DATE: June 5, 2020
SUBJECT: **Land Value Capture Policy Study**

The Land Value Capture Policy Study, attached, was brought to the Joint Board and Mayors' Council Finance Committee on March 12, 2020 and the full Mayors' Council on May 28, 2020. This study of potential land value capture approaches for TransLink was requested by the Board and Mayors' Council as part of broader research into a Funding Strategy for TransLink. Materials were developed with external stakeholders throughout Fall 2019 and Spring 2020, prior to the COVID-19 pandemic.

The scope of the study was established in collaboration with Metro Vancouver staff and TransLink retained Coriolis Consulting to perform the study based on their expertise on land economics and urban planning. The study:

1) Quantifies the amount of land value uplift that can be created by transit infrastructure in this region; and
2) Identifies the challenges and opportunities for TransLink to use land value to generate new revenue for transit investments, increase walking, cycling, and transit ridership, and support transit-oriented affordable rental housing creation.

In the report, Coriolis recommends pursuing both direct participation in strategic land acquisition and urban development, and land-based taxes and charges (e.g. property transfer tax, benefitting area tax, community amenity contributions). Based on feedback from Mayors' Council in Spring 2020, TransLink will also continue to evaluate a variable-rate Development Cost Charge (DCC). The potential for any of the Land Value Capture mechanisms to be implemented as a part of TransLink's funding framework will require additional discussion based on the economic conditions of the region during the re-building phase following the pandemic.

ATTACHMENT

- Land Value Capture Report by Coriolis Consulting Corp. & Wollenberg Munro Consulting Inc.

Evaluation of Land Value Capture and Urban Development as Sources of Revenue for TransLink

February 2020

Prepared for:
TransLink

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1.0 Introduction

1.1 Background

TransLink funds its share of the capital and operating cost of the regional transit system using a variety of revenue sources, including transit fares, property tax, fuel tax, parking tax, and the new regional transportation DCC that came into effect in January 2020.

The region needs more investment in transit infrastructure, requiring additional funding. TransLink is interested in exploring new sources of revenue that will be sustainable in the long run and that have the potential to advance regional policies. The new regional TransLink DCC that came into effect in January 2020 is an example of expanding the funding base, by obtaining revenue from new urban development projects.

This report examines the potential for TransLink to generate revenue from two kinds of approaches that are linked to the increasing value of land and the continuing strong demand for residential and commercial development in this region:

- One approach is called Land Value Capture, which is a broad term that refers to ways to obtain public revenue or benefits from growth in the value of urban land. The rationale for land value capture is that public investment in community building and infrastructure is a key driver of land value growth, so it is reasonable to capture some of the growth in value to pay for the infrastructure.
- The second approach is a greater role in urban development activity by TransLink. TransLink has lands that are no longer needed for transportation purposes and lands that could accommodate development on top of or beside transit infrastructure, and it is acquiring land for future transit investment in places where there will be future development opportunities. By being more active in urban development, TransLink could create a new stream of revenues.

TransLink commissioned Coriolis Consulting Corp. and Wollenberg Munro Consulting Inc. to analyze the potential to generate revenue using these two approaches.

1.2 Terms

1. **"Land Value Capture"** means any mechanism whereby a public entity obtains benefits or revenue derived from land value or increases in land value. There is a wide range of land value capture approaches which can be divided into two groups:
    a) **One-time** forms of capture. These are methods of land value capture that occur at a particular event, such as the sale of a property, development approval, or rezoning. "One-time" does not mean only once in the history of a property, but once per major event or transaction.
    b) **Recurring** forms of capture. These are methods of land value capture that are ongoing (usually annually) and are not linked to specific events or transactions. This group includes property taxes.
2. **"Urban Development"** means direct participation in the urban land market and in the creation of new residential or commercial projects. There are three main ways in which TransLink could be involved in urban development:
    a) **Disposition of surplus lands.** TransLink has property that was acquired in the past but is no longer needed for transportation purposes. This includes entire sites, portions of sites, or the air rights above transit facilities. These lands could be made available to the market for urban development. Prior to the disposition of such lands, TransLink has the opportunity to capture value associated with

rezoning. Disposition of sites or air rights is a form of land value capture, as it takes advantage of market-wide gains in land value that have occurred since acquisition and benefits from any land value increases that result from transit investment and upzoning. This differs from other forms of land value capture in that it only applies to property that is owned by TransLink rather than to all properties in an area subject to a tax or development charge.

b) **Strategic acquisition and subsequent disposition of lands**. TransLink acquires property for transportation construction. In some cases (such as new transit stations) there can be opportunities to acquire more land than the minimum needed for construction, in order to take advantage of the new accessibility that will be provided by transit service and to ensure that the post-construction development sites are optimized in terms of size and configuration. In these cases, TransLink can benefit from land value gains due to accessibility, rezoning, and market uplift between the time of acquisition and disposition (which usually will span several years). Strategic acquisition/disposition is also a form of land value capture, benefitting from market-wide gains in land value and from transit investment and upzoning. This approach involves more risk than the disposition of already-owned surplus property, as it requires new capital investment in property and it usually requires holding land for several years.

c) **Development.** There may be cases in which TransLink can best meet its goals by participating in development projects on its lands, rather than just marketing them to developers. While there is additional risk involved in development, there is the potential to earn developer profit and the potential to shape development projects to achieve regional goals such as supporting transit-oriented affordable housing or enhancing the transit experience for riders. Participation in development projects is the one approach considered in this report that is not technically a form of land value capture. The gain in land value of owned property is land value capture, but the separate (albeit related) decision to be an equity participant in a project is a business decision intended to earn a profit (not to capture land value). We include development participation because TransLink is interested in exploring this possible source of revenue and because any disposition of surplus property carries with it the possibility to be involved in development on the property.

1.3 TransLink's Goals

The main focus of this work is to identify possible new sources of revenue to pay for transit investment and transit operations. Generating revenue is not the only reason to consider land value capture and involvement in urban development, though.

The region has many land use-transportation integration priorities, as outlined in TransLink's *Regional Transportation Strategy* and Metro Vancouver's *Regional Growth Strategy*. In particular, there is strong evidence that affordable rental housing in transit-oriented locations is an excellent strategy for addressing housing affordability, because transit-oriented housing can reduce household transportation cost, reduce commuting time (which can be an important benefit to lower income households trying to improve their circumstances), and reduce construction cost by reducing the need for costly underground parking. Affordable, transit-oriented housing is also good for building public transit ridership, as lower income households (and particularly renters) tend to be high transit users.

In addition to building ridership, facilitating urban development at transit stations provides the higher density, proximity, physical infrastructure, and placemaking that support walking and cycling.

Consistent with its mandate to advance the *Regional Transportation Strategy* and *Regional Growth Strategy*, TransLink is looking to this study to help it understand opportunities and challenges for using land value capture to support three regional goals:

1. **Identify new sources of revenue** for regional transportation purposes that can be applied to:
    - New investment in transportation infrastructure.
    - Repaying existing debt for past investments in infrastructure.
    - Transit operating costs.
2. **Support transit-oriented affordable rental housing.** Metro Vancouver needs more affordable rental housing, especially in transit-oriented locations because renters tend to be more likely to use transit and they benefit from the reduced cost of living that transit offers over car ownership. Being involved in the urban land market, either through the terms of sale/lease of TransLink surplus sites or direct participation in development, gives TransLink the ability to facilitate the construction of more rental units. Consistent with the Metro Vancouver *Transit-Oriented Affordable Housing Study*[1], "transit-oriented affordable rental housing" generally refers to housing with these characteristics:
    a. Rental tenure.
    b. Affordable to households with incomes in range of $35,000 to $60,000 per year (about 50% to 80% of regional median household income). Household income below $35,000 is considered very low and generally requires non-market, public sector subsidized housing solutions. Household income above $60,000 is in the moderate range and is generally able to support market rent in some parts of the region.
    c. In proximity to rapid transit or the Frequent Transit Network, allowing access to employment with reasonable commute times and without having to rely on owning a private vehicle.

    The emphasis is on affordable, transit-oriented rental housing because households in this segment are above-average users of transit, are not having their needs met by market rental housing, and are capable of paying enough rent to make new construction financially viable without ongoing subsidy provided land (or density) is available at little cost.
3. **Increase walking, cycling, and transit use.** Increasing the non-automobile number of trips requires supportive infrastructure (e.g. bike lanes) and it requires that transit be well-integrated with adjacent development so that it is convenient for pedestrians and cyclists. Being involved in urban development creates the opportunity to directly influence the form and character of development so that it is transit supportive.

Land value capture can also be used to achieve other goals. For example, land value capture can be a tool for wealth distribution, for reducing land values or housing prices (usually as part of a broader strategy to make housing more affordable), or for reducing investment in property solely for capital appreciation purposes. This report for TransLink is not intended to consider ways to achieve these kinds of outcomes. This report focuses on the possible use of land value capture and possible involvement in urban development as mechanisms for achieving TransLink's three primary goals listed above.

[1] Coriolis Consulting Corp. and Wollenberg Munro Consulting Inc., "Reducing the Barrier to High Land Cost: Strategies for Facilitating More Affordable Rental Housing Construction in Metro Vancouver. Phase 2 of the Transit-Oriented Affordable Housing Study." March 2019.

1.4 Study Participants

TransLink established a staff Working Group to manage this project and provide direction to the consultants. TransLink invited Metro Vancouver to participate on this team, particularly regarding ways in which TransLink might use land value capture to support affordable rental housing at transit-oriented locations in the region.

Representatives of local government and the development industry participated in two rounds of workshops to review the consultant team's work and also provided written comments on the first draft of the report.

The consultant team completed all of the technical analysis and provided independent opinions and recommendations, as contained in this final report. The opinions expressed in this report do not necessarily reflect the opinions of TransLink, Metro Vancouver, or any of the stakeholders who provided input.

1.5 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/regional 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.

Nothing contained in this report, express or implied, shall confer rights or remedies upon, or create any contractual relationship with, or cause of action in favour of, any third party relying upon this document.

In no event shall Coriolis Consulting Corp. or Wollenberg Munro Consulting Inc. be liable to TransLink or any third party for any indirect, incidental, special, or consequential damages whatsoever, including lost revenues or profits.

2.0 Foundations of Land Value Capture

2.1 Rationale

Land value capture is already in use, or is being considered, as a revenue-generating tool in many urban regions around the world. There is extensive interest in this tool because there is a compelling case for the public sector to capture some of the value that the public sector creates via community building and infrastructure investment and then reinvest this value to create further public benefit.

The rationale for land value capture can be summarized in this way:

- The value of urban land is based heavily on how it can be used and its access to urban infrastructure.
- Increases in land value (as distinct from the value of improvements) are almost entirely due to public actions, such as zoning, infrastructure investment, and the creation of the legal and economic framework within which communities develop. The public sector should benefit from these actions rather than all of the benefit accruing to private owners of land.
- Investment in land is not as productive for the economy as investments that create jobs and income, so taxation policy should generally discourage passive land investment in favour of more active forms of investment.
- In urban areas, land should be used to its maximum potential, not left vacant or under-used, so property tax policy should encourage development.
- Land cannot move, so tax avoidance is not a concern.

It is important to note that “land value capture” makes a distinction between land value and total property value. The value of each urban property is the sum of its land value and its improvements value. Improvements mainly refers to buildings. Most users of urban land tend to “bundle” land and improvements, in the sense that a person puts a value on their home, or a business is willing to pay a certain rent to occupy space in a particular location. But it is possible to un-bundle the value into its land and improvements components. Land value capture focuses on the land portion, because this is the part of property value that is created mainly by public sector actions and this is the passive part of property investment that is comparatively unproductive for the economy, whereas improvements value is created by private investment in new construction which creates economically and socially useful space for housing and employment.

Land value capture perhaps sounds like a new form of taxation, but in BC property owners are already exposed to several kinds of land value capture taxes and charges that go by other names. Property tax, property transfer tax, and the new Provincial school tax surcharge are just some of the ways that many land owners are taxed (on the value of land and improvements). Developers already deal with other forms of land value capture, including Development Cost Charges and Community Amenity Contributions. So, the idea is not new. The purpose of this report is to explore how TransLink might use land value capture to achieve its goals.

2.2 The Factors that Create Urban Land Value

In order to understand the rationale for public sector land value capture, it is important to consider how urban land value is created in the first place.

The factors that determine land value can be divided into three broad categories:

1. Geography and context:
    - An urban area's natural geographical setting, climate, physical environment, and topography determine the appeal of the area as a place to live, work, develop, and invest. These factors also affect the amount of land that is physically suitable for urban use.
    - The international, national, and provincial contexts create the overall market for urban land in a region, by driving the demand for housing and employment space. Population growth, job growth, low mortgage rates, the draw of our Provincial health care and school systems, and local and non-local real estate investment interest are examples of contextual forces that contribute to property demand, putting upward pressure on land value.
2. Local zoning and infrastructure:
    - The supply of developable land is partly determined by geography, but local land use regulation defines how land can be used, which has a huge impact on land value by establishing allowable uses and densities.
    - Local/regional infrastructure (including water and sewer systems, transportation networks, and community facilities) creates the context within which urban development can occur.
3. Individual site characteristics:
    - While the above factors create the contextual market for urban land, the unique qualities and immediate surroundings of each site determine the site's value in the market context.
    - Site size, views, soil conditions, accessibility, and topography are just a few of the individual features that make some sites more valuable than others.

These factors are examined in more detail below.

2.2.1 Geography and Context

Natural Setting and History

What we now call Metro Vancouver was one of the early major urban settlements in BC after European colonists began to arrive in large numbers. As this region developed, it gained increasing prominence as a gateway and major urban centre with a large concentration of employment, a convergence of road and rail networks, a port, and a concentration of specialized services in health care, education, management, and the professions. The region's natural advantages (natural environment, gateway, climate, scenic quality) and in more recent days its culturally diverse population and its placement in the international time zone system have positioned it well for economic ties to Asia, the US, and Europe.

The region also has features which impose a hard constraint on land availability. The ocean, mountains, and US border hem the region into a relatively small area.

This momentum of geography and history set the region on a long arc of strong demand and constrained supply, causing long term growth in the value of land.

International Context

In the modern world, people, goods, companies, and capital are highly mobile. Global economic, environmental, social, and political forces create the impetus for some people to want to live in or invest in places other than where they currently live. This mobility affects many countries including Canada, which welcomes newcomers and new investment that add to the demand for urban land in attractive locations.

National Context

Canada as a nation state and a national economy has major competitive advantages that lead to the demand for urban land, including:

- A framework of property rights and the rule of law.
- A comparatively safe, tolerant, and culturally diverse community structure.
- An extensive network of air, marine, rail, transit, and highway infrastructure.
- A system of immigration and offshore investment management.
- A strong central bank and national banking system.

This national context attracts and supports population growth, business growth, and local and non-local investment, all of which contribute to growth in urban land value.

Provincial Context

The Province of BC is responsible for key elements of the context that supports land value growth, including:

- The health care system.
- K to 12 public education.
- Post-secondary education.
- Regional infrastructure including highways, bridges, and transit.
- Economic development initiatives that attract investment and companies.

This Provincial framework contributes to land value growth in many communities, although there are declines in some due to challenges such as the reduction of output in the forestry sector. The effect of the Provincial education and health care system is magnified in Metro Vancouver, as it has the largest concentration of post-secondary institutions and specialized health care facilities and services.

The Province also has a significant influence on the supply of developable land in Metro Vancouver, via the Agricultural Land Reserve which protects farmland but also has the effect of shrinking an already-constrained supply of land for development for urban use.

2.2.2 Local Zoning and Infrastructure

Local governments and regional agencies also make a significant contribution to the forces that create and increase land value. The planning and zoning framework governs land use, height, and density which affect the value of land. Local government provides infrastructure and amenities, regional agencies provide the water system (Metro Vancouver Water Department), sewer networks (GVS&DD), electricity (BC Hydro), natural gas (FortisBC), and transportation/transit infrastructure (TransLink).

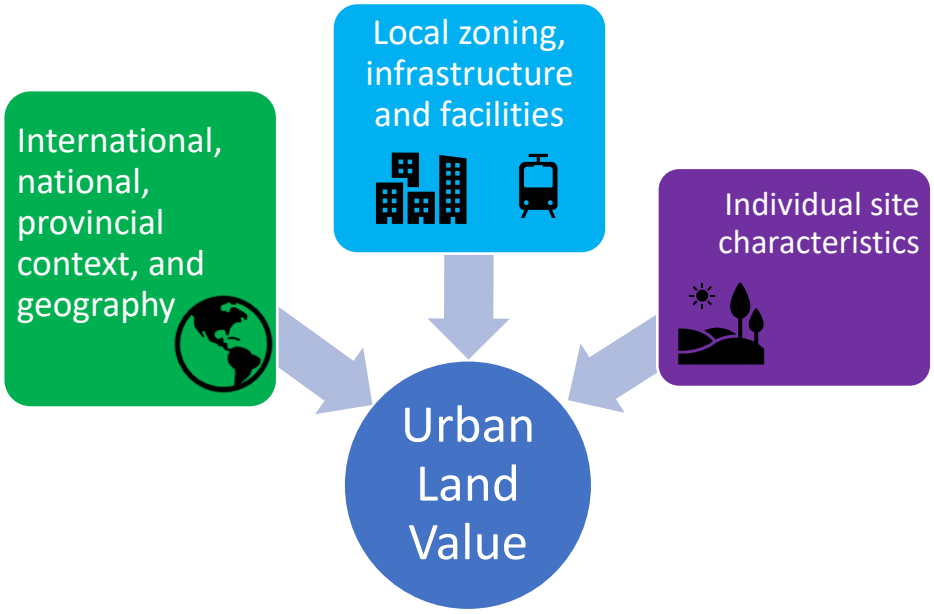
2.2.3 Site Characteristics

The national, provincial, and regional/local contexts create an overall market for urban land in Metro Vancouver, driving demand for housing and employment space and delimiting the supply of land for development. Within this regional market, site specific factors determine the market value of individual parcels of land. These include:

- The specific zoning regulations that apply to each site.

- Accessibility by road and transit for residential and commercial uses and by rail, sea, or air for many industrial uses.
- Services and utilities to the site.
- Nearby amenities and services (e.g. schools, shopping, parks, recreation/community centres).
- Soil conditions and topography.
- Special features such as views or waterfront.

These features determine the value of land. Investments in improvements increase total property value but do not change the value of the land.



2.3 The Role of Land Owners

In the breakdown of factors that drive land value, all of them can be considered contextual, inherent in the site itself, or the result of actions by others (mostly local government) that directly benefit the parcel of land.

The land owner does not really have a direct ability to cause land value to rise. Certainly land owners can invest in improvements, which increase the total value of the property, but this does not change the value of the land. The land owner can seek rezoning, but local government makes this decision. Therefore, many commentators treat land value gain as a sort of windfall for the owner: *the owner benefits from public decisions (such as rezoning, transit investment, nearby public amenities such as parks) without having directly paid for them*. However, the characterization of the land value gain as a pure windfall makes it sound accidental, which is not entirely true:

- Land owners have usually made deliberate decisions about where and when to buy land for housing, business use, development, or investment. They may not ***cause*** land value gain, but they make a choice that presumably includes some thought about where there is an opportunity. An investment in land involves taking risk, weighing options, and making choices. This is different than finding money on the sidewalk. While land values have risen rapidly in Metro Vancouver during the last decade, there have

been periods of decline or very low growth (e.g. 1981 to 1988, 1995 to 2002, 2008 to 2009, 2018 to 2019), indicating that there is risk.

- Owners of houses or residential strata units may have made tradeoffs when they acquired their homes. For example, suppose two households each have a house purchase budget of $1,000,000. One opts for a small, older home near the region's core so family members can walk to work, school, or shopping. This purchase involves $800,000 of land value and $200,000 of improvements. The other opts for a suburban location because of a higher priority on larger, newer space. This purchase involves $200,000 in land value and $800,000 in improvements, and also means that this household drives more. Now suppose land values in both cases rise by 25% over some period. The first household will realize a higher land value gain and, if a land value tax mechanism were in place, would pay more tax. This may be perceived as inequitable considering the tradeoff that was made at the outset.

- Developers or land owners who seek rezoning would receive a windfall if extra density is available at no cost. But if they exchange cash or amenities to obtain increased density there is no land value windfall as long as the amount they pay is commensurate with the value of the density.

The conversation about land value capture in Metro Vancouver is in part stimulated by the rapid rise in land values over the last decade or so.

The trend in Metro Vancouver house prices from 2005 to 2018 as indicated by the Greater Vancouver Real Estate Board's MLS Home Price Index[2] is summarized in Exhibit 1.

Exhibit 1: Average Annual % Increase in Metro Vancouver Housing Prices by Type of Property (2005 to 2018)

	Average Annual Increase in Metro Vancouver
Single detached	8.7%
Strata apartment	9.1%

Source: MLS Home Price Index, Greater Vancouver Real Estate Board.

All owners of residential property in the region have seen significant percentage increases in the land value component of the total value. The dollar value increases are much larger in some areas (such as the west side of Vancouver) because values were higher to start with, but the percentage gains are high across the region.

[2] The index is based on the estimated annual change in the sales price of a benchmark property within each submarket.

2.4 Approaches Using Taxes, Charges, and Zoning

This section summarizes the main forms of land value capture that involve taxes and charges applied to urban areas. The approaches are divided into one-time and recurring methods.

2.4.1 One-Time Taxes and Charges

There are several commonly used ways to derive revenue from land value at a point in time, usually at a transaction or at a development milestone. These include:

- **Taxes on the transfer of property ownership at time of sale**. These are sometimes called stamp taxes and in BC are called Property Transfer Tax.
- **Income tax or capital gains tax on the increase in property value when sold**. Different jurisdictions treat capital gains differently. In Canada most capital gains are taxed favourably compared to income and gains on principal residences are exempt from taxation.
- **Fees charged on new development** at the time of permit approval, mainly to raise revenue to pay the capital cost of community infrastructure. These are variously called development levies, impact fees, or development charges. In BC, they are called DCCs or (in the City of Vancouver) DCLs.
- **Public benefits in exchange for new development entitlements (density),** usually at rezoning. Many jurisdictions use density bonusing or negotiated contributions at the time of rezoning to obtain public benefits or amenities. These are commonly called Community Amenity Contributions (CACs) or density bonusing in BC.

There are some important features of these one-time approaches:

- Property transfer taxes are paid by the purchaser and do not require a cash outlay by the existing owner.
- Capital gains tax occurs when the owner sells, meaning the sales proceeds provide the cash used to pay the tax.
- Fees paid at development approval are paid by developers as part of the process of creating a new project and tend to come out of what otherwise would be land value.
- Public benefits at rezoning are an exchange of density, which creates new land value, for amenities and infrastructure that use some of the new value to address the needs and impacts of growth.

2.4.2 Recurring Taxes

The second major group of land-based revenues consists of different kinds of ongoing taxes on property. These include:

- **Tax on Property Value or Land Value**. Almost all jurisdictions levy annual tax on the value of land, improvements, or (most commonly) both. The most common approach is for land and improvements to be taxed at the same rate, although there are a few jurisdictions that allow different tax rates for land and improvements.
- **Property Tax Surcharge**. Some jurisdictions apply a property tax surcharge to some categories of property, such as property above a certain value or in a particular location. The BC School Tax surcharge on high value residential property is an example of a value-based surcharge and the BC Speculation and Vacancy Tax is an example of a surcharge on a particular group of properties based on location and occupancy.

- **Benefitting Area Surcharge**. Some jurisdictions apply a tax surcharge to properties that benefit from a specific public sector capital project. These are sometimes called betterment taxes, special service area taxes, local improvement taxes, or special assessment districts. Several jurisdictions in the US levy additional property taxes on property in defined transit service areas.

These recurring charges are paid by the owners or users of the property out of their income or wealth, not out of proceeds from disposition or development of the property. The taxpayer must have a source of income, have cash on hand, or borrow to cover the cost of the tax, unless there is some system of exemption or deferment.

2.5 Approaches Using Direct Participation in Strategic Land Acquisition and Development

Land value capture mechanisms are intended to derive revenue from all urban property that benefits from investments in infrastructure or from land use decisions. Land value capture by a public entity does not have to be associated with any direct participation in the land market or in urban development projects. However, direct participation in the urban land market, or in development projects, is another way that the public sector can reap benefits from infrastructure investments and zoning changes.

2.5.1 Strategic Land Acquisition and Disposition

All levels of government are involved in acquiring and selling/leasing land for a wide range of purposes including generating revenue, supporting housing, and meeting civic social, recreational, and cultural objectives. Agencies involved in delivering transportation infrastructure are of necessity involved in the land market because they require property for permanent use for stations and corridors as well as temporary use during construction for staging and storage. This need for property creates an opportunity to take advantage of subsequent gains in land value due to increased accessibility after a new line goes into service, changes in zoning, and general growth in land value in an overall rising market.

Public agencies with long term involvement in transportation infrastructure delivery also end up with properties that were needed in the past but are no longer needed for transportation purposes and so are partly or entirely surplus. Depending on where they are and how long they have been held, the value of these properties may be significantly higher than original acquisition cost.

Under the general heading of strategic land acquisition and disposition, there are several ways in which a transportation agency can earn revenue or achieve other objectives such as encouraging transit ridership or supporting affordable housing:

- Disposition of property that has become surplus to the agency's functional transportation requirements. Sites once needed for storing/maintaining transit vehicles or transfer stations may no longer be required due to changes in technology, transportation networks, or other factors.
- Disposition of sites required for temporary use during major construction once construction is complete.
- When acquiring land for new infrastructure, acquisition of more than the bare minimum needed for transit use. There are several ways to create these opportunities:
    - The potential for air rights development over transit infrastructure can be maximized if care is taken in acquiring sufficient land to create the physical ability for such development and if care is taken in the siting and design of transit infrastructure.

- If the land required for transit construction necessitates the acquisition of a part of a property, it can be financially advantageous to acquire the entire property either to ensure that post construction there is a workable development site or to avoid the situation that it costs more to acquire a partial property (because of negative impacts on the residual portion) than to just buy the whole site.
- If the land required for transit construction is adjacent to property that is a strong candidate for land assembly that creates additional, better development potential.

These opportunities create the potential to generate three kinds of land value gain:

- Usually considerable time passes between acquisition and subsequent disposition of surplus property. In strong land markets, the growth in land value can exceed a public agency's cost of capital meaning that even if the funds to buy land must be borrowed the eventual sale will produce a net gain.
- The area around new transit stations is often a candidate for changes in land use and increases in density, which usually add to land value. Even when much of the land value lift caused by rezoning is captured by local government, in the form of development levies or mechanisms such as CACs, a portion of the lift accrues to land owners.
- New transit infrastructure improves accessibility, which tends to add a price premium on residential and commercial space in the vicinity of the transit. This price premium translates to increased land value for the owner.

In many cases, land acquired by a transit agency can benefit from all three of these gains so it can become very attractive to make early strategic investments in land when planning for major new infrastructure projects.

In addition to generating revenue, land acquisition also creates the potential to achieve other objectives. When an agency disposes of developable land, via sale or lease, there is an opportunity to influence land use and the form and character of development in ways that can support affordable housing or that support transit ridership. Mechanisms to achieve objectives regarding affordable housing and transit ridership support include:

- Terms of sale or lease of land to developers. TransLink could, for example, require the inclusion of affordable rental housing units when it disposes of development sites and could require that the physical design of projects be supportive of walking, cycling, and transit use.
- Zoning. When TransLink seeks rezoning of property prior to disposition it could work with local governments to include zoning provisions regarding affordable rental housing or to require design elements that are supportive of walking, cycling, and transit use.
- Funding. TransLink could apply some of the proceeds from strategic land acquisition/disposition to investments in affordable housing (directly or by contributing to other initiatives such as the regional affordable fund being proposed by Metro Vancouver as one of the outcomes of its Transit-Oriented Affordable Housing work).

There are tradeoffs, of course, because incorporating rental housing results in less land value (unless local government is willing to provide significantly more new density for rental than it would for strata). It is up to the agency to decide which objectives to advance and how to prioritize different potential public benefits.

2.5.2 Participation in Urban Development Projects

If a transit agency sells or leases surplus lands to the development sector, the agency benefits from gains in land value that have occurred since the time of acquisition, especially if new transit infrastructure has been built in that time and if allowable land use and density have changed. A private developer who acquires the

land then benefits from any land value growth between the time of site acquisition and the completion of the project, and also (in a successful project) earns a developer profit.

By directly participating in development projects, a public agency can tap some or all of this revenue potential.

TransLink could be involved in urban development projects in various ways:

- Rather than sell or lease surplus sites or development parcels to developers, TransLink could take on the role of developer either alone or in partnership with other developers.
- TransLink could be the developer of rentable space within or adjacent to new transit infrastructure (e.g. retail space as part of the station or rentable space in the air rights above a station).
- TransLink could take ownership of space within a development project in lieu of being paid for a development parcel. In this case, TransLink would not be a developer but would take on some development risk by taking space instead of cash.

Direct participation in development projects is not technically a form of land value capture. The land value capture is realized when a surplus property is made available for development, either to an arms-length developer or to an internal development division. Participating in the actual development on the surplus property would be a separate business decision by TransLink that involves injecting new equity and/or deciding to invest the value of the land into the project in order to make a profit in addition to capturing the (increased) value of the land. Of course, non-profit developers work on a different business model, but presumably TransLink would only become directly involved in development projects as a means of generating revenue (i.e. profit) to be applied to the organization's investment objectives.

Direct participation in development is very different from land value capture as it involves significant possible risk, including:

- **Market risk**. Large scale, high density development projects typically involve two or more years between commencement and completion. During this time market conditions can change. If prices and the rate of sale or lease-up increase, then developers benefit. But the market can go soft, reducing or eliminating profit and creating the risk of loss.
- **Cost risk**. Developers use various methods to reduce risk of increasing construction cost, but there is always exposure to delay, mistakes, material or labour issues, and other factors that can increase cost. If costs rise more than sales prices, then profitability is impaired.
- **Approvals risk**. The process of obtaining municipal development approvals involves risk related to municipal requirements (e.g. off-site works, sustainability features, design) and timing. Risk can be significantly mitigated by resolving zoning-related matters before committing to a project but there are still risks inherent in the development permit and building permit phase of a development project, particularly for large projects and projects that involve any significant opposition from the public or specific stakeholder groups.
- **Financing risk**. Almost all development projects require construction financing. Depending on the terms of such financing, there is a risk that interest rates rise during construction.
- **Physical risk**. Development projects can encounter soil contamination, problematic geotechnical or hydrological conditions, or damage during construction (e.g. fire, excavation collapse) that increase cost. These can be mitigated by thorough due diligence work before committing to a project, but some risk always remains.
- **Partner risk**. An agency may prefer to work with a developer partner rather than be fully responsible for a project. This has the advantage of adding expertise to the team, spreading risk, and reducing the need

for agency equity or borrowing, but it comes with a new set of risks associated with the legal and financial structure of the deal. A partner may become insolvent, act outside the terms of agreements, cause negative publicity, or do other things that impair the financial or reputational position of the public sector partner. These risks can be mitigated by careful partner selection and robust legal agreements, but these risks cannot be completely eliminated.

Because of the risks involved, the decision to participate directly in urban development projects requires caution and considerable advance work to ensure that the potential benefits are significant enough to warrant the risks. A transit agency can mitigate the risks of being involved in development by:

- Focusing on projects that are at transit locations. Market risk is lower in high demand locations.
- Focusing on projects that include high-demand product.
- Extensive due diligence, appropriate provision for contingency, and detailed risk assessment.

Direct participation in development can generate revenue to apply to transit, affordable housing, and other objectives. In addition, direct participation in development would enable TransLink to create affordable rental housing and to design projects to incorporate features that support walking, cycling, and transit use.

2.6 Other Approaches Not Considered in this Report

TransLink asked us about four other approaches, which are not considered in this report for the following reasons:

1. **Cash-in-Lieu of Off-Street Parking.** Off-street parking is an expensive component of high density residential and commercial construction. In transit-oriented locations, demand for parking is lower and developers are usually interested in reducing municipal zoning requirements for off-street parking when the cost saving is greater than any loss in revenue.

   Reduced parking requirements can be implemented by changing zoning requirements, without requiring any contribution from developers. Alternatively, there are systems in which a reduced parking requirement can be obtained in exchange for a cash-in-lieu payment, with the funds applied to transit investment.

   This means of generating revenue is not considered in this report for these reasons:

   - Development regulation in BC is completely the responsibility of local government and is not likely to be restructured to give other agencies a role in defining zoning requirements such as parking.
   - Cash-in-lieu of parking is a revenue generating tool but it is not a land value capture mechanism. If the cash payment is equal to what the cost of parking would have been, there is no impact on development economics so there is no transfer of land value (and developers are not likely to build less parking if they have to pay for it anyway). If the cash payment is less than the cost of the parking, this can actually put upward pressure on land value by reducing development cost.

2. **Hotel and Short-Term Rental Tax.** Some local governments impose taxes on specific uses. However, these are not land value capture mechanisms so they are not considered in this report:
   - Hotel taxes are based on room revenue, so they are a tax on revenue not on value. There may be an indirect effect on the value of hotel properties by reducing net operating income, but this is not the aim.
   - Taxes or fees on short term rentals are a means of regulating the use, not taxing value.

3. **Tax Increment Financing.** Another approach that is often mentioned is called Tax Increment Financing (TIF). TIF works like this:

- A public agency with property tax authority borrows money (either as a loan or by issuing a bond) to pay for some form of infrastructure that is expected to cause land values and property tax revenues to rise.
- To provide security for the lender or bondholders, the agency pledges to apply growth in property tax revenue in the benefitting area to repayment. This pledge is a way to reduce the risk of default.

So, TIF is not land value capture per se. It is just a means of using increased value (i.e. the growth in property taxes in a specific area) as security to obtain financing. There is no "new money"; the gains in property tax revenue caused by infrastructure investment are going to occur whether or not TIF is used; the TIF is simply an allocation of new taxes to the specific purpose of repaying borrowed funds.[3] This approach can make sense if a local government can only obtain financing by pledging the future tax growth in a defined area. In jurisdictions that do not have difficulty borrowing, it makes more sense for a lender or bond buyer to have repayment obligations secured by the entire tax base of the agency, not just the portion of the tax base inside the TIF area. For these reasons, TIF is not directly relevant to TransLink's situation and is not considered in this policy analysis report.

4. **Penalties on Low Density Development**. Some stakeholders have suggested applying a charge or tax on low density development as a disincentive to development that is not transit-oriented. Such a charge would be an indirect form of land value capture, in the same way that DCCs put downward pressure on a developer's ability to pay for land. The existing property tax system in BC acts as a kind of disincentive to maintaining under-developed properties (because property is taxed based on its development potential) but the use of triple net leases can diminish the effectiveness of this disincentive because the tax is passed to tenants. There are two reasons why we do not include this kind of charge in this report. First, such a charge is mainly intended as a disincentive to influence urban development patterns. We take the view that if there is a desire to limit low density development, this should be accomplished directly by regional planning policy and by municipal land use planning rather than indirectly by a charge levied by a regional transportation agency that has no direct statutory role in land use planning or development regulation. Second, in Metro Vancouver there is a diminishing supply of land available for new low density residential development. While a charge of this type may be an effective influence on land use, it is not likely a sustainable long term revenue stream.

2.7 Advantages and Disadvantages of Land Value Capture

2.7.1 Taxes

Governments have a variety of ways to raise tax revenue from individuals and corporations, including income tax, sales tax (such as PST or gasoline tax in BC), value added tax (such as GST in Canada), user fees, and property tax. Each of these revenue tools has advantages and disadvantages in terms of fairness, progressiveness (i.e. rising progressively with income in order to make the tax burden more equitable in its impact), economic efficiency (minimizing negative impacts of taxation on the economy), the ability to modify behaviour (e.g. using a carbon tax to reduce fuel consumption), and other factors.

With this wide variety of tax measures available, it is important to consider whether there are particular advantages and disadvantages to taxing the value of land.

[3] There are special circumstances in which a TIF-like instrument creates new revenue for a local government. For example, in Alberta municipalities can create Community Revitalization Levy districts in which the Province agrees that any growth in what would have been the Provincial share of property tax is transferred to the municipality. In this case, it is not the "TIF" that is creating new local money, it is the willingness of the Province to transfer revenue to the municipality.

The idea of taxing land is not new. In the late 1700's, Adam Smith advocated taxing land as a means of generating revenue without reducing total economic output because it does not impede productivity. George Henry, a 19th century economist, proposed that taxes on income reduce incentive to work and taxes on production are a disincentive to productivity, but taxes on land do not discourage productive economic activity. Land investment is passive; capital tied up in land does not generate economic benefits the same way that investments in business do. Taxing land value can recoup some of the investment that caused land value gains. Taxing land value can also lead to reductions in land value and house prices, although the advantage of a lower upfront price (which would lower the requirement for down payment and result in lower mortgage costs) can be offset by higher ongoing taxation costs.

Note that these are arguments for taxing land but not improvements, which do contribute to productive capacity and provide benefits such as housing. Taxing land can encourage investment in improvements (because the tax burden would be spread over more space).

One of the main arguments against recurring taxation of land value is that this tax is unrelated to income or ability to pay. This concern is often articulated with regard to homeowners whose homes have risen in value but whose incomes have not. The counterarguments are that such people can sell their homes and move to lower value accommodation or that, in places such as BC, some households are eligible to defer property tax (at a very favourable interest rate) until time of sale. But there is still some social and political objection to tax policy that forces people to sell their home, take on debt, or see their equity decline.

Business owner/occupiers may also face financial challenges if their taxes rise, because their business may not generate enough income to cover the new cost.

Another possible concern is that increased property taxes can in some cases be passed on to residential and commercial renters.

Advantages

…of taxing land value (i.e. not improvement value).

- can recoup some of the investment that caused the land value gain
- can lead to reductions in land value, which can aid housing affordability
- can encourage investment in improvements
- resilient to changes in land value, as tax rates can be adjusted accordingly

Disadvantages

…of taxing land value.

- land value is unrelated to income or the ability to pay
- may not be affordable for business owners/occupiers
- increased taxes may be passed along to renters

The effect of changes in land value on tax revenues depends on the structure of the tax. For example:

- Property taxes in BC are primarily determined by the budget requirements of local government and the Province. The budget identifies how much property tax revenue is needed, and then this tax burden is distributed across the assessment base. Changes in value affect how much tax each property pays, but do not necessarily affect the total tax revenue stream.
- Taxes that are applied to property based on its value (e.g. the Provincial School Tax Surcharge or the sliding scale used in the Provincial Property Transfer Tax) are affected by changes in land value. Rising land values will produce more revenue and falling land values will produce less, unless the rates or rate classes are adjusted.
- Taxes on the proceeds from property disposition (e.g. capital gains tax) are affected by the total volume and value of dispositions.

When choosing and designing a land value capture approach, there are ways to reduce vulnerability of the revenue stream to changes in land value.

2.7.2 Development Charges and Zoning

These approaches apply to new urban development, not to land owners in general. They have two main advantages:

- These approaches draw revenue from a new group of payers, rather than continuing to charge transit riders, auto users, and land owners in general. The charges are paid by developers, but the ultimate impact tends to be a reduction in the value of development land from what it otherwise would be. However, owners of development property generally enjoy land value gains even though some of the value is captured by development fees or zoning related contributions.
- There is a clear link between those who benefit (i.e. land owners benefit from land value gains due to transit investment and upzoning) and those who pay (i.e. some of the potential land value gain is captured by the public sector).

There are some disadvantages of land value capture approaches that rely on urban development:

- Because the pace of development varies over time, the revenue stream from development charges or zoning-based contributions will also vary. This form of land value capture is inherently less regular than property tax.
- Because of land economics, there is some risk that charges on development or zoning impact the viability of new development if the charges are not carefully calibrated to continue to provide incentives for developers and for land owners. If the pace of development is reduced, there will be impacts on affordability. This risk can be managed by ensuring that charges are set appropriately.
- If land values fall, revenues from these sources could fall, in part because of changes in the value of density and in part because reduced financial performance of projects could reduce their ability to absorb cost.

2.7.3 Land Acquisition and Disposition

Participation in the land market has these advantages:

- The agency making the investment in transit can directly capture value by controlling property that will rise in value due to transit investment and upzoning.
- Disposition of surplus lands and air rights provides capacity for new development that would not otherwise be available, in transit-oriented locations.
- Control over land disposition allows a degree of control over the form and character of development, which can support affordable housing, transit ridership, cycling, and walking.
- Strategic acquisition and assembly can create attractive development sites that are better than those that result from a minimalist approach to land acquisition for transit infrastructure.

There are two potential disadvantages of land value capture via direct involvement in the land market:

- New acquisitions require a source of capital. This means (in the short run) diverting capital that could otherwise have been used to fund transit or repay debt. Of course, the long term objective is that this investment pays dividends that can be applied to transit.
- There is risk if the land market declines. In a growing region, this risk tends to be cyclical so it may be that the main concern is one of timing. Revenue from property disposition may be less predictable and may have to be postponed to avoid disposition during a downturn.

3.0 Approaches Currently Applied in BC

3.1 Taxes, Development Charges, and Zoning

3.1.1 Federal Government

The Federal Government at present has only one significant form of land value capture, which is tax on gains from the sale of real property. The gains are considered a capital gain or income, with different tax rates, depending on the nature of the taxpayer and its business. Personal principal residence property is exempt from taxation.

In the 2019 federal election, some political parties proposed ways in which the federal government might engage in additional forms of land value capture, including:

- A tax on foreign property owners, at time of purchase or possibly a recurring tax.
- A wealth tax on high net worth individuals, with such tax applying to all forms of wealth including real property.

The introduction of either or both of these new forms of taxation might, depending on their magnitude, impact property values and affect the ability of other levels of government to implement land value capture mechanisms.

3.1.2 Provincial Government

The Province of BC employs a wide range of land value capture taxes to obtain revenue and to achieve other policy objectives.

One time

The Province's one-time sources of land value capture include:

a) A 20% tax at time of purchase on the value of property acquired by foreign purchasers.

b) The Property Transfer Tax, which applies to most title transfers of real property (there are various exemptions such as newly built homes priced below a defined threshold and homes purchased by first time buyers). This tax is on a sliding scale: 1% on the first $200,000 plus 2% on the portion between $200,000 and $2,000,000 plus 3% on the portion over $2,000,000 plus (for residential property only) an additional 2% on the portion over $3,000,000.

c) Tax on the gains from sale of real property, either as income tax or capital gains tax depending on the nature of the taxpayer and the nature of the taxpayer's business. Gains on sale of personal principal residence property is exempt.

Recurring

The Province employs several recurring means of land value taxation:

a) A large share of annual property tax in BC is paid to the Province. In BC, property tax is levied on 100% of the value of land and 100% of the value of improvements, so it is not solely a land value capture mechanism. This taxation system has been in place since 1984. Prior to that, BC had periods in which

land was taxed at 100% of value and improvements were taxed at a lower percentage. There were even periods during the early 20th century when property tax was only levied on land value.[4]

Properties in BC pay property tax to local government, the Province, and regional agencies including TransLink. The assessment and taxation system requires properties to be divided into classes (e.g. residential, business, agricultural) each of which has its own tax rate. This is called a variable tax rate system. Current legislation in BC does not allow municipalities to set different tax rates for land versus improvements, different tax rates for vacant or under-developed property, different tax rates for similar properties in different areas, or different tax rates based on value.

b) The Province has implemented a Speculation and Vacancy Tax, which charges an additional annual percentage of property value on properties in defined taxable regions[5] that are not a principal residence and not rented out, or that are owned by non-residents or people not paying income tax in Canada (so-called satellite families). The Province's stated purpose for this tax is to shift vacant dwellings into the rental market, to decrease the non-local demand for property, and to help make housing more affordable in the applicable areas.

   The tax rate varies based on whether the owner is a Canadian citizen or permanent resident of Canada, or a satellite family.[6] For 2019 and subsequent years, the tax rate is 2% of assessed value for foreign owners and satellite families and 0.5% of assessed value for Canadian citizens or permanent residents of Canada who are not members of a satellite family.

   In the Lower Mainland this tax is currently applied in municipalities within the Metro Vancouver Regional District (excluding Bowen Island, the Village of Lions Bay and Electoral area A, but including UBC and the University Endowment Lands) and in the City of Abbotsford, the District of Mission, and the City of Chilliwack.

c) The Province has implemented a School Tax surcharge that applies to high value residential properties (including vacant land but not including purpose-built rental housing), at an extra 0.2% on the portion of assessed value between $3 million and $4 million plus 0.4% on the portion of assessed value over $4 million. While called a School Tax, the funds go into Provincial general revenue and are not earmarked for educational purposes. This tax is not based on the residency status of the owner. It is intended to put downward pressure on the price of the affected properties and raise revenue. This tax is essentially a means of wealth distribution.

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[4] For an excellent history of property taxation in BC, see "Land Value Taxation in Vancouver: Rent-Seeking and the Tax Revolt", Christopher England, 2018, American Journal of Economics and Sociology Vol 77, No. 1.

[5] "Taxable Regions" include these geographic areas:

- Municipalities within the Capital Regional District. Excluding Salt Spring Island, Juan de Fuca Electoral Area, and the Southern Gulf Islands.
- Municipalities within the Metro Vancouver Regional District, excluding Bowen Island, the Village of Lions Bay, and Electoral area A, but including UBC and the University Endowment Lands.
- The City of Abbotsford, The District of Mission, The City of Chilliwack, The City of Kelowna, The City of West Kelowna, The City of Nanaimo, and The District of Lantzville.

Exclusions from taxable regions include: Reserve lands, treaty lands and lands of self-governing Indigenous Nations; Islands that are accessible only by air or water; Residential properties under certain ownership (i.e. an Indigenous nation; municipalities; regional districts, governments and other public bodies; registered charities; housing co-ops; certain not-for-profit organizations).

[6] "Satellite family" is defined as including "people who declare LESS than 50% of their total combined household income for the year on Canadian income tax returns"…they may pay tax at the highest rate and may not be entitled to all exemptions… This could apply even if the people are Canadian citizens or BC residents. Source: https://www2.gov.bc.ca/gov/content/taxes/property-taxes/speculation-and-vacancy-tax/exemptions-speculation-and-vacancy-tax/individuals/international-income#satellite-family.

3.1.3 Metro Vancouver

Metro Vancouver is a regional agency that delivers (directly or through subsidiaries) region-wide services including planning, affordable housing, parks, the regional water network, and regional sewer and drainage networks.

Metro Vancouver currently uses a one-time form of land value capture, which is the Greater Vancouver Sewerage and Drainage District Development Cost Charge (GVS&DD DCC) for regional sewer works. This DCC is levied on new residential, commercial, and industrial construction throughout the service region. A fee waiver or reduction is available for not-for-profit affordable rental housing. The charge is collected by local governments at time of building permit issuance (or at subdivision for the creation of new single detached house lots) and remitted to Metro Vancouver.

Metro Vancouver also charges property tax on all properties within the region. These taxes are included in the annual property tax bills delivered by local governments. The tax revenue is applied toward Metro Vancouver's services in regional planning, regional parks, and affordable housing.

3.1.4 Municipalities

Local governments in Metro Vancouver already make extensive use of land value capture mechanisms to generate revenue, including both one-time (DCCs, density bonusing and community amenity contributions) and recurring mechanisms (taxes).

One-Time

a) DCCs

Municipalities in BC use Development Cost Charges (Development Cost Levies in the City of Vancouver), which are levies on new urban development to pay for community-wide infrastructure. For municipalities other than Vancouver, DCCs can only be used to raise revenue for water and sewer networks, drainage systems, road networks, and park land acquisition (with the exception of the small number of resort municipalities which can use DCCs for affordable housing). The enabling legislation for DCCs is Section 559.2 of the Local Government Act, which sets out a highly regulated structure for collecting and using DCC revenue. The City of Vancouver has a similar authority pursuant to the Vancouver Charter; one notable difference is that the City can use DCLs for a few additional kinds of infrastructure such as child care facilities.

In addition to municipal DCCs in Metro Vancouver, there are also two regional DCCs levied on development as noted in Section 5.3 (GVS&DD DCC for sewer works) and Section 5.5 (TransLink's new authority to levy a regional DCC for transportation infrastructure).

DCCs are technically cost-recovery mechanisms, but their impact on the land market is to put downward pressure on the amount that developers are able to pay for development sites, so DCCs are an indirect form of land value capture.

There is a limit to how much a development project can absorb for DCC payments. With local governments, GVS&DD, and TransLink all charging DCCs, they are essentially competing for a share of this finite capacity to pay DCCs. This requires caution and coordination in setting DCC rates to make sure that the combined impact of multiple fees does not have a negative impact on the financial viability or pace of new development.

b) Density Bonusing and Community Amenity Contributions

The structure of land use and development regulation in BC creates the potential for municipalities to obtain public benefits or revenue through the use of municipal zoning power. This is a direct form of land value

capture, because municipalities can provide new density (which adds to land value) in exchange for public benefits such as community facilities, affordable housing, or cash-in-lieu.

These zoning-based tools are unique among land value capture mechanisms because they create the land value that they are capturing.

Creating new density, via zoning changes, is akin to making new "land" in the sense that the value in an urban context is derived from what can be done with the property. Developers technically buy land, but what they are really buying is the development entitlements that come with the land…the land use, height, and density that can be developed under zoning. Where there is strong demand for new development, changing the allowable land use and increasing allowable density create a gain in land value. Mechanisms such as density bonusing or Community Amenity Contributions simultaneously create this value and build in a structure for allocating this value among the local government (to fund community amenities), the land owner (to provide an incentive to sell land into the development market), and the developer (to make it worth going through the time and cost of rezoning).

Density bonusing works like this:

- Section 482 of the Local Government Act and Section 565.1 of the Vancouver Charter give municipalities the ability to zone land with a basic allowable density, for which no public benefit must be provided, and a specific supplemental or bonus density which can be obtained in exchange for a prescribed package of public benefits which can include community facilities, affordable housing, or cash-in-lieu.
- Developers can develop a site under the base density or can obtain the bonus density, assuming the extra density is marketable and financially attractive.
- The value of the extra density must be equal to or more than the cost of providing the public benefit, or it will not be of interest to developers.

Community Amenity Contributions are similar (i.e. the exchange of new density for public benefits) but they are not defined in legislation in the way that density bonusing is.

Municipalities in BC have the sole authority to decide whether a proposed rezoning is in the community's interest and should be approved. In making this decision, elected Councils should consider the impact of new development on the community and can evaluate whether the proposed project yields sufficient benefit to the community to warrant absorbing the impacts. The acceptability of a zoning -- both to the municipality and to residents -- can be increased if the project is seen to provide amenities, affordable housing, or other public benefits that will meet the needs of new residents and address impacts on existing residents. So, the process of considering a proposed change in zoning often includes negotiations between the local government and the proponent regarding the public benefits to be provided. The negotiation process can be simplified and expedited if the local government provides targets (i.e. dollar amounts or specific on-site amenities that are sought in exchange for each increment in density) but the principle is the same: the value of new density is calculated and then an agreement is reached on the portion of this value that should take the form of public benefit.

Almost all municipalities in Metro Vancouver use density bonusing and/or negotiated Community Amenity Contributions as a means of capturing some of the new land value that is created by upzoning in order to fund community amenities or infrastructure.

There are criticisms of CACs as a means of capturing land value:

- Some members of the development industry take the position that CACs add to the cost of housing and therefore make the affordability situation worse. However, CACs are always associated with increased housing capacity (because CACs are only paid when land is rezoned to higher density) and CACs are in

effect an exchange of density (which has value) for public benefits, and this exchange is almost always structured to be financially attractive to land owners and developers. There is no compelling evidence to indicate that CACs have put upward pressure on housing prices in Metro Vancouver (see for example "CAC Policy and Housing Affordability: Review for the City of Vancouver", Wollenberg Munro Consulting Inc and Coriolis Consulting Corp, April 2019).

- CAC systems are sometimes criticized because the negotiations are not transparent, take too long, and create uncertainty in the land market. In some cases, these are valid concerns. CACs ought to be expeditiously negotiated, consistently applied, clearly communicated (to the general public, developers, and land owners), and structured to ensure that the allocation of land value gains due to rezoning creates incentives to land owners to sell their land into the market, incentives for developers to seek rezonings that are consistent with planning policy, and public benefits that deal with the needs and impacts of development on communities.

If TransLink explores the potential to share in CAC revenues, it will encounter the following challenges:

- Local governments currently have complete control over the zoning process and therefore complete control over the use of density bonusing or CAC systems, which means they receive all of the revenue and amenities. There will need to be a compelling case for why they should share these revenues.
- Because there is already a perception in the development industry that CAC systems are time-consuming, complex, and uncertain, there will be concern if TransLink's participation adds to these concerns.
- There is a wide variation across Metro Vancouver municipalities in terms of when and how they negotiate CACs. TransLink would have to develop an approach that is easily applied in a variety of situations.
- There is a wide variation across Metro Vancouver in the market value of new strata residential, rental residential, and office density, which means wide variation in the quantum of public benefit that can be achieved when density is increased. A region-wide uniform approach (as in the new TransLink DCC) will have to be viable in the low land value parts of the region, while a submarket-based approach will result in large differences in the revenue that can be derived from different areas.

It is also possible that the Province will explore changes to how local governments collect and use CACs. The recently completed "Development Approvals Process Review" (published by the Ministry of Municipal Affairs and Housing in September 2019) documents the results of Province-wide stakeholder engagement with local governments, the development industry, and others regarding all aspects of development approvals processes. The report suggests a variety of ways that might be explored in order to increase the predictability and uniformity of CAC frameworks, including new legislation to regularize the collection of CACs and the idea of a "super DCC" that covers more kinds of amenity and infrastructure than DCCs can currently be collected for. The Province has not committed to any course of action, but there may be more attention to this subject. If the government undertakes a more formal exploration of options, then TransLink should try to be part of the conversation.

Recurring

a) Property Tax

All local governments raise a large portion of their operating and capital budget through property tax.

The main elements of the local government property tax system in BC are as follows:

- All property is assessed at its current market value.

- All property is assigned a property class[7] based on its current use (e.g. residential, commercial).
- Each municipality adopts a set of tax rates ("mill rates", or dollars per thousand dollars of assessed value) that apply to the different classes of property. These rates can vary for different types of property and it is typical for these rates to be higher for commercial and industrial property than for residential property.
- Other agencies (e.g. the Province, BC Assessment, the Municipal Finance Authority, and TransLink) apply their allowable taxation rates to the assessed value.
- The tax rates are applied to the land value and the improvements value equally.

b) Taxes on Specific Types of Properties

Local governments in BC generally cannot levy special property taxes on specific types of properties, but there is one exception.

The City of Vancouver Empty Homes Tax (EHT) levies an annual surtax on the assessed taxable value of residential properties deemed "empty". A home is not considered empty if it is a principal residence or rented for at least six months of the year. From 2016 when the EHT was launched to 2019, the EHT rate was 1% of the property's assessed taxable value. In each of the next 3 years the rate will increase by 25% to 1.25% in 2020, 1.5% in 2021, and 1.75% in 2022.

The City's stated intention is to invest net revenues into affordable housing initiatives, so it is essentially a form of wealth transfer. Since the EHT was launched in 2016, the program has yielded $39.7 million in net revenue.

c) Benefitting Area Taxes

Local governments in BC don't have much ability to levy special property taxes in certain areas, with one little-used exception. In all other municipalities other than Vancouver, Section 210 of the Community Charter gives local government the authority to establish a local service area for the provision of a specific service that applies to properties in a defined area. Properties within this defined area are taxed (in addition to their basic property tax) to pay for the local service. Similarly, pursuant to Section 500 of the Vancouver Charter, the City of Vancouver can levy a tax for local improvement projects when the project involves capital investment by the City that will *"specially benefit real property in a limited and determinable area"*. Local improvement taxes in Vancouver are usually only applied for relatively small projects that benefit a few properties, such as improvements to lanes.

3.1.5 TransLink

TransLink has the ability to use three different land value capture taxes and charges to generate revenue: a DCC, general property tax, and a benefitting area tax.

One Time

As of 2018, the Province adopted legislative changes that enable TransLink to levy a region-wide DCC on new development to help pay for transportation investment (SCBCTA Act Section 34.21). The collection of this new DCC started in January 2020 and revenues are being used to help pay for transit infrastructure. This is the first time in BC that the Province has allowed the use of DCCs to fund transit and it is the first time that

[7] There are 9 property classes in BC: Class 1 Residential, Class 2 Utilities, Class 3 Supportive Housing, Class 4 Major Industry, Class 5 Light Industry, Class 6 Business/Other, Class 7 Managed Forest Land, Class 8 Recreational Property/Non-Profit Organization, Class 9 Farm. Properties can have split classifications if they have several distinct uses that fall into more than one class.

an agency that is not a local government (i.e. municipality or regional district) has been authorized to levy a DCC.

The new TransLink DCC is forecast to generate an average of about $29 million (uninflated) per year during 2020 to 2027.

The regional transportation DCC has these features:

- At present, there are different rates for single detached, duplex/townhouse, and apartment units. There are also different rates for retail/service, office, institutional, and industrial space.
- At present, the rates for each use apply across the entire region. During the three years in which the DCC system was designed (including extensive consultation with stakeholders in local government and the development industry) consideration was given to options including common region-wide rates and rates that varied across the region based on factors such as the intensity of transit service or the level of new transit investment anticipated in different areas. After considerable discussion and debate, TransLink adopted the premise that the benefits of regional transit improvement are broadly distributed and do not necessarily match the distribution of capital investment, so it was decided that the TransLink DCC rates should be uniform for each land use across the region. The legislation gives TransLink the ability to vary rates in the future if deemed appropriate.

Recurring

a) Property Tax

Section 25(2)(a) of the South Coast British Columbia Transportation Authority (SCBCTA) Act empowers TransLink to levy tax on the "net taxable value of land and improvements" throughout the transportation service region. The legislation only allows TransLink to increase its property tax revenues by more than 3% per year if the increase is approved by the Mayors' Council in an investment plan. Prior to 2017, the annual property tax was structured so that TransLink generally only increased its total property tax revenue by 3% over the previous year's tax revenue (with some exceptions). This constraint was presumably imposed as a means of limiting the exposure of taxpayers to increases significantly above inflation. However, in any given year the assessment roll consists of the previous year's property assessment plus growth that is the result of new improvements or changes in land value due to upzoning. The former 3% limit on tax revenue increase meant that if the assessment roll grew (by say 2%) due to new construction or land value gains due to rezoning then the increase on existing property would be limited to 1%, generally less than inflation.

Starting in 2017, TransLink adjusted its approach to calculating increased property tax revenue. There are now two components to tax revenue growth:

- The tax revenue derived from the previous year's assessment base can be increased up to 3%. This puts a limit on the increase that an existing typical taxpayer will absorb.
- In addition, TransLink receives the new tax revenue that comes from applying its tax rate to "new" assessment base created by development of new improvements or changes in property value due to rezoning (versus value increase just due to market change).

TransLink is also authorized to collect $18 million per year from a smaller set of property taxes in whatever proportions TransLink determines, but this amount is not allowed to escalate with inflation. This is known as the Replacement Tax.

TransLink currently receives a total of on the order of $360 million per year (in 2018) from property taxes, not including the Replacement Tax.

b) Benefitting Area Tax

TransLink has the ability to levy a benefitting area property tax surcharge.[8] SCBCTA Act Section 25(7) allows TransLink to "establish different zones…and…adopt different tax rates…in different zones based on the benefit…as a result of proximity to a transportation station or…major facility constructed or funded by the authority".

While this legislation has existed for a long time, TransLink has not elected to use this benefitting area taxation mechanism. The main reason has been that if proximity to transit infrastructure increases property value and if this is reflected in assessed values, then such properties will already pay more tax than similar properties without the transit benefit. Adding a benefitting area tax means that such properties would pay more "basic" property tax because of their higher value and would also pay a surcharge because of the benefit. This is not necessarily a reason to avoid using the benefitting area tax, but it is a consideration in gauging the impact and equity of using the tax. TransLink also benefits from new development around rapid transit stations in the form of increased ridership and increased property taxes. Properties that benefit from a higher level of access don't just enjoy the benefit of increased land value. The owners and occupants of such property also benefit from the ability to spend less on automobile costs (purchase, operation, parking) and convenience. So, it may be entirely reasonable to charge a benefitting area property tax surcharge.

3.1.6 Summary of Taxes, Charges, and Zoning Mechanisms Currently Used in BC

Exhibit 2 and Exhibit 3 summarize the current situation in BC regarding land value capture via taxes, development charges, and zoning. The main observation that can be made based on the two exhibits is that there is already an extensive land value capture "landscape" in the Province and in Metro Vancouver. All levels of government use a variety of means to generate revenue from property.

Exhibit 2: One-Time Land Value Capture Taxes and Charges

"One-time" Approaches	Province	Metro Vancouver	Municipalities	TransLink
Property transfer tax Foreign buyer tax	✓	✗	✗	✗
Capital gain or income tax at sale	✓ (except principal residence)	✗	✗	✗
Development Cost Charge	✗	✓ (GVS&DD)	✓	✓ (commencing 2020)
Density Bonus and CAC at rezoning	✗	✗	✓	✗
Park land dedication or cash-in-lieu at subdivision	✗	✗	✓	✗

[8] TransLink advised that it may need legislative amendments or regulation as part of implementing a benefiting area tax. This would need to be explored if TransLink decides to examine this approach in more detail in subsequent work.

Exhibit 3: Recurring Land Value Capture Taxes

"Recurring" Approaches	Province	Metro Vancouver	Municipalities	TransLink
Property tax	✓	✓	✓	✓
Land value tax	✗	✗	✗	✗
Property tax surcharge on some properties	✓ (school tax surcharge on high value property)	✗	✗	✗
Benefitting area tax	✗	✗	✓ (local service area charges)	✓ (benefitting area tax authority, not currently used)
Tax on specific uses	✗	✗	✓ (hotel tax, STR tax)	✗
Vacancy tax	✓	✗	✓ (Vancouver)	✗

3.2 Strategic Acquisition and Development Approaches

The Province, Metro Vancouver, and municipal governments all participate in the land market to achieve financial, social, cultural, recreational, and housing objectives.

Disposition of surplus property, allocation of public-owned property to specific uses, and acquisition of new property are commonplace in the region. Typically, the reasons for disposition of surplus land are to generate revenue for other purposes and/or to guide the use and development of public lands to achieve particular objectives (e.g. the creation of affordable housing). The large housing developments on the UBC and SFU Burnaby campuses are examples of public sector agencies taking a strategic approach to the disposition of land to create a revenue stream.

The public sector is often directly involved in the funding and development of non-market projects, most often the creation of affordable housing. The Greater Vancouver Housing Corporation (a wholly owned subsidiary of Metro Vancouver), BC Housing, and some local governments are involved in creating and operating rental housing, for example.

Direct involvement in market-oriented development projects by the public sector is less common. However, the development of the Olympic Village, the large outlet mall at YVR, the Anvil Centre in New Westminster, and various projects by the Surrey City Centre Development Corporation are just a few instances in which a government entity has participated directly in development. Direct participation in development by government is not common because governments usually do not want to absorb the risk of losing money.

Under Section 6 of the SCBCTA Act, TransLink has the authority to "…acquire land…in support of…or to facilitate construction of…the regional transportation system". This of course includes the ability to buy land that is necessary for transit construction, and TransLink advises that the SCBCTA Act also provides broader authority for land acquisition that generates financial and other benefits.

The same section also authorizes TransLink to "…hold, manage, develop, and dispose of land", which allows holding property for investment, disposing of surplus land, and participating in development projects.

To date, TransLink's involvement in the land market and in development projects has not been extensive:

- Some retail space has been developed in the fare-paid zone of some stations, generating ongoing revenue and enhancing the system for riders.
- Some surplus properties have been offered to the market, such as the former Oakridge Transit Centre (which became surplus when a new facility was constructed on a site beside the Arthur Laing Bridge in South Vancouver) and the surplus land at the King Edward Station on the Canada Line, which included land adjacent to the station plus air rights over the station.

Exhibit 4: Examples of TransLink Land Disposition

Disposition of Transit Depot Site near Oakridge

Images: OTC and Adjacent Sites Policy Statement

Disposition of Surplus Land at King Edward Station

Images: Google maps

4.0 Examples of Approaches Used by Other Agencies Outside of BC

There are many jurisdictions outside of BC that use, or are considering, some form of land value capture and/or participation in urban development. Property tax is almost universally used to generate local government revenue, and in the US and Canada there are many cities that use some form of density bonus or other means of obtaining public benefits or affordable housing in exchange for new density.

This section provides brief descriptions of examples of approaches used in other places.

4.1 Examples of Approaches to Support Transit Investment

4.1.1 Canada

Ontario

While the enabling legislation is different than in BC, Ontario municipalities have the ability to charge development fees (Development Charges) similar to DCCs or DCLs and they have the ability to obtain amenities or cash-in-lieu when granting additional density (called Section 37 benefits, they are similar to density bonus or Community Amenity Contributions).

Metrolinx (Greater Toronto)

In addition to typical transit funding sources, Metrolinx has incorporated a Transit-Oriented Development (TOD) Program in its 2041 Plan. The aims of the TOD program are to generate revenue through the disposition of air rights parcels at transit stations, increase ridership, improve the customer experience, and contribute to city building. Metrolinx does not become a partner or inject additional equity; it makes development sites available at fair market value to developers.

Calgary Transit

The City of Calgary and Calgary Transit have a city-wide framework for Transit-Oriented Development, primarily as a means of planning higher density development at transit stations but also as a means of revenue generation via the disposition and development of public lands. The TOD strategy includes looking for opportunities to acquire additional lands to enhance the potential for development and identifying publicly owned sites that can become catalysts for redevelopment. The City specifically looks for strategic land acquisition beyond infrastructure needs and disposition of remnant parcels post transit construction to recover investments in transit. The City is also considering alternative sources of transit funding including development partnerships, leasing public land at transit stations, and new development levies.

Edmonton Transit

The City of Edmonton is pursuing initiatives to facilitate higher density development at transit stations and generate revenue and ridership. One initiative is to facilitate the redevelopment of City-owned park-and-ride sites at suburban stations. The City has also become involved in actual development, with mixed results. In one project (Station Pointe) the City invested capital to transform a large former industrial site into a residential community with parcels available for sale to developers. City investment included streets, services, parks, and amenities but take-up by developers has been very slow. In another project, the City has partnered with a private sector developer to ready a former commercial site for residential development.

4.1.2 USA

Portland, USA

A new light rail link between the airport and the existing transit system was funded in part via a tax increment financing district to support borrowing, an agreement with a developer that provided a capital contribution in exchange for development rights on a large property served by the new line, and a levy on passengers arriving at the airport.

Kansas City, USA

Kansas City has a Transportation Development District (TDD) that raises revenue for streetcar (LRT) construction. The package includes a sales tax (maximum of 1%) on retail sales within the TDD boundary, a real estate tax surcharge on property within the TDD boundary, and a special assessment on surface parking lots in the boundary. These assessments are limited by state law to 20 years.

Miami-Dade County, USA

This county has established a Transportation Infrastructure Improvement District within a half mile of transit corridors, in which any increase in property taxes above a defined base rate is allocated to pay for transit infrastructure. This is not a new source of revenue or a net gain in revenue; it is a mechanism to ensure that tax revenues above a threshold are channeled to pay for transit.

Pennsylvania, USA

The state has authorized the creation of Transportation Revitalization Investment Districts, in which a portion of future property tax revenue gains can be earmarked for transit infrastructure. There is not necessarily new revenue, but an ability to pledge a portion of revenue to the repayment of loans or bond issues. Pennsylvania is also one of a few jurisdictions in the USA in which a significant number of municipalities use what is called split rate property tax, with a higher rate on land value and a lower rate on improvements value.

Chicago Transit Authority

CTA has an ambitious capital program to expand and improve the regional transit system. Locally-generated sources of funding include bond financing, property taxes, and a dedicated sales tax.

New York Metropolitan Transit Authority

The New York MTA is planning a $50 billion capital plan to address deferred maintenance and expand/improve the system. The locally generated sources of funding include bonds, an automobile toll on the Central Business District, a progressive tax on the sale of high value real estate, and a sales tax on internet retail sales.

4.1.3 Outside North America

Crossrail (Elizabeth Line), London UK

The Crossrail project has been under construction for over a decade. A limited section went into service in late 2019, but full opening is not expected until 2021. It is a massive addition to the London transit system. Funding came from a wide variety of sources, but it is notable that significant contributions came from developer contributions, a community improvement levy, and the sale of surplus lands.

Australia

Jurisdictions in Australia use various forms of land value capture including a "stamp duty" (similar to BC's Property Transfer Tax), development charges, and property tax. Some public agencies in Australia are considering more broad-based approaches to land value capture that could be applied at the federal, state, and local levels. So far, government has produced research and discussion papers on topics such as the use of public lands and new forms of property tax but has not yet enacted new tools.

New Zealand

The government of New Zealand is considering land value capture as a means of funding new infrastructure projects. Based on published statements from officials, one measure being considered is to tax the incremental growth in land value caused by transit improvements, measured by comparing the growth in land value for similar properties that have not directly benefited from transit investment.

Sao Paolo, Brazil

This South American city has taken an unusual approach to raising revenue from new development rights:

- The city identifies a redevelopment zone in which it wants to see increased density.
- The city defines how much additional floor space, beyond that allowed under current zoning, is appropriate in the area and then issues "bonds" for this density.
- The bonds are auctioned; the purchasers of the bonds are then able to use the density on properties they own within the redevelopment zone (or they can sell it to others in the area).
- The revenue raised from the auction is invested in housing and infrastructure in the redevelopment zone.

This has similarities to a Community Amenity Contribution system (developers provide cash or amenities in exchange for density) and to Vancouver's system of transferable density for heritage projects (the density is not confined to a specific single site, as in a typical rezoning), but the Sao Paolo approach is of course different in that the new density is auctioned to the highest bidder rather than negotiated with individual property owners. Another key difference is that for the system to work, most or all properties in the redevelopment zone must be deemed to be appropriate to absorb extra density.

Hong Kong

The Hong Kong Mass Transit Railway Corporation funds transit infrastructure through involvement in urban development at stations. The Corporation obtains from government the development rights for land on and beside transit infrastructure and then tenders development opportunities to the private sector. The corporation enters into profit sharing arrangements or leases. A similar approach is used in Hong Kong to support the creation of affordable housing.

Japan

Japan uses a system call Land Readjustment to facilitate the assembly, replotting, and infrastructure investment for lands on the perimeter of growing urban regions. Areas that are appropriate for redevelopment are often owned by large numbers of individuals who on their own do not have the wherewithal for assembly or major infrastructure investment. State agencies are created for readjustment projects and have the authority to assemble the land, invest in infrastructure, and distribute proceeds to the participants.

4.2 Examples of Approaches to Support Affordable Housing

Seattle, USA

The City of Seattle includes a Housing Levy in its property tax. The levy raises funds that are used to construct affordable rental housing for low income households. This levy has been in place since 1981 and it has supported the construction of around 12,000 units. The City estimates the median cost per home owner to be about $125 per year. The Housing Levy must go before voters for renewal every few years.

Los Angeles and Seattle Regional Transit Agencies, USA

Sound Transit in Seattle and LA County Metro Transit are similar to TransLink in that they are regional agencies that serve a large number of local governments. In both regions, the transit authorities use a form of land value capture to help fund transit infrastructure and to assist in the creation of affordable housing. They use what they each call "strategic land acquisition". When planning and implementing transit infrastructure projects, they:

- Locate stations where there are good opportunities to assemble land.
- Acquire more land than the minimum needed for construction.
- Ensure that post-construction, the surplus land will be in configurations that are easy to develop.
- Take advantage of the land value gains due to transit and upzoning.
- Offer surplus land to the market, in some cases at full market value to fund transit and in some cases at less than market value for the provision of affordable rental housing. Los Angeles Metro also provides some loans on favourable terms to affordable housing projects.

In addition to the regional transit agency involvement, both the City of Seattle and the City of Los Angeles make extensive use of density bonusing to achieve affordable housing and amenities.

Vienna, Austria

Vienna is often cited as an example of addressing housing affordability via a large and sustained involvement in rental housing construction by the state. Vienna has systematically acquired a large portfolio of urban land that is used for the construction of new rental housing by government or by non-profits. As a result, approximately 60% of housing is non-market and rent-controlled to maintain affordability.

4.3 General Observations

In a large proportion of the examples around the world, land value capture mechanisms and in some cases participation in urban development are mainly considered as a means to fund infrastructure, particularly transit as there is a correlation between transit improvements and increased value. There are fewer cases where land value capture is used to fund affordable housing.

The most common land value capture approaches appear to be some form of property tax (in many cases a benefitting area surcharge), development fees, and the creation and disposition of new development rights (i.e. density).[9] Many transit agencies also use the strategic acquisition and disposition of land as a means of generating revenue and aiding the creation of affordable housing.

[9] It is worth noting that CAC-like mechanisms are used in many cities in Canada and the US. While many landowners and developers have the view that the value of additional density should belong entirely to the landowner, this is not the premise of many North American rezoning frameworks. New York, San Francisco, Seattle, Los Angeles, Toronto, Halifax, and of course Vancouver are just a few examples of cities that approve new density in exchange for public benefits.

It appears that few transit agencies become directly involved in urban development projects (beyond leasing or selling sites).

Tax increment financing is often used as a means of securing loans or bond issues. This vehicle allows agencies to secure investment capital, by providing assurance for repayment, but it does not generate any new revenue.

There do not appear to be many instances in which land value capture is used specifically to suppress land values or discourage investment in land. In fact, many of the jurisdictions are counting on land value increases so they can tap the gains to pay for infrastructure.

Based on this survey, several local governments in Metro Vancouver could be considered in the forefront of using a comprehensive approach to land value capture in the form of annual property taxes, development charges, and CACs.

Other jurisdictions show possible avenues for refinement including the use of benefitting area taxes, differential tax rates on land and improvements, and special levies for transit or affordable housing.

5.0 Transit Investment, Rezoning, and Land Value

If TransLink is going to gain broad support for using land value capture and urban development to achieve its goals, it will be important to demonstrate that transit investment creates land value and creates good business opportunities for being involved in the market.

This section examines the link between transit infrastructure and development activity and also evaluates the relative significance of transit investment versus rezoning in generating gains in land value. The comparison of the land value created through rezoning with land value created by transit investment (i.e. improved transit access) is analyzed using case studies.

5.1 Transit Investment and Densification

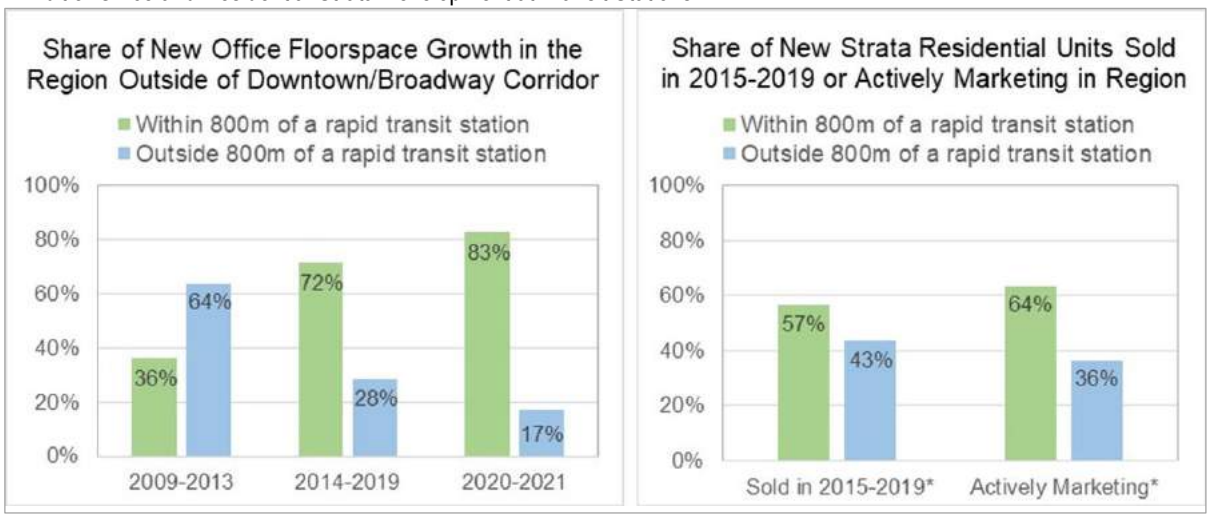
Exhibit 5 shows that during the past 5 to 10 years in areas of Metro Vancouver outside downtown and the Broadway Corridor there has been an increasing tendency for new office development and new multi-family strata residential development to occur within walking distance (800 metres) of rapid transit stations. The gains are dramatic; as of 2019 over 80% of new office growth and almost two-thirds of new strata residential growth are in rapid transit station areas. This demonstrates two key tendencies:

- Developers perceive that there is strong market appeal for office space and housing that is served by transit.
- Local governments tend to direct high density development to transit-served locations.

This means there is compelling evidence that transit investment is a key input to densification and to the ability of local governments to obtain public benefits based on the additional land value that results from rezonings at transit-oriented locations.

This also means that there will be strong market interest in any development properties that TransLink can make available by the disposition of surplus sites or air rights over transit infrastructure at rapid transit stations.

Exhibit 5: Office and Residential Strata Development at Transit Stations



Source: Based on analysis by Coriolis Consulting using in-house office floorspace data and residential sales and listings data from NHS Live. For context, since 2009, 53% of new office development occurred in Downtown/Broadway Corridor and 47% occurred outside of these locations.
*Note that sales of new strata residential units are from Jan 2015 to Sept 2019 and active listings as of Oct 2019.

5.2 Transit Investment and Price/Rent Premiums

5.2.1 Sales Price Premium for Multi-Family Strata Residential Units

In principle, it seems reasonable to assume that there would be a premium for living near a rapid transit station or a rapid bus stop, in part because of the value of added convenience from having access to transit and in part because of the potential financial benefit of using transit versus owning and operating a vehicle.

However, there are many other important considerations that come into play when deciding where to buy or rent a place to live such as affordability; residential market outlook; proximity to family, friends, work, school, and commercial services; safety; general culture and prestige/image of the neighbourhood; prestige/image of the building; walkability/bike-ability; and building or neighbourhood amenities/recreation features. Rapid transit access is only one of many factors that could affect the marketability and pricing of new strata residential projects.

In comparing sales evidence for strata residential units in buildings near rapid transit (defined as being within 800 metres of a rapid transit station) and buildings in similar markets not near rapid transit, it is not possible to control for all differences other than proximity to a rapid transit station to isolate the sales price premium associated with this difference. Factors such as the age of the building, quality of the building/finishes, neighbourhood characteristics, site specific features, building amenities, building prestige, unit layout/ specifications, and marketing/branding of the building can blur the analysis. However, by looking at buildings of about the same age and about the same quality in similar market conditions with and without rapid transit, the results can illustrate the order of magnitude sales price premium associated with rapid transit access.

We analyzed residential sales data for buildings with and without rapid transit access in New Westminster (Sapperton/Downtown vs Uptown), Coquitlam (Burquitlam vs Austin Heights), Richmond (near and not near rapid transit stations), Surrey (Surrey City Centre vs Guildford), the west side of Vancouver (Cambie Corridor vs Broadway/Arbutus), and the east side of Vancouver (Kingsway near and not near rapid transit).[10] There was not useful sales evidence in Burnaby because there aren't buildings of a similar quality built around the same time in both rapid transit and non-rapid transit locations (as most development in Burnaby has occurred near rapid transit stations).

Based on the average sales price per square foot for units that sold during the six-month period from March to August 2019 in several similar aged/quality "pairs" of buildings, the price premium for rapid transit proximity is illustrated by these examples:

- In Vancouver, the average sales price for units that sold in Wall Centre Central Park (less than 800m to Joyce-Collingwood SkyTrain Station) during March to August 2019 was 1% higher than the average sales price for units that sold at Kensington Gardens (more than 800m away from Nanaimo SkyTrain Station) during the same timeframe.
- In Surrey, the average sales price for units that sold at Venue (less than 800m to Gateway Station) during March to August 2019 was 7% higher than the average sales price for units that sold at Guildhouse (more than 800m to Surrey Central Station and King George Station) during the same timeframe. Both projects were completed in 2018.
- In New Westminster, the average sales price for units that sold in Trapp + Holbrook (less than 800m to New Westminster Station and Columbia Station) during March to August 2019 was 9% higher than the average sales price for units that sold in Viceroy in Uptown New Westminster (more than 800m to a rapid

[10] Residential unit sales data is from the Real Estate Board of Greater Vancouver online MLSLink subscription database.

transit station) during the same timeframe. The Viceroy in Uptown New Westminster is older, so the premium is likely partly attributable to transit access and partly attributable to the age of the building (and possibly other factors).

- In Vancouver, the average sales price for units that sold in Edward by Mosaic (less than 800m to King Edward Canada Line Station) during March to August 2019 was 10% higher than the average sales price for units that sold at the Leveson (more than 800m to Marine Drive Canada Line Station) during the same timeframe. Edward by Mosaic was completed in 2019 and the Leveson was completed in 2018, so the premium could be partly attributable to transit access as well as Edward by Mosaic being newer and having a more central location (and possibly other factors).

The sales evidence for most "pairs" of buildings suggests a price difference in the range of 1% to 10% at rapid transit served buildings versus non-rapid transit served buildings in Metro Vancouver, although this could overstate the premium because of differences in other characteristics such as quality of the neighbourhood, building age, and building amenities which are challenging to control for.

This range is similar to the findings of a recent study by Canada Mortgage and Housing Corp. that examined the impacts of GO train expansion on house prices in Hamilton-Niagara. The November 2019 CMHC study estimated that house prices were between 4% and 9% higher in various areas in Hamilton-Niagara than they otherwise would have been without the expansion of transit.[11]

Overall, we think it is reasonable to assume that there is a transit-related premium of up to about 5% for strata residential unit sales prices at rapid transit stations in Metro Vancouver compared to similar non-rapid transit served locations. This may seem like a relatively low premium to some observers who assume that transit accessibility is attractive and important in the housing market. However, it is important to keep in mind that most higher density locations in Metro Vancouver have reasonably good transit access, whether it is by rapid transit or by bus. It is not really possible to find many examples of "transit" versus "no transit" new development projects, so the comparison is really between projects near rapid transit and projects with good bus service.

5.2.2 Lease Rate Premium for Commercial Space

As with residential sales prices, in principle it seems reasonable to assume that there would be a premium for leasing commercial space near a rapid transit station or a rapid bus stop because of the added convenience and potential to reduce commuting times. However, there are many other important considerations that come into play when businesses are deciding where to rent commercial space such as affordability; proximity to where the business owner lives; proximity to where employees live (and whether these locations are transit-served); proximity to commercial services; availability of amenities such as day care; prestige/reputation of the landlord/management company; opportunities for expansion; and availability of parking. Rapid transit access is only one of many factors that could affect the marketability and pricing of commercial space.

[11] CMHC, "Housing Market Insight: Hamilton-Niagara – GO Train Expansion: The Impact on House Prices in Hamilton-Niagara." November 2019. The analysis found that the Confederation GO Station increased house prices in East Hamilton by up to 4%, Niagara Falls GO Station increased house prices in that area by up to 7%, the St. Catherines GO Station increased house prices in that area by up to 8%, the Confederation GO Station increased house prices in Stoney Creek by up to 8%, and the West Harbour GO Station increased house prices in Hamilton Centre by up to 9%.

We reviewed four indicators of the potential lease rate premium for commercial space near a rapid transit station:

- Evidence of differences in asking or achieved office lease rates for buildings of a similar quality, age, and type (e.g. high density office projects) in rapid transit served and non-rapid transit served locations.[12] There is very little vacancy in the office market in the region, so data on asking lease rates is limited. In addition, most new office space in the region is being built near rapid transit stations so there is limited comparable product not served by rapid transit. However, comparing evidence in transit-served and non-transit served office buildings in New Westminster, Burnaby, Surrey, and Vancouver suggests that office lease rates are in the range of 2% to 20% higher in transit-served locations. This likely overstates the premium associated with transit-access, as transit-served locations also tend to be more amenity-rich neighbourhoods with more urban office buildings.
- BC Assessment Authority data on the assessed values for existing office buildings within 800m of a rapid transit station compared to similar buildings that are not within 800m of a rapid transit station in several locations throughout the region.[13] Comparing similar quality buildings in the same municipalities (to control for property tax differences) suggested that office buildings near rapid transit stations have assessed values in the range of 2% to 5% higher than comparable office buildings in similar markets that are not near rapid transit.
- Interviews with commercial real estate brokers about the magnitude of the lease rate premium for office space near rapid transit versus comparable space not near rapid transit. Commercial brokers noted that the demand for office space outside of downtown Vancouver is highly driven by employee attraction and retention, and convenient access to rapid transit is a key factor in the locational decision for many businesses that occupy office space. Commercial brokers noted that the premium is on the order of about 10%, although this reflects a combination of rapid transit accessibility, lower office vacancy near rapid transit stations, and a difference in the type of space that is available (i.e. high density, urban office space in amenity-rich locations near rapid transit versus lower density, business park office space).
- Studies by others about the potential office lease rate premium associated with being located near a rapid transit station in the region. For example, Jones Lang Lasalle (JLL) previously published a "Rapid Transit Office Index" for the Metro Vancouver region. In the Q1 2016 Outlook edition of this report, JLL reported that the average asking net office lease rates for the inventory of office buildings with greater than 10,000 square feet within 500m of a rapid transit station in Vancouver, Burnaby, Surrey, Richmond, New Westminster, and Coquitlam were in the range of 10% to 30% higher than the average asking net office lease rate for the inventory of office buildings with greater than 10,000 square feet outside of 500m of a rapid transit station in the same municipality. This likely overstates the premium associated with rapid transit accessibility, because the inventory of space near rapid transit stations contains a much higher share of new buildings and there are many other features that could contribute to lease rate differences when looking at the overall inventory of office space within 500m and further than 500m of rapid transit stations within a municipality, but it helps illustrate an upper bound.

Based on these indicators, we think it is reasonable to assume that there is a premium of up to about 10% for commercial lease rates at rapid transit stations in Metro Vancouver compared to similar non-rapid transit locations.

[12] Office lease rate data is based on internet research using www.spacelist.ca and major brokerage websites.

[13] Assessed values were obtained from BC Assessment Authority via https://www.bcassessment.ca/Property/AssessmentSearch.

5.2.3 Residential Rents

While there likely is a market rent premium associated with proximity to rapid transit, the case study analysis in this study did not include rental residential properties for these reasons:

- New rental residential development in most of the region supports little or no land value, which is why new rental construction has depended on mechanisms such as cost reduction (e.g. DCC waivers or reduced off-street parking requirements) or incentive density. So, there is little or no land value growth associated with most new rental residential development, meaning there is not much opportunity for land value capture even if there is a rent rate premium associated with units near rapid transit.
- Existing rental units have rent increases controlled by the Residential Tenancy Act. Because these units are only allowed to adjust to market rent at the time of turnover, it is not possible without great effort to assemble a data set that would allow the isolation of a rent premium associated with rapid transit proximity.
- Limited new rental construction makes it difficult to find sufficiently comparable new projects to be able to identify and isolate a residential rent premium for transit proximity.

5.2.4 Implications for Case Studies

Based on market research and sales evidence, empirical evidence, and a review of other studies, there appears to be a premium for commercial rents (up to 10%) and strata residential unit sales prices (up to 5%) near light rail rapid transit stations in this region. We use these premiums in the case study analysis.

5.3 Transit Investment and Rezoning: Case Studies

As noted above, the comparison of the land value created through rezoning with land value created by transit investment (i.e. improved transit access) is analyzed using case studies. The detailed analysis for the case studies is contained in Appendix 1. For each case study, financial models were constructed for the following scenarios:

- “Base case” financial performance of a development site assuming no rezoning and no transit influence. This either reflects value under existing zoning or under existing use, depending on the case study.
- “Rezoning only”, which shows the financial performance of rezoning the development site to a density typical for the sub-market, in the absence of a price premium for rapid transit proximity.
- “Rezoning with transit”, which shows the financial performance of rezoning the development to a density typical for the sub-market and incorporating a premium (in sales prices or rent rates) for improved transit access.

Municipal Community Amenity Contributions (CAC) policies are not included[14] so the case studies illustrate the total land lift, the portion of the total attributable to the rezoning (increased density), and the portion attributable to the transit premium prior to CACs.

The following sections summarize the multi-family residential case studies and commercial case studies.

[14] Including the City of Vancouver’s Developer Contribution Expectation (DCE) in the Broadway Corridor.

5.3.1 Summary of the Multi-Family Residential Case Studies

Key points about the multi-family residential case studies are as follows:

1. **Locations**. Locations for multi-family residential case studies were selected based on where rapid transit expansions are planned or have recently been completed: the Broadway Corridor (where the new Broadway Subway Project will extend rapid transit from VCC-Clark to Arbutus), Burquitlam (where the Evergreen Extension went into service in December 2016), Fleetwood (located on the planned extension to Langley), and Lynn Creek (which will be served by the Marine Drive RapidBus connecting West Vancouver with Phibbs Exchange).
2. **Transit Premium**. Based on the analysis in Section 5.2, we used a transit premium of 5% for multi-family unit sales price for enhanced light rail rapid transit and a lower transit premium (1%) for enhanced transit access in the form of rapid bus.
3. **Tenure**. The case studies assume strata multi-family residential development to show the maximum extent to which improved transit access generates land value relative to upzoning (because strata residential land values are much higher than rental residential land values), except for one market rental scenario in the Broadway Corridor (where market rents are high enough to support a significant land value) to illustrate the economics of redevelopment under both strata residential and rental residential.

The results of the multi-family residential case studies are summarized in Exhibit 6. The analysis illustrates that:

- Transit investment is responsible for a significant share of the gains in strata multi-family residential land value in transit-oriented areas. The dollar value gain in land value varies considerably around the region, but it appears that rapid transit investment can create 20% or more of the gain in land value from a combination of upzoning and transit investment.
- The share of land value gain created by transit investment is higher in areas with lower land values, reaching over 40% in some cases.

Exhibit 6: Summary of Multi-Family Residential Case Studies ($M indicates $millions)

Case Study	FSR (Existing)/ Rezoned	Strata Residential Sales Prices ($ psf)		Existing Value	Supportable Land Value with Rezoning	Supportable Land Value with Rezoning and Transit	Land Lift
		Without transit	With transit				
Case Study #1: C-3A Site in Broadway Corridor (strata)	(3.0) 6.0	$1,475	$1,549 (5% higher)	$22.8M	$45.4M	$50.3M	• $22.6M from rezoning (82%) • $4.9M from transit (**18%**) • $27.5M total (100%)
Case Study #2: C-3A Site in Broadway Corridor (market rental)	(3.0) 6.0	Average rent psf: $3.73	Average rent psf: $3.92 (5% higher)	$22.8M	$13.3M	$15.2M	Redevelopment to market rental is not financially viable on this site even with the transit premium
Case Study #3: C-2 Site in Burquitlam (strata)	(1.05) 4.5	$855	$900 (5% higher)	$9.8M	$16.3M	$21.7M	• $6.5M from rezoning (54%) • $5.4M from transit (**46%**) • $11.9M total (100%)
Case Study #4: CH-1 Site in Fleetwood (strata)	(1.0) 4.0	$760	$800 (5% higher)	$3.1M	$0.9M	$3.8M	Not a redevelopment candidate without the transit premium; transit premium makes project financially viable
Case Study #5: Single family lot assembly in Lynn Creek (strata)	(0.35-0.45) 2.5	$800	$808 (1% higher for rapid bus)	$6.5M	$10.8M	$11.2M	• $4.3M from rezoning (92%) • $0.4M from transit (**8%**) • $4.7M total (100%)

5.3.2 Summary of Commercial Case Studies

Key points about the commercial case studies are as follows:

1. **Locations**. This analysis uses a higher land value and a lower land value location for the commercial case studies to show the range in contribution of upzoning and improved transit access to land value increases in different sub-markets with rapid transit access (or planned rapid transit access) in the region: Uptown Office Precinct in the Broadway Corridor (where the new Broadway Subway Project will extend rapid transit from VCC-Clark to Arbutus) and Surrey City Centre (where the City of Surrey's recently adopted new City Centre Plan envisions transit-oriented redevelopment of low-density properties near rapid transit stations including around King George Station on the existing Expo Line).
2. **Transit Rent Premium**. Based on the analysis in Section 5.2, the analysis uses a transit premium of 10% for commercial lease rates for enhanced light rail rapid transit.

The results of the commercial case studies are summarized in Exhibit 7. The analysis supports the following conclusions:

- Without the premium associated with rapid transit, office development is not financially viable in many suburban locations in the region.
- With rapid transit, high density office development is financially viable in some locations but the lift in land value from rezoning and transit investment is marginal.

Exhibit 7: Summary of Commercial Case Studies ($M indicates $millions)

Case Study	FSR (Existing)/ Rezoned	Office Lease Rates ($ psf net)		Existing Value	Supportable Land Value with Rezoning	Supportable Land Value with Rezoning and Transit	Land Lift
		Without transit	With transit				
Case Study #6: Site in Broadway Corridor Uptown Office Precinct	(3.0) 6.0	$37	$40.70 (10% higher)	$15.3M	$11.2M	$16.9M	Not an office redevelopment candidate without the transit premium; transit premium makes project financially viable
Case Study #7: Site in Surrey City Centre	(0.8) 3.5	$28	$31 (10% higher)	$10.7M	-$5.0M	$6.6M	Office redevelopment is not financially viable on this site even with the transit premium

5.4 Conclusions

The analysis of regional development patterns and the case studies show that:

1. There is strong evidence that transit investment is a major contributor to the ability of local governments to plan high density housing and employment nodes and to obtain public benefits from the extra land value created by the approval of new density.
2. There are significant opportunities for TransLink to earn revenue through an ongoing program of strategic acquisition and disposition of land, especially at rapid transit locations. By buying land early in a transit project planning process, TransLink could benefit from general increases in the market value of land, increased value due to improved transit access, and increased value due to rezoning to allow more density (even after allowing for municipal CACs on additional density).
3. There will be strong market interest in development properties that TransLink can make available by the disposition of surplus sites or air rights over transit infrastructure at rapid transit stations.

4. Municipalities are currently the only entities to obtain revenue or benefits from CACs and density bonusing, but transit investment is responsible for a significant share of the gains in multi-family residential land value in transit-oriented areas, due to the premium achieved by market residential units in areas with high levels of transit service. This lends support to the idea that a portion of CACs on transit-oriented multi-family residential rezonings could be allocated to fund transit investment.
5. The ability to charge a CAC on transit-oriented office development is marginal (and municipalities typically do not charge CACs on office development), so it is likely not worth TransLink exploring the idea of CAC-revenue sharing on office development.
6. There is potential for TransLink to earn revenue by participating in development projects, particularly at transit-served locations where development risk is mitigated by strong market interest.

6.0 Impacts of Different Approaches

There are strong arguments in favour of TransLink making more use of land value capture to fund transit investment, and there are several approaches that can be considered. There are also reasons in favour of TransLink participating in urban development projects to fund transit investment and achieve other objectives. A key consideration is the kinds of positive and negative impacts these approaches would have on land owners, developers, tax payers, and local governments. This section reviews the potential impacts of different approaches.

6.1 Impacts on Land Owners, Tenants, and Developers

6.1.1 Property Taxes (General, Surcharge, Benefitting Area)

The impacts of a higher land value tax, a property tax surcharge, or a benefitting area tax vary with the type of property and the nature of any leases or rental arrangements.

Groups that benefit from these kinds of taxes could include:

- Those buying their first home, if the tax is large enough to reduce the market value of housing. However, the reduction in home purchase price could be offset by the ongoing cost of the tax to the owner. Note that people selling a home would see a loss in equity if the tax reduces market value.
- Any property owner whose taxes fall due to a redistribution of the overall property tax burden. For example, if the intent of a new property tax is to be revenue neutral, then some properties affected by the tax will pay more and some will pay less. Even if the new tax is intended to generate additional total revenue, the structure of the tax could be such that some properties pay more and some pay less, with a net gain in total tax revenue.
- Those who benefit from any new infrastructure or affordable housing constructed using the tax revenue.
- Those whose land values rise as a result of new infrastructure funded by the tax (although in a benefitting area tax this increase in value is all or partly offset by the tax).
- Development land owners, if a new recurring land value tax replaces CAC or DCC/DCL systems.

The cost of a new recurring land value tax is borne by the property owners (or their tenants) who pay the tax. Only with a benefitting area tax is there a direct link between those who benefit and those who pay.

All property taxes are initially paid by the owner of the property, but the nature of the impact varies depending on the type of property and in some cases the cost is shifted to others (tenants).

Residential Rental Properties

In most residential rental properties, rents are structured on a gross basis meaning tenants do not directly pay the property tax; the landlord pays the tax using some of the rental income. Because residential rents in BC are set by the market and by regulations under the Residential Tenancy Act, the effect of property tax increases on residential rents is as follows:

- For units rented at full market rent, there is no impact on tenants. The increased tax cost cannot be passed on in the form of “above market” rent, so landlord net income is reduced. This can have the negative consequence of reducing developer/investor interest in constructing new rental housing if the tax is so high that net income is not sufficient to make projects viable. If the pace of rental construction is

too low (as we have seen in this region over the last several decades), vacancy is too low and rents rise faster than inflation.

- For units that have had rent growth limited by the Residential Tenancy Act, rents are typically below current market rates. If these below-market rates are then allowed to rise faster than inflation because increased operating costs (including property taxes) result in higher allowable rent increases, then increased property tax will result in these rents being higher than they otherwise would be (although still below market).

Commercial Properties

In many commercial properties, leases are structured so that the tenant pays rent and pays a pro rata share of the property tax (and other operating expenses). If one takes the view that over the long term, commercial tenants can pay a maximum total amount to occupy space (regardless of how this value is parsed into rent, tax, or operating costs) then, theoretically, property taxes do not add to the cost of occupancy. The impact of property tax in the long run is to reduce the market rent that can be charged by landlords.

However, in the short run commercial tenants are locked into rent payments based on their leases which are typically 3 to 5 year terms. In this case, the tenants must pay the increased tax but have no ability to offset the cost by reducing rent. This can be very challenging for small businesses, especially those that are already paying very high property taxes because they happen to occupy potential redevelopment sites with high value.

Businesses that own their own premises will absorb any new property tax, so net income from the business will be reduced unless the owner can reduce other costs or increase revenues to offset the tax.

Homeowners

The impact of annual property tax on residential land values or housing prices is not as clear as one would like. The academic research does not always show a direct link between property tax and value, possibly because property taxes tend to be small (on an annual basis) relative to the value of the property, there are many other more significant factors that affect value, and property owners may not expect to own property long enough to absorb the long term impact.

Financial analysis would suggest that a large increase in property tax (i.e. large enough to stand out among other factors) would lead to a reduction in property value, so it is reasonable to assume that a significant new tax on residential land would result in a reduction in the market price of affected freehold and strata units. This would be a disadvantage for owners (their equity falls) and an advantage for buyers (prices are lower), but the upfront affordability benefit of a lower purchase price (a lower down payment, lower mortgage payments, or both) would be somewhat offset by higher ongoing property tax costs.

Additional broad-based taxes on land value would affect all home owners in the targeted category of property, not just those who own redevelopment sites. This approach would enable taxing authorities to benefit from market-wide increases in land value regardless of the cause, rather than linking new taxes to specific benefits generated by specific investments (such as transit) or specific decisions (such as rezoning).

However, because land value tax is not linked to the income of the owner, one possible impact is that some residential property owners may not have enough income to absorb a recurring tax. Such owners have the option of selling and moving to a lower-value property, if possible, or if they are eligible (mainly older owners of residential property) they can defer the tax until they sell the property. A property owner's ability to defer taxes is constrained if there is not sufficient equity after allowing for secured lines of credit, reverse mortgages, or traditional mortgages.

6.1.2 Development Charges

Development charges such as DCCs or DCLs are technically infrastructure cost recovery mechanisms because they collect revenue from new development projects to pay for community-wide networks such as roads, water, sewer, or parks. Development fees are not simply added to the end sales prices or rent rates of units, as these are determined by supply and demand for housing units in the market. Because of the way development sites are valued in the market, development charges have the effect of putting downward pressure on the amount developers can pay for land. While a development charge may be imposed for the purpose of paying for infrastructure, its economic impact is to capture what otherwise would have become land value.

This does not necessarily mean that land values are declining; it means that development fees can cause the pace of land value growth to be slower than it otherwise would.

In the face of this downward pressure on land value, there are two possible outcomes:

- As long as land is still significantly more valuable as redevelopment property than as holding property (in its current use), there is not likely to be a reduction in the flow of land to the redevelopment market. In this case, there is not a negative impact on the pace of development, the viability of development, the price of new product, or overall housing prices.
- If development fees are too high, however, developers cannot offer enough to compete land away from purchasers who want to retain the existing use (e.g. single detached houses or older low-density commercial property). This means that the flow of land to redevelopment is reduced, so the pace of new construction is reduced. If demand remains strong, reducing the pace of new development will cause all housing prices (not just the price of new units) to rise.

As long as development charges are set carefully, they do not have a negative impact on project viability or housing affordability. The cost of levies such as DCCs is absorbed by the owners of redevelopment land. However, in a region like Metro Vancouver, where there are several DCC layers (municipal, GVS&DD, TransLink), it is important to monitor the cumulative impact of these levies rather than look at each DCC in isolation.

The parties that benefit from the DCC system are those that use the new infrastructure, those whose property value is increased by the new infrastructure, and (indirectly) those whose property taxes are lower than they otherwise would be because some infrastructure is paid for by DCC revenues rather than property tax.

6.1.3 Density Bonusing and CACs

Rezoning creates new development density that has land value. Community Amenity Contributions (CACs) obtained in exchange for this new density capture some of the value created by rezoning that would otherwise become additional value for the owners of development sites. The CAC funds are used to provide public amenities and affordable housing.

CACs do not add to the market price of housing because CACs are always associated with an increase in housing capacity and, in any case, housing prices are determined by demand and supply forces. CACs can help address housing affordability if new strata or market rental density is offered in exchange for affordable housing benefits.

CACs are paid by developers but they receive valuable density in exchange, so there is not a net cost to them. The cost could be said to be absorbed by land owners (who would otherwise have obtained all of the value of new density), but only if one assumes that rezonings would be approved even if no public benefits result.

The parties that benefit from the CAC system include those who use the new amenities and infrastructure, those whose land value is increased by the new amenities and infrastructure, developers who earn additional profit by developing the additional density, households who benefit from any new affordable housing provided as part of the CAC, and (indirectly) those whose property taxes are lower than they otherwise would be if the amenities and infrastructure were funded via property tax.

6.1.4 Land Acquisition and Disposition

The acquisition and subsequent resale or lease of land by public entities can generate revenue and add to housing supply, so there are positive outcomes for infrastructure funding and housing affordability.

One common strategy for land disposition as a land value capture tool is advance acquisition of more land than is needed for transit construction and subsequent sale of rezoned development sites with transit access, either to help pay for the transit or to provide sites for affordable housing.

There is no direct cost to any party that results from public sector involvement in land acquisition and disposition, unless a particular transaction results in a loss that must be covered from another revenue source.

The main benefit is that there is less reliance on all other sources of revenue, including property tax.

One way to take advantage of land value capture using public land is to lease rather than sell property. When a land lease expires, there is an opportunity to take the land back if necessary for a civic purpose (thereby eliminating the need to acquire a site) or there is an opportunity to re-lease the land at the current market value, taking advantage of land value growth over the life of the lease. Of course, this requires either that the current occupants pay market value for a lease renewal or that the property is made available under a new lease for redevelopment.

6.1.5 Development

The involvement of a public agency in development can have positive impacts for those who benefit directly from the project, such as tenants who benefit from affordable housing. There are not usually any negative impacts, as the total extent of market participation is typically not large enough to cause concern about competition with the private sector.

Because of the risks involved in development, the greatest impact is potentially on the agency itself in the event that a project creates a financial loss that must be made up from other funding sources.

6.1.6 Summary of Impacts

Exhibit 8 and Exhibit 9 summarize the foregoing review of impacts. Three main conclusions are supported by this review:

- One-time land value capture taxes and charges affect property owners but not tenants.
- Recurring taxation approaches to land value capture affect property owners and in some cases tenants.
- Strategic land acquisition/disposition and involvement in development projects do not have negative impacts on other participants in the land market.

Exhibit 8: Impacts of One-Time Taxes, Charges, and Zoning Land Value Capture Mechanisms

	Capital Gains Tax at Sale Taxes at Purchase	Development Charges	Density Bonusing and CACs
Residential tenants	No	No	No
Commercial tenants	No	No	No
Landlords	Yes	No	No
Homeowners or buyers	Yes	No (unless DCCs so high that pace of development is slowed)	No
Developers	Yes	No (reduces bid price for land)	No (receive density in exchange)
Development site owners	Yes	Yes (puts downward pressure on site value)	No (but they don't get all the lift)

Exhibit 9: Impacts of Recurring Taxes and Strategic Land Disposition and Development

	All Forms of Property Taxes (General, Land Only, Surcharges for Affected Properties, Benefitting Area Tax for Affected Area)	Land Disposition and Development by Public Sector
Residential tenants	No, if rent is market Yes, if rent is below market	No (tenants benefit from supply increase)
Commercial tenants	Yes, in short run (bound by lease) No, in long run (downward pressure on rent)	No
Landlords	Yes, reduces NOI or room for rent growth	No
Homeowners or buyers	Yes	No
Developers	Yes, while they hold land for development	No (developers benefit from site availability)
Development site owners	Yes, but may be recovered from tenants	No

6.2 Impacts on Other Levels of Government

Revenues raised by land value capture via taxes or charges imposed by a particular agency necessarily impact other government agencies that draw on the same revenue source. At present in BC, the Province uses some property related revenue sources that are not available to other agencies, such as the Property Transfer Tax, the foreign purchaser tax, and the school tax surcharge on high value residential properties. Local and regional agencies, though, all rely on the same main revenue tools.

Assuming there is a limit on the total amount of property tax that is acceptable (financially and politically) or the amount of charges on new development that is viable, then any revenue collected by TransLink from these sources is revenue that could otherwise be collected by local governments in the region using the same tool.

For this reason, local governments and regional agencies in Metro Vancouver will pay close attention to new or increased land value capture using taxes or charges imposed by TransLink. When the new regional TransLink DCC was under discussion, municipalities were keenly aware that the new DCC would affect their ability to raise their own local DCCs and would require them to take on the administrative process of collecting the revenues and remitting them to TransLink. They supported the new DCC because they saw the value in new regional transportation investment, they generally agreed with finding a new revenue source (rather than increasing property taxes), and they recognized that the new DCC was relatively small compared to existing charges. Any new property tax or move to share CAC revenues will have to garner the same kind of support and would also require municipalities to administer collections/remittance.

Increased land acquisition/disposition or involvement in development projects by TransLink will not impact other levels of government because there would be no reduction in their ability to collect revenue. Increased activity by TransLink in strategic land acquisition/disposition or involvement in development projects may create interest in collaboration from other public sector agencies who hold relevant properties or rights.

7.0 Stakeholder Perspectives

7.1 Summary of Stakeholder Perspectives

In December 2019, TransLink and the consultants convened an initial set of workshops with representatives of the Provincial government, Metro Vancouver, local governments in Metro Vancouver, the regional development industry, and other interested groups. These initial workshops were intended to describe the scope of work for this project, summarize some of the analysis, and provide a preliminary indication of the possible revenue approaches that seemed to have the best potential for TransLink in the near term.

In January 2020, representatives of the same stakeholder groups were given a copy of a preliminary draft version of this report and invited to a second workshop to discuss the draft report. TransLink also gave stakeholders time to further review the draft report and provide written comments after the workshop.

Key messages from the stakeholders are summarized below.

Sharing Revenues from CACs and Density Bonusing

- There is broad local government opposition to sharing CAC or density bonus revenues with TransLink. Local governments tend to see this approach as competition for shares of an existing revenue source and they prefer that TransLink try to find new revenues. Local governments noted that municipalities have few revenue tools available to them so they rely on CACs and density bonusing to fund the community amenities, services, and infrastructure needed to support growth such as community centres, cultural facilities, libraries, fire halls, and affordable housing. Many municipalities also noted that, in keeping with Provincial guidelines, they invest CAC revenues into the immediate community from which they are collected. Some noted that they control zoning, which they see as the primary instrument of creating new land value. They also noted that municipalities in this region have very different rates of growth so municipalities with the most development (via rezonings which is when CACs can be charged) would contribute the most towards transit investment in a CAC revenue-sharing model.
- Some municipalities noted that CAC revenues could be smaller in the future as municipalities explore ways to increase affordable housing in new projects (which reduces the ability to pay a CAC).
- One municipality also noted that TransLink participation in the CAC process may increase the complexity, uncertainty, and processing time for new developments.
- Only one municipality expressed being open to the idea of CAC revenue-sharing on the condition that revenues only be used for new rapid transit construction.
- Developers are of the view that the CAC process is generally too complex, time-consuming, and uncertain, so they are reluctant to have TransLink do anything that adds to these concerns. However, UDI expressed support for TransLink receiving a share of CAC revenues from local governments recognizing that transit infrastructure contributes to creating land value in this region. UDI suggested the idea of a formula-based fee to be paid by developers to TransLink around transit stations in exchange for additional density as opposed to a new negotiated CAC. UDI noted that rental housing and commercial developments are unlikely to be able to contribute any significant CAC revenues to TransLink, in contrast to strata residential development projects.

Benefitting Area Tax

- Some stakeholders are supportive of a benefitting area tax, subject to the details about where it is levied and the amount of the tax. Some stakeholders noted that implementation of a benefitting area tax would

be facilitated by the existing property value assessment system which makes it easy to quantify the value of properties closer to transit. Some stakeholders noted there is a rationale for such a tax (because properties near transit benefit from accessibility), and it may encourage under-developed sites near transit stations to be redeveloped with higher density uses which support transit ridership.

- Some stakeholders expressed concern about "double" taxing properties (because higher assessed values means properties near transit already pay more basic TransLink property tax than similar properties not near transit).
- Some stakeholders expressed concern that a benefitting area tax could result in resident opposition to new rapid transit projects and concern that a benefitting area tax around transit stations could discourage development in those locations.
- Many local governments expressed concern that a benefitting area tax may have the unintended consequence of displacing small businesses as well as organizations in the arts, culture, and non-profit sectors because property tax increases would be passed on to tenants through their leases. These stakeholders noted that analysis would be needed to estimate potential impacts (and presumably find ways to mitigate those).
- UDI suggested that TransLink could consider phasing in a very small benefitting area tax at new and existing transit stations as the rapid transit system is expanded, because all property owners near transit stations are likely to see property value increases as the rapid transit system is enhanced and expanded.

Strategic Land Acquisition/Disposition and Participation in Urban Development

- There was broad support for TransLink becoming more creative and active in the strategic acquisition and disposition of property, recognizing that market conditions fluctuate and this could require careful planning/analysis and a long term view. One local government suggested that TransLink coordinate land acquisition/disposition activities with local governments to ensure alignment of land use objectives and that TransLink could consider creating an arms length development corporation.
- There was broad support for TransLink participating in development projects, with appropriate measures to mitigate risk, which could include building up a portfolio of income-producing properties (e.g. commercial space, rental housing).

Property Transfer Tax

- There was general support for TransLink participating with Metro Vancouver and local governments in lobbying the Province for a share of Property Transfer Tax.

Affordable Housing

- There were differing opinions among stakeholders about whether or how TransLink should help develop or fund affordable housing. Some stakeholders support the idea of TransLink helping to develop or fund affordable housing including making surplus development sites available or participating in development projects. On the other hand, some see the provision of affordable housing as the responsibility of the Province, Metro Vancouver, and municipalities so TransLink should focus on just complying with affordable housing policy requirements in any developments that it participates in or sites it makes available for development.
- Some see opportunities for intergovernmental collaboration in the development of lands near transit to advance affordable housing objectives.

Other

- The development community noted that development fees, costs, and taxes can only be accounted for by developers in valuing development sites if the land is purchased after the announcement of the fee/cost/tax, so it is essential to provide very early notice before new charges are implemented.
- Some stakeholders noted that TransLink recently adjusted its property tax structure and introduced the new regional DCC for transit, so time may be needed to evaluate the impacts of those costs before introducing new ones.
- Some stakeholders commented that Project Partnership Agreements provide an opportunity for TransLink and municipalities to agree upon how land along new rapid transit corridors will be treated (including how affordable housing will be supported and how CAC collection will be handled).
- Some stakeholders commented that TransLink should continue to seek ways to diversify its funding sources beyond land value capture, including a regional mobility pricing system.
- Some stakeholders commented that TransLink will likely need to combine one-time charges, recurring charges, and development-related activities, rather than adopt a single approach.
- The development industry cautioned against exploring capital gains tax, as this is a complex political and financial topic that TransLink should not get drawn into.

7.2 Response to Stakeholder Input

The input from stakeholders was clear, comprehensive, and constructive, but also challenging in some respects.

There is broad support for three of the potential revenue sources: a greater involvement in land acquisition/disposition, greater involvement in urban development, and seeking an arrangement with the Province for sharing Property Transfer Tax revenues.

There is significant concern on the part of local governments about sharing CAC and density bonus benefits. This is understandable, as local governments currently do not have to share these benefits and they rely on them as a major source of capital funding for amenities, affordable housing, and some kinds of infrastructure. However, it is clear that transit investment supports densification and is responsible for a significant share of the land value gains that result from investment in transit. For this reason, transit should be considered an appropriate candidate for a share of the benefits that flow from rezoning and densification in areas served by transit investment. One of the underlying premises of land value capture is that some of the value should be available to help pay for the infrastructure that creates the value in the first place. Of course a large share of the benefits from rezoning must be allocated to meeting the needs of growth, but TransLink should take the view that it is reasonable for it to receive a share of the benefits. In exploring this option further, TransLink should take a collaborative approach and should recognize the concerns of, and potential impacts on, local government.

There is also significant concern about the possible impacts of a benefitting area tax, particularly on small business and non-profits. This is a legitimate concern because of some consequences of the structure of the property tax system. However, some points need to be made in response. First, several local governments in the region have been increasing property taxes at more than the rate of inflation (and local government is responsible for around half of the total property tax bill on most properties). A new TransLink benefitting area tax is likely to be small in comparison to municipal increases and may mean that local government has to be more careful in its own tax-setting decisions. Second, a benefitting area tax is one of the most direct available means to capture some of the land value growth that is associated with enhanced transit investment. Third,

the Province is considering ways to mitigate the impact of the tax system on small business. Fourth, areas around rapid transit stations are expected to undergo redevelopment, so the problem of small businesses or non-profits absorbing the whole tax burden for under-developed properties should diminish. Certainly TransLink should be sensitive to potential impacts but a benefitting area tax, which is already contemplated in legislation, should be explored further in our view.

Stakeholder contact also indicates that there is a range of perspectives about the appropriate role for TransLink in the provision of affordable housing. Some stakeholders argue for a substantial role, while others note that affordable housing is the responsibility of other agencies. TransLink is in a unique position to facilitate the provision of transit-oriented affordable rental housing but it will have to make careful, deliberate decisions about the extent to which it should allocate resources to housing.

8.0 Possible Directions for TransLink

Based on all of the foregoing analysis, there is a wide range of approaches that TransLink could explore to generate more revenue and further its objectives regarding affordable housing and increased support for walking, cycling, and transit ridership.

The next step is to narrow the range, to identify the approaches that TransLink should consider in much more detail. The goal is not to narrow the approaches down to select one preferred approach, but to identify the approaches that are worth considering in greater detail. TransLink may explore and eventually seek to implement a combination of approaches.

We use four steps to winnow the list:

- First, we review the possible approaches to see how they align with TransLink's goals. This allows us to flag any approaches that are particularly suited or unsuited to what TransLink wants to achieve.
- Second, we review each possible approach to see if there is any compelling reason to drop any from further consideration at this time.
- Third, for the candidates that warrant more consideration, we evaluate them using criteria including revenue potential, sustainability, and ease of implementation.
- Finally, based on the evaluation, we identify those that have the greatest potential for generating revenue and achieving TransLink's goals.

8.1 Aligning Approaches and Objectives

Exhibit 10 lists the main alternative approaches that have been identified and indicates whether they align with TransLink's objectives of generating revenue (for capital projects or for operating costs), supporting transit-oriented affordable rental housing, and supporting walking, cycling, and transit ridership. Supporting transit-oriented affordable rental housing and walking, cycling, and transit ridership could include using revenues to support these goals or could mean providing physical opportunities to facilitate/build affordable housing and walking, cycling, and transit supportive infrastructure. Exhibit 10 makes this distinction.

As indicated in the exhibit, all of the approaches can generate revenue for transit. DCCs and CACs are only applicable to capital investment, but all of the other approaches generate revenue that could be applied to capital or operating costs.

All of the approaches except DCCs generate revenue that could be applied to transit-oriented affordable rental housing if TransLink elects to allocate resources to this objective. The TransLink DCC is structured so that the revenue can only be applied to transportation capital investment. CACs and taxes create revenue that TransLink could allocate to affordable housing. Land disposition and development could generate revenue or could involve foregoing land value or profit revenues in order to invest directly in the creation of affordable housing.

Only land disposition and participation in development would give TransLink the direct ability to physically shape the form and character of development to promote walking, cycling, and transit use and the direct ability to physically provide sites for (or develop projects that include) affordable rental housing. In selling or leasing surplus lands, TransLink could require that developers use project design, the mix of uses, and in-project facilities (e.g. support for cycling) to support non-auto transportation. By developing projects, TransLink can control these directly and can allocate funds to go beyond what a private sector developer might do.

Exhibit 10: Alignment with TransLink's Objectives

	Revenue for Investment	Revenue for Operations	Increase Walking, Cycling, Transit Use		Transit-Oriented Affordable Rental Housing	
			Revenue	Physical Opportunity	Revenue	Physical Opportunity
Capital Gains Tax at Sale Taxes at Purchase	✓	✓	✓		✓	
Development Cost Charge	✓					
Density Bonus and CAC at rezoning	✓		✓		✓	
Property Tax (General, Surcharge, Benefitting Area)	✓	✓	✓		✓	
Land Value Tax	✓	✓	✓		✓	
Strategic Land Acquisition/Disposition	✓	✓	✓	✓	✓	✓
Development	✓	✓	✓	✓	✓	✓

Based on this review, all of the possible approaches align with the objective of increasing revenue for transportation investment, although tax approaches have the advantage of generating funds for capital and operating costs as well as revenue that could be applied to affordable housing. Density bonus, CACs, and DCCs have more narrow revenue applicability, as they are confined to capital investment and probably only for transit.

Strategic land acquisition/disposition and participation in development are the only approaches that would allow TransLink to have a direct role in the provision of transit-oriented rental housing and in shaping the form of development to support transit ridership, walking, and cycling.

8.2 Evaluating the Options and Identifying Those to Consider Further in the Near Term

8.2.1 Capital Gains Tax

Only the Federal and Provincial governments have the power to levy income tax. This authority has not been devolved to any lower order of government, so it seems highly unlikely that one regional agency (i.e. TransLink) could be granted this taxation tool.

There is increasing discourse in Canada regarding changes to capital gains tax as part of an approach to dealing with income inequality. There are strong voices on both sides of this conversation, particularly regarding the pros and cons of encouraging capital investment via tax policy and regarding the exemption that applies to principal residences. This is an important public policy debate that is likely to play out over years to come, involving all levels of government. The question for TransLink is whether it should enter this arena at this time. We do not see any value to TransLink of investing time and resources in pursuing this tax ability, and it could become a divisive distraction.

Potential: Do not explore further.

8.2.2 Foreign Purchaser Tax

This kind of tax has been introduced by the Province as part of a strategy to reduce non-local demand for residential real estate. In the recent Federal election, some political parties floated the idea of a Federal tax with a similar objective. It seems highly unlikely that a regional agency would be given a special ability to directly influence international investment in real estate in Canada.

Potential: Do not explore further.

8.2.3 Property Transfer Tax

To date, only the Province has this taxing authority, which it has used to generate revenue and to try to reduce non-local demand for residential property. In 2017, Metro Vancouver estimated that this region generated over 75% of the Provincial revenue from this tax (which generates on the order of $2 billion per year), and so on behalf of local governments and regional agencies has been lobbying the Province to share these revenues to apply them directly to regional needs.[15] There is regional interest in applying some of this money to affordable housing. There is also a compelling argument that affordable transportation helps reduce the impact of housing costs, so some of the revenue could be applied to transit investment.

The Province has not made any commitment to share these revenues.

If the Province considers revenue-sharing, there would be several complex policy considerations:

- How much of the tax should be distributed out to local and regional agencies and how much should be retained by the Province?
- If any is distributed, should it be proportional to the amount paid? This might seem a fair approach, but it is worth noting that for a very long time the Province's share of property tax revenue (which is mainly intended to fund the public K to 12 education system) has been collected based on property value and distributed in the form of per student grants to fund school operations.
- If any is distributed, should it flow to regional agencies (e.g. Metro Vancouver, TransLink), local governments, or a combination?
- What should the funds be used for? Given the intent of raising the tax rate to help address housing affordability, it might be argued that the funds should be directed to the construction of affordable housing.

This matter will not be easily resolved and it is not likely to be seen as a TransLink issue per se. TransLink has an interest in the idea of distributing property transfer tax revenues, but is not in a strong position to lead this initiative.

Potential: Participate with Metro Vancouver and local governments in efforts to influence the Province, but do not make this a centerpiece in TransLink's near future work on funding options.

8.2.4 Revisions to TransLink DCC Framework

The legislation that enables the TransLink DCC already allows for the possibility of increasing rates. Collections began in January 2020 and the first increase in rates has already been locked in for 2021 (based on a consultation process with the development industry that resulted in phasing in the charge).

The legislation also allows the possibility of differential DCC rates across the region, but in the work leading to the creation of the new DCC there was a strong preference for uniform rates based on the premise that

[15] Metro Vancouver, "Provincial Property-based Taxes in the Metro Vancouver Region." 4 April 2017.

the benefits of transit investment are distributed widely and not necessarily proportional to where the investment happens.

In the future, there may be more willingness in the region, among industry and local government, to explore the idea of a tiered DCC structure (with higher rates in areas with the most intense service), but as the ink is barely dry on the current framework there would likely be little support for making changes in the early years of this new charge.

Potential: Plan ahead for inflationary adjustments to DCC rates, but do not change the DCC framework at this time. Monitor collections and watch carefully to see if there is any evidence of negative market impacts. In the longer term, revisit the question of whether the regional DCC should have different rates in different areas.

8.2.5 CAC and Density Bonus Revenue Sharing

Transit investment clearly supports the ability of local governments to plan for higher density residential and commercial development. Transit investment also contributes to increased land value because of the market premium for prices and rents at rapid transit locations.

Transit, therefore, has a major role in creating the urban economics circumstances that enable density bonusing and rezoning to provide public benefits, which means a compelling case can be made for TransLink to have access to some of this revenue potential.

Local governments will reasonably take the view that public benefits from density bonusing and rezoning are needed to provide the amenities and infrastructure needed to support larger, higher density communities. However, local governments must go through a priority-setting exercise to allocate the public benefits from rezoning to local amenities such as daycare or community centre space, emergency facilities such as fire halls, library space, affordable housing or other needs. Rather than viewing the allocation of benefits as a competition between TransLink and municipalities, there is a case for having a collaborative conversation about how transit helps support densification and contributes to land value growth and about how transit should fit into the prioritization of investments that should be funded out of the revenues from CACs and density bonusing.

Potential: Explore further. Engage in a dialogue with regional municipalities about possible approaches to allocating a portion of the benefits from CACs and density bonusing to transit investment.

8.2.6 Across-the-Board Increase in Property Taxes

The Mayors' Council has expressed a clear preference for finding revenues other than by further loading up the existing sources. There is probably very little political or public support for a widespread property tax increase at this time, although it of course exists as an option if required for a new TransLink investment plan.

Potential: Unless it becomes necessary to raise sufficient revenue for TransLink investment plans, do not select this as a preferred option for additional revenue in the short term.

8.2.7 Land Value Tax

Current BC legislation does not allow general property tax on land only, or different tax rates for land and improvements. The only tax tool that is somewhat like a land value tax is a parcel tax, as allowed under Section 200 of the Community Charter, to recover the cost of a specific service that benefits specific properties. If the parcel tax is allocated based on site area or site frontage, then the tax is applied without

reference to the value of improvements so it can be considered a kind of land value tax. There are some shortcomings with parcel taxes:

- They are either applied to the whole community or to the specific set of properties that benefit from a service.
- They are structured as a cost recovery mechanism, so the amount of the tax is not based on the value of the property.

A true land value tax based on land value is not possible in BC under current legislation, although such a tax would have these advantages:

- It taxes the portion of property value that is directly affected by infrastructure investment.
- Land value taxes can encourage more intensive use of property, as owners have an incentive to maximize the area of improvements over which to spread the land tax.

While there are strong proponents of land value tax as a means of redistributing income and shaping housing demand, there are also opponents who are concerned about the impact on home owners, business owners, and tenants because there is no direct connection between the tax and the ability to pay.

It seems unlikely that TransLink alone would be given the ability in BC to tax land at a different rate than improvements, so there is not much incentive for TransLink to try to push this agenda for its purposes.

Potential: Monitor the positions of the Provincial Government, Metro Vancouver, and local governments in the region for any signals that a broader approach to land value taxation is gaining support and then be part of the conversation as an important property tax stakeholder.

8.2.8 Benefitting Area Tax

TransLink already has the legislative power to implement a benefitting area tax.[16] While still a form of property tax, it is a new approach that links tax directly to the value and accessibility created by transit investment which could attract less opposition (and potentially more support) than a region-wide increase in property tax.

Like property tax, this revenue could be applied to capital investment or operations and is ongoing.

One concern is that a benefitting area tax could be portrayed as making some properties “pay twice”. If transit access confers extra property value, then all properties in a benefitting area are already paying more property tax because of their higher value. A benefitting area tax would add a surcharge to these properties. However, such properties enjoy several benefits, including higher property value, higher accessibility to transit, and higher marketability for attracting tenants or purchasers. The rationale for adding the benefitting area tax is essentially that it makes the tax progressive, with properties with very high transit access paying a larger share of value than properties with less access.

UDI noted that one approach would be to consider phasing in (with early advanced notice) a very small benefitting area tax at new and existing transit stations as the rapid transit system is expanded.

Potential: Consider further, including examining different approaches to defining benefitting areas and confirming whether legislative amendments or regulation would be needed to implement a new benefitting area tax.

[16] TransLink advised that it may need legislative amendments or regulation as part of implementing a benefiting area tax. This would need to be explored if TransLink decides to examine this approach in more detail in subsequent work.

8.2.9 Strategic Land Acquisition and Disposition

TransLink already engages in land disposition and acquisition, so this is not a new revenue tool. TransLink will presumably continue to market properties that (in whole or in part) become surplus to transportation needs and will continue to acquire land for transit construction. However, TransLink can become more creative and aggressive in the land market, in several ways:

- Exploring the potential to market portions of TransLink owned sites that are not entirely needed or to market air rights above existing transportation facilities that will remain.
- Exploring partnerships in locations where TransLink and other owners could cooperate to create development opportunities. For example, there are locations along the Expo line right of way (which is owned by BC Hydro) where there are opportunities for TransLink and BC Hydro to combine their interests in land to make new development sites.
- Acquiring additional properties when buying land for transportation investment, when there are opportunities for assembly that will result in strong development opportunities after transportation construction is complete.

Because TransLink is engaged in long term planning for new transit investment, it is in an excellent position to acquire good quality development properties well in advance of new transit construction. TransLink can take advantage of general increases in market value, the new value created by transit investment, and new value that is associated with increased density.

Involvement in the land market will also give TransLink more ability to shape development and integrate land use and transportation. When disposing of property, via lease or sale, TransLink can exert some control over the mix of uses (to require affordable housing, for example) and the form and character of development, to be supportive of walking, cycling, and transit ridership.

Potential: Consider becoming more creative and active in the acquisition and disposition of land, as a means of generating revenue and shaping urban development at transit-oriented locations. Develop a strategic plan for greater involvement in the acquisition and disposition of development sites, with guidelines for examining TransLink's existing portfolio of properties and to guide acquisitions of new properties.[17]

8.2.10 Participation in Urban Development Projects

Direct participation in development projects could be a new source of revenue for TransLink, as well as the most direct possible means to shape development and integrate land use and transportation.

There are several ways that TransLink can benefit from direct involvement in urban development:

- TransLink can earn revenue (profit) from being involved in building and selling market-oriented development projects, For example, rather than selling or leasing property it can take on the role of developer (i.e. finance and build the project, market the space, earn the profit). This could be done alone or in partnership with other developers.
- TransLink could participate in joint ventures with other agencies that provide affordable housing. TransLink could for example provide some of its development parcels to non-profits or public sector housing providers for the construction of affordable rental housing. However, it is important to understand

[17] TransLink's current guidelines set the objectives of adhering to applicable laws, bylaws, and municipal approval requirements and having a positive financial business case for acquisition/disposition decisions. A strategic plan would provide more detailed guidance and parameters.

that this would reduce the revenue from the disposition of such sites by allocating benefits to affordable housing rather than transit investment.

- TransLink can build a portfolio of income-producing property, such as retail space, office space, and rental housing at transit-oriented locations to generate an ongoing source of income.
- TransLink can design and create projects that include affordable housing and that support walking, cycling, and transit ridership. In these cases, TransLink would be allocating revenue to housing or support for alternative modes of travel rather than retaining the revenue for investment in new transit infrastructure.

It is important to note that these sorts of projects are very different from simply selling or leasing development parcels or air rights to developers. Selling or leasing parcels will generate revenue but does not involve exposure to development risk. Direct involvement in a project (e.g. investing equity and taking responsibility for development decisions) involves risks. For this reason, transit agencies in North America tend to be involved in strategic land acquisition and disposition but not directly involved in residential or commercial development. However, there are ways to manage and mitigate these risks.

Potential: Consider being involved in development projects that can achieve TransLink's objectives for revenue, affordable housing, and supporting walking, cycling, and transit ridership. Develop a strategic plan for greater involvement in development projects, with guidelines for examining TransLink's existing portfolio of properties and to guide development of new properties.[18]

8.3 Examining the Approaches with Potential in More Detail

Based on the work so far, five approaches stand out as warranting more examination:

1. Creating a benefitting area tax, as already allowed under the SCBCTA Act.
2. Exploring the potential to enter into CAC or density bonusing revenue sharing arrangements with local government.
3. Participating with Metro Vancouver local governments in efforts to lobby the Province to share property transfer tax revenues.
4. Becoming more creative and active in the strategic acquisition and disposition of land.
5. Participating in urban development projects.

Each of these approaches is evaluated using these criteria:

- Alignment with TransLink objectives: Each approach is evaluated in terms of its ability to generate revenue, support affordable housing, and support walking, cycling, and transit ridership.
- Potential revenues: TransLink uses a revenue benchmark of about $25 million to $50 million per year for analyzing the feasibility and impacts of different funding sources and when evaluating new funding streams.
- Sustainability of the revenue stream.
- Potential impacts.
- Ease of implementation.

[18] TransLink's current guidelines set the objectives of adhering to applicable laws, bylaws, and municipal approval requirements and having a positive financial business case for development decisions. A strategic plan would provide more detailed guidance and parameters.

8.3.1 Benefitting Area Tax

Alignment with TransLink Objectives

A benefitting area tax would generate new revenue for TransLink. TransLink could apply Benefitting Area Tax revenues to new transportation capital investment, infrastructure that supports walking, cycling, and transit use, and to transit operations. TransLink could also apply these revenues to other objectives (e.g. affordable housing) or a combination, but TransLink advised that it is unlikely to apply benefitting area tax revenues to affordable housing as it does not do so with its existing property tax revenues.

As a tax, it would not directly provide housing or shape the form of urban development.

Potential Revenue

The revenue potential depends on several variables:

- The definition of benefitting areas.
- The tax rate(s) applied within these areas.
- Whether or not the general property tax rate is adjusted downward to partially offset the increase.

So, the approach we take is to illustrate how the tax might be structured in order to achieve the revenue threshold of $25 million per year.

As shown in Exhibit 11, TransLink's total property tax revenue was around $373 million in 2018 (including the Replacement Tax), equal to about 20% of total revenue. During 2014 to 2016, property tax revenue grew by 3% or less per year (consistent with the former maximum of 3%) but since then has grown by over 4% per year because of the change to apply the 3% cap to previous tax revenue and then add the growth from new assessed value due to new development. Exhibit 12 shows the effect of this policy change, indicating the new property tax revenue in 2017 and 2018.

Exhibit 11: TransLink Property Tax Revenues 2014-2018 ($millions)

	2014	2015	2016	2017	2018
Property Tax Revenue [a]	$306.6	$314.7	$324.5	$339.1	$355.8
Replacement Tax Revenue [b]	$17.9	$17.8	$18.0	$17.8	$17.9
Subtotal - Property Tax + Replacement Tax Revenue	$324.5	$332.5	$342.5	$357.0	$373.7
Total Revenue from All Sources	$1,453.8	$1,627.7	$2,152.3	$1,688.4	$1,849.2
Annual Increase in Property Tax + Replacement Tax Revenue	2.7%	2.5%	3.0%	4.2%	4.7%
Property Tax + Replacement Tax Share of Total Revenue	22%	20%	16%	21%	20%

Source: TransLink, Annual Statutory Reports.
Note a: Levied on Property Classes (1) Residential, (2) Utilities, (4) Major Industry, (5) Light Industry, (6) Business/Other, (8) Recreation/Non-Profit, and (9) Farm class.
Note b: Levied on Property Classes (1) Residential, (2) Utilities, (4) Major Industry, (5) Light Industry, (6) Business/Other and cannot exceed $18 million per year.

Exhibit 12: TransLink Property Tax Revenue Before and After 2017 Policy Change ($millions)

	2014	2015	2016	2017	2018
Actual Property Tax Revenue	$306.6	$314.7	$324.5	$339.1	$355.8
Property Tax Revenue if total could only increase by up to 3% per year	$306.6	$314.7	$324.5	$334.2	$344.3
Additional Property Tax Revenue associated with 2017 adjustment	n/a	n/a	n/a	$4.9	$11.6

To raise $25 million to $50 million in new revenue, total TransLink regional property taxes would have to rise by about 7% to 14%.

A benefitting area tax would have to be a larger percentage increase because it would be applied on only a portion of the assessment base.

If, for illustrative purposes, it is assumed that a new benefitting area tax would be applied to properties within 400 metres of an existing rapid transit station (on the Expo, Millennium, Canada, and Evergreen Lines as at 2019), as shown in Exhibit 13 there would be a total assessment base of about $167.5 billion, which is about 13% of the entire regional assessment base.

Exhibit 13: Assessed Value for Properties within 400m of Rapid Transit Station, 2019 ($millions)

	Total Assessed Land Value	Total Assessed Improvements Value	Total Assessed Value
Properties within 400m of an Existing Rapid Transit Station:			
Class 1: Residential within 400m	$57,944.7	$20,686.2	$78,631.0
Class 6: Business/Other	$56,071.4	$23,321.4	$79,392.7
Rest of Classes Combined	$7,505.8	$2,010.9	$9,516.7
Total	$121,521.9	$46,018.5	$167,540.4
Total All Properties in Metro Vancouver:			
Class 1: Residential	$792,242.2	$199,359.4	$991,601.5
Class 6: Business/Other	$158,445.0	$43,646.8	$202,091.7
Rest of Classes Combined	$107,554.3	$23,756.7	$131,311.0
Total	$1,058,241.4	$266,762.9	$1,325,004.3

Source: Landcor Data Corporation.

Exhibit 14 shows the implications for property taxation on residential and business properties in this sample benefitting area.

Exhibit 14: Testing Benefitting Area Tax Revenue Potential ($millions)

Property Type	Total 2019 Assessed Value Within 400 m of all existing rapid transit stations	2019 TransLink mill rates (per thousand dollars of assessed value)	2019 Property Taxes	Extra property tax to achieve $25 million increase assuming same mix of residential and business taxes	Percent increase in TransLink property tax in benefitting area	Increase in total property tax if TransLink averages 7% of total
Residential	$78,631.0	$0.2193	$17.2	$5.5	32%	2.2%
Business/Other	$79,392.7	$0.7617	$60.5	$19.5	32%	2.2%
Other Classes	$9,516.7	n/a	n/a	n/a	n/a	n/a
Total	$167,540.4	n/a	$77.7	$25	32%	2.2%

Achieving the revenue threshold requires a 32% increase in TransLink property taxes inside the defined benefitting area. TransLink estimates that on average TransLink accounts for 7% of a homeowner's total

property tax bill[19], so a 32% increase in the TransLink portion means an increase of a little over 2% in total taxes (in addition to any increase applied to all properties) inside the benefitting area.[20]

This percentage increase could be reduced by:

- Including the rapid transit station areas on the new extensions in Surrey and Vancouver in the definition of benefitting areas.
- Including properties in Frequent Transit Development Areas served by buses in the definition of benefitting areas.

Sustainability of the Revenue Stream

This is a sustainable revenue stream that could increase over time because an increasing share of total regional development is occurring in transit-served locations. This revenue stream would be affected by changes in land value if the tax is set at a flat rate. The revenue stream would be resilient to changes in land value if the tax rate is determined by a budget that defines the target revenue from this source.

Potential Impacts

This new tax would possibly constrain the ability of local governments to increase their property taxes, assuming there is a financially and politically acceptable maximum total property tax that property owners will absorb.

There would be impacts on these groups:

- Commercial tenants on fixed term leases will have to absorb the increased operating cost.
- Residential tenants paying less than full market rent may absorb increased costs if the Residential Tenancy Act rent controls allow higher rent increases to cover the higher operating costs.
- Home owners will absorb an increased cost.
- Landlords who cannot pass the tax forward to tenants will have reduced net operating income.
- Businesses that own their own property will absorb increased operating cost.

These groups also benefit from the transit, so the property tax is recouping some of that benefit.

Ease of Implementation

The authority to create a benefitting area tax already exists in the SCBCTA Act.

8.3.2 CAC and Density Bonus Revenue Sharing

Alignment with TransLink Objectives

While there is no legislation governing the use of CAC revenues, the common practice is to apply them to capital investment needed to meet the needs of growth. Legislation requires that benefits from density bonusing be used for amenities or affordable housing, but there is considerable flexibility in the allocation of benefits to capital projects. TransLink could apply CAC or density bonus shared revenues to new transit capital investment and infrastructure that supports walking, cycling, and transit use, but TransLink has indicated that it would be unlikely to apply these revenues to affordable housing because local governments

[19] TransLink website at https://www.translink.ca/About-Us/Media/2018/March/Phase-Two-Regional-Funding.aspx

[20] This assumes that on average TransLink also accounts for 7% of commercial total property tax bills.

already collect CACs for this purpose and there is no precedent for TransLink to do so. TransLink would likely encounter resistance to applying CAC revenue to pay down debt for past investments or to fund transit operating cost.

Potential Revenue

This is very difficult to estimate because not all municipalities report their CAC receipts and because some public benefits are received in kind, which require a conversion to estimate cash equivalence.

Using available reported data for Vancouver, Surrey, Coquitlam, Burnaby, Richmond, West Vancouver, and the District of North Vancouver, total contributions from development (not including DCCs and DCLs) in 2017 and 2018 were in the range of $660 to $690 million (heavily concentrated in Vancouver, Burnaby, and Surrey). The totals were much lower during 2014 to 2016, averaging about $350 million to $400 million. These municipalities account for a large share of total residential development in Metro Vancouver[21], but the rest of the municipalities in Metro Vancouver also obtain developer contributions.

These revenues fluctuate considerably depending on the amount of rezoning activity, market conditions, and municipal policy.

To illustrate TransLink's revenue potential, the first step is to establish a conservative forecast of total CAC and density bonus revenues in Metro Vancouver, at an average say $500 million per year. To achieve $25 million, TransLink's share would be 5%. However, while most revenues come from increased density in transit-oriented locations (where municipalities might be open to the argument that transit contributes to the increased land value that enables benefits from rezoning), there are projects that contribute public benefits but receive little direct value from transit.

If, for illustrative purposes, it is assumed that municipalities might share CAC and density bonus revenues in defined "benefitting areas" served by rapid transit and if such areas account for say 60% of all benefits (assuming benefits are mostly obtained from strata multi-family residential projects and that about 60% of new strata residential development is within 800 metres of a rapid transit station as illustrated in Exhibit 5), then to achieve $25 million per year TransLink would have to obtain about 8% of the eligible revenue. This is not unreasonable given that transit service supports densification and appears to contribute significantly more (based on the case study analysis in Section 5.3) than 8% of the land value gains because of the premium paid for strata residential space in transit-served locations.

The above estimates assume that TransLink explores sharing existing density bonusing and CACs. An alternative way to structure a system could involve a new CAC or density bonus for transit infrastructure levied on approved new density in defined areas. There is no existing legislation to enable such a system, but in theory a system could be designed in which TransLink receives an amount per square foot of new approved density in defined areas. For example, if apartment development averages about 11,000 units per year in the region[22], if about 70% of these are strata projects[23] (i.e. not market rental or affordable rental as it is rare for these types of projects to pay a CAC), and if about 60% of these are located in defined benefitting areas near rapid transit stations, this works out to an average of about 4,620 new strata apartment units per year. At an average apartment unit size of 850 square feet, this is about 3,927,000 square feet of strata apartment development. If it is assumed that 50% of this development uses new density approved by

[21] For example, Vancouver, Surrey, Coquitlam, Burnaby, Richmond, West Vancouver, and the District of North Vancouver accounted for 77% of total apartment starts in the region in 2017 and 2018 combined based on CMHC housing starts data.

[22] Coriolis Consulting Corp., "Regional DCC for Transit Infrastructure: Structure, Rates, and Revenue Forecasts." 1 August 2018.

[23] In the June 2016 "Regional Housing Affordability Strategy" by Metro Vancouver, it forecast that about 70% of anticipated housing demand in the region between 2016 and 2026 would be market condo units versus market rental/affordable rental units.

rezoning, then to achieve $25 million a new CAC for transit infrastructure would need to be on the order of $13 per square foot. This figure is a small share of CACs charged in high land value communities, but a large figure compared to the CACs achievable in low land value communities in Metro Vancouver.

Note that the above estimates of revenue are illustrative of how TransLink might achieve a revenue target of $25 million per year. These estimates understate the share of land value gains that are due to transit investment compared to the gains that are due to rezoning.

Sustainability of the Revenue Stream

CAC and density bonus revenue is a function of the pace of development, the value of new density, and municipal policy about development contributions so changes in any of these will impact the revenue stream. While CAC revenues across Metro Vancouver will fluctuate from year to year, over the long-term redevelopment and densification will continue to create the potential for developer contributions from density bonusing and rezonings. The Province may explore changes to CAC and density bonus structures, in response to input from the development industry and local government, but some system of obtaining development contributions in exchange for new density is likely to continue.

Potential Impacts

CACs and density bonusing can have these impacts:

- If these systems extract 100% of the land lift from rezoning, there is a risk that there is insufficient incentive for land owners to sell property into the redevelopment market. This is why most systems aim to obtain a portion of the value of new density.
- These systems mean that land owners or developers do not receive all of the upside from rezoning. This could be regarded as an impact, but as long as there is sufficient movement of land into redevelopment, and sufficient developer interest in additional density, then there are not negative impacts on the housing market. In fact, if public benefits help make redevelopment more acceptable in the community and if some of the benefits take the form of affordable housing then CACs help make the housing situation better.
- In some cases, the implementation of CACs creates delay, costs, and uncertainty.

TransLink involvement in CACs and density bonusing could have these effects:

- Any revenue received by TransLink could otherwise have gone to local government. For this reason, local governments may not agree that revenue sharing is in their interests.
- If TransLink involvement is perceived as making the system more complicated or time-consuming, it will be resisted by the development industry.
- If TransLink involvement significantly increases total expectations for CACs, then it could reduce the incentives for land owners and developers to be involved in the rezoning process, leading to reduced pace of development and rising house prices.

TransLink would have to proceed cautiously to avoid resistance and negative consequences.

Ease of Implementation

There are several different ways in which CAC and density bonus revenue sharing could be implemented:

- Individual negotiations with municipalities, leading to agreement on sharing the proceeds from CACs and density bonusing. There are precedents in the region for this approach, such as the CAC that the City of Richmond implemented to raise funds for the Capstan Way station on the Canada Line. There are two different ways that such agreements could be structured: local governments could commit to allocate a share of their CACs to transit projects (i.e. the funds would not flow to TransLink but would be invested

in agreed-on transit projects), or local governments could remit to TransLink an agreed-on share of revenues.

- A flat rate applied to new density across the region (which could be applied in density bonus bylaws, fixed rate CAC districts, or site-by-site negotiations). This would require either new provincial legislation or a multi-party agreement between TransLink and the local governments in Metro Vancouver.
- Negotiation with individual municipalities that are receiving new capital investment in transit. These negotiations could be part of the Project Partnership Agreements.

In the absence of Provincial legislation to create a region-wide approach, negotiations will have to proceed individually with all municipalities, as every municipality has its own CAC and/or density bonus system and its own market conditions. Municipalities that are not receiving significant transit investment may not see any reason to even consider the idea.

It may be that the best approach is to include CAC or density bonus revenue sharing as a business term in each local government with which TransLink negotiates Project Partnership Agreements[24] related to a large transit capital project.

In further exploration of this source of funding, TransLink will have to proceed carefully and work closely with local governments given their stated concerns about the impacts of losing a share of their existing revenue streams.

8.3.3 Property Transfer Tax

Alignment with TransLink Objectives

Obtaining a share of property transfer taxes would generate new revenue for TransLink that could be applied to new transportation capital investment, infrastructure that supports walking, cycling, and transit use, and to transit operations. TransLink could also apply these revenues to other objectives (e.g. affordable housing) or a combination, but TransLink advised that it is unlikely to apply property transfer tax revenues to affordable housing as it does not do so with its existing tax revenues.

As a tax, it would not directly provide housing or shape the form of urban development.

Potential Revenue

The potential revenue associated with any property transfer tax that is shared by the Province with the region of which TransLink may receive a portion depends on (a) negotiations with the Province and (b) the split between TransLink, Metro Vancouver, and municipalities.

As an illustrative example, in 2017 Metro Vancouver estimated that this region generated over 75% of the Provincial revenue from this tax (which generates on the order of $2 billion per year).[25] To yield $25 million per year, TransLink would need a 1.7% share of property transfer tax revenues generated in the region (i.e. $2 billion x 75% = $1.5 billion; $25 million ÷ $1.5 billion = 1.6%).

Sustainability of the Revenue Stream

The revenue stream would be sustainable if negotiations with the Province were successful, although the amount of revenue will be affected by the volume of sales transactions and changes in property values.

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[24] Project Partnership Agreements include two separate agreements: a non-binding Supportive Policy Agreement and a binding Financial Contribution Agreement.

[25] Metro Vancouver, "Provincial Property-based Taxes in the Metro Vancouver Region." 4 April 2017.

Potential Impacts

It is possible that if the Province agreed to give the region (including TransLink) a share of property transfer taxes generated in Metro Vancouver that it might reduce other funding it provides directly to TransLink.

Ease of Implementation

This source of revenue will be entirely dependent on negotiation. It depends on if the Province is willing to share this revenue stream and, if the Province does give a share to the region (including TransLink), the portion that would be received by TransLink.

8.3.4 Strategic Acquisition and Disposition of Land

Alignment with TransLink Objectives

Participation in the land market can generate revenue for transit capital investment, transit operations, and financial contributions to other objectives including affordable housing and infrastructure and programs that promote walking, cycling, and transit ridership.

Revenue would come from the sale or lease of development parcels or air rights. Objectives for affordable housing or promoting walking, cycling, and transit ridership could be achieved by means such as:

- Being in control of rezoning applications before taking sites to the market. The approved rezonings could include obligations for affordable housing or design elements that support walking, cycling, and transit ridership.
- Including requirements in purchase and sale agreements or leases for development sites or air rights parcels.

Disposition of development property creates opportunities to make land available on terms that call for including affordable housing and for design that is supportive of transportation objectives.

Potential Revenue

The revenue potential depends on the value of surplus property that TransLink can make available for disposition including current surplus property and lands that are acquired for strategic purposes and then subsequently marketed after taking advantage of market growth, transit access, and upzoning.

The inflow of revenue will probably not be regular, as a single sale of a large property (such as the former Oakridge Transit Centre site), produces a large spike in revenue. This revenue should likely be thought of in 10-year cycles rather than regular annual amounts.

It is possible to illustrate the scale of activity needed to produce an average of $25 million per year, by making some assumptions:

- Assume an overall average current land value for high density residential and commercial development property in the region of $150 per square foot buildable.[26]
- Assume that on average TransLink's added value (after original purchase price, market growth, transit access, and retained share of land lift from rezoning, after CAC) works out to about one third of the disposition value or $50 per square foot buildable.

[26] Based on Coriolis Consulting's experience and internal databases, current land values range from about $50 per square foot buildable to $400+ per square foot buildable throughout the region.

- To achieve a gain of $25 million per year, TransLink would have to put 500,000 square feet of new residential and office development capacity into the market every year. At an overall average density of say 4.0 FSR, this means 125,000 square feet of land (just under 3 acres).

TransLink is not likely to be able to produce a steady flow of 3 acres every year to the development market, but looked at as a 20 year target this means about 60 acres. Considering the lands (and possible air rights over transit stations) TransLink already owns that could be declared surplus and the long-term outlook for future transit construction this does not seem beyond reach.

Note that the above estimate is based only on potential acquisition and disposition of property and does not assume any direct participation by TransLink as a partner in development projects. This land acquisition/disposition revenue stream is generated by marketing surplus lands (after adding value through rezoning) and by early strategic acquisition of property (for example, when buying land for transit construction) that can be rezoned and marketed to developers after transit work is completed.

It is also important to note that decisions to incorporate affordable housing or to incorporate physical elements that support walking, cycling, and transit ridership may result in TransLink receiving less revenue (for transit investment) from the disposition of development properties.

Sustainability of the Revenue Stream

This revenue is not sustainable if TransLink only takes to the market land it already owns that is surplus. This will be a dwindling supply that will eventually be depleted.

For this to be a sustainable source of revenue, TransLink will have to be active in acquiring new land in strategic locations in order to create the future inventory of value-added development sites that can be leased or sold. The amount of revenue will depend on the amount and location of property acquisition and changes in land values in these areas.

Potential Impacts

There are no significant negative impacts from the strategic acquisition and disposition of land.

Ease of Implementation

TransLink already has the authority to acquire and dispose of land. To take a more active approach, TransLink will need a mandate to acquire more land, a pool of capital to enable it to buy property, and the financial and technical resources to make sound acquisitions and navigate approvals and dispositions.

8.3.5 Participation in Urban Development Projects

Alignment with TransLink Objectives

Participation in development projects can generate revenue for transit capital investment, transit operations, and financial contributions to other objectives including affordable housing and infrastructure and programs that promote walking, cycling, and transit ridership.

Direct involvement in development also creates opportunities to include affordable housing and control the form and character of development so that it is supportive of walking, cycling, and transit ridership.

Potential Revenue

The revenue potential obviously depends on how active TransLink becomes in development, in terms of the number and type of projects and its role. To illustrate the scale of potential revenue, some assumptions are needed:

- Assume that TransLink wants to be a partner in development projects and wants to limit its financial involvement to injecting land only (i.e. no cash or borrowing).
- Assume that on average the value of new market development product (strata residential, market rental, office, retail) across Metro Vancouver is around $800 per square foot.
- Assume an average profit margin of 12% of project value, or $96 per square foot.
- Assume that TransLink only invests land value as its share of equity and this works out on average to a 25% interest in projects, or $24 per square foot of profit to TransLink.
- To make $25 million per year, TransLink would have to partner in a little over 1 million square feet of product per year (equivalent to say 800 housing units plus a couple of large office buildings).

Note that this revenue is different from (and in addition to) the revenue from land acquisition/disposition that was estimated in the previous section. This new revenue calculation is an estimate of the share of profit that TransLink would make from being a partner in development projects, based on the stated assumptions.

One million square feet per year is a large amount of development activity, which may not be achievable if TransLink concentrates only on projects at transit stations.

Because this is a large amount of development activity, it could make sense to think in terms of a revenue target of $25 million per year as a sum of the revenue to be generated by a combination of strategic land acquisition/disposition and direct participation in urban development projects.

An alternative way to generate revenue from development is to create income-producing property that yields ongoing income from rents.

Investments in income-producing property in Metro Vancouver tend to generate returns (using Internal Rate of Return as the metric) of around 6% before financing. Somewhat simplistically, if TransLink borrows 75% of project cost at 3%, then it should be able to make around 15% on equity (which might be in the form of land). The total capital investment to yield $25 million per year at a return of 15% on equity (assuming 75% is financed) is about $670 million. If the all-in cost to create such investments (including land and all construction costs) averages around $700 per square foot, this represents a total portfolio of about 960,000 square feet of space. This is not a large portfolio; it could be achieved with a mix of say 50,000 square feet of retail, an office building of 150,000 square feet, and 800 units of market rental housing. If developed over 10 years or so, the average annual rate of development is modest.

Sustainability of the Revenue Stream

This revenue stream can continue as long as TransLink finds sufficient good development opportunities with acceptable risk.

Potential Impacts

There are no negative impacts on other parties. The development industry would probably welcome TransLink as a partner, particularly if it is bringing forward a regular stream of potential development sites.

Because of the risks involved in development, it is possible that projects lose money. Consequently, the greatest potential impact is on TransLink itself if development activity causes losses that must be covered using revenue that had been earmarked for transit capital investment or operations.

Ease of Implementation

TransLink already has the legal authority to acquire, hold, develop, and sell/lease land. To earn revenue from development, TransLink needs the financial and professional resources to find opportunities, negotiate with partners, structure deals, and implement projects.

8.4 Potential Uses of New Revenue

Some of the potential new sources of revenue would allow TransLink considerable flexibility in applying the funds to different purposes, except for CAC sharing which would likely be confined to new investment in transit capital (in part because local governments are unlikely to be willing to share revenue unless there is a commitment to use it for transit expansion).

Exhibit 15 indicates possible uses of each of the sources that are suggested for further consideration. The most flexibility is with revenue from the strategic acquisition/disposition of land and revenue from participating in development projects.

Exhibit 15: Possible Use of Revenue from Each Approach

	Benefitting Area Tax	CAC or Density Bonus Revenue Sharing Agreements with Local Governments	Property Transfer Tax	Revenue from Strategic Acquisition & Disposition of Land	Revenue from Development Projects
Capital investment in new transit (including upgrades)	Yes	Yes	Yes	Yes	Yes
Repayment of existing debt from previous projects	Yes	No	Yes	Yes	Yes
Transit operations	Yes	No	Yes	Yes	Yes
Property acquisition	Yes	No	Yes	Yes	Yes
Equity for development projects	Yes	No	Yes	Yes	Yes
Affordable housing (direct investment or contribution)	Not likely; affordable housing is not TransLink's primary mandate, so there would likely be resistance to a transit agency increasing taxes to pay for affordable housing	No; local governments are likely only willing to considering CAC or density bonus revenue sharing if funds are used for transit investment (that supports the densification and land value gains that create the potential for CACs)	Not likely; TransLink advised that it is unlikely to apply property transfer tax revenues to affordable housing as it does not do so with its existing property tax revenues	Yes. Possible approaches include: • Requiring lands sold or leased to include affordable housing, which will reduce the land value and is therefore a form of allocating revenue to affordable housing • Investing the proceeds from sales and leasing into affordable housing, either directly or by working with others on initiatives such as the TOAH fund proposed by Metro Vancouver	Yes. Possible approaches include: • Direct incorporation of affordable housing in any projects developed by TransLink • Investing some of the profit from development into affordable housing, either directly or by working with others on initiatives such as the TOAH fund proposed by Metro Vancouver
Infrastructure to support walking, cycling, or transit ridership	Yes	Yes, if directly linked to transit capital investment	Yes	Yes	Yes

8.5 Policy Questions to be Addressed

There are two over-arching policy questions that TransLink must address if it wants to increase its use of land value capture:

- Which approaches to explore further? The consulting team has recommended five approaches for further consideration, but there are clear differences of opinion among the stakeholders regarding some of these approaches.
- How to allocate the revenues? TransLink's main mandate is the creation and operation of the regional transit system, so presumably most new revenue will be allocated to this purpose. However, there is strong support from some stakeholders for TransLink to become more involved in supporting the creation of affordable transit-oriented rental housing, so TransLink will have to decide on the allocation of revenue to transit construction, transit operation, support for affordable housing, and support for initiatives that encourage walking, cycling, and transit ridership.

In addition to these fundamental questions, each of the five approaches recommended for further exploration also raise significant policy questions that should be addressed, as listed in the following sections.

8.5.1 Benefitting Area Tax

1. Should benefitting areas include areas around existing transportation infrastructure or only around new investments?
2. Should benefitting areas be established for all transportation investments by TransLink or only some (e.g. all transit investment or only rapid transit investment)?
3. Should benefitting areas all pay the same tax surcharge or should the charge vary by area?
4. Should the tax inside benefitting areas be the same for land and improvements?[27]
5. Should the definition of benefitting areas allow for gradations (e.g. one rate within 400 metres of a station and another rate for 400 metres to 800 metres), to avoid sharp differences that might cause development to avoid taxation areas?
6. What is the appropriate surcharge in benefitting areas?
7. Should there be any exemptions from a benefitting area tax?

8.5.2 CAC and Density Bonus Revenue Sharing

1. Should this idea be explored with all Metro Vancouver local governments or only those where a significant new transit capital investment is being made?
2. Is a region-wide approach workable or will this be a series of individual arrangements with individual local governments? In either situation, what types of areas would be subject to a CAC or density bonus for transit infrastructure?

[27] In Part 3, Section 25(7), the SCBCTAA states that TransLink may "(a) establish zones in the transportation service region, and (b) adopt different tax rates for land and improvements in different zones based on the benefit that the authority considers accrues to the land and improvements in a zone as a result of proximity to a transportation station, or to another major transportation facility, that has been constructed or funded by the authority." This might mean that tax rates can vary by area or that rates can vary between land and improvements in benefitting areas; this would need to be explored further to confirm the legal interpretation.

3. Should a CAC or density bonus for transit infrastructure be based on a percentage of municipal CACs or a target flat rate?

8.5.3 Property Transfer Tax

1. What is the appropriate role for TransLink in pursuing the idea of sharing property transfer tax revenues?

8.5.4 Strategic Acquisition and Disposition of Land

1. How broad should the mandate for property acquisition be? Should activity be focused at transit locations? How should policy decisions be made to enable timely or expedited transactions?
2. When is the optimal time to make new property investments, relative to the timing of planning future transit investments? Once TransLink signals the location and timing of new projects, some of the advantage of early land acquisition is lost. On the other hand, buying land well ahead of project definition may risk criticism that TransLink has not been transparent in its transit planning process and risks buying land in "wrong" locations.
3. When taking surplus land to the market, how much emphasis should be on revenue generation versus contributing to transit-oriented affordable rental housing?
4. Given that many transit stations are on land owned by others (e.g. BC Hydro, Province of BC), should TransLink partner with these owners to create development opportunities?

8.5.5 Participation in Urban Development Projects

1. What kinds of projects and locations offer the appropriate mix of revenue potential and tolerable risk?
2. Should TransLink be involved in strata residential for profit, or focus on transit-oriented rental residential?
3. Should TransLink take on projects on its own, or only in partnership with experienced developers? In partnerships, what percentage interest should TransLink take (e.g. the percentage interest equal to land value, or contribute land and equity to have a 50% interest)?

9.0 Recommendations

1. Explore several of the potential tools in more detail, rather than select a single preferred approach at this time. A combination of approaches has greater revenue potential and will allow progress on all of TransLink's stated objectives. Also, because there is stakeholder concern about some of the potential approaches so they may not be implementable in the near term, TransLink should keep exploring several options.

2. Explore in greater detail the creation of a transit benefitting area tax, as allowed under Part 3, Section 25(7) of the SCBCTA Act. This work should include determining whether any legislative amendments or regulations would be needed to implement this tax. In the analysis of alternative ways to structure this tax, TransLink should consider scenarios that only include areas around new rapid transit stations, scenarios that include areas around existing and proposed rapid transit stations, and scenarios that include Frequent Transit Development Area geographies and corridors. Scenarios should also include different definitions of benefitting area (e.g. within 400 metres and 800 metres of a rapid transit station). This analysis should include careful evaluation of potential negative impacts and ways to mitigate them.

3. Explore the idea of sharing CAC and density bonus revenues in locations that are transit-served and are designated for significant increases in density based on transit investment. CAC and density bonus sharing is the approach with the most direct link between transit investment and the creation of new land value. While there was broad municipal opposition to the idea of CAC revenue sharing, TransLink should emphasize the point that transit investment creates the potential for densification and generates a significant share of the increase in land value associated with rezoning to higher density, so it should be considered as a potential source of revenue for transit. There are several scenarios that could be considered including:

   a. Individual negotiations with all local governments in Metro Vancouver that have existing or proposed major investments in transit, regarding sharing CAC and density bonus revenues.

   b. Negotiations only with local governments that will receive major new transit investments, as one of the terms in Project Partnership Agreements, particularly any Financial Contribution Agreements.

   c. Discussion with the Province about a TransLink-specific flat rate CAC or density bonus rate to be applied to rezonings around major transit investments.

   Because many municipalities have already expressed opposition to CAC revenue sharing, if TransLink elects to explore this approach in more detail it should adopt a highly collaborative approach and first focus mainly on (b) and (c) above.

4. Develop a strategic plan for greater involvement in the acquisition and disposition of development sites. This strategic plan should include:

   a. Detailed evaluation of the existing inventory of TransLink-owned property to identify sites or portions of sites that are surplus and could be available for urban development.

   b. Detailed examination of all rapid transit stations to identify potential for air rights development. As many stations are on lands owned by parties other than TransLink (e.g. BC Hydro, Province of BC), this would require partnering with the owners.

   c. Advance acquisition of land in strategic locations when acquiring land for new stations, particularly in areas likely to be designated for increased density and where assembly creates the potential for creating attractive development sites.

5. Develop a strategic plan for participating in urban development projects as a new source of revenue, including profit from projects developed for sale and net operating income from creating a portfolio of income-producing rental residential, retail, and office properties.

6. Because of the ridership benefits from rental housing at transit stations, and because of the pressing need for transit-oriented rental housing in the region, TransLink should consider using land acquisition/disposition and participation in development as means to achieve revenues that can be applied to a mix of transit capital investment, transit operations, and affordable housing. Land acquisition/disposition and participation in urban development also provide the physical opportunity to support walking, cycling, and transit infrastructure and affordable housing. Because there are varied expectations within the region about the extent that TransLink should be involved in the creation of affordable rental housing, TransLink should establish and communicate clear objectives regarding its role (if any) in supporting, funding, or creating affordable rental housing. If TransLink decides to have a significant role, it should develop a business case for its potential involvement in this area.

7. Participate with Metro Vancouver and local governments in efforts to influence the Province regarding property transfer tax revenue sharing, but do not rely on this as a near term source of revenue for transit investment.

8. Monitor the positions of the Provincial Government, Metro Vancouver, and municipalities in the region regarding a broader approach to land value tax and then be part of the conversation as a stakeholder when appropriate.

Appendix 1: Case Studies

Case Studies

A.1 Approach

The comparison of land value created through rezoning with the land value created by transit investment (i.e. improved transit access) is analyzed using case studies.

For each case study, financial models were constructed for the following scenarios:

- "Base case" financial performance of a development site assuming no rezoning and no transit influence. This either reflects value under existing zoning or under existing use, depending on the case study.
- "Rezoning only", which shows the financial performance of rezoning the development site to a density typical for the sub-market, in the absence of a price premium for rapid transit proximity.
- "Rezoning with transit", which shows the financial performance of rezoning the development to a density typical for the sub-market and incorporating a premium (in sales prices or rent rates) for improved transit access. Based on the analysis summarized earlier in this report, the case studies use a premium of 5% for multi-family unit sales prices near enhanced rapid transit and a premium of 10% for office lease rates near rapid transit.[28]

Municipal Community Amenity Contributions (CAC) policies are not included[29] so the case studies illustrate the total land lift, the portion of the total attributable to the rezoning (increased density), and the portion attributable to the transit premium prior to CACs.

A.2 Identification of Case Studies

A.2.1 Multi-Family Residential Case Studies

For the multi-family residential case studies, locations in different sub-markets in the region where rapid transit expansions are planned or have recently been completed were selected including:

- The Broadway Corridor, where the new Broadway Subway Project will extend rapid transit from VCC-Clark to Arbutus.
- Burquitlam, where the Evergreen Extension went into service in December 2016.
- Fleetwood, located on the planned extension to Langley.
- Lynn Creek, which will be served by the Marine Drive RapidBus that will connect West Vancouver with Phibbs Exchange.

The case studies assume strata multi-family residential development to show the maximum extent to which improved transit access generates land value relative to upzoning (because strata residential land values are much higher than rental residential land values), except for one market rental scenario in the Broadway

[28] Note that these premiums are based on analysis of sales prices and lease rates near vs not near rapid transit stations. One of the case studies is for multi-family residential redevelopment near new rapid bus service, so we use a lower premium (1%) on multi-family unit sales prices near a new rapid bus stop vs near a new rapid transit station.

[29] Including the City of Vancouver's Developer Contribution Expectation (DCE) in the Broadway Corridor.

Corridor (where market rents are high enough to support a significant land value) to illustrate the economics of redevelopment under both strata and rental residential.

A.2.2 Commercial Case Studies

For the commercial case studies, the analysis uses a higher land value and a lower land value location to show the range in contribution of upzoning and improved transit access to land value increases in different sub-markets with rapid transit access (or planned rapid transit access) in the region:

- The Broadway Corridor, where the new Broadway Subway Project will extend rapid transit from VCC-Clark to Arbutus.
- Surrey City Centre, where the City of Surrey's recently adopted new City Centre Plan envisions transit-oriented redevelopment of low density properties near rapid transit stations including around King George Station on the existing Expo Line.

Based on the analysis summarized in Section 5.2 of this report, the case studies use a transit premium of 10% for commercial lease rates near enhanced light rail rapid transit.

A.2.3 Summary List of Case Studies

Based on the foregoing, there are a total of 7 case studies:

1. Strata multi-family residential case study in the Broadway Corridor.
2. Market rental multi-family residential case study in the Broadway Corridor.
3. Strata multi-family residential case study in Burquitlam.
4. Strata multi-family residential case study in Fleetwood.
5. Strata multi-family residential case study in Lynn Creek.
6. Commercial case study in the Broadway Corridor.
7. Commercial case study in Surrey City Centre.

Detailed descriptions of each case study are provided in the following section.

A.3 Data Sources

Coriolis Consulting Corp. built the financial models used in the case study analysis and populated the models with all assumptions. The major assumptions and inputs are based on the following data sources and professional judgement:[30]

- Assumed densities are based on applicable municipal zoning bylaws and planning documents (OCPs).
- Residential sales prices are based sales data obtained from the Real Estate Board of Greater Vancouver's online subscription database (MLSLink) and residential sales from Urban Analytics' online subscription database (NHSLive).

[30] Coriolis Consulting Corp. is a land economics, urban development, and land use planning consulting firm in Vancouver, BC. We have been in business for 37 years and have extensive experience analyzing the financial performance of development projects throughout the region.

- Hard construction costs are based on published industry cost guides (e.g. Altus Group cost guide) and our internal databases.
- Commercial rents are based on market evidence gathered from www.spacelist.ca, the websites of major brokerage firms, and commercial market reports by major brokerage firms.
- Vacancy allowances and cap rates are based on our internal databases and commercial market reports from major brokerage firms.

A.4 Detailed Descriptions of Case Studies

Case Study #1: Strata Multi-family Residential Redevelopment in the Broadway Corridor

The Broadway Subway Project is planned to extend rapid transit from VCC-Clark to Arbutus. Construction on this line is anticipated to commence in 2020 and be complete with the line in service by 2025. In March 2019, the City of Vancouver launched the Broadway Plan process, which is intended to develop a 30-year plan to guide redevelopment in the area in a way that integrates opportunities for new housing, jobs, and amenities around new rapid transit stations on this line. Planning policy (e.g. height, density) for the Broadway Plan Area is not yet known, but we looked at examples from other recent rezonings in the Broadway Corridor and at new transit stations outside Downtown to select an assumed density for redevelopment.

Key assumptions in the financial analysis are as follows:

1. Site size of 18,750 square feet.
2. Income-producing value of the existing building of $7.8 million (see **Attachment 1a**) based on an assumed existing older quality, single storey retail building 8,173 square feet (0.44 FSR), retail rents of $40 per square foot net, a vacancy/non-recoverables allowance of 5%, and a cap rate of 4%.
3. A residual land value under the existing C-3A zoning of $22.8 million based on residual pro forma analysis (see **Attachment 1b**), which estimates the sales proceeds from building and selling strata residential space over retail space, less all costs to create the project (holding aside land), less a developer's profit of 15% on costs. The pro forma analysis assumes:
    a) Maximum density of 3.0 FSR (plus up to a 10% bonus with heritage transfer density) under the existing C-3A zoning.
    b) Concrete strata residential unit sales prices of $1,450 per square foot.
    c) A capitalized value of $1,190 per square foot for the retail space (based on net retail rents of $50 per square foot, a 5% vacancy/non-recoverables allowance, and a 4% cap rate).
    d) Hard construction costs of $443 per square foot (including $380 per square foot for concrete strata residential, $260 per square foot for concrete retail, and $65,000 per underground parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, development management fee, interim financing) for a total all-in creation cost of $619 per square foot.
4. A residual land value of $45.4 million based on rezoning and redevelopment without enhanced transit access (see **Attachment 1c**) to an assumed density of 6.0 FSR with strata residential above retail in a high-rise concrete building. As noted above, planning policy is not yet in place to guide redevelopment in this area. However, other rezonings in the Broadway Corridor and at new transit stations outside

Downtown have achieved densities typically in the range of 5.0 to 7.0 FSR so a density of 6.0 FSR was used for the financial analysis. The pro forma analysis assumes:

a) An allowance for rezoning costs of $500,000.

b) Concrete strata residential unit sales prices of $1,475 per square foot (slightly higher than in the redevelopment scenario under the existing zoning because the building is taller so the average sales price is higher to reflect more view units).

c) A capitalized value of $1,190 per square foot for the retail space (based on net retail rents of $50 per square foot, a 5% vacancy/non-recoverables allowance, and a 4% cap rate).

d) Hard construction costs of $443 per square foot (including $380 per square foot for concrete strata residential, $260 per square foot for concrete retail, and $65,000 per underground parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, development management fee, interim financing) for a total all-in creation cost of $615 per square foot.

e) No CAC payment (i.e. the City's Developer Contribution Expectation or DCE in the Broadway Corridor) because we hold this aside to calculate the total land lift before amenity contributions and the relative portion of lift attributable to increased density versus enhanced transit accessibility.

5. A residual land value of $50.3 million based on rezoning and redevelopment with enhanced transit access (see **Attachment 1d**) to an assumed density of 6.0 FSR with strata residential above retail in a high-rise concrete building. The pro forma analysis includes all of the same assumptions as in point 4 above (and as in Attachment 1c), except that concrete strata residential unit sales prices are assumed to be 5% higher to reflect a premium associated with enhanced transit access (i.e. $1,549 per square foot instead of $1,475 per square foot).

The results of the analysis for Case Study #1 are shown in the following tables. As shown, the potential increase in sales prices of 5% for being close to a rapid transit station works out to about $4.9 million of the total $27.5 million in land lift (holding aside the DCE that would be payable to the City of Vancouver) associated with the rezoning and redevelopment project (i.e. about 18% of the total land lift).

Summary of Financial Analysis for Case Study #1 (Multi-Family Residential Redevelopment - Strata, Broadway Corridor)

Case Study	Type of Transit	Assumed density in the rezoning	Strata Residential Sales Prices ($ psf)		Transit Premium		Land Value Under Rezoning Without Transit	
			Without transit	With transit	$ psf	%[a]	$ psfb	Sales price premium as a % of value of extra density
Case Study #1: C-3A Site in the Broadway Corridor (Strata Residential Redevelopment)	Rapid transit	6.0 FSR	$1,475	$1,549 **(5% higher)**	$74	5%	$398	19% ($74 ÷ $398)

Case Study	Existing Value	Land Value After Rezoning, without Transit Premium	Land Value After Rezoning, with Transit
Case Study #1	$22.8 million[31] →	$45.4 million →	$50.3 million

Land lift from rezoning $22.6 million (82%)

Land lift from transit $4.9 million (18%)

Case Study #2: Market Rental Multi-family Residential Redevelopment in the Broadway Corridor

This case study uses the same site as in Case Study #1 but illustrates the economics of a market rental multi-family project instead of a strata project. The key assumptions about site size, the income-producing value of the existing building, and residual land value under the existing C-3A zoning are the same. The key assumptions in the rezoning and redevelopment scenarios are as follows:

1. A residual land value of $13.3 million based on rezoning and redevelopment without enhanced transit access (see **Attachment 2a**) to an assumed density of 6.0 FSR with market rental residential above retail in a high-rise concrete building. The pro forma analysis assumes:

   a) An allowance for rezoning costs of $500,000.

   b) A capitalized value of about $890 per square foot for the market rental residential space (based on a mix of studio, 1-bedroom, 2-bedroom, and 3-bedroom units and an overall average rent of $3.73 per square foot, parking revenues of $100 per month per stall, storage rental revenues of $50 per month, a 2% vacancy/non-recoverables allowance, and a 4% cap rate).

   c) A capitalized value of about $1,190 per square foot for the retail space (based on net retail rents of $50 per square foot, a 5% vacancy/non-recoverables allowance, and a 4% cap rate).

   d) Hard construction costs of $400 per square foot (including $350 per square foot for concrete market rental residential, $260 per square foot for concrete retail, and $65,000 per underground parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, development management fee, interim financing) for a total all-in creation cost of $560 per square foot.

[31] The existing value is based on the residual land value assuming redevelopment under the existing C-3A zoning, which generates a higher value than the income-producing approach based on the existing building.

e) No CAC payment (i.e. the City's Developer Contribution Expectation or DCE in the Broadway Corridor) because we hold this aside to calculate the total land lift before amenity contributions and the relative portion of lift attributable to increased density versus enhanced transit accessibility.

2. A residual land value of $15.2 million based on rezoning and redevelopment with enhanced transit access (see **Attachment 2b**) to an assumed density of 6.0 FSR with market rental residential above retail in a high-rise concrete building. The pro forma analysis includes all of the same assumptions as in point 4 above (and as in Attachment 2a), except that market rental rates by unit type are assumed to be **5%** higher to reflect a premium associated with enhanced transit access. This works out to an overall average rent of $3.92 per square foot instead of $3.73 per square foot (i.e. 5% higher).

The results of the analysis for Case Study #2 are shown in the following tables. As shown, market rental residential redevelopment is not financially viable in this case (i.e. the residual land value after rezoning without a transit premium is lower than the residual land value under the existing zoning). While the assumed transit premium on market rental rates helps improve the financial performance of redevelopment, it is still not enough to make market rental residential financially viable. While not tested, the financial performance of below-market rental residential redevelopment would generate even lower residual land value.

Summary of Financial Analysis for Case Study #2 (Multi-Family Residential Redevelopment - Market Rental, Broadway Corridor)

Case Study	Type of Transit	Assumed density in the rezoning	Average Market Rent Rates ($ psf)		Transit Premium		Land Value Under Rezoning Without Transit	
			Without transit	With transit	$ psf	%[a]	$ psfb	Sales price premium as a % of value of extra density
Case Study #2: C-3A Site in the Broadway Corridor (Market Rental Redevelopment)	Rapid transit	6.0 FSR	$3.73	$3.92 **(5% higher)**	$74	5%	$398	n/a (market rental not strata)

Case Study	Existing Value	Land Value After Rezoning, without Transit Premium	Land Value After Rezoning, with Transit
Case Study #2	$22.8 million[32] →	$13.3 million →	$15.2 million

Land lift from rezoning no lift – redevelopment to market rental is not financially viable

Land lift from transit is not enough to make redevelopment financially viable

[32] The existing value is based on the residual land value assuming redevelopment under the existing C-3A zoning, which generates a higher value than the income-producing approach based on the existing building.

Case Study #3: Strata Multi-family Residential Redevelopment in Burquitlam

The Evergreen Extension went into service in December 2016 and the City of Coquitlam adopted a new Burquitlam-Lougheed Neighbourhood Plan in June 2017 to shape and focus transit-oriented development around the new SkyTrain stations in an integrated way with existing neighbourhoods, so planning policy guides redevelopment in this transit-oriented node.

Key assumptions in the financial analysis are as follows:

1. Site size of 46,650 square feet.
2. Income-producing value of the existing building of $9.8 million (see **Attachment 3a**) based on an assumed existing older quality, single storey retail building 16,295 square feet (0.35 FSR), retail rents of $30 per square foot net, a vacancy allowance of 5%, and a cap rate of 4.75%.
3. A residual land value under the existing C2 zoning of $3.9 million based on residual pro forma analysis (see **Attachment 3b**), which estimates the sales proceeds from building and selling a mix of strata residential, retail, and office space, less all costs to create the project (holding aside land), less a developer's profit of 15% on costs. The pro forma analysis assumes:
    a) Maximum density of 1.05 FSR.
    b) Wood-frame strata residential unit sales prices of $722 per square foot.
    c) A capitalized value of $700 per square foot for the retail space (based on net retail rents of $35 per square foot, a 5% vacancy/non-recoverables allowance, and a 4.75% cap rate).
    d) A capitalized value of $600 per square foot for the office space (based on net office rents of $30 per square foot, a 5% vacancy/non-recoverables allowance, and a 4.75% cap rate).
    e) Hard construction costs of $327 per square foot (including $220 per square foot for wood-frame strata residential, $250 per square foot for concrete retail, $250 per square foot for concrete office, and $65,000 per underground parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, development management fee, interim financing) for a total all-in creation cost of $442 per square foot.
4. A residual land value of $16.3 million based on rezoning and redevelopment <u>without</u> enhanced transit access (see **Attachment 3c**) to an assumed density of 4.5 FSR (based on the City's C-7 Transit Village zoning district) with strata residential above retail in a high-rise concrete building. The pro forma analysis assumes:
    a) An allowance for rezoning costs of $350,000.
    b) Concrete strata residential unit sales prices of $855 per square foot.
    c) A capitalized value of $700 per square foot for the retail space (based on net retail rents of $35 per square foot, a 5% vacancy/non-recoverables allowance, and a 4.75% cap rate).
    d) Hard construction costs of $384 per square foot (including $310 per square foot for concrete strata residential, $250 per square foot for concrete retail, and $65,000 per underground parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, development management fee, interim financing) for a total all-in creation cost of $522 per square foot.
5. A residual land value of $21.7 million based on rezoning and redevelopment <u>with</u> enhanced transit access (see **Attachment 3d**) to an assumed density of 4.5 FSR (based on the City's C-7 Transit Village zoning district) with strata residential above retail in a high-rise concrete building. The pro forma analysis includes

all of the same assumptions as in point 4 above (and as in Attachment 3c), except that concrete strata residential unit sales prices are assumed to be 5% higher to reflect a premium associated with enhanced transit access (i.e. $900 per square foot instead of $855 per square foot).

The results of the analysis for Case Study #3 are shown in the following tables. As shown, the potential increase in sales prices of 5% for being close to a rapid transit station works out to about $5.4 million of the total $11.9 million in land lift associated with the rezoning and redevelopment project (i.e. about 46% of the total land lift).

Summary of Financial Analysis for Case Study #3 (Multi-Family Residential Redevelopment, Burquitlam)

Case Study	Type of Transit	Assumed density in the rezoning	Strata Residential Sales Prices ($ psf)		Transit Premium		Land Value Under Rezoning Without Transit	
			Without transit	With transit	$ psf	%[a]	$ psfb	Sales price premium as a % of value of extra density
Case Study #3: C2 Site in Burquitlam (Strata Residential Redevelopment)	Rapid transit	4.5 FSR	$855	$900 (5% higher)	$45	5%	$78	58% ($45 ÷ $78)

Case Study	Existing Value	Land Value After Rezoning, without Transit Premium	Land Value After Rezoning, with Transit
Case Study #3	$9.8 million[33]	$16.3 million	$21.7 million

Land lift from rezoning $6.5 million (54%)

Land lift from transit $5.4 million (46%)

Case Study #4: Strata Multi-family Residential Redevelopment in Fleetwood

The Surrey Langley Line is planned to extend rapid transit from King George SkyTrain Station to Langley City Centre. Planning and business case analysis for this line is currently underway, with funding in place for a first phase to Fleetwood that is anticipated to be built during 2022 to 2025. The City of Surrey is currently working on a Fleetwood Plan which will guide redevelopment in the area to encourage transit-oriented development. While densities and height for transit-oriented redevelopment are not yet defined, we assumed a density of 4.0 FAR in the rezoning and redevelopment scenarios to match the density that the City was considering in areas such as Newton and Guildford that were previously planned to have LRT extensions.[34]

Key assumptions in the financial analysis are as follows:

1. Site size of 37,034 square feet.
2. Income-producing value of the existing building of $3.1 million (see **Attachment 4a**) based on assumed existing older quality, single storey retail buildings with 7,200 square feet (0.19 FSR), retail rents of $22.50 per square foot net, a vacancy allowance of 5%, and a cap rate of 5%.

[33] The existing value is based on the income-producing value of the existing building, which is higher than the residual land value assuming redevelopment under the existing C2 zoning.

[34] We also ran scenarios at 2.5 FAR to match the density envisioned in the existing OCP for this case study site, but redevelopment at 2.5 FAR (or less) does not support sufficient residual land value to make the site a redevelopment candidate (i.e. the income-producing value of the existing use is higher than the residual land value under redevelopment to 2.5 FAR).

3. A residual land value under the existing CH1 zoning of $1.7 million based on residual pro forma analysis (see **Attachment 4b**), which estimates the sales proceeds from building and selling a mixed retail/office project, less all costs to create the project (holding aside land), less a developer's profit of 15% on costs. The pro forma analysis assumes:

    a) Maximum density of 1.0 FSR.

    b) An overall value of $525 per square foot buildable based on net retail rents of $30 per square foot, net office rents of $27.50 per square foot, net parking revenues of $75 per stall per month, operating costs of $15 per square foot for retail space, operating costs of $10 per square foot for office space, a 2% vacancy/non-recoverables allowance, a 5% cap rate, and a sales commission of 2%.

    c) Hard construction costs of $262 per square foot (including $250 per square foot for concrete retail, $250 per square foot for concrete office, and $7,500 per at grade parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, interim financing) for a total all-in creation cost of $408 per square foot.

4. A residual land value of $0.9 million based on rezoning and redevelopment without enhanced transit access (see **Attachment 4c**) to an assumed density of 4.0 FSR (based on densities that the City of Surrey was considering in areas such as Newton and Guildford that were previously being planned for LRT extensions) with strata residential above retail in a high-rise concrete building. The pro forma analysis assumes:

    a) An allowance for rezoning costs of $350,000.

    b) Concrete strata residential unit sales prices of $760 per square foot.

    c) A capitalized value of $686 per square foot for the retail space (based on net retail rents of $35 per square foot, a 5% vacancy/non-recoverables allowance, and a 5% cap rate).

    d) Hard construction costs of $380 per square foot (including $310 per square foot for concrete strata residential, $250 per square foot for concrete retail, and $45,000 per underground parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, development management fee, interim financing) for a total all-in creation cost of $486 per square foot.

5. A residual land value of $3.8 million based on rezoning and redevelopment with enhanced transit access (see **Attachment 4d**) to an assumed density of 4.0 FSR (based on densities that the City of Surrey was considering in areas such as Newton and Guildford that were previously being planned for LRT extensions) with strata residential above retail in a high-rise concrete building. The pro forma analysis includes all of the same assumptions as in point 4 above (and as in Attachment 4c), except that concrete strata residential unit sales prices are assumed to be 5% higher to reflect a premium associated with enhanced transit access (i.e. $800 per square foot instead of $760 per square foot).

The results of the analysis for Case Study #4 are shown in the following tables. As shown, redevelopment is not viable based on current market conditions and an assumed density of 4.0 FAR in the absence of rapid transit expansion. In this case, the potential increase in sales prices of 5% for being close to a rapid transit station means that the rezoning and redevelopment is viable (so all of the lift could be attributable to improved transit access).

Summary of Financial Analysis for Case Study #4 (Multi-Family Residential Redevelopment, Fleetwood)

Case Study	Type of Transit	Assumed density in the rezoning	Strata Residential Sales Prices ($ psf)		Transit Premium		Land Value Under Rezoning Without Transit	
			Without transit	With transit	$ psf	%[a]	$ psfb	Sales price premium as a % of value of extra density
Case Study #4: CHI Site in Fleetwood (Strata Residential Redevelopment)	Rapid transit	4.0 FSR	$760	$800 **(5% higher)**	$40	5%	$6	over 100% ($40 ÷ $6)

Case Study	Existing Value	Land Value After Rezoning, without Transit Premium	Land Value After Rezoning, with Transit
Case Study #4	$3.1 million[35] →	$0.9 million →	$3.8 million

Land lift from rezoning no lift – redevelopment is not financially viable without transit

Land lift from transit makes redevelopment viable

Case Study #5: Strata Multi-family Residential Redevelopment in Lynn Creek

Lynn Creek Town Centre is one of the neighbourhoods that will experience improved rapid bus transit from the Marine Drive RapidBus which will connect West Vancouver with Phibbs Exchange. Construction of this route is underway and expected to be complete in March 2020. The District of North Vancouver's Lower Lynn Town Centre planning policies encourage transit-oriented development around frequent transit bus service in this neighbourhood. This case study assumes an assembly of 4 single family lots in the Lynn Creek Town Centre. The analysis assumes a density of redevelopment of 2.5 FSR based on municipal policies for the area.

Key assumptions in the financial analysis are as follows:

1. Site size of 31,140 square feet.
2. Combined existing value of the four existing single family lots of $6.5 million (see **Attachment 5a**) based on single family lot values and an assumed assembly premium of 20%.
3. A residual land value of $10.8 million based on rezoning and redevelopment without enhanced transit access (see **Attachment 5b**) to an assumed density of 2.5 FSR based on densities for the Lynn Creek Town Centre, with strata residential in a wood-frame building. The pro forma analysis assumes:
   a) An allowance for rezoning costs of $200,000.
   b) Wood-frame strata residential unit sales prices of $800 per square foot.
   c) Hard construction costs of $301 per square foot (including $230 per square foot for wood-frame strata residential and $55,000 per underground parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, development management fee, interim financing) for a total all-in creation cost of $418 per square foot.

[35] The existing value is based on the income-producing value of the existing buildings, which is higher than the residual land value assuming redevelopment under the existing CH1 zoning.

4. A residual land value of $11.2 million based on rezoning and redevelopment with enhanced transit access (see **Attachment 5c**) to an assumed density of 2.5 FSR based on densities for the Lynn Creek Town Centre, with strata residential in a wood-frame building. The pro forma analysis includes all of the same assumptions as in point 4 above (and as in Attachment 5b), except that wood-frame strata residential unit sales prices are assumed to be 1% higher to reflect a premium associated with enhanced bus rapid transit access (i.e. $808 per square foot instead of $800 per square foot). We used a lower premium (1% compared to 5%) for bus rapid transit compared to light rail rapid transit.

The results of the analysis for Case Study #5 are shown in the following tables. As shown, the potential increase in sales prices of 1% for being close to a bus rapid transit station works out to about $0.4 million of the total $4.7 million in land lift associated with the rezoning and redevelopment project (i.e. about 8% of the total land lift).

Summary of Financial Analysis for Case Study #5 (Multi-Family Residential Redevelopment, Lynn Creek)

Case Study	Type of Transit	Assumed density in the rezoning	Strata Residential Sales Prices ($ psf)		Transit Premium		Land Value Under Rezoning Without Transit	
			Without transit	With transit	$ psf	%[a]	$ psfb	Sales price premium as a % of value of extra density
Case Study #5: Single Family Site in Lynn Creek (Strata Residential Redevelopment)	Bus rapid transit	2.5 FSR	$800	$800 (1% higher)	$8	1%	$138	6% ($8 ÷ $138)

Case Study	Existing Value	Land Value After Rezoning, without Transit Premium	Land Value After Rezoning, with Transit
Case Study #5	$6.5 million →	$10.8 million →	$11.2 million

Land lift from rezoning
$4.3 million
(92%)

Land lift from transit
$0.4 million
(8%)

Case Study #6: Commercial Redevelopment in the Broadway Corridor

The Broadway Subway Project is planned to extend rapid transit from VCC-Clark to Arbutus. Construction on this line is anticipated to commence in 2020 and be complete with the line in service by 2025. In March 2019, the City of Vancouver launched the Broadway Plan process, which is intended to develop a 30-year plan to guide redevelopment in the area in a way that integrates opportunities for new housing, jobs, and amenities around new rapid transit stations on this line. We selected a case study site in the Uptown Office Precinct (which applies to properties along Broadway between Cambie and Oak) and assumed a rezoning to 6.0 FSR based on precedents in the Broadway Corridor and at other transit station locations in Vancouver outside of Downtown.

Key assumptions in the financial analysis are as follows:

1. Site size of 17,550 square feet.
2. Income-producing value of the existing building of $15.3 million (see **Attachment 6a**) based on an assumed existing older quality, mixed use building with 9,310 square feet of retail space, 5,997 square feet of office space, and 6 rental residential units; retail rents of $40 per square foot net, office rents of $25 per square foot net, a vacancy/non-recoverables allowance of 5%, a cap rate of 4% for the retail

space, a cap rate of 4.5% for the office space, a value of $550,000 per rental residential unit, and an assumed acquisition premium of 10%.

3. A residual land value under the existing C-3A zoning of $6.8 million based on residual pro forma analysis (see **Attachment 6b**), which estimates the sales proceeds from building and selling a mixed retail/office project (assumes no residential as the site is in the Uptown Office Precinct), less all costs to create the project (holding aside land), less a developer's profit of 15% on costs. The pro forma analysis assumes:

    a) Maximum density of 3.0 FSR (plus up to a 10% bonus with heritage transfer density) under the existing C-3A zoning.

    b) An overall value of $873 per square foot buildable based on net retail rents of $50 per square foot, net office rents of $37 per square foot, net parking revenues of $150 per stall per month, operating costs of $18 per square foot for retail and office space, a 5% vacancy/non-recoverables allowance, a 4.25% cap rate, and a sales commission of 2%.

    c) Hard construction costs of $402 per square foot (including $300 per square foot for concrete retail and office space and $55,000 per underground parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, interim financing) for a total all-in creation cost of $626 per square foot.

4. A residual land value of $11.1 million based on rezoning and redevelopment without enhanced transit access (see **Attachment 6c**) to an assumed density of 6.0 FSR with office above retail based on precedents in the Broadway Corridor and at other transit station locations in Vancouver outside of Downtown. The pro forma analysis assumes:

    a) An allowance for rezoning costs of $250,000.

    b) An overall value of $861 per square foot buildable based on net retail rents of $50 per square foot, net office rents of $37 per square foot, net parking revenues of $150 per stall per month, operating costs of $18 per square foot for retail and office space, a 5% vacancy/non-recoverables allowance, a 4.25% cap rate, and a sales commission of 2%.

    c) Hard construction costs of $411 per square foot (including $300 per square foot for concrete retail and office space and $60,000 per underground parking stall which is slightly higher than in Attachment 6b because the parking includes additional underground levels which is more expensive), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, interim financing) for a total all-in creation cost of $628 per square foot.

5. A residual land value of $16.9 million based on rezoning and redevelopment with enhanced transit access (see **Attachment 6d**) to an assumed density of 6.0 FSR with office above retail based on precedents in the Broadway Corridor and at other transit station locations in Vancouver outside of Downtown. The pro forma analysis includes all of the same assumptions as in point 4 above (and as in Attachment 6c), except that office lease rates are assumed to be 10% higher to reflect a premium associated with enhanced rapid transit access (i.e. $40.70 per square foot net instead of $37 per square foot).

The results of the analysis for Case Study #6 are shown in the following table. As shown, redevelopment with office above retail is not viable based on current market conditions and an assumed density of 6.0 FAR in the absence of rapid transit expansion. In this case, the potential increase in office lease rates of 10% for being close to a rapid transit station means that the rezoning and redevelopment is viable (so all of the lift could be attributable to improved transit access).

Summary of Financial Analysis for Case Study #6 (Commercial Redevelopment, Broadway Corridor)

Case Study	Type of Transit	Assumed density in the rezoning	Office Lease Rates ($ psf net)		Existing Value	Land Value After Rezoning, without Transit Premium	Land Value After Rezoning, with Transit
			Without transit	With transit			
Case Study #6: C-3A Site, Broadway Corridor (Commercial Redevelopment)	Rapid transit	6.0 FSR	$37.00	$40.70 (10% higher)	$15.3 million[36] →	$11.2 million →	$16.9 million
					Land lift from rezoning n/a (redevelopment is not financially viable)		Land lift from transit makes redevelopment financially viable

Case Study #7: Commercial Redevelopment in Surrey City Centre

The City of Surrey's City Centre Plan envisions redevelopment of low density properties near rapid transit stations with higher density redevelopment. We selected a site occupied by low density, older retail space at grade that is currently zoned C-8 but designated for 3.5 FAR in the Surrey City Centre Plan (which was adopted January 2017 in part to help encourage transit-oriented development). The 3.5 FAR could be used for strata residential or office redevelopment, so we show the relative value of strata residential development at this density for comparison.

Key assumptions in the financial analysis are as follows:

1. Site size of 86,986 square feet.
2. Income-producing value of the existing buildings of $10.7 million (see **Attachment 7a**) based on assumed existing older quality, retail buildings with a total of 15,731 square feet of retail space, retail rents of $32.50 per square foot net, a vacancy/non-recoverables allowance of 5%, a cap rate of 5%, and an assumed acquisition premium of 10%.
3. A residual land value of $12.3 million (see **Attachment 7b**) based on strata multi-family residential development above retail at an assumed density of 3.5 FSR. The pro forma analysis assumes:
   a) An allowance for rezoning costs of $250,000.
   b) Concrete strata residential sales prices of $798 per square foot.
   c) A capitalized value of $855 per square foot for the retail space (based on net retail rents of $45 per square foot, a 5% vacancy/non-recoverables allowance, and a 5% cap rate).
   d) Hard construction costs of $377 per square foot (including $310 per square foot for concrete strata residential, $250 per square foot for concrete retail, and $60,000 per underground parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, interim financing) for a total all-in creation cost of $476 per square foot.

[36] The existing value is based on the income-producing value of the existing building, which is higher than the residual land value assuming commercial-only redevelopment under the existing C-3A zoning.

4. A residual land value of -$5.0 million (i.e. not viable) based on rezoning and redevelopment with office above retail without transit access (see **Attachment 7c**) to an assumed density of 3.5 FSR. The pro forma analysis assumes:

   a) An allowance for rezoning costs of $250,000.

   b) An overall value of $598 per square foot buildable based on net retail rents of $45 per square foot, net office rents of $28 per square foot, net parking revenues of $150 per stall per month, operating costs of $18 per square foot for retail and office space, a 5% vacancy/non-recoverables allowance, a 4.75% cap rate, and a sales commission of 2%.

   c) Hard construction costs of $352 per square foot (including $280 per square foot for concrete retail and office space and $55,000 per underground parking stall), plus allowances for all other typical creation costs (e.g. soft costs, contingency, municipal and regional levies, interim financing) for a total all-in creation cost of $537 per square foot.

5. A residual land value of $6.6 million based on rezoning and redevelopment with transit access (see **Attachment 7d**) to an assumed density of 3.5 FSR with office above retail. The pro forma analysis includes all of the same assumptions as in point 4 above (and as in Attachment 7c), except that office lease rates are assumed to be 10% higher to reflect a premium associated with enhanced rapid transit access (i.e. $31 per square foot net instead of $28 per square foot).

The results of the analysis for Case Study #7 are shown in the following table. As shown, redevelopment with office above retail is not viable based on current market conditions and an assumed density of 3.5 FAR. The site is more valuable in its existing use or as a strata multi-family residential development site.

Summary of Financial Analysis for Case Study #7 (Commercial Redevelopment, Surrey City Centre)

Case Study	Type of Transit	Assumed density in the rezoning	Office Lease Rates ($ psf net)		Existing Value	Land Value After Rezoning, without Transit Premium	Land Value After Rezoning, with Transit
			Without transit	With transit			
Case Study #7: Office Project in Surrey City Centre	Rapid transit	3.5 FSR	$28	$31 (10% higher)	$10.7 million based on existing use; $12.3 million as strata residential redevelopment site	→ -$5.0 million	→ $6.6 million
						Land lift from rezoning n/a (office redevelopment is not financially viable)	**Land lift from transit n/a (office redevelopment is still not financially viable)**

A.4 Summary of Case Studies and Implications for TransLink

The results of the case study analysis are summarized in the following table. The case studies suggest the following main points:

- Rapid transit investment is responsible for a significant share of the gains in strata multi-family residential land value in transit-oriented areas. The dollar value gain in land value varies considerably around the region, but it appears that rapid transit investment can create 20% (or more) of the gain in land value from a combination of upzoning and transit investment. The share of land value gain created by transit investment is higher in areas with lower land values, reaching over 40% in some cases. This lends support for engaging with municipalities about the possibility of CAC revenue sharing from strata multi-family residential rezonings near rapid transit stations.
- Without the premium associated with rapid transit, office development is not financially viable in many suburban locations in the region.
- With rapid transit, high density office development is financially viable in some locations, but the lift in land value from rezoning and transit is marginal so the ability to charge a CAC is negligible (and municipalities typically do not charge CACs on office development).

Roll Up Summary of Financial Analysis for Case Studies

Case Study	Type of Transit	Existing value	Land Value After Rezoning, without Transit Premium	Land Value After Rezoning, with Transit	Land Lift		
					From rezoning	From transit	Total
#1: Strata multi-family project, Broadway Corridor	Rapid transit	$22.8 million	$45.4 million	$50.3 million	$22.6 million (82%)	$4.9 million (18%)	$27.5 million
#2: Market rental residential project, Broadway Corridor	Rapid transit	$22.8 million	$13.3 million	$15.2 million	not financially viable	not financially viable	not financially viable
#3: Strata multi-family project, Burquitlam	Rapid transit	$9.8 million	$16.3 million	$21.7 million	$6.5 million (54%)	$5.4 million (46%)	$11.9 million
#4: Strata multi-family project, Fleetwood	Rapid transit	$3.1 million	$0.9 million	$3.8 million	not financially viable	transit premium makes project financially viable	$0.7 million
#5: Strata multi-family project, Lynn Creek	Bus Rapid transit	$6.5 million	$10.8 million	$11.2 million	$4.3 million (92%)	$0.4 million (8%)	$4.7 million
#6: Office project, Broadway Corridor	Rapid transit	$15.3 million	$11.2 million	$16.9 million	not financially viable	transit premium makes project financially viable	$1.6 million
#7: Office project, Surrey City Centre	Rapid transit	$10.7 million based on existing use; $12.3 million as a strata residential redevelopment site	-$5.0 million	$6.6 million	not financially viable	not financially viable	not financially viable

A.5 Attachments (Pro Formas)

Attachment 1a

Attachment 1a				
Case Study #1: Site on West Broadway				
Estimated Existing Value based on Income Potential				
Major Assumptions				
Site and Building Size				
Site Size	18,750	sq.ft. or		
Assumed Existing Density	0.44	FSR		
Total Commercial Space	8,173	sq.ft.		
Office	0	sq.ft. with	95%	rentable
Retail	8,173	sq.ft.	100%	rentable
Revenue and Value				
Average Lease Rate for Office Space	$20.00	per sq.ft. net, base building with no TI		
Average Lease Rate for Retail Space	$40.00	per sq.ft. net, base building		
Vacancy and Non Recoverables	5.0%			
Capitalization Rate	4.00%			
Value of Office Space	$500.00			
Value of Retail and Service Space	$1,000	per sq.ft. of leasable area		
Estimated Overall Value				
Capitalized Value of Office Space	$0			
Capitalized Value of Retail/Service Space	$7,764,350			
Total Value of Commercial	$7,764,350			

Attachment 1b

Attachment 1b							
Case Study #1: Site on West Broadway							
Estimated Residual Land Value based on Existing C-3A Zoning (strata) (3.3 FSR)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site Size	18,750	sq.ft. which equals	0.43	acres			
	150	feet of frontage					
Existing Base Density	3.00	FSR					
Increased Density 1	0.30	FSR					
Increased Density 2	0.00	FSR					
Density with Bonuses	3.30	FSR					
Assumed Commercial Density	0.50	FSR					
Residential Density Before Exclusions	2.80	FSR					
Enclosed Balconies	0.00		0%	of residential			
Storage			39.8	sf per unit			
Effective Residential Density After Bonuses and Exclusions	2.80	FSR					
Total Effective Gross Density After Bonuses and Exclusions	3.30	FSR					
Total Gross Floorspace	61,875	sf					
Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1000 sf**	**Parking Stalls**
Strata Residential	52,500	85%	44,625	783	57	1.1	63
Market Rental	0	85%	0	616	0	0.6	0
Below Market Rental	0	85%	0	664	0	0.6	0
Social Housing	0	85%	0	706	0	0.5	0
Retail	9,375	100%	9,375	n/a	n/a		14
Office	0	95%	0	n/a	n/a		0
Total	61,875		54,000		57		77
Revenue/Value							
Strata Residential	$1,450	per net square foot					
Market Rental	$0	per net square foot (see separate calculations)					
Below Market Rental	$0	per net square foot (see separate calculations)					
Social Housing	$0	per net square foot (see separate calculations)					
Retail*	$1,188	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	$163,460	or	$20	per sq. ft. of existing building			
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
On and Off-Site Servicing	$160,061		$3,500	per lineal metre of frontage			
Density Bonus Contribution	$86	psf of bonus density					
Rezoning Costs	$0						
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$380	per gross sq.ft. of residential area					
Market Rental Residential Area	$350	per gross sq.ft. of rental residential area					
Below Market Residential Area	$350	per gross sq.ft. of rental residential area					
Social Housing Residential Area	$350	per gross sq.ft. of rental residential area					
Retail Area (shell space - no TI)	$260	per gross sq.ft. of retail area					
Office Area (shell space - no TI)	$260	per gross sq.ft. of commercial area					
Cost Per Garage/Underground Parking Stall	$65,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$443	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$443						
Hard Cost Used in Analysis	$443						
Site Landscaping	$0	or	$0	psf of site area on 50% of site			
Public Art Contribution	$0.00	per sq. ft.					
Soft costs and Professional Fees	8.0%	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					
Government Levies							
GVS & DD Sewer Levy - Strata Apartment	$1,072	per apartment 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 - Rental Residential	$1,200	per unit					
TransLink - Commercial	$1.25	per sq.ft. of commercial space					
Market Strata Apartment DCLs	$28.26	per sq.ft. of floorspace					
Market Rental DCLs	$28.26	per sq.ft. of floorspace					
Below Market Rental DCLs	$0.00	per sq.ft. of floorspace					
Social Housing DCLs	$0.00	per sq.ft. of floorspace					
Retail DCLs	$20.64	per sq.ft. of floorspace					
Office DCLs	$20.64	per sq.ft. of floorspace					
School Site Acquisition Charge	$0	per unit					

(continues on following page)

Attachment 1b – continued

Financing							
Interim financing	5.0%	assuming a	2.00	year construction period			
Financing charged on	50%	of land and	75%	of construction costs			
Financing fees	1.25%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	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 Market Rental Units	$3,500	per unit					
Initial Lease Up Costs on Below Market Rental Units	$0	per unit					
Initial Lease Up Costs on Social Housing Units	$0	per unit					
Leasing Commissions on Commercial Space	$5.00	per sq.ft.					
Tenant Improvement Allowance on Retail Space	$0.00	per sq.ft.					
Tenant Improvement Allowance on Office Space	$0.00	per sq.ft.					
Other Costs and Allowances							
Net GST on Market Rental Units	5.00%	of capitalized value of rental units					
Net GST on Below Market Rental Units	0.00%	of capitalized value of rental units					
Net GST on Social Housing Units	0.00%	of development cost of new units (assumes rebate)					
Property Taxes	0.247%	of assessed value					
Assumed current assessment (Year 1 of analysis)	$31,545,900						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$37,919,531	(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 million,	0.4%	over $4.0 million			
Residential Portion of current assessment (Year 1 of analysis)	$31,545,900						
Assumed residential portion of assessment after 1 year of construction	$32,353,125	(50% of completed residential project value)					
*Assumes BC Owner							
***Retail Value Assumptions**							
Lease Rate NNN	$50.00	psf per year					
Monthly Parking Revenue (net of costs)	$0	per month					
Vacancy and Non Recoverable Allowance	5.00%						
Capitalization Rate	4.00%						
Capitalized Value per 1000 SF Gross							
Rental Rev	$468,750						
Parking	$0						
Total	$468,750						
Vacancy	$23,438						
NOI	$445,313						
Capitalized Value	$11,132,813						
Value psf of net leasable space	$1,187.50	psf					

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Attachment 1b – continued

Analysis						
Revenue						
Strata Sales Revenue	$64,706,250					
Market Rental Revenue	$0					
Below Market Rental Revenue	$0					
Social Housing Units Revenue	$0					
Gross Retail Value	$11,132,813					
Gross Office Value	$0					
Total Gross Value	$75,839,063					
Less Commissions on Strata	$1,941,188					
Less Commissions on Rental	$0					
Less Commissions on Commercial	$222,656					
Net Sales Revenue/Value	$73,675,219					
Project Costs						
Upfront Compensation to Existing Tenants	$0					
Tenant Relocation	$0					
Allowance for Demolition of Existing Buildings	$163,460					
Allowance for Remediation	$0					
Site Preparation/Fill	$0					
On and Off-Site Servicing	$160,061					
Density Bonus Contribution	$483,386					
Rezoning Costs	$0					
Hard Construction Costs	$27,392,500					
Site Landscaping	$0					
Public Art Contribution	$0					
Soft costs and Professional Fees	$2,255,953					
Development management	$913,661					
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	$1,568,451					
Marketing on Strata Units	$1,294,125					
Initial Lease Up Costs on Market Rental Units	$0					
Initial Lease Up Costs on Below Market Rental Units	$0					
Initial Lease Up Costs on Social Rental Units	$0					
Leasing Commissions on Commercial Space	$46,875					
Tenant Improvement Allowance on Retail Space	$0					
Tenant Improvement Allowance on Office Space	$0					
GVS & DD Sewer Levy - Strata Apartment	$61,104					
GVS & DD Sewer Levy - Rental Residential	$0					
GVS & DD Sewer Levy - Commercial	$8,719					
TransLink - Strata Apartment Residential	$68,400					
TransLink - Rental Residential	$0					
TransLink - Commercial	$11,719					
Market Strata Apartment DCLs	$1,483,650					
Market Rental DCLs	$0					
Below Market Rental DCLs	$0					
Social Housing DCLs	$0					
Retail DCLs	$193,500					
Office DCLs	$0					
School Site Acquisition Charge	$0					
Less property tax allowance during approvals/development	$210,390					
Less School Tax Surcharge During Development	$283,688					
Interim financing on construction costs	$1,361,848					
Financing fees/costs	$355,889					
Less Net GST (assuming builder holds units)	$0					
Total Project Costs Before Land	$38,317,378	which works out to	$619	psf of gross floor area		
Developer's Profit	**$9,889,414**					
Residual to Land and Land Carry	**$25,468,427**					
Less financing on land during construction and approvals	$1,416,681					
Less financing fee on land loan	$135,291					
Less property closing costs	$1,061,532					
Residual Land Value	**$22,854,923**					
Residual Value per sq.ft. of site	**$1,219**					
Residual Value per sq.ft. of FSR	**$406**					
Residual Value per sq.ft. of gross buildable floorspace	**$369**					

Attachment 1c

Attachment 1c							
Case Study #1: Site on West Broadway							
Estimated Residual Land Value based on Rezoning to Mixed-Use Concrete at 6.0 FSR (strata) (rezoning only; no rapid transit premium)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site Size	18,750	sq.ft. which equals	0.43	acres			
	150	feet of frontage					
Existing Base Density	3.00	FSR					
Increased Density 1	0.00	FSR					
Increased Density 2	3.00	FSR					
Density with Bonuses	6.00	FSR					
Assumed Commercial Density	0.50	FSR					
Residential Density Before Exclusions	5.50	FSR					
Enclosed Balconies	0.00		0%	of residential			
Storage	0.22		39.8	sf per unit			
Effective Residential Density After Bonuses and Exclusions	5.72	FSR					
Total Effective Gross Density After Bonuses and Exclusions	6.22	FSR					
Total Gross Floorspace	116,682	sf					
Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1000 sf**	**Parking Stalls**
Strata Residential	107,307	85%	91,211	869	105	1.1	116
Market Rental	0	85%	0	616	0	0.6	0
Below Market Rental	0	85%	0	664	0	0.6	0
Social Housing	0	85%	0	706	0	0.5	0
Retail	9,375	100%	9,375	n/a	n/a		14
Office	0	95%	0	n/a	n/a		0
Total	116,682		100,586		105		130
Revenue/Value							
Strata Residential	$1,475	per net square foot					
Market Rental	$0	per net square foot (see separate calculations)					
Below Market Rental	$0	per net square foot (see separate calculations)					
Social Housing	$0	per net square foot (see separate calculations)					
Retail*	$1,188	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	$163,460	or	$20	per sq. ft. of existing building			
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
On and Off-Site Servicing	$160,061		$3,500	per lineal metre of frontage			
Density Bonus Contribution	$0	psf of bonus density					
Rezoning Costs	$500,000						
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$380	per gross sq.ft. of residential area					
Market Rental Residential Area	$350	per gross sq.ft. of rental residential area					
Below Market Residential Area	$350	per gross sq.ft. of rental residential area					
Social Housing Residential Area	$350	per gross sq.ft. of rental residential area					
Retail Area (shell space - no TI)	$260	per gross sq.ft. of retail area					
Office Area (shell space - no TI)	$260	per gross sq.ft. of commercial area					
Cost Per Garage/Underground Parking Stall	$65,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$443	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$443						
Hard Cost Used in Analysis	$443						
Site Landscaping	$0	or	$0	psf of site area on 50% of site			
Public Art Contribution	$1.98	per sq. ft.					
Soft costs and Professional Fees	8.0%	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					
Government Levies							
GVS & DD Sewer Levy - Strata Apartment	$1,072	per apartment 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 - Rental Residential	$1,200	per unit					
TransLink - Commercial	$1.25	per sq.ft. of commercial space					
Market Strata Apartment DCLs	$28.26	per sq.ft. of floorspace					
Market Rental DCLs	$28.26	per sq.ft. of floorspace					
Below Market Rental DCLs	$0.00	per sq.ft. of floorspace					
Social Housing DCLs	$0.00	per sq.ft. of floorspace					
Retail DCLs	$20.64	per sq.ft. of floorspace					
Office DCLs	$20.64	per sq.ft. of floorspace					
School Site Acquisition Charge	$0	per unit					

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Attachment 1c – continued

Financing							
Interim financing	5.0%	assuming a	2.00	year construction period			
Financing charged on	50%	of land and	75%	of construction costs			
Financing fees	1.25%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	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 Market Rental Units	$3,500	per unit					
Initial Lease Up Costs on Below Market Rental Units	$0	per unit					
Initial Lease Up Costs on Social Housing Units	$0	per unit					
Leasing Commissions on Commercial Space	$5.00	per sq.ft.					
Tenant Improvement Allowance on Retail Space	$0.00	per sq.ft.					
Tenant Improvement Allowance on Office Space	$0.00	per sq.ft.					
Other Costs and Allowances							
Net GST on Market Rental Units	5.00%	of capitalized value of rental units					
Net GST on Below Market Rental Units	0.00%	of capitalized value of rental units					
Net GST on Social Housing Units	0.00%	of development cost of new units (assumes rebate)					
Property Taxes	0.247%	of assessed value					
Assumed current assessment (Year 1 of analysis)	$31,545,900						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$72,834,429	(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 n	0.4%	over $4.0 million			
Residential Portion of current assessment (Year 1 of analysis)	$31,545,900						
Assumed residential portion of assessment after 1 year of construction	$67,268,023	(50% of completed residential project value)					
*Assumes BC Owner							
***Retail Value Assumptions**							
Lease Rate NNN	$50.00	psf per year					
Monthly Parking Revenue (net of costs)	$0	per month					
Vacancy and Non Recoverable Allowance	5.00%						
Capitalization Rate	4.00%						
Capitalized Value per 1000 SF Gross							
Rental Rev	$468,750						
Parking	$0						
Total	$468,750						
Vacancy	$23,438						
NOI	$445,313						
Capitalized Value	$11,132,813						
Value psf of net leasable space	$1,187.50	psf					

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Attachment 1c – continued

Analysis						
Revenue						
Strata Sales Revenue	$134,536,046					
Market Rental Revenue	$0					
Below Market Rental Revenue	$0					
Social Housing Units Revenue	$0					
Gross Retail Value	$11,132,813					
Gross Office Value	$0					
Total Gross Value	$145,668,858					
Less Commissions on Strata	$4,036,081					
Less Commissions on Rental	$0					
Less Commissions on Commercial	$222,656					
Net Sales Revenue/Value	$141,410,121					
Project Costs						
Upfront Compensation to Existing Tenants	$0					
Tenant Relocation	$0					
Allowance for Demolition of Existing Buildings	$163,460					
Allowance for Remediation	$0					
Site Preparation/Fill	$0					
On and Off-Site Servicing	$160,061					
Density Bonus Contribution	$0					
Rezoning Costs	$500,000					
Hard Construction Costs	$51,664,128					
Site Landscaping	$0					
Public Art Contribution	$231,030					
Soft costs and Professional Fees	$4,217,494					
Development management	$1,708,085					
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	$2,932,213					
Marketing on Strata Units	$2,690,721					
Initial Lease Up Costs on Market Rental Units	$0					
Initial Lease Up Costs on Below Market Rental Units	$0					
Initial Lease Up Costs on Social Rental Units	$0					
Leasing Commissions on Commercial Space	$46,875					
Tenant Improvement Allowance on Retail Space	$0					
Tenant Improvement Allowance on Office Space	$0					
GVS & DD Sewer Levy - Strata Apartment	$112,560					
GVS & DD Sewer Levy - Rental Residential	$0					
GVS & DD Sewer Levy - Commercial	$8,719					
TransLink - Strata Apartment Residential	$126,000					
TransLink - Rental Residential	$0					
TransLink - Commercial	$11,719					
Market Strata Apartment DCLs	$3,032,493					
Market Rental DCLs	$0					
Below Market Rental DCLs	$0					
Social Housing DCLs	$0					
Retail DCLs	$193,500					
Office DCLs	$0					
School Site Acquisition Charge	$0					
Less property tax allowance during approvals/development	$296,570					
Less School Tax Surcharge During Development	$423,347					
Interim financing on construction costs	$2,553,586					
Financing fees/costs	$666,305					
Less Net GST (assuming builder holds units)	$0					
Total Project Costs Before Land	$71,738,867	which works out to	$615	psf of gross floor area		
Developer's Profit	**$18,995,219**					
Residual to Land and Land Carry	**$50,676,035**					
Less financing on land during construction and approvals	$2,818,854					
Less financing fee on land loan	$269,197					
Less property closing costs	$2,185,929					
Residual Land Value	**$45,402,054**					
Residual Value per sq.ft. of site	**$2,421**					
Residual Value per sq.ft. of FSR	**$404**					
Residual Value per sq.ft. of gross buildable floorspace	**$389**					

Attachment 1d

Attachment 1d							
Case Study #1: Site on West Broadway							
Estimated Residual Land Value based on Rezoning to Mixed-Use Concrete at 6.0 FSR (strata) (rezoning only; with rapid transit premium)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site Size	18,750	sq.ft. which equals	0.43	acres			
	150	feet of frontage					
Existing Base Density	3.00	FSR					
Increased Density 1	0.00	FSR					
Increased Density 2	3.00	FSR					
Density with Bonuses	6.00	FSR					
Assumed Commercial Density	0.50	FSR					
Residential Density Before Exclusions	5.50	FSR					
Enclosed Balconies	0.00		0%	of residential			
Storage	0.22		39.8	sf per unit			
Effective Residential Density After Bonuses and Exclusions	5.72	FSR					
Total Effective Gross Density After Bonuses and Exclusions	6.22	FSR					
Total Gross Floorspace	116,682	sf					
Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1000 sf**	**Parking Stalls**
Strata Residential	107,307	85%	91,211	869	105	1.1	116
Market Rental	0	85%	0	616	0	0.6	0
Below Market Rental	0	85%	0	664	0	0.6	0
Social Housing	0	85%	0	706	0	0.5	0
Retail	9,375	100%	9,375	n/a	n/a		14
Office	0	95%	0	n/a	n/a		0
Total	116,682		100,586		105		130
Revenue/Value							
Strata Residential	$1,549	per net square foot					
Market Rental	$0	per net square foot (see separate calculations)					
Below Market Rental	$0	per net square foot (see separate calculations)					
Social Housing	$0	per net square foot (see separate calculations)					
Retail*	$1,188	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	$163,460	or	$20	per sq. ft. of existing building			
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
On and Off-Site Servicing	$160,061		$3,500	per lineal metre of frontage			
Density Bonus Contribution	$0	psf of bonus density					
Rezoning Costs	$500,000						
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$380	per gross sq.ft. of residential area					
Market Rental Residential Area	$350	per gross sq.ft. of rental residential area					
Below Market Residential Area	$350	per gross sq.ft. of rental residential area					
Social Housing Residential Area	$350	per gross sq.ft. of rental residential area					
Retail Area (shell space - no TI)	$260	per gross sq.ft. of retail area					
Office Area (shell space - no TI)	$260	per gross sq.ft. of commercial area					
Cost Per Garage/Underground Parking Stall	$65,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$443	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$443						
Hard Cost Used in Analysis	$443						
Site Landscaping	$0	or	$0	psf of site area on 50% of site			
Public Art Contribution	$1.98	per sq. ft.					
Soft costs and Professional Fees	8.0%	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					
Government Levies							
GVS & DD Sewer Levy - Strata Apartment	$1,072	per apartment 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 - Rental Residential	$1,200	per unit					
TransLink - Commercial	$1.25	per sq.ft. of commercial space					
Market Strata Apartment DCLs	$28.26	per sq.ft. of floorspace					
Market Rental DCLs	$28.26	per sq.ft. of floorspace					
Below Market Rental DCLs	$0.00	per sq.ft. of floorspace					
Social Housing DCLs	$0.00	per sq.ft. of floorspace					
Retail DCLs	$20.64	per sq.ft. of floorspace					
Office DCLs	$20.64	per sq.ft. of floorspace					
School Site Acquisition Charge	$0	per unit					

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Attachment 1d – continued

Financing							
Interim financing	5.0%	assuming a	2.00	year construction period			
Financing charged on	50%	of land and	75%	of construction costs			
Financing fees	1.25%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	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 Market Rental Units	$3,500	per unit					
Initial Lease Up Costs on Below Market Rental Units	$0	per unit					
Initial Lease Up Costs on Social Housing Units	$0	per unit					
Leasing Commissions on Commercial Space	$5.00	per sq.ft.					
Tenant Improvement Allowance on Retail Space	$0.00	per sq.ft.					
Tenant Improvement Allowance on Office Space	$0.00	per sq.ft.					
Other Costs and Allowances							
Net GST on Market Rental Units	5.00%	of capitalized value of rental units					
Net GST on Below Market Rental Units	0.00%	of capitalized value of rental units					
Net GST on Social Housing Units	0.00%	of development cost of new units (assumes rebate)					
Property Taxes	0.247%	of assessed value					
Assumed current assessment (Year 1 of analysis)	$31,545,900						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$76,197,830	(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	0.4%	over $4.0 million			
Residential Portion of current assessment (Year 1 of analysis)	$31,545,900						
Assumed residential portion of assessment after 1 year of construction	$70,631,424	(50% of completed residential project value)					
*Assumes BC Owner							
***Retail Value Assumptions**							
Lease Rate NNN	$50.00	psf per year					
Monthly Parking Revenue (net of costs)	$0	per month					
Vacancy and Non Recoverable Allowance	5.00%						
Capitalization Rate	4.00%						
Capitalized Value per 1000 SF Gross							
Rental Rev	$468,750						
Parking	$0						
Total	$468,750						
Vacancy	$23,438						
NOI	$445,313						
Capitalized Value	$11,132,813						
Value psf of net leasable space	$1,187.50	psf					

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Attachment 1d – continued

Analysis						
Revenue						
Strata Sales Revenue	$141,262,848					
Market Rental Revenue	$0					
Below Market Rental Revenue	$0					
Social Housing Units Revenue	$0					
Gross Retail Value	$11,132,813					
Gross Office Value	$0					
Total Gross Value	$152,395,661					
Less Commissions on Strata	$4,237,885					
Less Commissions on Rental	$0					
Less Commissions on Commercial	$222,656					
Net Sales Revenue/Value	$147,935,119					
Project Costs						
Upfront Compensation to Existing Tenants	$0					
Tenant Relocation	$0					
Allowance for Demolition of Existing Buildings	$163,460					
Allowance for Remediation	$0					
Site Preparation/Fill	$0					
On and Off-Site Servicing	$160,061					
Density Bonus Contribution	$0					
Rezoning Costs	$500,000					
Hard Construction Costs	$51,664,128					
Site Landscaping	$0					
Public Art Contribution	$231,030					
Soft costs and Professional Fees	$4,217,494					
Development management	$1,708,085					
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	$2,932,213					
Marketing on Strata Units	$2,825,257					
Initial Lease Up Costs on Market Rental Units	$0					
Initial Lease Up Costs on Below Market Rental Units	$0					
Initial Lease Up Costs on Social Rental Units	$0					
Leasing Commissions on Commercial Space	$46,875					
Tenant Improvement Allowance on Retail Space	$0					
Tenant Improvement Allowance on Office Space	$0					
GVS & DD Sewer Levy - Strata Apartment	$112,560					
GVS & DD Sewer Levy - Rental Residential	$0					
GVS & DD Sewer Levy - Commercial	$8,719					
TransLink - Strata Apartment Residential	$126,000					
TransLink - Rental Residential	$0					
TransLink - Commercial	$11,719					
Market Strata Apartment DCLs	$3,032,493					
Market Rental DCLs	$0					
Below Market Rental DCLs	$0					
Social Housing DCLs	$0					
Retail DCLs	$193,500					
Office DCLs	$0					
School Site Acquisition Charge	$0					
Less property tax allowance during approvals/development	$304,871					
Less School Tax Surcharge During Development	$436,801					
Interim financing on construction costs	$2,558,942					
Financing fees/costs	$667,821					
Less Net GST (assuming builder holds units)	$0					
Total Project Costs Before Land	$71,902,030	which works out to	$616	psf of gross floor area		
Developer's Profit	**$19,872,394**					
Residual to Land and Land Carry	**$56,160,695**					
Less financing on land during construction and approvals	$3,123,939					
Less financing fee on land loan	$298,332					
Less property closing costs	$2,430,575					
Residual Land Value	**$50,307,849**					
Residual Value per sq.ft. of site	**$2,683**					
Residual Value per sq.ft. of FSR	**$447**					
Residual Value per sq.ft. of gross buildable floorspace	**$431**					

Attachment 2a

Attachment 2a							
Case Study #2: Site on West Broadway							
Estimated Residual Land Value based on Rezoning to Mixed-Use Concrete at 6.0 FSR (market rental) (rezoning only; no rapid transit premium)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site Size	18,750	sq.ft.					
	150	feet of frontage					
Existing Base Density	3.00	FSR					
Increased Density 1	0.00	FSR					
Increased Density 2	3.00	FSR					
Density with Bonuses	6.00	FSR					
Assumed Commercial Density	0.50	FSR					
Residential Density Before Exclusions	5.50	FSR					
Enclosed Balconies	0.00		0%	of residential			
Storage	6%	of residential FSR	39.9	sf per unit			
Effective Residential Density After Bonuses and Exclusions	5.80	FSR					
Total Effective Gross Density After Bonuses and Exclusions	6.30	FSR					
Total Gross Floorspace	118,172	sf					
Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1000 sf**	**Parking Stalls**
Strata Residential	0	85%	0	#DIV/0!	0	1.1	0
Market Rental	108,797	85%	92,477	616	150	0.6	90
Below Market Rental	0	85%	0	664	0	0.6	0
Social Housing	0	85%	0	706	0	0.5	0
Retail	9,375	100%	9,375	n/a	n/a		14
Office	0	95%	0	n/a	n/a		0
Total	118,172		101,852		150		104
Revenue/Value							
Strata Residential	$0	per net square foot					
Market Rental	$889	per net square foot (see separate calculations)					
Below Market Rental	$0	per net square foot (see separate calculations)					
Social Housing	$0	per net square foot (see separate calculations)					
Retail*	$1,188	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	$163,460	or	$20	per sq. ft. of existing building			
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
On and Off-Site Servicing	$160,061		$3,500	per lineal metre of frontage			
Density Bonus Contribution	$0	psf of bonus density					
Rezoning Costs	$500,000						
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$380	per gross sq.ft. of residential area					
Market Rental Residential Area	$350	per gross sq.ft. of rental residential area					
Below Market Residential Area	$350	per gross sq.ft. of rental residential area					
Social Housing Residential Area	$350	per gross sq.ft. of rental residential area					
Retail Area (shell space - no TI)	$260	per gross sq.ft. of retail area					
Office Area (shell space - no TI)	$260	per gross sq.ft. of commercial area					
Cost Per Garage/Underground Parking Stall	$65,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$400	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$400						
Hard Cost Used in Analysis	$400						
Site Landscaping	$0	or	$0	psf of site area on 50% of site			
Public Art Contribution	$1.98	per sq. ft.					
Soft costs and Professional Fees	8.0%	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					
Government Levies							
GVS & DD Sewer Levy - Strata Apartment	$1,072	per apartment 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 - Rental Residential	$1,200	per unit					
TransLink - Commercial	$1.25	per sq.ft. of commercial space					
Market Strata Apartment DCLs	$28.26	per sq.ft. of floorspace					
Market Rental DCLs	$10.09	per sq.ft. of floorspace					
Below Market Rental DCLs	$0.00	per sq.ft. of floorspace					
Social Housing DCLs	$0.00	per sq.ft. of floorspace					
Retail DCLs	$20.64	per sq.ft. of floorspace					
Office DCLs	$20.64	per sq.ft. of floorspace					
School Site Acquisition Charge	$0	per unit					

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Attachment 2a – continued

Financing					
Interim financing	5.0%	assuming a	2.00	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.25%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	2.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	0.0%	of value			
Initial Lease Up Costs on Market Rental Units	$3,500	per unit			
Initial Lease Up Costs on Below Market Rental Units	$0	per unit			
Initial Lease Up Costs on Social Housing Units	$0	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$0.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$0.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market Rental Units	5.00%	of capitalized value of rental units			
Net GST on Below Market Rental Units	0.00%	of capitalized value of rental units			
Net GST on Social Housing Units	0.00%	of development cost of new units (assumes rebate)			
Property Taxes	0.247%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$31,545,900				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$46,680,548	(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	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$31,545,900				
Assumed residential portion of assessment after 1 year of construction	$41,114,142	(50% of completed residential project value)			
*Assumes BC Owner					

***Market Rental Capitalized Value Assumptions**

Rent Assumptions				**Rent**
Unit Type	**# Units**		**Size**	**rent/month**
Studios	25	25%	435	$ 1,768
1-Bedroom	40	40%	545	$ 2,056
2-Bedroom	25	25%	775	$ 2,703
3-Bedroom	10	10%	950	$ 3,559
Total	100	100%		
Average			616	$ 2,296
				$ 3.73
Revenue and Operating Cost Assumptions				
Rental Rate Per Month	$3.73	psf per month or		
	$2,296	per unit per month		
Monthly Parking Revenue	$100	per month		
Storage Revenue	$40	per month on	75%	of units
Vacancy and Non Recoverable Allowance	2.00%			
Operating costs for New Rental Units	$4,801	per unit per year		
Property Tax Allowance				
Residential Assessment (upon completion of new building)	$80,917,676	(see capitalized value below)		
Residential Tax Rate	0.247%			
Residential Property Taxes	$199,726			
Capitalization Rate for Rental Apartment Space	4.00%			
Capitalized Value				
Rental Rev	$4,132,890			
Parking	$108,000			
Storage	$54,000			
Total	$4,294,890			
Vacancy	$85,898			
Net	$4,208,992			
Op Costs	$720,135			
Taxes	$199,726			
NOI	$3,289,131			
Capitalized Value	$82,228,283			
psf of rentable space	$889.17			

****Retail Value Assumptions**		
Lease Rate NNN	$50.00	psf per year
Monthly Parking Revenue (net of costs)	$0	per month
Vacancy and Non Recoverable Allowance	5.00%	
Capitalization Rate	4.00%	
Capitalized Value per 1000 SF Gross		
Rental Rev	$468,750	
Parking	$0	
Total	$468,750	
Vacancy	$23,438	
NOI	$445,313	
Capitalized Value	$11,132,813	
Value psf of net leasable space	$1,187.50	psf

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Attachment 2a – continued

Analysis						
Revenue						
Strata Sales Revenue	$0					
Market Rental Revenue	$82,228,283					
Below Market Rental Revenue	$0					
Social Housing Units Revenue	$0					
Gross Retail Value	$11,132,813					
Gross Office Value	$0					
Total Gross Value	$93,361,096					
Less Commissions on Strata	$0					
Less Commissions on Rental	$0					
Less Commissions on Commercial	$222,656					
Net Sales Revenue/Value	$93,138,440					
Project Costs						
Upfront Compensation to Existing Tenants	$0					
Tenant Relocation	$0					
Allowance for Demolition of Existing Buildings	$163,460					
Allowance for Remediation	$0					
Site Preparation/Fill	$0					
On and Off-Site Servicing	$160,061					
Density Bonus Contribution	$0					
Rezoning Costs	$500,000					
Hard Construction Costs	$47,276,406					
Site Landscaping	$0					
Public Art Contribution	$233,980					
Soft costs and Professional Fees	$3,866,713					
Development management	$1,566,019					
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	$2,688,332					
Marketing on Strata Units	$0					
Initial Lease Up Costs on Market Rental Units	$525,000					
Initial Lease Up Costs on Below Market Rental Units	$0					
Initial Lease Up Costs on Social Rental Units	$0					
Leasing Commissions on Commercial Space	$46,875					
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 - Rental Residential	$160,800					
GVS & DD Sewer Levy - Commercial	$8,719					
TransLink - Strata Apartment Residential	$0					
TransLink - Rental Residential	$180,000					
TransLink - Commercial	$11,719					
Market Strata Apartment DCLs	$0					
Market Rental DCLs	$1,097,760					
Below Market Rental DCLs	$0					
Social Housing DCLs	$0					
Retail DCLs	$193,500					
Office DCLs	$0					
School Site Acquisition Charge	$0					
Less property tax allowance during approvals/development	$232,015					
Less School Tax Surcharge During Development	$318,732					
Interim financing on construction costs	$2,209,176					
Financing fees/costs	$575,993					
Less Net GST (assuming builder holds units)	$4,111,414					
Total Project Costs Before Land	$66,126,674	which works out to	$560	psf of gross floor area		
Developer's Profit	**$12,174,287**					
Residual to Land and Land Carry	**$14,837,479**					
Less financing on land during construction and approvals	$825,335					
Less financing fee on land loan	$78,818					
Less property closing costs	$587,333					
Residual Land Value	**$13,345,993**					
Residual Value per sq.ft. of site	**$712**					
Residual Value per sq.ft. of FSR	**$119**					
Residual Value per sq.ft. of gross buildable floorspace	**$113**					

Attachment 2b

Attachment 2b							
Case Study #2: Site on West Broadway							
Estimated Residual Land Value based on Rezoning to Mixed-Use Concrete at 6.0 FSR (market rental) (rezoning only; with rapid transit premium)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site Size	18,750	sq.ft.					
	150	feet of frontage					
Existing Base Density	3.00	FSR					
Increased Density 1	0.00	FSR					
Increased Density 2	3.00	FSR					
Density with Bonuses	6.00	FSR					
Assumed Commercial Density	0.50	FSR					
Residential Density Before Exclusions	5.50	FSR					
Enclosed Balconies	0.00		0%	of residential			
Storage	6%	of residential FSR	39.9	sf per unit			
Effective Residential Density After Bonuses and Exclusions	5.80	FSR					
Total Effective Gross Density After Bonuses and Exclusions	6.30	FSR					
Total Gross Floorspace	118,172	sf					
Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1000 sf**	**Parking Stalls**
Strata Residential	0	85%	0	#DIV/0!	0	1.1	0
Market Rental	108,797	85%	92,477	616	150	0.6	90
Below Market Rental	0	85%	0	664	0	0.6	0
Social Housing	0	85%	0	706	0	0.5	0
Retail	9,375	100%	9,375	n/a	n/a		14
Office	0	95%	0	n/a	n/a		0
Total	118,172		101,852		150		104
Revenue/Value							
Strata Residential	$0	per net square foot					
Market Rental	$944	per net square foot (see separate calculations)					
Below Market Rental	$0	per net square foot (see separate calculations)					
Social Housing	$0	per net square foot (see separate calculations)					
Retail*	$1,188	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	$163,460	or	$20	per sq. ft. of existing building			
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
On and Off-Site Servicing	$160,061		$3,500	per lineal metre of frontage			
Density Bonus Contribution	$0	psf of bonus density					
Rezoning Costs	$500,000						
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$380	per gross sq.ft. of residential area					
Market Rental Residential Area	$350	per gross sq.ft. of rental residential area					
Below Market Residential Area	$350	per gross sq.ft. of rental residential area					
Social Housing Residential Area	$350	per gross sq.ft. of rental residential area					
Retail Area (shell space - no TI)	$260	per gross sq.ft. of retail area					
Office Area (shell space - no TI)	$260	per gross sq.ft. of commercial area					
Cost Per Garage/Underground Parking Stall	$65,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$400	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$400						
Hard Cost Used in Analysis	$400						
Site Landscaping	$0	or	$0	psf of site area on 50% of site			
Public Art Contribution	$1.98	per sq. ft.					
Soft costs and Professional Fees	8.0%	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					
Government Levies							
GVS & DD Sewer Levy - Strata Apartment	$1,072	per apartment 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 - Rental Residential	$1,200	per unit					
TransLink - Commercial	$1.25	per sq.ft. of commercial space					
Market Strata Apartment DCLs	$28.26	per sq.ft. of floorspace					
Market Rental DCLs	$28.26	per sq.ft. of floorspace					
Below Market Rental DCLs	$0.00	per sq.ft. of floorspace					
Social Housing DCLs	$0.00	per sq.ft. of floorspace					
Retail DCLs	$20.64	per sq.ft. of floorspace					
Office DCLs	$20.64	per sq.ft. of floorspace					
School Site Acquisition Charge	$0	per unit					

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Attachment 2b – continued

Financing					
Interim financing	5.0%	assuming a	2.00	year construction period	
Financing charged on	50%	of land and	75%	of construction costs	
Financing fees	1.25%				
Commissions and Marketing					
Commissions on Strata Residential	3.0%	of gross strata market residential revenue			
Marketing on Strata Residential	2.0%	of gross strata market residential revenue			
Commissions on Sale of Commercial	2.0%	of gross commercial value			
Commission on Sale of Rental Units	0.0%	of value			
Initial Lease Up Costs on Market Rental Units	$3,500	per unit			
Initial Lease Up Costs on Below Market Rental Units	$0	per unit			
Initial Lease Up Costs on Social Housing Units	$0	per unit			
Leasing Commissions on Commercial Space	$5.00	per sq.ft.			
Tenant Improvement Allowance on Retail Space	$0.00	per sq.ft.			
Tenant Improvement Allowance on Office Space	$0.00	per sq.ft.			
Other Costs and Allowances					
Net GST on Market Rental Units	5.00%	of capitalized value of rental units			
Net GST on Below Market Rental Units	0.00%	of capitalized value of rental units			
Net GST on Social Housing Units	0.00%	of development cost of new units (assumes rebate)			
Property Taxes	0.247%	of assessed value			
Assumed current assessment (Year 1 of analysis)	$31,545,900				
Assumed assessment after 1 year of construction (Year 2 of analysis)	$49,211,943	(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	0.4%	over $4.0 million	
Residential Portion of current assessment (Year 1 of analysis)	$31,545,900				
Assumed residential portion of assessment after 1 year of construction	$43,645,537	(50% of completed residential project value)			
*Assumes BC Owner					

***Market Rental Capitalized Value Assumptions**

Rent Assumptions				**Rent**
Unit Type	**# Units**		**Size**	**rent/month**
Studios	25	25%	435	$ 1,856
1-Bedroom	40	40%	545	$ 2,159
2-Bedroom	25	25%	775	$ 2,838
3-Bedroom	10	10%	950	$ 3,737
Total	100	100%		
Average			616	$ 2,411
				$ 3.92

Revenue and Operating Cost Assumptions					
Rental Rate Per Month	$3.92	psf per month or			
	$2,411	per unit per month			
Monthly Parking Revenue	$100	per month			
Storage Revenue	$40	per month on	75%	of units	
Vacancy and Non Recoverable Allowance	2.00%				
Operating costs for New Rental Units	$4,801	per unit per year			
Property Tax Allowance					
Residential Assessment (upon completion of new building)	$80,917,676	(see capitalized value below)			
Residential Tax Rate	0.247%				
Residential Property Taxes	$199,726				
Capitalization Rate for Rental Apartment Space	4.00%				
Capitalized Value					
Rental Rev	$4,339,535				
Parking	$108,000				
Storage	$54,000				
Total	$4,501,535				
Vacancy	$90,031				
Net	$4,411,504				
Op Costs	$720,135				
Taxes	$199,726				
NOI	$3,491,643				
Capitalized Value	$87,291,074				
psf of rentable space	$943.92				

****Retail Value Assumptions**					
Lease Rate NNN	$50.00	psf per year			
Monthly Parking Revenue (net of costs)	$0	per month			
Vacancy and Non Recoverable Allowance	5.00%				
Capitalization Rate	4.00%				
Capitalized Value per 1000 SF Gross					
Rental Rev	$468,750				
Parking	$0				
Total	$468,750				
Vacancy	$23,438				
NOI	$445,313				
Capitalized Value	$11,132,813				
Value psf of net leasable space	$1,187.50	psf			

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Attachment 2b – continued

Analysis						
Revenue						
Strata Sales Revenue	$0					
Market Rental Revenue	$87,291,074					
Below Market Rental Revenue	$0					
Social Housing Units Revenue	$0					
Gross Retail Value	$11,132,813					
Gross Office Value	$0					
Total Gross Value	$98,423,886					
Less Commissions on Strata	$0					
Less Commissions on Rental	$0					
Less Commissions on Commercial	$222,656					
Net Sales Revenue/Value	$98,201,230					
Project Costs						
Upfront Compensation to Existing Tenants	$0					
Tenant Relocation	$0					
Allowance for Demolition of Existing Buildings	$163,460					
Allowance for Remediation	$0					
Site Preparation/Fill	$0					
On and Off-Site Servicing	$160,061					
Density Bonus Contribution	$0					
Rezoning Costs	$500,000					
Hard Construction Costs	$47,276,406					
Site Landscaping	$0					
Public Art Contribution	$233,980					
Soft costs and Professional Fees	$3,866,713					
Development management	$1,566,019					
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	$2,688,332					
Marketing on Strata Units	$0					
Initial Lease Up Costs on Market Rental Units	$525,000					
Initial Lease Up Costs on Below Market Rental Units	$0					
Initial Lease Up Costs on Social Rental Units	$0					
Leasing Commissions on Commercial Space	$46,875					
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 - Rental Residential	$160,800					
GVS & DD Sewer Levy - Commercial	$8,719					
TransLink - Strata Apartment Residential	$0					
TransLink - Rental Residential	$180,000					
TransLink - Commercial	$11,719					
Market Strata Apartment DCLs	$0					
Market Rental DCLs	$3,074,600					
Below Market Rental DCLs	$0					
Social Housing DCLs	$0					
Retail DCLs	$193,500					
Office DCLs	$0					
School Site Acquisition Charge	$0					
Less property tax allowance during approvals/development	$238,263					
Less School Tax Surcharge During Development	$328,858					
Interim financing on construction costs	$2,283,542					
Financing fees/costs	$595,377					
Less Net GST (assuming builder holds units)	$4,364,554					
Total Project Costs Before Land	$68,466,776	which works out to	$579	psf of gross floor area		
Developer's Profit	**$12,834,475**					
Residual to Land and Land Carry	**$16,899,980**					
Less financing on land during construction and approvals	$940,061					
Less financing fee on land loan	$89,775					
Less property closing costs	$679,332					
Residual Land Value	**$15,190,812**					
Residual Value per sq.ft. of site	**$810**					
Residual Value per sq.ft. of FSR	**$135**					
Residual Value per sq.ft. of gross buildable floorspace	**$129**					

Attachment 3a

Attachment 3a				
Case Study #3: Site in Burquitlam				
Estimated Existing Value based on Income Potential				
Major Assumptions				
Site and Building Size				
Site Size	46,650	sq.ft. or		
Assumed Density	0.35	FSR		
Total Commercial Space	16,295	sq.ft.		
Office	0	sq.ft. with	95%	rentable
Retail	16,295	sq.ft.	100%	rentable
Revenue and Value				
Average Lease Rate for Office Space	$0.00	per sq.ft. net, base building with no TI		
Average Lease Rate for Retail Space	$30.00	per sq.ft. net, base building		
Vacancy and Non Recoverables	5.0%			
Capitalization Rate	4.75%			
Value of Office Space	$0.00			
Value of Retail and Service Space	$632	per sq.ft. of leasable area		
Estimated Overall Value				
Capitalized Value of Office Space	$0			
Capitalized Value of Retail/Service Space	$9,777,000			
Total Estimated Value	**$9,777,000**			

Attachment 3b

Attachment 3b							
Case Study #3: Site in Burquitlam							
Estimated Residual Land Value based on Existing C-2 Zoning at 1.05 FSR (strata mixed use, wood-frame)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site Size	46,650	sq.ft.					
	200	feet of frontage					
Existing Base Density	1.05	FSR					
Increased Density 1	0.00	FSR					
Increased Density 2	0.00	FSR					
Density with Bonuses	1.05	FSR					
Assumed Commercial Density	0.53	FSR					
Residential Density Before Exclusions	0.53	FSR					
Enclosed Balconies	0.00		0%	of residential			
Storage	0.00		0.0	sf per unit			
Effective Residential Density After Bonuses and Exclusions	0.53	FSR					
Total Effective Gross Density After Bonuses and Exclusions	1.05	FSR					
Total Gross Floorspace	48,983	sf					
Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1000 sf**	**Parking Stalls**
Strata Residential	24,491	85%	20,818	801	26	1.1	29
Retail	12,246	100%	12,246	n/a	n/a		20
Office	12,246	95%	11,633	n/a	n/a		20
Total	48,983		44,697		26		69
Revenue/Value							
Strata Residential	$722	per net square foot					
Retail*	$700	per net square foot including parking revenue (see separate calculations)					
Office**	$600	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	$325,900	or	$20	per sq. ft. of existing building			
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
On and Off-Site Servicing	$213,415		$3,500	per lineal metre of frontage			
Density Bonus Contribution 1	$3	psf of bonus density					
Density Bonus Contribution 2	$60	psf of bonus density					
Rezoning Costs	$0	excluded from analysis					
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$220	per gross sq.ft. of residential area					
Retail Area (shell space - no TI)	$250	per gross sq.ft. of retail area					
Office Area (shell space - no TI)	$250	per gross sq.ft. of commercial area					
Cost Per Garage/Underground Parking Stall	$65,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$327	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$327						
Hard Cost Used in Analysis	$327						
Site Landscaping	$0	or	$0	psf of site area on 50% of site			
Public Art Contribution	$0.00	per sq. ft.					
Soft costs and Professional Fees	8.0%	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					
Government Levies							
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit					
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space					
TransLink - Strata Apartment Residential	$1,200	per market unit					
TransLink - Commercial	$1.25	per sq.ft. of commercial space					
Market Strata Apartment DCCs	$17.00	per sq.ft. of floorspace					
Retail DCCs	$7.15	per sq.ft. of floorspace					
Office DCCs	$7.15	per sq.ft. of floorspace					
School Site Acquisition Charge	$0	per unit					

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Attachment 3b – continued

Financing							
Interim financing	5.0%	assuming a	1.25	year construction period			
Financing charged on	50%	of land and	75%	of construction costs			
Financing fees	1.25%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	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					
Leasing Commissions on Commercial Space	$5.00	per sq.ft.					
Tenant Improvement Allowance on Retail Space	$0.00	per sq.ft.					
Tenant Improvement Allowance on Office Space	$0.00	per sq.ft.					
Other Costs and Allowances							
Property Taxes	0.339%	of assessed value					
Assumed current assessment (Year 1 of analysis)	$26,638,200						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$16,675,480	(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	0.4%	over $4.0 million			
Residential Portion of current assessment (Year 1 of analysis)	$26,638,200						
Assumed residential portion of assessment after 1 year of construction	$8,899,508	(50% of completed residential project value)					
*Assumes BC Owner							
***Retail Value Assumptions**							
Lease Rate NNN	$35.00	psf per year					
Vacancy and Non Recoverable Allowance	5.00%						
Capitalization Rate	4.75%						
Capitalized Value per 1000 SF Gross							
Rental Rev	$428,597						
Vacancy	$21,430						
NOI	$407,167						
Capitalized Value	$8,571,938						
Value psf of net leasable space	$700.00	psf					
****Office Value Assumptions**							
Lease Rate NNN	$30.00	psf per year					
Vacancy and Non Recoverable Allowance	5.00%						
Capitalization Rate	4.75%						
Capitalized Value per 1000 SF Gross							
Rental Rev	$349,000						
Vacancy	$17,450						
NOI	$331,550						
Capitalized Value	$6,980,006						
Value psf of net leasable space	$600.00	psf					

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Attachment 3b – continued

Analysis						
Revenue						
Strata Sales Revenue	$15,030,280					
Gross Retail Value	$8,571,938					
Gross Office Value	$6,980,006					
Total Gross Value	$30,582,224					
Less Commissions on Strata	$450,908					
Less Commissions on Commercial	$311,039					
Net Sales Revenue/Value	$29,820,277					
Project Costs						
Upfront Compensation to Existing Tenants	$0					
Tenant Relocation	$0					
Allowance for Demolition of Existing Buildings	$325,900					
Allowance for Remediation	$0					
Site Preparation/Fill	$0					
On and Off-Site Servicing	$213,415					
Density Bonus Contribution	$73,474					
Rezoning Costs	$0					
Hard Construction Costs	$15,995,888					
Site Landscaping	$0					
Public Art Contribution	$0					
Soft costs and Professional Fees	$1,328,694					
Development management	$538,121					
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	$923,775					
Marketing on Strata Units	$300,606					
Leasing Commissions on Commercial Space	$119,395					
Tenant Improvement Allowance on Retail Space	$0					
Tenant Improvement Allowance on Office Space	$0					
GVS & DD Sewer Levy - Strata Apartment	$91,780					
GVS & DD Sewer Levy - Commercial	$65,392					
TransLink - Strata Apartment Residential	$31,200					
TransLink - Commercial	$30,614					
Market Strata Apartment DCCs	$416,382					
Retail DCCs	$87,599					
Office DCCs	$87,599					
School Site Acquisition Charge	$0					
Less property tax allowance during approvals/development	$148,541					
Less School Tax Surcharge During Development	$142,844					
Interim financing on construction costs	$486,993					
Financing fees/costs	$200,702					
Less Net GST (assuming builder holds units)	$0					
Total Project Costs Before Land	$21,608,913	which works out to	$441	psf of gross floor area		
Developer's Profit	**$3,987,922**					
Residual to Land and Land Carry	**$4,223,441**					
Less financing on land during construction and approvals	$164,450					
Less financing fee on land loan	$22,832					
Less property closing costs	$117,218					
Residual Land Value	**$3,918,942**					
Residual Value per sq.ft. of site	**$84**					
Residual Value per sq.ft. of FSR	**$80**					
Residual Value per sq.ft. of gross buildable floorspace	**$80**					

Attachment 3c

Attachment 3c
Case Study #3: Site in Burquitlam
Estimated Residual Land Value based on Rezoning to C-7 Transit Village at 4.5 FSR (strata) (rezoning only; no rapid transit premium)

Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)

Site Size	46,650	sq.ft.					
	200	feet of frontage					
Existing Base Density	1.05	FSR					
Increased Density 1	1.45	FSR					
Increased Density 2	2.00	FSR					
Density with Bonuses	4.50	FSR					
Assumed Commercial Density	0.25	FSR					
Residential Density Before Exclusions	4.25	FSR					
Enclosed Balconies	0.00		0%	of residential			
Storage	0.00		0.0	sf per unit			
Effective Residential Density After Bonuses and Exclusions	4.25	FSR					
Total Effective Gross Density After Bonuses and Exclusions	4.50	FSR					
Total Gross Floorspace	209,925	sf					

Concept	Gross SF	Efficiency	Net Saleable or Rentable	Avg Unit Size	Number of Units	Parking Stalls per Unit or 1000 sf	Parking Stalls
Strata Residential	198,263	85%	168,523	802	210	1.1	231
Retail	11,663	100%	11,663	n/a	n/a		19
Office	0	95%	0	n/a	n/a		0
Total	209,925		180,186		210		250

Revenue/Value							
Strata Residential	$855	per net square foot					
Retail*	$700	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	$325,900	or	$20	per sq. ft. of existing building			
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
On and Off-Site Servicing	$213,415		$3,500	per lineal metre of frontage			
Density Bonus Contribution 1	$0	psf of bonus density					
Density Bonus Contribution 2	$0	psf of bonus density					
Rezoning Costs	$350,000						
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$310	per gross sq.ft. of residential area					
Retail Area (shell space - no TI)	$250	per gross sq.ft. of retail area					
Office Area (shell space - no TI)	$250	per gross sq.ft. of commercial area					
Cost Per Garage/Underground Parking Stall	$65,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$384	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$384						
Hard Cost Used in Analysis	$384						
Site Landscaping	$0	or	$0	psf of site area on 50% of site			
Public Art Contribution	$0.00	per sq. ft.					
Soft costs and Professional Fees	8.0%	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					
Government Levies							
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit					
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space					
TransLink - Strata Apartment Residential	$1,200	per market unit					
TransLink - Commercial	$1.25	per sq.ft. of commercial space					
Market Strata Apartment DCCs	$17.00	per sq.ft. of floorspace					
Retail DCCs	$7.15	per sq.ft. of floorspace					
Office DCCs	$7.15	per sq.ft. of floorspace					
School Site Acquisition Charge	$0	per unit					

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Attachment 3c – continued

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	1.25%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	of gross strata market residential revenue					
Commissions on Sale of Commercial	2.0%	of gross commercial value					
Leasing Commissions on Commercial Space	$5.00	per sq.ft.					
Tenant Improvement Allowance on Retail Space	$0.00	per sq.ft.					
Tenant Improvement Allowance on Office Space	$0.00	per sq.ft.					
Other Costs and Allowances							
Property Taxes	0.339%	of assessed value					
Assumed current assessment (Year 1 of analysis)	$26,638,200						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$76,125,511	(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	0.4%	over $4.0 million			
Residential Portion of current assessment (Year 1 of analysis)	$26,638,200						
Assumed residential portion of assessment after 1 year of construction	$72,043,636	(50% of completed residential project value)					
*Assumes BC Owner							
***Retail Value Assumptions**							
Lease Rate NNN	$35.00	psf per year					
Vacancy and Non Recoverable Allowance	5.00%						
Capitalization Rate	4.75%						
Capitalized Value per 1000 SF Gross							
Rental Rev	$408,188						
Vacancy	$20,409						
NOI	$387,778						
Capitalized Value	$8,163,750						
Value psf of net leasable space	$700.00	psf					

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Attachment 3c – continued

Analysis						
Revenue						
Strata Sales Revenue	$144,087,272					
Gross Retail Value	$8,163,750					
Gross Office Value	$0					
Total Gross Value	$152,251,022					
Less Commissions on Strata	$4,322,618					
Less Commissions on Commercial	$163,275					
Net Sales Revenue/Value	$147,765,129					
Project Costs						
Upfront Compensation to Existing Tenants	$0					
Tenant Relocation	$0					
Allowance for Demolition of Existing Buildings	$325,900					
Allowance for Remediation	$0					
Site Preparation/Fill	$0					
On and Off-Site Servicing	$213,415					
Density Bonus Contribution	$0					
Rezoning Costs	$350,000					
Hard Construction Costs	$80,627,000					
Site Landscaping	$0					
Public Art Contribution	$0					
Soft costs and Professional Fees	$6,521,305					
Development management	$2,641,129					
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	$4,533,937					
Marketing on Strata Units	$2,881,745					
Leasing Commissions on Commercial Space	$58,313					
Tenant Improvement Allowance on Retail Space	$0					
Tenant Improvement Allowance on Office Space	$0					
GVS & DD Sewer Levy - Strata Apartment	$741,300					
GVS & DD Sewer Levy - Commercial	$31,139					
TransLink - Strata Apartment Residential	$252,000					
TransLink - Rental Residential	$0					
TransLink - Commercial	$14,578					
Market Strata Apartment DCCs	$3,370,710					
Retail DCCs	$83,428					
Office DCCs	$0					
School Site Acquisition Charge	$0					
Less property tax allowance during approvals/development	$523,000					
Less School Tax Surcharge During Development	$550,091					
Interim financing on construction costs	$4,836,042					
Financing fees/costs	$1,017,703					
Less Net GST (assuming builder holds units)	$0					
Total Project Costs Before Land	$109,572,736	which works out to	$522	psf of gross floor area		
Developer's Profit	**$19,853,533**					
Residual to Land and Land Carry	**$18,338,859**					
Less financing on land during construction and approvals	$1,224,119					
Less financing fee on land loan	$96,270					
Less property closing costs	$733,877					
Residual Land Value	**$16,284,593**					
Residual Value per sq.ft. of site	**$349**					
Residual Value per sq.ft. of FSR	**$78**					
Residual Value per sq.ft. of gross buildable floorspace	**$78**					

Attachment 3d

Attachment 3d							
Case Study #3: Site in Burquitlam							
Estimated Residual Land Value based on Rezoning to C-7 Transit Village at 4.5 FSR (strata) (rezoning only; with rapid transit premium)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site Size	46,650	sq.ft.					
	200	feet of frontage					
Existing Base Density	1.05	FSR					
Increased Density 1	1.45	FSR					
Increased Density 2	2.00	FSR					
Density with Bonuses	4.50	FSR					
Assumed Commercial Density	0.25	FSR					
Residential Density Before Exclusions	4.25	FSR					
Enclosed Balconies	0.00		0%	of residential			
Storage	0.00		0.0	sf per unit			
Effective Residential Density After Bonuses and Exclusions	4.25	FSR					
Total Effective Gross Density After Bonuses and Exclusions	4.50	FSR					
Total Gross Floorspace	209,925	sf					
Concept	**Gross SF**	**Efficiency**	**Net Saleable or Rentable**	**Avg Unit Size**	**Number of Units**	**Parking Stalls per Unit or 1000 sf**	**Parking Stalls**
Strata Residential	198,263	85%	168,523	802	210	1.1	231
Retail	11,663	100%	11,663	n/a	n/a		19
Office	0	95%	0	n/a	n/a		0
Total	209,925		180,186		210		250
Revenue/Value							
Strata Residential	$900	per net square foot					
Retail*	$700	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	$325,900	or	$20	per sq. ft. of existing building			
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
On and Off-Site Servicing	$213,415		$3,500	per lineal metre of frontage			
Density Bonus Contribution 1	$0	psf of bonus density					
Density Bonus Contribution 2	$0	psf of bonus density					
Rezoning Costs	$350,000						
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$310	per gross sq.ft. of residential area					
Retail Area (shell space - no TI)	$250	per gross sq.ft. of retail area					
Office Area (shell space - no TI)	$250	per gross sq.ft. of commercial area					
Cost Per Garage/Underground Parking Stall	$65,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$384	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$384						
Hard Cost Used in Analysis	$384						
Site Landscaping	$0	or	$0	psf of site area on 50% of site			
Public Art Contribution	$0.00	per sq. ft.					
Soft costs and Professional Fees	8.0%	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					
Government Levies							
GVS & DD Sewer Levy - Strata Apartment	$3,530	per apartment unit					
GVS & DD Sewer Levy - Commercial	$2.67	per sq.ft. of commercial space					
TransLink - Strata Apartment Residential	$1,200	per market unit					
TransLink - Commercial	$1.25	per sq.ft. of commercial space					
Market Strata Apartment DCCs	$17.00	per sq.ft. of floorspace					
Retail DCCs	$7.15	per sq.ft. of floorspace					
Office DCCs	$7.15	per sq.ft. of floorspace					
School Site Acquisition Charge	$0	per unit					

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Attachment 3d – continued

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	1.25%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	of gross strata market residential revenue					
Commissions on Sale of Commercial	2.0%	of gross commercial value					
Leasing Commissions on Commercial Space	$5.00	per sq.ft.					
Tenant Improvement Allowance on Retail Space	$0.00	per sq.ft.					
Tenant Improvement Allowance on Office Space	$0.00	per sq.ft.					
Other Costs and Allowances							
Property Taxes	0.339%	of assessed value					
Assumed current assessment (Year 1 of analysis)	$26,638,200						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$79,917,281	(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	0.4%	over $4.0 million			
Residential Portion of current assessment (Year 1 of analysis)	$26,638,200						
Assumed residential portion of assessment after 1 year of construction	$75,835,406	(50% of completed residential project value)					
*Assumes BC Owner							
***Retail Value Assumptions**							
Lease Rate NNN	$35.00	psf per year					
Vacancy and Non Recoverable Allowance	5.00%						
Capitalization Rate	4.75%						
Capitalized Value per 1000 SF Gross							
Rental Rev	$408,188						
Vacancy	$20,409						
NOI	$387,778						
Capitalized Value	$8,163,750						
Value psf of net leasable space	$700.00	psf					

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Attachment 3d – continued

Analysis						
Revenue						
Strata Sales Revenue	$151,670,813					
Gross Retail Value	$8,163,750					
Gross Office Value	$0					
Total Gross Value	$159,834,563					
Less Commissions on Strata	$4,550,124					
Less Commissions on Commercial	$163,275					
Net Sales Revenue/Value	$155,121,163					
Project Costs						
Upfront Compensation to Existing Tenants	$0					
Tenant Relocation	$0					
Allowance for Demolition of Existing Buildings	$325,900					
Allowance for Remediation	$0					
Site Preparation/Fill	$0					
On and Off-Site Servicing	$213,415					
Density Bonus Contribution	$0					
Rezoning Costs	$350,000					
Hard Construction Costs	$80,627,000					
Site Landscaping	$0					
Public Art Contribution	$0					
Soft costs and Professional Fees	$6,521,305					
Development management	$2,641,129					
Fees, legal and survey for rental portion	$0					
Contingency on hard and soft costs	$4,533,937					
Marketing on Strata Units	$3,033,416					
Leasing Commissions on Commercial Space	$58,313					
Tenant Improvement Allowance on Retail Space	$0					
Tenant Improvement Allowance on Office Space	$0					
GVS & DD Sewer Levy - Strata Apartment	$741,300					
GVS & DD Sewer Levy - Commercial	$31,139					
TransLink - Strata Apartment Residential	$252,000					
TransLink - Rental Residential	$0					
TransLink - Commercial	$14,578					
Market Strata Apartment DCCs	$3,370,710					
Retail DCCs	$83,428					
Office DCCs	$0					
School Site Acquisition Charge	$0					
Less property tax allowance during approvals/development	$542,298					
Less School Tax Surcharge During Development	$572,842					
Interim financing on construction costs	$4,844,056					
Financing fees/costs	$1,019,595					
Less Net GST (assuming builder holds units)	$0					
Total Project Costs Before Land	$109,776,361	which works out to	$523	psf of gross floor area		
Developer's Profit	**$20,842,427**					
Residual to Land and Land Carry	**$24,502,376**					
Less financing on land during construction and approvals	$1,635,534					
Less financing fee on land loan	$128,626					
Less property closing costs	$1,005,565					
Residual Land Value	**$21,732,651**					
Residual Value per sq.ft. of site	**$466**					
Residual Value per sq.ft. of FSR	**$104**					
Residual Value per sq.ft. of gross buildable floorspace	**$104**					

Attachment 4a

Attachment 4a					
Case Study #4: Site in Fleetwood					
Estimated Existing Value based on Income Potential					
Major Assumptions					
Site and Building Size					
Site Size	37,034	sq.ft. or	521	by	71
Assumed Density	0.194	FAR			
Total Commercial Space	7,200	sq.ft.			
Office	0	sq.ft. with	90%	rentable	
Retail	7,200	sq.ft. with	100%	rentable	
Revenue and Value					
Average Lease Rate for Office Space	$0.00	per sq.ft. net, base building with no TI			
Average Lease Rate for Retail Space	$22.50	per sq.ft. net, base building			
Capitalization Rate	5.00%				
Value of Office Space Upon Lease-up	$0.00				
Value of Retail and Service Space Upon Lease-up	$450	per sq.ft. of leasable area			
Vacancy and non recoverables	5.00%				
Estimated Overall Value					
Capitalized Value of Office Space	$0				
Capitalized Value of Retail/Service Space	$3,078,000				
Total Value of Commercial	**$3,078,000**				

Attachment 4b

Attachment 4b								
Case Study #4: Site in Fleetwood								
Estimated Residual Land Value based on Existing CHI Zoning at 1.0 FSR (retail plus limited office uses)								
Assumptions								
Site and Building Size Assumptions:								
Assumed Site Size	37,034	or	0.85	acre				
FAR	1.00							
Project Size	37,034							
Retail Area	11,110	sq. ft.						
Office Area	25,924	sq. ft.						
Rentable Area (Retail)	11,110	sq. ft. or	100%	of gross area				
Rentable Area (Office)	23,331	sq. ft. or	90%	of gross area				
Common Area (Shared)	7,407	sq. ft. or	20%	of gross area				
Parking (Retail)	3	stall per	100	square metres of gross area				
Parking (Office)	1.4	stall per	100	square metres of gross area				
Total Stalls	61							
Underground/structured Parking Stalls	0							
Surface Parking Stalls	61							
Revenue and Value Assumptions:								
Average Net Lease Rate (Retail)	$30.00	per sq.ft. of rentable area						
Average Net Lease Rate (Office)	$27.50	per sq.ft. of rentable area						
Operating Costs (Retail)	$15.00	per sq.ft. of rentable area						
Operating Costs (Office)	$10.00	per sq.ft. of rentable area						
Annual Vacancy Allowance	2.0%							
Property Management	0.0%	of lease revenue (included in operating costs)						
Structural Allowance	0.0%	of lease revenue						
Assumed Net Parking Revenue	$75	per stall per month						
Capitalization Rate	5.00%							
Profit Allowance	13.0%	of value or	15.0%	of costs				
Cost Assumptions:								
Demolition Allowance	$72,000							
Site Servicing (sidewalks, landscaping, etc)	$555,415							
Allowance for piling, stabilization	$0	per gross sq.ft.						
Building Construction Costs (to base building retail)	$250	per sq.ft.						
Building Construction Costs (to base building office)	$250	per sq.ft.						
Parking Construction Costs	$0	per stall (assuming underground)						
Parking Construction Costs	$7,500	per stall (assuming at grade)						
Base Building Hard Construction Costs	$262	per sq.ft. buildable (including parking)						
Allowance to Finish Common Areas	$50	per sq.ft. of common area						
Fit-up Allowance Retail	$25	per rentable square foot						
Fit-up Allowance Office	$50	per rentable square foot						
Soft Costs (including project management)	12%	of hard costs						
Contingency	5.0%	of hard and soft costs						
City-Wide DCC	$10.92	per sq. ft. floorspace						
City-Centre DCC	$0.00	per sq. ft. floorspace						
Metro Vancouver DCC	$2.67	per sq. ft. of floorspace						
Interim Financing	5.0%	on 50% of all costs assuming a			1.00	year construction period		
Share of Construction Costs Financed	75.0%							
Share of Land Costs Financed	75.0%							
Property Taxes During Development	1.02%	applied to land value in Year 1			$4,119,200			
		applied to 50% of gross value of building in Year 2, which is:					$9,926,276	
Upfront Leasing Commissions	17%	of Year 1 revenue						
Marketing	$50,000							
Lease-up period after construction complete	6	months, or		0.5	years			
Assumed up-front vacancy cost during lease-up	$42.50	per sq.ft. (i.e. lease revenue+operating costs) on				25%	of space during lease-up	
Sales Commission	2%							

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Attachment 4b – continued

Analysis								
Revenue								
Lease Revenue	$955,422							
Recovered Operating Costs	$417,373							
Parking Income	$19,800							
Total Gross Revenue	$1,392,595							
Less Operating Costs	$399,967							
Less Management	$0							
Less Structural	$0							
Net Operating Income	$992,628							
Capitalized Value	$19,852,553							
Less Commission	$397,051							
Net Proceeds	$19,455,502							
Total Value per sq.ft. buildable	**$525**							
Costs								
Demolition Allowance	$72,000							
Site Servicing	$555,415							
Allowance for piling, stabilization	$0							
Hard Construction (including parking)	$9,702,908							
Allowance to Finish Common Areas	$370,340							
Fit-up Allowance Retail	$277,755							
Fit-up Allowance Office	$1,166,571							
Upfront Leasing Commissions	$162,422							
Marketing	$50,000							
Upfront Vacancy Cost during Lease-up	$196,743							
Soft Costs (including project management)	$1,164,349							
Contingency	$543,363							
City-Wide DCC	$404,411							
City-Centre DCC	$0							
Metro Vancouver DCC	$98,881							
Property Taxes during Development	$63,097							
Interim Financing	$278,030							
Total Costs Before Land and Profit	$15,106,284	which works out to		**$408**	per sq.ft. buildable			
Developer's Profit	$2,588,773							
Residual to Land and Land Carry								
Land Residual Before Holding Costs	$1,760,445							
Less interim financing on land	$89,123							
Less property transfer tax	$1,566							
Residual Land Value	$1,669,756	or	$1,963,994	per acre				
Residual Value per sq.ft. of site	**$45**							
Residual Value per sq.ft. of FSR	**$45**							
Residual Value per sq.ft. of gross buildable floorspace	**$45**							

Attachment 4c

Attachment 4c							
Case Study #4: Site in Fleetwood							
Estimated Residual Land Value based on Rezoning to 4.0 FSR (strata) (rezoning only; no rapid transit premium)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site and Building Size							
Gross Parcel Size	37,034	sq.ft.	0.85	acre			
Dedications	0	sq.ft.					
Site Size	37,034	sq.ft. or					
Site Frontage	521	ft					
Base Density	2.5	FAR					
Bonus Density	1.5	FAR					
Exclusions	0.0	FAR					
Total Density	4.0	FAR					
Total Gross floorspace	148,136	sq.ft.					
Gross residential floorspace	137,026	sq.ft.					
Gross commercial floorspace	11,110	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**
Strata Residential	125,916	83.0%	104,510	800	131	1.5	197
Rental	0	85%	0	565	0	1.5	0
Retail	11,110	100%	11,110	n/a	n/a	3.00	31
Office	0	95%	0	n/a	n/a	0.0	0
Total	137,026		115,620		131		228
Revenue/Value							
Strata Residential	$760	per net square foot					
Rental	$0	per net square foot (see separate calculations)					
Retail*	$686	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	$72,000						
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
Standard Site Servicing	$555,415		$3,500	per lineal metre of frontage			
Amenity Contributions on Base Density							
Community Amenity Contribution Residential	$1,458	per unit on average					
Affordable Housing Contribution	$1,000	per strata unit					
Public Art Contribution (Allowance)	$1.95	psf of gross building					
Undergrounding Utilities	$0.00	psf of gross building					
Community Amenity Contribution Non-Residential	$0.00	psf of site area					
Amenity Contributions on Bonus Density							
Community Amenity Contribution Residential	$0	per unit on average					
Affordable Housing Contribution	$0	per strata unit					
Public Art Contribution (Allowance)	$0.00	psf of gross building					
Undergrounding Utilities	$0.00	psf of gross building					
Community Amenity Contribution Non-Residential	$0.00	psf of site area					
Rezoning Costs	$350,000						
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$310	per gross sq.ft. of residential area					
Rental 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	$45,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$380.01	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$380						
Hard Cost Used in Analysis	$380						
Site Landscaping	$185,170	or	$10	psf of site area on 50% of site			
Electrical Charging Station	$0		-	stations	$0	per station	
Other	$0						
Soft costs and Professional Fees	8.0%	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					

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Attachment 4c – continued

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	$21.38	per sq.ft. of floorspace					
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace					
Rental Residential DCCs	$21.38	per sq.ft. of floorspace					
Retail DCCs	$10.92	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	2.25	year construction period			
Financing charged on	75%	of land and	75%	of construction costs			
Financing fees	1.25%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	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 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 Rental Units	3.20%	of capitalized value of rental units					
Property Taxes	0.326%	of assessed value					
Assumed current assessment (Year 1 of analysis)	$4,119,200						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$43,407,922	(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	0.4%	over $4.0 million			
Residential Portion of current assessment (Year 1 of analysis)	$4,119,200						
Assumed residential portion of assessment after 1 year of construction	$39,713,780	(50% of completed residential project value)					
*Assumes BC Owner							
***Retail Value Assumptions**							
Lease Rate NNN	$35.00	psf per year					
Vacancy and Non Recoverable Allowance	5.00%						
Capitalization Rate	5.00%						
Capitalized Value per 1000 SF Gross							
Rental Rev	$35,000						
Vacancy	$1,750						
NOI	$33,250						
Capitalized Value	$665,000						
Value psf of net leasable space	$665	psf					

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Attachment 4c – continued

Analysis					
Revenue					
Strata Sales Revenue	$79,427,560				
Rental Value	$0				
Gross Retail Value	$7,388,283				
Gross Office Value	$0				
Total Gross Value	$86,815,843				
Less Commissions on Strata	$2,382,827				
Less Commissions on Rental	$0				
Less Commissions on Commercial	$147,766				
Net Sales Revenue/Value	$84,285,251				
Project Costs					
Upfront Compensation to Existing Tenants	$0				
Tenant Relocation	$0				
Allowance for Demolition of Existing Buildings	$72,000				
Allowance for Remediation	$0				
Site Preparation/Fill	$0				
Standard Site Servicing	$555,415				
Electrical Charging Station	$0				
Amenity Contributions on Base Density					
Community Amenity Contribution Residential	$119,371				
Affordable Housing Contribution	$81,875				
Public Art Contribution (Allowance)	$180,546				
Undergrounding Utilities	$0				
Community Amenity Contribution Non-Residential	$0				
Amenity Contributions on Bonus Density					
Community Amenity Contribution Residential	$0				
Affordable Housing Contribution	$0				
Public Art Contribution (Allowance)	$0				
Undergrounding Utilities	$0				
Community Amenity Contribution Non-Residential	$0				
Rezoning Costs	$350,000				
Hard Construction Costs	$52,071,386				
Site Landscaping	$185,170				
Electrical Charging Station	$0				
Other	$0				
Soft costs and Professional Fees	$4,283,501				
Development management	$1,734,818				
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	$2,962,615				
Marketing on Strata Units	$1,588,551				
Initial Lease Up Costs on Rental Units	$0				
Leasing Commissions on Commercial Space	$55,551				
Tenant Improvement Allowance on Retail Space	$277,755				
Tenant Improvement Allowance on Office Space	$0				
GVS & DD Sewer Levy - Strata Apartment	$462,430				
GVS & DD Sewer Levy - Townhouse	$0				
GVS & DD Sewer Levy - Rental Residential	$0				
GVS & DD Sewer Levy - Commercial	$29,664				
TransLink - Strata Apartment Residential	$157,200				
TransLink - Townhouse	$0				
TransLink - Rental Residential	$0				
TransLink - Commercial	$13,888				
Market Strata Apartment DCCs	$2,692,076				
Market Townhouse DCCs	$0				
Rental Residential DCCs	$0				
Retail DCCs	$121,323				
Office DCCs	$0				
School Site Acquisition Charge	$78,600				
Less property tax allowance during approvals/development	$197,261				
Less School Tax Surcharge During Development	$184,784				
Interim financing on construction costs	$2,887,978				
Financing fees/costs	$668,848				
Less Net GST (assuming builder holds units)	$0				
Total Project Costs Before Land	$72,012,606	which works out to	$486	per sq.ft.	
Developer's Profit	**$11,320,786**				
Residual to Land and Land Carry	**$951,859**				
Less financing on land during construction and approvals	$87,363				
Less financing fee on land loan	$7,294				
Less property closing costs	-$33,783				
Residual Land Value	**$890,985**				
Residual Value per sq.ft. of site	**$24**				
Residual Value per sq.ft. of FSR	**$6**				
Residual Value per sq.ft. of gross buildable floorspace	**$6**				

Attachment 4d

Attachment 4d							
Case Study #4: Site in Fleetwood							
Estimated Residual Land Value based on Rezoning to 4.0 FSR (strata) (rezoning only; with rapid transit premium)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site and Building Size							
Gross Parcel Size	37,034	sq.ft.	0.85	acre			
Dedications	0	sq.ft.					
Site Size	37,034	sq.ft. or					
Site Frontage	521	ft					
Base Density	2.5	FAR					
Bonus Density	1.5	FAR					
Exclusions	0.0	FAR					
Total Density	4.0	FAR					
Total Gross floorspace	148,136	sq.ft.					
Gross residential floorspace	137,026	sq.ft.					
Gross commercial floorspace	11,110	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**
Strata Residential	125,916	83.0%	104,510	800	131	1.5	197
Rental	0	85%	0	565	0	1.5	0
Retail	11,110	100%	11,110	n/a	n/a	3.00	31
Office	0	95%	0	n/a	n/a	0.0	0
Total	137,026		115,620		131		228
Revenue/Value							
Strata Residential	$800	per net square foot					
Rental	$0	per net square foot (see separate calculations)					
Retail	$686	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	$72,000						
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
Standard Site Servicing	$555,415		$3,500	per lineal metre of frontage			
Amenity Contributions on Base Density							
Community Amenity Contribution Residential	$1,458	per unit on average					
Affordable Housing Contribution	$1,000	per strata unit					
Public Art Contribution (Allowance)	$1.95	psf of gross building					
Undergrounding Utilities	$0.00	psf of gross building					
Community Amenity Contribution Non-Residential	$0.00	psf of site area					
Amenity Contributions on Bonus Density							
Community Amenity Contribution Residential	$0	per unit on average					
Affordable Housing Contribution	$0	per strata unit					
Public Art Contribution (Allowance)	$0.00	psf of gross building					
Undergrounding Utilities	$0.00	psf of gross building					
Community Amenity Contribution Non-Residential	$0.00	psf of site area					
Rezoning Costs	$350,000						
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$310	per gross sq.ft. of residential area					
Rental 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	$45,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$380.01	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$380						
Hard Cost Used in Analysis	$380						
Site Landscaping	$185,170	or	$10	psf of site area on 50% of site			
Electrical Charging Station	$0		-	stations	$0	per station	
Other	$0						
Soft costs and Professional Fees	8.0%	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					

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Attachment 4d – continued

Financing							
Interim financing	5.0%	assuming a	2.25	year construction period			
Financing charged on	75%	of land and	75%	of construction costs			
Financing fees	1.25%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	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 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 Rental Units	3.20%	of capitalized value of rental units					
Property Taxes	0.326%	of assessed value					
Assumed current assessment (Year 1 of analysis)	$4,119,200						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$45,498,121	(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)	$4,119,200						
Assumed residential portion of assessment after 1 year of construction	$41,803,979	(50% of completed residential project value)					
*Assumes BC Owner							
***Retail Value Assumptions**							
Lease Rate NNN	$35.00	psf per year					
Vacancy and Non Recoverable Allowance	5.00%						
Capitalization Rate	5.00%						
Capitalized Value per 1000 SF Gross							
Rental Rev	$35,000						
Vacancy	$1,750						
NOI	$33,250						
Capitalized Value	$665,000						
Value psf of net leasable space	$665	psf					

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Attachment 4d – continued

Analysis					
Revenue					
Strata Sales Revenue	$83,607,958				
Rental Value	$0				
Gross Retail Value	$7,388,283				
Gross Office Value	$0				
Total Gross Value	$90,996,241				
Less Commissions on Strata	$2,508,239				
Less Commissions on Rental	$0				
Less Commissions on Commercial	$147,766				
Net Sales Revenue/Value	$88,340,237				
Project Costs					
Upfront Compensation to Existing Tenants	$0				
Tenant Relocation	$0				
Allowance for Demolition of Existing Buildings	$72,000				
Allowance for Remediation	$0				
Site Preparation/Fill	$0				
Standard Site Servicing	$555,415				
Electrical Charging Station	$0				
Amenity Contributions on Base Density					
Community Amenity Contribution Residential	$119,371				
Affordable Housing Contribution	$81,875				
Public Art Contribution (Allowance)	$180,546				
Undergrounding Utilities	$0				
Community Amenity Contribution Non-Residential	$0				
Amenity Contributions on Bonus Density					
Community Amenity Contribution Residential	$0				
Affordable Housing Contribution	$0				
Public Art Contribution (Allowance)	$0				
Undergrounding Utilities	$0				
Community Amenity Contribution Non-Residential	$0				
Rezoning Costs	$350,000				
Hard Construction Costs	$52,071,386				
Site Landscaping	$185,170				
Electrical Charging Station	$0				
Other	$0				
Soft costs and Professional Fees	$4,283,501				
Development management	$1,734,818				
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	$2,962,615				
Marketing on Strata Units	$1,672,159				
Initial Lease Up Costs on Rental Units	$0				
Leasing Commissions on Commercial Space	$55,551				
Tenant Improvement Allowance on Retail Space	$277,755				
Tenant Improvement Allowance on Office Space	$0				
GVS & DD Sewer Levy - Strata Apartment	$462,430				
GVS & DD Sewer Levy - Townhouse	$0				
GVS & DD Sewer Levy - Rental Residential	$0				
GVS & DD Sewer Levy - Commercial	$29,664				
TransLink - Strata Apartment Residential	$157,200				
TransLink - Townhouse	$0				
TransLink - Rental Residential	$0				
TransLink - Commercial	$13,888				
Market Strata Apartment DCCs	$2,692,076				
Market Townhouse DCCs	$0				
Rental Residential DCCs	$0				
Retail DCCs	$121,323				
Office DCCs	$0				
School Site Acquisition Charge	$78,600				
Less property tax allowance during approvals/development	$205,789				
Less School Tax Surcharge During Development	$195,235				
Interim financing on construction costs	$2,892,306				
Financing fees/costs	$669,850				
Less Net GST (assuming builder holds units)	$0				
Total Project Costs Before Land	$72,120,523	which works out to	$487	per sq.ft.	
Developer's Profit	**$11,865,910**				
Residual to Land and Land Carry	**$4,353,804**				
Less financing on land during construction and approvals	$399,598				
Less financing fee on land loan	$33,364				
Less property closing costs	$111,740				
Residual Land Value	**$3,809,103**				
Residual Value per sq.ft. of site	**$103**				
Residual Value per sq.ft. of FSR	**$26**				
Residual Value per sq.ft. of gross buildable floorspace	**$26**				

Attachment 5a

Attachment 5a

Case Study #5: Site in Lynn Creek

Estimated Existing Value based on Existing Single Family Lot Values

Existing Use	Existing Zoning	Total Size	Estimated Value Per Sq. Ft.	Total Estimated Value	Assembly Premium	Total Value
SFD	RS4	12,400	$ 140	$ 1,740,000	20%	$ 2,088,000
SFD	RS4	7,480	$ 180	$ 1,350,000	20%	$ 1,620,000
SFD	RS4	7,060	$ 180	$ 1,270,000	20%	$ 1,524,000
SFD	RS4	4,200	$ 260	$ 1,090,000	20%	$ 1,308,000
		31,140		**$ 5,450,000**		**$ 6,540,000**

Attachment 5b

Attachment 5b							
Case Study #5: Site in Lynn Creek Town Centre							
Estimated Residual Land Value based on Rezoning to 2.5 FSR OCP Density (strata) (rezoning only; no rapid transit premium)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site and Building Size							
Site size	31,146	sq.ft. or	0.72	acre			
Base Density - Existing Zoning	0.45	FSR (Deemed Density)					
Bonus Density to OCP	2.05	FSR					
FSR Exclusions	0.00	FSR (lock off units, amenity space, etc)					
Total Density	2.50	FSR					
Total Gross floorspace	77,865	sq.ft.					
Gross residential floorspace	77,865	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**
Strata Residential	77,865	85%	66,185	800	83	1.20	100
Retail	0	100%	0	n/a	n/a	1.9	0
Office	0	95%	0	n/a	n/a	1.9	0
Total	77,865		66,185	2,683	83		100
Revenue/Value							
Strata Residential (woodframe)	$800	per net square foot					
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	$0						
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
Site Servicing	$289,291	or	$2,500	per lineal metre of frontage			
Density Bonus Contribution	$0.00	psf of bonus density from base to OCP					
Rezoning Costs	$200,000	excluded from analysis					
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$230	per gross sq.ft. of residential area					
Retail Area (shell space - no TI)	$250	per gross sq.ft. of retail area					
Office Area (shell space - no TI)	$250	per gross sq.ft. of commercial area					
Cost Per Underground Parking Stall	$55,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$301	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$301						
Hard Cost Used in Analysis	$301						
Landscaping	$311,460	or	$20	psf of site area on 50% of site			
Other	$0						
Soft costs and Professional Fees	8.0%	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					
Government Levies							
GVRD Sewer Levy - Strata Residential	$1,416	per market unit					
GVRD Sewer Levy - Commercial	$1.20	per sq.ft. of commercial space					
TransLink - Strata Residential	$1,200	per market unit					
TransLink - Commercial	$1.25	per sq.ft. of commercial space					
Market Strata Residential DCCs	$14.38	per sq.ft. of floorspace					
Retail DCCs	$11.32	per sq.ft. of floorspace					
Office DCCs	$11.32	per sq.ft. of floorspace					
School Site Acquisition Charge	$0.00	per unit					

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Attachment 5b – continued

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	1.0%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	of gross strata market residential revenue					
Commissions on Sale of Commercial	2.0%	of gross commercial value					
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							
Property Taxes	2.9269%	of assessed value					
Additional School Tax	0.4000%	of assessed value over $4 million + 0.2% between $3 and $4 million					
Assumed current assessment (Year 1 of analysis)	$0						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$26,474,100	(50% of completed project value)					
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value			

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Attachment 5b – continued

Analysis	
Revenue	
Strata Sales Revenue	$52,948,200
Gross Retail Value	$0
Gross Office Value	$0
Total Gross Value	$52,948,200
Less Commissions on Strata	$1,588,446
Less Commissions on Commercial	$0
Net Sales Revenue/Value	$51,359,754
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$0
Allowance for Remediation	$0
Site Preparation/Fill	$0
Site Servicing	$289,291
Density Bonus Contribution	$0
Rezoning Costs	$200,000
Hard Construction Costs	$23,408,950
Landscaping	$311,460
Other	$0
Soft costs and Professional Fees	$1,936,776
Development management	$784,394
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$1,346,544
Marketing on Strata Units	$1,058,964
Leasing Commissions on Commercial Space	$0
Tenant Improvement Allowance on Retail Space	$0
Tenant Improvement Allowance on Office Space	$0
GVRD Sewer Levy - Strata Residential	$117,528
GVRD Sewer Levy - Commercial	$0
TransLink - Strata Residential	$99,600
TransLink - Commercial	$0
Market Strata Residential DCCs	$1,119,445
Retail DCCs	$0
Office DCCs	$0
School Site Acquisition Charge	$0
Less property tax allowance during approvals/development	$581,153
Less school tax allowance during approvals/development	$47,922
Interim financing on construction costs	$1,027,098
Financing fees/costs	$242,468
Less Net GST (assuming builder holds units)	$0
Total Project Costs Before Land	$32,571,593
Developer's Profit	$6,904,445
Residual to Land and Land Carry	**$11,883,715**
Less financing on land during construction and approvals	$594,929
Less financing fee on land loan	$50,800
Less property purchase tax	$459,304
Residual Land Value	**$10,778,683**
Residual Value per sq.ft. of site	**$346**
Residual Value per sq.ft. of FSR	**$138**
Residual Value per sq.ft. of gross buildable floorspace	**$138**

Attachment 5c

Attachment 5c							
Case Study #5: Site in Lynn Creek Town Centre							
Estimated Residual Land Value based on Rezoning to 2.5 FSR OCP Density (strata) (rezoning only; with Bus Rapid Transit premium)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site and Building Size							
Site size	31,146	sq.ft. or	0.72	acre			
Base Density - Existing Zoning	0.45	FSR (Deemed Density)					
Bonus Density to OCP	2.05	FSR					
FSR Exclusions	0.00	FSR (lock off units, amenity space, etc)					
Total Density	2.50	FSR					
Total Gross floorspace	77,865	sq.ft.					
Gross residential floorspace	77,865	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**
Strata Residential	77,865	85%	66,185	800	83	1.20	100
Retail	0	100%	0	n/a	n/a	1.9	0
Office	0	95%	0	n/a	n/a	1.9	0
Total	77,865		66,185	2,683	83		100
Revenue/Value							
Strata Residential (woodframe)	$808	per net square foot					
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	$0						
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
Site Servicing	$289,291	or	$2,500	per lineal metre of frontage			
Density Bonus Contribution	$0.00	psf of bonus density from base to OCP					
Rezoning Costs	$200,000	excluded from analysis					
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$230	per gross sq.ft. of residential area					
Retail Area (shell space - no TI)	$250	per gross sq.ft. of retail area					
Office Area (shell space - no TI)	$250	per gross sq.ft. of commercial area					
Cost Per Underground Parking Stall	$55,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$301	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$301						
Hard Cost Used in Analysis	$301						
Landscaping	$311,460	or	$20	psf of site area on 50% of site			
Other	$0						
Soft costs and Professional Fees	8.0%	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					
Government Levies							
GVRD Sewer Levy - Strata Residential	$1,416	per market unit					
GVRD Sewer Levy - Commercial	$1.20	per sq.ft. of commercial space					
TransLink - Strata Residential	$1,200	per market unit					
TransLink - Commercial	$1.25	per sq.ft. of commercial space					
Market Strata Residential DCCs	$14.38	per sq.ft. of floorspace					
Retail DCCs	$11.32	per sq.ft. of floorspace					
Office DCCs	$11.32	per sq.ft. of floorspace					
School Site Acquisition Charge	$0.00	per unit					

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Attachment 5c – continued

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	1.0%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	of gross strata market residential revenue					
Commissions on Sale of Commercial	2.0%	of gross commercial value					
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							
Property Taxes	2.9269%	of assessed value					
Additional School Tax	0.4000%	of assessed value over $4 million + 0.2% between $3 and $4 million					
Assumed current assessment (Year 1 of analysis)	$0						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$26,738,841	(50% of completed project value)					
Developer's Profit	15.0%	of total costs or	13.0%	of gross market revenue/value			

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Attachment 5c – continued

Analysis	
Revenue	
Strata Sales Revenue	$53,477,682
Gross Retail Value	$0
Gross Office Value	$0
Total Gross Value	$53,477,682
Less Commissions on Strata	$1,604,330
Less Commissions on Commercial	$0
Net Sales Revenue/Value	$51,873,352
Project Costs	
Upfront Compensation to Existing Tenants	$0
Tenant Relocation	$0
Allowance for Demolition of Existing Buildings	$0
Allowance for Remediation	$0
Site Preparation/Fill	$0
Site Servicing	$289,291
Density Bonus Contribution	$0
Rezoning Costs	$200,000
Hard Construction Costs	$23,408,950
Landscaping	$311,460
Other	$0
Soft costs and Professional Fees	$1,936,776
Development management	$784,394
Fees, legal and survey for rental portion	$0
Contingency on hard and soft costs	$1,346,544
Marketing on Strata Units	$1,069,554
Leasing Commissions on Commercial Space	$0
Tenant Improvement Allowance on Retail Space	$0
Tenant Improvement Allowance on Office Space	$0
GVRD Sewer Levy - Strata Residential	$117,528
GVRD Sewer Levy - Commercial	$0
TransLink - Strata Residential	$99,600
TransLink - Commercial	$0
Market Strata Residential DCCs	$1,119,445
Retail DCCs	$0
Office DCCs	$0
School Site Acquisition Charge	$0
Less property tax allowance during approvals/development	$586,964
Less school tax allowance during approvals/development	$48,717
Interim financing on construction costs	$1,027,662
Financing fees/costs	$242,602
Less Net GST (assuming builder holds units)	$0
Total Project Costs Before Land	$32,589,486
Developer's Profit	$6,973,490
Residual to Land and Land Carry	**$12,310,376**
Less financing on land during construction and approvals	$616,288
Less financing fee on land loan	$52,623
Less property purchase tax	$478,470
Residual Land Value	**$11,162,995**
Residual Value per sq.ft. of site	**$358**
Residual Value per sq.ft. of FSR	**$143**
Residual Value per sq.ft. of gross buildable floorspace	**$143**

Attachment 6a

Attachment 6a						
Case Study #6: Site in Broadway Corridor						
Estimated Existing Value based on Income Potential						
Major Assumptions						
Site and Building Size						
Site Size	17,550	sq.ft. or	150	by	117	
Assumed Density	0.00	FSR				
Total Commercial Space	15,307	sq.ft.				
Office	9,310	sq.ft. with	100%	rentable		
Retail	5,997	sq.ft.	100%	rentable		
Revenue and Value						
Average Lease Rate for Office Space	$25.00	per sq.ft. net, base building with no TI				
Average Lease Rate for Retail Space	$40.00	per sq.ft. net, base building				
Capitalization Rate for Office	4.50%					
Capitalization Rate for Retail	4.00%					
Value of Office Space Upon Lease-up	$556					
Value of Retail and Service Space Upon Lease-up	$1,000	per sq.ft. of leasable area				
Vacancy and non recoverables	5%					
Estimated Overall Value						
Capitalized Value of Office Space	$4,913,611					
Capitalized Value of Retail/Service Space	$5,697,150					
Total Value of Commercial	$10,610,761					
Plus Rental Units	$3,300,000		$550,000	per unit and	6	units
Estimated Value	$13,910,761					
Acquisition Premium	10%					
Total Estimated Value	**$15,301,837**					

Attachment 6b

Attachment 6b							
Case Study #6: Site in Broadway Corridor Uptown Office Precinct							
Estimated Residual Land Value based on Existing C-3A Zoning (commercial) (3.3 FSR)							
Assumes developer builds, leases, and then sells and expects a 15% profit margin on total costs							
Assumptions							
Site and Building Size Assumptions:							
Assumed Site Size	17,550	or	0.4	acre			
FSR	3.00	FSR					
Heritage Density Transfer	0.30	FSR					
Density with Bonuses	3.30	FSR					
Project Size	57,915	sq. ft.					
Gross Office Area	51,773	sq. ft.	2.95	FSR			
Gross Retail	6,143	sq. ft.	0.35	FSR			
Parking	108	1	per 50m2				
Total Stalls	108						
Underground/structured Parking Stalls	108						
Surface Parking Stalls	0						
Strata Office Share	0%	of gross site area					
Leasehold Office Share	100%	of gross site area					
Saleable Strata Office	0	sq. ft. or	95%	of gross area	and	0	parking stalls
Leasable Leasehold Office	49,184	sq. ft. or	95%	of gross area	and	104	parking stalls
Rentable Area (Retail)	5,835	sq. ft. or	95%	of gross area		4	parking stalls
						108	total parking stalls
Revenue and Value Assumptions:						43,044	square feet
Average Strata Sales Price (Office)	$1,100	per sq.ft. of saleable area				2.5	storeys
Average Net Lease Rate (Office)	$37.00	per sq.ft. of rentable area assuming landlord provides fit up allowance					
Average Net Lease Rate (Retail)	$50.00	per sq.ft. of rentable area assuming landlord provides fit up allowance					
Operating Costs (Office)	$18.00	per sq.ft. of rentable area					
Operating Costs (Retail)	$18.00	per sq.ft. of rentable area					
Annual Vacancy Allowance	5.0%						
Property Management	0.0%	of lease revenue (included in operating costs)					
Structural Allowance	0.0%	of lease revenue					
Assumed Net Parking Revenue	$150.00	per stall per month					
Cap Rate	4.25%						
Profit Allowance	13.0%	of value or	15.0%	of costs			
Pre-Construction Costs							
Heritage Density	$85.00	psf					
Cost Assumptions:							
Demolition Allowance	$335,900		$20	per square foot of existing building area			
Site Servicing (sidewalks, landscaping, etc)	$274,390		$3,000	per metre of frontage			
Allowance for piling, stabilization	$0	per gross sq.ft.					
Building Construction Costs (to base building office)	$300	per sq.ft.					
Building Construction Costs (to base building retail)	$300	per sq.ft.					
Parking Construction Costs	$55,000	per stall (assuming underground)					
Parking Construction Costs	$5,000	per stall (assuming at grade)					
Base Building Hard Construction Costs	$402	per sq.ft. buildable (including parking)					
Allowance to finish common areas	$50	per sq.ft. of common area					
Fit-up Allowance Office Strata	$0	per saleable square foot					
Fit-up Allowance Office Leasehold	$50	per rentable square foot					
Fit-up Allowance Retail	$25	per rentable square foot					
Soft Costs (including project management)	15%	of hard costs					
Contingency	3.5%	of hard and soft costs					
City of Vancouver DCL	$20.64	per sq. ft. of floorspace					
Layered DCL	$0.00	per sq. ft. of floorspace					
Metro Vancouver DCL	$0.930	per sq. ft. of floorspace					
Interim Financing	5.0%	on 50% of all costs assuming a			1.75	year construction period	
Share of Construction Costs Financed	75.0%						
Share of Land Costs Financed	50.0%						
Financing Fee	1.5%						
Property Taxes During Development	0.9021%	applied to land value in Year 1			$26,914,600		
		applied to 50% of gross value of building in Year 2, which is:					$25,795,373
Upfront Leasing Commissions	35%	of Year 1 revenue					
Marketing	$173,745					$3.00	per square foot
Lease-up period after construction complete	6	months, or		0.50	years		
Assumed up-front vacancy cost during lease-up	$55.00	per sq.ft. (i.e. lease revenue+operating costs) on				50%	of space during lease-up
Sales Commission	2.0%						

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Attachment 6b – continued

Analysis	
Strata Revenue	$0
Lease Revenue	$2,005,994
Recovered Operating Costs	$990,347
Parking Income	$186,613
Total Gross Revenue	$3,182,953
Less Operating Costs	$990,347
Net Operating Income	$2,192,607
Capitalized Value of Leasehold Space	$51,590,746
Value of Strata Space	$0
Total Value	$51,590,746
Less Commission	$1,031,815
Net Proceeds	$50,558,931
Total Value per sq.ft. buildable	**$873**
Heritage Density	$447,525
Demolition Allowance	$335,900
Site Servicing	$274,390
Allowance for piling, stabilization	$0
Hard Construction (including parking)	$23,281,830
Allowance to finish common areas	$144,788
Fit-Up of Strata Space	$0
Fit-Up of Leasehold Space	$2,605,078
Upfront Leasing Commissions	$702,098
Marketing	$173,745
Upfront Vacancy Cost during Lease-up	$676,278
Soft Costs (including project management)	$3,492,275
Contingency	$937,094
City of Vancouver DCL	$1,195,366
Layered DCL	$0
Metro Vancouver DCL	$53,861
Property Taxes during Development	$417,317
Interim Financing	$1,139,826
Financing fees/costs	$403,620
Total Costs Before Land and Profit	$36,280,990
Total Costs per sq.ft. buildable	**$626**
Profit:	$6,727,433
Land Residual:	
Land Residual Before Holding Costs	$7,550,508
Less interim financing on land	$382,244
Less property taxes during approvals	$121,397
Less property closing costs	$260,631
Residual Land Value	**$6,786,235**
Residual Value per sq.ft. of site	**$387**
Residual Value per sq.ft. of FSR	**$117**
Residual Value per sq.ft. of gross buildable floorspace	**$117**

Attachment 6c

Attachment 6c							
Case Study #6: Site in Broadway Corridor Uptown Office Precinct							
Estimated Residual Land Value based on Rezoning to 6.0 FSR (commercial) (no transit premium)							
Assumes developer builds, leases, and then sells and expects a 15% profit margin on total costs							
Assumptions							
Site and Building Size Assumptions:							
Assumed Site Size	17,550	or	0.4	acre			
Base Density	3.00	FSR					
Additional Density	3.00	FSR					
Total Density	6.00	FSR					
Project Size	105,300	sq. ft.					
Gross Office Area	99,158	sq. ft.	5.65	FSR			
Gross Retail	6,143	sq. ft.	0.35	FSR			
Parking	196	1	per 50m2				
Total Stalls	196						
Underground/structured Parking Stalls	196						
Surface Parking Stalls	0						
Strata Office Share	0%	of gross site area					
Leasehold Office Share	100%	of gross site area					
Saleable Strata Office	0	sq. ft. or	95%	of gross area	and	0	parking stalls
Leasable Leasehold Office	94,200	sq. ft. or	95%	of gross area	and	192	parking stalls
Rentable Area (Retail)	5,835	sq. ft. or	95%	of gross area		4	parking stalls
						196	total parking stalls
Revenue and Value Assumptions:						78,261	square feet
Average Strata Sales Price (Office)	$1,100	per sq.ft. of saleable area				4	storeys
Average Net Lease Rate (Office)	$37.00	per sq.ft. of rentable area assuming landlord provides fit up allowance					
Average Net Lease Rate (Retail)	$50.00	per sq.ft. of rentable area assuming landlord provides fit up allowance					
Operating Costs (Office)	$18.00	per sq.ft. of rentable area					
Operating Costs (Retail)	$18.00	per sq.ft. of rentable area					
Annual Vacancy Allowance	5.0%						
Property Management	0.0%	of lease revenue (included in operating costs)					
Structural Allowance	0.0%	of lease revenue					
Assumed Net Parking Revenue	$150.00	per stall per month					
Cap Rate	4.25%						
Profit Allowance	13.0%	of value or	15.0%	of costs			
Pre-Construction Costs							
Rezoning Allowance	$200,000						
Rezoning Fee	$47,300						
Cost Assumptions:							
Demolition Allowance	$335,900		$20	per square foot of existing building area			
Site Servicing (sidewalks, landscaping, etc)	$274,390		$3,000	per metre of frontage			
Allowance for piling, stabilization	$0	per gross sq.ft.					
Building Construction Costs (to base building office)	$300	per sq.ft.					
Building Construction Costs (to base building retail)	$300	per sq.ft.					
Parking Construction Costs	$60,000	per stall (assuming underground)					
Parking Construction Costs	$5,000	per stall (assuming at grade)					
Base Building Hard Construction Costs	$411	per sq.ft. buildable (including parking)					
Allowance to finish common areas	$50	per sq.ft. of common area					
Fit-up Allowance Office Strata	$0	per saleable square foot					
Fit-up Allowance Office Leasehold	$50	per rentable square foot					
Fit-up Allowance Retail	$25	per rentable square foot					
Soft Costs (including project management)	15%	of hard costs					
Contingency	3.5%	of hard and soft costs					
City of Vancouver DCL	$20.64	per sq. ft. of floorspace					
Layered DCL	$0.00	per sq. ft. of floorspace					
Metro Vancouver DCL	$0.930	per sq. ft. of floorspace					
Commercial Linkage Fee	$0.00	per sq. ft. of additional density					
Interim Financing	5.0%	on 50% of all costs assuming a			2.00	year construction period	
Share of Construction Costs Financed	75.0%						
Share of Land Costs Financed	50.0%						
Financing Fee	1.5%						
Property Taxes During Development	0.9021%	applied to land value in Year 1			$26,914,600		
		applied to 50% of gross value of building in Year 2, which is:					$46,275,174
Upfront Leasing Commissions	35%	of Year 1 revenue					
Marketing	$315,900					$3.00	per square foot
Lease-up period after construction complete	6	months, or		0.50	years		
Assumed up-front vacancy cost during lease-up	$55.00	per sq.ft. (i.e. lease revenue+operating costs) on				50%	of space during lease-up
Sales Commission	2.0%						

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Attachment 6c – continued

Analysis						
Strata Revenue	$0					
Lease Revenue	$3,588,297					
Recovered Operating Costs	$1,800,630					
Parking Income	$345,093					
Total Gross Revenue	$5,734,020					
Less Operating Costs	$1,800,630					
Net Operating Income	$3,933,390					
Capitalized Value of Leasehold Space	$92,550,348					
Value of Strata Space	$0					
Total Value	$92,550,348					
Less Commission	$1,851,007					
Net Proceeds	$90,699,341					
Heritage Density	$0					
Demolition Allowance	$335,900					
Site Servicing	$274,390					
Allowance for piling, stabilization	$0					
Hard Construction (including parking)	$43,278,300					
Allowance to finish common areas	$263,250					
Fit-Up of Strata Space	$0					
Fit-Up of Leasehold Space	$4,855,866					
Upfront Leasing Commissions	$1,255,904					
Marketing	$315,900					
Upfront Vacancy Cost during Lease-up	$1,295,245					
Soft Costs (including project management)	$6,491,745					
Contingency	$1,741,952					
City of Vancouver DCL	$2,173,392					
Layered DCL	$0					
Metro Vancouver DCL	$97,929					
Commercial Linkage Fee	$0					
Property Taxes during Development	$660,238					
Interim Financing	$2,364,000					
Financing fees/costs	$735,795					
Total Costs Before Land and Profit	$66,139,805	which works out to	**$628**	per sq.ft. buildable		
Total Costs per sq.ft. buildable						
Profit:	$12,068,565					
Land Residual:						
Land Residual Before Holding Costs	$12,490,971					
Less interim financing on land	$702,617					
Less property taxes during approvals	$121,397					
Less property closing costs	$480,547					
Residual Land Value	**$11,186,409**					

Attachment 6d

Attachment 6d							
Case Study #6: Site in Broadway Corridor Uptown Office Precinct							
Estimated Residual Land Value based on Rezoning to 6.0 FSR (commercial) (with transit premium)							
Assumes developer builds, leases, and then sells and expects a 15% profit margin on total costs							
Assumptions							
Site and Building Size Assumptions:							
Assumed Site Size	17,550	or	0.4	acre			
Base Density	3.00	FSR					
Additional Density	3.00	FSR					
Total Density	6.00	FSR					
Project Size	105,300	sq. ft.					
Gross Office Area	99,158	sq. ft.	5.65	FSR			
Gross Retail	6,143	sq. ft.	0.35	FSR			
Parking	196	1	per 50m2				
Total Stalls	196						
Underground/structured Parking Stalls	196						
Surface Parking Stalls	0						
Strata Office Share	0%	of gross site area					
Leasehold Office Share	100%	of gross site area					
Saleable Strata Office	0	sq. ft. or	95%	of gross area	and	0	parking stalls
Leasable Leasehold Office	94,200	sq. ft. or	95%	of gross area	and	192	parking stalls
Rentable Area (Retail)	5,835	sq. ft. or	95%	of gross area		4	parking stalls
						196	total parking stalls
Revenue and Value Assumptions:						78,261	square feet
Average Strata Sales Price (Office)	$1,100	per sq.ft. of saleable area				4	storeys
Average Net Lease Rate (Office)	$40.70	per sq.ft. of rentable area assuming landlord provides fit up allowance					
Average Net Lease Rate (Retail)	$50.00	per sq.ft. of rentable area assuming landlord provides fit up allowance					
Operating Costs (Office)	$18.00	per sq.ft. of rentable area					
Operating Costs (Retail)	$18.00	per sq.ft. of rentable area					
Annual Vacancy Allowance	5.0%						
Property Management	0.0%	of lease revenue (included in operating costs)					
Structural Allowance	0.0%	of lease revenue					
Assumed Net Parking Revenue	$150.00	per stall per month					
Cap Rate	4.25%						
Profit Allowance	13.0%	of value or	15.0%	of costs			
Pre-Construction Costs							
Rezoning Allowance	$200,000						
Rezoning Fee	$47,300						
Cost Assumptions:							
Demolition Allowance	$335,900		$20	per square foot of existing building area			
Site Servicing (sidewalks, landscaping, etc)	$274,390		$3,000	per metre of frontage			
Allowance for piling, stabilization	$0	per gross sq.ft.					
Building Construction Costs (to base building office)	$300	per sq.ft.					
Building Construction Costs (to base building retail)	$300	per sq.ft.					
Parking Construction Costs	$60,000	per stall (assuming underground)					
Parking Construction Costs	$5,000	per stall (assuming at grade)					
Base Building Hard Construction Costs	$411	per sq.ft. buildable (including parking)					
Allowance to finish common areas	$50	per sq.ft. of common area					
Fit-up Allowance Office Strata	$0	per saleable square foot					
Fit-up Allowance Office Leasehold	$50	per rentable square foot					
Fit-up Allowance Retail	$25	per rentable square foot					
Soft Costs (including project management)	15%	of hard costs					
Contingency	3.5%	of hard and soft costs					
City of Vancouver DCL	$20.64	per sq. ft. of floorspace					
Layered DCL	$0.00	per sq. ft. of floorspace					
Metro Vancouver DCL	$0.930	per sq. ft. of floorspace					
Commercial Linkage Fee	$0.00	per sq. ft. of additional density					
Interim Financing	5.0%	on 50% of all costs assuming a			2.00	year construction period	
Share of Construction Costs Financed	75.0%						
Share of Land Costs Financed	50.0%						
Financing Fee	1.5%						
Property Taxes During Development	0.9021%	applied to land value in Year 1			$26,914,600		
		applied to 50% of gross value of building in Year 2, which is:					$50,170,606
Upfront Leasing Commissions	35%	of Year 1 revenue					
Marketing	$315,900					$3.00	per square foot
Lease-up period after construction complete	6	months, or		0.50	years		
Assumed up-front vacancy cost during lease-up	$58.70	per sq.ft. (i.e. lease revenue+operating costs) on				50%	of space during lease-up
Sales Commission	2.0%						

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Attachment 6d – continued

Analysis						
Strata Revenue	$0					
Lease Revenue	$3,919,409					
Recovered Operating Costs	$1,800,630					
Parking Income	$345,093					
Total Gross Revenue	$6,065,131					
Less Operating Costs	$1,800,630					
Net Operating Income	$4,264,501					
Capitalized Value of Leasehold Space	$100,341,212					
Value of Strata Space	$0					
Total Value	$100,341,212					
Less Commission	$2,006,824					
Net Proceeds	$98,334,387					
Heritage Density	$0					
Demolition Allowance	$335,900					
Site Servicing	$274,390					
Allowance for piling, stabilization	$0					
Hard Construction (including parking)	$43,278,300					
Allowance to finish common areas	$263,250					
Fit-Up of Strata Space	$0					
Fit-Up of Leasehold Space	$4,855,866					
Upfront Leasing Commissions	$1,371,793					
Marketing	$315,900					
Upfront Vacancy Cost during Lease-up	$1,382,379					
Soft Costs (including project management)	$6,491,745					
Contingency	$1,741,952					
City of Vancouver DCL	$2,173,392					
Layered DCL	$0					
Metro Vancouver DCL	$97,929					
Commercial Linkage Fee	$0					
Property Taxes during Development	$695,378					
Interim Financing	$2,372,932					
Financing fees/costs	$738,575					
Total Costs Before Land and Profit	$66,389,680	which works out to	**$630**	per sq.ft. buildable		
Profit:	$13,084,494					
Land Residual:						
Land Residual Before Holding Costs	$18,860,213					
Less interim financing on land	$1,060,887					
Less property taxes during approvals	$121,397					
Less property closing costs	$766,669					
Residual Land Value	**$16,911,260**					
Value per sq.ft. of site area	**$964**					
Value per sq.ft. of FSR	**$161**					
Value per sq.ft. buildable	**$161**					

Attachment 7a

Attachment 7a					
Case Study #7: Site in Surrey City Centre					
Estimated Existing Value based on Income Potential					
Major Assumptions					
Site and Building Size					
Site Size	86,986	sq.ft. or	290	by	n/a
Assumed Density	0.18	FAR			
Total Commercial Space	15,731	sq.ft.			
Office	0	sq.ft. with	100%	rentable	
Retail	15,731	sq.ft.	100%	rentable	
Revenue and Value					
Average Lease Rate for Office Space	$0.00	per sq.ft. net, base building with no TI			
Average Lease Rate for Retail Space	$32.50	per sq.ft. net, base building			
Capitalization Rate for Office	5.00%				
Capitalization Rate for Retail	5.00%				
Value of Office Space Upon Lease-up	$0				
Value of Retail and Service Space Upon Lease-up	$650	per sq.ft. of leasable area			
Vacancy and non recoverables	5%				
Estimated Overall Value					
Capitalized Value of Office Space	$0				
Capitalized Value of Retail/Service Space	$9,713,893				
Total Value of Commercial	$9,713,893				
Acquisition Premium	10%				
Total Estimated Value	**$10,685,282**				

Attachment 7b

Attachment 7b							
Case Study #7: Site in Surrey City Centre							
Estimated Residual Land Value based on Rezoning to 3.5 FSR (mixed use strata above retail) (no transit premium)							
Major Assumptions (shading indicates figures that are inputs; unshaded cells are formulas)							
Site and Building Size							
Gross Parcel Size	86,986	sq.ft.	2.00	acre			
Dedications	0	sq.ft.					
Site Size	86,986	sq.ft. or					
Site Frontage	290	ft					
Base Density	3.5	FAR					
Bonus Density	0.0	FAR					
Exclusions	0.0	FAR					
Total Density	3.5	FAR					
Total Gross floorspace	304,451	sq.ft.					
Gross residential floorspace	278,355	sq.ft.					
Gross commercial floorspace	26,096	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**
Strata Residential	252,259	83.0%	209,375	800	262	1.0	262
Rental	0	85%	0	565	0	1.0	0
Retail	26,096	100%	26,096	n/a	n/a	3.00	73
Office	0	95%	0	n/a	n/a	0.0	0
Total	278,355		235,471		262		335
Revenue/Value							
Strata Residential	$798	per net square foot					
Rental	$0	per net square foot (see separate calculations)					
Retail*	$855	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	$314,620						
Allowance for Remediation	$0						
Site Preparation/Fill	$0						
Standard Site Servicing	$309,451		$3,500	per lineal metre of frontage			
Amenity Contributions on Base Density							
Community Amenity Contribution Residential	$1,717	per unit on average					
Affordable Housing Contribution	$1,000	per strata unit					
Public Art Contribution (Allowance)	$1.93	psf of gross building					
Undergrounding Utilities	$1.79	psf of gross building					
Community Amenity Contribution Non-Residential	$0.03	psf of site area					
Amenity Contributions on Bonus Density							
Community Amenity Contribution Residential	$0	per unit on average					
Affordable Housing Contribution	$0	per strata unit					
Public Art Contribution (Allowance)	$0.00	psf of gross building					
Undergrounding Utilities	$0.00	psf of gross building					
Community Amenity Contribution Non-Residential	$0.00	psf of site area					
Rezoning Costs	$250,000						
Construction Costs							
Hard Construction Costs							
Market Strata Residential Area	$310	per gross sq.ft. of residential area					
Rental 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	$60,000	per underground/structured parking stall					
Overall Costs Per Square Foot	$377	per gross sq.ft.					
Sustainability Premium	0%						
Total Estimated Cost per Square Foot	$377						
Hard Cost Used in Analysis	$377						
Site Landscaping	$434,930	or	$10	psf of site area on 50% of site			
Electrical Charging Station	$0		-	stations	$0	per station	
Other	$0						
Soft costs and Professional Fees	8.0%	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					

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Attachment 7b – continued

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	$15.88	per sq.ft. of floorspace					
Market Townhouse DCCs	$0.00	per sq.ft. of floorspace					
Rental Residential DCCs	$15.88	per sq.ft. of floorspace					
Retail DCCs	$12.47	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	75%	of land and	75%	of construction costs			
Financing fees	1.25%						
Commissions and Marketing							
Commissions on Strata Residential	3.0%	of gross strata market residential revenue					
Marketing on Strata Residential	2.0%	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 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 Rental Units	3.20%	of capitalized value of rental units					
Property Taxes	0.326%	of assessed value					
Assumed current assessment (Year 1 of analysis)	$18,977,600						
Assumed assessment after 1 year of construction (Year 2 of analysis)	$94,696,700	(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	0.4%	over $4.0 million			
Residential Portion of current assessment (Year 1 of analysis)	$18,977,600						
Assumed residential portion of assessment after 1 year of construction	$83,540,745	(50% of completed residential project value)					
*Assumes BC Owner							
***Retail Value Assumptions**							
Lease Rate NNN	$45.00	psf per year					
Vacancy and Non Recoverable Allowance	5.00%						
Capitalization Rate	5.00%						
Capitalized Value per 1000 SF Gross							
Rental Rev	$45,000						
Vacancy	$2,250						
NOI	$42,750						
Capitalized Value	$855,000						
Value psf of net leasable space	$855	psf					

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Attachment 7b – continued

Analysis					
Revenue					
Strata Sales Revenue	$167,081,491				
Rental Value	$0				
Gross Retail Value	$22,311,909				
Gross Office Value	$0				
Total Gross Value	$189,393,400				
Less Commissions on Strata	$5,012,445				
Less Commissions on Rental	$0				
Less Commissions on Commercial	$446,238				
Net Sales Revenue/Value	$183,934,717				
Project Costs					
Upfront Compensation to Existing Tenants	$0				
Tenant Relocation	$0				
Allowance for Demolition of Existing Buildings	$314,620				
Allowance for Remediation	$0				
Site Preparation/Fill	$0				
Standard Site Servicing	$309,451				
Electrical Charging Station	$0				
Amenity Contributions on Base Density					
Community Amenity Contribution Residential	$449,800				
Affordable Housing Contribution	$262,000				
Public Art Contribution (Allowance)	$588,481				
Undergrounding Utilities	$544,967				
Community Amenity Contribution Non-Residential	$2,954				
Amenity Contributions on Bonus Density					
Community Amenity Contribution Residential	$0				
Affordable Housing Contribution	$0				
Public Art Contribution (Allowance)	$0				
Undergrounding Utilities	$0				
Community Amenity Contribution Non-Residential	$0				
Rezoning Costs	$250,000				
Hard Construction Costs	$104,824,364				
Site Landscaping	$434,930				
Electrical Charging Station	$0				
Other	$0				
Soft costs and Professional Fees	$8,613,356				
Development management	$3,488,409				
Fees, legal and survey for rental portion	$0				
Contingency on hard and soft costs	$5,911,757				
Marketing on Strata Units	$3,341,630				
Initial Lease Up Costs on Rental Units	$0				
Leasing Commissions on Commercial Space	$130,479				
Tenant Improvement Allowance on Retail Space	$652,395				
Tenant Improvement Allowance on Office Space	$0				
GVS & DD Sewer Levy - Strata Apartment	$924,860				
GVS & DD Sewer Levy - Townhouse	$0				
GVS & DD Sewer Levy - Rental Residential	$0				
GVS & DD Sewer Levy - Commercial	$69,676				
TransLink - Strata Apartment Residential	$314,400				
TransLink - Townhouse	$0				
TransLink - Rental Residential	$0				
TransLink - Commercial	$32,620				
Market Strata Apartment DCCs	$4,005,879				
Market Townhouse DCCs	$0				
Rental Residential DCCs	$0				
Retail DCCs	$325,415				
Office DCCs	$0				
School Site Acquisition Charge	$157,200				
Less property tax allowance during approvals/development	$556,519				
Less School Tax Surcharge During Development	$573,110				
Interim financing on construction costs	$6,425,591				
Financing fees/costs	$1,345,358				
Less Net GST (assuming builder holds units)	$0				
Total Project Costs Before Land	$144,850,220	which works out to	$476	per square foot	
Developer's Profit	**$24,696,899**				
Residual to Land and Land Carry	**$14,387,598**				
Less financing on land during construction and approvals	$1,440,558				
Less financing fee on land loan	$109,241				
Less property closing costs	$535,295				
Residual Land Value	**$12,302,504**				
Residual Value per sq.ft. of site	**$141**				
Residual Value per sq.ft. of FAR	**$40**				
Residual Value per sq.ft. of gross buildable floorspace	**$40**				

Attachment 7c

Attachment 7c							
Case Study #7: Site in Surrey City Centre							
Estimated Residual Land Value based on Rezoning to 3.5 FSR (commercial) (no transit premium)							
Assumes developer builds, leases, and then sells and expects a 15% profit margin on total costs							
Assumptions							
Site and Building Size Assumptions:							
Assumed Site Size	86,986	or	2.0	acre			
FAR	3.50	FAR					
Density Bonus	0.00	FAR					
Density with Bonuses	3.50	FAR					
Project Size	304,451	sq. ft.					
Gross Office Area	274,006	sq. ft.	3.15	FAR			
Gross Retail	30,445	sq. ft.	0.35	FAR			
Parking	398	1	per 71m2				
Total Stalls	398						
Underground/structured Parking Stalls	398						
Surface Parking Stalls	0						
Strata Office Share	0%	of gross site area					
Leasehold Office Share	100%	of gross site area					
Saleable Strata Office	0	sq. ft. or	95%	of gross area	and	0	parking stalls
Leasable Leasehold Office	260,306	sq. ft. or	95%	of gross area	and	379	parking stalls
Rentable Area (Retail)	28,923	sq. ft. or	95%	of gross area		20	parking stalls
						398	total parking stalls
Revenue and Value Assumptions:						159,349	square feet
Average Strata Sales Price (Office)	$0	per sq.ft. of saleable area				1.8	storeys
Average Net Lease Rate (Office)	$27.90	per sq.ft. of rentable area assuming landlord provides fit up allowance					
Average Net Lease Rate (Retail)	$45.00	per sq.ft. of rentable area assuming landlord provides fit up allowance					
Operating Costs (Office)	$18.00	per sq.ft. of rentable area					
Operating Costs (Retail)	$18.00	per sq.ft. of rentable area					
Annual Vacancy Allowance	5.0%						
Property Management	0.0%	of lease revenue (included in operating costs)					
Structural Allowance	0.0%	of lease revenue					
Assumed Net Parking Revenue	$150.00	per stall per month					
Cap Rate	4.75%						
Profit Allowance	13.0%	of value or	15.0%	of costs			
Cost Assumptions:							
Rezoning Allowance	$250,000						
Demolition Allowance	$314,620		$20	per square foot of existing building area			
Site Servicing (sidewalks, landscaping, etc)	$530,488		$3,000	per metre of frontage			
Allowance for piling, stabilization	$0	per gross sq.ft.					
Building Construction Costs (to base building office)	$280	per sq.ft.					
Building Construction Costs (to base building retail)	$280	per sq.ft.					
Parking Construction Costs	$55,000	per stall (assuming underground)					
Parking Construction Costs	$5,000	per stall (assuming at grade)					
Base Building Hard Construction Costs	$352	per sq.ft. buildable (including parking)					
Allowance to finish common areas	$50	per sq.ft. of common area					
Fit-up Allowance Office Strata	$0	per saleable square foot					
Fit-up Allowance Office Leasehold	$50	per rentable square foot					
Fit-up Allowance Retail	$25	per rentable square foot					
Soft Costs (including project management)	15%	of hard costs					
Contingency	3.5%	of hard and soft costs					
City of Surrey DCC Ground Floor (includes CC additional rates)	$13.71	per sq. ft. of floorspace					
City of Surrey Upper Floor (includes CC additional rates)	$9.11	per sq. ft. of floorspace					
Metro Vancouver DCC	$2.67	per sq. ft. of floorspace					
Interim Financing	5.0%	on 50% of all costs assuming a			2.25	year construction period	
Share of Construction Costs Financed	75.0%						
Share of Land Costs Financed	50.0%						
Financing Fee	1.5%						
Property Taxes During Development	1.0212%	applied to land value in Year 1			$18,977,600		
		applied to 50% of gross value of building in Year 2, which is:					$92,819,048
Upfront Leasing Commissions	35%	of Year 1 revenue					
Marketing	$913,353					$3.00	per square foot
Lease-up period after construction complete	6	months, or		0.50	years		
Assumed up-front vacancy cost during lease-up	$45.90	per sq.ft. (i.e. lease revenue+operating costs) on				50%	of space during lease-up
Sales Commission	2.0%						

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Attachment 7c – continued

Analysis						
Strata Revenue	$0					
Lease Revenue	$8,135,852					
Recovered Operating Costs	$5,206,112					
Parking Income	$681,958					
Total Gross Revenue	$14,023,922					
Less Operating Costs	$5,206,112					
Net Operating Income	$8,817,810					
Capitalized Value of Leasehold Space	$185,638,096					
Value of Strata Space	$0					
Total Value	$185,638,096					
Less Commission	$3,712,762					
Net Proceeds	$181,925,335					
Total Value per sq.ft. buildable	**$598**					
Rezoning Allowance	$250,000					
Demolition Allowance	$314,620					
Site Servicing	$530,488					
Allowance for piling, stabilization	$0					
Hard Construction (including parking)	$107,166,752					
Allowance to finish common areas	$761,128					
Fit-Up of Strata Space	$0					
Fit-Up of Leasehold Space	$13,738,351					
Upfront Leasing Commissions	$2,847,548					
Marketing	$913,353					
Upfront Vacancy Cost during Lease-up	$2,987,007					
Soft Costs (including project management)	$16,075,013					
Contingency	$4,313,462					
City of Surrey DCC Ground Floor (includes CC additional rate	$417,402					
City of Surrey Upper Floor (includes CC additional rates)	$2,496,194					
Metro Vancouver DCC	$812,884					
Property Taxes during Development	$1,378,607					
Interim Financing	$6,539,181					
Financing fees/costs	$1,817,347					
Total Costs Before Land and Profit	$163,359,337	which works out to	**$537**	per sq.ft. buildable		
Profit:	$24,207,208					
Land Residual:						
Land Residual Before Holding Costs	-$5,641,210					
Less interim financing on land	-$349,050					
Less property taxes during approvals	$96,898					
Less property closing costs	-$331,319					
Residual Land Value	**-$5,057,739**					
Value per sq.ft. buildable	**-$17**					
Value per sq.ft. of site area	**-$58**					

Attachment 7d

Attachment 7d							
Case Study #7: Site in Surrey City Centre							
Estimated Residual Land Value based on Rezoning to 3.5 FSR (commercial) (with transit premium)							
Assumes developer builds, leases, and then sells and expects a 15% profit margin on total costs							
Assumptions							
Site and Building Size Assumptions:							
Assumed Site Size	86,986	or	2.0	acre			
FAR	3.50	FAR					
Density Bonus	0.00	FAR					
Density with Bonuses	3.50	FAR					
Project Size	304,451	sq. ft.					
Gross Office Area	274,006	sq. ft.	3.15	FAR			
Gross Retail	30,445	sq. ft.	0.35	FAR			
Parking	398	1	per 71m2				
Total Stalls	398						
Underground/structured Parking Stalls	398						
Surface Parking Stalls	0						
Strata Office Share	0%	of gross site area					
Leasehold Office Share	100%	of gross site area					
Saleable Strata Office	0	sq. ft. or	95%	of gross area	and	0	parking stalls
Leasable Leasehold Office	260,306	sq. ft. or	95%	of gross area	and	379	parking stalls
Rentable Area (Retail)	28,923	sq. ft. or	95%	of gross area		20	parking stalls
						398	total parking stalls
Revenue and Value Assumptions:						159,349	square feet
Average Strata Sales Price (Office)	$0	per sq.ft. of saleable area				1.8	storeys
Average Net Lease Rate (Office)	$31.00	per sq.ft. of rentable area assuming landlord provides fit up allowance					
Average Net Lease Rate (Retail)	$45.00	per sq.ft. of rentable area assuming landlord provides fit up allowance					
Operating Costs (Office)	$18.00	per sq.ft. of rentable area					
Operating Costs (Retail)	$18.00	per sq.ft. of rentable area					
Annual Vacancy Allowance	5.0%						
Property Management	0.0%	of lease revenue (included in operating costs)					
Structural Allowance	0.0%	of lease revenue					
Assumed Net Parking Revenue	$150.00	per stall per month					
Cap Rate	4.75%						
Profit Allowance	13.0%	of value or	15.0%	of costs			
Cost Assumptions:							
Rezoning Allowance	$250,000						
Demolition Allowance	$314,620		$20	per square foot of existing building area			
Site Servicing (sidewalks, landscaping, etc)	$530,488		$3,000	per metre of frontage			
Allowance for piling, stabilization	$0	per gross sq.ft.					
Building Construction Costs (to base building office)	$280	per sq.ft.					
Building Construction Costs (to base building retail)	$280	per sq.ft.					
Parking Construction Costs	$55,000	per stall (assuming underground)					
Parking Construction Costs	$5,000	per stall (assuming at grade)					
Base Building Hard Construction Costs	$352	per sq.ft. buildable (including parking)					
Allowance to finish common areas	$50	per sq.ft. of common area					
Fit-up Allowance Office Strata	$0	per saleable square foot					
Fit-up Allowance Office Leasehold	$50	per rentable square foot					
Fit-up Allowance Retail	$25	per rentable square foot					
Soft Costs (including project management)	15%	of hard costs					
Contingency	3.5%	of hard and soft costs					
City of Surrey DCC Ground Floor (includes CC additional rates)	$13.71	per sq. ft. of floorspace					
City of Surrey Upper Floor (includes CC additional rates)	$9.11	per sq. ft. of floorspace					
Metro Vancouver DCC	$2.67	per sq. ft. of floorspace					
Interim Financing	5.0%	on 50% of all costs assuming a			2.25	year construction period	
Share of Construction Costs Financed	75.0%						
Share of Land Costs Financed	50.0%						
Financing Fee	1.5%						
Property Taxes During Development	1.0212%	applied to land value in Year 1			$18,977,600		
		applied to 50% of gross value of building in Year 2, which is:					$100,888,522
Upfront Leasing Commissions	35%	of Year 1 revenue					
Marketing	$913,353					$3.00	per square foot
Lease-up period after construction complete	6	months, or		0.50	years		
Assumed up-front vacancy cost during lease-up	$49.00	per sq.ft. (i.e. lease revenue+operating costs) on				50%	of space during lease-up
Sales Commission	2.0%						

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Attachment 7d – continued

Analysis						
Strata Revenue	$0					
Lease Revenue	$8,902,452					
Recovered Operating Costs	$5,206,112					
Parking Income	$681,958					
Total Gross Revenue	$14,790,522					
Less Operating Costs	$5,206,112					
Net Operating Income	$9,584,410					
Capitalized Value of Leasehold Space	$201,777,044					
Value of Strata Space	$0					
Total Value	$201,777,044					
Less Commission	$4,035,541					
Net Proceeds	$197,741,503					
Total Value per sq.ft. buildable	**$650**					
Rezoning Allowance	$250,000					
Demolition Allowance	$314,620					
Site Servicing	$530,488					
Allowance for piling, stabilization	$0					
Hard Construction (including parking)	$107,166,752					
Allowance to finish common areas	$761,128					
Fit-Up of Strata Space	$0					
Fit-Up of Leasehold Space	$13,738,351					
Upfront Leasing Commissions	$3,115,858					
Marketing	$913,353					
Upfront Vacancy Cost during Lease-up	$3,188,744					
Soft Costs (including project management)	$16,075,013					
Contingency	$4,313,462					
City of Surrey DCC Ground Floor (includes CC additional rate	$417,402					
City of Surrey Upper Floor (includes CC additional rates)	$2,496,194					
Metro Vancouver DCC	$812,884					
Property Taxes during Development	$1,481,612					
Interim Financing	$6,563,357					
Financing fees/costs	$1,824,066					
Total Costs Before Land and Profit	$163,963,283	which works out to		**$539**	per sq.ft. buildable	
Profit:	$26,311,727					
Land Residual:						
Land Residual Before Holding Costs	$7,466,493					
Less interim financing on land	$461,989					
Less property taxes during approvals	$96,898					
Less property closing costs	$254,002					
Residual Land Value	**$6,653,604**					
Value per sq.ft. buildable	**$22**					
Value per sq.ft. of site area	**$76**					