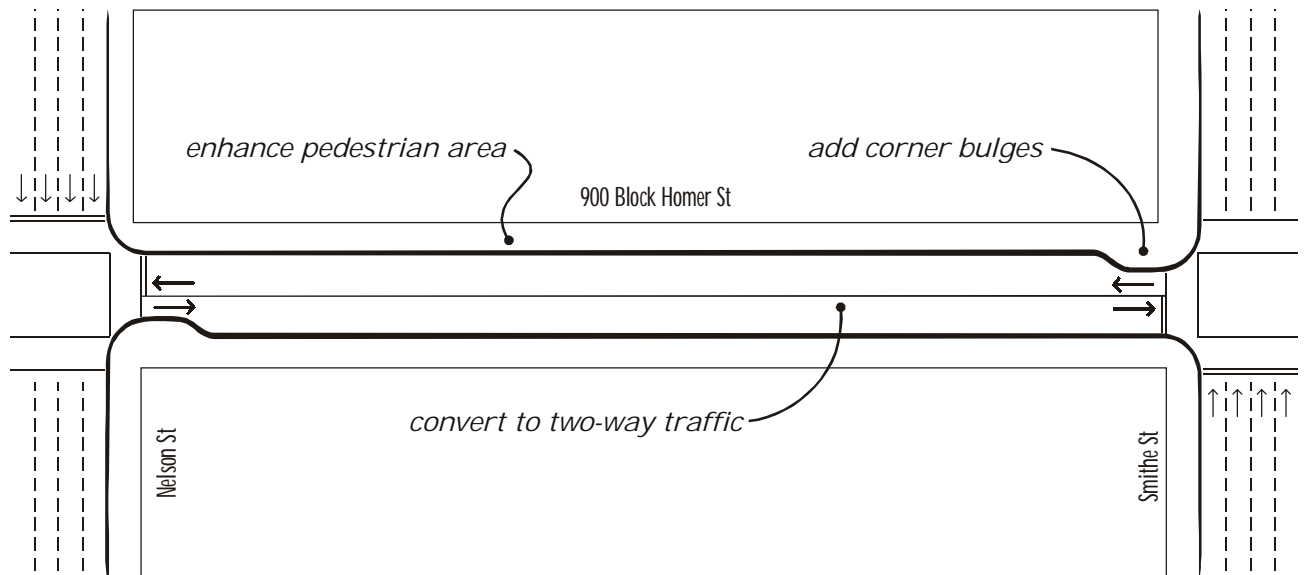
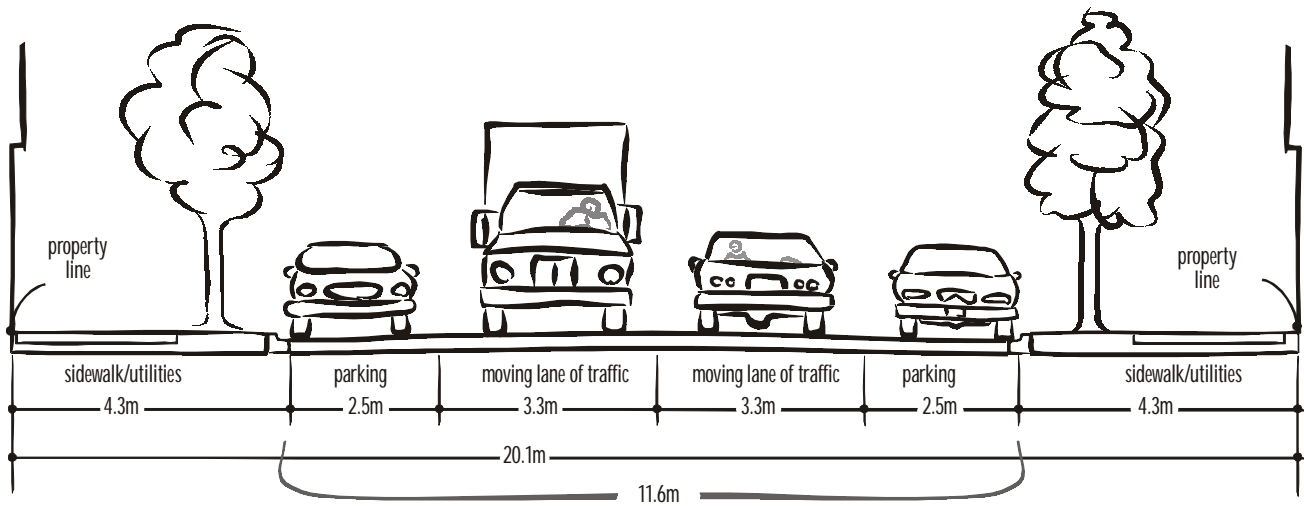
### 33. Convert Homer Street to a two-way street

#### The Issue

Downtown Vancouver is currently served with a number of one-way couplets. However a number of one-way streets are not bridge access streets and are not required to be one-way for vehicular flows. Homer Street is one of these streets. Two-way access would reduce circulation required to access properties. Homer Street is identified as a pedestrian arterial.

#### The Approach

Homer Street could be made two-way with permanent parking on both sides of the streets in most locations. This, in combination with pedestrian bulges at some corners, would help to calm traffic.



**34. Create a direct pedestrian connection between Hamilton Street end and the intersection of Hamilton between Nelson and Smithe**

Hamilton Street is discontinuous at Smithe Street. To improve pedestrian circulation and enhance personal safety in this area a pedestrian connection should be incorporated in the future development to provide a pedestrian connection between the Hamilton dead end and the intersection of Hamilton Street and Smithe Street.

**35. Create a northbound bus lane on Cambie Street from Nelson to Smithe**

Vehicle access through the intersection of Nelson and Cambie Streets is difficult for motorists travelling northbound on Cambie Street. Cambie Street is proposed to be two-way with bus service on it. The section between Smithe and Nelson is limited by a parking ramp on the west side of Cambie Street.

In the short term, a one-way bus only access could be provided northbound on Cambie Street. In the long term, a redesign could incorporate vehicular access northbound when redevelopment of the adjoining property provides an opportunity to remove the ramp.

**36. Integrate the Northeast False Creek development into the downtown by extending the street grid into the site**

Extending the street grid pattern around BC Place stadium into Northeast False Creek will help to integrate the site into the rest of the downtown. This includes creating a pedestrian connection from the intersection of Beatty and Georgia down to False Creek, extending Smithe Street east to False Creek, and extending Griffiths Way to False Creek and aligning it with Georgia Street.

**37. Improve pedestrian and cyclist continuity through the Plaza of Nations**

A waterfront building at the Plaza of Nations disrupts the continuity of the Seaside recreational route. Better continuity is recommended when opportunities arise.

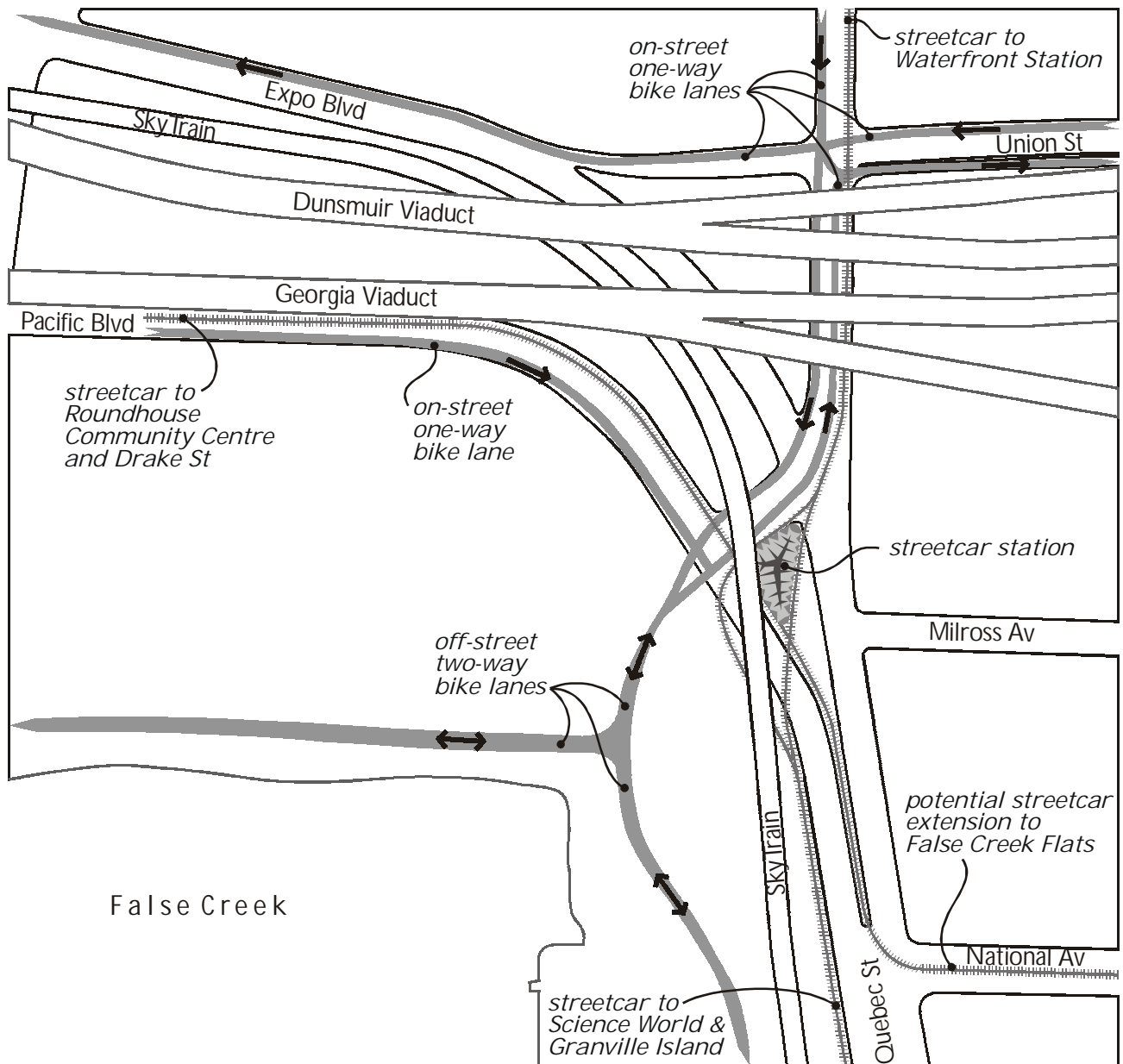
**38. Modify the intersection of Pacific and Quebec to better accommodate the streetcar and cyclists**

**The Issue**

The Pacific and Quebec corner will become a junction between 2 streetcar lines. It also needs to provide bike lanes through the intersection. The aesthetics of the area need improving through a detailed design study.

**The Approach**

A streetcar station junction could be designed on the island as shown, with links both to Gastown and Pacific Boulevard to the north and False Creek Flats and Southeast False Creek to the south. Bike lanes could also be incorporated to link up existing and proposed bike routes. Further design work in the area and under the viaducts could be part of future redevelopment proposals. In addition, northbound cyclists require a more visible signal indication of when to cross Pacific Boulevard.



### 39. Facilitate cyclist connection through the Science World area

A number of major bike routes converge near Science World (Ontario, Adanac, Seaside, Pacific Blvd, BC Parkway). The existing on-road connection is along Quebec Street and is considered to be a difficult cycling environment. Most cyclists using alternatives such as the Science World parking lot and the plaza in front of Science World, resulting in conflicts between cyclists, pedestrians and parking activities.

Changes in this area could help to define the bike routes and reduce conflicts between cyclists, pedestrians, and motorists.

### 40. Improve cyclist access through the intersection of Prior Street and Gore Avenue

Cyclists using the proposed bike lane on the Georgia Viaduct will need to negotiate this intersection to continue east. This demand should be addressed as part of the design of the intersection when Gore is extended south of Prior Street.

### 41. Improve crossing conditions for cyclists crossing Gore Avenue at Union Street

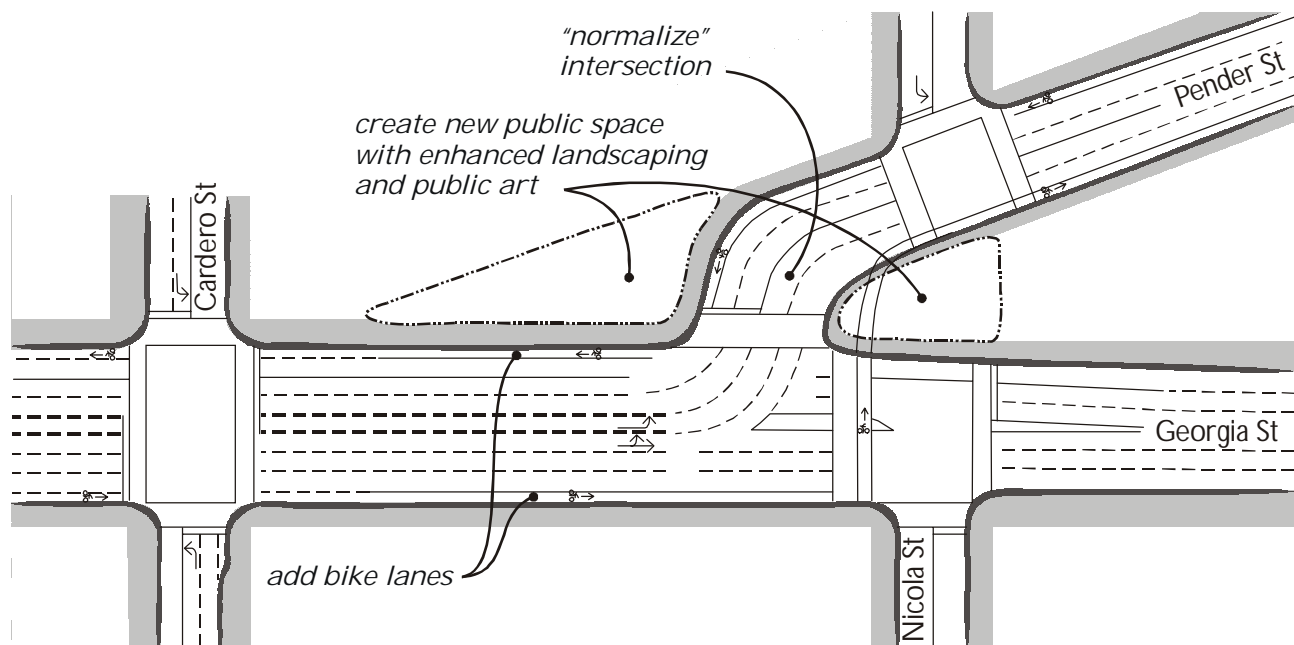
### 42. Normalize the intersection of Georgia and Pender Streets

#### The Issue

The intersection at Georgia and Pender has one of the longest pedestrian crossings in the City. Cyclists require a safe connection between the bike lanes on Georgia Street and the bike lanes on Pender Street.

#### The Approach

An opportunity exists to create a significant public parkette that both increases green space and improves pedestrian connections. Bike lanes will be incorporated into a redesigned intersection.





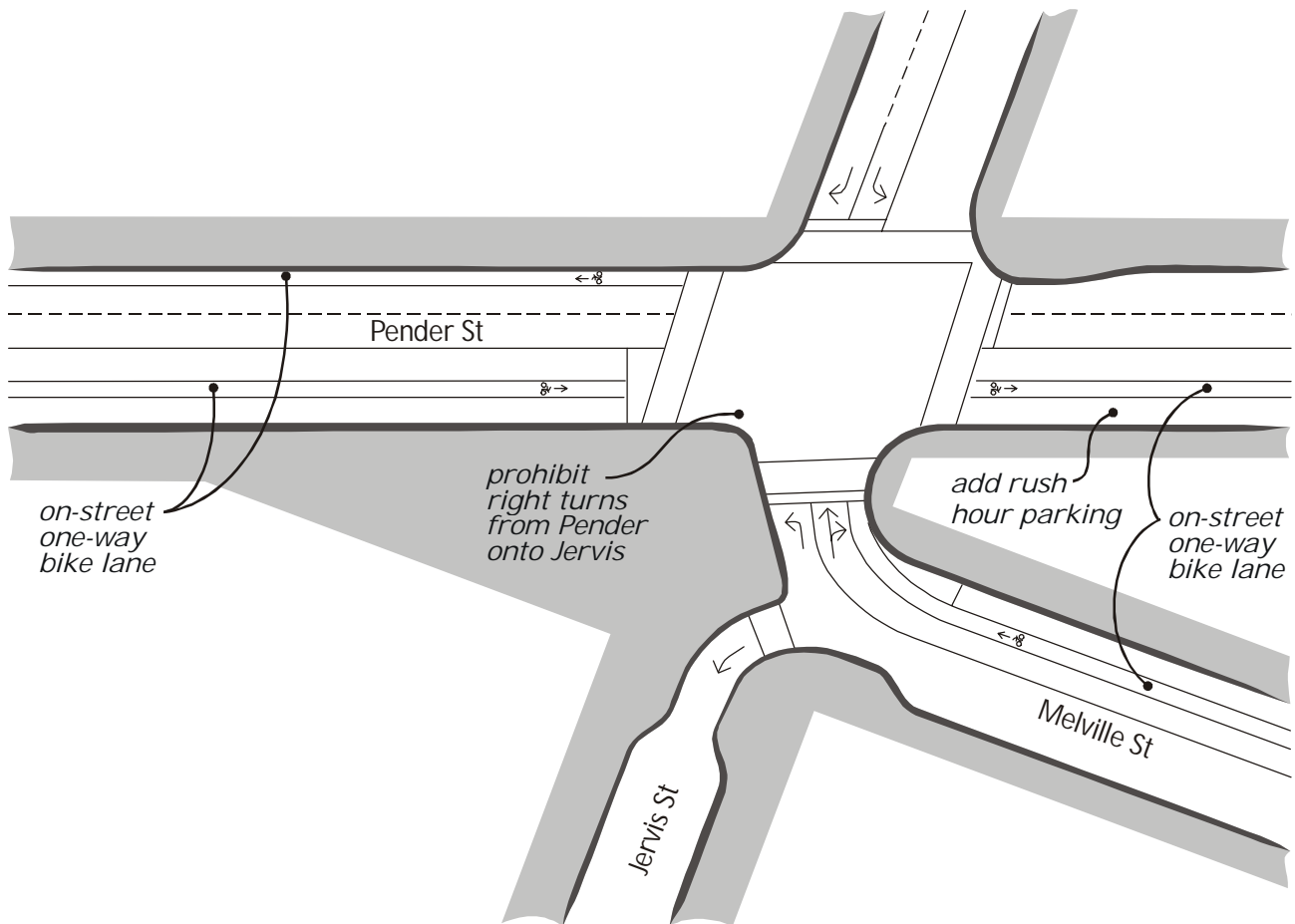
**43. Prohibit southbound access onto Jervis Street from Pender Street**

**The Issue**

The intersection at Jervis and Melville is confusing for drivers and difficult for pedestrians to negotiate. The Triangle West area is also a densely populated residential area and has limited park and open space.

**The Approach**

An opportunity exists to expand a parkette at the intersection as well as providing for better pedestrian connections and vehicular movements. A bike lane can also be designed through the intersection to connect the westbound bike lane on Melville to the westbound bike lane on Pender Street.



**44. Enhance the streetscape on Bute Street between Robson and Cordova Street**

Bute Street in this section leads down to a major new Waterfront Park but a variety of sidewalk and street tree conditions compromise the quality. A redesign should be undertaken with the surrounding community in order to improve the pedestrian environment along this gateway street leading to the Waterfront Park. Boulevard strips and street trees exist in some blocks and the street should be redesigned to have boulevard and street trees from Robson all the way to the park if possible.

#### 45. Enhance the crosswalk on Dunsmuir at Melville (mid-block crossing)

With a major bus transit service and the Bentall Centre on one side of the street and a SkyTrain station on the other side, the pedestrian crossing demand is high mid-block on Dunsmuir between Thurlow and Burrard Streets. The existing mid-block crossing on Melville Street is not particularly well marked. This crossing should be better marked and made more visible.

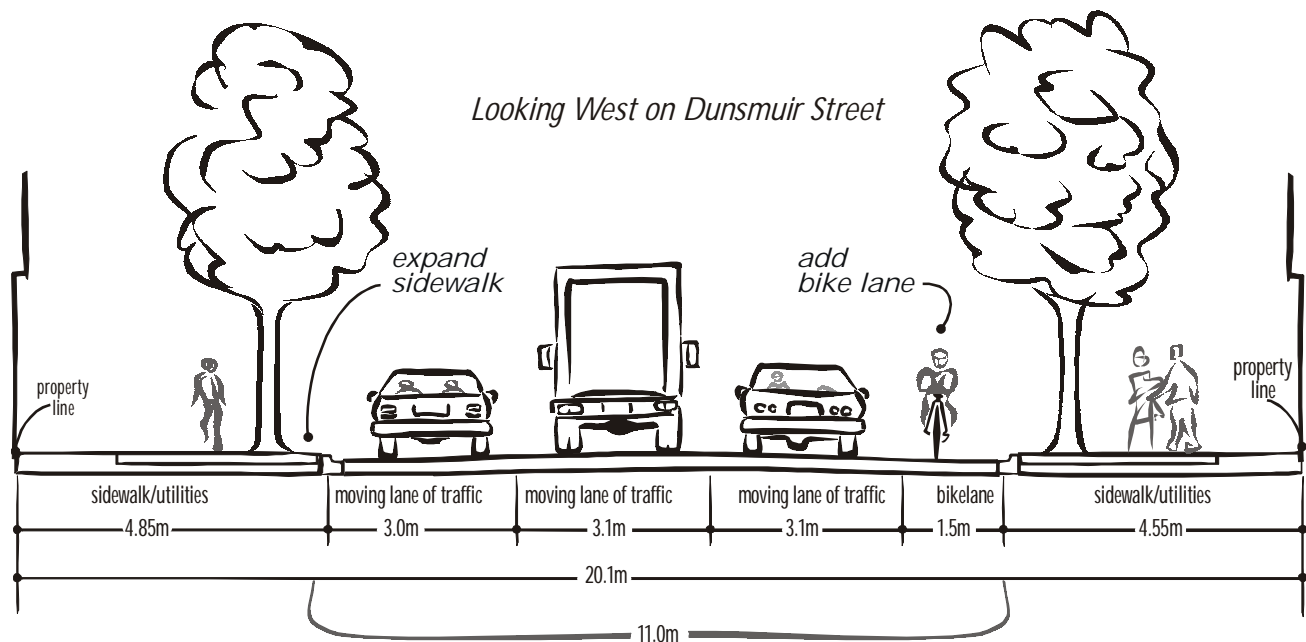
#### 46. Create a westbound bike lane and improve the traffic lanes on Dunsmuir

##### The Issue

Currently Dunsmuir is a street that has a variety of curb-to-curb widths as well as lane widths. This increases confusion for both automobile and truck drivers. It also has a variety of sidewalk widths. A westbound bike lane could work with an eastbound Pender bike lane to provide better bike access in the area.

##### The Approach

A more standardized treatment of Dunsmuir Street would benefit the street as shown below. Lane widths have been made as constant as possible with the extra space used to widen the sidewalks and create a westbound bike lane on the north side of the street



#### 47. Create an eastbound bike lane on Pender Street and provide loading zones

##### The Issue

The current design of Pender Street between Cambie and Hornby is confusing for both vehicle drivers and bike riders. In addition, Hotels on the north side of Pender could use on-street loading zones. Pender is also an important bus route and Translink would like to improve bus operations.

##### The Approach

A public process needs to be undertaken to look at both the preferred one-way and two-way options for Pender Street.

**48. Redesign Hastings Street between Burrard To Bute to eliminate the narrow traffic lanes**

This section of Hastings Street has narrow lane widths. A redesign of the street should be undertaken with the community. Loading and parking functions on the north side of the street could be investigated for possible relocation to Cordova Street when the new section is constructed.

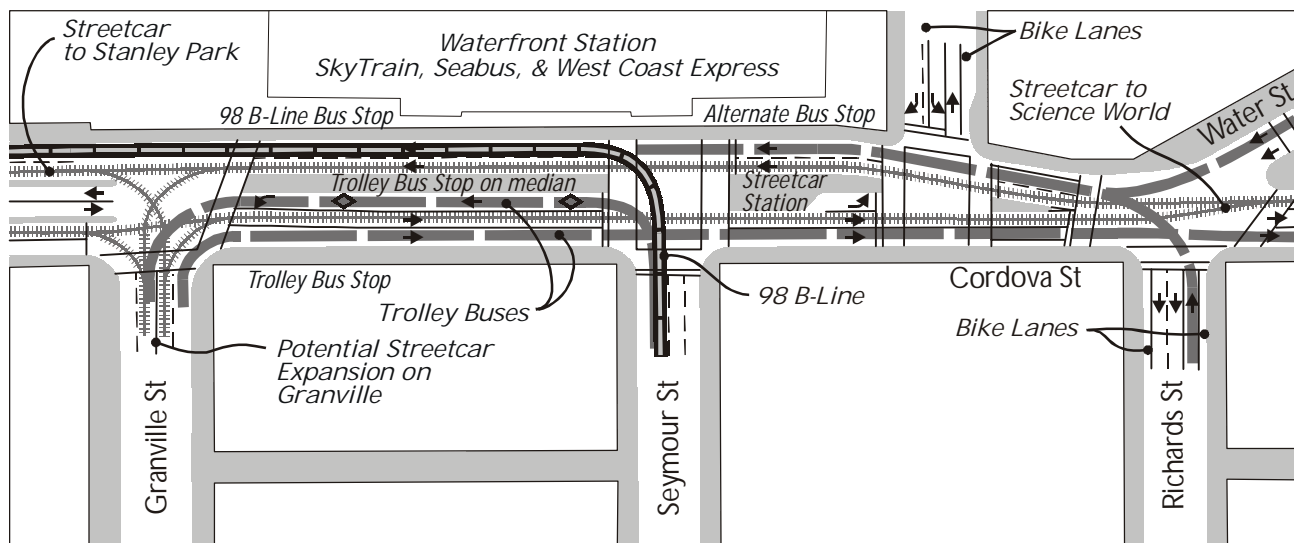
**49. Improve conditions for pedestrians on Hastings Street between Main and Cambie Streets**

This section of Hastings Street is the section of street with the highest pedestrian accidents in the downtown. A pedestrianization scheme that could include curb bulges, raised pedestrian intersections, and other pedestrian improvements should be investigated with the community. Consider additional lighting, curb extensions, and textured crosswalks at the Carrall and Columbia intersections to improve pedestrian visibility (Safety Study for the Downtown Transportation Plan, Hamilton and Associates, 2001).

**50. Redesign Cordova Street in front of Waterfront Station to enhance the transit hub**

With West Coast Express, SkyTrain, SeaBus, helicopters, and seaplanes, Waterfront station is the pre-eminent multi-modal transfer station. Currently the curb space available and the one-way street system limit bus access to the station.

A northbound bus lane on Richards Street should be created to improve bus access to the station. In addition a "bus station", built as an island median in the middle of Cordova Street, could provide additional curb space for bus stops. The additional bus zones could allow for the West End bus route and the Oak and Cambie bus routes to terminate at the enhanced Waterfront station. The sidewalks on Cordova east of Granville Street are narrow. Changes to Cordova Street should seek to improve the conditions for pedestrians.



### 51. Create a streetcar route on Cordova Street between Bute and Columbia

#### The Issue

The Downtown Streetcar will follow Cordova Street. Gastown business interests have raised the possibility of a two-way Cordova Street, which would necessitate running the streetcar in traffic. However, a two-way Cordova Street would require removal of parking at intersections as well as additional parking limitations during rush periods. Running a streetcar in traffic negates the effectiveness of a streetcar if it's in a congested area for a significant distance. Left turn bays would also be limited by a streetcar operation to prevent vehicular conflicts at intersections.

#### The Approach

Cordova Street should remain one-way with a single segregated streetcar line in the north curb lane. This would provide full time parking on the south side of the street and an opportunity for a streetcar station with direct access to Blood Alley.

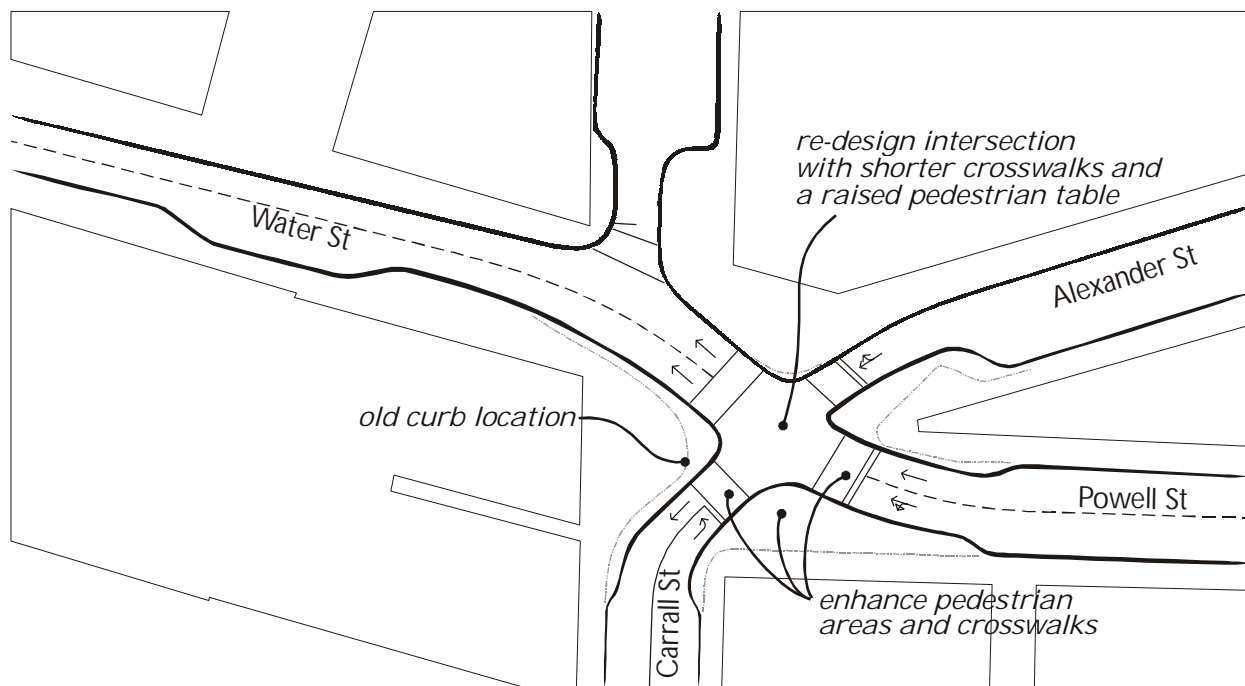
### 52. Redesign the intersection of Water/Carrall /Powell /Alexander

#### The Issue

This is a complex intersection with some uncomfortable pedestrian crossings. In addition, a bike facility is required on Carrall across Water Street. The Gastown paving starts near Carrall Street but the historic area extends almost to Main Street. The street-ends north of Water Street vary in design quality, with the Carrall Street end being the best design. Businesses and residents complain about the speed of traffic on Water Street.

#### The Approach

Extending the pavement treatment further east, as well as providing a raised pedestrian table east of Carrall Street, would help set the tone for the rest of Water Street in terms of traffic speed. A redesign of the Water/Carrall intersection can improve pedestrian comfort and accommodate a bike route through the intersection. In addition, a raised intersection could be considered at Cambie and Water as part of the Cambie Street pedestrian arterial route.



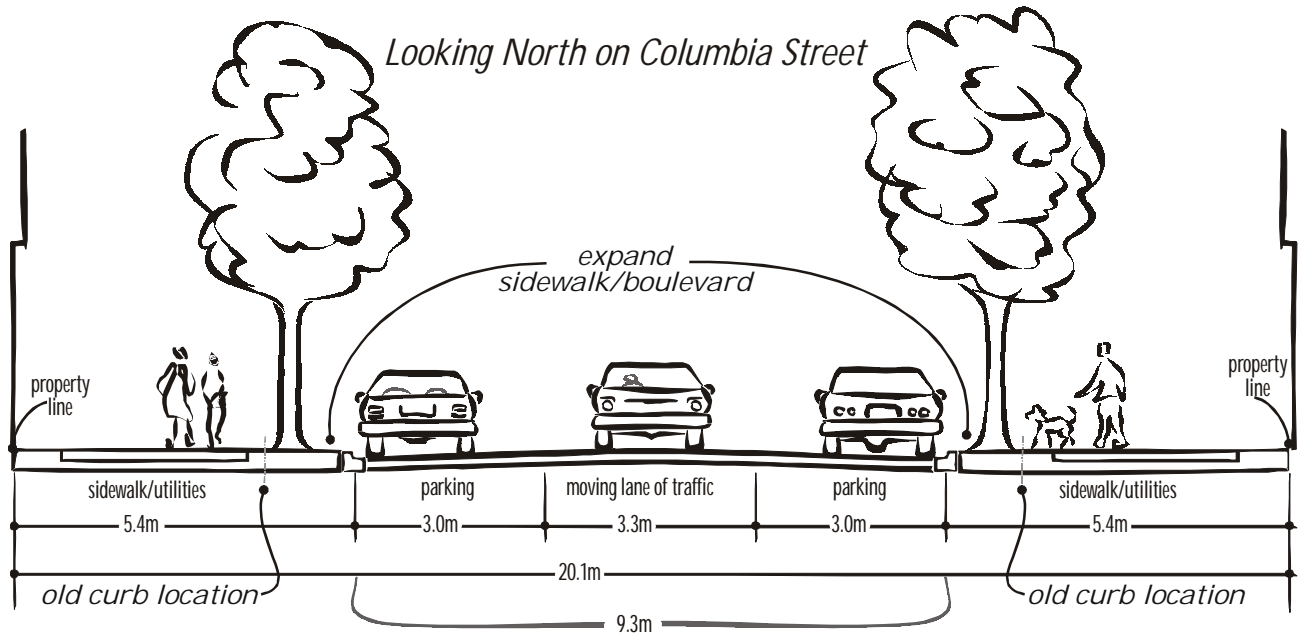
**53. Increase the space for pedestrians and landscaping on Columbia Street between Powell and Alexander**

**The Issue**

Currently Columbia Street is a four-lane street that terminates at Alexander. It is a very low volume street with two lanes turning right and two lanes turning left. Public open space is in short supply in the east part of Gastown.

**The Approach**

Columbia Street between Powell and Alexander would be narrowed to one travel lane and two parking lanes, with the additional space developed as public open space or widened sidewalks.



## 5.2 Conceptual Bus Routes

The following bus routes conceptual only. The routes were developed to satisfy many of the issues raised in the Transit Plan (section 4.2). Any changes to existing routes and the introduction of any new bus routes will be developed through further consultation as part of TransLink’s Transit Area Service Plan.

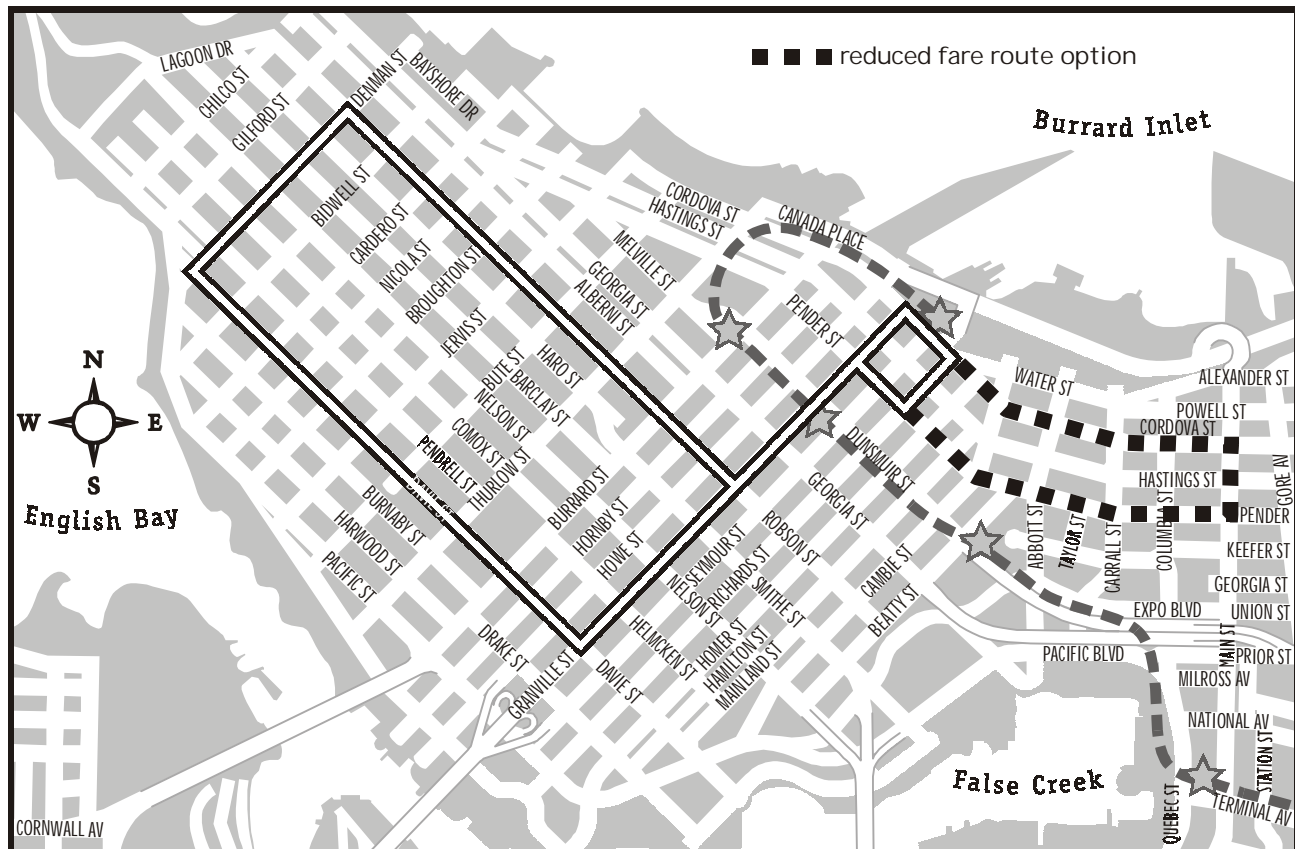
### 5.2.1 Adjust the West End Bus Loop

The West End loop is the main transit service in the West End. This service is popular and operating well. Therefore the route shown in *Figure 5-C* maintains the existing 5 Robson/6 Davie route largely as is given its success in meeting travel demands and being legible by transit users. The route changes at the eastern end improve connectivity to Waterfront Station by rerouting to Cordova Street and deleting the unproductive extension to Library Square. Service from the West End to the Library Square is provided by the Central Broadway Loop described later in this section.

#### Options

- With proposed changes to Richards and Cordova streets, the Waterfront station loop for these services could be reversed to become Granville, Pender, Richards, Cordova, Granville. This would improve connectivity and help relieve pressure on the blocks of Hastings between Richards and Granville.
- Use the proposed “transit hub” at Waterfront station as the terminus and change Davie & Denman from a layover point to a timing point to increase connectivity within the West End while maintaining service reliability.

Figure 5-C  
West End Loop



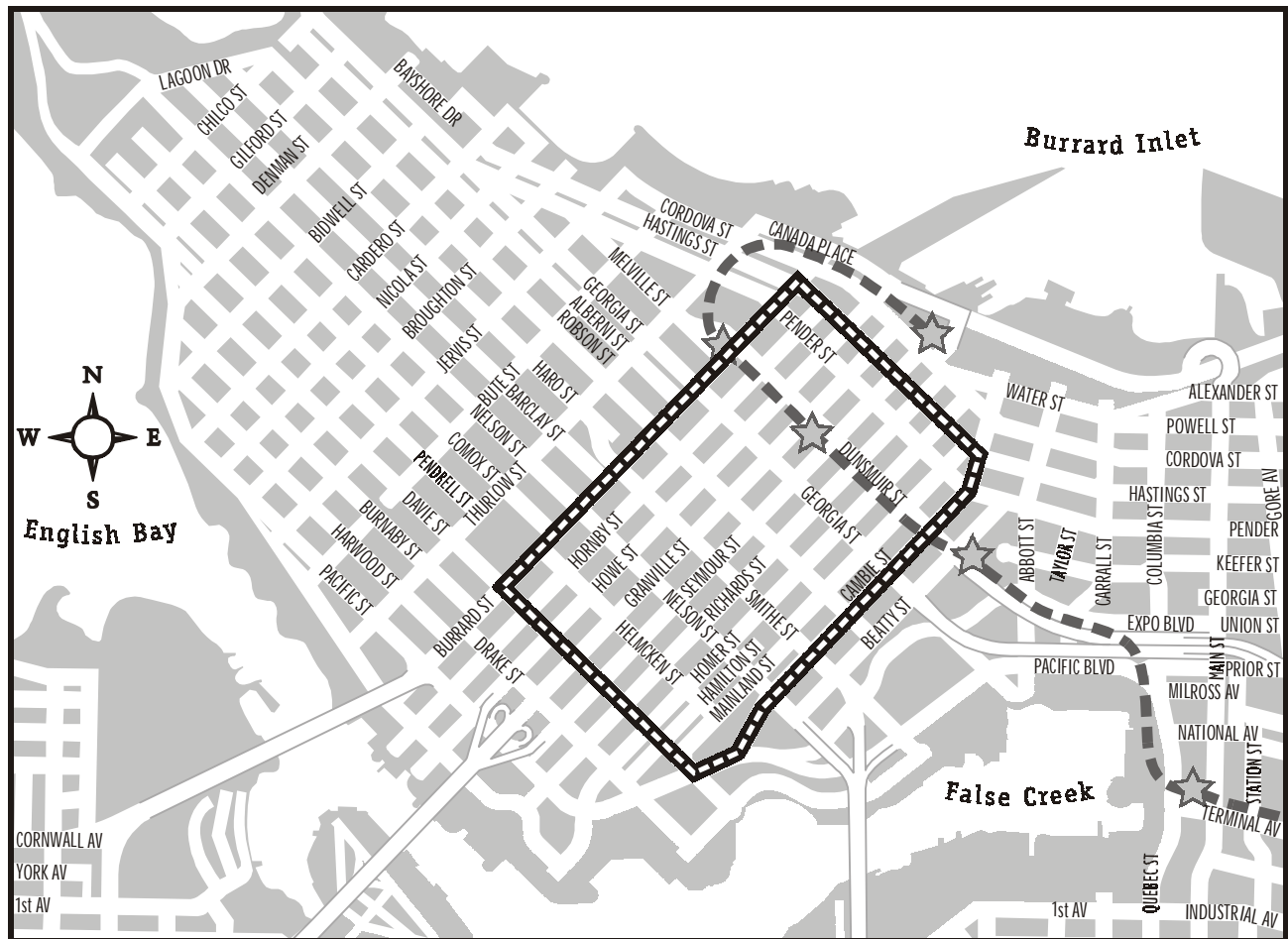
### 5.2.2 Create a new Downtown Bus Loop

This bus route, shown in *Figure 5-D*, replaces much of the existing #1 and #2 services in Downtown South with a more legible and consistent routing. Downtown South is within easy walking distance to many downtown destinations, so this service is designed to better serve longer trips that are less attractive as walk trips. This is why the loop traverses Burrard Street rather than Granville Street. This route also improves local bus service on Burrard and serves major connections at Burrard Station, Davie & Granville, Cambie & Dunsmuir (one block from Stadium Station) and Hastings & Seymour (one block from Waterfront Station).

#### Options

- Providing only the clockwise loop (#1) could be considered since this would not unduly compromise travel times between the key points of the loop (Pacific & Davie and Burrard Station), since they are on opposite corners, and would help avoid the need to modify Cambie Street. However, service on the major streets (especially Burrard, Davie and Cambie) would be unbalanced.
- The Richmond rapid transit line could follow either Davie/Burrard or Cambie. Due to the potential for duplication of service on either Burrard or Cambie, this service line would need to be reviewed once a decision is made on the alignment for the rapid transit line.

Figure 5-D  
Downtown Bus Loop





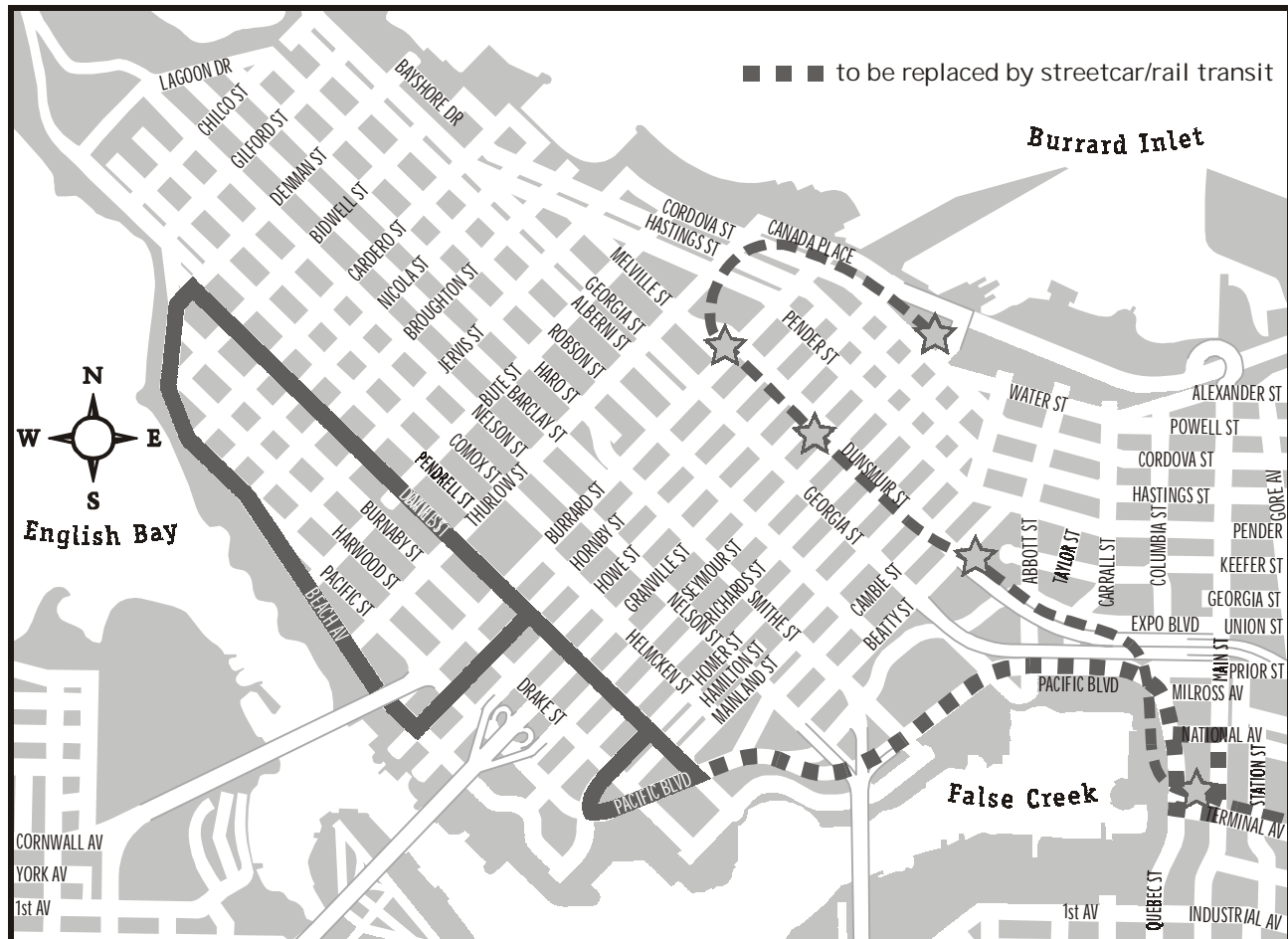
### 5.2.3 Modify the Beach/Yaletown Community Bus route

The suggested route for a Beach Avenue /Yaletown community bus is shown in *Figure 5-E*. This route replaces the existing #1 Beach with a route that reduces duplication on major corridors while reallocating service to route segments that are uniquely served by this route. The route maximizes transfer connections to downtown along Davie to offset the loss of a one-seat ride to downtown. Given that the demand on this route is not sufficient to justify electric trolleybuses, small, low-noise community buses should be used to reduce impacts on residential areas.

#### Options

- Operate the route in only one direction during evenings. Select the direction that provides the most direct service from transfer points to residential areas.
- Extend the route along Pacific and Expo boulevards to either International Village/Stadium Station, or to the Main Street SkyTrain station area and to False Creek Flats. The latter extension could help build ridership for the streetcar line proposed for this corridor and provide a West End/Yaletown - SkyTrain connection that bypasses the downtown core.
- Delete route east of Granville to reduce overlap with the Downtown East Loop and allow better service on Beach.

Figure 5-E  
Beach/Yaletown Community Bus





### 5.2.4 Create a West End to Central Broadway Bus Connection

The West End - Central Broadway travel market is large but currently not well served by transit, with one or two transfers required for a relatively short trip. Residents of Downtown South who live south of Helmcken Street face much the same options. The proposed Central Broadway Loop, shown in *Figure 5-F*, serves this demand and provides better access to Library Square and the Cultural Precinct. In the past the *Fairview Belt Line*, part of which would be replicated by the proposed service, was BC Electric's busiest streetcar route. The transportation model also projects that this would be the second busiest downtown bus route after the West End Loop.

#### Options

- Locating a layover point on the route is problematic - it may be simpler to design a point-to-point service by deleting the Coal Harbour part of the route and terminating the route at Waterfront Station and Denman/Georgia.
- The route could be modified to stay on Robson between Cambie and Denman in both directions in order to better serve the West End - Central Broadway market while still covering some of the CBD. The existing Cambie-Oak (15/17) service could be reconfigured to provide direct access to Waterfront Station.
- The Richmond/Airport rapid transit line could provide a good connection between Central Broadway (Fairview) and Waterfront Station. In addition, the proposed streetcar would provide service along Cordova/Hastings/Georgia. When these rail services are built the bus service could be relocated to run on Robson between Cambie and Denman rather than along Cordova/Hastings/Georgia. This would provide improved service between the West End and the Library precinct and on to Central Broadway.

Figure 5-F  
West End to Central Broadway

