



City of Richmond

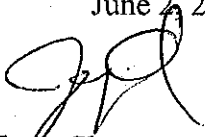
Report to Committee

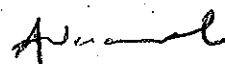

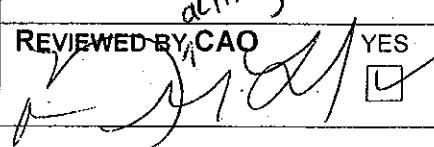
To: Planning Committee  
From: Jerry Chong  
Director, Finance  
Re: Proposed DCC Program and Rates Bylaw

TO Planning - Jun 17, 2008  
Date: June 2, 2008  
File: 12-8060-20-8024/8396  
XR: 08-4045-20-10

Staff Recommendation

- 1) That Development Cost Charges Bylaw No. 8024, Amendment Bylaw No. 8396 which amends the 2008 Development Cost Charge (DCC) Program and is required to implement the proposed new City Centre Area Plan, be introduced and given first reading.
- 2) That staff be directed to obtain public input regarding the draft 2008 Development Cost Charge (DCC) Program and Bylaw as per the report from the Director, Finance dated June 2, 2008, and report back to Council in July 2008.

  
Jerry Chong  
Director, Finance  
(4064)

FOR ORIGINATING DIVISION USE ONLY					
ROUTED TO:	CONCURRENCE		CONCURRENCE OF GENERAL MANAGER		
Budgets.....	Y	<input checked="" type="checkbox"/> N <input type="checkbox"/>			
Economic Development.....	Y	<input checked="" type="checkbox"/> N <input type="checkbox"/>			
Real Estate Services.....	Y	<input checked="" type="checkbox"/> N <input type="checkbox"/>			
Engineering.....	Y	<input checked="" type="checkbox"/> N <input type="checkbox"/>			
Law.....	Y	<input checked="" type="checkbox"/> N <input type="checkbox"/>			
Parks Planning, Design & Construction ...	Y	<input checked="" type="checkbox"/> N <input type="checkbox"/>			
Policy Planning.....	Y	<input checked="" type="checkbox"/> N <input type="checkbox"/>			
Development Applications.....	Y	<input checked="" type="checkbox"/> N <input type="checkbox"/>			
Transportation.....	Y	<input checked="" type="checkbox"/> N <input type="checkbox"/>			
<b>REVIEWED BY TAG</b>	YES	NO	<b>REVIEWED BY CAO</b>	YES	NO
	<input checked="" type="checkbox"/>	<input type="checkbox"/>	 <i>acting</i>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

## Staff Report

### Origin

#### *Introduction*

Section 933 of the *Local Government Act* authorizes municipalities to levy development cost charges (DCCs) to recover:

- infrastructure servicing capital costs for roads, drainage, water, and sanitary sewer systems, and
- parkland acquisition and development costs

related directly or indirectly to the developments to be assessed. DCCs must only be used for new growth in the City, as opposed to maintaining existing services. The City of Richmond has levied DCCs since 1979, when they were introduced by provincial government legislation.

Development cost charge bylaws must be reviewed periodically to ensure consistency with development and servicing plans and to accurately reflect construction costs. The last review of the DCC programs and rates was completed in 2006. Subsequent to that review, the City initiated an update to its long-term land use plan for the City Centre. This new plan refocuses the development potential in the City Centre and, consequently, will require additional investments in infrastructure and parkland. The City must now revise its DCC rates to reflect these recent changes.

In 2006, Richmond City Council initiated a strategic update of the City Centre Area Plan (CCAP) which was approved in principle in February 2007. Over the past year, City staff and consultants have been refining the CCAP CONCEPT in order to prepare a new CCAP Bylaw, which will include an Implementation Strategy. As part of the Implementation Strategy, staff has completed a review of the development cost charge bylaw with the assistance of **Urban Systems Limited** (CCAP Implementation Strategy), and has recommended a new set of DCC rates that reflect the development plan expressed in the CCAP. The proposed DCC Program itemizes all infrastructure, parkland acquisition, and parkland development projects that are necessary to support new growth throughout the City and that will be funded (in part) by DCCs.

DCCs can be implemented City-wide or on an area-specific basis. In a City-wide DCC, the same DCC rate is applied for each land use deemed to generate the same or similar capital cost burden regardless of the location of the development. An area-specific DCC typically divides the community into different areas according to geographic or other distinctive areas based on technical engineering reasons.

Staff has opted to recommend a City-wide DCC rather than an area-specific DCC for the following reasons:

- **All development throughout the City is expected to benefit from DCC works.** The provincial *DCC Best Practices Guide* recommends that roads, parks, water, sanitary and drainage DCCs be established on a municipal wide basis unless there is a significant

disparity between those who pay the DCCs and those who benefit. It is expected that the proposed DCC program will benefit all areas of growth throughout the City.

More specifically, the City Centre is the location of most, if not all, of the major facilities that attract residents, and businesses, from all over Richmond. Accordingly, the roads network is required to provide convenient access and egress to and throughout the City Centre. Similarly, the parkland serves not only the area residents and businesses, but also those who are attracted to the major facilities in the City Centre. For water, sanitary and storm sewers the DCC program will benefit users in all parts of the City. There are no significant technical or topographic constraints that justify establishing these utilities on an area-specific basis.

- **City-wide DCCs provide flexibility.** The City-wide DCC model gives the City the most flexibility in terms of accumulating and spending DCC revenues. Area-specific DCCs can limit the amount of DCCs available to fund works by having multiple DCC reserves with a small amount in different reserves. This fragmentation may mean that the City and developers could have to wait a significant time for sufficient DCC revenues to accumulate before any works can be built. Furthermore, collecting City-wide DCCs gives the City the flexibility to construct DCC works anywhere in the City with accumulated DCC reserves.
- **City-wide DCCs reduce administrative complexity.** The existing DCC bylaw is applicable throughout the City. Having a City-wide DCC can reduce the complexity of collecting the DCC and cost of administering the DCC reserves. A City-wide DCC bylaw is often simpler for front counter staff to administer and can reduce the staff time required to assess, collect and expend the DCCs. The reduced administration effort associated with a City-wide DCC can be significant.

### ***Bylaw Adoption Process***

The following describes the process for adopting a new DCC Bylaw:

1. Planning Committee recommends 1st reading to DCC Bylaw and public meeting
2. Council gives 1st reading to DCC Bylaw and authorizes public meeting
3. Public meeting re: proposed new DCC Bylaw (including any requested meeting with UDI, GVHBA, NAIOP)
4. Staff review public input and prepare any necessary revisions to DCC Bylaw
5. Council gives 2nd and 3rd reading to DCC Bylaw (or amends the DCC Bylaw and gives 2nd and 3rd reading if revisions necessary due to public input)
6. Bylaw review and approval by provincial Inspector of Municipalities
7. Council adopts (gives 4th reading) to DCC Bylaw
8. DCC Bylaw and Program implemented 1 year after adoption

A draft DCC Program and Bylaw have been prepared, ready for the review of Planning Committee in accordance with step (1) above.

## Analysis

The two main inputs necessary to formulate development cost charge rates are:

- (1) the **development plan** as expressed in the *Official Community Plan*, and specific neighbourhood plans such as the CCAP, and
- (2) the **infrastructure servicing and parkland acquisition and development** programs required to adequately service the expected new development.

In keeping with the infrastructure and parks planning that has been completed, the proposed development cost charges are based on projected development and servicing for the 2007 to 2031 time period. In some cases the proposed infrastructure will service new development beyond the 2031 period.

### *Development Plan*

The development plan used for the proposed DCC bylaw projects development is summarized as follows:

City-Wide Growth Estimates

Land Use	Growth (2007-2031)
Residential	2,412 single-family residential lots and 34,556 multiple-family residential dwelling units
Commercial	1,327,373 m <sup>2</sup> building area
Light Industry	3,445,725 m <sup>2</sup> building area
Major Industry	429 ha site area

The plan anticipates:

- 1) almost 120,000 (90,000 by 2031) Richmond residents, in predominantly multi-family housing mainly in the City Centre
- 2) a growth of approximately 4.8 million square metres of commercial and light industry floor space, primarily in the City Centre and north Richmond.
- 3) considerable new major (or heavy) industry development concentrated in the Fraser Port lands, and on Mitchell/Twigg Island.

Because of the CCAP, these growth estimates differ significantly from that used in determining the DCC rates in 2006.

### *Infrastructure Servicing*

Development cost charges may be levied by local governments to recover the capital costs of providing roads, drainage, water, and sanitary sewer infrastructure systems, and of acquiring and developing parkland, related directly or indirectly to the developments to be assessed. The total infrastructure servicing necessary to provide adequately for the expected new development is

summarized in the table below. The amounts represent the proposed costs to be recovered through DCCs:

<b>Infrastructure</b>	<b>Amount*</b>
Transportation (roads)	\$ 525,740,492
Drainage	\$ 210,020,330
Water	\$ 38,624,892
Sanitary Sewer	\$ 122,426,551
<b>Total</b>	<b>\$ 896,812,265</b>

\*amounts shown are City-wide DCC recoverable costs (i.e. total cost attributed to development less municipal assist factor)

The details of the infrastructure programs are included in the CCAP Implementation Strategy.

The infrastructure program total has increased over the program (approximately \$318.5 million) included with the last DCC Rates bylaw in 2006. There are two main reasons for this increase:

- The increase in the proposed Roads Program is due to significant cost escalation in both construction and land, and the addition of road works in the City Centre to support the projected growth based on an updated City Centre Transportation Plan.
- The utility infrastructure programs (water, sanitary, and drainage) have also been subject to significant construction and land cost escalation. More importantly, however, the City and its consultants have completed a number of studies as part of the CCAP to identify infrastructure needed to support development in the City Centre. The City has:
  - updated the City-wide water model for the City Centre area;
  - updated the City-wide sanitary model for the City Centre, Fraserview, and Bridgeport sanitary study areas; and
  - consolidated the existing drainage models into a new West Richmond drainage model.

These studies have provided Staff with more accurate, supportable programs to service new development.

### ***Parkland Acquisition and Development***

The requirement for new parkland is driven primarily by population growth. CCAP parkland guidelines of 3.25 acres of parkland for every 1,000 residents in the City Centre and 7.66 acres per 1,000 residents outside the City Centre. Presently there is approximately 189 acres of existing park and open space in the City Centre, which includes 43 acres that are existing school sites. The total projected requirement for new parkland in the City Centre by 2031 is 292.5 acres, of which approximately 54 acres will be acquired through the proposed new DCC Program. The net City-wide DCC recoverable costs for this new development is \$315,962,198.

DCCs for parkland development are permitted to provide fencing, landscaping, drainage and irrigation, trails, restrooms, changing rooms, playground and playing field equipment on

parkland. The net City-wide DCC recoverable costs to be recovered as a result of this new development are \$133,388,053.

A summary of the parkland acquisition and development programs is included in Section 10 of the CCAP Implementation Strategy. The largest increase in the parkland program is the cost of land in the City Centre. Parkland acquisition and development costs have not been adjusted for other parts of the community. A large part of the program (about \$301 million in parkland acquisition and development costs) is planned for the City Centre, where park development is much more intense, and costly.

Unlike most other municipalities, Richmond has levied DCCs for parkland on commercial and industrial categories of development since development cost charges were introduced. The rationale is that, even though the requirement for new parkland is primarily population-driven and therefore should accrue to residential development, the employees of new commercial and industrial developments do create a new burden on City parkland. That burden is considerably less than that created by new residents, however, and that difference has been reflected in the development charge rates levied on commercial and industrial development.

### ***Benefit Factors and Assist Factor***

DCCs may be levied to recover the costs of infrastructure and parkland related directly or indirectly to the developments to be assessed. All of the infrastructure projects and parkland acquisitions and development in the new DCC Program are necessary to service the expected new development. Nevertheless, it is apparent that some benefits from the new work may accrue to existing development, and that different works may benefit existing development differently. In developing DCC rate bylaws, municipalities are expected to recognize the benefits of the DCC programs to existing residents and businesses, and fund that portion from City sources.

The majority of projects in the new DCC program benefit only new growth. However, some projects are needed both to support growth and address existing problems. The portion of the program remedying existing problems has been deducted from the DCC program, and must be funded by City sources.

Section 933(2) of the *Local Government Act* specifies that DCCs are to be used "to assist the local government" to pay for the costs of the infrastructure and parkland programs. Therefore the local government must contribute a portion of the program costs; this is known as the **assist factor**.

The assist factor has traditionally been seen as a measure of the degree to which a municipality wishes to encourage development. However, most local governments have opted for a minimal assist factor (the minimum is 1 percent) in favour of making new development pay its way, since whatever is not levied in DCCs must be funded from City sources. Although UDI has requested that the benefit factors be increased, Urban Systems and staff do not believe this is appropriate because the work done on the CCAP has clearly identified who benefits from the required infrastructure servicing and parkland acquisition and development and that these benefit factors

are correctly reflected in the proposed DCC Program. Consistent with previous DCC bylaws, the assist factor used to calculate the new rates for all types of servicing is **1 percent**.

### ***Development Cost Charge Rates***

Consistent with the current DCC rates, the new DCC rates proposed are intended for application in all areas of the City.

The new DCC rates proposed are summarized as follows:

<b>Development Category</b>	<b>Rate basis</b>	<b>Existing DCC</b>	<b>Proposed DCC</b>	<b>% increase</b>
Single family	Per lot	\$21,457	<b>\$28,004</b>	31%
Townhouse	Per unit (based on 1,350 ft <sup>2</sup> unit)	\$16,120	<b>\$21,586</b>	34%
Apartment	Per unit (based on 950 ft <sup>2</sup> unit)	\$11,746	<b>\$15,856</b>	35%
Commercial	Per ft <sup>2</sup> of building area	\$9.20	<b>\$12.25</b>	33%
Light Industry	Per ft <sup>2</sup> of building area	\$7.49	<b>\$9.91</b>	32%
Major Industry	Per acre of gross site area	\$83,812	<b>\$102,735</b>	23%

The total of the combined infrastructure servicing and parkland programs has increased approximately 46 percent over the 2006 DCC program (in DCC recoverable costs). However, the DCC rates have risen by only 22% to 35% due to increased development estimates.

Consistent with how the City's current DCC rates were developed, Urban Systems allocated costs across land uses by estimating the burden that each land use creates for each type of program. This methodology is commonly used by many municipalities in British Columbia, and is recommended for use in the provincial *Development Cost Charges Best Practices Guide*.

The attached appendices provide a comparison of DCCs in the region. Richmond's proposed single family and townhouse DCCs (not including regional DCCs) would be one of the highest in the region. The proposed apartment DCCs would also be among the highest, just behind Vancouver, Surrey, and Port Coquitlam.

Another way of attaching some perspective to DCC rates is in relation to housing prices. According to the Real Estate Board of Greater Vancouver, the benchmark price of a detached single-family dwelling in Richmond in February 2008 was \$774,133, and an apartment was \$313,756. Two years prior, about when the current DCCs were introduced, the figure for a single-family dwelling was \$584,449, and for an apartment was \$245,065.

Dwelling type	February 2006 price	February 2006 DCC	%	February 2008 price	February 2008 DCC	%
Detached	\$584,449	\$21,457	3.7%	\$774,133	\$28,004	3.6%
Apartment	\$245,065	\$11,746	4.8%	\$313,756	\$15,856	5.0%

As the table above shows, the percentage of DCCs to housing prices is in line with the adoption of the new DCC rates.

### *Application of Development Cost Charges*

#### *Implementation*

The proposed new DCC rates have increased due to the requirements and increased costs in order to accommodate development. In reviewing development cost charges it is incumbent on municipalities to recognize that current and near-term development industry plans are generally based on known costs. When introducing charges with substantial increases, therefore, municipalities have often taken the approach of allowing a 'grace period' to allow the industry to adapt to the new costs. The City's last DCC increase allowed such a grace period and it has been requested by UDI again this time. Therefore, it is proposed that the new DCC Bylaw and rates come into force and effect one year after the bylaw is adopted. This means:

- all building permit and subdivision applications are given a one year (from adoption of the bylaw) grace period to be completed (e.g., the building permit is issuable or the subdivision application is approved).
- all building permit and subdivision applications which are incomplete (e.g. the building permit is not issuable or the subdivision application is not approved) before the new bylaw comes into force and effect (one year after adoption) will be subject to the new DCC rates.
- all building permit and subdivision applications received after the new bylaw comes into force and effect do not get any additional grace period and DCCs must be paid at the new DCC rates

Council may also consider other measures for allowing the development industry to adjust to the new rates, such as delaying the effective date of the bylaw to beyond one year. However, based on current DCC revenue projections, any further delay in implementation will result in a loss of DCC revenues, with a consequent delay in undertaking necessary works and acquisitions.

### **Financial Impact**

New development cost charge rates are required to provide the funds necessary for anticipated growth, in accordance with the current *Official Community Plan*, and at the levels of service and standards for infrastructure servicing and parkland adopted by Council.

While DCCs will pay for the majority of infrastructure and park costs needed to support development, the City will still be responsible for a share of the costs through the municipal



assist factor (1% of DCC recoverable costs). The City will also be responsible for the portion of infrastructure costs allocated to existing development.

### Conclusions

Section 933 of the *Local Government Act* authorizes municipalities to levy development cost charges to recover:

- **infrastructure servicing capital costs** for roads, drainage, water, and sanitary sewer systems, and
- **parkland acquisition and development costs**

related directly or indirectly to the developments to be assessed.

Staff has recently completed a thorough review of the Development Cost Charge Bylaw and has recommended a new DCC Bylaw in consideration of:

- the development plan expressed in the *Official Community Plan*, and
- the infrastructure and parkland necessary to adequately service the expected new development.

Staff believes that the development cost charge rates shown in the attached bylaw are required to produce the necessary revenue to fund the infrastructure and parkland expected during the 2007 to 2031 period, at the levels of service and standards adopted by Council.

The draft Development Charge Program and Bylaw should now be made available to the public for review.

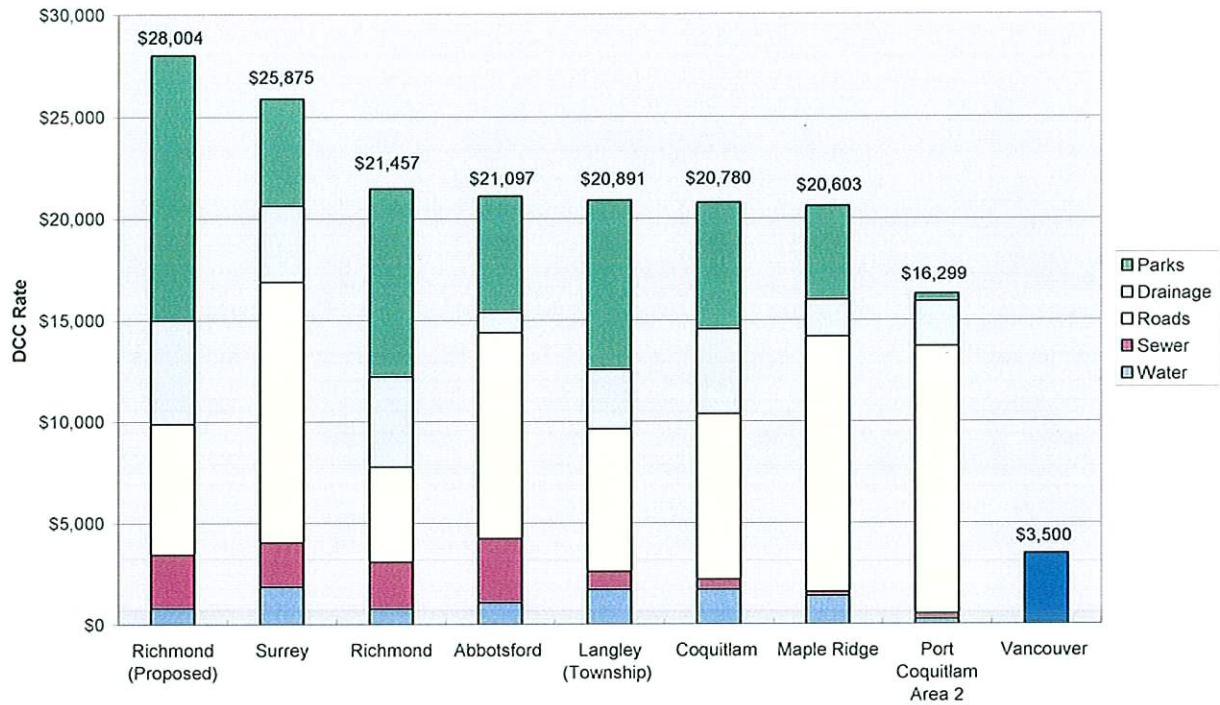


Jerry Chong  
Director, Finance  
(4064)

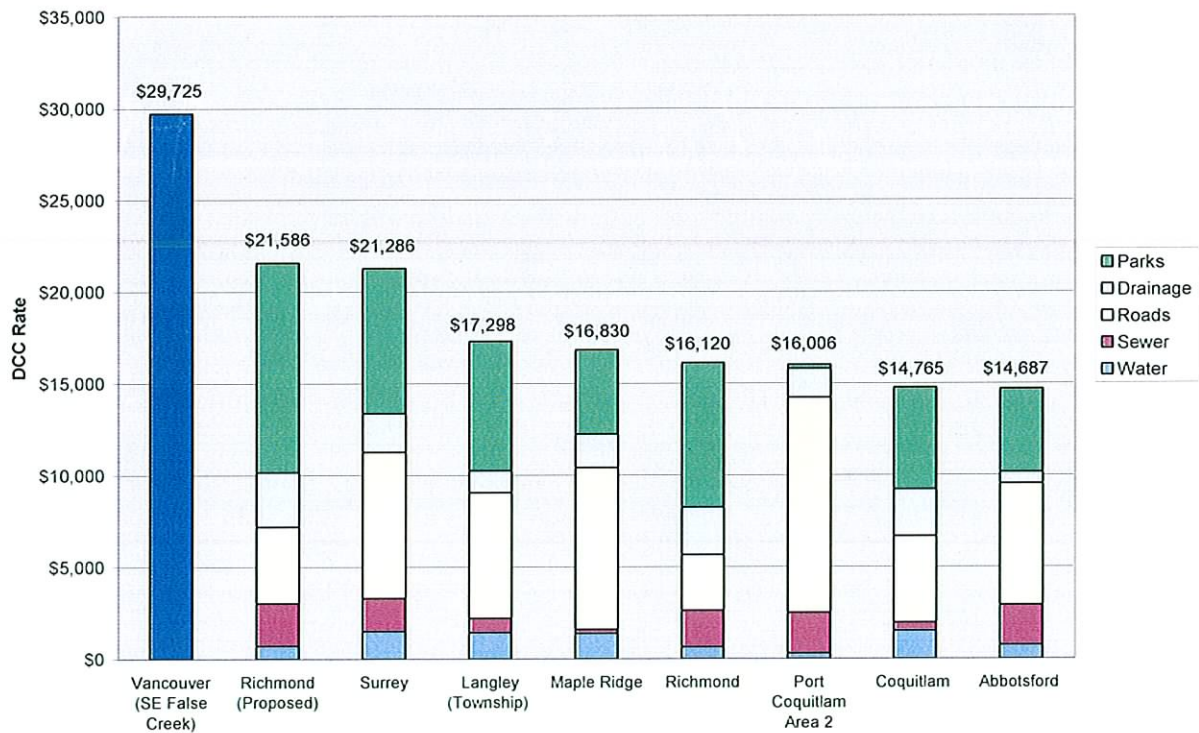


Holger Burke  
Development Coordinator  
(4164)

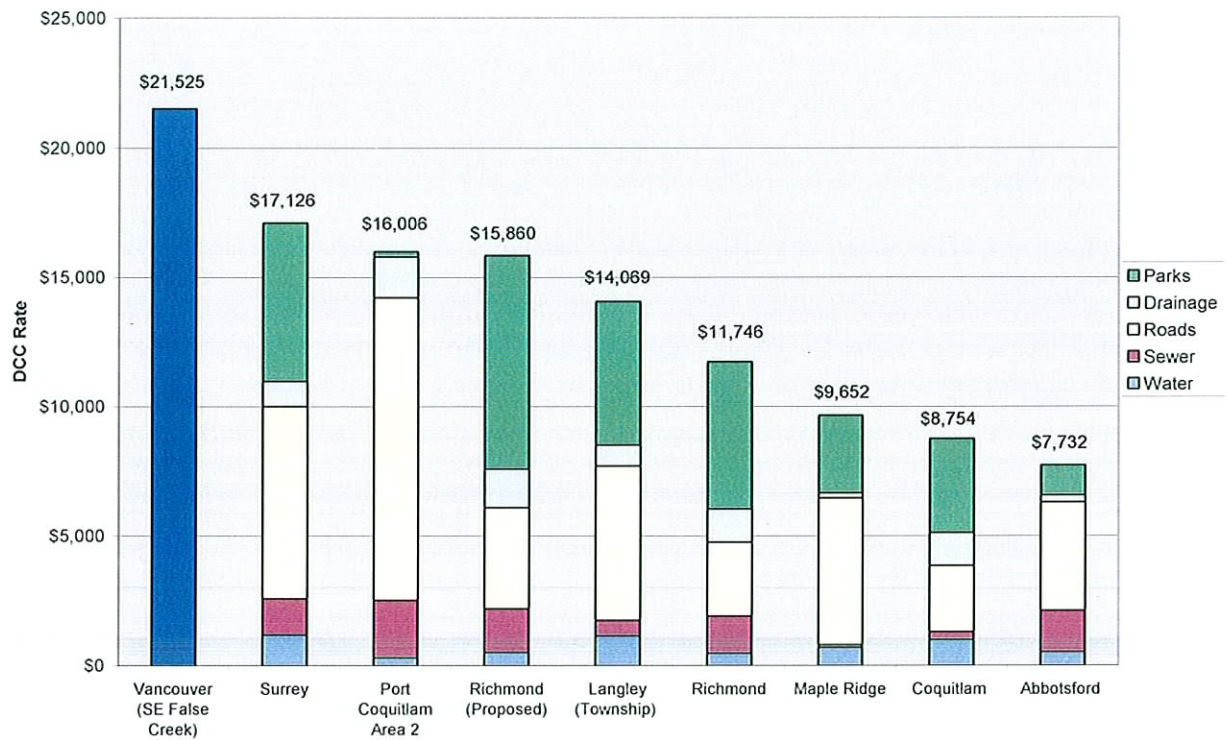
**SINGLE FAMILY DCC COMPARISON (PER LOT)  
WITHOUT REGIONAL DCCS**



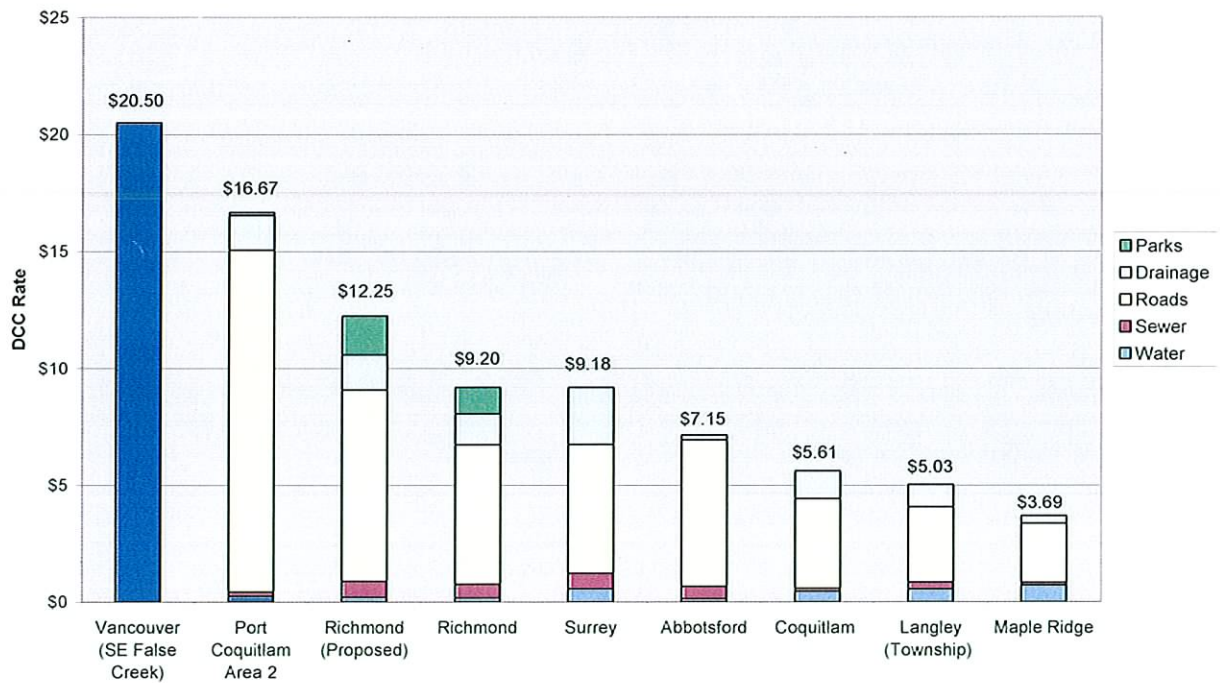
**TOWNHOUSE DCC COMPARISON (PER UNIT)  
WITHOUT REGIONAL DCCS**



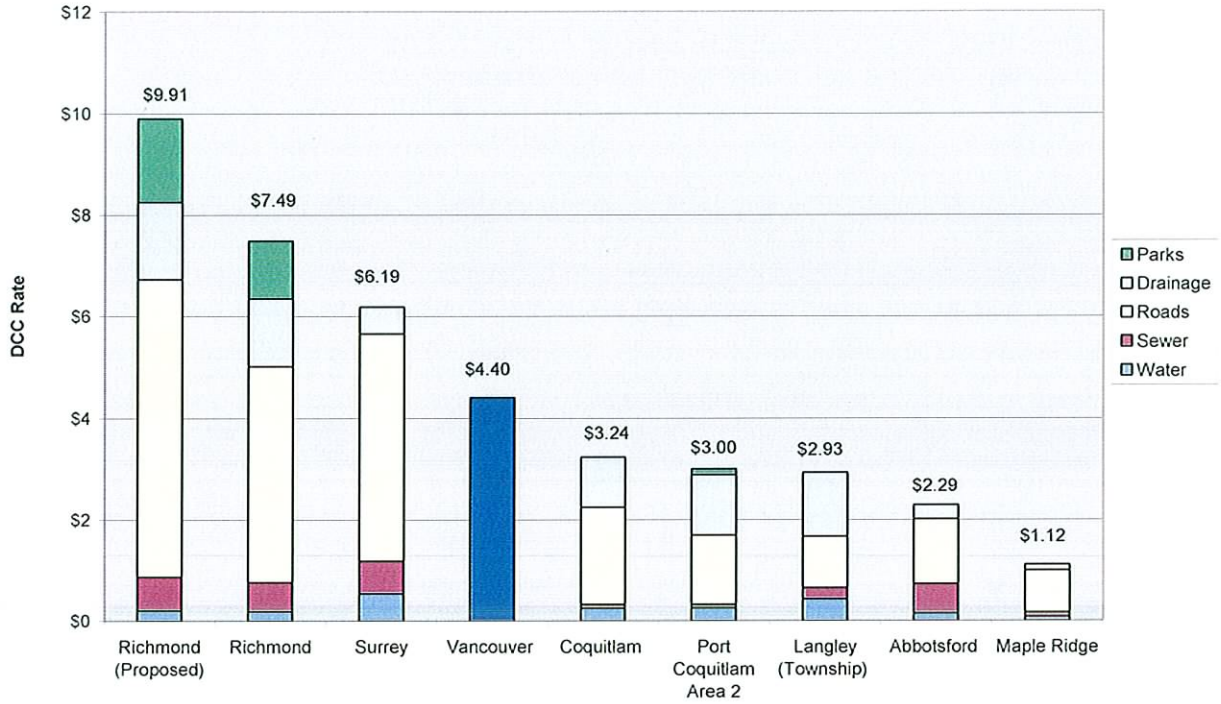
APARTMENT DCC COMPARISON (PER UNIT)  
WITHOUT REGIONAL DCCS



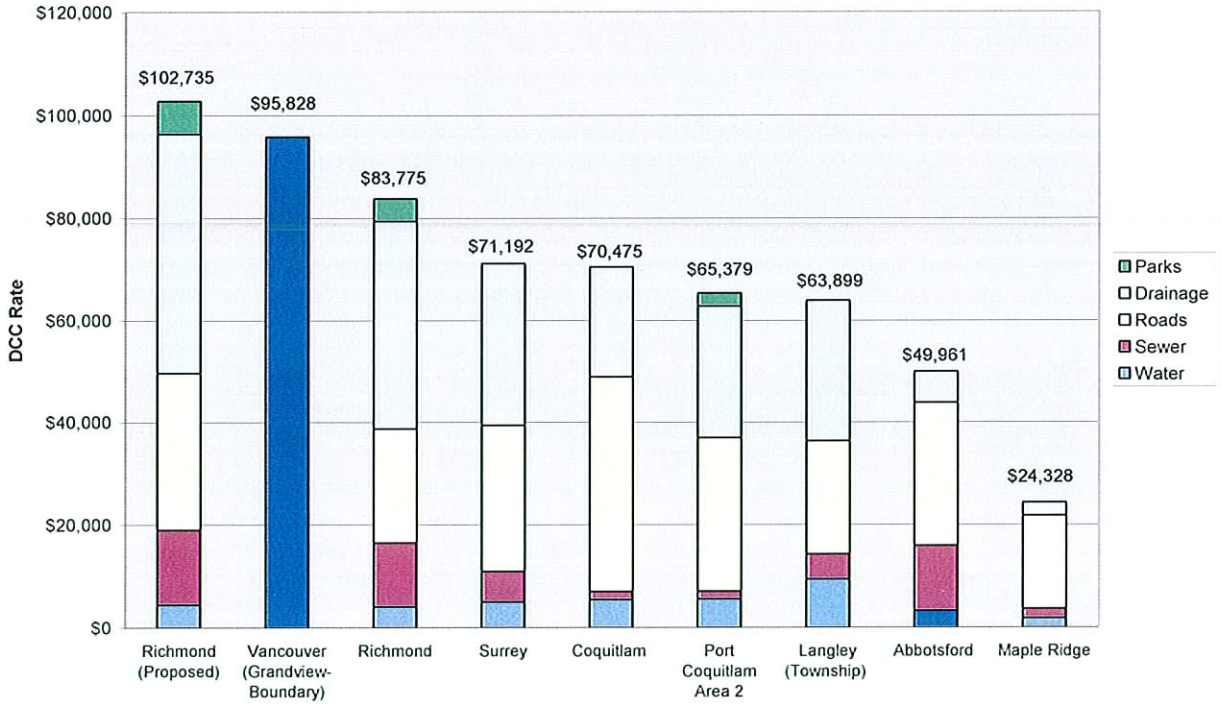
COMMERCIAL DCC COMPARISON (PER SQUARE FOOT OF BUILDING AREA)  
WITHOUT REGIONAL DCCS



**LIGHT INDUSTRIAL DCC COMPARISON (PER SQUARE FOOT OF BUILDING AREA)  
WITHOUT REGIONAL DCCS**



**MAJOR INDUSTRIAL DCC COMPARISON (PER ACRE)  
WITHOUT REGIONAL DCCS**





**Development Cost Charges Bylaw No. 8024,  
Amendment Bylaw No. 8396**

WHEREAS Council has adopted Development Cost Charges for the City, and

WHEREAS amendments to the Development Cost Charges are required to finance expected servicing in the City,

The Council of the City of Richmond enacts as follows:

1. Bylaw No. 8024 is amended by deleting Schedule "B" and substituting Schedule "B" attached hereto and forming part of the Bylaw as Schedule "B" to Bylaw No. 8024.
2. Bylaw No. 8024 is amended by deleting Schedule "C" and substituting Schedule "C" attached hereto and forming part of the Bylaw as Schedule "C" to Bylaw No. 8024.
3. Bylaw No. 8024 is amended by deleting Schedule "D" and substituting Schedule "D" attached hereto and forming part of the Bylaw as Schedule "D" to Bylaw No. 8024.
4. Bylaw No. 8024 is amended by deleting Schedule "E" and substituting Schedule "E" attached hereto and forming part of the Bylaw as Schedule "E" to Bylaw No. 8024.
5. If any part, section, subsection, clause, or subclause of this bylaw is, for any reason, held to be invalid by a decision of a Court of competent jurisdiction, such decision does not affect the validity of the remaining portions of this bylaw.
6. This bylaw comes into force and effect one year after adoption.
7. This Bylaw is cited as "Development Cost Charges Bylaw No. 8024, Amendment Bylaw No. 8396".

FIRST READING

SECOND READING

THIRD READING

ADOPTED

\_\_\_\_\_  
MAYOR

\_\_\_\_\_  
CORPORATE OFFICER

CITY OF RICHMOND
APPROVED for content by originating dept.
APPROVED for legality by Solicitor

**SCHEDULE B to BYLAW NO. 8396**

**SCHEDULE B to BYLAW NO. 8024**

**DEVELOPMENT COST CHARGES - RESIDENTIAL DEVELOPMENT**

**Single-Family Dwelling**

<u>Servicing Type</u>	rate per lot
Road Works	\$6,431.35
Drainage	\$5,131.99
Water Works	\$810.63
Sanitary Sewer	\$2,634.91
Parks Acquisition	\$9,109.36
Parks Development	\$3,885.44
<u>TOTAL</u>	\$28,003.68

**Townhouse**

<u>Servicing Type</u>	rate per square foot of the building area
Road Works	\$3.08
Drainage	\$2.20
Water Works	\$0.53
Sanitary Sewer	\$1.72
Parks Acquisition	\$5.93
Parks Development	\$2.53
<u>TOTAL</u>	\$15.99

**Multi-Family Dwelling**

<u>Servicing Type</u>	rate per square foot of the building area
Road Works	\$4.11
Drainage	\$1.57
Water Works	\$0.54
Sanitary Sewer	\$1.77
Parks Acquisition	\$6.10
Parks Development	\$2.60
<u>TOTAL</u>	\$16.69

**SCHEDULE C to BYLAW NO. 8396**

**SCHEDULE C to BYLAW NO. 8024**

**DEVELOPMENT COST CHARGES - COMMERCIAL DEVELOPMENT**

<u>Servicing Type</u>	rate per square foot of the building area
Road Works	\$8.20
Drainage	\$1.53
Water Works	\$0.21
Sanitary Sewer	\$0.67
Parks Acquisition	\$1.15
Parks Development	\$0.49
<u>TOTAL</u>	\$12.25

**SCHEDULE D to BYLAW NO. 8396**

**SCHEDULE D to BYLAW NO. 8024**

**DEVELOPMENT COST CHARGES - LIGHT INDUSTRIAL DEVELOPMENT**

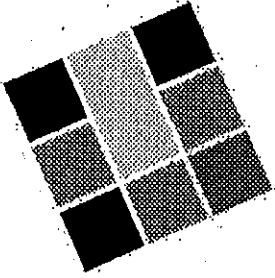
<u>Servicing Type</u>	rate per square foot of the building area
Road Works	\$5.86
Drainage	\$1.53
Water Works	\$0.21
Sanitary Sewer	\$0.67
Parks Acquisition	\$1.15
Parks Development	\$0.49
<u>TOTAL</u>	\$9.91

**SCHEDULE E to BYLAW NO. 8396**

**SCHEDULE E to BYLAW NO. 8024**

**DEVELOPMENT COST CHARGES - MAJOR INDUSTRIAL DEVELOPMENT**

<u>Servicing Type</u>	rate per acre of gross site area
Road Works	\$30,619.11
Drainage	\$46,728.08
Water Works	\$4,473.33
Sanitary Sewer	\$14,540.33
Parks Acquisition	\$4,468.31
Parks Development	\$1,905.88
<u>TOTAL</u>	\$102,735.04



## FINAL REPORT

City of Richmond

# CCAP Implementation Strategy

This report is prepared for the sole use of the City of Richmond. No representations of any kind are made by Urban Systems Ltd. or its employees to any party with whom Urban Systems Ltd. does not have a contract.

1123.0027.01/ June 12, 2008  
CITYHALL-#2465049-v1-Final\_CCAP\_Implementation\_Strategy.DOC  
REDMS 2465049

**URBANSYSTEMS.**

2353 - 13353 Commerce Parkway  
Richmond, BC V6V 3A1  
Telephone: 604-273-8700  
Fax: 604-273-8752





**TABLE OF CONTENTS**

Executive Summary ..... E-1

1.0 Introduction ..... 1

2.0 Guiding Principles for Financing Growth ..... 2

3.0 Financing Options ..... 7

    3.1 General Revenue ..... 7

    3.2 Local Service Taxes for Local Area Services ..... 8

    3.3 Works and Services ..... 9

    3.4 City-Wide Development Cost Charges ..... 10

    3.5 Area Specific Development Cost Charges ..... 11

    3.6 Community User Fees ..... 12

    3.7 Utility Charges ..... 12

    3.8 Gifts (Developer Contributions) ..... 13

    3.9 Density Bonusing ..... 14

    3.10 Short and Long-Term Borrowing ..... 15

    3.11 Public-Private Partnerships and Joint Ventures ..... 16

    3.12 5% Parkland Dedication ..... 17

    3.13 Grants ..... 18

    3.14 School Site Acquisition Charges ..... 18

4.0 Implementation Tools ..... 20

5.0 CCAP Program and Financial Costs ..... 25

6.0 CCAP Financing and Cost Recovery Approach - Transportation ..... 27

    6.1 Overview of Transportation Plan Update ..... 27

    6.2 Cost Estimates ..... 27

    6.3 Key Issues ..... 29

    6.4 Recommended Approach ..... 29

7.0 CCAP Financing and Cost Recovery Approach – Water ..... 34

    7.1 Overview of Water Model Update ..... 34

    7.2 Cost Estimates ..... 34

    7.3 Key Issues ..... 35

    7.4 Recommended Approach ..... 36

8.0 CCAP Financing and Cost Recovery Approach –Sanitary ..... 39

    8.1 Overview of Sanitary Sewer Update ..... 39

    8.2 Cost Estimates ..... 40

    8.3 Key Issues ..... 42

    8.4 Recommended Approach ..... 42



9.0 CCAP Financing and Cost Recovery Approach – Storm Drainage..... 45

    9.1 Overview of Storm Drainage Update..... 45

    9.2 Cost Estimates..... 46

    9.3 Key Issues ..... 47

    9.4 Recommended Approach..... 48

10.0 CCAP Financing and Cost Recovery Approach – Open Space (Parkland Acquisition and Development)..... 51

    10.1 Overview of Parkland Acquisition and Development Plans..... 51

    10.2 Cost Estimates..... 51

    10.3 Key Issues ..... 52

    10.4 Recommended Approach..... 52

11.0 CCAP Financing and Cost Recovery Strategy – Amenities (Recreation and Cultural Facilities) ..... 57

    11.1 Overview of Community Amenity Plans..... 57

    11.2 Recommended Approach..... 59

12.0 CCAP Land Acquisition Strategy ..... 61

13.0 Community Planning..... 63

14.0 CCAP Development Cost Charge Summary ..... 64

15.0 Phasing Strategy ..... 66

    15.1 Overview of Phasing Plans..... 66

    15.2 Principles ..... 66

    15.3 Recommended CCAP Phasing Strategy ..... 67

    15.4 Recommended Phasing Policies..... 68

**APPENDICES**

- Appendix A: Recommended Transportation Projects
- Appendix B: Overlap Between Current and Proposed Transportation DCC Programs
- Appendix C: Recommended Water Projects
- Appendix D: Overlap Between Current and Proposed Water DCC Programs
- Appendix E: Recommended Sanitary Projects
- Appendix F: Overlap Between Current and Proposed Sanitary DCC Programs
- Appendix G: Recommended Storm Drainage Projects
- Appendix H: Overlap Between Current and Proposed Storm Drainage DCC Programs
- Appendix I: Proposed DCC Calculations



**LIST OF TABLES**

Table E.1: Total Costs for the CCAP Area (2031)..... 3

Table E.2: CCAP Financing Strategy (2031) ..... 4

Table E.3: Approximate Proposed Impact on City-Wide DCC Rates ..... 5

Table 1: Financing Options and Implementation Tools..... 7

Table 2: General Revenue – Pros and Cons ..... 8

Table 3: Local Service Taxes for Local Area Services – Pros and Cons ..... 9

Table 4: Works and Services – Pros and Cons ..... 10

Table 5: City-Wide Development Cost Charges – Pros and Cons ..... 11

Table 6: Area Specific Development Cost Charges – Pros and Cons ..... 11

Table 7: Community User Fees – Pros and Cons ..... 12

Table 8: Utility Charges– Pros and Cons ..... 13

Table 9: Gifts (Developer Contributions) – Pros and Cons ..... 14

Table 10: Density Bonusing – Pros and Cons ..... 15

Table 11: Short and Long-Term Borrowing – Pros and Cons ..... 16

Table 12: Public-Private Partnerships or Joint Ventures – Pros and Cons ..... 17

Table 13: 5% Parkland Dedication – Pros and Cons ..... 18

Table 14: Grants – Pros and Cons ..... 18

Table 15: Richmond School Site Acquisition Charge ..... 19

Table 16: DCC Front-End Agreements – Pros and Cons ..... 20

Table 17: Latecomer Charges – Pros and Cons ..... 21

Table 18: Development Works Agreements – Pros and Cons ..... 22

Table 19: Phased Development Agreements – Pros and Cons ..... 23

Table 20: DCC Credits and Rebates– Pros and Cons ..... 24

Table 21: Total Costs for Proving Services to Existing and New Development in the CCAP Area ..... 25

Table 22: Transportation Costs by Street Category ..... 28

Table 23: Recommended Transportation Financing and Cost Recovery Approach..... 32

Table 24: Approximate Impact on Transportation DCC Rates ..... 33

Table 25: Unit Costs for Pipe Upgrades (Water)..... 35

Table 26: CCAP Water Capital Costs by Pipe Diameter..... 35

Table 27: Recommended Financing and Cost Recovery Approach – Water ..... 37

Table 28: Approximate Impact on City-Wide Water DCC Rates ..... 38

Table 29: Unit Costs for Pipe Upgrades (Sanitary)..... 40

Table 30: Cost by Infrastructure Component (Sanitary)..... 41

Table 31: Sanitary Sewer Financing and Cost Recovery Approach..... 43

Table 32: Approximate Impact on City-Wide Sanitary Sewer DCC Rates ..... 43

Table 33: Unit Costs for Upgrades (Drainage)..... 46

Table 34: Cost by Infrastructure Component (Drainage)..... 47

Table 35: Storm Drainage Financing and Cost Recovery Strategy ..... 49



Table 36: Approximate Impact on City-Wide Storm Drainage DCC Rates ..... 50

Table 37: Recommended Parkland Acquisition Approach ..... 54

Table 38: Recommended Parkland Development Approach..... 55

Table 39: Approximate Impact on City-Wide Parkland Acquisition DCC Rates ..... 55

Table 40: Approximate Impact on City-Wide Parkland Development DCC Rates ..... 56

Table 41: Amenity Facilities ..... 59

Table 42: Approximate Impact on City-Wide DCC Rates (2031)..... 65



## EXECUTIVE SUMMARY

### Introduction

In 2006, Richmond City Council initiated a strategic update of the City Centre Area Plan (CCAP). This update included a series of public consultation processes and a variety of other studies. In February 2007, Council approved in principle the CCAP CONCEPT. The CONCEPT uses a capacity based framework of what the ultimate build out could be for development in Richmond's city centre. Over the past year, City staff and consultants have been refining the CCAP CONCEPT in order to prepare a new CCAP Bylaw (which would include an *Implementation Strategy*).

To ensure that the City Centre Area Plan develops in an orderly, sustainable and financially sound manner, the City requires an *Implementation Strategy*. The *Implementation Strategy* is a comprehensive financing and phasing strategy that:

- ◆ Identifies which transportation, utilities, parks and community facilities are needed to support development in the City Centre
- ◆ Determines how the transportation, utilities and parkland acquisition & improvements should be financed (the financing of new community facilities will be the subject of a separate process)
- ◆ Establishes a financing and phasing strategy for development in the City Centre to the year 2031

### Guiding Principles

In order to determine the most appropriate financing strategy for development in the City Centre, the City has identified 14 guiding principles, which form the basis of the *Implementation Strategy*. The guiding principles are as follows (these guiding principles are not listed in any priority):

The CCAP financing strategy should:

1. Be based on applicable legislation
2. Distinguish between costs to service existing development and new growth
3. Meet the City's triple bottom line policy of financial, environmental and social sustainability
4. Strive for equity
5. Allocate costs according to the "benefiter pay" principle
6. Balance equity and administrative efficiency



7. Limit financial risk to the City and its residents
8. Be based on a "pay as you go" approach
9. Foster certainty and clarity for development/investment in the community
10. Create accountability to residents, taxpayers and investors
11. Provide for flexibility
12. Support the development of complete communities and encourage the early implementation of transit oriented development
13. Be based on current costs and should ensure no double counting or charges
14. Focus on developing a financing and cost recovery strategy to the year 2031 (the costs to the ultimate build out year of 2100 will be the subject of future reviews)

### **Recommended Improvements**

The City and its consultants have recently completed several engineering studies to identify infrastructure upgrades as well as parkland and improvements that will be required to service the future CCAP population. The City commissioned the following studies as part of the CCAP:

- ◆ City Centre Transportation Plan Update – Implementation Plan (IBI, 2007)
- ◆ Water Model Update (Earth Tech, 2007)
- ◆ Drainage Model Update (Earth Tech, 2007)
- ◆ Sanitary Model Update (Earth Tech, 2007)
- ◆ Park cost estimates prepared by the City of Richmond (2007)
- ◆ PRCS Facilities Strategic Plan (PERC, June 2007)
- ◆ Library Facilities Plan (Richmond Public Library, 2007)

These studies have determined what transportation, utilities, parks and new community facilities are needed for a total population of 120,000 residents by the year 2100 or earlier. Recommended transportation and utility upgrades, and parkland acquisition and development costs total over \$1 billion. Costs for community facilities will be finalized by the City in upcoming reports on the Corporate Facilities Implementation Plan, but have been estimated to be approximately \$235 million (excluding land and parking).

It should be noted that when the City builds new infrastructure, DCC related or not, there are on-going operation and maintenance (O&M) costs. These O&M costs and ultimately the



replacement cost of these works will be the responsibility of the City. The on-going costs are typically funded through utility fees and general revenue funds.

**Table E.1: Total Costs for the CCAP Area (2031)**

INFRASTRUCTURE TYPE	TOTAL COST
Transportation	\$562,076,000
Water	\$16,771,000
Sanitary	\$62,691,000
Drainage	\$84,085,000
Parkland Acquisition (2031)	\$237,698,000
Parkland Development (2031)	\$82,325,000
<b>Sub Total</b>	<b>\$1,045,646,000</b>
Community Facilities :	
PRCS Community Amenities	\$235,000,000 (estimated)
Community Safety Building and Fire Hall #1	To be confirmed through future staff reports.
<b>TOTAL COST</b>	<b>TBD</b>

**Financing Options**

Based on the guiding principles, the City plans to finance CCAP related costs through development cost charges (DCCs) as well as through other funding sources such as works and services, utility charges and reserves, density bonusing, and general revenues. The following table summarizes how the various costs will be recovered (the financing of new community facilities will be the subject of a separate process). Each of these approaches is consistent with past practices in Richmond and is common among B.C. municipalities.



**Table E.2: CCAP Financing Strategy (2031)**

<i>INFRASTRUCTURE TYPE</i>	<i>CCAP COSTS TO BE FINANCED THROUGH CITY-WIDE DCCS (DCC recoverable costs)</i>	<i>CCAP COSTS TO BE FINANCED THROUGH OTHER MEANS (e.g., Works and Services, Utility Charges, General Revenue, etc.)</i>	<i>TOTAL COST</i>
Transportation	\$247,396,000	\$314,680,000	\$562,076,000
Water	\$8,197,000	\$8,574,000	\$16,771,000
Sanitary	\$57,385,000	\$5,306,000	\$62,691,000
Drainage	\$41,786,000	\$42,299,000	\$84,085,000
Parkland Acquisition (2031)	\$223,555,000	\$14,143,000	\$237,698,000
Parkland Development (2031)	\$77,427,000	\$4,898,000	\$82,325,000
<b>Sub Total</b>	<b>\$655,746,000</b>	<b>\$389,900,000</b>	<b>\$1,045,646,000</b>
Community Facilities	To be confirmed through future staff reports	To be confirmed through future staff reports	To be confirmed through future staff reports
<b>TOTAL COST</b>	<b>TBD</b>	<b>TBD</b>	<b>TBD</b>

The applicable CCAP costs will be added to the DCC program. The DCC program will be based on a new time horizon to 2031. A specific, City Centre DCC program is not contemplated.

The approximate proposed impact on City-Wide DCCs is summarized in the following table.



Table E.3: Approximate Proposed Impact on City-Wide DCC Rates

LAND USE	UNITS	REVENUE TRANSFORMATION NOI	PROPOSED MASTER DEL.	PROPOSED SUPPORT DCC	PROPOSED BIRMGHAM	PROPOSED ACQUISITION DCC	PROPOSED DEVELOPMENT DCC	EDUCATION DCC	HOUSING DCC	CONSUMER DCC
Single Family	per lot	\$6,431.35	\$810.63	\$2,634.91	\$5,131.99	\$9,109.36	\$3,885.44	\$28,003.68	\$21,456.86	31%
Townhouse	per sq. ft. of building area	\$3.08	\$0.53	\$1.72	\$2.20	\$5.93	\$2.53	\$15.99	\$11.94	34%
Apartment	per sq. ft. of building area	\$4.11	\$0.54	\$1.77	\$1.57	\$6.10	\$2.60	\$16.69	\$12.37	35%
Commercial	per sq. ft. of building area	\$8.20	\$0.21	\$0.67	\$1.53	\$1.15	\$0.49	\$12.25	\$9.20	33%
Light Industrial	per sq. ft. of building area	\$5.86	\$0.21	\$0.67	\$1.53	\$1.15	\$0.49	\$9.91	\$7.49	32%
Major Industrial	per acre of gross site area	\$30,619.11	\$4,473.33	\$14,540.33	\$46,728.08	\$4,468.31	\$1,905.88	\$102,735.04	\$83,811.92	23%



The following financing options were not considered as principal means to finance transportation, utility and parkland acquisition and improvements. Relying on these options other than in limited circumstances is inappropriate because it places the burden of financing growth on the existing tax base or involves funding sources that are too insecure.

Where the City (Residents/Businesses) pay through:

- ◆ Local service taxes under the *Community Charter* (taxes from a specific area of the City Centre)
- ◆ Community user fees under the *Community Charter* (paid by the users for services and amenities)
- ◆ Short or long-term borrowing (which typically involves a public referendum and can be paid back in a variety of ways including through municipal taxes)

Where others help pay through:

- ◆ Grants (e.g., from the Federal and Provincial governments)
- ◆ Public-private partnerships (cooperative or joint ventures between the private and public sectors)

### Phasing Approach

The vision of growth presented at various CCAP open houses over the past two years included a varied density and included new parks and open space, high rise residential development, mixed-use development (high rise) and mixed-use development (mid-rise) development. This growth is projected to ultimately reach a population of 120,000 people, 36,000 jobs and 390 acres of parkland. Growth is to occur through a set of high density urban villages. To achieve the village concept the City Centre should develop based on the principles of transit-oriented development (TOD). To reach this vision the growth will be phased.

The most rapid growth in the City Centre is to occur between 2008 and 2021. The next period from 2022 to 2031 and beyond will see the composition of the population grow significantly in older adults. Beyond 2031, the growth will continue but at a slower pace. By 2031, 50,000 of the projected 80,000 additional people will be part of the City Centre population. This significant growth in the 2008 to 2031 period will drive the need for the majority of the infrastructure, parkland and many of the new amenities.



The fundamental planning and development priorities for the City Centre, as stated in the CCAP CONCEPT, include:

- ◆ Establishment of high-density transit villages
- ◆ Enhancement of the waterfront
- ◆ Acquisition of well-located, high amenity public parks and amenities

The following policies are based on the suggested preferred development areas and the need for immediate policies to help facilitate growth over the next five to ten years. New policies to support the completion of the City Centre plan beyond the next ten years will be developed as the CCAP evolves.

- ◆ **Phasing Policy #1:** Focus the investment of City Centre monies on infrastructure, parkland and development and amenities that promote development within 200m of the six village centres.
- ◆ **Phasing Policy #2:** Purchasing significant parkland and future facility lands within the next 10 – 15 years to reduce the impact of rising land costs in the City Centre. This may require an aggressive monetary borrowing plan to achieve any significant results.
- ◆ **Phasing Policy #3:** Prioritize the DCC program to focus attention on ensuring that any municipal funding in support of City Centre DCC projects is in place as development occurs.
- ◆ **Phasing Policy #4:** Encourage subdivision, rezoning, DP and building permit applications to facilitate development within 200m of the village centres.
- ◆ **Phasing Policy #5:** If a developer wishes to develop outside of the above priority phasing areas and policies, the City will require that the developer assume all infrastructure costs related to the development. The City will not allocate City resources to support development that occurs outside of this phasing framework; however, if the developer will cover all infrastructure costs, the City will consider development outside of this phasing framework and give DCC credits for items on the DCC program.

### Next Steps

To complete the CCAP and begin implementing this strategy, the City will:

1. Prepare the City Centre Area Plan (CCAP) Bylaw (which would include the *CCAP Implementation Strategy*);

2. Prepare a new Development Cost Charge (DCC) Bylaw, with the proposed new DCC rates to partially pay for the costs associated with the CCAP;
3. Prepare the Off-Street Parking and Loading Bylaw (these provisions are in the Zoning and Development Bylaw) to reduce the parking requirements within transit village areas;
4. Present the CCAP Bylaw (including the *Implementation Strategy*), the amended Off-Street Parking and Loading Bylaw, and new DCC Bylaw to Planning Committee (a subcommittee of Council) and Council for first reading (the public and interested stakeholders can appear as a delegation to these meetings);
5. Have a public meeting on the proposed new DCC Bylaw;
6. Hold a Public Hearing for the public and interested stakeholders to comment on the new CCAP Bylaw (including the *Implementation Strategy*) and the proposed Off-Street Parking and Loading Bylaw (which is an amendment to the Zoning and Development Bylaw);
7. Give second and third reading to the CCAP Bylaw (including the *Implementation Strategy*), the amended Off-Street Parking and Loading Bylaw and the new DCC Bylaw;
8. Send the new DCC Bylaw to the Province for approval; and
9. Once the Province has approved the new DCC Bylaw, Council will adopt the CCAP Bylaw (including the *Implementation Strategy*), the amended Off-Street Parking and Loading Bylaw and the new DCC Bylaw.



## 1.0 INTRODUCTION

In 2006, Richmond City Council initiated a strategic update of the City Centre Area Plan (CCAP). This update included a series of public consultation processes and a variety of other studies.

In February 2007, Council approved in principle the CCAP CONCEPT. The CONCEPT identified a capacity based framework for development for downtown Richmond.

Over the past year, City staff and consultants have been refining the CCAP CONCEPT in order to prepare a new City Centre Area Plan Bylaw (which would include an *Implementation Strategy*).

The purpose of the CCAP Implementation Strategy is to ensure that the City Centre develops in an orderly, sustainable and financially sound manner.

Urban Systems has been retained to assist with the preparation of the *CCAP Implementation Strategy*.



## 2.0 GUIDING PRINCIPLES FOR FINANCING GROWTH

The development of guiding principles and a clear philosophical approach to managing growth financing are both key elements of the development of a solid fiscal approach. The guiding principles outlined below are the basis of selected financing and cost recovery methods for the *City Centre Area Plan Implementation Strategy* (hereafter referred to as the "*Implementation Strategy*"). Council and City staff should consider the guiding principles in the preparation of each approach to financing for infrastructure, open space and amenities.

The guiding principles for the *Implementation Strategy* are as follows:

**1. The *Implementation Strategy* be based on applicable legislation.**

The *Implementation Strategy* is based on the legal framework available to BC municipalities as per the *Local Government Act* and *Community Charter*.

**2. The *Implementation Strategy* distinguishes between costs to service existing development and costs to service new growth.**

This is an important consideration in determining who pays for improvements in the City Centre and how these costs are paid for (e.g., utility upgrades to service existing development only cannot be incorporated into the DCC Bylaw).

**3. The *Implementation Strategy* meets the City's triple bottom line policy of financial, environmental and social sustainability.**

The City has established a City Centre vision that is based on Smart Growth goals. Accordingly, fiscal responsibility is a key goal that must guide the development of an *Implementation Strategy* for the City Centre. More specifically, this means that the *Implementation Strategy* should take into consideration both short- and long-term considerations to ensure the financial health of the City for future generations. In turn, financial sustainability will provide the City with the resources to ensure that environmental and social sustainability objectives are also met. Furthermore, the *Implementation Strategy* will ensure, through its phasing plan, that community facilities, parks and other amenities are provided in a timely fashion to support the creation of socially sustainable communities.

**4. The *Implementation Strategy* is based on the achievement of equity.**

The *Implementation Strategy* should support and promote equity. Equity results in approaches that reinforce fairness in cost allocation – it does not, however, mean that all situations will be addressed in exactly the same manner (equality). Instead, Council and



staff will need to consider the guiding principles collectively to choose an appropriate funding strategy for each project and service required as a result of future development.

**5. The "benefitter pay" principle is in effect.**

The *Implementation Strategy* and selected financing/cost recovery methods will be developed based on the "benefitter pay" principle, which is closely related to notions of equity. Where a service, amenity or infrastructure beneficiary can be clearly established, a cost recovery strategy that allocates some or all of the cost to the service beneficiary will be employed. For example, if a trunk water main requires extension solely to service a new development area, it is reasonable for the City to require those who benefit from the extension to pay for that extension. This practice is consistent with the approach recently used in the implementation of certain West Cambie works.

Where a service provides benefits to new development as well as a broader based benefit to the community as a whole, the costs of the project would be allocated accordingly. For example, if the water trunk main discussed above provides increased service to 30% of the existing community while also servicing the future growth area, then 70% of the project cost would be allocated to the growth area and 30% would be allocated to the wider community, which would pay its share through utility fees, local service taxes, reserve funds, or other innovative funding sources.

Defining which user groups or areas of the City benefit from community amenities is somewhat different than determining who benefits from infrastructure works. Those who participate in community programs or make use of community recreational facilities clearly benefit directly from community amenities. The benefit, however, of community facilities is not necessarily limited to user groups – benefits are enjoyed by all community members as everyone benefits, directly or indirectly, from programs and services that make the City more culturally, physically and socially healthy.

**6. The *Implementation Strategy* will ensure a balance between the principle of equity and the principle of administrative efficiency.**

If the principle of equity was the only consideration in the development of the *Implementation Strategy*, complex financial management and cost recovery procedures would result. This would require either dedicated staff or a significant increase in legal and consulting fees for the City on an annual basis. Therefore, equity must be balanced with administrative efficiency to ensure that cost recovery strategies are cost effective to administer and can be implemented efficiently.



**7. Financing and cost recovery strategies should be developed to limit financial risk to the City and its taxpayers.**

Communities assume financial risk when they undertake capital or other projects necessary to accommodate future development. This is especially true when long-term borrowing (by the City) is employed as a means to finance capital projects that are required by new development prior to having collected the necessary funds from developers to pay for these projects. If development activity falls unexpectedly, the community may not be able to rely on developer contributions (typically through DCCs) to repay the capital costs and interest associated with borrowing. In these cases, the City may have to supplement developer contributions with revenues from other sources such as general property taxes, even if the new service does not provide existing taxpayers with any benefit. It is therefore critical that the *Implementation Strategy* minimize the City's exposure to financial risk.

**8. Financing strategies will be developed to reflect a "pay as you go approach" to financing capital projects.**

Recommended financing strategies will be based primarily on a "pay as you go" financing strategy that will limit the City's need to incur long-term debt all at once for capital projects, particularly in cases where the projects are required exclusively to service future development. Where long-term debt is required, the term of the debt will be matched closely to the need, development phasing, and anticipated lifecycle of the capital project open space or amenity for which debt is being considered.

**9. The *Implementation Strategy* will foster certainty and clarity for development and investment in the community.**

One of the City's Smart Growth goals is to build economic vitality in the community. Investment in a community is encouraged when certainty and clarity are built into the community's subdivision and development approval processes, as well as in financing, cost recovery and infrastructure implementation strategies. Stability builds confidence in the development industry and enables clear and rational long-term planning of investment in the community. Inadequate planning, delays in infrastructure development, and uncertainty in municipal processes can result in the delay or cancellation of developments in the community and can reduce community support for growth. It is therefore important that the *Implementation Strategy* foster certainty and clarity for development and investment in the community.





**10. The *Implementation Strategy* will serve to create accountability to residents, taxpayers and investors.**

The City of Richmond, through the creation of a transparent *Implementation Strategy*, will enhance accountability to residents, taxpayers and investors. The *Implementation Strategy*, and in particular the information on how costs are allocated, will be accessible and understandable by the various stakeholders.

**11. The *Implementation Strategy* will provide for flexibility.**

The priorities of a community evolve over time. Growth may also occur more slowly or quickly than anticipated in the *Implementation Strategy*. As a consequence, the approach to financing must be flexible enough to allow the City to take advantage of opportunities (e.g., new development proposals) or to remedy situations (e.g. rising costs, changes to community facility phasing) as they arise.

**12. The *Implementation Strategy* will support the development of Complete Communities and encourage early implementation of transit oriented development.**

The *Implementation Strategy* will provide a framework to ensure the development of Complete Communities as defined in the CCAP. It is important that as development occurs, the planning objectives, facilities and infrastructure that define Complete Communities are achieved. Therefore, the *Implementation Strategy* may first allocate City resources to support the construction of infrastructure and amenities that help create high density urban villages (transit oriented development) before promoting growth in other areas.

**13. The *Implementation Strategy* will be based on current costs and will ensure no double counting or charges.**

The costs in this *Implementation Strategy* are based on current land acquisitions, materials and construction costs. It is assumed that the *Implementation Strategy* will be amended as needed as costs change or new information becomes available.

**14. The *Implementation Strategy* will focus on providing a detailed implementation plan for development to 2031. Implementation steps for development beyond 2031 will be determined in the future.**

While costs to the full 100 year (2100) build-out of the City Centre will be acknowledged, the *Implementation Strategy* will focus on developing a financing and cost recovery strategy for those costs that are expected to occur before 2031 because the next 25 years will see the increase of approximately 45,000 people. Since conditions can change quite significantly



In the future (e.g., legislation may be amended to give municipalities additional cost-recovery tools, markets fluctuate, etc.), it is reasonable to focus on the relatively near future for the development of the *Implementation Strategy*.



### 3.0 FINANCING OPTIONS

A wide variety of financing tools are available to British Columbia municipalities in accordance with the *Community Charter* and the *Local Government Act*. These financing tools and related implementation tools include those listed in **Table 1**:

**Table 1: Financing Options and Implementation Tools**

FINANCING OPTIONS	IMPLEMENTATION TOOLS
<ul style="list-style-type: none"> <li>◆ General revenue (e.g., general property taxes; gaming revenues)</li> <li>◆ Local service taxes</li> <li>◆ Works and services</li> <li>◆ City-wide development cost charges (DCCs)</li> <li>◆ Area specific development cost charges (DCCs)</li> <li>◆ Community amenity fees</li> <li>◆ Utility charges</li> <li>◆ Gifts (e.g., developer contributions)</li> <li>◆ Density bonusing</li> <li>◆ Short and long-term borrowing</li> <li>◆ Public-private partnerships/joint ventures</li> <li>◆ 5% parkland dedication</li> <li>◆ Grants</li> </ul>	<ul style="list-style-type: none"> <li>◆ DCC front ender agreements</li> <li>◆ Latecomer charges</li> <li>◆ Development works agreements</li> <li>◆ Phased development agreements</li> <li>◆ DCC credits or rebates</li> </ul>

This section provides a brief description of each financing tool as well as an evaluation of the pros and cons associated with each tool. Section 4 provides information on related implementation tools, such as DCC front-ender agreements, latecomer charges, development works agreements, phased development agreements, and DCC credits and rebates.

#### 3.1 General Revenue

The City currently uses general revenue funds collected through municipal taxes and gaming receipts to fund various expenses including those related to roads and community amenities. Because the use of general revenues is not typically consistent with the "benefitter pay" principle, general revenues may not be the most appropriate funding source for growth-related



infrastructure and services, but may be acceptable for community recreation/culture facilities that benefit all through enhancing liveability. However, the City may choose to use general revenues to accelerate the construction of municipal facilities to service growth in the City Centre. This approach would likely involve long-term borrowing and commensurate tax increases, which would have to be approved by City residents by referendum (a referendum may not be technically required, but is politically preferable to elector assent via counter petition).

**Table 2: General Revenue – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Priorities are set by Council within the framework of all City needs.</li> <li>◆ Can help accelerate the provision of services to make the City Centre a complete community.</li> <li>◆ Relatively stable revenue source (via property taxation).</li> </ul>	<ul style="list-style-type: none"> <li>◆ Difficult to find monies when competing with City wide needs.</li> <li>◆ May not be financially feasible for the City to borrow to advance services in the City Centre.</li> <li>◆ May require a referendum to seek new tax dollars to fund the works (if a referendum is deemed politically necessary).</li> <li>◆ Increases in taxation are not favourably received.</li> </ul>

**3.2 Local Service Taxes for Local Area Services**

Under Sections 210 to 219 of the *Community Charter*, municipalities are authorized to impose local services taxes<sup>1</sup> for local area services. A local area service is a municipal service that is provided to a specific area within the community and that is to be paid for (in whole or in part) by a local service tax. Projects funded through local service taxes often include localized street or utility improvements as well as local park acquisitions and development. Local service taxes are levied only within the area of the community that receives the local area service – in this way, local area services are consistent with the “benefitter pay” principle. Local service taxes may be levied as a single amount per parcel or may be based on property assessment. Local area services may be proposed by Council or undertaken in response to a petition from property owners.

Local service taxes are typically used by municipalities to provide additional services to established areas, and are not generally used to fund growth-related infrastructure. Local service taxes are most useful in cases where a specific area in the community desires a higher level of

<sup>1</sup> Local improvement area and specified area taxes are the predecessors of local service taxes.



service (e.g. improved parks maintenance or additional street lighting) than is typically provided. In these cases, the costs of the enhanced service could be charged back to those benefiting through the local service tax.

**Table 3: Local Service Taxes for Local Area Services – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Adds services to established areas.</li> <li>◆ As local service taxes are not dependant on development, the use of local services taxes could enable the City to accelerate construction of needed infrastructure, amenities, or parks to make the City Centre a complete community.</li> <li>◆ Relatively stable revenue source (via property taxation).</li> <li>◆ Consistent with the benefitter pay principle.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Requires elector assent.</li> <li>◆ Increases in taxation are not favourably received.</li> </ul>

**3.3 Works and Services**

As per Section 938 of the *Local Government Act*, the City can require developers to build infrastructure improvements such as utilities and roads as part of the subdivision or building permit process. These improvements are called "works and services" and are secured by the City by means of a servicing agreement. The City can require developers to provide works and services both within a subdivision and on that portion of a highway immediately adjacent to the development site up to the centre line of the highway. The City can also ask for other off-site infrastructure necessary to service specific developments. The City sets infrastructure servicing standards and design criteria in its Subdivision Bylaw and can establish different standards and requirements for different areas of the City. For example, the City could require developers in the City Centre to dedicate and build all roads (i.e. from minor streets to major thoroughfares). This would be a departure from the current practice of including many of the major thoroughfares (arterial roads) in the development cost charge program.

Many communities find it difficult to not only acquire land for trails, but also to secure funding to develop trails. One of the ways that the City can obtain and develop trails is through works and services. Trails fall within the definition of "highway", and can therefore be required through the City's Subdivision Bylaw. For example, the City could amend its Subdivision Bylaw to require developers to dedicate and construct waterfront trails to the City's standards as part of their



development (with no compensation). This may have limited application but is worth consideration.

**Table 4: Works and Services – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ No cost to the City as the developer finances the costs.</li> <li>◆ Infrastructure is built by the developer.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Provision of infrastructure is dependant on adjacent development – therefore infrastructure may not always be provided in a timely fashion.</li> <li>◆ May be perceived as unfair by developers who feel that other landowners benefit from the works and services, but do not pay.</li> </ul>

**3.4 City-Wide Development Cost Charges**

The statutory provisions related to development cost charges (DCCs) are included in Sections 933 to 937 of the *Local Government Act*. B.C. Reg. 166/84 also provides guidance with respect to payment of DCCs by instalment.

DCCs are charges levied on new development to assist local governments with financing the cost of upgrading or providing engineering infrastructure, and acquiring and developing parkland needed to support new development. The City has successfully used DCCs in the past and plans to continue to use this tool to fund growth-related infrastructure and park requirements.

The City currently uses DCCs as a source of capital, which means that the City allows DCC revenues to accumulate in a reserve fund before the infrastructure work is necessary (i.e. the City does not front-end DCC projects). This approach limits the City's need to borrow funds to complete DCC projects. This approach is preferred because interest on long term debt (other than "eligible interest" on major community infrastructure with community wide benefits such as water or sewer treatment facilities) cannot be incorporated into the DCC calculation. If the City were to borrow for a DCC project, the interest costs would, therefore, be borne by existing taxpayers in the community even if the service upgrades and the long term borrowing would provide existing taxpayers with little or no benefit, which is often the case.



**Table 5: City-Wide Development Cost Charges – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Little cost to the City.</li> <li>◆ Consistent with the benefiter pay principle as growth pays for growth.</li> <li>◆ Common financing strategy that is already used by the City.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Dependant on development.</li> <li>◆ In general, interest costs are not eligible DCC costs.</li> <li>◆ Applicable only for water, sanitary sewer, storm drainage, and transportation infrastructure as well as for parkland acquisition and development.</li> <li>◆ Can be used only to pay for the infrastructure and park-related needs of growth – cannot be used to finance works needed for existing development.</li> </ul>

**3.5 Area Specific Development Cost Charges**

If the City feels that certain infrastructure upgrades or parks benefit only the City Centre area, then an area specific DCC for the City Centre may be appropriate. The City may choose to use a combination of City-wide and sector specific DCCs to recover infrastructure and park costs associated with growth.

**Table 6: Area Specific Development Cost Charges – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Little cost to the City.</li> <li>◆ Consistent with the benefiter pay principle as growth pays for growth.</li> <li>◆ DCCs are a common financing strategy that is already used by the City.</li> </ul>	<ul style="list-style-type: none"> <li>◆ May pose cash flow issues for the City as revenues cannot be shifted from City-wide DCC reserves to area specific DCC reserves.</li> <li>◆ In general, interest costs are not eligible DCC costs.</li> <li>◆ Applicable only for water, sanitary sewer, storm drainage, and transportation infrastructure as well as for parkland acquisition and development.</li> <li>◆ Can be used only to pay for the infrastructure and park-related needs of growth – cannot be used to finance works needed for existing development.</li> </ul>

### 3.6 Community User Fees

Sections 194 to 196 of the *Community Charter* give municipalities the authority to collect fees (from anyone who benefits from the municipal service, including existing property owners, user groups, etc.) in relation to services provided (including amenities). Local governments are therefore authorized to collect user fees for a range of community amenities such as recreation centres, daycares and libraries. Fees must be established by bylaw and must be clearly related to the cost of providing the service. Fees may vary by category of persons, property, business and activity to reflect the different impacts on a service that different users may have. Local governments must be able to support their fee structure through the provision of a report which outlines how the fee was established.

While user fees may provide the City with a method of recovering costs associated with new community amenities, user fees may not be a suitable strategy for financing the initial construction of community amenities. If community amenities need to be built before the City has collected sufficient fees to finance the project, then these costs must be front-ended by the City, typically through borrowing.

**Table 7: Community User Fees – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>✦ Possibly no direct cost to the City.</li> <li>✦ May be perceived as more equitable than a contribution as the rationale for the fee must show how the fee was calculated.</li> <li>✦ Increases certainty for both the developer and the City, as the imposition of fees is not determined on a case by case basis.</li> </ul>	<ul style="list-style-type: none"> <li>✦ Decreases flexibility for the City, as the provision of amenities is not determined on a case by case basis.</li> <li>✦ Requires City time and resources to develop the fee.</li> <li>✦ May not be a suitable method of financing community amenities (i.e. borrowing may be required to build the amenities).</li> </ul>

### 3.7 Utility Charges

Sections 194 to 196 of the *Community Charter* outline a municipality's ability to collect fees, including utility charges, in relation to services provided. Utility charges must be established by bylaw and must be clearly related to the cost of providing the service (e.g., water, sanitary sewer, storm drainage). Utility charges may vary by category of persons, property, business and activity to reflect the different impacts on a service that different users may have. User fees are typically collected to cover the operating costs associated with the provision of municipal services as well as the financing of growth-related infrastructure. Municipalities must be able to support their fee structure through the provision of a report which outlines how a fee was established.





The one caveat on this broad power is that municipalities cannot impose a highway toll unless specifically provided for through a Provincial or Federal Enactment.

**Table 8: Utility Charges— Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ May be perceived as more equitable than general taxation as the rationale for the fee must show how the fee was calculated.</li> <li>◆ Can be designed to be consistent with the benefiter pay principle (those who use the service, pay for the service according to benefit).</li> </ul>	<ul style="list-style-type: none"> <li>◆ Utility rate increases are not favourably received.</li> </ul>

### 3.8 Gifts (Developer Contributions)

Through the development approval process, developer may grant gifts to the City. Typically, this takes the form of land (e.g., for parks or open space) or a monetary contribution (e.g., cash towards the leisure statutory reserves fund for leisure facilities throughout the City or facilities in the City Centre rather than building an on-site indoor amenity area).

Gifts such as land or community amenities are often negotiated as part of a Comprehensive Development Agreement (CDA). The legislative authority enabling municipalities to enter into CDAs is included in Section 8 of the *Community Charter*.

CDAs are agreements between a municipality and a developer under which the developer, in exchange for development approval, agrees to provide works and amenities over-and-above the services that would be required to facilitate site development and that would be secured through other development finance tools. Examples include affordable housing, libraries, fire halls, transit stations, community recreation space, and various types of "hard" infrastructure. CDAs are used to secure works and amenities that benefit both the project and the surrounding community, and, in essence, attempt to neutralize the development's financial impact on the municipality.

Arranged during the zoning approval process, CDAs are normally considered only for large development – or redevelopment – projects, which mean that CDAs may not be suitable for use within the CCAP as no one developer may have a significant amount of land. Since the costs of works and amenities provided under a CDA are negotiated on a case-by-case basis, the use of CDAs would give the City and the developer a high degree of flexibility. However, this flexibility



also means that the City cannot be certain that the required community amenities will be obtained. Furthermore, CDA costs are not recoverable. Since the front-ending developer would not have a means of recouping its costs from subsequent development, the use of CDAs to finance community amenities that benefit not only the City Centre but also the wider Richmond community may not be appropriate.

**Table 9: Gifts (Developer Contributions) – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ No direct cost to the City.</li> <li>◆ Provides flexibility to the City and developer as each contribution is provided on a case-by-case basis.</li> <li>◆ May be used to partially fund community amenities if cash contributions are made in lieu of providing facilities (e.g., build up a community recreation reserve).</li> <li>◆ City Centre Facilities Fund already in place and utilized by the City.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Comprehensive Development Agreements (CDAs) are normally only considered for large developments or redevelopments.</li> <li>◆ Typically requires consultation efforts at rezoning.</li> <li>◆ Consultations with developer take time and resources.</li> <li>◆ Since this is a site specific process, outcomes are not certain for either the developer or the municipality.</li> <li>◆ May not be able to obtain the full cost of amenities.</li> <li>◆ May be perceived as inequitable as contribution may not always reflect benefit (from the amenity).</li> <li>◆ Does not allow the front-ending developer to collect amenity costs from subsequent developers.</li> </ul>

### 3.9 Density Bonusing

Municipalities may employ density bonusing in accordance with Section 904 of the *Local Government Act*. Density bonusing is an arrangement under which a local government allows a developer to exceed basic density levels in a zoning bylaw in exchange for the provision of a specific public amenity that benefits the community. Local governments can grant bonus densities in exchange for contributions toward amenities, such as walkways, plazas and open spaces, child care facilities, landscaping and off-street parking. Density bonusing is voluntary, in that the developer can proceed with the base density and not take advantage of a density bonus;

Density bonusing may provide the City with leverage necessary to obtain public facilities while providing developers with the benefit of obtaining increased densities for their projects. The



increased density helps pay for the amenity and also provides for a reasonable profit to do so. However, density bonusing is feasible only if market conditions are favourable. If market conditions do not support increased density, then the developer may not choose to accept increased densities in exchange for the provision of community amenities. Therefore, if the City relies on density bonusing as the primary means to acquire community amenities, there is a significant risk that community amenities will not be obtained.

There is also a large portion of the City Centre that is already zoned. This would limit the overall usefulness of bonus density as a cost recovery tool. In addition, within the City Centre there are building height limits (e.g., 45m). The City has recently approved an Affordable Housing Strategy that utilizes density bonusing as the primary mechanism to obtain built affordable housing or cash contributions in lieu of affordable housing.

Table 10: Density Bonusing – Pros and Cons

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Little cost to the City.</li> <li>◆ Can benefit developers who wish to build at higher densities.</li> <li>◆ In the City Centre, higher densities are generally encouraged.</li> <li>◆ Density bonusing is being used to secure affordable housing.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Effective strategy only if the developer wishes to have higher densities and if market conditions support density bonus.</li> <li>◆ Part of the City Centre is already zoned and does not require rezoning to meet the CCAP objectives.</li> <li>◆ The existing building height limit (e.g. 45m) may not enable increased density.</li> <li>◆ May increase uncertainty for the City as density bonusing may not yield the required community amenities.</li> </ul>

### 3.10 Short and Long-Term Borrowing

The statutory provisions providing local governments with authority to undertake short and long-term borrowing are included in Sections 179 and 180 of the *Community Charter*. Borrowing is a tool used by local governments to front-end the cost of all types of new infrastructure. Initiated by bylaw, long-term borrowing's maximum term is the lesser of 30 years and the reasonable life expectancy of the capital asset for which the debt is incurred. In most cases, monies are raised through the sale of debentures by the Municipal Finance Authority (MFA). This tool allows the City to build larger capital projects (e.g., the No. 2 Road Bridge and acquisition of land for the Terra Nova Natural/Rural Park) that are not feasible to finance solely out of reserves or current



revenues. Borrowing is a financing tool – the City would still need to determine how to repay the debt (e.g., through taxes, utility charges, DCCs, etc.).

Financial risks are inherent in the use of long-term borrowing. When used with local service areas, the risks are minimal as the recovery of monies is assured through the parcel tax. However, when long-term borrowing is used with DCCs, risks can be significant as monies may not be recovered if development does not occur as projected. In order to limit the municipality's financing risk, the use of long-term debt, front ended by the community, will need to be considered relatively carefully within the context of the *Implementation Strategy*.

While the City has had limited interest in borrowing for new parkland acquisition, it may be advantageous for the City to borrow funds to acquire parks in advance of development taking place. Acquiring key parcels of land early in the development process should help ensure that the City buys land in an attempt to keep pace with the rising cost of land in the City Centre. The City can borrow to front-end parkland acquisition or development and then recover these costs through DCCs; however interest costs cannot typically be recovered through DCCs.

**Table 11: Short and Long-Term Borrowing – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Allows the City to obtain necessary funds in a timely fashion for projects the City could otherwise not afford.</li> <li>◆ Allows the City to amortize costs over a relatively long time period (e.g., 20 years), which may reflect benefit.</li> </ul>	<ul style="list-style-type: none"> <li>◆ The City incurs interest costs.</li> <li>◆ Borrowing capacity is limited.</li> <li>◆ May require a referendum.</li> <li>◆ The City exposes itself to the risk that it will not be able to repay the debt.</li> </ul>

### 3.11 Public-Private Partnerships and Joint Ventures

Partnering arrangements are included in sections 21 and 22 of the *Community Charter*.

Public-private partnerships (P3s) are defined as co-operative ventures in which local governments and private sector entities combine strengths and share risks and rewards, to develop local infrastructure and community facilities. Establishing public-private partnerships is a complex undertaking requiring local governments to assess their organizational capabilities, adopt a P3 policy and procedures and secure trusted advisors from outside of the organizations prior to proceeding with these ventures.



P3s are well suited to sizable infrastructure projects that benefit a large number of people over wide areas, such as waste treatment plants and recreation and entertainment centres. P3s are not well-suited to smaller projects that only benefit specific areas as the resources required to enter and implement a P3 may outweigh the benefits. A construction value of \$5 million is a minimum benchmark for P3 projects.

As a result of the legal and financial complexity associated with P3 arrangements, P3s are likely not appropriate for funding the required transportation improvements, utility upgrades, and parks; however, P3s are being considered for PRCS projects.

**Table 12: Public-Private Partnerships or Joint Ventures – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>♦ May transfer risk to the private partner.</li> <li>♦ Typically, the private partner finances the project.</li> <li>♦ Enables the completion of projects that would otherwise be too costly for the City to undertake alone.</li> </ul>	<ul style="list-style-type: none"> <li>♦ Complex to develop and administer.</li> <li>♦ It may not be possible to transfer significant amounts of risk.</li> <li>♦ The City does not have full control over the project.</li> <li>♦ Not suitable for smaller-scale projects.</li> </ul>

**3.12 5% Parkland Dedication**

The *Local Government Act* authorizes municipalities to require the dedication of 5% of a lot for parkland (or cash in lieu) at subdivision. The amount of parkland the City can expect to obtain through 5% dedication at subdivision depends on the scale and type of future subdivision within the City. As per the *Local Government Act*, owners of land (as opposed to buildings, which means strata subdivisions are exempt) being subdivided are not required to dedicate parkland if their subdivision results in the creation of fewer than 3 additional lots, involves the consolidation of existing parcels, or if the smallest lot created is larger than 2 ha. While significant growth is anticipated within the City Centre, most future development is not expected to generate significant amounts of parkland through 5% dedication at subdivision due to the *LGA* exemptions (especially the fact that strata subdivisions are exempt). While most communities obtain at least some of their parkland through 5% dedication at subdivision, the City does not currently collect any parkland through these provisions of the *Local Government Act* mainly because it has, and can, acquire parkland through DCCs and, in certain instances, through rezoning negotiations.

**Table 13: 5% Parkland Dedication – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Little cost to the City.</li> <li>◆ Enables the City to ask for land or cash in lieu.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Relatively few subdivisions are expected in the City Centre; therefore, 5% dedication at subdivision is not expected to yield significant land.</li> <li>◆ The City would have to amend its current policy not to obtain parkland (or cash in lieu) at subdivision.</li> <li>◆ Dependant on development.</li> <li>◆ As multi-family developments do not typically require subdivision of land, it is not possible to require 5% dedication of parkland for many multi-family developments.</li> </ul>

**3.13 Grants**

The City of Richmond may be eligible for Provincial and/or Federal grant funding for certain projects; however, since grant funding is not guaranteed, it would be risky for the City to rely heavily on grants to support infrastructure development in the City Centre. Furthermore, grant programs often favour new infrastructure development and do not often provide local governments with funds for infrastructure re-investment or ongoing operations and maintenance costs.

**Table 14: Grants – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Potentially a source of significant funding.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Typically do not apply to on-going operations and maintenance costs.</li> <li>◆ Not guaranteed.</li> <li>◆ Require resources to apply for the grant.</li> <li>◆ Typically require some level of contribution from the local government (i.e. 100% funding is relatively rare).</li> </ul>

**3.14 School Site Acquisition Charges**

These charges are determined by the School Board and Province: The City collects the charge and forwards it to the School District.



The Richmond School District No. 38 adopted a School Site Acquisition Charge Capital Bylaw on May 2, 2006. The School Site Acquisition Charge rates became effective May 2, 2006 to require developers to pay for up to 35% of the costs of new school lands and buildings. These charges will apply to all new residential development applications at either subdivision stage, for single family / duplex lots, or at building permit stage for multiple family residential developments or for the residential component of mixed-use developments. The current 2008 Richmond School Site Acquisition Charges are shown in **Table 15**.

**Table 15: Richmond School Site Acquisition Charge**

PRESCRIBED CATEGORY OF ELIGIBLE DEVELOPMENT	SCHOOL SITE ACQUISITION CHARGE (PER UNIT)
Low Density (<21 units / gross ha.)	\$ 700.00
Medium Low (21-50 units / gross ha.)	\$ 630.00
Medium (51-125 units / gross ha.)	\$ 560.00
Medium High (126-200 units / gross ha.)	\$ 490.00
High Density (>200 units / gross ha.)	\$ 420.00

School Site Acquisition Charges are not financing options available to the City to pay for municipal infrastructure.



#### 4.0 IMPLEMENTATION TOOLS

In addition to the financing tools discussed in the previous section, the City has several implementation tools it can use to recover costs associated with development. Each of these will be considered in appropriate circumstances in implementing the City Centre Area Plan.

- ◆ **DCC front-ender agreements** – The City may wish to enter into DCC front-ender agreements voluntarily with developers who build and finance DCC works in advance of the City's construction schedule. Under a DCC front-ender agreement, the local government agrees to collect and forward all future DCCs related to the specific works to the front-ending developer(s). The City could establish an area in the City Centre in which DCCs collected will be repaid to the developer over time. DCCs collected elsewhere in the City cannot be used to repay the front-ending developer. This assumes that there will be sufficient DCCs collected from that area to fund the DCC front-ender agreement. The repayment of interest charges cannot be included in the DCC front-ender agreement. Interest can be recouped only if the DCC already includes an interest component that has been approved by the Inspector of Municipalities to reflect exceptional circumstances. This will be examined as part of the *Implementation Strategy*.

In general, municipalities should not permit developers to front-end DCC works if it would not be in the municipality's best interest to advance development in that particular area ahead of schedule.

**Table 16: DCC Front-Ender Agreements – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Little cost to the City as the developer front-ends the costs.</li> <li>◆ Allows a municipality to shift financial risk to the front-ending developer.</li> <li>◆ Allows front-ending developers to recoup costs from subsequent developers who benefit from the Infrastructure.</li> <li>◆ No time limitation.</li> <li>◆ No elector assent requirements.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Requires administration by the City.</li> <li>◆ Interest cannot be included in the agreement (unless interest has been approved by the Inspector as part of the DCC program).</li> <li>◆ If development does not occur within the area subject to the DCC front-ender agreement, the front-ending developer will not recoup its funds.</li> <li>◆ Few developers may be willing to front end the costs due to fragmented land holdings.</li> </ul>





- ◆ **Latecomer charges** – Section 939 of *Local Government Act* entitles developers that build excess or extended services, to recoup these costs (including interest) from properties that will benefit from these services. Excess services would include upsizing of infrastructure beyond what is required through works and services, whereas extended services are infrastructure extensions that will benefit future development along the extension. The City would be responsible for administering the latecomer agreement and collecting the charges from benefiting properties as they develop. Latecomer charges can be collected for a maximum period of 15 years. Projects that are included in the DCC program cannot be subject to a latecomer agreement, and projects constructed under a latecomer agreement cannot be included in the DCC program.

If the City requires a developer to build excess or extended services, then they are obligated by the legislation to administer a latecomer agreement. The development horizon for the City Centre is 25 to 75 years, which is well beyond the 15-year time limit for latecomer agreements. Therefore, the use of latecomer agreements may not be suitable for certain components of the CCAP.

**Table 17: Latecomer Charges – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Little cost to the City as the developer front-ends the costs.</li> <li>◆ Allows municipality to shift financial risk to the front-ending developer.</li> <li>◆ Allows front-ending developers to recoup costs from subsequent developers who benefit from the infrastructure.</li> <li>◆ No elector assent requirements.</li> <li>◆ Allows for the inclusion of interest.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Requires administration by the City.</li> <li>◆ The time period for recovering costs through latecomers is limited to 15 years; therefore, latecomer agreements may not be suitable in cases where the development timeline is expected to be significantly longer than 15 years.</li> <li>◆ If development does not occur within the area subject to the latecomer agreement, the front-ending developer will not recoup its funds.</li> <li>◆ Difficult to find developers willing to front-end the significant costs without owning significant lands in the latecomer benefiting area.</li> </ul>

- ◆ **Development works agreements** – Section 937.1 of the *Local Government Act* pertains to development works agreements, which, like latecomer charges, are a tool that allows developers to recoup off-site servicing costs (e.g., utility upgrades) from properties that benefit from the service. Under a development works agreement, the City would collect a one-time charge from properties subject to the development works agreement to repay the



developer that paid for the off-site services. Development works agreements allow developers to recoup not only the original capital costs, but also interest costs. Unlike latecomers agreements, development works agreements are not subject to a collection time period; however, development works agreements do require elector assent from those property owners in the area subject to the agreement.

Since the build-out horizon for the CCAP is beyond 15 years, development works agreements are likely preferable to latecomers agreements, which have a time limit of 15 years. However, the development works agreement process is complicated by the elector assent requirements.

**Table 18: Development Works Agreements – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Little cost to the City as the developer front-ends the costs.</li> <li>◆ Allows municipality to shift financial risk to the front-ending developer.</li> <li>◆ Allows front-ending developers to recoup costs from subsequent developers who benefit from the infrastructure.</li> <li>◆ Time limitation on collection determined by the City and developer.</li> <li>◆ Allows for inclusion of interest.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Requires elector assent, which may be difficult to obtain in the City Centre area based on current ownership.</li> <li>◆ Requires administration by the City.</li> <li>◆ If development does not occur within the area subject to the development works agreement, the front-ending developer will not recoup its funds.</li> </ul>

- ◆ **Phased Development Agreements** – Recent amendments to the *Local Government Act* now allow for Phased Development Agreements (PDAs). Section 905.1 of the *Local Government Act* authorizes local governments to voluntarily enter into PDAs with developers to essentially exchange zoning for community amenities and the inclusion of specific features (as determined through the agreement) in the development. As long as the agreement is in effect, any subsequent changes to the zoning bylaw would not apply to the lands subject to the agreement. The maximum term of a PDA is 10 years, but the Inspector of Municipalities can extend this term to 20 years. Phased Development Agreements must be adopted by bylaw and require a public hearing.

The City could use PDAs to require the provision of community amenities (e.g., park space, recreation facilities, daycare space, libraries, etc.) within the City Centre. However, like developer gifts, PDAs do not guarantee that the required community amenities will be



obtained. Furthermore, PDA costs are not recoverable and the front-ending developer would not have a means of recouping its costs from subsequent development.

**Table 19: Phased Development Agreements – Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ No direct cost to City.</li> <li>◆ Increases certainty for the developer as zoning protection is provided for 10 years.</li> <li>◆ The public hearing requirement increases transparency.</li> <li>◆ Can require developers to finance amenities.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Requires consultation efforts at rezoning and negotiations take time and resources.</li> <li>◆ Since this is a site specific process, outcomes are not certain for either the developer or the municipality.</li> <li>◆ Does not allow the front-ending developer to collect amenity costs from subsequent developers.</li> <li>◆ May not be able to obtain the full cost of amenities.</li> </ul>

- ◆ **DCC Credits and Rebates** - Section 933(8) of the *Local Government Act* requires municipalities to provide DCC Credits in specific circumstances. Further details on the “nuances” associated with DCC Credits and DCC Rebates are included in the Development Cost Charges Best Practices Guide available through the Ministry of Community Services at [www.gov.bc.ca](http://www.gov.bc.ca).

DCC programs are intended to support broader local government growth management plans. Developers who front-end the cost of constructing required trunk services in advance of their proposed timing (e.g. they are required in a year prior to that planned for in the municipality’s Five Year Financial Plan or in advance of adequate funds being available to the municipality) would be entitled to a DCC credit. DCC credits and rebates can only be given for trunk works that are included in the DCC program.

An out-of-sequence development should be carefully considered against the community’s growth management objectives, as identified in the OCP. It is recommended that local governments explicitly identify situations where a DCC credit or rebate would be considered, so as not to undermine the effectiveness of their OCP.

In the case where major infrastructure is “front-ended” by developers in Richmond, for the purposes of fairness and equity, the City should consider the issuance of DCC Credits and



Rebates to these developers. This approach is aligned with the guiding principles included in Section 2.

**Table 20: DCC Credits and Rebates-- Pros and Cons**

PROS	CONS
<ul style="list-style-type: none"> <li>◆ Ensures developers do not pay twice for infrastructure.</li> <li>◆ The Issuance of credits supports developers who wish to build infrastructure ahead of the City's schedule.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Issuing and tracking credits and rebates impose administrative costs on the City.</li> <li>◆ Issuing credits and rebates may trigger development in areas of the City ahead of schedule, which may undermine the effectiveness of established land use plans.</li> <li>◆ A credit may not be adequate to cover infrastructure costs (as DCC credits are issued only up to the amount of DCC owing for the type of infrastructure constructed).</li> </ul>



**5.0 CCAP PROGRAM AND FINANCIAL COSTS**

The cost estimates used in this section have been taken directly from the following studies and analyses that were completed as part of the CCAP:

- ◆ City Centre Transportation Plan Update – Implementation Plan (IBI, 2007)
- ◆ Water Model Update (Earth Tech, 2007)
- ◆ Drainage Model Update (Earth Tech, 2007)
- ◆ Sanitary Model Update (Earth Tech, 2007)
- ◆ Park cost estimates prepared by the City of Richmond (2007)
- ◆ PRCS Facilities Strategic Plan (PERC, June 2007)
- ◆ Library Facilities Plan (Richmond Public Library, 2007)

These studies have determined what transportation, utilities, parks and new community facilities are needed for a total population of 120,000 residents by the year 2100 or earlier. Further details on these costs and their financing options are included in the following sections (see the appendices for lists of the recommended projects).

**Table 21: Total Costs for Providing Services to Existing and New Development in the CCAP Area**

INFRASTRUCTURE TYPE	TOTAL COST
Transportation	\$562,076,000
Water	\$16,771,000
Sanitary	\$62,691,000
Drainage	\$84,085,000
Parkland Acquisition (2031)	\$237,698,000
Parkland Development (2031)	\$82,325,000
<b>Sub Total</b>	<b>\$1,045,646,000</b>
Community Facilities :	
PRCS Community Amenities	\$235,000,000 (estimated)
Community Safety Building and Fire Hall #1	To be confirmed through future staff reports.
<b>TOTAL COST</b>	<b>TBD</b>



It should be noted that when the City builds new infrastructure, DCC related or not, there are on-going operation and maintenance (O&M) costs. These O&M costs and ultimately the replacement cost of these works will be the responsibility of the City. The on-going costs are typically funded through utility fees and general revenue funds.



## 6.0 CCAP FINANCING AND COST RECOVERY APPROACH - TRANSPORTATION

This section outlines possible financing and cost recovery options for transportation.

### 6.1 Overview of Transportation Plan Update

To fully understand the cost estimates, it is necessary to understand the transportation analysis that was conducted for the City Centre. In summary, IBI's City Centre Transportation Plan Update – Implementation Plan included the following:

- \* Analysis of and recommendations related to: the street network, transit, pedestrian, cycling, driving and parking, goods movement and emergency services with the City Centre;
- ◆ Recommended street network improvements for the City Centre within the next 25 years;
- \* Implementation costs and timing for the recommended street network improvements; and
- ◆ Recommended policy initiatives related to transit, walking, cycling, driving and parking, and goods movement and emergency service.

This implementation plan for transportation focuses primarily on the street network.

### 6.2 Cost Estimates

The cost estimates prepared by IBI are based on 2007 construction estimates and include contingencies and engineering allowance. Land costs have been estimated at a rate of \$1,600 per square metre for residential property and \$800 per square metre for commercial and lower density residential property. Construction costs have been reviewed by the City to ensure there is no duplication between the roads program and the sanitary, water, and drainage programs. To ensure funds are used efficiently, it is recommended that the City coordinate the prioritization of roadworks and utility projects.

The street network projects fall into the following categories:

- ◆ **Major Thoroughfare** – Urban arterial intended to accommodate longer distance vehicle trips (4 plus lanes, left turns, landscaped median, and urban greenway).
- ◆ **Major Street** – Urban collector that will link areas of the City Centre (4 lanes, left-turns).



- ◆ **Minor Street** – Urban street serving fronting businesses and residences. Minor streets in commercial or higher density areas may have four lanes (4 lanes for commercial/high density residential otherwise 2 lanes).
- ◆ **Lanes and Mews** – Service lanes primarily intended for vehicle access for loading, parking and service purposes. Mews primarily intended as a multi-modal route for pedestrians and cyclists and possibly some lower speed traffic.
- ◆ **Trails and Paths** – Multi-use trails for pedestrians and cyclists.
- ◆ **Pedestrian/Cyclist Crossing Enhancements** – Enhancements to ensure safe road crossing for pedestrians and cyclists, as well as a pedestrian/cyclist bridge over the Middle Arm.

As shown in **Table 22**, Major Streets and Minor Streets account for the large majority of the total street network costs. In total, the recommended street network improvements are expected to cost over \$562 million.

**Table 22: Transportation Costs by Street Category**

TYPE	LAND COST	CONSTRUCTION COSTS	TOTAL
Major Thoroughfare	\$3,700,000 <sup>1</sup>	\$23,283,000 <sup>1</sup>	\$26,983,000 <sup>1</sup>
Major Street	\$83,186,000	\$101,287,000	\$184,473,000
Minor Street	\$235,425,000	\$84,825,000	\$320,250,000
Lanes and Mews	To be determined <sup>2</sup>	To be determined <sup>2</sup>	To be determined <sup>2</sup>
Trails and Paths	\$0	\$370,000	\$370,000
Pedestrian/Cyclist Crossing Enhancements		\$30,000,000	\$30,000,000
<b>TOTAL</b> (Excluding Lanes and Mews)	<b>\$322,311,000</b>	<b>\$239,765,000</b>	<b>\$562,076,000</b>

*Source: Draft City Centre Transportation Plan Update – Implementation Plan, IBI, 2007 (unit costs revised by the City of Richmond)*

*1 – Urban greenways located on private property are not included in the Transportation costs because they form part of a development’s landscaping and on-site improvements. The City will secure public access to these greenways through statutory rights-of-way.*

*2 – Lanes and Mews are not included in the Transportation costs because they have only been defined conceptually and will be part of a development’s required access improvements. Wherever possible, the City will secure lanes through road dedications. The City would typically secure public access to mews through statutory rights-of-way.*



### 6.3 Key Issues

The development of a financing and cost recovery strategy for street network improvements must take the following key issues into account:

- ◆ **Fragmented land ownership** – The absence of a major landowner may make negotiated acquisition of street network improvements challenging. Fragmented land ownership may also mean that parcels may not develop in sequence (or at all) to provide network linkages as required.
- ◆ **Significance of costs** – The road construction cost estimates are significant relative to land acquisition costs.
- ◆ **Required transportation routes** – It is likely that the City will require the timely development of Major Thoroughfares and Major Streets to ensure the efficient and safe movement of people and goods. Therefore, any financial strategy for the street network must ensure that the City has the funds to construct Major Thoroughfares and Major Streets when needed.
- ◆ **Grants** – Translink funding may be available for Major Road Network projects; however, funding is not guaranteed. This *Implementation Strategy* does not assume any Translink funding.

### 6.4 Recommended Approach

Given the key issues noted above, it is most appropriate to recover transportation costs through:

- ◆ **Works and Services** – Works and services will cover all of the costs associated with Minor Streets (except for some costs associated with five key Minor Streets – these costs are included in the DCC program). Land and construction costs associated with select trails/paths are expected to be obtained at no cost to the City through the development process.
- ◆ **General Revenue** – As per the *Local Government Act*, if the City wishes to levy DCCs, the City is obligated to assist development with costs associated with growth. The percentage of DCC costs paid by the City is called the Municipal Assist Factor, and is typically set at 1% (the City's current DCC rates are based on an assist factor of 1%). The City is also obligated to fund the portion of DCC project costs that benefit existing development, which is assumed to

be 5% of total DCC costs. For transportation infrastructure, the City funds both of these amounts (1% and 5%) through general revenues.

◆ **Development Cost Charges** – The following costs would be included in the Transportation DCC program:

- Construction costs associated with all Major Thoroughfares and all Major Streets, including construction costs for urban greenways along Major Thoroughfares and Major Streets in cases where the urban greenway is located within a City road right-of-way.
- Construction and/or land costs associated with five Minor Streets from the City Centre Transportation Plan Update, one Pedestrian/Cycling Trail as well as six Minor Streets from the existing DCC program that are critical to the completion of the transportation network.
- Construction costs for Pedestrian/Cyclist Crossing Enhancements that are not expected to be acquired through the development process.

Land costs for urban greenways on Major Thoroughfares and Major Streets are assumed to be nil as the City plans to secure the required land for urban greenways through statutory rights-of-way (for width up to 4.0m).

The following four DCC options were considered as part of the analysis to determine the most appropriate financing and cost recovery strategy for Transportation:

- Option A: City-wide DCC for all DCC eligible projects with a growth horizon to 2101
- Option B: City-wide DCC for all DCC eligible projects with a growth horizon to 2041
- Option C: City-wide DCC for all DCC eligible projects with a growth horizon to 2031
- Option D: Combination of a City-wide DCC and a City Centre DCC for all DCC eligible projects with a growth horizon to 2031. Under this option, only Major Thoroughfares would be added to the City's current City-wide DCC program – all other projects would be recovered from a City Centre DCC.

**Evaluation of DCC Options and Recommendation** – The DCC options considered vary in terms of time horizon and the basis on which the charge is levied



(i.e. on a City-wide basis or an area-specific basis). These differences produce different DCC rates. For the City-wide DCC options (Options A, B, and C), DCC recoverable costs remain constant across all three options. Therefore, as the time horizon increases, the same costs are spread over a larger amount of growth. Consequently, DCC rates for Options A and B are lower than those under Option C. While lower rates may be preferred, Options A and B could mean that the City may not be able to collect sufficient funds to build infrastructure when it is needed. In general, the longer the time horizon, the more uncertain growth estimates are, and therefore, the more risk the City assumes. Furthermore, the Transportation Plan Update indicated that the recommended upgrades would be needed to service population growth to 2031; therefore, choosing a time horizon beyond 2031 may not be prudent.

In accordance with the "benefiter pay" principle, the City may wish to allocate City Centre specific costs to a City-Centre DCC. Only major transportation components (i.e. Major Thoroughfares) with a City-wide benefit would be included in the City-Wide DCC. Option D reflects this approach. While this Option may be consistent with the "benefiter pay" principle, this approach yields DCCs (for those developing in the City Centre) that may not be affordable.

Based on the risks inherent in assuming a longer time horizon and affordability issues related to area-specific DCCs, Option C (City-wide DCC to 2031) was identified as the most reasonable alternative.

The recommended approach is summarized in **Table 23**.



**Table 23: Recommended Transportation Financing and Cost Recovery Approach**

<i>TOTAL TRANSPORTATION CAPITAL COSTS</i> \$562,076,000			
<i>Cost to Service Existing Development</i> \$0		<i>Cost to Service CCAP Growth</i> \$562,076,000	
No upgrades required to service existing development identified in the City Centre Transportation Plan Update		Costs Financed Through City-Wide DCCs (land costs for Major Thoroughfares and Major Streets; construction costs within Major Thoroughfares and Major Streets; select Minor Streets and Trails or Paths; and Pedestrian/Cyclist Crossing Enhancements)	\$247,396,000 (DCC recoverable costs) <sup>2</sup>
		Costs Financed by City (1% MAF on DCCs and 5% of DCC costs allocated to existing development)	\$15,651,000
		Costs Financed Through Works and Services* (most Minor Streets and select Pedestrian or Cyclist Enhancements on public roads)	\$299,029,000

*\*The Transportation Plan Update identified only a portion of the works to be completed through works and services.*

Table 24 shows the resulting DCC rates.

<sup>2</sup> IBI's Transportation Plan Update identified \$247,396,000 in DCC recoverable costs for the City Centre. The City's current DCC Bylaw already identifies \$179,353,000 of DCC recoverable costs for the City Centre, of which \$72,925,000 will be deleted due to overlap with the new recommendations.



**Table 24: Approximate Impact on Transportation DCC Rates**

LAND USE	UNITS	CURRENT DCC RATES	APPROXIMATE PROPOSED DCC RATES
<b>Single Family</b>	per lot	\$4,682.00	\$6,431.35
<b>Townhouse</b>	per sq. ft. of building area	\$2.24	\$3.08
<b>Apartment</b>	per sq. ft. of building area	\$3.00	\$4.11
<b>Commercial</b>	per sq. ft. of building area	\$5.97	\$8.20
<b>Light Industrial</b>	per sq. ft. of building area	\$4.26	\$5.86
<b>Major Industrial</b>	per acre of gross site area	\$22,291.53	\$30,619.11

*\*These DCC rates would replace the current City-Wide transportation DCCs.*

The DCC rates have been calculated under the following assumptions:

- ◆ City-wide DCC
- ◆ DCC horizon is to 2031
- ◆ Growth estimates include both residential and non-residential growth
- ◆ 1% Municipal Assist Factor
- ◆ 95% benefit factor (portion of costs attributed growth)
- ◆ Overlap between the current transportation DCC program and the proposed transportation DCC program totals \$72,925,000 (in DCC recoverable costs) (see **Appendix B**)
- ◆ Equivalency factors equal those used for the current DCC Bylaw (see Table K.3 in **Appendix I**).

Further details on the DCC rates calculations are included in **Appendix I**.



## 7.0 CCAP FINANCING AND COST RECOVERY APPROACH – WATER

### 7.1 Overview of Water Model Update

The City of Richmond has recently had the new City Centre area of its City wide water model updated. The work completed by Earth Tech Inc. included the review of the water system under three demand scenarios for the new City Centre area:

1. the existing (2006) residential population of 43,200 people and industrial, commercial and institutional (ICI) equivalent population of 27,545;
2. the Theoretical Zoning Map (TZM) (2021) residential population of 91,770 and an ICI equivalent population of 38,340; and,
3. CCAP (2101) residential population of 120,105 and a total population of 164,545.

The City Centre water system analysed principally consists of distribution water mains that vary in size from 200mm to 350mm.

The recommended improvements address the need for new mains and increases in the pipe size of existing mains required to meet domestic water demands, fire flow demands, and pipe age and material replacement requirements under the three growth scenarios.

These calculations include efficiencies resulting from water metering. Further efficiencies may be factored in as sustainability and water conservation measures are implemented.

In summary, Earth Tech's Water Model Update includes the following:

- ◆ An update of the City's existing water model;
- ◆ An evaluation of the water distribution system under Existing, Theoretical Zoning Map, and City Centre Area Plan land uses;
- ◆ Recommended water system improvements for each of the three demand scenarios; and
- ◆ Analysis for the City Centre based on a build-out population of 120,105 residents.

### 7.2 Cost Estimates

The unit costs are shown in **Table 25**, and the total costs by pipe diameter are shown in **Table 26**. The cost estimates are reported in 2007 dollars and include a contingency allowance of 25% and an engineering allowance of 15%.



**Table 25: Unit Costs for Pipe Upgrades (Water)**

PIPE DIAMETER (mm)	UNIT COST (\$/m)	With 25% Contingency and 15% Engineering
200	\$700	\$1,006
250	\$750	\$1,078
300	\$900	\$1,294
350	\$1,000	\$1,438
Tie-ins	\$15,000	\$21,563

Source: Water Model Update, Earth Tech (2007)

**Table 26: CCAP Water Capital Costs by Pipe Diameter<sup>3</sup>**

PIPE DIAMETER (mm)	COST TO SERVICE EXISTING, TZM, CCAP	COST TO SERVICE TZM AND CCAP GROWTH	COST TO SERVICE CCAP GROWTH	TOTAL
200	\$4,318,825	\$2,193,769	\$2,132,100	\$8,644,694
250	\$2,554,078	\$2,253,281	\$366,563	\$5,173,922
300	\$495,938	\$534,750	\$322,575	\$1,353,263
350		\$661,250		\$661,250
Modelling			\$937,500	\$937,500
<b>TOTAL</b>	<b>\$7,368,841</b>	<b>\$5,643,050</b>	<b>\$3,758,738</b>	<b>\$16,771,000</b>

Source: Water Model Update, Earth Tech (2007)

### 7.3 Key Issues

The development of a financing and cost recovery strategy for water improvements must take the following key issues into account:

- ◆ **Ensure Timely Construction of Water Infrastructure** – Developers will be responsible for ensuring their servicing needs are met in accordance with the City's OCP/Area Plans. If the scale of the required improvements to service any one development is too significant, the City may consider partnering with one or more developers to ensure certain components of the water system are constructed.

<sup>3</sup> **Critical Assumption** - The total cost to service the CCAP build-out population is assumed to be the sum of the "Existing, TZM, CCAP Costs", "TZM & CCAP Costs", and "CCAP Only Costs" identified in the Water Model Update.



- ◆ **Availability of DCC Funds** – The City Centre DCCs are only part of a larger DCC program. Over the coming years there will be demands for DCC funding throughout the whole community. The competing demands for the DCC funds may challenge City resources.

#### 7.4 Recommended Approach

Given the key issues noted above, it is most appropriate to recover water infrastructure costs through:

- ◆ **City-Wide Development Cost Charges** – The following costs would be included in the City-Wide Water DCC program:
  - Costs to upsize the current water mains from 150mm (as required through works and services) to the recommended diameter. All upsizing costs related to the “Existing, TZM, CCAP”, “TZM & CCAP”, and “CCAP Only” demand scenarios are included in the DCC program.
- ◆ **Works and Services/Water Utility Reserves or Charges/Other Revenue Sources** – The City would recover the following costs through various innovative funding strategies including, but not limited to, works and services, water utility reserves or charges, and other possible revenue sources:
  - Consistent with current City practice, costs associated with constructing water mains less than or equal to 150mm in diameter will be allocated to the developer through servicing agreements (as per City Design Specifications).
  - The City’s portion of DCC costs (i.e., 1% Municipal Assist Factor).

The recommended financing and cost-recovery approach for water infrastructure is summarized in **Table 27**.





**Table 27: Recommended Financing and Cost Recovery Approach – Water**

<i>TOTAL WATER CAPITAL COSTS</i> \$16,771,000			
<i>Cost to Service Existing Development</i> \$0		<i>Cost to Service TZM and CCAP Growth</i> \$16,771,000	
No upgrades required to service existing development specifically identified in the Water Model Update.		Costs Financed Through City-Wide DCCs (upsizing)	\$8,197,000 <sup>1</sup> (DCC recoverable costs)
		Costs Financed Through Works and Services (pipes ≤ 150 mm)	\$8,491,000
		Costs Financed by City (1% MAF on DCCs)	\$83,000

The impact on DCC rates is summarized in **Table 28**

<sup>1</sup> The City's current DCC Bylaw includes \$2,836,000 in DCC recoverable costs for projects in the City Centre. These costs will be deleted due to overlap with the new recommended works.



**Table 28: Approximate Impact on City-Wide Water DCC Rates**

LAND USE	UNITS	CURRENT DCC RATES	APPROXIMATE PROPOSED DCC RATES
Single Family	per lot	\$768.18	\$810.63
Townhouse	per sq. ft. of building area	\$0.49	\$0.53
Apartment	per sq. ft. of building area	\$0.50	\$0.54
Commercial	per sq. ft. of building area	\$0.19	\$0.21
Light Industrial	per sq. ft. of building area	\$0.19	\$0.21
Major Industrial	per acre of gross site area	\$4,114.56	\$4,473.33

*\*These DCC rates would replace the current City-Wide water DCCs.*

The DCC rates have been calculated under the following assumptions:

- ◆ City-wide DCC
- ◆ DCC horizon is to 2031
- ◆ Growth estimates are to 2031 and include both residential and non-residential growth
- ◆ 1% Municipal Assist Factor
- ◆ 100% benefit factor
- ◆ Overlap between the current water DCC program and the proposed water DCC program totals \$2,836,000 (in DCC recoverable costs)
- ◆ Equivalency factors equal those used for the current DCC Bylaw
- ◆ No assumed further reductions due to City or developer sustainability initiatives

Further details on the DCC rates calculations are included in **Appendix I**.

The degree of overlap between the current DCC program and the proposed DCC program is summarized in **Appendix D**.

## 8.0 CCAP FINANCING AND COST RECOVERY APPROACH –SANITARY

### 8.1 Overview of Sanitary Sewer Update

The City of Richmond has recently had the current City Centre, Fraserview and Bridgeport sanitary study areas of its City wide sanitary system model updated. The work completed by Earth Tech Inc. included the review of the sanitary sewer system under three demand scenarios for the City Centre area:

1. the existing (2006) residential population of 43,200 people and industrial, commercial and institutional (ICI) equivalent population of 27,545;
2. the Theoretical Zoning Map (TZM) (2021) residential population of 91,770 and an ICI equivalent population of 38,340; and
3. CCAP (2101) residential population of 120,105 and total population of 164,545.

The City Centre sanitary sewer system analysed consists of gravity sanitary sewers, pump stations and force mains.

The recommended improvements identify the increase in pipe size of existing sewers required to meet capacity needs and new sewers, pump stations and force mains required to meet the demands of growth in the three time periods.

Note these calculations do not include any efficiencies due to sustainability initiatives because the implications of sustainability initiatives are not yet known. This will be addressed over time as information becomes available.

In summary, Earth Tech's Sanitary Model Update includes the following:

- ◆ Conversion of the existing MOUSE model to MIKE URBAN model;
- ◆ An update of the City's sanitary pipe network;
- ◆ An evaluation of the sanitary system under Existing, Theoretical Zoning Map, and City Centre Area Plan demand scenarios;
- ◆ Recommended sanitary system improvements for each of the three demand scenarios; and
- ◆ Analysis for the City Centre based on a build-out population of 120,105 residents.

## 8.2 Cost Estimates

The sanitary sewer cost estimates are based on the following unit costs:

**Table 29: Unit Costs for Pipe Upgrades (Sanitary)**

PIPE DIAMETER (mm)	BASE UNIT COST (\$/m)	CONTINGENCY	ENGINEERING	UNIT COST WITH ENGINEERING AND CONTINGENCY
<b>Gravity Sewers</b>				
200	\$900	35%	15%	\$1,397
250	\$1,425	35%	15%	\$2,212
300	\$1,500	35%	15%	\$2,329
375	\$1,650	35%	15%	\$2,562
450	\$2,250	35%	15%	\$3,493
525	\$6,750	35%	15%	\$10,479
600	\$6,750	35%	15%	\$10,479
<b>Forcemains</b>				
200	\$800	25%	15%	\$1,150
250	\$850	25%	15%	\$1,222
300	\$900	25%	15%	\$1,294
375	\$1,000	25%	15%	\$1,438
450	\$1,400	25%	15%	\$2,013
525	\$1,400	25%	15%	\$2,013
600	\$1,400	25%	15%	\$2,013
Minor Pump Station Upgrades	\$500,000	35%	15%	\$776,250
Major Pump Station Upgrade	\$1,500,000	35%	15%	\$2,328,750
Modelling	\$750,000	25%	0%	\$937,500

*Source: Sewer Model Update, Earth Tech (2007)*

Based on these unit costs, the total cost to service the existing demand scenario and CCAP growth is approximately \$62.7 million (see **Table 30**). The cost estimates are reported in 2007 dollars.



**Table 30: Cost by Infrastructure Component (Sanitary)**

<i>INFRASTRUCTURE COMPONENT</i>	<i>COSTS TO SERVICE EXISTING DEVELOPMENT</i>	<i>ADDITIONAL COSTS TO SERVICE CCAP</i>	<i>TOTAL COSTS</i>
<i>Gravity Sewers</i>			
200	\$226,355	\$997,637	\$1,223,991
250	\$110,616	\$12,512,840	\$12,623,455
300	\$1,215,608	\$8,725,826	\$9,941,434
375	\$76,849	\$8,250,994	\$8,327,843
450		\$4,481,679	\$4,481,679
525	\$157,191	\$7,890,969	\$8,048,160
600		\$157,191	\$157,191
<b>Sub-Total</b>	<b>\$1,786,617</b>	<b>\$43,017,136</b>	<b>\$44,803,753</b>
<i>Forcemains</i>			
250	\$118,522		\$118,522
300		\$232,875	\$232,875
375	\$110,688	\$2,256,875	\$2,367,563
450	\$382,375	\$644,000	\$1,026,375
600		\$784,875	\$784,875
<b>Sub-Total</b>	<b>\$611,584</b>	<b>\$3,918,625</b>	<b>\$4,530,209</b>
<i>Minor Pump Station Upgrades</i>			
Minor Pump Station Upgrades	\$2,328,750	\$5,433,750	\$7,762,500
<i>Major Pump Station Upgrades</i>			
Major Pump Station Upgrades		\$4,657,500	\$4,657,500
<b>Sub-Total</b>	<b>\$2,328,750</b>	<b>\$10,091,250</b>	<b>\$12,420,000</b>
<i>Modelling</i>			
Modelling		\$937,500	\$937,500
<b>TOTAL COSTS</b>	<b>\$4,727,000</b>	<b>\$57,965,000</b>	<b>\$62,691,000</b>

Source: Sanitary Model Update, Earth Tech (2007)

### 8.3 Key Issues

The development of a financing and cost recovery strategy for sanitary improvements must take the following key issues into account:

- ♦ **Coordination of Construction of Sanitary Infrastructure** – There are many pump stations and sanitary force mains required to service the City Centre. Because these facilities will service large catchment areas and not likely one developer, multiple agreements may have to be developed to reimburse developers that front end works that service others.
- ♦ **Availability of DCC Funds** – The City Centre DCCs are only part of a larger DCC program. Over the coming years there will be demands for DCC funding throughout the whole community. The competing demands for the DCC funds may challenge City resources.

### 8.4 Recommended Approach

Given the key issues noted above, it is most appropriate to recover sanitary infrastructure costs through:

- ♦ **City-Wide Development Cost Charges** – The following costs would be included in the City-Wide Sanitary DCC program:
  - All costs associated with the "CCAP" demand scenario (i.e., those costs needed to service the "CCAP" demand scenario beyond those required to service the "Existing" demand scenario).
- ♦ **Works and Services/Sanitary Utility Reserves or Charges/Other Revenue Sources**
  - The City would recover the following costs through various innovative funding strategies including, but not limited to, works and services, sanitary utility reserves/charges, and other possible revenue sources:
    - The City's portion of DCC costs (i.e., 1% Municipal Assist Factor);
    - All upgrades needed for the "Existing" demand scenario.



**Table 31: Sanitary Sewer Financing and Cost Recovery Approach**

<i>TOTAL SANITARY CAPITAL COSTS</i> \$82,894,000			
<i>Cost to Service Existing Development</i> \$4,727,000		<i>Costs to Service CCAP Growth</i> \$57,965,000	
Costs Financed Through City-Wide DCCs	\$0	Costs Financed Through City-Wide DCCs	\$57,385,000 <sup>5</sup> (DCC recoverable costs)
Costs Financed Through Sanitary Utility/Works and Services/Other	\$4,727,000	Costs Financed by City (1% MAF on DCCs)	\$580,000

Table 32 shows the approximate impact on DCC rates.

**Table 32: Approximate Impact on City-Wide Sanitary Sewer DCC Rates**

<i>LAND USE</i>	<i>UNITS</i>	<i>CURRENT DCC RATES</i>	<i>APPROXIMATE PROPOSED DCC RATES</i>
<b>Single Family</b>	per lot	\$2,315.28	\$2,634.91
<b>Townhouse</b>	per sq. ft. of building area	\$1.46	\$1.72
<b>Apartment</b>	per sq. ft. of building area	\$1.51	\$1.77
<b>Commercial</b>	per sq. ft. of building area	\$0.57	\$0.67
<b>Light Industrial</b>	per sq. ft. of building area	\$0.57	\$0.67
<b>Major Industrial</b>	per acre of gross site area	\$12,401.22	\$14,540.33

*\*These DCC rates would replace the current City-Wide sanitary DCCs.*

<sup>5</sup> The City's current DCC Bylaw includes \$28 million (in DCC recoverable costs) of works for the City Centre – all of these projects will be replaced by the new upgrades identified by Earth Tech.

The DCC rates have been calculated under the following assumptions:

- ◆ City-wide DCC
- ◆ DCC horizon is to 2031
- ◆ Growth estimates are to 2031 and include both residential and non-residential growth
- ◆ 1% Municipal Assist Factor
- ◆ 100% benefit factor
- ◆ The proposed sanitary DCC projects for the City Centre are assumed to entirely replace the sanitary DCC projects in the City Centre area in the current program; the overlap between the current sanitary DCC program and the proposed sanitary DCC program totals \$28,059,000 in DCC recoverable costs (See **Appendix F**).
- ◆ Equivalency factors equal those used for the current DCC Bylaw
- ◆ No reductions due to City or developer sustainability initiatives

Further details on the DCC rate calculations are included in **Appendix I**.





## 9.0 CCAP FINANCING AND COST RECOVERY APPROACH – STORM DRAINAGE

### 9.1 Overview of Storm Drainage Update

The City of Richmond has recently consolidated their existing drainage models for the West Richmond, agricultural area of East Richmond and northern Richmond into a new West Richmond model. The work completed by Earth Tech Inc. included the review of the drainage system under two demand scenarios for the new City Centre area:

1. the existing (2006); and
2. the Theoretical Zoning Map (TZM) (2021)/ CCAP (2101).

The CCAP land use is very similar to the TZM scenario and therefore the results are shown as the TZM/ CCAP growth option. The City Centre drainage system analysed consists of storm sewers, pump stations (3), ditches, open channels and outfalls to the Fraser River. The model was developed for two major storm events; the 10 year 2 hour and the 10 year 24 hour events. The City separates its drainage systems into minor (pipes less than 900mm in diameter and local ditches) and major (pipes greater than 900mm and large ditch/ channels and pump stations) systems.

The recommended improvements address undersized infrastructure that needs to be improved and new works required to meet the City's drainage design standards. The new works include storm pipes, pump stations and ditches required to meet the demands of growth as well as existing problems.

Notes these calculations do not include any efficiencies due to sustainability initiatives because the implications of sustainability initiatives are not yet known. This will be addressed over time as information becomes available.

In summary, the City's Drainage Model Update includes the following:

- ◆ An update of the City's existing drainage model for all of West Richmond;
- ◆ An evaluation of the drainage system under Existing, Theoretical Zoning Map, and City Centre Area Plan land use scenarios; and
- ◆ Recommended drainage system improvements for each of the three land uses.



## 9.2 Cost Estimates

The drainage cost estimates are based on the following unit costs:

**Table 33: Unit Costs for Upgrades (Drainage)**

PIPE DIAMETER (mm)	UNIT COST (\$/m)	CONTINGENCY	ENGINEERING	UNIT COST W/ ENGINEERING AND CONTINGENCY
300	\$725	35%	15%	\$1,126
375	\$805	35%	15%	\$1,250
450	\$875	35%	15%	\$1,358
525	\$1,020	35%	15%	\$1,584
600	\$1,090	35%	15%	\$1,692
675	\$1,150	35%	15%	\$1,785
750	\$1,250	35%	15%	\$1,941
900	\$1,600	35%	15%	\$2,484
1050	\$1,750	35%	15%	\$2,717
1200	\$1,850	35%	15%	\$2,872
1350	\$2,000	35%	15%	\$3,105
1500	\$2,400	35%	15%	\$3,726
900x 2100	\$4,000	35%	15%	\$6,210
1200x2400	\$5,500	35%	15%	\$8,539
Flap gate with 450	\$11,000	35%	15%	\$17,078
Ditch Re-grading	\$125	25%	15%	\$180
Pump Station Upgrades	\$1,500,000	25%	15%	\$2,156,250
Modelling	\$750,000	25%	0%	\$937,500

Source: Drainage Model Update, Earth Tech (2007)

As shown in **Table 34**, drainage costs total approximately \$84 million. Approximately 65% of these costs are for projects needed to service current development within the City Centre. Only 35% of the total costs are needed to service future growth in the City Centre. The cost estimates are reported in 2007 dollars.

Eight of the projects recommended by Earth Tech for the "Existing" land use scenario and two projects under the "CCAP" land use scenario have been deleted because they overlap with projects in the City's current DCC program. The total of \$84 million takes this into account (See **Appendix G**).



**Table 34: Cost by Infrastructure Component (Drainage)**

INFRASTRUCTURE COMPONENT	COSTS TO SERVICE CURRENT DEVELOPMENT	COSTS TO SERVICE CCAP GROWTH	TOTAL COSTS
300	\$341,499	\$24,503	\$366,003
375	\$1,024,530	\$284,084	\$1,308,614
450	\$1,497,844	\$55,356	\$1,553,201
525	\$1,957,623	\$3,668,989	\$5,626,611
600	\$6,253,335	\$960,686	\$7,214,021
675	\$3,664,818	\$3,351,235	\$7,016,052
750	\$9,305,976	\$11,217,752	\$20,523,728
900	\$9,081,877	\$2,336,376	\$11,418,252
1050	\$1,611,107		\$1,611,107
1200	\$1,565,483		\$1,565,483
1350	\$8,768,216	\$1,478,797	\$10,247,012
1500	\$4,668,678		\$4,668,678
900 x 2100	\$3,328,560		\$3,328,560
Flap Gate	\$51,233	\$17,078	\$68,310
Pump Station Upgrade	\$2,156,250	\$4,312,500	\$6,468,750
Regrade Ditch	\$58,824	\$103,268	\$162,093
Modelling		\$937,500	\$937,500
<b>Total</b>	<b>\$55,336,000</b>	<b>\$28,748,000</b>	<b>\$84,084,000</b>

Source: Drainage Model Update, Earth Tech (2007)

**9.3 Key Issues**

The development of a financing and cost recovery strategy for drainage improvements must take the following key issues into account:

- ◆ **Ensure Timely Construction of Drainage Infrastructure** – Developers will be responsible for ensuring their servicing needs are met in accordance with the City's OCP/Area Plans. If the scale of the required improvements to service any one development is too



significant; the City may consider partnering with one or more developers to ensure components of the drainage system are constructed.

- ◆ **Availability of DCC Funds** – The City Centre DCCs are only part of a larger DCC program. Over the coming years there will be demands for DCC funding throughout the whole community. The competing demands for the DCC funds may challenge City resources.

#### 9.4 Recommended Approach

Given the key issues noted above, it is most appropriate to recover storm drainage infrastructure costs through:

- ◆ **City-Wide Development Cost Charges** – The following costs would be included in the City-Wide Storm Drainage DCC program:
  - All costs associated with the “CCAP” land use scenario (i.e., those costs needed to service the “CCAP” land use scenario beyond those required to service the “Existing” land use scenario).
  - Costs associated with six projects that were recommended to service the “Existing” land use scenario, but were identified to replace projects in the current DCC program. These projects total \$13,460,000 (in total costs). See Table G.1 in **Appendix G**.
- ◆ **Works and Services/Storm Utility Reserves or Charges/General Revenues/Other Revenue Sources** – The City would recover the following costs through various innovative funding strategies including, but not limited to, works and services, storm utility reserves and charges, general revenues, and other possible revenue sources:
  - Consistent with the City’s current practice, the City’s portion of DCC costs (i.e., 1% Municipal Assist Factor);
  - All upgrades needed for the “Existing” demand scenario.

The recommended financing and cost-recovery approach for storm drainage infrastructure is summarized in **Table 35**.



**Table 35: Storm Drainage Financing and Cost Recovery Strategy**

<i>TOTAL STORM DRAINAGE CAPITAL COSTS</i> \$84,085,000			
<i>Cost to Service Existing Development</i> \$41,876,000		<i>Cost to Service CCAP Growth</i> \$42,208,000	
Costs Financed Through City-Wide DCCs	\$0 (6 projects allocated to DCCs accounted for in adjacent column*)	Costs Financed Through City-Wide DCCs (all projects in the "CCAP" land use scenario plus 6 projects in the "Existing" land use scenario)	\$41,786,000 (DCC recoverable costs) <sup>6</sup>
Costs Financed Through Storm Utility/General Revenue/Works and Services/Other	\$41,876,000*	Costs Financed by City (1% MAF)	\$422,000

*\*Six projects, totalling \$13,460,000, were recommended to service existing development, but were identified to replace projects in the current DCC program.*

The impact on DCCs is shown in **Table 36**.

<sup>6</sup> The City's current DCC Bylaw includes \$416,000 (in DCC recoverable costs) in projects for the City Centre that will be replaced by the new projects recommended by Earth Tech.



**Table 36: Approximate Impact on City-Wide Storm Drainage DCC Rates**

LAND USE	UNITS	CURRENT DCC RATES	APPROXIMATE PROPOSED DCC RATES
Single Family	per lot	\$4,459.81	\$5,131.99
Townhouse	per sq. ft. of building area	\$1.92	\$2.20
Apartment	per sq. ft. of building area	\$1.36	\$1.57
Commercial	per sq. ft. of building area	\$1.33	\$1.53
Light Industrial	per sq. ft. of building area	\$1.33	\$1.53
Major Industrial	per acre of gross site area	\$40,609.35	\$46,728.08

*\*These DCC rates would replace the current City-Wide drainage DCCs, and would not be added to the current drainage DCC rates.*

The DCC rates have been calculated under the following assumptions:

- ✦ City-wide DCC
- ✦ DCC horizon is to 2031
- ✦ Growth estimates are to 2031 and include both residential and non-residential growth
- ✦ 1% Municipal Assist Factor
- ✦ 100% benefit factor as per the current DCC Bylaw
- ✦ The overlap between the current drainage DCC program and the proposed program is \$416,000 in DCC recoverable costs (see **Appendix H**).
- ✦ Equivalency factors equal those used for the current DCC Bylaw
- ✦ No reductions due to City or developer sustainability initiatives

Further details on the DCC rate calculations are included in **Appendix I**.



## **10.0 CCAP FINANCING AND COST RECOVERY APPROACH – OPEN SPACE (PARKLAND ACQUISITION AND DEVELOPMENT)**

### **10.1 Overview of Parkland Acquisition and Development Plans**

At present, there is approximately 76.5 hectares (189 acres) of existing park and open space in the City Centre. The figure includes approximately 17 hectares (43 acres) that are existing school sites. This works out to approximately 4.25 acres of park and open space per 1,000 residents for the existing 44,500 population in the City Centre.

As part of the CCAP CONCEPT approved in principle by Council in February 2007, it was agreed that 3.25 acres of park and open space should be provided for every 1,000 residents in the future. Consequently, approximately 81.34 hectares (201 acres) of new park and open space is required for an ultimate "build out" population of 120,000 residents. Thus, by the year 2100, a total of 158 hectares (390 acres) of park and open space is required in the City Centre, consisting of urban waterfront parks or waterfront natural areas, urban parks, community parks and neighbourhood parks for both residential and commercial areas.

### **10.2 Cost Estimates**

Assuming that approximately 90,000 residents will live in the City Centre Area Plan by 2031, around 42 hectares (103.5 acres) of new park and open space will be required to obtain a ratio of 3.25 acres of park and open space for every 1,000 residents. In order to assist in the determination of the cost of acquiring parkland in the City Centre, the Parks, Recreation and Cultural Services (PRCS) Department retained the services of G.P. Rollo Associates Ltd. Mr. Rollo's land values were then confirmed or adjusted by the City's Real Estate Services Division.

The cost of developing parkland in the City Centre was based on current construction costs. Together, the parkland acquisition and park development costs formed the basis for achieving Council's objective of having 3.25 acres of park and open space for every 1,000 residents in the City Centre.

For parks required beyond 2031 to build-out, the City has estimated that an additional 13 hectares (32 acres) of parkland will be required. Assuming land costs of \$5 million/acre, this amounts to \$159 million. Development costs for these parks have been estimated to be approximately \$16.6 million.



### 10.3 Key Issues

Developing a financing strategy for parks was one of the more challenging components of the *Implementation Strategy*. Some of the reasons for this include:

- ◆ Parkland acquisition and park development combined are already the largest item in the current DCC rates (e.g., between 40% and 44% of the current DCCs goes to parks);
- ◆ Land acquisition costs have escalated significantly in the City Centre (this is why staff retained the services of G.P. Rollo Associates Ltd to get more accurate and current values to use in the DCC Program);
- ◆ Market values for City Centre land in Richmond are significantly higher than during the last DCC review and are also, on average, higher than other Metro Vancouver urban areas such as Surrey or areas where greenfield sites exist; and
- ◆ Given that there are very few areas within the City Centre that are expected to subdivide, the City cannot expect to obtain any significant amount of parkland through 5% dedication at subdivision. Currently, the City does not require developers to dedicate parkland at subdivision because it has found that the payment of DCCs to be a more effective method of financing parkland acquisition and development costs.

### 10.4 Recommended Approach

In order to meet Council's objective of 3.25 acres of park and open space per 1,000 residents in the City Centre, PRCS staff had to seriously review how this standard could be met and keep the DCC rates from increasing even more. As a result of this analysis, the following approach has been recommended:

- ◆ The current inventory of parks and open space in the City Centre was carefully re-examined and recent land acquisitions (14.5 acres), rights-of-way (3 acres of surplus road rights-of-way that will be incorporated as future park), and rights-of-way or privately owned publicly accessible spaces (POPAs) totalling 30 acres were excluded from the DCC program.
- ◆ The land use maps proposed to be included in the CCAP Bylaw were reviewed in detail and together PRCS and Policy Planning staff were able to more firmly locate the various park and open spaces required in the proposed new DCC Program.
- ◆ Where appropriate, linear greenways were identified as POPAs that the City did not need to use DCCs to acquire (i.e., the POPAs are typically acquired as a right-of-way as part of the development approval process).





- ◆ Of the 103.5 acres of park and open space required to service a year 2031 population of 90,000 residents approximately:
  - 22 acres is already owned by the City but still being used for industrial, road or other purposes;
  - 27.5 acres can be acquired as POPAs or right-of-ways (e.g., at the time of development and do not need to be purchased by the City); and
  - 54 acres needs to be added to the DCC Program.

This approach is summarized in **Tables 37** and **38**. Taking this approach, the parkland acquisition and park development DCCs are proposed to increase by approximately 40%.

It should be noted that City staff did consider other alternatives to increasing the DCC Program but decided not to pursue them either because of their uncertainty or negative impact on liveability. These alternatives included:

- ◆ Acquiring the parkland through the development approval process, which yields uncertain results;
- ◆ Utilizing the 5% parkland dedication requirement as a condition of subdivision approval (most of the developments in the City Centre involve a consolidation rather than a subdivision);
- ◆ Using a density bonus to acquire the parkland (staff would prefer to use the density bonus approach to obtain affordable housing and other amenities like child care);
- ◆ Exploring the concept of density transfers, where the density lost on the park area is transferred to an adjacent development (this requires further legal analysis); and
- ◆ Reducing the 3.25 acres per 1,000 residents park and open space standard in the City Centre.

The 54 acres of required parkland and all parkland development costs are recommended to be included in a City-wide DCC. The City considered implementing an area specific DCC for neighbourhood parks, and open spaces and greenways needed in the City Centre (i.e., allocate costs for these parks to a City Centre DCC, and allocate parks with a wider benefit to the entire City). This option would increase the cost of developing in the City Centre. A City Centre DCC is not recommended because it would:

- ◆ Be viewed as a disincentive to developing in the City Centre;



- ◆ Delay the acquisition and development of important neighbourhood parks and open space; and
- ◆ Necessitate revising the existing DCC program to reflect a similar approach elsewhere in the City.

**Table 37: Recommended Parkland Acquisition Approach**

<i>TOTAL PARKLAND ACQUISITION CAPITAL COSTS</i> \$237,698,000			
<i>Cost to Service Existing Development</i> \$0		<i>Cost to Service CCAP Growth</i> \$237,698,000	
No upgrades required to service existing development		Costs Financed Through City-Wide DCCs	\$223,555,000 <sup>7</sup>
		Costs Financed by City (1% MAP; 5% of costs allocated to existing development)	\$14,143,000

<sup>7</sup> The City's current DCC Bylaw includes \$67,779,000 (in DCC recoverable costs) for parkland acquisition in the City Centre; these costs will be replaced with the proposed parkland acquisition program.



**Table 38: Recommended Parkland Development Approach**

<i>TOTAL PARKLAND DEVELOPMENT CAPITAL COSTS</i> \$82,325,000			
<i>Cost to Service Existing Development</i> \$0		<i>Cost to Service CCAP Growth</i> \$82,325,000	
No upgrades required to service existing development		Costs Financed Through City-Wide DCCs	\$77,427,000 <sup>8</sup>
		Costs Financed by City (1% MAF; 5% of costs allocated to existing development)	\$4,898,000

Tables 39 and 40 show the approximate impact on DCC rates.

**Table 39: Approximate Impact on City-Wide Parkland Acquisition DCC Rates**

<i>LAND USE</i>	<i>UNITS</i>	<i>CURRENT DCC RATES</i>	<i>APPROXIMATE PROPOSED DCC RATES</i>
<b>Single Family</b>	per lot	\$5,245.90	\$9,109.36
<b>Townhouse</b>	per sq. ft. of building area	\$3.31	\$5.93
<b>Apartment</b>	per sq. ft. of building area	\$3.41	\$6.10
<b>Commercial</b>	per sq. ft. of building area	\$0.65	\$1.15
<b>Light Industrial</b>	per sq. ft. of building area	\$0.65	\$1.15
<b>Major Industrial</b>	per acre of gross site area	\$2,497.63	\$4,468.31

*\*These DCC rates would replace the current City-Wide parkland acquisition DCCs.*

<sup>8</sup> The City's current DCC Bylaw includes \$62,180,000 (in DCC recoverable costs) for park development in the City Centre; these costs will be replaced with the proposed park development program.



**Table 40: Approximate Impact on City-Wide Parkland Development DCC Rates**

LAND USE	UNITS	CURRENT DCC RATES	APPROXIMATE PROPOSED DCC RATES
<b>Single Family</b>	per lot	\$3,985.69	\$3,885.44
<b>Townhouse</b>	per sq. ft. of building area	\$2.52	\$2.53
<b>Apartment</b>	per sq. ft. of building area	\$2.59	\$2.60
<b>Commercial</b>	per sq. ft. of building area	\$0.49	\$0.49
<b>Light Industrial</b>	per sq. ft. of building area	\$0.49	\$0.49
<b>Major Industrial</b>	per acre of gross site area	\$1,897.63	\$1,905.88

*\*These DCC rates would replace the current City-Wide parkland development DCCs.*

The DCC rates have been calculated under the following assumptions:

- ◆ City-wide DCC
- ◆ DCC horizon is to 2031
- ◆ Growth estimates include both residential and non-residential growth
- ◆ 1% Municipal Assist Factor
- ◆ 95% benefit factor (portion of costs attributed growth)
- ◆ Overlap between the current parkland acquisition DCC program and the proposed parkland acquisition DCC program totals \$67,779,000 in DCC recoverable costs
- ◆ Overlap between the current parkland development DCC program and the proposed parkland development DCC program totals \$62,180,000 in DCC recoverable costs
- ◆ Equivalency factors equal those used for the current DCC Bylaw

Further details on the DCC rates calculations are included in **Appendix I**.

## 11.0 CCAP FINANCING AND COST RECOVERY STRATEGY – AMENITIES (RECREATION AND CULTURAL FACILITIES)

### 11.1 Overview of Community Amenity Plans

A principal goal of the CCAP vision is the development of complete communities in the City Centre. A "healthy community" as described in the CCAP includes the creation of gathering places, spaces and community buildings. The Open Space section of this *Implementation Strategy* deals with parks and open space (parkland acquisition and development). This section deals with community amenities (e.g., community recreation facilities, libraries, etc).

The following plans have been completed by the City of Richmond or its consultants:

1. **Parks, Recreation and Cultural Services (PRCS) Master Plan for 2005-2015** was adopted by Council on June 12, 2006, with the amendment and recommendation that staff be directed to develop a Facility Evaluation Framework to provide further rationale for prioritizing investment in capital projects. It identifies several facilities (existing and new) for capital investment in order to support a broad range of programs offered by a variety of service providers. The Facility Evaluation Framework was subsequently included in the PRCS Master Plan by Council on June 25, 2007.
2. **City Centre Places and Spaces Study** was adopted for inclusion into the CCAP CONCEPT by Council on October 23, 2006. It identifies the type of facilities and amenities that would be required for the City Centre and included locational criteria for community facilities and amenities.
3. **PRCS Facilities Strategic Plan** was adopted by Council on June 25, 2007. It identifies the general location, scope, development costs and schedule for major recreation and cultural facilities in the City. Council has directed that this Plan be incorporated into the Corporate Facilities Implementation Plan being prepared by Facilities Management. At the June 25, 2007 meeting, Council directed:
  - staff to prepare a joint feasibility study, including a funding strategy, for three new facilities: City Centre Community Centre, Older Adults' Activity Centre and Minor Aquatic Centre, with funding for this to be considered within the 2008 Capital Budget program;
  - that the following projects be referred to staff to determine how feasibility studies would be developed for each project: Terra Nova Rural Park Historic



District; Filed Sport Tournament Centre; Richmond Environmental Centre; and Visual Arts and Performing Arts Centre.

4. **Library Facilities Plan** was produced by the Richmond Public Library and Council directed that it be incorporated into the Corporate Facilities Implementation Plan at its meeting on October 9, 2007. It identified eight projects that are designed to meet the needs of both the current population and future population growth, as well as a specialized resource centre.

The following reports are still in process and will not be approved or implemented until after the *CCAP Implementation Strategy* is considered:

1. **New Community Safety Building and Upgrades to Fire Hall #1.** These projects are still in the works and will be presented to Council in early 2008.
2. **Corporate Facilities Implementation Plan** which includes the aforesaid PRCS facilities is to be considered by Council later in 2008.

In light of the fact that these two reports are still pending, the *CCAP Implementation Strategy* is proceeding without this information being finalized.

From the information available at this time a group of amenity projects has been assembled. The specific projects identified for the City Centre are identified in **Table 41**.

Council has the authority to amend the plan and rates should it wish.



**Table 41: Amenity Facilities**

TYPE OF FACILITY	SERVICE AREA	NEEDED SPACE (SQ. FT.)	TIMING	PRELIMINARY COST ESTIMATE (W/O LAND COSTS)
Community Centre South	C	35,000	2008-2014	\$19 million
Community Centre North	C	35,000	2022-2029	\$19 million
Community Centre West	C	20,000	2030 +	\$11 million
Community Centre East	C	20,000	2030 +	\$11 million
Older Adult Facility - South	CW	30,000	2005-2016	\$16.5 million
Aquatic Centre	CW	45,000	2008-2014	\$31.5 million
Cultural Centre	CW	44,000	2015-2021	*
Richmond Museum	R	25,000	2015-2021	\$15 million
Visual & Performing Arts Centre	R/CW	45,000	2022-2029	\$27 million
Expansion of Brighthouse Branch	CW	16,000	2008	\$10 million.
New Main Library	CW	100,000	2015	\$60 million
City Centre Branch Library North	C	25,000	2018	\$15 million

*N=Neighbourhood, C=Community, CW=City-wide, R=Regional*

*\*Existing building – cost to be determined depending on whether the existing building is retrofitted or a new building is required.*

**11.2 Recommended Approach**

The PRCS Facilities Strategic Plan identified a number of funding options for community amenities which will need to be thoroughly explored during the feasibility stage of development. These funding options included:

- ◆ Property Tax / Reserves (e.g., capital reserves such as the leisure facilities reserve and City Centre facilities fund – which can receive funds through developer gifts / contributions or property taxes);
- ◆ Public-Private Partnerships (which require significant government subsidization);
- ◆ Joint Ventures (which again require significant government subsidization);
- ◆ Referendum (i.e., the City borrow the funds through debt financing to finance the initial capital costs – which would involve an increase in property taxes to fund the debt repayment);
- ◆ Intergovernmental Funding (e.g., grants and transfers from senior levels of government); and
- ◆ Community Contributions (e.g., corporate sponsorship programs; fundraising programs; etc.).



It is recommended that the City consider the development of a community user fee to help recover the capital costs associated with the planned community facilities. Unlike gifts, which are voluntary contributions made by developers typically at rezoning, or additional density, which developers achieve through density bonusing, community user fees would be mandatory just like utility charges. The community user fee could be levied on property owners or on user groups (i.e., those groups that use the community facilities).

Currently, the City's community facilities are run by community organizations, which levy their own user fees for programs. The City may consider levying a surcharge on these user fees to help recoup capital costs associated with the community facilities.

The financing and cost recovery approach to the community and amenity facilities will be determined later in 2008 by City staff.

It is proposed that the density bonusing approach be used to:

- ◆ Achieve built affordable housing units or cash in lieu contributions as per the Council adopted Richmond Affordable Housing Strategy; and
- ◆ Obtain child care as an amenity, where in order to move beyond the base density identified and recommended in the City Centre Area Plan, developers will be required to provide either the child care space or a cash in lieu contribution towards child care.





## 12.0 CCAP LAND ACQUISITION STRATEGY

The timely acquisition of land for municipal infrastructure, facilities and parks is critical to the success of the CCAP vision. The amount of land required for the water, sanitary and drainage servicing programs is minimal. The land required for transportation infrastructure, parks and facilities is more complicated and challenging.

- ◆ **Road Land Acquisition** - The land cost component of the Minor Street, Lanes and Mews will be borne by the developer through the Works and Services provisions of the Subdivision Bylaw. As part of the cost of developing land in the City Centre the developer will be asked to both dedicate the land to accommodate the Minor Streets, Lanes and Mews and also build these works.

Major Thoroughfares and Major Street also have land widening requirements. Developers that front these types of roads will for the most part also dedicate these roads but the construction of these roads may be either by the City or developer. There are a few exceptions to this requirement. There are a number of new roads or extensions of certain existing roads that are critical to the transportation network. These roads are primarily Major Thoroughfares and Major Street and there are also three Minor Streets that have also been included. These few land acquisitions will be included in the City-wide DCC program. It is anticipated the DCCs will be used to fund the construction of all of the Major Thoroughfares and Major Streets.

The most significant implication of this approach is that until land for roads are dedicated a DCC funded road construction project will not occur. For example a Major Thoroughfare may be necessary for optimal traffic movement throughout the City but may not be constructed until a developer decides to develop their parcel and dedicate the required land. This approach does have the affect of reducing the transportation DCC but reduces the City's ability to bring certain roads on line in a timely manner. The costs of the land dedication are borne directly by the development community and individual land owners.

Land dedication from developers for off-street walking/cycling facilities is not included in the proposed transportation program (e.g., Lansdowne Trail in the Richmond Oval lands; Cook Cycling Path through Richmond Centre; Alder Cycling Path in McLennan North Sub-Area) except for those in the existing DCC program.

- ◆ **Parkland Acquisition** - The parkland acquisition requirements are also significant. The ultimate goal is to have more than 200 acres of parkland in the City Centre. If all this land



had to be acquired the cost is estimated to be more than \$400 million. Land costs in the City Centre are escalating at a significant rate.

The goals to acquire parkland can be summarized as:

- Meet the community's parkland needs in a timely manner;
  - Have the funds available to acquire the parkland when needed;
  - Try to address the rising land costs in the City Centre by acquiring land early; and
  - Explore all possible methods for acquisition as these may change over the life of the CCCAP.
- ◆ **Joint School/ City Land Acquisition** - The opportunity exists for the School Board and City to work together to acquire mutually beneficial properties within the City Centre. Due to the land acquisition and disposal strategy of the School Board and Provincial acquisition and disposal policies, the City may have to establish policies for the City Centre in the *Implementation Strategy* to acquire joint City and school park sites in the future or for the City to acquire any surplus School Board lands in the future.
- ◆ **Public-Private Land Ownership** - There may be situations where a developer and the City may find joint land ownership or use beneficial for locating an urban park. For example, a situation may exist where a developer needs to build a parking structure next to their development. The City may also need an urban park in the general location. The possibility exists that the park may be built on top of the parking structure and that the City would acquire the land at a reduced rate with a long term agreement with the building ownership for dual use of the lands. Alternatively, a joint ownership agreement may be desirable instead of sole ownership by the City.

The most common methods to acquire parkland include are through DCCs or 5% parkland dedication at the time of subdivision. Other methods such as joint use agreements with schools or others and gifts are common but not a typical foundation for a parkland acquisition strategy. At this time, it is anticipated that the majority of parkland will be acquired through DCCs.



### 13.0 COMMUNITY PLANNING

The Planning and Development Department has identified the need to recover some of the costs of City Centre planning work. This is appropriate because most of the special community planning projects undertaken by the Policy Planning Division to complete the proposed CCAP support private sector development and involve expenditures on consultants.

The main contracts to do the various planning studies to update the City Centre Area Plan involve approximately \$600,000. Since this project has been ongoing over the past two years, this equates to approximately \$300,000 annually.

One of the ways to collect this money is to add a City Centre community planning fee to the Development Applications Fee Bylaw. This fee would be commensurate with the overall cost of administration and overhead of the City's planning function. Similar fees may be appropriate for community planning costs in the rest of Richmond.

Another way to recover the costs of community planning may be through phased development agreements on rezoning applications in the City Centre. A phased development agreement is a new tool that has been granted to municipalities under the *Local Government Act*. Essentially, it is an agreement between the developer (who agrees to certain items – in this case cost recovery for community planning by the City) and the City (who agrees that it will not change the zoning of the property for between 5 to 10 years). For example, if the rezoning applications in the City Centre in 2007 contributed \$0.25 per square foot of their total net building area (including retail and office space) towards community planning, it is estimated \$200,000 would be raised.



#### 14.0 CCAP DEVELOPMENT COST CHARGE SUMMARY

The impact on DCC rates is summarized in **Table 42**. City-Wide (2031) DCC rates are expected to be approximately 31% higher than current DCCs for single family development.

Table 42: Approximate Impact on City-Wide DCC Rates (2031)

Category	Single-Family Residential		Townhouse Residential		Apartment Residential		Commercial		Industrial		Total	Percentage
	Value	Unit	Value	Unit	Value	Unit	Value	Unit	Value	Unit		
Single Family	\$6,431.35	per lot	\$2,634.91	per lot	\$5,131.99	per sq. ft.	\$1,109.36	per sq. ft.	\$3,885.44	per sq. ft.	\$28,003.66	31%
Townhouse	\$3.08	per sq. ft. of building area	\$1.72	per sq. ft. of building area	\$2.20	per sq. ft. of building area	\$5.98	per sq. ft. of building area	\$2.59	per sq. ft. of building area	\$15.99	34%
Apartment	\$4.11	per sq. ft. of building area	\$1.77	per sq. ft. of building area	\$1.57	per sq. ft. of building area	\$6.10	per sq. ft. of building area	\$2.60	per sq. ft. of building area	\$16.69	35%
Commercial	\$8.20	per sq. ft. of building area	\$0.67	per sq. ft. of building area	\$1.53	per sq. ft. of building area	\$1.15	per sq. ft. of building area	\$0.49	per sq. ft. of building area	\$12.25	33%
Light Industrial	\$5.86	per sq. ft. of building area	\$0.67	per sq. ft. of building area	\$1.53	per sq. ft. of building area	\$1.15	per sq. ft. of building area	\$0.49	per sq. ft. of building area	\$9.91	32%
Major Industrial	\$30,619.11	per acre of gross site area	\$14,540.33	per acre of gross site area	\$46,728.08	per acre of gross site area	\$4,468.31	per acre of gross site area	\$1,905.88	per acre of gross site area	\$102,735.04	23%

Municipal Assistor Factor = 1%



## 15.0 PHASING STRATEGY

### 15.1 Overview of Phasing Plans

The vision of growth presented at various CCAP open houses over the past two years included a varied density and new parks and open space, high rise residential development, mixed-use development (high rise) and mixed-use development (mid-rise) development. This growth is projected to ultimately reach a population of 120,000 people, 36,000 jobs and 390 acres of parkland. Growth is to occur through a set of high density urban villages. To achieve the village concept the City Centre should develop based on the principles of transit-oriented development (TOD). To reach this vision the growth will be phased.

The most rapid growth in the City Centre is to occur between 2007 and 2021. The next period from 2021 to 2031 and beyond will see the composition of the population grow significantly in older adults. Beyond 2031, the growth will continue, but at a slower pace. By 2031, 50,000 of the projected 80,000 additional people will be part of the City Centre population. This significant growth in the 2007 to 2031 period will drive the need for the majority of the infrastructure, parkland and many of the new amenities.

The fundamental planning and development priorities for the City Centre, as stated in the CCAP CONCEPT, include:

- ◆ Establishment of high-density transit villages
- ◆ Enhancement of the waterfront
- ◆ Acquisition of well-located, high amenity public parks and amenities

The following sections outline a *Phasing Strategy* consistent with these priorities.

### 15.2 Principles

The following guiding principles are proposed for the *Phasing Strategy*.

1. The *Phasing Strategy* identifies the preferred development areas in the City Centre.
2. The *Phasing Strategy* considers the City's priorities for providing transportation, utilities and park improvements.
3. The *Phasing Strategy* factors in the potential location and development of community facilities.
4. The *Phasing Strategy* supports the planning objectives of the CCAP CONCEPT to create a "complete community".



5. The *Phasing Strategy* co-ordinates phasing for growth with phasing required City investments/infrastructure.
6. The *Phasing Strategy* emphasizes development around the Canada Line and the Richmond Oval.
7. The *Phasing Strategy* encourages high density transit villages around the Canada Line and enhances the use of the waterfront.
8. The *Phasing Strategy* recognizes that development will continue in areas that have already been pre-planned or pre-zoned (e.g., McLennan North and South Sub-Area Plans; Downtown Commercial (C7) District; etc.).
9. The *Phasing Strategy* enables the early acquisition of strategic parcels to minimize the impact of escalating land values.
10. The *Phasing Strategy* encourages development in proximity to parks and community facilities.
11. The *Phasing Strategy* enables development to proceed ahead of a planned phase if the developer pays all the costs, particularly advancing parkland acquisition and parkland development that is not on the DCC program (i.e., beyond 2031).
12. The *Phasing Strategy* will be clear and simple to understand for all stakeholders.
13. The *Phasing Strategy* is based on the projected population growth in the City Centre.
14. The *Phasing Strategy* ensures the financial sustainability of each phase for the City and developers.

Note: these guiding principles are not listed in any priority.

### **15.3 Recommended CCAP Phasing Strategy**

The purpose of the recommended CCAP *Phasing Strategy* is to:

- ◆ Coordinate development and ensure that community infrastructure and amenities are provided in a timely manner;
- ◆ Maximize development around the Canada Line and transit stations to promote ridership;
- ◆ Enhance the use of the waterfront and the acquisition of the waterfront park/natural areas; and
- ◆ Enable flexibility as many areas of the City Centre may develop at the same time provided that services and community facilities are provided in a timely manner.



To phase development, the City has identified preferred development areas (shown on the Preferred Development Areas Map included in the CCAP). The preferred development areas:

- ◆ Facilitate the streetscape and road enhancements along No. 3 Road;
- ◆ Enable the completion of Lansdowne Road from No. 3 Road to the Richmond Oval;
- ◆ Facilitate the relocation of River Road to the CPR right-of-way;
- ◆ Reinforce the establishment and development of high density Village Centres within 200m of the Canada Line Stations and Richmond Oval; and
- ◆ Envision the enhancement of the waterfront and the acquisition of key waterfront parks and amenities.

Instead of phasing development in a traditional way (i.e., where development would not be permitted in one area until a higher priority phase was completed), it is proposed that development could proceed outside of the preferred development areas if the developer assumes the responsibility for the provision and construction of the required City improvements. This recommended approach has little implication to the developer who has to build the works and services anyway. Similarly, it is unlikely that the City would object to the provision of transportation or utility improvements ahead of schedule.

Where it does have an impact is regarding the acquisition and development of parkland that is not in the DCC program. If a developer wants to develop in an area where the parkland acquisition and/or development is not proposed by the City until after 2031, it is recommended that Council ask the developer to acquire and develop or contribute to the acquisition and development of all or a portion of the parkland in order to advance that particular park and open space ahead of the City's proposed DCC program. This is the recommended approach because it is felt that it would be difficult to deny the rezoning application based on timing (i.e., that the development is premature). It would also be problematic to allow the development to proceed but adjust the DCC Bylaw now (which could divert DCCs from other higher priorities) or in the future when sufficient development has occurred in that area (which would mean that some developments/neighbourhoods could initially be deficient of park and open space).

#### **15.4 Recommended Phasing Policies**

The following policies are based on the suggested preferred development areas and the need for immediate policies to help facilitate growth over the next five to ten years. New policies to support the completion of the City Centre plan beyond the next ten years will be developed as the CCAP evolves.





- ◆ **Phasing Policy #1:** Focus the investment of City Centre monies on infrastructure, parkland and development and amenities that promote development within 200m of the six village centres.
- ◆ **Phasing Policy #2:** Purchasing significant parkland and future facility lands within the next 10 – 15 years to reduce the impact of rising land costs in the City Centre. This may require an aggressive monetary borrowing plan to achieve any significant results.
- ◆ **Phasing Policy #3:** Prioritize the DCC program to focus attention on ensuring that any municipal funding in support of City Centre DCC projects is in place as development occurs.
- ◆ **Phasing Policy #4:** Encourage subdivision, rezoning, DP and building permit applications to facilitate development within 200m of the village centres.
- ◆ **Phasing Policy #5:** If a developer wishes to develop outside of the above priority phasing areas and policies, the City will require that the developer assume all infrastructure costs related to the development. The City will not allocate City resources to support development that occurs outside of this phasing framework; however, if the developer will cover all infrastructure costs, the City will consider development outside of this phasing framework and give DCC credits for items on the DCC program.



# APPENDIX A

## Recommended Transportation Projects



# APPENDIX B

## Overlap Between Current and Proposed Transportation DCC Programs



# APPENDIX C

## Recommended Water Projects



# APPENDIX D

## Overlap Between Current and Proposed Water DCC Programs



# APPENDIX E

## Recommended Sanitary Projects



# APPENDIX F

## Overlap Between Current and Proposed Sanitary DCC Programs



# APPENDIX G

## Recommended Storm Drainage Projects





# APPENDIX H

## Overlap Between Current and Proposed Storm Drainage DCC Programs



# APPENDIX I

## Proposed DCC Calculations