Reducing the Barrier of High Land Cost:

Strategies for Facilitating More Affordable Rental Housing Construction in Metro Vancouver

Phase 2 of The Transit-Oriented Affordable Housing Study

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Table of Contents

Part 1: Background, Objectives, and Scope 1

1.1 Introduction 1
1.2 Objectives 3
1.3 Other Approaches Not Explored in this Report 3
1.4 Structure of this Report 6
1.5 Terminology 7
1.6 Professional Disclaimer 9

Part 2: Current Situation 10

2.1 How Did We Get Here? 10
2.2 A Review of the Financial Challenges Faced by Rental Housing 12
2.3 What Can be Done? What is Being Done? 17
2.3.1 What Can Local Governments Do About Rental Housing? 17
2.3.2 What are Local and Regional Agencies Doing? 20
2.4 Federal and Provincial Governments 22
2.5 Two Case Studies: Seattle and Los Angeles 22
2.5.1 Seattle Region 23
2.5.2 Los Angeles Region 25
2.6 Other Research 28
2.7 Perspectives of Housing Developers in Metro Vancouver 29
2.7.1 Perspectives of Local Private Developers 29
2.7.2 Perspectives of Non Profit Housing Developers 30
2.7.3 Similarities and Differences 31

Part 3: Strategies to Address Land Availability and High Land Cost for Rental Housing 32

3.1 Acquiring and Deploying Land for Affordable Rental Housing 32
3.1.1 Deployment of Lands Already Owned by Local and Regional Government Entities 33
3.1.2 Creative Acquisition by Local and Regional Entities 35
3.1.3 Deployment of Lands Already Owned by Non-Profits 37

3.2 Using Rezoning to Achieve Affordable Rental Housing Supply 37

3.3 Zoning for Residential Rental Tenure 44

3.3.1 Burnaby Metrotown 46

3.3.2 Surrey City Centre 48

3.3.3 Maple Ridge 49

3.3.4 Implications for Rental Tenure Zoning 49

3.4 Inclusionary Affordable Housing Requirements 50

3.5 Evaluation of the Tools and Applicability in Metro Vancouver 52

Part 4: Improving Unit Delivery 55

4.1 Should private developer obligations for rental housing be met on site or could they be met via cash-in-lieu or by delivering the units in other locations? 55

4.2 Should affordable units developed by the private sector, pursuant to rezoning requirements, be owned by government or non-profits? Are there advantages or disadvantages to ownership by the private sector? 56

4.3 What are the advantages and disadvantages of combining affordable rental units with market rental units or strata units in the same project? 57

4.4 Is there value in considering a more coordinated or centralized approach to public and non-profit sector housing delivery, instead of the decentralized system currently in place? 58

Part 5: Integrated Planning for Transit and Affordable Housing 61

Part 6: Conclusions and Recommendations 64

Appendix 1: Average Apartment Rents in Metro Vancouver, 2018 68

Appendix 2: Calculations of Break Even Rent for New Apartments Under Different Scenarios for Private Vs Non-Profit, Financing Structure Type 70

Appendix 3: Explanation of Cap Rates and Implications for New Private Sector Rental Construction 73

Appendix 4: Metro Vancouver Local Government Measures to Encourage or Facilitate Rental Housing 74

Appendix 5, 6, and 7: Financial Analysis for Case Study Sites 76

Part 1: Background, Objectives, and Scope

1.1 Introduction

Housing affordability is one of Metro Vancouver's most challenging regional issues, straining households financially and emotionally, pushing some young people out of the region, making it harder for some employers to fill positions, pressuring all levels of government to do more.

Because of the severity of the problem, all levels of government are taking action and looking for new solutions. The Federal Government is investing more money in housing. The Province is investing more money and also introducing new forms of zoning, changes to property taxation, and changes to rent regulations. Local governments are using their planning and zoning powers to enable more residential construction, facilitate new affordable rental housing, and reduce demolitions of existing rental housing stock. However, these efforts have not materially changed the picture for renters.

Addressing the affordability of rental housing is particularly challenging. Demand for rental housing is increasing, in part because of population and household growth and in part because many households have been priced out of the ownership market. New rental unit construction has not been sufficient to meet the need for more units, so vacancy remains extremely low and rents have been increasing faster than household income.

Over the last decade, after accounting for demolitions, the region's total stock of purpose-built apartments has increased by less than 5%. While more rental units have been created in new secondary suites and strata units that enter the rental market, these tend to command higher rents than purpose-built rental units. As a result, Metro Vancouver estimates that there will be a shortfall in the region of about 27,000 affordable rental units by about 2028.

The situation could get worse:

- Continued population growth and continued lack of affordable ownership options will add to the demand pressure on the rental market.
- Efforts to curb rent increases in existing older rental stock will help current renters but can risk diminishing the private sector's interest in developing new product.
- Construction costs continue to rise.
- The existing rental stock continues to age; about 15% of all rental units in the region were built before 1960 so many of these are in lower density buildings that will become physically obsolete over the next couple of decades.

These trends suggest that affordable housing for renters will remain a significant problem unless there is a much larger response from governments, non-profits, and the private development industry.

To explore possible solutions to the affordable rental housing challenge, in 2017 Metro Vancouver entered into a partnership with BC Housing, BC Non Profit Housing Association, TransLink, Vancity Credit Union, the Urban Development Institute, the BC Ministry of Municipal Affairs and Housing, and CMHC to try to tackle the challenge of affordable rental housing supply, especially in locations with good access to public transit. This all-hands-on-deck response is indicative of the magnitude of the problem and the recognition by the public, private, and non-profit sectors of the need for action. In the first phase of its work, this partnership

commissioned an analysis[1] to identify the major financial barriers that are impeding the creation of more rental housing, especially at transit-oriented locations, and to suggest some general approaches to deal with the challenge.

That study concluded that the high cost of land, high construction costs, and financing costs are all part of the financial challenge that private sector and non-profit housing developers face in building new rental units. The study noted, though, that even if construction costs can be lowered and more favourable financing (or grants) are available, the challenge would remain that it is difficult to obtain sites for new rental housing because land values are so high. This land value problem exists because strata title residential prices, single detached housing prices, and commercial property values have all reached levels in this region that are too high to be affordable for new rental housing development. If rental developers (private sector and non-profit alike) cannot compete in the urban marketplace (in which most land is in private ownership) to acquire development sites, they can't deliver more units.

Since the 2017 Phase One work, land values and construction costs have increased, making the challenge even greater. Rents have continued to rise and vacancy is still extremely low.

So, in the second phase of the work on affordable rental housing, Metro Vancouver and its partners are focusing on ways to reduce or eliminate land cost and land availability as barriers to new rental housing supply. This is the primary subject of this report.

This report mainly focuses on affordable, transit-oriented rental housing, because:

- rental is inherently more affordable than ownership.
- low to middle income households, who are more likely to be renters, are having the hardest time in this market.
- low to middle income households have the highest tendency to be transit users.

There is no lack of awareness of the importance and severity of the affordable housing challenge in Metro Vancouver. The topic dominates political discourse, the news, social media, and government agendas. It affects everyone, even those who don't have their own affordability challenge. It will become harder to fill a wide range of important jobs including jobs in the service sector, technology, teaching, health care, emergency services, and others that the regional economy relies on if people have increasing difficulty finding adequate housing and they move away.

Consequently, there are many new initiatives underway in the region to stimulate more rental housing creation. This report is intended to support those efforts, by providing suggestions that could lead to the construction of many more affordable rental units at a much quicker pace than is happening now.

[1] "Analysis of the Financial Viability of New Purpose-Built Rental Housing at Transit-Oriented Locations in Metro Vancouver", Coriolis Consulting Corp., August 2017).

1.2 Objectives

The primary objective of this work is to identify workable, financially viable tools to reduce the barrier of high land cost and limited land availability that is impeding the construction of new, affordable, purpose-built rental housing, particularly at transit-oriented locations.

This report explores four main strategies for increasing the availability of land for new affordable rental supply:

1. Using lands already owned by non-profits, local governments, and senior governments for affordable housing, and finding creative ways to add to this inventory of land.
2. Using the rezoning process and associated tools to create new development entitlements (i.e. additional density) that are either exchanged for affordable housing contributions or only available if they are used to accommodate affordable housing. Density bonusing for affordable housing and Community Amenity Contributions (CACs) are in this category.
3. Using the recently approved (in BC) rental residential zoning tool available to municipalities. The aim behind this new kind of zoning is to reduce the market competition for land by removing (for some sites or parts of some sites) strata residential as a possible use.
4. Establishing inclusionary requirements for affordable housing units in new multifamily residential development projects. This approach imposes a requirement on developers of new market projects (rental or strata) to provide some units that are affordable for households at defined income levels. This adds a cost to projects, which can impact financial performance and which may affect whether projects proceed, but it is a way of adding to rental stock that does not require the acquisition of land specifically for affordable rental housing.

These approaches can be used in combination. It is common, for example, to combine an inclusionary housing requirement with new density, so that the value of the new density offsets the costs of providing affordable units.

The report examines how these strategies might work, explores the market, financial, and operational advantages and disadvantages of each, and indicates whether these might be used to stimulate more affordable rental housing construction in Metro Vancouver.

This report also has two secondary objectives:

- Suggest ways to improve the actual delivery of affordable rental units, either by the non-profit and public sector or the private sector. Reducing the land cost barrier is a crucial part of the solution, but there are other steps that could be taken to expand and accelerate the delivery of new units.
- Suggest ways to improve the integration of affordable housing planning with transit planning, because increasing affordable housing at transit-served locations is the main goal of this work.

1.3 Other Approaches Not Explored in this Report

This report concentrates on finding ways to reduce the constraints of land availability and land price that have limited the pace of new rental construction.

There are other, very different ways to address the problem of insufficient affordable rental accommodation.

Distribution of Wealth and Income

It could be argued that the housing problem is really an income problem; the solution is to redistribute wealth so that all households can afford housing. However, in much of Metro Vancouver even new rental development at full market rents faces financial challenges, especially due to high land cost. Canada is a long way off from income redistribution on a scale sufficient to solve the housing affordability problem for all income groups in Metro Vancouver, so this report does not focus on income-based solutions to housing affordability. This report focuses on creating new rental supply.

Publicly Owned Rental Housing

Another possible solution is a much greater direct investment in rental housing by governments.

Such an investment program might focus on extensive land acquisition, to then make sites available to rental housing developers at affordable cost. This is one of the approaches explored in this report, to a point. While "acquire land and make it available at affordable price" sounds simple enough, the price of land in this region is such that it would take enormous capital investment to rely solely on buying enough land at market value to accommodate all the needed rental housing.

Metro Vancouver estimates that the region requires a total of about 6,000 new rental units every year, including social housing, non-market, affordable, and market rental. For illustrative purposes, if rental housing should be distributed throughout the region (not just in the lowest land value areas) and if average land values are equivalent to $100 per buildable square foot of strata apartment residential space (probably a low estimate), then 6,000 rental units requires a capital investment ***in land*** of around $450 million[2] ***per year, every year*** for the foreseeable future in Metro Vancouver. Depending on construction cost and on how rents were set, this investment might be recovered over the long term, but it still requires enormous cash or borrowing to build such a large portfolio.

If investment in affordable rental means buying land *and* building the housing, then the total investment is much greater. If construction costs average say $450 per square foot, then 6,000 units per year requires about $2 billion[3] ***per year*** in construction investment in Metro Vancouver, in addition to the land estimate above.

So, land and construction for all the rental housing needed in this region will require about $2.5 billion per year. Again, depending on how rents are set, this could be recovered over the long term but it still requires massive borrowing or outlay of cash.

Government housing investment approaching this scale may well be an important part of the long-term solution if housing prices in Metro Vancouver continue over the long term to rise faster than incomes. There are communities in the world (Vienna is often cited as an example) in which government owns large shares of total housing stock for this reason. On a small scale, this has happened locally such as in Whistler where there is a special subset of housing stock that is only for employees and that is priced based on local employment income not global demand for resort property. However, transferring this idea to the regional scale may mean that the magnitude of the required capital investment is beyond the ability or willingness of government to pay. If so, then it becomes necessary to assume that for the foreseeable future the private sector and the non-profit sector must continue to provide a significant share of new rental housing

[2] Assuming average unit size of 750 square feet per unit, the land cost estimate is 6,000 units x 750 sq ft per unit x $100 per sq ft buildable for land = $450 million.

[3] 6,000 units x 750 sq ft per unit x $450 per sq ft = $2.025 billion.

construction. This requires that these players must find it possible to obtain development sites at a cost that is financially viable for them[4].

This report is predicated on the following assumptions about the acquisition of land and the development of new rental stock:

1. While governments have the ability to acquire additional lands and make them available for affordable rental housing, this ability is limited by their available financial resources. It is important to consider creative ways to acquire lands (or create development capacity) for affordable rental housing that do not require paying full market value for land.
2. Governments and non-profits are able to deploy lands they already own for affordable rental housing (assuming such lands are not required for other uses or for revenue generation) without necessarily receiving full market value for their land or receiving a market rate of investment return on their lands. These lands are not "free" because they have value that could be put to other uses, but they do not require a new cash outlay or new borrowing.
3. While governments will continue to invest in housing, for the foreseeable future they are not likely to meet the entire requirement for rental housing in this region. The private sector and the non-profit sector will continue to be important players in the delivery of new rental housing supply in Metro Vancouver.

These assumptions do not mean that acquiring a much bigger portfolio of public lands (and housing) is a bad idea; in fact, it is a good idea and is probably necessary in the long run. However, from a practical standpoint this will only happen gradually so in the meantime other approaches that do not rely solely on public sector cash and borrowing are needed.

Tax Incentives

There are several ways in which taxation can be structured to provide incentives for affordable housing, including:

- Income tax treatment of rental housing. For example, previous incentives such as accelerated depreciation allowances, capital gains exemptions, and the ability to deduct losses from other sources of income could be reinstated. However, while these tax incentives would likely lead to more housing construction, there would be a tax cost to the Federal and Provincial governments. This may be part of the reason why they have not acted to replace the incentives that were eliminated in the 1970s.
- Property tax reductions, such as Revitalization Tax Exemptions that are available to local governments in B.C.
- Rebates of GST, PST, or PTT for affordable rental housing.

Tax incentives would aid the creation of new rental supply, but the region cannot count solely on possible tax incentives for private rental housing investment to solve the problem. Even if such changes were made, new rental projects still must be able to find sites at affordable cost.

Convert Vacant Units to Rental Units and Restrict Short Term Rentals

Another approach to moderating rents is to convert vacant units to rental stock and to reduce parts of the demand for rental housing.

[4] Recognizing that financial viability is measured differently for non-profit and private sector housing developers, they each nonetheless need projects to meet their respective tests for viability.

The City of Vancouver and the Province have introduced taxes intended to shift vacant, owned units into the rental pool. The total number of units that might be achieved is relatively small, though, compared to the total need for new units in the region in the future.

As for the demand side, in the ownership market new purchase taxes applied to non-local buyers and new property taxes on certain types of property are intended to bring down the price of owned housing. Housing prices have started falling in response to these measures and the introduction of new mortgage qualification stress-test rules, but in the rental market there is less room to moderate demand because most rental housing demand comes from local residents who need housing. One of the few ways to reduce demand on rental stock is to curtail short-term rentals (e.g. Airbnb), and local governments are already working on this. But the limited room to moderate demand reinforces the need for more supply to maintain rental affordability.

Reduced Construction Costs

Another important strategy is to reduce the creation cost of new rental supply. This report concentrates on reducing land cost (and increasing land availability), but local governments can also help by reducing parking requirements and reducing or waiving fees such as DCCs or DCLs. These are important and are noted where applicable in this report. It should be remembered, though, that while some cost reductions such as reduced parking do not have offsetting negative consequences, reducing development fees for rental housing means the cost of infrastructure must be recovered by other means. Municipalities can also reduce project cost by reducing approvals time (which would reduce holding costs and financing charges) and reducing approvals risk by clearly designating areas where rezoning and redevelopment are desirable and almost certain to be approved when applications are consistent with policy.

Focus on Supply

The focus of this report, therefore, is on increasing supply as the primary means of addressing the challenge of affordable rental housing. The most effective long term solution is to reduce the barriers that limit new rental construction, principally by increasing the availability of land or density for rental units.

1.4 Structure of this Report

This report has six main parts:

1. Part 1 explains the purpose and scope of this work.
2. Part 2 provides broad background about rental housing, including the financial challenges, how the current situation developed, and what kinds of actions are being taken in the region and elsewhere, all as context for identifying ways to make progress. This background highlights the importance of creating ways to accommodate more rental in a marketplace where land is too expensive for new rental to be sustainable.
3. Part 3 examines in detail several ways to overcome the barrier of high land value (acquiring and deploying public and non-profit lands; using the rezoning process to achieve affordable housing benefits; rental residential zoning; and inclusionary housing requirements). This part describes these tools, uses market and financial indicators to show the advantages, disadvantages, and effects of using these tools; and suggests how they could be best incorporated into a comprehensive rental housing strategy.
4. Part 4 explores ways to improve the delivery of new affordable rental units, either by the private sector or by the non-profit sector. First, assuming that private sector development will continue to be a significant source of new affordable units, because of requirements or incentives already embedded in municipal development approvals processes, this section asks how best to achieve the delivery of housing benefits

by private developers. Second, this section explores whether unit creation by the public and non-profit sectors could be improved through a more coordinated approach rather than through the current mix of Provincial, regional, municipal, and non-profit entities.

5. Part 5 provides suggestions for better integration of transit planning and affordable housing development. Low to moderate income households are more likely to use transit, so it makes sense to find ways to locate affordable housing in places with good transit service.

6. Part 6 summarizes the main conclusions and recommendations.

1.5 Terminology

Addressing the rental housing challenge is complex and involves senior governments, regional agencies, municipalities, the non-profit development sector, and the development industry. These groups do not always speak the same language or share the same views about how the world should work.

The terms below are frequently used in discussions about rental housing development, but don't always mean the same things to everyone. This document uses the following definitions:

"Affordable": This is a relative term, as it invites the question "affordable for whom?". Metro Vancouver is focusing on affordable units for households with annual income in the range of $35,000 to $60,000, or about 50% to 80% of the median household income (from the 2016 Census) in the region, with affordable defined as rents that are a maximum of 30% of income. Households with incomes below $35,000 are considered very low income and are acknowledged to require non-market, public sector subsidized solutions. Households above $60,000 are assumed to be within the moderate range and perhaps able to participate in the rental market (although not without challenges). It is important to note that the household incomes of renters are generally lower than homeowners. In 2016, renter median household income was $49,000 compared to the overall median of about $75,000.

"Community Amenity Contributions" are amenities, affordable housing, or other public benefits (including cash in lieu) obtained by local governments when development projects are going through the rezoning process. When rezoning increases density, it generates new land value. Zoning policy in Metro Vancouver municipalities generally aims to allocate this gain in land value so that there is an incentive for land owners to sell their lands into the development market, incentive for developers to seek rezoning to increase the capacity for housing, and revenue for local governments to help fund the infrastructure and amenities needed to meet the needs of, and address the impacts of, a growing community.

"Density Bonus" is a form of zoning in which a site has a defined base density that is achievable without providing any amenities or public benefits and defined additional density which can be obtained if the developer provides a prescribed package of public benefits, which might include on-site amenities, affordable housing, or cash-in-lieu. Density bonusing is similar to Community Amenity Contributions, in that both involve the exchange of density for public benefits, but density bonusing is prescribed in a bylaw whereas Community Amenity Contributions are often negotiated.

"Inclusionary Housing Requirement" means a mandatory obligation for a project (usually residential) to include specific amounts of housing at rents affordable to specific target groups, usually based on household income. In BC, inclusionary housing requirements are sometimes set when developers seek rezoning and, as part of an agreed-on package of public benefits, enter into a housing agreement that mandates that some units meet an affordability objective and/or mandates that some units be family oriented (2 or 3 bedroom). Municipalities in BC are allowed (as of 2018) to zone land to only allow rental residential tenure, but under current legislation they do not have the authority to impose inclusionary affordable housing requirements via zoning alone. However, Section 483 of the Local Government Act allows municipalities to enter into a housing

agreement (with a developer) that governs the tenure of units, the form of units, the target market, and the rents. Such housing agreements are entered into when a developer seeks rezoning and the municipality wants to obtain affordable housing as part of the public benefits that are provided in exchange for the change in use and/or increase in density. These agreements are registered on title.

"Land" refers to physical sites that can be acquired and redeveloped. In urban development contexts, allowable density (i.e. the amount of floorspace that can be developed on a site) can also be thought of as "land" because increased density increases the physical capacity to accommodate housing. Land value can therefore mean the value of a site, but it can also refer to the value of additional density.

"Profit" means the net revenue that a developer intends to earn by completing a successful development project. In a strata project, it would mean the amount that is left after paying for land and all construction costs paid to others (e.g. contractors, consultants, municipal fees, financing). In a rental project, it could mean the profit that a developer makes by creating a new rental housing project and then selling it to a long term investor for more than the cost (land, construction). It is sometimes perceived that developers make "too much" profit and that is why housing prices are high. For developers competing in the marketplace to buy land and sell units, the market tends to impose a ceiling on achievable profit. A developer who expects to make extraordinary profit will either have to charge too much for units (meaning people will presumably not buy them if they can buy a similar unit for less) or will have to somehow acquire land, labour, or building materials for less than what other developers are willing to pay. This seldom happens, so there tends to be a limit on profit margin in a given market area. In Metro Vancouver, profit margin targets are generally about 13% of revenue or 15% of cost.

There is also a basement on profit margin imposed by the market. A developer who aims for a profit that is too low has little cushion against an increase in cost or a downturn in sales price. A developer who aims for a profit that is too low may find it hard to obtain financing from lenders, who could regard the project as being too risky because the pro forma financial analysis has no resilience to absorb downside. It is also important to keep in mind that large development projects do involve risk. If there is no profit, then private developers will not do projects (they will presumably look for opportunities in other markets).

Non-profit developers can deliver housing without a profit, for three reasons. First, they typically build in allowances for administrative and management fees; while these are less than a typical developer's profit, they do generate revenue that allows the non-profit to operate. Second, non-profit developers can rely on non-traditional sources of financing, such a philanthropy or government grants and loans. People working for non-profits do not typically invest their own money as equity and do not risk becoming personally insolvent if a project fails (although there are some not-for-profit developers who inject equity into social purpose real estate development). Third, some non-profits do not pay income tax so the amount they need to pull out of a project to make it work financially is less than a private developer needs.

"Return on Investment" means the income generated from investing capital in an income-producing asset such as rental housing, usually expressed as an annual percentage of the capital amount. An investor buying a rental housing project for $10 million and expecting a cash return of 5% would expect that the project would yield $500,000 per year in net income after paying all operating costs. This rate of return takes into account risk and the possible returns that can be made from other kinds of investments (e.g. bonds, stocks). Investors in rental housing usually expect that over time their return on investment will have three components: the portion that comes from continuation of the net income at the start, the portion that comes from the gradual increase in net income assuming that rents will escalate faster than operating costs, and the portion that would come if the asset can be sold in the future for more than the original purchase price.

"Risk" means the exposure to downside in a real estate project that can result in failing to achieve the target profit or return on investment or result in a loss. The main sources of risk in rental housing development are market risk (falling rents or increasing vacancy, although these are unlikely in Metro Vancouver at this time),

cost risk (construction costs have been rising rapidly), approvals risk (uncertainty and costs associated with the duration, complexity, requirements, and outcome of the approvals process), and regulatory risk (e.g. rent controls, limits on being able to keep pace with market rents, and constraints on renovation).

1.6 Professional Disclaimer

This document may contain estimates and forecasts of future growth and urban development prospects, estimates of the financial performance of possible future urban development projects, opinions regarding the likelihood of approval of development projects, and recommendations regarding development strategy or municipal policy. All such estimates, forecasts, opinions, and recommendations are based in part on forecasts and assumptions regarding population change, economic growth, policy, market conditions, development costs and other variables. The assumptions, estimates, forecasts, opinions, and recommendations are based on interpreting past trends, gauging current conditions, and making judgments about the future. As with all judgments concerning future trends and events, however, there is uncertainty and risk that conditions change or unanticipated circumstances occur such that actual events turn out differently than as anticipated in this document, which is intended to be used as a reasonable indicator of potential outcomes rather than as a precise prediction of future events.

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Part 2: Current Situation

This part examines the current affordable rental landscape in Metro Vancouver and provides some different perspectives on how to address the challenge.

This part of the report includes:

- A summary of what local governments in BC are able to do, based on current legislation, to improve the rental housing situation.
- A summary of what local governments in Metro Vancouver are currently doing for rental housing, including some brief descriptions of current local initiatives that illustrate some recent approaches.
- Two case studies from other jurisdictions - Seattle and Los Angeles - to illustrate what other communities are doing to encourage affordable, transit-oriented rental housing. These two regions were chosen because they have adopted new policies to encourage or require affordable rental and because they have emphasized coordination between development planning and transit planning so that a large share of new affordable housing is in transit-served locations.
- A summary of a review of some academic comparisons of approaches used to encourage rental housing, especially inclusionary zoning.
- A summary of the results of conversations with local private sector and non-profit rental housing developers about their perspectives on the challenge of building affordable rental in this region.

2.1 How Did We Get Here?

Wind the clock back ten to twenty years, and the rental market in this region was very different:

- During 2002 to 2007, there was not much difference between general inflation, growth in average wages, and growth in rents. Starting in 2007, these curves started to diverge. Rents started to grow more quickly than overall inflation and more quickly than household income.
- Vacancy rates in Metro Vancouver have fluctuated over the long term, generally between 1% and 2% since 1990, but the last time vacancy was over 2% was 2009.
- Because the existing rental stock was younger and in better condition, and rent rates were not rising as quickly, “renovictions” were less common.

What happened?

Building and Investing in Rental Housing Became Less Attractive

Private investment in new purpose-built housing became less attractive starting in the 1970s when Federal tax treatment of rental property was revised, including reducing the rate that assets could be depreciated for tax purposes and reducing the ability to use a rental property loss to offset other income. Effectively, tax incentives for rental housing investment were diminished, which tended to reduce the amount of new rental construction[5].

In addition, a variety of Provincial and local policy and regulatory changes began to shift the regulatory balance more toward renters than landlords, which also tended to reduce interest in investing in new purpose-

[5] Two short-lived programs (the Assisted Rental Program of 1975 to 1978 and the Multiple Unit Rental Building program of the late 1970s) provided grants and tax incentives resulting in a large amount of rental construction, but since 1981 there have not been similar incentives for private investment in new rental stock.

built rental housing. Limits on rent increases in particular dissuaded some private sector investment in rental housing.

Housing Demand Ballooned

The total demand for housing in this region has been increasing rapidly. Metro Vancouver has a very long history of population and household growth, employment growth, and income growth that fueled housing demand. These have continued to contribute to rising prices, but several other factors accelerated the market:

- Mortgage interest rates fell to historic lows for a long time, increasing purchasing power.
- Mortgage markets evolved in ways that made more funds available including longer amortization periods, higher ratio loans, and more lenders in the mortgage industry.
- Baby boomers reached the age at which they began transferring wealth to the next generation, adding to its housing purchasing power.
- Non-local investment in housing increased, as the region became part of a global real estate market. This non-local demand without some form of intervention is almost unbounded; as rising income and wealth in the rest of world grows and as capital is mobile (both legally and illegally), more and more people look to safe and attractive places to invest in property. It has become popular to call this "speculation", in a pejorative tone, but it has been nothing more nor less than investment in an asset that is viewed as safe and likely to appreciate in value. Reducing or redirecting (from owned housing to rental housing investment, for example) this portion of housing demand should be part of a strategy to address housing affordability, and such efforts have started.

The result of these growing sources of demand is that, despite downturns or price corrections every decade or so, residential prices in the region over the long term have risen faster than inflation and faster than local household incomes.

Demand for Strata Units Increased

Rising demand for ownership and reduced rates of rental construction have caused strata title unit construction to become the dominant form of new multifamily development in this region. This has had major consequences for the rental market. Rising strata unit prices have caused residential land values to escalate rapidly; in most of Metro Vancouver, these land values are much higher than what a rental developer can afford to pay, so rental developers have a hard time competing to acquire land. Also, while about 15% to 20% of new strata units tend to end up in the rental pool, these units tend to rent for much more than purpose built rental units, mainly because they are a higher end product, and they are not a secure stock of units as the owners could take occupancy at any time.

Supply of Greenfield Development Sites Dwindled

The supply of greenfield development lands in the region (which is bounded by the sea, mountains, and the US border and which has a large portion of the land base in agricultural use and open space) has gradually been depleted so that new low density, suburban residential units have comprised a decreasing share of new construction. Higher density housing, in urban nodes, accounts for an increasing share of new residential construction. Most of this new construction involves strata titled units, in locations that are also the preferred locations for higher density rental housing because of access to transit, schools, shopping, and jobs.

Approvals Processes are More Complex

Approvals processes have generally become more complex and time-consuming in the region. There are various reasons for this, including: community concerns about redevelopment and densification (requiring more consultation, longer time frames, and in some cases rejections); increased municipal involvement in the design process to deal with urban design, architectural character, and neighbourhood "fit"; increased municipal requirements such as sustainability measures and amenity contributions; and others. These factors

add time and cost, which means that the flow of new housing to the market is constrained. Turning down the supply tap in the face of strong demand leads directly to upward pressure on sales prices and rents.

The Result

Demand is growing, purpose-built rental supply is not keeping up, new rental housing is financially difficult for non-profits and private developers alike, and rents are rising faster than household income.

2.2 A Review of the Financial Challenges Faced by Rental Housing

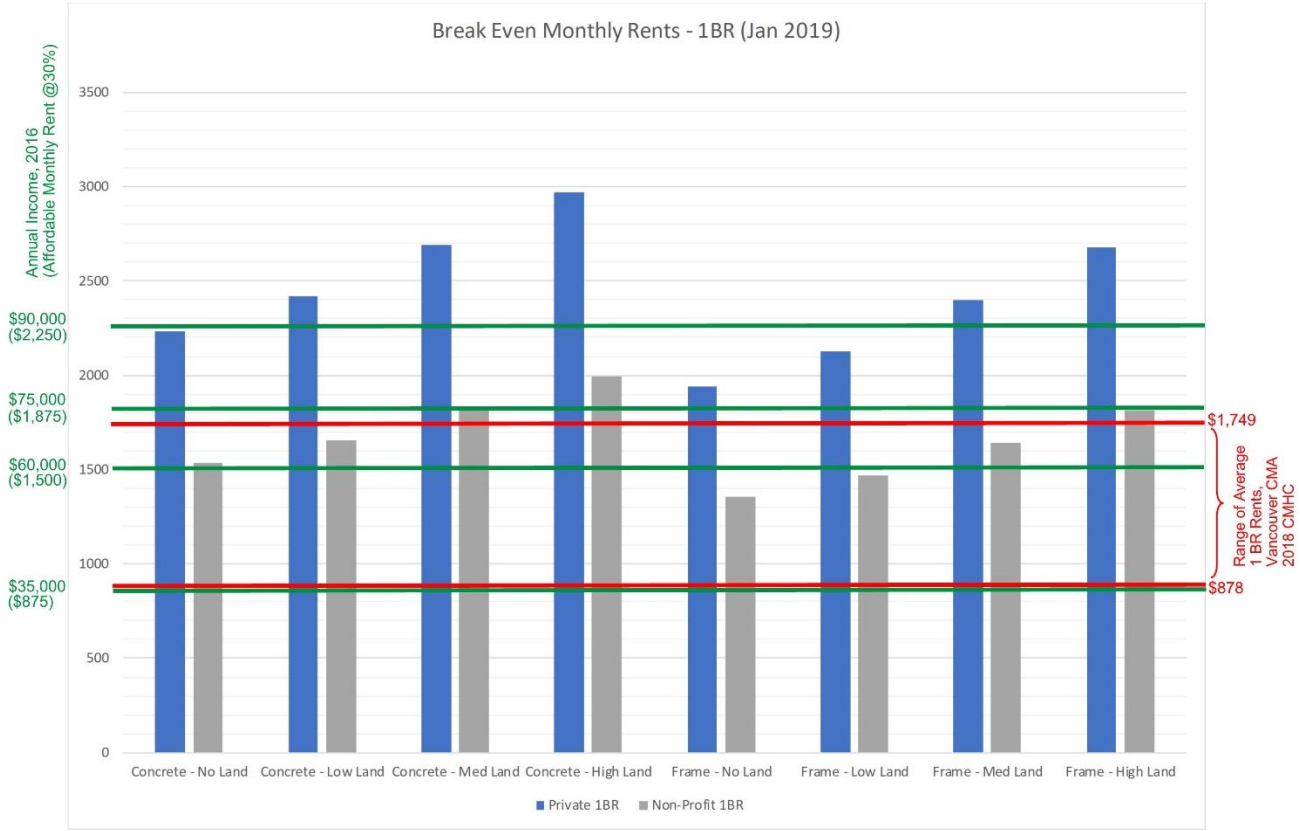
Even though rents are rising - which is hard for renters but ought to make new investment attractive - it is difficult to make new rental construction "work" in financial terms under current market conditions in Metro Vancouver.

This section provides a high level overview of the financial challenges using some generalized numbers that illustrate the range of conditions across the region. It is important to understand the nature and severity of these challenges, as they have implications for the kinds of actions that are needed to facilitate more rapid construction of new rental.

To illustrate the financial challenge, Exhibits 1 and 2 show the relationships between incomes, affordable rents, and the rent needed to make a new project viable.

Exhibit 1 combines three different kinds of information about the one bedroom unit rental market in the Vancouver Census Metropolitan Area.

Exhibit 1: Financial Barriers to Affordable Rental Construction (One Bedroom Units)



The red horizontal lines show the range of average one bedroom purpose-built apartment rents for municipalities in the CMA, as reported by CMHC for late 2018:

- The lower red line (at $878 per month) corresponds to Maple Ridge. Other communities near this lower end of the rental market include Delta ($931) and Surrey ($978). See Appendix 1 for full data on average rents by municipality.
- The upper red line ($1749) is in the University Endowment Lands. The City of Vancouver, West Vancouver, and North Vancouver (City and District) are in the upper end of the rental market, with average rents in the $1300 to $1600 per month range.
- All the other communities are between these bookends; in broad terms, rents decline from west to east.

The green horizontal lines show the monthly rents that are affordable for households with various annual incomes, using data from the 2016 Census. Affordable rent is calculated as 30% of annual income, divided by 12 to yield monthly rent. The household incomes represented on the graph are:

- $35,000 (which is about 50% of the regional median). Incomes below this line are generally regarded as very low income by Metro Vancouver.
- $60,000 (which is about 80% of the regional median). Household income between $35,000 and $60,000 range is considered low income by Metro Vancouver.
- $75,000, which is the median household income for the region. Note that the median household income of renters is lower, at about $49,000.
- $90,000 (which is about 120% of the regional median). Household Income between $60,000 and $90,000 is considered moderate.

These first two components of the graph support some important conclusions about the regional rental market (for one bedroom units):

- Households with incomes below $35,000 have difficulty finding any affordable rental accommodation in most parts of the region. One bedroom units are not suitable for families with children, so they face even greater challenges finding affordable homes.
- Households with incomes in the $35,000 to $60,000 range can afford average rents in all but the most expensive markets, although with vacancy so low they will have trouble finding units.
- Households with incomes at or above the median of $75,000 can afford units almost anywhere, although low vacancy is still a constraint.

The last component of the graph (the vertical bars) shows the calculated minimum average rent that is needed to make new rental construction financially viable under a range of different scenarios. The detailed assumptions for these calculations are shown in Appendix 2. The graph illustrates these scenarios:

- The blue bars represent private sector projects and the grey bars represent non-profit projects. The key differences are that the private sector projects are assumed to require a developer profit (which is set at 15% of land and construction cost), whereas the non-profits are assumed to need a management fee (which is assumed to be 5% of land and construction cost), and the private sector projects are assumed to obtain financing at market rates while the non-profits are assumed to have access to favourable financing (lower interest rate, longer amortization period). Reducing the financing rates even further would lower the breakeven rates.
- The bars show calculations for concrete and wood frame construction scenarios.
- The bars also show different assumptions about the amount that is paid for land, including no land cost and low, medium, and high cost (representing a range that includes most development sites in the region but excludes very high value markets).

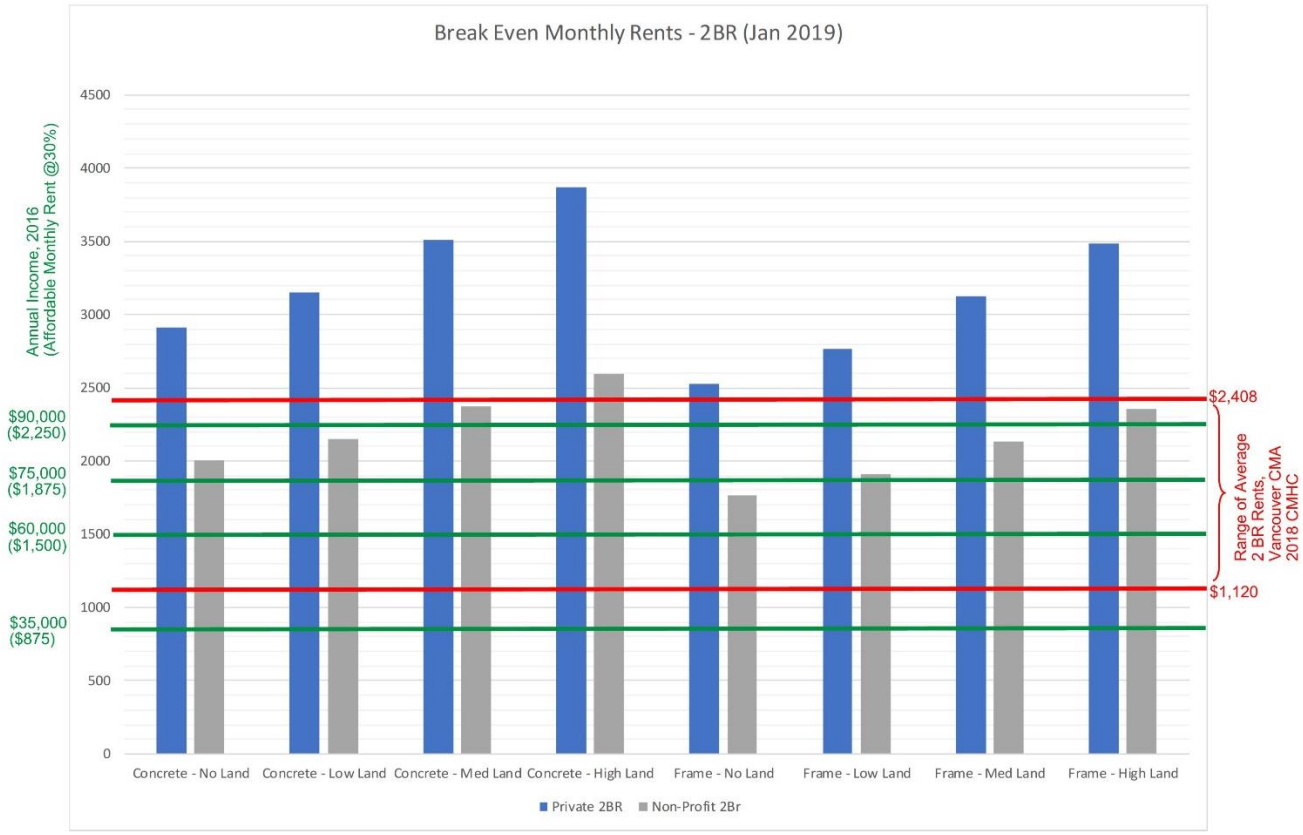
The vertical bars indicate the break-even monthly average rent, where "break-even" means the rent covers all operating costs and covers 100% of the cost to create the unit, assuming that either 100% of the cost is borrowed or any equity earns the same interest that is paid on the mortgage. This is probably conservative, in that most private investors would expect to make a return on equity that is higher than mortgage rates.

These vertical bars show the challenge with delivering new rental product:

- Private developers can deliver new concrete units affordable to households with $90,000 income, but only if the land is free. As land cost rises, the break event rents are only affordable to high income households. The situation is better for wood frame units, which cost less to build. The private sector can deliver units aimed at households with just over $75,000 income if land is free.
- Non-profit developers can deliver concrete units affordable for households with $60,000 income but only if the land is free. With wood frame construction, non-profits can deliver units aimed at households with around $55,000 if land is free.
- It is not possible for the private sector or the non-profit sector to deliver financially viable units (under the assumptions in these calculations) that are affordable for households with incomes below around $50,000 even with free land, without some way to offset or reduce cost. This is mainly because of the high cost of construction. The only way to make these projects work in financial terms is to have some combination of a significant reduction in construction cost (e.g. no parking, no DCCs), grants, financing at low rates, or some other way to offset the cost. One way to offset the cost is to make additional strata density available in exchange for affordable housing. Another way to offset the cost is to include a mix of higher and lower rental units (i.e. a mix of household incomes). Using the example of a non-profit concrete one bedroom unit with no land cost (the left-most grey bar in Exhibit 1), the breakeven average rent is around $1,500 per month but the target rent for a household earning $50,000 would be $1,250. The average of $1,500 could be achieved if 50% of the units are rented at $1,250 and 50% are rented at $1,750 (which needs household income of $70,000).

Exhibit 2 shows the same kinds of information, but for two bedroom units. The outcomes are similar.

Exhibit 2: Financial Barriers to Affordable Rental Construction (Two Bedroom Units)



These exhibits show the severity of the financial challenge. The exhibits also point the way to possible solutions:

- Rental units aimed at households with very low incomes (under $35,000) require large financial assistance, in the form of free land, reduced construction cost, favourable financing, and some additional support such as grants, very low cost financing, or some other means to offset the cost.
- Rental units aimed at households with low incomes ($35,000 to $60,000) require assistance, including free or very low cost land, reduced cost, and favourable financing, but the degree of grant funding, interest rate reduction, or cost offset is less. Adding strata density or including a mix of lower and higher rents can help achieve the required offset.
- Rental units aimed at households with the lower end of moderate incomes ($60,000 to $75,000) can work with free or low cost land if the units are wood frame. For concrete units, some additional help is needed, such as reduced construction cost.
- Even for units aimed at the upper end of moderate income ($75,000 to $90,000), land cost must be minimized.

Reduced (or eliminated) land cost is part of the solution in all cases.

Exhibit 3 uses a different approach to show how big the gap is that must be closed.

Exhibit 3 starts with assumptions about the target rents to be achieved (based on different levels of household income) and then shows the implications for the supportable construction cost of new units.

Exhibit 3

Calculation of Maximum Capital Cost for Affordable 2BR Units

Assumptions:			**Target Income Group**		
Annual Income			**$ 35,000**	**$ 60,000**	**$ 75,000**
Affordable Monthly Rent @	30%	**of income**	**$ 875**	**$ 1,500**	**$ 1,875**
Less: Monthly Operating Cost if	$ 6,200	**/year**	**$ 517**	**$ 517**	**$ 517**
Net Operating Income			**$ 358**	**$ 983**	**$ 1,358**

Financing Terms:	
Interest Rate	
Nominal rate (%/year sa compounding)	3.0%
Effective rate per compounding period	1.5%
Equivalent Monthly rate	0.2484517%
Amortization Period	
# Years	50
# Months	600
Payment as % of NOI	100%
Monthly Pmt Factor (for Principal = $1)	-$0.0032084
Principal Factor (for Pmt = $1)	$311.6785439

Calculation of Mortgage Supported by Income:	**Target Income Group**		
Annual Income	**$ 35,000**	**$ 60,000**	**$ 75,000**
Monthly Mortgage Payment:	$ 358	$ 983	$ 1,358
Supportable Mortgage	**$ 111,685**	**$ 306,484**	**$ 423,363**

Calculation of Maximum Costruction Cost for Affordable 2BR Unit:					
Supportable Mortgage			**$ 111,685**	**$ 306,484**	**$ 423,363**
Less: NON-PROFIT Dev Fee @	5%	of Const Cost	$ 5,318	$ 14,594	$ 20,160
Costruction Cost After Dev Fee			**$ 106,366**	**$ 291,889**	**$ 403,203**
Less: Land Cost at	$	-	$ -	$ -	$ -
Maximum Total Construction Cost			**$ 106,366**	**$ 291,889**	**$ 403,203**
Net 2 BR Unit Size	750	SqFt			
Net -to-Gross Ratio	85%				
Gross 2 BR Unit Size	882	SqFt	882	882	882
Maximum Construction Cost/SqFt			**$ 121**	**$ 331**	**$ 457**
Current Construction Cost/SqFt - Concrete	$	500.00			
Current Construction Cost/SqFt - Frame	$	420.00			
Required Reduction in Cost or Available Cushion (i.e. for additional Land Cost or Dev Fee)					
Concrete ($/SqFt)			**-$ 379.45**	**-$ 169.19**	**-$ 43.04**
Frame ($/SqFt)			**-$ 299.45**	**-$ 89.19**	**$ 36.96**

Exhibit 3 only shows numbers for two bedroom units and only shows the numbers from the perspective of non-profit housing developers, who are assumed to have access to favourable long term financing.

Household Income of $35,000

Looking at the column for $35,000 household income, the exhibit shows that the maximum construction cost (assuming no land, a 5% fee rather than a developer profit, and favourable financing) is about $121 per square foot. This is (in round numbers) $380 less than the cost of concrete and $300 less than the cost of wood frame construction. These reductions are not achievable by measures such as eliminating parking or DCCs. These required reductions mean that projects aimed at very low income households need a very large injection of assistance. For illustrative purposes, if the mortgage rate is lowered to 1%, operating costs are reduced by $2,000 per year (e.g. property tax reduction or subsidy), and construction cost is reduced by $100 per square foot (no parking, no DCC), the project would still need a capital grant of $100 to $150 per square foot to breakeven. Clearly housing aimed at very low income households must be heavily subsidized by the public sector.

Household Income of $60,000

Looking at the $60,000 household income column in Exhibit 3, the concrete option is short by about $170 and wood frame is short by about $90 per square foot. Elimination of parking and waiving DCCs could cover much of this shortfall. If the hard and soft cost of an underground parking stall is around $60,000 to $65,000 and if average gross unit size is say 800 square feet assuming a mix of mostly 1 and 2 bedroom units, then eliminating the parking stall reduces cost by about $75 to $80 per square foot. DCCs vary around the region but eliminating or reducing them for affordable housing could knock another $20 or so off the cost.

Household Income of $75,000

For household income of $75,000, concrete and frame projects are feasible (with some cost reduction for concrete), but it must be remembered that no land cost has been included.

Implications for Assistance

These numbers lead to the same conclusions supported by Exhibits 1 and 2:

- Housing for very low income households needs a large injection of assistance, in addition to free land, lower cost, and favourable financing.
- Housing for households in the $60,000 range is close to working in financial terms and can be viable for non-profits who do not have to pay for land if there are cost reductions.
- Housing for households in the $75,000 range is financially workable if land is free.

Again, the evidence is compelling that the delivery of affordable rental housing requires (depending on the income group being targeted) a combination of free land, favourable financing, cost reductions (e.g. parking reduced and DCCs waived), and possibly some other assistance such as grants, mixing market and non-market rental, or injecting CAC revenue to offset housing cost.

This is why Metro Vancouver and its study partners have placed high priority on finding ways to solve the challenge of land availability. Even with other financial supports in place, it is not possible to create new rental housing unless sites or density are made available so private sector and non-profit rental developers can build units. This is not the whole problem, but it is one of the biggest obstacles to new rental construction.

2.3 What Can be Done? What is Being Done?

The rental housing situation is acute, but it did not get this way overnight. It has been clear for quite a while that the pace of rental construction was too low, that vacancy was too low, and that rents were growing too quickly. So, local governments, rental housing developers, and the Province have been trying various approaches to create more affordable rental units.

The problem of insufficient rental construction is not unique to this region and other jurisdictions have been taking action to spur the creation of more affordable units, especially in transit-oriented locations.

This section provides a survey of the current landscape as a foundation for how to make improvements.

2.3.1 What Can Local Governments Do About Rental Housing?

This is a high level summary of the array of tools that local governments can apply to create or facilitate more rental housing.

The short answer is that BC local governments have considerable power to take action, subject to their available financial resources, their priorities, and local political considerations.

Municipal Authority

Municipal powers in BC flow mainly from the Local Government Act and the Community Charter.

Regarding rental housing, these two pieces of legislation enable municipalities to act in a variety of ways to regulate development, make land available, support affordable rental developments, or construct and operate rental housing.

Perhaps the most sweeping authority is created by Section 8 of the Community Charter, which states in 8.1 that "A municipality has the capacity, rights, powers and privileges of natural person of full capacity" and in 8.2 that "A municipality may provide any services that the council considers necessary or desirable and may do this directly or through another public authority or another person or organization."

These sections enable broad scope to fund housing, provide land for housing, own and operate housing, or assist organizations in the development and operation of housing. Section 24 anticipates that a municipality might dispose of land or improvements for less than market value, guarantee a loan, or partner with another organization, although public notice is required and Section 25 states that a council "must not provide a grant, benefit, advantage or other form of assistance to a business".

The Charter also enables municipalities to provide property tax relief under various circumstances. For example, Section 224 authorizes permissive exemptions for property taxes which could exempt land and improvements owned by a non-profit organization, which could be used for affordable housing. Section 226 allows revitalization tax exemptions which could be used to reduce property taxes for up to 10 years for various kinds of development, which could include rental housing even if owned by the private sector (because revitalization tax exemptions are excluded from the general prohibition against providing assistance to a business).

Zoning, DCCs and Affordable Housing

The Local Government Act contains zoning provisions that could be used to support rental housing. There are three main ways in which the zoning authority allows local governments to take positive action to facilitate affordable housing:

- The broadest power flows from Section 479, which enables municipalities to adopt zoning bylaws that regulate land use, density, and other development parameters. Municipal Councils have complete discretion as to whether to change the zoning on property, which means they have the ability to establish conditions under which rezoning is, in their view, in the community's best interest. This ability to set conditions has been used by municipalities in BC to require developments that are undergoing rezoning to provide public benefits in the form of Community Amenity Contributions, affordable housing (units or cash paid into an affordable housing fund), heritage building conservation if applicable, and others. Local governments in Metro Vancouver have made extensive use of this rezoning discretion to negotiate the provision of rental housing as part of redevelopment projects. Affordable housing provided in this way has been secured via housing agreements, covenants, phased development agreements, requirements to transfer the ownership of affordable units to the municipality or a non-profit, or other means.
- Section 482 enables municipalities to use density bonusing as a way to obtain affordable housing or public amenities. Density bonus bylaws establish a base density that is achievable without providing public benefits and additional density that, at the developer's option, can be achieved if a prescribed affordable housing component (usually secured via a housing agreement) or other amenity contribution is provided.

- Section 481, adopted in 2018, gives municipalities a new zoning power to "…limit the form of tenure to residential rental tenure within a zone or part of a zone…in which multi-family residential use is permitted". This limit could apply to an entire parcel or to a specified number, portion, or percentage of units in a building.

The Local Government Act also allows municipalities to impose Development Cost Charges (DCCs) on new development, to help fund growth-related community-wide infrastructure. With few exceptions, the allowable infrastructure is limited to water, sewer, roads, drainage, and park acquisition. However, the Act does allow municipalities to waive or reduce the DCC for not-for-profit rental housing and for-profit affordable rental housing.

Municipal Borrowing

Municipalities can borrow funds for public purposes, including borrowing to construct affordable housing if that is a municipal priority and if the municipality has the borrowing capacity (based on its calculated borrowing limits and its other needs for capital spending).

Most municipalities borrow through the BC Municipal Finance Authority, so they benefit from low borrowing rates because of the strength of the Province's credit rating.

Tax Increment Financing (TIF) is sometimes suggested as a borrowing mechanism that could be used to fund affordable housing. In TIF, the property tax increases in a defined area (typically an area in which property values are expected to increase due to public infrastructure investment) are dedicated to paying back a loan or a bond issue. This vehicle can be useful if a lender or bond holder wants assurance that a defined portion of municipal tax revenue is allocated to repayment regardless of other municipal financial circumstances. However, it is important to note that TIF is simply one way of securing debt payments. It does not produce tax revenue that would not otherwise exist, so it is not a means of creating "new" money for affordable housing (or any other civic purpose). Alberta's provision for a municipal Community Revitalization Levy is a rare form of TIF that does yield "new" money, but only because in designated CRL areas the Province of Alberta gives its share of increased property taxes to the municipality.

Summary

Based on the Community Charter and the Local Government Act, local governments can:

- Acquire land and make it available for less than market value for affordable housing provided by a non-profit entity.
- Invest in the creation of affordable rental housing or partner with organizations for the creation of affordable housing.
- Use their zoning powers to achieve affordable rental housing in redevelopment projects that involve rezoning.
- Use their "rental" zoning power to try to make it easier for rental housing developers to obtain sites.
- Reduce or eliminate development fees for rental housing.
- Alter development regulations to reduce construction cost (e.g. reduce parking requirements).
- Reduce property taxes for rental housing.
- Increase the pace of project approvals to help increase the pace of new unit construction.

- Plan areas for densification and redevelopment to create more capacity for multifamily residential development in suitable locations such as areas well-served with transit.

2.3.2 What are Local and Regional Agencies Doing?

Local governments and regional agencies are already using a wide variety of approaches to address housing affordability.

Metro Vancouver provides technical analysis and assistance to local government, provides regional land use planning policy, works to coordinate land use planning with regional transportation planning, and makes some sites available for affordable housing (although it does not own much land).

The Metro Vancouver Housing Corporation is a non-profit entity that owns and operates homes for more than 9,000 people in 49 properties around the region. These units are rented at below-market rates, in some cases with rents geared to income.

Municipalities in Metro Vancouver use a variety of approaches to facilitate affordable rental housing.

Appendix 4 contains a summary of the approaches currently used around the region.

Broadly speaking:

- Most municipalities are using their zoning authority to make affordable housing gains. Widely used approaches include: allowing for secondary suites and laneway/coach house units; requiring some form of protection and/or replacement requirements for existing rental units when such properties are rezoned and redeveloped; negotiating affordable housing contributions as part of density bonusing or rezonings, either in the form of on-site units or a cash contribution to an affordable housing fund; and parking reductions.
- Some municipalities are reducing or waiving their DCCs (or DCLs in the case of Vancouver) for rental housing, but about half do not.
- Some municipalities are making lands available on favourable terms to non-profits for affordable housing but the use of this approach is limited because most municipalities in this region do not have large inventories of vacant land that could be used exclusively for housing (the majority of municipal land holdings are used for parks and open space, recreation facilities, community and civic facilities).
- Some municipalities are using what could be considered inclusionary requirements when sites are being rezoned, as a means to require that new residential projects include a proportion of affordable units and/or a proportion of two and three bedroom units for families. This is not inclusionary zoning of the sort that is mandatory in all projects, as this is not allowed under current legislation.
- Some municipalities have policies that require the replacement of existing rental stock when sites with older rental units are being redeveloped to higher density. In some cases, these policies are applied at rezoning with extra density to help make the replacement of older units viable. In some cases these policies apply under existing zoning with no density increase, so the policy generally has the effect of preventing redevelopment because it is not financially viable.
- Only a few municipalities have adopted bylaws that use the new rental zoning tool.

- While some municipalities have made CAC funds (from cash-in-lieu contributions at rezoning) available to assist affordable housing construction, only Vancouver has made a major direct investment of its own capital in the creation of new housing.

Most municipalities in the region can be characterized as having used their regulatory powers to facilitate new affordable rental housing, but not having made large direct capital investments in the form of land or cash for new projects. This is presumably because they see capital investment as the role of the Provincial and Federal governments and because they do not think it appropriate to redirect existing revenues to housing from other municipal objectives or to increase borrowing or taxation to fund housing.

There is a growing urgency among local governments to take action and there is a wide array of recent/current initiatives and experiments. Current examples include:

- Burnaby has amended its zoning bylaw to include provision for rental residential zoning. This bylaw is written to provide the option of layering rental density onto other density allowed on a lot. The bylaw could be used, therefore, to zone sites entirely for rental or for a combination of rental and non-restricted residential. The bylaw has not yet been applied to any sites.
- New Westminster has passed a bylaw to rezone some existing privately owned apartment buildings to rental. These buildings were strata title when constructed decades ago, but have been operated as though they were purpose built rental housing. This rezoning is intended to keep the buildings in rental use. This has been supported by some in the community, but some of the owners are strongly opposed and the Urban Development Institute has opposed the rezoning because of its impact on the value of the private properties.
- New Westminster has also drafted an inclusionary housing policy for discussion during the first half of 2019. The policy proposes that all new strata projects seeking rezoning will have to include a proportion of units that are below market rental units. The policy also outlines incentives (extra density) intended to offset the cost.
- West Vancouver is considering offering a municipally owned site to the market for development of a combination of strata development (to recover the initial investment in acquiring the land) and below-market rental units that will be targeted at important segments of the work force that West Vancouver has difficulty attracting and retaining (e.g. school teachers, first responders). The municipality is considering a rent structure that will be affordable for entry level workers in these jobs and is sufficient to cover the capital and operating cost of the units (but not land value).
- Richmond is considering a combination of DCC waivers and incentive density to encourage more rental housing.
- Vancouver has modified its CAC policy so that most rental projects are not expected to pay CACs.
- Several municipalities are planning to make approvals processes faster for affordable housing projects (although private sector and non-profit developers are skeptical about this, as they see little evidence that the intention has been translated into real administrative change).

These are examples of a more aggressive municipal approach to encouraging rental housing that is emerging in the region. Some of these initiatives are controversial and some will have impacts on the market that are not yet fully understood. It is also worth noting that these approaches will make the overall regional pattern of development regulation even more diverse than it already is. Municipalities are all working on individual

approaches, which is challenging for regional developers (private and non-profit) who are active in multiple communities.

2.4 Federal and Provincial Governments

The Federal and Provincial governments are injecting funds into the construction of rental housing. Most of this money is being made available for the construction of publicly-owned non-market housing or to non-profits, in the form of low interest loans, capital grants, and operating grants for affordable and non-market housing.

The Province of BC has also made changes to legislation and regulations with the stated intention of addressing housing affordability. These include:

- Adding a property tax surcharge on high value residential properties.
- Adding a speculation/vacant tax in selected urban areas (including Metro Vancouver), applied to properties that are not principal residences and not rented out.
- Increasing the property transfer tax for higher value properties.

These initiatives along with new mortgage qualification requirements have started to reduce house sales prices. The vacancy tax has shifted a small number of existing units into the rental pool.

In addition, the Province has reduced the maximum allowable annual rent increase in existing rental stock and ended fixed term leases under the Residential Tenancy Act (except for units being re-occupied by the owner). These steps benefit existing renters in the short term, but they do nothing to increase the supply of new purpose built rental housing and may actually cause reduced investor interest in creating new product.

2.5 Two Case Studies: Seattle and Los Angeles

The study partners identified the Seattle and Los Angeles regions as interesting examples of how local government and regional transit agencies can work together to help facilitate more affordable housing construction. So, these two regions were examined as case studies to see what they have been doing, what is working, and whether there are useful lessons to apply to Metro Vancouver.

These case studies are based on interviews with staff members in the cities and regional transit authorities and a review of online documents available from the agencies.

It is important to keep in mind one important fact when trying to import lessons to Metro Vancouver from these two American regions. A combination of laws and litigation pertaining to condo development has resulted in a situation in which very little high density condo (i.e. strata title) development is occurring in Washington[6] and California (and other states as well). The multifamily market in Seattle and Los Angeles, therefore, is almost entirely comprised of rental housing[7]. As a result, rental developers have to be able to compete sites away from lower density rental residential or commercial uses, but they don't have to compete with strata residential developers.

[6] Washington State is considering legislation to reduce some of the risks and liabilities that have constrained development of new condos, in order to encourage more high density home ownership options and to reduce price pressure on the existing condo stock.

[7] One consequence of this situation is increased urban sprawl, as the ownership market is limited to single detached units.

2.5.1 Seattle Region

This case study summarizes ways in which the City of Seattle and Sound Transit (the regional agency that provides transit service in the large Puget Sound metropolitan area that includes Seattle, Everett, Tacoma, and other communities) have been working to help generate more affordable rental housing in transit-served areas.

City of Seattle

Washington state legislation enables local governments to use incentive zoning (in which increased density is granted in exchange for defined public benefits) and to use inclusionary zoning (which requires that a portion of the units in a new project meet affordability requirements). Seattle has been using incentive zoning for many years to achieve benefits including affordable housing, public open space, child care space, and preservation of farm and forest land (developers get density credits when they acquire and protect these lands). Use of this system was voluntary; developers could decide to seek the extra density (and provide the public benefits) or not.

In response to growing concerns about housing affordability, starting in 2016 Seattle began to plan for Mandatory Housing Affordability (MAH) requirements. The MAH program requires that all eligible projects must either include a prescribed amount of affordable housing or must contribute to a fund that supports the construction of new units by the City of Seattle.

The MAH and incentive zoning programs both apply in some cases: a project can achieve extra density in exchange for public benefits and also be required to meet the MAH conditions.

The City aims to apply the MAH requirements in all multifamily and commercial zones and in all urban villages consistent with the City's *Seattle 2035 Comprehensive Plan*. The objective is to increase housing choices, particularly in areas that are gauged as having high access to opportunity (transit, parks, jobs, services) and low risk of displacement of low income people. Where there is deemed to be high displacement risk, the aim is to concentrate new development (with MAH requirements) within a 5 minute walk of frequent transit.

The key message is that MAH will apply in many parts of the City and will apply to a large proportion of new developments.

To make the MAH system financially viable, and to address concerns about the impact on land value of imposing new requirements, new density is being added to the zones with MAH requirements. Land economics analysis was used to make sure there was a reasonable balance between the value added by new density and the cost of meeting the MAH requirements. The City claims that it was primarily interested in making sure developers would use the extra density and provide the affordable units, so was not concerned if the deal was "too good" for developers (i.e. the value of the extra density exceeds the cost of the affordable requirement).

Density increases are occurring across the full spectrum of neighbourhood types: some single detached areas are absorbing duplex, duplex/triplex areas are shifting to low rise apartment, low-rise areas are transitioning to mid-rise. The density increases and the MAH are all encoded in zoning changes enacted by the City; developers to not have to apply to rezone.

The MAH requirements vary by zone and by location, presumably linked to market conditions and financial viability. The City estimates that projects that provide units will have 5% to 11% affordable units and projects that contribute to the housing fund will pay between $5 and $33 per square foot of gross project area (less defined exclusions, which are complex).

City staff indicated that the City prefers developers to use the cash-in-lieu option as this enables the City to tap Federal matching funding for affordable housing.

The affordable units are aimed at certain income groups and have maximum rents (and rent adjustment formulas) that are imposed via a covenant on title. For example, for a single person the maximum income to be eligible for an affordable unit is $40,320 and the maximum rent is $1,008 per month for a one bedroom unit (which works out to 30% of income). For a family of four, the income limit is $57,600 and the maximum rent is $1,296 for a two bedroom unit (27% of income).

Because almost all multifamily development in Seattle is rental, there is no rental zoning in place. The units provided by developers remain owned by the developers. There is a general preference to not mix housing tenures, so in rental buildings the affordable units are rental and in the (rare) condo projects the affordable units are condo.

The City is hoping that this system will contribute to the creation of about 20,000 affordable homes during 2016 to 2025. Because the program is new, though, not much housing has been completed. The City reports that the pace of development applications has increased significantly.

The MAH program is not without controversy. According to City staff, there has been some pushback in neighbourhoods that are opposed to the increased density. Based on local newspaper opinion pieces, there are developers and commentators who say the cost of the affordable component is higher than the benefit of the additional zoning and will lead to some projects becoming non-viable. There may even be legal challenges, as there appear to be differences of opinion regarding whether State law allows the program as designed. For these reasons, the MAH plan continues to be refined.

The City of Seattle also has a Housing Levy, which is a surcharge on property taxes to raise money for capital and operating costs for affordable housing. This Levy has been in place since 1981 and has been re-approved 5 times since then. The most recent version came into force in 2016 and is projected to generate $290 million over 7 years. The City estimates that the median cost to Seattle homeowners is about $122 per year.

Sound Transit

Sound Transit owns, builds, and operates the transit system that serves the Puget Sound urban region that includes Seattle. There are about 50 local governments in the service area.

Since its inception in the 1990s, Sound Transit has been supportive of TOD (Transit Oriented Development) but initially had little direct involvement in land use planning or development.

Starting in about 2010, Sound Transit elevated the priority of linking transit and development planning. In 2012, the agency's Board adopted a Transit Oriented Development Policy that directed the agency to consider TOD outcomes early in planning for new transit investments. The agency has a two-pronged approach consisting of "Agency TOD", which is the direct implementation of TOD on Sound Transit's property, and "Community TOD", in which the agency supports local governments in planning for development around transit stations.

Further strategic planning in 2012 to 2015 resulted in a greater commitment to integrating transit infrastructure planning with local and regional land use planning. In 2015, the State of Washington amended Sound Transit's enabling legislation, directing the agency to do more to achieve TOD and affordable housing goals.

As a means of implementing this direction, the legislation requires that a "minimum of eighty percent…of surplus property to be disposed…that is suitable for development as housing must be offered…first to qualified entities that agree to develop affordable housing on the property, consistent with local land use and zoning bylaws." Qualified entities include local governments, housing authorities, and non-profit developers.

When a qualified developer is awarded a site, at least 80 percent of the units must be affordable to those earning 80% of median income in the applicable county.

To advance these goals, Sound Transit has been working on a more strategic approach to land acquisition for transit projects. The agency is still somewhat constrained by legislation, in that it is only authorized to buy land that is needed for transit projects, but it is trying to become more strategic about when it buys land, where it locates stations (and buys land), and parcel configuration so that any lands that are surplus post-construction are workable development sites.

There have been a few pilot projects in 2017 and 2018, totaling about 600 units. But the agency is now gearing up with more staff to work with local governments to integrate land use and transit planning and more staff advising on land acquisition.

Sites designated surplus and made available for affordable housing are offered via Request For Proposals (RFP). Prior to issuing an RFP, Sound Transit works with the applicable local government and communities to establish goals, priorities, land use, and density for the site. Successful developers are responsible for final design and approvals and the transactions do not complete until all necessary permits are issued. Sites have been offered for sale or long term lease. The degree of discount from market value depends on the site, the location, the concept plan, and the developer.

Making surplus lands available for less than market value has triggered some debate. Some stakeholders take the view that lands should be sold at full market value to provide revenue for transit infrastructure. On the other hand, there is support for helping achieve more affordable housing in transit-served locations. Generally, support for affordable housing is stronger in the region's core (Seattle) and less so in smaller outlying areas that want to see transit spur market development.

Some projects have contained all affordable units and some have been mixed market and affordable. All development so far has been rental, consistent with general market trends.

The local market has been slow to warm to the idea of long term land leases, so there is a preference for sale. Sound Transit hopes to make more use of land leases in the future.

Affordable housing units remain owned by the developer, with housing covenants in place to maintain affordable rents.

So far, most development has been in the City of Seattle; Sound Transit has been careful to not be too aggressive in promoting affordable housing in outlying communities. The agency is focusing on developing guidelines for land acquisition, determining which property is suitable for housing, and determining how much of a discount on land price is appropriate.

2.5.2 Los Angeles Region

City of Los Angeles

In late 2016, voters in the City of Los Angeles approved a measure to require that developers requesting additional residential density provide affordable units or pay a cash-in-lieu fee. The same measure required the City to create a program to provide incentives for affordable housing near transit. In late 2017, the City initiated its Transit Oriented Communities (TOC) Affordable Housing Incentive Program. This program encourages affordable housing within about 800 meters of major transit stops by providing additional density, reducing parking requirements, and providing other incentives.

The affordable housing requirements in a project apply to total floor area (not just the new density). Affordable units are secured by covenant (through the City's Housing Department) and continue to be owned by the developer. Because there is little condo market activity in Los Angeles almost all of the housing being provided in this program is rental.

The affordable requirement was introduced at the same time as new density, with the increases intended to exceed previously allowable density bonuses and intended (based on financial analysis) to ensure that developers would have incentive to proceed under the TOC program. The available extra density is matched to the level of transit service.

The parking reductions are also regarded as a key part of the incentive package.

While the TOC program has not been in place for long, the City indicates that about 10,000 new units, of which 2,000 are affordable, are in the application process. This has caused some observers to wonder if the City gave away too much density, but there is a debate about whether it is better to over-incentivize and get more units than to worry about ensuring an even balance.

The TOC program exists in parallel with the City's pre-existing density bonus program. Developers can evaluate both options and select the optimal approach.

Los Angeles has also adopted a Linkage Fee for affordable housing, which is like an impact fee or like a Development Cost Charge for housing. This fee applies to most new development including single detached units, but TOC projects are exempt. The ratio of projects choosing the TOC route versus the density bonus route increased significantly once the Linkage Fee and its exemptions came into force. City staff think developers are preferring to absorb the cost of affordable housing into their own projects rather than write a cheque for the Linkage Fee.

There has been some community backlash in areas that have received a large increase in development activity. Some of this new development may be due to market conditions, not the TOC program on its own, but some residents and politicians are wondering if the program should be revised to require more affordable housing in order to slow the pace of activity.

The system for determining the affordable housing requirement and the incentives for a site is complex. In simplified terms, the system works like this:

- The affordable housing requirements, availability density bonus, and other incentives are codified in the City's zoning, so they are generally "as of right".
- Sites are classed as Tier 1 through Tier 4 depending on the level of transit service and the distance to transit (Tier 1 is the lowest extra density and Tier 4 is the highest).
- Each Tier has a defined requirement for affordable housing, for which the developer has several options. For example, a Tier 4 project requires that 11% of the units be affordable for Extremely Low Income households, or 15% of the units be affordable for Very Low Income households, or 20% of the units be affordable to Lower Income households. These income levels are defined in California state legislation.
- Each Tier has a defined increase in the number of dwelling units and a defined increase in density. For example, in Tier 4, a project can increase the number of dwelling units by 80% and increase the allowable density by 55%.
- Each Tier can achieve a defined decrease in required parking, ranging from 0 to 1 stall per unit.
- Each Tier also has other incentives such as reduced setbacks, reduced requirements for on-site open space, and increased site coverage.
- Projects can achieve additional incentives if they exceed the affordable housing requirements for the Tier.

LA Metro Transit Authority

LA Metro has a Joint Development Program that is intended to optimize the use of its properties for private or public sector development.

The program is intended to achieve three major goals[8]:

- **Transit prioritization**, which includes preserving the ability to develop and operate the transit system and using properties in ways that will increase transit ridership.
- **Community integration, engagement, affordable housing, and design**, which emphasizes stakeholder engagement, compatibility of new development with the surrounding neighbourhood, high quality design, and housing affordability. The target is to achieve 35% of new units being affordable for households that earn 60% or less of the median income for the area.
- **Fiscal responsibility**, which includes maximizing revenue (although this is potentially at odds with the affordable housing requirement), minimizing risk, and ongoing financial sustainability.

To contribute to affordable housing and increases in transit ridership, LA Metro makes surplus lands available for residential development. Some sites are available for market development and some include affordable housing (secured by covenant). If affordable housing is included, the value of the land can be discounted by up to about 30% less than fair market value.

LA Metro's role in new development is limited to making land available. The "Joint" in the program title does not refer to direct investment in the housing.

The surplus lands are mainly lands acquired by LA Metro when preparing for new transit projects. Land acquisition is managed strategically to optimize the opportunity for post-construction development opportunities. These opportunities include:

- Sites that were acquired for construction lay-down and staging.
- Sites over transit infrastructure.
- Additional lands that were acquired strategically (e.g. buying whole sites rather than partial sites or acquiring extra land to avoid creating awkward or undevelopable parcels post-construction), although the agency is careful to avoid backlash due to "too much" government land acquisition.

Sites are almost always leased, on terms ranging from 55 to 90 years. The leases are usually prepaid, but there is sometimes an annual rent component including percentage rent when retail is included. Land and improvements revert to LA Metro upon lease expiry.

Almost all the housing is rental, which matches the overall market and is consistent with the leasehold land tenure.

When a site is identified as a development opportunity, the first step is extensive community consultation with residents and the applicable local government to develop an accepted vision for the uses, density, and height of the project.

When there is a clear consensus on a development concept, LA Metro takes the site to the market via RFP. Proposals are evaluated, and LA Metro selects a preferred developer based on criteria including affordable housing and land price. LA Metro then enters into an Exclusive Negotiation Agreement with the selected

[8] These goals could conflict, so presumably the organization seeks to find optimal balance.

developer, with 30 months to finalize the development plan, agree on detailed financial and lease terms, and obtain necessary municipal approvals. If the concept requires rezoning, this is not usually a challenge because of the extent of initial consultation. The final package of agreements includes the land lease, a joint development agreement (which governs the concept), and a covenant on the affordable units.

The lease includes a positive obligation regarding commencement and completion of construction but there is flexibility, especially to allow time for affordable housing projects to secure their financing.

Most of the properties that will become available were acquired long before they became potential development opportunities. So, LA Metro regards these as not losing money if they are leased for less than market value (although this implies that the agency does not weigh the opportunity cost). There does not seem to be much pushback regarding the discounting of land value (which is allocating money to affordable housing that otherwise could be applied to transit), apparently because the amount of money involved in the discounts is a very small part of the total transit budget.

LA Metro estimates that the program has resulted in about 6,500 housing units so far, with another 6,000 in the pipeline and likely to be developed over the next 5 years or so.

The program has also resulted in some retail and hotel development.

There is very large future development potential, as LA Metro has about 80 rail stations in operation and another 90 being planned.

LA Metro interacts positively with the City of Los Angeles and its Transit Oriented Communities program, which helps make projects viable because of the extra density and the parking reductions.

2.6 Other Research

An extensive literature review was not part of the scope of this project. However, the work included examining some “overview” work by academics and housing advocates on the subject of inclusionary zoning, which is a widely used tool to create more affordable rental supply.

Some key common points emerge:

- Inclusionary requirements tend to be more effective in strong real estate markets. This is because the high value of market units (strata or rental) is needed to offset the cost of units provided at below market rent. Without extra density, inclusionary requirements can only work (if at all) in the locations with the highest market rents and strata prices.
- Inclusionary requirements are almost always linked to concurrent zoning-based incentives (such as extra density, reduced parking requirements) to make projects viable. Inclusionary zoning on its own (i.e. without density bonus or other incentives and subsidies) is not likely to produce many affordable rental units, because development economics limit the proportion of affordable units that any project can support in the absence of offsetting incentives.
- Inclusionary zoning where successful means that new market housing is happening. This means area redevelopment, which can imply the conversion of older neighbourhoods to new, higher density areas.
- Flexibility in meeting mandatory affordable housing requirements is common, with some jurisdictions allowing a cash-in-lieu option or the ability to provide units in another location.

2.7 Perspectives of Housing Developers in Metro Vancouver

Discussion groups were arranged to learn about the perspectives of private and non-profit housing developers in the region.

2.7.1 Perspectives of Local Private Developers

Several local developers of rental housing participated in a discussion about the challenges of developing new projects. The group included developers who build projects to hold in their own portfolios and developers who build for institutional portfolios.

The key messages from private rental housing developers in Metro Vancouver were:

1. It is getting more difficult to make new projects financially viable. High land cost is a major challenge but in addition construction costs are rising and investor cap rates[9] are rising. A key impact of rising cap rates is that investors will pay less for a given asset, meaning that developers have to produce a project at lower total creation cost (land plus construction plus profit).
2. Changes to rent regulations risk making new projects less likely. Investors are concerned about the risk that rents will not be allowed to keep pace with market growth or with escalation in operating and maintenance costs, and that rents will be not adjusted to recover reasonable renovation and update costs.
3. Rental does not work if full market value must be paid for land. Rental requires that new density be created via rezoning, with the density available at less than market land value. Some developers argue that new density for rental should have no cost (i.e. no Community Amenity Contribution) and it is better for local government to maximize the incentive for rental construction rather than worry about under-realizing potential CAC revenue.
4. Approvals processes are too complex, too time-consuming, and too expensive. Developers familiar with Vancouver and Seattle indicate that project approvals are significantly faster in Seattle. Developers also express concern that "affordable" is defined differently across the various municipalities in Metro Vancouver and suggest that there be more consistency in approvals processes and requirements.
5. Developers suggest that there should be more flexibility in finding ways to meet rental housing requirements. Once the value of an affordable housing contribution is agreed on in a rezoning process, there should be some flexibility as to whether the affordable housing requirement is satisfied by units on the site, units at another acceptable site, or via cash-in-lieu paid into an affordable housing fund. Not all projects can easily accommodate affordable units on site, so this flexibility would allow more projects to proceed.
6. When a development project is required to include affordable rental units, developers would prefer to retain ownership of the units (with the obligation to maintain rents at agreed-on levels) rather than have to turn ownership over to the municipality or a non-profit.
7. Developers generally prefer to not have to use airspace parcels or other means to integrate affordable rental projects into strata projects or market rental projects, if the affordable units will be owned by another entity. Developers and investors prefer to avoid future negotiations or conflicts with other parcel owners regarding the timing and amount of capital expenditures, the amount of strata fees, timing of renovation

[9] A "cap rate" or capitalization rate is a commonly used, simple indicator of investment performance which links the net operating income from an income-producing asset to its value. Appendix 3 contains a detailed explanation.

and other asset management decisions. They much prefer stand-alone, independently owned rental projects.

2.7.2 Perspectives of Non Profit Housing Developers

Several non-profit housing agencies participated in discussions about the challenges of developing new non-profit projects. These discussions occurred over two workshops and one conference call, with different participants in each.

The key messages from the non-profit rental community were:

1. Most non-profits are developing lands they already own or that are provided to them pursuant to rezoning negotiations. Few are in the marketplace buying development sites.
2. Their main financial challenges are finding sufficient capital funding and (for very low rental projects) operating funds.
3. The non-profits generally find local government approval processes too long, too complex, and too costly. They also sometimes find that local government expectations regarding design, construction quality, and servicing costs make it challenging for projects because of the extra capital cost. The non-profits generally think local governments could do a better job of fast-tracking approvals for affordable housing projects and adapting requirements to match the budget constraints of affordable housing. They don't expect municipalities to approve bad design or poor quality, but to be cognizant of the costs of requirements imposed on non-profit projects.
4. Non-profits generally prefer to own and manage stand-alone buildings where they have control over the building, the units, and long term decisions about capital investment or redevelopment. This avoids the need to negotiate with other owners about operations, budgets, and major decisions. It also gives them the ability to more easily cross-finance projects (e.g. use the value of one project to assist with financing new projects) and it allows them to benefit from appreciation in the land.
5. Non-profits generally think that affordable rental units should be controlled by non-profits not by private developers. They believe that even though private developers can be bound by covenants and operating agreements there will be a tendency to stick to the "letter of the law" rather than make decisions that are in the best interests of the renters. The missions of non-profits are generally aligned with the core objective of affordable housing, so are likely to produce better long term outcomes for renters (such as improving affordability when refinancing allows smaller rent increases).
6. When non-profits have to partner with private developers on mixed tenure developments, there is a concern that some non-profits are not as well-equipped as they should be to negotiate deals. There may be times when non-profits don't maximize their outcomes in these deals or when the private partner achieves better returns because the non-profit receives less.
7. Non-profits think that local governments should be doing more to reduce the construction cost of new projects, by reducing approvals times, reducing parking requirements, or waiving DCCs. They acknowledge that some municipalities are doing a good job, but others do not appear to put enough priority on taking steps to make rental housing cost less to build.
8. Non-profits sometimes experience neighbourhood resistance to increased density and to the inclusion of some kinds of affordable housing. More planning work or more effective engagement processes are needed to identify and confirm locations for higher density, diverse housing development.

9. Non-profits have mixed views on how private developers should meet affordable housing obligations associated with rezonings. Some see the financial value of allowing developers to provide units in locations where housing costs are lower (lower land value, lower density that can be built with wood frame), so that a given housing contribution could yield more units, but there is concern about affordable housing being relegated to poor locations and there are different perspectives on whether there should be a diversity of housing options in all locations or whether diversity at a broader community scale is sufficient. Where affordable housing is provided on the same site (or in the same building) as market housing, non-profits are not supportive of making sharp distinctions between housing types, such as segregated outdoor spaces or separate entrances.
10. The non-profits perceive that there is a wide variety of organizations that own land that could be used (in whole or in part) for housing, but they don't take action because they have not traditionally been involved in the housing sector. School districts with surplus lands, Legions, local libraries, and labour organizations are examples of organizations that have land that could possibly be used for housing without necessarily reducing the ability of the agency to meet is primary objectives. Some of these agencies are beginning to explore ideas; for example, the Vancouver School Board is exploring the idea of creating housing for teachers on school sites with extra land. However, the non-profit housing providers think that more non-profit and government entities could get involved in providing land for housing. They will need technical and financial assistance and will have to adjust their mandates accordingly.
11. Some non-profits perceive that the private sector aims to make too much profit from housing development, a perspective that likely stems from very different motivations and different expectations about return on investment and risk.
12. Some non-profits suggest that there is an important role for governments (local, Provincial, and Federal) to create larger portfolios of land that can be made available for affordable housing development, so that affordable housing providers do not have to rely so heavily on rezoning, density bonusing, or CACs to be able to develop projects. Vienna is cited as an example of a city in which government has assembled over time a large portfolio of land that is used for rental housing with rents set at affordable rates based on incomes.

2.7.3 Similarities and Differences

Both groups have similar perspectives on some items:

- They prefer independence in the ownership and operation of affordable housing projects.
- They think approvals process need to be shortened and reduced in complexity.
- They both deal with the challenge of high land value.

They differ with regard to the ownership of affordable housing:

- Developers would prefer to keep the units, with rent restrictions, as this is better financially and they believe it could yield more units.
- Non-profits see themselves as more likely to prioritize the interests of renters, including increasing the affordability of rents over time.

Part 3: Strategies to Address Land Availability and High Land Cost for Rental Housing

This part of the report describes and evaluates four possible strategies for addressing the barriers of land availability and high land cost.

3.1 Acquiring and Deploying Land for Affordable Rental Housing

One obvious way to eliminate land cost as a financial barrier to new rental housing construction is to make land that is owned or controlled by local entities available on favourable terms. This already happens in a variety of ways:

- There are non-profits that have operated affordable housing on sites they have owned for a very long time. These agencies can redevelop and densify their sites without having to make a new outlay of cash to buy the site.
- There are non-profits, such as churches, that are using part of their sites to accommodate new market and affordable housing. Such groups may be trying to extract some value from their land to fund new facilities and to support new housing.
- Some local governments have made civic land available on favourable terms for affordable housing construction, such as long term land leases for a nominal land rent.
- Regional, Provincial and Federal agencies have developed land, or made it available for affordable housing.

As shown earlier in Exhibits 1 and 2, eliminating land cost has a large impact on the financial viability of affordable rental and market rental (although it is not enough on its own to deal with the challenge of affordable rental housing for households with low income).

It would not be helpful to suggest that the only way to deal with the land availability barrier is for non-profits and governments to just go acquire a large new portfolio of property that could be made available for rental construction. This is a solution, of course, but one that involves significant capital outlay to acquire enough land to make a dent in the need for new units. As this is not currently happening on a large scale, it is reasonable to assume that, for now, governments and non-profits are not able or willing to make this additional investment. Non-profits rely on philanthropy and grants, so their ability to acquire property in the market place is limited by their funding. Governments rely on taxation and have many competing priorities for spending; a significant new outlay for housing land requires increasing taxes or shifting spending away from other programs.

This section concentrates on ways to make land available without large new outlays of cash.

Three different approaches are considered:

1. Deployment of lands already owned by local governments or other local and regional government entities.
2. Creative acquisition of land by local governments and other local and regional entities.
3. Deployment of lands already owned by non-profits. (New acquisition by non-profits is not considered, as this means either getting access to lands in the two above approaches or obtaining funding to acquire land).

3.1.1 Deployment of Lands Already Owned by Local and Regional Government Entities

As previously noted, this already occurs albeit on a limited scale. Several municipalities have made civic-owned lands available for housing on favourable lease terms.

More of this could be done, if agencies with land are willing to become more creative in the use of their property to achieve multiple objectives.

Before exploring these possibilities, though, it is important to understand that this approach has financial consequences that should be considered when making land available.

Lands that are already owned, especially if they were acquired in the past at relatively low (by current standards) cost, can be made available without a new investment of cash or new borrowing. Such lands, however, should not be thought of as "free". Lands owned by local and regional entities could be made available for sale or lease on the open market for urban development. Disposing of the land in this way would yield the market value of the land, which would then be available for a wide range of civic purposes including capital expenditures on civic facilities, paying down debt, or funding municipal operating costs, any of which would presumably mean that municipal taxation could be lower than it otherwise would be. Allocating land to affordable housing, at no cost or based on very modest return, means foregoing alternate uses of the land and foregoing the revenue that could otherwise be obtained (i.e. the opportunity cost). This can be a reasonable choice, if housing is a local priority, but it is a choice that should be recognized for what it is: an allocation of a resource that could otherwise be used for other civic purposes or financial outcomes.

The financial impact of foregoing some or all of the revenue from land disposition is obviously directly proportional to the value of land in each submarket and depends on what the land could be otherwise used for. If strata is the most likely alternative market use of a site considered for rental housing, the range in values in Metro Vancouver is wide. Land values for most strata residential development sites in the region are in the range of about $50 to $500 per square foot of developable floor area[10].

One way to make the financial trade-off is to make land available for housing at no or low initial cost, with a requirement for future land rent payments when net operating income permits. This could be called patient investing, as it foregoes the initial revenue from sale in favour of longer term returns from leasing.

Municipalities of course could choose to value land at less than strata values; they could set their expectations based on the value supported by affordable housing or the value supported by rental zoning. However, this does not change the fact that this would be a deliberate choice to forego revenue. It could be financially challenging for a local government to forego this revenue, so this suggests it is worth looking for properties that could accommodate affordable housing but that would not otherwise be marketable, disposable, or developable as prime private development sites.

For example, some land allocated for civic uses could possibly also include housing, such as recreational and community facilities, libraries, or schools.

[10] Of course there are sites outside the low and high end of this range, but this range likely captures 90% or more of development properties. So, a site of 25,000 square feet zoned for residential at FSR 2 (which is achievable in a low rise form) would be worth $2.5 million to $25 million depending on which submarket it is in.

There are many illustrations of this kind of opportunity in Metro Vancouver, such as:

- There are many properties owned by School Districts that are larger than required for the operation of the school. Vancouver School Board has expressed the intention of looking for opportunities to incorporate rental housing for teachers at sites that have the capacity. Across the region, there are many sites where this is an option although there are tradeoffs involved. Housing on school sites must either occupy a portion of the site that would otherwise be open space (which could be surplus to the required land area for operation of the school, but which the community might regard as "park") or must be integrated into the construction of a new school building, which will require special care with regard to safety and operations.
- Civic properties used for some kinds of recreation facilities could incorporate rental housing, if there is unused land or there is potential to integrate housing into a new recreation/civic complex. (This is not a municipal example, but an illustration of this approach is the rezoning application by YMCA to redevelop its existing older recreation facility on West 49th Avenue near Cambie Street in Vancouver, with a rental housing project to be developed on top of the new Y recreation facility).
- The City of Vancouver has several older community branches of the Vancouver Public Library that are typically on major commercial streets with good bus service. These facilities are aging and could be redeveloped as mixed use projects with a new library at grade and affordable housing above.
- Properties owned by the Province or Canada that could be made available for affordable housing as part of redevelopment projects.
- There are potential development properties at several existing stations on rapid transit lines in the region. Some of these are admittedly complicated in physical terms, but they could be reconfigured to yield housing development sites. The King Edward station on the Cambie line has already been used for housing (mostly strata), illustrating the potential for this form of development. Other possible examples include:
    - Air rights development over transit stations.
    - Creative use of segments of the Expo line right of way that are larger than needed for transit. There are such sites in Burnaby, for example.
    - Reconfiguration and new development at bus interchanges such as at the Nanaimo and 29th Avenue stations on the Expo line.

  For these transit-related properties to become sites for affordable housing, several steps are needed. First, the land owners must cooperate. Lands occupied by transit infrastructure around the region are variously owned by TransLink, the Province, BC Hydro (such as the Expo Line), others, or some combination. Using the Expo Line as an example, TransLink has the right to use this land for transit but not housing. BC Hydro can't use the land for any purpose that impairs TransLink's rights. A cooperative approach is essential. Second, the incorporation of urban development beside or over transit infrastructure must be possible without impairing the operation, maintenance, expansion, or eventual replacement of the transit infrastructure. Third, local governments would have to be supportive of high density development in these locations. Fourth, all parties would have to agree on development concepts that are physically feasible, financially viable, and include some affordable housing. Not all of potential sites will prove to be feasible development opportunities. However, across the region there are likely many properties that could be developed to include affordable housing if the public sector owners are willing to think creatively about multiple uses of sites. The inclusion of rental housing in such projects

means that lands will achieve lower value than if they were developed for only market strata use; however, depending on when the lands were acquired and how much was paid, it is possible that the proceeds from disposition after rezoning could be higher than what was paid if the right mix of market housing, affordable housing, and commercial use is included. This approach means a shift in mandate, which will require careful consideration as it means that less revenue than might have been available would be applied to transit infrastructure. Other transit agencies – such as Seattle and Los Angeles – have made this shift because their mandates have been broadened to also include helping achieve affordable housing at transit locations.

3.1.2 Creative Acquisition by Local and Regional Entities

Local and regional agencies have ways to acquire potential housing sites that do not involve significant direct expenditure.

Local Governments

Local government have the ability to acquire land, either by negotiating the purchase or by expropriation, for civic purposes which could include affordable housing. However, these approaches require paying market value for land.

For local governments to acquire land without paying market value, the main opportunity is to negotiate to take title to parcels of land that are part of large rezoning and redevelopment projects. Such parcels would be considered amenity contributions and could be in place of obtaining other public benefits such as cash contributions, amenities, or units within a project. The advantages of taking parcels of land include:

- flexibility to make the site available for different forms of housing and to different housing providers.
- ability to have stand-alone affordable rental housing projects that are not incorporated into projects with other kinds of units.
- perpetual ownership, which allows control over future long term redevelopment and access to land value growth in the long term.

This approach obviously only works with large scale redevelopment projects in which (a) there is enough extra density being provided to the developer to offset the cost of providing the parcel and (b) the site is large enough to enable subdivision to create multiple parcels.

Local governments launching area planning programs, that anticipate redevelopment and densification, also have an opportunity to aid affordable housing by planning for residential development on civic lands and in some cases by acquiring key sites that are likely to have increased density.

TransLink

One regional agency with a significant future opportunity to acquire new land for housing is TransLink, if its mandate is broadened to include more support for affordable housing. When acquiring lands for new transit infrastructure, TransLink has tended in the past to acquire the minimum needed to meet its transit construction needs, because this is consistent with the South Coast British Columbia Transportation Authority Act (the legislation that defines TransLink's responsibilities and powers), which states that:

- The purpose of the agency is to "provide a regional transportation system" (Section 3).

- The agency can "…acquire…real or personal property required for the regional transportation system" Section 4.1.e).
- The agency may acquire land "…other than by expropriation that is not required for the current plans…but…will be required in the future" to facilitate the construction of the regional transportation system (Section 6).
- The agency may "to carry out its purpose" expropriate land (Section 6).
- The agency may "hold, manage, develop, and dispose of land" (Section 6).

These extracts indicate that TransLink is not specifically empowered to become a housing agency or to acquire land with the primary objective of helping address housing affordability. TransLink's internal policies support working with partners to deliver affordable housing, provided TransLink receives full market value for its land and does not provide any subsidy.

However, other transit agencies (see the Seattle and Los Angeles case studies) have had their mandates broadened to recognize that the process of acquiring land for the construction of new transit facilities creates the possibility of also working toward the collateral objective of making land available for affordable housing development. The Seattle and Los Angeles regional transit authorities have adopted a strategic approach to land acquisition for transit projects in order to watch for and act on opportunities for post-construction housing development, such as:

- Choosing station locations with an eye to transit system design as well as opportunities for redevelopment including affordable housing.
- Acquiring sites with an eye to optimizing the potential for post-construction disposition of land or air rights for housing development.
- Acquiring land well in advance of transit construction, to minimize acquisition cost and to create potential for gain in land value.
- Disposing of some lands at less than market value, to assist affordable housing creation.

These strategies could be applied by TransLink in Metro Vancouver when it is acquiring land for construction or expansion of transit facilities, although there are some limitations on this approach:

- Most projects that integrate housing with transit infrastructure will have to be concrete, so construction is more expensive. A mix of market and affordable housing will be needed to make the numbers work.
- The lift in value from upzoning must accrue to TransLink to create revenue for transit infrastructure and to support affordable housing.

This approach is not intended to be a substitute for other initiatives; it simply acknowledges that station locations are good places for high density urban development, that integrating development into the station makes for a more lively environment, and that mixed use is a more efficient use of land. Integrated development should happen in any case but it also creates an opportunity to include some affordable housing.

To implement this approach, TransLink would need:

- Acceptance of (or legislative amendments to permit) an expansion of its ability to acquire land beyond the strict requirements for transportation construction.
- The ability to dispose of surplus lands for residential development at a price that generates revenue but that also helps in creating affordable housing near transit.

3.1.3 Deployment of Lands Already Owned by Non-Profits

Non-profits that are already housing developers have land and have the wherewithal to tap sources of funds and expertise to develop (or redevelop) projects.

In Metro Vancouver, there is a wide range of non-profit or charitable entities that have lands for some purpose other than housing. Some of these have ventured into affordable housing, but many have not.

Some examples of projects by entities that are not housing developers per se include:

- Some churches have used surplus portions of their sites to accommodate residential development to generate revenue to apply to new or improved church and community facilities and/or to apply to affordable housing construction.
- YMCA has leveraged its land holdings to fund new recreation facilities and is now also considering incorporating rental housing in a new project.
- A Vancouver teachers' association is proposing to redevelop its office site to create new, expanded office space for its organization and to include rental housing in a mixed use development.

There are opportunities scattered across the region for more initiatives like this.

Legions, labour organizations, and churches are examples of users with properties, many of which are in locations in which redevelopment including housing would be appropriate. While registered charities have restrictions on the kind of housing they can provide, these organizations are not constrained from making sites available for housing development by others (either market rental or affordable rental).

Non-profits report that there are barriers for these kinds of organizations, including:

- Their current mandate does not include housing.
- They are run by volunteers, who may not have the inclination, time, or expertise to consider redevelopment including housing.
- They may be short of funds for the necessary initial work for feasibility analysis and engagement with municipal approvals processes.

These kinds of non-profits would benefit from easy, economical access to development planning assistance, to help them explore the potential for redevelopment to unlock value to create new facilities for their primary purpose as well as provide rental housing. For new rental housing created in this way to be affordable, the non-profits would have to be willing to receive less than full market value for their land.

3.2 Using Rezoning to Achieve Affordable Rental Housing Supply

The use of municipal zoning powers has been the principal means by which local governments have tried to address the need for affordable housing in Metro Vancouver during the last 20 years or so.

In BC, local governments have two different ways to use zoning, based on the Local Government Act, to obtain public benefits including affordable housing. These are usually called Density Bonusing and negotiated Community Amenity Contributions.

Density Bonus

Density bonusing is authorized by Section 482 of the Local Government Act (and a similar provision in the Vancouver Charter), which gives municipalities the ability to zone land for a base density, which is achievable

without providing any public benefits, plus supplemental density that is available (at the developer's option) in exchange for providing prescribed public benefits. The public benefits can be in the form of community amenities, affordable housing, cash-in-lieu, or some combination.

When used to achieve affordable housing, a density bonus zoning bylaw may include conditions relating to the affordable housing including the number and kind of units and may include the requirement to enter into a housing agreement as defined by Section 483 of the Local Government Act. A housing agreement can specify the form of tenure of the units, the availability of units to "classes of persons", and the rents or sales prices that can be charged (or a formula for determining them). Such agreements, therefore, are broader in scope than rental zoning, because of the ability to set rents and define specific target client groups.

Density bonusing has these advantages for affordable housing:

- It is explicitly permitted in the Local Government Act.
- It can be tied to a housing agreement registered on title, which can specify conditions including rental tenure, target tenant types, and rents.
- It requires an explicit, transparent link between the extra density that is available and the benefits that must be provided. This is good for developers and community groups looking for predictability.
- It can be implemented via area-wide rezonings, eliminating uncertainty in the planning and approvals process for areas undergoing redevelopment and densification. In these cases, the density bonus bylaw requires that the municipality decide in advance on its allowable densities and priorities for public benefits rather than determine them site-by-site. This "pre-zoning" reduces approvals time, cost and risk. This approach is most effective when potential development sites in an area have similar attributes in terms of existing use and proposed new density.

There are some disadvantages:

- If applied via advance rezonings of areas, there is a loss of flexibility in defining the achievable density and the required public benefit contribution, because the density and benefits are formulaic not tailored to each project.
- If applied via advance rezoning of areas, the quantum of public benefit per increment of new density must be set to work on all redevelopment sites; this means the benefit contribution is not "right sized" for each site, which inevitably means the total public benefit yield from an area will be lower than if the contributions were determined on a site-by-site basis.
- The bylaw must be updated regularly to make sure the density and the benefits schedules (either for physical benefits such as affordable housing or cash-in-lieu) are current.

Community Amenity Contributions

Negotiated Community Amenity Contributions (CACs) are also sometimes called voluntary amenity contributions or something similar. This method involves negotiations between the municipality and the developer regarding the provision of public benefits as part of a rezoning package for a specific site that includes a change in use and/or a change in density.

BC municipal law does not explicitly empower local governments to exchange density for public benefits.

This ability flows indirectly from other elements of municipal governance, as follows:

- In BC, elected Councils have the full authority and responsibility for deciding whether a change in zoning is in the community interest. Councils do not have to modify their zoning bylaws to match the land use policy in their Official Community Plan, so can make individual rezoning decisions based on the merits of each application. (It is noteworthy that there are jurisdictions where a change to a community plan automatically triggers an obligation to make corresponding amendments to zoning). Except in rare cases in which a municipality acts outside its authority or fails to adhere to procedural requirements, there is no avenue to appeal a zoning decision to the courts (which is also different from jurisdictions where there is an appeal mechanism).
- Councils have an implied obligation to consider the interests of the community when making rezoning decisions, which includes determining whether a rezoning would impose unacceptable impacts or financial burdens on the community, such as a need for investment in infrastructure or amenities, traffic impacts, or impacts on the affordability of housing.
- Because new density has value, developers have an incentive to address the impacts of developments or to provide benefits that attract support for (or at least lessen opposition to) projects. The new density is typically available on terms that (after providing public benefits) still generate some lift in land value for the land owner and create the opportunity for the developer to earn profit on the additional floorspace allowed by the new density. This creates the potential for a win-win-win in which there is additional land value for the land owner (providing an incentive to sell land into the redevelopment market), additional opportunity for the developer, and benefits for the community and local government.

Because of these conditions, it has become common for local governments in BC to negotiate for public benefits when properties are being rezoned to allow redevelopment. Sometimes these contributions are negotiated on a site-specific basis when a property is proposed for rezoning. In other cases, the local government uses a target rate (expressed as dollars per square foot of additional density) that is intended to be more efficient and more transparent by simply articulating the expected contribution rather than requiring a site-by-site analysis and negotiation. Determining the appropriate CAC (or benefit required for a density bonus) requires an understanding of the housing market and development economics, as well as skill in negotiating.

For the development industry and the community to have confidence in the outcomes and the fairness of the process, there is also a need for consistency and transparency. Municipalities in Metro Vancouver use different approaches, have different expectations, and have varying skill sets which result in different outcomes. This causes some criticism of CACs, as they are not always predictable, transparent, or consistent.

Municipalities have discretion to use CACs for amenities (e.g. child care, recreation facilities), affordable housing, or other public benefits. Policy is needed to set out local priorities for the allocation of CACs among possible uses.

When CACs take the form of affordable housing, the benefits can be in the form of actual housing units or cash-in-lieu. When units are provided, they are typically subject to a housing agreement which specifies the rents.

CACs in the Housing Market

Density bonusing and CACs are commonly used in Metro Vancouver. Municipalities and the development sector are generally very familiar with (if not always equally supportive of) the concept.

Because these approaches are widely used, this report does not include a detailed introduction to these tools; this information is available in a variety of publications. However, based on extensive work with local governments and the development industry on the application of these tools, there are some key points worth noting about how CACs play out in the housing market.

First, it is necessary to address the claim that is sometimes made that the cost of amenities is passed on to renters and buyers in the form of higher prices. This is not true, for two reasons.

One reason is that residential prices and rents are set by the market; developers cannot arbitrarily add a cost onto market price. It is easy to demonstrate that cost and price are not necessarily in lock-step:

- In Metro Vancouver, over the last few years condo prices have been rising at over 10% per year (until the market downturn starting in 2018 due to new taxes and tighter mortgage rules). Construction costs have been rising, but not as fast. Something else is driving price[11].
- Prices vary widely across the region (for example a new mid-market strata unit in Vancouver can sell for two or more times the price of a similar unit in Surrey, even though construction costs do not differ by that much). Higher demand is pushing price, not higher costs.
- Suppose a developer can complete a new project with total cost for land, construction, marketing, municipal fees and a typical allowance for profit all amounting to $800 per square foot. But new units in the neighbourhood are selling for $900. Does the developer sell at the prevailing market price or at the lower "cost plus" price?

Secondly, and this is the more important point, public benefits from rezoning (either density bonus or negotiated) are *always* linked to a change in use and/or a change in density that increases the physical capacity for development. This increased capacity for development (i.e. density) has value, because it is equivalent to buying land. Local governments in Metro Vancouver almost invariably seek public benefits (amenities, cash-in-lieu, or affordable housing) that cost less than the market land value of the extra density. In effect, private developers tapping extra density in this way could bring units to the market at less than market price if they took the cost-plus approach to setting sales price. They don't because prices are set in the marketplace by the demand for and supply of new units. Not-for-profit developers can bring housing to the market at lower rents if they obtain extra density at less than its market value.

By making rezonings more likely to be approved (by generating benefits that offset some of the impacts and make redevelopment more acceptable than it otherwise would be), by adding new physical capacity (i.e. density) for housing, and by making capacity available at less than the market price of land, density bonusing and the payment of CACs do not cause upward pressure on housing prices. The opposite is true: by helping add supply, these tools put downward pressure on housing price[12].

Charging CACs per se does not impact market pricing. However, the process of determining a CAC can have an effect on the market, in these ways:

- If negotiating a CAC adds to the length of the approvals process, then the pace of new development is slowed. Restricted supply in the face of strong demand adds upward pressure on price.
- If there is high degree of uncertainty about CAC amounts, it can impair the ability of developers to acquire land, as buyers and sellers might make different assumptions about the amount of the CAC.

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[11] For example, the average annual change in the Greater Vancouver Apartment Housing Price Index published by the Canadian Real Estate Association for the period December 2012 to December 2017 was 12.3% per year, while the average annual change in the Apartment Building Construction Cost Index for the Vancouver Census Metropolitan Area published by Statistics Canada was about 2.3% per year over a similar time frame.

[12] A typical rejoinder to this is "then why aren't prices falling?". The answer is that downward pressure in a rising market can mean prices are still rising but not as fast as they would be in the absence of the new supply. The fact that prices are still rising does not mean that CACs are causing a problem; it could just mean that the total growth in supply is still not enough to actually move price down.

- If there is inadequate transparency about how CACs are determined, the community may perceive that developers are getting too much for too little, resulting in opposition to projects.

Another important point about CACs is that local governments and citizens sometimes overestimate the value of additional density in their communities. The value of density is essentially the value of land, when expressed in dollars per square foot of developable area. Density is more valuable where land values are higher, so the ability to achieve public benefits from new density is much lower in (say) Maple Ridge than (say) West Vancouver.

The value of extra density can even vary widely from project to project within the same neighbourhood. This can happen because:

- Some sites have views, better access, or other features that will command higher prices.
- Some sites are occupied by existing uses that support a high land value (e.g. a group of single detached houses or a shopping plaza). It may be that redevelopment under existing zoning does not support enough land value to make these viable development sites (i.e. the market values them as holding properties). In order to stimulate redevelopment, some additional density must be provided at no cost in order to support enough land value to outcompete the existing use. Only density above this redevelopment threshold could support the provision of a CAC.
- New density for rental housing is worth considerably less in this region than new density for strata residential. Municipalities cannot expect the same public benefit contributions (if any) from new rental that they would get from new strata density.
- The high cost and long time frame for many rezoning processes can reduce the value of the extra density that comes out at the end of the process.
- Higher construction costs, sustainability and green building requirements, rental replacement policies (for sites that have existing rental stock), off-site engineering requirements, and other costs can all reduce the value of extra density.

A final important point is the implications of not seeking CACs at rezoning.

The land market is extremely good (and fast) at capitalizing development opportunity into land values. If the market perceives that extra density is forthcoming without any requirement of CAC, then the value of this extra density becomes part of the value of development sites. One might wish that not charging a CAC would reduce development costs, leading to lower house prices. In fact, not charging a CAC enables developers in a competitive market to bid up the price of land for which density increase is expected. Housing prices would be unaffected, developer profits would be unaffected (except for those who bought land before the new density was a possibility), and land lift that could otherwise have been channeled to amenities or affordable housing will flow to land owners.

Improving Density Bonus and CAC Approaches

This section of the report now turns to how these zoning-based tools might be better used to achieve affordable housing benefits.

It is beyond the scope of this report to make detailed suggestions about every Metro Vancouver municipality's use of density bonusing or CACs. Based on long experience with working with many Councils, planning departments, and developers, though, some general suggestions for using density bonusing and rezoning as means to facilitate the construction of more rental housing are provided.

Density bonusing and rezoning are the primary means to create additional capacity for housing construction. There are two ways that extra density can lead to more capacity for housing:

- There is an obvious increase in the physical capacity for housing when density is increased.
- The addition of new density can cause properties that are not currently viable for redevelopment to become so[13].

To aid in creating more affordable rental housing, extra density must be used in one of these ways:

- The extra density can be used for strata housing, to create new land value. Some of this new value can fund affordable housing provided by the developer (on site, off site, or cash-in-lieu).
- The extra density can be restricted to rental housing, in which case the new density has less (or no) value but it gives the developer the opportunity to construct rental housing without having to acquire land. The rents in such housing must be financially viable, meaning that some of the units will have to be at market rent, but it is not difficult to analyze the financial performance of the rental housing to find the mix of market and non-market rents that produces the maximum number of affordable units in a financially viable project. As shown in Exhibits 1 and 2, the private and non-profit sectors both have breakeven rents below which rental housing must be subsidized, even if land cost is zero. These breakeven rents are averages, so if the average required is say 80% of market value, this can be achieved by a mix of half of the units at 100% of market value and half of the units at 60% of market value. Adding more density can increase the number of affordable units as long as the required breakeven average rent is achieved. Where market rents are not sufficient to make new development feasible, adding density does not help and having a mix of market and below-market units makes the numbers worse.

Using extra density in this way means that there will be less revenue for other kinds of amenities (e.g. child care, community facilities). There is a trade-off that local governments must make between using the value of new density to support affordable housing, other community amenities, or some combination.

The value of extra density is higher when the cost of rezoning is lower. If rezoning and negotiations are time-consuming, costly, and risk,y then the realized value of affordable housing or amenities will be reduced. Municipalities can achieve better outcomes if approvals processes are expeditious, if community plans clearly designate locations where redevelopment is desirable and supported, and if the demands on new projects (in terms of design features, community engagement, sustainability requirements, and other requirements) take into account the impact on project feasibility, timing, and cost. Private and non-profit developers in this

[13] This point is important and worth explaining in detail. If a property is more valuable in its current use (e.g. older single detached housing or older commercial space) than as a redevelopment site, then the property is a holding property and its zoned capacity cannot be accessed by new development. To tip the balance in favour of redevelopment, it can be necessary to add density without expecting an amenity contribution. This can be illustrated with a simple example. Suppose a potential redevelopment site has an area of 25,000 square feet and is occupied by 5 houses on 5 single detached lots. Suppose these houses have a market value as single detached homes of $1.5 million on average, so $7.5 million in total value. Now suppose the land is currently zoned to allow multifamily development at FSR 2 and that multifamily development sites values are about $125 per square foot of buildable area for strata residential in this location. This means a strata multifamily developer could pay at most about $6,250,000 (25,000 square feet of site times FSR 2 times $125) for this as a redevelopment site. This is less than the value as single detached homes, so this land is likely to remain in its current use. To shift this property to being a redevelopment site, additional density is needed. To reach the $7.5 million supported by the existing single detached use, the site needs a density for strata of FSR 2.4 ($7.5 million in target value divided by $125 per square foot buildable means that the redevelopment needs 60,000 square feet of building area; 60,000 square feet of space divided by 25,000 square feet of site yields FSR 2.4). If the area is regarded as suitable for development to say FSR 2.7, which is achievable in wood frame in a 5 or 6 storey building, and if the aim is to have this site immediately financially viable for redevelopment, then a rezoning to FSR 2.7 would have to provide the first 0.4 FSR (from 2.0 to 2.4) of density for strata at no cost and the balance of 0.3 FSR (from 2.4 to 2.7) could be provided in exchange for an amenity contribution if the density is used for strata.

region identify the cost and complexity of local government approvals processes as impediments that slow the pace of new supply and that result in some projects not proceeding.

There are several ways in which density bonusing and the rezoning process could be improved to support the creation of more rental units and to increase the pace at which they are developed:

1. **Support the construction of more housing in general and more rental in particular**. There are commentators who say that the solution to housing affordability is not increased supply and that more rezoning is not needed; they note that housing supply has been increasing and that prices are still going up anyway. They also note that non-local demand has helped to drive housing prices up and that non-local demand could be almost unlimited in a world with mobile capital and a rising middle class in large nations. These observations are partly correct. Non-local investment has added momentum to house sales prices but does not significantly affect the rental market. In the rental market, the primary solution to reducing vacancy and reducing rent growth is the creation of more rental housing. There is existing zoned capacity to accommodate a large increase in units, but this capacity is generally priced based on strata potential or based on the value of existing land uses (e.g. single detached homes or older commercial space), so it is not available for rental housing. The most important policy refinement needed is to identify good locations for density increases to accommodate more housing, to use density bonusing or negotiated amenity contributions to make some of this new density available for rental housing, and to help increase the pace of new development.

2. **More advance planning and faster approvals to for new housing development.** Assuming that the locations for more density and redevelopment are chosen based on rigorous and consultative planning processes, then density bonus or rezoning can occur with less debate and delay for each development proposal. Area-wide rezoning to allow density bonus requires advance planning to set important development parameters such as uses, density, heights, parking requirements, and others. It is not good practice to approve high density just because it could yield more benefits, if the density is not appropriate based on other criteria such as community acceptability, urban design, transportation demand, infrastructure, amenities, and services. However, it is also possible to aim too low for the density of new urban development locations. Municipalities that place a high priority on accommodating more affordable rental housing will have to accept that this requires a significant increase in the supply of new units. With the limited land base in Metro Vancouver, new supply requires the designation of lands for higher density, preferably in locations with existing or planned frequent transit service. Rezoning decisions are usually easier when they are occurring in the context of a community plan. A plan that sets out long range policy for uses, heights, and densities in an urban node provides the context for individual rezonings, so that each project does not have to start from scratch in coming up with an appropriate development concept. Investments in community plans will pay off in the form of faster approvals, more transparent decisions, and ultimately more public benefits

3. **Clearly defined priorities for public benefits**. Municipalities should go through a robust process to determine their priorities for affordable housing and other amenities before trying to implement density bonusing or amenity contribution policy. Delays or debates within city hall on a case-by-case about what benefits to seek will delay approvals processes, add to cost (which reduces the potential for benefits), and delay the delivery of new units to the market.

4. **Clearly defined affordable housing priorities**. “Affordable housing” is not a standardized term. Municipalities wanting to achieve affordable housing using zoning tools must decide on the relative importance of (for example) seniors housing, housing aimed at parts of the workforce, housing for very

low income groups, or other segments of the community. Different forms of affordable housing will have different impacts on project economics. For example, requiring a portion of units to be market rental will typically yield more units than requiring units to be turnkeyed to a municipality or non-profit at no cost. These priorities should be settled by policy in advance, not worked out during the approvals process for individual projects.

5. **Ensuring Project Viability**. Every development project seeking additional density has a finite ability to provide public benefits in the form of affordable housing, amenities, contributions to infrastructure, public art, sustainability, or cash-in-lieu. Local governments need to understand the limits on providing public benefits in order to make sure that new development remains financially viable.

6. **Practical expectations for the delivery, ownership, and operation of rental units.** Municipalities should consider their options for the delivery of affordable housing. There are four considerations:

    - Units or Cash-In-Lieu. If the value of the agreed-on affordable housing contribution only supports a few units (because the total project and/or the total increase in density are small), it is important to consider whether it is better to have small groups of units scattered across multiple projects (which has operational challenges and costs) or to take cash to consolidate affordable units in stand-alone projects.
    - Off-site or On-site. There could be advantages in allowing developers to meet their obligations off-site, to take advantage of lower cost wood frame construction, lower value land, or consolidation into stand-alone projects.
    - Single or Mixed Tenure. Incorporating affordable rental units into a predominantly strata project can create operational challenges for the strata and the rental. There are advantages to keeping rental units in all-rental projects.
    - Ownership. In some projects it is expected that affordable units be turnkeyed to a non-profit or the municipality. There may be financial advantages to allowing developers to retain ownership of the units (although there may be offsetting operational disadvantages).

Part 4 of this report provides more detail on these considerations.

3.3 Zoning for Residential Rental Tenure

In 2018, the Province of BC amended the Local Government Act to allow municipalities to zone land for residential use based on tenure.

Section 481.1 of the Local Government Act states that zoning "…may limit the form of tenure to residential rental tenure within a zone or part of a zone" where multifamily residential use is permitted. This is not an entirely new ability. Municipalities can enter into housing agreements as part of a density bonus bylaw or a negotiated rezoning, to require that a project provides affordable housing units that are rental. Housing agreements can even specify a required rent structure, which the new rental zoning cannot. The new legislation allows the zoning of a property for rental, but this zoning cannot on its own dictate rents, so projects zoned in this way are likely to be market rental.

Because this rental legislation is new, it is in use (as of the date of this report) in only two locations in Metro Vancouver. Burnaby has amended its zoning bylaw in anticipation of applying rental zoning, but it has not applied the new zoning districts to any sites and is working on a strategy for implementing the zoning. New Westminster has adopted a bylaw to rezone to rental some older, strata titled buildings that have operated

for decades as rental housing. There was strong opposition from some parts of the development community and strong support from rental housing advocates.

Because of the wording in the legislation ("within a zone or part of a zone"), rental zoning could be introduced in several different ways:

- An existing zoning district could be modified to rental with no other changes. So, the allowable uses, heights, density, and other regulations would stay the same but the tenure would be restricted to rental (with no ability to regulate rents or target clients). This zoning could be applied to an existing rental building to protect existing stock from redevelopment, or it could be applied to a potential development site so that the any new development is rental housing.
- A property could be rezoned to allow higher density than currently allowed, but with the condition that all the density be rental.
- A property could be rezoned to allow higher density than currently allowed, with some of the density (the original density for example) remaining unrestricted and some of the density (the new density for example) being restricted to rental.

These different approaches have very different implications for how the zoning would affect land values, the viability of redevelopment, and the operation of the rental housing.

Because rental zoning has the potential to significantly change the economics of redevelopment, it is important to examine carefully its potential impacts.

To show the nature of the impacts, three case study locations have been used (Burnaby Metrotown, Surrey City Centre, and Maple Ridge). The case study locations are hypothetical potential multifamily development sites (i.e. not actual sites) that are typical of the respective communities. The analysis uses physical development concepts, costs, prices, and other variables appropriate to each location.

Each case study was modelled under a variety of different scenarios to show how a new development would perform under differing assumptions about the value of the site, the form of construction (wood frame versus concrete), and the density of redevelopment.

3.3.1 Burnaby Metrotown

This case study is summarized in Exhibit 4. The detailed financial analysis is in Appendix 5.

The case study proceeds in this sequence of steps:

1. The first step is to estimate the property value supported by the typical existing uses on potential redevelopment sites. As shown in Exhibit 4, older low density commercial or older low density residential use might typically support a value in the range of $11.6 to $17.1 million to an investor intending to hold this property as an income-producing asset.
2. The second step is to estimate the amount a developer could pay for the site assuming it is zoned RM3s allowing FSR 1.5. This density is used because some properties in the area are designated for this density, which is achievable in wood frame. As shown in Exhibit 4, the developer can pay about $11 million for this site. This means this property may not be a redevelopment candidate at this density, because the developer cannot match the value supported by the existing use (which explains why few projects proceed at this low redevelopment density).
3. If the site is zoned rental at FSR 1.5, with market rents, and assuming no CAC, the most that can be paid for the site is $9.5 to $9.8 million. So, rezoning this to rental without adding more density means this property will probably remain in its existing use. This is an acceptable outcome if the site is occupied by older rental housing and the intent is to retain the existing stock, but not acceptable if the intent is to have older, low density commercial or residential properties redevelop to create more units at a transit-served location.
4. If the site is rezoned to allow RM5s at FSR 5.3, the site (after CACs) would be worth nearly $50 million. But if zoned for this density as rental, the value would be under $10 million, again less than the value of the existing use.
5. The analysis also tests how much extra density would have to be added so that rental zoning on the whole density would generate enough land value to surpass the value of the existing use. Assuming the project is wood frame, rental works if the site is rezoned to somewhere in the range of FSR 1.8 to 2.4. This means that rental zoning combined with an increase in density could work, if the aim is to generate enough land value to compete this site away from its existing use. But if the goal is to achieve the higher density that is typical in Metrotown and that requires concrete construction, the density of rental housing would have to be much higher, at FSR 7.7 to 11.0 to match the property value supported by the existing use. If the site is assumed to be developable as RM5s in strata concrete at FSR 5.3, it is not physically feasible to put enough density on the site to allow rental to match the land value supported by strata development.

   This analysis for Metrotown shows that:

   - Applying rental zoning to existing rental residential properties or existing low density commercial, without adding any new density, risks making these holding properties rather than rental development sites at the higher densities anticipated in the Metrotown plan. If the intent is to maintain the existing use (e.g. retain the existing older rental stock), then this may be a desirable outcome, but if the intent is to fully utilize Metrotown's potential for high density development with rapid transit access then rental zoning would impair that. The problem is that rental zoning can eliminate the competition from strata land values, but in most cases it will not generate enough land value to outcompete the continued existence of the current use.

- Applying rental zoning and adding density (with all density having to be rental) can work for some sites that are preferred to redevelop as low density wood frame, provided that density is allowed to increase to the upper limit of what is physically achievable in wood frame construction. For concrete construction, the rental density increases must be very large to make the site valuable enough to outcompete the existing use.

Exhibit 4: Summary of Metrotown Case Study

Site Size	55,000 sq.ft.	
Existing use	Older Rental Residential FSR 0.9	Older Commercial FSR 0.4
Property value of existing use	$17.1 million[1]	$11.6 million[2]
Land value if rezoned to RM3s, FSR 1.5, strata	$11.0 to $11.2 million[3]	
Land value if rezoned to rental only, FSR 1.5, wood, no CAC	$9.6 to $9.8 million[4]	
Land value if rezoned to RM5s, FSR 5.3, Strata	$49 million[5]	
Land value if rezoned to rental only, FSR 5.3, concrete, no CAC	$9.4 to $9.6 million[6]	
Estimated total rental density needed to support land value equal to existing use, no CAC, wood	1.8 to 2.4 FSR[7]	
Total rental density needed to support land value equal to existing use, no CAC, concrete	7.7 to 11.0 FSR[8]	

Exhibit 4 Notes:

1. See Appendix 5, Exhibit 2.
2. See Appendix 5, Exhibit 1.
3. See Appendix 5, Exhibit 3. The range is due to tenant compensation, if existing use is rental residential.
4. See Appendix 5, Exhibit 4. The range is due to tenant compensation, if existing use is rental residential.
5. See Appendix 5, Exhibit 5. This figure is rounded.
6. See Appendix 5, Exhibit 6. The range is due to tenant compensation, if existing use is rental residential.
7. The lower density is needed if the site is occupied by commercial and the higher density is needed if the site is occupied by rental residential.
8. See note 7.

3.3.2 Surrey City Centre

This case study is summarized in Exhibit 5. The detailed analysis is in Appendix 6.

Potential multifamily residential development sites in this area are typically occupied by older rental housing at low density, older single detached homes, or older low density commercial use. These different uses indicate a range of $5.0 million to $8.5 million for a site of 45,000 square feet, depending on its current use.

If rezoned to allow low-rise, wood frame, mixed use strata development at FSR 2.5, the supportable land value is as low as $2.7 million if the site is occupied by older rental that must (pursuant to City policy) be replaced and as high as $8.3 million if the site is occupied by commercial or single detached use. So, whether or not this is a viable development site at low density depends on existing use.

Rezoning the site to rental is financially viable in wood frame at FSR 2.5, but it only supports a land value of up to $4.2 million (and less if rental unit replacement is required), which is less than the value supported by the existing uses of the land. Such rezoning would remove these sites as redevelopment candidates.

If rezoned to allow high density residential (strata), the site is worth $7.4 million (if it must absorb the rental replacement cost) to $17 million (if there is no existing rental housing). Rental replacement policy here has the effect of reducing the number of potential redevelopment sites (which may be the objective, to retain existing older stock).

Rezoning to rental at a density that requires concrete construction is not financially viable and increasing density beyond current zoning/policy won't help because the cost of concrete construction is too high to be justified by market rents even with no land value

Exhibit 5: Summary of Surrey City Centre Case Study

Site Size	45,000 sq.ft.		
Existing use	Older Rental Residential FSR 0.8	Older Commercial FSR 0.4	Single Detached Assembly
Property value of existing use	$8.0 million[1]	$8.5 million[2]	$5.0 million[3]
Land value if rezoned to FSR 2.5, strata	$2.7 million[4] to $8.3 million[5]		
Land value if rezoned to rental only, FSR 2.5	-$2.0 million[6] to $4.2 million[7]		
Land value if rezoned to FSR 7.5, strata	$7.4 million[8] to $17.0 million[9]		
Land value if rezoned to rental only, FSR 7.5	Negative (not financially viable)[10]		
Additional rental density needed to support land value equal to existing use	Not viable even with extra density		

Exhibit 5 Notes:

1. See Appendix 6, Exhibit 2.
2. See Appendix 6, Exhibit 1.
3. See Appendix 6, Exhibit 3.
4. See Appendix 6, Exhibit 6. The large range is due to the City's rental replacement policy, if existing use is rental residential.
5. See Appendix 6, Exhibit 4.
6. See Appendix 6, Exhibit 7.
7. See Appendix 6, Exhibit 5. The large range is due to the City's rental replacement policy, if existing use is rental residential.
8. See Appendix 6, Exhibit 10.
9. See Appendix 6, Exhibit 8. The large range is due to the City's rental replacement policy, if existing use is rental residential.
10. See Appendix 6, Exhibits 9 and 11.

3.3.3 Maple Ridge

This case study is summarized in Exhibit 6. The detailed analysis is in Appendix 7.

This case study uses a smaller assumed site size than the others, because development sites (and projects) tend to be smaller in this community.

Existing uses in the town centre area tend to be older rental housing, older single detached houses, or older commercial buildings. These support land values (for the 15,000 square foot site) of around $1.4 million to $1.7 million.

Redevelopment to mixed use strata under existing zoning at FSR 2.3 is viable in wood frame construction and supports a land value of just over $2.0 million, so redevelopment is likely. However, redevelopment to higher density strata in concrete is not viable.

Rezoning to rental in wood frame (FSR 2.3) is financially viable, except it does not support enough land value to out-bid existing uses, so redevelopment candidates would shift to holding property in their existing use. Rezoning to rental in concrete is not viable even if land is free.

It is not feasible to add enough density to rental to generate enough land value to compete sites away from existing use; in wood frame the required density would not be physically possible and concrete is not viable at any density.

Exhibit 6: Summary for Maple Ridge Case Study

Site Size	15,000 sq.ft.		
Existing use	Older Rental Residential FSR 0.9	Older Commercial FSR 0.4	Single Detached Assembly
Property value of existing use	$1.4 million[1]	$1.7 million[2]	$1.4 million[3]
Land value if developed as FSR 2.3, strata	$2.2 million[4]		
Land value if rezoned to rental only, FSR 2.3, no CAC	$0.4 million[5]		
Land value if rezoned to FSR 4.0, strata	Negative (not financially viable)[6]		
Land value if rezoned to rental only, FSR 4.0	Negative (not financially viable)		
Additional rental density needed to support land value equal to existing use	Not viable not even with extra density		

Exhibit 6 Notes:
1. See Appendix 7, Exhibit 2.
2. See Appendix 7, Exhibit 1.
3. See Appendix 7, Exhibit 3.
4. See Appendix 7, Exhibit 4.
5. See Appendix 7, Exhibit 5.
6. See Appendix 7, Exhibit 6.

3.3.4 Implications for Rental Tenure Zoning

Rental tenure zoning can be effective at preventing redevelopment of existing rental housing properties, because it effectively downzones (and devalues) these properties by eliminating the option of strata development.

In most cases, rental zoning will not contribute to the creation of new rental housing. In urban, developed areas this type of zoning without density increases would probably just shift properties from being redevelopment candidates to being holding properties.

Rental tenure zoning might be effective in these cases:

- Vacant land that would otherwise have been strata (although this is a downzoning and would likely encounter significant opposition).
- Lands transitioning from institutional to residential, to ensure rental use (although this can be achieved via housing agreement).

3.4 Inclusionary Affordable Housing Requirements

Inclusionary housing in the broadest sense means requiring that new residential projects must include a specified number of affordable units, with a clear definition of affordability.

Inclusionary housing zones could be thought of in two categories:

- Zones that require the inclusion of a mix of unit types. Market rental residential projects tend to include mainly smaller units (studio, 1 BR, 2BR) because these generate the most income. However, small units do not meet the needs of households with children, so some types of zoning can require that a portion of new units be family oriented (larger 2BR and 3BR).
- Zones that require the inclusion of a proportion of units that are affordable for households at defined income targets. This is the kind of zoning that is most often referred to as inclusionary zoning. This type of zoning has existed for decades in some parts of the United States, where it was used to countervail zoning that was designed to exclude housing types and densities that would be affordable. In other places, inclusionary zoning is a new tool intended to require the incorporation of affordable units in new projects.

While municipalities in BC have recently been given the power to zone for rental tenure, and can use this power to ensure that all or a portion of new development is rental housing (subject of course to the project being financially viable and actually proceeding), they do not have the explicit authority to zone land (or units) to control rent. If rental zoning is applied to an existing or new rental building, in the absence of some other means of exerting control the building could be rented at market rents, which are too high to be affordable in much of the region.

At present, the only way for municipalities in BC to require rental units at a specified rent level is pursuant to a housing agreement negotiated with a developer as part of a rezoning. Municipalities can specify in a density bonus bylaw or in a site-specific negotiated package of public benefits that some units must be available at certain rents. For a private developer to be willing to provide such units, the new density available from the density bonus or from rezoning must be sufficient to offset the cost of providing the included affordable rental units.

There are jurisdictions in which inclusionary housing can be mandatory without being accompanied by additional density. For example, in 2018 legislation came into effect in Ontario that allows municipalities to require projects of 10 or more units to include affordable units. However, the legislation recognizes the potential for such zoning to have a negative impact on development economics so it requires that local governments evaluate potential impacts on the housing market and the viability of projects and consider

possible offsetting incentives. The legislation also prevents municipalities from seeking amenity contributions from additional density used for inclusionary housing.

Before evaluating the strengths and weaknesses of inclusionary zoning, it is important to understand that, in the absence of any offsetting incentives, it has a negative impact on the financial performance of a development project. While the financial impact may be viewed as being offset by social benefits from affordable housing supply, the benefits and costs accrue to different parties. A project that is not viable in financial terms (i.e. costs exceed revenues) is not rendered financially viable just because it also generates social or environmental benefits.

The extent of the financial impact depends on the income target (and maximum rent) that is applied to the affordable units.

The graphs shown earlier in Exhibits 1 and 2 show the break-even rents that must be achieved by a private developer creating new rental units under various assumptions. The graphs show that, even with land at low or no cost, the breakeven rents are around $2,000 per month and up, which means the incomes are $80,000 and up (higher than the regional median household income). Units that must be rented for less than this are below break-even (unless there is some offset), which has the following possible impacts on the project:

- Total net income from the project is reduced, so it does not generate enough profit to be viable and the developer does not proceed.
- The amount that the developer can afford to pay for land is reduced. Inclusionary zoning without something added to offset the impact can make it even harder for a rental project to afford to complete land away from its existing use.

This is why Seattle and Los Angeles added new density when they introduced inclusionary zoning. They recognized that for projects to be viable there had to be an offset to the negative impact of enforced lower rent. To address this, they estimated the amount of additional density that would offset the income loss of the affordable units.

In general terms, requiring some units in private sector developments to be rented at below market rent will only work in Metro Vancouver if the requirement is bundled with density increases. This already happens in municipalities with projects that are undergoing rezoning and that exchange density for affordable housing. For non-profits inclusionary requirements probably don't change project economics, because they would have included the affordable units anyway, to the best of their ability based on their financial resources.

Inclusionary zoning that does not increase density would not be successful and would likely lead to reduced rental development activity.

3.5 Evaluation of the Tools and Applicability in Metro Vancouver

The approaches to addressing land availability have different degrees of applicability in different parts of Metro Vancouver, depending on market conditions.

The table below shows which tools are likely to be most successful and which are likely to be least successful.

Approach	Effectiveness	Making it Work
Deployment of existing lands owned by local government or non-profits	Where eliminating land cost and reducing construction cost (e.g. reduced parking) are enough to make new rental construction viable at target rents, this approach is highly effective, provided the land owner is willing/able to forego the value of the land or be patient with regard to return on land value.	Experienced local governments and non-profits know how to do this. There are many entities that own land but that are not yet in the housing sector. They need assistance to decide whether and how to use their lands for multiple objectives. More partnerships between local governments, non-profits, developers, and BC Housing can take advantage of these opportunities.
Acquiring more land to use for affordable housing	As above, with the added constraint that buying land requires new cash or borrowing so it is limited by the resources of government and non-profits. There are creative possibilities that reduce the need for cash or borrowing or that can recover the investment after infrastructure or zoning changes: • Buying strategic parcels of land before major area planning/rezoning processes • Buying extra land when preparing for transit construction	The key requirements are: • The ability to strategically acquire land before events that trigger land value gains. • The financial resources to buy land early. • TransLink and local governments are in the best position to be more active in land acquisition.
Rental zoning without concurrent density increase	If applied to existing older rental stock, this will likely postpone redevelopment, so if the intent is to prevent demolition this will be effective. If the intent is to facilitate redevelopment to create new rental stock this will generally be ineffective. While rental zoning eliminates strata development as a competing use, properties still have value in their existing use and in most cases rental development cannot compete with this land value. It is also worth noting that rental zoning does not allow any control on rents, so any private sector rental development that does proceed will likely be at market rents.	See below.

Approach	Effectiveness	Making it Work
	rental zoning without density increase might be effective in these cases: • Vacant land (although this would be regarded as a downzoning). • Sites with very low value existing use. • Sites transitioning to residential from a non-residential zone (e.g. institutional), although the rental tenure in this case could be secured by other means.	
Rental zoning with concurrent density increase	This has not been implemented in Metro Vancouver, but it is possible under the legislation. There are two ways this could work: • New rental density is layered onto existing density. In this case, the underlying density maintains land value and the new density can be allocated to rental. • An entire site is zoned rental, but total density is increased as needed to generate enough land value to compete the site away from its existing use. This will work where rental development supports some land value but will either not work or require extremely high density where land values are low.	The amount of extra density to make rental zoning able to match existing land values is high, so there will be a challenge finding locations where the required extra density is acceptable and financially viable. In much of the region, the best prospects will be in locations where extra density can be achieved in wood frame construction, because of its lower cost. In practical terms, this means a focus on frequent transit corridors where 4, 5, and 6 storey development can achieve densities in the FSR 2 to 3 range. Adding density in concrete construction will work where rents are relatively high, but where target rents are lower concrete is not viable. Refer to Exhibits 1 and 2.
Inclusionary housing requirement without concurrent density increase	Existing legislation in BC does not allow zoning on its own to specify target markets or rents. Inclusionary requirements can be achieved when density bonusing or rezoning require affordable housing, which is then governed by a housing agreement. Revising legislation to allow zoning to require inclusionary housing will generally not work in all-rental projects without major financial assistance. Rental construction at market rents is challenging, so reducing total rental income (the result of mandating lower rents) just makes it harder. Mandatory inclusion of affordable rental in strata projects could be viable in some	See below.

Approach	Effectiveness	Making it Work
	locations, but this will reduce the amount developers can pay for land and therefore risks reducing the pace of development. There are also challenges with integrating rental units into strata projects.	
Inclusionary housing requirement with concurrent density increase	In BC, zoning on its own (even with a density increase) cannot control rents. In practice, though, affordable housing is achieved in density bonusing or rezoning via a combination of the change in zoning, an increase in density, and a housing agreement that governs the affordable units. This the primary way that affordable rental housing has been achieved by local governments in Metro. See below.	See below.
Using rezoning tools to obtain affordable housing	This has been the most prevalent and successful means to obtain affordable housing in Metro Vancouver. This approach harnesses the value of extra density, by making density available at no cost for rental housing and/or making strata density available at market value and applying some of the value to support affordable housing. This tool is applicable in every housing submarket in the region where rezoning and densification are appropriate. The leverage is greatest where new rental and strata density are created, because in this way the rental component avoids a land cost and the new strata land value is applied to support the construction of the affordable housing. This approach is typically combined with the use of a housing agreement which can control the tenure of units but can also control rents and define target renters (e.g. household in certain income brackets). Consequently, this approach yields more affordable housing benefits than rental zoning on its own.	This is already working and there are many examples to show how extra density creates the financial wherewithal to provide affordable rental housing. This approach could be much more extensively and effectively used if local governments invest more in community planning and rezoning to support more density in good locations. Advance planning, reduced approvals risk, and financially sound and transparent CAC/affordable housing policy can lead to more housing and faster delivery. There is a trade-off between using density to achieve affordable housing versus other important community benefits such as child care or amenities. This trade-off should be addressed in clear policy about the mix and priority of different public benefits. This approach requires that communities accept higher density to accommodate affordable housing.

Part 4: Improving Unit Delivery

Next, the report explores the potential to improve the actual delivery of units by private sector developers and by the public and non-profit sector. This section addresses these questions:

- Should private developer obligations for rental housing be met on site or could they be met via cash-in-lieu or by delivering the units in other locations?
- Should affordable units developed by the private sector, pursuant to zoning requirements, be owned by government or non-profits? Are there advantages or disadvantages to ownership by the private sector?
- What are the advantages and disadvantages of combining affordable rental units with market rental units or strata units in the same project?
- Is there value in considering a more coordinated or centralized approach to public and non-profit sector housing delivery, instead of the decentralized system currently in place?

4.1 Should private developer obligations for rental housing be met on site or could they be met via cash-in-lieu or by delivering the units in other locations?

There are two broad sets of considerations that could be applied to answer this question.

One of these could be called social. There are important questions about the extent to which market, affordable, and non-market housing should be intermingled in a community (or even in a project). This is a highly charged topic and terms like “poor-doors” and “ghettoes” are used to oppose the segregation of low-cost housing from market housing. All citizens deserve respect regardless of their income and housing, so complete isolation of lower cost housing is neither socially desirable nor politically acceptable. On the other hand, market housing is divided into geographic submarkets so it could be argued that not every site must include a full spectrum of housing types.

There are some financial and operational considerations in the location of affordable units:

- The ability to acquire land for affordable housing is higher in areas where land cost is lower.
- Wood frame construction costs less than concrete, so the delivery of affordable units is easier in areas where the target density does not require concrete construction.
- Many new market projects are not large enough to provide a significant number of affordable units on site. If (hypothetically) a 50 unit project is expected to deliver 10% of the units as affordable rental, this creates a tiny pocket of 5 units that have different management and operations requirements than the rest (especially if the rest of the project is strata). Non-profit and private developers alike express a preference for physical separation of unit types because this makes housing management easier and provides independence regarding operations, regulations, repairs, and major capital investment decisions.

For these reasons, jurisdictions such as Seattle and Los Angeles that have mandatory affordable housing requirements (in conjunction with density increases) allow some flexibility in how the requirement is satisfied. The affordable units can be delivered on site, delivered in a stand-alone project in another good location, or

delivered via cash-in-lieu (to a housing authority which pools these contributions and builds publicly owned housing).

If an affordable housing requirement can be delivered off site (in a good location with bus service, for example) at lower cost than in a concrete project, then more housing can be delivered for a given cost. Suppose a market developer achieves a rezoning that carries with it a negotiated obligation to deliver $2.0 million in affordable housing benefits. If concrete units cost $550 per square foot, this translates to around 3,600 square feet (say 6 units at 600 square feet each). If wood frame costs $425, the same contributions translates into about 4,700 square feet (around 8 units). This is only a two unit difference but applied to many projects it adds up.

Local governments looking to require an affordable housing contribution from market development projects in high density locations should consider the option of allowing developers to meet their obligations in flexible ways (in other locations or cash-in-lieu) that produce better outcomes, in terms of more units and/or better configurations for operating the affordable housing.

4.2 Should affordable units developed by the private sector, pursuant to rezoning requirements, be owned by government or non-profits? Are there advantages or disadvantages to ownership by the private sector?

The non-profit sector generally perceives that it is better for affordable units to be owned or at least operated by non-profits. The reasons for this include:

- Control over tenant selection.
- Control over maintenance standards.
- Commitment to maximizing affordability beyond the “letter of the law” in housing agreements or covenants, with possibly less cost for monitoring and enforcement than might be needed with private sector owners/managers.
- The ability to build up a portfolio of owned assets, which permits cross-financing, cross subsidization, and reduced reliance on grants or subsidies.

These benefits come at a cost, though. There is value in looking at the financial outcomes of different approaches.

Suppose a developer has an obligation to deliver affordable units as part of a negotiated rezoning package. In the first scenario, assume that the local government requires that the units be turnkeyed at no cost to the local government or to a non-profit. Using an example of a two bedroom, 800 square foot unit at $550 per square foot (hard and soft construction cost, no profit, no land), this represents a cost to the developer of $440,000 for each unit with no offsetting value from the unit.

Now, in a second scenario assume that the developer can retain ownership (and therefore the rent income) of the unit, but with restrictions on rent.

Exhibit 7 shows the financial implications of this approach compared to the turnkey approach.

Exhibit 7: Turnkey Versus Developer Ownership

Household income target	Monthly rent	Net operating income after expenses of $5,500 per year	Cap rate	Implied value of the rental unit	Construction cost	Net cost to developer per unit	Number of units that can be provided for $440,000
$60,000	$1,500	$12,500	4%	$312,500	$440,000	$127,500	3.5
$35,000	$875	$5,000	4%	$125,000	$440,000	$315,000	1.4

As shown, rather than deliver one unit on a turnkey basis, this developer would be willing to deliver 1.4 units if the rent is geared to a $35,000 income and 3.5 units if the rent is geared to a $60,000 income.

This alternative approach requires that there are mechanisms in place to ensure that the income/rent requirements are adhered to, but it shows the potential to deliver more units if the private sector can retain ownership.

Another way to achieve a similar outcome is to have the units sold by the developer to the local government or non-profit at less than construction cost but not for free. In Exhibit 7, if the units are purchased at $312,500 or $125,000, then the same multiplier effects can be achieved. This of course means that the local government or non-profit must have access to equity or borrowing (which can be repaid using the rental income) to enable the purchase.

4.3 What are the advantages and disadvantages of combining affordable rental units with market rental units or strata units in the same project?

While there are social planning arguments in favour of mixing incomes and tenures, it is interesting that there is almost universal preference among private developers and non-profit developers for creating stand-alone projects. This section examines two combinations: affordable rental/market rental and affordable rental/market strata.

Affordable Rental/Market Rental

There are two different ways this combination can be structured:

- One owner with different categories of units.
- Separate owners (via volumetric or air parcel subdivision) of the affordable and market rental components.

Single ownership is a relatively easy model because one party is responsible for property management, tenanting, rent setting, rent collection, and so on. Non-profits take the view that they are skilled at this and that they have “mission alignment” in the sense that their priority is maximizing affordability. They express concern that developers will seek ways to circumvent the rent controls; not surprisingly, some developers take umbrage at this view and believe they are just as capable as the non-markets at managing rents. Interestingly, in the Seattle and Los Angeles case studies, the private sector develops almost all the affordable

units within projects and these units remain owned and operated by the private sector. The owners are bound by covenant to maintain the agreed-on rent structure.

Regardless of who owns/operates the building, the private and non-profit sectors agree that single ownership is better than mixed.

Separate ownership of the affordable and market rental components in the same building, by way of a volumetric subdivision, means that each party is bound forever to a partner that will have different resources and priorities. This can create challenges for decisions about maintenance, major capital repairs, or (eventually) redevelopment. Private and non-profit developers have the same discomfort with this model.

Affordable Rental and Strata

This model can be achieved in two different ways:

- The project could involve volumetric subdivision (into one parcel that is the strata project and one that is the rental project). This has the same challenges outlined above and the added difficulty that it could impair the marketability of the strata units.
- Alternatively, the affordable rental units could be strata units (part of the strata corporation) that are owned by an entity that must rent them out in accordance with an agreed rent structure. This entity could be the original developer, an investor, or a non-profit entity.

In either case, there are practical challenges with this approach:

- It is possible that the different owners have different expectations and priorities about standards of maintenance.
- Depending on the nature of the common areas in the project, there could be higher than typical operating costs for amenities that are hard for the rental component to absorb.
- Depending on the target market for the affordable units, there could be concerns (rightly or not) on the part of strata owners about the profile of the rental occupants.
- If the rate of turnover is higher in the rental portion, there will be conflicts about wear-and-tear that could affect strata fees.

For these reasons, the private sector and the non-profit sector generally express a preference for stand-alone, single ownership buildings that do not mix strata and rental tenures. They can be on the same site, but in distinct buildings.

4.4 Is there value in considering a more coordinated or centralized approach to public and non-profit sector housing delivery, instead of the decentralized system currently in place?

This question is akin to asking whether there would be efficiencies in consolidating Metro Vancouver's two dozen municipalities into a single local government. One can be pilloried for even asking, and the answer (whether yes or no) is sure to bring even harsher punishment from some quarters.

The current landscape can be summarized this way:

- Every local government in the region has a different approach to addressing housing affordability. Even municipalities that are using the same basic tools have different requirements and approvals processes.
- There is a wide array of non-profit entities involved in delivering affordable housing. These include faith-based groups, service clubs, charities, and development companies structured on a not-for-profit basis.
- Different levels of government are involved in developing, owning, and operating affordable housing. The Federal Government, Provincial Government, Metro Vancouver, and some local governments all have inventories of units.
- Funding and technical assistance are available from senior governments, local governments, consultants, and some financial institutions that support social-purpose housing development.

Is this complex? Very. Are there inefficiencies? Obviously. Are there extra costs? Yes. Is there any likelihood that this will be changed in a material way in the near future? Not likely, as all these entities have different priorities, different resources, established mandates, established programs, and a degree of autonomy they are unlikely to relinquish.

The useful question to ask is not whether the whole current system of delivering affordable housing should change, but rather are there practical ways to improve the current situation through greater coordination among the various entities involved in affordable housing delivery and through making resources available to enable existing entities to do more.

Here are a few suggestions:

- Local governments could explore ways to make approvals processes somewhat more consistent so that private developers and non-profits can more easily understand the rules. Considering that all Metro Vancouver municipalities (except the City of Vancouver) operate under the same legislative framework of the Local Government Act and the Community Charter, it is surprising how different their development approvals processes and requirements are.
- In a similar vein, it would be helpful to agree on some terms across the region with regard to housing affordability. Private and non-profit developers must sort through the nuances of “affordable”, “social”, “non-market”, “below market”, “market”, “HILS”, and other terms to figure out what kinds of affordable rental are going to be included in redevelopment projects.
- There is value in a one-stop resource centre for non-profits, with a mandate for outreach to non-profits that have land but are not yet involved in housing and with a budget to help non-profits in the challenging early days of a project idea. The Housing Hub operated by BC Housing is a good resource for technical assistance and funding. However, some of the target non-profit entities are not likely to seek assistance as they do not see themselves as housing providers. There is a need for an aggressive outreach to bring more land into affordable housing development, along with technical and financial assistance to help create new project opportunities on non-traditional sites.
- There would be value in earlier, stronger, and lasting coordination between local governments and TransLink regarding the timing and alignment of major transit investment. The uncertainty of whether/when the Broadway extension will go all the way to UBC means that opportunities for strategic public land acquisition have been reduced by early private land assembly. The proposed revision to the alignment of transit in Surrey shows that early strategic land acquisition can be risky without continued commitment to transit alignment and design decisions once they are made.

- There would be value in greater coordination between TransLink and other entities that own any of the land used for rapid transit guideways, to make surplus lands available for development.
- As more affordable units are developed, by a wider variety of private and non-profit entities, it will be important to maintain a regional inventory of these units so that housing planners understand the total number, type, and affordability of the stock. This will be useful in evaluating progress for total unit creation.

Part 5: Integrated Planning for Transit and Affordable Housing

Metro Vancouver, local governments, and TransLink already invest considerable effort in coordinating land use and transportation planning with generally good result. The distribution of areas designated for high density residential and commercial development closely matches the intensity of transit service, because most of the development nodes are either older concentrations (such as New Westminster or Lower Lonsdale) that determined the transit alignment or new nodes that were planned on existing or proposed rapid transit lines (such as Cambie Corridor, Metrotown, Surrey City Centre, Coquitlam Town Centre, and Richmond Town Centre).

Plans for the next phases of rapid transit extension are underway and there are concurrent efforts to plan for new development, although changes to the transit plans for Surrey and the ongoing discussions about whether or how to extend the Broadway extension to UBC are adding complexity and creating uncertainty.

However, integration with land use planning is not the same as planning for affordable housing that is served by transit. Based on the analysis in this report, there are ways in which the development/transit planning process could be improved in order to help create more affordable housing supply.

Looking Beyond Rapid Transit Stations

With few exceptions, rapid transit stations that are the focus of higher density redevelopment are planned for high density that requires concrete construction. This has the advantage of accommodating large amounts of residential and commercial floor space within easy walking distance of the station, but it has the disadvantage of high construction cost.

Wood frame is a lower cost form of construction and areas designated for low to medium density tend to have lower land values. For this reason, it may be possible to deliver more affordable transit-oriented units in locations that are not at rapid transit stations. There are two kinds of locations where this is possible:

- In the shoulder areas of rapid transit station planning areas. As a transition from a very high density core area to a lower density context, areas can be designated for medium density multifamily that uses wood frame construction. These may be in the 5 to 10 minute walk radius rather than the 0 to 5 minute radius. One implication of this approach is that requirements for affordable housing that are created via rezoning in the higher density core could be satisfied by creating affordable units in the surrounding area.
- Along frequent transit corridors with good bus service. There are many corridors in the region along arterials with good bus service that will not become rapid transit corridors. Some of these corridors are designated for high density that needs concrete construction, but there are many that are designated for densities that are viable in wood frame construction. These densities could be increased if heights are increased from the typical 4 storeys to 5 or 6 storeys. These are locations where affordable housing obligations created by rezonings in very high density nodes could be satisfied at lower cost (meaning more units for a given investment).

Strategic Land Acquisition and Development Planning

Seattle and Los Angeles are examples of metropolitan transit authorities that have taken a stronger role in affordable housing by revising their approach to land acquisition and disposition:

- Rather than only buying the minimum needed for transit construction, they are buying enough to ensure that post construction there will be development opportunities.
- They are locating transit stations with an eye to maximizing development potential, in addition to meeting transit requirements.
- They are being creative about using air parcels above transit infrastructure to accommodate urban development.
- They are acquiring land as early as possible to benefit from land lift.
- They are making some of the surplus land available at less than market value in order to facilitate affordable housing.

There is potential in Metro Vancouver to adopt these strategies, both for new land acquisition and transit construction and for the creative use of existing rapid transit rights of way.

In most cases, incorporating residential development into or beside transit infrastructure will require the use of volumetric (air parcel) subdivision. Such subdivisions are more complex than traditional two-dimensional parcel creation, but there are many examples in the region and in other jurisdictions. Zoning and tenure (strata versus rental) are not different for volumetric parcels. Construction and property management can be more complex.

Taking advantage of these opportunities involves these approaches:

- TransLink can take a larger role in strategic land acquisition to support urban development, including affordable housing. Most future land acquisition opportunities will be at rapid transit stations, which are likely to be planned for high density requiring concrete construction. The construction cost will make it difficult to provide affordable housing on its own, but there will be opportunities to create a mix of housing with strata or market rental helping to support affordable rental. The aim would be to achieve multiple objectives: create opportunities to increase the total housing supply at stations, generate revenue that helps pay for transit, and facilitate some affordable housing. TransLink does not have a mandate to subsidize the creation of affordable housing, but it is possible that early land acquisition creates the ability to enjoy lift in land value and to allocate some of the gain to transit infrastructure and some to affordable housing.
- TransLink can achieve revenue generation and support for affordable housing in the disposition and development of its surplus lands.
- Transit infrastructure can be designed to accommodate adjacent and vertical urban development. Again, this necessarily involves concrete construction but this does not preclude the potential for some affordable housing as part of a financially viable mixed use project that returns some land value to TransLink.
- There can be greater coordination between local government land use planning and transit station design to create development opportunities. The Canada Line station at Broadway and Cambie is an excellent example of not taking advantage of the ability to integrate urban development and station construction, but fortunately it is an excellent opportunity for another try when the Broadway extension of the Millennium Line is built and creates a major transfer point at this location.

- Coordination between landowners where TransLink and other government entities such as the Province and BC Hydro) have an interest in land occupied by transit infrastructure.

Early Planning for Affordable Housing

Integrated planning for transit and land use in transit-oriented areas should plan for affordable housing from the beginning. Because affordable rental housing cannot support land value, it is essential that plans for residential densification define early goals for the mix of market and affordable housing and early strategies for how affordable housing can be achieved. This requires signals not just about how much density is planned, but also the conditions under which additional density will be available, the anticipated mix of market rental, affordable rental, and strata housing, and the implementation plan for the affordable rental component. If these goals are defined early, the land market and the private sector development industry are more able to respond appropriately and the capacity for affordable rental housing can be created. This integrated planning should include early identification of lands owned by the public sector or by non-profits that could be good sites for additional density for affordable rental housing in transit-oriented locations.

This early planning should not only consider rapid transit station areas. Frequent transit corridors, where anticipated densities can be achieved in wood frame construction, enable lower cost affordable housing to be built.

Part 6: Conclusions and Recommendations

1. While efforts to maintain or replace existing affordable rental housing stock are an important element of a comprehensive regional affordable rental housing strategy, it is also essential to increase the total supply of rental units to meet future needs for rental accommodation targeted across the entire spectrum of very low, low, and moderate income households. Without increased supply, there will not be enough rental housing to meet projected household growth, there will continue to be very low vacancy, and there will continue to be upward pressure on rent.

2. For the foreseeable future, non-profit organizations and private developers will continue to provide a large share of total new rental housing construction in Metro Vancouver. There is not enough government funding being put into rental construction to meet the entire need for new market and affordable rental units. For private and non-profits to be able to add new rental supply, they must have access to development lands (or density) available at financially viable (i.e. low or no) cost.

3. Because of the high cost of land in this region, creative approaches are needed to make better use of existing lands that are controlled by the public or non-profit sectors. Possible approaches include:

    a. Tap lands that are controlled by non-profit entities not traditionally involved in housing, such as service clubs and religious organizations. These entities may have to consider multiple objectives for their lands (i.e. their core mandate plus housing) and in many cases they will need financial and technical assistance to take this step. There is great value in providing a one-stop source of assistance such as the Housing Hub operated by BC Housing, but for this resource to bring new lands into the housing market it will be necessary to reach out aggressively to land-owning entities (rather than wait for them to seek help), to provide technical assistance, and to provide funding in the early idea stage of possible projects.

    b. Use locally-owned public sector lands for multiple objectives, when housing is compatible. Schools with surplus land area, libraries, community centres, and recreation centres are examples in which an affordable housing component can complement the primary use.

    c. Find development opportunities on surplus lands associated with existing transit infrastructure. There are locations at transit stations and along transit guideways that have the physical capacity to accommodate development, although these will mostly require cooperation between several parties (TransLink, local government, the Province, and other owners such as BC Hydro in the case of the Expo Line as it owns much of the right of way).

    These approaches mean that the land owners must be willing to accept low or long term return on their land or to obtain less value than they would if these lands were made available for strata residential (where this would have been an option).

4. In the absence of a major increase in funding for public sector land acquisition, there is a need to explore creative ways to acquire more land (or capacity) for affordable housing. Opportunities include:

    a. Strategic land acquisition by local governments and by TransLink when land is being acquired for transit infrastructure. There will be opportunities to buy more than the minimum land required and then take advantage of land value gains to both generate revenue and make land available for affordable housing. This approach does not work if there is no lift in the value of land acquired for transit, but it the land is acquired early and if TransLink and/or local government benefit from the land

lift resulting from increased access and additional density, then there is potential to increase the total stock of housing, increase the stock of affordable housing, and generate revenue for transit infrastructure. This approach requires that capital funding be available for land acquisition and that the construction of transit infrastructure is integrated with urban development.

b. Strategic land acquisition by local government in areas that will undergo planning and redevelopment for increased density, whether or not new transit infrastructure is being constructed. This requires a mandate and budget for land acquisition and a mandate to include affordable housing in the redevelopment of such lands. This kind of strategic acquisition could include (for example) assembly of parcels adjacent to existing civic uses that will be redeveloped and expanded to meet community needs.

These strategies require land acquisition in the early stages of project design or neighbourhood planning. When plans are announced long before implementation, the private sector tends to acquire lands more aggressively than the public sector.

5. Making land (or more often density) available at no cost is a crucial element in achieving more rental housing, especially affordable rental. This means increasing allowable densities and, when the density is used for rental, not requiring CACs in most cases. Extra density for rental developments, for private or non-profit developers, provides the capacity for rental housing and it provides greater potential to combine a mix of market and affordable rentals, which is one way to make affordable rental units financially viable.

   In addition, because affordable rental is not financially viable on its own in most cases, there is a need for incentives. One of the best available incentives in this region is to make new residential strata density (and in some areas market rental density) available in exchange for affordable rental housing. This approach is already used extensively in Metro Vancouver; it is successful because it captures the land value of new strata density while creating the physical capacity to accommodate new rental construction.

   This use of density bonusing and rezonings to achieve affordable housing via increased density can be expanded if local governments adopt area plans to designate lands for redevelopment, reduce uncertainty, and accelerate approvals to reduce cost. The approvals tap must be opened much wider than it currently is in most communities in Metro Vancouver in order for new rental unit construction to keep pace with projected requirements based on growth in the number of households.

6. Residential rental tenure zoning on its own will not result in a significant amount of new rental housing construction, unless combined with sufficient increases in density to enable rental projects to outcompete existing uses for sites. However, there will be many cases where even large increases in density will not make rental only projects financially viable, either because the necessary density can only be achieved in concrete (which is too expensive) or because the necessary density is too high be to acceptable.

   Rental only zoning without incentives risks shifting sites from redevelopment candidates to holding property in current uses such as single detached homes or older low density commercial use.

   Residential rental tenure zoning can prevent or postpone the demolition of older rental stock, by eliminating strata development as a potential use, but this does not contribute to increased rental supply. Applying residential tenure zoning to private sites, without extra density or incentives, also creates market uncertainty, can reduce market interest in new rental construction, and can reduce investor interest in owning rental property. There may be limited instances in which rental only zoning can be effective when

applied to vacant land, to sites being transitioned from institutional use, or to sites with very low value in existing use, in order to prevent such sites from being developed as strata.

7. Because residential rental tenure zoning cannot dictate rent levels, any private sector rental built under rental tenure zoning is likely to be market rental in the absence of other controls. Under current legislation, the available mechanism to control the rents in private sector projects is the use of housing agreements under Section 483 of the Local Government Act. Such agreements can control rent and can define target markets (e.g. households in specific income groups) so these are more effective at ensuring affordable rental than rental zoning on its own. Housing agreements must be mutually acceptable to developers and local governments, so they are usually associated with incentives in the form of extra density.

8. Inclusionary housing requirements that specify rents or household income limits cannot currently be implemented by zoning alone in BC. Imposing such requirements, in the absence of incentives including additional density, would not help create new rental supply because the reduced net operating income from lower rents will create an even greater financial challenge for the construction of new rental projects. This is why many jurisdictions that have adopted inclusionary zoning have included concurrent increases in density to make development financially viable. In BC, the objective of including affordable housing can be more effectively achieved through the combination of density increases and the use of housing agreements, as these can require rental tenure, set rents, and define target rent groups.

9. The best available zoning approach for local governments in Metro Vancouver to facilitate an increase in the supply of rental housing has three integrated components: (a) create new density to accommodate affordable rental housing *plus* new density for strata (or in some cases market rental), (b) convert the value of the extra market density into affordable housing benefits (either affordable units or cash-in-lieu), and (c) use housing agreements to control rental tenure and rent rates. This approach cannot take the place of public sector subsidy for projects aimed entirely at low and very low income households, but it can allow private sector and non-profit developers to include some affordable rental housing in new developments.

10. Local governments can help increase the supply of rental housing by reducing approvals risk and reducing approvals times. One way to reduce approvals risk and timing is to rezone land in advance, when a comprehensive planning process has identified appropriate locations for higher density, rather than requiring that rezoning proceed site by site. This is how Seattle is implementing its combination of higher density and mandatory affordable housing requirements. There is a trade-off, though. Area-wide "prezoning" requires that the available extra density and the required public benefits (including affordable housing) be determined in advance for affected sites. This reduces risk and speeds up approvals, but it means that the total public benefits achieved will likely be less than if the benefits were negotiated site by site. So, another way to reduce risk and timing is to set clear policy (for density, public benefits, affordable housing), make it highly likely that rezoning applications consistent with policy will be approved, and accelerate the process.

11. While addressing the land availability challenge is crucial, government agencies should not ignore the importance of other ways to address the financial difficulty of providing new rental housing. Steps such as reducing construction cost (e.g. reduced DCCs, reduced parking), continuing to provide financing at below market rates, and providing technical assistance to non-profits are important.

12. Local governments can also help increase the supply of new rental housing by taking care in setting design and construction requirements for affordable housing, with an eye to the cost implications of these

requirements. Reduced construction cost reduces the breakeven rent that must be achieved in affordable rental projects.

13. Local governments should be willing to experiment and be flexible regarding how affordable units are delivered by the private sector. Providing affordable units on a development site is the typical approach now, but this works best when the site is large enough to accommodate the affordable units in a stand-alone building. Where the affordable housing obligation for a project is relatively small, local governments should consider the option of having the units provided off site or in the form of cash-in-lieu funds pooled to create public sector or non-profit projects. If the question is framed as "what delivers the most units" rather than starting with an assumption about ownership and location, new creative solutions can emerge.

14. There is broad consensus among private and non-profit housing developers that stand-alone, self-contained rental buildings (with all affordable rental or a mix of market and affordable rental under single ownership) work better than buildings that have mixed tenure (strata and rental) or mixed ownership (via air parcels). Where possible, local governments should look for ways that affordable housing requirements can be satisfied in single ownership rental buildings. This makes it easier and more efficient for property management, capital repairs, financing, and very long term decisions about redevelopment.

15. Goals for transit-oriented affordable rental should not focus only on rapid transit stations. These areas are generally planned for densities that require concrete construction, which is expensive. Frequent transit corridors, with good bus service and where the appropriate density can be achieved in wood frame construction, or the shoulder areas around rapid transit nodes can deliver more units for a given investment. Integrated planning for transit and affordable housing should include all transit-oriented nodes and corridors.

16. Integrated planning for transit and land use in transit-oriented areas should plan for affordable housing from the beginning. Because affordable rental housing cannot support land value, it is essential that plans for residential densification define early goals for the mix of market and affordable housing and early strategies for how affordable housing can be achieved. This requires signals not just about how much density is planned, but also the conditions under which additional density will be available, the anticipated mix of market rental, affordable rental, and strata housing, and the implementation plan for the affordable rental component. If these goals are defined early, the land market and the private sector development industry are more able to respond appropriately and the capacity for affordable rental housing can be created. This integrated planning should include early identification of lands owned by the public sector or by non-profits that could be good sites for additional density for affordable rental housing.

Appendix 1: Average Apartment Rents in Metro Vancouver, 2018

Vancouver — Rental Market Statistics Summary by Census Subdivision

October 2018 Apartment 1 Bedroom

	Vacancy Rate (%)		Average Rent ($) lowest to highest		Median Rent ($)		% Change		Units
Maple Ridge (CY)	1	a	878	a	874	a	7.7	c	776
Delta (DM)	1.3	a	931	a	918	a	6.3	a	853
Surrey (CY)	0.4	a	978	a	960	a	5.4	c	2,648
Langley (CY)	1.6	a	1,017	a	939	a	9	b	939
White Rock (CY)	0.9	a	1,019	a	960	a	**		939
Port Moody (CY)	**		1,020	a	985	a	++		140
Coquitlam (CY)	1.2	a	1,096	a	1,075	a	11.1	c	1,815
New Westminster (CY)	1.6	a	1,109	a	1,057	a	8.3	b	5,478
Port Coquitlam (CY)	1	a	1,140	a	1,055	b	5.5	c	323
Burnaby (CY)	2.2	a	1,149	a	1,100	a	5.5	b	7,446
Pitt Meadows (CY)	0.8	a	1,174	a	1,200	a	**		136
Langley (DM)	1.5	a	1,175	a	1,258	b	++		201
Richmond (CY)	1	a	1,213	a	1,150	a	4.5	a	1,429
Vancouver	1.1	a	1,307	a	1,250	a	6.4	a	67,989
North Vancouver (CY)	1	a	1,333	a	1,298	a	7.3	c	3,660
Vancouver (CY)	0.8	a	1,411	a	1,389	a	6.2	a	38,795
North Vancouver (DM)	0.9	a	1,452	a	1,460	a	6	b	360
West Vancouver (DM)	0.4	a	1,620	a	1,610	a	4.2	c	1,303
Greater Vancouver A (RDA	0.3	a	1,749	a	1,741	a	4.9	c	748

Notes

The following letter codes are used to indicate the reliability of the estimates: a - Excellent, b- Very good, c - Good, d - Fair (Use with Caution)

** Data suppressed to protect confidentiality or data not statistically reliable

++ Change in rent is not statistically significant. This means that the change in rent is not statistically different than zero (0). (Applies only to % Change of Average Rent Tables).

- No units exist in the universe for this category

n/a: Not applicable

CMA, CA and CSD definitions are based on 2016 Census Geography Definitions

Source CMHC Rental Market Survey

Vancouver — Rental Market Statistics Summary by Census Subdivision

October 2018 Apartment 2 Bedroom

	Vacancy Rate (%)		Average Rent ($) lowest to highest		Median Rent ($)		% Change		Units
Maple Ridge (CY)	2.9	a	1,120	a	1,125	a	9.2	c	461
Surrey (CY)	0.5	a	1,151	a	1,090	a	4.2	c	2,485
Delta (DM)	1.4	a	1,185	a	1,210	a	4	b	767
Port Moody (CY)	**		1,266	b	1,304	b	**		95
Pitt Meadows (CY)	0.8	a	1,270	a	1,250	a	3.2	c	134
White Rock (CY)	1.6	c	1,280	a	1,209	a	8.6	c	375
Coquitlam (CY)	0.9	a	1,290	a	1,276	a	7.7	b	1,062
Langley (CY)	1.2	a	1,330	a	1,250	a	9.8	c	1,008
Burnaby (CY)	1.5	a	1,466	a	1,400	a	4.6	b	3,283
Richmond (CY)	0.3	a	1,466	a	1,409	a	8.5	a	1,191
Port Coquitlam (CY)	3.1	c	1,472	b	1,288	c	9.5	c	307
New Westminster (CY)	1.1	a	1,476	a	1,413	a	7.5	b	2,243
North Vancouver (CY)	0.6	a	1,648	a	1,575	a	5.5	d	1,853
Vancouver	0.9	a	1,649	a	1,505	a	5.5	a	26,751
Langley (DM)	2.6	a	1,658	a	1,753	a	**		190
North Vancouver (DM)	3.2	a	1,833	a	1,750	a	6.2	a	391
Vancouver (CY)	0.7	a	1,964	a	1,875	a	5.3	b	9,622
Greater Vancouver A (RDA	0.2	a	2,259	a	2,350	b	4.7	c	590
West Vancouver (DM)	1.1	a	2,408	a	2,350	a	-1.9	c	694

Notes

The following letter codes are used to indicate the reliability of the estimates: a - Excellent, b- Very good, c - Good, d - Fair (Use with Caution)

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- No units exist in the universe for this category

n/a: Not applicable

CMA, CA and CSD definitions are based on 2016 Census Geography Definitions

Source CMHC Rental Market Survey

Appendix 2: Calculations of Break Even Rent for New Apartments Under Different Scenarios for Private Vs Non-Profit, Financing Structure Type

Metro Vancouver - Break Even Rent Calculations

Assumptions:

Unit Size:	Net-to-Gross Ratio	SqFt/ 1BR Unit	SqFt/ 2BR Unit
Net SqFt per unit	85%	575	750
Gross SqFt per unit		676	882
Capital Cost Components:			
Construction Cost	**$/Gross SqFt**	**$/1BR Unit**	**$/2BR Unit**
Concrete - all in construction cost	$ 500	$ 338,000	$ 441,000
Wood Frame - all in construction cost	$ 420	$ 283,920	$ 370,440
Land Cost	**$/SqFt**	**$/1BR Unit**	**$/2BR Unit**
No Land Cost	$ -	$ -	$ -
Land - low	$ 50	$ 33,800	$ 44,100
Land - Med	$ 125	$ 84,500	$ 110,250
Land - High	$ 200	$ 135,200	$ 176,400
PRIVATE Developer's Profit	**% of Const Cost + Land**	**$/1Br Unit**	**$/2Br Unit**
Concrete - No Land Cost	15%	$ 50,700	$ 66,150
Concrete - Low Land	15%	$ 55,770	$ 72,765
Concrete - Med Land	15%	$ 63,375	$ 82,688
Concrete - High Land	15%	$ 70,980	$ 92,610
Wood Frame - No Land Cost	15%	$ 42,588	$ 55,566
Wood Frame - Low Land	15%	$ 47,658	$ 62,181
Wood Frame - Med Land	15%	$ 55,263	$ 72,104
Wood Frame - High Land	15%	$ 62,868	$ 82,026
NON-PROFIT Developer's Fee	**% of Const Cost + Land**	**$/1Br Unit**	**$/2Br Unit**
Concrete - No Land Cost	5%	$ 16,900	$ 22,050
Concrete - Low Land	5%	$ 18,590	$ 24,255
Concrete - Med Land	5%	$ 21,125	$ 27,563
Concrete - High Land	5%	$ 23,660	$ 30,870
Wood Frame - No Land Cost	5%	$ 14,196	$ 18,522
Wood Frame - Low Land	5%	$ 15,886	$ 20,727
Wood Frame - Med Land	5%	$ 18,421	$ 24,035
Wood Frame - High Land	5%	$ 20,956	$ 27,342
Total Capital Cost Scenarios:			
A. PRIVATE Developer			
Cost = Construction + Land + Dev Profit		**$/1Br Unit**	**$/2Br Unit**
Concrete - No Land Cost		$ 388,700	$ 507,150
Concrete - Low		$ 427,570	$ 557,865
Concrete - Med		$ 485,875	$ 633,938
Concrete - High		$ 544,180	$ 710,010
Wood Frame - No Land Cost		$ 326,508	$ 426,006
Wood Frame - Low		$ 365,378	$ 476,721
Wood Frame - Med		$ 423,683	$ 552,794
Wood Frame - High		$ 481,988	$ 628,866
B. NON-PROFIT Developer			
Cost = Construction + Land + Dev Fee		**$/1Br Unit**	**$/2Br Unit**
Concrete - No Land Cost		$ 354,900	$ 463,050
Concrete - Low		$ 390,390	$ 509,355
Concrete - Med		$ 443,625	$ 578,813
Concrete - High		$ 496,860	$ 648,270
Wood Frame - No Land Cost		$ 298,116	$ 388,962
Wood Frame - Low		$ 333,606	$ 435,267
Wood Frame - Med		$ 386,841	$ 504,725
Wood Frame - High		$ 440,076	$ 574,182
Annual Operating Cost:		**$/1Br Unit**	**$/2Br Unit**
Cost/year/unit		$ 4,800	$ 6,200
Cost/month/unit		-$ 400.00	-$ 516.67

Financing Terms:	PRIVATE Developer's Financing	NON-PROFIT Developer's Financing
Interest Rate		
Nominal rate (%/year semi annual compounding)	4.0%	3.0%
Effective rate per compounding period	2.0%	1.5%
Equivalent Monthly rate	0.3305890%	0.2484517%
Amortization Period		
# Years	35	50
# Months	420	600
Principal (as % of Cost)	75%	100%
Monthly Payment Factor (for Principal = $1)	-$0.0044080	-$0.0032084
Equity (as % of Cost)	25%	0%
Required Return on Equity		
% Return per year, annual compounding	7.0%	0.0%
% Return per month (equivalent to annual rate)	0.5654145%	0.0000000%

Monthly Financing Costs:

Mortgage Payment	Monthly Pmt PRIVATE Developer		Monthly Pmt NON-PROFIT Developer	
Principal = % X (Const Cost+Land+Dev Profit or Fee	**$/1Br Unit**	**$/2Br Unit**	**$/1Br Unit**	**$/2Br Unit**
Concrete - No Land Cost	-$ 1,285	-$ 1,677	-$ 1,139	-$ 1,486
Concrete - Low Land	-$ 1,414	-$ 1,844	-$ 1,253	-$ 1,634
Concrete - Med Land	-$ 1,606	-$ 2,096	-$ 1,423	-$ 1,857
Concrete - High Land	-$ 1,799	-$ 2,347	-$ 1,594	-$ 2,080
Wood Frame - No Land Cost	-$ 1,079	-$ 1,408	-$ 956	-$ 1,248
Wood Frame - Low Land	-$ 1,208	-$ 1,576	-$ 1,070	-$ 1,397
Wood Frame - Med Land	-$ 1,401	-$ 1,828	-$ 1,241	-$ 1,619
Wood Frame - High Land	-$ 1,593	-$ 2,079	-$ 1,412	-$ 1,842

Return On Equity	Required Monthly ROE, PRIVATE Developer		Required Monthly ROE, NON-PROFIT Developer	
Cost = % Required Return X Equity	**$/1Br Unit**	**$/2Br Unit**	**$/1Br Unit**	**$/2Br Unit**
Concrete - No Land Cost	-$ 549	-$ 717	$ -	$ -
Concrete - Low Land	-$ 604	-$ 789	$ -	$ -
Concrete - Med Land	-$ 687	-$ 896	$ -	$ -
Concrete - High Land	-$ 769	-$ 1,004	$ -	$ -
Wood Frame - No Land Cost	-$ 462	-$ 602	$ -	$ -
Wood Frame - Low Land	-$ 516	-$ 674	$ -	$ -
Wood Frame - Med Land	-$ 599	-$ 781	$ -	$ -
Wood Frame - High Land	-$ 681	-$ 889	$ -	$ -

Break Even Rents*

*Break Even is defined as Rent needed to cover Operating Costs, and Mortgage payment (P+I) and Return on Equity (interest only) required to finance Capital Costs**

**Capital Costs = Construction Cost + Land + Developer's Profit or Fee. Land Cost is sometimes set to zero.

Capital Cost Scenario:	Break Even Rent with PRIVATE Developer		Break Even Rent with NON-PROFIT	
	Private 1BR	**Private 2BR**	**Non-Profit 1BR**	**Non-Profit 2Br**
Concrete - No Land	$ 2,234	$ 2,910	$ 1,539	$ 2,002
Concrete - Low Land	$ 2,418	$ 3,150	$ 1,653	$ 2,151
Concrete - Med Land	$ 2,693	$ 3,509	$ 1,823	$ 2,374
Concrete - High Land	$ 2,968	$ 3,868	$ 1,994	$ 2,597
Frame - No Land	$ 1,941	$ 2,527	$ 1,356	$ 1,765
Frame - Low Land	$ 2,124	$ 2,767	$ 1,470	$ 1,913
Frame - Med Land	$ 2,400	$ 3,126	$ 1,641	$ 2,136
Frame - High Land	$ 2,675	$ 3,485	$ 1,812	$ 2,359

Appendix 3: Explanation of Cap Rates and Implications for New Private Sector Rental Construction

A Cap rate is a simple but common measure used to relate the annual income from a property to the value an investor would be willing to pay for the property, using the formula Cap Rate = Net Operating Income/ Value. This can be algebraically revised to the form Value = Net Operating Income/Rate, so that if one knows the net operating income from an asset and applies a target cap rate, one can estimate the value of the asset. If a rental apartment building generates annual net operating income of $1,000,000 and the investor applies a cap rate of say 3.75%, the value of the asset would be about $26.7 million. However, if the investor applies a cap rate of 4%, the most the investor would pay for this asset is $25.0 million. This is crucial to the viability of new projects because the all-in cost (land, construction cost, profit) must be equal to or less than this value for the project to proceed. If the creation cost of a possible new apartment building will be $30 million, but the rental income only supports a value to an investor of $28 million, this project is not viable.

It is important to understand that the cap rate is a simple indicator that is not usually equal to the true rate of return that an investor expects to earn over the life of an investment. Return on an income-producing property usually has three components: the return derived from the continuation of current income, the return derived from growth in income (on the basis that rents will rise faster than operating costs), and the return derived from selling the asset for more than the original purchase price (which happens if the income goes up). The combined total return on investment (using IRR, or Internal Rate of Return) is usually about 2% to 3% higher than the cap rate. So, if prevailing cap rates are 4%, then it is likely that investors are expecting the project to yield 6% to 7% IRR. The cap rate only reflects the part of the return that comes from continuation of current income. If the potential for future income growth becomes lower for any reason, then the portion of total return that comes from current income must increase (i.e. cap rates go up). So, why would cap rates increase for rental apartment buildings? There are several possible reasons. One possibility is rising interest rates. If mortgage rates increase, then a given net operating income supports less borrowing which tends to put downward pressure on the amount investors are willing to pay for an asset. Also, rising interest rates can mean investors can earn a greater return on investments with less risk than real estate, so real estate prices must fall to match the performance. Another possibility, and it should be a crucial consideration in government regulation of rental housing, is that investors see a risk of reduced future income due to rent control. If growth in rents is constrained, then a higher proportion of total return must come from continuation of current income, so cap rates rise. If cap rates rise, then the value of assets falls, so it becomes harder to deliver a new project within this lower ceiling on total creation cost.

Appendix 4: Metro Vancouver Local Government Measures to Encourage or Facilitate Rental Housing

The table on the following page summarizes local government measures in Metro Vancouver to encourage and support purpose-built rental housing. A check mark indicates that the local government currently has zoning or policy documents in place (or draft bylaws) to implement the indicated measure for market rental housing, below-market rental housing, and/or non-market rental housing. If a municipality's OCP, housing strategy, or housing action plan calls for exploring the potential to implement one of the tools, but detailed policy or bylaw amendments have not yet been drafted or adopted, we have left the cell blank.

This table was compiled using information from Metro Vancouver's "2018 Municipal Measures for Housing Affordability and Diversity" table supplemented with internet research, anecdotal observations as of mid-January 2019, and discussions with staff at some municipalities. Direct contact with each municipality was not within the scope of our work.

Readers interested in understanding a given municipality's specific measures to encourage and support rental housing should contact municipal staff directly. Municipal policies and regulations to support rental housing in the region are changing quickly, so the measures being used by individual municipalities are fluid and subject to change.

Local Government Measures to Encourage or Facilitate Rental Housing

	Burnaby	Coquitlam	Delta	City of Langley	Township of Langley	Maple Ridge	New Westminster	North Vancouver City	North Vancouver District	Pitt Meadows	Port Coquitlam	Port Moody	Richmond	Surrey	Vancouver	West Vancouver	White Rock
Allow secondary suites, laneway houses, and/or coach houses	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Rental unit retention/replacement policies[a]	✓	✓		✓		✓	✓	✓	✓			✓	✓	✓	✓	✓	✓
Density increases linked to rental housing requirements (either via density bonusing or case-by-case negotiations as part of rezonings)[b]	✓	✓			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓
Construction cost reductions: • Reduced parking requirements[c]	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
• Reduced municipal DCCs[d]	✓	✓						✓			✓	✓		✓	✓	✓	
• Other cost reductions (e.g. permit fees)[d]	✓	✓									✓	✓					
Approvals process assistance	✓	✓	✓		✓	✓	✓	✓			✓	✓	✓	✓	✓		
Rental only zoning[e]	✓						✓										
Offer municipal lands at less than market value	✓								✓		✓	✓		✓	✓	✓	
Direct investment in new rental housing															✓		

Notes:

a. Rental unit retention/replacement policies vary throughout the region and include restrictions on stratifying existing rental projects, demolition policies to restrict the loss of existing rental units, and/or requiring one-for-one replacement of demolished rental units (in some cases with requirements to provide the same number of units by type or by size and with rent limitations).

b. Some municipalities offer additional density that is linked to providing below-market rental units in market rental housing projects (e.g. North Vancouver City), requiring market or below-market rental housing in strata residential projects (e.g. draft policy in New Westminster, existing policy in Richmond, case-by-case rezonings in the District of North Vancouver and in West Vancouver), and requiring non-market housing in strata residential projects as part of rezoning approvals (e.g. Vancouver).

c. This includes parking reductions available to projects (rental and strata) near transit, parking reductions set out in policies specifically to support rental housing projects, and case-by-case reductions of parking requirement reductions for rental housing projects.

d. This includes direct waivers or reductions of DCCs (or DCLs in Vancouver) as well as indirect measures such as providing grants that can be used to off-set municipal DCCs and/or permit fees.

e. rental zoning is a relatively new tool. Burnaby adopted zoning bylaw amendments in fall 2018 to allow rental 'r' sub-districts to be applied to existing districts that permit two or more dwelling units. Burnaby is currently developing an implementation strategy for the rental zoning and anticipates applying the rental zoning in pilot projects in the near future. New Westminster adopted a bylaw in late January 2019 that will apply a new rental residential tenure zoning authority to existing rental housing stock including 6 stratified rental buildings and 12 City-owned properties. Port Moody was considering applying rental zoning to 4 existing rental projects, but we understand this is currently being re-considered so we have not included it.

Appendix 5, 6, and 7: Financial Analysis for Case Study Sites

Appendix 5 – Burnaby Exhibit 1:

Estimated Income Value Assuming Property is Improved with Old Low Density Commercial Buildings

Assume C-3 site located along Kingsway

Major Assumptions

Site and Building Size

Existing Zoning	C-3				
Site Size	55,000	sq.ft. or	215	by	256
Assumed Density	0.40	FSR			
Retail	22,000	sq.ft.	100 %	rentable	

Revenue and Value

Average Lease Rate for Retail Space	$25.00	per sq.ft. net, base building
Capitalization Rate	4.75%	
Value of Retail and Service Space Upon Lease-up	$526	per sq.ft. of leasable area
Vacancy and non recoverables	0%	

Estimated Overall Value

Capitalized Value of Retail/Service Space	$11,578,947
Total Value of Commercial	**$11,578,947**

Appendix 5 – Burnaby Exhibit 2:

Estimated Income Value of Property if Improved with an Older Low Density Rental Building

Rental Apartment Value	
Site Size (SF)	55,000
Assumed FSR	0.9
Total Floor Area (SF)	49,500
Average Gross Unit Size (SF)	800
Number of Units	62
Market Value Per Unit[1]	$275,000
Value of Rental	**$17,050,000**

[1]Based on recent market transactions.

Appendix 5 – Burnaby Exhibit 3:

Land Residual Estimate for Wood Frame Strata Development
Assume 1.5 FSR achieved under RM3s
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size

Gross Parcel Size	55,000	sq.ft.	1.26 acre
Dedications	0	sq.ft.	
Site Size	55,000	sq.ft. or	
Site Frontage	620	ft	
Base Density	1.1	FSR	
Bonus Density	0.4	FSR	
Total Density	1.5	FSR	
Total Gross floorspace	82,500	sq.ft.	
Gross residential floorspace	82,500	sq.ft.	
Gross commercial floorspace	0	sq.ft.	

Concept	Gross SF	Efficiency	Net Saleable or Rentable	Avg Unit Size	Number of Units	Parking Stalls per Unit or 1000 sf	Parking Stalls	Share of Units
Strata Residential	82,500	85%	70,125	725	97	1.1	107	100%
Rental 1	0	85%	0	573	0	1.1	0	0%
Rental 2	0	85%	0	565	0	0.6	0	0%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	0	100%	0	n/a	n/a	2.0	0	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	82,500		70,125		97		107	100%

Revenue/Value

Strata Residential	$850	per net square foot
Rental 1	$0	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$0	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs

Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$500,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$945,122	$5,000	per lineal metre of frontage
Density Bonus Contribution	$176	psf of bonus density	
Rezoning Costs	$500,000		

Appendix 5 – Burnaby Exhibit 3 Continued:

Construction Costs						
Hard Construction Costs						
Market Strata Residential Area	$205	per gross sq.ft. of residential area				
Rental 1 Residential Area	$0	per gross sq.ft. of rental residential area				
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area				
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area				
Retail Area (shell space - no TI)	$0	per gross sq.ft. of retail area				
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area				
Cost Per Garage/Underground Parking Stall	$50,000	per underground/structured parking stall				
Overall Costs Per Square Foot	$270	per gross sq.ft.				
Sustainability Premium	0%					
Total Estimated Cost per Square Foot	$270					
Hard Cost Used in Analysis	$270					
Site Landscaping	$550,000	or	$20	psf of site area on 50% of site		
Electrical Charging Station	$97,000		97	stations	$1,000	per station
Other	$0					
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs				
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs				
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	5.0%	of hard, soft and management costs				
Car Share	$0					
Government Levies						
GVS & DD Sewer Levy - Strata Apartment	$1,072	per apartment unit				
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit				
GVS & DD Sewer Levy - Rental Residential	$1,072	per unit				
GVS & DD Sewer Levy - Commercial	$0.93	per sq.ft. of commercial space				
TransLink - Strata Apartment Residential	$1,200	per market unit				
TransLink - Townhouse	$0	per market unit				
TransLink - Rental Residential	$1,200	per unit				
TransLink - Commercial	$1.25	per sq.ft. of commercial space				
Market Strata Apartment DCCs	$0.00	per sq.ft. of floorspace				
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace				
Rental 1 Residential DCCs	$0.00	per sq.ft. of floorspace				
Rental 2 Residential DCCs	$0.00	per sq.ft. of floorspace				
Rental 3 Residential DCCs	$0.00	per sq.ft. of floorspace				
Retail DCCs	$0.306	per sq.ft. of floorspace				
Office DCCs	$0.00	per sq.ft. of floorspace				
School Site Acquisition Charge	$600	per unit				
Financing						
Interim financing	5.0%	assuming a	1.75	year construction period		
Financing charged on	50%	of land and	75%	of construction costs		
Financing fees	1.5%					
Commissions and Marketing						
Commissions on Strata Residential	3.0%	of gross strata market residential revenue				
Marketing on Strata Residential	3.0%	of gross strata market residential revenue				
Commissions on Sale of Commercial	2.0%	of gross commercial value				
Commission on Sale of Rental Units	2.0%	of value				
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit				
Initial Lease Up Costs on Rental 2 Units	$3,000	per unit				
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit				
Leasing Commissions on Commercial Space	$5.00	per sq.ft.				
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.				
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.				
Other Costs and Allowances						
Net GST on Market and Below Market Rental Units	5.00%	of capitalized value of rental units				
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)				
Property Taxes	0.284%	of assessed value				
Assumed current assessment (Year 1 of analysis)	$10,500,000					
Assumed assessment after 1 year of construction (Year 2 of analysis	$29,803,125	(50% of completed project value)				
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value		
School Tax Surcharge During Development*						
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million		
Residential Portion of current assessment (Year 1 of analysis)	$10,500,000					
Assumed residential portion of assessment after 1 year of constructio	$29,803,125	(50% of completed residential project value)				

*Assumes BC Owner

Appendix 5 – Burnaby Exhibit 3 Continued:

Analysis

Revenue	
Strata Sales Revenue	$59,606,250
Rental 1 Value	$0
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$0
Gross Office Value	$0
Total Gross Value	$59,606,250
Less Commissions on Strata	$1,788,188
Less Commissions on Rental	$0
Less Commissions on Commercial	$0
Net Sales Revenue/Value	$57,818,063
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$500,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$945,122
Electrical Charging Station	$97,000
Density Bonus Contribution	$3,875,728
Rezoning Costs	$500,000
Hard Construction Costs	$22,262,500
Site Landscaping	$550,000
Electrical Charging Station	$97,000
Other	$0
Soft costs and Professional Fees	$2,407,825
Development management	$922,055
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$1,607,862
Car Share	$0
Marketing on Strata Units	$1,788,188
Initial Lease Up Costs on Rental 1 Units	$0
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$0
Tenant Improvement Allowance on Retail Space	$0
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$103,984
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$0
GVS & DD Sewer Levy - Commercial	$0
TransLink - Strata Apartment Residential	$116,400
TransLink - Townhouse	$0
TransLink - Rental Residential	$0
TransLink - Commercial	$0
Market Strata Apartment DCCs	$0
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$0
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$0
Office DCCs	$0
School Site Acquisition Charge	$58,200
Less property tax allowance during approvals/development	$108,192
Less School Tax Surcharge During Development	$120,909
Interim financing on construction costs	$1,179,283
Financing fees/costs	$418,953
Less Net GST (assuming builder holds units)	$0
Total Project Costs Before Land	$37,659,200
Developer's Profit	**$7,772,655**
Residual to Land and Land Carry	**$12,386,207**
Less financing on land during construction and approvals	$620,085
Less financing fee on land loan	$79,421
Less property closing costs	$480,618
Residual Land Value	**$11,206,083**
Residual Value per sq.ft. of site	**$204**
Residual Value per sq.ft. of FSR	**$136**
Residual Value per sq.ft. of gross buildable floorspace	**$136**

Appendix 5 – Burnaby Exhibit 4:

Land Residual Estimate for Wood Frame Rental Development
Assume 1.5 FSR achieved under RM3s
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size			
Gross Parcel Size	55,000	sq.ft.	1.26 acre
Dedications	0	sq.ft.	
Site Size	55,000	sq.ft. or	
Site Frontage	620	ft	
Base Density	1.1	FSR	
Bonus Density	0.4	FSR	
Total Density	1.5	FSR	
Total Gross floorspace	82,500	sq.ft.	
Gross residential floorspace	82,500	sq.ft.	
Gross commercial floorspace	0	sq.ft.	

Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1000 sf**	**Parking Stalls**	Share of Units
Strata Residential	0	85%	0	650	0	1.1	0	0%
Rental 1	82,500	85%	70,125	589	119	1.1	131	100%
Rental 2	0	85%	0	565	0	0.6	0	0%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	0	100%	0	n/a	n/a	2.0	0	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	82,500		70,125		119		131	100%

Revenue/Value		
Strata Residential	$0	per net square foot
Rental 1	$763	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$0	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs			
Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$500,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$945,122	$5,000	per lineal metre of frontage
Density Bonus Contribution	$0	psf of bonus density	
Rezoning Costs	$500,000		

Appendix 5 – Burnaby Exhibit 4 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$0	per gross sq.ft. of residential area			
Rental 1 Residential Area	$195	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$0	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$50,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$274	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$274				
Hard Cost Used in Analysis	$274				
Site Landscaping	$550,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$119,000		119	stations	$1,000 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$1,072	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$1,072	per unit			
GVS & DD Sewer Levy - Commercial	$0.93	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$0.00	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$0.00	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$0.00	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$0.00	per sq.ft. of floorspace			
Retail DCCs	$0.306	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	1.75	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$3,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	5.00%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.284%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$10,500,000				
Assumed assessment after 1 year of construction (Year 2 of analysis	$26,737,091	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$10,500,000				
Assumed residential portion of assessment after 1 year of constructio	$26,737,091	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 5 – Burnaby Exhibit 4 Continued:

Analysis

Revenue	
Strata Sales Revenue	$0
Rental 1 Value	$53,474,181
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$0
Gross Office Value	$0
Total Gross Value	$53,474,181
Less Commissions on Strata	$0
Less Commissions on Rental	$1,069,484
Less Commissions on Commercial	$0
Net Sales Revenue/Value	$52,404,698
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$500,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$945,122
Electrical Charging Station	$119,000
Density Bonus Contribution	$0
Rezoning Costs	$500,000
Hard Construction Costs	$22,637,500
Site Landscaping	$550,000
Electrical Charging Station	$119,000
Other	$0
Soft costs and Professional Fees	$2,114,003
Development management	$809,539
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$1,414,708
Car Share	$0
Marketing on Strata Units	$0
Initial Lease Up Costs on Rental 1 Units	$357,000
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$0
Tenant Improvement Allowance on Retail Space	$0
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$0
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$127,568
GVS & DD Sewer Levy - Commercial	$0
TransLink - Strata Apartment Residential	$0
TransLink - Townhouse	$0
TransLink - Rental Residential	$142,800
TransLink - Commercial	$0
Market Strata Apartment DCCs	$0
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$0
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$0
Office DCCs	$0
School Site Acquisition Charge	$71,400
Less property tax allowance during approvals/development	$101,662
Less School Tax Surcharge During Development	$111,711
Interim financing on construction costs	$1,001,086
Financing fees/costs	$355,749
Less Net GST (assuming builder holds units)	$2,673,709
Total Project Costs Before Land	$34,651,557
Developer's Profit	**$6,973,033**
Residual to Land and Land Carry	**$10,780,107**
Less financing on land during construction and approvals	$539,679
Less financing fee on land loan	$69,123
Less property closing costs	$408,637
Residual Land Value	**$9,762,668**
Residual Value per sq.ft. of site	**$178**
Residual Value per sq.ft. of FSR	**$118**
Residual Value per sq.ft. of gross buildable floorspace	**$118**

Appendix 5 – Burnaby Exhibit 4 Continued:

Rental 1 Value

Assumptions			Market	Rent
Unit Type	**# Units**		**Size**	**rent/month**
Studios	26	22%	450	$ 1,500
1-Bedroom	57	48%	550	$ 1,700
2-Bedroom	36	30%	750	$ 2,400
3-Bedroom	0	0%	0	$ -
Total	119	100%		
Average			589	$ 1,868
				$ 3.17
Annual Revenue				
Studios				$ 468,000
1-Bedroom				$ 1,162,800
2-Bedroom				$ 1,036,800
3-Bedroom				$ -
TOTAL				$ 2,667,600

Rental 1 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$3.17	psf per month or	
	$1,868	per unit per month	
Monthly Parking Revenue	$100	per month	
Monthly Storage Revenue	$40	per month on	50% of units
Vacancy and Non Recoverable Allowance	1.00%		
Operating costs for New Rental Units	$4,450	per unit per year	
Property Tax Allowance			
Residential Assessment (upon completion of new building)	$55,048,125	(see capitalized value below)	
Residential Tax Rate	0.284%		
Residential Property Taxes	$156,309		
Capitalization Rate for Rental Apartment Space	4.00%		

Capitalized Value

Rental Revenue	$2,667,600
Storage	$28,560
Parking	$157,200
Total	$2,853,360
Vacancy	$28,534
Net	$2,824,826
Op Costs	$529,550
Taxes	$156,309
NOI	$2,138,967
Capitalized Value	$53,474,181
psf of rentable space	$763

Appendix 5 – Burnaby Exhibit 5:

Land Residual Estimate for Concrete Strata Mixed-Use Development
Assume 5.3 FSR achieved under RM5s (5.0 FSR Residential with 0.3 FSR Commercial)
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size			
Gross Parcel Size	55,000	sq.ft.	1.26 acre
Dedications	0	sq.ft.	
Site Size	55,000	sq.ft. or	
Site Frontage	620	ft	
Base Density	3.7	FSR	
Bonus Density	1.6	FSR	
Total Density	5.3	FSR	
Total Gross floorspace	291,500	sq.ft.	
Gross residential floorspace	275,000	sq.ft.	
Gross commercial floorspace	16,500	sq.ft.	

Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1000 sf**	**Parking Stalls**	Share of Units
Strata Residential	275,000	85%	233,750	725	322	1.1	354	100%
Rental 1	0	85%	0	573	0	1.1	0	0%
Rental 2	0	85%	0	565	0	0.6	0	0%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	16,500	100%	16,500	n/a	n/a	2.0	33	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	291,500		250,250		322		387	100%

Revenue/Value		
Strata Residential	$1,150	per net square foot
Rental 1	$0	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$825	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs			
Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$500,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$945,122	$5,000	per lineal metre of frontage
Density Bonus Contribution	$253	psf of bonus density	
Rezoning Costs	$500,000		

Appendix 5 – Burnaby Exhibit 5 Continued:

Construction Costs						
Hard Construction Costs						
Market Strata Residential Area	$310	per gross sq.ft. of residential area				
Rental 1 Residential Area	$0	per gross sq.ft. of rental residential area				
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area				
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area				
Retail Area (shell space - no TI)	$250	per gross sq.ft. of retail area				
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area				
Cost Per Garage/Underground Parking Stall	$55,000	per underground/structured parking stall				
Overall Costs Per Square Foot	$380	per gross sq.ft.				
Sustainability Premium	0%					
Total Estimated Cost per Square Foot	$380					
Hard Cost Used in Analysis	$380					
Site Landscaping	$550,000	or	$20	psf of site area on 50% of site		
Electrical Charging Station	$322,000		322	stations	$1,000	per station
Other	$0					
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs				
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs				
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	5.0%	of hard, soft and management costs				
Car Share	$0					
Government Levies						
GVS & DD Sewer Levy - Strata Apartment	$1,072	per apartment unit				
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit				
GVS & DD Sewer Levy - Rental Residential	$1,072	per unit				
GVS & DD Sewer Levy - Commercial	$0.93	per sq.ft. of commercial space				
TransLink - Strata Apartment Residential	$1,200	per market unit				
TransLink - Townhouse	$0	per market unit				
TransLink - Rental Residential	$1,200	per unit				
TransLink - Commercial	$1.25	per sq.ft. of commercial space				
Market Strata Apartment DCCs	$0.00	per sq.ft. of floorspace				
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace				
Rental 1 Residential DCCs	$0.00	per sq.ft. of floorspace				
Rental 2 Residential DCCs	$0.00	per sq.ft. of floorspace				
Rental 3 Residential DCCs	$0.00	per sq.ft. of floorspace				
Retail DCCs	$0.306	per sq.ft. of floorspace				
Office DCCs	$0.00	per sq.ft. of floorspace				
School Site Acquisition Charge	$600	per unit				
Financing						
Interim financing	5.0%	assuming a	2.50	year construction period		
Financing charged on	50%	of land and	75%	of construction costs		
Financing fees	1.5%					
Commissions and Marketing						
Commissions on Strata Residential	3.0%	of gross strata market residential revenue				
Marketing on Strata Residential	3.0%	of gross strata market residential revenue				
Commissions on Sale of Commercial	2.0%	of gross commercial value				
Commission on Sale of Rental Units	2.0%	of value				
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit				
Initial Lease Up Costs on Rental 2 Units	$3,000	per unit				
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit				
Leasing Commissions on Commercial Space	$5.00	per sq.ft.				
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.				
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.				
Other Costs and Allowances						
Net GST on Market and Below Market Rental Units	5.00%	of capitalized value of rental units				
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)				
Property Taxes	0.284%	of assessed value				
Assumed current assessment (Year 1 of analysis)	$45,000,000					
Assumed assessment after 1 year of construction (Year 2 of analysis)	$141,214,671	(50% of completed project value)				
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value		
School Tax Surcharge During Development*						
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million		
Residential Portion of current assessment (Year 1 of analysis)	$45,000,000					
Assumed residential portion of assessment after 1 year of constructio	$134,406,250	(50% of completed residential project value)				

*Assumes BC Owner

Appendix 5 – Burnaby Exhibit 5 Continued:

Analysis

Revenue	
Strata Sales Revenue	$268,812,500
Rental 1 Value	$0
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$13,616,842
Gross Office Value	$0
Total Gross Value	$282,429,342
Less Commissions on Strata	$8,064,375
Less Commissions on Rental	$0
Less Commissions on Commercial	$272,337
Net Sales Revenue/Value	$274,092,630
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$500,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$945,122
Electrical Charging Station	$322,000
Density Bonus Contribution	$22,281,935
Rezoning Costs	$500,000
Hard Construction Costs	$110,660,000
Site Landscaping	$550,000
Electrical Charging Station	$322,000
Other	$0
Soft costs and Professional Fees	$11,524,390
Development management	$4,413,163
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$7,600,930
Car Share	$0
Marketing on Strata Units	$8,064,375
Initial Lease Up Costs on Rental 1 Units	$0
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$82,500
Tenant Improvement Allowance on Retail Space	$412,500
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$345,184
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$0
GVS & DD Sewer Levy - Commercial	$15,345
TransLink - Strata Apartment Residential	$386,400
TransLink - Townhouse	$0
TransLink - Rental Residential	$0
TransLink - Commercial	$20,625
Market Strata Apartment DCCs	$0
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$0
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$5,049
Office DCCs	$0
School Site Acquisition Charge	$193,200
Less property tax allowance during approvals/development	$793,135
Less School Tax Surcharge During Development	$1,034,438
Interim financing on construction costs	$7,965,837
Financing fees/costs	$2,013,054
Less Net GST (assuming builder holds units)	$0
Total Project Costs Before Land	$180,951,181
Developer's Profit	**$36,828,786**
Residual to Land and Land Carry	**$56,312,663**
Less financing on land during construction and approvals	$3,758,870
Less financing fee on land loan	$354,738
Less property closing costs	$2,404,955
Residual Land Value	**$49,794,099**
Residual Value per sq.ft. of site	**$905**
Residual Value per sq.ft. of FSR	**$171**
Residual Value per sq.ft. of gross buildable floorspace	**$171**

Appendix 5 – Burnaby Exhibit 5 Continued:

Retail Assumptions

Lease Rate NNN	$40.00	psf per year
Monthly Parking Revenue (net of costs)	$0	per month
Vacancy and Non Recoverable Allowance	2.00%	
Capitalization Rate	4.75%	

Capitalized Value per 1000 SF Gross

Rental Rev	$40,000	
Parking	$0	
Total	$40,000	
Vacancy	$800	
NOI	$39,200	
Capitalized Value	$825,263	
Value psf of net leasable space	$825.26	psf

Appendix 5 – Burnaby Exhibit 6:

Land Residual Estimate for Rental Mixed-Use Development
Assume 5.3 FSR achieved under RM5s (5.0 FSR Residential with 0.3 FSR Commercial)
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size			
Gross Parcel Size	55,000	sq.ft.	1.26 acre
Dedications	0	sq.ft.	
Site Size	55,000	sq.ft. or	
Site Frontage	620	ft	
Base Density	3.7	FSR	
Bonus Density	1.6	FSR	
Total Density	5.3	FSR	
Total Gross floorspace	291,500	sq.ft.	
Gross residential floorspace	275,000	sq.ft.	
Gross commercial floorspace	16,500	sq.ft.	

Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1000 sf**	**Parking Stalls**	Share of Units
Strata Residential	0	85%	0	725	0	1.1	0	0%
Rental 1	275,000	85%	233,750	590	396	1.1	436	100%
Rental 2	0	85%	0	565	0	0.6	0	0%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	16,500	100%	16,500	n/a	n/a	2.0	33	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	291,500		250,250		396		469	100%

Revenue/Value		
Strata Residential	$0	per net square foot
Rental 1	$788	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$825	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs			
Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$500,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$945,122	$5,000	per lineal metre of frontage
Density Bonus Contribution	$0	psf of bonus density	
Rezoning Costs	$500,000		

Appendix 5 – Burnaby Exhibit 6 Continued:

Construction Costs						
Hard Construction Costs						
Market Strata Residential Area	$0	per gross sq.ft. of residential area				
Rental 1 Residential Area	$300	per gross sq.ft. of rental residential area				
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area				
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area				
Retail Area (shell space - no TI)	$250	per gross sq.ft. of retail area				
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area				
Cost Per Garage/Underground Parking Stall	$55,000	per underground/structured parking stall				
Overall Costs Per Square Foot	$386	per gross sq.ft.				
Sustainability Premium	0%					
Total Estimated Cost per Square Foot	$386					
Hard Cost Used in Analysis	$386					
Site Landscaping	$550,000	or	$20	psf of site area on 50% of site		
Electrical Charging Station	$396,000		396	stations	$1,000	per station
Other	$0					
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs				
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs				
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	5.0%	of hard, soft and management costs				
Car Share	$0					
Government Levies						
GVS & DD Sewer Levy - Strata Apartment	$1,072	per apartment unit				
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit				
GVS & DD Sewer Levy - Rental Residential	$1,072	per unit				
GVS & DD Sewer Levy - Commercial	$0.93	per sq.ft. of commercial space				
TransLink - Strata Apartment Residential	$1,200	per market unit				
TransLink - Townhouse	$0	per market unit				
TransLink - Rental Residential	$1,200	per unit				
TransLink - Commercial	$1.25	per sq.ft. of commercial space				
Market Strata Apartment DCCs	$0.00	per sq.ft. of floorspace				
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace				
Rental 1 Residential DCCs	$0.00	per sq.ft. of floorspace				
Rental 2 Residential DCCs	$0.00	per sq.ft. of floorspace				
Rental 3 Residential DCCs	$0.00	per sq.ft. of floorspace				
Retail DCCs	$0.306	per sq.ft. of floorspace				
Office DCCs	$0.00	per sq.ft. of floorspace				
School Site Acquisition Charge	$600	per unit				
Financing						
Interim financing	5.0%	assuming a	2.50	year construction period		
Financing charged on	50%	of land and	75%	of construction costs		
Financing fees	1.5%					
Commissions and Marketing						
Commissions on Strata Residential	3.0%	of gross strata market residential revenue				
Marketing on Strata Residential	3.0%	of gross strata market residential revenue				
Commissions on Sale of Commercial	2.0%	of gross commercial value				
Commission on Sale of Rental Units	2.0%	of value				
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit				
Initial Lease Up Costs on Rental 2 Units	$3,000	per unit				
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit				
Leasing Commissions on Commercial Space	$5.00	per sq.ft.				
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.				
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.				
Other Costs and Allowances						
Net GST on Market and Below Market Rental Units	5.00%	of capitalized value of rental units				
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)				
Property Taxes	0.284%	of assessed value				
Assumed current assessment (Year 1 of analysis)	$45,000,000					
Assumed assessment after 1 year of construction (Year 2 of analysis)	$98,927,260	(50% of completed project value)				
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value		
School Tax Surcharge During Development*						
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million		
Residential Portion of current assessment (Year 1 of analysis)	$45,000,000					
Assumed residential portion of assessment after 1 year of constructio	$92,118,839	(50% of completed residential project value)				

*Assumes BC Owner

Appendix 5 – Burnaby Exhibit 6 Continued:

Analysis

Revenue	
Strata Sales Revenue	$0
Rental 1 Value	$184,237,677
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$13,616,842
Gross Office Value	$0
Total Gross Value	$197,854,520
Less Commissions on Strata	$0
Less Commissions on Rental	$3,684,754
Less Commissions on Commercial	$272,337
Net Sales Revenue/Value	$193,897,429
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$500,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$945,122
Electrical Charging Station	$396,000
Density Bonus Contribution	$0
Rezoning Costs	$500,000
Hard Construction Costs	$112,420,000
Site Landscaping	$550,000
Electrical Charging Station	$396,000
Other	$0
Soft costs and Professional Fees	$9,792,605
Development management	$3,749,992
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$6,462,486
Car Share	$0
Marketing on Strata Units	$0
Initial Lease Up Costs on Rental 1 Units	$1,188,000
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$82,500
Tenant Improvement Allowance on Retail Space	$412,500
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$0
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$424,512
GVS & DD Sewer Levy - Commercial	$15,345
TransLink - Strata Apartment Residential	$0
TransLink - Townhouse	$0
TransLink - Rental Residential	$475,200
TransLink - Commercial	$20,625
Market Strata Apartment DCCs	$0
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$0
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$5,049
Office DCCs	$0
School Site Acquisition Charge	$237,600
Less property tax allowance during approvals/development	$613,022
Less School Tax Surcharge During Development	$780,713
Interim financing on construction costs	$6,524,370
Financing fees/costs	$1,648,031
Less Net GST (assuming builder holds units)	$9,211,884
Total Project Costs Before Land	$157,351,556
Developer's Profit	**$25,800,229**
Residual to Land and Land Carry	**$10,745,644**
Less financing on land during construction and approvals	$717,272
Less financing fee on land loan	$67,692
Less property closing costs	$398,632
Residual Land Value	**$9,562,048**
Residual Value per sq.ft. of site	**$174**
Residual Value per sq.ft. of FSR	**$33**
Residual Value per sq.ft. of gross buildable floorspace	**$33**

Appendix 5 – Burnaby Exhibit 6 Continued:

Retail Assumptions

Lease Rate NNN	$40.00	psf per year
Monthly Parking Revenue (net of costs)	$0	per month
Vacancy and Non Recoverable Allowance	2.00%	
Capitalization Rate	4.75%	

Capitalized Value per 1000 SF Gross

Rental Rev	$40,000
Parking	$0
Total	$40,000
Vacancy	$800
NOI	$39,200
Capitalized Value	$825,263
Value psf of net leasable space	$825.26 psf

Rental 1

Assumptions			Market	Rent
Unit Type	# Units		Size	rent/month
Studios	80	20%	450	$ 1,550
1-Bedroom	196	49%	550	$ 1,750
2-Bedroom	120	30%	750	$ 2,450
3-Bedroom	0	0%	0	$ -
Total	396	100%		
Average			590	$ 1,922
				$ 3.25
Annual Revenue				
Studios				$ 1,488,000
1-Bedroom				$ 4,116,000
2-Bedroom				$ 3,528,000
3-Bedroom				$ -
TOTAL				$ 9,132,000

Rental 1 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$3.25	psf per month or	
	$1,922	per unit per month	
Monthly Parking Revenue	$100	per month	
Monthly Storage Revenue	$40	per month on	50% of units
Vacancy and Non Recoverable Allowance	1.00%		
Operating costs for New Rental Units	$4,450	per unit per year	
Property Tax Allowance			
Residential Assessment (upon completion of new building)	$183,493,750	(see capitalized value below)	
Residential Tax Rate	0.284%		
Residential Property Taxes	$521,031		
Capitalization Rate for Rental Apartment Space	4.00%		

Capitalized Value

Rental Revnue	$9,132,000
Parking	$523,200
Storage	$95,040
Total	$9,750,240
Vacancy	$97,502
Net	$9,652,738
Op Costs	$1,762,200
Taxes	$521,031
NOI	$7,369,507
Capitalized Value	$184,237,677
psf of rentable space	$788

Appendix 6 – Surrey Exhibit 1:

Estimated Income Value Assuming Property is Improved with Old Low Density Commercial Buildings

Major Assumptions

Site and Building Size

Existing Zoning	C-8				
Site Size	45,000	sq.ft. or	160	by	281
Assumed Density	0.40	FSR			
Retail	18,000	sq.ft.	100%	rentable	

Revenue and Value

Average Lease Rate for Retail Space	$22.50	per sq.ft. net, base building
Capitalization Rate	4.75%	
Value of Retail and Service Space Upon Lease-up	$474	per sq.ft. of leasable area
Vacancy and non recoverables	0%	

Estimated Overall Value

Capitalized Value of Retail/Service Space	$8,526,316
Total Value of Commercial	**$8,526,316**

Appendix 6 – Surrey Exhibit 2:

Estimated Income Value of Property if Improved with an Older Low Density Rental Building

Rental Apartment Value	
Site Size (SF)	45,000
Assumed FSR	0.8
Total Floor Area (SF)	33,750
Average Gross Unit Size (SF)	850
Number of Units	40
Market Value Per Unit[1]	$200,000
Value of Rental	**$8,000,000**

[1]Based on recent market transactions.

Appendix 6 – Surrey Exhibit 3:

Estimated Existing Value of Site if Improved with Older Single Family Houses

Single Family Assembly Value	
Site Size (SF)	45,000
Value Per SF of Site	$110
Total Value	**$4,950,000**

Appendix 6 – Surrey Exhibit 4:

Land Residual Estimate for Wood Frame Strata Development - No Rental Replacement
Assume 2.5 FAR (OCP Density)
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size			
Gross Parcel Size	45,000	sq.ft.	1.03 acre
Dedications	0	sq.ft.	
Site Size	45,000	sq.ft. or	
Site Frontage	160	ft	
Base Density	2.5	FAR	
Bonus Density	0.0	FAR	
Total Density	2.5	FAR	
Total Gross floorspace	112,500	sq.ft.	
Gross residential floorspace	112,500	sq.ft.	
Gross commercial floorspace	0	sq.ft.	

Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1075 sf**	**Parking Stalls**	Share of Units
Strata Residential	112,500	85%	95,625	715	134	1.3	174	100%
Rental 1	0	85%	0	619	0	1.3	0	0%
Rental 2	0	85%	0	565	0	0.6	0	0%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	0	100%	0	n/a	n/a	3.00	0	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	112,500		95,625		134		174	100%

Revenue/Value		
Strata Residential	$630	per net square foot
Rental 1	$0	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$0	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs			
Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$350,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$243,902	$5,000	per lineal metre of frontage
Community Amenity Contribution Residential	$1,668	per unit on average	
Affordable Housing Contribution	$1,000	per strata unit	
Public Art Contribution (Allowance)	$1.24	psf of gross building	
Undergrounding Utilities	$1.74	psf of gross building	*ask about non residential
Community Amenity Contribution Non-Residential	$0.00	psf of site area	
Rezoning Costs	$500,000		

Appendix 6 – Surrey Exhibit 4 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$175	per gross sq.ft. of residential area			
Rental 1 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$0	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$45,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$245	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$245				
Hard Cost Used in Analysis	$245				
Site Landscaping	$450,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$0		-	stations	$0 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit			
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$17.97	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$17.97	per sq.ft. of floorspace			
Retail DCCs	$11.98	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	1.75	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	5.00%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.326%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$21,286,121				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$30,121,875	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$0				
Assumed residential portion of assessment after 1 year of constructio	$30,121,875	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 6 – Surrey Exhibit 4 Continued:

Analysis

Revenue	
Strata Sales Revenue	$60,243,750
Rental 1 Value	$0
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$0
Gross Office Value	$0
Total Gross Value	$60,243,750
Less Commissions on Strata	$1,807,313
Less Commissions on Rental	$0
Less Commissions on Commercial	$0
Net Sales Revenue/Value	$58,436,438
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$350,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$243,902
Electrical Charging Station	$0
Community Amenity Contribution Residential	$223,562
Affordable Housing Contribution	$134,000
Public Art Contribution (Allowance)	$139,838
Undergrounding Utilities	$195,750
Community Amenity Contribution Non-Residential	$0
Rezoning Costs	$500,000
Hard Construction Costs	$27,517,500
Site Landscaping	$450,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$2,499,387
Development management	$957,118
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$1,660,553
Car Share	$0
Marketing on Strata Units	$1,807,313
Initial Lease Up Costs on Rental 1 Units	$0
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$0
Tenant Improvement Allowance on Retail Space	$0
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$473,020
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$0
GVS & DD Sewer Levy - Commercial	$0
TransLink - Strata Apartment Residential	$160,800
TransLink - Townhouse	$0
TransLink - Rental Residential	$0
TransLink - Commercial	$0
Market Strata Apartment DCCs	$2,021,625
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$0
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$0
Office DCCs	$0
School Site Acquisition Charge	$80,400
Less property tax allowance during approvals/development	$177,945
Less School Tax Surcharge During Development	$79,866
Interim financing on construction costs	$1,299,136
Financing fees/costs	$460,932
Less Net GST (assuming builder holds units)	$0
Total Project Costs Before Land	$41,432,646
Developer's Profit	**$7,855,785**
Residual to Land and Land Carry	**$9,148,006**
Less financing on land during construction and approvals	$457,972
Less financing fee on land loan	$58,658
Less property closing costs	$335,490
Residual Land Value	**$8,295,886**
Residual Value per sq.ft. of site	**$184**
Residual Value per sq.ft. of FSR	**$74**
Residual Value per sq.ft. of gross buildable floorspace	**$74**

Appendix 6 – Surrey Exhibit 5:

Land Residual Estimate for Wood Frame Rental Development - No Rental Replacement
Assume 2.5 FAR (OCP Density)
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size

Gross Parcel Size	45,000	sq.ft.	1.03 acre
Dedications	0	sq.ft.	
Site Size	45,000	sq.ft. or	
Site Frontage	160	ft	
Base Density	2.5	FAR	
Bonus Density	0.0	FAR	
Total Density	2.5	FAR	
Total Gross floorspace	112,500	sq.ft.	
Gross residential floorspace	112,500	sq.ft.	
Gross commercial floorspace	0	sq.ft.	

Concept	Gross SF	Efficiency	Net Saleable or Rentable	Avg Unit Size	Number of Units	Parking Stalls per Unit or 1075 sf	Parking Stalls	Share of Units
Strata Residential	0	85%	0	650	0	1.3	0	0%
Rental 1	112,500	85%	95,625	593	161	1.3	209	100%
Rental 2	0	85%	0	565	0	0.6	0	0%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	0	100%	0	n/a	n/a	3.00	0	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	112,500		95,625		161		209	100%

Revenue/Value

Strata Residential	$0	per net square foot
Rental 1	$582	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$0	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs

Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$350,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$243,902	$5,000	per lineal metre of frontage
Community Amenity Contribution Residential	$1,668	per unit on average	
Affordable Housing Contribution	$1,000	per strata unit	
Public Art Contribution (Allowance)	$1.26	psf of gross building	
Undergrounding Utilities	$1.74	psf of gross building	
Community Amenity Contribution Non-Residential	$0.00	psf of site area	
Rezoning Costs	$500,000		

Appendix 6 – Surrey Exhibit 5 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$0	per gross sq.ft. of residential area			
Rental 1 Residential Area	$165	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$0	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$45,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$249	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$249				
Hard Cost Used in Analysis	$249				
Site Landscaping	$450,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$0		-	stations	$0 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit			
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$17.97	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$17.97	per sq.ft. of floorspace			
Retail DCCs	$11.98	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	1.75	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	3.60%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.326%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$21,286,121				
Assumed assessment after 1 year of construction (Year 2 of analysis	$27,823,087	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$0				
Assumed residential portion of assessment after 1 year of constructio	$27,823,087	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 6 – Surrey Exhibit 5 Continued:

Analysis

Revenue	
Strata Sales Revenue	$0
Rental 1 Value	$55,646,175
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$0
Gross Office Value	$0
Total Gross Value	$55,646,175
Less Commissions on Strata	$0
Less Commissions on Rental	$1,112,923
Less Commissions on Commercial	$0
Net Sales Revenue/Value	$54,533,251
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$350,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$243,902
Electrical Charging Station	$0
Community Amenity Contribution Residential	$268,608
Affordable Housing Contribution	$0
Public Art Contribution (Allowance)	$142,088
Undergrounding Utilities	$195,750
Community Amenity Contribution Non-Residential	$0
Rezoning Costs	$500,000
Hard Construction Costs	$27,967,500
Site Landscaping	$450,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$2,530,267
Development management	$968,943
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$1,680,853
Car Share	$0
Marketing on Strata Units	$0
Initial Lease Up Costs on Rental 1 Units	$483,000
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$0
Tenant Improvement Allowance on Retail Space	$0
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$0
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$568,330
GVS & DD Sewer Levy - Commercial	$0
TransLink - Strata Apartment Residential	$0
TransLink - Townhouse	$0
TransLink - Rental Residential	$193,200
TransLink - Commercial	$0
Market Strata Apartment DCCs	$0
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$2,021,625
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$0
Office DCCs	$0
School Site Acquisition Charge	$96,600
Less property tax allowance during approvals/development	$172,318
Less School Tax Surcharge During Development	$72,969
Interim financing on construction costs	$1,274,207
Financing fees/costs	$452,027
Less Net GST (assuming builder holds units)	$2,003,262
Total Project Costs Before Land	$42,635,450
Developer's Profit	**$7,256,261**
Residual to Land and Land Carry	**$4,641,540**
Less financing on land during construction and approvals	$232,367
Less financing fee on land loan	$29,762
Less property closing costs	$133,522
Residual Land Value	**$4,245,889**
Residual Value per sq.ft. of site	**$94**
Residual Value per sq.ft. of FSR	**$38**
Residual Value per sq.ft. of gross buildable floorspace	**$38**

Appendix 6 – Surrey Exhibit 5 Continued:

Rental 1

Assumptions			**Market**	**Rent**
Unit Type	**# Units**		**Size**	**rent/month**
Studios	31	19%	450	$ 1,300
1-Bedroom	80	50%	550	$ 1,450
2-Bedroom	50	31%	750	$ 1,700
3-Bedroom	0	0%	0	$ -
Total	161	100%		
Average			593	$ 1,499
				$ 2.53
Annual Revenue				
Studios				$ 483,600
1-Bedroom				$ 1,392,000
2-Bedroom				$ 1,020,000
3-Bedroom				$ -
TOTAL				$ 2,895,600

Rental 1 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$2.53	psf per month or	
	$1,499	per unit per month	
Monthly Parking Revenue	$75	per month	
Monthly Storage Revenue	$40	per month on	50% of units
Vacancy and Non Recoverable Allowance	1.00%		
Operating costs for New Rental Units	$4,250	per unit per year	
Property Tax Allowance			
Residential Assessment (upon completion of new building)	$55,462,500	(see capitalized value below)	
Residential Tax Rate	0.326%		
Residential Property Taxes	$181,020		
Capitalization Rate for Rental Apartment Space	4.00%		

Capitalized Value

Rental Revenue	$2,895,600
Parking	$188,100
Storage	$38,640
Total	$3,122,340
Vacancy	$31,223
Net	$3,091,117
Op Costs	$684,250
Taxes	$181,020
NOI	$2,225,847
Capitalized Value	$55,646,175
psf of rentable space	$582

Appendix 6 – Surrey Exhibit 6:

Land Residual Estimate for Wood Frame Strata Development
Assume 2.5 FAR (OCP Density) - With Rental Replacement
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size

Gross Parcel Size	45,000	sq.ft.	1.03 acre
Dedications	0	sq.ft.	
Site Size	45,000	sq.ft. or	
Site Frontage	160	ft	
Base Density	2.5	FAR	
Bonus Density	0.0	FAR	
Total Density	2.5	FAR	
Total Gross floorspace	112,500	sq.ft.	
Gross residential floorspace	112,500	sq.ft.	
Gross commercial floorspace	0	sq.ft.	

Concept	Gross SF	Efficiency	Net Saleable or Rentable	Avg Unit Size	Number of Units	Parking Stalls per Unit or 1075 sf	Parking Stalls	Share of Units
Strata Residential	87,500	85%	74,375	715	104	1.3	135	72%
Rental 1	0	85%	0	585	0	1.3	0	0%
Rental 2	25,000	85%	21,250	532	40	1.3	52	28%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	0	100%	0	n/a	n/a	3.00	0	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	112,500		95,625		144		187	100%

Revenue/Value

Strata Residential	$630	per net square foot
Rental 1	$0	per net square foot (see separate calculations)
Rental 2	$306	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$0	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs

Upfront Compensation to Existing Tenants	$116,293			
Tenant Relocation	$0			
Allowance for Demolition of Existing Buildings	$350,000			
Allowance for Remediation	$0			
Site Preparation/Fill	$0			
Standard Site Servicing	$243,902		$5,000	per lineal metre of frontage
Community Amenity Contribution Residential	$1,668	per unit on average		
Affordable Housing Contribution	$1,000	per strata unit		
Public Art Contribution (Allowance)	$1.26	psf of gross building		
Undergrounding Utilities	$1.74	psf of gross building		*ask about non residential
Community Amenity Contribution Non-Residential	$0.00	psf of site area		
Rezoning Costs	$500,000			

Appendix 6 – Surrey Exhibit 6 Continued:

Construction Costs						
Hard Construction Costs						
Market Strata Residential Area	$175	per gross sq.ft. of residential area				
Rental 1 Residential Area	$0	per gross sq.ft. of rental residential area				
Rental 2 Residential Area	$165	per gross sq.ft. of rental residential area				
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area				
Retail Area (shell space - no TI)	$0	per gross sq.ft. of retail area				
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area				
Cost Per Garage/Underground Parking Stall	$45,000	per underground/structured parking stall				
Overall Costs Per Square Foot	$248	per gross sq.ft.				
Sustainability Premium	0%					
Total Estimated Cost per Square Foot	$248					
Hard Cost Used in Analysis	$248					
Site Landscaping	$450,000	or	$20	psf of site area on 50% of site		
Electrical Charging Station	$0		-	stations	$0	per station
Other	$0					
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs				
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs				
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	5.0%	of hard, soft and management costs				
Car Share	$0					
Government Levies						
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit				
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit				
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit				
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space				
TransLink - Strata Apartment Residential	$1,200	per market unit				
TransLink - Townhouse	$0	per market unit				
TransLink - Rental Residential	$1,200	per unit				
TransLink - Commercial	$1.25	per sq.ft. of commercial space				
Market Strata Apartment DCCs	$17.97	per sq.ft. of floorspace				
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace				
Rental 1 Residential DCCs	$17.97	per sq.ft. of floorspace				
Rental 2 Residential DCCs	$17.97	per sq.ft. of floorspace				
Rental 3 Residential DCCs	$17.97	per sq.ft. of floorspace				
Retail DCCs	$11.98	per sq.ft. of floorspace				
Office DCCs	$0.00	per sq.ft. of floorspace				
School Site Acquisition Charge	$600	per unit				
Financing						
Interim financing	5.0%	assuming a	1.75	year construction period		
Financing charged on	50%	of land and	75%	of construction costs		
Financing fees	1.5%					
Commissions and Marketing						
Commissions on Strata Residential	3.0%	of gross strata market residential revenue				
Marketing on Strata Residential	3.0%	of gross strata market residential revenue				
Commissions on Sale of Commercial	2.0%	of gross commercial value				
Commission on Sale of Rental Units	2.0%	of value				
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit				
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit				
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit				
Leasing Commissions on Commercial Space	$5.00	per sq.ft.				
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.				
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.				
Other Costs and Allowances						
Net GST on Market and Below Market Rental Units	5.00%	of capitalized value of rental units				
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)				
Property Taxes	0.326%	of assessed value				
Assumed current assessment (Year 1 of analysis)	$21,286,121					
Assumed assessment after 1 year of construction (Year 2 of analysis)	$26,679,776	(50% of completed project value)				
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value		
School Tax Surcharge During Development*						
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million		
Residential Portion of current assessment (Year 1 of analysis)	$0					
Assumed residential portion of assessment after 1 year of constructio	$26,679,776	(50% of completed residential project value)				

*Assumes BC Owner

Appendix 6 – Surrey Exhibit 6 Continued:

Analysis

Revenue	
Strata Sales Revenue	$46,856,250
Rental 1 Value	$0
Rental 2 Value	$6,503,302
Rental 3 Value	$0
Gross Retail Value	$0
Gross Office Value	$0
Total Gross Value	$53,359,552
Less Commissions on Strata	$1,405,688
Less Commissions on Rental	$130,066
Less Commissions on Commercial	$0
Net Sales Revenue/Value	$51,823,798
Project Costs	
Upfront Compensation to Existing Tenants	$116,293
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$350,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$243,902
Electrical Charging Station	$0
Community Amenity Contribution Residential	$240,246
Affordable Housing Contribution	$104,000
Public Art Contribution (Allowance)	$141,513
Undergrounding Utilities	$195,750
Community Amenity Contribution Non-Residential	$0
Rezoning Costs	$500,000
Hard Construction Costs	$27,852,500
Site Landscaping	$450,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$2,526,872
Development management	$967,643
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$1,678,621
Car Share	$0
Marketing on Strata Units	$1,405,688
Initial Lease Up Costs on Rental 1 Units	$0
Initial Lease Up Costs on Rental 2 Units	$80,000
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$0
Tenant Improvement Allowance on Retail Space	$0
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$367,120
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$141,200
GVS & DD Sewer Levy - Commercial	$0
TransLink - Strata Apartment Residential	$124,800
TransLink - Townhouse	$0
TransLink - Rental Residential	$48,000
TransLink - Commercial	$0
Market Strata Apartment DCCs	$1,572,375
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$0
Rental 2 Residential DCCs	$449,250
Rental 3 Residential DCCs	$0
Retail DCCs	$0
Office DCCs	$0
School Site Acquisition Charge	$86,400
Less property tax allowance during approvals/development	$169,520
Less School Tax Surcharge During Development	$69,539
Interim financing on construction costs	$1,306,321
Financing fees/costs	$463,360
Less Net GST (assuming builder holds units)	$325,165
Total Project Costs Before Land	$41,976,079
Developer's Profit	**$6,958,086**
Residual to Land and Land Carry	**$2,889,634**
Less financing on land during construction and approvals	$144,662
Less financing fee on land loan	$18,529
Less property closing costs	$55,006
Residual Land Value	**$2,671,437**
Residual Value per sq.ft. of site	**$59**
Residual Value per sq.ft. of FSR	**$24**
Residual Value per sq.ft. of gross buildable floorspace	**$24**

Appendix 6 – Surrey Exhibit 6 Continued:

Rental 2

Assumptions			Market	Rent
Unit Type	**# Units**		**Size**	**rent/month**
Studios	10	25%	400	$ 697
1-Bedroom	18	45%	500	$ 880
2-Bedroom	12	30%	690	$ 1,036
3-Bedroom	0	0%	0	$ -
Total	40	100%		
Average			532	$ 881
				$ 1.66
Annual Revenue				
Studios				$ 83,592
1-Bedroom				$ 190,123
2-Bedroom				$ 149,170
3-Bedroom				$ -
TOTAL				$ 422,885

Rental 2 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$1.66	psf per month or		
	$881	per unit per month		
Monthly Parking Revenue	$50	per month		
Monthly Storage Revenue	$40	per month on	50%	of units
Vacancy and Non Recoverable Allowance	1.00%			
Operating costs for New Rental Units	$3,800	per unit per year		
Property Tax Allowance				
Residential Assessment (upon completion of new building)	$6,481,250	(see capitalized value below)		
Residential Tax Rate	0.326%			
Residential Property Taxes	$21,154			
Capitalization Rate for Rental Apartment Space	4.25%			

Capitalized Value

Rental Revenue	$422,885
Parking	$31,200
Storage	$12,480
Total	$454,085
Vacancy	$4,541
Net	$449,544
Op Costs	$152,000
Taxes	$21,154
NOI	$276,390
Capitalized Value	$6,503,302
psf of rentable space	$306.04

Appendix 6 – Surrey Exhibit 7:

Land Residual Estimate for Wood Frame Rental Development
Assume 2.5 FAR (OCP Density) - With Rental Replacement
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size

Gross Parcel Size	45,000	sq.ft.	1.03 acre
Dedications	0	sq.ft.	
Site Size	45,000	sq.ft. or	
Site Frontage	160	ft	
Base Density	2.5	FAR	
Bonus Density	0.0	FAR	
Total Density	2.5	FAR	
Total Gross floorspace	112,500	sq.ft.	
Gross residential floorspace	112,500	sq.ft.	
Gross commercial floorspace	0	sq.ft.	

Concept	Gross SF	Efficiency	Net Saleable or Rentable	Avg Unit Size	Number of Units	Parking Stalls per Unit or 1075 sf	Parking Stalls	Share of Units
Strata Residential	0	85%	0	650	0	1.3	0	0%
Rental 1	112,500	85%	95,625	593	161	1.3	209	80%
Rental 2	25,000	85%	21,250	532	40	1.3	52	20%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	0	100%	0	n/a	n/a	3.00	0	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	137,500		116,875		201		261	100%

Revenue/Value

Strata Residential	$0	per net square foot
Rental 1	$605	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$0	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs

Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$350,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$243,902	$5,000	per lineal metre of frontage
Community Amenity Contribution Residential	$1,668	per unit on average	
Affordable Housing Contribution	$1,000	per strata unit	
Public Art Contribution (Allowance)	$1.27	psf of gross building	
Undergrounding Utilities	$1.74	psf of gross building	
Community Amenity Contribution Non-Residential	$0.00	psf of site area	
Rezoning Costs	$500,000		

Appendix 6 – Surrey Exhibit 7 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$0	per gross sq.ft. of residential area			
Rental 1 Residential Area	$165	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$165	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$0	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$45,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$250	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$250				
Hard Cost Used in Analysis	$250				
Site Landscaping	$450,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$0		-	stations	$0 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit			
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$17.97	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$17.97	per sq.ft. of floorspace			
Retail DCCs	$11.98	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	1.75	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	3.60%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.326%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$21,286,121				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$28,920,980	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$0				
Assumed residential portion of assessment after 1 year of constructio	$28,920,980	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 6 – Surrey Exhibit 7 Continued:

Analysis

Revenue	
Strata Sales Revenue	$0
Rental 1 Value	$57,841,960
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$0
Gross Office Value	$0
Total Gross Value	$57,841,960
Less Commissions on Strata	$0
Less Commissions on Rental	$1,156,839
Less Commissions on Commercial	$0
Net Sales Revenue/Value	$56,685,121
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$350,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$243,902
Electrical Charging Station	$0
Community Amenity Contribution Residential	$335,343
Affordable Housing Contribution	$0
Public Art Contribution (Allowance)	$143,110
Undergrounding Utilities	$195,750
Community Amenity Contribution Non-Residential	$0
Rezoning Costs	$500,000
Hard Construction Costs	$34,432,500
Site Landscaping	$450,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$3,085,551
Development management	$1,181,585
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$2,045,887
Car Share	$0
Marketing on Strata Units	$0
Initial Lease Up Costs on Rental 1 Units	$483,000
Initial Lease Up Costs on Rental 2 Units	$80,000
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$0
Tenant Improvement Allowance on Retail Space	$0
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$0
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$709,530
GVS & DD Sewer Levy - Commercial	$0
TransLink - Strata Apartment Residential	$0
TransLink - Townhouse	$0
TransLink - Rental Residential	$241,200
TransLink - Commercial	$0
Market Strata Apartment DCCs	$0
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$2,021,625
Rental 2 Residential DCCs	$449,250
Rental 3 Residential DCCs	$0
Retail DCCs	$0
Office DCCs	$0
School Site Acquisition Charge	$120,600
Less property tax allowance during approvals/development	$175,006
Less School Tax Surcharge During Development	$76,263
Interim financing on construction costs	$1,550,188
Financing fees/costs	$549,791
Less Net GST (assuming builder holds units)	$2,082,311
Total Project Costs Before Land	$51,502,392
Developer's Profit	**$7,542,592**
Residual to Land and Land Carry	**-$2,359,863**
Less financing on land during construction and approvals	-$118,141
Less financing fee on land loan	-$15,132
Less property closing costs	-$180,263
Residual Land Value	**-$2,046,328**
Residual Value per sq.ft. of site	**-$45**
Residual Value per sq.ft. of FSR	**-$18**
Residual Value per sq.ft. of gross buildable floorspace	**-$18**

Appendix 6 – Surrey Exhibit 7 Continued:

Rental 1

Assumptions			**Market**	**Rent**
Unit Type	**# Units**		**Size**	**rent/month**
Studios	31	19%	450	$ 1,350
1-Bedroom	80	50%	550	$ 1,500
2-Bedroom	50	31%	750	$ 1,750
3-Bedroom	0	0%	0	$ -
Total	161	100%		
Average			593	$ 1,549
				$ 2.61
Annual Revenue				
Studios				$ 502,200
1-Bedroom				$ 1,440,000
2-Bedroom				$ 1,050,000
3-Bedroom				$ -
TOTAL				$ 2,992,200

Rental 1 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$2.61	psf per month or	
	$1,549	per unit per month	
Monthly Parking Revenue	$75	per month	
Monthly Storage Revenue	$40	per month on	50% of units
Vacancy and Non Recoverable Allowance	1.00%		
Operating costs for New Rental Units	$4,250	per unit per year	
Property Tax Allowance			
Residential Assessment (upon completion of new building)	$57,853,125	(see capitalized value below)	
Residential Tax Rate	0.326%		
Residential Property Taxes	$188,822		
Capitalization Rate for Rental Apartment Space	4.00%		

Capitalized Value

Rental Revenue	$2,992,200
Parking	$188,100
Storage	$38,640
Total	$3,218,940
Vacancy	$32,189
Net	$3,186,751
Op Costs	$684,250
Taxes	$188,822
NOI	$2,313,678
Capitalized Value	$57,841,960
psf of rentable space	$605

Rental 2

Assumptions			**Market**	**Rent**
Unit Type	**# Units**		**Size**	**rent/month**
Studios	10	25%	400	$ 697
1-Bedroom	18	45%	500	$ 880
2-Bedroom	12	30%	690	$ 1,036
3-Bedroom	0	0%	0	$ -
Total	40	100%		
Average			532	$ 881
				$ 1.66
Annual Revenue				
Studios				$ 83,592
1-Bedroom				$ 190,123
2-Bedroom				$ 149,170
3-Bedroom				$ -
TOTAL				$ 422,885

Rental 2 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$1.66	psf per month or	
	$881	per unit per month	
Monthly Parking Revenue	$50	per month	
Monthly Storage Revenue	$40	per month on	50% of units
Vacancy and Non Recoverable Allowance	1.00%		
Operating costs for New Rental Units	$3,800	per unit per year	
Property Tax Allowance			
Residential Assessment (upon completion of new building)	$5,843,750	(see capitalized value below)	
Residential Tax Rate	0.326%		
Residential Property Taxes	$19,073		
Capitalization Rate for Rental Apartment Space	4.25%		

Capitalized Value

Rental Rev	$422,885
Parking	$31,200
Storage	$800
Total	$454,085
Vacancy	$4,541
Net	$449,544
Op Costs	$152,000
Taxes	$19,073
NOI	$278,471
Capitalized Value	$6,552,259
psf of rentable space	$308.34

Appendix 6 – Surrey Exhibit 8:

Land Residual Estimate for Concrete Strata Mixed Use Development - No Rental Replacement
Assume 7.5 FAR (OCP Density)
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size			
Gross Parcel Size	45,000	sq.ft.	1.03 acre
Dedications	0	sq.ft.	
Site Size	45,000	sq.ft. or	
Site Frontage	160	ft	
Base Density	7.5	FAR	
Bonus Density	0.0	FAR	
Total Density	7.5	FAR	
Total Gross floorspace	337,500	sq.ft.	
Gross residential floorspace	324,000	sq.ft.	
Gross commercial floorspace	13,500	sq.ft.	

Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1075 sf**	**Parking Stalls**	Share of Units
Strata Residential	324,000	85%	275,400	650	424	1.3	551	100%
Rental 1	0	85%	0	619	0	1.3	0	0%
Rental 2	0	85%	0	565	0	0.6	0	0%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	13,500	100%	13,500	n/a	n/a	3.00	38	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	337,500		288,900		424		589	100%

Revenue/Value		
Strata Residential	$825	per net square foot
Rental 1	$0	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$722	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs			
Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$350,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$243,902	$5,000	per lineal metre of frontage
Community Amenity Contribution Residential	$1,668	per unit on average	
Affordable Housing Contribution	$1,000	per strata unit	
Public Art Contribution (Allowance)	$1.85	psf of gross building	
Undergrounding Utilities	$1.74	psf of gross building	
Community Amenity Contribution Non-Residential	$0.03	psf of site area	
Rezoning Costs	$500,000		

Appendix 6 – Surrey Exhibit 8 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$275	per gross sq.ft. of residential area			
Rental 1 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$240	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$55,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$370	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$370				
Hard Cost Used in Analysis	$370				
Site Landscaping	$450,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$0		-	stations	$0 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit			
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$17.97	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$17.97	per sq.ft. of floorspace			
Retail DCCs	$11.98	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	3.00	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	5.00%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.326%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$21,286,121				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$118,476,711	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$0				
Assumed residential portion of assessment after 1 year of constructio	$113,602,500	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 6 – Surrey Exhibit 8 Continued:

Analysis

Revenue	
Strata Sales Revenue	$227,205,000
Rental 1 Value	$0
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$9,748,421
Gross Office Value	$0
Total Gross Value	$236,953,421
Less Commissions on Strata	$6,816,150
Less Commissions on Rental	$0
Less Commissions on Commercial	$194,968
Net Sales Revenue/Value	$229,942,303
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$350,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$243,902
Electrical Charging Station	$0
Community Amenity Contribution Residential	$707,390
Affordable Housing Contribution	$424,000
Public Art Contribution (Allowance)	$625,925
Undergrounding Utilities	$587,250
Community Amenity Contribution Non-Residential	$1,426
Rezoning Costs	$500,000
Hard Construction Costs	$124,735,000
Site Landscaping	$450,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$10,903,366
Development management	$4,175,348
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$7,185,180
Car Share	$0
Marketing on Strata Units	$6,816,150
Initial Lease Up Costs on Rental 1 Units	$0
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$67,500
Tenant Improvement Allowance on Retail Space	$337,500
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$1,496,720
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$0
GVS & DD Sewer Levy - Commercial	$36,045
TransLink - Strata Apartment Residential	$508,800
TransLink - Townhouse	$0
TransLink - Rental Residential	$0
TransLink - Commercial	$16,875
Market Strata Apartment DCCs	$5,822,280
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$0
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$161,730
Office DCCs	$0
School Site Acquisition Charge	$254,400
Less property tax allowance during approvals/development	$877,584
Less School Tax Surcharge During Development	$880,820
Interim financing on construction costs	$9,409,746
Financing fees/costs	$1,997,718
Less Net GST (assuming builder holds units)	$0
Total Project Costs Before Land	$179,572,656
Developer's Profit	**$30,898,726**
Residual to Land and Land Carry	**$19,470,920**
Less financing on land during construction and approvals	$1,516,298
Less financing fee on land loan	$121,194
Less property closing costs	$772,588
Residual Land Value	**$17,060,841**
Residual Value per sq.ft. of site	**$379**
Residual Value per sq.ft. of FSR	**$51**
Residual Value per sq.ft. of gross buildable floorspace	**$51**

Appendix 6 – Surrey Exhibit 8 Continued:

Retail Assumptions

Lease Rate NNN	$35.00	psf per year
Monthly Parking Revenue (net of costs)	$0	per month
Vacancy and Non Recoverable Allowance	2.00%	
Capitalization Rate	4.75%	

Capitalized Value per 1000 SF Gross

Rental Rev	$35,000	
Parking	$0	
Total	$35,000	
Vacancy	$700	
NOI	$34,300	
Capitalized Value	$722,105	
Value psf of net leasable space	$722	psf

Appendix 6 – Surrey Exhibit 9:

Land Residual Estimate for Concrete Rental Mixed Use Development - No Rental Replacement
Assume 7.5 FAR (OCP Density)
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size			
Gross Parcel Size	45,000	sq.ft.	1.03 acre
Dedications	0	sq.ft.	
Site Size	45,000	sq.ft. or	
Site Frontage	160	ft	
Base Density	7.5	FAR	
Bonus Density	0.0	FAR	
Total Density	7.5	FAR	
Total Gross floorspace	337,500	sq.ft.	
Gross residential floorspace	324,000	sq.ft.	
Gross commercial floorspace	13,500	sq.ft.	

Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1075 sf**	**Parking Stalls**	Share of Units
Strata Residential	0	85%	0	650	0	1.3	0	0%
Rental 1	324,000	85%	275,400	591	466	1.3	606	100%
Rental 2	0	85%	0	565	0	0.6	0	0%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	13,500	100%	13,500	n/a	n/a	3.00	38	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	337,500		288,900		466		644	100%

Revenue/Value		
Strata Residential	$0	per net square foot
Rental 1	$607	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$722	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs			
Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$350,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$243,902	$5,000	per lineal metre of frontage
Community Amenity Contribution Residential	$1,668	per unit on average	
Affordable Housing Contribution	$1,000	per strata unit	
Public Art Contribution (Allowance)	$1.85	psf of gross building	
Undergrounding Utilities	$1.74	psf of gross building	
Community Amenity Contribution Non-Residential	$0.03	psf of site area	
Rezoning Costs	$500,000		

Appendix 6 – Surrey Exhibit 9 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$0	per gross sq.ft. of residential area			
Rental 1 Residential Area	$265	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$240	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$55,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$369	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$369				
Hard Cost Used in Analysis	$369				
Site Landscaping	$450,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$0		-	stations	$0 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit			
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$17.97	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$17.97	per sq.ft. of floorspace			
Retail DCCs	$11.98	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	3.00	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	3.60%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.326%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$21,286,121				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$88,425,682	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$0				
Assumed residential portion of assessment after 1 year of constructio	$83,551,471	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 6 - Surrey Exhibit 9 Continued:

Analysis

Revenue	
Strata Sales Revenue	$0
Rental 1 Value	$167,102,943
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$9,748,421
Gross Office Value	$0
Total Gross Value	$176,851,364
Less Commissions on Strata	$0
Less Commissions on Rental	$3,342,059
Less Commissions on Commercial	$194,968
Net Sales Revenue/Value	$173,314,336
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$350,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$243,902
Electrical Charging Station	$0
Community Amenity Contribution Residential	$777,462
Affordable Housing Contribution	$0
Public Art Contribution (Allowance)	$624,850
Undergrounding Utilities	$587,250
Community Amenity Contribution Non-Residential	$1,426
Rezoning Costs	$500,000
Hard Construction Costs	$124,520,000
Site Landscaping	$450,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$10,854,916
Development management	$4,156,794
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$7,153,330
Car Share	$0
Marketing on Strata Units	$0
Initial Lease Up Costs on Rental 1 Units	$1,398,000
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$67,500
Tenant Improvement Allowance on Retail Space	$337,500
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$0
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$1,644,980
GVS & DD Sewer Levy - Commercial	$36,045
TransLink - Strata Apartment Residential	$0
TransLink - Townhouse	$0
TransLink - Rental Residential	$559,200
TransLink - Commercial	$16,875
Market Strata Apartment DCCs	$0
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$5,822,280
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$161,730
Office DCCs	$0
School Site Acquisition Charge	$279,600
Less property tax allowance during approvals/development	$681,422
Less School Tax Surcharge During Development	$640,412
Interim financing on construction costs	$9,068,910
Financing fees/costs	$1,923,012
Less Net GST (assuming builder holds units)	$6,015,706
Total Project Costs Before Land	$178,873,102
Developer's Profit	**$23,061,418**
Residual to Land and Land Carry	**-$28,620,183**
Less financing on land during construction and approvals	-$2,228,797
Less financing fee on land loan	-$178,142
Less property closing costs	-$1,319,629
Residual Land Value	**-$24,893,615**
Residual Value per sq.ft. of site	**-$553**
Residual Value per sq.ft. of FSR	**-$74**
Residual Value per sq.ft. of gross buildable floorspace	**-$74**

Appendix 6 – Surrey Exhibit 9 Continued:

Retail Assumptions

Lease Rate NNN	$35.00	psf per year
Monthly Parking Revenue (net of costs)	$0	per month
Vacancy and Non Recoverable Allowance	2.00%	
Capitalization Rate	4.75%	

Capitalized Value per 1000 SF Gross

Rental Rev	$35,000	
Parking	$0	
Total	$35,000	
Vacancy	$700	
NOI	$34,300	
Capitalized Value	$722,105	
Value psf of net leasable space	$722	psf

Rental 1

Assumptions			**Market**	**Rent**
Unit Type	**# Units**		**Size**	**rent/month**
Studios	91	20%	450	$ 1,350
1-Bedroom	235	50%	550	$ 1,500
2-Bedroom	140	30%	750	$ 1,750
3-Bedroom	0	0%	0	$ -
Total	466	100%		
Average			591	$ 1,546
				$ 2.62
Annual Revenue				
Studios				$ 1,474,200
1-Bedroom				$ 4,230,000
2-Bedroom				$ 2,940,000
3-Bedroom				$ -
TOTAL				$ 8,644,200

Rental 1 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$2.62	psf per month or	
	$1,546	per unit per month	
Monthly Parking Revenue	$75	per month	
Monthly Storage Revenue	$40	per month on	50% of units
Vacancy and Non Recoverable Allowance	1.00%		
Operating costs for New Rental Units	$4,250	per unit per year	
Property Tax Allowance			
Residential Assessment (upon completion of new building)	$166,617,000	(see capitalized value below)	
Residential Tax Rate	0.326%		
Residential Property Taxes	$543,808		
Capitalization Rate for Rental Apartment Space	4.00%		

Capitalized Value

Rental Revenue	$8,644,200
Parking	$545,400
Storage	$111,840
Total	$9,301,440
Vacancy	$93,014
Net	$9,208,426
Op Costs	$1,980,500
Taxes	$543,808
NOI	$6,684,118
Capitalized Value	$167,102,943
psf of rentable space	$607

Appendix 6 - Surrey Exhibit 10:

Land Residual Estimate for Concrete Strata Mixed Use Development
Assume 7.5 FAR (OCP Density) - With Rental Replacement
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size			
Gross Parcel Size	45,000	sq.ft.	1.03 acre
Dedications	0	sq.ft.	
Site Size	45,000	sq.ft. or	
Site Frontage	160	ft	
Base Density	7.5	FAR	
Bonus Density	0.0	FAR	
Total Density	7.5	FAR	
Total Gross floorspace	337,500	sq.ft.	
Gross residential floorspace	324,000	sq.ft.	
Gross commercial floorspace	13,500	sq.ft.	

Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1075 sf**	**Parking Stalls**	Share of Units
Strata Residential	299,000	85%	254,150	715	355	1.3	462	90%
Rental 1	0	85%	0	585	0	1.3	0	0%
Rental 2	25,000	85%	21,250	532	40	1.3	52	10%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	13,500	100%	13,500	n/a	n/a	3.00	38	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	337,500		288,900		395		552	100%

Revenue/Value		
Strata Residential	$840	per net square foot
Rental 1	$0	per net square foot (see separate calculations)
Rental 2	$306	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$0	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs			
Upfront Compensation to Existing Tenants	$116,293		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$350,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$243,902	$5,000	per lineal metre of frontage
Community Amenity Contribution Residential	$1,668	per unit on average	
Affordable Housing Contribution	$1,000	per strata unit	
Public Art Contribution (Allowance)	$1.82	psf of gross building	
Undergrounding Utilities	$1.74	psf of gross building	
Community Amenity Contribution Non-Residential	$0.03	psf of site area	
Rezoning Costs	$500,000		

Appendix 6 – Surrey Exhibit 10 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$275	per gross sq.ft. of residential area			
Rental 1 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$265	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$240	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$55,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$363	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$363				
Hard Cost Used in Analysis	$363				
Site Landscaping	$450,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$0		-	stations	$0 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit			
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$17.97	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$17.97	per sq.ft. of floorspace			
Retail DCCs	$11.98	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	3.00	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	5.00%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.326%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$21,286,121				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$109,994,651	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$0				
Assumed residential portion of assessment after 1 year of constructio	$109,994,651	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 6 – Surrey Exhibit 10 Continued:

Analysis

Revenue	
Strata Sales Revenue	$213,486,000
Rental 1 Value	$0
Rental 2 Value	$6,503,302
Rental 3 Value	$0
Gross Retail Value	$0
Gross Office Value	$0
Total Gross Value	$219,989,302
Less Commissions on Strata	$6,404,580
Less Commissions on Rental	$130,066
Less Commissions on Commercial	$0
Net Sales Revenue/Value	$213,454,656
Project Costs	
Upfront Compensation to Existing Tenants	$116,293
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$350,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$243,902
Electrical Charging Station	$0
Community Amenity Contribution Residential	$659,007
Affordable Housing Contribution	$355,000
Public Art Contribution (Allowance)	$614,500
Undergrounding Utilities	$587,250
Community Amenity Contribution Non-Residential	$1,426
Rezoning Costs	$500,000
Hard Construction Costs	$122,450,000
Site Landscaping	$450,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$10,698,192
Development management	$4,096,778
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$7,050,303
Car Share	$0
Marketing on Strata Units	$6,404,580
Initial Lease Up Costs on Rental 1 Units	$0
Initial Lease Up Costs on Rental 2 Units	$80,000
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$67,500
Tenant Improvement Allowance on Retail Space	$337,500
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$1,253,150
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$141,200
GVS & DD Sewer Levy - Commercial	$36,045
TransLink - Strata Apartment Residential	$426,000
TransLink - Townhouse	$0
TransLink - Rental Residential	$48,000
TransLink - Commercial	$16,875
Market Strata Apartment DCCs	$5,373,030
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$0
Rental 2 Residential DCCs	$449,250
Rental 3 Residential DCCs	$0
Retail DCCs	$161,730
Office DCCs	$0
School Site Acquisition Charge	$237,000
Less property tax allowance during approvals/development	$822,217
Less School Tax Surcharge During Development	$851,957
Interim financing on construction costs	$9,226,504
Financing fees/costs	$1,958,683
Less Net GST (assuming builder holds units)	$325,165
Total Project Costs Before Land	$176,389,039
Developer's Profit	**$28,686,605**
Residual to Land and Land Carry	**$8,379,012**
Less financing on land during construction and approvals	$652,516
Less financing fee on land loan	$52,154
Less property closing costs	$290,031
Residual Land Value	**$7,384,311**
Residual Value per sq.ft. of site	**$164**
Residual Value per sq.ft. of FSR	**$22**
Residual Value per sq.ft. of gross buildable floorspace	**$22**

Appendix 6 – Surrey Exhibit 10 Continued:

Rental 2

Assumptions			**Market**	**Rent**
Unit Type	**# Units**		**Size**	**rent/month**
Studios	10	25%	400	$ 697
1-Bedroom	18	45%	500	$ 880
2-Bedroom	12	30%	690	$ 1,036
3-Bedroom	0	0%	0	$ -
Total	40	100%		
Average			532	$ 881
				$ 1.66
Annual Revenue				
Studios				$ 83,592
1-Bedroom				$ 190,123
2-Bedroom				$ 149,170
3-Bedroom				$ -
TOTAL				$ 422,885

Rental 2 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$1.66	psf per month or		
	$881	per unit per month		
Monthly Parking Revenue	$50	per month		
Monthly Storage Revenue	$40	per month on	50%	of units
Vacancy and Non Recoverable Allowance	1.00%			
Operating costs for New Rental Units	$3,800	per unit per year		
Property Tax Allowance				
Residential Assessment (upon completion of new building)	$6,481,250	(see capitalized value below)		
Residential Tax Rate	0.326%			
Residential Property Taxes	$21,154			
Capitalization Rate for Rental Apartment Space	4.25%			

Capitalized Value

Rental Revenue	$422,885
Parking	$31,200
Storage	$12,480
Total	$454,085
Vacancy	$4,541
Net	$449,544
Op Costs	$152,000
Taxes	$21,154
NOI	$276,390
Capitalized Value	$6,503,302
psf of rentable space	$306.04

Appendix 6 – Surrey Exhibit 11:

Land Residual Estimate for Concrete Mixed Rental Development
Assume 7.5 FAR (OCP Density) - With Rental Replacement
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size

Gross Parcel Size	45,000	sq.ft.	1.03 acre
Dedications	0	sq.ft.	
Site Size	45,000	sq.ft. or	
Site Frontage	160	ft	
Base Density	7.5	FAR	
Bonus Density	0.0	FAR	
Total Density	7.5	FAR	
Total Gross floorspace	337,500	sq.ft.	
Gross residential floorspace	324,000	sq.ft.	
Gross commercial floorspace	13,500	sq.ft.	

Concept	Gross SF	Efficiency	Net Saleable or Rentable	Avg Unit Size	Number of Units	Parking Stalls per Unit or 1075 sf	Parking Stalls	Share of Units
Strata Residential	0	85%	0	650	0	1.3	0	0%
Rental 1	324,000	85%	275,400	593	465	1.3	605	92%
Rental 2	25,000	85%	21,250	532	40	1.3	52	8%
Rental 3	0	85%	0	565	0	0.5	0	0%
Retail	0	100%	0	n/a	n/a	3.00	0	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	349,000		296,650		505		657	100%

Revenue/Value

Strata Residential	$0	per net square foot
Rental 1	$607	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$0	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs

Upfront Compensation to Existing Tenants	$204,436		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings	$350,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$243,902	$5,000	per lineal metre of frontage
Community Amenity Contribution Residential	$1,668	per unit on average	
Affordable Housing Contribution	$1,000	per strata unit	
Public Art Contribution (Allowance)	$1.85	psf of gross building	
Undergrounding Utilities	$1.74	psf of gross building	
Community Amenity Contribution Non-Residential	$0.03	psf of site area	
Rezoning Costs	$500,000		

Appendix 6 – Surrey Exhibit 11 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$0	per gross sq.ft. of residential area			
Rental 1 Residential Area	$265	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$265	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$240	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$55,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$369	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$369				
Hard Cost Used in Analysis	$369				
Site Landscaping	$450,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$0		-	stations	$0 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit			
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$17.97	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$17.97	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$17.97	per sq.ft. of floorspace			
Retail DCCs	$11.98	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	3.00	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$3,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$1,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	3.60%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.326%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$21,286,121				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$83,564,109	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$0				
Assumed residential portion of assessment after 1 year of constructio	$83,564,109	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 6 – Surrey Exhibit 11 Continued:

Analysis

Revenue	
Strata Sales Revenue	$0
Rental 1 Value	$167,128,219
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$0
Gross Office Value	$0
Total Gross Value	$167,128,219
Less Commissions on Strata	$0
Less Commissions on Rental	$3,342,564
Less Commissions on Commercial	$0
Net Sales Revenue/Value	$163,785,654
Project Costs	
Upfront Compensation to Existing Tenants	$204,436
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$350,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$243,902
Electrical Charging Station	$0
Community Amenity Contribution Residential	$842,528
Affordable Housing Contribution	$0
Public Art Contribution (Allowance)	$624,159
Undergrounding Utilities	$587,250
Community Amenity Contribution Non-Residential	$1,426
Rezoning Costs	$500,000
Hard Construction Costs	$128,620,000
Site Landscaping	$450,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$11,208,888
Development management	$4,292,345
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$7,386,025
Car Share	$0
Marketing on Strata Units	$0
Initial Lease Up Costs on Rental 1 Units	$1,395,000
Initial Lease Up Costs on Rental 2 Units	$80,000
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$0
Tenant Improvement Allowance on Retail Space	$0
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$0
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$1,782,650
GVS & DD Sewer Levy - Commercial	$0
TransLink - Strata Apartment Residential	$0
TransLink - Townhouse	$0
TransLink - Rental Residential	$606,000
TransLink - Commercial	$16,875
Market Strata Apartment DCCs	$0
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$5,822,280
Rental 2 Residential DCCs	$449,250
Rental 3 Residential DCCs	$0
Retail DCCs	$0
Office DCCs	$0
School Site Acquisition Charge	$303,000
Less property tax allowance during approvals/development	$649,688
Less School Tax Surcharge During Development	$640,513
Interim financing on construction costs	$9,360,883
Financing fees/costs	$1,984,692
Less Net GST (assuming builder holds units)	$6,016,616
Total Project Costs Before Land	$184,418,406
Developer's Profit	**$21,793,520**
Residual to Land and Land Carry	**-$42,426,272**
Less financing on land during construction and approvals	-$3,303,946
Less financing fee on land loan	-$264,076
Less property closing costs	-$1,920,267
Residual Land Value	**-$36,937,983**
Residual Value per sq.ft. of site	**-$821**
Residual Value per sq.ft. of FSR	**-$109**
Residual Value per sq.ft. of gross buildable floorspace	**-$109**

Appendix 6 – Surrey Exhibit 11 Continued:

Rental 1

Assumptions			Market	Rent
Unit Type	**# Units**		**Size**	**rent/month**
Studios	31	19%	450	$ 1,350
1-Bedroom	80	50%	550	$ 1,500
2-Bedroom	50	31%	750	$ 1,750
3-Bedroom	0	0%	0	$ -
Total	161	100%		
Average			593	$ 1,549
				$ 2.61
Annual Revenue				
Studios				$ 502,200
1-Bedroom				$ 1,440,000
2-Bedroom				$ 1,050,000
3-Bedroom				$ -
TOTAL				$ 2,992,200

Rental 1 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$2.61	psf per month or	
	$1,549	per unit per month	
Monthly Parking Revenue	$75	per month	
Monthly Storage Revenue	$40	per month on	50% of units
Vacancy and Non Recoverable Allowance	1.00%		
Operating costs for New Rental Units	$4,250	per unit per year	
Property Tax Allowance			
Residential Assessment (upon completion of new building)	$166,617,000	(see capitalized value below)	
Residential Tax Rate	0.326%		
Residential Property Taxes	$543,808		
Capitalization Rate for Rental Apartment Space	4.00%		

Capitalized Value

Rental Revenue	$8,642,068
Parking	$544,500
Storage	$111,600
Total	$9,298,168
Vacancy	$92,982
Net	$9,205,187
Op Costs	$1,976,250
Taxes	$543,808
NOI	$6,685,129
Capitalized Value	$167,128,219
psf of rentable space	$607

Rental 2

Assumptions			Market	Rent
Unit Type	**# Units**		**Size**	**rent/month**
Studios	10	25%	400	$ 697
1-Bedroom	18	45%	500	$ 880
2-Bedroom	12	30%	690	$ 1,036
3-Bedroom	0	0%	0	$ -
Total	40	100%		
Average			532	$ 881
				$ 1.66
Annual Revenue				
Studios				$ 83,592
1-Bedroom				$ 190,123
2-Bedroom				$ 149,170
3-Bedroom				$ -
TOTAL				$ 422,885

Rental 2 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$1.66	psf per month or	
	$881	per unit per month	
Monthly Parking Revenue	$50	per month	
Monthly Storage Revenue	$40	per month on	50% of units
Vacancy and Non Recoverable Allowance	1.00%		
Operating costs for New Rental Units	$3,800	per unit per year	
Property Tax Allowance			
Residential Assessment (upon completion of new building)	$5,843,750	(see capitalized value below)	
Residential Tax Rate	0.326%		
Residential Property Taxes	$19,073		
Capitalization Rate for Rental Apartment Space	4.25%		

Capitalized Value

Rental Rev	$422,885
Parking	$31,200
Storage	$800
Total	$454,085
Vacancy	$4,541
Net	$449,544
Op Costs	$152,000
Taxes	$19,073
NOI	$278,471
Capitalized Value	$6,552,259
psf of rentable space	$308.34

Appendix 7 – Maple Ridge Exhibit 1:

Estimated Income Value Assuming Property is Improved with Old Low Density Commercial Buildings

Major Assumptions					
Site and Building Size					
Existing Zoning	C-3				
Site Size	15,000	sq.ft. or	115	by	130
Assumed Density	0.30	FSR			
Total Commercial Space	4,500	sq.ft.			
Retail	4,500	sq.ft.	100%	rentable	
Revenue and Value					
Average Lease Rate for Retail Space	$18.00	per sq.ft. net, base building			
Capitalization Rate	4.75%				
Value of Retail and Service Space Upon Lease-up	$379	per sq.ft. of leasable area			
Vacancy and non recoverables	0%				
Estimated Overall Value					
Capitalized Value of Retail/Service Space	$1,705,263				
Total Value of Commercial	**$1,705,263**				

Appendix 7 – Maple Ridge Exhibit 2:

Estimated Income Value of Property if Improved with an Older Low Density Rental Building

Rental Apartment Value	
Site Size (SF)	15,000
Assumed FSR	0.5
Total Floor Area (SF)	7,500
Average Gross Unit Size (SF)	900
Number of Units	9.0
Market Value Per Unit[1]	$150,000
Value of Rental	**$1,350,000**

[1]Based on recent market transactions.

Appendix 7 – Maple Ridge Exhibit 3:

Estimated Existing Value of Site if Improved with Older Single Family Houses

Single Family Assembly Value	
Site Size (SF)	15,000
Value Per SF of Site	$90
Total Value	**$1,350,000**

Appendix 7 – Maple Ridge Exhibit 4:

Land Residual Estimate for Strata Mixed Use Development
Assume 2.3 FSR (C-3 Zone)
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size

Gross Parcel Size	15,000	sq.ft.	0.34 acre
Dedications	0	sq.ft.	
Site Size	15,000	sq.ft. or	
Site Frontage	115	ft	
Base Density	2.3	FSR	
Bonus Density	0.0	FSR	
Total Density	2.3	FSR	
Total Gross floorspace	34,500	sq.ft.	
Gross residential floorspace	30,000	sq.ft.	
Gross commercial floorspace	4,500	sq.ft.	

Concept	Gross SF	Efficiency	Net Saleable or Rentable	Avg Unit Size	Number of Units	Parking Stalls per Unit or 100 sq. m.	Parking Stalls	Share of Units
Strata Residential	30,000	85%	25,500	850	30	1.0	30	100%
Rental 1	0	85%	0	631	0	1.0	0	0%
Rental 2	0	85%	0	565	0	0.0	0	0%
Rental 3	0	85%	0	565	0	0.0	0	0%
Retail	4,500	100%	4,500	n/a	n/a	1.0	4	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	34,500		30,000		30		34	100%

Revenue/Value

Strata Residential	$540	per net square foot
Rental 1	$0	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$567	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs

Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings (Allowance)	$100,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$122,713	$3,500	per lineal metre of frontage
Density Bonus Contribution	$0	psf of bonus density	
Rezoning Costs	$0		

Appendix 7 – Maple Ridge Exhibit 4 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$180				
Rental 1 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$240	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$45,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$232	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$232				
Hard Cost Used in Analysis	$232				
Site Landscaping	$150,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$0		-	stations	$0 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit			
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$10.09	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$10.09	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$0.00	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$0.00	per sq.ft. of floorspace			
Retail DCCs	$4.21	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	1.75	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$2,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	3.20%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.463%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$1,580,000				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$8,161,579	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$0				
Assumed residential portion of assessment after 1 year of constructio	$6,885,000	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 7 – Exhibit 4 Continued:

Analysis

Revenue	
Strata Sales Revenue	$13,770,000
Rental 1 Value	$0
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$2,553,158
Gross Office Value	$0
Total Gross Value	$16,323,158
Less Commissions on Strata	$413,100
Less Commissions on Rental	$0
Less Commissions on Commercial	$51,063
Net Sales Revenue/Value	$15,858,995
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings (Allowance)	$100,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$122,713
Electrical Charging Station	$0
Density Bonus Contribution	$0
Rezoning Costs	$0
Hard Construction Costs	$8,010,000
Site Landscaping	$150,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$704,031
Development management	$269,602
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$467,817
Car Share	$0
Marketing on Strata Units	$413,100
Initial Lease Up Costs on Rental 1 Units	$0
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$22,500
Tenant Improvement Allowance on Retail Space	$112,500
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$105,900
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$0
GVS & DD Sewer Levy - Commercial	$12,015
TransLink - Strata Apartment Residential	$36,000
TransLink - Townhouse	$0
TransLink - Rental Residential	$0
TransLink - Commercial	$5,625
Market Strata Apartment DCCs	$302,706
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$0
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$18,959
Office DCCs	$0
School Site Acquisition Charge	$18,000
Less property tax allowance during approvals/development	$39,313
Less School Tax Surcharge During Development	$10,155
Interim financing on construction costs	$358,010
Financing fees/costs	$126,888
Less Net GST (assuming builder holds units)	$0
Total Project Costs Before Land	$11,405,835
Developer's Profit	**$2,128,540**
Residual to Land and Land Carry	**$2,324,620**
Less financing on land during construction and approvals	$116,376
Less financing fee on land loan	$14,906
Less property closing costs	$29,684
Residual Land Value	**$2,163,654**
Residual Value per sq.ft. of site	**$144**
Residual Value per sq.ft. of FSR	**$63**
Residual Value per sq.ft. of gross buildable floorspace	**$63**

Appendix 7 – Exhibit 4 Continued:

Retail Assumptions

Lease Rate NNN	$27.50	psf per year
Monthly Parking Revenue (net of costs)	$0	per month
Vacancy and Non Recoverable Allowance	2.00%	
Capitalization Rate	4.75%	

Capitalized Value per 1000 SF Gross

Rental Rev	$27,500	
Parking	$0	
Total	$27,500	
Vacancy	$550	
NOI	$26,950	
Capitalized Value	$567,368	
Value psf of net leasable space	$567.37	psf

Appendix 7 – Exhibit 5:

Land Residual Estimate for Rental Mixed Use Development
Assume 2.3 FSR (C-3 Zone)
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site and Building Size

Gross Parcel Size	15,000	sq.ft.	0.34 acre
Dedications	0	sq.ft.	
Site Size	15,000	sq.ft. or	
Site Frontage	115	ft	
Base Density	2.3	FSR	
Bonus Density	0.0	FSR	
Total Density	2.3	FSR	
Total Gross floorspace	34,500	sq.ft.	
Gross residential floorspace	30,000	sq.ft.	
Gross commercial floorspace	4,500	sq.ft.	

Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 100 sq. m.**	**Parking Stalls**	Share of Units
Strata Residential	0	85%	0	850	0	1.0	0	0%
Rental 1	30,000	85%	25,500	643	40	1.0	40	100%
Rental 2	0	85%	0	565	0	0.0	0	0%
Rental 3	0	85%	0	565	0	0.0	0	0%
Retail	4,500	100%	4,500	n/a	n/a	1.0	4	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	34,500		30,000		40		44	100%

Revenue/Value

Strata Residential	$0	per net square foot
Rental 1	$456	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$567	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs

Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings (Allowance)	$100,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$122,713	$3,500	per lineal metre of frontage
Density Bonus Contribution	$0	psf of bonus density	
Rezoning Costs	$0		

Appendix 7 – Exhibit 5 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$0				
Rental 1 Residential Area	$170	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$240	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$45,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$237	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$237				
Hard Cost Used in Analysis	$237				
Site Landscaping	$150,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$0		-	stations	$0 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit			
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$10.09	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$10.09	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$0.00	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$0.00	per sq.ft. of floorspace			
Retail DCCs	$4.21	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	1.75	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$2,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	3.20%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.463%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$1,580,000				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$7,092,744	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$0				
Assumed residential portion of assessment after 1 year of constructio	$5,816,165	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 7 – Exhibit 5 Continued:

Analysis

Revenue	
Strata Sales Revenue	$0
Rental 1 Value	$11,632,329
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$2,553,158
Gross Office Value	$0
Total Gross Value	$14,185,487
Less Commissions on Strata	$0
Less Commissions on Rental	$232,647
Less Commissions on Commercial	$51,063
Net Sales Revenue/Value	$13,901,777
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings (Allowance)	$100,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$122,713
Electrical Charging Station	$0
Density Bonus Contribution	$0
Rezoning Costs	$0
Hard Construction Costs	$8,160,000
Site Landscaping	$150,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$716,781
Development management	$274,485
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$476,199
Car Share	$0
Marketing on Strata Units	$0
Initial Lease Up Costs on Rental 1 Units	$80,000
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$22,500
Tenant Improvement Allowance on Retail Space	$112,500
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$0
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$141,200
GVS & DD Sewer Levy - Commercial	$12,015
TransLink - Strata Apartment Residential	$0
TransLink - Townhouse	$0
TransLink - Rental Residential	$48,000
TransLink - Commercial	$5,625
Market Strata Apartment DCCs	$0
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$302,706
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$18,959
Office DCCs	$0
School Site Acquisition Charge	$24,000
Less property tax allowance during approvals/development	$35,602
Less School Tax Surcharge During Development	$6,948
Interim financing on construction costs	$354,483
Financing fees/costs	$125,603
Less Net GST (assuming builder holds units)	$372,235
Total Project Costs Before Land	$11,662,554
Developer's Profit	**$1,849,788**
Residual to Land and Land Carry	**$389,436**
Less financing on land during construction and approvals	$19,496
Less financing fee on land loan	$2,497
Less property closing costs	-$57,046
Residual Land Value	**$424,490**
Residual Value per sq.ft. of site	**$28**
Residual Value per sq.ft. of FSR	**$12**
Residual Value per sq.ft. of gross buildable floorspace	**$12**

Appendix 7 – Exhibit 5 Continued:

Retail Assumptions

Lease Rate NNN	$27.50	psf per year
Monthly Parking Revenue (net of costs)	$0	per month
Vacancy and Non Recoverable Allowance	2.00%	
Capitalization Rate	4.75%	

Capitalized Value per 1000 SF Gross

Rental Rev	$27,500
Parking	$0
Total	$27,500
Vacancy	$550
NOI	$26,950
Capitalized Value	$567,368
Value psf of net leasable space	$567.37 psf

Rental Assumptions

Rental 1

Assumptions			Market	Rent
Unit Type	# Units		Size	rent/month
Studios	0	0%	475	$ -
1-Bedroom	28	70%	575	$ 1,350
2-Bedroom	12	30%	800	$ 1,650
3-Bedroom	0	0%	0	$ -
Total	40	100%		
Average			643	$ 1,440
				$ 2.24
Annual Revenue				
Studios				$ -
1-Bedroom				$ 453,600
2-Bedroom				$ 237,600
3-Bedroom				$ -
TOTAL				$ 691,200

Rental 1 Revenue and Operating Cost Assumptions

Rental Rate Per Month	$2.24	psf per month or	
	$1,440	per unit per month	
Monthly Parking Revenue	$50	per month	
Monthly Storage Revenue	$40	per month on	50% of units
Vacancy and Non Recoverable Allowance	1.00%		
Operating costs for New Rental Units	$4,600	per unit per year	
Property Tax Allowance			
Residential Assessment (upon completion of new building)	$11,602,500	(see capitalized value below)	
Residential Tax Rate	0.463%		
Residential Property Taxes	$53,718		
Capitalization Rate for Rental Apartment Space	4.125%		

Capitalized Value

Rental Revenue	$691,200
Parking	$24,000
Storage	$9,600
Total	$724,800
Vacancy	$7,248
Net	$717,552
Op Costs	$184,000
Taxes	$53,718
NOI	$479,834
Capitalized Value	$11,632,329
psf of rentable space	$456.17

Appendix 7 – Exhibit 6:

Land Residual Estimate for Strata Mixed Use Development
Assume 4.0 FSR (No CAC)
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

A CAC would be required for a rezoning to 4.0 FSR.
A CAC has been excluded because project is not viable even without it.

Site and Building Size

Gross Parcel Size	15,000	sq.ft.	0.34 acre
Dedications	0	sq.ft.	
Site Size	15,000	sq.ft. or	
Site Frontage	115	ft	
Base Density	4.0	FSR	
Bonus Density	0.0	FSR	
Total Density	4.0	FSR	
Total Gross floorspace	60,000	sq.ft.	
Gross residential floorspace	55,500	sq.ft.	
Gross commercial floorspace	4,500	sq.ft.	

Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 100 sq. m.**	**Parking Stalls**	Share of Units
Strata Residential	55,500	85%	47,175	850	56	1.0	56	100%
Rental 1	0	85%	0	631	0	1.0	0	0%
Rental 2	0	85%	0	565	0	0.0	0	0%
Rental 3	0	85%	0	565	0	0.0	0	0%
Retail	4,500	100%	4,500	n/a	n/a	1.0	4	n/a
Office	0	95%	0	n/a	n/a	0.0	0	n/a
Total	60,000		51,675		56		60	100%

Revenue/Value

Strata Residential	$640	per net square foot
Rental 1	$0	per net square foot (see separate calculations)
Rental 2	$0	per net square foot (see separate calculations)
Rental 3	$0	per net square foot (see separate calculations)
Retail	$567	per net square foot including parking revenue (see separate calculations)
Office	$0	per net square foot including parking revenue (see separate calculations)

Pre Construction Costs

Upfront Compensation to Existing Tenants	$0		
Tenant Relocation	$0		
Allowance for Demolition of Existing Buildings (Allowance)	$100,000		
Allowance for Remediation	$0		
Site Preparation/Fill	$0		
Standard Site Servicing	$122,713	$3,500	per lineal metre of frontage
Density Bonus Contribution	$0	psf of bonus density	
Rezoning Costs	$0		

Appendix 7 - Exhibit 6 Continued:

Construction Costs					
Hard Construction Costs					
Market Strata Residential Area	$300				
Rental 1 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 2 Residential Area	$0	per gross sq.ft. of rental residential area			
Rental 3 Residential Area	$0	per gross sq.ft. of rental residential area			
Retail Area (shell space - no TI)	$250	per gross sq.ft. of retail area			
Office Area (shell space - no TI)	$0	per gross sq.ft. of commercial area			
Cost Per Garage/Underground Parking Stall	$55,000	per underground/structured parking stall			
Overall Costs Per Square Foot	$351	per gross sq.ft.			
Sustainability Premium	0%				
Total Estimated Cost per Square Foot	$351				
Hard Cost Used in Analysis	$351				
Site Landscaping	$150,000	or	$20	psf of site area on 50% of site	
Electrical Charging Station	$0		-	stations	$0 per station
Other	$0				
Soft costs and Professional Fees	8.5%	of hard costs, landscaping and site prep/servicing costs			
Development management	3.0%	of hard costs, landscaping and site prep/servicing costs and soft costs			
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	5.0%	of hard, soft and management costs			
Car Share	$0				
Government Levies					
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit			
GVS & DD Sewer Levy - Townhouse	$0	per townhouse unit			
GVS & DD Sewer Levy - Rental Residential	$3,530	per unit			
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space			
TransLink - Strata Apartment Residential	$1,200	per market unit			
TransLink - Townhouse	$0	per market unit			
TransLink - Rental Residential	$1,200	per unit			
TransLink - Commercial	$1.25	per sq.ft. of commercial space			
Market Strata Apartment DCCs	$10.09	per sq.ft. of floorspace			
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace			
Rental 1 Residential DCCs	$10.09	per sq.ft. of floorspace			
Rental 2 Residential DCCs	$0.00	per sq.ft. of floorspace			
Rental 3 Residential DCCs	$0.00	per sq.ft. of floorspace			
Retail DCCs	$4.21	per sq.ft. of floorspace			
Office DCCs	$0.00	per sq.ft. of floorspace			
School Site Acquisition Charge	$600	per unit			
Financing					
Interim financing	5.0%	assuming a	2.50	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.5%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	3.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	2.0%	of value			
Initial Lease Up Costs on Rental 1 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 2 Units	$2,000	per unit			
Initial Lease Up Costs on Rental 3 Units	$2,000	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$25.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$50.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market and Below Market Rental Units	3.20%	of capitalized value of rental units			
Net GST on Social Housing Units	2.50%	of development cost of new units (assumes rebate)			
Property Taxes	0.463%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$1,580,000				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$16,372,579	(50% of completed project value)			
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value	
School Tax Surcharge During Development*					
Tax Rate	0.2%	between $3.0-$4.(	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$0				
Assumed residential portion of assessment after 1 year of constructio	$15,096,000	(50% of completed residential project value)			

*Assumes BC Owner

Appendix 7 - Exhibit 6 Continued:

Analysis

Revenue	
Strata Sales Revenue	$30,192,000
Rental 1 Value	$0
Rental 2 Value	$0
Rental 3 Value	$0
Gross Retail Value	$2,553,158
Gross Office Value	$0
Total Gross Value	$32,745,158
Less Commissions on Strata	$905,760
Less Commissions on Rental	$0
Less Commissions on Commercial	$51,063
Net Sales Revenue/Value	$31,788,335
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings (Allowance)	$100,000
Allowance for Remediation	$0
Site Preparation/Fill	$0
Standard Site Servicing	$122,713
Electrical Charging Station	$0
Density Bonus Contribution	$0
Rezoning Costs	$0
Hard Construction Costs	$21,075,000
Site Landscaping	$150,000
Electrical Charging Station	$0
Other	$0
Soft costs and Professional Fees	$1,814,556
Development management	$694,868
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$1,197,857
Car Share	$0
Marketing on Strata Units	$905,760
Initial Lease Up Costs on Rental 1 Units	$0
Initial Lease Up Costs on Rental 2 Units	$0
Initial Lease Up Costs on Rental 3 Units	$0
Leasing Commissions on Commercial Space	$22,500
Tenant Improvement Allowance on Retail Space	$112,500
Tenant Improvement Allowance on Office Space	$0
GVS & DD Sewer Levy - Strata Apartment	$197,680
GVS & DD Sewer Levy - Townhouse	$0
GVS & DD Sewer Levy - Rental Residential	$0
GVS & DD Sewer Levy - Commercial	$12,015
TransLink - Strata Apartment Residential	$67,200
TransLink - Townhouse	$0
TransLink - Rental Residential	$0
TransLink - Commercial	$5,625
Market Strata Apartment DCCs	$560,006
Market Townhouse DCCs	$0
Rental 1 Residential DCCs	$0
Rental 2 Residential DCCs	$0
Rental 3 Residential DCCs	$0
Retail DCCs	$18,959
Office DCCs	$0
School Site Acquisition Charge	$33,600
Less property tax allowance during approvals/development	$124,678
Less School Tax Surcharge During Development	$69,576
Interim financing on construction costs	$1,275,727
Financing fees/costs	$321,309
Less Net GST (assuming builder holds units)	$0
Total Project Costs Before Land	$28,882,130
Developer's Profit	**$4,269,969**
Residual to Land and Land Carry	**-$1,363,763**
Less financing on land during construction and approvals	-$91,031
Less financing fee on land loan	-$8,591
Less property closing costs	-$134,547
Residual Land Value	**-$1,129,595**
Residual Value per sq.ft. of site	**-$75**
Residual Value per sq.ft. of FSR	**-$19**
Residual Value per sq.ft. of gross buildable floorspace	**-$19**

Appendix 7 - Exhibit 6 Continued:

Retail Assumptions

Lease Rate NNN	$27.50	psf per year
Monthly Parking Revenue (net of costs)	$0	per month
Vacancy and Non Recoverable Allowance	2.00%	
Capitalization Rate	4.75%	

Capitalized Value per 1000 SF Gross

Rental Rev	$27,500	
Parking	$0	
Total	$27,500	
Vacancy	$550	
NOI	$26,950	
Capitalized Value	$567,368	
Value psf of net leasable space	$567.37	psf