Downtown Edmonton Commercial, Office and Residential Forecasts 2009-2044

City of Edmonton

April 2010

Prepared by:
G.P. Rollo & Associates, Land Economists

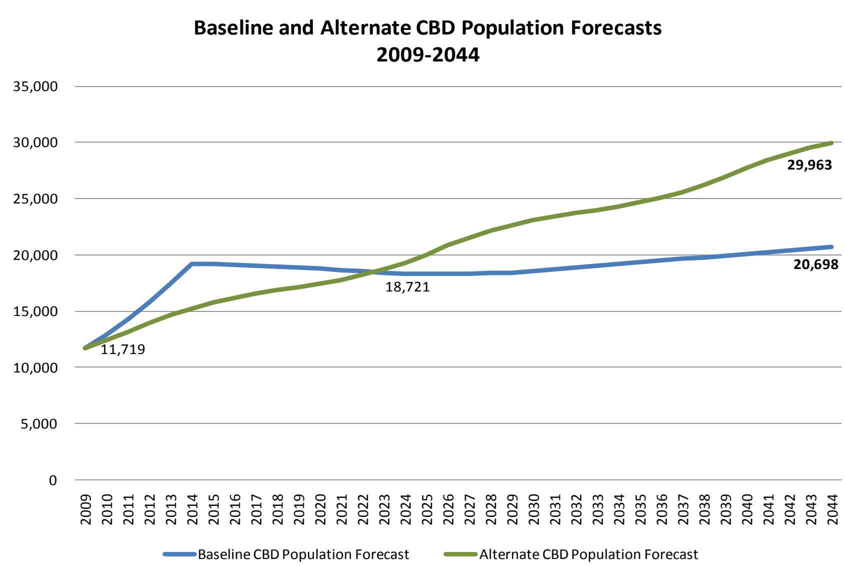
EXECUTIVE SUMMARY

G.P. Rollo & Associates (GPRA) was retained by Cohos Evamy Integratedesign to prepare residential, retail/service commercial and office demand projections for Downtown Edmonton. This task was undertaken as an input component to the revisioning and re-imagining of the Capital City Downtown Plan by Cohos Evamy and HB Lanarc.

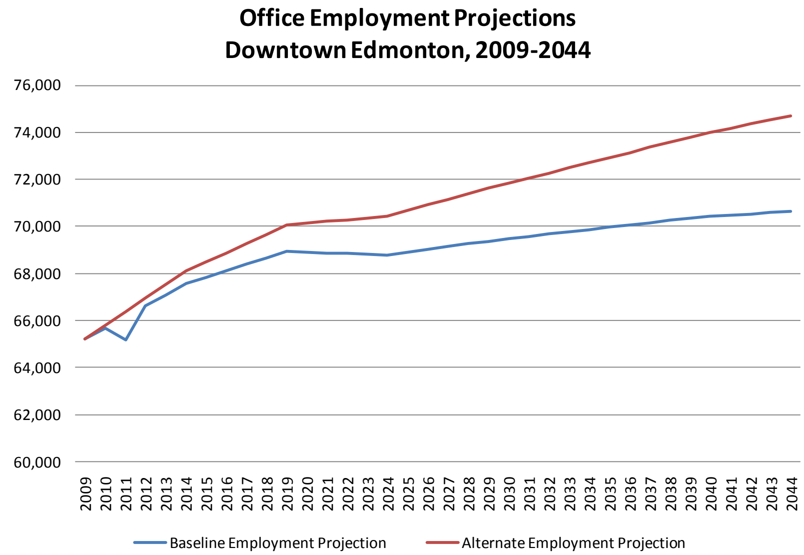
GPRA sought to provide two future scenarios for Downtown Edmonton from 2009 to 2044, termed 'baseline' and 'alternate'. Baseline conditions are those that we believe would likely unfold barring significant municipal investment in recommended Downtown planning initiatives. Alternative conditions are those that we feel could unfold if key 'catalyst projects' – as outlined in the Downtown Plan – are implemented.

To forecast demand for dwelling units, retail and service space, and office space in Downtown Edmonton from 2009 to 2044, GPRA applied forecast methodologies to population and employment projections. Initial projections were provided to GPRA by Applications Management Consulting; our review of these projections led us to conclude that the population and employment allocations for downtown were overly conservative (save for a short-term population 'surge' forecast from 2009 to 2014) and we therefore elected to apply our methodologies to these forecasts to form our 'baseline' demand scenario. Our 'alternate' or 'catalyst project' scenario used alternate population and employment forecasts formulated by GPRA.

The baseline and alternate population projection scenarios envisioned are as follows:



The baseline and alternate employment demand projections are as follows:



- **Retail and Service Commercial Demand**
  - Demand is driven by the Downtown resident population, Downtown employees, and overall growth of the region.
  - The retail and service space supportable per capita is projected to increase from 54.7 sq. ft. in 2009 to 58.7 sq. ft. by 2044.
  - Downtown's share of regional retail space is 7.5% in 2009. Under baseline conditions we assume this will hold constant. Under alternate conditions we assume that this could increase to 8.5%.
  - In 2009, we estimate there is a nearly 234,000 square foot undersupply of retail and service commercial space downtown.
  - Under **Baseline** conditions, we project a 35 year demand for **1.65 million square feet** of retail and service space Downtown.
  - Under **Alternate** conditions, we project a 35 year demand for **2.35 million square feet** of retail and service space downtown.

- **Residential Demand**
  - Unit demand is linked directly to projected downtown population under baseline vs. alternate scenarios.
  - We assume that 80% of future units Downtown will be developed in highrise towers, 15% developed in lowrise towers, and 5% in rowhouses, duplexes, triplexes or fourplexes.
  - We also assume a constant ratio of 1.5 persons per unit to 2044.
  - Under **Baseline** conditions, we project a 35 year demand for nearly **6,000 dwelling units totalling nearly 6.1 million saleable square feet.**
  - Under **Alternate** conditions, we project a 35 year demand for nearly **12,200 dwelling units totalling nearly 12.4 million saleable square feet.**

- **Office Space Demand**
  - Demand is linked directly to projected downtown employment growth under baseline and alternate scenarios.
  - Baseline employment projections call for 5,400 new office employees Downtown by 2044, translating to demand for nearly 1.3 million additional square feet.
  - Alternate employment projections call for approximately 9,500 new office employees Downtown by 2044, translating to demand for 2.25 million additional square feet.

Cummulative New Demand, Basline (AMC) vs. Alternate (GPRA) Population and Employment Projection Scenarios								
	2009	2014	2019	2024	2029	2034	2039	2044
	Residential (units)							
AMC	0	5,012	4,796	4,391	4,451	5,004	5,480	5,986
GPRA	0	2,351	3,597	5,065	7,282	8,398	10,127	12,163
Difference	0	-2,661	-1,199	674	2,831	3,394	4,647	6,177
	Residential (sq.ft.)							
AMC	0	5,092,192	4,873,062	4,461,595	4,521,877	5,084,064	5,567,680	6,081,776
GPRA	0	2,388,132	3,654,472	5,145,881	7,398,564	8,532,233	10,288,713	12,357,374
Difference	0	-2,704,060	-1,218,590	684,286	2,876,687	3,448,169	4,721,033	6,275,598
	Office (sq.ft.)							
AMC	0	556,288	882,691	843,228	984,439	1,101,878	1,218,365	1,289,922
GPRA	0	684,302	1,145,363	1,238,661	1,518,614	1,777,280	2,038,004	2,254,363
Difference	0	128,015	262,672	395,433	534,175	675,402	819,638	964,441
	Retail + Service Commercial (sq.ft.)							
AMC	233,970	638,003	784,580	929,796	1,084,181	1,269,556	1,458,559	1,645,992
GPRA	233,970	536,477	802,702	1,085,834	1,406,074	1,682,030	2,006,474	2,352,122
Difference	0	-101,526	18,123	156,039	321,893	412,474	547,915	706,130

Contents

List of Figures

List of Tables

1.0 INTRODUCTION

G.P. Rollo & Associates Ltd. (GPRA) have been retained by Cohos Evamy Integratedesign to assist in their assessment of the Downtown Edmonton Plan. More specifically, GRPA was called upon to examine potential for growth of residential units, retail + service commercial, and office space in the Downtown core.

Demand for residential, commercial and office space in the Downtown core will both impact the types of visions and policies that should be undertaken in the Downtown core, and can in turn be shaped by successful implementation of a coherent planning 'vision.' It is with this iterative interplay in mind – demand impacting planning impacting demand – that GPRA presents this report. We offer two scenarios of growth – 'baseline' and 'alternate' – in each of three categories, with the former assuming a 'status quo' or 'business as usual' scenario and the latter assuming that the Downtown vision laid out in the 2010 Downtown Plan.

2.0 PERSPECTIVES ON DEMAND

As indicated above, our Phase 1 work program involves a "high level" screening of forecasts by others plus our initial perspectives on the demand for additional retail, office and residential space in Downtown Edmonton.

Our forecasts are based on the following:

- Baseline population and employment forecasts by Traffic District were provided by the City of Edmonton (produced by Applications Management Consulting). These projections underpin our 'baseline' commercial and residential projection scenario, which can be considered a 'status quo' scenario.
- GPRA undertook an alternate population and employment forecast for Downtown Edmonton premised on implementation of the Downtown Plan. All assumptions underpinning these assumptions are discussed in the body of the report.
- Retail and Service Commercial space forecasts are based on population projections, a ratio of retail and service space supportable per capita, a ratio of regionally-oriented retail and service space supportable Downtown, and escalation of ratios based on our understanding of the economic environment.
- Office space forecasts are based on a constant ratio of square feet of office space per employee. Baseline office inventory for 2009 is from Avison Young. The baseline employment forecast is that provided by Applications Management; the alternate forecast offered by GPRA is premised on implementation of the Downtown Plan.
- It is assumed that Downtown office vacancy will hold constant at 5% to the forecast horizon.
- Dwelling unit forecasts for Downtown Edmonton were conducted based on population forecasts and assume that 2009 ratios of dwelling unit types in Downtown will remain constant. We also hold constant the 2009 ratio of Downtown residents to dwelling units.

3.0 POPULATION PROJECTIONS

3.1 BACKGROUND AND ASSUMPTIONS

GPRA forecasts for additional retail/service commercial space and new residential units in Downtown Edmonton are based upon population forecasts for both Downtown and the City from 2009 to 2044.

Baseline forecasts were built upon population projections undertaken by **Applications Management Consulting Ltd.** (AMC) in 2009[1] and provided to GPRA by the City of Edmonton. AMC's population projections for the Edmonton Central Business District (CBD) and the City as a whole were undertaken as part of a comprehensive forecasting exercise, allocating expected growth across the entire Capital Region to 2044. These forecasts take into consideration identified priority growth areas, land supply, transportation development and growth density targets.

Key summary points on the AMC population projection assumptions are as follows:

- A base year of 2009 was utilized for projections, with data garnered from the 2009 Edmonton Municipal Census;
- The Downtown is identified by the Capital Region Board as a Priority Growth Area (PGA);
- Density target ranges were established for each PGA, and the midpoint of the range was utilized to calculate the capacity of each traffic zone. For Downtown Edmonton, a density target of 40 dwelling units per net residential hectare (du/NRha) was used;
- The CBD is targeted for compact growth and intensification;
- Projections assume expansion of the LRT network with a mixture of high density residential, employment and mixed-use development emerging at proposed Transit Oriented Development (TOD) stations.

Using AMC's forecasts, GPRA established projections for retail, service commercial, and residential unit demand in the CBD. These projections are classified as **'baseline'** projections in this report. While AMC has indicated that its projections take into account some strategic revisioning of the Downtown core (as noted above), we believe that the projections are significantly below what could be achieved through visionary goals, policies, implementation strategies and implementation processes.

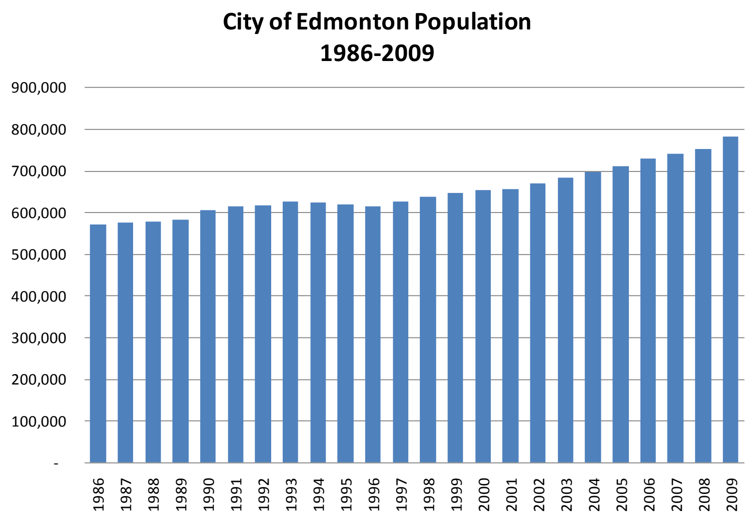
AMC correctly acknowledges that their forecasts represent only one plausible and likely distribution of growth, and that "[o]ther plausible scenarios could be developed using the same general direction…and altering assumptions about the distribution of growth."[2] With this in mind, GPRA provides an **'alternate'** growth scenario premised on a series of assumptions (discussed below), and discusses implications for future retail, service commercial and residential demand in Downtown Edmonton. Comparisons are also provided to forecasts conducted in recent years by other organizations.

[1] Applications Management Consulting Ltd. *Capital Region Board Population & Employment Forecasts*. November 2009.
[2] *Ibid*. P. 2

3.2 City of Edmonton, Historic Growth

The City of Edmonton has grown in fits and spurts over the past 25 years, reflecting its central position and exposure to the cycles of primary resource industries. On average, Edmonton has added nearly 9,200 residents per year from 1986 to 2009, growing from 571,500 to nearly 782,500.

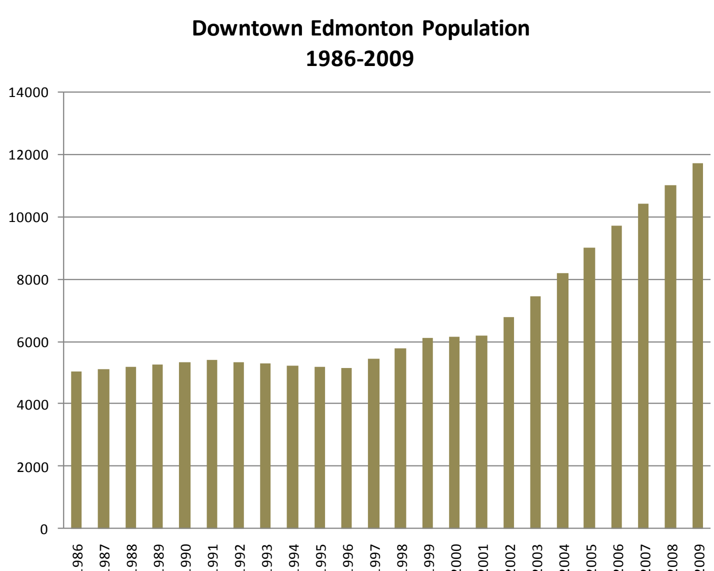
Figure 1: Historic Population Growth, City of Edmonton, 1986-2009



Historic Population Growth City of Edmonton		
Year	**Population**	**Annual Compound Growth rate between years**
1986	571,506	
1991	614,665	1.5%
1996	616,306	0.1%
2001	657,350	1.3%
2006	730,372	2.1%
2009	782,439	2.3%

Edmonton's Downtown has historically been home to only a small portion of the City's population, far below the ratios seen in other major Canadian cities. From 1986 to 1992, Downtown Edmonton was home to only 0.9% of the City's residents, falling to 0.8% from 1993 to 1997. From 1986 to 1997, Downtown Edmonton added only 391 residents.

Figure 2: Historic Population Growth, Downtown Edmonton, 1086-2009



Historic Population Growth Downtown Edmonton		
Year	**Population**	**Annual Compound Growth Rate between years**
1986	5,050	
1991	5,395	1.3%
1996	5,130	-1.0%
2001	6,175	3.8%
2006	9,727	9.5%
2009	11,719	6.4%

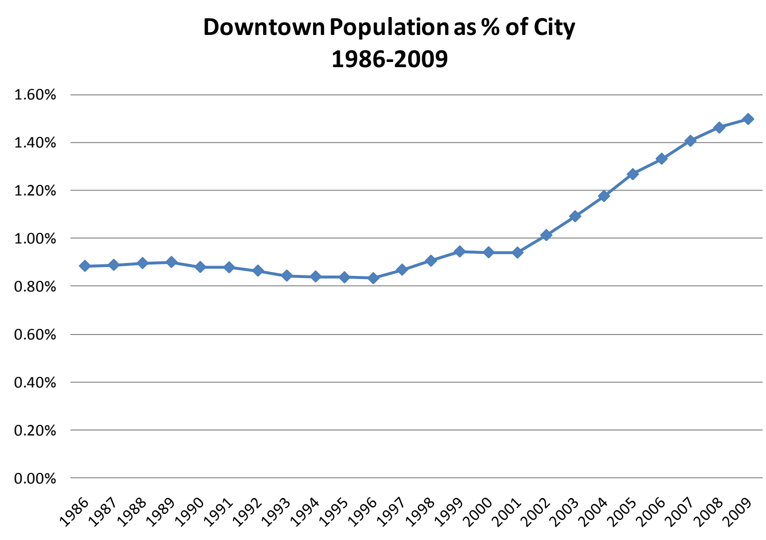
It was only with the economic boom that began in the late 1990s that Downtown condominium construction surged and Downtown living became a more attractive option for some. The booming Alberta economy attracted residents from other centres such as Toronto, Montreal and Vancouver where Downtown urban living is the norm; many of these new migrants sought out a similar lifestyle in Edmonton. Similarly, a greater number of local residents became attracted to the concept of Downtown living, motivated by a number of factors ranging from increasing eco-consciousness, desire for a less car-dependent lifestyle, or simply attraction to an environment where a multitude of locations are within walking distance of home and work.

At the same time, the City implemented the Downtown Housing Reinvestment Grant Program to spur Downtown revitalization. This program provided $4,500 for each housing unit built within the Downtown Plan boundary, and was incorporated into the Capital City Downtown Plan. In all, the City paid $4.5 million in grants subsidizing construction of 1,000 housing units.

The combination of development incentive and demand for an urban lifestyle spurred residential construction, ranging in type from new high-rise development and high-rise condo conversions, to redundant building renovations and warehouse conversions to lofts. From 1997 to 2009, Downtown added nearly 6,300 new residents (approx. 3,900 dwelling units), growing at an average annual rate of 6.6% and accounting for 4% of City-wide population growth. By comparison, from 1986 to 1997, Downtown grew at an average annual rate of only 0.7% and accounted for 0.7% of City growth.

As a percent of City residents, Downtown dwellers increased from 0.9% in 1997, to 1% by 2003 and 1.5% by 2009.

Figure 3: Downtown Population as Percent of City Population, 1986 to 2009.



Population Growth and Rates of Change Edmonton CBD		
	Annual Rate	**Pop Change**
1986-1991	1.3%	345
1991-1996	-1.0%	-265
1996-2001	3.8%	1,045
2001-2006	9.5%	3,552
2006-2009	6.4%	1,992
1986-1996	0.2%	80
1996-2006	6.6%	4,597
1986-2009	3.7%	6,589

Despite relatively high Downtown growth rates in recent years, the majority of Edmontonians continue to seek out single family, low-density housing on the City's fringe. The West, Southwest, Southeast, North and Northeast sectors of the City have grown rapidly in recent years, with retail, services and jobs following the population outward. These 'centrifugal' growth forces are likely to continue and, barring City-wide strategies geared towards redirecting growth forces to the core (for example: grants, land swaps, office growth policies, transit initiatives, public realm design initiatives), will place limits on potential population growth in the City centre. This assumption is incorporated into GPRA's population forecasts for the CBD.

3.3 Baseline Population Projection, 2009 to 2044

Applications Management Consulting (AMC) prepared the following population forecasts for the City of Edmonton and the Downtown core. As discussed above, we classify these as 'baseline' forecasts, and they form the basis for baseline dwelling units and retail + service commercial space demand projections.

3.3.1 Downtown and Downtown Fringe Population Forecast

AMC forecasts the population of Downtown Edmonton growing by approximately 6,700 residents in the next 20 years (2009 to 2029) – an average of 335 per year – and by nearly 9,000 residents over 35 years (2009 to 2044) – an average of 256 per year. While growth is projected to occur at an average annual rate of 1.7% from 2009 to 2044, most of that growth is forecast to occur by 2014. In the 30 years from 2014 to 2044, AMC forecasts annual growth of only 0.24% per annum. The patterns of projected growth by 5-year periods are:

- A 'surge' in population from 11,700 to 19,240 from 2009 to 2014 (10.4% annual rate), equating to approximately 5,500 dwelling units or 1,100 per year;
- A 'dip' in the population from 19,240 to 18,900 (-0.34% annual) between 2014 and 2019;
- A further 'dip' in the population from 18,900 down to 18,300 (-0.65% annual) from 2019 to 2024;
- A slight increase in population from 18,300 to 18,400 (-0.65% annual) between 2024 and 2029;
- An 830 resident increase (to 19,255, at 0.9% annual) from 2029 to 2034;
- A 710 resident increase (to 19,940, at 0.7% annual) from 2034 to 2039;
- A further 760 resident increase (to 20,700 at 0.8% annual) from 2034 to the projection horizon at 2044.

The neighbourhoods surrounding Downtown Edmonton[3], collectively defined as the CBD "Fringe" and delineated by Traffic District 22, are forecast to grow by approximately 20,000 residents from 2009 to 2044, increasing from 49,500 to 69,500. Growth is will occur at an average annual rate of just below 1%.

[3] Eight neighbourhoods are included in Traffic District 22: Oliver, Victoria, Rossdale, Riverdale, Boyle Street, McCauley, Central McDougall, and Queen Mary Park.

Figure 4: Edmonton's Downtown and Downtown Fringe

3.3.2 City of Edmonton Forecast

The City of Edmonton is forecast to grow by 50% over the next 35 years, adding nearly 400,000 residents between 2009 and 2044. Growth is forecast to be relatively linear at an average annual rate of 1.2%, adding approximately 11,300 new residents each year. The baseline population of 782,440 in 2009 will reach over 900,000 by 2019, over 1 million by 2029, 1.12 million by 2039 and 1.18 by 2044.

The forecast surge in Downtown population from 2009 to 2014, combined with relatively linear growth for the City as a whole, translates to a jump in Downtown's share of Edmonton's population from 2009 to 2014, from 1.5% to 2.3%. Downtown's population share will then fall as its growth stagnates and Edmonton continues to grow, reaching 2.1% in 2019, 1.9% in 2024 and 1.8% in 2029. From 2029 to the forecast horizon of 2044, Downtown is forecast to maintain a 1.8% share of City population.

Below are tables summarizing the baseline forecasts for population growth in the CBD, CBD Fringe and the City of Edmonton.

Table 1: Baseline Population Forecasts, CBD, Fringe and City

Baseline Population Forecasts, 2009 to 2044			
Year	Population		
	CBD	CBD Fringe	City
2009	11,719	49,544	782,439
2014	19,237	56,361	839,532
2019	18,913	56,941	900,642
2024	18,306	57,240	959,477
2029	18,395	61,228	1,012,970
2034	19,225	63,743	1,067,323
2039	19,939	66,907	1,123,533
2044	20,698	69,543	1,176,935

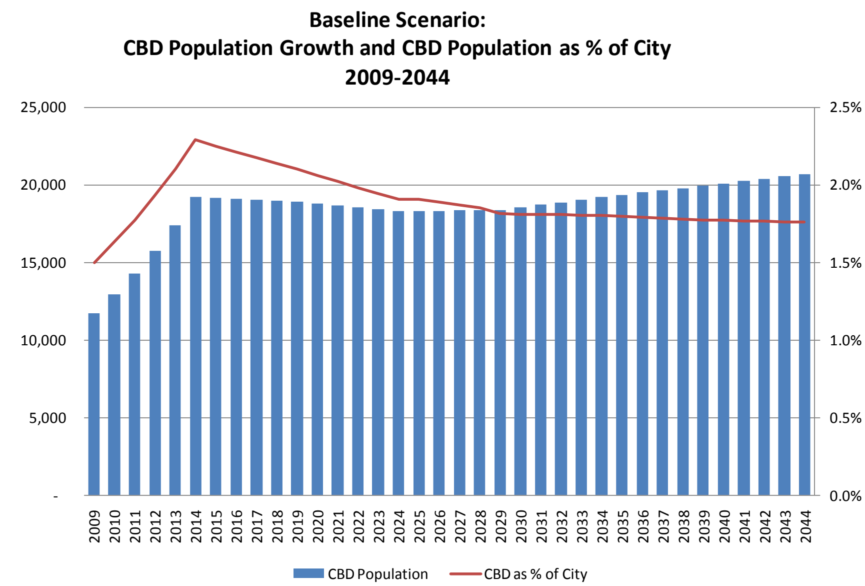
Table 2: Baseline Forecast, CBD and Fringe as % of City Population

Baseline, CBD + CBD Fringe Pop as % of City		
	CBD	CBD Fringe
2009	1.5%	6.3%
2014	2.3%	6.7%
2019	2.1%	6.3%
2024	1.9%	6.0%
2029	1.8%	6.0%
2034	1.8%	6.0%
2039	1.8%	6.0%
2044	1.8%	5.9%

Table 1: Baseline Annual Population Growth Rates Forecast

Basline Annual Growth Rates Forecast 5-Year Periods			
	Annual Growth Rates		
Period	**CBD**	CBD Fringe	City
2009-2014	10.42%	2.6%	1.4%
2014-2019	-0.34%	0.2%	1.4%
2019-2024	-0.65%	0.1%	1.3%
2024-2029	0.10%	1.4%	1.1%
2029-2034	0.89%	0.8%	1.1%
2034-2039	0.73%	1.0%	1.0%
2039-2044	0.75%	0.8%	0.9%
2009-2044	**1.64%**	**1.0%**	**1.2%**
2014-2044	**0.24%**	**0.7%**	**1.1%**

Figure 5: Baseline CBD Population and CBD's Share of City Population



3.4 Alternate Population Forecast Scenario

3.4.1 Assumptions

GPRA has compiled an alternate population forecast scenario for Downtown Edmonton. This alternative scenario is premissed on the following assumptions:

- We have not adjusted the AMC population forecasts for the City of Edmonton or the Downtown Fringe. These forecasts remain as follows:

Table 2: Edmonton City and Downtown Fringe Pop Forecasts, 2009-2044

Population Forecasts, 2009-2044	2009	2014	2019	2024	2029	2034	2039	2044
Downtown Fringe	49,544	56,361	56,941	57,240	61,228	63,743	66,907	69,543
City of Edmonton	782,439	839,532	900,642	959,477	1,012,970	1,067,323	1,123,533	1,176,935
Applications Management Consulting, 2009.								

- The urban Downtown lifestyle will become increasingly attractive as key 'catalyst projects' are implemented. Combined with increased environmental consciousness and higher energy costs, there will be greater impetus for Edmonton residents to live in compact, integrated communities including Downtown.

  Catalysts to Downtown living will include City-initiated and collaborative livability strategies[4] that include: LRT expansion, community amenity space construction (public or developer-funded), heritage restoration, high-quality building design, public realm impovements focusing on streets, and affordable housing.

- Growth of the seniors population (30% of City population by 2041 vs. 20% today) will create increased demand for smaller, urban dwelling units and walkable environments, with some seniors chosing to downsize from suburban single family homes and relocate to Downtown condos and townhouses. Increased leisure time will make proximity to leisure and cultural acitivities attractive.

- The 10.4% per annum population 'surge' from 2009 to 2014 forecast by AMC is likely overstated. This forecast is equivalent to an average annual unit absorption of 915 per year, with absorption over 1,000 units per year in years 2012 to 2014. Given the significant unit construction ongoing at the City's fringe, the attractive price-per-square foot in neighbourhoods within a 15-25 minute drive of Downtown, and the likely timeline for Downtown improvements that will make its neighbourhoods more attractive to those who are not already intent on living Downtown, such a ramp-up of absorption to historically unprecedented levels is unlikely. That said, Downtown absorption will likely remain strong in the coming years.[5] GPRA forecasts an average annual absorption of 470 Downtown dwelling units from 2010 to 2014, consistent with the 450 units per annum average seen from 2004 to 2009.

- The GPRA forecast is premised on Downtown unit absorption following a 7-year cycle from peak to trough, with peaks at 550 units absorbed and troughs at 175 units. The peak absorption rate is premised on both historic absorption trends and what we believe is possible given implementation of Downtown improvements, while troughs are based on historic trends adjusted to a larger population base and again take into consideration Downtown improvements.

- Land supply and comparatively lower land prices on the urban fringe, affording famlies more living space, will continue to make these areas attractive to the majority of Edmonton residents. Higher energy costs and environmental concerns will likely spur intensification of population and jobs at key 'urban nodes' in inner and outer suburban neighbourohods[6], eventually creating a multi-nodal urban region with

[4] Collaboration could include provincial funding, public-private-partnerships, private sector voluntary or mandatory amenity contributions or cash in-lieu.

[5] Discussions with members of the Edmonton development community have revealed a feeling that Downtown absorption will likely plateau over the next 3-5 years.

[6] Colliers' *Edmonton Real Estate Analysis* (Oct. 2009, p.8-9) indicated possible locations for future urban node densification.

transit (LRT and rapid bus) connectivity. This will limit the potential for rapid or exponential growth of the Downtown resident population.

3.4.2 Altenrate Population Projection, Downtown Edmonton

The 'alternate' population forecast, taking into consideration all of the assumptions discussed above, projects the Downtown population reaching nearly 30,000 residents by 2044, versus 20,700 in the AMC forecast. The average annual growth rate is forecast at 2.7% from 2009 to 2044, with strongest percent growth occuring in the next 5 years as recent building permits and approved rezonings translate into built and absorbed units. Population is projected to reach 17,000 by 2019, 22,600 by 2029, and nearly 27,000 by 2039.

Figure 6: Baseline and Alternate Edmonton CBD Population Forecasts, 2009 to 2044

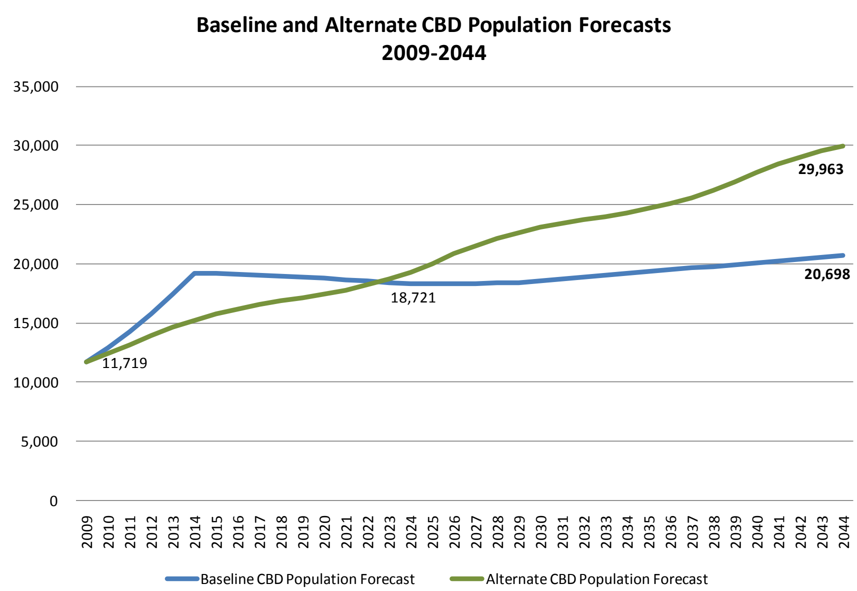


Table 3: Baseline and Alternate Edmonton CBD Population Forecasts 2009-2044, and AMC Forecasts of CBD Fringe and City.

Population Forecasts, 2009 to 2044				
Year	Downtown Population		CBD Fringe	City
	AMC Forecast	Alternate Forecast		
2009	11,719	11,719	49,544	782,439
2014	19,237	15,245	56,361	839,532
2019	18,913	17,114	56,941	900,642
2024	18,306	19,316	57,240	959,477
2029	18,395	22,642	61,228	1,012,970
2034	19,225	24,316	63,743	1,067,323
2039	19,939	26,909	66,907	1,123,533
2044	20,698	29,963	69,543	1,176,935
G.P. Rollo & Associates, 2010; Applications Management, 2009.				

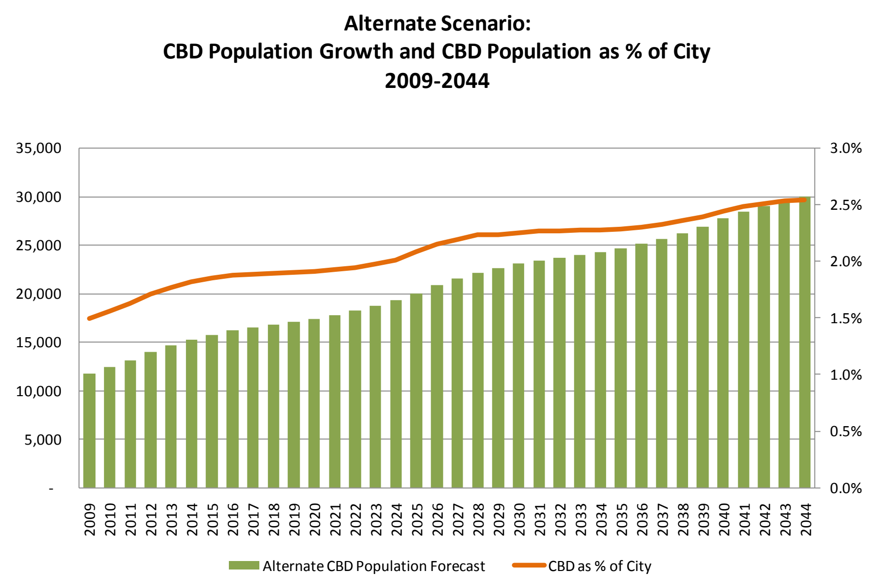
Under this scenario, Downtown Edmonton's population would be substantially below levels forecast by AMC until 2023. Thereafter, the gap between the forecasts will widen in the opposite direction, reaching a difference of nearly 9,300 residents by 2044.

As a percent of total City population, the CBD is forecast to increase from 1.5% in 2009 to 1.9% by 2019, 2.2% by 2029, 2.4% by 2039 and 2.5% by 2044. By contrast, the AMC scenario forecasts a peak of 2.3% in 2014 before decreasing to 1.9% in 2024 and stabilizing at 1.8% to the forecast horizon.

Table 4: Downtown Pop as % of City under baseline and alternate conditions, 2009-2044

Baseline & Alternate CBD as % of City Population		
	CBD	
	Baseline	Alternate
2009	1.5%	1.5%
2014	2.3%	1.8%
2019	2.1%	1.9%
2024	1.9%	2.0%
2029	1.8%	2.2%
2034	1.8%	2.3%
2039	1.8%	2.4%
2044	1.8%	2.5%

Figure 7: Alternate Scenario: Downtown Population Growth and Population as % of City, 2009-2044



It is worth noting that under this alternate population growth scenario, the Downtown population would fall short of achieving City Policy 4.1 of the Draft Downtown Plan (2009), which calls for "24,000 Downtown residents by 2030."

The rate at which Downtown Edmonton can grow will primarily be a function of the speed and quality of catalyst project implementation, leading to the establishment of Downtown neighbourhoods that offer a quality of life that cannot be found elsewhere in the City. A high quality public realm, efficient and attractive transit and bikeways, alongside other improvement projects associated with a coherent vision are preconditions to attracting residents and business. Such projects can help to broaden the appeal of Downtown, in turn offsetting potential absorption drop-offs associated with a cyclical econmomy by creating a larger residential 'base' from which to draw. If Downtown becomes broadly appealing to residents that today would not consider a move to that area, then the population forecasts presented above might actually be considered too conservative.

We recommend that the population growth projections be revisited within 3-5 years following adoption of the Downtown Plan. Assumptions should be reconsidered in light of market conditions and progress to date on catalyst projects.

4.0 DOWNTOWN RETAIL and SERVICE COMMERCIAL DEMAND

The population forecasts presented above drive demand projections for additional retail and service commercial space Downtown.

4.1 Baseline Conditions

Estimates of total retail and service commercial floor space in the City of Edmonton and the Downtown core are based on data from reports by Colliers and Coriolis Consulting (2009 & 2008 respectively), supplemented by information provided by the City of Edmonton and conversations with City staff.

It was determined that in 2006, the retail and service commercial floor space inventory in the Edmonton CMA, City of Edmonton, Downtown and Downtown Fringe was as follows:

Table 5: Retail and Service Commercial Inventory, and sq. ft. per capita, 2006

Baseline Retail and Service Commercial Inventory, 2006			
	Sq.Ft.	Population	Sq.Ft. per capita
Edmonton Census Metro Area (CMA)*	45,453,542	1,034,945	43.9
City of Edmonton*	39,603,542	728,006	54.4
Downtown Fringe*	2,023,548	57,990	63.3
Downtown**	1,644,516	9,727	169.1
* Coriolis Consulting, 2008			
**Draft Capital City Downtown Plan, August 2009			

We break down retail and service commercial into two broad categories: regional, and neighbourhood serving.

- Regional-oriented retail and service space: located in major shopping centres and malls, power centres and in/near Downtown. Regional serving businesses tend to have wider geographic trade areas.
- Neighbourhood oriented retail and service space: serves a localized trade area (generally walking distance or not more than a 5-10 minute drive time). These businesses serve day-to-day needs of residents and employees and are typically comprised of convenience businesses and personal/professional services.

In 2006, regional-serving retail and service space comprised 54% of total floor area in the City of Edmonton and 97% of total Downtown floor area.

Table 6: Regional-Service Retail + Service Space, 2006

Regional-Serving Retail and Service Space, 2006	Sq. Ft.	Sq. Ft. per capita	% of Total Space
CMA	24,900,000	24.1	55%
City of Edmonton	21,400,000	29.4	54%
Downtown	1,600,000	164.5	97%
Coriolis Consulting, 2008.			

The 1.6 million square feet of regionally-oriented retail and service floor area located Downtown comprised 7.5% of the City's regional floor area.

4.2 Growth Assumptions

Forecasts of future demand for retail and service commercial space are based on application of supportable retail and service space per capita estimates to the projected population of the City and the Downtown. In order to proceed with this forecast, the following assumptions were made.

4.2.1 Square Feet Supportable per Capita

In 2006, the average Edmonton resident could support 54.4 square feet of retail and service commercial.[7] Given that 54% of Edmonton's retail and service space inventory in 2006 was comprised of regionally-oriented locations, we estimate that the average resident could support 29.4 square feet of such space.

For the baseline and alternative growth scenarios, the retail and service space supportable per capita is assumed to increase with time. Retail and service spending per capita in Alberta has increased at a pace that exceeds inflation for the past decade, estimated at 4% real growth per year; part of this increase supports additional space per capita. Coriolis Consulting, in their report on Edmonton Commercial Market Space conducted in 2008, assumed that growth in retail and service spending per capita would increase at a pace that slightly exceeded inflation over the long term, resulting in a slight increase in supportable space over time.[8] GPRA has applied this assumption to its baseline and alternate scenario projections.

We assume that supportable space per capita will increase by 1% every 5 years, or approximately 0.2% per year.

[7] City-wide retail and service commercial supply/demand was in a state of relative equilibrium in 2006, therefore the floorspace per capita ratio provides a guideline for supportable space per capita by City residents.

[8] Coriolis Consulting Corp. *Analysis of Existing Edmonton Commercial Market and Forecast of Future Demand*. 2008. P. 39.

Table 7: Retail + Service Space Supported Per Capita, 2009-2044

Measures of Retail + Service Space Supported per capita (sq.ft.)								
	2009	2014	2019	2024	2029	2034	2039	2044
All Retail + Service Supportable per capita	**54.7**	55.3	55.8	56.4	56.9	57.5	58.1	58.7
Regionally-oriented Retail + Service Supportable per capita	**29.6**	29.9	30.2	30.5	30.8	31.1	31.4	31.7

4.2.2 Share of Regional Retail Space in Downtown

In 2006, Downtown Edmonton contained an estimated 7.5% of the City's regionally-oriented retail and service commercial floor area.

The baseline forecast of retail and service space demand assumes that this 7.5% share will remain static over the next 35 years. Given the significant retail construction occurring at the City's fringe and the outward orientation of population growth, Downtown would indeed be hard pressed to maintain its share of regional space under a 'business as usual' case in which no significant Downtown improvements are made.

The alternate forecast, premised on significant Downtown improvements being undertaken, assumes that the Downtown core can increase its share of regional-oriented space in the next 35 years. We forecast a steady increase from 7.5% in 2009 to 8.5% by 2044.

Table 8: Downtown's Share of Regional Commercial Space under Baseline and Alternate Scenarios, 2009-2044

Downtown Edmonton Share of Regional Retail + Service Space, 2009-2044								
	2009	2014	2019	2024	2029	2034	2039	2044
Baseline Conditions	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%	7.5%
Alternate Conditions	7.5%	7.6%	7.8%	7.9%	8.0%	8.2%	8.3%	8.5%

4.2.3 Downtown Resident Retail + Service Spending Downtown

Part of the Downtown retail picture is shaped by regional spending flowing into the Downtown core. As indicated above, with future improvements we are optimistic that more regional shopping trips will be oriented to Downtown in the future.

However, regional shopping only paints part of the retail and service picture. Typically, a significant portion of a person's retail and service spending will occur close to home at neighbourhood-oriented retail and service centres. People tend to shop at these centres due to convenience of location allowing for time savings rather than due to price considerations. Oftentimes, people will be willing to spend 10-15% more on a product or service if it can be had at a location within a 5 minute drive of home or a 5-15 minute walk. As such, certain retail categories that are more conducive to comparison shopping – apparel, electronics, large-scale grocery stores etc. – tend not to locate in such centres. Neighbourhood based convenience trips lend themselves to categories like: small grocery, liquor, pharmacy, limited home-oriented products, personal services (hair salon, recreation), professional services (legal, medical, dental), and food (restaurants, bars).

In the Downtown environment, the concept of 'neighbourhood' vs. 'regional' shopping becomes more complex. For a Downtown resident, the 'neighbourhood' grocery store may also be a large supermarket and the local insurance broker may be located in a large office tower. Therefore creating a sharp delineation between neighbourhood-oriented and regionally-oriented spending is not cut-and-dry.

For this report, we make the following assumptions regarding neighbourhood vs. regional spending:

- Approximately 16% of supportable retail and service space per Downtown resident is 'neighbourhood oriented;'
- An additional 50% of supportable retail and service space per Downtown resident is 'regionally-oriented' and located in the Downtown core;
- Overall, we estimate that 66% of per capita retail and service space supportable by a typical Downtown resident should be located Downtown. The remaining 34% will be supported in other areas of the City and beyond.
- Supportable square feet per capita – neighbourhood and regional – will increase at 1% every 5 years.

Table 9: Commercial Space Supported by Downtown Residents

Neighbourhood-Oriented Supportable sq. ft. Retail + Service per capita			
Downtown Residents			
Category	SF Retail + Service per hhld	% Nbhd	Nbhd sf/hhld
Building Material	2.0	0.0%	0.0
Hardware	0.7	5.0%	0.0
Department Store	9.1	0.0%	0.0
Food/Grocery	7.9	20.0%	1.6
Auto supply	1.9	0.0%	0.0
Gas	4.0	0.0%	0.0
Apparel	3.0	15.0%	0.5
Shoe	0.9	15.0%	0.1
Furniture	2.3	5.0%	0.1
Home Furnishing	1.1	0.0%	0.0
Appliance	0.7	0.0%	0.0
Electronics	1.5	0.0%	0.0
Restaurants	8.7	45.0%	3.9
Drinking places	2.0	45.0%	0.9
Drug stores	2.7	45.0%	1.2
Sporting Goods	1.3	0.0%	0.0
Books	1.3	10.0%	0.1
Hobbies	1.3	10.0%	0.1
Gift	1.3	10.0%	0.1
Flower	0.7	10.0%	0.1
Total	**54.4**		**8.8**

Regionally-Oriented Downtown sq. ft. Retail + Service supportable per capita			
Downtown Residents			
Category	SF Retail + Service per hhld	% Regional	Downtown Regional sf/hhld
Building Material	2.0	10.0%	0.2
Hardware	0.7	10.0%	0.1
Department Store	9.1	80.0%	7.3
Food/Grocery	7.9	75.0%	5.9
Auto supply	1.9	15.0%	0.3
Gas	4.0	20.0%	0.8
Apparel	3.0	65.0%	2.0
Shoe	0.9	65.0%	0.6
Furniture	2.3	40.0%	0.9
Home Furnishing	1.1	20.0%	0.2
Appliance	0.7	20.0%	0.1
Electronics	1.5	20.0%	0.3
Restaurants	8.7	45.0%	3.9
Drinking places	2.0	40.0%	0.8
Drug stores	2.7	40.0%	1.1
Sporting Goods	1.3	40.0%	0.5
Books	1.3	45.0%	0.6
Hobbies	1.3	45.0%	0.6
Gift	1.3	45.0%	0.6
Flower	0.7	45.0%	0.3
Total	**54.4**		**27.1**

4.3 Projected Retail and Service Floor Area Demand

Using baseline and alternate population projections for the City of Edmonton and Downtown core, projections of supportable floor space per capita, and projections of Downtown's share of regionally-oriented floor space, we project two scenarios of retail and service floor area demand in Downtown Edmonton from 2009 to 2044.

4.3.1 Supply vs. Demand, 2009

In 2009, Downtown Edmonton had an inventory of approximately 1,890,000 square of retail and service space. We estimate that 2009 demand for space Downtown is approximately 2.1 million square feet. Therefore, at the end of 2009 there is a net deficit of 234,000 square feet of retail and service space Downtown.

4.3.2 Projected Demand: Baseline Population Scenario

Under the baseline projection scenario for Downtown Edmonton provided by AMC, Downtown will require an additional 1.6 million square feet of retail and service commercial space by 2044. Demand will be strongest in the 2009 to 2014 period, during which an additional 404,000 square feet will be required (in addition to the 234,000 square feet needed due to current undersupply). From 2014 to 2044, average annual demand is forecast at 33,600 square feet; average annual demand over the entire forecast period is 47,000 square feet.

Table 10: Baseline Commercial Demand Downtown, 2009-2044

Retail and Service Commercial Space Demand Projections, Downtown Edmonton	2009	2014	2019	2024	2029	2034	2039	2044	2009-2044
Baseline Scenario (Based on Applications Management Consulting Population Projections)									Change
CBD Population	11,719	19,237	18,755	18,306	18,395	19,225	19,939	20,698	8,979
City of Edmonton Population, less CBD	770,720	820,295	881,887	941,171	994,575	1,048,098	1,103,594	1,156,237	385,517
Sq.Ft. Supported by Non-CBD Residents	1,704,039	1,831,784	1,989,017	2,143,954	2,288,263	2,435,519	2,590,123	2,740,812	1,036,774
Sq.Ft. Supported by CBD Residents	419,931	696,219	685,562	675,841	685,918	724,036	758,436	795,180	375,249
Total Sq. Ft. Supported	2,123,970	2,528,003	2,674,580	2,819,796	2,974,181	3,159,556	3,348,559	3,535,992	1,412,022
Estimated 2009 Sq. Ft.	1,890,000								
Additional Sq. Ft. Demand	233,970	404,034	146,576	145,216	154,386	185,375	189,003	187,433	**1,645,992**

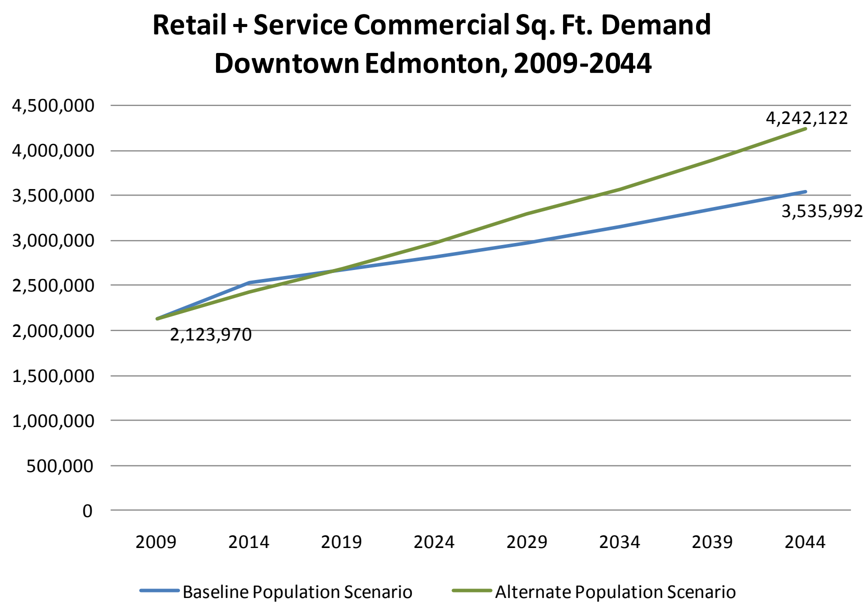
4.3.3 Projected Demand: Alternate Population Scenario

Under the alternate population projection scenario for Downtown Edmonton, the Downtown core will require an additional 2.35 million square feet of retail and service commercial space by 2044. In this scenario, demand will first peak in the 2009 to 2014 period (302,000 sq. ft.), peak again in the 2024 to 2029 period (320,000 sq. ft.), and peak for a third time in the 2039 to 2044 period (346,000 sq. ft.). Average annual demand from 2014 to 2044 is forecast at 70,600 square feet; average annual demand over the entire forecast period is 67,000 square feet.

Table 11: Alternate Commercial Demand Downtown, 2009-2044

Retail and Service Commercial Space Demand Projections, Downtown Edmonton	2009	2014	2019	2024	2029	2034	2039	2044	2009-2044
Alternate Scenario (Based on GPRA Downtown Population Projections)									Change
CBD Population	11,719	15,245	17,114	19,316	22,642	24,316	26,909	29,963	18,244
City of Edmonton Population, less CBD	770,720	824,287	883,528	940,161	990,328	1,043,007	1,096,624	1,146,972	376,252
Sq.Ft. Supported by Non-CBD Residents	1,704,039	1,874,743	2,067,110	2,262,695	2,451,790	2,656,267	2,872,914	3,090,992	1,386,954
Sq.Ft. Supported by CBD Residents	419,931	551,734	625,592	713,140	844,285	915,762	1,023,560	1,151,130	731,199
Total Sq. Ft. Supported	2,123,970	2,426,477	2,692,702	2,975,834	3,296,074	3,572,030	3,896,474	4,242,122	2,118,153
Estimated 2009 Sq. Ft.	1,890,000								
Additional Sq.Ft. Demand	233,970	302,508	266,225	283,132	320,240	275,955	324,444	345,648	**2,352,122**

Figure 8: Downtown Commercial Demand, Baseline and Alternate, 2009-2044



4.4 Comparison to Alternate Projections

Both Colliers International and Coriolis Consulting Corp have conducted commercial demand analyses for the City of Edmonton in the past two years.

Colliers International: *Edmonton Real Estate Analysis (October 2009)*

- Colliers forecast demand for retail and service commercial from 2006 to 2041;
- Over that time, Colliers forecast demand for 21.5 million square feet for the City of Edmonton and 4.9 million square feet for the Downtown. This forecast therefore assumes that 23% of future space demand will be constructed Downtown.

➢ In 2006, the CBD accounted for only 4% of citywide retail and service space, and 7.5% of citywide regionally-oriented retail and service space.

➢ Under our 'alternate' (catalyst) population projection scenario, Downtown commercial space growth will account for 11% of citywide growth.

➢ Colliers foresees 23% of citywide commercial growth occurring Downtown over 35 years.

Coriolis Consulting Corp: *Analysis of Existing Edmonton Commercial Market and Forecast of Future Demand (January 2008)*

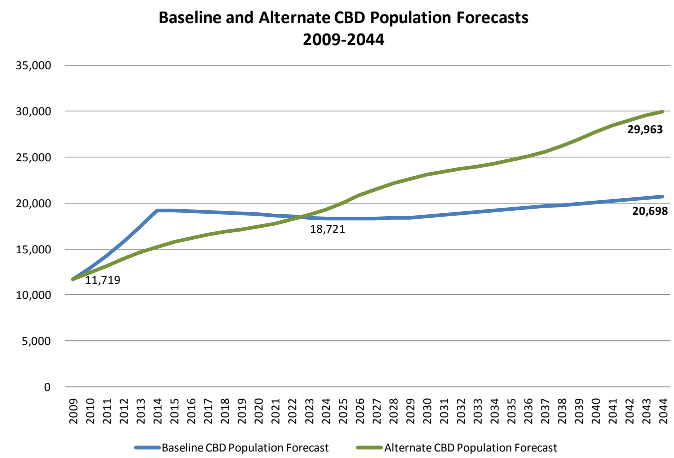
- Coriolis forecast demand for retail and service commercial from 2006 to 2041;

- Over that time, Coriolis forecast demand for 22.7 million square feet for the City of Edmonton and 1.65 million square feet for the **combined Downtown and fringe**.
- Coriolis' projections assumes that Downtown and fringe capture 10% of additional regional retail and service demand

➢ It is our opinion that Coriolis underestimates the potential for additional neighbourhood-oriented retail and service space in the Downtown, specifically in areas targeted for residential growth like the Warehouse District and McKay Avenue.

5.0 DOWNTOWN RESIDENTIAL DEMAND

This section presents two scenarios for Downtown residential dwelling demand, the first using the AMC population forecast for Downtown (section 3.3), and the other using the alternate Downtown population forecast (section 3.4).



5.1 Assumptions

Both residential demand forecasts presented below use the 2009 Edmonton Municipal Census figures for dwelling units in the Downtown core as their baseline and forecast dwelling unit demand to 2044.

Table 12: Dwelling Units Downtown, 2009

Downtown Edmonton Dwelling Units, 2009		
Structure Types	**# Units**	**% of Total**
Apartment, 5+ storeys	5,800	81.0%
Apartment, < 5 storeys	1,002	14.0%
Row Houses	72	1.0%
Duplex/Triplex/4plex	286	4.0%
Total	**7,160**	100.0%

Both demand scenarios assume a distribution of future Downtown dwelling units by structure type as follows:

- 80% of future units in towers of 5+ storeys;
- 15% of future units in buildings of < 5 storeys;
- 5% of future units in rowhouses/ semi-detached/ triplexes/ 4-plexes.

In 2009, Downtown Edmonton had 1.64 persons per dwelling unit. Demand forecasts assume a constant ratio of 1.5 persons per unit to 2044.

5.2 Market Conditions

A number of market segments are typically attracted to Downtown living: (1) students attending classes in or near Downtown; (2) young couples with jobs in or near Downtown; (3) empty nesters who are attracted to Downtown amenities and downsizing options; (4) people working in a post-secondary setting and the arts/culture community.[9] These markets will combine to create a sustainable and vibrant Downtown environment.

5.3 Projected Demand: Baseline Population Scenario

The baseline Downtown dwelling unit projections from 2009 to 2044 were undertaken based on the population forecasts from Applications Management. For the purpose of this analysis, neither the 'hotel population' nor 'group housing' population segments were considered.

[9] Drawn from *Edmonton Downtown Residential Analysis*, March 2006.

The forecast reveals a demand for an additional 6,000 residential units in Downtown over 35 years, or an average of 171 per year. This equates to an 84% increase in Downtown housing stock. Demand is projected at just over 5,000 units between 2009 and 2014, before plummeting to zero for the following decade due to projected population decline in the Downtown core. Beyond 2024, the projection calls for a modest number of additional units as the Downtown population rebounds.

An annual absorption rate of 171 units is quite low and should be considered a very conservative (low) estimate of Downtown's potential for residential absorption under a 'status quo' scenario. This rate is consistent with the average absorption seen in Downtown from 1997 to 2001, but far below what has been witnessed over the past 8 years. If suburban communities continue to offer attractive single-family and multi-family product, begin to offer more of the density and urban amenities that an increasing segment of the population seeks, and no concerted effort is made to implement recommended catalyst projects in the Downtown, 35-year growth of fewer than 6,000 residents is not unforeseeable.

Table 13: Baseline Residential Unit Demand, Downtown, 2009-2044

Residential Unit Demand, Downtown Edmonton	2009-14	2014-19	2019-24	2024-29	2029-34	2034-39	2039-44	**2009-44**
Baseline Scenario (Based on Applications Management Consulting Population Projections)								
Apartment 5+ Storeys	4,010	-173	-324	47	443	381	405	4,789
Apartment <5 Storeys	752	-32	-61	9	83	71	76	898
Duplex/Triplex/4plex	251	-11	-20	3	28	24	25	299
TOTAL	5,012	-216	-405	59	553	476	506	**5,986**

5.4 Projected Demand: Alternate Population Scenario

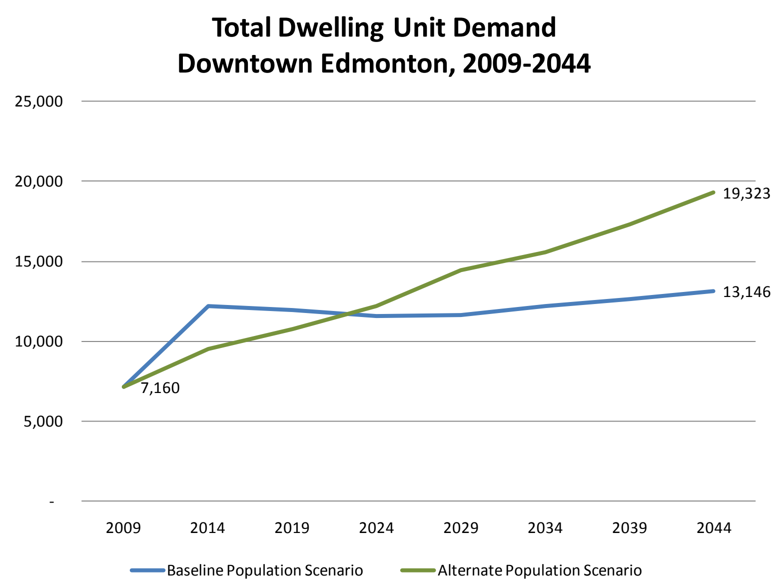
The 'alternate' scenario assumes that Downtown catalyst projects move ahead and the variety of amenities, infrastructure investment and liveability improvements attract a significantly larger share of citywide population growth to the Downtown core.

Under the alternative growth scenario, the Downtown could see demand for over 12,100 new dwelling units from 2009 to 2044. If all units are constructed, the Downtown dwelling inventory by 2044 would be over 19,300 units.

Table 14: Alternate Residential Unit Demand, Downtown, 2009-2044

Residential Unit Demand, Downtown Edmonton	2009-14	2014-19	2019-24	2024-29	2029-34	2034-39	2039-44	2009-44
Alternate Scenario (Based on GPRA Downtown Population Projections)								
Apartment 5+ Storeys	1,880	997	1,174	1,774	893	1,383	1,629	9,730
Apartment <5 Storeys	353	187	220	333	167	259	305	1,824
Duplex/Triplex/4plex	118	62	73	111	56	86	102	608
TOTAL	2,351	1,246	1,468	2,217	1,116	1,729	2,036	**12,163**

Figure 9: Dwelling Unit Demand, Downtown Edmonton, Baseline and Alternate Scenarios, 2009-2044



5.5 Land Requirements

The land requirements for residential development vary depending on density assumptions. Land requirements presented in the table below assume the following:

- Average Unit Sizes: 1,030 sq. ft. in highrises; 1,100 sq. ft. in lowrises; 1,500 sq. ft. in rowhouses/townhouses/duplexes.
- Building efficiency of 85% for apartments, 95% for rowhouses/duplexes
- Density (du/net residential hectare):
  - Apartments 5+ Storeys: 305 (approx. 4.0 Net FSR)
  - Apartments <5 storeys: 200 (approx. 2.8 Net FSR)
  - Rowhouse, duplex, triplex: 65 (approx 1.1 Net FSR)

Under the scenario described above, the land requirements for the two residential demand scenarios are as follows:

Table 15: Residential Land Requirements, Downtown Edmonton, Baseline and Alternate Scenarios, 2009-2044.

Residential Land Requirements, Downtown Edmonton (HA)	2014	2019	2024	2029	2034	2039	2044	2009-44
Baseline Scenario (Based on Applications Management Consulting Population Projections)								
Apartment 5+ Storeys	13.1	-0.6	-1.1	0.2	1.5	1.2	1.3	**15.7**
Apartment <5 Storeys	3.8	-0.2	-0.3	0.0	0.4	0.4	0.4	**4.5**
Duplex/Triplex/4plex	3.9	-0.2	-0.3	0.0	0.4	0.4	0.4	**4.6**
TOTAL	20.8	-0.9	-1.7	0.2	2.3	2.0	2.1	**24.8**
Alternate Scenario (Based on GPRA Downtown Population Projections)								
Apartment 5+ Storeys	6.2	3.3	3.9	5.8	2.9	4.5	5.3	**31.9**
Apartment <5 Storeys	1.8	0.9	1.1	1.7	0.8	1.3	1.5	**9.1**
Duplex/Triplex/4plex	3.9	-0.2	-0.3	0.0	0.4	0.4	0.4	**4.6**
TOTAL	11.8	4.0	4.6	7.5	4.2	6.2	7.3	**45.6**

It should be noted that the majority of future **commercial space** demand in Downtown – presented in section 4 above – could be accommodated within mixed-use residential/commercial structures.

For instance, if we assume that 5%-10% of future commercial demand is located in ground-floor plazas of stand-alone Downtown office developments (118,000 – 235,000 sq. ft.) and an additional 10% is developed as 'stand-alone' commercial structures (235,000 sq. ft.), this leaves between 1.9 and 2 million sq. ft. of commercial eligible for inclusion in mixed-use residential projects. Assuming that this remaining square footage is constructed at an FSR of 1.0 (located within ground floor podiums of condominium towers for instance) it would require between 17.7 and 18.6 hectares of land. This could easily be incorporated into future condominium complex construction.

5.6 Comparison to Alternate Projections

Clayton Research Group Study

- Forecast demand for housing from 2006 to 2016. Their 'business as usual' forecast called for 2,600 units (260 per year), while their "strategic growth" scenario called for 3,425 units (342 per year).
- Clayton's "strategic growth" scenario was based on the following assumptions:
    - Development focused on areas of higher urban amenity
    - City focuses investment in specific Downtown areas
    - Comprehensive marketing strategy undertaken by the City
    - A 'Master Plan' and 'Precincts' plans are implemented, providing increased certainty in the development process, community and neighbourhood identity through improving streetscape beautification and signage, enforceable design guidelines, and agreement amongst stakeholders (community, planning and development).

The Clayton 10-year 'strategic growth' demand scenario – 3,425 units from 2006 to 2016 – is very similar to the GPRA 10-year 'alternate demand' scenario – 3,600 units from 2009 to 2019 – based on implementation of catalyst projects.

Colliers's Edmonton Real Estate Analysis

- Colliers forecast an increase of 29,632 housing units in Downtown Edmonton from 2006 to 2041 (average of 846 units per year). This was determined by allocating 18% of the City's total forecast housing growth to Downtown Edmonton.

In our opinion, this forecast is too aggressive for Downtown. If we assume 1.5 persons per household to the forecast horizon, 29,632 new units equates to an additional 44,448 residents to Downtown Edmonton from 2006 to 2041, or a 357% increase from the 2006 population of just over 9,000.

6.0 DOWNTOWN OFFICE SPACE DEMAND

6.1 Market Conditions

Edmonton's office market has been quite resilient in recent years. Despite increasing vacancies from 2008 to 2009 (5.3% to 5.9%), available space continues to have 1-2% lower vacancies than other markets in the country. There has been an overall downward trend in office vacancy since a peak of 18.9% in 2000. It has been noted that much of the vacancy is related to large tenants pursuing space elsewhere in the City primarily due to price considerations, combined with various tenants downsizing their office needs.

The Downtown Financial District represents approximately 2/3rds of the Downtown office market (10.3 million square feet). This district has seen a slight increase in vacancy in recent months, reaching 5.9% by third quarter 2009. Three major office towers had a cumulative vacancy of nearly 226,000 square feet, resulting in a slight softening of rental rates. The medium and long term forecast is for significant opportunity for investment in the financial district office market.

The Downtown Government District comprised approximately 5.2 million square feet in 2009. There has been very little net change in overall vacancy in this district, with a steady rate of 5.9%. With much of the office space in this district occupied by government agencies, vacancy fluctuations are much less likely. Overall investment in the Government District remains solid and is forecast to remain so in the medium and longer terms.

In 2009, the City of Edmonton had an inventory of nearly 23.6 million square feet of office space. Approximately 66% of this space, or 15.51 million square feet, was located in the Downtown core across both the Financial and Government Districts.

6.2 Downtown Employment and Office Space Forecasts

Demand for office space is calculated on the basis of square feet of office space used per office employee. Space projections are premised on the following:

- 2009 Downtown office space inventory: 15,507,593 square feet (Avison Young);
- 2009 Downtown office employment inventory: 67,712;
- 238 office employees per square foot. This ratio is held constant through to 2044.

6.2.1 Baseline Forecast

Applications Management has provided a baseline forecast of Downtown employment from 2009 to 2044. We believe that this forecast is realistic under a 'status quo' scenario where significant Downtown projects are not undertaken and an abundance of attractive employment land continues to be available at the City's periphery.

Under this scenario, Downtown Edmonton would add just over 5,400 office jobs over 35 years, translating to demand for approximately 1.3 million additional square feet. The baseline office inventory of 15.51 million square feet in 2009 would increase to 16.8 million square feet by 2044, an 8.4% addition to the gross square footage. The greatest increase in demand is projected to occur in the period to 2019, with employment growth calling for an additional 556,000 square feet of space. This growth would account for 43% of the 35 year office growth requirements. From 2019 to 2029 the Downtown core will require an additional 101,000 square feet, and from 2029 to 2039, Downtown will require another 234,000 square feet.

This forecast shows relative stability in Downtown floor area as a percent of total office demand across the City. As a percent of total space demand, Downtown will reach nearly 67% in 2019 before dropping to 64% by 2029 and reaching 65.4% by 2044.

If all of this future office space were constructed at a density of 5.0 FSR, it would require only 2.4 hectares of land.

Table 16: Baseline Downtown Office Space Projections, 2009 - 2044

Office Space Demand Projections, Downtown Edmonton	2009	2014	2019	2024	2029	2034	2039	2044	2009-2044
Employment Projection #1 - Applications Management Consulting (2009)									
CBD Office Employees	65,232	67,572	68,945	68,779	69,373	69,867	70,357	70,658	5,426
Sq.Ft. Office Space Required	15,507,593	16,063,881	16,390,284	16,350,821	16,492,032	16,609,471	16,725,958	16,797,515	
5-Year Demand, new Sq.Ft.		556,288	326,403	-39,463	141,212	117,439	116,488	71,557	**1,289,922**
% Office Space in CBD		64.6%	66.6%	64.2%	64.1%	64.8%	65.7%	65.4%	
Land Requirements (ha)									
At 2.0 FAR		2.6	1.5	-0.2	0.7	0.5	0.5	0.3	**6.0**
At 3.0 FAR		1.7	1.0	-0.1	0.4	0.4	0.4	0.2	**4.0**
At 5.0 FAR		1.0	0.6	-0.1	0.3	0.2	0.2	0.1	**2.4**
At 10.0 FAR		0.5	0.3	0.0	0.1	0.1	0.1	0.1	**1.2**

6.2.2 Alternative Forecast

GPRA undertook an employment forecast that took into consideration Downtown improvements and increased attractiveness of the area to employees and businesses. Catalyst projects like better transit access, an interconnected pedestrian and bike network, proximity to the cultural core, and the potential to take up space in 'non-traditional' office environments such as converted Warehouses near large public parks could spur an increase in Downtown office employment.

However, we also acknowledge that existing and future employment lands at the urban fringe will continue to be attractive to traditionally suburban businesses and of increasing attractiveness to organizations that until now have tended to congregate Downtown (including government services). This will proceed for a variety of reasons, ranging from ease of access from growing suburban neighbourhoods, relatively lower lease rates, and lower construction costs associated with smaller (and therefore less risky) buildings, to free parking, and airport and freeway access.

In addition, areas such as the Downtown Fringe and the Municipal Airport lands could become increasingly attractive locations for office construction due to relatively lower lease rates (compared to Downtown) and ease of access to the core. Construction of office 'clusters' near the Downtown would likely be buttressed by LRT extensions and development of mixed-use transit-oriented nodes.

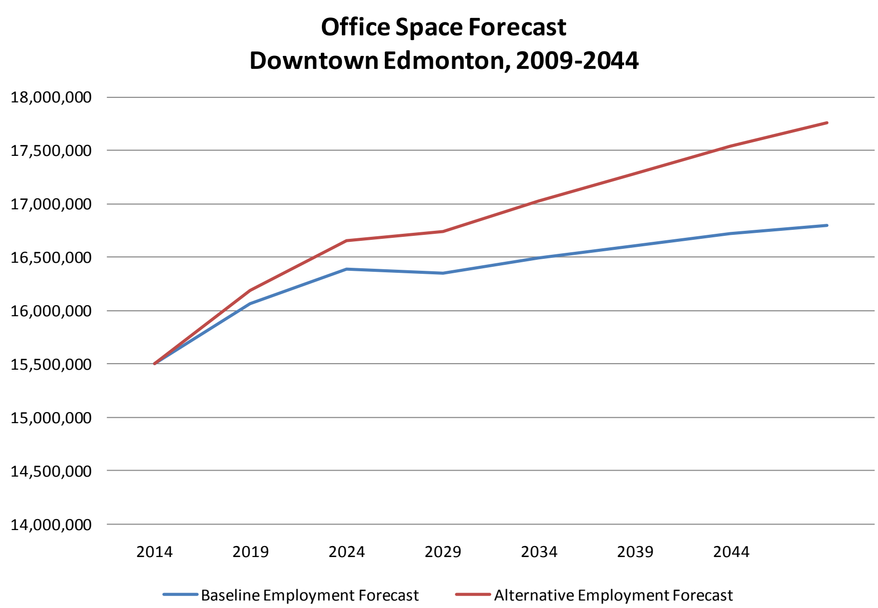
Given the above factors, we offer a relatively conservative alternate Downtown employment growth scenario premised on surging strength of the suburban office market and growth in the Downtown fringe office market.

GPRA believes that the Downtown core could attract approximately 9,500 new office employees over 35 years (271 employees per year), translating to nearly 2.3 million new square feet of office space or 64,410 square feet per year. The addition of 9.500 new Downtown office employees is 75% higher than the baseline situation forecast by AMC.

Table 17: Alternate Downtown Office Space Projections, 2009-2044

Office Space Demand Projections, Downtown Edmonton		2014	2019	2024	2029	2034	2039	2044	2009-2044
Employment Projection #2 - Historic Downtown Growth (0.4% Compound Annual Growth)									
CBD Office Employees	65,232	68,110	70,050	70,442	71,620	72,708	73,805	74,715	9,483
Sq.Ft. Office Space Required	15,507,593	16,191,895	16,652,956	16,746,254	17,026,207	17,284,873	17,545,597	17,761,956	
5-Year Demand, new Sq.Ft.		684,302	461,061	93,298	279,953	258,666	260,724	216,359	**2,254,363**
% Office Space in CBD		65.1%	67.7%	65.8%	66.2%	67.4%	68.9%	69.1%	
Land Requirements (ha)									
At 2.0 FAR		3.2	2.1	0.4	1.3	1.2	1.2	1.0	**10.5**
At 3.0 FAR		2.1	1.4	0.3	0.9	0.8	0.8	0.7	**7.0**
At 5.0 FAR		1.3	0.9	0.2	0.5	0.5	0.5	0.4	**4.2**
At 10.0 FAR		0.6	0.4	0.1	0.3	0.2	0.2	0.2	**2.1**

Figure 10: Office Space Demand, Downtown Edmonton, Baseline and Alternate Scenarios, 2009-2044



The addition of 2.25 million square feet of office space over 35 years is the equivalent of adding:

- 10 new 'Intact Insurance' buildings (225,000 sq. ft. over 11 floors)

Figure 11: Intact Insurance Building, 10830 Jasper Avenue

OR…

- 2.6 new "Manulife Place" buildings (862,000 sq. ft. over 36 floors)

Figure 12: Manulife Place, 10180 101 St. NW

OR…

- 40 new "World Trade Centre" buildings (56,107 sq. ft. over 7 floors)

Figure 13: World Trade Centre, 9990 Jasper Avenue

6.3 Comparison to Alternate Projections and Further Considerations

Coriolis Consulting, 2008

- Projected an increase in demand for total Edmonton office space between 9.6 and 12.1 million sq. ft., with Downtown adding 4.6 to 6.1 million square feet between 2006 and 2041. This is between 2.4 million and 3.9 million square feet greater than our projection in section 6.2.
- Coriolis projections are based on historic office space growth trends and the historic statistical relationship between Provincial, CMA and City population growth and Edmonton office space construction (19.4 sq. ft. occupied space added for each additional Edmonton CMA resident, R-squared = >0.999)
- Coriolis assumed allocation of total office space growth to Downtown as follows: 3% of 'local serving' office space, 90% of government office growth, 50% of private sector office growth.

While GPRA does acknowledge that there may be potential for additional office space demand beyond the 2.25 million square feet forecast above (depending on how the situation Downtown unfolds), we believe that the projections offered by Coriolis are overly optimistic. The suburban share of Edmonton's office market in both the private corporate and government sectors is likely to increase at a much higher rate in the coming decades than has been seen in the past,[10] as many traditionally 'Downtown-centric' office jobs (including public services) join traditional suburban tenants.[11]

While the City should pursue initiatives to attract more office employment to the City, it is important to recognize that the real nature of demand will be dictated by the market, which will be shaped by global trends, Edmonton's role within the Alberta/Canadian economies, and the impact of the Calgary office market as the primary head office location in Alberta.

[10] Suburban office market share of total increased from 29% in 1995 to 32% in 2006.
[11] Traditional suburban tenants include engineering firms, construction companies and home builders.

Initiatives undertaken by the City will likely have a positive impact on attracting additional office space Downtown. However, as illustrated above, they are unlikely to increase demand to levels forecast in other reports.

There is insufficient market demand to support the high FSRs allocated to Downtown under current zoning. While there may be instances of occasional office buildings that support such high (or higher) ratios, we cannot envisage there being demand to warrant such high densities throughout the entire Downtown.

7.0 CONCLUSION

Under a scenario where key catalyst projects are implemented in the Downtown core as part of a coherent planning vision for the City, GPRA foresees long-term demand for residential units, commercial retail space and office space rising above baseline demand figures. While AMC does forecast a larger 'surge' in the short term for population growth (and thus residential and commercial demand) Downtown, over the long term the alternate scenario provides for more jobs, resident and commercial businesses Downtown.

Below we offer a summary table of baseline and alternate demand scenarios.

Table 18: Summary Demand Table: Residential, Office and Retail/Service

Cummulative New Demand, Basline (AMC) vs. Alternate (GPRA) Population and Employment Projection Scenarios								
	2009	2014	2019	2024	2029	2034	2039	2044
	Residential (units)							
AMC	0	5,012	4,796	4,391	4,451	5,004	5,480	5,986
GPRA	0	2,351	3,597	5,065	7,282	8,398	10,127	12,163
Difference	0	-2,661	-1,199	674	2,831	3,394	4,647	6,177
	Residential (sq.ft.)							
AMC	0	5,092,192	4,873,062	4,461,595	4,521,877	5,084,064	5,567,680	6,081,776
GPRA	0	2,388,132	3,654,472	5,145,881	7,398,564	8,532,233	10,288,713	12,357,374
Difference	0	-2,704,060	-1,218,590	684,286	2,876,687	3,448,169	4,721,033	6,275,598
	Office (sq.ft.)							
AMC	0	556,288	882,691	843,228	984,439	1,101,878	1,218,365	1,289,922
GPRA	0	684,302	1,145,363	1,238,661	1,518,614	1,777,280	2,038,004	2,254,363
Difference	0	128,015	262,672	395,433	534,175	675,402	819,638	964,441
	Retail + Service Commercial (sq.ft.)							
AMC	233,970	638,003	784,580	929,796	1,084,181	1,269,556	1,458,559	1,645,992
GPRA	233,970	536,477	802,702	1,085,834	1,406,074	1,682,030	2,006,474	2,352,122
Difference	0	-101,526	18,123	156,039	321,893	412,474	547,915	706,130

- Even under 'catalyst' growth conditions, there will be insufficient demand for office, residential and retail/ service commercial space in Downtown Edmonton to warrant the FSR allowances under the current zoning bylaw.

- Only a small portion of available zoned space could be filled by residential, office and retail development over the next 35 years.
- With supply far outpacing demand, the City of Edmonton must give careful consideration to the placement and massing of future growth in order to create a vibrant, liveable and sustainable Downtown core.

Appendix A City of Edmonton Traffic Districts