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**PROJECTIONS OF THE DEMAND AND SUPPLY OF  
TRANSFERABLE DENSITY IN THE CITY OF  
VANCOUVER: 2006 TO 2011**

**PREPARED FOR:  
CITY OF VANCOUVER**

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**CORIOLIS CONSULTING CORP.**

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## 1.0 INTRODUCTION

The City of Vancouver uses a variety of approaches to encourage or assist private property owners to maintain and improve heritage buildings.

Because the restoration of historic buildings is expensive and because many heritage buildings occupy sites with redevelopment potential, the City has developed an incentive program to make rehabilitation financially attractive<sup>1</sup> to land owners and developers.

One of the main incentives the City provides is the granting of additional or bonus development rights and allowing the transfer off-site of development rights in exchange for the retention and upgrade of heritage buildings.

The density bonus and transfer system works like this:

1. The owner of a heritage property and the City agree on the value of financial incentive that is needed to make rehabilitation/retention more attractive to the property owner than redevelopment.
2. The owner and the City then agree on the amount of development rights that the property owner must be able to use or sell to generate the needed incentive. For example, if the required incentive is \$1.0 million and development rights are agreed to have a value of \$50 per square foot, the required incentive is 20,000 square feet.
3. Depending on the physical characteristics of the site (particularly whether or not the site can accommodate the heritage building and new floorspace) and the existing zoning (particularly whether the site has residual or unused development rights<sup>2</sup>), the City and the owner agree on an arrangement that could include:

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<sup>1</sup> The City aims to make retention/rehabilitation of a heritage building marginally more financially rewarding than redevelopment, providing just enough incentive to tip the balance in favour of retaining heritage buildings.

<sup>2</sup> Residual or unused development rights equals the total floor area allowed under existing zoning less the floor area of the existing improvements.

- The granting of bonus floorspace (i.e., above the density allowed under zoning) to be developed on site in conjunction with the retention of the heritage building.
- The right to transfer unused or residual density to other sites.
- The granting of bonus floorspace that can be transferred to other sites.

The system, therefore, produces transferable floorspace<sup>3</sup> which the heritage property owner can sell on the open market to owners of other properties who are able to use the extra floorspace in a development project.

There are two mechanisms for developers of receiver sites to obtain approval to use transferable density at their project:

1. The permitted FSR at a site that receives transferred density can be increased by up to 10% above existing zoning through the development permit process. Beyond 10%, rezoning is required. As part of the approval process for a density increase, the receiver site must meet the City's urban design objectives and height limits.

The following sites are excluded as potential receiver sites for transferable heritage density, without rezoning:

- A site already receiving an increase in density due to the hotel bonus (up to 15%) available under the Downtown Official Development Plan.
  - A site already receiving a density increase due to a previous heritage transfer.
  - A site containing an SRO hotel, unless the units are secured or replaced.
  - A site zoned CD-1, unless a provision is included in the CD-1 bylaw.
2. As part of the negotiations with the City for rezoning approval, applicants often make voluntary community amenity contributions (CACs) to help fund public amenities and facilities. A portion of the CACs from projects in the receiver area go toward heritage contributions. This heritage contribution either takes place through on-site heritage restoration or by purchasing transferable density.

Owners of the transferable density may sell the density to one "receiver" site or sell it in portions to several sites. Owners may sell the density immediately or hold it to sell in the

future. The price of transferable density is negotiable between the buyer and seller and therefore can fluctuate depending on how much is available for sale (supply or inventory) and how many developers are looking for extra density (demand).

The system has operated in this way since 1993.

The success of the City's Heritage Building Revitalization Program has resulted in an increasing number of heritage properties negotiating Heritage Revitalization Agreements (HRAs) with the City. These HRAs have resulted in a large new supply of transferable density recently being approved, leading to concern that the inventory of transferable density may outpace the demand for the density. If supply outpaces demand for an extended period of time, it is possible that the value of transferable density will decline. If the value falls, larger bonuses will be needed to provide adequate incentives, which will continue to increase the inventory of transferable density and put further pressure on prices.

Falling prices for transferable density has two impacts:

- Owners of heritage properties may be reluctant to use the system if they anticipate that the density bonus is a deflating commodity.
- Lower prices mean the City must grant larger bonuses to provide enough incentive to allow heritage rehabilitation projects to proceed.

The greatest risk is the possibility that an increasing inventory of unsold space will deflate price and result in heritage owners being unwilling to participate in the program.

Therefore the City commissioned Coriolis Consulting Corp. to:

1. Project potential demand for transferable density over the next several years.
2. Compare the demand projections with the City's projections of potential creation of transferable density over the next several years to evaluate the likely inventory (or bank) of transferable density.

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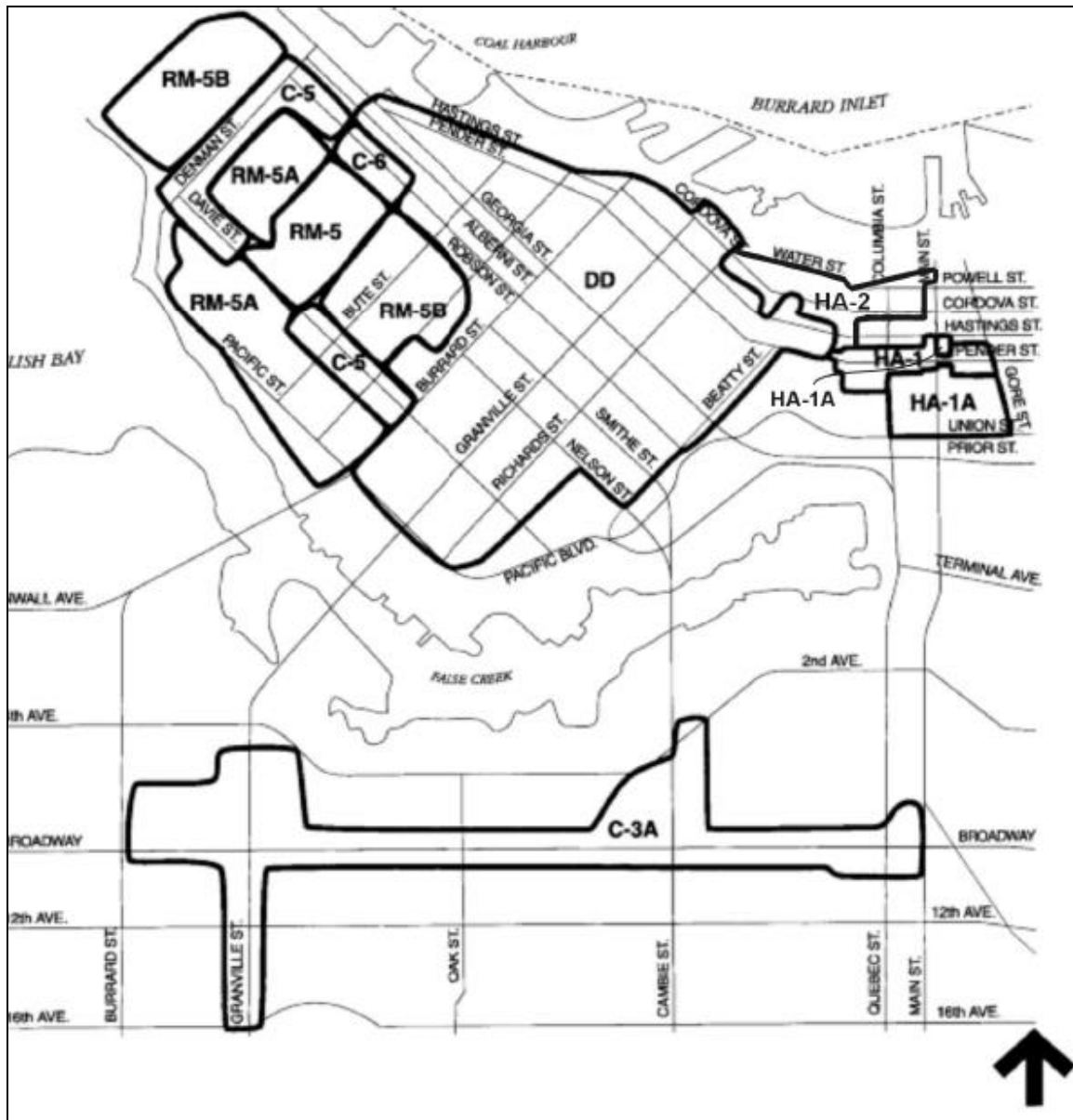
<sup>3</sup> Which may be bonus density, residual density or a combination.

3. Comment on strategies that the City is considering to increase demand for transferable density.
4. Comment on strategies that the City is considering to manage the creation of transferable density.

## 2.0 EXISTING AREAS IN THE SYSTEM

The City of Vancouver's transfer of density policies for heritage preservation apply to the geographic area outlined on Map 1. Eligible source sites (heritage buildings) can be located in the West End, Downtown, Central Broadway, and parts of the Downtown East Side (including Chinatown, Gastown, Victory Square, and East Hastings Street).

Map 1: Existing Policy Area



Source: City of Vancouver.

The City has designated a policy area, comprised of the West End, Downtown and Central Broadway, within which all sites (except those zoned CD) are potentially eligible receivers of transferable density<sup>4</sup>. Within this policy area, density can be transferred to any site that can meet the City's urban design guidelines. The transfer can "cross" zoning boundaries, meaning that density originating at a heritage site can become residential, commercial or institutional depending on the zoning of the receiver site, regardless of the zoning of the source site.

Outside this policy area, heritage density transfers can occur if the source and receiver sites are not separated by a zoning district boundary or by a use, height, or density boundary in a Official Development Plan.

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<sup>4</sup> CD zoned sites are excluded (unless the CD Zone for a site explicitly enables density increases) because the CD rezoning and development approval process involves detailed urban design and architectural work to determine the siting, height, and massing of buildings, so that it is not considered possible to incorporate additional space transferred from the heritage density bank.

### 3.0 TRENDS IN DEMAND AND SUPPLY OF TRANSFERABLE DENSITY

#### 3.1 HISTORIC DEMAND AND RECENT TRENDS

The following table summarizes the average annual demand for transferable density in the receiver area from 1994 to 2005 divided into 3 year intervals as well as the 12 year average.

Table 1

	3 Year Annual Averages				12 Year Average
	1994 to 1996	1997 to 1999	2000 to 2002	2003 to 2005	1994 to 2005
Average Annual Demand for Transferable Density	69,309 sq.ft.	104,434 sq.ft.	29,073 sq.ft.	187,020 sq.ft.	97,459 sq.ft.

Demand for transferable density averaged about 97,500 sq.ft. per year from 1994 to 2005. However, since 2003 demand has been significantly higher. Between 2003 and 2005, demand averaged about 187,000 sq.ft. per year, reaching an all time high of 238,881 sq.ft. in 2005.

3.2 HISTORIC CREATION AND RECENT TRENDS

The following table summarizes the amount of transferable density created each year from 1993 to 2005.

Table 2

Year	Density Approved For Transfer
1993	255,751 sq.ft.
1994	0 sq.ft
1995	155,793 sq.ft
1996	80,457 sq.ft
1997	35,000 sq.ft
1998	6,275 sq.ft
1999	0 sq.ft
2000	54,200 sq.ft
2001	38,500 sq.ft
2002	258,637 sq.ft
2003	15,000 sq.ft
2004	165,108 sq.ft
2005	259,460 sq.ft
13 Year Average 1993 to 2005	101,860 sq.ft

Average annual creation of transferable density was about 102,000 sq.ft. per year from 1993 to 2005. However, since 2004 creation has averaged about 212,000 sq.ft. per year. This increase is partly due to the start of the Heritage Building Revitalization Program (HBRP) in 2004.

Creation of transferable density has increased dramatically during 2006. Based on information provided by the City, an estimated 1,005,082 sq.ft. (including the Woodward's project) of transferable density has been approved at projects during January to May 2006. City staff estimate that a further 1,198,796 sq.ft. will be approved at projects in the approval process by the end of 2006, bringing the total to about 2,203,878 sq.ft. created during 2006 (or over 20 times the historic average).

3.3 TRENDS IN THE OVERALL INVENTORY OF TRANSFERABLE DENSITY

The following table summarizes annual transferable density creation, demand and the overall year end inventory (or bank) from 1993 to 2005 (all figures are in sq.ft.). The table also includes the estimated number of years of supply of transferable density based on demand over the previous three years.

Table 3

Year	Density Approved For Transfer (Creation)	Density Transferred (Demand)	Year End Balance (Inventory)	3 Year Rolling Average Demand	Estimated Year s of Supply <sup>5</sup>
1993	255,751	5,425	250,326	n/a	n/a
1994	0	58,927	191,399	n/a	n/a
1995	155,793	140,000	207,192	68,117	3.0
1996	80,457	9,000	278,649	69,309	4.0
1997	35,000	74,116	239,533	74,372	3.2
1998	6,275	220,546	25,262	101,221	0.3
1999	0	18,639	6,624	104,434	0.1
2000	54,200	3,400	57,424	80,862	0.7
2001	38,500	2,915	93,009	8,318	11.2
2002	258,637	80,903	270,743	29,073	9.3
2003	15,000	224,836	61,357	102,735	0.6
2004	165,108	97,793	128,672	134,361	1.0
2005	259,460	238,881	149,250	187,020	0.8

Notes: all figures in sq.ft. unless specified.

As shown in the table, the overall year end inventory of transferable density has ranged from a low of about 6,600 sq.ft. (1999) to a high of about 278,600 sq.ft. (1996). In terms of the estimated number of years of supply, the inventory only exceeded 4 years of demand during 2001 and 2002. This was a time period when there was very low demand for transferable density which resulted in softening market values for transferable density. Since 2002, demand has increased and the inventory has declined leading to higher market values for transferable density, although potential creation in 2006 will dramatically increase the inventory.

<sup>5</sup> Calculated based on year end inventory (supply) divided by average annual demand over previous 3 year period.

## 4.0 DEMAND FOR TRANSFERABLE DENSITY

### 4.1 MAIN FACTORS AFFECTING DEMAND

There are five main factors that affect the demand for transferable density:

1. The total amount of development (i.e., floorspace) in the receiver area. Our historic analysis indicates that demand for transferable density increases during periods of high development activity in the receiver area. Therefore, to estimate future demand for transferable density it is important to estimate future development in the receiver area.
2. The share of projects that apply for a floorspace bonus during the development permit approval process by acquiring transferable density. The permitted FSR at a site that receives transferred density can be increased by up to 10% above existing zoning without having to rezone the site (through the development permit process). Beyond 10%, rezoning is required. As part of the approval process for a density increase, the receiver site must meet the City's urban design objectives and height limits.
3. The share of total development in the receiver area due to projects that obtain rezoning approval. As part of the negotiations with the City for rezoning approval, applicants often make voluntary community amenity contributions (CACs) to help fund public amenities and facilities. A portion of the CACs from projects in the receiver area go toward heritage contributions. This heritage contribution either takes place through on-site heritage restoration or by purchasing transferable density. Our analysis indicates that projects which go through rezoning have generated higher demand for transferable density than projects that apply for the maximum 10% bonus at development permit. Therefore, the greater the share of development that comes via rezonings, the higher the demand for transferable density.
4. The value of CACs. The value of the voluntary CACs from a rezoning depends in part on the increase in the value of the property attributable to the rezoning (i.e., the land lift). A higher land lift typically results in higher CACs. Therefore, the scale of

individual rezonings and the land value created by each rezoning will directly influence the magnitude of the CACs. This will influence the total value of heritage contributions and the demand for transferable density from projects that go through rezonings.

5. The share of CACs in the receiver area that are attributed to transferable density. CACs are used to fund a variety of public amenities and facilities. The share of CACs that is allocated to transferable density will directly influence future demand for transferable density.

This section evaluates each of these factors to help project future demand.

## 4.2 TOTAL DEVELOPMENT IN THE RECEIVER AREA

### 4.2.1 *Historic Annual Floorspace Development*

The following table summarizes the average annual total completed new floorspace (commercial, residential and institutional) in the receiver area from 1994 to 2005 divided into 3 year intervals as well as the 12 year average. Please note that the receiver area excludes portions of Downtown (such as North False Creek and Coal Harbour) that also experienced significant development over this time frame.

Table 4

	3 Year Annual Averages				12 Year Average
	1994 to 1996	1997 to 1999	2000 to 2002	2003 to 2005	1994 to 2005
Average Annual Developed Floorspace in Receiver Area	1,920,324 sq.ft.	1,599,555 sq.ft.	1,487,750 sq.ft.	1,480,881 sq.ft.	1,622,128sq.ft.

Total development in the receiver area averaged about 1,480,000 sq.ft. per year from 2003 to 2005, slightly less than the 12 year historic average of 1,620,000 sq.ft. per year. Total development was higher between the 1994 to 1996 period when both residential and office construction were active in the receiver area.

#### 4.2.2 Outlook for Demand in Receiver Areas

Total development in the receiver area has averaged about 1,500,000 to 1,600,000 sq.ft. per year over both the long term and over the past three years (2003 to 2005). In recent years, this has been comprised almost entirely of new residential development. Demand for housing in the receiver area is anticipated to remain high for the next several years for a variety of reasons, such as:

1. The Downtown area is an established and attractive residential location, popular among a wide range of purchasers.
2. Population growth in Vancouver and the rest of the GVRD is anticipated to remain strong, creating demand for additional housing.
3. The BC and local Vancouver economies are growing, creating additional employment opportunities in Vancouver and nearby locations. This will draw additional residents to the City, creating demand for new housing.
4. Downtown Vancouver is expected to continue to be a popular location for investors and second home purchasers.

There has been little office development in the receiver area since 2003, despite growing demand for office space in Downtown Vancouver. This has resulted in a low office vacancy rate in Downtown Vancouver (currently estimated at about 5%). Office development in the receiver area should increase in over the next few years to meet growing demand, assuming good quality office sites are available.

We examined two development scenarios in the receiver area over the next few years:

1. A lower scenario which assumes that development continues at the receiver area's historic average of about 1,550,000 sq.ft. per year.
2. A higher scenario which assumes development in the receiver area could increase over the next few years for the following reasons:
  - Some of the neighbourhoods adjacent to the receiver area have a diminishing supply of developable land. For example, development capacity in Coal Harbour, International Village, Concord Pacific Place and City Gate is diminishing. All of these projects are just outside the receiver area. We estimate that total annual

demand in these locations has average about 800 units per year since the early 1990's (or roughly 800,000 sq.ft. per year). As development capacity in these adjacent areas declines, demand that has historically been captured by these locations will be distributed to other locations. Given the receiver area's proximity, it is possible that the receiver area will capture some of this demand. In other words, the receiver area could capture an increasing share of total development in the City's Central Area. For illustrative purposes, our higher development scenario assumes that the receiver area captures about 25% of the demand that has historically gone to these adjacent areas, increasing residential development in the receiver area by about 200,000 sq.ft. each year.

- There has been little office development in the receiver area since 2003, despite growing demand for office space in Downtown Vancouver. This has resulted in a low office vacancy rate in Downtown Vancouver (currently estimated at about 5%). For illustrative purposes, our higher development scenario assumes that office development in the receiver area increases by about 250,000 sq.ft. per year from recent rates of development.

Based on these two factors, the higher development scenario is 450,000 sq.ft per year higher than the lower development scenario, resulting in a total of about 2,000,000 sq.ft. of development in the receiver area each year on average.

Based on our evaluation, we anticipate total average annual development in the range of about 1,550,000 sq.ft. to 2,000,000 sq.ft. per year on average over the next five years or so. The lower end of this range assumes continued strong residential development. The higher end of the range assumes strong residential development coupled with increased office space development. Overall, we would anticipate total average annual development in the receive area to fall somewhere within this range.

#### *4.2.3 Capacity in Receiver Areas*

The ability of the receiver area to continue to accommodate new development will partly determine whether there will continue to be strong demand for transferable density.

The City of Vancouver recently completed a detailed evaluation of the capacity for additional development in the receiver area under existing zoning.

Based on the information provided by the City, the existing capacity of realistic development candidates in the receiver area is roughly 20 to 25 million sq.ft. This would accommodate our higher estimate of development in the receiver area for the next 10 to 12 years. This suggests development capacity in the receiver area should not be a significant constraint on development and demand for transferable density in the foreseeable future. In any case, rezonings could increase development capacity in the receiver area over the long term.

#### 4.3 DEMAND FOR TRANSFERABLE DENSITY FROM REZONINGS

##### 4.3.1 *Recent Trends*

Based on a review of rezoning and development permit approvals in the receiver area, we estimate that floorspace in projects that have obtained rezoning approval accounted for about 35% to 40% of total approved floorspace in the receiver area between 2003 and 2005. These projects generated demand for transferable density as a portion of the CACs from these projects took the form of transferable density purchased by the applicant.

Overall, we estimate that rezonings generated demand for about 18 sq.ft. of transferable density for each 100 sq.ft. of project floorspace between 2003 and 2006<sup>6</sup>, with a yearly high over this time period of about 20 sq.ft. of transferable density demand per 100 sq.ft. of project floorspace in 2003. These figures would be higher if on-site heritage contributions were not provided at some major rezonings because the on-site contribution reduced (or eliminated) the need for a contribution in the form of transferable density.

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<sup>6</sup> Based on total transferable density demand of about 441,000 sq.ft. at rezonings with about 2,434,000 sq.ft. of floorspace at rezonings (these figures include projects that are currently in the pipeline).

### 4.3.2 Outlook

Rezoning have accounted for about 35% to 40% of total approved floorspace in the receiver area since 2003. We anticipate that this share will increase over the next several years for two main reasons:

1. There is a diminishing supply of sites that are highly underutilized (such as surface parking lots or sites developed at very low densities) in the receiver area, so acquiring viable development sites is becoming more difficult for developers. Developers are increasingly interested in rezoning to maximize development opportunities.
2. Land values have risen significantly in the receiver area over the past few years so developers are more interested in taking on the costs and risks associated with rezoning in order to obtain approval for additional development rights.

Therefore, we anticipate that rezonings could account for between 40% and 50% of future development (in terms of floorspace) in the receiver area over the next several years.

Rezoning have generated demand for an average of about 18 sq.ft. of transferable density for each 100 sq.ft. of project floorspace since 2003. There are two main reasons that this figure could increase over the next several years:

1. The demand for transferable density could increase if there are fewer opportunities for on-site heritage restoration at projects in the receiver area that are seeking rezoning approval. This assumes that developers make heritage contributions by purchasing transferable density rather than on-site heritage restoration.
2. The overall value of CACs from rezonings may increase if land values in the receiver area continue to rise or if projects tend to seek larger increases in permitted density. Assuming that the same share of CACs is allocated to transferable density, higher CACs will lead to increased demand for transferable density (if the market value of transferable density does not change).

Overall, it is possible that projects that obtain rezoning approval could generate demand for 20 to 25 sq.ft. of transferable density for each 100 sq.ft. of project floorspace.

#### 4.4 DEMAND FOR TRANSFERABLE DENSITY FROM DEVELOPMENT PERMIT PROJECTS

##### 4.4.1 *Recent Trends*

We estimate that projects in the receiver area which do not seek rezoning and go strictly through the development permit approval process generated average demand for about 7 to 8 sq.ft. of transferable density for each 100 sq.ft. of project floorspace between 2003 and 2005.

##### 4.4.2 *Outlook*

On average, development permit projects are achieving very close to the maximum permitted transferable density bonus of 10% (which is actually 9.1%<sup>7</sup> of total project floorspace if the full 10% bonus is achieved).

Some sites, due to size and configuration, cannot physically accommodate additional space (and/or cannot accommodate the necessary parking without significant cost increases) even though it might be allowable. In some cases, the City's urban design guidelines make it difficult to achieve all the density allowed under existing zoning, so there is no ability to take advantage of the 10% supplement.

Therefore, it is unlikely that development permit projects will achieve a significant increase in the share of floorspace that comes from transferable density going forward. We anticipate that development permit projects will continue to generate demand for up to 8 sq.ft. of transferable density for each 100 sq.ft. of project floorspace.

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<sup>7</sup> For example, a 100,000 sq.ft. project that applies for a 10% bonus would have 110,000 sq.ft. of total floorspace after the bonus. Therefore, the 10,000 sq.ft. bonus is equivalent to 9.1% of total project floorspace (10,000/110,000 = .091).

#### 4.5 PROJECTED DEMAND FOR TRANSFERABLE DENSITY

Based on our analysis, we completed two potential transferable density demand scenarios from 2006 to 2011:

The lower demand scenario assumes that:

1. Total development in the receiver area will match the long term average of about 1,550,000 sq.ft. per year.
2. Rezoning will account for about 40% of total floorspace development in the receiver area.
3. On average, rezonings will generate demand for about 18 sq.ft. of transferable density for each 100 sq.ft. of project floorspace.
4. On average, development permit projects will generate demand for about 8 sq.ft. of transferable density for each 100 sq.ft. of project floorspace.

This results in projected demand for transferable density of about 186,000 sq.ft. per year, which is almost identical to the average from 2003 to 2005 of about 187,000 sq.ft. per year. Therefore, this lower demand scenario assumes demand for transferable density remains steady.

City of Vancouver staff estimate that total demand for transferable density will be about 291,074 sq.ft. in 2006 based on projects that are currently in the approval process. Given that this estimate is based on known projects that are in the approvals process, we have used this as the minimum projected demand for 2006, with our lower demand projection of 186,000 sq.ft. per year from 2007 onwards.

The higher demand scenario assumes that:

1. Total development in the receiver area will average about 2,000,000 sq.ft. per year. This assumes that the receiver area captures a higher share of Central Area residential development (due to diminishing land supply in nearby locations) and additional office development occurs in the receiver area. In the long term, this may be optimistic given the declining capacity for additional development in the receiver

area. However, we think it is a reasonable projection of the upper end of potential development in the short term.

2. Rezoning will account for about 50% of total floorspace development in the receiver area.
3. On average, rezonings will generate demand for 25 sq.ft. of transferable density for each 100 sq.ft. of project floorspace. This is higher than the recent trend as this scenario assumes that the value of CACs at a typical rezoning increases (due to increasing land values and larger density increases) and there are fewer opportunities for on-site heritage restoration so a higher share of heritage contributions come via transferable density purchases.
4. On average, development permit projects will generate demand for about 8 sq.ft. of transferable density for each 100 sq.ft. of project floorspace.

This results in projected demand for transferable density of about 330,000 sq.ft. per year. This scenario assumes significant increases in demand for transferable density due to increased development in the receiver area, an increasing share of total development due to rezonings, increasing value of CACs, and fewer opportunities for on-site heritage restoration (so slightly more heritage contributions come via transferable density purchases).

The following tables summarize our transferable density demand estimates from 2006 to 2011.

**PROJECTIONS OF THE DEMAND AND SUPPLY OF TRANSFERABLE DENSITY**

**Table 5: Projected Demand for Transferable Density - Lower Demand (figures in sq.ft.)**

	2006	2007	2008	2009	2010	2011
Total Development in Receiver Areas	n/a	1,550,000	1,550,000	1,550,000	1,550,000	1,550,000
Share of Development Requiring Rezoning	n/a	40%	40%	40%	40%	40%
Ratio of TD Demand and Floorspace at Rezoning	n/a	18%	18%	18%	18%	18%
Demand for Transferable Density via Rezoning	n/a	111,600	111,600	111,600	111,600	111,600
Share of Development via DP Process	n/a	60%	60%	60%	60%	60%
Share of DP Floorspace from Transferable Density	n/a	8%	8%	8%	8%	8%
Demand for Transferable Density via DP Projects	n/a	74,400	74,400	74,400	74,400	74,400
Total Demand for Transferable Density	291,074	186,000	186,000	186,000	186,000	186,000

**Table 6: Projected Demand for Transferable Density - Higher Demand (figures in sq.ft.)**

	2006	2007	2008	2009	2010	2011
Total Development in Receiver Areas	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000	2,000,000
Share of Development Requiring Rezoning	50%	50%	50%	50%	50%	50%
Ratio of TD Demand and Floorspace at Rezoning	25%	25%	25%	25%	25%	25%
Demand for Transferable Density via Rezoning	250,000	250,000	250,000	250,000	250,000	250,000
Share of Development via DP Process	50%	50%	50%	50%	50%	50%
Share of DP Floorspace from Transferable Density	8%	8%	8%	8%	8%	8%
Demand for Transferable Density via DP Projects	80,000	80,000	80,000	80,000	80,000	80,000
Total Demand for Transferable Density	330,000	330,000	330,000	330,000	330,000	330,000

## 5.0 POTENTIAL CREATION OF TRANSFERABLE DENSITY

### 5.1 ESTIMATED TRANSFERABLE DENSITY CREATION DURING 2006

Based on projects that have already been approved and projects that are in the approvals process, City staff estimate that total creation of transferable density during 2006 will be about 2,203,878 sq.ft.<sup>8</sup>

### 5.2 PROJECTED TRANSFERABLE DENSITY CREATION 2007 TO 2011

City of Vancouver staff provided us with two different projections of the potential creation of transferable density from 2007 to 2011:

1. A projection which assumes the Heritage Building Revitalization Program (HBRP) is extended after 2008, which is the current time frame that the City has indicated that the program will run.
2. A projection which assumes the HBRP is modified after 2008, resulting in less creation of transferable density following 2008.

#### 5.2.1 *Assuming HBRP is Extended After 2008*

The creation projection which assumes that the HBRP is extended following 2008 is based on the following major assumptions:

1. For areas within the Downtown East Side, the estimate is based on the average number of projects per year since 2003 (7 projects per year) with an assumption of 60,000 sq.ft. of transferable density per project, or about 420,000 sq.ft. per year on average.

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<sup>8</sup> This figure includes all of the transferable density created at the Woodward's project. This project includes 366,000 sq.ft. of transferable density, of which 179,000 was created for non-heritage amenities.

2. For areas outside the Downtown East Side, the estimate for the creation of transferable density is based on the average density created from 2003 to mid-2006, excluding the transferable density created at the Woodward's project (on the basis that this relatively large heritage project should be treated as a one time event). The estimate outside the DTES totals 140,478 sq.ft. per year on average.

Overall, the total creation estimate assuming the HBRP is extended following 2008 is 560,478 sq.ft. per year from 2007 to 2011.

### *5.2.2 Assuming HBRP is Modified After 2008*

The creation projection which assumes that the HBRP is modified following 2008 is based on the following major assumptions:

1. For areas within the Downtown East Side, the estimate assumes that the number of projects receiving approval for the creation of transferable density drops from 7 projects to 3 projects per year following 2008 (at 60,000 sq.ft. of transferable density per project), or about 180,000 sq.ft. per year on average after 2008.
2. For areas outside the Downtown East Side, the estimate for the creation of transferable density remains at 140,478 sq.ft. per year on average.

Overall, the total creation estimate assuming the HBRP is modified following 2008 is 560,478 sq.ft. per year from 2007 to 2008, declining to 320,478 sq.ft. per year from 2009 to 2011.

5.3 SUMMARY OF CITY'S PROJECTIONS FOR THE CREATION OF TRANSFERABLE DENSITY

The following tables summarize the City's projected creation of transferable density from 2007 to 2011. The difference between the two scenarios is due to the impact of extending the HBRP (versus modifying it) following 2008. No other changes to the system are contemplated in these two scenarios.

Table 7: Higher Creation Projection - Assuming HBRP Continues After 2008 (in sq.ft.)

	2006	2007	2008	2009	2010	2011
Projected TD Creation Inside the DTES	n/a	420,000	420,000	420,000	420,000	420,000
Projected TD Creation Outside the DTES	n/a	140,478	140,478	140,478	140,478	140,478
Total Creation of Transferable Density	2,203,878	560,478	560,478	560,478	560,478	560,478

Table 8: Lower Creation Projection - Assuming HBRP is Modified After 2008 (in sq.ft.)

	2006	2007	2008	2009	2010	2011
Projected TD Creation Inside the DTES	n/a	420,000	420,000	180,000	180,000	180,000
Projected TD Creation Outside the DTES	n/a	140,478	140,478	140,478	140,478	140,478
Total Creation of Transferable Density	2,203,878	560,478	560,478	320,478	320,478	320,478

## **6.0 EVALUATION OF POTENTIAL DEMAND AND SUPPLY IN THE ABSENCE OF CHANGES TO THE SYSTEM**

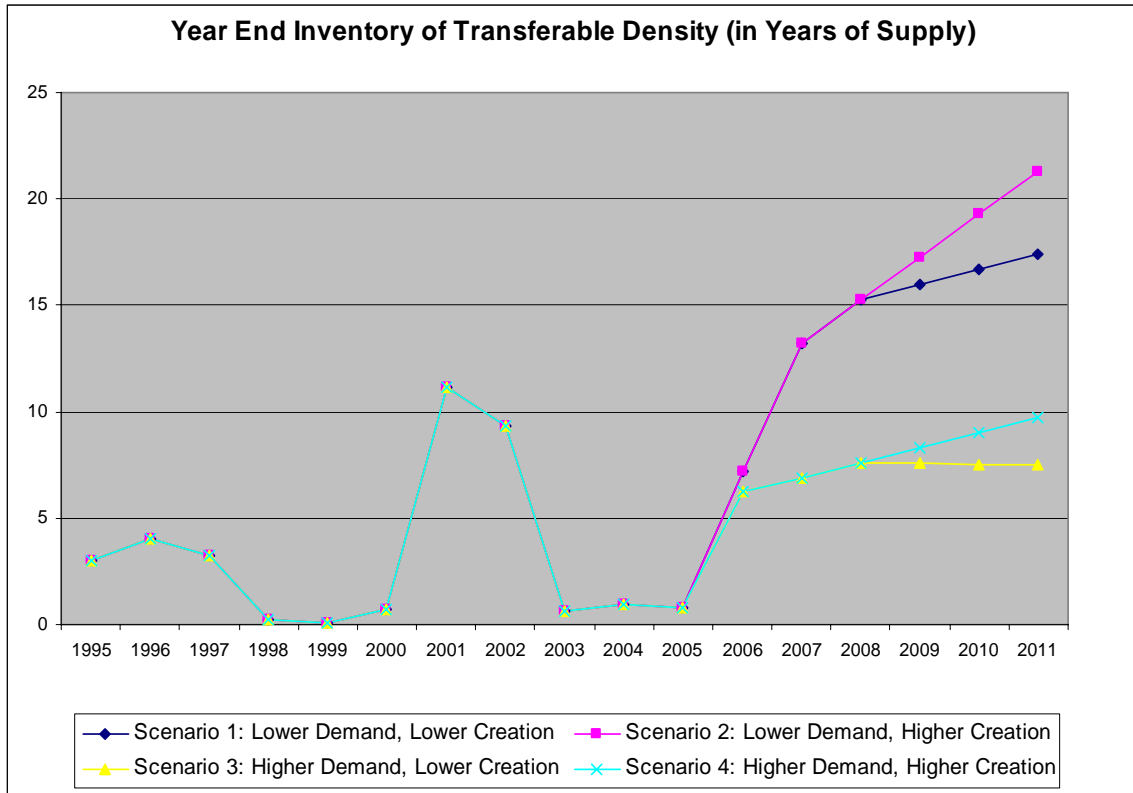
### **6.1 PROJECTED DEMAND, SUPPLY AND INVENTORY OF TRANSFERABLE DENSITY**

Appendix A includes four projections of the inventory of transferable density based on our lower and higher demand scenarios and the City's two projected creation scenarios:

1. Lower demand with the HRBP modified following 2008 (i.e., lower creation scenario).
2. Lower demand with the HRBP continued after 2008 (i.e., higher creation scenario).
3. Higher demand with the HRBP modified following 2008 (i.e., lower creation scenario).
4. Higher demand with the HRBP continued after 2008 (i.e., higher creation scenario).

The following graph illustrates the projected change in the inventory of transferable for each of the four projections as well as the historic year end transferable density inventory (1993 to 2005).

Chart 1: Historic and Projected Inventory of Transferable Density (Years of Supply)



As shown in the chart, the overall year end inventory of transferable density only exceeded 4 years of supply during 2001 and 2002. This was a time period when there was very low demand for transferable density which resulted in softening market values for transferable density.

In all four projection scenarios, the inventory of transferable density increases significantly in 2006 (to about 6 years of supply or more). In three of the four scenarios, the inventory continues to increase following 2006. The only scenario that does not result in a rapidly increasing inventory of transferable density following 2006 is Scenario 3 (higher demand/lower supply). However, even in this scenario, the inventory remains relatively high at over 7 years of supply from 2007 to 2011.

## 6.2 IMPLICATIONS

To determine how to characterize the projected increase in the inventory of transferable density, we considered the following points:

1. It is important that the inventory of transferable density is high enough at any given point to meet potential demand from developers. Otherwise, potential contributions for heritage protection will be missed. Given that most large development projects require at least 1 year of planning, the minimum inventory of transferable density should likely be at least 1 year of supply.
2. Since the programs inception in 1993, the inventory of transferable density has rarely exceeded about 4 years of supply. From 2001 to 2002 there was a high inventory of transferable density relative to demand. Based on an analysis of the market value of transferable density that we completed in late 2002, the value of transferable density declined during 2001 and 2002. Since this time, the inventory has declined and values have increased. This suggests that a high inventory of transferable creates the risk of declining market value for transferable density. This is one of the biggest risks to the system as declining market value results in the need to approve larger bonuses during HRA negotiations which puts further pressure on market values.

Overall, an inventory in the range of 1 to 4 years of supply is likely a reasonable target to help ensure density is available for developers interested in acquiring transferable density and to help reduce the likelihood of a decline in the market value of transferable density.

Our projections from 2006 to 2011 clearly indicate there will be an oversupply of transferable density during this time frame due to two reasons:

- A very high rate of creation of transferable during 2006.
- Continued high rates of creation relative to projected demand following 2006.

It is clear that the City should consider steps to either increase demand for transferable or manage the creation of transferable density (or both) to help alleviate the projected oversupply. Otherwise, the market value of transferable density is likely to decline which will limit the interest of heritage building owners to participate in the system.

## **7.0 TESTING THE IMPACT OF POSSIBLE CHANGES TO THE SYSTEM**

The City asked us to evaluate the potential impact of a variety of changes to the system to increase the potential demand for transferable density and to manage the creation of transferable density. This section provides a preliminary evaluation of the changes to the system that the City is considering which appear to have the potential to provide the most significant impact on the projected inventory of transferable density.

For illustrative purposes, our evaluation uses Scenario 3, the higher demand/lower creation scenario, as the base case. It is important to note that this scenario results in the lowest inventory of transferable density over the forecast period so it could be considered an optimistic base case. However, the intent of this section is to illustrate the potential impact on the inventory of transferable density from the changes that the City is considering. The impact of the changes will be similar under all four of the projection scenarios in Section 6.0.

It is also important to note that the projections assume that the demand strategies can be implemented immediately and the creation management strategies can be implemented at the start of 2007 (the base case creation forecasts for 2006 are based on negotiations with applicants for projects that are already in the approvals process). It may not be possible to implement some (or all) of these strategies as quickly as this preliminary analysis assumes. Any delay in implementing strategies will reduce the impact that these strategies have on the inventory of transferable density.

### **7.1 STRATEGIES TO INCREASE DEMAND**

The City asked us to evaluate the effectiveness of three potential changes to the system to increase demand for transferable density:

1. Increasing the share of CACs from rezoning projects in the receiver area that are allocated to transferable density for a limited period of time (e.g., to 2010). Based on information provided by the City of Vancouver, approximately 19% of CACs in the receiver area were allocated to acquiring transferable density between 2003 and

2005. If this share is increased, it will increase the demand for transferable density (holding all other variables constant).

The City asked us to evaluate the potential impact on demand if the share allocated to transferable density was increased by 50% (i.e., the recent share of 19% is increased to about 28.5%). This would result in a 50% increase in demand for transferable density from projects going through the rezoning process. The increased CAC share to transferable density could be achieved by lower on-site heritage contributions in the receiver area or by reducing the share allocated to other public amenities and facilities in the receiver area. Based on our analysis (using the higher demand scenario), we estimate that this would increase annual average demand by about 125,000 sq.ft. per year<sup>9</sup>. For our analysis, we assume that this change would be implemented from mid-2006 to 2010.

2. Increasing the potential transferable density bonus available at development permit approval for projects in the receiver area from 10% to 15% (a 50% increase). We estimate that, on average, development permit projects will generate demand for about 8 sq.ft. of transferable density for each 100 sq.ft. of project floorspace (i.e., 8% of project floorspace) under the existing maximum bonus opportunity of 10%. If the maximum bonus is increased by 50% (i.e., 10% to 15%), demand for transferable density will likely also increase by 50%. However, it should be noted that we have not evaluated the urban design implications of increasing the permitted bonus so it is possible that a 50% increase in the bonus (effectively from 8% achieved to 12% achieved on average) is not achievable. Based on our analysis (using the higher demand scenario), we estimate that this would increase annual average demand by about 40,000 sq.ft. per year<sup>10</sup>.
3. Expanding the receiver area to include additional locations that are under active development. It is not possible to estimate the potential impact of expanding the receiver area without identifying the potential new addition(s) to the area and then

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<sup>9</sup> Assumes total development of 2,000,000 sq.ft. per year in the receiver area, 50% of development due to rezonings, total TD demand equivalent to 25% of rezoning floorspace and a 50% increase in transferable density demand due to the increase in CACs allocated to transferable density.

<sup>10</sup> Assumes total development of 2,000,000 sq.ft. per year in the receiver area, 50% of development due to projects that go solely through the DP process (i.e., do not need rezoning), total TD demand equivalent to 8% of project floorspace and a 50% increase in transferable density demand due to the increase in the bonus permitted via purchasing transferable density.

estimating potential annual development in the new receiver area. However, to illustrate the potential impact from expanding the geographic size of the receiver area, we have assumed that the City expanded the receiver area to incorporate a location that is under active development (or will be shortly) and is experiencing total annual development of about 500,000 sq.ft. per year (roughly equivalent to 500 new multifamily housing units per year). In addition, this new location would need to have land values that are high enough to make it attractive for developers to acquire transferable density and transfer it to the new location (i.e., land values in the new location must be comparable to Downtown land values). Based on a maximum 15% bonus through the development permit process (or about a 12% effective bonus on average), we estimate that this would increase annual average demand for transferable density by about 60,000 sq.ft. per year<sup>11</sup>.

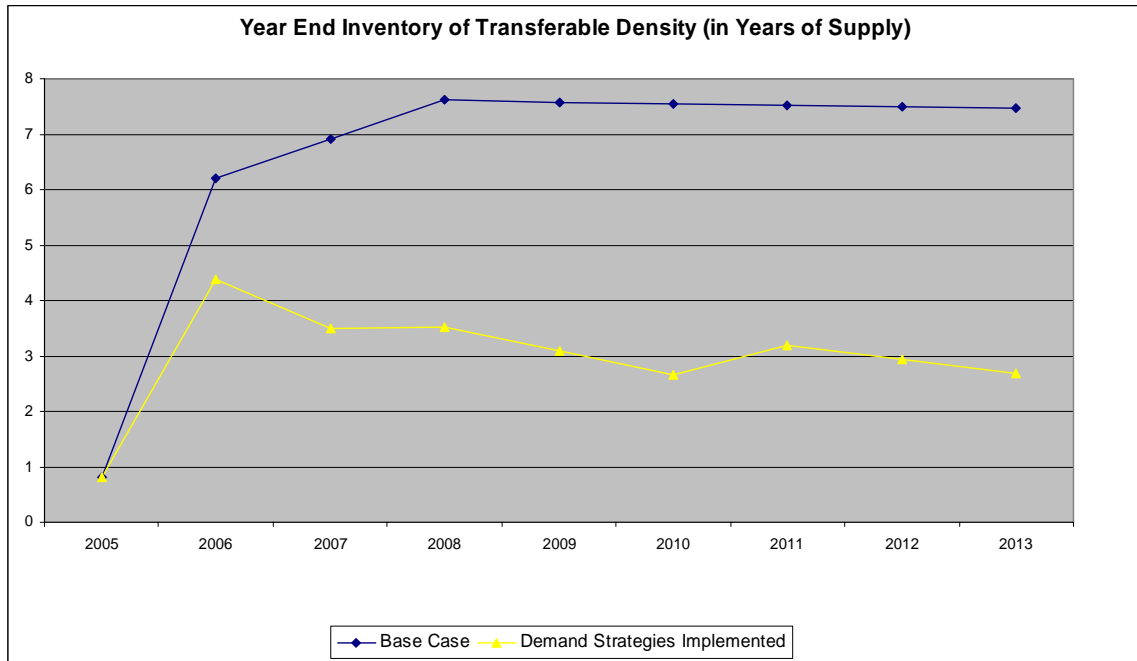
Appendix B includes a table that shows the potential impact on the inventory of transferable density due to these demand strategies.

The following graph illustrates the potential cumulative impact of implementing all of these demand strategies in mid-2006, using scenario 3 (higher demand/lower creation) as the base case.

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<sup>11</sup> Assumes total development of 500,000 sq.ft. per year in the new portion of the receiver area and total transferable density demand equivalent to 12% of project floorspace.

Chart 2: Projected Inventory Assuming Demand Strategies are Implemented in 2006



As shown in the graph, combined these strategies have a significant impact on the inventory of transferable density. By 2010 (the last year in which there is assumed to be an increase in the share of CACs allocated to transferable density), the inventory declines to less than 3 years of supply (versus 7.6 years in the absence of the additional demand strategies). The inventory continues to remain at about 3 years of supply or less to 2013.

## 7.2 TRANSFERABLE DENSITY CREATION MANAGEMENT STRATEGIES

City of Vancouver staff asked us to estimate the potential impact on the inventory of transferable density of introducing three changes to the way the City manages the creation of transferable density<sup>12</sup> for Downtown East Side heritage projects:

1. Modifying the system so that heritage projects in Gastown and Victory Square would not be eligible for transferable density starting in 2007. Projects in these locations would still be eligible for all other incentives (such as property tax relief and cash

<sup>12</sup> Although we have quantified the potential impact on the creation of new transferable density, we have not evaluated the likely effectiveness of these changes.

grants). City staff estimate that this would reduce the number of projects in the Downtown East Side that receive approval to create transferable density from 7 projects per year (or 420,000 sq.ft. created at 60,000 sq.ft. per project) to 3 projects per year (or 180,000 sq.ft. created). The total reduction on transferable density creation would be about 240,000 sq.ft. per year during 2007 and 2008.

2. Discontinuing the opportunity for heritage projects in the Downtown East Side to transfer “residual” density as part of HRA negotiations. Between 2004 and mid-2006, residual density accounted for about 14%<sup>13</sup> of all transferable density approved at projects in the Downtown East Side. If this is no longer permitted, it could reduce the creation of transferable density by about 14%. This would reduce the 180,000 sq.ft. creation estimate in step 1 above by about 25,000 sq.ft. per year (14%) to a total of about 155,000 sq.ft. per year<sup>14</sup>.
3. Mandate the use of property tax exemption as part of the heritage incentive program prior to approving transferable density at heritage projects in the Downtown East Side. City staff estimate this approach would have reduced the creation of transferable density by 14% between 2004 and mid-2006 if it had been in place for projects in the Downtown East Side<sup>15</sup>. This would also reduce the 155,000 sq.ft. creation estimate in step 2 above by about 25,000 sq.ft. per year (14% of 180,000 sq.ft. in step 1) to a total of 130,000 sq.ft. per year.

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<sup>13</sup> According to information provided by the City of Vancouver, residual density accounted for about 128,606 sq.ft. out of total transferable density created of 939,495 sq.ft. between 2004 and July 26, 2006 in the Downtown East Side (excluding the Woodward’s project). This is equivalent to 13.7% of transferable density from the Downtown East Side.

<sup>14</sup> As an alternative to this strategy, the City also examined the possibility of reducing (rather than eliminating) the amount of residual density at sites in the DTES by 1.0 FSR (i.e. from 5.5 to 4.5 FSR). Based on information provided by the City, this would have reduced transferable density creation by about 82,818 sq.ft. between 2004 and July 26, 2006 if it had been in place over this time frame. This would have reduced transferable density from the DTES by about 9% over this time frame (82,818 / 939,495 sq.ft.).

<sup>15</sup> According to information provided by the City, an estimated 126,688 sq.ft. of density was created in lieu of property tax exemptions in the Downtown East Side between 2004 and July 2006. This represents about 13.5% of all transferable density approved over this time period (126,688 sq.ft. / 939,495 sq.ft.)

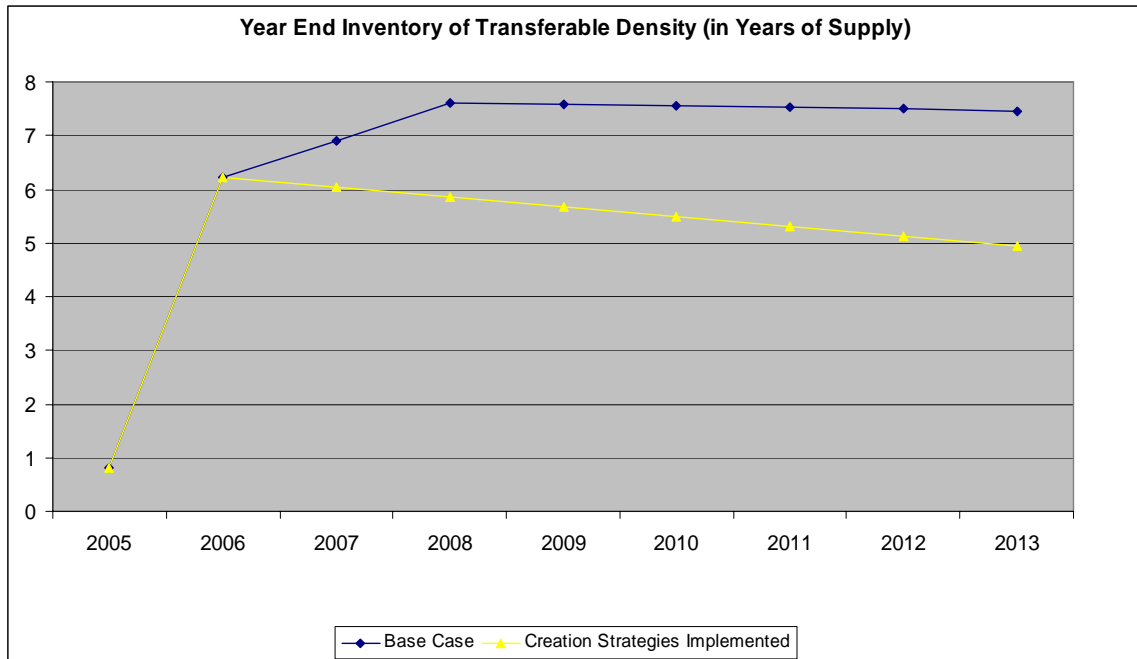
If all 3 of these steps are implemented, the creation of transferable density in the Downtown East Side would average about 130,000 sq.ft. per year, rather than the 180,000 sq.ft. (if the HBRP is modified after 2008) to 420,000 sq.ft. (if the HBRP is continued after 2008) estimated in the absence of new management strategies.

The estimate of creation for areas outside the Downtown East Side of 140,478 sq.ft. per year is not changed by these new strategies.

Therefore, the revised total annual creation estimate is 270,178 sq.ft. per year (compared to a high of 560,478 sq.ft per year in 2007/2008 and 320,478 sq.ft. per year following 2008 in the absence of these creation management strategies).

The following graph illustrates the potential cumulative impact of implementing all of these creation strategies as of 2007 (that is, reducing creation to a total of 270,178 sq.ft. per year from 2007 onwards).

Chart 3: Projected Inventory With Creation Management Strategies Implemented

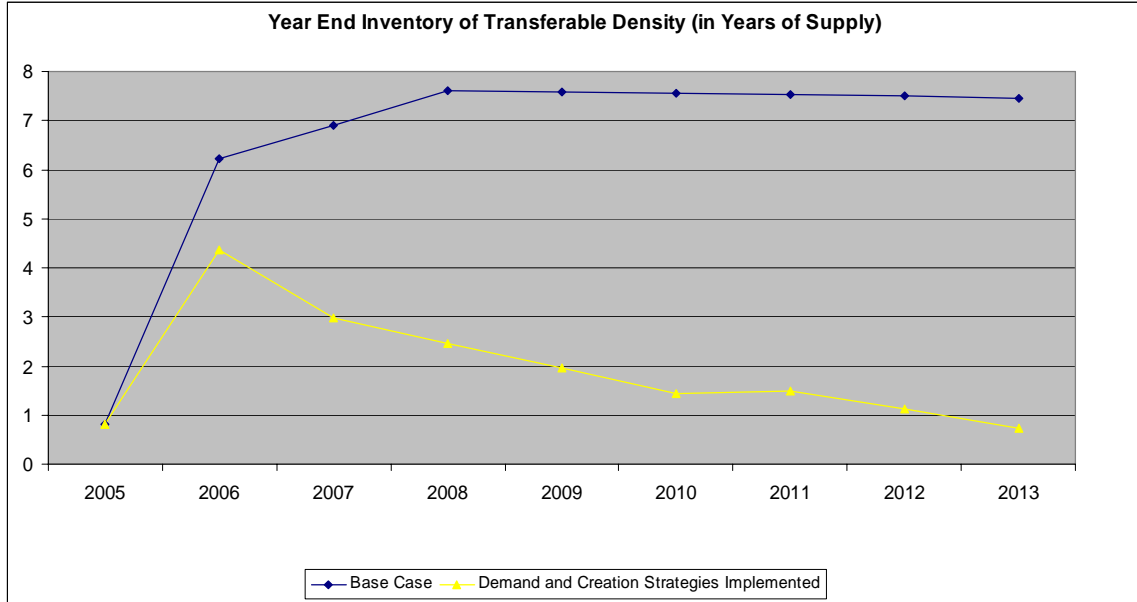


As shown in the graph, combined these strategies result in an overall transferable density inventory of about 4.9 years of supply in 2013 (versus 7.5 years in the absence of the creation management strategies).

7.3 COMBINED IMPACT OF DEMAND AND CREATION STRATEGIES

The following graph illustrates the potential cumulative impact of implementing all of the demand and all of the creation strategies outlined in Sections 7.1 and 7.2.

Chart 4: Projected Inventory with Demand and Creation Strategies Implemented



As shown in the graph, combined all of these strategies result in an overall transferable density inventory to less than 1 year of supply in 2013 (versus 7.5 years in the absence of changes to the system).

## 8.0 CONCLUSIONS

Our analysis leads to the following main conclusions:

1. There will be a significant oversupply of transferable density available in the market by the end of 2006. In the absence of changes to the system to either increase demand or manage the future creation of new supply, this oversupply will persist for the foreseeable future.
2. The City should look for opportunities to increase the demand for transferable density or reduce the future creation of transferable, or both.
3. Strategies to increase demand for transferable density will have a greater impact on reducing the inventory of transferable density than strategies to manage the creation of transferable density. Therefore, the City should examine demand strategies, not just creation management strategies.
4. Under optimistic assumptions about total development in the receiver area and demand for transferable density over the next few years, the City's initial set of proposals to increase demand and manage creation (outlined in Sections 7.1 and 7.2) will bring the overall transferable density inventory back into its typical range of supply by late 2007 or 2008 if the strategies are implemented during 2006. Therefore, even if a comprehensive plan to increase demand and manage creation is implemented soon, the market will still be oversupplied with transferable density until at least the end of 2007. If strategies are delayed, or overall demand for transferable density is at the lower end of the projected range, the over supply will persist for a longer period of time.
5. Because of the large amount of transferable density created during 2006, there is some risk that the market value of transferable density will decline during 2006 and 2007 even if the City introduces a comprehensive set of strategies to increase demand and manage the creation of transferable density soon. The only opportunities to eliminate this risk is for the City to consider substantially increasing the share (i.e., more than the 50% increase outlined in Section 7.1) of CACs that are allocated to transferable density and/or to place a moratorium on the creation of additional transferable density.

## **APPENDIX A: PROJECTED INVENTORY OF TRANSFERABLE DENSITY**

**Exhibit 1**

**Projected Inventory of Transferable Density Floorspace 2006 to 2011  
Low Demand and Low Creation Scenario (assumes HBRP is modified after 2008)**

<i>Projected Inventory of Transferable Density Assuming HBRP Is Modified After 2008</i>	Projected 2006	Projected 2007	Projected 2008	Projected 2009	Projected 2010	Projected 2011
Opening Inventory	175,711	2,088,515	2,462,993	2,837,471	2,971,949	3,106,427
Additional Annual Transferable Density Created	2,203,878	560,478	560,478	320,478	320,478	320,478
Total Annual Demand for Transferable Density	291,074	186,000	186,000	186,000	186,000	186,000
Year End Inventory (cumulative)	2,088,515	2,462,993	2,837,471	2,971,949	3,106,427	3,240,905
Estimated Years of Supply	7.2	13.2	15.3	16.0	16.7	17.4

**Exhibit 2**

**Projected Inventory of Transferable Density Floorspace 2006 to 2011  
Low Demand and High Creation Scenario (assumes HBRP Continues Unchanged After 2008)**

<i>Projected Inventory of Transferable Density Assuming HBRP Is Continued After 2008</i>	Projected 2006	Projected 2007	Projected 2008	Projected 2009	Projected 2010	Projected 2011
Opening Inventory	175,711	2,088,515	2,462,993	2,837,471	3,211,949	3,586,427
Additional Annual Transferable Density Created	2,203,878	560,478	560,478	560,478	560,478	560,478
Total Annual Demand for Transferable Density	291,074	186,000	186,000	186,000	186,000	186,000
Year End Inventory (cumulative)	2,088,515	2,462,993	2,837,471	3,211,949	3,586,427	3,960,905
Estimated Years of Supply	7.2	13.2	15.3	17.3	19.3	21.3

**Exhibit 3**

**Projected Inventory of Transferable Density Floorspace 2006 to 2011  
High Demand and Low Creation Scenario (assumes HBRP is Modified After 2008)**

<i>Projected Inventory of Transferable Density Assuming HBRP Is Modified After 2008</i>	Projected 2006	Projected 2007	Projected 2008	Projected 2009	Projected 2010	Projected 2011
Opening Inventory	175,711	2,049,589	2,280,067	2,510,545	2,501,023	2,491,501
Additional Annual Transferable Density Created	2,203,878	560,478	560,478	320,478	320,478	320,478
Total Annual Demand for Transferable Density	330,000	330,000	330,000	330,000	330,000	330,000
Year End Inventory (cumulative)	2,049,589	2,280,067	2,510,545	2,501,023	2,491,501	2,481,979
Estimated Years of Supply	6.2	6.9	7.6	7.6	7.6	7.5

**Exhibit 4**

**Projected Inventory of Transferable Density Floorspace 2006 to 2011  
High Demand and High Creation Scenario (assumes HBRP Remains Unchanged After 2008)**

<i>Projected Inventory of Transferable Density Assuming HBRP Is Unchanged After 2008</i>	Projected 2006	Projected 2007	Projected 2008	Projected 2009	Projected 2010	Projected 2011
Opening Inventory	175,711	2,049,589	2,280,067	2,510,545	2,741,023	2,971,501
Additional Annual Transferable Density Created	2,203,878	560,478	560,478	560,478	560,478	560,478
Total Annual Demand for Transferable Density	330,000	330,000	330,000	330,000	330,000	330,000
Year End Inventory (cumulative)	2,049,589	2,280,067	2,510,545	2,741,023	2,971,501	3,201,979
Estimated Years of Supply	6.2	6.9	7.6	8.3	9.0	9.7

Notes:

1. Creation figures provided by City of Vancouver.
2. Years of supply is calculated by dividing ending inventory of transferable density by annual demand.

## **APPENDIX B: IMPACT OF POTENTIAL DEMAND STRATEGIES**

**Exhibit 5**  
**Projected Inventory of Transferable Density Floorspace 2006 to 2011**  
**Illustration of Possible Impacts from Changes to System to Encourage Additional Demand for Transferable Density**

	Projected 2006*	Projected 2007	Projected 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
<i>Projected Inventory of Transferable Density Assuming HBRP Is Modified After 2008</i>								
Opening Inventory	175,711	2,049,589	2,280,067	2,510,545	2,501,023	2,491,501	2,481,979	2,472,457
Additional Annual Transferable Density Created	2,203,878	560,478	560,478	320,478	320,478	320,478	320,478	320,478
Total Annual Demand for Transferable Density	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000
Year End Inventory (cumulative)	2,049,589	2,280,067	2,510,545	2,501,023	2,491,501	2,481,979	2,472,457	2,462,935
Estimated Years of Supply	6.2	6.9	7.6	7.6	7.6	7.5	7.5	7.5
Additional Demand if Changes Implemented to Increase Demand	2006*	2007	2008	2009	2010	2011	2012	2013
Revised Opening Inventory	175,711	1,937,089	1,942,567	1,948,045	1,713,523	1,479,001	1,369,479	1,259,957
Additional Demand if Transferable Density Share of CACs is increased by 50% to 2010	62,500	125,000	125,000	125,000	125,000	0	0	0
Additional Demand if Potential Bonus Increased	20,000	40,000	40,000	40,000	40,000	40,000	40,000	40,000
Possible Additional DPB TD Demand if Receiver Area Expanded	30,000	60,000	60,000	60,000	60,000	60,000	60,000	60,000
Total Additional Demand from Changes to System	112,500	225,000	225,000	225,000	225,000	100,000	100,000	100,000
Year End Inventory (cumulative) with Changes to System	1,937,089	1,942,567	1,948,045	1,713,523	1,479,001	1,369,479	1,259,957	1,150,435
Estimated Years of Supply with Changes to System	4.4	3.5	3.5	3.1	2.7	3.2	2.9	2.7

Notes:

\* Assumes that changes are implemented mid-year 2006 so only 50% of additional demand is generated in 2006.

## **APPENDIX C: IMPACT OF POTENTIAL CREATION MANAGEMENT STRATEGIES**

**Exhibit 6**  
**Projected Inventory of Transferable Density Floorspace 2006 to 2011**  
**Illustration of Possible Impacts from Changes to System to Manage Creation of Transferable Density**

Projected Inventory of Transferable Density Assuming HBRP is Modified After 2008	Projected 2006	Projected 2007	Projected 2008	Projected 2009	Projected 2010	Projected 2011	Projected 2012	Projected 2013
Opening Inventory	175,711	2,049,589	2,280,067	2,510,545	2,501,023	2,491,501	2,481,979	2,472,457
Additional Annual Transferable Density Created	2,203,878	560,478	560,478	320,478	320,478	320,478	320,478	320,478
Baseline Annual Demand for Transferable Density in Existing Receiver Area	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000
Year End Inventory (cumulative) without Changes to System	2,049,589	2,280,067	2,510,545	2,501,023	2,491,501	2,481,979	2,472,457	2,462,935
Estimated Years of Supply without Changes to System	6.2	6.9	7.6	7.6	7.6	7.5	7.5	7.5
Projected Inventory with New Strategies to Manage Creation Implemented in 2007	175,711	2,049,589	1,990,067	1,930,545	1,871,023	1,811,501	1,751,979	1,692,457
Revised Opening Inventory								
Baseline Annual Transferable Density Created outside DTES		140,478	140,478	140,478	140,478	140,478	140,478	140,478
Baseline Annual Transferable Density Created in DTES		420,000	420,000	180,000	180,000	180,000	180,000	180,000
Total Baseline Transferable Density Created	2,203,878	560,478	560,478	320,478	320,478	320,478	320,478	320,478
Less Impact of Reducing DTES from 7 Projects to 3 Per year (2007 and 2008)	0	240,000	240,000	0	0	0	0	0
Less Impact of Eliminating Residual Density	0	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Less Impact of Mandating Property Tax Exemptions	0	25,000	25,000	25,000	25,000	25,000	25,000	25,000
Additional Annual Transferable Density Created with Changes to System	2,203,878	270,478	270,478	270,478	270,478	270,478	270,478	270,478
Baseline Annual Demand for Transferable Density in Existing Receiver Area	330,000	330,000	330,000	330,000	330,000	330,000	330,000	330,000
Year End Inventory (cumulative) with Changes to System	2,049,589	1,990,067	1,930,545	1,871,023	1,811,501	1,751,979	1,692,457	1,632,935
Estimated Years of Supply with Changes to System	6.2	6.0	5.9	5.7	5.5	5.3	5.1	4.9