



ADMINISTRATIVE REPORT

Report Date: October 23, 2012
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Meeting Date: October 31, 2012

TO: Standing Committee on Planning, Transportation and Environment
FROM: Brian Jackson, General Manager of Planning and Development Services
SUBJECT: Grandview Boundary Mixed Employment Area: Update of Public Benefit Strategy (2012 - 2041)

RECOMMENDATION

- A. THAT Council approve the updated Grandview Boundary Mixed Employment Area Public Benefit Strategy: 2012 - 2041 as described in this report and summarized in Appendix A.
- B. THAT Council approve a revised allocation of future Grandview Boundary Area-Specific Development Cost Levy (DCL) proceeds in the following manner: 100% for constructing, expanding, and replacing sewer facilities to be effective immediately.
- C. THAT the Director of Legal Services be instructed to amend the Grandview Boundary Area-Specific DCL By-law No. 9418 to update the cost of capital projects for the Grandview Boundary Mixed Employment Area.
- D. THAT Council approve the updated Grandview Boundary Mixed Employment Area Plan as contained in Appendix C, and the Grandview Boundary Mixed Employment Area: Rezoning and Development Policies and Guidelines as contained in Appendix D.
- E. THAT staff take the necessary steps to notify the development industry and affected stakeholders upon Council approval of the new Public Benefits Strategy.

REPORT SUMMARY

The Grandview Boundary Mixed Employment Area is an 81 hectare (200 acre) district bounded by Broadway, Slocan Street, Grandview Highway and Boundary Road. The area is served by two rapid transit stations at Renfrew and Rupert Streets. The area currently has about 10,000 jobs.

This report recommends an update to the 2002 Grandview Boundary Mixed Employment Area Public Benefit Strategy and associated Area Plan and Rezoning and Development Guidelines. This Area was formerly referred to as an Industrial Area but has been renamed to a "Mixed Employment Area". This name better reflects the 2011 rezoning policy allowing higher density general offices uses to locate near the two rapid transit stations. It is also consistent with Metro Vancouver's Regional Growth Strategy land use designation for Grandview Boundary. With the change in land use policy for the area it is anticipated that the number of jobs will nearly double over the next 30 years.

This updated Public Benefit Strategy and Area Plan maintain the high-level vision for the area. As such, the emphasis of this update is on a technical review of growth-related requirements for this growing, higher intensity employment area, and an updated funding strategy to identify how these needs may be addressed.

Highlights of the updated Public Benefit Strategy include:

- Upgrading of the local waterworks and sewer networks to meet increased demand, with an allocation of Grandview Boundary DCLs to focus on sewer upgrades reducing redevelopment costs for new rezoning projects;
- Updated and expanded provision of green transportation infrastructure (i.e., pedestrian, bicycle, and street network improvements);
- Providing additional childcare spaces to serve area employees; and
- Delivering on the long-term plan for the rehabilitation and enhancement of Still Creek including two passive park/wetlands.

The total cost of the updated Public Benefit Strategy is estimated at \$35.8 million (details are contained in Appendix A).

Approximately 45% of the costs are expected to be funded from new development within Grandview Boundary through a combination of rezoning conditions and Grandview Boundary DCLs. The remaining 55% would be funded from other sources, including City-wide DCLs, tax-supported capital funding and utility-supported capital funding. Funding for the Public Benefit Strategy will be considered as part of the future Capital Plan processes, and reviewed in future updates to the Public Benefit Strategy and Area Plan.

This report recommends changing the allocation of the Grandview Boundary Area-Specific DCL revenue, from a mix of utility, transportation and park projects solely to sewer projects. The combined Grandview Boundary DCLs and possible City-wide DCLs represents approximately one third of total costs.

The updated Public Benefit Strategy for Grandview Boundary provides clarity for new development, area business and property owners about future public benefits. It also provides a flexible funding strategy that will deliver needed infrastructure and area amenities to this

important and growing mixed employment area. It is also aligned with Council's priorities and plans. Adding new passive park space along Still Creek contributes to achieving the Greenest City Action Plan; densifying employment supports the Vancouver Economic Action Strategy; and, enhancing the Still Creek watershed advances progress toward the Still Creek Enhancement Plan and the Integrated Stormwater Management Plan for the Still Creek Watershed.

COUNCIL AUTHORITY/PREVIOUS DECISIONS

2002: Area Specific Development Cost Levy (DCL) for the Grandview Boundary Industrial Area; Grandview Boundary Industrial Area (GBIA) Rezoning & Development Policies and Guidelines; Grandview Boundary Industrial Area Plan; and Still Creek Rehabilitation and Enhancement Plan.

2006: Integrated Stormwater Management Plan for the Still Creek Watershed.

2011: Amendment to Grandview Boundary Industrial Area Rezoning & Development Policies and Guidelines.

2011: Vancouver Economic Action Strategy - Target 1B: Protect, enhance, increase and densify employment spaces, and Target 3A: Attract, retain and support talent by enhancing the availability of daycare.

2011: Metro Vancouver Regional Growth Strategy (RGS) designated Grandview Boundary as a Mixed Employment Area.

2011: Greenest City Action Plan: green economy, green transportation, and access to nature.

2011: Reinstate the Joint Council on Childcare (City, Park Board, School Board), with an objective to increase 500 childcare spaces in the next three years. Also 2002 "Moving Forward Childcare: A Cornerstone of Childhood development" strategic plan, and 1990 "Civic Childcare Strategy" including actions to require, where appropriate, construction and equipping of child care facilities as a condition of rezoning.

2012: Park Board Strategic Plan - Goal 4: Healthy Ecosystems, Objective 4.1: Green Stewardship - To model and advocate for best practices in ecosystem enhancement and management.

CITY MANAGER'S/GENERAL MANAGER'S COMMENTS

The General Manager of Planning and Development Services RECOMMENDS approval of the foregoing.

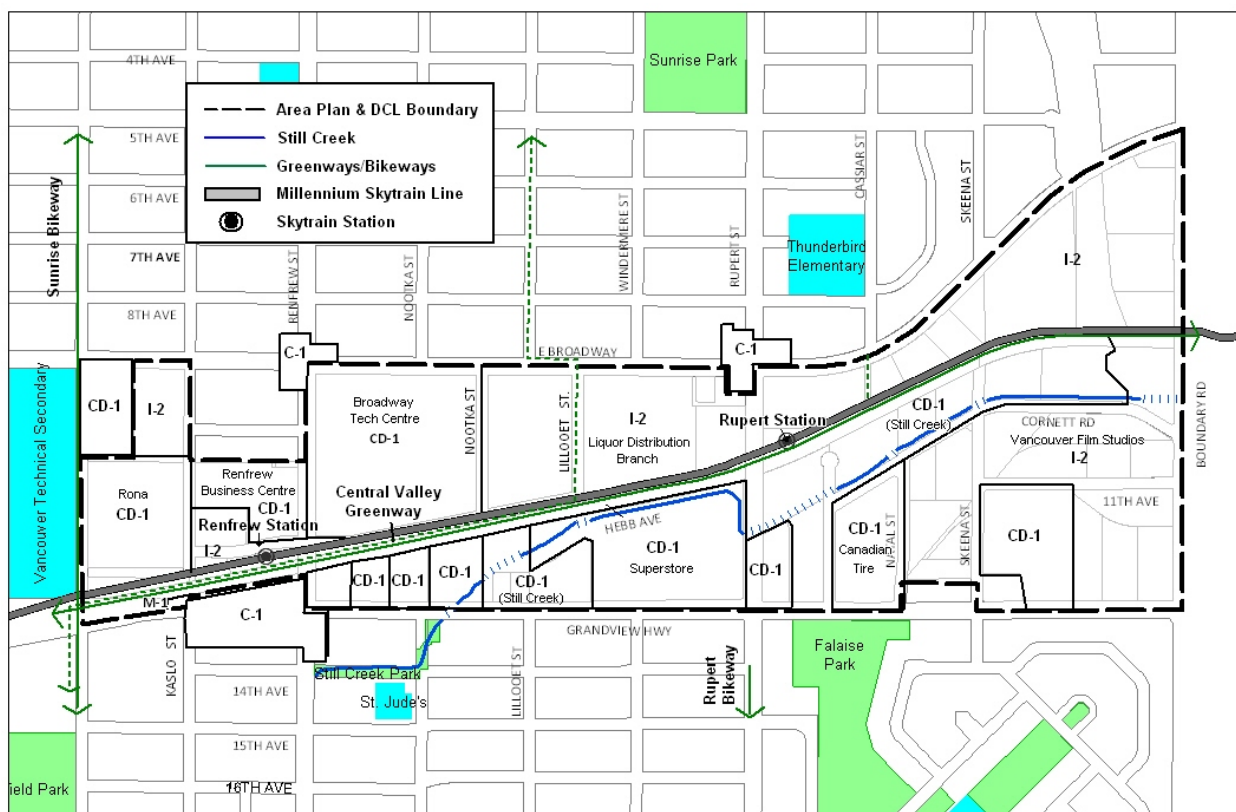
REPORT

Background/Context

The Grandview Boundary Mixed Employment (formerly “Industrial”) Area is 81 hectares (200 acres) located east of Slokan Street, between Broadway and Grandview Highway, and west of Boundary Road (see Map 1). This “industrial” area has been renamed to better reflect a change in rezoning policy (2011) and Metro Vancouver’s Regional Growth Strategy designation for Grandview Boundary.

As shown in Map 1 below, most of the Grandview Boundary Area is within walking distance of the two SkyTrain stations at Renfrew and Rupert Streets.

Map 1: Grandview Boundary Mixed Employment Area



The high-level vision for this area is a transition from light industrial and large format retail uses to higher intensity, mixed employment uses clustered near rapid transit stations. These uses are supported by improvements to underground infrastructure, transportation, parks and open space, and childcare facilities.

This update reflects the rezoning policy change made in 2011 which allows for general office uses to locate near rapid transit stations. As a result, the variety of land uses and jobs envisioned now include:

- more general office, higher intensity complexes like the Broadway Tech Centre (1 million sq.ft.) and the recently approved Renfrew Business Centre (0.6 million sq.ft.);
- continuation of “light” industrial uses such as automotive sales and repair, liquor distribution, storage, film production studios; and,
- continuation of some large format retail uses like Canadian Tire and Superstore on Grandview Highway frontage.

In 2002, a layered DCL District was established so that new development would contribute towards upgrades in area services. A layered DCL means that new development is subject to both the Area Specific DCL and the City-wide DCL (see DCL overview and map in Appendix B for more details). DCLs are a growth-related charge on all new development and are applied on a per square foot basis and payable at Building Permit issuance. Grandview Boundary DCLs can only be allocated to capital projects within the DCL District boundary as shown on Map 1.

Since 2002, a total of \$1.34 million has been collected (including interest) from the Grandview Boundary DCL and none have yet been spent or allocated. The balance is divided between engineering infrastructure, at \$1.21 million (90%) and parks, at \$0.13 million (10%).

While no DCL dollars have yet been spent in Grandview Boundary, a number of capital projects have been completed since 2002. A number of these projects were achieved through rezoning conditions, which include: transportation improvements; infrastructure upgrades; and, a 37-space childcare centre (under construction). In addition, there has been measurable progress on the Still Creek Enhancement Plan.

Strategic Analysis

There are two key reasons for updating the Public Benefit Strategy and Area Plan for Grandview Boundary:

1. Changes to the amount of general office and total employment growth anticipated, and;
2. Changes in anticipated demand for, and cost of, public benefits.

The following sections provide a discussion and analysis of these key issues and an update of changes to DCL revenue anticipated from area growth.

1. Changes in Job Growth Estimates to 2041

Between 2002 and 2012 area employment grew from 4,000 to approximately 10,000 jobs, a 150% increase over 10 years. This is faster than anticipated in the 2002 Public Benefit Strategy which expected the addition of 10,000 jobs over 25 years. Much of this growth was due to the development of the Broadway Tech Centre (2900 East Broadway) rezoning which has added 4,000 jobs to-date. This project also signals the change to businesses now attracted to the area such as: Bell, HSBC, BC Lotto, BC Ambulance Service, Nintendo and, BC Assessment.

The continued transition to higher density general office in the area will result in significantly more growth than anticipated in 2002. Updated growth estimates for 2012 to 2041 anticipate

the addition of another 9,000 jobs, or nearly doubling of total jobs to 19,000. Table 1 summarizes this projection.

Table 1: Job Growth in Grandview Boundary

Year	# of Jobs
2002	4,000
2012	10,000
2041 Projection	19,000

This job growth is expected from approximately 2.7 million sq.ft. of new development from the rezoning of several large sites over the forecast period (see Appendix A for details). The 10,000 jobs now in the Area represents a job density of 48 jobs/acre. By 2041, the anticipated density would roughly double to 90 jobs/acre. For comparison, the most recent Census figures available (2006) show the Mount Pleasant industrial area with 61 jobs/acre and Central Broadway with 122 jobs/acre. This indicates that Grandview Boundary is on its way to becoming one of the city's denser employment areas.

2. Updated Public Benefit Strategy (2012-2041)

The updated Public Benefit Strategy (2012-2041) anticipates a continued transition to higher density general office uses and improvement in the area's level of service and public benefits. The major outcomes of the updated Strategy will be:

- Upgrading of the local waterworks and sewer networks to meet increased demand;
- Updated and expanded provision of green transportation infrastructure (i.e., pedestrian, bicycle, and street network improvements); and
- Providing additional childcare spaces to serve area employees; and
- Delivering on the long-term plan for the rehabilitation and enhancement of Still Creek including two passive park/wetlands.

Table 2 below provides an overview of the \$35.8 million public benefits package (project details are provided in Appendix A). The 2002 Public Benefits Strategy estimated total costs of approximately \$10 million over 25 years. The cost increase of this updated Strategy is due to two factors: better alignment to the amenity requirements for this growing, higher intensity employment area, and inflationary increases related to the provision of certain amenities (e.g., land acquisition related to Still Creek Enhancement).

Table 2: Overview of Grandview Boundary Public Benefit Strategy (2012-2041)

Project Type	Cost (\$million)	Description
Sewer	\$4.0	Sanitary sewer upgrades providing necessary connections between future development sites and a downstream pump station.
Water	\$1.5	Water upgrades will provide water service to new development and for necessary fire flows to address emergency requirements.
Transportation	\$5.8	New or improved city-wide greenways and bikeways through the area, sidewalk, intersection improvements and completion of the street network within the area
Childcare	\$5.2	90 childcare spaces will be required to meet new demands from job growth.
Still Creek Enhancement & Parks	\$19.3	Still Creek Enhancement Plan includes the acquisition of land to construct two wetlands/passive parks. Redevelopment sites will also contribute toward creek day lighting, stream improvements and completion of the Still Creek Greenway.
Total Capital Cost Estimates	\$35.8	

3. Changes in DCL Revenue Estimates to 2041

The 2002 Public Benefit Strategy anticipated \$2.5 M from the Grandview Boundary DCL and \$1.7 M from City-wide DCLs, for a total DCL revenue of \$4.2 million.

The rezoning policy change allowing general office uses to locate near rapid transit stations, results in an increase in the overall estimated DCL revenue, and a change in the distribution of DCL revenue between Grandview Boundary and City-wide DCLs, over the next 30 years.

The difference in DCL revenue projections is due to a change in the rates paid by new development. In 2002 future development was anticipated as "industrial" which has a lower combined DCL rate than today's combined "commercial" DCL rate which general office developments pay.

Total projected DCL revenue, from new development within Grandview Boundary, is estimated at \$36.3 million by 2041. Using current DCL rates, this is comprised of \$2.2 million in Grandview Boundary DCLs and \$34.1 million in City-wide DCLs.

Table 3 shows the change in total DCL revenue between the 2002 and 2012 strategies and the change in distribution between Area Specific and City-wide DCLs revenue.

**Table 3. Projected DCL Revenue from Grandview Boundary:
Comparison of 2002 vs. 2012 Updated Grandview Boundary Public Benefit Strategies (PBS)**

DCL District	2002 PBS (\$ million)	Updated 2012 PBS (\$ million)
Grandview Boundary Area Specific DCL	\$2.5	\$2.2
City-wide DCL	\$1.7	\$34.1
Total DCL Revenue Estimate	\$4.2	\$36.3

Notes: PBS refers to Public Benefit Strategy. Projected revenue in current dollars. No annual inflationary index applied to DCL rates.

The Grandview Boundary Area is a layered DCL district meaning that new development in the area pays both Area Specific and City-wide DCLs. Revenue from the Grandview Boundary DCL district must be spent within this area. City-wide DCLs from new development in the area are intended for city-wide serving systems and facilities and can be spent within and outside the area. As a result, City-wide DCL revenue will be allocated towards both City-wide and Grandview Boundary projects. The following section describes how projects in Grandview Boundary could be funded.

Implications/Related Issues/Risk

Financial

This report recommends an updated Grandview Boundary Public Benefit Strategy with an estimated total cost of \$35.8 million (2012\$) over the next 30 years (Recommendation A).

The recommended mix of funding sources is summarized in Table 4 (for details see Appendix A, Table 2).

Table 4: Contributions towards Grandview Boundary Public Benefit Strategy by Funding Source

Funding Source	Estimated Contribution (\$ millions)	Estimated Contribution (%)
Grandview Boundary Area Specific DCL	\$3.4	9.5%
Rezoning Conditions	\$13.3	37.0%
City-wide DCL	\$9.6	26.8%
Other (Capital, Utilities, Grants, Funds)	\$9.5	26.7%
Total	\$35.8	100%

Given the change in rezoning policy and the resulting change in the DCL revenue, approximately 45% (\$16.7 million) of the costs are expected to be funded from new development within Grandview Boundary from a combination of Grandview Boundary DCLs and rezoning conditions. The remaining 55% (\$19.1 million) will be funded from other sources, including City-wide DCLs, tax-supported capital funding and utility-supported capital funding.

Table 4 shows only a portion of the total City-wide DCL revenue (from area development) is put toward funding Grandview Boundary projects. This means that DCL cost recovery for Grandview Boundary is approximately 36% (i.e., combined Grandview Boundary and City-wide

DCLs). Funding for the Public Benefit Strategy will be considered as part of the future Capital Plan processes, and reviewed in future updates to the Public Benefit Strategy and Area Plan.

The purpose of the layered Grandview Boundary Area Specific DCL is to fund basic underground and other infrastructure deficiencies in this area. This update found that the sewer network required significant upgrades due to growth and the benefit of this upgrade was shared across the area. Water system upgrades were found to be more localized. As a result, this report also recommends changing the future allocation of the Grandview Boundary Area-Specific DCL revenue, from a mix of utility, transportation and park projects solely to sewer projects (Recommendation B). This would provide an estimated \$2.2 million in Grandview Boundary DCLs towards sewer upgrades over the next 30 years.

As future Grandview Boundary DCLs cover only part of the cost of sewer network upgrades, staff also recommend allocating the existing Grandview Boundary DCL balance, for engineering infrastructure, to support only sewer projects. The 2002 Public Benefit Strategy contemplated 90% of these DCLs be allocated to engineering infrastructure. However, these were to be shared among water, sewer and transportation projects. This update anticipates that water and transportation projects could be funded through rezoning conditions, City-wide DCLs and other capital funding. The 2002 Strategy also contemplated 10% of these DCLs be allocated to park land and improvements. The existing Grandview Boundary DCL balance for parks remains allocated for these same purposes.

CONCLUSION

Grandview Boundary is an important and growing job area, strategically located on several major thoroughfares and served by two rapid transit stations. Recent policy changes to intensify land use in Grandview Boundary provide the opportunity for new development to capitalize on the excellent access this area offers to both employees and customers. With this transition to higher intensity employment comes the requirement to provide adequate basic infrastructure like water and sewer systems, along with the urban services needed for a growing employee and customer base such as open space, parks and childcare.

This updated Public Benefit Strategy is aligned with several Council priorities and plans. In particular adding new park space along Still Creek contributes to achieving the Greenest City Action Plan; densifying employment in this area supports the Vancouver Economic Action Strategy; and, enhancing the Still Creek watershed advances progress toward the Still Creek Enhancement Plan and the Integrated Stormwater Management Plan.

This report recommends an updated public benefits package for Grandview Boundary, providing needed upgrades, amenities and services including a long-term funding strategy. To implement this strategy, the report also recommends changes to the Grandview Boundary Area Specific DCL By-law, the Grandview Boundary Area Plan, and the Area Rezoning & Development Policies and Guidelines.

GRANDVIEW BOUNDARY MIXED EMPLOYMENT AREA PUBLIC BENEFIT STRATEGY (2012-2041)

A. AREA DESCRIPTION

The Grandview Boundary Mixed Employment (formerly "Industrial") Area is an 81 hectare (200 acre) located east of Slocan Street, between East Broadway and Grandview Highway, and west of Boundary Road. Most of the Grandview Boundary Area is within walking distance of the two SkyTrain stations at Renfrew and Rupert Streets, and it is surrounded on three sides by major thoroughfares – Boundary Road, Grandview Highway, and Broadway/Lougheed Highway.

B. STATUS OF IMPROVEMENTS: 2002-2012

Since 2002, a total of \$1.34 million has been collected (including interest) from the Grandview Boundary DCL. No DCL funds have been spent or allocated to-date (October, 2012). The reserve balance is divided between engineering infrastructure, at \$1.21 million (90%) and parks, at \$0.13 million (10%).

While no DCL dollars have yet been spent in Grandview Boundary, a number of capital projects have been completed since 2002. A number of these projects were achieved through rezoning conditions, which include: traffic calming, pedestrian bulges, a road extension, and traffic signals; some upgrades to water and sewer systems; and, a 37-space childcare centre which is under construction at Broadway Tech Centre. In addition, there has been progress on the Still Creek Enhancement Plan including: the creation of a wetland and public art installation; riparian zone and in-stream enhancements; and, interpretive signage. These Still Creek projects cost approximately \$0.7 million and were largely funded from the Still Creek Enhancement fund and from contributions from Metro Vancouver and other agencies.

C. GROWTH ESTIMATES

Anticipated higher density general office in the area will result in significantly more growth than projected in 2002 when the Grandview Boundary Area Plan was approved. Updated growth estimates for 2012 to 2041 anticipate the addition of another 9,000 jobs, or a total of 19,000 jobs. This job growth is expected from approximately 2.7 million sq.ft. of new development which is expected from the rezoning of several large sites to general office uses. This includes: completion of the final building at 2900 E Broadway which is now under construction; development of the recently approved general office rezoning at 2665 Renfrew (Renfrew Business Centre); future development of 3030 East Broadway (anticipated rezoning to general office); and, the redevelopment of one or two more sites large sites such as the Liquor Distribution Branch site at 3200 E Broadway.

Table 1: Job Growth in the Grandview Boundary

Year	# of Jobs
2002	4,000
2012	10,000
2041 Projection	19,000

D. FUNDING STRATEGY : 2012-2041

The updated Public Benefit Strategy includes upgrades to underground infrastructure (sewer and water), transportation infrastructure including pedestrian and bicycle upgrades, addition of two wetland parks along the Still Creek waterway, and increased childcare facilities. The total cost of the benefits package is estimated at \$35.8 million.

Table 2 outlines a proposed 30-year funding strategy for Grandview Boundary which includes a combination of funding sources that include:

- DCL revenue (existing Grandview Boundary Area Specific DCL reserves, future Grandview Boundary Area Specific DCLs, and City-wide DCLs);
- Rezoning conditions;
- Contributions from City Capital and Utilities;
- Still Creek Enhancement Fund; and
- Other funding and partnerships (e.g. Metro, senior government).

Table 2: Grandview Boundary Public Benefit Strategy Funding Strategy (2012-2041)

Project Type	2012 Cost (\$million)	Funding Source
Sewer	\$4.0	<ul style="list-style-type: none"> • \$3.4 million from Grandview Boundary Area Specific DCL • Previously secured rezoning condition (\$0.36 million) • Remainder from Capital, Utility funding
Water	\$1.5	<ul style="list-style-type: none"> • 100% from rezoning conditions
Transportation	\$5.8	<ul style="list-style-type: none"> • 50% from City-wide DCL transportation allocation • Remainder from City capital, rezoning conditions or other funding
Childcare	\$5.2	<ul style="list-style-type: none"> • 95% from rezoning conditions (large sites) • 5% from City-wide DCL childcare allocation or other funding
Still Creek Enhancement & Parks	\$19.3	<ul style="list-style-type: none"> • 1/3 from City-wide DCL Parks allocation • 1/3 from Other (Still Creek Enhancement Fund (\$100,000/year)*, Capital funding) • 1/3 from Rezoning conditions • Grandview Boundary Area Specific DCL reserve
Grand Total	\$35.8	

*Assuming lease to Vancouver Film Studios continues

As shown in Table 2 this Strategy has an estimated total cost of \$35.8 million (2012\$) over the next 30 years. The funding strategy show the potential funding sources that may be applied to each project separated into different types of asset categories used for Capital Planning.

In summary, approximately 45% (\$16.7 million) of the costs are expected to be funded from new development within Grandview Boundary from a combination of rezoning conditions and Grandview Boundary DCLs. The remaining 55% (\$19.1 million) will be funded from other sources, including City-wide DCLs, tax-supported capital funding and utility-supported capital funding. Funding for the Public Benefit Strategy will be considered as part of the future Capital Plan processes, and reviewed in future updates to the Public Benefit Strategy and Area Plan.

E. DETAILED PROJECT DESCRIPTIONS

The section below outlines an overview of the \$35.8 million public benefits package by capital project type.

1. Sewer and Water Upgrades

Upgrades to both the sewer and water system networks are needed to meet anticipated growth in Grandview Boundary employment. The required sewer projects are sanitary upgrades that provide necessary connections between future development sites and a downstream pump station. The required water upgrades provide for basic water service to new development and for the necessary fire flows to address emergency requirements. Over the next thirty years, upgrades are planned to take place on 1.35 kilometers of water main as well as 1.35 kilometers of sanitary sewer mains.

Given current development projections to 2041, the total estimated costs of sanitary sewer, storm sewer and water works in Grandview Boundary will total \$5.5 million. This consists of \$4.0 million for sewer projects and \$1.5 million for water projects. Should the specific development sites vary from forecasts, the required upgrades and cost estimates may change.

2. Transportation Upgrades

There are a number of planned transportation upgrades that aim to greatly enhance the level of service in the area through improved accessibility for workers and nearby residents. These upgrades consist of new or improved city-wide greenways and bikeways through the area, and sidewalk, intersection improvements and completion of the street network within the area.

Improved pedestrian and bicycle routes are required to accommodate more employee intensive general office development. Circulation within the south-east portion (east of Rupert and south of the SkyTrain line) of Grandview Boundary is poor, where links to surrounding corridors are discontinuous. In order to encourage alternative travel modes, recommended street changes such as the 12th Avenue realignment and the Cornett Road extension focus on enhancing area safety and accessibility, rather than adding vehicle capacity. One block of the Cornett Road extension has already been completed through a rezoning condition in 2009.

Increasing green transportation networks is a key city goal, especially the provision of pedestrian and bike routes linkages to key area destinations and transit. Several city-wide greenways (specific enhanced streets and pathways for pedestrians and recreational cyclists) and bikeways (designated routes on city streets for commuter cyclists) are in-place or are planned through Grandview Boundary, improving accessibility and making non-vehicular travel more attractive.

It is estimated that the total costs of transportation projects in Grandview Boundary to 2041 will total \$5.8 million.

3. Childcare Requirements

Increasing area employment creates the need for childcare spaces. Given area growth estimates of 9,000 jobs, an estimated 90 childcare spaces will be required to meet new demands to 2041, based on the City childcare ratio of 1 space per 100 employees. In addition to the childcare demands resulting from employment growth, there is also an existing deficit of childcare spaces in the wider area surrounding Grandview Boundary.

Currently in Grandview Boundary, there is one existing 37-space childcare centre located on the Liquor Distribution Board site (3200 E Broadway) and another 37-space centre currently under construction at Broadway Tech Centre (2900 E Broadway). The demand analysis for future childcare spaces took these existing facilities into consideration.

This strategy anticipates that new childcare facilities could be provided by redevelopment through site rezoning conditions. City childcare policy seeks to achieve childcare facilities from large site rezonings, particularly where sufficient demand is created from new employees to warrant a childcare centre. This policy is supported by the Vancouver Economic Action Strategy Target 3A which advocates enhancing the availability of childcare to attract, retain and support talent.

An example of this approach is the 37-space childcare centre under construction at Broadway Tech Centre. This facility is fully funded by the developer and is the product of a large site rezoning condition. This was anticipated in the 2002 Grandview Boundary Public Benefit Strategy. Inclusion of childcare spaces is a significant benefit for employees and is recognized by developers as key part of their business model by making it more attractive for workers and more marketable.

This updated strategy identifies two other sites of similar size and potential employee density to the Broadway Tech Centre. The Liquor Distribution Board site is among the largest potential redevelopment sites in the area and it already has a 37-space childcare facility in operation. This strategy anticipates the replacement of this 37-space facility with the potential to house an expanded group childcare facility of 69-spaces (i.e., add 32 spaces) when this site redevelops

through a rezoning. The second large site with the potential to generate demand for a 37-space childcare centre through rezoning is the Superstore site at 3185 Grandview Highway.

The cost to construct a childcare centre can vary depending on the type of construction (i.e. concrete vs. woodframe, level of fit and finish), whether it is at grade or in a podium, and whether it requires underground parking. For this update, staff used an average construction cost per childcare space of \$72,000 to estimate the total costs of providing the 69 new childcare spaces proposed for inclusion from future rezoning projects. This cost estimate reflects the most cost effective approach to providing these facilities based on capital costs observed from other projects. The cost includes a fully fitted and furnished childcare facility, but it does not include any provision for an operating endowment or ongoing maintenance costs. As noted, childcare facility costs vary and actual costs will be determined through the rezoning and design review process.

Childcare estimates for Grandview Boundary also include a cost estimate for up to 21 spaces in new or expanded school-age care programs. These programs have the potential to be accommodated at nearby Grandview Boundary school sites. The cost to provide the 21 school age spaces is calculated separately from the new childcare spaces and is estimated at \$12,500 per space.

It is important to note that this childcare approach depends on large sites rezoning. If large sites do not rezone over the next 30 years, an alternate approach and funding strategy will be needed.

4. Still Creek Enhancement/Park/Wetland Upgrades (2012-2041)

Still Creek is a significant watercourse and one of the few remaining creeks in Vancouver that is not completely buried in culverts. Since the adoption of the Still Creek Enhancement Plan in 2002, the City has carried out a number of short term projects related to the Creek (small wetland and public art installation, riparian zone enhancements, in-stream enhancements and interpretive signage). It is the City's intention to fully daylight the creek and provide pedestrian/cycle Greenway along the creek edge in conjunction with other landscape/public open space amenities. The ability to secure this amenity is a key criterion in assessing proposed developments adjacent to Still Creek.

The Still Creek Enhancement Plan aims to work with adjacent redevelopment sites to seek opportunities for creek widening, stream relocation and day lighting, and completion of the Still Creek Greenway. Also included is the acquisition of land to construct two stormwater retention ponds/wetlands. These wetlands would also function as park space that will serve area employees as well as providing access to park/open space for nearby residents. Over half of estimated Still Creek project costs relate to the future acquisition of two sites in Grandview Boundary that would be used for these future wetland/passive park sites. Potential locations for these important wetland/park sites are in the 3000-3100 blocks of Grandview Highway and in the 3400 block of Cornett Road. The plan to add new park spaces along Still Creek is consistent with a number of Greenest City Action Plan goals, including the goal to ensure all Vancouver residents live within a five-minute walk of a park, greenway, or other green space by 2020.

The Still Creek projects would require land acquisition and significant capital investment amounting to approximately \$19.3 million.

F. DETAILED PROJECT COSTS

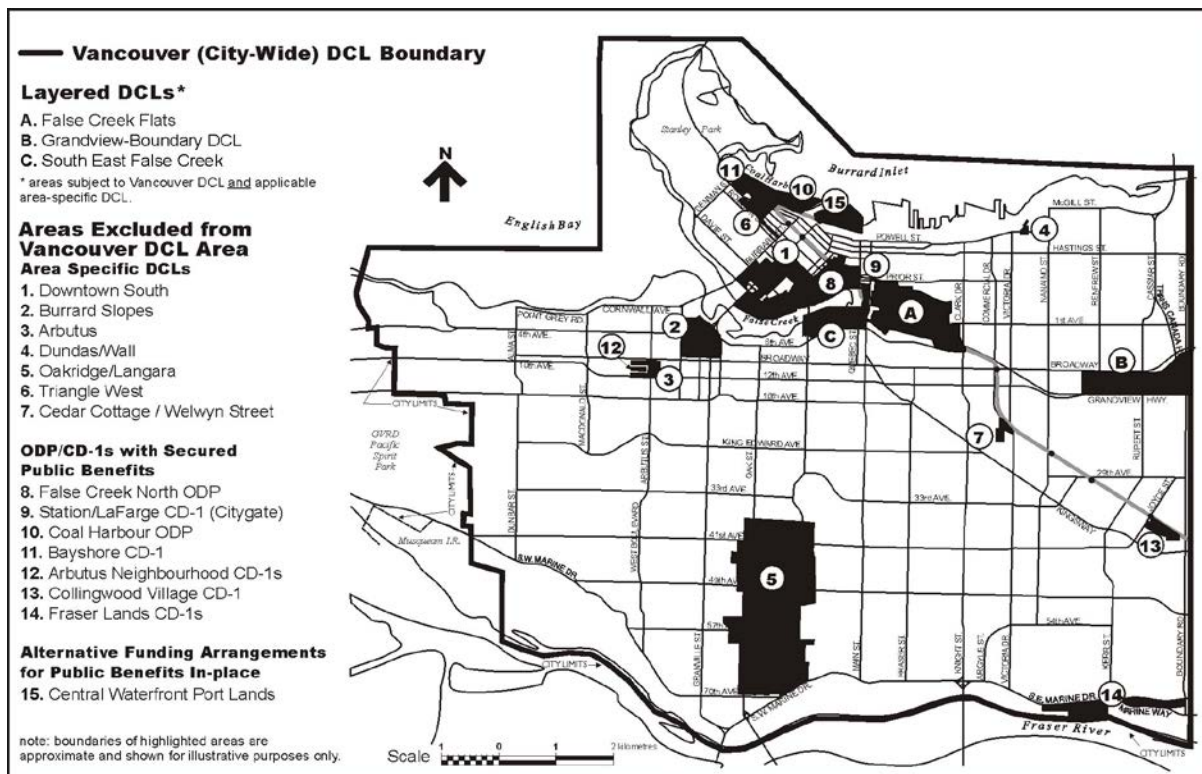
The following table provides details of anticipated Grandview Boundary capital projects and estimated costs (current \$) that could be delivered over the next 30 years.

Type of Capital Project	Cost (\$)
Sewer Upgrades	
E12th Ave (2665 Renfrew to Renfrew), Renfrew St (E12th Ave to Grandview Hwy), Grandview Hwy (Renfrew St to Nootka St)	\$ 1,380,000
Hebb Ave (Nootka St to Nootka easement), Nootka Easement (Hebb Ave to Grandview Hwy)	\$ 770,000
Rupert St (Hebb Ave Extension to Cornett Road)	\$ 800,000
Hebb Ave Extension (Easement west of 2625 Rupert to Rupert St)	\$ 240,000
Cornett Road (Rupert St to Skeena St)	\$ 775,000
Total Sewer Upgrades	\$ 3,965,000
Water Infrastructure Upgrades	
Hebb Avenue (from Nootka St to Renfrew St)	\$ 325,000
Hebb Avenue (from Lilloet St to Nootka St), Lilloet Street extension (From Hebb to 50m to the north)	\$ 275,000
Hebb Ave Alignment (from Rupert St to Lilloet St)	\$ 350,000
E 12th Ave (from West of Renfrew St to Kaslo St)	\$ 100,000
E 12th Ave (from Kaslo St to Slocan St)	\$ 250,000
Bentall St (Grandview Hwy to Cornett Rd)	\$ 215,000
Total Water Infrastructure Upgrades	\$ 1,515,000
Transportation	
Greenways	
Eastside Crosscut Greeway	\$ 400,000
Central Valley Greeway (CVG) Upgrades	\$ 850,000
Broadway - Central Valley Greenway Pedestrian/Bike Path at Cassiar	\$ 1,000,000
New Pedestrian/Bike Signal at Cassiar/Broadway	\$ 200,000
Pedestrian Improvements at Station Approaches	
Renfrew Station approach	\$ 800,000
Rupert Station approach	\$ 700,000
Road Improvements	
Sidewalk Spot Improvements (600m)	\$ 250,000
Lighting Spot Improvements	\$ 150,000
Cornett Road extension (150 meters from Bentall St to Rupert St)	\$ 660,000
12th Ave Realignment (185 meters)	\$ 820,000
Total Transportation	\$ 5,830,000
Childcare	
90 new childcare spaces	\$ 5,230,000
Total Childcare	\$ 5,230,000
Still Creek Enhancement/Parks	
Wetland/Park (3000 & 3100 blocks of Grandview Hwy), Channel/Greenway Development	\$ 9,650,000
Wetland/Park 2 (3400 block of Cornett Rd), Channel/Greenway Development	\$ 9,650,000
Pocket Park - 12th Ave Realignment	
Total Still Creek Enhancement/Parks	\$ 19,300,000
Grand Total	\$ 35,840,000

Note: All costs provided above are 30 year estimates based on projected job growth in Grandview Boundary. These costs are subject to change.

DCL BACKGROUND INFORMATION

Map: DCL Areas in Vancouver



DCL By-laws establish area boundaries of each DCL district. Levies collected within each district must be spent within the area boundary, except for DCLs collected for replacement housing which can be spent city-wide. There are 11 DCL districts in the City in three general categories:

1. The Vancouver (City-wide) DCL District: This applies across most of the City. Exceptions are shown on the map in black.
2. Layered DCL Districts: These are specific geographic areas in which both an Area Specific DCL and the Vancouver DCL apply. There are three such areas shown on the map as A, B, and C (False Creek Flats, Grandview-Boundary, and Southeast False Creek). These are or were industrial areas where new plans identified potential for significant redevelopment and a higher need for facilities than could be covered by the City-wide DCL alone (e.g., sewer and water).
3. Area Specific DCL Districts: These are numbered 1-7 on the map. Developments in these districts are subject to the Area Specific DCL and are exempt from paying the Vancouver DCL. Vancouver's DCL system evolved over time. The City first applied DCLs to specific areas undergoing redevelopment planning that would bring significant, localized growth impacts. In 2003, Council approved the Financing Growth Policy, which recognized the significant growth capacity in the rest of the City and created the City-wide DCL District to collect DCL revenue from all areas of the City to support the provision of city-wide growth-related capital projects.

There are also eight additional areas (numbered 8-15) exempt from paying the City-wide DCL because prior to the introduction of the City-wide DCL, the City had already secured the provision of growth-related capital projects as part of a Comprehensive Development District (CD-1), Official Development Plan (ODP) or an alternative funding arrangement.



City of Vancouver *Land Use and Development Policies and Guidelines*

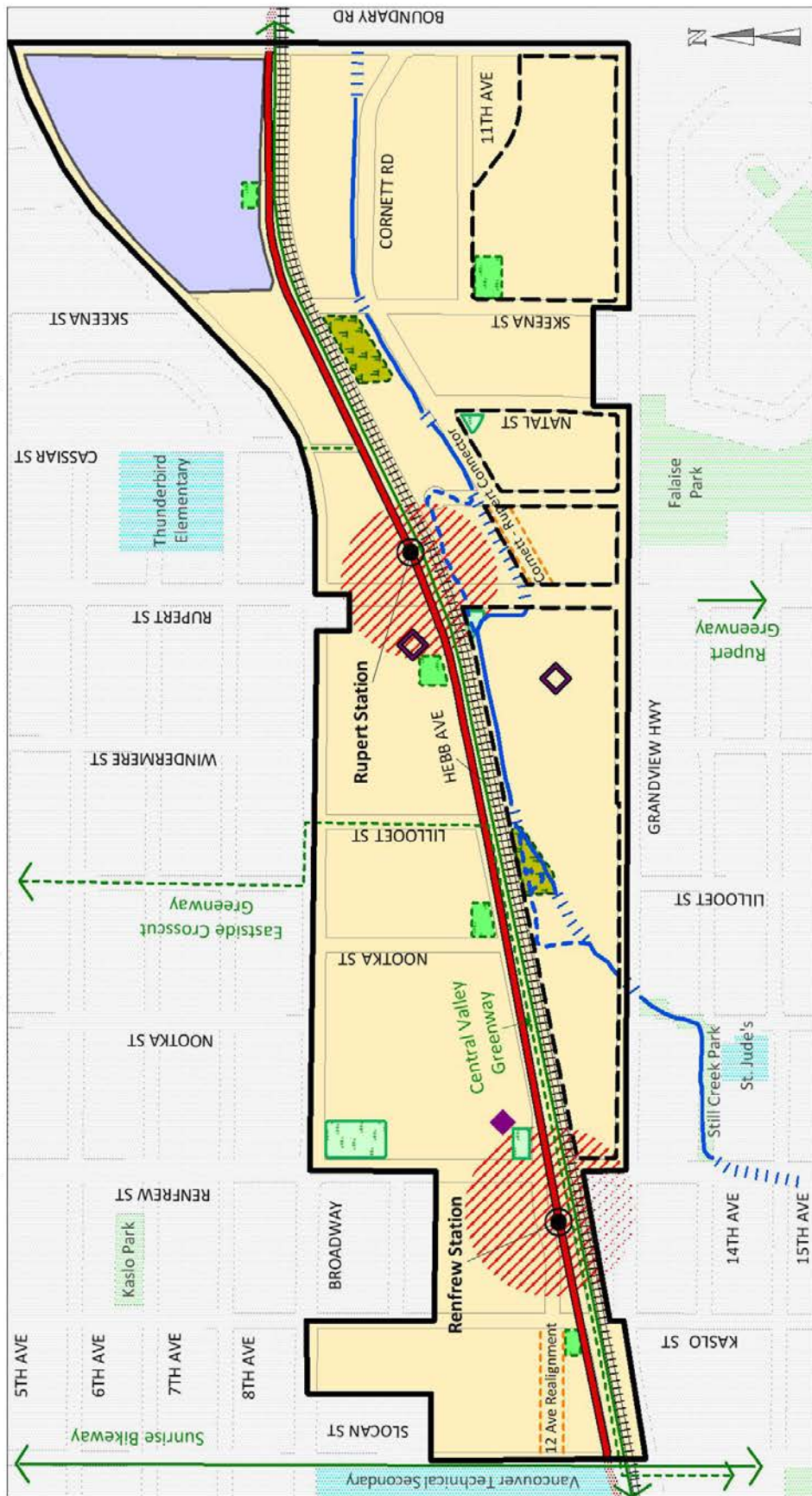
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planning@vancouver.ca

GRANDVIEW BOUNDARY MIXED EMPLOYMENT AREA PLAN

*Adopted by City Council by July 25, 2002
Amended September 12, 2006, and January 18, 2011*



Grandview Boundary Mixed Employment Area: GBMEA Future Vision Map



LEGEND	
Land Use	Rapid Transit
Mixed Employment Area (CD-1, I-3, I-2)	SkyTrain Station
Light Industrial (I-2)	Millennium SkyTrain line
Station area - retail services required/encouraged	Greenway / Bikeway
Large format retail (Granview Hwy frontage)	Future
	Existing
Street	Railroad
New/realignment	BNSF Railway
Greenway	Childcare - Existing
	Under construction
	Planned/planned expansion
Public Open Space	Still Creek
Existing	Future Park Wetland
Future	Existing open
	Existing in culvert
	Future relocated/daylighted

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1 Future Vision

The Grandview Boundary Mixed Employment (GBMEA) will transition from industrial and large format retail into a mixed employment area accommodating a variety of land uses. Increasingly, general office buildings like the Broadway Tech Centre located near SkyTrain stations are anticipated. Light industrial uses such as automotive sales and repair, liquor distribution, storage, film production studios are expected to remain, as are some large format retail uses like Canadian Tire and Trail Appliances. Worker population and employment density are expected to increase substantially. The 2002 Grandview Boundary Public Benefit Strategy identified 4,000 jobs in the Area. In 2012, an estimated 6,000 jobs have been added for a total of 10,000 jobs. By 2041, the projected job total is 19,000 workers which will make it one of City's major employment areas. The Renfrew and Rupert SkyTrain stations will become centers of pedestrian activity with small shops and other services for transit users and area workers. The new area infrastructure and amenities will accommodate the increased worker demands on roads, water, sewer services, park space and childcare facilities. As the only natural amenity in the area, Still Creek will be enhanced to provide expanded natural areas and passive park space for workers. A continuous pedestrian pathway and improvements to the Creek ecology are also planned. To support these Creek improvements, new approaches to handling storm water will be introduced for new development. This transition may take 20 or more years and the change will be gradual, allowing area owners and operators time to consider and adapt their role in the area's future.

1.1 Area History

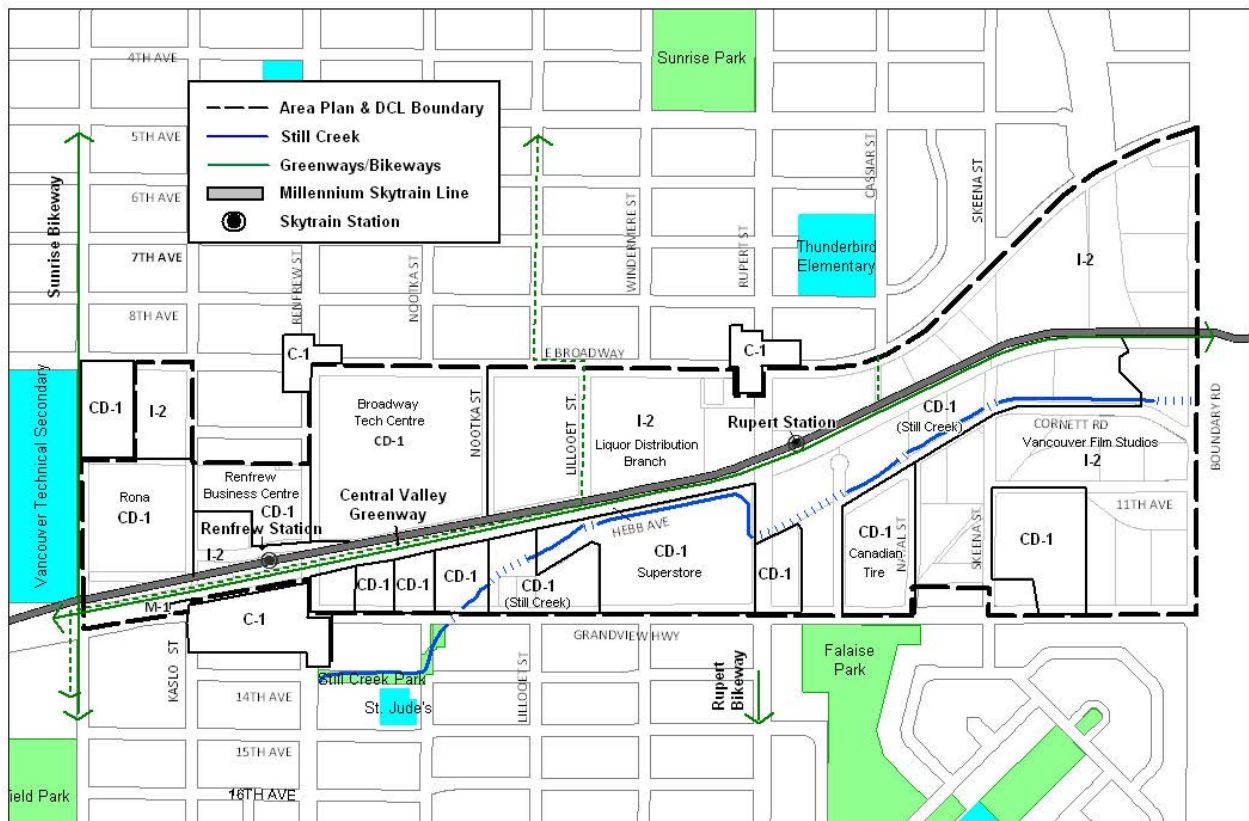
Grandview Boundary developed in the 1950s as an industrial park with rail service and convenient access to Highway 1 and surrounding arterial streets. Beginning in the 1980s, large manufacturing and warehouse uses such as Wire Rope Industries, Molson's and Simmons Mattresses vacated the area making way for new uses such as Superstore and Paramount Studios. In 1995 the Industrial Land Strategy led to new I-2 zoning in the area to encourage industrial, service and high-technology uses and identified Grandview Highway as a location for large format non-industrial uses. After the Province announced the new SkyTrain line in 1998, Grandview Boundary and the False Creek Flats were identified by the City as suitable for high-tech industry. When the demand for high-tech space declined, Council approved the consideration of general office uses on sites near the SkyTrain stations. The Grandview Boundary Rezoning & Development Policies and Guidelines provide direction for privately initiated rezonings for high-tech and office uses, and for large format uses on Grandview Highway.

1.2 Existing Zoning and Uses

Grandview Boundary zoning and land use policy consists of:

- (a) **I-2 light Industrial and Still Creek CD-1 zones** - permit a range of manufacturing, including software, service, transportation and storage uses as outright approvals, and other institutional and service uses as conditional approvals. Existing uses include Vancouver Film Studios, Paramount Studios as well as warehousing, wholesaling and distribution.
- (b) **LFA CD-1 zones** - these are custom zoning schedules written to fit existing buildings and uses including Rona, Superstore and the Canadian Tire Centre.
- (c) **General Office CD-1 zones** - these are custom zoning schedules which permit general office uses on sites close to a SkyTrain station.
- (d) **I-3 High-Tech Industrial zone** - permits outright uses including information technology office and software manufacturing, and conditional uses such as manufacturing and other traditional light industry.

Figure 1: Existing Zoning and Major Uses, 2011



1.3 Implementation

Implementation will occur through redevelopment or reuse of buildings under the I-2 and Still Creek CD-1 zonings (similar to I-2 with additional guidelines for Still Creek) and owner initiated site specific rezonings. While current zoning supports many future directions for the area, rezoning will be required for general office uses, high-tech industrial offices, new large format uses on Grandview Highway and retail/service uses near SkyTrain stations.

To facilitate new development, the Plan calls for improvements to the public realm, area streets and infrastructure, enhancement of Still Creek and addition of passive park space, the extension of Greenways through the Grandview Boundary, and additional childcare facilities. An area-specific DCL By-law helps pay for underground infrastructure improvements. In addition, the City-wide DCL will continue to be collected and used for services that benefit a wider area. DCLs will not be sufficient to pay for all required services. Additional funding through requirements of development, the Still Creek Greenway Enhancement Fund and other City sources will augment provision of area services and amenities as detailed later in this Plan.

2.0 Land Use Directions

Land use policies provide for choice of use in Grandview Boundary as described below and shown in Figure 2.

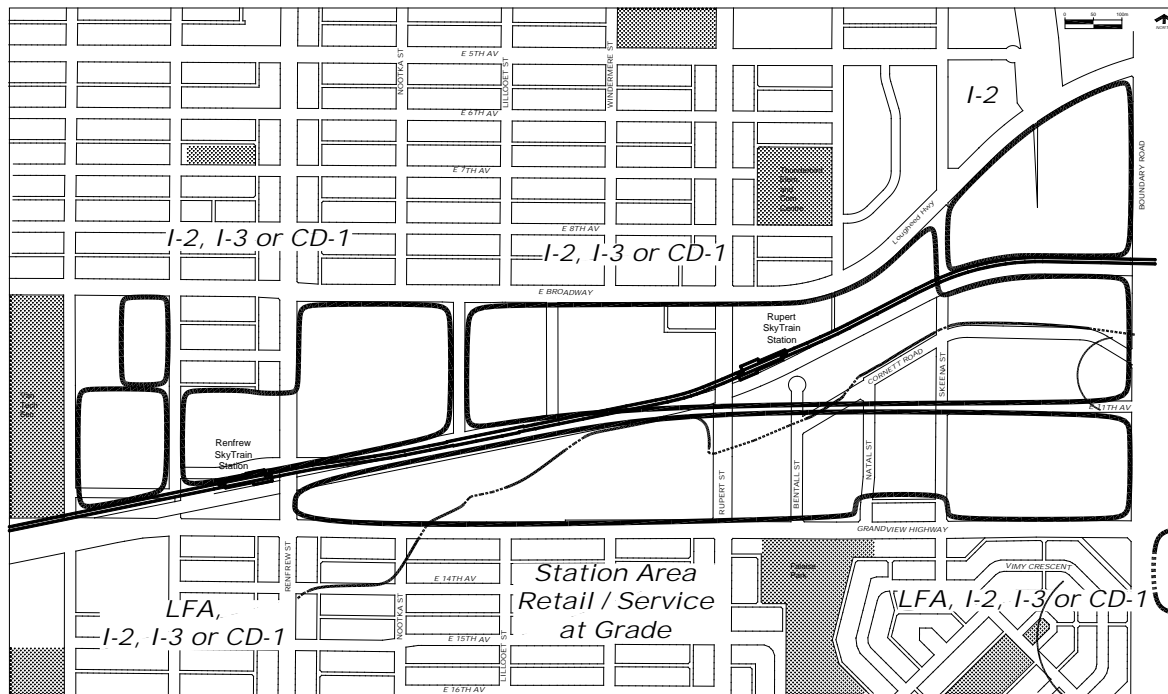
General Office (CD-1)/High Tech (I-3) Industry - general office uses and high tech uses (software manufacturing, information technology) are more worker intensive than traditional industry and are preferred close to the SkyTrain Stations. Rezoning applications for general office or high-tech elsewhere in Grandview Boundary will be considered where safe and convenient walking (5-10 minutes) to SkyTrain Stations is possible.

Station Areas - Retail/Service - station oriented uses such as convenience stores, green grocers, insurance agents and drycleaners are encouraged adjacent to the SkyTrain Stations.

Light (I-2) Industry - warehousing, wholesaling and storage uses can locate anywhere in the area, but are preferred in locations more distant from the station areas to reserve station areas for uses that generate more transit riders and pedestrian activity. Film studios and other more worker intensive uses are encouraged near stations.

Large Format Area (LFA) - rezoning applications for stand alone, large format retail, institutional, cultural and recreational uses will be considered only on sites fronting Grandview Highway as shown in Figure 2. Institutional, cultural and recreational uses such as schools (elementary, secondary, university, college, business, arts or self-improvement), churches, billiard halls, bingo halls, bowling alleys, casinos, clubs, halls, fitness centres, rinks and swimming pools could be considered. Rezoning to allow educational facilities outside the LFA may be considered when they relate directly to high-tech industrial development. Please refer to the Grandview Boundary Rezoning and Development Policies and Guidelines for more details.

Figure 2: Future Land Use and Large Format Area Boundary



3.0 Circulation and Parking

Grandview Boundary is bordered by three regional arterials - Grandview Highway, Boundary Road and Broadway/Lougheed. As a typical 1950s industrial area, the road pattern was developed for vehicular access and circulation. Sidewalks are generally absent on internal streets and direct pedestrian connections to key area destinations are missing.

The Rupert and Renfrew SkyTrain stations greatly enhance accessibility for workers and nearby residents. With the potential for increasing numbers of workers to rely less on vehicle travel, there is an opportunity to focus on alternatives to the single occupant vehicle. This will require creation of safe, convenient routes for pedestrians and cyclists, appropriate parking standards and promotion of alternative commuting modes by area employers.

3.1 Vehicular Traffic

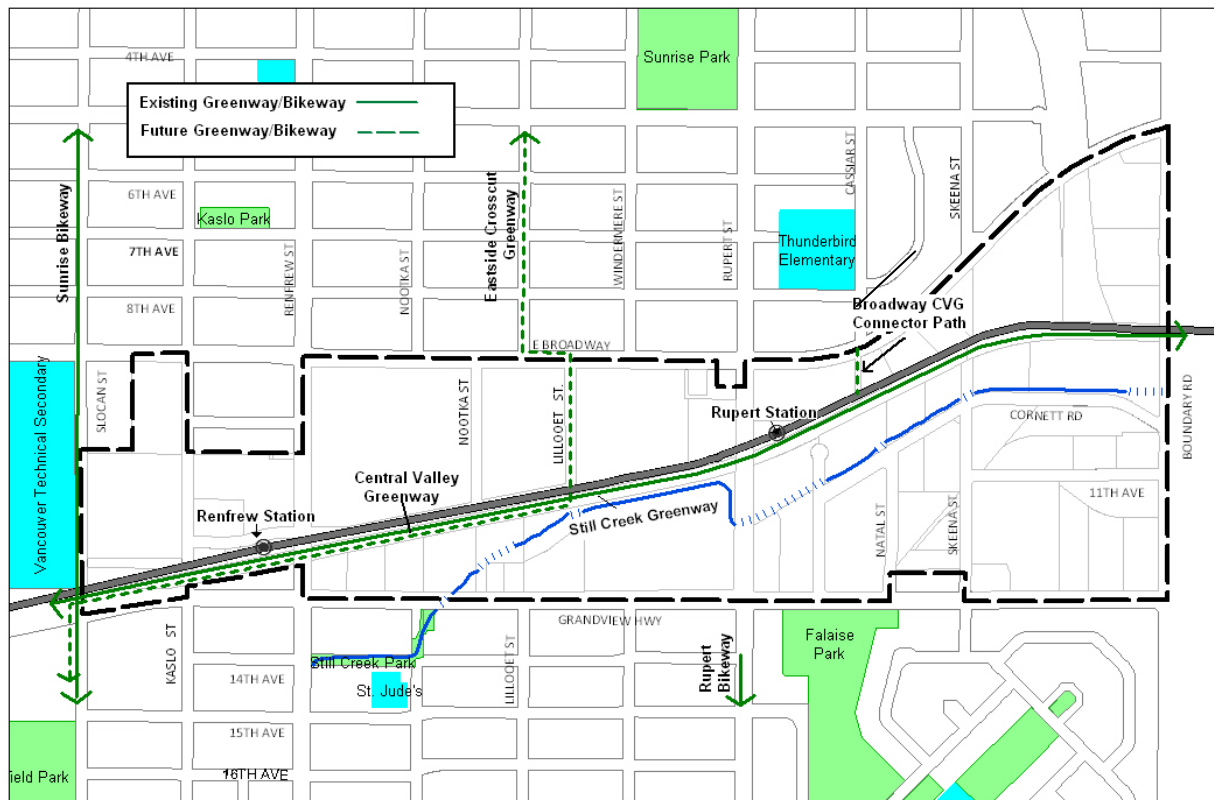
The area traffic study concludes that improved vehicular and pedestrian routes are required to accommodate new general office and high-tech industrial development. Circulation within the south-east portion (east of Rupert and south of the Skytrain line) of the Grandview Boundary

has been improved with recently constructed left turn bays and medians on Natal, Skeena and Boundary. In order to encourage alternative travel modes, recommended road changes will focus on enhancing area safety and accessibility, rather than adding road capacity.

3.2 Pedestrians and Bicycles

As employee population increases, there will be increasing need for pedestrian routes linking key area destinations. Several greenways (specific enhanced streets and pathways for pedestrians and recreational cyclists) and bikeways (designated routes on city streets for commuter cyclists) are planned to bisect the Grandview Boundary, improving accessibility and making non-vehicular travel more attractive.

Figure 3: Proposed Greenways and Bikeways in Grandview Boundary Mixed Employment Area

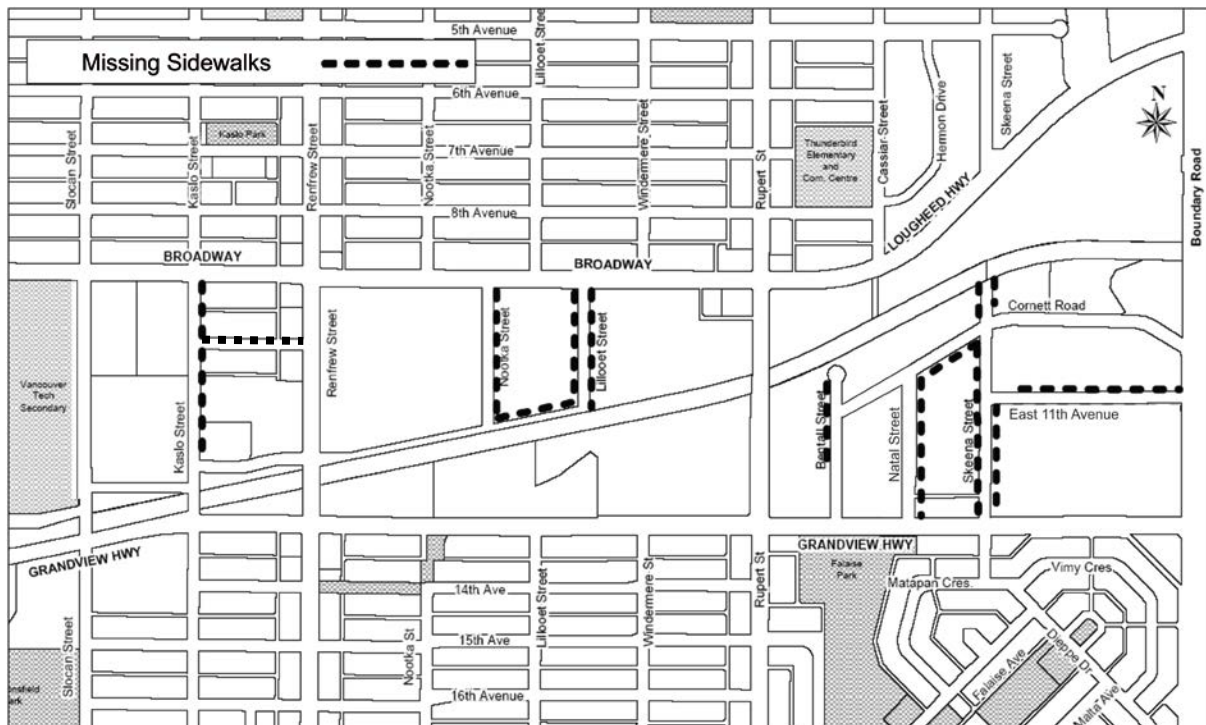


Both existing and planned routes for the area, shown in Figure 3, are:

- (a) **Central Valley Greenway** – completed in 2009, this route generally follows the Millennium Line SkyTrain alignment in the Grandview Boundary and connects False Creek to Burnaby.
- (b) **Sunrise Bikeway** - this existing route runs along Slocan Street and is the major north-south bike route in the easternmost part of Vancouver.
- (c) **Still Creek Greenway** - this planned route will parallel Still Creek and eventually link to the residential area to the south at the Nootka Street alignment.
- (d) **Eastside Crosscut Greenway** - this planned greenway is one of 14 routes endorsed by Council and will eventually link Burrard Inlet to the Fraser River. It will connect with the Central Valley Greenway and other important destinations within the area. Actual route alignment would be determined after public consultation and technical review.

Many internal roads currently have no sidewalks. To accommodate increased pedestrian traffic and enhance safety, new developments will be required to provide them as required. In order to ensure timely completion of the pedestrian network in the area, other funding sources such as local improvement initiatives may be used where redevelopment is unlikely to occur for some time. Figure 4 illustrates areas where sidewalks are missing.

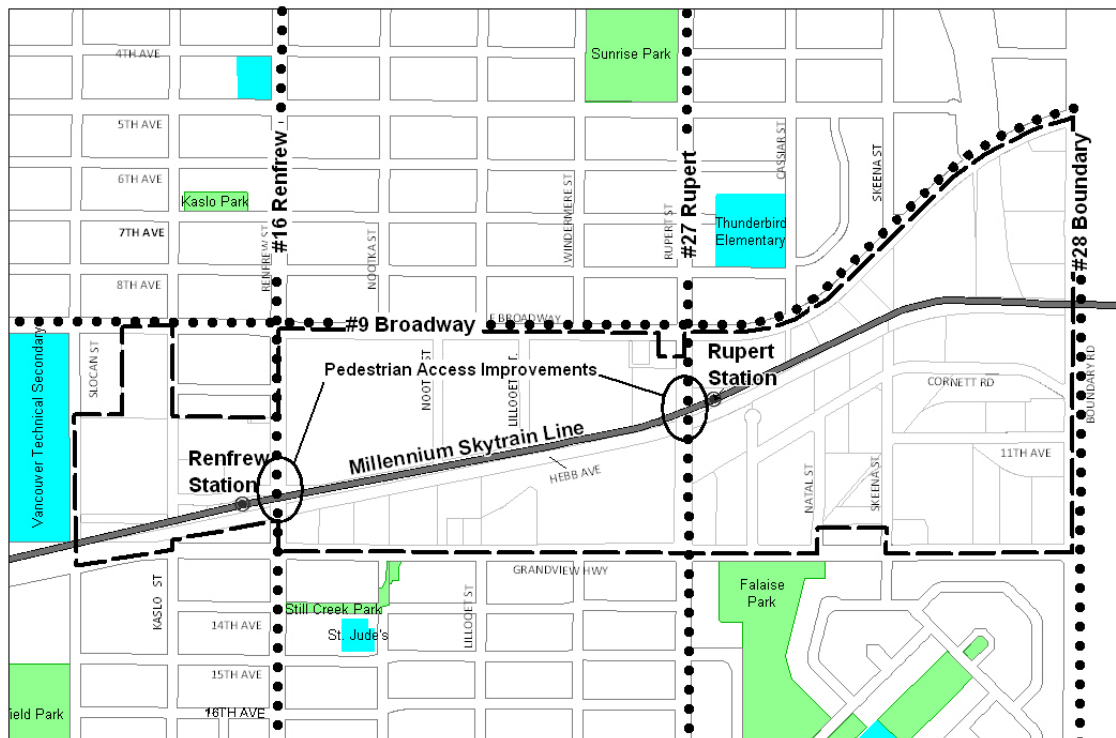
Figure 4: Missing Sidewalks



3.3 Transit

The Grandview Boundary is well served by the Millennium Line SkyTrain as well as regular bus service, as shown in Figure 5. Improvements to remove sidewalk pinch points near rail crossings in the vicinity of station entrances are proposed.

Figure 5: Existing Transit Service and Pedestrian Access Improvements at Stations



3.4 Parking

A balanced parking strategy is required that supports alternate modes but also accommodates the needs of employees and visitors. For new general office and I-3 development, the Grandview Boundary guidelines require a traffic and parking analysis and transportation demand management measures. Large Format Area sites are similar to other retail sites and will have parking requirements which reflect those demands. New developments are also responsible for providing bicycle parking.

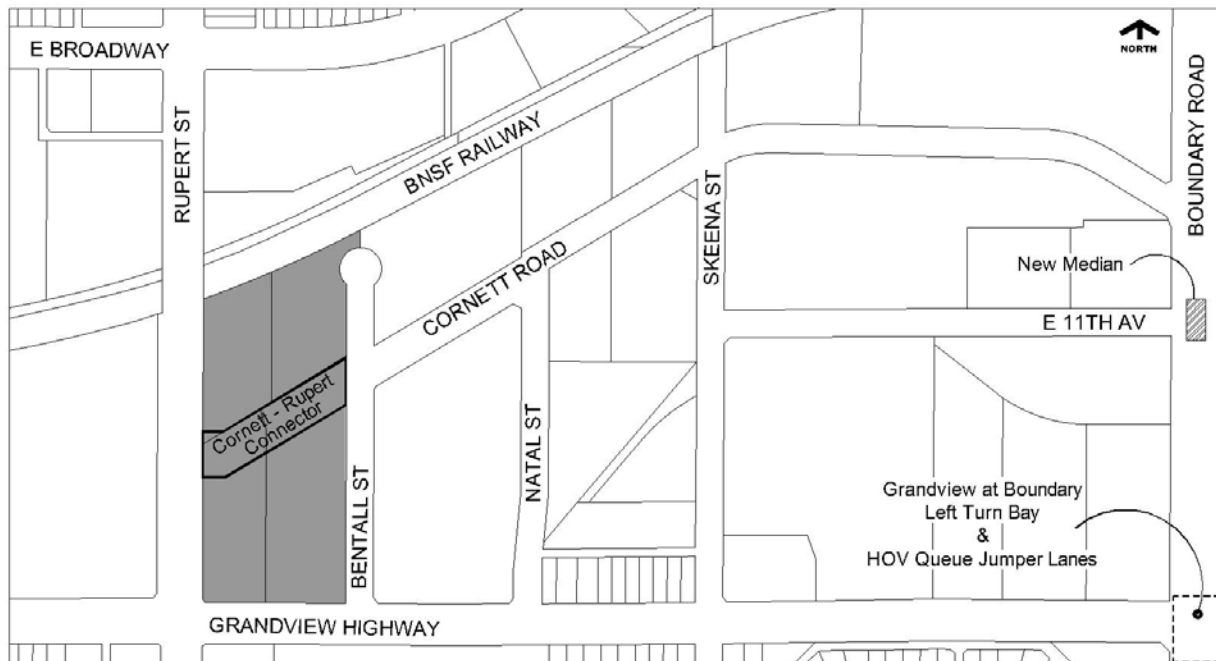
On-street parking on local streets is generally unrestricted. With increased development and a shift toward more worker-intensive uses, on-street demand will increase. Adjustments to off-street parking standards and on-street parking regulations will be required to provide sufficient short-term parking. SkyTrain Station precincts, in particular, should enjoy reduced parking standards.

3.5 Recommended Road Modifications

Rupert - Cornett Connection

The absence of direct access to Rupert Street and the SkyTrain Station from the south-east portion of the area impacts internal circulation and limits pedestrian access to an informal route through existing storefront walkways. The proposed extension of Cornett Road from Bentall Street to Rupert Street is shown in Figure 6 below. Property for the required right-of-way would be acquired from adjacent property owners as their sites redevelop or as other opportunities emerge. In 2009, Cornett Road was extended from Natal Street to Bentall Street as part of the adjacent development.

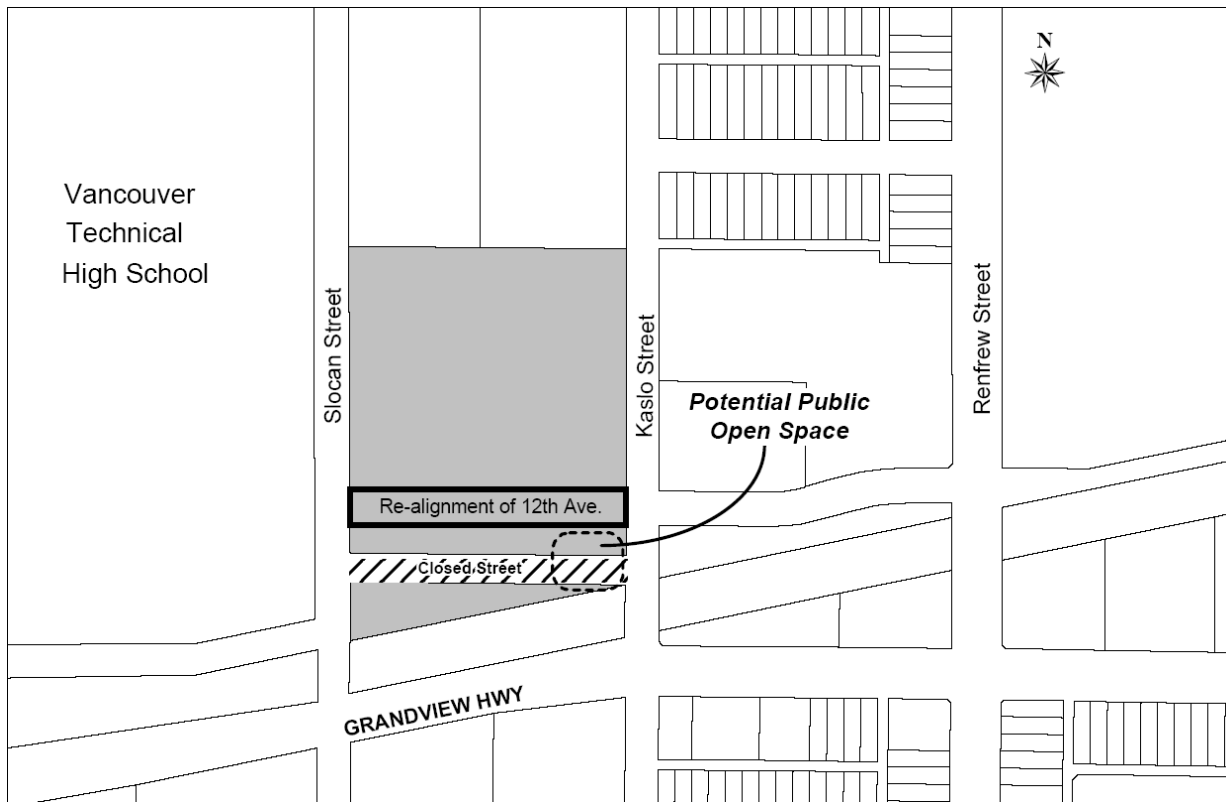
Figure 6: Cornett Road Extension – Affected Properties and Grandview Boundary Improvements



12th Avenue Realignment

When the Rona site redevelops, the revised road alignment shown in Figure 7 is recommended to assist pedestrian circulation and rationalize the road network. The existing 12th Avenue alignment could be closed and consolidated with adjacent parcels to create an amended development site and a small public space illustrated in Figure 7.

Figure 7: Realignment of 12th Ave and Affected Properties



Other Road Modifications

Construction of various right-turn only lanes and left-turn bays were recommended where they are absent on arterials in and around the area.

In 2012, the City installed an eastbound left-turn bay on Grandview to allow vehicles to turn left from Grandview onto Boundary. The City also installed short eastbound and westbound high occupancy vehicle (HOV) queue-jumper lanes on Grandview that will connect with the HOV lanes on Highway 1, as well as a new median on Boundary at 11th Avenue right-turn only to improve safety in the vicinity of the Boundary Highway 1 off-ramp.

4.0 Character and Image

The streets have few street trees or other visual amenities and are not pedestrian-friendly. Unlike newer industrial/office parks, the Grandview Boundary lacks a coherent character or unifying theme to give it a sense of identity in the City. The landscaped setbacks on portions of Grandview Highway and Broadway, and the portions of Still Creek that are still uncovered provide the area's only visual relief.

To assist the area's transition to more intensive employment uses, attractive public spaces and a higher level of streetscape quality are required. A tree plan is part of the Guidelines to help meet these objectives. Public realm improvements will be focussed initially on the SkyTrain Stations and Rupert and Renfrew Streets, the primary access and entryways to the stations. As the station areas transform into safe and attractive environments, they will become catalysts for the area's transition.



Still Creek on Super Store Site



Existing Section of Still Creek Greenway



Typical Warehouse



Internal Street with No Sidewalks

4.1 General Built Form and Character

The urban design challenge in the Grandview Boundary is to create a cohesive physical identity given the different uses and building types. Public realm improvements need to be complemented through higher standards of building design, incorporating greater building articulation, transparency, and quality materials, such as glass, steel and concrete. The Grandview Boundary Mixed Employment Area Policies and Guidelines provide detailed guidance to better achieve these objectives.

4.2 Development in Station Areas

In February, 2000 Council adopted Station Area Precinct Plans to ensure that the stations were integrated into the surrounding community with safe and accessible pedestrian links. Many of the improvements including bus stops, sidewalks, lighting, crosswalks and signals are in place. The Grandview Boundary Plan calls for station areas to be intensely developed, concentrating future general office and high-tech uses and pedestrian oriented activity. Urban form should reflect this vision with heights up to a maximum 100 ft., street wall buildings, underground parking and pedestrian amenities. There are key private sites near each station where building design uses and new road and pedestrian connections will be important to achieve the Plan objectives. Generalized plans and illustrative drawings for these key sites are shown in Figures 9 through 12.

Renfrew Station Precinct - Key Sites

The Renfrew Station area concept shows potential redevelopment of the current Rona site. The realigned 12th Avenue and small public space created through the road relocation are good opportunities for creating an active pedestrian environment. Transit-serving uses such as fast food outlets, small grocers, insurance agents and other local retail and service uses are encouraged at grade along 12th Avenue near the station. The south-facing orientation of these site adds to their appeal for outdoor restaurant seating and display of goods.

In 2010, a rezoning was approved (immediately east of the Rona site) for a future multi-phased general office development at 2665 Renfrew (“Renfrew Business Centre”). The approval include a range of open spaces intended for public and semi-private use, consistent with the intent of this area plan.

Figure 9: Redevelopment Concept Plan for Renfrew Station Precinct

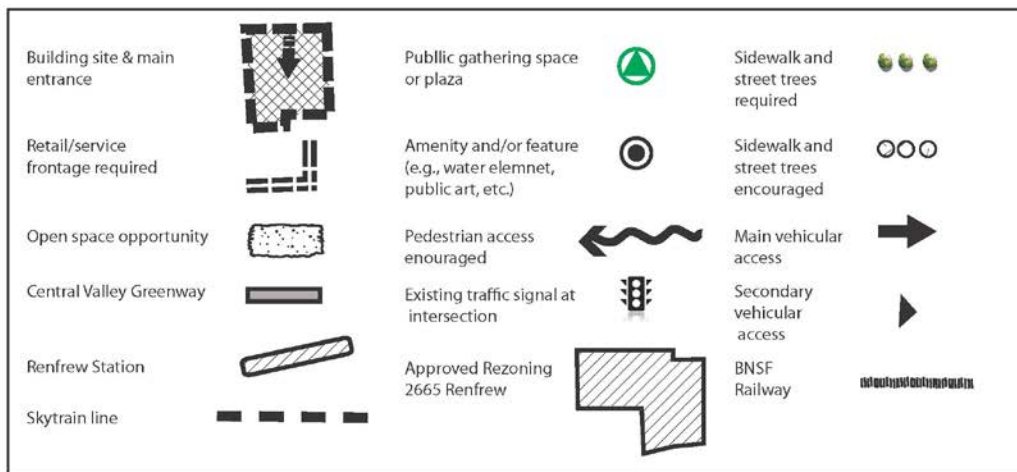
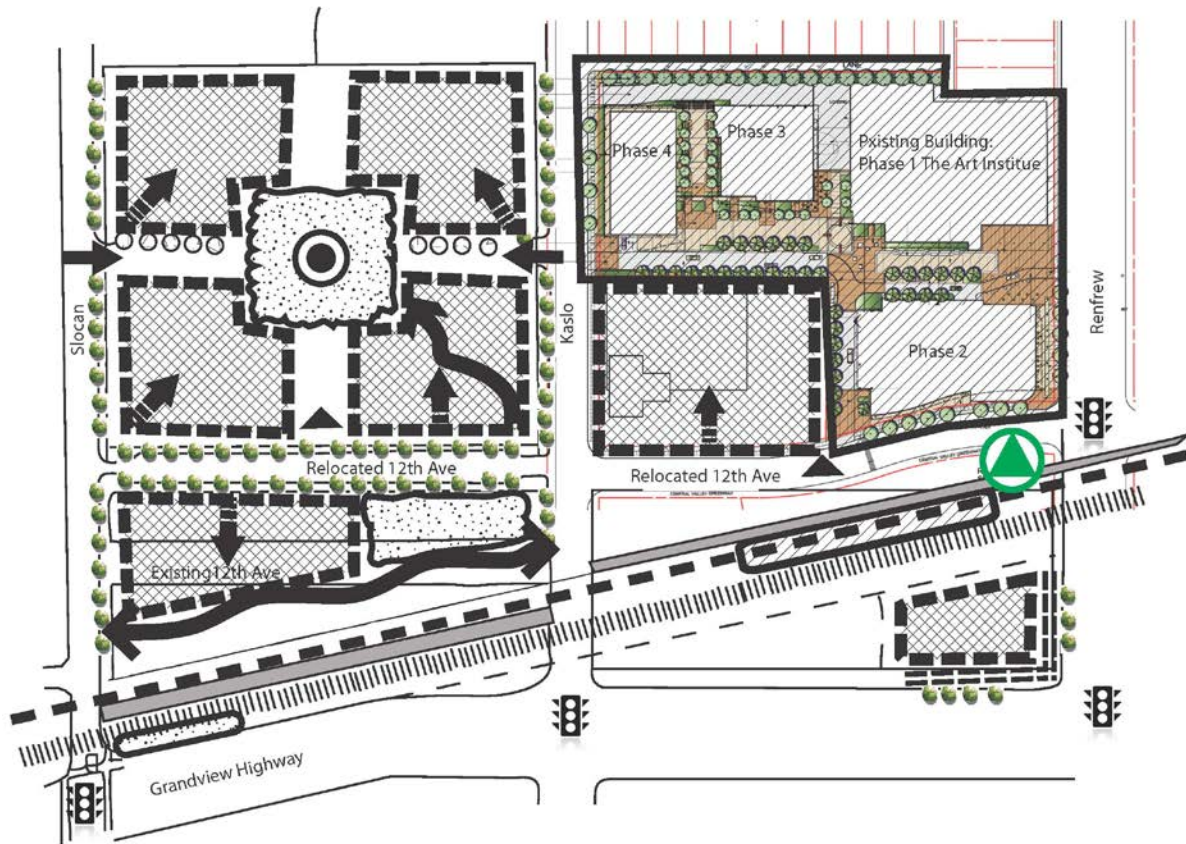
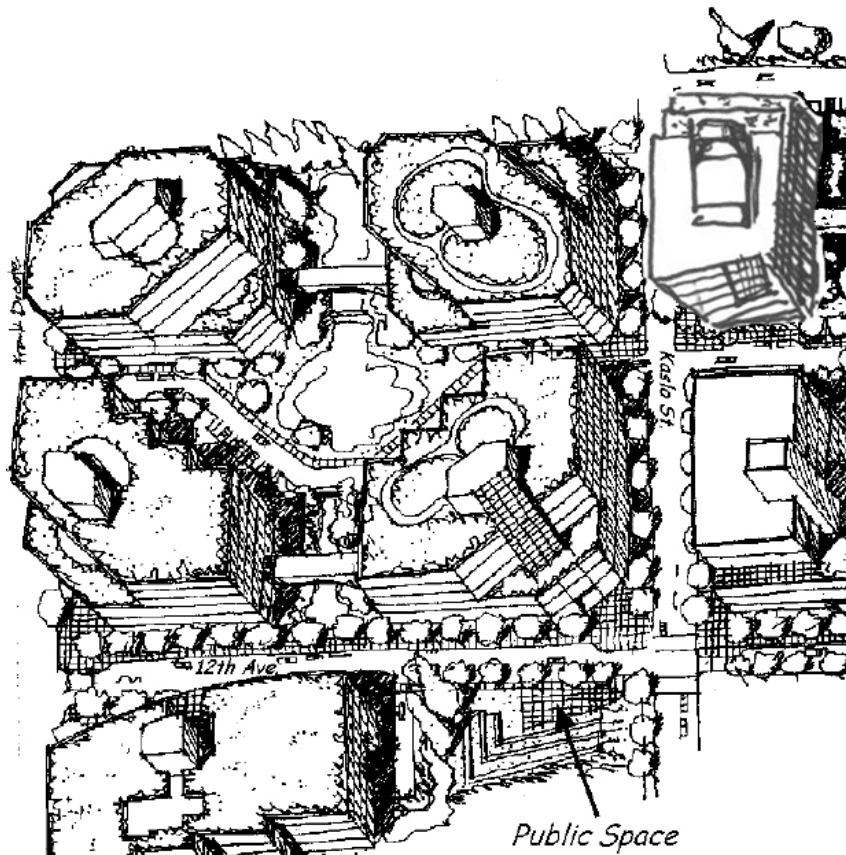


Figure 10: Illustrative Sketch of the Renfrew Station Precinct - looking north



Rupert Station Precinct - Key Sites

Creating a pedestrian focus is also the objective for redevelopment in the Rupert Station area. The concept shows redevelopment of the mini storage site facing Broadway, and Rupert Square just south of the station. The Central Valley Greenway and the proposed extension of Cornett along the Still Creek alignment will provide pedestrian and vehicular connections between Rupert Station and the film studio precinct to the east. A future relocation and day lighting of Still Creek along the southern boundary of the rail line is also contemplated.

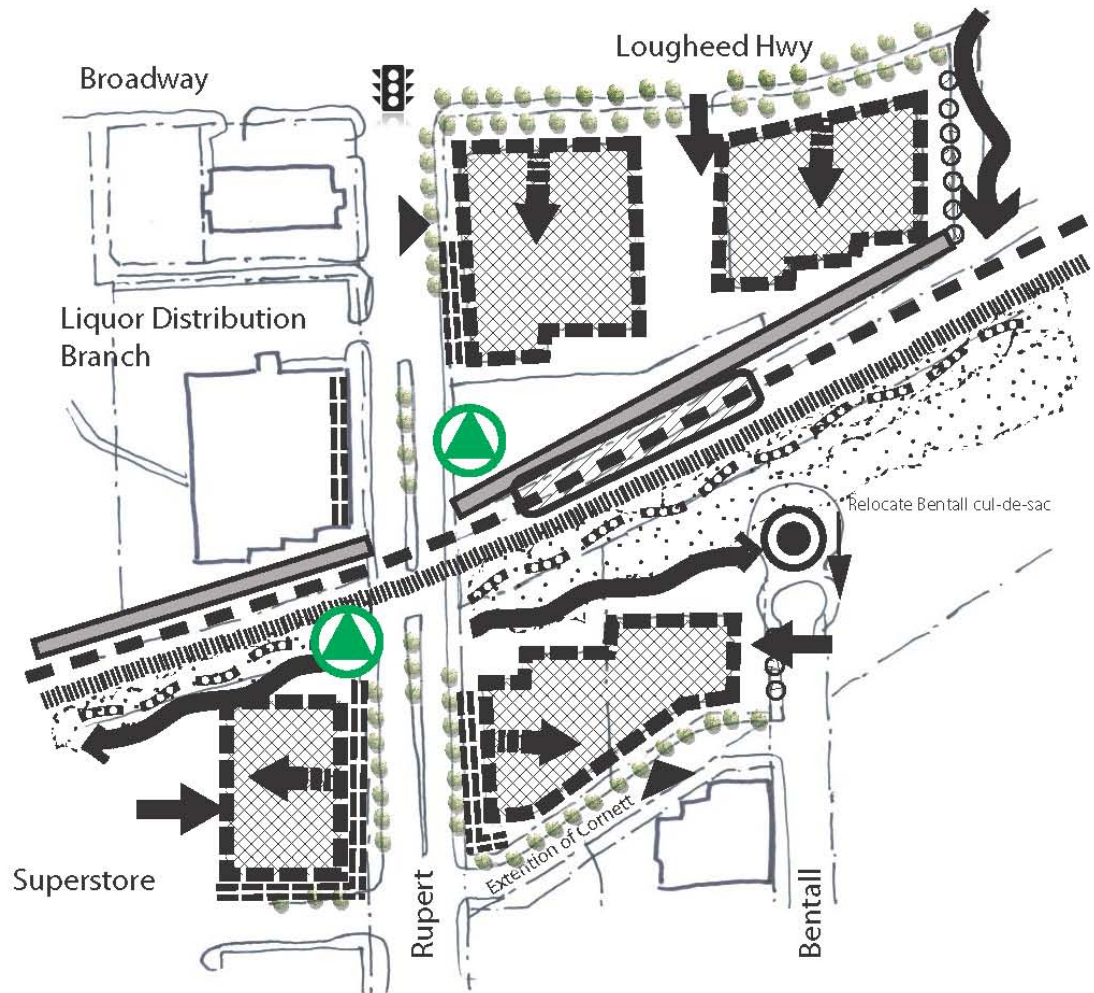
Superstore Site

Additional commercial activity, set back from Still Creek in an underused portion of Great Canadian Superstore site, could further enhance the pedestrian environment and increase pedestrian activity.

Liquor Distribution Board Site

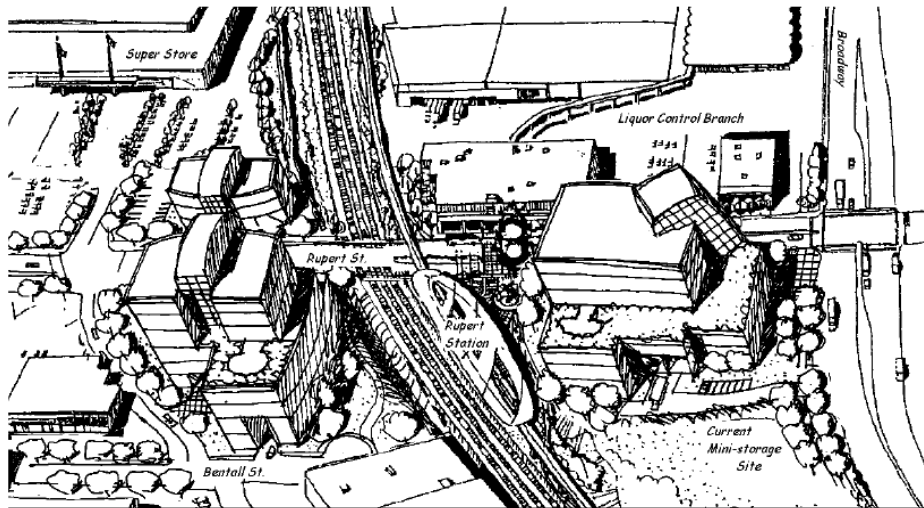
A redeveloped Liquor Distribution Site could substantially increase job density, particularly under a general office redevelopment similar in scale to Broadway Tech Centre. Retail fronting uses along Rupert Street would be situated immediately across the street from Rupert SkyTrain Station.

Figure 11: Redevelopment Concept Plan for Rupert Station Precinct



Building site & main entrance		Public gathering space or plaza		Sidewalk and street trees required	
Retail/service frontage required		Amenity and/or feature (e.g., water element, public art, etc.)		Sidewalk and street trees encouraged	
Open space opportunity		Pedestrian access encouraged		Main vehicular access	
Central Valley Greenway		Existing traffic signal at intersection		Secondary vehicular access	
Rupert Station		Still Creek (realigned)		BNSF Railway	
Skytrain line					

Figure 12: Illustrative Sketch of the Rupert Station Precinct - looking west

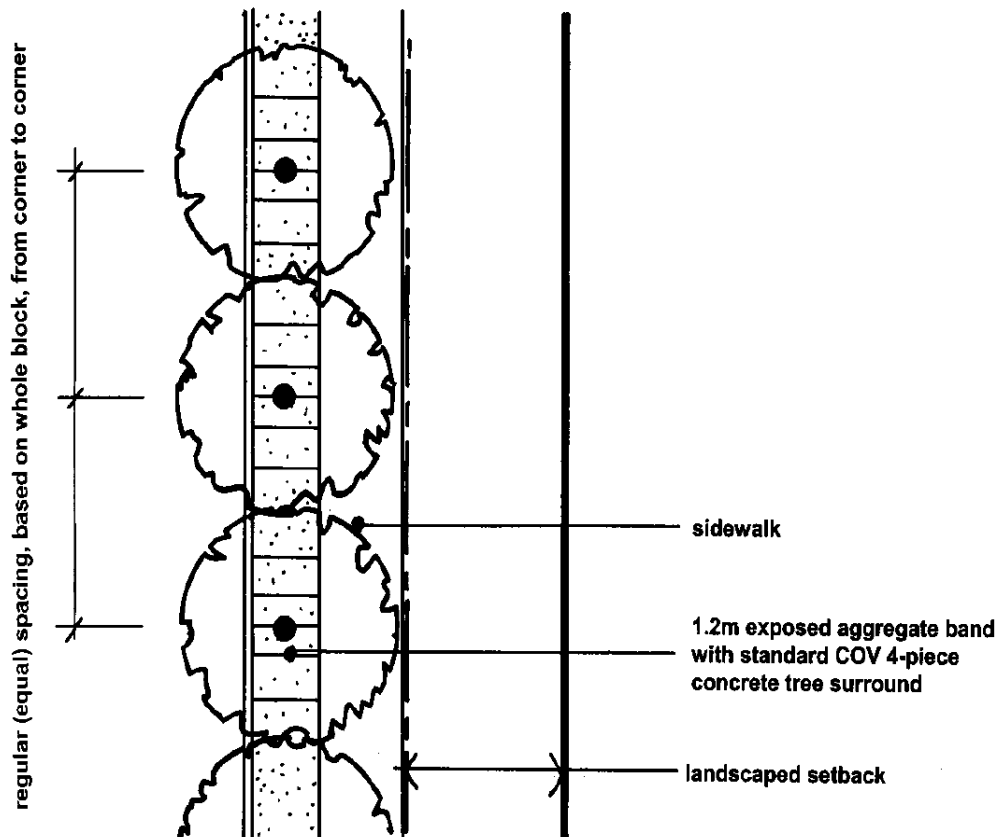


4.3 Public Realm Improvements

Streetscape

There is an opportunity to increase green space and provide a more unified appearance to the public realm through an area specific streetscape design and tree plan. In particular, Rupert and Renfrew Streets are key entry points to the SkyTrain stations and their treatment will be important in defining a new character for the area (see Figure 13). A street tree plan is part of the Grandview Boundary Guidelines to improve the physical environment and to introduce a unifying theme. The Guidelines should be referenced for building setbacks and overall design of the public realm throughout the area.

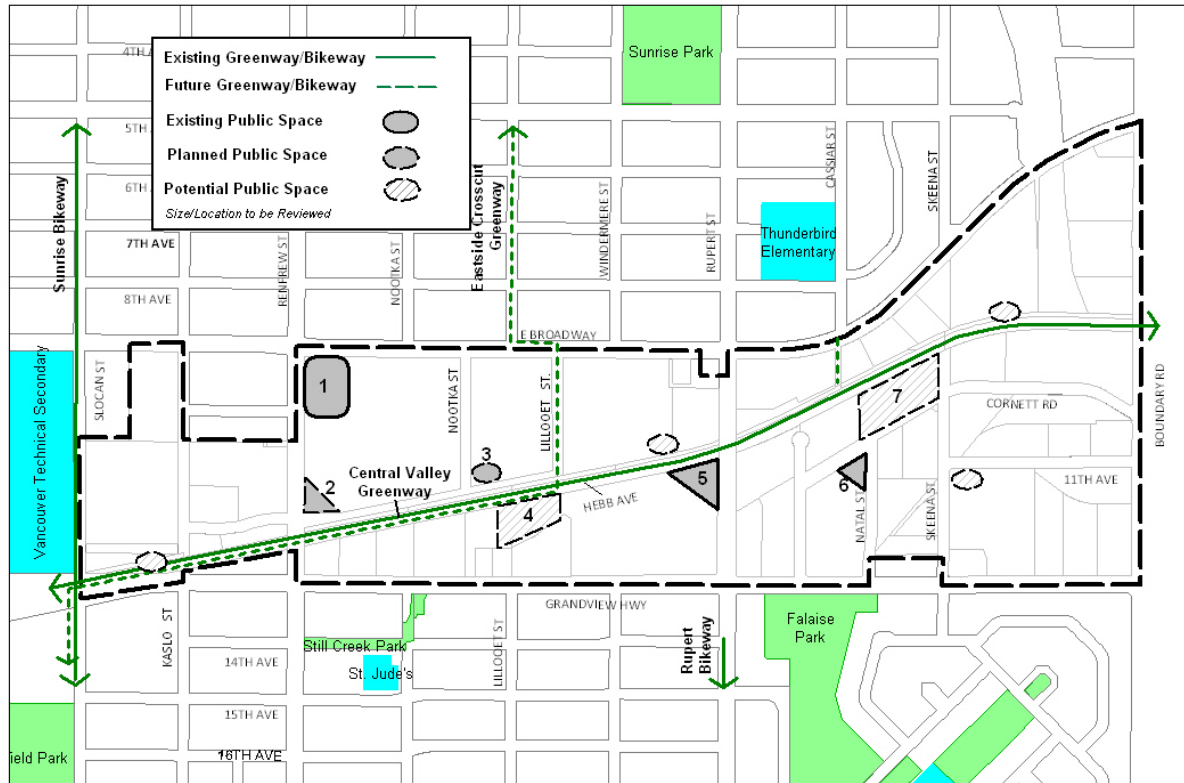
Figure 13: Schematics of Rupert and Renfrew Streetscapes



Public Open Space

Grandview Boundary has few opportunities for acquiring large park space as part of subdivision or major redevelopment. Given this, new development on large sites will be requested to provide plazas and green space linked to pedestrian routes that would serve as amenity space for employees and the public. In addition, landscaping along local streets and Greenways will enhance the area's visual amenity. Figure 14 shows existing planned and potential public spaces. These spaces will serve to provide passive recreational space for employees and Greenway users and visually augment the limited space available for the Greenway in this location.

Figure 14: Existing and Proposed Public Space and Greenways/Bikeways



1. **Broadway Tech Centre Northwest Plaza** - public green space in the Broadway Tech Centre. *Completed 2004.*
2. **Broadway Tech Centre Southwest Plaza** - plaza at the corner of the Broadway Tech Centre facing the SkyTrain station. *To be completed 2013.*
3. **3030 E Broadway Site Southwest Plaza** - planned plaza at the southwest corner of Hebb Ave and Nootka St.
4. **Passive Park/Stormwater Retention Pond** - part of the Still Creek Enhancement Study, this site is identified as a potential passive recreational area and stormwater retention pond.
5. **Superstore Public Open Space** - as part of a future redevelopment of Superstore the existing green area would be expanded and redeveloped to be a more significant and usable public space.
6. **Canadian Tire Site Southeast Plaza** - plaza at the southeast corner of Natal St and Cornett Road. *Completed 2009.*
7. **Passive Park/Stormwater Retention Pond** - This site is recommended in the Still Creek Enhancement Study, as a potential passive recreational area and stormwater retention pond.

Still Creek Improvements

Still Creek is part of the Brunette Basin which stretches across portions of 5 municipalities, emptying into Burnaby Lake and ultimately into the Fraser River. While the Creek is part of the region's stormwater system, it is also one of Vancouver's last remaining urban streams and a key opportunity to gain public amenity and recreation space and enhance the only natural feature in the Grandview Boundary.

A consultant study has identified actions that could be carried out incrementally over the short term (10 years) and longer term (10 to 50 years) to help enhance Still Creek. The actions would provide public amenities and recreation space, help address stormwater issues, and improve the Creek ecology. The shorter term actions focus on improvements to the riparian area (the green areas bordering the creek), the creek bed, and on using interpretive signage and public art to raise awareness and educate the public on the importance of preserving and enhancing the Creek. Most of this work could occur using money from the Still Creek Enhancement Fund.

Since 2002, the following short-term enhancements have been completed using the Still Creek Enhancement Fund: the creation of a small wetland and public art installation; riparian zone enhancements; in-stream enhancements; and interpretive signage.

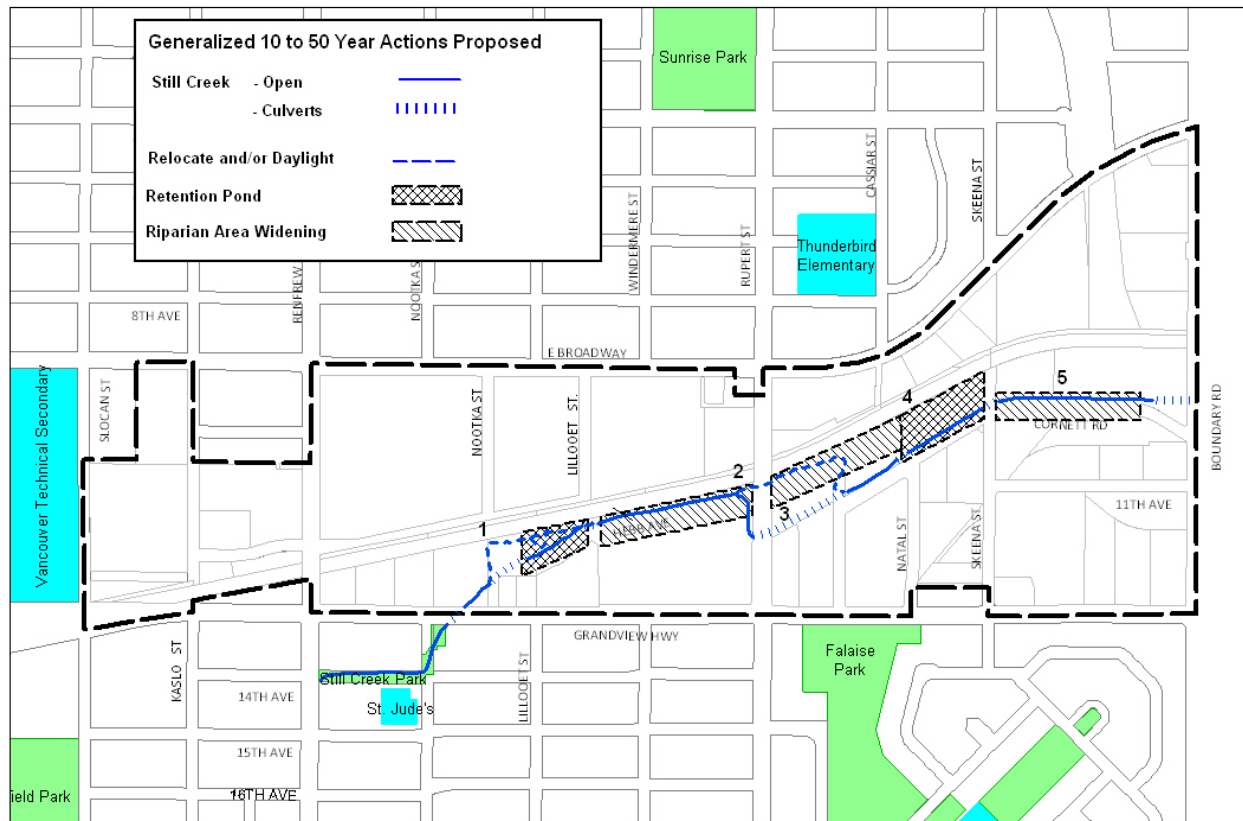
The longer term actions build on the shorter term plan and recommend specific sites where redevelopment would provide opportunities for creek widening, stream relocation and day lighting, completion of the Greenway and construction of stormwater retention ponds/wetlands and passive park and recreational areas. These projects would require land acquisition and significant capital investment. Figures 15 and 16 summarize actions proposed for Still Creek by sub-area.

Figure 15: Still Creek - 10 Year Action Plan



- Area 1 -** Using the open creek at the 3000 block of Grandview Highway, widen the creek, enhance riparian area and install public art. *Completed 2005.*
- Area 2 -** Enhance the streamside vegetation and add riffle weirs, boulders etc. to increase stream complexity.
 - Install public art and educational kiosk in the existing park space at the northeast corner of the Superstore parking lot. *Partial Completion 2009 – Interpretive Signage Installed.*
- Area 3 -** Represent the underground portion of Still Creek through painting the Creek alignment, mosaics and various forms of public art.
- Area 4 -** Remove on-street parking from the north side of Cornett Road and expand the streamside area to add meanders and riffle weirs. *Completed 2007.*
- Area 5 -** Replant the streamside areas with native plants.

Figure 16: Proposed 10 to 50 Year Actions

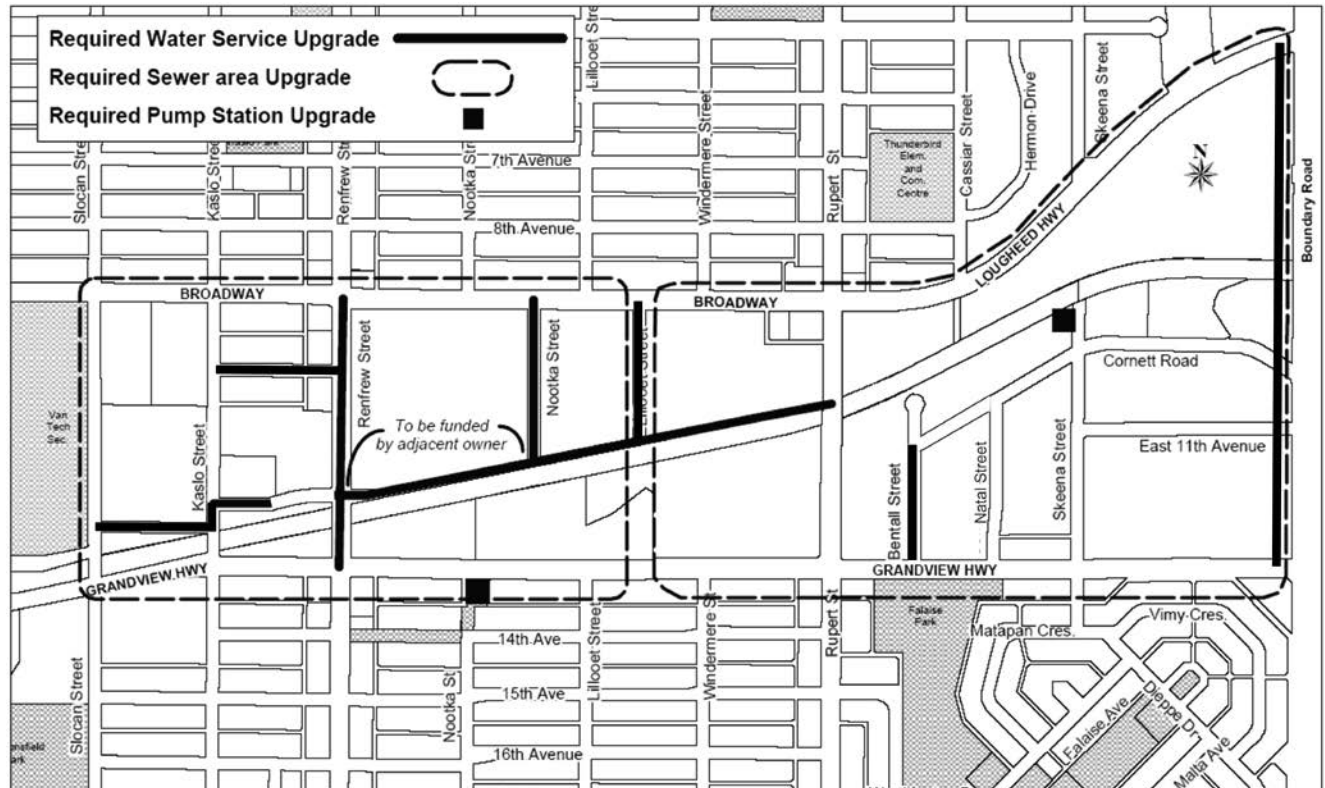


- Area 1**
 - When the site at 3057 Grandview Highway redevelops, relocate and daylight the Creek on the south side of the BNSF tracks and extend the Greenway.
 - Acquire the vacant area in the northwest corner of the Superstore site (3185 Grandview Hwy) and construct a passive recreation area, stormwater retention pond and wetland.
- Area 2**
 - Acquire additional land to expand the stream side area, add stream meanders, pedestrian view points.
- Area 3**
 - Relocate and daylight the Creek on the south side of the BNSF rail corridor and extend the Greenway. *Partial Completion 2009 - 75M of Creek Daylighting through Canadian Tire Rezoning.*
- Area 4**
 - Acquire property in 3400 block of Cornett Road and construct a passive recreational area, stormwater retention pond and wetland.
- Area 5**
 - Widen stream side areas to add meanders, seating areas and other pedestrian amenities either in current location or after relocation to the south side of the BNSF line and extend the Greenway.

5.0 Underground Utilities – Sewer and Water

Underground services in the area are currently at capacity for existing worker populations and land uses. Improvements to water service will be needed to maintain firefighting capability for any new significant developments. These upgrades are shown below in Figure 17. As noted previously, storm sewer retention ponds and wetlands are proposed along Still Creek as part of the Still Creek enhancement to help provide storage capacity and provide passive recreational space for workers.

Figure 17: Underground Utilities - Sewer and Water



6.0 Childcare Requirements

Increasing area employment creates the need for childcare spaces. Over the next 30 years, an estimated 90 childcare spaces will be required to meet new demands for development and job growth in the GBMEA. These 90 childcare spaces consist of: a new 37-space childcare facility; an expansion of an existing childcare centre by 32-spaces; and 41 school age spaces.

One site has been identified with a potential to expand to a 69-space childcare, likely to be in a mixed-use, concrete frame building close to a SkyTrain station. Additional sites with potential to house a group childcare facility (37 spaces) are limited due to the size of remaining underdeveloped parcels in this area, but should be considered in the event that a site is identified.

7.0 Public Benefits and Services

It is estimated that the Grandview Boundary will add approximately 2.7 million square feet of development and 9,200 additional employees over the next 30 years. This Plan identifies public amenities and service improvements that will be required to accommodate the increased worker population.

7.1 Total Public Benefit Demands

The list of area improvements is summarized below with cost estimates in 2012 dollars.

Type of Capital Project	Cost (\$)
Sewer Upgrades	
E12th Ave (2665 Renfrew to Renfrew), Renfrew St (E12th Ave to Grandview Hwy), Grandview Hwy (Renfrew St to Nootka St)	\$ 1,380,000
Hebb Ave (Nootka St to Nootka easement), Nootka Easement (Hebb Ave to Grandview Hwy)	\$ 770,000
Rupert St (Hebb Ave Extension to Cornett Road)	\$ 800,000
Hebb Ave Extension (Easement west of 2625 Rupert to Rupert St)	\$ 240,000
Cornett Road (Rupert St to Skeena St)	\$ 775,000
Total Sewer Upgrades	\$ 3,965,000
Water Infrastructure Upgrades	
Hebb Avenue (from Nootka St to Renfrew St)	\$ 325,000
Hebb Avenue (from Lilloet St to Nootka St), Lilloet Street extension (From Hebb to 50m to the north)	\$ 275,000
Hebb Ave Alignment (from Rupert St to Lilloet St)	\$ 350,000
E 12th Ave (from West of Renfrew St to Kaslo St)	\$ 100,000
E 12th Ave (from Kaslo St to Slocan St)	\$ 250,000
Bentall St (Grandview Hwy to Cornett Rd)	\$ 215,000
Total Water Infrastructure Upgrades	\$ 1,515,000
Transportation	
Greenways	
Eastside Crosscut Greeway	\$ 400,000
Central Valley Greeway (CVG) Upgrades	\$ 850,000
Broadway - Central Valley Greenway Pedestrian/Bike Path at Cassiar	\$ 1,000,000
New Pedestrian/Bike Signal at Cassiar/Broadway	\$ 200,000
Pedestrian Improvements at Station Approaches	
Renfrew Station approach	\$ 800,000
Rupert Station approach	\$ 700,000
Road Improvements	
Sidewalk Spot Improvements (600m)	\$ 250,000
Lighting Spot Improvements	\$ 150,000
Cornett Road extension (150 meters from Bentall St to Rupert St)	\$ 660,000
12th Ave Realignment (185 meters)	\$ 820,000
Total Transportation	\$ 5,830,000
Childcare	
90 new childcare spaces	\$ 5,230,000
Total Childcare	\$ 5,230,000
Still Creek Enhancement/Parks	
Wetland/Park (3000 & 3100 blocks of Grandview Hwy), Channel/Greenway Development	\$ 9,650,000
Wetland/Park 2 (3400 block of Cornett Rd), Channel/Greenway Development	\$ 9,650,000
Pocket Park - 12th Ave Realignment	\$ 0
Total Still Creek Enhancement/Parks	\$ 19,300,000
Grand Total	\$ 35,840,000

7.2 Public Benefits and Service Funding

Service upgrades and public benefit improvements will occur incrementally over time as demand warrants and as funding becomes available through Development Cost Levies (DCLs) and other sources. A significant portion of the Grandview Boundary funding comes from DCLs charged to new development on a per square foot basis. Council approved an area specific DCL to provide funds for engineering infrastructure within the Grandview Boundary. In addition to the area specific DCL, funding from the City-wide DCL, can also be used to pay for a portion of the service improvements judged to have a city-wide benefit.

Since DCLs cannot fund the entire portion of any of the improvements, other funding sources will be required. Enhancements to Still Creek will be paid for in part from the Still Creek Enhancement Fund. This Fund was established by Council in 2000 as part of the lease of a portion of Cornett Road to the Vancouver Film Studios.

Other infrastructure improvements that are required to service a specific development will be paid entirely or partly by the developer of the project, as has been City policy. Funding from future Capital Plans will also be required to pay for a portion of the costs of growth that cannot be paid for through DCLs and do not relate specifically to a single development. This funding will be requested as required through the normal City capital planning process to accommodate the major projects associated with growth.



City of Vancouver *Land Use and Development Policies and Guidelines*

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GRANDVIEW BOUNDARY MIXED EMPLOYMENT AREA REZONING & DEVELOPMENT POLICIES AND GUIDELINES

[Incorporating Guidelines for Still Creek CD-1 (249) By-law Number 6654, and applicable to CD-1 (452) By-law Number 9410 for 3585 Grandview Highway, and CD-1 (470) By-law Number 9693 for 2900 East Broadway]

Adopted by City Council on July 25, 2002

Amended April 12, 2005, September 12, 2006, December 12, 2006, July 8, 2008 and January 18, 2011



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Note: These guidelines are organized under standard headings. As a consequence, there are gaps in the numbering sequence where no guidelines apply.

1 Application and Intent

These policies and guidelines are to be used in conjunction with the Grandview Boundary Mixed Employment Area Plan and with the I-2, I-3, and Still Creek CD-1 (249) District Schedules of the Zoning and Development By-law, CD-1 (452) By-law Number 9410 for 3585 Grandview Highway, and CD-1 (470) By-law Number 9693 for 2900 East Broadway. The Still Creek CD-1 Guidelines (By-law No. 6654) have been rescinded and revised guidelines for properties adjacent to Still Creek are included here. The guidelines respecting Still Creek are highlighted as described below.

These Guidelines should be consulted in seeking approval for all rezonings, including rezonings to CD-1 for general office uses near the SkyTrain stations, to I-3 (High Technology Industrial District), and to CD-1 for retail, institutional, cultural and recreational uses in the Large Format Area (LFA); and approvals for conditional uses within I-2, I-3 or Still Creek CD-1 Districts. As well as assisting the applicant, these guidelines will be used by staff and Council in the evaluation of projects.

The majority of guidelines apply to all applications. Some guidelines are only relevant to specific types of uses or locations in the area. These use or location specific guidelines are flagged with the following margin tags.

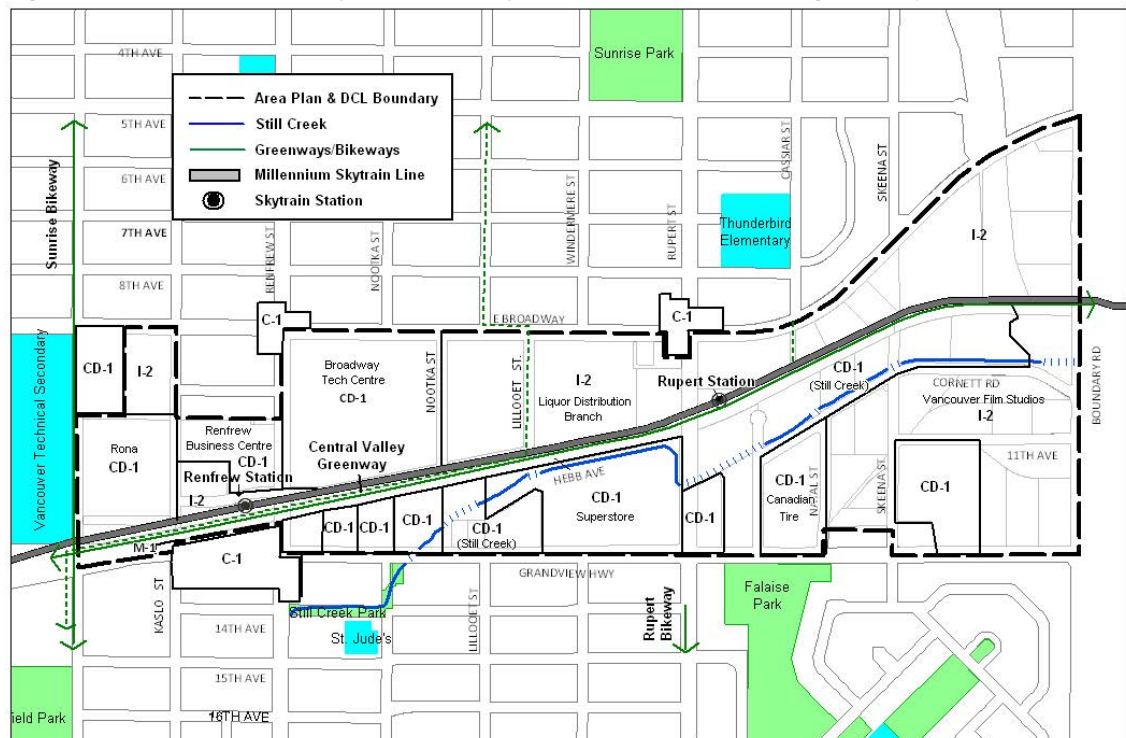
LFA - Large format non-industrial uses (retail, institutional, cultural and recreational) on Grandview Highway

I-2/I-3/ CD-1 (General Office) - High technology uses under the I-2 or I-3 schedules and General Office uses under CD-1 zoning

Stat. - Station area uses on sites adjacent to Renfrew and Rupert SkyTrain Stations.

Still - Sites which are zoned Still Creek CD-1 and/or border on Still Creek

Figure 1. Grandview Boundary Mixed Employment Area: Current Zoning and Major Uses



The intent of the guidelines is two-fold:

- (a) To guide the anticipated change to the built environment by:
 - (i) Assisting in converting the Grandview Boundary Mixed Employment Area (GBMEA) to an attractive and vibrant mixed use office and light industrial employment centre; and
 - (ii) Ensuring new development around the SkyTrain Stations contributes to creating safe, active and interesting pedestrian oriented environments.
- (b) To recognize Still Creek as a valuable community resource by:
 - (i) Ensuring that Still Creek is enhanced as an open water course, that a public walking path is provided adjacent to the Creek as redevelopment occurs, and that new development contributes to enhancing the Creek for recreation and returning the Creek to a more natural condition.
 - (ii) Ensuring that new development does not increase the likelihood of future flooding in Grandview Boundary or downstream areas and is constructed to minimize flood damage in the event of flooding.



Still Creek at 3003 Grandview Highway site



Still Creek North of Cornett Road

2 General Design Considerations

2.1 Area Character

While the area is transitioning to higher intensity uses like the Broadway Tech Centre, the area generally has a traditional industrial character with few visual or pedestrian amenities and lacks a coherent identity or image. Tilt up concrete warehouse buildings surrounded by parking dominate the landscape. With the exception of Still Creek and landscaped setbacks along Grandview Highway, green space is generally lacking. To assist the emergence of a mixed-use and office employment centre, and to help create a distinct area image, streetscape improvements, Still Creek enhancements and redeveloped SkyTrain station areas will occur over time. Private developments will need to assist the transition through careful site planning, high-quality architectural building expression, public and private landscaping, and appropriate vehicular and pedestrian circulation, as set out in these policies and guidelines.

2.2 Street Character

With the arrival of SkyTrain along with general office uses (near SkyTrain stations), film studios and other non-traditional industry, a more active, interesting and attractive pedestrian-oriented street character and enhanced public realm are a priority. Except where landscaped setbacks are required, as described in Figure 8, new buildings should locate close to the street rather than set back behind surface parking, in order to create a more urban street feeling. Windows at grade are essential to enhance the pedestrian experience and provide transparency for casual surveillance. Small public open spaces linked to area Greenways and bikeways should be created at strategic points on large development sites to allow meeting and resting places for employees and pedestrians. Street trees should be planted extensively throughout the area in keeping with the Tree Plan outlined in Section 8. Trees will serve to create a more pleasant pedestrian environment, but also introduce a unifying theme through

coordination of tree species and placement. Together with the SkyTrain Station area improvements, the associated streets - Rupert and Renfrew - will be the focus of changes that will see these streets as the gateways into the area.



2.3 Station Area Built-Form and Character

Station area development should focus on creating safe, convenient and pleasant pedestrian spaces and routes between the stations and adjacent employment destinations and residential areas. These areas should be the most densely developed and intensely used areas in Grandview Boundary. New buildings should have an urban form with underground parking and a significant street wall to define and create the pedestrian space.

2.3.1 Renfrew Station Precinct Redevelopment Concept

Figures 2 and 3 illustrate the basic elements of the future development of critical sites in this station precinct which these policies and guidelines seek to foster. They include:

- (a) Relocating 12th Avenue between Slocan and Kaslo Streets for both improved orientation and circulation, and to create a development site and public space adjacent to the SkyTrain guideway.
- (b) Street-wall built form defining tree-lined streets and sidewalks with pedestrian lighting.
- (c) “Green” contemporary architectural expression, including green roofs and natural ventilation.
- (d) Pedestrian-oriented retail and services located at grade near the Renfrew Station.
- (e) Major open space in the central area of development sites, with water as a preferred design feature.
- (f) Primary east-west vehicular access to development sites, with parking below grade.
- (g) A transition in scale of buildings in recognition of adjacent single family residential area between Renfrew and Kaslo Streets.

Figure 2: Renfrew Station Area - Redevelopment Plan View

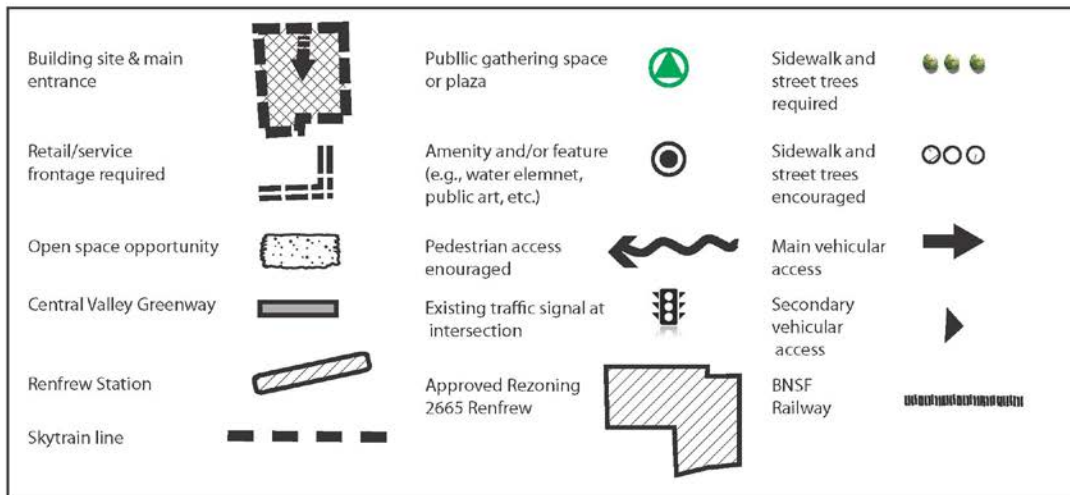
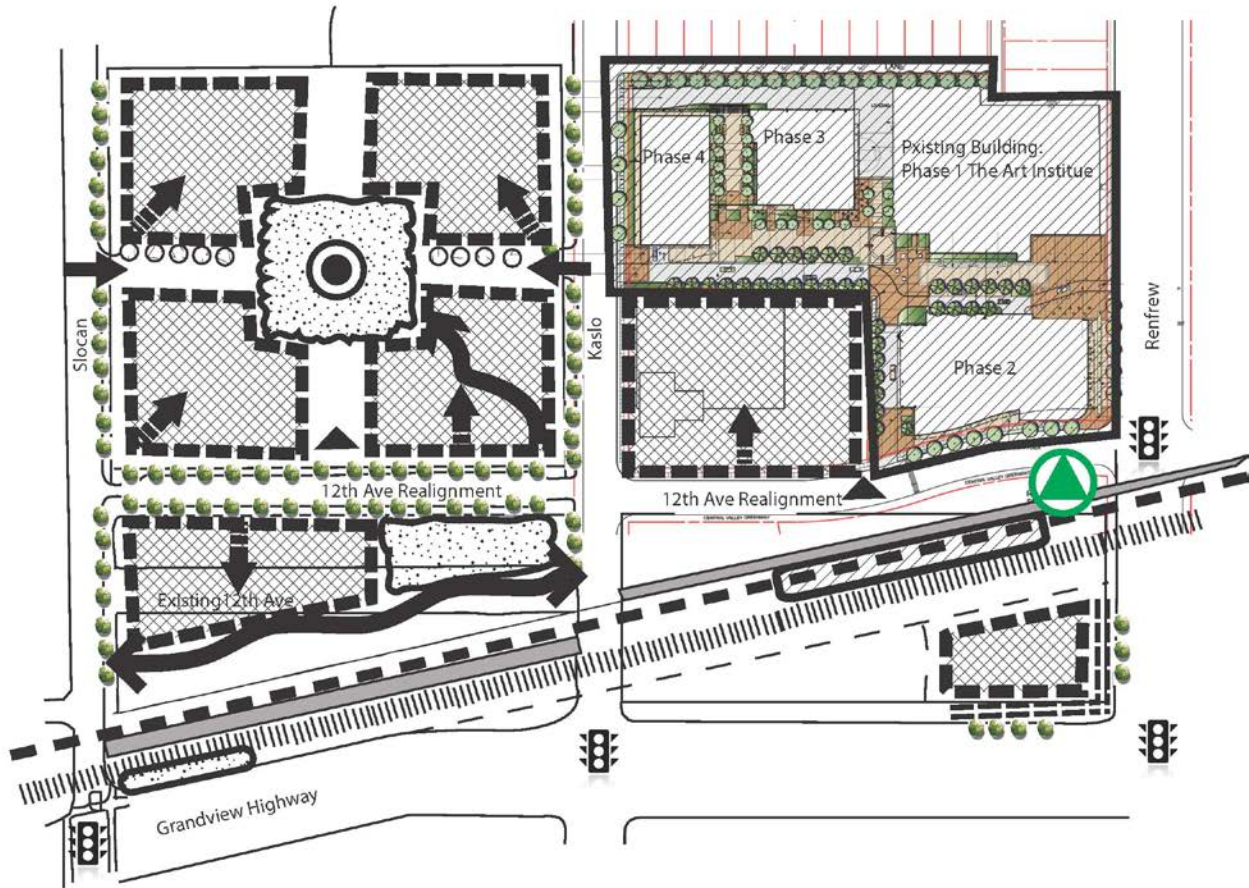
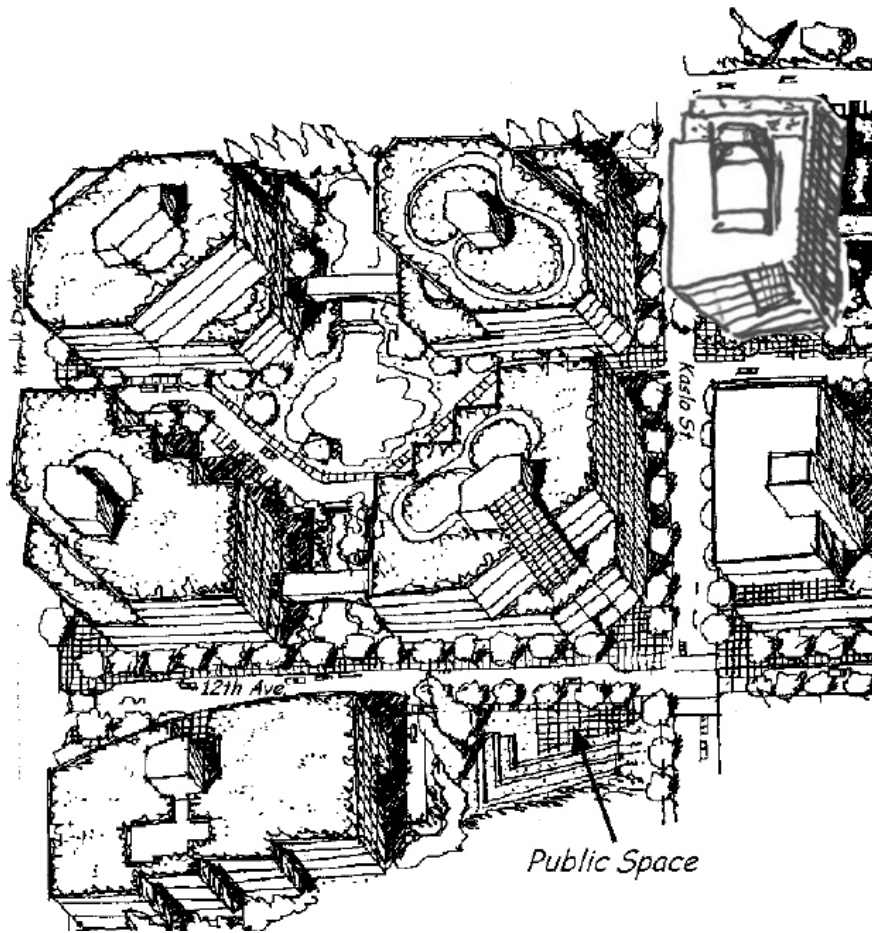


Figure 3: Renfrew Station Area – Redevelopment Concept

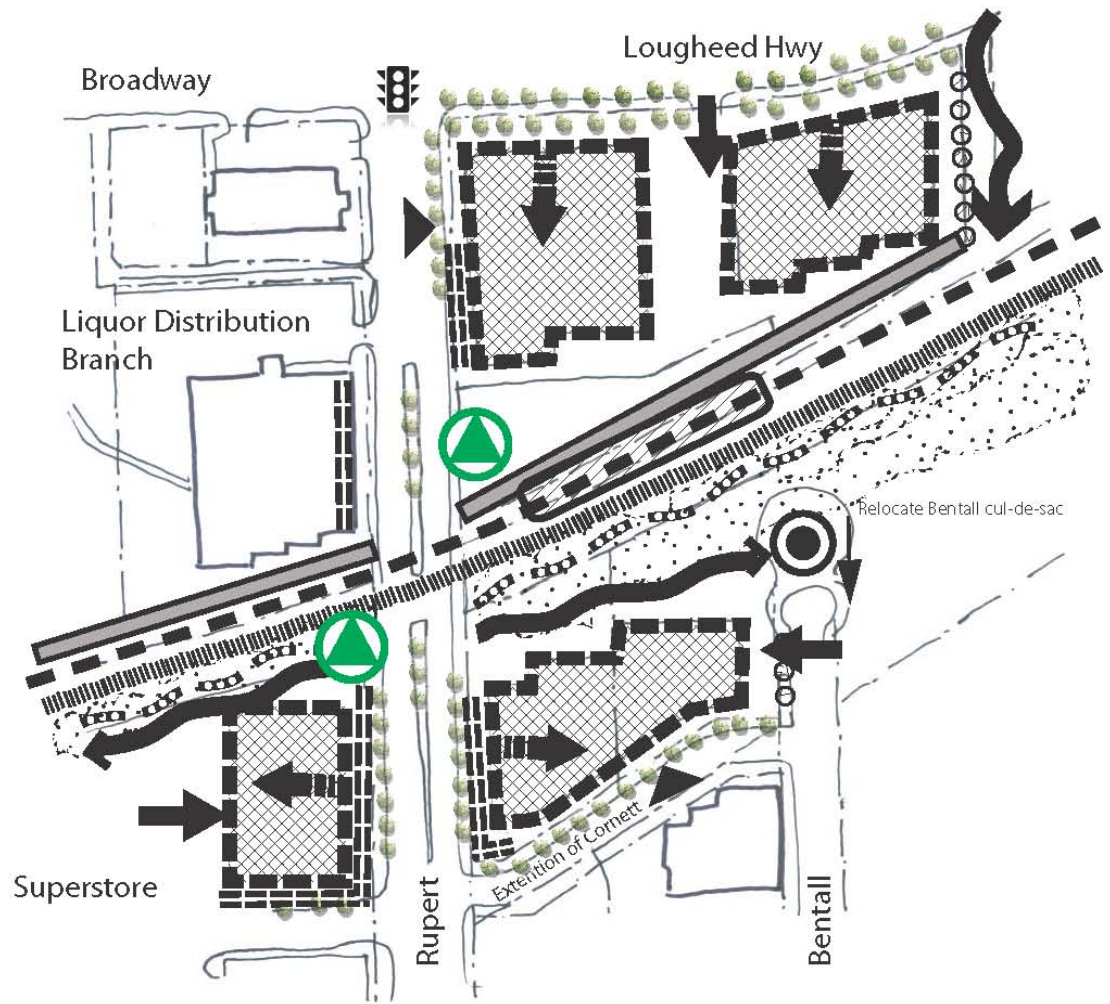


2.3.2 Rupert Station Precinct Redevelopment Concept

Figures 4 and 5 illustrate the basic elements of the future development of critical sites in this station precinct, which these policies and guidelines seek to foster. They include:

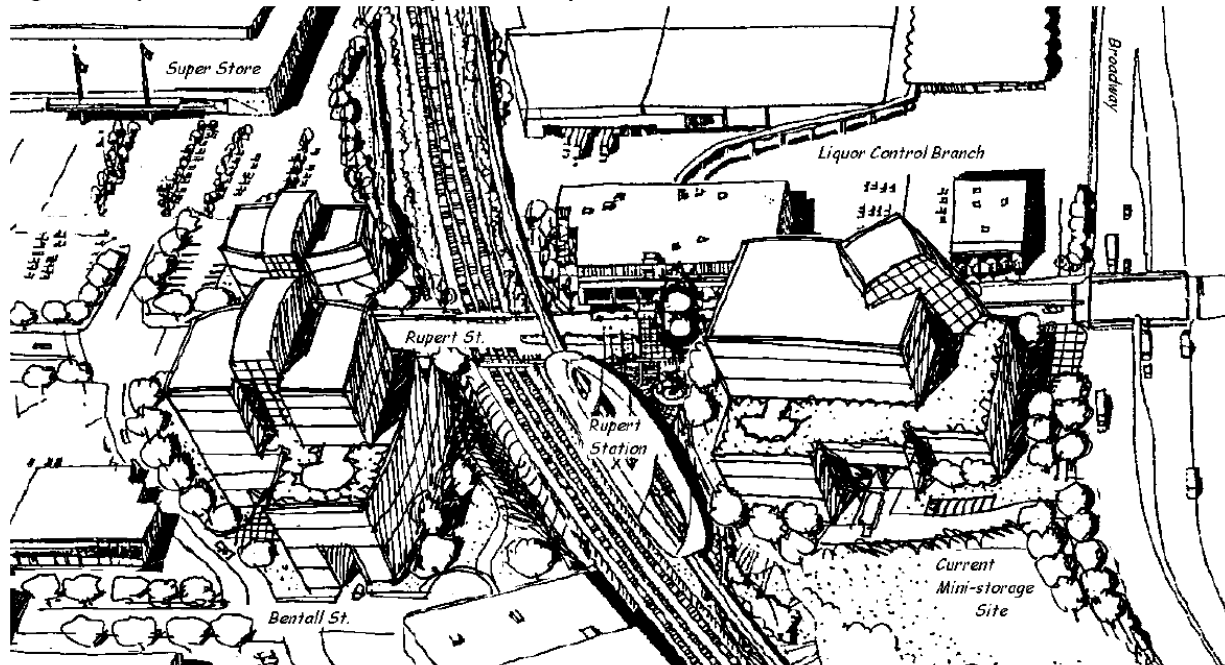
- (a) A realigned and meandering Still Creek adjacent to the south side of the BNSF railway, with a continuous pedestrian path.
- (b) Street-wall built form defining tree-lined streets and sidewalks.
- (c) “Green” contemporary architectural expression, including landscaped roofs and natural ventilation.
- (d) Pedestrian-oriented retail/services located at grade near the Rupert Station on Rupert Street.
- (e) A recreational feature such as a small stormwater retention pond located along the Creek alignment at the north end of Bentall Street.

Figure 4: Rupert Station Area – Redevelopment Plan View



Building site & main entrance		Public gathering space or plaza		Sidewalk and street trees required	
Retail/service frontage required		Amenity and/or feature (e.g., water element, public art, etc.)		Sidewalk and street trees encouraged	
Open space opportunity		Pedestrian access encouraged		Main vehicular access	
Central Valley Greenway		Existing traffic signal at intersection		Secondary vehicular access	
Rupert Station		Still Creek (realigned)		BNSF Railway	
Skytrain line					

Figure 5. Rupert Station Area - Redevelopment Concept



2.7 Weather Protection

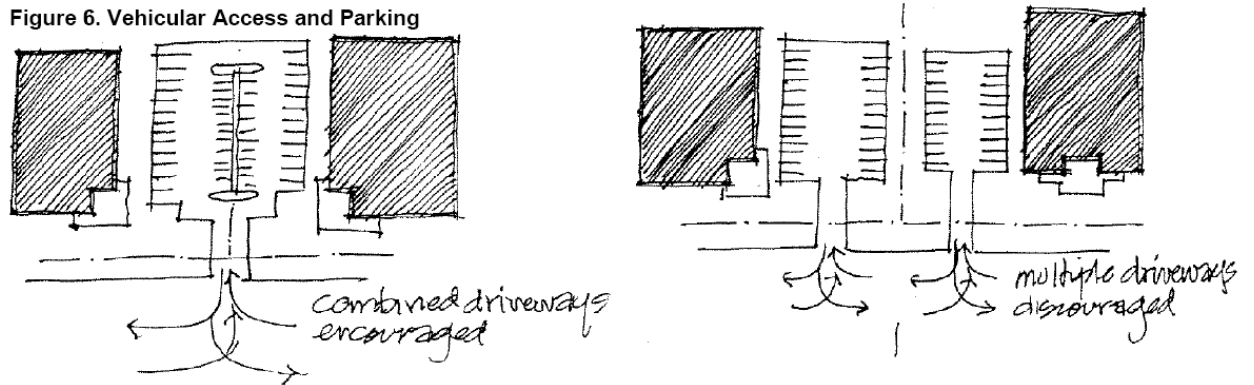
- (a) Main building entries should provide generous weather protection that is designed to be an integral feature of the building's architectural character.
- (b) All commercial frontages along Rupert and Renfrew, including the transit stations, as well as commercially zoned intersections along Grandview Highway, should provide full weather protection on street frontages.
- (c) Canopy and/or awning systems detailing should consider integrated signage, lighting and display systems.
- (d) Canopy and awning systems depth should be maximized to provide greater weather protection.
- (e) Weather protection elements on overhangs may be considered in required yards and landscaped setbacks.

2.11 Access and Circulation

2.11.1 Vehicular Access

- (a) A traffic and parking analysis will be required for rezonings and major developments to forecast traffic impacts. The City may require safety improvements for vehicular traffic as well as enhanced pedestrian, bicycle, and vehicle facilities. In addition, for non-LFA uses, information on proposed Transportation Demand Management (TDM) measures should be provided.
- (b) Direct access onto Grandview and Broadway should be minimized.
- (c) Shared driveways to abutting properties should be provided where possible as illustrated below to maximize safety, minimize impervious surfaces, and increase the landscaped buffer bordering the properties. The city standard crossing width should not be increased.

Figure 6. Vehicular Access and Parking



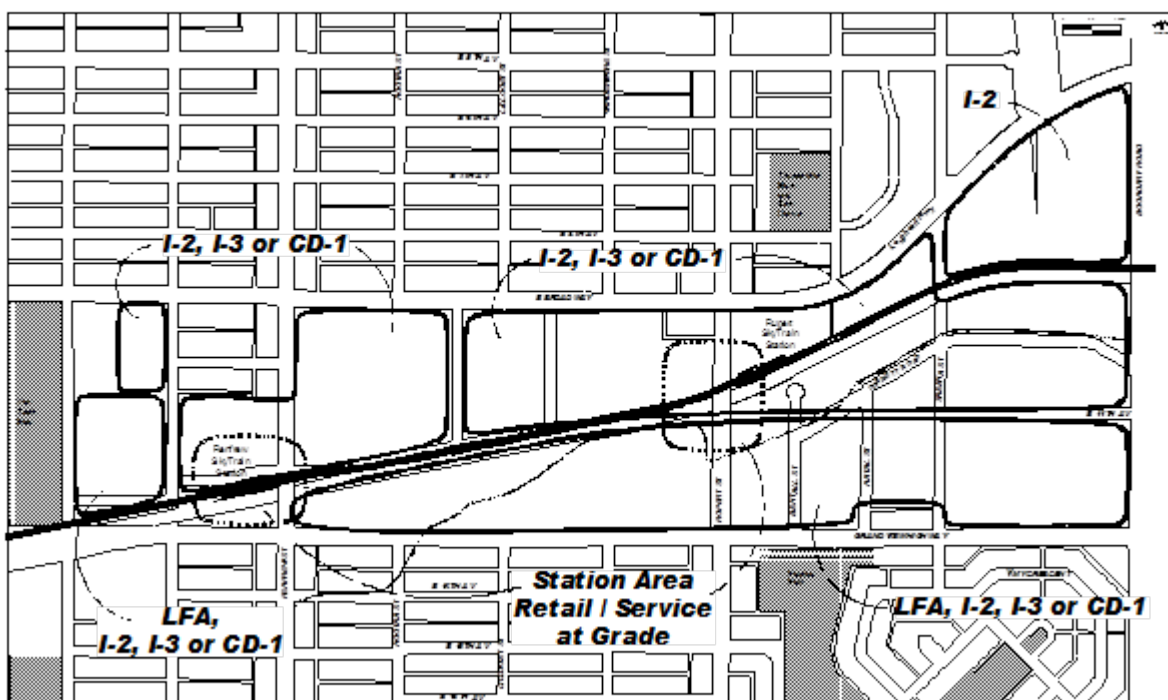
2.11.2 Pedestrian Access

- (a) Ground-oriented pedestrian “streets” through large footprint buildings are encouraged to create connections to on-site circulation routes and amenities, consistent with a campus-like high tech/office environment. Such circulation through buildings should be clearly identified and designed for use by the general public.
- (b) Larger sites that are developed with more than one building should provide weather protected pedestrian linkages to connect building entries within the site, and public rights-of-way should be integrated into development sites for convenient public access to adjacent properties, SkyTrain stations and City Greenway and Bikeway networks.
- (c) Bridge/walkway systems with weather protection are encouraged for upper-floor connections between buildings on the same parcel.

3 General Land Use Policies

The Grandview Boundary Mixed Employment Area Plan supports a variety of future uses and activities including a continuation of traditional industrial uses, general office uses, high-tech industrial uses (e.g., bio-tech, film studios), large format uses and retail/service uses near SkyTrain Stations. Implementation will occur through redevelopment or reuse of buildings under the existing I-2 and Still Creek CD-1 zones and through rezonings to I-3, CD-1 (general office) and CD-1 for large format uses (including retail, institutional, cultural and recreational uses) on Grandview Highway or for retail/service uses in the station areas. Figure 7 shows the preferred long-range land use plan.

Figure 7: Long Range Preferred Land Use Plan



3.1 Rezoning Policies

3.1.1 Large Format Area Rezoning

LFA Council will consider applications for site specific rezoning to CD-1 (Comprehensive District), for the purpose of large format retail, institutional, cultural and recreational uses. The minimum size of a retail store is 929 m² (10,000 sq. ft.). Some smaller sites may not be able to achieve the minimum size within the floor space ratio (FSR) limits. In these circumstances, the Director of Planning may allow a smaller store providing the FSR limit is achieved. Rezoning will require Council approval of a specific form of development at a Public Hearing.

3.1.2 Large Format Uses and Impact on Neighbourhood Centres

Retail Uses

LFA The type of retail uses suited to the Large Format Area are those not normally found or appropriate in a neighbourhood centre. Neighbourhood centres, usually developed from existing shopping areas, are the “heart” of a neighbourhood. It is here that people find shops, jobs, neighbourhood-based services, public places that are safe and inviting, and a place to meet neighbours and join in community life. Examples of types of retail that would be better accommodated in the LFA include:

- (i) retail which requires large sites by nature of the product (e.g., large display areas needed for bulky items such as furniture, home improvement, etc.);
- (ii) retail that generally requires the use of a car;
- (iii) retail that serves a wide catchment area; and
- (iv) retail that does not sell goods that are or can be conveniently available in neighbourhood centres or other commercial areas.

The proposed use should not undermine the role of nearby neighbourhood centres by drawing customers away from local stores. Food and clothing retail often form the basis of local shopping areas and it is probable that large scale retailers selling these products will find themselves at odds with City policy and may not be successful.

All types of retail use, except the sale of food (i.e. grocery store), will be considered. However, retail uses including clothing will require a retail impact analysis to be paid for by the applicant. Staff will set the terms of reference and hire an independent consultant. The extent of the trade area to be examined will depend on the proposed use. The study should demonstrate how the proposed development will affect retail competition in the determined trade area. Projects are preferred which are likely to permanently increase the number and variety of competing retail businesses in the area. Applications which reduce competition or which could lead to store closures in the trade area are discouraged.

Institutional, Cultural and Recreational Uses

While many of these uses could be accommodated in Neighbourhood Centres and would benefit from proximity to neighbourhood residents, some may be more appropriate for the Large Format Areas because they:

- (i) require large sites which are difficult to find or assemble in and near Neighbourhood Centres;
- (ii) serve a large area and therefore would benefit from better access from arterial roads and access to public transit and rapid transit; and
- (iii) are unsuitable for Neighbourhood Centres (e.g. casinos, bingo halls, etc.).

To preserve the balance of land for industrial and local serving uses, institutional, cultural and recreational uses are prohibited in the I-2 areas and discouraged in the I-3/CD-1 (general office) areas, except as described below:

Institutional Uses:

Institutional uses such as schools (elementary, secondary, university, college, business, arts or self-improvement) and churches could be considered. These uses will be considered in the Large Format Areas or in the I-3/CD-1 (general office) area when they relate directly to general office or high-tech industrial development and require safe and direct access to SkyTrain Stations.

Cultural and Recreational Uses:

Cultural and recreational uses such as billiard halls, bingo halls, bowling alleys, casinos, clubs, halls, fitness centres, rinks and swimming pools could be considered. Generally, cultural and recreational uses will be considered in the Large Format Areas only and require rezoning to CD-1. Cultural and recreational uses may be considered as part of mixed-use development with other permitted industrial uses. Fitness centres and similar recreational uses that serve area workers will be considered on arterials in existing buildings.

3.1.3 Station Area Retail/Service Uses

Stat Small-scale uses which help make a station environment more vibrant and also feel safer, and which do not tend to either generate destination vehicular traffic or require large off-street loading facilities are encouraged in Station areas. These include:

- (i) Convenience stores and services (eg. news stands, local grocery store);
- (ii) Small cafes;
- (iii) Professional/community services and offices;
- (iv) Light manufacturing;
- (v) Artist studio (excluding associated residential component).

Station Area retail uses should be located at grade, either within a station, on a station site, under the guideway or on Rupert, Renfrew, Hebb Avenue or East 12th Avenue, directly adjacent to or across from a station. Development could either be in a stand alone single storey or a mixed use multi-storey form with local serving office uses, general office or high-tech industrial offices above grade. Rezoning to CD-1 would be required.

3.1.4 High-Tech and General Office Development - Location and Access to Transit

I-2/I-3/CD-1 (General Office) General office and some forms of high technology industry, such as information technology, can achieve high worker density and are best located in close proximity to rapid transit. Developments should coordinate with TransLink to improve access to transit, provide stops and, where needed, provide comfortable, safe bus shelters. All proposals for general office or high tech development or uses with high worker density require safe and direct access to SkyTrain stations (5 to 10 minute walk).

4 Guidelines Pertaining to the Regulations of the Zoning and Development By-Law (and Parking By-Law)

4.1 Topography: Adjustments to Grade

4.1.1 The grade of new development in the Still Creek flood plain should be set in consultation with the City Engineer. The City's Flood Proofing Policies should be consulted for general information on Flood proofing.

4.1.2 Any significant alterations of existing grade should support convenient pedestrian access, reflect the natural slope of the land and help visually integrate the building massing into the landscape.

4.3 Height

I-2/I-3/CD-1 (General Office)

(a) For I-2, I-3 developments the allowable height is 18.3 m (60 ft.). The Director of Planning may consider height up to 30.5 m (100 ft.) where view impact studies demonstrate minimal impact on nearby residential properties and Still Creek, and where increased height also assists in providing usable public open space at grade.

LFA

(b) For large format stand-alone retail developments and institutional, cultural and recreational uses, a maximum height of 12.2 m (40 ft.) is recommended.

Stat

- (c) Height should not exceed 9.2 m (30 ft.) where station area retail is a stand-alone use.
- (d) The Director of Planning may consider heights up to 18.3 m (60 ft.) for other stand-alone conditional uses or for mixed use projects, where view impact studies demonstrate minimal impact to nearby residential properties and Still Creek, and where increased height also assists in providing usable public open space at grade.
- (e) Lower forms are encouraged near residential areas and higher forms near transit stations and other lower lying areas.
- (f) Height should not exceed 9.2 m (30 ft.) to a depth of 9.2 m (30 ft) from the required landscape setback for sites bordering Grandview Highway, Broadway and Boundary Road.

4.4 Street and Greenway Setbacks

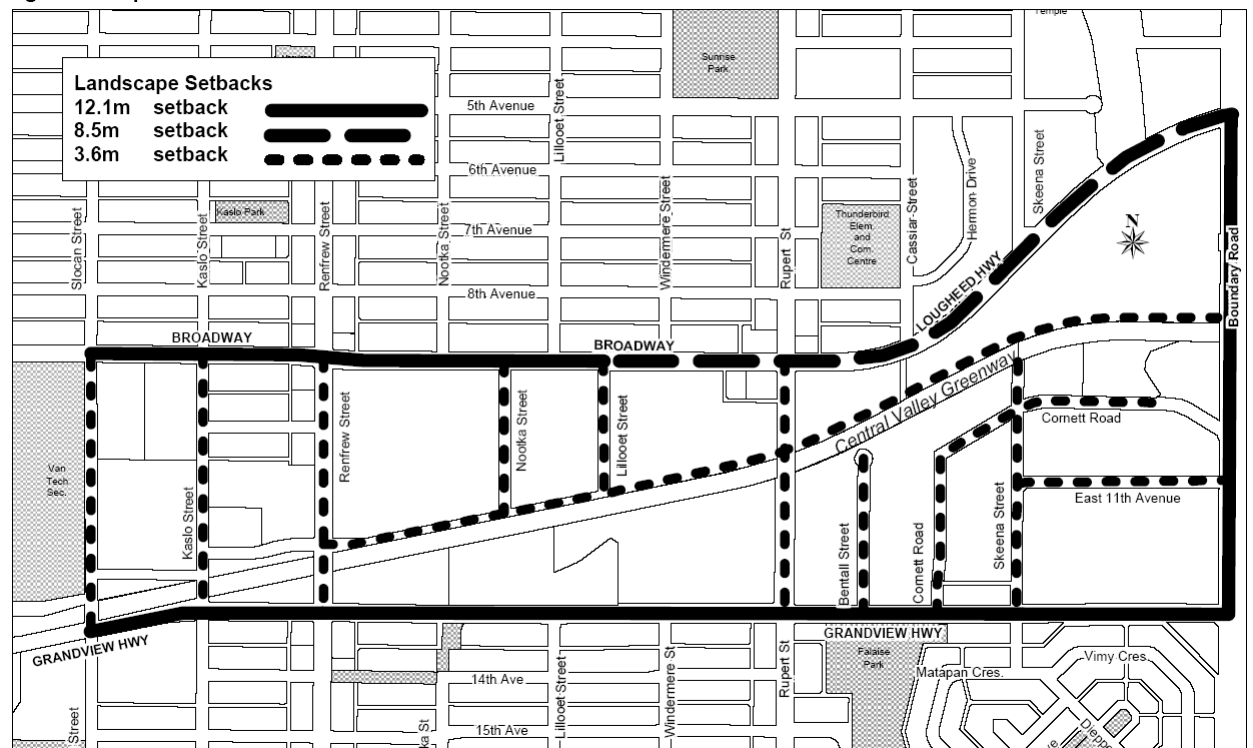
- (a) Landscape setbacks should be provided as shown in Figure 8, unless otherwise specified. These setbacks will create a necessary green buffer to nearby residential and other uses, and contribute to the street character described in Section 2.2. They provide a suitable gateway to the city, and should be free of parking and manoeuvring areas, signs, fences and product display.
- (b) Requirements may be relaxed for retail uses at grade in the Station Areas.

4.4.2 Building Setbacks

Still The health of Still Creek is influenced directly by the amount of natural vegetation between the water and the built areas. This natural vegetation serves to protect the stream bank from erosion, slow storm water run-off, filter contaminants from water draining into the Creek, add to the Creek's natural beauty, and provide recreational opportunities.

- (a) Buildings and impermeable surfaces should be set back at least 5.0 m (16.4 feet) from the edge of the GVSDD Easement.
- (b) The setback should be landscaped with native vegetation. Areas for seating and viewing Still Creek are appropriate in the setback but should be small in scale and designed to blend with the natural setting and have minimal impacts on the Creek.
- (c) Design solutions should accommodate the objective and intent to achieve a minimum 2.0m publicly accessible greenway along the Creek. Where possible and desirable, the Greenway should be outside of the 5.0m setback.

Figure 8. Required or Recommended Setbacks



4.7 Floor Space Ratio

LFA

- (a) The FSR for large format retail uses should not exceed 0.6. The minimum retail floor area is 929 m² (10,000 sq. ft.). When incorporated in a mixed-use building, a total FSR of 3.0 is allowable subject to the same considerations as for I-2/I-3/CD-1 (General Office) development outlined in (b) below.

The FSR for institutional, cultural and recreational uses should not exceed 1.0.

I-2/I-3/CD-1 (General Office)

- (b) Whether I-2, I-3, and CD-1 projects developed for high-tech and general office uses will be able to achieve the maximum 3.0 FSR is dependent on a number of factors. These include:

- (i) Site size and configuration, achieving landscape and open space guidelines, and overall quality of site and architectural development.
- (ii) Contributions to enhancing Still Creek and maximizing on-site stormwater retention.
- (iii) Adequate internal vehicular circulation and underground parking.
- (iv) Achieving a sensitive relationship to adjacent residential areas.

4.9 Off-Street Parking and Loading

4.9.1 Off-Street Parking Requirements

- (a) Section 10.1 should be consulted prior to design and construction of all parking areas.
- (b) Excessive parking is discouraged and parking standards provided should recognize and encourage transit use. In general, parking standards should not exceed 2 spaces per 1000 sq-ft.

LFA

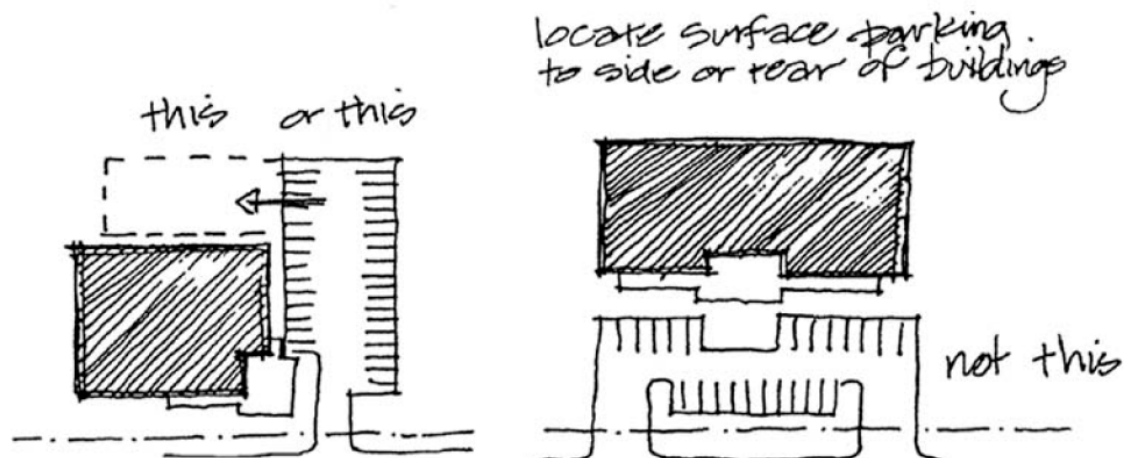
- (c) Parking requirements for retail uses should be consistent with the Parking By-law requirement for Grocery Stores. Where the retail use is for furniture, or similar type of retail, which in the opinion of the Director of Planning in consultation with the City Engineer, requires less parking, the parking standard for office and retail uses may apply.

The parking requirements for Institutional Uses, or Cultural and Recreational Uses should be consistent with the Parking By-law for these uses.

Stat

- (d) No off-street parking is required for stand-alone small-scale (less than 250m²) uses in the station areas, which do not tend to either generate destination automobile traffic or require off-street loading facilities.
- (e) Surface parking facilities should be located to the rear or beside buildings as shown in Figure 9.
- (f) No parking or manoeuvring should be permitted in landscaped setback areas.
- (g) Parking lots are a major source of harmful run-off to Still Creek. In addition to the environmental considerations outlined in Section 10, careful design of parking, loading and drive aisles should occur to strictly minimize hard surfacing on the site.

Figure 9. Parking Location



4.9.2 Landscaping and Screening of Parking Facilities

- (a) A layered landscape treatment should be provided to screen parking and loading areas while providing strategic visual access to entries and access areas.

- (b) Safety and security are important factors in the layout, size and characteristics of plant material and earth-berming that affect visual access throughout the site.
- (c) Security fences should be limited to black vinyl covered chain link fence that is accompanied by appropriate plant material that minimizes its visual impact and takes into account Crime Prevention Through Environmental Design (CPTED) principles.

4.9.3 Loading and Outdoor Storage Areas

- (a) Loading areas should be located to the rear of the property, and not be visible from major streets.
- (b) Loading areas should be screened from view from all Greenways and Still Creek.

4.16 Building Massing

- (a) Neither the width nor depth of an individual building should exceed 61.0 m (200 ft).
- (b) Additional width or depth may be considered where the proposal demonstrates exceptional design merit.
- (c) Where the need for longer, wider buildings can be demonstrated, consideration should be given to facade articulations, and connections by transparent bridges and walkways on the upper floors.

Still

- (d) For sites adjacent Still Creek, building massing should respect the importance of sunlight on the Creek and building location, height, roof treatments and overall design should all be considered to minimize shading of the Creek. To help achieve this objective, the Director of Planning will consider relaxations to regulations controlling massing and building location.

4.17 External Design

- (a) Generic “big box” building designs that exhibit little facade interest and transparency to the street should be avoided.

Stat

- (b) Storefronts should be transparent at grade and contain no blank wall exceeding 1.0 m in length.

I-2/I-3/CD-1 (General Office)

- (c) High clearance warehouse-type spaces should have windows at the upper storey of the facade.

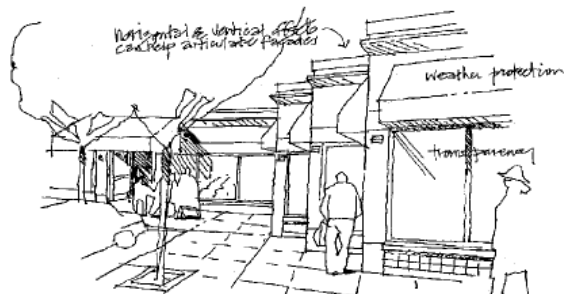
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- (d) New buildings near Still Creek should take advantage of the Creek views and sounds of flowing water by providing orientation to the Creek through location of windows which open, employee meeting areas and access to outdoor patios.

Transparency and Fenestration:
High Clearance warehouse-type Spaces should have windows at the Upper storey of the Facade



Comfort and Interest at Grade Level



5 Architectural Components

5.2 Windows

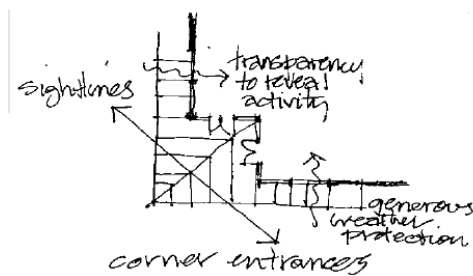
Views into building activities should be provided, especially at grade levels; accordingly, use of mirrored or highly reflective glass is discouraged.

5.3 Main Entries to Street

- (a) Main building entries should be clearly identifiable, visible, transparent and accessible from the street.
- (b) Pedestrian interest and comfort at entries should be provided through specifically designed seating, signage, lighting and features that signal the building's use.

LFA

- (c) Non-retail uses should have separate and distinct entries.
- (d) Corner entries that can provide access from both the street and parking facilities are encouraged.

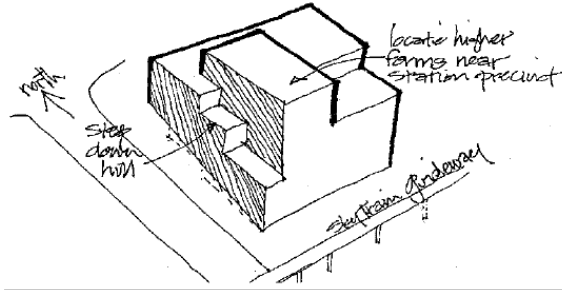


Architectural Characteristics: Entrances

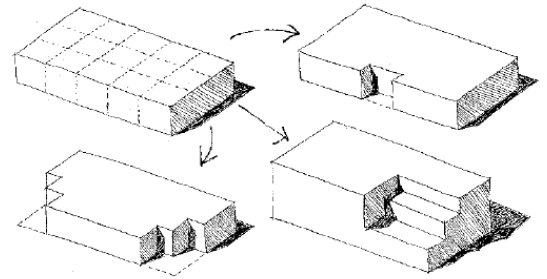
5.4 Building Articulation

- (a) Building articulation can be achieved utilizing glazing, canopy and shading systems, as well as exposed structural components.
- (b) Feature banding to break up perceived wall height may be used to assist in achieving horizontal articulation.
- (c) Highly visible circulation and building systems are encouraged.
- (d) Vertical service elements, such as stair and elevator shafts, that are located to the perimeter of the building, may be used to assist in articulation, as well as express their function.
- (e) Rooftop mechanical systems, elevator penthouses and other appurtenances should be integrated into the form of the building and screened from view.

I-2/I-3/CD-1 (General Office) Developments

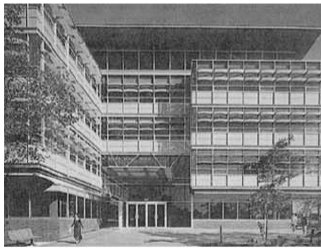


LFA Developments



5.5 Exterior Walls and Finishing

- (a) Exterior building design should reflect the industrial character of the precinct by utilizing appropriate, durable materials.
- (b) Exterior materials that are encouraged include:
 - (i) contemporary metal cladding systems;
 - (ii) heavy timber structural elements;
 - (iii) glass and steel;
 - (iv) architectural concrete or brick;
- (c) Stucco, vinyl and corrugated metal are discouraged as primary exterior materials.
- (d) Roofs visible from the SkyTrain should be architecturally treated and/or landscaped as "green roofs" see 10.1 (f).
- (e) Exterior colours should enhance the building form and corporate colours should be clearly subordinate, providing accent colours only.



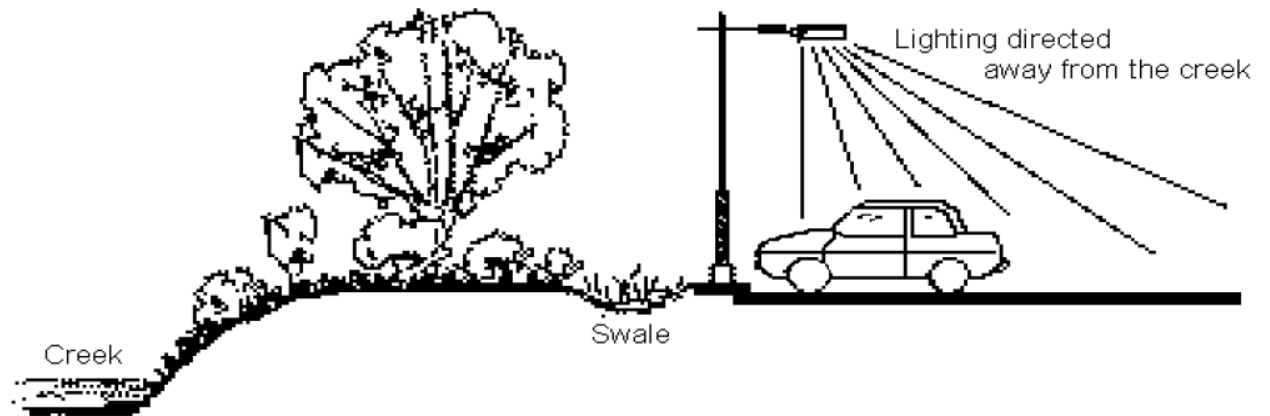
Architectural Characteristics

5.7 Lighting

- (a) Street, building, entry path and parking area lighting should be integrated into the site design.
- (b) For exterior lighting, incandescent and other white light sources are encouraged, while sodium vapour light sources are discouraged.
- (c) Exterior lights should be oriented away from adjacent residential properties, with cut-off shields to minimize light.

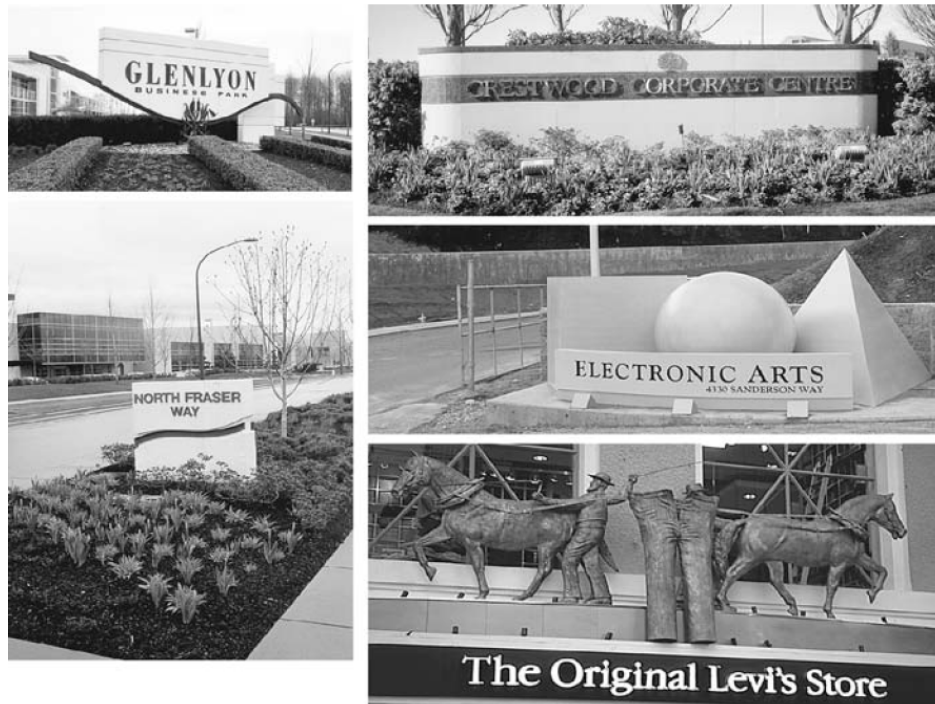
Still

- (d) Site lighting used for security reasons should not detract from the amenity value of the Creek and minimize light pollution and glare on the Creek channel.



5.8 Signs

- (a) Corporate signage should be subordinate to the design of the building and architecturally integrated with the development.
- (b) Billboard signs and mobile signs should not be located on the site.
- (c) Internally illuminated or back light sign boxes are discouraged.



Signage

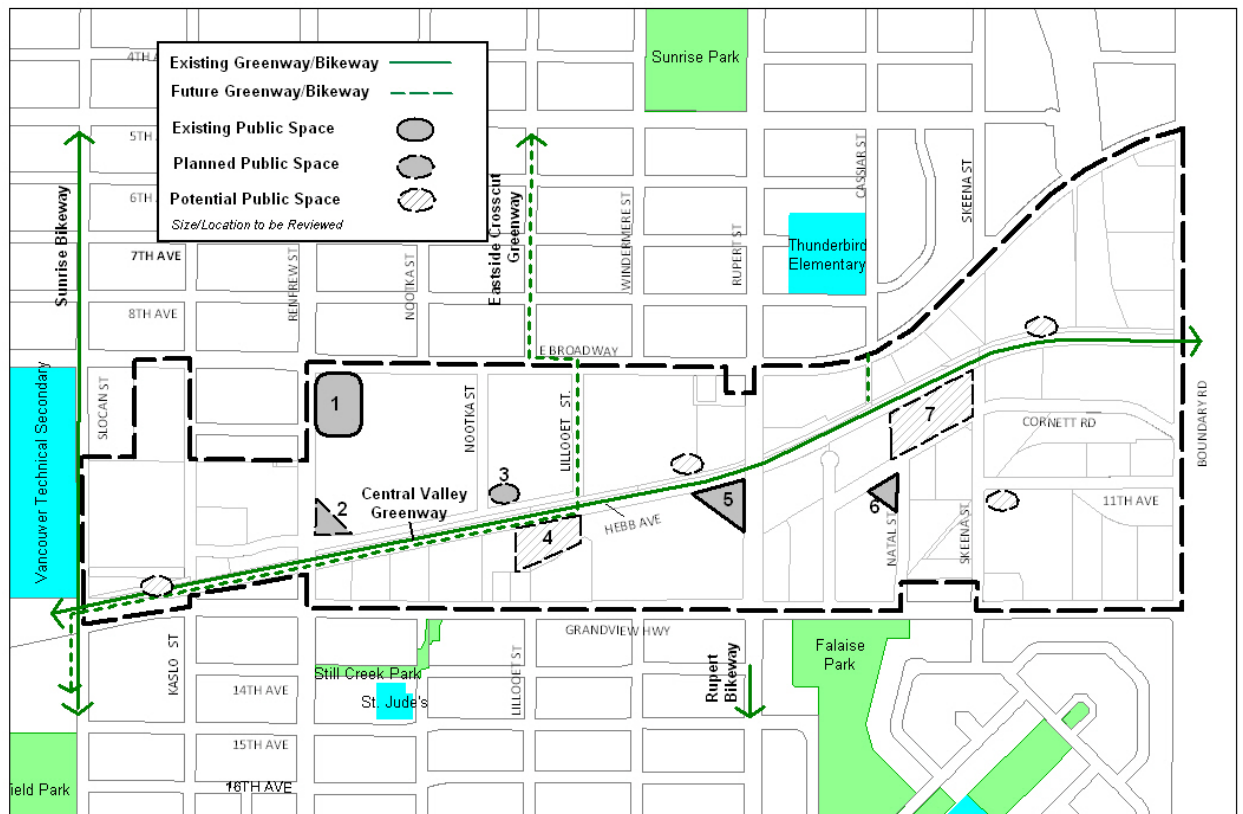
7 Open Space and Greenways

7.1 Public Open Space

The Grandview Boundary Area currently has no dedicated parks, a limited number of existing public spaces and lacks new open space opportunities. To provide for outdoor recreation for workers and the public, an enhanced Still Creek will be the major open space element and small public plazas and green spaces will be incorporated into redevelopments along Greenways or into the street edge of major sites such as at the northwest and southwest corners of the Broadway Tech Centre (Figure 10, #1 and #2). Opportunities for these spaces on other larger parcels are shown in Figure 10 as “Potential Public Space.”

In addition, proposed Still Creek retention ponds/passive parks shown as #4 and #7, will offer opportunities for public recreation. These features are part of the long-term 10-50 year vision for Creek enhancement.

Figure 10: Existing and Proposed Public Space and Greenways/Bikeways



The following should guide design and location of public spaces and Greenways:

- Given the large amount of hard surfacing in the GBMEA, new public space should minimize further hard surfacing and maximize “soft” and green landscaping.
- Landscaping elements and public art which reflect the industrial history of the area or enhance or celebrate Still Creek are encouraged.
- Large sites indicated in Figure 10, as providing “Potential Public Space” should incorporate green spaces for employees and the public as part of site landscape design.
- Public space should connect to future Greenways and other public routes to create a network of linked green spaces.
- Where practical the Still Creek and Central Valley Greenways will be constructed on City owned land or City R.O.W. In some circumstances, an additional R.O.W. may be requested from adjacent development to provide a more useable trail width.

7.2 Semi-Private Open Space

Social semi-private open space is desirable for employees and should be provided wherever possible. It could be located at grade or on the rooftop as part of a landscaped rooftop garden and should maximize sun exposure.



Public Art in Open Space



Public Art reflecting Industrial History

8 Public Realm Landscaping and Streetscape

8.1 General Provisions



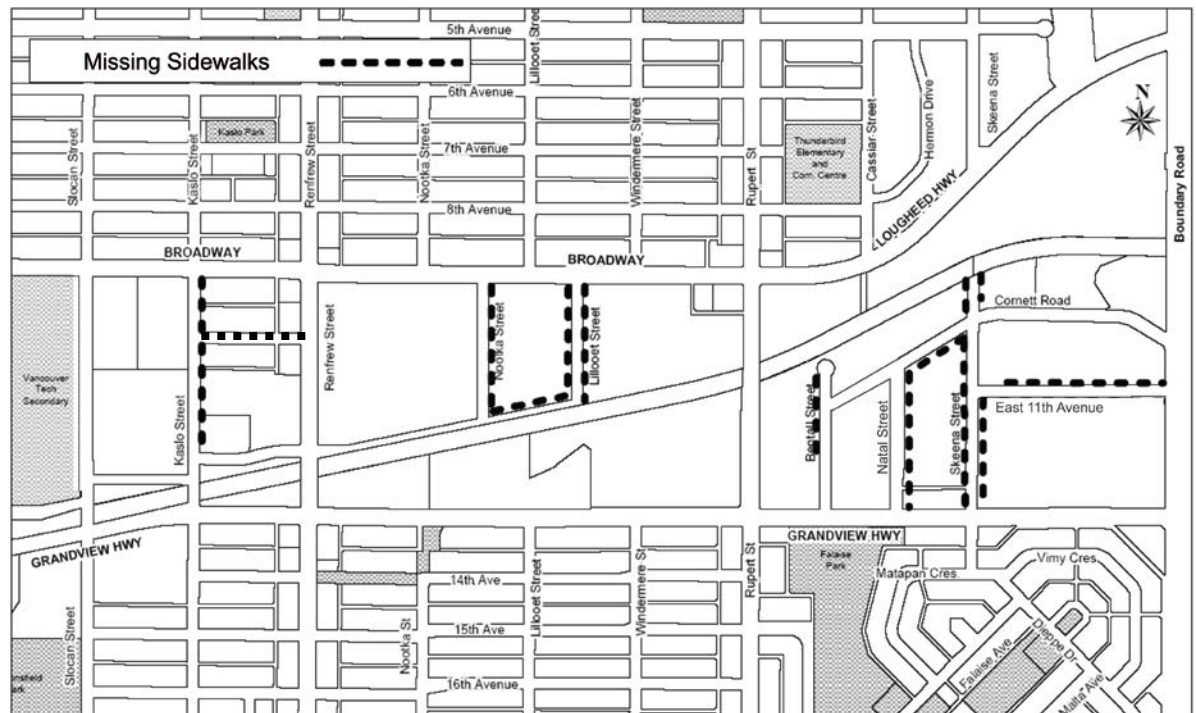
Semi-private Open Space



Public Open Spaces connected by Greenways

- (a) Continuous sidewalks should be provided for the site's full frontage to encourage pedestrian use. Figure 11 indicates where sidewalks are currently absent.
- (b) Landscape design should provide for views into buildings for pedestrian interest, as well as special features such as opportunities to sit, view or take part in walking or active recreation.
- (c) Bus stop and transit station landscaping treatment of sites adjoining SkyTrain stations should be coordinated with TransLink.
- (d) The required landscaped setbacks on Grandview Highway, Broadway/Lougheed, Boundary Road and the Central Valley Greenway provide good opportunities for public art and historical references.
- (e) Crime Prevention Through Environmental Design (CPTED) principles should be followed.
 - (i) Maximize opportunities for natural surveillance;
 - (ii) Provide unobstructed and transparent sightlines to exits and destinations;
 - (iii) Foster territoriality and a sense of ownership;
 - (iv) No hiding places; and
 - (v) Lighting of public places.

Figure 11: Missing Sidewalks



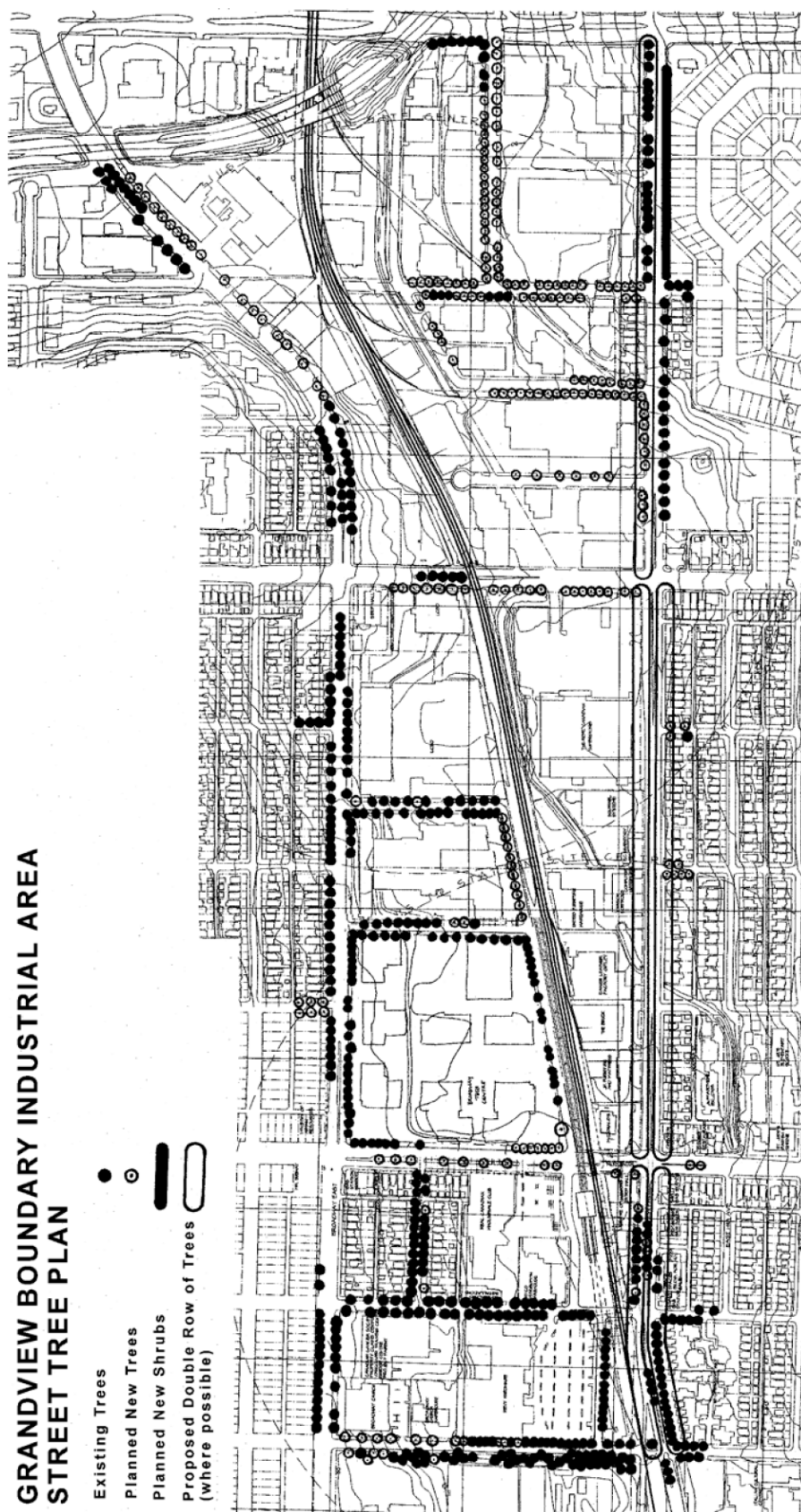
8.2 Public Realm Landscaping and Street Trees

8.2.1 Street Tree Plan

The existing street trees in Grandview Boundary vary in size, species, age and form. On most streets there are either no street trees or there are major gaps. The street tree plan objectives are to:

- (i) Be a major element in developing visual continuity along streets and an attractive urban environment.
- (ii) Increase the awareness of the presence of nature in the urban environment.
- (iii) Provide a “natural” or ecological link to neighbourhood open spaces such as Falaise Park, Still Creek, the Greenways and public open spaces.

Figure 12. Street Tree Plan



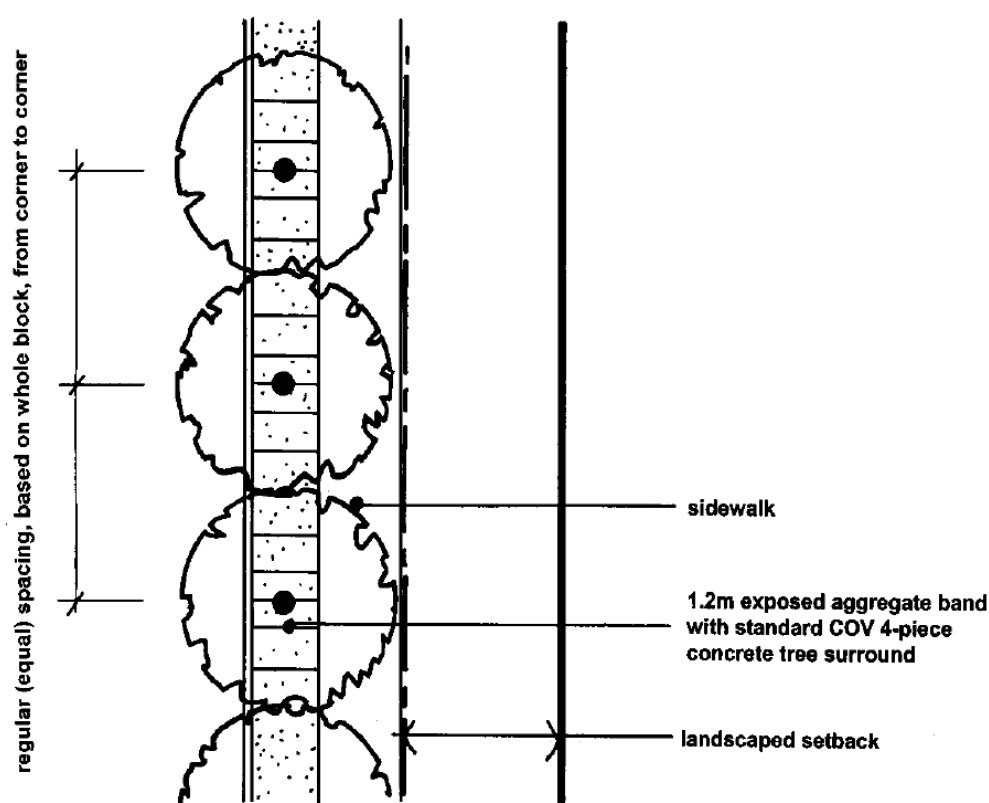
8.2.2 Tree Selection and Spacing Criteria

The following criteria have been established to assist in determining appropriate tree species, variety and spacing for Grandview Boundary. The street trees shall:

- (a) have reasonable root containment habits;
- (b) have a maximum mature size appropriate for its site, given the constraints of overhead wires, boulevard width, views and other visibility concerns;
- (c) have a long leaf life and predominately green leaf colour but provide seasonal colour change, and variable leaf size to create diversity in texture and canopy widths where possible;
- (d) be capable, with pruning, of maintaining a 2 m (7ft) minimum clearance from sidewalk level to the underside of branches; and
- (e) have longevity, be a species less prone to disease, as well as being clean and generally easy to maintain;
- (f) be spaced as close as physically possible (ideally 7-9m [23-30ft], subject to meeting all relevant technical criteria. Spacing will vary depending on whether the planting zone is hard-surfaced or grass.

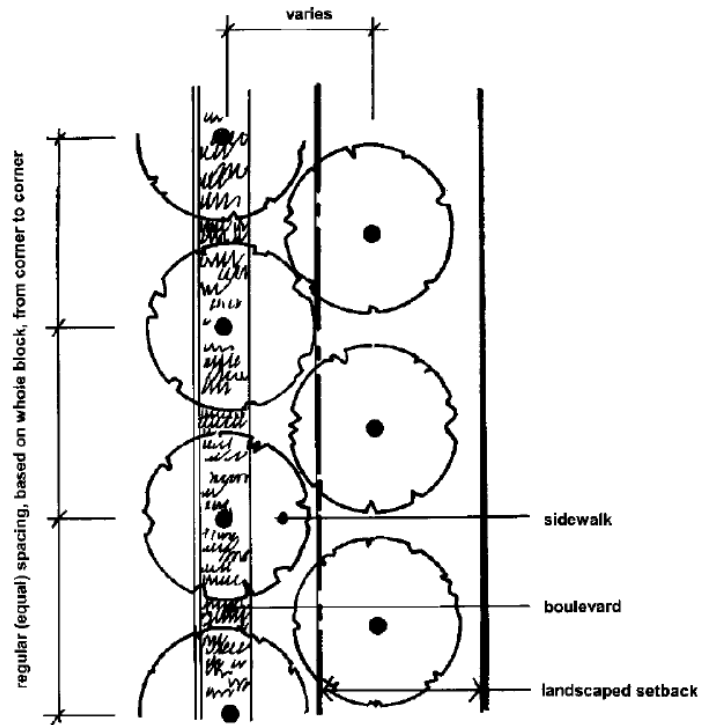
Some of the plan will be carried out through the Park Board Street Tree Infill Program and the remainder will occur as part of the redevelopment of adjacent sites. Engineering Services should be contacted for further information on tree location and the Board of Parks and Recreation, Arboriculture for the approval of tree species. Applicants should also refer to the Streetscape Design Standards for more detailed street tree requirements.

See illustrations below for general streetscape characteristics and locations:

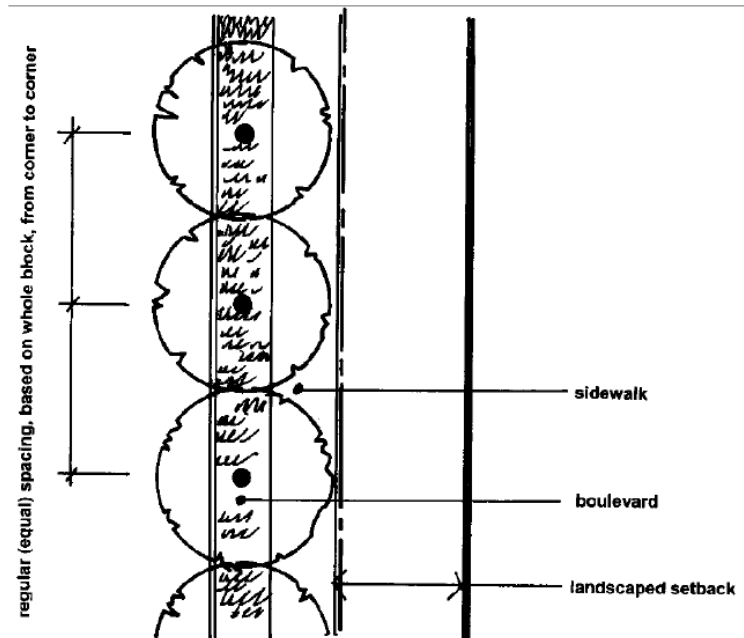


Rupert and Renfrew Streets

Major Streets



Secondary Streets



8.2.3 Still Creek Landscaping

Still

- (a) A landscape plan is required for all developments adjacent to Still Creek. The plan should be prepared by a certified landscape architect or a professional landscape designer who has prior experience with landscape design and remediation near water courses. The plan should show existing and proposed plant materials, and all other landscape elements.
- (b) Existing Still Creek landscape character should be preserved and incorporated into new development by using plants native to Still Creek in areas adjacent the Creek. Native plants should be incorporated throughout sites adjacent Still Creek in order that the use of fertilizers, herbicides and pesticides can be avoided.



Introduction of Stream Complexity

- (c) Existing mature trees provide shade, stabilize stream banks and add significantly to the natural beauty of the Creek and their preservation is of primary importance.
- (d) Landscape design and planting adjacent the Creek should discourage direct contact with the Creek due to health and safety concerns and impacts to the creek.
- (e) Only non-toxic materials should be used for Creek area development. For example, hogfuel, commonly used for path surfaces, could leach toxic chemicals into the Creek.

8.2.4 Grandview Highway, Broadway/Lougheed Highway and Boundary Road

- (a) Where a landscape setback is required, lower understory shrubs and other accent plantings should be used to enhance the green border and highlight entries and features on the site. Pedestrian level lighting should be incorporated. The treatment of the landscape setback should form part of the landscape plan.
- (b) Street trees on these streets should be planted in double rows to provide a parkway experience suitable for a major gateway to Vancouver. One row of trees may be in the public space in the outside boulevard where there is one, and the other row in the landscape setback. The Park Board and Engineering Department should be consulted for advice on tree species and location.
- (c) Pedestrian oriented intersections should be provided at all Grandview Highway and Broadway/Lougheed intersections between Boundary Road and Slocan Street.

8.2.5 Renfrew and Rupert Streets

- (a) Properties fronting on Renfrew and Rupert Streets are recommended to provide a 3.6 m (12 ft.) landscape setback. Lower understorey shrubs and other accent plantings should be used to enhance the green border and highlight entries and features on the site. Pedestrian level lighting should be incorporated. The treatment of the landscape setback should form part of the landscape plan.

8.6 Central Valley Greenway

- (a) Properties bordering the Central Valley Greenway will be required to provide a 3.6m (12ft) landscape setback. The landscape design within the setback should employ Crime Prevention Through Environmental Design (CPTED) principles.

8.7 Outdoor Storage and Display Areas

- (a) Outdoor storage areas should be limited to the rear yard areas, screened from main entrances, streets, Still Creek, and City Greenways.
- (b) Screening should include fencing, planting and earth berms that filter undesirable views.

9 Public Services

9.1 Water and Sewer Services

Current water and sanitary sewer services are at capacity and will require upgrading to accommodate additional development. Please refer to the Grandview Boundary Mixed Employment Area Plan for further information.

9.2 Storm Water and Flood Risks

Still Creek conveys stormwater for Grandview Boundary and surrounding area. With increased development and associated impervious surfaces in the Still Creek water basin, the volume of stormwater during rain events has continued to increase with attendant increases in flooding risk and impacts to the ecology of the Creek itself.

- (a) New development in Grandview Boundary should reduce the amount of stormwater that is channelled directly into the stormwater system and Still Creek by applying the methods outlined in Section 10.1.1.
- (b) For the portions of Grandview Boundary identified on flood plain maps to be within the 200 year flood area, the grade of new development must be raised to mitigate flooding risks in consultation with the City Engineer. The City's Floodproofing Policies should be consulted for general information on flood proofing.

9.2.2 GVSDD Requirements

The Greater Vancouver Sewer and Drainage District (GVSDD) has authority over stormwater in Still Creek.

Still

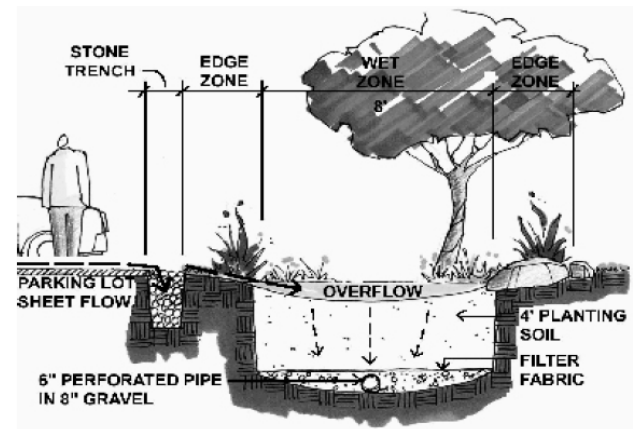
- (a) The GVSDD requires property owners to maintain all landscape elements in the easement area. The GVSDD undertakes brush cutting as required within the hydraulic channel as part of its maintenance program.
- (b) Bridges, crossings and any proposals having potential impact on the hydraulic requirements, require approval of the GVSDD prior to submission of a Development Permit Application. Bridges should span the Creek without support columns being located in the channel. The design of these structures is subject to the approval of the Director of Planning.
- (c) Physical access to the Creek must be provided on at least one side of the channel for GVSDD maintenance. These areas could be used as viewing or seating areas where appropriate.

10.1 Still Creek Watershed: Protection and Enhancement

Still Creek was once an important natural feature and remains a visible reminder of the environmental systems upon which urban life is based. Through urbanization large sections are now buried and above ground sections have been straightened and channelized in order to better convey stormwater. Still Creek suffers from extremes of high and low flows, flooding potential for adjacent properties and poor water quality from direct hard-surface run-off which carries vehicle pollutants and other contaminants into the Creek. Contribution to enhancing Still Creek will be key criteria in assessing proposed developments throughout Grandview Boundary, and particularly for those sites adjacent the Creek.



Example of Permeable Parking Surface



Typical Parking Area Swale Cross-Section

10.1.1 Creek Sensitive Development Practises

The objective for all new development should be first to maximize the infiltration of stormwater and secondly, to delay its release into the stormwater system and Still Creek. To achieve these objectives the following guidelines should be incorporated as far as practical into all new Grandview Boundary development:

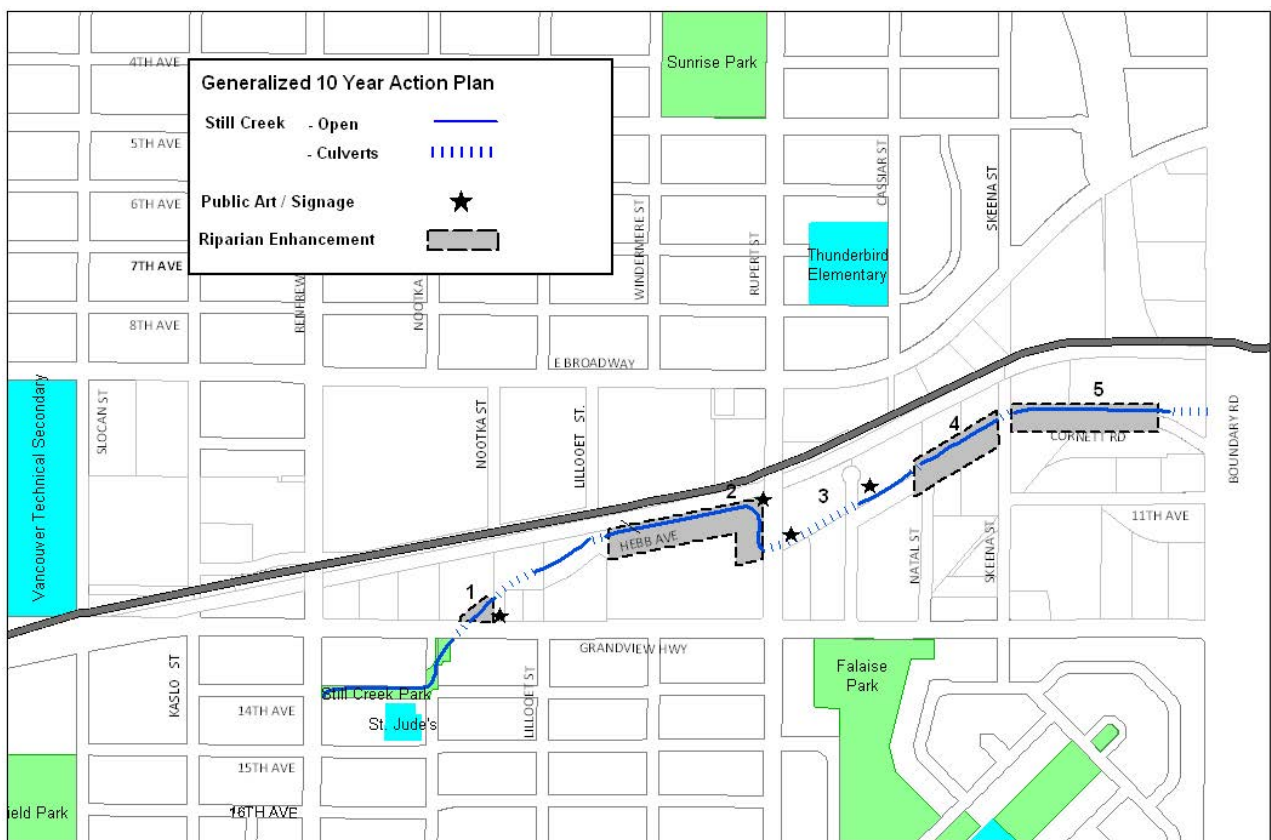
- (a) Permeable surfaces should be maximized to reduce stormwater runoff and recharge groundwater. Soil preparation and introduction of appropriate soil type layering is critical to effective functioning of all permeable surfaces, and should be an integral part of design and construction.
- (b) On-site stormwater storage and treatment should be provided through under pavement storage, ponds, wetlands, landscaping or similar features that have dual functions of slowing rainwater release to Still Creek and providing a visual or recreational amenity for employees.
- (c) Ditches or swales should be created adjacent to hard surfaces, to carry, filter and reduce surface runoff as well as minimize the need for underground pipes. Parking areas adjacent the Creek should incorporate swales as standard practise.
- (d) Oil interceptors should be used in all parking lot catch basins and other drainage structures and cleaned out regularly according to manufacturers instructions.
- (e) New development should maximize the number of trees planted.
- (f) For new buildings green roofs should be investigated and employed to store and evapo-transpirate storage and to provide a recreational amenity for employees. Alternatively, roofs should be designed to store rainwater for delayed release into the stormwater system.
- (g) Consideration should be given to recycling grey water on site, if possible, for irrigation purposes to reduce water use, waste water and runoff.
- (h) Any changes to the Creek alignment should introduce more natural conditions such as gentle meanders. Except for efforts to daylight the Creek, further straightening and channelization is not supported.

On-going study is occurring to determine the most effective of these approaches to reducing stormwater run-off in the Still Creek Basin and elsewhere. Applicants should request this information from Metro Vancouver and the City as it becomes available to develop an approach that strives for a significant reduction in the runoff compared to that which would normally occur using standard practises.

10.1.2 Still Creek Enhancement Study

The Still Creek Enhancement Study was undertaken to review enhancement options and recommend measures to protect the remaining portions of the Creek. The goals were to improve stormwater management and water quality, create recreational opportunities for area workers, provide educational experience of natural systems and recover the Creek's natural and aesthetic appeal through day lighting and other means. The Study advances a series of Creek enhancement projects that could occur in the short and long-term toward achieving these goals. The more immediate actions are illustrated in Figure 13. These actions would lay the ground work for the more extensive longer-term improvements. These more complex stream enhancements are shown as proposed in the Still Creek Enhancement Study.

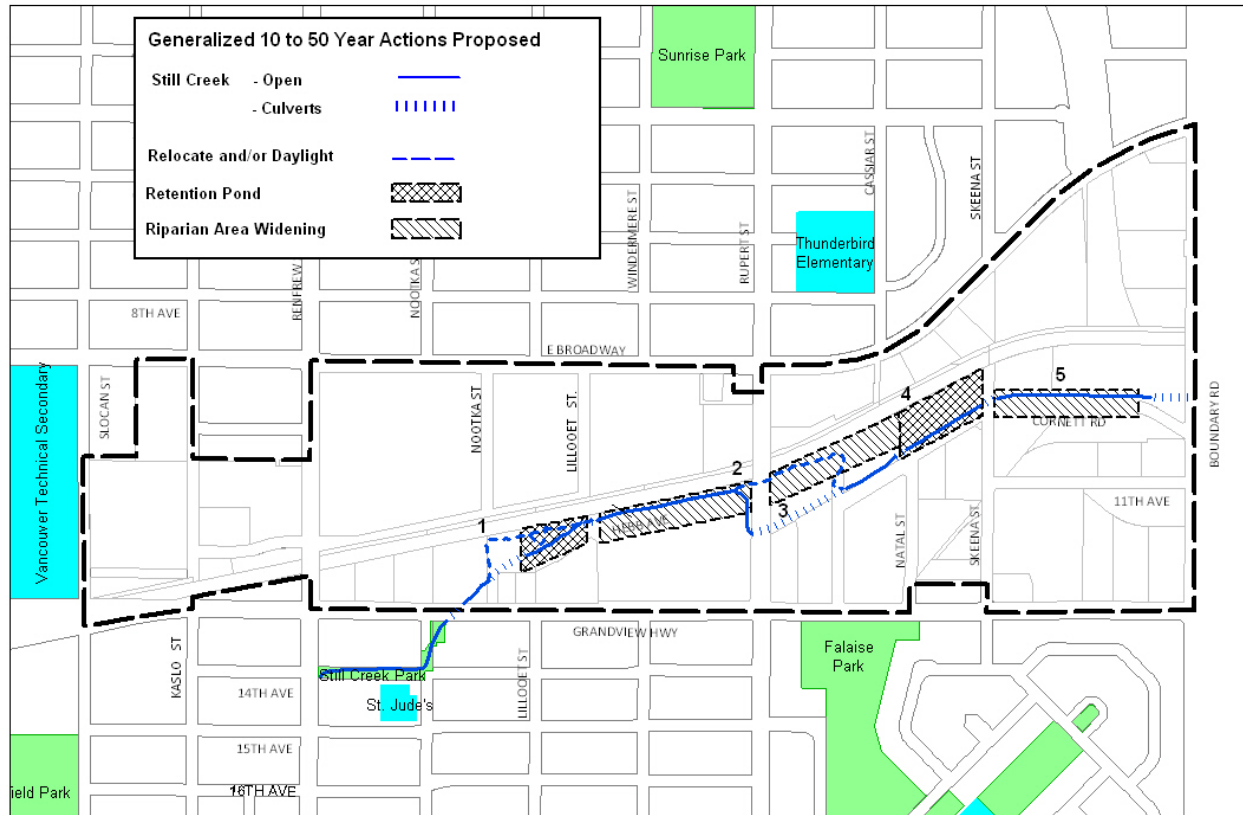
Figure 13: Still Creek - 10 Year Action Plan



- Area 1 -** Using the open creek at the 3000 block of Grandview Highway, widen the creek, enhance riparian area and install public art. *Completed 2005.*
- Area 2 -** Enhance the streamside vegetation and add riffle weirs, boulders etc. to increase stream complexity.
- Install public art and educational kiosk in the existing park space at the northeast corner of the Superstore parking lot. *Partial Completion 2009 – Interpretive Signage Installed.*

- Area 3 -** Represent the underground portion of Still Creek through painting the Creek alignment, mosaics and various forms of public art.
- Area 4 -** Remove on-street parking from the north side of Cornett Road and expand the streamside area to add meanders and riffle weirs. *Completed 2007.*
- Area 5 -** Replant the streamside areas with native plants.

Figure 14: Proposed 10 to 50 Year Actions



- Area 1 -**
 - When the site at 3057 Grandview Highway redevelops, relocate and daylight the Creek on the south side of the BNSF tracks and extend the Greenway.
 - Acquire the vacant area in the northwest corner of the Superstore site (3185 Grandview Hwy) and construct a passive recreation area, stormwater retention pond and wetland.
- Area 2 -**
 - Acquire additional land to expand the stream side area, add stream meanders, pedestrian view points.
- Area 3 -**
 - Relocate and daylight the Creek on the south side of the BNSF rail corridor and extend the Greenway. *Partial Completion 2009 - 75M of Creek Daylighting through Canadian Tire Rezoning.*
- Area 4 -**
 - Acquire property in 3400 block of Cornett Road and construct a passive recreational area, stormwater retention pond and wetland.
- Area 5 -**
 - Widen stream side areas to add meanders, seating areas and other pedestrian amenities either in current location or after relocation to the south side of the BNSF line and extend the Greenway.

10.2 Trees and Vegetation: Retention, Relocation and Replacement

- (a) Existing trees and vegetation should be retained and incorporated into site planning. New trees should be added wherever possible.
- (b) Groups of trees should be retained to protect against potential isolated tree hazard situations and preserve the associated understorey vegetation for minimum disturbance of existing conditions.
- (c) If tree retention is not possible, the trees should be relocated to other parts of the site, and if relocation is not possible, trees should be replaced with appropriate species.
- (d) A variety of native trees and vegetation should be provided to minimize maintenance, water use and integrate the planting design into the traditional landscape character. Trees and vegetation planted near Still Creek should be native species appropriate to the riparian zone.
- (e) Existing planting patterns and connections to adjoining properties should be extended and reinforced.

10.3 Soils: Retention, Cleansing and Replacement

- (a) Topsoil should be retained and soil quality improved where necessary by remediation on site or addition of new soil to provide a rich basis for site planting and landscape development.
- (b) Contaminated soils should be replaced with quality soils to enhance plant growth and ground water quality.

10.4 Air Quality and Transportation: Proximity and Land Use

- (a) Walking and bicycling should be encouraged by providing secure bike storage areas and employee change facilities with showers.
- (b) Convenient, safe and accessible pedestrian and bicycle connections should be provided to major bus routes and SkyTrain Stations.

10.5 Energy: Conservation and Efficiency

- (a) Buildings should be oriented to maximize solar orientation, taking into consideration building placement and planting design.
- (b) Building materials, systems and construction methods should be used to conserve energy and reduce long-term operating costs.

10.6 Solid Waste: Reuse and Recycle

- (a) A solid waste disposal and recycling area should be designated for each building. This area should be of sufficient size to meet the needs of the proposed development and should be at ground level to facilitate container emptying.
- (b) A comprehensive waste management plan is encouraged among land owners to provide recycling and reuse in close proximity by different general office, industrial, retail or high technology uses.