

**Inclusionary Zoning
for the Provision of Affordable Housing:**
A Comparative analysis of Vancouver and San Francisco



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Inclusionary Zoning for the Provision of Affordable Housing: A Comparative analysis of Vancouver and San Francisco

By Nellie Chang

1. Introduction

The latest addition to the spectrum of municipal housing strategies in Canada is inclusionary zoning. This strategy, as expressed through policy and regulatory framework, requires that a portion of multi-unit residential development be dedicated towards affordable housing. Apart from this core objective, the rules and criteria are as diverse as the municipalities that use this strategy. Inclusionary zoning is more widely adopted in the United States, where it was first introduced in the 1970s. A historical analysis by Calavita (2006) indicates that inclusionary housing programs emerged at the intersection of four national trends at the time: racial discrimination of housing through exclusionary zoning practices, growth controls that increased land values, increasing housing affordability problems, and government deregulation that led to scaling back of public subsidies in housing. Perhaps with the exception of the first, these trends are also observed in Canadian cities. As communities cope with increasing demand for affordable housing and shrinking public investment in housing, inclusionary zoning peaks the interests of researchers and policymakers alike.

The City of Vancouver is one of the few municipalities in Canada with an inclusionary housing policy.¹ First adopted in 1988, the policy requires 20% of all units in new neighbourhoods created as a result of rezoning to be ‘affordable’. This paper will compare Vancouver’s “20 percent policy” with the Inclusionary Affordable Housing Program² of the City and County of San Francisco. The purpose of the comparison is to understand the differences in two similar cities. Vancouver is the main investigative subject, while San Francisco is the ‘lens’ through which Vancouver’s policy is illuminated and challenged. This method will help identify the elements that are important to producing better policy outcomes. The comparative analysis is then followed by an economic feasibility analysis, where the stability of the inclusionary model akin to San Francisco is tested in Vancouver.

Vancouver and San Francisco share many similarities that make them ideal for comparison. Both are attractive places to live, with the Pacific Ocean on the west, a mild climate, a diverse population, and an economy buoyed by real estate and tourism. The city limits are constrained on three sides by water bodies, thus creating a natural urban

¹ The term ‘Inclusionary housing policy’ is more general and perhaps more appropriate than ‘inclusionary zoning’ as it may not have direct reference to zoning in the policy. However, municipality may require inclusion of affordable housing as a condition of rezoning, and not just for development permit. Calavita (2009) argues that linking inclusionary policy to rezoning is more appropriate than incentives based policy.

² This report mainly focuses on affordable ownership, but the overall Below Market Rate (BMR) Inclusionary Housing Program includes both for-sale and for-rent units.

growth boundary. Urban density is high for both cities by North American standards.³ They are also frequently cited as one of the most expensive cities to live in their respective countries. In addition, both cities have implemented inclusionary housing policies long enough to extract data and analyze its implications. Table 1 in Appendix A shows the population, density and housing costs in Vancouver and San Francisco.

Research Question & Methodology

This paper attempts to address the following research questions:

1. How are inclusionary zoning policies implemented in Vancouver and San Francisco?
2. How successful are they in producing affordable housing units, and what can we learn from their experiences?

The first question compares the relevant legislation, policy specifications, and implementation procedure, while the second question compares the affordable housing supply outcome through estimates provided by municipal sources. Information for implementation in San Francisco is obtained from the inclusionary housing ordinance and program guidelines. Details for Vancouver are found in the Official Development Plans and reports to council. It is important to note that these sources are insufficient to understand the intricacies of policy implementation. Thus, the analysis is augmented by key informant interviews in both cities.

This paper recognizes that political systems and land markets in Vancouver and San Francisco are different. Where possible, this paper will explain the local context that set the stage for inclusionary housing policies, although it does not offer a comprehensive historical, political or market analysis. Future studies on these issues may deepen the understanding of inclusionary zoning in respective cities.

Following the comparative analysis, this paper presents an economic feasibility analysis. The analysis is used to anticipate the financial impact of the policy on development projects. This paper will adopt two existing models with a suggested set of assumptions for a project in Vancouver. It will identify the inclusion threshold that the project can bear without reducing the developer's profit margins to levels that would deem the project unfeasible.

2. Concepts & Definitions

The term 'affordable housing' is highly subjective, as it begs the question, 'to whom is it affordable?' While this paper does not engage in an extensive debate on the meaning of affordability, it will explain some operational definitions as it applies to inclusionary zoning in the subject cities. It will then identify two important goals of inclusionary zoning and the rationale for their adoption from a planning perspective. These concepts and rationale provide a point of reference and a framework for the study.

³ According to Demographia (2000), San Francisco is the second most dense city in the U.S. after New York. "2000 Census: US Municipalities over 50,000: ranked by 2000 population", <http://www.demographia.com/db-uscity98.htm>, retrieved on April 22, 2009.

Defining ‘Affordable Housing’

There is no universal definition of affordable housing.⁴ However, many jurisdictions use the following operational definition to set affordability targets in their housing programs: a dwelling unit whose annual accommodation costs (rent or mortgage, plus property tax and utility expenses) does not exceed 30% of its occupants’ gross (i.e. before tax) annual household income.⁵ This study will use this operating definition to model an economic feasibility analysis of inclusionary zoning in Vancouver in the second section of this paper.

Affordable housing is not defined in the Vancouver Charter, which is the provincial legislation that authorizes the City of Vancouver to govern its jurisdiction. Instead, the Charter allows Vancouver to consider affordability in the context of a particular development plan or zoning application (City of Vancouver, 2003). Therefore, affordability components such as income thresholds and maximum shelter costs may be calculated differently for each development projects. The city considers this appropriate given the changing context of provincial and federal housing programs and their relative housing affordability standards.⁶

Affordable housing in San Francisco is defined as shelter costs that do not exceed 33% of net household income, or rent that does not exceed 30% of net household income (City and County of San Francisco, 2008). Different housing programs have various qualifying incomes and household size. In the city’s Inclusionary Affordable Housing Program, affordable housing is referred to as below market rate (BMR) units for either ownership or rental. The price of BMR units is designed to be affordable for households that earn up to 80% of the city’s median income. The program will be examined in more detail later.

The Goals of Inclusionary Zoning

Inclusionary zoning can serve two important community goals. First, it creates mixed-income neighbourhoods, where residents of diverse socio-economic backgrounds can meet, interact, and potentially gain culturally and economically from that interaction.⁷ However, whether income-mix as a policy can achieve a set of socio-economic objectives such as the reduction of crime or unemployment, or even the improvement of health and

⁴ Throughout this report the term ‘affordable housing’ will be used interchangeably with non-market housing, below-market rate housing, and social housing. In British Columbia, social housing includes both public and non-profit housing, which are owned and operated by governments and non-profit societies, respectively. Social housing may have modest design criteria and restricted operating budgets. BC Housing, “Glossary” <http://www.bchousing.org/glossary>.

⁵ A household in British Columbia that meets this definition is referred to as *core-need households*. BC Housing, “Glossary” <http://www.bchousing.org/glossary>, retrieved on April 22, 2009.

⁶ The term non-market housing in Vancouver is frequently used in city reports, although the term itself is never used in the Official Development Plans. The city has formally replaced the term with ‘affordable housing’ in 2003, but the meaning still remains the same.

⁷ For example, Rusk (2006) argued that low-income students who are integrated into schools with middle and upper income students perform better in school. Smith (2002) also argues that by dispersing social housing through mixed-income neighbourhoods, communities could avoid ‘pockets of poverty’, which is associated with various social ills like crime and unemployment.

education is highly contested.⁸ It would therefore be unwise to pursue mixed-income housing or inclusionary zoning as a remedy to social problems. A more promising benefit of income-mix is the opportunity to share the same community amenities, voice neighbourhood concerns, and participate in planning as equal citizens. It also represents an opportunity to educate the general public, who may otherwise have misinformation or preconceptions of residents of subsidized housing. Inclusion may not directly solve social or economic ills of society, but the removal of segregation can be conducive to social progress.

The second goal of inclusionary zoning is to produce affordable units through private development projects. Landowners often enjoy large capital gains from appreciating real estate values. Thus, local authorities can use inclusionary zoning as a means to access private capital and resources towards a public objective, such as affordable housing. In response, the development community have challenged inclusionary zoning as illegal taking of the land (Rusk, 2006). In the state of New Jersey however, the Supreme Court ruled against this position in the 1983 landmark decision, *Mount Laurel II*, and required all local authorities to use affirmative measures including mandatory set-asides (National Housing Conference, 2004). For all other jurisdictions in U.S. and Canada, the legal question on inclusionary zoning has never fully settled.

There is another compelling argument for inclusionary zoning that is centred on land use planning. The argument posits that good land use decisions generate both higher social welfare and higher land values, because a better organized urban system increases the demand for land (Whitehead, 2007). In another words, good planning made cities and towns attractive to newcomers, which then stimulated the local real estate market. Therefore, local governments claim the right to capture some of the increase in property values and reinvest in the community. In the United Kingdom, this position is referred to as the ‘planning gain’.⁹ Local authorities in the U.K. use a negotiated approach via Section 106 of the Town and Planning Act, 1990, to exact affordable housing and other public amenities from developers (Monk, 2006). Other European communities also take the position that the increase in land value is not simply the result of the owner’s efforts, but a culmination of public investment and government decisions (Calavita, 2006). This argument may open doors to more legal questions on the rights of private property. Nonetheless, it provides an interesting framework for rationalizing inclusionary zoning as a legitimate planning tool.

3. Inclusionary Zoning In San Francisco

The comparative analysis begins with the study of inclusionary zoning in San Francisco, followed by Vancouver, then a synthesis of the two local experiences. San Francisco first introduced voluntary inclusionary zoning in 1992, where the City used incentives to encouraged developers to include affordable units in their residential

⁸ This paper does not discuss the various perspectives on mixed-income housing. For a literature review, see (Thibert, 2007).

⁹ The concept was almost made into a national policy in the United Kingdom where the government proposed (but later rescinded) a Planning Gain Supplement on all development application to capture a portion of the land value uplift accruing from development permit (Monk et al., 2008).

projects. The policy worked on a case-by-case basis and produced few affordable units. In 2002, after ten years of experimenting with the voluntary system, the Board of Supervisors revised the policy and enacted an ordinance, where mandatory inclusion became the rule. In 2006, the ordinance was amended to expand the scope of inclusion in the city.

Enabling Legislation in San Francisco

The City adopted the inclusionary zoning ordinance in accordance to three important government documents: California Government Code, the General Plan, and the Planning Code. The California Government Code is the highest order of law that gives a city the authority to pursue inclusionary zoning. The Code requires local governments to adopt a comprehensive, long-term general plan for the physical development of the city through seven plan elements (State of California, 2009). The Housing Element, Article 10.6, in the Government Code declares:

The availability of housing is of vital state-wide importance, and the early attainment of decent housing and a suitable living environment for every Californian...is a priority of the highest order. (Section 65580-65589.8)

The Government Code recognizes that local authorities are better suited to address the housing needs of its communities, and it supports local ordinances that allow density bonus to projects that provide affordable housing for moderate to low-income groups (S. 65915-65918). Currently, San Francisco's planning department considers density bonus on a case-by-case basis.¹⁰

The City and County of San Francisco adopted the housing element as a series of policy statements in the San Francisco General Plan. Policy 4.2 of the General Plan expresses the key components of the San Francisco's inclusionary zoning policy. They include a program threshold or 'trigger' for inclusion, the proportion of BMR units that are required for each project, and the level of their affordability (City and County of San Francisco, 1996). The policy also states that if the housing projects are built on city-owned land, the percentage of affordable housing units should be increased.

The City may offer several incentives for developers to build affordable units. For example, Policy 5.1 of the General Plan instructs the planning department to expedite the planning approval process to streamline affordable housing projects and to keep project costs low. Also, through the Citywide Action Plan, the planning department may increase densities in areas well served by transit, reduce parking requirements, authorize floor-to-area ratio (FAR) exemptions, remove density caps or height limits in certain areas, and utilize air-rights for housing (City and County of San Francisco, 2006a).

Current Inclusionary Zoning Ordinance

In 2002, the Board of Supervisors approved Section 315 of the Planning Code to enact a mandatory inclusionary zoning ordinance and established the Inclusionary

¹⁰ For additional details, see Policy 4.4 of San Francisco General Plan, Housing Element, http://www.sfgov.org/site/planning_index.asp?id=41412.

Affordable Housing Program. (City and County of San Francisco, 2005). The program is preceded by the condominium conversion BMR program, which requires the setting aside of converted condominiums as price-restricted BMR units.¹¹ The inclusionary ordinance adopted in 2002 required projects of ten units or more to include 10% affordable units on-site or 15% off-site, or to pay in-lieu fees. Units must be affordable to renters with less than 60% of the Area Median Income (AMI) and homeowners with less than 100% of the AMI.

In 2006, San Francisco adopted an amendment to increase the inclusionary requirement to 15% for on-site and 20% for off-site developments. The requirement is even higher for developments requiring conditional uses or live-work projects. The amendment is in response to the growing gap between the demand and supply of BMR units, as reported by the Association of Bay Area Governments. The Association found that, in the past ten years, less than 25% of the housing need was fulfilled in the city (City and County of San Francisco, 2006b). The amendment also reduced the unit threshold, thus requiring all projects involving five or more units to meet inclusion targets.

The City accepts the construction of affordable units off-site if it generates more units, but off-site units must be located within 1 mile of the principal project. Under the previous ordinance, off-site housing was allowed in either ‘high need areas’ or within ‘close proximity’ to the principal project (City and County of San Francisco, 2006b). This posed a dilemma where housing authorities build social housing in low-income neighbourhoods, where the need is the greatest, but such practice in the long run may intensify the concentration of the poor and preserve class-division throughout the city.

Implementation of the Inclusionary Affordable Housing Program

The regulatory parameters of the Inclusionary Affordable Housing Program is well defined in Section 315 of the Planning Code and regularly updated by the Mayor’s Office of Housing. Given the clear direction of the MOH, implementation of the ordinance is predictable, transparent and streamlined. Although all steps in the procedure are important, a close coordination between the planning department and the MOH is most critical. Effective communication between the two agencies can ensure that all residential developments in the development pipeline meet the inclusion requirements. The general process from development application to occupancy of affordable units is as below:

1. The developer submits an application to the City for project approval – the developer must fill out a Declaration of Intent, stating whether to go on-site, off-site or pay in-lieu fees when applying for a development permit
2. The Planning Department approves project and notifies the MOH

¹¹ Under San Francisco Subdivision Code Sections 1341 and 1385, building owners who converted their properties from apartments to condominiums were required by the City to set aside certain condominiums as below market rate units. The program is currently running independent of the Inclusionary Affordable Housing Program but jointly managed by the Mayor’s Office of Housing. See “Implementation of Ordinance #320-08 Overview” City and County of San Francisco, 2009, http://www.sfgov.org/site/moh_page.asp?id=102790.

3. The MOH serves notice to the developer the number of BMR units required within 30 days of development approval – developer can appeal the requirement and present a case for exemption
4. Once the project is approved by the City, the developer builds and markets all (market-rate and BMR) units
5. Residents apply for BMR units directly through the developer
6. The developer forwards applications to MOH
7. The MOH qualifies the applicants
8. Successful applicants are invited to a public lottery for the BMR units
9. Winners of the lottery sign a purchase or rent agreement with the property owner

The MOH calculates the in-lieu fees as the difference between the inclusionary unit price and the cost of developing a comparable housing unit.¹² The fee schedule is updated annually and broken down by unit type, which helps the developer decide which option – to build on-site, off-site or pay in-lieu fees – makes greatest sense for the project. The city’s treasury department collects the in-lieu payments and deposits them into a Citywide Affordable Housing Fund, which is used to increase affordable housing supply and to administer the Inclusionary Affordable Housing Program.

All BMR units maintain their affordability for 50 years (City and County of San Francisco, 2007). Affordability is ensured on title by a deed of trust and a grant of right of first refusal to the City. The City can then exercise the right to substitute a qualified buyer. When a BMR owner sells the unit, the owner may claim capital improvements, but the sale price is determined by a methodology approved by the MOH in order to maintain affordability to the next owner. Upon resale, the affordability clock also resets to zero. Therefore, new owners must also wait 50 years before the property can be sold at market rate.

The MOH regulates housing qualities such as unit size, number of bedrooms and external appearances. This ensures diversity of housing, plus makes BMR units as attractive as market units or, at minimum, prevent them from standing out as an inferior product. The City requires that the overall construction quality of BMR units is the same as market units, although the internal finishing can be different.

Table 1 illustrates that since 1992, San Francisco’s inclusionary housing program has produced 1,140 BMR units, with the majority being on-site. The number of units jumped from single-digit to double-digit in 2003 as a result of the adoption of a mandatory policy in 2002. An increasing number of projects also opted for in-lieu payments since 2004. The proportion of the off-site units was also high in 2006 and 2007, with 40% and 61%, respectively. Without specific details for each project, it is difficult to know the reason for this trend. However, it does signal that the goal of creating mixed-income neighbourhoods could potentially be stymied as the result of in-lieu and off-site option.

¹² It is also referred to as the affordability gap. The inclusionary unit price is determined by AMI and the interest rate. The cost of the comparable unit is indexed to the Construction Cost Index for San Francisco as published by Engineering News-Record. In-lieu fee is variable by unit size and evaluated annually by the Mayor’s Office of Housing. See “Notice of New Inclusionary Housing Fees” July 15, 2008, http://www.sfgov.org/site/planning_index.asp?id=25143.

Table 1. San Francisco’s Inclusionary Affordable Housing Program: Production Summary, 1992-2007

Year	Number of Projects	Projects paid in-lieu	On-site units	Off-site units
1992	2		8	
1993	2		34	
1994	1		6	
1995	2		6	
1996	5		35	
1997	1		4	
1998	2		7	
1999	5		37	
2000	5	1	11	
2001	3		15	
2002	4		55	
2003	18	1	110	2
2004	17	1	64	
2005	12	5	48	
2006	23	6	155	62
2007	16	5	255	156
2007 (anticipated)			70	
Total	118	19	920	220

Source: Mayor’s Office of Housing, City and County of San Francisco, 2009

A range of enforcement measures are expressed in Section 176 of the Planning Code. The MOH monitors the BMR units by checking the occupancy certifications and income levels of tenants annually. If a developer fails to comply with the ordinance, or does not complete the construction and marketing of the BMR units, then the City may apply a lien on title equal to the in-lieu fee. The City may also impose a penalty or revoke the certificate of occupancy and all other permits if the rules of the program have been violated.

Monitoring and evaluation is mandated by the ordinance. The MOH conducts a study every five years to update the program and ordinance, similar to updating an official plan. All recommendations are made to the Board of Supervisors and the Planning Commission. The Planning Commission reports to the Board of Supervisors on the results of the program as part of the annual Housing Inventory Report (City and County of San Francisco, 2007).

Implementation of the Inclusionary Affordable Housing Program in San Francisco is a detailed and elaborate process involving many agencies within the city. For this reason, close collaboration between the agencies is key to the program’s success. The program may also require some flexibility in the future. A backgrounder to the Planning Code (s. 315.2.) stated that the city is largely built out, with very few large open tracts of land to develop. A relatively small number of affordable units created in San Francisco

given the size of the city may be due to a lack of developable land, particularly for large scale condominiums which has the highest potential for generating inclusionary units.¹³ The City may choose to offer higher density allowances or other incentives to offset the costs, but there are also limits to this strategy. For now, stability seems to be the key to San Francisco's inclusionary policy. A clear set of regulations where the outcome is predictable may be sound. Vancouver, on the other hand, has taken a different approach. As the next chapter shows, the key to the inclusionary housing strategy in Vancouver is the opposite of San Francisco – to have less certainty and more room for negotiations.

4. Inclusionary Zoning In Vancouver

The City of Vancouver adopted the inclusionary housing policy in 1988 as part of the general plan for the development of the Expo lands in False Creek. The 20 percent policy was first mentioned in the False Creek Policy Broadsheets, which called for diversity of household types and incomes, dispersed non-market housing in each neighbourhoods, and an adequate number of dwellings suitable for households with children (City of Vancouver, 1988). At the time, 20% of the households in Vancouver were in core need, meaning spending more than 30% of the household income on housing (Gray & Ramsay, 2002). Thus, 20% of developable land from rezoning was required to be set-aside for affordable housing (City of Vancouver, 2002). Aside from this general rule, the pursuit of the 20 percent policy has been on a case-by-case basis, perhaps reflecting an earlier model in San Francisco prior to the introduction of the ordinance that brought mandatory inclusion. Rather than a more streamlined procedure however, the provision of affordable housing in Vancouver relies on negotiations and partnerships between the city, the province, and the development community, including the non-profit housing providers.

Enabling Legislation in Vancouver

Legislation relevant to land use and housing policy in Vancouver include the Vancouver Charter, the area-specific Official Development Plans (ODP) and accompanying Comprehensive District “CD-1” bylaws. The Vancouver Charter is the highest rule of law for the city. It sets out the capacity in which the city may pursue land use and housing policies, while the inclusionary rules are contained in the ODPs and bylaws.

The Vancouver Charter governs the City of Vancouver, while the Local Government Act applies to all other municipalities in the Province. The Local Government Act gives municipalities the authority to rezone land as the basis of negotiation for land development (s.903) and grant density bonuses for the purpose of building affordable housing (s.904). This enables municipalities like Richmond, Whistler and Langford to adopt inclusionary housing policies. Likewise, the Vancouver Charter

¹³ Further research on land markets and condominium development may shed light on this issue. For example, South of Market (SOMA) and Mission Bay are two major redevelopment areas with large volume of housing. This paper lacks the information to complete an analysis of the condominium development in these neighbourhoods.

allows the City of Vancouver to grant higher density to developers that provide affordable and/or special needs housing (s.565.1). The City can mandate that land be set aside for affordable housing as a condition of rezoning former industrial lands into residential neighbourhoods. However, the City also requires the consent of the property owner in the process. The developer must enter into a housing agreement with the City, as a precondition to obtaining a building permit (s.565.1(3)). This often results in negotiations between the City and the developer to strike an appropriate balance between increased density and affordable housing.

Vancouver is a city of planned neighbourhoods. Each neighbourhood carries its own vision and community plans. For all new neighbourhoods created as result of rezoning, the City develops an Official Development Plan and CD-1 Bylaw. Each neighbourhood ODP requires that 20% of all residential units be available for affordable housing, and typically 50% of those units must be suitable for families. These requirements are codified in each CD-1 Bylaws, rather than in a single ordinance, as is the case in San Francisco.

Implementation of the 20 Percent Policy

The key aspect of the 20 percent policy in Vancouver is flexibility. Unlike the San Francisco ordinance, which has a fixed implementation process, Vancouver's approach to inclusionary housing is more discretionary. While the inclusion may be 20%, the actual construction and occupation procedure is developed on a case-by-case basis. The following steps depict the general application of the 20 percent policy.¹⁴

1. The developer of a large project (usually 200 or more units) applies for rezoning from non-residential use to residential.
2. The City engages the developer to identify sites suitable for non-market housing. A legal agreement is signed between the City and the developer to include affordable units usually equal to 20% of the base density (excluding density bonus).
3. The non-market site is submitted to the provincial government for funding and the developer chooses, upon recommendation from the City and/or Province, a non-profit housing organization as a partner for the project.
4. If the Province accepts the proposal, it supplies 75% of the funds to the City to buy the site at a non-market rate (City pays 25%). BC Housing also usually provides pre-development financing to the non-profit housing developer.
5. BC Housing determines a budget for affordable housing development (cost ceiling for land and construction cost). The developer gets paid the difference between the cost ceiling and the cost of design/construction, including the land.
6. The City leases the site to a non-profit housing agency for at least 60 years. The developer then completes the construction and transfers the property to the non-profit partner.

¹⁴ Adopted from CMHC "Income mix zoning: Vancouver, British Columbia".

Unlike in San Francisco where the developer constructs and markets the affordable units, the developer in Vancouver only needs to set aside some land at non-market value. The land becomes city-optional site for affordable housing, which will be built as development funding becomes available from senior levels of government, typically the province or BC Housing. The City must examine the suitability of the designated land for affordable housing. If the City and developer cannot agree on a site for affordable housing, or if construction funding from the provincial government is not forthcoming, the City may accept a payment in-lieu from the developer.

Table 2 below shows the market and non-market units approved through rezoning in Vancouver. It shows that none of the sites actually met the 20% target, with some sites resulting in payment in-lieu of affordable units. Note that the numbers reflect units that were either approved by the city or reported in policy documents. They do not represent the actual units that were built. Also, the estimates for False Creek North and East Fraserlands are subject to change, as many sites are still in their planning stages.

Table 2. Inclusion Estimates in Vancouver’s Rezoned Neighbourhoods

	Non-Market Units	Market Units	Total	Inclusion Percentage
Coal Harbour, Bayshore Gardens	111	880	991	11%
Coal Harbour, Marathon Lands	423	2,300	2,723	16%
False Creek North	1,380	6,908	8,288	17%
International Village	120	1,290	1,410	9%
Citygate	176	1,000	1,176	15%
Arbutus Neighbourhood*	53	-	-	-
Pacific GMC	34	-	-	-
East Fraserlands	481	2,821	3,302	15%
Tugboat Landing	42	304	346	12%
Olympic Village, SE False Creek	250	1,100	1,350	19%

*The City reported that only 53 units were actually built in Arbutus; the rest of the non-market capacity may have been converted to market.

Sources:

- City of Vancouver, 2008, <http://www.city.vancouver.bc.ca/commsvcs/housing/MajorQA.htm>
- Intracorp, 2009, market unit for Tugboat Landing: <http://www.intracorp.ca/vancouver/completed-projects.php>
- City of Vancouver, 2005, for International Village: <http://www.vancouver.ca/ctyclerk/cclerk/20050719/documents/p9.pdf>
- for Coal Harbour, Citygate, Arbutus: <http://vancouver.ca/commsvcs/currentplanning/urbandesign/>
- City of Vancouver, False Creek North Official Development Plan, 2009; and East Fraserlands Official Development Plan, 2008

After twenty years since adopting the 20 percent policy, the City secured sites for 2,533 affordable units, yet only 1,427 were built (City of Vancouver, 2002). An additional 220 units are under construction in the Olympic Village, although the City is currently facing major cost overruns on the project (City of Vancouver, 2009). The remaining 886 units are waiting for funding from the Province. Much of the unfunded sites are in the Concord Pacific site in False Creek North. If the Province does not

provide the necessary funding, the City may choose to proceed with alternate uses for the sites.

Figure 1. Vancouver's Rezoned New Neighbourhoods



Source: City of Vancouver

The number and type of affordable units allocated through the 20% policy is always in flux. It is variable upon the agreement that the City is able to reach with the developer in regards to land use, density and amenities. It also depends on the housing priorities of the City and the Province. With the current focus on homelessness and addiction, funding decisions tends to favour supportive units or singles units to replace the old Single Room Occupancy (SRO) hotels.¹⁵ In addition, the development process of non-market units must also be coordinated with the non-profit housing agencies that operate the units. Subsequently, it is not unusual for the City to constantly adjust the type, tenure and number of affordable units in order to meet the requirements of various stakeholders. This may explain why Vancouver's inclusionary housing policy is far less structured than in San Francisco.

¹⁵ See for example, the Memorandum of Understanding (MOU) between the City and the Province on 14 sites for supportive housing from City of Vancouver, 2009, <http://vancouver.ca/commsvcs/housing/supportivehousingstrategy/reservedsites.htm>, retrieved on May 15, 2009.

5. Synthesis: A Comparative Summary

Vancouver’s 20 percent policy and San Francisco’s inclusionary zoning ordinance are products of provincial or state legislations that enable local authorities to use zoning powers for affordable housing. Neither the California General Code nor the Vancouver Charter explicitly mandates the adoption of inclusionary zoning, but they make inclusionary requirements legally possible within both jurisdictions. In San Francisco, the law (i.e. ordinance) requires developers to include affordable housing in projects, while in Vancouver, the Charter requires the City to enter into a housing agreement with the landowner in order to include affordable housing. The housing agreement does not take away the City’s power to refuse rezoning if such an agreement is unforeseeable. It merely sets up a process in which the inclusion of affordable housing can be negotiated. In this respect, inclusionary zoning in Vancouver is closer to Section 106 in the United Kingdom¹⁶ than to the more restrictive nature of the inclusionary ordinance in San Francisco. The implementation procedures for inclusionary housing policy in Vancouver and San Francisco further sets the two jurisdictions apart. The former uses a more flexible approach, subject to the decisions of various stakeholders, while the latter uses a streamlined procedure managed by MOH. In effect, the role of the city can be characterised as a dealmaker in Vancouver and an administrator in San Francisco. Table 3 summarizes the two policies and their key attributes.

Table 3. Summary of Inclusionary Housing Policies in Vancouver and San Francisco

	Vancouver	San Francisco
Year policy started	1988	1992
Affordable units produced	1,427*	1,140
Policy trigger / threshold units	Rezoning, new neighbourhood	5 units or more
Set aside requirements	20% on-site	15% on-site, 20% off-site
Qualifying income	variable	<80% of city median income
Affordability period	60 years	50 years
In-lieu payment option	YES	YES
Density bonus	YES	YES
Other incentives	Expedited permit processing; development cost levies waived for affordable units	Refund for conditional use fee, environmental review fee, and BMR units building permit fee
Notes	Inclusion is land dedication only; additional 1,338 affordable units awaiting funding	Off-site units must be located within 1 mile of the principle project

¹⁶ Section 106 of the Town Planning Act, 1990, requires local authorities to negotiate and sign a legal agreement on a set of amenities, including affordable housing with the developers (Monk, 2006).

*Excludes 200 affordable units in Woodward's. Although the Woodward's project is also a result of rezoning, it does not constitute a new neighbourhood with an ODP. It is however, a successful redevelopment model that resulted in 28% inclusion of affordable housing. It is also a unique case, given the heritage value and social struggle for affordable housing in the area.

Table 3 shows that since 1992, about 1,140 affordable units were produced in San Francisco, compared to an estimated 1,427 units in Vancouver since 1988. The two cities achieved similar quantitative outcome, given the number of years that inclusionary housing policies have been in place in respective cities. The number of units in San Francisco may be lower than one might have expected, partially because inclusionary zoning was voluntary prior to 2002 and some developers opted to pay in-lieu fees. In addition, there may have been few opportunities for large-scale residential developments in San Francisco. For both cities, the state of the local real estate market and the presence of other housing programs and planning instruments may also influence the supply outcome of inclusionary housing policies. Therefore, it is important to note that inclusionary zoning does not operate in a vacuum. Rather, it is susceptible to various other forces in the market and government regimes.

The current negotiated approach to inclusionary zoning in Vancouver created the opportunity for affordable housing in city-optioned land, but lacks the funds to actually build them. Given this challenge, some question the practicality of using a more conventional inclusionary model, such as in San Francisco. This raises many questions and concerns, including one that is most vocal in the development industry: 'how would it impact development projects?' The next chapter will explore this issue through an economic feasibility analysis.

6. Economic Feasibility of Inclusionary Zoning in Vancouver

A common reaction to inclusionary zoning in the development community is that the policy makes projects economically unfeasible. Some argue that the costs of inclusion would reduce the returns on investment to the point that the developer would rather forego the project altogether. To evaluate this assertion, this section attempts to analyse the effects of inclusionary zoning in Vancouver using feasibility models found in the literature. A review of literature on the effects of inclusionary zoning can be found in Appendix B.

Project Assumptions and Impacts

This study adopts the financial feasibility model by GHK International and Focus Consulting Inc. (2007). The following set of assumptions is used for the analysis. First, the size of the development in this case is equivalent to the one in the original model. Second, level of affordability and cost of development are adjusted to reflect the current conditions in Vancouver.

Assumptions			
Land size (200X240) sq. ft.	48,000	Median Income*	55,231
Number of units	50	Interest	0.06
Ave. unit size (sq. ft.)	1,000	Amortization	30
Affordable Price	285,092	Payment	16,569
Market Price	450,000	Present Value	228,074
Construction cost p. sq. ft.	181		

*Median Income of Vancouver CMA from Statistics Canada, Census 2006.

The construction cost is the average cost for wood-frame townhouse, as reported by BTY Group in 2007. For a project of 50 units on 48,000 square feet of land, which is slightly over one acre, the project will most likely be a low-rise, wood-frame multi-unit in order to keep construction costs low. Should the project be on a smaller plot of land with a higher density allowance, a high-rise concrete construction may be considered but would be more expensive.

The market price reflects the average Vancouver condo price, as adapted from Royal LePage Survey of Canadian Housing Prices (2006-2008).¹⁷ The price of condo is drastically different for Vancouver West versus Vancouver East. This study took their average for 2006-2008, which is \$460,750, but adjusted it down to \$450,000 to reflect the current downward pressure on housing prices. The affordable price is derived from the base income of \$55,231, which is the median private household income as reported in Census 2006. A median-income household that pays 30% of its income towards housing costs can make \$16,569 in annual payment (equivalent to \$1,380 per month), using 6% interest rate and a mortgage amortized in 30 years. The interest rate is close to the five-year average for conventional mortgage rate, as reported by the Bank of Canada.¹⁸ This leads to \$228,074 in present value, which is the loan amount that a median income household would be able to afford with annual mortgage payments reflecting 30% of gross income. Assuming that the borrower will make 20% down payment,¹⁹ the affordable housing price is \$285,092.

Table 1 of Appendix C uses the above assumptions to derive the residual land value. In a base case, where the developer builds 50 market units and assumes 15% profit from the sales revenue, the residual land value is \$6.45 million. As the model introduces inclusion at 20%, 10%, and 5%, the residual land value diminishes, thus the developer would have less cash to buy the land.

¹⁷ Price reflects the average of both new and resale. It was difficult to obtain new housing price from any credible source, so Royal LePage is used as a proxy for new housing price. CMHC's quarterly Housing Market Outlook only provides the price of new single-detached homes. Statistics Canada's CANSIM only provides new housing price index. New housing price through MLS may require assistance from a realtor who may have access to information.

¹⁸ The average for 2004 to 2009 was 6.58%, however this period marks the height of the real estate market and the interest rate have considerably fallen since then. For the sake of this analysis, which assumes a healthy real estate market, an interest rate of 6% is chosen. Bank of Canada (2009), "Rates and Statistics" <http://bankofcanada.ca/en/rates/interest-look.html>, retrieved on May 14, 2009.

¹⁹ This is a big assumption but necessary to make this analysis simple. However, in reality a household may not have savings that reflect 20% of the house price. In some cases the banks may reduce the down payment to 10% or 15%, or there may be alternative financing arrangements or government programs to help with down payment.

Table 2 of Appendix C shows the impact of the affordable unit inclusion on the market value of the project. Using the residual land value derived from the base case, the impact is shown for the whole project, per each affordable unit, and per all units. For example, if the developer makes 20% of its units affordable, then it would result in 7.9% decline in market value. The developer would then either have to absorb the loss by raising the price of the market units, negotiate a lower land price, or reduce its own profit. The first two options would be difficult in a competitive real estate market, while the last option would simply be undesirable for the developer.

Alternatively, if the city provides increased density the impact would be lessened. The developer may even gain greater market value for the project if the City offers 20% density bonus in exchange for 10% or 5% inclusion of affordable units. Finally, if the developer constructs the affordable units at only 80% of the construction cost, plus the City grants 20% density bonus, the developer would then make even greater gains with 10% or 5% inclusion. Unfortunately, in the case of 20% inclusion, neither the 20% density bonus nor 80% construction cost scenarios produce a positive outcome for the developer. A summary of the analysis is illustrated in Figure 2.

Figure 2. Impact of Alternate Inclusion Scenarios at Varying Income Levels for Affordable Ownership

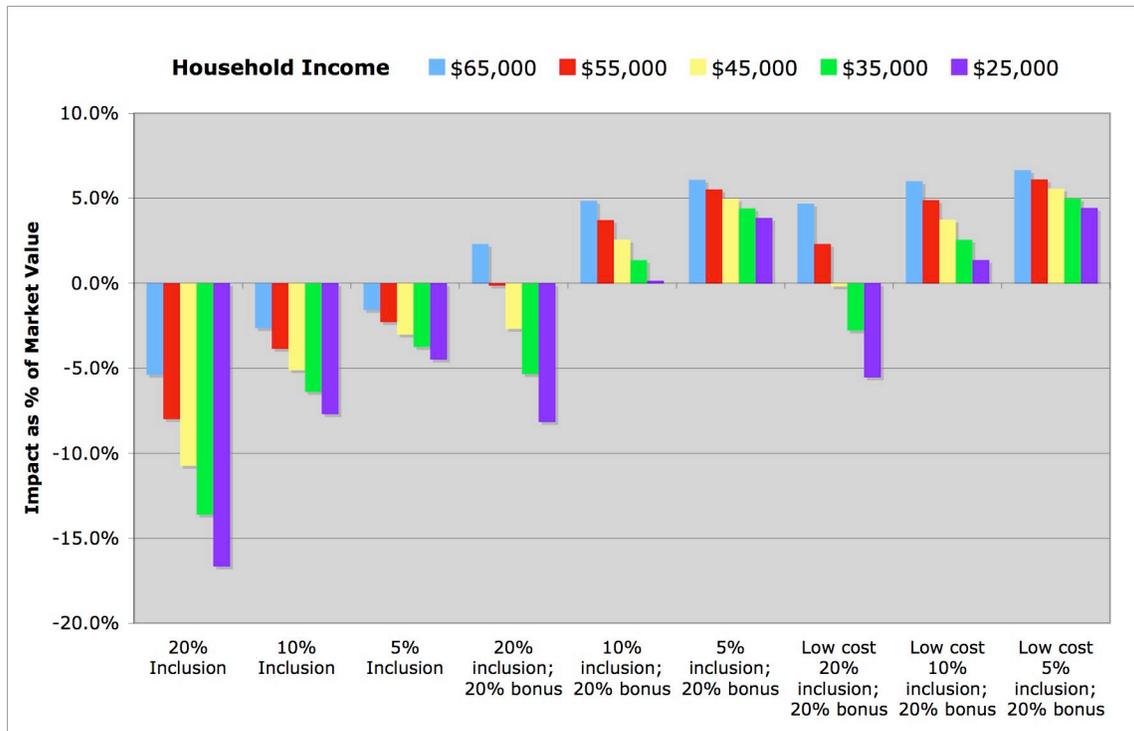
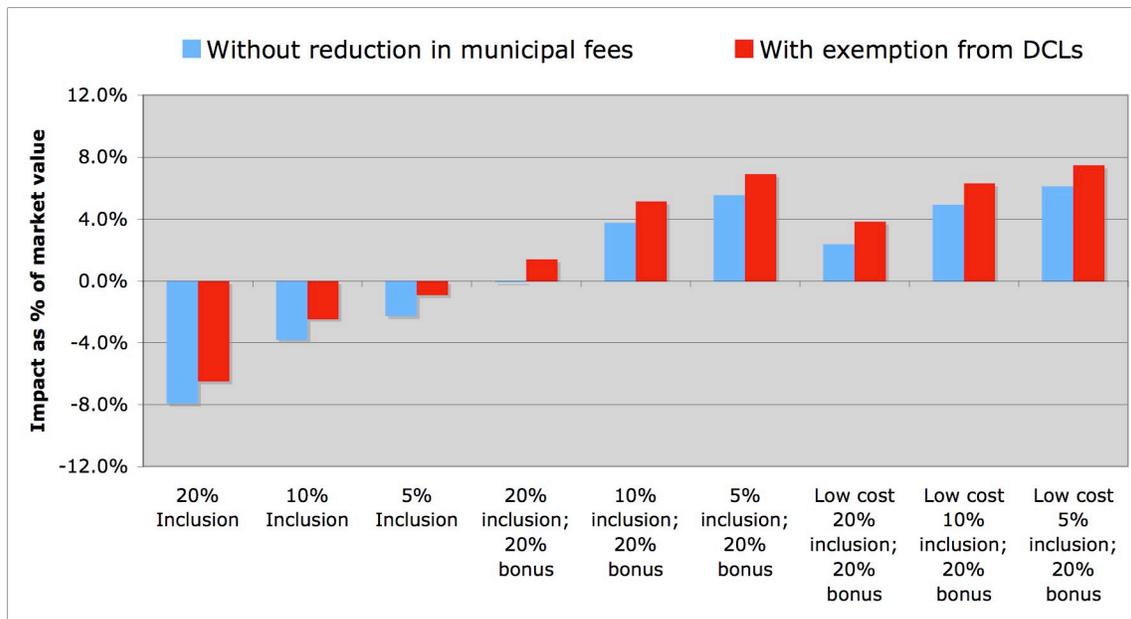


Figure 2 also shows the impact of inclusion for varying income groups (Table 3 of Appendix C). The project is increasingly less feasible for lower income groups. Income groups below \$45,000 would require deep government subsidies in order to make ownership possible within the limits of this model. These income groups may be better

served through affordable rent, which is not included in this study. Further research on affordable rent on inclusionary housing may be useful.

Consider another scenario where the city offers to waive Development Cost Levys (DCLs) for inclusionary projects. In this scenario (Table 4 of Appendix C and Figure 3), DCL equivalent to \$6 per sq ft. is subtracted from the project cost.²⁰ With exemption from DCLs, the impact of including 20% affordable units would fall from (loss) -7.9% to -6.5%. However, the loss would be less than 1% when the inclusion is just 5%. With 20% density bonus and 20% inclusion, the developer would make additional gain of 1.4% in market value. Therefore, although exemption of DCL may lessen the impact of inclusion a little, it is not enough to significantly improve the financial outcomes for the developer.

Figure 3. Impact of Inclusion on Affordable Units for Median income household



Another method of assessing the impact of inclusionary policy may be by looking at the return on investment for the project. A developer would forego a project if it does not meet the lowest threshold for returns.²¹ For this analysis, a model developed by Keyser Marston Associates (2006) is used. Only the return on cost (not annualized internal rate of return), from the model is considered, due to inadequate information on the latter measurement. This analysis adopted the following assumptions:

²⁰ As per DCL fee schedule for residential over 1.2 FSR in City of Vancouver, 2009, <http://vancouver.ca/commsvcs/cityplans/fg/index.htm>. Total municipal fee with DCL is approximately \$11.5 p. sq. ft.

²¹ The minimum returns on investment (developer's profit) is subjective but can be expected above 15%.

Assumptions				
Land size (200X240) sq ft	48,000			
Land price	6,455,000	Unit Price		
Ave. unit size (sq. ft.)	1,000	Market	450,000	
Units (low-rise)	50	Non-market	230,000	
Construction financing interest	10%	In-lieu fee	220,000	
Municipal fees p. sq. ft.	11.5			

This analysis considered three construction prototypes; wood-frame townhouse, wood-frame low rise, and concrete high-rise (10 storeys or more). Construction cost for each prototype is adopted from a local market report by BTY Group, Market Intelligence, 2007. Mid-rise prototype is excluded, due to the lack of construction cost information for this type. In the case of high-rise prototype, the number of units is doubled from low-rise. The land price is the same residual value used in the previous analysis. The size and quality of units are assumed to be the same for all three prototypes, although in reality they may differ. Likewise, the market prices for all three are also assumed to be the same for the sake of simplicity in the analysis. This means the only variable that affects the project budget differently is the construction cost. The in-lieu fee is the difference between the market and non-market value. The non-market value reflects the affordable price for a household earning 80% of the Vancouver CMA median income from Census 2006. These choices are made deliberately to emulate the inclusionary policy standards of San Francisco.

Figure 4. Return on Investment for Alternative Housing Types and Inclusion

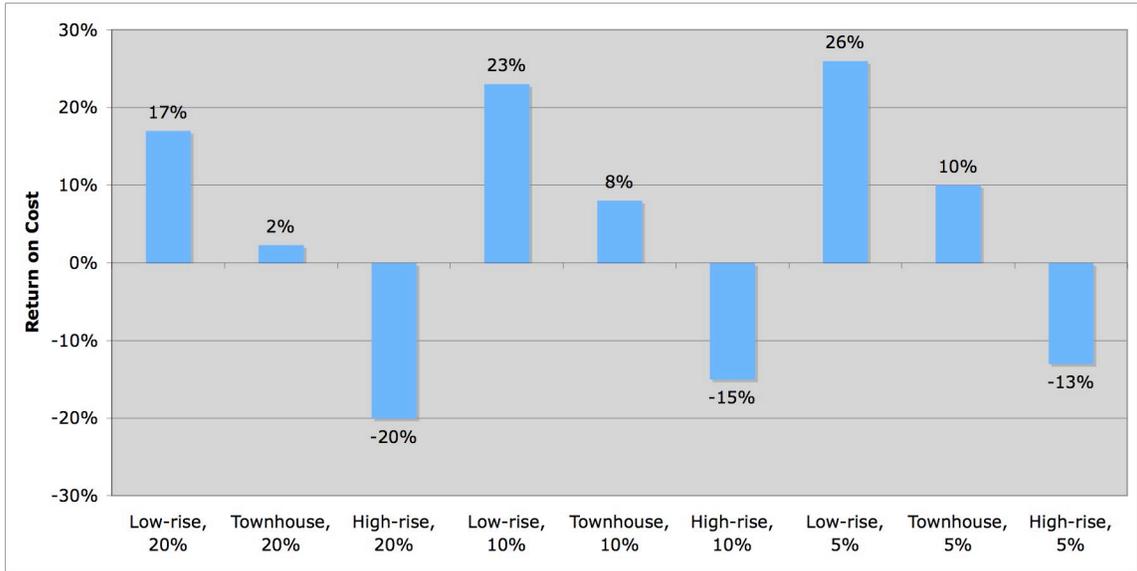


Table 5 of Appendix C shows that with 20% inclusion, the return on cost is only 2% for wood-frame townhouse, 17% for wood-frame low-rise, but -20% (loss) for concrete high-rise. Therefore, the high-rise option is unfeasible, while the wood-frame option with low construction cost is feasible. A typical developer probably may not

accept a return of just 10%, but it would matter less for a non-profit developer. Table 5 also introduces the in-lieu fee option. However, the in-lieu fee actually decreased the returns for both wood-frame prototypes. Figure 4 summarises the return on cost at various levels of inclusion. It shows that the high-rise concrete option is unfeasible for all scenarios.

Conclusions from Sensitivity Analysis

This section analysed the economic feasibility of a conventional inclusionary zoning policy in Vancouver. The study adopted two models for sensitivity analysis and used a set of assumptions that reflect the current market conditions in Vancouver. It concludes that an inclusion of 20% affordable units would incur much cost to the developer, while 10% or 5% is more acceptable, depending on the level of cost adjustment the developer is able to make. When incentives and cost offsets are introduced such as density bonus, exemption from development cost charges, and lower construction costs for affordable units, the project may even benefit in increased market value. However, these are hard choices for the city. Higher density means greater stress on the city's existing infrastructure. Local residents may also oppose greater density, thus politicians in turn may not support the policy. Furthermore, waiving municipal fees would mean less revenue for the city, although in the long-run more units can result in greater property taxes. Hence, the city must consider both short-term and long-term costs and benefits when considering inclusionary zoning.

7. Conclusions

This study examined the inclusionary zoning policies of San Francisco and Vancouver to understand how two similar cities have produced two distinct policies. A look at the enabling legislations showed that both cities have the authority to adopt inclusionary zoning. However, the language in support of affordable housing and municipal tools like inclusionary zoning is stronger in California than in British Columbia. The Vancouver Charter permits inclusionary requirements only as a condition for increased density.

The policy implementation procedure is more discretionary in Vancouver than in San Francisco, while the construction of affordable units in Vancouver is dependent on various stakeholders. The key stakeholder is the Province, which provides construction funding. Unlike San Francisco, the City of Vancouver does not require the developer to immediately build the affordable units, but just set aside the land. The land is then used as leverage by the city to access provincial funds for development. This process has produced significant land holdings for the city, but far fewer units have been built.

The City and County of San Francisco on the other hand has a more streamlined process for policy implementation. The Mayor's Office of Housing administers the Inclusionary Affordable Housing Program, and all developers pursuing a project of five units or more must either build on-site, off-site or pay in-lieu of the units. However, this policy has not necessarily produced more affordable units than in Vancouver. There may be multiples of reasons for this, including the initial voluntary phase of inclusion. Further studies and a more controlled research methodology may shed light on this issue.

Municipalities must approach inclusionary zoning with caution and avoid adopting a carbon copy from another jurisdiction. Each municipality must adopt a model that is suited for its own local context. The current model in Vancouver can be characterised as a pseudo-inclusionary zoning, because the city does not require the financing and construction of affordable units by the developer. There may be voices within the city that push for a more conventional model as in San Francisco. However, based on an economic feasibility analysis, the City of Vancouver may have to reduce its inclusion requirement to 10% or even 5%, depending on the level of developer incentives that the City is willing to offer.

Finally, planners in Vancouver negotiate with developers for various on-site amenities, including open space, public art, pedestrian/cyclist pathways, and community facilities.²² It is easy to regard affordable housing as just another item in a basket of concessions. However, affordable housing is not merely a community asset, but a source of local stability and a testament to social justice. Therefore, it deserves stronger commitment from all levels of governments and development partners.

²² Developers must pay Community Amenity Contributions when rezoning a property in Vancouver. This is in addition to DCLs. On mega-projects requiring rezoning, developers may be on average \$18 per square foot (\$13.5 US), but generally it is negotiated. See fees on “Financing Growth” City of Vancouver, <http://vancouver.ca/commsvcs/cityplans/fg/index.htm>. In San Francisco developers may pay between US\$20-\$30 per square foot, according to Price, 2003, http://www.spur.org/documents/031101_article_01.shtm.

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Appendix A

Table 1. Population, Density and Housing Price, Vancouver and San Francisco

	Vancouver	San Francisco
Population		
City	578,041	799,183
Region	2,116,581	4,203,898
Land (sq. km.)	114.7	120.9
City Population Density	5,041	6,610
Median Income		
City Census family	\$58,805	(US) \$81,136
City Private household	\$47,299	(US) \$65,519
Home Price (2008)		
Average	\$593,500	-
Median	-	(US) \$749,000
Average Rent (2-Bed)	\$1,318	(US) \$2,285

Sources:

Median Income: Statistics Canada, Census 2006, Community Profile: City of Vancouver; and U.S. Census Bureau, Fact Sheet, San Francisco City, 2005-2007
Home price: Royal LePage 2009 Market Survey Forecast; and California Association of Realtors “2008 Median Home Prices”, 2009
Rent: CMHC Rental Survey 2008; and SFGate/RealFacts, 2006
Land Area: “CityFacts”, 2006 <http://vancouver.ca/commsvcs/PLANNING/stats.htm>; and “Fun Facts and Statistics”, 2009, <http://www.sfgov.org>

Appendix B: Summary of Research Papers on Inclusionary Zoning (IZ)

Study	Methodology	Conclusions
<p>“The Potential Effects of Inclusionary Zoning in Canada” by Altus Clayton for Canadian Home Builders’ Association May, 2008</p>	<p>Literature review of American studies; Economic feasibility study on Edmonton and Toronto</p>	<ul style="list-style-type: none"> • U.S. experience shows that IZ does not produce high volume of affordable housing; it can cause the average house price to increase; it results in less homes being built and worsens housing affordability • IZ is unfair to homebuyers and land owners • Density bonus can be negative to neighbourhoods; if it is allowed, then current zoning is not set to ‘optimal’ density • Cash in lieu is housing tax
<p>“Implementing Inclusionary Policy to Facilitate Affordable Housing Development in Ontario” by John Gladki and Steve Pomeroy for Ontario Non-profit Housing Association (ONPHA) October, 2007</p>	<p>Lit Review and economic feasibility study using residual land value and impact on market value in Ottawa Toronto markets</p>	<ul style="list-style-type: none"> • IZ is not a panacea but an option • Legal framework for IZ needs to be clarified • Province must revise and clarify legislation to give full authority to municipalities to implement a inclusionary policy of their choice (with specific recommendations for Ontario) • Recommendation: 15% inclusion for ownership with 25% density bonus, targeting household income 40th percentile • Rental 15% inclusion, min 25% density bonus, targeting household income 40th percentile
<p>“The Effects of Inclusionary Zoning on Local Housing Markets: Lessons from the San Francisco, Washington DC and Suburban Boston Areas” by Jenny Schuetz, Rachel Metzger, Vicki Been for Furman Centre, NYU and Center for Housing Policy March 2008</p>	<p>Case study of three areas: San Francisco Bay Area, Suburban Boston, Washington D.C. Area: descriptive statistics on Washington area, regression analysis on San Francisco and Boston areas</p>	<ul style="list-style-type: none"> • Larger, more affluent jurisdictions are more likely to adopt IZ • Those that adopt IZ have adopted other land use regulations like cluster zoning or growth management • Programs with density bonus and exemptions for smaller projects produced more affordable units in the Bay Area • In the Bay Area, there is no evidence that IZ impacts either the prices or production of single-family homes • In suburban Boston, IZ seems to result in small decrease in production and slight increase in price of single-family homes

<p>“Housing Market Impacts of Inclusionary Zoning” by Gerrit-Jan Knaap, Antonio Bento and Scott Lowe for National Centre for Smart Growth Research and Education February 2008</p>	<p>Multivariate statistical analysis of housing starts, price and size, as affected by adoption of inclusionary zoning in 65 jurisdictions across California, 1988 to 2005</p>	<ul style="list-style-type: none"> • IZ affects on housing: 1) the share of multifamily housing increases, 2) the price of single family increases, 3) the size of single family homes decreases • There is no significant reduction in single-family housing starts, although the share of multifamily increased by 7% • In the housing boom of post 1991 recession, IZ did not slow the overall rate of housing production, but did cause a shift from single-family to multi-family housing • Housing price in cities that adopt IZ increased by 2-3% faster than cities that did not adopt IZ, but housing price effects were greater in higher priced markets than lower priced market • Findings suggest that housing producers did not in general respond to IZ by reducing production, but did pass the increase in project costs to homeowners • Findings suggest that housing producers increase the price of more expensive homes in response to IZ in markets where residents are less sensitive to price, and decrease the size of less expensive homes in markets where residents are more sensitive to price
<p>“Affordable by Choice: Trends in California Inclusionary Housing Program” by Nico Calavita for Non-Profit Housing Association of Northern California (NPH), California Coalition for Rural Housing (CCRH), Sacramento Housing Alliance (SHA), San Diego Housing Federation (SDHF) June 2007</p>	<p>State wide survey of inclusionary housing policies in local jurisdictions</p>	<ul style="list-style-type: none"> • Nearly one-third of all California jurisdictions (170 in total) have inclusionary programs • More than 80,000 people housed through the program • Most inclusionary affordable units are integrated within market-rate developments • Nearly three-quarters of the housing produced is affordable to households with low (as opposed to modest) household income • Lower income households are best served through partnerships: one-third of units produced from inclusionary policies are partnerships between market-rate developers and non-profit housing developers

<p>“Summary Report, Inclusionary Housing Program, San Francisco Sensitivity Analysis” Keyser Marston Associates, Inc. August 2006</p>	<p>Sensitivity analysis of San Francisco housing market</p>	<ul style="list-style-type: none"> • All prototypes (low-rise wood-frame to high-rise concrete) have acceptable returns with in-lieu payments • Only wood-frame project is feasible with on-site compliance • All other prototypes are not feasible with on-site compliance with sales geared towards households with less than median income, due to rising construction costs and stagnant income • Off-site option is less favourable than in-lieu fees but better than on-site requirement for mid to high-rise projects
<p>“Smart Growth, Smart Choices Series: The Builder’s Perspective on Inclusionary Zoning” Edward A. Tombari November 2005</p>	<p>Cost benefit analysis; Trend analysis in San Francisco, Los Angeles, Washington D.C., Boston and Denver</p>	<ul style="list-style-type: none"> • Benefits of IZ programs are minimal • IZ is a form of price control; it causes filtering of developers into other jurisdictions without IZ and leakage – loss of tax revenue through displacement of development • IZ tends to favour more moderate-income groups, and less low-income households • IZ reduced supply and increased cost of housing as a result • Its does not lead to socio-economic integration • Political leadership on building affordable housing has greater force than economic policies and local regulations
<p>“Housing Supply and Affordability: Do Affordable Housing Mandates Work?” Benjamin Powell and Edward Stringham for Reason Foundation April 2004</p>	<p>Quantitative analysis of data from communities in the San Francisco Bay Area</p>	<ul style="list-style-type: none"> • IZ produces few units and don’t meet affordable housing needs • IZ poses a huge cost burden on the housing industry • IZ makes market-priced units much more expensive and thus restricts supply of new homes • Restriction on development and resale of affordable units costs government on foregone taxes • Price control does not address the cause of affordability problem

<p>“Inclusionary Zoning: The California Experience” by NHC Affordable Housing Policy Review, v.3 (1), February 2004</p>	<p>2002/03 survey of all planning agencies in California; analysis of constitutionality of IZ; analysis of impact on land value (residual land value analysis for Los Angeles and Long Beach)</p>	<ul style="list-style-type: none"> • 107 jurisdictions in California adopted some form of IZ, most mandatory in the form of local ordinance, a General Plan policy or permit approval process • Density bonus is the most common form of incentive to developers • Biggest obstacle to implementation is scarcity of land for development, followed by developer opposition • IZ ordinance can survive constitutional challenge if it is based on established facts, sound analysis and incorporate fair due process • There is no correlation between IZ adoption and reduction on housing development activity (1981-2001 analysis) • When the combined effects of costs and incentives do not affect the residual land value by no more than 10-20%, the policy may be deemed economically feasible
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There are many more general reports on inclusionary zoning, including the two following Canadian studies:

- “Inclusionary Zoning: A Tool to Address Calgary’s Affordable Housing Needs” by Poverty Reduction Coalition, Calgary, April 2007.
- “Overview of Inclusionary Zoning Policies for Affordable Housing” by Metro Vancouver, August 2007.

APPENDIX C: Economic Feasibility Analysis of Inclusionary Zoning in Vancouver

(Model by Focus Consulting and GHK International)

Assumptions			
Land size (200X240) sq ft	48,000	Income*	55,231
Ave. unit size (sq.ft.)	1,000	interest	0.06
Affordable Price	285,092	Amortization	30
Market Price***	450,000	Payment	16,569
Construction Cost p. sq. ft.	181	Present Value	228,074

Table 1. Impact of Inclusion on Residual land Value

	Price per unit	Base Case	Inclusion Only			With 20% Density Bonus			Affordable units at 80% of construction cost		
			20% Inclusion	10% Inclusion	5% Inclusion	With 20% Density Bonus					
						20% Inclusion	10% Inclusion	5% Inclusion	20% Inclusion	10% Inclusion	5% Inclusion
Affordable units	285,092	-	10	5	3	12	6	3	12	6	3
Market units	450,000	50	40	45	47	48	54	57	48	54	57
Total units		50	50	50	50	60	60	60	60	60	60
Revenue (anticipated)											
Affordable units		-	2,850,922	1,425,461	855,277	3,421,107	1,710,553	855,277	3,421,107	1,710,553	855,277
Market units		22,500,000	18,000,000	20,250,000	21,150,000	21,600,000	24,300,000	25,650,000	21,600,000	24,300,000	25,650,000
Total		22,500,000	20,850,922	21,675,461	22,005,277	25,021,107	26,010,553	26,505,277	25,021,107	26,010,553	26,505,277
Cost											
Construction (hard) cost	181,000	9,050,000	9,050,000	9,050,000	9,050,000	10,860,000	10,860,000	10,860,000	10,425,600	10,642,800	10,751,400
Construction financing (10%)	18,100	905,000	905,000	905,000	905,000	1,086,000	1,086,000	1,086,000	1,042,560	1,064,280	1,075,140
Contingency (10%)	18,100	905,000	905,000	905,000	905,000	1,086,000	1,086,000	1,086,000	1,042,560	1,064,280	1,075,140
Soft cost (20% of hard)	36,200	1,810,000	1,810,000	1,810,000	1,810,000	2,172,000	2,172,000	2,172,000	2,085,120	2,128,560	2,150,280
Developer profit (15%)**	67,500	3,375,000	3,375,000	3,375,000	3,375,000	3,375,000	3,375,000	3,375,000	3,375,000	3,375,000	3,375,000
Total		16,045,000	16,045,000	16,045,000	16,045,000	18,579,000	18,579,000	18,579,000	17,970,840	18,274,920	18,426,960
Residual land value	129,100	6,455,000	4,805,922	5,630,461	5,960,277	6,442,107	7,431,553	7,926,277	7,050,267	7,735,633	8,078,317
land p. sq. ft.		134	100	117	124	134	155	165	147	161	168
Comparison to Base Case											
Impact on land value			(1,649,078)	(824,539)	(494,723)	(12,893)	976,553	1,471,277	595,267	1,280,633	1,623,317
Impact as % of base case			-26%	-17%	-9%	-0.2%	15%	20%	8%	18%	21%

NOTES

Base Case has no inclusion of affordable units

*Median private household income from Statistics Canada, Census 2006, Vancouver CMA

**Developer's profit held constant at 15% of base case revenue, so any impact is absorbed by land value

Assume construction for market and non-market units occur concurrently

Affordable units are rounded up after inclusion calculation (i.e. 2.5 is 3)

Affordable Price is the assumed mortgage (present value) of a median income household plus 20% equity

***Market price reflects ave. vancouver condo price, adapted from Royal LePage Survey of Canadian Housing Prices

Soft costs includes municipal fees

Table 2. Impact of Inclusion as Percentage of Market Value

Assumptions											
Land size (200X240) sq ft	48,000										
Land cost (base case residual value)	6,455,000	Affordable units at 80% of construction cost									
		Inclusion Only			With 20% Density Bonus						
		Base Case	20% Inclusion	10% Inclusion	5% Inclusion	With 20% Density Bonus			With 20% Density Bonus		
		Base Case	20% Inclusion	10% Inclusion	5% Inclusion	20% Inclusion	10% Inclusion	5% Inclusion	20% Inclusion	10% Inclusion	5% Inclusion
Median Income (50th Percentile Income)	55,231										
Market value (anticipated)	22,500,000	20,850,922	21,675,461	22,005,277	25,021,107	26,010,553	26,505,277	25,021,107	26,010,553	26,505,277	
Total Costs (including land)	22,500,000	22,500,000	22,500,000	22,500,000	25,034,000	25,034,000	25,034,000	24,425,840	24,729,920	24,881,960	
Impact on total cost (market value - total cost)		(1,649,078)	(824,539)	(494,723)	(12,893)	976,553	1,471,277	595,267	1,280,633	1,623,317	
per affordable unit		(164,908)	(164,908)	(164,908)	(1,074)	162,759	490,426	49,606	213,439	541,106	
per all units		(32,982)	(16,491)	(9,894)	(215)	16,276	24,521	9,921	21,344	27,055	
Impact as % market value		-7.9%	-3.8%	-2.2%	-0.1%	3.8%	5.6%	2.4%	4.9%	6.1%	

Table 3. Summary of Impact of Inclusion by Varying Affordability

		Affordable units at 80% of construction cost								
		Inclusion Only			With 20% Density Bonus			With 20% Density Bonus		
Affordable Price		20% Inclusion	10% Inclusion	5% Inclusion	20% Inclusion	10% Inclusion	5% Inclusion	20% Inclusion	10% Inclusion	5% Inclusion
Household earning ave. \$65,000		\$335,518								
Market value (anticipated)		21,355,178	21,927,589	22,156,553	25,626,213	26,313,107	26,656,553	25,626,213	26,313,107	26,656,553
Total Costs (including land)		22,500,000	22,500,000	22,500,000	25,034,000	25,034,000	25,034,000	24,425,840	24,729,920	24,881,960
Impact on total cost (market value - total cost)		(1,144,822)	(572,411)	(343,447)	592,213	1,279,107	1,622,553	1,200,373	1,583,187	1,774,593
per affordable unit		(114,482)	(114,482)	(114,482)	49,351	213,184	540,851	100,031	263,864	591,531
per all units		(22,896)	(11,448)	(6,869)	9,870	21,318	27,043	20,006	26,386	29,577
Impact as % market value		-5.4%	-2.6%	-1.6%	2.3%	4.9%	6.1%	4.7%	6.0%	6.7%
Household earning ave. \$55,000		\$283,900								
Market value (anticipated)		20,838,996	21,669,498	22,001,699	25,006,796	26,003,398	26,501,699	25,006,796	26,003,398	26,501,699
Total Costs (including land)		22,500,000	22,500,000	22,500,000	25,034,000	25,034,000	25,034,000	24,425,840	24,729,920	24,881,960
Impact on total cost (market value - total cost)		(1,661,004)	(830,502)	(498,301)	(27,204)	969,398	1,467,699	580,956	1,273,478	1,619,739
per affordable unit		(166,100)	(166,100)	(166,100)	(2,267)	161,566	489,233	48,413	212,246	539,913
per all units		(33,220)	(16,610)	(9,966)	(453)	16,157	24,462	9,683	21,225	26,996
Impact as % market value		-8.0%	-3.8%	-2.3%	-0.1%	3.7%	5.5%	2.3%	4.9%	6.1%
Household earning ave. \$45,000		\$232,282								
Market value (anticipated)		20,322,815	21,411,408	21,846,845	24,387,378	25,693,689	26,346,845	24,387,378	25,693,689	26,346,845
Total Costs (including land)		22,500,000	22,500,000	22,500,000	25,034,000	25,034,000	25,034,000	24,425,840	24,729,920	24,881,960
Impact on total cost (market value - total cost)		(2,177,185)	(1,088,592)	(653,155)	(646,622)	659,689	1,312,845	(38,462)	963,769	1,464,885
per affordable unit		(217,718)	(217,718)	(217,718)	(53,885)	109,948	437,615	(3,205)	160,628	488,295
per all units		(43,544)	(21,772)	(13,063)	(10,777)	10,995	21,881	(641)	16,063	24,415
Impact as % market value		-10.7%	-5.1%	-3.0%	-2.7%	2.6%	5.0%	-0.2%	3.8%	5.6%
Household earning ave. \$35,000		\$180,663								
Market value (anticipated)		19,806,634	21,153,317	21,691,990	23,767,961	25,383,980	26,191,990	23,767,961	25,383,980	26,191,990
Total Costs (including land)		22,500,000	22,500,000	22,500,000	25,034,000	25,034,000	25,034,000	24,425,840	24,729,920	24,881,960
Impact on total cost (market value - total cost)		(2,693,366)	(1,346,683)	(808,010)	(1,266,039)	349,980	1,157,990	(657,879)	654,060	1,310,030
per affordable unit		(269,337)	(269,337)	(269,337)	(105,503)	58,330	385,997	(54,823)	109,010	436,677
per all units		(53,867)	(26,934)	(16,160)	(21,101)	5,833	19,300	(10,965)	10,901	21,834
Impact as % market value		-13.6%	-6.4%	-3.7%	-5.3%	1.4%	4.4%	-2.8%	2.6%	5.0%
Household earning ave. \$25,000		\$129,045								
Market value (anticipated)		19,290,453	20,895,226	21,537,136	23,148,544	25,074,272	26,037,136	23,148,544	25,074,272	26,037,136
Total Costs (including land)		22,500,000	22,500,000	22,500,000	25,034,000	25,034,000	25,034,000	24,425,840	24,729,920	24,881,960
Impact on total cost (market value - total cost)		(3,209,547)	(1,604,774)	(962,864)	(1,885,456)	40,272	1,003,136	(1,277,296)	344,352	1,155,176
per affordable unit		(320,955)	(320,955)	(320,955)	(157,121)	6,712	334,379	(106,441)	57,392	385,059
per all units		(64,191)	(32,095)	(19,257)	(31,424)	671	16,719	(21,288)	5,739	19,253
Impact as % market value		-16.6%	-7.7%	-4.5%	-8.1%	0.2%	3.9%	-5.5%	1.4%	4.4%

Table 4. Impact of Inclusion After Reduction in Municipal Fees on Affordable Units for Median income household

Assumptions										
Land size (200X240) sq ft	48,000									
Land cost (base case residual value)	6,455,000									
Municipal fees p. sq. ft.	11.5									
Development cost levy only	6.0									
		Inclusion Only			With 20% Density Bonus			Affordable units at 80% of construction cost		
					With 20% Density Bonus					
	Base Case	20% Inclusion	10% Inclusion	5% Inclusion	20% Inclusion	10% Inclusion	5% Inclusion	20% Inclusion	10% Inclusion	5% Inclusion
Median Income (50th Percentile Income)	55,231									
Market value (anticipated)	22,500,000	20,850,922	21,675,461	22,005,277	25,021,107	26,010,553	26,505,277	25,021,107	26,010,553	26,505,277
Total Costs (including land)	22,500,000	22,500,000	22,500,000	22,500,000	25,034,000	25,034,000	25,034,000	24,425,840	24,729,920	24,881,960
minus DCL waived		300,000	300,000	300,000	360,000	360,000	360,000	360,000	360,000	360,000
Net Total Cost (including land)		22,200,000	22,200,000	22,200,000	24,674,000	24,674,000	24,674,000	24,065,840	24,369,920	24,521,960
Impact on total cost (market value - total cost)		(1,349,078)	(524,539)	(194,723)	347,107	1,336,553	1,831,277	955,267	1,640,633	1,983,317
per affordable unit		(134,908)	(104,908)	(64,908)	28,926	222,759	610,426	79,606	273,439	661,106
per all units		(26,982)	(10,491)	(3,894)	5,785	22,276	30,521	15,921	27,344	33,055
Impact as % market value		-6.5%	-2.4%	-0.9%	1.4%	5.1%	6.9%	3.8%	6.3%	7.5%

Table 5. Return on Investment with 20% Inclusion - Sensitivity to Housing Type and Construction Cost

(Model by Keyser Marston Associates)

Assumptions				BC Construction Cost (p. sq ft.)			
Land size (200X240) sq ft	48,000				low	high	average
Land price	6,455,000	Unit Price		High-rise residential (above 10 storeys)	269	344	307
Ave. unit size (sq. ft.)	1,000	Market	450,000	Low-rise condo (up to 4 storeys)	139	167	153
Units (low-rise)	50	Non-market	230,000	Townhouse, wood frame	167	195	181
Municipal fees p. sq. ft.	11.5	In-lieu fee	220,000				
<i>Source: BTY Group, Market Intelligence, 2007</i>							

Development Program (assumed)	Townhouse, Wood frame			In-lieu option	Low-rise Wood frame			In-lieu option	High-rise Concrete			In-lieu option
Ave. unit size (sf)	1,000				1,000				1,000			
No. of market units	40				40				80			
No. of non-market units	10				10				20			
Total number of units	50				50				100			
Development Costs	per SF	per Unit	Total		per SF	per Unit	Total		per SF	per Unit	Total	
Land	129	129,100	6,455,000		129	129,100	6,455,000		65	64,550	6,455,000	
Construction	181	181,000	9,050,000		153	153,000	7,650,000		307	306,500	30,650,000	
Municipal Fees	11.5	11,500	575,000		11.5	11,500	575,000		11.5	11,500	1,150,000	
Construction contingency @10%	18	18,100	905,000			15,300	765,000			30,650	3,065,000	
Other soft costs @15% of Const.	27	27,150	1,357,500			22,950	1,147,500			45,975	4,597,500	
Const. financing interest @10%	18	18,100	905,000			15,300	765,000			30,650	3,065,000	
Total Development costs	385	384,950	19,247,500	19,247,500	347,150	17,357,500	17,357,500	17,357,500	48,982,500	48,982,500	48,982,500	48,982,500
(plus) In-lieu fee				2,200,000				2,200,000				4,400,000
Revenue												
Market rate residential sales	450	450,000	18,000,000	22,500,000			18,000,000	22,500,000			36,000,000	45,000,000
Non-market sales			2,300,000				2,300,000	-			4,600,000	-
Gross Sales Revenue			20,300,000	22,500,000			20,300,000	22,500,000			40,600,000	45,000,000
(less) Sales Expenses @ 3% of revenue			609,000	675,000			609,000	675,000			1,218,000	1,800,000
Net Sales Revenue			19,691,000	21,825,000			19,691,000	21,825,000			39,382,000	43,200,000
Returns (to investors and developers)			443,500	377,500			2,942,500	2,267,500			(9,600,500)	(10,182,500)
as % of Total Costs (ROC)			2.3%	1.8%			17%	12%			-20%	-19%

NOTES

Market price reflects ave. Vancouver condo price, adapted from Royal LePage Survey of Canadian Housing Prices (2006-2008)

Assume construction for market and non-market units occur concurrently

Assume construction cost for market and non-market units are the same

At just \$450 p. sq. ft. the market units are modest units