

*Maillardville*

# **Maillardville Servicing Assessment**

***City of Coquitlam***

November 7, 2013

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## 1.0 INTRODUCTION

### 1.1 Context

The Maillardville Servicing Assessment is a high-level summary of estimated costs (both DCC and non-DCC) and proposed funding sources for servicing requirements (infrastructure works including transportation and utility improvements, and parks) that are needed to support the build-out of the Maillardville Neighbourhood Plan ('MNP' or the 'Plan').

These servicing requirements are based on the projected increase of 2,800 residential units (approximately 6,000 people) anticipated to be developed within the MNP area over the next 20-25 years, and some of these servicing elements also support the wider Southwest Coquitlam community. (i.e. Austin Heights, Lougheed, and Burquitlam neighbourhoods)

As a companion document to the MNP, this assessment is based on the key outcomes of detailed servicing, phasing and financial plans that aim to facilitate redevelopment in Maillardville. While much of the servicing and infrastructure in southwest Coquitlam is interlinked and improvements in one area help to support adjacent neighbourhoods, this assessment only includes capital costs for improvements within the Maillardville Neighbourhood Plan boundary and does not include operating and maintenance costs associated with these projects.

More specifically, the Development Cost Charge (DCC) eligible capital costs noted in this Assessment are incorporated into the City-wide DCC program through periodic DCC bylaw updates. Non-DCC eligible capital improvements will be funded through a combination of sources, including private sector development, the City's capital budget, utility fees and contributions from senior governments. Project specific details are provided in Sections 2.0 – 4.0. The needs identified in this servicing assessment are used by the Finance Department to prepare future 5-year Capital budget plans and are used to assist in the determination of the City-wide DCC program, for approval by Council in the future to support the MNP and the City as a whole.

The assessment was jointly prepared by Engineering and Public Works, Parks, Recreation and Culture, Planning and Development, and Strategic Initiatives staff. This assessment should be used in conjunction with the City's 5-year Capital Budget, *Official Community Plan, Maillardville Neighbourhood Plan, Subdivision and Development Servicing Bylaw*, and *Development Cost Charge (DCC) Bylaw* in setting capital funding priorities.

### 1.2 Funding and Costs Summary

Transportation, utility, and park improvements in the MNP area will be implemented through a combination of funding sources, including private sector development, the City's capital and Development Cost Charge (DCC) reserves, utility fees and potential contributions from senior governments. The City will determine the optimal funding source in balance with other City funding priorities in order to support future growth.

The majority of DCC-eligible infrastructure works required to support full build-out of the Plan are already included in the City’s DCC program. Works that are not currently included will be reviewed and added to the DCC program during the next DCC bylaw review.

### 1.2.1 Estimated DCC Revenue

The City uses a Citywide DCC program, which applies the same DCC rates to developments across the City to fund the cost of all DCC-eligible capital projects in Coquitlam. Based on the development projections for the MNP area, it is estimated that up to approximately \$25.5 million of DCCs (Table 1) will be collected from development within the Maillardville neighbourhood over the next 20-25 years, depending on actual development and market cycles. These estimates are based on the DCC rates in the City’s 2012 DCC Bylaw and the dwelling unit projection in Appendix A.

### 1.2.2 Estimated Costs

The total estimated cost of the DCC projects listed in the MNP Servicing Assessment is approximately \$20.25 million (Table 1). Non-DCC eligible costs are approximately \$7.65 million (Table 2).

*Table 1 – Estimated DCC revenues and costs generated from MNP at full built-out*

	Transportation DCCs	Water DCCs	Sanitary DCCs	Drainage DCCs	Parkland Acquisition DCCs	Parkland Improvement DCCs	Total
Estimated DCC Revenue	\$8.5 M	\$2.6 M	\$0.8 M	\$3.6 M	\$5.6 M	\$4.3 M	<b>\$25.5 M</b>
Estimated DCC Costs <sup>1</sup>	\$1.9 M	\$0	\$0.9 M	\$2.7 M	\$12.25 M	\$2.5 M	<b>\$20.25 M</b>

As the City has a citywide DCC program, any surplus DCC revenue estimated be generated from development within Maillardville will go towards funding DCC-eligible infrastructure improvements elsewhere in Coquitlam as prioritized by Council. Given the interconnected nature of infrastructure, some of the improvements in Maillardville will directly or indirectly benefit other areas of Southwest Coquitlam and vice versa.

The proposed land uses in Maillardville have a long-term infrastructure benefit in that less new infrastructure is required to support redevelopment. Additionally the increased density can reduce the on-going maintenance burden. Note that the Assessment does not include operating cost estimates. Further details on the estimated costs of infrastructure improvements are provided in following sections.

<sup>1</sup> All cost estimates are at current market value and are based on conceptual design concepts which are subject to change at the time of functional design site development and land acquisition.

Table 2 – Detailed Estimated Costs

DCC Eligible Project Categories	Estimated Cost	Currently Funded in DCC Program	Unfunded in DCC Program
Transportation DCC Eligible	\$1.9 M	\$1.9 M	-
Water DCC Eligible	\$0 M	-	-
Sanitary DCC Eligible	\$0.9 M	\$0.9 M	-
Drainage DCC Eligible	\$2.7 M	\$1.72 M	\$0.93 M
Park Acquisition DCC Eligible	\$12.25 M	\$10.5 M	\$1.75 M
Park Improvement DCC Eligible	\$2.5 M	\$2.2 M	\$0.3 M
<b>Total Cost DCC Eligible Projects</b>	<b>\$20.25 M</b>	<b>\$17.2 M</b>	<b>\$3.0 M</b>
Non-DCC Eligible Project Categories	Estimated Cost		
Sanitary Non-DCC Eligible	\$1.8 M	-	-
Drainage Non-DCC Eligible	\$5.35 M	-	-
Park Improvement Non-DCC Eligible	\$0.5 M	-	-
<b>Total Cost Non-DCC Eligible Projects</b>	<b>\$ 7.65 M</b>	-	-
<b>TOTAL ESTIMATED COSTS</b>	<b>\$27.9 M</b>	-	-

### 1.3 Infrastructure Development Timing and Coordination

This assessment summarizes infrastructure improvements to be completed to support the build-out of the neighbourhood over the next 20-25 years, but it is important to note the timing of specific capital infrastructure improvements is variable.

The estimated timing of capital projects over the short term are identified in the City’s 5-year capital plan; however the exact timing of these projects will be based on Council’s capital project priorities (i.e. capital projects in the MNP relative to projects elsewhere in the City), DCC revenue collection, the housing market, the actual pace of development within the MNP area and the utilization of developer-funding revenue tools.

Where appropriate, the City will coordinate infrastructure improvements in the MNP area with other infrastructure upgrade requirements in adjacent neighbourhoods and throughout Southwest Coquitlam.

### 1.4 Comprehensive Citywide Funding Strategy

It is recognized that this Assessment will need to be coordinated with citywide capital planning and funding. A key next step to support all neighbourhood plans may include the preparation of a comprehensive citywide funding strategy to help determine capital improvement priorities, and outline long-term capital needs. That strategy will also explore possible funding sources for non-DCC eligible projects.

## 2.0 TRANSPORTATION

The MNP proposes only two City funded transportation improvements to support growth in Maillardville, specifically two Citywide Greenways. The remaining transportation improvements are the responsibility of private development or senior levels of government.

Appendix B depicts the City funded projects and Appendix C identifies the locations of other supporting transportation projects. The areas where Maillardville specific streetscape and public realm improvements will be applied are shown on Appendix D.

### 2.1 Greenways (Citywide and Neighbourhood)

The Maillardville Neighbourhood Plan identifies two Citywide Greenways that will be funded by the City through DCCs (Appendix B):

- North-South Citywide Greenway on Nelson Street
- East-West Citywide Greenway north of Brunette Avenue

Citywide Greenways are implemented and funded from a combination of funding sources, including City DCC reserves and other senior government sources, as available. Phasing of the Citywide Greenways will depend on the pace of development, adjacent frontage improvements and the Capital budgeting process.

The Plan also identifies one Neighbourhood Greenway to be funded by developers (Appendix C):

- East-West Neighbourhood Greenway south of Brunette Avenue

Neighbourhood Greenways will be implemented and funded through private development, and coordinated through development servicing requirements for each application. A summary of all Greenway projects is presented in Table 4.

These three greenway routes will have an enhanced sidewalk network through frontage improvements as required by the City's Subdivision and Servicing Bylaw. Mid-block pedestrian crossings will also be added along Brunette Avenue. Alignment options will be determined at the time of greenway development.

Opportunities to incorporate corner parkettes along the greenways will be explored in conjunction with private development. Corner parkettes will be funded by private development as part of their frontage improvements. Conceptual corner parkette locations are shown on Appendices B and C. The design requirements for the corner parkettes are located in the *Maillardville Streetscape Guidelines*.

Table 4 – Greenway Projects (See Appendix B and C for Map)

	Project Description	Estimated costs <sup>2</sup>
<b>CITYWIDE GREENWAYS</b> (funded by City)		
A.	East-West Citywide Greenway <sup>3</sup>	\$1,500,000
B.	North-South Citywide Greenway <sup>2</sup>	\$100,000
	Two additional pedestrian crossings on Brunette Avenue (locations to be determined in accordance with redevelopment)	\$250,000
	<b>Total Estimated cost of Citywide Greenways – funded through DCCs</b>	<b>\$1.9 million<sup>4</sup></b>
<b>NEIGHBOURHOOD GREENWAYS</b> (funded through development servicing requirements)		
	Project Description	
C.	Neighbourhood Greenway – alignment	
D.	Neighbourhood Greenway – Intersection Improvements	

## 2.2 Other Supporting Capital Projects

There are other transportation improvements, not funded by the City, that are planned to be completed in order to support full build-out of the plan. These improvements will be the responsibility of private development or senior levels of government. The location of these improvements is shown on Appendix C.

### 2.2.1 New Street Extensions

Adair Avenue, Myrnam Street and the Myrnam-Coleman Connector are designated for street extensions (Table 3). Appendix B identifies the specific locations of the three street extensions; Appendix F illustrates a conceptual alignment for the Myrnam-Coleman Connector; and Appendices G and H illustrate conceptual cross-section options.

Construction of these street extensions will be funded through private development and will occur when the property (or adjacent property) redevelops. The timing of these improvements will depend on the pace of redevelopment on the adjoining property.

Table 3 – Street Extensions (See Appendix C for Map)

	Project Description	Classification
E.	Myrnam Coleman Connector	Standard Collector
F.	Adair Avenue Extension to Nelson Street	Local Street (High Density)

<sup>2</sup> These cost estimates are based on preliminary design and are subject to change. Any utility network upgrades or repairs property requirements for road widening, ornamental furniture, street trees and structural soils are not included in the costs estimates.

<sup>3</sup> Developers are responsible for frontage improvements to meet the City's Subdivision and Servicing Bylaw. Greenway design features including bicycle facilities, wider sidewalks, wayfinding, seating, etc. are to be funded through DCC.

<sup>4</sup> This amount excludes costs for Brunette –Lougheed Corridor as well as improved bike/pedestrian facilities at Brunette Interchange

G. Myrnam Street Extension	Standard Collector
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### 2.2.2 Regional Corridor Improvements

The City is committed to working with the Province and TransLink to improve the Brunette Interchange and Lougheed Highway/Brunette Avenue Intersection (Appendix C) in a manner that improves pedestrian and cycling access to the Braid Street Skytrain Station and mitigates issues of vehicle congestion through the corridor. The project scope, estimated cost and funding sources will depend on agreements made between the City and senior levels of government.

### 2.2.3 Streetscape Guidelines

Streetscape and other public realm improvements will be implemented and completed through new development in Maillardville and coordinated with other City projects in the neighbourhood.

These improvements will be guided by the *Maillardville Streetscape Guidelines*, which identify streetlights, street furniture, pavement finishes, street trees and other public realm finishes for three distinct character areas including:

- Neighbourhood Centre
- Laval Square
- Allard-LeBleu

Appendix D shows where these areas are located in Maillardville. Refer to the *Maillardville Streetscape Guidelines* for details regarding the specific guidelines for each area.

### 2.2.4 Access Control

Several properties along Blue Mountain Street, Marmont Street, Brunette Avenue, Bernatchey Street and Schoolhouse Street (as shown on Appendix I) have direct vehicular access to these arterials, which is prohibited by the City’s Subdivision and Development Servicing Bylaw. Given this, alternative access provision needs to be facilitated or provided when these properties are redeveloped.

Some properties may need to be consolidated (except where the neighbourhood plan calls for the preservation of the existing subdivision pattern), or a new rear lane may need to be developed to provide alternate access. Where consolidation or a new rear lane is not feasible, joint-access or shared-access agreements should be secured to provide appropriate access. The best access solutions will be determined at the time of redevelopment.



### 3.0 UTILITIES

Planned growth in Maillardville will require upgrades to the City's water, sewer and drainage systems. Future servicing must satisfy the demand created by new development while considering potential environmental impacts and the storm water management requirements of the Nelson Creek Integrated Watershed Management Plan (IWMP), the Como Creek IWMP (currently being updated) and the forthcoming Austin/Rochester Creek IWMP (currently under development).

A hydraulic analysis of the water, sewer and drainage system was completed using population projections to determine required system upgrades. Specific improvements are presented in the following sections. Appendix E shows the locations of Maillardville specific improvements relative to planned improvements in the rest of Southwest Coquitlam.

Funding for completion of utility improvements will come from a variety of sources including:

- frontage improvements as part of site servicing requirements of individual developments,
- DCC funded capital works to support growth, and
- The City's Water Utility, and Sewer & Drainage Utility for capital replacement of infrastructure

Other government agencies and organizations like the Pacific Salmon Foundation may also contribute grants to improve the storm water system and aquatic habitat.

As many of the infrastructure improvements provide benefits within adjacent neighbourhoods and upstream or downstream areas, it is not expected that improvements be 100% funded from development within a particular neighbourhood. Non-DCC eligible costs will be recovered from the Sewer and Drainage Utility and will be determined through the annual Capital Budget process and reflected in future 5-year Financial Plans.

#### 3.1 Water System Improvements

The water system in Southwest Coquitlam is supplied by the GVWD Burnaby Mountain tank and Cape Horn reservoir, and distributed through a robust grid of City feeder mains and pump stations. To support anticipated growth in Southwest Coquitlam, a water servicing strategy to was developed with planned improvements as shown in Appendix E. These upgrades will be funded from water DCCs.

There are no DCC funded water infrastructure improvements directly located within the Maillardville Neighbourhood Plan boundary.

Watermains fronting individual developments, mainly in commercial and high density areas, may also need to be upsized to ensure fire flows can be delivered to the site. Costs for these improvements will be the responsibility of developers as part of their site servicing requirements.

### 3.2 Sanitary Sewer System Improvements

Sewage from the Maillardville area flows south to the GVS&DD Maillardville Interceptor, which runs along Brunette Avenue. The City recently completed a re-direction of flows south of Brunette Avenue to relieve capacity issues in the GVS&DD pipe.

An analysis of the City sewage collection system identified additional improvements needed to accommodate future planned development. Appendix E shows the upgrades required in Southwest Coquitlam while Table 7 lists the upgrades required within the Maillardville Neighbourhood Plan boundary. All of the sanitary sewer system improvements are currently funded in the DCC program.

The required pipe upsizing will be partially funded from sewer DCC's as only 1/3 of the pipe upsizing cost is attributed to growth. The remainder is funded from the Sewer and Drainage Utility as part of its program to replace aging infrastructure. Sewers fronting individual developments may also need to be upsized as part of the site servicing requirements.

Phasing of the improvements will depend on the pace of development and will be determined through the annual Capital priority-setting and budgeting process.

*Table 7 – Sanitary Sewer System Improvements in Maillardville*

	Project Description	Estimated Cost DCC Eligible (1/3)		Estimated Cost Non-DCC Eligible (2/3) <sup>5</sup>	Total Estimated Cost
		Funded	Unfunded		
A	Sanitary Sewer upgrade – Blue Mountain Street at various locations	\$66,000	-	\$132,000	\$0.2 M
B	Sanitary Sewer Upgrades – Casey Street from Rochester to Brunette Ave	\$825,000	-	\$1.65 M	\$2.5 M
	<b>TOTAL ESTIMATED COST</b>	<b>\$0.89 M</b>	<b>-</b>	<b>\$1.78 M</b>	<b>\$ 2.7 M</b>

### 3.3 Drainage System Improvements

Maillardville is located within the Nelson Creek, Como Creek, and Rochester Creek watersheds, and these creeks are the main drainage paths to safely convey rainwater runoff to the Fraser River.

As noted, an IWMP has been completed for the Nelson Creek watershed. The update to the existing Como Creek IWMP is nearing completion and the development of the Austin/Rochester Creek IWMP is underway. This assessment may be updated following the completion of the IWMPs, if applicable.

<sup>5</sup> Funded from the City's Sewer and Drainage Utility.

Historically, urban development has degraded stream water quality, reduced summer base flows and increased the intensity of runoff, which is eroding stream channels and impacting environmental health. The IWMPs set out policies and guidelines to manage rainwater in a way that protects aquatic habitat and provides flood protection. More specifically, strategies identified by these plans to mitigate these impacts and prevent further degradation, include:

- repair of channel erosion
- diversion of high flows to protect stream channels
- infiltration of runoff into the ground to mimic the natural watershed hydrology and preserve stream base flows (using City’s Rainwater Management guidelines)
- restoration of natural ecosystems

An analysis of the drainage system shows that sections of the storm sewers along Marmont, Gatensbury, Schoolhouse and Montgomery Streets are undersized for the future planned development in Southwest Coquitlam. The storm sewers should be upsized to accommodate both the projected flows and diversion of high flows from Nelson, Como, Booth and Popeye Creeks. Diverting high flows away from the creeks will prevent further channel erosion and improve aquatic habitat.

Table 8 and Appendix E show the proposed pipe upsizing that will be partially funded from drainage DCC’s. Like sanitary sewer improvements, only 1/3 of costs are attributed to DCC’s. The remainder is funded from the Sewer and Drainage Utility as part of its program to replace aging infrastructure. The majority of costs are currently funded in the DCC program; the remaining amounts will be added to the DCC program during the next DCC update. Phasing of the improvements will depend on the pace of development and will be determined through the Capital budgeting process.

In addition to the proposed measures, developers will be required to implement the City’s Rainwater Management Guidelines. Drainage pipes fronting individual developments may also need to be upsized as part of the site servicing requirements.

*Table 8 – Storm Sewer System Improvements in Maillardville*

	Project Description	Estimated Cost DCC Eligible (1/3)		Estimated Cost Non-DCC Eligible (2/3) <sup>6</sup>	Total Estimated Cost
		Funded	Unfunded		
C	Nelson Creek Storm Sewer Diversion/Upgrades	\$1.3 M	-	\$2.7 M	\$4 M
D	Como Creek - Rochester Ravine Improvements	\$0.2 M	-	\$0.4 M	0.6 M
E	Macdonald/Booth - Storm Sewer Diversion/Upgrades	\$0.22 M	\$30,000	\$0.45 M	0.7 M
F	Upper Booth/Popeye- Storm Sewer Diversion/Upgrades	-	\$0.9 M	\$1.8 M	2.7M
	<b>TOTAL ESTIMATED COST</b>	<b>\$1.72 M</b>	<b>\$0.93 M</b>	<b>\$5.35 M</b>	<b>\$8 M</b>

<sup>6</sup> Funded from the City’s Sewer and Drainage Utility.

### 3.4 Other Contributing Capital Projects

Other utility improvements in Southwest Coquitlam that support growth in Maillardville and surrounding neighbourhoods, have been either completed or are planned to be completed by outside agencies.

- New Popeye Creek culvert crossing of Highway No. 1 as part of the Provincial Gateway project. (Complete).
- Upsize the Nelson and Como creek culvert crossings of Highway No. 1 as part of the Provincial Gateway project. (Complete).
- Upgrade the GVWD Burnaby Mountain pump station to improve reliability of water supply by Metro Vancouver. (Scheduled for 2015).

## 4.0 PARKS

The Maillardville neighbourhood is supported by 17.2 hectares (42.5 acres) of existing park space, primarily consisting of Mackin, Rochester and Burns parks. The neighbourhood is further supported by the proposed Citywide and Neighbourhood greenways.

The Maillardville Neighbourhood Plan (MNP) proposes through the acquisition of additional park land to support a growing and changing population; an approach that reflects the existing level of park provision within Maillardville and adjacent neighbourhoods. This methodology is informed by the under development Parks, Recreation and Culture Master Plan.

The City also recently completed a \$2.7 million update and renovation of Mackin Park, with improvements funded through a variety of sources including DCCs, general revenue, grants and the infrastructure reserve fund. The revitalized Mackin Park both supports the existing community and provides new amenities for a growing neighbourhood.

### 4.1 Park Acquisition

To support future growth and development in Maillardville the City seeks to acquire a minimum of 1.4 hectares (3.5 acres) of new park land. 0.2 hectares (0.5 acres) of this is the ‘Booth Farm’ park, and an additional 1.2 hectares (3 acres) will be acquired in the future following the development of the Parks, Recreation and Culture Master Plan.

Table 9 presents the new park space intended to be acquired over the life of the Plan, which will be funded by Park Acquisition DCC’s. The majority of costs are currently funded in the DCC program; the remaining amounts will be added to the DCC program during the next DCC update. Phasing of the acquisition(s) will depend on the pace of development, PRC Master Plan priorities, and will be determined through the Capital budgeting process.

*Table 9 – Park Acquisition Projects*

	Project Description	Estimated Cost DCC Eligible		Total Estimated Cost
		Funded	Unfunded	
A	1.2 Hectares (3 Acres) of additional park space	\$10.5 M	-	\$10.5 M
B	Booth Farm Park – 0.2 hectares (0.5 acres)	-	\$ 1.75 M	\$1.75 M
	<b>TOTAL ESTIMATED COST to be secured through DCC’s</b>	<b>\$10.5 M</b>	<b>\$1.75 M</b>	<b>\$12.25 M</b>

### 4.2 Park Improvements

As noted in the MNP, improvements will need to be made to the Maillardville Trail and to future acquired park space (1.3 hectares). Table 10 identifies the estimated cost of improvements to both the Maillardville Trail and the new parkland. The majority of costs are currently funded in the DCC program; the remaining amounts will be added to the DCC program during the next DCC

update. Improvements to the Maillardville Trail include lighting, surface finishes, seating, and other amenities. The location and programming of the new parkland will be determined through a future parks planning process.

Table 10 – Park Improvement Projects

	Project Description	Estimated Cost DCC Eligible		Estimated Cost Non-DCC Eligible	Total Estimated Cost
		Funded	Unfunded		
A	Park Improvements to 1.2 hectares of new Park	\$1.4 M	-	\$0.2 M	\$1.6 M
B	Maillardville Trail	\$0.8 M	-	\$0.2 M	\$1.0 M
C	Booth Farm Park	-	\$0.3 M	\$0.1 M	\$0.4 M
	<b>TOTAL ESTIMATED COST</b>	<b>\$2.2 M</b>	<b>\$0.3 M</b>	<b>\$0.5 M</b>	<b>\$3.0 M</b>

The park improvement amount for Booth Farm Park does not include potential rehabilitation of the Booth Farm heritage home which is not DCC-eligible. The use and preservation of the Booth Farm Heritage home will be determined through future planning regarding the optimal use of this heritage resource. (See 4.3 below)

There are a number of park improvement amenities that are not eligible to be funded through DCCs (tennis courts, water play parks, sport courts, lighting, etc.) additional funding source(s) will need to be identified that may include, but are not limited to, capital funding, senior government grants, community amenity contributions, density bonus funding, developer contributions, and public-private partnerships.<sup>7</sup> Staff will work with Council to identify appropriate funding options as development of the neighbourhood proceeds. The phasing of the improvements will depend on the pace of development and the Capital priority-setting and budgeting process.

There are several other planned park improvements to existing parks which will help to support the vision of the Maillardville Neighbourhood plan.

In Burns Park, the water play area is scheduled for upgrading and improvement in 2013/14. This project is already funded through general revenue.

The Rochester Park ravine is scheduled for interpretive trail improvements that are DCC-eligible and is pending approval of the 2014-2018 Capital Budget. Rochester Park is also scheduled for further master planning work in late 2013/early 2014, which could result in further proposed improvements for this park space. This assessment may be updated to reflect future planned park improvements.

<sup>7</sup> Refer to the *Tennis Feasibility Study* and *Aquatic Infrastructure and Services Strategy* for further information.

### **4.3 Potential Future Facilities Projects**

Several significant community facilities which are located in Maillardville serve both the local neighbourhood and the wider community, including Place Maillardville, Place des Arts and Carré Heritage Square. These facilities may require capital upgrades in the future and this will be determined through a capital improvement priority setting process with Council.

Regarding the Booth Farm, there are a range of possible future uses for the heritage home as a civic/community amenity. A detailed analysis will be undertaken to determine the optimal use of the heritage building and grounds, along with preparing an operational funding plan for the restoration of the building and on-going maintenance and programming.

These community facilities can not be funded through DCC revenue, therefore additional funding source(s) will need to be identified that may include, but are not limited to, capital funding, capital borrowing, senior government grants, community amenity contributions (CACs), density bonus funding, and public-private partnerships.

## APPENDIX A – Dwelling Unit Projection

Table 11 – Projected Increase in Dwelling Units in Maillardville to 2031

	Apartment	Housing Choices	Single-Family	TOTAL
<b>Units</b>	2,250	320	220	<b>2,800</b>

### Assumptions:





- Unit projections are gross figures and do not include existing units lost to redevelopment.
- Average unit size:
  - Apartment 75 m<sup>2</sup> (800 sq. ft.)
  - Quadruplex 145 m<sup>2</sup> (1560 sq. ft.)
  - Triplex 140 m<sup>2</sup> (1500 sq. ft.)
- The DCC projections in Table 1 include an estimate of 48,300 m<sup>2</sup> (520,000 sq.ft.) of new commercial floorspace






# APPENDIX B

## Maillardville Transportation Improvement Projects Plan City Projects

### Citywide Greenways

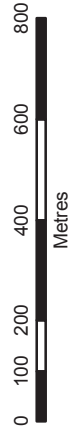
-  A - Citywide Greenway
-  A - Alternative Greenway Alignment
-  B - Nelson Street Citywide Greenway (STP)
-  B - Alternative Greenway Alignment

-  Neighbourhood Plan Boundary
-  Conceptual Parkette Type 1
-  Conceptual Parkette Type 2

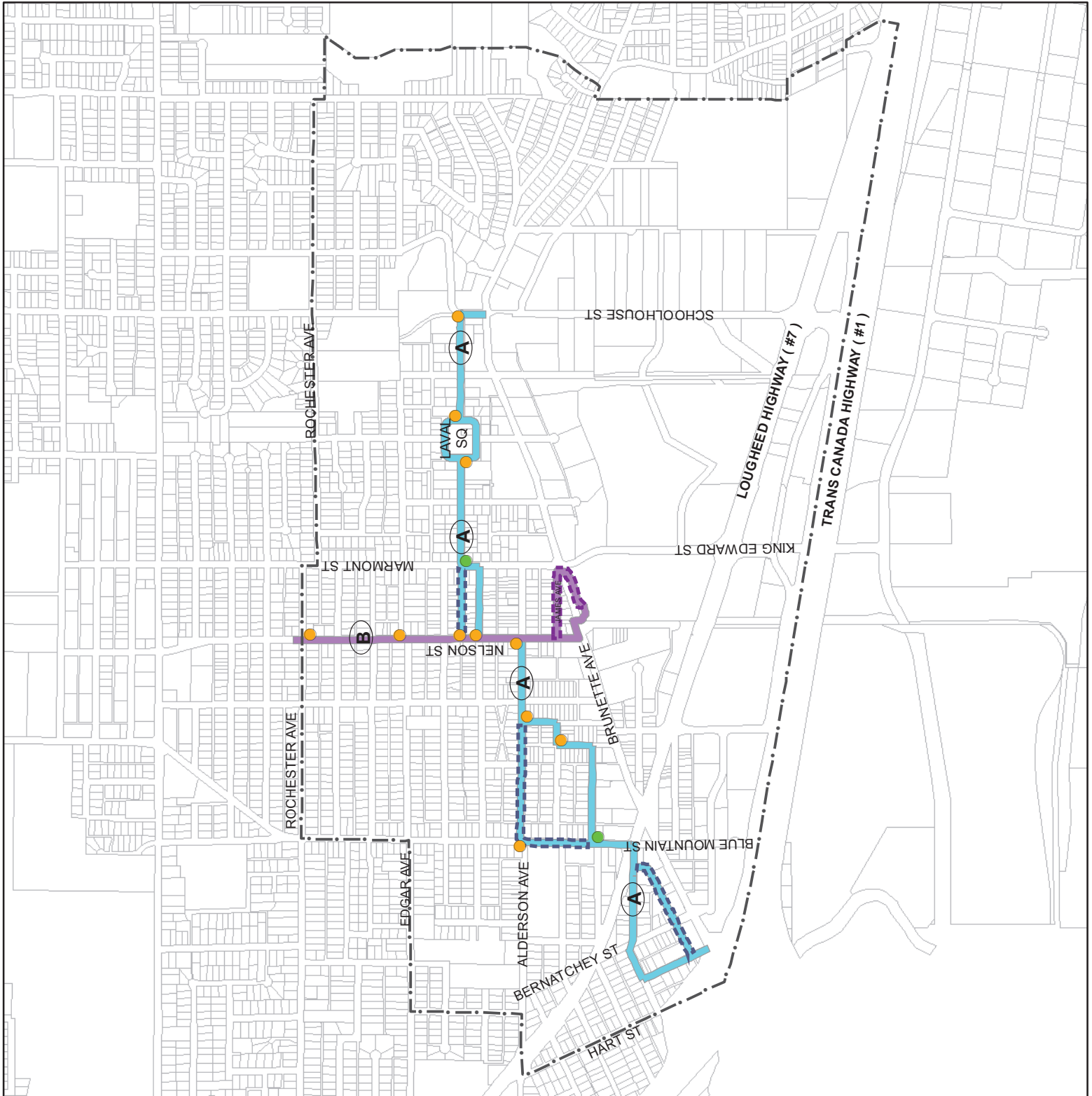
### NOTES:

Two additional pedestrian crossings of Brunette Ave will be constructed by the City. (Locations to be determined in accordance with redevelopment)

See Maillardville Streetscape Guidelines for additional information on Greenways and Parkettes.



Map Date: November 18, 2013  
 Map Projection: UTM Nadt1983  
 Prepared By: Engineering and Public Works  
 Source: City of Coquitlam



# APPENDIX C

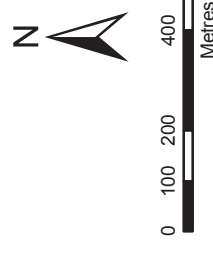
## Maillardville Transportation Improvement Projects Plan Other Supporting Projects

- Neighbourhood Greenways**
- █ C - Neighbourhood Greenway
  - █ C - Alternative Greenway Alignment
  - D - Neighbourhood Greenway Intersection Improvements

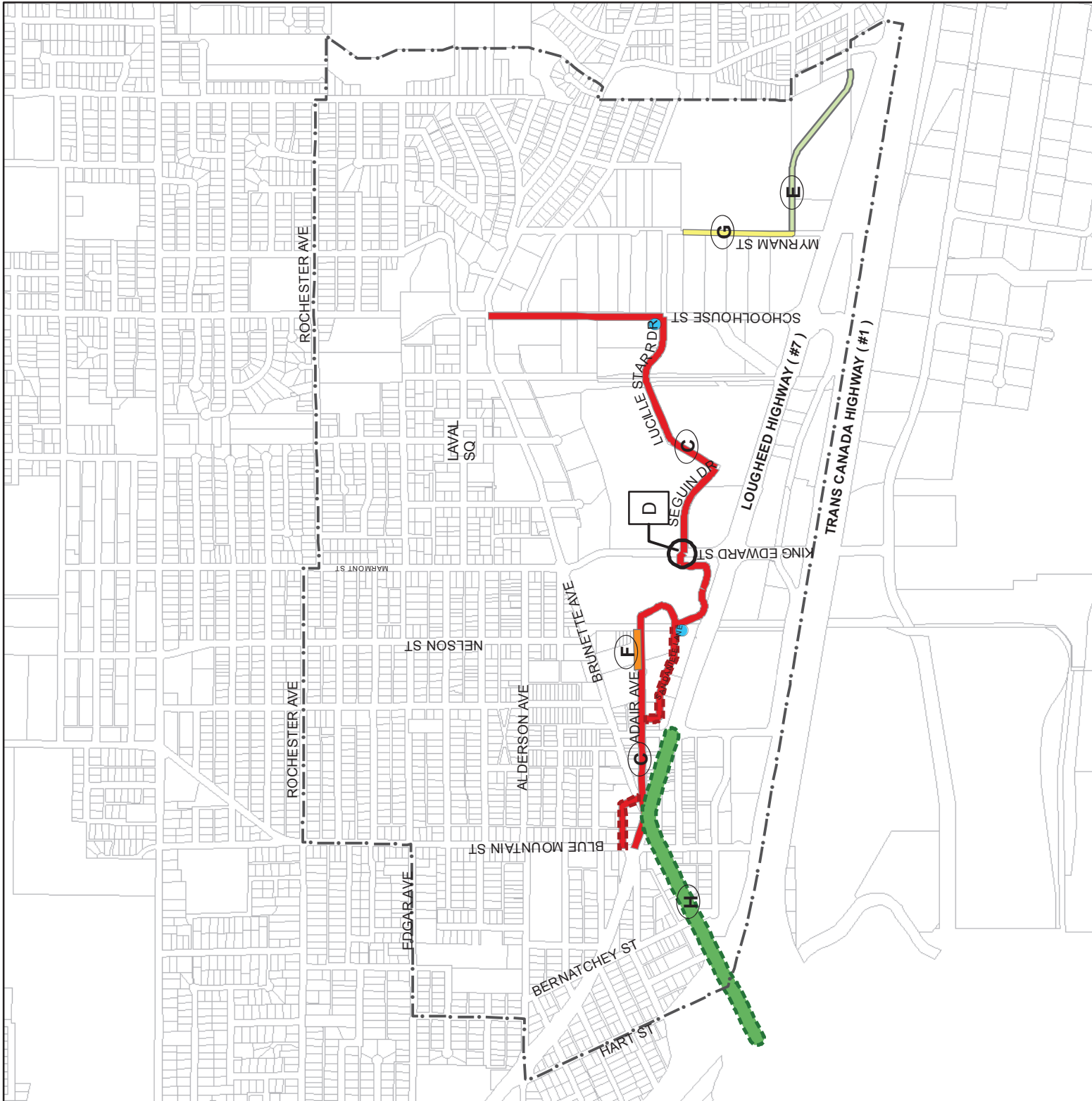
- Street Extensions**
- █ E - Myrnam Coleman Connector
  - █ F - Adair Avenue Extension
  - █ G - Myrnam Street Extension

- Regional Corridor Improvements**
- █ H - Brunette-Lougheed Corridor with Bike/Pedestrian Facilities at Brunette Interchange
  - Neighbourhood Plan Boundary
  - Conceptual Parkette Type 2

**NOTES:**  
See Maillardville Streetscape Guidelines for additional information on Greenways and Parkettes.



Map Date: November 18, 2013  
Map Projection: UTM Nadt983  
Prepared By: Engineering and Public Works  
Source: City of Coquitlam

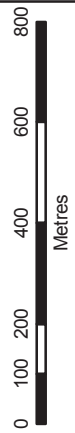


# APPENDIX D

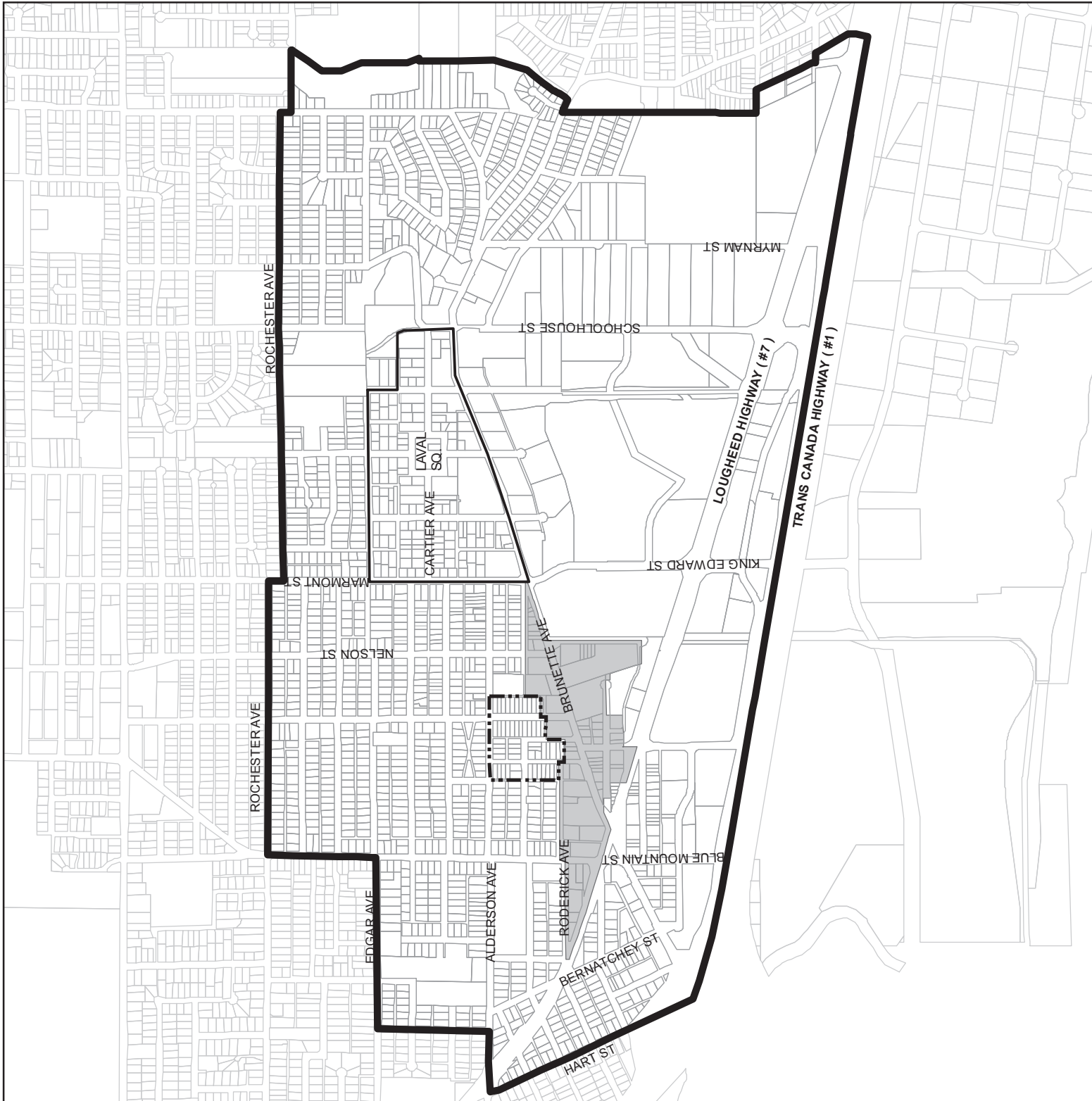
## Maillardville Transportation Improvement Projects Plan

### LEGEND

- Allard-Lebleu
- Laval Square
- Neighbourhood Centre



Map Date: November 18, 2013  
Map Projection: UTM Nadt983  
Prepared By: Engineering and Public Works  
Source: City of Coquitlam



# APPENDIX E

## Southwest Coquitlam Water, Sewer and Drainage Projects

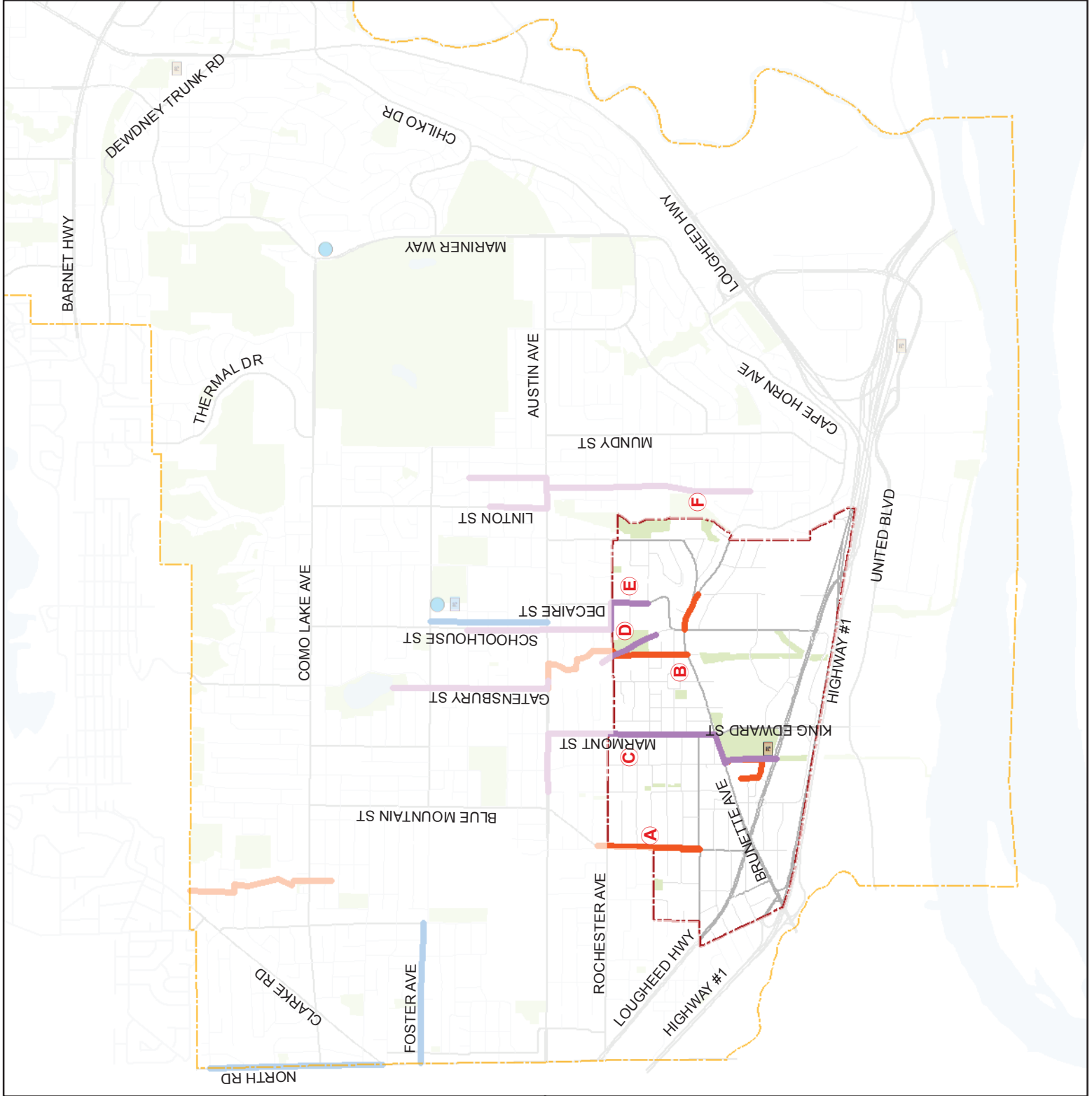
### LEGEND

- City Boundary
- Maitlandville NP Boundary
- Water Main Improvements
- Sanitary Sewer Improvements
- Storm System Improvements
- Water Reservoir Improvements
- Water Pump Station Improvements
- Sanitary Pump Station Improvements

- Sanitary Sewer Upgrade  
Blue Mountain (various locations)
- Sanitary Sewer Upgrade  
Casey from Rochester to Brunette
- Nelson Creek Storm Sewer  
Diversion/Upgrades
- Como Creek  
Rochester Ravine Improvements
- Macdonald/Booth Creek  
Storm Sewer Diversion/Upgrades
- Upper Booth/Popeye  
Storm Sewer Diversion/Upgrades



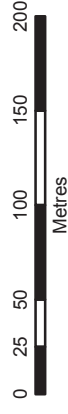
Map Date: November 18, 2013  
 Map Projection: UTM Nadt983  
 Prepared By: Engineering and Public Works  
 Source: City of Coquitlam



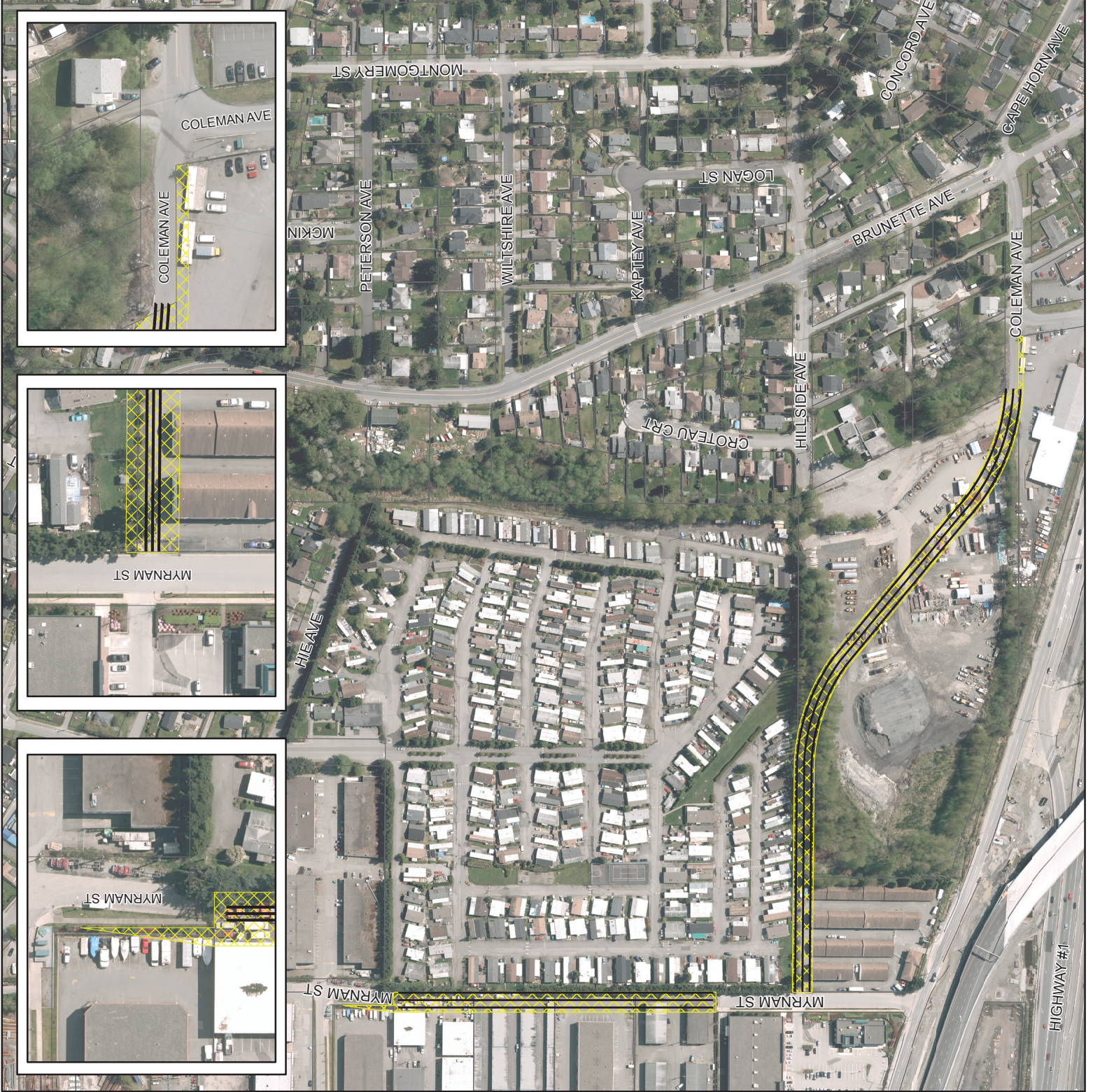
# APPENDIX F Myrnam-Coleman Connector Conceptual Plan

## LEGEND

-  Myrnam Coleman Connector
-  Transitions



Map Date: October 21, 2013  
 Map Projection: UTM Nad1983  
 Prepared By: Planning & Development  
 Source: City of Coquitlam - OCP GIS layer

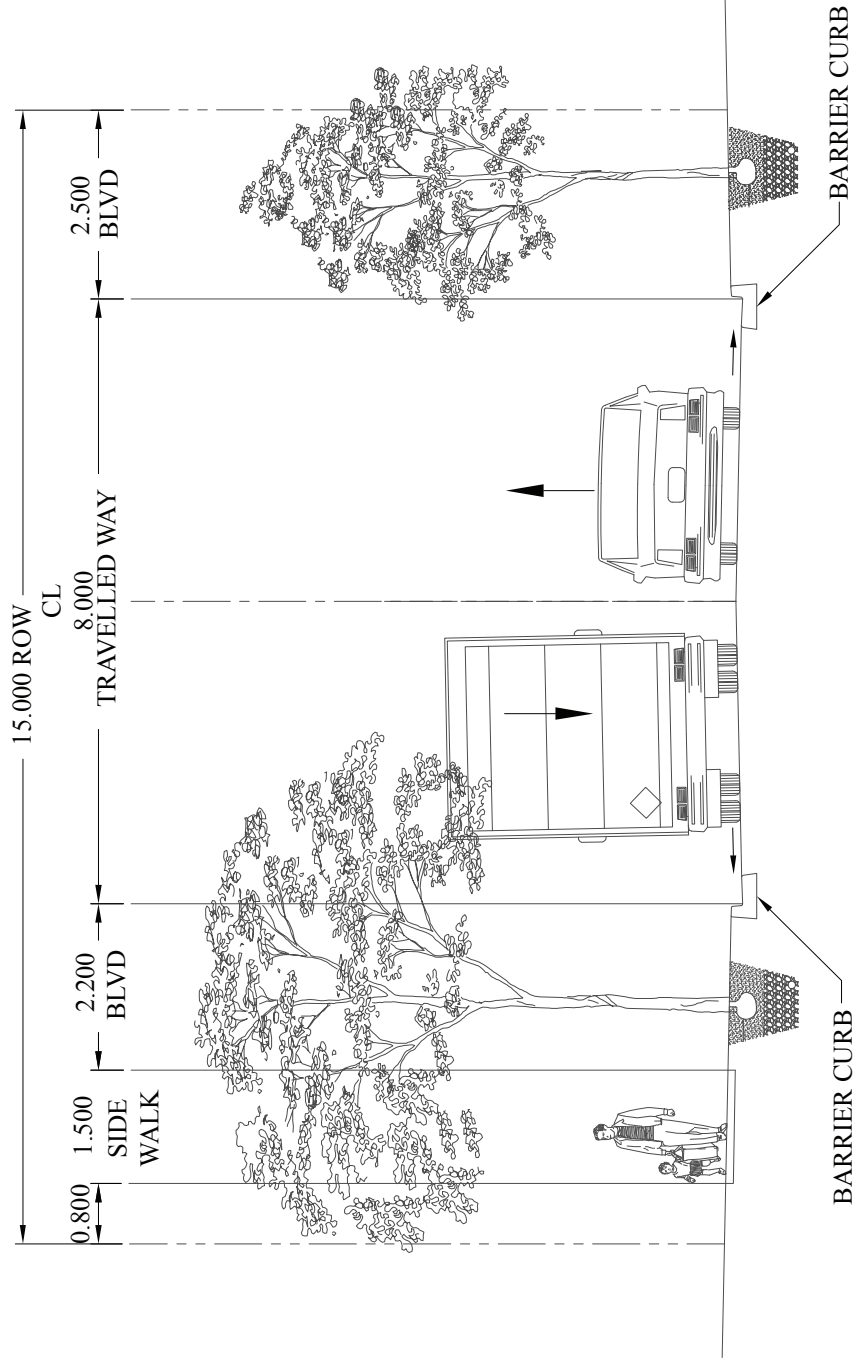


**APPENDIX G**  
**MYRNAM-COLEMAN**  
**CONNECTOR**  
**Conceptual Section**  
**Option A**

**NOTES:**

1. Allows future widening to standard collector
2. Service road - no street parking

Map Date: October 21, 2013  
 Map Projection: UTM Nadd1983  
 Prepared By: Engineering and Public Works  
 Source: City of Coquitlam

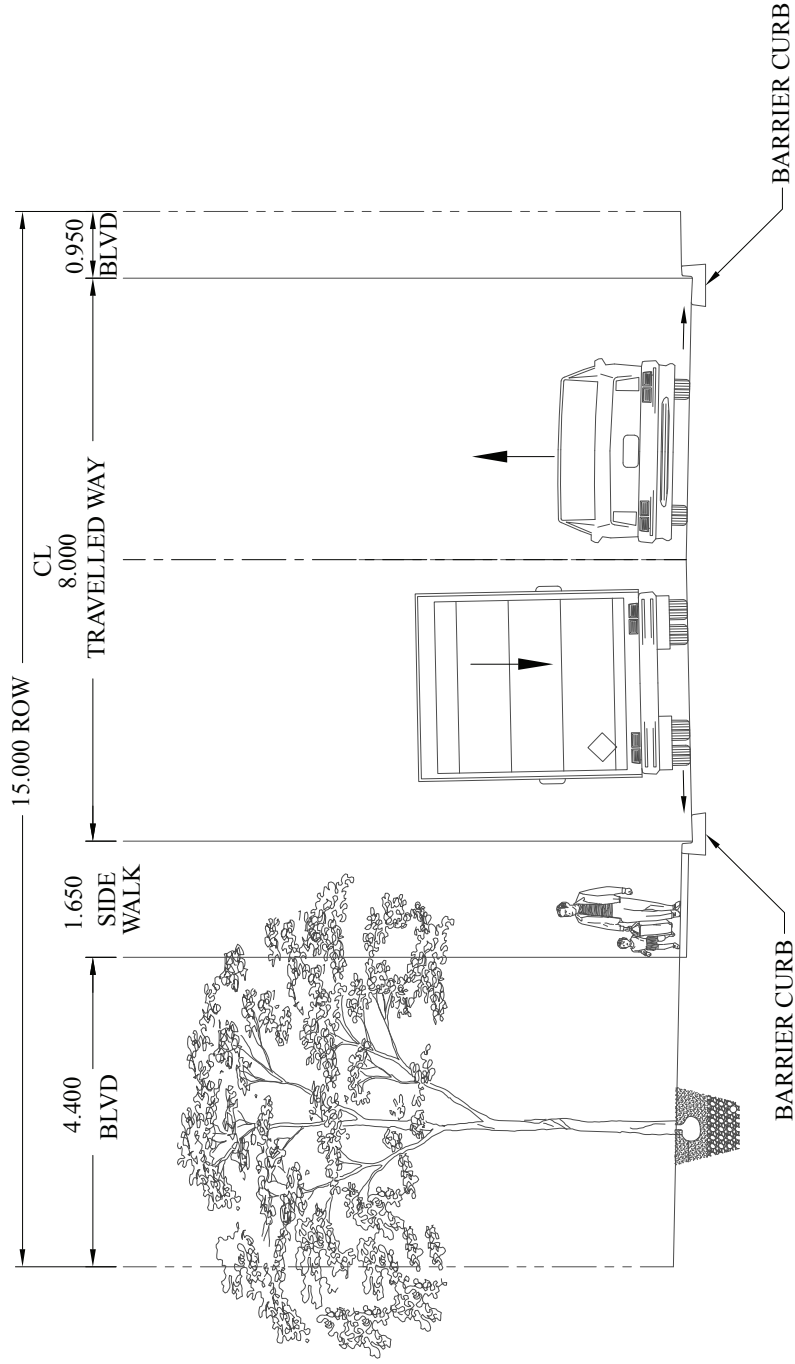


**APPENDIX H**  
**MYRNAM-COLEMAN**  
**CONNECTOR**  
**Conceptual Section**  
**Option B**

**NOTES:**

1. Minimized impact on existing structures
2. Service road - no street parking

Map Date: July 29, 2013  
 Map Projection: UTM Nadd1983  
 Prepared By: Engineering and Public Works  
 Source: City of Coquitlam



# APPENDIX I

## Access Control

### LEGEND

- Streets requiring alternate access control

### Notes:

Appropriate alternate access will be determined at the time of development



Map Date: November 18, 2013  
Map Projection: UTM Nadt983  
Prepared By: Engineering and Public Works  
Source: City of Coquitlam

