

Calgary



Municipal Development Plan/Calgary Transportation Plan
2018 Background Monitoring Progress Report

Publishing Information

Title: Municipal Development Plan/Calgary Transportation Plan – 2018 Background Monitoring Progress Report

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ISC: Unrestricted

Web: calgary.ca

SR: 18-00167729

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Reporting on Progress

The Municipal Development Plan/Calgary Transportation Plan 2018 Monitoring Progress Report is intended to provide Council, City Administration and citizens an update on the advancement being made towards the goal and objectives of our city's key policy documents for growth, mobility and change – the Municipal Development Plan and Calgary Transportation Plan.

Reporting on these plans occurs every four years, with this report also informing the **2019-2022 Business Plan and Budget** process, **One Calgary**, and the **Framework for Growth Management**. For the first time, the final report has been provided in two formats to better serve the needs of its diverse audience:

- **The Municipal Development Plan/Calgary Transportation Plan 2018 Monitoring Progress Report**, highlighting the essential information and findings of the reporting process including major success and challenge items.
- A comprehensive **2018 Background Monitoring Progress Report**, containing all of the measures and information gathered during this reporting cycle.

These reports provide context and insights around some of the key opportunities for positive change in our community. Our data-driven approach leverages transportation infrastructure and safety information, neighbourhood demographics, housing growth, environmental data, and key economic information and forecasting to guide the future evolution of our policies and programs.

To access both formats of the 2018 Monitoring Progress Report, please visit calgary.ca/monitoringprogress.

Calgary – a great place to make a living, a great place to make a life.



Realizing Our Goals

The Municipal Development Plan Calgary/Transportation Plan 2018 Monitoring Progress Report.

Together, the Calgary Municipal Development Plan and Calgary Transportation Plan establish a vision for the kind of city that Calgarians asked for – a great city that attracts investment, jobs and business opportunities, grows in an environmentally sound and affordable manner, and provides more choices in how to get around, and where to live.

These plans are used by all areas of The City of Calgary to guide our community's immediate and long-term planning, service provision, programs, and initiatives that enable diverse, safe and complete communities.

The Progress Report provides information about steps being made to implement the policies and objectives of these Plans by tracking key performance indicators, measures and targets. The data found in the following sections informs municipal decision-making, and communicates the state of our city today, so that we can better adapt and plan to meet the needs of our future. Reporting clear and accurate data is important in providing transparency and accountability to the community we serve.

Building a great city and great neighbourhoods

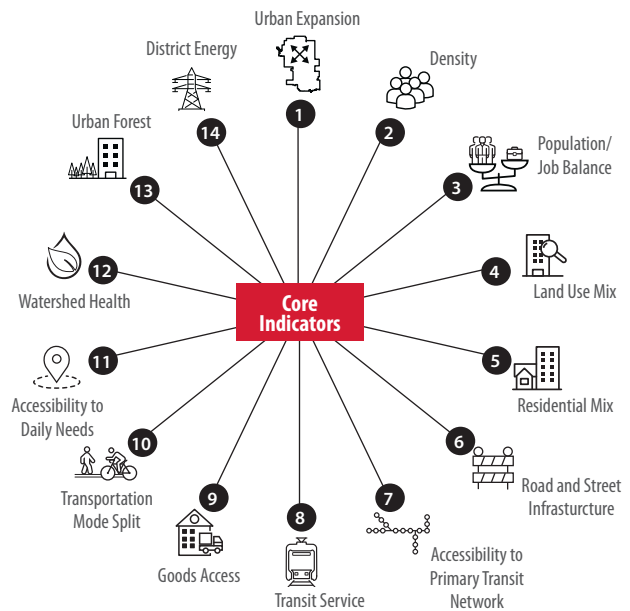
Indicators and Tracking Measures

In order to evaluate the progress being made towards the objectives of these Plans, a broad spectrum of indicators and targets have been developed. Fourteen core indicators were created with the Plans in 2009 to serve as proxy measures for their social, environmental and economic performance. Core indicators are associated with specific targets in the Municipal Development Plan, are used to monitor long-term trends and have a clear direction or target.

For the 2018 monitoring reports, the performance of the Core Indicators is presented according to outcome statements, which are adapted from goals of the Municipal Development and Calgary Transportation Plans and speak to diverse aspects of Calgary's evolving vision.

Additionally, 2018 is the first time that new metrics outside of the Core Indicators have been used for progress monitoring. Called tracking measures, these new data sources were selected and developed to support and enhance the information that the Core Indicators provide. While these measures have no specific target identified in the Municipal Development Plan, they can allow for more timely analysis of trends and changes within the city, and help indicate if course-correction is required between longer trend-periods of the Core Indicators.

Over 40 key indicators and tracking measures in this Progress Report were chosen based on their relevance to our Plans, the availability of data sources, and their relationship to the work of Corporate priority programs, policies and actions implementing our Plans' visions.



Indicators and Tracking Measures

Core Indicators

- Associated with specific targets in the Municipal Development Plan
- Used to monitor long-term trends with a clear direction/target
- Measured and averaged over 4 to 5-year time frames; year-to-year changes may vary widely

Tracking Measures

- New to 2018 progress monitoring
- No specific Plan target/direction
- Used to supplement Core Indicators, monitor short or medium-term trends



Background Report Overview

The Complete Data Set

Expanding on the highlights provided in the 2018 Monitoring Progress Report, the Background Monitoring Progress Report provides an overview of all Core Indicators and supplementary tracking measures investigated during the reporting cycle. The sections that follow outline the latest available data for the Core Indicators as well as related analysis and general performance.

The baselines and the 60-year targets for the Core indicators for Land Use and Mobility were developed based on stakeholder consultation, benchmarks used in other cities, and available data. All demographic baselines reference the years 2005 and 2006 as population and jobs data were available from that time.

In some cases, more than one metric has been identified for each indicator. The targets accompanying each indicator provide the desired performance outcome over a specific period of time. If a 2039 target is given for a certain indicator, it is either a reference to the 30-year target as stated in the Plans or it was estimated based on the Plans' baseline and 60-year target. The targets represent a direction that The City wishes to achieve through its planning and investment process and through collaboration with other orders of government, the public and stakeholders.

Overview of all
Core Indicators and
tracking measures

Progress Snapshot

While the information collected in this report identifies many areas of interest, select major findings on successes and challenges are summarized in Figure 1, including performance trends for the Core Indicators.

Success the City has made in partnership with community, industry and other stakeholders across Calgary in advancing our Plans' objectives and priorities include:



















- Increasing housing and job opportunities in strategic locations
- Improving community design and increasing densities to support transit and other public investments
- Planning and building infrastructure and communities to support sustainable transportation choices, in particular walking and cycling
- Keeping a good balance of population and jobs throughout the city
- Increasing the tree canopy
- Sending less waste to landfills

While we are making great progress, additional efforts will be needed to achieve our shared vision. The challenges highlighted in this Progress Report include the following:

- Urban expansion is changing slowly, with less growth in Developed Areas than intended
- Infill development is steady but not significant enough in some established communities to maintain stability or offset population loss which is naturally experienced during the life cycle of a community
- Transit ridership has decreased
- The car continues to be the most common travel choice city-wide
- Greenhouse gas emissions continue to rise



Figure 1: Core Indicators – 2018 Progress Trend Summary

Improvement	Improvement (Behind Trend for Goal)	Minimal/ No Improvement	Decline
  Residential Mix	  Urban Expansion	  Transit Service	  Road & Street Infrastructure
 Density	 Accessibility to Primary Transit Network	 Urban Forest	 Watershed Health
 Accessibility to Daily Needs	 Transportation Mode Split	 Population & Jobs Balance	
 District Energy		 Goods Access	
 Land Use Mix			



How We Got Here

The City of Calgary's plans, policies, and actions work together towards a shared vision of the future. In 2006, Council approved **imagineCALGARY**, a 100-year vision for Calgary based on the engagement of more than 18,000 Calgarians, and the starting point for the development of the Municipal Development Plan and Calgary Transportation Plan (Plans).

These Plans established a direction to lead associated imagineCALGARY outcomes over the long-term, providing Calgarians with more travel and housing choices and more complete communities in a more sustainable city.

Policy alone is not enough to achieve outcomes. The City uses a number of initiatives and programs over shorter periods of time to strategically move forward specific outcomes, with some notable initiatives including the **2020 Sustainability Direction**, the 2013 **RouteAhead** strategic transit plan, the 2015 **Main Streets** initiative, and 2015 **Investing in Mobility** capital investment plan. Each of these initiatives addresses a particular aspect of the imagineCALGARY vision, and sets out specific actions in line with these Plans.

In addition, every four years, City Council sets priorities which The City uses to create a business plan, guiding the implementation of various pieces of our strategic initiatives and programs. These pieces include funded projects and activities supporting community needs and expectations, while also supporting the objectives of these Plans.

Together, these visions, plans, policies, and strategies align with the **South Saskatchewan Regional Plan**, which establishes a long-range 50-year vision and aligns provincial policies to balance economic, environmental and social goals.

Municipal Development Plan and Calgary Transportation Plan Alignment with Corporate Plans

A City-wide Approach

The Progress Report reflects an on-going collaborative approach. In addition to the areas of Planning and Transportation, experts from across the organization have helped to form a report that is more comprehensive than ever before.

Over the last year, work has been done to measure the established Core Indicators and develop the new supplementary tracking measures. Together, the collaborative approach and supplementary tracking measures paint a richer picture of our city – where we've been and where we're going.





Managed Growth and Change

The City continues its work to direct and plan for balanced growth ensuring that we sustain and promote a healthy environment and an urban economy where residents, businesses and neighbourhoods thrive.

An evolving and fluctuating economy, growing population, demands for new infrastructure and services, increasing inequality and household needs, and a changing climate all pose challenges to our city. Future growth is crucial as it supports an expanding and diverse economy, allows for resources and infrastructure to be used efficiently, and creates a culturally diverse environment.

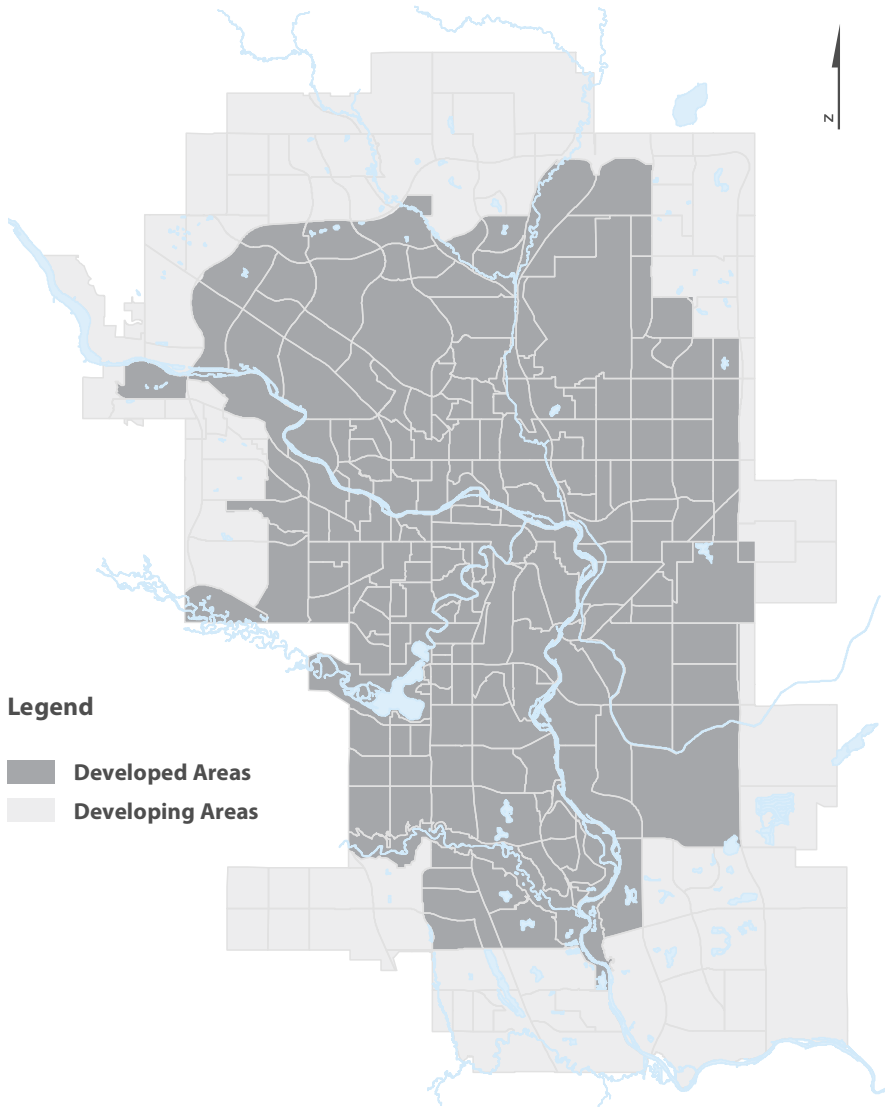
The indicators and measures for this Goal relate to the patterns and distribution of growth in our city. Our Plans propose a more compact urban area by achieving a balance of growth between the Developed (inner city and established communities) and Developing (greenfield or new suburban communities) Areas of the city.

Achieving a balance of growth means encouraging more development within the Developed Areas of the city than was encouraged in the past, and directing a larger portion of new housing and jobs within higher intensity, mixed-use areas that are well connected and served by high-quality transit.

Goal:
Managed growth and change

Outcome:
Manage and support fiscally responsive growth, leverage community investments and development to create complete communities and become an equitable, prosperous and sustainable city.

Map 1: Developed and Developing Areas



Developed Areas:

These areas include portions of the city that were fully built-out as of 2006. The Developed Areas encompass the Inner City (neighbourhoods developed prior to the 1950s), the Established Areas (neighbourhoods built out between the 1950s and 1990s), the Centre City, as well as various employment-oriented typologies.

Developing Areas:

These areas include new residential communities, commercial areas and industrial subdivisions still under development, or being planned for future development in 2006.

Although many communities in the Developing Areas are now fully built-out, the 2006 boundary, recognized when the Plans were approved by Council in 2009, is still used for reporting. This allows for consistent measurement of population growth and distribution across Calgary from a fixed point in time.

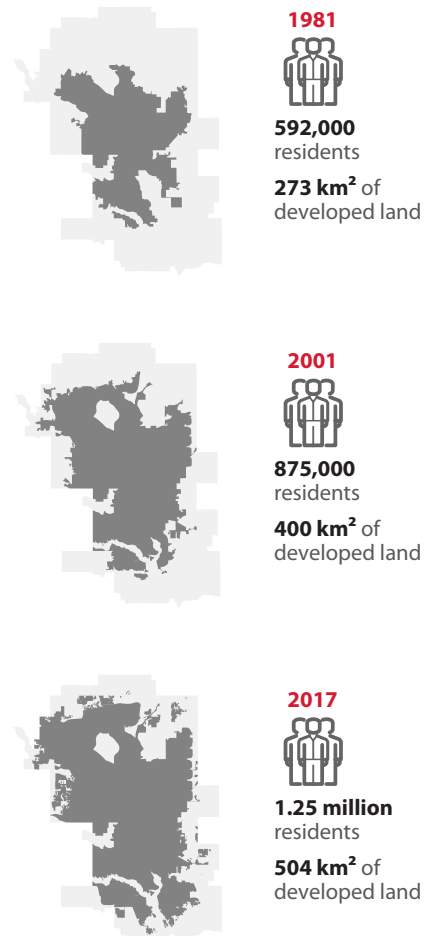
How do we measure progress?

- Urban expansion
- New residential units in established and greenfield communities
- Population growth
- Employment growth

Calgary has experienced strong growth in recent decades. Since 1985, the population has doubled. Given Calgary's attraction as a great city to live, work, study and visit, our population is expected to more than double again over the next 60 years. The anticipated growth in population and changes in demographics brings a need for more and different types of housing in a variety of locations throughout the city.

Looking ahead –
2.4 million Calgarians

Figure 2: Calgary's Population and Land Area Growth 1981-2017



Tracking Measure: Population Growth



This measure helps to track overall city growth to monitor consistency with **Plan It Calgary*** (2006) projections.



2006
956,000
people



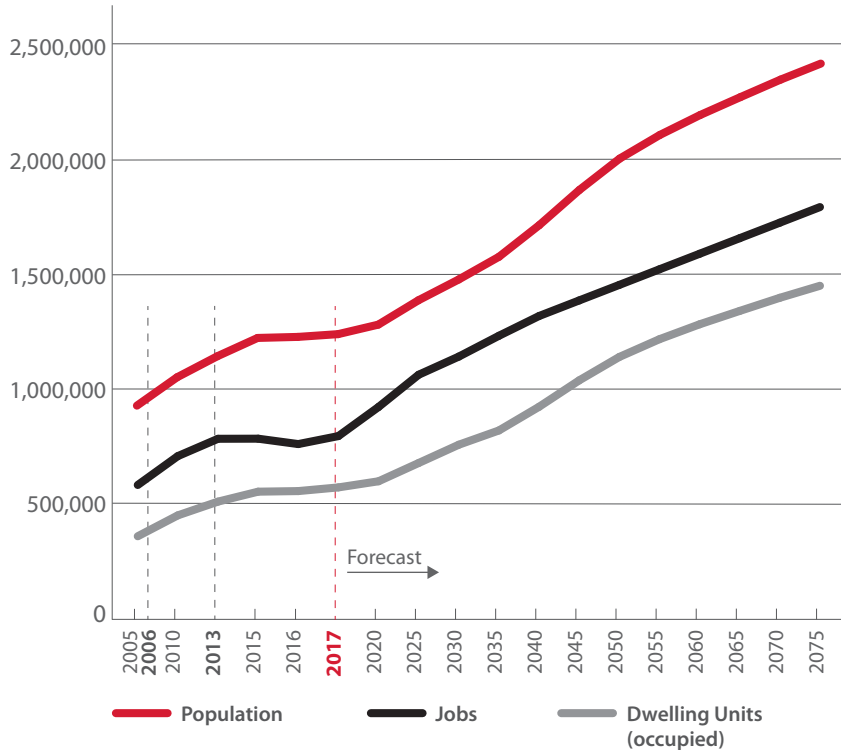
2011
1,091,000
people





2017
1,246,000
people




* **Plan It Calgary:** In 2007, City Council directed that integrated transportation and land use Plans be created. The process, called Plan It Calgary, set out the long-term direction for sustainable growth to accommodate another 1.3 million people over the next 60 to 70 years.

Population, Jobs, and Household Trends and Forecast



We added 290,000 people, over 100,000 dwelling units and 108,000 jobs since 2006.

2006 baseline
956,000 
 people
608,000 
 jobs

2076 projection
2,355,000 
 people
1,200,000 
 jobs


In 2017, Calgary had:

 **1,246,000** people
 +156,000 since 2013, + 290,000 since 2006

 **506,000** dwelling units
 +38,000 since 2013, + 98,000 since 2006

 **685,000** jobs (2016)
 +38,000 since 2011, + 77,000 since 2006

Although Calgary experiences cycles of boom and bust, it has maintained net positive growth, even during years of recession. Migration is strongly correlated to economic activity in Calgary, particularly when it comes to intra-provincial migration. Natural Increase, which is Total Births – Total Deaths, remains consistent at roughly 10,000 per year.

Tracking Measure: Total Number of Jobs



This measure helps to track overall city employment growth to monitor consistency with **Plan It Calgary** projections.

Job growth is a key indicator of the state of the economy. The total number of jobs in Calgary has grown over the past decade, and is expected to continue to grow.



2006	2011	2016
608,000	647,000	685,000

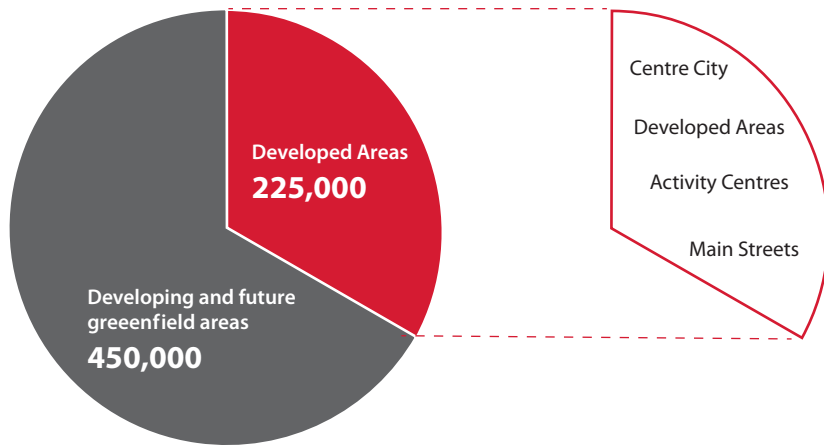


Core Indicator: Urban Expansion

The indicator shows the outward expansion of the city by comparing population growth within the Developed Areas to total city-wide population growth. The performance of this indicator provides a cumulative value of population growth accommodated within the Developed Areas since 2006 (baseline boundary).

The target is to create a 50-50 balance of cumulative growth between established and greenfield communities. We also have a 30-year target of a 33 per cent balance by 2039.

Calgary's Population Growth Share Targets, 2006-2039



Benefit

Encouraging growth within the Developed Areas of the city makes the best use of our existing land and reduces the cost of City services. Locating residents closer to where they work, shop and play makes walking, cycling and transit more attractive as a mode of transportation and reduces the need to drive to meet daily needs.

Figure 3: Municipal Development Plan/ Calgary Transportation Plan Targets

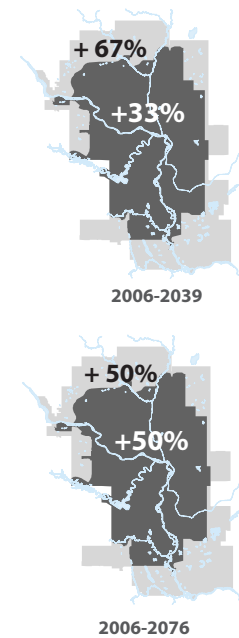
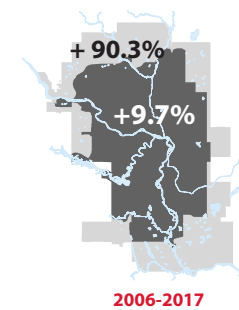


Figure 4: Cumulative Population Growth Developed and Developing Areas, 2006 - 2017



How are we doing?

Developed Areas

Since 2006, approximately 10 per cent of cumulative population growth has been captured in Developed Areas.

The majority of Calgary's population growth is still occurring in the Developing Areas. Although a noticeable shift can be observed in the most recent reporting period, 90 per cent of the cumulative population growth from 2006 to 2017 was accommodated within the Developing Areas, and 10 per cent in the Developed Areas.

Between the 2006 baseline and 2011, 106 per cent of growth occurred in Developing Areas, indicating that the Developed Areas were experiencing an approximately 6 per cent population loss. This trend has changed significantly since 2011, with population growth, rather than loss, occurring in the Developed Areas. Between 2011 and 2017, 25 per cent of total population growth occurred in Developed Areas.

There are multiple complex factors that influence development trends. Market and economic forces, affordability, changing lifestyle choices and demographics all influence this indicator. Population growth can vary widely from one year to another. Calgary's growth in the greenfield or new suburban (Developing Areas) communities has been strong and consistent for many decades. Population growth in the inner city and established communities (Developed Areas) is more directly influenced by economic growth and corresponding spikes in net migration. The Developed Areas are often a 'landing spot' for new Calgarians. Rising vacancy rates between 2014 and 2016, a result of challenging market and economic conditions, also hindered population growth within the Developed Areas and contributed to a decline in new housing development.

Overall, the indicator shows that Calgary has reversed the previous trend and is slowly moving in the right direction. Additional action will be required to meet the 30 and 60-year targets of our Plans.

The performance of this indicator provides a cumulative value since 2006 and varies from year-to-year depending on market and economic factors. While development and growth trends show positive performance after 2011, progress towards the target was not as significant as intended in earlier years.

2006 - 2017
+9.7%
growth

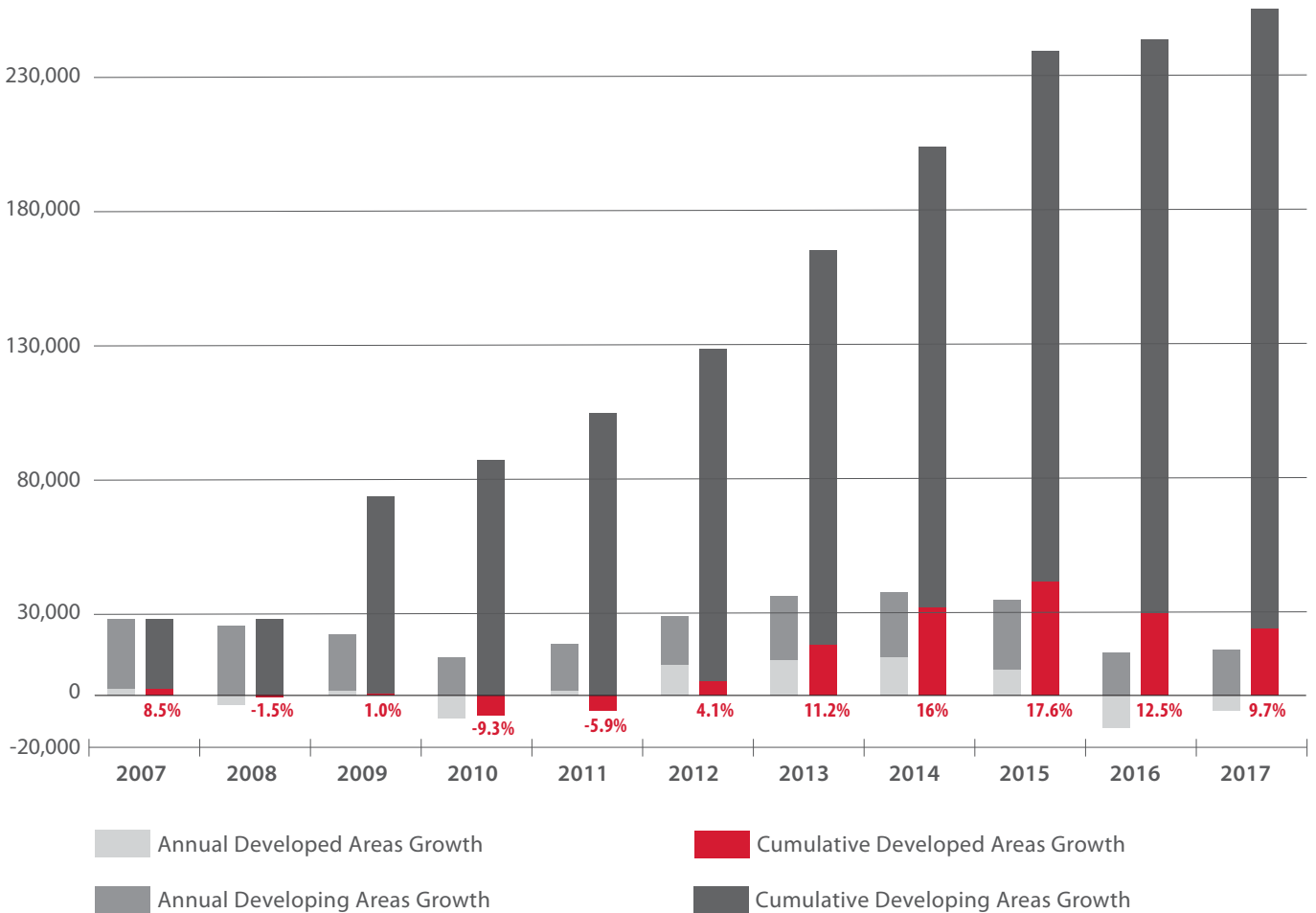
2006 - 2011
-5.9%
growth

2011 - 2017
+25%
growth

To overcome the initial target shortfall and achieve a 33 per cent share of cumulative population growth in the Developed Areas by 2039, approximately 47 per cent of growth would now need to be captured annually in the Developed Areas over the next 20 years, to achieve the 30 year Plan target.

In making progress on this indicator, it will be important to continue to add population in the Activity Centres and Main Streets identified in our Plans.

Annual and Cumulative Share of Population Growth to the Developed and Developing Areas



Tracking Measure: New Residential Units in Developed and Developing Areas Communities



This measure tracks the distribution of residential growth occurring within city limits.

Benefit

Adding homes in areas of the city that already have the amenities, services, and infrastructure needed to accommodate residents will help us manage costs. Growing in this way also provides greater housing and transportation choices for Calgarians and helps sustain and enhance vitality in established local neighbourhoods.

Figure 5: Total Residential Units in Developed and Developing Areas Communities and Cumulative Change, 2006 - 2017

	Developed	Developing	Total
2006	353,000	56,000	409,000
2011	364,000	87,000	451,000
2017	379,000	127,000	506,000
Total Change	26,000	72,000	98,000
Cumulative Share of Dwelling Unit Growth	27%	73%	100%

Since 2006, 27% of new housing growth was in the Developed Areas.

Per cent of Dwelling Unit Growth Developed Areas

2006 - 2011
26.5%

2012 - 2017
27.1%

Total: 2006 - 2017
26.8%



How are we doing?

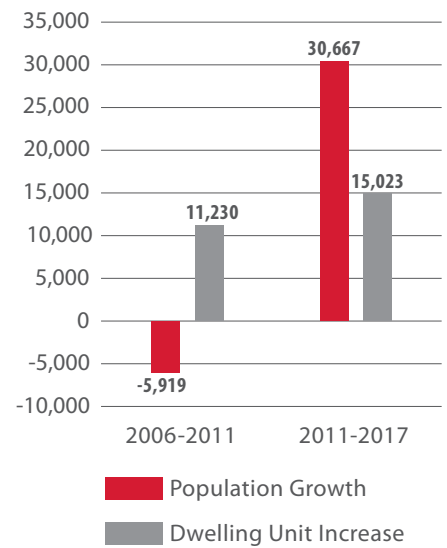
While the new suburban or greenfield communities in the Developing Areas continue to lead housing growth, significant change has occurred in other typologies, particularly the Centre City and Community Activity Centres.

Further details regarding the dynamics and distribution of population and new dwelling unit growth specific to geographical locations or typologies is provided in the next section.

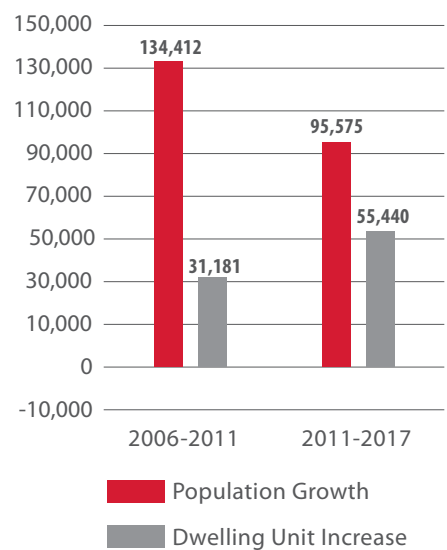
How are our Developed Areas communities growing and changing?

The discrepancy between dwelling unit construction and population growth in the Developed Areas results from the differing ways that each factor is affected by the economy among other factors. The Developed Areas see large spikes in population during strong economic years, and net losses during times of recession. Dwelling unit growth is less nimble than population growth, as planning, development, and construction may take years, particularly in large multi-family buildings which comprise the majority of new unit growth in the Developed Areas. As a result, less immediate change occurs in the construction rate of dwelling units when the economy shifts. Furthermore, during times of recession, units may sit empty, but are rarely demolished without being replaced.

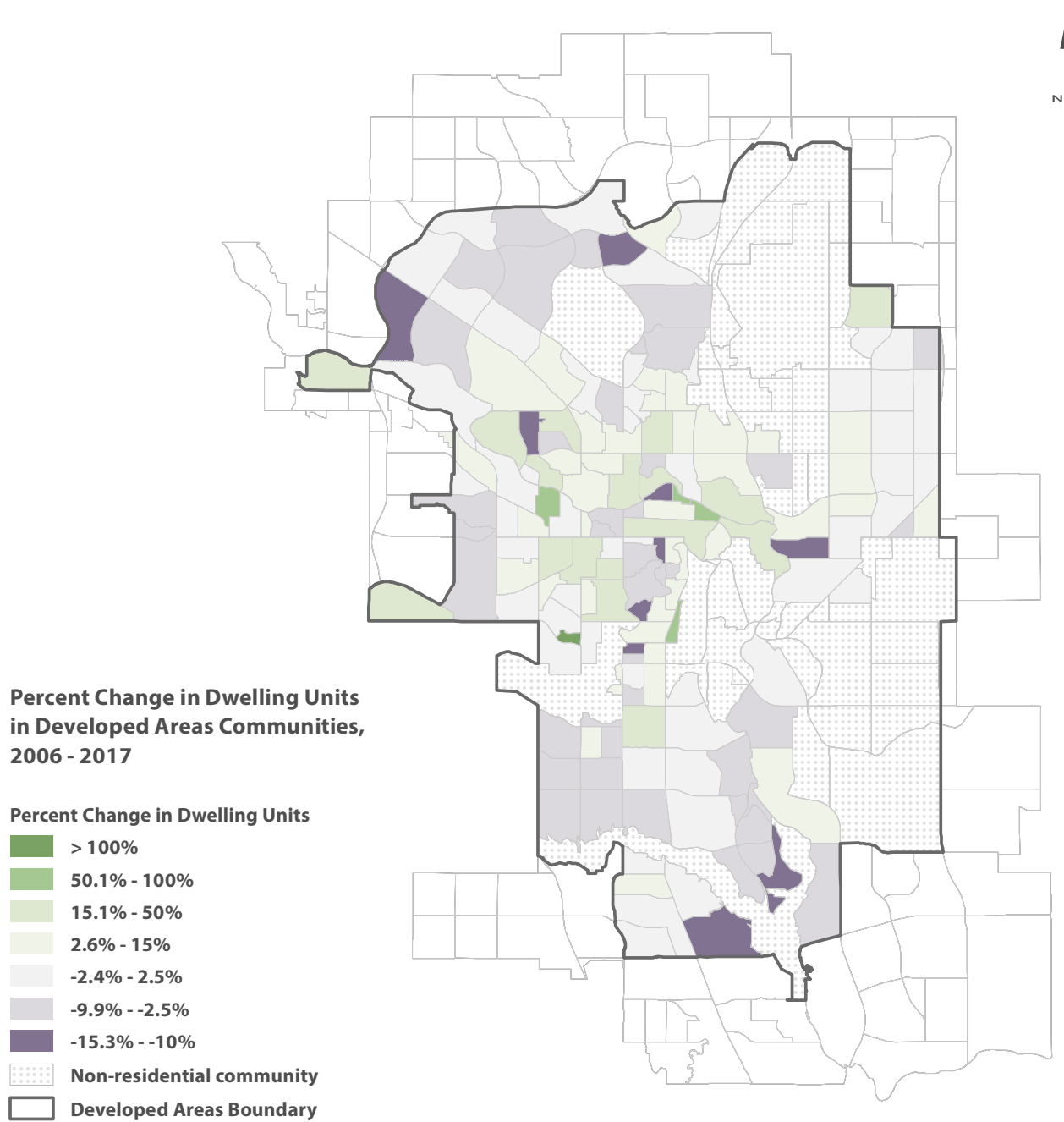
Developed Areas Population and Unit Growth



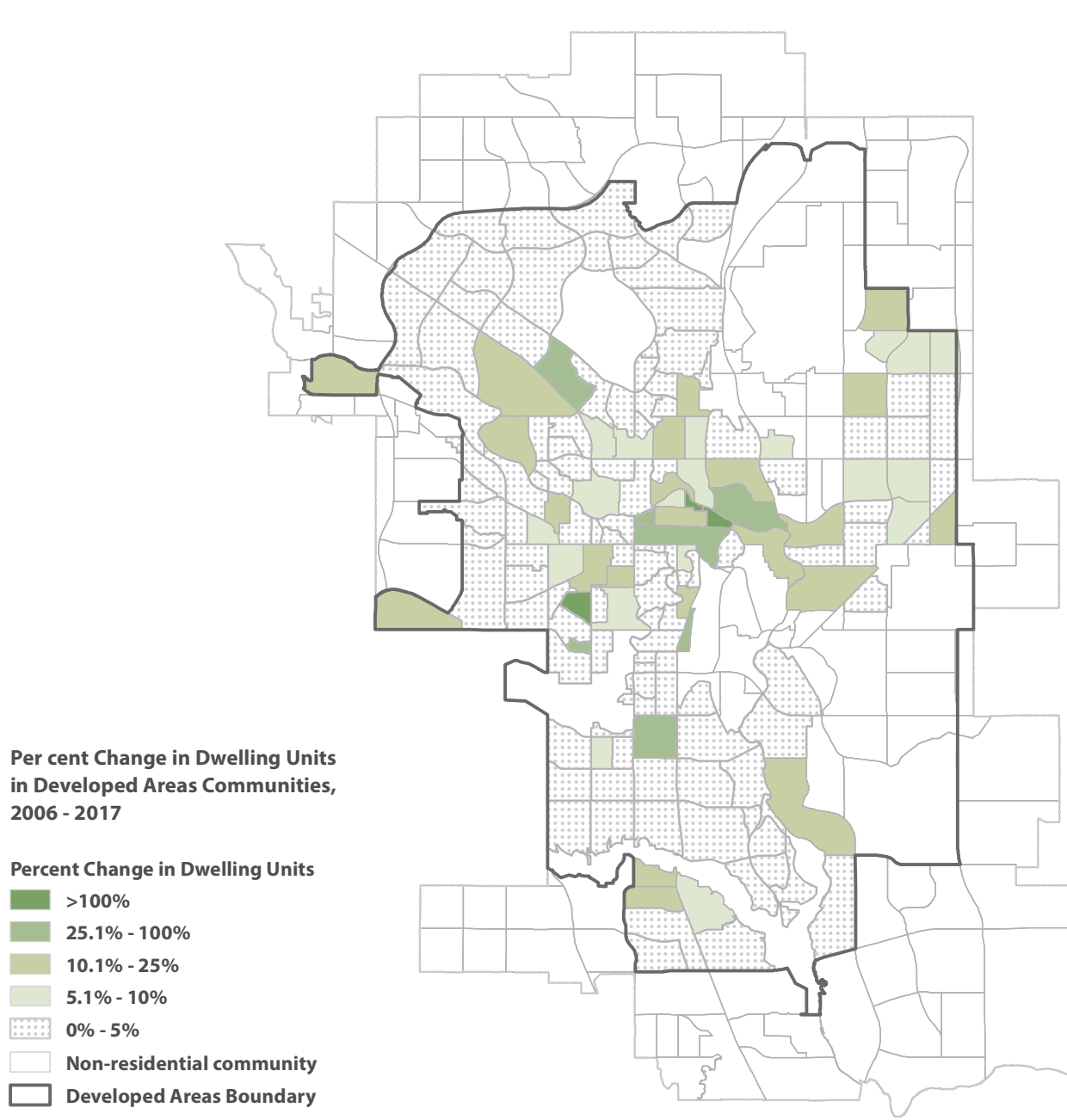
Developing Areas Population and Unit Growth



Map 2: Per cent Change in Population in Developed Areas Communities, 2006 - 2017



Map 3: Per cent Change in Dwelling Units in Developed Areas Communities, 2006 - 2017



What is The City doing to achieve Managed Growth and Change?

The City of Calgary is committed to managing and directing growth and community investments in a way that uses tax dollars wisely and benefits and increases opportunities for businesses and all residents.

The City is focused on:

- Supporting fiscally responsive growth and complete communities
- Leveraging investments to support development in the right locations at the right time

These City initiatives and department actions are advancing the objectives of the Plans:

- Established Areas Strategy
- New Community Growth Strategy
- Main Streets
- Green Line
- Centre City, Developed Areas and New Communities Guidebooks
- Infrastructure Calgary
- Off-site Levies
- Online Applications and Review Improvements
- 2020 Sustainability Plan
- Step Forward Pedestrian Strategy
- Max Bus Rapid Transit Network

Future measures

Based on the further review and analysis of the Plans' objectives and the future availability of data, The City will consider additional measures related to the land supply, strategic intensification and investment in all Calgary communities.





Compact Urban Area and Complete Communities

Plan Objectives:

- Create transit-supportive, mixed-use Activity Centres and Main Streets
- Optimize population and job growth close to transit
- Foster distinctive, complete communities
- Support strong, stable neighbourhoods: sensitive infill and redevelopment

Our Plans encourage future housing and job growth in specific areas of the city. These areas include Activity Centres and Main Streets with retail and business districts supporting higher density, more diverse forms of housing, public and essential services, and amenities for Calgarians. These areas all have frequent and high-quality light rail or bus transit service.

Modest growth will occur outside of these areas in all communities. This allows for a range of housing types suitable for all ages, lifestyles and needs in a way that respects and enhances the existing character of the community. The aim is to maintain or create a stable and vibrant inner city and established communities with a sufficient population to support shops, services, schools and valued amenities.

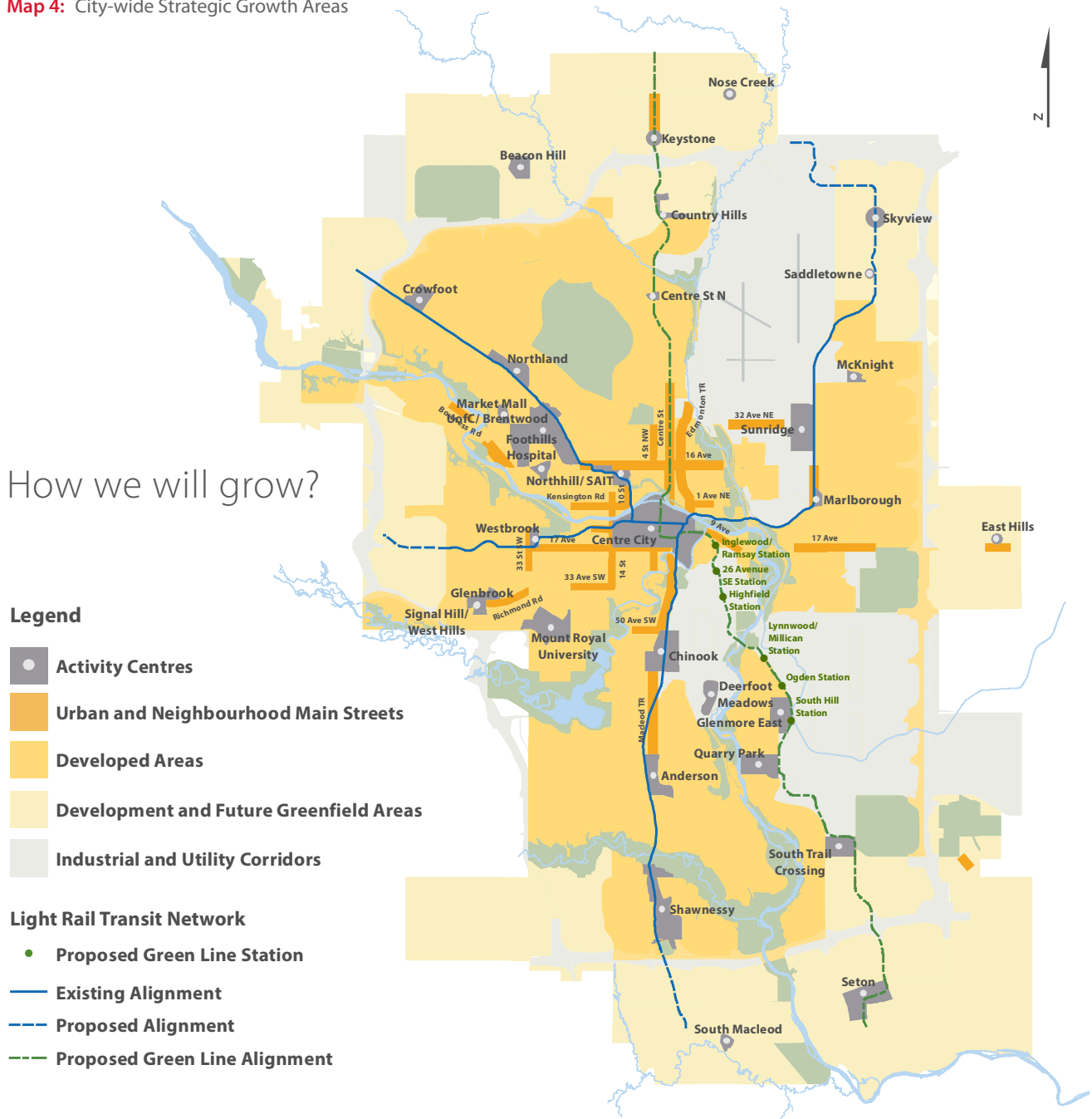
Goal:

Compact urban area and complete communities

Outcome:

Calgary is a compact urban area of complete communities.

Map 4: City-wide Strategic Growth Areas



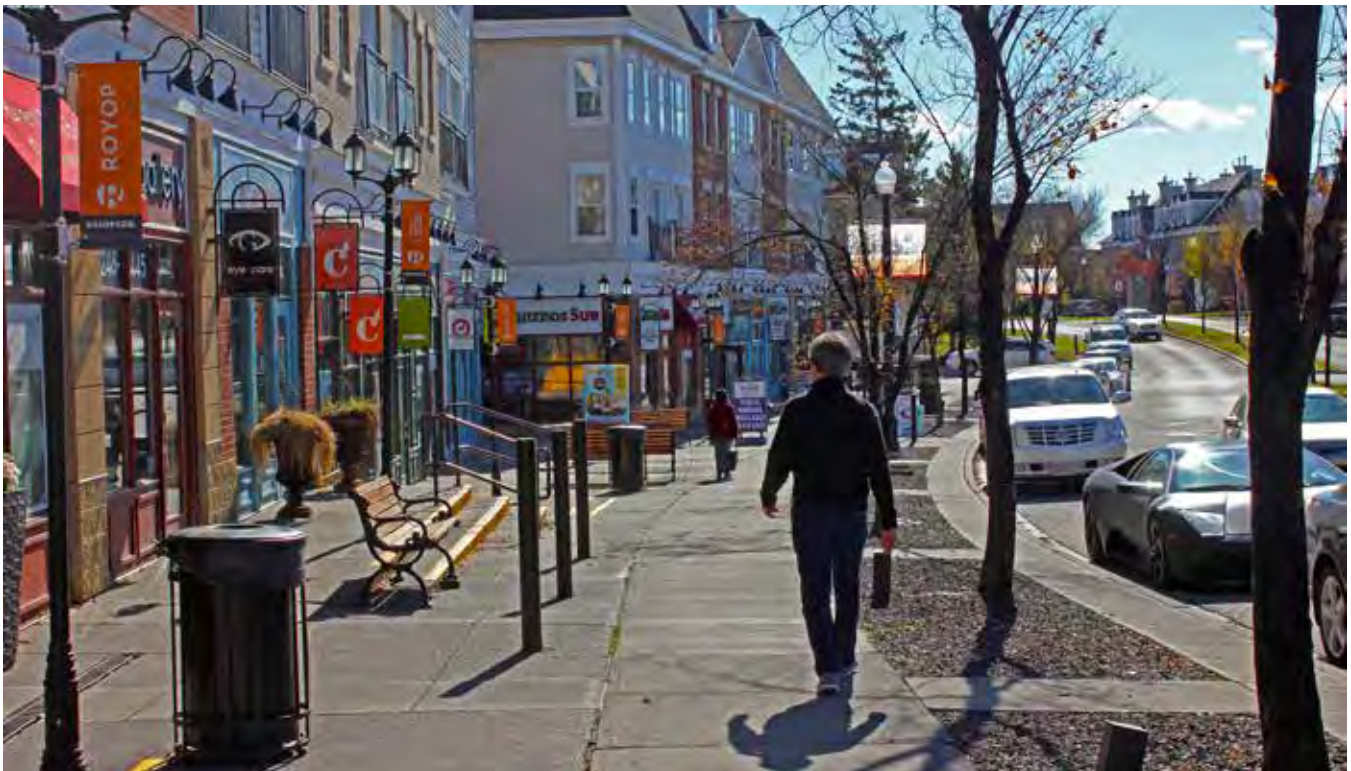
How do we measure progress?

- Accessibility to daily needs
- The population and job density of communities
- Diversity of land uses

Measuring Progress

As Calgary continues to grow, it is anticipated that increased housing opportunities will be strategically located within focal areas for growth – primarily in Activity Centres and along Main Streets.

The measures that follow show the success of our Plans and other City policies in encouraging people to live within or near strategic growth areas and neighbourhoods that benefit from established amenities and services, such as high-quality transit.



Core Indicator: Accessibility to Daily Needs
(growth in Activity Centres
and Main Streets)



This indicator measures the percentage of population within Activity Centres, or within 600m of Main Streets.

It is an important indicator of the percentage of population with easy access (5 to 10-minute walk or bike ride) to shops, amenities, and services.

Benefit

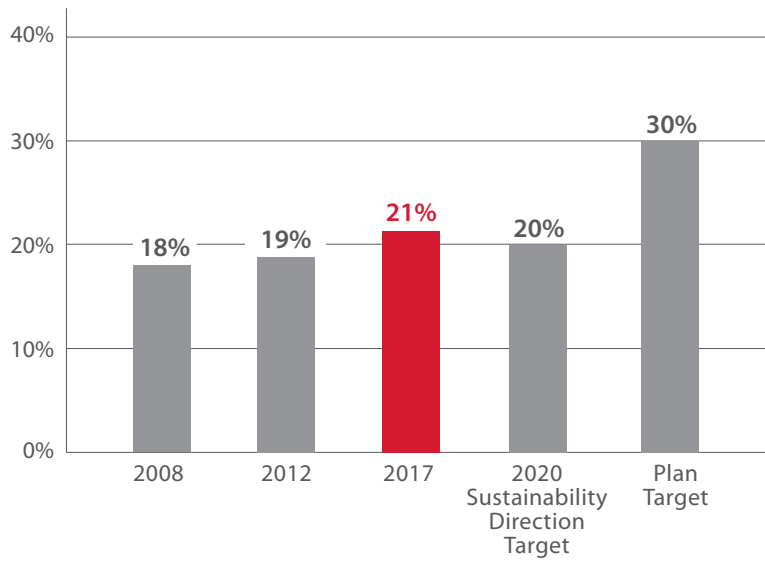
Encouraging more people to live near or within community hubs (Activity Centres and Main Streets) makes efficient use of public investment and infrastructure and strengthens our business and commercial districts. Destinations in a community encourage more walking, cycling and transit use.



How are we doing?



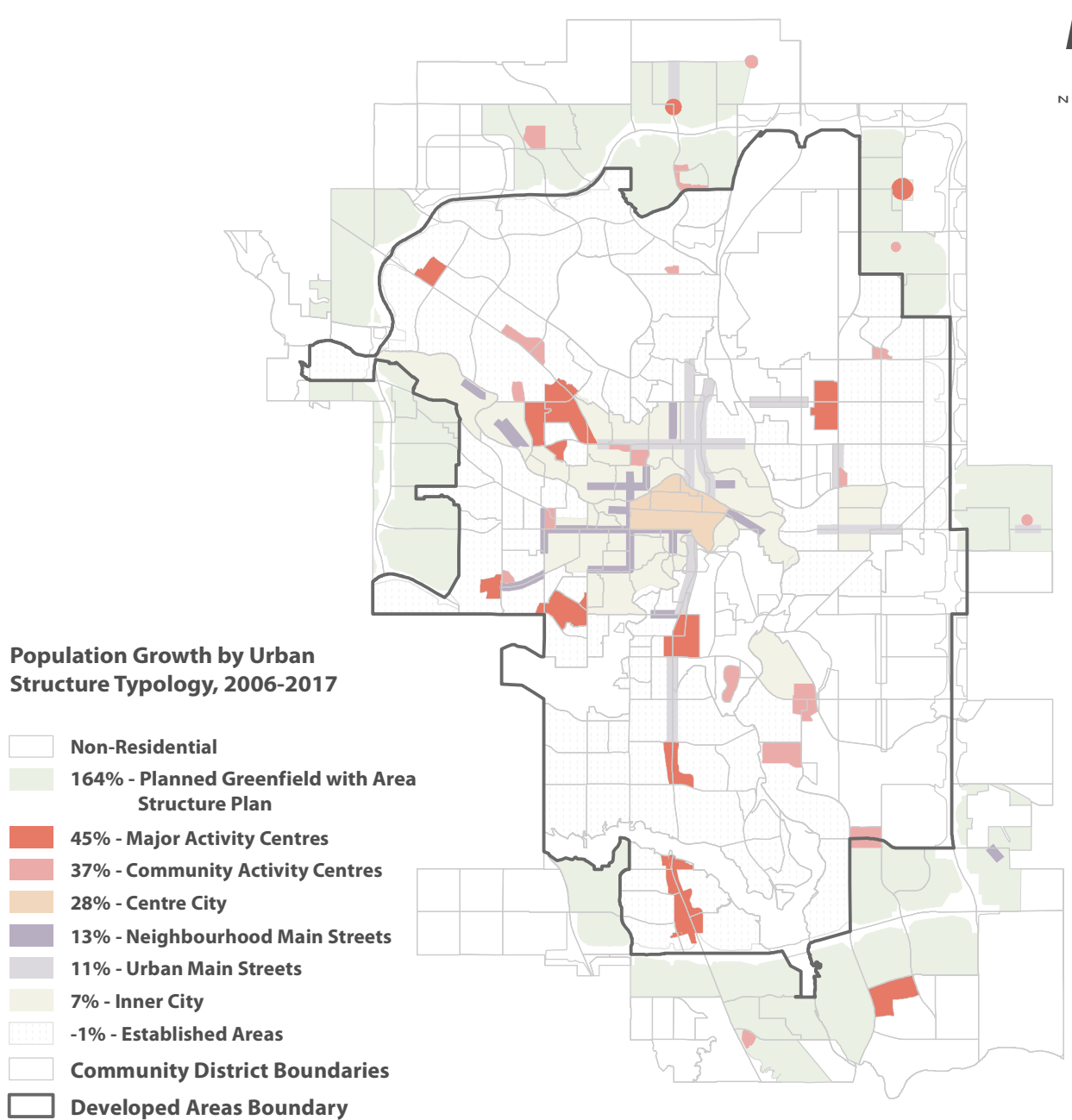
Per cent of Population within Major and Community Activity Centres, or within 600m of Main Streets.



In 2017, 21 per cent of Calgary’s population was located within Activity Centres or close to Main Streets, which exceeded the 2020 target of 20 per cent. These strategically important areas have added over 30,000 people since 2006. This share of growth is consistent with long term objectives.



Map 5: Percentage of Population Change by Typology



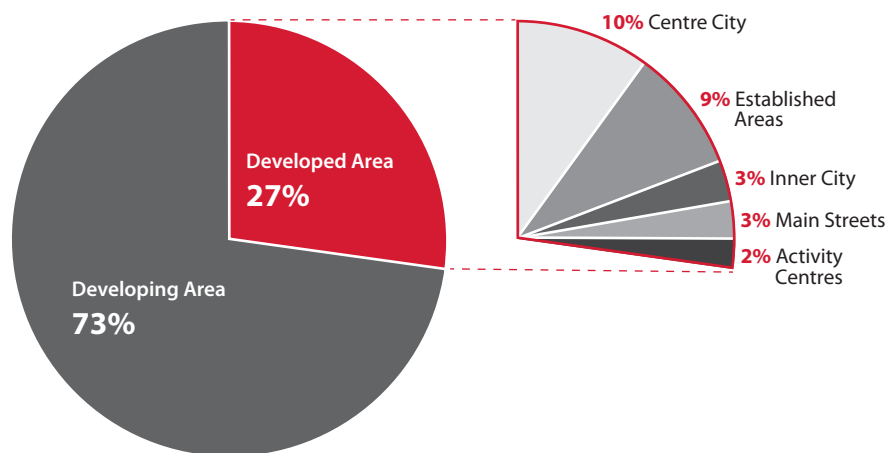
How are we doing?

Strong growth within the Developing Areas continues to significantly outpace growth in Developed Areas overall. However, within the Developed Areas, Activity Centres and Main Streets have performed well as growth areas. Progress towards Plan targets is expected to be modest in the short-term, as Activity Centres and Main Streets have only recently begun to redevelop.

The figure below, shows the percentage increase in dwelling unit growth by urban typology. The Centre City and Activity Centres are the strongest growth areas in the Developed Areas.

Between 2011 and 2017, about 24,000 people were added within Activity Centres and/or within 600 metres of Main Streets.

Percentage Change in Dwelling Unit Growth by Typology, 2006-2017



The City has made strides towards its goals. Growth in these strategic areas is expected to increase in the future. Between 2011 and 2017, about 24,000 people were added within Activity Centres and Main Streets accounting for about 15.6 per cent of net new population growth.

The barriers to growth in the Developed Areas include the strong market demand for single detached homes, a less tested established area market with fewer developers, and the perceived unaffordability of housing in many inner city and established communities compared to Developing Areas.

Core Indicator: Density



This indicator is measured by taking the total number of people and jobs, and dividing by the total built-up area for a given year, providing a per-hectare city-wide measure of intensification.

Our Plans recognize that the importance of increasing population and employment density on a city-wide scale helps the city’s evolution towards a more compact urban area of complete communities.

Benefits

Directing future urban growth in a way that fosters more compact and complete neighbourhoods has benefits for individual communities, and for Calgary as a whole. Areas with higher densities offer more housing and mobility options, and have a population that supports increased amenities and infrastructure. At a city-wide level, a more dense urban form reduces the cost of service provision (including roads, water, and waste management), and requires less revenue in the form of taxes to provide the quality of life that Calgarians enjoy.

How are we doing?

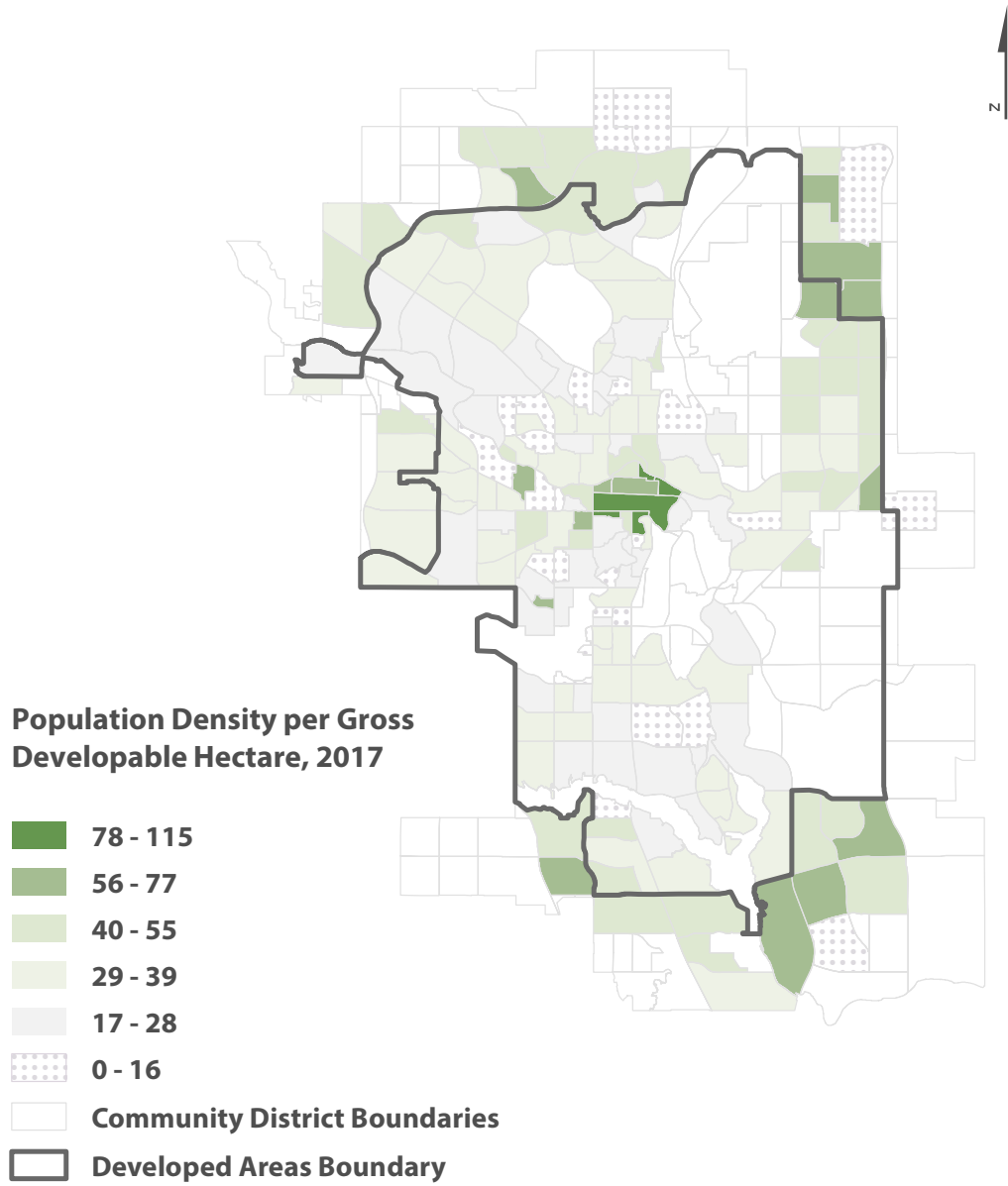
Density - Population

2006	2011	2017	Plan Target
22.3	23.2	24.7	27
people per hectare	people per hectare	people per hectare	people per hectare



The population density indicator continues to show positive performance. From 2006, the city’s density has increased to 23.2 people per hectare in 2011 and 24.7 in 2017 - an approximately 11 per cent increase.

Map 6: Population Density per Gross Developable Hectare, 2017



Density - Employment

The measure of jobs per hectare had increased over previous monitoring periods, but the impacts of recent recession and lowered economic growth have contributed to a recent decline.

- Compared to the 2006 baseline, the intensity of jobs per hectare had increased from 13.7 in 2006 to 13.8 in 2011, but declined slightly to 13.5 in 2017
- The Employee Intensive Industrial Areas gained over 10,500 jobs since 2006
- The Centre City has approximately the same number of jobs in 2016 as it did in 2006

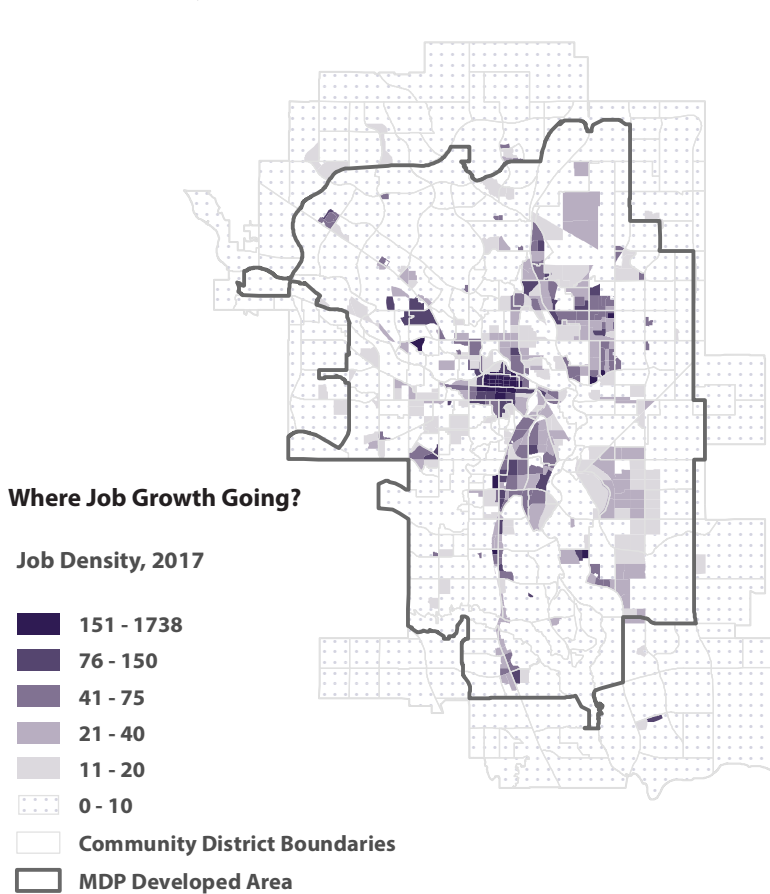
2006
13.7
jobs per
hectare

2011
13.8
jobs per
hectare

2017
13.5
jobs per
hectare

Plan Target
18
jobs per
hectare

Map 7: Job Density, 2017



How are we doing?

The population density indicator shows sustained positive performance. Higher suburban residential densities have contributed to a general density increase in population across the city, with our Plans' density and intensity targets ensuring that new communities make more efficient use of land. As an example measure, the average units per hectare in new communities has increased by approximately 75 per cent between 1995 and 2015 (13.5 average units per hectare to 23.7)

As Calgary continues to grow, it is anticipated that increased housing opportunities will be strategically located within focal areas for growth—primarily in Activity Centres and along Main Streets. Increasing residential development throughout the city will give Calgarians a more vibrant and resilient city.

Employment density has declined with the recent recession period, but had previously been on an upward trend. The Centre City was particularly affected, with job numbers in 2016 having fallen to their previously-recorded 2006 level.

Important cumulative employment density growth has been made in the Employee Intensive Industrial Areas, which have increased since 2006 by over 10,500 jobs.



Core Indicator: Land Use Mix
(Land Use Diversity Index)



This indicator measures the variety of Land Use Districts (zoning types) within the city’s urban area (excluding Centre City) and the share of land within each district.

The Index tracks designated Land Use Districts in the 1P2007 Land Use Bylaw, and not actual uses of land. The city-wide index is the average of all community indices.

The scale of the Land Use Diversity Index refers to the distribution of all possible Land Use Districts, with the maximum value of 1.0 representing a potential even distribution. The Plan target of 0.7 constitutes an increase towards that potential maximum. A more specific example of the Land Use Diversity Index is found in the Residential Land Use Mix Core Indicator (page 45-46).

Benefit

Communities that are diverse, or have a greater mix of uses, tend to have more destinations. Residents tend to be able to access more services, products and amenities that they need within the neighbourhood. By growing in a way that brings together places where you live, work, and play, daily trips become more convenient and you spend less time travelling. This improves the quality of your experience living in the city and fosters a sense of community.

Why we are focused on Complete Communities?

Complete communities provide a broad range of housing types and commercial, institutional, recreational and employment uses. This leads to more choices for residents to remain in their own neighbourhood as they go through various stages of life.

2010
0.53
city-wide index

2012
0.53
city-wide index

2017
0.56
city-wide index

Plan Target
0.7
city-wide index

Category	Land Use Diversity Index	Example Community
Low	0.22	Scarboro
Medium	0.5	West Hillhurst
High	0.76	Midnapore



Measuring Progress

This indicator will change very slowly over time. A movement of 0.01 indicates that 5 per cent of the city's land (or about 42 square kilometres) has changed land uses. A number closer to 1.0 indicates that there are more different types of land uses allowed, which leads to a better balance among those land uses and avoids the dominance of a particular land use type.

Land Use Diversity Index

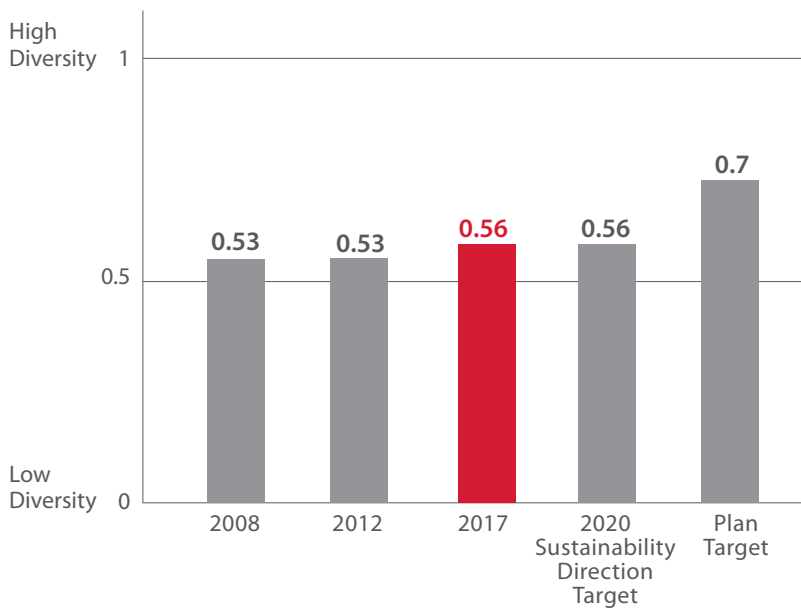
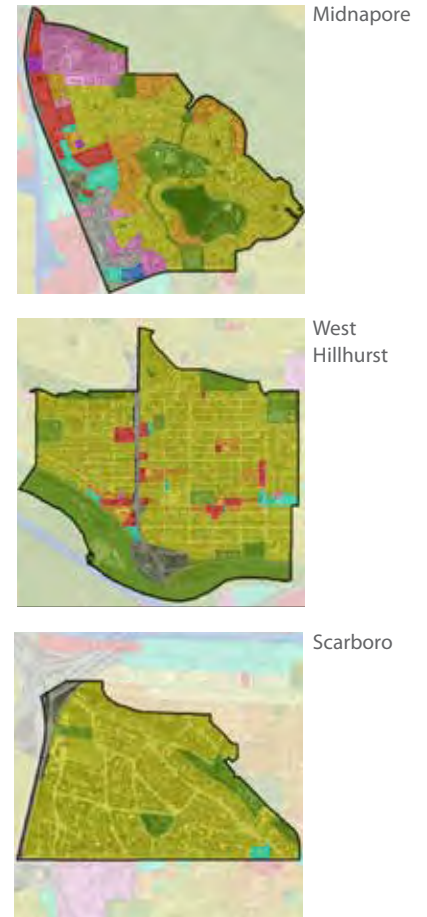


Figure 6: Land Use Diversity Index



Category	Land Use Diversity Index	Example Community
High	0.763	Midnapore
Medium	0.501	West Hillhurst
Low	0.217	Scarboro



See Figure 6: Land Use Diversity Index for sample select communities

How are we doing?

There has been improvement in Land Use Diversity since 2012, and in the past 5 years. The indicator has increased from 0.53 to 0.56.

To better understand the Land Use Diversity Index, the following are some examples of Calgary communities:

Communities such as Scarboro or Chinook Park have low Land Use Diversity Indices below 0.25. These communities are predominately low density residential with limited other land uses. West Hillhurst, Dalhousie, and Canyon Meadows are examples of communities with medium levels of land use diversity, around 0.5 on the index. They are predominately residential, with some supporting commercial uses. Midnapore, Mission or McKenzie Towne are examples of communities ranking amongst the highest on the Land Use Diversity Index, with scores above 0.7, which is equivalent to the Plans' 60-year target. These communities have a mix of residential land uses, as well as ample retail and office uses that provide amenities and employment opportunities.

The 2018 Land Use Diversity Index shows good performance meeting the 2020 Sustainability Direction target.

Generally, the biggest change in land use diversity is in actively developing communities where more complete, mixed communities are being built. In established communities, land uses do not change as often, and when they do, much smaller areas are changed. While there is improvement occurring in the Developed Areas, the changes are slower and more incremental.



What is The City doing to achieve a Compact Urban Area and Complete Communities?

The following City actions are advancing the objectives of our Plans:

- Established Areas Strategy (Industry-City workplan)
- Main Streets
- Green Line
- Centre City, Developed Areas and New Communities Guidebooks
- Infrastructure Calgary
- RouteAhead
- Calgary Cycling Strategy
- Off-site levies
- Online Applications and Review Improvements to minimize starting new business process

The **Main Streets** and **Green Line** programs support strategic investments, increased housing choice and local business development in locations that have higher access to transit, job opportunities, community amenities and services. These areas already have, or are being planned to have, pleasant streetscapes making walking and biking more appealing. Better connectivity to mixed use Activity Centres and Main Streets is also supported by the implementation of the **Calgary Cycling Strategy** and **RouteAhead** which have improved the accessibility to daily needs and services by bike and transit for many Calgarians.





Connected City

Plan Objectives:

- Link infrastructure investment to sustainable land uses
- Promote safety for all travellers
- Provide more transportation choices that are affordable and accessible
- Make walking, cycling and transit preferred choices for more people
- Support a prosperous economy by moving people and goods efficiently
- Support environmental sustainability
- Manage our infrastructure well

Mobility is a primary need of citizens in any city. Being able to get where you want to go safely, comfortably and affordably by a variety of transportation choices contributes to the vitality and prosperity of the community. Building a network that allows travel by every mode, for every need and by every citizen benefits all Calgarians. The indicators and measures for this goal track how the travel choices of Calgarians are changing over time, the amount and quality of transit service in Calgary and the safety of travel in the city. These measures demonstrate The City's commitment to providing Calgarians with more choices. They also support making our infrastructure work harder by improving efficiency, safety and quality.

How do we measure progress?

- Balancing the efficient movement of goods with the comfortable movement of people
- Transit service and the transit network
- Safety and comfort of transit service
- The safety of travellers
- Changing travel choices
- Effective goods movement

Goal:
Connecting
the City

Outcome:
Calgarians use public transit and active modes of transportation. The City provides a safe, reliable and functional transportation system.

Measuring Progress

Supporting more transportation choice

Our Plans recognize the importance of providing transportation choice to Calgarians while balancing the effective movement of goods in order to keep our economy moving. City policies and programs are focused on maintaining and increasing accessibility to the Primary Transit Network, investing in increased and a safer Transit Service, and working to make transit, biking and walking more attractive modes of transportation since they are more sustainable choices.

Core Indicator: Road and Street Infrastructure 

Road and street infrastructure is measured as a ratio between major skeletal roads and major arterial streets.

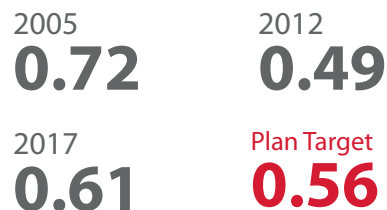
Skeletal roads prioritize fast travel over long distances, and supports industry with efficient goods movement. They are also physical barriers that separate neighbourhoods with few connections. Arterial streets are also major roadways but they have many more intersections and connections between communities. They support local businesses, transit walking and cycling. A city needs to have a balance of both for people to get to where they want to go.

Benefit

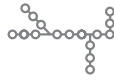
Calgary needs to have efficient transportation to be competitive, but needs to be well connected to sustain vibrant communities, provide safe travel and support local business.

How are we doing?

In 2005, Calgary had a road to street ratio of 0.72, meaning there was 39 per cent more skeletal roads than arterial streets. When the Calgary Transportation Plan was implemented, roadways across the city were reclassified to a new system. This reclassification shifted the ratio to 0.49, exceeding the Plan target. In 2017, this shifted significantly again to 0.61, after the construction of the Stoney Trail ring road.



Core Indicator: Accessibility to Primary Transit Network

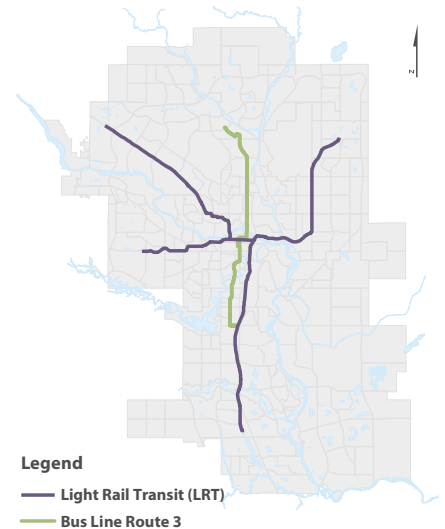


A key action in the Calgary Transportation Plan is implementing a Primary Transit Network (PTN), a network of key corridors that see transit service at least every ten minutes every day. This indicator is measured by looking at how many of the city's jobs and how many of its residents are within a 400-meter walking distance of a Primary Transit Network.

Benefit

2005 0% population	2012 12% population	2017 14% population	Plan Target 67% population
---------------------------------	----------------------------------	----------------------------------	--

2005 0% jobs	2012 37% jobs	2017 37% jobs	Plan Target 45% jobs
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The Primary Transit Network is a system of interconnected routes that are fast, convenient, and easy to use. Primary transit routes run every ten minutes, 18 hours a day, seven days a week.

Having access to this level of service is key to making travel affordable and easy throughout Calgary.

How are we doing?

In 2005, there were no areas in Calgary that had Primary Transit Network levels of transit service. By 2012, service levels on selected bus routes (Route 3) and both CTrain lines were increased and 37 per cent of jobs and 12 per cent of the population were in the Primary Transit Network area. The 2014 economic downturn has slowed the expansion of transit service but the percentage of jobs served by the Primary Transit Network has remained the same in 2017. The population served has increased to 14 per cent because of increased inner-city redevelopment.

Core Indicator: **Transit Service** 

The amount of transit service across the city is measured by looking at the number of hours of bus or train service provided per capita.

In a growing city, investment in more service each year is required just to maintain a baseline level. To increase this number, we must go beyond growth in our investment.

Benefit

Transit service needs to be frequent and reliable to attract a high level of ridership. People begin to rely on transit as a preferred mode when they are able to walk a short distance to service and can expect a bus or train to arrive with minimal wait time.

How are we doing?



Investments in service improved between 2005 and 2012, when the city was experiencing economic growth. During the recent economic downturn, fewer transit riders resulted in decreased service, particularly with respect to downtown travel. Calgary Transit strategically adjusted schedules, however some service was removed altogether. Considerable effort will be needed to reverse this decrease and move towards the Plans' target.

Calgary Transit continues to make year-over-year progress with several initiatives improving safety, such as hiring more peace officers and increasing their presence across the system. Safety is one of six key components of Calgary Transit's customer commitment. This commitment highlights the areas that customers care about most and guides the actions that The City invests in to improve transit service. Calgary Transit monitors all six areas of the customer commitment and shares the results with customers.

Tracking Measure: **Safety of Transit Service** 

The role of Calgary Transit is to provide safe, accessible and comfortable transit service to the people of Calgary. Customers expect a system that is clean, affordable and reliable. Calgary Transit tracks customer safety and satisfaction in regular surveys.

Benefit

When transit service is safe, reliable and comfortable, more citizens will use the service more often. This benefits the whole community by lowering congestion and infrastructure costs.

How are we doing?

Average Safety Ratings (out of 10)



Tracking Measure: Safety of the Transportation Network



Safe travel is an expectation for everyone, no matter how they get around. The safety of a transportation network is measured by tracking the number of injury collisions within Calgary. The annual number of casualty collisions per 100,000 residents is an internationally comparable measure that The City has tracked for a long period of time. The number represents the total for all travel modes, and for vulnerable users which includes people walking and biking.

The number of collisions with injuries in the city are continuously collected to help inform decisions on safety campaigns and infrastructure investments.

The frequency of injury collisions continues to fall which is partly influenced by improving infrastructure. We do this by investing in areas that see high numbers of collisions. The number is also influenced by changing travel behaviours, such as safer vehicles or more distracted driving. Though both measures are improving, Calgary is a growing city and the total number of collisions remains a concern. Council approved strategies, like **Step Forward**, aim to change these by beginning a **Vision Zero** campaign.



Injury and Death Collisions per 100,000 People

	2008	2012	2016
All Modes of Travel	289	248	200
Pedestrians & Cyclists	75	65	56

Core Indicator: Transportation Mode Split 

Mode split is measured as the proportion of travel made by a particular mode such as walking, transit or driving. We measure this by comprehensive travel surveys that track all of the trips an individual makes in any given day.




This includes trips to work, school, shopping, leisure or other, and not just rush-hour travel.

Benefit

Most people have access to a variety of travel modes, but will only choose one if it is safe, affordable and easy to use. The Calgary Transportation Plan aims to make transit, biking and walking more attractive so that Calgarians have more options. Tracking mode split helps to monitor if whether we are encouraging these travel modes.

The proportion of trips made by walking, biking and on transit has remained steady, dropping slightly from 23 per cent to 21 per cent between 2005 and 2012. Improvement has been made in the past four years, especially in biking and walking. These correlate closely with investments in these modes, such as implementing Complete Streets in 2013 and building the cycle track network in 2014.



	2005	2012	2017	Plan Target
 walk/bike	14%	12.5%	17.7%	20-25%
 transit	9%	8.5%	8.3%	15-20%
 vehicle	75%	79%	74%	55-65%

How are we doing?

The proportion of trips made by walking and cycling increased strongly in the 2012-2017 reporting period, reversing a previous negative trend, and making important progress towards the indicator target. Contributing factors to this increase include the implementation of Complete Streets in 2013, population growth in areas with high walkability such as the Beltline, and creation of the Cycle Track Network in 2014.

Trips made by transit saw a decrease in mode share in 2017, continuing a negative trend from 2005 to 2012. Reductions in service prompted by economic downturn have impacted the ability of transit to recover from these decreases.

Automobile travel has remained the primary transportation option for Calgarians, but the mode share has decreased by approximately 5 per cent during the latest reporting period. As the city's population has grown, transportation options are being accessed more evenly – a trend that will need to continue to achieve the indicator targets.



What is the City doing to achieve a Connected City?

The following City actions are advancing the objectives of our Plans:

- The Green Line Light Rail Transit will improve mobility choices for Calgarians, providing efficient service and direct connections to destinations throughout the city
- RouteAhead Transit Plan
- Step Forward Pedestrian Strategy
- Cycling Strategy
- Complete Streets
- Main Streets
- Bus Rapid Transit Network
- Crowchild Trail upgrades



Healthy, Vibrant and Inclusive Communities

Plan Objectives:

- Ensure choice of housing forms, tenures and affordability
- Respect and enhance neighbourhood character and vitality
- Protect heritage and promote public art
- Create quality parks, open spaces and community amenities
- Promote community education and engagement

Calgary is a collection of great communities. We have safe, affordable housing that supports healthy lifestyles and social interaction. Our communities provide opportunities to participate in creative and physical activities and to be engaged in civic life.

We measure this goal by looking at the diversity of housing options that are available to Calgarians, and the affordability of those options. We also track the access that people have to parks, green spaces, healthy food and other amenities in their neighbourhoods. These measures are helping to track that all Calgarians, both current and future, can enjoy the benefits of living in a complete community and monitor Calgary's reputation as a healthy, innovative, and inspiring urban centre.

Goal:
Create Great Communities

Outcome:
Calgary's communities provide a range of housing options, local businesses, shops, open space and amenities that promote active and healthy living.

How do we measure progress?

- Residential Land Use Mix
- Number of Net Housing Units by Type
- Population Distribution by Dwelling Structure Type
- Number of Net Housing Units by Tenure
- Access to Healthy Food
- Access to Community-based Food System Assets
- Historic Resource Conservation
- Access to Parks and Green Space
- Number of Calgarians Getting Sufficient Physical Activity per week
- Resident Perceptions of Opportunity to Have Meaningful Input into City Decision-making

Measuring Progress

Housing Choice

A city needs a wide range of housing options in order to meet the needs of a diverse society at different stages of their lives. We measure housing choice by looking at housing availability, affordability and accessibility. To meet the needs of a socio-economically diverse population, our Plans support a range of housing choice with a variety of types and prices throughout the city.



Core Indicator: Residential Land Use Mix 

Residential Land Use Mix measures the diversity of housing forms and types within a community. This indicator describes the housing mix expressed in terms of the number of residential land use districts.

Benefit

Communities with a more diverse range of housing are often less affected by community demographic lifecycles and provide local level economic resilience. A socio-economically and age diverse mix of residents supports local retail and commercial services and uses community amenities like parks and transit most efficiently. A range of housing choice and opportunity can foster the building of complete communities.



How are we doing?

2006	2011	2017	Plan Target
0.19	0.20	0.22	0.4

Measuring Progress

Our Plans establish a residential housing diversity target of 0.4. A number closer to 1.0 indicates a more diverse range of residential land use types permitted. A number close to zero means that only one land use type dominates. Communities with high residential diversity will have more housing options available.

Measure: The closer the index is to 1.0 the more diverse.

How are we doing?

This indicator will change slowly city-wide. In 2017, the Residential Diversity Index was 0.22, an approximately 10 per cent increase in housing diversity. Development in new communities where a greater range of residential uses are now required has helped to move this indicator. In established areas, residential uses do not change as much or in terms of the volume of land area re-designated as in Developing Areas, but this will become increasingly important as Main Streets and Activity Centres continue to redevelop.

Are we achieving the Goal intent?

Here are examples of the residential land use mix indicator for selected communities in 2017.

Category	Residential Land Use Diversity Index	Example Community
High	0.53	Redstone/Skyview Ranch
Medium	0.33	Acadia
Low	0.12	Lake Bonavista

See Figure 7: Residential index for sample select communities

Figure 7: Residential Land Use Diversity Index



Redstone / Skyview Ranch



Acadia



Lake Bonavista

Legend – Residential Land Use

- Residential – High Density
- Residential – Medium Density
- Residential – Low Density

Tracking Measure: Number of Net Housing Units by Type



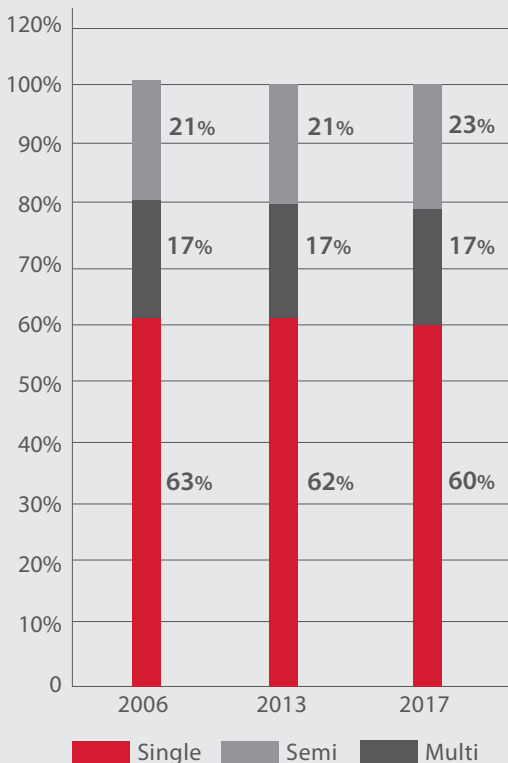
This measure indicates how we're performing at providing a range of housing unit types to meet the needs of residents at the various stages of their lives.

How are we doing?

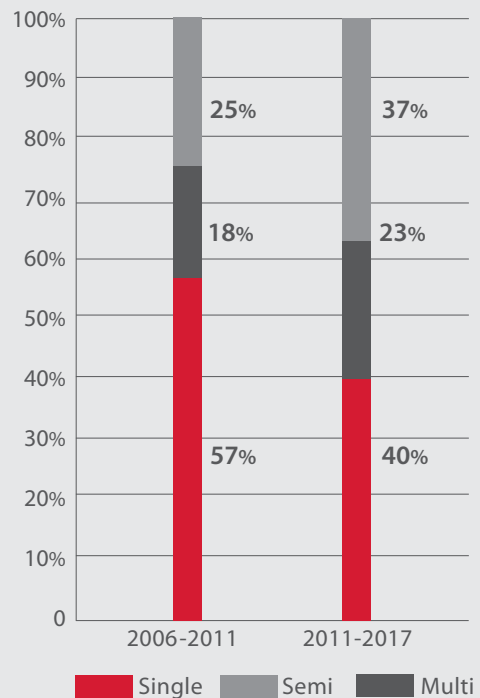
Recently, the amount of semi-detached (ground-oriented housing) and multi-unit dwellings has increased. Market forces, affordability, lifestyle choices, demographics and policy have all contributed to this change.

	Single	Semi	Multi	Other
2006	255,341	68,019	84,591	590
2008	267,759	71,890	92,726	622
2011	279,428	75,641	95,181	702
2012	283,314	77,706	97,489	830
2017	301,659	88,296	115,699	738

Citywide Share of Dwelling Units by Form



Per cent of Dwelling Units Added by Type, Citywide



Tracking Measure: Population Distribution by Dwelling Structure Type

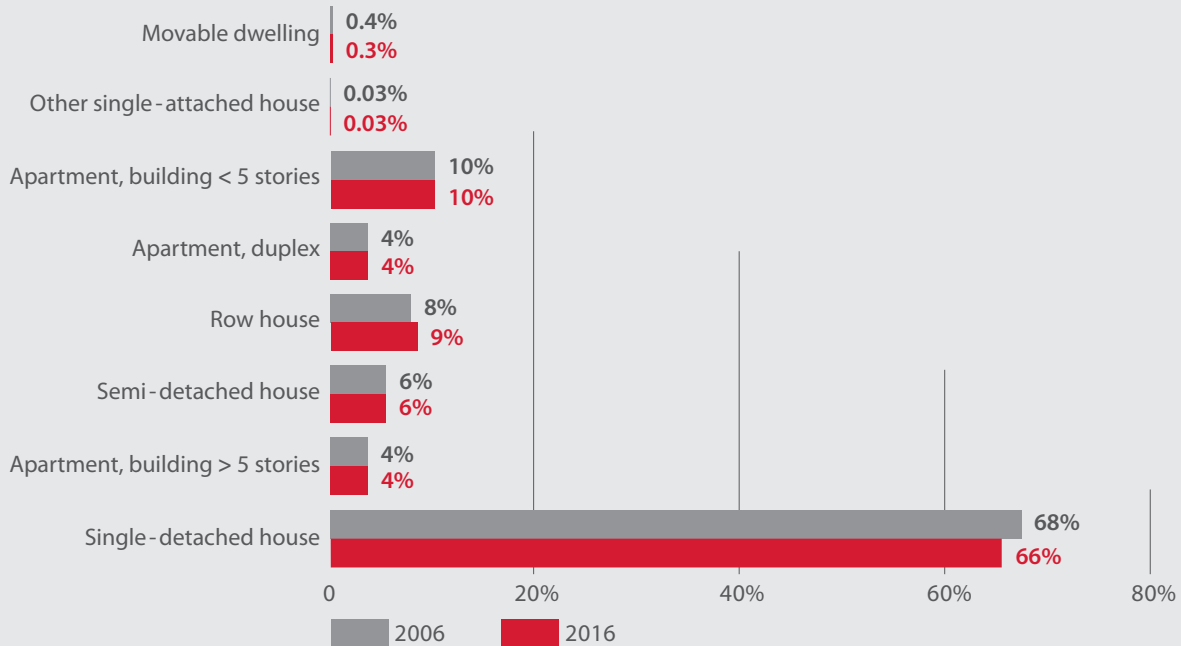


This measure shows the type of homes Calgarians live in, ensuring that we work towards providing a balanced variety of housing types for a diverse population.

How are we doing?

In 2016, 66 per cent of Calgarians lived in single-detached homes. Another 19 per cent lived in various types of apartments, while 9 per cent lived in row housing and 6 per cent in semi-detached housing.

Population Distribution by Dwelling Structure Type, Calgary CSD 2006-2016



See Appendix 2 for Total Population by Dwelling Structure Type.

Tracking Measure: Number of Net Housing Units by Tenure

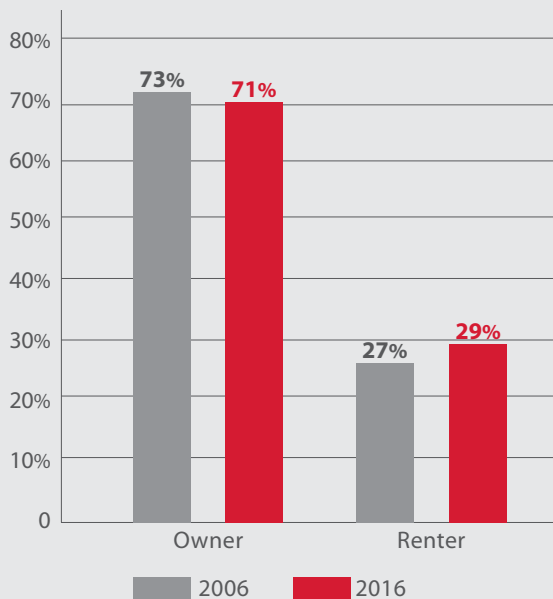


This measure tracks how many Calgarians rent or own homes. A mix of rental and owner-occupied housing is one indication that there are affordable and appropriate housing options for all residents.

How are we doing?

The rate of homeownership fell slightly over the past decade, from 73 per cent in 2006 to 71 per cent in 2016.

Housing tenure in Calgary



What is the City focusing on?

The City encourages diversity of housing through a mix of policy, land use districts, guidelines and initiatives.

These are City actions towards advancing the objectives of our Plans:

- Developed Areas Guidebook and density minimums in policy plans and the Municipal Development Plan
- Creation of new ground oriented districts (R-G, R-CG, R-GM) to support duplex, semi-detached suites, townhouse and rowhouse housing
- Secondary suite guidelines and infill and multi-family Guidelines
- Main Streets

Tracking Measure: Access to Healthy Food

This measures the number of Calgarians living within 600 and 1000 metres of a large-format grocery store (top 10 national chains).

Year	Total Population	Population within 1000m of large grocery store	Per cent within 1000m	Population within 600m of large grocery store	Per cent within 600m
2017	1,246,337	515,849	41%	216,820	17%

How are we doing?

Easy access to fresh and affordable food may assist in creating complete and healthy communities and as well as enhancing community sustainability. While an estimated two-fifths of residents live within a 10 minute walk of a larger grocery store (1 km roughly equates to a 7 minute fast walk, 10 minute moderate walk and 12.5 minute easy walk), this distance does not take into account a pedestrian's ability to walk that distance or grade or climatic conditions that might affect a pedestrian's mobility or walking. We will be further developing this tracking measure to better indicate the extent to which communities are designed to facilitate access to healthy foods.

Tracking Measure: Access to Community-based Food System Assets**Benefit**

This measures select community-based food system assets. These assets can provide Calgarians with access to local, healthy and secure supplies of food, while ensuring the food system is environmentally sustainable and supports economic development. They provide opportunities to increase urban and regional food production, create jobs and help build strong local businesses and attractive opportunities for small business entrepreneurs and larger agribusiness investment in our city.

How are we doing?


Citizen interest in community gardens, farmers' markets, urban farms, bee keeping and community food projects continues to increase. Significant progress has been made in furthering City-led actions in the food system since the 2014 Progress Report.

What is the City focusing on?

The City’s Sustainability Strategies is focused on increasing physical accessibility to food retail using the Primary Transit Network (PTN) and exploring issues, opportunities and actions at the community level to address household food insecurity.

These are City actions advancing the objectives of our Plans:

- Transit Fresh Food Market ‘Pop-up Market’ program
- Neighbourhood Food Plan.

Tracking Measure: **Historic Resource Conservation** 

This measure compares the total number of sites that have been researched and adopted to the Inventory of Evaluated Historic Resources (excluding any demolished) to the number of sites that have been formally protected through bylaw or legal agreement.

Benefit

The protection of the City’s heritage resources is a vital part of conserving shared cultural identity and connecting Calgarians to our past and future. The presence of heritage resources improves a community’s liveability; resources are sources of community pride and enduring landmarks. Local investment and tourism are drawn to areas with heritage sites, which contributes to the vibrancy of communities.

How are we doing?

Access to Community-based Food System Assets

Community gardens

2012	2017
111	149



Community orchards

2012	2017
4	8



Urban farms

2012	2017
0	2



Farmers' markets

2012	2017
9	12

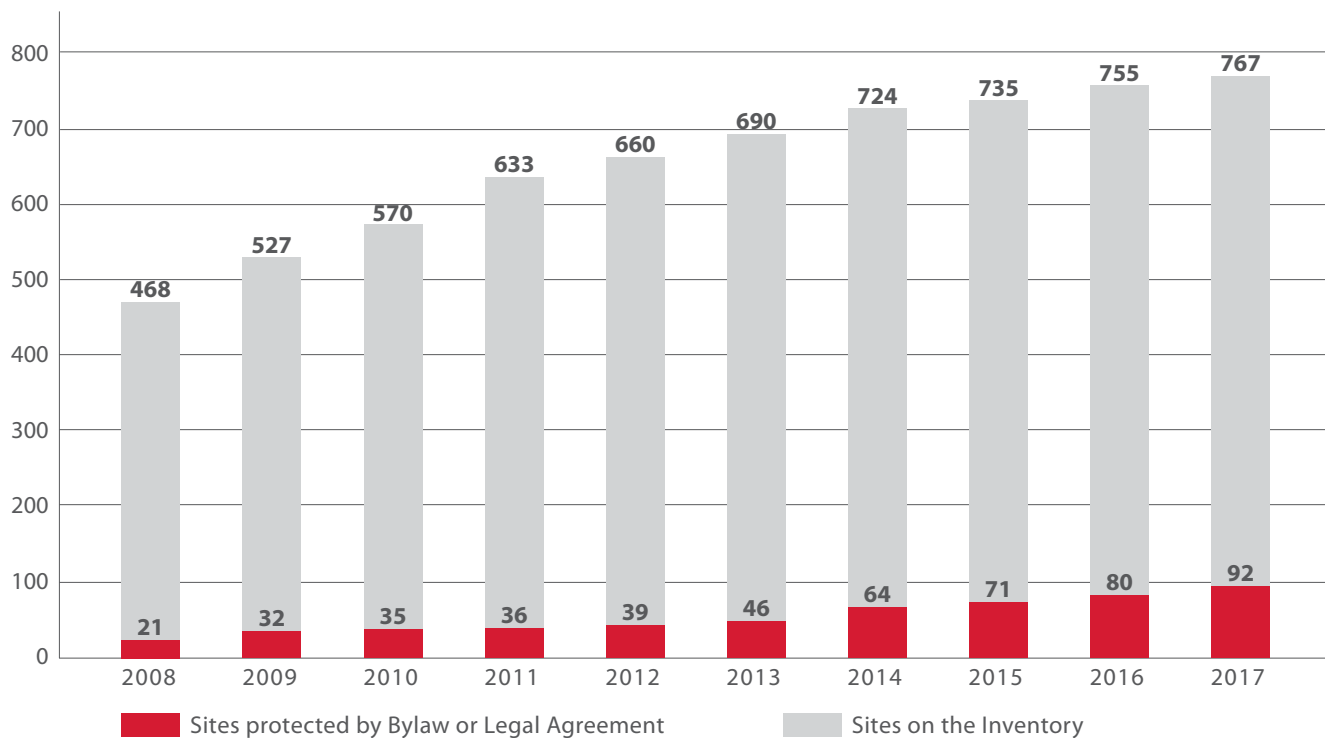


The number of heritage resources that have been identified and protected has increased significantly from 2008 to 2017. This corresponds to the implementation of the Calgary Heritage Strategy (2008), new policies in the Municipal Development Plan and local area plans, and critically, financial incentives for property owners including the Historic Resource Conservation Grant and density transfer programs. Highlights include:

- The Inventory grew by 299 sites – an increase of 64 per cent
- 70 additional sites were protected locally through Bylaw or Legal Agreement – a 314 per cent increase
- Currently, 12 per cent of Inventory sites are protected through Bylaw or Legal Agreement

Although important progress has been made, closing the gap between identified and protected heritage sites will require additional incentive for property owners. Densification in the Developed Areas exerts redevelopment pressure on heritage resources, and new and increased incentives are needed to make protecting and retaining these sites economically viable for property owners.

Sites Protected by Bylaw and Sites on Inventory



What is the City focusing on?

Heritage Planning continues to implement the Calgary Heritage Strategy objectives of identification, protection and management of historic resources through:

- Support for the Calgary Heritage Authority in identification of additional resources
- Working with owners of historic resources to legally protect sites
- Managing change in existing resources, and administering incentives for protection
- Creating policy and developing additional conservation incentives



Tracking Measure: Access to Parks and Green Space



This indicator measures the percentage of households that live within walking distance of a park or green space.

The number of Calgarians who live within walking distance of a park is 99.6 per cent. Calgarians are well served by physical park spaces, as nearly all Calgarians live within a 5-minute walk to a local or regional park or natural area.

What is the City focusing on?

Green spaces are an essential part of our City's landscape and Calgary Parks is committed to providing Calgarians with healthy, vibrant and sustainable green spaces.

Within new communities Calgary Parks ensures that Planning for new community development (Outline Plans and Subdivision processes) allocate land to meet the goals for equitable distribution of parks and open space. In Developed Areas land acquisition is challenging so Calgary Parks' focus is on providing high quality open spaces.

How can we do better?

Future measures will consider factors that may impact natural areas and ecological health. The City may consider additional measures based on the future availability of data.



Percentage of Calgarians living within 400m of a park or green space.



Tracking Measure: Number of Calgarians Getting Sufficient Physical Activity Per Week



This measures the percentage of Calgarians who participate in outdoor activities close to their home.

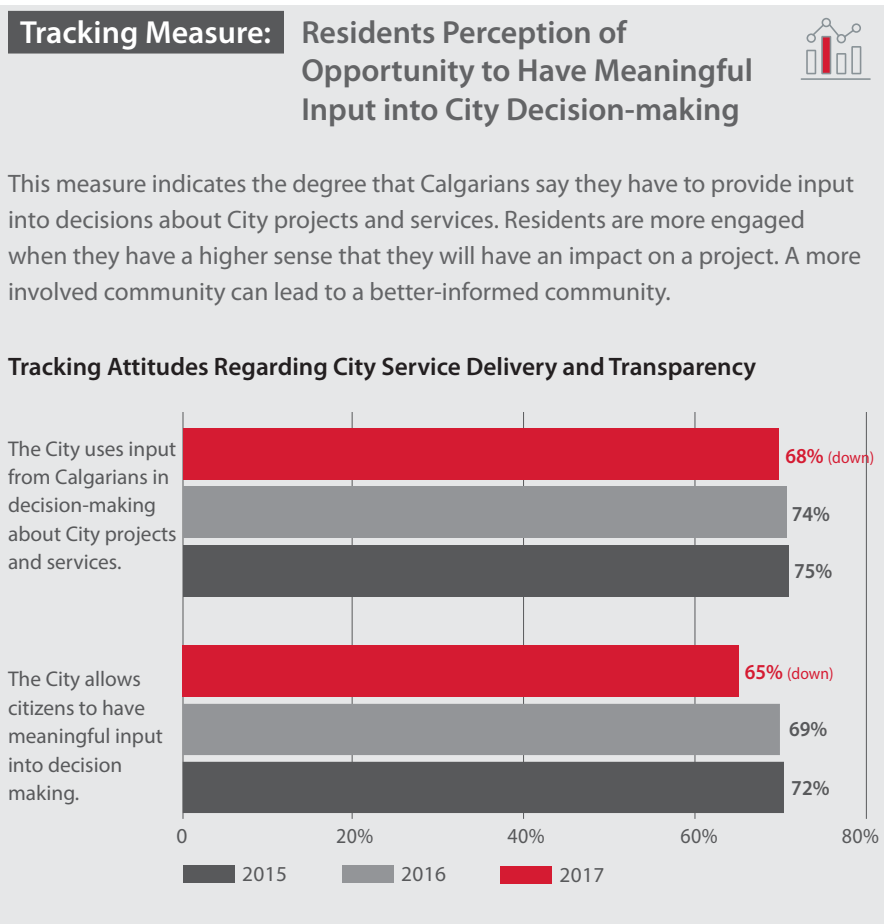
Benefit

Participating in outdoor activities that are a short walk or drive from home can play an important role in strengthening a sense of community identity and nurturing emotional and physical well-being.

How are we doing?

For 2015-2016, 61 per cent of adults reported getting at least 150 minutes of moderate to vigorous physical activity per week. 39 per cent of adults were not getting enough physical activity.

Only 56 per cent of youth aged 12 to 17 reported getting an average of at least 60 minutes of moderate to vigorous physical activity per day over the same period.



What is The City doing to achieve Healthy, Vibrant, and Inclusive Communities?

The following City actions are advancing the objectives of our Plans:

- Centre City, Developed Areas, and New Communities Guidebooks
- Creation of new Land Use Districts to support more flexible housing options
- Main Streets
- Neighbourhood Food Plan and Transit Fresh Food Market 'Pop-up Market' Program
- Engage Policy, Engage Framework, and online Engage Portal
- Advancement of the Calgary Heritage Strategy



Attractive and Memorable City

Plan Objectives:

- Make Calgary a beautiful, memorable city committed to urban design excellence
- Develop well-designed buildings, open spaces and streetscapes that contribute to attractive, successful places
- Enhance public realm and promote walkable environments

Great buildings, streets and public places are essential to achieving active, accessible and vibrant neighbourhood areas.

Our Plans are intended to create an urban form that reinforces a community's distinctive place in the city and strengthens its physical fabric and character.

Urban design involves shaping city spaces to create safe, comfortable and interesting places to live, work, and enjoy. Successful urban design relies on understanding the relationships between streets, buildings, and the spaces between them while responding to use, context and climate.

Future measures

Quality urban design can be challenging to measure quantitatively in progress reporting. The following pages contain examples of great design, led by both the City, and the development industry.

Based on further review and analysis of Plan objectives and the availability of data, additional measures for future progress reporting related to urban design excellence and attractive buildings, places and streets will be developed.

The Urban Design Quality Criteria tool will evaluate the design of development applications. Measures may include place-making and variety of landscape and architectural elements, the inclusion of sustainability features, fine grain design detailing and visual and functional connections within the site and to nearby destinations.

Goal:

Attractive and memorable city

Outcome:

Calgary is an attractive, walkable and memorable city with well-designed and high-quality urban spaces, buildings and streets.

Benefit

Together, great buildings, streets and public places promote walking, an active and vibrant street life and resilience in communities. These elements make our city and its neighbourhoods attractive memorable places to live, work or visit.

A result of the **Urban Design Review Framework** is a significant increase in the number of development projects reviewed by for their compliance with design policy and guidelines and for their contribution to quality public realm.

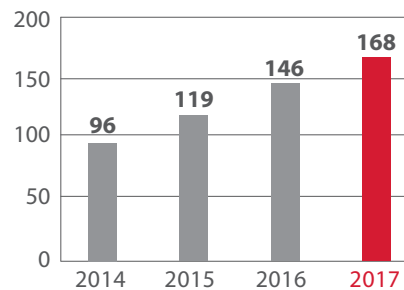
What is the City doing?

These department actions are advancing the objectives of our Plans:

- Urban Design Monitoring Program
- The Quality Development Project, includes:
 - Urban Design Quality Criteria tool and
 - Quality Development Perception Survey
- Laneway Housing Design Guidelines (underway)
- City-wide Urban Design Guidelines (underway)
- Developed Area Guidebook, Green Line Design Guidelines, and Area Structure Plans (new and updated urban design policies)
- Public Art Policy
- Calgary Heritage Strategy
- Complete Streets Policy



Development Projects Reviewed for their Contribution to Public Realm



Tracking Measure: Walkscore™ (2016)

Walkscore™ is a measure of walkability on a score of 0-100.

Calgary 48	Vancouver 78	Toronto 71	Winnipeg 53
Ottawa 54	Edmonton 51	Regina 50	No target set to date

Future measures

Based on the further review and analysis of Plan objectives and the future availability of data, we are developing additional measures related to supporting urban design excellence, attractive buildings, places and streets.



Prosperous Economy

As the population continues to grow, The City is committed to growing a creative and diversified workforce and providing a good quality of life for its citizens – key drivers of a prosperous local economy.

Our Plans support a globally competitive city that is a focus for opportunities and high standards of living and has the financial capacity to support existing and future generations.

The indicators and measures for this goal are intended to provide a snapshot of our city's past, current and future economic trends. Diverse, balanced and increased economic activity throughout the city fosters complete communities and other key objectives.

Plan objectives:

- Create a city that attracts and retains people
- Create a city that attracts and retains business
- Ensure a sustainable economy and municipal finances

Goal:
Prosperous economy

Outcome:
Calgary is home to an innovative and diverse economy that attracts people and business, fosters economic development and supports a strong workforce and prosperity.

How do we measure progress?

- Balancing population and job opportunities in all areas
- Population and net migration growth
- Job growth

Indicator	Current Data	Previous Data
Population	1,246,337 (2017)	1,235,171 (2016) 1,090,936 (2011)
Median total Household Income (2015 constant dollars)	\$97,334 (2015)	\$93,410 (2011)
City Gross Domestic Product (GDP)	\$125,000,000,000 (2016)	\$113,000,000,000 (2011)
Unemployment Rate (seasonally adjusted)	7.5% (December 2017)	10.2% (December 2016) 5.6% (December 2011)
Total Assessed Building Value	\$303,000,000,000 (2017)	\$233,000,000,000 (2011)

Calgary continues to experience growth and economic prosperity. Since the 2013 Monitoring Report it has experienced a growth rate of 7.8 per cent. Despite an economic slow-down in recent years, employment is also growing, with over 20,000 jobs added in 2017 and unemployment levels dropping 2.6 per cent from 2016 levels.

For a more detailed and historical overview of these economic measures and other key economic indicators, see Appendix 1.

Core Indicator: Population and Jobs Balance



Population and job ratio measures the balance between population and jobs within each quadrant of the city. A higher ratio indicates fewer jobs are available relative to the population in the quadrant.

Benefit

How jobs are distributed throughout the city and where people live directly influences the choice of travel mode. The strategy of balancing housing and job growth can reduce the need for long commutes and keep residential and employment communities easily accessible to each other.

Measuring Progress

The aim is to have commercial, office development and population growth well balanced within quadrants and encourage focused activity in Activity Centres, Main Streets and transit accessible locations.

Population and job growth in Calgary in absolute numbers follows a cyclical pattern. Each monitoring phase will only capture a snapshot of these cycles. It is therefore important to put the performance of these indicators by quadrant in perspective to Calgary’s city-wide development.

In addition, looking at quadrants of the city allows us to see which areas have the best opportunities for people to live close to their place of work, reducing the length of their commute and encouraging choice of travel modes other than private vehicle.

The 60-year target considers that Calgary will have a significantly higher population and number of jobs than today and assumes the full and integrated implementation of the Plans’ policies. Keeping this in mind, the target is not simply a straight projection from today’s environment. Note that the Centre City does contribute to the ratios for the southwest and southeast quadrants.

Northwest
quadrant population and jobs ratio

2006 Baseline	3.0	2016 Value	3.2
2011 Value	3.3	Plan Target	3.0

Northeast
quadrant population and jobs ratio

2006 Baseline	1.7	2016 Value	1.7
2011 Value	1.6	Plan Target	1.4

Southwest
quadrant population and jobs ratio

2006 Baseline	1.3	2016 Value	1.4
2011 Value	1.4	Plan Target	1.5

Southeast
quadrant population and jobs ratio

2006 Baseline	1.2	2016 Value	1.5
2011 Value	1.2	Plan Target	1.5

How are we doing?

All quadrants are at or near the 60-year target. This trend reveals the population to job balance ratio is moving in the right direction in all quadrants except the northeast. Stronger population growth in northeast has increased the ratio of population to jobs. Increased industrial development in the northeast sector in the future should help bring the ratio in better alignment with the target.

An increasingly unbalanced population to jobs ratio combined with mobility issues, such as restricted roadway capacity, can lead to an increase in congestion of roads and transit. A decreasing number of jobs in the northwest has resulted in a higher number of people commuting from the northwest to other quadrants for work.

The key factor to achieving the target in the northwest is through the development of Activity Centres and Main Streets. That being said, this quadrant is expected to continue to have a much higher residential population than number of jobs, which increases commute lengths.

Maintaining a sustainable balance of population and jobs in the southwest will largely depend on the development of complete communities that provide both housing and employment choices for people in this quadrant.

What is the City doing?

Strong economies go hand in hand with community well-being. Our Plans aim to support a business environment where employers are encouraged to stay or move to Calgary because of our high quality-life, the available labour pool, and amenities and services provided in our communities.

The City of Calgary is focusing on:

- Making Calgary a vibrant and attractive city and providing diverse housing choices in all communities to serve current residents and attract new ones
- Strengthening our existing business and commercial districts
- Using our resources wisely, making the most efficient use of public investment, now and in the future



These Corporate initiatives and department actions are advancing the objectives of the Plans:

- Resilient Calgary
- Calgary Economic Development Funding
- Economic Strategy for Calgary
- Infrastructure Calgary
- Industrial Land Strategy
- Industry-City workplan
- RouteAhead
- Fair Entry
- Calgary Eats (Action plan and new businesses)
- Development Permits Process Improvements Program
- Goods Movement Strategy (2018)
- Urban Strategy Revitalization
- Community Economic Development/Building Economic Resilience
- Seniors' Age Friendly Business



Core Indicator: Goods Access



Goods Access measures the percentage of intermodal and warehousing facilities in close proximity (1600m) to the Primary Goods Movement network.

Benefit

Locating intermodal and warehousing facilities close to the Primary Goods Movement Network contributes to transportation efficiency and supports the city and regional economy. Smaller distances between these facilities and the network decreases trip length and reduces greenhouse gas emissions.

How are we doing?

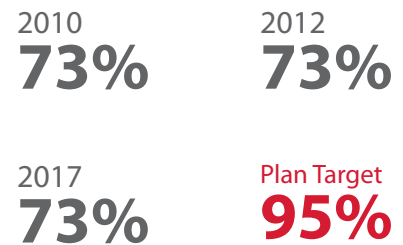
Currently 73 per cent of Calgary’s intermodal and warehousing facilities are within 1600m of the primary goods movement network. This indicator has remained consistent throughout the reporting periods in 2008.

New distribution facilities captured in monitoring have had similar accessibility to the Primary Goods Movement as those existing before 2008.

Strategic locations should be considered for future intermodal and warehousing facilities to achieve our Plan goal.



Per cent of facilities within 1600m of Primary Goods Movement Network.





Green City

Plan Objectives:

- Create green infrastructure
- Protect, conserve, and enhance land, water and ecological networks
- Reduce waste
- Reduce demand for fossil fuel use and greenhouse gas emissions

All Calgarians benefit from parks, trees, stormwater management, and healthy waterways. The indicators and measures for this Goal relate to conserving and protecting Calgary's natural environment by maintaining or enhancing natural areas and connections, tree coverage, parks, open spaces, and water resources. Measures also demonstrate The City's commitment to leading and inspiring actions to reduce Calgary's impact on the environment and to develop resiliency through building and site sustainability, renewable energy and waste management initiatives.

How do we measure progress?

- Urban Forest Coverage
- Hectares of Parks and Natural Areas Secured
- Access to Parks and Green Space
- Watershed Health
- Water Quality
- Major Land Uses in Calgary's Riparian Areas
- Waste Reduction
- District Energy
- Citywide Greenhouse Gas Emissions

Measuring Progress

Conservation and recreation land and habitat base

Our Plans recognize the importance of conserving and protecting the natural environment. City policies and programs are focused on maintaining biodiversity and landscape diversity, integrating and connecting ecological networks throughout the city.

Goal:

Greening the city

Outcome:

Calgary is an environmentally sustainable and resilient city.

Core Indicator: Urban Forest 

The urban forest canopy is the percentage of the area covered by tree canopy in Calgary’s developed urban area. It is an indicator of the health of forests throughout the city.

Benefit

Trees provide many ecological services, including cleaning the air, reducing erosion and creating wildlife habitats. Trees also contribute to the quality of life, providing privacy to residents and adding a sense of serenity and character to the neighbourhoods.



How are we doing?

In 1998, a baseline of 7 per cent was established for tree canopy cover. Our Plans set a target of 14 to 20 per cent tree canopy coverage.

Severe weather events, including the 2013 flood and the September snow event in 2014, caused significant loss to Calgary’s urban forest, however, the tree canopy is beginning to recover. Regrowth and steady increases of tree canopy citywide are a result of our Parks Department’s strategies and actions, most notably the **ReTree** and **NeighbourWoods** programs.

Tracking Measure: Hectares of Parks and Natural Areas Secured



This measure tracks total land secured for parks and natural open space and the hectares of parks and natural areas per 1,000 residents.

Benefit

Green, natural spaces improve our mental and physical health and contribute to stronger communities as well as the aesthetic and economic value of our city.

How are we doing?

Calgary's park system covers over 8,000 hectares of green, natural and open spaces and 1,000 kilometres of pathways and trails. The overall provision of open space in Calgary demonstrates our success in achieving the Goal. While significant, there is some disparity between different areas of the city with regards to open space provision.

Challenges exist for cities with strong population growth in maintaining open spaces due to the ongoing pressures for new development. The provision of 10 per cent municipal reserves in subdivisions allows the City to ensure that open space continues to keep up with development in the city's outer, developing areas.

Additionally, densification within the inner city and established areas is placing strain on the existing number of parks in some communities - development of new park land in these areas is often challenging. New measures introduced in this section will track the land secured for parks and natural areas to ensure a balance of citywide open space and ecosystem health.

Watershed and riparian health and management

The City of Calgary addresses watershed health by incorporating watershed planning into land use planning, investing significantly into stormwater treatment infrastructure, implementing erosion and sediment control practices and through the protection of riparian and streambank areas. Additionally, programs are focused on ongoing monitoring of river water quality and regional work to protect watershed health within and beyond Calgary's boundaries.



2012
7,768
hectares

7.1 hectares / 1,000 people (total)
3.3 hectares / 1,000 people
maintained park spaces

2016
8,310
hectares

6.7 hectares / 1,000 people (total)
3.2 hectares / 1,000 people
maintained park spaces

Core Indicator: Watershed Health 

Our Plans currently measure watershed health by the amount of impervious surface area, such as land area covered by buildings, roadways, parking lots, within the urban area. We measure watershed health by the overall coverage area of the city’s built area, with a 60-year target to achieve an impervious cover between 10-20 per cent in Calgary.

As imperviousness increases there is degradation in river and creek channel stability, water quality, and aquatic biodiversity.

Benefit

Protecting the watershed by decreasing impervious surface is necessary to sustain and enhance river and creek channel stability, water quality, and aquatic biodiversity.

How are we doing?

1998
33%
Impervious surface cover

2010
42%
Impervious surface cover

2014
43%
Impervious surface cover

2016
44%
Impervious surface cover

Plan Target
10-20%



Calgary's impervious surface cover has been increasing since 1998. Compared to baseline data, imperviousness has increased by 12 per cent. As urban development continues, this reflects how much area is left as green space within the city as it is developed.

As land is developed, impervious surfaces can have a significant impact on the quantity and quality of rainfall run-off that flows to the river. The amount of imperviousness rises in the city as more area is developed with buildings, roads, and parking lots. There is direct correlation between the increase in impervious surfaces and an increase in stormwater runoff to the rivers which affects water quality and quantity.

The City has made significant investment in stormwater treatment infrastructure, improved erosion and sediment control practices, increased riparian and wetland protection and encouraged green development practices. These actions reduce the impact of development on watershed health.



Limitations and Review of Watershed Health Indicator

The original baseline value for Watershed Health was defined from the Calgary Urban Forest Study (1998) done by United States Department of Agriculture. The study used a sampling technique that has limited accuracy in determining the impervious ratio, and The City's methodology has been refined over the years.

The measurement includes impervious surfaces as a percentage of the built and natural areas footprint of the city; it does not include the undeveloped land on the perimeter within the city limits. The footprint size changes every year, and this calculation estimates how much impervious area is within Calgary as urban development continues, and reflects how much area is left as green space as the city is developed. The more land that is developed within a watershed, the more natural processes are altered, and the health of the watershed decreases. With the increase of green stormwater infrastructure, new stormwater management techniques, and other green development practices, the impact of development on watershed health can be reduced. This is not captured when reporting only on impervious cover.

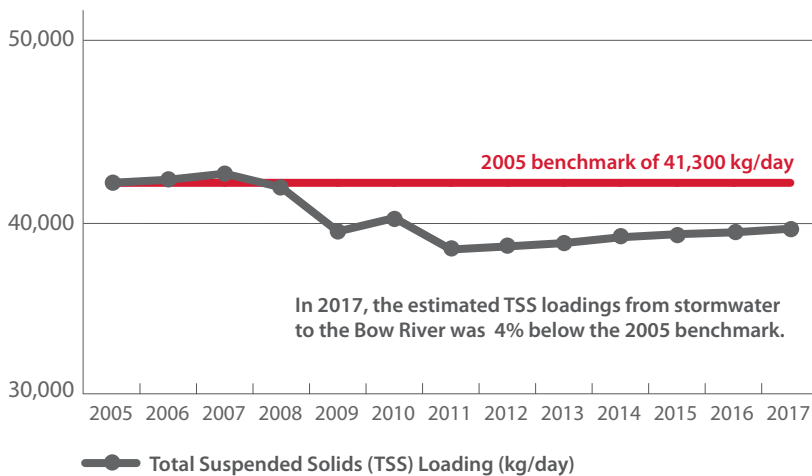
New and future measures

Two new measures, water quality and major land uses within riparian areas, have been added to the Progress Report. The City is reviewing and expanding the measures used to evaluate watershed health in an urban context.

Tracking Measure: Water Quality

This measure tracks the total loadings to the Bow River, an indicator of storm water quality impacted by development.

Total Suspended Solids, Loading kg per day



How are we doing?

Over the past 10 years, The City has made significant strides towards improving water quality. Total suspended solids (TSS) include organic and inorganic materials that are suspended in stormwater and treated wastewater. These materials enter our waterways and can impact water quality and aquatic habitat. The City has remained under its benchmark for TSS loadings into the river.

Various technologies and practices have helped manage TSS loadings, including stormwater retention ponds, wetlands, and green stormwater infrastructure. As Calgary continues to urbanize and the climate changes, there is a need to revisit our Stormwater Management Strategy. In 2017, a framework to revamp the 2005 Strategy was completed.

Stormwater management presents several unique challenges as it typically has no discrete point of origin and is tied closely to land use planning and development. Urban runoff from stormwater contributes pollutants to the Bow River. This will continue to be a challenge as Calgary and the region grow.

Tracking Measure: Major Land Uses in Calgary's Riparian Areas

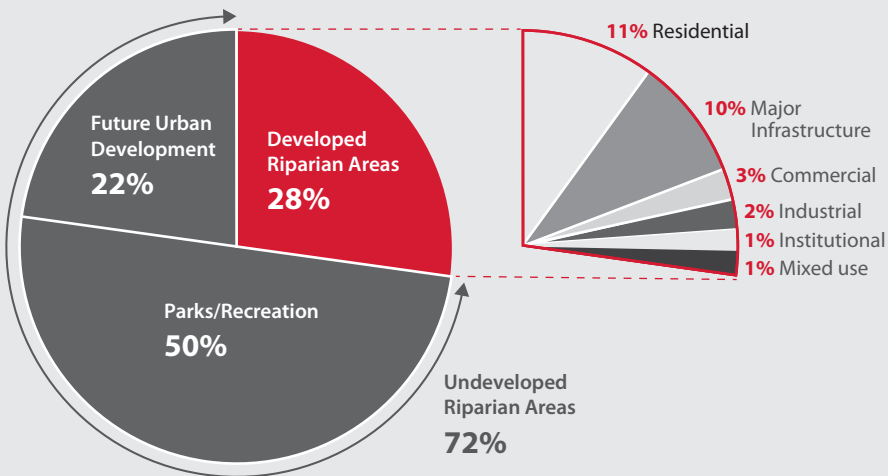


This measure tracks hectares of land within riparian areas along major creeks and rivers and the net change of hectares with development land use designations.

Benefit

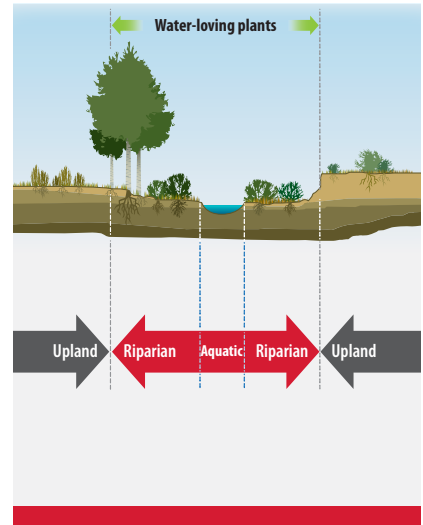
Riparian areas are located along the edges of rivers and creeks within Calgary's watersheds. They are unique ecosystems defined by the complex interactions that happen when land meets water. Networks of healthy, well-connected riparian areas provide many benefits including water quality protection, resilience to flood and drought, biodiversity, and recreational opportunities.

Major land uses in riparian areas



How are we doing?

Less than one third (28 per cent) of riparian areas are developed in Calgary along major rivers and streams. The remaining portion is undeveloped, with 50 per cent conserved as parks and recreation areas, and 22 per cent awaiting future urban development. Retaining open spaces along major rivers and creeks and critical ephemeral and intermittent streams is important to reduce further loss of riparian areas. The City's 2026 target is no net loss of riparian open spaces along major perennial creeks and rivers.



What is the City doing?

These department actions are advancing the objectives of our Plans:

- Riparian Action Program (2016)
- Water Efficiency Plan (updated 2017)
- Biodiversity Strategic Plan
- Wetland Conservation Plan
- Stormwater Management Strategy (2005, update underway)
- Community Drainage Initiative
- Source Water Protection Plan
- Green Stormwater Infrastructure Strategy (draft)
- Drought Management Planning (draft)
- Calgary Parks Water Management Strategic Plan (WMSP)

Waste Reduction

Calgary's diversion efforts include waste diversion programs, sector strategies, education and outreach programs that lead the community toward zero waste.



Tracking Measure: Per Capita Waste to Landfill (kg)



The measure used to track the overall success of waste diversion efforts is per capita waste to landfill.

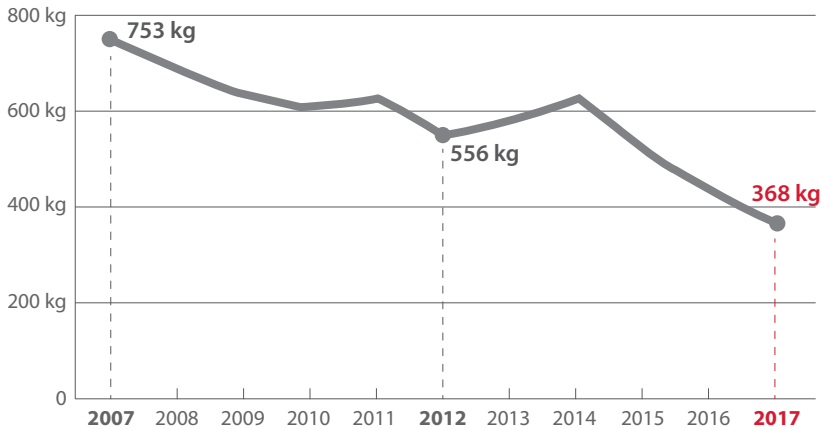
Benefit

Wasting less saves residents and businesses money and reduces greenhouse gas emissions and pollution. The recycling industry creates jobs and economic opportunities.

How are we doing?

Landfilled waste continues to decline on a per capita basis. The reduction is attributed to a decrease in commercial haulers, current economic conditions and increased waste diversion. It is anticipated that the results for this measure will continue to outperform the targets for the remainder of the business cycle. With the implementation of the **Green Cart Program** and continued promotion of diversion and proper disposal of materials, strong progress is anticipated toward the waste diversion target of 70 per cent across all waste sectors by 2025.

Per Capita Waste to Landfill



What is the City doing?

The City continues to work with all customer groups to reduce, reuse, recycle and compost waste to increase Calgarians' engagement and participation in waste reduction and diversion.

These department actions are advancing the objectives of our Plans:

- The City-wide Green Cart Program, implemented city-wide in 2017
- "What Goes Where?" online search tool informing Calgarians on the proper way to dispose of and recycle materials
- Waste and Recycling Bylaw requiring recycling and food and yard waste diversion in the Single-Dwelling, Multi-Dwelling and the Industrial, Commercial and Institutional (ICI) sectors

Energy efficiency and Greenhouse Gas (GHG) emissions reduction

It is increasingly important that we reduce greenhouse gases that contribute to climate change and prepare for climate change impacts so that our city is more resilient. Work is underway to address both mitigation and adaptation effectively through our Climate Program.

Our City has set emission reduction targets which align to the Province's and Federal Government's commitment to reduce global warming. Our planning and transportation efforts to facilitate energy-efficient buildings and create opportunities for renewable energy generation, in addition to our focus to create a more compact urban form, complete communities and to support transit, walking and cycling, will reduce fossil fuel use.

Core Indicator: District Energy 

This indicator measures the percentage of land area supportive of district energy systems. Only urban areas that achieve a minimum density have the capacity to support the cost of a district energy system.

Benefit

District energy systems are communal heating, cooling and power networks that can reduce the demand for non-renewable energy resources. The increased efficiency of supplying energy at this density reduces overall energy consumption.

How are we doing?

2006	2011	2017	Plan Target
1.79%	1.95%	2.6%	6.6%



Tracking Measure: Community-Wide Greenhouse Gas (GHG) Emissions

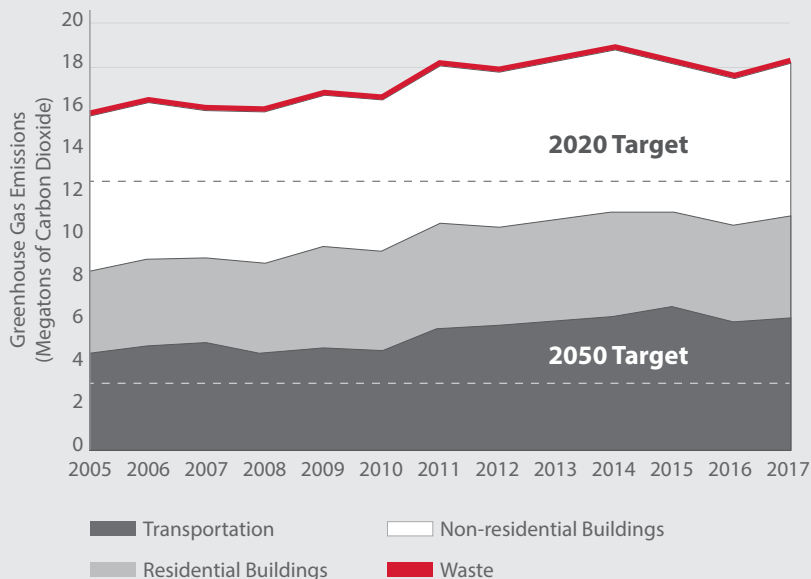


This measures greenhouse gas emissions (in tonnes of carbon dioxide equivalent, tCO2e) from buildings, transportation and waste to monitor progress towards the city's emission reduction targets.

Benefit

Reducing local use of fossil fuels will improve air quality, and help slow climate change. Energy efficiency saves residents and businesses money. Preparing for climate change will help target interventions and strategies to make our neighbourhoods, infrastructure, services and economy more resilient to extreme weather events and chronic climate change. Collectively, these actions will help to attract new residents and businesses.

Calgary Community – Wide Greenhouse Gas Emissions



This indicator tracks greenhouse gas emission reductions relative to 2005. It measures the change in emissions from buildings, transportation and waste.

Calgary greenhouse gas emission reduction targets:

by 2020
20%
reduction
(below 2005 baseline)

by 2050
80%
reduction
(below 2005 baseline)

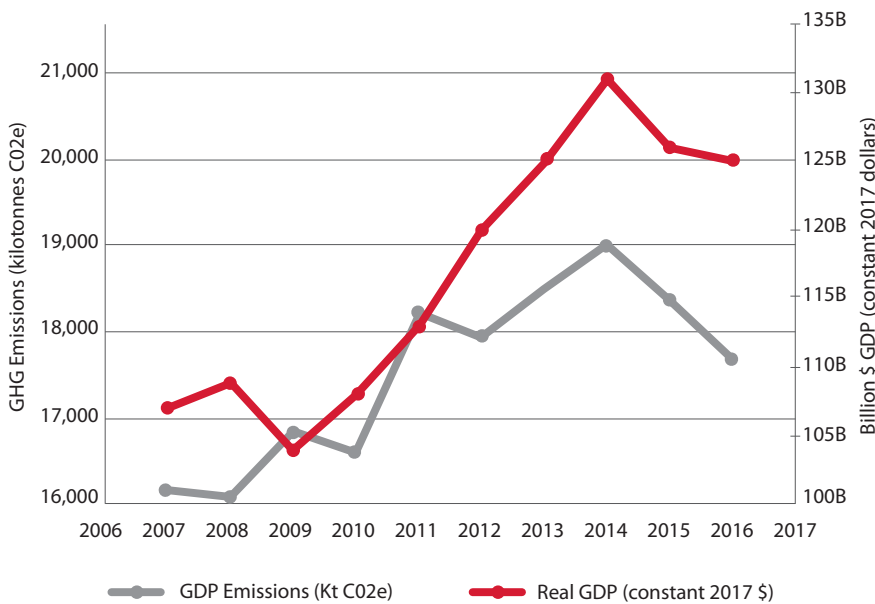
2005-2017
15.3%
increase
in greenhouse gas emissions

2011-2017
0.6%
increase
in greenhouse gas emissions

2005-2017
16%
cumulative
increase
in greenhouse gas emissions

Between 2005 and 2014 Calgary saw an overall increase in emissions generally consistent with overall gross domestic product (GDP) growth. Calgary’s emissions have flat lined in recent years. Small declines in community-wide emissions from 2014 to 2016 are attributed to the economic downturn (e.g. less commuting, decline in energy use in downtown commercial buildings). Looking ahead, the goal is to decouple emissions from economic development activity and achieve growth in the economy and reduction in emissions.

Calgary Community-wide Greenhouse Gases (GHG) Emissions and Gross Domestic Product (GDP)



Our target for reducing emissions

The City’s 2050 target is consistent with international goals to keep global average temperature increases to within 2°C of pre-industrial levels. Developing compact, complete communities with access to a range of low-carbon transportation options will be important actions to reduce Calgary’s greenhouse gas emissions. The City can use policy and regulation (e.g. better building code energy requirements), service provision (e.g. electric vehicle charging) and other enabling activities (e.g. connecting local industry with other orders of government) to take action on community-wide greenhouse gas emissions.

How are we doing?

Greenhouse gas emissions in Calgary are generated mostly by electricity consumption, how we heat our buildings and fossil fuel consumption in motorized vehicles. Achieving the necessary reduction in greenhouse gas emissions presents a significant challenge and opportunity for our city.

Although The City has made good progress towards improving energy efficiencies in municipal buildings and City operations, our City buildings and operations represent only 4 per cent of Calgary’s overall emissions. Work is underway to help build capacity amongst citizens and other stakeholders to use energy more efficiently and adopt cleaner technologies.

The City will continue to prepare land use, development and transportation policies to support green buildings, more efficient housing forms, community design, transit, active transportation and low-to-zero emission vehicles, as well as implement projects and development patterns that reduce energy use and greenhouse gas emissions.

Future transformational action is required from all levels of government and industry to make investments, develop and implement new regulatory frameworks and technologies, and expand alternative energy, buildings and transportation programs that will be necessary to achieve 80 per cent reductions by 2050.

New and future measures

Based on further review and analysis of Plan objectives and the future availability of data, The City will consider additional measures related to alternative energy systems or programs that may impact a reduction on overall energy consumption and emissions. Indicators may include the number of district energy facilities, total floor space of developments served by district energy in Calgary, and other alternative energy measures. Future measures will be introduced in this section to track solar power, green and passive house buildings. These may include:

- Number of certified high-performance buildings
- Locally generated renewable energy
- Energy use per square-foot of commercial building space
- Cost of weather-related insurance claims
- Number of publicly accessible electric vehicle charging stations
- Total tonnes of waste collected from all waste streams per capita

What is The City doing to achieve a Green City?

These City initiatives and department actions are advancing the objectives of our Plans:

- Climate Resilience Strategy, including Climate Change Adaptation Plan, Low Carbon Plan and a public education strategy
- Electric Vehicle Strategy
- Sustainable Building Policy
- Implementation of the National Energy Code

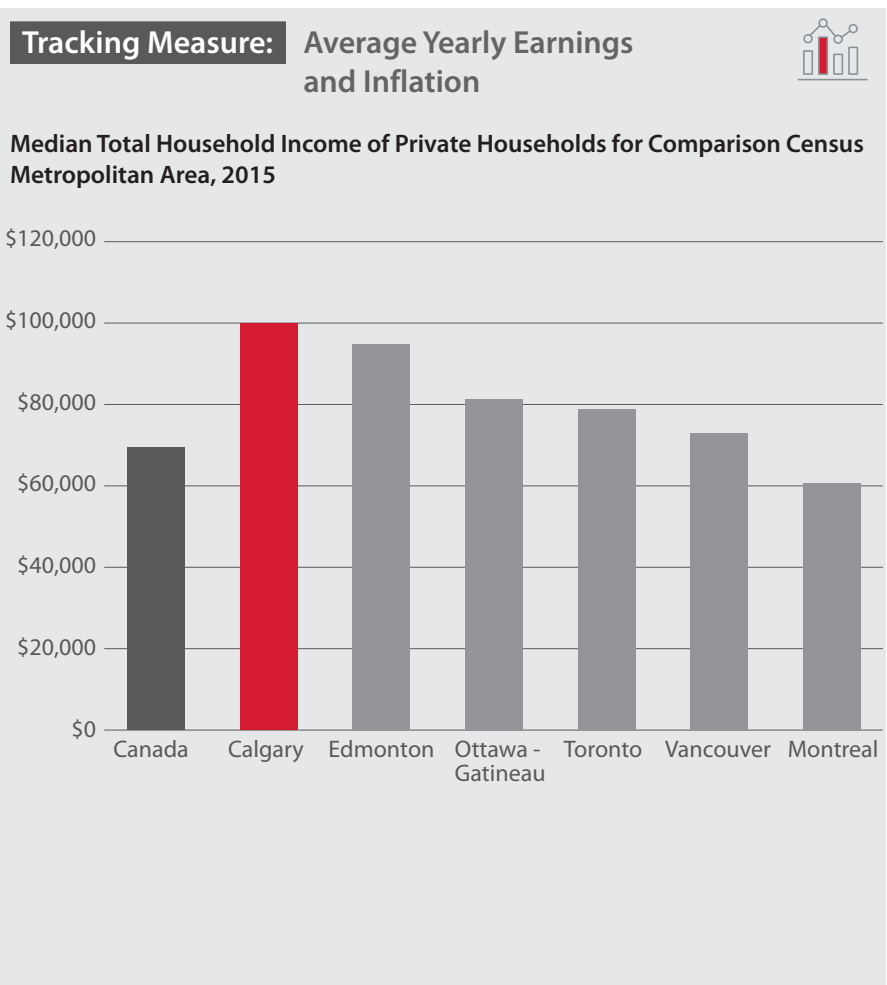




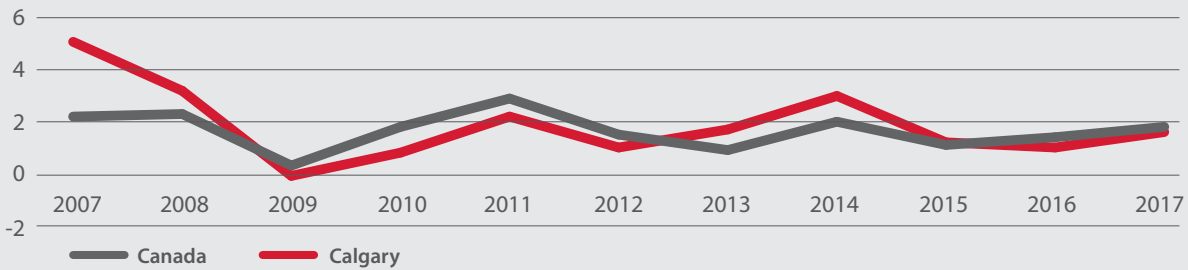
Appendices

Appendix 1 - Socio-Economic Tracking Measures and Data

- Average Yearly Earnings and Inflation Rates
- Unemployment Rates
- Building Permits/Housing Starts
- Gross Domestic Product Growth Rates

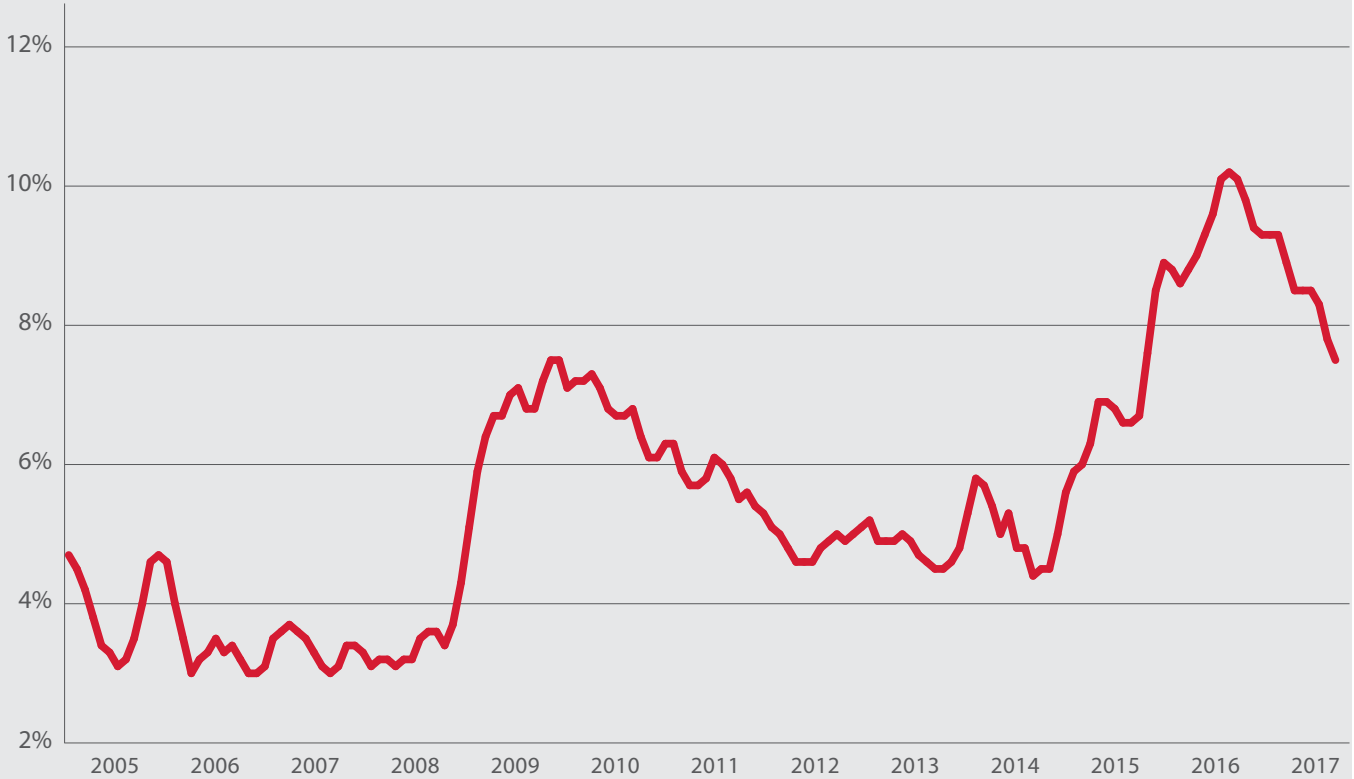


Tracking Measure: Consumer Price Index



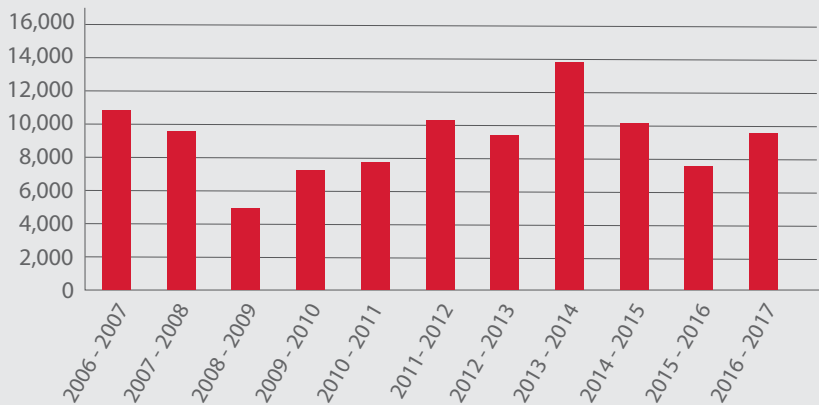
Calgary's inflation and rate of income growth has generally aligned with rest of Canada. Calgary has seen a recent drop in incomes due to economic shift, but average incomes are still among the highest in Canada.

Tracking Measure: Unemployment Rate



2015-2016 saw a sharp increase in the unemployment rate which peaked in November 2016, but has since somewhat declined.

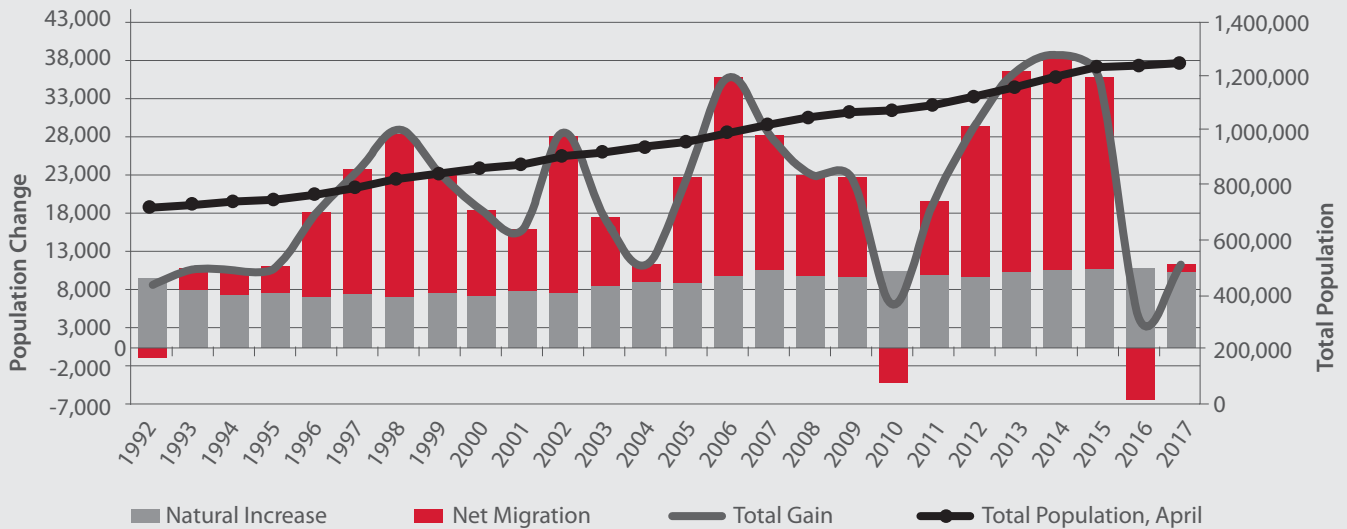
Tracking Measure: Building Permits (Housing Starts)



There has been some improvement in housing starts from a decline in 2014. The City of Calgary Corporate Economics has forecasted low growth until 2019 as there has been a slowdown in building due to the 2014 recession. This slowdown is likely due to a number of factors, including a hesitancy to invest due to oversupply, particularly noteworthy in the multi-sector, and a shift in age cohorts (fewer 20-34 year olds).

Supplementary Indicators

Components of Population Growth



Total Housing Starts

Yearly Growth Period	Total Housing Starts Actual
2006-2007	10,947
2007-2008	9,606
2008-2009	4,953
2009-2010	7,295
2010-2011	7,726
2011-2012	10,301
2012-2013	9,380
2013-2014	13,833
2014-2015	10,128
2015-2016	7,516
2016-2017	9,458

Median Household Income


Year	Calgary Household Income
2006	\$83,500
2007	\$87,970
2008	\$91,570
2009	\$88,410
2010	\$89,490
2011	\$93,410
2012	\$98,300
2013	\$101,260
2014	\$104,530
2015	\$104,410

Appendix 2 – Housing Tracking Measures

- Rental Unit Proportion of Total Dwelling Units
- Number of Private Rental Apartment Units by Bedroom Type
- Median Owner Estimated Value of Dwelling by Structure Type
- Per cent change in Median Owner Estimated Value of Dwelling by Structure Type
- Total Population in Private Occupied Dwellings by Structure Type
- Median Sale Price by Structure Type
- Canadian Median Owner Estimated Housing Value, Comparison of Six Cities
- Median Monthly Shelter Costs for Rented Housing
- Median Monthly Shelter Cost for Owned Households
- Per cent of Households in Core Housing Need
- Per cent of Household Overspending on Shelter
- Non-Market Affordable Housing Supply

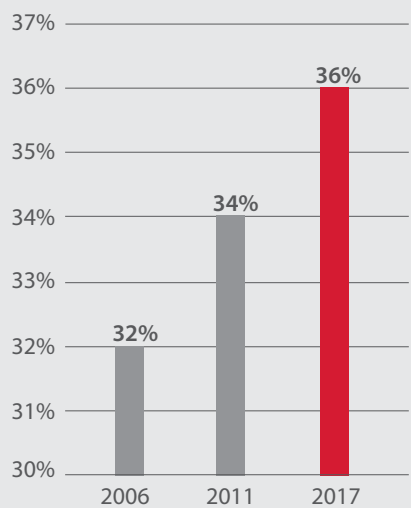
Tracking Measure:

Rental Unit Proportion of Total Dwelling Units and Population Living in Rented Dwelling Units



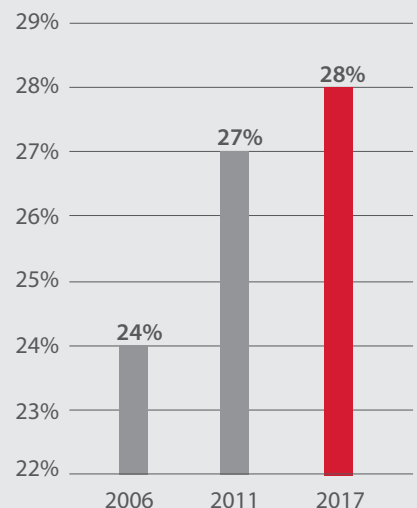
These measures detail the supply of rental housing throughout the city. There has been a steady increase in the proportion of rental units as well as the population living in rental units. This may show a pent-up demand for rental housing after a period where new rental construction was very low in Calgary. Increasing preference for this housing choice and perceptions of housing affordability also contribute to an increasing percentage of renters.

Rental Units, as a Per cent of Total Dwelling Units




Year	Percentage
2006	32%
2011	34%
2017	36%

Population Living in Rented Dwelling Units

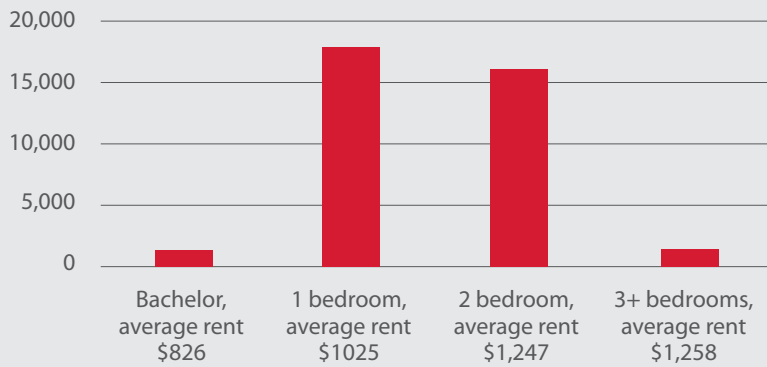


Year	Percentage
2006	24%
2011	27%
2017	28%

Tracking Measure: Number of Private Rental Apartment Units by Bedroom Type 

This measure indicates whether we have a variety of rental housing to accommodate different sized households. There were 36,943 private rental apartments in Calgary in October 2017, the majority with one or two bedrooms.

Number of Private Apartment Units by Bedroom Type

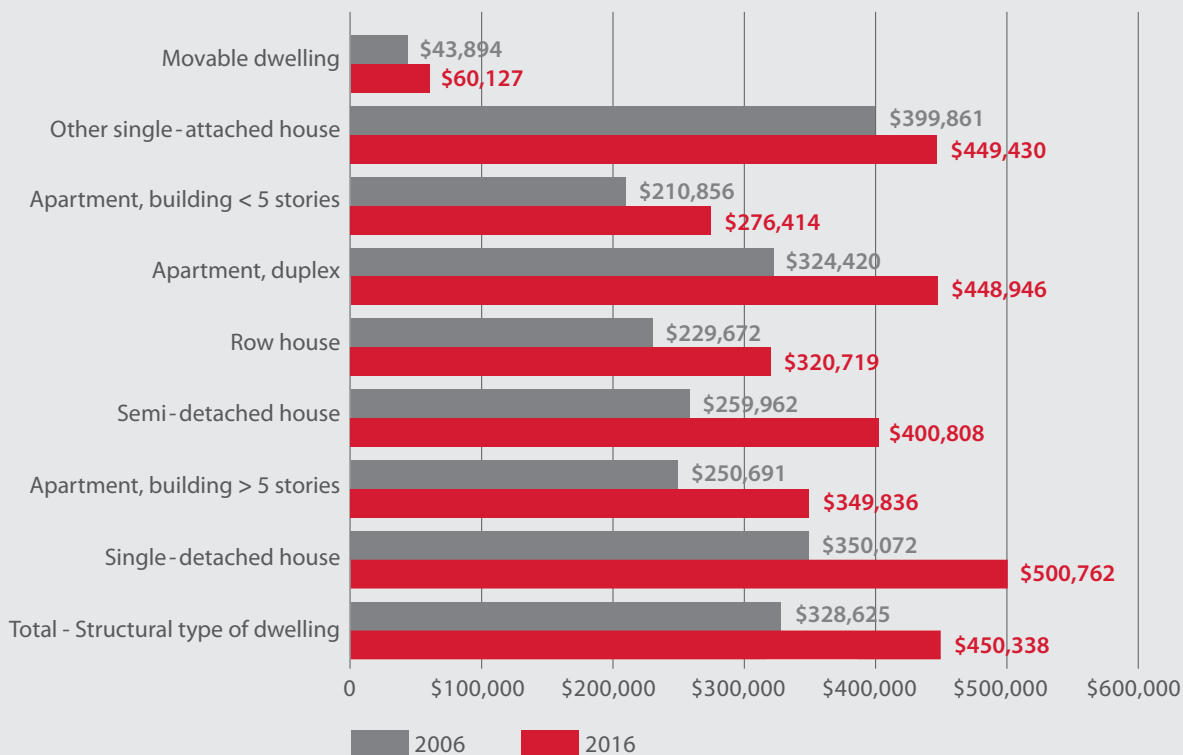


Tracking Measure: Estimated Value of Dwelling by Structure Type

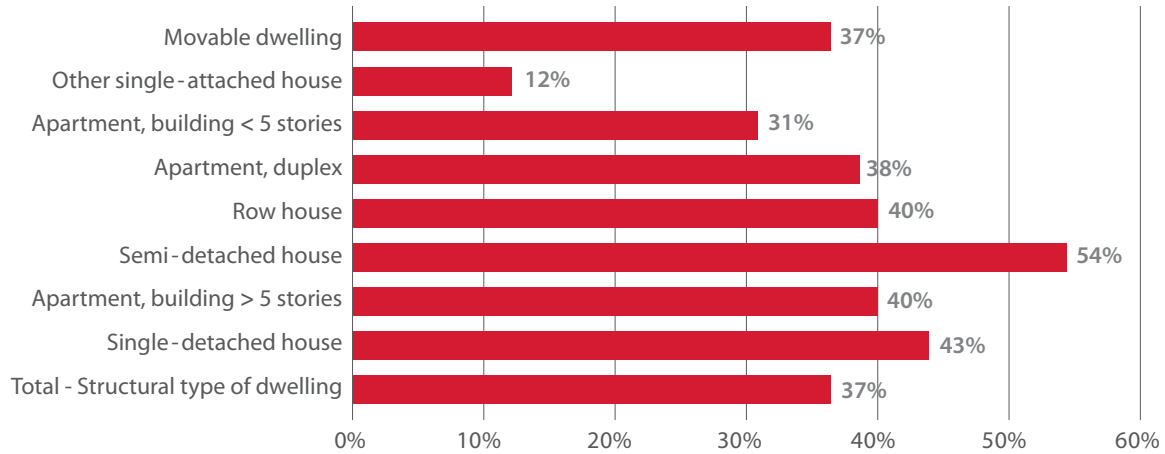


This measure shows the median housing value of homes in Calgary as estimated by homeowners. Rising home values can influence both the building or redevelopment of new homes and the housing choices available. Some examples of this influence are discouraging development of affordable housing types, or making areas like the inner-city less affordable for families. In 2006, the median owner estimated value was \$329,000 while in 2016 it was \$450,000, 37 per cent increase over 10 years. The increase in value was most pronounced for semi-detached housing, which increased over 50 per cent in value.

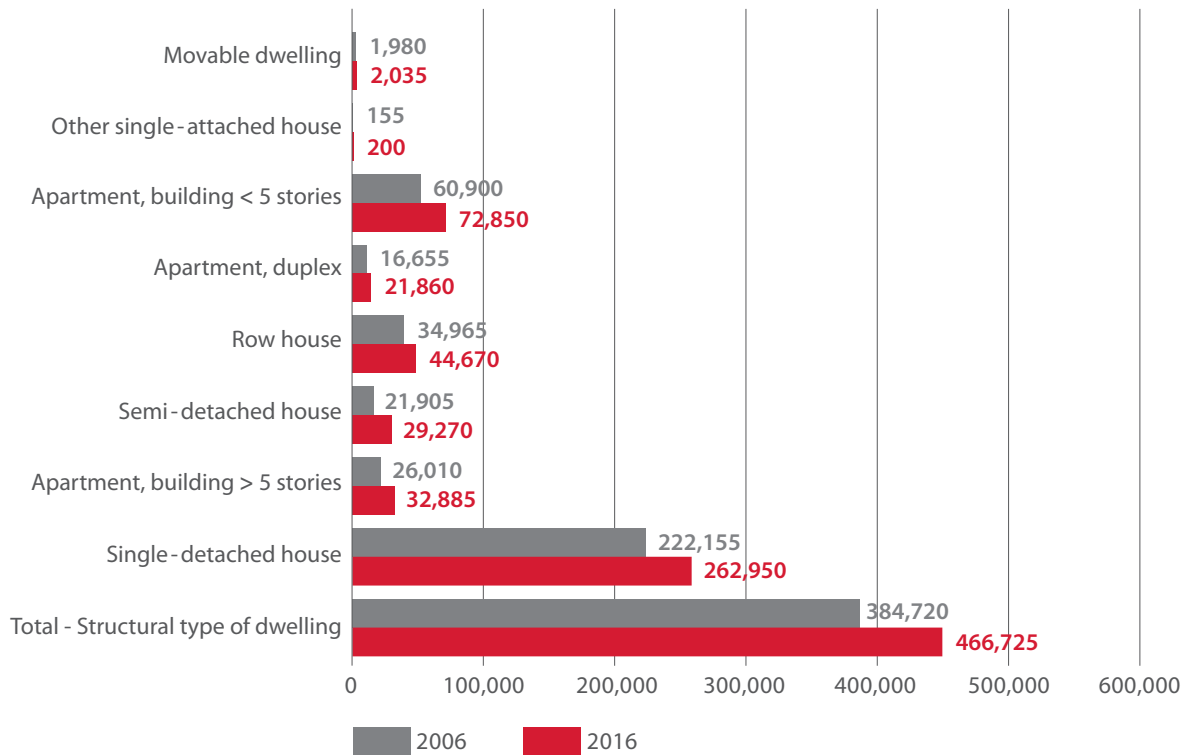
Median Owner Estimated Value of Dwelling by Structure Type, Calgary Census, 2006-2016



Per cent Change in Median Owner Estimated Value of Dwelling by Structure Type, Calgary Census, 2006-2017



Total Population in Private Occupied Dwellings by Structure Type, Calgary (Census) 2006-2016, by Number

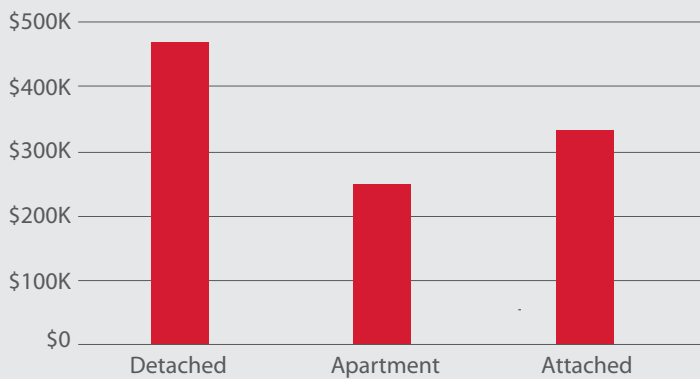


Tracking Measure: Median Sale Price by Structure Type



This measure determines the actual prices paid by for single, semi-detached and apartment units in Calgary. The median sale price of a detached home in January 2018 was \$474,000, nearly double the sale price of an apartment during the same period. The typical detached home is 125 square meters (1,340 square feet) and has 3 above ground bedrooms.

Median Sale Price by Structure Type in Calgary, January 2018

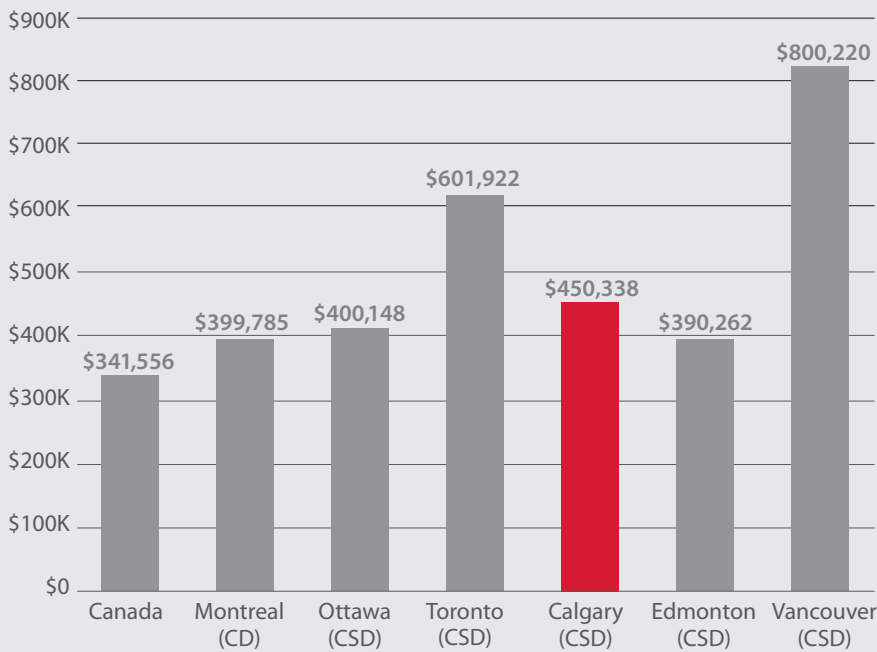


Tracking Measure: Canadian Median Owner Estimated Housing Value, Comparison of Six Cities



This measure indicates Calgary's housing affordability relative to six similarly sized Canadian cities.

Canadian Median Owner Estimated Housing Value, Comparison of Six Cities, 2016



In 2016, the median owner-estimated dwelling value in Calgary was \$450,338. This is higher than the national median of \$341,556. Calgary had a slightly higher median housing value than most other major cities but is significantly lower than the housing values in Toronto and Vancouver.

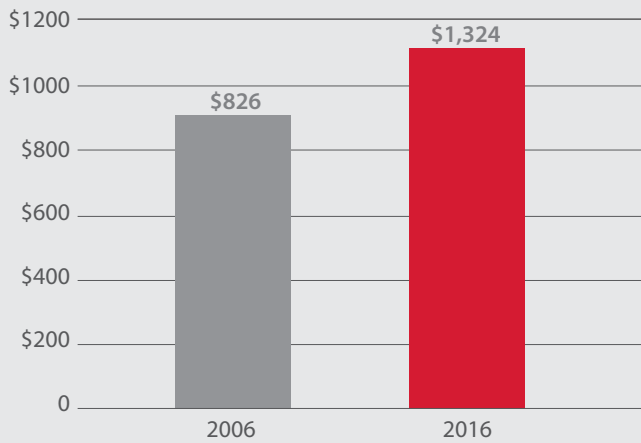


Tracking Measure: Median Monthly Shelter Costs for Rented Housing, Calgary



This measure provides housing costs for renting in Calgary. In 2016, the median monthly shelter costs for renter households was \$1,324. This was an increase of 60 per cent from the median \$826 in 2006.

Median Monthly Shelter Costs for Rented Housing, Calgary (CMA) 2006-2016

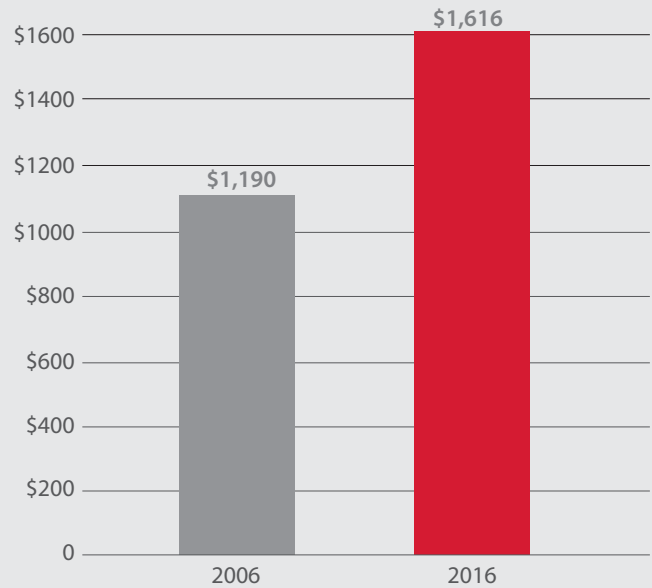


Tracking Measure: Median Monthly Shelter Costs for Owned Households, Calgary



This measure provides housing costs for home ownership in Calgary. In 2016, the median monthly shelter costs for owner households was \$1,616. This was an increase of 36 per cent from the median \$1,190 in 2006.

Median Monthly Shelter Costs for Owned Households, Calgary (CMA) 2006-2016



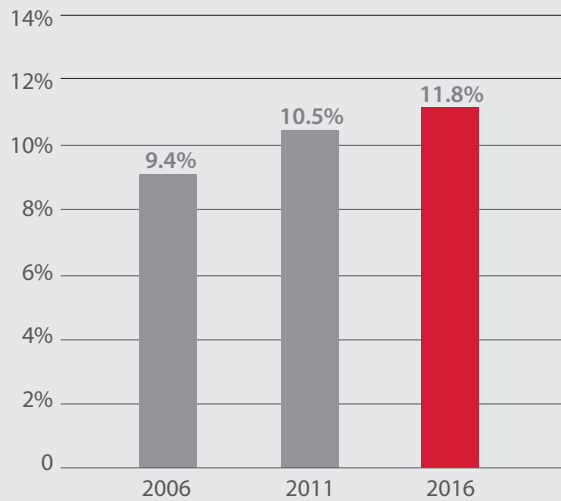
Tracking Measure:

Per cent of Households in Core Housing Need



A household is said to be in core housing need if its housing is in poor repair, does not have enough bedrooms for the size of the household, or is unaffordable. In 2016, there were 52,965 Calgary households, or 11.8 per cent, in core housing need. The rate of core housing need has increased steadily from 9.4 per cent in 2006 to 11.8 per cent in 2016.

Rate of Core Housing Need, Calgary Census, 2006, 2011 and 2016



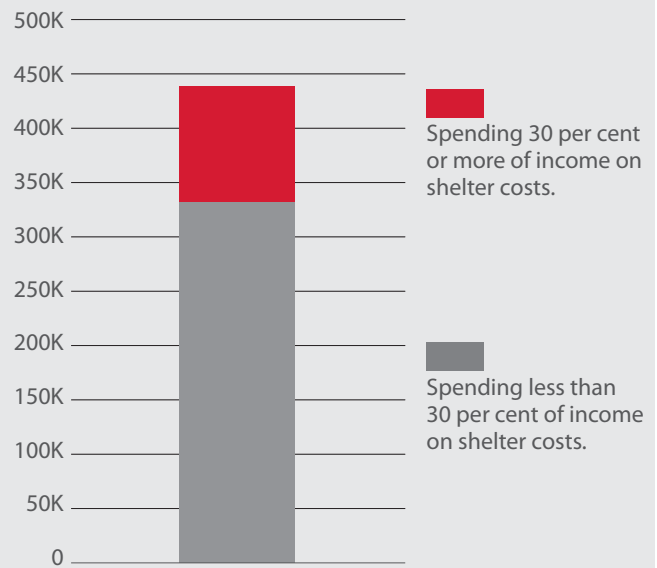
Tracking Measure:

Per cent of Households Overspending on Shelter



This measure indicates the number of Calgary households overspending on shelter costs. This is defined as spending 30 per cent or more of the household income on housing. This provides insight into how many households are at risk of a precarious housing situation from job loss, illness or other situations that affect regular and steady employment.

Households Overspending on Shelter, Calgary Census, 2016



In 2016, 22 per cent of Calgary households were spending 30 per cent or more of their income on shelter costs.

Tracking Measure: Non-Market Affordable Housing Supply



This measure reports on Non-Market Rental Housing Supply as subsidized, social, or affordable housing. Operating models vary, but rents are typically available at below-market value. It may or may not provide social or support services, and is typically targeted to low-income individuals and families. Non-market rental housing serves a wide range of people with varying incomes, household compositions and life stages, and with different levels of support needs.

How are we doing?

Year	Total Housing Starts Actual
2015	16,702

Currently, more than half of Calgary’s communities have zero non-market rental units. In addition to increasing the number of new affordable housing in high opportunity areas, it is important to retain and replace the affordable housing supply in established areas.

What is the City doing?

These Corporate initiatives and department actions are advancing the objectives of our Plans:

- Foundations for Home, 2016-2025
- Housing Incentive Program (HIP)



Appendix 3 – Future Measures Conservation of Environmentally Sensitive Areas

Tracking Measure: Conservation of Environmentally Sensitive Areas



This measure will assess the differences between Environmentally Sensitive Areas (ESAs) identified at the local area plan stage versus ESAs retained at the Outline Plan stage for new community development.

The City strives to protect ecologically significant areas while enabling the development of new suburban communities to keep pace with population growth and support our residents and businesses.

Protecting ESAs as part of the planning process is important to protect and enhance natural habitats and biodiversity. ESAs are identified at the local area plan stage of development and protected where possible at later stages of development planning. A new measure is being considered to track ESAs identified at the local area planning stage that are retained at the Outline Plan and subdivision level of planning.



Data Sources

Core Indicators

Urban Expansion

Annual and Cumulative Share of Growth to the Developed and Developing Areas
Civic Census, 2017
The City of Calgary

Density

Population Density per Hectare
Civic Census, 2017
The City of Calgary
Job Density per Hectare
Place of Work Survey, 2016
The City of Calgary

Accessibility to Daily Needs

Per cent of Population within Major and Community Activity Centres and 600m of Main Streets
Civic Census, 2017
The City of Calgary

Land Use Mix

Land Use Diversity Index
The City of Calgary

Road and Street Infrastructure

Ratio of Skeletal Roads to Arterial Streets
The City of Calgary

Transit Service

Transit Service Hours per Capita
Calgary Transit
The City of Calgary

Transportation Mode Split

Proportion of Trips Made by Transportation Mode
Civic Census, 2017
The City of Calgary

Accessibility to Primary Transit Network

Percentage of Jobs and Population within 400m of the Primary Transit Network
Place of Work Survey, 2016
Civic Census, 2017
The City of Calgary

Residential Land Use Mix

Residential Land Use Diversity Index
The City of Calgary

Population and Jobs Balance

Ratio of Population to Jobs per Quadrant of Calgary
Place of Work Survey, 2016
Civic Census, 2017

Goods Access

Per cent of Intermodal and Warehousing Facilities within 1600m of the Primary Goods Movement Network
The City of Calgary

Urban Forest

Percentage of Calgary Covered by Tree Canopy
The City of Calgary

Watershed Health

Percentage of Calgary's Urban Area Covered by Impervious Surfaces
The City of Calgary

District Energy

Percentage of Calgary with Sufficient Density to Support a District Energy System
Civic Census, 2017
The City of Calgary

Tracking Measures

Population Growth

Civic Census, 2017
The City of Calgary

Population Forecast

Corporate Economics
The City of Calgary

Total Number of Jobs

Place of Work Survey, 2016
The City of Calgary

Calgary's Growth Share Targets

Civic Census, 2017
The City of Calgary

New Residential Units in Developed and Developing Area Communities

Civic Census, 2017
The City of Calgary

Developed Areas Population and Unit Growth

Civic Census, 2017
The City of Calgary

Per cent Change in Population in Developed Areas Communities (map)

Civic Census, 2017
The City of Calgary

Per cent Change in Dwelling Units in Developed Areas Communities, 2006-2017

Civic Census, 2017
The City of Calgary

Per cent Population Change by Typology (map)

Civic Census, 2017
The City of Calgary

Per cent Change in Dwelling Unit Growth by Typology (2006-2017)

Civic Census, 2017
The City of Calgary

Safety of Transit Service

Calgary Transit
The City of Calgary

Safety of the Transportation Network

Calgary Transit
The City of Calgary

Number of Net Housing Units by Type

Civic Census, 2017
The City of Calgary

Population Distribution by Dwelling Structure Type

2006, 2016 Census
Statistics Canada

Number of Net Housing Tenure in Calgary

2006, 2016 Census
Statistics Canada

Access to Healthy Food

Civic Census, 2017
The City of Calgary

Access to Community-Based Food Systems Assets

The City of Calgary
Sites Protected by Bylaw and Sites on Inventory
The City of Calgary

Access to Parks and Green Space

The City of Calgary

Number of Calgarians Getting Sufficient Physical Activity Per Week

Canadian Community Health Survey
Cansim Table 105.0593

Residents' Perception of Opportunity to Have Meaningful Input in City Decision-making

Citizen Satisfaction Survey, 2017
The City of Calgary

Quality Developments Project

The City of Calgary

Walkscore™

Walkscore

Economic Data ('Economic Quick Figures')

The City of Calgary
Statistics Canada

Hectares of Parks and Natural Areas Secured

The City of Calgary

Tracking Measures (continued)

Access to Parks and Green Space

The City of Calgary

Water Quality

The City of Calgary

Major Land Uses in Riparian Areas

The City of Calgary

Per Capita Waste to Landfill

The City of Calgary

Community-Wide Green House Gas (GHG) Emissions

The City of Calgary

Average Yearly Earnings and Inflation

Statistics Canada

Consumer Price Index

Statistics Canada

Unemployment Rate

Statistics Canada

Building Permits (Housing Starts)

The City of Calgary

Components of Population Growth

The City of Calgary

Total Housing Starts Median Household Income

The City of Calgary

Rental Unit Proportion of Total Dwelling Units and Population Living in Rental Dwelling Units

The City of Calgary

Number of Private Rental Apartment Units by Bedroom Type

CMHC Rental Market Report, Calgary CMA 2017

Canada Mortgage and Housing Corporation

Median Owner Estimated Value of Dwelling by Structure Type

Statistics Canada

Per cent Change in Median Owner Estimated Value of Dwelling by Structure Type

Statistics Canada

Total Population in Private Occupied Dwellings by Structure Type

Statistics Canada

Median Sale Price by Structure Type

CREB Monthly Statistics Package for Calgary, January 2018 Calgary Real Estate Board

Canadian Median Owner Estimated Value, Comparison of six Cities

Statistics Canada

Median Monthly Shelter Costs of Rented Housing, Calgary

Statistics Canada

Median Monthly Shelter Costs of Owned Housing, Calgary

Statistics Canada

Per cent of Households in Core Housing Need

Statistics Canada

Per cent of Households Overspending on Shelter

Statistics Canada

Non-Market Affordable Housing Supply

The City of Calgary

Conservation of ESA

The City of Calgary

