

File No.: 04-1000-20-2019-290

August 7, 2019

s.22(1)

Dear s.22(1)

Re: **Request for Access to Records under the Freedom of Information and Protection of Privacy Act (the "Act")**

I am responding to your request of May 2, 2019 for:

A copy of the most recent version of the report titled "Consumption of Tax-Supported Municipal Services" prepared for the City of Vancouver by MMK Consulting or any other related reports or addendums done by other consulting firms, from January 1, 2007 to May 2, 2019

All responsive records are attached.

Under section 52 of the Act, and within 30 business days of receipt of this letter, you may ask the Information & Privacy Commissioner to review any matter related to the City's response to your FOI request by writing to: Office of the Information & Privacy Commissioner, info@oipc.bc.ca or by phoning 250-387-5629.

If you request a review, please provide the Commissioner's office with: 1) the request number (#04-1000-20-2019-290); 2) a copy of this letter; 3) a copy of your original request; and 4) detailed reasons why you are seeking the review.

Yours truly,



Barbara J. Van Fraassen, BA
Director, Access to Information & Privacy

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*If you have any questions, please email us at foi@vancouver.ca and we will respond to you as soon as possible. Or you can call the FOI Case Manager at 604.871.6584.

Encl.

:ag

CITY OF VANCOUVER

**CONSUMPTION OF TAX-SUPPORTED
MUNICIPAL SERVICES**

VOLUME I — MAIN REPORT

Prepared for:

**Financial Planning and Treasury
City of Vancouver**

Prepared by:

MMK Consulting Inc.

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January 5, 2007

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1. Executive Summary

This study estimates the relative consumption of property-tax-supported services by different property classes¹ in the City of Vancouver. This study updates a previous KPMG Consulting study performed for the City in 1995.

1.1 Current City taxation environment

Vancouver City Council uses a “fixed distribution” policy to determine the relative shares of property taxes to be collected from each property class. Once the fixed distribution to property classes has been determined, each individual property is assigned a share of the total property tax burden for its class, based on its share of the total taxable values for the class.

Between 1984 and 1995, residential properties in Vancouver experienced a significant increase in their share of overall taxable values, from 67% to 81%². During that time period, Council adjusted its fixed distribution policy more modestly, increasing the residential share from 40% to 41.5%. Combining these two trends, the non-residential/ residential tax rate ratio increased from 3.0 in 1984 to 5.9 in 1995.

Trends have been more stable between 1995 and 2006. Residential properties have increased their share of taxable values from 81% to 83%, and Council has increased the residential share of the tax burden from 41.5% to 45% (before allowing for utility taxes, payments in lieu of taxes, etc.). Combining these two trends, the 2006 tax rate ratio is 6.1, similar to that in 1995.

Further details are provided in Chapter 3.

1.2 Structure of the City budget

The City’s 2006 budget includes \$813 million in total expenditures. Excluding self-funding utilities (not included in the study scope), and making a few minor adjustments (detailed in the main report), the City expenditures that are wholly or partly supported by property tax revenues are approximately \$680 million. Of this \$680 million, the City receives approximately \$171 million in non-tax revenues, leaving approximately \$509 million to be recovered through property taxes.

Further details are provided in Chapter 4.

¹ For this analysis, property classes have been grouped as follows:

- Residential – including Residential (Class 1), Recreational/Non-profit (Class 8), and Farm (Class 9).
- Non-residential – including three subgroups:
 - Utilities (Class 2).
 - Major Industry (Class 4).
 - Business/Light Industry (including Light Industry (Class 5), plus Business & Other (Class 6)).

² These changes reflect the combined impact of class transfers, new construction, difference in the relative strength of the residential and non-residential markets, and tax rating policies.

1.3 Study Methodology

The study methodology includes a detailed analysis (by line item) of all of the City's \$680 million in property tax supported costs, as well as \$171 million in offsetting non-tax revenues.

Individual cost and revenue assignments are based on a detailed classification and analysis of each department's line items as contained in the City's 2006 budget:

- Level 1 costs and revenues are those relating to direct services to people and properties. They have been assigned to property classes based on a combination of (1) management assessment and (2) analysis of relevant data (23 different sets of relevant data).
- Level 2 costs are those relating to internal services to other City departments. They have been assigned to property classes based on the Level 1 consumption patterns of the departments being served.
- Level 3 costs are those relating to departmental administration and overheads. They have been assigned to property classes based on the combined Level 1 and 2 results for the department in which they reside.

Further details are contained in Chapter 5.

1.4 Results for 2006

As illustrated in Exhibit 1a, residential properties have been assigned 76% (\$388 million) of net tax-supported services. They also account for \$217 million (42.6%) in property taxes. On average, residential properties pay approximately \$0.56 in property taxes for each dollar of tax-supported services consumed.

Non-residential properties have been assigned 24% (\$111 million) in net tax-supported services. They also account for \$292 million (54.7%) in property-based taxes. On average, non-residential properties pay approximately \$2.42 in property taxes for each dollar of tax-supported services consumed — 4.3 times the residential rate of \$0.56. (This calculation is defined as the "consumption payment ratio.")

Details of the 2006 results are contained in Chapter 6 and the study Appendices.

Exhibit 1a — Results for 2006 (plus 1995 comparison)

	1995 ¹		2006 ²	
	Residential	Non-residential	Residential	Non-residential
Net consumption:				
• Dollars (\$M)	\$249	\$102	\$388 ²	\$121 ²
• Share of net consumption	71%	29%	76%	24%
Share of property tax burden	40%	60%	42.6% ³	57.4% ³
Payment per dollar of services consumed	\$0.56	\$2.07	\$0.56	\$2.42
Consumption payment ratio	1	to 3.7	1	to 4.3

1 Source: 1995 KPMG Report.

2 Source: 2005 MMK Report (this study).

3 After adjusting for utility taxes, payments in lieu of taxes, etc. (See Appendix S.)

1.5 Comparison with 1995 results

As illustrated in Exhibit 1a, the 76% share of net costs assigned to residential properties is 5% higher than in 1995. Approximately 1% of this difference is attributable to a change in the study methodology for assigning certain revenue items (see full report for details).

For comparative purposes, if the 2006 study had been performed without this methodological adjustment, the residential share would have been approximately 75%, and the consumption payment ratio would have been approximately 4.0 (versus the 1995 figure of 3.7).

Further details are provided in Chapter 7.

1.6 Conclusion

Residential properties in Vancouver have increased their net share of consumption of tax-supported municipal services since 1995, and have also increased their share of taxes paid in respect of these services. In terms of “payment per dollar of services,” Vancouver residential properties pay about the same as they did in 1995.

Non-residential properties have seen a decrease in their net share of consumption since 1995, as well as in their share of taxes paid. The “payment per dollar of services” for non-residential properties is modestly higher in 2006 than in 1995.

1.7 Interpretation of study results

The study results are based on a detailed research and analysis program. All of the specific cost and revenue assignments involve some level of subjectivity and professional judgement. The study results should not be interpreted as measuring the precise value of the services consumed by a specific property class group, nor of any individual property. Rather, these results constitute a balanced independent estimate of the overall levels of consumption of tax-supported services, by each property class group, relative to the property taxes paid.

2. Introduction

In 1995, a KPMG report for the City of Vancouver estimated the relative consumption, by Vancouver's residential and non-residential property classes, of property-tax-supported municipal services. The study estimated that in 1994 residential properties had consumed approximately 71% of tax-supported services, while non-residential properties (Business, Major and Light Industry, Utilities) had consumed approximately 29%.

The 1995 study also compared these consumption patterns to the property taxes paid in respect of these services by the residential and non-residential property tax groups. The study found that, on average, residential properties paid approximately \$0.56 for each dollar of tax-supported services consumed, while non-residential properties paid approximately \$2.09 for each tax-supported dollar of services consumed.

The 1995 report is now more than ten years old. During that time, the makeup of Vancouver's property classes has changed, as has the range of tax-supported services provided by the City. Accordingly, the City has commissioned an update of the 1995 study, in preparation for a review of the City's property tax policies to be undertaken during the winter of 2006/07.

This study update has been performed by MMK Consulting, an independent management consulting firm. The lead consultants on this study include the two lead consultants from the 1995 KPMG study.

2.1 Study objectives and scope

The objective of this study is to provide an independent analysis of the relative consumption of property-tax-supported services by the residential and non-residential property classes. The scope of the study includes:

- A review of the City's current tax environment (Chapter 3).
- A review of the structure of the City budget (Chapter 4).
- A description of the methodology used in analyzing service consumption patterns, and in assigning costs and revenues among property classes (Chapter 5 and detailed appendices).
- Results of the consumption analysis (Chapter 6 and detailed appendices).
- Comparison with the findings of the 1995 study (Chapter 7).

The scope of the 2006 study is narrower than the 1995 study in one key aspect, in that the 2006 terms of reference do not include an analysis of possible policy options (as was performed in conjunction with the 1995 study).

2.2 Study conduct

In performing this study we have:

- Reviewed the study approach and methodology used in the 1995 analysis, making adjustments where appropriate.
- Performed a review of each major revenue and expense line item in the City's 2006 budget, meeting with staff from individual City departments to discuss the most appropriate basis for assigning these expenditures and revenues among different property classes.
- Assigned each expense and revenue line item among property classes, using the methodology described in Chapter 5 and detailed in the study appendices.
- Combined the department-by-department results to develop overall results for 2006, and then compare them with the previous 1995 results.
- Developed this report, reviewing it with the City prior to finalizing it.

2.3 Study authorship

In analyzing costs and revenues for the purpose of assigning them among property classes, the consultants have consulted with many City employees and have benefited from their cooperation and assistance. All cost and revenue assignments are ultimately those of MMK Consulting.

3. Current City Taxation Environment

Exhibit 3a describes the various property classes listed on BC Assessment's website, organized for this study into two major groups—residential and non-residential. These are the property classes used by all BC municipalities, including the City of Vancouver.

Exhibit 3a Property class descriptions

Residential (non-commercially oriented)

Class 1 – Residential

Includes single-family residences, duplexes, multi-family residences, duplexes, apartments, condominiums, nursing homes, seasonal dwellings, manufactured homes, recreational property, some vacant land, farm buildings and daycare facilities.

Class 8 – Recreational Property and Non-Profit Organizations

Includes land, but not improvements on that land, used solely as an outdoor recreation facility for activities such as golf, skiing, tennis, public swimming pools, waterslides, amusement parks, marinas and hang gliding. Improvements on the land (such as a clubhouse) fall into Class 6. Also includes property used for at least 150 days per year by a non-profit organization for a meeting hall or place of public worship.

Class 9 – Farm

Farm land must produce primary agricultural products for sale such as a crop of livestock.

Non-Residential (commercially oriented)

Class 2 – Utilities

Includes structures and land of railways, pipelines, telegraph/telephone systems, electrical systems and closed circuit TV systems, but does not include offices or sales outlets. Examples include: Telus, Terasen, BC Rail, CN Rail and Shaw Cable.

Class 4 – Major Industry

Includes land and improvements (buildings) of major industrial properties. Improvements include buildings used for lumber mills, pulp mills, heavy manufacturing, mining, smelting, shipbuilding and loading terminals (including grain elevators and associated storage). Examples include United Grain Growers, Western Pool Terminals, Mainland Sawmills and Centerm.

Class 5 – Light Industry

Property used or held for extracting, manufacturing, or transporting products, including ancillary storage. A scrap metal yard, winery or boat building operation all fall within this category. Exceptions include properties used for the production of food and non-alcoholic beverages, which fall into Class 6.

Class 6 – Business and Other

Includes everything not included in another class. Property used for offices, retail, warehousing, hotels and motels all fall within this category.

3.1 Trends between 1984 and 1995

Up to 1983, the provincial government regulated the relationships between residential property tax rates and the rates for other property classes. These “fixed ratios” were generally 2.6 to 3.5 times residential rates, depending on the property class. In 1983, the provincial government enacted legislation to allow municipalities to set individual tax rates by class of property.

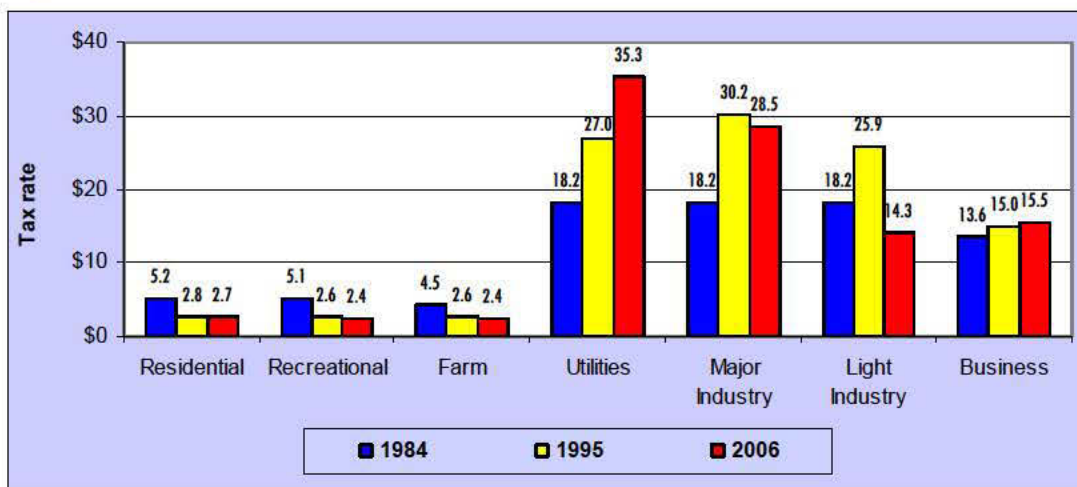
In response, the Vancouver City Council of the day adopted a “fixed distribution” policy, to assign a predetermined share of the property tax burden to different property classes. The initial assignment was 40% to residential properties, 60% to non-residential properties.

Between 1984 and 1995, the taxable value of residential properties grew from 67% to 81% of the City’s tax base. This significant trend has been attributed to a combination of rising residential land values and significant residential construction activity.

Under the City’s “fixed distribution” policy, the residential share of the overall tax burden increased during the same time, from 40% to 41.6%. This increase was relatively modest in comparison to the increase in the residential share of overall property values.

As a result, residential tax rates declined by nearly 50% (from \$5.20 to \$2.80) between 1984 and 1995. On the other hand, tax rates for the main non-residential property classes (business, light industry, major industry, utilities) increased significantly. These trends are illustrated in Exhibit 3b.

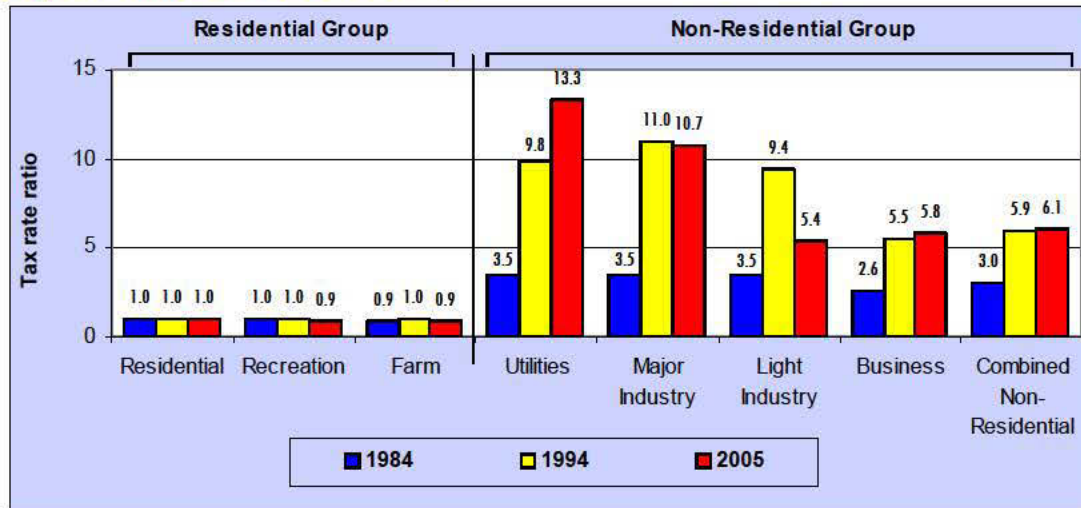
Exhibit 3b
City of Vancouver tax rates¹



¹ Source: Analysis of BCAA data.

The results illustrated in Exhibit 3b may also be expressed in terms of the “tax rate ratio”, the ratio of tax rates for non-residential property classes to tax rates for residential properties. As illustrated in Exhibit 3c, tax rate ratios in 1984 were in the range of 2.6 to 3.5. By 1995, they had increased to a range of 5.5 to 11.0.

Exhibit 3c
City of Vancouver tax rate ratios¹



¹ Source: Analysis of BCAA data.

For the four non-residential property classes combined, the non-residential/residential tax rate ratio increased from 3.0 in 1984 to 5.9 in 1995. These trends are illustrated in Exhibits 3c and 3d.

Exhibit 3d
Summary of Residential/Non-residential tax rate ratios¹

	1984	1995	2006
Share of taxable values: (Residential/Non-residential)	67.1/32.9	80.7/19.3	83.2/16.8
Share of taxes: (Residential/non-residential) ²	39.8/60.2	41.5/58.5	45.0/55.0
Tax rate ratio	3.0	5.9	6.1

¹ Source: BC Assessment Authority data.

² Before allowances for payments in lieu of taxes (PILT), utility taxes and taxes on City properties (see Appendix S).

3.2 Trends between 1995 and 2006

Trends have been more modest between 1995 and 2006. The residential share of total property assessed values has grown from 81% to 83%. At the same time, the City has made further adjustments to the “fixed distribution” percentages, increasing the residential tax share to 45% in 2006.

As a result, the 1995-2006 trends in tax rate ratios among the non-residential property classes have been less significant than between 1995 and 2006, as illustrated in Exhibits 3b and 3c. (The decrease in “Light Industry” tax rates between 1995 and 2006 also reflects the City’s decision to tax the Business property class and Light Industry property class on a similar basis.)

As illustrated in Exhibits 3c and 3d, the overall non-residential/residential tax rate ratio in 2006 is 6.1, similar to the 5.9 ratio in 1995.

4. Structure of the City Budget

4.1 Total expenditures

The analysis presented in this study is based on the Operating Budget approved by Council in March 2006, as published in “City of Vancouver, Budget 2006” (July 2006). Exhibit 4a illustrates the \$813 million in budgeted expenditures, by department.

4.2 Total tax-supported expenditures

The study terms of reference are to exclude any self-funding utilities operated by the City. Thus, the following analysis:

- Completely excludes the Water and Solid Waste Utilities, since these are fully self-funded.
- Excludes the Sanitary Sewer portion of the Sewer and Drainage Utility, since sanitary sewer costs are funded from user fees.

A number of minor adjustments have also been made to the 2006 Budget Book, as noted in the footnotes to Exhibit 4a. These adjustments do not substantively affect the analysis.

As illustrated in Exhibit 4a, \$680 million in total expenditures are within the scope of this study, of which \$171 million is offset by departmental revenues, leaving \$509 million in net tax-supported expenditures.

4.3 Revenues

Exhibit 4a also illustrates the departmental breakout of the \$171 million in revenues from sources other than property-taxes. Revenue sources have been assigned to the relevant departments by the consultant, as detailed in the department-specific report appendices.

These revenues have also been analyzed and assigned to property classes, as described in Chapter 5 and the report appendices.

4.4 Analysis of expenditures and revenues

Expenditures and revenues are analyzed in detail by department, in Appendices B through S, as referenced in Exhibit 4a.

Exhibit 4a
2006 Expenditure and Revenue Budget – (\$million)

Appendix	City of Vancouver 2006 Budget Book figures	Revenues from self-funding utilities and adjustments to 2006 Budget Book figures	Total expenditures, net of self-funded utilities and adjustments to 2006 Budget Book figures	Total non-tax revenues	Net tax-supported expenditures
B Mayor and Council	1.887		1.887		1.887
C City Manager's Office	11.218		11.218		11.218
D Corporate Services	31.909		31.909	(1.509)	30.400
E Human Resources	7.429		7.429		7.429
F City-wide Expenditures	8.415		8.415		8.415
G Community Services	46.631		46.631	(37.664)	8.967
H Civic Grants Program	14.178		14.178		14.178
I Engineering	58.338	0.688 ¹	59.026	(44.485)	14.541
J Sewer and Drainage	68.457	(34.151) ²	34.306		34.306
Water Utility (self-funded)	69.668	(69.668) ³	-		-
Solid Waste Utility (self-funded)	31.391	(31.391) ³	-		-
K Vancouver Police Department	175.098		175.098		175.098
L Fire and Rescue Services	78.816		78.816		78.816
M Board of Parks and Recreation	89.261		89.261	(34.751)	54.510
N Vancouver Public Library	34.050		34.050		34.050
O Britannia Community Centre	2.842		2.842		2.842
P Civic Theatres	6.470	0.138 ⁴	6.608	(6.137)	0.471
Q Debt, Contingency and Transfers	77.272	1.098 ⁵	78.369	(10.912)	67.457
R Sundry Revenue			-	(35.823)	(35.823)
Total	813.330	(133.287)	680.043	(171.281)	508.762

1 Parking revenues classified as revenues (rather than a negative expenditure).

2 Non-property-tax-supported portion of the utility (sanitary sewer) excluded from analysis.

3 Water and solid waste utility excluded from analysis.

4 Revenue and expenditures are both understated by equal amounts in the 2006 Budget Book.

5 Transfer to Contingency Funds higher than contained in July 2006 Budget Book because of higher-than-expected PILT revenues.

5. Methodology for Assigning Costs and Revenues to Property Classes

5.1 City departments included in the study

As discussed in Chapter 4, the study scope includes all municipal expenditures that are partly or wholly supported by property tax revenues.

As in 1995, all self-funding utilities have been excluded from the analysis. Thus, solid waste (converted to a fully self-funded department after 1995) has not been included in this 2006 report, even though it was included in the 1995 study. Similarly, health (responsibility transferred from the City to the Province) is not included in the 2006 study, although it was included in the 1995 study.

5.2 Property class groupings

The 1995 study considered two groups of property classes — residential and non-residential. For 2006, the analysis again keys on these groups, and also breaks non-residential into three sub-groups:

- The **Residential** group includes Residential (Class 1), Recreational/Non-Profit (Class 8), and Farm (Class 9)¹.
- The **Non-Residential** group includes:
 - **Utilities** (Class 2)
 - **Major Industry** (Class 4)
 - **Business/Light Industry** – including Light Industry (Class 5), plus Business & Other (Class 6)².

As detailed in the Appendices, in some cases the process has been first to assign costs/revenues between residential and non-residential property classes, and second to assign costs among the non-residential property classes. Given this process, the overall residential/non-residential assignment should be considered more robust than the assignments within the non-residential property class group.

5.3 Direct consumers versus ultimate beneficiaries

One of the methodological issues associated with consumption-of-service studies is the extent to which costs and revenues should be assigned to the “direct” first-round consumers of the services, versus the extent to which they should be assigned to the “ultimate beneficiaries” of the service.

¹ These classes have been grouped because of their non-commercial nature, their residential orientation, and/or their small size.

² Classes 5 and 6 have been combined because of their significant overlap in terms of both (a) property use and (b) equivalent tax treatment by the City.

Ideally, the study assignments would be based on ultimate beneficiaries. Unfortunately, attempts to assign costs on this basis often lead to difficulties in terms of defining defensible rules for assignment. Therefore, as in the 1995 study, most costs and revenues have been assigned to the direct first-round consumers of the service¹.

5.4 Process for assigning costs and revenues

Costs and revenues have been assigned among the property classes based on a detailed review and analysis of specific cost and revenue items within each department.

5.4.1 Group similar areas of cost and revenue

The first step in the process is to identify the service areas and line items within each department that are similar in terms of the consumption of service, and therefore can be grouped and assigned on the same basis.

5.4.2 Classify cost/revenue areas by level

The second step in the process is to classify each cost/revenue area as being provided at one of three levels:

- **Level 1 (direct service)** costs/revenues are those relating to services provided directly to people and properties. The large majority of the City's costs and revenues are Level 1.
- **Level 2 (internal service)** costs/revenues are those relating to services provided to other City departments.
- **Level 3 (administration and overhead)** costs/revenues relate to support services within a particular department.

In the departmental analyses contained in the Appendices, each cost area is identified as Level 1, Level 2, or Level 3.

5.4.3 Assign costs/revenue among property classes

The third step is to assign the costs and revenues for the particular service area among the property class groups. Different approaches are used for each cost level.

For **Level 1** (direct service) costs and revenues (most costs), the basis for assignment may include:

- Assignments based on **logic** or **principle**. An example of a logic-based assignment would be "pre-fire planning" (in Appendix L, Fire & Rescue Services). These costs have been assigned among property classes based on a direct

¹ One exception to this general rule is Olympics planning expenditures, where most of the benefits are longer-term in nature. In this case, costs have been assigned based on both short-term considerations and longer-term ultimate benefits. Another example of an exception is the fire hall operations, which are assigned on the basis of ultimate benefits (protection of people/property) rather than first-round consumption of services (e.g. residential vs non-residential callouts).

management assessment of the relative time spent serving each property class group.

- Assignments based on relevant **data analysis**. An example of a data-based cost assignment would be “urban search and rescue” (see Appendix L, Fire & Rescue Services). These costs have been assigned based on the relative proportion of people’s time spent on residential versus non-residential activities (see Appendix T, item # 21).
- Assignments based on a **combination** of logic and data analysis. An example of a “combination” calculation would be for fire hall operations (see Appendix L, Fire and Rescue Services), where costs are assigned as follows;
 - First, costs are logically split into two components; “protection of life” (70%) and “protection of property” (30%). (This approach is consistent with the 1995 analysis.)
 - For “protection of life”, the cost assignment is based on an analysis of the distribution of people’s time spent on residential versus non-residential activities (see Appendix T, item #21).
 - For “protection of property”, costs are then assigned based on the relative value of property improvements (see Appendix T, item #22).

For **Level 2** (internal service) costs, the basis for assignment is the weighted average of Level 1 (direct service) assignments for all of the departments that are consuming the internal service. The assignment process is as follows:

- First, departments using the internal service are identified, and their share of services consumed is estimated. For example, each department’s relative share of PC system support services is estimated according to the number of PCs in use in each department.
- Second, these relative shares (weightings) are applied to the Level 1 results for each department using the service, to develop the overall assignment of these Level 2 costs, among property classes.

For **Level 3** (administration/overhead) costs, the basis for assignment is the combined Level 1 and 2 results within the particular department. An example of a Level 3 assignment would be the costs for the Office of the Fire Chief, which are assigned on the same basis as the combined Level 1 and 2 results for the department.

5.4.4 Step 4 – Determine departmental and overall results

The fourth and final step in the process is to roll up the results, by department and overall. Appendix B through Appendix S contains the detailed analysis of costs and revenues for each department. Appendix T contains the detailed data analyses (23 items in total) that underlie many of the cost assignments in Appendices B through S.

Departmental and overall results are rolled up and presented in Chapter 6.

5.5 Sensitivity of Results to Key Assumptions

This analysis is based on hundreds of individual assumptions and analytical approaches, as documented in this report and appendices.

With a number of exceptions, the overall study results are not generally sensitive to most individual assumptions. This limited sensitivity reflects the detailed nature of the analysis, where even relatively small cost and revenues have been analyzed in considerable detail. It also reflects the significant size of the City budget. With approximately \$509 million in net tax-supported costs, alternate assumptions would have to shift the assignment of costs by more than \$5 million to result in a 1% shift in the relative residential/non-residential shares of consumption.

For some relatively large areas of expenditures, overall results may be sensitive to specific assumptions.¹

5.6 Impact of Methodology Changes from 1995

The 2006 review has included a review and refinement of the methodology used in the 1995 study. While most of the methodology adjustments do not have a substantive impact on the 2006 results, the notable exception to this general rule is in the treatment of municipal revenues, where the 2006 study has made greater use of “tax shares” in assigning two types of revenues:

- **Municipal and Sundry Revenues** – These revenues (approximately \$36 million in 2006) include a variety of revenue sources that are not associated with any particular departmental operation (see Appendix S.) In the 1995 study, these revenues were assigned to property classes according to 1995 consumption of service patterns. For the 2006 study, most of these revenues have been assigned based on tax shares, since these revenues reduce the overall tax burden. This change in methodology from 1995 increases the residential share of net consumption, by approximately 2%.
- **Parking Operations** -- Parking operations have become a significant generator of net revenue for the City (approximately \$35 million gross, \$25 million net). The 1995 study assigned these costs and revenues based on specific assignments of costs and revenues. For the 2006 study, parking operations have been treated as a “profit centre”, with the operating surplus assigned to property classes based on tax shares (similar to the treatment of most Municipal and Sundry Revenues). This change in methodology from 1995 decreases the residential net of net consumption, by approximately 1%.

Thus **net impact** of these two methodological adjustments is to increase the residential share of net consumption by approximately 1%. The impact of this methodology adjustment on overall study results is discussed in Chapter 7.

¹ For example, fire hall costs (approximately \$65 million), have been assigned based on two key sets of data – (1) an analysis of people’s time spent in residential vs. non-residential activities, as the basis for assigning “protection of people”, and (2) an analysis of the relative value of property improvements, as a basis for assigning “protection of property.” Both analyses result in similar cost assignments (about two-thirds residential, one-third non-residential). Alternate fire hall cost assignment rules (number of callouts, assignment of “standby” capacity costs, geographic proximity to residential/non-residential areas, etc.) could result in a somewhat different assignment.

6. Results of the Consumption Analysis

Approximately \$680 million of the City's budget (excluding self-funding utilities) is in respect of services that are at least partly supported by municipal property taxes.

6.1 Total services consumed

Exhibit 6a illustrates the assignment of the \$680 million in **total** tax-supported services among the property class groups, both by department and overall.

Exhibit 6a — Total services consumed

Department	Total	Property class assignment				
		Resi- dential	Non-residential			Tot. Non- resid.
			Utilities	Major Ind.	Bus. + LI	
Mayor & Council	1,887	944	19	94	830	944
City Manager's Office	11,218	7,050	30	105	4,033	4,168
Corporate Services	31,909	19,956	60	113	11,780	11,953
Human Resource Services	7,429	4,817	19	39	2,554	2,612
City-wide Expenditures	8,415	4,816	18	31	3,550	3,599
Community Services	46,631	30,099	48	284	16,200	16,532
Civic Grants Program	14,178	8,975	10	4	5,190	5,203
Engineering Services	59,026	28,750	364	725	29,187	30,276
Sewer	34,306	24,501	-	647	9,158	9,805
Vancouver Police Department	175,098	126,951	379	394	47,373	48,147
Fire & Rescue Services	78,816	52,045	384	281	26,106	26,771
Board of Parks and Recreation	89,261	72,136	-	-	17,125	17,125
Vancouver Public Library	34,050	29,739	-	-	4,311	4,311
Britannia Community Services Centre	2,842	2,842	-	-	-	-
Civic Theatres	6,608	2,908	-	-	3,700	3,700
Debt, Contingency, Transfers	78,369	49,256	350	780	27,983	29,113
	680,043	465,785	1,682	3,496	209,080	214,258
Percent	-	68.5%	0.2%	0.5%	30.7%	31.5%

Before allowing for non-property-tax-based revenues, residential properties have been assigned approximately \$466 million (69%) of tax-supported City services, while non-residential properties have been assigned approximately \$214 million (31%).

Details by department and line item are contained in Appendices B through S.

6.2 Non-property-tax revenues

Exhibit 6b illustrates the assignment of \$171 million in non-property-tax revenues among property class groups, overall and by department.

Exhibit 6b — Non-property-tax revenues

Department	Total	Property class assignment				
		Resi- dential	Non-residential			Tot. Non- resid.
			Utilities	Major Ind.	Bus. + LI	
Sundry Revenues	(35,823)	(13,008)	(1,206)	(339)	(21,270)	(22,815)
Mayor & Council	-	-	-	-	-	-
City Manager's Office	-	-	-	-	-	-
Corporate Services	(1,509)	(604)	-	-	(905)	(905)
Human Resource Services	-	-	-	-	-	-
City-wide Expenditures	-	-	-	-	-	-
Community Services	(37,664)	(15,704)	-	(4)	(21,956)	(21,960)
Civic Grants Program	-	-	-	-	-	-
Engineering Services	(44,485)	(17,180)	(1,112)	(561)	(25,631)	(27,305)
Sewer	-	-	-	-	-	-
Vancouver Police Department	-	-	-	-	-	-
Fire & Rescue Services	-	-	-	-	-	-
Board of Parks and Recreation	(34,751)	(24,004)	-	-	(10,747)	(10,747)
Vancouver Public Library	-	-	-	-	-	-
Britannia Community Services Centre	-	-	-	-	-	-
Civic Theatres	(6,137)	(2,700)	-	-	(3,437)	(3,437)
Debt, Contingency, Transfers	(10,912)	(4,652)	(345)	(126)	(5,790)	(6,260)
City-wide revenues attributed	(171,281)	(77,852)	(2,663)	(1,030)	(89,735)	(93,429)
Percent	-	45.5%	1.6%	0.6%	52.4%	54.5%

In total, \$78 million (46%) of non-property-tax revenues are assigned to residential, while \$93 million (54%) are assigned to non-residential.

Details by department and by line item are contained in Appendices B through S.

6.3 Net services consumed

Combining the results of Exhibits 6a and 6b, Exhibit 6c illustrates the assignment of **net** services among property class groups.

Exhibit 6c — Net services consumed

Department	Total	Property class assignment				
		Resi- dential	Non-residential			
			Utilities	Major Ind.	Bus. + LI	Tot. Non- resid.
Sundry Revenues	(35,823)	(13,008)	(1,206)	(339)	(21,270)	(22,815)
Mayor & Council	1,887	944	19	94	830	944
City Manager's Office	11,218	7,050	30	105	4,033	4,168
Corporate Services	30,400	19,352	60	113	10,875	11,048
Human Resource Services	7,429	4,817	19	39	2,554	2,612
City-wide Expenditures	8,415	4,816	18	31	3,550	3,599
Community Services	8,967	14,395	48	279	(5,756)	(5,428)
Civic Grants Program	14,178	8,975	10	4	5,190	5,203
Engineering Services	14,541	11,570	(748)	163	3,556	2,971
Sewer	34,306	24,501	-	647	9,158	9,805
Vancouver Police Department	175,098	126,951	379	394	47,373	48,147
Fire & Rescue Services	78,816	52,045	384	281	26,106	26,771
Board of Parks and Recreation	54,510	48,132	-	-	6,378	6,378
Vancouver Public Library	34,050	29,739	-	-	4,311	4,311
Brtitannia Community Services Centre	2,842	2,842	-	-	-	-
Civic Theatres	471	207	-	-	264	264
Debt, Contingency, Transfers	67,457	44,605	5	654	22,193	22,852
Net Consumption of Services	508,762	387,933	(981)	2,466	119,345	120,830
Percent	-	76.3%	-0.2%	0.5%	23.5%	23.7%

On a net consumption basis, residential property classes consume approximately \$388 million (76%) of net tax-supported City services, while non-residential property classes consume approximately \$121 million (24%).

Details by department and by line item are contained in Appendices B through S.

6.4 Comparing net service consumption to property taxes

Exhibit 6d compares, for each property class group, the net consumption of property-tax-supported services in relation to its property-based taxes.

Exhibit 6d

Comparison of net service consumption to property taxes

	Total - all property classes	Residential	Non-residential			Total Non-residential
			Utilities	Major Industry	Bus./Light Industry	
Consumption of Services						
• Gross services consumed (\$'000)	\$680,043	\$465,785	\$1,682	\$3,496	\$209,080	\$214,258
• Less: Non-tax revenues (\$'000)	(\$171,281)	(\$77,852)	(\$2,663)	(\$1,030)	(\$89,735)	(\$93,429)
• Net tax-supported services (\$'000)	\$508,762	\$387,933	(\$981)	\$2,466	\$119,345	\$120,830
- Percentage	100%	76.3%	(0.2%)	0.5%	23.5%	23.7%
Comparison of Taxes Paid to Services Consumed						
• Property taxes & PILTs ¹ (\$'000)	\$508,762	\$216,875	\$16,071	\$5,870	\$269,945	\$291,887
- Percentage	100.0%	42.6%	3.2%	1.2%	53.1%	57.4%
• Excess (shortfall) of services consumed over taxes paid (\$'000)	\$0	\$171,057	(\$17,052)	(\$3,404)	(\$150,601)	(\$171,057)
• Taxes paid per dollar of services consumed	\$1.00	\$0.56	n/a ²	\$2.38	\$2.26	\$2.42
• Consumption payment ratio ³		1.0	n/a ²	4.3	4.0	4.3

1 Payments In Lieu of Taxes (PILTs) are paid by some government agencies (e.g. Vancouver Port Authority) and by utilities. PILTs for some utilities are paid as a percentage of revenue.

2 Calculation is not meaningful for Utilities Class (non-tax revenues greater than gross consumption).

3 The consumption payment ratio is the ratio of (1) non-residential taxes per dollar of services consumed, to (2) residential taxes per dollar of services consumed.

Residential properties have net consumption of approximately \$388 million in tax-supported services, while accounting for \$217 million in property-based taxes. On average, residential properties pay approximately \$0.56 in property taxes for each dollar of property-tax-supported services consumed.

Non-residential properties have net consumption of approximately \$121 million in tax-supported services, while accounting for \$292 million in property-based taxes. On average, non-residential properties pay approximately \$2.42 in property taxes for each dollar of tax-supported services consumed — 4.3 times the residential rate.

Results within the non-residential property class group are also illustrated in Exhibit 6d. As discussed earlier, there results are less precise than those for the residential/non-residential comparison.

7. Comparison between 1995 and 2006 Results

7.1 Caution — Comparing 1995 and 2006 results

As discussed in Chapter 5, the 2006 results incorporate certain methodological adjustments to the 1995 study. Comparisons of results should be interpreted only in the context of the discussion in the rest of this chapter.

7.2 Comparison with 1995 results

Comparative results for 1995 and 2006 are illustrated in Exhibit 7a.

Exhibit 7a
Comparison of 2006 results with 1995

	1995 ¹		2006 ²	
	Residential	Non-residential	Residential	Non-residential
Net consumption:				
• Dollars (\$M)	\$249	\$102	\$388 ²	\$121 ²
• Share of net consumption	71%	29%	76%	24%
Share of property tax burden	40%	60%	42.6% ³	57.4% ³
Payment per dollar of services consumed	\$0.56	\$2.07	\$0.56	\$2.42
Consumption payment ratio	1	to 3.7	1	to 4.3

Between the 1995 and 2006 reports:

- The residential share of consumption in 2006 is 76%, versus the 71% share reported in 1995. This 5% difference reflects both methodological adjustments and real shifts in consumption patterns since 1995 (see following section).
- The residential share of the taxes paid in 2006 is 42.6% (after allowing for utility taxes, payments in lieu of taxes, etc.), versus 40% in 1995.
- Combining these two trends, the residential “payment per dollar of services” in 2006 is \$0.56, similar to the 1995 results.
- The non-residential “payment per dollar of services” in 2006 is \$2.41, versus \$2.07 in 1995.
- The “consumption payment ratio” is 4.3, versus 3.7 in 1997.

7.3 Impact of methodology adjustments

Study results are sensitive to the assumptions underlying the assignment of specific cost and revenue items. For most departments, costs and revenues have been analyzed in relatively small groups, and, the study results are not particularly sensitive to individual assumptions in any one area. However, there are some exceptions to this general rule, where a particular basis for assignment has been applied to a relatively large group of costs or revenues. (See also Chapter 5).

The most significant methodological difference between the 1995 and 2006 studies is in the increased use of “tax shares” as the basis for assigning certain revenue items (municipal & sundry revenues, surplus from parking operations). As discussed in Chapter 5, these adjustments have the net impact of increasing the share of costs assigned to residential properties by approximately 1%.

Removing the 1% impact of this methodological change, for the purpose of comparing 1995 and 2006 results:

- The 2006 residential share of consumption would have been approximately 75% (versus 71% in 1995).
- The residential “payment per dollar of services” in 2006 would have been approximately \$0.57 (versus \$0.56 in 1995).
- The non-residential “payment per dollar of services” in 2006 would have been approximately \$2.30 (versus \$2.07 in 1995).
- The “consumption payment ratio” would have been approximately 4.0 (versus 3.7 in 1995).

7.4 Conclusion

Residential properties in Vancouver have increased their share of the net consumption of tax-supported municipal services since 1995, and have also increased their share of taxes paid in respect of these services. In terms of “payment per dollar of services,” Vancouver residential properties pay about the same as they did in 1995.

Non-residential properties have seen a decrease in their net share of consumption since 1995, as well as in their share of taxes paid. The “payment per dollar of services” for non-residential properties is modestly higher in 2006 than in 1995.

7.5 Interpretation of study results

The study results are based on a detailed research and analysis program. All of the specific cost and revenue assignments involve some level of subjectivity and professional judgement. The study results should not be interpreted as measuring the precise value of the services consumed by a specific property class group, nor of any individual property. Rather, these results constitute a balanced independent estimate of the overall levels of consumption of tax-supported services, by each property class group, relative to the property taxes paid.

APPENDICES

(SEE SEPARATE VOLUME II)

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- B. Mayor and Council
- C. City Manager's Office
- D. Corporate Services
- E. Human Resources Services
- F. City-Wide Expenditures
- G. Community Services
- H. Civic Grants Program
- I. Engineering Services
- J. Drainage
- K. Vancouver Police Department
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- M. Board of Parks and Recreation
- N. Vancouver Public Library
- O. Britannia Community Services Centre
- P. Civic Theatres
- Q. Debt, Contingency and Transfers
- R. Sundry Revenues
- S. Tax Revenues and Payments in Lieu of Taxes (PILT)
- T. Details of the Bases for Assignment

CITY OF VANCOUVER

**CONSUMPTION OF TAX-SUPPORTED
MUNICIPAL SERVICES**

VOLUME II — APPENDICES

Prepared for:

**Financial Planning and Treasury
City of Vancouver**

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January 5, 2007

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APPENDIX A

HOW TO USE THESE APPENDICES

A. How to use these appendices

Appendices B through S provide a detailed discussion of results within each department, including the analytical approach and assumptions for each cost/revenue area. Appendix T, "Basis for Assignment", provides the detailed data analyses that underlie the cost assignments contained in Appendices B through S.

Guidelines for using these Appendices

1. The first step is to identify the Appendix relating to the Department or cost/revenue area of interest. Each Appendix contains (a) a numerical chart illustrating the assignment of costs/revenues and (b) detailed explanatory notes.
2. The next step is to review the assignment of expenditures on the chart, along with the explanatory notes (as referenced on the chart). These explanatory notes describe the basis for assigning costs among property classes.
3. In many cases the basis for assignment will be a direct management assessment, as described in the explanatory notes. In other cases, the assignment will be at least partly based on an analysis of relevant data.

In such cases, the explanatory notes to Appendices B through S will also reference the relevant underlying analyses, as provided in Appendix T (analyses T1 through T23).

4. Costs are also classified:
 - Most costs are Level 1 costs. The basis for assigning them is specific to their particular department. As described in the explanatory notes to each chart, they have been assigned through direct management assessment, and/or by reference to the supporting analyses (contained in Appendix T. They do NOT involve consideration of consumption patterns in other departments.)
 - Level 2 costs (less frequent) are more complex to analyze, since they involve services that are provided by one City department to another department. In such cases, cost assignments are based on the combination of total "Level 1" consumption patterns, for each department that is receiving the service, in proportion to the each receiving department's relative share of the services being provided.
 - Level 3 costs are departmental administrative costs, which are assigned based on the overall "Level 1 plus Level 2" consumption patterns for the department.
5. The charts contained in Appendices B through S estimate the dollar values of the assignment for each cost/revenue area, and also the overall percentage assignment for the department as a whole. These are then "rolled up" into the results presented in Chapter 6 of the main report.

APPENDIX B

MAYOR & COUNCIL

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

B. Mayor & Council

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level ¹		Residential	Utilities	Major Industry	Business/ Light Industry
Mayor's Office	B.1	Consultant assessment	1	825	413	8	41	363
Councillors & Council Secretariat	B.1	Consultant assessment	1	1,062	531	11	53	467
Subtotal Level 1				1,887	944	19	94	830
- percent					50%	1%	5%	44%
Subtotal Level 1 + Level 2				1,887	944	19	94	830
- percent					50%	1%	5%	44%
Total Mayor & Council costs				1,887	944	19	94	830

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level ¹		Residential	Utilities	Major Industry	Business/ Light Industry
None				-	-	-	-	-

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	1,887	944	19	94	830
Revenues	-	-	-	-	-
Net consumption - Mayor & Council	1,887	944	19	94	830

50% 1% 5% 44%

1. Costs and revenues are analyzed at one of three levels.
 Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
 Level 2 costs are for partly based on the consumption of another department(s).
 Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Mayor & Council - Explanatory Notes to Chart

B.1 Mayor's Office and Councilors and Council Secretariat

The City Clerk advises that the majority of Council time is spent on high-level issues that impact all property classes. The consultants concluded that a 50/50 split between residential and non-residential issues would be reasonable. This is consistent with the methodology used in the 1995 study of the consumption of tax-financed municipal services.

The non-residential component has been assigned among non-residential tax groups based on the consultant's direct assessment.

APPENDIX C

CITY MANAGER'S OFFICE

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

C. City Manager's Office

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Office of the City Manager <ul style="list-style-type: none">City ManagerOlympic OperationsDowntown Eastside Revitalization Program	C.1	City Manager's Office consumption	3	826	445	-	-	381
		Management assessment	1	986	493	-	-	493
		Management assessment	1	300	180	-	-	120
		Total Office of the City Manager		2,112	1,118	-	-	994
Equal Employment Opportunity Program	C.2	Total Department FTE	2	457	305	1	2	149
Legal Services	C.3	Dep't budgeted expenditures	2	4,291	2,938	9	18	1,326
City Clerk <ul style="list-style-type: none">City Clerk's Office, External Relations, Meeting ServicesAdministrationArchivesInformation ManagementInformation Services<ul style="list-style-type: none">FOI ServicesResearch for Council and other dep'tsNeighbourhood Integrated Services teamCommunicationsElectionsMicrofilm	C.4	Mayor & Council consump ion	2	1,125	563	11	56	495
		City Clerk consumption	3	627	387	3	12	225
		Dep't budgeted expend- except Fire	2	865	595	1	4	264
		City Clerk consumption	3	391	241	2	8	140
		City Clerk's Information Services	1	79	16	-	-	63
		City Clerk's Information Services	2	282	193	1	1	87
		Management Assessment	1	77	77	-	-	-
		Total Departmental FTE	2	895	597	2	4	292
		Management assessment	1	25	25	-	-	-
		City Clerk consumption	3	(8)	(5)	(0)	(0)	(3)
		Total City Clerk		4,358	2,689	20	85	1,564
		Subtotal Level 1		1,467	791	-	-	676
		- percent			54%	0%	0%	46%
		Subtotal Level 1 + Level 2		9,382	5,981	26	85	3,290
		- percent			64%	0%	1%	35%
		Total City Manager's Office costs		11,218	7,050	30	105	4,033

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
None				-	-	-	-	-

Summary	Total	Net consumption by property class				
		Residential	Utilities	Major Industry	Business/ Light Industry	
Costs	11 218	7,050	30	105	4,033	
Revenues	-	-	-	-	-	
Net consumption - City Manager's Office		11,218	7,050	30	105	4,033

63%

0%

1%

36%

* Costs and revenues are analyzed at one of three levels.

Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.

Level 2 costs are for partly based on the consumption of another department(s).

Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

City Manager's Office - Explanatory Notes to Chart

C.1 Office of the City Manager

- **City Manager** - is responsible for the entire City Manager's Office department. This cost centre has been assigned to property classes in proportion to the consumption of the service of the "Office of the City Manager" as a whole.
- **Olympic Operations** – benefit both residents and business. In the short and medium term, residents enjoy the atmosphere of an Olympic City. In the longer term they enjoy the legacy projects that would not exist without the Olympics.

Business benefits in the short and medium term from the expenditures on Olympic infrastructure and operations. In the longer term, business benefits from the tourism spin-offs.

Accordingly, these costs have been assigned equally to residents and business. Utilities and Major Industry (port terminals and sawmills) are not considered to be consumers of this service.

- **Downtown Eastside Revitalization Program** – manages the relationship between the Downtown Eastside community and the City. The City Planning Branch (part of the Community Services department) is heavily involved and has staff who specifically deal with this program. Planning management assessed the services of staff at 60% residential, 40% business.

C.2 Equal Employment Opportunity Program

Equal Employment Opportunity Program is a service to all staff of the City. The number of FTEs in each department has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the number of FTEs, refer to Appendix T, Item # 4.)

C.3 Legal Services

Legal Services serves all City departments. Management advised that most issues involve more than one department, and they could not assess the percentage of service to each department. Therefore, the department budgeted expenditures has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

C.4 City Clerk

- **City Clerk's Office, External relations, Meeting Services** – are cost centres that serve Council and its committees. Accordingly the consumption patterns of Mayor & Council (Appendix B) has been used to assign costs..

- **Administration** – is a cost centre that serves the City Clerk’s department. The consumption pattern of the City Clerk’s section of the City Manager’s Office has been used to drive costs to each property class.
- **Archives** – serves all City departments except Fire & Rescue. Therefore, the departments budgeted expenditures has been used to estimate each department’s relative share of consumption, excluding Fire & Rescue Services. These costs are then driven to each property class, based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

- **Information Management** - is also a cost centre that serves the City Clerk’s department. The consumption pattern of the City Clerk’s section of the City Manager’s Office has been used to drive costs to each property class.
- **Information Services** – this group has nine staff. Two conduct research for Freedom of Information responses to requesters; management assesses their involvement as 20% residents, 80% business. The remaining seven people conduct research for Council and other departments. Overall, the department budgeted expenditures has been used to estimate each department’s relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.

(For further information on City Clerks information services, refer to Appendix T, Item # 2.)

- **Neighbourhood Integrated Services Team** – is a cost centre that encourages the integration of the services of different departments to improve the effectiveness of City services to neighbourhoods. These costs have been assigned to residential.
- **Communications** – is a service to assist departmental managers in their communications programs. The total FTEs from each department has been used to estimate each department’s relative share of consumption. These costs are then driven to each property class, based on the consumption pattern of each department. (For further information on the number of FTEs, refer to Appendix T, Assignment # 4.)
- **Elections** – has been assigned to residents.
- **Microfilm** – is a cost-recovery service, mostly to Engineering and Planning. The budget shows a minor over-recovery, which has been assigned using the expenditures of the City Clerk’s section of the City Manager’s Office.

APPENDIX D

CORPORATE SERVICES

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

D. Corporate Services

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
General Manager's Office	D.1	Corp. Services consumption	3	328	205	1	1	121
Financial Planning and Treasury Services	D.2	Corp. Services consumption	3	881	550	2	3	326
Budgets	D.3	Dep't budgeted expenditures	2	723	495	2	3	223
Financial Services	D.4							
• Accounting		Dep't budgeted expenditures	2	1,066	730	2	5	329
• Payroll		Dep't FTE - except Fire & Police	2	847	548	2	4	293
• Accounting Support Services		Real Estate, Facilities Design & Mgt consumption	3	284	169	0	1	114
• Purchasing		Dep't budgeted expenditures	2	906	620	2	4	280
• Revenue Operations								
- Tax billing		Revenue Operations Workload driver	1	1,140	1,048	1	0	90
- Water & Sewer billings		Revenue Operations Workload driver	1	677	372	-	1	304
- Bylaw billing		Management assessment	1	1,425	-	-	-	1,425
- Solid waste billing		Management assessment	1	321	321	-	-	-
Total Financial Services				6,665	3,808	8	15	2,836
Business Support services	D.5	Dep't budgeted expenditures	2	3,895	2,666	8	17	1,204
Information Technology	D.6							
• Office of the Director of Info Tech		Information Technology consumption	3	765	517	2	3	243
• Application development, GIS		Dep't budgeted expenditures	2	2,231	1,527	5	10	689
• System Message Infrastructure		# computers by department	2	1,783	1,217	3	6	557
• System operation and production		Dep't budgeted expenditures	2	436	298	1	2	135
• Customer relationships		# help desk calls by department	2	1,589	1,006	3	6	574
• Business and Vendor relations		# computers by department	2	229	156	0	1	72
• Project Management		Dep't budgeted expenditures	2	92	63	0	0	28
• Corporate Infrastructure maintenance		Dep't budgeted expenditures	2	4,192	2,870	9	18	1,295
• Telecom Services		Total Departmental FTE	2	275	183	1	1	90
• Mail Room, Printing and Graphics		Dep't budgeted expenditures	2	110	75	0	0	34
Total Information Technology				11,702	7,914	24	47	3,717
Real Estate Services	D.7	Dep't budgeted expenditures	2	675	462	1	3	209
Facilities Design & Management	D.8							
• City Hall & City Offsite		Space allocation by department	2	3,343	2,045	7	17	1,274
• City Hall Parkade		Dep't FTE - except Police, Fire & Parks	2	57	34	0	0	23
• False Creek Daycare & Daycare Maintenance		Management assessment	1	242	136	-	-	106

Corporate Services - Chart of Costs and Revenues Cont'd

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Facilities Design & Management Cont'd	D.8							
• Cultural Facilities Maintenance		Civic Grants - Cultural Grants consumption	2	155	76	-	-	79
• Museum and Planetarium Maintenance		Management assessment	1	1,380	552	-	-	828
• 4 Corners 390 Main Street		Management assessment	1	3	3	-	-	-
• Art Gallery		Management assessment	1	273	82	-	-	191
• Taylor Manor		Management assessment	1	89	-	-	-	89
• Energy Cons., Fac. Dev't, Property Mgt, Building Ser., Asbestos Control		Space allocation by department	2	830	508	2	4	316
Total Facilities Design & Management				6,372	3,435	9	22	2,906
Risk and Emergency Management	D.9							
• Risk Management		Tax shares	1	86	37	3	1	46
• Emergency Management		Fire & Rescue consumption	2	582	384	3	2	193
Total Risk & Emergency Management				668	421	6	3	238
Subtotal Level 1				5,635	2,550	4	2	3,079
- percent					45%	0%	0%	55%
Subtotal Level 1 + Level 2				29,651	18,515	55	105	10,976
- percent					62%	0%	0%	37%
Total Corporate Services costs				31,909	19,956	60	113	11,780

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Civic Property Rentals	D.10	Management assessment	1	(1,509)	(604)	-	-	(905)
Total Revenues				(1,509)	(604)	-	-	(905)

Summary				Total	Net consumption by property class			
					Residential	Utilities	Major Industry	Business/ Light Industry
Costs				31,909	19,956	60	113	11,780
Revenues				(1,509)	(604)	-	-	(905)
Net consumption - Corporate Services				30,400	19,352	60	113	10,875
					64%	0%	0%	36%

* Costs and revenues are analyzed at one of three levels.
 Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
 Level 2 costs are for partly based on the consumption of another department(s).
 Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Corporate Services - Explanatory Notes to Chart

D.1 General Manager's Office

The General Manager's Office is an administration service and costs have been assigned to property classes according to the consumption pattern of the Corporate Services Department.

D.2 Financial Planning and Treasury Services

Financial Planning and Treasury Services has two functions. The Financial Planning group focuses on development and maintenance of financial policy and medium and long range financial plans to support corporate strategic direction. The group also provides financial analysis to support the business objectives of the City. Treasury has custody of the City's cash and is responsible for development of cash forecasts and management of the short-term investment and debt portfolios. The group also manages the City's relationships with the banking community. Therefore, the consumption pattern of the Corporate Services Department has been used to distribute costs to the property classes.

D.3 Budgets

Budgets is a service to all departments. Therefore, the department budgeted expenditures has been used to estimate each department's relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

D.4 Financial services

- **Accounting** – is a service to all departments. The department budgeted expenditures has been used to estimate each department's relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

- **Payroll** – is a service to all departments. The number of FTEs in each department, except the Vancouver Police Department and Fire & Rescue, have been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the FTEs, refer to Appendix T, Item # 3.)

- **Accounting Support Services** – serve the Real Estate and Facilities Design and Management groups, within the Corporate Services Department. The costs have been assigned according to the consumption patterns of expenditures of these two groups.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

- **Purchasing** – is a service to all departments. The department budgeted expenditures has been used to estimate each department's relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.
- **Tax Billing** – has been assigned to property classes according to the number of tax accounts for each class.

(For further information on the number of tax accounts, refer to Appendix T, Item # 4.)

- **Water and Sewer Billing** – has been initially split according to the ratio of water bills, estimated as 55% residential, 45% non residential. Non-residential bills are the split between Major Industry and Business/Light Industry according to the number of tax accounts.

(For further information on the ratio of water and sewer bills, refer to Appendix T, Item # 4.)

- **Bylaw Billing** – is largely for parking fines. Based on interviews with parking management, these costs have been assigned to business since parking operations are driven by the existence of local businesses.
- **Solid Waste Billing** – is for additional solid waste services provided to residents.

D.5 Business Support Services

Business Support Services provides consulting and SAP support to all departments. The department budgeted expenditures has been used to estimate each department's relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

D.6 Information Technology

- **Office of the Director** – is an administration service and has been assigned to property classes according to the consumption pattern of the Information Technology group as a whole.
- **Application development, GIS** – is a service to all departments. The department budgeted expenditures has been used to estimate each department's relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

- **System Message Infrastructure** – looks after the network at more than 100 sites with over 1,000 users. The number of computers per department has been used to estimate each department's relative share of consumption. The resulting departmental cost shares have been assigned to property cases according to the consumption pattern of each department.

(For further information on the number of computers by department, refer to Appendix T, Item # 5.)

- **System Operation and Production** – is a service to all departments. The department budgeted expenditures has been used to estimate each department's relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

- **Customer relationships** – refer to help desk responses provided to City staff. The ratio of help desk requests from each department has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the number of help desk calls by department, refer to Appendix T, Item # 6.)

- **Business and Vendor Relations** – is a cost centre that procures equipment for the City. The number of computers per department has been used to estimate each department's relative share of consumption. The resulting departmental cost shares have been assigned to property cases according to the consumption pattern of each department.

(For further information on the number of computers by department, refer to Appendix T, Item # 5.)

- **Project Management** – is a service to all departments. The department budgeted expenditures has been used to estimate each department's relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

- **Corporate Infrastructure Maintenance** – is a service to all departments. The department budgeted expenditures has been used to estimate each department's relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

- **Telecom Services** – manages and plans telephone services to City staff. The number of FTEs in each department is used to estimate each department's relative share of consumption. These costs are then driven to each property

class based on the consumption pattern of each department.

(For further information on the FTEs, refer to Appendix T, Item # 3.)

- **Mail Room, Printing, Graphics** - is a service to all departments. The department budgeted expenditures has been used to estimate each department's relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

D.7 Real Estate Services

Real Estate Services manages the City's civic buildings and Property Endowment Fund portfolio. There is no direct link between this department and the property classes. This has been treated as a service to all departments. Therefore, the department budgeted expenditures has been used to estimate each department's relative share of consumption, which are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

D.8 Facilities Design and Management manages building maintenance and environmental management certain City buildings.

- **City Hall and City Offsite** – encompasses City Hall campus (City Hall, East Wing, VanCity Building, 450/456 West Broadway and space in City Square), Carnegie Centre, Evelyne Saller Centre and the two Police Buildings. The space allocation by each department has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on space allocation by department, refer to Appendix T, Item # 7.)

- **City Hall Parkade** – is a service used by staff at City Hall. The number of FTEs in each department, with the exception the Vancouver Police Department, Fire & Rescue and the Board of Parks & recreation, has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on FTEs, refer to Appendix T, Item # 3.)

- **False Creek Daycare and Daycare Maintenance** – refers to properties that serve persons working in Vancouver, some of whom may live outside the City. No information on the residence of daycare users is available. The costs have therefore been assigned according to the ratio of workers in Vancouver who live in Vancouver (56%) and those from outside Vancouver (44%).

- **Cultural Facilities Maintenance** – has been assigned to property classes according to the consumption pattern of the cultural organizations and major exhibiting organizations, which fall under the Civic Grants Program (Appendix H).
- **Museum and Planetarium Maintenance** – costs have been assigned based on information provided by Museum and Planetarium management. Management indicated that approximately 45% of Museum visitors live in Vancouver, and that 56% of Planetarium visitors in the GVRD. Based on these statistics, the Vancouver resident's share of Planetarium patronage is approximately 30%-40% and the patronage for the two facilities combined in approximately 40% Vancouver residents, 60% non-residents. The latter has been treated as business consumption because visitors patronize local business during their visits.
- **4 Corners 390 Main Street** – is a now-vacant building previously designated as a bank to serve Downtown Eastside residents. The cost has been treated as a residential consumption.
- **Art Gallery** – is a cost centre for the maintenance of the Art Gallery. These costs have been assigned according to the percentage of visitors living in Vancouver, reported by Art gallery management. 30% of visitors are residents. The 70% of cost represented by visitors from outside Vancouver has been treated as business consumption.
- **Taylor Manor** – is a vacant City building used as a film location. These costs have been allocated as business consumption.
- **Energy Conservation, Facilities Development, Property Management, Building Services, Asbestos Control** – are cost centres serving to manage the space occupied by City staff. The space allocation by each department has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on space allocation by department, refer to Appendix T, Item # 7.)

D.9 Risk and Emergency Management

- **Risk management** – manages the risk of financial losses for the City for events within its control. The losses, if incurred, would be borne by taxpayers in proportion to their tax payments. These costs have been allocated based on the tax shares of the property classes.

(For further information on the number of tax shares per property class, refer to Appendix T, Item # 8.)

- **Emergency management** – works with the Fire & Rescue Service to minimize the impacts of emergencies outside the City's control. The consumption pattern of the Fire & Rescue Services department (Appendix L) has been used to drive costs to the property classes.

D.10 Civic Property Rentals

Civic Property Rentals are attributed to the class of the properties being rented. These were reported by management as being 40% residential, 60% business.

APPENDIX E

HUMAN RESOURCES SERVICES

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

E. Human Resources Services

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Administration	E.1	HR Dep't consumption	2	478	310	1	3	164
Employee Health and Safety Compliance	E.2	Health and safety compliance ratio	2	853	560	3	5	286
Staff and Organizational Development	E.3	Dep't FTE exclude Police, Library	2	1,409	876	4	8	522
Compensation and Systems	E.4	Total Departmental FTE	2	572	392	1	2	177
Employee Health and Safety	E.5	Health and safety management ratio	2	766	503	2	4	257
Occupational Health Services	E.6	Health and safety management ratio	2	60	39	0	0	20
Health Enhancement Program	E.7	Total Departmental FTE	2	133	91	0	1	41
Employee Relations	E.8	General HR administration ratio	2	1,969	1,269	5	11	684
Employee Assistance Program	E.9	Total Departmental FTE	2	267	183	1	1	83
Disability Management	E.10	General HR administration ratio	2	922	594	2	5	321
Subtotal Level 1				-	4,657	8	35	2,730
- percent					65%	0%	1%	34%
Subtotal Level 1 + Level 2				7,429	4,816	19	39	2,554
- percent					65%	0%	1%	34%
Total Human Resources Services costs				7,429	4,816	19	39	2,554

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
None				-	-	-	-	-

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	7,429	4,816	19	39	2,554
Revenues	-	-	-	-	-
Net consumption - Human Resource Services	7,429	4,816	19	39	2,554
		65%	0%	1%	34%

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Human Resource Services - Explanatory Notes to Chart

E.1 Administration – is an administration service for the whole department. Costs have been assigned to property classes according to the consumption pattern of the Human Resources Department as a whole.

E.2 Employee Health and Safety Compliance – is assigned to departments according to workload estimates provided by HR management. The resulting departmental cost shares have then been assigned to property classes according to the consumption pattern of each department.

(For further information on the health and safety compliance workload ratio, refer to Appendix T, Item # 10.)

E.3 Staff and Organizational Development – is a service to most staff. The number of FTEs in each department, with the exception the Vancouver Police Department and the Library, have been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the FTEs, refer to Appendix T, Item # 3.)

E.4 Compensation and Systems – is a service to all staff. The number of FTEs in each department is used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the FTEs, refer to Appendix T, Item # 3.)

E.5 Employee Health and Safety – is assigned to departments according to workload estimates provided by HR management. The resulting departmental cost shares have then been assigned to property classes according to the consumption pattern of each department.

(For further information on the health and safety management workload ratio, refer to Appendix T, Item # 11.)

E.6 Occupational Health Services – is assigned to departments according to estimates provided by HR management. The resulting departmental cost shares have then been assigned to property classes according to the consumption pattern of each department.

(For further information on the health and safety management workload ratio, refer to Appendix T, Item # 11.)

E.7 Health Enhancement Program – is a service to all staff. The number of FTEs in each department is used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the FTEs, refer to Appendix T, Item # 3.)

E.8 Employee Relations – is assigned to departments according to estimates provided by HR management. The resulting departmental cost shares have then

been assigned to property classes according to the consumption pattern of each department.

(For further information on the human resources administration ratio, refer to Appendix T, Item # 9.)

E.9 Employee Assistance Program – is a service to all staff. The number of FTEs in each department is used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the FTEs, refer to Appendix T, Item # 3.)

E.10 Disability Management – is assigned to departments according to estimates provided by HR management. The resulting departmental cost shares have then been assigned to property classes according to the consumption pattern of each department.

(For further information on the human resources administration ratio, refer to Appendix T, Item # 9.)

APPENDIX F

CITY-WIDE EXPENDITURES

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

F. City-Wide Expenditures

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Corporate Program	F.1							
• Unallocated NNR Funding		NNR funding driver	2	1,000	613	1	1	385
• Corporate Funding, Consultant Services, Strategic initiatives		Dep't budgeted expenditures	2	1,493	1,022	3	6	461
• Dept Head Forums, Travel & Training		Total Departmental FTE	2	57	38	0	0	19
• WCB Employment return to work program, Fringe Benefits Pool - City		Total Departmental FTE	2	162	108	0	1	53
Total Corporate Program				2,712	1,781	4	8	918
City-wide Expenditures	F.2							
• Separation Costs, Legal Expense (labour disputes), EEO Training		Total Departmental FTE	2	836	558	2	4	273
• Payment to Capital Finance Fund - Principal		Tax Shares	1	(404)	(172)	(13)	(5)	(214)
• Fees - Audit		Dep't budgeted expenditures	2	147	101	0	1	45
• Bond Issuing, Rating Agencies		Tax Shares	1	105	45	3	1	56
• Miscellaneous Supplies		Dep't budgeted expenditures	2	37	25	0	0	11
• Public Involvement		Mayor & Council consumption	1	99	50	1	5	44
Total City-wide expenditures				820	606	(6)	6	215
Corporate Accounting	F.3							
• Recoveries - Fed Gov't, Recovery GST rebate, Fuel Costs		Tax Shares	1	478	204	15	6	254
• Recovery sick pay plan, Fringe benefits superannuation		Total Departmental FTE	2	500	334	1	2	163
Total Corporate Accounting				978	537	16	8	417
Corporate Relations	F.4							
• City Mem. & Service Fees, Monuments & Benchmarks, Entertain. Dignitaries		Mayor & Council consumption	1	152	76	2	8	67
• Celebration of Lights		Consultant assessment	1	647	324	-	-	324
Total Corporate Relations				799	400	2	8	390

City-Wide Expenditures - Chart of Costs and Revenues Cont'd

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Miscellaneous contracts	F.5							
• Vancouver Emergency Ops Centre		Fire & Rescue consumption	2	444	293	2	2	147
• Collingwood House, Ray-Cam Centre		Management assessment	1	392	392	-	-	-
• Health Inspections, Economic Development		Management assessment	1	1,416	-	-	-	1,416
• Vancouver Heritage Foundation		Management assessment	1	104	57	-	-	47
• Community Safety policing centre		Management assessment	1	750	750	-	-	-
Total Miscellaneous contracts				3,106	1,492	2	2	1,610
Subtotal Level 1				3,739	1,725	8	15	1,992
- percent					46%	0%	0%	53%
Subtotal Level 1 + Level 2				8,415	4,816	18	31	3,550
- percent								
Total City-wide expenditures				8,415	4,816	18	31	3,550

Revenues	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
None				-	-	-	-	-

Summary				Total	Net consumption by property class			
					Residential	Utilities	Major Industry	Business/ Light Industry
Costs				8,415	4,816	18	31	3,550
Revenues				-	-	-	-	-
Net consumption - City-wide expenditures				8,415	4,816	18	31	3,550
					57%	0%	0%	42%

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

City-Wide Expenditures - Explanatory Notes to Chart

City-Wide Expenditures is a virtual department with no staff. It is used to bring together a number of different financial expenditures.

F.1 Corporate Program

- **Unallocated New and Non-recurring Funding** – is an envelope budget for unspecified expenditures. These costs have been assigned to the property classes based on data from previous years, and on departmental budgets. The resulting departmental cost shares have then been assigned to property classes according to the consumption pattern of each department.

(For further information on new and non-recurring funding, refer to Appendix T, Item # 12.)

- **Corporate Funding, Consultants' Services, Strategic Initiatives** – provide overall services to the City. A large portion (\$1.4 million) funds projects intended to improve departmental efficiencies without charging the budget of the departments involved. Therefore, the department budgeted expenditures has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

- **Department Head Forums, Travel and Training** – have a small budget for management activities. The number of FTEs in each department has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the FTEs, refer to Appendix T, Item # 3.)

- **WCB Employment RTW Program, Fringe Benefits Pool** – is a return to work program considered to be a staff cost. The fringe benefits pool is a clearing account with a budgeted over-recovery. The number of FTEs in each department is used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the FTEs, refer to Appendix T, Item # 3.)

F.2 City-Wide Expenditures

- **Separation Costs, Legal Expense (labour disputes), EEO Training** – are costs associated with City staff. The number of FTEs in each department is used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the FTEs, refer to Appendix T, Item # 3.)

- **Payment to Capital Finance Fund** – is a contribution funded by property taxes. These costs have been allocated based on the tax shares of the property classes.

(For further information tax shares by property class, refer to Appendix T, Item # 8.)

- **Audit Fees** – have been treated as an overall service to the City. Therefore, the department budgeted expenditures has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

- **Bond Issuing, Rating Agencies** – are costs required to maintain the City's credit rating and to raise funds. These costs have been allocated based on the tax shares of the property classes.

(For further information tax shares by property class, refer to Appendix T, Item # 8.)

- **Miscellaneous Supplies** – is a small budget has been treated as general overhead. Therefore, the department budgeted expenditures has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the department budgeted expenditures, refer to Appendix T, Item # 1.)

- **Public Involvement** – is a budget to provide opportunities for interface between the City, citizens and businesses. The consumption pattern of the Mayor & Council (Appendix B) has been used to drive costs to the property classes.

F.3 Corporate Accounting

- **Recoveries Federal Government, GST Rebate, Reserve for Fuel Cost Increase** – are minor recoveries and a \$650,000 provision in case fuel costs exceed those provided for in the budget. Tax payers receive the rebates, or pay the provision in proportion to their taxes paid. These costs have been allocated based on the tax shares of the property classes.

(For further information tax shares by property class, refer to Appendix T, Item # 8.)

- **Recovery Sick Pay Plan, Fringe Benefits Superannuation** – are staff costs and revenues. The number of FTEs in each department is used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.

(For further information on the FTEs, refer to Appendix T, Item # 3.)

F.4 Corporate Relations

- **City Memberships and Service Fees, Monuments and Benchmarks, Entertaining Dignitaries** – are costs associated with maintaining the image of the City. The consumption pattern of the Mayor & Council has been used to drive costs to the property classes.
- **Celebration of Light** – is the grant towards the Celebration of Light fireworks display. While the main purpose of the grant is to benefit the citizens of Vancouver, business benefits because thousands of non-Vancouver residents patronize City restaurants and bars. In the absence of hard data, these costs have been split 50/50 between residents and business is reasonable.

F.5 Miscellaneous Contracts

- **Vancouver Emergency Operations Centre** – works with the Fire & Rescue Service to minimize the impacts of emergencies outside the City's control. The consumption pattern of the Fire & Rescue Services department (Appendix L) has been used to drive costs to the property classes.
- **Collingwood House, Ray-Cam Centre** – are properties operated for the benefit of residents.
- **Health Inspections, Economic Development** – Health inspections (restaurants) and economic development contracts are business related expenditures.
- **Vancouver Heritage Foundation** – maintains the register of heritage properties. The number of registered properties is listed as 55% residential, 45% commercial.
- **Community Safety Policing Centre** – is treated as a residential consumption.

APPENDIX G

COMMUNITY SERVICES

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

G. Community Services

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Community Services Administration	G.1							
• Vancouver Agreement		Management assessment	1	36	22	-	-	14
• Board of Variance		Management assessment	1	249	224	-	-	25
• General Manager's Office		Community Services consumption	3	614	396	1	4	213
• Urban Design								
- Community Plans & Programs		Subset of City plans consumption	1	88	56	-	5	27
- Major Projects		Building permits driver	1	88	54	-	-	34
- Central Area Major Dev't Group		Management Assessment	1	177	106	-	-	71
• Administration		Community Services consumption	3	3,507	2,264	4	21	1,218
• Human Resources		Community Services consumption	3	99	64	0	1	34
• Financial, Information Systems		Community Services consumption	3	1,639	1,058	2	10	569
		Total Community Services Admin.		6,497	4,243	6	41	2,207
Planning	G.2							
• City Plans								
- City-wide Policies		Management assessment	1	407	102	-	-	305
- City-wide Regulation Policies		Management assessment	1	489	147	-	-	342
- New Visions		Management assessment	1	815	571	-	-	245
- Vision Implementation, Greenway Projects		Management assessment	1	407	407	-	-	-
- Business Improvement Program		Management assessment	1	81	-	-	-	81
- Area Projects - Port		Management assessment	1	163	33	-	130	-
- Area Projects - Neighbourhood centres, RAV/Transportation		Management assessment	1	652	326	-	-	326
		Total City Plans		3,014	1,585	-	130	1,299
• Current Planning								
- Major Projects Group, Urban Design & Dev. Planning Centre		Building permits driver	1	1,225	751	-	-	474
- Rezoning Centre, Central Area Major Dev't, Downtown Neighbour. Group		Management assessment	1	992	595	-	-	397
- Heritage Group		Management assessment	1	350	175	-	-	175
- Plaza of Nations		Management assessment	1	58	-	-	-	58
- SE False Creek		Management assessment	1	233	163	-	-	70
- SRO Conversions		Management assessment	1	117	117	-	-	-
		Total Current Planning		2,975	1,801	-	-	1,174
		Total Planning		5,989	3,386	-	130	2,473
Social Services & Cultural Affairs	G.3							
• Social Planning		Management assessment	1	1,567	1,567	-	-	-
• Child Youth Advocate		Management assessment	1	23	23	-	-	-
• Cultural Affairs		Civic Grants consumption, Cultural Grants and Major Exhibiting Orgs	2	1,153	568	-	-	585
		Total Social Services & Cultural Affairs		2,743	2,158	-	-	585

Community Services - Chart of Costs and Revenues Cont'd

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Housing Programs	G.4							
• Housing Centre		Management assessment	1	817	817	-	-	-
• Tenant Assistance		Management assessment	1	123	123	-	-	-
• Evelyn Saller Centre		Management assessment	1	647	647	-	-	-
Total Housing Programs				1,587	1,587	-	-	-
Permits, Licenses and Inspections	G.5							
• Office of City Building Inspector		Inspection & Enforcement consumption	1	531	320	-	0	211
• License Division		License Revenue consumption	1	3,880	395	-	1	3,484
• Inspection & Enforcement			1					
- Director, Admin, Building Inspect., Elect. Inspect, Plumb & Gas Inspect.		Building permits driver	1	6,686	4,099	-	-	2,587
- Environmental Protection		Management assessment	1	557	84	-	6	468
- Secondary Suites		Management assessment	1	201	201	-	-	-
- Property Use Inspection		Management assessment	1	2,045	1,329	-	-	716
Total Inspection & Enforcement				9,489	5,713	-	6	3,770
• Development Services		Building permits driver	1	6,873	4,214	-	-	2,659
Total Permit, Licenses & Inspections				20,773	10,641	-	7	10,125
Animal Control	G.6	Management assessment	1	1,620	1,620	-	-	-
Cemetery Operations	G.7	Management assessment	1	832	832	-	-	-
Carnegie Community Centre	G.8	Management assessment	1	2,950	2,950	-	-	-
Downtown South Gathering Place	G.9	Management assessment	1	2,002	2,002	-	-	-
CSG Projects	G.10							
• False Creek Flats		Management Assessment	1	210	-	42	105	63
• Metro Job/land Study		Management Assessment	1	356	-	-	-	356
• Chinatown Revitalization		Management Assessment	1	264	132	-	-	132
• CSG Projects		Management Assessment	1	295	35	-	-	260
• Drug Policy Program, SRA Conversions		Management Assessment	1	513	513	-	-	-
Total CSG Projects				1,638	680	42	105	811
Subtotal Level 1				39,619	25,750	42	248	13,580
- percent					65.0%	0.1%	0.6%	34.3%
Subtotal Level 1 + Level 2				40,772	26,317	42	248	14,165
- percent					64.5%	0.1%	0.6%	34.7%
Total Community Services costs				46,631	30,099	48	284	16,200
					65%	0%	1%	35%

Community Services - Chart of Costs and Revenues Cont'd

Revenues	Refer to Note	Basis for assignment		Total Revenues	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
License Fees	G.11							
• Dog Licences		Management Assessment	1	(714)	(714)	-	-	-
• Municipal Vehicle Plates		Management Assessment	1	(200)	-	-	-	(200)
• Business Licences		Management Assessment	1	(11,600)	-	-	(2)	(11,598)
• Commercial Permits, Vending Machines, Liquor Licences		Management Assessment	1	(709)	-	-	-	(709)
• Alarm Bylaw Permit fee		Management Assessment	1	(1,200)	(756)	-	(2)	(442)
• Vehicle for Hire Permit fee		Management Assessment	1	(25)	-	-	-	(25)
		Total License Fees		(14,448)	(1,470)	-	(4)	(12,974)
		License Fees consumption pattern			10.2%	0.0%	0.0%	89.8%
Permit & Inspection Fees	G.12	Building permits driver	1	(23,216)	(14,234)	-	-	(8,982)
Total Revenues				(37,664)	(15,704)	-	(4)	(21,956)

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	46,631	30,099	48	284	16,200
Revenues	(37,664)	(15,704)	-	(4)	(21,956)
Net consumption - Community Services	8,967	14,395	48	279	(5,756)
	100%	161%	1%	3%	-64%

(Note - Net consumption by non-residential property classes is negative)

* Costs and revenues are analyzed at one of three levels.
 Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
 Level 2 costs are for partly based on the consumption of another department(s).
 Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Community Services - Explanatory Notes to Chart

G.1 Community Services Administration

- **Vancouver Agreement** – is a minor cost associated with the agreement made between the three levels of government to revitalize the Downtown Eastside. Planning group management assessed the involvement of property classes as 60% residential and 40% commercial in Planning's work on the Downtown Eastside. We distribute costs in this ratio.
- **Board of Variance** – Planning group management assessed the Board of Variance's involvement of property classes as 90% residential and 10% commercial.
- **General Manager's Office** – is a management service for the Community Services department. Costs have been assigned to property classes according to the overall Community Services departmental consumption pattern.
- **Urban Design - Community Plans and Programs** – is a service to the City Plans unit of the Planning group and these costs have been assigned to property classes according to the budgeted expenditures of a subset of the City Plans unit.
- **Urban Design - Major Projects** – is a service to the Major Projects unit of the Planning group. These costs have been assigned property classes according to the value of building permits by property class.

(For further information on the value of building permits per property class, refer to Appendix T, Item # 13).

- **Urban Design - Central Area Major Development Group** – is a service to the Central Area Major Development unit of the Planning group. Planning group management assessed the involvement of this unit as 60% residential and 40% business.
- **Administration** – is a service assigned to property classes according to the Community Services departmental consumption pattern.
- **Human Resources** – is a service assigned to property classes according to the Community Services departmental consumption pattern.
- **Financial Information Systems** – is a service assigned to property classes according to the Community Services departmental consumption pattern.

G.2 Planning – City Plans

- **City-Wide Policies** – Planning management assessed the involvement of property classes in the work of this unit as 25% residential, 75% commercial.
- **City-Wide Regulation policies** – Planning management assessed the involvement of property classes in the work of this unit as 30% residential, 70% commercial.

- **New Visions** – Planning management assessed the involvement of property classes in the work of this unit as 70% residential, 30% commercial.
- **Vision Implementation, Greenway Projects** – Planning management assessed the involvement of property classes in the work of this unit as 100% residential.
- **Business Improvement Program** – Planning management assessed the involvement of property classes in the work of this unit as 100% commercial.
- **Area Project Port** – Planning management assessed the involvement of property classes in the work of this unit as 20% residential and 80% major industry.
- **Area Projects Neighbourhood Centres, RAV Transportation** – Planning management assessed the involvement of property classes in the work of this unit as 50% residential, 50% commercial.

G.2 Planning – Current Planning

- **Major Projects Group, Urban Design and Development Planning Centre** – plans and manages the overall development of the City's major projects. These costs have been assigned to property classes according to the value of building permits by property class.

(For further information on the value of building permits per property class, refer to Appendix T, Item # 13).

- **Rezoning centre, Central Area Major Development, Downtown neighbourhood Group** – Planning management assessed the involvement of property classes in the work of this unit as 60% residential, 40% commercial.
- **Heritage Group** – Planning management assessed the involvement of property classes in the work of this unit as 50% residential, 50% commercial.
- **Plaza of Nations** – Planning management assessed the involvement of property classes in the work of this unit as 100% residential.
- **South-East False Creek** – Planning management assessed the involvement of property classes in the work of this unit as 70% residential, 30% commercial.
- **SRO Conversions** – Planning management assessed the involvement of property classes in the work of this unit as 100% residential.

G.3 Social and Cultural Affairs

- **Social Planning, Child Youth Advocate** – are services provided only to residents.
- **Cultural Affairs** – is the department that manages the cultural grants and grants to major exhibiting organizations. This cost has been assigned to

property classes according to the consumption pattern of grants to cultural organizations and major exhibiting organizations. These ratios are found in Appendix H – Civic Grants Program.

G.4 Housing Programs

Housing Programs are services provided only to residents.

G.5 Permits and Licenses

- **Office of the Building Inspector** – is a management service for the Inspection and Enforcement group. The costs have been assigned to property classes according to the consumption of the Inspection and Enforcement group, below.
- **License Division** – is a unit that manages the issue and billing for all the City's license revenues, detailed in Appendix G. The costs have been assigned to property classes according to the attribution of the licence fee revenues.
- **Inspection and Enforcement Director, Administration, Building Inspection, Electrical Inspection, Plumbing and Gas Inspection** – These costs have been assigned to property classes according to the value of building permits by property class

(For further information on the value of building permits, refer to Appendix T, Item # 13.)

- **Environmental Protection** – Inspection and Enforcement management assessed the involvement of property classes in the work of this unit as 15% residential, 5% major industrial, 80% commercial.
- **Secondary Suites Inspection** – are a service only to the residential property class.
- **Property Use Inspection** – Inspection and Enforcement management assessed the involvement of property classes in the work of this unit as 65% residential, 35% commercial.
- **Development Services** – is a unit that covers its costs through permits and inspection fees (attributed according to the value of building permits per property class). These costs have been assigned to property classes according to the value of building permits by property class.

(For further information on the value of building permits per property class, refer to Appendix T, Item # 13).

G.6 Animal Control

Animal Control represents the City pound and the animal control officers. The City has no commercial kennels and the service is provided to residents only.

G.7 Cemetery Operations

Cemetery Operations provide services to residents and non-residents. However, the use by non-residents is not known. In addition, Vancouver businesses do not benefit from the funerals of deceased non-residents. Costs have been treated as 100% residential.

G.8 Carnegie Community Centre – provides a service to residents only.

G.9 Downtown South Gathering Place – provides a service to residents only.

G.10 Community Services Group Projects are specific finite projects staffed by temporary and auxiliary staff.

- **False Creek Flats** – Planning management assessed the involvement of property classes in the work of this unit as 20% utilities, 80% commercial.
- **Metro Job/Land Study** – Planning management assessed the involvement of property classes in the work of this unit as 100% business.
- **Chinatown Revitalization** – Planning management assessed the involvement of property classes in the work of this unit as 50% residential, 50% commercial.
- **Sundry CSG Projects** – comprises \$35,000 for a Lesbian, Gay, Bi-sexual and Trans-gendered discrimination study (treated as residential); and a grant to the World Urban Forum (treated as business, patronized by visiting attendees).
- **Drug Policy Program, SRO Conversions** – Planning management assessed the involvement of property classes in the work of this unit as 100% residential.

G.11 License Fees

- **Dog Licenses** – have been attributed to residents, because Vancouver has no commercial kennels.
- **Municipal Vehicle Plates** – have been attributed to business.
- **Business licenses** – have been attributed to business with \$2,000 only identified with major industry.
- **Commercial Permits, Vending Machine Licences, Liquor Licences** – have been all attributed to business.
- **Alarm Byelaw Permit Fees** – have been attributed 63% to residents and 37% to business. These ratios were calculated from the number of residential and business permits and the fees for each type. A nominal \$2,000 is attributed to major industry.
- **Vehicle for Hire Permits** – have been attributed to business.

G.12 Permit and Inspection fees – have been attributed to property classes according to the value of building permits for each property class.

(For further information on the value of building permits per property class, refer to Appendix T, Item # 13).

APPENDIX H

CIVIC GRANTS PROGRAM

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

H. Civic Grants Program

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Community Services Grants	H.1	Management assessment	1	3,826	3,826	-	-	-
Cultural Grants	H.2							
• Operating Grants, Project Grants, Diversity Init., Celebration Grants, Baxter/City Rental Grants, Opportunity Init.		Management assessment	1	3,188	2,072	-	-	1,116
• Theatre Rental Grants		Management assessment	1	1,881	828	-	-	1,053
• Get Out Youth Legacy		Management assessment	1	173	173	-	-	-
		Total Cultural Grants		5,242	3,073	-	-	2,169
Childcare Grants	H.3	Management assessment	1	1,075	602	-	-	473
Major Exhibiting Organizations	H.4							
• Major Exhibiting Institutions								
- Vancouver Museum		Management assessment	1	704	317	-	-	387
- Maritime Museum		Management assessment	1	387	217	-	-	170
- HR Macmillan Space Centre		Management assessment	1	494	138	-	-	356
- Science World		Management assessment	1	89	53	-	-	36
• Vancouver Art Gallery		Management assessment	1	2,042	613	-	-	1,429
		Total Major Exhibiting Institutions		3,716	1,338	-	-	2,378
Annual Recurring & Miscellaneous Grants	H.5	Tax shares	1	319	136	10	4	169
		Subtotal Level 1		14,178	8,975	10	4	5,190
		- percent			63%	0%	0%	37%
		Subtotal Level 1 + Level 2		14,178	8,975	10	4	5,190
		- percent			63%	0%	0%	37%
		Total Civic Grants costs		14,178	8,975	10	4	5,190

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
None				-	-	-	-	-

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	14,178	8,975	10	4	5,190
Revenues	-	-	-	-	-
Net consumption - Civic Grants Program	14,178	8,975	10	4	5,190
		63%	0%	0%	37%

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Civic Grants Program - Explanatory Notes to Chart

H.1 Community Service Grants

Community Service Grants are awarded to organizations serving residents.

H.2 Cultural Grants

- **Operating Grants, Project Grants, Diversity Initiatives, Celebration Grants, Baxter/City rental grants, Opportunity Initiatives** – are for large and small cultural organizations and events. The large organizations (Symphony, Opera, Ballet and Playhouse) represent 30% draw an average of 44% of patrons from the City according to a survey of cultural organizations. Smaller organizations likely draw a higher percentage from the City, assumed to be 75%. Grants weighted by attendance assumptions results in 65% being associated with Vancouver residents (treated as residential). The remaining 35% is associated with non-Vancouver residents and has been treated as a business consumption because of the patronage of businesses by the patrons.
- **Theatre Rental Grants** – are awarded to the Symphony, Opera, Ballet and Playhouse to subsidise their rentals of City facilities (Orpheum and QE Theatre). Their weighted average attendance is 44% from Vancouver. Costs have been allocated 44% residential, 56% business.
- **Get Out Youth Legacy** – serve residents only.

H.3 Childcare Grants – serve residents only.

H.4 Major Exhibiting Organizations

- **Vancouver Museum** – management advises that 45% of attendees are from Vancouver. Costs have been allocated 45% residential, 56% business.
- **Maritime Museum** – management advises that 56% of attendees are from Vancouver. Costs have been allocated 56% residential, 44% business.
- **HR Macmillan Space Centre** – management advises that an estimated 28% of attendees are from Vancouver. Costs have been allocated 28% residential, 72% business.
- **Science World** – management advises that 60% of attendees are from Vancouver. Costs have been allocated 60% residential, 40% business.
- **Vancouver Art Gallery** – management advises that an estimated 30% of attendees are from Vancouver. Costs have been allocated 30% residential, 70% business.

- **Annual Recurring & Miscellaneous Grants** - is a budget for numerous and unspecified small ex gratia grants. Because they cannot be identified with any specific property class, costs are assigned to property classes in proportion to taxes paid.

(For further information tax shares by property class, refer to Appendix T, Item # 8.)

APPENDIX I

ENGINEERING SERVICES

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

I. Engineering Services

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Unattached Branches	I.1							
• General Manager		Engineering Services consumption	3	444	216	3	5	220
• Land Survey, Projects Branch, Dev't Services, Bld. Site Inspect.		Building Permits driver	1	2,465	1,511	-	-	954
Total Unattached branches				2,909	1,728	3	5	1,173
Departmental Services	I.2							
• Dep't Ass City Engineer		Engineering Services consumption	3	141	69	1	2	70
• Budgets & Administration		Engineering Services consumption	3	1,568	764	10	19	775
• Yards Branch, Kent Const Admin, Utilities/Lab, Info Services, Equip. Services		Engineering Services consumption	3	3,638	1,772	22	45	1,799
• Comfort Stations		Management assessment	1	237	237	-	-	-
Total Departmental Services				5,584	2,841	33	66	2,644
Water & Sewer Division Ass. City Engineer	I.3	Sewer (drainage) consumption	1	32	23	-	1	9
Solid Waste	I.4							
• Solid Waste Division Ass. City Engineer		Street Cleaning consumption	1	19	3	-	-	16
• Light Duty Return to Work		Management assessment	1	305	61	-	-	244
• Street Cleaning								
- Mechanical Street sweeping		Management assessment	1	300	99	-	-	201
- Hand carts, Litter cans		Management assessment	1	1,700	-	-	-	1,700
- Litter trucks		Management assessment	1	1,600	160	-	-	1,440
- Night shift		Management assessment	1	2,250	113	-	-	2,138
- Leaf removal		Management assessment	1	600	450	-	-	150
- Abandoned garbage		Management assessment	1	645	161	-	-	484
- Administration		Street Cleaning consumption	1	759	105	-	-	654
Total Solid Waste				8,178	1,152	-	-	7,026
Streets Division	I.5							
• <u>Design Branches</u>								
- Filming and Special Events		Management Assessment	1	502	-	-	-	502
- Structures		Wear on streets	1	1,394	564	-	61	769
- Streets design		Use of streets	1	1,233	715	-	6	511
- Streets Administration		Per Streets fees (revenue below)	1	678	47	-	-	631
- Street Furniture Project		Management Assessment	1	134	-	-	-	134
- Anti-Graffiti Program		Management Assessment	1	783	-	-	-	783
Total Design Branches				4,724	1,327	-	68	3,330
• <u>Street Operations</u>								
• Streets Division Ass. City Engineer		Streets division consumption	1	116	60	-	2	54
• Utilities Management Branch		Use of streets	1	430	249	-	2	178
• Streets Operations General		Streets operation consumption	1	1,090	665	-	24	401

Engineering Services - Chart of Costs and Revenues Cont'd

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/Light Industry
Streets Division Cont'd	I.5							
Street Operations Cont'd								
• General Maintenance		Wear on streets	1	1,298	525	-	57	716
• Street Activities								
- Arterial roads		Wear of streets	1	3,426	1,387	-	150	1,889
- Local roads		Use of local roads	1	3,712	3,044	-	17	650
• Roads & Lanes		Use of local roads	1	1,601	1,313	-	7	280
• Bridge Program		Wear of streets	1	536	217	-	23	296
• Snow & Ice Control		Use of streets	1	758	440	-	4	314
		Total Streets Operation		12,967	7,901	-	288	4,778
		Total Streets Division		17,691	9,228	-	355	8,108
Transportation Division	I.6							
• Parking Enforcement		Tax shares	1	6,325	2,696	200	73	3,356
• Meter Operations		Tax shares	1	2,839	1,210	90	33	1,506
• Parking Branch Administration		Tax shares	1	941	401	30	11	499
• Transportation Division Ass. City Engineer		Transportation division consumption	1	153	85	2	1	65
• Transportation & Electrical Design								
- Transportation Cost Allocation		Transportation division consumption (excludes parking)	1	12	7	0	0	5
- Electrical Cost Allocation		Transportation division consumption (excludes parking)	1	416	230	6	3	176
- Strategic Transportation Plan		Use of streets	1	671	389	-	4	278
- Traffic Management Branch		Use of streets	1	1,132	657	-	6	469
- Neighbourhood Transportation		Management assessment	1	563	563	-	-	-
- Electrical Design Branch		Use of streets	1	283	164	-	1	117
		Total Transportation & Electrical Design		3,077	2,010	6	14	1,046
• Traffic & Electric Operations Administration		Traffic & Electrical consumption	1	748	499	-	4	245
• Traffic Operations								
- Arterial roads (90%)		Use of streets	1	3,195	1,853	-	17	1,325
- Local roads (10%)		Use of local roads	1	355	291	-	2	62
• Street Lighting								
- Arterial roads (41%)		Use of streets	1	1,915	1,111	-	10	794
- Local roads (59%)		Use of local roads	1	2,755	2,260	-	13	483
• Traffic Signals		Use of streets	1	336	195	-	2	139
• Radios		Engineering consumption	3	127	62	1	2	63
		Total Transportation Division		22,766	12,673	329	180	9,584
Special Projects Division - Rapid Transit	I.7	Use of transit	1	388	227	-	2	160
Sustainability Division	I.8							
• Sustainability Division		Sustainable development driver	1	633	376	-	72	185
• Climate Change Action Plan		CCAP driver	1	845	504	-	43	298
		Total Sustainability		1,478	879	-	116	483
		Subtotal Level 1		53,108	25,868	328	652	26,260
		- percent			48.7%	0.6%	1.2%	49.4%
		Subtotal Level 1 + Level 2		53,108	25,868	328	652	26,260
		- percent			48.7%	0.6%	1.2%	49.4%
Total Engineering Services costs				59,026	28,750	364	725	29,187

Engineering Services - Chart of Costs and Revenues Cont'd

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Sundry Streets Fees	I.9							
• Street Occupancy		Management assessment	1	(462)	-	-	-	(462)
• Building Grade Fees		Management assessment	1	(236)	-	-	-	(236)
• Street vending		Management assessment	1	(98)	-	-	-	(98)
• Prod & Merchandise Display Fees		Management assessment	1	(102)	-	-	-	(102)
• Street Rental fee		Management assessment	1	(5)	-	-	-	(5)
• Garbage Container Permit Fee		Management assessment	1	(212)	-	-	-	(212)
• Films/Festivals		Management assessment	1	(380)	-	-	-	(380)
• Encroachment		Management assessment	1	(500)	(375)	-	-	(125)
• Anchor Rod Fee		Management assessment	1	(1,450)	-	-	-	(1,450)
• Street Furniture		Management assessment	1	(1,228)	-	-	-	(1,228)
• Sidewalk Café		Management assessment	1	(626)	-	-	-	(626)
• Newsbox Permits		Management assessment	1	(71)	-	-	-	(71)
Total Sundry Street Fees				(5,370)	(375)	-	-	(4,995)
Translink contribution to road maintenance	I.10	Wear of streets	1	(3,547)	(1,436)	-	(155)	(1,956)
Municipal By-law Fines	I.11							
• Municipal by-law fines		Tax Shares	1	(10,445)	(4,452)	(330)	(121)	(5,542)
• Recoveries - grow ops clean up costs		Management Assessment	1	(362)	(362)	-	-	-
Parking Meter Revenues	I.12	Tax Shares	1	(24,761)	(10,555)	(782)	(286)	(13,138)
Total Revenues				(44,485)	(17,180)	(1,112)	(561)	(25,631)

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	59,026	28,750	364	725	29,187
Revenues	(44,485)	(17,180)	(1,112)	(561)	(25,631)
Net consumption - Engineering Services	14,541	11,570	(748)	163	3,556
		80%	-5%	1%	24%

(Note - Net consumption by non-residential property classes is negative)

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Engineering Services - Explanatory Notes to Chart

I.1 Unattached Branches

- **General Manager** – is a management service assigned to property classes according to the consumption pattern of the Engineering department as a whole.
- **Land Survey, Projects Branch, Development Services, Building Site Inspections** – the workload for these groups varies with the level of development activity in the City. Costs have been assigned to the property classes according to the value of building permits for each class.

(For further information on the value of building permits per property class, refer to Appendix T, Item # 13).

I.2 Departmental Services

- **Department of the Assistant City Engineer, Budgets and Administration, Yards Branch, Kent Construction Administration, Utilities Laboratory, Information services, Equipment services** – are services to the whole department. Costs are assigned to property classes according to the consumption pattern of the Engineering department as a whole.
- **Comfort Stations** – are the public washrooms and have been treated as residential consumption.

I.3 Water and Sewer Division Asst. City Engineer – this is treated as a cost of drainage service. It has been assigned to property classes according to the consumption of drainage services (Appendix J).

I.4 Solid Waste (Street Cleaning) – is managed by an Assistant City engineer who provided a breakdown of operations that is different from the cost centres listed for this activity. For each unit he provided his assessment of the relative workload for residential and non-residential areas. The non-residential areas are almost entirely commercial districts. No significant service is provided to major Industrial areas (port terminals and sawmills).

- **Asst. City Engineer** – is a share of the Solid Waste Assistant City Engineer. This cost is assigned to property classes according to the consumption pattern Street Cleaning (below).
- **Light Duty return to Work** – represents light duty jobs for previously injured staff. The Street Cleaning engineer assessed the involvement of property classes in the work of this unit as 20% residential areas and 80% commercial areas.
- **Mechanical Street Sweeping** – The Street Cleaning engineer assessed the involvement of property classes in the work of this unit as 33% residential areas and 67% commercial areas.

- **Hand carts, Litter Cans** – The Street Cleaning engineer assessed the involvement of property classes in the work of this unit as 100% commercial areas.
- **Litter Trucks** – The Street Cleaning engineer assessed the involvement of property classes in the work of this unit as 10% residential areas and 90% commercial areas.
- **Night Shift** – The Street Cleaning engineer assessed the involvement of property classes in the work of this unit as 5% residential areas and 95% commercial areas.
- **Leaf Removal** – The Street Cleaning engineer assessed the involvement of property classes in the work of this unit as 75% residential areas and 25% commercial areas.
- **Abandoned Garbage** – The Street Cleaning engineer assessed the involvement of property classes in the work of this unit as 25% residential areas and 75% commercial areas.
- **Administration** - is a service to the Street Sweeping group. This cost is assigned to property classes according to the consumption pattern of Street Cleaning.

I.5 Streets Division – Design Branches – most streets division costs have been identified or split by management into costs of local and arterial roads.

The street costs relating to local roads have been assigned to property classes according to the kilometers of adjacent property classes (see Appendix T, Item #16). The street costs relating to the maintenance of arterial roads been split between those that do not vary with wear on streets (see Appendix T, Item #14) and those that do vary with wear of streets (see Appendix T, Item # 15). The use of arterial roads is based on the use of streets (kilometers driven) for the purposes of different property classes. The wear on arterial roads is based on kilometers driven for purposes of different property classes and the relative wear imposed by automobiles, trucks and buses.

- **Filming and Special Events** – is the cost of investigating the requirements and issuing permits. Management assessed the consumption as 100% business.
- **Structures** – relates to costs of inspecting and maintaining bridges and retaining wall. Costs have been assigned to the property classes based on the wear on streets.

(For further information on the wear of streets calculation, refer to Appendix T, Item # 15.)

- **Streets design** – is mostly the redesign of existing roads. Costs have been assigned to the property classes based on the use of streets.

(For further information on the use of streets calculation, refer to Appendix T, Item # 14.)

- **Streets Administration** – is the unit that manages the activities that generate fees. Costs have been assigned to property classes according to the attribution of Street fees in the Engineering Department (see I.9 below).
- **Street Furniture Project** – is the unit that manages bus shelter contracts. It has been treated as business consumption.
- **Anti-Graffiti Program** – is the unit that works with business to remove graffiti. It has been treated as business consumption.

Streets Division – Streets Operations

- **Street Division Asst. City Engineer** – manages the Streets Division. The cost has been assigned to property classes according to the consumption pattern of Streets Division in the Engineering Department.
- **Utilities Management Branch** – works with utility companies when they wish to dig up streets. The work load does not vary with wear. Costs have been assigned to the property classes based on the use of streets.

(For further information on the use of streets calculation, refer to Appendix T, Item # 14.)

- **Streets Operations General** – supervises all programs of the Streets Operations Branch. Costs have been assigned according to the consumption pattern Streets Operations branch.
- **General Maintenance** – is reactive maintenance streets, sidewalks, seawall, floodgates ditches, catch basins, fences and railway crossings. Costs have been assigned to the property classes based on the wear on streets.

(For further information on the wear of streets calculation, refer to Appendix T, Item # 15.)

- **Street Activities Arterial Roads** – represent the arterial share of costs of the planned maintenance program. Costs have been assigned to the property classes based on the wear on streets.

(For further information on the wear of streets calculation, refer to Appendix T, Item # 15.)

- **Street Activities Local Roads** – represents local roads' share of costs of the planned maintenance program. Costs have been assigned to property classes using according to the use of local roads.

(For further information on the use of local roads calculation, refer to Appendix T, Item # 16.)

- **Roads and Lanes** – are costs of maintaining older, minor roads, lanes and ditches. Costs have been assigned to property classes using according to the use of local roads.

(For further information on the use of local roads calculation, refer to Appendix T, Item # 16.)

- **Bridge Program** – are the costs of maintaining bridges. They are all on arterial roads. Costs have been assigned to the property classes based on the wear on streets.

(For further information on the wear of streets calculation, refer to Appendix T, Item # 15.)

- **Snow and Ice Control** – is the cost of keeping arterial roads cleared of snow and ice. Costs have been assigned to the property classes based on the use of streets.

(For further information on the use of streets calculation, refer to Appendix T, Item # 14.)

I.6 Transportation Division

- **Parking Enforcement, Parking Meter Operations, Parking Branch Administration** – as detailed in the main text, parking operations have been a significant revenue generator the city in recent years, and for this reason have been treated as a “net revenue” centre (similar to municipal and sundry revenues). Costs and revenues associated wit parking operations are thus assigned on the basis of tax shares by property class.

(For further information tax shares by property class, refer to Appendix T, Item # 8.)

- **Transportation Division Asst. City Engineer, Transportation Cost Allocation, Electrical Cost Allocation** – serve the Transportation Division. These costs have been assigned to property classes according to the consumption pattern of the Transportation Division

- **Strategic Transportation Plan, Traffic Management Branch** – are services to improve the movement of traffic through Vancouver’s arterial streets. The services are not wear related, therefore costs have been assigned based on the use of streets.

(For further information on the use of streets calculation, refer to Appendix T, Item # 14.)

- **Neighbourhood Transportation** – deals with improving residential access, pedestrian and cycling issues. Management assessed this to be a service to residents.

- **Electrical Design Branch** – designs and manages the installation of upgraded street lighting and traffic signals. Most of the work is done for arterial roads. The services are not wear related, therefore costs have been assigned based on the use of streets.

(For further information on the use of streets calculation, refer to Appendix T, Item # 14.)

- **Traffic and Electrical Operations Administration** – serves Traffic and Electrical Operations. The cost has been assigned to property classes

according to the consumption pattern of Traffic and Electrical Operations services.

- **Traffic Operations for Arterial Roads** – incorporates some costs of traffic signals, road traffic control and traffic signs. Management assessed arterial road as accounting for at least 90% of total Traffic Operations costs. These costs are not related to the wear on streets. Costs have been assigned to property classes based on the use of streets.

(For further information on the use of streets calculation, refer to Appendix T, Item # 14.)

- **Traffic Operations Local Roads** – provide road traffic control and traffic signs on local roads. Costs have been assigned to property classes according to the use of local roads.

(For further information on the use of local roads calculation, refer to Appendix T, Item # 16.)

- **Street Lighting Arterial Roads** – the share of costs for arterial roads was calculated from the relative length of arterial roads (22% of the total, the frequency of lights (doubled for local roads, and the cost of each light, 25% more expensive than lights on local roads). The result is that arterial roads represent 41% of the total cost of street lighting. The costs are not related to wear so they have been assigned to property classes using the use of streets.

(For further information on the use of streets calculation, refer to Appendix T, Item # 14.)

- **Street Lighting Local Roads** – costs have been assigned to property classes using according to the use of local roads.

(For further information on the use of local roads calculation, refer to Appendix T, Item # 16.)

- **Traffic Signal Shop** – maintains traffic signals primarily on arterial roads. Costs have been assigned to the property classes based on the use of streets.

(For further information on the use of streets calculation, refer to Appendix T, Item # 14.)

- **Radios** – is the cost of radios used throughout the department. The cost is assigned to property classes based on the consumption pattern the Engineering Department.

I.7 Special Projects Division Rapid Transit – is a unit that coordinates the interface of proposed rapid transit stations with City streets. The consumers of this service are the people who will use it for personal (residential) or business purposes. These costs have been assigned to the property classes according to the use of transit.

(For further information on the use of transit calculation, refer to Appendix T, Item # 17.)

I.8 Sustainability Division

- **Sustainability** – is a unit that promotes sustainable development for City departments and for the wider development community. This cost has been assigned the property classes based on management’s assignment of activities.

For further information on Sustainability unit activities, refer to Appendix T, Item # 18.)

- **Climate Change Action Plan** – works with internal and external partners to reduce environmental pollution from buildings and traffic. This cost has been assigned the property classes based on management’s assignment of activities.

For further information on Climate Change Action Plan activities, refer to Appendix T, Item # 19.)

I.9 Sundry Streets Fees

- **Street Occupancy, Building Grade Fees, Street Vending, Produce and Merchandise Display, Street Rental, Garbage Container Permits, Films/Festivals, Anchor Rod Fees, Street Furniture Income, Sidewalk Café, Newsbox Permits** – have all been attributed by management as business.
- **Encroachment Fees** – have been split between residents and business according to fees received from encroachment contracts for residential properties (75%) and business properties (25%).

I.10 Translink Contribution to Road Maintenance – is a contribution from Translink for the maintenance of specified arterial roads. Costs have been assigned to property classes based on the wear of streets.

(For further information on the wear of streets calculation, refer to Appendix T, Item # 15.)

I.11 Municipal By-law Fines

- **Municipal By-law Fines** – as detailed in the main text, parking operations have been a significant revenue generator the city in recent years, and for this reason have been treated as a “net revenue” centre (similar to municipal and sundry revenues). Costs and revenues associated with parking operations are thus assigned on the basis of tax shares by property class.

(For further information tax shares by property class, refer to Appendix T, Item # 8.)

- **Recoveries Grow Ops Cleanup Costs** – are fees recovered from persons convicted of operating grow ops. Revenues have been attributed to residents.

- **I.12 Parking Meter Revenues** – as detailed in the main text, parking operations have been a significant revenue generator the city in recent years,

and for this reason have been treated as a “net revenue” centre (similar to municipal and sundry revenues). Costs and revenues associated with parking operations are thus assigned on the basis of tax shares by property class.

(For further information tax shares by property class, refer to Appendix T, Item # 8.)

APPENDIX J

DRAINAGE

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

J. Drainage

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Drainage	J.1	Drainage requirements driver	1	34,306	24,501	-	647	9,158
		Subtotal Level 1		34,306	24,501	-	647	9,158
		- percent			71%	0%	2%	27%
		Subtotal Level 1 + Level 2		34,306	24,501	-	647	9,158
		- percent			71%	0%	2%	27%
Total Britannia Community Centre costs				34,306	24,501	-	647	9,158

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
None				-	-	-	-	-

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	34,306	24,501	-	647	9,158
Revenues	-	-	-	-	-
Net consumption - Drainage	34,306	24,501	-	647	9,158
		71%	0%	2%	27%

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Explanatory Notes to Chart

J.1 Drainage – costs have been assigned to property classes according to the property areas and the impermeability of the area, as assessed by management.

(For further information on drainage calculations, refer to Appendix T, Item # 20.)

APPENDIX K

VANCOUVER POLICE DEPARTMENT

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

K. Vancouver Police Department

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Office of the Chief Constable	K.1	Police department consumption	3	2,624	1,902	6	6	710
Support Services Division	K.2							
- Protection of Life		Distribution of Time	1	28,200	18,477	-	83	9,639
- Protection of Property		Value of Improvements	1	12,086	8,451	206	35	3,394
		Total Support Services Division		40,285	26,928	206	119	13,033
Operations Division	K.3							
• DCC Operations Division		Police operation data	1	449	338	-	1	110
• District #1 - 4		Police operation data	1	44,336	33,341	-	89	10,907
• <u>Traffic Section</u>								
- Traffic Services, Traffic Support, Traffic Teams 1 - 4, Office of the Inspector, Collision Investigation Units, Hit & Run		Use of streets	1	5,606	3,252	-	29	2,325
- Commercial vehicle, Taxi Unit		Consultants assessment	1	238	-	-	-	238
- School safety & education		Consultants assessment	1	155	155	-	-	-
• <u>Patrol Support Section</u>								
- Crim. Invest Triage Unit		Management assessment	1	766	506	-	-	260
- Stolen Auto, Auto Theft Task Force		Management assessment	1	74	67	-	-	7
- Block Watch, Citizen Crime Watch, Community Police Service, Victim Serv.		Consultants assessment	1	673	673	-	-	-
- Graffiti Unit, Anti-fencing		Consultants assessment	1	1,162	-	-	-	1,162
- Office of Inspector, Analysis Team, General Investigations		Police operation data	1	1,780	1,339	-	4	438
- Property Crime Unit		Police operation data - B&E subset	1	1,003	562	-	-	441
		Total Operations Division		56,242	40,231	-	123	15,889
Operations Support Division	K.4							
• All Operations Support except Youth Services								
- Protection of Life (70%)		Distribution of Time	1	9,574	6,273	-	28	3,273
- Protection of Property (30%)		Value of Improvements	1	4,103	2,869	70	12	1,152
• Youth Services Section		Consultants assessment	1	3,805	3,805	-	-	-
		Total Operations Division		17,482	12,947	70	40	4,425
Investigation Division	K.5							
• DCC Investigation Division		Investigation division consumption	1	2,338	1,914	5	3	415
• <u>Major Crime Section</u>								
- Evenhanded, Prov Witness Prot., Homicide Teams, Coroner's Liaison, Missing Persons, Unsolved Homicide, Witness Protection Squad		Consultants assessment	1	2,645	2,645	-	-	-
- Inspector Major Crime, Arson Squad								
- Protection of Life (70%)		Distribution of Time	1	167	109	-	0	57
- Protection of Property (30%)		Value of Improvements	1	71	50	1	0	20
- Robbery & assault		Management assessment	1	1,976	1,317	-	-	659

Vancouver Police Department - Chart of Costs and Revenues Cont'd

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Investigation Division Cont'd								
• Vice-Drugs Section		Management assessment	1	3,724	3,724	-	-	-
• <u>Special Investigation Section</u>								
- All Special Investigation except Sexual Offenders, Domestic Violence Unit								
- Protection of Life (70%)		Distribution of Time	1	346	227	-	1	118
- Protection of Property (30%)		Value of Improvements	1	148	104	3	0	42
- Sexual Offenders, Domestic Violence Unit		Management assessment	1	3,033	3,033	-	-	-
• <u>Services Liaison Section, Forensic Services Section</u>								
- Protection of Life (70%)		Distribution of Time	1	6,019	3,943	-	18	2,057
- Protection of Property (30%)		Value of Improvements	1	2,579	1,804	44	8	724
		Total Investigation Division		23,046	18,870	53	31	4,092
Fringe Benefits & Other Shared Payroll Costs	K.6	Police department consumption	3	20,606	14,940	45	46	5,575
Police Board	K.7	Police department consumption	3	211	153	0	0	57
Emergency Communication Centre	K.8	Police operation data	1	14,602	10,981	-	29	3,592
		Subtotal Level 1		151,657	109,956	328	341	41,031
		- percent			73%	0%	0%	27%
		Subtotal Level 1 + Level 2		151,657	109,956	328	341	41,031
		- percent			73%	0%	0%	27%
Total Vancouver Police Department expenditures				175,098	126,951	379	394	47,373

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
None				-	-	-	-	-

Summary		Total	Net consumption by property class			
			Residential	Utilities	Major Industry	Business/ Light Industry
Costs		175,098	126,951	379	394	47,373
Revenues		-	-	-	-	-
Net consumption - Vancouver Police Department		175,098	126,951	379	394	47,373
			73%	0%	0%	27%

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Vancouver Police Department - Explanatory Notes to Chart

(Note: this methodology is a significant enhancement of that used in the previous 1995 study, made possible by much greater levels of information provided by V.P.D.)

Vancouver Police Department costs have been assigned to property classes based on three general principles:

- Cost assignment based on items that can be identified specifically with property classes because the nature of the service is apparent, or because management has provided direct assessments.
- Cost assignment resulting from an analysis of records from the Computer Aided Dispatch (CAD) system that maintains a log of all 911 calls. The Operations Division responds to these calls. Each call is classified according to nature of the call, location and likely offence.

(For further information on the Vancouver Police Department CAD data, refer to Appendix T, Item # 23.)

- Costs that cannot be assigned using the assignment listed above have been analyzed on the basis that the primary function of the Police Department is to protect life and property.
 - The relative share of protection of life and protection of property has been weighted as 70% protection of life and 30% protection of property. This is consistent with the weightings used in the 1995 study.
 - The life protection afforded to different property classes is assigned based on the distribution of time devoted to residential vs non-residential activities.

(For further information on the distribution of time calculation, refer to Appendix T, Item # 21.)

- The property protection afforded to different property classes is assigned based on the relative value of taxable improvements.

(For further information on the value of improvements, refer to Appendix T, Item # 22.)

K.1 Office of the Chief Constable – is a service to the entire department. The cost has been assigned to property classes according to the consumption pattern of the Police Department.

K.2 Support Services Division

- **Protection of Life (70%)** – costs have been assigned to property classes based on the distribution of time.
- **Protection of Property (30%)** – cost have been assigned to property classes based on the value of improvements.

K.3 Operations Division

- **Deputy Chief Constable** – manages the Operations Division. This cost has been assigned to property classes using the Police operations data.,
- **Districts 1 to 4** – have been assigned to property classes using the Police operations data.
- **Traffic Services, Traffic Support, Traffic Teams, Office of the Inspector, Collision Investigation Units, Hit and Run** – all deal with traffic issues. These costs have been assigned to property classes based on the use of streets.

(For further information on the use of streets calculation, refer to Appendix T, Item # 14.)

- **Commercial Vehicle, Taxi Unit** – has been treated as business consumption.
- **School Safety and Education** – has been treated as residential consumption.
- **Criminal Investigation Triage Unit** – attend burglaries and other property crimes to gather forensic evidence. Year to date there have been 4,391 (66%) residential burglaries and 2,252 (34%) business burglaries. Costs have been assigned based on this ratio.
- **Stolen Auto, Auto Theft Task Force** – deal with auto theft. No data are available on the frequency of theft of personal vs business automobiles. Costs have been assigned based on the assumption that 90% is residential, 10% business.
- **Block Watch, Citizen Crime Watch, Community Police Services, Victim Services Unit** – have been treated as residential consumption.
- **Graffiti Unit, Anti-Fencing Unit** – have been treated as business consumption.
- **Office of the Inspector, Analysis Team, General Investigations** – have been assigned to property classes using the Police operations data.
- **Property Crime Unit** – deals with property losses resulting from B&E. Costs are assigned to property classes using a subset of the Police Operations data specific to B&Es.

K.4 Operations Support Division

- **All Units, except Youth Services Section - Protection of Life (70%) – Protection of Life (70%)** – costs have been assigned to property classes based on the distribution of time.
- **All Units, except Youth Services Section - Protection of Property (30%) – Protection of Property (30%)** – cost have been assigned to property classes based on the value of improvements.

- **Youth Services Section** – has been assumed to be consumed by residents.

K.5 Investigation Division

- **Deputy Chief Constable** – manages the Investigation Division. This cost has been assigned to the property classes based on the consumption pattern of the Investigation Division.
- **Evenhanded Unit (Pickton Investigation), Provincial Witness Protection Program, Homicide Teams, Coroner's Liaison, Missing persons, Unsolved Homicide, Witness Protection Squad** – are services that have been considered to be consumed by residents.
- **Inspector, Arson Squad – Protection of Life (70%)** – these costs have been assigned to property classes based on the distribution of time.
- **Inspector, Arson Squad – Protection of Property (30%) – Protection of Property (30%)** – these costs have been assigned to property classes based on the value of improvements.
- **Robbery and Assault** – has been assessed by the Deputy Chief Constable as relating approximately two thirds to residents and one third to business.
- **Vice-Drugs Section** – has been assumed to relate to the residential property class.
- **All Special Investigation Units, except Sexual Offenders and Domestic Violence Units – Protection of Life (70%)** – these costs have been assigned to property classes based on the distribution of time.
- **All Special Investigation Units except Sexual Offenders and Domestic Violence Units – Protection of Property (30%)** – these costs have been assigned to property classes based on the value of improvements.
- **Sexual Offenders, Domestic Violence Units** – has been assumed to relate to the residential property class.
- **Services Liaison Section, Forensic Services Section - Protection of Life (70%)** – costs have been assigned to property classes based on the distribution of time.
- **Services Liaison Section, Forensic Services Section - Protection of Property (30%)** – costs have been assigned to property classes based on the value of improvements.

K.6 Fringe Benefits and Other Shared Payroll Costs – relate to the salaries of all staff in the department. This cost has been assigned to the property classes based on the consumption pattern of the whole Police Department.

K.7 Police Board – monitors the activities of the whole department. This cost has been assigned to the property classes based on the consumption pattern of the whole Police Department.

K.8 Emergency Communications Centre – manages the 911 calls to Police and Fire Departments. These costs have been assigned to property classes using the Police operations data.

APPENDIX L

FIRE & RESCUE SERVICES

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

L. Fire & Rescue Services

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Office of the Fire Chief	L.1	Fire & Rescue consumption	3	427	282	2	2	141
Fire Halls	L.2							
- Protection of Life (70%)		Distribution of Time	1	45,212	29,624	-	134	15,455
- Protection of Property (30%)		Value of Improvements	1	19,377	13,549	329	57	5,441
Rescue & Safety	L.3	Distribution of Time	1	466	305	-	1	159
Operations	L.4							
• Urban Search & Rescue, Hazmat/Special Teams, Project EMS		Distribution of Time	1	583	382	-	2	199
• Emergency Preparedness		Management assessment	1	163	82	-	8	73
• Communication Initiatives		Fire & Rescue consumption	3	3	2	0	0	1
		Total Operations		749	465	0	10	274
Training	L.5							
- Protection of Life (70%)		Distribution of Time	1	679	445	-	2	232
- Protection of Property (30%)		Value of Improvements	1	291	203	5	1	82
		Total Training		970	648	5	3	314
Fire Prevention	L.6							
• Fire Prevention		Management assessment	1	1,877	713	-	38	1,126
• Public Education		Management assessment	1	249	217	-	5	27
• Fire Investigation								
- Protection of Life (70%)		Distribution of Time	1	61	40	-	0	21
- Protection of Property (30%)		Value of Improvements	1	26	18	0	0	7
		Total Fire Prevention		2,213	988	0	43	1,182
Finance and Administration	L.7	Fire & Rescue consumption	3	821	542	4	3	272
Fleet Maintenance	L.8							
- Protection of Life (70%)		Distribution of Time	1	2,574	1,686	-	8	880
- Protection of Property (30%)		Value of Improvements	1	1,103	771	19	3	310
		Total Fleet Maintenance		3,677	2,458	19	11	1,190
Building Maintenance	L.9	Fire & Rescue consumption	3	913	603	4	3	302
Communications Division	L.10							
• Pre-Fire Planning		Management assessment	1	168	30	-	3	134
• Emergency Communications		Fire & Rescue consumption	3	272	180	1	1	90
• Records Management		Fire & Rescue consumption	3	287	190	1	1	95
		Total Communications Division		727	399	3	5	320

Fire & Rescue Services - Chart of Costs and Revenues Cont'd

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Planning and Research	L.11	Fire & Rescue consumption	3	89	59	0	0	29
Emergency Communications Centre (E-Comm)	L.12							
- Protection of Life (70%)		Distribution of Time	1	2,223	1,456	-	7	760
- Protection of Property (30%)		Value of Improvements	1	953	666	16	3	267
		Total Emergency Communications Centre		3,175	2,122	16	9	1,027
		Subtotal Level 1		76,004	50,188	370	271	25,175
		- percent			66%	0%	0%	33%
		Subtotal Level 1 + Level 2		76,004	50,188	370	271	25,175
		- percent			66%	0%	0%	33%
		Total Fire & Rescue expenditures		78,816	52,045	384	281	26,106

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
None				-	-	-	-	-

Summary		Total	Net consumption by property class			
			Residential	Utilities	Major Industry	Business/ Light Industry
Costs		78,816	52,045	384	281	26,106
Revenues		-	-	-	-	-
	Net consumption - Fire & Rescue Services	78,816	52,045	384	281	26,106
			66%	0%	0%	33%

* Costs and revenues are analyzed at one of three levels.
 Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
 Level 2 costs are for partly based on the consumption of another department(s).
 Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Fire & Rescue Services - Explanatory Notes to Chart

Fire & Rescue Service costs have been assigned to property classes using two general principles:

- Costs that can be identified specifically with property classes because the nature of the service is apparent, or because management has provided direct assessments.
- Costs that cannot be assigned using the assignment listed above have been analyzed on the basis that the primary function of Fire & Rescue is to protect life and property.
 - The relative share of protection of life and protection of property has been weighted as 70% protection of life and 30% protection of property. This is consistent with the weightings used in the 1995 study.
 - The life protection afforded to different property classes is assigned based on the distribution of time devoted to residential vs non-residential activities.

(For further information on the distribution of time calculation, refer to Appendix T, Item # 21.)

- The property protection afforded to different property classes is assigned based on the relative value of taxable improvements.

(For further information on the value of improvements, refer to Appendix T, Item # 22.)

L.1 Office of the Fire Chief – is a service to the entire department. This cost has been assigned to property classes according to the consumption pattern of Fire & Rescue Services.

L.2 Fire Halls

- **Protection of Life (70%)** – costs have been assigned to property classes based on the distribution of time.
- **Protection of Property (30%)** – cost have been assigned to property classes based on the value of improvements.

L.3 Rescue and Safety – is an activity devoted to the protection of life. Costs have been assigned to property classes based on the distribution of time.

L.4 Operations

- **Urban Search and Rescue, Hazmat Special teams, Project Emergency Medical Services** – are activities devoted to the protection of life. Costs have been assigned to property classes based on the distribution of time.
- **Emergency Preparedness** – management has assessed the assigned of costs to property classes as 50% residential, 5% major industry and 45% business.

- **Communication Initiatives** – is an activity that communicates the Services functions to the public. The cost has been assigned to property classes according to the consumption pattern of Fire & Rescue services.

L.5 Training

- **Protections of Life (70%)** – costs have been assigned to property classes based on the distribution of time.
- **Protection of Property (30%)** – costs have been assigned to property classes based on the value of improvements.

L.6 Fire Prevention

- **Fire Prevention** – management has assessed the distribution of costs to property classes as 38% residential, 2% major industry and 60% business.
- **Public Education** – management has assessed the distribution of costs to property classes as 87% residential, 2% major industry and 11% business.
- **Fire Investigation Protection of Life (70%)** – costs have been assigned to property classes based on the distribution of time.
- **Fire Investigation Protection of Property (30%)** – costs have been assigned to property classes based on the value of improvements.

L.7 Finance and Administration – is a service to the entire department. The cost has been assigned to property classes according to the consumption pattern of Fire & Rescue services.

L.8 Fleet Maintenance

- **Protection of Life (70%)** – costs have been assigned to property classes based on the distribution of time.
- **Protection of Property (30%)** – cost have been assigned to property classes based on the value of improvements.

L.9 Building Maintenance – is a service to the entire department. The cost has been assigned to property classes according to the consumption pattern of Fire & Rescue services.

L.10 Communications Division

- **Pre-Fire Planning** – management has assessed the distribution of costs to property classes as 18% residential, 2% major industry and 20% business.
- **Emergency Communications** – is a service to the entire department. The cost has been assigned to property classes according to the consumption pattern of Fire & Rescue services.
- **Records management** – is a service to the entire department. The cost has been assigned to property classes according to the consumption pattern of Fire & Rescue services.

L.11 Planning and Research – is a service to the entire department. The cost has been assigned to property classes according to the consumption pattern of Fire & Rescue services.

L.12 Emergency Communications Centre

- **Protection of Life (70%)** – costs have been assigned to property classes based on the distribution of time.
- **Protection of Property (30%)** – cost have been assigned to property classes based on the value of improvements.

APPENDIX M

BOARD OF PARKS & RECREATION

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

M. Board of Parks and Recreation

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Planning & Operations	M.1							
• Parks Board Planning Administration		Board of Parks & Rec consumption	3	896	724	-	-	172
• Park Maintenance, excluding arboriculture		Board of Parks & Rec consumption	3	12,064	9,750	-	-	2,314
• Arboriculture		Management assessment	1	4,755	4,042	-	-	713
		Total Planning & Operations		17,715	14,515	-	-	3,200
Stanley District	M.2							
• Stanley District Administration		Stanley District consumption	1	198	151	-	-	47
• Stanley Recreation Services		Management assessment	1	9,115	8,659	-	-	456
• Stanley Revenue Services		Consultant assessment	1	4,556	2,734	-	-	1,822
• Stanley Operations								
- Stanley Operations, Downtown Parks		Management assessment	1	2,252	2,252	-	-	-
- Stanley Sanitation		Consultant assessment	1	2,243	1,346	-	-	897
- Stanley Park		Consultant assessment	1	3,061	1,163	-	-	1,898
		Total Stanley District		21,425	16,305	-	-	5,120
Queen Elizabeth District (QE)	M.3							
• QE District Administration		QE District consumption	1	324	283	-	-	41
• QE Recreation Services		Management assessment	1	11,053	10,500	-	-	553
• QE District Operations								
- Operations (excluding major parks and marina)		Management assessment	1	4,793	4,793	-	-	-
- Van Dusen Gardens		Consultant assessment	1	2,216	1,662	-	-	554
- QE Park		Consultant assessment	1	2,191	833	-	-	1,358
- Burrard Civic Marina		Management assessment	1	416	250	-	-	166
		Total Queen Elizabeth District		20,993	18,320	-	-	2,673
Vancouver East District	M.4							
• Vancouver East District Administration		Vancouver East District consumption	1	507	399	-	-	108
• Vancouver East Recreation Services		Management Assessment	1	11,732	11,145	-	-	587
• Vancouver East District Operations								
- Operations (excluding golf course)		Management assessment	1	3,540	3,540	-	-	-
- Golf Courses		Management assessment	1	9,333	4,667	-	-	4,667
		Total Vancouver East District		25,112	19,751	-	-	5,361
Corporate Services	M.5	Board of Parks & Rec consumption	3	4,016	3,246	-	-	770
		Subtotal Level 1		72,285	58,417	-	-	13,868
		- percent			80.8%	0.0%	0.0%	19.2%
		Subtotal Level 1 + Level 2		72,285	58,417	-	-	13,868
		- percent			80.8%	0.0%	0.0%	19.2%
		Total Board of Parks & Recreation costs		89,261	72,136	-	-	17,125

Board of Parks & Recreation - Chart of Costs and Revenues Cont'd

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Planning & Operations	M.6							
• Park Maintenance Revenues		Management assessment	1	(209)	-	-	-	(209)
Stanley District	M.7							
• Stanley Recreation Services		Management assessment	1	(2,712)	(2,712)	-	-	-
• Stanley Revenue Services		Management assessment	1	(9,450)	(5,670)	-	-	(3,780)
• Stanley Operations		Management assessment	1	(57)	(57)	-	-	-
		Total Stanley District Revenues		(12,219)	(8,439)	-	-	(3,780)
Queen Elizabeth District (QE)	M.8							
• QE District Administration		Management assessment	1	(219)	-	-	-	(219)
• QE Recreation Services		Management assessment	1	(4,202)	(4,202)	-	-	-
• QE District Operations								
- Operations (excluding major parks and marina)		Management assessment	1	(909)	(909)	-	-	-
- Van Dusen Gardens		Consultant assessment		(1,163)	(872)	-	-	(291)
- Queen Elizabeth Park		Management assessment	1	(1,273)	(484)	-	-	(789)
- Burrard Civic Marina		Management assessment	1	(1,253)	(752)	-	-	(501)
		Total Queen Elizabeth District Revenues		(9,019)	(7,219)	-	-	(1,800)
Vancouver East District	M.9							
• Vancouver East Recreation Services		Management assessment	1	(3,381)	(3,381)	-	-	-
• Vancouver East District Operations		Management assessment	1	(4)	(4)	-	-	-
- Golf Courses		Management assessment	1	(9,912)	(4,956)	-	-	(4,956)
		Total Vancouver East District Revenues		(13,297)	(8,341)	-	-	(4,956)
Corporate Services	M.10	Board of Parks & Rec consumption	3	(7)	(6)	-	-	(1)
Total Revenues				(34,751)	(24,004)	-	-	(10,747)

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	89,261	72,136	-	-	17,125
Revenues	(34,751)	(24,004)	-	-	(10,747)
Net consumption - Board of Parks & Recreation	54,510	48,132	-	-	6,378
		88%	0%	0%	12%

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Board of Parks & Recreation - Explanatory Notes to Chart

M.1 Planning and Operations

- **Administration** – is a service to the entire department. This cost has been assigned to property classes according to the consumption pattern of the Park Board.
- **Maintenance (except Arboriculture)** – is a service to the entire department. This cost has been assigned to property classes according to the consumption pattern of the Park Board.
- **Arboriculture** – is the generation, planting and maintenance of street trees. 85% of trees are reported to be in residential area. Costs have been assigned 85% residential, 15% business.

M.2 Stanley District

- **Administration** – is a service to Stanley District area of the City of Vancouver. This cost has been assigned to property classes according to the consumption pattern of the Stanley District portion of the Park Board.
- **Recreation Services** – are rinks, arenas, community centres and swimming pools used primarily by residents. However, a small proportion of time is rented by businesses. Costs have been assigned to property classes as 95% residential, 5% business.
- **Revenue Services** – includes restaurant leases, parking revenue and profits from concessions. These services are used by both Vancouver residents and people from outside Vancouver. It is likely that Vancouver residents form a higher proportion of the total day visitors to Stanley Park alone (non – Vancouver visitors was estimated at 38% in a reported survey). Restaurant use at night would be largely Vancouver residents as non-Vancouver residents would likely use restaurants in their own municipalities. The non-residents are considered to bring business to the City and their costs may be considered consumption by business. A 60/40 Vancouver resident/non-resident split has been used as reasonable.
- **Operations, Downtown Parks** – maintains green spaces and smaller District parks. This service has been treated as residential consumption.
- **Sanitation** - covers the collection, recycling or disposal of waste collected from the major Parks and beaches. Costs have been assigned in the same ratio as Revenue Services i.e. 60% residential and 40% business.
- **Stanley Park** – attracts many visitors from outside Vancouver. No current data are available, but a survey quoted in the 1995 study stated that 62% of visitors at the time of the survey were not Vancouver residents. Costs have been assigned costs on the basis of 38% residents and 62% business.

M.3 Queen Elizabeth District

- **Administration** – is a service to the Queen Elizabeth District. This cost has been assigned to property classes according to the consumption pattern of Queen Elizabeth District in the Park Board.
- **Recreation Services** – are rinks, arenas, community centres and swimming pools used primarily by residents. However, a small proportion of time is rented by businesses. Costs have been assigned to property classes as 95% residential, 5% business.
- **Operations (excluding Major Parks and Marina)** – maintain smaller District parks. This service has been treated as residential consumption.
- **Van Dusen Gardens** – attracts far fewer non-Vancouver residents than do Stanley and Queen Elizabeth Parks. Informal discussions with people in the tourism industry lead suggest that 75% residential and 25% business is reasonable.
- **Queen Elizabeth Park** – is similar to Stanley Park in its attractiveness to visitors. Costs have been assigned costs on the basis of 38% residents and 62% business.
- **Burrard Civic Marina** – costs have been assigned in proportion to attributed revenues. Based on figures provided by marina management, 60% of revenues are paid by Vancouver residents and 40% by non-residents.

M.4 Vancouver East District

- **Administration** – is a service to the Vancouver East District. This cost has been assigned to property classes according to the consumption pattern of the Vancouver East District in the Park Board.
- **Recreation Services** – are rinks, arenas, community centres and swimming pools used primarily by residents. However, a small proportion of time is rented by businesses. Costs have been assigned to property classes as 95% residential, 5% business.
- **Operations (excluding Golf Courses)** – maintain smaller District parks. This service has been treated as residential consumption.
- **Golf Courses** – costs have been assigned in proportion to attendance ratio reported by golf course management (50/50 resident/non-resident).

M.5 Corporate Services – is a service to the entire department. Costs have been assigned to property classes according to the consumption pattern of the whole Park Board.

M.6 Park Maintenance Revenues – are recoveries from developers. Costs have been attributed to business.

M.7 Stanley District Revenues

- **Recreation Services** – are rinks, arenas, community centres and swimming pools used primarily by residents. Although a small proportion of time is rented by businesses, the revenue accrues to the Community Centre Association, and not to the Park Board. Revenues have been attributed to property classes as 100% residential.
- **Revenue Services** – includes restaurant leases, parking revenue and profits from concessions. These are patronized by Vancouver residents and people from outside Vancouver. It is likely that Vancouver residents form a higher proportion of the total than day visitors to Stanley park alone (estimated at 38% in a reported survey). Restaurant use at night would be largely City residents as other municipalities have their own restaurants. Therefore revenues have been attributed on a 60/40 Vancouver resident/non-resident basis.
- **Operations** – generates minor recycling revenues. This revenue has been attributed to residents.

M.8 Queen Elizabeth District Revenues

- **Administration** – revenues are lease revenues and licences. They have been attributed to business.
- **Recreation Services** – are rinks, arenas, community centres and swimming pools used primarily by residents. Although a small proportion of time is rented by businesses, the revenue accrues to the Community Centre Association, and not to the Park Board. The attribution of revenues to property classes is 100% residential.
- **Operations (excluding Major Parks and Burrard Civic Marina)** – earns the majority of its revenue from Heather Marina. Because the marina's expenditures and revenues are equal, revenues have been treated the same way as expenditures i.e. 100% to the residential property class.
- **Van Dusen Gardens** – revenues have been attributed in the same ratio as expenditures i.e. 75% residential, 25% business.
- **Queen Elizabeth Park** – revenues have been attributed in the same ratio as expenditures i.e. 38% residential, 62% business.
- **Burrard Civic Marina** – revenues have been attributed on the basis of information provided by management i.e. 60% residential, 40% business.

M.9 Vancouver East District Revenues

- **Recreation Services** – are rinks, arenas, community centres and swimming pools used primarily by residents. Although a small proportion of time is rented by businesses, the revenue accrues to the Community Centre Association, and not to the Park Board. The attribution of revenues to property classes is 100% residential.

- **Operations (excluding Golf Courses)** – revenues have been attributed in the same ratio as expenditures i.e. 100% residential.
- **Golf Courses** – revenues have been attributed on the basis of information provided by management i.e. 50% residential, 50% business.

M.10 Corporate Services – has a small amount of recycling revenue from Park Board offices. This revenue is attributed to property classes according to the consumption pattern of the whole Park Board.

APPENDIX N

VANCOUVER PUBLIC LIBRARY

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

N. Vancouver Public Library

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
City Librarian	N.1	Vancouver Public Library consumption	3	1,823	1,592	-	-	231
Corporate Services	N.2	Vancouver Public Library consumption	3	4,462	3,897	-	-	565
Systems & Technical services	N.3	Vancouver Public Library consumption	3	3,853	3,365	-	-	488
Public Services - Central Library	N.4							
• Director, Central Library		Central Library consumption	1	235	184	-	-	51
• Virtual Library		Management assessment	1	778	568	-	-	210
• Fine Arts and History		Management assessment	1	1,748	1,311	-	-	437
• Popular Reading		Management assessment	1	1,615	1,518	-	-	97
• Literature and Social Science		Management assessment	1	1,646	1,481	-	-	165
• Science and Business		Management assessment	1	2,177	1,023	-	-	1,154
• Children's Library		Management assessment	1	1,156	1,133	-	-	23
• Newspapers, magazines and Sp Coll		Management assessment	1	1,261	757	-	-	504
• Quick Info and Inter-library loans		Management assessment	1	929	892	-	-	37
• Circulations Services		Management assessment	1	739	739	-	-	-
		Total Central Library		12,284	9,606	-	-	2,678
Public Services - Branches	N.5	Management assessment	1	11,628	11,279	-	-	349
		Subtotal Level 1		23,912	20,885	-	-	3,027
		- percent			87%	0%	0%	13%
		Subtotal Level 1 + Level 2		23,912	20,885	-	-	3,027
		- percent			87%	0%	0%	13%
Total Vancouver Public Library expenditures				34,050	29,739	-	-	4,311
Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
None				-	-	-	-	-
Summary				Total	Net consumption by property class			
					Residential	Utilities	Major Industry	Business/ Light Industry
Costs				34,050	29,739	-	-	4,311
Revenues				-	-	-	-	-
Net consumption - Vancouver Public Library				34,050	29,739	-	-	4,311
					87%	0%	0%	13%

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Vancouver Public Library - Explanatory Notes to Chart

N.1 City Librarian – serves the entire department. This cost has been assigned to property classes according to the consumption pattern of the Library.

N.2 Corporate Services – serves the entire department. This cost has been assigned to property classes according to the consumption pattern of the Library.

N.3 Systems and Technical Services – serves the entire department. This cost has been assigned to property classes according to the consumption pattern of the Library.

N.4 Central Library - Business use in the following analysis includes management's assessment of the use of the library by students of private language schools. This is treated as a business use.

- **Director** – serves the Central Library. This cost has been assigned to property classes according to the consumption pattern of the Central Library.
- **Virtual Library** – management has assessed the use of this department as 73% residential, 27% business.
- **Fine Arts and History** – management has assessed the use of this department as 75% residential, 25% business.
- **Popular reading** – management has assessed the use of this department as 94% residential, 6% business.
- **Literature and Social Science** – management has assessed the use of this department as 90% residential, 10% business.
- **Science and Business** – management has assessed the use of this department as 47% residential, 53% business.
- **Children's Library** – management has assessed the use of this department as 98% residential, 2% business.
- **Newspapers Magazines and Special Collections** – management has assessed the use of this department as 60% residential, 40% business.
- **Quick Info and Inter Library Loans** – management has assessed the use of this department as 96% residential, 4% business.
- **Circulation Services** – management assess the use of this department as 100% residential.

N.5 Branches – management has assessed the use of Branches as 97% residential, 3% business.

APPENDIX O

BRITANNIA COMMUNITY SERVICES CENTRE

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

O. Britannia Community Services Centre

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Centre Administration	O.1	Management assessment	1	2,284	2,284	-	-	-
Recreation	O.1	Management assessment	1	558	558	-	-	-
Subtotal Level 1				2,842	2,842	-	-	-
- percent					100%	0%	0%	0%
Subtotal Level 1 + Level 2				2,842	2,842	-	-	-
- percent					100%	0%	0%	0%
Total Britannia Community Centre costs				2,842	2,842	-	-	-

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
None				-	-	-	-	-

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	2,842	2,842	-	-	-
Revenues	-	-	-	-	-
Net consumption - Britannia Community Centre	2,842	2,842	-	-	-
		100%	0%	0%	0%

* Costs and revenues are analyzed at one of three levels.
 Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
 Level 2 costs are for partly based on the consumption of another department(s).
 Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Explanatory Notes to Chart

0.1 The Britannia Community Services Centre serves residents only. Expenditures have been considered to be residential consumption.

APPENDIX P

CIVIC THEATRES

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

P. Civic Theatres

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Orpheum expenditures	P.1	Management assessment	1	866	381	-	-	485
Queen Elizabeth Theatre expenditures		Management assessment	1	682	300	-	-	382
Playhouse expenditures		Management assessment	1	367	161	-	-	206
Administration, Stage, Maintenance & Parking		Management assessment	1	4,693	2,065	-	-	2,628
Subtotal Level 1				6,608	2,908	-	-	3,700
- percent					44%	0%	0%	56%
Subtotal Level 1 + Level 2				6,608	2,908	-	-	3,700
- percent					44%	0%	0%	56%
Total Civic Theatre costs				6,608	2,908	-	-	3,700

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Orpheum revenue	P.1	Management assessment	1	(2,479)	(1,091)	-	-	(1,388)
Queen Elizabeth Theatre revenue		Management assessment	1	(1,741)	(766)	-	-	(975)
Playhouse revenue		Management assessment	1	(574)	(253)	-	-	(321)
Administration, Stage, Maintenance & Parking		Management assessment	1	(1,343)	(591)	-	-	(752)
Total Revenues				(6,137)	(2,700)	-	-	(3,437)

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	6,608	2,908	-	-	3,700
Revenues	(6,137)	(2,700)	-	-	(3,437)
Net consumption - Civic Theatres	471	207	-	-	264
		44%	0%	0%	56%

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Civic Theatres - Explanatory Notes to Chart

P. 1 A survey of the major cultural organizations using the Civic theatres indicated that the weighted average of attendance by Vancouver residents was 44%, while 56% were from outside the City. The consumption of Civic Theatre services by the latter patrons is transferred to the business class, as such visitors also patronise City retail and hospitality enterprises during their visits. Accordingly both costs and revenues have been assigned as 44% residential and 56% business property classes.

APPENDIX Q

DEBT, CONTINGENCY AND TRANSFERS

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

Q. Debt, Contingency and Transfers

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
General Purpose Debt	Q.1							
• Internal & External Debt and Debt Charges								
- Community & Cultural - Community Services		Community Services consumption	2	799	519	1	5	274
- Community & Cultural - Library		Library consumption	2	834	728	-	-	106
- Engineering - Communications & Yards		Engineering Services consumption	2	665	324	4	8	329
- Engineering - Streets		Engineering - Streets Division consumption	2	27,999	14,605	-	562	12,832
- Engineering - Traffic Operations		Engineering - Traffic Operations consumption	2	629	380	-	3	246
- Engineering - Street Lighting		Engineering - Street Lighting consumption	2	2,826	2,040	-	14	773
- Fire- Firehalls		Fire & Rescue Services - Fire Halls	2	387	259	2	1	125
- General Government - Sundry		Dep't budgeted expenditures	2	42	29	0	0	13
- Parks Development & Sites		Board of Parks & Recreation consumption	2	11,774	9,515	-	-	2,259
- Police - public safety		Vancouver Police Department consumption	2	614	445	1	1	166
- Transfers to reserves		Tax shares	1	555	237	18	6	294
		Total Internal & External Debt & Debt Charges		47,124	29,080	26	601	17,417
Local Improvement Debentures	Q.2	Tax shares	1	3,752	1,599	119	43	1,991
Capital from Revenue and other Transfers	Q.3							
• Capital from revenue								
- Transit & Safety Improvements, Affordable Housing, Non-market Housing, Social Facilities, Cultural Reinvestment Fund, Capital Grants, Voting Equipment		Management assessment	1	6,000	6,000	-	-	-
- Emerging Neighbourhoods (DTES)		Management assessment	1	2,000	1,200	-	-	800
- Public Art on Capital Projects		Dep't budgeted expenditures	2	400	274	1	2	124
- Engineering Communications		Engineering Services consumption	2	900	438	6	11	445
- Engineering Street Lighting		Engineering - Street Lighting consumption	1	2,400	1,732	-	12	656
- Information Technology		Corporate Services - IT consumption	2	1,200	812	2	5	381
- Corporate Risk Data Management		Tax shares	1	400	171	13	5	212
- City Clerk's Records Management		City Manager - City Clerk consumption	2	800	494	4	16	287
- Civic Facilities Maintenance/Upgrades		Corporate Services - Facilities consumption	2	3,300	1,779	5	11	1,505
		Total Capital from Revenue		17,400	12,899	30	61	4,410

Chart of Costs and Revenues

Costs	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Capital from Revenue and other Transfers Cont'd								
• System Replacement Program		# computers by department	2	4,244	2,897	7	13	1,327
• Transfer to Liability Insurance Reserve		Tax shares	1	752	321	24	9	399
• Transfer to Reserves for Elections		Management assessment	1	500	500	-	-	-
Total Capital from Revenue & o her Transfers				22,896	16,617	60	83	6,136
Sundry transfers Q.4								
• Contingency Reserve		Tax shares	1	3,500	1,492	111	40	1,857
• Additional surplus from revised PILT budget		Tax shares	1	1,097	468	35	13	582
Subtotal Level 1				20,956	13,719	318	128	6,792
- percent					65%	2%	1%	32%
Subtotal Level 1 + Level 2				78,369	49,256	350	780	27,983
- percent					63%	0%	1%	36%
Total Debt, Contingency & Transfers costs				78,369	49,256	350	780	27,983

Revenues	Refer to Note	Basis for assignment		Total	Attribution by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Local Improvement taxes	Q.5	Tax shares		(3,752)	(1,599)	(119)	(43)	(1,991)
Transfer from Property Endowment Fund	Q.6	Tax shares		(7,000)	(2,984)	(221)	(81)	(3,714)
Transfer from Miscellaneous Reserves	Q.7	Tax shares		(160)	(68)	(5)	(2)	(85)
Total Revenues				(10,912)	(4,652)	(345)	(126)	(5,790)

Summary	Total	Net consumption by property class				
		Residential	Utilities	Major Industry	Business/ Light Industry	
Costs	78,369	49,256	350	780	27,983	
Revenues	(10,912)	(4,652)	(345)	(126)	(5,790)	
Net consumption - Debt, Contingency & Transfers		67,457	44,605	5	654	22,193
		66%	0%	1%	33%	

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Debt, Contingency and Transfers - Explanatory Notes to Chart

Q.1 General Purpose Debt Payments

- **Community Services** – payments for debentures have been assigned to property classes according to the consumption pattern of Community Services department (Appendix G).
- **Library** – payments for debentures have been assigned to property classes according to the consumption pattern of the Vancouver Public Library (Appendix N).
- **Engineering Communications and Yards** – payments for debentures have been assigned to property classes according to the consumption pattern of the Engineering Services department (Appendix I).
- **Engineering Streets** – payments for debentures have been assigned to property classes according to the consumption pattern of the Streets Division in the Engineering department.
- **Engineering Traffic Operations** – payments for debentures have been assigned to property classes according to the consumption pattern of the Traffic Operations subset of the Engineering department.
- **Engineering Street Lighting** – payments for debentures have been assigned to property classes according to the consumption pattern of the Street Lighting subset of the Engineering department.
- **Fire Halls** – payments for debentures have been assigned to property classes according to the consumption pattern of the Fire Halls subset of the Fire & Rescue Services (Appendix L).
- **General Government Sundry** – payments for debentures have been assigned to property classes according the department budgeted expenditures of each City department, which are then driven to each property class based on the consumption pattern of each department.
- **Parks Development and Sites** – payments for debentures have been assigned to property classes according to the consumption pattern of the Board of Parks and Recreation (Appendix M).
- **Police** – payments for debentures have been assigned to property classes according to the consumption pattern of the Vancouver Police department (Appendix K).
- **Transfers to Reserves** – have been assigned to property classes according to the share of taxes paid by each class.

Q.2 Local Improvement Debenture Payments – are in respect of improvements that are paid for by taxpayers. An equal and opposite revenue item is listed below. These items have been assigned to property classes according to the share of taxes paid by each class.

Q.3 Capital from Revenue and Other Transfers

- **Transit and Safety Improvements, Affordable Housing, Non-Market Housing, Social Facilities, Cultural Reinvestment Fund, Capital Grants, Voting Equipment** – capital payments for these items are for services to be used by residents only.
- **Emerging Neighbourhoods (DTES)** – capital payments for these items have been assigned to property classes according to the assessment by management of the workload of the planning unit responsible for this project.
- **Public Art on Capital Projects** – are a general service to the City, its citizens, visitors and businesses. Therefore, the department budgeted expenditures has been used to estimate each department's relative share of consumption. These costs are then driven to each property class based on the consumption pattern of each department.
- **Engineering Communications** – capital payments these items have been assigned to property classes according to the consumption pattern of the Engineering department.
- **Engineering Street Lighting** – capital payments for these items have been assigned to property classes according to the consumption pattern of the Street Lighting subset of the Engineering department.
- **Information Technology** – capital payments for these items have been assigned to property classes according to the consumption pattern of the Information Technology subset of the Corporate Services (Appendix D).
- **Corporate Risk Data Management** – is an investment to reduce the risk of financial loss to the City. This cost has been assigned to the property classes in proportion to taxes paid.
- **City Clerk's Records Management** – capital payments for these items have been assigned to property classes according to the consumption pattern of the City Clerk's subset of the City Manager's Office (Appendix C).
- **Civic Facilities Maintenance/Upgrades** – capital payments for these items have been assigned to property classes according to the consumption pattern of the Facilities subset of Corporate Services.
- **System Replacement Program** – is a transfer to provide for the replacement of personal computers. The number of computers per department has been used to estimate the relative costs. The resulting departmental cost shares have been assigned to property cases according to the consumption pattern of each department.

(For further information on the number of computers per department, refer to Appendix T, Item # 5.)
- **Transfer to Liability Insurance Reserve** – is a transfer to meet possible future financial liabilities. This cost has been assigned to the property classes in proportion to taxes paid.

- **Transfer to Reserve for Elections** – is strictly a residential cost.

Q.4 Sundry Transfers

- **Contingency Reserve** – the transfer is financed by taxpayers in proportion to taxes paid.
- **Transfer to Surplus (increase in PILT)** – is a surplus assume in this study because PILT's are expected to exceed the values shown in the July 2006 Budget Book. Because no additional expenditures have been assumed, it is necessary to show the surplus as a transfer to reserves. It has been assigned among property classes in proportion to their tax payments, on the grounds that the surplus could alternatively have been eliminated by a proportionate reduction in taxes.

Q.5 Local Improvement Taxes – are revenues that balance debenture payments in the expenditure section of this Appendix. This revenue has been attributed to the property classes in proportion to taxes paid.

Q.6 Transfer from Property endowment Fund - has the effect of reducing the taxes that would otherwise be required. This revenue has been attributed to the property classes in proportion to taxes paid.

Q.7 Transfer from Miscellaneous Reserves - have the effect of reducing the taxes that would otherwise be required. This revenue has been attributed to the property classes in proportion to taxes paid.

APPENDIX R

SUNDRY REVENUE

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

R. Sundry Revenues

Chart of Costs and Revenues

Revenues	Refer to Note	Basis for assignment		Total	Consumption by property class			
		Title	Level*		Residential	Utilities	Major Industry	Business/ Light Industry
Penalties and Interest	R.1	Tax shares	1	(4,919)	(2,097)	(155)	(57)	(2,610)
Provincial Revenue Sharing	R.2							
• Traffic Fines		Tax shares	1	(12,538)	(5,345)	(396)	(145)	(6,653)
• Gaming Revenue		Management assessment	1	(5,000)	-	-	-	(5,000)
		Total Provincial Revenue Sharing		(17,538)	(5,345)	(396)	(145)	(11,653)
Interest of Temporary Investments	R.3	Tax shares		(11,400)	(4,860)	(360)	(132)	(6,049)
Miscellaneous Fees	R.4							
• Miscellaneous Interest Earned		Tax shares	1	(76)	(32)	(2)	(1)	(40)
• Sale of Scrap/Surplus		Tax shares	1	(6)	(3)	(0)	(0)	(3)
• Area/Crossing Agreements		Tax shares	1	(6)	(3)	(0)	(0)	(3)
• Musqueam Service Agreement		Management assessment	1	(500)	(500)	-	-	-
• Lease Administration Fee		Tax shares	1	(23)	(10)	(1)	(0)	(12)
• Admin Fee Provincial School Tax		Tax shares	1	(315)	(134)	(10)	(4)	(167)
• Property Tax Search Fees		Management assessment	1	(588)	-	-	-	(588)
• Sundry Fees and Receipts		Tax shares	1	(40)	(17)	(1)	(0)	(21)
• Fees		Management assessment	1	(113)	-	-	-	(113)
• NSF Charges		Tax shares	1	(20)	(9)	(1)	(0)	(11)
• Payphone Commission		Utilities	1	(52)	-	(52)	-	-
• Wireless Antennae fees		Utilities	1	(40)	-	(40)	-	-
• Telecom Cable Fee		Utilities	1	(16)	-	(16)	-	-
• Other Utilities		Utilities	1	(171)	-	(171)	-	-
		Total Miscellaneous Fees		(1,966)	(707)	(294)	(6)	(959)
Total Sundry Revenue				(35,823)	(13,008)	(1,206)	(339)	(21,270)

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	-	-	-	-	-
Revenues	(35,823)	(13,008)	(1,206)	(339)	(21,270)
Total Sundry Revenue	(35,823)	(13,008)	(1,206)	(339)	(21,270)
		36%	3%	1%	59%

* Costs and revenues are analyzed at one of three levels.
Level 1 costs are those directly assigned among property classes based on patterns of logic and/or department-specific data.
Level 2 costs are for partly based on the consumption of another department(s).
Level 3 costs are provided to the department as a whole (combining Level 1 and 2).

Sundry Revenue - Explanatory Notes to Chart

R.1 Penalties and Interest – do not relate to any specific property classes. The result of receiving such revenue is to reduce revenue that would otherwise need to be raised through taxes. This revenue has been attributed to the property classes in proportion to taxes paid.

R.2 Provincial Revenue Sharing

- **Traffic fines** – represents a share of provincial traffic fines assigned by the Provincial Government. The payment to each municipality is related to its proportionate police costs and not with fines actually levied within the municipality. This revenue has been attributed to the property classes in proportion to taxes paid.
- **Gaming revenue** – is a payment of 10% of the profits earned by the City's casinos. The revenues have been attributed to business.

R.3 Interest on Temporary Investments – reduces revenue that would otherwise need to be raised through taxes. This revenue has been attributed to the property classes in proportion to taxes paid.

R.4 Miscellaneous Fees

- **Miscellaneous interest, sales of scrap/surplus, area/crossing agreements** – reduce revenue that would otherwise need to be raised through taxes. This revenue has been attributed to the property classes in proportion to taxes paid.
- **Musqueam service agreement** – is a payment by the Musqueam Band for the City to provide municipal services to residents (Band members and lease holders) on Band land. The revenues have been attributed to residents,
- **Lease administration fee, administration fee (collection of Provincial school taxes)** – reduce revenue that would otherwise need to be raised through taxes. This revenue has been attributed to the property classes in proportion to taxes paid.
- **Property tax search fees** – are payments made by realtors and lawyers for information on the payment of property taxes. The revenues have been attributed to business.
- **Sundry fees** – reduce revenue that would otherwise need to be raised through taxes. This revenue has been attributed to the property classes in proportion to taxes paid.
- **Fees (mortgage companies and developers)** – is for tax balances and administration fees charged to property developers requesting an apportionment of taxes where the property has been subdivided but the assessment has not been changed yet due to the timing of the subdivision. The revenues have been attributed to business.

- **NSF charges** – reduce revenue that would otherwise need to be raised through taxes. This revenue has been attributed to the property classes in proportion to taxes paid.
- **Payphone commission, wireless antennae fees, telecom cable fees, other utility fees** – are paid by utilities.

APPENDIX S

TAX REVENUES AND PAYMENTS IN LIEU OF TAXES (PILT)

- **Chart of Costs and Revenues**
- **Explanatory Notes to Chart**

S. Tax Revenues and Payments in Lieu of Taxes (PILT)

Chart of Costs and Revenues

Revenues	Refer to Note	Basis for assignment	Total	Consumption by property class			
		Title		Residential	Utilities	Major Industry	Business/ Light Industry
General Purpose Tax Levy	S.1						
• Current Tax		Taxes billed	(477,348)	(214,530)	(6,296)	(5,542)	(250,980)
• Taxes written off		Taxes billed	3,042	1,367	40	35	1,599
• Tax on properties sold by the City		Taxes billed	(1,000)	(449)	(13)	(12)	(526)
		General Purpose Tax Levy	(475,306)	(213,612)	(6,269)	(5,518)	(249,906)
Utility Taxes	S.2						
• BC Gas 1.2%		Payer (utilities)	(2,886)	-	(2,886)	-	-
• BC Hydro 1%		Payer (utilities)	(2,816)	-	(2,816)	-	-
• BC Hydro PILT		Payer (utilities)	(3,100)	-	(3,100)	-	-
• Shaw 1.25%		Payer (utilities)	(1,000)	-	(1,000)	-	-
		Utility Taxes	(9,802)	-	(9,802)	-	-
Taxes on Sundry Rentals	S.3						
• Sundry rentals		Management assessment	(250)	-	-	-	(250)
• VPC Properties		Management assessment	(800)	-	-	-	(800)
• Other Parking Property		Management assessment	(237)	-	-	-	(237)
• 150 Dunsmuir		Management assessment	(750)	-	-	-	(750)
• VanCity		Management assessment	(48)	-	-	-	(48)
• Block 42		Management assessment	(5,500)	-	-	-	(5,500)
• Volumetric Parcels		Management assessment	(250)	-	-	-	(250)
• False Creek Properties		Management assessment	(175)	-	-	-	(175)
• Other PEF Properties		Management assessment	(1,600)	(160)	-	-	(1,440)
• Library Square		Management assessment	(1,850)	(1,850)	-	-	-
• EComm Building		Management assessment	(280)	-	-	-	(280)
• Abbeyfield		Management assessment	(11)	(11)	-	-	-
		Taxes on Sundry Rentals	(11,751)	(2,021)	-	-	(9,730)
Federal Payments in lieu of taxes	S.4						
• Crown Dominion		Management assessment	(3,292)	(176)	-	-	(3,116)
• Canada Post Corporation		Management assessment	(836)	-	-	-	(836)
• CBC		Management assessment	(611)	-	-	-	(611)
• Vancouver Port Corporation		Management assessment	(1,569)	-	-	(310)	(1,259)
• Consular Properties		Management assessment	(197)	(49)	-	-	(148)
• Vancouver International Airport Auth		Management assessment	(6)	-	-	-	(6)
• False Creek Harbour Authority		Management assessment	(18)	(1)	-	-	(17)
• North Fraser Port Authority		Management assessment	-	-	-	-	-
		Federal Payments in lieu of taxes	(6,529)	(226)	-	(310)	(5,993)

Taxation Revenue - Chart of Costs and Revenues Cont'd

Revenues	Refer to Note	Basis for assignment	Total	Consumption by property class			
		Title		Residential	Utilities	Major Industry	Business/ Light Industry
Provincial Payments in Lieu of Taxes	S.5						
• Liquor Distribution Branch		Management assessment	(200)	(1)	-	-	(199)
• Insurance Corporation of BC		Management assessment	(344)	-	-	-	(344)
• BC Buildings Corporation		Management assessment	(3,787)	(33)	-	-	(3,754)
• BC Housing Management Corporation		Management assessment	(989)	(982)	-	-	(7)
• Simon Fraser University		Management assessment	(12)	-	-	-	(12)
		Provincial Payments in Lieu of Taxes	(5,332)	(1,016)	-	-	(4,316)
Provincial Port Tax Cap Subsidy	S.6	Management assessment	(42)	-	-	(42)	-
Total Taxation Revenue			(508,762)	(216,875)	(16,071)	(5,870)	(269,945)

Summary	Total	Net consumption by property class			
		Residential	Utilities	Major Industry	Business/ Light Industry
Costs	-	-	-	-	-
Revenues	(508,762)	(216,875)	(16,071)	(5,870)	(269,945)
Net consumption - Community Services	(508,762)	(216,875)	(16,071)	(5,870)	(269,945)
		43%	3%	1%	53%

Tax Revenues and PILT - Explanatory Notes to Chart

S.1 General Purpose Tax Levy – details were provided by City staff.

S.2 Utility Taxes – are turnover taxes paid by utility companies.

S.3 PILT on City Rental Properties – details were provided by City staff.

S.4 Federal PILT – details were provided by City staff.

S.5 Provincial PILT – details were provided by City staff.

S.6 Provincial Port Tax Cap Subsidy – is a payment made by the Provincial Government to compensate for the fact that taxes on Major Industrial properties on Port lands are now capped at \$27.50 per \$1,000 of assessed value. City management reports that the subsidy of \$41,000 is only a small fraction of the impact of the cap. The revenue has been attributed to Major Industry.

APPENDIX T

DETAILS OF THE BASES FOR ASSIGNMENT

T. Details of the Bases for Assignment

Several datasets and analyses have been used as the basis for assignment of line item costs and revenues associated with each department.

Some of these analyses directly reflect the percentage attributable to the four taxpayer groups.

Other analyses (used for Level 2 costs, where one department is providing services to another department) are used to estimate the relative percentage of the relevant expenditure that is being consumed by each of the various departments. The expenditure is then driven to each property class based on the consumption pattern of each department.

The following frequently used data-sets are numbered, and may be referenced in the department-specific appendices.

- 1. Departmental Budgeted Expenditures** – are used to assign costs for which there is no direct relationship with a particular department, but where costs would be expected to vary with the level of activity of the department.

Note that the table below excludes self-financed utilities. It also excludes the budgets for City-Wide Expenditures, for Civic Grants Program, and for Debt, Contingency and Transfers. These budgets are for financial transactions only, with no staff or activities.

Department	\$'000	%	
Mayor & Council	1,887	0.3	Values calculated using these ratios are assigned to property classes according to the consumption pattern of the relevant department.
City Manager's Office	11,218	1.9	
Corporate Services	31,909	5.5	
Human Resource Services	7,429	1.3	
Community Services	46,631	8.1	
Engineering Services (ex Utilities) ¹	59,026	10.2	
Sewer (Drainage portion) ²	34,306	5.9	
Vancouver Police Department	175,098	30.3	
Fire & Rescue Services	78,816	13.6	
Board of Parks and Recreation	89,261	15.4	
Vancouver Public Library	34,050	5.9	
Britannia Community Centre	2,842	0.5	
Civic Theatres ³	6,608	1.1	
Total	\$579,081	100.0	

1. This Engineering budget is \$688,000 higher than the 2006 budget book which includes this amount of parking revenue as a negative cost. We have treated it as revenue, thereby increasing budgeted expenditures.
2. The Sewer (drainage portion) budget is the total budget for sewer and drainage less budgeted sewer revenues.
3. The Civic Theatre revenues and expenditure totals in the 2006 budget book are both understated by \$138,000.

- 2. City Clerk's Information Services** – is a cost centre of nine people with split responsibilities. Two staff work on Freedom of Information requests. The City manager estimates that 20% of the work results from requests from residents, and 80% from business requests. No records are kept of the work for Council and other departments. The departmental budgeted expenditures have been used to assign costs, representing the relative size of departments using this service.

		% of total	Residential/ Recreational	Utilities	Major Industry	Business/ Light Industry	Total
2a	2 persons						
	Freedom of Information	22%	20%			80%	100%
2b	7 persons						
	Research for Council, Depts	78%		Departmental budgeted expenditures			

- 3. Full Time Equivalent (FTE) Employment** – includes regular full time, temporary full time and auxiliary staff. The hours of the latter two groups have been converted to FTEs based on annual hours per FTE.

Department	Total FTEs	%	
Mayor & Council	10	0.15%	
City Manager's Office	125	1.87%	
Corporate Services	496	7.44%	
Human Resources Services	56	0.84%	Values calculated using these ratios are assigned to property classes according to the consumption pattern of the relevant department.
Community Services	626	9.39%	
Engineering Services	1,167	17.50%	
Drainage	123	1.84%	
Vancouver Police Department	1,590	23.85%	
Fire & Rescue Services	822	12.33%	
Board of Parks and Recreation	1,044	15.66%	
Vancouver Public Library	549	8.23%	
Britannia Community Centre	11	0.16%	
Civic Theatres	49	0.73%	
	6,668	100.00%	

Four FTE assignments have been developed for different purposes. They have been used where the number of staff reflects the level of effort of different activities, and where the services are delivered to some, but not all, of the City's departments. The four assignments include:

- all departments,
- all departments except Police and Fire,
- all departments except Police and Library,
- all departments except Police, Fire and Parks.

- 4. Revenue Operations Workloads** – have been developed from the number of FTEs employed in revenue billing for different types of revenue. Tax billing is consumed by taxpayer groups in proportion to the number of tax accounts. An estimated 55% of water bills are for residential taxpayers, while the remaining 45% is assigned to the Industry/Business groups in proportion to tax accounts. Bylaw billing is over 99% parking related, and parking is considered business consumption (for employees or customers/clients). Solid waste billing is considered residential, as the solid waste utility does not serve business.

		% of total	Residential	Utilities	Major Industry	Business/ Light Industry	Total
4a	Tax - per tax accounts	32%	158,604	187	25	13,663	172,479
			91.96%	0.11%	0.01%	7.92%	100.00%
4b	Water and Sewer - per water bills						
	(MI/Bus/LI per tax accounts)	19%	55.00%		0.08%	44.92%	100.00%

- 5. Computers by Department** – is used to assign the costs of relevant Information Technology services.

Department	Computers	%	
Mayor & Council	23	0.44%	
City Manager's Office	91	1.74%	
Corporate Services	738	14.09%	
Human Resources Services	65	1.24%	
Community Services	658	12.56%	
Engineering Services	523	9.98%	
Drainage	55	1.05%	
Vancouver Police Department	1,060	20.23%	
Fire & Rescue Services	188	3.59%	
Board of Parks and Recreation	598	11.41%	
Vancouver Public Library	1,120	21.38%	
Britannia Community Centre	20	0.38%	
Civic Theatres	100	1.91%	
	5,239	100.00%	

Values calculated using these ratios are assigned to property classes according to the consumption pattern of the relevant department.

6. Help Desk Calls by Department – is used to assign the costs of relevant Information Technology services.

Department	Calls	%	Values calculated using these ratios are assigned to property classes according to the consumption pattern of the relevant department.
Mayor & Council	55	0.27%	
City Manager's Office	835	4.12%	
Corporate Services	3,422	16.88%	
Human Resources Services	323	1.59%	
Community Services	2,680	13.22%	
Engineering Services	3,200	15.79%	
Drainage	63	0.31%	
Vancouver Police Department	6,700	33.05%	
Fire & Rescue Services	370	1.83%	
Board of Parks and Recreation	2,400	11.84%	
Vancouver Public Library	108	0.53%	
Britannia Community Centre	114	0.56%	
Civic Theatres			
	20,270	100.00%	

7. Space Allocation by Department – is used to assign the costs of services of Real Estate and Facilities Management units. The space used excludes premises that are not managed by these groups e.g. all Park Board, all Library and most Fire & Rescue buildings.

Department	Square feet	%	Values calculated using these ratios are assigned to property classes according to the consumption pattern of the relevant department.
Mayor & Council	11,783	2.4%	
City Manager's Office	34,202	7.1%	
Corporate Services	83,752	17.3%	
Human Resources Services	13,423	2.8%	
Community Services	113,370	23.5%	
Engineering Services	55,549	11.5%	
Vancouver Police Department	168,000	34.8%	
Fire & Rescue	3,312	0.7%	
Total	483,391	100.0%	

- 8. Tax shares of taxpayer groups** – the following analysis is based on the 2006 V4 budget. PILT have been assigned among the property classes according to the classification of the properties for which the PILT is paid.

Tax element	Residential	Utilities	Major Industry	Business/ Light Industry	Total
General Purpose Tax Levy	213,612	6,269	5,518	249,906	475,306
Utility Taxes		9,802			9,802
PILT on City Rental properties	2,021			9,730	11,751
PILT on Federal properties	226		310	5,993	6,529
PILT Provincial properties	1,016			4,316	5,332
Port Tax Cap Subsidy			42		42
Total Taxes Paid	216,875	16,071	5,870	269,945	508,762
General tax levy	42.63%	3.16%	1.15%	53.06%	100.0%

- 9. General HR administration ratios** – relate staffing levels of certain HR units to the departments they serve. Specific staff manage HR issues for particular departments. The table below summarises the calculated share of costs for each department. (The Police department is responsible for its own HR administration.)

Department	HR Staff	Departmental FTEs	%	Values calculated using these ratios are assigned to property classes according to the consumption pattern of the relevant department.
Community Services	2.0		15.48%	
Engineering Services	3.6		27.7%	
Drainage	0.4		3.1%	
Fire & Rescue Services	1.0		7.7%	
Board of Parks and Recreation	3.0		23.1%	
Mayor & Council		10	0.2%	
City Manager's Office		125	2.2%	
Corporate Services		496	8.8%	
Human Resources Services	3.0	56	1.0%	
Vancouver Public Library		549	9.8%	
Britannia Community Centre		11	0.2%	
Civic Theatres		49	0.9%	
	13.0	1,296	100.00%	

10. Health and Safety compliance ratios – represent HR management’s assessment of the relative workload imposed by each department for monitoring compliance with Health and Safety regulations.

Department	% of HR Effort	Total FTEs	%
Engineering Services	30%		30.00%
Drainage	3%		3.00%
Vancouver Police Department	22%		22.00%
Fire & Rescue Services	17%		17.00%
Board of Parks and Recreation	22%		22.00%
Mayor & Council		10	0.03%
City Manager's Office		125	0.39%
Corporate Services		496	1.55%
Human Resources Services	6%	56	0.17%
Community Services		626	1.95%
Vancouver Public Library		549	1.71%
Britannia Community Centre		11	0.03%
Civic Theatres		49	0.15%
	100%	1,922	100.00%

Values calculated using these ratios are assigned to property classes according to the consumption pattern of the relevant department.

11. Health and Safety management ratios – represent HR management’s assessment of the relative workload imposed by each department for managing Health and Safety regulations. (This is not the same as the specialized team that monitors compliance.)

Department	% of HR Effort	Total FTEs	%
Engineering Services	52%		52.00%
Drainage	3%		3.00%
Vancouver Police Department	6%		6.00%
Fire & Rescue Services	12%		12.00%
Board of Parks and Recreation	22%		22.00%
Mayor & Council		10	0.03%
City Manager's Office		125	0.33%
Corporate Services		496	1.29%
Human Resources Services	5%	56	0.15%
Community Services		626	1.63%
Vancouver Public Library		549	1.43%
Britannia Community Centre		11	0.03%
Civic Theatres		49	0.13%
	100%	1,922	100.00%

Values calculated using these ratios are assigned to property classes according to the consumption pattern of the relevant department.

12. New and non-recurring expenditures – is management's estimate of an envelope budget, the details of which have not yet been established. Based on past experience, the Park Board uses an average of 37% of the budget. Facilities are assessed to use 50% of the budget. The remaining 13% has been assigned on the basis of budgeted expenditures.

Department	% of total	Budget \$'000	%	
Board of Parks and Recreation	37%		37.0%	
Corporate Services (Facilities)	50%		50.0%	
Mayor & Council		1,887	0.1%	
City Manager's Office		11,218	0.3%	
Human Resources Services		7,429	0.2%	
Community Services		46,631	1.3%	
Engineering Services		59,026	1.7%	
Drainage	13%	34,306	1.0%	
Vancouver Police Department		175,098	5.0%	
Fire & Rescue Services		78,816	2.2%	
Vancouver Public Library		34,050	1.0%	
Britannia Community Centre		2,842	0.1%	
Civic Theatres		6,608	0.2%	
	100%	457,911	100.0%	

Values calculated using these ratios are assigned to property classes according to the consumption pattern of the relevant department.

13. Value of Building Permits (\$'000) – is used for permit and inspection revenues and a few other costs where the level of building activity is relevant. The following table is constructed from building permits issued for the first seven months of 2006.

Group classification	Residential	Utilities	Major Industry	Business/ Light Industry	Total
Assembly				92,376	92,376
Institutional				15,934	15,934
Residential	520,810				520,810
Business and Personal Services				120,618	120,618
Mercantile				26,969	26,969
Industrial				57,462	57,462
Miscellaneous and Signs				15,303	15,303
Total	520,810			328,662	849,472
Building permits	61.3%	0.0%	0.0%	38.7%	100.0%

14. Use of arterial streets (not wear related) – by motor vehicles is developed from the 2004 Trip Diary Survey conducted by the GVRD. In the survey respondents recorded the number, purpose and destination of trips by mode over a 24 hour period. Vancouver results have been extracted by City Engineering (Transportation Branch) staff. The trip purposes have been grouped into residential, work and personal business categories. Screenline surveys by the GVRD and City indicated the ratio of truck counts to total traffic counts (0.64%). Other factors used to calculate use of streets are average passengers per bus (from Translink), estimated trip length (consultants' estimate) and Port related truck trips (consultants' estimate based on information from one of the Port container terminals). The following table summarises the calculations. The results have been used to distribute the costs of arterial street operations that do not vary with wear.

Number of trips to - thousands	Car and Taxi	Buses	Trucks	Combined
Person trip summary				
Residential	403,788	113,645		517,433
Work (Bus, LI, MI)	125,343	40,574		165,917
Other Business	158,236	38,086		196,322
	687,367	192,305		879,672
				100.0%
Average passengers per bus		17		
Vehicle trip summary				
Residential	403,788	6,685		410,473
Work (Bus, LI, MI)	125,343	2,387		127,730
Other Business	158,236	2,240		160,476
Delivery (estimated 0.64% of total)			4,472	4,472
	687,367	11,312	4,472	703,151
Average km per trip	5	5	10	
Vehicle km summary - thousand				
Residential	2,019	33		2,052
Work (Bus, LI, MI)	627	12		639
Other Business	791	11		802
Delivery			45	45
	3,437	57	45	3,538

Convert to property classes

Use of Streets Summary by Property Class	Residential	Utilities	Major Industry	Business/Light Industry	Combined Total
Residential	2,052				2,052
Work (Bus, LI, MI) – MI say 2%			13	626	639
Other Business				802	802
Trucks (delivery) – Port est 13%			6	39	45
	2,052		19	1,467	3,538
Use of Streets	58.0		0.5%	41.5%	100.0%

15. Wear on arterial streets – is calculated from the use of streets cost and standard transportation engineering factors reflecting the ratio of wear between automobiles, trucks and buses. This assignment has been used to distribute the costs of arterial street operations that vary with wear.

Vehicle km summary - thousand (from 14)	Car and Taxi	Buses	Trucks	Combined
Residential	2,019	33		2,052
Work (Bus, LI, MI)	627	12		639
Other Business	791	11		802
Delivery (estimated 0.5% of total)			45	45
	3,437	57	45	3,538
Road wear factor	1	800	500	
Equalised road use				
Residential	2,019	26,740		28,759
Work (Bus, LI, MI)	627	9,547		10,174
Other Business	791	8,961		9,753
Delivery			22,358	22,358
	3,437	45,248	22,358	71,043

Convert to property classes

Wear on Streets Summary by Property Class	Residential	Utilities	Major Industry	Business	Total
Residential	28,759				28,759
Work (Bus, LI, MI) – MI say 2%			203	9,970	10,174
Other Business				9,753	9,753
Trucks (delivery) – Port say 13%			2,907	19,451	22,358
	28,759		3,110	39,174	71,043
Wear on Streets	40.5%		4.4%	55.1%	100.0%

16. Use of local roads - is used to distribute the costs of operations on local roads.

In contrast to arterials roads which move traffic, local roads serve the adjacent properties. City Engineering (Streets Branch) provided the data contained in the following table. The estimated the split of industrial zones between major and light has been based on the area of each. The same principle has been used to split comprehensive development zones between residential and business.

Zoning	Kilometers				Total
	Residential	Utilities	Major Industry	Business/Light Industry	
Agricultural	9				9
Single Family	657				657
Two family	86				86
Multiple Family	92				92
Commercial				95	95
Light Industrial				45	45
Industrial			5	11	16
Comprehensive development	45			37	82
Historic				2	2
	889		5	190	1,084
Km of Adjacent Property	82.0%		0.5	17.5	100.0 %

17. Use of Transit – is used to assign the costs of the unit in Engineering that is managing the Rapid Transit projects' impact on the City. The table is developed from reported Vancouver bus trips in the GVRD's 2004 Trip Diary Survey. As with the "use of streets" assignment, the purpose of the trip is used to identify it with property classes. The following table shows the calculations which are based on bus trips, as Rapid Transit will affect bus passengers, not existing Skytrain passengers.

Number of trips to - thousands	Bus
Person trip summary	
Residential	109,598
Work (Bus, LI, MI)	40,574
Other Business	37,546
	187,718
Convert to property classes	
Use of Streets Summary by Property Class	

Use of Transit	58.4%	0.4%	41.2%	100.0%
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18. Sustainable Development– is generated from management’s assessment of the property classes that are involved in the major aspects of the division’s work. This is used to assign costs in the Sustainability Division of Engineering.

Distribution	Residential	Utilities	Major Industry	Business/ Light Industry	Total
Direct	52.0%		11.0%	21.0%	84.0%
Streets (wear on streets)	3.1%		2.4%	4.5%	10.0%
Water (water bills)	3.3%		0.0%	2.7%	6.0%
Sustainable Development	58.4%		13.4%	28.2%	100.0%

19. Community Climate Change Action Plan– is generated from management’s assessment of the property classes involved in developing the action plan. This is used to assign costs in the Climate Change Action Plan Division of Engineering.

Distribution	Residential	Utilities	Major Industry	Business/ Light Industry	Total
Direct	35.0%		51.0%	30.0%	70.0%
Streets (wear on streets)	24.6%		0.4%	5.0%	30.0%
Community Climate Change Action Plan	59.6%		5.4%	35.0%	100.0%

20. Drainage requirement – has been used to distribute the cost of the drainage portion of the Sewer and Drainage Utility. Drainage requirements are a function of the area to be drained and the impermeability of the soil. The more impermeable, the less the water absorbed by the soil and the more that must be handled by the storm water system. Management's calculations assume that single and two-family dwelling properties are 50% impermeable. All higher zoned areas are assumed to be 100% impermeable. The areas in the following table have been provided by the Engineering department from GIS records. The area of major industry has been extracted from property tax records. The splits of Comprehensive Development districts between residential and business were estimated by the consultants according to the descriptions of the type of property within the districts.

Zoning District	Hectares				
	Single/Two Family Residential	Multi Family Dwelling	Major Industry	Business Lightt Industry	Total
Single family	4,460				4,460
Two family	468				468
Multiple dwelling		450			450
Limited Agriculture		253			253
Commercial				283	283
Historic area				26	26
Comprehensive development					
BCPED		23			23
CD1		409		409	817
CWD		19			19
DD				100	100
DEOD		9		9	18
FCCDD		57			57
FSD		103			103
Light Industry (I and IC) Industry				390	390
M-1				10	10
M-1A				1	1
M-1B				16	16
M2			100	159	259
MC-1				10	10
MC-2				4	4
	4,929	1,323	100	1,416	7,767
Impermeability	50%	100%	100%	100%	
Equivalent area to be drained	3,787		100	1,416	5,303
Drainage Requirements	71.4%		1.9%	26.7%	100.0%

21. Distribution of time – is used to assign Police and Fire & Rescue costs that are considered to be for protection of life. Third-party data on the activities of Vancouver residents do not exist, so it was necessary to prepare estimates as follows.

Residents' time is considered business oriented when they are travelling to or at work and on personal business. Their time is excluded from consideration when they take day or overnight trips outside Vancouver; 48 hours of day trips and 6.7 days of overnight trips outside Vancouver have been assumed. It has also been assumed that 10% of total resident time is spent on personal business, which would include medical, shopping, entertainment and dining activities. All other time is treated as residential.

Non-resident time is considered business oriented when they work in Vancouver, spend personal business time here, and visit on day or overnight trips. Overnight trip time is derived from tourism statistics. Personal business and day trip times are assumed to be spent by GVRD residents who spend 48 hours per year in Vancouver.

(See details next page.)

Distribution of time

	Residents			Non residents work in Vancouver	Jobs in Vancouver	
City of Vancouver	Labour force	Work in Vancouver	Work outside Vancouver			
Labour Force	278,000	192,500	85,500	154,000	346,500	
Average annual working days		231	231	231		
Total working person/days		44,467,500	19,750,500	35,574,000		
Average work/travel one-way hours per day		10	10	10		
Total working hours - million		444.675	197.505	355.740		
Hours per year		8,760	8,760	8,760		
Equivalent person years		50,762	22,546	40,610		
Activity (person years)	Not Applicable	Residential	Utilities	Major Industry	Business/Light Industry	Total
<u>Residents</u>						
To/at work in Vancouver				1,015	49,747	50,762
To/at work outside Vancouver	22,546					22,546
Personal business in Vancouver (10%)					54,567	54,567
Day trips outside Vancouver	3,000					3,000
Overnight trips outside Vancouver	10,000					10,000
Other time in Vancouver		404,796				404,796
Total residents	35,546	404,796	none	1,015	104,314	545,671
<u>Non-Residents</u>						
To/at work in Vancouver				812	39,797	40,610
Personal business in Vancouver						
Recreation in Vancouver					6,000	6,000
Overnight trips in Vancouver (based on tourism statistics)					61,072	61,072
Total Non-Residents				812	106,869	107,682
Grand Total (excluding not applicable)	404,796			1,827	211,183	617,806
Distribution of Time	65.5%	none		0.3%	34.2%	100.0%

22. Value of improvements (\$ million) – the following values (before exemptions) are derived from BCAA data. Values for PILT properties were provided by City staff. This data set has been used for Police and Fire & Rescue services that are assigned to protection of property.

	Residential	Utilities	Major Industry	Business/ Light Industry	Total
General purpose taxed properties	25,038.64	613.25	105.50	9,445.02	35,202.41
City rental properties	12.32			362.56	374.88
Federal Properties	5.66			139.10	144.76
Provincial; Properties	162.09			181.22	343.31
Total value of improvements	25,218.71	613.25	105.50	10,127.90	36,065.36
Value of Improvements	69.9%	0.02	0.3%	28.1%	100.0%

23. Police operations data – the Support Services Division of the Vancouver Police Department provided 12 months (June 2005 to May 2006) of Computer Aided Dispatch (CAD) data. CAD is the police system that maintains 911 calls.

For every call to 911, CAD categorizes the call three ways:

- **Call Type** – Each call is categorized by the 911 operator into 156 different Call Types (E.g. Suspicious Person, Break and Enter, Impaired Driver, etc.). This data also provides the total police service time, in hours, for each type of call.
- **Offence Type** – For those calls that resulted in a police report (approximately 40%), CAD further categorized the data into 383 Offence Types (E.g. Murder 1st Degree, Possession of Cocaine, Criminal Harassment, etc.) as classified by the attending Police Officer.
- **Location Type** – Reports were also categorized into 21 Location Types (E.g. Convenience Store, Single Home/Townhome, Gas Station, etc.).

The three categories were all seen to be indicators of the property class that used the service. Therefore, each Call, Offence and Location Type was labeled as being primarily residential, primarily commercial, primarily major industry, vehicle related or unclassified (there were no categories that related specifically to the Utilities property class). Thus, every call into 911 had three indicators. The total service time (in hours) for each 911 call was then assigned to the property classes based on the assigned indicators, with each indicator being weighted equally.

Vehicle related data were reassigned to the property classes based on the use of streets (see Item 14). Unclassified data are assigned based on the pattern of the classified data.

Example #1:

	Call Type	Offense Type	Location Type
CAD data	Assist General Public	Arson – Property	Commercial/ Corporate Place
Indicator	Unclassified	Unclassified	Primarily business

Using example #1, the police service hours for this 911 call would be assigned 100% to the business property class.

Example #2:

	Call Type	Offense Type	Location Type
CAD data	Domestic dispute	Civil Dispute	Commercial/ Corporate Place
Indicator	Primarily residential	Primarily residential	Primarily business

Using example #2, the police service hours for this 911 call would be assigned 66 ⅔% to residential, 33 ⅓% to business.

Specific data for Break & Enter calls was analyzed separately.

Summary of Police Operations data:

	Residential	Utilities	Major Industry	Business/ Light Industry	Total
Police Operations (overall)	75.2%		0.2%	24.6%	100.0%
B&E subset	56.0%			44.0%	100.0%