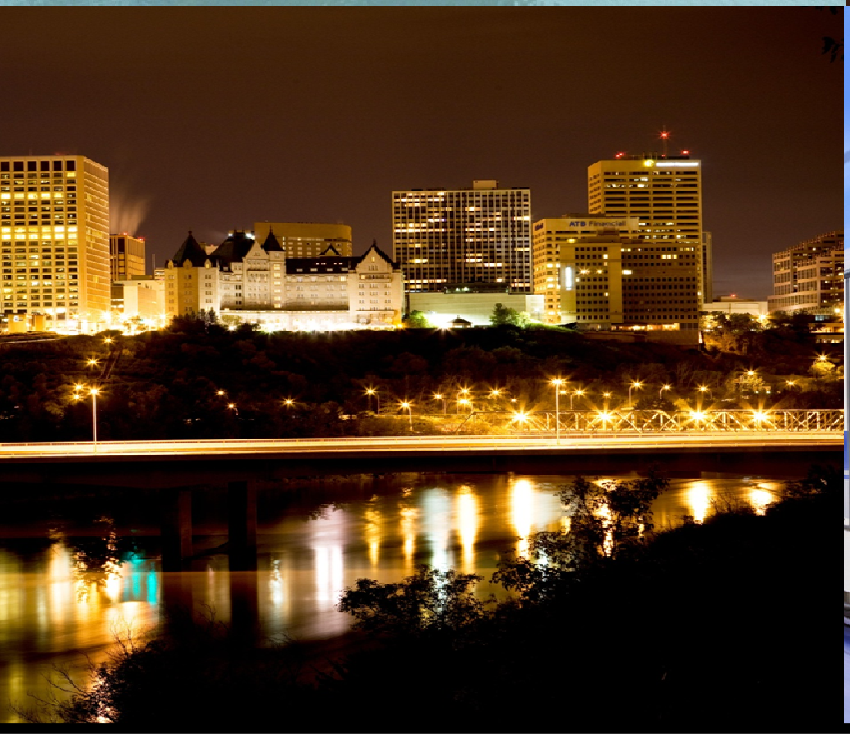
The Edmonton Transportation Effect

The Impact of Transportation Improvements on Housing Values in the Edmonton Area



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EXECUTIVE SUMMARY AND REPORT HIGHLIGHTS

- Edmonton transportation improvements will deliver a 10%–20% enhancement of real estate values in the regions most affected. In the future, these areas will outperform the rest. If the market goes up everywhere, these areas will increase by about 10%–20% more. If the Alberta values drop, these will drop by 10%–20% less.
- With the completion of the Ring Road and the extension of the LRT, real estate prices in key neighbourhoods will increase more quickly than in other regions of the city due to improved transportation linkages. Improved accessibility drives real estate demand.
- Values in older and more established neighbourhoods are impacted more significantly than in newer developments.
- In studies of the effect of transportation improvements on real estate in other jurisdictions around the world, it was found that real estate value increases occur for properties located within 800 metres of stations on the new transportation and 800 metres from exits on new major highway improvements.
- The areas that will be most significantly impacted by transportation upgrades are divided in to the 'Four Tiers of Impact'.

First Tier: These are areas that will experience the most positive impact from the transportation improvements. These neighbourhoods will feel the twin impact of the Ring Road access and LRT expansion: Blue Quill, Ermineskin, Sky Rattler, Twin Brooks, Park Allen, McKernan, and Belgravia. Lewis Estates, Belmead, Aldergrove, and Thorncliff will all experience a positive impact from proximity to the northwest section of the ring road as well as the SE to west LRT line once it is built.

Second Tier: Areas which will also feel a strong positive impact with one of the major improvements significantly increasing long term demand: South Mill Woods, Pleasant View, Lendrum, Jamieson, Glastonbury, McCauley, east Queen Mary Park, McDougall, Spruce Avenue, Prince Rupert, North Central Edmonton, Westwood, McConachie, Castledowns, Lake District, Lago Lindo, Elsinore, Chambery, Rapperswill, Canossa, The Palisades, Oxford, Carlton, Heritage Lakes, Akinsdale, and the Kinokamau Plains Area. Kirkness and Fraser will be updated to Tier 1 when construction begins on the northeast section of the Ring Road and the LRT extension to Gorman receives funding.

Third Tier: Regions which will feel the ripple effect outward from the main impact areas include St. Albert, Devon, Ft. Saskatchewan, and Sherwood Park

There may be negative effects (nuisance, property crime, noise, increased traffic, etc.) on properties located in the immediate vicinity of many stations.

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REIN™'s primary purpose is to provide expert assistance to its members and other Canadians to assist them in making sound decisions about purchasing principal residences and investment/recreational real estate. This Transportation Report is one such educational report, as are Don R. Campbell's best-selling books *Real Estate Investing in Canada (Version 2.0), 97 Tips for Canadian Real Estate Investors 2.0, 51 Success Stories for Canadian Real Estate Investors, 81 Financial and Tax Tips for the Canadian Real Estate Investor: Expert Money-Saving Advice on Accounting and Tax Planning, The Canadian Real Estate Cycle and Buying U.S. Real Estate: The Proven and Reliable Guide for Canadians, Real Estate Joint Ventures,* and *The Little Book of Real Estate Investing in Canada.* One hundred per cent of all of Don Campbell's author royalties are donated directly to Habitat for Humanity Edmonton and to date has raised over $1 million for this worthy cause.

All research can be accessed at www.myreinspace.com.

OVERVIEW TO THE TRANSPORTATION EFFECT REPORT

As populations continue to grow in areas across Canada, governments and private sectors attempt to meet the infrastructure needs of its residents by providing road improvements and an increase in mass transit options. With these transportation improvements comes much discussion around the environmental, economic and social impacts of these projects; however, the effects of these changes on real estate are overlooked. The Real Estate Investment Network™ (REIN) first recognized the need to examine the impact of transportation changes on housing values with the BC Transportation Minister's announcement of new bridges and additional rapid transit lines in the Greater Vancouver Regional District. From the discoveries made in the original version of that report, the Real Estate Investment Network™ has completed detailed research into current and proposed transportation improvements in Calgary, the Greater Toronto Area, the Kitchener-Waterloo-Cambridge region (KWC), Hamilton, and Ottawa.

Realizing the housing value impact for some communities over others, a study of the transportation effects in Edmonton Census Metropolitan Area (CMA) was first undertaken in 2009. With frequent changes in the Edmonton's region's transportation, a new edition was needed to update dilligent real estate investors. This report focuses on answers to two very important questions that will have a direct financial impact on tens of thousands of Edmonton residents. These questions are as follows:

1. **How will current LRT projects affect residential real estate values in the Greater Edmonton area?**

2. **How will the highway improvements affect property values in Edmonton?**

For many Edmonton residents, a vast majority of their personal net worth is tied to the value of their homes, so the answers to these questions are very important planning tools. As with our previous reports and books, the goal of this research is not only to assist investors and homeowners in gaining knowledge about how a project may affect their personal net worth, but to cut through the emotions and debate that surround transportation projects and answer these key questions from an objective, research-oriented point of view.

This will enable readers to see clearly how the new and proposed transportation projects will affect their personal real estate portfolio today and in the future, allowing them to plan long in advance of the programs' completions.

Peer-Reviewed Studies on Transportation and Real Estate Values

Our analysis is a summary of detailed studies conducted on transportation changes implemented in other regions across North America and Europe. These peer-reviewed journal articles provide us with a snapshot of what we can expect in terms of the impact on real estate prices in Edmonton and the surrounding communities as projects are started and completed.

A synopsis of published works indicate that most studies showed commercial and residential property values generally rise the closer they are to light rail stations and major highway improvements. As accessibility increases, so do values. Other factors influence value such as: station design, quality of service, land market, socio-economic status of the neighbourhood residents for example. Table 1 outlines a brief synopsis of some of the findings on the effects of light rail systems across the continent on property values.

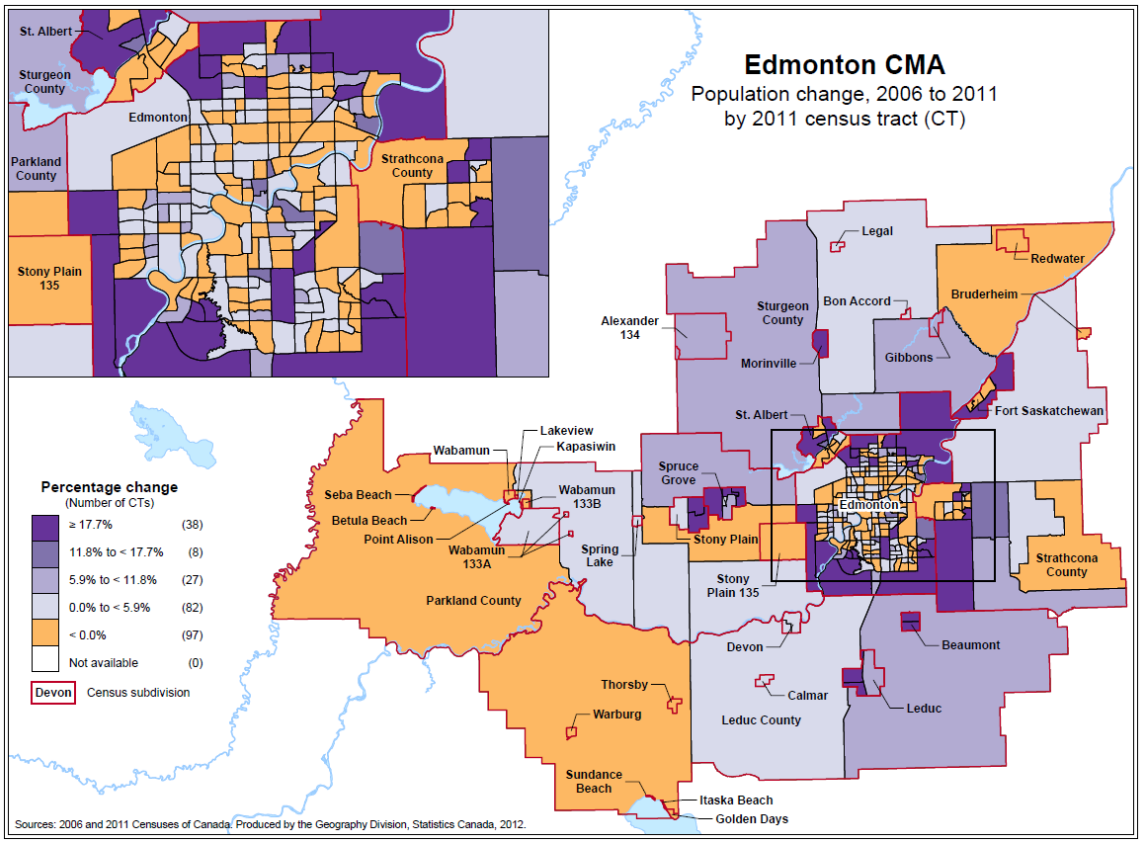
Table 1 - Effects of Light Rail Systems on Property Values	
Light Rail System	Effect on Property Values
Dallas	
2003 Lyons & Hernandez	Value of properties rose 39% more than the control group not served by rail.
2002 Weinstein & Clower	Proximity to DART resulted in a 24.7% increase vs. 11.5% for non-DART properties for office buildings.
2002 Weinstein & Clower	Median values of residential properties increased 32.1% near DART compared to 19.5% in the control group areas.
1999 Weinstein & Clower	There was a 5% penalty over time for units nearer stations, less than 1/4 mile.
1999 Weinstein & Clower	The value of offices less than 1.4 miles from a station increased by 10% & retail property increased by 30%.
San Diego	
2002 Cevero & Duncan	A 72% premium resulted for parcels near stations in the Mission Valley.
2002 Cevero & Duncan	17% and 10% premiums resulted respectively for multi-family homes near East Line and South Line stations.
2001 Cevero & Duncan	The value of condos and apartments from 1/4-1/2 mile from a station increased 2-18%; the value of single family homes decreased 0-4%.
1995 Landis & Huang	There were no significant premiums for property 1/4-1/2 mile from stations.
1995 Landis et al.	The typical home sold for $272 more for every 330 ft. closer it was to a light rail station.
1994 Landis et al.	For every 1, 000 ft. closer to a station, prices increased $337 or 1%, but decreased 4% for units closer than 900 ft. to a station.
Santa Clara/San Jose	
2000/01 Cevero & Duncan	Properties less than 1/4 mile from a station experienced a 23% premium.
2001/2000 Weinberger	Rent for units within a 3/4 mile of a station increased 4-12%.
Los Angeles	
2002 Cevero & Duncan	Values rose 103.5% for apartments and homes 1/4-1/2 mile from a station, but decreased 6% for condos.
Portland (Eastside)	
1999 Dueker & Bianco	Median house values rose at increasing rates the closer to the station. The largest change, $2,300, was for homes up to 200 ft. from a station.
1998 Al-Mosaind et al.	A 10.6% premium for homes 500 meters from a station was observed.
1997 Lewis-Workman et al	Property values increased by $75 for every 100 ft. closer to the station (within 2,500 - 5,280 ft. radius).
1996 Knapp et al.	The value of parcels located 1/2 mile of the alignment rose the farther they were from the line; values rose the closer parcels are to stations.
1993 Al-Musaind et al.	The value of homes within 500 metres increased by 10.6% or $4,324.
Sacramento	
1994/95 Landis et al.	There was no discernible positive or negative impact to property values (not statistically significant). Single family homes rose 0.4% for every 1, 000 ft. closer to a station, and 6.2% if very near a station.
Santa Clara/San Jose	
1994 Landis	The price of single family homes increased by 0.1% for every 1, 000 ft. closer to a station, but decreased 10.8% if closer than 900 ft.
Toronto	
1983 Bajic	There was a $2,237 premium for the average home.
Vancouver	
1998 Ferguson	A $4.90 premium per foot associate with proximity to station was found.
London	
2007 Savills	A one-minute reduction to a commuter rail journey increased the average home value by £1,000.
Source: Huang, H. (1996). "Land Use Impacts of Urban Rail Transit Systems" in Journal of Planning Literature, vol. 11, iss. 17.	

BACKGROUND: EDMONTON

Edmonton's growing job market continues to attract people from around the country and across the world. Higher international net migration and non-permanent residents continue to bolster population growth in the city. According to the last federal census, the population of the City of Edmonton was 812,201, an increase of over 11 per cent from 782,439 in 2006[1] (and 817,498 in 2012 according to the Municipal Census[2]). The population increase between 2006 and 2011 was nearly double the growth rate experienced by the country during the same time period. With one of the highest performing economies in the country, Edmonton is destined to continue its steady growth into the next decade.

Cross city travel is becoming increasingly more difficult at all times of the day in Edmonton due to fast paced residential growth continuing around the city, combined with strong industrial growth. The City of Edmonton estimates that 77% of people use cars as their primary mode of transportation.[3] This increase in traffic will continue as both population and industrial growth hit record paces over the coming decade.

Between 1995 and 2005, the population of Edmonton increased 13%. In the same time period, the average amount of kilometers that an automobile in the city traveled increased by 32%. City studies show that citizens living in suburban developments are more likely to use private vehicles than public transportation. In 2012, 75.5% of the city's population used a car to get to and from work[4]. The City of Edmonton believes that reliance on cars and



[1] Statistics Canada. (2011). "Edmonton, Alberta" (Code 4811061) (table). 2011 Community Profiles. *2011 Census*. Retrieved from http://www12.statcan.gc.ca/census-recensement/2011/dp-pd/prof/details/page.cfm?Lang=E&Geo1=CSD&Code1=4811061&Geo2=CD&Code2=4811&Data=Count&SearchTex t=edmonton&SearchType=Begins&SearchPR=01&B1=All&Custom=&TABID=1

2 City of Edmonton. (2012). Edmonton Census 2012. http://www.edmonton.ca/city_government/municipal-census.aspx

[3] ibid. (2009). Edmonton Transportation Master Plan. "The Way We Move". http://www.edmonton.ca/city_government/city_vision_and_strategic_plan/the-way-we-move.aspx

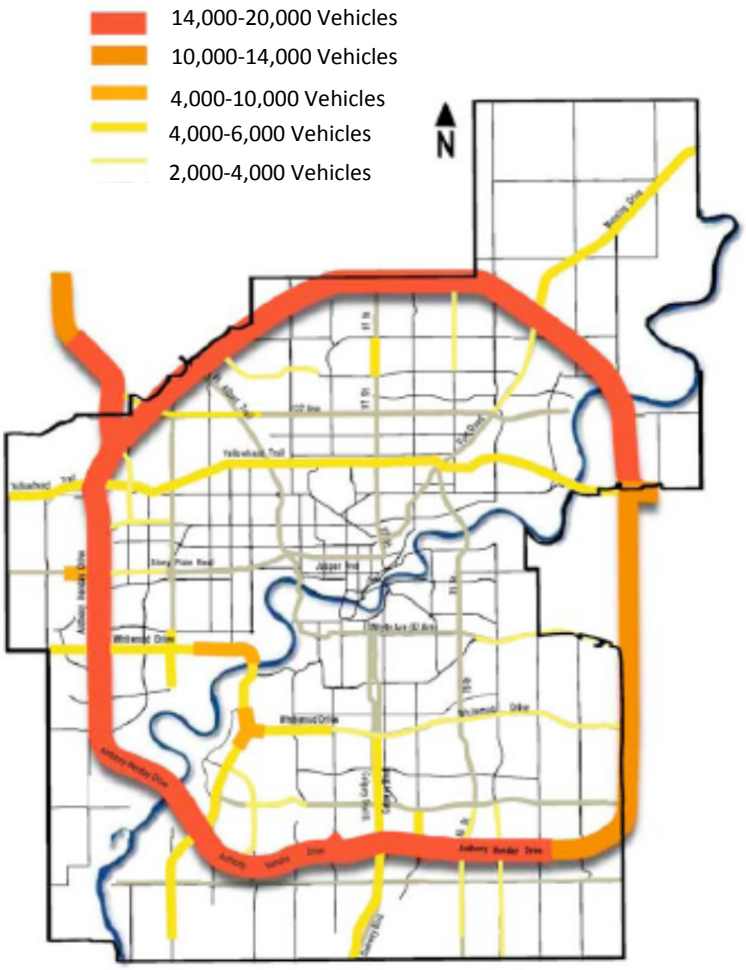
4 Ibid. (2012). Municipal Census Results. http://www.edmonton.ca/city_government/documents/Summary_Report_of_All_Questions_Edmonton_2012.pdf

increased suburban development will lead to increased car trip lengths, though the amount of trips themselves will not change[5]. According to Edmonton's Transportation Master Plan, in 2008 there were already more registered vehicles in Edmonton than there were residents in the city[6].

As more people flock to Edmonton for the job opportunities, the demand on the city's infrastructure and housing market will continue to escalate. As the costs of housing in the city centre and around the job hotspots increase relative to the fringes, affordability will continue to become a more prominent issue for the new citizens. As a result, people will make decisions to move further outside the current city core to find accommodations to either rent or buy, that fit their budget. The map above demonstrates the population change between two of the latest federal censuses periods - from 2006 to 2011. Notice that most of the areas that witnessed a 10% or more increase in population within these five years were in the outlying areas of the city as well as surrounding cities and towns.

This urban expansion and a desire for reducing impacts on the environment result in the need for infrastructure and transportation improvements to provide connectivity to the city and its jobs. Unprecedented population gains combined with a need to stimulate the economy have resulted in Edmonton infrastructure projects being fast-tracked. City planners are aware of the traffic congestion and two major projects are currently underway to help Edmontonians navigate their city: the extension of the current LRT system and the completion of the Anthony Henday Ring Road.

Daily Two-way Vehicle Volume Increases from 2006



Source: Edmonton Transportation Master Plan

The expansion of the Edmonton LRT system is designed to offer additional means of traversing the vast city, reducing commute times and helping ease inner city congestion while reducing pollution from idling cars during rush hour. The Ring Road, once complete, will provide a much needed high capacity collector road system around the city with connections to major roadways leading into the heart of Edmonton. With only the North East section left to construct, it is only a matter of years before Edmontonians will reap the full benefits of this project.

5 Ibid.
6 Ibid.

DIRECT EFFECTS OF TRANSPORTATION IMPROVEMENTS ON REAL ESTATE VALUES

Distance is Now Measured in Minutes, Not Kilometres

Research indicates that real estate values are driven both up and down by eight clear fundamentals, of which transportation change is one of the most dramatic catalysts[7]. The basic theory in real estate is that the more attractive the location, the higher the value of the home. As the demand for homes in that area expands, the result is higher housing values. This location theory is often misunderstood, as location is not just a subjective desire (e.g., to be close to the beach), but is actually a combination of all eight fundamentals, each of which contribute to desirability. The key fundamental we are studying in this report is ***transportation accessibility.***

Accessibility Drives Real Estate Prices

Generally, one of the attributes coveted by home buyers is nearness to the Central Business District (CBD). As saturation occurs and homes are no longer affordable, people begin to find locations outside the vicinity. Access to good highway systems, mass transit and commuter rail is sought in order to afford easy access to the CBD. Accessibility is a critical determinant of residential land values, and the improved access between urban centres and residential neighbourhoods greatly improves the value of homes[8]. As fuel prices continue to rise across the globe, commute times, commute costs and accessibility to job centres become key determinants for potential home buyers and commercial enterprises. Residents now measure their commute distances in minutes, not kilometres, a process that leads to higher demand for properties that are located farther from their jobs in distance, yet closer in terms of commute time.

Walkability

Further proving that minutes are becoming more important than kilometres is the growing popularity of walk scores. Launched in 2007, www.walkscore.com calculates an address's walkability by bestowing points for amenities located within a one mile (or 1.6 kilometre) radius. Such amenities include schools, nearby stores, restaurants, and parks.

Realtors are increasingly using walk scores as part of their MLS listings for homes for sale or as part of the advertising for homes for rent. Using an algorithm, the walk score provides a quantitative alternative to the traditional feature often found in ads of properties for sale or rent of "close to amenities". A high walkability score is a big draw for potential buyers. Current market turbulence means people are looking to save money any way they can. The option of saving gas by using mass transit such as bus and LRT adds allure to a property. Advertising nearness to transit and amenities is a huge draw and smart marketers are taking this free walking measure and running with it. Research indicates that a "walk and rider" living close to transit saves over $1,200 per year[9]. The research further posits that the group reaping the largest benefits are renters; wherein, the prices of real estate in areas with improved transit have not increased proportionately to the cost savings of using transit over car commuting and hence the premium has historically not been reflected in higher rents for these areas. Renters in these areas can save money in commuting and generally do not pay that difference in rent.

As demonstrated throughout this report, this focus on time and accessibility has been confirmed in other studies conducted in major urban regions, whether the access improvements have been new rail transit or new highway expansion.

7 Campbell, Don R. (2005) *Real Estate Investing in Canada.* http://www.realestateinvestingincanada.com

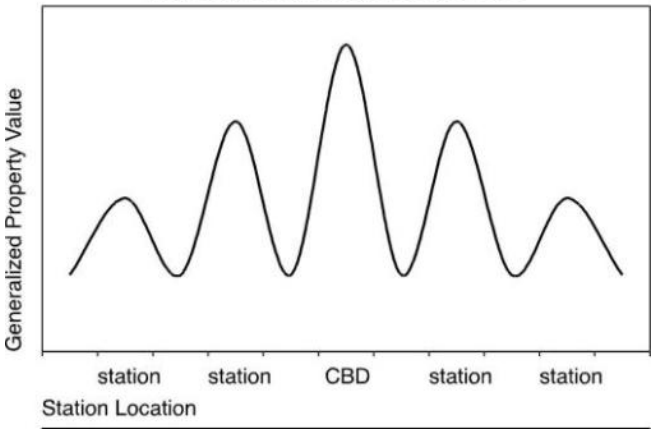
8 Smersh, G.T. & M.T. Smith. (2000). "Accessibility Changes and Urban House Price Appreciation: A Constrained Optimization Approach to Determining Distance Effects" in *Journal of Housing Economics, Vol. 9, No. 3*, pp. 187–196.

9 Baum-Snow, N. & M.E. Kahn. (2000). "The Effects of New Public Projects to expand Urban Rail Transit" in *Journal of Public Economics,* Vol. 77, pp. 241-263.

#1 LIGHT RAIL TRANSIT EXPANSION IMPACT ON RESIDENTIAL PROPERTY PRICES

The benefits of light transit expansions go beyond the expected decreased commute times and a reduction in carbon emissions. In studies conducted across North America, the values of homes in neighbourhoods close to mass transit had premiums ranging between 3% and 40%, depending on the different types of housing and socioeconomic positions of the real estate owners[10].

Figure 1. Peaks and Valleys of Property Values at Rail Stations in relation to the CBD



Studies show that there appears to be a higher positive impact on property values located near commuter railway stations over light and heavy railway[11]. The positive effects of proximity to rail transit, however, were limited to homes located within a one-half mile (approximately 800 metres) radius of stations. Even announcements of improvements that will shorten and ease commutes have resulted, historically, in high-valued housing developments — in comparison to new developments located a distance from these opportunities. Additionally, development sites near rail stations have tended to draw a higher density of development, resulting in a higher value or rent for these homes.

Areas in which the average income of the residents was at or below the median incomes of the whole region received the largest percentage increase in property values. As the average income of an area increased above the median, rail links did not have as much effect. This is due generally to increased reliance on transit as a means of primary transportation for people with incomes at or below the median.

As detailed in Figure 1[12], the property values nearest to the stations had a dramatic increase in their average value. This effect was maximized in a zone of 500 metres surrounding each station. One study on the impact of the Los Angeles Metro Rail system revealed that properties located within one-quarter mile of a rail station enjoyed a value premium of $31 per square foot[13].

Proximity to Rail Transit and Housing Values and Rents

In areas in which the average incomes were at or below the median, the closer a dwelling was located to transit, the higher its resale value and rent. In San Francisco, for example, one-bedroom apartment units located within one-quarter mile of a suburban Bay Area Rapid Transit System (BART) rented for 10% more per square foot than other one-bedroom units in similar neighbourhoods[14]. The demand for two-bedroom units was

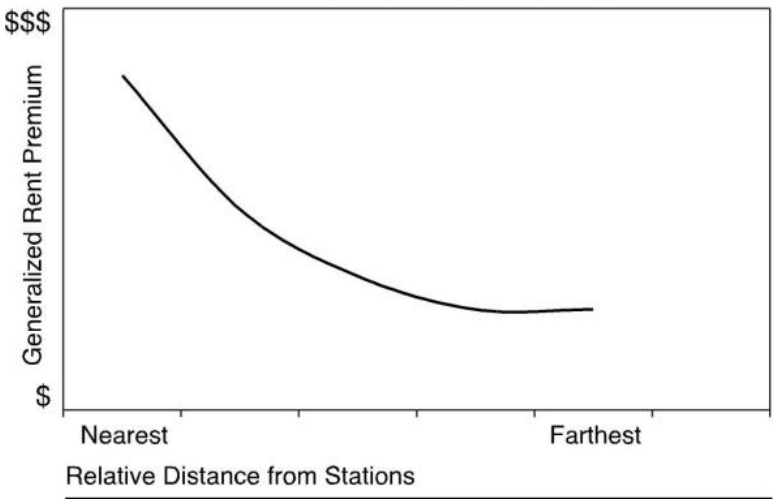
10 Diaz, R. (n.d.) *Impacts of Rail Transit on Property Values*. www.apta.com/research/info/briefings/documents/diaz.pdf.
11 Debrezion, G., E. Pels, & P. Rietveld. (2003). *The Impact of Railway Stations on Residential and Commercial Property Value*. Tinbergen Institute Discussion Paper.
12 Ibid.
13 Fejarang, R. A. (1994). *Impact on Property Values: A Study of the Los Angeles Metro Rail,* Transportation Research Board, 13th Annual Meeting, Washington, D.C.
14 Cervero, R. (1996). "Transit-Based Housing in the San Francisco Bay Area: market Profiles and Rent Premiums", in *Transportation Quarterly, Vol. 50, No. 3, pp. 33-47.*

even stronger, and they were renting for a 16% premium over similar two-bedrooms not directly associated with the BART station.
Overall, studies have found that rent decreased by approximately 2.5% for every one-tenth of a mile (approximately 160 metres) distance from the station[15].

A study examining the long-term effects of the BART system on housing prices over a twenty-year period indicated that homes closer to the system were valued 38% higher than similar homes not located near any BART services[16]. In Alameda County, house prices rose by $2.29 for every metre a house was located closer to a rapid transit station.

New Jersey experienced similar positive effects. The median prices for homes located in census tracts immediately served by the rail line were 10% higher than those in other census tracts[17]. Similar effects were seen in Portland, where homes within 500 metres of light rail sold for 10.6% more than houses located 500 metres or more away.

Figure 2. Residential Rental Premium versus Distance from Commuter Rail Station



A study conducted by the University of Buffalo's Architecture and Planning department found that proximity to a rail station in the Buffalo region was the fourth property characteristic that potential buyers considered in their housing purchases. Property value was assessed at premium in neighbourhoods close to most stations, even when the study factored in house size, number of bedrooms, nearby parks, and average crime rate in the area[18].

In anticipation of the implementation of Chicago's Midway Line, one study found that the collective increase in the value of homes located near new transit stations was US$216 million more than properties located farther away[19]. A study conducted in the 1980s in Ontario found that, in Metropolitan Toronto, the savings realized from living in an area that afforded a shorter and easier commute using transit translated into a willingness to pay more for homes that delivered these time savings[20]. This is true even today, with a premium being placed on both rents and market values for properties located with walking distance (one-half mile or 800 metres) of the subway and commuter train stations.

A report by Savills published in 2007 shows that a one-minute reduction in commuter rail journey in London increases the average value of a home by approximately £1,000. At the same time, the report noted that homes right next to a commuter rail station or a main road may experience a decrease in the average home

[15] Benjamin J.D., Sirmans G. S. (1996). "Mass Transportation, Apartment Rent and Property Values" in *The Journal of Real Estate Research,* Vol. 12, Issue 1.
[16] Landis, J. & R. Cervero. (1995). "BART at 20: Property Value and Rent Impacts." Transportation Research Board, 74th Annual Meeting, Washington, D.C.
[17] Voith, R. (1991). "Transportation, Sorting and House Values" in *AREUEA Journal, Vol. 117, No. 19*.
[18] Donovan, Patricia. (2007). "Housing Prices Higher Near Most Buffalo Metro Rail Stations". On University of Buffalo website: http://www.buffalo.edu/news/8669
[19] McMillen, D. & McDonald, J. (2004). "Reaction of House Prices to a New Rapid Transit Line: Chicago's Midway Line, 1983-1999" in *Real Estate Economics, Vol. 32*, p. 463.
[20] Bajic, V. (1983). "The Effects of a New Subway line on Housing Prices in Metropolitan Toronto" in *Urban Studies, Vol. 20, No. 2 May*, pp. 147-158.
[16] Weinstein, B. & T. Clower. (1999). *The Initial Economic Impacts of the DART LRT System*. Prepared for Dallas Area Rapid Transit.

price as buyers are less attracted to these areas. The Savill report shows a positive correlation between the precentage of commuters in the area and average house prices[21].

In the majority of the studies reviewed, commuter railway stations have had a significantly higher impact on property values than light or heavy railway stations. This allows us to analyze the impact of a city's proposed LRT lines with a significant degree of accuracy.

Negative Effects of Rail Transit on Property Values

There were some impacts from transit that negatively affected housing values as well. Noise, nuisance, associated crime and increased traffic combined to decrease property values in the *immediate* vicinity of stations. In two communities in Atlanta, there were two very different effects of rail on housing prices, based solely on the existing median incomes of the areas.

In a neighbourhood south of the tracks, whose population had a lower median income, residents put more value on access to rail transit. Therefore, home values increased by $1,045 for every 100 feet closer to a rail station. Conversely, in a neighbourhood north of the tracks with a higher median income, housing prices dropped by nearly the same amount the closer they were to the stations. This is likely explained by this group's reliance on personal vehicles versus mass transit, in addition to increased noise and associated crime. In the southern (lower median income) neighbourhood, these issues were mitigated by the ease of travel using mass transit.

In studies that found transit accessibility had little impact on home values — such as that conducted on the Dallas Area Rapid Transit system — it was determined that these cities had well-maintained, efficient highway networks already available to the residents[22].

Impact of Commuter Rail on Commercial Property

Studies indicate that the proximity to mass transit has even more impact on the values of commercial properties[23]. The movement of a large number of people is conducive to increased retail activities, expanding the attractiveness of the area to commercial investors and retailers. Whereas the value of homes located immediately adjacent transit stops is often less than areas beyond eyesight, the value of retail property is only higher when directly adjacent rail stations[24].

[21] Cook, L., Barnes, Y., Ward, J., Hudson, N., Rose, L. (2007). "Commuter impact on property". Savills Research.
[22] 22 Weinstein, B. & T. Clower. (1999). *The Initial Economic Impacts of the DART LRT System*. Prepared for Dallas Area Rapid Transit.
[23] Debrezion, G., E. Pels, & P. Rietveld. (2003). *The Impact of Railway Stations on Residential and Commercial Property Value*. Tinbergen Institute Discussion Paper.
[24] Ibid.

EDMONTON RAPID TRANSIT SYSTEMS

The Edmonton Light Rail Transit (LRT) is in a state of much needed expansion to meet the current and future growth of the city. The current LRT alignment stretches from the Clareview Station in the northeast and runs southwest to Century Park Station at 23 Avenue NW and 111 Street NW. With currently only one alignment, new extensions to the west, southeast and northwest will be needed to help commuters get to their destinations quickly and relatively cheaply.

RECENT COMPLETIONS

Edmonton LRT projects that have been completed in the last few years.

South LRT

The Edmonton South LRT line has witnessed massive construction in the last decade. In 2006, the Health Sciences Station was completed to the south of the University of Alberta in an effort to decrease commute times for post-secondary students. Plans quickly unfolded to continue the line south to Century Park to serve south Edmonton's growing population. A total of four stations were added to serve Edmontonians: McKernan/Belgravia, South Campus, Southgate, and Century Park. The extension was completed in two phases: McKernan/Belgravia and South Campus station opened in April 2009, while Southgate and Century Park followed a year later in the spring of 2010.

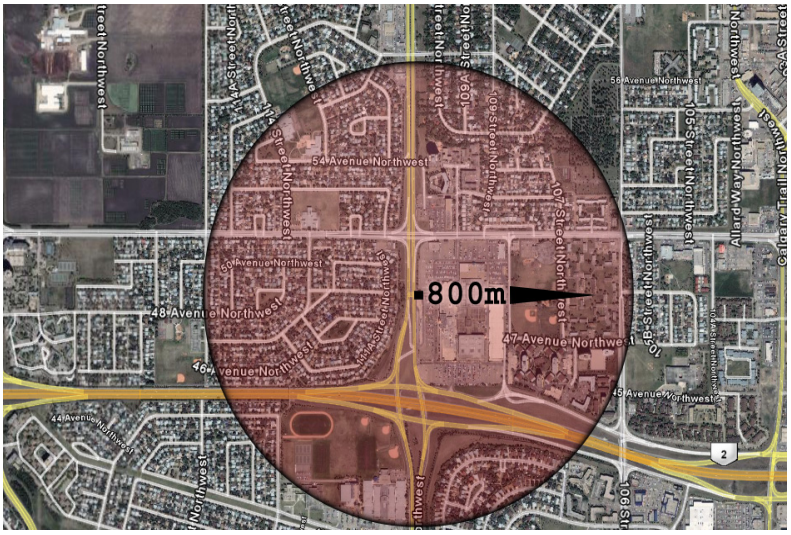


Figure 4. Southgate Station

Southgate Station

Southgate Station is located just north of Whitemud Drive on 111 Street, next to Southgate Centre shopping mall and the Southgate Transit Centre on 111 Street and 51 Avenue. Initial plans called for a park-and-ride at the Southgate station with 1000 vehicle stalls for commuters. Even without a park-and-ride, the Southgate station will

certainly have a positive effect on LRT ridership. It will provide a connection between southwestern Edmonton neighbourhoods, downtown Edmonton, and the University of Alberta. The areas of Rideau Park, Royal Gardens, Malmo Plains, Empire Park, Lendrum, and Pleasantview will benefit the most from their prime locations (See Figure 5).

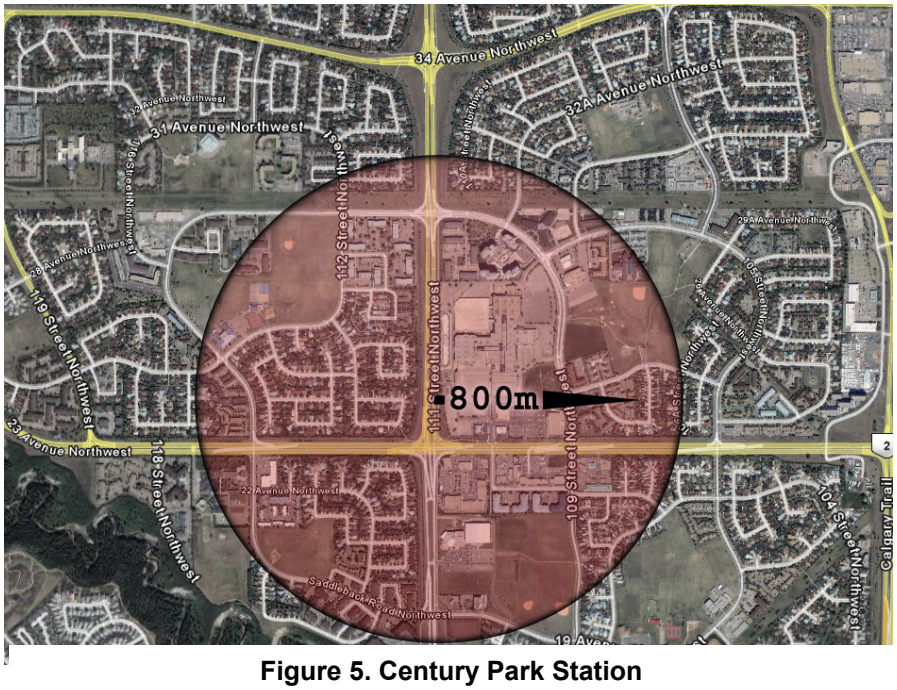


Figure 5. Century Park Station

Century Park Station (Heritage Mall)

Century Park Station opened on April 25, 2010. The final leg of the new LRT extension is situated at 23 Avenue SW and 111 Street NW. The large amount of residential development and close proximity to the Anthony Henday Road will contribute to high ridership. Located only 2 kilometres from the Ring Road via 111 Street, the Anthony Henday will permit residents from other areas not in the immediate vicinity easy access to the new station. However, due to rising construction costs, a park-and-ride facility slated for construction at the Century Park station was dropped from the project[25]. A temporary Park and Ride facility has been constructed next to the station until a permanent Park and Ride facility is constructed at Ellerslie Road and 127th Street. Despite the absence of a permanent park-and-ride at Century Park station, homes located in the areas of Sweetgrass, Blue Quill, Ermineskin, Steinhauer Keheewin, and potentially Sky Rattler, will all enjoy not only quick access to the station, but also premiums above average home price increases thanks to this new transit access (see Figure 6).

CURRENTLY UNDER CONSTRUCTION

Edmonton LRT projects that are currently under construction.

North LRT to NAIT

Construction is underway on a 3.3 km extension from Churchill LRT Station in downtown Edmonton northwest to the North Alberta Institute of Technology (NAIT). The project is the first segment of a planned LRT expansion to the Edmonton city limits near St. Albert. The first phase of the project will include three new stations: a stop at Grant MacEwan University, one at the Royal Alexandra Hospital, and a terminus station at NAIT. It is estimated that the addition of the North LRT line will add 13,200 weekday riders to Edmonton's LRT network. Construction on the project is expected to be completed by December 2013 and open to the public by April 2014[26].

[25] Warnica, Richard. (2009). "$13M to Put up Parking Lot". Edmonton Journal. http://www.edmontonjournal.com/story_print.html?id=1355486&sponsor=

[26] Edmonton Transit System. (2012). "North LRT to NAIT." *City of Edmonton*. Retrieved from http://www.edmonton.ca/transportation/ets/lrt_projects/north-lrt-stations.aspx

MacEwan Station

The MacEwan LRT Station will be located at 105 Avenue and 104 Street, at the southeast end of Grant MacEwan University. An overhead walkway will be constructed above 105th Avenue to give pedestrians easy access to MacEwan Station[27] This should also reduce the traffic congestion experienced by commuters in the area, as multiple student crosswalks currently stop traffic frequently. The station will have a direct underground connection to Churchill Station and will benefit downtown commuters, Grant MacEwan University students and staff, as well as Downtown North Edge and 107 Avenue businesses.

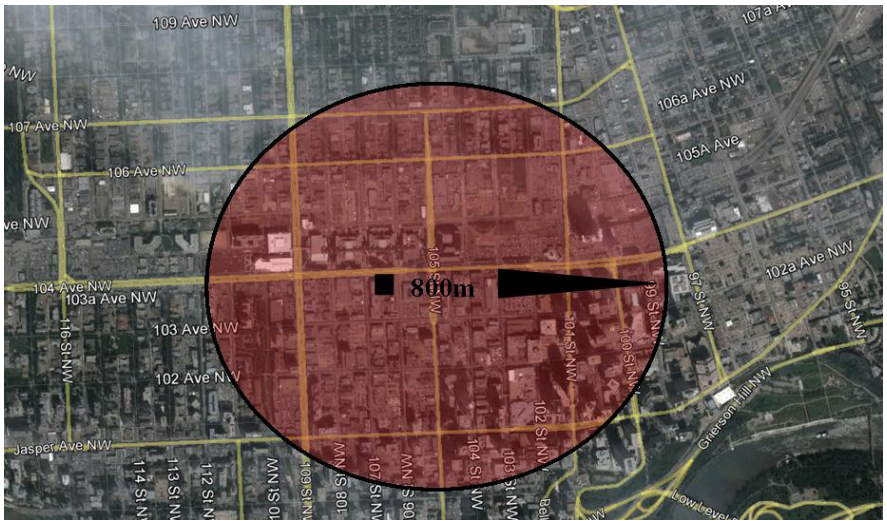


Figure 6. MacEwan Station

Kingsway/Royal Alex Station

The Kingsway LRT station will be located on the north side of Kingsway at 105 Street next to the Royal Alexandra Hospital. The LRT line will be street level from 105th Avenue to the Kingsway/Royal Alex Station. The existing Kingsway Transit Centre will be relocated to the former Royal Alex parking lot west of the hospital, to integrate bus and LRT service[28]. The areas of Central McDougall, Queen Mary Park, and McCauley will benefit the most from their prime locations

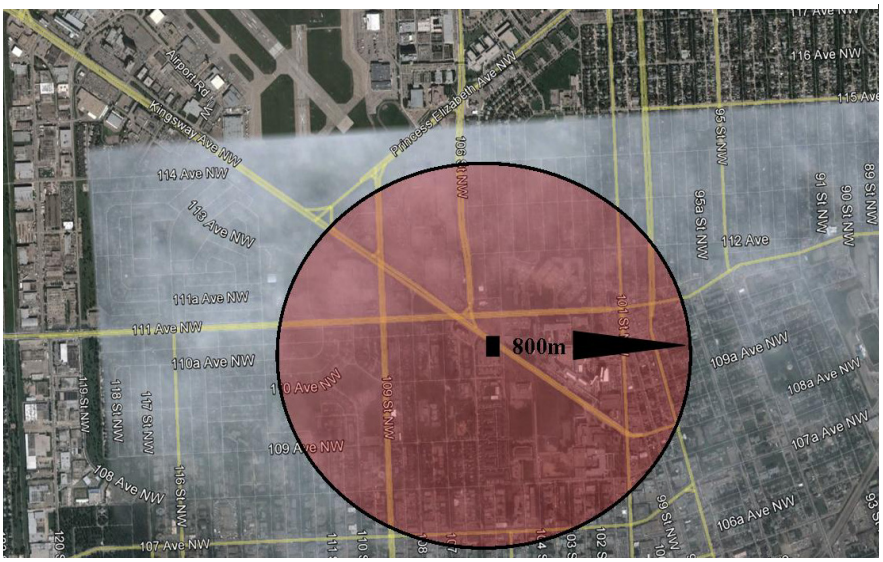


Figure 7. Kingsway/Royal Alex Station

NAIT LRT Station

The NAIT LRT Station will be the terminus of the North LRT expansion. The station will be built at the southwest corner of NAIT campus, just east of the City Centre Airport. As the North LRT line is expected to eventually continue on to St. Albert, the North LRT station will be built as a temporary structure made of modular systems that can be removed and reused for future LRT expansion. The NAIT LRT station will

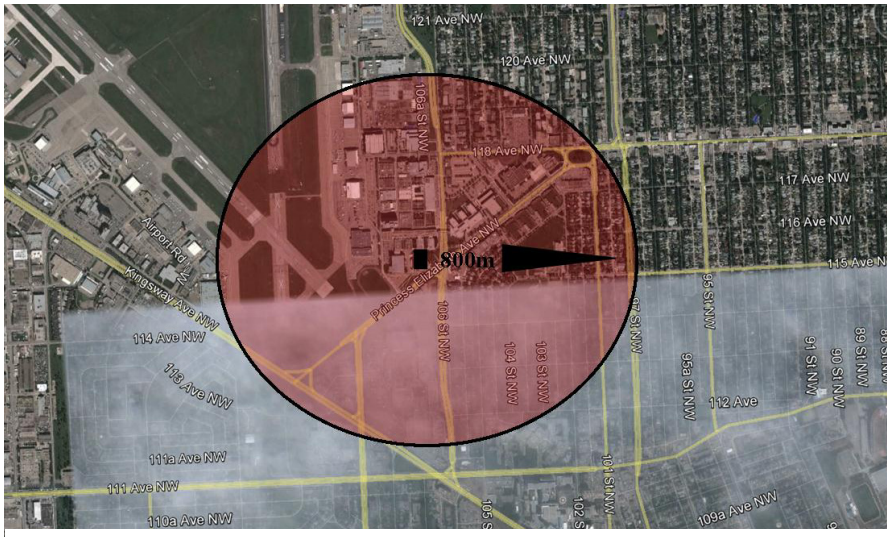


Figure 8. Kingsway/Royal Alex Station

[27] Ibid.
[28] Ibid.

benefit not only NAIT students and staff, but patrons and staff of the Kingsway Garden Mall as well[29]. Of course, neighbourhoods surrounding the station will also feel the benefits, with homes in the area expected to experience a price premium. The neighbourhoods of North Central Edmonton, Westwood, and Prince Rupert will be positively impacted by the NAIT LRT station.

THE FUTURE OF EDMONTON'S LRT

The City of Edmonton has ambitious plans for improving public transportation to serve Edmonton's growing population. A visit to the city's transportation website shows several extensions and expansions that could begin construction over the next two decades. An extension is an addition to an existing LRT line while an expansion is the creation of an entirely new LRT line. Given that the research indicates that commercial and residential properties increase in value within 800 metres of a light rail station, as a homeowner, business owner or real estate investor, it is prudent to know where the intended extensions and stations will be.

Figure 9. Valley Line
Source: City of Edmonton

Valley Line (Southeast to West LRT)

The Southeast to West LRT line will run from Mill Woods to Lewis Farms. At the February 20, 2013 City Council Meeting, a motion was passed that included a budget of $60 million for Phase 2, Stage 1a, to be approved[30]. The 27 kilometre route is now in the preliminary design phase. During this phase, the City of Edmonton will determine how the system will integrate into the existing and planned transportation network and adjacent communities. This design phase is expected to be completed by the end of 2013.

City Council has approved a funding strategy for the Valley Line, starting with the $1.8 billion Mill Woods to Centre West leg. The financing plan depends on cost sharing with the governments of Canada and Alberta. If the remaining funding for this stage is secured by Spring 2014, the line could see construction begin as early as 2016 and be open to the public by 2020.

Travel time for the 27 kilometre line will be around 60 minutes – 30 minutes from Lewis Farms Transit Centre to downtown

[29] Ibid.
[30] City of Edmonton. (2013). Valley Line (SE to West LRT): Mill Woods to Lewis Farms. Retrieved fro http://www.edmonton.ca/transportation/ets/lrt_projects/southeast-to-west-lrt-mill-woods-to-lewis-farms.aspx

Edmonton and 30 minutes from downtown Edmonton to Mill Woods Town Centre. The City of Edmonton estimates that approximately 100,000 passengers will use the line every day when it begins service[31].

The new LRT line will be low-floor in design, a change from Edmonton's existing LRT network. In most cases, there will be no crossing arms, fences, or gates separating the LRT cars from the road. The Southeast to West LRT will not physically connect to Edmonton's existing LRT network, but commuters will have direct access to existing LRT system via a transfer at Churchill station. There are 25 stops planned for the SE to West LRT as well as three stations (Wagner, West Edmonton Mall and the Misericordia Hospital). Stop and station sizes have been determined based on projected ridership. See the above map for a complete list of stations.

Figure 10. Capital Line South
Source: City of Edmonton

Figure 11. Capital Line Northeast
Source: City of Edmonton

Capital Line South (South LRT to Heritage Valley)

Edmonton's City Council has approved a concept plan to extend the South LRT line from Century Park to the South City Limit. Preliminary Engineering on a 4.5 kilometre extension to Ellerslie Road was completed in 2010, but construction on the project has yet to begin. From the concept drawings, it appears the extension will include four new stations: Ellerslie Station, on Ellerslie Road near 127 Street; Provincial Lands Station, near 20 Avenue SW and 127 Street; Heritage Valley Town Centre Station, near 130 Avenue SW and 127 Street; and Desrochers/Allard Station on 127 Street[32]. The South LRT is part of the Transportation Master Plan's vision to expand LRT service to all sectors of the City by 2040.

Capital Line Northeast (Clareview to Gorman)

Preliminary assessment for an extension of the northeast LRT line from Clareview Station to Gorman was completed in 2010. The 2.9km extension would be constructed on the east side of the existing CN Right-of-Way, with at-grade LRT crossings at 144th Avenue and 153rd Avenue. The new Gorman station would also include a Transit Centre, north of 153rd Avenue. In 2010, the cost estimate for the LRT extension was valued at $220 million[33]. Funding for the LRT station is not yet in place. Homes in Kirkness and Fraser as well as the Ebbers Industrial area and Gorman Industrial west and east would experience an increase in property values.

Metro Line (Northwest LRT to City Limits)

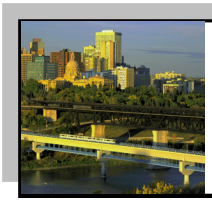
The City of Edmonton would eventually like to continue the North LRT line from NAIT all the way to St. Albert. The Northwest LRT will travel from NAIT northwest to a future park and ride site planned at the northwest city limits. The project is currently in the concept stage[34], with the city working to identify how the LRT best fits within the approved corridor of 113A Street and 153 Avenue. The Northwest LRT line will serve an estimated 45,000 passengers daily upon its

[31] City of Edmonton. (2013). "Southeast to West LRT Mill Woods Town Centre to Lewis Farms Transit Centre." Retrieved from http://www.edmonton.ca/transportation/Southeast_to_West_LRT_March_2012.pdf
[32] City of Edmonton. (2013). Capital Line (South LRT to Heritage Valley). Retrieved from http://www.edmonton.ca/transportation/ets/lrt_projects/south-lrt-study.aspx
[33] City of Edmonton. (2013). Capital Line (Clareview to Gorman). Retrieved from http://www.edmonton.ca/transportation/ets/lrt_projects/north-lrt-study.aspx
[34] City of Edmonton. (2013). Metro Line (NAIT to North City Limits). Retrieved from http://www.edmonton.ca/transportation/ets/lrt_projects/nw-lrt.aspx

completion, and give St. Albert residents quick and easy access to downtown Edmonton. This is an exciting project that will increase real estate values in northwest Edmonton, including Grand Trunk, Castledowns, and Griesbach.

None of the proposed LRT line extensions have been given construction start dates. It is important to monitor the buzz around the creation and expansion of transportation projects in the city. Politics, big business expansions, world events, advances in science and technology and transportation proposals are not certain until the "digging" begins.

Figure 12. Metro Line
Source: City of Edmonton



#2 HIGHWAY CONSTRUCTION & EXPANSION IMPACT ON COMMERCIAL & RESIDENTIAL PROPERTY PRICES

As with rapid transit, accessibility to major highways, and highway improvements proved to be major determinants for increased property values in all studies. Studies showed that, as highway networks are created and existing corridors to the central business district (CBD) and major employment centres are improved, the value of real estate in the area increased[35].

Under-priced Property

Classical economic theory posits that when a highway is initially built, large parcels of land that previously had poor accessibility — or none at all — are suddenly considered underpriced[36]. This results in a rapid correction in the market, driving up the value of the land. Development is usually quick and the impact significant. Additionally, improvements to existing highways showed a positive increase to land prices, although to a lesser degree.

However, during the construction phase of the improvements, prices of homes fell[37]. Noise, emissions, dust, and traffic delays negatively impact the sale price of land in areas immediately adjacent the construction; this price decrease ranges from $0.05 to $0.50 per square foot of land[38]. In fact, one study showed that values did not reach pre-construction levels until *five years* after construction was completed[39].

When studying four key residential areas being affected by new major highway expansion (using over 18,800 property sales as research data), a direct correlation was determined between the accessibility increases provided by the highway and the value of residential property. The results showed that when a highway increased accessibility to the region by providing new access or shorter commute times, residential property values rose by 12%–15% over similar properties not affected by the new highway[40]. This is a significant and permanent lift in values. In fact, according to one Texas study, of all types of land use, single-family residences showed one of the largest per-square-foot increases (approximately $35.00 per square foot)[41].

Difference Between Light-Rail Improvements & Highway Improvements

Surprisingly, the main difference between the rapid transit findings and the highway findings is the impact of the noise factor from operating highways. The increase in value of residential properties located closest to the highways were partially offset by up to a 1.2% reduction for every two-decibel increase in highway noise level[42]. However, counter-intuitively, houses with highway noise were not found to take any longer to sell than those farther removed.

35 ten Siethoff, B. & K. Kockelman. (2002). Property Values and Highway Expansions: An Investigation of Timing, Size, Locations, and Use Effects. Transportation Research Board, 81st Annual Meeting, Washington, D.C.
36 Giuliano, G. (1989). "New Directions for Understanding Transportation and Land Use" in *Environment and Planning* A21, pp. 145-159.
37 Mikelbank, B. (2001). "Spatial Analysis of the Relationship between Housing Values and Investments in Transportation Infrastructure." Western Regional Science Association, 40th Annual Meeting, Palm Springs, CA.
37 ten Siethoff, ibid.
38 ibid.
39 Downs. A. (1992). *Stuck in Traffic*. The Brookings Institution: Washington, D.C.
40 Palmquist, R. (1980). *Impact of Highway Improvements on Property Values in Washington*, US Department of Transportation, Federal Highway Administration.
41 Lewis, C.A., J. Buffington, & S. Vadali. (1997). "Land Value and Land Use Effects of Elevated, Depressed, and At-Grade Level Freeways in Texas." Texas Transportation Institute Research Report Number 1327-2. Texas A&M University: College Station, TX.
42 Palmquist, R. (1980). Ibid.

This same study revealed that properties located in commercial–industrial areas serviced by these highway improvements experienced a 16.7% increase in value after the highway was opened. Research into the impacts of specific projects indicates some very pointed effects:

Design of the freeway is important:

- Depressed freeways contributed the most to residential property values, yet had limited impact on commercial property values, except for those located adjacent to exit and entrance ramps.
- At-grade designs had the most positive impact on commercial property values, while still providing a strong positive impact on residential values.
- Elevated highways had the least impact on all land values[43].

Commercial Property Values

Values of commercial properties located 800 metres (one-half mile) or more from a freeway exit were valued at $50,000 per acre of land and $3 per square foot of structure less than properties located closer, proving once again that accessibility and visibility is key.

Overall, the completion or expansion of major arterial highways has a significant positive impact on accessibility and, therefore, property values. This ripples across all types of property from single-family and multi-family residential to commercial and industrial.

43 Lewis, C.A., J. Buffington, & S. Vadali. (1997), ibid.

ANTHONY HENDAY DRIVE AND HIGHWAY CONSTRUCTION EFFECT ON PROPERTY VALUES: PRIMARY AREAS OF IMPACT

Figure 13. Anthony Henday Ring Road
Source: City of Edmonton

Which Regions Will Experience a Positive Impact?

Designed to provide travelers with a quick way to pass through Edmonton, the Anthony Henday Ring Road is one of the two Ring Roads currently under construction in the Province of Alberta. The City of Edmonton's goal is to finish the entire Ring Road by 2016.

Southwest

The completion of the first portion of the Ring Road has brought with it substantial impact on the Southwest region of the city. However, built with signalized intersections, congestion quickly became an issue on this leg of the Ring Road. The city later upgraded all intersections to free flow, with construction completed on the last intersection in the fall of 2011[44].

The completion of the southwest leg of the Anthony Henday Ring Road has made a historically more difficult area to access become one of the fastest growing regions of Edmonton, all due to the increased accessibility that the Ring Road provides. The largest effect on residential real estate prices due to increased accessibility will be felt in the neighbourhoods best served by the new entrance and exit ramps. Areas with older housing stock will feel the largest percentage increase. These include: (off of 111th St Exit): Twin Brooks, Sky Rattler, Keheewin; (off Terwilligar Exit): Haddow, Terwilligar Town, Carter Crest, Falconer Heights (off Lessard, Callingwood and Whitemud exits): Jamieson, Dechene, Glastonbury, Lymburn, Aldergrove, Thorncliffe and Belmead. The majority of these neighbourhoods are mostly located in the Edmonton Real Estate Board's zones of 14 and 20.

Secondary effects will be felt in the Town of Devon, located to the SW of Edmonton as accessibility to Edmonton will become easier.

[44] Government of Alberta. (May 2011). "Cameron Heights/Anthony Henday Drive Interchange." Retrieved from http://www.transportation.alberta.ca/CameronHeights.htm

Southeast

In October 2007, the southeast portion of the Anthony Henday reached completion. The entire 11 kilometre length of the southeast section is free flow with no signalized intersections. The Ring Road is six lanes wide between Highway 2 and 50th Street and four lanes from 50th Street to Highway 14 (with the capacity to add two additional lanes in the future, grading complete). In mid-day it may now take only 15 minutes to travel from Highway 14 to the West End, a blessed reduction from the previous 30 – 40 minute commutes.

Figure 14. Calgary Trail Intersection, Southeast Anthony Henday Ring Road

The largest effect on residential real estate prices due to increased accessibility will be felt in the neighbourhoods best served by the new entrance and exit ramps and in areas with older housing stock. These include: The complete Mill Woods region, especially the southern neighbourhoods of Crawford Plains, Pollard Meadows, Sakaw, Menisa, Satoo, and Ekota. The positive effect of a 10 – 20% premium will be felt throughout Edmonton Real Estate Board's zone 29. South of 23rd Ave should witness the largest demand increase.

In addition, accessibility to Sherwood Park will also increase demand for residential property in this already popular area.

Northwest Edmonton Ring Road

The Northwest section of the Anthony Henday Ring Road was opened to traffic on November 1, 2011. This section of the ring road spans from Highway 16 in the west to Manning Drive in the east. This portion of the ring road is 21 kilometres long and includes 27 bridge structures[45].

The expected impact will be felt all along the northern neighbourhoods across Edmonton in Edmonton Real Estate Board's zones of 3, 27, 28, and 40. This includes the neighbourhoods of McConachie, Castledowns, Lake District, Lago Lindo, Elsinore, Chambery, Rapperswill, Canossa, The Palisades, Oxford, Carlton, Heritage Lakes, Akinsdale, and the Kinokamau Plains Area.

Residents in St. Albert will certainly enjoy the increased accessibility to the city of Edmonton as well as the International Airport. The ring road will provide St. Albert residents with a number of new access points to Edmonton and surrounding areas, thus dramatically shortening the commute time now mostly funneled on St. Albert Trail.

Northeast

Although not slated to open until 2016, this portion of the ring road could prove to be the most important for the growth of the city of Edmonton. It will also provide the city planners with some unique opportunities to develop new residential neighbourhoods within a very near commute of new employment regions. The $1.81 billion project will include 27 kilometres of six and eight-lane divided roadway with 37 highway bridges, nine interchanges, two road flyovers, eight rail crossings (flyovers), and two bridges across the North Saskatchewan

[45] Government of Alberta. (November 2011). "Northwest Anthony Henday Drive." Retrieved from http://www.transportation.alberta.ca/1704.htm

River, for a total of 47 bridge structures. Construction on the project began in June 2012 and should be completed in the fall of 2016[46]. For an overview of the Northeast Henday projects or ongoing traffic updates, please visit http://www.northeastanthonyhenday.com/project.php.

Although they will have to wait a few years before the impact the Ring Road is felt, older neighbourhoods located in zones 2, 3, 23, and 35 will enjoy the largest percent premium on property prices. In addition, the impact of the completion of this NE quadrant of the ring road will also increase demand for residential and commercial property in Ft. Saskatchewan.

Edmonton's Future

The Transportation Master Plan also mentions the development of an inner ring road. The road's intended purpose is to cater to cross-town movements at a higher standard than is currently experienced within Edmonton city limits. The inner ring road would be a minimum of six lanes, with a speed limit of at least 70km per hour and would be more free-flowing than current conditions. The roadways mentioned as part of the inner ring road are: Yellowhead Trail, 75 Street/Wayne Gretzky Drive, Whitemud Drive, and 170th Street. The TMP concept looks as far out in the future as 2040, making it unclear as to when the City intends to start the planning process for the inner ring road.

It is easy to see how the Ring Road and LRT extensions will be increasingly important to the city's residents. With industrial and residential growth corridors outlining the city proper, the Ring Road is essential for business, both for companies and their employees. As funding becomes available for more transportation initiatives, Edmonton is set to remain a great place to work, play, live and invest!

Please Note: Not ALL properties in these regions will make for great investments, so make sure you complete your due diligence on all properties before you purchase.

[46] Government of Alberta. (2013). Northeast Anthony Henday Drive. Retrieved from http://www.transportation.alberta.ca/3787.htm

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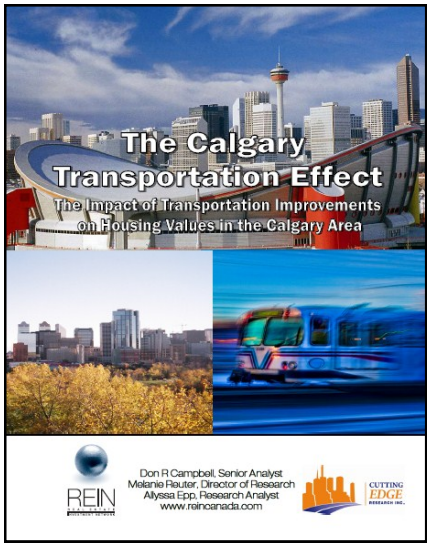

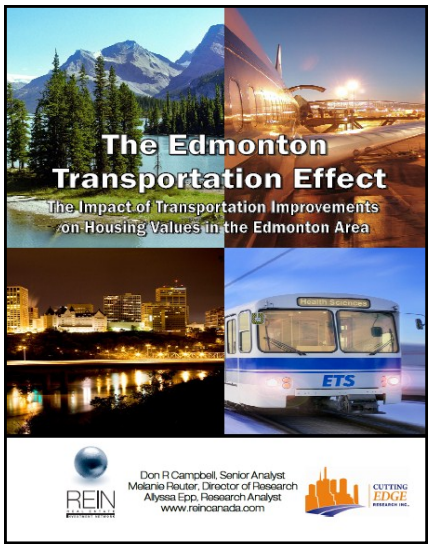

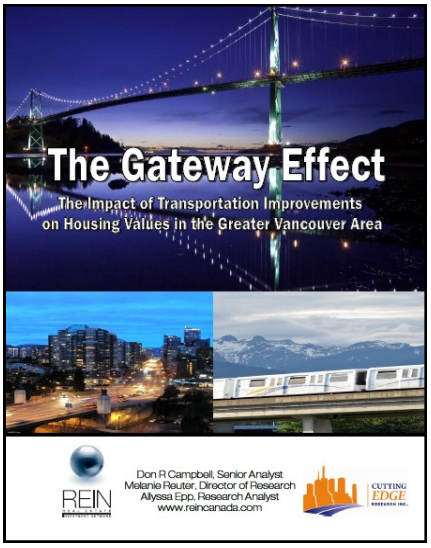

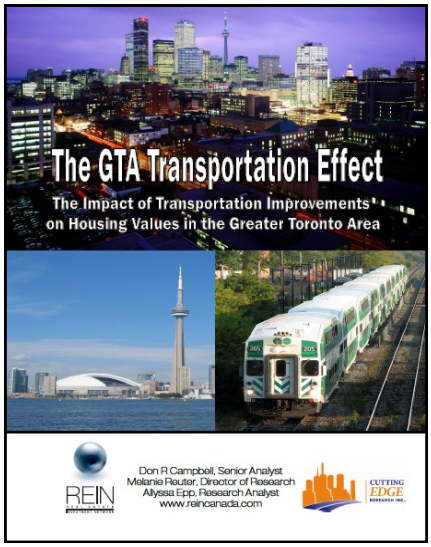

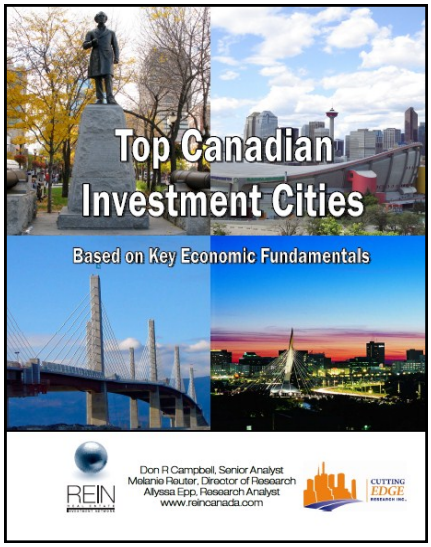

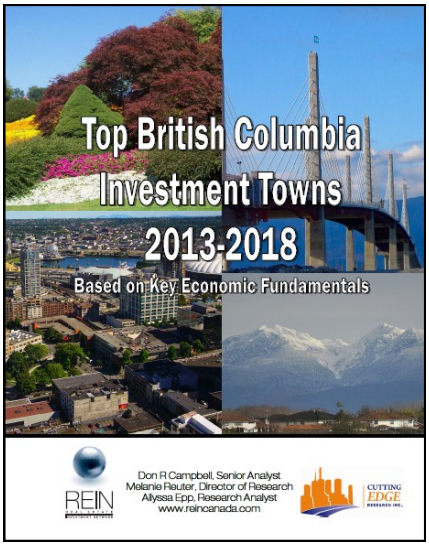

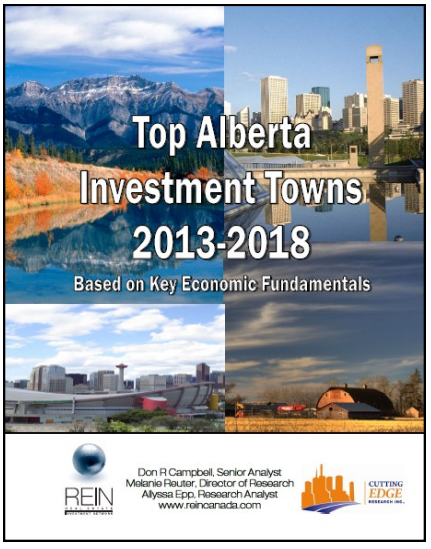

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